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Éphémérides du Soleil et de la Lune

Navigation astronomique — 2027–2035

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Mode d'emploi

*Exemple suivi d'étape en étape : le Soleil, bord inférieur, le 12 juin 2027 à
10 h 23 min 41 s UTC, œil à 2,5 m, erreur de collimation +1,4'.*

La hauteur de l'astre

- 1 Hauteur instrumentale.** Lisez le sextant (H_i) et retranchez l'erreur de collimation e . Avec un horizon artificiel, divisez ensuite par 2 : la lecture vaut le double de la hauteur.

$$H_s = H_i - e \qquad 62^\circ 14,6' - 1,4' = 62^\circ 13,2'$$

- 2 Dépression.** Sur l'horizon de mer, ajoutez la dépression (table 1, toujours négative). Rien avec un horizon artificiel.

$$H_a = H_s + \text{dép.} \qquad 62^\circ 13,2' - 2,8' = 62^\circ 10,4' \quad (\text{œil 2,5 m})$$

- 3 Hauteur vraie.** Ajoutez la correction totale du Soleil (table 2) ou de la Lune (table 3), lue avec H_a et, pour la Lune, la parallaxe horizontale SP de la page du jour. Elle réunit réfraction, parallaxe et demi-diamètre : ne les ajoutez pas une seconde fois.

$$H_v = H_a + \text{corr.} \qquad 62^\circ 10,4' + 15,4' = 62^\circ 25,8' \quad (\text{table 2})$$

La position de l'astre

- 4 Angle horaire.** Sur la page du mois, lisez le GHA à l'heure ronde qui précède l'observation, puis interpolez pour les minutes et secondes écoulées : table 4, puis table 5 pour v , le Δ'/h de la ligne du GHA (l'excès sur $15^\circ/h$ pour le Soleil, $14^\circ/h$ pour la Lune).

$$\text{GHA} = \text{GHA}_h + \text{table 4} + \text{table 5}(v) \qquad 330^\circ 02,6' + 5^\circ 55,2' + 0,0' = 335^\circ 57,8'$$

- 5 Déclinaison.** Lisez la déclinaison à l'heure ronde et ajoutez l'interpolation de d , le Δ'/h de la ligne de déclinaison, avec son signe.

$$\text{Dec} = \text{Dec}_h + \text{table 5}(d) \qquad 23^\circ 08,9' + 0,1' = 23^\circ 09,0' \quad (d = +0,2)$$

Les tables supposent 10°C et 1010 hPa ; sous 10° de hauteur, la réfraction varie avec le temps qu'il fait et les mesures sont moins sûres. Formules : dépression $1,76'\sqrt{h}$; réfraction de Bennett ; parallaxe $0,15' \cos H_a$ (Soleil), $\arcsin(\sin SP \cos H_a)$ (Lune) ; demi-diamètre de la Lune $0,2725 SP$.

Table 1 — Dépression de l'horizon

Œil (m)	Dép.
0,5	−1,2
1,0	−1,8
1,5	−2,2
2,0	−2,5
2,5	−2,8
3,0	−3,0
3,5	−3,3
4,0	−3,5
4,5	−3,7
5,0	−3,9
6,0	−4,3
7,0	−4,7
8,0	−5,0
9,0	−5,3
10,0	−5,6
12,0	−6,1
14,0	−6,6
16,0	−7,0
18,0	−7,5
20,0	−7,9
25,0	−8,8
30,0	−9,6

Table 2 — Soleil : correction totale

H_a	Octobre – mars		Avril – septembre	
	Bord inf.	Bord sup.	Bord inf.	Bord sup.
5°00'	+6.4	−25.8	+6.2	−25.6
5°30'	+7.1	−25.1	+6.9	−24.9
6°00'	+7.7	−24.5	+7.5	−24.3
6°30'	+8.3	−23.9	+8.1	−23.7
7°00'	+8.8	−23.4	+8.6	−23.2
7°30'	+9.2	−23.0	+9.0	−22.8
8°00'	+9.6	−22.6	+9.4	−22.4
8°30'	+10.0	−22.2	+9.8	−22.0
9°00'	+10.3	−21.9	+10.1	−21.7
9°30'	+10.6	−21.6	+10.4	−21.4
10°00'	+10.9	−21.3	+10.7	−21.1
11°00'	+11.3	−20.9	+11.1	−20.7
12°00'	+11.7	−20.5	+11.5	−20.3
13°00'	+12.1	−20.1	+11.9	−19.9
14°00'	+12.4	−19.8	+12.2	−19.6
15°00'	+12.6	−19.6	+12.4	−19.4
16°00'	+12.8	−19.4	+12.6	−19.2
17°00'	+13.0	−19.2	+12.8	−19.0
18°00'	+13.2	−19.0	+13.0	−18.8
19°00'	+13.4	−18.8	+13.2	−18.6
20°00'	+13.5	−18.7	+13.3	−18.5
25°00'	+14.1	−18.1	+13.9	−17.9
30°00'	+14.5	−17.7	+14.3	−17.5
35°00'	+14.8	−17.4	+14.6	−17.2
40°00'	+15.0	−17.2	+14.8	−17.0
45°00'	+15.2	−17.0	+15.0	−16.8
50°00'	+15.4	−16.8	+15.2	−16.6
55°00'	+15.5	−16.7	+15.3	−16.5
60°00'	+15.6	−16.6	+15.4	−16.4
65°00'	+15.7	−16.5	+15.5	−16.3
70°00'	+15.8	−16.4	+15.6	−16.2
75°00'	+15.9	−16.3	+15.7	−16.1
80°00'	+16.0	−16.2	+15.8	−16.0
85°00'	+16.0	−16.2	+15.8	−16.0
90°00'	+16.1	−16.1	+15.9	−15.9

Réfraction, parallaxe et demi-diamètre (16,1' d'octobre à mars, 15,9' d'avril à septembre). À ajouter à H_a .

Table 3 — Lune : correction totale

Bord inférieur									
$H_a \setminus SP$	54'	55'	56'	57'	58'	59'	60'	61'	62'
5°00'	+58.6	+59.9	+61.2	+62.4	+63.7	+65.0	+66.2	+67.5	+68.8
6°00'	+59.9	+61.2	+62.4	+63.7	+65.0	+66.2	+67.5	+68.8	+70.0
7°00'	+60.9	+62.1	+63.4	+64.7	+65.9	+67.2	+68.4	+69.7	+71.0
8°00'	+61.6	+62.8	+64.1	+65.4	+66.6	+67.9	+69.1	+70.4	+71.7
9°00'	+62.1	+63.4	+64.6	+65.9	+67.1	+68.4	+69.7	+70.9	+72.2
10°00'	+62.5	+63.8	+65.0	+66.3	+67.5	+68.8	+70.0	+71.3	+72.6
11°00'	+62.8	+64.1	+65.3	+66.6	+67.8	+69.1	+70.3	+71.6	+72.8
12°00'	+63.0	+64.3	+65.5	+66.8	+68.0	+69.3	+70.5	+71.8	+73.0
13°00'	+63.1	+64.4	+65.6	+66.9	+68.1	+69.4	+70.6	+71.9	+73.1
14°00'	+63.2	+64.5	+65.7	+66.9	+68.2	+69.4	+70.7	+71.9	+73.2
15°00'	+63.2	+64.5	+65.7	+67.0	+68.2	+69.4	+70.7	+71.9	+73.1
20°00'	+62.8	+64.0	+65.2	+66.4	+67.6	+68.8	+70.0	+71.2	+72.5
25°00'	+61.5	+62.7	+63.9	+65.1	+66.2	+67.4	+68.6	+69.8	+71.0
30°00'	+59.8	+60.9	+62.0	+63.2	+64.3	+65.5	+66.6	+67.7	+68.9
35°00'	+57.5	+58.6	+59.7	+60.8	+61.9	+63.0	+64.1	+65.2	+66.3
40°00'	+54.9	+55.9	+57.0	+58.0	+59.0	+60.1	+61.1	+62.2	+63.2
45°00'	+51.9	+52.9	+53.9	+54.8	+55.8	+56.8	+57.8	+58.8	+59.7
50°00'	+48.6	+49.5	+50.4	+51.3	+52.3	+53.2	+54.1	+55.0	+55.9
55°00'	+45.0	+45.8	+46.7	+47.5	+48.4	+49.2	+50.1	+50.9	+51.8
60°00'	+41.1	+41.9	+42.7	+43.5	+44.2	+45.0	+45.8	+46.5	+47.3
65°00'	+37.1	+37.8	+38.5	+39.2	+39.9	+40.5	+41.2	+41.9	+42.6
70°00'	+32.8	+33.4	+34.1	+34.7	+35.3	+35.9	+36.5	+37.1	+37.7
75°00'	+28.4	+29.0	+29.5	+30.0	+30.5	+31.1	+31.6	+32.1	+32.7
80°00'	+23.9	+24.4	+24.8	+25.3	+25.7	+26.1	+26.6	+27.0	+27.5
85°00'	+19.3	+19.7	+20.1	+20.4	+20.8	+21.1	+21.5	+21.9	+22.2
90°00'	+14.7	+15.0	+15.3	+15.5	+15.8	+16.1	+16.4	+16.6	+16.9

Bord supérieur									
$H_a \setminus SP$	54'	55'	56'	57'	58'	59'	60'	61'	62'
5°00'	+29.2	+29.9	+30.6	+31.4	+32.1	+32.8	+33.5	+34.3	+35.0
6°00'	+30.5	+31.2	+31.9	+32.6	+33.4	+34.1	+34.8	+35.5	+36.3
7°00'	+31.4	+32.1	+32.9	+33.6	+34.3	+35.0	+35.7	+36.5	+37.2
8°00'	+32.1	+32.9	+33.6	+34.3	+35.0	+35.7	+36.4	+37.2	+37.9
9°00'	+32.7	+33.4	+34.1	+34.8	+35.5	+36.2	+37.0	+37.7	+38.4
10°00'	+33.1	+33.8	+34.5	+35.2	+35.9	+36.6	+37.3	+38.1	+38.8
11°00'	+33.4	+34.1	+34.8	+35.5	+36.2	+36.9	+37.6	+38.3	+39.0
12°00'	+33.6	+34.3	+35.0	+35.7	+36.4	+37.1	+37.8	+38.5	+39.2
13°00'	+33.7	+34.4	+35.1	+35.8	+36.5	+37.2	+37.9	+38.6	+39.3
14°00'	+33.8	+34.5	+35.2	+35.9	+36.6	+37.3	+38.0	+38.7	+39.4
15°00'	+33.8	+34.5	+35.2	+35.9	+36.6	+37.3	+38.0	+38.7	+39.4
20°00'	+33.3	+34.0	+34.7	+35.3	+36.0	+36.7	+37.3	+38.0	+38.7
25°00'	+32.1	+32.7	+33.4	+34.0	+34.6	+35.3	+35.9	+36.5	+37.2
30°00'	+30.3	+30.9	+31.5	+32.1	+32.7	+33.3	+33.9	+34.5	+35.1
35°00'	+28.1	+28.6	+29.2	+29.7	+30.3	+30.8	+31.4	+31.9	+32.5
40°00'	+25.5	+26.0	+26.5	+26.9	+27.4	+27.9	+28.4	+28.9	+29.4
45°00'	+22.5	+22.9	+23.3	+23.8	+24.2	+24.6	+25.1	+25.5	+25.9
50°00'	+19.2	+19.5	+19.9	+20.3	+20.6	+21.0	+21.4	+21.8	+22.1
55°00'	+15.6	+15.9	+16.2	+16.5	+16.8	+17.1	+17.4	+17.7	+18.0
60°00'	+11.7	+11.9	+12.2	+12.4	+12.6	+12.8	+13.1	+13.3	+13.5
65°00'	+7.6	+7.8	+7.9	+8.1	+8.2	+8.4	+8.5	+8.7	+8.8
70°00'	+3.4	+3.5	+3.5	+3.6	+3.7	+3.7	+3.8	+3.9	+3.9
75°00'	-1.0	-1.0	-1.0	-1.0	-1.1	-1.1	-1.1	-1.1	-1.1
80°00'	-5.5	-5.6	-5.7	-5.8	-5.9	-6.0	-6.1	-6.2	-6.3
85°00'	-10.1	-10.3	-10.5	-10.7	-10.8	-11.0	-11.2	-11.4	-11.6
90°00'	-14.7	-15.0	-15.3	-15.5	-15.8	-16.1	-16.3	-16.6	-16.9

Colonnes : parallaxe horizontale SP (page du jour). Réfraction, parallaxe et demi-diamètre (0,2725 SP).
À ajouter à H_a ; interpolez entre les lignes et les colonnes.

Table 4 — Interpolation du GHA : minutes et secondes

min	Soleil	Lune	min	Soleil	Lune	s	Soleil	Lune
0	0°00.0'	0°00.0'	30	7°30.0'	7°00.0'	0	0,0'	0,0'
1	0°15.0'	0°14.0'	31	7°45.0'	7°14.0'	2	0,5'	0,5'
2	0°30.0'	0°28.0'	32	8°00.0'	7°28.0'	4	1,0'	0,9'
3	0°45.0'	0°42.0'	33	8°15.0'	7°42.0'	6	1,5'	1,4'
4	1°00.0'	0°56.0'	34	8°30.0'	7°56.0'	8	2,0'	1,9'
5	1°15.0'	1°10.0'	35	8°45.0'	8°10.0'	10	2,5'	2,3'
6	1°30.0'	1°24.0'	36	9°00.0'	8°24.0'	12	3,0'	2,8'
7	1°45.0'	1°38.0'	37	9°15.0'	8°38.0'	14	3,5'	3,3'
8	2°00.0'	1°52.0'	38	9°30.0'	8°52.0'	16	4,0'	3,7'
9	2°15.0'	2°06.0'	39	9°45.0'	9°06.0'	18	4,5'	4,2'
10	2°30.0'	2°20.0'	40	10°00.0'	9°20.0'	20	5,0'	4,7'
11	2°45.0'	2°34.0'	41	10°15.0'	9°34.0'	22	5,5'	5,1'
12	3°00.0'	2°48.0'	42	10°30.0'	9°48.0'	24	6,0'	5,6'
13	3°15.0'	3°02.0'	43	10°45.0'	10°02.0'	26	6,5'	6,1'
14	3°30.0'	3°16.0'	44	11°00.0'	10°16.0'	28	7,0'	6,5'
15	3°45.0'	3°30.0'	45	11°15.0'	10°30.0'	30	7,5'	7,0'
16	4°00.0'	3°44.0'	46	11°30.0'	10°44.0'	32	8,0'	7,5'
17	4°15.0'	3°58.0'	47	11°45.0'	10°58.0'	34	8,5'	7,9'
18	4°30.0'	4°12.0'	48	12°00.0'	11°12.0'	36	9,0'	8,4'
19	4°45.0'	4°26.0'	49	12°15.0'	11°26.0'	38	9,5'	8,9'
20	5°00.0'	4°40.0'	50	12°30.0'	11°40.0'	40	10,0'	9,3'
21	5°15.0'	4°54.0'	51	12°45.0'	11°54.0'	42	10,5'	9,8'
22	5°30.0'	5°08.0'	52	13°00.0'	12°08.0'	44	11,0'	10,3'
23	5°45.0'	5°22.0'	53	13°15.0'	12°22.0'	46	11,5'	10,7'
24	6°00.0'	5°36.0'	54	13°30.0'	12°36.0'	48	12,0'	11,2'
25	6°15.0'	5°50.0'	55	13°45.0'	12°50.0'	50	12,5'	11,7'
26	6°30.0'	6°04.0'	56	14°00.0'	13°04.0'	52	13,0'	12,1'
27	6°45.0'	6°18.0'	57	14°15.0'	13°18.0'	54	13,5'	12,6'
28	7°00.0'	6°32.0'	58	14°30.0'	13°32.0'	56	14,0'	13,1'
29	7°15.0'	6°46.0'	59	14°45.0'	13°46.0'	58	14,5'	13,5'

Les pages du mois donnent le GHA aux heures rondes ; entre deux, il croît régulièrement, de 15° par heure pour le Soleil et de 14° pour la Lune. Cette table donne ce qu'il gagne pendant les minutes (à gauche) et les secondes (à droite) écoulées depuis l'heure ronde : ajoutez les deux au GHA de l'heure ronde, puis l'interpolation de v (table 5). Exemple, Soleil à 15 h 30 min 52 s : $7^{\circ}30,0' + 13,0' = 7^{\circ}43,0'$.

Table 5 — Interpolation de v et d

$\Delta'/h \setminus \text{min}$	5	10	15	20	25	30	35	40	45	50	55	60
0,1	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,1	0,1	0,1	0,1
0,2	0,0	0,0	0,1	0,1	0,1	0,1	0,1	0,1	0,1	0,2	0,2	0,2
0,3	0,0	0,1	0,1	0,1	0,1	0,1	0,2	0,2	0,2	0,2	0,3	0,3
0,5	0,0	0,1	0,1	0,2	0,2	0,2	0,3	0,3	0,4	0,4	0,5	0,5
0,7	0,1	0,1	0,2	0,2	0,3	0,3	0,4	0,5	0,5	0,6	0,6	0,7
1,0	0,1	0,2	0,2	0,3	0,4	0,5	0,6	0,7	0,8	0,8	0,9	1,0
2,0	0,2	0,3	0,5	0,7	0,8	1,0	1,2	1,3	1,5	1,7	1,8	2,0
3,0	0,2	0,5	0,8	1,0	1,2	1,5	1,8	2,0	2,2	2,5	2,8	3,0
4,0	0,3	0,7	1,0	1,3	1,7	2,0	2,3	2,7	3,0	3,3	3,7	4,0
5,0	0,4	0,8	1,2	1,7	2,1	2,5	2,9	3,3	3,8	4,2	4,6	5,0
6,0	0,5	1,0	1,5	2,0	2,5	3,0	3,5	4,0	4,5	5,0	5,5	6,0
7,0	0,6	1,2	1,8	2,3	2,9	3,5	4,1	4,7	5,2	5,8	6,4	7,0
8,0	0,7	1,3	2,0	2,7	3,3	4,0	4,7	5,3	6,0	6,7	7,3	8,0
9,0	0,8	1,5	2,2	3,0	3,8	4,5	5,2	6,0	6,8	7,5	8,2	9,0
10,0	0,8	1,7	2,5	3,3	4,2	5,0	5,8	6,7	7,5	8,3	9,2	10,0
11,0	0,9	1,8	2,8	3,7	4,6	5,5	6,4	7,3	8,2	9,2	10,1	11,0
12,0	1,0	2,0	3,0	4,0	5,0	6,0	7,0	8,0	9,0	10,0	11,0	12,0
13,0	1,1	2,2	3,2	4,3	5,4	6,5	7,6	8,7	9,8	10,8	11,9	13,0
14,0	1,2	2,3	3,5	4,7	5,8	7,0	8,2	9,3	10,5	11,7	12,8	14,0
15,0	1,2	2,5	3,8	5,0	6,2	7,5	8,8	10,0	11,2	12,5	13,8	15,0
16,0	1,3	2,7	4,0	5,3	6,7	8,0	9,3	10,7	12,0	13,3	14,7	16,0
17,0	1,4	2,8	4,2	5,7	7,1	8,5	9,9	11,3	12,8	14,2	15,6	17,0
18,0	1,5	3,0	4,5	6,0	7,5	9,0	10,5	12,0	13,5	15,0	16,5	18,0
20,0	1,7	3,3	5,0	6,7	8,3	10,0	11,7	13,3	15,0	16,7	18,3	20,0
30,0	2,5	5,0	7,5	10,0	12,5	15,0	17,5	20,0	22,5	25,0	27,5	30,0
40,0	3,3	6,7	10,0	13,3	16,7	20,0	23,3	26,7	30,0	33,3	36,7	40,0

Le reste de l'interpolation : le GHA croît en réalité de 15° (14°) par heure, la déclinaison de d par heure (Δ'/h sur la page du mois). La table donne $\Delta \times \text{min}/60$ pour les minutes écoulées depuis l'heure ronde ; ajoutez-le avec le signe de Δ . Pour un Δ absent, additionnez des lignes : Lune, $v = 38,3'/h$ à 41 min $\approx 30 + 8 + 0,3$: $20,5 + 5,5 + 0,2 = 26,2'$.

SOLEIL

Janvier 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ve 1	269°10.2	228°40.9	299°09.6	314°09.3	329°09.0	344°08.7	359°08.4	14°08.1	26°07.8	44°07.5	59°07.2	74°06.9	-0.3
	-23°01.0	-23°00.8	-23°00.6	-23°00.4	-23°00.2	-23°00.0	-22°59.8	-22°59.6	-22°59.3	-22°59.1	-22°58.9	-22°58.7	+0.2
	269°03.1	228°40.8	299°02.5	314°02.2	329°01.9	344°01.6	359°01.3	14°01.0	26°00.8	44°00.5	59°00.2	73°59.9	-0.3
Sa 2	-22°55.9	-22°55.7	-22°55.5	-22°55.2	-22°55.0	-22°54.8	-22°54.6	-22°54.3	-22°54.1	-22°53.9	-22°53.7	-22°53.4	+0.2
	268°56.1	228°55.8	298°55.5	313°55.2	328°55.0	343°54.7	358°54.4	13°54.1	26°53.8	43°53.5	58°53.2	73°52.9	-0.3
	-22°50.4	-22°50.1	-22°49.9	-22°49.6	-22°49.4	-22°49.2	-22°48.9	-22°48.7	-22°48.4	-22°48.2	-22°47.9	-22°47.7	+0.2
Di 3	268°49.2	228°48.9	298°48.6	313°48.4	328°48.1	343°47.8	358°47.5	13°47.2	26°46.9	43°46.7	58°46.4	73°46.1	-0.3
	-22°44.4	-22°44.1	-22°43.9	-22°43.6	-22°43.3	-22°43.1	-22°42.8	-22°42.5	-22°42.3	-22°42.0	-22°41.7	-22°41.5	+0.3
	268°42.4	228°42.1	298°41.9	313°41.6	328°41.3	343°41.0	358°40.7	13°40.5	26°40.2	43°39.9	58°39.6	73°39.3	-0.3
Ma 5	-22°37.9	-22°37.7	-22°37.4	-22°37.1	-22°36.8	-22°36.5	-22°36.3	-22°36.0	-22°35.7	-22°35.4	-22°35.1	-22°34.8	+0.3
	268°35.7	228°35.5	298°35.2	313°34.9	328°34.6	343°34.4	358°34.1	13°33.8	26°33.5	43°33.3	58°33.0	73°32.7	-0.3
	-22°31.0	-22°30.7	-22°30.4	-22°30.1	-22°29.8	-22°29.5	-22°29.2	-22°28.9	-22°28.6	-22°28.3	-22°28.0	-22°27.7	+0.3
Je 6	268°29.2	228°28.9	298°28.6	313°28.3	328°28.1	343°27.8	358°27.5	13°27.3	26°27.0	43°26.7	58°26.5	73°26.2	-0.3
	-22°23.7	-22°23.4	-22°23.1	-22°22.8	-22°22.4	-22°22.1	-22°21.8	-22°21.5	-22°21.2	-22°20.9	-22°20.6	-22°20.3	+0.3
	268°22.7	228°22.4	298°22.2	313°21.9	328°21.6	343°21.4	358°21.1	13°20.8	26°20.6	43°20.3	58°20.0	73°19.8	-0.3
Ve 8	-22°15.9	-22°15.6	-22°15.3	-22°14.9	-22°14.6	-22°14.2	-22°13.9	-22°13.6	-22°13.2	-22°12.9	-22°12.6	-22°12.2	+0.3
	268°16.4	228°16.1	298°15.9	313°15.6	328°15.3	343°15.1	358°14.8	13°14.6	26°14.3	43°14.0	58°13.8	73°13.5	-0.3
	-22°07.7	-22°07.4	-22°07.0	-22°06.6	-22°06.3	-22°05.9	-22°05.6	-22°05.2	-22°04.9	-22°04.5	-22°04.2	-22°03.8	+0.4
Di 10	268°10.2	228°09.9	298°09.7	313°09.4	328°09.2	343°08.9	358°08.7	13°08.4	26°08.1	43°07.9	58°07.6	73°07.4	-0.3
	-21°59.1	-21°58.7	-21°58.3	-21°57.9	-21°57.6	-21°57.2	-21°56.8	-21°56.4	-21°56.1	-21°55.7	-21°55.3	-21°54.9	+0.4
	268°04.1	228°03.9	298°03.6	313°03.4	328°03.1	343°02.9	358°02.6	13°02.4	26°02.1	43°01.9	58°01.6	73°01.4	-0.2
Lu 11	-21°50.0	-21°49.6	-21°49.2	-21°48.8	-21°48.4	-21°48.0	-21°47.6	-21°47.2	-21°46.8	-21°46.5	-21°46.1	-21°45.7	+0.4
	267°58.2	228°58.0	297°57.7	312°57.5	327°57.3	342°57.0	357°56.8	12°56.5	27°56.3	42°56.1	57°55.8	72°55.6	-0.2
	-21°40.5	-21°40.1	-21°39.7	-21°39.2	-21°38.8	-21°38.4	-21°38.0	-21°37.6	-21°37.2	-21°36.8	-21°36.4	-21°36.0	+0.4
Ma 12	267°52.5	228°52.2	297°52.0	312°51.8	327°51.5	342°51.3	357°51.1	12°50.8	27°50.6	42°50.4	57°50.1	72°49.9	-0.2
	-21°30.5	-21°30.1	-21°29.7	-21°29.3	-21°28.8	-21°28.4	-21°28.0	-21°27.6	-21°27.1	-21°26.7	-21°26.3	-21°25.9	+0.4
	267°46.9	228°46.7	297°46.4	312°46.2	327°46.0	342°45.7	357°45.5	12°45.3	27°45.1	42°44.8	57°44.6	72°44.4	-0.2
Je 14	-21°20.2	-21°19.8	-21°19.3	-21°18.9	-21°18.4	-21°18.0	-21°17.5	-21°17.1	-21°16.7	-21°16.2	-21°15.8	-21°15.3	+0.4
	267°41.5	228°41.3	297°41.0	312°40.8	327°40.6	342°40.4	357°40.1	12°39.9	27°39.7	42°39.5	57°39.3	72°39.0	-0.2
	-21°09.4	-21°09.0	-21°08.5	-21°08.1	-21°07.6	-21°07.2	-21°06.7	-21°06.2	-21°05.8	-21°05.3	-21°04.8	-21°04.4	+0.5
Sa 16	267°36.3	228°36.0	297°35.8	312°35.6	327°35.4	342°35.2	357°34.9	12°34.7	27°34.5	42°34.3	57°34.1	72°33.9	-0.2
	-20°58.3	-20°57.8	-20°57.3	-20°56.9	-20°56.4	-20°55.9	-20°55.4	-20°55.0	-20°54.5	-20°54.0	-20°53.5	-20°53.0	+0.5
	267°31.2	228°30.9	297°30.7	312°30.5	327°30.3	342°30.1	357°29.9	12°29.7	27°29.5	42°29.3	57°29.1	72°28.9	-0.2
Di 17	-20°46.1	-20°46.2	-20°46.0	-20°45.3	-20°44.8	-20°44.3	-20°43.8	-20°43.3	-20°42.8	-20°42.3	-20°41.8	-20°41.3	+0.5
	267°26.3	228°26.1	297°25.9	312°25.7	327°25.5	342°25.3	357°25.1	12°24.9	27°24.7	42°24.5	57°24.3	72°24.1	-0.2
	-20°34.8	-20°34.3	-20°33.8	-20°33.3	-20°32.8	-20°32.3	-20°31.7	-20°31.2	-20°30.7	-20°30.2	-20°29.7	-20°29.2	+0.5
Lu 18	267°21.6	228°21.4	297°21.2	312°21.0	327°20.8	342°20.6	357°20.4	12°20.2	27°20.0	42°19.8	57°19.6	72°19.5	-0.2
	-20°22.5	-20°21.9	-20°21.4	-20°21.0	-20°20.4	-20°19.8	-20°19.3	-20°18.8	-20°18.3	-20°17.7	-20°17.2	-20°16.7	+0.5
	267°17.0	228°16.8	297°16.7	312°16.5	327°16.3	342°16.1	357°15.9	12°15.7	27°15.6	42°15.4	57°15.2	72°15.0	-0.2
Me 20	-20°09.7	-20°09.2	-20°08.7	-20°08.1	-20°07.6	-20°07.0	-20°06.5	-20°06.0	-20°05.4	-20°04.9	-20°04.3	-20°03.8	+0.5
	267°12.7	228°12.5	297°12.3	312°12.2	327°12.0	342°11.8	357°11.6	12°11.5	27°11.3	42°11.1	57°10.9	72°10.8	-0.2
	-19°56.6	-19°56.1	-19°55.5	-19°55.0	-19°54.4	-19°53.9	-19°53.3	-19°52.7	-19°52.2	-19°51.6	-19°51.1	-19°50.5	+0.6
Ve 22	267°08.6	228°08.4	297°08.2	312°08.0	327°07.9	342°07.7	357°07.5	12°07.4	27°07.2	42°07.0	57°06.9	72°06.7	-0.2
	-19°43.2	-19°42.6	-19°42.0	-19°41.5	-19°40.9	-19°40.3	-19°39.7	-19°39.2	-19°38.6	-19°38.0	-19°37.4	-19°36.9	+0.6
	267°04.6	228°04.4	297°04.3	312°04.1	327°04.0	342°03.8	357°03.6	12°03.5	27°03.3	42°03.2	57°03.0	72°02.9	-0.2
Sa 23	-19°29.3	-19°28.8	-19°28.2	-19°27.6	-19°27.0	-19°26.4	-19°25.8	-19°25.2	-19°24.6	-19°24.1	-19°23.5	-19°22.9	+0.6
	267°00.8	228°00.7	297°00.5	312°00.4	327°00.2	342°00.1	356°59.9	11°59.8	26°59.6	41°59.5	56°59.3	71°59.2	-0.2
	-19°15.1	-19°14.5	-19°13.9	-19°13.3	-19°12.7	-19°12.1	-19°11.5	-19°10.9	-19°10.3	-19°09.7	-19°09.1	-19°08.5	+0.6
Lu 25	266°57.3	228°57.1	296°57.0	311°56.8	326°56.7	341°56.6	356°56.4	11°56.3	26°56.1	41°56.0	56°55.9	71°55.7	-0.1
	-19°00.6	-19°00.0	-18°59.4	-18°58.8	-18°58.1	-18°57.5	-18°56.9	-18°56.3	-18°55.7	-18°55.1	-18°54.4	-18°53.8	+0.6
	266°53.9	228°53.8	296°53.6	311°53.5	326°53.4	341°53.2	356°53.1	11°53.0	26°52.8	41°52.7	56°52.6	71°52.4	-0.1
Ma 26	-18°45.7	-18°45.1	-18°44.4	-18°43.8	-18°43.2	-18°42.6	-18°41.9	-18°41.3	-18°40.7	-18°40.0	-18°39.4	-18°38.8	+0.6
	266°50.7	228°50.6	296°50.5	311°50.4	326°50.2	341°50.1	356°50.0	11°49.8	26°49.7	41°49.6	56°49.5	71°49.3	-0.1
	-18°30.5	-18°29.8	-18°29.2	-18°28.5	-18°27.9	-18°27.2	-18°26.6	-18°26.0	-18°25.3	-18°24.7	-18°24.0	-18°23.4	+0.6
Me 27	266°47.8	228°47.6	296°47.5	311°47.4	326°47.3	341°47.2	356°47.1	11°46.9	26°46.8	41°46.7	56°46.6	71°46.5	-0.1
	-18°14.9	-18°14.2	-18°13.6	-18°12.9	-18°12.3	-18°11.6	-18°10.9	-18°10.3	-18°09.6	-18°09.0	-18°08.3	-18°07.6	+0.7
	266°45.0	228°44.9	296°44.8	311°44.6	326°44.5	341°44.4	356°44.3	11°44.2	26°44.1	41°44.0	56°43.9	71°43.8	-0.1
Ve 29	-17°59.0	-17°58.3	-17°57.6	-17°57.0	-17°56.3	-17°55.6	-17°54.9	-17°54.3	-17°53.6	-17°52.9	-17°52.2	-17°51.6	+0.7
	266°42.4	228°42.3	296°42.2	311°42.1	326°42.0	341°41.9	356°41.8	11°41.7	26°41.6	41°41.5	56°41.4	71°41.3	-0.1
	-17°42.7	-17°42.1	-17°41.4	-17°40.7	-17°40.0	-17°39.3	-17°38.6	-17°37.9	-17°37.3	-17°36.6	-17°35.9	-17°35.2	+0.7
Sa 30	266°40.0	228°39.9	296°39.8	311°39.7	326°39.6	341°39.5	356°39.5	11°39.4	26°39.3	41°39.2	56°39.1	71°39.0	-0.1
	-17°26.2	-17°25.5	-17°24.8	-17°24.1	-17°23.4	-17°22.7	-17°22.0	-17°21.3	-17°20.6	-17°19.9	-17°19.2	-17°18.5	+0.7

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°
 Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.
 Semi-diamètre: 16.3'

LUNE

Janvier 2027

	J	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	Δ'/h	SP
●	Ve 1	233°48.8 -18°26.2	248°20.9 -18°37.2	262°52.2 -18°48.2	277°24.8 -18°59.0	291°56.7 -19°09.8	306°28.6 -19°20.4	321°00.4 -19°31.0	335°32.2 -19°41.4	350°04.0 -19°51.8	4°35.6 -20°02.1	19°07.3 -20°12.3	+31.8 -10.6	15.1 55.2
	Sa 2	248°20.9 -18°37.2	262°52.9 -18°48.2	277°24.8 -18°59.0	291°56.7 -19°09.8	306°28.6 -19°20.4	321°00.4 -19°31.0	335°32.2 -19°41.4	350°04.0 -19°51.8	4°35.6 -20°02.1	19°07.3 -20°12.3	33°38.9 -20°22.3	+31.8 -10.5	15.0 55.2
●	Di 3	251°27.5 -22°41.4	265°58.4 -22°58.1	280°29.5 -22°58.1	295°00.0 -23°06.3	309°30.8 -23°14.9	324°01.4 -23°22.4	338°32.1 -23°30.3	353°02.7 -23°38.1	7°33.2 -23°45.7	22°03.7 -23°53.3	36°34.2 -24°00.7	+30.7 -7.9	14.9 54.7
	Lu 4	254°05.9 -25°37.9	268°35.7 -25°43.4	283°05.5 -25°48.8	297°35.2 -25°54.1	312°04.9 -25°59.2	326°34.5 -26°04.3	341°04.1 -26°09.1	355°33.7 -26°13.9	10°03.3 -26°18.5	24°32.8 -26°23.1	39°02.2 -26°27.4	+29.6 -5.0	14.8 54.3
●	Ma 5	256°21.4 -27°17.6	270°50.5 -27°19.9	285°19.6 -27°22.1	299°48.6 -27°24.1	314°17.7 -27°26.0	328°46.8 -27°27.8	343°15.8 -27°29.4	357°44.9 -27°30.9	12°13.9 -27°32.2	26°42.9 -27°33.5	41°11.9 -27°34.6	+29.1 +1.6	14.7 53.9
	Me 6	258°27.3 -27°34.9	272°56.4 -27°33.8	287°25.5 -27°32.6	301°54.7 -27°31.3	316°23.8 -27°29.9	330°52.9 -27°28.3	345°22.1 -27°26.6	359°51.3 -27°24.8	14°20.5 -27°22.8	28°49.8 -27°20.7	43°19.0 -27°18.4	+29.2 +1.6	14.7 53.9
●	Je 7	260°41.6 -26°29.4	275°11.3 -26°25.1	289°41.2 -26°20.7	304°11.0 -26°16.2	318°40.9 -26°11.5	333°10.9 -26°06.7	347°40.9 -26°01.8	2°10.9 -25°56.8	16°41.0 -25°51.7	31°11.2 -25°46.4	45°41.4 -25°41.0	+30.0 +4.8	14.7 53.9
	Ve 8	263°20.1 -26°35.9	277°51.1 -26°26.3	292°22.2 -26°16.5	306°53.3 -26°10.6	321°24.5 -26°06.8	335°55.7 -26°02.8	350°27.0 -26°01.8	4°58.4 -25°56.8	19°29.8 -25°51.7	34°01.2 -25°46.4	48°32.7 -25°41.0	+31.3 +10.5	14.7 53.9
●	Sa 9	266°32.5 -27°00.0	281°04.9 -27°02.6	295°37.5 -27°05.3	310°10.0 -27°08.9	324°42.6 -27°13.3	339°15.3 -27°18.5	353°48.0 -27°23.7	8°20.8 -27°28.5	22°53.6 -27°33.3	37°26.5 -27°38.1	51°59.5 -27°42.9	+32.7 +1.6	14.7 53.9
	Di 10	270°20.0 -27°40.0	284°53.7 -27°58.4	299°27.5 -28°15.5	314°01.4 -28°35.0	328°35.3 -28°55.3	343°09.2 -29°15.3	357°43.2 -29°35.7	12°17.2 -29°56.8	26°51.3 -30°17.3	41°25.4 -30°38.1	55°59.6 -30°58.4	+34.0 -11.9	14.8 54.3
●	Lu 11	274°36.3 -11°01.4	289°11.0 -10°48.4	303°45.7 -10°35.3	318°20.5 -10°22.1	332°55.2 -10°08.9	347°30.1 -9°55.7	2°04.9 -9°42.4	16°39.7 -9°29.1	31°14.6 -9°15.7	45°49.5 -9°02.9	60°24.4 -8°48.9	+34.8 -13.3	14.9 54.6
	Ma 12	279°09.9 -5°22.6	293°45.0 -5°08.6	308°20.1 -4°54.6	322°55.2 -4°40.5	337°30.3 -4°26.4	352°05.5 -4°12.3	6°40.6 -3°58.1	21°15.7 -3°43.9	35°50.8 -3°29.8	50°25.9 -3°15.5	65°00.9 -3°01.3	+35.1 -14.1	15.0 55.1
●	Me 13	283°45.7 0°34.5	298°20.5 0°49.0	312°55.4 1°03.5	327°30.1 1°18.0	342°04.9 1°32.5	356°39.6 1°47.1	11°14.3 2°01.6	25°48.9 2°16.1	40°23.6 2°30.4	54°58.1 2°45.2	69°32.7 2°59.8	+34.7 +14.5	15.2 55.7
	Je 14	288°05.7 6°37.6	302°39.5 6°52.0	317°13.3 7°06.5	331°46.9 7°20.9	346°20.5 7°35.3	360°54.1 7°49.7	15°27.6 8°04.1	30°01.4 8°18.5	44°34.4 8°32.8	59°07.7 8°47.1	73°40.9 9°01.4	+33.5 +14.6	15.4 56.4
●	Ve 15	291°50.1 12°32.5	306°22.0 12°46.2	320°53.8 13°00.0	335°25.6 13°13.7	349°57.0 13°27.3	4°28.8 13°41.0	19°00.3 13°54.5	33°31.6 14°08.0	48°02.9 14°21.5	62°34.0 14°34.9	77°05.1 14°48.3	+31.5 +13.6	15.6 57.2
	Sa 16	294°37.9 18°01.3	309°07.2 18°13.6	323°36.3 18°25.8	338°05.4 18°38.0	352°34.0 18°50.0	7°03.0 19°02.0	21°31.7 19°13.9	36°00.2 19°25.7	50°28.6 19°37.4	64°56.9 19°49.0	79°25.0 20°00.5	+28.7 +11.9	15.8 58.1
●	Di 17	296°11.3 22°40.9	310°37.3 22°50.7	325°03.2 23°00.3	339°28.9 23°09.8	353°54.5 23°19.2	8°20.0 23°28.5	22°45.3 23°37.6	37°10.5 23°46.6	51°35.6 23°55.4	66°00.5 24°04.1	80°25.3 24°12.7	+25.4 +9.2	16.1 59.1
	Lu 18	296°21.8 26°02.8	310°44.7 26°08.8	325°07.4 26°14.7	339°29.9 26°20.3	353°52.4 26°25.8	8°14.7 26°31.1	22°37.0 26°36.3	36°59.1 26°41.2	51°21.1 26°46.0	65°43.1 26°50.6	80°04.8 26°55.0	+23.3 +5.2	16.3 59.9
●	Ma 19	295°21.8 27°37.3	309°42.3 27°38.5	324°02.8 27°39.5	338°23.3 27°40.3	352°43.2 27°40.9	7°04.1 27°41.2	21°24.4 27°41.3	35°44.7 27°41.3	50°05.0 27°41.0	64°25.2 27°40.1	78°45.4 27°39.8	+20.3 +0.6	16.5 60.7
	Me 20	293°47.4 27°03.3	308°07.6 26°59.1	322°27.9 26°54.5	336°48.2 26°50.2	351°08.5 26°45.4	5°28.9 26°40.4	19°49.3 26°35.2	34°09.7 26°29.9	48°30.2 26°24.2	62°50.8 26°18.4	77°11.4 26°12.4	+20.4 -5.1	16.7 61.2
●	Je 21	292°28.9 24°18.2	306°50.0 24°09.0	321°12.6 23°59.7	335°34.7 23°50.3	349°56.8 23°40.0	4°19.0 23°30.8	18°41.3 23°20.8	33°03.8 23°10.6	47°26.3 23°00.2	61°48.9 22°49.7	76°11.7 22°39.1	+22.3 -9.9	16.7 61.3
	Ve 22	292°06.4 19°40.8	306°31.0 19°27.9	320°55.7 19°14.8	335°20.6 19°01.5	349°45.5 18°48.2	4°10.6 18°34.7	18°35.7 18°21.1	33°01.4 18°07.4	47°26.4 17°53.6	61°52.0 17°39.7	76°17.6 17°25.7	+25.1 -13.5	16.7 61.1
●	Sa 23	292°56.2 13°44.2	307°23.7 13°28.8	321°51.3 13°13.3	336°19.0 12°57.8	350°46.8 12°42.2	5°14.6 12°26.5	19°42.6 12°10.8	34°10.7 11°55.0	48°38.9 11°39.2	63°07.2 11°23.4	77°35.6 11°07.4	+27.9 -15.7	16.5 60.5
	Di 24	294°52.7 7°04.1	309°22.5 6°47.7	323°52.4 6°31.2	338°22.4 6°14.8	352°52.4 5°58.3	7°22.6 5°41.8	21°52.7 5°25.3	36°23.0 5°08.8	50°53.4 4°52.3	65°23.4 4°35.8	79°54.2 4°19.3	+20.3 -16.5	16.3 59.7
●	Lu 25	297°38.5 0°12.5	312°09.9 -0°03.9	326°41.3 -0°20.2	341°13.8 -0°36.5	355°44.3 -0°52.7	10°15.8 -1°08.9	24°47.4 -1°25.1	39°19.0 -1°41.3	53°50.7 -1°57.4	68°22.4 -2°13.5	82°54.1 -2°29.6	+31.6 -16.2	16.0 58.7
	Ma 26	312°09.9 -0°03.9	326°41.3 -0°20.2	341°13.8 -0°36.5	355°44.3 -0°52.7	10°15.8 -1°08.9	24°47.4 -1°25.1	39°19.0 -1°41.3	53°50.7 -1°57.4	68°22.4 -2°13.5	82°54.1 -2°29.6	97°25.9 -2°45.6	+31.6 -16.2	16.0 58.7
●	Me 27	315°25.3 -0°41.1	329°57.4 -0°56.4	344°29.6 -0°71.6	359°01.7 -0°72.6	13°33.3 -0°74.9	28°06.0 -0°75.7	42°38.2 -0°81.2	57°10.3 -0°82.7	71°42.5 -0°84.1	86°14.7 -0°86.8	100°46.9 -0°91.5	+32.2 -15.1	15.7 57.7
	Je 28	318°49.3 -12°45.1	333°21.3 -12°58.7	347°53.4 -13°12.3	2°25.5 -13°25.8	16°57.5 -13°39.2	31°29.6 -14°05.8	46°01.6 -14°19.8	60°33.6 -14°32.1	75°05.6 -14°45.1	89°37.5 -14°58.0	104°09.5 -15°10.8	+32.0 -13.3	15.5 56.7
●	Ve 29	322°05.7 -18°01.4	336°37.2 -18°12.9	351°08.7 -18°24.3	5°40.1 -18°35.6	20°11.6 -18°46.8	34°42.9 -18°57.9	49°14.3 -19°08.9	63°45.6 -19°19.8	78°16.9 -19°30.6	92°48.2 -19°41.3	107°19.4 -19°51.9	+31.4 -11.0	15.2 55.8
	Sa 30	325°03.4 -22°18.1	339°34.0 -22°27.0	354°04.6 -22°35.8	8°35.2 -22°44.4	23°05.7 -23°01.4	37°36.2 -23°01.4	52°06.7 -23°09.7	66°37.1 -23°17.9	81°07°4 -23°26.0	95°37.8 -23°34.0	110°08.1 -23°41.8	+30.5 -8.4	15.0 55.1
●	Di 31	327°38.1 -25°25.2	342°07.8 -25°31.1	356°37.5 -25°36.9	11°07.2 -25°42.5	25°36.9 -25°48.1	40°06.5 -25°53.5	54°36.0 -26°03.9	69°05.6 -26°18.5	83°35.1 -26°33.8	98°04.6 -26°48.9	112°34.1 -26°58.6	+29.6 -5.3	14.9 54.6

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
NL: 7 20h24 — PQ: 15 20h34 — PL: 22 12h17 — DQ: 29 10h55

SOLEIL

Février 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	266°37.8 -17°09.3	281°37.8 -17°08.6	296°37.7 -17°07.9	311°37.6 -17°07.2	326°37.5 -17°06.5	341°37.4 -17°05.8	356°37.3 -17°05.1	11°37.2 -17°04.4	26°37.2 -17°03.6	41°37.1 -17°02.9	56°37.0 -17°02.2	71°36.9 -17°01.5	-0.1 +0.7
Ma 2	266°35.9 -16°52.2	281°35.8 -16°51.4	296°35.7 -16°50.7	311°35.6 -16°50.0	326°35.5 -16°49.3	341°35.5 -16°48.6	356°35.4 -16°47.8	11°35.3 -16°47.1	26°35.2 -16°46.4	41°35.2 -16°45.7	56°35.1 -16°45.0	71°35.0 -16°44.2	-0.1 +0.7
Me 3	266°34.1 -16°44.7	281°34.0 -16°43.4	296°33.9 -16°43.2	311°33.9 -16°42.5	326°33.8 -16°41.8	341°33.7 -16°41.0	356°33.7 -16°40.3	11°33.6 -16°39.3	26°33.5 -16°38.5	41°33.5 -16°37.8	56°33.4 -16°37.1	71°33.3 -16°36.6	-0.1 +0.7
Je 4	266°32.5 -16°17.0	281°32.4 -16°16.2	296°32.4 -16°15.5	311°32.3 -16°14.7	326°32.3 -16°14.0	341°32.2 -16°13.2	356°32.1 -16°12.5	11°32.1 -16°11.7	26°32.0 -16°11.0	41°32.0 -16°10.2	56°31.9 -16°09.5	71°31.8 -16°08.7	-0.1 +0.7
Ve 5	266°31.1 -15°58.9	281°31.1 -15°58.2	296°31.0 -15°57.4	311°31.0 -15°56.6	326°30.9 -15°55.9	341°30.9 -15°55.1	356°30.8 -15°54.4	11°30.8 -15°53.6	26°30.7 -15°52.8	41°30.7 -15°52.1	56°30.6 -15°51.3	71°30.6 -15°50.6	-0.1 +0.8
Sa 6	266°29.9 -15°40.6	281°29.9 -15°39.8	296°29.9 -15°39.1	311°29.8 -15°38.3	326°29.8 -15°37.5	341°29.7 -15°36.8	356°29.7 -15°36.1	11°29.6 -15°35.2	26°29.6 -15°34.4	41°29.6 -15°33.7	56°29.5 -15°32.9	71°29.5 -15°32.1	-0.0 +0.8
Di 7	266°29.0 -15°22.0	281°28.9 -15°21.3	296°28.9 -15°20.5	311°28.9 -15°19.7	326°28.8 -15°18.9	341°28.8 -15°18.1	356°28.8 -15°17.3	11°28.7 -15°16.6	26°28.7 -15°15.8	41°28.6 -15°15.0	56°28.6 -15°14.2	71°28.6 -15°13.4	-0.0 +0.8
Lu 8	266°28.2 -15°03.2	281°28.2 -15°02.4	296°28.1 -15°01.6	311°28.1 -15°00.8	326°28.1 -15°00.0	341°28.0 -14°59.2	356°28.0 -14°58.4	11°28.0 -14°57.6	26°28.0 -14°56.9	41°27.9 -14°56.1	56°27.9 -14°55.3	71°27.9 -14°54.5	-0.0 +0.8
Ma 9	266°27.6 -14°44.1	281°27.6 -14°43.3	296°27.6 -14°42.5	311°27.6 -14°41.7	326°27.5 -14°40.9	341°27.5 -14°40.1	356°27.5 -14°39.3	11°27.5 -14°38.5	26°27.5 -14°37.7	41°27.4 -14°36.9	56°27.4 -14°36.1	71°27.4 -14°35.3	-0.0 +0.8
Me 10	266°27.2 -14°24.8	281°27.2 -14°23.9	296°27.2 -14°23.1	311°27.2 -14°22.3	326°27.2 -14°21.5	341°27.2 -14°20.7	356°27.2 -14°19.9	11°27.2 -14°19.1	26°27.1 -14°18.3	41°27.1 -14°17.4	56°27.1 -14°16.6	71°27.1 -14°15.8	-0.0 +0.8
Je 11	266°27.0 -14°05.2	281°27.0 -14°04.4	296°27.0 -14°03.5	311°27.0 -14°02.7	326°27.0 -14°01.9	341°27.0 -14°01.1	356°27.0 -14°00.2	11°27.0 -13°59.4	26°27.0 -13°58.6	41°27.0 -13°57.8	56°27.0 -13°56.9	71°27.0 -13°56.1	-0.0 +0.8
Ve 12	266°27.1 -13°45.4	281°27.1 -13°44.5	296°27.1 -13°43.7	311°27.1 -13°42.9	326°27.1 -13°42.0	341°27.1 -13°41.2	356°27.1 -13°40.4	11°27.1 -13°39.5	26°27.1 -13°38.7	41°27.1 -13°37.9	56°27.1 -13°37.0	71°27.1 -13°36.2	+0.0 +0.8
Sa 13	266°27.3 -13°25.3	281°27.3 -13°24.5	296°27.3 -13°23.6	311°27.3 -13°22.8	326°27.3 -13°22.0	341°27.3 -13°21.1	356°27.3 -13°20.3	11°27.4 -13°19.4	26°27.4 -13°18.6	41°27.4 -13°17.8	56°27.4 -13°16.9	71°27.4 -13°16.1	+0.0 +0.8
Di 14	266°27.7 -13°05.1	281°27.7 -13°04.2	296°27.7 -13°03.4	311°27.7 -13°02.5	326°27.7 -13°01.7	341°27.8 -13°00.8	356°27.8 -13°00.0	11°27.8 -12°59.0	26°27.8 -12°58.3	41°27.9 -12°57.4	56°27.9 -12°56.6	71°27.9 -12°55.7	+0.0 +0.9
Lu 15	266°28.3 -12°44.6	281°28.3 -12°43.7	296°28.3 -12°42.9	311°28.3 -12°42.0	326°28.4 -12°41.2	341°28.4 -12°40.3	356°28.4 -12°39.5	11°28.5 -12°38.6	26°28.5 -12°37.7	41°28.5 -12°36.9	56°28.6 -12°36.0	71°28.6 -12°35.2	+0.0 +0.9
Ma 16	266°29.1 -12°23.9	281°29.1 -12°23.1	296°29.1 -12°22.2	311°29.1 -12°21.3	326°29.2 -12°20.5	341°29.2 -12°19.6	356°29.2 -12°18.7	11°29.3 -12°17.9	26°29.3 -12°17.0	41°29.4 -12°16.1	56°29.4 -12°15.3	71°29.4 -12°14.4	+0.0 +0.9
Me 17	266°30.0 -12°03.1	281°30.0 -12°02.2	296°30.1 -12°01.3	311°30.1 -12°00.4	326°30.2 -11°59.6	341°30.2 -11°58.7	356°30.2 -11°57.8	11°30.3 -11°56.9	26°30.3 -11°56.1	41°30.4 -11°55.2	56°30.4 -11°54.3	71°30.5 -11°53.4	+0.0 +0.9
Je 18	266°31.1 -11°42.0	281°31.2 -11°41.1	296°31.2 -11°40.3	311°31.3 -11°39.4	326°31.3 -11°38.5	341°31.4 -11°37.6	356°31.4 -11°36.7	11°31.5 -11°35.8	26°31.5 -11°35.0	41°31.6 -11°34.1	56°31.6 -11°33.2	71°31.7 -11°32.3	+0.0 +0.9
Ve 19	266°32.4 -11°20.8	281°32.5 -11°19.9	296°32.5 -11°19.0	311°32.6 -11°18.1	326°32.7 -11°17.2	341°32.7 -11°16.3	356°32.8 -11°15.4	11°32.8 -11°14.5	26°32.9 -11°13.7	41°33.0 -11°12.8	56°33.0 -11°11.9	71°33.1 -11°11.0	+0.1 +0.9
Sa 20	266°33.9 -10°59.4	281°34.0 -10°58.5	296°34.0 -10°57.6	311°34.1 -10°56.7	326°34.2 -10°55.8	341°34.2 -10°54.9	356°34.3 -10°54.0	11°34.4 -10°53.1	26°34.4 -10°52.2	41°34.5 -10°51.3	56°34.6 -10°50.4	71°34.6 -10°49.5	+0.1 +0.9
Di 21	266°35.6 -10°37.8	281°35.6 -10°36.9	296°35.7 -10°36.0	311°35.8 -10°35.1	326°35.8 -10°34.2	341°35.9 -10°33.3	356°36.0 -10°32.4	11°36.1 -10°30.5	26°36.1 -10°30.5	41°36.2 -10°29.6	56°36.3 -10°28.7	71°36.4 -10°27.8	+0.1 +0.9
Lu 22	266°37.4 -10°16.0	281°37.4 -10°15.1	296°37.5 -10°14.2	311°37.6 -10°13.3	326°37.7 -10°12.4	341°37.8 -10°11.5	356°37.8 -10°10.6	11°37.9 -10°09.7	26°38.0 -10°08.7	41°38.1 -10°07.8	56°38.2 -10°06.9	71°38.2 -10°06.0	+0.1 +0.9
Ma 23	266°39.3 -9°54.1	281°39.4 -9°53.2	296°39.6 -9°52.3	311°39.6 -9°51.4	326°39.7 -9°50.5	341°39.7 -9°49.5	356°39.8 -9°48.6	11°39.9 -9°47.7	26°40.0 -9°46.8	41°40.1 -9°45.9	56°40.2 -9°44.9	71°40.3 -9°44.0	+0.1 +0.9
Me 24	266°41.4 -9°32.1	281°41.5 -9°31.1	296°41.6 -9°30.2	311°41.7 -9°29.3	326°41.8 -9°28.4	341°41.9 -9°27.4	356°42.0 -9°26.5	11°42.1 -9°25.6	26°42.2 -9°24.7	41°42.3 -9°23.7	56°42.3 -9°22.8	71°42.5 -9°21.9	+0.1 +0.9
Je 25	266°43.7 -9°09.8	281°43.8 -9°08.9	296°43.9 -9°08.0	311°44.0 -9°07.1	326°44.1 -9°06.1	341°44.2 -9°05.2	356°44.3 -9°04.3	11°44.4 -9°03.3	26°44.5 -9°02.4	41°44.6 -9°01.5	56°44.6 -9°00.6	71°44.8 -8°59.6	+0.1 +0.9
Ve 26	266°46.4 -8°47.5	281°46.2 -8°46.6	296°46.3 -8°45.6	311°46.4 -8°44.7	326°46.5 -8°43.8	341°46.6 -8°42.8	356°46.7 -8°41.9	11°46.8 -8°41.0	26°46.9 -8°40.0	41°47.0 -8°39.1	56°47.1 -8°38.2	71°47.2 -8°37.2	+0.1 +0.9
Sa 27	266°48.6 -8°25.0	281°48.7 -8°24.1	296°48.9 -8°23.1	311°49.0 -8°22.2	326°49.1 -8°21.3	341°49.2 -8°20.3	356°49.3 -8°19.4	11°49.4 -8°18.4	26°49.5 -8°17.5	41°49.6 -8°16.6	56°49.7 -8°15.6	71°49.8 -8°14.7	+0.1 +0.9
Di 28	266°51.3 -8°02.4	281°51.4 -8°01.5	296°51.5 -8°00.5	311°51.6 -7°59.6	326°51.8 -7°58.6	341°51.9 -7°57.7	356°52.0 -7°56.7	11°52.1 -7°55.8	26°52.2 -7°54.9	41°52.3 -7°53.9	56°52.5 -7°53.0	71°52.6 -7°52.0	+0.1 +0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Février 2027

	J	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	Δ'/h	SP
●	Lu 1	242°58.1 -26°55.7	257°27.4 -26°59.2	271°56.8 -27°02.5	286°25.8 -27°05.7	300°55.0 -27°08.8	315°24.1 -27°11.7	329°53.3 -27°14.5	344°22.4 -27°17.2	358°51.5 -27°19.8	13°20.7 -27°22.2	27°49.8 -27°24.5	+29.2	14.8
		245°05.5 -27°42.6	259°34.6 -27°42.7	274°03.7 -27°42.8	288°32.7 -27°42.6	303°01.8 -27°42.4	317°30.9 -27°42.0	332°00.0 -27°41.4	346°29.1 -27°40.8	360°58.2 -27°40.0	15°27.3 -27°39.1	29°56.5 -27°38.0	+29.1	14.7
●	Ma 2	247°16.0 -27°06.3	261°45.6 -27°03.2	276°15.1 -26°59.9	290°44.1 -26°56.5	305°14.3 -26°52.9	319°43.9 -26°49.3	334°13.6 -26°45.5	348°43.3 -26°41.6	363°13.1 -26°37.6	17°42.8 -26°33.4	32°12.7 -26°29.1	+29.7	14.7
		249°45.0 -27°06.3	264°15.5 -27°03.2	278°46.1 -27°03.2	293°16.7 -27°03.3	307°47.4 -27°03.3	322°18.1 -27°03.1	336°48.9 -27°03.1	351°19.7 -27°02.4	365°50.6 -27°01.7	20°21.5 -27°01.3	34°52.5 -27°00.3	+30.7	14.7
●	Je 4	252°43.5 -22°02.2	267°15.3 -21°53.3	281°47.2 -21°44.4	296°19.2 -21°35.3	310°51.2 -21°26.1	325°23.2 -21°16.9	339°55.3 -21°07.5	354°27.5 -20°58.1	368°59.7 -20°48.6	23°32.0 -20°38.9	38°04.3 -20°29.2	+32.1	14.8
		256°15.5 -17°53.2	270°48.6 -17°42.1	285°21.8 -17°31.0	299°55.1 -17°19.8	314°28.4 -17°08.5	329°01.7 -16°57.2	343°35.1 -16°45.7	358°08.5 -16°34.2	12°42.0 -16°22.7	27°15.5 -16°11.0	41°49.1 -15°59.3	+33.4	14.8
●	Di 7	260°17.7 -17°53.2	274°51.9 -17°42.1	289°26.2 -17°31.0	304°00.5 -17°19.8	318°34.8 -17°08.5	333°09.1 -16°57.2	347°43.5 -16°45.7	361°17.9 -16°34.2	16°52.3 -16°22.7	31°26.8 -16°11.0	46°01.3 -15°59.3	+34.4	14.9
		264°41.5 -7°23.0	279°16.3 -7°09.2	293°51.1 -6°55.3	308°26.0 -6°41.3	323°00.9 -6°27.4	337°35.7 -6°13.4	352°10.6 -5°59.4	366°45.5 -5°45.3	21°20.4 -5°31.2	35°55.3 -5°17.1	50°30.3 -5°03.0	+34.9	15.0
●	Lu 8	269°14.0 -1°28.1	283°48.9 -1°13.6	298°23.8 -0°59.1	312°58.6 -0°44.6	327°33.5 -0°30.1	342°08.3 -0°15.6	356°43.1 -0°01.0	11°17.9 0°13.5	25°57.2 0°28.0	40°27.4 0°42.6	55°02.2 0°57.2	+34.8	15.1
		273°40.0 4°35.7	288°14.3 4°50.2	302°48.5 5°04.7	317°22.7 5°19.2	331°56.9 5°33.7	346°31.0 5°48.2	1°05.0 6°02.7	15°39.0 6°17.2	30°13.0 6°31.6	44°46.9 6°46.0	59°20.8 7°00.5	+34.1	15.3
●	Me 10	277°42.2 10°33.8	292°15.2 10°47.8	306°48.8 11°01.7	321°20.8 11°15.6	335°53.5 11°29.5	350°26.2 11°43.3	4°58.8 11°57.1	19°31.3 12°10.9	34°03.7 12°24.6	48°36.1 12°38.2	63°08.4 12°51.8	+32.6	15.4
		281°02.4 16°09.8	295°33.3 16°22.9	310°04.1 16°35.1	324°34.8 16°47.7	339°05.4 17°00.2	353°35.9 17°12.6	8°06.3 17°25.0	22°36.5 17°37.3	37°06.7 17°49.5	51°36.8 18°01.6	66°06.3 18°13.7	+30.4	15.6
●	Ve 12	285°23.6 21°04.0	297°51.5 21°14.6	312°20.0 21°25.0	326°48.0 21°35.4	341°15.9 21°45.7	355°43.7 21°55.8	10°11.3 22°05.9	24°38.8 22°15.8	39°06.3 22°25.6	53°33.6 22°35.3	68°00.8 22°44.8	+27.7	15.8
		284°34.7 24°53.1	299°00.0 25°00.5	313°25.2 25°07.9	327°50.4 25°15.0	342°15.4 25°22.0	356°40.3 25°28.9	11°05.1 25°35.6	25°29.7 25°42.1	39°54.3 25°48.5	54°18.8 25°54.4	68°43.2 26°00.8	+24.8	16.0
●	Lu 15	284°37.1 27°11.8	299°00.0 27°15.2	313°25.2 27°18.3	327°50.4 27°21.3	342°15.4 27°24.0	356°40.3 27°26.6	10°53.3 27°29.0	25°15.8 27°31.3	39°38.2 27°33.3	54°00.5 27°35.1	68°22.8 27°36.8	+22.6	16.1
		283°51.5 27°38.1	298°13.1 27°36.6	312°34.8 27°34.9	326°56.4 27°33.0	341°18.1 27°30.9	355°39.7 27°28.6	10°01.3 27°26.1	24°22.9 27°23.4	38°44.6 27°20.5	53°06.2 27°17.4	67°27.8 27°14.1	+21.6	16.3
●	Ma 16	282°54.9 26°00.8	297°17.0 25°54.4	311°39.2 25°47.8	326°01.4 25°40.9	340°23.8 25°33.9	354°45.9 25°26.7	9°26.3 25°19.4	23°30.8 25°11.8	37°53.2 25°04.0	52°15.8 25°46.1	66°38.4 24°48.0	+22.3	16.5
		282°26.7 22°51.9	296°50.6 22°14.8	311°14.5 22°03.8	325°38.6 21°52.7	340°02.8 21°41.4	354°27.0 21°30.0	8°51.3 21°18.5	23°15.8 21°06.8	37°40.3 20°54.9	52°04.2 20°42.9	66°29.6 20°30.8	+24.3	16.5
●	Je 18	282°51.9 17°13.6	297°18.2 16°59.5	311°14.5 16°45.3	326°01.4 16°31.0	340°23.8 16°16.6	354°45.9 16°02.2	9°30.9 15°47.6	23°57.7 15°32.9	37°53.2 15°18.1	52°15.7 15°03.3	67°18.8 14°48.4	+26.7	16.5
		282°16.1 10°55.3	298°44.5 10°39.2	313°13.1 10°23.1	327°41.8 10°07.0	342°10.5 9°50.8	356°39.3 9°34.5	11°08.2 9°18.2	25°37.1 9°01.9	40°06.1 8°45.6	54°35.2 8°29.2	69°04.4 8°12.7	+28.8	16.4
●	Sa 20	286°29.6 4°03.2	300°59.6 3°46.4	315°30.0 3°29.7	330°00.2 3°12.9	344°30.0 2°56.2	359°00.9 2°39.4	13°31.3 2°22.7	28°01.7 2°05.9	42°37.2 1°49.2	57°02.2 1°32.5	71°33.3 1°15.7	+30.4	16.3
		284°16.0 -2°52.8	303°47.1 -3°09.2	318°18.2 -3°25.5	332°49.3 -3°41.8	347°20.5 -3°58.0	1°51.6 -4°14.2	16°22.8 -4°30.4	30°54.0 -4°46.5	45°25.2 -5°02.5	59°56.4 -5°18.6	74°27.7 -5°34.6	+31.2	16.1
●	Lu 22	292°17.1 -9°27.7	306°48.4 -9°42.8	321°19.2 -9°57.8	335°51.0 -10°12.7	350°22.3 -10°27.4	4°53.6 -10°42.3	19°24.9 -10°57.0	33°56.1 -11°11.7	48°27.4 -11°26.2	62°58.7 -11°40.7	77°29.9 -11°55.1	+31.3	15.8
		295°16.7 -15°21.4	309°47.7 -15°34.4	324°18.6 -15°47.4	338°49.5 -16°00.2	353°20.4 -16°13.0	7°51.3 -16°25.7	22°22.2 -16°38.3	36°53.0 -16°50.7	51°23.8 -17°03.1	65°54.6 -17°15.4	80°25.3 -17°27.6	+30.9	15.5
●	Me 24	309°47.7 -20°28.4	324°18.6 -20°38.7	338°49.5 -20°49.4	353°20.4 -20°59.1	7°51.3 -21°09.9	22°22.2 -21°19.1	36°53.0 -21°28.9	51°23.8 -21°38.6	65°54.6 -21°48.1	80°25.3 -21°57.6	94°56.0 -22°07.0	+30.8	15.5
		312°33.2 -24°02.8	327°03.4 -24°19.8	341°33.6 -24°27.1	356°03.8 -24°34.2	10°33.9 -24°41.4	25°04.0 -24°56.8	39°34.1 -25°07.4	54°04.1 -25°19.8	68°34.1 -25°27.8	83°04.1 -25°38.2	97°34.0 -25°52.4	+30.1	15.3
●	Sa 27	314°59.3 -24°12.4	329°28.7 -24°19.8	343°58.1 -24°27.1	358°27.5 -24°34.2	12°56.8 -24°41.4	27°26.2 -24°54.8	41°55.5 -25°01.4	56°24.7 -25°11.7	70°54.0 -25°17.8	85°23.2 -25°24.2	99°52.4 -25°30.8	+29.3	15.1
		317°07.7 -26°37.8	331°36.6 -26°41.9	346°05.5 -26°45.8	0°34.3 -26°49.6	15°03.2 -26°53.3	29°32.0 -26°56.9	44°00.8 -27°00.3	58°29.6 -27°03.6	72°58.5 -27°06.7	87°27.2 -27°09.7	101°56.0 -27°12.6	+28.8	14.9

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre

Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

NL: 6 15h56 — PQ: 14 07h58 — PL: 20 23h23 — DQ: 28 05h16

SOLEIL

Mars 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	266°54.1 -7°39.7	281°54.2 -7°38.7	296°54.3 -7°37.8	311°54.5 -7°36.8	326°54.6 -7°35.9	341°54.7 -7°34.9	356°54.8 -7°34.0	11°54.9 -7°33.0	26°55.1 -7°32.1	41°55.2 -7°31.1	56°55.3 -7°30.2	71°55.4 -7°29.2	+0.1 +1.0
Ma 2	266°57.0 -7°16.9	281°57.1 -7°15.9	296°57.3 -7°14.9	311°57.4 -7°14.0	326°57.5 -7°13.0	341°57.6 -7°12.1	356°57.8 -7°11.1	11°57.9 -7°10.2	26°58.0 -7°09.2	41°58.2 -7°08.3	56°58.3 -7°07.3	71°58.4 -7°06.4	+0.1 +1.0
Me 3	267°00.1 -6°53.9	282°00.2 -6°53.0	297°00.3 -6°52.0	312°00.5 -6°51.0	327°00.6 -6°50.1	342°00.7 -6°49.1	357°00.8 -6°48.2	12°01.0 -6°47.2	27°01.1 -6°46.2	42°01.2 -6°45.3	57°01.4 -6°44.3	72°01.5 -6°43.4	+0.1 +1.0
Je 4	267°03.2 -6°30.9	282°03.4 -6°29.9	297°03.5 -6°28.9	312°03.6 -6°28.0	327°03.8 -6°27.0	342°03.9 -6°26.1	357°04.0 -6°25.1	12°04.2 -6°24.1	27°04.3 -6°23.2	42°04.4 -6°22.2	57°04.6 -6°21.2	72°04.7 -6°20.3	+0.1 +1.0
Ve 5	267°06.5 -6°07.7	282°06.6 -6°06.8	297°06.8 -6°05.8	312°06.9 -6°04.8	327°07.0 -6°03.9	342°07.2 -6°02.9	357°07.3 -6°01.9	12°07.5 -6°01.0	27°07.6 -6°00.0	42°07.7 -5°59.0	57°07.9 -5°58.1	72°08.0 -5°57.1	+0.1 +1.0
Sa 6	267°09.9 -5°44.5	282°10.0 -5°43.5	297°10.2 -5°42.6	312°10.3 -5°41.6	327°10.4 -5°40.6	342°10.6 -5°39.7	357°10.7 -5°38.7	12°10.9 -5°37.7	27°11.0 -5°36.8	42°11.2 -5°35.8	57°11.3 -5°34.8	72°11.4 -5°33.8	+0.1 +1.0
Di 7	267°13.3 -5°21.2	282°13.5 -5°20.2	297°13.6 -5°19.3	312°13.8 -5°18.3	327°13.9 -5°17.3	342°14.1 -5°16.4	357°14.2 -5°15.4	12°14.4 -5°14.4	27°14.5 -5°13.4	42°14.7 -5°12.5	57°14.8 -5°11.5	72°15.0 -5°10.5	+0.1 +1.0
Lu 8	267°16.9 -4°34.4	282°17.1 -4°33.4	297°17.2 -4°32.5	312°17.4 -4°31.5	327°17.5 -4°30.5	342°17.7 -4°29.5	357°17.8 -4°28.5	12°18.0 -4°27.6	27°18.1 -4°26.6	42°18.3 -4°25.6	57°18.4 -4°24.6	72°18.6 -4°23.6	+0.2 +1.0
Ma 9	267°20.6 -4°10.9	282°20.7 -4°09.9	297°20.9 -4°09.0	312°21.1 -4°08.0	327°21.2 -4°07.0	342°21.4 -4°06.0	357°21.5 -4°05.0	12°21.7 -4°04.1	27°21.8 -4°03.1	42°22.0 -4°02.1	57°22.2 -4°01.1	72°22.3 -4°00.1	+0.2 +1.0
Me 10	267°28.2 -3°47.4	282°28.4 -3°46.4	297°28.5 -3°45.4	312°28.7 -3°44.4	327°28.8 -3°43.4	342°29.0 -3°42.5	357°29.2 -3°41.5	12°29.3 -3°40.5	27°29.5 -3°39.5	42°29.7 -3°38.5	57°29.9 -3°37.5	72°30.0 -3°36.6	+0.2 +1.0
Je 11	267°32.1 -3°23.8	282°32.3 -3°22.8	297°32.5 -3°21.8	312°32.6 -3°20.8	327°32.8 -3°19.8	342°33.0 -3°18.9	357°33.1 -3°17.9	12°33.3 -3°16.9	27°33.5 -3°15.9	42°33.6 -3°14.9	57°33.8 -3°13.9	72°34.0 -3°13.0	+0.2 +1.0
Sa 13	267°36.1 -3°00.2	282°36.3 -2°59.2	297°36.5 -2°58.2	312°36.6 -2°57.2	327°36.8 -2°56.2	342°37.0 -2°55.2	357°37.1 -2°54.2	12°37.3 -2°53.3	27°37.5 -2°52.3	42°37.7 -2°51.3	57°37.8 -2°50.3	72°38.0 -2°49.3	+0.2 +1.0
Di 14	267°40.2 -2°36.5	282°40.4 -2°35.5	297°40.6 -2°34.5	312°40.7 -2°33.5	327°40.9 -2°32.5	342°41.1 -2°31.6	357°41.2 -2°30.6	12°41.4 -2°29.6	27°41.6 -2°28.6	42°41.8 -2°27.6	57°41.9 -2°26.6	72°42.1 -2°25.6	+0.2 +1.0
Lu 15	267°44.4 -2°12.8	282°44.5 -2°11.8	297°44.7 -2°10.8	312°44.9 -2°09.8	327°45.1 -2°08.9	342°45.2 -2°07.9	357°45.4 -2°06.9	12°45.6 -2°05.9	27°45.8 -2°04.9	42°45.9 -2°03.9	57°46.1 -2°02.9	72°46.3 -2°01.9	+0.2 +1.0
Ma 16	267°48.6 -1°49.1	282°48.7 -1°48.1	297°48.9 -1°47.1	312°49.1 -1°46.1	327°49.3 -1°45.2	342°49.5 -1°44.2	357°49.6 -1°43.2	12°49.8 -1°42.2	27°50.0 -1°41.2	42°50.2 -1°40.2	57°50.3 -1°39.2	72°50.5 -1°38.2	+0.2 +1.0
Me 17	267°52.8 -1°25.4	282°53.0 -1°24.4	297°53.2 -1°23.4	312°53.4 -1°22.4	327°53.6 -1°21.4	342°53.7 -1°20.5	357°53.9 -1°19.5	12°54.1 -1°18.5	27°54.3 -1°17.5	42°54.5 -1°16.5	57°54.6 -1°15.5	72°54.8 -1°14.5	+0.2 +1.0
Je 18	267°57.2 -1°01.7	282°57.3 -1°00.7	297°57.5 -0°59.7	312°57.7 -0°58.7	327°57.9 -0°57.7	342°58.1 -0°56.7	357°58.3 -0°55.7	12°58.4 -0°54.8	27°58.6 -0°53.8	42°58.8 -0°52.8	57°59.0 -0°51.8	72°59.2 -0°50.8	+0.2 +1.0
Ve 19	268°01.5 -0°38.0	283°01.7 -0°37.0	298°01.9 -0°36.0	313°02.1 -0°35.0	328°02.3 -0°34.0	343°02.5 -0°33.0	358°02.6 -0°32.0	13°02.8 -0°31.0	28°03.0 -0°30.0	43°03.2 -0°29.1	58°03.4 -0°28.1	73°03.6 -0°27.1	+0.2 +1.0
Sa 20	268°06.0 -0°14.2	283°06.1 -0°13.2	298°06.3 -0°12.3	313°06.5 -0°11.3	328°06.7 -0°10.3	343°06.9 -0°09.3	358°07.1 -0°08.3	13°07.3 -0°07.3	28°07.4 -0°06.3	43°07.6 -0°05.3	58°07.8 -0°04.4	73°08.0 -0°03.4	+0.2 +1.0
Di 21	268°10.4 0°09.5	283°10.6 0°10.5	298°10.8 0°11.4	313°11.0 0°12.4	328°11.2 0°13.4	343°11.3 0°14.4	358°11.5 0°15.4	13°11.7 0°16.4	28°11.9 0°17.4	43°12.1 0°18.4	58°12.3 0°19.3	73°12.5 0°20.3	+0.2 +1.0
Lu 22	268°14.9 0°33.2	283°15.1 0°34.1	298°15.3 0°35.1	313°15.5 0°36.1	328°15.6 0°37.1	343°15.8 0°38.1	358°16.0 0°39.1	13°16.2 0°40.1	28°16.4 0°41.0	43°16.6 0°42.0	58°16.8 0°43.0	73°17.0 0°44.0	+0.2 +1.0
Ma 23	268°19.4 0°56.8	283°19.6 0°57.8	298°19.8 0°58.8	313°20.0 0°59.8	328°20.1 1°00.8	343°20.3 1°01.8	358°20.5 1°02.7	13°20.6 1°03.7	28°20.9 1°04.7	43°21.1 1°05.7	58°21.3 1°06.7	73°21.5 1°07.7	+0.2 +1.0
Me 24	268°23.9 1°20.5	283°24.1 1°21.4	298°24.3 1°22.4	313°24.5 1°23.4	328°24.7 1°24.4	343°24.9 1°25.4	358°25.0 1°26.4	13°25.2 1°27.4	28°25.6 1°28.3	43°25.8 1°29.3	58°25.8 1°30.3	73°26.0 1°31.3	+0.2 +1.0
Je 25	268°28.5 1°44.1	283°28.6 1°45.1	298°28.8 1°46.0	313°29.0 1°47.0	328°29.2 1°48.0	343°29.4 1°49.0	358°29.6 1°50.0	13°29.8 1°51.0	28°30.0 1°51.9	43°30.3 1°52.9	58°30.3 1°53.9	73°30.5 1°54.9	+0.2 +1.0
Ve 26	268°33.0 2°07.6	283°33.2 2°08.6	298°33.4 2°09.6	313°33.6 2°10.6	328°33.7 2°11.6	343°33.9 2°12.5	358°34.1 2°13.5	13°34.3 2°14.5	28°34.5 2°15.5	43°34.7 2°16.5	58°34.7 2°17.5	73°35.1 2°18.4	+0.2 +1.0
Sa 27	268°37.5 2°31.2	283°37.7 2°32.1	298°37.9 2°33.1	313°38.1 2°34.1	328°38.3 2°35.1	343°38.5 2°36.1	358°38.7 2°37.0	13°38.9 2°38.0	28°39.0 2°39.0	43°39.2 2°40.0	58°39.4 2°41.0	73°39.6 2°41.9	+0.2 +1.0
Di 28	268°42.1 2°54.6	283°42.3 2°55.6	298°42.4 2°56.6	313°42.6 2°57.6	328°42.8 2°58.6	343°43.0 2°59.5	358°43.2 3°00.5	13°43.4 3°01.5	28°43.6 3°02.5	43°43.8 3°03.4	58°44.0 3°04.4	73°44.1 3°05.4	+0.2 +1.0
Lu 29	268°46.6 3°18.1	283°46.8 3°19.0	298°47.0 3°20.0	313°47.2 3°21.0	328°47.4 3°22.0	343°47.5 3°22.9	358°47.7 3°23.9	13°47.9 3°24.9	28°48.1 3°25.9	43°48.3 3°26.8	58°48.5 3°27.8	73°48.7 3°28.8	+0.2 +1.0
Ma 30	268°51.1 3°41.4	283°51.3 3°42.4	298°51.5 3°43.4	313°51.7 3°44.3	328°51.9 3°45.3	343°52.0 3°46.3	358°52.2 3°47.3	13°52.4 3°48.2	28°52.6 3°49.3	43°52.8 3°50.2	58°53.0 3°51.1	73°53.2 3°52.1	+0.2 +1.0
Me 31	268°55.6 4°04.7	283°55.8 4°05.7	298°56.0 4°06.7	313°56.2 4°07.6	328°56.3 4°08.6	343°56.5 4°09.6	358°56.7 4°10.5	13°56.9 4°11.5	28°57.1 4°12.5	43°57.3 4°13.4	58°57.5 4°14.4	73°57.6 4°15.4	+0.2 +1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.1'

LUNE

Mars 2027

	J	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	Δ'/h SP
●	Lu 1	234 ^o 17.8 -27 ^o 29.4	248 ^o 47.0 -27 ^o 27.6	263 ^o 16.2 -27 ^o 25.6	277 ^o 45.4 -27 ^o 23.5	292 ^o 14.6 -27 ^o 21.2	306 ^o 43.9 -27 ^o 18.9	321 ^o 13.2 -27 ^o 16.4	335 ^o 42.5 -27 ^o 13.7	350 ^o 11.9 -27 ^o 11.0	4 ^o 41.3 -27 ^o 08.1	19 ^o 10.8 -27 ^o 05.0	+29.3 14.8 +2.4 54.1
	Ma 2	248 ^o 47.0 -27 ^o 27.6	263 ^o 16.2 -27 ^o 25.6	277 ^o 45.4 -27 ^o 23.5	292 ^o 14.6 -27 ^o 21.2	306 ^o 43.9 -27 ^o 18.9	321 ^o 13.2 -27 ^o 16.4	335 ^o 42.5 -27 ^o 13.7	350 ^o 11.9 -27 ^o 11.0	4 ^o 41.3 -27 ^o 08.1	19 ^o 10.8 -27 ^o 05.0	33 ^o 40.2 -27 ^o 01.9	+29.3 14.8 +2.6 54.1
●	Me 3	251 ^o 07.0 -25 ^o 59.6	265 ^o 37.2 -25 ^o 54.5	280 ^o 07.3 -25 ^o 49.2	294 ^o 37.6 -25 ^o 43.8	309 ^o 07.8 -25 ^o 38.4	323 ^o 38.2 -25 ^o 32.7	338 ^o 08.5 -25 ^o 27.0	352 ^o 38.9 -25 ^o 21.2	7 ^o 09.4 -25 ^o 15.2	21 ^o 39.9 -25 ^o 09.2	36 ^o 10.5 -25 ^o 03.0	+30.3 14.7 +5.7 54.1
	Je 4	253 ^o 54.9 -23 ^o 16.8	268 ^o 26.3 -23 ^o 08.9	282 ^o 57.8 -23 ^o 00.8	297 ^o 29.3 -22 ^o 52.7	312 ^o 00.8 -22 ^o 44.4	326 ^o 32.4 -22 ^o 36.1	341 ^o 04.0 -22 ^o 27.7	355 ^o 35.7 -22 ^o 19.1	10 ^o 07.5 -22 ^o 10.5	24 ^o 39.3 -22 ^o 01.7	39 ^o 11.1 -21 ^o 52.9	+31.6 14.8 +8.4 54.1
●	Ve 5	257 ^o 15.2 -19 ^o 29.0	271 ^o 47.9 -19 ^o 18.7	286 ^o 20.6 -19 ^o 08.3	300 ^o 53.4 -18 ^o 57.8	315 ^o 26.2 -18 ^o 47.2	329 ^o 59.1 -18 ^o 36.6	344 ^o 32.0 -18 ^o 25.9	359 ^o 04.9 -18 ^o 15.1	13 ^o 37.9 -18 ^o 04.2	28 ^o 11.0 -17 ^o 53.2	42 ^o 44.1 -17 ^o 42.2	+32.9 14.8 +10.7 54.4
	Sa 6	261 ^o 05.6 -14 ^o 47.5	275 ^o 39.4 -14 ^o 35.3	290 ^o 13.1 -14 ^o 23.0	304 ^o 47.0 -14 ^o 10.7	319 ^o 20.8 -13 ^o 58.3	333 ^o 54.7 -13 ^o 45.8	348 ^o 28.6 -13 ^o 33.3	3 ^o 02.6 -13 ^o 20.7	17 ^o 36.6 -13 ^o 08.1	32 ^o 10.6 -12 ^o 55.4	46 ^o 44.6 -12 ^o 42.6	+33.9 14.9 +12.5 54.7
●	Di 7	265 ^o 18.5 -9 ^o 24.6	279 ^o 52.9 -9 ^o 11.0	294 ^o 27.3 -8 ^o 57.3	309 ^o 01.8 -8 ^o 43.6	323 ^o 36.3 -8 ^o 29.9	338 ^o 10.8 -8 ^o 16.1	352 ^o 45.3 -8 ^o 02.3	7 ^o 19.8 -7 ^o 48.4	21 ^o 54.3 -7 ^o 34.5	36 ^o 28.8 -7 ^o 20.6	51 ^o 03.4 -7 ^o 06.6	+34.5 15.0 +13.8 55.1
	Lu 8	269 ^o 42.2 -3 ^o 33.0	284 ^o 16.8 -3 ^o 18.6	298 ^o 51.3 -3 ^o 04.1	313 ^o 25.9 -2 ^o 49.6	328 ^o 00.5 -2 ^o 35.0	342 ^o 35.0 -2 ^o 20.5	357 ^o 09.6 -2 ^o 05.9	11 ^o 44.1 -1 ^o 51.3	26 ^o 18.6 -1 ^o 36.7	40 ^o 53.1 -1 ^o 22.1	55 ^o 27.6 -1 ^o 07.5	+34.5 15.2 +14.6 55.6
●	Ma 9	274 ^o 02.6 2 ^o 33.3	288 ^o 36.9 2 ^o 48.1	303 ^o 10.8 3 ^o 02.8	317 ^o 44.9 3 ^o 17.6	332 ^o 18.9 3 ^o 32.3	346 ^o 52.9 3 ^o 47.0	1 ^o 26.9 4 ^o 01.8	16 ^o 00.8 4 ^o 16.5	30 ^o 34.7 4 ^o 31.2	45 ^o 08.5 4 ^o 45.9	59 ^o 42.3 5 ^o 00.6	+34.0 15.3 +14.7 56.1
	Me 10	278 ^o 03.9 8 ^o 39.2	292 ^o 36.9 8 ^o 53.6	307 ^o 09.9 9 ^o 08.0	321 ^o 42.8 9 ^o 22.3	336 ^o 15.6 9 ^o 36.6	350 ^o 48.4 9 ^o 50.9	5 ^o 21.1 10 ^o 05.1	19 ^o 53.8 10 ^o 19.3	34 ^o 26.4 10 ^o 33.5	48 ^o 58.9 10 ^o 47.6	63 ^o 31.3 11 ^o 01.7	+32.7 15.4 +14.2 56.6
●	Je 11	281 ^o 29.6 14 ^o 27.3	296 ^o 00.8 14 ^o 40.6	310 ^o 32.0 14 ^o 53.8	325 ^o 03.1 15 ^o 07.0	339 ^o 34.1 15 ^o 20.1	354 ^o 05.0 15 ^o 33.1	8 ^o 35.9 15 ^o 46.1	23 ^o 06.6 15 ^o 59.0	37 ^o 37.3 16 ^o 11.8	52 ^o 07.3 16 ^o 24.6	66 ^o 38.8 16 ^o 37.2	+30.9 15.6 +13.0 57.1
	Ve 12	284 ^o 04.3 19 ^o 37.7	298 ^o 33.3 19 ^o 49.0	313 ^o 02.2 20 ^o 00.3	327 ^o 30.9 20 ^o 11.4	341 ^o 59.6 20 ^o 22.4	356 ^o 28.1 20 ^o 33.3	10 ^o 56.6 20 ^o 44.1	25 ^o 24.9 20 ^o 54.8	39 ^o 53.2 21 ^o 05.4	54 ^o 21.3 21 ^o 15.9	68 ^o 49.4 21 ^o 26.3	+28.5 15.7 +10.9 57.6
●	Sa 13	285 ^o 37.9 23 ^o 47.8	300 ^o 04.3 23 ^o 56.3	314 ^o 30.6 24 ^o 04.5	328 ^o 56.8 24 ^o 12.7	343 ^o 22.9 24 ^o 20.7	357 ^o 49.0 24 ^o 28.6	12 ^o 14.9 24 ^o 36.3	26 ^o 40.7 24 ^o 43.9	41 ^o 06.5 24 ^o 51.3	55 ^o 32.5 24 ^o 58.6	69 ^o 57.7 25 ^o 05.7	+26.0 15.8 +7.8 58.1
	Di 14	286 ^o 10.3 26 ^o 34.3	300 ^o 34.4 26 ^o 39.0	314 ^o 58.6 26 ^o 43.4	329 ^o 22.6 26 ^o 47.7	343 ^o 46.6 26 ^o 51.8	358 ^o 10.5 26 ^o 55.7	12 ^o 34.3 26 ^o 59.5	26 ^o 58.1 27 ^o 03.1	41 ^o 06.1 27 ^o 06.5	55 ^o 45.5 27 ^o 09.7	70 ^o 09.1 27 ^o 12.8	+23.9 16.0 +3.8 58.5
●	Lu 15	285 ^o 57.2 27 ^o 36.9	300 ^o 20.1 27 ^o 37.1	314 ^o 43.2 27 ^o 37.0	329 ^o 05.9 27 ^o 36.8	343 ^o 21.3 27 ^o 36.4	357 ^o 51.6 27 ^o 35.8	12 ^o 14.5 27 ^o 35.0	26 ^o 37.3 27 ^o 34.0	41 ^o 00.1 27 ^o 32.8	55 ^o 22.1 27 ^o 31.4	69 ^o 45.7 27 ^o 29.9	+22.8 16.1 -0.7 59.0
	Ma 16	285 ^o 28.9 26 ^o 44.1	299 ^o 51.9 26 ^o 39.6	314 ^o 15.3 26 ^o 34.8	328 ^o 38.1 26 ^o 29.9	343 ^o 01.3 26 ^o 24.8	357 ^o 24.4 26 ^o 19.6	11 ^o 47.7 26 ^o 14.1	26 ^o 11.0 26 ^o 08.5	40 ^o 34.3 26 ^o 07.2	54 ^o 57.7 25 ^o 56.7	69 ^o 21.1 25 ^o 50.5	+23.2 16.2 -5.4 59.3
●	Me 17	285 ^o 19.3 23 ^o 57.5	299 ^o 43.7 23 ^o 48.6	314 ^o 08.2 23 ^o 39.6	328 ^o 32.8 23 ^o 30.4	342 ^o 57.4 23 ^o 21.1	357 ^o 22.1 23 ^o 11.6	11 ^o 46.9 23 ^o 01.9	26 ^o 11.8 22 ^o 52.1	40 ^o 36.7 22 ^o 42.2	55 ^o 47.8 22 ^o 32.1	69 ^o 26.9 22 ^o 21.9	+24.7 16.3 -9.6 59.6
	Je 18	285 ^o 53.3 19 ^o 31.7	300 ^o 19.7 19 ^o 19.3	314 ^o 46.2 19 ^o 06.8	329 ^o 12.8 18 ^o 54.2	343 ^o 39.5 18 ^o 41.4	358 ^o 06.3 18 ^o 28.6	12 ^o 33.1 18 ^o 15.6	27 ^o 00.1 18 ^o 02.5	41 ^o 27.1 17 ^o 49.4	55 ^o 54.2 17 ^o 36.1	70 ^o 21.4 17 ^o 22.7	+26.8 16.3 -12.9 59.8
●	Ve 19	287 ^o 18.9 13 ^o 50.3	301 ^o 47.3 13 ^o 35.4	316 ^o 15.9 13 ^o 20.5	330 ^o 44.5 13 ^o 05.5	345 ^o 13.1 12 ^o 50.4	359 ^o 41.9 12 ^o 35.3	14 ^o 10.7 12 ^o 20.1	28 ^o 39.9 12 ^o 10.4	43 ^o 08.5 11 ^o 49.5	57 ^o 37.5 11 ^o 34.1	72 ^o 06.6 11 ^o 18.6	+28.8 16.3 -15.2 59.7
	Sa 20	289 ^o 30.2 7 ^o 20.6	304 ^o 00.3 7 ^o 04.4	318 ^o 30.3 6 ^o 48.2	333 ^o 00.4 6 ^o 31.9	347 ^o 30.6 6 ^o 15.7	358 ^o 06.3 5 ^o 59.3	2 ^o 00.8 5 ^o 43.0	16 ^o 31.1 5 ^o 26.7	31 ^o 01.4 5 ^o 10.3	45 ^o 31.7 4 ^o 53.9	60 ^o 02.1 4 ^o 37.5	+30.2 16.2 -16.3 59.5
●	Di 21	292 ^o 13.1 0 ^o 30.3	306 ^o 44.0 0 ^o 13.8	321 ^o 15.0 -0 ^o 02.7	335 ^o 46.0 -0 ^o 19.1	350 ^o 17.0 -0 ^o 35.5	364 ^o 15.7 -0 ^o 52.0	4 ^o 48.0 -1 ^o 08.4	19 ^o 19.0 -1 ^o 24.8	33 ^o 50.1 -1 ^o 41.1	48 ^o 21.1 -1 ^o 57.5	62 ^o 52.2 -2 ^o 13.8	+31.0 16.1 -16.4 59.0
	Lu 22	295 ^o 10.6 -6 ^o 15.0	309 ^o 41.7 -6 ^o 30.7	324 ^o 12.9 -6 ^o 46.5	338 ^o 44.1 -7 ^o 02.1	353 ^o 15.2 -7 ^o 17.8	367 ^o 46.3 -7 ^o 33.3	22 ^o 17.5 -7 ^o 48.8	36 ^o 48.6 -8 ^o 04.3	51 ^o 19.7 -8 ^o 19.7	65 ^o 50.8 -8 ^o 35.1	80 ^o 21.9 -8 ^o 50.4	+31.1 15.9 -15.5 58.4
●	Ma 23	298 ^o 06.5 -12 ^o 32.0	312 ^o 37.3 -12 ^o 46.2	327 ^o 08.3 -13 ^o 00.3	341 ^o 38.8 -13 ^o 14.4	356 ^o 09.6 -13 ^o 28.3	369 ^o 40.3 -13 ^o 42.2	25 ^o 11.0 -13 ^o 56.0	39 ^o 41.6 -14 ^o 09.7	54 ^o 12.2 -14 ^o 23.3	68 ^o 42.8 -14 ^o 36.8	83 ^o 13.4 -14 ^o 50.3	+30.7 15.7 -13.8 57.7
	Me 24	300 ^o 48.2 -18 ^o 00.7	315 ^o 18.2 -18 ^o 12.6	329 ^o 48.2 -18 ^o 24.4	344 ^o 18.2 -18 ^o 36.1	358 ^o 48.2 -18 ^o 47.7	373 ^o 18.1 -18 ^o 59.2	13 ^o 18.1 -19 ^o 10.5	27 ^o 47.9 -19 ^o 21.8	42 ^o 17.8 -19 ^o 32.9	56 ^o 47.6 -19 ^o 44.0	71 ^o 17.3 -19 ^o 54.9	+29.9 15.5 -11.4 56.9
●	Je 25	303 ^o 08.7 -22 ^o 24.7	317 ^o 37.9 -22 ^o 33.7	332 ^o 07.0 -22 ^o 42.6	346 ^o 36.1 -22 ^o 51.4	1 ^o 05.2 -23 ^o 00.0	15 ^o 34.2 -23 ^o 08.5	30 ^o 03.2 -23 ^o 16.9	44 ^o 32.2 -23 ^o 25.2	59 ^o 01.1 -23 ^o 33.3	73 ^o 30.0 -23 ^o 41.3	87 ^o 58.9 -23 ^o 56.9	+29.0 15.3 -8.3 56.1
	Ve 26	317 ^o 37.9 -22 ^o 33.7	332 ^o 07.0 -22 ^o 42.6	346 ^o 36.1 -22 ^o 51.4	1 ^o 05.2 -23 ^o 00.0	15 ^o 34.2 -23 ^o 08.5	30 ^o 03.2 -23 ^o 16.9	44 ^o 32.2 -23 ^o 25.2	59 ^o 01.1 -23 ^o 33.3	73 ^o 30.0 -23 ^o 41.3	87 ^o 58.9 -23 ^o 49.1	102 ^o 27.7 -24 ^o 06.7	+29.0 15.3 -8.3 56.1
●	Sa 27	319 ^o 37.3 -25 ^o 37.0	334 ^o 05.8 -25 ^o 48.1	348 ^o 34.2 -25 ^o 54.4	3 ^o 02.6 -25 ^o 53.4	17 ^o 31.0 -25 ^o 58.6	31 ^o 59.4 -26 ^o 03.6	46 ^o 27.8 -26 ^o 08.5	60 ^o 56.2 -26 ^o 13.3	75 ^o 24.5 -26 ^o 17.9	89 ^o 52.9 -26 ^o 22.7	104 ^o 21.2 -26 ^o 26.7	+28.4 15.1 -5.0 55.4
	Di 28	321 ^o 25.6 -27 ^o 15.1	335 ^o 53.9 -27 ^o 17.2	350									

SOLEIL

Avril 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	269°00.1 4°27.9	284°00.2 4°28.9	299°00.4 4°29.9	314°00.6 4°30.8	329°00.8 4°31.8	344°01.0 4°32.8	359°01.2 4°33.7	14°01.4 4°34.7	29°01.5 4°35.7	44°01.7 4°36.6	59°01.9 4°37.6	74°02.1 4°38.6	+0.2 +1.0
Ve 2	269°04.5 4°51.1	284°04.7 4°52.0	299°04.9 4°53.0	314°05.0 4°54.0	329°05.2 4°54.9	344°05.4 4°55.9	359°05.6 4°56.9	14°05.8 4°57.8	29°06.0 4°58.4	44°06.2 4°59.7	59°06.3 5°00.7	74°06.5 5°01.7	+0.2 +1.0
Sa 3	269°08.9 5°14.1	284°09.1 5°15.1	299°09.3 5°16.1	314°09.4 5°17.0	329°09.6 5°18.0	344°09.8 5°18.9	359°10.0 5°19.9	14°10.2 5°20.8	29°10.4 5°21.8	44°10.5 5°22.8	59°10.7 5°23.7	74°10.9 5°24.7	+0.2 +1.0
Di 4	269°13.3 5°37.1	284°13.4 5°38.1	299°13.6 5°39.0	314°13.8 5°40.0	329°14.0 5°40.9	344°14.2 5°41.9	359°14.3 5°42.8	14°14.5 5°43.8	29°14.7 5°44.7	44°14.9 5°45.7	59°15.1 5°46.6	74°15.2 5°47.6	+0.2 +1.0
Lu 5	269°17.6 6°00.0	284°17.8 6°00.9	299°17.9 6°01.9	314°18.1 6°02.8	329°18.3 6°03.8	344°18.5 6°04.7	359°18.7 6°05.7	14°18.8 6°06.6	29°19.0 6°07.6	44°19.2 6°08.5	59°19.4 6°09.5	74°19.5 6°10.4	+0.2 +0.9
Ma 6	269°21.9 6°22.7	284°22.0 6°23.7	299°22.2 6°24.6	314°22.4 6°25.6	329°22.6 6°26.5	344°22.7 6°27.5	359°22.9 6°28.4	14°23.1 6°29.3	29°23.3 6°30.3	44°23.4 6°31.2	59°23.6 6°32.2	74°23.8 6°33.1	+0.2 +0.9
Me 7	269°26.1 6°45.4	284°26.2 6°46.3	299°26.4 6°47.3	314°26.6 6°48.2	329°26.8 6°49.1	344°26.9 6°50.1	359°27.1 6°51.0	14°27.3 6°52.0	29°27.5 6°52.9	44°27.6 6°53.8	59°27.8 6°54.8	74°28.0 6°55.7	+0.2 +0.9
Je 8	269°30.2 7°07.9	284°30.4 7°08.9	299°30.6 7°09.8	314°30.8 7°10.7	329°30.9 7°11.7	344°31.1 7°12.6	359°31.3 7°13.5	14°31.4 7°14.5	29°31.6 7°15.4	44°31.8 7°16.3	59°32.0 7°17.3	74°32.1 7°18.2	+0.2 +0.9
Ve 9	269°34.4 7°30.3	284°34.5 7°31.3	299°34.7 7°32.2	314°34.9 7°33.1	329°35.0 7°34.1	344°35.2 7°35.0	359°35.4 7°35.9	14°35.5 7°36.8	29°35.7 7°37.8	44°35.9 7°38.7	59°36.0 7°39.6	74°36.2 7°40.6	+0.2 +0.9
Sa 10	269°38.4 7°52.6	284°38.6 7°53.5	299°38.7 7°54.5	314°38.9 7°55.4	329°39.1 7°56.3	344°39.2 7°57.2	359°39.4 7°58.2	14°39.6 7°59.1	29°39.9 8°00.0	44°39.9 8°00.9	59°40.1 8°01.9	74°40.2 8°02.8	+0.2 +0.9
Di 11	269°42.4 8°14.8	284°42.6 8°15.7	299°42.7 8°16.6	314°42.9 8°17.5	329°43.0 8°18.4	344°43.2 8°19.4	359°43.4 8°20.3	14°43.5 8°21.2	29°43.7 8°22.1	44°43.9 8°23.0	59°44.0 8°24.0	74°44.2 8°24.9	+0.2 +0.9
Lu 12	269°46.3 8°36.8	284°46.5 8°37.7	299°46.6 8°38.6	314°46.8 8°39.5	329°47.0 8°40.4	344°47.1 8°41.4	359°47.3 8°42.3	14°47.4 8°43.2	29°47.6 8°44.1	44°47.8 8°45.0	59°47.9 8°45.9	74°48.1 8°46.8	+0.2 +0.9
Ma 13	269°50.2 8°58.6	284°50.3 8°59.6	299°50.5 9°00.5	314°50.6 9°01.4	329°50.8 9°02.3	344°50.9 9°03.2	359°51.1 9°04.1	14°51.3 9°05.0	29°51.5 9°05.9	44°51.6 9°06.8	59°51.7 9°07.7	74°51.9 9°08.6	+0.2 +0.9
Me 14	269°54.9 9°20.4	284°54.1 9°21.3	299°54.2 9°22.2	314°54.4 9°23.1	329°54.5 9°24.0	344°54.7 9°24.9	359°54.9 9°25.8	14°55.0 9°26.7	29°55.2 9°27.6	44°55.3 9°28.5	59°55.5 9°29.4	74°55.6 9°30.3	+0.2 +0.9
Je 15	269°57.6 9°41.9	284°57.8 9°42.8	299°57.9 9°43.7	314°58.1 9°44.6	329°58.2 9°45.5	344°58.4 9°46.4	359°58.5 9°47.3	14°58.7 9°48.2	29°58.8 9°49.1	44°59.0 9°50.0	59°59.1 9°50.9	74°59.3 9°51.7	+0.2 +0.9
Ve 16	270°01.2 10°03.3	285°01.4 10°04.2	300°01.5 10°05.1	315°01.7 10°06.0	330°01.9 10°06.9	345°02.0 10°07.8	0°02.1 10°08.6	15°02.3 10°09.5	30°02.4 10°10.4	45°02.6 10°11.3	60°02.7 10°12.2	75°02.9 10°13.1	+0.1 +0.9
Sa 17	270°04.8 10°24.5	285°04.9 10°25.4	300°05.0 10°26.3	315°05.2 10°27.2	330°05.3 10°28.1	345°05.5 10°28.9	0°05.6 10°29.8	15°05.8 10°30.7	30°05.9 10°31.6	45°06.1 10°32.5	60°06.2 10°33.3	75°06.3 10°34.2	+0.1 +0.9
Di 18	270°08.2 10°45.6	285°08.3 10°46.5	300°08.5 10°47.3	315°08.6 10°48.2	330°08.8 10°49.1	345°08.9 10°50.0	0°09.0 10°50.8	15°09.2 10°51.7	30°09.3 10°52.6	45°09.5 10°53.4	60°09.6 10°54.3	75°09.7 10°55.2	+0.1 +0.9
Lu 19	270°11.5 11°06.5	285°11.7 11°07.3	300°11.8 11°08.2	315°11.9 11°09.1	330°12.1 11°09.9	345°12.2 11°10.8	0°12.3 11°11.7	15°12.5 11°12.5	30°12.6 11°13.4	45°12.8 11°14.2	60°12.9 11°15.1	75°13.0 11°16.0	+0.1 +0.9
Ma 20	270°14.8 11°27.2	285°14.9 11°28.0	300°15.0 11°28.9	315°15.2 11°29.7	330°15.3 11°30.6	345°15.4 11°31.4	0°15.6 11°32.3	15°15.7 11°33.2	30°15.8 11°34.0	45°16.0 11°34.9	60°16.1 11°35.7	75°16.2 11°36.6	+0.1 +0.9
Me 21	270°17.9 11°47.7	285°18.0 11°48.5	300°18.2 11°49.4	315°18.3 11°50.2	330°18.4 11°51.1	345°18.5 11°51.9	0°18.7 11°52.8	15°18.8 11°53.6	30°18.9 11°54.4	45°19.0 11°55.3	60°19.2 11°56.1	75°19.3 11°57.0	+0.1 +0.8
Je 22	270°20.9 12°08.0	285°21.0 12°08.8	300°21.2 12°09.7	315°21.3 12°10.5	330°21.4 12°11.3	345°21.5 12°12.2	0°21.7 12°13.0	15°21.8 12°13.9	30°21.9 12°14.7	45°22.0 12°15.5	60°22.2 12°16.4	75°22.3 12°17.2	+0.1 +0.8
Ve 23	270°23.8 12°28.1	285°24.0 12°28.9	300°24.1 12°29.7	315°24.2 12°30.6	330°24.3 12°31.4	345°24.4 12°32.2	0°24.5 12°33.1	15°24.7 12°33.9	30°24.8 12°34.7	45°24.9 12°35.6	60°25.0 12°36.4	75°25.1 12°37.2	+0.1 +0.8
Sa 24	270°26.6 12°48.0	285°26.7 12°48.8	300°26.9 12°49.6	315°27.0 12°50.5	330°27.1 12°51.3	345°27.2 12°52.1	0°27.3 12°52.9	15°27.4 12°53.8	30°27.5 12°54.6	45°27.7 12°55.4	60°27.8 12°56.2	75°27.9 12°57.0	+0.1 +0.8
Di 25	270°29.3 13°07.7	285°29.4 13°08.5	300°29.5 13°09.3	315°29.6 13°10.1	330°29.7 13°10.9	345°29.9 13°11.8	0°30.0 13°12.6	15°30.1 13°13.4	30°30.3 13°14.2	45°30.3 13°15.0	60°30.4 13°15.8	75°30.5 13°16.6	+0.1 +0.8
Lu 26	270°31.9 13°27.2	285°32.0 13°28.0	300°32.1 13°28.8	315°32.2 13°29.6	330°32.3 13°30.4	345°32.4 13°31.2	0°32.5 13°32.0	15°32.6 13°32.8	30°32.7 13°33.6	45°32.8 13°34.4	60°32.9 13°35.2	75°33.0 13°36.0	+0.1 +0.8
Ma 27	270°34.3 13°46.4	285°34.4 13°47.2	300°34.5 13°48.0	315°34.6 13°48.8	330°34.7 13°49.6	345°34.8 13°50.4	0°34.9 13°51.2	15°35.0 13°52.0	30°35.1 13°52.8	45°35.3 13°53.6	60°35.3 13°54.4	75°35.4 13°55.2	+0.1 +0.8
Me 28	270°36.6 14°05.5	285°36.7 14°06.3	300°36.8 14°07.0	315°36.9 14°07.8	330°37.0 14°08.6	345°37.1 14°09.4	0°37.1 14°10.2	15°37.2 14°11.0	30°37.3 14°11.8	45°37.4 14°12.5	60°37.5 14°13.3	75°37.6 14°14.1	+0.1 +0.8
Je 29	270°38.8 14°24.3	285°38.8 14°25.1	300°38.9 14°25.8	315°39.0 14°26.6	330°39.1 14°27.4	345°39.2 14°28.2	0°39.3 14°28.9	15°39.4 14°29.7	30°39.4 14°30.5	45°39.5 14°31.3	60°39.6 14°32.0	75°39.7 14°32.8	+0.1 +0.8
Ve 30	270°40.8 14°42.8	285°40.9 14°43.6	300°40.9 14°44.4	315°41.0 14°45.2	330°41.1 14°45.9	345°41.2 14°46.7	0°41.3 14°47.5	15°41.4 14°48.2	30°41.4 14°49.0	45°41.5 14°49.7	60°41.6 14°50.5	75°41.7 14°51.3	+0.1 +0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Avril 2027

J	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	Δ /h SP
Je 1	244 ⁰ 11.9 -20 ⁰ 06.9	258 ⁰ 44.1 -20 ⁰ 57.6	273 ⁰ 16.4 -20 ⁰ 48.2	287 ⁰ 48.8 -20 ⁰ 38.8	302 ⁰ 21.2 -20 ⁰ 29.2	316 ⁰ 53.6 -20 ⁰ 19.6	331 ⁰ 26.1 -20 ⁰ 09.9	345 ⁰ 58.6 -20 ⁰ 00.1	0 ⁰ 31.2 -19 ⁰ 50.2	15 ⁰ 03.9 -19 ⁰ 40.2	29 ⁰ 36.6 -19 ⁰ 30.2	+32.5 14.8 +9.7 54.3
Ve 2	247 ⁰ 52.7 -16 ⁰ 49.4	262 ⁰ 26.1 -16 ⁰ 38.1	276 ⁰ 59.6 -16 ⁰ 26.7	291 ⁰ 33.1 -16 ⁰ 15.2	306 ⁰ 06.7 -16 ⁰ 03.6	320 ⁰ 40.3 -15 ⁰ 52.0	335 ⁰ 13.9 -15 ⁰ 40.3	349 ⁰ 47.5 -15 ⁰ 28.5	4 ⁰ 21.2 -15 ⁰ 16.7	18 ⁰ 55.0 -15 ⁰ 04.8	33 ⁰ 28.8 -14 ⁰ 52.8	+33.6 14.9 +11.7 54.6
Sa 3	251 ⁰ 59.0 -11 ⁰ 45.6	266 ⁰ 33.3 -11 ⁰ 32.7	281 ⁰ 07.5 -11 ⁰ 19.7	295 ⁰ 41.8 -11 ⁰ 06.6	310 ⁰ 16.1 -10 ⁰ 53.5	324 ⁰ 50.4 -10 ⁰ 40.3	339 ⁰ 24.7 -10 ⁰ 27.1	353 ⁰ 59.1 -10 ⁰ 13.8	8 ⁰ 33.4 -10 ⁰ 00.5	23 ⁰ 07.8 -9 ⁰ 47.1	37 ⁰ 42.2 -9 ⁰ 33.7	+34.3 15.0 +13.2 55.0
Di 4	256 ⁰ 19.2 -6 ⁰ 07.0	270 ⁰ 53.7 -5 ⁰ 52.9	285 ⁰ 28.2 -5 ⁰ 38.7	300 ⁰ 02.7 -5 ⁰ 24.5	314 ⁰ 37.2 -5 ⁰ 10.3	329 ⁰ 11.7 -4 ⁰ 56.1	343 ⁰ 46.2 -4 ⁰ 41.8	358 ⁰ 20.7 -4 ⁰ 27.5	12 ⁰ 55.1 -4 ⁰ 13.2	27 ⁰ 29.6 -3 ⁰ 58.8	42 ⁰ 04.1 -3 ⁰ 44.4	+34.5 15.1 +14.3 55.5
Lu 5	260 ⁰ 39.0 -0 ⁰ 05.7	275 ⁰ 13.1 0 ⁰ 09.0	289 ⁰ 47.3 0 ⁰ 23.8	304 ⁰ 21.4 0 ⁰ 38.5	318 ⁰ 55.4 0 ⁰ 53.3	333 ⁰ 29.5 1 ⁰ 08.1	348 ⁰ 03.5 1 ⁰ 22.8	2 ⁰ 37.5 1 ⁰ 37.6	17 ⁰ 11.4 1 ⁰ 52.4	31 ⁰ 45.3 2 ⁰ 07.2	46 ⁰ 19.2 2 ⁰ 22.0	+34.0 15.3 +14.8 56.1
Ma 6	264 ⁰ 42.2 6 ⁰ 04.0	279 ⁰ 15.3 6 ⁰ 18.7	293 ⁰ 48.4 6 ⁰ 33.4	308 ⁰ 21.5 6 ⁰ 48.1	322 ⁰ 54.4 7 ⁰ 17.5	337 ⁰ 27.4 7 ⁰ 32.2	352 ⁰ 00.2 7 ⁰ 46.8	6 ⁰ 33.0 8 ⁰ 01.4	21 ⁰ 05.8 8 ⁰ 16.0	35 ⁰ 38.4 8 ⁰ 30.5	50 ⁰ 11.1 8 ⁰ 30.5	+32.9 15.5 +14.7 56.8
Me 7	268 ⁰ 12.0 12 ⁰ 05.1	282 ⁰ 43.4 12 ⁰ 19.1	297 ⁰ 14.8 12 ⁰ 33.1	311 ⁰ 46.1 12 ⁰ 47.0	326 ⁰ 17.3 13 ⁰ 00.8	340 ⁰ 48.5 13 ⁰ 14.6	355 ⁰ 19.5 13 ⁰ 28.4	9 ⁰ 50.5 13 ⁰ 42.0	24 ⁰ 21.4 13 ⁰ 55.7	38 ⁰ 52.2 14 ⁰ 09.2	53 ⁰ 22.9 14 ⁰ 22.8	+31.1 15.6 +13.8 57.4
Je 8	270 ⁰ 52.4 17 ⁰ 37.3	285 ⁰ 21.6 17 ⁰ 49.6	299 ⁰ 50.7 18 ⁰ 01.9	314 ⁰ 19.7 18 ⁰ 14.1	328 ⁰ 48.6 18 ⁰ 28.1	343 ⁰ 17.4 18 ⁰ 38.1	357 ⁰ 46.1 18 ⁰ 50.0	12 ⁰ 14.7 19 ⁰ 01.9	26 ⁰ 43.2 19 ⁰ 13.6	41 ⁰ 11.6 19 ⁰ 25.2	55 ⁰ 39.9 19 ⁰ 36.7	+28.8 15.8 +12.0 57.9
Ve 9	272 ⁰ 31.9 22 ⁰ 16.4	286 ⁰ 58.6 22 ⁰ 26.1	301 ⁰ 25.1 22 ⁰ 35.7	315 ⁰ 51.6 22 ⁰ 45.1	330 ⁰ 17.9 22 ⁰ 54.4	344 ⁰ 44.2 23 ⁰ 03.6	359 ⁰ 10.3 23 ⁰ 12.7	13 ⁰ 36.3 23 ⁰ 21.2	28 ⁰ 02.3 23 ⁰ 36.3	42 ⁰ 28.1 23 ⁰ 51.9	56 ⁰ 53.9 23 ⁰ 47.5	+26.2 15.9 +9.1 58.4
Sa 10	273 ⁰ 09.1 26 ⁰ 37.3	287 ⁰ 33.4 25 ⁰ 43.2	301 ⁰ 57.7 25 ⁰ 49.9	316 ⁰ 21.9 26 ⁰ 00.4	330 ⁰ 46.0 26 ⁰ 09.4	345 ⁰ 10.0 26 ⁰ 05.8	359 ⁰ 33.9 26 ⁰ 11.0	13 ⁰ 57.8 26 ⁰ 16.1	28 ⁰ 21.7 26 ⁰ 25.1	42 ⁰ 45.4 26 ⁰ 25.5	57 ⁰ 09.1 26 ⁰ 30.2	+24.0 16.0 +5.3 58.7
Di 11	277 ⁰ 58.1 27 ⁰ 17.0	287 ⁰ 21.0 27 ⁰ 18.7	301 ⁰ 44.0 27 ⁰ 20.2	316 ⁰ 06.8 27 ⁰ 21.5	330 ⁰ 29.7 27 ⁰ 22.6	344 ⁰ 52.6 27 ⁰ 23.5	358 ⁰ 47.1 27 ⁰ 24.2	13 ⁰ 10.3 27 ⁰ 24.8	28 ⁰ 10.0 27 ⁰ 25.1	42 ⁰ 23.8 27 ⁰ 25.3	56 ⁰ 46.6 27 ⁰ 25.3	+22.8 16.1 +0.8 59.0
Lu 12	277 ⁰ 28.8 27 ⁰ 02.6	286 ⁰ 51.8 26 ⁰ 59.6	301 ⁰ 14.8 26 ⁰ 56.4	315 ⁰ 37.8 26 ⁰ 53.1	330 ⁰ 00.9 26 ⁰ 49.5	344 ⁰ 24.0 26 ⁰ 45.8	358 ⁰ 47.1 26 ⁰ 41.9	13 ⁰ 10.3 26 ⁰ 37.8	27 ⁰ 33.5 26 ⁰ 33.5	41 ⁰ 56.8 26 ⁰ 29.0	56 ⁰ 20.1 26 ⁰ 24.4	+23.1 16.1 -3.8 59.1
Ma 13	277 ⁰ 16.9 24 ⁰ 54.1	286 ⁰ 41.2 24 ⁰ 46.7	301 ⁰ 05.6 24 ⁰ 39.2	315 ⁰ 30.1 24 ⁰ 31.5	329 ⁰ 54.6 24 ⁰ 23.7	344 ⁰ 19.2 24 ⁰ 15.7	358 ⁰ 44.0 24 ⁰ 07.5	13 ⁰ 08.7 23 ⁰ 59.9	27 ⁰ 33.6 23 ⁰ 50.8	41 ⁰ 58.5 23 ⁰ 42.1	56 ⁰ 23.6 23 ⁰ 33.4	+24.7 16.1 -8.1 59.2
Me 14	277 ⁰ 49.4 21 ⁰ 04.8	287 ⁰ 15.8 20 ⁰ 53.9	301 ⁰ 42.3 20 ⁰ 42.8	316 ⁰ 08.9 20 ⁰ 31.5	330 ⁰ 35.9 20 ⁰ 20.2	345 ⁰ 02.4 20 ⁰ 08.7	359 ⁰ 29.3 19 ⁰ 57.1	13 ⁰ 56.2 19 ⁰ 45.4	28 ⁰ 23.3 19 ⁰ 33.6	42 ⁰ 50.4 19 ⁰ 21.7	57 ⁰ 17.7 19 ⁰ 09.7	+26.8 16.1 -11.5 59.2
Je 15	274 ⁰ 16.5 15 ⁰ 56.6	288 ⁰ 45.1 15 ⁰ 43.0	303 ⁰ 13.8 15 ⁰ 29.3	317 ⁰ 42.6 15 ⁰ 15.5	332 ⁰ 11.4 15 ⁰ 01.7	346 ⁰ 40.3 14 ⁰ 47.7	1 ⁰ 09.3 14 ⁰ 33.7	15 ⁰ 38.8 14 ⁰ 19.6	30 ⁰ 07.5 14 ⁰ 05.4	44 ⁰ 36.7 13 ⁰ 51.1	59 ⁰ 06.0 13 ⁰ 36.8	+28.9 16.1 -14.0 59.1
Ve 16	276 ⁰ 33.4 9 ⁰ 54.3	291 ⁰ 03.8 9 ⁰ 39.1	305 ⁰ 34.1 9 ⁰ 23.8	320 ⁰ 04.6 9 ⁰ 08.4	334 ⁰ 35.1 8 ⁰ 53.0	349 ⁰ 05.6 8 ⁰ 37.6	3 ⁰ 36.2 8 ⁰ 22.1	18 ⁰ 06.9 8 ⁰ 06.6	32 ⁰ 37.6 7 ⁰ 51.0	47 ⁰ 08.3 7 ⁰ 35.4	61 ⁰ 39.1 7 ⁰ 19.8	+30.6 16.1 -15.5 58.9
Sa 17	279 ⁰ 25.9 3 ⁰ 22.5	293 ⁰ 57.3 3 ⁰ 06.5	308 ⁰ 28.7 2 ⁰ 50.5	323 ⁰ 00.2 2 ⁰ 34.6	337 ⁰ 31.7 2 ⁰ 18.6	352 ⁰ 03.2 2 ⁰ 02.6	6 ⁰ 34.7 1 ⁰ 46.6	21 ⁰ 06.2 1 ⁰ 30.6	35 ⁰ 37.8 1 ⁰ 14.6	50 ⁰ 09.4 0 ⁰ 58.6	64 ⁰ 41.0 0 ⁰ 42.7	+31.5 16.0 -16.0 58.6
Di 18	282 ⁰ 36.4 -3 ⁰ 15.9	297 ⁰ 08.1 -3 ⁰ 31.6	311 ⁰ 39.8 -3 ⁰ 47.4	326 ⁰ 11.6 -4 ⁰ 03.1	340 ⁰ 43.3 -4 ⁰ 18.8	355 ⁰ 15.0 -4 ⁰ 34.4	9 ⁰ 46.8 -4 ⁰ 50.0	24 ⁰ 18.5 -5 ⁰ 05.5	38 ⁰ 50.2 -5 ⁰ 21.2	53 ⁰ 21.9 -5 ⁰ 36.7	67 ⁰ 53.6 -5 ⁰ 52.2	+31.7 15.9 -15.6 58.2
Lu 19	285 ⁰ 47.2 -9 ⁰ 39.1	300 ⁰ 18.6 -9 ⁰ 53.8	314 ⁰ 50.0 -10 ⁰ 08.5	329 ⁰ 21.4 -10 ⁰ 23.1	343 ⁰ 52.7 -10 ⁰ 37.6	358 ⁰ 24.0 -10 ⁰ 52.1	12 ⁰ 55.3 -11 ⁰ 06.5	27 ⁰ 26.6 -11 ⁰ 20.9	35 ⁰ 06.4 -11 ⁰ 35.2	56 ⁰ 29.0 -11 ⁰ 49.4	71 ⁰ 00.1 -12 ⁰ 03.5	+31.3 15.7 -14.4 57.7
Ma 20	288 ⁰ 43.5 -15 ⁰ 26.8	303 ⁰ 14.1 -15 ⁰ 39.7	317 ⁰ 44.6 -15 ⁰ 52.5	332 ⁰ 15.1 -16 ⁰ 05.3	346 ⁰ 45.6 -16 ⁰ 17.9	1 ⁰ 16.0 -16 ⁰ 30.4	15 ⁰ 46.4 -16 ⁰ 42.9	30 ⁰ 16.8 -16 ⁰ 55.2	44 ⁰ 47.1 -17 ⁰ 07.5	59 ⁰ 17.3 -17 ⁰ 19.7	73 ⁰ 47.5 -17 ⁰ 31.7	+30.4 15.6 -15.2 57.1
Me 21	291 ⁰ 15.4 -20 ⁰ 20.4	305 ⁰ 44.9 -20 ⁰ 30.8	320 ⁰ 14.4 -20 ⁰ 41.1	334 ⁰ 43.8 -20 ⁰ 51.2	349 ⁰ 13.2 -21 ⁰ 01.3	3 ⁰ 42.5 -21 ⁰ 11.2	18 ⁰ 11.8 -21 ⁰ 21.0	32 ⁰ 41.1 -21 ⁰ 30.7	47 ⁰ 10.3 -21 ⁰ 40.2	61 ⁰ 39.4 -21 ⁰ 49.7	76 ⁰ 08.6 -21 ⁰ 59.0	+29.3 15.4 -9.9 56.5
Je 22	293 ⁰ 20.6 -24 ⁰ 03.9	307 ⁰ 49.2 -24 ⁰ 11.2	322 ⁰ 17.6 -24 ⁰ 18.3	336 ⁰ 46.1 -24 ⁰ 25.4	351 ⁰ 14.5 -24 ⁰ 32.2	5 ⁰ 42.9 -24 ⁰ 39.0	20 ⁰ 11.3 -24 ⁰ 45.6	34 ⁰ 39.9 -24 ⁰ 52.1	49 ⁰ 07.9 -24 ⁰ 58.5	63 ⁰ 36.2 -25 ⁰ 04.7	78 ⁰ 04.4 -25 ⁰ 10.8	+28.4 15.2 -6.7 55.8
Ve 23	295 ⁰ 05.8 -26 ⁰ 25.3	309 ⁰ 33.8 -26 ⁰ 29.2	324 ⁰ 01.8 -26 ⁰ 32.9	338 ⁰ 29.8 -26 ⁰ 36.4	352 ⁰ 57.7 -26 ⁰ 39.9	7 ⁰ 25.7 -26 ⁰ 43.1	21 ⁰ 53.6 -26 ⁰ 46.3	36 ⁰ 21.6 -26 ⁰ 52.1	50 ⁰ 49.5 -26 ⁰ 52.1	65 ⁰ 17.5 -26 ⁰ 54.8	79 ⁰ 45.4 -26 ⁰ 57.4	+28.0 15.1 -3.2 55.3
Sa 24	296 ⁰ 45.9 -27 ⁰ 18.9	311 ⁰ 14.0 -27 ⁰ 19.3	325 ⁰ 42.2 -27 ⁰ 19.3	340 ⁰ 10.4 -27 ⁰ 19.3	354 ⁰ 38.6 -27 ⁰ 19.3	9 ⁰ 06.9 -27 ⁰ 19.0	23 ⁰ 35.2 -27 ⁰ 18.6	38 ⁰ 03.5 -27 ⁰ 18.6	52 ⁰ 31.8 -27 ⁰ 17.4	67 ⁰ 00.2 -27 ⁰ 16.6	81 ⁰ 28.6 -27 ⁰ 15.6	+28.3 14.9 +0.3 54.8
Di 25	311 ⁰ 14.0 -27 ⁰ 19.2	325 ⁰ 42.2 -27 ⁰ 19.3	340 ⁰ 10.4 -27 ⁰ 19.3	354 ⁰ 38.6 -27 ⁰ 19.2	9 ⁰ 06.9 -27 ⁰ 19.0	23 ⁰ 35.2 -27 ⁰ 18.6	38 ⁰ 03.5 -27 ⁰ 18.0	52 ⁰ 31.8 -27 ⁰ 17.4	67 ⁰ 00.2 -27 ⁰ 16.6	81 ⁰ 28.6 -27 ⁰ 15.6	95 ⁰ 57.0 -27 ⁰ 14.5	+28.3 14.9 +0.5 54.8
Lu 26	313 ⁰ 08.3 -26 ⁰ 42.1	327 ⁰ 37.4 -26 ⁰ 38.9	342 ⁰ 06.5 -26 ⁰ 35.6	356 ⁰ 35.7 -26 ⁰ 32.1	11 ⁰ 05.0 -26 ⁰ 28.5	25 ⁰ 34.3 -26 ⁰ 24.8	40 ⁰ 03.6 -26 ⁰ 21.0	54 ⁰ 33.0 -26 ⁰ 17.0	69 ⁰ 02.5 -26 ⁰ 12.9	83 ⁰ 32.0 -26 ⁰ 08.7	98 ⁰ 01.4 -26 ⁰ 04.4	+29.3 14.8 +3.8 54.4
Ma 27	315 ⁰ 32.0 -24 ⁰ 45.0	330 ⁰ 02.5 -24 ⁰ 38.8	344 ⁰ 33.1 -24 ⁰ 32.4	359 ⁰ 03.7 -24 ⁰ 26.0	13 ⁰ 34.4 -24 ⁰ 19.5	28 ⁰ 05.2 -24 ⁰ 12.8	42 ⁰ 36.0 -24 ⁰ 06.1	57 ⁰ 06.9 -23 ⁰ 59.9	71 ⁰ 37.8 -23 ⁰ 52.2	86 ⁰ 08.8 -23 ⁰ 45.1	100 ⁰ 39.9 -23 ⁰ 38.0	+30.8 14.8 +6.7 54.2
Je 28	318 ⁰ 33.3 -21 ⁰ 38.1	333 ⁰ 05.3 -21 ⁰ 29.3	347 ⁰ 37.4 -21 ⁰ 20.5	2 ⁰ 09.6 -21 ⁰ 11.5	16 ⁰ 41.8 -21 ⁰ 02.5	31 ⁰ 14.1 -20 ⁰ 53.4	45 ⁰ 46.5 -20 ⁰ 44.2	60 ⁰ 18.9 -20 ⁰ 25.5	74 ⁰ 51.3 -20 ⁰ 13.9	89 ⁰ 23.9 -20 ⁰ 06.5	103 ⁰ 56.4 -20 ⁰ 06.5	+32.3 14.8 +9.2 54.2
Je 29	322 ⁰ 11.5 -17 ⁰ 33.2	336 ⁰ 44.9 -17 ⁰ 22.4	351 ⁰ 18.4 -17 ⁰ 11.4	5 ⁰ 51.9 -17 ⁰ 00.5	20 ⁰ 25.4 -16 ⁰ 49.4	34 ⁰ 59.0 -16 ⁰ 38.3	49 ⁰ 32.7 -16 ⁰ 27.1	64 ⁰ 06.3 -16 ⁰ 15.8	78 ⁰ 40.1 -16 ⁰ 04.5	93 ⁰ 13.8 -15 ⁰ 53.0	107 ⁰ 47.6 -15 ⁰ 41.6	+33.6 14.8 +11.2 54.4
Ve 30	326 ⁰ 19.2 -12 ⁰ 41.7	340 ⁰ 53.5 -12 ⁰ 29.2	355 ⁰ 27.9 -12 ⁰ 16.7	10 ⁰ 02.3 -12 ⁰ 04.1	24 ⁰ 36.7 -11 ⁰ 51.5	39 ⁰ 11.2 -11 ⁰ 38.8	53 ⁰ 45.7 -					

SOLEIL

Mai 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Sa 1	270°42.7 15°01.2	285°42.8 15°01.9	300°42.8 15°02.7	315°42.9 15°03.4	330°43.0 15°04.2	345°43.1 15°05.0	0°43.1 15°05.7	15°43.2 15°06.5	30°43.3 15°07.2	45°43.4 15°08.0	60°43.4 15°08.7	75°43.5 15°09.5	+0.1 +0.8
Di 2	270°44.4 15°19.3	285°44.5 15°20.0	300°44.6 15°20.8	315°44.6 15°21.5	330°44.7 15°22.2	345°44.8 15°23.0	0°44.9 15°23.7	15°44.9 15°24.5	30°45.0 15°25.2	45°45.1 15°26.0	60°45.1 15°26.7	75°45.2 15°27.5	+0.1 +0.7
Lu 3	270°46.1 15°37.1	285°46.1 15°37.8	300°46.2 15°38.6	315°46.2 15°39.3	330°46.3 15°40.0	345°46.4 15°40.8	0°46.4 15°41.5	15°46.5 15°42.2	30°46.6 15°43.0	45°46.6 15°43.7	60°46.7 15°44.4	75°46.7 15°45.2	+0.1 +0.7
Ma 4	270°47.5 15°54.7	285°47.6 15°55.4	300°47.6 15°56.1	315°47.7 15°56.8	330°47.8 15°57.6	345°47.8 15°58.3	0°47.9 15°59.0	15°47.9 15°59.7	30°48.0 16°00.5	45°48.0 16°01.2	60°48.1 16°01.9	75°48.2 16°02.6	+0.1 +0.7
Me 5	270°48.9 16°12.0	285°48.9 16°12.7	300°49.0 16°13.4	315°49.0 16°14.1	330°49.1 16°14.8	345°49.1 16°15.5	0°49.2 16°16.2	15°49.2 16°17.0	30°49.3 16°17.7	45°49.3 16°18.4	60°49.4 16°19.1	75°49.4 16°19.8	+0.1 +0.7
Je 6	270°50.1 16°29.0	285°50.1 16°29.7	300°50.2 16°30.4	315°50.2 16°31.1	330°50.2 16°31.8	345°50.3 16°32.5	0°50.3 16°33.2	15°50.4 16°33.9	30°50.4 16°34.6	45°50.5 16°35.3	60°50.5 16°36.0	75°50.6 16°36.7	+0.0 +0.7
Ve 7	270°51.1 16°45.8	285°51.2 16°46.5	300°51.2 16°47.1	315°51.2 16°47.8	330°51.3 16°48.5	345°51.3 16°49.2	0°51.4 16°49.9	15°51.4 16°50.6	30°51.4 16°51.3	45°51.5 16°52.0	60°51.5 16°52.7	75°51.6 16°53.4	+0.0 +0.7
Sa 8	270°52.0 17°02.2	285°52.1 17°02.9	300°52.1 17°03.6	315°52.1 17°04.3	330°52.2 17°05.0	345°52.2 17°05.6	0°52.2 17°06.3	15°52.3 17°07.0	30°52.3 17°07.7	45°52.3 17°08.4	60°52.4 17°09.0	75°52.4 17°09.7	+0.0 +0.7
Di 9	270°52.8 17°18.4	285°52.8 17°19.1	300°52.9 17°19.8	315°52.9 17°20.4	330°52.9 17°21.1	345°52.9 17°21.8	0°53.0 17°22.4	15°53.0 17°23.1	30°53.0 17°23.8	45°53.1 17°24.4	60°53.1 17°25.1	75°53.1 17°25.8	+0.0 +0.7
Lu 10	270°53.4 17°34.3	285°53.5 17°35.0	300°53.5 17°35.7	315°53.5 17°36.3	330°53.5 17°37.0	345°53.6 17°37.6	0°53.6 17°38.3	15°53.6 17°38.9	30°53.6 17°39.6	45°53.6 17°40.2	60°53.7 17°40.9	75°53.7 17°41.5	+0.0 +0.7
Ma 11	270°53.9 17°50.0	285°53.9 17°50.6	300°54.0 17°51.2	315°54.0 17°51.9	330°54.0 17°52.5	345°54.0 17°53.2	0°54.0 17°53.8	15°54.0 17°54.5	30°54.1 17°55.1	45°54.1 17°55.8	60°54.1 17°56.4	75°54.1 17°57.0	+0.0 +0.6
Me 12	270°54.3 18°05.3	285°54.3 18°05.9	300°54.3 18°06.5	315°54.3 18°07.2	330°54.3 18°07.8	345°54.3 18°08.4	0°54.4 18°09.0	15°54.4 18°09.7	30°54.4 18°10.3	45°54.4 18°10.9	60°54.4 18°11.6	75°54.4 18°12.2	+0.0 +0.6
Je 13	270°54.5 18°20.3	285°54.5 18°20.9	300°54.5 18°21.5	315°54.5 18°22.1	330°54.5 18°22.7	345°54.5 18°23.4	0°54.5 18°24.0	15°54.5 18°24.6	30°54.5 18°25.2	45°54.6 18°25.8	60°54.6 18°26.4	75°54.6 18°27.0	+0.0 +0.6
Ve 14	270°54.6 18°35.0	285°54.6 18°35.6	300°54.6 18°36.2	315°54.6 18°36.8	330°54.6 18°37.4	345°54.6 18°38.0	0°54.6 18°38.6	15°54.6 18°39.2	30°54.6 18°39.8	45°54.6 18°40.4	60°54.6 18°41.0	75°54.6 18°41.6	-0.0 +0.6
Sa 15	270°54.5 18°49.3	285°54.5 18°49.9	300°54.5 18°50.5	315°54.5 18°51.1	330°54.5 18°51.7	345°54.5 18°52.3	0°54.5 18°52.9	15°54.5 18°53.5	30°54.5 18°54.1	45°54.5 18°54.7	60°54.5 18°55.2	75°54.5 18°55.8	-0.0 +0.6
Di 16	270°54.3 19°03.4	285°54.3 19°04.0	300°54.3 19°04.6	315°54.3 19°05.1	330°54.3 19°05.7	345°54.3 19°06.3	0°54.3 19°06.9	15°54.3 19°07.4	30°54.3 19°08.0	45°54.2 19°08.6	60°54.2 19°09.2	75°54.2 19°09.7	-0.0 +0.6
Lu 17	270°54.0 19°17.1	285°54.0 19°17.7	300°54.0 19°18.3	315°54.0 19°18.8	330°53.9 19°19.4	345°53.9 19°20.0	0°53.9 19°20.5	15°53.9 19°21.1	30°53.9 19°21.6	45°53.8 19°22.2	60°53.8 19°22.8	75°53.8 19°23.3	-0.0 +0.6
Ma 18	270°53.5 19°30.5	285°53.5 19°31.1	300°53.5 19°31.6	315°53.5 19°32.2	330°53.5 19°32.7	345°53.5 19°33.3	0°53.4 19°33.8	15°53.4 19°34.4	30°53.4 19°34.9	45°53.3 19°35.5	60°53.3 19°36.0	75°53.3 19°36.6	-0.0 +0.5
Me 19	270°52.9 19°43.6	285°52.9 19°44.2	300°52.9 19°44.7	315°52.9 19°45.2	330°52.8 19°45.8	345°52.8 19°46.3	0°52.8 19°46.8	15°52.7 19°47.4	30°52.7 19°47.9	45°52.7 19°48.4	60°52.6 19°49.0	75°52.6 19°49.5	-0.0 +0.5
Je 20	270°52.2 19°56.4	285°52.2 19°56.9	300°52.1 19°57.4	315°52.1 19°57.9	330°52.1 19°58.5	345°52.0 19°59.0	0°52.0 19°59.5	15°52.0 20°00.0	30°51.9 20°00.5	45°51.9 20°01.1	60°51.9 20°01.6	75°51.8 20°02.1	-0.0 +0.5
Ve 21	270°51.3 20°08.8	285°51.3 20°09.3	300°51.2 20°09.8	315°51.2 20°10.3	330°51.2 20°10.8	345°51.1 20°11.3	0°51.1 20°11.8	15°51.0 20°12.3	30°51.0 20°12.8	45°51.0 20°13.3	60°50.9 20°13.8	75°50.9 20°14.3	-0.0 +0.5
Sa 22	270°50.3 20°20.8	285°50.3 20°21.3	300°50.2 20°21.8	315°50.2 20°22.3	330°50.1 20°22.8	345°50.1 20°23.3	0°50.0 20°23.8	15°50.0 20°24.3	30°50.0 20°24.8	45°49.9 20°25.3	60°49.9 20°25.7	75°49.8 20°26.2	-0.0 +0.5
Di 23	270°49.2 20°32.5	285°49.1 20°33.0	300°49.1 20°33.5	315°49.0 20°34.0	330°49.0 20°34.5	345°48.9 20°34.9	0°48.9 20°35.4	15°48.9 20°35.9	30°48.8 20°36.4	45°48.7 20°36.8	60°48.7 20°37.3	75°48.6 20°37.8	-0.1 +0.5
Lu 24	270°47.9 20°43.9	285°47.9 20°44.4	300°47.8 20°44.8	315°47.7 20°45.3	330°47.7 20°45.8	345°47.6 20°46.2	0°47.6 20°46.7	15°47.5 20°47.2	30°47.5 20°48.1	45°47.4 20°48.4	60°47.4 20°48.9	75°47.3 20°49.0	-0.1 +0.5
Ma 25	270°46.5 20°54.9	285°46.5 20°55.3	300°46.4 20°55.8	315°46.3 20°56.2	330°46.3 20°56.7	345°46.2 20°57.1	0°46.1 20°57.6	15°46.1 20°58.0	30°46.0 20°58.5	45°45.9 20°58.9	60°45.9 20°59.4	75°45.8 20°59.8	-0.1 +0.4
Me 26	270°45.0 21°05.5	285°44.9 21°06.0	300°44.8 21°06.4	315°44.8 21°06.8	330°44.7 21°07.3	345°44.6 21°07.7	0°44.6 21°08.1	15°44.5 21°08.6	30°44.4 21°09.0	45°44.4 21°09.4	60°44.3 21°09.9	75°44.2 21°10.3	-0.1 +0.4
Je 27	270°43.3 21°15.8	285°43.3 21°16.2	300°43.2 21°16.7	315°43.1 21°17.1	330°43.0 21°17.5	345°43.0 21°17.9	0°42.9 21°18.3	15°42.8 21°18.8	30°42.7 21°19.2	45°42.7 21°19.6	60°42.6 21°20.0	75°42.5 21°20.4	-0.1 +0.4
Ve 28	270°41.6 21°25.7	285°41.5 21°26.1	300°41.4 21°26.5	315°41.3 21°26.9	330°41.2 21°27.4	345°41.2 21°27.8	0°41.1 21°28.2	15°41.0 21°28.6	30°40.9 21°29.0	45°40.9 21°29.4	60°40.9 21°29.8	75°40.7 21°30.2	-0.1 +0.4
Sa 29	270°39.7 21°35.3	285°39.6 21°35.7	300°39.5 21°36.1	315°39.4 21°36.4	330°39.3 21°36.8	345°39.2 21°37.2	0°39.2 21°37.6	15°39.1 21°38.4	30°39.0 21°38.8	45°38.9 21°39.1	60°38.8 21°39.4	75°38.7 21°39.5	-0.1 +0.4
Di 30	270°37.6 21°44.4	285°37.6 21°44.8	300°37.5 21°45.2	315°37.4 21°45.6	330°37.3 21°45.9	345°37.2 21°46.3	0°37.1 21°46.7	15°37.0 21°47.2	30°36.9 21°47.4	45°36.9 21°47.8	60°36.8 21°48.2	75°36.7 21°48.5	-0.1 +0.4
Lu 31	270°35.5 21°53.2	285°35.4 21°53.6	300°35.3 21°54.0	315°35.2 21°54.3	330°35.2 21°54.7	345°35.1 21°55.0	0°35.0 21°55.4	15°34.9 21°55.7	30°34.8 21°56.1	45°34.7 21°56.4	60°34.6 21°56.8	75°34.5 21°57.1	-0.1 +0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Mai 2027

	J	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	Δ'/h	SP
●	Sa 1	243°15.6 -8°35.7	257°50.3 -8°22.2	272°25.0 -8°08.8	286°59.7 -7°55.2	301°34.5 -7°41.7	316°09.2 -7°28.1	330°43.9 -7°14.4	345°18.7 -7°00.7	359°53.4 -6°47.0	14°28.1 -6°33.3	29°02.9 -6°19.5	+34.7 +13.6	15.0 55.1
	Di 2	247°43.3 -2°48.5	262°17.9 -2°34.5	276°52.4 -2°19.8	291°27.0 -2°05.5	306°01.5 -1°51.1	320°36.0 -1°36.7	335°10.5 -1°22.3	349°45.0 -1°07.9	364°19.4 -0°53.4	18°53.8 -0°38.9	33°28.2 -0°24.4	+34.5 +14.4	15.2 55.8
●	Lu 3	251°59.8 3°14.5	266°33.5 3°29.2	281°07.3 3°43.9	295°40.9 3°58.5	310°14.6 4°13.2	324°48.1 4°27.9	339°21.7 4°42.5	353°55.1 4°57.2	368°28.5 5°11.8	23°01.9 5°26.5	37°35.2 5°41.1	+33.5 +14.7	15.4 56.5
	Ma 4	255°46.9 9°19.1	270°19.1 9°33.5	284°51.2 9°47.9	299°23.2 10°02.2	313°55.2 10°16.5	328°27.1 10°30.7	342°58.9 10°45.0	357°30.6 10°59.1	372°02.3 11°13.3	26°33.8 11°27.4	41°05.3 11°41.5	+31.8 +14.2	15.6 57.3
●	Me 5	258°46.1 15°07.0	273°16.0 15°20.3	287°45.8 15°33.5	302°15.6 15°46.6	316°45.2 15°59.7	331°14.7 16°12.6	345°44.1 16°25.6	360°13.4 16°38.4	374°42.6 16°51.2	29°11.7 17°03.8	43°40.6 17°16.5	+29.5 +12.9	15.8 58.0
	Je 6	260°41.7 20°14.9	275°08.8 20°26.0	289°35.9 20°37.0	304°02.8 20°47.9	318°29.6 20°58.6	332°56.3 21°09.3	347°22.9 21°19.8	361°49.3 21°30.2	376°15.7 21°40.5	30°41.9 21°50.7	45°08.0 22°00.8	+26.6 +10.6	16.0 58.7
●	Ve 7	261°26.3 24°15.2	275°50.7 24°23.1	290°15.0 24°30.7	304°39.1 24°38.2	319°03.2 24°45.5	333°27.1 24°52.7	347°51.0 24°59.7	362°14.8 25°06.6	377°38.5 25°13.3	31°02.1 25°19.8	45°25.6 25°26.1	+23.9 +7.1	16.2 59.2
	Sa 8	261°08.7 26°40.4	275°31.0 26°43.9	289°53.3 26°47.2	304°15.5 26°50.4	318°37.7 26°53.3	332°59.9 26°56.0	347°22.0 26°58.6	362°14.4 27°01.0	377°06.1 27°05.1	30°28.1 27°05.1	44°50.0 27°06.9	+22.1 +2.6	16.2 59.6
●	Di 9	260°17.5 27°10.2	274°39.3 27°08.9	289°01.1 27°07.3	303°23.0 27°05.6	317°44.9 27°03.7	332°06.8 27°01.8	346°28.7 26°59.2	361°05.7 26°56.7	376°12.7 26°54.0	29°34.7 26°51.1	43°56.8 26°48.0	+21.9 -2.2	16.3 59.7
	Lu 10	259°33.9 25°39.2	273°56.9 25°33.2	288°19.9 25°27.0	302°43.1 25°20.6	317°06.3 25°14.0	331°29.6 25°07.3	345°52.9 25°00.4	360°16.4 24°53.3	375°39.9 24°46.1	29°03.6 24°38.7	43°27.3 24°31.1	+23.3 -6.8	16.3 59.7
●	Ma 11	259°34.4 22°18.9	273°59.6 22°09.0	288°25.0 21°58.8	302°50.4 21°48.6	317°16.0 21°38.2	331°41.7 21°27.7	346°07.5 21°17.0	361°33.3 21°06.3	376°14.9 20°55.4	29°25.4 20°44.3	43°51.6 20°33.2	+25.7 -10.6	16.2 59.9
	Me 12	260°36.8 17°32.5	275°04.7 17°19.6	289°32.3 17°06.7	304°00.6 16°53.6	318°28.7 16°40.5	332°56.9 16°27.2	347°25.2 16°13.9	362°15.3 16°00.5	377°22.1 15°47.0	30°25.4 15°33.5	45°19.4 15°19.8	+28.3 -13.3	16.1 59.2
●	Je 13	262°39.9 11°46.9	277°10.0 11°32.2	291°40.1 11°17.4	306°10.2 11°02.7	320°40.5 10°47.8	335°10.8 10°32.9	349°41.1 10°18.0	364°11.6 10°03.0	379°42.1 9°48.0	33°12.7 9°33.0	47°43.3 9°17.9	+30.3 +14.9	16.0 58.8
	Ve 14	265°29.9 5°27.7	280°01.4 5°12.1	294°33.0 4°56.6	309°04.6 4°41.0	323°36.2 4°25.4	338°07.9 4°09.8	352°39.6 3°54.2	367°11.4 3°38.6	382°43.2 3°23.0	36°15.0 3°07.4	50°46.9 2°51.7	+31.7 +15.6	15.9 58.3
●	Sa 15	268°47.8 -1°02.6	283°20.1 -1°18.1	297°52.3 -1°33.7	312°24.5 -1°49.2	326°56.8 -2°04.7	341°29.0 -2°20.2	356°01.3 -2°35.6	370°33.6 -2°51.1	385°05.8 -3°06.5	39°38.1 -3°21.9	54°10.4 -3°37.2	+32.3 -15.5	15.8 57.9
	Di 16	272°14.1 -9°23.9	286°46.3 -9°38.7	301°18.4 -9°53.5	315°50.6 -8°08.2	330°22.7 -8°22.9	344°54.8 -8°37.5	359°26.9 -8°52.1	373°58.9 -9°06.6	388°30.9 -9°21.0	43°03.0 -9°35.5	57°34.9 -9°49.8	+32.1 +14.6	15.6 57.4
●	Lu 17	275°31.2 -13°18.1	290°02.7 -13°31.5	304°34.2 -13°44.7	319°05.6 -13°57.9	333°36.9 -14°11.1	348°08.3 -14°24.1	362°39.6 -14°37.1	377°10.8 -14°50.0	392°42.8 -15°02.8	46°13.2 -15°15.6	60°44.3 -15°28.2	+31.3 -30.2	15.5 56.9
	Ma 18	280°50.6 -18°27.7	295°19.8 -18°38.9	309°48.9 -18°50.0	324°18.0 -19°01.0	338°47.7 -19°12.0	353°16.1 -19°22.8	367°45.0 -19°33.1	382°13.9 -19°44.1	397°42.8 -19°54.6	51°11.6 -20°05.0	65°40.4 -20°15.3	+29.0 +10.8	15.2 56.4
●	Me 19	282°48.0 -22°36.3	297°16.3 -22°44.4	311°44.5 -22°53.1	326°12.7 -23°01.3	340°40.9 -23°09.4	355°17.4 -23°17.4	369°37.2 -23°25.3	384°05.3 -23°33.0	398°33.4 -23°40.6	53°01.5 -23°48.1	67°29.6 -23°55.4	+28.2 -7.9	15.1 55.8
	Je 20	285°48.0 -25°29.9	297°16.3 -25°35.1	311°44.5 -25°40.2	326°12.7 -25°45.2	340°40.9 -25°50.0	355°17.4 -25°54.7	369°37.2 -25°59.2	384°05.3 -26°03.0	398°33.4 -26°07.9	53°01.5 -26°12.0	67°29.6 -26°16.0	+28.2 -4.6	15.1 55.4
●	Ve 21	288°48.0 -26°58.9	297°16.3 -27°00.6	311°44.5 -27°02.2	326°12.7 -27°03.7	340°40.9 -27°05.0	355°17.4 -27°06.1	369°37.2 -27°07.2	384°05.3 -27°08.0	398°33.4 -27°08.8	53°01.5 -27°09.4	67°29.6 -27°09.8	+28.2 -1.1	15.1 54.9
	Sa 22	286°13.9 -28°00.1	300°42.4 -26°58.3	315°11.0 -26°56.4	329°39.6 -26°54.4	344°08.2 -26°52.3	358°36.9 -26°50.0	373°05.6 -26°47.6	387°34.4 -26°45.0	402°03.2 -26°42.4	56°32.0 -26°39.5	71°00.9 -26°36.6	+28.7 +13.4	14.9 54.5
●	Di 23	288°20.5 -25°37.3	302°50.3 -25°32.3	317°20.1 -25°27.3	331°50.0 -25°22.1	346°19.9 -25°16.8	361°49.9 -25°11.4	376°19.9 -25°05.9	391°50.0 -25°00.4	406°20.2 -24°54.5	58°50.5 -24°48.6	73°20.8 -24°42.6	+30.0 +5.5	14.8 54.3
	Lu 24	291°03.1 -22°59.8	305°34.4 -22°52.1	320°05.8 -22°44.3	334°37.3 -22°36.5	349°08.9 -22°28.5	364°40.5 -22°20.4	379°12.2 -22°12.2	394°15.7 -21°55.6	409°47.6 -21°47.2	61°47.6 -21°40.7	76°19.5 -21°38.6	+31.6 +8.1	14.8 54.1
●	Ma 25	305°34.4 -22°52.1	320°05.8 -22°44.3	334°37.3 -22°36.5	349°08.9 -22°28.5	364°40.5 -22°20.4	379°12.2 -22°12.2	394°15.7 -21°55.6	409°47.6 -21°47.2	425°19.5 -21°38.6	64°19.5 -21°38.6	79°51.5 -21°30.5	+31.7 +8.2	14.8 54.1
	Me 26	308°59.1 -19°10.0	323°32.1 -19°00.0	338°05.2 -18°49.9	352°38.3 -18°39.7	367°11.4 -18°29.9	382°04.5 -18°19.2	396°17.9 -18°08.8	411°50.5 -17°58.4	426°24.7 -17°47.9	65°24.7 -17°37.3	80°31.6 -17°26.6	+33.3 +10.3	14.8 54.1
●	Je 27	313°00.0 -14°38.4	327°34.2 -14°26.6	342°08.5 -14°14.9	356°42.9 -14°03.0	371°17.3 -13°51.1	386°01.7 -13°39.2	400°26.1 -13°27.1	415°00.6 -13°15.1	429°35.1 -13°02.9	84°09.7 -12°50.8	99°44.3 -12°38.5	+34.4 +12.0	14.8 54.3
	Ve 28	317°26.5 -9°28.9	332°01.5 -9°15.9	346°36.5 -9°02.9	361°11.6 -8°49.8	376°06.6 -8°36.6	391°01.7 -8°23.5	405°56.8 -8°10.2	420°51.9 -7°57.3	435°47.0 -7°43.7	88°42.1 -7°30.4	103°17.2 -7°17.0	+35.1 +12.3	14.9 54.7
●	Sa 29	322°04.2 -3°52.3	336°39.3 -3°38.4	351°14.4 -3°24.5	365°49.5 -3°10.6	380°24.6 -2°56.6	395°09.6 -2°42.6	409°34.7 -2°28.6	424°09.7 -2°14.6	438°44.7 -2°00.5	93°19.7 -1°46.5	107°54.7 -1°32.4	+35.0 +14.0	15.1 55.2
	Di 30	326°36.0 2°01.0	341°10.5 2°15.3	355°45.0 2°29.6	370°19.4 2°44.3	385°09.6 2°58.3	399°28.0 3°12.6	413°02.3 3°27.0	427°36.8 3°41.3	441°05.3 3°55.7	97°44.0 4°10.0	112°18.9 4°24.4	+34.3 +14.3	15.3 55.9
●	Lu 31	330°43.0 7°59.0	345°16.0 8°13.2	359°49.0 8°27.4	374°22.0 8°41.6	389°54.8 8°55.7	404°27.6 9°09.9	419°00.3 9°24.0	433°32.9 9°38.1	447°05.5 9°52.1	101°37.9 10°06.2	116°10.3 10°20.2	+32.7 +14.1	15.5 56.8

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
NL: 6 10h58 — PQ: 13 04h43 — PL: 20 10h59 — DQ: 28 13h57

SOLEIL

Juin 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ma 1	270°33.3	285°33.2	300°33.1	315°33.0	330°32.9	345°32.8	0°32.7	15°32.6	30°32.5	45°32.4	60°32.3	75°32.2	-0.1
	22°01.7	22°02.0	22°02.3	22°02.7	22°03.0	22°03.4	22°03.7	22°04.0	22°04.4	22°04.7	22°05.0	22°05.4	+0.3
Me 2	270°30.9	285°30.8	300°30.7	315°30.6	330°30.5	345°30.4	0°30.3	15°30.2	30°30.1	45°30.0	60°29.9	75°29.8	-0.1
	22°09.7	22°10.0	22°10.3	22°10.7	22°11.0	22°11.3	22°11.6	22°11.9	22°12.3	22°12.6	22°12.9	22°13.2	+0.3
Je 3	270°28.5	285°28.4	300°28.3	315°28.2	330°28.1	345°28.0	0°27.9	15°27.8	30°27.7	45°27.6	60°27.5	75°27.4	-0.1
	22°17.3	22°17.6	22°17.9	22°18.2	22°18.6	22°18.9	22°19.2	22°19.5	22°19.8	22°20.1	22°20.4	22°20.7	+0.3
Ve 4	270°26.0	285°25.9	300°25.8	315°25.7	330°25.6	345°25.4	0°25.3	15°25.2	30°25.1	45°25.0	60°24.9	75°24.8	-0.1
	22°24.6	22°24.9	22°25.2	22°25.4	22°25.7	22°26.0	22°26.3	22°26.6	22°26.9	22°27.2	22°27.5	22°27.8	+0.3
Sa 5	270°23.4	285°23.3	300°23.1	315°23.0	330°22.9	345°22.8	0°22.7	15°22.6	30°22.5	45°22.4	60°22.3	75°22.1	-0.1
	22°31.4	22°31.7	22°32.0	22°32.3	22°32.5	22°32.8	22°33.1	22°33.3	22°33.6	22°33.9	22°34.2	22°34.4	+0.3
Di 6	270°20.7	285°20.6	300°20.4	315°20.3	330°20.2	345°20.1	0°20.0	15°19.9	30°19.7	45°19.6	60°19.5	75°19.4	-0.1
	22°37.9	22°38.1	22°38.4	22°38.7	22°38.9	22°39.2	22°39.4	22°39.7	22°40.0	22°40.2	22°40.5	22°40.7	+0.3
Lu 7	270°17.9	285°17.8	300°17.7	315°17.5	330°17.4	345°17.3	0°17.2	15°17.1	30°17.0	45°16.8	60°16.7	75°16.6	-0.1
	22°43.9	22°44.2	22°44.4	22°44.7	22°44.9	22°45.2	22°45.4	22°45.6	22°45.9	22°46.1	22°46.4	22°46.6	+0.2
Ma 8	270°15.0	285°14.9	300°14.8	315°14.7	330°14.6	345°14.4	0°14.3	15°14.2	30°14.1	45°14.0	60°13.8	75°13.7	-0.1
	22°49.6	22°49.8	22°50.1	22°50.3	22°50.5	22°50.7	22°51.0	22°51.2	22°51.4	22°51.6	22°51.9	22°52.1	+0.2
Me 9	270°12.1	285°12.0	300°11.9	315°11.8	330°11.7	345°11.5	0°11.4	15°11.3	30°11.2	45°11.0	60°10.9	75°10.8	-0.1
	22°54.9	22°55.1	22°55.3	22°55.5	22°55.7	22°55.9	22°56.1	22°56.3	22°56.5	22°56.7	22°57.0	22°57.2	+0.2
Je 10	270°09.2	285°09.1	300°08.9	315°08.8	330°08.7	345°08.6	0°08.4	15°08.3	30°08.2	45°08.1	60°07.9	75°07.8	-0.1
	22°59.7	22°59.9	23°00.1	23°00.3	23°00.5	23°00.7	23°00.9	23°01.1	23°01.3	23°01.5	23°01.6	23°01.8	+0.2
Ve 11	270°06.2	285°06.0	300°05.9	315°05.8	330°05.7	345°05.5	0°05.4	15°05.3	30°05.1	45°05.0	60°04.9	75°04.8	-0.1
	23°04.2	23°04.4	23°04.5	23°04.7	23°04.9	23°05.1	23°05.2	23°05.4	23°05.6	23°05.8	23°05.9	23°06.1	+0.2
Sa 12	270°03.1	285°03.0	300°02.8	315°02.7	330°02.6	345°02.5	0°02.3	15°02.2	30°02.1	45°02.0	60°01.9	75°01.7	-0.1
	23°08.2	23°08.4	23°08.6	23°08.7	23°08.9	23°09.0	23°09.2	23°09.3	23°09.5	23°09.7	23°09.8	23°10.0	+0.2
Di 13	270°00.0	284°59.9	299°59.7	314°59.6	329°59.5	344°59.3	359°59.2	14°59.1	29°59.0	44°58.8	59°58.7	74°58.6	-0.1
	23°11.9	23°12.0	23°12.2	23°12.3	23°12.4	23°12.6	23°12.7	23°12.9	23°13.3	23°13.7	23°14.0	23°14.3	+0.1
Lu 14	269°56.9	284°56.7	299°56.6	314°56.5	329°56.3	344°56.2	359°56.1	14°55.9	29°55.8	44°55.7	59°55.5	74°55.4	-0.1
	23°15.1	23°15.2	23°15.4	23°15.5	23°15.6	23°15.7	23°15.9	23°16.0	23°16.3	23°16.7	23°17.0	23°17.3	+0.1
Ma 15	269°53.7	284°53.6	299°53.4	314°53.3	329°53.1	344°53.0	359°52.9	14°52.8	29°52.6	44°52.5	59°52.4	74°52.2	-0.1
	23°17.9	23°18.0	23°18.2	23°18.3	23°18.4	23°18.5	23°18.6	23°18.7	23°18.8	23°18.9	23°19.0	23°19.1	+0.1
Me 16	269°50.5	284°50.4	299°50.2	314°50.1	329°50.0	344°49.8	359°49.7	14°49.6	29°49.4	44°49.3	59°49.2	74°49.0	-0.1
	23°20.3	23°20.4	23°20.5	23°20.6	23°20.7	23°20.8	23°20.9	23°21.0	23°21.2	23°21.5	23°21.8	23°22.1	+0.1
Je 17	269°47.3	284°47.1	299°47.0	314°46.9	329°46.7	344°46.6	359°46.5	14°46.3	29°46.2	44°46.1	59°45.9	74°45.8	-0.1
	23°22.3	23°22.4	23°22.5	23°22.6	23°22.6	23°22.7	23°22.8	23°22.8	23°22.9	23°23.0	23°23.0	23°23.1	+0.1
Ve 18	269°44.1	284°43.9	299°43.8	314°43.6	329°43.5	344°43.4	359°43.2	14°43.1	29°43.0	44°42.8	59°42.7	74°42.6	-0.1
	23°23.9	23°24.0	23°24.0	23°24.1	23°24.1	23°24.2	23°24.3	23°24.3	23°24.4	23°24.4	23°24.5	23°24.5	+0.1
Sa 19	269°40.8	284°40.7	299°40.5	314°40.4	329°40.3	344°40.1	359°40.0	14°39.9	29°39.7	44°39.6	59°39.5	74°39.3	-0.1
	23°25.1	23°25.1	23°25.2	23°25.2	23°25.3	23°25.3	23°25.3	23°25.4	23°25.4	23°25.4	23°25.5	23°25.5	+0.0
Di 20	269°37.6	284°37.4	299°37.3	314°37.2	329°37.0	344°36.9	359°36.7	14°36.6	29°36.5	44°36.3	59°36.2	74°36.1	-0.1
	23°25.9	23°25.9	23°25.9	23°25.9	23°25.9	23°26.0	23°26.0	23°26.0	23°26.0	23°26.0	23°26.1	23°26.1	+0.0
Lu 21	269°34.3	284°34.2	299°34.0	314°33.9	329°33.8	344°33.6	359°33.5	14°33.4	29°33.2	44°33.1	59°33.0	74°32.8	-0.1
	23°26.2	23°26.2	23°26.2	23°26.2	23°26.2	23°26.2	23°26.2	23°26.2	23°26.2	23°26.2	23°26.2	23°26.2	+0.0
Ma 22	269°31.1	284°30.9	299°30.8	314°30.7	329°30.5	344°30.4	359°30.3	14°30.1	29°30.0	44°29.9	59°29.7	74°29.6	-0.1
	23°26.1	23°26.1	23°26.1	23°26.1	23°26.1	23°26.1	23°26.1	23°26.1	23°26.0	23°26.0	23°26.0	23°26.0	-0.0
Me 23	269°27.8	284°27.7	299°27.6	314°27.4	329°27.3	344°27.2	359°27.0	14°26.9	29°26.8	44°26.6	59°26.5	74°26.4	-0.1
	23°25.7	23°25.6	23°25.6	23°25.6	23°25.6	23°25.5	23°25.5	23°25.5	23°25.5	23°25.4	23°25.3	23°25.3	-0.0
Je 24	269°24.6	284°24.5	299°24.3	314°24.2	329°24.1	344°23.9	359°23.8	14°23.7	29°23.5	44°23.4	59°23.3	74°23.1	-0.1
	23°24.8	23°24.7	23°24.7	23°24.6	23°24.6	23°24.5	23°24.5	23°24.5	23°24.4	23°24.3	23°24.3	23°24.3	-0.0
Ve 25	269°21.4	284°21.3	299°21.1	314°21.0	329°20.9	344°20.7	359°20.6	14°20.5	29°20.3	44°20.2	59°20.1	74°20.0	-0.1
	23°23.5	23°23.4	23°23.4	23°23.3	23°23.2	23°23.2	23°23.1	23°23.0	23°23.0	23°22.9	23°22.8	23°22.7	-0.1
Sa 26	269°18.2	284°18.1	299°18.0	314°17.8	329°17.7	344°17.6	359°17.4	14°17.3	29°17.2	44°17.1	59°16.9	74°16.8	-0.1
	23°21.8	23°21.7	23°21.6	23°21.5	23°21.4	23°21.4	23°21.3	23°21.2	23°21.1	23°21.0	23°20.9	23°20.8	-0.1
Di 27	269°15.1	284°15.0	299°14.8	314°14.7	329°14.6	344°14.4	359°14.3	14°14.2	29°14.1	44°13.9	59°13.8	74°13.7	-0.1
	23°19.6	23°19.5	23°19.4	23°19.3	23°19.2	23°19.1	23°19.0	23°18.9	23°18.8	23°18.7	23°18.6	23°18.5	-0.1
Lu 28	269°12.0	284°11.9	299°11.7	314°11.6	329°11.5	344°11.3	359°11.2	14°11.1	29°11.0	44°10.8	59°10.7	74°10.6	-0.1
	23°17.1	23°17.0	23°16.9	23°16.8	23°16.8	23°16.5	23°16.4	23°16.3	23°16.2	23°16.0	23°15.9	23°15.8	-0.1
Ma 29	269°08.9	284°08.8	299°08.7	314°08.5	329°08.4	344°08.3	359°08.2	14°08.0	29°07.9	44°07.8	59°07.7	74°07.5	-0.1
	23°14.2	23°14.0	23°13.9	23°13.8	23°13.6	23°13.5	23°13.4	23°13.2	23°13.1	23°12.9	23°12.8	23°12.7	-0.1
Me 30	269°05.9	284°05.8	299°05.6	314°05.5	329°05.4	344°05.3	359°05.2	14°05.0	29°04.9	44°04.8	59°04.7	74°04.5	-0.1
	23°10.8	23°10.7	23°10.5	23°10.4	23°10.2	23°10.1	23°09.9	23°09.7	23°09.6	23°09.4	23°09.3	23°09.1	-0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juin 2027

J	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	Δ'/h SP
Ma 1	246°57.7 12°24.9	261°29.1 12°38.6	276°00.5 12°52.2	290°31.8 13°05.8	305°03.0 13°19.3	319°34.0 13°32.8	334°05.0 13°46.3	348°35.9 13°59.7	3°06.6 14°13.0	17°37.3 14°26.3	32°07.8 14°39.6	+31.0 +13.5
	15.7 57.5	15.7 57.5	15.7 57.5	15.7 57.5	15.7 57.5	15.7 57.5	15.7 57.5	15.7 57.5	15.7 57.5	15.7 57.5	15.7 57.5	
Me 2	249°32.6 17°50.7	264°01.3 18°02.9	278°29.9 18°15.0	292°58.4 18°27.0	307°26.7 18°38.9	321°55.0 18°50.7	336°23.1 19°02.4	350°51.1 19°14.0	5°18.9 19°25.6	19°46.6 19°37.1	34°14.2 19°48.4	+28.2 +8.9
	15.9 58.4	15.9 58.4	15.9 58.4	15.9 58.4	15.9 58.4	15.9 58.4	15.9 58.4	15.9 58.4	15.9 58.4	15.9 58.4	15.9 58.4	
Je 3	250°52.7 22°25.7	265°18.2 22°44.7	279°43.7 22°58.3	294°08.9 23°03.1	308°34.1 23°03.1	322°59.1 23°12.1	337°24.0 23°20.9	351°48.8 23°29.7	6°13.5 23°38.2	20°38.0 23°46.7	35°02.5 23°55.0	+25.0 +4.9
	16.1 59.2	16.1 59.2	16.1 59.2	16.1 59.2	16.1 59.2	16.1 59.2	16.1 59.2	16.1 59.2	16.1 59.2	16.1 59.2	16.1 59.2	
Ve 4	250°54.9 25°40.4	265°17.5 25°46.1	279°40.1 25°51.6	294°02.5 25°57.0	308°24.9 26°02.1	322°47.1 26°07.1	337°09.3 26°11.9	351°31.4 26°16.5	5°53.4 26°20.9	20°15.3 26°25.2	34°37.2 26°29.2	+22.2 +4.9
	16.3 59.9	16.3 59.9	16.3 59.9	16.3 59.9	16.3 59.9	16.3 59.9	16.3 59.9	16.3 59.9	16.3 59.9	16.3 59.9	16.3 59.9	
Sa 5	249°57.2 27°06.7	264°18.2 27°07.6	278°39.1 27°08.3	293°00.0 27°08.8	307°20.9 27°09.0	321°41.8 27°09.1	336°02.6 27°09.0	350°23.4 27°08.7	4°44.3 27°08.1	19°05.1 27°07.4	33°25.9 27°06.5	+20.9 -0.0
	16.5 60.4	16.5 60.4	16.5 60.4	16.5 60.4	16.5 60.4	16.5 60.4	16.5 60.4	16.5 60.4	16.5 60.4	16.5 60.4	16.5 60.4	
Di 6	248°39.6 26°27.8	263°00.8 26°23.6	277°22.0 26°19.2	291°43.2 26°14.6	306°04.6 26°09.9	320°25.9 26°04.8	334°47.4 25°59.6	349°08.9 25°54.3	3°30.4 25°48.7	17°52.1 25°43.0	32°13.8 25°37.0	+21.4 -5.1
	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	
Lu 7	247°48.9 23°46.2	262°12.0 23°37.4	276°35.2 23°28.5	290°58.5 23°19.4	305°21.9 23°10.1	319°45.4 23°00.7	334°09.0 22°51.1	348°32.7 22°41.4	2°56.5 22°31.6	17°20.4 22°21.5	31°44.4 22°11.4	+23.5 -9.5
	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	16.5 60.5	
Ma 8	247°58.3 19°22.5	262°24.2 19°10.2	276°50.1 18°57.9	291°16.2 18°45.4	305°42.4 18°32.8	320°08.7 18°20.1	334°35.1 18°07.3	349°01.6 17°54.4	3°28.2 17°41.4	17°54.9 17°28.3	32°21.8 17°15.1	+26.3 -12.8
	16.4 60.1	16.4 60.1	16.4 60.1	16.4 60.1	16.4 60.1	16.4 60.1	16.4 60.1	16.4 60.1	16.4 60.1	16.4 60.1	16.4 60.1	
Me 9	249°17.4 19°46.7	263°45.9 13°32.2	278°14.6 13°17.7	292°43.3 13°03.1	307°12.1 12°48.4	321°41.0 12°33.7	336°10.0 12°18.9	350°39.0 12°04.0	5°08.3 11°49.3	19°37.6 11°34.2	34°06.9 11°19.2	+29.0 -14.8
	16.2 59.6	16.2 59.6	16.2 59.6	16.2 59.6	16.2 59.6	16.2 59.6	16.2 59.6	16.2 59.6	16.2 59.6	16.2 59.6	16.2 59.6	
Je 10	251°37.1 7°29.4	266°07.7 7°13.8	280°33.7 6°58.2	295°09.2 6°42.6	309°40.0 6°27.0	324°10.8 6°11.3	338°41.7 5°55.7	353°12.7 5°40.0	7°43.8 5°24.3	22°14.9 5°08.6	36°46.0 4°52.9	+30.9 -15.7
	16.1 58.9	16.1 58.9	16.1 58.9	16.1 58.9	16.1 58.9	16.1 58.9	16.1 58.9	16.1 58.9	16.1 58.9	16.1 58.9	16.1 58.9	
Ve 11	254°39.1 0°56.8	269°11.0 0°41.1	283°42.9 0°25.4	298°14.8 0°09.7	312°46.8 -0°06.0	327°18.7 -0°21.6	341°50.7 -0°37.2	356°22.8 -0°52.9	10°54.8 -1°08.4	25°26.9 -1°24.0	39°59.9 -1°39.6	+32.0 -56.8
	15.9 58.2	15.9 58.2	15.9 58.2	15.9 58.2	15.9 58.2	15.9 58.2	15.9 58.2	15.9 58.2	15.9 58.2	15.9 58.2	15.9 58.2	
Sa 12	258°02.5 -9°29.5	272°34.7 -5°44.6	287°07.0 -5°59.6	301°39.3 -6°14.6	316°11.6 -6°29.5	330°43.9 -6°44.4	345°16.2 -6°59.3	359°48.5 -7°14.1	14°20.6 -7°28.8	28°53.0 -7°43.5	43°25.3 -7°58.2	+32.3 -14.9
	15.7 57.6	15.7 57.6	15.7 57.6	15.7 57.6	15.7 57.6	15.7 57.6	15.7 57.6	15.7 57.6	15.7 57.6	15.7 57.6	15.7 57.6	
Di 13	261°27.5 -11°31.5	275°59.4 -11°45.3	290°31.4 -11°59.0	305°03.3 -12°12.6	319°35.3 -12°26.1	334°07.1 -12°39.6	348°39.0 -12°53.0	363°10.8 -13°06.3	17°42.6 -13°19.6	32°14.4 -13°32.8	46°46.1 -13°45.9	+31.9 -13.6
	15.5 56.9	15.5 56.9	15.5 56.9	15.5 56.9	15.5 56.9	15.5 56.9	15.5 56.9	15.5 56.9	15.5 56.9	15.5 56.9	15.5 56.9	
Lu 14	264°37.8 -16°53.2	279°08.9 -17°05.0	293°40.0 -17°16.8	308°11.0 -17°28.4	322°42.0 -17°40.0	337°13.0 -17°51.4	351°43.9 -18°02.8	366°14.8 -18°14.0	20°45.6 -18°25.2	35°16.4 -18°36.3	49°47.1 -18°47.3	+30.9 -11.4
	15.3 56.3	15.3 56.3	15.3 56.3	15.3 56.3	15.3 56.3	15.3 56.3	15.3 56.3	15.3 56.3	15.3 56.3	15.3 56.3	15.3 56.3	
Ma 15	267°22.5 -21°19.8	281°52.5 -21°29.1	296°22.4 -21°38.3	310°52.3 -21°47.4	325°22.1 -21°56.3	339°51.9 -22°05.2	354°21.7 -22°14.0	368°51.4 -22°22.6	23°20.1 -22°31.1	37°60.6 -22°39.9	52°20.0 -22°47.8	+29.8 -8.8
	15.2 55.7	15.2 55.7	15.2 55.7	15.2 55.7	15.2 55.7	15.2 55.7	15.2 55.7	15.2 55.7	15.2 55.7	15.2 55.7	15.2 55.7	
Me 16	269°38.5 -24°37.5	284°07.4 -24°43.8	298°36.2 -24°50.0	313°05.0 -24°56.0	327°33.6 -25°02.0	342°02.6 -25°07.8	356°31.3 -25°13.4	370°58.7 -25°19.0	25°28.7 -25°24.4	39°57.3 -25°29.6	54°25.9 -25°34.8	+28.7 -5.7
	15.1 55.3	15.1 55.3	15.1 55.3	15.1 55.3	15.1 55.3	15.1 55.3	15.1 55.3	15.1 55.3	15.1 55.3	15.1 55.3	15.1 55.3	
Je 17	271°32.1 -26°35.6	286°00.4 -26°38.5	300°28.6 -26°41.4	314°56.9 -26°44.0	329°25.1 -26°46.6	343°53.4 -26°49.0	358°21.6 -26°51.3	372°49.8 -26°53.4	27°18.0 -26°55.4	41°46.3 -26°57.2	56°14.5 -26°58.9	+28.2 -2.3
	15.0 54.9	15.0 54.9	15.0 54.9	15.0 54.9	15.0 54.9	15.0 54.9	15.0 54.9	15.0 54.9	15.0 54.9	15.0 54.9	15.0 54.9	
Ve 18	273°18.6 -27°08.0	287°47.0 -27°07.5	302°15.4 -27°06.8	316°43.9 -27°06.0	331°12.3 -27°05.1	345°40.8 -27°04.1	360°09.3 -27°02.9	374°37.8 -27°01.6	29°06.4 -27°00.1	43°35.0 -26°58.5	58°03.6 -26°56.8	+28.5 +1.1
	14.9 54.5	14.9 54.5	14.9 54.5	14.9 54.5	14.9 54.5	14.9 54.5	14.9 54.5	14.9 54.5	14.9 54.5	14.9 54.5	14.9 54.5	
Sa 19	275°17.6 -26°15.1	289°46.9 -26°11.3	304°16.2 -26°07.7	318°45.6 -26°03.3	333°15.0 -25°59.1	347°44.5 -25°54.8	362°14.1 -25°50.4	376°43.7 -25°45.8	31°13.3 -25°41.1	45°43.0 -25°36.3	60°12.8 -25°31.4	+29.5 +4.4
	14.8 54.4	14.8 54.4	14.8 54.4	14.8 54.4	14.8 54.4	14.8 54.4	14.8 54.4	14.8 54.4	14.8 54.4	14.8 54.4	14.8 54.4	
Di 20	277°46.2 -24°03.8	292°16.9 -23°57.1	306°47.7 -23°50.2	321°18.6 -23°43.3	335°49.5 -23°36.2	350°20.5 -23°29.1	364°51.6 -23°21.8	379°22.7 -23°14.4	33°53.9 -23°07.0	48°25.1 -22°59.4	63°56.4 -22°51.8	+31.0 +7.2
	14.7 54.4	14.7 54.4	14.7 54.4	14.7 54.4	14.7 54.4	14.7 54.4	14.7 54.4	14.7 54.4	14.7 54.4	14.7 54.4	14.7 54.4	
Lu 21	280°54.0 -20°45.3	295°26.4 -20°36.2	309°58.8 -20°26.9	324°31.3 -20°17.6	339°03.3 -20°08.2	353°36.5 -19°58.7	368°09.2 -19°49.1	382°41.9 -19°39.5	37°14.7 -19°29.7	51°47.6 -19°19.9	66°20.5 -19°10.0	+32.7 +9.5
	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	
Ma 22	284°41.6 -16°32.7	299°15.5 -16°21.7	313°49.4 -16°10.5	328°23.3 -15°59.4	342°57.3 -15°48.1	357°31.4 -15°36.8	372°05.5 -15°25.5	386°39.1 -15°14.1	12°05.5 -15°02.6	26°39.7 -14°51.0	40°13.9 -14°39.4	+33.1 +11.3
	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	14.7 54.0	
Me 23	289°02.0 -11°38.8	303°37.0 -11°26.4	318°12.0 -11°13.9	332°47.0 -11°01.4	347°22.0 -10°48.8	361°57.1 -10°36.2	376°32.2 -10°23.5	391°07.3 -10°10.8	45°42.4 -9°58.0	60°17.6 -9°45.2	74°52.8 -9°32.4	+35.1 +12.6
	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	
Je 24	303°37.0 -11°26.4	318°12.0 -11°13.9	332°47.0 -11°01.4	347°22.0 -10°48.8	361°57.1 -10°36.2	376°32.2 -10°23.5	391°07.3 -10°10.8	45°42.4 -9°58.0	60°17.6 -9°45.2	74°52.8 -9°32.4	89°28.2 -9°19.5	+35.1 +12.7
	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	14.8 54.2	
Sa 25	308°18.7 -6°02.0	322°54.2 -5°48.6	337°29.7 -5°35.1	352°05.2 -5°21.7	366°40.1 -5°08.1	381°15.0 -4°54.6	395°50.0 -4°41.0	410°20.0 -4°27.5	65°02.7 -4°13.8	79°38.2 -4°00.2	94°13.7 -3°46.5	+35.5 +13.6
	14.9 54.6	14.9 54.6	14.9 54.6	14.9 54.6	14.9 54.6	14.9 54.6	14.9 54.6	14.9 54.6	14.9 54.6	14.9 54.6	14.9 54.6	
Sa 26	313°05.3 -0°19.3	327°40.6 -0°05.3	342°									

SOLEIL

Juillet 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	266°02.9 23°07.0	284°02.8 23°06.9	299°02.7 23°06.7	314°02.6 23°06.5	329°02.4 23°06.4	344°02.3 23°06.2	356°02.2 23°06.0	14°02.1 23°05.9	29°02.0 23°05.5	44°01.8 23°05.5	59°01.7 23°05.4	74°01.6 23°05.2	-0.1 -0.2
Ve 2	266°00.0 23°02.9	283°59.9 23°02.7	298°59.8 23°02.5	313°59.7 23°02.3	328°59.5 23°02.1	343°59.4 23°01.8	358°59.3 23°01.6	13°59.2 23°01.3	28°59.1 23°01.2	43°59.0 23°01.2	58°58.8 23°01.0	73°58.7 23°00.8	-0.1 -0.2
Sa 3	268°57.2 22°58.3	283°57.1 22°58.1	298°57.0 22°57.9	313°56.8 22°57.7	328°56.7 22°57.5	343°56.6 22°57.3	358°56.5 22°57.1	13°56.4 22°56.9	28°56.3 22°56.7	43°56.1 22°56.5	58°56.0 22°56.3	73°55.9 22°56.1	-0.1 -0.2
Di 4	268°54.4 22°53.3	283°54.3 22°53.1	298°54.2 22°52.9	313°54.1 22°52.7	328°54.0 22°52.5	343°53.9 22°52.3	358°53.7 22°52.0	13°53.6 22°51.8	28°53.5 22°51.6	43°53.4 22°51.4	58°53.3 22°51.4	73°53.2 22°51.1	-0.1 -0.2
Lu 5	268°51.7 22°48.0	283°51.6 22°47.7	298°51.5 22°47.5	313°51.4 22°47.3	328°51.3 22°47.0	343°51.2 22°46.8	358°51.1 22°46.6	13°51.0 22°46.3	28°50.9 22°46.1	43°50.7 22°45.9	58°50.6 22°45.6	73°50.5 22°45.4	-0.1 -0.2
Ma 6	268°49.1 22°42.2	283°49.0 22°42.0	298°48.9 22°41.7	313°48.8 22°41.5	328°48.7 22°41.0	343°48.6 22°40.7	358°48.5 22°40.7	13°48.4 22°40.4	28°48.3 22°40.2	43°48.2 22°39.9	58°48.1 22°39.7	73°48.0 22°39.4	-0.1 -0.3
Me 7	268°46.6 22°36.0	283°46.5 22°35.8	298°46.4 22°35.5	313°46.3 22°35.2	328°46.2 22°35.0	343°46.1 22°34.7	358°46.0 22°34.4	13°45.9 22°34.2	28°45.8 22°33.9	43°45.7 22°33.6	58°45.6 22°33.4	73°45.5 22°33.1	-0.1 -0.3
Je 8	268°44.2 22°29.5	283°44.1 22°29.2	298°44.0 22°28.9	313°43.9 22°28.6	328°43.8 22°28.4	343°43.7 22°28.1	358°43.6 22°27.8	13°43.5 22°27.5	28°43.4 22°27.2	43°43.3 22°26.9	58°43.2 22°26.6	73°43.1 22°26.4	-0.1 -0.3
Ve 9	268°41.9 22°22.6	283°41.8 22°22.3	298°41.7 22°22.0	313°41.6 22°21.7	328°41.5 22°21.4	343°41.4 22°21.1	358°41.3 22°20.8	13°41.3 22°20.5	28°41.1 22°20.2	43°41.1 22°19.9	58°41.0 22°19.5	73°40.9 22°19.2	-0.1 -0.3
Sa 10	268°39.7 22°15.2	283°39.6 22°14.9	298°39.5 22°14.6	313°39.4 22°14.3	328°39.4 22°14.0	343°39.3 22°13.7	358°39.2 22°13.7	13°39.1 22°13.0	28°39.0 22°12.7	43°38.9 22°12.4	58°38.8 22°12.1	73°38.7 22°11.7	-0.1 -0.3
Di 11	268°37.6 22°07.5	283°37.5 22°07.2	298°37.5 22°06.9	313°37.4 22°06.5	328°37.3 22°06.2	343°37.2 22°05.9	358°37.1 22°05.5	13°37.0 22°05.2	28°37.0 22°04.9	43°36.9 22°04.5	58°36.8 22°04.2	73°36.7 22°03.9	-0.1 -0.3
Lu 12	268°35.7 21°59.4	283°35.6 21°59.1	298°35.5 21°58.7	313°35.4 21°58.4	328°35.3 21°58.0	343°35.3 21°57.7	358°35.2 21°57.4	13°35.1 21°57.0	28°35.0 21°56.7	43°34.9 21°56.3	58°34.9 21°56.0	73°34.8 21°55.6	-0.1 -0.3
Ma 13	268°33.8 21°51.0	283°33.7 21°50.6	298°33.7 21°50.2	313°33.6 21°49.9	328°33.5 21°49.5	343°33.4 21°49.2	358°33.4 21°48.8	13°33.3 21°48.4	28°33.3 21°48.1	43°33.1 21°47.7	58°33.1 21°47.3	73°33.0 21°47.0	-0.1 -0.4
Me 14	268°32.1 21°42.1	283°32.0 21°41.8	298°31.9 21°41.4	313°31.9 21°41.0	328°31.8 21°40.6	343°31.7 21°40.2	358°31.7 21°39.9	13°31.6 21°39.5	28°31.5 21°39.1	43°31.5 21°38.7	58°31.4 21°38.3	73°31.3 21°38.0	-0.1 -0.4
Je 15	268°30.5 21°32.9	283°30.4 21°32.5	298°30.3 21°32.1	313°30.3 21°31.8	328°30.2 21°31.4	343°30.2 21°31.0	358°30.2 21°30.6	13°30.0 21°30.2	28°30.0 21°29.8	43°29.9 21°29.4	58°29.8 21°29.0	73°29.8 21°28.6	-0.1 -0.4
Ve 16	268°29.0 21°23.4	283°28.9 21°23.0	298°28.9 21°22.5	313°28.8 21°22.1	328°28.4 21°21.7	343°28.7 21°21.3	358°28.6 21°20.9	13°28.6 21°20.5	28°28.6 21°20.1	43°28.5 21°19.7	58°28.4 21°19.3	73°28.4 21°18.9	-0.1 -0.4
Sa 17	268°27.7 21°13.4	283°27.6 21°13.0	298°27.5 21°12.6	313°27.5 21°12.2	328°27.4 21°11.7	343°27.4 21°11.3	358°27.3 21°10.9	13°27.3 21°10.5	28°27.2 21°10.2	43°27.2 21°09.6	58°27.1 21°09.2	73°27.1 21°08.8	-0.1 -0.4
Di 18	268°26.4 21°03.1	283°26.4 21°02.7	298°26.3 21°02.3	313°26.3 21°01.8	328°26.3 21°01.4	343°26.2 21°01.0	358°26.2 21°00.5	13°26.1 21°00.5	28°26.1 21°00.1	43°26.0 20°59.6	58°26.0 20°59.2	73°25.9 20°58.3	-0.0 -0.4
Lu 19	268°25.4 20°52.5	283°25.3 20°52.0	298°25.3 20°51.6	313°25.2 20°51.1	328°25.2 20°50.7	343°25.2 20°50.2	358°25.1 20°49.8	13°25.1 20°49.3	28°25.0 20°48.9	43°25.0 20°48.4	58°25.0 20°48.0	73°24.9 20°47.5	-0.0 -0.5
Ma 20	268°24.4 20°41.5	283°24.4 20°41.0	298°24.3 20°40.6	313°24.3 20°40.1	328°24.3 20°39.6	343°24.2 20°39.2	358°24.2 20°38.7	13°24.2 20°38.2	28°24.1 20°37.8	43°24.1 20°37.3	58°24.1 20°36.8	73°24.0 20°36.3	-0.0 -0.5
Me 21	268°23.6 20°30.2	283°23.6 20°29.7	298°23.6 20°29.2	313°23.5 20°28.7	328°23.5 20°28.2	343°23.5 20°27.7	358°23.4 20°27.3	13°23.4 20°26.8	28°23.4 20°26.3	43°23.4 20°25.8	58°23.3 20°25.3	73°23.3 20°24.8	-0.0 -0.5
Je 22	268°23.0 20°18.5	283°22.9 20°18.0	298°22.9 20°17.5	313°22.9 20°17.0	328°22.9 20°16.5	343°22.8 20°16.0	358°22.8 20°15.5	13°22.8 20°15.0	28°22.8 20°14.5	43°22.7 20°14.0	58°22.7 20°13.5	73°22.7 20°13.0	-0.0 -0.5
Ve 23	268°22.4 20°06.4	283°22.4 20°05.9	298°22.4 20°05.4	313°22.4 20°04.9	328°22.4 20°04.4	343°22.3 20°03.9	358°22.3 20°03.4	13°22.3 20°02.9	28°22.3 20°02.3	43°22.3 20°01.8	58°22.3 20°01.3	73°22.2 20°00.8	-0.0 -0.5
Sa 24	268°22.0 19°54.1	283°22.0 19°53.5	298°22.0 19°53.0	313°22.0 19°52.5	328°22.0 19°52.0	343°22.0 19°51.4	358°22.0 19°50.9	13°22.0 19°50.4	28°22.0 19°49.9	43°21.9 19°49.4	58°21.9 19°48.8	73°21.9 19°48.3	-0.0 -0.5
Di 25	268°21.8 19°41.4	283°21.8 19°40.8	298°21.8 19°40.3	313°21.8 19°39.8	328°21.8 19°39.2	343°21.8 19°38.7	358°21.8 19°38.1	13°21.8 19°37.6	28°21.8 19°37.1	43°21.8 19°36.5	58°21.8 19°36.0	73°21.7 19°35.4	-0.0 -0.5
Lu 26	268°21.7 19°28.3	283°21.7 19°27.8	298°21.7 19°27.2	313°21.7 19°26.7	328°21.7 19°26.1	343°21.7 19°25.6	358°21.7 19°25.0	13°21.7 19°24.5	28°21.7 19°23.9	43°21.7 19°23.4	58°21.7 19°22.8	73°21.7 19°22.3	+0.0 -0.6
Ma 27	268°21.8 19°15.0	283°21.8 19°14.4	298°21.8 19°13.9	313°21.8 19°13.3	328°21.8 19°12.7	343°21.8 19°12.2	358°21.8 19°11.6	13°21.8 19°11.0	28°21.8 19°10.5	43°21.8 19°10.0	58°21.8 19°09.3	73°21.8 19°08.8	+0.0 -0.6
Me 28	268°22.0 19°01.3	283°22.0 19°00.7	298°22.0 19°00.2	313°22.0 18°59.6	328°22.0 18°59.0	343°22.0 18°58.4	358°22.0 18°57.8	13°22.0 18°57.3	28°22.0 18°56.7	43°22.0 18°56.1	58°22.0 18°55.5	73°22.1 18°54.9	+0.0 -0.6
Je 29	268°22.3 18°47.3	283°22.3 18°46.7	298°22.3 18°46.1	313°22.3 18°45.6	328°22.4 18°45.0	343°22.4 18°44.4	358°22.4 18°43.8	13°22.4 18°43.2	28°22.4 18°42.6	43°22.5 18°42.0	58°22.5 18°41.4	73°22.5 18°40.8	+0.0 -0.6
Ve 30	268°22.8 18°33.0	283°22.8 18°32.4	298°22.8 18°31.8	313°22.9 18°31.2	328°22.9 18°30.6	343°22.9 18°30.0	358°22.9 18°29.4	13°23.0 18°28.9	28°23.0 18°28.2	43°23.0 18°27.6	58°23.0 18°27.0	73°23.1 18°26.4	+0.0 -0.6
Sa 31	268°23.4 18°18.4	283°23.4 18°17.8	298°23.5 18°17.2	313°23.5 18°16.6	328°23.5 18°16.0	343°23.6 18°15.3	358°23.6 18°14.7	13°23.6 18°14.1	28°23.7 18°13.5	43°23.7 18°12.9	58°23.7 18°12.2	73°23.8 18°11.6	+0.0 -0.6

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA − 15°

Ligne 2: Dec (Déclinaison, − = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juillet 2027

	J	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	Δ'/h	SP
●	Je 1	240°59.0 24°15.7	255°23.5 24°23.4	269°48.0 24°30.9	284°12.3 24°38.3	298°36.5 24°45.5	313°00.5 24°52.5	327°24.5 24°59.4	341°48.3 25°06.2	356°12.0 25°12.8	10°35.5 25°19.2	24°59.0 25°25.5	+24.0	16.2
	Ve 2	240°37.8 26°38.7	254°59.6 26°42.1	269°21.3 26°45.4	283°43.0 26°48.4	298°04.5 26°51.3	312°26.0 26°53.9	326°47.4 26°56.4	341°08.8 26°58.7	355°30.0 27°00.7	9°51.2 27°02.6	24°12.4 27°04.3	+21.4	16.4
●	Sa 3	239°23.9 27°05.0	253°44.5 27°03.4	268°05.0 27°01.5	282°25.5 26°59.5	296°46.0 26°57.3	311°06.6 26°54.8	325°27.1 26°52.2	339°47.6 26°49.3	354°08.2 26°46.3	8°28.7 26°43.0	22°49.3 26°39.5	+20.5	16.6
	Di 4	238°01.9 25°22.8	252°23.1 25°16.1	266°44.4 25°09.2	281°05.8 25°02.1	295°27.2 24°54.8	309°48.8 24°47.3	324°10.3 24°39.7	338°32.0 24°31.8	352°53.8 24°23.8	7°15.6 24°15.6	21°37.5 24°07.2	+21.6	16.7
●	Lu 5	237°17.3 21°40.9	251°40.7 21°29.8	266°04.3 21°18.7	280°28.0 21°07.3	294°51.7 20°55.8	309°15.6 20°44.2	323°39.6 20°32.5	338°03.7 20°20.6	352°28.0 20°08.6	6°52.3 19°56.4	21°16.7 19°44.1	+23.9	16.7
	Ma 6	237°36.8 16°25.5	252°03.1 16°11.4	266°29.4 15°57.2	280°55.9 15°42.9	295°22.4 15°28.6	309°49.1 15°14.1	324°15.9 14°59.6	338°42.7 14°45.0	353°09.7 14°30.3	7°36.8 14°15.5	22°04.0 14°00.6	+26.7	16.6
●	Me 7	239°03.8 10°10.3	253°32.6 9°54.5	268°01.4 9°38.7	282°30.3 9°22.9	296°53.3 9°07.0	311°28.4 8°51.1	325°57.5 8°35.1	340°26.7 8°19.1	354°56.1 8°03.1	9°25.5 7°47.1	23°54.9 7°31.0	+29.1	16.4
	Je 8	241°25.4 -3°28.0	255°55.9 -3°11.8	270°26.5 -2°55.5	284°57.1 -2°39.3	299°27.8 -2°23.1	313°58.6 -2°06.8	328°29.4 -1°50.6	343°00.2 -1°34.4	357°31.1 -1°18.2	12°02.0 1°02.0	26°33.0 0°45.8	+30.8	16.2
●	Ve 9	244°21.9 -3°14.1	258°53.4 -3°29.8	273°24.9 -3°45.5	287°56.4 -4°01.2	302°28.0 -4°16.9	316°59.5 -4°32.5	331°31.1 -4°48.0	346°02.6 -5°03.6	360°14.0 -5°19.7	15°06.0 -5°34.5	29°37.6 -5°49.9	+31.6	15.9
	Sa 10	247°32.8 -9°34.4	262°04.5 -9°48.9	276°36.2 -10°03.3	291°07.8 -10°17.7	305°39.5 -10°32.0	320°11.1 -10°46.2	334°42.7 -11°00.4	349°14.3 -11°14.5	3 [°] 45.9 -11°28.5	18°17.5 -11°42.5	32°49.1 -11°56.4	+31.6	15.7
●	Di 11	250°40.2 -15°15.6	265°11.4 -15°28.2	279°42.6 -15°40.7	294°13.7 -15°53.2	308°44.8 -16°05.5	323°15.9 -16°17.8	337°47.0 -16°30.0	352°18.0 -16°42.1	3 [°] 49.0 -16°54.1	21°19.9 -17°06.0	35°50.9 -17°17.8	+31.1	15.5
	Lu 12	253°30.4 -20°03.1	268°00.7 -20°13.3	282°31.0 -20°23.4	297°01.3 -20°33.4	311°31.5 -20°43.2	326°01.6 -20°53.0	340°31.8 -21°02.7	355°01.9 -21°12.2	9°31.9 -21°21.6	37°01.9 -21°31.0	38°31.9 -21°40.2	+30.1	15.3
●	Ma 13	255°56.7 -23°44.3	270°26.0 -23°51.6	284°55.3 -23°58.8	299°24.6 -24°05.8	313°53.8 -24°12.8	328°23.0 -24°19.6	342°52.2 -24°26.3	357°21.3 -24°32.8	11°50.4 -24°39.3	26°19.5 -24°45.6	40°48.5 -24°51.7	+29.2	15.1
	Me 14	258°00.7 -26°08.7	272°29.3 -26°12.8	286°57.9 -26°16.7	301°26.5 -26°20.5	315°55.5 -26°24.2	330°23.6 -26°27.7	344°52.1 -26°31.1	359°20.7 -26°34.5	13°49.2 -26°37.5	28°17.7 -26°40.5	42°46.2 -26°43.4	+28.5	15.0
●	Je 15	259°53.0 -27°09.7	274°21.5 -27°10.3	288°50.0 -27°10.9	303°18.5 -27°11.3	317°47.0 -27°11.5	332°15.5 -27°11.6	346°44.1 -27°11.6	1°12.6 -27°11.1	15°41.2 -27°11.1	30°09.8 -27°10.7	44°38.4 -27°10.1	+28.5	14.9
	Ve 16	261°50.5 -26°15.6	276°19.6 -26°42.9	290°48.7 -26°40.1	305°17.8 -26°37.1	319°47.0 -26°30.8	334°16.2 -26°27.5	348°45.5 -26°20.4	3°14.8 -26°20.4	17°44.1 -26°16.7	32°13.5 -26°12.9	46°43.0 -26°12.9	+29.2	14.8
●	Sa 17	264°10.5 -25°00.7	278°40.7 -24°54.4	293°11.0 -24°49.1	307°41.4 -24°43.1	322°11.9 -24°30.8	336°42.4 -24°24.5	351°12.9 -24°18.0	5°43.5 -24°18.0	20°14.2 -24°11.5	34°44.9 -24°04.8	49°15.7 -23°58.1	+30.5	14.7
	Di 18	267°05.1 -22°04.4	281°36.9 -21°56.0	296°08.8 -21°47.5	310°40.7 -21°39.0	325°12.7 -21°30.3	339°44.8 -21°21.6	354°16.9 -21°12.8	8°49.1 -21°03.8	23°21.3 -20°54.8	37°53.6 -20°45.7	52°26.0 -20°36.6	+32.1	14.7
●	Lu 19	270°38.9 -18°08.9	285°12.2 -17°58.5	299°45.6 -17°48.0	314°19.0 -17°37.3	328°52.5 -17°26.7	343°26.1 -17°15.9	357°59.7 -17°05.1	12°33.4 -16°54.2	27°07.1 -16°43.3	41°40.9 -16°32.3	56°14.7 -16°21.2	+33.6	14.7
	Ma 20	274°48.2 -19°27.6	289°22.8 -19°15.6	303°57.5 -19°03.5	318°32.2 -12°51.4	333°06.9 -12°39.9	347°41.6 -12°27.0	362°16.5 -12°14.7	16°51.3 -12°02.4	31°26.2 -11°50.0	46°01.1 -11°37.6	60°36.0 -11°25.1	+34.8	14.7
●	Me 21	278°40.1 -8°13.1	293°59.5 -8°00.0	308°34.0 -7°46.9	323°10.4 -7°33.7	337°45.8 -7°20.5	352°21.3 -7°07.3	366°56.8 -6°54.0	21°32.4 -6°40.7	36°07.9 -6°27.4	50°43.5 -6°14.1	65°19.0 -6°00.7	+35.5	14.8
	Je 22	284°13.5 -2°37.3	298°49.1 -2°23.6	313°24.8 -2°09.9	328°00.4 -1°56.1	342°36.0 -1°42.4	357°11.7 -1°28.6	371°47.3 -1°14.8	26°22.9 -1°01.0	40°58.5 -0°47.2	55°34.1 -0°33.4	70°09.7 -0°19.6	+35.6	14.9
●	Ve 23	289°01.0 3°08.5	303°36.2 3°22.3	318°11.4 3°36.2	332°46.6 3°50.1	347°21.7 4°04.0	361°56.8 4°17.8	376°31.9 4°31.7	31°06.9 4°45.5	45°41.9 4°59.4	60°16.8 5°13.2	74°51.7 5°27.0	+35.1	15.0
	Sa 24	303°36.2 3°22.3	318°11.4 3°36.2	332°46.6 3°50.1	347°21.7 4°04.0	361°56.8 4°17.8	376°31.9 4°31.7	391°03.5 4°45.5	53°35.0 4°59.4	68°06.4 5°16.8	82°37.8 5°27.0	97°09.0 5°40.8	+31.7	15.2
●	Di 25	308°03.5 9°06.2	322°37.5 9°19.7	337°11.5 9°33.2	351°45.4 9°46.7	36°19.2 10°00.1	20°53.0 10°13.5	35°26.7 10°26.9	50°00.3 10°40.3	64°33.8 10°53.6	79°07.3 11°06.9	93°40.7 11°20.2	+33.7	15.2
	Lu 26	311°52.4 14°34.4	326°24.5 14°47.0	340°56.5 14°59.5	355°28.4 15°12.0	10°00.2 15°24.4	24°31.9 15°36.8	39°03.5 15°49.1	53°35.0 16°01.3	68°06.4 16°13.5	82°37.8 16°25.7	97°09.0 16°37.7	+31.7	15.4
●	Ma 27	314°44.4 19°30.2	329°13.9 19°44.1	343°43.2 19°51.9	358°12.4 20°02.6	12°41.5 20°13.2	27°10.5 20°23.7	41°39.4 20°34.2	56°08.2 20°44.5	70°36.8 20°56.8	85°05.3 21°04.9	99°33.7 21°14.9	+28.9	15.6
	Me 28	316°24.7 23°32.3	330°51.1 23°40.5	345°17.3 23°48.6	359°43.5 23°56.6	14°09.5 24°04.4	28°35.4 24°12.1	43°01.2 24°19.6	57°26.9 24°27.0	71°52.4 24°34.3	86°17.8 24°41.4	100°43.1 24°48.4	+25.8	15.9
●	Je 29	316°48.6 26°15.1	331°12.1 26°19.6	345°35.3 26°23.9	359°58.8 26°28.0	14°22.0 26°32.0	28°45.0 26°35.8	43°08.0 26°39.4	57°30.9 26°42.9	71°53.8 26°46.1	86°16.5 26°49.2	100°39.1 26°52.1	+23.0	16.2
	Ve 30	316°09.8 27°13.1	330°31.3 27°12.9	344°52.9 27°12.6	359°14.3 27°12.0	13°35.8 27°11.3	27°57.2 27°10.3	42°18.5 27°09.2	56°39.9 27°07.8	71°10.2 27°06.3	85°22.5 27°04.5	99°43.7 27°02.6	+21.4	16.4
●	Sa 31	315°01.9 26°08.9	329°23.2 26°03.8	343°44.6 25°58.4	358°05.0 25°52.8	12°27.3 25°47.0	26°48.7 25°41.0	41°10.2 25°34.8	55°31.7 25°28.5	69°53.2 25°23.2	84°14.8 25°15.2	98°36.4 25°08.2	+21.4	16.6

SOLEIL

Août 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	268°24.2 18°03.5	283°24.2 18°02.9	298°24.3 18°02.3	313°24.3 18°01.6	328°24.3 18°01.0	343°24.4 18°00.4	358°24.4 17°59.7	13°24.5 17°59.1	28°24.5 17°58.5	43°24.5 17°57.9	58°24.6 17°57.2	73°24.6 17°56.6	+0.0 -0.6
Lu 2	268°25.1 17°48.3	283°25.2 17°47.7	298°25.2 17°47.0	313°25.3 17°46.4	328°25.3 17°45.7	343°25.4 17°45.1	358°25.4 17°44.5	13°25.4 17°43.8	28°25.4 17°43.2	43°25.5 17°42.5	58°25.6 17°41.9	73°25.6 17°41.3	+0.0 -0.6
Ma 3	268°26.2 17°32.8	283°26.3 17°32.2	298°26.3 17°31.5	313°26.4 17°30.9	328°26.4 17°30.2	343°26.5 17°29.6	358°26.5 17°28.9	13°26.6 17°28.3	28°26.6 17°27.6	43°26.7 17°27.0	58°26.7 17°26.3	73°26.8 17°25.6	+0.1 -0.7
Me 4	268°27.5 17°17.1	283°27.5 17°16.4	298°27.6 17°15.7	313°27.6 17°15.1	328°27.7 17°14.4	343°27.7 17°13.7	358°27.8 17°13.1	13°27.9 17°12.4	28°27.9 17°11.7	43°28.0 17°11.1	58°28.0 17°10.4	73°28.1 17°09.7	+0.1 -0.7
Je 5	268°28.9 17°01.0	283°28.9 17°00.3	298°29.0 16°59.7	313°29.0 16°59.0	328°29.1 16°58.3	343°29.2 16°57.6	358°29.2 16°57.0	13°29.3 16°56.3	28°29.4 16°55.6	43°29.4 16°54.9	58°29.5 16°54.2	73°29.6 16°53.6	+0.1 -0.7
Ve 6	268°30.4 16°44.7	283°30.5 16°44.0	298°30.5 16°43.3	313°30.6 16°42.6	328°30.7 16°41.9	343°30.8 16°41.2	358°30.8 16°40.6	13°30.9 16°39.9	28°31.0 16°39.2	43°31.0 16°38.5	58°31.1 16°37.8	73°31.2 16°37.1	+0.1 -0.7
Sa 7	268°32.1 16°28.1	283°32.2 16°27.4	298°32.3 16°26.7	313°32.3 16°26.0	328°32.4 16°25.3	343°32.5 16°24.6	358°32.6 16°23.9	13°32.6 16°23.2	28°32.7 16°22.5	43°32.8 16°21.8	58°32.9 16°21.1	73°32.9 16°20.4	+0.1 -0.7
Di 8	268°34.0 16°11.2	283°34.0 16°10.5	298°34.1 16°09.8	313°34.2 16°09.1	328°34.3 16°08.4	343°34.4 16°07.7	358°34.4 16°07.0	13°34.5 16°06.3	28°34.6 16°05.5	43°34.7 16°04.8	58°34.8 16°04.1	73°34.9 16°03.4	+0.1 -0.7
Lu 9	268°36.0 15°54.1	283°36.1 15°53.4	298°36.1 15°52.7	313°36.2 15°51.9	328°36.3 15°51.2	343°36.4 15°50.5	358°36.5 15°49.8	13°36.6 15°48.3	28°36.7 15°47.6	43°36.8 15°46.9	58°36.8 15°46.2	73°36.9 15°45.6	+0.1 -0.7
Ma 10	268°38.1 15°36.7	283°38.2 15°36.0	298°38.3 15°35.3	313°38.4 15°34.5	328°38.5 15°33.8	343°38.6 15°33.1	358°38.7 15°32.4	13°38.8 15°31.6	28°38.9 15°30.9	43°39.0 15°30.2	58°39.1 15°29.4	73°39.2 15°28.7	+0.1 -0.7
Me 11	268°40.4 15°19.1	283°40.5 15°18.4	298°40.6 15°17.6	313°40.7 15°16.9	328°40.8 15°16.2	343°40.9 15°15.4	358°40.9 15°14.7	13°41.1 15°13.9	28°41.2 15°13.2	43°41.3 15°12.4	58°41.4 15°11.7	73°41.5 15°11.0	+0.1 -0.7
Je 12	268°42.9 15°01.3	283°43.0 15°00.5	298°43.1 14°59.8	313°43.2 14°59.0	328°43.3 14°58.3	343°43.4 14°57.5	358°43.5 14°56.8	13°43.5 14°56.0	28°43.7 14°55.2	43°43.8 14°54.5	58°43.9 14°53.7	73°44.0 14°53.0	+0.1 -0.8
Ve 13	268°45.5 14°43.2	283°45.6 14°42.4	298°45.7 14°41.6	313°45.8 14°40.9	328°45.9 14°40.1	343°46.0 14°39.4	358°46.1 14°38.6	13°46.2 14°37.8	28°46.4 14°37.1	43°46.5 14°36.3	58°46.5 14°35.5	73°46.7 14°34.8	+0.1 -0.8
Sa 14	268°48.2 14°24.8	283°48.3 14°24.1	298°48.4 14°23.3	313°48.6 14°22.5	328°48.7 14°21.7	343°48.8 14°21.0	358°48.9 14°20.2	13°49.0 14°19.4	28°49.0 14°18.7	43°49.3 14°17.9	58°49.4 14°17.1	73°49.5 14°16.3	+0.1 -0.8
Di 15	268°51.1 14°06.3	283°51.2 14°05.5	298°51.3 14°04.7	313°51.4 14°03.9	328°51.5 14°03.2	343°51.7 14°02.4	358°51.8 14°01.6	13°51.9 14°00.8	28°52.1 14°00.0	43°52.2 13°59.2	58°52.3 13°58.5	73°52.4 13°57.7	+0.1 -0.8
Lu 16	268°54.1 13°47.5	283°54.2 13°46.7	298°54.3 13°45.9	313°54.5 13°45.1	328°54.6 13°44.3	343°54.7 13°43.5	358°54.8 13°42.8	13°55.0 13°42.2	28°55.1 13°41.4	43°55.2 13°40.6	58°55.3 13°39.6	73°55.5 13°38.8	+0.1 -0.8
Ma 17	268°57.2 13°28.5	283°57.3 13°27.7	298°57.5 13°26.9	313°57.6 13°26.1	328°57.7 13°25.3	343°57.9 13°24.5	358°58.0 13°23.7	13°58.2 13°22.9	28°58.3 13°22.1	43°58.4 13°21.3	58°58.5 13°20.5	73°58.7 13°19.7	+0.1 -0.8
Me 18	269°00.5 13°09.3	284°00.6 13°08.5	299°00.8 13°07.7	314°00.9 13°06.9	329°01.0 13°06.0	344°01.2 13°05.2	359°01.3 13°04.4	14°01.5 13°03.6	29°01.6 13°02.8	44°01.7 13°02.0	59°01.9 13°01.2	74°02.0 13°00.4	+0.1 -0.8
Je 19	269°03.9 12°49.8	284°04.0 12°49.0	299°04.2 12°48.2	314°04.3 12°47.4	329°04.4 12°46.6	344°04.6 12°45.8	359°04.7 12°45.0	14°04.9 12°44.1	29°05.0 12°43.3	44°05.0 12°42.5	59°05.3 12°41.7	74°05.5 12°40.9	+0.1 -0.8
Ve 20	269°07.4 12°30.2	284°07.5 12°29.4	299°07.7 12°28.6	314°07.8 12°27.8	329°08.0 12°26.9	344°08.1 12°26.1	359°08.3 12°25.3	14°08.4 12°24.5	29°08.6 12°23.6	44°08.7 12°22.8	59°08.9 12°22.0	74°09.0 12°21.2	+0.2 -0.8
Sa 21	269°11.0 12°10.4	284°11.2 12°09.6	299°11.3 12°08.7	314°11.5 12°07.9	329°11.6 12°07.1	344°11.8 12°06.2	359°11.9 12°05.4	14°12.1 12°04.6	29°12.4 12°03.7	44°12.5 12°02.9	59°12.6 12°02.1	74°12.7 12°01.2	+0.2 -0.8
Di 22	269°14.8 11°50.4	284°14.9 11°49.5	299°15.1 11°48.7	314°15.2 11°47.9	329°15.4 11°47.0	344°15.6 11°46.2	359°15.7 11°45.3	14°15.9 11°44.5	29°16.0 11°43.7	44°16.2 11°42.8	59°16.3 11°42.0	74°16.5 11°41.1	+0.2 -0.8
Lu 23	269°18.6 11°30.2	284°18.8 11°29.3	299°18.9 11°28.5	314°19.1 11°27.6	329°19.3 11°26.8	344°19.4 11°25.9	359°19.6 11°25.1	14°19.8 11°24.2	29°19.9 11°23.4	44°20.0 11°22.5	59°20.1 11°21.7	74°20.4 11°20.8	+0.2 -0.8
Ma 24	269°22.6 11°09.8	284°22.7 11°08.9	299°22.9 11°08.1	314°23.1 11°07.2	329°23.2 11°06.4	344°23.4 11°05.5	359°23.6 11°04.6	14°23.7 11°03.8	29°23.9 11°02.9	44°24.1 11°02.1	59°24.2 11°01.2	74°24.8 11°00.4	+0.2 -0.9
Me 25	269°26.6 10°49.2	284°26.8 10°48.3	299°27.0 10°47.5	314°27.1 10°46.6	329°27.3 10°45.8	344°27.5 10°44.9	359°27.7 10°44.0	14°27.8 10°43.2	29°28.0 10°42.4	44°28.2 10°41.4	59°28.4 10°40.4	74°28.5 10°39.7	+0.2 -0.9
Je 26	269°30.8 10°28.5	284°31.0 10°27.6	299°31.4 10°26.7	314°31.3 10°25.9	329°31.5 10°25.0	344°31.7 10°24.1	359°31.8 10°23.2	14°32.0 10°22.4	29°32.3 10°21.5	44°36.7 10°20.6	59°32.4 10°19.8	74°32.7 10°18.9	+0.2 -0.9
Ve 27	269°35.0 10°07.5	284°35.2 10°06.7	299°35.4 10°05.8	314°35.6 10°04.9	329°35.8 10°04.0	344°35.9 10°03.2	359°36.1 10°02.3	14°36.3 10°01.4	29°36.6 10°00.5	44°36.7 9°59.7	59°36.8 9°58.8	74°37.0 9°57.9	+0.2 -0.9
Sa 28	269°39.4 9°46.5	284°39.6 9°45.6	299°39.8 9°44.7	314°39.9 9°43.8	329°40.1 9°42.9	344°40.3 9°42.1	359°40.5 9°41.2	14°40.7 9°40.2	29°40.9 9°39.4	44°41.0 9°38.5	59°41.1 9°37.6	74°41.4 9°36.8	+0.2 -0.9
Di 29	269°43.8 9°25.2	284°44.0 9°24.4	299°44.2 9°23.5	314°44.4 9°22.6	329°44.6 9°21.7	344°44.8 9°20.8	359°44.9 9°19.9	14°45.1 9°19.0	29°44.5 9°18.1	44°45.0 9°17.2	59°45.1 9°16.3	74°45.4 9°15.5	+0.2 -0.9
Lu 30	269°48.3 9°03.9	284°48.5 9°03.0	299°48.7 9°02.1	314°48.9 9°01.2	329°49.1 9°00.3	344°49.3 8°59.4	359°49.5 8°58.5	14°49.7 8°57.6	29°49.9 8°56.7	44°50.1 8°55.8	59°50.2 8°54.9	74°50.4 8°54.0	+0.2 -0.9
Ma 31	269°52.9 8°42.3	284°53.1 8°41.4	299°53.3 8°40.5	314°53.5 8°39.6	329°53.7 8°38.7	344°53.9 8°37.8	359°54.1 8°36.9	14°54.3 8°36.0	29°54.4 8°35.1	44°54.7 8°34.2	59°54.9 8°33.3	74°55.1 8°32.4	+0.2 -0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Août 2027

	J	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	Δ°/h	SP
●	Di 1	242°15.8 23°48.4	256°38.0 23°39.4	271°00.4 23°30.2	285°22.8 23°20.9	299°45.3 23°11.3	314°07.9 23°01.7	328°30.6 22°51.8	342°53.3 22°41.8	357°16.2 22°31.6	11°39.1 22°21.2	26°02.1 22°10.7	-22.6 -9.8	16.7 61.1
	Lu 2	241°57.7 19°14.5	256°22.2 19°01.6	270°46.7 18°48.6	285°11.4 18°35.5	299°36.1 18°22.2	314°01.0 18°08.8	328°25.9 17°55.3	342°51.0 17°45.7	357°16.1 17°26.1	11°41.4 17°14.1	26°06.7 17°00.1	-24.9 -13.4	16.7 61.3
	Ma 3	243°38.5 13°18.7	257°05.4 13°03.3	271°32.8 12°47.8	285°59.4 12°37.2	300°26.5 12°26.5	314°53.8 12°00.8	329°21.1 11°45.0	343°48.5 11°29.1	358°16.2 11°13.2	12°43.5 10°57.2	27°11.2 10°41.2	-27.3 -15.8	16.7 61.3
●	Me 4	244°15.6 6°35.4	258°44.4 6°18.7	273°13.4 6°02.1	287°42.4 5°45.4	302°11.4 5°28.7	316°40.6 5°12.0	331°09.8 4°55.3	345°39.0 4°38.5	0°08.3 4°21.8	14°37.7 4°05.0	29°07.1 3°48.2	-29.2 -16.7	16.5 60.5
	Je 5	246°34.4 -0°22.6	261°04.6 -0°39.2	275°34.8 -0°55.8	290°05.0 -1°12.4	304°35.3 -1°28.9	319°05.6 -1°45.4	333°35.9 -2°01.9	348°06.3 -2°18.3	2°36.7 -2°34.8	17°07.1 -2°51.1	31°37.5 -3°07.5	-30.3 -16.5	16.3 59.7
	Ve 6	249°16.5 -7°07.3	263°47.2 -7°22.9	278°17.9 -7°38.4	292°48.6 -7°53.9	307°19.3 -8°09.3	321°50.0 -8°24.6	336°20.7 -8°39.9	350°51.4 -8°55.1	5°22.2 -9°10.3	19°52.9 -9°25.3	34°23.6 -9°40.3	-30.7 -15.3	16.0 58.8
●	Sa 7	252°03.6 -13°16.5	266°34.2 -13°30.2	281°04.7 -13°43.9	295°35.3 -13°57.5	310°05.8 -14°11.0	324°36.3 -14°24.4	339°06.8 -14°37.7	353°37.2 -14°50.9	8°07.7 -15°04.1	22°38.1 -15°17.1	37°08.5 -15°30.1	-30.5 -13.4	15.8 57.8
	Di 8	254°41.4 -18°32.4	269°11.4 -18°43.8	283°41.4 -18°55.0	298°11.3 -19°06.1	312°41.2 -19°17.1	327°11.0 -19°28.0	341°40.9 -19°38.8	356°10.6 -19°49.4	10°40.4 -20°00.4	25°10.1 -20°10.4	39°39.8 -20°20.8	-29.8 -10.8	15.5 56.9
	Lu 9	257°01.5 -23°41.5	271°30.7 -23°50.0	285°59.9 -23°58.3	300°29.0 -24°06.4	314°58.1 -24°15.1	329°27.2 -24°22.4	343°56.3 -24°30.2	358°25.3 -24°37.8	12°54.3 -23°45.3	27°23.2 -23°57.2	41°52.1 -24°00.0	-29.1 -7.8	15.3 60.0
●	Ma 10	259°03.1 -28°33.4	273°31.7 -28°38.5	288°00.3 -28°43.6	302°28.8 -28°48.5	316°57.3 -28°53.2	331°25.8 -28°57.8	345°54.3 -29°02.3	0°22.7 -26°06.6	14°51.2 -26°10.9	29°19.6 -26°14.9	43°48.1 -26°18.9	-28.5 -4.5	15.1 55.3
	Me 11	260°53.9 -27°01.4	275°22.3 -27°03.6	289°50.7 -27°01.1	304°19.7 -26°58.2	318°47.9 -26°56.2	333°16.0 -26°54.0	347°44.4 -26°51.6	2°12.8 -26°49.2	18°41.3 -26°46.6	31°09.8 -26°43.9	45°38.3 -26°41.1	-28.4 -2.3	14.9 54.4
	Je 12	262°48.0 -27°03.6	277°16.8 -27°01.9	291°45.7 -27°00.1	306°14.7 -26°58.2	320°43.6 -26°56.2	335°12.6 -26°54.0	349°41.6 -26°51.6	4°10.7 -26°49.2	18°39.8 -26°46.6	33°08.9 -26°43.9	47°38.1 -26°41.1	-29.0 -2.3	14.8 54.4
●	Ve 13	265°01.1 -26°43.5	279°31.1 -25°38.6	294°01.0 -25°33.7	308°31.1 -25°28.6	323°01.1 -25°23.5	337°31.3 -25°18.2	352°01.5 -25°12.8	6°31.7 -25°07.2	21°02.0 -25°01.6	35°32.3 -24°55.9	50°02.8 -24°50.0	-30.2 -5.3	14.8 54.1
	Sa 14	267°45.9 -23°08.9	282°17.2 -23°01.7	296°48.6 -22°53.7	311°20.1 -22°45.9	325°51.6 -22°38.0	340°23.2 -22°30.1	354°54.9 -22°22.0	9°26.6 -22°13.8	23°58.4 -22°05.5	38°30.2 -21°57.2	53°02.1 -21°48.7	-31.6 -8.0	14.7 54.0
	Di 15	271°07.9 -19°31.2	285°40.7 -19°21.3	300°13.6 -19°11.4	314°46.6 -19°01.4	329°19.6 -18°51.3	343°52.7 -18°41.2	358°25.9 -18°30.9	12°59.1 -18°20.6	27°32.5 -18°10.2	42°05.6 -17°59.7	56°39.0 -17°49.2	-33.1 -10.2	14.7 53.9
●	Lu 16	275°05.6 -15°02.8	289°39.8 -14°51.2	304°14.0 -14°39.5	318°48.3 -14°27.8	333°22.6 -14°16.0	347°56.9 -14°04.2	2°31.3 -13°52.2	17°05.7 -13°40.3	31°40.2 -13°28.3	46°14.7 -13°16.3	60°49.3 -13°04.2	-34.4 -11.9	14.7 54.0
	Ma 17	279°31.9 -9°56.6	294°07.0 -9°43.7	308°42.1 -9°30.9	323°17.3 -9°17.9	337°52.5 -9°04.9	352°27.7 -8°51.9	7°02.9 -8°38.9	21°38.1 -8°25.8	36°13.4 -8°12.7	50°48.7 -7°59.5	65°24.6 -7°46.3	-35.2 -13.0	14.8 54.2
	Me 18	284°15.6 -4°25.0	298°51.1 -4°11.4	313°26.6 -3°57.7	328°02.2 -3°44.1	342°37.7 -3°30.4	357°13.3 -3°16.7	11°48.8 -3°03.0	26°24.3 -2°49.3	40°59.9 -2°35.5	55°35.4 -2°21.7	70°11.0 -2°08.0	-35.5 -13.7	14.9 54.5
●	Je 19	289°03.1 1°19.9	303°38.4 1°33.8	318°13.8 1°47.7	333°49.1 2°01.6	347°24.4 2°15.5	361°59.7 2°29.4	16°35.0 2°43.3	31°10.2 2°57.1	45°45.4 3°11.0	60°20.6 3°24.9	74°55.7 3°38.8	-35.3 -13.9	14.9 54.8
	Ve 20	293°39.1 7°05.7	308°13.7 7°19.4	322°48.2 7°33.0	337°22.7 7°46.6	351°57.1 8°00.2	6°31.5 8°13.8	21°05.8 8°27.4	35°40.1 8°40.9	50°14.3 8°54.4	64°48.5 9°07.9	79°22.6 9°21.4	-34.4 -13.6	15.1 55.3
	Sa 21	297°47.3 12°39.1	312°20.4 12°52.0	326°53.4 13°04.8	341°26.4 13°17.6	355°59.3 13°30.3	10°32.1 13°43.0	25°04.8 13°55.7	39°37.5 14°08.3	54°10.1 14°20.8	68°42.6 14°33.3	83°15.0 14°43.3	-32.8 -12.7	15.2 55.8
●	Di 22	312°20.4 12°52.0	326°53.4 13°04.8	341°26.4 13°17.6	355°59.3 13°30.3	10°32.1 13°43.0	25°04.8 13°55.7	39°37.5 14°08.3	54°10.1 14°20.8	68°42.6 14°33.3	83°15.0 14°43.3	97°47.4 14°58.1	-32.7 -12.6	15.2 55.8
	Lu 23	315°42.2 17°56.3	330°13.1 18°07.6	344°43.9 18°18.9	359°14.6 18°30.0	13°45.3 18°41.1	28°15.8 18°52.1	42°46.2 19°03.1	57°16.5 19°13.9	71°46.8 19°26.7	86°16.9 19°35.4	100°46.9 19°46.0	-30.5 -11.0	15.4 56.5
	Ma 24	318°04.7 22°13.7	332°33.0 22°22.7	347°01.2 22°31.7	361°29.3 22°40.5	15°57.3 22°49.2	30°25.2 22°57.7	44°53.0 23°06.2	59°20.7 23°14.6	73°48.2 23°22.8	88°15.7 23°30.2	102°43.9 23°38.9	-27.8 -8.5	15.6 57.2
●	Me 25	319°20.3 25°22.9	333°46.0 25°28.8	348°11.5 25°34.4	362°37.0 25°40.0	17°02.3 25°45.5	31°27.6 25°50.6	45°52.7 25°55.7	60°17.8 26°00.6	74°42.7 26°05.3	89°07.6 26°10.6	103°32.4 26°14.4	-25.2 -5.5	15.8 58.0
	Je 26	319°33.9 27°01.4	333°57.4 27°03.2	348°20.9 27°10.8	362°44.2 27°16.2	17°07.6 27°21.7	31°30.8 27°25.8	45°54.0 27°29.4	60°17.2 27°10.0	74°40.2 27°10.6	89°03.3 27°10.9	103°26.3 27°11.0	-23.2 -1.0	16.0 58.8
	Ve 27	319°06.9 26°50.7	333°29.4 26°47.9	347°52.0 26°40.8	362°14.5 26°41.1	16°37.0 26°38.0	30°59.5 26°34.5	45°22.0 26°30.0	59°44.5 26°26.7	74°07.0 26°22.5	88°29.0 26°18.1	102°52.1 26°13.6	-22.5 -3.7	15.3 56.6
●	Sa 28	318°32.7 24°42.7	332°55.7 24°35.1	347°18.7 24°27.4	361°41.8 24°19.6	16°04.9 24°11.5	30°28.0 24°03.3	44°51.3 23°54.9	59°14.5 23°46.3	73°37.8 23°37.8	88°01.2 23°28.6	102°24.7 23°19.5	-23.2 -8.6	16.4 60.3
	Di 29	318°23.9 20°43.9	332°48.4 20°32.3	347°13.0 20°20.5	361°37.7 20°08.6	16°02.4 19°56.6	30°27.2 19°44.4	44°52.1 19°32.1	59°17.1 19°19.7	73°42.1 19°07.1	88°07.2 18°54.4	102°32.4 18°41.6	-24.8 -12.2	16.6 60.8
	Lu 30	318°59.8 15°14.8	333°26.3 15°00.1	347°52.8 14°45.4	362°19.4 14°30.5	16°46.1 14°15.6	31°12.8 14°00.6	45°39.7 13°45.5	60°06.6 13°30.3	74°33.5 13°15.2	89°00.6 12°59.6	103°27.7 12°44.2	-26.8 -15.1	16.6 61.0
●	Ma 31	320°22.8 8°44.4	334°51.0 8°28.0	349°19.3 8°11.5	3°47.6 7°55.0	18°15.9 7°38.4	32°44.4 7°21.8	47°12.8 7°05.2	61°41.4 6°48.5	76°09.9 6°31.8	90°38.6 6°15.1	105°07.3 5°58.3	-28.4 -16.6	16.6 60.8

Ligne 1: GHA, Δ°/h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (= Sud), Δ°/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

NL: 2 10h05 — PQ: 9 04h54 — PL: 17 07h28 — DQ: 25 02h27 — NL: 31 17h41

SOLEIL

Septembre 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Me 1	260°57.6 8°20.7	284°57.8 8°19.8	299°58.0 8°18.8	314°58.2 8°17.9	329°58.4 8°17.0	344°58.6 8°16.1	359°58.8 8°15.2	14°59.0 8°14.3	29°59.2 8°13.4	44°59.4 8°12.5	59°59.6 8°11.6	74°59.8 8°10.7	+0.2 -0.9
Je 2	270°02.4 7°58.9	285°02.6 7°57.9	300°02.8 7°57.0	315°03.0 7°56.1	330°03.2 7°55.2	345°03.4 7°54.3	0°03.6 7°53.4	15°03.8 7°52.5	30°04.0 7°51.6	45°04.2 7°50.7	60°04.4 7°49.7	75°04.6 7°48.8	+0.2 -0.9
Ve 3	270°07.2 7°36.9	285°07.4 7°36.0	300°07.6 7°35.1	315°07.8 7°34.2	330°08.0 7°33.3	345°08.2 7°32.3	0°08.4 7°31.4	15°08.6 7°30.5	30°08.8 7°29.6	45°09.0 7°28.7	60°09.2 7°27.8	75°09.4 7°26.8	+0.2 -0.9
Sa 4	270°12.1 7°14.9	285°12.3 7°14.0	300°12.5 7°13.0	315°12.7 7°12.1	330°12.9 7°11.2	345°13.1 7°10.3	0°13.3 7°09.4	15°13.5 7°08.4	30°13.8 7°07.5	45°14.0 7°06.6	60°14.2 7°05.7	75°14.4 7°04.7	+0.2 -0.9
Di 5	270°17.1 6°52.7	285°17.3 6°51.8	300°17.5 6°50.9	315°17.7 6°49.9	330°17.9 6°49.0	345°18.1 6°48.1	0°18.3 6°47.2	15°18.5 6°46.2	30°18.7 6°45.3	45°18.9 6°44.4	60°19.2 6°43.4	75°19.4 6°42.5	+0.2 -0.9
Lu 6	270°22.1 6°30.4	285°22.3 6°29.5	300°22.5 6°28.6	315°22.7 6°27.6	330°22.9 6°26.7	345°23.1 6°25.8	0°23.4 6°24.9	15°23.6 6°23.9	30°23.8 6°23.0	45°24.0 6°22.1	60°24.2 6°21.1	75°24.4 6°20.4	+0.2 -0.9
Ma 7	270°27.2 6°08.1	285°27.4 6°07.1	300°27.6 6°06.2	315°27.8 6°05.3	330°28.0 6°04.3	345°28.2 6°03.4	0°28.5 6°02.5	15°28.7 6°01.5	30°28.9 6°00.6	45°29.2 5°59.6	60°29.3 5°58.7	75°29.5 5°57.8	+0.2 -0.9
Me 8	270°32.3 5°45.6	285°32.5 5°44.6	300°32.7 5°43.7	315°33.0 5°42.8	330°33.2 5°41.8	345°33.4 5°40.9	0°33.6 5°39.9	15°33.8 5°39.0	30°34.0 5°38.1	45°34.3 5°37.2	60°34.5 5°36.2	75°34.7 5°35.2	+0.2 -0.9
Je 9	270°37.5 5°23.0	285°37.7 5°22.1	300°37.9 5°21.1	315°38.1 5°20.2	330°38.4 5°19.2	345°38.6 5°18.3	0°38.8 5°17.3	15°39.0 5°16.4	30°39.2 5°15.5	45°39.5 5°14.5	60°39.7 5°13.6	75°39.9 5°12.6	+0.2 -0.9
Ve 10	270°42.7 5°00.3	285°42.9 5°00.4	300°43.2 4°58.5	315°43.4 4°57.5	330°43.6 4°56.6	345°43.8 4°55.6	0°44.0 4°54.7	15°44.3 4°53.7	30°44.5 4°52.8	45°44.7 4°51.8	60°44.9 4°50.9	75°45.1 4°49.9	+0.2 -0.9
Sa 11	270°48.0 4°37.6	285°48.2 4°36.7	300°48.4 4°35.7	315°48.6 4°34.8	330°48.9 4°33.8	345°49.1 4°32.9	0°49.3 4°31.9	15°49.5 4°31.0	30°49.8 4°30.0	45°50.0 4°29.0	60°50.2 4°28.1	75°50.4 4°27.1	+0.2 -1.0
Di 12	270°53.3 4°14.8	285°53.5 4°13.8	300°53.7 4°12.9	315°53.9 4°11.9	330°54.2 4°11.0	345°54.4 4°10.0	0°54.6 4°09.1	15°54.8 4°08.1	30°55.1 4°07.2	45°55.3 4°06.2	60°55.5 4°05.2	75°55.7 4°04.3	+0.2 -1.0
Lu 13	270°58.6 3°51.9	285°58.8 3°50.9	300°59.1 3°50.0	315°59.3 3°49.0	330°59.5 3°48.1	345°59.7 3°47.1	0°59.9 3°46.1	16°00.2 3°45.2	31°00.4 3°44.2	46°00.6 3°43.3	61°00.8 3°42.3	76°01.1 3°41.4	+0.2 -1.0
Ma 14	271°04.0 3°28.9	286°04.2 3°28.0	301°04.4 3°27.0	316°04.6 3°26.0	331°04.9 3°25.1	346°05.1 3°24.1	1°05.3 3°23.2	16°05.5 3°22.2	31°05.7 3°21.2	46°06.0 3°20.3	61°06.2 3°19.3	76°06.4 3°18.4	+0.2 -1.0
Me 15	271°09.3 3°05.9	286°09.6 3°04.9	301°09.8 3°04.0	316°10.0 3°03.0	331°10.2 3°02.0	346°10.4 3°01.1	1°10.7 3°00.1	16°10.9 3°00.1	31°11.3 2°59.2	46°11.6 2°58.2	61°11.6 2°57.2	76°11.8 2°56.3	+0.2 -1.0
Je 16	271°14.7 2°42.8	286°14.9 2°41.8	301°15.2 2°40.9	316°15.4 2°39.9	331°15.6 2°39.0	346°15.8 2°38.0	1°16.0 2°37.0	16°16.3 2°36.1	31°16.5 2°35.1	46°16.7 2°34.1	61°16.9 2°33.2	76°17.2 2°32.2	+0.2 -1.0
Ve 17	271°20.1 2°19.7	286°20.3 2°18.7	301°20.5 2°17.7	316°20.8 2°16.8	331°21.0 2°15.8	346°21.2 2°14.8	1°21.4 2°13.9	16°21.7 2°12.9	31°21.9 2°11.9	46°22.1 2°11.0	61°22.3 2°10.0	76°22.6 2°09.0	+0.2 -1.0
Sa 18	271°25.5 1°56.5	286°25.7 1°55.5	301°25.9 1°54.6	316°26.1 1°53.6	331°26.4 1°52.6	346°26.6 1°51.6	1°26.8 1°50.7	16°27.0 1°49.7	31°27.3 1°48.7	46°27.5 1°47.8	61°27.7 1°46.8	76°27.9 1°45.8	+0.2 -1.0
Di 19	271°30.8 1°33.3	286°31.1 1°32.3	301°31.3 1°31.3	316°31.5 1°30.4	331°31.7 1°29.4	346°31.7 1°28.4	1°32.2 1°27.4	16°32.4 1°26.5	31°32.6 1°25.5	46°33.2 1°24.5	61°33.1 1°23.6	76°33.3 1°22.6	+0.2 -1.0
Lu 20	271°36.2 1°10.0	286°36.4 1°09.0	301°36.7 1°08.1	316°36.9 1°07.1	331°37.1 1°06.1	346°37.3 1°05.1	1°37.5 1°04.2	16°37.8 1°03.2	31°38.0 1°02.2	46°38.2 1°01.3	61°38.4 1°00.3	76°38.7 0°59.3	+0.2 -1.0
Ma 21	271°41.5 0°46.7	286°41.8 0°45.7	301°42.0 0°44.8	316°42.2 0°43.8	331°42.4 0°42.8	346°42.7 0°41.8	1°42.9 0°40.9	16°43.1 0°39.9	31°43.3 0°38.9	46°43.5 0°38.0	61°43.8 0°37.0	76°44.0 0°36.0	+0.2 -1.0
Me 22	271°46.9 0°23.4	286°47.1 0°22.4	301°47.3 0°21.4	316°47.5 0°20.5	331°47.8 0°19.5	346°48.0 0°18.5	1°48.2 0°17.5	16°48.4 0°16.6	31°48.6 0°15.6	46°48.9 0°14.6	61°49.1 0°13.7	76°49.3 0°12.7	+0.2 -1.0
Je 23	271°52.2 0°00.0	286°52.4 -0°00.9	301°52.6 -0°01.9	316°52.8 -0°02.9	331°53.0 -0°03.9	346°53.3 -0°04.8	1°53.5 -0°05.8	16°53.7 -0°06.8	31°53.9 -0°07.8	46°54.1 -0°08.7	61°54.4 -0°09.7	76°54.6 -0°10.7	+0.2 -1.0
Ve 24	271°57.4 -0°23.3	286°57.6 -0°24.3	301°57.9 -0°25.3	316°58.1 -0°26.2	331°58.3 -0°27.2	346°58.5 -0°28.2	1°58.7 -0°29.2	16°58.9 -0°30.1	31°59.2 -0°31.1	46°59.4 -0°32.1	61°59.6 -0°33.1	76°59.8 -0°34.0	+0.2 -1.0
Sa 25	272°02.6 -0°46.7	287°02.9 -0°47.7	302°03.1 -0°48.6	317°03.3 -0°49.6	332°03.5 -0°50.6	347°03.7 -0°51.6	2°03.9 -0°52.5	17°04.2 -0°53.5	32°04.4 -0°54.5	47°04.6 -0°55.5	62°04.8 -0°56.4	77°05.0 -0°57.4	+0.2 -1.0
Di 26	272°07.8 -1°10.1	287°08.0 -1°11.0	302°08.2 -1°12.0	317°08.5 -1°13.0	332°08.7 -1°14.0	347°08.9 -1°14.9	2°09.1 -1°15.9	17°09.3 -1°16.9	32°09.5 -1°17.9	47°09.7 -1°18.8	62°10.0 -1°19.8	77°10.2 -1°20.8	+0.2 -1.0
Lu 27	272°12.9 -1°33.4	287°13.1 -1°34.4	302°13.4 -1°35.4	317°13.6 -1°36.4	332°13.8 -1°37.3	347°14.0 -1°38.3	2°14.2 -1°39.3	17°14.4 -1°40.3	32°14.6 -1°41.2	47°14.8 -1°42.2	62°15.1 -1°43.2	77°15.3 -1°44.1	+0.2 -1.0
Ma 28	272°18.0 -1°56.8	287°18.2 -1°57.8	302°18.4 -1°58.7	317°18.6 -1°59.7	332°18.8 -2°00.7	347°19.1 -2°01.7	2°19.3 -2°02.6	17°19.5 -2°03.6	32°19.7 -2°04.6	47°19.7 -2°05.6	62°19.9 -2°06.5	77°20.3 -2°07.5	+0.2 -1.0
Me 29	272°23.0 -2°20.1	287°23.2 -2°21.1	302°23.4 -2°22.1	317°23.6 -2°23.1	332°23.8 -2°24.0	347°24.1 -2°25.0	2°24.3 -2°26.0	17°24.5 -2°27.0	32°24.7 -2°27.9	47°24.9 -2°28.9	62°25.1 -2°29.9	77°25.3 -2°30.8	+0.2 -1.0
Je 30	272°28.0 -2°43.5	287°28.2 -2°44.4	302°28.4 -2°45.4	317°28.6 -2°46.4	332°28.8 -2°47.4	347°29.0 -2°48.3	2°29.2 -2°49.3	17°29.4 -2°50.3	32°29.6 -2°51.2	47°29.8 -2°52.2	62°30.0 -2°53.2	77°30.2 -2°54.1	+0.2 -1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Septembre 2027

J	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	Δ'/h SP
Me 1	235°27.6 3°26.6	249°56.7 3°09.6	264°25.8 2°52.7	278°55.1 2°35.8	293°24.4 2°18.8	307°53.7 2°01.9	322°23.0 1°44.9	336°52.4 1°28.0	351°21.8 1°11.0	5°51.2 0°54.1	20°20.7 0°37.2	+29.3 16.5 -16.9 60.5
Je 2	237°45.5 -3°34.4	252°15.3 -3°51.0	266°45.2 -4°07.5	281°15.0 -4°24.0	295°44.8 -4°40.4	310°14.7 -4°56.8	324°44.5 -5°13.1	339°14.4 -5°29.4	353°44.3 -5°45.6	8°14.2 -6°01.8	22°44.0 -6°18.0	+29.9 16.3 -16.4 59.9
Ve 3	240°12.2 -10°13.1	254°42.0 -10°28.2	269°11.8 -10°43.3	283°41.6 -10°58.2	298°11.4 -11°13.2	312°41.2 -11°28.0	327°10.9 -11°42.7	341°40.7 -11°57.4	356°10.4 -12°12.0	10°40.1 -12°26.5	25°09.8 -12°40.9	+29.8 16.1 -14.8 59.0
Sa 4	242°33.0 -16°06.0	257°02.3 -16°18.9	271°31.7 -16°31.7	286°01.0 -16°44.4	300°30.2 -16°56.9	314°59.5 -17°09.4	329°28.7 -17°21.8	343°57.9 -17°34.0	358°27.1 -17°46.2	12°56.2 -17°58.2	27°25.3 -18°10.1	+29.2 15.8 -12.4 58.1
Di 5	244°38.6 -20°54.8	259°07.2 -21°04.8	273°35.9 -21°14.7	288°04.5 -21°24.5	302°33.0 -21°34.1	317°01.6 -21°43.6	331°30.1 -21°53.0	345°58.6 -22°02.2	0°27.0 -22°11.3	14°55.5 -22°20.3	29°23.9 -22°29.2	+28.5 15.6 -9.4 57.1
Lu 6	246°27.1 -24°25.9	260°55.1 -24°32.6	275°23.2 -24°39.2	289°51.2 -24°45.6	304°19.2 -24°51.9	318°47.2 -24°58.0	333°15.1 -25°04.0	347°43.1 -25°09.9	3°43.1 -25°15.6	16°39.0 -25°21.2	31°06.9 -25°26.6	+28.0 15.3 -6.1 56.2
Ma 7	248°05.0 -26°31.1	262°32.8 -26°34.3	277°00.7 -26°37.3	291°28.6 -26°40.2	305°56.4 -26°42.9	320°24.3 -26°45.5	334°52.2 -26°47.9	349°20.1 -26°50.3	3°48.1 -26°52.4	18°16.0 -26°54.4	32°43.9 -26°56.3	+27.9 15.1 -2.5 55.4
Me 8	249°45.4 -27°07.7	264°13.7 -27°07.3	278°42.1 -27°06.8	293°10.4 -27°06.2	307°38.8 -27°05.4	322°07.3 -27°04.5	336°35.7 -27°03.5	351°04.2 -27°02.3	5°32.8 -27°01.0	20°01.3 -26°59.6	34°29.9 -26°58.0	+28.4 15.0 +1.0 54.8
Je 9	251°44.3 -26°18.6	266°13.7 -26°15.0	279°10.7 -26°11.2	295°12.5 -26°07.3	309°42.0 -26°03.3	324°11.5 -25°59.1	338°41.1 -25°54.9	353°10.4 -25°50.5	7°40.5 -25°46.0	22°10.3 -25°41.3	36°40.1 -25°36.6	+29.6 14.8 +4.2 54.4
Ve 10	254°14.5 -24°11.6	268°45.2 -24°05.0	283°16.1 -23°58.4	297°47.0 -23°51.6	312°17.9 -23°44.7	326°49.0 -23°37.7	341°20.0 -23°30.7	355°51.2 -23°23.5	10°22.4 -23°16.2	24°53.7 -23°08.8	39°25.0 -23°01.3	+31.1 14.8 +7.0 54.1
Sa 11	257°22.4 -20°57.3	271°54.7 -20°48.3	286°27.1 -20°39.3	300°59.5 -20°30.1	315°32.0 -20°20.8	330°04.5 -20°11.5	344°37.1 -20°02.1	359°09.8 -19°52.5	13°42.5 -19°42.9	28°15.3 -19°33.3	42°48.1 -19°23.5	+32.6 14.7 +9.4 54.0
Di 12	261°07.3 -16°47.9	275°41.0 -16°36.9	290°14.7 -16°25.9	304°48.5 -16°14.8	319°22.3 -16°03.7	333°56.2 -15°52.4	348°30.1 -15°41.2	3°04.1 -15°29.8	17°38.1 -15°18.4	32°12.2 -15°06.9	46°33.4 -14°55.4	+33.9 14.7 +1.1 53.4
Lu 13	265°22.7 -11°55.4	279°57.4 -11°43.0	294°32.4 -11°30.5	309°06.9 -11°18.0	323°41.7 -11°05.4	338°16.5 -10°52.8	352°51.4 -10°40.2	7°26.3 -10°27.5	22°01.2 -10°14.7	36°36.1 -10°01.9	51°11.1 -9°49.1	+34.8 14.8 -12.6 54.2
Ma 14	269°58.0 -6°32.0	284°33.2 -6°18.6	299°05.8 -6°05.1	313°43.8 -5°51.7	328°19.0 -5°38.2	342°54.3 -5°24.7	357°29.6 -5°11.1	12°04.9 -4°57.5	26°40.2 -4°43.9	41°15.6 -4°30.3	55°50.9 -4°16.6	+35.3 14.9 -13.5 54.5
Me 15	274°40.4 -0°49.7	289°15.6 -0°35.7	303°50.8 -0°21.8	318°26.5 -0°07.9	333°01.3 0°06.1	347°36.4 0°20.0	2°11.6 0°33.9	16°46.8 0°47.9	31°25.9 1°01.9	45°57.0 1°15.8	60°32.1 1°29.8	+35.2 15.0 -13.9 54.8
Je 16	279°15.4 4°59.0	293°50.1 5°12.9	308°24.7 5°26.8	322°59.2 5°40.7	337°33.8 5°54.5	352°08.3 6°08.4	6°42.7 6°22.2	21°17.1 6°36.0	35°51.5 6°49.8	50°25.8 7°03.5	65°00.0 7°17.3	+34.5 15.1 -13.8 55.3
Ve 17	283°28.0 10°40.3	298°01.5 10°53.6	312°34.8 11°06.8	327°08.1 11°20.0	341°41.4 11°33.2	356°14.5 11°46.3	10°47.6 11°59.4	25°20.7 12°12.4	39°53.6 12°25.4	54°26.5 12°38.4	68°59.4 12°51.3	+33.1 15.2 -13.1 55.7
Sa 18	287°03.1 15°58.5	301°34.7 16°10.5	316°06.2 16°22.4	330°37.7 16°34.3	345°09.0 16°46.0	359°40.3 16°57.8	14°11.5 17°09.4	28°42.6 17°21.0	43°13.7 17°32.5	57°44.6 17°43.9	72°15.5 17°55.3	+31.2 15.3 -11.7 56.2
Di 19	289°47.3 20°35.5	304°16.7 20°45.5	318°46.0 20°55.3	333°15.1 21°05.1	347°44.2 21°14.7	2°13.2 21°24.3	16°42.1 21°33.7	31°10.9 21°43.0	45°39.6 21°52.3	60°08.2 22°01.4	74°36.7 22°10.4	+28.9 15.5 +9.5 56.7
Lu 20	291°32.9 24°11.4	305°59.8 24°18.5	320°26.7 24°25.4	334°53.5 24°32.2	349°20.2 24°38.9	3°46.9 24°45.4	18°13.4 24°51.8	32°39.8 24°58.0	47°06.2 25°04.1	61°32.5 25°10.1	75°58.7 25°15.9	+26.6 15.6 +6.5 57.3
Ma 21	305°59.8 24°18.5	320°26.7 24°25.4	334°53.5 24°32.2	349°20.2 24°38.9	3°46.9 24°45.4	18°13.4 24°51.8	32°39.8 24°58.0	47°06.2 25°04.1	61°32.5 25°10.1	75°58.7 25°15.9	90°24.8 25°21.6	+26.5 15.6 +6.3 57.3
Me 22	306°46.7 26°28.8	321°11.6 26°32.0	335°36.4 26°35.1	350°01.2 26°38.0	4°25.9 26°40.7	18°50.5 26°43.3	33°15.1 26°45.7	47°39.6 26°47.9	62°04.1 26°50.0	76°28.1 26°51.9	90°52.9 26°53.7	+24.6 15.7 +2.5 57.9
Je 23	306°53.5 26°59.1	321°17.3 26°58.1	335°41.0 26°56.9	350°04.8 26°55.5	4°28.5 26°53.9	18°52.3 26°52.1	33°16.0 26°50.2	47°39.7 26°48.1	62°03.4 26°45.8	76°27.1 26°40.4	90°50.8 26°40.8	+23.7 16.0 -1.8 58.6
Ve 24	306°47.3 25°40.1	321°11.2 25°34.6	335°35.1 25°29.0	349°59.1 25°23.2	4°23.1 25°17.1	18°47.1 25°11.1	33°11.2 25°04.8	47°35.3 24°58.3	61°59.4 24°51.7	76°23.6 24°44.9	90°47.8 24°37.9	+24.1 16.1 -6.2 59.1
Sa 25	306°57.0 22°33.8	321°22.0 22°24.4	335°47.1 22°14.6	350°12.3 22°04.7	4°37.5 21°54.8	19°02.8 21°44.7	33°28.2 21°34.4	47°53.6 21°24.0	62°19.1 21°13.4	76°44.4 21°02.8	91°10.2 20°51.9	+25.3 16.3 -10.2 59.7
Di 26	307°42.3 17°53.7	322°09.0 17°40.9	336°36.9 17°27.9	351°02.5 17°14.8	5°29.4 17°01.6	19°56.4 16°48.3	34°23.4 16°34.9	48°50.4 16°21.4	63°17.6 16°07.7	77°44.8 15°54.0	92°12.1 15°40.4	+27.0 16.4 -13.4 60.0
Lu 27	309°08.6 12°01.1	323°36.9 11°46.6	338°05.1 11°31.3	352°33.5 11°15.9	7°01.9 11°00.5	21°30.4 10°45.0	35°58.9 10°29.5	50°27.4 10°13.9	64°56.0 9°58.2	79°24.7 9°42.5	93°53.4 9°26.7	+28.5 16.4 -15.6 60.3
Ma 28	311°09.1 5°24.3	325°38.5 5°07.8	340°07.9 4°51.3	354°37.3 4°34.8	9°06.7 4°18.3	23°36.2 4°01.8	38°05.7 3°45.2	52°35.5 3°28.6	67°04.8 3°12.0	81°34.4 2°55.4	96°04.0 2°38.8	+29.5 16.4 -16.6 60.2
Me 29	313°30.1 -1°30.9	327°59.9 -1°47.4	342°29.7 -2°04.0	356°59.6 -2°20.6	11°29.4 -2°53.5	25°59.3 -3°10.0	40°29.1 -3°26.5	54°59.0 -3°42.9	69°28.8 -3°59.3	83°58.7 -4°15.6	98°28.5 -4°15.6	+29.8 16.3 -16.5 59.9
Je 30	315°55.3 -8°16.0	330°25.0 -8°31.6	344°54.6 -8°47.2	359°24.3 -9°02.7	13°53.9 -9°18.1	28°23.5 -9°33.5	42°53.1 -9°48.8	57°22.7 -10°04.1	71°52.2 -10°19.2	86°21.7 -10°34.3	100°51.2 -10°49.4	+29.6 16.2 -15.3 59.4

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne 2: (heure UTC – jour) mod 24
PQ: 7 18h31 — PL: 15 23h03 — DQ: 23 10h20 — NL: 30 02h36

SOLEIL

Octobre 2027

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Ve 1	257°32.7 -3°05.8	272°32.9 -3°06.8	287°33.1 -3°07.7	302°33.3 -3°08.7	317°33.5 -3°09.7	332°33.7 -3°10.6	347°33.9 -3°11.6	2°34.1 -3°12.6	17°34.3 -3°13.6	32°34.5 -3°14.5	47°34.7 -3°15.5	62°34.9 -3°16.5	+0.2 -1.0
Sa 2	257°37.9 -3°29.1	272°37.7 -3°30.0	287°37.9 -3°31.0	302°38.1 -3°32.0	317°38.3 -3°32.9	332°38.5 -3°33.9	347°38.7 -3°34.9	2°38.9 -3°35.8	17°39.1 -3°36.8	32°39.3 -3°37.8	47°39.5 -3°38.7	62°39.7 -3°39.7	+0.2 -1.0
Di 3	257°42.2 -3°52.3	272°42.4 -3°53.2	287°42.6 -3°54.2	302°42.8 -3°55.2	317°43.0 -3°56.1	332°43.2 -3°57.1	347°43.4 -3°58.1	2°43.6 -3°59.0	17°43.8 -4°00.0	32°44.0 -4°01.0	47°44.2 -4°01.9	62°44.4 -4°02.9	+0.2 -1.0
Lu 4	257°46.9 -4°15.5	272°47.1 -4°16.4	287°47.3 -4°17.4	302°47.5 -4°18.4	317°47.6 -4°19.3	332°47.8 -4°20.3	347°48.0 -4°21.2	2°48.2 -4°22.2	17°48.4 -4°23.2	32°48.6 -4°24.1	47°48.8 -4°25.1	62°49.0 -4°26.1	+0.2 -1.0
Ma 5	257°51.5 -4°38.6	272°51.7 -4°39.5	287°51.8 -4°40.5	302°52.0 -4°41.5	317°52.2 -4°42.4	332°52.4 -4°43.4	347°52.6 -4°44.4	2°52.8 -4°45.3	17°53.0 -4°46.3	32°53.2 -4°47.2	47°53.3 -4°48.2	62°53.5 -4°49.2	+0.2 -1.0
Me 6	257°56.0 -5°01.7	272°56.1 -5°02.6	287°56.3 -5°03.6	302°56.5 -5°04.5	317°56.7 -5°05.5	332°56.9 -5°06.4	347°57.1 -5°07.4	2°57.3 -5°08.4	17°57.4 -5°09.3	32°57.6 -5°10.3	47°57.8 -5°11.2	62°58.0 -5°12.2	+0.2 -1.0
Je 7	258°00.4 -5°24.7	273°00.5 -5°25.6	288°00.7 -5°26.6	303°00.9 -5°27.5	318°01.1 -5°28.5	333°01.3 -5°29.4	348°01.4 -5°30.4	3°01.6 -5°31.3	18°01.8 -5°32.3	33°02.0 -5°33.3	48°02.2 -5°34.2	63°02.3 -5°35.2	+0.2 -1.0
Ve 8	258°04.7 -5°47.6	273°04.8 -5°48.5	288°05.0 -5°49.5	303°05.2 -5°50.4	318°05.4 -5°51.4	333°05.6 -5°52.4	348°05.7 -5°53.3	3°05.9 -5°54.3	18°06.1 -5°55.2	33°06.3 -5°56.2	48°06.4 -5°57.1	63°06.6 -5°58.1	+0.2 -1.0
Sa 9	258°08.9 -6°10.4	273°09.0 -6°11.4	288°09.2 -6°12.3	303°09.4 -6°13.3	318°09.6 -6°14.2	333°09.7 -6°15.2	348°09.9 -6°16.1	3°10.1 -6°17.1	18°10.3 -6°18.0	33°10.4 -6°19.0	48°10.6 -6°19.9	63°10.8 -6°20.9	+0.2 -0.9
Di 10	258°13.0 -6°33.2	273°13.1 -6°34.2	288°13.3 -6°35.1	303°13.5 -6°36.0	318°13.6 -6°37.0	333°13.8 -6°37.9	348°14.0 -6°38.9	3°14.1 -6°39.8	18°14.3 -6°40.8	33°14.5 -6°41.7	48°14.7 -6°42.6	63°14.8 -6°43.6	+0.2 -0.9
Lu 11	258°17.0 -6°55.9	273°17.1 -6°56.8	288°17.3 -6°57.8	303°17.5 -6°58.7	318°17.6 -6°59.7	333°17.8 -7°00.6	348°17.9 -7°01.5	3°18.1 -7°02.5	18°18.3 -7°03.4	33°18.4 -7°04.4	48°18.6 -7°05.3	63°18.8 -7°06.3	+0.2 -0.9
Ma 12	258°20.8 -7°18.5	273°21.0 -7°19.4	288°21.2 -7°20.4	303°21.3 -7°21.3	318°21.5 -7°22.2	333°21.6 -7°23.2	348°21.8 -7°24.1	3°21.9 -7°25.0	18°22.1 -7°26.0	33°22.3 -7°26.9	48°22.4 -7°27.9	63°22.6 -7°28.8	+0.2 -0.9
Me 13	258°24.6 -7°41.0	273°24.7 -7°41.9	288°24.9 -7°42.8	303°25.0 -7°43.8	318°25.2 -7°44.7	333°25.3 -7°45.6	348°25.5 -7°46.6	3°25.7 -7°47.5	18°25.8 -7°48.4	33°26.0 -7°49.4	48°26.1 -7°50.3	63°26.3 -7°51.2	+0.2 -0.9
Je 14	258°28.2 -8°03.3	273°28.4 -8°04.3	288°28.5 -8°05.2	303°28.6 -8°06.1	318°28.8 -8°07.1	333°28.9 -8°08.0	348°29.1 -8°08.9	3°29.2 -8°09.9	18°29.4 -8°10.8	33°29.5 -8°11.7	48°29.7 -8°12.6	63°29.8 -8°13.6	+0.2 -0.9
Ve 15	258°31.7 -8°25.6	273°31.8 -8°26.5	288°32.0 -8°27.5	303°32.1 -8°28.4	318°32.3 -8°29.3	333°32.4 -8°30.2	348°32.5 -8°31.2	3°32.7 -8°32.1	18°32.8 -8°33.0	33°33.0 -8°33.9	48°33.1 -8°34.9	63°33.2 -8°35.8	+0.1 -0.9
Sa 16	258°35.0 -8°47.8	273°35.2 -8°48.7	288°35.3 -8°49.6	303°35.5 -8°50.5	318°35.6 -8°51.4	333°35.7 -8°52.4	348°35.9 -8°53.3	3°36.0 -8°54.2	18°36.1 -8°55.1	33°36.3 -8°56.0	48°36.4 -8°57.0	63°36.5 -8°57.9	+0.1 -0.9
Di 17	258°38.2 -9°09.8	273°38.4 -9°10.7	288°38.5 -9°11.6	303°38.6 -9°12.5	318°38.8 -9°13.5	333°38.9 -9°14.4	348°39.0 -9°15.3	3°39.2 -9°16.2	18°39.3 -9°17.1	33°39.4 -9°18.0	48°39.5 -9°18.9	63°39.7 -9°19.8	+0.1 -0.9
Lu 18	258°41.3 -9°31.7	273°41.4 -9°32.6	288°41.6 -9°33.5	303°41.7 -9°34.4	318°41.8 -9°35.3	333°41.9 -9°36.2	348°42.0 -9°37.1	3°42.2 -9°38.1	18°42.3 -9°39.0	33°42.4 -9°39.9	48°42.5 -9°40.8	63°42.7 -9°41.7	+0.1 -0.9
Ma 19	258°44.2 -9°53.5	273°44.3 -9°54.4	288°44.4 -9°55.3	303°44.6 -9°56.2	318°44.7 -9°57.1	333°44.8 -9°58.0	348°44.9 -9°58.9	3°45.0 -9°59.8	18°45.1 -10°00.7	33°45.3 -10°01.6	48°45.4 -10°02.5	63°45.5 -10°03.4	+0.1 -0.9
Me 20	258°47.0 -10°15.1	273°47.1 -10°16.0	288°47.2 -10°16.9	303°47.3 -10°17.8	318°47.4 -10°18.7	333°47.5 -10°19.6	348°47.6 -10°20.5	3°47.7 -10°21.4	18°47.8 -10°22.2	33°47.9 -10°23.1	48°48.1 -10°24.0	63°48.2 -10°24.9	+0.1 -0.9
Je 21	258°49.5 -10°36.5	273°49.6 -10°37.4	288°49.8 -10°38.3	303°49.9 -10°39.2	318°50.0 -10°40.1	333°50.1 -10°41.0	348°50.2 -10°41.9	3°50.3 -10°42.8	18°50.4 -10°43.7	33°50.5 -10°44.6	48°50.6 -10°45.4	63°50.7 -10°46.3	+0.1 -0.9
Ve 22	258°52.0 -10°57.9	273°52.1 -10°58.7	288°52.2 -10°59.6	303°52.3 -11°00.5	318°52.3 -11°01.4	333°52.4 -11°02.3	348°52.5 -11°03.2	3°52.6 -11°04.1	18°52.7 -11°04.9	33°52.8 -11°05.8	48°52.9 -11°06.7	63°53.0 -11°07.6	+0.1 -0.9
Sa 23	258°54.2 -11°19.9	273°54.3 -11°19.9	288°54.4 -11°20.8	303°54.5 -11°21.7	318°54.6 -11°22.5	333°54.6 -11°23.4	348°54.7 -11°24.3	3°54.8 -11°25.2	18°54.9 -11°26.0	33°55.0 -11°26.9	48°55.1 -11°27.8	63°55.2 -11°28.7	+0.1 -0.9
Di 24	258°56.3 -11°40.0	273°56.3 -11°40.9	288°56.4 -11°41.7	303°56.5 -11°42.6	318°56.6 -11°43.5	333°56.7 -11°44.4	348°56.8 -11°45.2	3°56.8 -11°46.1	18°56.9 -11°47.0	33°57.0 -11°47.8	48°57.1 -11°48.7	63°57.2 -11°49.6	+0.1 -0.9
Lu 25	258°58.2 -12°00.8	273°58.2 -12°01.7	288°58.3 -12°02.5	303°58.4 -12°03.4	318°58.4 -12°04.3	333°58.5 -12°05.1	348°58.6 -12°06.0	3°58.7 -12°06.9	18°58.7 -12°07.7	33°58.8 -12°08.6	48°58.9 -12°09.5	63°59.0 -12°10.3	+0.1 -0.9
Ma 26	258°59.9 -12°21.4	273°59.9 -12°22.3	289°00.0 -12°23.2	304°00.1 -12°24.0	319°00.1 -12°24.9	334°00.2 -12°25.7	349°00.2 -12°26.6	4°00.3 -12°27.4	19°00.4 -12°28.3	34°00.4 -12°29.1	49°00.5 -12°30.0	64°00.6 -12°30.8	+0.1 -0.9
Me 27	258°01.9 -12°41.9	274°01.4 -12°42.7	289°01.5 -12°43.6	304°01.5 -12°44.4	319°01.6 -12°45.3	334°01.7 -12°46.1	349°01.7 -12°47.0	4°01.8 -12°47.8	19°01.8 -12°48.7	34°01.9 -12°49.5	49°01.9 -12°50.3	64°02.0 -12°51.2	+0.1 -0.8
Je 28	258°02.7 -13°02.1	274°02.8 -13°03.0	289°02.8 -13°03.8	304°02.9 -13°04.6	319°02.9 -13°05.5	334°03.0 -13°06.3	349°03.0 -13°07.2	4°03.1 -13°08.0	19°03.1 -13°08.8	34°03.1 -13°09.7	49°03.2 -13°10.5	64°03.2 -13°11.3	+0.0 -0.8
Ve 29	258°03.8 -13°22.2	274°03.9 -13°23.0	289°03.9 -13°23.8	304°04.0 -13°24.7	319°04.0 -13°25.5	334°04.1 -13°26.3	349°04.1 -13°27.1	4°04.1 -13°28.0	19°04.2 -13°28.8	34°04.2 -13°29.6	49°04.3 -13°30.4	64°04.3 -13°31.3	+0.0 -0.8
Sa 30	258°04.8 -13°42.0	274°04.8 -13°43.0	289°04.9 -13°43.6	304°04.9 -13°44.5	319°04.9 -13°45.3	334°05.0 -13°46.1	349°05.0 -13°46.9	4°05.0 -13°47.7	19°05.1 -13°48.6	34°05.1 -13°49.4	49°05.1 -13°50.2	64°05.2 -13°51.0	+0.0 -0.8
Di 31	258°05.5 -14°01.6	274°05.6 -14°02.4	289°05.6 -14°03.2	304°05.6 -14°04.0	319°05.6 -14°04.9	334°05.7 -14°05.7	349°05.7 -14°06.5	4°05.7 -14°07.3	19°05.7 -14°08.1	34°05.8 -14°08.9	49°05.8 -14°09.7	64°05.8 -14°10.5	+0.0 -0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.0'

LUNE

Octobre 2027

J	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	Δ°/h	SP
Ve 1	245 ^o 44.8 -13 ^o 15.5	260 ^o 14.0 -13 ^o 29.7	274 ^o 43.1 -13 ^o 43.7	289 ^o 12.3 -13 ^o 57.7	303 ^o 41.4 -14 ^o 11.6	318 ^o 10.4 -14 ^o 25.4	332 ^o 39.5 -14 ^o 39.1	347 ^o 08.5 -14 ^o 52.7	1 ^o 37.4 -15 ^o 06.2	16 ^o 06.4 -15 ^o 19.6	30 ^o 35.3 -15 ^o 33.0	+29.1	16.0
Sa 2	247 ^o 44.6 -18 ^o 40.0	262 ^o 13.0 -18 ^o 51.6	276 ^o 41.3 -19 ^o 03.0	291 ^o 09.5 -19 ^o 14.4	305 ^o 37.7 -19 ^o 25.6	320 ^o 05.9 -19 ^o 36.7	334 ^o 34.1 -19 ^o 47.7	349 ^o 02.2 -19 ^o 58.5	3 ^o 30.3 -20 ^o 09.2	17 ^o 58.4 -20 ^o 19.8	32 ^o 26.4 -20 ^o 30.3	+28.2	15.8
Di 3	249 ^o 22.8 -22 ^o 51.7	263 ^o 50.3 -23 ^o 00.7	278 ^o 17.8 -23 ^o 08.2	292 ^o 45.2 -23 ^o 16.3	307 ^o 12.7 -23 ^o 24.2	321 ^o 40.1 -23 ^o 32.0	336 ^o 07.1 -23 ^o 39.6	350 ^o 34.9 -23 ^o 47.1	5 ^o 02.3 -24 ^o 01.7	19 ^o 29.6 -24 ^o 11.7	33 ^o 56.6 -24 ^o 08.8	+27.4	15.6
Lu 4	250 ^o 45.0 -25 ^o 37.5	265 ^o 12.1 -25 ^o 42.2	279 ^o 39.2 -25 ^o 46.8	294 ^o 06.4 -25 ^o 51.3	308 ^o 33.5 -25 ^o 55.6	323 ^o 00.6 -25 ^o 59.7	337 ^o 27.8 -26 ^o 03.7	351 ^o 54.9 -26 ^o 07.6	6 ^o 22.0 -26 ^o 11.3	20 ^o 49.2 -26 ^o 14.8	35 ^o 16.3 -26 ^o 18.2	+27.1	15.3
Ma 5	252 ^o 05.4 -26 ^o 51.6	266 ^o 32.8 -26 ^o 52.6	281 ^o 00.3 -26 ^o 53.5	295 ^o 27.8 -26 ^o 54.3	309 ^o 55.3 -26 ^o 54.9	324 ^o 22.9 -26 ^o 55.4	338 ^o 50.5 -26 ^o 55.7	353 ^o 18.1 -26 ^o 55.9	7 ^o 45.7 -26 ^o 56.0	22 ^o 13.4 -26 ^o 55.9	36 ^o 41.2 -26 ^o 55.6	+27.6	15.1
Me 6	253 ^o 42.3 -26 ^o 35.4	268 ^o 10.7 -26 ^o 32.9	282 ^o 39.2 -26 ^o 30.4	297 ^o 07.8 -26 ^o 27.6	311 ^o 36.4 -26 ^o 24.8	326 ^o 05.1 -26 ^o 21.9	340 ^o 33.8 -26 ^o 18.8	355 ^o 02.6 -26 ^o 15.5	9 ^o 31.5 -26 ^o 12.2	24 ^o 00.4 -26 ^o 08.7	38 ^o 29.3 -26 ^o 05.1	+28.7	15.0
Je 7	255 ^o 51.3 -18 ^o 16.7	270 ^o 21.3 -18 ^o 06.5	284 ^o 51.4 -17 ^o 56.2	299 ^o 21.5 -17 ^o 45.8	313 ^o 51.7 -17 ^o 35.8	328 ^o 21.9 -17 ^o 24.6	342 ^o 52.3 -17 ^o 14.3	357 ^o 22.6 -17 ^o 03.6	11 ^o 53.1 -16 ^o 52.9	26 ^o 23.6 -16 ^o 42.6	40 ^o 54.2 -23 ^o 56.1	+30.3	14.9
Ve 8	258 ^o 41.3 -26 ^o 12.5	273 ^o 13.0 -26 ^o 06.0	287 ^o 44.7 -26 ^o 05.7	302 ^o 16.5 -26 ^o 05.1	316 ^o 48.4 -26 ^o 04.3	331 ^o 20.4 -26 ^o 03.2	345 ^o 52.4 -26 ^o 02.1	0 ^o 24.5 -26 ^o 01.0	14 ^o 56.6 -26 ^o 00.4	29 ^o 28.8 -26 ^o 00.4	44 ^o 01.1 -26 ^o 00.4	+32.0	14.8
Sa 9	262 ^o 12.5 -18 ^o 16.7	276 ^o 45.7 -18 ^o 06.5	291 ^o 19.0 -17 ^o 56.2	305 ^o 52.4 -17 ^o 45.8	320 ^o 25.8 -17 ^o 35.8	334 ^o 59.2 -17 ^o 24.6	349 ^o 32.7 -17 ^o 14.3	4 ^o 06.3 -17 ^o 03.6	18 ^o 39.9 -16 ^o 52.9	33 ^o 13.5 -16 ^o 42.6	47 ^o 47.7 -23 ^o 56.1	+33.5	14.8
Di 10	266 ^o 18.5 -13 ^o 40.9	280 ^o 52.9 -13 ^o 29.0	295 ^o 27.3 -13 ^o 17.1	310 ^o 01.8 -13 ^o 05.2	324 ^o 36.4 -12 ^o 53.2	339 ^o 10.9 -12 ^o 41.1	353 ^o 45.5 -12 ^o 29.0	8 ^o 20.1 -12 ^o 16.9	22 ^o 54.8 -12 ^o 04.7	37 ^o 29.5 -11 ^o 52.4	52 ^o 04.2 -11 ^o 40.1	+34.6	14.8
Lu 11	270 ^o 48.2 -8 ^o 30.0	285 ^o 23.3 -8 ^o 17.0	299 ^o 58.4 -8 ^o 04.0	314 ^o 33.6 -7 ^o 50.9	329 ^o 08.7 -7 ^o 37.8	343 ^o 43.9 -7 ^o 24.6	358 ^o 19.0 -7 ^o 11.5	12 ^o 54.2 -6 ^o 58.2	27 ^o 29.4 -6 ^o 45.0	42 ^o 04.6 -6 ^o 31.7	56 ^o 39.8 -6 ^o 18.4	+35.2	14.9
Ma 12	275 ^o 28.3 -2 ^o 55.3	290 ^o 03.5 -2 ^o 41.6	304 ^o 38.7 -2 ^o 27.8	319 ^o 13.9 -2 ^o 14.1	333 ^o 49.0 -2 ^o 00.3	348 ^o 24.2 -1 ^o 46.5	362 ^o 56.8 -1 ^o 32.7	2 ^o 59.4 -1 ^o 18.8	32 ^o 09.6 -1 ^o 05.0	46 ^o 44.7 -0 ^o 51.1	61 ^o 19.8 -0 ^o 37.3	+35.2	15.0
Me 13	280 ^o 03.6 2 ^o 51.7	294 ^o 38.3 3 ^o 05.7	309 ^o 13.0 3 ^o 19.7	323 ^o 47.6 3 ^o 33.6	338 ^o 22.8 3 ^o 47.6	352 ^o 56.8 4 ^o 01.5	367 ^o 11.0 4 ^o 15.5	12 ^o 59.0 4 ^o 29.4	26 ^o 12.2 4 ^o 43.3	40 ^o 45.3 4 ^o 57.2	55 ^o 18.4 5 ^o 11.2	+33.5	15.1
Je 14	284 ^o 18.6 8 ^o 38.0	298 ^o 52.2 8 ^o 51.6	313 ^o 25.6 9 ^o 05.2	327 ^o 59.1 9 ^o 18.8	342 ^o 32.5 9 ^o 32.4	357 ^o 05.8 9 ^o 45.9	11 ^o 39.9 9 ^o 59.4	26 ^o 12.2 10 ^o 12.8	40 ^o 45.3 10 ^o 26.2	55 ^o 18.4 10 ^o 39.6	69 ^o 51.4 10 ^o 52.9	+33.3	15.2
Ve 15	287 ^o 57.6 14 ^o 08.0	302 ^o 29.4 14 ^o 20.6	317 ^o 01.1 14 ^o 33.2	331 ^o 32.8 14 ^o 45.7	346 ^o 04.3 14 ^o 58.1	360 ^o 35.8 15 ^o 10.5	15 ^o 27.2 15 ^o 22.8	29 ^o 38.5 15 ^o 35.0	44 ^o 09.8 15 ^o 47.2	58 ^o 40.9 15 ^o 59.3	73 ^o 11.9 16 ^o 11.4	+31.4	15.4
Sa 16	290 ^o 46.9 19 ^o 03.1	305 ^o 16.5 19 ^o 13.9	319 ^o 46.0 19 ^o 24.6	334 ^o 15.4 19 ^o 35.2	348 ^o 44.7 19 ^o 45.7	363 ^o 13.9 19 ^o 56.2	17 ^o 43.0 20 ^o 06.5	32 ^o 12.0 20 ^o 16.7	46 ^o 41.0 20 ^o 26.8	61 ^o 09.8 20 ^o 36.8	75 ^o 36.8 20 ^o 46.8	+29.2	15.5
Di 17	293 ^o 37.9 23 ^o 02.2	307 ^o 05.1 23 ^o 10.3	321 ^o 32.2 23 ^o 18.3	335 ^o 59.3 23 ^o 26.1	350 ^o 26.7 23 ^o 33.8	364 ^o 53.0 23 ^o 41.4	19 ^o 19.8 23 ^o 48.8	33 ^o 16.4 23 ^o 56.6	48 ^o 13.0 24 ^o 03.3	62 ^o 39.5 24 ^o 10.3	77 ^o 05.9 24 ^o 17.2	+26.8	15.7
Lu 18	293 ^o 32.1 25 ^o 43.3	307 ^o 57.2 25 ^o 47.9	322 ^o 32.2 25 ^o 52.2	336 ^o 47.3 25 ^o 56.5	351 ^o 23.8 26 ^o 00.5	365 ^o 57.2 26 ^o 04.4	5 ^o 37.2 26 ^o 08.2	20 ^o 02.0 26 ^o 11.7	34 ^o 26.8 26 ^o 15.2	48 ^o 51.5 26 ^o 18.4	63 ^o 16.1 26 ^o 21.5	+24.9	15.8
Ma 19	293 ^o 44.6 26 ^o 47.7	308 ^o 08.5 26 ^o 48.0	322 ^o 32.5 26 ^o 48.2	336 ^o 56.5 26 ^o 48.3	351 ^o 20.4 26 ^o 48.1	365 ^o 54.3 26 ^o 47.8	5 ^o 44.3 26 ^o 47.3	20 ^o 08.2 26 ^o 47.3	34 ^o 32.1 26 ^o 46.6	48 ^o 56.0 26 ^o 45.8	63 ^o 19.9 26 ^o 43.6	+23.9	15.9
Me 20	308 ^o 08.5 26 ^o 48.0	322 ^o 32.5 26 ^o 48.2	336 ^o 56.5 26 ^o 48.3	351 ^o 20.4 26 ^o 48.1	365 ^o 54.3 26 ^o 47.8	380 ^o 28.2 26 ^o 47.3	20 ^o 08.2 26 ^o 46.6	34 ^o 32.1 26 ^o 45.8	48 ^o 56.0 26 ^o 44.8	63 ^o 19.9 26 ^o 43.6	77 ^o 44.8 26 ^o 42.2	+23.9	15.9
Je 21	308 ^o 06.7 26 ^o 00.8	322 ^o 30.8 25 ^o 56.7	336 ^o 54.9 25 ^o 52.4	351 ^o 19.1 25 ^o 47.9	365 ^o 13.9 25 ^o 43.2	380 ^o 28.2 25 ^o 38.4	20 ^o 07.5 25 ^o 33.4	34 ^o 31.8 25 ^o 28.3	48 ^o 56.1 25 ^o 22.9	63 ^o 20.0 25 ^o 17.5	77 ^o 44.8 25 ^o 11.8	+24.2	16.0
Ve 22	308 ^o 21.7 23 ^o 27.8	322 ^o 47.0 23 ^o 19.6	337 ^o 12.4 23 ^o 11.3	351 ^o 37.8 23 ^o 02.8	366 ^o 13.3 22 ^o 54.2	381 ^o 28.5 22 ^o 45.6	20 ^o 28.8 22 ^o 36.5	34 ^o 54.5 22 ^o 27.5	49 ^o 20.1 22 ^o 18.3	63 ^o 45.9 22 ^o 09.0	78 ^o 11.7 21 ^o 59.5	+25.6	16.1
Sa 23	309 ^o 14.5 19 ^o 21.6	323 ^o 41.5 19 ^o 10.1	338 ^o 08.6 18 ^o 58.4	352 ^o 35.8 18 ^o 46.7	373 ^o 03.0 18 ^o 34.6	387 ^o 30.3 18 ^o 22.8	21 ^o 30.3 18 ^o 10.7	35 ^o 57.7 17 ^o 58.5	50 ^o 25.2 17 ^o 46.2	64 ^o 52.7 17 ^o 33.8	79 ^o 20.3 17 ^o 21.3	+27.4	16.2
Di 24	310 ^o 51.3 14 ^o 01.9	325 ^o 20.0 13 ^o 47.9	339 ^o 48.8 13 ^o 33.9	354 ^o 17.7 13 ^o 19.7	369 ^o 46.5 13 ^o 05.7	384 ^o 15.5 12 ^o 51.2	37 ^o 44.6 12 ^o 36.8	52 ^o 13.6 12 ^o 22.4	66 ^o 42.8 12 ^o 07.9	81 ^o 12.0 11 ^o 53.3	95 ^o 41.2 11 ^o 38.6	+29.0	16.2
Lu 25	313 ^o 05.8 7 ^o 51.8	327 ^o 35.7 7 ^o 36.3	342 ^o 05.8 7 ^o 20.8	356 ^o 35.8 7 ^o 05.2	371 ^o 05.9 6 ^o 49.5	385 ^o 36.0 6 ^o 33.9	40 ^o 06.2 6 ^o 18.1	54 ^o 36.4 6 ^o 02.4	69 ^o 06.6 5 ^o 46.6	83 ^o 36.6 5 ^o 30.8	98 ^o 07.7 5 ^o 15.0	+30.1	16.2
Ma 26	315 ^o 43.8 1 ^o 15.1	330 ^o 14.3 0 ^o 59.1	344 ^o 44.9 0 ^o 43.0	359 ^o 15.5 0 ^o 26.9	373 ^o 46.5 0 ^o 10.8	387 ^o 16.7 -0 ^o 05.3	42 ^o 47.3 -0 ^o 21.4	57 ^o 17.9 -0 ^o 37.4	71 ^o 48.5 -0 ^o 53.5	86 ^o 19.1 -1 ^o 09.6	100 ^o 49.7 -1 ^o 25.6	+30.6	16.2
Me 27	318 ^o 28.2 -5 ^o 24.2	332 ^o 58.6 -5 ^o 39.9	347 ^o 29.1 -5 ^o 55.6	361 ^o 59.9 -6 ^o 11.2	376 ^o 29.9 -6 ^o 26.8	391 ^o 00.3 -6 ^o 42.4	45 ^o 30.7 -6 ^o 57.9	60 ^o 01.0 -7 ^o 13.3	74 ^o 31.3 -7 ^o 28.7	89 ^o 01.6 -7 ^o 44.1	103 ^o 31.9 -7 ^o 59.4	+30.4	16.1
Je 28	321 ^o 02.4 -11 ^o 42.6	335 ^o 32.1 -11 ^o 57.0	350 ^o 01.8 -12 ^o 11.3	364 ^o 31.2 -12 ^o 25.5	379 ^o 01.2 -12 ^o 39.6	393 ^o 30.7 -12 ^o 53.7	48 ^o 00.3 -13 ^o 07.7	62 ^o 29.8 -13 ^o 21.6	76 ^o 59.3 -13 ^o 35.4	91 ^o 28.8 -13 ^o 49.2	105 ^o 58.8 -14 ^o 02.9	+29.6	16.0
Ve 29	323 ^o 13.6 -17 ^o 16.9	337 ^o 42.4 -17 ^o 29.1	352 ^o 10.9 -17 ^o 41.1	366 ^o 39.5 -17 ^o 53.1	381 ^o 08.0 -18 ^o 04.9	395 ^o 36.5 -18 ^o 16.6	50 ^o 04.9 -18 ^o 28.2	64 ^o 33.3 -18 ^o 39.7	79 ^o 01.6 -18 ^o 51.1	93 ^o 29.9 -19 ^o 02.4	107 ^o 58.8 -19 ^o 13.5	+28.4	15.8
Sa 30	324 ^o 56.2 -21 ^o 46.3	339 ^o 23.7 -21 ^o 55.5	353 ^o 51.2 -22 ^o 04.5	368 ^o 18.7 -22 ^o 13.4	382 ^o 46.2 -22 ^o 22.2	397 ^o 13.5 -22 ^o 30.8	51 ^o 40.8 -22 ^o 39.3	66 ^o 08.1 -22 ^o 47.6	80 ^o 35.4 -22 ^o 55.9	95 ^o 02.6 -23 ^o 03.9	109 ^o 29.8 -23 ^o 11.9	+27.4	

SOLEIL

Novembre 2027

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Lu 1	259°06.1 -14°21.0	274°06.1 -14°21.8	289°06.1 -14°22.6	304°06.2 -14°23.4	319°06.2 -14°24.2	334°06.2 -14°25.0	349°06.2 -14°25.8	4°06.2 -14°26.6	15°06.2 -14°27.4	34°06.3 -14°28.2	45°06.3 -14°29.0	64°06.3 -14°29.8	+0.0 -0.8
Ma 2	259°06.5 -14°40.2	274°06.5 -14°40.9	289°06.5 -14°41.7	304°06.5 -14°42.5	319°06.5 -14°43.3	334°06.5 -14°44.1	349°06.5 -14°44.9	4°06.5 -14°45.7	15°06.5 -14°46.5	34°06.5 -14°47.3	45°06.6 -14°48.1	64°06.6 -14°48.9	+0.0 -0.8
Me 3	259°06.6 -14°59.1	274°06.6 -14°59.9	289°06.6 -15°00.6	304°06.6 -15°01.4	319°06.6 -15°02.2	334°06.6 -15°03.0	349°06.6 -15°03.8	4°06.6 -15°04.5	15°06.6 -15°05.3	34°06.6 -15°06.1	45°06.6 -15°06.9	64°06.6 -15°07.7	+0.0 -0.8
Je 4	259°06.6 -15°17.7	274°06.6 -15°18.5	289°06.6 -15°19.3	304°06.6 -15°20.1	319°06.6 -15°20.8	334°06.6 -15°21.6	349°06.5 -15°22.4	4°06.5 -15°23.1	15°06.5 -15°23.9	34°06.5 -15°24.7	45°06.5 -15°25.5	64°06.5 -15°26.2	-0.0 -0.8
Ve 5	259°06.4 -15°36.2	274°06.3 -15°36.9	289°06.3 -15°37.7	304°06.3 -15°38.5	319°06.3 -15°39.2	334°06.3 -15°40.0	349°06.3 -15°40.7	4°06.2 -15°41.5	15°06.2 -15°42.3	34°06.2 -15°43.0	45°06.2 -15°43.8	64°06.2 -15°44.5	-0.0 -0.8
Sa 6	259°05.9 -15°54.3	274°05.9 -15°55.1	289°05.9 -15°55.8	304°05.8 -15°56.6	319°05.8 -15°57.3	334°05.8 -15°58.1	349°05.8 -15°58.8	4°05.7 -15°59.6	15°05.7 -16°00.3	34°05.7 -16°01.1	45°05.7 -16°01.8	64°05.6 -16°02.6	-0.0 -0.7
Di 7	259°05.3 -16°12.2	274°05.2 -16°13.0	289°05.2 -16°13.7	304°05.2 -16°14.4	319°05.1 -16°15.2	334°05.1 -16°15.9	349°05.1 -16°16.7	4°05.0 -16°17.4	15°05.0 -16°18.1	34°05.0 -16°18.9	45°04.9 -16°19.6	64°04.9 -16°20.3	-0.0 -0.7
Lu 8	259°04.4 -16°30.9	274°04.4 -16°31.7	289°04.3 -16°32.0	304°04.3 -16°32.8	319°04.3 -16°33.5	334°04.3 -16°34.2	349°04.2 -16°34.9	4°04.1 -16°35.7	15°04.1 -16°36.4	34°04.1 -16°37.1	45°04.0 -16°37.8	64°04.0 -16°38.5	-0.0 -0.7
Ma 9	259°03.4 -16°47.2	274°03.3 -16°47.9	289°03.3 -16°48.6	304°03.2 -16°49.3	319°03.2 -16°50.1	334°03.1 -16°50.8	349°03.1 -16°51.5	4°03.0 -16°52.2	15°03.0 -16°52.9	34°02.9 -16°53.6	45°02.9 -16°54.3	64°02.8 -16°55.1	-0.1 -0.7
Me 10	259°02.2 -17°04.3	274°02.0 -17°05.0	289°02.0 -17°05.7	304°01.9 -17°06.4	319°01.9 -17°07.1	334°01.8 -17°07.8	349°01.8 -17°08.5	4°01.7 -17°09.2	15°01.6 -17°09.9	34°01.6 -17°10.6	45°01.5 -17°11.3	64°01.5 -17°12.0	-0.1 -0.7
Je 11	259°00.6 -17°21.0	274°00.6 -17°21.7	289°00.5 -17°22.4	304°00.4 -17°23.1	319°00.4 -17°23.8	334°00.3 -17°24.5	349°00.2 -17°25.2	4°00.2 -17°25.9	15°00.1 -17°26.6	34°00.0 -17°27.2	45°00.0 -17°27.9	63°59.9 -17°28.6	-0.1 -0.7
Ve 12	258°59.0 -17°37.5	273°58.9 -17°38.2	288°58.8 -17°38.9	303°58.7 -17°39.5	318°58.7 -17°40.2	333°58.6 -17°40.9	348°58.5 -17°41.6	3°58.4 -17°42.2	15°58.3 -17°42.9	33°58.3 -17°43.6	45°58.2 -17°44.3	63°58.1 -17°44.9	-0.1 -0.7
Sa 13	258°57.1 -17°55.7	273°57.0 -17°54.3	288°56.9 -17°55.0	303°56.8 -17°55.7	318°56.7 -17°56.3	333°56.6 -17°57.0	348°56.6 -17°57.7	3°56.5 -17°58.3	15°56.4 -17°59.0	33°56.3 -17°59.6	45°56.2 -18°00.3	63°56.1 -18°01.0	-0.1 -0.7
Di 14	258°55.0 -18°09.9	273°54.9 -18°10.2	288°54.8 -18°10.8	303°54.7 -18°11.5	318°54.6 -18°12.1	333°54.5 -18°12.8	348°54.4 -18°13.4	3°54.3 -18°14.1	15°54.2 -18°14.7	33°54.1 -18°15.4	45°54.0 -18°16.0	63°53.9 -18°16.7	-0.1 -0.7
Lu 15	258°52.2 -18°25.1	273°52.6 -18°25.7	288°52.5 -18°26.3	303°52.3 -18°27.0	318°52.2 -18°27.6	333°52.1 -18°28.3	348°52.0 -18°28.9	3°52.0 -18°29.5	15°51.8 -18°30.2	33°51.7 -18°30.8	45°51.6 -18°31.4	63°51.5 -18°32.1	-0.1 -0.6
Ma 16	258°50.1 -18°40.3	273°50.0 -18°40.9	288°49.9 -18°41.5	303°49.8 -18°42.2	318°49.7 -18°42.8	333°49.6 -18°43.4	348°49.5 -18°44.0	3°49.4 -18°44.7	15°49.2 -18°45.3	33°49.1 -18°45.9	45°49.0 -18°46.5	63°48.9 -18°47.1	-0.1 -0.6
Me 17	258°47.4 -18°55.2	273°47.3 -18°55.8	288°47.2 -18°56.4	303°47.0 -18°57.0	318°46.9 -18°57.6	333°46.8 -18°58.2	348°46.7 -18°58.8	3°46.6 -18°59.5	15°46.4 -19°00.1	33°46.3 -19°00.7	45°46.2 -19°01.3	63°46.1 -19°01.9	-0.1 -0.6
Je 18	258°44.4 -19°09.7	273°44.3 -19°10.3	288°44.2 -19°10.9	303°44.1 -19°11.5	318°43.9 -19°12.1	333°43.8 -19°12.7	348°43.7 -19°13.3	3°43.5 -19°13.9	15°43.4 -19°14.5	33°43.3 -19°15.1	45°43.2 -19°15.7	63°43.0 -19°16.3	-0.1 -0.6
Ve 19	258°41.3 -19°23.9	273°41.1 -19°24.5	288°41.0 -19°25.1	303°40.9 -19°25.7	318°40.7 -19°26.3	333°40.6 -19°26.9	348°40.5 -19°27.4	3°40.3 -19°28.0	15°40.2 -19°28.6	33°40.0 -19°29.2	45°39.9 -19°29.8	63°39.8 -19°30.3	-0.1 -0.6
Sa 20	258°37.9 -19°37.8	273°37.8 -19°38.4	288°37.6 -19°38.9	303°37.5 -19°39.5	318°37.3 -19°40.1	333°37.2 -19°40.7	348°37.0 -19°41.2	3°36.9 -19°41.8	15°36.7 -19°42.4	33°36.6 -19°42.9	45°36.4 -19°43.5	63°36.3 -19°44.0	-0.1 -0.6
Di 21	258°34.3 -19°51.3	273°34.2 -19°51.9	288°34.0 -19°52.4	303°33.9 -19°53.0	318°33.7 -19°53.5	333°33.6 -19°54.1	348°33.4 -19°54.6	3°33.2 -19°55.2	15°33.1 -19°55.7	33°32.9 -19°56.3	45°32.8 -19°56.8	63°32.6 -19°57.4	-0.1 -0.6
Lu 22	258°30.5 -20°04.5	273°30.4 -20°05.0	288°30.2 -20°05.6	303°30.1 -20°06.1	318°29.9 -20°06.6	333°29.7 -20°07.2	348°29.6 -20°07.7	3°29.9 -20°08.2	15°29.2 -20°08.8	33°29.1 -20°09.3	45°28.9 -20°09.8	63°28.7 -20°10.4	-0.2 -0.5
Ma 23	258°26.5 -20°17.3	273°26.4 -20°17.8	288°26.2 -20°18.3	303°26.0 -20°18.8	318°25.9 -20°19.3	333°25.7 -20°19.9	348°25.5 -20°20.4	3°25.3 -20°20.9	15°25.2 -20°21.4	33°25.0 -20°22.0	45°24.8 -20°22.5	63°24.6 -20°23.0	-0.2 -0.5
Me 24	258°22.4 -20°29.7	273°22.2 -20°30.2	288°22.0 -20°30.7	303°21.8 -20°31.2	318°21.6 -20°31.7	333°21.5 -20°32.2	348°21.3 -20°32.7	3°21.1 -20°33.2	15°20.9 -20°33.7	33°20.7 -20°34.2	45°20.5 -20°34.7	63°20.4 -20°35.2	-0.2 -0.5
Je 25	258°18.0 -20°41.7	273°17.8 -20°42.2	288°17.6 -20°42.7	303°17.4 -20°43.2	318°17.2 -20°43.7	333°17.0 -20°44.2	348°16.8 -20°44.7	3°16.6 -20°45.1	15°16.5 -20°45.6	33°16.3 -20°46.1	45°16.1 -20°46.6	63°15.9 -20°47.1	-0.2 -0.5
Ve 26	258°13.4 -20°53.3	273°13.2 -20°53.8	288°13.0 -20°54.3	303°12.8 -20°54.8	318°12.6 -20°55.2	333°12.4 -20°55.7	348°12.2 -20°56.2	3°12.0 -20°56.7	15°11.8 -20°57.1	33°11.6 -20°57.6	45°11.4 -20°58.1	63°11.2 -20°58.6	-0.2 -0.5
Sa 27	258°08.6 -21°04.6	273°08.4 -21°05.1	288°08.2 -21°05.5	303°08.0 -21°06.0	318°07.8 -21°06.4	333°07.6 -21°06.9	348°07.4 -21°07.4	3°07.2 -21°07.9	15°07.0 -21°08.3	33°06.8 -21°08.8	45°06.6 -21°09.3	63°06.4 -21°09.6	-0.2 -0.5
Di 28	258°03.8 -21°15.5	273°03.4 -21°15.9	288°03.2 -21°16.3	303°03.0 -21°16.8	318°02.8 -21°17.2	333°02.6 -21°17.7	348°02.4 -21°18.1	3°02.2 -21°18.6	15°02.0 -21°19.0	33°01.7 -21°19.4	45°01.5 -21°19.9	63°01.3 -21°20.3	-0.2 -0.4
Lu 29	257°58.5 -21°25.9	272°58.3 -21°26.3	287°58.1 -21°26.8	302°57.9 -21°27.2	317°57.6 -21°27.6	332°57.4 -21°28.0	347°57.2 -21°28.5	2°57.0 -21°28.9	15°56.8 -21°29.3	32°56.5 -21°29.7	45°56.3 -21°30.2	62°56.1 -21°30.6	-0.2 -0.4
Ma 30	257°53.2 -21°36.0	272°53.0 -21°36.4	287°52.8 -21°36.8	302°52.5 -21°37.2	317°52.3 -21°37.6	332°52.1 -21°38.0	347°51.9 -21°38.4	2°51.6 -21°38.8	15°51.4 -21°39.2	32°51.2 -21°39.6	45°50.9 -21°40.0	62°50.7 -21°40.4	-0.2 -0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Novembre 2027

	J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	Δ'/h	SP
Lu 1	240°42.2 -26°15.4	255°08.9 -26°18.2	269°35.7 -26°20.8	284°02.4 -26°23.3	298°29.2 -26°25.6	312°56.0 -26°27.8	327°22.8 -26°29.8	341°49.6 -26°31.7	356°16.4 -26°33.4	10°43.3 -26°35.0	25°10.2 -26°36.5	+26.8	15.3	
	241°57.1 -26°40.0	256°24.6 -26°39.3	270°52.0 -26°38.3	285°19.6 -26°37.1	299°47.1 -26°35.7	314°14.8 -26°34.3	328°42.4 -26°32.6	343°10.2 -26°30.9	357°37.9 -26°29.0	12°05.8 -26°27.0	26°33.6 -26°24.8	+27.6	15.1	
Me 3	243°39.0 -25°36.3	258°07.9 -25°32.0	272°36.9 -25°27.6	287°05.9 -25°23.1	301°34.9 -25°18.5	316°04.1 -25°13.8	330°33.3 -25°08.9	345°02.6 -24°58.8	359°32.0 -24°53.5	14°01.4 -24°53.5	28°30.9 -24°48.2	+29.2	15.0	
	246°02.5 -23°14.6	260°33.2 -23°07.5	275°04.0 -23°00.3	289°34.8 -22°53.0	304°05.7 -22°45.6	318°36.7 -22°38.1	333°07.8 -22°30.5	347°39.0 -22°22.8	2°10.2 -22°15.0	16°41.5 -22°07.1	31°12.9 -21°59.1	+31.0	14.9	
Ve 5	249°12.2 -19°48.7	263°44.7 -19°39.3	278°17.3 -19°29.9	292°50.0 -19°20.3	307°22.7 -19°10.7	321°55.5 -19°01.1	336°28.3 -18°51.3	351°01.2 -18°41.5	5°34.2 -18°31.6	20°07.3 -18°21.6	34°40.4 -18°11.5	+32.8	14.8	
Sa 6	253°04.0 -15°32.4	267°38.0 -15°21.3	282°12.1 -15°10.1	296°46.2 -14°58.9	311°20.4 -14°47.6	325°54.6 -14°36.2	340°28.9 -14°24.8	355°03.2 -14°13.3	9°37.5 -14°01.8	24°11.9 -13°50.2	38°46.4 -13°38.6	+34.2	14.8	
Di 7	257°27.5 -10°38.0	272°02.6 -10°25.6	286°37.6 -10°13.1	301°12.7 -10°00.6	315°47.8 -9°48.1	330°22.9 -9°35.5	344°58.0 -9°22.9	359°33.2 -9°10.2	14°08.3 -8°57.5	28°43.6 -8°44.8	43°18.8 -8°32.0	+35.1	14.8	
Lu 8	262°08.8 -5°16.3	276°44.2 -5°03.0	291°19.6 -4°49.7	305°55.0 -4°36.3	320°30.4 -4°22.9	335°05.8 -4°09.5	349°41.2 -3°56.1	4°16.6 -3°42.7	18°52.0 -3°29.2	33°27.4 -3°15.7	48°02.8 -3°02.2	+35.4	14.9	
Ma 9	266°51.9 0°22.4	281°27.1 0°36.1	296°02.2 0°49.9	310°37.2 1°03.7	325°12.3 1°17.4	339°47.3 1°31.2	354°22.3 1°45.0	8°57.2 1°58.8	23°32.2 2°12.6	38°07.1 2°26.4	52°41.9 2°40.2	+35.0	15.0	
Me 10	271°20.0 6°06.9	285°54.1 6°20.6	300°28.2 6°34.3	315°02.3 6°48.0	329°36.3 7°01.7	344°10.2 7°15.4	358°44.1 7°29.0	13°18.0 7°42.7	27°51.7 7°56.3	42°25.4 8°09.9	56°59.1 8°23.4	+33.9	15.2	
Je 11	275°15.5 11°43.9	289°48.0 11°57.0	304°20.8 12°10.1	318°52.8 12°23.1	333°25.1 12°36.1	347°57.2 12°49.0	2°29.3 13°01.9	2°29.3 13°14.7	17°01.3 13°27.5	31°33.3 13°40.3	46°05.1 13°53.0	60°36.9 14°05.6	+32.1	15.4
Ve 12	278°22.0 16°56.5	292°52.0 17°08.2	307°22.4 17°19.9	321°52.4 17°31.4	336°22.3 17°42.9	350°52.2 17°54.3	5°21.9 18°05.7	5°21.9 18°16.9	34°21.0 18°28.1	48°50.5 18°39.2	63°19.8 18°50.1	+29.8	15.6	
Sa 13	280°26.6 21°23.7	294°54.2 21°33.1	309°21.7 21°42.3	323°49.1 21°51.5	338°16.4 22°00.6	352°43.6 22°09.5	7°10.7 22°18.3	7°10.7 22°27.0	36°04.5 22°35.6	50°31.2 22°44.1	64°57.9 22°52.4	+27.1	15.7	
Di 14	281°25.7 24°41.1	295°50.8 24°47.2	310°15.8 24°53.2	324°40.7 24°59.0	339°05.5 25°04.6	353°30.3 25°10.1	7°55.0 25°15.5	7°55.0 25°20.7	36°44.1 25°25.7	51°08.5 25°30.5	65°32.9 25°35.2	+24.7	15.9	
Lu 15	281°30.4 26°25.7	295°53.8 26°27.7	310°17.2 26°29.5	324°40.8 26°31.1	339°03.8 26°32.6	353°27.0 26°33.9	7°50.2 26°35.0	7°50.2 26°35.9	36°13.8 26°36.6	50°59.7 26°37.2	65°22.9 26°37.5	+23.2	16.0	
Ma 16	281°08.5 26°21.4	295°51.6 26°18.9	310°15.8 26°16.2	324°40.8 26°13.3	339°03.8 26°10.2	353°04.1 26°07.0	7°27.3 26°03.6	7°27.3 26°00.0	36°13.8 25°56.2	50°59.7 25°52.2	65°00.6 25°48.1	+23.2	16.1	
Me 17	280°55.9 24°25.5	295°20.1 24°18.6	309°44.3 24°11.6	324°08.6 24°04.4	338°33.0 23°57.1	352°57.4 23°49.6	7°21.9 23°42.0	7°21.9 23°34.2	36°53.6 23°26.3	51°20.4 23°18.2	65°47.2 23°09.9	+24.5	16.2	
Je 18	281°22.2 20°49.1	295°48.4 20°38.6	310°14.6 20°28.0	324°40.8 20°17.3	339°07.2 20°06.5	353°33.7 19°55.5	8°00.2 19°44.4	8°00.2 19°33.2	36°53.6 19°21.9	51°20.4 19°10.5	65°47.2 18°58.9	+26.6	16.2	
Ve 19	295°48.4 20°38.6	310°14.6 20°28.0	324°40.8 20°17.3	339°07.2 20°06.5	353°33.7 19°55.5	8°00.2 19°44.4	8°00.2 19°33.2	8°00.2 19°21.9	36°53.6 19°10.5	51°20.4 18°58.9	65°47.2 18°47.3	+26.6	16.2	
Sa 20	297°09.0 15°40.1	311°37.3 15°26.9	326°05.7 15°13.6	340°34.2 15°00.2	355°02.7 14°46.7	3°31.3 14°33.1	24°00.0 14°19.5	24°00.0 14°05.8	38°28.8 13°52.0	52°57.7 13°38.1	67°26.6 13°24.1	+28.7	16.2	
Di 21	299°18.5 9°47.6	313°48.5 9°32.7	328°18.6 9°17.8	343°48.7 9°02.8	357°18.9 8°47.8	11°49.2 8°32.7	26°19.4 8°17.6	26°19.4 8°02.5	40°49.8 7°47.3	55°20.4 7°32.1	69°50.6 7°16.9	84°21.1 7°16.9	+30.3	16.1
Lu 22	302°02.9 3°25.0	316°34.0 3°09.4	331°05.1 2°53.8	345°36.2 2°38.2	360°07.3 2°22.6	14°38.4 2°06.9	29°09.6 1°51.3	43°40.8 1°35.6	58°12.0 1°20.0	72°43.2 1°04.3	87°14.4 0°48.7	+31.2	16.0	
Ma 23	305°04.0 -3°05.2	319°35.3 -3°20.7	334°06.6 -3°06.2	348°37.9 -3°51.6	363°09.2 -4°07.0	17°40.5 -4°22.4	32°11.8 -4°37.7	46°43.0 -4°53.0	61°14.3 -5°08.3	75°45.5 -5°23.6	90°16.8 -5°38.8	+31.3	16.0	
Me 24	308°02.8 -9°22.4	322°33.7 -9°37.0	337°04.5 -9°51.4	351°35.3 -10°05.8	366°06.1 -10°20.2	20°36.8 -10°34.5	35°07.5 -10°48.8	49°38.2 -11°02.9	64°08.8 -11°17.1	78°39.4 -11°31.1	93°09.9 -11°45.1	+30.7	15.9	
Je 25	310°43.1 -15°06.3	325°13.0 -15°19.1	339°42.8 -15°31.8	354°12.5 -15°44.4	368°42.2 -15°56.9	23°11.9 -16°09.4	37°41.5 -16°21.7	52°11.0 -16°34.0	66°40.5 -16°46.1	81°10.0 -16°58.2	95°39.4 -17°10.1	+29.6	15.7	
Ve 26	312°54.0 -19°57.3	327°22.5 -20°07.5	341°51.0 -20°17.7	356°19.5 -20°27.7	370°47.9 -20°37.7	25°16.2 -20°47.5	39°44.5 -20°57.2	54°12.7 -21°06.7	68°40.9 -21°16.2	83°09.1 -21°25.5	97°37.2 -21°34.7	+28.3	15.6	
Sa 27	314°33.0 -23°37.2	329°00.4 -23°44.3	343°27.7 -23°51.3	357°55.0 -23°58.1	372°22.3 -24°04.8	26°49.6 -24°11.4	41°16.8 -24°17.8	55°43.9 -24°24.0	70°11.1 -24°30.2	84°38.8 -24°36.1	99°05.3 -24°42.0	+27.2	15.5	
Di 28	315°49.0 -25°52.2	330°15.8 -25°55.7	344°42.7 -25°59.0	359°09.2 -26°02.2	373°36.2 -26°05.3	28°03.0 -26°08.2	42°29.8 -26°10.9	56°56.6 -26°13.6	71°23.4 -26°16.0	85°50.2 -26°18.3	100°17.0 -26°20.5	+26.8	15.3	
Lu 29	317°01.0 -26°35.1	331°28.1 -26°34.9	345°55.3 -26°34.5	360°22.5 -26°34.0	374°49.7 -26°33.4	29°17.0 -26°32.6	43°44.3 -26°31.7	58°11.6 -26°30.0	72°39.0 -26°29.4	87°06.4 -26°28.0	101°33.9 -26°26.5	+27.3	15.2	
Ma 30	318°31.9 -25°47.5	333°00.3 -25°43.8	347°28.7 -25°40.0	361°57.1 -25°36.1	376°25.6 -25°32.0	30°54.2 -25°27.8	45°22.9 -25°23.5	59°51.6 -25°19.1	74°20.4 -25°14.5	88°49.2 -25°09.8	103°18.1 -25°05.0	+28.6	15.0	

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PQ: 6 08h00 — PL: 14 03h25 — DQ: 21 00h48 — NL: 28 03h24

SOLEIL

Décembre 2027

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Me 1	272°47.5 -21°46.0	287°47.3 -21°46.4	302°47.0 -21°46.8	317°46.8 -21°47.2	332°46.6 -21°47.6	347°46.3 -21°48.0	2°46.1 -21°48.3	17°45.9 -21°48.7	32°45.6 -21°49.1	47°45.4 -21°49.5	62°45.2 -21°49.9	77°44.9 -21°50.3	-0.2 -0.4
Je 2	272°41.9 -21°55.2	287°41.6 -21°55.6	302°41.4 -21°56.0	317°41.2 -21°56.3	332°40.9 -21°56.7	347°40.7 -21°57.1	2°40.4 -21°57.5	17°40.2 -21°57.8	32°40.0 -21°58.2	47°39.7 -21°58.6	62°39.5 -21°58.9	77°39.2 -21°59.3	-0.2 -0.4
Ve 3	272°36.1 -22°04.0	287°35.8 -22°04.4	302°35.6 -22°04.7	317°35.3 -22°05.1	332°35.1 -22°05.4	347°34.8 -22°05.8	2°34.6 -22°06.1	17°34.4 -22°06.5	32°34.1 -22°06.8	47°33.9 -22°07.2	62°33.6 -22°07.5	77°33.4 -22°07.9	-0.2 -0.4
Sa 4	272°30.1 -22°12.4	287°29.9 -22°12.7	302°29.6 -22°13.0	317°29.4 -22°13.4	332°29.1 -22°13.7	347°28.9 -22°14.0	2°28.6 -22°14.4	17°28.4 -22°14.7	32°28.1 -22°15.1	47°27.9 -22°15.4	62°27.6 -22°15.7	77°27.4 -22°16.0	-0.3 -0.3
Di 5	272°24.1 -22°20.3	287°23.8 -22°20.6	302°23.5 -22°20.9	317°23.3 -22°21.3	332°23.0 -22°21.6	347°22.8 -22°21.9	2°22.5 -22°22.2	17°22.3 -22°22.5	32°22.0 -22°22.8	47°21.7 -22°23.2	62°21.5 -22°23.5	77°21.2 -22°23.8	-0.3 -0.3
Lu 6	272°17.8 -22°27.8	287°17.6 -22°28.1	302°17.3 -22°28.4	317°17.1 -22°28.7	332°16.8 -22°29.0	347°16.5 -22°29.3	2°16.3 -22°29.6	17°16.0 -22°29.9	32°15.7 -22°30.2	47°15.5 -22°30.5	62°15.2 -22°30.8	77°14.9 -22°31.1	-0.3 -0.3
Ma 7	272°11.5 -22°34.8	287°11.2 -22°35.1	302°11.0 -22°35.4	317°10.7 -22°35.7	332°10.4 -22°36.0	347°10.2 -22°36.3	2°09.9 -22°36.5	17°09.6 -22°36.8	32°09.3 -22°37.1	47°09.1 -22°37.4	62°08.8 -22°37.7	77°08.5 -22°37.9	-0.3 -0.3
Me 8	272°05.0 -22°41.5	287°04.8 -22°41.7	302°04.5 -22°42.0	317°04.2 -22°42.3	332°03.9 -22°42.5	347°03.7 -22°42.8	2°03.4 -22°43.0	17°03.1 -22°43.3	32°02.8 -22°43.6	47°02.6 -22°43.9	62°02.3 -22°44.2	77°02.0 -22°44.3	-0.3 -0.3
Je 9	271°58.4 -22°47.6	286°58.2 -22°47.9	301°57.9 -22°48.1	316°57.6 -22°48.4	331°57.3 -22°48.6	346°57.1 -22°48.9	1°56.8 -22°49.1	16°56.5 -22°49.3	31°56.2 -22°49.6	46°55.9 -22°50.0	61°55.7 -22°50.1	76°55.4 -22°50.3	-0.2 -0.3
Ve 10	271°51.8 -22°53.4	286°51.5 -22°53.6	301°51.2 -22°53.8	316°50.9 -22°54.0	331°50.6 -22°54.3	346°50.3 -22°54.5	1°50.1 -22°54.7	16°49.8 -22°54.9	31°49.5 -22°55.2	46°49.2 -22°55.4	61°48.9 -22°55.6	76°48.7 -22°55.8	-0.3 -0.2
Sa 11	271°45.0 -22°58.6	286°44.7 -22°58.8	301°44.4 -22°59.0	316°44.1 -22°59.3	331°43.8 -22°59.5	346°43.5 -22°59.7	1°43.2 -22°59.9	16°43.0 -23°00.1	31°42.7 -23°00.3	46°42.4 -23°00.5	61°42.1 -23°00.7	76°41.8 -23°00.9	-0.3 -0.2
Di 12	271°38.1 -23°03.4	286°37.8 -23°03.6	301°37.5 -23°03.8	316°37.2 -23°04.0	331°36.9 -23°04.2	346°36.6 -23°04.4	1°36.3 -23°04.6	16°36.0 -23°04.8	31°35.8 -23°05.0	46°35.5 -23°05.2	61°35.2 -23°05.4	76°34.9 -23°05.5	-0.3 -0.3
Lu 13	271°31.1 -23°07.8	286°30.8 -23°08.0	301°30.5 -23°08.2	316°30.2 -23°08.3	331°29.9 -23°08.5	346°29.6 -23°08.7	1°29.3 -23°08.8	16°29.0 -23°09.1	31°28.8 -23°09.2	46°28.5 -23°09.3	61°28.2 -23°09.5	76°27.9 -23°09.7	-0.3 -0.2
Ma 14	271°24.0 -23°11.7	286°23.7 -23°11.9	301°23.4 -23°12.0	316°23.1 -23°12.2	331°22.9 -23°12.3	346°22.6 -23°12.5	1°22.3 -23°12.6	16°22.0 -23°12.8	31°21.7 -23°12.9	46°21.4 -23°13.1	61°21.1 -23°13.2	76°20.8 -23°13.4	-0.3 -0.1
Me 15	271°16.9 -23°15.2	286°16.6 -23°15.3	301°16.3 -23°15.4	316°16.0 -23°15.6	331°15.7 -23°15.7	346°15.4 -23°15.8	1°15.1 -23°16.0	16°14.8 -23°16.1	31°14.5 -23°16.2	46°14.2 -23°16.3	61°13.9 -23°16.5	76°13.6 -23°16.6	-0.3 -0.1
Je 16	271°09.7 -23°18.1	286°09.4 -23°18.3	301°09.1 -23°18.4	316°08.8 -23°18.5	331°08.5 -23°18.6	346°08.2 -23°18.7	1°07.9 -23°18.8	16°07.6 -23°18.9	31°07.3 -23°19.0	46°07.0 -23°19.1	61°06.7 -23°19.3	76°06.4 -23°19.4	-0.3 -0.1
Ve 17	271°02.4 -23°20.7	286°02.1 -23°20.8	301°01.8 -23°20.9	316°01.5 -23°20.9	331°01.2 -23°21.0	346°00.9 -23°21.1	1°00.6 -23°21.2	16°00.3 -23°21.3	31°00.0 -23°21.4	45°59.7 -23°21.5	61°05.9 -23°21.6	75°59.1 -23°21.7	-0.3 -0.1
Sa 18	270°55.1 -23°22.7	285°54.8 -23°22.8	300°54.5 -23°22.9	315°54.2 -23°22.9	330°53.9 -23°23.0	345°53.6 -23°23.1	0°53.3 -23°23.2	15°53.0 -23°23.2	30°52.7 -23°23.3	45°52.4 -23°23.4	60°52.1 -23°23.4	75°51.7 -23°23.5	-0.3 -0.1
Di 19	270°47.8 -23°24.3	285°47.4 -23°24.4	300°47.1 -23°24.4	315°46.8 -23°24.5	330°46.5 -23°24.5	345°46.2 -23°24.6	0°45.9 -23°24.6	15°45.6 -23°24.7	30°45.3 -23°24.7	45°45.0 -23°24.8	60°44.7 -23°24.8	75°44.4 -23°24.9	-0.3 -0.1
Lu 20	270°40.3 -23°25.4	285°40.0 -23°25.4	300°39.7 -23°25.5	315°39.4 -23°25.5	330°39.1 -23°25.5	345°38.8 -23°25.6	0°38.5 -23°25.6	15°38.2 -23°25.6	30°37.9 -23°25.7	45°37.6 -23°25.7	60°37.3 -23°25.7	75°36.9 -23°25.8	-0.3 -0.0
Ma 21	270°32.9 -23°26.0	285°32.6 -23°26.1	300°32.3 -23°26.1	315°32.0 -23°26.1	330°31.7 -23°26.1	345°31.4 -23°26.1	0°31.0 -23°26.1	15°30.7 -23°26.2	30°30.4 -23°26.2	45°30.1 -23°26.2	60°29.8 -23°26.2	75°29.5 -23°26.2	-0.3 -0.0
Me 22	270°25.5 -23°26.2	285°25.1 -23°26.2	300°24.8 -23°26.2	315°24.5 -23°26.2	330°24.2 -23°26.2	345°23.9 -23°26.2	0°23.6 -23°26.2	15°23.3 -23°26.2	30°23.0 -23°26.2	45°22.7 -23°26.2	60°22.3 -23°26.2	75°22.0 -23°26.1	-0.3 +0.0
Je 23	270°18.0 -23°25.9	285°17.7 -23°25.9	300°17.4 -23°25.9	315°17.0 -23°25.8	330°16.7 -23°25.8	345°16.4 -23°25.8	0°16.1 -23°25.8	15°15.8 -23°25.7	30°15.5 -23°25.7	45°15.2 -23°25.7	60°14.9 -23°25.7	75°14.6 -23°25.6	-0.3 +0.0
Ve 24	270°10.5 -23°25.1	285°10.2 -23°25.1	300°09.9 -23°25.1	315°09.6 -23°25.0	330°09.3 -23°25.0	345°08.9 -23°24.9	0°08.6 -23°24.9	15°08.3 -23°24.8	30°08.0 -23°24.8	45°07.7 -23°24.7	60°07.4 -23°24.7	75°07.1 -23°24.6	-0.3 +0.0
Sa 25	270°03.0 -23°23.9	285°02.7 -23°23.8	300°02.4 -23°23.8	315°02.1 -23°23.7	330°01.8 -23°23.6	345°01.5 -23°23.6	0°01.2 -23°23.5	15°00.9 -23°23.5	30°00.6 -23°23.4	45°00.2 -23°23.3	59°59.9 -23°23.2	74°59.6 -23°23.2	-0.3 +0.1
Di 26	269°55.6 -23°22.2	284°55.3 -23°22.1	299°55.0 -23°22.0	314°54.7 -23°21.9	329°54.3 -23°21.8	344°54.0 -23°21.8	359°53.7 -23°21.7	14°53.4 -23°21.6	29°53.1 -23°21.5	44°52.8 -23°21.4	59°52.5 -23°21.3	74°52.2 -23°21.2	-0.3 +0.1
Lu 27	269°48.2 -23°20.0	284°47.8 -23°19.9	299°47.5 -23°19.8	314°47.2 -23°19.7	329°46.9 -23°19.6	344°46.6 -23°19.5	359°46.3 -23°19.4	14°46.0 -23°19.3	29°45.7 -23°19.2	44°45.4 -23°19.1	59°45.0 -23°18.9	74°44.8 -23°18.8	-0.3 +0.1
Ma 28	269°40.4 -23°17.4	284°40.5 -23°17.2	299°40.1 -23°17.1	314°39.8 -23°17.0	329°39.5 -23°16.9	344°39.2 -23°16.7	359°38.9 -23°16.6	14°38.6 -23°16.5	29°38.3 -23°16.4	44°38.0 -23°16.2	59°37.7 -23°16.1	74°37.4 -23°16.0	-0.3 +0.1
Me 29	269°33.3 -23°14.2	284°33.1 -23°14.1	299°32.8 -23°13.9	314°32.5 -23°13.8	329°32.2 -23°13.7	344°31.9 -23°13.5	359°31.6 -23°13.4	14°31.3 -23°13.2	29°31.0 -23°13.1	44°30.7 -23°12.9	59°30.4 -23°12.8	74°30.1 -23°12.6	-0.3 +0.1
Je 30	269°26.1 -23°10.6	284°25.8 -23°10.5	299°25.5 -23°10.3	314°25.2 -23°10.2	329°24.9 -23°10.0	344°24.6 -23°09.7	359°24.3 -23°09.5	14°24.0 -23°09.3	29°23.7 -23°09.3	44°23.4 -23°09.2	59°23.1 -23°09.0	74°22.8 -23°08.8	-0.3 +0.2
Ve 31	269°18.9 -23°06.6	284°18.6 -23°06.4	299°18.3 -23°06.2	314°18.0 -23°06.1	329°17.7 -23°05.9	344°17.4 -23°05.7	359°17.1 -23°05.5	14°16.8 -23°05.3	29°16.5 -23°05.1	44°16.2 -23°05.0	59°15.9 -23°04.8	74°15.6 -23°04.6	-0.3 +0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Décembre 2027

	J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	Δ°/h	SP
●	Me 1	233°41.7 -24°16.3	248°11.3 -24°10.3	262°41.4 -24°04.2	277°10.9 -23°58.0	291°40.7 -23°51.7	306°10.7 -23°45.3	320°40.7 -23°38.7	335°10.8 -23°32.1	349°41.0 -23°25.3	4°11.3 -23°18.5	18°41.6 -23°11.5	+30.0	14.9
	Je 2	236°26.1 -21°15.0	250°57.6 -21°06.5	265°29.3 -20°57.9	280°01.0 -20°49.2	294°32.8 -20°40.4	309°04.7 -20°31.5	323°36.7 -20°22.6	338°08.7 -20°13.6	352°40.8 -19°52.3	7°13.0 -19°45.2	21°45.3 -19°37.8	+31.9	14.8
	Ve 3	239°57.6 -17°17.7	254°31.0 -17°07.2	269°04.4 -16°56.7	283°37.4 -16°46.1	298°11.5 -16°35.5	312°45.1 -16°24.8	327°18.8 -16°14.0	341°52.5 -16°03.2	356°26.3 -15°52.3	11°00.2 -15°41.3	25°34.1 -15°30.3	+33.6	14.8
●	Sa 4	244°09.3 -12°38.4	258°44.0 -12°26.6	273°18.8 -12°14.7	287°53.6 -12°02.7	302°28.5 -11°50.7	317°03.4 -11°38.7	331°38.3 -11°26.6	346°13.3 -11°14.4	0°48.3 -11°02.3	15°23.4 -10°50.1	29°58.5 -10°37.8	+34.9	14.8
	Di 5	248°48.5 -7°29.5	263°24.0 -7°16.7	277°59.6 -7°03.8	292°35.1 -6°50.9	307°10.7 -6°38.0	321°46.3 -6°25.1	336°21.9 -6°12.1	350°57.5 -5°59.1	5°33.2 -5°46.1	20°08.8 -5°33.1	34°44.5 -5°20.0	+35.6	14.8
	Lu 6	253°39.8 -2°01.4	268°15.5 -1°48.0	282°51.2 -1°34.6	297°26.8 -1°21.2	312°02.5 -1°07.8	326°38.1 -0°54.3	341°13.7 -0°40.9	355°49.3 -0°27.4	10°24.9 -0°14.0	25°00.5 -0°00.5	39°36.0 0°13.0	+35.6	14.9
●	Ma 7	258°26.3 3°36.0	273°01.4 3°49.5	287°36.4 4°03.0	302°11.4 4°16.6	316°46.4 4°30.1	331°21.4 4°43.6	345°56.3 4°57.1	0°31.1 5°10.6	15°05.1 5°24.2	29°40.7 5°37.6	44°15.4 5°51.1	+34.9	15.0
	Me 8	262°49.5 9°11.7	277°23.3 9°25.0	291°57.0 9°38.2	306°30.7 9°51.3	321°04.3 10°04.5	335°37.8 10°17.6	350°11.2 10°30.7	4°44.5 10°43.8	19°17.8 10°56.8	33°51.0 11°09.8	48°24.2 11°22.8	+33.5	15.2
	Je 9	266°31.0 14°32.6	281°02.7 14°44.9	295°34.3 14°57.1	310°05.3 15°09.3	324°37.9 15°21.4	339°08.6 15°33.5	353°39.9 15°45.5	8°11.0 15°57.0	22°42.1 16°09.4	37°13.0 16°21.2	51°43.8 16°33.0	+31.3	15.4
●	Ve 10	269°13.2 19°20.9	283°42.2 19°31.4	298°11.2 19°41.9	312°40.0 19°52.2	327°08.7 20°02.5	341°37.3 20°12.7	356°05.8 20°22.8	10°34.1 20°32.8	25°02.4 20°42.9	39°30.5 20°52.5	53°58.5 21°02.2	+28.5	15.7
	Sa 11	270°44.2 23°14.0	285°10.3 23°21.9	299°36.3 23°29.5	314°02.2 23°37.1	328°27.9 23°44.5	342°53.6 23°51.8	357°19.1 23°59.0	11°44.6 24°06.0	26°09.9 24°12.8	40°35.1 24°19.5	55°00.2 24°26.1	+25.6	15.9
	Di 12	271°04.4 25°46.4	285°28.0 25°50.4	299°51.4 25°54.3	314°14.8 25°58.0	328°38.1 26°01.6	343°01.3 26°05.0	357°24.4 26°08.1	11°47.5 26°11.2	26°10.5 26°14.0	40°33.4 26°16.7	54°56.3 26°19.2	+23.2	16.1
●	Lu 13	270°32.9 26°34.4	284°55.1 26°34.0	299°17.2 26°33.3	313°39.3 26°32.4	328°01.4 26°31.4	342°23.4 26°30.1	356°45.5 26°28.7	11°07.5 26°27.1	25°29.6 26°25.3	39°51.6 26°23.3	54°13.7 26°21.1	+22.1	16.3
	Ma 14	269°46.1 25°25.4	284°08.5 25°20.2	298°30.9 25°14.8	312°53.4 25°09.3	327°15.9 25°03.5	341°38.5 24°57.6	356°01.2 24°51.5	10°23.9 24°45.2	24°46.6 24°38.9	39°29.4 24°32.1	53°32.3 24°25.3	+22.6	16.4
	Me 15	269°23.9 22°23.1	283°47.9 22°13.6	298°12.1 22°04.1	312°36.3 21°54.3	327°00.7 21°44.5	341°25.1 21°34.5	355°49.6 21°24.3	10°14.2 21°14.0	24°38.7 21°03.6	39°03.7 20°53.0	53°28.6 20°42.3	+24.5	16.4
●	Je 16	269°53.2 17°46.5	284°19.6 17°33.9	298°46.1 17°21.1	313°12.7 17°08.3	327°39.4 16°55.3	342°06.2 16°42.3	356°33.1 16°29.2	11°00.0 16°15.9	25°27.1 16°02.6	39°54.3 15°49.2	54°21.5 15°35.6	+26.8	16.4
	Ve 17	271°21.0 12°03.4	285°49.6 11°48.7	300°18.3 11°33.9	314°47.1 11°19.1	329°16.0 11°04.3	343°45.0 10°49.3	358°14.0 10°34.4	12°43.1 10°19.3	27°12.3 10°04.3	41°41.5 9°49.2	56°10.8 9°34.0	+29.0	16.3
	Sa 18	273°38.3 5°42.3	288°08.6 5°26.6	302°38.9 5°11.0	317°09.3 4°55.3	331°39.7 4°39.6	346°10.2 4°23.9	0°40.7 4°08.1	15°11.3 3°52.4	29°41.9 3°36.6	44°12.6 3°20.9	58°43.3 3°05.1	+30.6	16.2
●	Di 19	288°08.6 5°26.6	302°38.9 5°11.0	317°09.3 4°55.3	331°39.7 4°39.6	346°10.2 4°23.9	0°40.7 4°08.1	15°11.3 3°52.4	29°41.9 3°36.6	44°12.6 3°20.9	58°43.3 3°05.1	73°14.0 2°49.4	+30.6	16.2
	Lu 20	290°58.9 -1°06.7	305°30.1 -1°22.3	320°01.3 -1°38.0	334°32.5 -1°53.6	349°03.7 -2°09.1	3°35.0 -2°24.7	18°06.2 -2°40.2	32°37.5 -2°55.8	47°08.8 -3°11.2	61°40.1 -3°26.7	76°11.4 -3°42.1	+81.3	16.0
	Ma 21	294°00.9 -7°29.3	308°32.1 -7°44.1	323°03.4 -7°58.9	337°34.6 -8°13.6	352°05.8 -8°28.2	6°37.0 -8°42.8	21°08.2 -8°57.4	35°39.3 -9°11.9	50°10.5 -9°26.3	64°41.6 -9°40.7	79°12.7 -9°55.0	+31.2	15.9
●	Je 22	296°56.1 -13°22.1	311°26.7 -13°35.3	325°57.3 -13°48.4	340°27.9 -14°01.5	354°58.4 -14°14.5	9°28.9 -14°27.4	23°59.3 -14°40.2	38°29.8 -14°53.0	53°00.1 -15°05.7	67°30.5 -15°18.3	82°00.8 -15°30.8	+30.5	15.7
	Ve 23	299°29.9 -18°27.3	313°59.5 -18°38.3	328°29.0 -18°49.2	342°58.5 -19°00.0	357°27.9 -19°06.0	11°57.3 -19°12.2	26°26.7 -19°17.7	40°55.9 -19°23.1	55°25.2 -19°28.3	69°54.4 -19°32.3	84°23.5 -20°02.4	+29.4	15.6
	Sa 24	301°34.8 -22°28.9	316°03.2 -22°37.0	330°31.5 -22°45.0	344°59.8 -22°52.9	359°28.1 -23°00.7	13°56.3 -23°08.3	28°24.5 -23°15.8	42°52.6 -23°23.2	57°20.7 -23°30.4	71°48.7 -23°37.5	86°16.7 -23°44.5	+28.2	15.4
●	Di 25	303°12.6 -25°12.9	317°40.1 -25°17.7	332°07.6 -25°22.3	346°35.0 -25°26.8	361°02.4 -25°31.2	1°02.4 -25°35.4	15°29.8 -25°39.5	29°57.2 -25°43.4	44°24.6 -25°47.2	58°51.9 -25°50.9	73°19.3 -25°54.4	+27.4	15.3
	Lu 26	304°35.8 -26°29.7	319°03.3 -26°30.9	333°30.4 -26°32.0	347°57.7 -26°32.9	362°25.0 -26°33.7	2°25.0 -26°34.3	16°52.4 -26°34.3	31°19.7 -26°35.1	45°47.1 -26°35.1	60°14.5 -26°35.3	74°41.9 -26°35.3	+27.4	15.1
	Ma 27	306°04.5 -26°16.8	320°32.5 -26°14.5	335°00.5 -26°12.0	349°28.6 -26°09.4	363°56.7 -26°06.4	3°56.7 -26°03.8	18°24.8 -26°00.8	32°53.1 -25°57.7	47°21.3 -25°54.4	61°49.6 -25°51.0	76°18.0 -25°47.1	+28.2	15.0
●	Je 28	307°59.7 -24°39.2	322°29.1 -24°33.7	336°58.6 -24°28.0	351°28.1 -24°22.3	365°57.4 -24°16.7	5°57.7 -24°10.4	20°27.4 -24°04.3	34°57.1 -24°04.3	49°26.9 -23°51.8	63°56.8 -23°45.4	78°26.7 -23°38.8	+29.7	14.9
	Me 29	310°35.9 -21°48.1	325°07.7 -21°39.9	339°38.4 -21°31.7	354°09.8 -21°23.3	368°41.2 -21°14.9	8°41.2 -21°06.3	23°12.7 -20°57.7	37°44.3 -20°57.7	52°16.0 -20°54.4	66°47.7 -20°51.3	81°19.5 -20°31.3	+31.5	14.8
	Je 30	313°58.2 -17°58.1	328°31.2 -17°47.8	343°04.3 -17°37.6	357°37.5 -17°27.2	371°10.7 -17°16.8	12°10.7 -17°06.3	26°44.0 -16°55.7	41°17.3 -16°45.1	55°50.7 -16°34.4	70°24.2 -16°23.4	84°57.8 -16°12.9	+33.3	14.8
●	Ve 31	318°02.6 -13°23.9	332°37.1 -13°12.2	347°11.7 -13°00.4	361°46.3 -12°48.7	376°21.0 -12°36.8	16°21.0 -12°25.0	30°55.7 -12°13.0	45°30.4 -12°01.1	60°05.3 -11°49.1	74°40.1 -11°37.0	89°15.0 -11°24.9	+34.7	14.7

Ligne 1: GHA, Δ°/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ°/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PQ: 6 05h22 — PL: 13 16h08 — DQ: 20 09h10 — NL: 27 20h12

SOLEIL

Janvier 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	269°11.7 -23°02.1	284°11.4 -23°01.9	299°11.1 -23°01.7	314°10.8 -23°01.5	329°10.5 -23°01.3	344°10.2 -23°01.1	359°09.9 -23°00.9	14°09.6 -23°00.7	26°09.3 -23°00.5	44°09.0 -23°00.3	56°08.7 -23°00.1	74°08.5 -22°59.9	-0.3 +0.2
Di 2	269°04.6 -22°57.1	284°04.3 -22°56.9	299°04.0 -22°56.7	314°03.7 -22°56.5	329°03.5 -22°56.3	344°03.2 -22°56.0	359°02.9 -22°55.8	14°02.6 -22°55.6	26°02.3 -22°55.3	44°02.0 -22°55.1	56°01.7 -22°54.9	74°01.4 -22°54.7	-0.3 +0.2
Lu 3	268°57.6 -22°51.7	283°57.3 -22°51.4	298°57.0 -22°51.2	313°56.8 -22°51.0	328°56.5 -22°50.7	343°56.2 -22°50.5	358°55.9 -22°50.3	13°55.6 -22°50.0	25°55.3 -22°49.8	43°55.0 -22°49.5	55°54.7 -22°49.3	73°54.4 -22°49.0	-0.3 +0.2
Ma 4	268°50.7 -22°45.8	283°50.4 -22°45.5	298°50.2 -22°45.3	313°49.9 -22°45.0	328°49.6 -22°44.8	343°49.3 -22°44.5	358°49.0 -22°44.3	13°48.7 -22°44.0	25°48.4 -22°43.7	43°48.2 -22°43.5	55°47.9 -22°43.2	73°47.6 -22°42.9	-0.3 +0.3
Me 5	268°43.9 -22°39.5	283°43.6 -22°39.2	298°43.4 -22°38.9	313°43.1 -22°38.6	328°42.8 -22°38.4	343°42.5 -22°38.1	358°42.2 -22°37.8	13°42.0 -22°37.5	25°41.7 -22°37.2	43°41.4 -22°37.0	55°41.1 -22°36.7	73°40.8 -22°36.4	-0.3 +0.3
Je 6	268°37.2 -22°32.7	283°37.0 -22°32.4	298°36.7 -22°32.1	313°36.4 -22°31.8	328°36.1 -22°31.5	343°35.9 -22°31.2	358°35.6 -22°30.9	13°35.3 -22°30.6	25°35.0 -22°30.3	43°34.8 -22°30.0	55°34.5 -22°29.7	73°34.2 -22°29.4	-0.3 +0.3
Ve 7	268°30.7 -22°25.4	283°30.4 -22°25.1	298°30.1 -22°24.8	313°29.8 -22°24.5	328°29.6 -22°24.2	343°29.3 -22°23.9	358°29.0 -22°23.6	13°28.8 -22°23.3	25°28.5 -22°22.9	43°28.2 -22°22.6	55°28.0 -22°22.3	73°27.7 -22°22.0	-0.3 +0.3
Sa 8	268°24.2 -22°17.8	283°23.9 -22°17.5	298°23.7 -22°17.1	313°23.4 -22°16.8	328°23.1 -22°16.5	343°22.9 -22°16.1	358°22.6 -22°15.8	13°22.4 -22°15.5	25°22.1 -22°15.1	43°21.8 -22°14.8	55°21.6 -22°14.5	73°21.3 -22°14.1	-0.3 +0.3
Di 9	268°17.9 -22°09.7	283°17.6 -22°09.3	298°17.4 -22°09.0	313°17.1 -22°08.6	328°16.9 -22°08.3	343°16.6 -22°07.9	358°16.3 -22°07.6	13°16.1 -22°07.2	25°15.8 -22°06.9	43°15.6 -22°06.5	55°15.3 -22°06.2	73°15.0 -22°05.8	-0.3 +0.4
Lu 10	268°11.7 -22°01.1	283°11.5 -22°00.8	298°11.2 -22°00.4	313°10.9 -22°00.0	328°10.7 -21°59.7	343°10.4 -21°59.3	358°10.2 -21°58.9	13°09.9 -21°58.6	25°09.7 -21°58.2	43°09.4 -21°57.8	55°09.2 -21°57.5	73°08.9 -21°57.1	-0.3 +0.4
Ma 11	268°05.7 -21°52.2	283°05.4 -21°51.8	298°05.2 -21°51.4	313°04.9 -21°51.0	328°04.7 -21°50.6	343°04.4 -21°50.2	358°04.2 -21°49.9	13°03.9 -21°49.6	25°03.7 -21°49.1	43°03.4 -21°48.7	55°03.2 -21°48.3	73°02.9 -21°47.9	-0.2 +0.4
Me 12	267°59.8 -21°45.8	282°59.5 -21°42.4	297°59.3 -21°42.0	312°59.0 -21°41.6	327°58.8 -21°41.2	342°58.6 -21°40.8	357°58.3 -21°40.4	12°58.1 -21°40.0	25°57.8 -21°39.6	42°57.6 -21°39.1	57°57.4 -21°38.7	72°57.1 -21°38.3	-0.2 +0.4
Je 13	267°52.0 -21°33.0	282°53.8 -21°32.5	297°53.6 -21°32.1	312°53.3 -21°31.7	327°53.1 -21°31.3	342°52.9 -21°30.9	357°52.6 -21°30.6	12°52.4 -21°30.0	25°52.1 -21°29.6	42°51.9 -21°29.2	57°51.7 -21°28.8	72°51.4 -21°28.3	-0.2 +0.4
Ve 14	267°48.4 -21°23.7	282°48.2 -21°22.3	297°48.0 -21°21.9	312°47.7 -21°21.4	327°47.5 -21°21.0	342°47.3 -21°20.6	357°47.1 -21°20.1	12°46.8 -21°19.7	25°46.6 -21°19.2	42°46.4 -21°18.8	57°46.2 -21°18.3	72°45.9 -21°17.9	-0.2 +0.4
Sa 15	267°42.3 -21°12.1	282°42.8 -21°11.6	297°42.6 -21°11.2	312°42.3 -21°10.7	327°42.1 -21°10.3	342°41.9 -21°09.8	357°41.7 -21°09.4	12°41.4 -21°08.9	25°41.2 -21°08.5	42°41.0 -21°08.0	57°40.8 -21°07.5	72°40.6 -21°07.1	-0.2 +0.5
Di 16	267°37.7 -21°01.6	282°37.5 -21°00.6	297°37.3 -21°00.1	312°37.0 -20°59.6	327°36.9 -20°59.2	342°36.6 -20°58.7	357°36.4 -20°58.3	12°36.2 -20°57.7	25°36.0 -20°57.3	42°35.8 -20°56.8	57°35.6 -20°56.3	72°35.4 -20°55.8	-0.2 +0.5
Lu 17	267°32.6 -20°49.6	282°32.4 -20°49.1	297°32.2 -20°48.6	312°32.0 -20°48.1	327°31.8 -20°47.6	342°31.6 -20°47.2	357°31.4 -20°46.7	12°31.2 -20°46.2	25°31.0 -20°45.7	42°30.7 -20°45.2	57°30.5 -20°44.7	72°30.3 -20°44.2	-0.2 +0.5
Ma 18	267°27.7 -20°37.7	282°27.5 -20°37.2	297°27.3 -20°36.7	312°27.1 -20°36.2	327°26.9 -20°35.7	342°26.7 -20°35.2	357°26.5 -20°34.7	12°26.3 -20°34.2	25°26.1 -20°33.7	42°25.9 -20°33.2	57°25.7 -20°32.7	72°25.5 -20°32.2	-0.2 +0.5
Me 19	267°22.9 -20°25.5	282°22.7 -20°25.0	297°22.5 -20°24.5	312°22.3 -20°23.9	327°22.1 -20°23.4	342°21.9 -20°22.9	357°21.7 -20°22.4	12°21.6 -20°21.8	25°21.4 -20°21.3	42°21.2 -20°20.8	57°21.0 -20°20.3	72°20.8 -20°19.5	-0.2 +0.5
Je 20	267°18.3 -20°12.9	282°18.1 -20°12.3	297°17.9 -20°11.8	312°17.8 -20°11.3	327°17.6 -20°10.7	342°17.4 -20°10.2	357°17.2 -20°09.6	12°17.0 -20°09.1	25°16.8 -20°08.6	42°16.6 -20°08.0	57°16.5 -20°07.5	72°16.3 -20°06.9	-0.2 +0.5
Ve 21	267°13.9 -19°59.8	282°13.7 -19°59.3	297°13.6 -19°58.7	312°13.4 -19°58.2	327°13.2 -19°57.6	342°13.0 -19°57.1	357°12.8 -19°56.5	12°12.7 -19°56.0	25°12.5 -19°55.4	42°12.3 -19°54.9	57°12.1 -19°54.3	72°12.0 -19°53.8	-0.2 +0.6
Sa 22	267°09.7 -19°46.5	282°09.5 -19°45.9	297°09.3 -19°45.3	312°09.2 -19°44.8	327°09.0 -19°44.2	342°08.8 -19°43.6	357°08.7 -19°43.1	12°08.5 -19°42.5	25°08.3 -19°41.9	42°08.2 -19°41.4	57°08.0 -19°40.8	72°07.8 -19°40.4	-0.2 +0.6
Di 23	267°05.8 -19°32.7	282°05.5 -19°32.1	297°05.3 -19°31.5	312°05.2 -19°31.0	327°05.0 -19°30.4	342°04.8 -19°29.8	357°04.7 -19°29.2	12°04.5 -19°28.6	25°04.3 -19°28.0	42°04.2 -19°27.4	57°04.0 -19°26.9	72°03.9 -19°26.3	-0.2 +0.6
Lu 24	267°01.8 -19°18.6	282°01.6 -19°18.0	297°01.5 -19°17.4	312°01.3 -19°16.8	327°01.2 -19°16.2	342°01.0 -19°15.6	357°00.9 -19°15.0	12°00.7 -19°14.4	25°00.6 -19°13.8	42°00.4 -19°13.2	57°00.3 -19°12.6	72°00.1 -19°12.0	-0.2 +0.6
Ma 25	266°58.1 -19°04.1	281°58.0 -19°03.5	296°57.9 -19°02.9	311°57.7 -19°02.3	326°57.6 -19°01.7	341°57.4 -19°01.0	356°57.3 -19°00.4	11°57.1 -18°59.8	26°57.0 -18°59.2	41°56.8 -18°58.6	56°56.7 -18°58.0	71°56.5 -18°57.4	-0.1 +0.6
Me 26	266°54.7 -18°49.3	281°54.6 -18°48.7	296°54.4 -18°48.0	311°54.3 -18°47.4	326°54.1 -18°46.8	341°54.0 -18°46.1	356°53.9 -18°45.5	11°53.7 -18°44.9	26°53.6 -18°44.3	41°53.4 -18°43.6	56°53.3 -18°43.0	71°53.2 -18°42.4	-0.1 +0.6
Je 27	266°51.4 -18°34.1	281°51.3 -18°33.5	296°51.2 -18°32.8	311°51.0 -18°32.2	326°50.9 -18°31.5	341°50.8 -18°30.9	356°50.7 -18°30.3	11°50.5 -18°29.6	26°50.4 -18°29.0	41°50.3 -18°28.3	56°50.1 -18°27.7	71°50.0 -18°27.0	-0.1 +0.6
Ve 28	266°48.4 -18°18.6	281°48.3 -18°17.9	296°48.1 -18°17.3	311°48.0 -18°16.6	326°47.9 -18°16.0	341°47.8 -18°15.3	356°47.7 -18°14.7	11°47.5 -18°14.0	26°47.4 -18°13.4	41°47.3 -18°12.7	56°47.2 -18°12.0	71°47.0 -18°11.4	-0.1 +0.7
Sa 29	266°45.5 -18°02.8	281°45.4 -18°02.1	296°45.3 -18°01.4	311°45.2 -18°00.8	326°45.1 -18°00.1	341°45.0 -17°59.4	356°44.8 -17°58.1	11°44.7 -17°57.8	26°44.6 -17°57.4	41°44.5 -17°56.7	56°44.4 -17°56.1	71°44.3 -17°55.4	-0.1 +0.7
Di 30	266°42.9 -17°46.6	281°42.8 -17°45.9	296°42.7 -17°45.2	311°42.6 -17°44.6	326°42.5 -17°43.9	341°42.4 -17°43.2	356°42.3 -17°42.5	11°42.1 -17°41.8	26°42.0 -17°41.1	41°41.9 -17°40.5	56°41.8 -17°39.8	71°41.7 -17°39.1	-0.1 +0.7
Lu 31	266°40.4 -17°30.1	281°40.3 -17°29.4	296°40.2 -17°28.7	311°40.2 -17°28.0	326°40.0 -17°27.3	341°40.0 -17°26.7	356°39.9 -17°26.3	11°39.8 -17°25.3	26°39.7 -17°24.6	41°39.6 -17°23.9	56°39.5 -17°23.2	71°39.4 -17°22.5	-0.1 +0.7

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Janvier 2028

	J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h	SP
●	Sa 1	235°06.3 -9°34.3	249°41.7 -9°21.9	264°17.0 -9°09.4	278°52.4 -8°56.8	293°27.9 -8°44.2	308°03.4 -8°31.6	322°38.9 -8°19.0	337°14.4 -8°06.4	351°49.9 -7°53.7	6°25.5 -7°40.9	21°01.1 -7°28.2	+35.5 -12.6	14.7 54.0
	Di 2	239°57.8 -4°14.0	254°33.7 -4°00.9	269°09.6 -3°47.8	283°45.5 -3°34.7	298°21.4 -3°21.5	312°57.4 -3°08.3	327°33.3 -2°55.2	342°09.3 -2°42.0	356°45.2 -2°28.7	11°21.1 -2°15.5	25°57.0 -2°02.3	+35.9 -13.2	14.8 54.1
	Lu 3	244°55.5 1°17.3	259°31.3 1°30.6	274°07.1 1°44.0	288°42.8 1°57.3	303°18.6 2°10.6	317°54.3 2°24.0	332°30.0 2°37.3	347°05.7 2°50.7	1°41.3 3°04.0	16°16.9 3°17.3	30°52.5 3°30.7	+35.7 +13.3	14.8 54.4
●	Ma 4	249°42.4 6°49.5	264°17.4 7°02.7	278°52.4 7°15.8	293°27.3 7°29.0	308°02.1 7°42.1	322°37.0 7°55.2	337°11.7 8°08.2	351°46.4 8°21.3	6°21.1 8°34.3	20°55.6 8°47.3	35°30.2 9°00.3	+34.8 +13.1	15.0 54.9
	Me 5	254°00.6 12°11.7	268°34.0 12°24.2	283°07.4 12°36.7	297°40.7 12°49.1	312°13.9 13°01.5	326°47.1 13°13.8	341°20.2 13°26.1	355°53.1 13°38.4	10°26.1 13°50.6	24°58.9 14°02.7	39°31.6 14°14.8	+33.1 +12.3	15.2 55.6
	Je 6	257°31.5 17°10.2	272°02.7 17°21.4	286°33.8 17°32.5	301°04.8 17°43.6	315°35.7 17°54.6	330°06.5 18°05.6	344°37.2 18°16.4	359°07.7 18°27.2	13°38.2 18°37.9	28°08.5 18°48.6	42°38.8 18°59.1	+30.7 +10.9	15.4 56.4
●	Ve 7	259°58.7 24°40.5	274°27.1 24°46.5	288°55.3 24°52.4	303°23.5 24°58.2	317°51.5 25°03.3	332°19.4 25°09.3	346°47.2 25°14.6	1°14.9 25°19.8	15°42.4 25°24.8	30°09.8 25°29.6	44°37.1 25°34.3	+27.8 +5.4	15.6 58.3
	Sa 8	261°12.3 26°25.1	275°37.7 26°27.1	290°03.0 26°28.1	304°28.2 26°30.5	318°53.2 26°32.0	333°18.2 26°33.3	347°43.0 26°34.4	2°07.8 26°35.5	16°32.4 26°36.6	30°56.9 26°37.0	45°21.4 26°37.0	+24.9 +1.2	15.9 59.3
	Di 9	261°16.2 26°25.1	275°39.2 26°27.1	290°03.1 26°28.1	304°24.9 26°30.5	318°47.7 26°32.0	333°10.3 26°33.3	347°33.0 26°34.4	1°55.5 26°35.5	16°18.0 26°36.6	30°40.5 26°37.0	45°02.8 26°37.0	+22.7 +1.2	16.2 59.3
○	Lu 10	260°33.7 26°19.6	274°55.5 26°16.9	289°17.4 26°14.0	303°39.2 26°10.9	318°01.0 26°07.7	332°22.8 26°04.2	346°44.7 26°00.5	1°06.5 25°56.7	15°28.3 25°52.6	29°50.1 25°48.4	44°12.0 25°43.9	+21.8 -3.6	16.4 60.1
	Ma 11	259°42.8 24°14.4	274°05.2 24°07.3	288°27.6 23°59.7	302°50.5 23°51.9	317°12.6 23°43.9	331°35.2 23°35.8	345°57.8 23°27.5	0°20.5 23°19.0	14°37.1 23°10.3	29°06.1 23°01.5	43°29.0 22°52.5	+22.6 -8.2	16.6 60.7
	Me 12	259°21.5 20°18.3	273°45.6 20°06.8	288°09.8 19°55.2	302°34.2 19°43.5	316°58.6 19°31.6	331°23.1 19°19.5	345°47.6 19°07.4	0°12.3 18°55.1	14°37.1 18°45.7	29°01.9 18°30.1	43°26.9 18°17.5	+24.5 -12.1	16.6 61.0
○	Je 13	259°51.9 14°53.9	274°18.3 14°39.5	288°44.8 14°25.1	303°11.4 14°10.5	317°38.0 13°55.9	332°04.8 13°41.2	346°31.6 13°26.4	0°58.5 13°11.5	15°25.7 12°56.6	29°52.6 12°41.5	44°19.8 12°26.4	+26.8 -14.8	16.6 60.9
	Ve 14	261°16.9 8°32.7	275°45.3 8°16.8	290°13.7 8°00.7	304°42.3 7°44.7	319°10.3 7°28.6	333°39.6 7°12.5	348°08.3 6°56.4	2°37.1 6°40.2	17°06.0 6°24.0	31°34.9 6°07.8	46°03.9 5°51.6	+28.7 -16.1	16.5 60.6
	Sa 15	263°25.1 1°46.7	277°54.8 1°30.3	292°24.7 1°14.0	306°54.5 0°57.7	321°24.4 0°41.3	335°54.4 0°25.0	350°24.3 0°08.7	4°54.3 -0°07.5	19°24.4 -0°23.8	33°54.4 -0°40.0	48°24.5 -0°56.2	+30.0 -16.3	16.6 60.0
●	Di 16	265°58.8 -4°56.1	280°29.2 -5°11.8	294°59.6 -5°27.4	309°30.0 -5°43.0	324°00.5 -5°58.6	338°30.9 -6°14.1	353°01.4 -6°29.6	7°31.8 -6°45.0	22°02.3 -7°00.3	36°32.7 -7°15.6	51°03.2 -7°30.9	+30.4 -15.5	16.1 59.2
	Lu 17	268°39.4 -11°12.2	283°09.8 -11°26.4	297°40.7 -11°40.5	312°10.4 -11°54.5	326°40.6 -12°08.5	341°10.9 -12°22.4	355°41.1 -12°36.2	10°11.4 -12°50.0	24°41.6 -13°03.6	39°11.7 -13°17.2	53°41.9 -13°30.7	+30.3 -13.9	15.9 58.4
	Ma 18	283°09.8 -11°26.4	297°40.7 -11°40.5	312°10.4 -11°54.5	326°40.6 -12°08.5	341°10.9 -12°22.4	355°41.1 -12°36.2	10°11.4 -12°50.0	24°41.6 -13°03.6	39°11.7 -13°17.2	53°41.9 -13°30.7	58°12.0 -13°44.1	+30.2 -13.8	15.9 58.4
●	Me 19	285°40.7 -16°54.3	300°10.4 -17°06.3	314°40.0 -17°18.1	329°09.6 -17°29.8	343°39.6 -17°41.4	358°08.7 -17°52.9	12°38.2 -18°04.3	27°07.7 -18°15.6	41°37.1 -18°26.8	56°06.5 -18°37.9	70°35.9 -18°48.9	+29.5 -11.5	15.7 57.5
	Je 20	287°51.8 -21°19.9	302°20.6 -21°29.0	316°49.3 -21°38.1	331°18.0 -21°46.9	345°46.7 -21°55.5	0°15.3 -22°04.3	14°04.9 -22°12.9	29°12.4 -22°21.2	43°40.9 -22°29.5	58°09.4 -22°37.6	72°37.8 -22°45.7	+28.6 -8.6	15.5 56.6
	Ve 21	289°40.7 -24°30.2	304°08.7 -24°36.1	318°36.6 -24°41.5	333°04.5 -24°47.5	347°32.4 -24°53.0	2°00.3 -24°58.3	16°28.1 -25°03.5	30°55.9 -25°08.5	45°23.8 -25°13.6	59°51.5 -25°18.4	74°19.3 -25°23.0	+27.9 -5.3	15.3 56.1
●	Sa 22	291°14.5 -26°16.1	305°42.2 -26°18.5	320°09.8 -26°20.8	334°37.4 -26°22.9	349°05.1 -26°24.9	3°32.7 -26°26.7	18°00.4 -26°28.4	32°28.0 -26°30.0	46°55.7 -26°31.4	61°23.7 -26°32.7	75°51.1 -26°33.8	+27.7 -1.8	15.1 55.5
	Di 23	292°48.5 -26°34.0	307°16.5 -26°32.9	321°44.6 -26°31.6	336°12.7 -26°30.2	350°40.8 -26°28.7	5°09.0 -26°27.1	19°37.2 -26°25.3	34°05.4 -26°23.4	48°33.7 -26°21.3	63°02.0 -26°19.1	77°30.3 -26°16.8	+28.2 +1.7	15.0 55.0
	Lu 24	294°41.1 -25°26.4	309°10.3 -25°22.0	323°39.4 -25°17.5	338°08.7 -25°12.9	352°38.0 -25°08.1	7°07.4 -25°03.3	21°36.8 -24°58.3	36°06.2 -24°53.2	50°35.8 -24°48.0	65°05.4 -24°42.6	79°35.0 -24°37.2	+29.4 +4.9	14.9 54.6
●	Ma 25	297°07.7 -23°01.9	311°38.4 -22°54.7	326°09.2 -22°47.4	340°40.1 -22°40.0	355°11.0 -22°32.5	9°42.0 -22°24.9	24°13.0 -22°17.1	38°44.1 -22°09.3	53°15.3 -22°01.4	67°46.6 -21°53.4	82°17.9 -21°45.3	+31.0 +7.7	14.8 54.3
	Me 26	300°16.2 -19°33.1	314°48.7 -19°23.6	329°21.2 -19°14.1	343°53.7 -19°04.4	358°26.4 -18°54.7	12°59.1 -18°44.9	27°31.8 -18°35.0	42°04.6 -18°25.1	56°37.5 -18°15.1	71°10.5 -18°05.0	85°43.5 -17°54.8	+32.7 +9.8	14.8 54.1
	Je 27	304°06.3 -15°14.2	318°40.3 -15°03.0	333°14.4 -14°51.8	347°48.5 -14°40.5	2°22.6 -14°29.1	16°56.8 -14°17.7	31°31.1 -14°06.2	46°05.4 -13°54.7	60°39.8 -13°43.1	75°14.2 -13°31.5	89°48.7 -13°19.8	+34.2 +11.5	14.7 53.9
●	Ve 28	308°31.2 -10°19.2	323°06.4 -10°06.9	337°41.6 -9°54.5	352°16.9 -9°42.0	6°52.1 -9°29.5	21°27.5 -9°17.0	36°02.8 -9°04.5	50°38.2 -8°51.9	65°13.6 -8°39.3	79°49.1 -8°26.7	94°24.5 -8°14.0	+35.3 +13.5	14.7 53.9
	Sa 29	313°19.8 -5°01.0	327°55.7 -4°47.9	342°31.6 -4°34.8	357°07.4 -4°21.8	11°43.3 -4°08.7	26°19.2 -3°55.5	40°55.2 -3°42.4	55°31.1 -3°29.3	70°07.0 -3°16.1	84°43.0 -3°02.9	99°18.9 -2°49.8	+35.9 +13.1	14.7 53.9
	Di 30	318°18.6 0°29.0	332°54.5 0°42.2	347°30.5 0°55.5	362°06.4 1°08.8	16°42.3 1°22.1	31°18.3 1°35.4	45°54.2 1°48.7	60°30.0 2°01.9	75°05.9 2°15.2	89°41.8 2°28.5	104°17.6 2°41.7	+35.9 +13.3	14.8 54.1
●	Lu 31	323°01.2 5°59.6	337°47.9 6°12.7	352°23.3 6°25.8	367°58.6 6°38.8	21°34.0 6°51.9	36°09.2 7°04.9	50°44.5 7°17.9	65°19.7 7°30.9	79°54.8 7°43.8	94°30.0 7°56.8	109°05.0 8°09.7	+35.3 +13.0	14.8 54.4

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PQ: 5 01h40 — PL: 12 04h03 — DQ: 18 19h25 — NL: 26 15h12

SOLEIL

Février 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ma 1	266°38.2 -17°13.8	281°38.1 -17°12.6	296°38.0 -17°11.9	311°37.9 -17°11.2	326°37.9 -17°10.5	341°37.8 -17°09.8	356°37.7 -17°09.1	11°37.6 -17°08.4	26°37.5 -17°07.7	41°37.4 -17°07.0	56°37.3 -17°06.3	71°37.3 -17°05.5	-0.1 +0.7
Me 2	266°36.2 -16°56.2	281°36.1 -16°55.5	296°36.0 -16°54.8	311°35.9 -16°54.1	326°35.9 -16°53.4	341°35.8 -16°52.6	356°35.7 -16°51.9	11°35.6 -16°51.2	26°35.6 -16°50.5	41°35.5 -16°49.8	56°35.4 -16°49.1	71°35.3 -16°48.3	-0.1 +0.7
Je 3	266°34.4 -16°38.9	281°34.3 -16°38.1	296°34.2 -16°37.4	311°34.2 -16°36.7	326°34.1 -16°35.9	341°34.0 -16°35.2	356°33.9 -16°34.5	11°33.9 -16°33.7	26°33.8 -16°33.0	41°33.7 -16°32.3	56°33.7 -16°31.5	71°33.6 -16°30.8	-0.1 +0.7
Ve 4	266°32.8 -16°21.2	281°32.7 -16°20.4	296°32.6 -16°19.7	311°32.6 -16°19.0	326°32.5 -16°18.2	341°32.5 -16°17.5	356°32.4 -16°16.7	11°32.3 -16°16.0	26°32.3 -16°15.2	41°32.2 -16°14.5	56°32.2 -16°13.7	71°32.1 -16°13.0	-0.1 +0.7
Sa 5	266°31.4 -16°03.2	281°31.3 -16°02.5	296°31.3 -16°01.7	311°31.2 -16°01.0	326°31.1 -16°00.2	341°31.1 -15°59.5	356°31.0 -15°58.7	11°31.0 -15°57.9	26°30.9 -15°57.2	41°30.9 -15°56.4	56°30.8 -15°55.7	71°30.8 -15°54.9	-0.1 +0.8
Di 6	266°30.2 -15°45.0	281°30.1 -15°44.2	296°30.1 -15°43.5	311°30.0 -15°42.7	326°30.0 -15°41.9	341°29.9 -15°41.2	356°29.9 -15°40.4	11°29.9 -15°39.6	26°29.8 -15°38.9	41°29.8 -15°38.1	56°29.7 -15°37.3	71°29.7 -15°36.6	-0.0 +0.8
Lu 7	266°29.2 -15°26.5	281°29.1 -15°25.7	296°29.1 -15°24.9	311°29.1 -15°24.2	326°29.0 -15°23.4	341°29.0 -15°22.6	356°29.0 -15°21.8	11°28.9 -15°21.1	26°28.9 -15°20.3	41°28.9 -15°19.5	56°28.8 -15°18.7	71°28.8 -15°17.9	-0.0 +0.8
Ma 8	266°28.4 -15°07.7	281°28.4 -15°07.0	296°28.3 -15°06.2	311°28.3 -15°05.4	326°28.3 -15°04.6	341°28.3 -15°03.8	356°28.2 -15°03.0	11°28.2 -15°02.2	26°28.2 -15°01.4	41°28.1 -15°00.6	56°28.1 -14°59.8	71°28.1 -14°59.1	-0.0 +0.8
Me 9	266°27.8 -14°48.9	281°27.8 -14°47.9	296°27.8 -14°47.1	311°27.7 -14°46.3	326°27.7 -14°45.5	341°27.7 -14°44.7	356°27.7 -14°43.9	11°27.7 -14°43.1	26°27.7 -14°42.3	41°27.6 -14°41.5	56°27.6 -14°40.7	71°27.6 -14°39.9	-0.0 +0.8
Je 10	266°27.4 -14°29.5	281°27.4 -14°28.7	296°27.4 -14°27.8	311°27.4 -14°27.0	326°27.4 -14°26.2	341°27.4 -14°25.4	356°27.4 -14°24.6	11°27.3 -14°23.8	26°27.3 -14°23.0	41°27.3 -14°22.2	56°27.3 -14°21.4	71°27.3 -14°20.6	-0.0 +0.8
Ve 11	266°27.2 -14°10.0	281°27.2 -14°09.1	296°27.2 -14°08.3	311°27.2 -14°07.5	326°27.2 -14°06.7	341°27.2 -14°05.9	356°27.2 -14°05.0	11°27.2 -14°04.2	26°27.2 -14°03.4	41°27.2 -14°02.6	56°27.2 -14°01.8	71°27.2 -14°00.9	-0.0 +0.8
Sa 12	266°27.2 -13°50.2	281°27.2 -13°49.4	296°27.2 -13°48.6	311°27.2 -13°47.7	326°27.2 -13°46.9	341°27.3 -13°46.1	356°27.3 -13°45.2	11°27.3 -13°44.4	26°27.3 -13°43.6	41°27.3 -13°42.8	56°27.3 -13°41.9	71°27.3 -13°41.1	+0.0 +0.8
Di 13	266°27.4 -13°30.2	281°27.4 -13°29.4	296°27.4 -13°28.6	311°27.5 -13°27.7	326°27.5 -13°26.9	341°27.5 -13°26.1	356°27.5 -13°25.2	11°27.5 -13°24.4	26°27.5 -13°23.5	41°27.5 -13°22.7	56°27.5 -13°21.9	71°27.6 -13°21.0	+0.0 +0.8
Lu 14	266°27.8 -13°10.1	281°27.8 -13°09.2	296°27.8 -13°08.4	311°27.8 -13°07.5	326°27.9 -13°06.7	341°27.9 -13°05.8	356°27.9 -13°05.0	11°27.9 -13°04.1	26°27.9 -13°03.3	41°28.0 -13°02.4	56°28.0 -13°01.6	71°28.0 -13°00.7	+0.0 +0.8
Ma 15	266°28.1 -12°49.6	281°28.4 -12°48.8	296°28.4 -12°47.9	311°28.4 -12°47.1	326°28.5 -12°46.2	341°28.5 -12°45.4	356°28.5 -12°44.5	11°28.5 -12°43.7	26°28.6 -12°42.8	41°28.6 -12°41.9	56°28.6 -12°41.1	71°28.7 -12°40.2	+0.0 +0.9
Me 16	266°29.1 -12°29.0	281°29.1 -12°28.2	296°29.1 -12°27.3	311°29.2 -12°26.4	326°29.2 -12°25.6	341°29.2 -12°24.7	356°29.3 -12°23.8	11°29.3 -12°23.0	26°29.4 -12°22.1	41°29.4 -12°21.2	56°29.4 -12°20.4	71°29.5 -12°19.5	+0.0 +0.9
Je 17	266°30.0 -12°08.2	281°30.0 -12°07.3	296°30.0 -12°06.5	311°30.1 -12°05.6	326°30.1 -12°04.7	341°30.2 -12°03.8	356°30.2 -12°03.0	11°30.3 -12°02.1	26°30.3 -12°01.2	41°30.4 -12°00.3	56°30.4 -11°59.5	71°30.5 -11°58.6	+0.0 +0.9
Ve 18	266°31.1 -11°47.2	281°31.1 -11°46.3	296°31.2 -11°45.4	311°31.2 -11°44.5	326°31.3 -11°43.7	341°31.3 -11°42.8	356°31.4 -11°41.9	11°31.4 -11°41.0	26°31.5 -11°40.1	41°31.5 -11°39.3	56°31.6 -11°38.4	71°31.6 -11°37.5	+0.0 +0.9
Sa 19	266°32.3 -11°26.0	281°32.4 -11°25.1	296°32.4 -11°24.2	311°32.5 -11°23.3	326°32.5 -11°22.4	341°32.6 -11°21.5	356°32.6 -11°20.7	11°32.7 -11°19.8	26°32.8 -11°18.9	41°32.8 -11°18.0	56°32.9 -11°17.1	71°32.9 -11°16.2	+0.0 +0.9
Di 20	266°33.7 -11°04.6	281°33.8 -11°03.7	296°33.8 -11°02.8	311°33.9 -11°01.9	326°34.0 -11°01.0	341°34.0 -11°00.1	356°34.1 -10°59.2	11°34.2 -10°58.3	26°34.2 -10°57.4	41°34.3 -10°56.5	56°34.3 -10°55.6	71°34.4 -10°54.7	+0.1 +0.9
Lu 21	266°35.3 -10°43.0	281°35.4 -10°42.1	296°35.4 -10°41.2	311°35.5 -10°40.3	326°35.6 -10°39.4	341°35.6 -10°38.5	356°35.7 -10°37.6	11°35.8 -10°36.7	26°35.8 -10°35.8	41°35.9 -10°34.9	56°36.0 -10°34.0	71°36.1 -10°33.1	+0.1 +0.9
Ma 22	266°37.0 -10°21.3	281°37.1 -10°20.4	296°37.2 -10°19.5	311°37.2 -10°18.6	326°37.3 -10°17.7	341°37.4 -10°16.8	356°37.5 -10°15.8	11°37.5 -10°14.9	26°37.6 -10°14.0	41°37.7 -10°13.1	56°37.8 -10°12.2	71°37.9 -10°11.3	+0.0 +0.9
Me 23	266°38.9 -9°59.4	281°39.0 -9°58.5	296°39.1 -9°57.6	311°39.1 -9°56.7	326°39.2 -9°55.7	341°39.3 -9°54.8	356°39.4 -9°53.9	11°39.5 -9°53.0	26°39.6 -9°52.1	41°39.6 -9°51.2	56°39.7 -9°50.2	71°39.8 -9°49.3	+0.1 +0.9
Je 24	266°40.9 -9°37.4	281°41.0 -9°36.4	296°41.1 -9°35.5	311°41.1 -9°34.6	326°41.3 -9°33.7	341°41.4 -9°32.8	356°41.5 -9°31.8	11°41.6 -9°30.9	26°41.7 -9°30.0	41°41.7 -9°29.1	56°41.8 -9°28.1	71°41.9 -9°27.2	+0.1 +0.9
Ve 25	266°43.1 -9°15.2	281°43.2 -9°14.3	296°43.3 -9°13.3	311°43.4 -9°12.4	326°43.5 -9°11.5	341°43.6 -9°10.5	356°43.7 -9°09.7	11°43.8 -9°08.7	26°43.9 -9°07.8	41°44.0 -9°06.8	56°44.1 -9°05.9	71°44.2 -9°05.0	+0.1 +0.9
Sa 26	266°45.5 -8°52.9	281°45.6 -8°51.9	296°45.7 -8°51.0	311°45.8 -8°50.1	326°45.9 -8°49.1	341°46.0 -8°48.2	356°46.1 -8°47.3	11°46.2 -8°46.3	26°46.3 -8°45.4	41°46.4 -8°44.4	56°46.5 -8°43.5	71°46.6 -8°42.6	+0.1 +0.9
Di 27	266°47.9 -8°30.4	281°48.1 -8°29.5	296°48.2 -8°28.5	311°48.3 -8°27.6	326°48.4 -8°26.6	341°48.5 -8°25.7	356°48.6 -8°24.8	11°48.7 -8°23.8	26°48.8 -8°22.9	41°48.9 -8°21.9	56°49.0 -8°21.0	71°49.1 -8°20.1	+0.1 +0.9
Lu 28	266°50.6 -8°07.8	281°50.7 -8°06.9	296°50.8 -8°05.9	311°50.9 -8°05.0	326°51.0 -8°04.0	341°51.1 -8°03.1	356°51.2 -8°02.1	11°51.4 -8°01.2	26°51.5 -8°00.3	41°51.6 -7°59.3	56°51.7 -7°58.4	71°51.8 -7°57.4	+0.1 +0.9
Ma 29	266°53.3 -7°45.1	281°53.4 -7°44.2	296°53.6 -7°43.2	311°53.7 -7°42.3	326°53.8 -7°41.3	341°53.9 -7°40.4	356°54.0 -7°39.5	11°54.1 -7°38.5	26°54.3 -7°37.5	41°54.4 -7°36.6	56°54.5 -7°35.6	71°54.6 -7°34.7	+0.1 +0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Février 2028

	J	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h	SP
O	Ma 1	240°18.6 10°04.7	254°53.2 10°17.3	269°27.8 10°29.9	284°02.2 10°42.5	298°36.7 10°55.0	313°11.0 11°07.5	327°45.3 11°20.0	342°19.6 11°32.4	356°53.7 11°44.8	11°27.9 11°57.1	26°01.9 12°09.5	+34.3	14.9
	Me 2	244°24.5 15°08.9	258°57.4 15°20.5	273°30.2 15°32.0	288°02.9 15°43.5	302°35.6 15°54.9	317°08.2 16°06.2	331°40.6 16°17.5	346°13.0 16°28.8	0°45.4 16°39.9	15°17.6 16°51.0	29°49.7 17°02.1	+32.5	15.1
	Je 3	247°40.7 19°39.3	262°11.3 19°49.2	276°41.8 19°59.0	291°12.2 20°08.7	305°42.5 20°18.3	320°12.7 20°27.8	334°42.8 20°37.3	349°12.8 20°46.3	3°42.2 20°55.9	18°12.5 21°05.0	32°42.2 21°14.1	+30.2	15.3
	Ve 4	249°54.3 23°18.1	264°22.3 23°25.5	278°50.1 23°32.7	293°17.8 23°39.9	307°45.4 23°46.9	322°12.9 23°53.8	336°40.3 24°00.6	351°07.6 24°07.3	5°34.7 24°13.8	20°01.8 24°20.2	34°28.8 24°26.5	+27.4	15.5
	Sa 5	251°00.5 25°44.4	265°25.8 25°48.5	279°51.0 25°52.3	294°16.1 25°56.1	308°41.1 25°59.6	323°06.1 26°03.1	337°30.9 26°06.3	351°55.7 26°09.4	6°20.3 26°12.4	20°44.9 26°15.2	35°09.4 26°17.8	+24.9	15.8
O	Di 6	251°07.8 26°37.0	265°31.1 26°36.9	279°54.5 26°36.6	294°17.7 26°36.1	308°40.9 26°35.5	323°04.1 26°34.6	337°27.2 26°33.6	351°50.3 26°32.4	6°13.3 26°31.0	20°36.3 26°29.5	34°59.3 26°27.7	+23.1	16.1
	Lu 7	250°40.7 25°39.4	265°03.4 25°34.7	279°26.0 25°29.8	293°48.7 25°24.7	308°11.4 25°19.5	322°34.1 25°14.0	336°56.8 25°08.4	351°19.5 25°02.6	5°42.2 24°56.6	20°05.0 24°50.4	34°27.7 24°44.0	+22.7	16.3
	Ma 8	250°12.8 22°47.2	264°36.1 22°38.0	278°59.5 22°28.6	293°22.9 22°19.1	307°46.4 22°09.9	322°09.9 21°59.6	336°33.5 21°49.6	350°57.1 21°39.4	5°20.8 21°29.1	19°44.6 21°18.6	34°08.4 21°08.0	+23.6	16.6
	Me 9	250°13.2 18°10.8	264°38.1 17°57.9	279°03.1 17°44.9	293°28.1 17°31.7	307°53.2 17°15.8	322°18.3 17°05.0	336°43.6 16°51.5	351°08.9 16°37.8	5°34.2 16°24.0	19°59.7 16°10.2	34°25.2 15°56.2	+25.2	16.2
	Je 10	250°56.6 12°14.3	265°23.3 11°58.8	279°50.0 11°43.2	294°16.8 11°27.6	308°43.6 11°11.9	323°10.5 10°56.1	337°37.5 10°40.2	352°04.6 10°24.3	6°31.7 10°08.3	20°58.8 9°52.3	35°26.1 9°36.2	+27.0	16.7
O	Ve 11	252°21.5 5°29.1	266°49.6 5°12.3	281°17.8 4°55.5	295°46.0 4°38.7	310°14.2 4°21.9	324°42.5 4°05.1	339°10.9 3°48.3	353°39.3 3°31.4	8°07.7 3°14.5	22°36.1 2°57.7	37°04.6 2°40.8	+28.3	16.7
	Sa 12	254°16.1 -1°31.9	268°45.1 -1°48.6	283°14.1 -2°05.3	297°43.1 -2°22.0	312°12.1 -2°38.6	326°41.2 -2°55.2	341°10.3 -3°11.8	355°39.3 -3°28.3	10°08.4 -3°44.8	24°37.6 -4°01.3	39°06.7 -4°17.7	+29.1	16.5
	Di 13	256°24.3 -8°18.2	270°53.5 -8°33.8	285°22.7 -8°49.3	299°51.9 -9°04.7	314°21.0 -9°20.1	328°50.2 -9°35.4	343°19.4 -9°50.6	357°48.5 -10°05.7	12°17.6 -10°20.9	26°46.8 -10°35.8	41°15.9 -10°50.7	+28.2	16.3
	Lu 14	258°30.8 -14°24.2	272°59.6 -14°37.7	287°28.4 -15°11.1	301°57.2 -15°04.4	316°26.5 -15°17.6	330°54.8 -15°30.7	345°23.5 -15°43.6	359°52.2 -15°56.9	14°20.9 -16°09.3	28°49.5 -16°22.2	43°18.2 -16°34.5	+28.7	16.1
	Ma 15	260°24.4 -19°29.3	274°52.6 -19°40.1	289°20.7 -19°50.6	303°48.9 -20°01.1	318°17.0 -20°11.4	332°45.1 -20°21.6	347°13.1 -20°31.7	361°09.3 -20°41.7	16°09.3 -20°51.5	30°37.1 -21°01.2	45°05.1 -21°10.8	+28.1	15.8
O	Me 16	262°01.2 -23°18.4	276°28.8 -23°25.8	290°56.3 -23°33.1	305°26.3 -23°40.2	319°51.4 -23°47.2	334°18.9 -23°54.1	348°46.3 -24°00.6	363°13.8 -24°07.4	17°41.2 -24°13.8	32°08.7 -24°20.1	46°36.1 -24°26.3	+27.5	15.5
	Je 17	276°28.8 -23°25.8	290°56.3 -23°33.1	305°26.3 -23°40.2	319°51.4 -23°47.2	334°18.9 -23°54.1	348°46.3 -24°00.8	363°13.8 -24°07.4	381°08.7 -24°13.8	17°41.2 -24°20.1	32°08.7 -24°26.3	46°36.1 -24°32.3	+27.5	15.5
	Ve 18	277°53.5 -25°45.3	292°20.8 -25°49.0	306°48.1 -25°52.5	321°15.3 -25°56.0	335°42.8 -25°59.9	350°10.1 -26°02.4	364°37.4 -26°05.3	383°32.1 -26°08.2	19°04.8 -26°10.9	33°32.1 -26°13.4	47°59.5 -26°15.8	+26.2	15.3
	Sa 19	279°19.7 -26°34.7	293°47.4 -26°34.8	308°15.2 -26°34.8	322°42.9 -26°34.7	337°10.7 -26°34.4	351°38.6 -26°33.9	366°06.5 -26°33.3	381°06.5 -26°32.6	20°34.4 -26°31.8	35°02.3 -26°30.3	49°30.3 -26°29.7	+27.3	15.1
	Di 20	281°04.0 -25°56.7	295°32.8 -25°53.4	310°01.6 -25°50.0	324°30.5 -25°46.5	338°59.4 -25°42.9	353°28.4 -25°39.2	368°06.5 -25°35.3	383°06.5 -25°31.3	7°57.5 -25°27.2	22°26.6 -25°22.9	36°55.7 -25°18.6	+29.0	15.0
O	Lu 21	283°20.9 -23°59.0	297°51.2 -23°52.8	312°21.6 -23°46.5	326°52.0 -23°40.1	341°22.5 -23°33.5	355°53.1 -23°26.9	370°23.7 -23°20.2	385°04.4 -23°13.3	10°23.7 -23°06.4	24°54.4 -22°59.3	39°25.2 -22°52.2	+30.6	14.8
	Ma 22	286°18.6 -20°53.4	300°50.6 -20°44.5	315°22.6 -20°36.0	329°54.7 -20°27.2	344°26.9 -20°18.4	358°59.2 -20°09.2	373°31.5 -20°00.2	388°03.9 -19°51.0	13°31.5 -19°41.8	28°03.3 -19°32.4	42°36.3 -19°23.0	+32.3	14.8
	Me 23	289°57.6 -12°11.4	304°31.1 -11°59.4	319°04.4 -11°47.4	333°38.4 -11°35.4	348°12.1 -11°23.3	2°45.9 -11°11.2	17°19.7 -10°59.0	31°33.6 -10°46.8	46°27.6 -10°34.6	61°01.6 -10°22.3	75°35.6 -10°10.0	+33.8	14.7
	Je 24	294°12.2 -7°01.1	308°47.1 -6°48.3	323°21.9 -6°35.4	337°56.8 -6°22.6	352°31.7 -6°09.6	7°06.7 -5°56.7	21°41.7 -5°43.8	36°16.7 -5°30.8	50°51.8 -5°17.8	65°26.9 -5°04.8	80°02.0 -4°51.8	+35.0	14.7
	Ve 25	298°52.9 -7°01.1	313°28.5 -6°48.3	328°04.1 -6°35.4	342°39.7 -6°22.6	357°15.4 -6°09.6	11°51.1 -5°56.7	26°26.7 -5°43.8	41°02.5 -5°30.8	55°38.2 -5°17.8	70°13.9 -5°04.8	84°49.7 -4°51.8	+35.7	14.7
O	Sa 26	303°47.2 -1°34.4	318°23.1 -1°21.1	332°59.0 -1°07.9	347°34.8 -0°54.6	2°10.7 -0°41.3	16°46.6 -0°28.1	31°22.4 -0°14.8	45°58.3 -0°01.5	60°34.1 0°11.8	75°10.0 0°25.1	89°45.8 0°38.4	+35.9	14.7
	Di 27	308°41.8 3°57.3	323°17.8 4°10.5	337°53.0 4°23.7	352°28.5 4°36.9	7°04.1 4°50.0	21°39.5 5°03.2	36°15.0 5°16.3	50°50.0 5°29.5	65°25.8 5°42.6	80°01.2 5°55.7	94°36.6 6°08.7	+35.5	14.8
	Lu 28	313°22.4 9°22.2	327°57.2 9°34.9	342°31.9 9°47.5	357°06.5 10°00.1	11°41.1 10°12.7	26°15.6 10°25.3	40°50.1 10°40.2	55°24.5 10°50.2	69°58.9 11°02.7	84°33.9 11°15.1	99°07.2 11°27.5	+34.5	14.9
	Ma 29	317°34.6 14°27.7	332°07.9 14°39.3	346°41.1 14°50.9	1°14.2 15°02.4	15°47.3 15°13.9	30°20.3 15°25.3	44°53.3 15°36.6	59°26.1 15°47.9	73°58.9 15°59.2	88°31.7 16°10.3	103°04.3 16°21.4	+33.0	15.0

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre

Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

PQ: 3 19h10 — PL: 10 15h03 — DQ: 17 08h08 — NL: 25 10h37

SOLEIL

Mars 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Me 1	266°56.2 -7°22.3	281°56.3 -7°21.3	296°56.4 -7°20.4	311°56.6 -7°19.4	326°56.7 -7°18.5	341°56.8 -7°17.5	356°56.9 -7°16.6	11°57.1 -7°15.6	26°57.2 -7°14.7	41°57.3 -7°13.7	56°57.4 -7°12.8	71°57.6 -7°11.8	+0.1 +1.0
Je 2	266°59.2 -6°59.4	281°59.3 -6°58.4	296°59.5 -6°57.5	311°59.6 -6°56.5	326°59.7 -6°55.6	341°59.9 -6°54.6	357°00.0 -6°53.6	12°00.1 -6°52.7	27°00.2 -6°51.7	42°00.4 -6°50.8	57°00.5 -6°49.8	72°00.6 -6°48.8	+0.1 +1.0
Ve 3	267°02.3 -6°36.4	282°02.5 -6°35.4	297°02.6 -6°34.4	312°02.7 -6°33.5	327°02.9 -6°32.5	342°03.0 -6°31.6	357°03.1 -6°30.6	12°03.3 -6°29.6	27°03.4 -6°28.7	42°03.6 -6°27.7	57°03.7 -6°26.8	72°03.8 -6°25.8	+0.1 +1.0
Sa 4	267°05.6 -6°13.3	282°05.7 -6°12.3	297°05.9 -6°11.3	312°06.0 -6°10.4	327°06.2 -6°09.4	342°06.3 -6°08.4	357°06.4 -6°07.5	12°06.6 -6°06.8	27°06.7 -6°05.9	42°06.8 -6°04.6	57°07.0 -6°03.6	72°07.1 -6°02.6	+0.1 +1.0
Di 5	267°09.0 -5°50.1	282°09.1 -5°49.1	297°09.3 -5°48.1	312°09.4 -5°47.2	327°09.5 -5°46.2	342°09.7 -5°45.2	357°09.8 -5°44.3	12°10.0 -5°43.3	27°10.1 -5°42.3	42°10.3 -5°41.4	57°10.4 -5°40.4	72°10.5 -5°39.4	+0.1 +1.0
Lu 6	267°12.4 -5°26.8	282°12.6 -5°25.8	297°12.7 -5°24.9	312°12.9 -5°23.9	327°13.0 -5°22.9	342°13.2 -5°22.0	357°13.3 -5°21.0	12°13.5 -5°20.0	27°13.6 -5°19.0	42°13.8 -5°18.1	57°13.9 -5°17.1	72°14.1 -5°16.1	+0.1 +1.0
Ma 7	267°16.0 -5°03.5	282°16.2 -5°02.5	297°16.3 -5°01.5	312°16.5 -5°00.6	327°16.6 -4°59.6	342°16.8 -4°58.6	357°16.9 -4°57.6	12°17.1 -4°56.7	27°17.2 -4°55.7	42°17.4 -4°54.7	57°17.6 -4°53.7	72°17.7 -4°52.8	+0.2 +1.0
Me 8	267°19.7 -4°40.1	282°19.9 -4°39.1	297°20.0 -4°38.1	312°20.2 -4°37.1	327°20.3 -4°36.2	342°20.5 -4°35.2	357°20.6 -4°34.2	12°20.8 -4°33.2	27°21.0 -4°32.3	42°21.1 -4°31.3	57°21.3 -4°30.3	72°21.4 -4°29.3	+0.2 +1.0
Je 9	267°23.5 -4°16.6	282°23.6 -4°15.6	297°23.8 -4°14.7	312°24.0 -4°13.7	327°24.1 -4°12.7	342°24.3 -4°11.7	357°24.4 -4°10.7	12°24.6 -4°09.8	27°24.8 -4°08.8	42°24.9 -4°07.8	57°25.1 -4°06.8	72°25.3 -4°05.8	+0.2 +1.0
Ve 10	267°27.4 -3°53.1	282°27.5 -3°52.1	297°27.7 -3°51.1	312°27.8 -3°50.2	327°28.0 -3°49.2	342°28.2 -3°48.2	357°28.3 -3°47.2	12°28.5 -3°46.2	27°28.7 -3°45.3	42°28.8 -3°44.3	57°29.0 -3°43.3	72°29.2 -3°42.3	+0.2 +1.0
Sa 11	267°31.3 -3°29.5	282°31.5 -3°28.6	297°31.6 -3°27.6	312°31.8 -3°26.6	327°32.0 -3°25.6	342°32.1 -3°24.6	357°32.3 -3°23.6	12°32.5 -3°22.7	27°32.6 -3°21.7	42°32.8 -3°20.7	57°33.0 -3°19.7	72°33.1 -3°18.7	+0.2 +1.0
Di 12	267°35.3 -3°05.9	282°35.5 -3°05.0	297°35.7 -3°04.0	312°35.8 -3°03.0	327°36.0 -3°02.0	342°36.2 -3°01.0	357°36.3 -3°00.0	12°36.5 -2°59.1	27°36.7 -2°58.8	42°36.9 -2°57.6	57°37.0 -2°56.1	72°37.2 -2°55.1	+0.2 +1.0
Lu 13	267°39.4 -2°42.3	282°39.6 -2°41.3	297°39.8 -2°40.3	312°39.9 -2°39.3	327°40.1 -2°38.4	342°40.3 -2°37.4	357°40.5 -2°36.4	12°40.6 -2°35.4	27°40.8 -2°34.4	42°41.0 -2°33.4	57°41.1 -2°32.4	72°41.3 -2°31.5	+0.2 +1.0
Ma 14	267°43.6 -2°18.6	282°43.7 -2°17.7	297°43.9 -2°16.7	312°44.1 -2°15.7	327°44.3 -2°14.7	342°44.4 -2°13.7	357°44.6 -2°12.7	12°44.8 -2°11.7	27°45.0 -2°10.7	42°45.1 -2°09.8	57°45.3 -2°08.8	72°45.5 -2°07.8	+0.2 +1.0
Me 15	267°47.8 -1°54.9	282°48.0 -1°54.0	297°48.1 -1°53.0	312°48.3 -1°52.0	327°48.5 -1°51.0	342°48.7 -1°50.0	357°48.8 -1°49.0	12°48.9 -1°48.0	27°49.2 -1°47.0	42°49.4 -1°46.1	57°49.6 -1°45.1	72°49.7 -1°44.1	+0.2 +1.0
Je 16	267°52.1 -1°31.2	282°52.2 -1°30.2	297°52.4 -1°29.3	312°52.6 -1°28.3	327°52.8 -1°27.3	342°52.9 -1°26.3	357°53.1 -1°25.3	12°53.3 -1°24.3	27°53.5 -1°23.3	42°53.7 -1°22.3	57°53.8 -1°21.4	72°54.0 -1°20.4	+0.2 +1.0
Ve 17	267°56.4 -1°07.5	282°56.5 -1°06.5	297°56.7 -1°05.5	312°56.9 -1°04.5	327°57.1 -1°03.6	342°57.3 -1°02.6	357°57.4 -1°01.6	12°57.6 -1°00.6	27°57.8 -0°59.6	42°58.0 -0°58.6	57°58.2 -0°57.6	72°58.4 -0°56.6	+0.2 +1.0
Sa 18	268°00.7 -0°43.8	283°00.9 -0°42.8	298°01.1 -0°41.8	313°01.3 -0°40.8	328°01.4 -0°39.8	343°01.6 -0°38.8	358°01.8 -0°37.8	13°02.0 -0°36.9	28°02.2 -0°35.9	43°02.4 -0°34.9	58°02.5 -0°33.9	73°02.7 -0°32.9	+0.2 +1.0
Di 19	268°05.1 -0°20.1	283°05.3 -0°19.1	298°05.5 -0°18.1	313°05.7 -0°17.1	328°05.8 -0°16.1	343°06.0 -0°15.1	358°06.2 -0°14.1	13°06.2 -0°13.1	28°06.4 -0°12.1	43°06.6 -0°11.2	58°06.8 -0°10.2	73°07.1 -0°09.2	+0.2 +1.0
Lu 20	268°09.5 0°03.7	283°09.7 0°04.7	298°09.9 0°05.6	313°10.1 0°06.6	328°10.3 0°07.6	343°10.4 0°08.6	358°10.6 0°09.6	13°10.6 0°10.6	28°11.0 0°11.6	43°11.2 0°12.6	58°11.4 0°13.6	73°11.6 0°14.5	+0.2 +1.0
Ma 21	268°14.0 0°27.4	283°14.1 0°28.4	298°14.3 0°29.4	313°14.5 0°30.3	328°14.7 0°31.3	343°14.9 0°32.3	358°15.1 0°33.3	13°15.3 0°34.3	28°15.5 0°35.3	43°15.6 0°36.3	58°15.8 0°37.3	73°16.0 0°38.2	+0.2 +1.0
Me 22	268°18.4 0°51.1	283°18.6 0°52.1	298°18.8 0°53.0	313°19.0 0°54.0	328°19.2 0°55.0	343°19.4 0°56.0	358°19.6 0°57.0	13°19.7 0°58.0	28°19.9 0°59.0	43°20.1 1°00.0	58°20.3 1°00.9	73°20.5 1°01.9	+0.2 +1.0
Je 23	268°22.9 1°14.7	283°23.1 1°15.7	298°23.3 1°16.7	313°23.5 1°17.7	328°23.7 1°18.7	343°23.9 1°19.7	358°24.0 1°20.6	13°24.2 1°21.6	28°24.4 1°22.6	43°24.6 1°23.6	58°24.8 1°24.6	73°25.0 1°25.6	+0.2 +1.0
Ve 24	268°27.4 1°38.4	283°27.6 1°39.4	298°27.8 1°40.3	313°28.0 1°41.3	328°28.2 1°42.3	343°28.3 1°43.3	358°28.5 1°44.3	13°28.5 1°45.3	28°28.9 1°46.2	43°29.1 1°47.2	58°29.3 1°48.2	73°29.5 1°49.2	+0.2 +1.0
Sa 25	268°31.9 2°02.0	283°32.1 2°02.9	298°32.3 2°03.9	313°32.5 2°04.9	328°32.7 2°05.9	343°32.9 2°06.9	358°33.0 2°07.9	13°33.2 2°08.8	28°33.3 2°09.8	43°33.6 2°10.8	58°33.8 2°11.8	73°34.0 2°12.8	+0.2 +1.0
Di 26	268°36.4 2°25.5	283°36.6 2°26.5	298°36.8 2°27.5	313°37.0 2°28.5	328°37.2 2°29.4	343°37.4 2°30.4	358°37.5 2°31.4	13°37.7 2°32.4	28°37.9 2°33.4	43°38.1 2°34.3	58°38.3 2°35.3	73°38.5 2°36.3	+0.2 +1.0
Lu 27	268°40.9 2°49.0	283°41.1 2°50.0	298°41.3 2°51.0	313°41.5 2°52.0	328°41.7 2°52.9	343°41.9 2°53.9	358°42.1 2°54.9	13°42.2 2°55.9	28°42.4 2°56.8	43°42.6 2°57.8	58°42.8 2°58.8	73°43.0 2°59.8	+0.2 +1.0
Ma 28	268°45.4 3°12.5	283°45.6 3°13.4	298°45.8 3°14.4	313°46.0 3°15.4	328°46.2 3°16.4	343°46.4 3°17.3	358°46.6 3°18.3	13°46.7 3°19.3	28°46.9 3°20.3	43°47.1 3°21.2	58°47.3 3°22.2	73°47.5 3°23.2	+0.2 +1.0
Me 29	268°49.9 3°35.8	283°50.1 3°36.8	298°50.3 3°37.8	313°50.5 3°38.8	328°50.7 3°39.7	343°50.9 3°40.7	358°51.0 3°41.7	13°51.2 3°42.7	28°51.4 3°43.6	43°51.6 3°44.6	58°51.8 3°45.6	73°52.0 3°46.5	+0.2 +1.0
Je 30	268°54.4 3°59.2	283°54.6 4°00.1	298°54.8 4°01.1	313°55.0 4°02.1	328°55.2 4°03.0	343°55.3 4°04.0	358°55.5 4°05.0	13°55.7 4°05.9	28°55.9 4°06.9	43°56.1 4°07.9	58°56.3 4°08.8	73°56.5 4°09.8	+0.2 +1.0
Ve 31	268°58.9 4°22.4	283°59.1 4°23.4	298°59.2 4°24.3	313°59.4 4°25.3	328°59.6 4°26.3	343°59.8 4°27.2	359°00.0 4°28.2	14°00.2 4°29.2	29°00.0 4°30.1	44°00.0 4°31.1	59°00.7 4°32.1	74°00.9 4°33.0	+0.2 +1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.1'

LUNE

Mars 2028

	J	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ /h	SP
Me 1	248 ⁰ 26.5 18 ⁰ 08.8	262 ⁰ 58.2 18 ⁰ 19.2	277 ⁰ 29.9 18 ⁰ 29.5	292 ⁰ 01.5 18 ⁰ 39.7	306 ⁰ 33.1 18 ⁰ 49.8	321 ⁰ 04.5 18 ⁰ 59.8	335 ⁰ 35.8 19 ⁰ 09.8	350 ⁰ 07.1 19 ⁰ 19.7	4 ⁰ 38.3 19 ⁰ 29.5	19 ⁰ 09.4 19 ⁰ 39.2	33 ⁰ 40.4 19 ⁰ 48.9	+31.4	15.1	
	251 ⁰ 14.6 22 ⁰ 02.7	265 ⁰ 44.1 22 ⁰ 10.8	280 ⁰ 13.6 22 ⁰ 18.9	294 ⁰ 42.9 22 ⁰ 26.8	309 ⁰ 12.2 22 ⁰ 34.6	323 ⁰ 41.4 22 ⁰ 42.4	338 ⁰ 10.4 22 ⁰ 50.0	352 ⁰ 39.4 22 ⁰ 57.5	7 ⁰ 08.3 23 ⁰ 04.9	21 ⁰ 37.1 23 ⁰ 12.2	36 ⁰ 05.8 23 ⁰ 19.3	+29.1	15.3	
Ve 3	253 ⁰ 05.3 24 ⁰ 52.6	267 ⁰ 32.5 24 ⁰ 57.8	281 ⁰ 59.7 25 ⁰ 02.9	296 ⁰ 26.7 25 ⁰ 07.8	310 ⁰ 53.7 25 ⁰ 12.7	325 ⁰ 20.6 25 ⁰ 17.3	339 ⁰ 47.4 25 ⁰ 21.9	354 ⁰ 14.1 25 ⁰ 26.2	8 ⁰ 40.8 25 ⁰ 30.5	23 ⁰ 07.3 25 ⁰ 34.6	37 ⁰ 33.8 25 ⁰ 38.6	+26.9	15.5	
	254 ⁰ 02.0 26 ⁰ 20.4	268 ⁰ 27.3 26 ⁰ 22.0	282 ⁰ 52.6 26 ⁰ 23.4	297 ⁰ 17.8 26 ⁰ 24.7	311 ⁰ 42.9 26 ⁰ 25.8	326 ⁰ 08.0 26 ⁰ 26.7	340 ⁰ 33.0 26 ⁰ 27.5	354 ⁰ 58.0 26 ⁰ 28.1	9 ⁰ 22.9 26 ⁰ 28.5	23 ⁰ 47.8 26 ⁰ 28.8	38 ⁰ 12.6 26 ⁰ 28.9	+25.1	15.7	
Di 5	254 ⁰ 20.2 26 ⁰ 10.6	268 ⁰ 44.4 26 ⁰ 08.0	283 ⁰ 08.7 26 ⁰ 05.3	297 ⁰ 32.9 26 ⁰ 02.4	311 ⁰ 57.1 25 ⁰ 59.3	326 ⁰ 21.3 25 ⁰ 56.0	340 ⁰ 45.4 25 ⁰ 52.6	355 ⁰ 09.6 25 ⁰ 49.9	9 ⁰ 33.7 25 ⁰ 45.2	23 ⁰ 57.9 25 ⁰ 41.2	38 ⁰ 22.0 25 ⁰ 37.1	+24.2	16.0	
	254 ⁰ 24.5 24 ⁰ 14.7	268 ⁰ 48.7 24 ⁰ 07.9	283 ⁰ 13.0 24 ⁰ 00.8	297 ⁰ 37.3 23 ⁰ 53.7	312 ⁰ 01.6 23 ⁰ 46.3	326 ⁰ 26.0 23 ⁰ 38.8	340 ⁰ 50.4 23 ⁰ 31.1	355 ⁰ 14.8 23 ⁰ 23.3	9 ⁰ 39.2 23 ⁰ 15.3	24 ⁰ 03.7 23 ⁰ 07.1	38 ⁰ 28.2 22 ⁰ 58.8	+24.4	16.2	
Ma 7	254 ⁰ 40.1 20 ⁰ 35.2	269 ⁰ 05.3 20 ⁰ 24.4	283 ⁰ 30.5 20 ⁰ 13.5	297 ⁰ 55.7 20 ⁰ 02.4	312 ⁰ 21.0 19 ⁰ 51.2	326 ⁰ 46.3 19 ⁰ 39.9	341 ⁰ 11.7 19 ⁰ 28.4	355 ⁰ 37.1 19 ⁰ 16.7	10 ⁰ 02.6 19 ⁰ 05.0	24 ⁰ 28.2 18 ⁰ 53.1	38 ⁰ 53.7 18 ⁰ 41.1	+25.4	16.4	
	255 ⁰ 23.8 15 ⁰ 25.8	269 ⁰ 50.2 15 ⁰ 11.8	284 ⁰ 16.7 14 ⁰ 57.8	298 ⁰ 43.2 14 ⁰ 43.6	313 ⁰ 09.8 14 ⁰ 29.4	327 ⁰ 36.4 14 ⁰ 15.0	342 ⁰ 03.1 14 ⁰ 00.6	356 ⁰ 29.8 13 ⁰ 46.0	10 ⁰ 56.6 13 ⁰ 31.4	25 ⁰ 23.4 13 ⁰ 16.6	39 ⁰ 50.3 13 ⁰ 01.8	+26.7	16.6	
Je 9	256 ⁰ 39.1 9 ⁰ 09.6	271 ⁰ 06.6 8 ⁰ 53.6	285 ⁰ 34.3 8 ⁰ 37.5	300 ⁰ 02.0 8 ⁰ 21.3	314 ⁰ 29.7 8 ⁰ 05.1	328 ⁰ 57.5 7 ⁰ 48.9	343 ⁰ 25.3 7 ⁰ 32.5	357 ⁰ 53.1 7 ⁰ 16.2	12 ⁰ 20.9 6 ⁰ 59.8	26 ⁰ 48.8 6 ⁰ 43.3	41 ⁰ 16.8 6 ⁰ 28.8	+27.8	16.7	
	258 ⁰ 19.0 2 ⁰ 15.6	272 ⁰ 47.3 1 ⁰ 58.7	287 ⁰ 15.7 1 ⁰ 41.8	301 ⁰ 44.0 1 ⁰ 24.9	316 ⁰ 12.4 1 ⁰ 07.9	330 ⁰ 40.8 0 ⁰ 51.0	345 ⁰ 09.2 0 ⁰ 34.1	359 ⁰ 37.6 0 ⁰ 17.1	14 ⁰ 06.1 0 ⁰ 00.2	28 ⁰ 34.5 -0 ⁰ 16.7	43 ⁰ 03.0 -0 ⁰ 33.6	+28.4	16.7	
Sa 11	260 ⁰ 10.2 -4 ⁰ 45.0	274 ⁰ 38.8 -5 ⁰ 01.6	289 ⁰ 07.2 -5 ⁰ 18.0	303 ⁰ 35.6 -5 ⁰ 34.5	318 ⁰ 04.1 -5 ⁰ 50.9	332 ⁰ 32.5 -6 ⁰ 07.2	347 ⁰ 01.0 -6 ⁰ 23.5	1 ⁰ 29.4 -6 ⁰ 39.8	15 ⁰ 57.8 -6 ⁰ 56.0	30 ⁰ 26.2 -7 ⁰ 12.1	44 ⁰ 54.0 -7 ⁰ 28.2	+24.4	16.6	
	261 ⁰ 58.3 -11 ⁰ 21.8	276 ⁰ 26.4 -11 ⁰ 36.7	290 ⁰ 54.4 -11 ⁰ 51.6	305 ⁰ 22.5 -12 ⁰ 06.4	319 ⁰ 50.5 -12 ⁰ 21.1	334 ⁰ 18.4 -12 ⁰ 35.7	348 ⁰ 46.4 -12 ⁰ 50.3	3 ⁰ 14.3 -13 ⁰ 04.7	17 ⁰ 42.2 -13 ⁰ 19.1	32 ⁰ 10.1 -13 ⁰ 33.3	46 ⁰ 37.9 -13 ⁰ 47.5	+28.0	16.4	
Di 12	263 ⁰ 31.8 -17 ⁰ 07.3	277 ⁰ 59.2 -17 ⁰ 19.8	292 ⁰ 26.5 -17 ⁰ 32.1	306 ⁰ 53.8 -17 ⁰ 44.3	321 ⁰ 21.0 -17 ⁰ 56.3	335 ⁰ 48.2 -18 ⁰ 08.3	350 ⁰ 15.4 -18 ⁰ 20.1	4 ⁰ 42.6 -18 ⁰ 31.8	16 ⁰ 09.7 -18 ⁰ 43.4	33 ⁰ 36.8 -18 ⁰ 54.8	48 ⁰ 03.8 -19 ⁰ 06.1	+27.2	16.2	
	264 ⁰ 46.2 -21 ⁰ 39.9	279 ⁰ 12.9 -21 ⁰ 49.9	293 ⁰ 39.4 -21 ⁰ 58.0	308 ⁰ 06.0 -22 ⁰ 06.9	322 ⁰ 32.6 -22 ⁰ 15.6	336 ⁰ 59.1 -22 ⁰ 24.2	351 ⁰ 25.6 -22 ⁰ 32.6	5 ⁰ 52.1 -22 ⁰ 49.9	20 ⁰ 18.5 -22 ⁰ 57.0	34 ⁰ 45.0 -22 ⁰ 57.0	49 ⁰ 11.4 -23 ⁰ 04.8	+26.5	15.9	
Me 15	265 ⁰ 46.4 -24 ⁰ 44.5	280 ⁰ 12.7 -24 ⁰ 49.9	294 ⁰ 39.0 -24 ⁰ 55.2	309 ⁰ 05.3 -25 ⁰ 00.3	323 ⁰ 31.6 -25 ⁰ 05.3	337 ⁰ 57.9 -25 ⁰ 10.1	352 ⁰ 24.1 -25 ⁰ 14.7	6 ⁰ 50.4 -25 ⁰ 19.2	21 ⁰ 16.8 -25 ⁰ 23.6	35 ⁰ 43.1 -25 ⁰ 27.8	50 ⁰ 09.4 -25 ⁰ 31.8	+26.3	15.6	
	266 ⁰ 46.3 -26 ⁰ 14.2	281 ⁰ 12.9 -26 ⁰ 15.8	295 ⁰ 39.6 -26 ⁰ 17.3	310 ⁰ 06.3 -26 ⁰ 18.6	324 ⁰ 33.0 -26 ⁰ 19.8	338 ⁰ 59.8 -26 ⁰ 20.8	353 ⁰ 26.6 -26 ⁰ 21.6	7 ⁰ 53.5 -26 ⁰ 22.4	22 ⁰ 20.3 -26 ⁰ 22.9	36 ⁰ 47.3 -26 ⁰ 23.4	51 ⁰ 14.2 -26 ⁰ 23.6	+26.8	15.4	
Ve 17	281 ⁰ 12.9 -26 ⁰ 15.8	295 ⁰ 39.6 -26 ⁰ 17.3	310 ⁰ 06.3 -26 ⁰ 18.6	324 ⁰ 33.0 -26 ⁰ 19.8	338 ⁰ 59.8 -26 ⁰ 20.8	353 ⁰ 26.6 -26 ⁰ 21.6	7 ⁰ 53.5 -26 ⁰ 22.4	22 ⁰ 20.3 -26 ⁰ 22.9	36 ⁰ 47.3 -26 ⁰ 23.4	51 ⁰ 14.2 -26 ⁰ 23.6	65 ⁰ 41.2 -26 ⁰ 23.8	+26.8	15.4	
	282 ⁰ 32.1 -26 ⁰ 08.6	296 ⁰ 59.9 -26 ⁰ 06.4	311 ⁰ 27.8 -26 ⁰ 04.2	325 ⁰ 55.7 -26 ⁰ 01.8	340 ⁰ 23.7 -25 ⁰ 59.3	354 ⁰ 51.8 -25 ⁰ 56.6	9 ⁰ 19.9 -25 ⁰ 53.8	23 ⁰ 48.0 -25 ⁰ 50.9	38 ⁰ 16.3 -25 ⁰ 47.8	52 ⁰ 44.6 -25 ⁰ 44.6	67 ⁰ 13.0 -25 ⁰ 41.3	+28.1	15.1	
Di 19	284 ⁰ 26.7 -24 ⁰ 36.6	298 ⁰ 56.2 -24 ⁰ 31.3	313 ⁰ 25.8 -24 ⁰ 25.9	327 ⁰ 55.4 -24 ⁰ 20.4	342 ⁰ 25.1 -24 ⁰ 14.8	356 ⁰ 54.9 -24 ⁰ 09.1	11 ⁰ 24.8 -24 ⁰ 03.2	25 ⁰ 54.7 -23 ⁰ 57.3	40 ⁰ 24.7 -23 ⁰ 51.2	54 ⁰ 54.8 -23 ⁰ 45.1	69 ⁰ 24.9 -23 ⁰ 38.8	+29.8	15.0	
	287 ⁰ 06.2 -21 ⁰ 52.4	301 ⁰ 37.5 -21 ⁰ 44.5	316 ⁰ 09.0 -21 ⁰ 36.5	330 ⁰ 40.5 -21 ⁰ 28.5	345 ⁰ 12.8 -21 ⁰ 20.3	359 ⁰ 43.7 -21 ⁰ 12.1	14 ⁰ 15.4 -21 ⁰ 03.8	28 ⁰ 47.2 -20 ⁰ 55.4	43 ⁰ 19.0 -20 ⁰ 46.9	57 ⁰ 51.0 -20 ⁰ 38.3	72 ⁰ 23.0 -20 ⁰ 29.6	+31.7	14.8	
Ma 21	290 ⁰ 31.2 -18 ⁰ 09.9	305 ⁰ 04.3 -18 ⁰ 00.0	319 ⁰ 37.8 -17 ⁰ 50.0	334 ⁰ 10.7 -17 ⁰ 39.9	348 ⁰ 43.9 -17 ⁰ 29.8	3 ⁰ 17.3 -17 ⁰ 19.6	17 ⁰ 50.6 -17 ⁰ 09.3	32 ⁰ 24.1 -16 ⁰ 59.0	46 ⁰ 57.6 -16 ⁰ 48.8	61 ⁰ 31.2 -16 ⁰ 38.1	76 ⁰ 04.8 -16 ⁰ 27.6	+33.4	14.8	
	294 ⁰ 35.7 -13 ⁰ 42.6	309 ⁰ 10.2 -13 ⁰ 31.1	323 ⁰ 44.7 -13 ⁰ 19.7	338 ⁰ 19.3 -13 ⁰ 08.1	352 ⁰ 53.9 -12 ⁰ 56.5	7 ⁰ 28.5 -12 ⁰ 44.9	22 ⁰ 03.2 -12 ⁰ 33.2	36 ⁰ 37.2 -12 ⁰ 21.4	51 ⁰ 12.7 -12 ⁰ 09.7	65 ⁰ 47.5 -11 ⁰ 57.8	80 ⁰ 22.4 -11 ⁰ 46.6	+34.7	14.7	
Je 23	299 ⁰ 09.4 -8 ⁰ 42.9	313 ⁰ 44.8 -8 ⁰ 30.4	328 ⁰ 20.2 -8 ⁰ 17.9	342 ⁰ 55.6 -8 ⁰ 05.4	357 ⁰ 31.0 -7 ⁰ 52.8	12 ⁰ 06.5 -7 ⁰ 40.1	26 ⁰ 42.0 -7 ⁰ 27.5	41 ⁰ 17.5 -7 ⁰ 14.8	55 ⁰ 53.1 -7 ⁰ 02.1	70 ⁰ 28.6 -6 ⁰ 49.4	85 ⁰ 04.2 -6 ⁰ 36.6	+35.5	14.7	
	303 ⁰ 59.5 -3 ⁰ 22.4	318 ⁰ 35.3 -3 ⁰ 09.3	333 ⁰ 11.0 -2 ⁰ 56.2	347 ⁰ 46.8 -2 ⁰ 43.1	2 ⁰ 22.5 -2 ⁰ 30.0	16 ⁰ 58.3 -2 ⁰ 16.8	31 ⁰ 34.1 -2 ⁰ 03.7	46 ⁰ 09.8 -1 ⁰ 50.5	60 ⁰ 45.6 -1 ⁰ 37.3	75 ⁰ 21.3 -1 ⁰ 24.1	89 ⁰ 57.1 -1 ⁰ 10.9	+35.8	14.7	
Sa 25	308 ⁰ 52.4 2 ⁰ 07.7	323 ⁰ 28.8 2 ⁰ 20.9	338 ⁰ 03.5 2 ⁰ 34.2	352 ⁰ 39.0 2 ⁰ 47.4	7 ⁰ 14.6 3 ⁰ 13.8	21 ⁰ 50.1 3 ⁰ 13.8	36 ⁰ 25.5 3 ⁰ 27.0	51 ⁰ 01.0 3 ⁰ 40.3	65 ⁰ 36.4 3 ⁰ 53.5	80 ⁰ 11.8 4 ⁰ 06.6	94 ⁰ 47.2 4 ⁰ 19.8	+35.5	14.8	
	313 ⁰ 34.0 7 ⁰ 35.7	328 ⁰ 08.8 7 ⁰ 48.6	342 ⁰ 43.6 8 ⁰ 01.5	357 ⁰ 18.3 8 ⁰ 14.4	11 ⁰ 53.0 8 ⁰ 27.2	26 ⁰ 27.7 8 ⁰ 40.0	41 ⁰ 02.3 8 ⁰ 52.8	55 ⁰ 36.9 9 ⁰ 05.5	70 ⁰ 11.4 9 ⁰ 18.2	84 ⁰ 45.8 9 ⁰ 30.9	99 ⁰ 20.3 9 ⁰ 43.5	+34.6	14.9	
Lu 27	317 ⁰ 50.3 12 ⁰ 48.9	332 ⁰ 23.8 13 ⁰ 00.9	346 ⁰ 57.3 13 ⁰ 12.9	3 ⁰ 30.7 13 ⁰ 24.8	16 ⁰ 04.1 13 ⁰ 36.7	30 ⁰ 37.3 13 ⁰ 48.5	45 ⁰ 10.6 14 ⁰ 00.3	59 ⁰ 43.7 14 ⁰ 12.0	74 ⁰ 16.8 14 ⁰ 23.7	88 ⁰ 49.8 14 ⁰ 35.3	103 ⁰ 22.8 14 ⁰ 46.9	+33.3	15.0	
	321 ⁰ 28.5 17 ⁰ 38.2	336 ⁰ 00.3 17 ⁰ 43.4	350 ⁰ 33.0 17 ⁰ 53.8	5 ⁰ 03.9 18 ⁰ 04.2	19 ⁰ 35.1 18 ⁰ 14.5	34 ⁰ 06.6 18 ⁰ 24.7	48 ⁰ 38.0 18 ⁰ 34.8	63 ⁰ 09.3 18 ⁰ 44.9	77 ⁰ 40.5 18 ⁰ 54.9	92 ⁰ 11.6 19 ⁰ 04.8	106 ⁰ 42.7 19 ⁰ 14.6	+31.4	15.1	
Me 29	324 ⁰ 18.6 21 ⁰ 31.2	338 ⁰ 48.4 21 ⁰ 39.5	353 ⁰ 18.0 21 ⁰											

SOLEIL

Avril 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	269°03.3 4°45.5	284°03.5 4°46.5	299°03.7 4°47.5	314°03.9 4°48.4	329°04.0 4°49.4	344°04.2 4°50.4	359°04.4 4°51.3	14°04.6 4°52.3	29°04.8 4°53.2	44°05.0 4°54.2	59°05.2 4°55.2	74°05.3 4°56.1	+0.2 +1.0
Di 2	269°07.7 5°08.6	284°07.9 5°09.6	299°08.1 5°10.5	314°08.3 5°11.5	329°08.5 5°12.5	344°08.6 5°13.4	359°08.8 5°14.4	14°09.0 5°15.3	29°09.2 5°16.3	44°09.4 5°17.2	59°09.6 5°18.2	74°09.7 5°19.2	+0.2 +1.0
Lu 3	269°12.1 5°31.6	284°12.3 5°32.5	299°12.5 5°33.5	314°12.7 5°34.5	329°12.8 5°35.4	344°13.0 5°36.4	359°13.2 5°37.3	14°13.4 5°38.3	29°13.6 5°39.2	44°13.8 5°40.2	59°13.9 5°41.1	74°14.1 5°42.1	+0.2 +1.0
Ma 4	269°16.5 5°54.5	284°16.6 5°55.4	299°16.8 5°56.4	314°17.0 5°57.3	329°17.2 5°58.3	344°17.4 5°59.2	359°17.5 6°00.2	14°17.7 6°01.1	29°17.9 6°02.1	44°18.1 6°03.0	59°18.3 6°04.0	74°18.4 6°04.9	+0.2 +0.9
Me 5	269°20.8 6°17.2	284°21.0 6°18.2	299°21.1 6°19.1	314°21.3 6°20.1	329°21.5 6°21.0	344°21.7 6°22.0	359°21.9 6°22.9	14°22.0 6°23.9	29°22.2 6°24.8	44°22.4 6°25.8	59°22.6 6°26.7	74°22.7 6°27.6	+0.2 +0.9
Je 6	269°25.1 6°39.9	284°25.2 6°40.8	299°25.4 6°41.8	314°25.6 6°42.7	329°25.8 6°43.7	344°25.9 6°44.6	359°26.1 6°45.6	14°26.3 6°46.5	29°26.5 6°47.4	44°26.6 6°48.4	59°26.8 6°49.3	74°27.0 6°50.3	+0.2 +0.9
Ve 7	269°29.3 7°02.4	284°29.4 7°03.4	299°29.6 7°04.3	314°29.8 7°05.3	329°30.0 7°06.2	344°30.1 7°07.1	359°30.3 7°08.1	14°30.5 7°09.0	29°30.7 7°09.9	44°30.8 7°10.9	59°31.0 7°11.8	74°31.2 7°12.7	+0.2 +0.9
Sa 8	269°33.4 7°27.5	284°33.6 7°28.5	299°33.8 7°29.7	314°34.0 7°30.7	329°34.1 7°31.6	344°34.3 7°32.5	359°34.5 7°33.5	14°34.6 7°35.2	29°34.8 7°36.7	44°35.0 7°37.5	59°35.2 7°38.4	74°35.3 7°39.4	+0.2 +0.9
Di 9	269°37.5 7°47.2	284°37.7 7°48.1	299°37.9 7°49.0	314°38.0 7°50.0	329°38.2 7°50.9	344°38.4 7°51.8	359°38.6 7°52.7	14°38.7 7°53.7	29°38.9 7°54.6	44°39.1 7°55.5	59°39.3 7°56.4	74°39.4 7°57.4	+0.2 +0.9
Lu 10	269°41.6 8°09.3	284°41.7 8°10.3	299°41.9 8°11.2	314°42.1 8°12.1	329°42.2 8°13.0	344°42.4 8°13.9	359°42.6 8°14.9	14°42.7 8°15.8	29°42.9 8°16.7	44°43.1 8°17.6	59°43.2 8°18.5	74°43.4 8°19.5	+0.2 +0.9
Ma 11	269°45.5 8°31.4	284°45.7 8°32.3	299°45.9 8°33.2	314°46.0 8°34.1	329°46.2 8°35.0	344°46.4 8°35.9	359°46.5 8°36.9	14°46.7 8°37.8	29°46.9 8°38.7	44°47.0 8°39.6	59°47.2 8°40.5	74°47.3 8°41.4	+0.2 +0.9
Me 12	269°49.4 8°53.3	284°49.6 8°54.2	299°49.8 8°55.1	314°49.9 8°56.0	329°50.1 8°56.9	344°50.2 8°57.8	359°50.4 8°58.7	14°50.6 8°59.6	29°50.7 9°00.5	44°50.9 9°01.4	59°51.0 9°02.3	74°51.2 9°03.3	+0.2 +0.9
Je 13	269°53.3 9°15.0	284°53.4 9°15.9	299°53.6 9°16.8	314°53.7 9°17.7	329°53.9 9°18.6	344°54.0 9°19.5	359°54.2 9°20.4	14°54.3 9°21.3	29°54.5 9°22.2	44°54.7 9°23.1	59°54.8 9°24.0	74°55.0 9°24.9	+0.2 +0.9
Ve 14	269°57.0 9°36.6	284°57.1 9°37.5	299°57.3 9°38.4	314°57.4 9°39.3	329°57.6 9°40.1	344°57.7 9°41.1	359°57.9 9°42.0	14°58.0 9°42.9	29°58.2 9°43.8	44°58.4 9°44.7	59°58.5 9°45.6	74°58.7 9°46.5	+0.2 +0.9
Sa 15	270°00.6 9°58.0	285°00.8 9°58.9	300°00.9 9°59.8	315°01.1 10°00.7	330°01.2 10°01.6	345°01.4 10°02.5	0°01.5 10°03.4	15°01.7 10°04.3	30°01.8 10°05.2	45°02.0 10°06.0	60°02.1 10°06.9	75°02.3 10°07.8	+0.1 +0.9
Di 16	270°04.2 10°19.3	285°04.3 10°20.2	300°04.4 10°21.1	315°04.6 10°22.0	330°04.7 10°22.8	345°04.9 10°23.7	0°05.0 10°24.6	15°05.2 10°25.5	30°05.3 10°26.4	45°05.5 10°27.3	60°05.6 10°28.1	75°05.7 10°29.0	+0.1 +0.9
Lu 17	270°07.6 10°40.4	285°07.7 10°41.3	300°07.9 10°42.2	315°07.9 10°43.1	330°08.2 10°43.9	345°08.3 10°44.8	0°08.4 10°45.7	15°08.6 10°46.5	30°08.7 10°47.4	45°08.9 10°48.3	60°09.0 10°49.2	75°09.1 10°50.0	+0.1 +0.9
Ma 18	270°10.9 11°01.4	285°11.1 11°02.2	300°11.2 11°03.1	315°11.4 11°04.0	330°11.5 11°04.8	345°11.6 11°05.7	0°11.8 11°06.6	15°11.9 11°07.4	30°12.0 11°08.3	45°12.2 11°09.2	60°12.3 11°10.0	75°12.4 11°10.9	+0.1 +0.9
Me 19	270°14.2 11°22.1	285°14.3 11°23.0	300°14.4 11°23.8	315°14.6 11°24.7	330°14.7 11°25.5	345°14.8 11°26.4	0°15.0 11°27.3	15°15.1 11°28.1	30°15.2 11°29.0	45°15.4 11°29.8	60°15.5 11°30.7	75°15.6 11°31.6	+0.1 +0.9
Je 20	270°17.3 11°42.7	285°17.4 11°43.5	300°17.6 11°44.4	315°17.7 11°45.2	330°17.8 11°46.1	345°17.9 11°46.9	0°18.1 11°47.8	15°18.2 11°48.6	30°18.3 11°49.5	45°18.4 11°50.3	60°18.6 11°51.2	75°18.7 11°52.0	+0.1 +0.9
Ve 21	270°20.3 12°03.0	285°20.4 12°03.9	300°20.6 12°04.7	315°20.7 12°05.6	330°20.8 12°06.4	345°20.9 12°07.3	0°21.1 12°08.1	15°21.2 12°08.9	30°21.3 12°09.8	45°21.4 12°10.6	60°21.5 12°11.5	75°21.7 12°12.3	+0.1 +0.8
Sa 22	270°23.2 12°23.2	285°23.3 12°24.0	300°23.5 12°24.9	315°23.6 12°25.7	330°23.7 12°26.6	345°23.8 12°27.4	0°23.9 12°28.2	15°24.0 12°29.1	30°24.2 12°29.9	45°24.3 12°30.7	60°24.4 12°31.6	75°24.5 12°32.4	+0.1 +0.8
Di 23	270°26.0 12°43.2	285°26.1 12°44.0	300°26.2 12°44.8	315°26.4 12°45.7	330°26.5 12°46.5	345°26.6 12°47.3	0°26.7 12°48.1	15°26.8 12°49.0	30°26.9 12°49.8	45°27.0 12°50.6	60°27.1 12°51.4	75°27.2 12°52.3	+0.1 +0.8
Lu 24	270°28.7 13°02.9	285°28.8 13°03.8	300°28.9 13°04.6	315°29.0 13°05.4	330°29.2 13°06.2	345°29.2 13°07.0	0°29.3 13°07.8	15°29.4 13°08.7	30°29.5 13°09.5	45°29.6 13°10.3	60°29.8 13°11.1	75°29.9 13°11.9	+0.1 +0.8
Ma 25	270°31.2 13°22.5	285°31.3 13°23.3	300°31.4 13°24.1	315°31.5 13°24.9	330°31.6 13°25.7	345°31.7 13°26.5	0°31.8 13°27.3	15°31.9 13°28.1	30°32.1 13°28.9	45°32.2 13°29.8	60°32.3 13°30.6	75°32.4 13°31.4	+0.1 +0.8
Me 26	270°33.7 13°41.8	285°33.8 13°42.6	300°33.9 13°43.4	315°33.9 13°44.2	330°34.0 13°45.0	345°34.1 13°45.8	0°34.2 13°46.6	15°34.3 13°47.4	30°34.4 13°48.2	45°34.5 13°49.0	60°34.6 13°49.8	75°34.7 13°50.6	+0.1 +0.8
Je 27	270°36.0 14°00.9	285°36.0 14°01.7	300°36.1 14°02.5	315°36.2 14°03.3	330°36.3 14°04.1	345°36.4 14°04.9	0°36.5 14°05.5	15°36.6 14°06.4	30°36.7 14°07.2	45°36.8 14°08.0	60°36.9 14°08.8	75°37.0 14°09.6	+0.1 +0.8
Ve 28	270°38.1 14°19.8	285°38.2 14°20.5	300°38.3 14°21.3	315°38.4 14°22.1	330°38.5 14°22.9	345°38.6 14°23.7	0°38.7 14°24.4	15°38.7 14°25.2	30°38.8 14°26.0	45°38.9 14°26.8	60°39.0 14°27.6	75°39.1 14°28.3	+0.1 +0.8
Sa 29	270°40.2 14°38.4	285°40.3 14°39.2	300°40.4 14°39.9	315°40.4 14°40.7	330°40.5 14°41.5	345°40.6 14°42.2	0°40.7 14°43.0	15°40.8 14°43.8	30°40.8 14°44.6	45°40.9 14°45.3	60°41.0 14°46.1	75°41.1 14°46.9	+0.1 +0.8
Di 30	270°42.1 14°56.8	285°42.2 14°57.5	300°42.3 14°58.3	315°42.3 14°59.1	330°42.4 14°59.8	345°42.5 15°00.6	0°42.6 15°01.3	15°42.6 15°02.1	30°42.7 15°02.9	45°42.8 15°03.6	60°42.9 15°04.4	75°42.9 15°05.1	+0.1 +0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Avril 2028

	J	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	Δ'/h	SP
●	Sa 1	241°35.9 26°12.2	256°01.2 26°11.2	270°26.6 26°10.0	284°51.9 26°08.7	299°17.2 26°07.7	313°42.5 26°05.5	328°07.7 26°03.7	342°33.0 26°01.7	356°58.2 25°59.2	11°23.4 25°57.3	25°48.7 25°54.8	-25.3 -1.7	15.7 57.6
	Di 2	245°06.8 24°58.5	256°32.4 24°53.4	270°57.4 24°48.3	285°22.7 24°42.9	299°48.0 24°37.4	314°13.4 24°31.7	328°38.7 24°25.9	343°04.1 24°19.4	357°29.5 24°13.8	11°54.9 24°07.5	26°20.4 24°01.1	-25.4 -5.7	15.9 58.3
	Lu 3	242°46.0 22°46.2	257°12.0 21°47.4	271°38.0 21°48.4	286°04.1 21°39.3	300°30.2 21°30.0	314°56.4 21°20.6	329°22.6 21°11.1	343°48.8 20°51.1	358°15.1 20°41.4	12°41.4 20°41.6	27°07.8 20°31.6	-26.2 -9.5	16.1 59.0
	Ma 4	243°49.1 17°44.9	258°16.2 17°32.8	272°43.4 17°20.6	287°10.6 17°08.2	301°37.9 16°55.8	316°05.2 16°43.3	330°32.6 16°30.6	345°00.0 16°17.9	359°27.4 16°05.0	13°54.9 15°52.0	28°22.5 15°39.0	-27.3 -12.6	16.3 59.6
●	Me 5	245°20.9 5°47.5	259°49.1 5°31.4	274°17.3 5°15.3	288°45.6 4°59.2	303°13.9 4°43.1	317°42.3 4°26.9	332°10.7 4°10.7	346°39.1 3°54.4	1°07.5 3°38.2	15°36.0 3°21.9	30°04.6 3°05.5	-28.4 -16.2	16.4 60.5
	Je 6	247°15.5 -1°00.9	261°44.4 -1°17.4	276°13.3 -1°33.9	290°42.2 -1°50.3	305°11.1 -2°06.7	319°40.1 -2°23.2	334°09.1 -2°39.6	348°38.0 -2°56.0	3°07.0 -3°12.3	17°36.0 -3°28.7	32°05.0 -3°45.0	-29.0 -16.4	16.5 60.6
	Ve 7	249°20.3 5°47.5	263°49.3 5°31.4	278°18.3 5°15.3	292°47.3 4°59.2	307°16.2 4°43.1	321°45.2 4°26.9	336°14.1 4°10.7	350°43.0 3°54.4	5°11.9 3°38.2	19°40.8 3°21.9	34°09.7 3°05.5	-28.9 -16.2	16.5 60.5
	Sa 8	251°20.1 -7°46.2	265°48.6 -8°01.9	280°17.1 -8°17.6	294°45.5 -8°33.2	309°13.9 -8°49.8	323°42.2 -9°04.3	338°10.5 -9°19.8	352°38.8 -9°35.2	7°07.0 -9°50.5	21°35.2 -10°05.8	36°03.4 -10°21.0	-28.3 -15.5	16.5 60.4
●	Di 9	253°01.1 -13°59.8	267°28.6 -14°13.7	281°56.0 -14°27.1	296°23.2 -14°41.2	310°50.8 -14°54.8	325°18.1 -15°08.3	339°45.4 -15°21.7	354°12.6 -15°35.0	8°39.8 -15°48.2	23°06.9 -16°01.3	37°34.0 -16°14.3	-27.3 -16.1	16.3 59.9
	Lu 10	254°14.8 -19°14.9	268°41.2 -19°26.0	283°07.5 -19°36.9	297°33.8 -19°47.7	312°00.1 -19°58.4	326°26.3 -20°08.9	340°52.4 -20°19.3	355°18.5 -20°29.5	9°44.6 -20°39.6	24°10.7 -20°49.9	38°36.7 -20°59.4	-26.2 -10.5	16.2 59.2
	Ma 11	255°02.9 -23°09.4	269°28.8 -23°16.8	283°53.9 -23°24.1	298°19.4 -23°31.3	312°44.9 -23°38.3	327°10.3 -23°45.1	341°35.8 -23°51.8	356°01.2 -23°58.4	10°26.6 -24°04.7	24°52.0 -24°10.9	39°17.4 -24°17.0	-25.4 -6.8	15.9 58.4
	Me 12	255°38.1 -25°28.8	270°03.5 -25°32.3	284°29.0 -25°35.6	298°54.5 -25°38.8	313°19.9 -25°41.8	327°45.4 -25°44.7	342°11.0 -25°47.4	356°36.5 -25°49.9	11°02.1 -25°52.3	25°27.7 -25°54.5	39°53.3 -25°56.6	-25.5 -2.8	15.7 57.5
●	Je 13	256°22.2 -26°08.9	270°48.5 -26°08.5	285°14.8 -26°07.9	299°41.2 -26°07.2	314°07.6 -26°06.3	328°34.1 -26°05.3	343°00.7 -26°04.2	357°27.3 -26°02.9	11°54.0 -26°01.4	26°20.7 -25°59.1	40°47.5 -25°58.1	-26.5 -1.1	15.4 56.5
	Ve 14	257°37.8 -25°15.4	272°05.5 -25°11.5	286°33.7 -25°07.5	301°01.8 -25°03.3	315°30.0 -24°59.0	329°58.2 -24°54.5	344°26.5 -24°50.0	358°54.9 -24°45.5	13°23.4 -24°40.0	27°52.0 -24°35.6	42°20.7 -24°30.5	-28.3 -4.5	15.2 55.7
	Sa 15	259°40.5 -23°01.1	274°10.5 -22°54.3	288°40.6 -22°47.3	303°10.8 -22°40.3	317°41.0 -22°33.1	332°11.4 -22°25.9	346°41.8 -22°18.5	1°12.3 -22°11.1	15°42.9 -22°03.6	30°13.6 -21°55.9	44°44.3 -21°55.9	-30.4 -7.3	15.0 55.5
	Di 16	274°10.5 -22°54.3	288°40.6 -22°47.3	303°10.8 -22°40.3	317°41.0 -22°33.1	332°11.4 -22°25.9	346°41.8 -22°18.5	1°12.3 -22°11.1	15°42.9 -22°03.6	30°13.6 -21°55.9	44°44.3 -21°55.9	59°15.2 -21°40.4	-30.5 -4.7	15.0 55.5
●	Lu 17	277°07.6 -19°32.4	291°39.7 -19°23.2	306°12.0 -19°13.9	320°44.2 -19°04.6	335°16.6 -18°55.1	349°49.0 -18°45.6	4°21.5 -18°36.1	18°54.1 -18°26.4	33°25.8 -18°16.7	47°59.5 -18°06.9	62°32.3 -17°57.0	-32.5 -9.5	14.9 55.4
	Ma 18	280°52.3 -15°21.2	295°26.1 -15°10.3	310°00.0 -14°59.4	324°34.0 -14°48.4	339°08.0 -14°37.3	353°42.0 -14°26.2	8°16.2 -14°15.1	22°50.3 -14°03.9	37°24.6 -13°52.6	51°58.8 -13°40.3	66°33.2 -13°29.9	-34.1 -11.1	14.8 54.2
	Me 19	285°13.8 -10°34.0	299°48.8 -10°22.0	314°23.9 -10°09.9	328°59.0 -9°57.7	343°34.0 -9°45.6	358°09.3 -9°33.4	12°44.6 -9°21.1	27°19.8 -9°08.8	41°55.1 -8°56.5	56°30.4 -8°44.2	71°05.7 -8°31.8	-35.2 -12.2	14.7 54.1
	Je 20	289°58.5 -5°22.7	304°34.1 -5°09.9	319°09.8 -4°57.0	333°45.5 -4°44.2	348°21.2 -4°31.3	2°56.9 -4°18.4	17°32.6 -4°05.5	32°08.3 -3°52.6	46°44.0 -3°39.6	61°19.8 -3°26.7	75°55.5 -3°13.7	-35.7 -12.9	14.8 54.3
●	Ve 21	294°51.3 0°02.4	309°27.0 0°15.5	324°02.7 0°28.7	338°38.3 0°41.8	353°13.9 0°55.0	7°49.6 1°08.1	22°25.2 1°21.3	37°00.7 1°34.4	51°36.3 1°47.6	66°11.8 2°00.7	80°47.4 2°13.9	-35.4 -13.2	14.8 54.3
	Sa 22	299°37.1 5°30.5	314°12.2 5°43.5	328°47.2 5°56.5	343°22.2 6°09.5	357°57.1 6°22.5	12°32.1 6°35.5	27°06.9 6°48.4	41°41.8 7°01.3	56°16.5 7°15.2	70°51.3 7°27.1	85°26.0 7°40.0	-34.9 -13.0	14.9 54.6
	Di 23	304°00.6 10°49.8	318°34.4 11°02.2	333°08.3 11°14.5	347°42.0 11°26.9	2°15.7 11°39.2	16°49.3 11°51.4	31°22.9 12°03.6	45°56.4 12°15.8	60°29.8 12°27.9	75°03.2 12°40.0	89°36.5 12°52.0	-33.6 -12.2	15.0 55.0
	Lu 24	307°47.6 15°46.4	322°19.7 15°57.6	336°51.8 15°67.6	351°23.8 16°19.7	5°55.7 16°30.7	20°27.5 16°41.6	34°59.3 16°52.4	49°31.0 17°03.2	64°02.6 17°13.9	78°34.1 17°24.5	93°05.5 17°35.1	-31.8 -10.9	15.1 55.5
●	Ma 25	310°46.7 20°03.9	325°16.8 20°13.2	339°46.8 20°22.3	354°16.6 20°31.3	8°46.4 20°40.4	23°16.2 20°49.1	37°45.8 20°57.9	52°15.3 21°06.5	66°44.8 21°15.1	81°14.1 21°23.6	95°43.4 21°31.9	-29.7 -8.8	15.3 56.0
	Me 26	312°52.3 23°23.9	327°20.2 23°30.5	341°48.0 23°36.9	356°15.8 23°43.2	10°43.5 23°49.4	25°11.1 23°55.4	39°38.6 24°01.3	54°06.1 24°07.1	68°33.4 24°12.7	83°00.7 24°18.3	97°28.0 24°23.6	-27.6 -6.0	15.4 56.5
	Je 27	314°08.1 25°28.0	328°34.3 25°31.1	343°00.4 25°34.1	357°26.4 25°37.0	11°52.5 25°39.0	26°18.4 25°42.2	40°44.3 25°44.6	55°10.2 25°46.9	69°36.0 25°49.0	84°01.8 25°50.9	98°27.6 25°52.7	-25.9 -2.5	15.5 57.0
	Ve 28	314°49.5 26°00.9	329°14.8 26°00.9	343°40.0 25°59.3	358°05.3 25°58.3	12°30.5 25°57.1	26°55.7 25°55.7	41°20.9 25°54.2	55°46.1 25°52.6	70°11.3 25°50.7	84°36.5 25°48.7	99°01.7 25°46.6	-25.2 -1.4	15.7 57.5
●	Sa 29	315°20.5 24°55.2	329°45.9 24°50.5	344°11.3 24°45.6	358°36.8 24°40.6	13°02.2 24°35.5	27°27.7 24°30.2	41°53.3 24°24.7	56°18.8 24°19.1	70°44.4 24°13.3	85°10.1 24°07.4	99°35.7 24°01.3	-25.5 -4.5	15.8 58.0
	Di 30	316°05.6 22°12.7	330°32.0 22°04.3	344°58.4 21°55.8	359°24.9 21°47.2	13°51.4 21°38.4	28°18.0 21°29.5	42°44.6 21°20.4	57°11.3 21°11.2	71°38.0 20°58.9	86°04.8 20°52.5	100°31.6 20°42.9	-26.6 -9.0	15.9 58.5

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PQ: 2 19h15 — PL: 9 10h26 — DQ: 16 16h36 — NL: 24 19h46

SOLEIL

Mai 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	270°43.9	285°44.0	300°44.0	315°44.1	330°44.2	345°44.3	0°44.3	15°44.2	30°44.5	45°44.5	60°44.6	75°44.7	+0.1
	15°14.9	15°15.7	15°16.4	15°17.2	15°17.9	15°18.7	15°19.4	15°20.2	15°20.9	15°21.7	15°22.4	15°23.1	+0.7
Ma 2	270°45.6	285°45.6	300°45.7	315°45.8	330°45.8	345°45.9	0°46.0	15°46.0	30°46.1	45°46.2	60°46.2	75°46.3	+0.1
	15°32.8	15°33.5	15°34.3	15°35.0	15°35.8	15°36.5	15°37.2	15°38.0	15°38.7	15°39.4	15°40.2	15°40.9	+0.7
Me 3	270°47.1	285°47.2	300°47.2	315°47.3	330°47.3	345°47.4	0°47.5	15°47.5	30°47.6	45°47.6	60°47.7	75°47.8	+0.1
	15°50.4	15°51.1	15°51.9	15°52.6	15°53.3	15°54.1	15°54.8	15°55.5	15°56.2	15°57.0	15°57.7	15°58.4	+0.7
Je 4	270°48.5	285°48.6	300°48.6	315°48.7	330°48.7	345°48.8	0°48.8	15°48.9	30°48.9	45°49.0	60°49.0	75°49.1	+0.1
	16°07.8	16°08.5	16°09.2	16°09.9	16°10.6	16°11.4	16°12.1	16°12.8	16°13.5	16°14.2	16°14.9	16°15.6	+0.7
Ve 5	270°49.8	285°49.8	300°49.9	315°49.9	330°50.0	345°50.0	0°50.1	15°50.1	30°50.2	45°50.2	60°50.3	75°50.3	+0.0
	16°24.9	16°25.6	16°26.3	16°27.0	16°27.7	16°28.4	16°29.1	16°29.8	16°30.5	16°31.2	16°31.9	16°32.6	+0.7
Sa 6	270°50.9	285°50.9	300°51.0	315°51.0	330°51.1	345°51.1	0°51.2	15°51.2	30°51.2	45°51.3	60°51.3	75°51.4	+0.0
	16°41.7	16°42.4	16°43.1	16°43.8	16°44.5	16°45.2	16°45.8	16°46.5	16°47.2	16°47.9	16°48.6	16°49.3	+0.7
Di 7	270°51.9	285°51.9	300°52.0	315°52.0	330°52.0	345°52.1	0°52.1	15°52.2	30°52.2	45°52.2	60°52.3	75°52.3	+0.0
	16°58.2	16°58.9	16°59.6	17°00.3	17°00.9	17°01.6	17°02.3	17°03.0	17°03.7	17°04.3	17°05.0	17°05.7	+0.7
Lu 8	270°52.7	285°52.8	300°52.8	315°52.8	330°52.9	345°52.9	0°52.9	15°53.0	30°53.0	45°53.0	60°53.1	75°53.1	+0.0
	17°14.5	17°15.1	17°15.8	17°16.5	17°17.2	17°17.8	17°18.5	17°19.2	17°19.8	17°20.5	17°21.2	17°21.8	+0.7
Ma 9	270°53.5	285°53.5	300°53.5	315°53.5	330°53.6	345°53.6	0°53.6	15°53.6	30°53.7	45°53.7	60°53.7	75°53.7	+0.0
	17°30.4	17°31.1	17°31.8	17°32.4	17°33.1	17°33.7	17°34.4	17°35.0	17°35.7	17°36.4	17°37.0	17°37.7	+0.7
Me 10	270°54.0	285°54.0	300°54.1	315°54.1	330°54.1	345°54.1	0°54.1	15°54.2	30°54.2	45°54.2	60°54.2	75°54.2	+0.0
	17°46.1	17°46.8	17°47.4	17°48.1	17°48.7	17°49.3	17°50.0	17°50.6	17°51.3	17°51.9	17°52.6	17°53.2	+0.6
Je 11	270°54.4	285°54.5	300°54.5	315°54.5	330°54.5	345°54.5	0°54.5	15°54.5	30°54.6	45°54.6	60°54.6	75°54.6	+0.0
	18°01.5	18°02.1	18°02.8	18°03.4	18°04.0	18°04.7	18°05.3	18°05.9	18°06.5	18°07.2	18°07.8	18°08.4	+0.6
Ve 12	270°54.7	285°54.7	300°54.7	315°54.7	330°54.8	345°54.8	0°54.8	15°54.8	30°54.8	45°54.8	60°54.8	75°54.8	+0.0
	18°16.6	18°17.2	18°17.8	18°18.4	18°19.0	18°19.7	18°20.3	18°20.9	18°21.5	18°22.1	18°22.8	18°23.4	+0.6
Sa 13	270°54.9	285°54.9	300°54.9	315°54.9	330°54.9	345°54.9	0°54.9	15°54.9	30°54.9	45°54.9	60°54.9	75°54.9	+0.0
	18°31.3	18°31.9	18°32.6	18°33.2	18°33.8	18°34.4	18°35.0	18°35.6	18°36.2	18°36.8	18°37.4	18°38.0	+0.6
Di 14	270°54.8	285°54.8	300°54.8	315°54.8	330°54.8	345°54.8	0°54.8	15°54.8	30°54.8	45°54.8	60°54.8	75°54.8	-0.0
	18°45.8	18°46.4	18°47.0	18°47.6	18°48.2	18°48.8	18°49.4	18°50.0	18°50.5	18°51.1	18°51.7	18°52.3	+0.6
Lu 15	270°54.7	285°54.7	300°54.7	315°54.7	330°54.6	345°54.6	0°54.6	15°54.6	30°54.6	45°54.6	60°54.6	75°54.6	-0.0
	18°59.9	19°00.5	19°01.1	19°01.7	19°02.3	19°02.8	19°03.4	19°04.0	19°04.6	19°05.2	19°05.7	19°06.3	+0.6
Ma 16	270°54.4	285°54.4	300°54.3	315°54.3	330°54.3	345°54.3	0°54.3	15°54.3	30°54.3	45°54.2	60°54.2	75°54.2	-0.0
	19°13.8	19°14.3	19°14.9	19°15.5	19°16.0	19°16.6	19°17.2	19°17.7	19°18.3	19°18.9	19°19.4	19°20.0	+0.6
Me 17	270°53.9	285°53.9	300°53.9	315°53.9	330°53.8	345°53.8	0°53.8	15°53.8	30°53.7	45°53.7	60°53.7	75°53.7	-0.0
	19°27.3	19°27.8	19°28.4	19°28.9	19°29.5	19°30.0	19°30.6	19°31.1	19°31.7	19°32.2	19°32.8	19°33.3	+0.6
Je 18	270°53.3	285°53.3	300°53.3	315°53.3	330°53.2	345°53.2	0°53.2	15°53.1	30°53.1	45°53.1	60°53.0	75°53.0	-0.0
	19°40.4	19°41.0	19°41.5	19°42.0	19°42.6	19°43.1	19°43.7	19°44.2	19°44.7	19°45.3	19°45.8	19°46.3	+0.5
Ve 19	270°52.6	285°52.6	300°52.5	315°52.5	330°52.5	345°52.4	0°52.4	15°52.4	30°52.3	45°52.3	60°52.3	75°52.2	-0.0
	19°53.3	19°53.8	19°54.3	19°54.8	19°55.4	19°55.9	19°56.4	19°56.9	19°57.5	19°58.0	19°58.5	19°59.0	+0.5
Sa 20	270°51.7	285°51.7	300°51.6	315°51.6	330°51.6	345°51.5	0°51.5	15°51.4	30°51.4	45°51.4	60°51.3	75°51.3	-0.0
	20°05.7	20°06.3	20°06.8	20°07.3	20°07.8	20°08.3	20°08.8	20°09.3	20°09.8	20°10.3	20°10.8	20°11.4	+0.5
Di 21	270°50.7	285°50.7	300°50.6	315°50.6	330°50.5	345°50.5	0°50.4	15°50.4	30°50.3	45°50.3	60°50.2	75°50.2	-0.0
	20°17.9	20°18.4	20°18.9	20°19.4	20°19.9	20°20.4	20°20.9	20°21.4	20°21.9	20°22.4	20°22.9	20°23.3	+0.5
Lu 22	270°49.6	285°49.5	300°49.5	315°49.4	330°49.4	345°49.3	0°49.3	15°49.2	30°49.2	45°49.1	60°49.0	75°49.0	-0.1
	20°29.7	20°30.2	20°30.7	20°31.1	20°31.6	20°32.1	20°32.6	20°33.1	20°33.5	20°34.0	20°34.5	20°35.0	+0.5
Ma 23	270°48.3	285°48.2	300°48.2	315°48.1	330°48.1	345°48.0	0°47.9	15°47.9	30°47.8	45°47.8	60°47.7	75°47.7	-0.1
	20°46.1	20°41.6	20°42.1	20°42.5	20°43.0	20°43.5	20°43.9	20°44.4	20°44.9	20°45.3	20°45.8	20°46.3	+0.5
Me 24	270°46.9	285°46.8	300°46.8	315°46.7	330°46.6	345°46.6	0°46.5	15°46.4	30°46.4	45°46.3	60°46.3	75°46.2	-0.1
	20°52.2	20°52.7	20°53.1	20°53.6	20°54.0	20°54.5	20°55.0	20°55.4	20°55.9	20°56.3	20°56.8	20°57.2	+0.5
Je 25	270°45.3	285°45.3	300°45.2	315°45.1	330°45.1	345°45.0	0°44.9	15°44.9	30°44.8	45°44.7	60°44.7	75°44.6	-0.1
	21°03.0	21°03.4	21°03.8	21°04.3	21°04.7	21°05.2	21°05.6	21°06.0	21°06.5	21°06.9	21°07.3	21°07.8	+0.4
Ve 26	270°43.7	285°43.6	300°43.5	315°43.5	330°43.4	345°43.3	0°43.3	15°43.2	30°43.1	45°43.0	60°43.0	75°42.9	-0.1
	21°13.3	21°13.8	21°14.2	21°14.6	21°15.0	21°15.5	21°15.9	21°16.3	21°16.7	21°17.1	21°17.6	21°18.0	+0.4
Sa 27	270°41.9	285°41.8	300°41.8	315°41.7	330°41.6	345°41.5	0°41.5	15°41.4	30°41.3	45°41.2	60°41.1	75°41.1	-0.1
	21°23.3	21°23.7	21°24.2	21°24.6	21°25.0	21°25.4	21°25.8	21°26.2	21°26.6	21°27.0	21°27.4	21°27.8	+0.4
Di 28	270°40.0	285°40.0	300°39.9	315°39.8	330°39.7	345°39.6	0°39.5	15°39.5	30°39.4	45°39.3	60°39.2	75°39.1	-0.1
	21°33.0	21°33.4	21°33.8	21°34.1	21°34.5	21°34.9	21°35.3	21°35.7	21°36.1	21°36.5	21°36.9	21°37.3	+0.4
Lu 29	270°38.0	285°38.0	300°37.9	315°37.8	330°37.7	345°37.6	0°37.5	15°37.4	30°37.4	45°37.3	60°37.2	75°37.1	-0.1
	21°42.2	21°42.6	21°43.0	21°43.4	21°43.7	21°44.1	21°44.5	21°44.9	21°45.2	21°45.6	21°46.0	21°46.3	+0.4
Ma 30	270°35.9	285°35.9	300°35.8	315°35.7	330°35.6	345°35.5	0°35.4	15°35.3	30°35.2	45°35.1	60°35.0	75°35.0	-0.1
	21°51.1	21°51.5	21°51.8	21°52.2	21°52.6	21°52.9	21°53.3	21°53.6	21°54.0	21°54.3	21°54.7	21°55.1	+0.4
Me 31	270°33.8	285°33.7	300°33.6	315°33.5	330°33.4	345°33.3	0°33.2	15°33.1	30°33.0	45°32.9	60°32.8	75°32.7	-0.1
	21°59.6	22°00.0	22°00.3	22°00.6	22°01.0	22°01.3	22°01.7	22°02.0	22°02.4	22°02.7	22°03.0	22°03.4	+0.3

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA = 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Mai 2028

	J	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	Δ/h	SP
●	Lu 1	245°03.1 19°00.3	259°30.6 18°49.4	273°58.1 18°38.4	288°25.7 18°27.2	302°53.3 18°16.3	317°21.0 18°04.6	331°48.7 17°53.1	346°16.5 17°41.5	0°44.3 17°29.9	15°12.2 17°18.1	29°40.2 17°06.2	+27.7	16.0
	Ma 2	246°46.0 13°55.8	261°14.7 13°42.4	275°43.6 13°28.9	290°12.5 13°15.4	304°41.4 13°01.7	319°10.4 12°48.0	333°39.4 12°34.2	348°08.3 12°20.3	2°37.5 12°06.3	17°06.7 11°52.3	31°35.8 11°38.2	+29.0	16.1
	Me 3	248°57.9 7°59.0	263°27.7 7°43.9	277°57.4 7°28.8	293°27.2 7°13.6	306°57.0 6°58.4	321°26.8 6°43.2	335°56.6 6°27.9	350°26.5 6°12.6	4°56.4 5°57.2	19°26.3 5°41.8	33°56.2 5°26.4	+29.8	16.2
●	Je 4	251°26.2 1°31.5	265°56.2 1°15.7	280°26.2 0°59.9	294°56.3 0°44.1	309°26.3 0°28.2	323°56.3 0°12.4	338°26.3 -0°03.5	352°56.3 -0°19.3	7°26.3 -0°35.2	21°56.3 -0°51.0	36°26.3 -1°06.9	+30.0	16.3
	Ve 5	253°54.0 -5°03.3	268°23.7 -5°18.9	282°53.3 -5°34.5	297°22.9 -5°50.1	311°52.5 -6°05.6	326°22.1 -6°21.0	340°51.6 -6°36.5	355°21.0 -6°51.9	9°50.5 -7°07.3	24°19.9 -7°22.6	38°49.3 -7°37.9	+29.5	16.3
	Sa 6	256°04.9 -11°21.1	270°33.6 -11°35.5	285°02.2 -11°49.8	299°30.8 -12°04.1	313°59.3 -12°18.3	328°27.8 -12°32.4	342°56.2 -12°46.4	357°24.6 -13°00.4	11°52.9 -13°14.3	26°21.1 -13°28.1	40°49.3 -13°41.8	+28.4	16.2
○	Di 7	257°45.7 -11°21.1	272°13.0 -11°35.5	286°40.3 -11°49.8	301°07.5 -12°04.1	315°34.6 -12°18.3	330°01.7 -12°32.4	344°28.7 -12°46.4	358°55.6 -13°00.4	13°22.5 -13°14.3	27°49.4 -13°28.1	42°16.2 -13°41.8	+27.0	16.1
	Lu 8	258°51.5 -21°25.6	273°17.4 -21°34.7	287°43.3 -21°43.6	302°09.2 -21°52.4	316°35.0 -22°01.1	331°00.8 -22°09.6	345°26.5 -22°17.9	359°52.2 -22°26.2	14°17.9 -22°34.2	28°43.5 -22°42.1	43°09.0 -22°49.9	+25.8	16.0
	Ma 9	259°29.0 -24°28.2	273°54.1 -24°33.5	288°19.3 -24°38.6	302°44.4 -24°43.6	317°09.5 -24°48.5	331°34.6 -24°53.1	345°59.7 -25°02.4	360°24.8 -25°06.9	0°24.8 -25°10.2	14°49.9 -25°15.0	43°40.1 -25°14.0	+25.1	15.8
●	Me 10	259°57.6 -25°52.6	274°23.0 -25°53.9	288°48.3 -25°55.1	303°13.7 -25°56.0	317°39.1 -25°56.8	332°04.6 -25°57.5	346°30.1 -25°58.0	0°55.6 -25°58.3	15°21.2 -25°58.5	29°46.8 -25°58.5	44°12.5 -25°58.5	+25.5	15.6
	Je 11	260°43.6 -25°38.2	275°10.2 -25°35.7	289°36.8 -25°33.2	304°03.5 -25°30.2	318°30.3 -25°27.3	333°57.1 -25°24.2	347°24.0 -25°20.9	1°51.0 -25°17.4	16°18.1 -25°14.1	30°45.2 -25°10.4	45°12.4 -25°06.6	+26.9	15.4
	Ve 12	262°10.4 -23°54.4	276°38.9 -23°48.6	291°07.6 -23°42.6	305°36.3 -23°36.6	320°05.1 -23°30.4	334°34.0 -23°24.2	349°03.0 -23°17.8	3°32.0 -23°11.3	18°01.2 -23°04.7	32°30.5 -22°58.0	46°59.8 -22°51.2	+28.9	15.2
●	Sa 13	264°30.8 -20°56.7	279°01.5 -20°48.4	293°32.4 -20°39.8	308°03.4 -20°31.2	322°34.4 -20°22.6	337°05.5 -20°13.8	351°36.7 -20°05.0	6°08.0 -19°56.1	20°39.4 -19°47.1	35°10.9 -19°38.0	49°28.8 -19°28.8	+31.2	15.1
	Di 14	267°45.5 -17°02.4	282°18.4 -16°52.1	296°51.3 -16°41.7	311°24.2 -16°31.3	325°57.3 -16°20.8	340°30.4 -16°10.2	355°03.6 -15°59.6	9°36.9 -15°48.9	24°10.2 -15°38.2	38°43.6 -15°27.3	53°17.0 -15°16.5	+33.2	14.9
	Lu 15	283°18.4 -16°52.1	296°51.3 -16°41.7	311°24.2 -16°31.3	325°57.3 -16°20.8	340°30.4 -16°10.2	355°03.6 -15°59.6	9°36.9 -15°48.9	24°10.2 -15°38.2	38°43.6 -15°27.3	53°17.0 -15°16.5	67°50.6 -15°05.6	+33.2	14.9
●	Ma 16	286°20.9 -12°15.7	300°55.4 -12°04.0	315°29.9 -11°52.3	330°04.5 -11°40.5	344°39.1 -11°28.7	359°13.8 -11°16.8	373°48.5 -11°04.9	28°23.3 -10°53.0	42°58.1 -10°41.0	57°32.9 -10°29.0	72°07.8 -10°16.9	+34.7	14.8
	Me 17	290°55.7 -9°12.2	305°31.2 -6°59.7	320°06.7 -6°47.1	334°42.2 -6°34.5	349°17.7 -6°21.9	363°53.2 -6°09.3	378°28.8 -5°56.6	18°28.8 -5°44.0	33°04.0 -5°31.3	48°15.6 -5°18.5	63°15.2 -5°05.8	+35.6	14.8
	Je 18	295°47.2 -1°52.7	310°23.0 -1°39.7	324°58.7 -1°26.8	339°34.5 -1°13.8	354°10.3 -1°00.8	368°46.0 -0°47.8	383°21.8 -0°34.8	8°46.0 -0°21.7	23°21.7 -0°08.7	38°43.6 0°04.3	53°33.8 0°17.3	+35.8	14.8
●	Ve 19	300°38.8 3°32.9	315°14.2 3°45.9	329°49.7 3°58.9	344°25.0 4°11.9	359°00.4 4°24.8	373°35.7 4°37.8	388°05.6 4°50.8	25°11.0 5°03.7	42°46.2 5°16.7	57°21.5 5°29.6	72°07.8 5°42.5	+35.3	14.9
	Sa 20	305°14.0 8°54.1	319°48.4 9°06.7	334°22.2 9°19.2	348°57.1 9°31.8	363°31.1 9°44.3	378°05.6 9°56.8	392°39.8 10°09.2	30°39.8 10°21.6	45°13.8 10°34.0	60°47.9 10°46.4	75°19.9 10°58.7	+34.2	15.0
	Di 21	309°16.5 13°58.8	323°49.3 14°10.4	338°22.0 14°22.2	352°54.7 14°33.6	367°27.3 14°45.1	381°59.8 14°56.5	396°32.2 15°07.9	51°04.5 15°19.2	65°36.8 15°30.5	80°08.9 15°41.7	94°41.0 15°52.8	+32.5	15.1
●	Lu 22	312°32.0 18°32.0	327°02.6 18°42.0	341°33.2 18°52.0	356°03.7 19°01.8	370°34.2 19°11.6	385°04.3 19°21.3	399°34.6 19°30.9	54°04.7 19°40.4	68°34.8 19°49.9	83°04.7 19°59.9	97°34.5 20°08.5	+30.3	15.3
	Ma 23	314°50.5 22°15.6	329°18.8 22°25.1	343°47.1 22°30.6	358°15.2 22°38.0	372°43.2 22°45.3	387°11.1 22°52.5	401°39.0 22°59.5	56°06.6 23°06.4	70°34.4 23°13.3	85°02.0 23°19.9	99°29.4 23°26.5	+27.9	15.4
	Me 24	316°11.4 24°49.2	330°37.5 24°53.6	345°03.6 24°57.9	359°29.6 25°02.0	373°55.6 25°06.0	388°21.5 25°09.9	402°47.3 25°13.6	57°13.0 25°17.1	71°38.7 25°20.5	86°04.3 25°23.7	100°29.8 25°26.8	+25.8	15.6
●	Je 25	316°46.6 25°54.6	331°11.4 25°55.1	345°36.2 25°55.5	0°00.9 25°55.8	14°25.6 25°55.9	28°50.2 25°55.8	43°14.9 25°55.5	57°39.5 25°55.1	72°04.1 25°54.6	86°28.6 25°53.8	100°53.8 25°52.9	+24.6	15.8
	Ve 26	317°00.9 25°19.5	331°25.5 25°16.0	345°50.0 25°13.5	0°14.6 25°12.3	14°39.2 25°08.4	29°03.9 25°00.2	43°28.5 24°55.8	57°53.2 24°51.3	72°17.9 24°46.9	86°42.7 24°41.8	101°07.4 24°36.8	+24.6	15.9
	Sa 27	317°23.7 23°03.1	331°49.1 22°55.6	346°14.7 22°48.0	0°40.2 22°40.2	15°05.8 22°32.3	29°31.5 22°24.3	43°57.3 22°16.1	58°23.1 22°07.8	72°48.9 21°59.4	87°14.8 21°50.8	101°40.8 21°42.0	+25.7	16.0
●	Di 28	318°18.1 19°15.4	332°45.1 19°04.6	347°12.2 18°53.7	1°39.3 18°42.7	16°06.6 18°31.6	30°33.9 18°20.4	45°01.2 18°09.1	59°28.6 17°57.6	73°56.1 17°46.1	88°23.7 17°34.4	102°51.5 17°22.7	+27.3	16.1
	Lu 29	319°53.6 14°14.8	334°22.3 14°01.5	348°51.0 13°48.2	3°19.8 13°34.8	17°48.7 13°21.4	32°17.6 13°07.8	46°46.5 12°54.2	61°15.5 12°40.5	75°44.6 12°26.8	90°13.7 12°12.9	104°42.2 11°59.0	+28.9	16.1
	Ma 30	322°06.5 8°23.3	336°36.4 8°08.5	351°06.4 7°53.6	3°36.4 7°38.7	20°06.5 7°23.8	34°36.5 7°08.9	49°06.6 6°53.9	63°36.8 6°38.8	78°07.0 6°23.7	92°37.2 6°08.6	107°07.4 5°53.5	+30.1	16.1
●	Me 31	324°43.8 2°03.4	339°14.3 1°47.9	353°44.9 1°32.4	8°15.5 1°17.0	22°46.1 1°01.5	37°16.7 0°46.0	51°47.3 0°30.5	66°17.9 0°15.0	80°48.5 -0°00.5	95°19.1 -0°16.0	109°49.7 -0°31.5	+30.6	16.1

Ligne 1: GHA, Δ/h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (= Sud), Δ/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

PQ: 2 02h25 — PL: 8 19h48 — DQ: 16 10h43 — NL: 24 08h16 — PQ: 31 07h36

SOLEIL

Juin 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	270°31.5 22°07.7	285°31.4 22°08.1	300°31.3 22°08.4	315°31.2 22°08.7	330°31.1 22°09.0	345°31.0 22°09.4	6°30.9 22°09.7	15°30.8 22°10.0	30°30.7 22°10.2	45°30.6 22°10.7	60°30.5 22°11.0	75°30.4 22°11.3	-0.1 +0.3
Ve 2	270°29.1 22°15.4	285°29.0 22°15.8	300°28.9 22°16.1	315°28.8 22°16.4	330°28.7 22°16.7	345°28.6 22°17.0	0°28.5 22°17.3	15°28.4 22°17.6	30°28.3 22°17.9	45°28.2 22°18.2	60°28.1 22°18.6	75°28.0 22°18.9	-0.1 +0.3
Sa 3	270°26.6 22°22.8	285°26.5 22°23.4	300°26.4 22°23.4	315°26.3 22°23.7	330°26.2 22°24.0	345°26.1 22°24.3	0°26.0 22°24.6	15°25.9 22°25.1	30°25.8 22°25.4	45°25.7 22°25.8	60°25.6 22°25.7	75°25.5 22°26.0	-0.1 +0.3
Di 4	270°24.1 22°29.7	285°24.0 22°30.0	300°23.9 22°30.3	315°23.7 22°30.6	330°23.6 22°30.9	345°23.5 22°31.1	0°23.4 22°31.4	15°23.3 22°31.7	30°23.2 22°32.0	45°23.1 22°32.2	60°23.0 22°32.5	75°22.9 22°32.8	-0.1 +0.3
Lu 5	270°21.4 22°36.3	285°21.3 22°36.6	300°21.2 22°36.8	315°21.1 22°37.1	330°21.0 22°37.3	345°20.9 22°37.6	0°20.8 22°37.9	15°20.7 22°38.1	30°20.5 22°38.4	45°20.4 22°38.6	60°20.3 22°38.9	75°20.2 22°39.2	-0.1 +0.3
Ma 6	270°18.7 22°42.4	285°18.6 22°42.7	300°18.5 22°42.9	315°18.4 22°43.2	330°18.3 22°43.4	345°18.2 22°43.7	0°18.0 22°43.9	15°17.9 22°44.2	30°17.8 22°44.4	45°17.7 22°44.7	60°17.6 22°44.9	75°17.5 22°45.1	-0.1 +0.2
Me 7	270°15.9 22°48.2	285°15.8 22°48.4	300°15.7 22°48.7	315°15.6 22°48.9	330°15.5 22°49.4	345°15.4 22°49.4	0°15.2 22°49.6	15°15.1 22°49.8	30°15.0 22°50.0	45°14.9 22°50.3	60°14.8 22°50.5	75°14.7 22°50.7	-0.1 +0.2
Je 8	270°13.1 22°53.6	285°13.0 22°53.8	300°12.9 22°54.0	315°12.7 22°54.2	330°12.6 22°54.4	345°12.5 22°54.6	0°12.4 22°54.8	15°12.3 22°55.1	30°12.1 22°55.3	45°12.0 22°55.5	60°11.9 22°55.7	75°11.8 22°55.9	-0.1 +0.2
Ve 9	270°10.2 22°58.5	285°10.1 22°58.7	300°9.9 22°58.9	315°9.8 22°59.1	330°9.7 22°59.3	345°9.6 22°59.5	0°9.4 22°59.7	15°9.3 22°59.9	30°9.2 23°00.1	45°9.1 23°00.3	60°9.0 23°00.5	75°8.8 23°00.7	-0.1 +0.2
Sa 10	270°07.2 23°03.1	285°07.1 23°03.3	300°7.0 23°03.4	315°6.8 23°03.6	330°6.7 23°03.8	345°6.6 23°04.0	0°6.5 23°04.2	15°6.3 23°04.3	30°6.2 23°04.5	45°6.0 23°04.7	60°6.0 23°04.9	75°5.8 23°05.0	-0.1 +0.2
Di 11	270°04.2 23°07.2	285°04.1 23°07.4	300°3.9 23°07.6	315°3.8 23°07.7	330°3.7 23°07.9	345°3.5 23°08.0	0°3.4 23°08.2	15°3.3 23°08.4	30°3.2 23°08.5	45°3.0 23°08.7	60°2.9 23°08.9	75°2.8 23°09.0	-0.1 +0.2
Lu 12	270°01.1 23°11.0	285°01.0 23°11.1	300°0.8 23°11.3	315°0.7 23°11.4	330°0.6 23°11.6	345°0.5 23°11.7	0°0.3 23°11.9	15°0.2 23°12.0	30°0.0 23°12.1	45°5.9 23°12.3	60°5.9 23°12.4	75°5.7 23°12.6	-0.1 +0.1
Ma 13	269°58.0 23°14.3	284°57.8 23°14.4	299°57.7 23°14.6	314°57.6 23°14.7	329°57.5 23°14.8	344°57.3 23°15.0	359°57.2 23°15.1	14°57.2 23°15.2	29°56.9 23°15.3	44°56.8 23°15.5	59°56.7 23°15.6	74°56.5 23°15.7	-0.1 +0.1
Me 14	269°54.8 23°17.2	284°54.7 23°17.4	299°54.5 23°17.5	314°54.4 23°17.6	329°54.3 23°17.7	344°54.1 23°17.8	359°54.0 23°17.9	14°53.9 23°18.0	29°53.7 23°18.1	44°53.6 23°18.2	59°53.5 23°18.3	74°53.3 23°18.4	-0.1 +0.1
Je 15	269°51.6 23°19.8	284°51.5 23°19.8	299°51.3 23°19.9	314°51.2 23°20.0	329°51.1 23°20.1	344°50.9 23°20.2	359°50.8 23°20.3	14°50.7 23°20.4	29°50.5 23°20.5	44°50.4 23°20.6	59°50.3 23°20.7	74°50.1 23°20.8	-0.1 +0.1
Ve 16	269°48.4 23°21.9	284°48.2 23°21.9	299°48.1 23°22.0	314°48.0 23°22.1	329°47.9 23°22.2	344°47.7 23°22.2	359°47.6 23°22.3	14°47.4 23°22.4	29°47.3 23°22.5	44°47.2 23°22.5	59°47.0 23°22.6	74°46.9 23°22.7	-0.1 +0.1
Sa 17	269°45.1 23°23.5	284°45.0 23°23.6	299°44.8 23°23.7	314°44.7 23°23.7	329°44.6 23°23.8	344°44.4 23°23.8	359°44.3 23°23.9	14°44.2 23°24.0	29°44.0 23°24.0	44°43.9 23°24.1	59°43.8 23°24.1	74°43.6 23°24.2	-0.1 +0.1
Di 18	269°41.8 23°24.8	284°41.7 23°24.9	299°41.6 23°24.9	314°41.4 23°25.0	329°41.3 23°25.0	344°41.2 23°25.1	359°41.0 23°25.1	14°40.9 23°25.1	29°40.8 23°25.1	44°40.6 23°25.2	59°40.5 23°25.2	74°40.3 23°25.3	-0.1 +0.0
Lu 19	269°38.6 23°25.7	284°38.4 23°25.7	299°38.3 23°25.7	314°38.1 23°25.8	329°38.0 23°25.8	344°37.9 23°25.8	359°37.7 23°25.8	14°37.6 23°25.8	29°37.5 23°25.9	44°37.3 23°25.9	59°37.2 23°25.9	74°37.1 23°25.9	-0.1 +0.0
Ma 20	269°35.3 23°26.1	284°35.1 23°26.1	299°35.0 23°26.1	314°34.9 23°26.2	329°34.7 23°26.2	344°34.6 23°26.2	359°34.4 23°26.2	14°34.3 23°26.2	29°34.2 23°26.2	44°34.0 23°26.2	59°33.9 23°26.2	74°33.8 23°26.2	-0.1 +0.0
Me 21	269°32.0 23°26.2	284°31.8 23°26.1	299°31.7 23°26.1	314°31.6 23°26.1	329°31.4 23°26.1	344°31.3 23°26.1	359°31.2 23°26.1	14°31.0 23°26.1	29°30.9 23°26.1	44°30.8 23°26.1	59°30.6 23°26.0	74°30.5 23°26.0	-0.1 -0.0
Je 22	269°28.7 23°25.8	284°28.6 23°25.8	299°28.4 23°25.7	314°28.3 23°25.7	329°28.2 23°25.7	344°28.0 23°25.6	359°27.9 23°25.6	14°27.7 23°25.6	29°27.6 23°25.6	44°27.5 23°25.5	59°27.3 23°25.5	74°27.2 23°25.5	-0.1 -0.0
Ve 23	269°25.4 23°25.0	284°25.3 23°24.9	299°25.2 23°24.9	314°25.0 23°24.9	329°24.8 23°24.8	344°24.8 23°24.8	359°24.6 23°24.7	14°24.5 23°24.7	29°24.4 23°24.7	44°24.2 23°24.6	59°24.1 23°24.5	74°24.0 23°24.5	-0.1 -0.0
Sa 24	269°22.2 23°23.8	284°22.1 23°23.7	299°21.9 23°23.7	314°21.8 23°23.5	329°21.7 23°23.5	344°21.5 23°23.5	359°21.4 23°23.4	14°21.3 23°23.3	29°21.1 23°23.3	44°21.0 23°23.2	59°20.9 23°23.2	74°20.7 23°23.1	-0.1 -0.1
Di 25	269°19.0 23°22.2	284°18.9 23°22.1	299°18.7 23°22.0	314°18.6 23°21.9	329°18.5 23°21.8	344°18.3 23°21.8	359°18.2 23°21.7	14°18.1 23°21.6	29°17.9 23°21.5	44°17.8 23°21.4	59°17.7 23°21.4	74°17.5 23°21.3	-0.1 -0.1
Lu 26	269°15.8 23°20.1	284°15.7 23°20.0	299°15.6 23°19.9	314°15.4 23°19.8	329°15.3 23°19.7	344°15.2 23°19.7	359°15.0 23°19.6	14°14.9 23°19.5	29°14.8 23°19.4	44°14.6 23°19.3	59°14.5 23°19.2	74°14.4 23°19.1	-0.1 -0.1
Ma 27	269°12.7 23°17.7	284°12.6 23°17.6	299°12.4 23°17.5	314°12.3 23°17.4	329°12.2 23°17.2	344°12.0 23°17.1	359°11.9 23°17.0	14°11.8 23°16.9	29°11.7 23°16.8	44°11.5 23°16.7	59°11.4 23°16.5	74°11.3 23°16.4	-0.1 -0.1
Me 28	269°09.6 23°14.8	284°09.5 23°14.7	299°09.4 23°14.6	314°09.2 23°14.5	329°09.1 23°14.3	344°09.0 23°14.2	359°08.8 23°14.1	14°08.7 23°13.9	29°08.6 23°13.8	44°08.5 23°13.7	59°08.3 23°13.5	74°08.2 23°13.4	-0.1 -0.1
Je 29	269°06.6 23°11.6	284°06.4 23°11.5	299°06.3 23°11.3	314°06.2 23°11.1	329°06.1 23°11.0	344°06.0 23°10.9	359°05.8 23°10.7	14°05.7 23°10.6	29°05.6 23°10.5	44°05.5 23°10.4	59°05.3 23°10.3	74°05.2 23°10.1	-0.1 -0.1
Ve 30	269°03.6 23°07.9	284°03.5 23°07.8	299°03.4 23°07.6	314°03.3 23°07.4	329°03.3 23°07.3	344°03.0 23°07.1	359°02.9 23°06.8	14°02.8 23°06.7	29°02.7 23°06.6	44°02.5 23°06.4	59°02.4 23°06.3	74°02.3 23°06.1	-0.1 -0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA − 15°

Ligne 2: Dec (Déclinaison, − = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juin 2028

	J	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	20h	Δ'/h	SP
O	Je 1	240°25.0 -2°50.7	254°55.5 -3°06.1	269°26.4 -3°21.5	283°56.6 -3°36.9	298°27.1 -3°52.2	312°57.6 -4°07.5	327°28.1 -4°22.8	341°58.5 -4°38.1	356°29.0 -4°53.3	10°59.4 -5°08.5	25°29.8 -5°23.7	+30.5	16.1
	Ve 2	243°02.5 -9°07.2	257°32.2 -9°21.7	272°02.3 -9°36.2	286°32.2 -9°50.6	301°02.0 -10°05.0	315°31.7 -10°19.3	330°01.5 -10°33.6	344°31.1 -10°47.8	359°00.8 -11°01.9	13°30.3 -11°16.0	27°59.9 -11°30.0	+29.7	16.1
	Sa 3	245°17.0 -14°51.6	259°45.8 -15°04.3	274°14.4 -15°17.1	288°43.0 -15°29.7	303°11.6 -15°42.2	317°40.1 -15°54.6	332°08.5 -16°07.0	346°36.9 -16°19.2	1°05.2 -16°31.4	15°33.5 -16°43.4	30°01.7 -16°55.4	+28.5	16.0
	Di 4	246°57.6 -19°42.0	261°24.9 -19°52.2	275°52.1 -20°02.3	290°19.2 -20°12.2	304°46.3 -20°22.1	319°13.3 -20°31.8	333°40.3 -20°41.4	348°07.2 -20°50.8	2°34.1 -21°00.1	17°00.9 -21°09.3	31°27.6 -21°18.4	+27.0	15.9
	Lu 5	248°02.9 -23°18.2	262°28.9 -23°25.0	276°54.8 -23°31.7	291°20.7 -23°38.3	305°46.6 -23°44.7	320°12.5 -23°51.0	334°38.3 -23°57.1	349°04.1 -24°03.1	3°29.8 -24°08.9	17°55.5 -24°14.6	32°21.2 -24°20.1	+25.8	15.8
	Ma 6	248°44.2 -25°24.4	263°09.6 -25°27.4	277°35.1 -25°30.3	292°00.5 -25°33.0	306°26.0 -25°35.6	320°51.4 -25°38.0	335°16.9 -25°40.2	349°42.3 -25°42.3	4°07.8 -25°44.3	18°33.3 -25°46.0	32°58.8 -25°47.7	+25.5	15.6
	Me 7	249°24.0 -25°53.2	263°50.0 -25°52.4	278°16.0 -25°51.4	292°42.0 -25°50.2	307°08.1 -25°48.9	321°34.2 -25°47.4	336°00.4 -25°45.8	350°26.6 -25°44.0	4°52.9 -25°42.1	19°19.2 -25°40.1	33°45.6 -25°37.9	+26.1	15.5
	Je 8	250°28.7 -22°20.0	264°56.1 -22°12.6	279°23.6 -22°05.1	293°51.2 -21°57.5	308°18.9 -21°49.8	322°46.6 -21°42.0	337°14.4 -21°34.1	351°42.3 -21°26.1	6°10.3 -21°18.0	20°38.3 -21°09.8	35°06.5 -21°01.6	+27.8	15.3
	Ve 9	252°18.6 -18°46.7	266°48.1 -18°37.0	281°17.7 -18°27.3	295°47.3 -18°17.5	310°17.3 -18°07.6	324°47.0 -17°57.7	339°16.9 -17°47.7	353°46.9 -17°37.6	8°17.1 -17°28.4	22°47.3 -17°17.2	37°17.6 -17°06.9	+29.9	15.1
	Sa 10	255°02.5 -18°46.7	269°34.1 -18°37.0	284°05.9 -18°27.3	298°37.7 -18°17.5	313°09.6 -18°07.6	327°41.7 -17°57.7	342°13.7 -17°47.7	356°45.9 -17°37.6	11°18.1 -17°28.4	25°50.5 -17°17.2	40°22.9 -17°06.9	+32.0	15.0
O	Di 11	258°37.8 -14°25.2	273°11.4 -14°13.9	287°45.0 -14°02.7	302°18.7 -13°51.3	316°52.5 -13°39.9	331°26.3 -13°28.5	346°00.2 -13°17.0	0°34.1 -13°05.5	15°07.4 -12°53.9	29°42.2 -12°42.3	44°16.3 -12°30.7	+33.9	14.9
	Lu 12	262°54.6 -9°31.0	277°29.5 -9°18.8	292°04.5 -9°06.5	306°39.5 -8°54.2	321°14.6 -8°41.8	335°49.7 -8°29.5	350°24.8 -8°17.1	5°00.0 -8°04.6	19°35.2 -7°52.2	34°10.4 -7°39.7	48°41.7 -7°27.2	+35.1	14.8
	Ma 13	267°38.4 -14°17.1	282°14.1 -14°04.3	296°49.8 -13°51.5	311°25.5 -13°38.6	326°01.2 -13°25.8	340°37.0 -13°12.9	355°12.8 -13°00.1	9°48.5 -12°47.2	24°24.3 -12°34.3	39°00.1 -12°21.4	53°35.9 -12°08.5	+35.8	14.8
	Me 14	282°14.1 -28°04.3	296°49.8 -3°51.5	311°25.5 -3°38.6	326°01.2 -3°25.8	340°37.0 -3°12.9	355°12.8 -3°00.1	9°48.5 -2°47.2	24°24.3 -2°34.3	39°00.1 -2°21.4	53°35.9 -2°08.5	68°11.7 -1°55.6	+35.8	14.8
	Je 15	287°09.0 1°18.8	301°44.7 1°31.7	316°20.5 1°44.7	330°56.2 1°57.7	345°32.2 2°10.6	0°07.7 2°23.6	14°43.4 2°36.5	29°19.1 2°49.4	43°54.8 3°02.4	58°30.4 3°15.3	73°06.0 3°28.2	+35.7	14.8
	Ve 16	291°57.3 6°40.6	306°32.3 6°53.3	321°07.6 7°06.0	335°42.2 7°18.7	350°17.7 7°31.3	4°52.7 7°43.9	19°27.7 7°56.6	34°02.6 8°09.1	48°37.6 8°21.7	63°12.2 8°34.2	77°47.0 8°46.7	+35.0	14.9
	Sa 17	296°22.1 11°50.8	310°55.9 12°02.8	325°29.7 12°14.7	340°03.5 12°26.6	354°37.1 12°38.5	9°10.7 12°50.3	23°44.2 13°02.1	38°17.7 13°13.9	52°51.1 13°25.6	67°24.1 13°37.2	81°57.6 13°48.8	+33.6	15.0
	Di 18	300°06.7 16°36.7	314°38.6 16°47.4	329°10.5 16°58.1	343°42.2 17°08.7	358°13.9 17°19.2	12°45.5 17°29.7	27°17.0 17°40.1	41°48.4 17°50.4	56°19.7 18°00.6	70°57.9 18°10.8	85°22.0 18°20.9	+31.5	15.2
	Lu 19	302°57.1 20°42.7	317°26.6 20°51.1	331°56.1 21°00.2	346°25.4 21°08.7	0°54.7 21°17.2	15°23.8 21°25.5	29°52.8 21°33.8	44°21.8 21°42.0	58°50.6 21°50.0	73°19.3 21°58.0	87°48.0 22°05.8	+29.1	15.4
O	Ma 20	304°45.3 23°49.8	319°12.3 23°55.8	333°39.3 24°01.6	348°06.1 24°07.3	2°32.9 24°12.9	16°59.5 24°18.3	31°26.1 24°23.6	45°52.5 24°28.8	60°18.9 24°33.8	74°45.2 24°38.7	89°11.4 24°43.5	+26.6	15.6
	Me 21	305°34.6 25°37.3	319°59.6 25°39.7	334°24.5 25°41.9	348°48.1 25°43.9	3°14.1 25°45.8	17°38.8 25°47.6	32°03.4 25°49.1	46°28.0 25°50.6	60°52.6 25°51.8	75°17.1 25°52.9	89°41.5 25°53.8	+24.7	15.8
	Je 22	305°43.3 25°47.6	320°07.2 25°45.8	334°31.1 25°43.9	348°55.0 25°41.7	3°18.8 25°39.0	17°42.7 25°37.0	32°06.5 25°34.4	46°30.4 25°31.6	60°55.2 25°28.6	75°19.7 25°25.4	89°44.9 25°22.1	+23.8	16.0
	Ve 23	305°41.0 24°12.0	320°05.2 24°06.0	334°29.4 23°58.9	348°53.6 23°53.5	3°17.8 23°47.0	17°42.1 23°40.4	32°06.5 23°33.6	46°30.8 23°26.6	60°55.2 23°19.5	75°19.7 23°12.2	89°44.7 23°04.7	+24.3	16.1
	Sa 24	305°58.5 20°55.0	320°24.0 20°45.2	334°49.5 20°35.3	349°15.0 20°25.2	3°40.7 20°15.0	18°06.4 20°04.7	32°32.2 19°54.2	46°58.0 19°43.6	61°23.9 19°32.9	75°49.9 19°22.0	90°16.0 19°11.1	+25.7	16.2
	Di 25	306°55.5 16°12.8	321°22.7 16°00.1	335°50.0 15°47.2	350°17.4 15°34.3	4°44.8 15°21.3	19°12.3 15°08.1	33°39.8 14°54.9	48°07.5 14°41.6	62°35.2 14°28.3	77°03.0 14°14.8	91°30.8 14°01.2	+27.5	16.3
	Lu 26	308°36.3 10°29.1	323°05.2 10°14.4	337°34.1 9°59.7	352°03.1 9°44.9	6°32.1 9°30.1	21°01.2 9°15.3	35°30.3 9°00.3	49°59.5 8°45.4	64°28.7 8°30.4	78°58.0 8°15.3	93°27.4 8°00.2	+29.1	16.3
	Ma 27	310°52.7 4°09.7	325°22.7 3°54.2	339°52.7 3°38.6	354°22.7 3°23.0	8°52.8 3°07.4	23°22.9 2°51.8	37°53.0 2°36.2	52°23.2 2°20.5	66°53.4 2°04.9	81°23.6 1°49.3	95°53.6 1°33.6	+30.1	16.2
	Me 28	313°29.0 -2°20.5	327°59.4 -2°36.0	342°29.9 -2°51.5	357°00.3 -3°06.9	11°30.7 -3°22.4	26°01.1 -3°37.8	40°31.5 -3°53.2	55°01.9 -4°08.5	69°33.4 -4°23.9	84°02.4 -4°39.2	98°33.2 -4°54.4	+30.4	16.2
O	Je 29	316°07.5 -8°38.2	330°37.6 -8°53.3	345°07.7 -9°07.8	359°37.8 -9°22.3	14°07.8 -9°36.7	28°37.9 -9°51.0	43°07.8 -10°05.3	57°37.8 -10°19.6	72°07.8 -10°33.7	86°37.7 -10°47.8	101°07.5 -11°01.9	+30.0	16.1
	Ve 30	318°31.1 -14°23.8	333°00.0 -14°36.7	347°29.6 -14°49.4	1°58.7 -15°02.1	16°27.8 -15°14.7	30°56.9 -15°27.1	45°25.9 -15°39.5	59°54.9 -15°51.8	74°23.8 -16°04.0	88°52.6 -16°16.2	103°21.5 -16°28.2	+29.0	15.9

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 7 06h08 — DQ: 15 04h27 — NL: 22 18h27 — PQ: 29 12h10

SOLEIL

Juillet 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	268°00.7 23°03.9	284°00.6 23°03.7	299°00.5 23°03.5	314°00.4 23°03.3	329°00.3 23°03.1	344°00.1 23°03.0	359°00.0 23°02.8	13°59.9 23°02.6	28°59.8 23°02.4	43°59.7 23°02.2	58°59.6 23°02.0	73°59.4 23°01.9	-0.1 -0.2
Di 2	268°57.9 22°59.4	283°57.8 22°59.2	298°57.7 22°59.0	313°57.6 22°58.8	328°57.5 22°58.6	343°57.3 22°58.4	358°57.2 22°58.2	13°57.1 22°58.0	28°57.0 22°57.8	43°56.9 22°57.6	58°56.8 22°57.4	73°56.7 22°57.2	-0.1 -0.2
Lu 3	268°55.2 22°54.5	283°55.1 22°54.3	298°55.0 22°54.1	313°54.8 22°53.9	328°54.7 22°53.7	343°54.6 22°53.5	358°54.5 22°53.2	13°54.4 22°53.0	28°54.3 22°52.8	43°54.2 22°52.6	58°54.1 22°52.4	73°53.9 22°52.2	-0.1 -0.2
Ma 4	268°52.5 22°49.3	283°52.4 22°49.0	298°52.3 22°48.8	313°52.2 22°48.6	328°52.1 22°48.3	343°52.0 22°48.1	358°51.9 22°47.9	13°51.8 22°47.6	28°51.7 22°47.4	43°51.5 22°47.2	58°51.4 22°46.9	73°51.3 22°46.7	-0.1 -0.2
Me 5	268°49.9 22°43.6	283°49.8 22°43.3	298°49.7 22°43.1	313°49.6 22°42.9	328°49.5 22°42.6	343°49.4 22°42.4	358°49.3 22°42.1	13°49.2 22°41.9	28°49.1 22°41.6	43°49.0 22°41.4	58°48.9 22°41.1	73°48.8 22°40.9	-0.1 -0.2
Je 6	268°47.5 22°37.5	283°47.4 22°37.3	298°47.3 22°37.0	313°47.2 22°36.8	328°47.1 22°36.5	343°47.0 22°36.2	358°46.8 22°36.0	13°46.7 22°35.7	28°46.6 22°35.4	43°46.5 22°35.2	58°46.4 22°34.9	73°46.3 22°34.6	-0.1 -0.3
Ve 7	268°45.1 22°31.1	283°45.0 22°30.8	298°44.9 22°30.5	313°44.8 22°30.3	328°44.7 22°30.0	343°44.6 22°29.7	358°44.5 22°29.4	13°44.4 22°29.1	28°44.3 22°28.9	43°44.2 22°28.6	58°44.1 22°28.3	73°44.0 22°28.0	-0.1 -0.3
Sa 8	268°42.8 22°24.3	283°42.7 22°24.0	298°42.6 22°23.7	313°42.5 22°23.4	328°42.4 22°23.1	343°42.3 22°22.8	358°42.2 22°22.5	13°42.1 22°21.9	28°42.0 22°21.6	43°41.9 22°21.3	58°41.8 22°21.0	73°41.7 22°21.7	-0.1 -0.3
Di 9	268°40.6 22°17.0	283°40.5 22°16.7	298°40.4 22°16.4	313°40.3 22°16.1	328°40.2 22°15.8	343°40.1 22°15.5	358°39.9 22°15.2	13°39.9 22°14.9	28°39.9 22°14.5	43°39.8 22°14.2	58°39.7 22°13.9	73°39.6 22°13.6	-0.1 -0.3
Lu 10	268°38.5 22°09.4	283°38.4 22°09.1	298°38.3 22°08.8	313°38.2 22°08.5	328°38.1 22°08.1	343°38.1 22°07.8	358°38.0 22°07.5	13°37.9 22°07.1	28°37.8 22°06.8	43°37.7 22°06.5	58°37.6 22°06.2	73°37.6 22°06.8	-0.1 -0.3
Ma 11	268°36.5 22°01.4	283°36.4 22°01.1	298°36.3 22°00.8	313°36.3 22°00.4	328°36.2 22°00.1	343°36.1 22°59.7	358°36.0 22°59.4	13°35.9 22°59.0	28°35.8 22°58.7	43°35.8 22°58.3	58°35.7 22°58.0	73°35.6 22°58.0	-0.1 -0.3
Me 12	268°34.6 21°55.1	283°34.5 21°55.2	298°34.5 21°52.4	313°34.4 21°52.0	328°34.3 21°51.6	343°34.2 21°51.3	358°34.2 21°50.9	13°34.1 21°50.6	28°34.0 21°50.2	43°33.9 21°49.8	58°33.9 21°49.5	73°33.8 21°49.1	-0.1 -0.4
Je 13	268°32.9 21°44.3	283°32.8 21°44.0	298°32.7 21°43.6	313°32.6 21°43.2	328°32.6 21°42.8	343°32.5 21°42.5	358°32.4 21°42.1	13°32.4 21°41.7	28°32.3 21°41.3	43°32.2 21°41.0	58°32.2 21°40.6	73°32.1 21°40.5	-0.1 -0.4
Ve 14	268°31.2 21°35.2	283°31.1 21°34.8	298°31.1 21°34.4	313°31.0 21°34.1	328°30.9 21°33.7	343°30.9 21°33.3	358°30.8 21°32.9	13°30.8 21°32.5	28°30.7 21°32.2	43°30.6 21°31.7	58°30.6 21°31.3	73°30.5 21°30.9	-0.1 -0.4
Sa 15	268°29.7 21°25.7	283°29.6 21°25.3	298°29.6 21°24.9	313°29.5 21°24.5	328°29.4 21°24.1	343°29.4 21°23.7	358°29.3 21°23.3	13°29.3 21°22.9	28°29.3 21°22.5	43°29.3 21°22.1	58°29.3 21°21.7	73°29.0 21°21.3	-0.1 -0.4
Di 16	268°28.3 21°15.9	283°28.2 21°15.5	298°28.2 21°15.0	313°28.1 21°14.6	328°28.1 21°14.2	343°28.0 21°13.8	358°28.0 21°13.4	13°27.9 21°12.9	28°27.8 21°12.5	43°27.8 21°12.1	58°27.7 21°11.7	73°27.7 21°11.3	-0.1 -0.4
Lu 17	268°27.0 21°05.7	283°27.0 21°05.2	298°26.9 21°04.8	313°26.9 21°04.4	328°26.8 21°03.9	343°26.8 21°03.5	358°26.7 21°03.1	13°26.7 21°02.6	28°26.6 21°02.2	43°26.6 21°01.8	58°26.5 21°01.3	73°26.5 21°00.9	-0.0 -0.4
Ma 18	268°25.9 20°55.1	283°25.8 20°54.7	298°25.8 20°54.2	313°25.7 20°53.8	328°25.7 20°53.3	343°25.6 20°52.9	358°25.6 20°52.4	13°25.6 20°52.0	28°25.5 20°51.5	43°25.5 20°51.0	58°25.4 20°50.6	73°25.4 20°50.1	-0.0 -0.5
Me 19	268°24.8 20°44.2	283°24.8 20°43.7	298°24.8 20°43.3	313°24.7 20°42.8	328°24.7 20°42.3	343°24.7 20°41.9	358°24.6 20°41.4	13°24.6 20°40.9	28°24.5 20°40.5	43°24.5 20°40.0	58°24.5 20°39.5	73°24.4 20°39.1	-0.0 -0.5
Je 20	268°24.0 20°32.9	283°23.9 20°32.4	298°23.9 20°32.0	313°23.9 20°31.5	328°23.8 20°31.0	343°23.8 20°30.5	358°23.8 20°30.0	13°23.7 20°29.6	28°23.7 20°29.1	43°23.7 20°28.6	58°23.6 20°28.1	73°23.6 20°27.6	-0.0 -0.5
Ve 21	268°23.2 20°21.3	283°23.2 20°20.8	298°23.2 20°20.3	313°23.1 20°19.8	328°23.1 20°19.3	343°23.1 20°18.8	358°23.1 20°18.3	13°23.0 20°17.8	28°23.0 20°17.3	43°23.0 20°16.8	58°23.0 20°16.3	73°22.9 20°15.9	-0.0 -0.5
Sa 22	268°22.6 20°09.3	283°22.6 20°08.8	298°22.6 20°08.3	313°22.6 20°07.8	328°22.5 20°07.3	343°22.5 20°06.8	358°22.5 20°06.3	13°22.5 20°05.8	28°22.5 20°05.3	43°22.4 20°04.8	58°22.4 20°04.3	73°22.4 20°03.7	-0.0 -0.5
Di 23	268°22.2 19°57.0	283°22.2 19°56.5	298°22.1 19°56.0	313°22.1 19°55.5	328°22.1 19°55.0	343°22.1 19°54.4	358°22.1 19°53.9	13°22.1 19°53.4	28°22.1 19°52.9	43°22.0 19°52.3	58°22.0 19°51.8	73°22.0 19°51.3	-0.0 -0.5
Lu 24	268°21.9 19°44.4	283°21.9 19°43.9	298°21.9 19°43.3	313°21.8 19°42.8	328°21.8 19°42.3	343°21.8 19°41.7	358°21.8 19°41.2	13°21.8 19°40.7	28°21.8 19°40.1	43°21.8 19°39.6	58°21.8 19°39.0	73°21.8 19°38.5	-0.0 -0.5
Ma 25	268°21.7 19°31.5	283°21.7 19°30.9	298°21.7 19°30.4	313°21.7 19°29.8	328°21.7 19°29.3	343°21.7 19°28.7	358°21.7 19°28.2	13°21.7 19°27.6	28°21.7 19°27.1	43°21.7 19°26.5	58°21.7 19°26.0	73°21.7 19°25.4	-0.0 -0.5
Me 26	268°21.7 19°18.2	283°21.7 19°17.6	298°21.7 19°17.1	313°21.7 19°16.5	328°21.7 19°15.9	343°21.7 19°15.4	358°21.7 19°14.8	13°21.7 19°14.2	28°21.7 19°13.7	43°21.8 19°13.1	58°21.8 19°12.5	73°21.8 19°12.0	+0.0 -0.6
Je 27	268°21.9 19°04.6	283°21.9 19°04.0	298°21.9 19°03.4	313°21.9 19°02.9	328°21.9 19°02.3	343°21.9 19°01.7	358°21.9 19°01.1	13°21.9 19°00.6	28°21.9 19°00.1	43°22.0 18°59.4	58°22.0 18°58.8	73°22.0 18°58.2	+0.0 -0.6
Ve 28	268°22.2 18°50.7	283°22.2 18°50.1	298°22.2 18°49.5	313°22.2 18°48.9	328°22.2 18°48.3	343°22.3 18°47.7	358°22.3 18°47.1	13°22.3 18°46.5	28°22.3 18°46.0	43°22.3 18°45.4	58°22.4 18°44.8	73°22.4 18°44.2	+0.0 -0.6
Sa 29	268°22.6 18°36.4	283°22.6 18°35.8	298°22.7 18°35.2	313°22.7 18°34.6	328°22.7 18°34.0	343°22.8 18°33.4	358°22.8 18°32.8	13°22.8 18°32.2	28°22.8 18°31.6	43°22.9 18°31.0	58°22.9 18°30.4	73°22.9 18°29.8	+0.0 -0.6
Di 30	268°23.3 18°21.9	283°23.3 18°21.3	298°23.3 18°20.7	313°23.4 18°20.1	328°23.4 18°19.5	343°23.4 18°18.9	358°23.4 18°18.2	13°23.5 18°17.6	28°23.5 18°17.0	43°23.5 18°16.4	58°23.6 18°15.8	73°23.6 18°15.2	+0.0 -0.6
Lu 31	268°24.0 18°07.1	283°24.1 18°06.5	298°24.1 18°05.9	313°24.1 18°05.2	328°24.2 18°04.6	343°24.2 18°04.0	358°24.3 18°03.4	13°24.3 18°02.7	28°24.3 18°02.1	43°24.4 18°01.5	58°24.4 18°00.8	73°24.5 18°00.2	+0.0 -0.6

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juillet 2028

	J	11h	12h	13h	14h	15h	16h	17h	18h	19h	20h	21h	Δ /h	SP
O	Sa 1	248°06.9 -18°22.8	262°35.1 -18°33.7	277°03.4 -18°44.5	291°31.5 -18°55.1	305°59.6 -19°05.7	320°27.7 -19°16.1	334°55.7 -19°26.5	349°23.6 -19°36.7	3°51.5 -19°46.8	18°19.4 -19°56.8	32°47.2 -20°06.6	+28.0	15.8
	Di 2	249°38.1 -20°19.7	264°05.1 -22°27.6	278°32.1 -22°35.3	292°59.0 -22°42.9	307°25.9 -22°50.3	321°52.7 -22°57.6	336°19.5 -23°04.8	350°46.3 -23°11.8	5°13.0 -23°18.7	19°39.7 -23°25.4	34°06.6 -23°32.0	+26.8	15.7
	Lu 3	250°42.3 -24°53.9	265°08.4 -25°02.3	279°34.6 -25°02.3	294°00.8 -25°06.3	308°26.9 -25°10.1	322°53.1 -25°13.8	337°19.2 -25°17.3	351°45.3 -25°20.7	6°11.4 -25°23.9	20°37.5 -25°27.9	35°03.8 -25°29.9	+26.1	15.6
O	Ma 4	251°35.1 -25°55.6	266°01.3 -25°56.1	280°27.5 -25°56.4	294°53.7 -25°56.6	309°20.0 -25°56.7	323°46.3 -25°56.6	338°12.6 -25°56.3	352°38.9 -25°55.9	7°05.3 -25°55.4	21°31.7 -25°54.7	35°58.1 -25°53.8	+26.3	15.4
	Me 5	252°39.6 -25°23.7	267°06.7 -25°20.6	281°33.9 -25°17.3	296°01.2 -25°13.9	310°28.5 -25°10.3	324°55.9 -25°06.6	339°23.3 -25°02.8	353°50.8 -24°58.8	8°18.4 -24°54.7	22°46.0 -24°50.5	37°13.7 -24°46.2	+27.4	15.3
	Je 6	254°17.6 -23°25.7	268°46.4 -23°19.4	283°15.4 -23°12.9	297°44.4 -23°06.4	312°13.5 -22°59.7	326°42.6 -22°52.9	341°11.9 -22°46.0	355°41.2 -22°39.0	10°10.6 -22°31.9	24°40.1 -22°24.7	39°09.6 -22°17.4	+29.2	15.1
O	Ve 7	256°42.9 -25°58.6	271°13.8 -27°43.1	285°44.7 -28°04.3	300°15.8 -28°37.2	314°46.9 -28°59.7	329°18.1 -29°30.4	343°49.4 -29°21.1	358°20.7 -19°11.7	12°52.2 -19°02.2	27°23.7 -18°52.7	41°55.3 -18°43.1	+31.2	15.0
	Sa 8	259°58.6 -16°10.1	274°31.4 -15°59.4	289°04.3 -15°48.6	303°37.2 -15°37.7	318°10.3 -15°26.8	332°43.4 -15°15.8	347°16.5 -14°53.7	1°49.8 -14°23.1	16°23.1 -14°02.6	30°56.4 -13°51.4	45°29.9 -13°20.1	+33.1	14.9
	Di 9	263°58.8 -11°25.7	278°33.2 -11°13.7	293°07.6 -11°01.7	307°42.1 -10°49.6	322°16.6 -10°37.6	336°51.2 -10°25.4	351°25.8 -10°13.3	6°00.5 -10°01.1	20°35.3 -09°58.6	35°10.0 -09°36.6	49°44.9 -09°24.3	+34.6	14.8
O	Lu 10	268°32.1 -6°16.8	283°07.5 -6°04.2	297°43.0 -5°51.5	312°18.5 -5°38.7	326°54.0 -5°26.0	341°29.5 -5°13.3	356°05.1 -5°00.5	10°40.7 -4°47.7	25°16.3 -4°34.9	39°51.9 -4°22.1	54°27.6 -4°09.3	+35.6	14.8
	Ma 11	273°24.3 -0°55.9	288°00.2 -0°42.9	302°36.1 -0°30.0	317°11.9 -0°17.0	331°47.8 -0°04.1	346°23.7 0°08.8	0°59.6 0°21.8	15°55.4 0°34.7	30°11.3 0°47.7	44°47.2 1°00.6	59°23.1 1°13.5	+35.9	14.8
	Me 12	278°19.9 4°26.6	292°55.6 4°39.4	307°31.3 4°52.2	322°06.8 5°04.9	336°42.4 5°17.7	351°18.0 5°30.4	5°53.5 5°43.1	20°29.1 5°55.8	35°04.6 6°08.5	49°40.0 6°21.1	64°15.4 6°33.8	+35.6	14.8
O	Je 13	292°55.6 4°39.4	307°31.3 4°52.2	322°06.8 5°04.9	336°42.4 5°17.7	351°18.0 5°30.4	5°53.5 5°43.1	20°29.1 5°55.8	35°04.6 6°08.5	49°40.0 6°21.1	64°15.4 6°33.8	78°50.8 6°46.4	+35.5	14.8
	Ve 14	297°37.4 9°52.7	312°12.3 10°04.9	326°46.9 10°17.0	341°21.5 10°29.2	355°56.1 10°41.3	10°30.7 10°53.3	25°05.2 11°05.4	39°39.6 11°17.3	54°14.0 11°29.3	68°48.4 11°41.2	83°22.7 11°53.1	+34.5	14.9
	Sa 15	301°49.3 14°46.0	316°22.6 14°57.2	330°55.7 15°08.3	345°28.8 15°19.3	360°01.8 15°30.3	14°34.7 15°41.2	29°07.6 15°52.1	43°40.6 16°02.9	58°13.0 16°13.6	72°45.7 16°24.3	87°18.2 16°35.0	+32.9	15.0
O	Di 16	306°15.9 19°06.4	319°47.1 19°15.9	334°18.1 19°25.3	348°49.0 19°34.7	363°19.9 19°44.0	17°50.6 20°03.2	32°21.3 20°11.3	46°51.9 20°20.2	61°22.3 20°20.2	75°52.7 20°29.1	90°23.0 20°37.8	+30.7	15.2
	Lu 17	307°45.1 22°37.7	322°13.7 22°44.9	336°42.3 22°51.9	351°10.8 22°58.9	365°39.1 23°05.7	5°39.1 23°12.4	20°07.4 23°19.0	34°35.6 23°25.5	49°03.6 23°31.9	63°31.6 23°38.2	77°59.5 23°44.3	+28.2	15.4
	Ma 18	309°12.1 25°01.0	323°38.4 25°05.0	338°04.6 25°08.9	352°30.6 25°12.7	366°56.6 25°16.3	7°12.2 25°19.8	21°46.6 25°23.1	36°10.8 25°26.3	50°35.0 25°29.3	64°59.1 25°32.2	79°23.5 25°34.9	+25.9	15.6
O	Me 19	309°44.9 25°57.0	324°09.3 25°57.2	338°33.7 25°57.2	352°56.2 25°57.1	367°20.0 25°56.8	7°22.4 25°56.3	21°43.7 25°55.6	36°07.5 25°54.8	50°31.7 25°52.6	64°55.0 25°53.8	79°23.8 25°52.7	+24.2	15.9
	Je 20	309°45.0 25°10.9	324°08.8 25°06.8	338°32.5 25°02.6	352°56.2 24°58.1	367°20.0 24°53.5	7°22.4 24°48.8	21°43.7 24°43.8	36°07.5 24°38.7	50°33.3 24°33.4	64°55.0 24°28.0	79°23.5 24°22.4	+23.8	16.1
	Ve 21	309°42.5 22°38.0	324°06.8 22°29.8	338°31.1 22°21.4	352°55.4 22°12.8	367°19.8 22°04.1	7°19.8 22°55.2	21°44.3 21°46.2	36°08.8 21°37.0	50°33.3 21°27.7	64°55.0 21°18.2	79°22.5 21°08.5	+24.5	16.3
O	Sa 22	310°04.4 18°27.2	324°30.0 18°15.4	338°55.7 18°03.5	353°21.5 17°51.4	367°47.3 17°39.2	7°47.3 17°26.9	22°13.2 17°14.5	36°39.1 17°02.0	51°05.2 16°49.3	65°33.2 16°36.6	79°57.4 16°28.7	+25.9	16.5
	Di 23	311°04.7 12°58.7	325°32.0 12°44.4	339°59.3 12°29.9	354°26.7 12°15.4	368°54.1 12°00.7	8°54.1 11°46.0	23°21.6 11°31.3	37°49.2 11°16.5	52°16.8 11°01.6	66°44.5 10°46.6	81°12.2 10°31.6	+27.5	16.3
	Lu 24	312°43.3 6°39.7	327°12.0 6°23.9	341°40.6 6°08.1	356°09.3 5°52.2	370°38.0 5°36.3	25°06.8 5°20.4	35°35.7 5°04.4	54°04.5 4°48.4	68°33.4 4°32.4	83°02.3 4°16.4	97°31.2 4°00.4	+28.8	16.5
O	Ma 25	314°49.5 -0°01.1	329°18.9 -0°17.2	343°48.3 -0°33.2	358°17.7 -0°49.3	372°47.7 -0°51.3	12°47.2 -1°05.3	27°16.6 -1°21.4	41°46.1 -1°37.4	56°15.6 -1°53.4	70°45.1 -2°09.4	85°14.6 -2°25.3	+29.5	16.4
	Me 26	317°07.3 -6°36.2	331°36.9 -6°51.6	346°06.4 -7°06.8	0°35.9 -7°22.1	15°05.4 -7°37.3	29°34.9 -7°52.4	44°04.3 -8°07.5	58°33.8 -8°22.5	73°03.2 -8°37.4	87°32.7 -8°52.3	102°02.3 -9°07.2	+29.5	16.3
	Je 27	319°20.7 -12°41.4	333°49.8 -12°55.1	348°18.8 -13°08.6	2°47.7 -13°22.2	17°16.7 -13°35.6	31°45.6 -13°48.9	46°14.5 -14°02.1	60°43.3 -14°15.3	75°12.2 -14°28.4	89°40.9 -14°41.3	104°09.7 -14°54.2	+28.9	16.1
O	Ve 28	321°16.5 -17°55.3	335°44.7 -18°06.6	350°12.8 -18°17.7	4°40.8 -18°28.7	19°08.9 -18°39.9	33°36.8 -18°50.2	48°04.8 -19°01.0	62°32.7 -19°11.6	77°00.5 -19°22.0	91°28.4 -19°32.3	105°56.2 -19°42.5	+28.0	15.9
	Sa 29	322°48.2 -22°00.2	337°15.4 -22°08.2	351°42.5 -22°16.4	6°09.6 -22°24.3	20°36.7 -22°39.6	35°03.7 -22°53.9	49°30.7 -22°47.1	63°57.7 -22°54.4	78°24.6 -23°01.6	92°51.5 -23°08.7	107°18.4 -23°15.6	+27.0	15.7
	Di 30	323°58.6 -24°42.3	338°25.2 -24°46.9	352°51.7 -24°51.4	7°18.2 -24°55.7	21°44.7 -24°59.9	36°11.2 -25°03.9	50°37.6 -25°07.8	65°04.1 -25°11.5	79°30.6 -25°15.1	93°57.0 -25°18.2	108°23.5 -25°21.8	+26.5	15.5
O	Lu 31	325°00.7 -25°53.3	339°27.3 -25°54.2	353°53.9 -25°55.0	8°20.5 -25°55.6	22°47.1 -25°56.1	37°13.8 -25°56.4	51°40.4 -25°56.6	66°07.2 -25°56.6	80°33.9 -25°56.5	95°00.7 -25°56.2	109°27.4 -25°55.8	+26.7	15.4
													-0.2	56.4

Ligne 1 : GHA, Δ /h = var. GHA - 14°, SP = semi-diamètre
Ligne 2 : Dec (= Sud), Δ /h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 6 18h10 — DQ: 14 20h56 — NL: 22 03h01 — PQ: 28 17h40

SOLEIL

Août 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ma 1	268°25.0 17°52.0	283°25.0 17°51.4	298°25.1 17°50.7	313°25.1 17°50.1	328°25.1 17°49.4	343°25.2 17°48.8	358°25.2 17°48.2	13°25.3 17°47.5	28°25.3 17°46.9	43°25.4 17°46.2	58°25.4 17°45.6	73°25.5 17°45.0	+0.0 -0.6
Me 2	268°26.1 17°36.6	283°26.1 17°35.9	298°26.2 17°35.3	313°26.2 17°34.6	328°26.3 17°34.0	343°26.3 17°33.3	358°26.4 17°32.7	13°26.4 17°32.0	28°26.5 17°31.4	43°26.5 17°30.7	58°26.6 17°30.1	73°26.6 17°29.4	+0.1 -0.7
Je 3	268°27.3 17°20.9	283°27.4 17°20.2	298°27.4 17°19.6	313°27.5 17°18.9	328°27.5 17°18.3	343°27.6 17°17.6	358°27.6 17°16.9	13°27.6 17°16.3	28°27.7 17°15.6	43°27.8 17°14.9	58°27.9 17°14.3	73°27.9 17°13.7	+0.1 -0.7
Ve 4	268°28.7 17°04.9	283°28.8 17°04.3	298°28.8 17°03.6	313°28.9 17°02.9	328°29.0 17°02.2	343°29.0 17°01.6	358°29.1 17°00.9	13°29.1 17°00.2	28°29.2 16°59.5	43°29.3 16°58.9	58°29.3 16°58.2	73°29.4 16°57.5	+0.1 -0.7
Sa 5	268°30.2 16°48.7	283°30.3 16°48.0	298°30.4 16°47.3	313°30.5 16°46.6	328°30.5 16°45.9	343°30.6 16°45.3	358°30.7 16°44.6	13°30.7 16°43.9	28°30.8 16°43.2	43°30.9 16°42.5	58°30.9 16°41.8	73°31.0 16°41.1	+0.1 -0.7
Di 6	268°31.9 16°32.2	283°32.0 16°31.5	298°32.1 16°30.8	313°32.2 16°30.1	328°32.2 16°29.4	343°32.3 16°28.7	358°32.4 16°28.0	13°32.5 16°27.3	28°32.5 16°26.6	43°32.6 16°25.9	58°32.7 16°25.2	73°32.8 16°24.5	+0.1 -0.7
Lu 7	268°33.8 16°15.4	283°33.9 16°14.7	298°33.9 16°14.0	313°34.0 16°13.3	328°34.1 16°12.6	343°34.2 16°11.9	358°34.3 16°11.1	13°34.4 16°10.4	28°34.4 16°09.7	43°34.5 16°09.0	58°34.6 16°08.3	73°34.7 16°07.6	+0.1 -0.7
Ma 8	268°35.8 15°58.3	283°35.9 15°57.6	298°35.9 15°56.9	313°36.0 15°56.2	328°36.1 15°55.5	343°36.2 15°54.8	358°36.3 15°54.0	13°36.4 15°53.3	28°36.5 15°52.6	43°36.6 15°51.9	58°36.6 15°51.2	73°36.7 15°50.4	+0.1 -0.7
Me 9	268°37.9 15°41.0	283°38.0 15°40.3	298°38.1 15°39.6	313°38.2 15°38.9	328°38.3 15°38.1	343°38.4 15°37.4	358°38.5 15°36.7	13°38.6 15°35.9	28°38.7 15°35.2	43°38.7 15°34.5	58°38.7 15°33.8	73°38.9 15°33.0	+0.1 -0.7
Je 10	268°40.2 15°23.5	283°40.3 15°22.7	298°40.4 15°22.0	313°40.5 15°21.3	328°40.5 15°20.5	343°40.7 15°19.8	358°40.8 15°19.1	13°40.9 15°18.3	28°41.0 15°17.6	43°41.1 15°16.8	58°41.1 15°16.1	73°41.3 15°15.4	+0.1 -0.7
Ve 11	268°42.6 15°05.7	283°42.7 15°04.9	298°42.8 15°04.2	313°42.9 15°03.4	328°43.0 15°02.7	343°43.1 15°01.9	358°43.2 15°01.2	13°43.3 15°00.4	28°43.4 14°59.7	43°43.5 14°58.9	58°43.6 14°58.2	73°43.8 14°57.4	+0.1 -0.7
Sa 12	268°45.1 14°47.6	283°45.3 14°46.9	298°45.4 14°46.1	313°45.5 14°45.4	328°45.6 14°44.6	343°45.7 14°43.8	358°45.8 14°43.1	13°45.9 14°42.3	28°46.0 14°41.6	43°46.1 14°40.8	58°46.3 14°40.0	73°46.4 14°39.3	+0.1 -0.8
Di 13	268°47.8 14°29.4	283°47.9 14°28.6	298°48.1 14°27.8	313°48.2 14°27.1	328°48.3 14°26.3	343°48.4 14°25.5	358°48.5 14°24.7	13°48.6 14°24.0	28°48.8 14°23.2	43°48.9 14°22.4	58°49.0 14°21.7	73°49.1 14°20.9	+0.1 -0.8
Lu 14	268°50.6 14°10.8	283°50.8 14°10.1	298°50.9 14°09.3	313°51.0 14°08.5	328°51.1 14°07.7	343°51.3 14°07.0	358°51.4 14°06.2	13°51.5 14°05.4	28°51.6 14°04.6	43°51.7 14°03.8	58°51.7 14°03.1	73°52.0 14°02.3	+0.1 -0.8
Ma 15	268°53.6 13°52.1	283°53.7 13°51.3	298°53.8 13°50.5	313°54.0 13°49.7	328°54.1 13°49.0	343°54.2 13°48.2	358°54.4 13°47.4	13°54.8 13°46.6	28°54.5 13°45.7	43°54.7 13°45.0	58°54.7 13°44.2	73°55.0 13°43.4	+0.1 -0.8
Me 16	268°56.7 13°33.1	283°56.8 13°32.3	298°56.9 13°31.5	313°57.1 13°30.8	328°57.2 13°30.0	343°57.3 13°29.2	358°57.5 13°28.4	13°57.6 13°27.6	28°57.7 13°26.8	43°57.9 13°26.0	58°58.0 13°25.2	73°58.1 13°24.4	+0.1 -0.8
Je 17	268°59.9 13°14.0	284°00.0 13°13.2	299°00.0 13°12.3	314°00.3 13°11.5	329°00.4 13°10.7	344°00.5 13°09.9	359°00.7 13°09.1	14°00.8 13°08.3	29°01.0 13°07.5	44°01.1 13°06.7	59°01.2 13°05.9	74°01.4 13°05.1	+0.1 -0.8
Ve 18	269°03.2 12°54.6	284°03.3 12°53.8	299°03.5 12°52.9	314°03.6 12°52.1	329°03.7 12°51.3	344°03.9 12°50.5	359°04.0 12°49.7	14°04.2 12°48.9	29°04.3 12°48.1	44°04.5 12°47.2	59°04.6 12°46.4	74°04.7 12°45.6	+0.1 -0.8
Sa 19	269°06.6 12°35.0	284°06.8 12°34.1	299°06.9 12°33.3	314°07.1 12°32.5	329°07.2 12°31.7	344°07.4 12°30.9	359°07.5 12°30.0	14°07.7 12°29.2	29°07.8 12°28.4	44°08.0 12°27.6	59°08.0 12°26.7	74°08.2 12°25.9	+0.1 -0.8
Di 20	269°10.2 12°15.2	284°10.3 12°14.3	299°10.5 12°13.5	314°10.6 12°12.7	329°10.8 12°11.9	344°10.9 12°11.0	359°11.1 12°10.2	14°11.3 12°09.4	29°11.4 12°08.5	44°11.6 12°07.7	59°11.7 12°06.9	74°11.9 12°06.0	+0.2 -0.8
Lu 21	269°13.9 11°55.2	284°14.0 11°54.4	299°14.2 11°53.5	314°14.3 11°52.7	329°14.5 11°51.8	344°14.6 11°51.0	359°14.8 11°50.2	14°15.0 11°49.3	29°15.1 11°48.5	44°15.3 11°47.6	59°15.4 11°46.8	74°15.6 11°46.0	+0.2 -0.8
Ma 22	269°17.7 11°35.0	284°17.8 11°34.2	299°18.0 11°33.3	314°18.1 11°32.5	329°18.3 11°31.6	344°18.5 11°30.8	359°18.6 11°29.9	14°18.8 11°29.1	29°18.9 11°28.2	44°19.0 11°27.4	59°19.3 11°26.6	74°19.4 11°25.7	+0.2 -0.8
Me 23	269°21.6 11°14.7	284°21.7 11°13.8	299°21.9 11°12.9	314°22.1 11°12.1	329°22.2 11°11.2	344°22.4 11°10.4	359°22.6 11°09.5	14°22.7 11°08.7	29°22.9 11°07.8	44°23.1 11°07.0	59°23.2 11°06.1	74°23.4 11°05.3	+0.2 -0.9
Je 24	269°25.6 10°54.1	284°25.8 10°53.3	299°25.9 10°52.4	314°26.1 10°51.5	329°26.3 10°50.7	344°26.4 10°49.8	359°26.6 10°49.0	14°26.8 10°48.1	29°26.9 10°47.2	44°27.1 10°46.4	59°27.1 10°45.5	74°27.5 10°44.7	+0.2 -0.9
Ve 25	269°29.7 10°35.4	284°29.9 10°32.5	299°30.1 10°31.7	314°30.2 10°30.8	329°30.4 10°29.9	344°30.6 10°29.1	359°30.8 10°28.2	14°30.9 10°27.3	29°31.1 10°26.5	44°31.4 10°25.6	59°31.5 10°24.7	74°31.9 10°23.9	+0.2 -0.9
Sa 26	269°33.9 10°12.5	284°34.1 10°11.7	299°34.3 10°10.8	314°34.5 10°09.9	329°34.7 10°09.0	344°34.8 10°08.2	359°35.0 10°07.3	14°35.2 10°06.4	29°35.3 10°05.6	44°35.5 10°04.7	59°35.7 10°03.8	74°35.9 10°02.9	+0.2 -0.9
Di 27	269°38.3 9°51.5	284°38.4 9°50.6	299°38.6 9°49.8	314°38.8 9°48.9	329°39.0 9°48.0	344°39.2 9°47.1	359°39.4 9°46.2	14°39.5 9°45.3	29°39.7 9°44.5	44°39.9 9°43.6	59°40.1 9°42.7	74°40.3 9°41.8	+0.2 -0.9
Lu 28	269°42.7 9°30.3	284°42.9 9°29.4	299°43.1 9°28.6	314°43.3 9°27.7	329°43.4 9°26.8	344°43.6 9°25.9	359°43.8 9°25.0	14°44.0 9°24.1	29°44.4 9°23.2	44°44.4 9°22.3	59°44.6 9°21.5	74°44.8 9°20.6	+0.2 -0.9
Ma 29	269°47.2 9°09.0	284°47.4 9°08.1	299°47.6 9°07.2	314°47.8 9°06.3	329°48.0 9°05.4	344°48.2 9°04.5	359°48.4 9°03.6	14°48.5 9°02.7	29°48.7 9°01.9	44°48.9 9°01.0	59°49.1 9°00.1	74°49.3 8°59.2	+0.2 -0.9
Me 30	269°51.8 8°47.5	284°52.0 8°46.6	299°52.2 8°45.7	314°52.4 8°44.8	329°52.6 8°43.6	344°52.8 8°43.0	359°53.0 8°42.1	14°53.2 8°41.2	29°53.3 8°40.3	44°53.6 8°39.4	59°53.8 8°38.5	74°54.0 8°37.6	+0.2 -0.9
Je 31	269°56.5 8°25.9	284°56.7 8°25.0	299°56.9 8°24.1	314°57.1 8°23.2	329°57.3 8°22.3	344°57.5 8°21.4	359°57.7 8°20.5	14°57.9 8°19.6	29°58.1 8°18.7	44°58.3 8°17.8	59°58.5 8°16.9	74°58.7 8°15.9	+0.2 -0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Août 2028

	J	12h	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	Δ°/h	SP
O	Ma 1	239°30.1 -25°45.7	253°57.3 -25°43.8	268°24.5 -25°41.9	282°51.8 -25°39.7	297°19.0 -25°37.5	311°46.4 -25°35.1	326°13.8 -25°32.6	340°41.2 -25°29.9	355°08.7 -25°27.1	9°36.3 -25°24.1	24°03.9 -25°21.1	+27.4	15.3
	Me 2	241°04.8 -24°19.2	255°33.3 -24°14.1	270°02.0 -24°08.8	284°30.7 -24°03.4	298°59.4 -23°57.9	313°28.3 -23°52.3	327°57.2 -23°46.6	342°26.2 -23°40.7	356°55.2 -23°34.8	11°24.3 -23°28.7	25°53.5 -23°22.5	+28.9	15.1
	Je 3	243°20.3 -21°36.5	257°50.7 -21°28.7	272°21.2 -21°20.7	286°51.7 -21°12.6	301°22.3 -21°04.4	315°53.0 -20°56.2	330°23.8 -20°47.8	344°54.6 -20°39.3	359°25.5 -20°30.8	13°56.5 -20°22.2	28°27.6 -20°13.4	+30.7	15.0
O	Ve 4	246°22.7 -17°52.6	260°54.9 -17°42.6	275°27.2 -17°32.5	289°59.6 -17°22.4	304°32.1 -17°12.2	319°04.6 -16°51.5	333°37.3 -16°41.1	348°09.9 -16°30.6	2°42.7 -16°20.1	17°15.5 -16°09.4	31°48.4 -16°00.9	+32.6	14.9
	Sa 5	250°09.3 -13°23.2	264°43.2 -13°11.7	279°17.1 -13°00.1	293°51.1 -12°48.5	308°25.1 -12°36.9	322°59.2 -12°25.2	337°33.4 -12°13.5	352°07.6 -12°01.7	6°41.9 -11°49.9	21°16.2 -11°38.0	35°50.6 -11°26.1	+34.1	14.8
	Di 6	254°31.6 -8°23.3	269°06.7 -8°10.8	283°41.8 -7°58.4	298°17.0 -7°45.9	312°52.1 -7°33.4	327°27.4 -7°20.8	342°02.6 -7°08.3	356°37.9 -6°55.7	11°13.2 -6°43.1	25°48.6 -6°30.4	40°23.9 -6°17.8	+35.2	14.8
O	Lu 7	259°17.6 -3°06.1	273°53.4 -2°53.3	288°29.1 -2°40.4	303°04.9 -2°27.5	317°40.7 -2°14.6	332°16.5 -2°01.7	346°52.3 -1°48.8	1°28.1 -1°35.9	16°04.0 -1°23.0	30°39.8 -1°10.1	45°15.6 -0°57.1	+35.8	14.7
	Ma 8	264°13.6 2°16.4	278°49.5 2°29.3	293°25.5 2°42.1	308°01.1 2°55.0	322°37.0 3°07.8	337°12.8 3°20.6	351°48.6 3°33.4	6°24.3 3°46.2	21°00.1 3°59.0	35°35.9 4°11.8	50°11.6 4°24.5	+35.8	14.7
	Me 9	269°05.1 7°33.6	283°40.5 7°46.0	298°15.8 7°58.4	312°51.1 8°10.8	327°26.3 8°23.1	342°01.5 8°35.4	356°36.7 8°47.7	11°10.9 9°00.0	25°47.0 9°12.2	40°22.1 9°24.4	54°57.1 9°36.6	+35.2	14.8
O	Je 10	273°37.2 12°34.6	288°11.5 12°46.2	302°45.7 12°57.7	317°19.9 13°09.1	331°54.0 13°20.5	346°28.0 13°31.9	1°02.0 13°43.2	15°35.9 13°54.5	30°09.8 14°05.7	44°43.6 14°16.8	59°17.4 14°27.9	+34.0	14.8
	Ve 11	277°35.5 17°07.9	292°08.1 17°18.0	306°40.1 17°28.1	321°13.2 17°38.2	335°45.6 17°48.1	350°17.9 17°58.0	4°50.2 18°07.9	19°22.3 18°17.6	33°54.4 18°27.3	48°26.4 18°36.9	62°58.4 18°46.4	+32.3	15.0
	Sa 12	292°08.1 17°18.0	306°40.1 17°28.1	321°13.2 17°38.2	335°45.6 17°48.1	350°17.9 17°58.0	4°50.2 18°07.9	19°22.3 18°17.6	33°54.4 18°27.3	48°26.4 18°36.9	62°58.4 18°46.4	77°30.2 18°55.9	+32.2	15.0
O	Di 13	295°17.7 21°08.1	309°48.2 21°16.2	324°18.6 21°24.2	338°48.9 21°32.1	353°19.1 21°40.0	7°49.2 21°47.7	22°19.2 21°55.3	36°49.1 22°02.9	51°18.9 22°10.3	65°48.7 22°17.6	80°18.3 22°24.9	+30.1	15.1
	Lu 14	297°32.1 24°00.4	312°00.3 24°05.9	326°28.4 24°11.2	340°56.4 24°16.4	355°24.3 24°21.5	9°52.1 24°26.5	24°19.9 24°31.3	38°47.5 24°36.6	53°54.1 24°40.6	67°42.6 24°45.1	82°10.0 24°49.4	+27.8	15.4
	Ma 15	298°51.1 25°37.9	313°17.3 25°40.0	327°47.3 25°41.9	342°09.3 25°43.7	356°35.3 25°45.4	11°01.1 25°46.9	25°26.9 25°48.2	39°52.6 25°49.9	54°18.3 25°50.5	68°43.9 25°51.4	83°09.9 25°52.1	+25.8	15.6
O	Me 16	299°26.3 25°44.3	313°51.1 25°42.5	328°15.8 25°40.5	342°40.5 25°38.3	357°05.2 25°36.0	11°29.9 25°33.6	25°54.5 25°30.9	40°19.1 25°28.1	54°43.7 25°25.1	68°42.6 25°22.0	83°32.7 25°18.7	+24.6	15.9
	Je 17	299°39.3 24°09.1	314°03.7 24°03.2	328°28.2 23°57.0	342°52.6 23°50.7	357°17.1 23°44.3	11°41.5 23°37.7	26°06.0 23°30.9	40°30.5 23°23.9	54°55.0 23°16.8	69°15.9 23°09.5	83°44.1 23°02.1	+24.5	16.1
	Ve 18	299°55.4 20°51.8	314°20.4 20°41.9	328°45.5 20°31.9	343°10.6 20°21.7	357°23.3 20°11.3	12°00.9 20°00.9	26°26.1 19°50.2	40°51.4 19°39.5	55°16.7 19°28.6	69°42.1 19°17.6	84°07.8 19°06.4	+25.2	16.4
O	Sa 19	300°34.0 16°03.4	315°00.2 15°50.2	329°26.4 15°37.0	343°52.6 15°23.6	358°18.9 15°10.1	12°45.3 14°56.5	27°11.7 14°42.8	41°38.2 14°29.0	56°04.7 14°15.1	70°31.2 14°01.1	84°57.8 13°47.0	+26.4	16.6
	Di 20	301°42.6 10°05.1	316°10.0 9°49.7	330°37.4 9°34.3	345°04.8 9°18.7	359°32.1 9°03.1	13°59.8 8°47.5	28°27.3 8°31.8	42°54.9 8°16.0	57°22.5 8°00.2	71°50.2 7°44.3	86°17.9 7°28.4	+27.5	16.7
	Lu 21	303°17.3 3°24.9	317°45.5 3°08.5	332°13.7 2°52.0	346°41.9 2°35.6	1°10.2 2°19.1	15°38.4 2°02.6	30°06.7 1°46.0	44°55.0 1°29.5	59°03.3 1°13.0	73°31.7 0°56.5	88°00.0 0°40.0	+28.3	16.7
O	Ma 22	305°06.4 -2°26.7	319°34.9 -3°42.9	334°03.4 -3°59.2	348°31.8 -4°15.4	3°00.3 -4°31.6	17°28.7 -4°47.7	31°57.2 -5°03.8	46°25.6 -5°19.9	60°54.1 -5°35.9	75°22.5 -5°51.8	89°50.9 -6°07.8	+28.5	16.6
	Me 23	306°55.7 -10°00.0	321°23.9 -10°14.8	335°52.3 -10°29.8	350°20.2 -10°44.6	4°48.3 -10°59.3	19°16.4 -11°14.0	33°44.5 -11°28.6	48°12.6 -11°43.0	62°40.6 -11°57.9	77°08.6 -12°11.8	91°36.5 -12°26.0	+28.1	16.4
	Je 24	308°32.6 -15°48.2	323°00.0 -16°00.9	337°27.5 -16°13.4	351°54.9 -16°25.9	6°22.3 -16°40.4	20°49.7 -17°00.2	35°17.0 -17°02.5	49°44.3 -17°14.5	64°11.5 -17°26.4	78°38.7 -17°38.2	93°05.9 -17°49.8	+27.3	16.2
O	Ve 25	309°49.8 -20°29.4	324°16.4 -20°39.0	338°43.1 -20°48.4	353°09.7 -20°57.8	7°36.3 -21°07.0	22°02.8 -21°16.0	36°29.4 -21°24.9	50°55.9 -21°33.7	65°22.3 -21°42.3	79°48.8 -21°50.8	94°15.2 -21°59.2	+26.5	16.0
	Sa 26	310°49.0 -23°47.2	325°15.1 -23°53.2	339°41.2 -23°59.0	354°07.3 -24°04.8	8°33.4 -24°10.3	22°59.5 -24°15.8	37°25.6 -24°21.0	51°51.7 -24°26.1	66°17.7 -24°31.1	80°43.8 -24°35.9	95°09.9 -24°40.6	+26.1	15.7
	Di 27	311°41.4 -25°32.3	326°07.6 -25°34.5	340°33.8 -25°36.6	355°00.1 -25°38.5	9°26.3 -25°40.3	23°52.6 -25°41.9	38°18.9 -25°43.4	52°45.2 -25°44.4	67°11.6 -25°45.9	81°38.0 -25°46.9	96°04.4 -25°47.8	+26.3	15.5
O	Lu 28	312°45.0 -25°43.4	327°12.0 -25°41.9	341°39.1 -25°40.4	356°06.3 -25°38.6	10°33.5 -25°36.0	25°00.7 -25°34.8	39°28.0 -25°32.6	53°55.4 -25°30.3	68°22.8 -25°27.9	82°50.6 -25°25.4	97°17.8 -25°22.7	+27.3	15.3
	Ma 29	314°18.1 -21°53.5	328°46.7 -21°46.0	343°15.3 -21°38.4	357°44.0 -21°30.7	12°12.8 -21°22.9	26°41.6 -21°15.0	41°10.5 -21°07.1	55°39.5 -20°59.0	70°08.5 -20°50.8	84°37.7 -20°42.5	97°06.9 -20°34.2	+28.9	15.1
	Me 30	316°33.8 -18°09.8	331°04.2 -18°09.8	345°34.7 -18°09.8	358°05.3 -18°09.8	14°35.9 -18°09.8	29°06.6 -18°09.8	43°37.4 -18°09.8	58°08.2 -18°09.8	72°39.2 -18°09.8	87°10.2 -18°09.8	101°41.3 -18°09.8	+30.7	15.0
O	Je 31	319°36.4 -18°18.8	334°08.7 -18°19.9	348°41.0 -18°19.9	3°13.4 -18°19.9	17°45.8 -18°19.9	32°18.4 -18°19.9	46°51.0 -18°19.9	61°23.6 -18°19.9	75°56.4 -18°19.9	90°29.2 -18°19.9	105°02.0 -18°19.9	+32.6	14.9

Ligne 1: GHA, Δ°/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ°/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PL: 5 08h09 — DQ: 13 11h45 — NL: 20 10h43 — PQ: 27 01h35

SOLEIL

Septembre 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Ve 1	270°01.3 8°04.1	285°01.5 8°03.2	300°01.7 8°02.3	315°01.9 8°01.4	330°02.1 8°00.5	345°02.3 7°59.6	0°02.5 7°58.7	15°02.7 7°57.8	30°02.9 7°56.9	45°03.1 7°56.0	60°03.3 7°55.0	75°03.5 7°54.1	+0.2 -0.9
Sa 2	270°06.1 7°42.3	285°06.3 7°41.4	300°06.5 7°40.4	315°06.7 7°39.5	330°06.9 7°38.6	345°07.1 7°37.7	0°07.4 7°36.8	15°07.6 7°35.9	30°07.8 7°34.9	45°08.0 7°34.0	60°08.2 7°33.1	75°08.4 7°32.2	+0.2 -0.9
Di 3	270°11.0 7°20.3	285°11.3 7°19.3	300°11.5 7°18.4	315°11.7 7°17.5	330°11.9 7°16.6	345°12.1 7°15.7	0°12.3 7°14.7	15°12.5 7°13.8	30°12.7 7°12.9	45°12.9 7°12.0	60°13.1 7°11.1	75°13.3 7°10.1	+0.2 -0.9
Lu 4	270°16.0 6°58.1	285°16.2 6°57.2	300°16.4 6°56.3	315°16.6 6°55.4	330°16.9 6°54.4	345°17.1 6°53.5	0°17.3 6°52.6	15°17.5 6°51.7	30°17.7 6°50.7	45°17.9 6°49.8	60°18.1 6°48.9	75°18.3 6°48.0	+0.2 -0.9
Ma 5	270°21.1 6°35.9	285°21.3 6°35.0	300°21.5 6°34.1	315°21.7 6°33.1	330°21.9 6°32.2	345°22.1 6°31.3	0°22.3 6°30.3	15°22.5 6°29.4	30°22.8 6°28.5	45°23.0 6°27.5	60°23.2 6°26.6	75°23.4 6°25.7	+0.2 -0.9
Me 6	270°26.2 6°13.6	285°26.4 6°12.6	300°26.6 6°11.7	315°26.8 6°10.8	330°27.0 6°09.8	345°27.2 6°08.9	0°27.4 6°08.0	15°27.6 6°07.0	30°27.9 6°06.1	45°28.1 6°05.2	60°28.3 6°04.2	75°28.5 6°03.3	+0.2 -0.9
Je 7	270°31.3 5°51.1	285°31.5 5°50.2	300°31.7 5°49.2	315°31.9 5°48.3	330°32.2 5°47.4	345°32.4 5°46.4	0°32.6 5°45.5	15°32.8 5°44.6	30°33.0 5°43.6	45°33.2 5°42.7	60°33.4 5°41.7	75°33.7 5°40.8	+0.2 -0.9
Ve 8	270°36.5 5°28.6	285°36.7 5°27.6	300°36.9 5°26.7	315°37.1 5°25.7	330°37.3 5°24.8	345°37.6 5°23.9	0°37.8 5°22.9	15°38.0 5°22.0	30°38.2 5°21.0	45°38.4 5°20.1	60°38.6 5°19.1	75°38.9 5°18.2	+0.2 -0.9
Sa 9	270°41.7 5°05.9	285°41.9 5°05.0	300°42.1 5°04.0	315°42.3 5°03.1	330°42.6 5°02.1	345°42.8 5°01.2	0°43.0 5°00.3	15°43.2 4°59.3	30°43.4 4°58.4	45°43.7 4°57.4	60°43.9 4°56.5	75°44.1 4°55.5	+0.2 -0.9
Di 10	270°46.9 4°43.2	285°47.2 4°42.3	300°47.4 4°41.3	315°47.6 4°40.4	330°47.8 4°39.4	345°48.0 4°38.5	0°48.3 4°37.5	15°48.5 4°36.6	30°48.7 4°35.6	45°48.9 4°34.7	60°49.1 4°33.7	75°49.4 4°32.8	+0.2 -0.9
Lu 11	270°51.2 4°20.4	285°51.4 4°19.4	300°51.7 4°18.5	315°51.9 4°17.5	330°52.1 4°16.6	345°52.3 4°15.6	0°53.6 4°14.7	15°53.8 4°13.7	30°54.0 4°12.8	45°54.2 4°11.8	60°54.4 4°10.9	75°54.7 4°09.9	+0.2 -1.0
Ma 12	270°57.5 3°57.5	285°57.8 3°56.5	300°58.0 3°55.6	315°58.2 3°54.6	330°58.4 3°53.7	345°58.6 3°52.7	0°58.9 3°51.8	15°59.1 3°50.8	30°59.3 3°49.9	45°59.5 3°48.9	60°59.7 3°47.9	75°59.9 3°47.0	+0.2 -1.0
Me 13	271°03.8 3°34.5	286°03.1 3°33.6	301°03.3 3°32.6	316°03.5 3°31.7	331°03.7 3°30.7	346°04.0 3°29.7	1°04.2 3°28.8	16°04.4 3°27.8	31°04.6 3°26.9	46°04.8 3°25.9	61°05.1 3°24.9	76°05.3 3°24.0	+0.2 -1.0
Je 14	271°08.2 3°11.5	286°08.4 3°10.5	301°08.6 3°09.6	316°08.8 3°08.6	331°09.1 3°07.7	346°09.3 3°06.7	1°09.5 3°05.7	16°09.7 3°04.8	31°10.0 3°03.8	46°10.4 3°02.9	61°10.6 3°01.9	76°10.6 3°00.9	+0.2 -1.0
Ve 15	271°13.5 2°48.4	286°13.7 2°47.5	301°14.0 2°46.5	316°14.2 2°45.5	331°14.4 2°44.6	346°14.6 2°43.6	1°14.9 2°42.6	16°15.1 2°41.7	31°15.3 2°40.7	46°15.5 2°39.7	61°15.7 2°38.8	76°16.0 2°37.8	+0.2 -1.0
Sa 16	271°18.9 2°25.3	286°19.1 2°24.3	301°19.3 2°23.3	316°19.5 2°22.4	331°19.8 2°21.4	346°20.0 2°20.4	1°20.2 2°19.5	16°20.4 2°18.5	31°20.6 2°17.5	46°20.9 2°16.6	61°21.1 2°15.6	76°21.3 2°14.6	+0.2 -1.0
Di 17	271°24.2 2°02.1	286°24.4 2°01.1	301°24.6 2°00.1	316°24.9 1°59.2	331°25.1 1°58.2	346°25.3 1°57.2	1°25.5 1°56.3	16°25.8 1°55.3	31°26.0 1°54.3	46°26.2 1°53.4	61°26.4 1°52.4	76°26.6 1°51.4	+0.2 -1.0
Lu 18	271°29.5 1°38.8	286°29.8 1°37.9	301°30.0 1°36.9	316°30.2 1°35.9	331°30.4 1°35.0	346°30.6 1°34.0	1°30.9 1°33.0	16°31.1 1°32.1	31°31.3 1°31.1	46°31.5 1°30.1	61°31.8 1°29.1	76°32.0 1°28.2	+0.2 -1.0
Ma 19	271°34.9 1°15.6	286°35.1 1°14.6	301°35.3 1°13.6	316°35.5 1°12.7	331°35.7 1°11.7	346°36.0 1°10.7	1°36.2 1°09.7	16°36.4 1°08.8	31°36.6 1°07.8	46°36.9 1°06.8	61°37.1 1°05.9	76°37.3 1°04.9	+0.2 -1.0
Me 20	271°40.2 0°52.3	286°40.4 0°51.3	301°40.6 0°50.3	316°40.8 0°49.4	331°41.1 0°48.4	346°41.3 0°47.4	1°41.5 0°46.4	16°41.7 0°45.5	31°41.9 0°44.5	46°42.2 0°43.5	61°42.4 0°42.5	76°42.6 0°41.6	+0.2 -1.0
Je 21	271°45.5 0°28.9	286°45.7 0°28.0	301°45.9 0°27.0	316°46.1 0°26.0	331°46.4 0°25.0	346°46.6 0°24.1	1°46.8 0°23.1	16°47.0 0°22.1	31°47.2 0°21.2	46°47.5 0°20.2	61°47.7 0°19.2	76°47.9 0°18.2	+0.2 -1.0
Ve 22	271°50.7 0°05.6	286°51.0 0°04.6	301°51.2 0°03.6	316°51.4 0°02.7	331°51.6 0°01.7	346°51.8 0°00.7	1°52.1 -0°00.2	16°52.3 -0°01.2	31°52.5 -0°02.2	46°52.7 -0°03.2	61°52.9 -0°04.1	76°53.2 -0°05.1	+0.2 -1.0
Sa 23	271°56.0 -0°17.8	286°56.2 -0°18.7	301°56.4 -0°19.7	316°56.6 -0°20.7	331°56.9 -0°21.7	346°57.1 -0°22.6	1°57.3 -0°23.6	16°57.5 -0°24.6	31°57.7 -0°25.6	46°58.0 -0°26.5	61°58.2 -0°27.5	76°58.4 -0°28.5	+0.2 -1.0
Di 24	272°01.2 -0°41.1	287°01.4 -0°42.1	302°01.6 -0°43.1	317°01.9 -0°44.1	332°02.1 -0°45.0	347°02.3 -0°46.0	2°02.5 -0°47.0	17°02.7 -0°47.9	32°02.9 -0°48.9	47°03.2 -0°49.9	62°03.4 -0°50.9	77°03.6 -0°51.8	+0.2 -1.0
Lu 25	272°06.4 -1°04.5	287°06.6 -1°05.5	302°06.8 -1°06.4	317°07.0 -1°07.4	332°07.3 -1°08.4	347°07.5 -1°09.4	2°07.7 -1°10.3	17°07.9 -1°11.3	32°08.1 -1°12.3	47°08.3 -1°13.3	62°08.5 -1°14.2	77°08.8 -1°15.2	+0.2 -1.0
Ma 26	272°11.5 -1°27.9	287°11.8 -1°28.8	302°12.0 -1°29.8	317°12.2 -1°30.8	332°12.4 -1°31.8	347°12.6 -1°32.7	2°12.8 -1°33.7	17°13.0 -1°34.7	32°13.2 -1°35.6	47°13.5 -1°36.6	62°13.7 -1°37.6	77°13.9 -1°38.6	+0.2 -1.0
Me 27	272°16.6 -1°51.2	287°16.9 -1°52.2	302°17.1 -1°53.2	317°17.3 -1°54.1	332°17.5 -1°55.1	347°17.7 -1°56.1	2°17.9 -1°57.0	17°18.1 -1°58.0	32°18.3 -1°59.0	47°18.5 -2°00.0	62°18.8 -2°00.9	77°19.0 -2°01.9	+0.2 -1.0
Je 28	272°21.7 -2°14.5	287°21.9 -2°15.5	302°22.1 -2°16.5	317°22.3 -2°17.5	332°22.5 -2°18.5	347°22.7 -2°19.4	2°22.9 -2°20.4	17°23.2 -2°21.4	32°23.4 -2°22.3	47°23.6 -2°23.4	62°23.8 -2°24.3	77°24.0 -2°25.2	+0.2 -1.0
Ve 29	272°26.7 -2°37.9	287°26.9 -2°38.8	302°27.1 -2°39.8	317°27.3 -2°40.8	332°27.5 -2°41.7	347°27.7 -2°42.7	2°27.9 -2°43.7	17°28.1 -2°44.7	32°28.3 -2°45.6	47°28.5 -2°46.6	62°28.7 -2°47.6	77°29.0 -2°48.5	+0.2 -1.0
Sa 30	272°31.6 -3°01.1	287°31.8 -3°02.1	302°32.0 -3°03.1	317°32.2 -3°04.1	332°32.4 -3°05.0	347°32.6 -3°06.0	2°32.8 -3°07.0	17°33.0 -3°07.9	32°33.2 -3°08.9	47°33.4 -3°09.9	62°33.7 -3°10.8	77°33.9 -3°11.8	+0.2 -1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Septembre 2028

	J	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	Δ'/h	SP
O	Ve 1	236°00.7 -15°03.6	250°34.2 -14°41.7	265°07.7 -14°10.7	279°41.4 -14°19.7	294°15.0 -14°08.5	308°48.8 -13°57.4	323°22.5 -13°46.1	337°56.4 -13°34.9	352°30.3 -13°23.6	7°04.2 -13°12.2	21°38.2 -13°12.2	+33.8 -11.5	14.8 15.3
	Sa 2	240°14.3 -10°16.3	254°49.1 -10°04.2	269°23.2 -9°52.2	283°58.7 -9°40.0	298°33.6 -9°27.9	313°08.5 -9°15.7	327°43.5 -9°03.5	342°18.5 -8°51.3	356°53.6 -8°39.0	11°28.6 -8°26.7	26°03.8 -8°14.4	+34.9 -12.2	14.7 15.1
	Di 3	244°54.1 -5°06.5	259°29.6 -4°53.8	274°05.2 -4°41.1	288°40.8 -4°28.4	303°16.4 -4°15.7	317°52.1 -4°02.9	332°27.7 -3°50.2	347°03.4 -3°37.4	361°39.1 -3°24.6	1°39.1 -3°11.8	16°14.8 -3°05.0	+35.6 -12.7	14.7 15.9
	Lu 4	249°47.3 0°13.7	264°23.2 0°26.5	278°59.0 0°39.4	293°34.8 0°52.2	308°10.6 1°05.1	322°46.4 1°17.9	337°22.2 1°30.8	351°58.0 1°43.6	6°33.8 1°56.4	21°09.6 2°09.3	35°45.4 2°22.1	+35.8 -12.8	14.7 15.9
	Ma 5	254°40.7 5°32.8	269°16.2 5°45.4	283°51.8 5°57.9	298°27.3 6°10.5	313°02.7 6°23.0	327°38.2 6°35.5	342°13.6 6°48.0	356°49.0 7°00.4	11°24.4 7°12.9	25°59.7 7°25.3	40°35.0 7°37.6	+35.4 -12.5	14.7 15.4
	Me 6	259°20.7 10°39.6	273°55.4 10°51.5	288°30.1 11°03.3	303°04.8 11°15.1	317°39.4 11°26.8	332°13.9 11°38.5	346°48.4 11°50.2	361°22.9 12°01.8	15°57.3 12°13.4	30°31.7 12°24.9	45°06.0 12°36.3	+34.5 -11.7	14.8 15.1
	Je 7	263°34.4 15°22.5	278°07.8 15°33.1	292°41.2 15°43.7	307°14.5 15°54.2	321°47.7 16°04.7	336°20.9 16°15.1	350°54.0 16°25.4	5°27.0 16°35.7	20°00.0 16°45.9	34°32.9 16°56.0	49°05.8 17°06.1	+33.1 -10.4	14.8 15.4
	Ve 8	267°10.2 19°28.6	281°41.9 19°37.5	296°13.5 19°46.3	310°45.1 19°55.0	325°16.6 20°03.6	339°48.0 20°12.2	354°19.3 20°20.6	8°50.6 20°29.9	23°21.7 20°37.3	37°52.8 20°45.5	52°23.9 20°53.6	+31.4 -8.5	15.0 15.4
	Sa 9	269°59.8 22°43.8	284°29.6 22°50.4	298°59.2 22°56.8	313°28.9 23°03.1	327°58.4 23°09.4	342°27.8 23°15.5	356°57.2 23°21.5	11°26.5 23°27.4	25°55.7 23°33.1	40°24.8 23°38.8	54°53.9 23°44.4	+29.4 -6.1	15.1 15.4
	Di 10	272°00.8 24°53.3	286°28.7 24°56.9	300°56.5 25°00.3	315°24.2 25°03.7	329°51.9 25°06.9	344°19.5 25°09.9	358°47.0 25°12.9	13°14.5 25°15.7	27°41.9 25°18.3	42°09.3 25°20.9	56°36.6 25°23.3	+27.6 -3.0	15.3 15.6
	Lu 11	286°28.7 24°56.9	300°56.5 25°00.3	315°24.2 25°03.7	329°51.9 25°06.9	344°19.5 25°09.9	358°47.0 25°12.9	13°14.5 25°15.7	27°41.9 25°18.3	42°09.3 25°20.9	56°36.6 25°23.3	71°03.8 25°25.5	+27.5 -2.9	15.3 15.6
P	Ma 12	287°45.4 25°42.5	302°11.8 25°42.5	316°38.1 25°42.3	331°04.4 25°42.0	345°30.6 25°41.5	359°56.9 25°40.9	14°23.0 25°40.1	28°49.2 25°39.2	43°15.3 25°38.5	57°41.3 25°36.8	72°07.3 25°35.5	+26.2 -0.7	15.5 15.8
	Me 13	288°34.6 24°56.3	303°00.3 24°52.4	317°26.0 24°48.4	331°51.6 24°44.3	346°17.3 24°39.9	360°42.9 24°35.5	15°08.5 24°30.8	29°34.1 24°26.1	43°59.8 24°21.6	58°25.4 24°16.0	72°51.0 24°10.8	+25.6 -4.6	15.8 15.9
	Je 14	289°16.0 22°33.6	303°41.7 22°35.9	318°07.5 22°18.1	332°33.3 22°10.1	346°59.1 22°01.9	361°24.9 21°53.7	15°50.8 21°45.2	30°26.7 21°36.7	44°42.6 21°27.9	59°08.5 21°19.1	73°34.4 21°10.1	+25.8 -8.4	16.1 15.9
	Ve 15	290°06.9 18°38.4	304°33.4 18°27.2	318°59.8 18°15.9	333°26.3 18°04.4	347°52.8 17°52.9	362°19.3 17°41.2	16°45.9 17°29.4	31°12.5 17°17.4	45°39.2 17°05.4	60°05.8 16°53.2	74°32.6 16°40.9	+26.6 -11.7	16.3 15.9
	Sa 16	291°17.2 13°23.4	305°44.5 13°09.4	320°11.7 12°55.3	334°39.1 12°41.1	349°06.9 12°26.8	363°33.7 12°12.5	18°01.1 11°58.0	32°28.6 11°43.5	46°56.6 11°28.9	61°23.5 11°14.2	75°51.0 10°59.4	+27.4 -14.4	16.5 16.0
	Di 17	292°46.5 7°09.2	307°14.4 6°53.3	321°42.3 6°37.4	336°10.2 6°21.5	350°38.1 6°05.5	5°06.0 5°49.5	19°33.9 5°33.4	33°41.9 5°17.3	48°29.9 5°01.1	62°57.9 4°44.9	77°25.9 4°28.7	+27.9 -16.1	16.7 16.1
	Lu 18	294°26.4 0°22.3	308°54.4 0°05.7	323°22.4 -0°10.8	337°50.5 -0°27.4	352°18.5 -0°43.9	6°46.5 -1°00.4	21°14.5 -1°17.0	35°42.5 -1°33.5	50°10.5 -1°50.0	64°38.5 -2°06.5	79°06.5 -2°23.0	+28.0 -16.5	16.7 16.3
	Ma 19	296°04.1 -6°27.4	310°31.7 -6°43.4	324°59.4 -6°59.3	339°27.0 -7°15.2	353°54.6 -7°31.1	8°22.2 -7°46.9	22°49.7 -8°02.6	37°17.2 -8°18.3	51°44.7 -8°33.9	66°12.2 -8°49.5	80°39.6 -9°05.0	+27.6 -15.8	16.7 16.2
	Me 20	297°26.9 -12°48.8	311°53.7 -13°03.0	326°20.6 -13°17.2	340°47.3 -13°31.3	355°14.1 -13°45.2	9°40.8 -13°59.1	24°07.5 -14°12.9	38°34.1 -14°26.5	53°00.7 -14°40.1	67°27.2 -14°53.5	81°53.7 -15°06.9	+26.7 -13.8	16.6 16.7
	Je 21	298°26.5 -18°13.3	312°52.4 -18°24.8	327°18.2 -18°36.1	341°44.0 -18°47.3	356°09.8 -18°58.3	10°35.5 -19°09.2	25°01.2 -19°20.0	39°26.9 -19°30.6	53°52.5 -19°41.1	68°18.1 -19°51.5	82°43.6 -20°01.7	+25.7 -10.8	16.3 15.9
Q	Ve 22	299°03.5 -22°17.7	313°28.6 -22°25.6	327°53.7 -22°33.3	342°18.8 -22°40.8	356°43.9 -22°48.2	11°09.0 -22°55.5	25°34.0 -23°02.6	39°59.0 -23°09.5	54°24.1 -23°16.3	68°49.1 -23°22.9	83°14.1 -23°29.4	+25.1 -7.2	16.1 15.9
	Sa 23	299°29.0 -24°47.1	313°54.1 -24°51.0	328°19.2 -24°54.7	342°44.2 -24°58.3	357°09.4 -25°01.7	11°34.5 -25°05.0	25°59.6 -25°08.1	40°24.8 -25°11.0	54°50.0 -25°13.8	69°15.2 -25°16.4	83°40.4 -25°18.8	+25.1 -3.2	15.8 15.8
	Di 24	300°03.2 -25°36.7	314°29.1 -25°36.7	328°55.8 -25°36.5	343°20.9 -25°36.2	357°47.0 -25°35.7	12°13.0 -25°35.0	26°39.2 -25°34.2	41°05.3 -25°33.3	55°31.6 -25°32.2	69°57.9 -25°31.0	84°24.2 -25°29.6	+26.1 -0.7	15.6 15.7
	Lu 25	301°07.6 -24°51.9	315°35.1 -24°48.3	330°02.6 -24°44.5	344°30.2 -24°40.7	358°57.9 -24°36.7	13°25.7 -24°32.5	27°53.5 -24°28.3	42°21.5 -24°23.9	56°49.5 -24°19.4	71°17.6 -24°14.8	85°45.7 -24°10.0	+27.8 -4.2	15.3 15.6
	Ma 26	302°58.1 -22°44.7	317°27.6 -22°38.2	331°57.2 -22°35.5	346°26.9 -22°24.7	360°56.6 -22°10.8	15°26.4 -22°03.7	29°56.4 -21°56.7	44°26.4 -21°49.2	58°56.4 -21°41.8	73°26.6 -21°34.3	87°56.9 -21°28.4	+29.9 -7.0	15.1 15.4
	Me 27	305°40.6 -19°31.0	320°12.2 -19°22.1	334°43.8 -19°13.1	349°15.6 -19°04.0	363°47.4 -18°55.6	18°19.2 -18°45.6	32°51.2 -18°36.3	47°23.2 -18°27.0	61°55.3 -18°17.5	76°27.5 -18°08.0	90°59.8 -17°58.4	+31.9 -4.9	15.0 15.4
	Je 28	309°12.1 -15°26.4	323°45.4 -15°15.8	338°18.9 -15°05.1	352°52.3 -14°54.4	367°25.9 -14°43.2	21°59.5 -14°32.7	36°33.2 -14°21.8	51°06.9 -14°10.9	65°40.7 -13°59.8	80°14.5 -13°48.8	94°44.8 -13°37.7	+33.6 -10.9	14.8 15.4
	Ve 29	313°23.2 -10°45.5	327°57.9 -10°33.7	342°32.6 -10°21.9	357°07.4 -10°10.0	371°42.2 -9°58.1	26°17.1 -9°46.1	40°52.0 -9°34.1	55°27.0 -9°22.1	70°01.9 -9°10.1	84°37.0 -8°58.0	99°12.0 -8°45.9	+34.9 -12.0	14.8 15.4
	Sa 30	318°01.6 -5°41.0	332°37.1 -5°28.5	347°12.6 -5°16.0	361°48.2 -5°03.5	376°23.8 -4°50.9	30°59.4 -4°38.3	45°35.0 -4°25.7	60°10.6 -4°13.1	74°46.3 -4°00.5	89°21.9 -3°47.9	103°57.6 -3°35.2	+35.6 -12.6	14.7 15.4

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 3 23h47 — DQ: 12 00h45 — NL: 18 18h23 — PQ: 25 13h10

SOLEIL

Octobre 2028

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Di 1	257°36.3 -3°23.4	272°36.5 -3°24.4	287°36.7 -3°25.4	302°36.9 -3°26.3	317°37.1 -3°27.3	332°37.3 -3°28.3	347°37.5 -3°29.2	2°37.7 -3°30.2	17°37.9 -3°31.2	32°38.1 -3°32.1	47°38.3 -3°33.1	62°38.5 -3°34.1	+0.2 -1.0
Lu 2	257°41.1 -3°46.7	272°41.3 -3°47.6	287°41.5 -3°48.6	302°41.7 -3°49.6	317°41.9 -3°50.5	332°42.1 -3°51.5	347°42.3 -3°52.4	2°42.5 -3°53.4	17°42.7 -3°54.4	32°42.9 -3°55.3	47°43.1 -3°56.3	62°43.2 -3°57.3	+0.2 -1.0
Ma 3	257°45.8 -4°09.8	272°46.0 -4°10.8	287°46.2 -4°11.8	302°46.4 -4°12.7	317°46.6 -4°13.7	332°46.8 -4°14.6	347°47.0 -4°15.6	2°47.2 -4°16.6	17°47.3 -4°17.5	32°47.5 -4°18.5	47°47.7 -4°19.5	62°47.9 -4°20.4	+0.2 -1.0
Me 4	257°50.4 -4°32.9	272°50.6 -4°33.9	287°50.8 -4°34.9	302°51.0 -4°35.8	317°51.2 -4°36.8	332°51.4 -4°37.8	347°51.6 -4°38.7	2°51.8 -4°39.7	17°51.9 -4°40.6	32°52.1 -4°41.6	47°52.3 -4°42.6	62°52.5 -4°43.5	+0.2 -1.0
Je 5	257°55.0 -4°56.0	272°55.2 -4°57.0	287°55.3 -4°57.9	302°55.5 -4°58.9	317°55.7 -4°59.9	332°55.9 -5°00.8	347°56.1 -5°01.8	2°56.3 -5°02.7	17°56.5 -5°03.7	32°56.6 -5°04.7	47°56.8 -5°05.6	62°57.0 -5°06.6	+0.2 -1.0
Ve 6	257°59.4 -5°19.0	272°59.6 -5°20.0	287°59.8 -5°20.9	303°00.0 -5°21.9	318°00.1 -5°22.9	333°00.3 -5°23.8	348°00.5 -5°24.8	3°00.7 -5°25.7	18°00.9 -5°26.7	33°01.1 -5°27.6	48°01.2 -5°28.6	63°01.4 -5°29.6	+0.2 -1.0
Sa 7	258°03.8 -5°42.0	273°03.9 -5°42.9	288°04.1 -5°43.9	303°04.3 -5°44.8	318°04.5 -5°45.8	333°04.7 -5°46.7	348°04.8 -5°47.7	3°05.0 -5°48.7	18°05.2 -5°49.6	33°05.4 -5°50.6	48°05.5 -5°51.5	63°05.7 -5°52.5	+0.2 -1.0
Di 8	258°08.0 -6°04.8	273°08.2 -6°05.8	288°08.3 -6°06.7	303°08.5 -6°07.7	318°08.7 -6°08.7	333°08.9 -6°09.6	348°09.0 -6°10.6	3°09.2 -6°11.5	18°09.4 -6°12.5	33°09.6 -6°13.4	48°09.7 -6°14.4	63°09.9 -6°15.3	+0.2 -1.0
Lu 9	258°12.6 -6°27.6	273°12.8 -6°28.6	288°12.5 -6°29.5	303°12.6 -6°30.5	318°12.8 -6°31.4	333°13.0 -6°32.4	348°13.1 -6°33.3	3°13.3 -6°34.3	18°13.5 -6°35.2	33°13.6 -6°36.2	48°13.8 -6°37.1	63°14.0 -6°38.1	+0.2 -0.9
Ma 10	258°16.9 -6°50.4	273°16.3 -6°51.4	288°16.5 -6°52.2	303°16.6 -6°53.2	318°16.8 -6°54.1	333°17.0 -6°55.1	348°17.1 -6°56.0	3°17.3 -6°57.0	18°17.4 -6°57.9	33°17.6 -6°58.8	48°17.8 -6°59.8	63°17.9 -7°00.7	+0.2 -0.9
Me 11	258°20.9 -7°13.0	273°20.0 -7°13.9	288°20.3 -7°14.9	303°20.5 -7°15.8	318°20.7 -7°16.7	333°20.8 -7°17.7	348°21.0 -7°18.6	3°21.1 -7°19.6	18°21.3 -7°20.5	33°21.4 -7°21.4	48°21.6 -7°22.4	63°21.8 -7°23.3	+0.2 -0.9
Je 12	258°23.8 -7°35.5	273°23.9 -7°36.4	288°24.1 -7°37.4	303°24.2 -7°38.3	318°24.4 -7°39.2	333°24.5 -7°40.2	348°24.7 -7°41.1	3°24.8 -7°42.1	18°25.0 -7°43.0	33°25.1 -7°43.9	48°25.3 -7°44.9	63°25.5 -7°45.8	+0.2 -0.9
Ve 13	258°27.4 -7°57.9	273°27.5 -7°58.9	288°27.7 -7°59.8	303°27.8 -8°00.7	318°28.0 -8°01.7	333°28.1 -8°02.6	348°28.3 -8°03.5	3°28.4 -8°04.4	18°28.6 -8°05.4	33°28.7 -8°06.3	48°28.9 -8°07.2	63°29.0 -8°08.2	+0.1 -0.9
Sa 14	258°30.9 -8°20.2	273°31.0 -8°21.2	288°31.2 -8°22.1	303°31.3 -8°23.0	318°31.5 -8°23.9	333°31.6 -8°24.9	348°31.7 -8°25.8	3°31.9 -8°26.7	18°32.0 -8°27.7	33°32.2 -8°28.6	48°32.3 -8°29.5	63°32.4 -8°30.4	+0.1 -0.9
Di 15	258°34.2 -8°42.4	273°34.4 -8°43.4	288°34.5 -8°44.3	303°34.6 -8°45.2	318°34.8 -8°46.1	333°34.9 -8°47.0	348°35.0 -8°48.0	3°35.2 -8°48.9	18°35.3 -8°49.8	33°35.4 -8°50.7	48°35.6 -8°51.6	63°35.7 -8°52.6	+0.1 -0.9
Lu 16	258°37.4 -9°04.5	273°37.6 -9°05.4	288°37.7 -9°06.3	303°37.8 -9°07.3	318°37.9 -9°08.2	333°38.1 -9°09.1	348°38.2 -9°10.0	3°38.3 -9°10.9	18°38.5 -9°11.8	33°38.6 -9°12.8	48°38.7 -9°13.7	63°38.8 -9°14.6	+0.1 -0.9
Ma 17	258°40.5 -9°26.5	273°40.6 -9°27.4	288°40.7 -9°28.3	303°40.8 -9°29.2	318°41.0 -9°30.1	333°41.1 -9°31.0	348°41.2 -9°31.9	3°41.3 -9°32.8	18°41.5 -9°33.7	33°41.8 -9°34.7	48°41.7 -9°35.6	63°41.8 -9°36.5	+0.1 -0.9
Me 18	258°43.4 -9°48.3	273°43.5 -9°49.2	288°43.6 -9°50.1	303°43.7 -9°51.0	318°43.8 -9°51.9	333°44.0 -9°52.8	348°44.1 -9°53.7	3°44.2 -9°54.6	18°44.3 -9°55.5	33°44.4 -9°56.4	48°44.5 -9°57.3	63°44.7 -9°58.2	+0.1 -0.9
Je 19	258°46.1 -10°09.9	273°46.2 -10°10.8	288°46.3 -10°11.7	303°46.4 -10°12.6	318°46.6 -10°13.5	333°46.7 -10°14.4	348°46.8 -10°15.3	3°46.9 -10°16.2	18°47.0 -10°17.1	33°47.1 -10°18.0	48°47.2 -10°18.9	63°47.3 -10°19.8	+0.1 -0.9
Ve 20	258°48.7 -10°31.5	273°48.8 -10°32.3	288°48.9 -10°33.2	303°49.0 -10°34.1	318°49.1 -10°35.0	333°49.2 -10°35.9	348°49.3 -10°36.8	3°49.4 -10°37.7	18°49.5 -10°38.6	33°49.6 -10°39.5	48°49.7 -10°40.4	63°49.8 -10°41.3	+0.1 -0.9
Sa 21	258°51.1 -10°52.8	273°51.2 -10°53.7	288°51.3 -10°54.6	303°51.4 -10°55.5	318°51.5 -10°56.4	333°51.6 -10°57.2	348°51.7 -10°58.1	3°51.8 -10°59.0	18°51.9 -10°59.9	33°52.0 -11°00.8	48°52.1 -11°01.7	63°52.2 -11°02.5	+0.1 -0.9
Di 22	258°53.4 -11°14.0	273°53.5 -11°14.9	288°53.6 -11°15.8	303°53.7 -11°16.6	318°53.7 -11°17.5	333°53.8 -11°18.4	348°53.9 -11°19.3	3°54.0 -11°20.2	18°54.1 -11°21.0	33°54.2 -11°21.9	48°54.3 -11°22.8	63°54.4 -11°23.7	+0.1 -0.9
Lu 23	258°55.5 -11°35.0	273°55.6 -11°35.9	288°55.6 -11°36.8	303°55.7 -11°37.7	318°55.8 -11°38.5	333°55.9 -11°39.4	348°56.0 -11°40.3	3°56.1 -11°41.1	18°56.1 -11°42.0	33°56.2 -11°42.9	48°56.3 -11°43.7	63°56.4 -11°44.6	+0.1 -0.9
Ma 24	258°57.9 -11°55.9	273°57.5 -11°56.8	288°57.6 -11°57.6	303°57.7 -11°58.5	318°57.7 -11°59.3	333°57.8 -12°00.2	348°57.9 -12°01.1	3°57.9 -12°01.9	18°58.0 -12°02.8	33°58.1 -12°03.7	48°58.2 -12°04.5	63°58.2 -12°05.4	+0.1 -0.9
Me 25	258°59.2 -12°16.6	273°59.2 -12°17.4	288°59.3 -12°18.3	303°59.4 -12°19.1	318°59.4 -12°20.0	333°59.5 -12°20.8	348°59.6 -12°21.7	3°59.6 -12°22.5	18°59.7 -12°23.4	33°59.8 -12°24.3	48°59.8 -12°25.1	63°59.9 -12°26.0	+0.1 -0.9
Je 26	259°00.7 -12°37.0	274°00.8 -12°37.9	289°00.9 -12°38.7	304°00.9 -12°39.6	319°01.0 -12°40.4	334°01.0 -12°41.3	349°01.1 -12°42.1	4°01.2 -12°43.0	19°01.2 -12°43.8	34°01.3 -12°44.7	49°01.3 -12°45.5	64°01.4 -12°46.3	+0.1 -0.8
Ve 27	259°02.1 -12°57.3	274°02.2 -12°58.2	289°02.2 -12°59.0	304°02.3 -12°59.8	319°02.3 -13°00.7	334°02.4 -13°01.5	349°02.4 -13°02.3	4°02.5 -13°03.2	19°02.5 -13°04.0	34°02.6 -13°04.9	49°02.7 -13°05.7	64°02.7 -13°06.5	+0.1 -0.8
Sa 28	259°03.3 -13°17.4	274°03.4 -13°18.2	289°03.4 -13°19.0	304°03.5 -13°19.8	319°03.5 -13°20.7	334°03.6 -13°21.5	349°03.6 -13°22.4	4°03.7 -13°23.2	19°03.7 -13°24.0	34°03.7 -13°24.9	49°03.8 -13°25.7	64°03.8 -13°26.5	+0.0 -0.8
Di 29	259°04.4 -13°37.7	274°04.4 -13°38.1	289°04.4 -13°38.9	304°04.5 -13°39.7	319°04.5 -13°40.5	334°04.6 -13°41.4	349°04.6 -13°42.2	4°04.6 -13°43.0	19°04.7 -13°43.8	34°04.7 -13°44.6	49°04.7 -13°45.4	64°04.8 -13°46.3	+0.0 -0.8
Lu 30	259°05.5 -13°56.9	274°05.2 -13°57.7	289°05.3 -13°58.5	304°05.3 -13°59.3	319°05.3 -14°00.2	334°05.3 -14°01.0	349°05.4 -14°01.8	4°05.4 -14°02.6	19°05.4 -14°03.4	34°05.5 -14°04.2	49°05.5 -14°05.0	64°05.5 -14°05.8	+0.0 -0.8
Ma 31	259°05.8 -14°16.3	274°05.9 -14°17.1	289°05.9 -14°17.9	304°05.9 -14°18.7	319°05.9 -14°19.6	334°05.9 -14°20.4	349°06.0 -14°21.2	4°06.0 -14°22.0	19°06.0 -14°22.8	34°06.0 -14°23.6	49°06.0 -14°24.4	64°06.1 -14°25.2	+0.0 -0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 23°
Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.
Semi-diamètre: 16.0'

LUNE

Octobre 2028

	J	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	Δ'/h	SP
O	Di 1	235°19.1 -1°41.0	249°54.9 -1°28.2	264°30.7 -1°15.5	279°06.4 -1°02.7	293°42.2 -0°50.0	308°18.0 -0°37.2	322°53.8 -0°24.5	337°29.6 -0°11.7	352°05.3 0°01.0	6°41.1 0°13.8	21°16.9 0°26.6	+35.8 +12.8	14.7 53.9
	Lu 2	240°12.6 3°37.4	254°48.2 3°50.1	269°23.8 4°02.7	283°59.4 4°15.3	298°34.9 4°27.9	313°10.5 4°40.5	327°46.0 4°53.1	342°21.5 5°05.7	356°57.0 5°18.2	11°32.4 5°30.8	26°07.8 5°43.3	+35.5 +12.6	14.7 54.0
	Ma 3	244°55.8 8°48.3	259°30.7 9°00.4	274°05.6 9°12.5	288°40.5 9°24.5	303°15.3 9°36.5	317°50.1 9°48.5	332°24.8 10°00.5	346°59.5 10°12.4	1°34.2 10°24.3	16°08.8 10°36.1	30°43.4 10°47.9	+34.8 +12.0	14.8 54.1
O	Me 4	249°16.1 13°39.8	263°49.9 13°50.9	278°23.6 14°01.9	292°57.3 14°12.9	307°30.9 14°23.8	322°04.4 14°34.7	336°37.9 14°45.5	351°11.3 14°56.2	5°44.7 15°06.9	20°18.0 15°17.6	34°51.3 15°28.1	+33.5 +10.8	14.8 54.3
	Je 5	253°02.4 17°59.0	267°34.7 18°08.5	282°06.8 18°17.9	296°38.9 18°27.3	311°10.9 18°36.6	325°42.9 18°45.7	340°14.7 18°54.9	354°46.5 19°03.9	9°18.3 19°12.8	23°49.9 19°21.7	38°21.5 19°30.5	+31.9 +9.2	14.9 54.6
	Ve 6	256°07.0 21°31.8	270°37.4 21°39.1	285°07.8 21°46.3	299°38.1 21°53.5	314°08.3 22°00.5	328°38.5 22°07.4	343°08.6 22°14.3	357°38.6 22°21.0	12°08.6 22°27.6	26°38.5 22°34.2	41°08.3 22°40.6	+30.1 +6.9	15.0 55.0
O	Sa 7	258°27.3 23°33.2	272°56.1 23°35.2	287°24.7 23°21.4	301°53.4 23°15.3	316°21.9 23°09.1	330°50.4 23°02.7	345°18.8 23°02.7	359°47.2 22°56.1	14°15.5 22°49.9	28°43.8 22°35.7	43°12.0 22°28.6	+28.5 +6.5	15.1 55.7
	Di 8	260°08.7 25°20.9	274°36.1 25°21.6	289°03.3 25°02.9	303°30.8 25°23.9	317°58.1 25°24.9	332°25.4 25°25.7	346°52.6 25°26.3	1°19.7 25°26.9	15°46.9 25°27.2	30°14.0 25°27.5	44°41.1 25°27.6	+27.2 +0.7	15.3 56.1
	Lu 9	261°24.1 25°11.9	275°50.8 25°09.7	290°17.5 25°07.3	304°44.2 25°04.8	319°10.9 25°02.2	333°37.5 24°59.4	348°04.2 24°56.5	2°30.9 24°53.4	16°57.3 24°50.2	31°46.8 24°46.8	45°50.8 24°43.3	+26.7 -2.9	15.5 56.8
O	Ma 10	262°30.8 23°33.2	276°57.6 23°35.2	291°24.3 23°21.4	305°51.1 23°15.3	320°17.9 23°09.1	334°44.7 23°02.7	349°11.5 22°56.1	3°38.3 22°49.9	18°05.2 22°42.7	32°32.1 22°35.7	46°59.0 22°28.6	+26.8 -6.5	15.7 57.6
	Me 11	276°57.6 23°27.4	291°24.3 23°21.4	305°51.1 23°15.3	320°17.9 23°09.1	334°44.7 23°02.7	349°11.5 22°56.1	3°38.3 22°49.9	18°05.2 22°42.7	32°32.1 22°35.7	46°59.0 22°28.6	41°25.9 22°21.4	+26.8 -6.6	15.7 57.7
	Je 12	278°12.5 20°16.9	292°39.9 20°07.5	307°07.2 19°58.1	321°34.6 19°48.5	336°02.0 19°38.7	350°29.5 19°28.9	4°57.0 19°18.9	19°24.5 19°08.8	33°52.0 18°58.6	48°19.6 18°48.3	62°47.2 18°37.8	+27.5 -9.9	15.9 58.4
O	Ve 13	279°44.9 15°47.1	294°13.0 15°34.9	308°41.1 15°22.5	323°09.3 15°10.1	337°37.3 14°57.5	352°05.7 14°44.9	6°33.9 14°32.1	21°02.2 14°19.9	35°30.4 14°06.3	49°58.8 13°53.3	64°27.1 13°40.1	+28.2 -12.7	16.2 59.3
	Sa 14	281°34.9 10°12.8	296°03.6 9°58.3	310°32.3 9°43.8	325°01.0 9°29.2	339°29.8 9°14.5	353°58.4 8°59.8	8°27.2 8°45.0	22°55.3 8°30.1	37°24.7 8°15.2	51°53.5 8°00.2	66°22.4 7°45.2	+27.7 -14.8	16.4 60.0
	Di 15	283°34.6 3°53.4	298°03.4 3°37.7	312°32.2 3°21.8	327°01.0 3°06.0	341°29.8 2°50.1	355°58.6 2°34.2	10°27.4 2°18.3	24°56.2 2°02.3	39°24.9 1°46.4	53°53.7 1°30.4	68°22.7 1°14.4	+28.8 -15.9	16.5 60.6
O	Lu 16	285°31.0 -2°46.9	299°59.4 -3°02.9	314°27.8 -3°19.0	328°56.1 -3°35.0	343°24.4 -3°51.1	357°52.6 -4°07.1	12°20.8 -4°23.1	26°49.0 -4°39.0	41°17.2 -4°55.0	55°45.3 -5°10.9	70°13.4 -5°26.8	+28.2 -16.0	16.6 61.0
	Ma 17	287°09.6 -9°20.5	301°36.9 -9°35.6	316°04.3 -9°50.8	330°31.5 -10°05.8	344°58.8 -10°20.8	359°25.9 -10°35.7	13°53.1 -10°50.6	28°20.1 -11°05.4	42°47.2 -11°20.1	57°14.1 -11°34.8	71°41.1 -11°49.3	+27.2 -14.9	16.6 61.5
	Me 18	288°18.1 -15°17.4	302°44.1 -15°30.5	317°10.1 -15°43.5	331°36.0 -15°56.4	346°01.8 -16°09.9	360°20.8 -16°21.8	14°53.4 -16°34.4	29°10.0 -16°46.8	43°44.9 -16°59.1	58°40.2 -17°11.3	72°35.7 -17°23.4	+25.8 -12.6	16.5 62.0
O	Je 19	288°52.2 -20°08.8	303°16.9 -20°18.8	317°41.5 -20°28.6	332°06.2 -20°38.2	346°30.7 -20°47.7	360°55.3 -20°57.0	15°19.8 -21°06.2	29°44.2 -21°15.3	44°08.6 -21°24.2	58°33.0 -21°32.9	72°57.4 -21°41.5	+24.5 -9.3	16.4 61.1
	Ve 20	288°59.4 -23°31.2	303°23.3 -23°37.7	317°47.8 -23°43.1	332°11.3 -23°48.8	346°35.2 -23°54.3	360°55.2 -23°59.6	15°23.2 -24°04.8	29°47.1 -24°09.8	44°15.6 -24°14.6	58°40.2 -24°19.3	72°59.0 -24°23.8	+24.0 -5.3	16.2 59.2
	Sa 21	289°00.2 -25°11.2	303°24.5 -25°13.0	317°48.3 -25°14.7	332°13.2 -25°16.1	346°37.0 -25°17.5	360°55.3 -25°18.6	15°26.5 -25°19.6	29°51.0 -25°20.4	44°15.6 -25°21.1	58°40.2 -25°21.6	73°04.2 -25°21.9	+24.5 -1.1	15.9 58.3
O	Di 22	289°02.0 -25°08.1	303°25.1 -25°06.0	317°49.3 -25°07.7	332°13.2 -25°01.2	346°37.0 -24°58.6	360°55.3 -24°55.9	15°26.5 -24°53.0	29°51.0 -24°50.0	44°15.6 -24°46.8	58°40.2 -24°43.5	73°04.2 -24°40.1	+24.5 +2.8	15.9 57.3
	Lu 23	290°28.8 -23°32.5	304°56.6 -23°27.0	319°24.6 -23°23.1	333°52.6 -23°15.6	348°20.7 -23°09.7	362°48.9 -23°03.7	17°17.2 -22°57.6	31°45.6 -22°51.4	46°14.1 -22°45.4	60°42.7 -22°38.6	75°11.4 -22°32.0	+28.3 +6.0	15.4 56.4
	Ma 24	292°33.2 -20°41.3	307°03.4 -20°33.1	321°33.7 -20°24.9	336°04.1 -20°16.6	350°34.6 -20°08.1	365°05.2 -19°59.6	15°05.2 -19°51.0	19°35.8 -19°42.3	34°06.6 -19°33.6	48°37.4 -19°24.7	63°08.4 -19°15.8	+30.6 +8.6	15.2 56.5
O	Me 25	295°35.3 -16°52.9	310°07.7 -16°42.8	324°40.2 -16°32.6	339°12.7 -16°22.4	353°45.4 -16°12.2	368°18.1 -16°01.8	15°25.2 -15°51.4	29°51.0 -15°40.5	44°15.6 -15°30.5	58°40.2 -15°19.9	72°59.0 -15°09.3	+24.5 +10.4	16.2 54.9
	Je 26	299°26.7 -12°23.8	314°00.8 -12°12.4	328°34.9 -12°01.0	343°09.2 -11°49.5	357°43.4 -11°38.4	372°17.7 -11°26.4	26°52.1 -11°03.1	41°26.5 -10°51.5	56°01.0 -10°39.7	70°35.5 -10°28.0	85°10.1 -10°16.4	+34.3 +11.6	14.8 54.4
	Ve 27	303°53.9 -7°28.0	318°29.1 -7°15.7	333°04.3 -7°03.5	347°39.6 -6°51.2	362°14.9 -6°38.9	376°50.3 -6°26.6	31°25.7 -6°14.3	46°01.1 -6°01.9	60°36.5 -5°49.6	75°11.9 -5°37.2	89°47.4 -5°24.8	+35.4 +12.3	14.8 54.1
O	Sa 28	308°41.8 -2°16.9	323°17.5 -2°04.3	337°53.3 -1°51.7	352°29.0 -1°39.1	367°04.8 -1°26.5	381°40.5 -1°13.8	36°16.3 -1°01.2	50°52.0 -0°48.6	65°27.8 -0°35.9	80°03.6 -0°23.3	94°39.3 -0°10.6	+35.8 +12.6	14.7 54.0
	Di 29	313°35.1 2°58.8	328°10.8 3°11.4	342°46.4 3°24.0	357°22.0 3°36.6	372°07.6 3°49.1	386°53.1 4°01.6	41°08.7 4°14.2	55°44.2 4°26.7	70°19.7 4°39.2	84°55.2 4°51.2	99°30.6 5°04.2	+35.6 +12.5	14.7 54.0
	Lu 30	318°19.1 8°08.9	332°54.0 8°21.1	347°28.9 8°33.2	362°03.8 8°45.3	376°58.7 8°57.3	391°48.2 9°09.3	45°48.2 9°21.3	60°22.9 9°33.3	74°57.6 9°45.6	89°32.3 9°52.1	104°06.8 10°08.9	+34.8 +12.0	14.8 54.2
O	Ma 31	322°39.7 13°02.1	337°13.5 13°13.3	351°47.2 13°24.4	366°20.8 13°35.5	380°54.4 13°46.5	395°27.9 13°57.5	50°01.4 14°08.5	64°34.8 14°19.4	79°08.2 14°30.2	93°41.4 14°41.0	108°14.7 14°51.7	+33.5 +11.0	14.8 54.4

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

PL: 3 16h24 — DQ: 11 11h56 — NL: 18 02h56 — PQ: 25 04h53

SOLEIL

Novembre 2028

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Me 1	259°06.3 -14°35.8	274°06.3 -14°36.3	289°06.3 -14°37.1	304°06.3 -14°37.9	319°06.3 -14°38.7	334°06.4 -14°39.5	349°06.4 -14°40.3	4°06.4 -14°41.1	15°06.4 -14°41.9	34°06.4 -14°42.7	45°06.4 -14°43.5	64°06.4 -14°44.3	+0.0 -0.8
Je 2	259°06.4 -14°54.8	274°06.5 -14°56.1	289°06.5 -14°56.1	304°06.5 -14°56.9	319°06.6 -14°57.6	334°06.6 -14°58.4	349°06.6 -14°59.2	4°06.6 -15°00.0	15°06.6 -15°00.8	34°06.6 -15°01.6	45°06.6 -15°02.4	64°06.6 -15°03.1	+0.0 -0.8
Ve 3	259°06.6 -15°13.2	274°06.6 -15°14.0	289°06.6 -15°14.8	304°06.6 -15°15.5	319°06.6 -15°16.3	334°06.6 -15°17.1	349°06.6 -15°17.9	4°06.6 -15°18.6	15°06.6 -15°19.4	34°06.6 -15°20.2	45°06.6 -15°21.0	64°06.6 -15°21.7	-0.0 -0.8
Sa 4	259°06.4 -15°31.7	274°06.4 -15°32.5	289°06.4 -15°33.2	304°06.4 -15°34.0	319°06.4 -15°34.8	334°06.4 -15°35.5	349°06.3 -15°36.3	4°06.3 -15°37.0	15°06.3 -15°37.8	34°06.3 -15°38.6	45°06.3 -15°39.3	64°06.3 -15°40.1	-0.0 -0.8
Di 5	259°06.0 -15°49.9	274°06.0 -15°50.7	289°06.0 -15°51.4	304°06.0 -15°52.2	319°06.0 -15°52.9	334°05.9 -15°53.7	349°05.9 -15°54.4	4°05.9 -15°55.2	15°05.9 -15°55.9	34°05.9 -15°56.7	45°05.8 -15°57.4	64°05.8 -15°58.2	-0.0 -0.8
Lu 6	259°05.5 -16°07.9	274°05.4 -16°08.6	289°05.4 -16°09.4	304°05.4 -16°10.1	319°05.3 -16°10.9	334°05.3 -16°11.6	349°05.3 -16°12.3	4°05.3 -16°13.1	15°05.2 -16°13.8	34°05.2 -16°14.5	45°05.2 -16°15.3	64°05.1 -16°16.0	-0.0 -0.7
Ma 7	259°04.7 -16°25.6	274°04.6 -16°26.3	289°04.6 -16°27.0	304°04.6 -16°27.8	319°04.5 -16°28.5	334°04.5 -16°29.2	349°04.4 -16°30.0	4°04.4 -16°30.7	15°04.4 -16°31.4	34°04.3 -16°32.1	45°04.3 -16°32.9	64°04.2 -16°33.6	-0.0 -0.7
Me 8	259°03.7 -16°43.0	274°03.6 -16°43.7	289°03.6 -16°44.4	304°03.5 -16°45.2	319°03.5 -16°45.9	334°03.4 -16°46.6	349°03.4 -16°47.3	4°03.3 -16°48.0	15°03.3 -16°48.7	34°03.2 -16°49.5	45°03.2 -16°50.2	64°03.1 -16°50.9	-0.0 -0.7
Je 9	259°02.1 -17°00.4	274°02.4 -17°01.2	289°02.3 -17°01.5	304°02.3 -17°02.3	319°02.2 -17°03.7	334°02.2 -17°03.7	349°02.1 -17°05.1	4°02.0 -17°05.8	15°02.0 -17°06.5	34°01.9 -17°07.2	45°01.9 -17°07.2	64°01.8 -17°07.9	-0.1 -0.7
Ve 10	259°01.0 -17°17.0	274°00.9 -17°17.7	289°00.9 -17°18.4	304°00.8 -17°19.1	319°00.7 -17°19.8	334°00.7 -17°20.5	349°00.6 -17°21.1	4°00.5 -17°21.8	15°00.5 -17°22.5	34°00.4 -17°23.2	45°00.3 -17°23.9	64°00.3 -17°24.6	-0.1 -0.7
Sa 11	258°59.3 -17°33.5	273°59.3 -17°34.2	288°59.2 -17°34.9	303°59.1 -17°35.6	318°59.1 -17°36.3	333°59.0 -17°36.9	348°58.9 -17°37.6	3°58.8 -17°38.3	15°58.7 -17°39.0	33°58.7 -17°39.7	45°58.6 -17°40.5	63°58.5 -17°41.0	-0.1 -0.7
Di 12	258°57.5 -17°49.8	273°57.4 -17°50.5	288°57.3 -17°51.1	303°57.2 -17°51.8	318°57.1 -17°52.5	333°57.1 -17°53.1	348°57.0 -17°53.8	3°56.9 -17°54.5	15°56.8 -17°55.1	33°56.7 -17°55.8	45°56.6 -17°56.5	63°56.5 -17°57.1	-0.1 -0.7
Lu 13	258°55.2 -18°05.7	273°55.3 -18°06.4	288°55.2 -18°07.0	303°55.1 -18°07.7	318°55.0 -18°08.4	333°54.9 -18°09.0	348°54.8 -18°09.7	3°54.7 -18°10.3	15°54.6 -18°11.0	33°54.5 -18°11.6	45°54.4 -18°12.3	63°54.4 -18°12.9	-0.1 -0.7
Ma 14	258°53.1 -18°21.4	273°53.0 -18°22.0	288°52.9 -18°22.6	303°52.8 -18°23.3	318°52.7 -18°23.9	333°52.6 -18°24.6	348°52.5 -18°25.2	3°52.4 -18°25.9	15°52.3 -18°26.5	33°52.2 -18°27.1	45°52.0 -18°27.8	63°51.9 -18°28.4	-0.1 -0.6
Me 15	258°50.6 -18°36.7	273°50.4 -18°37.3	288°50.3 -18°37.9	303°50.2 -18°38.6	318°50.1 -18°39.2	333°50.0 -18°39.8	348°49.9 -18°40.4	3°49.8 -18°41.1	15°49.7 -18°41.7	33°49.6 -18°42.3	45°49.4 -18°42.9	63°49.3 -18°43.6	-0.1 -0.6
Je 16	258°47.8 -18°51.6	273°47.7 -18°52.3	288°47.6 -18°52.9	303°47.5 -18°53.5	318°47.3 -18°54.1	333°47.2 -18°54.7	348°47.1 -18°55.3	3°47.0 -18°55.9	15°46.9 -18°56.6	33°46.7 -18°57.2	45°46.6 -18°57.8	63°46.5 -18°58.4	-0.1 -0.6
Ve 17	258°44.9 -19°06.3	273°44.7 -19°06.9	288°44.6 -19°07.5	303°44.5 -19°08.1	318°44.4 -19°08.7	333°44.2 -19°09.3	348°44.1 -19°09.9	3°44.0 -19°10.5	15°44.0 -19°11.1	33°43.7 -19°11.7	45°43.6 -19°12.3	63°43.5 -19°12.9	-0.1 -0.6
Sa 18	258°41.7 -19°20.6	273°41.6 -19°21.2	288°41.4 -19°21.8	303°41.3 -19°22.3	318°41.2 -19°22.9	333°41.0 -19°23.5	348°40.9 -19°24.1	3°40.8 -19°24.7	15°40.6 -19°25.3	33°40.5 -19°25.9	45°40.4 -19°26.4	63°40.2 -19°27.0	-0.1 -0.6
Di 19	258°38.4 -19°34.5	273°38.2 -19°35.1	288°38.2 -19°35.7	303°37.9 -19°36.2	318°37.8 -19°36.8	333°37.6 -19°37.4	348°37.5 -19°38.0	3°37.3 -19°38.5	15°37.2 -19°39.1	33°37.1 -19°39.7	45°36.9 -19°40.2	63°36.8 -19°40.8	-0.1 -0.6
Lu 20	258°34.8 -19°48.1	273°34.7 -19°48.7	288°34.5 -19°49.2	303°34.3 -19°49.8	318°34.2 -19°50.4	333°34.0 -19°50.9	348°33.9 -19°51.5	3°33.7 -19°52.0	15°33.6 -19°52.6	33°33.4 -19°53.1	45°33.3 -19°53.7	63°33.1 -19°54.2	-0.1 -0.6
Ma 21	258°31.0 -20°01.4	273°30.9 -20°01.9	288°30.7 -20°02.4	303°30.6 -20°03.0	318°30.4 -20°03.5	333°30.2 -20°04.1	348°30.1 -20°04.6	3°29.9 -20°05.2	15°29.8 -20°05.7	33°29.6 -20°06.2	45°29.4 -20°06.8	63°29.3 -20°07.3	-0.2 -0.5
Me 22	258°27.1 -20°14.2	273°26.9 -20°14.8	288°26.8 -20°15.3	303°26.6 -20°15.8	318°26.4 -20°16.3	333°26.2 -20°16.9	348°26.1 -20°17.4	3°25.9 -20°17.9	15°25.7 -20°18.4	33°25.6 -20°19.0	45°25.4 -20°19.5	63°25.2 -20°20.0	-0.2 -0.5
Je 23	258°23.2 -20°26.7	273°22.8 -20°27.2	288°22.6 -20°27.7	303°22.4 -20°28.3	318°22.2 -20°28.8	333°22.1 -20°29.3	348°21.9 -20°29.8	3°21.7 -20°30.3	15°21.5 -20°30.8	33°21.3 -20°31.3	45°21.2 -20°31.8	63°21.0 -20°32.3	-0.2 -0.5
Ve 24	258°18.6 -20°38.8	273°18.4 -20°39.3	288°18.2 -20°39.8	303°18.1 -20°40.3	318°17.9 -20°40.8	333°17.7 -20°41.3	348°17.5 -20°41.8	3°17.3 -20°42.3	15°17.1 -20°42.8	33°16.9 -20°43.3	45°16.8 -20°43.8	63°16.6 -20°44.3	-0.2 -0.5
Sa 25	258°14.6 -20°50.6	273°13.9 -20°51.1	288°13.7 -20°51.5	303°13.5 -20°52.0	318°13.3 -20°52.5	333°13.1 -20°53.0	348°12.9 -20°53.9	3°12.7 -20°54.4	15°12.6 -20°54.9	33°12.4 -20°55.3	45°12.2 -20°55.8	63°12.0 -20°55.8	-0.2 -0.5
Di 26	258°09.4 -21°01.9	273°09.2 -21°02.4	288°09.0 -21°02.8	303°08.8 -21°03.3	318°08.6 -21°03.8	333°08.4 -21°04.2	348°08.2 -21°04.7	3°08.0 -21°05.6	15°07.8 -21°05.6	33°07.6 -21°06.1	45°07.4 -21°06.5	63°07.2 -21°07.0	-0.2 -0.5
Lu 27	258°04.5 -21°12.9	273°04.3 -21°13.8	288°04.1 -21°14.2	303°03.9 -21°14.7	318°03.7 -21°15.1	333°03.5 -21°15.1	348°03.3 -21°15.8	3°03.1 -21°16.0	15°02.9 -21°16.4	33°02.6 -21°16.9	45°02.4 -21°17.3	63°02.2 -21°17.8	-0.2 -0.4
Ma 28	257°59.5 -21°23.8	272°59.3 -21°24.3	287°59.0 -21°24.3	302°58.8 -21°24.7	317°58.6 -21°25.1	332°58.4 -21°25.6	347°58.2 -21°26.0	2°58.0 -21°26.8	15°57.7 -21°27.3	32°57.5 -21°27.7	45°57.3 -21°28.1	62°57.1 -21°28.1	-0.2 -0.4
Me 29	257°54.2 -21°33.6	272°54.0 -21°34.4	287°53.8 -21°34.4	302°53.6 -21°34.8	317°53.4 -21°35.2	332°53.1 -21°35.6	347°52.9 -21°36.0	2°52.7 -21°36.4	15°52.5 -21°36.8	32°52.2 -21°37.3	45°52.0 -21°37.7	62°51.8 -21°38.1	-0.2 -0.4
Je 30	257°48.9 -21°43.3	272°48.6 -21°43.7	287°48.4 -21°44.1	302°48.2 -21°44.5	317°47.9 -21°44.9	332°47.7 -21°45.3	347°47.5 -21°46.1	2°47.2 -21°46.4	15°47.0 -21°46.8	32°46.8 -21°47.2	45°46.6 -21°47.2	62°46.3 -21°47.6	-0.2 -0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Novembre 2028

	J	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	0h	Δ'/h	SP
O	Me 1	239°10.8 16°25.5	253°43.3 16°35.7	268°15.8 16°45.7	282°48.3 16°55.7	297°20.6 17°05.6	311°52.9 17°15.4	326°25.1 17°25.2	340°57.3 17°34.9	355°29.4 17°44.5	10°01.4 17°54.1	24°33.3 18°03.6	+32.3 +9.8	14.9 54.7
	Je 2	242°23.6 20°16.2	256°54.4 20°24.3	271°25.1 20°32.4	285°55.7 20°40.3	300°26.3 20°48.3	314°56.7 20°56.0	329°27.1 21°03.7	343°57.4 21°11.3	358°27.7 21°18.8	12°57.9 21°26.2	27°28.0 21°33.5	+30.4 +5.0	15.0 55.5
	Ve 3	244°50.9 23°10.3	259°19.8 23°15.8	273°48.7 23°21.3	288°17.6 23°26.6	302°46.4 23°31.9	317°15.1 23°37.0	331°43.7 23°41.9	346°12.3 23°48.7	360°40.8 23°51.5	15°09.3 23°56.2	29°37.6 24°00.7	+28.7 +1.8	15.1 56.0
●	Sa 4	246°36.8 24°52.9	261°04.4 24°55.3	275°31.9 24°57.6	289°59.3 24°59.8	304°26.7 25°01.8	318°54.1 25°03.7	333°21.4 25°05.5	347°48.7 25°07.1	362°16.0 25°08.6	16°43.2 25°09.9	31°10.4 25°11.1	+27.3 +1.8	15.3 56.0
	Di 5	247°54.8 25°12.3	262°21.6 25°11.2	276°48.4 25°10.0	291°15.1 25°08.6	305°41.9 25°07.2	320°08.7 25°05.5	334°35.4 25°03.7	349°02.2 25°01.8	363°28.9 24°59.7	17°55.6 24°57.5	32°22.4 24°55.2	+26.8 -1.7	15.4 56.5
	Lu 6	249°04.0 24°02.6	263°30.9 23°58.0	277°57.7 23°53.2	292°24.7 23°48.3	306°51.6 23°43.2	321°18.5 23°38.0	335°45.5 23°32.7	350°12.5 23°27.2	364°39.5 23°21.6	19°06.6 23°15.8	33°33.6 23°09.9	+27.0 -5.3	15.6 57.1
●	Ma 7	250°23.3 21°25.6	264°50.9 21°17.6	279°18.6 21°09.5	293°46.2 21°01.3	308°13.9 20°52.9	322°41.7 20°44.4	337°09.4 20°35.8	351°37.3 20°27.0	365°05.1 20°18.2	20°33.0 20°09.2	35°01.0 20°00.1	+27.8 -8.6	15.7 57.6
	Me 8	252°05.0 17°29.9	266°33.6 17°19.1	281°02.2 17°08.1	295°30.9 16°57.0	309°59.6 16°45.5	324°28.3 16°34.5	338°57.1 16°23.1	353°26.0 16°11.6	367°54.8 16°00.0	22°23.7 15°48.3	36°52.7 15°36.6	+28.8 -11.3	15.9 58.2
	Je 9	254°11.1 12°29.2	268°40.6 12°16.1	283°10.2 12°02.8	297°39.7 11°49.5	312°09.3 11°36.2	326°38.9 11°22.7	341°08.5 11°09.2	355°38.1 10°55.6	369°07.8 10°41.9	24°27.5 24°37.5	39°07.2 24°28.2	+29.6 -10.4	16.0 58.6
●	Ve 10	268°40.6 12°16.1	283°10.2 12°02.8	297°39.7 11°49.5	312°09.3 11°36.2	326°38.9 11°22.7	341°08.5 11°09.2	355°38.1 10°55.6	369°07.8 10°41.9	383°37.5 10°28.2	39°07.2 24°37.5	53°37.0 24°00.6	+29.6 -13.6	16.0 58.6
	Sa 11	271°05.0 6°25.7	285°35.0 6°10.9	300°05.0 5°56.1	314°35.0 5°41.3	329°04.9 5°26.5	343°34.9 5°11.6	358°04.9 4°56.6	372°34.9 4°41.6	386°04.9 4°26.6	41°34.8 4°11.6	56°04.8 3°56.5	+30.0 -14.9	16.2 59.4
	Di 12	273°33.5 0°07.2	288°03.3 -0°08.2	302°33.0 -0°23.6	317°02.3 -0°39.1	331°32.5 -0°54.5	346°02.2 -1°09.9	360°42.2 -1°25.4	375°01.9 -1°40.8	389°31.2 -1°56.3	44°00.8 -2°11.7	58°30.3 -2°27.2	+29.7 -15.4	16.3 59.8
●	Lu 13	275°49.5 -0°17.3	290°18.5 -0°32.4	304°47.4 -0°47.6	319°16.2 -0°72.7	333°45.0 -0°71.7	348°13.8 -0°32.7	362°42.5 -0°47.7	376°11.1 -0°42.7	389°39.7 -0°17.7	46°08.3 -0°32.5	60°36.8 -0°47.3	+28.7 -15.0	16.4 60.1
	Ma 14	277°37.1 -12°23.0	292°04.6 -12°36.8	306°32.1 -12°50.6	320°59.5 -13°04.3	335°26.5 -13°18.0	349°54.1 -13°31.5	364°21.3 -13°45.0	378°48.4 -13°58.4	392°15.4 -14°11.7	47°42.4 -14°24.9	62°09.3 -14°38.0	+27.2 -13.5	16.4 60.2
	Me 15	278°44.7 -17°42.9	293°10.5 -17°54.4	307°36.2 -18°05.7	322°01.9 -18°16.9	336°27.5 -18°28.0	350°53.0 -18°39.0	365°18.5 -18°49.9	379°43.4 -19°00.6	393°09.2 -19°11.2	48°34.5 -19°21.7	63°06.9 -19°32.0	+25.5 -10.9	16.4 60.1
●	Je 16	279°10.7 -21°50.4	293°35.0 -21°58.5	307°59.2 -22°06.4	322°23.4 -22°14.1	336°47.6 -22°21.7	351°11.7 -22°29.2	365°35.8 -22°36.5	379°59.9 -22°43.6	393°23.9 -22°50.6	48°47.8 -22°57.4	63°11.8 -23°04.0	+24.1 -7.4	16.3 59.9
	Ve 17	279°07.8 -24°24.1	293°31.5 -24°28.1	307°55.1 -24°31.9	322°18.7 -24°35.5	336°39.7 -24°39.0	351°04.1 -24°42.3	365°29.6 -24°45.5	379°53.2 -24°48.0	393°16.9 -24°51.3	48°40.6 -24°53.9	63°04.3 -24°56.4	+23.6 -3.2	16.1 59.9
	Sa 18	279°02.6 -25°13.0	293°26.8 -25°12.4	307°51.0 -25°12.4	322°15.3 -25°11.9	336°39.7 -25°11.2	351°04.1 -25°10.3	365°29.6 -25°09.8	379°53.2 -25°08.0	393°16.9 -25°06.7	48°40.6 -25°05.2	63°06.9 -25°03.5	+24.1 +1.0	15.9 58.2
●	Di 19	279°26.1 -24°20.1	293°52.0 -24°16.1	308°18.0 -24°11.9	322°44.1 -24°07.5	337°10.2 -24°03.0	351°36.6 -23°58.4	366°02.9 -23°53.7	380°29.4 -23°48.8	394°55.9 -23°43.8	49°22.6 -23°38.8	63°49.3 -23°33.3	+26.3 +4.7	15.6 57.4
	Lu 20	280°42.1 -21°59.4	295°10.4 -21°52.2	309°38.9 -21°44.9	324°07.4 -21°37.5	338°36.0 -21°30.2	353°04.7 -21°22.4	367°33.6 -21°14.7	382°02.5 -21°06.8	396°28.5 -20°58.9	51°00.7 -20°50.9	65°29.9 -20°42.8	+28.8 +7.7	15.4 56.5
	Ma 21	283°00.4 -18°30.4	297°31.2 -18°20.9	312°02.1 -18°11.3	326°33.1 -18°01.7	341°04.2 -17°51.9	355°35.4 -17°42.2	369°06.6 -17°32.3	383°38.0 -17°22.4	397°09.5 -17°12.4	53°41.0 -17°02.3	68°12.7 -16°52.2	+31.2 +9.8	15.2 55.7
●	Me 22	286°17.4 -14°12.9	300°50.4 -14°01.8	315°23.4 -13°50.7	329°56.5 -13°39.5	344°29.7 -13°28.3	359°03.0 -13°17.1	373°36.3 -13°05.8	387°09.4 -12°54.5	399°58.9 -12°43.2	55°41.0 -12°31.2	71°50.3 -12°20.2	+33.3 +11.3	15.0 55.0
	Je 23	290°21.7 -9°57.9	304°56.2 -9°11.7	319°30.8 -8°59.7	334°05.4 -8°47.6	348°40.1 -8°35.5	363°14.8 -8°23.4	377°49.6 -8°11.2	392°24.4 -7°59.0	406°59.3 -7°46.8	61°34.2 -7°34.6	76°09.9 -7°22.4	+34.8 +12.9	14.9 54.5
	Ve 24	294°57.6 -4°16.5	309°33.1 -4°04.0	324°08.6 -3°51.5	338°44.1 -3°38.9	353°19.6 -3°26.4	367°55.2 -3°13.9	382°30.7 -3°01.3	396°06.3 -2°48.7	409°31.4 -2°36.2	64°17.5 -2°23.6	80°53.2 -2°11.0	+35.6 +12.5	14.8 54.2
●	Sa 25	299°48.7 6°09.7	314°24.5 6°22.0	329°00.2 6°34.3	343°35.9 6°46.5	358°11.6 6°58.7	372°47.3 7°10.9	387°23.0 7°23.1	401°58.7 7°35.2	416°34.4 7°47.4	71°10.1 7°59.5	85°45.7 8°11.5	+35.7 +12.5	14.8 54.1
	Di 26	304°38.6 11°08.9	319°13.9 11°20.5	333°49.2 11°32.0	348°24.5 11°43.4	362°59.8 11°54.9	377°35.0 12°06.3	392°10.2 12°17.6	406°45.3 12°28.9	420°12.4 12°40.2	75°55.5 12°51.4	90°30.6 13°02.6	+35.2 +11.4	14.8 54.4
	Lu 27	309°11.3 15°44.0	323°45.3 15°54.4	338°19.9 16°04.6	352°54.2 16°14.8	367°28.5 16°25.0	381°02.5 16°35.0	395°22.5 16°45.0	409°36.6 16°55.0	423°10.6 17°04.8	80°18.5 17°15.7	94°55.2 17°24.4	+34.1 +10.5	14.8 54.9
●	Ma 28	313°12.5 19°41.5	327°45.3 19°50.0	342°18.3 20°00.0	356°50.7 20°06.7	371°23.3 20°15.0	385°55.8 20°23.1	400°28.3 20°31.2	415°00.6 20°39.1	429°33.3 20°47.0	84°05.2 20°54.8	98°37.3 21°02.5	+32.5 +8.1	14.9 55.1
	Me 29	316°30.3 22°45.5	331°01.2 22°51.6	345°32.1 22°57.5	360°02.8 23°03.2	374°33.5 23°08.9	389°04.0 23°14.5	403°34.5 23°19.9	418°04.8 23°25.2	432°35.3 23°30.4	87°05.5 23°35.5	101°35.7 23°40.5	+30.5 +5.5	15.1 55.7
	Je 30	318°58.6 22°45.5	333°27.5 22°51.6	347°56.3 22°57.5	362°25.1 23°03.2	376°53.7 23°08.9	391°22.3 23°14.5	405°50.9 23°19.9	420°19.3 23°25.2	435°47.7 23°30.4	89°16.0 23°35.5	103°44.2 23°40.5	+28.6 +5.5	15.2 55.7

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 2 09h17 — DQ: 9 21h25 — NL: 16 13h18 — PQ: 24 00h14

SOLEIL

Décembre 2028

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ve 1	272°43.1 -21°53.0	287°42.8 -21°53.4	302°42.6 -21°53.8	317°42.4 -21°54.1	332°42.1 -21°54.5	347°41.9 -21°54.9	362°41.6 -21°55.3	377°41.4 -21°55.6	392°41.2 -21°56.0	407°40.9 -21°56.4	422°40.7 -21°56.7	437°40.5 -21°57.1	-0.2 -0.4
Sa 2	272°37.3 -22°01.9	287°37.1 -22°02.2	302°36.9 -22°02.6	317°36.6 -22°03.0	332°36.4 -22°03.3	347°36.1 -22°03.7	362°35.9 -22°04.0	377°35.6 -22°04.4	392°35.4 -22°04.7	407°35.2 -22°05.1	422°34.9 -22°05.5	437°34.7 -22°05.8	-0.2 -0.4
Di 3	272°31.5 -22°10.3	287°31.2 -22°10.7	302°31.0 -22°11.0	317°30.7 -22°11.4	332°30.5 -22°11.7	347°30.2 -22°12.0	362°30.0 -22°12.3	377°29.7 -22°12.7	392°29.5 -22°13.1	407°29.2 -22°13.4	422°28.9 -22°13.7	437°28.7 -22°14.1	-0.2 -0.3
Lu 4	272°25.5 -22°18.4	287°25.2 -22°18.7	302°24.9 -22°19.0	317°24.7 -22°19.3	332°24.4 -22°19.7	347°24.2 -22°20.0	362°23.9 -22°20.3	377°23.7 -22°20.6	392°23.4 -22°21.0	407°23.2 -22°21.3	422°22.9 -22°21.6	437°22.7 -22°21.9	-0.3 -0.3
Ma 5	272°19.3 -22°26.0	287°19.0 -22°26.3	302°18.8 -22°26.6	317°18.5 -22°26.9	332°18.3 -22°27.2	347°18.0 -22°27.5	362°17.7 -22°27.8	377°17.5 -22°28.1	392°17.2 -22°28.4	407°16.9 -22°28.7	422°16.7 -22°29.0	437°16.4 -22°29.3	-0.3 -0.3
Me 6	272°13.0 -22°33.1	287°12.7 -22°33.4	302°12.5 -22°33.7	317°12.2 -22°34.0	332°11.9 -22°34.3	347°11.7 -22°34.6	362°11.4 -22°34.9	377°11.1 -22°35.2	392°10.9 -22°35.5	407°10.6 -22°35.7	422°10.3 -22°36.0	437°10.1 -22°36.3	-0.3 -0.3
Je 7	272°06.6 -22°39.9	287°06.3 -22°40.1	302°06.0 -22°40.4	317°05.7 -22°40.7	332°05.5 -22°41.2	347°05.2 -22°41.5	362°04.9 -22°41.7	377°04.7 -22°42.0	392°04.4 -22°42.3	407°04.1 -22°42.5	422°03.8 -22°42.8	437°03.6 -22°43.0	-0.3 -0.3
Ve 8	272°00.0 -22°53.0	286°59.7 -22°53.3	301°59.5 -22°53.6	316°59.2 -22°53.9	331°58.9 -22°54.2	346°58.6 -22°54.5	361°58.3 -22°54.8	376°58.1 -22°55.1	391°57.8 -22°55.4	406°57.5 -22°55.7	421°57.2 -22°56.0	436°57.0 -22°56.3	-0.3 -0.2
Sa 9	271°53.3 -22°58.2	286°53.0 -22°58.5	301°52.8 -22°58.8	316°52.5 -22°59.1	331°52.2 -22°59.4	346°51.9 -22°59.7	361°51.6 -22°60.0	376°51.4 -22°60.3	391°51.1 -22°60.6	406°50.8 -22°60.9	421°50.5 -22°61.2	436°50.2 -22°61.5	-0.2 -0.3
Di 10	271°46.5 -22°56.4	286°46.2 -22°56.7	301°46.0 -22°57.0	316°45.7 -22°57.3	331°45.4 -22°57.6	346°45.1 -22°57.9	361°44.8 -22°58.2	376°44.5 -22°58.5	391°44.2 -22°58.8	406°44.0 -22°59.1	421°43.7 -22°59.4	436°43.4 -22°59.7	-0.3 -0.2
Lu 11	271°39.9 -23°02.3	286°39.3 -23°02.5	301°39.1 -23°02.7	316°38.8 -23°03.0	331°38.5 -23°03.3	346°38.2 -23°03.6	361°37.9 -23°03.9	376°37.6 -23°04.2	391°37.3 -23°04.5	406°37.0 -23°04.8	421°36.7 -23°05.1	436°36.4 -23°05.4	-0.3 -0.2
Ma 12	271°33.2 -23°06.8	286°32.3 -23°07.0	301°32.1 -23°07.3	316°31.8 -23°07.6	331°31.5 -23°07.9	346°31.2 -23°08.2	361°30.9 -23°08.5	376°30.6 -23°08.8	391°30.3 -23°09.1	406°30.0 -23°09.4	421°29.7 -23°09.7	436°29.4 -23°10.0	-0.3 -0.2
Me 13	271°25.6 -23°10.8	286°25.3 -23°10.9	301°25.0 -23°11.1	316°24.7 -23°11.4	331°24.4 -23°11.7	346°24.1 -23°12.0	361°23.8 -23°12.3	376°23.5 -23°12.6	391°23.2 -23°12.9	406°22.9 -23°13.2	421°22.6 -23°13.5	436°22.3 -23°13.8	-0.3 -0.2
Je 14	271°18.4 -23°14.2	286°18.1 -23°14.5	301°17.8 -23°14.6	316°17.5 -23°14.9	331°17.2 -23°15.0	346°16.9 -23°15.3	361°16.6 -23°15.6	376°16.3 -23°15.9	391°16.0 -23°16.2	406°15.7 -23°16.5	421°15.4 -23°16.8	436°15.1 -23°17.1	-0.3 -0.2
Ve 15	271°11.2 -23°17.4	286°10.9 -23°17.5	301°10.5 -23°17.7	316°10.2 -23°17.9	331°09.9 -23°18.0	346°09.6 -23°18.3	361°09.3 -23°18.6	376°09.0 -23°18.9	391°08.7 -23°19.2	406°08.4 -23°19.5	421°08.1 -23°19.8	436°07.8 -23°20.1	-0.3 -0.3
Sa 16	271°03.9 -23°20.1	286°03.6 -23°20.2	301°03.2 -23°20.3	316°02.9 -23°20.6	331°02.6 -23°20.9	346°02.3 -23°21.2	361°02.0 -23°21.5	376°01.7 -23°21.8	391°01.4 -23°22.1	406°01.1 -23°22.4	421°00.8 -23°22.7	436°00.5 -23°23.0	-0.3 -0.3
Di 17	270°56.5 -23°22.2	285°56.2 -23°22.3	300°55.9 -23°22.4	315°55.6 -23°22.7	330°55.3 -23°23.0	345°55.0 -23°23.3	360°54.7 -23°23.6	375°54.4 -23°23.9	390°54.0 -23°24.2	405°53.7 -23°24.5	420°53.4 -23°24.8	435°53.1 -23°25.1	-0.3 -0.3
Lu 18	270°49.1 -23°23.9	285°48.8 -23°24.0	300°48.5 -23°24.1	315°48.2 -23°24.4	330°47.9 -23°24.7	345°47.6 -23°25.0	360°47.3 -23°25.3	375°47.0 -23°25.6	390°46.6 -23°25.9	405°46.3 -23°26.2	420°46.0 -23°26.5	435°45.7 -23°26.8	-0.3 -0.3
Ma 19	270°41.7 -23°25.1	285°41.4 -23°25.2	300°41.1 -23°25.3	315°40.8 -23°25.6	330°40.5 -23°25.9	345°40.2 -23°26.2	360°39.9 -23°26.5	375°39.6 -23°26.8	390°39.2 -23°27.1	405°38.9 -23°27.4	420°38.6 -23°27.7	435°38.3 -23°28.0	-0.3 -0.0
Me 20	270°34.2 -23°26.9	285°33.9 -23°26.9	300°33.6 -23°27.0	315°33.3 -23°27.1	330°33.0 -23°27.2	345°32.7 -23°27.3	360°32.4 -23°27.4	375°32.1 -23°27.5	390°31.8 -23°27.6	405°31.4 -23°27.7	420°31.1 -23°27.8	435°30.8 -23°27.9	-0.3 -0.0
Je 21	270°26.8 -23°26.2	285°26.5 -23°26.2	300°26.2 -23°26.2	315°25.8 -23°26.2	330°25.5 -23°26.2	345°25.2 -23°26.2	360°24.9 -23°26.1	375°24.6 -23°26.1	390°24.3 -23°26.1	405°24.0 -23°26.1	420°23.7 -23°26.1	435°23.4 -23°26.1	-0.3 +0.0
Ve 22	270°19.3 -23°26.0	285°19.0 -23°25.9	300°18.7 -23°25.9	315°18.4 -23°25.9	330°18.1 -23°25.9	345°17.8 -23°25.9	360°17.4 -23°25.8	375°17.1 -23°25.8	390°16.8 -23°25.8	405°16.5 -23°25.8	420°16.2 -23°25.7	435°15.9 -23°25.7	-0.3 +0.0
Sa 23	270°11.9 -23°25.3	285°11.5 -23°25.3	300°11.2 -23°25.2	315°10.9 -23°25.2	330°10.6 -23°25.1	345°10.3 -23°25.1	360°10.0 -23°25.1	375°09.7 -23°25.0	390°09.4 -23°25.0	405°09.1 -23°25.0	420°08.7 -23°24.9	435°08.4 -23°24.8	-0.3 +0.0
Di 24	270°04.1 -23°24.2	285°04.1 -23°24.1	300°03.8 -23°24.1	315°03.5 -23°24.0	330°03.2 -23°23.9	345°02.9 -23°23.8	360°02.5 -23°23.7	375°02.2 -23°23.7	390°01.9 -23°23.7	405°01.6 -23°23.6	420°01.3 -23°23.6	435°01.0 -23°23.5	-0.3 +0.1
Lu 25	269°56.7 -23°22.6	284°56.7 -23°22.5	299°56.4 -23°22.4	314°56.0 -23°22.3	329°55.7 -23°22.2	344°55.4 -23°22.1	359°55.1 -23°22.0	374°54.8 -23°21.9	389°54.5 -23°21.8	404°54.2 -23°21.7	419°53.9 -23°21.6	434°53.6 -23°21.5	-0.3 +0.1
Ma 26	269°49.0 -23°20.5	284°49.3 -23°20.4	299°49.0 -23°20.3	314°48.6 -23°20.2	329°48.3 -23°20.1	344°48.0 -23°20.0	359°47.7 -23°19.9	374°47.4 -23°19.8	389°47.1 -23°19.7	404°46.8 -23°19.6	419°46.5 -23°19.5	434°46.2 -23°19.4	-0.3 +0.1
Me 27	269°42.2 -23°18.0	284°41.9 -23°17.8	299°41.6 -23°17.7	314°41.3 -23°17.6	329°41.0 -23°17.5	344°40.7 -23°17.4	359°40.4 -23°17.2	374°40.1 -23°17.1	389°39.8 -23°17.0	404°39.5 -23°16.9	419°39.2 -23°16.8	434°38.8 -23°16.6	-0.3 +0.1
Je 28	269°34.9 -23°14.9	284°34.6 -23°14.8	299°34.3 -23°14.7	314°34.0 -23°14.5	329°33.7 -23°14.4	344°33.4 -23°14.3	359°33.1 -23°14.1	374°32.8 -23°14.0	389°32.5 -23°13.8	404°32.2 -23°13.7	419°31.9 -23°13.6	434°31.5 -23°13.4	-0.3 +0.1
Ve 29	269°27.6 -23°11.5	284°27.3 -23°11.3	299°27.0 -23°11.2	314°26.7 -23°11.0	329°26.4 -23°10.9	344°26.1 -23°10.7	359°25.8 -23°10.5	374°25.5 -23°10.4	389°25.2 -23°10.2	404°24.9 -23°10.1	419°24.6 -23°09.9	434°24.3 -23°09.7	-0.3 +0.2
Sa 30	269°20.2 -23°07.5	284°20.1 -23°07.4	299°19.8 -23°07.2	314°19.5 -23°07.0	329°19.2 -23°06.8	344°18.9 -23°06.7	359°18.6 -23°06.5	374°18.3 -23°06.3	389°18.0 -23°06.1	404°17.7 -23°05.9	419°17.4 -23°05.8	434°17.1 -23°05.6	-0.3 +0.2
Di 31	269°13.3 -23°03.1	284°13.0 -23°02.8	299°12.7 -23°02.6	314°12.4 -23°02.4	329°12.1 -23°02.2	344°11.8 -23°02.0	359°11.5 -23°01.8	374°11.2 -23°01.6	389°10.9 -23°01.4	404°10.6 -23°01.2	419°10.3 -23°01.1	434°10.0 -23°00.9	-0.3 +0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Décembre 2028

	J	15h	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	Δ /h	SP
O	Ve 1	248°22.7 24°23.3	262°50.2 24°26.8	277°17.7 24°30.3	291°45.0 24°36.6	306°12.3 24°36.7	320°39.6 24°39.8	335°06.8 24°42.7	349°34.0 24°45.0	4°01.1 24°48.1	18°28.1 24°50.6	32°55.1 24°52.9	+27.2 +3.0	15.3 56.2
	Sa 2	249°34.7 25°11.4	264°01.1 25°11.5	278°27.4 25°11.4	293°53.7 25°11.2	307°20.0 25°10.8	321°46.3 25°10.3	336°12.5 25°09.6	350°38.7 25°08.7	5°04.9 25°06.9	19°31.1 25°06.8	33°57.7 25°05.5	+26.3 -0.6	15.5 56.7
	Di 3	250°29.2 24°29.0	264°55.4 24°25.6	279°21.5 24°21.6	293°47.7 24°17.6	308°13.9 24°13.6	322°40.1 24°09.4	337°06.3 24°05.0	351°32.6 24°00.5	5°58.8 23°55.9	20°25.1 23°51.1	34°51.4 23°46.1	+26.2 -4.3	15.6 57.3
O	Lu 4	251°29.5 22°15.2	265°56.3 22°08.1	280°23.2 22°00.8	294°50.1 21°53.3	309°17.0 21°45.8	323°44.0 21°38.1	338°11.1 21°30.3	352°38.1 21°22.3	7°05.3 21°14.3	21°32.4 21°06.1	35°59.6 20°57.7	+27.0 -7.8	15.7 57.7
	Ma 5	252°53.8 18°38.4	267°21.8 18°28.2	281°49.9 18°17.8	296°18.0 18°07.4	310°46.2 17°56.9	325°14.5 17°46.2	339°42.7 17°35.5	354°11.1 17°24.7	8°39.5 17°13.7	23°07.9 17°02.7	37°36.4 16°51.5	+28.3 -10.7	15.9 58.2
	Me 6	254°49.8 13°53.2	269°19.1 13°40.7	283°48.4 13°28.0	298°17.8 13°15.3	312°47.2 13°02.5	327°16.7 12°49.6	341°46.2 12°36.6	356°15.7 12°23.6	10°45.3 12°10.5	25°15.0 11°57.4	39°44.6 11°44.1	+29.5 -12.9	16.0 58.5
O	Je 7	257°14.1 8°18.2	271°44.3 8°04.0	286°14.6 7°49.8	300°44.8 7°35.6	315°15.1 7°21.3	329°45.4 7°06.9	344°15.8 6°52.6	358°46.1 6°38.1	13°16.5 6°23.7	27°46.9 6°09.2	42°17.3 5°54.6	+30.3 -14.4	16.0 58.8
	Ve 8	259°55.1 2°13.0	274°25.7 1°58.1	288°56.2 1°43.1	303°26.8 1°28.1	317°57.4 1°13.1	332°27.9 0°58.1	346°58.5 0°43.1	1°29.0 0°28.1	15°59.6 0°13.1	30°30.1 -0°01.9	45°00.7 -0°17.0	+30.6 -15.0	16.1 59.1
	Sa 9	274°25.7 1°58.1	288°56.2 1°43.1	303°26.8 1°28.1	317°57.4 1°13.1	332°27.9 0°58.1	346°58.5 0°43.1	1°29.0 0°28.1	15°59.6 0°13.1	30°30.1 -0°01.9	45°00.7 -0°17.0	59°31.2 -0°32.0	+30.6 -15.0	16.1 59.1
O	Di 10	277°06.9 -4°17.0	291°37.1 -4°31.9	306°07.3 -4°46.7	320°37.5 -5°01.6	335°07.6 -5°16.4	349°37.6 -5°31.2	4°07.7 -5°46.0	18°37.7 -6°00.8	33°07.7 -6°15.5	47°37.6 -6°30.2	62°07.5 -6°44.8	+30.1 -14.8	16.2 59.3
	Lu 11	279°30.7 -10°19.9	293°59.8 -10°33.9	308°28.9 -10°47.8	322°58.0 -11°01.6	337°26.9 -11°15.4	351°55.9 -11°29.1	6°24.7 -11°42.8	20°53.5 -11°56.4	35°22.3 -12°09.9	49°51.0 -12°23.3	64°19.8 -12°36.7	+28.9 -13.7	16.2 59.4
	Ma 12	281°21.4 -15°48.3	295°49.0 -16°00.4	310°16.5 -16°12.4	324°44.0 -16°24.3	339°11.3 -16°36.6	353°38.7 -16°47.7	8°05.9 -16°59.3	22°33.1 -17°10.8	37°00.2 -17°22.2	51°27.2 -17°33.5	65°54.1 -17°44.7	+27.3 -11.6	16.2 59.5
O	Me 13	283°30.2 -20°18.6	296°56.1 -20°27.9	311°21.9 -20°37.0	325°47.6 -20°46.1	340°13.3 -20°55.0	354°38.9 -21°03.7	9°04.4 -21°12.3	23°29.9 -21°20.6	37°55.3 -21°29.1	52°20.7 -21°37.4	66°46.0 -21°45.4	+25.6 -8.7	16.1 59.9
	Je 14	285°59.4 -23°28.9	297°23.9 -23°34.5	311°48.4 -23°40.1	326°12.9 -23°45.4	340°37.3 -23°50.7	355°01.7 -23°55.6	9°26.1 -24°00.6	23°50.4 -24°05.3	38°14.7 -24°09.9	52°39.0 -24°14.3	67°03.3 -24°18.6	+24.4 -10.5	16.0 58.8
	Ve 15	288°05.9 -25°02.8	297°30.0 -25°04.8	311°54.2 -25°05.9	326°18.4 -25°07.2	340°42.6 -25°08.3	355°06.8 -25°09.3	9°31.0 -25°10.1	23°55.3 -25°10.7	38°19.6 -25°11.2	52°43.9 -25°11.5	67°08.2 -25°11.7	+24.2 -0.9	15.9 58.8
O	Sa 16	288°17.8 -24°54.7	297°42.8 -24°52.3	312°07.9 -24°49.7	326°33.0 -24°47.0	340°58.2 -24°44.2	355°23.5 -24°41.2	9°48.8 -24°38.0	24°14.2 -24°34.7	38°39.9 -24°31.3	53°05.2 -24°27.7	67°30.9 -24°23.9	+25.3 -3.1	15.7 57.7
	Di 17	284°04.3 -23°11.0	298°31.2 -23°05.1	312°58.2 -22°59.0	327°25.3 -22°52.9	341°52.5 -22°46.6	356°19.8 -22°40.1	10°47.1 -22°33.6	25°14.6 -22°26.9	39°42.1 -22°20.2	54°09.8 -22°13.3	68°37.5 -22°06.2	+27.3 +6.5	15.5 57.0
	Lu 18	285°45.1 -20°08.0	300°14.4 -19°59.3	314°43.7 -19°50.5	329°13.2 -19°41.7	343°42.8 -19°32.7	358°12.5 -19°23.6	10°42.2 -19°14.5	27°12.1 -19°05.3	41°42.1 -18°56.0	56°12.1 -18°46.6	70°42.3 -18°37.1	+29.7 +9.1	15.4 56.3
O	Ma 19	288°25.6 -16°05.8	302°57.3 -15°55.1	317°28.9 -15°44.5	329°00.7 -15°33.7	346°32.6 -15°22.9	360°07.6 -15°12.0	1°04.5 -15°01.1	30°08.7 -14°50.1	44°40.9 -14°39.0	59°13.2 -14°27.9	73°45.6 -14°16.8	+32.0 +10.9	15.2 56.5
	Me 20	292°00.1 -11°23.9	306°33.6 -11°12.0	321°07.2 -11°00.1	335°40.9 -10°48.2	350°14.6 -10°36.2	4°48.4 -10°24.2	19°22.2 -10°12.2	33°56.2 -10°00.2	48°30.1 -9°48.1	63°04.0 -9°35.9	77°38.2 -9°23.8	+33.8 +12.0	15.0 55.5
	Je 21	296°15.8 -6°18.7	310°56.6 -6°06.2	325°25.5 -5°53.7	340°00.5 -5°41.2	354°35.5 -5°28.7	9°10.5 -5°16.1	23°45.5 -5°03.6	38°20.6 -4°51.0	52°55.8 -4°38.4	67°30.9 -4°25.8	82°06.1 -4°13.2	+35.0 -12.6	14.9 54.6
O	Ve 22	300°57.0 -1°03.5	315°32.6 -0°50.9	330°08.1 -0°38.2	344°43.7 -0°25.6	359°19.3 -0°12.9	13°54.9 -0°00.3	28°30.5 0°12.4	43°06.1 0°25.0	57°41.8 0°37.6	72°17.4 0°50.7	86°53.0 1°02.9	+35.6 +12.6	14.8 54.3
	Sa 23	305°47.4 4°11.0	320°23.3 4°23.4	334°58.6 4°35.8	349°34.1 4°48.2	364°06.6 5°00.6	18°45.1 5°13.0	33°20.6 5°23.5	47°56.1 5°37.6	62°31.6 5°49.6	77°07.6 6°02.2	91°42.4 6°14.5	+35.5 +12.3	14.8 54.2
	Di 24	310°30.5 9°15.2	325°05.4 9°27.0	339°40.4 9°38.8	354°15.2 9°50.6	368°50.0 10°02.3	23°24.8 10°14.0	37°59.6 10°25.6	52°34.3 10°37.2	67°08.9 10°48.8	81°43.5 11°00.4	95°18.2 11°11.9	+34.8 +11.7	14.8 54.2
O	Lu 25	314°50.5 13°59.2	329°24.2 14°10.0	343°57.8 14°20.7	358°31.4 14°31.4	373°04.9 14°42.0	27°38.4 14°52.6	42°11.8 15°03.1	56°45.1 15°13.6	71°18.4 15°24.0	85°51.6 15°34.3	100°24.7 15°44.6	+33.4 +10.5	14.9 54.5
	Ma 26	318°33.0 18°11.4	333°05.0 18°20.6	347°36.9 18°29.8	362°08.6 18°38.8	376°40.4 18°47.9	31°12.0 18°56.8	45°43.8 19°05.6	60°15.0 19°14.1	74°46.4 19°23.1	89°17.7 19°31.7	103°49.6 19°40.3	+31.6 +8.9	15.0 54.9
	Me 27	321°27.4 21°03.7	335°57.2 21°44.9	350°27.0 21°51.9	364°56.7 21°58.8	379°26.4 22°05.5	33°55.9 22°12.2	48°25.4 22°18.8	62°54.4 22°25.3	77°24.4 22°31.6	91°53.2 22°37.1	106°22.3 22°44.0	+29.5 +6.6	15.1 55.5
O	Je 28	323°29.2 24°02.6	337°57.1 24°06.8	352°24.8 24°11.0	366°52.5 24°15.0	381°20.1 24°18.9	35°47.6 24°22.7	50°15.1 24°26.3	64°42.5 24°29.8	79°09.8 24°33.2	93°37.0 24°36.4	108°04.4 24°39.5	+27.5 +3.7	15.3 56.2
	Ve 29	324°44.5 26°09.5	339°10.8 25°10.4	353°37.0 25°11.1	368°03.1 25°11.7	382°29.3 25°12.1	36°55.3 25°12.4	51°21.4 25°12.5	65°47.4 25°12.5	80°13.3 25°12.5	94°39.0 25°12.0	109°05.1 25°11.5	+26.1 +0.2	15.5 56.9
	Sa 30	326°30.3 24°46.1	339°55.9 24°43.2	354°21.4 24°40.2	368°47.0 24°36.9	383°23.2 24°33.6	37°38.0 24°30.0	52°03.6 24°26.4	66°29.1 24°22.5	80°54.6 24°18.5	95°20.2 24°14.4	109°45.7 24°10.1	+25.5 -3.6	15.7 57.7
O	Di 31	326°10.8 22°47.7	340°36.6 22°41.0	355°02.5 22°34.2	369°28.4 22°27.2	384°04.4 22°20.1	38°20.4 22°12.8	52°46.4 22°05.5	67°12.4 21°57.9	81°38.5 21°50.3	96°04.7 21°42.5	110°30.8 21°34.5	+26.0 -7.3	15.9 58.3

Ligne 1: GHA, Δ /h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (= Sud), Δ /h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

PL: 2 01h40 — DQ: 9 05h38 — NL: 16 02h06 — PQ: 23 21h44 — PL: 31 16h48

SOLEIL

Janvier 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	269°06.2 -22°58.3	284°05.9 -22°58.1	299°05.6 -22°57.9	314°05.3 -22°57.7	329°05.0 -22°57.4	344°04.7 -22°57.2	359°04.5 -22°57.0	14°04.2 -22°56.8	29°03.9 -22°56.6	44°03.6 -22°56.4	59°03.3 -22°56.1	74°03.0 -22°55.9	-0.3 +0.2
Ma 2	268°59.2 -22°53.0	283°58.9 -22°52.7	298°58.6 -22°52.5	313°58.4 -22°52.3	328°58.1 -22°52.1	343°57.8 -22°51.8	358°57.5 -22°51.5	13°57.2 -22°51.1	28°56.9 -22°50.9	43°56.6 -22°50.6	58°56.3 -22°50.4	73°56.1 -22°50.4	-0.3 +0.2
Me 3	268°52.3 -22°47.2	283°52.0 -22°47.0	298°51.8 -22°46.7	313°51.5 -22°46.5	328°51.2 -22°46.2	343°50.9 -22°46.0	358°50.6 -22°45.7	13°50.3 -22°45.4	28°50.0 -22°45.2	43°49.8 -22°44.9	58°49.5 -22°44.7	73°49.2 -22°44.4	-0.3 +0.3
Je 4	268°45.5 -22°41.0	283°45.2 -22°40.7	298°45.0 -22°40.5	313°44.7 -22°40.2	328°44.4 -22°39.9	343°44.1 -22°39.6	358°43.8 -22°39.4	13°43.6 -22°39.1	28°43.3 -22°38.8	43°43.0 -22°38.5	58°42.7 -22°38.3	73°42.4 -22°38.0	-0.3 +0.3
Ve 5	268°38.8 -22°34.3	283°38.5 -22°34.0	298°38.3 -22°33.7	313°38.0 -22°33.5	328°37.7 -22°33.2	343°37.4 -22°32.9	358°37.2 -22°32.6	13°36.9 -22°32.3	28°36.6 -22°32.0	43°36.3 -22°31.7	58°36.1 -22°31.4	73°35.8 -22°31.1	-0.3 +0.3
Sa 6	268°32.2 -22°27.2	283°32.0 -22°26.9	298°31.7 -22°26.6	313°31.4 -22°26.3	328°31.1 -22°26.0	343°30.9 -22°25.7	358°30.6 -22°25.4	13°30.3 -22°25.0	28°30.1 -22°24.7	43°29.8 -22°24.4	58°29.5 -22°24.1	73°29.2 -22°23.8	-0.3 +0.3
Di 7	268°25.7 -22°19.6	283°25.5 -22°19.3	298°25.2 -22°19.0	313°24.9 -22°18.7	328°24.7 -22°18.3	343°24.4 -22°18.0	358°24.1 -22°17.7	13°23.9 -22°17.3	28°23.6 -22°17.0	43°23.3 -22°16.7	58°23.1 -22°16.4	73°22.8 -22°16.0	-0.3 +0.3
Lu 8	268°19.4 -22°13.1	283°19.1 -22°12.9	298°18.9 -22°12.6	313°18.6 -22°12.4	328°18.3 -22°12.0	343°18.1 -22°11.7	358°17.8 -22°11.6	13°17.5 -22°11.3	28°17.3 -22°11.1	43°17.0 -22°10.8	58°16.8 -22°10.6	73°16.5 -22°10.3	-0.3 +0.3
Ma 9	268°13.1 -22°03.2	283°12.8 -22°02.8	298°12.6 -22°02.5	313°12.4 -22°02.1	328°12.1 -22°01.7	343°11.9 -22°01.4	358°11.6 -22°01.0	13°11.3 -22°00.7	28°11.1 -22°00.3	43°10.8 -22°00.0	58°10.6 -22°00.0	73°10.3 -22°00.0	-0.3 +0.3
Me 10	268°07.0 -21°54.3	283°06.8 -21°53.9	298°06.5 -21°53.6	313°06.3 -21°53.2	328°06.0 -21°52.8	343°05.8 -21°52.4	358°05.5 -21°52.0	13°05.3 -21°51.7	28°05.0 -21°51.3	43°04.8 -21°50.9	58°04.5 -21°50.5	73°04.3 -21°50.1	-0.3 +0.3
Je 11	268°01.1 -21°45.0	283°00.8 -21°44.6	298°00.6 -21°44.2	313°00.3 -21°43.8	328°00.1 -21°43.4	343°59.8 -21°43.0	357°59.6 -21°42.6	12°59.3 -21°42.2	27°59.1 -21°41.8	42°58.9 -21°41.4	57°58.6 -21°41.0	72°58.4 -21°40.6	-0.2 +0.4
Ve 12	267°55.2 -21°35.3	282°55.0 -21°34.9	297°54.8 -21°34.5	312°54.5 -21°34.1	327°54.3 -21°33.6	342°54.0 -21°33.2	357°53.8 -21°32.8	12°53.6 -21°32.4	27°53.3 -21°32.0	42°53.1 -21°31.5	57°52.9 -21°31.1	72°52.6 -21°30.7	-0.2 +0.4
Sa 13	267°49.1 -21°25.2	282°49.3 -21°24.7	297°49.1 -21°24.3	312°48.9 -21°23.9	327°48.6 -21°23.4	342°48.4 -21°23.0	357°48.2 -21°22.6	12°47.9 -21°22.1	27°47.7 -21°21.7	42°47.5 -21°21.2	57°47.2 -21°20.8	72°47.0 -21°20.4	-0.2 +0.4
Di 14	267°44.0 -21°14.6	282°43.8 -21°14.1	297°43.6 -21°13.7	312°43.4 -21°13.2	327°43.1 -21°12.8	342°42.9 -21°12.3	357°42.7 -21°11.9	12°42.5 -21°11.4	27°42.2 -21°11.0	42°42.0 -21°10.5	57°41.8 -21°10.1	72°41.6 -21°09.6	-0.2 +0.5
Lu 15	267°38.7 -21°03.6	282°38.5 -21°03.2	297°38.3 -21°02.7	312°38.0 -21°02.2	327°37.7 -21°01.8	342°37.6 -21°01.3	357°37.4 -21°00.8	12°37.2 -21°00.4	27°37.0 -20°59.9	42°36.7 -20°59.5	57°36.5 -20°58.9	72°36.3 -20°58.5	-0.2 +0.5
Ma 16	267°33.5 -20°52.3	282°33.3 -20°51.8	297°33.1 -20°51.3	312°32.9 -20°50.8	327°32.7 -20°50.3	342°32.5 -20°49.8	357°32.2 -20°49.4	12°32.0 -20°48.9	27°31.8 -20°48.4	42°31.6 -20°47.9	57°31.4 -20°47.4	72°31.2 -20°46.9	-0.2 +0.5
Me 17	267°28.5 -20°40.5	282°28.3 -20°40.0	297°28.1 -20°39.5	312°27.9 -20°39.0	327°27.7 -20°38.5	342°27.5 -20°38.0	357°27.3 -20°37.5	12°27.1 -20°37.0	27°26.9 -20°36.5	42°26.7 -20°36.0	57°26.5 -20°35.5	72°26.3 -20°35.0	-0.2 +0.5
Je 18	267°23.7 -20°28.3	282°23.5 -20°27.8	297°23.3 -20°27.3	312°23.1 -20°26.8	327°22.9 -20°26.3	342°22.7 -20°25.8	357°22.5 -20°25.2	12°22.3 -20°24.7	27°22.1 -20°24.2	42°21.9 -20°23.7	57°21.7 -20°23.2	72°21.5 -20°22.6	-0.2 +0.5
Ve 19	267°19.0 -20°15.8	282°18.9 -20°15.3	297°18.7 -20°14.7	312°18.5 -20°14.2	327°18.3 -20°13.7	342°18.1 -20°13.1	357°17.9 -20°12.6	12°17.7 -20°12.1	27°17.5 -20°11.5	42°17.3 -20°11.0	57°17.2 -20°10.5	72°17.0 -20°09.9	-0.2 +0.5
Sa 20	267°14.6 -20°02.9	282°14.4 -20°02.3	297°14.2 -20°01.8	312°14.0 -20°01.2	327°13.9 -20°00.7	342°13.7 -20°00.1	357°13.5 -19°59.6	12°13.3 -19°59.0	27°13.1 -19°58.5	42°13.0 -19°57.9	57°12.8 -19°57.4	72°12.6 -19°56.8	-0.2 +0.6
Di 21	267°10.3 -19°09.6	282°10.2 -19°09.3	297°10.0 -19°08.9	312°09.8 -19°08.4	327°09.6 -19°07.9	342°09.5 -19°07.4	357°09.3 -19°06.8	12°09.1 -19°05.6	27°08.9 -19°05.1	42°08.8 -19°04.5	57°08.6 -19°04.0	72°08.4 -19°03.4	-0.2 +0.6
Lu 22	267°06.3 -19°03.5	282°06.1 -19°03.3	297°05.9 -19°03.4	312°05.8 -19°03.2	327°05.6 -19°03.6	342°05.4 -19°03.3	357°05.3 -19°02.4	12°05.1 -19°01.9	27°04.9 -19°01.3	42°04.8 -19°00.7	57°04.6 -19°00.1	72°04.4 -19°00.0	-0.2 +0.6
Ma 23	267°02.4 -19°21.9	282°02.2 -19°21.3	297°02.1 -19°20.7	312°01.9 -19°20.1	327°01.8 -19°19.5	342°01.6 -19°18.9	357°01.4 -19°18.3	12°01.3 -19°17.7	27°01.1 -19°17.1	42°01.0 -19°16.5	57°00.8 -19°15.9	72°00.7 -19°15.3	-0.2 +0.6
Me 24	266°58.7 -19°07.5	281°58.6 -19°06.9	296°58.4 -19°06.3	311°58.3 -19°05.7	326°58.1 -19°05.1	341°58.0 -19°04.5	356°57.8 -19°03.9	11°57.7 -19°03.2	26°57.5 -19°02.6	41°57.4 -19°02.0	56°57.2 -19°01.4	71°57.1 -19°00.8	-0.1 +0.6
Je 25	266°55.8 -18°52.8	281°55.1 -18°52.2	296°55.0 -18°51.5	311°54.9 -18°50.9	326°54.7 -18°50.3	341°54.5 -18°49.7	356°54.4 -18°49.1	11°54.3 -18°48.4	26°54.1 -18°47.8	41°54.0 -18°47.2	56°53.9 -18°46.5	71°53.7 -18°45.9	-0.1 +0.6
Ve 26	266°52.0 -18°37.7	281°51.8 -18°37.1	296°51.7 -18°36.4	311°51.6 -18°35.8	326°51.5 -18°35.2	341°51.3 -18°34.5	356°51.2 -18°33.9	11°51.1 -18°33.2	26°50.9 -18°32.6	41°50.8 -18°32.0	56°50.7 -18°31.3	71°50.6 -18°30.7	-0.1 +0.6
Sa 27	266°48.9 -18°22.3	281°48.8 -18°21.6	296°48.7 -18°21.0	311°48.6 -18°20.3	326°48.4 -18°19.7	341°48.3 -18°19.0	356°48.2 -18°18.4	11°48.1 -18°17.7	26°47.9 -18°17.1	41°47.8 -18°16.4	56°47.7 -18°15.8	71°47.6 -18°15.1	-0.1 +0.7
Di 28	266°46.1 -18°06.5	281°45.9 -18°05.9	296°45.8 -18°05.2	311°45.7 -18°04.6	326°45.6 -18°03.9	341°45.5 -18°03.2	356°45.4 -18°02.6	11°45.3 -18°01.9	26°45.2 -18°01.2	41°45.0 -18°00.6	56°44.9 -17°59.9	71°44.8 -17°59.2	-0.1 +0.7
Lu 29	266°43.4 -17°50.5	281°43.3 -17°49.8	296°43.2 -17°49.1	311°43.1 -17°48.4	326°43.0 -17°47.8	341°42.9 -17°47.1	356°42.8 -17°46.4	11°42.7 -17°45.7	26°42.6 -17°45.0	41°42.5 -17°44.4	56°42.4 -17°43.7	71°42.3 -17°43.0	-0.1 +0.7
Ma 30	266°41.0 -17°34.1	281°40.9 -17°33.4	296°40.8 -17°32.7	311°40.7 -17°32.0	326°40.6 -17°31.3	341°40.5 -17°30.6	356°40.4 -17°29.9	11°40.3 -17°29.2	26°40.2 -17°28.6	41°40.1 -17°27.9	56°40.0 -17°27.2	71°39.9 -17°26.5	-0.1 +0.7
Me 31	266°38.7 -17°17.4	281°38.6 -17°16.7	296°38.5 -17°16.0	311°38.5 -17°15.3	326°38.4 -17°14.6	341°38.3 -17°13.9	356°38.2 -17°13.2	11°38.1 -17°12.5	26°38.0 -17°11.8	41°37.9 -17°11.0	56°37.8 -17°10.3	71°37.8 -17°09.6	-0.1 +0.7

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Janvier 2029

	J	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	Δ'/h SP
O	Lu 1	240°28.3 20°17.0	254°54.9 20°07.7	269°21.5 19°58.3	283°48.2 19°48.8	298°15.0 19°39.1	312°41.8 19°29.4	327°08.7 19°19.5	341°35.6 19°09.5	356°02.5 18°59.3	10°29.6 18°49.1	24°56.6 18°38.7	+26.8 16.0 -9.8 58.7
	Ma 2	241°50.0 15°49.0	256°17.0 15°37.9	270°45.0 15°25.8	285°13.0 15°13.5	299°41.1 15°01.2	314°09.2 14°48.7	328°37.4 14°36.2	343°05.7 14°23.6	357°34.0 14°10.9	12°02.3 13°58.1	26°30.8 13°45.2	+28.2 16.1 -12.5 59.0
	Me 3	243°42.9 10°23.2	258°12.0 10°09.2	272°41.3 9°55.1	287°10.5 9°41.0	301°39.8 9°26.8	316°09.2 9°12.6	330°38.6 8°58.3	345°08.0 8°44.0	359°37.4 8°29.6	14°06.9 8°15.2	28°36.5 8°00.7	+29.4 16.2 -14.3 59.3
O	Je 4	246°03.4 4°19.0	260°33.4 4°04.0	275°03.0 3°49.0	289°33.4 3°33.9	304°03.5 3°18.9	318°33.6 3°03.8	333°03.7 2°48.7	347°33.8 2°33.5	2°03.9 2°18.4	16°34.1 2°03.3	31°04.2 1°48.1	+30.1 16.2 -15.1 59.4
	Ve 5	248°37.3 -1°09.4	263°07.5 -2°14.5	277°37.7 -2°29.6	292°07.9 -2°44.7	306°38.1 -2°59.8	321°08.3 -3°14.8	335°38.5 -3°29.9	350°08.6 -3°44.6	4°38.8 -3°59.9	19°08.9 -4°14.8	33°39.0 -4°29.8	+30.2 16.2 -15.0 59.3
	Sa 6	251°08.4 -8°09.8	265°38.1 -8°24.2	280°07.8 -8°38.5	294°37.5 -8°52.7	309°07.2 -9°06.9	323°36.8 -9°21.0	338°06.4 -9°35.1	352°35.9 -9°49.2	7°05.4 -10°03.1	21°34.9 -10°17.0	36°04.3 -10°30.9	+29.6 16.1 -14.1 59.2
O	Di 7	253°20.5 -13°50.6	267°49.2 -14°03.4	282°17.9 -14°16.0	296°46.5 -14°28.5	311°15.0 -14°41.0	325°43.5 -14°53.4	340°11.9 -15°05.7	354°40.3 -15°17.9	9°08.7 -15°30.0	23°36.9 -15°42.0	38°05.2 -15°53.9	+28.5 16.1 -12.3 59.0
	Lu 8	267°49.2 -18°51.2	282°17.9 -19°01.3	296°46.5 -19°11.4	311°15.0 -19°21.3	325°43.5 -19°31.1	340°11.9 -19°40.8	354°40.3 -19°50.3	368°08.7 -20°09.1	23°36.9 -20°19.1	38°05.2 -20°27.4	52°33.3 -20°36.1	+28.4 16.1 -9.6 58.7
	Ma 9	269°28.9 -18°51.2	283°56.1 -19°01.3	298°23.3 -19°11.4	312°50.5 -19°21.3	327°17.5 -19°31.1	341°44.5 -19°40.8	356°11.5 -19°50.3	10°38.8 -20°09.1	25°05.2 -20°19.1	39°32.0 -20°27.4	53°58.7 -20°36.1	+27.0 16.0 -9.6 58.7
O	Me 10	270°33.2 -22°28.0	284°59.1 -22°34.9	299°24.9 -22°41.8	313°50.7 -22°48.4	328°16.5 -22°54.9	342°42.2 -23°01.3	357°07.9 -23°07.6	11°33.6 -23°13.6	25°59.2 -23°19.6	40°24.7 -23°25.1	54°50.3 -23°31.1	+25.7 15.9 -6.3 58.3
	Je 11	271°09.7 -24°37.8	285°34.9 -24°41.1	300°00.0 -24°44.1	314°25.1 -24°47.0	328°50.3 -24°49.4	343°15.2 -24°52.4	357°40.3 -24°54.8	12°05.4 -24°57.1	26°30.5 -24°59.2	40°55.5 -25°01.7	55°52.6 -25°03.0	+25.1 15.8 -2.5 57.9
	Ve 12	271°37.9 -25°11.5	286°03.2 -25°10.8	300°28.6 -25°10.0	314°53.9 -25°09.0	329°19.8 -25°07.0	343°44.8 -25°06.5	358°10.3 -25°05.1	12°35.8 -25°03.5	27°01.3 -25°01.7	41°26.9 -24°59.9	55°52.6 -24°57.8	+25.5 15.7 +1.4 57.4
O	Sa 13	273°23.2 -24°09.5	286°49.8 -24°05.5	301°16.3 -24°00.7	315°43.0 -23°56.1	330°09.7 -23°51.2	344°36.5 -23°46.4	359°03.3 -23°41.4	13°30.3 -23°36.2	27°57.3 -23°31.0	42°24.3 -23°25.5	56°51.5 -23°20.0	+26.8 15.5 +5.0 56.9
	Di 14	273°48.0 -21°42.1	288°16.5 -21°34.7	302°45.2 -21°27.1	317°13.6 -21°19.4	331°42.3 -21°11.7	346°11.0 -21°03.8	359°15.0 -20°55.8	13°03.9 -20°47.7	29°37.8 -20°39.5	44°06.9 -20°31.2	58°36.1 -20°22.8	+28.8 15.4 +7.9 56.4
	Lu 15	276°05.4 -18°05.9	290°35.1 -17°56.1	305°05.7 -17°46.2	319°36.5 -17°36.2	334°07.3 -17°26.2	348°38.2 -17°16.1	359°10.3 -17°05.9	17°40.3 -16°55.6	32°11.5 -16°45.3	46°42.7 -16°34.9	61°14.1 -16°24.4	+31.0 15.2 -10.2 55.8
O	Ma 16	279°13.4 -13°39.8	293°46.0 -13°28.4	308°18.6 -13°17.0	322°51.3 -13°05.4	337°24.1 -12°53.9	351°57.0 -12°42.3	360°29.9 -12°30.6	21°02.9 -12°18.9	35°35.9 -12°07.2	50°09.0 -11°55.4	64°42.2 -11°43.6	+32.9 15.1 -11.6 55.3
	Me 17	283°07.2 -8°42.0	297°41.3 -8°29.6	312°15.5 -8°17.2	326°49.7 -8°04.9	341°24.0 -7°52.4	355°58.3 -7°40.0	10°32.7 -7°27.5	25°07.1 -7°15.0	39°41.5 -7°02.5	54°16.0 -6°50.0	68°50.6 -6°37.5	+34.3 14.9 -12.5 54.8
	Je 18	287°33.4 -3°27.7	302°08.5 -3°15.0	316°43.7 -3°02.3	331°18.8 -2°49.6	345°54.0 -2°36.8	359°29.3 -2°24.1	15°04.5 -2°11.4	29°39.8 -1°58.6	44°15.1 -1°45.9	58°50.4 -1°33.2	73°25.7 -1°20.4	+35.2 14.8 -12.7 54.4
O	Ve 19	292°17.5 1°50.0	306°53.0 2°02.6	321°28.5 2°15.2	336°04.0 2°27.8	350°39.0 2°40.4	364°26.1 2°53.0	5°15.1 3°05.6	19°05.0 3°18.1	34°26.1 3°30.6	49°01.7 3°43.1	63°37.2 3°55.6	+35.5 14.8 -12.6 54.2
	Sa 20	297°04.2 7°00.4	311°39.5 7°12.6	326°14.8 7°24.7	340°50.1 7°36.7	355°25.3 7°48.8	10°00.6 8°00.8	24°35.8 8°12.7	39°10.9 8°24.7	53°46.1 8°36.6	68°21.1 8°48.5	82°56.3 9°00.3	+35.2 14.8 -12.0 54.1
	Di 21	301°38.6 11°53.6	316°13.1 12°04.8	330°47.6 12°16.0	345°22.0 12°27.1	359°56.4 12°38.2	14°30.7 12°49.2	29°05.0 13°00.2	43°29.2 13°11.1	58°13.4 13°22.2	72°47.6 13°32.9	87°21.6 13°43.7	+34.3 14.8 +11.0 54.2
O	Lu 22	305°46.3 16°19.1	320°19.4 16°29.0	334°52.5 16°38.8	349°25.5 16°48.5	363°58.5 16°58.2	18°31.4 17°07.9	33°04.2 17°17.4	47°37.0 17°26.9	62°09.7 17°36.4	76°42.3 17°45.7	91°14.9 17°55.0	+32.9 14.8 +9.6 54.4
	Ma 23	309°14.6 20°05.4	323°45.9 20°13.4	338°17.2 20°21.4	352°48.4 20°29.3	367°19.6 20°37.1	21°50.6 20°44.8	36°21.6 20°52.4	50°52.5 20°59.9	65°23.3 21°07.4	79°54.1 21°14.7	94°24.7 21°22.0	+31.0 15.0 +7.7 54.0
	Me 24	311°54.8 22°59.0	326°24.2 23°04.6	340°53.5 23°10.1	355°22.7 23°15.5	369°51.8 23°20.8	24°20.8 23°26.0	38°49.8 23°31.1	53°18.7 23°36.1	67°47.5 23°40.9	82°16.2 23°45.7	96°44.8 23°50.3	+29.0 15.1 +5.1 55.5
O	Je 25	313°45.4 24°44.9	328°12.9 24°47.5	342°40.3 24°50.0	357°07.6 24°52.3	371°34.9 24°54.5	26°02.1 24°56.6	40°29.2 24°58.6	54°56.3 25°00.4	69°23.3 25°02.0	83°50.3 25°03.6	98°17.2 25°05.0	+27.2 15.4 +2.0 56.3
	Ve 26	314°54.2 25°08.7	329°20.3 25°07.8	343°46.4 25°06.8	358°12.4 25°05.5	372°38.4 25°04.2	27°04.3 25°02.7	41°30.3 25°01.0	55°56.2 24°59.2	70°22.0 24°57.2	84°47.9 24°55.1	99°13.7 24°52.8	+25.9 15.6 -1.6 57.2
	Sa 27	315°38.6 24°00.3	330°04.2 23°55.6	344°29.8 23°50.7	358°55.4 23°45.7	373°21.0 23°40.5	27°46.5 23°35.2	42°12.1 23°29.7	56°37.7 23°24.1	71°03.3 23°18.3	85°28.9 23°12.4	99°54.6 23°06.3	+25.6 15.8 -5.4 58.1
O	Di 28	316°20.8 21°17.3	330°46.7 21°08.8	345°12.7 21°00.3	359°38.7 20°51.6	14°04.7 20°42.7	28°30.7 20°33.8	42°56.8 20°24.7	57°22.9 20°15.4	71°49.1 20°06.0	86°15.3 19°56.5	100°41.5 19°46.9	+26.1 16.1 -9.0 58.9
	Lu 29	317°19.5 17°07.0	331°46.3 16°55.4	346°13.2 16°43.7	360°40.2 16°31.9	15°07.2 16°19.9	29°34.2 16°07.9	44°01.3 15°55.7	58°28.4 15°43.5	72°55.6 15°31.1	87°22.8 15°18.6	101°50.1 15°06.0	+27.1 16.2 -12.1 59.6
	Ma 30	318°44.1 11°46.4	333°12.1 11°32.4	347°40.1 11°18.4	362°08.1 11°04.2	16°36.1 10°56.0	31°04.2 10°35.8	45°32.4 10°21.4	60°00.6 10°07.0	74°28.8 9°52.6	88°57.0 9°38.0	103°25.3 9°23.4	+28.1 16.4 -14.3 60.1
O	Me 31	320°33.6 5°38.4	335°02.4 5°23.0	349°31.2 5°07.6	364°00.0 4°52.2	18°28.8 4°36.8	32°57.7 4°21.3	47°26.6 4°05.9	61°55.5 3°50.4	76°24.5 3°34.8	90°53.4 3°19.3	105°22.4 3°03.7	+28.9 16.4 -15.5 60.3

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
DQ: 7 13h26 — NL: 14 17h24 — PQ: 22 19h23 — PL: 30 06h03

SOLEIL

Février 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	266°36.7 -17°00.4	281°36.6 -16°59.7	296°36.5 -16°59.0	311°36.4 -16°58.2	326°36.4 -16°57.5	341°36.3 -16°56.8	356°36.2 -16°56.1	11°36.1 -16°55.4	26°36.0 -16°54.6	41°36.0 -16°53.9	56°35.9 -16°53.2	71°35.8 -16°52.5	-0.1 +0.7
Ve 2	266°34.8 -16°43.1	281°34.8 -16°42.4	296°34.7 -16°41.6	311°34.6 -16°40.9	326°34.6 -16°40.2	341°34.5 -16°39.4	356°34.4 -16°38.7	11°34.3 -16°38.0	26°34.3 -16°37.2	41°34.2 -16°36.5	56°34.1 -16°35.8	71°34.1 -16°35.1	-0.1 +0.7
Sa 3	266°33.2 -16°25.5	281°33.1 -16°24.7	296°33.1 -16°24.0	311°33.0 -16°23.3	326°33.0 -16°22.5	341°32.9 -16°21.8	356°32.8 -16°21.0	11°32.8 -16°20.3	26°32.7 -16°19.6	41°32.6 -16°18.8	56°32.6 -16°18.1	71°32.5 -16°17.3	-0.1 +0.7
Di 4	266°31.8 -16°07.6	281°31.7 -16°06.8	296°31.7 -16°06.1	311°31.6 -16°05.3	326°31.5 -16°04.6	341°31.5 -16°03.8	356°31.4 -16°03.1	11°31.4 -16°02.3	26°31.3 -16°01.6	41°31.3 -16°00.8	56°31.2 -16°00.1	71°31.2 -15°59.3	-0.1 +0.8
Lu 5	266°30.5 -15°49.4	281°30.5 -15°48.7	296°30.4 -15°47.9	311°30.4 -15°47.1	326°30.3 -15°46.4	341°30.3 -15°45.6	356°30.2 -15°44.8	11°30.2 -15°44.1	26°30.2 -15°43.3	41°30.1 -15°42.5	56°30.1 -15°41.8	71°30.0 -15°41.0	-0.0 +0.8
Ma 6	266°29.5 -15°31.0	281°29.4 -15°30.2	296°29.4 -15°29.4	311°29.4 -15°28.7	326°29.3 -15°27.9	341°29.3 -15°27.1	356°29.2 -15°26.3	11°29.2 -15°25.6	26°29.2 -15°24.8	41°29.1 -15°24.0	56°29.1 -15°23.2	71°29.1 -15°22.5	-0.0 +0.8
Me 7	266°28.6 -15°12.3	281°28.6 -15°11.5	296°28.6 -15°10.7	311°28.5 -15°09.9	326°28.5 -15°09.1	341°28.5 -15°08.4	356°28.4 -15°07.6	11°28.4 -15°06.8	26°28.4 -15°06.0	41°28.4 -15°05.2	56°28.3 -15°04.4	71°28.3 -15°03.6	-0.0 +0.8
Je 8	266°28.0 -14°53.3	281°27.9 -14°52.5	296°27.9 -14°51.7	311°27.9 -14°50.9	326°27.9 -14°50.1	341°27.9 -14°49.3	356°27.8 -14°48.5	11°27.8 -14°47.7	26°27.8 -14°46.9	41°27.8 -14°46.1	56°27.8 -14°45.3	71°27.7 -14°44.5	-0.0 +0.8
Ve 9	266°27.5 -14°34.1	281°27.5 -14°33.3	296°27.5 -14°32.5	311°27.5 -14°31.7	326°27.4 -14°30.9	341°27.4 -14°30.1	356°27.4 -14°29.3	11°27.4 -14°28.4	26°27.4 -14°27.6	41°27.4 -14°26.8	56°27.4 -14°26.0	71°27.4 -14°25.2	-0.0 +0.8
Sa 10	266°27.2 -14°14.6	281°27.2 -14°13.8	296°27.2 -14°13.0	311°27.2 -14°12.2	326°27.2 -14°11.4	341°27.2 -14°10.6	356°27.2 -14°09.7	11°27.2 -14°08.9	26°27.2 -14°08.1	41°27.2 -14°07.3	56°27.2 -14°06.5	71°27.2 -14°05.6	-0.0 +0.8
Di 11	266°27.1 -13°54.9	281°27.1 -13°54.1	296°27.2 -13°53.3	311°27.2 -13°52.5	326°27.2 -13°51.6	341°27.2 -13°50.8	356°27.2 -13°50.0	11°27.2 -13°49.1	26°27.2 -13°48.3	41°27.2 -13°47.5	56°27.2 -13°46.7	71°27.2 -13°45.8	+0.0 +0.8
Lu 12	266°27.3 -13°35.0	281°27.3 -13°34.2	296°27.3 -13°33.3	311°27.3 -13°32.5	326°27.3 -13°31.7	341°27.3 -13°30.8	356°27.3 -13°30.0	11°27.3 -13°29.2	26°27.3 -13°28.3	41°27.3 -13°27.5	56°27.4 -13°26.6	71°27.4 -13°25.8	+0.0 +0.8
Ma 13	266°27.5 -13°14.9	281°27.6 -13°14.0	296°27.6 -13°13.2	311°27.6 -13°12.3	326°27.6 -13°11.5	341°27.6 -13°10.6	356°27.6 -13°09.8	11°27.7 -13°08.9	26°27.7 -13°08.1	41°27.7 -13°07.2	56°27.7 -13°06.4	71°27.7 -13°05.5	+0.0 +0.8
Me 14	266°28.7 -12°54.5	281°28.7 -12°53.6	296°28.8 -12°52.8	311°28.1 -12°51.9	326°28.1 -12°51.1	341°28.2 -12°50.2	356°28.2 -12°49.4	11°28.2 -12°48.6	26°28.2 -12°47.6	41°28.3 -12°46.8	56°28.3 -12°45.9	71°28.3 -12°45.1	+0.0 +0.9
Je 15	266°28.7 -12°33.9	281°28.7 -12°33.0	296°28.8 -12°32.2	311°28.7 -12°31.3	326°28.8 -12°30.5	341°28.9 -12°29.6	356°28.8 -12°28.7	11°28.9 -12°27.9	26°29.0 -12°27.0	41°29.0 -12°26.1	56°29.0 -12°25.3	71°29.1 -12°24.4	+0.0 +0.9
Ve 16	266°29.5 -12°13.1	281°29.6 -12°12.3	296°29.6 -12°11.4	311°29.7 -12°10.5	326°29.7 -12°09.6	341°29.7 -12°08.8	356°29.8 -12°07.9	11°29.8 -12°07.0	26°29.9 -12°06.2	41°29.9 -12°05.3	56°29.9 -12°04.4	71°30.0 -12°03.5	+0.0 +0.9
Sa 17	266°30.6 -11°52.2	281°30.6 -11°51.3	296°30.6 -11°50.4	311°30.7 -11°49.5	326°30.7 -11°48.6	341°30.8 -11°47.8	356°30.8 -11°46.9	11°30.9 -11°46.0	26°30.9 -11°45.1	41°31.0 -11°44.2	56°31.0 -11°43.4	71°31.1 -11°42.5	+0.0 +0.9
Di 18	266°31.8 -11°31.0	281°31.8 -11°30.1	296°31.9 -11°29.2	311°31.9 -11°28.3	326°32.0 -11°27.4	341°32.0 -11°26.6	356°32.1 -11°25.7	11°32.1 -11°24.8	26°32.2 -11°23.9	41°32.2 -11°23.0	56°32.3 -11°22.1	71°32.4 -11°21.2	+0.1 +0.9
Lu 19	266°33.1 -11°09.6	281°33.2 -11°08.8	296°33.2 -11°07.9	311°33.3 -11°07.0	326°33.4 -11°06.1	341°33.4 -11°05.2	356°33.5 -11°04.3	11°33.6 -11°03.4	26°33.6 -11°02.5	41°33.7 -11°01.6	56°33.7 -11°00.7	71°33.8 -10°59.8	+0.1 +0.9
Ma 20	266°34.7 -10°48.1	281°34.7 -10°47.2	296°34.8 -10°46.3	311°34.9 -10°45.4	326°34.9 -10°44.5	341°35.0 -10°43.6	356°35.1 -10°42.7	11°35.1 -10°41.8	26°35.2 -10°40.9	41°35.3 -10°40.0	56°35.4 -10°39.1	71°35.4 -10°38.2	+0.1 +0.9
Me 21	266°38.4 -10°26.5	281°36.5 -10°25.5	296°36.5 -10°24.6	311°36.6 -10°23.7	326°36.7 -10°22.8	341°36.8 -10°21.9	356°36.8 -10°21.0	11°36.9 -10°20.1	26°37.0 -10°19.2	41°37.1 -10°18.3	56°37.1 -10°17.4	71°37.2 -10°16.5	+0.1 +0.9
Je 22	266°38.2 -10°04.6	281°38.3 -10°03.7	296°38.4 -10°02.8	311°38.5 -10°01.9	326°38.6 -10°01.0	341°38.7 -10°00.0	356°38.7 -9°59.1	11°38.8 -9°58.2	26°38.9 -9°57.3	41°39.0 -9°56.4	56°38.9 -9°55.5	71°39.2 -9°54.6	+0.1 +0.9
Ve 23	266°40.3 -9°42.5	281°40.4 -9°41.7	296°40.5 -9°40.8	311°40.5 -9°39.9	326°40.6 -9°38.9	341°40.7 -9°38.0	356°40.8 -9°37.1	11°40.9 -9°36.2	26°41.0 -9°35.3	41°41.1 -9°34.3	56°41.1 -9°33.4	71°41.3 -9°32.5	+0.1 +0.9
Sa 24	266°42.5 -9°20.5	281°42.6 -9°19.6	296°42.7 -9°18.6	311°42.8 -9°17.7	326°42.8 -9°16.8	341°42.9 -9°15.9	356°43.0 -9°14.9	11°43.1 -9°14.0	26°43.2 -9°13.1	41°43.3 -9°12.1	56°43.4 -9°11.2	71°43.5 -9°10.3	+0.1 +0.9
Di 25	266°44.8 -8°58.2	281°44.9 -8°57.3	296°45.0 -8°56.3	311°45.1 -8°55.4	326°45.2 -8°54.5	341°45.3 -8°53.6	356°45.4 -8°52.6	11°45.5 -8°51.7	26°45.6 -8°50.8	41°45.6 -8°49.8	56°45.6 -8°48.9	71°45.9 -8°48.0	+0.1 +0.9
Lu 26	266°47.3 -8°35.8	281°47.4 -8°34.9	296°47.5 -8°33.9	311°47.6 -8°33.0	326°47.7 -8°32.1	341°47.8 -8°31.1	356°47.9 -8°30.2	11°48.0 -8°29.2	26°48.1 -8°28.3	41°48.3 -8°27.4	56°48.4 -8°26.4	71°48.5 -8°25.5	+0.1 +0.9
Ma 27	266°49.9 -8°13.3	281°50.0 -8°12.3	296°50.1 -8°11.4	311°50.3 -8°10.4	326°50.4 -8°09.5	341°50.5 -8°08.6	356°50.6 -8°07.6	11°50.7 -8°06.7	26°50.8 -8°05.7	41°50.9 -8°04.8	56°51.0 -8°03.8	71°51.2 -8°02.9	+0.1 +0.9
Me 28	266°52.7 -7°50.6	281°52.8 -7°49.7	296°52.9 -7°48.7	311°53.0 -7°47.8	326°53.2 -7°46.8	341°53.3 -7°45.9	356°53.4 -7°44.9	11°53.5 -7°44.0	26°53.6 -7°43.0	41°53.7 -7°42.1	56°53.9 -7°41.1	71°54.0 -7°40.2	+0.1 +0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Février 2029

	J	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	3h	Δ'/h	SP
●	Je 1	235°43.8 0°43.0	250°12.9 0°27.3	264°42.0 0°11.7	279°11.1 -0°04.0	293°40.2 -0°19.6	308°09.3 -0°35.3	322°38.4 -0°50.9	337°07.6 -1°06.6	351°36.7 -1°22.2	6°05.8 -1°37.8	20°35.0 -1°53.4	+29.1 -15.6	16.4 60.3
	Ve 2	237°51.3 -5°44.7	252°20.3 -5°59.9	266°49.3 -6°15.0	281°18.3 -6°30.1	295°47.2 -6°45.1	310°16.2 -7°00.1	324°45.1 -7°15.1	339°14.0 -7°30.0	353°42.9 -7°44.8	8°11.7 -7°59.6	22°40.0 -8°14.4	+28.9 -15.0	16.4 60.4
●	Sa 3	230°49.8 -11°48.0	254°18.2 -12°01.7	268°46.5 -12°15.3	283°14.8 -12°28.8	297°43.1 -12°42.3	312°11.3 -12°55.7	326°39.5 -13°08.9	341°07.6 -13°22.1	355°35.7 -13°35.2	10°03.8 -13°48.3	24°31.8 -14°01.2	+28.2 -13.3	16.3 59.6
	Di 4	241°27.4 -17°03.6	255°54.8 -17°14.9	270°22.1 -17°26.1	284°49.3 -17°37.2	299°16.6 -17°48.2	313°43.8 -17°59.1	328°10.9 -18°09.8	342°38.0 -18°20.5	357°05.0 -18°31.0	11°32.0 -18°41.4	25°59.0 -18°51.7	+27.2 -10.8	16.1 59.1
●	Lu 5	242°38.4 -21°03.6	257°04.7 -21°19.3	271°31.0 -21°27.4	285°57.2 -21°35.4	300°23.4 -21°43.2	314°49.6 -21°50.9	329°15.7 -21°58.5	343°41.8 -22°05.9	358°07.8 -22°13.2	12°33.8 -22°20.3	26°59.8 -22°27.3	+26.1 -7.6	16.0 58.5
	Ma 6	243°26.5 -23°54.9	257°52.2 -23°59.5	272°17.8 -24°04.0	286°43.3 -24°08.4	301°08.9 -24°12.6	315°34.5 -24°16.6	330°00.1 -24°20.5	344°25.6 -24°24.2	358°51.1 -24°27.8	13°16.7 -24°31.3	27°42.2 -24°34.6	+25.6 -4.0	15.8 57.9
●	Me 7	257°52.2 -21°11.1	272°17.8 -21°19.3	286°43.3 -21°27.4	301°08.9 -21°35.4	315°34.5 -21°43.2	330°00.1 -21°50.9	344°25.6 -21°58.5	358°51.1 -22°05.9	13°16.7 -22°13.2	27°42.2 -22°20.3	42°07.8 -22°27.3	+25.6 -7.6	15.8 58.5
	Je 8	258°31.4 -23°54.9	272°57.1 -23°59.5	287°22.8 -24°04.0	301°48.5 -24°08.4	316°14.3 -24°12.6	330°40.0 -24°16.6	345°05.8 -24°20.5	359°31.7 -24°24.2	13°57.5 -24°27.8	28°23.4 -24°31.3	42°49.4 -24°34.6	+25.8 -4.0	15.6 57.9
●	Ve 9	259°23.1 -24°39.2	273°49.7 -24°36.2	288°16.4 -24°33.1	302°43.1 -24°29.9	317°09.9 -24°26.5	331°36.8 -24°23.0	346°03.7 -24°19.3	0°30.7 -24°15.7	14°57.7 -24°11.6	29°24.8 -24°07.5	43°51.8 -24°03.3	+26.9 +3.6	15.5 56.7
	Sa 10	260°47.2 -22°45.2	275°15.5 -22°59.0	289°43.8 -22°32.7	304°12.2 -22°26.3	318°40.7 -22°19.8	333°09.3 -22°13.2	347°37.9 -22°06.4	2°06.6 -21°59.1	16°35.4 -21°52.6	31°04.2 -21°45.5	45°33.2 -21°38.3	+28.6 +6.7	15.3 56.2
●	Di 11	265°56.6 -19°38.1	277°26.8 -19°29.4	291°57.1 -19°20.5	306°27.4 -19°11.6	320°57.9 -19°02.5	335°28.4 -18°53.4	349°59.0 -18°44.2	4°29.6 -18°34.9	19°00.4 -18°25.5	33°31.2 -18°16.1	48°02.1 -18°06.5	+30.5 +9.2	15.2 55.7
	Lu 12	265°54.5 -15°34.6	280°26.6 -15°23.9	294°58.8 -15°13.2	309°31.0 -15°02.4	324°03.3 -14°51.6	338°35.6 -14°40.6	353°08.0 -14°29.7	7°40.5 -14°18.6	22°13.1 -14°07.6	36°45.7 -13°56.4	51°18.4 -13°45.2	+32.4 +10.9	15.1 55.2
●	Ma 13	269°36.2 -10°51.6	284°09.9 -10°39.7	298°43.6 -10°27.8	313°17.3 -10°15.8	327°51.1 -10°03.8	342°25.0 -9°51.7	356°58.9 -9°39.6	11°32.9 -9°27.5	26°06.9 -9°15.4	40°40.9 -9°03.2	55°15.0 -8°51.0	+33.9 +12.1	15.0 54.8
	Me 14	273°51.8 -5°44.9	288°26.6 -5°32.4	303°01.3 -5°19.8	317°36.2 -5°07.2	332°11.0 -4°54.6	346°45.9 -4°42.0	1°20.8 -4°29.4	15°57.5 -4°16.7	45°05.8 -4°04.1	54°05.8 -3°51.4	59°40.8 -3°38.8	+34.9 +12.6	14.9 54.5
●	Je 15	278°28.9 -0°28.4	293°04.3 -0°15.7	307°39.6 -0°03.0	322°15.0 0°09.7	336°50.4 0°22.3	351°25.8 0°35.0	6°01.2 0°47.7	20°36.2 1°00.3	35°12.0 1°13.0	49°47.4 1°25.6	64°22.8 1°38.8	+35.4 +12.7	14.8 54.2
	Ve 16	283°14.2 4°45.8	297°49.6 4°58.1	312°25.0 5°10.5	327°00.4 5°22.8	341°35.8 5°35.1	356°11.1 5°47.4	10°46.4 5°59.6	25°21.4 6°11.8	39°57.1 6°24.0	54°32.4 6°36.2	69°07.7 6°48.3	+35.3 +12.3	14.7 54.0
●	Sa 17	287°54.4 9°46.5	302°29.3 9°58.1	317°04.1 10°09.7	331°39.0 10°21.2	346°13.5 10°32.7	361°38.1 10°44.1	15°23.4 10°55.5	29°58.1 11°06.9	44°32.8 11°18.2	59°07.4 11°29.5	73°42.4 11°40.7	+34.8 +11.4	14.7 54.0
	Di 18	292°16.3 14°23.2	306°60.3 14°33.7	321°24.2 14°44.0	335°58.0 14°54.3	350°31.8 15°04.6	365°05.5 15°14.7	19°39.2 15°24.9	34°12.6 15°34.9	48°46.4 15°44.9	63°19.9 15°54.9	77°53.4 16°04.8	+33.7 +10.2	14.7 54.1
●	Lu 19	296°08.5 18°25.0	310°41.1 18°33.8	325°13.5 18°42.5	339°45.9 18°51.1	354°18.3 18°59.6	369°07.7 19°08.1	23°22.7 19°16.5	37°54.9 19°24.8	52°26.9 19°33.1	66°59.0 19°41.2	81°30.9 19°49.3	+32.2 +8.4	14.8 54.3
	Ma 20	299°21.8 21°40.0	313°52.7 21°46.6	328°23.4 21°53.2	342°54.1 21°59.6	357°24.8 22°06.0	371°47.7 22°12.2	11°55.3 22°18.4	26°25.8 22°24.5	40°56.2 22°30.4	55°26.6 22°36.3	69°56.8 22°42.0	+30.5 +6.2	14.9 54.8
●	Me 21	301°51.7 23°55.5	316°20.8 23°59.5	330°49.8 24°03.4	345°18.8 24°07.1	359°47.7 24°10.8	374°16.5 24°14.3	14°16.5 24°17.7	28°45.3 24°21.0	43°14.0 24°25.5	57°42.6 24°30.4	72°11.2 24°37.2	+28.6 +3.5	15.1 55.4
	Je 22	308°40.3 24°58.7	318°07.9 24°59.5	332°35.4 25°00.3	347°02.9 25°00.9	1°30.4 25°01.3	15°57.8 25°01.6	30°25.2 25°01.8	44°52.5 25°01.8	59°19.8 25°10.7	73°47.0 25°15.5	88°14.2 25°19.1	+27.4 +0.2	15.3 56.2
●	Ve 23	304°57.6 24°38.6	319°24.2 24°35.9	333°50.8 24°33.1	348°17.4 24°30.2	2°44.0 24°30.2	17°10.6 24°23.9	31°37.1 24°20.5	46°03.6 24°17.0	60°30.2 24°13.3	74°56.6 24°09.5	89°23.1 24°05.8	+26.6 -3.3	15.6 57.1
	Sa 24	308°59.2 22°48.6	320°25.6 22°42.3	334°52.0 22°35.9	349°18.4 22°29.3	3°44.8 22°22.6	18°11.2 22°15.7	32°37.6 22°08.7	47°04.0 22°01.5	61°30.4 21°54.3	75°56.8 21°46.8	90°23.3 21°39.3	+26.4 -6.9	15.8 58.1
●	Di 25	307°01.7 19°29.2	321°28.5 19°19.5	335°55.2 19°09.6	350°21.9 18°59.6	4°48.7 18°49.5	19°15.5 18°39.2	33°42.3 18°28.8	48°09.2 18°18.3	62°36.1 18°07.7	77°03.0 17°56.9	91°29.9 17°46.1	+26.8 -10.3	16.1 59.0
	Lu 26	308°16.8 14°49.1	322°44.2 14°36.4	337°11.6 14°23.7	351°39.0 14°10.8	6°06.4 13°57.8	20°33.8 13°44.7	35°01.3 13°31.6	49°28.8 13°18.3	63°56.3 13°04.9	78°23.5 12°51.5	92°51.4 12°38.0	+27.5 -13.1	16.3 59.9
●	Ma 27	309°47.9 9°05.0	324°15.8 8°50.2	338°43.8 8°35.3	353°11.7 8°20.4	7°39.7 8°05.4	22°07.7 7°50.4	36°35.7 7°35.3	51°03.7 7°20.2	65°31.8 7°05.0	79°59.8 6°49.7	94°27.9 6°34.4	+28.0 -15.1	16.5 60.6
	Me 28	311°30.1 2°40.0	325°58.3 2°24.1	340°26.5 2°08.2	354°54.6 1°52.3	9°22.8 1°36.4	23°51.0 1°20.4	38°19.2 1°04.5	52°47.4 0°48.5	67°15.5 0°32.6	81°43.7 0°16.6	96°11.9 0°00.6	+28.2 -15.9	16.6 61.0

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre

Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

DQ: 5 21h52 — NL: 13 10h31 — PQ: 21 15h09 — PL: 28 17h10

SOLEIL

Mars 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	266°55.6 -7°27.8	281°55.7 -7°26.9	296°55.8 -7°25.9	311°55.9 -7°25.0	326°56.1 -7°24.0	341°56.2 -7°23.1	356°56.3 -7°22.1	11°56.4 -7°21.2	26°56.6 -7°20.2	41°56.7 -7°19.3	56°56.8 -7°18.3	71°56.9 -7°17.4	+0.1 +1.0
Ve 2	266°58.6 -7°05.0	281°58.7 -7°04.0	296°58.8 -7°03.1	311°59.0 -7°02.1	326°59.1 -7°01.1	341°59.2 -7°00.2	356°59.4 -6°59.2	11°59.5 -6°58.3	26°59.5 -6°57.3	41°59.7 -6°56.4	56°59.9 -6°55.4	72°00.0 -6°54.5	+0.1 +1.0
Sa 3	267°01.7 -6°42.0	282°01.9 -6°41.0	297°02.0 -6°40.0	312°02.1 -6°39.1	327°02.3 -6°38.2	342°02.4 -6°37.2	357°02.5 -6°36.2	12°02.7 -6°35.3	27°02.7 -6°34.3	42°02.9 -6°33.4	57°03.1 -6°32.4	72°03.2 -6°31.4	+0.1 +1.0
Di 4	267°05.0 -6°18.9	282°05.1 -6°18.0	297°05.2 -6°17.0	312°05.4 -6°16.0	327°05.5 -6°15.1	342°05.7 -6°14.1	357°05.8 -6°13.1	12°05.9 -6°12.2	27°06.1 -6°11.2	42°06.2 -6°10.2	57°06.4 -6°09.3	72°06.5 -6°08.3	+0.1 +1.0
Lu 5	267°08.3 -5°55.8	282°08.5 -5°54.8	297°08.6 -5°53.8	312°08.8 -5°52.9	327°08.9 -5°51.9	342°09.0 -5°50.9	357°09.2 -5°50.0	12°09.3 -5°49.0	27°09.5 -5°48.0	42°09.6 -5°47.1	57°09.8 -5°46.1	72°09.9 -5°45.1	+0.1 +1.0
Ma 6	267°11.8 -5°32.5	282°11.9 -5°31.5	297°12.1 -5°30.6	312°12.2 -5°29.6	327°12.4 -5°28.6	342°12.5 -5°27.7	357°12.7 -5°26.7	12°12.8 -5°25.7	27°13.0 -5°24.7	42°13.1 -5°23.8	57°13.3 -5°22.8	72°13.4 -5°21.8	+0.1 +1.0
Me 7	267°15.3 -5°09.2	282°15.5 -5°08.2	297°15.6 -5°07.2	312°15.8 -5°06.3	327°15.9 -5°05.3	342°16.1 -5°04.3	357°16.2 -5°03.3	12°16.4 -5°02.4	27°16.6 -5°01.4	42°16.7 -5°00.4	57°16.9 -4°59.4	72°17.0 -4°58.5	+0.2 +1.0
Je 8	267°19.0 -4°42.2	282°19.1 -4°41.4	297°19.3 -4°40.4	312°19.5 -4°39.4	327°19.6 -4°38.4	342°19.8 -4°37.4	357°19.9 -4°36.4	12°20.1 -4°35.4	27°20.2 -4°34.4	42°20.4 -4°33.4	57°20.5 -4°32.4	72°20.7 -4°31.4	+0.2 +1.0
Ve 9	267°22.7 -4°22.3	282°22.9 -4°21.4	297°23.0 -4°20.4	312°23.2 -4°19.4	327°23.4 -4°18.4	342°23.5 -4°17.4	357°23.7 -4°16.5	12°23.8 -4°15.5	27°24.0 -4°14.5	42°24.2 -4°13.5	57°24.3 -4°12.5	72°24.5 -4°11.6	+0.2 +1.0
Sa 10	267°26.5 -3°58.8	282°26.7 -3°57.8	297°26.9 -3°56.9	312°27.0 -3°55.9	327°27.2 -3°54.9	342°27.4 -3°53.9	357°27.5 -3°52.9	12°27.7 -3°52.0	27°27.8 -3°51.0	42°28.0 -3°50.0	57°28.2 -3°49.0	72°28.3 -3°48.0	+0.2 +1.0
Di 11	267°30.4 -3°35.3	282°30.6 -3°34.3	297°30.8 -3°33.3	312°30.9 -3°32.3	327°31.1 -3°31.3	342°31.3 -3°30.3	357°31.4 -3°29.4	12°31.6 -3°28.4	27°31.8 -3°27.4	42°32.1 -3°26.4	57°32.1 -3°25.4	72°32.3 -3°24.4	+0.2 +1.0
Lu 12	267°34.4 -3°11.6	282°34.6 -3°10.7	297°34.7 -3°09.7	312°34.9 -3°08.7	327°35.1 -3°07.7	342°35.3 -3°06.7	357°35.4 -3°05.7	12°35.6 -3°04.8	27°35.8 -3°03.8	42°35.9 -3°02.8	57°36.1 -3°01.8	72°36.3 -3°00.8	+0.2 +1.0
Ma 13	267°38.5 -2°48.0	282°38.6 -2°47.0	297°38.8 -2°46.0	312°39.0 -2°45.0	327°39.1 -2°44.1	342°39.3 -2°43.1	357°39.5 -2°42.1	12°39.6 -2°41.1	27°39.8 -2°40.1	42°39.9 -2°39.1	57°40.2 -2°38.1	72°40.3 -2°37.2	+0.2 +1.0
Me 14	267°42.6 -2°24.3	282°42.7 -2°23.3	297°42.9 -2°22.4	312°43.1 -2°21.4	327°43.3 -2°20.4	342°43.4 -2°19.4	357°43.6 -2°18.4	12°43.8 -2°17.4	27°43.9 -2°16.4	42°44.1 -2°15.4	57°44.3 -2°14.5	72°44.5 -2°13.5	+0.2 +1.0
Je 15	267°46.7 -2°00.6	282°46.9 -1°59.6	297°47.1 -1°58.7	312°47.3 -1°57.7	327°47.4 -1°56.7	342°47.6 -1°55.7	357°47.8 -1°54.7	12°47.8 -1°53.7	27°48.0 -1°52.7	42°48.3 -1°51.7	57°48.5 -1°50.7	72°48.7 -1°49.8	+0.2 +1.0
Ve 16	267°51.0 -1°36.9	282°51.1 -1°35.9	297°51.3 -1°34.9	312°51.5 -1°33.9	327°51.7 -1°33.0	342°51.8 -1°32.0	357°52.0 -1°31.0	12°52.2 -1°30.0	27°52.4 -1°29.0	42°52.6 -1°28.0	57°52.7 -1°27.0	72°52.9 -1°26.0	+0.2 +1.0
Sa 17	267°55.2 -1°13.2	282°55.4 -1°12.2	297°55.6 -1°11.2	312°55.8 -1°10.2	327°55.9 -1°09.2	342°56.1 -1°08.2	357°56.3 -1°07.3	12°56.5 -1°06.3	27°56.7 -1°05.3	42°56.8 -1°04.3	57°57.0 -1°03.3	72°57.2 -1°02.3	+0.2 +1.0
Di 18	267°59.6 -0°49.5	282°59.7 -0°48.5	297°59.9 -0°47.5	313°00.1 -0°46.5	328°00.3 -0°45.5	343°00.5 -0°44.5	358°00.6 -0°43.5	13°00.8 -0°42.5	28°01.0 -0°41.5	43°01.2 -0°40.6	58°01.4 -0°39.6	73°01.5 -0°38.6	+0.2 +1.0
Lu 19	268°03.9 -0°25.7	283°04.1 -0°24.7	298°04.3 -0°23.7	313°04.5 -0°22.8	328°04.7 -0°21.8	343°04.8 -0°20.8	358°05.0 -0°19.8	13°05.2 -0°18.8	28°05.4 -0°17.8	43°05.6 -0°16.8	58°05.7 -0°15.8	73°05.9 -0°14.8	+0.2 +1.0
Ma 20	268°08.3 -0°02.0	283°08.5 -0°01.0	298°08.7 -0°00.0	313°08.9 0°01.0	328°09.1 0°02.0	343°09.2 0°02.9	358°09.4 0°03.9	13°09.6 0°04.9	28°09.8 0°05.9	43°10.0 0°06.9	58°10.2 0°07.9	73°10.4 0°08.9	+0.2 +1.0
Me 21	268°12.8 0°21.7	283°12.9 0°22.7	298°13.1 0°23.7	313°13.3 0°24.7	328°13.5 0°25.7	343°13.7 0°26.6	358°13.9 0°27.6	13°14.1 0°28.6	28°14.3 0°29.6	43°14.4 0°30.6	58°14.6 0°31.6	73°14.8 0°32.6	+0.2 +1.0
Je 22	268°17.2 0°45.4	283°17.4 0°46.4	298°17.6 0°47.4	313°17.8 0°48.4	328°18.0 0°49.3	343°18.2 0°50.3	358°18.4 0°51.3	13°18.5 0°52.3	28°18.7 0°53.3	43°18.9 0°54.3	58°19.1 0°55.3	73°19.3 0°56.2	+0.2 +1.0
Ve 23	268°21.7 1°09.1	283°21.9 1°10.0	298°22.1 1°11.0	313°22.3 1°12.0	328°22.5 1°13.0	343°22.7 1°14.0	358°22.9 1°15.0	13°23.0 1°16.0	28°23.2 1°16.9	43°23.4 1°17.9	58°23.6 1°18.9	73°23.8 1°19.9	+0.2 +1.0
Sa 24	268°26.2 1°32.7	283°26.4 1°33.7	298°26.6 1°34.7	313°26.8 1°35.6	328°27.0 1°36.6	343°27.2 1°37.6	358°27.4 1°38.6	13°27.6 1°39.6	28°27.8 1°40.6	43°27.9 1°41.5	58°28.1 1°42.5	73°28.3 1°43.5	+0.2 +1.0
Di 25	268°30.8 1°56.3	283°31.0 1°57.3	298°31.2 1°58.2	313°31.3 1°59.2	328°31.5 2°00.2	343°31.7 2°01.2	358°31.9 2°02.2	13°32.1 2°03.1	28°32.3 2°04.1	43°32.5 2°05.1	58°32.7 2°06.1	73°32.9 2°07.1	+0.2 +1.0
Lu 26	268°35.3 2°19.8	283°35.5 2°20.8	298°35.7 2°21.8	313°35.9 2°22.8	328°36.1 2°23.7	343°36.3 2°24.7	358°36.5 2°25.7	13°36.6 2°26.7	28°36.8 2°27.7	43°37.0 2°28.6	58°37.2 2°29.6	73°37.4 2°30.6	+0.2 +1.0
Ma 27	268°39.9 2°43.3	283°40.0 2°44.3	298°40.2 2°45.3	313°40.4 2°46.2	328°40.6 2°47.2	343°40.8 2°48.2	358°41.0 2°49.2	13°41.2 2°50.2	28°41.4 2°51.1	43°41.6 2°52.1	58°41.8 2°53.1	73°41.9 2°54.1	+0.2 +1.0
Me 28	268°44.4 3°06.8	283°44.6 3°07.7	298°44.8 3°08.7	313°44.5 3°09.7	328°44.7 3°10.7	343°44.8 3°11.6	358°45.0 3°12.6	13°45.7 3°13.6	28°45.9 3°14.6	43°46.1 3°15.5	58°46.4 3°16.5	73°46.5 3°17.5	+0.2 +1.0
Je 29	268°48.9 3°30.1	283°49.1 3°31.1	298°49.3 3°32.1	313°49.5 3°33.0	328°49.7 3°34.0	343°49.9 3°35.0	358°45.0 3°36.0	13°50.3 3°36.9	28°50.5 3°37.9	43°50.8 3°38.9	58°50.6 3°39.9	73°50.1 3°40.8	+0.2 +1.0
Ve 30	268°53.5 3°53.4	283°53.7 3°54.4	298°53.8 3°55.4	313°54.0 3°56.4	328°54.2 3°57.3	343°54.4 3°58.3	358°45.0 3°59.3	13°54.8 4°00.2	28°55.0 4°01.2	43°55.2 4°02.2	58°55.3 4°03.1	73°55.5 4°04.1	+0.2 +1.0
Sa 31	268°58.0 4°16.7	283°58.2 4°17.6	298°58.3 4°18.6	313°58.5 4°19.6	328°58.7 4°20.5	343°58.9 4°21.5	358°59.1 4°22.5	13°59.3 4°23.4	28°59.5 4°24.4	43°59.7 4°25.4	58°59.8 4°26.3	74°00.0 4°27.3	+0.2 +1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.1'

LUNE

Mars 2029

	J	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	Δ'/h SP
J	Je 1	240°53.0 -2°39.0	255°21.1 -2°54.9	269°49.6 -3°10.8	284°17.1 -3°26.7	298°45.1 -3°42.5	313°13.1 -3°58.3	327°41.1 -4°14.1	342°09.0 -4°29.9	356°36.9 -4°45.6	11°04.8 -5°01.3	25°32.7 -5°17.0	+28.0 16.7 -15.8 61.1
	Ve 2	245°27.8 -9°06.8	256°55.2 -9°21.7	271°22.6 -9°36.5	285°50.0 -9°51.2	300°17.3 -10°05.9	314°44.6 -10°20.5	329°11.9 -10°35.1	343°39.1 -10°49.5	358°06.3 -11°03.9	12°33.5 -11°18.2	27°00.6 -11°32.5	+27.3 16.6 -14.6 60.9
Sa	Sa 3	245°42.6 -14°55.4	258°09.1 -15°08.2	272°35.6 -15°20.8	287°02.0 -15°33.4	301°28.3 -15°45.8	315°54.6 -15°58.1	330°20.9 -16°10.3	344°47.1 -16°22.4	359°13.3 -16°34.4	13°39.4 -16°46.2	28°05.5 -16°58.0	+26.3 16.5 -12.3 60.4
	Di 4	244°32.3 -19°39.2	258°57.8 -19°48.9	273°23.2 -19°58.4	287°48.7 -20°07.9	302°14.0 -20°17.1	316°39.4 -20°26.3	331°04.7 -20°35.3	345°30.0 -20°44.1	359°55.3 -20°52.9	14°20.5 -21°01.4	28°45.7 -21°09.8	+25.3 16.3 -9.1 59.7
Lu	Lu 5	245°00.8 -22°58.3	259°25.7 -23°04.3	273°50.6 -23°10.2	288°15.4 -23°15.9	302°40.3 -23°21.4	317°05.1 -23°26.8	331°30.0 -23°32.0	345°54.8 -23°37.1	0°19.6 -23°42.0	14°44.4 -23°46.8	29°09.3 -23°51.4	+24.8 16.0 -5.3 58.8
	Ma 6	245°22.6 -24°41.4	259°47.6 -24°43.4	274°12.6 -24°45.4	288°37.7 -24°47.1	303°02.8 -24°48.7	317°27.9 -24°50.1	331°53.1 -24°51.4	346°18.3 -24°52.6	0°43.5 -24°53.5	15°08.7 -24°54.4	29°34.0 -24°55.0	+25.1 15.8 -1.4 58.0
Me	Me 7	245°58.5 -29°16.9	260°24.6 -29°11.7	274°50.7 -29°06.3	289°16.8 -29°00.9	303°43.0 -29°05.3	318°09.3 -29°10.6	332°35.6 -29°15.2	347°02.0 -29°19.8	1°28.5 -29°23.6	15°55.0 -29°28.0	30°21.6 -29°33.0	+26.3 15.6 +2.4 57.2
	Je 8	260°24.6 -29°32.7	274°50.7 -29°32.7	289°16.8 -29°32.7	303°43.0 -29°32.7	318°09.3 -29°32.7	332°35.6 -29°32.7	347°02.0 -29°32.7	1°28.5 -29°32.7	15°55.0 -29°32.7	30°21.6 -29°32.7	44°48.3 -29°32.7	+26.4 15.6 +2.5 57.1
Sa	Ve 9	261°36.6 -29°36.6	276°04.5 -29°36.6	290°32.4 -29°36.6	305°00.4 -29°36.6	319°28.5 -29°36.6	333°56.6 -29°36.6	348°24.9 -29°36.6	2°53.2 -29°36.6	17°21.6 -29°36.6	31°50.0 -29°36.6	46°18.6 -29°36.6	+28.2 15.4 +5.7 56.4
	Sa 10	263°36.6 -30°32.7	278°06.5 -30°32.7	292°36.5 -30°32.7	307°06.5 -30°32.7	321°36.6 -30°32.7	336°06.8 -30°32.7	350°37.1 -30°32.7	5°07.4 -30°32.7	19°37.8 -30°32.7	34°08.4 -30°32.7	48°39.0 -30°32.7	+30.2 15.2 -8.3 55.7
Di	Di 11	266°27.3 -16°49.0	280°59.1 -16°39.0	295°31.0 -16°29.0	310°03.0 -16°18.9	324°35.0 -16°08.8	339°07.1 -15°58.5	353°39.3 -15°48.3	8°11.6 -15°37.9	22°43.8 -15°27.5	37°16.3 -15°17.0	51°48.7 -15°06.5	+32.2 15.1 -10.3 55.2
	Lu 12	270°03.4 -12°22.0	284°36.9 -12°10.6	299°10.4 -11°59.2	313°44.0 -11°47.8	328°17.6 -11°36.3	342°51.3 -11°24.8	357°25.0 -11°13.2	11°58.8 -11°01.6	26°32.6 -10°49.9	41°06.5 -10°38.2	55°40.0 -10°26.5	+33.7 14.9 -11.6 54.8
Ma	Ma 13	274°15.1 -9°26.8	288°49.7 -7°14.6	303°24.4 -7°02.3	317°59.1 -6°50.1	332°33.8 -6°37.8	347°08.6 -6°25.5	1°43.4 -6°13.2	16°18.3 -6°00.9	30°53.1 -5°48.6	45°28.0 -5°36.2	60°03.0 -5°23.8	+34.8 14.8 -12.3 54.4
	Me 14	278°50.0 -9°16.7	293°25.3 -2°04.2	308°00.6 -1°51.6	322°35.9 -1°39.1	337°11.2 -1°26.6	351°46.6 -1°14.0	6°21.9 -1°01.5	20°57.3 -0°48.9	35°32.7 -0°36.4	50°08.1 -0°23.8	64°43.5 -0°11.3	+35.4 14.8 -12.5 54.1
Je	Je 15	283°35.1 2°56.0	298°10.5 3°08.4	312°45.5 3°20.8	327°21.4 3°33.1	341°56.8 3°45.5	356°32.2 3°57.8	11°07.6 4°10.2	25°40.3 4°22.5	40°18.4 4°34.7	54°53.3 4°47.0	69°29.7 4°59.2	+35.4 14.7 -12.3 54.0
	Ve 16	288°17.7 7°59.9	302°52.7 8°11.7	317°27.8 8°23.5	332°02.8 8°35.3	346°37.8 8°47.0	1°12.8 8°58.7	15°47.8 9°10.3	30°22.7 9°21.9	44°57.6 9°33.5	59°32.4 9°45.1	74°07.4 9°56.6	+35.0 14.7 -11.7 53.9
Sa	Sa 17	292°45.8 12°43.9	307°20.0 12°54.7	321°54.3 13°05.5	336°28.4 13°16.1	351°02.6 13°26.8	5°36.7 13°37.4	20°10.7 13°47.9	34°44.7 13°58.4	49°18.7 14°08.8	63°52.6 14°19.1	78°26.5 14°29.4	+34.1 14.7 -10.6 53.9
	Di 18	296°48.8 16°56.7	311°21.9 17°06.0	325°54.9 17°15.2	340°27.9 17°24.4	355°00.8 17°33.0	9°33.7 17°42.5	24°06.5 17°51.4	38°39.2 18°00.3	53°11.9 18°09.1	67°44.5 18°17.8	82°17.1 18°26.4	+32.8 14.7 -9.0 54.0
Lu	Lu 19	300°18.8 20°26.4	314°50.4 20°33.8	329°22.0 20°41.0	343°53.5 20°48.2	358°25.5 20°55.2	12°56.3 21°02.2	27°27.7 21°09.1	41°58.9 21°15.8	56°30.2 21°22.5	71°01.3 21°29.1	85°32.4 21°35.6	+31.4 14.8 -6.9 54.3
	Ma 20	303°11.5 23°01.2	317°41.6 23°06.1	332°11.7 23°10.9	346°41.7 23°15.6	1°11.7 23°20.1	15°41.6 23°24.6	30°11.4 23°28.9	44°41.2 23°33.1	59°11.0 23°37.3	73°40.7 23°43.1	88°10.3 23°45.2	+29.9 14.9 +4.4 54.7
Me	Me 21	305°28.4 24°29.5	319°57.3 24°31.6	334°26.0 24°33.4	348°54.7 24°35.2	3°23.4 24°36.8	17°52.0 24°38.3	32°20.6 24°39.7	46°49.1 24°41.0	61°17.7 24°42.1	75°46.1 24°43.1	90°14.6 24°44.0	+28.6 15.1 +1.4 55.3
	Je 22	307°16.9 24°41.5	321°44.8 24°40.3	336°17.2 24°39.0	350°40.5 24°37.5	5°08.3 24°35.9	19°36.2 24°34.1	34°04.0 24°32.3	48°31.7 24°30.3	62°59.5 24°28.1	77°27.2 24°25.8	91°54.9 24°23.4	+27.8 15.3 -1.8 56.0
Ve	Ve 23	308°49.1 23°30.8	323°16.6 23°26.2	337°44.2 23°23.2	352°11.7 23°16.7	6°39.2 23°11.7	21°06.8 23°06.5	35°34.3 23°01.3	50°01.8 22°55.9	64°29.4 22°50.3	78°56.9 22°44.7	93°24.4 22°38.9	+27.5 15.5 -5.2 56.8
	Sa 24	310°18.2 20°55.9	324°45.9 20°48.0	339°13.5 20°40.0	353°41.2 20°31.8	8°08.9 20°23.5	22°36.6 20°15.1	37°04.3 20°06.6	51°32.1 19°57.9	65°59.8 19°49.1	80°27.6 19°40.2	94°55.4 19°31.2	+27.7 15.8 -8.5 57.8
Di	Di 25	311°54.0 17°01.2	326°22.0 16°50.3	340°50.1 16°39.2	355°18.2 16°28.1	9°46.3 16°16.6	24°14.4 16°05.5	38°42.5 15°54.0	53°10.6 15°42.4	67°38.8 15°30.7	82°07.8 15°18.9	96°35.2 15°07.1	+28.1 16.0 -11.4 58.8
	Lu 26	313°39.7 11°56.9	328°08.1 11°43.5	342°36.5 11°30.5	357°04.9 11°16.5	11°33.4 10°49.1	26°01.8 10°35.3	40°30.2 10°21.4	54°58.7 10°07.4	69°27.2 9°53.3	83°55.6 9°39.2	98°24.1 9°39.2	+28.4 16.3 -13.8 59.8
Ma	Ma 27	315°31.4 5°59.4	329°59.9 5°44.3	344°28.3 5°29.1	358°56.8 5°13.9	13°25.2 4°58.7	27°53.7 4°43.4	42°22.1 4°28.0	56°50.5 4°12.6	71°18.9 3°57.2	85°47.9 3°41.8	100°15.7 3°26.2	+28.4 16.5 -15.3 60.6
	Me 28	317°19.4 -0°29.4	331°47.5 -0°45.2	346°15.5 -1°01.1	0°43.5 -1°16.9	15°11.5 -1°32.8	29°39.5 -1°48.6	44°07.4 -2°04.5	58°35.3 -2°20.3	73°03.1 -2°36.1	87°31.1 -2°52.0	101°58.8 -3°07.8	+29.7 16.7 -15.8 61.2
Je	Je 29	318°51.1 -9°02.5	333°18.3 -7°17.9	347°45.4 -7°33.2	0°12.5 -7°48.5	16°39.5 -8°03.8	31°06.4 -8°19.0	45°33.4 -8°34.1	60°00.2 -8°49.2	74°27.0 -9°04.3	88°53.8 -9°19.3	103°20.5 -9°34.2	+26.9 16.7 -15.2 61.4
	Ve 30	319°54.9 -13°09.5	334°20.7 -13°23.2	348°46.5 -13°36.8	3°12.3 -13°50.3	17°38.0 -14°03.3	32°03.6 -14°17.0	46°29.2 -14°30.2	60°54.7 -14°43.3	75°20.1 -14°56.3	89°45.5 -15°09.2	104°10.9 -15°22.0	+25.6 16.1 -13.6 61.3
Sa	Sa 31	320°24.6 -18°19.7	334°49.1 -18°30.5	349°13.5 -18°41.2	3°37.9 -18°51.7	18°02.3 -19°02.2	32°26.6 -19°12.4	46°50.9 -19°22.6	61°15.1 -19°32.6	75°39.3 -19°42.4	90°03.4 -19°52.1	104°27.5 -20°01.7	+24.3 16.6 -10.2 60.8

Ligne 1 : GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2 : Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
DQ: 7 07h51 — NL: 15 04h19 — PQ: 23 07h33 — PL: 30 02h26

SOLEIL

Avril 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	266°02.5 4°39.8	284°02.6 4°40.8	299°02.8 4°41.8	314°03.0 4°42.7	329°03.2 4°43.7	344°03.4 4°44.7	359°03.6 4°45.6	14°03.8 4°46.6	29°03.9 4°47.5	44°04.1 4°48.5	59°04.3 4°49.5	74°04.5 4°50.4	+0.2 +1.0
Lu 2	266°06.9 5°02.9	284°07.1 5°03.9	299°07.3 5°04.8	314°07.5 5°05.8	329°07.7 5°06.8	344°07.8 5°07.7	359°08.0 5°08.7	14°08.2 5°09.6	29°08.4 5°10.6	44°08.6 5°11.6	59°08.7 5°12.5	74°08.9 5°13.5	+0.2 +1.0
Ma 3	266°11.3 5°25.9	284°11.5 5°26.9	299°11.7 5°27.8	314°11.9 5°28.8	329°12.0 5°29.7	344°12.2 5°30.7	359°12.4 5°31.7	14°12.6 5°32.6	29°12.8 5°33.6	44°13.0 5°34.5	59°13.1 5°35.5	74°13.3 5°36.4	+0.2 +1.0
Me 4	266°15.7 5°48.8	284°15.9 5°49.8	299°16.0 5°50.7	314°16.2 5°51.7	329°16.4 5°52.6	344°16.6 5°53.6	359°16.8 5°54.5	14°17.0 5°55.5	29°17.1 5°56.4	44°17.3 5°57.4	59°17.5 5°58.3	74°17.7 5°59.3	+0.2 +1.0
Je 5	266°20.0 6°11.6	284°20.2 6°12.6	299°20.4 6°13.5	314°20.5 6°14.5	329°20.7 6°15.4	344°20.9 6°16.4	359°21.1 6°17.3	14°21.3 6°18.3	29°21.4 6°19.2	44°21.6 6°20.1	59°21.8 6°21.1	74°22.0 6°22.0	+0.2 +0.9
Ve 6	266°24.3 6°34.3	284°24.5 6°35.3	299°24.6 6°36.2	314°24.8 6°37.2	329°25.0 6°38.1	344°25.2 6°39.0	359°25.3 6°40.0	14°25.5 6°40.9	29°25.7 6°41.9	44°25.9 6°42.8	59°26.0 6°43.7	74°26.2 6°44.7	+0.2 +0.9
Sa 7	266°28.5 6°56.9	284°28.7 6°57.8	299°28.8 6°58.8	314°29.0 6°59.7	329°29.2 7°00.7	344°29.4 7°01.6	359°29.5 7°02.5	14°29.7 7°03.5	29°29.9 7°04.4	44°30.1 7°05.3	59°30.2 7°06.3	74°30.4 7°07.2	+0.2 +0.9
Di 8	266°32.7 7°19.4	284°32.8 7°20.3	299°33.0 7°21.2	314°33.2 7°22.2	329°33.3 7°23.1	344°33.5 7°24.0	359°33.7 7°25.0	14°33.9 7°25.9	29°34.0 7°26.8	44°34.2 7°27.8	59°34.4 7°28.7	74°34.5 7°29.6	+0.2 +0.9
Lu 9	266°36.7 7°41.7	284°36.9 7°42.6	299°37.1 7°43.6	314°37.3 7°44.5	329°37.4 7°45.4	344°37.6 7°46.4	359°37.8 7°47.3	14°37.9 7°48.2	29°37.8 7°49.1	44°38.3 7°50.1	59°38.4 7°51.0	74°38.6 7°51.9	+0.2 +0.9
Ma 10	266°40.8 8°03.9	284°40.9 8°04.9	299°41.1 8°05.8	314°41.3 8°06.7	329°41.4 8°07.6	344°41.6 8°08.5	359°41.8 8°09.5	14°41.9 8°10.4	29°42.2 8°11.3	44°42.3 8°12.2	59°42.4 8°13.2	74°42.6 8°14.1	+0.2 +0.9
Me 11	266°44.7 8°26.0	284°44.9 8°26.9	299°45.0 8°27.9	314°45.2 8°28.8	329°45.4 8°29.7	344°45.5 8°30.6	359°45.7 8°31.5	14°45.9 8°32.4	29°46.0 8°33.3	44°46.2 8°34.3	59°46.3 8°35.2	74°46.5 8°36.1	+0.2 +0.9
Je 12	266°48.6 8°48.0	284°48.7 8°49.7	299°48.9 8°49.8	314°49.1 8°50.7	329°49.2 8°51.6	344°49.4 8°52.5	359°49.5 8°53.4	14°49.7 8°54.3	29°49.9 8°55.2	44°50.0 8°56.1	59°50.2 8°57.1	74°50.3 8°58.0	+0.2 +0.9
Ve 13	266°52.4 9°09.8	284°52.5 9°10.7	299°52.7 9°11.6	314°52.9 9°12.5	329°53.0 9°13.4	344°53.2 9°14.3	359°53.3 9°15.2	14°53.5 9°16.1	29°53.5 9°17.0	44°53.8 9°17.9	59°53.9 9°18.8	74°54.1 9°19.7	+0.2 +0.9
Sa 14	266°56.1 9°31.4	284°56.2 9°32.3	299°56.4 9°33.2	314°56.6 9°34.1	329°56.7 9°35.0	344°56.9 9°35.9	359°57.0 9°36.8	14°57.2 9°37.7	29°57.3 9°38.6	44°57.5 9°39.5	59°57.6 9°40.4	74°57.8 9°41.3	+0.2 +0.9
Di 15	266°59.7 9°52.9	284°59.9 9°53.8	300°00.0 9°54.7	315°00.0 9°55.5	330°00.0 9°56.4	345°00.5 9°57.3	0°00.0 9°58.2	15°00.0 9°59.1	30°00.9 10°00.0	44°57.5 10°00.9	59°57.6 10°01.8	74°57.8 10°02.7	+0.1 +0.9
Lu 16	270°03.3 10°14.2	285°03.4 10°15.1	300°03.6 10°16.0	315°03.7 10°16.8	330°03.8 10°17.7	345°04.0 10°18.6	0°04.1 10°19.5	15°04.1 10°20.4	30°04.4 10°21.3	44°54.6 10°22.1	59°54.6 10°23.0	74°54.9 10°23.9	+0.1 +0.9
Ma 17	270°06.7 10°35.3	285°06.9 10°36.2	300°07.0 10°37.1	315°07.1 10°38.0	330°07.3 10°38.8	345°07.4 10°39.7	0°07.6 10°40.6	15°07.7 10°41.5	30°07.8 10°42.4	44°57.5 10°43.2	59°57.6 10°44.1	74°57.8 10°45.0	+0.1 +0.9
Me 18	270°10.1 10°56.3	285°10.2 10°57.2	300°10.3 10°58.1	315°10.3 10°58.9	330°10.6 10°59.8	345°10.7 11°00.7	0°10.9 11°01.5	15°11.0 11°02.4	30°11.2 11°03.3	44°57.5 11°04.1	59°57.6 11°05.0	74°57.8 11°05.9	+0.1 +0.9
Je 19	270°13.3 11°17.1	285°13.5 11°18.0	300°13.6 11°18.8	315°13.7 11°19.7	330°13.9 11°20.6	345°14.0 11°21.4	0°14.1 11°22.3	15°14.2 11°23.1	30°14.4 11°24.0	44°57.5 11°24.9	59°57.6 11°25.7	74°57.8 11°26.6	+0.1 +0.9
Ve 20	270°16.5 11°37.7	285°16.6 11°38.6	300°16.7 11°39.4	315°16.9 11°40.3	330°17.0 11°41.1	345°17.1 11°42.0	0°17.2 11°42.8	15°17.4 11°43.7	30°17.5 11°44.5	44°57.5 11°45.4	59°57.6 11°46.2	74°57.8 11°47.1	+0.1 +0.9
Sa 21	270°19.5 11°58.1	285°19.7 11°59.0	300°19.8 11°59.8	315°19.9 12°00.7	330°20.0 12°01.5	345°20.1 12°02.3	0°20.3 12°03.2	15°20.4 12°04.0	30°20.5 12°04.9	44°57.5 12°05.7	59°57.6 12°06.6	74°57.8 12°07.4	+0.1 +0.8
Di 22	270°22.5 12°18.3	285°22.6 12°19.2	300°22.7 12°20.0	315°22.8 12°20.8	330°23.0 12°21.7	345°23.1 12°22.5	0°23.2 12°23.3	15°23.3 12°24.2	30°23.4 12°25.0	44°57.5 12°25.9	59°57.6 12°26.7	74°57.8 12°27.5	+0.1 +0.8
Lu 23	270°25.3 12°38.3	285°25.4 12°39.2	300°25.5 12°40.0	315°25.7 12°40.8	330°25.8 12°41.7	345°25.9 12°42.5	0°26.0 12°43.3	15°26.1 12°44.1	30°26.2 12°45.0	44°57.5 12°45.8	59°57.6 12°46.6	74°57.8 12°47.4	+0.1 +0.8
Ma 24	270°28.2 12°58.1	285°28.2 12°59.0	300°28.3 12°59.8	315°28.4 13°00.6	330°28.5 13°01.4	345°28.6 13°02.2	0°28.7 13°03.0	15°28.8 13°03.9	30°28.9 13°04.7	44°57.5 13°05.5	59°57.6 13°06.3	74°57.8 13°07.1	+0.1 +0.8
Me 25	270°30.7 13°17.7	285°30.8 13°18.5	300°30.9 13°19.3	315°31.0 13°20.1	330°31.1 13°21.0	345°31.2 13°21.8	0°31.3 13°22.6	15°31.4 13°23.4	30°31.5 13°24.2	44°57.5 13°25.0	59°57.6 13°25.8	74°57.8 13°26.6	+0.1 +0.8
Je 26	270°33.2 13°37.1	285°33.3 13°37.9	300°33.4 13°38.7	315°33.5 13°39.5	330°33.6 13°40.3	345°33.7 13°41.1	0°33.8 13°41.9	15°33.9 13°42.6	30°34.0 13°43.5	44°57.5 13°44.3	59°57.6 13°45.1	74°57.8 13°45.9	+0.1 +0.8
Ve 27	270°35.5 13°56.2	285°35.6 13°57.0	300°35.7 13°57.8	315°35.8 13°58.6	330°35.9 13°59.4	345°36.0 14°00.2	0°36.1 14°01.0	15°36.2 14°01.8	30°36.3 14°02.5	44°57.5 14°03.3	59°57.6 14°04.1	74°57.8 14°04.9	+0.1 +0.8
Sa 28	270°37.8 14°15.1	285°37.9 14°15.9	300°38.0 14°16.7	315°38.1 14°17.5	330°38.1 14°18.3	345°38.2 14°19.0	0°38.3 14°19.8	15°38.4 14°20.6	30°38.5 14°21.4	44°57.5 14°22.2	59°57.6 14°22.9	74°57.8 14°23.7	+0.1 +0.8
Di 29	270°39.9 14°33.8	285°40.0 14°34.6	300°40.1 14°35.3	315°40.2 14°36.1	330°40.2 14°36.9	345°40.3 14°37.7	0°40.4 14°38.4	15°40.5 14°39.2	30°40.7 14°40.0	44°57.5 14°40.7	59°57.6 14°41.5	74°57.8 14°42.3	+0.1 +0.8
Lu 30	270°41.9 14°52.2	285°42.0 14°53.0	300°42.1 14°53.8	315°42.1 14°54.5	330°42.2 14°55.3	345°42.3 14°56.0	0°42.4 14°56.8	15°42.4 14°57.6	30°42.5 14°58.3	44°57.5 14°59.1	59°57.6 14°59.8	74°57.8 15°00.6	+0.1 +0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Avril 2029

	J	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	3h	Δ'/h	SP
Di 1	234 ⁰ 02.7 -21 ⁰ 20.9	248 ⁰ 26.5 -21 ⁰ 29.0	262 ⁰ 50.2 -21 ⁰ 36.8	277 ⁰ 13.9 -21 ⁰ 42.1	291 ⁰ 37.5 -21 ⁰ 52.1	306 ⁰ 01.2 -21 ⁰ 59.5	320 ⁰ 24.8 -22 ⁰ 06.8	334 ⁰ 48.4 -22 ⁰ 13.8	349 ⁰ 12.0 -22 ⁰ 20.8	3 ⁰ 35.5 -22 ⁰ 27.5	17 ⁰ 59.1 -22 ⁰ 34.1	+23.6 -7.3	16.4 60.2	
	233 ⁰ 51.5 -23 ⁰ 52.9	248 ⁰ 15.0 -23 ⁰ 56.8	262 ⁰ 38.5 -24 ⁰ 00.6	277 ⁰ 02.1 -24 ⁰ 04.1	291 ⁰ 25.7 -24 ⁰ 07.5	305 ⁰ 49.2 -24 ⁰ 10.8	320 ⁰ 12.9 -24 ⁰ 13.8	334 ⁰ 36.5 -24 ⁰ 16.7	349 ⁰ 00.1 -24 ⁰ 19.5	3 ⁰ 23.8 -24 ⁰ 22.0	17 ⁰ 47.5 -24 ⁰ 24.4	+23.6 -3.1	16.2 59.4	
Ma 3	233 ⁰ 47.7 -24 ⁰ 40.4	248 ⁰ 12.1 -24 ⁰ 40.2	262 ⁰ 36.5 -24 ⁰ 39.8	277 ⁰ 01.0 -24 ⁰ 39.2	291 ⁰ 25.6 -24 ⁰ 38.5	305 ⁰ 50.2 -24 ⁰ 37.6	320 ⁰ 14.9 -24 ⁰ 36.6	334 ⁰ 39.7 -24 ⁰ 35.4	349 ⁰ 04.5 -24 ⁰ 34.1	3 ⁰ 29.4 -24 ⁰ 32.6	17 ⁰ 54.8 -24 ⁰ 30.9	+24.7 +0.9	15.9 58.4	
	234 ⁰ 17.8 -23 ⁰ 48.6	248 ⁰ 44.0 -23 ⁰ 44.6	263 ⁰ 10.3 -23 ⁰ 40.5	277 ⁰ 36.7 -23 ⁰ 36.3	292 ⁰ 03.2 -23 ⁰ 32.0	306 ⁰ 29.7 -23 ⁰ 27.5	320 ⁰ 56.4 -23 ⁰ 22.9	335 ⁰ 23.1 -23 ⁰ 18.1	349 ⁰ 50.0 -23 ⁰ 13.2	4 ⁰ 16.9 -23 ⁰ 08.2	18 ⁰ 43.9 -23 ⁰ 03.1	+26.6 +4.6	15.7 57.4	
Me 4	235 ⁰ 40.5 -21 ⁰ 31.9	250 ⁰ 09.0 -21 ⁰ 24.9	264 ⁰ 37.6 -21 ⁰ 17.9	279 ⁰ 06.4 -21 ⁰ 10.7	293 ⁰ 35.2 -21 ⁰ 03.4	308 ⁰ 04.1 -20 ⁰ 56.0	322 ⁰ 33.1 -20 ⁰ 48.5	337 ⁰ 02.2 -20 ⁰ 40.9	351 ⁰ 31.4 -20 ⁰ 33.3	6 ⁰ 00.7 -20 ⁰ 25.5	20 ⁰ 30.1 -20 ⁰ 17.6	+29.0 +7.4	15.4 56.5	
	238 ⁰ 02.0 -18 ⁰ 08.8	252 ⁰ 32.9 -17 ⁰ 59.6	267 ⁰ 03.8 -17 ⁰ 50.3	281 ⁰ 34.9 -17 ⁰ 40.9	296 ⁰ 06.0 -17 ⁰ 31.4	310 ⁰ 37.2 -17 ⁰ 21.9	325 ⁰ 08.5 -17 ⁰ 12.3	339 ⁰ 39.8 -16 ⁰ 52.9	354 ⁰ 11.3 -16 ⁰ 43.1	8 ⁰ 42.8 -16 ⁰ 33.2	23 ⁰ 14.4 -16 ⁰ 23.2	+31.2 +9.6	15.2 55.7	
Sa 7	252 ⁰ 32.9 -17 ⁰ 59.6	267 ⁰ 03.8 -17 ⁰ 50.3	281 ⁰ 34.9 -17 ⁰ 40.9	296 ⁰ 06.0 -17 ⁰ 31.4	310 ⁰ 37.2 -17 ⁰ 21.9	325 ⁰ 08.5 -17 ⁰ 12.3	339 ⁰ 39.8 -16 ⁰ 52.9	354 ⁰ 11.3 -16 ⁰ 43.1	8 ⁰ 42.8 -16 ⁰ 33.2	23 ⁰ 14.4 -16 ⁰ 23.2	37 ⁰ 46.1 -16 ⁰ 13.2	+31.3 +9.6	15.2 55.7	
	255 ⁰ 50.9 -13 ⁰ 46.8	270 ⁰ 23.8 -13 ⁰ 35.9	284 ⁰ 56.8 -13 ⁰ 25.0	299 ⁰ 29.8 -13 ⁰ 14.1	314 ⁰ 02.9 -13 ⁰ 03.1	328 ⁰ 36.1 -12 ⁰ 52.0	343 ⁰ 09.3 -12 ⁰ 40.9	357 ⁰ 42.6 -12 ⁰ 29.7	12 ⁰ 16.0 -12 ⁰ 18.6	26 ⁰ 49.4 -12 ⁰ 07.3	41 ⁰ 22.9 -11 ⁰ 56.0	+33.2 +11.5	15.0 55.0	
Lu 9	259 ⁰ 52.0 -9 ⁰ 02.4	274 ⁰ 26.3 -8 ⁰ 50.6	289 ⁰ 00.7 -8 ⁰ 38.7	303 ⁰ 35.1 -8 ⁰ 26.9	318 ⁰ 09.6 -8 ⁰ 14.9	332 ⁰ 44.1 -8 ⁰ 03.0	347 ⁰ 18.7 -7 ⁰ 51.0	1 ⁰ 53.3 -7 ⁰ 39.0	16 ⁰ 28.0 -7 ⁰ 27.0	31 ⁰ 02.7 -7 ⁰ 15.0	45 ⁰ 37.4 -7 ⁰ 02.9	+34.5 +12.0	14.9 54.6	
	264 ⁰ 22.2 -4 ⁰ 00.0	278 ⁰ 57.4 -3 ⁰ 47.6	293 ⁰ 32.7 -3 ⁰ 35.3	308 ⁰ 07.9 -3 ⁰ 23.0	322 ⁰ 43.2 -3 ⁰ 10.7	337 ⁰ 18.5 -2 ⁰ 58.3	351 ⁰ 53.8 -2 ⁰ 46.0	6 ⁰ 29.1 -2 ⁰ 33.6	21 ⁰ 04.5 -2 ⁰ 21.3	35 ⁰ 39.9 -2 ⁰ 08.9	50 ⁰ 15.2 -1 ⁰ 56.5	+35.3 +12.3	14.8 54.2	
Me 11	269 ⁰ 07.2 -1 ⁰ 09.0	283 ⁰ 42.8 -1 ⁰ 21.3	298 ⁰ 18.3 -1 ⁰ 33.6	312 ⁰ 53.8 -1 ⁰ 45.9	327 ⁰ 29.3 -1 ⁰ 58.3	342 ⁰ 04.8 -2 ⁰ 10.6	356 ⁰ 40.3 -2 ⁰ 22.9	1 ⁰ 15.8 -2 ⁰ 35.1	25 ⁰ 51.3 -2 ⁰ 47.4	40 ⁰ 26.8 -2 ⁰ 59.7	55 ⁰ 02.3 -3 ⁰ 11.9	+35.5 +12.3	14.7 54.0	
	273 ⁰ 53.2 -6 ⁰ 13.5	288 ⁰ 28.5 -6 ⁰ 25.4	303 ⁰ 03.7 -6 ⁰ 37.3	317 ⁰ 38.9 -6 ⁰ 49.2	332 ⁰ 14.1 -7 ⁰ 01.1	346 ⁰ 49.3 -7 ⁰ 12.9	1 ⁰ 24.5 -7 ⁰ 24.7	15 ⁰ 59.6 -7 ⁰ 36.5	30 ⁰ 34.7 -7 ⁰ 48.2	45 ⁰ 09.8 -8 ⁰ 00.0	59 ⁰ 44.9 -8 ⁰ 11.6	+35.2 +11.8	14.7 53.9	
Ve 13	278 ⁰ 27.2 -11 ⁰ 02.8	293 ⁰ 01.8 -11 ⁰ 13.9	307 ⁰ 36.3 -11 ⁰ 25.0	322 ⁰ 10.8 -11 ⁰ 36.0	336 ⁰ 45.2 -11 ⁰ 46.9	351 ⁰ 19.6 -11 ⁰ 57.9	5 ⁰ 54.0 -12 ⁰ 08.7	20 ⁰ 28.3 -12 ⁰ 19.6	35 ⁰ 02.5 -12 ⁰ 30.4	49 ⁰ 36.8 -12 ⁰ 41.1	64 ⁰ 11.0 -12 ⁰ 51.8	+34.4 +10.9	14.7 53.9	
	282 ⁰ 38.3 -15 ⁰ 25.6	297 ⁰ 11.7 -15 ⁰ 35.4	311 ⁰ 45.1 -15 ⁰ 45.2	326 ⁰ 18.4 -15 ⁰ 54.8	340 ⁰ 51.7 -16 ⁰ 04.4	355 ⁰ 24.9 -16 ⁰ 14.0	9 ⁰ 58.1 -16 ⁰ 23.5	24 ⁰ 31.2 -16 ⁰ 32.9	39 ⁰ 04.3 -16 ⁰ 42.2	53 ⁰ 37.3 -16 ⁰ 51.5	68 ⁰ 10.3 -17 ⁰ 00.7	+33.2 +9.5	14.7 54.0	
Di 15	286 ⁰ 17.9 -19 ⁰ 10.0	300 ⁰ 50.0 -19 ⁰ 18.0	315 ⁰ 22.0 -19 ⁰ 25.9	329 ⁰ 53.9 -19 ⁰ 33.7	344 ⁰ 25.8 -19 ⁰ 45.1	358 ⁰ 57.6 -19 ⁰ 49.2	13 ⁰ 29.4 -19 ⁰ 56.7	28 ⁰ 01.1 -20 ⁰ 04.2	42 ⁰ 32.7 -20 ⁰ 11.6	57 ⁰ 04.3 -20 ⁰ 18.9	71 ⁰ 35.8 -20 ⁰ 26.2	+31.8 +7.6	14.8 54.2	
	289 ⁰ 21.9 -22 ⁰ 03.5	303 ⁰ 52.5 -22 ⁰ 09.2	318 ⁰ 23.0 -22 ⁰ 14.8	332 ⁰ 53.5 -22 ⁰ 20.3	347 ⁰ 24.0 -22 ⁰ 25.7	1 ⁰ 54.4 -22 ⁰ 31.0	16 ⁰ 24.7 -22 ⁰ 36.2	30 ⁰ 55.0 -22 ⁰ 41.3	45 ⁰ 25.2 -22 ⁰ 46.3	59 ⁰ 55.4 -22 ⁰ 51.1	74 ⁰ 25.5 -22 ⁰ 55.9	+30.4 +5.2	14.8 54.4	
Ma 17	291 ⁰ 51.5 -23 ⁰ 54.2	306 ⁰ 20.8 -23 ⁰ 57.2	320 ⁰ 50.8 -24 ⁰ 00.0	335 ⁰ 19.4 -24 ⁰ 02.8	349 ⁰ 48.8 -24 ⁰ 05.4	4 ⁰ 17.8 -24 ⁰ 07.9	18 ⁰ 47.0 -24 ⁰ 10.3	33 ⁰ 16.1 -24 ⁰ 12.6	47 ⁰ 45.2 -24 ⁰ 14.7	62 ⁰ 14.2 -24 ⁰ 16.7	76 ⁰ 43.2 -24 ⁰ 18.6	+29.2 +2.4	14.9 54.8	
	293 ⁰ 54.3 -24 ⁰ 32.3	308 ⁰ 22.8 -24 ⁰ 32.2	322 ⁰ 51.3 -24 ⁰ 32.0	337 ⁰ 19.8 -24 ⁰ 31.7	351 ⁰ 48.2 -24 ⁰ 31.2	6 ⁰ 16.7 -24 ⁰ 30.6	20 ⁰ 45.1 -24 ⁰ 29.9	35 ⁰ 13.5 -24 ⁰ 29.0	49 ⁰ 41.9 -24 ⁰ 28.1	64 ⁰ 10.3 -24 ⁰ 26.9	78 ⁰ 38.6 -24 ⁰ 25.7	+28.4 -0.7	15.1 55.3	
Me 18	295 ⁰ 42.7 -23 ⁰ 51.6	310 ⁰ 10.9 -23 ⁰ 48.3	324 ⁰ 39.9 -23 ⁰ 44.9	339 ⁰ 07.4 -23 ⁰ 41.3	353 ⁰ 35.6 -23 ⁰ 37.6	8 ⁰ 03.9 -23 ⁰ 33.8	22 ⁰ 32.1 -23 ⁰ 29.8	37 ⁰ 00.4 -23 ⁰ 25.8	51 ⁰ 28.6 -23 ⁰ 21.6	65 ⁰ 56.9 -23 ⁰ 17.2	80 ⁰ 25.1 -23 ⁰ 12.8	+28.2 -3.9	15.3 55.9	
	297 ⁰ 30.2 -21 ⁰ 50.6	311 ⁰ 58.6 -21 ⁰ 44.2	326 ⁰ 27.1 -21 ⁰ 37.6	340 ⁰ 55.6 -21 ⁰ 30.9	355 ⁰ 24.0 -21 ⁰ 24.0	9 ⁰ 52.6 -21 ⁰ 17.1	24 ⁰ 21.1 -21 ⁰ 10.0	38 ⁰ 49.6 -21 ⁰ 02.8	53 ⁰ 18.2 -20 ⁰ 55.5	67 ⁰ 46.8 -20 ⁰ 48.0	82 ⁰ 15.4 -20 ⁰ 40.4	+28.5 -7.0	15.5 56.7	
Sa 21	299 ⁰ 26.9 -18 ⁰ 33.1	313 ⁰ 55.8 -18 ⁰ 23.7	328 ⁰ 24.7 -18 ⁰ 14.2	342 ⁰ 53.7 -18 ⁰ 04.6	357 ⁰ 22.7 -17 ⁰ 54.9	11 ⁰ 51.7 -17 ⁰ 45.1	26 ⁰ 20.8 -17 ⁰ 35.2	40 ⁰ 49.8 -17 ⁰ 25.1	55 ⁰ 18.9 -17 ⁰ 15.0	69 ⁰ 48.0 -17 ⁰ 04.7	84 ⁰ 17.2 -16 ⁰ 54.4	+29.0 -9.9	15.7 57.5	
	301 ⁰ 36.3 -14 ⁰ 07.3	316 ⁰ 05.8 -13 ⁰ 55.4	330 ⁰ 35.2 -13 ⁰ 43.5	345 ⁰ 04.6 -13 ⁰ 31.4	359 ⁰ 34.1 -13 ⁰ 19.2	14 ⁰ 03.6 -13 ⁰ 07.0	28 ⁰ 33.1 -12 ⁰ 54.7	43 ⁰ 02.6 -12 ⁰ 42.2	57 ⁰ 32.1 -12 ⁰ 29.7	72 ⁰ 01.6 -12 ⁰ 17.2	86 ⁰ 31.1 -12 ⁰ 04.5	+29.5 +12.3	15.9 58.4	
Lu 23	303 ⁰ 55.0 -8 ⁰ 45.5	318 ⁰ 24.6 -8 ⁰ 31.7	332 ⁰ 54.2 -8 ⁰ 17.8	347 ⁰ 23.8 -8 ⁰ 03.9	1 ⁰ 53.4 -7 ⁰ 49.9	16 ⁰ 23.0 -7 ⁰ 35.8	30 ⁰ 52.6 -7 ⁰ 21.7	45 ⁰ 22.2 -7 ⁰ 07.5	59 ⁰ 51.8 -6 ⁰ 53.2	74 ⁰ 21.4 -6 ⁰ 39.0	88 ⁰ 51.3 -6 ⁰ 24.6	+29.6 -14.1	16.2 59.3	
	306 ⁰ 12.9 -2 ⁰ 43.9	320 ⁰ 42.3 -2 ⁰ 28.9	335 ⁰ 11.5 -2 ⁰ 13.8	349 ⁰ 40.8 -1 ⁰ 58.7	4 ⁰ 10.0 -1 ⁰ 43.6	18 ⁰ 39.3 -1 ⁰ 28.5	33 ⁰ 08.4 -1 ⁰ 13.3	47 ⁰ 37.6 -0 ⁰ 58.1	62 ⁰ 06.7 -0 ⁰ 42.9	76 ⁰ 35.8 -0 ⁰ 27.7	91 ⁰ 04.4 -0 ⁰ 12.5	+29.2 -15.1	16.4 60.1	
Me 25	308 ⁰ 16.3 -3 ⁰ 37.2	322 ⁰ 44.7 -3 ⁰ 52.5	337 ⁰ 13.1 -4 ⁰ 07.8	351 ⁰ 41.4 -4 ⁰ 23.0	6 ⁰ 09.7 -4 ⁰ 38.3	20 ⁰ 37.9 -4 ⁰ 53.6	35 ⁰ 06.1 -5 ⁰ 08.8	49 ⁰ 34.2 -5 ⁰ 24.0	64 ⁰ 02.2 -5 ⁰ 39.2	78 ⁰ 30.2 -5 ⁰ 54.4	92 ⁰ 58.2 -6 ⁰ 09.5	+28.2 -15.2	16.6 60.7	
	309 ⁰ 50.1 -9 ⁰ 52.4	324 ⁰ 17.0 -10 ⁰ 06.9	338 ⁰ 43.9 -10 ⁰ 21.3	353 ⁰ 10.7 -10 ⁰ 35.7	7 ⁰ 37.5 -10 ⁰ 50.0	22 ⁰ 04.1 -11 ⁰ 04.2	36 ⁰ 30.7 -11 ⁰ 18.4	50 ⁰ 57.3 -11 ⁰ 32.5	65 ⁰ 23.7 -11 ⁰ 46.5	79 ⁰ 50.1 -12 ⁰ 00.5	94 ⁰ 16.4 -12 ⁰ 14.4	+26.6 -14.2	16.7 61.1	
Ve 27	310 ⁰ 42.3 -15 ⁰ 32.5	325 ⁰ 07.4 -15 ⁰ 45.0	339 ⁰ 32.5 -15 ⁰ 57.3	353 ⁰ 57.5 -16 ⁰ 09.5	8 ⁰ 22.4 -16 ⁰ 21.7	22 ⁰ 47.2 -16 ⁰ 33.6	37 ⁰ 12.0 -16 ⁰ 45.5	51 ⁰ 36.7 -16 ⁰ 57.3	66 ⁰ 01.3 -17 ⁰ 09.0	80 ⁰ 25.9 -17 ⁰ 20.5	94 ⁰ 50.4 -17 ⁰ 31.9	+24.8 -11.9	16.7 61.2	
	310 ⁰ 49.6 -20 ⁰ 0													

SOLEIL

Mai 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Ma 1	270°43.7	285°43.8	300°43.9	315°44.0	330°44.0	345°44.1	0°44.2	15°44.3	30°44.3	45°44.4	60°44.5	75°44.6	+0.1
	15°10.4	15°11.2	15°11.9	15°12.7	15°13.4	15°14.2	15°14.9	15°15.7	15°16.4	15°17.2	15°17.9	15°18.7	+0.8
Me 2	270°45.5	285°45.5	300°45.6	315°45.7	330°45.7	345°45.8	0°45.9	15°45.9	30°46.0	45°46.1	60°46.1	75°46.2	+0.1
	15°28.4	15°29.1	15°29.9	15°30.6	15°31.3	15°32.1	15°32.8	15°33.6	15°34.3	15°35.0	15°35.8	15°36.5	+0.7
Je 3	270°47.0	285°47.1	300°47.2	315°47.2	330°47.3	345°47.4	0°47.4	15°47.5	30°47.5	45°47.6	60°47.7	75°47.7	+0.1
	15°46.1	15°46.8	15°47.5	15°48.3	15°49.0	15°49.7	15°50.4	15°51.2	15°51.9	15°52.6	15°53.4	15°54.1	+0.7
Ve 4	270°48.5	285°48.5	300°48.6	315°48.7	330°48.7	345°48.8	0°48.8	15°48.9	30°48.9	45°49.0	60°49.0	75°49.1	+0.1
	16°03.5	16°04.2	16°04.9	16°05.6	16°06.4	16°07.1	16°07.8	16°08.5	16°09.2	16°10.0	16°10.7	16°11.4	+0.7
Sa 5	270°49.8	285°49.8	300°49.9	315°49.9	330°50.0	345°50.0	0°50.1	15°50.1	30°50.2	45°50.2	60°50.3	75°50.3	+0.0
	16°20.6	16°21.4	16°22.1	16°22.8	16°23.5	16°24.2	16°24.9	16°25.6	16°26.3	16°27.0	16°27.7	16°28.4	+0.7
Di 6	270°50.9	285°51.0	300°51.0	315°51.1	330°51.1	345°51.1	0°51.2	15°51.2	30°51.3	45°51.3	60°51.4	75°51.4	+0.0
	16°37.5	16°38.2	16°38.9	16°39.6	16°40.3	16°41.0	16°41.7	16°42.4	16°43.1	16°43.8	16°44.5	16°45.2	+0.7
Lu 7	270°51.9	285°52.0	300°52.0	315°52.0	330°52.1	345°52.1	0°52.2	15°52.2	30°52.2	45°52.3	60°52.3	75°52.3	+0.0
	16°54.2	16°54.8	16°55.5	16°56.2	16°56.9	16°57.6	16°58.3	16°58.9	16°59.6	17°00.3	17°01.0	17°01.7	+0.7
Ma 8	270°52.8	285°52.8	300°52.8	315°52.9	330°52.9	345°52.9	0°53.0	15°53.0	30°53.0	45°53.1	60°53.1	75°53.1	+0.0
	17°10.5	17°11.2	17°11.8	17°12.5	17°13.2	17°13.9	17°14.5	17°15.2	17°15.9	17°16.5	17°17.2	17°17.9	+0.7
Me 9	270°53.5	285°53.5	300°53.5	315°53.6	330°53.6	345°53.6	0°53.6	15°53.7	30°53.7	45°53.7	60°53.7	75°53.8	+0.0
	17°26.5	17°27.2	17°27.9	17°28.5	17°29.2	17°29.8	17°30.5	17°31.2	17°31.8	17°32.5	17°33.1	17°33.8	+0.7
Je 10	270°54.1	285°54.1	300°54.1	315°54.1	330°54.1	345°54.1	0°54.2	15°54.2	30°54.2	45°54.2	60°54.2	75°54.3	+0.0
	17°42.3	17°42.9	17°43.6	17°44.2	17°44.9	17°45.5	17°46.2	17°46.8	17°47.5	17°48.1	17°48.8	17°49.4	+0.6
Ve 11	270°54.5	285°54.5	300°54.5	315°54.5	330°54.5	345°54.5	0°54.5	15°54.6	30°54.6	45°54.6	60°54.6	75°54.6	+0.0
	17°57.7	17°58.4	17°59.0	17°59.7	18°00.3	18°00.9	18°01.6	18°02.2	18°02.8	18°03.5	18°04.1	18°04.7	+0.6
Sa 12	270°54.7	285°54.7	300°54.8	315°54.8	330°54.8	345°54.8	0°54.8	15°54.8	30°54.8	45°54.8	60°54.8	75°54.8	+0.0
	18°12.9	18°13.5	18°14.2	18°14.8	18°15.4	18°16.0	18°16.6	18°17.3	18°17.9	18°18.5	18°19.1	18°19.7	+0.6
Di 13	270°54.9	285°54.9	300°54.9	315°54.9	330°54.9	345°54.9	0°54.9	15°54.9	30°54.9	45°54.9	60°54.9	75°54.9	+0.0
	18°27.8	18°28.4	18°29.0	18°29.6	18°30.2	18°30.8	18°31.4	18°32.0	18°32.6	18°33.2	18°33.8	18°34.5	+0.6
Lu 14	270°54.9	285°54.8	300°54.8	315°54.8	330°54.8	345°54.8	0°54.8	15°54.8	30°54.8	45°54.8	60°54.8	75°54.8	-0.0
	18°42.3	18°42.9	18°43.5	18°44.1	18°44.7	18°45.3	18°45.9	18°46.5	18°47.1	18°47.7	18°48.3	18°48.8	+0.6
Ma 15	270°54.7	285°54.7	300°54.7	315°54.7	330°54.7	345°54.6	0°54.6	15°54.6	30°54.6	45°54.6	60°54.6	75°54.6	-0.0
	18°56.5	18°57.1	18°57.7	18°58.3	18°58.8	18°59.4	19°00.0	19°00.6	19°01.2	19°01.8	19°02.3	19°02.9	+0.6
Me 16	270°54.4	285°54.4	300°54.4	315°54.3	330°54.3	345°54.3	0°54.3	15°54.3	30°54.3	45°54.2	60°54.2	75°54.2	-0.0
	19°10.4	19°11.0	19°11.6	19°12.1	19°12.7	19°13.3	19°13.8	19°14.4	19°15.0	19°15.5	19°16.1	19°16.7	+0.6
Je 17	270°54.0	285°53.9	300°53.9	315°53.9	330°53.9	345°53.9	0°53.8	15°53.8	30°53.8	45°53.8	60°53.7	75°53.7	-0.0
	19°24.0	19°24.5	19°25.1	19°25.7	19°26.2	19°26.8	19°27.3	19°27.9	19°28.4	19°29.0	19°29.5	19°30.1	+0.6
Ve 18	270°53.4	285°53.4	300°53.3	315°53.3	330°53.3	345°53.3	0°53.2	15°53.2	30°53.2	45°53.1	60°53.1	75°53.1	-0.0
	19°37.2	19°37.8	19°38.3	19°38.9	19°39.4	19°39.9	19°40.5	19°41.0	19°41.6	19°42.1	19°42.7	19°43.2	+0.5
Sa 19	270°52.7	285°52.7	300°52.6	315°52.6	330°52.6	345°52.5	0°52.5	15°52.5	30°52.4	45°52.4	60°52.4	75°52.3	-0.0
	19°50.1	19°50.7	19°51.2	19°51.7	19°52.3	19°52.8	19°53.3	19°53.8	19°54.4	19°54.9	19°55.4	19°55.9	+0.5
Di 20	270°51.8	285°51.8	300°51.8	315°51.7	330°51.7	345°51.7	0°51.6	15°51.6	30°51.5	45°51.5	60°51.5	75°51.4	-0.0
	20°02.7	20°03.2	20°03.7	20°04.3	20°04.8	20°05.3	20°05.8	20°06.3	20°06.8	20°07.3	20°07.8	20°08.4	+0.5
Lu 21	270°50.9	285°50.8	300°50.8	315°50.8	330°50.7	345°50.7	0°50.6	15°50.6	30°50.5	45°50.5	60°50.4	75°50.4	-0.0
	20°14.9	20°15.4	20°15.9	20°16.4	20°16.9	20°17.4	20°17.9	20°18.4	20°18.9	20°19.4	20°19.9	20°20.4	+0.5
Ma 22	270°49.8	285°49.7	300°49.7	315°49.6	330°49.6	345°49.5	0°49.5	15°49.4	30°49.4	45°49.3	60°49.3	75°49.2	-0.0
	20°26.8	20°27.3	20°27.8	20°28.3	20°28.8	20°29.2	20°29.7	20°30.2	20°30.7	20°31.2	20°31.7	20°32.1	+0.5
Me 23	270°48.6	285°48.5	300°48.5	315°48.4	330°48.4	345°48.3	0°48.2	15°48.2	30°48.1	45°48.1	60°48.0	75°48.0	-0.1
	20°38.3	20°38.8	20°39.3	20°39.8	20°40.2	20°40.7	20°41.2	20°41.6	20°42.1	20°42.6	20°43.0	20°43.5	+0.5
Je 24	270°47.2	285°47.2	300°47.1	315°47.1	330°47.0	345°46.9	0°46.9	15°46.8	30°46.8	45°46.7	60°46.6	75°46.6	-0.1
	20°49.5	20°50.0	20°50.4	20°50.9	20°51.3	20°51.8	20°52.3	20°52.7	20°53.2	20°53.6	20°54.1	20°54.5	+0.5
Ve 25	270°45.8	285°45.7	300°45.6	315°45.6	330°45.5	345°45.5	0°45.4	15°45.4	30°45.3	45°45.2	60°45.1	75°45.1	-0.1
	21°00.3	21°00.8	21°01.2	21°01.7	21°02.1	21°02.5	21°03.0	21°03.4	21°03.9	21°04.3	21°04.7	21°05.2	+0.4
Sa 26	270°44.2	285°44.1	300°44.1	315°44.0	330°43.9	345°43.8	0°43.8	15°43.7	30°43.6	45°43.6	60°43.5	75°43.4	-0.1
	21°10.8	21°11.2	21°11.6	21°12.1	21°12.5	21°12.9	21°13.3	21°13.8	21°14.2	21°14.6	21°15.0	21°15.5	+0.4
Di 27	270°42.5	285°42.4	300°42.3	315°42.3	330°42.2	345°42.1	0°42.1	15°42.0	30°41.9	45°41.8	60°41.8	75°41.7	-0.1
	21°20.9	21°21.3	21°21.7	21°22.1	21°22.5	21°22.9	21°23.3	21°23.7	21°24.1	21°24.5	21°25.0	21°25.4	+0.4
Lu 28	270°40.7	285°40.6	300°40.4	315°40.4	330°40.4	345°40.3	0°40.2	15°40.1	30°40.0	45°40.0	60°39.9	75°39.8	-0.1
	21°30.6	21°31.0	21°31.4	21°31.8	21°32.2	21°32.6	21°33.0	21°33.4	21°33.7	21°34.1	21°34.5	21°34.9	+0.4
Ma 29	270°38.8	285°38.7	300°38.6	315°38.5	330°38.4	345°38.3	0°38.3	15°38.2	30°38.1	45°38.0	60°37.9	75°37.8	-0.1
	21°39.9	21°40.3	21°40.7	21°41.1	21°41.5	21°41.8	21°42.2	21°42.6	21°43.0	21°43.3	21°43.7	21°44.1	+0.4
Me 30	270°36.7	285°36.6	300°36.5	315°36.5	330°36.4	345°36.3	0°36.2	15°36.1	30°36.0	45°35.9	60°35.8	75°35.7	-0.1
	21°48.9	21°49.3	21°49.6	21°50.0	21°50.4	21°50.7	21°51.1	21°51.5	21°51.8	21°52.2	21°52.5	21°52.9	+0.4
Je 31	270°34.6	285°34.5	300°34.4	315°34.3	330°34.2	345°34.1	0°34.0	15°33.9	30°33.8	45°33.7	60°33.6	75°33.6	-0.1
	21°57.5	21°57.9	21°58.2	21°58.6	21°58.9	21°59.2	21°59.6	21°59.9	22°00.3	22°00.6	22°01.0	22°01.3	+0.3

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Mai 2029

	J	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	3h	Δ'/h	SP
●	Ma 1	223°13.7 -24°12.4	237°37.8 -24°10.1	252°01.9 -24°07.5	266°26.2 -24°04.9	280°50.5 -24°02.0	295°14.9 -23°59.0	309°39.4 -23°55.9	324°04.0 -23°52.6	338°28.7 -23°49.2	352°53.4 -23°45.6	7°18.3 -23°41.8	+24.5	16.0
	Me 2	223°42.5 -22°29.0	238°08.9 -22°23.1	252°35.4 -22°17.1	267°02.0 -22°10.9	281°28.8 -22°04.4	295°55.6 -21°58.2	310°22.5 -21°51.7	324°49.6 -21°45.1	339°16.7 -21°38.3	353°44.0 -21°31.4	8°11.4 -21°24.5	+26.9	15.7
	Je 3	223°14.6 -19°27.2	239°43.7 -19°18.6	254°12.9 -19°09.9	268°42.2 -19°01.2	283°11.5 -18°52.3	297°41.0 -18°43.4	312°10.6 -18°34.3	326°40.3 -18°25.2	341°10.1 -18°16.0	355°39.9 -18°06.8	10°09.9 -17°57.4	+29.5	15.5
○	Ve 4	227°51.4 -15°28.6	242°22.9 -15°18.1	256°54.5 -15°07.6	271°26.2 -14°57.1	285°57.9 -14°46.5	300°29.8 -14°35.8	315°01.7 -14°25.1	329°33.8 -14°14.3	344°05.9 -14°03.5	358°38.1 -13°52.6	13°10.3 -13°41.7	+31.9	15.2
	Sa 5	231°23.4 -10°52.4	245°56.9 -10°40.9	260°30.4 -10°29.2	275°03.9 -10°17.6	289°37.5 -10°05.9	304°11.2 -9°54.2	318°45.0 -9°42.4	333°18.8 -9°30.6	347°52.6 -9°18.8	2°26.6 -9°07.0	17°00.5 -8°55.1	+33.7	15.0
	Di 6	235°36.2 -5°54.5	250°10.9 -5°42.3	264°45.7 -5°30.1	279°20.5 -5°17.9	293°55.3 -5°05.7	308°30.2 -4°53.5	323°05.1 -4°41.2	337°40.0 -4°29.0	352°15.0 -4°16.7	6°50.0 -4°04.4	21°25.1 -3°52.1	+34.9	14.9
●	Lu 7	250°10.9 -0°35.0	264°45.7 -0°22.7	279°20.5 -0°10.4	293°55.3 0°01.9	308°30.2 0°14.2	323°05.1 0°26.5	337°40.0 0°38.8	352°15.0 0°51.1	6°50.0 1°03.4	21°25.1 1°15.7	36°00.1 1°27.9	+34.9	14.9
	Ma 8	254°48.9 0°30.5	269°24.3 0°42.5	283°59.7 0°54.5	298°35.1 1°06.5	313°10.5 1°18.5	327°45.9 1°30.5	342°21.4 1°42.4	356°56.8 1°54.3	11°32.3 2°06.6	26°07.7 2°18.1	40°43.2 2°29.9	+35.4	14.8
	Me 9	259°35.0 4°30.5	274°10.4 4°42.5	288°45.8 4°54.5	303°21.1 5°06.5	317°56.5 5°18.5	332°31.8 5°30.5	347°07.2 5°42.4	1°42.5 5°54.3	16°17.8 6°06.2	30°53.1 6°18.1	45°28.3 6°29.9	+35.3	14.7
●	Je 10	264°14.5 9°24.2	278°49.3 9°35.5	293°24.1 9°46.9	307°58.9 9°58.2	322°33.7 10°09.4	337°08.4 10°20.6	351°43.1 10°31.8	6°17.7 10°42.9	20°52.3 10°54.0	35°26.9 11°05.1	50°01.4 11°16.1	+34.7	14.7
	Ve 11	268°34.3 13°55.7	283°08.1 14°06.0	297°41.9 14°16.2	312°15.6 14°26.3	326°49.3 14°36.4	341°22.9 14°46.4	355°56.5 14°56.3	10°30.0 15°06.2	25°03.4 15°16.1	39°36.8 15°25.9	54°10.2 15°35.6	+33.6	14.7
	Sa 12	272°23.9 17°53.6	286°56.3 18°02.3	301°28.7 18°10.8	316°01.0 18°19.3	330°33.3 18°27.8	345°05.5 18°36.1	359°37.6 18°44.4	14°09.7 18°52.5	28°41.8 19°00.6	43°13.7 19°08.7	57°45.6 19°16.6	+32.2	14.8
●	Di 13	275°36.8 21°05.4	290°07.7 21°12.0	304°38.6 21°18.4	319°09.4 21°24.7	333°40.1 21°31.0	348°10.8 21°37.1	362°14.4 21°43.2	17°12.0 21°49.1	31°42.5 21°55.0	46°12.9 22°00.7	60°43.3 22°06.3	+30.7	14.8
	Lu 14	278°12.4 23°18.4	292°42.0 23°22.3	307°11.4 23°26.1	321°40.9 23°29.8	336°10.2 23°33.4	350°39.6 23°36.8	364°07.2 23°40.2	5°08.8 23°43.4	34°07.3 23°46.5	48°36.4 23°49.5	63°05.5 23°52.4	+29.3	14.9
	Ma 15	280°17.5 24°21.1	294°46.0 24°22.0	309°14.8 24°22.8	323°43.0 24°23.5	338°11.5 24°24.0	352°39.9 24°24.5	367°08.3 24°24.8	21°36.7 24°24.9	36°05.1 24°25.0	50°33.4 24°24.9	65°01.7 24°24.6	+28.4	15.1
●	Me 16	283°05.0 24°05.9	296°33.2 24°03.7	311°01.3 24°01.2	325°29.5 23°58.7	339°57.0 23°56.0	354°25.8 23°53.2	369°04.4 23°50.3	31°42.5 23°47.3	37°50.3 23°44.1	52°18.5 23°40.8	66°46.7 23°37.3	+28.2	15.2
	Je 17	283°50.9 22°30.5	298°19.3 22°25.0	312°47.7 22°19.5	327°16.2 22°13.8	341°44.6 22°07.9	356°13.1 22°02.0	370°10.1 21°55.9	25°10.2 21°51.9	39°38.8 21°43.2	54°07.4 21°37.0	68°36.0 21°30.5	+28.5	15.3
	Ve 18	285°48.6 19°38.3	300°17.7 19°30.0	314°46.8 19°21.5	329°15.9 19°12.9	343°45.1 19°04.2	358°14.3 18°55.4	372°43.5 18°46.5	27°12.8 18°37.4	41°42.1 18°28.3	56°11.4 18°19.1	70°40.8 18°09.8	+29.2	15.5
○	Sa 19	288°05.0 15°38.0	302°34.8 15°27.1	317°04.7 15°16.2	331°34.6 15°05.1	346°04.6 14°54.0	360°04.2 14°42.8	374°15.5 14°31.5	0°34.5 14°20.1	15°04.5 14°08.6	29°34.4 14°02.6	44°04.6 13°57.0	+30.0	15.7
	Di 20	290°38.8 10°41.4	305°09.2 10°28.8	319°39.9 10°15.9	334°10.0 10°03.0	348°45.0 9°50.0	363°11.0 9°36.9	377°41.4 9°23.7	32°11.0 9°10.5	46°42.4 8°57.3	61°12.9 8°44.0	75°43.4 8°30.6	+30.5	15.9
	Lu 21	293°21.4 5°03.8	307°51.9 4°49.7	322°22.4 4°35.5	336°52.9 4°21.3	351°23.4 4°07.0	365°57.9 3°52.7	380°28.9 3°38.4	20°24.3 3°24.1	34°54.8 3°09.7	49°25.2 2°55.3	63°55.6 2°40.8	+30.5	16.1
●	Ma 22	295°59.3 -0°58.5	310°29.3 -1°13.2	324°59.2 -1°27.9	339°29.1 -1°42.7	353°59.0 -1°57.4	368°28.9 -2°12.2	382°58.7 -2°26.9	37°28.4 -2°41.7	51°58.1 -2°56.4	66°27.8 -3°11.2	80°57.5 -3°25.9	+29.8	16.2
	Me 23	298°16.0 -2°05.4	312°44.8 -2°19.8	327°13.5 -2°34.3	341°42.2 -2°48.7	356°10.3 -2°58.8	370°39.4 -3°17.3	385°07.9 -3°31.6	39°36.3 -3°45.8	54°04.6 -3°50.0	68°32.9 -4°02.9	83°01.1 -4°18.3	+28.5	16.4
	Je 24	299°55.6 -12°53.4	314°22.6 -13°06.5	328°49.5 -13°19.6	343°16.4 -13°32.6	357°43.2 -13°45.6	372°09.9 -13°58.4	386°36.5 -14°11.2	41°03.0 -14°23.8	55°29.5 -14°36.4	69°55.9 -14°49.8	84°22.2 -15°01.3	+26.7	16.5
○	Ve 25	300°46.6 -17°55.5	315°11.6 -18°06.3	329°36.5 -18°16.9	344°01.3 -18°27.4	358°26.0 -18°37.8	373°50.7 -18°48.0	388°15.3 -19°08.1	41°39.8 -19°18.0	56°04.2 -19°27.7	70°28.6 -19°37.3	84°52.8 -19°47.0	+24.6	16.5
	Sa 26	300°48.6 -21°44.1	315°11.9 -21°51.4	329°35.0 -21°58.5	343°58.1 -22°05.4	358°21.2 -22°12.2	373°44.2 -22°18.8	388°15.3 -22°25.3	41°30.1 -22°31.6	55°53.0 -22°37.7	70°15.8 -22°43.7	84°38.6 -22°49.5	+23.0	16.5
	Di 27	300°17.2 -23°56.1	314°39.6 -23°59.1	329°02.1 -24°02.0	343°24.5 -24°04.7	357°47.0 -24°07.3	372°09.4 -24°09.6	386°31.9 -24°11.8	40°54.3 -24°13.8	55°16.8 -24°15.6	69°39.3 -24°17.3	84°01.8 -24°18.8	+22.4	16.4
●	Lu 28	299°42.8 -24°20.0	314°05.9 -24°17.2	328°29.1 -24°17.2	342°52.2 -24°15.6	357°15.5 -24°13.5	371°38.8 -24°11.9	386°02.2 -24°09.8	40°25.6 -24°07.5	54°49.1 -24°05.0	69°12.7 -24°02.4	83°36.3 -23°59.6	+23.3	16.2
	Ma 29	299°40.5 -22°59.6	314°05.5 -22°54.1	328°30.9 -22°49.1	342°55.7 -22°43.6	357°21.0 -22°38.1	371°46.4 -22°32.3	386°11.9 -22°26.5	40°37.4 -22°20.9	55°03.1 -22°14.3	69°28.9 -22°08.1	83°54.8 -22°01.7	+25.4	16.0
	Me 30	300°35.6 -20°11.5	315°03.3 -20°03.3	329°30.9 -19°55.0	343°58.7 -19°50.8	358°26.6 -19°38.0	373°54.6 -19°29.4	388°22.7 -19°20.6	41°51.0 -19°11.8	56°19.3 -19°02.9	70°47.8 -18°53.9	85°16.3 -18°44.8	+28.1	15.7
○	Je 31	315°03.2 -20°03.3	329°30.9 -19°55.0	343°58.7 -19°46.5	358°26.6 -19°38.0	373°54.6 -19°29.4	388°22.7 -19°20.6	41°51.0 -19°11.8	56°19.3 -19°02.9	70°47.8 -18°53.9	85°16.3 -18°44.8	99°45.0 -18°35.6	+28.2	15.7

Ligne 1 : GHA, Δ' h = var. GHA - 14°, SP = semi-diamètre
Ligne 2 : Dec (- = Sud), Δ' h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 5 09h48 — NL: 13 13h42 — PQ: 21 04h16 — PL: 27 18h37

SOLEIL

Juin 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ve 1	270°32.3 22°05.7	285°32.2 22°06.0	300°32.1 22°06.4	315°32.0 22°06.7	330°31.9 22°07.0	345°31.8 22°07.4	0°31.7 22°07.7	15°31.6 22°08.0	30°31.5 22°08.3	45°31.4 22°08.7	60°31.4 22°09.0	75°31.3 22°09.4	-0.1 +0.3
Sa 2	270°30.0 22°13.5	285°29.9 22°13.9	300°29.8 22°14.2	315°29.7 22°14.5	330°29.6 22°14.8	345°29.5 22°15.1	0°29.4 22°15.4	15°29.3 22°15.8	30°29.2 22°16.1	45°29.1 22°16.4	60°29.0 22°16.7	75°28.9 22°17.0	-0.1 +0.3
Di 3	270°27.5 22°21.0	285°27.4 22°21.3	300°27.3 22°21.6	315°27.2 22°21.9	330°27.1 22°22.2	345°27.0 22°22.5	0°26.9 22°22.8	15°26.8 22°23.1	30°26.7 22°23.4	45°26.6 22°23.7	60°26.5 22°24.0	75°26.4 22°24.3	-0.1 +0.3
Lu 4	270°25.0 22°28.0	285°24.9 22°28.3	300°24.8 22°28.6	315°24.6 22°28.9	330°24.5 22°29.2	345°24.4 22°29.4	0°24.3 22°29.7	15°24.2 22°30.0	30°24.1 22°30.3	45°24.0 22°30.6	60°23.9 22°30.8	75°23.8 22°31.1	-0.1 +0.3
Ma 5	270°22.3 22°34.7	285°22.2 22°35.0	300°22.1 22°35.2	315°22.0 22°35.5	330°21.9 22°35.8	345°21.8 22°36.0	0°21.7 22°36.3	15°21.5 22°36.5	30°21.4 22°36.8	45°21.3 22°37.1	60°21.2 22°37.3	75°21.1 22°37.6	-0.1 +0.3
Me 6	270°19.6 22°40.9	285°19.5 22°41.2	300°19.4 22°41.4	315°19.3 22°41.7	330°19.2 22°41.9	345°19.0 22°42.2	0°18.9 22°42.4	15°18.8 22°42.7	30°18.7 22°42.9	45°18.6 22°43.2	60°18.5 22°43.4	75°18.3 22°43.7	-0.1 +0.2
Je 7	270°16.8 22°46.8	285°16.7 22°47.0	300°16.6 22°47.3	315°16.5 22°47.5	330°16.3 22°47.7	345°16.2 22°48.0	0°16.1 22°48.2	15°16.0 22°48.4	30°15.9 22°48.7	45°15.7 22°48.9	60°15.6 22°49.1	75°15.5 22°49.4	-0.1 +0.2
Ve 8	270°13.9 22°52.3	285°13.8 22°52.5	300°13.7 22°52.9	315°13.6 22°53.1	330°13.5 22°53.3	345°13.3 22°53.3	0°13.2 22°53.6	15°13.1 22°53.8	30°13.0 22°54.0	45°12.8 22°54.2	60°12.7 22°54.4	75°12.6 22°54.6	-0.1 +0.2
Sa 9	270°11.0 22°57.3	285°10.9 22°57.5	300°10.8 22°57.7	315°10.6 22°57.9	330°10.5 22°58.1	345°10.4 22°58.3	0°10.3 22°58.5	15°10.1 22°58.7	30°10.0 22°58.9	45°09.9 22°59.1	60°09.8 22°59.3	75°09.6 22°59.5	-0.1 +0.2
Di 10	270°08.0 23°02.0	285°07.9 23°02.2	300°07.7 23°02.3	315°07.6 23°02.5	330°07.5 23°02.7	345°07.4 23°02.9	0°07.2 23°03.1	15°07.1 23°03.2	30°07.0 23°03.3	45°06.9 23°03.6	60°06.7 23°03.8	75°06.6 23°04.0	-0.1 +0.2
Lu 11	270°04.9 23°06.2	285°04.8 23°06.4	300°04.7 23°06.5	315°04.5 23°06.7	330°04.4 23°06.9	345°04.3 23°07.0	0°04.2 23°07.2	15°04.0 23°07.3	30°03.9 23°07.4	45°03.8 23°07.7	60°03.6 23°07.9	75°03.5 23°08.0	-0.1 +0.2
Ma 12	270°01.8 23°10.1	285°01.7 23°10.2	300°01.6 23°10.4	315°01.4 23°10.5	330°01.3 23°10.8	345°01.2 23°10.8	0°01.0 23°10.9	15°00.9 23°11.1	30°00.8 23°11.2	45°00.6 23°11.3	60°00.5 23°11.4	75°00.4 23°11.7	-0.1 +0.1
Me 13	269°58.7 23°13.5	284°58.5 23°13.6	299°58.4 23°13.8	314°58.3 23°13.9	329°58.1 23°14.0	344°58.0 23°14.1	359°57.9 23°14.3	14°57.7 23°14.4	29°57.6 23°14.5	44°57.5 23°14.7	59°57.3 23°14.8	74°57.2 23°14.9	-0.1 +0.1
Je 14	269°55.5 23°16.5	284°55.4 23°16.6	299°55.2 23°16.7	314°55.1 23°16.9	329°55.0 23°17.0	344°54.8 23°17.1	359°54.7 23°17.2	14°54.5 23°17.3	29°54.4 23°17.4	44°54.3 23°17.5	59°54.1 23°17.6	74°54.0 23°17.8	-0.1 +0.1
Ve 15	269°52.3 23°19.1	284°52.1 23°19.2	299°52.0 23°19.3	314°51.9 23°19.4	329°51.7 23°19.5	344°51.6 23°19.6	359°51.5 23°19.7	14°51.3 23°19.8	29°51.2 23°19.9	44°51.1 23°20.0	59°50.9 23°20.1	74°50.8 23°20.2	-0.1 +0.1
Sa 16	269°49.0 23°21.3	284°48.9 23°21.4	299°48.8 23°21.5	314°48.6 23°21.6	329°48.5 23°21.6	344°48.3 23°21.7	359°48.2 23°21.8	14°48.1 23°21.9	29°47.9 23°22.0	44°47.8 23°22.1	59°47.7 23°22.1	74°47.5 23°22.2	-0.1 +0.1
Di 17	269°45.8 23°23.1	284°45.6 23°23.2	299°45.5 23°23.2	314°45.4 23°23.3	329°45.2 23°23.4	344°45.1 23°23.4	359°44.9 23°23.5	14°44.8 23°23.5	29°44.7 23°23.6	44°44.5 23°23.7	59°44.4 23°23.7	74°44.3 23°23.8	-0.1 +0.1
Lu 18	269°42.5 23°24.5	284°42.4 23°24.5	299°42.2 23°24.6	314°42.1 23°24.6	329°42.0 23°24.7	344°41.8 23°24.7	359°41.7 23°24.8	14°41.5 23°24.8	29°41.4 23°24.8	44°41.3 23°24.9	59°41.1 23°24.9	74°41.0 23°25.0	-0.1 +0.0
Ma 19	269°39.2 23°25.4	284°39.1 23°25.5	299°39.0 23°25.5	314°38.8 23°25.5	329°38.7 23°25.6	344°38.5 23°25.6	359°38.4 23°25.6	14°38.3 23°25.6	29°38.1 23°25.7	44°38.0 23°25.7	59°37.9 23°25.7	74°37.7 23°25.7	-0.1 +0.0
Me 20	269°36.0 23°26.0	284°35.8 23°26.0	299°35.7 23°26.0	314°35.6 23°26.0	329°35.4 23°26.0	344°35.3 23°26.0	359°35.1 23°26.1	14°35.0 23°26.1	29°34.9 23°26.1	44°34.7 23°26.1	59°34.6 23°26.1	74°34.5 23°26.1	-0.1 +0.0
Je 21	269°32.7 23°26.1	284°32.6 23°26.1	299°32.4 23°26.1	314°32.3 23°26.1	329°32.2 23°26.1	344°32.0 23°26.1	359°31.9 23°26.1	14°31.8 23°26.1	29°31.6 23°26.1	44°31.5 23°26.1	59°31.3 23°26.1	74°31.2 23°26.0	-0.1 -0.0
Ve 22	269°29.5 23°25.8	284°29.3 23°25.8	299°29.2 23°25.8	314°29.1 23°25.8	329°28.9 23°25.8	344°28.8 23°25.7	359°28.6 23°25.7	14°28.5 23°25.7	29°28.4 23°25.7	44°28.2 23°25.7	59°28.1 23°25.6	74°28.0 23°25.6	-0.1 -0.0
Sa 23	269°26.2 23°25.1	284°26.1 23°25.1	299°26.0 23°25.1	314°25.8 23°25.0	329°25.7 23°25.0	344°25.6 23°25.0	359°25.4 23°24.9	14°25.3 23°24.9	29°25.2 23°24.9	44°25.0 23°24.8	59°24.9 23°24.7	74°24.8 23°24.7	-0.1 -0.0
Di 24	269°23.0 23°24.0	284°22.9 23°24.0	299°22.8 23°23.9	314°22.6 23°23.8	329°22.5 23°23.8	344°22.4 23°23.8	359°22.2 23°23.7	14°22.2 23°23.7	29°22.0 23°23.6	44°21.8 23°23.5	59°21.7 23°23.5	74°21.6 23°23.4	-0.1 -0.1
Lu 25	269°19.9 23°22.5	284°19.7 23°22.5	299°19.6 23°22.4	314°19.5 23°22.3	329°19.3 23°22.2	344°19.2 23°22.2	359°19.1 23°22.1	14°18.9 23°22.0	29°18.7 23°22.0	44°18.5 23°21.9	59°18.4 23°21.8	74°18.3 23°21.7	-0.1 -0.1
Ma 26	269°16.7 23°20.6	284°16.6 23°20.5	299°16.5 23°20.4	314°16.3 23°20.3	329°16.2 23°20.2	344°16.1 23°20.2	359°15.9 23°20.1	14°15.8 23°20.0	29°15.7 23°19.9	44°15.6 23°19.8	59°15.4 23°19.7	74°15.3 23°19.6	-0.1 -0.1
Me 27	269°13.6 23°18.3	284°13.5 23°18.2	299°13.4 23°18.1	314°13.2 23°18.0	329°13.1 23°17.8	344°13.0 23°17.7	359°12.9 23°17.6	14°12.7 23°17.5	29°12.6 23°17.4	44°12.5 23°17.3	59°12.3 23°17.2	74°12.2 23°17.1	-0.1 -0.1
Je 28	269°10.6 23°15.5	284°10.4 23°15.4	299°10.3 23°15.3	314°10.2 23°15.2	329°10.1 23°15.0	344°09.9 23°14.9	359°09.8 23°14.8	14°09.7 23°14.7	29°09.6 23°14.6	44°09.4 23°14.4	59°09.3 23°14.3	74°09.2 23°14.1	-0.1 -0.1
Ve 29	269°07.6 23°12.4	284°07.4 23°12.2	299°07.3 23°12.1	314°07.2 23°12.0	329°07.1 23°11.8	344°06.9 23°11.7	359°06.8 23°11.5	14°06.7 23°11.4	29°06.6 23°11.3	44°06.4 23°11.2	59°06.3 23°10.9	74°06.2 23°10.8	-0.1 -0.1
Sa 30	269°04.6 23°08.8	284°04.5 23°08.7	299°04.4 23°08.5	314°04.2 23°08.3	329°04.1 23°08.2	344°04.0 23°08.0	359°03.9 23°07.9	14°03.7 23°07.5	29°03.6 23°07.3	44°03.5 23°07.2	59°03.4 23°07.1	74°03.3 23°07.1	-0.1 -0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juin 2029

	J	19h	20h	21h	22h	23h	0h	1h	2h	3h	4h	5h	Δ'/h	SP
O	Ve 1	232°59.7 -12°39.9	247°31.7 -12°28.5	262°03.8 -12°17.0	276°36.0 -12°05.4	291°08.3 -11°53.9	305°40.7 -11°42.2	320°13.1 -11°30.6	334°45.7 -11°18.9	349°18.3 -11°07.2	3°51.0 -10°55.4	18°23.7 -10°43.6	+32.4 +11.6	15.3 56.0
	Sa 2	236°43.1 -2°03.8	251°16.9 -7°30.9	265°50.8 -7°18.6	280°24.7 -7°06.4	294°58.6 -6°54.1	309°32.6 -6°41.8	324°06.7 -6°29.5	338°40.8 -6°17.2	353°15.0 -6°04.9	7°49.2 -5°52.5	22°23.4 -5°40.2	+34.0 +12.3	15.1 55.3
	Di 3	241°02.2 -2°33.8	255°37.1 -2°21.4	270°12.0 -2°08.9	284°46.9 -1°56.5	299°21.8 -1°44.0	313°56.8 -1°31.6	328°31.8 -1°19.1	343°06.8 -1°06.7	357°41.8 -0°54.3	12°16.9 -0°41.8	26°52.0 -0°29.4	+35.0 +21.8	14.9 54.7
O	Lu 4	245°40.0 2°35.9	260°15.3 2°48.2	274°50.5 3°00.4	289°25.8 3°12.6	304°01.1 3°24.8	318°36.3 3°37.0	333°11.6 3°49.2	347°46.9 4°01.3	2°22.2 4°13.4	16°57.4 4°25.6	31°32.7 4°37.6	+35.3 +12.2	14.8 54.3
	Ma 5	260°15.3 2°48.2	274°50.5 3°00.4	289°25.8 3°12.6	304°01.1 3°24.8	318°36.3 3°37.0	333°11.6 3°49.2	347°46.9 4°01.3	2°22.2 4°13.4	16°57.4 4°25.6	31°32.7 4°37.6	46°07.9 4°49.7	+35.3 +12.2	14.8 54.3
	Me 6	264°55.3 7°47.7	279°30.3 7°59.3	294°05.3 8°10.9	308°40.3 8°22.5	323°15.2 8°34.0	337°50.2 8°45.6	352°25.1 8°57.0	7°00.0 9°08.5	21°34.8 9°19.9	36°09.6 9°31.2	50°44.4 9°42.6	+34.9 +11.5	14.8 54.1
O	Je 7	269°22.2 16°37.6	283°56.4 16°46.8	298°30.6 16°56.0	313°04.7 17°05.1	327°38.8 17°14.1	342°12.9 17°23.0	356°46.9 17°31.9	11°20.8 17°40.7	25°54.7 17°45.1	40°28.6 17°58.1	55°02.4 18°06.7	+34.0 +8.9	14.7 54.2
	Ve 8	273°23.2 16°37.6	287°56.1 16°46.8	302°29.0 16°56.0	317°01.8 17°05.1	331°34.6 17°14.1	346°07.3 17°23.0	0°40.0 17°31.9	15°12.6 17°40.7	29°45.1 17°45.1	44°17.6 17°58.1	58°50.0 18°06.7	+32.7 +6.9	14.8 54.2
	Sa 9	276°48.5 20°06.1	291°19.9 20°13.4	305°51.2 20°20.6	320°22.5 20°27.7	334°53.7 20°34.8	349°24.8 20°41.7	3°55.9 20°48.6	18°26.9 20°55.3	32°57.8 21°02.0	47°28.7 21°08.6	61°59.5 21°15.1	+31.1 +6.5	14.9 54.5
O	Di 10	279°34.0 22°40.4	294°03.8 22°45.3	308°33.6 22°50.0	323°03.2 22°54.7	337°32.9 22°59.2	352°02.4 23°03.6	6°32.0 23°08.0	21°01.4 23°12.2	35°30.8 23°16.5	50°00.2 23°20.2	64°29.4 23°24.1	+29.5 +4.4	15.0 54.9
	Lu 11	281°42.7 24°08.0	296°11.2 24°09.9	310°39.7 24°11.8	325°08.9 24°13.5	339°36.5 24°15.1	354°04.9 24°16.5	8°33.2 24°17.8	23°20.1 24°19.1	37°29.7 24°20.1	51°57.9 24°21.1	66°26.1 24°21.9	+28.3 +1.4	15.1 55.3
	Ma 12	283°25.7 24°18.7	297°53.5 24°17.4	312°21.3 24°16.0	326°49.1 24°14.5	341°16.9 24°12.9	355°44.6 24°11.1	10°12.4 24°09.1	24°40.2 24°07.1	39°07.9 24°04.9	53°35.6 24°02.6	68°03.4 24°00.1	+27.8 -1.9	15.2 55.8
O	Me 13	284°59.8 23°07.5	299°27.6 23°03.0	313°55.5 22°58.3	328°23.3 22°53.5	342°51.2 22°48.6	357°19.1 22°43.5	11°47.0 22°38.3	26°15.0 22°33.0	40°42.9 22°27.5	55°10.9 22°22.0	69°38.9 22°16.3	+27.9 -5.1	15.4 56.3
	Je 14	286°42.1 20°36.1	301°10.6 20°28.8	315°39.1 20°20.7	330°07.6 20°12.8	344°36.2 20°04.9	359°04.8 19°56.8	13°33.4 19°48.6	28°02.0 19°40.2	42°30.8 19°31.8	56°59.5 19°23.3	71°28.3 19°14.6	+28.6 -8.1	15.5 56.8
	Ve 15	288°44.4 16°52.4	303°13.8 16°42.2	317°43.3 16°31.8	332°12.7 16°21.3	346°42.2 16°10.8	361°00.1 16°00.1	15°41.3 15°49.4	30°10.9 15°38.6	44°40.6 15°27.6	59°10.5 15°16.6	73°40.0 15°05.5	+29.6 -10.7	15.6 57.4
O	Sa 16	291°10.0 12°09.5	305°40.3 11°57.2	320°10.6 11°44.8	334°40.9 11°32.3	349°11.2 11°19.8	363°41.6 11°07.2	18°12.0 10°54.5	32°42.4 10°41.8	47°12.9 10°29.0	61°43.4 10°16.1	76°13.9 10°03.2	+30.4 -12.6	15.8 59.7
	Di 17	293°53.7 6°43.1	308°24.5 6°29.4	322°55.3 6°15.6	337°26.1 6°01.8	351°56.9 5°48.0	366°27.7 5°34.1	20°58.5 5°20.2	35°29.3 5°06.2	50°00.1 4°52.3	64°31.0 4°38.2	79°01.8 4°24.2	+30.8 -13.9	15.9 58.3
	Lu 18	296°43.9 0°50.5	311°14.7 0°36.1	325°45.4 0°21.7	340°16.1 0°07.3	354°46.8 -0°07.2	369°17.4 -0°21.6	23°48.1 -0°36.0	38°18.7 -0°50.5	52°49.3 -1°04.9	67°19.9 -1°19.3	81°50.5 -1°33.8	+30.7 -14.4	16.0 58.8
O	Ma 19	299°25.3 -5°09.7	313°55.4 -5°24.0	328°25.4 -5°38.3	343°55.3 -5°52.5	357°25.2 -6°06.8	371°55.1 -6°21.0	26°24.9 -6°35.1	40°54.7 -6°49.3	55°24.4 -7°03.4	69°54.1 -7°17.4	84°23.7 -7°31.5	+29.8 -14.2	16.1 59.2
	Me 20	301°41.3 -10°57.2	316°10.0 -11°10.6	330°38.6 -11°23.8	345°07.2 -11°37.0	359°35.7 -11°50.2	374°04.1 -12°03.3	28°32.5 -12°16.3	43°00.7 -12°29.9	57°29.0 -12°42.0	71°57.1 -12°54.9	86°25.2 -13°07.7	+28.4 -13.1	16.2 59.5
	Je 21	303°17.3 -16°09.4	317°44.2 -16°20.8	332°11.0 -16°32.2	346°37.7 -16°43.4	361°04.9 -16°54.5	375°35.7 -17°05.5	29°57.3 -17°16.4	44°23.7 -17°27.7	58°50.0 -17°37.9	73°16.3 -17°48.5	87°42.4 -17°59.0	+26.5 -11.0	16.3 59.7
O	Ve 22	304°05.5 -20°22.1	318°30.4 -20°30.7	332°55.3 -20°39.1	347°20.1 -20°47.3	361°44.8 -20°55.5	376°19.5 -21°03.4	30°34.1 -21°11.3	44°58.6 -21°19.0	59°17.4 -21°26.2	73°40.5 -21°34.0	88°03.9 -21°41.3	+24.6 -7.9	16.3 59.7
	Sa 23	304°10.2 -23°12.3	318°33.7 -23°17.1	332°57.2 -23°21.8	347°20.6 -23°26.2	361°44.0 -23°30.6	376°19.5 -23°34.7	30°30.8 -23°38.7	44°54.1 -23°42.6	59°17.4 -23°46.3	73°40.5 -23°49.8	88°03.9 -23°53.1	+23.4 -4.1	16.3 59.9
	Di 24	303°51.3 -24°23.0	318°14.5 -24°23.7	332°37.6 -24°24.1	347°00.8 -24°24.4	361°24.1 -24°24.6	375°47.3 -24°24.5	30°10.6 -24°24.3	44°33.9 -24°24.0	58°57.2 -24°23.4	73°20.5 -24°22.7	87°43.9 -24°21.8	+23.3 +0.1	16.2 59.9
O	Lu 25	303°39.8 -23°49.2	318°03.9 -23°45.7	332°28.2 -23°42.1	346°52.5 -23°38.3	361°16.8 -23°34.4	375°41.2 -23°30.3	30°05.7 -23°26.1	44°30.3 -23°21.8	58°54.9 -23°17.3	73°19.7 -23°12.6	87°44.5 -23°07.8	+24.5 +4.1	16.0 59.8
	Ma 26	304°06.4 -21°39.1	318°32.6 -21°32.1	332°58.9 -21°25.0	347°25.3 -21°17.8	361°51.7 -21°10.5	376°18.3 -21°03.0	30°45.0 -20°55.5	45°11.7 -20°47.8	59°38.6 -20°40.0	74°05.5 -20°32.1	88°32.6 -20°24.0	+26.6 +7.5	15.8 58.1
	Me 27	305°30.5 -18°11.3	319°59.1 -18°01.7	334°27.9 -17°52.0	348°56.7 -17°42.2	363°25.7 -17°32.2	377°54.7 -17°22.4	32°23.9 -17°12.4	46°53.2 -17°02.3	61°22.5 -16°52.1	75°52.0 -16°41.8	90°21.5 -16°31.5	+29.1 +10.0	15.6 57.3
O	Je 28	307°56.1 -13°48.4	322°27.1 -13°37.0	336°58.2 -13°25.6	351°29.4 -13°14.2	366°00.7 -13°02.7	380°32.1 -12°51.1	35°03.5 -12°39.5	49°35.1 -12°27.9	64°06.7 -12°16.2	78°38.4 -12°04.4	93°10.2 -11°52.7	+31.4 +11.6	15.4 56.5
	Ve 29	322°27.1 -13°37.0	336°58.2 -13°25.6	351°29.4 -13°14.2	366°00.7 -13°02.7	380°32.1 -12°51.1	395°03.5 -12°39.5	49°35.1 -12°27.9	64°06.7 -12°16.2	78°38.4 -12°04.4	93°10.2 -11°52.7	107°42.1 -11°40.8	+31.5 +11.6	15.4 56.5
	Sa 30	325°49.0 -8°39.3	340°22.0 -8°27.0	354°55.0 -8°14.7	369°28.2 -8°02.3	384°01.4 -7°49.9	398°34.6 -7°37.5	53°08.0 -7°25.0	67°41.3 -7°12.6	82°14.8 -7°00.1	96°48.3 -6°47.6	111°21.8 -6°35.1	+33.3 +12.4	15.2 55.8

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 4 01h18 — NL: 12 03h50 — PQ: 19 09h54 — PL: 26 03h22

SOLEIL

Juillet 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	268°01.7 23°04.9	284°01.6 23°04.7	299°01.5 23°04.5	314°01.3 23°04.3	329°01.2 23°04.2	344°01.1 23°04.0	359°01.0 23°03.8	14°00.9 23°03.6	29°00.7 23°03.4	44°00.6 23°03.3	59°00.5 23°03.1	74°00.4 23°02.9	-0.1 -0.2
Lu 2	268°58.9 23°00.5	283°58.7 23°00.3	298°58.6 23°00.1	313°58.5 22°59.9	328°58.4 22°59.7	343°58.3 22°59.5	358°58.2 22°59.3	13°58.0 22°59.1	28°57.9 22°58.9	43°57.8 22°54.0	58°57.7 22°53.6	73°57.6 22°53.4	-0.1 -0.2
Ma 3	268°56.1 22°55.7	283°56.0 22°55.5	298°55.9 22°55.3	313°55.8 22°55.1	328°55.6 22°54.9	343°55.5 22°54.7	358°55.4 22°54.5	13°55.3 22°54.3	28°55.2 22°54.2	43°55.1 22°53.8	58°55.0 22°53.6	73°54.8 22°53.4	-0.1 -0.2
Me 4	268°53.4 22°50.5	283°53.3 22°50.3	298°53.2 22°50.1	313°53.1 22°49.9	328°53.0 22°49.6	343°52.8 22°49.4	358°52.7 22°49.2	13°52.6 22°49.0	28°52.5 22°48.7	43°52.4 22°48.5	58°52.3 22°48.3	73°52.2 22°48.0	-0.1 -0.2
Je 5	268°50.8 22°45.0	283°50.7 22°44.7	298°50.6 22°44.5	313°50.5 22°44.3	328°50.3 22°44.0	343°50.2 22°43.8	358°50.1 22°43.5	13°50.0 22°43.3	28°49.9 22°43.0	43°49.8 22°42.8	58°49.7 22°42.5	73°49.6 22°42.3	-0.1 -0.2
Ve 6	268°48.2 22°39.0	283°48.1 22°38.8	298°48.0 22°38.5	313°47.9 22°38.2	328°47.8 22°38.0	343°47.7 22°37.7	358°47.6 22°37.5	13°47.5 22°37.2	28°47.4 22°36.9	43°47.3 22°36.7	58°47.2 22°36.4	73°47.1 22°36.1	-0.1 -0.3
Sa 7	268°45.8 22°32.7	283°45.7 22°32.4	298°45.6 22°32.1	313°45.5 22°31.8	328°45.4 22°31.3	343°45.3 22°31.0	358°45.2 22°30.7	13°45.1 22°30.7	28°45.0 22°30.4	43°44.9 22°30.2	58°44.8 22°29.9	73°44.7 22°29.6	-0.1 -0.3
Di 8	268°43.4 22°25.9	283°43.3 22°25.6	298°43.2 22°25.3	313°43.1 22°25.0	328°43.0 22°24.7	343°42.9 22°24.5	358°42.8 22°24.2	13°42.8 22°23.9	28°42.7 22°23.6	43°42.6 22°23.3	58°42.5 22°23.0	73°42.4 22°22.7	-0.1 -0.3
Lu 9	268°41.2 22°18.8	283°41.1 22°18.5	298°41.0 22°18.2	313°40.9 22°17.8	328°40.8 22°17.5	343°40.7 22°17.2	358°40.6 22°16.9	13°40.5 22°16.6	28°40.4 22°16.3	43°40.3 22°16.0	58°40.2 22°15.7	73°40.2 22°15.4	-0.1 -0.3
Ma 10	268°39.0 22°11.2	283°38.9 22°10.9	298°38.8 22°10.6	313°38.7 22°10.3	328°38.6 22°10.0	343°38.6 22°09.6	358°38.5 22°09.3	13°38.4 22°09.0	28°38.3 22°08.7	43°38.2 22°08.3	58°38.1 22°08.0	73°38.0 22°07.7	-0.1 -0.3
Me 11	268°36.9 22°03.3	283°36.9 22°03.0	298°36.8 22°02.7	313°36.7 22°02.3	328°36.6 22°01.6	343°36.5 22°01.3	358°36.5 22°01.0	13°36.4 22°01.0	28°36.3 22°00.7	43°36.2 22°00.3	58°36.1 22°00.0	73°36.0 21°59.6	-0.1 -0.3
Je 12	268°35.0 21°55.1	283°34.9 21°54.7	298°34.9 21°54.3	313°34.8 21°54.0	328°34.7 21°53.7	343°34.6 21°53.3	358°34.5 21°52.9	13°34.5 21°52.6	28°34.4 21°52.2	43°34.3 21°51.9	58°34.2 21°51.5	73°34.2 21°51.1	-0.1 -0.4
Ve 13	268°33.2 21°46.4	283°33.1 21°46.0	298°33.0 21°45.7	313°33.0 21°45.3	328°32.9 21°44.9	343°32.8 21°44.5	358°32.8 21°44.2	13°32.7 21°43.8	28°32.6 21°43.4	43°32.5 21°43.1	58°32.5 21°42.7	73°32.4 21°42.3	-0.1 -0.4
Sa 14	268°31.5 21°37.4	283°31.4 21°37.0	298°31.4 21°36.6	313°31.3 21°36.2	328°31.2 21°35.8	343°31.2 21°35.4	358°31.1 21°35.1	13°31.0 21°34.7	28°30.9 21°34.3	43°30.9 21°33.9	58°30.8 21°33.5	73°30.8 21°33.1	-0.1 -0.4
Di 15	268°29.9 21°28.0	283°29.9 21°27.6	298°29.8 21°27.2	313°29.7 21°26.8	328°29.7 21°26.4	343°29.6 21°26.0	358°29.5 21°25.6	13°29.5 21°25.2	28°29.4 21°24.8	43°29.4 21°24.4	58°29.3 21°23.9	73°29.2 21°23.5	-0.1 -0.4
Lu 16	268°28.5 21°18.2	283°28.4 21°17.8	298°28.4 21°17.4	313°28.3 21°17.0	328°28.2 21°16.5	343°28.2 21°16.1	358°28.1 21°15.7	13°28.1 21°15.3	28°28.0 21°14.9	43°28.0 21°14.5	58°27.9 21°14.0	73°27.9 21°13.6	-0.1 -0.4
Ma 17	268°27.2 21°08.1	283°27.1 21°07.7	298°27.1 21°07.2	313°27.0 21°06.8	328°27.0 21°06.4	343°26.9 21°05.9	358°26.9 21°05.5	13°26.8 21°05.1	28°26.6 21°04.6	43°26.7 21°04.2	58°26.7 21°03.8	73°26.6 21°03.3	-0.1 -0.4
Me 18	268°26.0 20°57.6	283°25.0 20°57.2	298°25.9 20°56.7	313°25.9 20°56.3	328°25.8 20°55.8	343°25.8 20°55.4	358°25.7 20°54.9	13°25.7 20°54.5	28°25.6 20°54.0	43°25.6 20°53.6	58°25.6 20°53.1	73°25.5 20°52.7	-0.0 -0.4
Je 19	268°25.0 20°46.8	283°24.9 20°46.3	298°24.9 20°45.9	313°24.9 20°45.4	328°24.8 20°44.9	343°24.8 20°44.5	358°24.7 20°44.0	13°24.7 20°43.5	28°24.6 20°43.0	43°24.6 20°42.6	58°24.6 20°42.1	73°24.5 20°41.7	-0.0 -0.5
Ve 20	268°24.1 20°35.6	283°24.1 20°35.1	298°24.0 20°34.6	313°24.0 20°34.2	328°24.0 20°33.7	343°23.9 20°33.2	358°23.9 20°32.7	13°23.9 20°32.3	28°23.8 20°31.8	43°23.8 20°31.3	58°23.8 20°30.8	73°23.7 20°30.4	-0.0 -0.5
Sa 21	268°23.3 20°24.1	283°23.3 20°23.6	298°23.3 20°23.1	313°23.3 20°22.6	328°23.2 20°22.1	343°23.2 20°21.6	358°23.2 20°21.1	13°23.2 20°20.6	28°23.1 20°20.1	43°23.1 20°19.7	58°23.1 20°19.2	73°23.1 20°18.7	-0.0 -0.5
Di 22	268°22.8 20°12.2	283°22.7 20°11.7	298°22.7 20°11.2	313°22.7 20°10.7	328°22.7 20°10.2	343°22.6 20°09.7	358°22.6 20°09.2	13°22.6 20°08.7	28°22.6 20°08.2	43°22.6 20°07.7	58°22.6 20°07.2	73°22.5 20°06.6	-0.0 -0.5
Lu 23	268°22.3 20°00.0	283°22.3 19°59.5	298°22.3 19°59.0	313°22.3 19°58.4	328°22.2 19°57.9	343°22.2 19°57.4	358°22.2 19°56.9	13°22.2 19°56.4	28°22.2 19°55.9	43°22.2 19°55.3	58°22.2 19°54.8	73°22.2 19°54.3	-0.0 -0.5
Ma 24	268°22.0 19°47.5	283°22.0 19°46.9	298°22.0 19°46.4	313°22.0 19°45.9	328°22.0 19°45.3	343°22.0 19°44.8	358°22.0 19°44.3	13°22.0 19°43.7	28°22.0 19°43.2	43°22.0 19°42.7	58°22.0 19°42.1	73°21.9 19°41.6	-0.0 -0.5
Me 25	268°21.9 19°34.6	283°21.9 19°34.1	298°21.9 19°33.5	313°21.9 19°33.0	328°21.9 19°32.4	343°21.9 19°31.9	358°21.8 19°31.3	13°21.8 19°30.8	28°21.8 19°30.3	43°21.8 19°29.9	58°21.8 19°29.7	73°21.8 19°28.6	-0.0 -0.5
Je 26	268°21.9 19°21.4	283°21.9 19°20.9	298°21.9 19°20.3	313°21.9 19°19.7	328°21.9 19°19.2	343°21.9 19°18.6	358°21.9 19°18.1	13°21.9 19°17.5	28°21.9 19°16.9	43°21.9 19°16.4	58°21.9 19°15.8	73°21.9 19°15.3	+0.0 -0.6
Ve 27	268°22.0 19°07.9	283°22.0 19°07.3	298°22.0 19°06.8	313°22.0 19°06.2	328°22.1 19°05.6	343°22.1 19°05.1	358°22.1 19°04.5	13°22.1 19°03.9	28°22.1 19°03.3	43°22.1 19°02.8	58°22.1 19°02.2	73°22.1 19°01.6	+0.0 -0.6
Sa 28	268°22.3 18°54.1	283°22.3 18°53.5	298°22.3 18°52.9	313°22.4 18°52.3	328°22.4 18°51.7	343°22.4 18°51.2	358°22.4 18°50.6	13°22.4 18°50.0	28°22.4 18°49.4	43°22.4 18°48.8	58°22.5 18°48.2	73°22.5 18°47.6	+0.0 -0.6
Di 29	268°22.8 18°39.9	283°22.8 18°39.3	298°22.8 18°38.8	313°22.8 18°38.2	328°22.8 18°37.6	343°22.9 18°37.0	358°22.9 18°36.4	13°22.9 18°35.8	28°22.9 18°35.2	43°23.0 18°34.6	58°23.0 18°34.0	73°23.0 18°33.4	+0.0 -0.6
Lu 30	268°23.4 18°25.5	283°23.4 18°24.9	298°23.4 18°24.3	313°23.4 18°23.7	328°23.5 18°23.1	343°23.5 18°22.5	358°23.5 18°21.8	13°23.6 18°21.2	28°23.6 18°20.6	43°23.6 18°20.0	58°23.6 18°19.4	73°23.7 18°18.8	+0.0 -0.6
Ma 31	268°24.1 18°10.8	283°24.1 18°10.1	298°24.2 18°09.5	313°24.2 18°08.9	328°24.2 18°08.3	343°24.3 18°07.6	358°24.3 18°07.0	13°24.3 18°06.4	28°24.4 18°05.8	43°24.4 18°05.1	58°24.5 18°04.5	73°24.5 18°03.9	+0.0 -0.6

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juillet 2029

	J	19h	20h	21h	22h	23h	0h	1h	2h	3h	4h	5h	Δ'/h SP
●	Di 1	232°13.2 0°20.7	246°48.0 0°33.3	261°22.8 0°45.8	275°57.7 0°58.3	290°32.5 1°10.8	305°07.4 1°23.3	319°42.3 1°35.8	334°17.2 1°48.3	348°52.1 2°00.7	3°27.1 2°13.1	18°02.0 2°25.6	+34.9 14.9 +12.5 54.8
	Lu 2	236°46.9 5°29.3	251°21.9 5°41.4	265°56.9 5°53.4	280°31.8 6°05.4	295°06.8 6°17.4	309°41.8 6°29.3	324°16.7 6°41.2	338°51.6 6°53.1	353°26.6 7°05.0	8°01.5 7°16.8	22°36.4 7°28.6	+35.0 14.8 +11.9 54.4
	Ma 3	241°17.7 10°21.1	255°52.2 10°32.3	270°26.8 10°43.4	285°01.3 10°54.5	299°35.8 11°05.6	314°10.2 11°16.6	328°44.6 11°27.6	343°19.0 11°38.5	357°53.3 11°49.4	12°27.6 12°00.2	27°01.9 12°11.0	+34.4 14.8 +11.0 54.2
●	Me 4	245°31.3 14°46.5	260°04.9 14°56.4	274°38.4 15°06.3	289°11.9 15°16.1	303°45.4 15°25.8	318°18.8 15°35.5	332°52.2 15°45.1	347°25.5 15°54.7	1°58.7 16°04.2	16°31.9 16°13.6	31°05.1 16°23.0	+33.4 14.8 +9.7 54.2
	Je 5	260°04.9 14°56.4	274°38.4 15°06.3	289°11.9 15°16.1	303°45.4 15°25.8	318°18.8 15°35.5	332°52.2 15°45.1	347°25.5 15°54.7	1°58.7 16°04.2	16°31.9 16°13.6	31°05.1 16°23.0	45°38.2 16°32.3	+33.4 14.8 +9.6 54.2
	Ve 6	263°47.8 18°43.4	278°20.0 18°51.6	292°52.1 18°59.7	307°24.2 19°07.7	321°56.1 19°15.6	336°28.1 19°23.4	350°59.9 19°31.2	5°31.7 19°38.8	20°03.4 19°46.4	34°35.1 19°53.9	49°06.7 20°01.3	+31.9 14.8 +7.8 54.4
●	Sa 7	266°53.0 21°41.9	281°23.6 21°47.8	295°54.1 21°53.7	310°24.5 21°59.4	324°54.9 22°05.1	339°25.2 22°10.6	353°55.4 22°16.1	8°25.6 22°21.4	22°55.7 22°26.7	37°25.8 22°31.8	51°55.8 22°36.9	+30.3 14.9 +5.5 54.7
	Di 8	269°18.3 271°09.4	283°47.3 285°37.3	298°16.3 300°05.1	312°45.2 314°33.0	327°14.1 329°00.8	341°42.9 343°28.5	356°11.7 357°56.3	10°40.4 12°20.4	25°09.1 26°51.7	39°37.7 41°19.4	54°06.2 55°47.8	+28.8 15.1 +27.8 15.2
	Lu 9	274°29.4 281°49.9	288°37.3 290°24.5	298°16.3 299°05.1	312°45.2 314°33.0	327°14.1 329°00.8	341°42.9 343°28.5	356°11.7 357°56.3	10°40.4 12°20.4	25°09.1 26°51.7	39°37.7 41°19.4	54°06.2 55°47.8	+28.8 15.1 +27.8 15.2
●	Ma 10	272°39.6 23°48.4	287°07.0 23°45.2	301°34.4 23°41.9	316°01.8 23°38.4	330°29.2 23°34.8	344°56.6 23°31.1	359°24.0 23°27.3	13°51.5 23°23.3	28°18.9 23°19.1	42°46.3 23°14.9	57°13.7 23°10.5	+27.4 15.4 -3.8 56.4
	Me 11	274°06.4 21°48.8	288°34.0 21°42.3	303°01.7 21°35.7	317°29.4 21°29.0	331°57.1 21°22.1	346°24.8 21°15.1	361°08.0 21°08.0	0°52.6 21°00.8	15°20.4 20°53.4	44°16.0 20°45.5	58°43.9 20°38.3	+27.7 15.6 -7.0 57.7
	Je 12	275°45.7 18°30.2	290°14.0 18°20.7	304°42.5 18°11.2	319°10.9 18°01.5	333°39.4 17°51.7	348°08.0 17°41.9	362°55.5 17°31.9	2°36.5 17°21.8	31°33.8 17°11.6	46°02.5 17°01.3	60°31.2 16°50.9	+28.6 15.7 -9.9 57.6
●	Ve 13	277°46.4 14°03.8	292°15.7 13°52.0	306°45.1 13°40.1	321°14.5 13°28.0	335°43.9 13°16.0	350°13.3 13°03.8	364°55.5 12°51.6	4°42.8 12°39.2	19°12.3 12°26.8	48°11.5 12°14.4	62°41.1 12°01.8	+29.5 15.9 -12.2 58.1
	Sa 14	280°09.0 8°45.9	294°39.1 8°32.4	309°09.2 8°18.8	323°39.3 8°05.2	338°09.4 7°51.5	352°39.6 7°37.8	367°09.8 7°24.1	21°40.0 7°10.2	36°10.2 6°56.4	50°10.4 6°42.5	65°10.7 6°28.5	+20.2 16.0 -13.7 58.6
	Di 15	282°46.1 2°55.5	297°16.5 2°41.1	311°46.9 2°26.6	326°17.9 2°12.2	340°47.7 1°57.7	355°18.2 1°43.3	369°48.6 1°28.8	24°19.0 1°14.3	38°49.4 0°59.8	53°19.8 0°45.2	67°50.2 0°30.7	+30.4 16.1 -14.5 58.9
●	Lu 16	285°25.1 -3°07.3	299°55.3 -3°21.7	314°25.4 -3°36.2	328°55.6 -3°50.6	343°25.7 -4°05.0	357°55.8 -4°19.4	372°55.5 -4°33.8	12°25.9 -4°48.2	26°55.9 -5°02.5	41°25.9 -5°16.8	55°55.9 -5°31.1	+30.1 16.1 -14.4 59.1
	Ma 17	287°51.0 -9°01.3	302°20.4 -9°15.0	316°49.7 -9°28.6	331°19.9 -9°42.2	345°48.2 -9°55.7	360°17.4 -10°09.2	374°46.5 -10°22.6	29°15.5 -10°36.0	43°44.6 -10°49.3	58°13.5 -11°02.5	72°42.4 -11°15.7	+29.1 16.1 -13.4 59.2
	Me 18	289°49.5 -14°25.2	304°17.5 -14°37.2	318°45.4 -14°49.2	333°13.3 -15°01.0	347°41.1 -15°12.8	361°88.8 -15°24.4	375°08.8 -15°36.6	31°04.1 -15°47.5	45°31.7 -15°58.9	59°59.2 -16°10.2	74°26.6 -16°21.4	+27.7 16.2 -11.6 59.2
●	Je 19	291°10.0 -18°57.1	305°36.4 -19°06.6	320°02.7 -19°15.9	334°02.7 -19°25.2	348°55.1 -19°34.3	363°21.2 -19°43.3	377°47.3 -19°52.2	32°13.2 -20°01.0	46°39.2 -20°09.6	61°05.0 -20°18.1	75°30.8 -20°26.5	+26.1 16.1 -8.9 59.2
	Ve 20	291°50.9 -22°16.0	306°15.6 -22°22.2	320°40.6 -22°28.3	335°05.5 -22°34.1	349°30.2 -22°39.9	363°55.0 -22°45.5	378°19.7 -22°50.9	32°44.3 -22°56.2	47°08.9 -23°01.4	61°33.5 -23°06.4	75°58.5 -23°11.2	+24.7 16.1 -5.5 59.0
	Sa 21	292°02.6 -24°05.2	306°26.7 -24°07.5	320°50.8 -24°09.7	335°15.0 -24°11.7	349°39.1 -24°13.5	363°55.1 -24°15.2	378°19.7 -24°16.8	32°51.5 -24°18.1	47°15.6 -24°19.4	61°39.7 -24°20.4	76°03.8 -24°21.3	+24.1 16.0 -1.6 58.8
●	Di 22	292°07.5 -24°15.4	306°31.9 -24°13.8	320°56.4 -24°12.0	335°20.9 -24°10.0	349°45.5 -24°07.9	363°55.1 -24°05.6	378°19.7 -24°03.1	32°59.4 -24°00.5	47°15.6 -23°57.8	61°39.7 -23°54.9	76°03.8 -23°51.9	+24.6 15.9 +2.4 58.4
	Lu 23	292°33.0 -22°48.6	306°58.8 -22°43.3	321°24.7 -22°37.8	335°50.6 -22°32.2	350°16.6 -22°26.5	364°42.7 -22°20.6	379°08.9 -22°14.6	33°35.1 -22°08.4	48°01.4 -22°02.2	62°27.8 -21°55.8	76°54.3 -21°49.2	+26.1 15.8 +5.9 57.9
	Ma 24	293°41.4 -19°57.1	308°09.2 -19°48.7	322°37.1 -19°40.2	337°05.1 -19°31.7	351°33.2 -19°23.0	365°01.4 -19°14.2	379°29.7 -19°05.3	34°58.0 -18°56.4	49°26.5 -18°47.3	63°55.0 -18°38.1	78°23.6 -18°28.9	+28.2 15.6 +8.8 57.4
●	Me 25	295°43.5 -11°17.2	310°13.5 -11°05.3	324°43.6 -10°53.3	339°13.8 -10°41.2	353°44.1 -10°29.8	367°14.5 -10°17.1	380°14.5 -10°04.9	22°44.9 -9°52.7	37°15.4 -9°40.5	51°46.1 -9°28.3	66°16.7 -9°16.0	+30.4 15.5 +12.1 56.1
	Je 26	298°38.4 -9°17.2	313°10.4 -9°05.3	327°42.5 -8°53.3	342°14.6 -8°41.2	356°46.8 -8°29.8	370°19.1 -8°17.1	383°51.4 -8°04.9	40°23.8 -7°52.7	54°56.3 -7°40.5	69°28.8 -7°28.3	84°01.4 -7°16.0	+32.3 15.3 +12.1 56.1
	Ve 27	302°17.2 -6°09.1	316°50.7 -5°56.5	331°24.2 -5°43.8	345°57.8 -5°31.2	360°31.4 -5°18.5	374°05.1 -5°05.9	387°38.8 -4°53.2	42°12.6 -4°40.5	58°46.4 -4°27.8	73°20.2 -4°15.1	87°54.1 -4°02.4	+33.7 15.1 +12.7 55.5
●	Sa 28	306°26.7 -0°51.7	321°01.1 -0°39.0	335°35.6 -0°26.4	350°10.1 -0°13.7	364°44.5 -0°01.0	378°19.1 0°11.6	391°53.6 0°24.3	42°38.8 0°36.9	63°02.7 0°49.5	77°37.7 1°02.1	92°11.9 1°14.7	+34.5 15.0 +12.6 55.0
	Di 29	321°01.1 -0°39.0	335°35.6 -0°26.4	350°10.1 -0°13.7	364°44.5 -0°01.0	378°19.1 0°11.6	391°53.6 0°24.3	42°38.8 0°36.9	63°02.7 0°49.5	77°37.7 1°02.1	92°11.9 1°14.7	106°46.5 1°27.3	+34.5 15.0 +12.6 55.0
	Lu 30	325°27.3 4°33.6	340°02.1 4°45.9	354°36.8 4°58.1	369°11.6 5°10.3	383°26.4 5°22.5	397°31.6 5°34.1	411°55.9 5°46.7	67°30.7 5°58.8	82°05.4 6°10.8	96°40.2 6°22.8	111°14.9 6°34.8	+34.8 14.9 +12.1 54.6
●	Ma 31	329°54.8 9°30.3	344°29.3 9°41.7	359°03.8 9°53.1	373°38.3 10°04.4	387°12.8 10°15.6	400°47.2 10°26.9	413°21.6 10°38.0	71°56.0 10°49.2	86°30.4 11°00.3	101°04.7 11°11.3	115°39.1 11°22.3	+34.4 14.8 +11.2 54.3

Ligne 1 : GHA, Δ' h = var. GHA = 14°, SP = semi-diamètre
Ligne 2 : Dec (= Sud), Δ' h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
DQ: 3 17h57 — NL: 11 15h51 — PQ: 18 14h14 — PL: 25 13h35

SOLEIL

Août 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Me 1	268°25.0 17°55.7	283°25.0 17°55.1	298°25.1 17°54.4	313°25.1 17°53.8	328°25.2 17°53.2	343°25.2 17°52.5	358°25.2 17°51.9	13°25.3 17°51.3	28°25.3 17°50.6	43°25.4 17°50.0	58°25.4 17°49.4	73°25.5 17°48.7	+0.0 -0.6
Je 2	268°26.0 17°40.4	283°26.1 17°39.7	298°26.1 17°39.1	313°26.2 17°38.4	328°26.2 17°37.7	343°26.3 17°37.1	358°26.3 17°36.5	13°26.4 17°35.8	28°26.4 17°35.2	43°26.5 17°34.5	58°26.5 17°33.7	73°26.6 17°33.2	+0.0 -0.6
Ve 3	268°27.2 17°24.7	283°27.3 17°24.1	298°27.3 17°23.4	313°27.4 17°22.8	328°27.4 17°22.1	343°27.5 17°21.5	358°27.5 17°20.8	13°27.5 17°20.1	28°27.6 17°19.5	43°27.7 17°18.8	58°27.8 17°18.1	73°27.8 17°17.5	+0.1 -0.7
Sa 4	268°28.6 17°08.8	283°28.6 17°08.2	298°28.7 17°07.5	313°28.7 17°06.8	328°28.8 17°06.2	343°28.9 17°05.5	358°28.9 17°04.8	13°29.0 17°04.1	28°29.0 17°03.5	43°29.1 17°02.8	58°29.2 17°02.1	73°29.2 17°01.4	+0.1 -0.7
Di 5	268°30.0 16°52.6	283°30.1 16°52.0	298°30.2 16°51.3	313°30.2 16°50.6	328°30.3 16°49.9	343°30.4 16°49.2	358°30.4 16°48.6	13°30.5 16°47.9	28°30.6 16°47.2	43°30.6 16°46.5	58°30.7 16°45.8	73°30.8 16°45.1	+0.1 -0.7
Lu 6	268°31.7 16°36.2	283°31.7 16°35.5	298°31.8 16°34.8	313°31.9 16°34.1	328°31.9 16°33.4	343°32.0 16°32.7	358°32.1 16°32.0	13°32.2 16°31.3	28°32.2 16°30.6	43°32.3 16°29.9	58°32.4 16°29.2	73°32.5 16°28.5	+0.1 -0.7
Ma 7	268°33.4 16°19.4	283°33.5 16°18.7	298°33.6 16°18.0	313°33.7 16°17.3	328°33.7 16°16.6	343°33.8 16°15.9	358°33.9 16°15.2	13°34.0 16°14.5	28°34.1 16°13.8	43°34.1 16°13.1	58°34.2 16°12.4	73°34.3 16°11.7	+0.1 -0.7
Me 8	268°35.3 16°02.4	283°35.4 16°01.7	298°35.5 16°01.0	313°35.6 16°00.3	328°35.7 15°59.6	343°35.8 15°58.9	358°35.9 15°58.2	13°35.9 15°57.4	28°36.0 15°56.7	43°36.1 15°56.0	58°36.2 15°55.3	73°36.3 15°54.6	+0.1 -0.7
Je 9	268°37.4 15°45.2	283°37.5 15°44.5	298°37.6 15°43.7	313°37.7 15°43.0	328°37.7 15°42.3	343°37.9 15°41.6	358°37.9 15°40.8	13°38.0 15°40.1	28°38.1 15°39.4	43°38.2 15°38.7	58°38.2 15°37.9	73°38.4 15°37.2	+0.1 -0.7
Ve 10	268°39.6 15°27.7	283°39.7 15°27.0	298°39.8 15°26.2	313°39.9 15°25.5	328°40.0 15°24.7	343°40.1 15°24.0	358°40.2 15°23.3	13°40.0 15°22.5	28°40.4 15°21.8	43°40.5 15°21.1	58°40.6 15°20.3	73°40.7 15°19.6	+0.1 -0.7
Sa 11	268°42.0 15°09.9	283°42.1 15°09.2	298°42.2 15°08.4	313°42.3 15°07.7	328°42.4 15°07.0	343°42.5 15°06.2	358°42.6 15°05.5	13°42.9 15°04.7	28°42.8 15°04.0	43°42.9 15°03.2	58°43.0 15°02.5	73°43.1 15°01.7	+0.1 -0.7
Di 12	268°44.5 14°51.9	283°44.6 14°51.2	298°44.7 14°50.4	313°44.8 14°49.7	328°44.9 14°48.9	343°45.0 14°48.2	358°45.1 14°47.4	13°45.2 14°46.6	28°45.3 14°45.9	43°45.4 14°45.1	58°45.5 14°44.4	73°45.6 14°43.6	+0.1 -0.8
Lu 13	268°47.1 14°33.7	283°47.2 14°32.9	298°47.3 14°32.2	313°47.4 14°31.4	328°47.5 14°30.7	343°47.6 14°29.9	358°47.8 14°29.1	13°47.9 14°28.4	28°48.0 14°27.6	43°48.1 14°26.8	58°48.1 14°26.0	73°48.3 14°25.3	+0.1 -0.8
Ma 14	268°49.9 14°15.3	283°50.0 14°14.5	298°50.1 14°13.7	313°50.2 14°12.9	328°50.3 14°12.2	343°50.4 14°11.4	358°50.6 14°10.6	13°50.6 14°09.8	28°50.8 14°09.1	43°50.9 14°08.3	58°51.1 14°07.5	73°51.2 14°06.7	+0.1 -0.8
Me 15	268°52.8 13°56.6	283°52.9 13°55.8	298°53.0 13°55.0	313°53.1 13°54.2	328°53.2 13°53.4	343°53.4 13°52.6	358°53.5 13°51.9	13°53.6 13°51.1	28°53.8 13°50.3	43°53.9 13°49.5	58°54.0 13°48.7	73°54.1 13°47.9	+0.1 -0.8
Je 16	268°55.8 13°37.7	283°55.9 13°36.9	298°56.1 13°36.1	313°56.2 13°35.3	328°56.3 13°34.5	343°56.5 13°33.7	358°56.6 13°32.9	13°56.7 13°32.1	28°56.9 13°31.3	43°57.0 13°30.5	58°57.1 13°29.7	73°57.3 13°28.9	+0.1 -0.8
Ve 17	268°59.0 13°18.5	283°59.1 13°17.7	298°59.3 13°16.9	313°59.4 13°16.1	328°59.5 13°15.3	343°59.7 13°14.5	358°59.8 13°13.7	13°59.9 13°12.9	28°59.9 13°12.1	43°00.2 13°11.3	58°00.2 13°10.5	74°00.5 13°09.7	+0.1 -0.8
Sa 18	269°02.3 12°59.2	284°02.4 12°58.4	299°02.6 12°57.6	314°02.7 12°56.8	329°02.9 12°56.0	344°03.0 12°55.2	359°03.2 12°54.4	14°03.3 12°53.5	29°03.8 12°52.7	44°03.6 12°51.9	59°03.7 12°51.1	74°03.9 12°50.3	+0.1 -0.8
Di 19	269°05.8 12°39.7	284°05.9 12°38.9	299°06.0 12°38.0	314°06.2 12°37.2	329°06.3 12°36.4	344°06.5 12°35.6	359°06.6 12°34.8	14°06.8 12°33.9	29°06.8 12°33.1	44°07.1 12°32.3	59°07.2 12°31.5	74°07.4 12°30.7	+0.1 -0.8
Lu 20	269°09.3 12°20.0	284°09.5 12°19.4	299°09.6 12°18.3	314°09.8 12°17.5	329°09.9 12°16.6	344°10.1 12°15.8	359°10.2 12°15.0	14°10.4 12°14.2	29°10.5 12°13.3	44°10.7 12°12.5	59°10.8 12°11.7	74°11.0 12°10.8	+0.2 -0.8
Ma 21	269°13.0 12°00.0	284°13.2 12°00.0	299°13.3 11°58.4	314°13.5 11°57.5	329°13.6 11°56.7	344°13.8 11°55.9	359°13.9 11°55.0	14°13.9 11°54.2	29°14.3 11°53.3	44°14.4 11°52.5	59°14.6 11°51.7	74°14.7 11°50.8	+0.2 -0.8
Me 22	269°16.8 11°39.9	284°17.0 11°39.1	299°17.1 11°38.2	314°17.3 11°37.4	329°17.5 11°36.5	344°17.6 11°35.7	359°17.8 11°34.9	14°17.9 11°34.0	29°18.1 11°33.2	44°18.3 11°32.3	59°18.4 11°31.5	74°18.6 11°30.6	+0.2 -0.8
Je 23	269°20.7 11°19.6	284°20.9 11°18.8	299°21.1 11°17.9	314°21.2 11°17.1	329°21.4 11°16.2	344°21.6 11°15.4	359°21.7 11°14.5	14°21.9 11°13.7	29°22.2 11°12.8	44°22.6 11°12.0	59°22.4 11°11.0	74°22.6 11°10.3	+0.2 -0.9
Ve 24	269°24.8 10°59.1	284°24.9 10°58.3	299°25.1 10°57.4	314°25.3 10°56.6	329°25.4 10°55.7	344°25.6 10°54.9	359°25.8 10°54.0	14°26.0 10°53.1	29°26.2 10°52.3	44°26.3 10°51.4	59°26.5 10°50.6	74°26.6 10°49.7	+0.2 -0.9
Sa 25	269°28.9 10°38.5	284°29.1 10°37.6	299°29.2 10°36.8	314°29.4 10°35.9	329°29.6 10°35.0	344°29.8 10°34.2	359°29.9 10°33.3	14°30.1 10°32.4	29°30.3 10°31.6	44°30.4 10°30.7	59°30.6 10°29.9	74°30.8 10°29.0	+0.2 -0.9
Di 26	269°33.1 10°17.7	284°33.3 10°16.8	299°33.5 10°15.9	314°33.7 10°15.1	329°33.8 10°14.2	344°34.0 10°13.3	359°34.2 10°12.5	14°34.4 10°11.6	29°34.6 10°10.7	44°34.7 10°09.8	59°34.9 10°09.0	74°35.1 10°08.1	+0.2 -0.9
Lu 27	269°37.5 9°56.7	284°37.8 9°55.8	299°37.8 9°54.9	314°38.0 9°54.1	329°38.2 9°53.2	344°38.4 9°52.3	359°38.6 9°51.4	14°38.7 9°50.5	29°38.9 9°49.8	44°39.1 9°48.8	59°39.3 9°47.9	74°39.5 9°47.0	+0.2 -0.9
Ma 28	269°41.9 9°35.6	284°42.1 9°34.7	299°42.2 9°33.8	314°42.4 9°32.9	329°42.6 9°32.0	344°42.8 9°31.1	359°43.0 9°30.2	14°43.2 9°29.4	29°43.3 9°28.5	44°43.6 9°27.6	59°43.7 9°26.7	74°43.9 9°25.8	+0.2 -0.9
Me 29	269°46.4 9°14.3	284°46.6 9°13.4	299°46.8 9°12.5	314°47.0 9°11.6	329°47.1 9°10.7	344°47.3 9°09.8	359°47.5 9°08.9	14°47.7 9°08.0	29°47.9 9°07.1	44°48.1 9°06.2	59°48.3 9°05.3	74°48.5 9°04.5	+0.2 -0.9
Je 30	269°51.0 8°52.8	284°51.2 8°51.9	299°51.4 8°51.0	314°51.5 8°50.1	329°51.7 8°49.2	344°51.9 8°48.3	359°52.1 8°47.4	14°52.3 8°46.5	29°52.5 8°45.6	44°52.7 8°44.7	59°52.9 8°43.8	74°53.1 8°42.9	+0.2 -0.9
Ve 31	269°55.6 8°31.2	284°55.8 8°30.3	299°56.0 8°29.4	314°56.2 8°28.5	329°56.4 8°27.6	344°56.6 8°26.7	359°56.8 8°25.8	14°57.0 8°24.9	29°57.5 8°24.0	44°57.7 8°23.1	59°57.6 8°22.2	74°57.8 8°21.3	+0.2 -0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Août 2029

	J	20h	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	Δ°/h	SP
●	Me 1	236°11.6 16°54.2	250°44.5 17°03.2	265°17.5 17°12.1	279°50.3 17°21.0	294°23.2 17°29.7	308°55.9 17°38.5	323°28.7 17°47.1	338°01.3 17°55.7	352°33.9 18°04.2	7°06.5 18°12.6	21°39.0 18°20.9	+32.7	14.8
	Je 2	239°39.8 20°16.5	254°11.4 20°23.5	268°42.9 20°30.5	283°14.4 20°37.3	297°45.8 20°44.1	312°17.2 20°50.8	326°48.5 20°57.4	341°19.7 21°03.9	355°50.8 21°10.3	10°22.0 21°16.6	24°53.0 21°22.8	+31.3	14.8
	Ve 3	242°31.5 22°44.3	257°01.6 22°48.9	271°31.6 22°53.5	286°01.6 22°57.9	300°31.5 23°02.2	315°01.3 23°06.4	329°31.1 23°10.4	344°00.9 23°14.4	358°30.5 23°18.3	13°00.2 23°22.0	27°29.7 23°25.7	+29.8	14.9
●	Sa 4	257°01.6 22°48.9	271°31.6 22°53.5	286°01.6 22°57.9	300°31.5 23°02.2	315°01.3 23°06.4	329°31.1 23°10.4	344°00.9 23°14.4	358°30.5 23°18.3	13°00.2 23°22.0	27°29.7 23°25.7	41°59.2 23°29.2	+29.8	15.0
	Di 5	259°15.5 24°08.3	273°44.2 24°09.9	288°12.9 24°11.5	302°41.5 24°12.9	317°10.0 24°14.2	331°38.5 24°15.3	346°07.0 24°16.3	0°35.4 24°17.3	15°03.8 24°18.0	29°32.1 24°18.7	44°00.4 24°19.2	+28.5	15.1
	Lu 6	261°00.8 24°11.7	275°28.6 24°10.2	289°56.3 24°08.5	304°24.1 24°06.7	318°51.8 24°04.7	333°19.5 24°02.7	347°47.2 24°00.5	2°14.8 23°58.1	16°42.5 23°55.6	31°10.1 23°53.0	45°37.7 23°50.3	+27.7	15.3
●	Ma 7	262°30.6 22°53.1	276°58.1 22°48.2	291°25.6 22°43.2	305°53.1 22°38.0	320°20.6 22°32.8	334°48.1 22°27.4	349°15.6 22°21.8	3°43.1 22°16.1	18°10.6 22°10.3	32°38.1 22°04.4	47°05.7 21°58.3	+27.5	15.5
	Me 8	264°00.2 16°14.9	278°28.0 16°04.0	292°55.7 15°53.0	307°23.5 15°41.9	321°51.4 15°30.7	336°19.2 15°19.4	350°47.2 15°08.0	5°15.0 14°56.5	19°42.9 14°49.3	34°10.9 14°33.2	48°38.8 21°26.5	+27.9	15.7
	Je 9	265°41.5 16°14.9	280°09.9 16°04.0	294°38.4 15°53.0	309°06.8 15°41.9	323°35.3 15°30.7	338°03.8 15°19.4	352°32.3 15°08.0	7°00.9 14°56.5	21°29.5 14°49.3	35°58.1 14°33.2	50°26.8 21°21.5	+28.5	15.9
●	Ve 10	267°39.8 11°14.8	282°08.9 10°01.7	296°38.0 10°48.6	311°07.1 10°35.4	325°36.2 10°22.1	340°05.4 10°08.8	354°34.6 9°55.3	9°03.8 9°41.9	23°33.0 9°28.3	38°02.3 9°14.7	52°31.5 9°01.1	+29.2	16.1
	Sa 11	269°52.5 5°30.0	284°22.0 5°15.5	298°51.1 5°01.1	313°21.0 4°46.6	327°50.6 4°32.1	342°20.1 4°17.5	356°49.6 4°02.9	11°19.2 3°48.3	25°48.7 3°33.6	40°18.3 3°19.0	54°47.8 3°04.3	+29.5	16.2
	Di 12	272°11.0 -0°38.0	286°40.5 -0°52.8	301°10.0 -1°07.7	315°39.0 -1°22.6	330°08.9 -1°37.4	344°38.3 -1°52.3	359°07.7 -2°07.1	13°37.2 -2°21.9	28°06.6 -2°36.8	42°35.9 -2°51.6	57°05.3 -3°06.4	+29.4	16.3
●	Lu 13	274°23.0 -6°45.5	288°51.9 -6°59.8	303°20.9 -7°14.1	317°49.7 -7°28.4	332°18.6 -7°42.6	346°47.4 -8°10.9	1°16.2 -8°25.0	15°45.0 -8°39.1	30°13.7 -8°53.0	44°42.4 -9°03.0	59°11.0 -9°07.0	+28.8	16.3
	Ma 14	276°15.6 -12°28.5	290°43.6 -12°41.4	305°11.5 -12°54.2	319°39.3 -13°06.9	334°07.1 -13°19.6	348°34.9 -13°32.1	3°02.6 -13°44.6	17°30.2 -13°57.0	31°57.8 -14°09.3	46°25.4 -14°21.5	60°52.9 -14°33.6	+27.7	16.3
	Me 15	277°39.1 -17°23.8	292°05.5 -17°34.3	306°32.3 -17°44.7	320°58.8 -17°55.0	335°25.3 -18°05.1	349°51.8 -18°15.2	4°18.2 -18°25.1	18°44.5 -18°34.9	33°10.8 -18°44.6	47°37.0 -18°54.2	62°03.2 -19°03.6	+26.4	16.2
●	Je 16	278°30.0 -21°10.0	292°55.4 -21°17.4	307°20.8 -21°24.6	321°46.2 -21°31.7	336°11.5 -21°38.6	350°36.7 -21°45.4	5°02.0 -21°52.1	19°27.2 -21°58.6	33°52.3 -22°04.9	48°17.4 -22°11.2	62°42.5 -22°17.2	+25.2	16.1
	Ve 17	278°55.5 -23°30.5	293°20.7 -23°34.2	307°44.9 -23°37.7	322°09.6 -23°41.0	336°34.3 -23°44.3	350°58.9 -23°47.3	5°23.6 -23°50.2	19°48.2 -23°52.9	34°12.9 -23°55.5	48°37.5 -23°58.0	63°02.2 -24°00.2	+26.7	16.0
	Sa 18	279°12.9 -24°15.7	293°37.7 -24°15.5	308°02.6 -24°15.1	322°27.5 -24°14.6	336°52.4 -24°13.9	351°17.4 -24°13.1	5°42.4 -24°12.1	20°07.4 -24°11.0	34°32.4 -24°09.7	48°57.5 -24°08.3	63°22.7 -24°06.7	+25.0	15.9
●	Di 19	279°45.1 -23°25.4	294°11.0 -23°21.5	308°37.0 -23°17.4	323°03.0 -23°13.2	337°29.1 -23°08.8	351°55.2 -23°04.5	6°21.5 -22°59.9	20°47.8 -22°55.2	35°14.1 -22°50.3	49°40.5 -22°45.4	64°07.0 -22°40.2	+26.2	15.7
	Lu 20	280°52.8 -21°08.5	295°20.5 -21°01.1	309°48.2 -20°54.2	324°16.0 -20°47.0	338°43.9 -20°39.5	353°11.9 -20°32.0	7°39.9 -20°24.4	22°08.1 -20°16.7	36°36.3 -20°08.8	51°04.6 -20°00.9	65°32.9 -19°52.9	+28.0	15.6
	Ma 21	282°48.1 -17°40.6	297°17.7 -17°31.1	311°47.5 -17°21.5	326°17.3 -17°11.8	340°47.2 -17°02.0	355°17.2 -16°52.1	9°47.2 -16°42.2	24°17.3 -16°32.2	38°47.5 -16°22.1	53°17.8 -16°11.9	67°48.2 -16°01.7	+30.0	15.4
●	Me 22	285°32.6 -13°20.1	300°04.1 -13°08.9	314°35.5 -12°57.6	329°07.4 -12°46.2	343°39.1 -12°34.8	358°10.9 -12°23.4	12°42.8 -12°11.9	27°14.8 -12°00.3	41°46.8 -11°48.7	56°18.8 -11°37.1	70°51.0 -11°25.4	+31.8	15.3
	Je 23	289°00.1 -8°25.5	303°33.2 -8°13.3	318°06.3 -8°01.0	332°39.4 -7°48.7	347°12.6 -7°36.3	1°45.9 -7°24.0	16°19.2 -7°11.6	30°52.5 -6°59.9	45°25.9 -6°46.8	59°59.4 -6°34.4	74°32.9 -6°21.9	+33.3	15.2
	Ve 24	292°59.9 -3°19.7	307°34.0 -3°00.9	322°08.1 -2°48.3	336°42.2 -2°35.6	351°16.4 -2°23.0	5°50.6 -2°10.4	20°24.8 -1°57.7	34°59.1 -1°45.1	49°33.4 -1°32.5	64°07.7 -1°19.8	78°42.0 -1°07.2	+34.2	15.0
●	Sa 25	297°19.2 2°01.2	311°53.8 2°13.6	326°28.4 2°26.1	341°03.0 2°38.5	355°37.7 2°50.9	10°12.3 3°03.3	24°46.9 3°15.7	39°21.6 3°28.0	53°56.2 3°40.3	68°30.8 3°52.6	83°05.5 4°04.9	+34.6	14.9
	Di 26	301°45.1 7°05.9	316°19.7 7°17.7	330°54.2 7°29.5	345°28.8 7°41.2	0°03.4 7°52.9	14°37.9 8°04.6	29°12.5 8°16.2	43°47.0 8°27.8	58°21.5 8°39.4	72°56.0 8°50.9	87°30.4 9°02.4	+34.5	14.8
	Lu 27	306°05.1 11°49.3	320°39.2 12°00.0	335°13.3 12°10.7	349°47.3 12°21.4	4°21.4 12°32.0	18°55.4 12°42.5	33°29.3 12°53.0	48°03.3 13°03.4	62°37.2 13°13.8	77°11.0 13°24.1	91°44.9 13°34.3	+34.0	14.8
●	Ma 28	320°39.2 12°00.0	335°13.3 12°10.7	349°47.3 12°21.4	4°21.4 12°32.0	18°55.4 12°42.5	33°29.3 12°53.0	48°03.3 13°03.4	62°37.2 13°13.8	77°11.0 13°24.1	91°44.9 13°34.3	106°18.7 13°44.5	+34.0	14.8
	Me 29	324°41.4 16°10.2	339°14.5 16°19.4	353°47.3 16°28.5	8°20.8 16°37.6	22°53.9 16°46.6	37°26.9 16°55.5	51°59.9 17°04.3	66°32.8 17°13.1	81°05.7 17°21.1	95°38.5 17°30.4	110°11.3 17°39.0	+33.0	14.7
	Je 30	328°17.4 19°38.0	342°49.4 19°45.2	357°22.1 19°52.4	11°53.3 19°59.5	26°25.2 20°06.6	40°57.0 20°13.5	55°28.7 20°20.4	70°00.4 20°27.1	84°32.1 20°32.8	99°03.1 20°40.4	113°35.2 20°46.9	+31.8	14.8
●	Ve 31	331°22.1 22°13.0	345°52.8 22°18.0	0°23.5 22°22.9	14°54.1 22°27.6	29°24.6 22°32.3	43°55.1 22°36.9	58°25.6 22°41.3	72°56.0 22°45.7	87°26.3 22°49.9	101°56.6 22°54.0	116°26.9 22°58.1	+30.5	14.8
													+4.5	54.4

Ligne 1: GHA, Δ°/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ°/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
DQ: 2 11h15 – NL: 10 01h55 – PQ: 16 18h55 – PL: 24 01h51

SOLEIL

Septembre 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Sa 1	270°00.4 8°09.5	285°00.6 8°08.6	300°00.8 8°07.7	315°01.0 8°06.8	330°01.2 8°05.9	345°01.4 8°05.0	0°01.6 8°04.1	15°01.8 8°03.1	30°02.0 8°02.4	45°02.2 8°01.3	60°02.4 8°00.4	75°02.6 7°59.5	+0.2 -0.9
Di 2	270°05.2 7°47.6	285°05.4 7°46.7	300°05.6 7°45.8	315°05.8 7°44.9	330°06.0 7°44.0	345°06.2 7°43.1	0°06.4 7°42.2	15°06.6 7°41.2	30°06.8 7°40.3	45°07.0 7°39.4	60°07.2 7°38.5	75°07.4 7°37.6	+0.2 -0.9
Lu 3	270°10.1 7°25.7	285°10.3 7°24.7	300°10.5 7°23.8	315°10.7 7°22.9	330°10.9 7°22.0	345°11.1 7°21.1	0°11.3 7°20.1	15°11.5 7°19.2	30°11.7 7°18.3	45°11.9 7°17.4	60°12.1 7°16.5	75°12.3 7°15.5	+0.2 -0.9
Ma 4	270°15.0 7°03.5	285°15.2 7°02.6	300°15.4 7°01.7	315°15.6 7°00.8	330°15.8 6°59.9	345°16.0 6°58.9	0°16.2 6°58.0	15°16.4 6°57.1	30°16.7 6°56.2	45°16.9 6°55.2	60°17.1 6°54.3	75°17.3 6°53.4	+0.2 -0.9
Me 5	270°20.0 6°41.3	285°20.2 6°40.4	300°20.4 6°39.5	315°20.6 6°38.5	330°20.8 6°37.6	345°21.0 6°36.7	0°21.2 6°35.8	15°21.5 6°34.8	30°21.7 6°33.9	45°21.9 6°33.0	60°22.1 6°32.0	75°22.3 6°31.1	+0.2 -0.9
Je 6	270°25.0 6°19.0	285°25.2 6°18.1	300°25.4 6°17.1	315°25.7 6°16.2	330°25.9 6°15.3	345°26.1 6°14.3	0°26.3 6°13.4	15°26.5 6°12.5	30°26.7 6°11.5	45°26.9 6°10.6	60°27.1 6°09.7	75°27.4 6°08.7	+0.2 -0.9
Ve 7	270°30.1 5°56.5	285°30.3 5°55.6	300°30.5 5°54.7	315°30.8 5°53.7	330°31.0 5°52.8	345°31.2 5°51.9	0°31.4 5°50.9	15°31.6 5°50.0	30°31.8 5°49.0	45°32.0 5°48.1	60°32.3 5°47.2	75°32.5 5°46.2	+0.2 -0.9
Sa 8	270°35.3 5°34.0	285°35.5 5°33.1	300°35.7 5°32.1	315°35.9 5°31.2	330°36.1 5°30.2	345°36.3 5°29.3	0°36.5 5°28.4	15°36.8 5°27.4	30°37.0 5°26.5	45°37.2 5°25.5	60°37.4 5°24.6	75°37.6 5°23.7	+0.2 -0.9
Di 9	270°40.4 5°11.4	285°40.7 5°10.4	300°40.9 5°09.5	315°41.1 5°08.5	330°41.3 5°07.6	345°41.5 5°06.7	0°41.7 5°05.7	15°42.0 5°04.8	30°42.2 5°03.8	45°42.4 5°02.9	60°42.6 5°01.9	75°42.8 5°01.0	+0.2 -0.9
Lu 10	270°45.6 4°48.7	285°45.9 4°47.7	300°46.1 4°46.8	315°46.3 4°45.8	330°46.5 4°44.9	345°46.7 4°43.9	0°47.0 4°43.0	15°47.2 4°42.0	30°47.4 4°41.1	45°47.6 4°40.1	60°47.8 4°39.2	75°48.1 4°38.2	+0.2 -0.9
Ma 11	270°50.9 4°25.9	285°51.1 4°24.9	300°51.3 4°24.0	315°51.6 4°23.0	330°51.8 4°22.1	345°52.0 4°21.1	0°52.2 4°20.2	15°52.4 4°19.2	30°52.6 4°18.2	45°52.9 4°17.3	60°53.1 4°16.3	75°53.3 4°15.4	+0.2 -1.0
Me 12	270°56.2 4°03.0	285°56.4 4°02.0	300°56.6 4°01.1	315°56.8 4°00.1	330°57.1 3°59.2	345°57.3 3°58.2	0°57.5 3°57.3	15°57.7 3°56.3	30°57.9 3°55.3	45°58.2 3°54.4	60°58.4 3°53.4	75°58.6 3°52.5	+0.2 -1.0
Je 13	271°01.5 3°40.8	286°01.7 3°39.1	301°01.9 3°38.1	316°02.2 3°37.2	331°02.4 3°36.2	346°02.6 3°35.3	1°02.8 3°34.3	16°03.0 3°33.3	31°03.3 3°32.4	46°03.5 3°31.4	61°03.7 3°30.5	76°03.9 3°29.5	+0.2 -1.0
Ve 14	271°06.8 3°17.0	286°07.0 3°16.1	301°07.3 3°15.1	316°07.5 3°14.2	331°07.7 3°13.2	346°07.9 3°12.2	1°08.2 3°11.3	16°08.4 3°10.3	31°08.6 3°09.4	46°08.8 3°08.4	61°09.0 3°07.4	76°09.3 3°06.5	+0.2 -1.0
Sa 15	271°12.2 2°54.0	286°12.4 2°53.0	301°12.6 2°52.0	316°12.8 2°51.1	331°13.1 2°50.1	346°13.3 2°49.2	1°13.5 2°48.2	16°13.7 2°47.2	31°13.9 2°46.3	46°14.2 2°45.3	61°14.4 2°44.3	76°14.6 2°43.4	+0.2 -1.0
Di 16	271°17.5 2°30.8	286°17.7 2°29.9	301°18.0 2°28.9	316°18.2 2°28.0	331°18.4 2°27.0	346°18.6 2°26.0	1°18.9 2°25.1	16°19.1 2°24.1	31°19.3 2°23.1	46°19.5 2°22.2	61°19.8 2°21.2	76°20.0 2°20.2	+0.2 -1.0
Lu 17	271°22.9 2°07.7	286°23.1 2°06.7	301°23.3 2°05.8	316°23.6 2°04.8	331°23.8 2°03.8	346°24.0 2°02.9	1°24.2 2°01.9	16°24.5 2°00.9	31°24.7 2°00.0	46°24.9 1°59.0	61°25.1 1°58.0	76°25.3 1°57.1	+0.2 -1.0
Ma 18	271°28.3 1°44.5	286°28.5 1°43.5	301°28.7 1°42.5	316°28.9 1°41.6	331°29.1 1°40.6	346°29.4 1°39.6	1°29.6 1°38.7	16°29.8 1°37.7	31°30.0 1°36.7	46°30.3 1°35.8	61°30.5 1°34.8	76°30.7 1°33.8	+0.2 -1.0
Me 19	271°33.6 1°21.2	286°33.8 1°20.3	301°34.1 1°19.3	316°34.3 1°18.3	331°34.5 1°17.4	346°34.7 1°16.4	1°35.0 1°15.4	16°35.2 1°14.4	31°35.4 1°13.5	46°35.6 1°12.5	61°35.9 1°11.5	76°36.1 1°10.6	+0.2 -1.0
Je 20	271°39.0 0°58.0	286°39.2 0°57.0	301°39.4 0°56.0	316°39.6 0°55.0	331°39.9 0°54.1	346°40.1 0°53.1	1°40.3 0°52.1	16°40.5 0°51.2	31°40.8 0°50.2	46°41.0 0°49.2	61°41.2 0°48.2	76°41.4 0°47.3	+0.2 -1.0
Ve 21	271°44.3 0°34.6	286°44.5 0°33.7	301°44.8 0°32.7	316°45.0 0°31.7	331°45.2 0°30.8	346°45.4 0°29.8	1°45.6 0°28.8	16°45.9 0°27.8	31°46.1 0°26.9	46°46.3 0°25.9	61°46.5 0°24.9	76°46.8 0°24.0	+0.2 -1.0
Sa 22	271°49.6 0°11.3	286°49.9 0°10.4	301°50.1 0°09.4	316°50.3 0°08.4	331°50.5 0°07.4	346°50.7 0°06.5	1°51.0 0°05.5	16°51.2 0°04.5	31°51.4 0°03.5	46°51.6 0°02.6	61°51.8 0°01.6	76°52.1 0°00.6	+0.2 -1.0
Di 23	271°54.9 -0°12.0	286°55.1 -0°13.0	301°55.4 -0°14.0	316°55.6 -0°14.9	331°55.8 -0°15.9	346°56.0 -0°16.9	1°56.2 -0°17.9	16°56.5 -0°18.8	31°56.7 -0°19.8	46°56.9 -0°20.8	61°57.1 -0°21.7	76°57.3 -0°22.7	+0.2 -1.0
Lu 24	272°00.2 -0°35.4	287°00.4 -0°36.3	302°00.6 -0°37.3	317°00.8 -0°38.3	332°01.1 -0°39.3	347°01.3 -0°40.2	2°01.5 -0°41.2	17°01.7 -0°42.2	32°01.9 -0°43.2	47°02.1 -0°44.1	62°02.4 -0°45.1	77°02.6 -0°46.1	+0.2 -1.0
Ma 25	272°05.4 -0°58.7	287°05.6 -0°59.7	302°05.8 -0°00.7	317°06.0 -1°01.6	332°06.3 -1°02.6	347°06.5 -1°03.6	2°06.7 -1°04.6	17°06.9 -1°05.5	32°07.1 -1°06.5	47°07.3 -1°07.5	62°07.6 -1°08.5	77°07.8 -1°09.4	+0.2 -1.0
Me 26	272°10.6 -1°22.1	287°10.8 -1°23.1	302°11.0 -1°24.0	317°11.2 -1°25.0	332°11.4 -1°26.0	347°11.6 -1°26.9	2°11.9 -1°27.9	17°12.1 -1°28.9	32°12.3 -1°29.9	47°12.5 -1°30.8	62°12.7 -1°31.8	77°12.9 -1°32.8	+0.2 -1.0
Je 27	272°15.7 -1°45.4	287°15.9 -1°46.4	302°16.1 -1°47.4	317°16.3 -1°48.3	332°16.5 -1°49.3	347°16.8 -1°50.3	2°17.0 -1°51.3	17°17.2 -1°52.2	32°17.4 -1°53.2	47°17.6 -1°54.2	62°17.8 -1°55.2	77°18.0 -1°56.1	+0.2 -1.0
Ve 28	272°20.8 -2°08.8	287°21.0 -2°09.7	302°21.2 -2°10.7	317°21.4 -2°11.7	332°21.6 -2°12.7	347°21.8 -2°13.6	2°22.0 -2°14.6	17°22.2 -2°15.6	32°22.4 -2°16.5	47°22.7 -2°17.5	62°22.9 -2°18.5	77°23.1 -2°19.5	+0.2 -1.0
Sa 29	272°25.8 -2°32.1	287°26.0 -2°33.1	302°26.2 -2°34.0	317°26.4 -2°35.0	332°26.6 -2°36.0	347°26.8 -2°37.0	2°27.0 -2°37.9	17°27.2 -2°38.9	32°27.4 -2°39.9	47°27.6 -2°40.8	62°27.8 -2°41.8	77°28.0 -2°42.8	+0.2 -1.0
Di 30	272°30.7 -2°55.4	287°30.9 -2°56.4	302°31.1 -2°57.3	317°31.3 -2°58.3	332°31.5 -2°59.3	347°31.7 -3°00.2	2°31.9 -3°01.2	17°32.1 -3°02.2	32°32.3 -3°03.2	47°32.5 -3°04.1	62°32.8 -3°05.1	77°33.0 -3°06.1	+0.2 -1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. dec.

Semi-diamètre: 15.9'

LUNE

Septembre 2029

	J	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	Δ'/h	SP
O	Sa 1	234°39.6 24°08.2	249°08.4 24°08.3	263°37.0 24°08.3	278°05.9 24°07.9	292°34.6 24°07.1	307°03.3 24°07.6	321°31.9 24°06.4	336°00.5 24°05.1	350°29.1 24°05.7	4°57.7 24°04.8	19°26.2 24°03.8	-28.7 -0.455	15.1
	Di 2	236°31.6 23°33.6	250°59.8 23°30.6	265°28.0 23°27.4	279°56.2 23°24.1	294°24.4 23°20.7	308°52.5 23°17.1	323°20.7 23°13.5	337°48.8 23°09.7	352°17.0 23°05.7	6°45.1 23°01.7	21°13.2 22°57.5	-28.2 -3.661	15.3
	Lu 3	250°59.8 23°30.6	265°28.0 23°27.4	279°56.2 23°24.1	294°24.4 23°20.7	308°52.5 23°17.1	323°20.7 23°13.5	337°48.8 23°09.7	352°17.0 23°05.7	6°45.1 23°01.7	21°13.2 22°57.5	35°41.3 22°53.1	-28.2 -3.756	15.3
●	Ma 4	252°42.7 18°17.5	267°10.8 18°08.2	281°39.0 17°58.7	296°07.1 17°49.1	310°35.2 17°39.5	325°03.3 17°29.7	339°31.4 17°19.7	353°59.6 16°59.6	8°27.7 16°59.6	22°55.9 16°49.4	37°24.0 16°39.0	+28.1 -9.957	15.5
	Me 5	254°27.8 18°17.5	268°56.2 18°08.2	283°24.5 17°58.7	297°52.9 17°49.1	312°21.3 17°39.5	326°49.7 17°29.7	341°18.2 17°19.7	355°46.6 16°59.6	10°15.1 16°59.6	24°43.6 16°49.4	39°12.0 16°39.0	+28.4 -9.957	15.8
	Je 6	256°21.3 13°51.7	270°50.0 13°39.8	285°18.7 13°27.8	299°47.5 13°15.7	314°16.3 13°03.5	328°45.1 12°51.2	343°13.9 12°38.8	357°42.7 12°26.4	12°11.5 12°13.8	26°40.4 12°01.2	41°09.2 11°48.5	+28.8 -12.358	16.0
●	Ve 7	258°23.1 8°28.9	272°52.1 8°15.1	287°21.1 8°01.2	301°50.1 7°47.2	316°19.1 7°33.2	330°48.1 7°19.1	345°17.1 7°05.0	359°46.1 6°50.8	14°15.1 6°36.5	28°44.1 6°22.3	43°13.1 6°07.9	+29.0 -14.159	16.2
	Sa 8	260°27.5 2°27.9	274°56.4 2°13.0	289°25.2 1°58.1	303°54.1 1°43.1	318°23.0 1°28.1	332°51.8 1°13.1	347°20.6 0°58.1	361°49.4 0°43.1	16°18.2 0°28.0	30°47.0 0°12.9	45°15.7 -0°02.1	+28.8 -15.060	16.4
	Di 9	262°24.2 -3°48.1	276°52.6 -4°03.1	291°20.9 -4°18.1	305°49.2 -4°33.0	320°17.4 -4°48.0	334°45.6 -5°02.9	349°13.8 -5°17.7	363°42.7 -5°32.6	18°10.1 -5°47.4	32°38.1 -6°02.2	47°06.2 -6°16.9	+28.2 -14.960	16.5
●	Lu 10	264°01.8 -9°52.9	278°29.2 -10°06.8	292°56.5 -10°20.7	307°23.7 -10°34.6	321°50.9 -10°48.3	336°18.1 -11°02.0	350°45.2 -11°15.7	364°12.3 -11°29.2	19°39.3 -11°42.7	34°06.3 -11°56.1	48°33.2 -12°09.4	+27.1 -13.706	16.5
	Ma 11	265°10.7 -15°18.9	279°36.7 -15°30.7	294°02.9 -15°42.5	308°28.9 -15°54.1	322°54.3 -16°05.5	337°20.7 -16°17.1	351°46.5 -16°28.4	366°12.3 -16°39.7	20°38.0 -16°50.7	35°03.7 -17°01.7	49°29.3 -17°12.6	+25.9 -11.460	16.5
	Me 12	265°47.8 -19°40.5	280°12.7 -19°49.3	294°37.6 -19°58.0	309°02.4 -20°06.5	323°27.1 -20°14.9	337°51.8 -20°23.1	352°16.5 -20°31.3	366°41.2 -20°39.2	21°05.8 -20°47.0	35°30.3 -20°54.7	49°54.9 -21°02.3	+24.7 -8.259	16.3
●	Je 13	265°59.8 -22°37.2	280°24.0 -22°42.3	294°48.1 -22°47.3	309°12.3 -22°52.1	323°36.4 -22°56.7	338°00.6 -23°01.2	352°24.7 -23°05.5	366°48.8 -23°09.6	21°12.9 -23°13.6	35°37.1 -23°17.5	50°01.2 -23°21.2	+24.1 -4.459	16.2
	Ve 14	266°04.0 -23°57.2	280°28.8 -23°58.4	294°52.7 -23°59.3	309°17.1 -24°00.2	323°41.7 -24°00.8	338°06.0 -24°01.3	352°57.5 -24°01.7	367°05.0 -24°01.9	21°19.6 -24°01.3	35°44.1 -24°01.8	50°08.8 -24°01.5	+24.5 -0.458	16.0
	Sa 15	266°23.9 -23°39.2	280°49.3 -23°36.5	295°14.8 -23°33.7	309°40.4 -23°30.7	324°06.0 -23°27.6	338°31.7 -23°24.4	352°57.5 -23°21.0	367°05.0 -23°17.5	21°49.2 -23°13.8	36°15.2 -23°10.0	50°41.2 -23°06.1	+25.7 -3.357	15.8
●	Di 16	267°20.6 -21°51.5	281°47.9 -21°45.6	296°15.3 -21°39.5	310°42.6 -21°33.3	325°10.1 -21°27.0	339°37.7 -21°20.5	354°05.3 -21°14.0	368°83.1 -21°07.3	23°00.9 -21°00.5	37°28.8 -20°53.7	51°56.8 -20°46.7	+27.6 +6.557	15.6
	Lu 17	269°06.6 -18°49.4	283°35.9 -18°40.9	298°05.5 -18°32.2	312°34.8 -18°23.4	327°04.0 -18°14.6	341°34.1 -18°05.6	356°03.8 -17°56.6	370°33.6 -17°47.5	25°03.5 -17°38.3	39°33.5 -17°29.1	54°03.6 -17°19.7	+29.7 +9.056	15.4
	Ma 18	271°43.9 -14°50.7	286°15.2 -14°40.2	300°46.5 -14°29.6	315°17.9 -14°19.0	329°49.9 -14°08.4	344°21.0 -13°57.7	358°52.7 -13°46.9	373°24.4 -13°36.1	27°56.2 -13°25.2	42°28.0 -13°14.2	56°59.9 -13°03.2	+31.6 +10.756	15.3
●	Me 19	275°06.2 -10°12.8	289°39.1 -10°01.1	304°12.0 -9°49.3	318°45.0 -9°37.6	333°18.0 -9°25.8	347°51.1 -9°13.9	2°24.3 -8°50.2	16°57.5 -8°38.2	31°30.7 -8°26.3	46°04.0 -8°14.3	60°37.4 -8°01.4	+33.1 +11.855	15.1
	Je 20	279°02.7 -5°03.8	293°36.7 -4°59.5	308°10.7 -4°47.2	322°44.8 -4°34.8	337°18.9 -4°22.5	351°53.0 -4°10.1	6°27.2 -3°57.1	21°01.4 -3°45.4	35°35.6 -3°33.0	50°09.8 -3°20.6	64°44.1 -3°08.2	+34.1 +12.455	15.0
	Ve 21	283°20.9 -0°02.0	297°55.5 0°10.4	312°30.1 0°22.8	327°04.7 0°35.1	341°39.3 0°47.5	356°13.9 0°59.9	10°48.6 1°12.2	25°23.3 1°24.5	39°57.9 1°36.9	54°32.6 1°49.2	69°07.7 2°01.5	+34.6 +12.454	14.9
●	Sa 22	287°47.8 5°03.8	302°22.5 5°15.8	316°57.2 5°27.7	331°31.8 5°39.7	346°06.5 5°51.6	360°41.2 6°03.4	15°15.8 6°15.3	29°50.4 6°27.1	44°25.1 6°38.9	58°59.9 6°50.6	73°34.3 7°02.3	+34.7 +11.954	14.8
	Di 23	292°11.5 9°53.8	306°45.8 10°04.9	321°20.1 10°16.0	335°54.4 10°27.0	350°28.7 10°38.0	365°02.9 10°49.0	19°37.1 10°59.8	34°11.3 11°10.7	48°45.4 11°21.5	63°19.5 11°32.2	77°53.6 11°42.9	+34.2 +10.954	14.8
	Lu 24	296°21.4 14°16.9	310°55.0 14°26.7	325°28.5 14°36.4	340°02.1 14°46.1	354°35.5 14°55.8	369°09.0 15°05.3	23°42.4 15°14.8	38°15.7 15°24.2	52°49.0 15°33.6	67°22.0 15°42.9	81°55.6 15°52.1	+33.4 +9.554	14.7
●	Ma 25	300°09.3 18°02.2	314°41.8 18°10.2	329°14.3 18°18.2	343°46.8 18°26.2	358°19.3 18°34.0	373°51.7 18°41.8	27°24.0 18°49.4	41°56.3 18°57.0	56°28.6 19°04.5	71°00.8 19°12.0	85°32.9 19°19.3	+32.4 +7.754	14.7
	Me 26	303°29.9 20°59.2	318°01.3 21°05.1	332°32.7 21°10.9	347°04.1 21°16.7	361°35.4 21°22.3	376°06.6 21°27.9	30°37.8 21°33.4	45°09.0 21°38.7	59°40.0 21°44.0	74°11.2 21°49.2	88°42.2 21°54.2	+31.2 +5.554	14.7
	Je 27	318°01.3 21°05.1	332°32.7 21°10.9	347°04.1 21°16.7	361°35.4 21°22.3	376°06.6 21°27.9	391°37.8 21°33.4	45°09.0 21°38.7	59°40.0 21°44.0	74°11.2 21°49.2	88°42.2 21°54.2	103°13.2 21°59.2	+31.2 +5.454	14.7
●	Ve 28	320°52.8 23°01.6	335°23.1 23°04.9	349°53.4 23°08.1	364°23.7 23°11.2	379°53.9 23°14.2	394°24.0 23°17.1	47°54.2 23°19.9	62°24.3 23°22.5	76°54.3 23°25.1	91°24.3 23°27.5	105°54.3 23°29.9	+30.1 +2.854	14.8
	Sa 29	323°20.3 23°51.3	337°49.8 23°51.8	352°19.3 23°52.2	366°48.7 23°52.5	381°18.1 23°52.7	395°47.5 23°52.7	50°16.9 23°52.6	64°46.3 23°52.3	79°15.6 23°52.1	93°44.9 23°51.7	108°14.2 23°51.1	+29.4 -0.054	14.9
	Di 30	325°31.6 23°28.5	340°00.7 23°26.0	354°29.7 23°23.4	368°58.8 23°20.7	383°27.8 23°17.9	397°56.8 23°14.9	52°25.8 23°11.8	66°54.9 23°08.6	81°23.9 23°05.3	95°52.9 23°01.9	110°21.9 22°58.3	+29.0 -3.055	15.1

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24

DQ: 1 04h33 — NL: 8 10h44 — PQ: 15 01h29 — PL: 22 16h29 — DQ: 30 20h56

SOLEIL

Octobre 2029

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Lu 1	257°35.4 -3°17.7	272°35.6 -3°18.7	287°35.8 -3°19.6	302°36.0 -3°20.6	317°36.2 -3°21.6	332°36.4 -3°22.5	347°36.6 -3°23.5	2°36.8 -3°24.5	17°37.0 -3°25.4	32°37.2 -3°26.4	47°37.4 -3°27.4	62°37.6 -3°28.4	+0.2 -1.0
Ma 2	257°40.2 -3°40.9	272°40.4 -3°41.9	287°40.6 -3°42.9	302°40.8 -3°43.8	317°41.0 -3°44.8	332°41.2 -3°45.8	347°41.4 -3°46.7	2°41.6 -3°47.7	17°41.8 -3°48.7	32°41.9 -3°49.6	47°42.1 -3°50.6	62°42.3 -3°51.6	+0.2 -1.0
Me 3	257°44.9 -4°04.1	272°45.1 -4°05.1	287°45.3 -4°06.1	302°45.5 -4°07.0	317°45.7 -4°08.0	332°45.9 -4°09.0	347°46.0 -4°09.9	2°46.2 -4°10.9	17°46.4 -4°11.9	32°46.6 -4°12.8	47°46.8 -4°13.8	62°47.0 -4°14.8	+0.2 -1.0
Je 4	257°49.5 -4°27.3	272°49.7 -4°28.3	287°49.9 -4°29.2	302°50.1 -4°30.2	317°50.3 -4°31.1	332°50.5 -4°32.1	347°50.6 -4°33.1	2°50.8 -4°34.0	17°51.0 -4°35.0	32°51.2 -4°36.0	47°51.4 -4°36.9	62°51.6 -4°37.9	+0.2 -1.0
Ve 5	257°54.0 -4°50.4	272°54.2 -4°51.4	287°54.4 -4°52.3	302°54.6 -4°53.3	317°54.8 -4°54.2	332°55.0 -4°55.2	347°55.2 -4°56.2	2°55.3 -4°57.1	17°55.5 -4°58.1	32°55.7 -4°59.0	47°55.9 -5°00.0	62°56.1 -5°01.0	+0.2 -1.0
Sa 6	257°58.5 -5°13.4	272°58.6 -5°14.4	287°58.8 -5°15.3	302°59.0 -5°16.3	317°59.2 -5°17.3	332°59.4 -5°18.2	347°59.6 -5°19.2	2°59.7 -5°20.1	17°59.9 -5°21.1	33°00.1 -5°22.1	48°00.3 -5°23.0	63°00.5 -5°24.0	+0.2 -1.0
Di 7	258°02.8 -5°36.4	273°03.0 -5°37.4	288°03.2 -5°38.3	303°03.3 -5°39.3	318°03.5 -5°40.2	333°03.7 -5°41.2	348°03.9 -5°42.1	3°04.0 -5°43.1	18°04.2 -5°44.0	33°04.4 -5°45.0	48°04.6 -5°46.0	63°04.7 -5°46.9	+0.2 -1.0
Lu 8	258°07.0 -5°59.3	273°07.2 -6°00.3	288°07.4 -6°01.2	303°07.5 -6°02.2	318°07.7 -6°03.1	333°07.9 -6°04.1	348°08.1 -6°05.0	3°08.2 -6°06.0	18°08.4 -6°06.9	33°08.6 -6°07.9	48°08.8 -6°08.8	63°08.9 -6°09.8	+0.2 -1.0
Ma 9	258°11.1 -6°22.1	273°11.3 -6°23.1	288°11.5 -6°24.0	303°11.7 -6°25.0	318°11.8 -6°25.9	333°12.0 -6°26.9	348°12.2 -6°27.8	3°12.3 -6°28.8	18°12.5 -6°29.7	33°12.7 -6°30.7	48°12.8 -6°31.6	63°13.0 -6°32.6	+0.2 -0.9
Me 10	258°15.2 -6°44.9	273°15.3 -6°45.8	288°15.5 -6°46.8	303°15.6 -6°47.7	318°15.8 -6°48.6	333°16.0 -6°49.6	348°16.1 -6°50.5	3°16.3 -6°51.5	18°16.5 -6°52.4	33°16.6 -6°53.4	48°16.8 -6°54.3	63°17.0 -6°55.3	+0.2 -0.9
Je 11	258°19.0 -7°07.5	273°19.2 -7°08.5	288°19.4 -7°09.4	303°19.5 -7°10.3	318°19.7 -7°11.3	333°19.8 -7°12.2	348°20.0 -7°13.2	3°20.2 -7°14.1	18°20.3 -7°15.0	33°20.5 -7°16.0	48°20.6 -7°16.9	63°20.8 -7°17.9	+0.2 -0.9
Ve 12	258°22.8 -7°30.5	273°23.0 -7°31.0	288°23.1 -7°31.9	303°23.3 -7°32.9	318°23.4 -7°33.8	333°23.6 -7°34.8	348°23.7 -7°35.7	3°23.9 -7°36.6	18°24.0 -7°37.6	33°24.2 -7°38.6	48°24.4 -7°39.4	63°24.5 -7°40.4	+0.2 -0.9
Sa 13	258°26.5 -7°52.5	273°26.6 -7°53.4	288°26.8 -7°54.4	303°26.9 -7°55.3	318°27.1 -7°56.2	333°27.2 -7°57.2	348°27.3 -7°58.1	3°27.5 -7°59.0	18°27.7 -8°00.0	33°27.8 -8°00.9	48°28.0 -8°01.8	63°28.1 -8°02.8	+0.1 -0.9
Di 14	258°30.0 -8°14.8	273°30.1 -8°15.8	288°30.3 -8°16.7	303°30.4 -8°17.6	318°30.6 -8°18.6	333°30.7 -8°19.5	348°30.9 -8°20.4	3°31.0 -8°21.3	18°31.1 -8°22.3	33°31.3 -8°23.2	48°31.4 -8°24.1	63°31.6 -8°25.0	+0.1 -0.9
Lu 15	258°33.7 -8°37.1	273°33.5 -8°38.0	288°33.7 -8°39.8	303°33.8 -8°40.8	318°33.9 -8°41.7	333°34.1 -8°42.6	348°34.2 -8°43.5	3°34.4 -8°44.4	18°34.5 -8°45.4	33°34.6 -8°46.3	48°34.8 -8°47.2	63°34.9 -8°48.2	+0.1 -0.9
Ma 16	258°36.6 -8°59.2	273°36.8 -9°00.1	288°36.9 -9°01.0	303°37.0 -9°01.9	318°37.2 -9°02.8	333°37.3 -9°03.7	348°37.4 -9°04.6	3°37.6 -9°05.6	18°37.7 -9°06.5	33°37.9 -9°07.4	48°38.0 -9°08.3	63°38.1 -9°09.2	+0.1 -0.9
Me 17	258°39.8 -9°21.1	273°39.9 -9°22.0	288°40.0 -9°22.9	303°40.1 -9°23.9	318°40.3 -9°24.8	333°40.4 -9°25.7	348°40.5 -9°26.6	3°40.6 -9°27.5	18°40.8 -9°28.4	33°40.9 -9°29.3	48°41.0 -9°30.2	63°41.1 -9°31.1	+0.1 -0.9
Je 18	258°42.7 -9°42.9	273°42.8 -9°43.9	288°43.0 -9°44.8	303°43.1 -9°45.7	318°43.2 -9°46.6	333°43.3 -9°47.5	348°43.4 -9°48.4	3°43.6 -9°49.3	18°43.7 -9°50.2	33°43.8 -9°51.1	48°43.9 -9°52.0	63°44.0 -9°52.9	+0.1 -0.9
Ve 19	258°45.5 -10°04.6	273°45.7 -10°05.5	288°45.8 -10°06.4	303°45.9 -10°07.3	318°46.0 -10°08.2	333°46.1 -10°09.1	348°46.2 -10°10.0	3°46.3 -10°10.9	18°46.5 -10°11.8	33°46.6 -10°12.7	48°46.7 -10°13.6	63°46.8 -10°14.5	+0.1 -0.9
Sa 20	258°48.2 -10°26.2	273°48.3 -10°27.1	288°48.4 -10°28.0	303°48.5 -10°28.9	318°48.6 -10°29.7	333°48.7 -10°30.6	348°48.9 -10°31.5	3°49.0 -10°32.4	18°49.1 -10°33.3	33°49.2 -10°34.2	48°49.3 -10°35.1	63°49.4 -10°36.0	+0.1 -0.9
Di 21	258°50.7 -10°47.6	273°50.8 -10°48.4	288°50.9 -10°49.3	303°51.0 -10°50.2	318°51.1 -10°51.1	333°51.2 -10°52.0	348°51.3 -10°52.9	3°51.4 -10°53.8	18°51.5 -10°54.6	33°51.6 -10°55.5	48°51.7 -10°56.4	63°51.8 -10°57.3	+0.1 -0.9
Lu 22	258°53.1 -11°08.8	273°53.1 -11°09.7	288°53.2 -11°10.5	303°53.3 -11°11.4	318°53.4 -11°12.3	333°53.5 -11°13.2	348°53.6 -11°14.1	3°53.7 -11°14.9	18°53.8 -11°15.8	33°53.9 -11°16.7	48°53.9 -11°17.6	63°54.1 -11°18.5	+0.1 -0.9
Ma 23	258°55.2 -11°29.8	273°55.3 -11°30.7	288°55.4 -11°31.6	303°55.5 -11°32.5	318°55.6 -11°33.3	333°55.7 -11°34.2	348°55.7 -11°35.1	3°55.8 -11°35.9	18°55.9 -11°36.8	33°55.9 -11°37.7	48°55.9 -11°38.6	63°55.9 -11°39.4	+0.1 -0.9
Me 24	258°57.2 -11°50.7	273°57.3 -11°51.6	288°57.4 -11°52.5	303°57.5 -11°53.3	318°57.5 -11°54.2	333°57.6 -11°55.1	348°57.7 -11°55.9	3°57.8 -11°56.8	18°57.8 -11°57.6	33°57.9 -11°58.5	48°57.9 -11°59.4	63°58.1 -12°00.2	+0.1 -0.9
Je 25	258°59.0 -12°11.4	273°59.1 -12°12.3	288°59.2 -12°13.1	303°59.3 -12°14.0	318°59.3 -12°14.9	333°59.4 -12°15.7	348°59.5 -12°16.6	3°59.5 -12°17.4	18°59.6 -12°18.3	33°59.6 -12°19.1	48°59.6 -12°20.0	63°59.8 -12°20.9	+0.1 -0.9
Ve 26	259°00.7 -12°32.0	274°00.7 -12°32.8	289°00.8 -12°33.7	304°00.9 -12°34.5	319°00.9 -12°35.4	334°01.0 -12°36.2	349°01.1 -12°37.1	4°01.1 -12°37.9	19°01.2 -12°38.7	34°01.2 -12°39.6	49°01.3 -12°40.4	64°01.4 -12°41.3	+0.1 -0.8
Sa 27	259°02.1 -12°52.3	274°02.2 -12°53.2	289°02.2 -12°54.0	304°02.3 -12°54.8	319°02.4 -12°55.6	334°02.4 -12°56.5	349°02.5 -12°57.3	4°02.5 -12°58.2	19°02.6 -12°59.0	34°02.6 -12°59.9	49°02.7 -13°00.7	64°02.7 -13°01.5	+0.1 -0.8
Di 28	259°03.4 -13°12.4	274°03.4 -13°13.2	289°03.5 -13°14.1	304°03.5 -13°14.9	319°03.6 -13°15.7	334°03.6 -13°16.6	349°03.7 -13°17.4	4°03.7 -13°18.2	19°03.8 -13°19.1	34°03.8 -13°19.9	49°03.9 -13°20.7	64°03.9 -13°21.6	+0.0 -0.8
Lu 29	259°04.5 -13°32.8	274°04.5 -13°33.2	289°04.5 -13°34.0	304°04.6 -13°34.8	319°04.6 -13°35.6	334°04.7 -13°36.5	349°04.7 -13°37.3	4°04.7 -13°38.1	19°04.8 -13°38.9	34°04.8 -13°39.8	49°04.8 -13°40.6	64°04.9 -13°41.4	+0.0 -0.8
Ma 30	259°05.8 -13°52.3	274°05.4 -13°53.7	289°05.4 -13°54.3	304°05.4 -13°55.3	319°05.4 -13°56.1	334°05.5 -13°56.9	349°05.5 -13°57.8	4°05.5 -13°58.6	19°05.6 -13°59.4	34°05.6 -13°59.9	49°05.6 -14°00.2	64°05.7 -14°01.0	+0.0 -0.8
Me 31	259°06.0 -14°11.5	274°06.0 -14°12.3	289°06.0 -14°13.2	304°06.1 -14°14.0	319°06.1 -14°14.8	334°06.1 -14°15.6	349°06.1 -14°16.4	4°06.2 -14°17.2	19°06.2 -14°18.0	34°06.2 -14°18.8	49°06.2 -14°19.6	64°06.2 -14°20.4	+0.0 -0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.0'

LUNE

Octobre 2029

	J	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	Δ'/h SP
Lu 1	228 ⁰ 19.3	242 ⁰ 48.5	257 ⁰ 17.6	271 ⁰ 46.7	286 ⁰ 15.9	300 ⁰ 45.0	315 ⁰ 14.2	329 ⁰ 43.4	344 ⁰ 12.5	358 ⁰ 41.7	13 ⁰ 10.9	+29.2 15.5	
	19 ⁰ 53.8	19 ⁰ 46.3	19 ⁰ 38.6	19 ⁰ 30.8	19 ⁰ 22.9	19 ⁰ 14.8	19 ⁰ 06.7	18 ⁰ 58.5	18 ⁰ 50.1	18 ⁰ 41.7	18 ⁰ 33.1	-8.1 56.7	
Ma 2	230 ⁰ 30.3	244 ⁰ 59.7	259 ⁰ 29.0	273 ⁰ 58.4	288 ⁰ 27.8	302 ⁰ 57.2	317 ⁰ 26.6	331 ⁰ 56.1	346 ⁰ 25.5	0 ⁰ 54.9	15 ⁰ 24.4	+29.4 15.7	
	16 ⁰ 11.8	16 ⁰ 01.5	15 ⁰ 51.2	15 ⁰ 40.7	15 ⁰ 30.2	15 ⁰ 19.6	15 ⁰ 08.8	14 ⁰ 58.0	14 ⁰ 47.1	14 ⁰ 36.1	14 ⁰ 25.0	-10.7 57.7	
Me 3	244 ⁰ 59.7	259 ⁰ 29.0	273 ⁰ 58.4	288 ⁰ 27.8	302 ⁰ 57.2	317 ⁰ 26.6	331 ⁰ 56.1	346 ⁰ 25.5	0 ⁰ 54.9	15 ⁰ 24.4	29 ⁰ 53.8	+29.4 15.7	
	16 ⁰ 01.5	15 ⁰ 51.2	15 ⁰ 40.7	15 ⁰ 30.2	15 ⁰ 19.6	15 ⁰ 08.8	14 ⁰ 58.0	14 ⁰ 47.1	14 ⁰ 36.1	14 ⁰ 25.0	14 ⁰ 13.8	-10.8 57.8	
Je 4	247 ⁰ 16.2	261 ⁰ 45.7	276 ⁰ 15.2	290 ⁰ 44.7	305 ⁰ 14.2	319 ⁰ 43.7	334 ⁰ 13.3	348 ⁰ 42.8	3 ⁰ 12.2	17 ⁰ 41.7	32 ⁰ 11.2	+29.5 16.0	
	11 ⁰ 15.2	11 ⁰ 02.6	10 ⁰ 50.0	10 ⁰ 37.3	10 ⁰ 24.5	10 ⁰ 11.6	9 ⁰ 58.7	9 ⁰ 45.7	9 ⁰ 32.6	9 ⁰ 19.4	9 ⁰ 06.2	-12.9 58.8	
Ve 5	249 ⁰ 32.4	264 ⁰ 01.8	278 ⁰ 31.1	293 ⁰ 00.3	307 ⁰ 29.6	321 ⁰ 58.8	336 ⁰ 28.0	350 ⁰ 57.2	5 ⁰ 26.4	19 ⁰ 55.6	34 ⁰ 24.7	+29.2 16.3	
	5 ⁰ 40.4	5 ⁰ 26.2	5 ⁰ 12.0	4 ⁰ 57.7	4 ⁰ 43.4	4 ⁰ 29.1	4 ⁰ 14.7	4 ⁰ 00.3	3 ⁰ 45.8	3 ⁰ 31.3	3 ⁰ 16.7	-14.4 59.7	
Sa 6	251 ⁰ 38.3	266 ⁰ 06.9	280 ⁰ 35.5	295 ⁰ 04.1	309 ⁰ 32.6	324 ⁰ 01.1	338 ⁰ 29.6	352 ⁰ 58.0	7 ⁰ 26.3	21 ⁰ 54.7	36 ⁰ 22.9	+28.5 16.5	
	-0 ⁰ 25.0	-0 ⁰ 39.9	-0 ⁰ 54.9	-1 ⁰ 09.8	-1 ⁰ 24.8	-1 ⁰ 39.8	-1 ⁰ 54.7	-2 ⁰ 09.7	-2 ⁰ 24.7	-2 ⁰ 39.7	-2 ⁰ 54.6	-15.0 60.5	
Di 7	253 ⁰ 21.3	267 ⁰ 48.7	282 ⁰ 16.1	296 ⁰ 43.5	311 ⁰ 10.8	325 ⁰ 38.0	340 ⁰ 05.2	354 ⁰ 32.3	8 ⁰ 59.4	23 ⁰ 26.4	37 ⁰ 53.3	+27.2 16.6	
	-6 ⁰ 37.7	-6 ⁰ 52.4	-7 ⁰ 07.0	-7 ⁰ 21.6	-7 ⁰ 36.2	-7 ⁰ 50.7	-8 ⁰ 05.2	-8 ⁰ 19.6	-8 ⁰ 34.0	-8 ⁰ 48.4	-9 ⁰ 02.7	-14.5 61.0	
Lu 8	254 ⁰ 29.8	268 ⁰ 55.7	283 ⁰ 21.5	297 ⁰ 47.3	312 ⁰ 13.0	326 ⁰ 38.6	341 ⁰ 04.2	355 ⁰ 29.7	9 ⁰ 55.1	24 ⁰ 20.5	38 ⁰ 45.8	+25.6 16.7	
	-12 ⁰ 29.9	-12 ⁰ 43.2	-12 ⁰ 56.3	-13 ⁰ 09.4	-13 ⁰ 22.4	-13 ⁰ 35.3	-13 ⁰ 48.1	-14 ⁰ 00.8	-14 ⁰ 13.4	-14 ⁰ 25.9	-14 ⁰ 38.4	-12.9 61.2	
Ma 9	254 ⁰ 57.5	269 ⁰ 21.2	283 ⁰ 46.6	298 ⁰ 10.1	312 ⁰ 33.2	326 ⁰ 58.3	341 ⁰ 22.2	355 ⁰ 46.2	10 ⁰ 10.0	24 ⁰ 33.9	38 ⁰ 57.6	+24.0 16.7	
	-17 ⁰ 31.7	-17 ⁰ 42.3	-17 ⁰ 52.8	-18 ⁰ 03.2	-18 ⁰ 13.4	-18 ⁰ 23.5	-18 ⁰ 33.5	-18 ⁰ 43.3	-18 ⁰ 53.0	-19 ⁰ 02.5	-19 ⁰ 11.9	-10.0 61.1	
Me 10	254 ⁰ 48.7	269 ⁰ 11.8	283 ⁰ 34.8	297 ⁰ 57.9	312 ⁰ 20.9	326 ⁰ 43.9	341 ⁰ 06.8	355 ⁰ 29.8	9 ⁰ 52.7	24 ⁰ 15.6	38 ⁰ 38.5	+23.0 16.5	
	-21 ⁰ 15.4	-21 ⁰ 22.4	-21 ⁰ 29.2	-21 ⁰ 35.9	-21 ⁰ 42.2	-21 ⁰ 48.8	-21 ⁰ 55.0	-22 ⁰ 01.0	-22 ⁰ 06.9	-22 ⁰ 12.6	-22 ⁰ 18.2	-6.3 60.6	
Je 11	254 ⁰ 21.1	268 ⁰ 44.0	283 ⁰ 06.9	297 ⁰ 29.9	311 ⁰ 52.8	326 ⁰ 15.7	340 ⁰ 38.7	355 ⁰ 01.7	9 ⁰ 24.8	23 ⁰ 47.8	38 ⁰ 10.9	+23.0 16.3	
	-23 ⁰ 21.2	-23 ⁰ 24.1	-23 ⁰ 26.8	-23 ⁰ 29.9	-23 ⁰ 31.6	-23 ⁰ 33.8	-23 ⁰ 35.8	-23 ⁰ 37.7	-23 ⁰ 39.9	-23 ⁰ 40.8	-23 ⁰ 42.2	-2.1 59.9	
Ve 12	254 ⁰ 02.6	268 ⁰ 26.5	282 ⁰ 50.4	297 ⁰ 14.4	311 ⁰ 38.4	326 ⁰ 02.6	340 ⁰ 26.8	354 ⁰ 51.0	9 ⁰ 15.3	23 ⁰ 39.8	38 ⁰ 04.2	+24.2 16.1	
	-23 ⁰ 42.4	-23 ⁰ 41.1	-23 ⁰ 39.7	-23 ⁰ 38.1	-23 ⁰ 36.3	-23 ⁰ 34.4	-23 ⁰ 32.3	-23 ⁰ 30.1	-23 ⁰ 27.8	-23 ⁰ 25.2	-23 ⁰ 22.6	+2.0 59.0	
Sa 13	254 ⁰ 21.0	268 ⁰ 46.9	283 ⁰ 12.8	297 ⁰ 38.7	312 ⁰ 04.8	326 ⁰ 31.0	340 ⁰ 57.3	355 ⁰ 23.6	9 ⁰ 50.1	24 ⁰ 16.6	38 ⁰ 43.3	+26.2 15.8	
	-22 ⁰ 25.3	-22 ⁰ 20.4	-22 ⁰ 15.3	-22 ⁰ 10.1	-22 ⁰ 04.8	-21 ⁰ 59.4	-21 ⁰ 53.8	-21 ⁰ 48.1	-21 ⁰ 42.3	-21 ⁰ 36.4	-21 ⁰ 30.3	+5.5 58.1	
Di 14	255 ⁰ 34.6	270 ⁰ 02.8	284 ⁰ 31.1	298 ⁰ 59.5	313 ⁰ 27.9	327 ⁰ 56.5	342 ⁰ 25.2	356 ⁰ 54.0	11 ⁰ 22.8	25 ⁰ 51.8	40 ⁰ 20.9	+28.6 15.6	
	-19 ⁰ 46.0	-19 ⁰ 38.2	-19 ⁰ 30.3	-19 ⁰ 22.3	-19 ⁰ 14.2	-19 ⁰ 06.0	-18 ⁰ 57.7	-18 ⁰ 49.9	-18 ⁰ 40.9	-18 ⁰ 32.2	-18 ⁰ 23.7	+8.2 57.2	
Lu 15	257 ⁰ 47.9	272 ⁰ 18.4	286 ⁰ 49.0	301 ⁰ 19.7	315 ⁰ 10.5	330 ⁰ 21.3	344 ⁰ 52.3	359 ⁰ 23.3	13 ⁰ 54.4	28 ⁰ 25.6	42 ⁰ 56.9	+30.9 15.4	
	-16 ⁰ 04.3	-15 ⁰ 54.5	-15 ⁰ 44.5	-15 ⁰ 34.5	-15 ⁰ 24.4	-15 ⁰ 14.3	-15 ⁰ 04.1	-14 ⁰ 53.8	-14 ⁰ 43.4	-14 ⁰ 33.1	-14 ⁰ 22.6	+10.2 56.4	
Ma 16	260 ⁰ 55.0	275 ⁰ 27.4	289 ⁰ 59.9	304 ⁰ 32.5	319 ⁰ 05.1	333 ⁰ 37.8	348 ⁰ 10.6	2 ⁰ 43.4	17 ⁰ 16.3	31 ⁰ 49.3	46 ⁰ 22.3	+32.7 15.2	
	-11 ⁰ 39.6	-11 ⁰ 28.3	-11 ⁰ 17.0	-11 ⁰ 05.7	-10 ⁰ 54.4	-10 ⁰ 43.0	-10 ⁰ 31.5	-10 ⁰ 20.0	-10 ⁰ 08.5	-9 ⁰ 57.0	-9 ⁰ 45.4	+14.5 55.7	
Me 17	264 ⁰ 43.8	279 ⁰ 17.6	293 ⁰ 51.5	308 ⁰ 25.4	322 ⁰ 59.3	337 ⁰ 33.3	352 ⁰ 07.3	6 ⁰ 41.4	15 ⁰ 15.5	35 ⁰ 49.6	60 ⁰ 23.8	+34.0 15.0	
	-6 ⁰ 48.4	-6 ⁰ 36.4	-6 ⁰ 24.4	-6 ⁰ 12.3	-6 ⁰ 00.3	-5 ⁰ 48.2	-5 ⁰ 36.2	-5 ⁰ 24.1	-5 ⁰ 12.0	-4 ⁰ 59.9	-4 ⁰ 47.7	+12.1 55.1	
Je 18	269 ⁰ 00.0	283 ⁰ 34.6	298 ⁰ 09.2	312 ⁰ 43.9	327 ⁰ 18.6	341 ⁰ 53.3	356 ⁰ 28.0	11 ⁰ 02.7	25 ⁰ 37.4	40 ⁰ 12.2	54 ⁰ 46.9	+34.7 14.9	
	-11 ⁰ 44.8	-11 ⁰ 32.6	-11 ⁰ 20.4	-11 ⁰ 08.2	-10 ⁰ 56.0	-10 ⁰ 43.7	-10 ⁰ 31.5	-10 ⁰ 19.3	-10 ⁰ 07.1	10 ⁰ 05.1	0 ⁰ 17.3	+12.2 54.7	
Ve 19	273 ⁰ 29.3	288 ⁰ 04.1	302 ⁰ 39.9	317 ⁰ 13.8	331 ⁰ 48.7	346 ⁰ 23.5	0 ⁰ 58.3	15 ⁰ 33.2	30 ⁰ 08.0	44 ⁰ 42.8	59 ⁰ 17.6	+34.8 14.8	
	3 ⁰ 18.8	3 ⁰ 30.8	3 ⁰ 42.8	3 ⁰ 54.7	4 ⁰ 06.7	4 ⁰ 18.6	4 ⁰ 30.5	4 ⁰ 42.3	4 ⁰ 54.2	5 ⁰ 06.0	5 ⁰ 17.8	+11.9 54.3	
Sa 20	277 ⁰ 58.3	292 ⁰ 32.9	307 ⁰ 07.5	321 ⁰ 42.0	336 ⁰ 16.5	350 ⁰ 51.0	5 ⁰ 25.5	20 ⁰ 00.0	34 ⁰ 34.4	49 ⁰ 08.4	63 ⁰ 44.8	+34.5 14.8	
	8 ⁰ 11.4	8 ⁰ 22.7	8 ⁰ 34.0	8 ⁰ 45.3	8 ⁰ 56.5	9 ⁰ 07.6	9 ⁰ 18.8	9 ⁰ 29.9	9 ⁰ 40.9	9 ⁰ 51.9	10 ⁰ 02.9	+11.2 54.1	
Di 21	282 ⁰ 15.5	296 ⁰ 49.4	311 ⁰ 23.3	325 ⁰ 57.1	340 ⁰ 30.9	355 ⁰ 04.6	9 ⁰ 38.4	24 ⁰ 12.0	38 ⁰ 45.7	53 ⁰ 19.3	67 ⁰ 52.9	+33.7 14.7	
	12 ⁰ 42.0	12 ⁰ 52.2	13 ⁰ 02.4	13 ⁰ 12.5	13 ⁰ 22.5	13 ⁰ 32.5	13 ⁰ 42.4	13 ⁰ 52.3	14 ⁰ 02.1	14 ⁰ 11.9	14 ⁰ 21.6	+10.0 53.9	
Lu 22	286 ⁰ 11.7	300 ⁰ 44.6	315 ⁰ 17.5	329 ⁰ 50.3	344 ⁰ 23.1	358 ⁰ 55.8	13 ⁰ 28.5	28 ⁰ 01.2	42 ⁰ 33.8	57 ⁰ 06.3	71 ⁰ 38.8	+32.7 14.7	
	16 ⁰ 39.6	16 ⁰ 48.2	16 ⁰ 56.8	17 ⁰ 05.4	17 ⁰ 13.8	17 ⁰ 22.2	17 ⁰ 30.5	17 ⁰ 38.7	17 ⁰ 46.8	17 ⁰ 54.9	18 ⁰ 02.9	+8.3 53.9	
Ma 23	289 ⁰ 41.2	304 ⁰ 13.0	318 ⁰ 44.7	333 ⁰ 16.4	347 ⁰ 48.1	2 ⁰ 19.7	16 ⁰ 51.3	31 ⁰ 22.8	45 ⁰ 54.3	60 ⁰ 25.7	74 ⁰ 57.1	+31.6 14.7	
	19 ⁰ 53.2	19 ⁰ 59.8	20 ⁰ 06.4	20 ⁰ 12.9	20 ⁰ 19.3	20 ⁰ 25.6	20 ⁰ 31.9	20 ⁰ 38.0	20 ⁰ 44.1	20 ⁰ 50.0	20 ⁰ 55.9	+6.3 53.9	
Me 24	292 ⁰ 42.9	307 ⁰ 13.6	321 ⁰ 44.3	336 ⁰ 15.0	350 ⁰ 45.6	5 ⁰ 16.1	19 ⁰ 46.7	34 ⁰ 17.2	48 ⁰ 47.7	63 ⁰ 18.1	77 ⁰ 48.5	+30.6 14.7	
	22 ⁰ 12.2	22 ⁰ 16.5	22 ⁰ 20.7	22 ⁰ 24.8	22 ⁰ 28.8	22 ⁰ 32.7	22 ⁰ 36.5	22 ⁰ 40.1	22 ⁰ 43.7	22 ⁰ 47.2	22 ⁰ 50.5	+3.8 54.1	
Je 25	295 ⁰ 20.8	309 ⁰ 50.7	324 ⁰ 20.6	338 ⁰ 50.5	353 ⁰ 20.3	7 ⁰ 50.2	22 ⁰ 20.0	36 ⁰ 49.8	51 ⁰ 19.6	65 ⁰ 49.3	80 ⁰ 19.1	+29.8 14.8	
	23 ⁰ 27.8	23 ⁰ 29.4	23 ⁰ 30.9	23 ⁰ 32.3	23 ⁰ 33.6	23 ⁰ 34.7	23 ⁰ 35.8	23 ⁰ 36.7	23 ⁰ 37.5	23 ⁰ 38.2	23 ⁰ 38.8	+1.5 54.3	
Ve 26	297 ⁰ 43.3	312 ⁰ 12.9	326 ⁰ 42.4	341 ⁰ 11.9	355 ⁰ 41.4	10 ⁰ 10.9	24 ⁰ 40.4	39					

SOLEIL

Novembre 2029

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Je 1	259°06.5 -14°30.8	274°06.5 -14°31.6	289°06.5 -14°32.4	304°06.5 -14°33.2	319°06.5 -14°34.0	334°06.5 -14°34.8	349°06.5 -14°35.6	4°06.6 -14°36.4	15°06.6 -14°37.2	34°06.6 -14°38.0	45°06.6 -14°38.8	64°06.6 -14°39.6	+0.0 -0.8
Ve 2	259°06.7 -14°49.9	274°06.7 -14°50.6	289°06.7 -14°51.4	304°06.7 -14°52.2	319°06.7 -14°53.0	334°06.8 -14°53.8	349°06.8 -14°54.6	4°06.8 -14°55.4	15°06.8 -14°56.1	34°06.8 -14°56.9	45°06.8 -14°57.7	64°06.8 -14°58.5	+0.0 -0.8
Sa 3	259°06.8 -15°08.6	274°06.8 -15°09.4	289°06.8 -15°10.2	304°06.8 -15°11.0	319°06.8 -15°11.7	334°06.8 -15°12.5	349°06.8 -15°13.3	4°06.8 -15°14.1	15°06.7 -15°14.8	34°06.7 -15°15.6	45°06.7 -15°16.4	64°06.7 -15°17.2	-0.0 -0.8
Di 4	259°06.6 -15°27.2	274°06.6 -15°28.0	289°06.6 -15°28.7	304°06.6 -15°29.5	319°06.6 -15°30.3	334°06.6 -15°31.0	349°06.6 -15°31.8	4°06.5 -15°32.5	15°06.5 -15°33.3	34°06.5 -15°34.1	45°06.5 -15°34.8	64°06.5 -15°35.6	-0.0 -0.8
Lu 5	259°06.3 -15°45.5	274°06.2 -15°46.2	289°06.2 -15°47.0	304°06.2 -15°47.7	319°06.2 -15°48.5	334°06.2 -15°49.3	349°06.1 -15°50.0	4°06.1 -15°50.8	15°06.1 -15°51.5	34°06.1 -15°52.3	45°06.0 -15°53.0	64°06.0 -15°53.8	-0.0 -0.8
Ma 6	259°05.7 -16°03.8	274°05.7 -16°04.3	289°05.6 -16°05.0	304°05.6 -16°05.7	319°05.6 -16°06.5	334°05.5 -16°07.2	349°05.5 -16°08.0	4°05.5 -16°08.7	15°05.5 -16°09.5	34°05.4 -16°10.2	45°05.4 -16°10.9	64°05.4 -16°11.7	-0.0 -0.7
Me 7	259°04.9 -16°21.3	274°04.9 -16°22.0	289°04.8 -16°22.7	304°04.8 -16°23.5	319°04.8 -16°24.2	334°04.7 -16°24.9	349°04.7 -16°25.7	4°04.6 -16°26.4	15°04.6 -16°27.1	34°04.6 -16°27.9	45°04.5 -16°28.6	64°04.5 -16°29.3	-0.0 -0.7
Je 8	259°03.9 -16°38.8	274°03.9 -16°39.5	289°03.8 -16°40.2	304°03.8 -16°40.9	319°03.7 -16°41.7	334°03.7 -16°42.4	349°03.6 -16°43.1	4°03.6 -16°43.8	15°03.5 -16°44.5	34°03.5 -16°45.3	45°03.4 -16°46.0	64°03.4 -16°46.7	-0.0 -0.7
Ve 9	259°02.7 -16°56.0	274°02.7 -16°56.7	289°02.6 -16°57.4	304°02.6 -16°58.1	319°02.5 -16°58.8	334°02.4 -16°59.5	349°02.4 -17°00.2	4°02.3 -17°00.9	15°02.3 -17°01.6	34°02.2 -17°02.4	45°02.2 -17°03.1	64°02.1 -17°03.8	-0.1 -0.7
Sa 10	259°01.3 -17°12.9	274°01.3 -17°13.6	289°01.2 -17°14.3	304°01.1 -17°15.0	319°01.1 -17°15.7	334°01.0 -17°16.4	349°00.9 -17°17.1	4°00.9 -17°17.8	15°00.8 -17°18.5	34°00.7 -17°19.2	45°00.7 -17°19.9	64°00.6 -17°20.6	-0.1 -0.7
Di 11	258°59.7 -17°29.5	273°59.6 -17°30.2	288°59.6 -17°30.9	303°59.5 -17°31.6	318°59.4 -17°32.3	333°59.3 -17°33.0	348°59.3 -17°33.7	3°59.2 -17°34.3	15°59.1 -17°35.0	33°59.0 -17°35.7	45°59.0 -17°36.4	63°58.9 -17°37.0	-0.1 -0.7
Lu 12	258°57.9 -17°45.8	273°57.8 -17°46.5	288°57.7 -17°47.2	303°57.6 -17°47.9	318°57.6 -17°48.5	333°57.5 -17°49.2	348°57.4 -17°49.9	3°57.3 -17°50.5	15°57.2 -17°51.2	33°57.1 -17°51.9	45°57.1 -17°52.6	63°57.0 -17°53.2	-0.1 -0.7
Ma 13	258°55.9 -18°03.1	273°55.8 -18°03.8	288°55.7 -18°04.5	303°55.6 -18°05.2	318°55.5 -18°05.9	333°55.4 -18°06.6	348°55.3 -18°07.3	3°55.2 -18°08.0	15°55.1 -18°08.7	33°55.0 -18°09.4	45°54.9 -18°10.1	63°54.9 -18°10.9	-0.1 -0.7
Me 14	258°53.6 -18°17.6	273°53.5 -18°18.2	288°53.4 -18°18.8	303°53.3 -18°19.5	318°53.2 -18°20.1	333°53.1 -18°20.8	348°53.0 -18°21.4	3°52.9 -18°22.1	15°52.8 -18°22.7	33°52.7 -18°23.4	45°52.6 -18°24.0	63°52.5 -18°24.6	-0.1 -0.6
Je 15	258°51.2 -18°32.9	273°51.1 -18°33.6	288°51.0 -18°34.2	303°50.9 -18°34.8	318°50.7 -18°35.5	333°50.6 -18°36.1	348°50.5 -18°36.7	3°50.4 -18°37.3	15°50.3 -18°38.0	33°50.2 -18°38.6	45°50.1 -18°39.2	63°50.0 -18°39.9	-0.1 -0.6
Ve 16	258°48.5 -18°48.0	273°48.4 -18°48.6	288°48.3 -18°49.2	303°48.2 -18°49.8	318°48.1 -18°50.5	333°47.9 -18°51.1	348°47.8 -18°51.7	3°47.7 -18°52.3	15°47.6 -18°52.9	33°47.4 -18°53.5	45°47.4 -18°54.1	63°47.2 -18°54.8	-0.1 -0.6
Sa 17	258°45.7 -19°02.7	273°45.5 -19°03.3	288°45.4 -19°03.9	303°45.3 -19°04.5	318°45.2 -19°05.1	333°45.1 -19°05.7	348°44.9 -19°06.3	3°44.8 -19°06.9	15°44.7 -19°07.5	33°44.5 -19°08.1	45°44.4 -19°08.7	63°44.3 -19°09.3	-0.1 -0.6
Di 18	258°42.6 -19°17.1	273°42.5 -19°17.7	288°42.3 -19°18.2	303°42.2 -19°18.8	318°42.1 -19°19.4	333°41.9 -19°20.0	348°41.8 -19°20.6	3°41.7 -19°21.2	15°41.5 -19°21.8	33°41.4 -19°22.4	45°41.4 -19°23.0	63°41.1 -19°23.5	-0.1 -0.6
Lu 19	258°39.3 -19°31.1	273°39.2 -19°31.7	288°39.1 -19°32.2	303°38.9 -19°32.8	318°38.8 -19°33.4	333°38.6 -19°34.0	348°38.5 -19°34.5	3°38.4 -19°35.1	15°38.2 -19°35.7	33°38.1 -19°36.3	45°37.9 -19°36.8	63°37.8 -19°37.4	-0.1 -0.6
Ma 20	258°35.9 -19°44.8	273°35.7 -19°45.3	288°35.6 -19°45.9	303°35.4 -19°46.5	318°35.3 -19°47.0	333°35.1 -19°47.6	348°35.0 -19°48.1	3°34.8 -19°48.7	15°34.7 -19°49.2	33°34.5 -19°49.8	45°34.4 -19°50.4	63°34.2 -19°50.9	-0.2 -0.6
Me 21	258°32.2 -19°58.1	273°32.1 -19°58.6	288°31.9 -19°59.2	303°31.7 -19°59.7	318°31.6 -20°00.3	333°31.4 -20°00.8	348°31.3 -20°01.4	3°31.1 -20°01.9	15°30.9 -20°02.4	33°30.8 -20°03.0	45°30.6 -20°03.5	63°30.5 -20°04.1	-0.2 -0.5
Je 22	258°28.3 -20°11.0	273°28.2 -20°11.6	288°28.0 -20°12.1	303°27.8 -20°12.6	318°27.7 -20°13.2	333°27.5 -20°13.7	348°27.3 -20°14.2	3°27.2 -20°14.8	15°27.0 -20°15.3	33°26.8 -20°15.8	45°26.7 -20°16.3	63°26.5 -20°16.9	-0.2 -0.5
Ve 23	258°24.3 -20°23.6	273°24.1 -20°24.1	288°23.9 -20°24.7	303°23.8 -20°25.2	318°23.6 -20°25.7	333°23.4 -20°26.2	348°23.2 -20°26.7	3°23.1 -20°27.2	15°22.9 -20°27.7	33°22.7 -20°28.3	45°22.5 -20°28.8	63°22.3 -20°29.3	-0.2 -0.5
Sa 24	258°20.2 -20°35.8	273°19.8 -20°36.3	288°19.6 -20°36.8	303°19.5 -20°37.3	318°19.3 -20°37.8	333°19.1 -20°38.3	348°18.9 -20°38.8	3°18.7 -20°39.3	15°18.5 -20°39.8	33°18.4 -20°40.3	45°18.2 -20°40.8	63°18.0 -20°41.3	-0.2 -0.5
Di 25	258°15.6 -20°47.7	273°15.4 -20°48.2	288°15.2 -20°48.6	303°15.0 -20°49.1	318°14.8 -20°49.6	333°14.6 -20°50.1	348°14.4 -20°50.5	3°14.2 -20°51.0	15°14.0 -20°51.5	33°13.8 -20°52.0	45°13.6 -20°52.5	63°13.4 -20°53.0	-0.2 -0.5
Lu 26	258°10.9 -20°59.1	273°10.7 -20°59.6	288°10.5 -21°00.0	303°10.3 -21°00.5	318°10.1 -21°01.0	333°09.9 -21°01.4	348°09.7 -21°01.9	3°09.5 -21°02.4	15°09.3 -21°02.8	33°09.1 -21°03.3	45°08.9 -21°03.8	63°08.7 -21°04.2	-0.2 -0.5
Ma 27	258°06.1 -21°10.2	273°05.9 -21°10.6	288°05.7 -21°11.1	303°05.5 -21°11.5	318°05.2 -21°12.0	333°05.0 -21°12.4	348°04.8 -21°12.9	3°04.6 -21°13.3	15°04.4 -21°13.8	33°04.2 -21°14.2	45°04.0 -21°14.6	63°03.8 -21°15.1	-0.2 -0.4
Me 28	258°01.1 -21°20.8	273°00.8 -21°21.2	288°00.6 -21°21.7	303°00.4 -21°22.1	318°00.2 -21°22.5	333°00.0 -21°23.0	347°59.8 -21°23.4	2°59.6 -21°23.8	15°59.3 -21°24.3	32°59.1 -21°24.7	45°58.9 -21°25.1	62°58.7 -21°25.6	-0.2 -0.4
Je 29	257°55.9 -21°31.1	272°55.6 -21°31.5	287°55.4 -21°31.9	302°55.2 -21°32.3	317°55.0 -21°32.7	332°54.7 -21°33.6	347°54.5 -21°34.0	2°54.3 -21°34.4	15°54.1 -21°34.8	32°53.9 -21°35.4	45°53.6 -21°35.8	62°53.4 -21°36.5	-0.2 -0.4
Ve 30	257°50.5 -21°40.9	272°50.2 -21°41.7	287°50.0 -21°42.1	302°49.8 -21°42.5	317°49.6 -21°42.9	332°49.3 -21°43.7	347°49.1 -21°44.3	2°48.9 -21°44.7	15°48.6 -21°45.1	32°48.4 -21°45.4	45°48.2 -21°45.9	62°48.0 -21°46.3	-0.2 -0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Novembre 2029

	J	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	Δ'/h	SP
●	Je 1	225°57.4 2°51.8	240°27.4 2°37.7	254°57.5 2°23.6	269°27.4 2°09.4	283°57.4 1°55.2	298°27.3 1°41.0	312°57.2 1°26.8	327°27.0 1°12.5	341°56.8 0°58.2	356°26.6 0°43.9	10°56.3 0°29.5	+29.9	16.2
	Ve 2	240°27.4 2°37.7	254°57.5 2°23.6	269°27.4 2°09.4	283°57.4 1°55.2	298°27.3 1°41.0	312°57.2 1°26.8	327°27.0 1°12.5	341°56.8 0°58.2	356°26.6 0°43.9	10°56.3 0°29.5	25°26.0 0°15.2	+29.9	16.2
	Sa 3	242°45.6 -3°01.9	257°14.5 -3°36.4	271°43.3 -3°50.9	286°12.1 -4°05.4	300°40.8 -4°19.9	315°09.4 -4°34.4	329°38.0 -4°48.8	344°06.6 -5°03.3	358°35.0 -5°17.8	13°03.4 -5°32.2	27°31.8 -5°46.6	+28.6	16.4
●	Di 4	244°28.4 -3°19.6	258°55.6 -3°33.5	273°22.7 -3°47.4	287°49.8 -4°10.1	302°16.7 -4°15.0	316°43.6 -4°28.7	331°10.4 -4°42.3	345°37.1 -4°55.9	0°03.7 -5°09.4	14°30.2 -11°22.9	28°56.7 -11°36.3	+26.8	16.6
	Lu 5	245°23.4 -14°48.4	259°48.5 -15°00.5	274°13.6 -15°12.5	288°38.5 -15°24.5	303°03.3 -15°36.3	317°28.1 -15°48.0	331°52.8 -15°59.6	346°17.3 -16°11.1	0°41.8 -16°22.5	15°06.3 -16°33.8	29°30.6 -16°45.0	+24.7	16.7
	Ma 6	245°26.1 -19°17.8	259°49.2 -19°26.9	274°12.3 -19°35.9	288°35.2 -19°44.7	302°58.1 -19°53.4	317°21.0 -20°01.9	331°43.7 -20°10.3	346°06.4 -20°18.5	0°29.1 -20°26.6	14°51.7 -20°34.5	29°14.2 -20°42.3	+22.8	16.7
●	Me 7	244°46.6 -22°19.5	259°08.4 -22°24.7	273°30.3 -22°29.6	287°52.1 -22°34.4	302°13.9 -22°39.0	316°35.7 -22°43.5	330°57.5 -22°47.8	345°19.2 -22°51.9	359°41.0 -22°55.8	14°02.7 -22°59.5	28°24.4 -23°03.1	+21.8	16.6
	Je 8	243°51.4 -23°02.3	258°13.4 -22°58.9	272°35.4 -22°55.3	286°57.5 -22°51.5	301°19.6 -22°47.6	315°41.7 -22°43.5	330°03.9 -22°39.4	344°26.1 -22°35.0	358°48.4 -22°30.7	13°10.7 -22°25.9	27°33.1 -22°15.6	+22.2	16.5
	Ve 9	243°16.6 -23°02.3	257°40.1 -22°58.9	272°03.7 -22°55.3	286°27.3 -22°51.5	300°51.1 -22°47.6	315°14.9 -22°43.5	329°38.9 -22°39.4	344°02.9 -22°35.0	358°27.1 -22°30.7	12°51.3 -22°25.9	27°15.6 -22°15.6	+23.9	16.2
●	Sa 10	243°32.6 -20°53.1	257°58.5 -20°46.2	272°24.6 -20°39.3	286°50.8 -20°32.1	301°17.1 -20°24.9	315°43.5 -20°17.6	330°10.1 -20°10.1	344°36.7 -19°54.9	359°03.4 -19°47.7	13°30.3 -19°39.2	27°57.2 -19°32.1	+26.5	16.0
	Di 11	244°54.8 -17°29.2	259°23.5 -17°19.8	273°52.3 -17°10.4	288°21.2 -17°00.8	302°50.2 -16°51.2	317°19.3 -16°41.8	331°48.5 -16°31.8	346°17.9 -16°21.9	0°47.3 -16°12.0	15°16.8 -16°02.0	29°46.4 -15°52.0	+29.2	15.7
	Lu 12	247°22.5 -13°13.7	261°53.6 -13°02.7	276°24.9 -12°51.7	290°56.2 -12°40.6	305°27.6 -12°29.5	319°59.0 -12°18.3	334°30.6 -12°07.1	349°02.3 -11°55.8	3°34.0 -11°44.5	18°05.8 -11°33.1	32°37.7 -11°21.8	+31.5	15.4
●	Ma 13	250°44.8 -8°26.9	265°17.8 -8°15.0	279°50.9 -8°03.1	294°24.0 -7°51.2	308°57.2 -7°39.2	323°30.5 -7°27.3	338°03.8 -7°15.3	352°37.1 -7°03.3	7°10.6 -6°51.3	21°44.0 -6°39.2	36°17.6 -6°27.2	+33.3	15.2
	Me 14	254°46.1 -3°25.0	269°20.4 -3°12.8	283°54.6 -3°00.6	298°28.9 -2°48.4	313°03.3 -2°36.2	327°37.6 -2°24.0	342°12.0 -2°11.8	356°46.4 -1°59.6	11°20.9 -1°47.4	25°55.4 -1°35.2	40°29.9 -1°23.0	+34.4	15.0
	Je 15	259°10.0 1°39.2	273°44.8 1°51.2	288°19.7 2°03.3	302°54.9 2°15.3	317°29.3 2°27.3	332°04.1 2°39.3	346°39.0 2°51.3	1°13.8 3°03.3	15°48.7 3°15.2	30°23.5 3°27.1	44°58.4 3°39.0	+34.8	14.9
●	Ve 16	263°41.0 6°34.8	278°15.7 6°46.3	292°50.5 6°57.8	307°25.3 7°09.2	322°00.0 7°20.6	336°34.7 7°32.0	351°09.4 7°43.4	5°44.1 7°54.7	20°18.8 8°06.0	34°53.5 8°17.2	49°28.4 8°28.4	+34.7	14.8
	Sa 17	268°05.0 11°11.8	282°39.2 11°22.4	297°13.4 11°32.9	311°47.6 11°43.3	326°21.8 11°53.7	340°55.9 12°04.1	355°30.0 12°14.4	10°04.0 12°24.7	24°38.1 12°34.9	39°12.0 12°45.5	53°46.0 12°55.2	+34.1	14.7
	Di 18	272°10.6 15°20.1	286°44.0 15°29.2	301°17.2 15°38.3	315°50.5 15°47.4	330°25.3 15°56.4	344°56.8 16°05.3	359°29.9 16°14.2	14°02.9 16°23.0	28°35.9 16°31.7	43°08.9 16°40.3	57°41.8 16°48.9	+33.1	14.7
●	Lu 19	275°49.8 18°48.8	290°22.0 18°56.2	304°54.1 19°03.5	319°26.1 19°10.7	333°58.1 19°17.8	348°30.1 19°24.9	3°02.0 19°31.8	17°33.8 19°38.7	32°05.6 19°45.5	46°37.4 19°52.2	61°09.1 19°58.8	+31.9	14.7
	Ma 20	278°59.1 21°27.2	293°30.0 21°32.3	308°01.0 21°37.4	322°31.8 21°42.3	337°02.7 21°47.2	351°33.4 21°51.9	6°04.2 21°56.2	20°34.9 22°01.1	35°05.5 22°05.5	49°36.2 22°09.2	64°06.7 22°14.1	+30.8	14.7
	Je 21	281°40.8 23°05.1	296°10.8 23°07.6	310°40.8 23°10.0	325°10.7 23°12.4	339°40.6 23°14.6	354°10.5 23°16.6	8°40.3 23°18.6	23°10.2 23°20.5	37°39.9 23°22.2	52°09.7 23°23.9	66°39.5 23°25.4	+29.9	14.8
●	Ve 22	284°03.2 23°34.6	298°32.7 23°34.3	313°02.2 23°33.9	327°31.6 23°33.3	342°01.0 23°32.7	356°30.5 23°31.9	10°59.9 23°31.0	25°29.3 23°30.0	39°58.7 23°28.9	54°28.1 23°26.2	68°57.5 23°26.2	+29.4	14.9
	Sa 23	286°18.6 22°51.8	300°48.0 22°48.6	315°17.5 22°45.2	329°46.9 22°41.8	344°16.4 22°38.2	358°45.9 22°34.5	13°15.4 22°30.7	27°44.9 22°26.8	42°14.5 22°18.7	56°44.0 22°18.7	71°13.6 22°14.4	+29.5	15.0
	Di 24	288°39.2 20°57.3	303°09.0 20°51.3	317°38.9 20°45.1	332°08.9 20°38.9	346°38.8 20°32.6	1°08.8 20°26.2	15°38.8 20°19.6	30°08.8 20°13.0	44°38.8 20°06.2	59°08.9 19°59.4	73°39.0 19°52.4	+30.0	15.1
●	Lu 25	291°13.7 17°56.1	305°44.2 17°47.6	320°14.8 17°39.0	334°45.4 17°30.3	349°16.0 17°21.5	3°46.6 17°12.6	18°17.3 17°03.6	32°47.9 16°54.5	47°18.7 16°45.4	61°49.7 16°36.1	76°20.2 16°26.8	+30.6	15.3
	Ma 26	305°44.2 17°47.6	320°14.8 17°39.0	334°45.4 17°30.3	349°16.0 17°21.5	3°46.6 17°12.6	18°17.3 17°03.6	32°47.9 16°54.5	47°18.7 16°45.4	61°49.7 16°36.1	76°20.2 16°26.8	90°51.0 16°17.4	+30.7	15.3
	Je 27	308°35.7 8°57.4	323°06.8 8°45.1	337°38.0 8°32.7	352°09.2 8°20.2	6°40.4 8°07.7	21°11.6 7°55.1	35°42.9 7°42.5	50°14.1 7°29.8	64°45.4 7°17.1	79°16.7 7°04.3	93°48.0 6°51.5	+31.2	15.4
●	Me 28	311°38.9 8°57.4	326°10.3 8°45.1	340°41.8 8°32.7	355°13.2 8°20.2	9°44.7 8°07.7	24°16.1 7°55.1	38°47.6 7°42.5	53°19.0 7°29.8	67°50.5 7°17.1	82°21.9 7°04.3	96°53.4 6°51.5	+31.4	15.6
	Je 29	314°43.7 3°34.1	329°14.9 3°20.6	343°46.2 3°07.1	358°17.3 2°53.6	12°48.5 2°40.0	27°19.7 2°26.5	41°50.8 2°12.9	56°21.9 1°45.6	70°52.9 1°31.9	85°24.0 1°31.9	99°55.0 1°18.2	+31.1	15.9
	Ve 30	317°35.9 -2°09.5	332°06.3 -2°23.4	346°36.6 -2°37.3	1°06.9 -2°51.3	15°37.2 -3°05.2	30°07.3 -3°19.1	44°37.5 -3°33.1	59°07.6 -3°47.0	73°37.6 -4°00.9	88°07.6 -4°14.8	102°37.5 -4°28.8	+30.2	16.1

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne 2 = (heure UTC - jour) mod 24
NL: 6 04h24 — PQ: 13 00h35 — PL: 21 04h02 — DQ: 28 23h47

SOLEIL

Décembre 2029

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	272°44.7 -21°50.7	287°44.5 -21°51.1	302°44.2 -21°51.5	317°44.0 -21°51.9	332°43.8 -21°52.2	347°43.5 -21°52.6	2°43.3 -21°53.0	17°43.0 -21°53.4	32°42.8 -21°53.8	47°42.6 -21°54.1	62°42.3 -21°54.5	77°42.1 -21°54.9	-0.2 -0.4
Di 2	272°39.9 -21°59.7	287°38.7 -22°00.1	302°38.5 -22°00.4	317°38.2 -22°00.8	332°38.0 -22°01.2	347°37.8 -22°01.5	2°37.5 -22°01.9	17°37.3 -22°02.2	32°37.0 -22°02.6	47°36.8 -22°03.0	62°36.5 -22°03.3	77°36.3 -22°03.7	-0.2 -0.4
Lu 3	272°38.3 -22°08.3	287°32.8 -22°08.6	302°32.6 -22°09.0	317°32.3 -22°09.3	332°32.1 -22°09.7	347°31.9 -22°10.0	2°31.6 -22°10.3	17°31.4 -22°10.7	32°31.1 -22°11.0	47°30.9 -22°11.4	62°30.6 -22°11.7	77°30.3 -22°12.0	-0.2 -0.3
Ma 4	272°27.1 -22°16.4	287°26.8 -22°16.7	302°26.6 -22°17.1	317°26.3 -22°17.4	332°26.0 -22°17.7	347°25.8 -22°18.0	2°25.5 -22°18.4	17°25.3 -22°18.7	32°25.0 -22°19.0	47°24.8 -22°19.3	62°24.5 -22°19.7	77°24.3 -22°20.0	-0.3 -0.3
Me 5	272°20.9 -22°24.1	287°20.6 -22°24.4	302°20.4 -22°24.7	317°20.1 -22°25.0	332°19.8 -22°25.4	347°19.6 -22°25.7	2°19.3 -22°26.0	17°19.1 -22°26.3	32°18.8 -22°26.6	47°18.5 -22°26.9	62°18.3 -22°27.2	77°18.0 -22°27.5	-0.3 -0.3
Je 6	272°14.6 -22°31.4	287°14.3 -22°31.7	302°14.0 -22°32.0	317°13.8 -22°32.3	332°13.5 -22°32.6	347°13.2 -22°32.8	2°13.0 -22°33.1	17°12.7 -22°33.4	32°12.4 -22°33.7	47°12.2 -22°34.0	62°11.9 -22°34.3	77°11.6 -22°34.6	-0.3 -0.3
Ve 7	272°08.1 -22°38.2	287°07.9 -22°38.5	302°07.6 -22°38.8	317°07.3 -22°39.0	332°07.0 -22°39.3	347°06.8 -22°39.6	2°06.5 -22°39.9	17°06.2 -22°40.1	32°06.0 -22°40.4	47°05.7 -22°40.9	62°05.4 -22°41.2	77°05.1 -22°41.5	-0.3 -0.3
Sa 8	272°01.6 -22°50.9	287°01.3 -22°50.8	302°01.0 -22°51.0	317°00.7 -22°51.3	332°00.5 -22°51.5	347°00.2 -22°51.7	1°59.9 -22°52.0	16°59.6 -22°52.2	31°59.4 -22°52.4	46°59.1 -22°52.6	61°58.8 -22°52.7	76°58.5 -22°53.1	-0.3 -0.2
Di 9	271°54.9 -22°54.5	286°54.6 -22°54.8	301°54.3 -22°55.0	316°54.1 -22°55.1	331°53.8 -22°55.2	346°53.5 -22°55.7	1°53.2 -22°56.0	16°52.9 -22°56.3	31°52.6 -22°56.6	46°52.4 -22°56.9	61°52.1 -22°57.2	76°51.8 -22°57.5	-0.3 -0.2
Lu 10	271°48.4 -22°56.0	286°47.8 -22°56.3	301°47.5 -22°56.5	316°47.3 -22°56.7	331°47.0 -22°56.9	346°46.7 -22°57.1	1°46.4 -22°57.3	16°46.1 -22°57.6	31°45.8 -22°57.8	46°45.5 -22°58.2	61°45.3 -22°58.5	76°45.0 -22°58.4	-0.3 -0.2
Ma 11	271°41.4 -23°01.1	286°41.0 -23°01.3	301°40.7 -23°01.5	316°40.4 -23°01.7	331°40.1 -23°01.9	346°39.8 -23°02.1	1°39.5 -23°02.3	16°39.2 -23°02.5	31°38.9 -23°02.7	46°38.6 -23°02.9	61°38.3 -23°03.1	76°38.1 -23°03.2	-0.3 -0.2
Me 12	271°34.3 -23°05.7	286°34.0 -23°05.8	301°33.7 -23°06.0	316°33.4 -23°06.2	331°33.1 -23°06.4	346°32.8 -23°06.6	1°32.5 -23°06.9	16°32.2 -23°07.1	31°31.9 -23°07.3	46°31.6 -23°07.5	61°31.3 -23°07.7	76°31.1 -23°07.6	-0.3 -0.2
Je 13	271°27.2 -23°09.8	286°26.9 -23°10.0	301°26.6 -23°10.1	316°26.3 -23°10.3	331°26.0 -23°10.6	346°25.7 -23°10.8	1°25.5 -23°10.9	16°25.2 -23°11.1	31°24.9 -23°11.3	46°24.6 -23°11.5	61°24.3 -23°11.7	76°24.0 -23°11.5	-0.3 -0.1
Ve 14	271°20.2 -23°13.9	286°19.8 -23°13.6	301°19.5 -23°13.7	316°19.2 -23°13.9	331°18.9 -23°14.0	346°18.6 -23°14.2	1°18.3 -23°14.4	16°18.0 -23°14.6	31°17.7 -23°14.8	46°17.4 -23°15.0	61°17.1 -23°15.2	76°16.8 -23°15.0	-0.3 -0.1
Sa 15	271°12.9 -23°16.7	286°12.6 -23°16.8	301°12.3 -23°16.9	316°12.0 -23°17.1	331°11.7 -23°17.3	346°11.4 -23°17.4	1°11.1 -23°17.5	16°10.8 -23°17.6	31°10.5 -23°17.7	46°10.2 -23°17.9	61°09.9 -23°18.1	76°09.6 -23°18.0	-0.3 -0.1
Di 16	271°05.7 -23°19.4	286°05.4 -23°19.5	301°05.1 -23°19.6	316°04.8 -23°19.7	331°04.5 -23°19.8	346°04.2 -23°19.9	1°03.9 -23°20.0	16°03.6 -23°20.2	31°03.2 -23°20.3	46°02.6 -23°20.5	61°02.6 -23°20.4	76°02.3 -23°20.5	-0.3 -0.1
Lu 17	270°58.4 -23°21.7	285°58.1 -23°21.8	300°57.8 -23°21.8	315°57.5 -23°21.9	330°57.2 -23°22.0	345°56.9 -23°22.1	0°56.5 -23°22.2	15°56.2 -23°22.3	30°55.9 -23°22.4	45°55.6 -23°22.5	60°55.3 -23°22.5	75°55.0 -23°22.6	-0.3 -0.1
Ma 18	270°51.0 -23°23.5	285°50.7 -23°23.5	300°50.4 -23°23.6	315°50.1 -23°23.7	330°49.8 -23°23.8	345°49.5 -23°23.8	0°49.2 -23°23.9	15°48.9 -23°24.0	30°48.6 -23°24.0	45°48.3 -23°24.1	60°48.0 -23°24.1	75°47.7 -23°24.1	-0.3 -0.1
Me 19	270°43.7 -23°24.8	285°43.4 -23°24.9	300°43.1 -23°24.9	315°42.7 -23°25.0	330°42.4 -23°25.0	345°42.1 -23°25.0	0°41.8 -23°25.1	15°41.5 -23°25.1	30°41.2 -23°25.1	45°40.9 -23°25.2	60°40.6 -23°25.2	75°40.3 -23°25.3	-0.3 -0.0
Je 20	270°36.3 -23°25.7	285°36.0 -23°25.7	300°35.7 -23°25.7	315°35.3 -23°25.8	330°35.0 -23°25.8	345°34.7 -23°25.8	0°34.4 -23°25.8	15°34.1 -23°25.8	30°33.8 -23°25.9	45°33.5 -23°25.9	60°33.2 -23°25.9	75°32.9 -23°25.9	-0.3 -0.0
Ve 21	270°28.8 -23°26.1	285°28.5 -23°26.1	300°28.2 -23°26.1	315°27.9 -23°26.1	330°27.6 -23°26.1	345°27.3 -23°26.1	0°27.0 -23°26.1	15°26.7 -23°26.1	30°26.4 -23°26.1	45°26.1 -23°26.1	60°25.8 -23°26.1	75°25.4 -23°26.1	-0.3 -0.0
Sa 22	270°21.4 -23°26.0	285°21.1 -23°26.0	300°20.8 -23°26.0	315°20.5 -23°26.0	330°20.2 -23°26.0	345°19.9 -23°26.0	0°19.6 -23°26.0	15°19.2 -23°26.0	30°18.9 -23°26.0	45°18.6 -23°26.0	60°18.3 -23°26.0	75°18.0 -23°26.0	-0.3 +0.0
Di 23	270°14.0 -23°25.5	285°13.7 -23°25.4	300°13.4 -23°25.4	315°13.1 -23°25.4	330°12.7 -23°25.3	345°12.4 -23°25.3	0°12.1 -23°25.3	15°11.8 -23°25.2	30°11.5 -23°25.2	45°11.2 -23°25.2	60°10.9 -23°25.1	75°10.6 -23°25.1	-0.3 +0.0
Lu 24	270°06.5 -23°24.4	285°06.2 -23°24.4	300°05.9 -23°24.3	315°05.6 -23°24.3	330°05.3 -23°24.2	345°05.0 -23°24.2	0°04.7 -23°24.1	15°04.4 -23°24.1	30°04.1 -23°24.0	45°03.8 -23°23.9	60°03.5 -23°23.9	75°03.1 -23°23.8	-0.3 +0.1
Ma 25	269°59.1 -23°23.0	284°58.8 -23°22.9	299°58.5 -23°22.8	314°58.2 -23°22.7	329°57.9 -23°22.7	344°57.6 -23°22.6	359°57.3 -23°22.5	14°57.0 -23°22.4	29°56.7 -23°22.4	44°56.3 -23°22.3	59°56.0 -23°22.2	74°55.7 -23°22.1	-0.3 +0.1
Me 26	269°51.7 -23°20.9	284°51.4 -23°20.8	299°51.1 -23°20.8	314°50.8 -23°20.7	329°50.5 -23°20.6	344°50.2 -23°20.5	359°49.5 -23°20.5	14°49.6 -23°20.4	29°49.3 -23°20.3	44°48.9 -23°20.2	59°48.6 -23°20.1	74°48.3 -23°20.0	-0.3 +0.1
Je 27	269°44.3 -23°18.6	284°44.0 -23°18.5	299°43.7 -23°18.4	314°43.4 -23°18.3	329°43.1 -23°18.1	344°42.8 -23°18.0	359°42.5 -23°17.9	14°42.2 -23°17.8	29°41.9 -23°17.7	44°41.6 -23°17.6	59°41.3 -23°17.4	74°41.0 -23°17.3	-0.3 +0.1
Ve 28	269°37.0 -23°15.7	284°36.7 -23°15.6	299°36.4 -23°15.4	314°36.1 -23°15.3	329°35.8 -23°15.2	344°35.5 -23°15.0	359°35.2 -23°14.8	14°34.9 -23°14.6	29°34.6 -23°14.5	44°34.3 -23°14.5	59°33.9 -23°14.4	74°33.6 -23°14.2	-0.3 +0.1
Sa 29	269°29.7 -23°12.3	284°29.4 -23°12.2	299°29.1 -23°12.0	314°28.8 -23°11.9	329°28.5 -23°11.7	344°28.2 -23°11.6	359°27.9 -23°11.4	14°27.6 -23°11.3	29°27.3 -23°11.1	44°27.0 -23°11.0	59°26.7 -23°10.8	74°26.4 -23°10.6	-0.3 +0.2
Di 30	269°22.2 -23°08.8	284°22.1 -23°08.3	299°21.8 -23°08.2	314°21.5 -23°08.1	329°21.2 -23°07.7	344°20.9 -23°07.7	359°20.6 -23°07.5	14°20.3 -23°07.3	29°20.0 -23°07.1	44°19.7 -23°07.0	59°19.4 -23°06.8	74°19.1 -23°06.6	-0.3 +0.2
Lu 31	269°15.2 -23°04.2	284°14.9 -23°04.0	299°14.6 -23°03.8	314°14.3 -23°03.7	329°14.1 -23°03.5	344°13.8 -23°03.3	359°13.5 -23°03.1	14°13.2 -23°02.9	29°12.9 -23°02.7	44°12.6 -23°02.5	59°12.3 -23°02.3	74°12.0 -23°02.1	-0.3 +0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Décembre 2029

	J	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	Δ°/h	SP
●	Sa 1	247°33.4 -6°47.2	262°02.7 -7°00.9	276°31.8 -7°14.6	291°00.9 -7°28.3	305°30.0 -7°42.0	319°58.9 -7°55.6	334°27.8 -8°09.2	348°56.6 -8°22.2	3°25.3 -8°36.4	17°54.0 -8°49.9	32°22.2 -9°03.3	+28.9	16.3
	Di 2	249°21.5 -12°19.9	263°48.7 -12°03.6	278°15.9 -12°45.1	293°43.0 -12°57.6	307°09.9 -13°10.1	321°36.8 -13°22.5	336°03.6 -13°34.8	350°30.3 -13°47.0	4°56.9 -14°11.3	19°23.4 -14°23.3	33°49.9 -14°39.3	+26.8	16.4
●	Lu 3	250°14.9 -17°12.5	264°39.8 -17°23.0	279°04.6 -17°33.3	293°29.4 -17°43.6	307°54.0 -17°53.7	322°18.5 -18°03.8	336°43.0 -18°13.7	351°07.3 -18°23.4	5°31.6 -18°33.1	19°55.8 -18°42.6	34°19.9 -18°52.6	+24.5	16.6
	Ma 4	250°11.2 -20°57.0	264°34.0 -21°04.1	278°56.7 -21°11.2	293°19.4 -21°18.0	307°42.0 -21°24.7	322°04.5 -21°31.3	336°27.0 -21°37.7	350°49.4 -21°43.9	5°11.7 -21°50.0	19°34.0 -21°55.9	33°56.3 -22°01.7	+22.5	16.6
●	Me 5	249°24.6 -23°07.7	263°46.2 -23°10.8	278°07.8 -23°13.6	292°29.4 -23°16.3	306°51.0 -23°18.8	321°12.6 -23°21.1	335°34.2 -23°23.2	349°55.8 -23°25.2	4°17.3 -23°26.9	18°38.9 -23°28.5	33°00.5 -23°30.0	+21.6	16.6
	Je 6	248°26.2 -23°29.9	262°48.2 -23°28.5	277°10.2 -23°26.9	291°32.3 -23°25.2	305°54.4 -23°23.3	320°16.6 -23°21.2	334°38.8 -23°18.9	349°01.1 -23°16.5	3°23.4 -23°13.8	17°45.8 -23°11.1	32°08.3 -23°08.1	+22.2	16.5
●	Ve 7	247°54.4 -24°04.9	262°18.1 -21°59.4	276°41.9 -21°53.9	291°05.9 -21°48.1	305°29.9 -21°42.3	319°54.0 -21°36.3	334°18.3 -21°30.1	348°42.6 -21°23.8	3°07.0 -21°17.4	17°31.6 -21°10.9	31°56.2 -21°04.2	+24.2	16.3
	Sa 8	248°18.5 -24°50.8	262°44.9 -21°59.4	277°11.4 -21°53.9	291°37.9 -21°48.1	306°04.6 -21°42.3	320°31.4 -21°36.3	334°58.4 -21°30.1	349°25.4 -21°23.8	3°52.6 -21°17.4	18°19.8 -21°10.9	32°47.2 -21°04.2	+26.9	16.0
●	Di 9	249°50.8 -15°06.7	264°19.9 -14°56.0	278°49.1 -14°45.2	293°18.5 -14°34.3	307°47.9 -14°23.4	322°17.4 -14°12.5	336°47.0 -14°01.4	351°16.7 -13°50.3	5°46.5 -13°39.9	20°16.4 -13°28.0	34°46.4 -13°16.8	+29.6	15.8
	Lu 10	252°27.7 -10°22.5	266°59.1 -10°10.6	281°30.6 -9°58.6	296°02.3 -9°46.6	310°33.9 -9°34.6	325°05.7 -9°22.6	339°37.6 -9°10.5	354°09.5 -8°58.4	8°41.5 -8°46.3	23°13.6 -8°34.1	37°45.7 -8°21.9	+31.8	15.5
●	Ma 11	255°56.0 -5°17.2	270°29.2 -5°04.8	285°02.2 -4°52.4	299°35.7 -4°40.0	314°09.0 -4°27.6	328°42.4 -4°15.1	343°15.8 -4°02.7	357°49.3 -3°50.3	12°22.9 -3°37.8	26°56.4 -3°25.4	41°30.1 -3°13.0	+33.4	15.3
	Me 12	259°59.2 -0°06.9	274°33.4 0°05.4	289°07.7 0°17.8	303°42.0 0°30.1	318°16.3 0°42.4	332°50.6 0°54.6	347°24.9 1°06.9	1°59.3 1°19.2	16°33.7 1°31.4	31°08.1 1°43.6	45°42.5 1°55.8	+34.3	15.1
●	Je 13	264°20.5 4°56.2	278°55.1 5°08.0	293°29.7 5°19.8	308°04.3 5°31.6	322°38.9 5°43.3	337°13.5 5°55.0	351°48.1 6°06.7	6°22.7 6°18.4	20°57.2 6°30.0	35°31.8 6°41.6	50°06.4 6°53.1	+34.6	14.9
	Ve 14	268°44.0 9°42.0	283°18.3 9°52.9	297°52.7 10°03.8	312°27.0 10°14.6	327°01.3 10°25.5	341°35.7 10°36.2	356°09.9 10°46.9	10°44.2 10°57.6	25°18.4 11°08.2	39°52.6 11°18.8	54°26.9 11°29.3	+34.3	14.8
●	Sa 15	272°55.9 14°01.4	287°29.6 14°10.7	302°03.2 14°20.3	316°36.8 14°29.9	331°10.4 14°39.4	345°43.9 14°48.8	0°17.4 14°58.2	14°50.8 15°07.5	29°24.2 15°16.7	43°57.6 15°25.9	58°30.9 15°35.1	+33.5	14.7
	Di 16	276°45.4 17°43.8	291°18.0 17°51.8	305°50.6 17°59.8	320°23.2 18°07.6	334°55.2 18°15.4	349°27.9 18°23.1	4°00.3 18°30.7	18°32.6 18°38.3	33°04.8 18°45.8	47°25.7 18°53.2	62°09.2 19°00.5	+32.4	14.7
●	Lu 17	280°05.5 20°40.1	294°36.9 20°46.0	309°08.2 20°51.9	323°39.4 20°57.2	338°10.4 21°03.3	352°23.8 21°08.9	7°12.9 21°14.3	21°44.0 21°25.7	36°15.0 21°25.0	50°45.9 21°30.2	65°16.8 21°35.3	+31.1	14.8
	Ma 18	282°54.9 22°39.6	297°25.1 22°43.0	311°55.2 22°46.4	326°25.3 22°49.6	340°55.4 22°52.8	355°25.4 22°55.8	9°55.4 22°58.7	24°25.4 23°01.5	38°55.3 23°04.2	53°25.1 23°06.8	67°55.0 23°09.3	+30.0	14.8
●	Me 19	285°18.7 23°33.0	299°48.0 23°33.7	314°17.4 23°34.2	328°46.7 23°34.7	343°16.0 23°35.0	357°45.2 23°35.2	12°14.5 23°35.3	26°43.5 23°35.2	41°12.9 23°35.1	55°42.1 23°35.3	70°11.3 23°34.8	+29.3	14.9
	Je 20	287°27.8 23°14.2	301°56.9 23°11.9	316°25.9 23°09.5	330°55.0 23°07.2	345°24.1 23°04.3	359°53.1 23°01.5	14°22.2 22°58.6	28°51.2 22°55.6	45°31.3 22°52.5	60°00.8 22°49.9	74°30.3 22°45.9	+29.1	15.0
●	Ve 21	289°36.2 21°41.5	304°05.5 21°36.3	318°34.9 21°30.9	333°04.2 21°25.5	347°33.6 21°20.0	2°03.0 21°14.3	16°32.4 21°08.5	31°01.8 21°02.7	45°31.3 20°56.7	60°00.8 20°50.6	74°30.3 20°44.4	+29.4	15.1
	Sa 22	291°56.2 15°58.5	306°26.2 18°50.7	320°56.1 18°52.7	335°26.2 18°34.6	349°56.2 18°26.5	4°26.3 18°18.2	18°56.4 18°09.8	33°26.6 18°01.4	47°56.7 17°52.8	62°27.0 17°44.2	76°57.2 17°35.4	+30.1	15.3
●	Di 23	294°34.6 15°13.7	309°05.4 15°03.6	323°36.2 14°53.4	338°07.0 14°43.1	352°37.8 14°32.7	7°08.7 14°22.3	21°39.6 14°11.8	36°10.5 14°01.2	50°41.4 13°50.5	65°12.4 13°39.8	79°43.4 13°29.0	+30.9	15.4
	Lu 24	297°31.5 10°38.6	312°02.9 10°26.8	326°34.3 10°14.9	341°05.8 10°02.9	355°37.2 9°50.9	10°08.7 9°38.8	24°40.1 9°26.6	39°11.6 9°14.4	53°43.1 9°02.2	68°14.6 8°49.9	82°46.2 8°37.5	+31.5	15.5
●	Ma 25	312°02.9 10°26.8	326°34.3 10°14.9	341°05.8 10°02.9	355°37.2 9°50.9	10°08.7 9°38.8	24°40.1 9°26.6	39°11.6 9°14.4	53°43.1 9°02.2	68°14.6 8°49.9	82°46.2 8°37.5	97°17.7 8°25.2	+31.5	15.5
	Me 26	315°11.9 5°13.9	329°43.5 5°00.8	344°15.2 4°47.7	358°46.8 4°34.6	13°18.5 4°21.4	27°50.1 4°08.2	42°21.7 3°55.0	56°53.3 3°41.8	71°25.0 3°28.5	85°56.6 3°15.2	100°28.2 3°01.9	+31.6	15.7
●	Je 27	318°20.5 -0°20.3	332°51.8 -0°33.9	347°23.1 -0°47.5	1°54.4 -0°47.5	16°25.7 -1°01.1	30°56.9 -1°14.7	45°28.1 -1°28.3	59°59.2 -1°55.5	74°30.4 -2°09.1	89°01.5 -2°22.7	103°32.5 -2°36.3	+31.2	15.8
	Ve 28	321°13.7 -5°59.5	335°44.1 -6°12.9	350°14.4 -6°26.3	4°44.7 -6°39.7	19°14.9 -6°53.1	33°45.1 -7°06.4	48°15.2 -7°19.7	62°45.3 -7°32.9	77°15.2 -7°46.2	91°45.2 -7°59.4	106°15.1 -8°12.6	+30.1	16.0
●	Sa 29	323°35.5 -11°25.4	338°04.3 -11°37.9	352°33.0 -11°50.3	7°01.6 -12°02.7	21°30.2 -12°15.0	35°58.7 -12°27.2	50°27.1 -12°39.4	64°55.5 -12°61.5	79°23.7 -13°03.5	93°51.9 -13°15.5	108°20.0 -13°27.4	+28.5	16.1
	Di 30	325°11.5 -16°16.9	339°38.3 -16°27.5	354°04.9 -16°38.0	8°31.5 -16°48.5	22°58.0 -16°58.8	37°24.4 -17°09.0	51°50.7 -17°19.1	66°16.9 -17°29.2	80°43.0 -17°39.1	95°09.1 -17°58.6	109°35.0 -17°58.6	+26.4	16.3
●	Lu 31	325°54.1 -20°10.4	340°18.7 -20°18.1	354°43.2 -20°25.8	9°07.6 -20°33.3	23°32.0 -20°40.7	37°56.3 -20°48.0	52°20.5 -20°55.1	66°44.6 -21°02.1	81°08.7 -21°08.9	95°32.7 -21°15.6	109°56.6 -21°22.1	+24.2	16.4
													-7.2	60.0

Ligne 1: GHA, Δ°/h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (= Sud), Δ°/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

NL: 5 14h52 — PQ: 12 17h49 — PL: 20 22h46 — DQ: 28 09h49

SOLEIL

Janvier 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Ma 1	269°08.1 -22°59.8	284°07.8 -22°59.3	299°07.5 -22°59.1	314°07.2 -22°58.8	329°06.9 -22°58.6	344°06.6 -22°58.4	359°06.3 -22°58.2	14°06.1 -22°58.0	26°05.8 -22°57.8	44°05.5 -22°57.6	56°05.2 -22°57.4	74°04.9 -22°57.1	-0.3 +0.2
Me 2	269°01.1 -22°54.4	284°00.8 -22°54.0	299°00.5 -22°53.8	314°00.2 -22°53.6	328°59.9 -22°53.3	343°59.6 -22°53.1	358°59.3 -22°52.9	13°59.0 -22°52.7	28°58.7 -22°52.4	43°58.4 -22°52.2	58°58.2 -22°52.0	73°57.9 -22°51.7	-0.3 +0.2
Je 3	268°54.1 -22°48.3	283°53.8 -22°48.1	298°53.5 -22°48.1	313°53.2 -22°47.9	328°52.9 -22°47.6	343°52.7 -22°47.4	358°52.4 -22°47.1	13°52.1 -22°46.9	28°51.8 -22°46.6	43°51.5 -22°46.3	58°51.2 -22°46.1	73°50.9 -22°45.8	-0.3 +0.3
Ve 4	268°47.2 -22°42.5	283°46.9 -22°42.2	298°46.7 -22°41.9	313°46.4 -22°41.7	328°46.1 -22°41.4	343°45.8 -22°41.1	358°45.5 -22°40.9	13°45.2 -22°40.6	28°45.0 -22°40.3	43°44.7 -22°40.1	58°44.4 -22°39.8	73°44.1 -22°39.5	-0.3 +0.3
Sa 5	268°40.5 -22°35.9	283°40.2 -22°35.6	298°39.9 -22°35.3	313°39.6 -22°35.1	328°39.3 -22°34.8	343°39.1 -22°34.5	358°38.8 -22°34.2	13°38.5 -22°33.9	28°38.2 -22°33.6	43°37.9 -22°33.3	58°37.7 -22°33.0	73°37.4 -22°32.7	-0.3 +0.3
Di 6	268°33.8 -22°28.9	283°33.5 -22°28.6	298°33.2 -22°28.3	313°33.0 -22°28.0	328°32.7 -22°27.7	343°32.4 -22°27.4	358°32.1 -22°27.2	13°31.9 -22°26.8	28°31.6 -22°26.5	43°31.3 -22°26.1	58°31.1 -22°25.8	73°30.8 -22°25.5	-0.3 +0.3
Lu 7	268°27.3 -22°21.4	283°27.0 -22°21.1	298°26.7 -22°20.8	313°26.4 -22°20.5	328°26.2 -22°20.1	343°25.9 -22°19.8	358°25.6 -22°19.5	13°25.4 -22°19.2	28°25.1 -22°18.8	43°24.8 -22°18.5	58°24.6 -22°18.2	73°24.3 -22°17.9	-0.3 +0.3
Ma 8	268°20.8 -22°14.6	283°20.6 -22°14.3	298°20.3 -22°14.0	313°20.0 -22°13.8	328°19.8 -22°12.2	343°19.5 -22°11.8	358°19.3 -22°11.5	13°19.0 -22°10.8	28°18.7 -22°10.5	43°18.5 -22°10.2	58°18.2 -22°10.0	73°17.9 -22°09.8	-0.3 +0.3
Me 9	268°14.6 -22°05.2	283°14.3 -22°04.8	298°14.0 -22°04.5	313°13.8 -22°04.1	328°13.5 -22°03.8	343°13.3 -22°03.4	358°13.0 -22°03.0	13°12.8 -22°02.7	28°12.5 -22°02.3	43°12.2 -22°02.0	58°12.0 -22°01.6	73°11.7 -22°01.2	-0.3 +0.3
Je 10	268°08.4 -21°56.4	283°08.2 -21°56.1	298°07.9 -21°55.7	313°07.7 -21°55.3	328°07.4 -21°54.9	343°07.2 -21°54.5	358°06.9 -21°54.2	13°06.7 -21°53.8	28°06.4 -21°53.4	43°06.2 -21°53.0	58°05.9 -21°52.6	73°05.7 -21°52.3	-0.3 +0.3
Ve 11	268°02.0 -21°47.2	283°02.2 -21°46.8	298°01.9 -21°46.4	313°01.7 -21°46.1	328°01.4 -21°45.7	343°01.2 -21°45.3	358°01.0 -21°44.9	13°00.7 -21°44.5	28°00.5 -21°44.1	43°00.2 -21°43.7	58°00.0 -21°43.3	72°59.7 -21°42.9	-0.2 +0.3
Sa 12	267°56.6 -21°37.6	282°56.3 -21°37.2	297°56.1 -21°36.8	312°55.9 -21°36.4	327°55.6 -21°36.0	342°55.4 -21°35.6	357°55.1 -21°35.2	12°54.9 -21°34.7	27°54.7 -21°34.3	42°54.4 -21°33.9	57°54.2 -21°33.5	72°54.0 -21°33.1	-0.2 +0.4
Di 13	267°50.9 -21°27.6	282°50.7 -21°27.2	297°50.4 -21°26.7	312°50.2 -21°26.3	327°50.0 -21°25.9	342°49.7 -21°25.4	357°49.5 -21°25.0	12°49.3 -21°24.6	27°49.0 -21°24.1	42°48.8 -21°23.7	57°48.6 -21°23.3	72°48.3 -21°22.8	-0.2 +0.4
Lu 14	267°45.4 -21°17.1	282°45.2 -21°16.7	297°44.9 -21°16.3	312°44.7 -21°15.8	327°44.5 -21°15.4	342°44.2 -21°14.9	357°44.0 -21°14.5	12°43.8 -21°14.0	27°43.6 -21°13.6	42°43.3 -21°13.1	57°43.1 -21°12.7	72°42.9 -21°12.2	-0.2 +0.4
Ma 15	267°40.0 -21°06.3	282°39.8 -21°05.8	297°39.6 -21°05.4	312°39.4 -21°04.9	327°39.1 -21°04.4	342°38.9 -21°04.0	357°38.7 -21°03.5	12°38.5 -21°03.0	27°38.3 -21°02.6	42°38.1 -21°02.1	57°37.8 -21°01.6	72°37.6 -21°01.2	-0.2 +0.5
Me 16	267°34.8 -20°55.0	282°34.6 -20°54.5	297°34.4 -20°54.1	312°34.2 -20°53.6	327°34.0 -20°53.1	342°33.8 -20°52.6	357°33.6 -20°52.1	12°33.4 -20°51.7	27°33.1 -20°51.2	42°32.9 -20°50.7	57°32.7 -20°50.2	72°32.5 -20°49.7	-0.2 +0.5
Je 17	267°29.8 -20°43.4	282°29.6 -20°42.9	297°29.4 -20°42.4	312°29.2 -20°41.9	327°29.0 -20°41.4	342°28.8 -20°40.9	357°28.6 -20°40.4	12°28.4 -20°39.9	27°28.2 -20°39.4	42°28.0 -20°38.9	57°27.8 -20°38.4	72°27.6 -20°37.9	-0.2 +0.5
Ve 18	267°25.0 -20°31.3	282°24.8 -20°30.8	297°24.6 -20°30.3	312°24.4 -20°29.8	327°24.2 -20°29.3	342°24.0 -20°28.8	357°23.8 -20°28.2	12°23.6 -20°27.7	27°23.4 -20°27.2	42°23.2 -20°26.7	57°23.0 -20°26.2	72°22.8 -20°25.7	-0.2 +0.5
Sa 19	267°20.3 -20°18.9	282°20.2 -20°18.3	297°20.0 -20°17.8	312°19.8 -20°17.3	327°19.6 -20°16.8	342°19.4 -20°16.2	357°19.2 -20°15.7	12°19.0 -20°15.2	27°18.8 -20°14.6	42°18.7 -20°14.1	57°18.5 -20°13.6	72°18.3 -20°13.0	-0.2 +0.5
Di 20	267°15.9 -20°06.1	282°15.7 -20°05.5	297°15.5 -20°05.0	312°15.3 -20°04.4	327°15.2 -20°03.9	342°15.0 -20°03.3	357°14.8 -20°02.8	12°14.6 -20°02.2	27°14.4 -20°01.7	42°14.3 -20°01.2	57°14.1 -20°00.6	72°13.9 -20°00.1	-0.2 +0.5
Lu 21	267°11.6 -19°52.9	282°11.4 -19°52.3	297°11.3 -19°51.7	312°11.1 -19°51.2	327°10.9 -19°50.6	342°10.7 -19°50.1	357°10.6 -19°49.5	12°10.4 -19°48.9	27°10.2 -19°48.4	42°10.0 -19°47.8	57°09.9 -19°47.3	72°09.7 -19°46.6	-0.2 +0.6
Ma 22	267°07.5 -19°39.3	282°07.3 -19°38.7	297°07.2 -19°38.1	312°07.0 -19°37.6	327°06.8 -19°37.0	342°06.7 -19°36.4	357°06.5 -19°35.8	12°06.4 -19°35.3	27°06.2 -19°34.7	42°06.0 -19°34.1	57°05.9 -19°33.5	72°05.7 -19°33.0	-0.2 +0.6
Me 23	267°03.6 -19°25.4	282°03.5 -19°24.8	297°03.3 -19°24.2	312°03.1 -19°23.6	327°03.0 -19°23.0	342°02.8 -19°22.4	357°02.7 -19°21.8	12°02.5 -19°21.2	27°02.4 -19°20.6	42°02.2 -19°20.0	57°02.0 -19°19.4	72°01.9 -19°18.9	-0.2 +0.6
Je 24	266°59.9 -19°11.1	281°59.7 -19°10.5	296°59.6 -19°09.9	311°59.4 -19°09.3	326°59.3 -19°08.6	341°59.2 -19°08.0	356°59.0 -19°07.4	11°58.9 -19°06.8	26°58.7 -19°06.2	41°58.6 -19°05.6	56°58.4 -19°05.0	71°58.3 -19°04.4	-0.1 +0.6
Ve 25	266°56.4 -18°56.4	281°56.2 -18°55.8	296°56.1 -18°55.2	311°56.0 -18°54.6	326°55.8 -18°53.9	341°55.7 -18°53.3	356°55.5 -18°52.7	11°55.4 -18°52.1	26°55.3 -18°51.5	41°55.1 -18°50.8	56°55.0 -18°50.2	71°54.8 -18°49.6	-0.1 +0.6
Sa 26	266°53.1 -18°41.4	281°52.9 -18°40.8	296°52.8 -18°40.2	311°52.7 -18°39.5	326°52.5 -18°38.9	341°52.4 -18°38.3	356°52.3 -18°37.7	11°52.1 -18°37.0	26°52.0 -18°36.3	41°51.9 -18°35.7	56°51.7 -18°35.1	71°51.6 -18°34.4	-0.1 +0.6
Di 27	266°49.9 -18°26.1	281°49.8 -18°25.4	296°49.7 -18°24.8	311°49.6 -18°24.1	326°49.4 -18°23.5	341°49.3 -18°22.8	356°49.2 -18°22.2	11°49.1 -18°21.5	26°48.9 -18°20.9	41°48.8 -18°20.2	56°48.6 -18°19.6	71°48.6 -18°18.9	-0.1 +0.6
Lu 28	266°47.0 -18°10.4	281°46.9 -18°09.7	296°46.8 -18°09.1	311°46.6 -18°08.4	326°46.5 -18°07.7	341°46.4 -18°07.1	356°46.3 -18°06.4	11°46.2 -18°05.8	26°46.1 -18°05.1	41°45.9 -18°04.4	56°45.8 -18°03.8	71°45.7 -18°03.1	-0.1 +0.7
Ma 29	266°44.3 -17°54.4	281°44.1 -17°53.7	296°44.0 -17°53.1	311°43.9 -17°52.4	326°43.8 -17°51.7	341°43.7 -17°51.0	356°43.6 -17°50.4	11°43.5 -17°49.7	26°43.4 -17°49.0	41°43.3 -17°48.3	56°43.2 -17°47.6	71°43.1 -17°47.0	-0.1 +0.7
Me 30	266°41.7 -17°38.1	281°41.6 -17°37.4	296°41.5 -17°36.7	311°41.4 -17°36.0	326°41.3 -17°35.3	341°41.2 -17°34.6	356°41.1 -17°34.0	11°41.0 -17°33.3	26°40.9 -17°32.6	41°40.8 -17°31.9	56°40.7 -17°31.2	71°40.6 -17°30.5	-0.1 +0.7
Je 31	266°39.9 -17°21.4	281°39.3 -17°20.7	296°39.2 -17°20.0	311°39.1 -17°19.3	326°39.0 -17°18.6	341°38.9 -17°17.9	356°38.8 -17°17.2	11°38.7 -17°16.5	26°38.7 -17°15.8	41°38.6 -17°15.1	56°38.5 -17°14.4	71°38.4 -17°13.7	-0.1 +0.7

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°
Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.
Semi-diamètre: 16.3'

LUNE

Janvier 2030

	J	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	Δ°/h	SP
●	Ma 1	230°28.9 -22°14.4	253°52.1 -22°19.5	268°15.4 -22°24.3	283°38.5 -22°29.1	297°01.6 -22°33.7	311°24.7 -22°38.1	325°47.7 -22°42.3	340°10.7 -22°46.4	354°33.6 -22°50.4	8°56.5 -22°54.2	23°19.5 -22°57.8	+23.0 -4.3	16.4 60.1
	Me 2	238°58.2 -23°32.0	253°20.7 -23°32.9	267°43.1 -23°33.7	282°05.6 -23°34.3	296°28.0 -23°34.9	310°50.5 -23°35.0	325°12.9 -23°35.0	339°35.4 -23°34.9	353°57.8 -23°34.2	8°20.3 -23°33.6	22°42.4 -23°33.6	+22.4 -0.2	16.4 60.1
	Je 3	238°23.3 -23°04.4	252°46.3 -23°01.1	267°09.4 -22°57.7	281°32.5 -22°54.1	295°55.6 -22°50.3	310°18.8 -22°46.4	324°42.1 -22°42.3	339°05.5 -22°38.1	353°28.9 -22°33.7	7°52.3 -22°29.9	22°15.8 -22°24.5	+23.2 +4.0	16.3 59.8
●	Ve 4	238°17.6 -20°56.6	252°42.4 -20°49.6	267°07.3 -20°42.5	281°32.2 -20°35.3	295°57.3 -20°27.9	310°22.4 -20°20.4	324°47.6 -20°12.8	339°12.9 -20°05.1	353°38.3 -19°57.2	8°03.8 -19°49.2	22°29.4 -19°41.1	+25.2 +7.6	16.2 59.3
	Sa 5	239°05.2 -17°26.4	253°32.4 -17°16.6	267°59.6 -17°06.7	282°27.0 -16°56.8	296°54.5 -16°46.7	311°22.1 -16°36.6	325°49.8 -16°26.3	340°17.5 -16°16.0	354°45.4 -16°05.6	9°13.4 -15°55.1	23°41.5 -15°44.6	+27.6 +10.2	16.0 58.6
	Di 6	240°54.3 -12°57.8	255°23.9 -12°46.2	269°53.6 -12°34.6	284°23.4 -12°22.9	298°53.3 -12°11.1	313°23.2 -11°59.3	327°53.3 -11°47.4	342°23.4 -11°35.5	356°53.7 -11°23.6	11°24.0 -11°11.6	25°54.4 -10°59.5	+30.0 +11.8	15.8 57.8
●	Lu 7	243°40.1 -7°54.9	258°11.7 -7°42.4	272°43.5 -7°29.9	287°15.2 -7°17.3	301°47.1 -7°04.7	316°19.0 -6°52.1	330°51.0 -6°39.5	345°23.1 -6°26.9	359°55.2 -6°14.3	14°27.4 -6°01.6	28°59.6 -5°48.9	+32.0 +12.6	15.5 56.9
	Ma 8	247°10.1 -2°38.3	261°43.2 -2°25.5	276°16.3 -2°12.8	290°49.5 -2°00.1	305°22.7 -1°47.4	319°56.0 -1°34.8	334°29.3 -1°22.1	349°02.7 -1°09.4	3°36.1 -0°56.8	18°09.5 -0°44.1	32°43.0 -0°31.5	+33.3 +12.7	15.3 56.1
	Me 9	251°08.8 -3°36.1	265°42.7 -2°48.5	280°16.7 -3°00.8	294°50.6 -3°13.1	309°24.6 -3°25.3	323°58.6 -3°37.6	338°32.6 -3°49.8	353°06.7 -4°02.0	7°40.7 -4°14.1	22°14.8 -4°26.3	36°48.8 -3°38.4	+34.0 +12.2	15.1 55.4
●	Je 10	255°20.7 -7°35.8	269°54.8 -7°47.3	284°29.0 -7°58.8	299°03.1 -8°10.2	313°37.2 -8°21.6	328°11.3 -8°33.0	342°45.4 -8°44.3	357°19.6 -8°55.6	11°53.6 -9°06.8	26°27.7 -9°18.0	41°01.8 -9°29.2	+34.1 +11.3	14.9 54.8
	Ve 11	259°31.2 -12°10.5	274°05.0 -12°20.0	288°38.8 -12°31.1	303°12.5 -12°41.3	317°46.3 -12°51.5	332°20.0 -13°01.6	346°53.7 -13°11.7	361°27.3 -13°21.7	16°01.0 -13°31.6	30°34.6 -13°41.3	45°08.1 -13°51.3	+33.7 +10.5	14.8 54.4
	Sa 12	263°27.8 -16°11.1	278°00.9 -16°19.9	292°33.9 -16°28.6	307°06.8 -16°37.3	321°39.9 -16°45.9	336°12.6 -16°54.4	350°45.4 -17°02.8	5°18.2 -17°11.2	19°51.0 -17°19.5	34°23.7 -17°27.7	48°56.4 -17°35.8	+32.9 +8.5	14.8 54.2
●	Di 13	267°01.1 -10°28.6	281°33.1 -19°35.4	296°05.0 -19°42.2	310°36.8 -19°48.9	325°08.6 -19°55.5	339°40.4 -20°02.0	354°12.1 -20°08.5	8°43.8 -20°14.8	23°15.4 -20°21.1	37°47.0 -20°27.2	52°18.5 -20°33.3	+31.7 +6.5	14.8 54.1
	Lu 14	270°05.7 -21°53.4	284°36.5 -21°58.0	299°07.2 -22°02.4	313°37.9 -22°06.8	328°08.5 -22°11.1	342°39.1 -22°15.2	357°09.6 -22°19.3	11°40.1 -22°23.2	26°10.6 -22°27.1	40°41.0 -22°30.9	55°11.4 -22°34.5	+30.6 +4.1	14.8 54.3
	Ma 15	272°42.0 -23°16.4	287°11.7 -23°18.4	301°41.4 -23°20.2	316°11.1 -23°21.9	330°40.7 -23°23.4	345°10.3 -23°24.9	359°39.9 -23°26.3	14°09.4 -23°27.5	28°38.8 -23°28.6	43°08.4 -23°29.6	57°37.8 -23°30.5	+29.6 +1.5	14.9 54.6
●	Me 16	274°56.3 -23°30.0	289°25.4 -23°29.0	303°54.4 -23°27.9	318°23.5 -23°26.7	332°52.4 -23°25.3	347°21.5 -23°23.9	361°50.5 -23°22.3	16°19.5 -23°20.6	30°48.4 -23°18.3	45°17.4 -23°16.8	59°46.4 -23°14.8	+29.0 -1.5	15.0 55.0
	Je 17	277°00.0 -22°29.5	291°28.9 -22°25.5	305°57.8 -22°21.4	320°26.7 -22°17.2	334°55.7 -22°12.9	349°24.6 -22°08.5	363°53.5 -22°03.9	18°22.5 -21°59.2	32°51.4 -21°54.4	47°20.4 -21°49.5	61°49.4 -21°44.5	+28.9 -4.5	15.1 55.5
	Ve 18	279°05.8 -20°15.3	293°35.0 -20°08.4	308°04.2 -20°01.5	322°33.5 -19°54.4	337°02.8 -19°47.2	351°32.1 -19°40.0	365°01.5 -19°32.6	20°30.9 -19°25.1	35°00.6 -19°17.5	49°29.5 -19°09.8	63°59.1 -19°02.0	+29.3 -7.3	15.3 56.1
●	Sa 19	281°23.8 -16°52.8	295°53.6 -16°43.4	310°23.5 -16°33.9	324°53.5 -16°24.3	339°23.4 -16°14.7	353°53.4 -16°04.9	368°23.4 -15°55.1	22°53.4 -15°45.2	37°23.5 -15°35.1	51°53.6 -15°25.0	66°23.7 -15°14.9	+30.0 -9.8	15.5 56.7
	Di 20	283°58.6 -13°22.4	298°29.2 -12°21.0	312°59.7 -12°09.5	327°30.3 -11°57.9	342°00.9 -11°46.2	356°31.6 -11°34.5	370°25.2 -11°22.8	25°32.9 -11°10.9	40°03.6 -11°05.9	54°34.3 -10°47.1	69°05.1 -10°35.1	+30.6 -11.7	15.6 57.2
	Lu 21	286°48.3 -7°28.0	301°19.4 -7°15.2	315°50.4 -7°02.3	330°21.4 -6°49.3	344°52.4 -6°36.3	359°23.5 -6°23.3	373°54.5 -6°10.2	28°54.5 -5°57.1	43°26.6 -5°44.0	58°03.6 -5°30.8	72°57.7 -5°17.6	+31.1 -13.1	15.7 57.7
●	Ma 22	289°45.2 -1°56.0	304°16.3 -1°42.4	318°47.4 -1°28.8	333°18.4 -1°15.1	347°49.5 -1°01.5	362°20.5 -0°47.8	376°51.5 -0°34.2	31°22.5 -0°20.5	45°53.5 -0°06.8	60°24.5 -0°06.9	74°55.5 -0°20.6	+31.0 -13.7	15.9 58.1
	Me 23	292°37.6 -3°46.0	307°08.2 -3°59.6	321°38.8 -4°13.2	336°09.3 -4°26.8	350°39.9 -4°40.4	365°10.3 -4°53.9	379°40.8 -5°07.4	34°11.2 -5°21.0	48°41.6 -5°34.5	63°11.9 -5°47.9	77°42.2 -6°01.4	+30.5 -13.5	16.0 58.5
	Je 24	307°08.2 -9°59.6	321°38.8 -9°44.7	336°09.3 -9°27.5	350°39.9 -9°07.4	365°10.3 -8°50.7	379°40.8 -8°37.9	394°11.2 -8°24.8	34°11.2 -8°11.2	48°41.6 -8°01.6	63°11.9 -7°52.9	77°42.2 -7°42.2	+30.4 -13.5	16.0 58.5
●	Ve 25	309°41.3 -14°34.4	324°10.3 -14°45.6	338°40.3 -14°56.7	353°09.8 -15°07.8	367°39.1 -15°18.7	381°28.7 -15°29.6	395°18.7 -15°40.3	36°37.7 -15°51.0	51°06.9 -16°01.6	65°36.1 -16°12.1	80°05.2 -16°22.5	+29.3 -10.8	16.0 59.0
	Sa 26	311°42.3 -18°34.4	326°10.3 -18°55.1	340°38.3 -19°03.7	355°06.2 -19°12.2	369°34.0 -19°20.6	383°29.4 -19°28.9	397°19.7 -19°37.0	52°57.0 -19°45.0	67°24.5 -19°52.0	81°52.0 -20°00.7	96°19.4 -20°08.4	+27.7 -8.2	16.1 59.2
	Di 27	313°01.8 -16°46.4	327°28.1 -17°52.8	341°54.3 -18°03.7	356°20.4 -18°12.2	370°46.5 -18°20.6	384°25.5 -18°28.7	398°18.4 -18°37.0	54°04.4 -18°44.5	68°30.0 -18°50.9	82°55.0 -19°02.0	97°21.4 -19°08.4	+26.0 -8.2	16.1 59.2
●	Lu 28	313°38.6 -21°47.3	328°03.3 -21°52.8	342°28.0 -21°58.1	356°52.5 -22°03.3	371°17.1 -22°08.3	385°41.6 -22°13.3	400°06.0 -22°18.1	54°30.4 -22°22.7	68°54.8 -22°27.7	83°19.1 -22°31.5	97°43.3 -22°35.7	+24.5 -4.8	16.2 59.3
	Ma 29	313°43.3 -23°19.9	328°07.1 -23°21.7	342°30.8 -23°23.2	356°54.6 -23°24.6	371°18.4 -23°25.8	385°42.1 -23°26.9	400°05.9 -23°28.7	54°29.6 -23°28.5	68°53.3 -23°29.1	83°17.1 -23°29.6	97°40.8 -23°29.8	+23.7 -1.0	16.2 59.9
	Me 30	313°37.8 -23°14.9	328°01.8 -23°10.2	342°25.8 -23°10.2	356°49.8 -23°07.6	371°13.8 -23°04.9	385°37.9 -23°02.0	400°02.0 -22°59.0	54°26.2 -22°55.4	68°50.4 -22°52.9	83°14.6 -22°49.0	97°38.9 -22°45.4	+24.1 +3.0	16.1 59.9
●	Je 31	313°49.3 -21°33.3	328°14.5 -21°27.4	342°39.7 -21°21.3	357°05.0 -21°15.1	371°30.4 -21°08.8	385°55.8 -21°03.4	400°21.3 -20°55.7	54°46.9 -20°49.0	69°12.5 -20°42.2	83°38.3 -20°35.2	98°04.0 -20°28.1	+25.5 +6.5	16.0 58.8

Ligne 1 : GHA, Δ°/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2 : Dec (– = Sud), Δ°/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
NL: 4 02h49 — PQ: 11 14h06 — PL: 19 15h54 — DQ: 26 18h14

SOLEIL

Février 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ve 1	266°37.3 -17°04.8	281°37.2 -17°03.8	296°37.1 -17°03.1	311°37.0 -17°02.4	326°36.9 -17°01.6	341°36.8 -17°00.9	356°36.7 -17°00.2	11°36.7 -16°59.5	26°36.6 -16°58.8	41°36.5 -16°58.1	56°36.4 -16°57.3	71°36.3 -16°56.6	-0.1 +0.7
Sa 2	266°35.8 -16°47.2	281°35.2 -16°46.5	296°35.2 -16°45.8	311°35.1 -16°45.1	326°35.0 -16°44.3	341°34.9 -16°43.6	356°34.9 -16°42.9	11°34.8 -16°42.2	26°34.7 -16°41.4	41°34.6 -16°40.7	56°34.6 -16°40.0	71°34.5 -16°39.2	-0.1 +0.7
Di 3	266°33.6 -16°29.7	281°33.5 -16°29.0	296°33.5 -16°28.2	311°33.4 -16°27.5	326°33.3 -16°26.8	341°33.3 -16°26.0	356°33.2 -16°25.3	11°33.1 -16°24.5	26°33.1 -16°23.8	41°33.0 -16°23.1	56°32.9 -16°22.3	71°32.9 -16°21.6	-0.1 +0.7
Lu 4	266°32.1 -16°11.9	281°32.0 -16°11.1	296°31.9 -16°10.4	311°31.9 -16°09.6	326°31.8 -16°08.9	341°31.8 -16°08.1	356°31.7 -16°07.4	11°31.7 -16°06.6	26°31.6 -16°05.9	41°31.5 -16°05.1	56°31.5 -16°04.4	71°31.4 -16°03.6	-0.1 +0.8
Ma 5	266°30.7 -15°53.8	281°30.7 -15°53.0	296°30.6 -15°52.3	311°30.6 -15°51.5	326°30.5 -15°50.7	341°30.5 -15°50.0	356°30.4 -15°49.2	11°30.4 -15°48.4	26°30.3 -15°47.7	41°30.3 -15°46.9	56°30.3 -15°46.1	71°30.2 -15°45.4	-0.0 +0.8
Me 6	266°29.6 -15°35.4	281°29.6 -15°34.6	296°29.5 -15°33.9	311°29.5 -15°33.1	326°29.5 -15°32.3	341°29.4 -15°31.5	356°29.4 -15°30.8	11°29.3 -15°30.0	26°29.3 -15°29.2	41°29.3 -15°28.4	56°29.2 -15°27.7	71°29.2 -15°26.9	-0.0 +0.8
Je 7	266°28.7 -15°16.8	281°28.7 -15°16.0	296°28.6 -15°15.2	311°28.6 -15°14.4	326°28.6 -15°13.6	341°28.5 -15°12.8	356°28.5 -15°12.0	11°28.5 -15°11.3	26°28.5 -15°10.5	41°28.4 -15°09.7	56°28.4 -15°08.9	71°28.4 -15°08.1	-0.0 +0.8
Ve 8	266°28.0 -14°57.8	281°28.0 -14°57.1	296°28.0 -14°56.3	311°27.9 -14°55.5	326°27.9 -14°54.7	341°27.9 -14°53.9	356°27.9 -14°53.1	11°27.8 -14°52.3	26°27.8 -14°51.5	41°27.8 -14°50.7	56°27.8 -14°49.9	71°27.7 -14°49.1	-0.0 +0.8
Sa 9	266°27.8 -14°37.5	281°27.5 -14°37.9	296°27.5 -14°37.1	311°27.4 -14°36.3	326°27.4 -14°35.5	341°27.4 -14°34.7	356°27.4 -14°33.9	11°27.4 -14°33.1	26°27.4 -14°32.3	41°27.4 -14°31.4	56°27.3 -14°30.6	71°27.3 -14°29.8	-0.0 +0.8
Di 10	266°27.2 -14°19.3	281°27.2 -14°18.5	296°27.2 -14°17.8	311°27.2 -14°16.9	326°27.1 -14°16.0	341°27.1 -14°15.2	356°27.1 -14°14.4	11°27.1 -14°13.6	26°27.1 -14°12.8	41°27.1 -14°12.0	56°27.1 -14°11.1	71°27.1 -14°10.3	-0.0 +0.8
Lu 11	266°27.1 -13°59.7	281°27.1 -13°58.8	296°27.1 -13°58.0	311°27.1 -13°57.2	326°27.1 -13°56.4	341°27.1 -13°55.5	356°27.1 -13°54.7	11°27.1 -13°53.9	26°27.1 -13°53.1	41°27.1 -13°52.2	56°27.1 -13°51.4	71°27.1 -13°50.6	+0.0 +0.8
Ma 12	266°27.2 -13°39.8	281°27.2 -13°39.0	296°27.2 -13°38.1	311°27.2 -13°37.3	326°27.2 -13°36.5	341°27.2 -13°35.6	356°27.2 -13°34.8	11°27.2 -13°34.0	26°27.2 -13°33.1	41°27.2 -13°32.2	56°27.2 -13°31.5	71°27.3 -13°30.6	+0.0 +0.8
Me 13	266°27.4 -13°19.7	281°27.4 -13°18.9	296°27.5 -13°18.0	311°27.5 -13°17.2	326°27.5 -13°16.3	341°27.5 -13°15.5	356°27.5 -13°14.7	11°27.5 -13°13.8	26°27.6 -13°13.0	41°27.6 -13°12.1	56°27.6 -13°11.3	71°27.6 -13°10.4	+0.0 +0.8
Je 14	266°27.9 -12°59.4	281°27.9 -12°58.6	296°27.9 -12°57.7	311°28.0 -12°56.9	326°28.0 -12°56.0	341°28.0 -12°55.2	356°28.0 -12°54.3	11°28.1 -12°53.4	26°28.1 -12°52.6	41°28.1 -12°51.7	56°28.1 -12°50.9	71°28.2 -12°50.0	+0.0 +0.9
Ve 15	266°28.5 -12°38.9	281°28.6 -12°38.0	296°28.6 -12°37.2	311°28.6 -12°36.3	326°28.7 -12°35.5	341°28.6 -12°34.6	356°28.7 -12°33.7	11°28.8 -12°32.9	26°28.8 -12°32.0	41°28.8 -12°31.1	56°28.9 -12°30.3	71°28.9 -12°29.4	+0.0 +0.9
Sa 16	266°29.4 -12°18.2	281°29.4 -12°17.3	296°29.5 -12°16.4	311°29.5 -12°15.6	326°29.5 -12°14.7	341°29.6 -12°13.8	356°29.6 -12°13.0	11°29.7 -12°12.1	26°29.7 -12°11.2	41°29.7 -12°10.4	56°29.8 -12°09.5	71°29.8 -12°08.6	+0.0 +0.9
Di 17	266°30.4 -11°57.3	281°30.4 -11°56.4	296°30.5 -11°55.5	311°30.5 -11°54.6	326°30.6 -11°53.8	341°30.6 -11°52.9	356°30.7 -11°52.0	11°30.7 -11°51.1	26°30.8 -11°50.3	41°30.8 -11°49.4	56°30.9 -11°48.5	71°30.9 -11°47.6	+0.0 +0.9
Lu 18	266°31.6 -11°36.2	281°31.6 -11°35.3	296°31.7 -11°34.4	311°31.7 -11°33.5	326°31.8 -11°32.6	341°31.8 -11°31.7	356°31.9 -11°30.9	11°32.0 -11°30.0	26°32.0 -11°29.1	41°32.1 -11°28.2	56°32.1 -11°27.3	71°32.2 -11°26.4	+0.1 +0.9
Ma 19	266°32.9 -11°14.9	281°33.0 -11°14.0	296°33.1 -11°13.1	311°33.1 -11°12.2	326°33.2 -11°11.3	341°33.2 -11°10.4	356°33.3 -11°09.5	11°33.4 -11°08.6	26°33.4 -11°07.7	41°33.5 -11°06.9	56°33.6 -11°06.0	71°33.6 -11°05.1	+0.1 +0.9
Me 20	266°34.5 -10°53.4	281°34.5 -10°52.5	296°34.6 -10°51.6	311°34.7 -10°50.7	326°34.7 -10°49.8	341°34.8 -10°48.9	356°34.9 -10°48.0	11°34.9 -10°47.1	26°35.0 -10°46.2	41°35.1 -10°45.3	56°35.2 -10°44.4	71°35.2 -10°43.5	+0.1 +0.9
Je 21	266°36.2 -10°31.8	281°36.2 -10°30.9	296°36.3 -10°30.0	311°36.4 -10°29.1	326°36.5 -10°28.2	341°36.5 -10°27.3	356°36.6 -10°26.4	11°36.7 -10°25.4	26°36.8 -10°24.5	41°36.8 -10°23.6	56°36.9 -10°22.7	71°37.0 -10°21.8	+0.1 +0.9
Ve 22	266°38.0 -10°10.0	281°38.1 -10°09.1	296°38.2 -10°08.2	311°38.2 -10°07.3	326°38.3 -10°06.3	341°38.4 -10°05.4	356°38.5 -10°04.5	11°38.6 -10°03.6	26°38.7 -10°02.7	41°38.7 -10°01.8	56°38.8 -10°00.9	71°38.9 -9°59.9	+0.1 +0.9
Sa 23	266°40.0 -9°48.0	281°40.1 -9°47.1	296°40.2 -9°46.2	311°40.3 -9°45.3	326°40.3 -9°44.4	341°40.4 -9°43.4	356°40.5 -9°42.5	11°40.6 -9°41.6	26°40.7 -9°40.7	41°40.8 -9°39.8	56°40.9 -9°38.8	71°41.0 -9°37.9	+0.1 +0.9
Di 24	266°42.1 -9°25.9	281°42.2 -9°25.0	296°42.3 -9°24.1	311°42.4 -9°23.2	326°42.5 -9°22.2	341°42.6 -9°21.3	356°42.7 -9°20.4	11°42.8 -9°19.5	26°42.9 -9°18.5	41°43.0 -9°17.6	56°43.1 -9°16.7	71°43.2 -9°15.7	+0.1 +0.9
Lu 25	266°44.4 -9°03.7	281°44.5 -9°02.7	296°44.6 -9°01.8	311°44.7 -9°00.9	326°44.8 -9°00.0	341°44.9 -8°59.0	356°45.0 -8°58.1	11°45.1 -8°57.2	26°45.2 -8°56.2	41°45.3 -8°55.3	56°45.4 -8°54.4	71°45.5 -8°53.4	+0.1 +0.9
Ma 26	266°46.9 -8°41.3	281°47.0 -8°40.4	296°47.1 -8°39.4	311°47.2 -8°38.5	326°47.3 -8°37.5	341°47.4 -8°36.6	356°47.5 -8°35.7	11°47.6 -8°34.7	26°47.7 -8°33.8	41°47.8 -8°32.9	56°47.9 -8°31.9	71°48.0 -8°31.0	+0.1 +0.9
Me 27	266°49.4 -8°18.8	281°49.5 -8°17.8	296°49.6 -8°16.9	311°49.8 -8°15.9	326°49.9 -8°15.0	341°50.0 -8°14.1	356°50.1 -8°13.1	11°50.2 -8°12.2	26°50.3 -8°11.2	41°50.4 -8°10.3	56°50.5 -8°09.3	71°50.6 -8°08.4	+0.1 +0.9
Je 28	266°52.1 -7°56.1	281°52.2 -7°55.2	296°52.3 -7°54.2	311°52.5 -7°53.3	326°52.6 -7°52.3	341°52.7 -7°51.4	356°52.8 -7°50.4	11°52.9 -7°49.5	26°53.0 -7°48.6	41°53.2 -7°47.6	56°53.3 -7°46.7	71°53.4 -7°45.7	+0.1 +0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Février 2030

	J	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	Δ'/h	SP
●	Ve 1	242 ⁰ 26.2 -19 ⁰ 10.5	256 ⁰ 52.8 -19 ⁰ 02.1	271 ⁰ 19.5 -18 ⁰ 53.6	285 ⁰ 46.3 -18 ⁰ 44.9	300 ⁰ 13.2 -18 ⁰ 36.2	314 ⁰ 40.2 -18 ⁰ 27.4	329 ⁰ 07.2 -18 ⁰ 18.5	343 ⁰ 34.4 -18 ⁰ 09.4	358 ⁰ 01.6 -18 ⁰ 00.3	12 ⁰ 28.9 -17 ⁰ 51.1	26 ⁰ 56.3 -17 ⁰ 41.7	+27.0	15.9
	Sa 2	243 ⁰ 57.1 -15 ⁰ 10.9	258 ⁰ 25.8 -15 ⁰ 00.2	272 ⁰ 54.7 -14 ⁰ 49.4	287 ⁰ 23.5 -14 ⁰ 38.6	301 ⁰ 52.5 -14 ⁰ 27.6	316 ⁰ 21.6 -14 ⁰ 16.6	330 ⁰ 50.7 -14 ⁰ 05.6	345 ⁰ 19.9 -13 ⁰ 54.4	359 ⁰ 49.2 -13 ⁰ 43.2	14 ⁰ 18.6 -13 ⁰ 32.0	28 ⁰ 48.0 -13 ⁰ 20.6	+29.1	15.8
	Di 3	246 ⁰ 19.1 -10 ⁰ 24.2	260 ⁰ 49.8 -10 ⁰ 12.1	275 ⁰ 20.5 -9 ⁰ 59.9	289 ⁰ 51.3 -9 ⁰ 47.7	304 ⁰ 22.2 -9 ⁰ 35.4	318 ⁰ 53.1 -9 ⁰ 23.1	333 ⁰ 24.1 -9 ⁰ 10.8	347 ⁰ 55.2 -8 ⁰ 58.5	2 ⁰ 26.3 -8 ⁰ 46.1	16 ⁰ 57.5 -8 ⁰ 33.7	31 ⁰ 28.8 -8 ⁰ 21.2	+31.0	15.6
●	Lu 4	249 ⁰ 25.0 -5 ⁰ 11.8	263 ⁰ 57.2 -4 ⁰ 59.1	278 ⁰ 29.4 -4 ⁰ 46.3	293 ⁰ 01.7 -4 ⁰ 33.6	307 ⁰ 34.0 -4 ⁰ 20.8	322 ⁰ 06.4 -4 ⁰ 08.0	336 ⁰ 38.9 -3 ⁰ 55.2	351 ⁰ 11.3 -3 ⁰ 42.4	5 ⁰ 43.9 -3 ⁰ 29.6	20 ⁰ 16.4 -3 ⁰ 16.8	34 ⁰ 49.1 -3 ⁰ 04.0	+32.4	15.4
	Ma 5	253 ⁰ 03.0 0 ⁰ 07.4	267 ⁰ 36.2 0 ⁰ 20.1	282 ⁰ 09.4 0 ⁰ 32.8	296 ⁰ 42.6 0 ⁰ 45.5	311 ⁰ 15.9 0 ⁰ 58.1	325 ⁰ 49.2 1 ⁰ 10.7	340 ⁰ 22.6 1 ⁰ 23.3	354 ⁰ 55.9 1 ⁰ 35.9	9 ⁰ 29.3 1 ⁰ 48.5	24 ⁰ 02.7 2 ⁰ 01.0	38 ⁰ 36.1 2 ⁰ 13.5	+33.3	15.2
	Me 6	256 ⁰ 59.6 5 ⁰ 18.2	271 ⁰ 33.3 5 ⁰ 30.3	286 ⁰ 07.0 5 ⁰ 42.3	300 ⁰ 40.7 5 ⁰ 54.3	315 ⁰ 14.3 6 ⁰ 06.3	329 ⁰ 48.0 6 ⁰ 18.2	344 ⁰ 21.7 6 ⁰ 30.1	358 ⁰ 55.4 6 ⁰ 41.9	13 ⁰ 29.1 6 ⁰ 53.7	28 ⁰ 02.9 7 ⁰ 05.5	42 ⁰ 36.6 7 ⁰ 17.2	+33.7	15.1
●	Je 7	261 ⁰ 01.8 18 ⁰ 03.0	275 ⁰ 35.5 18 ⁰ 10.7	290 ⁰ 09.1 18 ⁰ 18.3	304 ⁰ 42.7 18 ⁰ 25.9	319 ⁰ 16.3 19 ⁰ 51.5	333 ⁰ 49.8 19 ⁰ 02.3	348 ⁰ 23.4 19 ⁰ 13.0	2 ⁰ 57.0 19 ⁰ 23.7	17 ⁰ 30.5 19 ⁰ 34.3	32 ⁰ 04.0 19 ⁰ 44.9	46 ⁰ 37.5 19 ⁰ 55.4	+33.6	14.9
	Ve 8	264 ⁰ 57.6 18 ⁰ 03.0	279 ⁰ 30.8 18 ⁰ 10.7	294 ⁰ 03.9 18 ⁰ 18.3	308 ⁰ 37.0 18 ⁰ 25.9	323 ⁰ 10.1 19 ⁰ 51.5	337 ⁰ 43.1 19 ⁰ 02.3	352 ⁰ 16.1 19 ⁰ 13.0	6 ⁰ 49.1 19 ⁰ 23.7	21 ⁰ 22.1 19 ⁰ 34.3	35 ⁰ 55.0 19 ⁰ 44.9	50 ⁰ 27.9 19 ⁰ 55.4	+33.0	14.8
	Sa 9	268 ⁰ 37.4 18 ⁰ 03.0	283 ⁰ 09.7 18 ⁰ 10.7	297 ⁰ 42.0 18 ⁰ 18.3	312 ⁰ 14.3 18 ⁰ 25.9	326 ⁰ 46.6 19 ⁰ 51.5	341 ⁰ 18.8 19 ⁰ 02.3	355 ⁰ 50.9 19 ⁰ 13.0	10 ⁰ 23.0 19 ⁰ 23.7	24 ⁰ 55.1 19 ⁰ 34.3	39 ⁰ 27.2 19 ⁰ 44.9	53 ⁰ 59.2 19 ⁰ 55.4	+32.2	14.8
●	Di 10	271 ⁰ 54.5 20 ⁰ 50.4	286 ⁰ 25.9 20 ⁰ 55.8	300 ⁰ 57.2 21 ⁰ 01.3	315 ⁰ 28.5 21 ⁰ 06.7	329 ⁰ 59.8 21 ⁰ 12.0	344 ⁰ 31.0 21 ⁰ 17.1	359 ⁰ 02.1 21 ⁰ 22.2	13 ⁰ 33.3 21 ⁰ 27.2	28 ⁰ 04.3 21 ⁰ 32.0	42 ⁰ 35.4 21 ⁰ 36.8	57 ⁰ 06.4 21 ⁰ 41.5	+31.2	14.8
	Lu 11	274 ⁰ 46.8 22 ⁰ 39.7	289 ⁰ 17.2 22 ⁰ 42.7	303 ⁰ 47.5 22 ⁰ 45.7	318 ⁰ 17.8 22 ⁰ 48.5	332 ⁰ 48.1 22 ⁰ 51.2	347 ⁰ 18.4 22 ⁰ 53.9	1 ⁰ 48.6 22 ⁰ 56.4	16 ⁰ 18.8 22 ⁰ 58.8	30 ⁰ 48.9 23 ⁰ 01.1	45 ⁰ 19.0 23 ⁰ 03.3	59 ⁰ 49.1 23 ⁰ 05.4	+30.2	14.8
	Ma 12	277 ⁰ 16.6 23 ⁰ 23.5	291 ⁰ 46.2 23 ⁰ 23.8	306 ⁰ 15.8 23 ⁰ 24.0	320 ⁰ 45.4 23 ⁰ 24.1	335 ⁰ 15.0 23 ⁰ 24.0	349 ⁰ 44.5 23 ⁰ 23.9	4 ⁰ 14.0 23 ⁰ 23.6	18 ⁰ 43.5 23 ⁰ 23.2	33 ⁰ 12.9 23 ⁰ 22.7	47 ⁰ 42.4 23 ⁰ 22.1	62 ⁰ 11.8 23 ⁰ 21.4	+29.5	14.9
●	Me 13	279 ⁰ 31.2 22 ⁰ 56.4	294 ⁰ 00.4 22 ⁰ 53.8	308 ⁰ 29.6 22 ⁰ 51.1	322 ⁰ 58.7 22 ⁰ 48.3	337 ⁰ 27.9 22 ⁰ 45.3	351 ⁰ 57.1 22 ⁰ 42.2	6 ⁰ 26.2 22 ⁰ 39.0	20 ⁰ 55.4 22 ⁰ 35.7	35 ⁰ 24.5 22 ⁰ 32.3	49 ⁰ 53.7 22 ⁰ 28.8	64 ⁰ 22.8 22 ⁰ 25.1	+29.2	15.1
	Je 14	281 ⁰ 40.0 21 ⁰ 16.2	296 ⁰ 09.2 21 ⁰ 10.7	310 ⁰ 38.4 21 ⁰ 05.1	325 ⁰ 07.6 20 ⁰ 59.3	339 ⁰ 36.8 20 ⁰ 53.5	354 ⁰ 06.0 20 ⁰ 47.5	8 ⁰ 35.2 20 ⁰ 41.4	23 ⁰ 04.4 20 ⁰ 35.2	37 ⁰ 33.4 20 ⁰ 28.9	52 ⁰ 02.9 20 ⁰ 22.5	66 ⁰ 32.2 20 ⁰ 16.0	+29.2	15.2
	Ve 15	283 ⁰ 52.5 18 ⁰ 24.9	298 ⁰ 22.0 18 ⁰ 16.7	312 ⁰ 51.4 18 ⁰ 08.3	327 ⁰ 20.9 17 ⁰ 59.9	341 ⁰ 50.5 17 ⁰ 51.3	356 ⁰ 20.0 17 ⁰ 42.6	10 ⁰ 49.5 17 ⁰ 33.9	25 ⁰ 19.1 17 ⁰ 25.0	39 ⁰ 48.7 17 ⁰ 16.0	54 ⁰ 18.3 17 ⁰ 07.0	68 ⁰ 47.9 16 ⁰ 57.8	+29.5	15.4
●	Sa 16	286 ⁰ 14.3 14 ⁰ 29.2	300 ⁰ 44.2 14 ⁰ 18.6	315 ⁰ 14.1 14 ⁰ 07.9	329 ⁰ 44.1 13 ⁰ 57.1	344 ⁰ 14.0 13 ⁰ 46.2	358 ⁰ 44.0 13 ⁰ 35.2	13 ⁰ 14.0 13 ⁰ 24.2	27 ⁰ 44.0 13 ⁰ 13.1	42 ⁰ 14.0 13 ⁰ 01.9	56 ⁰ 44.0 12 ⁰ 50.6	71 ⁰ 14.0 12 ⁰ 39.2	+30.0	15.6
	Di 17	288 ⁰ 46.3 9 ⁰ 40.3	303 ⁰ 16.5 9 ⁰ 27.8	317 ⁰ 46.8 9 ⁰ 15.3	332 ⁰ 17.0 9 ⁰ 02.7	346 ⁰ 47.3 8 ⁰ 50.1	361 ⁰ 17.6 8 ⁰ 37.4	15 ⁰ 47.8 8 ⁰ 24.6	30 ⁰ 18.1 8 ⁰ 11.8	44 ⁰ 48.4 7 ⁰ 59.0	59 ⁰ 18.7 7 ⁰ 46.0	73 ⁰ 49.0 7 ⁰ 33.1	+30.3	15.8
	Lu 18	291 ⁰ 23.8 4 ⁰ 13.3	305 ⁰ 54.1 3 ⁰ 59.7	320 ⁰ 24.4 3 ⁰ 46.1	334 ⁰ 54.6 3 ⁰ 32.4	349 ⁰ 24.9 3 ⁰ 18.7	3 ⁰ 55.2 3 ⁰ 04.9	18 ⁰ 25.5 2 ⁰ 51.2	32 ⁰ 55.7 2 ⁰ 37.4	47 ⁰ 26.0 2 ⁰ 23.6	61 ⁰ 56.2 2 ⁰ 09.8	76 ⁰ 26.4 1 ⁰ 55.9	+30.3	16.0
●	Ma 19	293 ⁰ 58.0 -1 ⁰ 33.2	308 ⁰ 27.9 -1 ⁰ 47.2	322 ⁰ 57.8 -2 ⁰ 01.1	337 ⁰ 27.7 -2 ⁰ 15.1	351 ⁰ 57.6 -2 ⁰ 29.1	6 ⁰ 27.4 -2 ⁰ 43.0	20 ⁰ 57.3 -2 ⁰ 57.0	35 ⁰ 27.1 -3 ⁰ 10.9	49 ⁰ 56.8 -3 ⁰ 24.8	64 ⁰ 26.6 -3 ⁰ 38.8	78 ⁰ 56.3 -3 ⁰ 52.7	+29.8	16.1
	Me 20	296 ⁰ 17.7 -7 ⁰ 18.4	310 ⁰ 46.8 -7 ⁰ 31.8	325 ⁰ 15.9 -7 ⁰ 45.3	339 ⁰ 45.0 -7 ⁰ 58.7	354 ⁰ 13.9 -8 ⁰ 12.0	8 ⁰ 42.9 -8 ⁰ 25.3	23 ⁰ 11.8 -8 ⁰ 38.5	37 ⁰ 40.7 -8 ⁰ 51.8	52 ⁰ 09.5 -9 ⁰ 04.9	66 ⁰ 38.3 -9 ⁰ 18.0	81 ⁰ 07.3 -9 ⁰ 31.1	+28.9	16.2
	Je 21	298 ⁰ 11.7 -12 ⁰ 39.8	312 ⁰ 39.6 -12 ⁰ 51.9	327 ⁰ 07.5 -13 ⁰ 03.9	341 ⁰ 35.3 -13 ⁰ 15.7	356 ⁰ 03.0 -13 ⁰ 27.6	10 ⁰ 30.7 -13 ⁰ 39.3	24 ⁰ 58.3 -13 ⁰ 50.9	39 ⁰ 25.8 -14 ⁰ 02.5	53 ⁰ 53.3 -14 ⁰ 14.0	68 ⁰ 20.8 -14 ⁰ 25.4	82 ⁰ 48.1 -14 ⁰ 36.7	+27.6	16.2
●	Ve 22	312 ⁰ 39.6 -12 ⁰ 51.9	327 ⁰ 07.5 -13 ⁰ 03.9	341 ⁰ 35.3 -13 ⁰ 15.7	356 ⁰ 03.0 -13 ⁰ 27.6	10 ⁰ 30.7 -13 ⁰ 39.3	24 ⁰ 58.3 -13 ⁰ 50.9	39 ⁰ 25.8 -14 ⁰ 02.5	53 ⁰ 53.3 -14 ⁰ 14.0	68 ⁰ 20.8 -14 ⁰ 25.4	82 ⁰ 48.1 -14 ⁰ 36.7	97 ⁰ 15.5 -14 ⁰ 47.9	+27.6	16.2
	Sa 23	313 ⁰ 58.4 -17 ⁰ 24.7	328 ⁰ 24.7 -17 ⁰ 34.3	342 ⁰ 51.4 -17 ⁰ 43.8	357 ⁰ 17.4 -17 ⁰ 53.2	11 ⁰ 43.6 -18 ⁰ 02.5	26 ⁰ 09.7 -18 ⁰ 11.7	40 ⁰ 35.9 -18 ⁰ 20.7	55 ⁰ 01.9 -18 ⁰ 29.7	69 ⁰ 27.9 -18 ⁰ 38.5	83 ⁰ 53.8 -18 ⁰ 47.2	98 ⁰ 19.7 -18 ⁰ 55.8	+26.1	16.2
	Di 24	314 ⁰ 41.9 -20 ⁰ 49.3	329 ⁰ 07.0 -20 ⁰ 55.8	343 ⁰ 32.0 -21 ⁰ 02.2	357 ⁰ 57.0 -21 ⁰ 08.4	12 ⁰ 22.0 -21 ⁰ 14.5	26 ⁰ 46.9 -21 ⁰ 20.4	41 ⁰ 11.8 -21 ⁰ 26.3	55 ⁰ 36.7 -21 ⁰ 31.9	70 ⁰ 01.5 -21 ⁰ 37.5	84 ⁰ 26.3 -21 ⁰ 42.8	98 ⁰ 51.0 -21 ⁰ 48.1	+24.9	16.2
●	Lu 25	314 ⁰ 59.0 -22 ⁰ 49.0	329 ⁰ 23.3 -22 ⁰ 51.9	343 ⁰ 47.7 -22 ⁰ 54.6	358 ⁰ 12.0 -22 ⁰ 57.2	12 ⁰ 36.4 -22 ⁰ 59.6	27 ⁰ 00.7 -23 ⁰ 01.8	41 ⁰ 25.0 -23 ⁰ 03.9	55 ⁰ 49.3 -23 ⁰ 05.9	70 ⁰ 13.7 -23 ⁰ 07.6	84 ⁰ 38.0 -23 ⁰ 09.3	99 ⁰ 02.3 -23 ⁰ 10.8	+24.3	16.1
	Ma 26	315 ⁰ 08.0 -23 ⁰ 14.6	329 ⁰ 32.5 -23 ⁰ 13.7	343 ⁰ 57.0 -23 ⁰ 12.6	358 ⁰ 21.6 -23 ⁰ 11.3	12 ⁰ 46.2 -23 ⁰ 09.9	27 ⁰ 10.8 -23 ⁰ 08.3	41 ⁰ 35.5 -23 ⁰ 06.6	56 ⁰ 00.2 -23 ⁰ 04.7	70 ⁰ 24.9 -23 ⁰ 02.7	84 ⁰ 49.6 -23 ⁰ 00.6	99 ⁰ 14.4 -22 ⁰ 58.2	+24.6	16.0
	Me 27	315 ⁰ 31.7 -22 ⁰ 06.3	329 ⁰ 57.2 -22 ⁰ 01.8	344 ⁰ 22.9 -21 ⁰ 57.0	358 ⁰ 48.5 -21 ⁰ 52.2	13 ⁰ 14.3 -21 ⁰ 47.2	27 ⁰ 40.1 -21 ⁰ 42.1	42 ⁰ 05.9 -21 ⁰ 36.9	56 ⁰ 31.8 -21 ⁰ 31.5	70 ⁰ 57.8 -21 ⁰ 26.0	85 ⁰ 23.8 -21 ⁰ 20.3	99 ⁰ 50.0 -21 ⁰ 14.6	+25.8	15.9
●	Je 28	316 ⁰ 29.7 -19 ⁰ 33.5	330 ⁰ 56.9 -19 ⁰ 25.9	345 ⁰ 24.2 -19 ⁰ 18.1	359 ⁰ 51.6 -19 ⁰ 10.2	14 ⁰ 19.0 -18 ⁰ 19.3	28 ⁰ 46.6 -18 ⁰ 54.2	43 ⁰ 14.1 -18 ⁰ 46.0	57 ⁰ 41.7 -18 ⁰ 37.7	72 ⁰ 09.6 -18 ⁰ 29.3	86 ⁰ 37.4 -18 ⁰ 20.8	101 ⁰ 05.3 -18 ⁰ 12.2	+27.6	15.8
													+8.1	17.9

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
NL: 2 16h07 — PQ: 10 11h49 — PL: 18 06h19 — DQ: 25 01h57

SOLEIL

Mars 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ve 1	266°54.9 -7°33.4	281°55.1 -7°32.4	296°55.2 -7°31.5	311°55.3 -7°30.5	326°55.4 -7°29.6	341°55.5 -7°28.6	356°55.7 -7°27.7	11°55.8 -7°26.7	26°55.9 -7°25.8	41°56.0 -7°24.8	56°56.1 -7°23.8	71°56.3 -7°22.9	+0.1 +1.0
Sa 2	266°57.9 -7°10.5	281°58.0 -7°09.5	296°58.1 -7°08.6	311°58.3 -7°07.6	326°58.4 -7°06.7	341°58.5 -7°05.7	356°58.6 -7°04.8	11°58.8 -7°03.8	26°58.9 -7°02.9	41°59.0 -7°01.9	56°59.1 -7°00.9	71°59.3 -7°00.0	+0.1 +1.0
Di 3	267°00.9 -6°47.5	282°01.1 -6°46.6	297°01.2 -6°45.6	312°01.3 -6°44.6	327°01.5 -6°43.7	342°01.6 -6°42.7	357°01.7 -6°41.8	12°01.9 -6°40.8	27°02.2 -6°39.8	42°02.1 -6°38.9	57°02.3 -6°37.9	72°02.4 -6°37.0	+0.1 +1.0
Lu 4	267°04.1 -6°24.5	282°04.3 -6°23.5	297°04.4 -6°22.5	312°04.5 -6°21.6	327°04.7 -6°20.6	342°04.8 -6°19.6	357°04.9 -6°18.7	12°05.1 -6°17.7	27°05.2 -6°16.7	42°05.3 -6°15.8	57°05.5 -6°14.8	72°05.6 -6°13.9	+0.1 +1.0
Ma 5	267°07.4 -6°01.3	282°07.6 -6°00.3	297°07.7 -5°59.4	312°07.8 -5°58.4	327°08.0 -5°57.4	342°08.1 -5°56.5	357°08.3 -5°55.5	12°08.4 -5°54.5	27°08.5 -5°53.6	42°08.7 -5°52.6	57°08.8 -5°51.6	72°09.0 -5°50.7	+0.1 +1.0
Me 6	267°10.8 -5°38.1	282°11.0 -5°37.1	297°11.1 -5°36.1	312°11.3 -5°35.2	327°11.4 -5°34.2	342°11.5 -5°33.2	357°11.7 -5°32.2	12°11.8 -5°31.3	27°12.0 -5°30.3	42°12.1 -5°29.3	57°12.3 -5°28.4	72°12.4 -5°27.4	+0.1 +1.0
Je 7	267°14.3 -5°14.8	282°14.5 -5°13.8	297°14.6 -5°12.8	312°14.8 -5°11.8	327°14.9 -5°10.9	342°15.1 -5°09.9	357°15.2 -5°08.9	12°15.4 -5°07.9	27°15.5 -5°07.0	42°15.7 -5°06.0	57°15.8 -5°05.0	72°16.0 -5°04.0	+0.1 +1.0
Ve 8	267°17.9 -4°51.4	282°18.1 -4°50.4	297°18.2 -4°49.4	312°18.4 -4°48.4	327°18.5 -4°47.5	342°18.7 -4°46.5	357°18.8 -4°45.5	12°19.0 -4°44.5	27°19.2 -4°43.6	42°19.3 -4°42.6	57°19.5 -4°41.6	72°19.6 -4°40.6	+0.2 +1.0
Sa 9	267°21.6 -4°27.9	282°21.8 -4°27.0	297°21.9 -4°26.0	312°22.1 -4°25.0	327°22.3 -4°24.0	342°22.4 -4°23.0	357°22.6 -4°22.1	12°22.7 -4°21.1	27°22.9 -4°20.1	42°23.0 -4°19.1	57°23.2 -4°18.1	72°23.4 -4°17.2	+0.2 +1.0
Di 10	267°25.4 -4°04.4	282°25.6 -4°03.4	297°25.7 -4°02.5	312°25.9 -4°01.5	327°26.1 -4°00.5	342°26.2 -3°59.5	357°26.4 -3°58.5	12°26.6 -3°57.6	27°26.7 -3°56.6	42°26.9 -3°55.6	57°27.0 -3°54.6	72°27.2 -3°53.6	+0.2 +1.0
Lu 11	267°29.3 -3°40.9	282°29.5 -3°39.9	297°29.6 -3°38.9	312°29.8 -3°37.9	327°30.0 -3°37.0	342°30.1 -3°36.0	357°30.3 -3°35.0	12°30.3 -3°34.0	27°30.6 -3°33.0	42°30.8 -3°32.0	57°30.9 -3°31.1	72°31.1 -3°30.1	+0.2 +1.0
Ma 12	267°33.3 -3°17.3	282°33.4 -3°16.3	297°33.6 -3°15.3	312°33.8 -3°14.3	327°33.9 -3°13.4	342°34.1 -3°12.4	357°34.3 -3°11.4	12°34.4 -3°10.4	27°34.6 -3°09.4	42°34.8 -3°08.4	57°34.9 -3°07.5	72°35.1 -3°06.5	+0.2 +1.0
Me 13	267°37.3 -2°53.7	282°37.5 -2°52.7	297°37.6 -2°51.7	312°37.8 -2°50.7	327°38.0 -2°49.7	342°38.2 -2°48.7	357°38.3 -2°47.8	12°38.5 -2°46.8	27°38.7 -2°45.8	42°38.8 -2°44.8	57°39.0 -2°43.8	72°39.2 -2°42.8	+0.2 +1.0
Je 14	267°41.4 -2°30.0	282°41.6 -2°29.0	297°41.8 -2°28.0	312°41.9 -2°27.0	327°42.1 -2°26.1	342°42.3 -2°25.1	357°42.5 -2°24.1	12°42.6 -2°23.1	27°42.8 -2°22.1	42°43.0 -2°21.1	57°43.1 -2°20.1	72°43.3 -2°19.2	+0.2 +1.0
Ve 15	267°45.6 -2°06.3	282°45.8 -2°05.3	297°45.9 -2°04.4	312°46.1 -2°03.4	327°46.3 -2°02.4	342°46.5 -2°01.4	357°46.6 -2°00.4	12°46.8 -1°59.4	27°47.0 -1°58.4	42°47.2 -1°57.4	57°47.4 -1°56.5	72°47.6 -1°55.5	+0.2 +1.0
Sa 16	267°49.8 -1°42.6	282°50.0 -1°41.6	297°50.2 -1°40.7	312°50.4 -1°39.7	327°50.5 -1°38.7	342°50.7 -1°37.7	357°50.9 -1°36.7	12°51.1 -1°35.7	27°51.3 -1°34.7	42°51.4 -1°33.7	57°51.6 -1°32.8	72°51.8 -1°31.8	+0.2 +1.0
Di 17	267°54.1 -1°18.9	282°54.3 -1°17.9	297°54.5 -1°16.9	312°54.7 -1°16.0	327°54.8 -1°15.0	342°55.0 -1°14.0	357°55.2 -1°13.0	12°55.4 -1°12.0	27°55.6 -1°11.0	42°55.8 -1°10.0	57°55.9 -1°09.0	72°56.1 -1°08.1	+0.2 +1.0
Lu 18	267°58.5 -0°55.2	282°58.7 -0°54.2	297°58.8 -0°53.2	312°59.0 -0°52.2	327°59.2 -0°51.3	342°59.4 -0°50.3	357°59.6 -0°49.3	12°59.7 -0°48.3	27°59.9 -0°47.3	42°60.0 -0°46.3	57°60.1 -0°45.3	73°00.3 -0°44.3	+0.2 +1.0
Ma 19	268°02.9 -0°31.5	283°03.0 -0°30.5	298°03.2 -0°29.5	313°03.4 -0°28.5	328°03.6 -0°27.5	343°03.8 -0°26.5	358°04.0 -0°25.6	13°04.2 -0°24.6	28°04.3 -0°23.6	43°04.5 -0°22.6	58°04.7 -0°21.6	73°04.9 -0°20.6	+0.2 +1.0
Me 20	268°07.3 -0°07.8	283°07.5 -0°06.8	298°07.7 -0°05.8	313°07.8 -0°04.8	328°08.0 -0°03.8	343°08.2 -0°02.8	358°08.4 -0°01.8	13°08.6 -0°00.9	28°08.8 0°00.1	43°09.0 0°01.1	58°09.1 0°02.1	73°09.3 0°03.1	+0.2 +1.0
Je 21	268°11.8 0°15.9	283°11.9 0°16.9	298°12.1 0°17.9	313°12.3 0°18.9	328°12.5 0°19.9	343°12.7 0°20.9	358°12.9 0°21.8	13°13.1 0°22.8	28°13.2 0°23.8	43°13.4 0°24.8	58°13.6 0°25.8	73°13.8 0°26.8	+0.2 +1.0
Ve 22	268°16.2 0°39.6	283°16.4 0°40.6	298°16.6 0°41.6	313°16.8 0°42.6	328°17.0 0°43.6	343°17.2 0°44.5	358°17.4 0°45.5	13°17.6 0°46.5	28°17.7 0°47.5	43°17.9 0°48.5	58°18.1 0°49.5	73°18.3 0°50.5	+0.2 +1.0
Sa 23	268°20.7 1°03.3	283°20.9 1°04.3	298°21.1 1°05.2	313°21.3 1°06.2	328°21.5 1°07.2	343°21.7 1°08.2	358°21.9 1°09.2	13°21.9 1°10.2	28°22.1 1°11.2	43°22.4 1°12.1	58°22.6 1°13.1	73°22.8 1°14.1	+0.2 +1.0
Di 24	268°25.3 1°26.9	283°25.5 1°27.9	298°25.6 1°28.9	313°25.8 1°29.9	328°26.0 1°30.8	343°26.2 1°31.8	358°26.4 1°32.8	13°26.6 1°33.8	28°26.8 1°34.8	43°27.0 1°35.8	58°27.2 1°36.7	73°27.4 1°37.7	+0.2 +1.0
Lu 25	268°29.8 1°50.5	283°30.0 1°51.5	298°30.2 1°52.5	313°30.4 1°53.5	328°30.5 1°54.4	343°30.7 1°55.4	358°30.9 1°56.4	13°31.1 1°57.4	28°31.3 1°58.4	43°31.5 1°59.4	58°31.7 2°00.3	73°31.9 2°01.3	+0.2 +1.0
Ma 26	268°34.3 2°14.1	283°34.5 2°15.1	298°34.7 2°16.0	313°34.9 2°17.0	328°35.1 2°18.0	343°35.3 2°19.0	358°35.5 2°20.0	13°35.6 2°20.9	28°35.8 2°21.9	43°36.0 2°22.9	58°36.2 2°23.9	73°36.4 2°24.9	+0.2 +1.0
Me 27	268°38.8 2°37.6	283°39.0 2°38.6	298°39.2 2°39.6	313°39.4 2°40.5	328°39.6 2°41.5	343°39.8 2°42.5	358°40.0 2°43.5	13°40.0 2°44.4	28°40.2 2°45.4	43°40.4 2°46.4	58°40.6 2°47.4	73°40.9 2°48.4	+0.2 +1.0
Je 28	268°43.4 3°01.1	283°43.6 3°02.0	298°43.7 3°03.0	313°43.9 3°04.0	328°44.1 3°05.0	343°44.3 3°05.9	358°44.5 3°06.9	13°44.4 3°07.9	28°44.6 3°08.9	43°44.9 3°09.8	58°45.1 3°10.8	73°45.4 3°11.8	+0.2 +1.0
Ve 29	268°47.9 3°24.5	283°48.1 3°25.4	298°48.2 3°26.4	313°48.4 3°27.4	328°48.6 3°28.4	343°48.8 3°29.3	358°49.0 3°30.3	13°49.0 3°31.3	28°49.4 3°32.3	43°49.6 3°33.2	58°49.7 3°34.2	73°49.9 3°35.2	+0.2 +1.0
Sa 30	268°52.4 3°47.8	283°52.5 3°48.8	298°52.7 3°49.8	313°52.9 3°50.7	328°53.1 3°51.7	343°53.3 3°52.7	358°53.5 3°53.6	13°53.7 3°54.6	28°53.9 3°55.6	43°54.0 3°56.6	58°54.5 3°57.5	73°54.4 3°58.5	+0.2 +1.0
Di 31	268°56.8 4°11.1	283°57.0 4°12.1	298°57.2 4°13.0	313°57.4 4°14.0	328°57.6 4°15.0	343°57.8 4°15.9	358°57.9 4°16.9	13°58.1 4°17.9	28°58.3 4°18.8	43°58.5 4°19.8	58°58.7 4°20.8	73°58.9 4°21.7	+0.2 +1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.1'

LUNE

Mars 2030

	J	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Δ /h	SP
●	Ve 1	245°48.3 -16°41.1	260°17.1 -16°31.5	274°45.9 -16°21.8	289°14.7 -16°12.0	303°43.7 -16°02.1	318°12.7 -15°52.2	332°41.8 -15°42.2	347°11.0 -15°32.1	1°40.2 -15°21.9	16°09.5 -15°11.7	30°38.4 -15°01.4	+29.1 +10.0	15.7 57.6
	Sa 2	248°08.3 -12°18.5	262°38.8 -12°07.2	277°09.4 -11°55.8	291°40.0 -11°44.4	306°10.0 -11°32.9	320°41.5 -11°21.3	335°12.3 -11°09.7	349°43.2 -10°58.1	4°14.1 -10°46.4	18°45.1 -10°34.7	33°16.2 -10°22.9	+30.8 +11.6	15.6 57.1
	Di 3	251°09.2 -7°21.9	265°41.1 -7°09.6	280°13.1 -6°57.2	294°45.2 -6°44.9	309°17.3 -6°32.5	323°49.4 -6°20.7	338°21.6 -6°07.6	352°53.9 -5°55.2	7°26.1 -5°42.7	21°58.5 -5°30.3	36°30.8 -5°17.8	+32.2 +12.4	15.4 56.5
●	Lu 4	254°41.0 -2°09.2	269°14.0 -1°56.6	283°47.0 -1°44.0	298°20.0 -1°31.4	312°53.0 -1°18.8	327°26.1 -1°06.2	341°59.2 -0°53.6	356°32.3 -0°41.1	11°05.4 -0°28.5	25°38.6 -0°15.9	40°11.8 -0°03.4	+33.1 +12.6	15.3 56.0
	Ma 5	258°32.0 3°03.3	273°05.5 3°15.6	287°38.9 3°27.8	302°12.4 3°40.1	316°45.9 3°52.3	331°19.4 4°04.5	345°52.9 4°16.6	0°26.4 4°28.8	15°00.0 4°40.9	29°33.5 4°52.9	44°07.0 5°05.0	+33.5 +12.2	15.1 55.5
	Me 6	262°30.2 8°01.5	277°03.7 8°12.9	291°37.2 8°24.3	306°10.7 8°35.7	320°44.2 8°47.0	335°17.7 8°58.3	349°51.2 9°09.5	4°24.7 9°20.7	18°58.1 9°31.9	33°31.6 9°42.9	48°05.0 9°54.0	+33.5 +11.3	15.0 55.0
●	Je 7	266°24.9 16°27.6	280°58.0 16°36.1	295°31.2 16°44.5	310°04.4 16°52.8	324°37.5 17°01.0	339°10.6 17°09.2	353°43.6 17°17.3	8°16.7 17°25.3	22°49.7 17°33.2	37°22.7 17°41.0	51°55.7 17°48.8	+33.1 +8.1	14.9 54.3
	Ve 8	270°07.3 19°35.3	284°39.8 19°41.7	299°12.3 19°48.0	313°44.8 19°56.6	328°17.3 20°00.4	342°49.7 20°06.4	357°22.1 20°12.4	11°54.5 20°18.3	26°26.8 20°24.5	40°59.1 20°31.4	55°31.4 20°35.3	+32.4 +6.0	14.8 54.1
	Sa 9	273°31.5 21°47.8	288°03.2 21°51.8	302°34.9 21°55.8	317°06.6 21°59.6	331°38.2 22°03.4	346°09.8 22°07.0	0°41.4 22°10.5	15°13.0 22°14.0	29°44.5 22°17.3	44°15.9 22°20.6	58°47.4 22°23.7	+31.6 +3.6	14.8 54.1
●	Di 10	276°35.0 21°47.8	291°05.9 21°51.8	305°36.8 21°55.8	320°07.7 21°59.6	334°38.5 22°03.4	349°09.3 22°07.0	3°40.1 22°10.5	18°10.8 22°14.0	32°41.6 22°17.3	47°12.2 22°20.6	61°42.9 22°23.7	+30.8 +3.6	14.8 54.1
	Lu 11	279°19.5 22°58.1	293°49.7 22°59.8	308°20.0 23°00.8	322°50.2 23°02.1	337°20.2 23°03.2	351°50.5 23°04.2	6°20.6 23°05.1	20°50.8 23°05.9	35°20.9 23°06.5	49°50.9 23°07.1	64°21.0 23°07.6	+30.1 +1.0	14.8 54.3
	Ma 12	281°50.0 23°01.1	296°19.9 22°59.8	310°49.7 22°58.3	325°19.5 22°56.8	339°49.3 22°55.1	354°19.1 22°53.3	8°48.9 22°51.5	23°18.7 22°49.5	37°48.4 22°47.3	52°18.2 22°41.7	66°47.9 22°42.8	+29.8 -1.8	14.9 54.7
●	Me 13	284°13.9 21°54.2	298°43.6 21°50.1	313°13.3 21°45.8	327°43.1 21°41.5	342°12.8 21°37.0	356°42.5 21°32.4	11°12.3 21°27.8	25°42.0 21°23.0	40°15.1 21°18.0	54°41.5 21°13.0	69°11.2 21°07.9	+29.7 -4.6	15.1 55.3
	Je 14	286°38.2 19°37.9	301°08.1 19°31.0	315°37.9 19°24.1	330°07.8 19°17.0	344°37.7 19°09.8	359°07.6 19°02.6	13°37.5 18°55.2	28°07.4 18°47.7	42°37.3 18°40.1	57°07.3 18°32.4	71°37.2 18°24.7	+29.9 -7.3	15.3 56.0
	Ve 15	289°07.5 16°15.9	303°37.6 16°06.6	318°07.7 15°57.1	332°37.8 15°47.6	347°07.9 15°38.0	361°18.1 15°28.2	16°08.2 15°18.4	30°38.4 15°08.5	45°08.5 14°58.5	59°38.7 14°48.5	74°08.9 14°38.3	+30.1 -9.8	15.5 56.8
●	Sa 16	291°42.2 11°55.7	306°12.5 11°44.3	320°42.7 11°32.7	335°13.0 11°21.1	349°43.0 11°09.4	4°13.5 10°57.6	18°43.8 10°45.8	33°14.1 10°33.9	47°44.3 10°21.9	62°14.6 10°09.8	76°44.8 9°57.7	+30.3 -11.8	15.7 57.7
	Di 17	294°18.2 6°48.5	308°48.4 6°35.4	323°18.5 6°22.3	337°48.7 6°09.2	352°18.4 5°55.9	6°48.9 5°42.7	21°19.0 5°29.4	35°49.1 5°16.0	50°19.2 5°02.6	64°49.3 4°49.2	79°19.3 4°35.7	+30.1 -13.8	16.0 58.6
	Lu 18	296°47.4 1°09.6	311°17.4 0°55.6	325°46.8 0°41.6	340°16.4 0°27.6	354°46.0 0°13.6	9°15.6 -0°00.4	23°45.1 -0°14.4	38°14.6 -0°28.5	52°44.1 -0°42.5	67°13.5 -0°56.6	81°42.9 -1°10.7	+29.5 -14.0	16.2 59.3
●	Ma 19	298°59.2 -4°41.5	313°27.9 -4°55.5	327°56.6 -5°09.5	342°25.3 -5°23.4	356°53.9 -5°37.3	11°22.5 -5°51.2	25°51.0 -6°05.1	40°19.4 -6°18.9	54°47.8 -6°32.7	69°16.2 -6°46.5	83°44.5 -7°00.2	+28.5 -13.9	16.6 59.9
	Me 20	300°42.4 -10°21.4	315°09.8 -10°34.4	329°37.2 -10°47.3	344°04.5 -11°00.2	358°31.3 -11°13.0	12°58.8 -11°25.7	27°25.9 -11°38.4	41°53.0 -11°51.0	56°19.3 -12°03.8	70°46.8 -12°16.0	85°13.3 -12°28.4	+27.1 -16.2	16.4 60.3
	Je 21	301°48.9 -15°24.1	316°14.7 -15°35.1	330°40.5 -15°45.9	345°06.2 -15°56.7	359°31.9 -16°07.3	13°57.5 -16°17.9	28°23.0 -16°28.3	42°48.5 -16°38.7	57°13.9 -16°48.9	71°39.2 -16°59.0	86°04.5 -17°09.0	+25.6 -10.5	16.5 60.3
●	Ve 22	302°17.2 -19°24.2	316°41.6 -19°32.2	331°06.0 -19°47.7	345°30.3 -19°55.3	359°54.6 -20°02.7	14°18.9 -20°10.0	28°43.1 -20°17.1	43°07.2 -20°24.1	57°31.3 -20°31.0	71°55.4 -20°37.0	86°19.5 -20°44.3	+24.2 -7.2	16.4 60.2
	Sa 23	316°41.6 -22°04.8	331°06.0 -22°16.6	345°30.3 -22°28.9	359°54.6 -22°41.9	40°18.9 -22°55.1	28°43.1 -22°56.8	43°07.2 -21°52.4	57°31.3 -21°56.8	71°55.4 -21°47.9	86°19.5 -21°43.3	100°43.3 -21°38.5	+24.2 +4.2	16.4 58.6
	Di 24	316°40.2 -23°01.1	331°03.8 -23°01.3	345°27.4 -23°01.3	359°51.0 -23°01.2	40°18.9 -23°00.5	28°43.1 -23°00.5	43°01.7 -22°59.2	57°25.3 -22°59.2	71°48.8 -22°58.3	86°12.4 -22°56.6	100°35.9 -22°56.0	+23.6 +0.5	16.3 59.3
●	Lu 25	316°30.7 -23°01.1	330°54.5 -23°01.3	345°18.3 -23°01.3	359°42.2 -23°01.2	40°16.1 -23°00.5	28°40.0 -23°00.5	42°54.0 -22°59.2	57°18.0 -22°59.2	71°42.1 -22°58.3	86°06.2 -22°56.6	100°30.8 -22°56.0	+24.0 +0.5	16.2 59.3
	Ma 26	316°38.4 -22°20.2	331°03.4 -22°16.6	345°28.4 -22°12.9	359°53.5 -22°09.1	40°18.7 -22°05.1	28°44.0 -22°01.0	43°09.3 -21°56.8	57°34.7 -21°52.4	72°00.2 -21°47.9	86°25.7 -21°43.3	100°51.3 -21°38.5	+25.3 +4.2	16.6 58.6
	Me 27	317°24.6 -20°11.8	331°51.4 -20°05.0	346°18.4 -19°58.2	40°45.4 -19°51.2	15°12.5 -19°44.1	29°39.6 -19°37.0	44°06.9 -19°29.7	58°34.2 -19°22.3	73°01.6 -19°14.8	87°29.2 -19°07.2	101°56.7 -18°59.5	+27.2 +7.2	15.8 58.0
●	Je 28	319°00.5 -16°52.2	333°29.4 -16°43.0	347°58.4 -16°33.8	40°27.5 -16°24.4	16°56.6 -16°15.4	31°25.8 -16°05.0	45°55.1 -15°55.9	60°24.5 -15°46.2	74°54.0 -15°36.4	89°23.5 -15°26.6	103°53.2 -15°16.7	+29.3 +9.6	15.7 57.3
	Ve 29	321°26.4 -12°40.3	335°57.2 -12°29.4	350°28.1 -12°18.5	40°59.0 -12°07.5	19°30.0 -11°56.4	34°01.0 -11°45.3	48°32.1 -11°34.1	63°03.3 -11°22.9	77°34.6 -11°11.7	92°05.9 -11°00.4	106°37.3 -10°49.0	+31.1 +11.6	15.5 56.8
	Sa 30	324°34.8 -7°54.3	339°07.1 -7°42.4	353°39.4 -7°30.5	40°11.7 -7°18.5	22°44.1 -7°06.5	37°16.6 -6°54.5	51°49.1 -6°42.5	66°21.6 -6°30.4	80°54.2 -6°18.4	95°26.2 -6°06.3	109°59.5 -5°54.1	+32.5 +12.0	15.3 56.3
●	Di 31	328°14.1 -2°50.8	342°47.3 -2°38.5	357°20.6 -2°26.2	11°53.8 -2°13.9	26°27.2 -2°01.6	41°00.5 -1°49.3	55°33.9 -1°37.0	70°07.3 -1°24.7	84°40.7 -1°12.4	99°14.1 -1°00.1	113°47.6 -0°47.8	+33.4 +12.3	15.2 55.7

Ligne 1: GHA, Δ /h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ /h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
NL: 4 06h34 — PQ: 12 08h47 — PL: 19 17h56 — DQ: 26 09h51

SOLEIL

Avril 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	269°01.3 4°34.3	284°01.5 4°35.3	299°01.6 4°36.2	314°01.8 4°37.2	329°02.0 4°38.2	344°02.2 4°39.1	359°02.4 4°40.1	14°02.6 4°41.0	29°02.7 4°42.0	44°02.9 4°43.0	59°03.1 4°43.9	74°03.3 4°44.9	+0.2 +1.0
Ma 2	269°05.7 4°57.4	284°05.9 4°58.4	299°06.1 4°59.3	314°06.2 5°00.3	329°06.4 5°01.3	344°06.6 5°02.2	359°06.8 5°03.2	14°07.0 5°04.1	29°07.1 5°05.1	44°07.3 5°06.1	59°07.5 5°07.0	74°07.7 5°08.0	+0.2 +1.0
Me 3	269°10.1 5°20.4	284°10.2 5°21.4	299°10.4 5°22.4	314°10.6 5°23.3	329°10.8 5°24.3	344°11.0 5°25.2	359°11.2 5°26.2	14°11.3 5°27.1	29°11.3 5°28.1	44°11.7 5°29.0	59°11.9 5°30.0	74°12.1 5°31.0	+0.2 +1.0
Je 4	269°14.4 5°43.4	284°14.6 5°44.3	299°14.8 5°45.3	314°14.9 5°46.2	329°15.1 5°47.2	344°15.3 5°48.1	359°15.5 5°49.1	14°15.7 5°50.0	29°15.8 5°51.0	44°16.0 5°51.9	59°16.2 5°52.9	74°16.4 5°53.8	+0.2 +1.0
Ve 5	269°18.7 6°06.2	284°18.9 6°07.2	299°19.1 6°08.1	314°19.2 6°09.1	329°19.4 6°10.0	344°19.6 6°10.9	359°19.8 6°11.9	14°20.0 6°12.8	29°20.1 6°13.8	44°20.3 6°14.7	59°20.5 6°15.7	74°20.7 6°16.6	+0.2 +0.9
Sa 6	269°23.0 6°28.9	284°23.1 6°29.9	299°23.3 6°30.8	314°23.5 6°31.8	329°23.7 6°32.7	344°23.9 6°33.7	359°24.0 6°34.6	14°24.2 6°35.5	29°24.4 6°36.5	44°24.6 6°37.4	59°24.7 6°38.4	74°24.9 6°39.3	+0.2 +0.9
Di 7	269°27.2 6°51.5	284°27.4 6°52.5	299°27.5 6°53.4	314°27.7 6°54.4	329°27.9 6°55.3	344°28.1 6°56.2	359°28.2 6°57.2	14°28.4 6°58.1	29°28.6 6°59.1	44°28.7 7°00.0	59°28.9 7°00.9	74°29.1 7°01.9	+0.2 +0.9
Lu 8	269°31.3 7°14.0	284°31.5 7°15.0	299°31.7 7°15.9	314°31.9 7°16.8	329°32.0 7°17.8	344°32.2 7°18.7	359°32.4 7°19.6	14°32.5 7°20.6	29°32.7 7°21.5	44°32.9 7°22.4	59°33.1 7°23.4	74°33.2 7°24.3	+0.2 +0.9
Ma 9	269°35.4 7°36.4	284°35.6 7°37.3	299°35.8 7°38.3	314°35.9 7°39.2	329°36.1 7°40.1	344°36.3 7°41.1	359°36.5 7°42.0	14°36.6 7°42.9	29°36.8 7°43.8	44°37.0 7°44.8	59°37.1 7°45.7	74°37.3 7°46.6	+0.2 +0.9
Me 10	269°39.5 7°58.7	284°39.6 7°59.6	299°39.8 8°00.5	314°40.0 8°01.4	329°40.1 8°02.4	344°40.3 8°03.3	359°40.5 8°04.2	14°40.6 8°05.1	29°40.9 8°06.0	44°41.0 8°07.4	59°41.1 8°07.9	74°41.3 8°08.8	+0.2 +0.9
Je 11	269°43.5 8°20.8	284°43.6 8°21.7	299°43.8 8°22.6	314°43.9 8°23.5	329°44.1 8°24.4	344°44.3 8°25.4	359°44.4 8°26.3	14°44.6 8°27.2	29°44.8 8°28.1	44°44.9 8°29.9	59°45.1 8°29.9	74°45.3 8°30.8	+0.2 +0.9
Ve 12	269°47.4 8°42.7	284°47.5 8°43.6	299°47.7 8°44.5	314°47.8 8°45.5	329°48.0 8°46.4	344°48.2 8°47.3	359°48.3 8°48.2	14°48.5 8°49.1	29°48.7 8°50.0	44°48.8 8°51.8	59°49.0 8°51.8	74°49.1 8°52.7	+0.2 +0.9
Sa 13	269°51.2 9°04.5	284°51.4 9°05.5	299°51.6 9°06.4	314°51.7 9°07.3	329°51.8 9°08.2	344°52.0 9°09.1	359°52.2 9°10.0	14°52.3 9°10.9	29°52.5 9°11.8	44°52.6 9°12.7	59°52.8 9°13.6	74°52.9 9°14.5	+0.2 +0.9
Di 14	269°55.0 9°26.2	284°55.1 9°27.1	299°55.3 9°28.0	314°55.4 9°28.9	329°55.6 9°29.8	344°55.7 9°30.7	359°55.9 9°31.6	14°56.0 9°32.5	29°56.2 9°33.4	44°56.4 9°34.3	59°56.5 9°35.2	74°56.7 9°36.1	+0.2 +0.9
Lu 15	269°58.6 9°47.7	284°58.8 9°48.6	299°58.9 9°49.5	314°59.1 9°50.4	329°59.2 9°51.3	344°59.4 9°52.2	359°59.6 9°53.1	14°59.7 9°54.0	29°59.9 9°54.9	44°59.9 9°55.7	60°00.0 9°56.6	75°00.0 9°57.5	+0.2 +0.9
Ma 16	270°02.2 10°09.1	285°02.4 10°10.0	300°02.5 10°10.8	315°02.7 10°11.7	330°02.8 10°12.6	345°03.0 10°13.5	0°03.1 10°14.4	15°03.3 10°15.3	30°03.4 10°16.1	45°03.6 10°17.0	60°03.7 10°17.9	75°03.9 10°18.8	+0.1 +0.9
Me 17	270°05.7 10°30.2	285°05.9 10°31.1	300°06.0 10°32.0	315°06.2 10°32.9	330°06.3 10°33.8	345°06.5 10°34.6	0°06.6 10°35.5	15°06.7 10°36.4	30°06.9 10°37.3	45°07.0 10°38.1	60°07.2 10°39.0	75°07.3 10°39.9	+0.1 +0.9
Je 18	270°09.2 10°51.2	285°09.3 10°52.1	300°09.4 10°53.0	315°09.6 10°53.9	330°09.7 10°54.7	345°09.9 10°55.6	0°10.0 10°56.5	15°10.1 10°57.3	30°10.3 10°58.2	45°10.4 10°59.1	60°10.5 10°59.9	75°10.7 11°00.8	+0.1 +0.9
Ve 19	270°12.5 11°12.1	285°12.6 11°12.9	300°12.7 11°13.8	315°12.9 11°14.7	330°13.0 11°15.5	345°13.1 11°16.4	0°13.3 11°17.2	15°13.4 11°18.1	30°13.5 11°19.0	45°13.7 11°19.8	60°13.8 11°20.7	75°13.9 11°21.6	+0.1 +0.9
Sa 20	270°15.7 11°32.7	285°15.8 11°33.6	300°15.9 11°34.4	315°16.1 11°35.3	330°16.2 11°36.1	345°16.3 11°37.0	0°16.5 11°37.8	15°16.6 11°38.7	30°16.7 11°39.6	45°16.8 11°40.4	60°17.0 11°41.3	75°17.1 11°42.1	+0.1 +0.9
Di 21	270°18.8 11°53.2	285°18.9 11°54.0	300°19.0 11°54.9	315°19.2 11°55.7	330°19.3 11°56.6	345°19.4 11°57.4	0°19.5 11°58.3	15°19.7 11°59.1	30°19.8 11°59.9	45°19.9 12°00.8	60°20.0 12°01.6	75°20.2 12°02.5	+0.1 +0.8
Lu 22	270°21.8 12°13.4	285°21.9 12°14.3	300°22.0 12°15.1	315°22.1 12°15.9	330°22.2 12°16.8	345°22.4 12°17.6	0°22.5 12°18.5	15°22.6 12°19.3	30°22.7 12°20.1	45°22.8 12°21.0	60°23.0 12°21.8	75°23.1 12°22.6	+0.1 +0.8
Ma 23	270°24.6 12°33.5	285°24.7 12°34.3	300°24.9 12°35.1	315°25.0 12°36.0	330°25.1 12°36.8	345°25.2 12°37.6	0°25.3 12°38.5	15°25.4 12°39.3	30°25.6 12°40.0	45°25.7 12°41.0	60°25.8 12°41.8	75°25.9 12°42.6	+0.1 +0.8
Me 24	270°27.4 12°53.3	285°27.5 12°54.2	300°27.6 12°55.0	315°27.7 12°55.8	330°27.8 12°56.6	345°27.9 12°57.5	0°28.0 12°58.3	15°28.2 12°59.1	30°28.3 12°59.9	45°28.4 13°00.7	60°28.5 13°01.6	75°28.6 13°02.4	+0.1 +0.8
Je 25	270°30.0 13°13.0	285°30.1 13°13.8	300°30.2 13°14.6	315°30.3 13°15.4	330°30.4 13°16.2	345°30.5 13°17.1	0°30.6 13°17.9	15°30.7 13°18.9	30°30.8 13°19.5	45°31.0 13°20.3	60°31.1 13°21.1	75°31.2 13°21.9	+0.1 +0.8
Ve 26	270°32.5 13°32.4	285°32.6 13°33.2	300°32.7 13°34.0	315°32.8 13°34.8	330°32.9 13°35.6	345°33.0 13°36.4	0°33.1 13°37.2	15°33.2 13°38.0	30°33.3 13°38.8	45°33.4 13°39.6	60°33.5 13°40.4	75°33.6 13°41.2	+0.1 +0.8
Sa 27	270°34.9 13°51.6	285°35.0 13°52.4	300°35.1 13°53.2	315°35.2 13°54.0	330°35.3 13°54.8	345°35.4 13°55.6	0°35.4 13°56.4	15°35.5 13°57.2	30°35.6 13°58.0	45°35.7 13°58.8	60°35.8 13°59.6	75°35.9 14°00.3	+0.1 +0.8
Di 28	270°37.1 14°10.6	285°37.2 14°11.4	300°37.3 14°12.2	315°37.4 14°12.9	330°37.5 14°13.7	345°37.6 14°14.5	0°37.7 14°15.3	15°37.7 14°16.1	30°37.8 14°16.9	45°37.9 14°17.7	60°38.0 14°18.4	75°38.1 14°19.2	+0.1 +0.8
Lu 29	270°39.2 14°29.3	285°39.3 14°30.1	300°39.4 14°30.9	315°39.5 14°31.7	330°39.6 14°32.4	345°39.6 14°33.2	0°39.7 14°40.4	15°39.8 14°41.3	30°39.9 14°42.1	45°40.0 14°43.1	60°40.0 14°43.7	75°40.1 14°37.8	+0.1 +0.8
Ma 30	270°41.2 14°47.8	285°41.3 14°48.6	300°41.4 14°49.4	315°41.4 14°50.1	330°41.5 14°50.9	345°41.6 14°51.7	0°41.7 14°52.4	15°41.8 14°53.2	30°41.8 14°54.0	45°41.9 14°54.7	60°42.0 14°55.5	75°42.1 14°56.2	+0.1 +0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Avril 2030

	J	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	Δ'/h	SP
●	Lu 1	244°49.5 1°02.5	259°23.1 1°14.7	273°56.8 1°26.9	288°30.4 1°39.0	303°04.1 1°51.2	317°37.7 2°03.3	332°11.4 2°15.5	346°45.1 2°27.6	1°18.8 2°31.8	15°52.5 2°51.8	30°26.6 3°03.8	+33.7 +12.1	15.1 55.4
	Ma 2	248°52.3 6°01.8	263°26.0 6°13.4	277°59.8 6°25.0	292°33.5 6°36.6	307°07.2 6°48.2	321°40.9 6°59.7	336°14.6 7°11.1	350°48.3 7°22.6	5°22.0 7°33.9	19°55.6 7°45.3	34°29.3 7°56.6	+33.7 +8.8	15.0 54.3
	Me 3	250°52.6 10°41.2	267°26.0 10°51.8	281°59.4 11°02.3	296°32.8 11°12.8	311°06.1 11°23.2	325°39.5 11°33.8	340°12.8 11°44.9	354°46.1 11°54.2	9°19.4 12°04.4	23°52.6 12°14.6	38°25.8 12°34.7	+33.3 +10.4	14.9 54.6
●	Je 4	256°41.2 14°49.0	271°14.0 14°58.1	285°46.8 15°07.1	300°19.6 15°16.1	314°52.3 15°25.0	329°25.0 15°33.8	343°57.7 15°42.6	358°30.3 15°51.2	13°02.9 15°59.8	27°35.5 16°08.4	42°08.0 16°16.9	+32.7 +8.8	14.8 54.3
	Ve 5	260°12.3 18°14.6	274°44.3 18°21.8	289°16.3 18°29.0	303°48.3 18°36.0	318°20.2 18°43.0	332°52.1 18°49.8	347°24.0 18°56.6	1°55.8 19°03.3	16°27.7 19°09.9	30°59.4 19°16.5	45°31.2 19°22.9	+31.9 +6.5	14.7 54.0
	Sa 6	263°23.5 20°48.7	277°54.8 20°53.6	292°26.0 20°58.5	306°57.2 21°03.3	321°28.3 21°08.0	335°59.5 21°12.6	350°30.6 21°17.1	5°01.6 21°21.5	16°32.7 21°25.8	34°03.7 21°30.0	48°34.7 21°34.0	+31.1 +4.5	14.7 54.0
●	Di 7	266°16.7 22°53.4	280°47.3 22°53.2	295°17.9 22°52.9	309°48.5 22°52.4	324°19.1 22°51.9	338°49.6 22°51.3	353°20.1 22°50.6	7°50.6 22°48.8	22°21.1 22°47.7	36°51.6 22°41.8	51°22.1 22°43.4	+30.5 +2.0	14.7 54.0
	Lu 8	268°57.4 22°33.1	283°27.6 22°33.0	297°57.9 22°33.5	312°28.2 22°30.5	326°58.4 22°32.7	341°28.6 22°30.3	355°58.9 22°28.5	10°29.1 22°25.3	24°59.3 22°35.1	39°29.6 22°45.9	53°59.8 22°51.2	+30.2 -3.4	14.8 54.9
	Ma 9	271°33.1 22°15.9	286°03.3 22°13.0	300°33.5 22°10.3	315°03.8 22°06.9	329°34.0 22°03.7	344°04.3 22°00.3	358°34.5 21°56.9	13°04.8 21°53.3	27°35.1 21°49.1	42°05.4 21°45.9	56°39.5 21°42.0	+30.3 -3.4	14.9 55.1
●	Me 10	274°11.1 20°31.4	288°41.5 20°25.9	303°12.0 20°20.2	317°42.4 20°14.5	332°12.9 20°08.6	346°43.4 20°02.7	1°13.9 19°50.7	15°44.4 19°50.5	30°15.0 19°44.3	44°45.5 19°37.9	59°16.1 19°31.5	+30.5 -6.0	15.0 55.1
	Je 11	276°55.9 17°43.0	291°26.7 17°35.0	305°57.5 17°26.9	320°28.2 17°18.8	334°59.0 17°10.5	349°29.8 17°02.1	4°00.7 16°53.7	18°31.5 16°45.1	33°02.3 16°36.5	47°33.2 16°27.8	62°04.0 16°18.9	+30.8 -8.4	15.2 55.8
	Ve 12	279°47.9 13°56.4	294°18.9 13°46.2	308°49.9 13°36.0	323°20.9 13°25.6	337°51.9 13°15.2	352°22.9 13°04.7	6°53.9 12°54.2	21°24.9 12°43.5	35°55.9 12°32.8	50°26.9 12°22.0	64°57.9 12°11.2	+31.0 -10.5	15.5 56.7
●	Sa 13	282°42.7 9°19.7	297°13.6 9°07.7	311°44.5 8°55.7	326°15.5 8°43.6	340°46.4 8°31.4	355°17.3 8°19.2	9°48.1 8°06.9	24°19.9 7°54.6	38°49.9 7°42.2	53°20.7 7°29.8	67°51.8 7°17.3	+30.9 -12.2	15.7 57.6
	Di 14	285°31.5 4°03.8	300°02.0 3°50.6	314°32.4 3°37.3	329°02.8 3°24.0	343°33.2 3°10.6	358°03.6 2°57.2	12°33.9 2°43.8	27°04.2 2°30.3	41°34.4 2°16.8	56°04.4 2°03.3	70°34.8 1°49.7	+30.3 -13.4	16.0 58.6
	Lu 15	288°02.6 -1°36.4	302°32.1 -1°50.2	317°01.6 -2°04.1	331°31.0 -2°18.0	346°00.3 -2°31.8	0°29.6 -2°45.7	14°58.8 -2°59.6	29°28.0 -3°13.5	43°57.1 -3°27.3	58°26.2 -3°41.2	72°55.2 -3°55.1	+29.3 -13.9	16.2 59.5
●	Ma 16	290°02.8 -7°21.5	304°30.8 -7°35.1	318°58.7 -7°48.6	333°26.5 -8°02.1	347°54.3 -8°15.6	2°22.0 -8°29.0	16°49.6 -8°42.4	31°17.1 -8°55.8	45°44.6 -9°09.1	60°12.0 -9°22.4	74°39.3 -9°35.6	+27.7 -13.4	16.5 60.3
	Me 17	291°19.9 -12°47.1	305°46.0 -12°59.4	320°12.0 -13°11.5	334°37.9 -13°23.6	349°03.7 -13°35.6	3°29.5 -13°47.5	17°55.2 -13°59.3	32°20.6 -14°11.0	46°46.3 -14°22.7	61°11.7 -14°34.2	75°37.5 -14°45.7	+25.7 -11.6	16.6 60.9
	Je 18	291°47.8 -17°25.2	306°12.0 -17°34.9	320°36.0 -17°44.5	335°00.0 -17°54.0	349°23.9 -18°03.4	3°47.7 -18°12.6	18°11.5 -18°21.7	32°35.2 -18°30.7	46°58.8 -18°39.5	61°22.3 -18°48.2	75°45.8 -18°56.8	+23.8 -9.2	16.7 61.1
●	Ve 19	291°31.4 -20°48.1	305°54.1 -20°54.3	320°16.7 -21°00.4	334°39.2 -21°06.3	349°01.8 -21°12.0	3°24.3 -21°17.6	17°46.7 -21°23.1	32°09.2 -21°28.3	46°31.6 -21°33.4	60°54.0 -21°38.4	75°16.3 -21°43.2	+22.5 -5.6	16.6 60.9
	Sa 20	290°50.1 -22°35.0	305°12.3 -22°37.1	319°34.5 -22°39.0	333°56.8 -22°40.8	348°19.1 -22°42.4	2°41.4 -22°43.8	17°03.7 -22°45.1	31°26.0 -22°46.2	45°48.4 -22°47.1	60°10.8 -22°47.1	74°33.2 -22°48.5	+22.3 -1.4	16.5 60.5
	Di 21	290°14.1 -23°37.6	304°37.2 -23°55.6	319°00.4 -23°33.4	333°23.6 -23°31.0	347°47.0 -22°28.5	2°10.3 -22°25.9	16°33.8 -22°23.1	30°57.3 -22°20.2	45°20.9 -22°17.1	59°44.5 -22°13.8	74°08.3 -22°10.4	+23.4 +2.7	16.3 59.8
●	Lu 22	304°37.2 -22°35.6	319°00.4 -22°33.4	333°23.6 -22°31.0	347°47.0 -22°28.5	2°10.3 -22°25.9	16°33.8 -22°23.1	30°57.3 -22°20.2	45°20.9 -22°17.1	59°44.5 -22°13.8	74°08.3 -22°10.4	88°32.1 -22°06.8	+23.5 +2.9	16.3 59.8
	Ma 23	304°38.9 -20°56.5	319°04.1 -20°50.8	333°29.3 -20°44.9	347°54.7 -20°38.9	2°20.1 -20°32.7	16°45.6 -20°26.4	31°11.3 -20°20.0	45°37.0 -20°13.5	60°02.8 -20°06.9	74°28.7 -20°00.2	88°54.8 -19°53.3	+25.6 +6.3	16.1 59.9
	Me 24	308°36.5 -17°57.3	320°04.0 -17°48.7	334°31.7 -17°40.1	348°59.5 -17°31.4	3°27.3 -17°31.4	17°55.3 -17°13.7	32°23.3 -17°04.7	46°51.5 -16°55.6	61°19.7 -16°46.4	75°48.1 -16°37.2	90°16.2 -16°27.9	+28.0 +8.9	15.9 58.2
●	Je 25	307°34.1 -13°59.1	322°04.0 -13°48.7	336°34.0 -13°38.2	351°04.1 -13°27.6	5°34.2 -13°17.6	20°04.4 -13°06.3	34°34.7 -12°55.5	49°05.1 -12°44.8	63°35.6 -12°33.9	78°06.2 -12°23.0	92°36.8 -12°12.1	+30.3 -10.7	15.6 57.3
	Ve 26	310°25.1 -9°22.7	324°56.9 -9°11.1	339°28.7 -9°01.6	354°00.6 -8°47.8	8°32.6 -8°36.2	23°04.6 -8°24.4	37°36.7 -8°12.7	52°08.9 -8°00.9	66°41.1 -7°49.2	81°13.3 -7°37.3	95°45.7 -7°25.5	+32.1 +11.7	15.4 56.6
	Sa 27	313°56.5 -4°25.8	328°29.6 -4°13.7	343°02.7 -4°01.6	357°35.9 -3°49.5	12°09.1 -3°37.4	26°42.4 -3°25.2	41°15.6 -3°13.1	55°48.9 -3°01.0	70°22.3 -2°48.9	84°55.7 -2°36.7	99°29.1 -2°24.6	+33.3 +12.5	15.2 55.9
●	Di 28	317°53.5 0°57.0	332°27.3 0°49.0	347°01.2 1°01.1	1°35.0 1°13.1	16°08.9 1°25.1	30°42.7 1°37.1	45°16.6 1°49.1	59°50.5 2°01.0	74°24.4 2°13.0	88°58.3 2°24.9	103°32.2 2°36.8	+33.9 +12.0	15.1 55.3
	Lu 29	322°01.8 5°32.9	336°35.7 5°44.4	351°09.7 5°55.9	5°43.7 6°07.3	20°17.6 6°18.8	34°51.6 6°30.2	49°25.5 6°41.6	63°59.5 6°52.9	78°33.4 7°04.2	93°07.3 7°15.5	107°41.2 7°26.7	+34.0 +11.4	15.0 54.8
	Ma 30	326°08.4 10°10.2	340°42.1 10°21.0	355°15.7 10°31.5	9°49.4 10°42.0	24°23.0 10°52.4	38°56.6 11°02.8	53°30.2 11°13.1	68°03.7 11°23.4	82°37.2 11°33.6	97°10.7 11°43.8	111°44.2 11°53.9	+33.6 +10.3	14.9 54.5

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
NL: 2 22h02 — PQ: 11 02h56 — PL: 18 03h20 — DQ: 24 18h39

SOLEIL

Mai 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Me 1	270°43.0	285°43.1	300°43.2	315°43.3	330°43.3	345°43.4	0°43.5	15°43.6	30°43.6	45°43.7	60°43.8	75°43.8	+0.1
	15°06.1	15°06.9	15°07.6	15°08.4	15°09.1	15°09.9	15°10.6	15°11.4	15°12.1	15°12.9	15°13.6	15°14.4	+0.8
Je 2	270°44.7	285°44.8	300°44.9	315°45.0	330°45.0	345°45.1	0°45.2	15°45.2	30°45.3	45°45.4	60°45.4	75°45.5	+0.1
	15°24.1	15°24.9	15°25.6	15°26.3	15°27.1	15°27.8	15°28.6	15°29.3	15°30.1	15°30.8	15°31.5	15°32.3	+0.7
Ve 3	270°46.3	285°46.4	300°46.4	315°46.5	330°46.6	345°46.6	0°46.7	15°46.8	30°46.8	45°46.9	60°46.9	75°47.0	+0.1
	15°41.9	15°42.6	15°43.3	15°44.1	15°44.8	15°45.5	15°46.3	15°47.0	15°47.7	15°48.5	15°49.2	15°49.9	+0.7
Sa 4	270°47.8	285°47.8	300°47.9	315°47.9	330°48.0	345°48.0	0°48.1	15°48.1	30°48.2	45°48.3	60°48.3	75°48.4	+0.1
	15°59.4	16°00.1	16°00.8	16°01.5	16°02.3	16°03.0	16°03.7	16°04.4	16°05.1	16°05.9	16°06.6	16°07.3	+0.7
Di 5	270°49.0	285°49.1	300°49.1	315°49.2	330°49.2	345°49.3	0°49.3	15°49.4	30°49.4	45°49.5	60°49.5	75°49.6	+0.0
	16°16.6	16°17.3	16°18.0	16°18.7	16°19.4	16°20.1	16°20.9	16°21.6	16°22.3	16°23.0	16°23.7	16°24.4	+0.7
Lu 6	270°50.2	285°50.2	300°50.3	315°50.3	330°50.4	345°50.4	0°50.5	15°50.5	30°50.6	45°50.6	60°50.6	75°50.7	+0.0
	16°33.5	16°34.2	16°34.9	16°35.6	16°36.3	16°37.0	16°37.7	16°38.4	16°39.1	16°39.8	16°40.5	16°41.2	+0.7
Ma 7	270°51.2	285°51.3	300°51.3	315°51.3	330°51.4	345°51.4	0°51.5	15°51.5	30°51.5	45°51.6	60°51.6	75°51.6	+0.0
	16°50.2	16°50.9	16°51.6	16°52.3	16°53.0	16°53.7	16°54.4	16°55.0	16°55.7	16°56.4	16°57.1	16°57.8	+0.7
Me 8	270°52.1	285°52.1	300°52.2	315°52.2	330°52.2	345°52.3	0°52.3	15°52.3	30°52.4	45°52.4	60°52.4	75°52.5	+0.0
	17°06.6	17°07.3	17°08.0	17°08.7	17°09.3	17°10.0	17°10.7	17°11.4	17°12.0	17°12.7	17°13.4	17°14.0	+0.7
Je 9	270°52.8	285°52.9	300°52.9	315°52.9	330°53.0	345°53.0	0°53.0	15°53.0	30°53.1	45°53.1	60°53.1	75°53.1	+0.0
	17°22.7	17°23.4	17°24.1	17°24.7	17°25.4	17°26.1	17°26.7	17°27.4	17°28.0	17°28.7	17°29.4	17°30.0	+0.7
Ve 10	270°53.4	285°53.5	300°53.5	315°53.5	330°53.5	345°53.6	0°53.6	15°53.6	30°53.6	45°53.6	60°53.7	75°53.7	+0.0
	17°38.6	17°39.2	17°39.9	17°40.5	17°41.2	17°41.8	17°42.5	17°43.1	17°43.8	17°44.4	17°45.1	17°45.7	+0.6
Sa 11	270°53.9	285°53.9	300°53.9	315°54.0	330°54.0	345°54.0	0°54.0	15°54.0	30°54.0	45°54.1	60°54.1	75°54.1	+0.0
	17°54.1	17°54.7	17°55.4	17°56.1	17°56.6	17°57.3	17°57.9	17°58.6	17°59.2	17°59.8	18°00.5	18°01.1	+0.6
Di 12	270°54.2	285°54.3	300°54.3	315°54.3	330°54.3	345°54.3	0°54.3	15°54.3	30°54.3	45°54.3	60°54.3	75°54.3	+0.0
	18°09.3	18°09.9	18°10.6	18°11.2	18°11.8	18°12.4	18°13.1	18°13.7	18°14.3	18°14.9	18°15.6	18°16.2	+0.6
Lu 13	270°54.4	285°54.4	300°54.4	315°54.4	330°54.5	345°54.5	0°54.5	15°54.5	30°54.5	45°54.5	60°54.5	75°54.5	+0.0
	18°24.2	18°24.8	18°25.5	18°26.1	18°26.7	18°27.3	18°27.9	18°28.5	18°29.1	18°29.7	18°30.3	18°31.0	+0.6
Ma 14	270°54.5	285°54.5	300°54.5	315°54.5	330°54.5	345°54.5	0°54.5	15°54.5	30°54.5	45°54.5	60°54.5	75°54.5	-0.0
	18°38.8	18°39.4	18°40.0	18°40.6	18°41.2	18°41.8	18°42.4	18°43.0	18°43.6	18°44.2	18°44.8	18°45.4	+0.6
Me 15	270°54.4	285°54.4	300°54.4	315°54.4	330°54.4	345°54.4	0°54.4	15°54.3	30°54.3	45°54.3	60°54.3	75°54.3	-0.0
	18°53.1	18°53.7	18°54.3	18°54.9	18°55.5	18°56.1	18°56.6	18°57.2	18°57.8	18°58.4	18°59.0	18°59.6	+0.6
Je 16	270°54.2	285°54.2	300°54.2	315°54.1	330°54.1	345°54.1	0°54.1	15°54.1	30°54.1	45°54.1	60°54.0	75°54.0	-0.0
	19°07.1	19°07.7	19°08.2	19°08.8	19°09.4	19°10.0	19°10.5	19°11.1	19°11.7	19°12.2	19°12.8	19°13.4	+0.6
Ve 17	270°53.8	285°53.8	300°53.8	315°53.8	330°53.7	345°53.7	0°53.7	15°53.7	30°53.7	45°53.6	60°53.6	75°53.6	-0.0
	19°20.7	19°21.3	19°21.9	19°22.4	19°23.0	19°23.5	19°24.1	19°24.7	19°25.2	19°25.8	19°26.3	19°26.9	+0.6
Sa 18	270°53.3	285°53.3	300°53.3	315°53.2	330°53.2	345°53.2	0°53.2	15°53.1	30°53.1	45°53.1	60°53.1	75°53.0	-0.0
	19°34.1	19°34.6	19°35.1	19°35.7	19°36.2	19°36.8	19°37.3	19°37.9	19°38.4	19°39.0	19°39.5	19°40.0	+0.5
Di 19	270°52.7	285°52.6	300°52.6	315°52.6	330°52.5	345°52.5	0°52.5	15°52.5	30°52.4	45°52.4	60°52.4	75°52.3	-0.0
	19°47.0	19°47.6	19°48.1	19°48.6	19°49.2	19°49.7	19°50.2	19°50.8	19°51.3	19°51.8	19°52.4	19°52.9	+0.5
Lu 20	270°51.9	285°51.9	300°51.8	315°51.8	330°51.7	345°51.7	0°51.7	15°51.6	30°51.6	45°51.6	60°51.5	75°51.5	-0.0
	19°59.7	20°00.2	20°00.7	20°01.2	20°01.8	20°02.3	20°02.8	20°03.3	20°03.8	20°04.3	20°04.9	20°05.4	+0.5
Ma 21	270°51.0	285°50.9	300°50.9	315°50.8	330°50.8	345°50.8	0°50.7	15°50.7	30°50.6	45°50.6	60°50.5	75°50.5	-0.0
	20°12.0	20°12.5	20°13.0	20°13.5	20°14.0	20°14.5	20°15.0	20°15.5	20°16.0	20°16.5	20°17.0	20°17.5	+0.5
Me 22	270°49.9	285°49.9	300°49.8	315°49.8	330°49.7	345°49.7	0°49.6	15°49.6	30°49.5	45°49.5	60°49.4	75°49.4	-0.0
	20°24.0	20°24.5	20°24.9	20°25.4	20°25.9	20°26.4	20°26.9	20°27.4	20°27.9	20°28.4	20°28.8	20°29.3	+0.5
Je 23	270°48.7	285°48.7	300°48.6	315°48.6	330°48.5	345°48.5	0°48.4	15°48.4	30°48.3	45°48.2	60°48.2	75°48.1	-0.1
	20°35.6	20°36.1	20°36.5	20°37.0	20°37.5	20°38.0	20°38.4	20°38.9	20°39.4	20°39.8	20°40.0	20°40.8	+0.5
Ve 24	270°47.4	285°47.3	300°47.3	315°47.2	330°47.2	345°47.1	0°47.1	15°47.0	30°46.9	45°46.9	60°46.8	75°46.8	-0.1
	20°46.8	20°47.3	20°47.8	20°48.2	20°48.7	20°49.1	20°49.6	20°50.1	20°50.5	20°51.0	20°51.4	20°51.9	+0.5
Sa 25	270°45.9	285°45.9	300°45.8	315°45.8	330°45.7	345°45.6	0°45.6	15°45.5	30°45.4	45°45.4	60°45.4	75°45.2	-0.1
	20°57.7	20°58.2	20°58.6	20°59.1	20°59.5	21°00.0	21°00.4	21°00.9	21°01.3	21°01.7	21°02.2	21°02.6	+0.4
Di 26	270°44.4	285°44.3	300°44.2	315°44.2	330°44.1	345°44.0	0°43.9	15°43.9	30°43.8	45°43.7	60°43.7	75°43.6	-0.1
	21°08.3	21°08.7	21°09.2	21°09.6	21°10.0	21°10.4	21°10.8	21°11.3	21°11.7	21°12.2	21°12.6	21°13.0	+0.4
Lu 27	270°42.7	285°42.6	300°42.5	315°42.4	330°42.4	345°42.3	0°42.2	15°42.1	30°42.1	45°42.0	60°41.9	75°41.8	-0.1
	21°18.5	21°18.9	21°19.3	21°19.7	21°20.1	21°20.5	21°20.9	21°21.4	21°21.8	21°22.2	21°22.6	21°23.0	+0.4
Ma 28	270°40.8	285°40.7	300°40.7	315°40.6	330°40.5	345°40.4	0°40.4	15°40.3	30°40.2	45°40.1	60°40.0	75°39.9	-0.1
	21°28.3	21°28.7	21°29.1	21°29.5	21°29.9	21°30.3	21°30.7	21°31.1	21°31.5	21°31.9	21°32.3	21°32.7	+0.4
Me 29	270°38.9	285°38.8	300°38.7	315°38.6	330°38.5	345°38.5	0°38.4	15°38.3	30°38.2	45°38.1	60°38.0	75°37.9	-0.1
	21°37.7	21°38.1	21°38.5	21°38.9	21°39.3	21°39.6	21°40.0	21°40.4	21°40.8	21°41.2	21°41.5	21°41.9	+0.4
Je 30	270°36.8	285°36.7	300°36.6	315°36.6	330°36.5	345°36.4	0°36.3	15°36.2	30°36.1	45°36.0	60°35.9	75°35.8	-0.1
	21°46.8	21°47.1	21°47.5	21°47.9	21°48.3	21°48.6	21°49.0	21°49.4	21°49.7	21°50.1	21°50.4	21°50.8	+0.4
Ve 31	270°34.7	285°34.6	300°34.5	315°34.4	330°34.3	345°34.2	0°34.1	15°34.0	30°33.9	45°33.8	60°33.7	75°33.6	-0.1
	21°55.5	21°55.8	21°56.2	21°56.5	21°56.9	21°57.2	21°57.6	21°57.9	21°58.3	21°58.6	21°59.0	21°59.3	+0.3

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Mai 2030

	J	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	Δ'/h	SP
●	Me 1	242°44.4 13°22.4	257°17.6 13°32.0	271°50.7 13°41.5	286°23.9 13°50.9	300°57.0 14°00.3	315°30.1 14°09.6	330°03.2 14°18.8	344°36.2 14°28.0	359°09.2 14°37.1	13°42.2 14°46.2	28°15.1 14°55.2	+33.1 +9.3	14.8 54.3
	Je 2	246°25.3 17°01.6	260°57.7 17°09.5	275°30.0 17°17.2	290°02.4 17°24.9	304°34.7 17°32.5	319°06.9 17°40.1	333°39.2 17°47.5	348°11.4 17°54.9	2°43.5 18°02.2	17°15.7 18°09.4	31°47.7 18°16.6	+32.2 +7.5	14.7 54.0
	Ve 3	249°44.9 19°53.5	264°16.5 19°59.3	278°48.0 20°05.0	293°19.5 20°10.5	307°50.9 20°16.0	322°22.3 20°21.4	336°53.7 20°26.7	351°25.0 20°32.0	5°56.4 20°37.1	20°27.6 20°42.1	34°58.9 20°47.0	+31.4 +5.4	14.7 53.9
●	Sa 4	252°44.3 21°49.4	267°15.1 21°52.7	281°45.9 21°56.0	296°16.7 21°59.1	310°47.4 22°02.2	325°18.1 22°05.2	339°48.8 22°08.0	354°19.5 22°10.8	8°50.2 22°13.4	23°20.8 22°16.0	37°51.5 22°18.4	+30.7 +2.9	14.7 53.9
	Di 5	255°28.9 22°42.4	269°59.3 22°43.2	284°29.7 22°43.8	299°00.1 22°44.4	313°30.4 22°44.8	328°00.8 22°45.1	342°31.2 22°45.3	357°01.5 22°45.5	11°31.9 22°45.5	26°02.2 22°45.4	40°32.5 22°45.2	+30.4 +0.3	14.7 54.0
	Lu 6	258°07.5 22°29.2	272°37.9 22°27.2	287°08.2 22°25.2	301°38.6 22°23.1	316°09.0 22°20.5	330°39.4 22°18.5	345°09.7 22°16.0	359°40.1 22°13.5	14°10.6 22°10.8	28°41.0 22°08.0	43°11.4 22°05.1	+30.4 -2.4	14.8 54.2
●	Ma 7	260°49.4 21°09.5	275°20.0 21°04.9	289°50.7 21°00.3	304°21.4 20°55.6	318°52.1 20°50.7	333°22.8 20°45.8	347°53.5 20°40.8	2°24.3 20°35.6	16°55.1 20°30.4	31°25.9 20°25.1	45°56.7 20°19.6	+30.7 -5.0	14.9 54.5
	Me 8	263°41.3 18°46.6	278°12.4 18°39.6	292°43.6 18°32.6	307°14.8 18°25.5	321°46.0 18°10.9	336°17.2 18°03.5	350°48.4 17°56.0	5°19.7 17°54.9	19°51.0 17°48.4	34°22.3 17°40.7	48°53.6 17°33.0	+31.2 -7.4	15.0 55.0
	Je 9	266°45.6 15°26.3	281°17.2 15°17.2	295°48.3 15°08.0	310°20.5 14°58.8	324°52.1 14°49.4	339°23.8 14°40.0	353°55.5 14°30.5	8°27.2 14°21.2	22°58.9 13°30.6	37°01.6 14°01.6	52°02.3 13°02.3	+31.7 -9.5	15.2 55.7
●	Ve 10	269°59.3 11°16.3	284°31.1 11°05.4	299°03.0 10°54.4	313°34.8 10°43.4	328°06.7 10°32.3	342°38.5 10°21.1	357°10.4 10°09.9	11°42.2 9°58.6	26°14.1 9°47.3	40°45.9 9°35.9	55°17.7 9°24.4	+31.8 -11.2	15.4 56.5
	Sa 11	273°14.4 6°25.9	287°46.1 6°13.5	302°17.7 6°01.2	316°49.9 5°48.8	331°21.0 5°36.3	345°52.6 5°23.9	360°24.2 5°11.3	4°24.2 4°58.7	29°27.3 4°46.1	43°58.8 4°33.5	58°30.3 4°20.8	+31.6 -12.5	15.6 57.4
	Di 12	276°19.1 1°06.2	290°50.0 0°53.0	305°21.0 0°39.8	319°51.8 0°26.0	334°22.7 0°13.3	348°53.5 0°00.0	363°24.2 -0°13.3	17°54.9 -0°26.6	32°25.6 -0°40.0	46°56.2 -0°53.3	61°26.8 -1°06.7	+30.8 -13.3	15.9 58.3
●	Lu 13	278°58.6 -4°28.1	293°28.3 -4°41.6	307°57.8 -4°55.0	322°27.3 -5°08.4	336°56.8 -5°21.8	351°26.1 -5°35.2	365°55.4 -5°48.6	20°24.7 -6°02.0	34°53.8 -6°15.3	49°22.9 -6°28.6	63°51.9 -6°42.0	+29.3 -13.4	16.2 59.3
	Ma 14	280°57.6 -9°58.3	295°25.3 -10°11.1	309°52.9 -10°23.9	324°20.5 -10°36.6	338°47.9 -10°49.3	353°15.3 -11°01.9	367°42.5 -11°26.9	22°09.7 -11°51.6	36°36.8 -11°39.3	51°03.8 -11°51.7	65°30.7 -12°04.0	+23.7 -12.6	16.4 60.2
	Me 15	283°02.9 -15°00.3	296°28.3 -15°11.4	310°53.6 -15°22.4	325°18.8 -15°33.3	339°43.9 -15°44.1	354°08.9 -15°54.8	368°33.3 -16°05.4	22°58.6 -16°15.9	37°23.3 -16°26.4	51°48.0 -16°36.7	66°12.5 -16°46.9	+25.0 -10.7	16.6 60.9
●	Je 16	285°05.9 -18°05.7	296°32.6 -19°13.9	310°55.7 -19°22.0	325°18.6 -19°30.0	339°41.5 -19°37.8	354°04.3 -19°45.5	368°27.0 -19°53.0	22°49.7 -20°00.4	37°12.3 -20°07.6	51°34.8 -20°14.7	66°57.2 -20°21.7	+22.8 -7.6	16.7 61.3
	Ve 17	281°26.7 -21°47.0	295°48.3 -21°51.3	310°09.9 -21°55.5	324°31.4 -21°59.6	338°52.9 -22°03.4	353°14.3 -22°07.1	367°35.8 -22°10.7	21°57.2 -22°14.0	36°18.6 -22°17.2	50°39.9 -22°20.2	65°01.3 -22°23.1	+21.4 -3.6	16.7 61.3
	Sa 18	280°21.3 -22°44.6	294°42.7 -22°44.6	309°04.1 -22°44.4	323°25.6 -22°44.1	337°47.1 -22°43.3	352°08.7 -22°43.0	366°30.2 -22°42.1	20°51.9 -22°41.1	35°13.5 -22°39.9	48°35.2 -22°38.6	63°57.9 -22°37.0	+21.6 +0.8	16.6 61.0
●	Di 19	279°30.1 -21°54.2	293°52.8 -21°50.1	308°15.7 -21°45.8	322°38.6 -21°41.4	337°01.6 -21°36.8	351°24.7 -21°32.0	365°47.9 -21°27.1	20°11.1 -21°22.1	34°34.5 -21°16.9	48°57.9 -21°11.6	63°21.4 -21°06.1	+23.1 +4.8	16.5 60.4
	Lu 20	279°26.0 -19°27.9	293°51.1 -19°20.3	308°16.4 -19°12.6	322°41.7 -19°04.8	337°02.6 -18°56.9	351°32.7 -18°48.9	365°58.4 -18°40.8	20°24.1 -18°32.6	34°50.0 -18°24.8	49°16.0 -18°15.8	63°42.0 -18°07.2	+25.6 +8.1	16.2 59.5
	Ma 21	280°26.3 -15°47.7	294°54.1 -15°37.7	309°22.0 -15°27.7	323°50.0 -15°17.5	338°50.0 -15°07.3	353°18.1 -14°57.0	367°46.3 -14°46.7	21°43.0 -14°36.2	36°11.6 -14°25.8	50°40.2 -14°15.2	65°08.9 -14°04.6	+28.3 +10.3	16.0 58.6
●	Me 22	294°54.1 -15°37.7	309°22.0 -15°27.7	323°50.0 -15°17.5	338°50.0 -15°07.3	353°18.1 -14°57.0	367°46.3 -14°46.7	381°14.6 -14°36.2	21°43.0 -14°25.8	36°11.6 -14°15.2	50°40.2 -14°04.6	65°08.9 -13°53.9	+28.4 +10.5	16.0 58.5
	Je 23	297°01.5 -17°07.0	311°31.8 -10°55.5	326°02.2 -10°55.5	340°32.7 -10°32.4	355°03.2 -10°09.1	369°33.9 -9°57.4	384°04.6 -9°45.7	24°04.6 -9°32.3	38°55.4 -9°20.8	53°06.3 -9°07.2	67°37.3 -8°52.1	+30.7 +9.5	15.7 57.5
	Ve 24	300°02.6 -6°10.1	314°34.7 -5°57.9	329°06.9 -5°45.8	343°39.2 -5°33.6	358°11.5 -5°21.4	372°43.9 -5°09.2	387°16.3 -4°57.0	27°16.3 -4°44.7	41°48.8 -4°32.5	56°21.3 -4°20.3	70°53.9 -4°08.0	+32.4 +12.2	15.4 56.6
●	Sa 25	303°41.7 -1°04.4	318°15.0 -0°52.2	332°48.4 -0°40.0	347°21.8 -0°27.8	361°55.2 -0°15.7	376°28.7 -0°03.5	391°02.2 0°08.6	45°35.7 0°20.8	60°09.2 0°32.9	74°42.8 0°45.0	89°16.4 0°57.1	+33.5 +12.2	15.2 58.5
	Di 26	307°42.7 3°56.3	322°16.5 4°08.0	336°50.4 4°19.8	351°24.3 4°31.5	365°58.2 4°43.1	380°32.1 4°54.8	395°06.4 5°06.4	49°39.9 5°18.0	64°13.8 5°29.6	78°47.8 5°41.1	93°21.7 5°52.6	+33.9 +11.6	15.0 58.2
	Lu 27	311°50.3 8°40.7	326°24.1 8°51.6	340°58.0 9°02.4	355°31.8 9°13.2	370°05.6 9°24.0	384°39.4 9°34.7	399°13.4 9°45.4	53°47.2 9°56.0	68°20.8 10°06.6	82°54.5 10°17.1	97°28.5 10°27.6	+33.8 +10.7	14.9 54.7
●	Ma 28	315°51.8 12°58.8	330°25.2 13°08.4	344°58.6 13°18.0	359°31.9 13°27.5	374°05.2 13°36.9	388°38.5 13°46.3	403°11.7 13°55.7	57°44.9 14°05.0	72°18.2 14°14.2	86°51.3 14°23.3	101°24.4 14°32.4	+33.3 +9.4	14.8 54.3
	Me 29	319°37.5 16°40.7	334°10.1 16°48.7	348°42.7 16°56.6	363°15.2 17°04.5	377°47.7 17°12.2	392°20.2 17°19.9	406°52.6 17°27.5	61°25.0 17°35.1	75°57.4 17°42.5	90°29.7 17°49.9	105°02.0 17°57.2	+32.4 +7.5	14.7 54.0
	Je 30	323°01.8 19°37.0	337°33.5 19°43.0	352°05.2 19°48.9	366°36.8 19°54.7	381°08.4 20°00.4	395°39.9 20°06.0	410°11.5 20°11.5	64°40.3 20°16.9	79°14.4 20°22.3	93°45.8 20°27.5	108°17.2 20°32.7	+31.5 +5.6	14.7 53.9
●	Ve 31	326°04.1 21°38.8	340°35.0 21°42.4	355°05.8 21°45.9	369°36.7 21°49.3	384°07.5 21°52.7	398°38.2 21°55.9	413°09.0 21°59.0	67°39.7 22°02.0	82°10.4 22°04.9	96°41.1 22°07.8	111°11.8 22°10.5	+30.8 +3.2	14.7 53.9

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
NL: 2 14h12 — PQ: 10 17h11 — PL: 17 11h19 — DQ: 24 04h57

SOLEIL

Juin 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	276°32.4 22°03.8	285°32.3 22°04.1	300°32.2 22°04.4	315°32.1 22°04.8	330°32.0 22°05.1	345°31.9 22°05.4	6°31.8 22°05.8	15°31.7 22°06.1	30°31.6 22°06.4	45°31.5 22°06.8	60°31.4 22°07.1	75°31.3 22°07.4	-0.1 +0.3
Di 2	270°30.0 22°11.7	285°29.9 22°12.0	300°29.8 22°12.3	315°29.7 22°12.6	330°29.6 22°13.0	345°29.5 22°13.3	0°29.4 22°13.6	15°29.3 22°13.9	30°29.2 22°14.2	45°29.1 22°14.5	60°29.0 22°14.9	75°28.9 22°15.2	-0.1 +0.3
Lu 3	270°27.5 22°19.2	285°27.4 22°19.5	300°27.3 22°19.8	315°27.2 22°20.1	330°27.1 22°20.4	345°27.0 22°20.7	0°26.9 22°21.0	15°26.8 22°21.3	30°26.7 22°21.6	45°26.6 22°21.9	60°26.5 22°22.2	75°26.4 22°22.5	-0.1 +0.3
Ma 4	270°25.0 22°26.3	285°24.9 22°26.6	300°24.8 22°26.9	315°24.7 22°27.2	330°24.6 22°27.5	345°24.5 22°27.8	0°24.3 22°28.1	15°24.2 22°28.4	30°24.1 22°28.6	45°24.0 22°28.9	60°23.9 22°29.2	75°23.8 22°29.5	-0.1 +0.3
Me 5	270°22.4 22°33.1	285°22.3 22°33.4	300°22.1 22°33.6	315°22.0 22°33.9	330°21.9 22°34.2	345°21.8 22°34.5	0°21.7 22°34.7	15°21.6 22°35.0	30°21.5 22°35.3	45°21.4 22°35.5	60°21.2 22°35.8	75°21.1 22°36.1	-0.1 +0.3
Je 6	270°19.6 22°39.4	285°19.5 22°39.7	300°19.4 22°40.0	315°19.3 22°40.2	330°19.2 22°40.5	345°19.1 22°40.7	0°19.0 22°41.0	15°18.8 22°41.2	30°18.7 22°41.5	45°18.6 22°41.7	60°18.5 22°42.0	75°18.4 22°42.2	-0.1 +0.3
Ve 7	270°16.9 22°45.4	285°16.7 22°45.6	300°16.6 22°45.9	315°16.5 22°46.1	330°16.4 22°46.4	345°16.3 22°46.6	0°16.2 22°46.8	15°16.0 22°47.1	30°15.9 22°47.3	45°15.8 22°47.5	60°15.7 22°47.8	75°15.6 22°48.0	-0.1 +0.2
Sa 8	270°14.0 22°51.0	285°13.9 22°51.2	300°13.8 22°51.4	315°13.7 22°51.6	330°13.5 22°51.8	345°13.4 22°52.1	0°13.3 22°52.3	15°13.2 22°52.5	30°13.1 22°52.7	45°12.9 22°52.9	60°12.8 22°53.1	75°12.7 22°53.4	-0.1 +0.2
Di 9	270°11.1 22°56.1	285°11.0 22°56.3	300°10.9 22°56.5	315°10.7 22°56.7	330°10.6 22°56.9	345°10.5 22°57.1	0°10.4 22°57.3	15°10.2 22°57.5	30°10.1 22°57.7	45°10.0 22°57.9	60°09.9 22°58.1	75°09.8 22°59.3	-0.1 +0.2
Lu 10	270°08.1 23°00.8	285°08.0 23°01.0	300°07.9 23°01.2	315°07.8 23°01.4	330°07.6 23°01.6	345°07.5 23°01.8	0°07.4 23°02.0	15°07.2 23°02.2	30°07.1 23°02.4	45°07.0 23°02.5	60°06.9 23°02.7	75°06.8 23°02.9	-0.1 +0.2
Ma 11	270°05.1 23°05.2	285°05.0 23°05.4	300°04.9 23°05.5	315°04.7 23°05.7	330°04.6 23°05.9	345°04.5 23°06.0	0°04.4 23°06.2	15°04.2 23°06.4	30°04.1 23°06.6	45°04.0 23°06.7	60°03.9 23°06.9	75°03.7 23°07.0	-0.1 +0.2
Me 12	270°02.1 23°09.3	285°01.9 23°09.4	300°01.8 23°09.4	315°01.7 23°09.6	330°01.5 23°09.7	345°01.4 23°09.9	0°01.3 23°10.0	15°01.2 23°10.2	30°01.0 23°10.3	45°00.9 23°10.5	60°00.8 23°10.7	75°00.6 23°10.8	-0.1 +0.2
Je 13	269°59.0 23°12.7	284°58.8 23°12.8	299°58.7 23°12.9	314°58.6 23°13.1	329°58.4 23°13.2	344°58.3 23°13.3	359°58.2 23°13.5	14°58.0 23°13.6	29°57.9 23°13.7	44°57.8 23°13.9	59°57.6 23°14.0	74°57.5 23°14.1	-0.1 +0.1
Ve 14	269°55.8 23°15.8	284°55.7 23°15.9	299°55.6 23°16.0	314°55.4 23°16.1	329°55.3 23°16.3	344°55.2 23°16.4	359°55.0 23°16.5	14°54.9 23°16.6	29°54.8 23°16.7	44°54.6 23°16.8	59°54.5 23°17.0	74°54.4 23°17.1	-0.1 +0.1
Sa 15	269°52.7 23°18.5	284°52.5 23°18.6	299°52.4 23°18.7	314°52.3 23°18.8	329°52.1 23°18.9	344°52.0 23°19.0	359°51.9 23°19.1	14°51.7 23°19.2	29°51.6 23°19.3	44°51.5 23°19.4	59°51.3 23°19.5	74°51.2 23°19.6	-0.1 +0.1
Di 16	269°49.5 23°20.8	284°49.3 23°20.9	299°49.2 23°21.0	314°49.1 23°21.0	329°48.9 23°21.1	344°48.8 23°21.2	359°48.7 23°21.3	14°48.5 23°21.4	29°48.4 23°21.5	44°48.3 23°21.5	59°48.1 23°21.6	74°48.0 23°21.7	-0.1 +0.1
Lu 17	269°46.2 23°22.7	284°46.1 23°22.7	299°46.0 23°22.8	314°45.8 23°22.9	329°45.7 23°22.9	344°45.6 23°23.0	359°45.4 23°23.1	14°45.3 23°23.1	29°45.2 23°23.2	44°45.0 23°23.3	59°44.9 23°23.3	74°44.8 23°23.4	-0.1 +0.1
Ma 18	269°43.0 23°24.1	284°42.9 23°24.2	299°42.7 23°24.2	314°42.6 23°24.3	329°42.5 23°24.3	344°42.3 23°24.4	359°42.2 23°24.4	14°42.1 23°24.5	29°42.0 23°24.5	44°41.8 23°24.6	59°41.7 23°24.6	74°41.5 23°24.7	-0.1 +0.0
Me 19	269°39.8 23°25.2	284°39.6 23°25.2	299°39.5 23°25.3	314°39.3 23°25.3	329°39.2 23°25.3	344°39.1 23°25.4	359°38.9 23°25.4	14°38.8 23°25.4	29°38.7 23°25.5	44°38.5 23°25.5	59°38.4 23°25.5	74°38.3 23°25.5	-0.1 +0.0
Je 20	269°36.5 23°25.8	284°36.4 23°25.9	299°36.2 23°25.9	314°36.1 23°25.9	329°36.0 23°25.9	344°35.8 23°25.9	359°35.7 23°25.9	14°35.6 23°26.0	29°35.4 23°26.0	44°35.3 23°26.0	59°35.1 23°26.0	74°35.0 23°26.0	-0.1 +0.0
Ve 21	269°33.2 23°26.1	284°33.1 23°26.1	299°33.0 23°26.1	314°32.8 23°26.1	329°32.7 23°26.1	344°32.6 23°26.1	359°32.4 23°26.1	14°32.3 23°26.1	29°32.2 23°26.1	44°32.0 23°26.1	59°31.9 23°26.1	74°31.7 23°26.1	-0.1 -0.0
Sa 22	269°30.0 23°25.9	284°29.9 23°25.9	299°29.7 23°25.9	314°29.6 23°25.8	329°29.4 23°25.8	344°29.3 23°25.8	359°29.2 23°25.8	14°29.0 23°25.8	29°28.9 23°25.8	44°28.8 23°25.7	59°28.6 23°25.7	74°28.5 23°25.7	-0.1 -0.0
Di 23	269°26.7 23°25.3	284°26.6 23°25.3	299°26.5 23°25.2	314°26.3 23°25.2	329°26.2 23°25.2	344°26.1 23°25.1	359°25.9 23°25.1	14°25.8 23°25.1	29°25.6 23°25.1	44°25.5 23°25.0	59°25.4 23°24.9	74°25.3 23°24.9	-0.1 -0.0
Lu 24	269°23.5 23°24.3	284°23.4 23°24.2	299°23.2 23°24.2	314°23.1 23°24.1	329°23.0 23°24.1	344°22.8 23°24.0	359°22.7 23°24.0	14°22.6 23°23.9	29°22.4 23°23.9	44°22.3 23°23.8	59°22.2 23°23.8	74°22.0 23°23.7	-0.1 -0.1
Ma 25	269°20.3 23°22.9	284°20.2 23°22.8	299°20.0 23°22.7	314°19.9 23°22.7	329°19.8 23°22.6	344°19.6 23°22.5	359°19.5 23°22.5	14°19.4 23°22.4	29°19.2 23°22.4	44°19.1 23°22.2	59°19.0 23°22.2	74°18.8 23°22.1	-0.1 -0.1
Me 26	269°17.1 23°21.0	284°17.0 23°21.0	299°16.8 23°20.9	314°16.7 23°20.8	329°16.6 23°20.7	344°16.5 23°20.6	359°16.3 23°20.5	14°16.2 23°20.4	29°16.0 23°20.3	44°15.9 23°20.3	59°15.8 23°20.2	74°15.7 23°20.1	-0.1 -0.1
Je 27	269°14.0 23°18.8	284°13.8 23°18.7	299°13.7 23°18.6	314°13.6 23°18.5	329°13.4 23°18.4	344°13.3 23°18.3	359°13.2 23°18.2	14°13.1 23°18.1	29°12.9 23°18.0	44°12.8 23°17.9	59°12.7 23°17.7	74°12.5 23°17.6	-0.1 -0.1
Ve 28	269°10.9 23°16.1	284°10.7 23°16.0	299°10.6 23°15.9	314°10.5 23°15.8	329°10.3 23°15.7	344°10.2 23°15.5	359°10.1 23°15.4	14°10.0 23°15.3	29°09.8 23°15.2	44°09.7 23°15.0	59°09.6 23°14.9	74°09.4 23°14.8	-0.1 -0.1
Sa 29	269°07.8 23°13.1	284°07.7 23°13.0	299°07.5 23°12.8	314°07.4 23°12.7	329°07.3 23°12.5	344°07.2 23°12.4	359°07.1 23°12.3	14°06.9 23°12.1	29°06.8 23°12.0	44°06.7 23°11.8	59°06.5 23°11.7	74°06.4 23°11.5	-0.1 -0.1
Di 30	269°04.8 23°09.6	284°04.7 23°09.5	299°04.5 23°09.3	314°04.4 23°09.2	329°04.3 23°09.0	344°04.2 23°08.8	359°04.0 23°08.7	14°03.9 23°08.5	29°03.8 23°08.4	44°03.7 23°08.2	59°03.5 23°08.1	74°03.4 23°07.9	-0.1 -0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juin 2030

	J	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	Δ'/h	SP
●	Sa 1	241°46.7 22°30.3	256°17.1 22°31.9	270°47.5 22°33.5	285°18.0 22°35.0	299°48.4 22°36.3	314°18.8 22°37.6	328°49.1 22°38.7	343°19.5 22°39.8	357°49.8 22°40.7	12°20.2 22°41.5	26°50.5 22°42.2	+30.4	14.7
		244°24.4 22°40.1	258°54.7 22°39.4	273°24.9 22°38.0	287°55.2 22°36.8	302°25.4 22°35.5	316°55.6 22°34.1	331°25.9 22°32.5	345°56.1 22°30.5	359°26.4 22°29.3	14°56.7 22°27.3	29°26.6 22°25.3	+30.2	14.8
●	Di 2	247°02.1 21°43.0	261°32.5 21°39.4	276°03.0 21°35.6	290°33.4 21°31.8	305°03.9 21°27.8	319°34.5 21°23.7	334°05.0 21°19.6	348°35.5 21°15.3	359°06.1 21°10.7	13°06.7 21°06.4	32°07.3 21°01.9	+30.5	14.8
		249°49.1 19°41.3	264°20.1 19°35.2	278°51.1 19°29.0	293°22.1 19°22.6	307°53.2 19°16.2	322°24.2 19°09.7	336°55.3 19°03.1	351°26.5 18°56.4	359°57.6 18°49.6	20°28.8 18°42.7	35°00.0 18°35.8	+31.1	14.9
●	Lu 3	252°51.3 16°40.8	267°22.9 16°32.4	281°54.6 16°24.0	296°26.3 16°15.5	310°58.0 16°07.0	325°29.7 15°58.3	340°01.4 15°49.6	354°33.2 15°40.7	359°05.0 15°31.9	23°36.8 15°22.9	38°08.7 15°13.9	+31.7	15.0
		256°08.9 12°49.5	270°41.1 12°39.4	285°13.3 12°29.1	299°45.5 12°18.8	314°17.7 12°08.5	328°49.9 11°58.0	343°22.2 11°47.5	357°54.4 11°37.0	359°26.7 11°26.4	26°59.0 11°15.7	41°31.3 11°05.0	+32.2	15.2
●	Me 4	259°36.7 8°17.3	274°09.0 8°05.7	288°41.4 7°54.0	303°13.8 7°42.3	317°46.2 7°30.6	332°18.6 7°18.8	346°51.0 7°07.0	359°23.4 6°55.1	359°55.7 6°43.2	30°28.1 6°31.2	45°00.5 6°19.2	+32.4	15.4
		263°04.5 3°14.7	277°36.7 3°02.1	292°08.8 2°49.4	306°40.9 2°36.9	321°12.9 2°24.3	335°45.0 2°11.6	350°17.0 1°58.9	359°17.0 1°46.2	359°20.9 1°33.5	33°52.9 1°20.7	48°24.2 1°07.8	+32.0	15.6
●	Sa 5	266°19.0 -2°05.8	280°50.2 -2°18.8	295°21.5 -2°31.8	309°52.6 -2°44.8	324°23.8 -2°57.8	338°54.9 -3°10.8	353°25.9 -3°23.8	359°56.9 -3°36.8	359°27.8 -3°49.8	36°58.7 -4°02.8	51°29.5 -4°15.8	+31.1	15.8
		269°04.2 -7°29.5	283°33.9 -7°42.2	298°03.6 -7°55.0	312°33.3 -8°07.7	327°02.8 -8°20.4	341°32.3 -8°33.0	356°01.7 -8°45.6	359°31.0 -8°58.1	359°00.2 -9°10.8	39°29.4 -9°23.3	53°58.4 -9°35.8	+29.4	16.1
●	Di 9	271°04.2 -12°37.7	285°31.9 -12°49.9	299°59.4 -13°01.0	314°26.9 -13°12.5	328°54.3 -13°24.0	343°21.6 -13°35.5	357°48.7 -13°46.8	359°15.8 -13°58.1	359°26.2 -14°09.3	41°09.7 -14°20.5	55°36.5 -14°31.5	+27.2	16.3
		275°06.5 -17°07.2	286°31.7 -17°16.8	300°56.8 -17°26.3	315°21.8 -17°35.7	329°46.7 -17°45.0	344°11.5 -17°54.2	358°36.2 -18°03.2	359°00.8 -18°12.2	359°25.3 -18°21.0	41°49.7 -18°29.7	56°14.1 -18°38.3	+24.8	16.5
●	Me 12	277°07.9 -20°31.7	286°30.8 -20°38.1	300°53.6 -20°44.5	315°16.3 -20°50.7	329°39.9 -20°56.7	344°01.6 -21°02.5	358°24.1 -21°08.2	359°01.2 -21°13.8	359°27.9 -21°19.9	41°31.3 -21°24.4	55°53.6 -21°29.5	+22.6	16.6
		280°20.9 -22°26.2	285°42.0 -22°28.8	300°53.8 -22°30.9	314°23.3 -22°33.0	328°46.3 -22°35.5	343°08.1 -22°36.7	357°29.5 -22°38.3	359°01.2 -22°39.7	359°26.2 -22°40.9	40°33.5 -22°41.9	54°54.8 -22°42.8	+21.4	16.7
●	Ve 14	276°15.3 -22°34.8	284°36.8 -22°32.9	298°58.4 -22°30.8	313°20.0 -22°28.5	327°41.6 -22°26.1	342°03.3 -22°23.5	356°25.0 -22°20.7	359°06.9 -22°17.8	359°25.8 -22°14.6	39°30.5 -22°11.4	53°52.4 -22°07.9	+21.7	16.6
		269°29.0 -20°57.1	283°52.0 -20°51.2	298°15.1 -20°45.1	312°38.3 -20°38.8	327°01.6 -20°32.5	341°25.0 -20°25.9	355°48.5 -20°19.3	359°12.0 -20°12.5	359°35.7 -20°05.6	38°59.4 -19°58.5	53°23.4 -19°51.3	+23.4	16.5
●	Di 16	269°32.8 -17°48.5	283°58.2 -17°39.4	298°23.8 -17°30.2	312°49.5 -17°20.9	327°15.2 -17°11.5	343°02.2 -17°02.0	357°30.8 -16°52.4	359°07.1 -16°42.2	359°24.9 -16°32.9	39°25.7 -16°23.1	53°52.1 -16°13.1	+25.9	16.3
		270°40.8 -13°33.9	285°08.9 -13°22.7	299°37.1 -13°11.4	314°05.4 -13°00.1	328°33.7 -12°48.7	343°02.2 -12°37.3	357°30.8 -12°25.8	359°07.1 -12°14.3	359°24.9 -12°02.7	40°57.1 -11°51.1	55°26.0 -11°39.4	+28.5	16.0
●	Ma 18	272°51.2 -8°39.2	287°21.5 -8°26.9	301°52.0 -8°14.6	316°22.5 -8°02.3	330°53.1 -7°49.9	345°23.7 -7°37.6	359°54.5 -7°25.2	359°25.3 -7°12.8	359°56.2 -7°00.3	43°27.2 -6°47.9	57°58.2 -6°35.4	+30.7	15.8
		275°51.9 -9°27.3	290°23.9 -9°14.7	304°56.0 -9°02.1	319°28.2 -8°49.5	334°00.4 -8°37.0	348°32.7 -8°24.4	357°05.0 -8°11.9	359°17.3 -7°59.3	359°37.4 -7°46.8	46°42.3 -7°34.3	61°14.8 -7°21.7	+32.3	15.5
●	Je 20	290°23.9 -9°14.7	304°56.0 -9°02.1	319°28.2 -8°49.5	334°00.4 -8°37.0	348°32.7 -8°24.4	357°05.0 -8°11.9	359°17.3 -7°59.3	359°37.4 -7°46.8	359°56.2 -7°34.3	46°42.3 -7°21.7	61°14.8 -7°09.2	+32.3	15.5
		293°41.7 -18°37.4	308°33.5 -18°44.2	323°06.6 -18°50.9	337°39.8 -18°57.5	352°13.0 -19°04.1	352°43.0 -19°10.4	352°73.0 -19°16.7	352°103.0 -19°23.0	352°19.5 -19°29.5	352°35.2 -19°35.2	352°50.5 -19°41.2	+33.2	15.3
●	Sa 22	294°00.3 1°56.6	308°33.5 2°08.8	323°06.6 2°21.0	337°39.8 2°33.2	352°13.0 2°45.3	352°43.0 2°57.5	352°73.0 3°09.6	352°103.0 3°21.6	352°19.5 3°33.7	352°35.2 3°45.7	352°50.5 3°57.7	+33.2	15.3
		297°54.6 6°53.5	312°28.1 7°04.9	327°01.7 7°16.3	341°35.2 7°27.6	356°08.8 7°38.9	356°38.8 7°50.2	356°68.8 8°01.4	356°98.8 8°12.6	356°128.8 8°23.9	356°158.8 8°34.8	356°188.8 8°45.8	+33.5	15.1
●	Di 23	301°52.2 11°25.4	316°25.6 11°35.6	330°59.0 11°45.8	345°32.4 11°55.9	359°32.7 12°05.9	373°32.7 12°15.9	387°32.7 12°25.9	399°32.7 12°35.7	411°32.7 12°45.7	423°32.7 12°55.7	435°32.7 13°05.7	+33.3	14.9
		305°41.2 15°23.0	320°14.1 15°31.6	334°46.9 15°40.2	349°19.7 15°48.7	363°52.4 15°57.2	378°25.2 16°05.6	392°57.9 16°13.9	406°57.9 16°22.3	420°57.9 16°30.7	434°57.9 16°38.1	448°57.9 16°45.4	+32.7	14.8
●	Me 25	309°13.1 18°37.4	323°45.1 18°44.2	338°17.1 18°50.9	352°49.1 18°57.5	367°21.0 19°04.1	381°52.9 19°10.4	396°24.8 19°16.7	410°56.7 19°23.0	425°28.5 19°29.5	439°51.2 19°35.2	453°51.2 19°41.2	+31.9	14.7
		312°23.8 21°00.3	326°55.0 21°08.8	341°26.1 21°16.3	355°57.2 21°23.6	370°28.3 21°29.7	384°59.3 21°35.9	399°30.8 21°42.1	413°51.0 21°48.3	427°51.0 21°54.5	441°51.0 22°00.7	455°51.0 22°06.9	+31.0	14.7
●	Je 27	315°14.6 22°24.0	329°45.1 22°26.1	344°15.5 22°28.2	358°46.0 22°29.8	373°16.4 22°31.1	387°46.8 22°33.1	402°17.2 22°34.6	416°47.2 22°36.0	430°77.2 22°37.5	445°77.2 22°38.5	460°77.2 22°39.5	+30.4	14.7
		317°51.9 22°43.0	332°22.0 22°42.3	346°52.1 22°41.6	361°22.3 22°40.7	375°52.4 22°39.7	390°22.5 22°38.7	404°52.6 22°37.5	419°22.6 22°36.2	433°52.6 22°34.8	448°52.6 22°33.3	463°52.6 22°31.7	+30.1	14.8
●	Sa 29	320°25.4 21°54.5	334°55.6 21°51.2	349°25.9 21°47.8	356°1.1 21°44.2	370°26.4 21°40.6	384°56.6 21°36.8	399°26.9 21°33.0	413°57.2 21°29.0	428°27.5 21°24.5	442°57.5 21°20.8	457°27.5 21°16.5	+30.3	14.8

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24

NL: 1 06h21 — PQ: 9 03h35 — PL: 15 18h41 — DQ: 22 17h19 — NL: 30 21h34

SOLEIL

Juillet 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	268°01.8	284°01.7	299°01.6	314°01.5	329°01.3	344°01.2	356°01.1	14°01.0	29°00.9	44°00.7	59°00.6	74°00.5	-0.1
	23°05.7	23°05.6	23°05.4	23°05.2	23°05.1	23°04.9	23°04.7	23°04.5	23°04.2	23°04.0	23°04.0	23°03.8	-0.2
Ma 2	268°58.9	283°58.8	298°58.7	313°58.6	328°58.5	343°58.3	358°58.2	13°58.1	28°58.0	43°57.9	58°57.8	73°57.6	-0.1
	23°01.5	23°01.3	23°01.1	23°00.9	23°00.7	23°00.5	23°00.3	23°00.1	22°59.9	22°59.8	22°59.6	22°59.4	-0.2
Me 3	268°56.1	283°56.0	298°55.9	313°55.8	328°55.7	343°55.5	358°55.4	13°55.3	28°55.2	43°55.1	58°55.0	73°54.9	-0.1
	22°56.8	22°56.6	22°56.4	22°56.2	22°56.0	22°55.8	22°55.6	22°55.3	22°55.1	22°54.9	22°54.7	22°54.5	-0.2
Je 4	268°53.4	283°53.3	298°53.2	313°53.1	328°52.9	343°52.8	358°52.7	13°52.6	28°52.5	43°52.4	58°52.3	73°52.2	-0.1
	22°51.7	22°51.5	22°51.3	22°51.0	22°50.8	22°50.6	22°50.4	22°50.1	22°49.9	22°49.7	22°49.5	22°49.2	-0.2
Ve 5	268°50.7	283°50.6	298°50.5	313°50.4	328°50.3	343°50.2	358°50.1	13°50.0	28°49.9	43°49.8	58°49.7	73°49.5	-0.1
	22°46.2	22°46.0	22°45.8	22°45.5	22°45.3	22°45.0	22°44.8	22°44.6	22°44.3	22°44.1	22°43.8	22°43.6	-0.2
Sa 6	268°48.2	283°48.1	298°48.0	313°47.9	328°47.8	343°47.7	358°47.5	13°47.4	28°47.3	43°47.2	58°47.1	73°47.0	-0.1
	22°40.4	22°40.1	22°39.8	22°39.6	22°39.3	22°39.1	22°38.8	22°38.6	22°38.3	22°38.1	22°37.8	22°37.5	-0.3
Di 7	268°45.7	283°45.6	298°45.5	313°45.4	328°45.3	343°45.2	358°45.1	13°45.0	28°44.9	43°44.8	58°44.7	73°44.6	-0.1
	22°34.1	22°33.8	22°33.6	22°33.3	22°33.0	22°32.7	22°32.5	22°32.2	22°31.9	22°31.6	22°31.4	22°31.1	-0.3
Lu 8	268°43.3	283°43.2	298°43.1	313°43.0	328°43.0	343°42.9	358°42.8	13°42.7	28°42.6	43°42.5	58°42.4	73°42.3	-0.1
	22°27.4	22°27.2	22°26.9	22°26.6	22°26.3	22°26.0	22°25.7	22°25.4	22°25.1	22°24.8	22°24.5	22°24.3	-0.3
Ma 9	268°41.1	283°41.0	298°40.9	313°40.8	328°40.7	343°40.6	358°40.5	13°40.4	28°40.3	43°40.2	58°40.0	73°40.0	-0.1
	22°20.4	22°20.1	22°19.8	22°19.5	22°19.2	22°18.9	22°18.6	22°18.3	22°18.0	22°17.7	22°17.3	22°17.0	-0.3
Me 10	268°38.9	283°38.8	298°38.7	313°38.7	328°38.6	343°38.5	358°38.4	13°38.3	28°38.2	43°38.1	58°38.1	73°38.0	-0.1
	22°13.0	22°12.7	22°12.3	22°12.0	22°11.7	22°11.4	22°11.1	22°10.7	22°10.2	22°10.0	22°09.8	22°09.4	-0.3
Je 11	268°36.9	283°36.8	298°36.7	313°36.6	328°36.6	343°36.5	358°36.4	13°36.3	28°36.2	43°36.1	58°36.1	73°36.0	-0.1
	22°05.2	22°04.8	22°04.5	22°04.2	22°03.8	22°03.5	22°03.2	22°02.8	22°02.2	22°02.0	22°01.8	22°01.5	-0.3
Ve 12	268°35.0	283°34.9	298°34.8	313°34.7	328°34.6	343°34.6	358°34.5	13°34.4	28°34.3	43°34.3	58°34.2	73°34.1	-0.1
	21°57.6	21°56.6	21°56.3	21°55.9	21°55.6	21°55.2	21°54.9	21°54.5	21°54.2	21°53.8	21°53.5	21°53.1	-0.4
Sa 13	268°33.2	283°33.1	298°33.0	313°32.9	328°32.9	343°32.8	358°32.7	13°32.6	28°32.6	43°32.5	58°32.4	73°32.4	-0.1
	21°48.4	21°48.0	21°47.7	21°47.3	21°47.0	21°46.6	21°46.2	21°45.8	21°45.5	21°45.1	21°44.7	21°44.4	-0.4
Di 14	268°31.5	283°31.4	298°31.3	313°31.3	328°31.2	343°31.1	358°31.1	13°31.0	28°30.9	43°30.9	58°30.8	73°30.7	-0.1
	21°39.5	21°39.1	21°38.7	21°38.3	21°38.0	21°37.6	21°37.2	21°36.8	21°36.4	21°36.0	21°35.7	21°35.3	-0.4
Lu 15	268°29.9	283°29.9	298°29.8	313°29.7	328°29.7	343°29.6	358°29.5	13°29.5	28°29.4	43°29.4	58°29.3	73°29.2	-0.1
	21°30.2	21°29.8	21°29.4	21°29.0	21°28.6	21°28.2	21°27.8	21°27.4	21°27.0	21°26.6	21°26.2	21°25.8	-0.4
Ma 16	268°28.5	283°28.4	298°28.4	313°28.3	328°28.3	343°28.2	358°28.1	13°28.1	28°28.0	43°28.0	58°27.9	73°27.9	-0.1
	21°20.5	21°20.1	21°19.7	21°19.3	21°18.9	21°18.5	21°18.0	21°17.6	21°17.2	21°16.8	21°16.4	21°16.0	-0.4
Me 17	268°27.2	283°27.1	298°27.1	313°27.0	328°27.0	343°26.9	358°26.9	13°26.8	28°26.8	43°26.7	58°26.7	73°26.6	-0.1
	21°10.5	21°10.1	21°09.6	21°09.2	21°08.8	21°08.3	21°07.9	21°07.5	21°07.1	21°06.6	21°06.2	21°05.8	-0.4
Je 18	268°26.0	283°26.0	298°25.9	313°25.9	328°25.8	343°25.8	358°25.7	13°25.7	28°25.6	43°25.6	58°25.6	73°25.5	-0.1
	21°00.1	20°59.7	20°59.2	20°58.8	20°58.3	20°57.9	20°57.4	20°57.0	20°56.6	20°56.1	20°55.7	20°55.2	-0.4
Ve 19	268°25.0	283°24.9	298°24.9	313°24.8	328°24.8	343°24.8	358°24.7	13°24.7	28°24.6	43°24.6	58°24.6	73°24.5	-0.0
	20°49.4	20°48.9	20°48.4	20°48.0	20°47.5	20°47.1	20°46.6	20°46.1	20°45.7	20°45.2	20°44.8	20°44.3	-0.5
Sa 20	268°24.1	283°24.0	298°24.0	313°23.9	328°23.9	343°23.9	358°23.8	13°23.8	28°23.8	43°23.7	58°23.7	73°23.7	-0.0
	20°38.3	20°37.8	20°37.3	20°36.8	20°36.4	20°35.9	20°35.4	20°35.0	20°34.5	20°34.0	20°33.5	20°33.1	-0.5
Di 21	268°23.3	283°23.3	298°23.2	313°23.2	328°23.2	343°23.1	358°23.1	13°23.1	28°23.1	43°23.0	58°23.0	73°23.0	-0.0
	20°26.8	20°26.3	20°25.8	20°25.4	20°24.9	20°24.4	20°23.9	20°23.4	20°22.9	20°22.4	20°21.9	20°21.4	-0.5
Lu 22	268°22.6	283°22.6	298°22.6	313°22.6	328°22.6	343°22.5	358°22.5	13°22.5	28°22.5	43°22.4	58°22.4	73°22.4	-0.0
	20°15.0	20°14.5	20°14.0	20°13.5	20°13.0	20°12.5	20°12.0	20°11.5	20°11.0	20°10.5	20°10.0	20°09.5	-0.5
Ma 23	268°22.1	283°22.1	298°22.1	313°22.1	328°22.1	343°22.1	358°22.0	13°22.0	28°22.0	43°22.0	58°22.0	73°22.0	-0.0
	20°02.9	20°02.4	20°01.9	20°01.4	20°00.8	20°00.3	19°59.8	19°59.3	19°58.8	19°58.3	19°57.7	19°57.2	-0.5
Me 24	268°21.8	283°21.8	298°21.8	313°21.8	328°21.7	343°21.7	358°21.7	13°21.7	28°21.7	43°21.7	58°21.7	73°21.7	-0.0
	19°50.4	19°49.9	19°49.4	19°48.8	19°48.3	19°47.8	19°47.3	19°46.7	19°46.2	19°45.7	19°45.1	19°44.6	-0.5
Je 25	268°21.6	283°21.6	298°21.6	313°21.6	328°21.6	343°21.6	358°21.5	13°21.5	28°21.5	43°21.5	58°21.5	73°21.5	-0.0
	19°37.6	19°37.1	19°36.5	19°36.0	19°35.5	19°34.9	19°34.4	19°33.8	19°33.3	19°32.7	19°32.2	19°31.7	-0.5
Ve 26	268°21.5	283°21.5	298°21.5	313°21.5	328°21.5	343°21.5	358°21.5	13°21.5	28°21.5	43°21.5	58°21.5	73°21.5	+0.0
	19°24.5	19°24.0	19°23.4	19°22.8	19°22.3	19°21.7	19°21.2	19°20.6	19°20.1	19°19.5	19°18.9	19°18.4	-0.6
Sa 27	268°21.6	283°21.6	298°21.6	313°21.6	328°21.6	343°21.6	358°21.6	13°21.6	28°21.6	43°21.6	58°21.6	73°21.6	+0.0
	19°11.1	19°10.6	19°09.9	19°09.4	19°08.8	19°08.2	19°07.7	19°07.1	19°06.5	19°05.9	19°05.4	19°04.8	-0.6
Di 28	268°21.2	283°21.2	298°21.2	313°21.2	328°21.2	343°21.2	358°21.1	13°21.1	28°21.1	43°21.1	58°21.1	73°21.1	+0.0
	18°57.3	18°56.7	18°56.1	18°55.6	18°55.0	18°54.4	18°53.8	18°53.2	18°52.6	18°52.1	18°51.5	18°50.9	-0.6
Lu 29	268°22.2	283°22.2	298°22.2	313°22.2	328°22.2	343°22.2	358°22.2	13°22.2	28°22.2	43°22.2	58°22.2	73°22.2	+0.0
	18°43.2	18°42.6	18°42.0	18°41.4	18°40.8	18°40.3	18°39.7	18°39.1	18°38.5	18°37.9	18°37.3	18°36.7	-0.6
Ma 30	268°22.7	283°22.7	298°22.8	313°22.8	328°22.8	343°22.8	358°22.9	13°22.9	28°22.9	43°23.0	58°23.0	73°23.0	+0.0
	18°28.8	18°28.2	18°27.6	18°27.0	18°26.4	18°25.8	18°25.2	18°24.6	18°24.0	18°23.4	18°22.8	18°22.2	-0.6
Me 31	268°23.4	283°23.4	298°23.5	313°23.5	328°23.5	343°23.6	358°23.6	13°23.6	28°23.7	43°23.7	58°23.7	73°23.8	+0.0
	18°14.2	18°13.5	18°12.9	18°12.3	18°11.7	18°11.1	18°10.4	18°09.8	18°09.2	18°08.6	18°08.0	18°07.3	-0.6

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juillet 2030

J	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	Δ'/h SP
Lu 1	236°02.1	250°32.6	265°03.2	279°33.7	294°04.3	308°34.9	323°05.6	337°36.2	352°06.9	6°37.7	21°08.4	+30.6 14.9
	20°33.4	20°28.2	20°22.8	20°17.3	20°11.7	20°06.0	20°00.2	19°54.3	19°48.4	19°42.3	19°36.1	-5.7 54.7
Ma 2	238°52.5	253°23.7	267°54.9	282°26.1	296°57.3	311°28.6	325°59.9	340°31.2	355°02.5	9°33.9	24°05.3	+31.3 15.0
	17°52.4	17°44.8	17°37.0	17°29.2	17°21.3	17°13.4	17°05.3	16°57.2	16°48.9	16°40.6	16°32.2	-8.0 55.1
Me 3	241°59.6	256°31.4	271°03.2	285°35.1	300°07.0	314°38.9	329°10.9	343°42.8	358°14.8	12°46.8	27°18.8	+31.9 15.1
	14°17.0	14°07.3	13°57.7	13°47.9	13°38.1	13°28.2	13°18.2	13°08.2	12°58.1	12°48.0	12°37.8	-9.8 55.5
Je 4	245°21.6	259°53.9	274°26.2	288°58.5	303°30.9	318°03.2	332°35.6	347°08.0	1°40.4	16°12.8	30°45.2	+32.4 15.3
	9°57.2	9°46.1	9°34.9	9°23.6	9°12.3	9°00.9	8°49.5	8°38.1	8°26.6	8°15.1	8°03.5	-11.4 56.0
Ve 5	248°51.7	263°24.2	277°56.6	292°29.0	307°01.4	321°33.9	336°06.3	350°38.6	5°11.0	19°43.4	34°15.8	+32.4 15.4
	5°04.7	4°52.5	4°40.3	4°28.0	4°15.7	4°03.4	3°51.1	3°38.7	3°26.3	3°13.8	3°01.4	-12.3 56.6
Sa 6	252°19.2	266°51.2	281°23.3	295°55.3	310°27.2	324°59.2	339°31.1	354°03.0	8°34.8	23°06.6	37°38.4	+31.9 15.6
	-0°07.8	-0°20.5	-0°33.3	-0°46.0	-0°58.8	-1°11.5	-1°24.3	-1°37.0	-1°49.8	-2°02.6	-2°15.4	-12.8 57.2
Di 7	255°30.1	270°01.2	284°32.3	299°03.2	313°34.2	328°05.0	342°35.8	357°06.6	11°37.3	26°07.9	40°38.5	+30.8 15.8
	-5°26.4	-5°39.1	-5°51.7	-6°04.3	-6°16.9	-6°29.5	-6°42.1	-6°54.6	-7°07.1	-7°19.6	-7°32.1	-12.6 57.9
Lu 8	258°09.5	272°39.0	287°08.5	301°37.8	316°07.1	330°36.3	345°05.4	359°34.5	14°03.4	28°32.3	43°01.1	+29.2 16.0
	-10°35.1	-10°47.0	-10°58.9	-11°10.7	-11°22.4	-11°34.1	-11°45.7	-11°57.3	-12°08.8	-12°20.3	-12°31.7	-11.7 58.6
Ma 9	260°03.1	274°30.5	288°57.9	303°25.1	317°52.3	332°19.4	346°46.3	1°13.2	15°40.0	30°06.7	44°33.4	+27.0 16.2
	-15°15.1	-15°25.4	-15°35.6	-15°45.7	-15°55.8	-16°05.7	-16°15.6	-16°25.4	-16°35.1	-16°44.7	-16°54.4	-9.9 59.3
Me 10	261°01.6	275°26.8	289°51.8	304°16.8	318°41.7	333°06.5	347°31.2	1°55.9	16°20.4	30°44.9	45°09.3	+24.8 16.3
	-19°04.4	-19°12.2	-19°19.8	-19°27.4	-19°34.8	-19°42.1	-19°49.3	-19°56.6	-20°03.2	-20°10.0	-20°16.7	-7.2 59.8
Je 11	261°05.9	275°29.1	289°52.3	304°15.4	318°38.4	333°01.4	347°24.3	1°47.2	16°10.0	30°32.8	44°55.5	+23.0 16.4
	-21°40.0	-21°44.4	-21°48.6	-21°52.7	-21°56.6	-22°00.4	-22°04.0	-22°07.5	-22°10.8	-22°13.9	-22°16.9	-3.7 60.3
Ve 12	261°31.9	274°54.1	289°16.4	303°38.6	318°00.8	332°22.9	346°45.1	1°07.3	15°29.5	29°51.7	44°13.9	+22.2 16.5
	-22°42.2	-22°42.6	-22°42.8	-22°42.8	-22°42.7	-22°42.4	-22°41.9	-22°41.2	-22°40.4	-22°39.4	-22°38.3	+0.4 60.5
Sa 13	259°48.8	274°11.4	288°34.3	302°56.7	317°19.4	331°42.1	346°04.9	0°27.8	14°50.7	29°13.6	43°36.6	+22.8 16.5
	-22°01.1	-21°57.4	-21°53.4	-21°49.3	-21°45.1	-21°40.6	-21°36.1	-21°31.3	-21°26.5	-21°21.4	-21°16.2	+4.5 60.5
Di 14	259°29.6	273°53.7	288°17.9	302°42.2	317°06.6	331°29.3	345°55.1	0°20.1	14°44.8	29°09.6	43°34.5	+24.5 16.4
	-19°41.0	-19°33.5	-19°25.9	-19°18.2	-19°10.4	-19°02.4	-18°54.3	-18°46.1	-18°37.8	-18°29.3	-18°20.7	-8.0 60.2
Lu 15	259°58.4	274°24.7	288°51.2	303°17.7	317°44.3	332°11.0	346°37.8	1°04.7	15°31.7	29°58.8	44°25.9	+26.8 16.2
	-15°59.0	-15°48.8	-15°38.5	-15°28.0	-15°17.5	-15°07.0	-14°56.3	-14°45.5	-14°34.8	-14°23.8	-14°12.8	-10.6 59.6
Ma 16	261°24.5	275°53.1	290°21.8	304°50.6	319°19.5	333°48.4	348°17.4	2°46.6	17°15.8	31°45.1	46°14.4	+29.0 16.0
	-11°19.9	-11°08.0	-11°05.9	-11°03.9	-11°01.7	-11°01.6	-11°01.3	-9°55.1	-9°42.8	-9°30.5	-9°18.1	-12.2 58.8
Me 17	263°44.0	278°14.6	292°45.2	307°15.9	321°46.6	336°17.4	350°48.3	5°19.2	19°50.2	34°21.3	48°52.4	+30.8 15.8
	-0°09.2	-5°56.4	-5°43.6	-5°30.8	-5°18.0	-5°05.2	-4°52.4	-4°39.6	-4°26.7	-4°13.9	-4°01.1	-12.8 57.9
Je 18	266°45.6	281°17.5	295°49.5	310°21.5	324°53.6	339°25.7	353°57.8	8°30.0	23°02.2	37°34.4	52°06.7	+32.1 15.6
	-0°48.8	-0°36.1	-0°23.3	-0°10.6	0°02.1	0°14.8	0°27.5	0°40.1	0°52.7	1°05.3	1°17.9	-12.7 57.0
Ve 19	270°14.7	284°47.4	299°20.2	313°52.9	328°25.7	342°58.5	357°31.4	12°04.2	26°37.0	41°09.9	55°42.8	+32.8 15.3
	4°23.5	4°35.6	4°47.7	4°59.8	5°11.8	5°23.7	5°35.7	5°47.6	5°59.4	6°11.2	6°23.0	-12.0 56.2
Sa 20	273°57.0	288°30.0	303°03.0	317°36.0	332°08.9	346°41.9	1°14.9	15°47.9	30°20.8	44°53.8	59°26.7	+33.0 15.1
	9°14.2	9°25.2	9°36.2	9°47.1	9°58.0	10°08.8	10°19.5	10°30.2	10°40.9	10°51.5	11°02.0	-10.8 55.4
Di 21	288°30.0	303°03.0	317°36.0	332°08.9	346°41.9	1°14.9	15°47.9	30°20.8	44°53.8	59°26.7	73°59.7	+33.0 15.1
	9°25.2	9°36.2	9°47.1	9°58.0	10°08.8	10°19.5	10°30.2	10°40.9	10°51.5	11°02.0	11°12.5	+10.7 55.4
Lu 22	292°12.6	306°45.3	321°18.1	335°50.8	350°23.5	4°56.2	19°28.8	34°01.5	48°34.1	63°06.7	77°39.3	+32.7 14.9
	13°42.2	13°51.7	14°01.1	14°10.4	14°19.7	14°28.9	14°38.0	14°47.0	14°56.0	15°05.0	15°13.8	+9.2 54.8
Ma 23	295°45.2	310°17.4	324°49.5	339°21.7	353°53.8	8°25.9	22°57.9	37°29.9	52°01.9	66°33.9	81°05.8	+32.1 14.8
	17°17.6	17°25.2	17°32.8	17°40.2	17°47.6	17°55.0	18°02.2	18°09.3	18°16.4	18°23.4	18°30.3	+7.3 54.4
Me 24	299°01.4	313°32.8	328°04.3	342°35.7	357°07.0	11°38.4	26°09.7	40°41.0	55°12.2	69°43.5	84°14.7	+31.3 14.8
	20°03.4	20°08.9	20°14.3	20°19.6	20°24.8	20°29.9	20°35.0	20°39.9	20°44.8	20°49.5	20°54.2	+5.1 54.2
Je 25	301°59.3	316°30.0	331°00.8	345°31.5	0°02.1	14°32.8	29°03.4	43°34.1	58°04.7	72°35.2	87°05.8	+30.6 14.8
	22°38.7	22°39.2	22°39.6	22°40.1	22°40.2	22°40.6	22°40.9	22°41.1	22°41.3	22°41.5	22°41.7	+2.6 54.1
Ve 26	304°41.7	319°11.9	333°42.2	348°12.4	2°42.6	17°12.9	31°43.1	46°13.2	60°43.4	75°13.6	89°43.8	+30.2 14.8
	22°38.7	22°39.2	22°39.6	22°39.9	22°40.0	22°40.1	22°40.2	22°40.3	22°40.4	22°40.5	22°40.6	+0.0 54.1
Sa 27	307°15.5	321°45.6	336°15.7	350°45.8	5°15.9	19°46.0	34°16.2	48°46.3	63°16.4	77°46.5	92°16.7	+30.1 14.8
	22°18.6	22°18.4	22°18.2	22°18.0	22°17.8	22°17.6	22°17.4	22°17.2	22°17.0	22°16.8	22°16.6	-2.7 54.4
Di 28	309°49.8	324°20.1	338°50.4	353°20.7	7°51.1	22°21.5	36°51.8	51°22.2	65°52.6	80°23.1	94°53.5	+30.4 14.9
	20°51.4	20°46.5	20°41.6	20°36.5	20°31.4	20°26.1	20°20.7	20°15.3	20°09.7	20°04.1	19°58.3	-5.3 54.8
Lu 29	312°32.7	327°03.4	341°34.2	356°05.1	10°35.9	25°06.8	39°37.7	54°08.6	68°39.5	83°10.5	97°41.5	+30.9 15.1
	18°20.2	18°13.0	18°05.6	17°58.1	17°50.5	17°42.9	17°35.1	17°27.3	17°19.4	17°11.4	17°03.3	-7.7 55.2
Ma 30	315°29.0	330°00.4	344°31.7	359°03.1	13°34.5	28°06.0	42°37.5	57°08.5	71°39.4	86°12.0	100°43.5	+31.5 15.2
	14°51.9	14°42.5	14°33.0	14°23.5	14°14.8	14°05.3	13°54.4	13°44.5	13°34.6	13°24.7	13°14.6	-9.7 55.7
Me 31	318°39.0	333°10.8	347°42.7	2°14.5	16°46.4	31°18.3	45°50.2	60°22.1	74°54.0	89°26.0	103°57.9	+31.9 15.3
	10°36.1	10°25.0	10°13.9	10°02.7	9°51.5	9°40.2	9°28.9	9°17.5	9°06.1	8°54.6	8°43.1	-11.3 56.2

Ligne 1 : GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
 Ligne 2 : Dec (— = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
 Colonne = (heure UTC - jour) mod 24
 PQ: 8 11h01 — PL: 15 02h12 — DQ: 22 08h07 — NL: 30 11h11

SOLEIL

Août 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	268°24.2 17°59.2	283°24.3 17°58.5	298°24.3 17°57.9	313°24.3 17°57.3	328°24.4 17°56.7	343°24.4 17°56.0	358°24.5 17°55.4	13°24.5 17°54.8	28°24.5 17°54.1	43°24.6 17°53.5	58°24.6 17°52.8	73°24.7 17°52.2	+0.0 -0.6
Ve 2	268°25.2 17°43.9	283°25.3 17°43.3	298°25.3 17°42.6	313°25.4 17°42.0	328°25.4 17°41.3	343°25.4 17°40.7	358°25.5 17°40.0	13°25.5 17°39.4	28°25.6 17°38.7	43°25.6 17°38.1	58°25.7 17°37.5	73°25.7 17°36.8	+0.0 -0.6
Sa 3	268°26.4 17°28.3	283°26.4 17°27.7	298°26.5 17°27.0	313°26.5 17°26.4	328°26.6 17°25.7	343°26.6 17°25.1	358°26.7 17°24.4	13°26.7 17°23.8	28°26.8 17°23.1	43°26.8 17°22.4	58°26.9 17°21.8	73°26.9 17°21.1	+0.1 -0.7
Di 4	268°27.7 17°12.5	283°27.7 17°11.8	298°27.8 17°11.2	313°27.8 17°10.5	328°27.9 17°09.8	343°27.9 17°09.2	358°28.0 17°08.5	13°28.1 17°07.8	28°28.1 17°07.2	43°28.2 17°06.5	58°28.2 17°05.8	73°28.3 17°05.1	+0.1 -0.7
Lu 5	268°29.1 16°56.4	283°29.2 16°55.7	298°29.2 16°55.0	313°29.3 16°54.3	328°29.4 16°53.7	343°29.4 16°53.0	358°29.5 16°52.3	13°29.6 16°51.6	28°29.6 16°50.9	43°29.7 16°50.3	58°29.8 16°49.6	73°29.8 16°48.9	+0.1 -0.7
Ma 6	268°30.7 16°40.0	283°30.8 16°39.3	298°30.8 16°38.6	313°30.9 16°37.9	328°31.0 16°37.2	343°31.1 16°36.5	358°31.1 16°35.8	13°31.2 16°35.2	28°31.3 16°34.5	43°31.3 16°33.8	58°31.4 16°33.1	73°31.5 16°32.4	+0.1 -0.7
Me 7	268°32.5 16°23.3	283°32.5 16°22.6	298°32.6 16°21.9	313°32.7 16°21.2	328°32.8 16°20.5	343°32.8 16°19.8	358°32.9 16°19.1	13°33.0 16°18.4	28°33.1 16°17.7	43°33.2 16°17.0	58°33.2 16°16.3	73°33.3 16°15.6	+0.1 -0.7
Je 8	268°34.4 16°06.4	283°34.5 16°05.7	298°34.5 16°05.0	313°34.6 16°04.3	328°34.7 16°03.6	343°34.8 16°02.8	358°34.9 16°02.1	13°35.0 16°01.4	28°35.0 16°00.7	43°35.1 16°00.0	58°35.2 15°59.3	73°35.3 15°58.6	+0.1 -0.7
Ve 9	268°36.4 15°49.2	283°36.5 15°48.5	298°36.6 15°47.8	313°36.7 15°47.1	328°36.8 15°46.3	343°36.9 15°45.6	358°37.0 15°44.9	13°37.1 15°43.2	28°37.2 15°43.5	43°37.2 15°42.7	58°37.3 15°42.0	73°37.4 15°41.3	+0.1 -0.7
Sa 10	268°38.6 15°31.8	283°38.7 15°31.1	298°38.8 15°30.3	313°38.9 15°29.6	328°39.0 15°28.9	343°39.1 15°28.1	358°39.2 15°27.4	13°39.3 15°26.7	28°39.4 15°25.9	43°39.5 15°25.2	58°39.6 15°24.5	73°39.7 15°23.7	+0.1 -0.7
Di 11	268°41.0 15°14.1	283°41.1 15°13.4	298°41.2 15°12.6	313°41.3 15°11.9	328°41.4 15°11.1	343°41.5 15°10.4	358°41.6 15°09.7	13°41.7 15°08.9	28°41.8 15°08.2	43°41.9 15°07.4	58°42.0 15°06.7	73°42.1 15°05.9	+0.1 -0.7
Lu 12	268°43.5 14°56.2	283°43.6 14°55.4	298°43.7 14°54.7	313°43.8 14°53.9	328°43.9 14°53.2	343°44.0 14°52.4	358°44.2 14°51.7	13°44.3 14°50.9	28°44.4 14°50.2	43°44.5 14°49.4	58°44.6 14°48.7	73°44.7 14°47.9	+0.1 -0.8
Ma 13	268°46.2 14°38.0	283°46.3 14°37.3	298°46.4 14°36.5	313°46.5 14°35.8	328°46.6 14°35.0	343°46.7 14°34.2	358°46.8 14°33.5	13°46.9 14°32.7	28°47.1 14°31.9	43°47.2 14°31.2	58°47.3 14°30.4	73°47.4 14°29.6	+0.1 -0.8
Me 14	268°48.9 14°19.6	283°49.1 14°18.9	298°49.2 14°18.1	313°49.3 14°17.3	328°49.4 14°16.6	343°49.5 14°15.8	358°49.6 14°15.0	13°49.8 14°14.2	28°49.9 14°13.5	43°50.0 14°12.7	58°50.1 14°11.9	73°50.3 14°11.1	+0.1 -0.8
Je 15	268°51.8 14°01.0	283°52.0 14°00.2	298°52.1 13°59.5	313°52.2 13°58.7	328°52.3 13°57.9	343°52.5 13°57.1	358°52.6 13°56.3	13°52.7 13°55.6	28°52.8 13°54.8	43°53.0 13°54.0	58°53.1 13°53.2	73°53.2 13°52.4	+0.1 -0.8
Ve 16	268°54.9 13°42.2	283°55.0 13°41.4	298°55.2 13°40.6	313°55.3 13°39.8	328°55.4 13°39.0	343°55.5 13°38.2	358°55.7 13°37.4	13°55.8 13°36.6	28°55.9 13°35.9	43°56.1 13°35.1	58°56.2 13°34.3	73°56.3 13°33.5	+0.1 -0.8
Sa 17	268°58.1 13°23.1	283°58.2 13°22.3	298°58.3 13°21.5	313°58.5 13°20.7	328°58.6 13°19.9	343°58.7 13°19.1	358°58.9 13°18.3	13°59.0 13°17.5	28°59.2 13°16.7	43°59.3 13°15.9	58°59.4 13°15.1	73°59.6 13°14.3	+0.1 -0.8
Di 18	269°01.4 13°03.9	284°01.5 13°03.0	299°01.6 13°02.2	314°01.8 13°01.4	329°01.9 13°00.6	344°02.1 12°59.8	359°02.2 12°59.0	14°02.4 12°58.2	29°02.5 12°57.4	44°02.6 12°56.6	59°02.8 12°55.8	74°02.9 12°54.9	+0.1 -0.8
Lu 19	269°04.8 12°44.4	284°04.9 12°43.6	299°05.1 12°42.7	314°05.2 12°41.9	329°05.4 12°41.1	344°05.5 12°40.3	359°05.7 12°39.5	14°05.8 12°38.5	29°06.0 12°37.8	44°06.1 12°37.0	59°06.2 12°36.2	74°06.4 12°35.4	+0.1 -0.8
Ma 20	269°08.3 12°24.7	284°08.5 12°23.9	299°08.6 12°23.0	314°08.8 12°22.2	329°08.9 12°21.4	344°09.1 12°20.6	359°09.2 12°19.7	14°09.4 12°18.9	29°09.5 12°18.1	44°09.7 12°17.3	59°09.8 12°16.4	74°10.0 12°15.6	+0.2 -0.8
Me 21	269°12.0 12°04.8	284°12.1 12°04.0	299°12.3 12°03.1	314°12.4 12°02.3	329°12.6 12°01.5	344°12.8 12°00.6	359°12.9 11°59.8	14°13.1 11°59.0	29°13.2 11°58.1	44°13.4 11°57.3	59°13.5 11°56.5	74°13.7 11°55.6	+0.2 -0.8
Je 22	269°15.7 11°44.7	284°15.9 11°43.9	299°16.1 11°43.0	314°16.2 11°42.2	329°16.4 11°41.4	344°16.5 11°40.5	359°16.7 11°39.7	14°16.9 11°38.8	29°17.0 11°38.0	44°17.2 11°37.1	59°17.3 11°36.3	74°17.5 11°35.5	+0.2 -0.8
Ve 23	269°19.6 11°24.5	284°19.8 11°23.6	299°19.9 11°22.8	314°20.1 11°21.9	329°20.3 11°21.1	344°20.4 11°20.2	359°20.6 11°19.4	14°20.6 11°18.5	29°20.9 11°17.7	44°21.1 11°16.8	59°21.3 11°16.0	74°21.4 11°15.1	+0.2 -0.9
Sa 24	269°23.6 11°04.0	284°23.8 11°03.2	299°23.9 11°02.3	314°24.1 11°01.4	329°24.3 11°00.6	344°24.4 10°59.7	359°24.6 10°58.9	14°24.6 10°58.0	29°24.9 10°57.2	44°25.1 10°56.3	59°25.3 10°55.4	74°25.4 10°54.6	+0.2 -0.9
Di 25	269°27.7 10°43.4	284°27.8 10°42.5	299°28.0 10°41.7	314°28.2 10°40.8	329°28.4 10°39.9	344°28.5 10°39.1	359°28.7 10°38.2	14°28.9 10°37.3	29°29.1 10°36.5	44°29.2 10°35.6	59°29.4 10°34.8	74°29.6 10°33.9	+0.2 -0.9
Lu 26	269°31.8 10°22.6	284°32.0 10°21.7	299°32.2 10°20.9	314°32.4 10°20.0	329°32.6 10°19.1	344°32.7 10°18.2	359°32.9 10°17.4	14°33.1 10°16.5	29°33.3 10°15.6	44°33.4 10°14.8	59°33.6 10°13.9	74°33.8 10°13.0	+0.2 -0.9
Ma 27	269°36.1 10°01.6	284°36.3 10°00.8	299°36.5 9°59.9	314°36.7 9°59.0	329°36.8 9°58.1	344°37.0 9°57.3	359°37.2 9°56.4	14°37.2 9°55.5	29°37.6 9°54.6	44°37.8 9°53.7	59°37.9 9°52.9	74°38.1 9°52.0	+0.2 -0.9
Me 28	269°40.5 9°40.5	284°40.7 9°39.6	299°40.9 9°38.8	314°41.0 9°37.9	329°41.2 9°37.0	344°41.4 9°36.1	359°41.6 9°35.2	14°41.8 9°34.3	29°42.2 9°33.5	44°42.3 9°32.6	59°42.7 9°31.7	74°42.5 9°30.8	+0.2 -0.9
Je 29	269°44.9 9°19.3	284°45.1 9°18.4	299°45.3 9°17.5	314°45.5 9°16.6	329°45.7 9°15.7	344°45.9 9°14.8	359°46.1 9°13.9	14°46.3 9°13.0	29°46.5 9°12.1	44°46.6 9°11.2	59°46.8 9°10.4	74°47.0 9°09.5	+0.2 -0.9
Ve 30	269°49.5 8°57.8	284°49.7 8°56.9	299°49.9 8°56.1	314°50.1 8°55.2	329°50.3 8°54.3	344°50.4 8°53.4	359°50.6 8°52.5	14°50.8 8°51.6	29°51.1 8°50.5	44°51.2 8°49.8	59°51.4 8°48.9	74°51.6 8°48.0	+0.2 -0.9
Sa 31	269°54.1 8°36.3	284°54.3 8°35.4	299°54.5 8°34.5	314°54.7 8°33.6	329°54.9 8°32.7	344°55.1 8°31.8	359°55.3 8°30.9	14°55.5 8°29.5	29°55.7 8°28.9	44°55.9 8°28.2	59°56.1 8°27.3	74°56.3 8°26.4	+0.2 -0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Août 2030

	J	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	Δ'/h	SP
●	Je 1	234°45.8 6°57.2	249°17.8 6°45.3	263°49.9 6°33.2	278°21.9 6°21.2	292°53.9 6°09.1	307°26.0 5°57.0	321°58.0 5°44.8	336°30.0 5°32.6	351°02.1 5°20.4	5°34.1 5°08.1	20°06.1 4°55.8	+32.0 -12.1	15.4 56.6
	Ve 2	238°06.0 1°48.2	252°37.9 1°35.5	267°09.8 1°22.9	281°41.7 1°10.2	296°13.6 0°57.4	310°45.5 0°44.7	325°17.3 0°32.0	339°49.1 0°19.2	354°20.9 0°06.4	8°52.7 -0°06.3	23°24.5 -0°19.1	+31.8 -12.7	15.6 57.1
	Sa 3	241°08.1 -3°10.0	255°49.3 -3°43.7	270°20.6 -3°56.5	284°51.8 -4°09.2	299°23.1 -4°21.9	313°54.3 -4°34.6	328°25.4 -4°47.3	342°56.5 -5°00.0	357°27.6 -5°12.7	11°58.6 -5°25.3	26°29.6 -5°37.9	+31.2 -12.7	15.7
●	Di 4	244°08.9 -8°44.1	258°39.1 -8°56.2	273°09.3 -9°08.3	287°39.4 -9°20.4	302°09.4 -9°32.4	316°39.4 -9°44.4	331°09.3 -9°56.4	345°39.2 -10°08.3	0°09.0 -10°20.1	14°38.8 -10°31.9	29°08.5 -10°43.7	+30.0 -12.0	15.9 58.1
	Lu 5	246°26.1 -13°33.1	260°54.7 -13°43.9	275°23.3 -13°54.6	289°51.8 -14°05.3	304°20.2 -14°15.9	318°48.5 -14°26.4	333°16.8 -14°36.8	347°45.0 -14°47.1	2°13.1 -14°57.4	16°41.2 -15°07.6	31°09.2 -15°17.7	+28.3 -10.5	16.0 58.6
	Ma 6	247°59.7 -17°38.6	262°26.5 -17°47.2	276°53.2 -17°55.7	291°19.8 -18°04.1	305°46.3 -18°12.4	320°12.8 -18°20.6	334°39.2 -18°28.7	349°05.5 -18°36.7	3°31.7 -18°44.6	17°57.9 -18°52.4	32°24.0 -19°00.0	+26.4 -8.1	16.1 59.0
●	Me 7	248°46.6 -22°04.0	263°11.6 -20°45.9	277°36.5 -20°51.4	292°01.4 -20°56.8	306°26.1 -21°02.1	320°50.9 -21°07.2	335°15.5 -21°12.2	349°40.1 -21°17.1	4°04.7 -21°21.8	18°29.2 -21°26.4	32°53.6 -21°30.8	+24.7 -5.1	16.2 59.4
	Je 8	248°54.3 -22°53.7	263°18.0 -20°48.2	277°41.7 -20°42.4	292°05.4 -20°36.6	306°29.1 -20°30.6	320°52.7 -20°24.5	335°16.3 -20°18.2	349°39.8 -20°11.8	4°03.4 -20°05.3	18°26.9 -19°58.1	32°50.4 -19°51.9	+23.6 -4.6	16.3 59.7
	Ve 9	248°42.0 -23°25.1	263°05.4 -22°23.3	277°28.9 -22°21.9	291°52.4 -22°15.1	306°15.9 -22°07.1	320°39.4 -22°14.2	335°02.9 -22°11.8	349°26.5 -22°09.0	3°50.0 -22°01.1	18°13.6 -22°03.9	32°37.3 -21°59.8	+23.5 -2.5	16.3 59.9
○	Sa 10	248°35.8 -20°53.7	263°00.1 -20°48.2	277°24.4 -20°42.4	291°48.7 -20°36.6	306°13.1 -20°30.6	320°37.6 -20°24.5	335°02.1 -20°18.2	349°26.7 -20°11.8	3°51.3 -20°05.3	18°16.0 -19°58.1	32°40.7 -19°51.9	+24.5 -6.2	16.3 59.7
	Di 11	248°59.9 -17°55.1	263°25.7 -17°46.3	277°51.6 -17°37.5	292°17.6 -17°28.5	306°44.7 -17°19.5	321°09.8 -17°10.3	335°36.0 -17°01.1	350°02.3 -16°51.7	4°28.7 -16°42.3	18°55.1 -16°32.2	33°21.6 -16°23.0	+26.2 -9.2	16.2 59.4
	Lu 12	250°08.6 -13°47.4	264°36.3 -13°36.4	279°04.2 -13°25.3	293°32.1 -13°14.1	308°00.0 -13°02.9	322°28.1 -12°51.6	336°56.2 -12°40.2	351°24.4 -12°28.8	5°52.7 -12°17.3	20°21.1 -12°05.7	34°49.5 -11°54.1	+28.1 -11.3	16.1 59.0
○	Ma 13	252°04.5 -8°53.6	266°34.1 -8°41.2	281°03.7 -8°28.8	295°33.4 -8°16.3	310°03.2 -8°03.8	324°33.0 -7°51.3	339°02.9 -7°38.8	353°32.8 -7°26.2	8°02.8 -7°13.6	22°32.9 -7°01.0	37°03.0 -6°48.3	+29.8 -12.5	15.9 58.4
	Me 14	254°41.6 -3°36.5	269°12.6 -3°23.7	283°43.7 -3°10.8	298°14.8 -2°58.0	312°45.9 -2°45.1	327°17.1 -2°32.2	341°48.3 -2°19.4	356°19.2 -2°06.5	10°50.9 -1°53.6	25°22.2 -1°40.8	39°53.6 -1°27.9	+31.2 -12.9	15.7 56.7
	Je 15	257°48.9 1°43.3	272°20.9 1°55.9	286°52.9 2°08.4	301°24.9 2°21.0	315°56.9 2°33.5	330°28.9 2°46.0	345°01.0 2°58.5	359°33.1 3°10.9	14°05.2 3°23.3	28°37.4 3°35.7	43°09.6 3°48.1	+32.1 -12.5	15.5 56.9
●	Ve 16	261°14.1 6°48.9	275°46.5 7°00.7	290°18.9 7°12.4	304°51.3 7°24.0	319°23.8 7°35.6	333°56.2 7°47.1	348°28.7 7°58.6	3°01.1 8°10.1	17°33.6 8°21.5	32°06.0 8°32.8	46°38.5 8°44.1	+32.4 -11.5	15.3 56.1
	Sa 17	264°45.4 11°26.9	279°17.8 11°37.3	293°50.2 11°47.6	308°22.6 11°57.9	322°55.0 12°08.1	337°27.4 12°18.2	351°59.8 12°28.3	6°32.2 12°38.3	21°04.6 12°48.2	35°09.9 12°58.1	50°09.3 13°07.9	+32.4 -10.5	15.1 54.4
	Di 18	268°12.9 15°26.4	282°45.0 15°35.1	297°17.1 15°43.7	311°49.2 15°52.1	326°21.2 16°00.6	340°53.3 16°08.9	355°25.3 16°17.2	9°57.3 16°25.3	24°29.3 16°33.4	39°01.3 16°41.5	53°33.2 16°49.4	+32.0 -8.3	15.0 54.9
●	Lu 19	271°29.7 18°38.6	286°01.3 18°45.2	300°32.9 18°51.7	315°04.4 18°58.1	329°35.9 19°04.4	344°07.4 19°10.6	358°38.9 19°16.8	13°10.3 19°22.8	27°41.8 19°28.8	42°13.2 19°34.7	56°44.6 19°40.5	+31.5 -6.2	14.9 54.5
	Ma 20	286°01.3 18°45.2	300°32.9 18°51.7	315°04.4 18°58.1	329°35.9 19°04.4	344°07.4 19°10.6	358°38.9 19°16.8	13°10.3 19°22.8	27°41.8 19°28.8	42°13.2 19°34.7	56°44.6 19°40.5	71°15.9 19°46.2	+31.5 -6.1	14.9 54.5
	Me 21	289°03.4 21°00.3	303°34.4 21°04.5	318°05.4 21°08.5	332°36.3 21°12.5	347°07.2 21°16.4	1°38.1 21°20.2	16°09.0 21°23.9	30°39.9 21°27.4	45°10.7 21°30.9	59°41.5 21°34.3	74°12.3 21°37.6	+30.9 -3.7	14.8 54.2
●	Je 22	291°52.0 22°14.7	306°22.5 22°16.3	320°53.0 22°17.9	335°23.5 22°19.3	349°54.0 22°20.6	4°24.4 22°21.9	18°54.9 22°23.0	33°25.3 22°24.0	47°55.7 22°25.8	62°26.1 22°25.8	76°56.5 22°26.5	+30.5 -1.2	14.8 54.2
	Ve 23	294°31.4 22°24.4	309°01.7 22°23.4	323°31.9 22°22.3	338°02.2 22°21.1	352°32.5 22°19.8	7°02.7 22°18.4	21°33.0 22°16.9	36°03.2 22°15.2	50°33.5 22°13.5	65°03.7 22°11.7	79°34.0 22°09.7	+30.3 -1.5	14.8 54.4
	Sa 24	297°08.1 21°27.9	311°38.4 21°24.2	326°08.7 21°20.5	340°39.0 21°16.7	355°09.4 21°12.7	9°39.7 21°08.7	24°10.1 21°04.5	38°40.1 21°00.3	53°10.8 20°55.9	67°41.2 20°51.4	82°11.6 20°46.9	+30.3 -4.1	14.9 54.7
●	Di 25	299°48.8 19°26.4	314°19.4 19°20.2	328°50.0 19°14.0	343°20.7 19°07.6	357°51.3 19°01.1	12°21.9 18°54.6	26°52.6 18°48.0	41°23.3 18°41.2	55°54.0 18°34.4	70°24.7 18°27.5	84°55.4 18°20.5	+30.7 -6.5	15.0 55.1
	Lu 26	302°38.4 16°24.3	317°09.4 16°15.8	331°40.4 16°07.3	346°11.4 15°58.7	0°42.4 15°50.0	15°13.5 15°41.2	29°44.6 15°32.3	44°15.7 15°23.4	58°46.8 15°14.4	73°17.9 15°05.3	87°49.0 14°56.1	+31.1 -8.8	15.2 55.7
	Ma 27	305°37.8 12°29.1	320°09.3 12°18.7	334°40.6 12°08.3	349°12.0 11°57.8	3°43.4 11°47.2	18°14.8 11°36.5	32°46.2 11°25.8	47°17.6 11°15.0	61°49.9 11°04.2	76°20.5 10°53.3	90°51.9 10°42.4	+31.4 -10.7	15.4 56.3
●	Me 28	308°44.4 7°51.1	323°15.9 7°39.3	337°47.5 7°27.4	352°19.0 7°15.4	6°50.5 7°03.5	21°22.0 6°51.5	35°53.6 6°39.4	50°25.1 6°27.3	64°56.6 6°15.1	79°28.1 6°03.0	93°59.6 5°50.7	+31.5 -10.2	15.5 56.9
	Je 29	311°51.4 2°43.3	326°22.8 2°30.6	340°54.1 2°17.8	355°25.5 2°05.1	9°56.8 1°52.3	24°28.1 1°39.5	38°59.4 1°26.7	53°30.6 1°13.9	68°01.9 1°01.0	82°33.1 0°48.1	97°04.3 0°35.3	+31.3 -12.8	15.7 57.5
	Ve 30	314°49.4 -2°51.7	329°20.2 -2°51.7	343°51.1 -3°04.6	358°21.7 -3°17.5	12°52.4 -3°30.4	27°23.0 -3°43.3	41°53.6 -3°56.2	56°24.2 -4°09.1	70°54.7 -4°21.9	85°25.2 -4°34.8	99°55.7 -4°47.6	+30.6 -12.9	15.8 58.1
●	Sa 31	317°27.5 -7°57.3	331°57.3 -8°09.7	346°27.0 -8°22.0	0°56.6 -8°34.3	15°26.2 -8°46.6	29°55.8 -8°58.8	44°25.3 -9°11.0	58°54.7 -9°23.2	73°24.1 -9°35.3	87°53.5 -9°47.3	102°22.7 -9°59.3	+29.5 -12.2	16.0 58.5

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PQ: 6 16h42 — PL: 13 10h44 — DQ: 21 01h15 — NL: 28 23h07

SOLEIL

Septembre 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Di 1	269°58.8 8°14.6	284°59.0 8°13.7	299°59.2 8°12.8	314°59.4 8°11.9	329°59.6 8°11.0	344°59.8 8°10.1	0°00.0 8°09.1	15°00.2 8°08.2	30°00.4 8°07.3	45°00.6 8°06.4	60°00.8 8°05.5	75°01.0 8°04.6	+0.2 -0.9
Lu 2	270°03.6 7°52.8	285°03.8 7°51.9	300°04.0 7°50.9	315°04.2 7°50.0	330°04.4 7°49.1	345°04.6 7°48.2	0°04.8 7°47.3	15°05.0 7°46.4	30°05.2 7°45.5	45°05.4 7°44.5	60°05.6 7°43.6	75°05.8 7°42.7	+0.2 -0.9
Ma 3	270°03.6 7°30.8	285°08.9 7°29.9	300°08.9 7°29.0	315°09.1 7°28.1	330°09.3 7°27.1	345°09.5 7°26.2	0°09.7 7°25.3	15°09.9 7°24.7	30°10.1 7°23.5	45°10.3 7°22.5	60°10.5 7°21.6	75°10.7 7°20.7	+0.2 -0.9
Me 4	270°13.4 7°08.7	285°13.6 7°07.8	300°13.8 7°06.9	315°14.0 7°06.0	330°14.2 7°05.1	345°14.4 7°04.1	0°14.6 7°03.2	15°14.9 7°02.3	30°15.1 7°01.4	45°15.3 7°00.4	60°15.5 6°59.5	75°15.7 6°58.6	+0.2 -0.9
Je 5	270°18.4 6°46.6	285°18.6 6°45.6	300°18.8 6°44.7	315°19.0 6°43.8	330°19.2 6°42.8	345°19.4 6°41.9	0°19.7 6°41.0	15°19.9 6°40.1	30°20.1 6°39.1	45°20.3 6°38.2	60°20.5 6°37.3	75°20.7 6°36.4	+0.2 -0.9
Ve 6	270°23.5 6°24.3	285°23.7 6°23.3	300°23.9 6°22.4	315°24.1 6°21.5	330°24.3 6°20.5	345°24.5 6°19.6	0°24.7 6°18.7	15°24.9 6°17.7	30°25.2 6°16.8	45°25.4 6°15.9	60°25.6 6°14.9	75°25.8 6°14.0	+0.2 -0.9
Sa 7	270°28.6 6°01.9	285°28.8 6°00.9	300°29.0 6°00.0	315°29.2 5°59.1	330°29.4 5°58.1	345°29.6 5°57.2	0°29.9 5°56.2	15°30.1 5°55.3	30°30.3 5°54.4	45°30.5 5°53.4	60°30.7 5°52.5	75°30.9 5°51.6	+0.2 -0.9
Di 8	270°33.7 5°39.4	285°33.9 5°38.4	300°34.2 5°37.5	315°34.4 5°36.5	330°34.6 5°35.6	345°34.8 5°34.7	0°35.0 5°33.7	15°35.2 5°32.8	30°35.5 5°31.8	45°35.7 5°30.9	60°35.9 5°30.0	75°36.1 5°29.0	+0.2 -0.9
Lu 9	270°38.9 5°16.8	285°39.2 5°15.8	300°39.4 5°14.9	315°39.6 5°13.9	330°39.8 5°13.0	345°40.0 5°12.1	0°40.3 5°11.1	15°40.5 5°10.2	30°40.7 5°09.2	45°40.9 5°08.3	60°41.1 5°07.3	75°41.3 5°06.4	+0.2 -0.9
Ma 10	270°44.2 4°54.1	285°44.4 4°53.2	300°44.6 4°52.2	315°44.9 4°51.3	330°45.1 4°50.3	345°45.3 4°49.4	0°45.5 4°48.4	15°45.7 4°47.5	30°46.0 4°46.5	45°46.2 4°45.6	60°46.4 4°44.6	75°46.6 4°43.7	+0.2 -0.9
Me 11	270°49.5 4°31.3	285°49.7 4°30.4	300°49.9 4°29.4	315°50.1 4°28.5	330°50.4 4°27.5	345°50.6 4°26.6	0°50.8 4°25.6	15°51.0 4°24.7	30°51.3 4°23.7	45°51.5 4°22.8	60°51.7 4°21.8	75°51.9 4°20.9	+0.2 -1.0
Je 12	270°54.8 4°08.5	285°55.0 4°07.6	300°55.2 4°06.6	315°55.5 4°05.6	330°55.7 4°04.7	345°55.9 4°03.7	0°56.1 4°02.8	15°56.4 4°01.8	30°56.6 4°00.9	45°56.8 3°59.9	60°57.0 3°59.0	75°57.2 3°58.0	+0.2 -1.0
Ve 13	271°00.1 3°45.6	286°00.4 3°44.6	301°00.6 3°43.7	316°00.8 3°42.7	331°01.0 3°41.8	346°01.3 3°40.8	1°01.5 3°39.9	16°01.7 3°38.9	31°01.9 3°37.9	46°02.2 3°37.0	61°02.4 3°36.0	76°02.6 3°35.1	+0.2 -1.0
Sa 14	271°05.7 3°22.6	286°05.7 3°21.7	301°05.9 3°20.7	316°06.2 3°19.7	331°06.4 3°18.8	346°06.6 3°17.8	1°06.8 3°16.9	16°07.1 3°15.9	31°07.3 3°14.9	46°07.5 3°14.0	61°07.7 3°13.0	76°08.0 3°12.1	+0.2 -1.0
Di 15	271°10.9 2°59.6	286°11.1 2°58.6	301°11.3 2°57.6	316°11.5 2°56.7	331°11.8 2°55.7	346°12.0 2°54.8	1°12.2 2°53.8	16°12.4 2°52.8	31°12.7 2°51.9	46°12.9 2°50.9	61°13.1 2°50.0	76°13.3 2°49.0	+0.2 -1.0
Lu 16	271°16.2 2°36.5	286°16.5 2°35.5	301°16.7 2°34.5	316°16.9 2°33.6	331°17.1 2°32.6	346°17.4 2°31.7	1°17.6 2°30.7	16°17.8 2°29.7	31°18.0 2°28.8	46°18.3 2°27.8	61°18.5 2°26.8	76°18.7 2°25.9	+0.2 -1.0
Ma 17	271°21.6 2°13.3	286°21.9 2°12.4	301°22.1 2°11.4	316°22.3 2°10.4	331°22.5 2°09.5	346°22.7 2°08.5	1°23.0 2°07.5	16°23.2 2°06.6	31°23.4 2°05.6	46°23.6 2°04.6	61°23.9 2°03.7	76°24.1 2°02.7	+0.2 -1.0
Me 18	271°27.0 1°50.1	286°27.2 1°49.1	301°27.4 1°48.2	316°27.7 1°47.2	331°27.9 1°46.2	346°28.1 1°45.3	1°28.3 1°44.3	16°28.6 1°43.3	31°28.8 1°42.4	46°29.0 1°41.4	61°29.2 1°40.4	76°29.5 1°39.5	+0.2 -1.0
Je 19	271°32.4 1°26.9	286°32.6 1°25.9	301°32.8 1°24.9	316°33.0 1°24.0	331°33.3 1°23.0	346°33.5 1°22.0	1°33.7 1°21.1	16°33.9 1°20.1	31°34.2 1°19.1	46°34.4 1°18.2	61°34.6 1°17.2	76°34.8 1°16.2	+0.2 -1.0
Ve 20	271°37.7 1°03.6	286°37.9 1°02.6	301°38.2 1°01.7	316°38.4 1°00.7	331°38.6 0°59.7	346°38.8 0°58.7	1°39.0 0°57.8	16°39.3 0°56.8	31°39.5 0°55.8	46°39.7 0°54.9	61°39.9 0°53.9	76°40.2 0°52.9	+0.2 -1.0
Sa 21	271°43.0 0°40.3	286°43.3 0°39.3	301°43.5 0°38.3	316°43.7 0°37.4	331°43.9 0°36.4	346°44.1 0°35.4	1°44.4 0°34.5	16°44.6 0°33.5	31°44.8 0°32.5	46°45.0 0°31.5	61°45.3 0°30.6	76°45.5 0°29.6	+0.2 -1.0
Di 22	271°48.3 0°17.0	286°48.6 0°16.0	301°48.8 0°15.0	316°49.0 0°14.0	331°49.2 0°13.1	346°49.4 0°12.1	1°49.7 0°11.1	16°49.9 0°10.2	31°50.1 0°09.2	46°50.1 0°08.2	61°50.3 0°07.2	76°50.8 0°06.3	+0.2 -1.0
Lu 23	271°53.6 -0°06.4	286°53.8 -0°07.4	301°54.1 -0°08.3	316°54.3 -0°09.3	331°54.5 -0°10.3	346°54.7 -0°11.3	1°54.9 -0°12.2	16°55.2 -0°13.2	31°55.4 -0°14.2	46°55.6 -0°15.1	61°55.8 -0°16.1	76°56.0 -0°17.1	+0.2 -1.0
Ma 24	271°58.9 -0°29.7	286°59.1 -0°30.7	301°59.3 -0°31.7	316°59.5 -0°32.7	331°59.7 -0°33.6	346°59.9 -0°34.6	2°00.2 -0°35.6	17°00.4 -0°36.6	32°00.6 -0°37.5	47°00.8 -0°38.5	62°01.0 -0°39.5	77°01.2 -0°40.5	+0.2 -1.0
Me 25	272°04.1 -0°53.1	287°04.3 -0°54.1	302°04.5 -0°55.1	317°04.7 -0°56.0	332°04.9 -0°57.0	347°05.1 -0°58.0	2°05.3 -0°59.0	17°05.6 -0°59.9	32°05.8 -1°00.9	47°06.0 -1°01.9	62°06.2 -1°02.9	77°06.4 -1°03.8	+0.2 -1.0
Je 26	272°09.2 -1°16.5	287°09.4 -1°17.5	302°09.6 -1°18.4	317°09.9 -1°19.4	332°10.1 -1°20.4	347°10.3 -1°21.4	2°10.5 -1°22.3	17°10.7 -1°23.3	32°10.9 -1°24.3	47°11.1 -1°25.2	62°11.3 -1°26.2	77°11.6 -1°27.2	+0.2 -1.0
Ve 27	272°14.3 -1°39.8	287°14.5 -1°40.8	302°14.7 -1°41.8	317°15.0 -1°42.8	332°15.2 -1°43.7	347°15.4 -1°44.7	2°15.6 -1°45.7	17°15.8 -1°46.7	32°16.0 -1°47.6	47°16.2 -1°48.6	62°16.4 -1°49.6	77°16.6 -1°50.6	+0.2 -1.0
Sa 28	272°19.4 -2°03.2	287°19.6 -2°04.2	302°19.8 -2°05.1	317°20.0 -2°06.1	332°20.2 -2°07.1	347°20.4 -2°08.1	2°20.6 -2°09.0	17°20.8 -2°10.0	32°21.0 -2°11.0	47°21.3 -2°11.9	62°21.5 -2°12.9	77°21.7 -2°13.9	+0.2 -1.0
Di 29	272°24.4 -2°26.5	287°24.6 -2°27.5	302°24.8 -2°28.5	317°25.0 -2°29.4	332°25.2 -2°30.4	347°25.4 -2°31.4	2°25.6 -2°32.4	17°25.8 -2°33.3	32°26.0 -2°34.3	47°26.2 -2°35.3	62°26.4 -2°36.2	77°26.6 -2°37.2	+0.2 -1.0
Lu 30	272°29.3 -2°49.8	287°29.5 -2°50.8	302°29.7 -2°51.8	317°29.9 -2°52.8	332°30.1 -2°53.7	347°30.3 -2°54.7	2°30.5 -2°55.7	17°30.7 -2°56.6	32°30.9 -2°57.6	47°31.1 -2°58.6	62°31.3 -2°59.5	77°31.5 -3°00.5	+0.2 -1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Septembre 2030

	J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h SP
Di 1	247 [°] 12.5	261 [°] 41.1	276 [°] 09.7	290 [°] 38.2	305 [°] 06.7	319 [°] 35.1	334 [°] 03.4	348 [°] 31.7	2 [°] 59.9	17 [°] 28.1	31 [°] 56.2	+28.4 16.0	
	-11 [°] 56.4	-12 [°] 07.8	-12 [°] 19.1	-12 [°] 30.4	-12 [°] 41.6	-12 [°] 52.7	-13 [°] 03.7	-13 [°] 14.7	-13 [°] 25.6	-13 [°] 36.4	-13 [°] 47.2	-11.1 58.8	
Lu 2	248 [°] 49.9	263 [°] 17.0	277 [°] 44.0	292 [°] 10.9	306 [°] 37.8	321 [°] 04.6	335 [°] 31.4	349 [°] 58.0	4 [°] 24.7	18 [°] 51.2	33 [°] 17.7	+26.8 16.1	
	-16 [°] 18.5	-16 [°] 27.9	-16 [°] 37.1	-16 [°] 46.3	-16 [°] 55.4	-17 [°] 04.3	-17 [°] 13.2	-17 [°] 22.2	-17 [°] 30.6	-17 [°] 39.2	-17 [°] 47.6	-8.9 59.0	
Ma 3	249 [°] 47.8	264 [°] 13.3	278 [°] 38.8	293 [°] 04.2	307 [°] 29.6	321 [°] 54.9	336 [°] 20.2	350 [°] 45.4	5 [°] 10.6	19 [°] 35.7	34 [°] 00.8	+25.3 16.1	
	-19 [°] 40.7	-19 [°] 47.2	-19 [°] 53.7	-20 [°] 00.0	-20 [°] 06.2	-20 [°] 12.3	-20 [°] 18.2	-20 [°] 24.0	-20 [°] 29.7	-20 [°] 35.2	-20 [°] 40.6	-6.0 59.2	
Me 4	250 [°] 12.1	264 [°] 36.6	279 [°] 01.0	293 [°] 25.4	307 [°] 49.8	322 [°] 14.2	336 [°] 38.5	351 [°] 02.8	5 [°] 27.1	19 [°] 51.4	34 [°] 15.7	+24.4 16.1	
	-21 [°] 45.2	-21 [°] 48.4	-21 [°] 51.4	-21 [°] 54.3	-21 [°] 57.0	-21 [°] 59.6	-22 [°] 02.0	-22 [°] 04.3	-22 [°] 06.5	-22 [°] 08.5	-22 [°] 10.3	-2.5 59.2	
Je 5	250 [°] 18.7	264 [°] 42.9	279 [°] 07.1	293 [°] 31.3	307 [°] 55.5	322 [°] 19.8	336 [°] 44.0	351 [°] 08.3	5 [°] 32.6	19 [°] 56.9	34 [°] 21.2	+24.2 16.1	
	-22 [°] 20.2	-22 [°] 19.7	-22 [°] 19.0	-22 [°] 18.1	-22 [°] 17.1	-22 [°] 16.0	-22 [°] 14.7	-22 [°] 13.3	-22 [°] 11.7	-22 [°] 10.0	-22 [°] 08.1	+1.2 59.0	
Ve 6	250 [°] 29.4	264 [°] 54.3	279 [°] 19.1	293 [°] 44.0	308 [°] 09.0	322 [°] 34.0	336 [°] 59.1	351 [°] 24.2	5 [°] 49.3	20 [°] 14.5	34 [°] 39.8	+25.0 16.1	
	-21 [°] 22.5	-21 [°] 18.3	-21 [°] 14.0	-21 [°] 09.6	-21 [°] 05.0	-21 [°] 00.2	-20 [°] 55.4	-20 [°] 50.4	-20 [°] 45.2	-20 [°] 40.0	-20 [°] 34.6	+4.8 59.0	
Sa 7	251 [°] 05.2	265 [°] 31.3	279 [°] 57.6	294 [°] 23.9	308 [°] 50.2	323 [°] 16.6	337 [°] 43.1	352 [°] 09.7	6 [°] 36.3	21 [°] 03.0	35 [°] 29.8	+26.5 16.0	
	-18 [°] 58.5	-18 [°] 51.1	-18 [°] 43.6	-18 [°] 36.0	-18 [°] 28.3	-18 [°] 20.5	-18 [°] 12.5	-18 [°] 04.5	-17 [°] 56.3	-17 [°] 48.1	-17 [°] 39.7	+7.9 58.8	
Di 8	252 [°] 19.2	266 [°] 47.1	281 [°] 15.0	295 [°] 43.0	310 [°] 11.0	324 [°] 39.1	339 [°] 07.3	353 [°] 35.6	8 [°] 03.9	22 [°] 32.3	37 [°] 00.7	+28.1 16.0	
	-15 [°] 22.5	-15 [°] 12.6	-15 [°] 02.6	-14 [°] 52.6	-14 [°] 42.4	-14 [°] 32.2	-14 [°] 22.0	-14 [°] 11.6	-14 [°] 01.2	-13 [°] 50.6	-13 [°] 40.1	+10.2 58.5	
Lu 9	254 [°] 15.3	268 [°] 44.8	283 [°] 14.3	297 [°] 43.9	312 [°] 13.5	326 [°] 43.3	341 [°] 13.0	355 [°] 42.8	10 [°] 12.7	24 [°] 42.7	39 [°] 12.7	+29.7 15.8	
	-10 [°] 53.4	-10 [°] 41.8	-10 [°] 30.2	-10 [°] 18.5	-10 [°] 06.8	-9 [°] 55.0	-9 [°] 43.2	-9 [°] 31.3	-9 [°] 19.4	-9 [°] 07.5	-8 [°] 55.5	-11.8 58.1	
Ma 10	256 [°] 48.9	271 [°] 19.7	285 [°] 50.5	300 [°] 21.4	314 [°] 52.4	329 [°] 23.3	343 [°] 54.4	358 [°] 25.4	12 [°] 56.5	27 [°] 27.7	41 [°] 58.9	+31.0 15.7	
	-5 [°] 51.7	-5 [°] 39.2	-5 [°] 26.7	-5 [°] 14.2	-5 [°] 01.7	-4 [°] 49.1	-4 [°] 36.6	-4 [°] 24.0	-4 [°] 11.5	-3 [°] 58.9	-3 [°] 46.3	-12.5 57.6	
Me 11	259 [°] 50.8	274 [°] 22.5	288 [°] 54.3	303 [°] 26.0	317 [°] 57.8	332 [°] 29.6	347 [°] 01.5	1 [°] 33.3	16 [°] 05.2	30 [°] 37.1	45 [°] 09.1	+31.8 15.5	
	-0 [°] 36.9	-0 [°] 24.3	-0 [°] 11.7	0 [°] 00.9	0 [°] 13.4	0 [°] 26.0	0 [°] 38.5	0 [°] 51.1	1 [°] 03.6	1 [°] 16.1	1 [°] 28.6	+12.6 57.0	
Je 12	263 [°] 10.1	277 [°] 42.3	292 [°] 14.5	306 [°] 46.7	321 [°] 18.9	335 [°] 51.1	350 [°] 23.3	4 [°] 55.5	19 [°] 27.8	34 [°] 00.0	48 [°] 32.2	+32.2 15.4	
	4 [°] 33.1	4 [°] 45.2	4 [°] 57.2	5 [°] 09.2	5 [°] 21.2	5 [°] 33.1	5 [°] 45.0	5 [°] 56.9	6 [°] 08.7	6 [°] 20.5	6 [°] 32.3	+11.9 56.4	
Ve 13	266 [°] 36.0	281 [°] 08.3	295 [°] 40.5	310 [°] 12.7	324 [°] 45.0	339 [°] 17.2	353 [°] 49.4	8 [°] 21.6	22 [°] 58.8	37 [°] 26.0	51 [°] 58.9	+32.2 15.2	
	9 [°] 23.0	9 [°] 34.0	9 [°] 44.9	9 [°] 55.8	10 [°] 06.6	10 [°] 17.4	10 [°] 28.1	10 [°] 38.7	10 [°] 49.3	10 [°] 59.8	11 [°] 10.3	+10.7 55.8	
Sa 14	269 [°] 59.6	284 [°] 31.6	299 [°] 03.6	313 [°] 35.5	328 [°] 07.5	342 [°] 39.4	357 [°] 11.3	11 [°] 43.2	26 [°] 15.1	40 [°] 47.0	55 [°] 18.8	+31.9 15.1	
	13 [°] 39.7	13 [°] 49.2	13 [°] 58.5	14 [°] 07.8	14 [°] 17.0	14 [°] 26.1	14 [°] 35.2	14 [°] 44.2	14 [°] 53.1	15 [°] 01.9	15 [°] 10.7	+9.1 55.2	
Di 15	273 [°] 14.4	287 [°] 46.0	302 [°] 17.5	316 [°] 49.0	331 [°] 20.5	345 [°] 52.0	0 [°] 23.5	14 [°] 54.9	29 [°] 26.3	43 [°] 57.7	58 [°] 29.1	+31.5 14.9	
	17 [°] 12.6	17 [°] 20.1	17 [°] 27.5	17 [°] 34.8	17 [°] 42.0	17 [°] 49.1	17 [°] 56.2	18 [°] 03.1	18 [°] 10.0	18 [°] 16.8	18 [°] 23.5	+7.1 54.8	
Lu 16	276 [°] 17.5	290 [°] 48.5	305 [°] 19.6	319 [°] 50.6	334 [°] 21.6	348 [°] 52.6	3 [°] 23.6	17 [°] 54.6	32 [°] 25.5	46 [°] 56.5	61 [°] 27.4	+31.0 14.8	
	19 [°] 53.0	19 [°] 58.2	20 [°] 03.3	20 [°] 08.4	20 [°] 13.3	20 [°] 18.1	20 [°] 22.9	20 [°] 27.5	20 [°] 32.1	20 [°] 36.5	20 [°] 40.9	+4.8 54.4	
Ma 17	279 [°] 09.3	293 [°] 39.9	308 [°] 10.6	322 [°] 41.3	337 [°] 11.9	351 [°] 42.6	6 [°] 13.2	20 [°] 43.8	35 [°] 14.4	49 [°] 45.0	64 [°] 15.6	+30.6 14.8	
	21 [°] 34.4	21 [°] 37.2	21 [°] 39.8	21 [°] 42.4	21 [°] 44.8	21 [°] 47.2	21 [°] 49.5	21 [°] 51.6	21 [°] 53.7	21 [°] 55.6	21 [°] 57.4	+2.3 54.2	
Me 18	293 [°] 39.9	308 [°] 10.6	322 [°] 41.3	337 [°] 11.9	351 [°] 42.6	6 [°] 13.2	20 [°] 43.8	35 [°] 14.4	49 [°] 45.0	64 [°] 15.6	78 [°] 46.2	+30.6 14.8	
	21 [°] 37.2	21 [°] 39.8	21 [°] 42.4	21 [°] 44.8	21 [°] 47.2	21 [°] 49.5	21 [°] 51.6	21 [°] 53.7	21 [°] 55.6	21 [°] 57.4	21 [°] 59.2	+2.2 54.2	
Je 19	296 [°] 24.0	310 [°] 54.5	325 [°] 25.0	339 [°] 55.5	354 [°] 26.0	8 [°] 56.5	23 [°] 27.0	37 [°] 57.4	52 [°] 27.9	66 [°] 58.4	81 [°] 28.9	+30.5 14.8	
	22 [°] 12.9	22 [°] 13.0	22 [°] 12.9	22 [°] 12.8	22 [°] 12.6	22 [°] 12.3	22 [°] 11.8	22 [°] 11.3	22 [°] 10.6	22 [°] 09.9	22 [°] 09.0	-0.4 54.2	
Ve 20	299 [°] 06.5	313 [°] 37.1	328 [°] 07.6	342 [°] 38.2	357 [°] 08.8	11 [°] 39.4	26 [°] 09.9	40 [°] 40.5	55 [°] 11.2	69 [°] 41.8	84 [°] 12.4	+30.6 14.8	
	21 [°] 43.7	21 [°] 41.2	21 [°] 38.6	21 [°] 35.9	21 [°] 33.1	21 [°] 30.1	21 [°] 27.1	21 [°] 24.0	21 [°] 20.8	21 [°] 17.4	21 [°] 14.0	-3.0 54.4	
Sa 21	301 [°] 53.1	316 [°] 23.9	330 [°] 54.7	345 [°] 25.5	359 [°] 56.4	14 [°] 27.2	28 [°] 58.1	43 [°] 29.0	57 [°] 59.9	72 [°] 30.8	87 [°] 01.7	+30.9 14.9	
	20 [°] 10.5	20 [°] 05.5	20 [°] 00.4	19 [°] 55.2	19 [°] 49.9	19 [°] 44.5	19 [°] 39.0	19 [°] 33.4	19 [°] 27.7	19 [°] 21.9	19 [°] 16.0	-5.5 54.4	
Di 22	304 [°] 47.4	319 [°] 18.5	333 [°] 49.7	348 [°] 20.9	362 [°] 51.9	17 [°] 23.3	31 [°] 54.5	46 [°] 25.7	60 [°] 57.0	75 [°] 28.2	89 [°] 59.5	+31.2 15.1	
	17 [°] 36.6	17 [°] 29.2	17 [°] 21.8	17 [°] 14.2	17 [°] 06.6	16 [°] 58.9	16 [°] 51.1	16 [°] 43.3	16 [°] 35.3	16 [°] 27.2	16 [°] 19.1	-7.7 55.3	
Lu 23	307 [°] 50.0	322 [°] 21.4	336 [°] 52.9	351 [°] 24.3	365 [°] 55.8	20 [°] 27.3	34 [°] 58.8	49 [°] 30.3	64 [°] 01.8	78 [°] 33.3	93 [°] 04.8	+31.5 15.3	
	14 [°] 07.3	13 [°] 57.9	13 [°] 48.4	13 [°] 38.9	13 [°] 29.2	13 [°] 19.5	13 [°] 09.7	12 [°] 59.8	12 [°] 49.9	12 [°] 39.9	12 [°] 29.8	-9.8 56.0	
Ma 24	310 [°] 57.7	325 [°] 29.3	340 [°] 00.8	354 [°] 32.3	369 [°] 03.8	23 [°] 35.4	38 [°] 06.9	52 [°] 38.4	67 [°] 09.9	81 [°] 41.4	96 [°] 12.9	+31.5 15.5	
	9 [°] 50.7	9 [°] 39.6	9 [°] 28.4	9 [°] 17.1	9 [°] 05.9	8 [°] 54.5	8 [°] 43.1	8 [°] 31.6	8 [°] 20.1	8 [°] 08.6	7 [°] 57.0	-11.4 56.7	
Me 25	314 [°] 03.9	328 [°] 35.2	343 [°] 06.5	357 [°] 37.7	372 [°] 09.9	26 [°] 40.2	41 [°] 11.4	55 [°] 42.6	70 [°] 13.7	84 [°] 44.8	99 [°] 15.9	+31.2 15.7	
	47 [°] 5.0	4 [°] 44.6	4 [°] 32.2	4 [°] 19.8	4 [°] 07.4	3 [°] 54.9	3 [°] 42.4	3 [°] 29.8	3 [°] 17.2	3 [°] 04.6	2 [°] 52.0	-12.5 57.5	
Je 26	316 [°] 59.2	331 [°] 29.8	346 [°] 00.4	360 [°] 31.0	375 [°] 01.5	29 [°] 32.0	44 ^{°</}						

SOLEIL

Octobre 2030

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ°/h
Ma 1	257°34.0 -3°12.1	272°34.2 -3°13.1	287°34.4 -3°14.1	302°34.6 -3°15.1	317°34.8 -3°16.0	332°35.0 -3°17.0	347°35.2 -3°18.0	2°35.4 -3°18.9	17°35.6 -3°19.9	32°35.8 -3°20.9	47°36.0 -3°21.8	62°36.2 -3°22.8	+0.2 -1.0
Me 2	257°38.8 -3°35.4	272°39.0 -3°36.4	287°39.2 -3°37.3	302°39.4 -3°38.3	317°39.6 -3°39.3	332°39.8 -3°40.2	347°40.0 -3°41.2	2°40.2 -3°42.2	17°40.4 -3°43.1	32°40.6 -3°44.1	47°40.8 -3°45.1	62°41.0 -3°46.0	+0.2 -1.0
Je 3	257°43.6 -3°58.3	272°43.7 -3°59.6	287°43.9 -4°00.5	302°44.1 -4°01.5	317°44.3 -4°02.5	332°44.5 -4°03.4	347°44.7 -4°04.4	2°44.9 -4°05.4	17°44.5 -4°06.3	32°44.7 -4°07.3	47°45.1 -4°08.3	62°45.5 -4°09.2	+0.2 -1.0
Ve 4	257°48.2 -4°21.7	272°48.4 -4°22.7	287°48.6 -4°23.7	302°48.8 -4°24.6	317°48.9 -4°25.6	332°49.1 -4°26.6	347°49.3 -4°27.5	2°49.5 -4°28.5	17°49.7 -4°29.5	32°49.9 -4°30.4	47°50.1 -4°31.4	62°50.3 -4°32.3	+0.2 -1.0
Sa 5	257°52.7 -4°44.8	272°52.9 -4°45.8	287°53.1 -4°46.8	302°53.3 -4°47.7	317°53.5 -4°48.7	332°53.7 -4°49.7	347°53.9 -4°50.6	2°54.1 -4°51.6	17°54.3 -4°52.5	32°54.4 -4°53.5	47°54.6 -4°54.5	62°54.8 -4°55.4	+0.2 -1.0
Di 6	257°57.2 -5°07.9	272°57.4 -5°08.8	287°57.6 -5°09.8	302°57.8 -5°10.8	317°58.0 -5°11.7	332°58.2 -5°12.7	347°58.3 -5°13.6	2°58.5 -5°14.6	17°58.7 -5°15.6	32°58.9 -5°16.5	47°59.1 -5°17.5	62°59.3 -5°18.4	+0.2 -1.0
Lu 7	258°01.6 -5°30.9	273°01.8 -5°31.8	288°02.0 -5°32.8	303°02.2 -5°33.7	318°02.4 -5°34.7	333°02.5 -5°35.6	348°02.7 -5°36.6	3°02.9 -5°37.5	18°03.1 -5°38.5	33°03.3 -5°39.5	48°03.4 -5°40.4	63°03.6 -5°41.4	+0.2 -1.0
Ma 8	258°05.8 -5°53.8	273°06.1 -5°54.7	288°06.3 -5°55.7	303°06.5 -5°56.6	318°06.6 -5°57.6	333°06.8 -5°58.5	348°07.0 -5°59.5	3°07.2 -6°00.4	18°07.3 -6°01.4	33°07.5 -6°02.3	48°07.7 -6°03.3	63°07.9 -6°04.2	+0.2 -1.0
Me 9	258°10.1 -6°16.6	273°10.3 -6°17.5	288°10.5 -6°18.5	303°10.6 -6°19.4	318°10.8 -6°20.4	333°11.0 -6°21.3	348°11.1 -6°22.3	3°11.3 -6°23.2	18°11.5 -6°24.2	33°11.7 -6°25.1	48°11.8 -6°26.1	63°12.0 -6°27.0	+0.2 -0.9
Je 10	258°14.2 -6°39.3	273°14.4 -6°40.3	288°14.5 -6°41.2	303°14.7 -6°42.2	318°14.9 -6°43.1	333°15.0 -6°44.1	348°15.2 -6°45.0	3°15.4 -6°45.9	18°15.5 -6°46.9	33°15.7 -6°47.8	48°15.9 -6°48.8	63°16.0 -6°49.7	+0.2 -0.9
Ve 11	258°18.1 -7°02.0	273°18.3 -7°02.9	288°18.5 -7°03.9	303°18.7 -7°04.8	318°18.8 -7°05.7	333°19.0 -7°06.7	348°19.1 -7°07.6	3°19.3 -7°08.6	18°19.5 -7°09.5	33°19.6 -7°10.5	48°19.8 -7°11.4	63°19.9 -7°12.3	+0.2 -0.9
Sa 12	258°22.0 -7°24.5	273°22.2 -7°25.5	288°22.3 -7°26.4	303°22.5 -7°27.2	318°22.6 -7°28.3	333°22.8 -7°29.2	348°23.0 -7°30.2	3°23.1 -7°31.1	18°23.3 -7°32.0	33°23.4 -7°33.0	48°23.6 -7°33.9	63°23.7 -7°34.8	+0.2 -0.9
Di 13	258°25.7 -7°47.0	273°25.9 -7°47.9	288°26.0 -7°48.9	303°26.2 -7°49.8	318°26.3 -7°50.7	333°26.5 -7°51.7	348°26.6 -7°52.6	3°26.8 -7°53.5	18°26.9 -7°54.5	33°27.1 -7°55.4	48°27.1 -7°56.3	63°27.4 -7°57.3	+0.2 -0.9
Lu 14	258°29.3 -8°09.3	273°29.5 -8°10.3	288°29.6 -8°11.2	303°29.8 -8°12.1	318°29.9 -8°13.1	333°30.1 -8°14.0	348°30.2 -8°14.9	3°30.3 -8°15.8	18°30.5 -8°16.8	33°30.6 -8°17.7	48°30.8 -8°18.6	63°30.9 -8°19.6	+0.2 -0.9
Ma 15	258°32.8 -8°31.6	273°32.9 -8°32.5	288°33.1 -8°33.4	303°33.2 -8°34.4	318°33.3 -8°35.3	333°33.5 -8°36.2	348°33.6 -8°37.1	3°33.7 -8°38.1	18°33.9 -8°39.0	33°34.0 -8°39.9	48°34.2 -8°40.8	63°34.3 -8°41.7	+0.2 -0.9
Me 16	258°36.1 -8°53.7	273°36.2 -8°54.6	288°36.3 -8°55.5	303°36.5 -8°56.5	318°36.6 -8°57.4	333°36.7 -8°58.3	348°36.9 -8°59.2	3°37.0 -9°00.1	18°37.1 -9°01.1	33°37.1 -9°02.0	48°37.4 -9°02.9	63°37.4 -9°03.8	+0.2 -0.9
Je 17	258°39.3 -9°15.7	273°39.4 -9°16.6	288°39.5 -9°17.5	303°39.6 -9°18.4	318°39.8 -9°19.4	333°39.9 -9°20.3	348°40.0 -9°21.2	3°40.1 -9°22.1	18°40.3 -9°23.0	33°40.4 -9°23.9	48°40.5 -9°24.8	63°40.6 -9°25.7	+0.2 -0.9
Ve 18	258°42.2 -9°37.6	273°42.4 -9°38.5	288°42.5 -9°39.4	303°42.6 -9°40.3	318°42.7 -9°41.2	333°42.9 -9°42.1	348°43.0 -9°43.0	3°43.1 -9°43.9	18°43.2 -9°44.8	33°43.3 -9°45.7	48°43.5 -9°46.6	63°43.6 -9°47.5	+0.2 -0.9
Sa 19	258°45.1 -9°59.3	273°45.2 -10°00.2	288°45.3 -10°01.1	303°45.4 -10°02.0	318°45.6 -10°02.9	333°45.7 -10°03.8	348°45.8 -10°04.7	3°45.9 -10°05.6	18°46.0 -10°06.5	33°46.1 -10°07.4	48°46.1 -10°08.3	63°46.4 -10°09.2	+0.2 -0.9
Di 20	258°47.8 -10°20.9	273°47.9 -10°21.8	288°48.0 -10°22.7	303°48.1 -10°23.6	318°48.2 -10°24.5	333°48.3 -10°25.4	348°48.4 -10°26.2	3°48.5 -10°27.1	18°48.6 -10°28.0	33°48.8 -10°28.9	48°48.9 -10°29.8	63°49.0 -10°30.7	+0.2 -0.9
Lu 21	258°50.3 -10°42.3	273°50.4 -10°43.2	288°50.5 -10°44.1	303°50.6 -10°45.0	318°50.7 -10°45.9	333°50.8 -10°46.8	348°50.9 -10°47.6	3°51.0 -10°48.5	18°51.1 -10°49.4	33°51.2 -10°50.3	48°51.3 -10°51.2	63°51.4 -10°52.1	+0.2 -0.9
Ma 22	258°52.7 -11°03.6	273°52.8 -11°04.5	288°52.9 -11°05.3	303°52.9 -11°06.2	318°53.0 -11°07.1	333°53.1 -11°08.0	348°53.2 -11°08.9	3°53.3 -11°09.8	18°53.4 -11°10.6	33°53.5 -11°11.5	48°53.6 -11°12.4	63°53.7 -11°13.3	+0.2 -0.9
Me 23	258°54.8 -11°24.7	273°54.9 -11°25.6	288°55.0 -11°26.4	303°55.1 -11°27.3	318°55.2 -11°28.2	333°55.3 -11°29.1	348°55.4 -11°29.9	3°55.5 -11°30.8	18°55.5 -11°31.7	33°55.6 -11°32.6	48°55.7 -11°33.4	63°55.8 -11°34.3	+0.2 -0.9
Je 24	258°56.9 -11°45.6	273°56.9 -11°46.5	288°57.0 -11°47.4	303°57.1 -11°48.2	318°57.2 -11°49.1	333°57.3 -11°50.0	348°57.3 -11°50.8	3°57.4 -11°51.7	18°57.5 -11°52.6	33°57.6 -11°53.4	48°57.6 -11°54.3	63°57.7 -11°55.2	+0.2 -0.9
Ve 25	258°58.8 -12°06.4	273°58.8 -12°07.2	288°58.8 -12°08.0	303°58.9 -12°09.0	318°59.0 -12°09.8	333°59.0 -12°10.7	348°59.0 -12°11.5	3°59.2 -12°12.4	18°59.3 -12°13.3	33°59.3 -12°14.1	48°59.4 -12°15.0	63°59.5 -12°15.8	+0.2 -0.9
Sa 26	259°00.6 -12°27.0	274°00.4 -12°27.8	289°00.5 -12°28.7	304°00.5 -12°29.5	319°00.6 -12°30.4	334°00.6 -12°31.2	349°00.7 -12°32.1	4°00.8 -12°32.9	19°00.8 -12°33.8	34°00.9 -12°34.6	49°01.0 -12°35.5	64°01.0 -12°36.3	+0.2 -0.9
Di 27	259°01.8 -12°47.7	274°01.8 -12°48.2	289°01.9 -12°49.0	304°02.0 -12°49.9	319°02.0 -12°50.7	334°02.1 -12°51.6	349°02.1 -12°52.4	4°02.2 -12°53.2	19°02.2 -12°54.1	34°02.3 -12°54.9	49°02.3 -12°55.8	64°02.4 -12°56.6	+0.2 -0.8
Lu 28	259°03.1 -13°07.8	274°03.1 -13°08.4	289°03.2 -13°09.2	304°03.2 -13°10.0	319°03.3 -13°10.9	334°03.3 -13°11.7	349°03.3 -13°12.5	4°03.4 -13°13.4	19°03.4 -13°14.2	34°03.5 -13°15.0	49°03.5 -13°15.9	64°03.6 -13°16.7	+0.0 -0.8
Ma 29	259°04.2 -13°27.5	274°04.2 -13°28.3	289°04.2 -13°29.2	304°04.3 -13°30.0	319°04.3 -13°30.8	334°04.4 -13°31.6	349°04.4 -13°32.5	4°04.4 -13°33.3	19°04.5 -13°34.1	34°04.5 -13°34.9	49°04.6 -13°35.8	64°04.6 -13°36.6	+0.0 -0.8
Me 30	259°05.1 -13°47.3	274°05.1 -13°48.1	289°05.1 -13°48.9	304°05.2 -13°49.7	319°05.2 -13°50.5	334°05.2 -13°51.4	349°05.2 -13°52.2	4°05.3 -13°53.0	19°05.3 -13°53.8	34°05.3 -13°54.6	49°05.4 -13°55.4	64°05.4 -13°56.3	+0.0 -0.8
Je 31	259°05.8 -14°06.8	274°05.8 -14°07.6	289°05.8 -14°08.4	304°05.8 -14°09.2	319°05.9 -14°10.1	334°05.9 -14°10.9	349°05.9 -14°11.7	4°05.9 -14°12.5	19°06.0 -14°13.3	34°06.0 -14°14.1	49°06.0 -14°14.9	64°06.0 -14°15.7	+0.0 -0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 16.0'

LUNE

Octobre 2030

	J	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h	SP
●	Ma 1	251°42.8 -21°01.5	266°06.8 -21°05.8	280°30.7 -21°10.0	294°54.7 -21°14.0	309°18.6 -21°17.9	323°42.5 -21°21.6	338°06.4 -21°25.2	352°30.3 -21°28.7	36°54.1 -21°32.0	21°18.0 -21°35.1	35°41.8 -21°38.1	+23.9	16.3
	Me 2	251°38.2 -22°04.9	266°02.0 -22°05.9	280°25.7 -22°05.9	294°49.6 -22°06.1	309°13.4 -22°06.2	323°37.2 -22°06.2	338°01.1 -22°06.0	352°24.9 -22°05.7	36°48.8 -22°05.2	21°12.7 -22°04.5	35°36.6 -22°03.7	+23.8	16.2
	Je 3	251°39.7 -21°34.1	266°04.2 -21°31.0	280°28.7 -21°27.7	294°53.4 -21°24.3	309°18.0 -21°20.7	323°42.8 -21°17.0	338°07.5 -21°13.2	352°32.4 -21°09.2	36°57.2 -21°05.1	21°22.2 -21°00.9	35°47.2 -20°56.5	+24.7	16.1
●	Ve 4	252°09.4 -19°35.4	266°35.4 -19°29.0	281°01.5 -19°22.5	295°27.7 -19°15.8	309°53.9 -19°09.1	324°20.2 -19°02.2	338°46.6 -18°55.3	353°13.0 -18°48.2	7°39.5 -18°41.0	22°06.1 -18°33.7	36°32.7 -18°26.3	+26.3	16.0
	Sa 5	253°21.4 -16°22.8	267°49.2 -16°13.9	282°17.1 -16°04.8	296°45.1 -15°55.6	311°13.2 -15°46.4	325°41.3 -15°37.0	340°09.5 -15°27.6	354°37.8 -15°18.1	9°06.1 -15°08.6	23°34.5 -14°58.9	38°03.0 -14°49.2	+28.2	15.9
	Di 6	255°18.7 -12°14.7	269°48.3 -12°03.8	284°18.0 -11°53.0	298°47.7 -11°42.0	313°17.5 -11°31.1	327°47.3 -11°20.0	342°17.2 -11°08.9	356°47.2 -10°57.8	11°17.2 -10°46.6	25°47.3 -10°35.4	40°17.4 -10°24.1	+29.9	15.8
●	Lu 7	257°56.2 -7°29.8	272°27.2 -7°17.9	286°58.3 -7°06.0	301°29.4 -6°54.0	316°00.5 -6°42.1	330°31.7 -6°30.1	345°02.9 -6°18.0	359°34.2 -6°06.0	14°05.5 -5°53.9	28°36.9 -5°41.8	43°08.3 -5°29.7	+31.2	15.6
	Ma 8	261°03.7 -2°26.3	275°35.7 -2°14.0	290°07.6 -2°01.7	304°39.7 -1°49.4	319°11.7 -1°37.1	333°43.8 -1°24.8	348°15.8 -1°12.5	2°48.0 -1°00.2	17°20.1 -0°48.0	31°52.3 -0°35.7	46°24.4 -0°23.4	+32.1	15.5
	Me 9	264°29.3 -0°39.4	279°01.7 -0°15.5	293°34.1 -0°03.5	308°06.6 -0°15.5	322°39.0 -0°27.5	337°11.5 -0°39.5	351°44.0 -0°51.4	6°16.4 -0°40.3	26°48.9 -0°15.2	35°21.4 -0°27.1	49°53.9 -0°38.9	+32.5	15.3
○	Je 10	268°01.3 -0°32.4	282°33.8 -0°43.7	297°06.3 -0°54.9	311°38.7 -0°06.0	326°11.2 -0°17.2	340°43.6 -0°28.3	355°16.1 -0°39.3	9°48.5 -0°50.3	24°20.9 -0°01.9	38°53.3 -0°12.1	53°25.7 -0°23.0	+32.4	15.2
	Ve 11	271°30.2 -11°59.2	286°02.4 -12°09.1	300°34.6 -12°19.0	315°06.7 -12°28.8	329°38.9 -12°38.6	344°11.0 -12°48.3	358°43.1 -12°57.7	13°15.2 -13°07.5	27°47.2 -13°17.0	42°19.3 -13°26.4	56°51.4 -13°35.8	+32.1	15.1
	Sa 12	274°49.1 -15°47.9	289°20.8 -15°55.9	303°52.5 -16°04.0	318°24.1 -16°12.0	332°55.8 -16°20.0	347°27.4 -16°27.9	1°59.0 -16°35.7	16°30.5 -16°43.4	31°02.0 -16°51.0	45°33.6 -16°58.6	60°05.1 -17°06.0	+31.6	15.0
●	Di 13	277°54.9 -18°47.7	292°26.0 -18°53.8	306°57.2 -18°59.8	321°28.3 -19°05.7	335°59.4 -19°11.5	350°30.4 -19°17.2	5°01.5 -19°22.8	19°32.5 -19°28.3	34°03.6 -19°33.8	48°34.6 -19°39.1	63°05.8 -19°44.3	+31.1	14.9
	Lu 14	280°48.3 -20°51.3	295°19.0 -20°55.0	309°49.8 -20°58.6	324°20.5 -21°02.1	338°51.2 -21°05.5	353°21.9 -21°08.8	7°52.5 -21°12.0	22°23.2 -21°15.0	36°53.9 -21°18.0	51°24.5 -21°20.9	65°55.2 -21°23.7	+30.7	14.8
	Ma 15	283°34.0 -21°53.2	298°04.5 -21°54.3	312°35.1 -21°55.4	327°05.6 -21°56.3	341°36.2 -21°57.1	356°06.8 -21°57.9	10°37.3 -21°58.5	25°07.9 -21°59.0	39°38.4 -21°59.4	54°09.0 -21°59.8	68°39.6 -22°00.0	+30.6	14.7
●	Me 16	286°18.7 -21°50.9	300°49.3 -21°49.5	315°20.0 -21°48.0	329°50.7 -21°46.3	344°21.4 -21°44.6	358°52.1 -21°42.8	13°22.8 -21°40.9	27°53.6 -21°38.8	42°24.3 -21°36.7	56°55.1 -21°34.5	71°25.8 -21°32.1	+30.7	14.8
	Je 17	300°49.3 -21°49.5	315°20.0 -21°48.0	329°50.7 -21°46.3	344°21.4 -21°44.6	358°52.1 -21°44.6	13°22.8 -21°40.9	27°53.6 -21°38.8	42°24.3 -21°36.7	56°55.1 -21°34.5	71°25.8 -21°32.1	85°56.6 -21°29.7	+30.7	14.8
	Ve 18	303°40.2 -20°41.3	318°11.2 -20°33.2	332°42.3 -20°33.2	347°13.3 -20°29.0	361°44.8 -20°24.7	16°15.5 -20°20.4	30°46.7 -20°15.9	45°17.8 -20°11.3	59°54.9 -20°06.6	74°20.2 -20°01.9	88°51.4 -19°57.0	+31.1	14.8
●	Sa 19	306°41.6 -18°33.1	321°13.2 -18°26.8	335°44.7 -18°20.4	350°16.2 -18°13.9	364°47.8 -18°07.4	19°19.4 -18°00.7	33°51.0 -17°54.0	48°22.6 -17°47.1	62°54.2 -17°40.2	77°25.9 -17°33.2	91°57.5 -17°26.1	+31.6	14.9
	Di 20	309°54.6 -15°30.0	324°26.5 -15°21.6	338°58.4 -15°13.2	353°30.4 -15°04.6	368°02.3 -14°56.0	8°02.3 -14°47.4	22°34.3 -14°38.6	37°06.3 -14°29.8	51°38.3 -14°20.9	65°30.5 -14°11.9	80°42.3 -14°02.8	+32.0	15.1
	Lu 21	313°15.6 -11°38.6	327°47.7 -11°28.5	342°19.9 -11°18.3	356°52.0 -11°08.0	11°24.1 -10°57.7	25°56.2 -10°47.3	40°28.4 -10°36.8	55°00.5 -10°26.3	69°32.6 -10°15.7	84°04.7 -10°05.0	98°36.8 -9°54.3	+32.1	15.3
●	Ma 22	316°37.6 -9°07.1	331°09.6 -6°55.6	345°41.5 -6°44.0	0°13.5 -6°32.3	14°45.5 -6°20.6	17°55.5 -6°08.9	29°17.8 -5°57.1	58°21.9 -5°45.2	72°52.8 -5°33.4	87°24.6 -5°21.4	101°56.4 -5°09.5	+31.9	15.5
	Me 23	319°50.2 -2°05.7	334°21.3 -2°05.7	348°52.8 -2°05.7	3°24.1 -1°28.1	17°55.5 -1°15.5	32°26.5 -1°02.9	46°57.7 -0°50.2	61°28.8 -0°37.6	75°59.8 -0°24.9	90°30.9 -0°12.2	105°01.9 -0°00.5	+31.2	15.7
	Je 24	323°40.9 -3°12.6	337°11.1 -3°25.5	351°41.2 -3°38.3	6°11.3 -3°51.1	20°41.3 -4°04.0	35°11.2 -4°16.8	49°41.1 -4°29.7	64°11.0 -4°42.5	78°40.7 -4°55.3	93°10.4 -5°08.1	107°40.6 -5°20.9	+29.9	16.0
●	Ve 25	324°56.6 -8°30.4	339°25.1 -8°42.8	353°53.6 -8°55.1	8°21.9 -9°07.5	22°50.2 -9°19.8	37°18.5 -9°32.0	51°46.6 -9°44.2	66°14.7 -9°56.4	80°42.6 -10°08.5	95°10.6 -10°20.6	109°38.8 -10°32.6	+28.2	16.2
	Sa 26	326°26.0 -13°25.8	340°52.5 -13°36.8	355°19.0 -13°47.7	9°45.3 -13°58.6	24°11.6 -14°09.3	38°37.7 -14°20.0	53°03.8 -14°30.6	67°29.8 -14°41.1	81°55.8 -14°51.5	96°21.6 -15°01.9	110°47.4 -15°12.1	+26.1	16.4
	Di 27	327°04.0 -17°33.6	341°28.5 -17°42.1	355°52.9 -17°50.9	10°17.2 -17°58.9	24°41.5 -18°07.1	39°05.7 -18°15.7	53°29.9 -18°23.1	67°53.8 -18°30.9	82°17.8 -18°38.6	96°41.7 -18°46.2	111°05.6 -18°53.6	+24.2	16.5
●	Lu 28	326°56.2 -20°28.5	341°19.2 -20°33.7	355°42.1 -20°38.7	10°05.0 -20°43.6	24°27.8 -20°48.6	38°50.6 -20°52.9	53°13.4 -20°57.3	67°36.1 -21°01.6	81°58.8 -21°05.7	96°21.5 -21°09.7	110°44.2 -21°13.5	+22.8	16.5
	Ma 29	326°22.0 -21°51.4	340°44.5 -21°52.6	355°07.0 -21°53.7	9°29.5 -21°54.6	23°52.0 -21°56.0	38°14.5 -21°56.0	52°37.0 -21°56.4	66°59.6 -21°56.7	81°22.1 -21°58.1	95°44.7 -21°56.8	110°07.7 -21°56.6	+22.5	16.5
	Me 30	325°50.6 -21°34.5	340°13.8 -21°31.8	354°33.1 -21°29.0	9°00.5 -21°26.0	23°23.9 -21°22.8	37°47.3 -21°19.5	52°10.9 -21°16.0	66°34.4 -21°12.0	80°58.1 -21°08.7	95°21.8 -21°04.8	109°45.6 -21°00.8	+23.5	16.4
●	Je 31	325°50.9 -19°43.9	340°15.9 -19°37.7	354°41.0 -19°31.4	9°06.1 -19°25.0	23°31.3 -19°18.4	37°56.7 -19°11.8	52°22.1 -19°05.0	66°47.6 -18°58.1	81°13.1 -18°51.1	95°38.8 -18°44.0	110°04.5 -18°36.7	+25.4	16.2
													+6.7	59.4

Ligne 1 : GHA, Δ°/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2 : Dec (= Sud), Δ°/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PQ: 4 03h56 — PL: 11 10h46 — DQ: 19 14h50 — NL: 26 20h17

SOLEIL

Novembre 2030

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Ve 1	259°06.3 -14°26.1	274°06.3 -14°26.9	289°06.3 -14°27.7	304°06.3 -14°28.5	319°06.3 -14°29.3	334°06.4 -14°30.1	349°06.4 -14°30.9	4°06.4 -14°31.7	15°06.4 -14°32.5	34°06.4 -14°33.3	45°06.4 -14°34.1	64°06.4 -14°34.9	+0.0 -0.8
Sa 2	259°06.6 -14°45.2	274°06.6 -14°46.0	289°06.6 -14°46.8	304°06.6 -14°47.6	319°06.6 -14°48.4	334°06.6 -14°49.2	349°06.6 -14°50.0	4°06.7 -14°50.7	15°06.7 -14°51.5	34°06.7 -14°52.3	45°06.7 -14°53.1	64°06.7 -14°53.9	+0.0 -0.8
Di 3	259°06.7 -15°04.1	274°06.7 -15°04.8	289°06.7 -15°05.6	304°06.7 -15°06.4	319°06.7 -15°07.2	334°06.7 -15°08.0	349°06.7 -15°08.7	4°06.7 -15°09.5	15°06.7 -15°10.3	34°06.7 -15°11.1	45°06.7 -15°11.8	64°06.7 -15°12.6	-0.0 -0.8
Lu 4	259°06.6 -15°22.7	274°06.6 -15°23.4	289°06.6 -15°24.2	304°06.6 -15°25.0	319°06.6 -15°25.7	334°06.6 -15°26.5	349°06.6 -15°27.3	4°06.6 -15°28.0	15°06.6 -15°28.8	34°06.6 -15°29.6	45°06.6 -15°30.3	64°06.6 -15°31.1	-0.0 -0.8
Ma 5	259°06.4 -15°41.0	274°06.4 -15°41.8	289°06.3 -15°42.5	304°06.3 -15°43.3	319°06.3 -15°44.0	334°06.3 -15°44.8	349°06.3 -15°45.6	4°06.3 -15°46.3	15°06.2 -15°47.1	34°06.2 -15°47.8	45°06.2 -15°48.6	64°06.2 -15°49.3	-0.0 -0.8
Me 6	259°05.9 -15°59.1	274°05.9 -15°59.8	289°05.8 -16°00.6	304°05.8 -16°01.3	319°05.8 -16°02.1	334°05.8 -16°02.8	349°05.7 -16°03.6	4°05.7 -16°04.3	15°05.7 -16°05.1	34°05.7 -16°05.8	45°05.6 -16°06.6	64°05.6 -16°07.3	-0.0 -0.7
Je 7	259°05.2 -16°16.9	274°05.2 -16°17.6	289°05.1 -16°18.4	304°05.1 -16°19.1	319°05.1 -16°19.9	334°05.0 -16°20.6	349°05.0 -16°21.3	4°05.0 -16°22.1	15°04.9 -16°22.8	34°04.9 -16°23.5	45°04.9 -16°24.3	64°04.8 -16°25.0	-0.0 -0.7
Ve 8	259°04.3 -16°33.7	274°04.3 -16°34.5	289°04.2 -16°35.2	304°04.2 -16°36.0	319°04.2 -16°36.7	334°04.1 -16°37.4	349°04.1 -16°38.1	4°04.0 -16°38.8	15°04.0 -16°39.5	34°03.9 -16°40.2	45°03.9 -16°41.0	64°03.8 -16°41.7	-0.0 -0.7
Sa 9	259°03.2 -16°51.7	274°03.2 -16°52.4	289°03.1 -16°53.2	304°03.1 -16°53.9	319°03.0 -16°54.6	334°03.0 -16°55.3	349°02.9 -16°56.7	4°02.9 -16°57.4	15°02.8 -16°58.2	34°02.8 -16°58.8	45°02.7 -16°59.5	64°02.6 -16°59.5	-0.1 -0.7
Di 10	259°01.9 -17°08.7	274°01.9 -17°09.4	289°01.8 -17°10.1	304°01.7 -17°10.8	319°01.7 -17°11.5	334°01.6 -17°12.2	349°01.6 -17°12.9	4°01.5 -17°13.6	15°01.4 -17°14.3	34°01.4 -17°15.0	45°01.3 -17°15.7	64°01.2 -17°16.4	-0.1 -0.7
Lu 11	259°00.4 -17°25.4	274°00.3 -17°26.1	289°00.3 -17°26.8	304°00.2 -17°27.5	319°00.1 -17°28.1	334°00.0 -17°28.8	349°00.0 -17°29.5	3°59.9 -17°30.2	15°59.8 -17°30.9	33°59.8 -17°31.6	45°59.7 -17°32.3	63°59.6 -17°32.9	-0.1 -0.7
Ma 12	258°58.7 -17°41.8	273°58.6 -17°42.5	288°58.5 -17°43.1	303°58.4 -17°43.8	318°58.3 -17°44.5	333°58.3 -17°45.2	348°58.2 -17°45.9	3°58.1 -17°46.5	15°58.0 -17°47.2	33°57.9 -17°47.9	45°57.9 -17°48.6	63°57.8 -17°49.2	-0.1 -0.7
Me 13	258°56.7 -17°57.9	273°56.6 -17°58.5	288°56.5 -17°59.2	303°56.4 -17°59.9	318°56.4 -18°00.5	333°56.3 -18°01.2	348°56.2 -18°01.8	3°56.1 -18°02.5	15°56.0 -18°03.2	33°55.9 -18°03.8	45°55.8 -18°04.5	63°55.7 -18°05.1	-0.1 -0.7
Je 14	258°54.2 -18°13.5	273°54.4 -18°14.3	288°54.0 -18°14.9	303°54.3 -18°15.6	318°54.2 -18°16.2	333°54.1 -18°16.9	348°54.0 -18°17.5	3°53.9 -18°18.2	15°53.8 -18°18.8	33°53.7 -18°19.5	45°53.6 -18°20.1	63°53.5 -18°20.8	-0.1 -0.6
Ve 15	258°52.2 -18°29.1	273°52.1 -18°29.7	288°52.0 -18°30.4	303°51.9 -18°31.0	318°51.7 -18°31.6	333°51.6 -18°32.3	348°51.5 -18°32.9	3°51.4 -18°33.6	15°51.3 -18°34.2	33°51.2 -18°34.8	45°51.1 -18°35.4	63°51.0 -18°36.1	-0.1 -0.6
Sa 16	258°49.6 -18°44.2	273°49.5 -18°44.9	288°49.3 -18°45.5	303°49.2 -18°46.1	318°49.1 -18°46.7	333°49.0 -18°47.3	348°48.9 -18°48.0	3°48.8 -18°48.6	15°48.7 -18°49.2	33°48.5 -18°49.8	45°48.4 -18°50.4	63°48.3 -18°51.1	-0.1 -0.6
Di 17	258°46.8 -18°59.6	273°46.6 -18°59.6	288°46.5 -19°00.3	303°46.4 -19°00.9	318°46.3 -19°01.5	333°46.2 -19°02.1	348°46.0 -19°02.7	3°45.9 -19°03.3	15°45.8 -19°03.9	33°45.7 -19°04.5	45°45.5 -19°05.1	63°45.4 -19°05.7	-0.1 -0.6
Lu 18	258°43.7 -19°13.5	273°43.6 -19°14.1	288°43.5 -19°14.7	303°43.4 -19°15.3	318°43.2 -19°15.9	333°43.1 -19°16.5	348°43.0 -19°17.1	3°42.8 -19°17.7	15°42.7 -19°18.2	33°42.6 -19°18.8	45°42.4 -19°19.4	63°42.3 -19°20.0	-0.1 -0.6
Ma 19	258°40.5 -19°27.6	273°40.4 -19°28.2	288°40.2 -19°28.8	303°40.1 -19°29.4	318°40.0 -19°29.9	333°39.8 -19°30.5	348°39.7 -19°31.1	3°39.5 -19°31.7	15°39.4 -19°32.2	33°39.2 -19°32.8	45°39.1 -19°33.4	63°39.0 -19°34.0	-0.1 -0.6
Me 20	258°37.1 -19°43.4	273°36.9 -19°42.0	288°36.8 -19°42.5	303°36.6 -19°43.1	318°36.5 -19°43.6	333°36.3 -19°44.2	348°36.2 -19°44.8	3°36.0 -19°45.3	15°35.9 -19°45.9	33°35.7 -19°46.5	45°35.6 -19°47.0	63°35.4 -19°47.6	-0.2 -0.6
Je 21	258°33.4 -19°54.8	273°33.3 -19°55.3	288°33.1 -19°55.9	303°32.9 -19°56.4	318°32.8 -19°57.0	333°32.6 -19°57.5	348°32.5 -19°58.1	3°32.3 -19°58.6	15°32.2 -19°59.2	33°32.0 -19°59.7	45°31.8 -20°00.3	63°31.7 -20°00.8	-0.2 -0.5
Ve 22	258°29.6 -20°07.5	273°29.4 -20°08.4	288°29.2 -20°08.9	303°29.1 -20°09.4	318°28.9 -20°10.0	333°28.7 -20°10.5	348°28.6 -20°11.0	3°28.4 -20°11.6	15°28.2 -20°12.1	33°28.1 -20°12.6	45°27.9 -20°13.2	63°27.7 -20°13.7	-0.2 -0.5
Sa 23	258°25.8 -20°20.5	273°25.3 -20°21.0	288°25.1 -20°21.6	303°25.0 -20°22.1	318°24.8 -20°22.6	333°24.6 -20°23.1	348°24.4 -20°23.6	3°24.3 -20°24.2	15°24.1 -20°24.7	33°23.9 -20°25.2	45°23.7 -20°25.7	63°23.6 -20°26.2	-0.2 -0.5
Di 24	258°21.2 -20°32.8	273°21.1 -20°33.3	288°20.9 -20°33.8	303°20.7 -20°34.3	318°20.5 -20°34.8	333°20.3 -20°35.3	348°20.1 -20°35.8	3°20.0 -20°36.3	15°19.8 -20°36.8	33°19.6 -20°37.3	45°19.5 -20°37.8	63°19.2 -20°38.3	-0.2 -0.5
Lu 25	258°16.8 -20°44.8	273°16.6 -20°45.2	288°16.4 -20°45.7	303°16.2 -20°46.2	318°16.0 -20°46.7	333°15.8 -20°47.2	348°15.6 -20°47.7	3°15.5 -20°48.2	15°15.3 -20°48.6	33°15.1 -20°49.1	45°14.9 -20°49.6	63°14.7 -20°50.1	-0.2 -0.5
Ma 26	258°12.3 -20°56.8	273°11.9 -20°57.2	288°11.7 -20°57.7	303°11.6 -20°58.2	318°11.4 -20°58.6	333°11.2 -20°58.6	348°11.0 -20°59.1	3°10.8 -20°59.6	15°10.6 -21°00.1	33°10.4 -21°00.5	45°10.2 -21°01.0	63°10.0 -21°01.5	-0.2 -0.5
Me 27	258°07.3 -21°07.4	273°07.1 -21°07.8	288°06.9 -21°08.4	303°06.7 -21°08.8	318°06.5 -21°09.3	333°06.3 -21°09.7	348°06.1 -21°10.2	3°05.9 -21°10.6	15°05.7 -21°11.1	33°05.5 -21°11.5	45°05.3 -21°12.0	63°05.0 -21°12.4	-0.2 -0.5
Je 28	258°02.3 -21°18.2	273°02.1 -21°18.6	288°01.9 -21°19.1	303°01.7 -21°19.5	318°01.5 -21°19.9	333°01.3 -21°20.4	348°01.0 -21°20.8	3°00.8 -21°21.2	15°00.6 -21°21.7	33°00.4 -21°22.1	45°00.2 -21°22.6	63°00.0 -21°23.0	-0.2 -0.4
Ve 29	257°57.1 -21°28.5	272°56.9 -21°29.0	287°56.7 -21°29.4	302°56.5 -21°29.8	317°56.3 -21°30.2	332°56.0 -21°30.6	347°55.8 -21°31.1	2°55.6 -21°31.5	15°55.4 -21°31.9	32°55.2 -21°32.3	47°54.9 -21°32.7	62°54.7 -21°33.1	-0.2 -0.4
Sa 30	257°51.8 -21°38.5	272°51.6 -21°39.1	287°51.3 -21°39.3	302°51.1 -21°39.7	317°50.9 -21°40.1	332°50.7 -21°40.5	347°50.4 -21°40.9	2°50.2 -21°41.3	15°50.0 -21°41.7	32°49.8 -21°42.1	47°49.5 -21°42.5	62°49.3 -21°42.9	-0.2 -0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Novembre 2030

	J	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	Δ'/h	SP
●	Ve 1	240°00.3 -17°26.8	254°26.9 -17°18.5	268°53.2 -17°10.1	283°20.4 -17°01.6	297°47.3 -16°53.1	312°14.3 -16°44.4	326°41.4 -16°35.6	341°08.6 -16°26.8	355°35.8 -16°17.8	10°03.2 -16°08.8	24°30.6 -15°59.7	+27.0	16.1
	Sa 2	241°32.6 -13°33.5	256°01.5 -13°23.2	270°30.4 -13°12.8	284°59.3 -13°02.4	299°28.4 -12°51.9	313°57.5 -12°41.3	328°26.7 -12°30.7	342°56.0 -12°20.0	357°25.4 -12°09.3	11°54.8 -11°58.5	26°24.4 -11°47.7	+29.2	15.9
	Di 3	243°55.9 -8°59.4	258°26.5 -8°47.9	272°57.2 -8°36.3	287°28.0 -8°24.7	301°58.8 -8°13.1	316°29.7 -8°01.4	331°00.6 -7°49.7	345°31.6 -7°38.0	0°02.7 -7°26.2	14°33.8 -7°14.5	29°05.0 -7°02.7	+30.9	15.7
●	Lu 4	246°58.7 -4°03.4	261°30.6 -3°51.3	276°02.6 -3°39.3	290°34.6 -3°27.2	305°06.7 -3°15.1	319°38.8 -3°03.0	334°10.9 -2°50.9	348°43.1 -2°38.9	3°15.3 -2°26.8	17°47.6 -2°14.7	32°19.8 -2°02.6	+32.1	15.5
	Ma 5	250°27.3 0°58.3	264°59.9 1°10.3	279°32.6 1°22.3	294°05.3 1°34.2	308°38.1 1°46.2	323°10.8 1°58.1	337°43.6 2°10.0	352°16.3 2°21.9	6°49.1 2°33.7	21°21.9 2°45.6	35°54.7 2°57.4	+32.8	15.3
	Me 6	254°07.7 5°51.7	268°40.6 6°03.1	283°13.4 6°14.4	297°46.3 6°25.8	312°19.2 6°37.0	326°52.1 6°48.3	341°24.9 6°59.5	355°57.8 7°10.7	10°30.7 7°21.8	25°03.5 7°32.9	39°36.4 7°43.9	+32.9	15.2
●	Je 7	257°47.8 10°24.3	272°20.5 10°34.6	286°53.1 10°44.8	301°25.7 10°55.0	315°58.4 11°05.2	330°30.9 11°15.3	345°03.5 11°25.3	359°36.1 11°35.3	14°08.6 11°45.2	28°41.1 11°55.0	43°13.6 12°04.9	+32.6	15.1
	Ve 8	261°18.4 17°41.5	275°50.6 17°05.4	290°22.7 17°55.1	304°54.8 18°01.8	319°26.8 18°08.4	333°58.9 18°14.9	348°30.9 18°21.3	3°02.9 18°27.7	17°34.8 18°33.9	32°06.7 18°40.1	46°38.6 18°47.8	+32.0	14.9
	Sa 9	264°34.1 17°41.5	279°05.6 17°05.4	293°37.9 17°55.1	308°08.5 18°01.8	322°39.9 18°08.4	337°11.3 18°14.9	351°42.6 18°21.3	6°14.0 18°27.7	20°45.3 18°33.9	35°16.6 18°40.1	49°47.8 18°47.8	+31.4	14.9
○	Di 10	267°34.0 20°06.3	282°04.9 20°10.9	296°35.8 20°15.4	311°06.7 20°19.8	325°37.5 20°24.1	340°08.3 20°28.3	354°39.2 20°32.4	9°10.0 20°36.6	23°40.7 20°44.0	38°11.5 20°44.4	52°42.3 20°47.9	+30.8	14.8
	Lu 11	270°22.0 21°31.8	284°52.6 21°33.9	299°23.1 21°35.9	313°53.7 21°37.8	328°24.3 21°39.6	342°54.8 21°41.3	357°25.3 21°42.9	11°55.9 21°44.4	26°26.4 21°45.8	40°57.0 21°47.1	55°27.5 21°48.3	+30.5	14.7
	Ma 12	273°05.7 21°54.0	287°36.3 21°53.5	302°06.9 21°53.0	316°37.5 21°52.3	331°08.1 21°51.6	345°38.7 21°50.7	0°09.3 21°49.7	14°39.9 21°48.7	29°10.6 21°47.5	43°41.3 21°46.3	58°11.9 21°44.9	+30.6	14.7
●	Me 13	275°53.9 21°12.4	290°24.8 21°09.5	304°55.8 21°06.4	319°26.8 21°03.3	333°57.8 21°00.0	348°28.8 20°56.7	2°59.8 20°53.2	17°30.9 20°49.7	32°02.0 20°46.1	46°33.1 20°42.3	61°04.2 20°38.5	+31.0	14.7
	Je 14	278°54.1 19°30.0	293°25.6 19°24.7	307°57.2 19°19.3	322°28.8 19°13.9	337°00.4 19°08.3	351°32.0 19°02.7	6°03.7 18°56.9	20°35.3 18°51.1	35°07.1 18°45.2	49°38.8 18°39.2	64°10.5 18°33.1	+31.6	14.8
	Ve 15	283°10.1 16°52.1	296°42.2 16°44.7	311°14.4 16°37.2	325°46.6 16°29.7	340°18.9 16°22.1	354°51.1 16°14.4	9°23.4 16°06.6	23°55.4 15°58.8	38°28.0 15°50.9	53°00.4 15°42.9	67°32.8 15°34.8	+32.3	14.9
●	Sa 16	296°42.2 16°44.7	311°14.4 16°37.2	325°46.6 16°29.7	340°18.9 16°22.1	354°51.1 16°14.4	9°23.4 16°06.6	23°55.4 15°58.8	38°28.0 15°50.9	53°00.4 15°42.9	67°32.8 15°34.8	82°05.2 15°26.7	+32.3	14.9
	Di 17	300°13.4 13°16.3	314°46.1 13°07.1	329°18.8 12°57.8	343°51.5 12°48.4	358°24.2 12°39.9	12°56.9 12°29.5	27°29.7 12°20.0	42°02.4 12°10.4	56°35.2 12°00.7	71°08.0 11°51.0	85°40.7 11°41.2	+32.7	15.0
	Lu 18	303°53.2 9°07.5	318°26.1 8°56.8	332°58.9 8°46.1	347°31.7 8°35.3	362°04.6 8°24.5	376°37.4 8°13.6	31°10.2 8°02.7	45°13.1 7°51.7	60°15.9 7°40.7	74°48.9 7°29.6	89°21.5 7°18.5	+32.8	15.2
●	Ma 19	307°31.9 4°26.8	322°04.5 4°15.1	336°37.0 4°03.3	351°09.5 3°51.5	5°42.0 3°39.6	20°14.4 3°27.7	34°46.9 3°15.8	49°19.3 3°03.9	63°51.6 2°51.9	78°24.0 2°39.9	92°56.3 2°27.9	+32.4	15.4
	Me 20	310°56.6 -0°35.5	325°28.3 -0°47.9	339°59.9 -1°00.2	354°31.5 -1°12.6	9°03.1 -1°25.1	23°34.6 -1°37.5	38°06.0 -1°49.9	52°37.4 -2°02.4	67°08.8 -2°14.8	81°40.0 -2°27.3	96°11.3 -2°39.7	+31.5	15.7
	Je 21	313°52.4 -5°46.7	328°22.7 -5°59.1	342°52.8 -6°11.5	357°22.9 -6°23.9	11°52.9 -6°36.2	26°22.8 -6°48.6	40°52.6 -7°00.9	55°26.2 -7°13.2	69°52.1 -7°25.5	84°21.7 -7°37.8	98°51.2 -7°50.0	+29.9	16.0
●	Ve 22	316°04.2 -10°49.9	330°32.4 -11°01.6	345°00.4 -11°13.2	359°28.4 -11°24.8	13°56.3 -11°36.3	28°24.1 -11°47.7	42°51.8 -11°59.1	57°19.4 -12°10.5	71°46.9 -12°21.8	86°14.3 -12°33.0	100°41.6 -12°44.2	+27.7	16.2
	Sa 23	317°19.4 -15°23.3	331°45.2 -15°33.3	346°10.8 -15°43.1	360°36.3 -15°52.9	15°01.8 -16°02.6	29°27.1 -16°12.2	43°52.3 -16°21.7	58°17.5 -16°31.0	72°42.5 -16°40.3	87°07.4 -16°49.6	101°32.3 -16°58.6	+25.3	16.5
	Di 24	317°33.7 -19°01.0	331°57.0 -19°08.2	346°20.3 -19°15.2	360°43.5 -19°22.1	15°06.7 -19°28.9	29°29.7 -19°35.5	43°52.7 -19°42.0	58°15.6 -19°48.4	72°38.4 -19°54.6	87°01.2 -20°00.6	101°23.8 -20°06.6	+23.0	16.6
●	Lu 25	316°56.5 -21°17.2	331°18.2 -21°20.6	345°40.0 -21°23.9	360°01.6 -21°27.0	14°23.3 -21°30.0	28°44.9 -21°32.8	43°06.5 -21°35.4	57°28.1 -21°37.9	71°49.6 -21°40.1	86°11.1 -21°42.3	100°32.6 -21°44.2	+21.6	16.7
	Ma 26	315°54.1 -21°53.3	330°15.5 -21°52.6	344°37.8 -21°51.6	358°58.6 -21°50.5	13°20.1 -21°49.3	27°41.7 -21°47.9	42°03.3 -21°46.3	56°24.9 -21°44.5	70°46.6 -21°42.6	85°08.3 -21°40.3	99°30.1 -21°38.3	+21.6	16.7
	Me 27	315°02.4 -20°45.3	329°25.1 -20°40.5	343°47.8 -20°35.6	358°10.6 -20°30.5	12°33.5 -20°25.5	26°56.4 -20°19.9	41°19.5 -20°14.4	55°42.6 -20°08.8	70°05.8 -20°03.9	84°29.0 -19°57.1	98°52.4 -19°51.0	+23.0	16.6
●	Je 28	314°53.5 -18°04.6	329°18.3 -17°56.5	343°43.3 -17°48.4	358°08.3 -17°40.1	12°33.4 -17°31.7	26°58.6 -17°23.2	41°24.0 -17°14.6	55°49.4 -17°05.9	70°14.9 -16°57.1	84°40.5 -16°48.2	99°06.3 -16°39.2	+25.3	16.1
	Ve 29	315°44.2 -14°03.4	330°11.5 -13°52.6	344°38.9 -13°42.1	359°06.4 -13°31.2	13°34.0 -13°18.5	28°01.8 -13°08.1	42°29.6 -13°01.2	56°57.5 -12°59.4	71°25.5 -12°48.5	85°53.5 -12°37.7	100°21.7 -12°26.7	+27.8	16.1
	Sa 30	317°35.2 -9°36.4	332°04.8 -9°24.7	346°34.5 -9°13.0	361°04.2 -9°01.2	15°34.0 -8°49.4	30°03.9 -8°37.6	44°33.9 -8°25.7	59°03.9 -8°13.8	73°34.1 -8°01.9	88°04.2 -7°50.0	102°34.5 -7°38.0	+29.9	15.9

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PQ: 2 11h56 — PL: 10 03h30 — DQ: 18 08h32 — NL: 25 06h46

SOLEIL

Décembre 2030

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	272°46.1 -21°48.4	287°45.8 -21°48.8	302°45.6 -21°49.2	317°45.4 -21°49.6	332°45.1 -21°49.9	347°44.9 -21°50.3	2°44.7 -21°50.7	17°44.4 -21°51.1	32°44.2 -21°51.5	47°44.0 -21°51.8	62°43.7 -21°52.2	77°43.5 -21°52.6	-0.2 -0.4
Lu 2	272°40.4 -21°57.8	287°40.2 -21°57.9	302°39.9 -21°58.2	317°39.7 -21°58.6	332°39.4 -21°59.0	347°39.2 -21°59.3	2°39.0 -21°59.7	17°38.7 -22°00.1	32°38.5 -22°00.4	47°38.2 -22°00.8	62°38.0 -22°01.1	77°37.7 -22°01.5	-0.2 -0.4
Ma 3	272°34.2 -22°06.2	287°34.3 -22°06.5	302°34.1 -22°06.9	317°33.8 -22°07.2	332°33.6 -22°07.6	347°33.3 -22°07.9	2°38.1 -22°08.2	17°32.9 -22°08.6	32°32.6 -22°08.9	47°32.4 -22°09.2	62°32.1 -22°09.6	77°31.9 -22°10.0	-0.2 -0.3
Me 4	272°28.6 -22°14.4	287°28.4 -22°14.7	302°28.1 -22°15.1	317°27.9 -22°15.4	332°27.6 -22°15.7	347°27.4 -22°16.1	2°27.1 -22°16.4	17°26.9 -22°16.7	32°26.6 -22°17.0	47°26.3 -22°17.4	62°26.1 -22°17.7	77°25.8 -22°18.0	-0.3 -0.3
Je 5	272°22.5 -22°22.2	287°22.3 -22°22.5	302°22.0 -22°22.8	317°21.7 -22°23.2	332°21.5 -22°23.5	347°21.2 -22°23.8	2°21.0 -22°24.1	17°20.7 -22°24.4	32°20.5 -22°24.7	47°20.2 -22°25.0	62°19.9 -22°25.3	77°19.7 -22°25.6	-0.3 -0.3
Ve 6	272°16.3 -22°29.6	287°16.0 -22°29.9	302°15.8 -22°30.2	317°15.5 -22°30.5	332°15.2 -22°30.8	347°15.0 -22°31.1	2°14.7 -22°31.4	17°14.4 -22°31.7	32°14.2 -22°31.9	47°13.9 -22°32.2	62°13.6 -22°32.5	77°13.4 -22°32.8	-0.3 -0.3
Sa 7	272°09.9 -22°36.5	287°09.6 -22°36.8	302°09.4 -22°37.1	317°09.1 -22°37.4	332°08.8 -22°37.6	347°08.6 -22°37.9	2°08.3 -22°38.2	17°08.0 -22°38.5	32°07.8 -22°38.7	47°07.5 -22°39.0	62°07.2 -22°39.3	77°07.0 -22°39.6	-0.3 -0.3
Di 8	272°03.4 -22°43.0	287°03.2 -22°43.3	302°02.9 -22°43.5	317°02.6 -22°43.8	332°02.3 -22°44.1	347°02.1 -22°44.3	2°01.8 -22°44.6	17°01.5 -22°44.8	32°01.2 -22°45.1	47°01.0 -22°45.3	62°00.6 -22°45.6	77°00.4 -22°45.8	-0.3 -0.3
Lu 9	271°56.8 -22°49.1	286°56.5 -22°49.3	301°56.3 -22°49.6	316°56.0 -22°49.8	331°55.7 -22°50.0	346°55.4 -22°50.3	1°55.2 -22°50.5	16°54.9 -22°50.8	31°54.6 -22°51.0	46°54.3 -22°51.2	61°54.0 -22°51.5	76°53.8 -22°51.7	-0.2 -0.3
Ma 10	271°50.1 -22°54.7	286°49.8 -22°54.9	301°49.5 -22°55.1	316°49.3 -22°55.3	331°49.0 -22°55.6	346°48.7 -22°55.8	1°48.4 -22°56.2	16°48.1 -22°56.4	31°47.8 -22°56.6	46°47.6 -22°56.7	61°47.3 -22°56.9	76°47.0 -22°57.1	-0.3 -0.2
Me 11	271°43.3 -22°59.8	286°43.0 -22°59.8	301°42.7 -22°59.8	316°42.4 -22°59.8	331°42.1 -22°59.8	346°41.9 -22°59.8	1°41.6 -22°59.8	16°41.3 -22°59.8	31°41.0 -22°59.8	46°40.7 -22°59.8	61°40.4 -22°59.8	76°40.1 -22°59.8	-0.3 -0.2
Je 12	271°36.4 -23°04.5	286°36.1 -23°04.7	301°35.8 -23°04.9	316°35.5 -23°05.1	331°35.2 -23°05.3	346°34.9 -23°05.4	1°34.6 -23°05.8	16°34.3 -23°05.8	31°34.0 -23°06.0	46°33.8 -23°06.2	61°33.5 -23°06.3	76°33.2 -23°06.5	-0.3 -0.2
Ve 13	271°29.4 -23°08.8	286°29.1 -23°08.9	301°28.8 -23°09.1	316°28.5 -23°09.3	331°28.2 -23°09.4	346°27.9 -23°09.6	1°27.6 -23°09.9	16°27.3 -23°09.9	31°27.0 -23°10.1	46°26.7 -23°10.1	61°26.4 -23°10.3	76°26.1 -23°10.6	-0.3 -0.2
Sa 14	271°22.3 -23°12.0	286°22.0 -23°12.7	301°21.7 -23°12.8	316°21.4 -23°13.0	331°21.1 -23°13.1	346°20.8 -23°13.3	1°20.5 -23°13.4	16°20.2 -23°13.6	31°19.9 -23°13.7	46°19.6 -23°13.8	61°19.3 -23°14.0	76°19.0 -23°14.1	-0.2 -0.3
Di 15	271°15.9 -23°15.7	286°14.8 -23°16.0	301°14.5 -23°16.1	316°14.2 -23°16.2	331°13.9 -23°16.4	346°13.6 -23°16.5	1°13.3 -23°16.6	16°13.0 -23°16.7	31°12.7 -23°16.9	46°12.4 -23°17.0	61°12.1 -23°17.1	76°11.8 -23°17.2	-0.3 -0.3
Lu 16	271°07.9 -23°18.7	286°07.6 -23°18.8	301°07.3 -23°18.9	316°07.0 -23°19.0	331°06.7 -23°19.1	346°06.4 -23°19.3	1°06.1 -23°19.4	16°05.8 -23°19.5	31°05.5 -23°19.6	46°05.7 -23°19.7	61°05.4 -23°19.8	76°04.5 -23°19.9	-0.3 -0.3
Ma 17	271°00.6 -23°21.1	286°00.3 -23°21.2	301°00.0 -23°21.3	315°59.7 -23°21.4	330°59.4 -23°21.5	345°59.1 -23°21.5	0°58.8 -23°21.6	15°58.5 -23°21.7	30°58.1 -23°21.8	45°57.8 -23°21.9	60°57.5 -23°22.0	75°57.2 -23°22.0	-0.3 -0.1
Me 18	270°53.2 -23°23.0	285°52.9 -23°23.1	300°52.6 -23°23.2	315°52.3 -23°23.2	330°52.0 -23°23.3	345°51.7 -23°23.4	0°51.7 -23°23.4	15°51.1 -23°23.5	30°50.8 -23°23.6	45°50.5 -23°23.6	60°50.2 -23°23.7	75°49.9 -23°23.7	-0.3 -0.1
Je 19	270°45.8 -23°24.5	285°45.5 -23°24.5	300°45.2 -23°24.6	315°44.9 -23°24.6	330°44.6 -23°24.7	345°44.3 -23°24.7	0°44.0 -23°24.8	15°43.7 -23°24.8	30°43.4 -23°24.9	45°43.1 -23°24.9	60°42.8 -23°24.9	75°42.4 -23°25.0	-0.3 -0.0
Ve 20	270°38.4 -23°25.5	285°38.1 -23°25.5	300°37.8 -23°25.5	315°37.5 -23°25.5	330°37.2 -23°25.6	345°36.9 -23°25.6	0°36.6 -23°25.6	15°36.2 -23°25.7	30°35.9 -23°25.7	45°35.6 -23°25.7	60°35.3 -23°25.7	75°35.0 -23°25.8	-0.3 -0.0
Sa 21	270°31.0 -23°26.0	285°30.6 -23°26.0	300°30.3 -23°26.0	315°30.0 -23°26.0	330°29.7 -23°26.0	345°29.4 -23°26.0	0°29.1 -23°26.0	15°28.8 -23°26.0	30°28.5 -23°26.0	45°28.2 -23°26.0	60°27.8 -23°26.0	75°27.5 -23°26.0	-0.3 -0.0
Di 22	270°23.5 -23°26.0	285°23.2 -23°26.0	300°22.9 -23°26.0	315°22.5 -23°26.0	330°22.2 -23°26.0	345°21.9 -23°26.0	0°21.6 -23°25.9	15°21.3 -23°25.9	30°21.0 -23°25.9	45°20.7 -23°25.9	60°20.4 -23°25.9	75°20.1 -23°25.9	-0.3 +0.0
Lu 23	270°16.0 -23°25.6	285°15.7 -23°25.5	300°15.4 -23°25.5	315°15.1 -23°25.5	330°14.8 -23°25.5	345°14.4 -23°25.4	0°14.1 -23°25.4	15°13.8 -23°25.4	30°13.5 -23°25.3	45°13.2 -23°25.3	60°12.9 -23°25.3	75°12.6 -23°25.2	-0.3 +0.0
Ma 24	270°08.5 -23°24.7	285°08.2 -23°24.6	300°07.9 -23°24.6	315°07.6 -23°24.5	330°07.3 -23°24.5	345°07.0 -23°24.4	0°06.6 -23°24.4	15°06.3 -23°24.4	30°06.0 -23°24.4	45°05.7 -23°24.4	60°05.4 -23°24.4	75°05.1 -23°24.1	-0.3 +0.1
Me 25	270°01.0 -23°23.3	285°00.7 -23°23.2	300°00.4 -23°23.2	315°00.1 -23°23.0	329°59.8 -23°23.0	344°59.5 -23°23.0	0°59.5 -23°22.8	14°58.9 -23°22.8	29°58.6 -23°22.7	44°58.2 -23°22.7	59°57.9 -23°22.6	74°57.6 -23°22.5	-0.3 +0.1
Je 26	269°53.6 -23°21.5	284°53.3 -23°21.4	299°53.0 -23°21.3	314°52.7 -23°21.2	329°52.3 -23°21.1	344°52.0 -23°21.0	0°52.0 -23°20.9	14°51.4 -23°20.8	29°51.1 -23°20.7	44°50.8 -23°20.7	59°50.5 -23°20.6	74°50.2 -23°20.5	-0.3 +0.1
Ve 27	269°46.4 -23°19.1	284°45.9 -23°19.0	299°45.6 -23°18.9	314°45.2 -23°18.8	329°44.9 -23°18.7	344°44.6 -23°18.6	0°44.6 -23°18.5	14°44.0 -23°18.4	29°43.7 -23°18.3	44°43.4 -23°18.2	59°43.1 -23°18.1	74°42.8 -23°17.9	-0.3 +0.1
Sa 28	269°38.8 -23°16.4	284°38.5 -23°16.2	299°38.2 -23°16.1	314°37.9 -23°16.0	329°37.6 -23°15.9	344°37.3 -23°15.7	0°37.3 -23°15.6	14°36.6 -23°15.5	29°36.3 -23°15.3	44°36.0 -23°15.2	59°35.7 -23°15.1	74°35.4 -23°14.9	-0.3 +0.1
Di 29	269°31.5 -23°13.1	284°31.2 -23°13.0	299°30.8 -23°12.8	314°30.5 -23°12.7	329°30.2 -23°12.5	344°29.9 -23°12.4	0°29.9 -23°12.2	14°29.3 -23°12.1	29°29.0 -23°11.9	44°28.7 -23°11.8	59°28.4 -23°11.6	74°28.1 -23°11.5	-0.3 +0.1
Lu 30	269°24.2 -23°09.4	284°23.9 -23°09.2	299°23.6 -23°09.1	314°23.3 -23°08.9	329°23.0 -23°08.7	344°22.7 -23°08.6	0°22.7 -23°08.4	14°22.1 -23°08.2	29°21.8 -23°08.1	44°21.5 -23°07.9	59°21.2 -23°07.7	74°20.9 -23°07.6	-0.3 +0.2
Ma 31	269°17.0 -23°05.2	284°16.7 -23°05.1	299°16.4 -23°04.9	314°16.1 -23°04.7	329°15.8 -23°04.5	344°15.5 -23°04.3	0°15.2 -23°04.1	14°14.9 -23°03.9	29°14.6 -23°03.7	44°14.3 -23°03.6	59°14.0 -23°03.4	74°13.7 -23°03.2	-0.3 +0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Décembre 2030

	J	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	Δ/h	SP
O	Di 1	233 ^o 10.1 -5 ^o 49.3	247 ^o 41.0 -5 ^o 37.2	262 ^o 12.0 -5 ^o 25.0	276 ^o 43.1 -5 ^o 12.8	291 ^o 14.2 -5 ^o 00.7	305 ^o 45.4 -4 ^o 48.5	320 ^o 16.6 -4 ^o 36.2	334 ^o 47.9 -4 ^o 24.0	349 ^o 19.3 -4 ^o 11.8	3 ^o 50.7 -3 ^o 59.6	18 ^o 22.2 -3 ^o 47.3	+31.2	15.7
	Lu 2	236 ^o 19.0 -0 ^o 44.0	250 ^o 52.1 -0 ^o 31.8	265 ^o 24.3 -0 ^o 19.7	279 ^o 56.6 -0 ^o 07.5	294 ^o 28.9 0 ^o 04.6	309 ^o 01.2 0 ^o 16.7	323 ^o 33.3 0 ^o 28.8	338 ^o 06.0 0 ^o 40.9	352 ^o 38.4 0 ^o 53.0	7 ^o 10.9 1 ^o 05.0	21 ^o 43.3 1 ^o 17.1	+32.3	15.5
	Ma 3	239 ^o 53.4 4 ^o 14.9	254 ^o 26.2 4 ^o 26.6	268 ^o 59.0 4 ^o 38.2	283 ^o 31.9 4 ^o 49.8	298 ^o 04.7 5 ^o 01.3	312 ^o 37.6 5 ^o 12.8	327 ^o 10.5 5 ^o 24.3	341 ^o 43.3 5 ^o 35.8	356 ^o 16.2 5 ^o 47.2	10 ^o 49.1 5 ^o 58.6	25 ^o 22.0 6 ^o 09.9	+32.9	15.3
O	Me 4	243 ^o 35.8 8 ^o 55.1	258 ^o 08.7 9 ^o 05.8	272 ^o 41.6 9 ^o 16.4	287 ^o 14.5 9 ^o 27.0	301 ^o 47.4 9 ^o 37.5	316 ^o 20.2 9 ^o 47.9	330 ^o 53.1 9 ^o 58.4	345 ^o 25.9 10 ^o 08.7	359 ^o 58.8 10 ^o 19.0	14 ^o 31.6 10 ^o 29.3	29 ^o 04.4 10 ^o 39.5	+32.9	15.1
	Je 5	247 ^o 14.9 13 ^o 05.8	261 ^o 47.5 13 ^o 15.1	276 ^o 20.0 13 ^o 24.3	290 ^o 52.5 13 ^o 33.5	305 ^o 25.0 13 ^o 42.5	319 ^o 57.5 13 ^o 51.6	334 ^o 30.0 14 ^o 00.5	349 ^o 02.4 14 ^o 09.4	3 ^o 34.8 14 ^o 18.2	18 ^o 07.2 14 ^o 27.0	32 ^o 39.6 14 ^o 35.6	+32.5	15.0
	Ve 6	250 ^o 42.0 16 ^o 37.3	265 ^o 14.0 16 ^o 44.8	279 ^o 45.9 16 ^o 52.2	294 ^o 17.8 16 ^o 59.6	308 ^o 49.7 17 ^o 06.9	323 ^o 21.6 17 ^o 14.1	337 ^o 53.4 17 ^o 21.2	352 ^o 25.2 17 ^o 28.2	6 ^o 56.9 17 ^o 35.2	21 ^o 28.7 17 ^o 42.0	36 ^o 00.4 17 ^o 48.8	+31.8	14.9
O	Sa 7	253 ^o 52.9 19 ^o 20.5	268 ^o 24.2 19 ^o 25.9	282 ^o 55.4 19 ^o 31.2	297 ^o 26.7 19 ^o 36.5	311 ^o 57.9 19 ^o 41.6	326 ^o 29.1 19 ^o 46.6	341 ^o 00.2 19 ^o 51.6	355 ^o 31.4 19 ^o 56.5	10 ^o 02.5 20 ^o 01.2	24 ^o 33.6 20 ^o 05.9	39 ^o 04.6 20 ^o 10.5	+31.2	14.8
	Di 8	256 ^o 48.2 21 ^o 07.7	271 ^o 19.0 21 ^o 10.8	285 ^o 49.7 21 ^o 13.7	300 ^o 20.4 21 ^o 16.6	314 ^o 51.1 21 ^o 19.3	329 ^o 21.8 21 ^o 21.9	343 ^o 52.5 21 ^o 24.5	358 ^o 23.2 21 ^o 26.9	12 ^o 53.9 21 ^o 29.3	27 ^o 24.5 21 ^o 31.5	41 ^o 55.1 21 ^o 33.6	+30.7	14.7
	Lu 9	259 ^o 33.7 21 ^o 53.5	274 ^o 04.3 21 ^o 54.0	288 ^o 34.8 21 ^o 54.4	303 ^o 05.3 21 ^o 54.7	317 ^o 35.5 21 ^o 54.9	332 ^o 06.4 21 ^o 55.0	346 ^o 36.9 21 ^o 55.9	1 ^o 07.5 21 ^o 54.9	15 ^o 38.0 21 ^o 54.7	30 ^o 08.6 21 ^o 54.4	44 ^o 39.1 21 ^o 54.0	+30.5	14.7
O	Ma 10	263 ^o 18.3 21 ^o 35.5	276 ^o 49.0 21 ^o 33.5	291 ^o 19.8 21 ^o 31.4	305 ^o 50.5 21 ^o 29.1	320 ^o 21.3 21 ^o 26.8	334 ^o 52.0 21 ^o 24.3	349 ^o 22.8 21 ^o 21.8	3 ^o 53.6 21 ^o 19.2	18 ^o 24.4 21 ^o 16.4	32 ^o 55.3 21 ^o 13.6	47 ^o 26.1 21 ^o 10.7	+30.8	14.7
	Me 11	265 ^o 11.5 20 ^o 15.1	279 ^o 42.8 20 ^o 10.6	294 ^o 14.0 20 ^o 06.1	308 ^o 45.3 20 ^o 01.4	323 ^o 16.3 19 ^o 56.7	337 ^o 47.9 19 ^o 51.9	352 ^o 19.3 19 ^o 47.0	6 ^o 50.6 19 ^o 42.0	21 ^o 22.0 19 ^o 36.9	35 ^o 53.5 19 ^o 31.7	50 ^o 24.9 19 ^o 26.4	+31.3	14.7
	Je 12	268 ^o 20.4 17 ^o 56.9	282 ^o 52.3 17 ^o 50.3	297 ^o 24.3 17 ^o 43.6	311 ^o 56.3 17 ^o 36.8	326 ^o 28.3 17 ^o 29.9	341 ^o 00.3 17 ^o 22.9	355 ^o 32.4 17 ^o 15.9	10 ^o 04.5 17 ^o 08.8	24 ^o 36.7 17 ^o 01.6	39 ^o 08.9 16 ^o 54.3	53 ^o 41.1 16 ^o 47.0	+32.1	14.8
O	Ve 13	271 ^o 47.5 14 ^o 48.1	286 ^o 20.1 14 ^o 39.6	300 ^o 52.8 14 ^o 31.0	315 ^o 25.5 14 ^o 22.4	329 ^o 58.2 14 ^o 13.7	344 ^o 31.0 14 ^o 05.0	359 ^o 03.8 13 ^o 56.1	18 ^o 36.6 13 ^o 47.3	28 ^o 09.4 13 ^o 38.3	42 ^o 42.2 13 ^o 29.3	57 ^o 15.1 13 ^o 20.2	+32.8	14.9
	Sa 14	275 ^o 30.5 10 ^o 57.1	290 ^o 03.6 10 ^o 47.1	304 ^o 36.8 10 ^o 37.1	319 ^o 10.0 10 ^o 27.0	333 ^o 43.2 10 ^o 16.9	348 ^o 16.4 10 ^o 06.7	2 ^o 49.7 9 ^o 56.5	17 ^o 22.9 9 ^o 46.2	31 ^o 56.1 9 ^o 35.8	46 ^o 29.4 9 ^o 25.4	61 ^o 02.7 9 ^o 15.0	+33.2	15.0
	Di 15	279 ^o 22.3 6 ^o 33.3	293 ^o 55.6 6 ^o 22.2	308 ^o 28.8 6 ^o 11.0	323 ^o 02.2 5 ^o 59.9	337 ^o 35.5 5 ^o 48.6	352 ^o 08.8 5 ^o 37.4	6 ^o 42.1 5 ^o 26.1	21 ^o 15.4 5 ^o 14.8	35 ^o 48.6 5 ^o 03.5	50 ^o 21.9 4 ^o 52.1	64 ^o 55.2 4 ^o 40.7	+33.3	15.2
O	Lu 16	293 ^o 55.6 6 ^o 22.2	308 ^o 28.9 6 ^o 11.0	323 ^o 02.2 5 ^o 59.9	337 ^o 35.5 5 ^o 48.6	352 ^o 08.8 5 ^o 37.4	6 ^o 42.1 5 ^o 26.1	21 ^o 15.4 5 ^o 14.8	35 ^o 48.6 5 ^o 03.5	50 ^o 21.9 4 ^o 52.1	64 ^o 55.2 4 ^o 40.7	79 ^o 28.4 4 ^o 29.2	+33.3	15.2
	Ma 17	297 ^o 45.1 1 ^o 34.4	312 ^o 18.3 1 ^o 22.6	326 ^o 50.9 1 ^o 10.7	341 ^o 23.8 0 ^o 58.8	355 ^o 56.7 0 ^o 46.9	10 ^o 29.5 0 ^o 35.0	25 ^o 02.3 0 ^o 23.1	39 ^o 35.0 0 ^o 11.2	54 ^o 07.8 -0 ^o 00.8	68 ^o 40.5 -0 ^o 12.7	83 ^o 13.1 -0 ^o 24.7	+32.8	15.4
	Me 18	301 ^o 18.3 -2 ^o 25.3	315 ^o 50.3 -3 ^o 37.4	330 ^o 22.2 -3 ^o 49.5	344 ^o 54.1 -4 ^o 01.5	359 ^o 25.9 -4 ^o 13.6	13 ^o 57.7 -4 ^o 25.7	28 ^o 29.4 -4 ^o 37.7	43 ^o 01.4 -4 ^o 49.7	57 ^o 32.6 -5 ^o 01.8	72 ^o 04.1 -5 ^o 13.8	86 ^o 35.6 -5 ^o 25.8	+31.7	15.6
O	Je 19	304 ^o 19.8 -8 ^o 24.1	318 ^o 50.2 -8 ^o 35.9	333 ^o 20.3 -8 ^o 47.5	347 ^o 50.7 -8 ^o 59.2	362 ^o 00.9 -9 ^o 10.8	16 ^o 50.9 -9 ^o 22.4	31 ^o 20.9 -9 ^o 34.0	45 ^o 50.9 -9 ^o 45.5	60 ^o 20.6 -9 ^o 57.0	74 ^o 50.4 -10 ^o 08.5	89 ^o 20.0 -10 ^o 19.9	+30.0	15.8
	Ve 20	306 ^o 34.1 -13 ^o 05.6	321 ^o 02.3 -13 ^o 16.2	335 ^o 30.4 -13 ^o 26.8	349 ^o 58.4 -13 ^o 37.3	364 ^o 26.3 -13 ^o 47.7	4 ^o 26.3 -13 ^o 58.1	18 ^o 54.1 -14 ^o 08.3	33 ^o 21.8 -14 ^o 18.6	48 ^o 46.3 -14 ^o 28.7	63 ^o 11.2 -14 ^o 38.8	77 ^o 36.0 -14 ^o 48.8	+27.8	16.1
	Sa 21	307 ^o 48.8 -17 ^o 08.9	322 ^o 14.5 -17 ^o 17.5	336 ^o 40.4 -17 ^o 26.1	351 ^o 05.5 -17 ^o 34.4	365 ^o 30.8 -17 ^o 42.7	5 ^o 30.8 -17 ^o 50.9	19 ^o 56.1 -17 ^o 59.0	34 ^o 21.2 -18 ^o 07.7	48 ^o 46.3 -18 ^o 14.9	63 ^o 04.0 -18 ^o 22.6	77 ^o 26.6 -18 ^o 30.2	+25.2	16.4
O	Di 22	308 ^o 00.3 -20 ^o 09.9	322 ^o 23.6 -20 ^o 15.5	336 ^o 46.7 -20 ^o 24.0	351 ^o 09.8 -20 ^o 26.3	365 ^o 30.8 -20 ^o 31.5	5 ^o 32.8 -20 ^o 36.5	19 ^o 55.7 -20 ^o 41.4	34 ^o 18.5 -20 ^o 46.1	48 ^o 41.3 -20 ^o 50.7	63 ^o 04.0 -20 ^o 55.1	77 ^o 26.6 -20 ^o 59.4	+22.9	16.6
	Lu 23	307 ^o 19.8 -21 ^o 44.9	321 ^o 41.4 -21 ^o 46.1	336 ^o 03.0 -21 ^o 48.2	350 ^o 24.6 -21 ^o 49.6	364 ^o 46.1 -21 ^o 50.8	4 ^o 46.1 -21 ^o 55.8	19 ^o 07.7 -21 ^o 51.9	33 ^o 29.1 -21 ^o 52.8	47 ^o 50.6 -21 ^o 53.5	62 ^o 12.0 -21 ^o 54.1	76 ^o 33.4 -21 ^o 54.5	+21.5	16.7
	Ma 24	306 ^o 15.0 -21 ^o 37.6	320 ^o 36.4 -21 ^o 35.2	334 ^o 57.9 -21 ^o 32.5	349 ^o 19.3 -21 ^o 29.7	363 ^o 40.8 -21 ^o 26.7	3 ^o 40.8 -21 ^o 23.5	18 ^o 02.4 -21 ^o 20.2	32 ^o 23.9 -21 ^o 16.7	46 ^o 45.5 -21 ^o 13.1	61 ^o 07.1 -21 ^o 09.3	75 ^o 28.8 -21 ^o 05.3	+21.5	16.7
O	Me 25	305 ^o 22.5 -19 ^o 46.9	319 ^o 45.1 -19 ^o 40.5	334 ^o 07.8 -19 ^o 33.9	348 ^o 30.6 -19 ^o 27.2	362 ^o 53.5 -19 ^o 20.3	17 ^o 16.4 -19 ^o 13.4	31 ^o 39.4 -19 ^o 06.2	46 ^o 02.5 -18 ^o 59.0	60 ^o 25.7 -18 ^o 51.6	74 ^o 49.0 -18 ^o 44.1	89 ^o 12.3 -18 ^o 36.4	+23.0	16.7
	Je 26	305 ^o 13.2 -16 ^o 27.0	319 ^o 38.0 -16 ^o 17.5	334 ^o 02.9 -16 ^o 07.9	348 ^o 27.9 -15 ^o 58.2	362 ^o 53.5 -15 ^o 48.4	17 ^o 18.2 -15 ^o 38.4	31 ^o 43.5 -15 ^o 28.4	46 ^o 08.9 -15 ^o 18.3	60 ^o 34.4 -15 ^o 08.1	75 ^o 00.4 -14 ^o 57.9	89 ^o 25.7 -14 ^o 47.5	+25.2	16.5
	Ve 27	306 ^o 02.7 -12 ^o 02.7	320 ^o 29.9 -11 ^o 51.2	334 ^o 57.2 -11 ^o 39.6	349 ^o 24.6 -11 ^o 28.0	363 ^o 52.2 -11 ^o 16.3	18 ^o 19.8 -11 ^o 04.5	32 ^o 47.5 -10 ^o 52.8	47 ^o 15.3 -10 ^o 40.9	61 ^o 43.1 -10 ^o 29.0	76 ^o 11.1 -10 ^o 17.1	90 ^o 39.2 -10 ^o 05.1	+27.7	16.3
O	Sa 28	307 ^o 50.3 -7 ^o 01.1	322 ^o 19.7 -6 ^o 48.6	336 ^o 49.2 -6 ^o 36.1	351 ^o 18.7 -6 ^o 23.6	365 ^o 48.4 -6 ^o 11.0	20 ^o 18.1 -5 ^o 58.5	34 ^o 47.8 -5 ^o 45.9	49 ^o 17.6 -5 ^o 33.3	63 ^o 47.6 -5 ^o 20.7	78 ^o 17.5 -5 ^o 08.1	92 ^o 47.6 -4 ^o 55.5	+29.7	16.0
	Di 29	310												

SOLEIL

Janvier 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Me 1	269°09.8 -23°00.6	284°09.6 -23°00.4	299°09.3 -23°00.2	314°09.0 -23°00.0	329°08.7 -22°59.8	344°08.4 -22°59.6	359°08.1 -22°59.4	14°07.8 -22°59.2	26°07.5 -22°59.0	44°07.2 -22°58.7	56°06.9 -22°58.5	74°06.6 -22°58.3	-0.3 +0.2
Je 2	269°02.8 -22°55.8	284°02.5 -22°55.3	299°02.2 -22°55.1	314°01.9 -22°54.8	329°01.6 -22°54.6	344°01.3 -22°54.4	359°01.1 -22°54.2	14°00.8 -22°53.9	26°00.5 -22°53.7	44°00.2 -22°53.5	56°59.9 -22°53.3	73°59.6 -22°53.0	-0.3 +0.2
Ve 3	268°55.8 -22°50.0	283°55.6 -22°49.7	298°55.3 -22°49.5	313°55.0 -22°49.2	328°54.7 -22°49.0	343°54.4 -22°48.7	358°54.1 -22°48.5	13°53.8 -22°48.3	25°53.5 -22°48.0	43°53.3 -22°47.8	56°53.0 -22°47.5	73°52.7 -22°47.3	-0.3 +0.2
Sa 4	268°49.0 -22°44.0	283°48.7 -22°43.7	298°48.4 -22°43.4	313°48.1 -22°43.2	328°47.8 -22°42.9	343°47.6 -22°42.7	358°47.3 -22°42.4	13°47.0 -22°42.1	25°46.7 -22°41.9	43°46.4 -22°41.6	56°46.2 -22°41.3	73°45.9 -22°41.1	-0.3 +0.3
Di 5	268°42.2 -22°37.5	283°41.9 -22°37.2	298°41.7 -22°36.9	313°41.4 -22°36.7	328°41.1 -22°36.4	343°40.8 -22°36.1	358°40.6 -22°35.8	13°40.3 -22°35.5	25°40.0 -22°35.3	43°39.7 -22°35.0	56°39.4 -22°34.7	73°39.2 -22°34.4	-0.3 +0.3
Lu 6	268°35.6 -22°30.6	283°35.3 -22°30.3	298°35.0 -22°30.0	313°34.8 -22°29.7	328°34.5 -22°29.4	343°34.2 -22°29.1	358°33.9 -22°28.8	13°33.7 -22°28.5	25°33.4 -22°28.2	43°33.1 -22°27.9	56°32.8 -22°27.6	73°32.6 -22°27.3	-0.3 +0.3
Ma 7	268°29.0 -22°23.3	283°28.8 -22°22.9	298°28.5 -22°22.6	313°28.2 -22°22.3	328°28.0 -22°22.0	343°27.7 -22°21.7	358°27.4 -22°21.4	13°27.2 -22°21.0	25°26.9 -22°20.7	43°26.6 -22°20.4	56°26.4 -22°20.1	73°26.1 -22°19.7	-0.3 +0.3
Me 8	268°22.6 -22°15.5	283°22.4 -22°15.1	298°22.1 -22°14.8	313°21.8 -22°14.5	328°21.6 -22°14.1	343°21.3 -22°13.8	358°21.1 -22°13.5	13°20.8 -22°13.1	25°20.5 -22°12.8	43°20.3 -22°12.4	56°20.0 -22°12.1	73°19.7 -22°11.8	-0.3 +0.3
Je 9	268°16.4 -22°07.3	283°16.1 -22°06.9	298°15.8 -22°06.5	313°15.6 -22°06.2	328°15.3 -22°05.8	343°15.1 -22°05.5	358°14.8 -22°05.1	13°14.6 -22°04.8	25°14.3 -22°04.4	43°14.0 -22°03.9	56°13.8 -22°03.7	73°13.5 -22°03.4	-0.3 +0.4
Ve 10	268°10.2 -21°58.6	283°10.0 -21°58.2	298°09.7 -21°57.9	313°09.5 -21°57.5	328°09.2 -21°57.1	343°09.0 -21°56.4	358°08.7 -21°56.0	13°08.4 -21°55.6	25°08.2 -21°55.2	43°07.9 -21°54.9	56°07.7 -21°54.9	73°07.4 -21°54.5	-0.3 +0.4
Sa 11	268°04.2 -21°49.5	283°04.0 -21°49.1	298°03.7 -21°48.7	313°03.5 -21°48.3	328°03.2 -21°48.0	343°03.0 -21°47.6	358°02.7 -21°47.2	13°02.5 -21°46.8	25°02.2 -21°46.4	43°02.0 -21°46.0	56°01.7 -21°45.6	73°01.5 -21°45.2	-0.2 +0.4
Di 12	267°58.3 -21°40.5	282°58.1 -21°39.6	297°57.9 -21°39.2	312°57.6 -21°38.8	327°57.4 -21°38.4	342°57.1 -21°38.0	357°56.9 -21°37.6	12°56.7 -21°37.2	25°56.4 -21°36.7	42°56.2 -21°36.3	57°55.9 -21°35.9	72°55.7 -21°35.5	-0.2 +0.4
Lu 13	267°52.6 -21°30.1	282°52.4 -21°29.7	297°52.2 -21°29.2	312°51.9 -21°28.8	327°51.7 -21°28.4	342°51.5 -21°28.0	357°51.2 -21°27.5	12°51.0 -21°27.1	25°50.8 -21°26.7	42°50.5 -21°26.3	57°50.3 -21°25.8	72°50.1 -21°25.4	-0.2 +0.4
Ma 14	267°47.1 -21°19.7	282°46.8 -21°19.3	297°46.6 -21°18.9	312°46.4 -21°18.4	327°46.2 -21°18.0	342°45.9 -21°17.5	357°45.7 -21°17.1	12°45.5 -21°16.6	25°45.3 -21°16.2	42°45.0 -21°15.7	57°44.8 -21°15.3	72°44.6 -21°14.9	-0.2 +0.4
Me 15	267°41.7 -21°09.0	282°41.4 -21°08.5	297°41.2 -21°08.1	312°41.0 -21°07.6	327°40.8 -21°07.1	342°40.6 -21°06.7	357°40.3 -21°06.2	12°40.1 -21°05.8	25°39.9 -21°05.3	42°39.7 -21°04.8	57°39.5 -21°04.4	72°39.2 -21°03.9	-0.2 +0.5
Je 16	267°36.4 -20°57.8	282°36.2 -20°57.3	297°36.0 -20°56.9	312°35.8 -20°56.4	327°35.6 -20°55.9	342°35.4 -20°55.4	357°35.1 -20°54.9	12°34.9 -20°54.5	25°34.7 -20°54.0	42°34.5 -20°53.5	57°34.3 -20°53.0	72°34.1 -20°52.6	-0.2 +0.5
Ve 17	267°31.3 -20°46.2	282°31.1 -20°45.7	297°30.9 -20°45.3	312°30.7 -20°44.8	327°30.5 -20°44.3	342°30.3 -20°43.8	357°30.1 -20°43.3	12°29.9 -20°42.8	25°29.7 -20°42.3	42°29.5 -20°41.8	57°29.3 -20°41.3	72°29.1 -20°40.8	-0.2 +0.5
Sa 18	267°26.4 -20°34.3	282°26.2 -20°33.8	297°26.0 -20°33.3	312°25.8 -20°32.8	327°25.6 -20°32.2	342°25.4 -20°31.7	357°25.2 -20°31.2	12°25.0 -20°30.7	25°24.8 -20°30.2	42°24.6 -20°29.7	57°24.4 -20°29.2	72°24.2 -20°28.7	-0.2 +0.5
Di 19	267°21.7 -20°21.9	282°21.5 -20°21.4	297°21.3 -20°20.9	312°21.1 -20°20.4	327°20.9 -20°19.8	342°20.7 -20°19.3	357°20.5 -20°18.8	12°20.4 -20°18.2	25°20.2 -20°17.7	42°20.0 -20°17.2	57°19.8 -20°16.7	72°19.6 -20°16.1	-0.2 +0.5
Lu 20	267°17.1 -20°09.2	282°17.0 -20°08.6	297°16.8 -20°08.1	312°16.6 -20°07.6	327°16.4 -20°07.0	342°16.2 -20°06.5	357°16.0 -20°05.9	12°15.9 -20°05.4	25°15.7 -20°04.9	42°15.5 -20°04.3	57°15.3 -20°03.8	72°15.1 -20°03.2	-0.2 +0.5
Ma 21	267°12.8 -19°56.1	282°12.6 -19°55.5	297°12.4 -19°55.0	312°12.2 -19°54.4	327°12.1 -19°53.8	342°11.9 -19°53.3	357°11.7 -19°52.7	12°11.5 -19°52.2	25°11.4 -19°51.6	42°11.2 -19°51.0	57°11.0 -19°50.5	72°10.8 -19°49.9	-0.2 +0.6
Me 22	267°08.6 -19°42.6	282°08.4 -19°42.0	297°08.2 -19°41.4	312°08.1 -19°40.9	327°07.9 -19°40.3	342°07.7 -19°39.7	357°07.6 -19°39.1	12°07.4 -19°38.6	25°07.2 -19°38.0	42°07.1 -19°37.4	57°06.9 -19°36.8	72°06.7 -19°36.3	-0.2 +0.6
Je 23	267°04.6 -19°28.7	282°04.4 -19°28.1	297°04.3 -19°27.5	312°04.1 -19°27.0	327°03.9 -19°26.4	342°03.8 -19°25.8	357°03.6 -19°25.2	12°03.5 -19°24.6	25°03.3 -19°24.0	42°03.1 -19°23.3	57°03.0 -19°22.8	72°02.8 -19°22.2	-0.2 +0.6
Ve 24	267°00.8 -19°14.5	282°00.6 -19°13.9	297°00.5 -19°13.3	312°00.3 -19°12.7	327°00.2 -19°12.1	342°00.0 -19°11.5	356°59.9 -19°10.9	11°59.7 -19°10.3	25°59.6 -19°09.7	41°59.4 -19°09.1	56°59.3 -19°08.5	71°59.1 -19°07.9	-0.2 +0.6
Sa 25	266°57.2 -18°59.9	281°57.0 -18°59.3	296°56.9 -18°58.7	311°56.8 -18°58.1	326°56.6 -18°57.5	341°56.5 -18°56.8	356°56.3 -18°56.2	11°56.2 -18°55.6	25°56.0 -18°55.0	41°55.9 -18°54.4	56°55.7 -18°53.8	71°55.6 -18°53.1	-0.1 +0.6
Di 26	266°53.8 -18°45.0	281°53.6 -18°44.4	296°53.5 -18°43.8	311°53.4 -18°43.1	326°53.2 -18°42.5	341°53.1 -18°41.9	356°53.0 -18°41.2	11°52.8 -18°40.6	25°52.7 -18°40.0	41°52.6 -18°39.3	56°52.4 -18°38.7	71°52.3 -18°38.1	-0.1 +0.6
Lu 27	266°50.6 -18°29.8	281°50.5 -18°29.1	296°50.3 -18°28.5	311°50.2 -18°27.8	326°50.1 -18°27.2	341°49.9 -18°26.5	356°49.8 -18°25.9	11°49.7 -18°25.2	25°49.6 -18°24.6	41°49.4 -18°23.9	56°49.3 -18°23.3	71°49.2 -18°22.6	-0.1 +0.6
Ma 28	266°47.6 -18°14.2	281°47.5 -18°13.5	296°47.4 -18°12.8	311°47.4 -18°12.2	326°47.1 -18°11.5	341°47.0 -18°10.9	356°46.9 -18°10.2	11°46.8 -18°09.5	25°46.6 -18°08.9	41°46.5 -18°08.2	56°46.4 -18°07.6	71°46.3 -18°06.9	-0.1 +0.7
Me 29	266°44.8 -17°58.2	281°44.7 -17°57.6	296°44.6 -17°56.9	311°44.5 -17°56.2	326°44.4 -17°55.6	341°44.2 -17°54.9	356°44.1 -17°54.2	11°44.0 -17°53.5	25°43.9 -17°52.7	41°43.8 -17°52.2	56°43.7 -17°51.5	71°43.6 -17°50.8	-0.1 +0.7
Je 30	266°42.2 -17°42.0	281°42.1 -17°41.3	296°42.0 -17°40.6	311°41.9 -17°39.9	326°41.8 -17°39.3	341°41.7 -17°38.6	356°41.6 -17°37.9	11°41.5 -17°37.2	25°41.4 -17°36.5	41°41.3 -17°35.8	56°41.2 -17°35.1	71°41.1 -17°34.4	-0.1 +0.7
Ve 31	266°39.9 -17°25.4	281°39.8 -17°24.7	296°39.7 -17°24.0	311°39.6 -17°23.4	326°39.5 -17°22.7	341°39.4 -17°22.0	356°39.3 -17°21.3	11°39.2 -17°20.6	25°39.1 -17°19.9	41°39.0 -17°19.2	56°38.9 -17°18.5	71°38.8 -17°17.8	-0.1 +0.7

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°
Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.
Semi-diamètre: 16.3'

LUNE

Janvier 2031

	J	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	Δ'/h	SP
	Me 1	233°17.7 11°32.6	247°50.1 11°42.5	262°22.5 11°52.4	276°55.0 12°02.2	291°27.4 12°12.0	305°59.8 12°21.7	320°32.2 12°31.3	335°04.6 12°40.8	349°37.0 12°50.3	4°09.4 12°59.8	18°41.7 13°09.1	+32.4	15.1
		236°45.5 15°21.3	251°17.6 15°29.5	265°49.7 15°37.7	280°21.8 15°47.5	294°53.8 15°53.8	309°25.9 16°01.7	323°57.9 16°09.5	338°29.9 16°17.3	353°01.9 16°25.0	7°33.9 16°32.6	22°05.8 16°40.0	+32.0	14.9
	Je 2	240°02.3 18°23.6	254°33.9 18°29.8	269°05.5 18°36.0	283°37.0 18°42.0	298°08.6 18°48.0	312°40.1 18°53.9	327°11.5 18°59.7	341°43.0 19°05.4	356°14.0 19°11.0	10°45.8 19°16.5	25°17.2 19°21.9	+31.5	14.8
		243°05.4 20°32.5	257°36.5 20°36.4	272°07.5 20°40.3	286°38.5 20°44.0	301°09.5 20°47.7	315°40.5 20°51.3	330°11.4 20°54.7	344°42.4 20°58.1	359°13.3 21°01.4	13°44.2 21°04.6	28°15.1 21°07.7	+31.0	14.7
	Sa 4	245°56.6 21°42.1	260°27.3 21°43.6	274°58.0 21°45.0	289°28.7 21°46.3	303°59.3 21°47.4	318°29.9 21°48.5	333°00.6 21°49.5	347°31.2 21°50.4	2°01.8 21°51.2	16°32.5 21°51.9	31°03.1 21°52.5	+30.6	14.7
		248°42.1 21°49.0	263°12.7 21°47.9	277°43.4 21°46.8	292°14.0 21°45.5	306°44.6 21°44.2	321°15.3 21°42.7	335°45.9 21°41.2	350°16.6 21°39.5	4°47.2 21°37.8	19°17.9 21°35.9	33°48.6 21°33.9	+30.6	14.7
	Ma 7	251°30.3 20°52.6	266°01.2 20°49.1	280°32.2 20°45.5	295°03.1 20°41.7	309°34.1 20°37.9	324°05.1 20°34.0	338°36.1 20°30.0	353°07.1 20°25.9	7°38.1 20°21.7	22°09.2 20°17.4	36°40.3 20°13.0	+31.0	14.7
		254°29.4 18°56.0	269°00.9 18°50.2	283°32.4 18°44.2	298°03.9 18°38.2	312°35.5 18°32.1	327°07.1 18°25.9	341°38.7 18°19.7	356°10.3 18°13.3	10°42.0 18°06.9	25°13.7 18°00.3	39°45.4 17°53.7	+31.6	14.8
	Je 9	257°44.7 16°05.1	272°16.9 15°57.2	286°49.1 15°49.3	301°21.3 15°41.3	315°53.6 15°33.2	330°25.9 15°25.1	344°58.2 15°16.8	359°30.5 15°08.5	14°02.9 15°00.2	28°35.3 15°00.2	43°07.7 14°18.1	+32.3	14.9
		261°17.1 12°28.1	275°50.0 12°18.6	290°22.8 12°09.1	304°55.7 11°59.5	319°28.6 11°49.1	334°01.5 11°40.1	348°34.4 11°30.3	3°07.3 11°20.5	17°40.3 11°10.6	32°13.3 11°00.6	46°46.3 10°50.6	+32.9	14.9
	Sa 11	265°03.2 8°15.0	279°36.4 8°04.3	294°09.9 7°53.5	308°42.9 7°42.7	323°16.2 7°31.8	337°49.4 7°21.0	352°22.7 7°10.0	6°56.0 6°59.1	21°29.3 6°48.1	36°02.9 6°37.0	50°35.6 6°26.0	+33.3	15.1
		268°55.3 3°36.3	283°28.5 3°24.8	298°01.8 3°13.2	312°35.0 3°01.7	327°08.3 2°50.1	341°41.5 2°38.5	356°14.7 2°26.8	10°47.9 2°15.2	25°21.1 2°03.5	39°54.3 1°51.8	54°27.4 1°40.1	+33.2	15.2
	Di 12	275°42.5 -1°16.7	287°15.3 -1°28.6	301°48.1 -1°40.5	316°20.9 -1°52.3	330°53.6 -2°04.2	345°26.3 -2°16.0	359°58.9 -2°27.9	14°31.6 -2°39.7	29°04.1 -2°51.6	43°36.7 -3°03.4	58°09.2 -3°15.3	+32.7	15.4
		276°11.9 -6°11.9	290°43.7 -6°23.6	305°15.5 -6°35.2	319°47.2 -6°46.8	334°18.8 -6°58.4	348°50.4 -7°10.0	363°22.0 -7°21.6	17°53.4 -7°33.1	32°24.9 -7°44.6	46°56.2 -7°56.1	61°27.5 -8°07.5	+31.6	15.5
	Me 15	290°43.7 -6°23.6	305°15.5 -6°35.2	319°47.2 -6°46.8	334°18.8 -6°58.4	348°50.4 -7°10.0	363°22.0 -7°21.6	378°07.1 -7°33.1	392°49.9 -7°44.6	417°38.7 -7°56.1	442°36.2 -8°07.5	467°27.5 -8°19.0	+31.5	15.5
		293°39.6 -11°06.2	308°09.7 -11°17.0	322°39.8 -11°27.8	337°09.8 -11°38.5	351°39.7 -11°49.2	365°09.6 -11°59.8	379°39.7 -12°10.4	393°09.1 -12°20.9	417°38.7 -12°31.4	442°36.2 -12°52.1	467°27.5 -12°57.8	+29.8	15.8
	Je 16	295°49.4 -15°19.9	310°17.0 -15°29.2	324°45.5 -15°38.4	339°13.4 -15°47.5	353°41.3 -15°56.5	367°09.0 -16°05.5	380°37.6 -16°14.4	393°09.1 -16°23.2	417°38.7 -16°31.9	442°36.2 -16°40.0	467°27.5 -16°49.0	+27.7	16.0
		297°04.2 -18°45.3	311°30.0 -18°52.2	325°55.7 -18°59.0	340°21.3 -19°05.7	354°46.8 -19°12.3	368°12.3 -19°18.8	381°02.9 -19°25.1	393°09.1 -19°31.3	417°38.7 -19°37.4	442°36.2 -19°43.4	467°27.5 -19°49.3	+25.4	16.2
	Sa 18	297°23.4 -18°45.3	311°47.2 -18°52.2	326°06.1 -18°59.0	340°34.5 -19°05.7	354°58.8 -19°12.3	368°25.9 -19°18.8	381°02.9 -19°25.1	393°09.1 -19°31.3	417°38.7 -19°37.4	442°36.2 -19°43.4	467°27.5 -19°49.3	+23.5	16.4
		297°01.5 -21°01.5	311°22.6 -21°05.3	325°45.1 -21°08.8	340°07.6 -21°12.3	354°30.6 -21°15.6	367°58.2 -21°18.7	380°37.6 -21°21.7	393°09.1 -21°24.6	417°38.7 -21°27.3	442°36.2 -21°29.8	467°27.5 -21°32.2	+3.1	16.0
	Di 19	297°00.1 -21°49.8	311°22.6 -21°49.7	325°45.1 -21°49.4	340°07.6 -21°49.0	354°30.6 -21°48.4	367°58.2 -21°47.7	380°37.6 -21°46.8	393°09.1 -21°45.7	417°38.7 -21°44.6	442°36.2 -21°43.1	467°27.5 -21°41.6	+22.4	16.5
		296°19.8 -20°59.2	310°42.3 -20°55.1	325°04.8 -20°50.8	339°27.4 -20°46.4	353°49.9 -20°41.9	367°12.5 -20°37.2	380°02.9 -20°32.3	392°49.9 -20°27.3	416°58.2 -20°22.1	441°36.2 -20°16.8	466°27.5 -20°11.3	+22.6	16.6
	Me 22	295°53.4 -18°32.2	310°17.0 -18°24.2	324°40.7 -18°16.4	339°04.4 -18°08.4	353°28.2 -18°00.0	367°52.1 -17°52.1	381°02.9 -17°43.7	393°09.1 -17°35.2	417°38.7 -17°26.6	442°36.2 -17°17.9	467°27.5 -17°09.1	+23.9	16.6
		296°05.0 -14°43.5	310°30.5 -14°33.0	324°56.5 -14°22.4	339°21.7 -14°11.7	353°47.4 -14°01.0	367°13.2 -13°50.1	380°02.9 -13°39.2	392°49.9 -13°28.3	416°58.2 -13°17.1	441°36.2 -13°05.9	466°27.5 -12°54.7	+25.8	16.5
	Je 23	297°06.2 -9°58.2	311°33.7 -9°45.8	326°01.3 -9°33.5	340°28.9 -9°21.2	354°56.8 -9°08.8	368°12.3 -8°56.4	381°02.9 -8°44.0	393°09.1 -8°31.5	417°38.7 -8°19.0	442°36.2 -8°06.5	467°27.5 -7°53.9	+27.8	16.3
		298°55.5 -4°42.1	313°24.8 -4°29.2	327°54.1 -4°16.3	342°23.5 -4°03.3	356°53.0 -3°50.4	370°22.5 -3°37.5	383°02.9 -3°24.5	395°09.1 -3°11.6	419°38.7 -2°58.6	443°36.2 -2°45.7	468°27.5 -2°32.7	+29.5	16.1
	Sa 25	301°23.9 0°40.1	315°54.4 0°52.9	330°25.1 1°05.6	344°55.7 1°18.3	359°26.4 1°30.9	373°57.1 1°43.5	388°02.9 1°56.1	392°49.9 2°08.7	416°58.2 2°21.3	441°36.2 2°33.8	466°27.5 2°46.3	+30.8	15.8
		304°18.7 5°49.2	318°50.1 6°01.0	333°21.5 6°12.8	347°52.9 6°24.6	362°24.3 6°36.3	376°55.7 6°48.0	391°27.2 6°59.6	405°58.7 7°11.2	429°38.7 7°22.7	453°01.7 7°34.2	490°33.2 7°45.6	+31.5	15.6
	Ma 28	307°27.5 10°30.0	321°59.2 10°40.5	336°30.9 10°50.9	351°02.6 11°01.3	365°24.3 11°11.6	379°06.0 11°21.8	392°49.9 11°32.0	406°37.7 11°42.1	420°38.7 11°52.1	434°36.2 12°02.0	448°36.2 12°11.9	+31.7	15.3
		310°39.7 14°31.7	325°11.3 14°40.4	339°43.0 14°49.0	354°14.6 14°57.6	368°46.2 15°06.1	382°17.8 15°14.5	395°49.9 15°22.8	409°38.7 15°31.1	423°36.2 15°39.5	437°36.2 15°47.4	451°36.2 15°55.4	+31.6	15.1
	Je 30	313°47.5 17°45.6	328°18.9 17°52.2	342°50.8 17°58.8	357°21.5 18°05.3	371°52.9 18°11.7	385°24.2 18°18.0	398°55.4 18°24.2	412°36.2 18°30.4	426°36.2 18°36.4	440°36.2 18°42.4	454°36.2 18°48.2	+31.3	14.9
		316°47.1 20°05.1	331°18.1 20°09.5	345°49.1 20°13.8	360°20.1 20°18.0	374°51.1 20°22.1	388°22.1 20°26.1	401°52.9 20°30.0	415°23.9 20°33.8	429°54.8 20°37.5	443°25.7 20°41.1	457°56.6 20°44.6	+30.9	14.8
	Sa 31	316°47.1 20°05.1	331°18.1 20°09.5	345°49.1 20°13.8	360°20.1 20°18.0	374°51.1 20°22.1	388°22.1 20°26.1	401°52.9 20°30.0	415°23.9 20°33.8	429°54.8 20°37.5	443°25.7 20°41.1	457°56.6 20°44.6	+3.9	54.4

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PL: 8 18h25 — DQ: 16 12h47 — NL: 23 04h31 — PQ: 30 07h43

SOLEIL

Février 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	266°37.7 -17°08.6	281°37.6 -17°07.9	296°37.5 -17°07.2	311°37.4 -17°06.5	326°37.4 -17°05.7	341°37.3 -17°05.0	356°37.2 -17°04.3	11°37.1 -17°03.6	26°37.0 -17°02.9	41°36.9 -17°02.2	56°36.9 -17°01.5	71°36.8 -17°00.8	-0.1 +0.7
Di 2	266°38.7 -16°51.4	281°35.7 -16°50.7	296°35.6 -16°50.0	311°35.5 -16°49.3	326°35.4 -16°48.5	341°35.4 -16°47.8	356°35.3 -16°47.1	11°35.2 -16°46.4	26°35.1 -16°45.6	41°35.1 -16°44.9	56°35.0 -16°44.2	71°34.9 -16°43.5	-0.1 +0.7
Lu 3	266°34.0 -16°34.0	281°33.9 -16°33.2	296°33.9 -16°32.5	311°33.8 -16°31.8	326°33.7 -16°31.0	341°33.7 -16°30.3	356°33.6 -16°29.5	11°33.5 -16°28.8	26°33.5 -16°28.1	41°33.4 -16°27.3	56°33.3 -16°26.6	71°33.3 -16°25.9	-0.1 +0.7
Ma 4	266°32.5 -16°16.2	281°32.4 -16°15.5	296°32.3 -16°14.7	311°32.3 -16°14.0	326°32.2 -16°13.2	341°32.2 -16°12.5	356°32.1 -16°11.7	11°32.0 -16°11.0	26°32.0 -16°10.2	41°31.9 -16°09.5	56°31.9 -16°08.7	71°31.8 -16°08.0	-0.1 +0.7
Me 5	266°31.1 -15°58.2	281°31.1 -15°57.4	296°31.0 -15°56.7	311°31.0 -15°55.9	326°30.9 -15°55.2	341°30.9 -15°54.4	356°30.8 -15°53.6	11°30.8 -15°52.9	26°30.7 -15°52.1	41°30.7 -15°51.4	56°30.6 -15°50.6	71°30.6 -15°49.8	-0.0 +0.8
Je 6	266°30.0 -15°39.9	281°29.9 -15°39.1	296°29.9 -15°38.3	311°29.9 -15°37.6	326°29.8 -15°36.8	341°29.8 -15°36.0	356°29.7 -15°35.3	11°29.7 -15°34.5	26°29.7 -15°33.7	41°29.6 -15°33.0	56°29.6 -15°32.2	71°29.5 -15°31.4	-0.0 +0.8
Ve 7	266°29.1 -15°21.3	281°29.0 -15°20.5	296°29.0 -15°19.8	311°29.0 -15°19.0	326°28.9 -15°18.2	341°28.9 -15°17.4	356°28.9 -15°16.6	11°28.8 -15°15.9	26°28.8 -15°15.1	41°28.8 -15°14.3	56°28.7 -15°13.5	71°28.7 -15°12.7	-0.0 +0.8
Sa 8	266°28.3 -14°43.4	281°28.3 -14°42.6	296°28.3 -14°41.8	311°28.2 -14°41.0	326°28.2 -14°40.2	341°28.2 -14°39.4	356°28.2 -14°38.6	11°28.1 -14°37.8	26°28.1 -14°37.0	41°28.1 -14°36.2	56°28.1 -14°35.4	71°28.1 -14°34.6	-0.0 +0.8
Di 9	266°27.8 -14°27.5	281°27.8 -14°26.1	296°27.8 -14°25.5	311°27.7 -14°24.8	326°27.7 -14°24.0	341°27.7 -14°23.2	356°27.7 -14°22.4	11°27.7 -14°21.6	26°27.7 -14°20.8	41°27.7 -14°20.0	56°27.6 -14°19.2	71°27.6 -14°18.4	-0.0 +0.8
Lu 10	266°27.5 -14°04.5	281°27.4 -14°03.7	296°27.4 -14°02.9	311°27.4 -14°02.1	326°27.4 -14°01.2	341°27.4 -14°00.4	356°27.4 -13°59.6	11°27.4 -13°58.8	26°27.4 -13°57.9	41°27.4 -13°57.1	56°27.4 -13°56.3	71°27.4 -13°55.5	+0.0 +0.8
Ma 11	266°27.3 -13°44.7	281°27.4 -13°43.9	296°27.4 -13°43.0	311°27.4 -13°42.2	326°27.4 -13°41.4	341°27.4 -13°40.6	356°27.4 -13°39.8	11°27.4 -13°38.9	26°27.4 -13°38.0	41°27.4 -13°37.2	56°27.4 -13°36.4	71°27.4 -13°35.6	+0.0 +0.8
Me 12	266°27.3 -13°24.7	281°27.4 -13°23.8	296°27.4 -13°23.0	311°27.4 -13°22.1	326°27.4 -13°21.3	341°27.4 -13°20.5	356°27.4 -13°19.6	11°27.4 -13°18.8	26°27.4 -13°17.9	41°27.4 -13°17.1	56°27.4 -13°16.2	71°27.4 -13°15.4	+0.0 +0.8
Je 13	266°27.6 -13°04.4	281°27.6 -13°03.6	296°27.6 -13°02.7	311°27.6 -13°01.9	326°27.6 -13°01.0	341°27.6 -13°00.2	356°27.6 -12°59.3	11°27.6 -12°58.5	26°27.6 -12°57.6	41°27.6 -12°56.7	56°27.6 -12°55.9	71°27.6 -12°55.0	+0.0 +0.9
Ve 14	266°28.0 -12°43.9	281°28.0 -12°43.1	296°28.0 -12°42.2	311°28.0 -12°41.4	326°28.1 -12°40.5	341°28.1 -12°39.6	356°28.1 -12°38.8	11°28.1 -12°37.9	26°28.1 -12°37.1	41°28.2 -12°36.2	56°28.2 -12°35.3	71°28.2 -12°34.5	+0.0 +0.9
Sa 15	266°29.3 -12°23.2	281°29.4 -12°22.4	296°29.4 -12°21.5	311°29.4 -12°20.6	326°29.5 -12°19.8	341°29.5 -12°18.9	356°29.6 -12°18.0	11°29.6 -12°17.2	26°29.6 -12°16.3	41°29.7 -12°15.4	56°29.7 -12°14.6	71°29.7 -12°13.7	+0.0 +0.9
Di 16	266°30.3 -12°02.4	281°30.3 -12°01.5	296°30.4 -12°00.6	311°30.4 -11°59.7	326°30.4 -11°58.9	341°30.5 -11°58.0	356°30.5 -11°57.1	11°30.6 -11°56.2	26°30.6 -11°55.4	41°30.7 -11°54.5	56°30.7 -11°53.6	71°30.8 -11°52.7	+0.0 +0.9
Lu 17	266°31.4 -11°41.3	281°31.4 -11°40.4	296°31.5 -11°39.5	311°31.5 -11°38.6	326°31.6 -11°37.8	341°31.6 -11°36.9	356°31.7 -11°36.0	11°31.7 -11°35.1	26°31.8 -11°34.2	41°31.8 -11°33.3	56°31.9 -11°32.5	71°31.9 -11°31.6	+0.0 +0.9
Ma 18	266°32.7 -11°20.0	281°32.7 -11°19.1	296°32.8 -11°18.3	311°32.8 -11°17.4	326°32.9 -11°16.5	341°32.9 -11°15.6	356°33.0 -11°14.7	11°33.1 -11°13.8	26°33.1 -11°12.9	41°33.2 -11°12.0	56°33.2 -11°11.1	71°33.3 -11°10.2	+0.1 +0.9
Me 19	266°34.1 -10°58.6	281°34.2 -10°57.7	296°34.2 -10°56.8	311°34.3 -10°55.9	326°34.4 -10°55.0	341°34.4 -10°54.1	356°34.5 -10°53.2	11°34.6 -10°52.3	26°34.6 -10°51.4	41°34.7 -10°50.5	56°34.8 -10°49.6	71°34.8 -10°48.7	+0.1 +0.9
Je 20	266°35.7 -10°37.0	281°35.8 -10°36.1	296°35.8 -10°35.2	311°35.9 -10°34.3	326°36.0 -10°33.4	341°36.1 -10°32.5	356°36.1 -10°31.6	11°36.2 -10°30.7	26°36.3 -10°29.7	41°36.4 -10°28.8	56°36.4 -10°27.9	71°36.5 -10°27.0	+0.1 +0.9
Ve 21	266°37.5 -10°15.2	281°37.5 -10°14.3	296°37.6 -10°13.4	311°37.7 -10°12.5	326°37.8 -10°11.6	341°37.9 -10°10.7	356°37.9 -10°09.7	11°38.0 -10°08.8	26°38.1 -10°07.9	41°38.2 -10°07.0	56°38.3 -10°06.1	71°38.3 -10°05.2	+0.1 +0.9
Sa 22	266°39.4 -9°53.3	281°39.5 -9°52.4	296°39.6 -9°51.5	311°39.6 -9°50.5	326°39.7 -9°49.6	341°39.8 -9°48.7	356°39.9 -9°47.8	11°40.0 -9°46.9	26°40.1 -9°45.9	41°40.2 -9°45.0	56°40.2 -9°44.1	71°40.3 -9°43.2	+0.1 +0.9
Di 23	266°41.5 -9°31.2	281°41.6 -9°30.3	296°41.7 -9°29.4	311°41.7 -9°28.4	326°41.8 -9°27.5	341°41.9 -9°26.6	356°42.0 -9°25.7	11°42.1 -9°24.7	26°42.2 -9°23.8	41°42.3 -9°22.9	56°42.3 -9°22.0	71°42.5 -9°21.0	+0.1 +0.9
Lu 24	266°43.8 -9°09.0	281°43.8 -9°08.1	296°43.9 -9°07.1	311°44.0 -9°06.2	326°44.1 -9°05.3	341°44.2 -9°04.3	356°44.3 -9°03.4	11°44.4 -9°02.5	26°44.5 -9°01.6	41°44.6 -9°00.6	56°44.7 -8°59.7	71°44.8 -8°58.8	+0.1 +0.9
Ma 25	266°46.8 -8°46.6	281°46.2 -8°45.7	296°46.3 -8°44.8	311°46.4 -8°43.8	326°46.5 -8°42.9	341°46.6 -8°42.0	356°46.7 -8°41.0	11°46.8 -8°40.1	26°46.9 -8°39.1	41°47.0 -8°38.2	56°47.1 -8°37.3	71°47.2 -8°36.3	+0.1 +0.9
Je 26	266°48.6 -8°24.1	281°48.7 -8°23.2	296°48.8 -8°22.3	311°48.9 -8°21.3	326°49.0 -8°20.4	341°49.1 -8°19.4	356°49.3 -8°18.5	11°49.4 -8°17.6	26°49.5 -8°16.6	41°49.6 -8°15.7	56°49.7 -8°14.7	71°49.8 -8°13.8	+0.1 +0.9
Me 27	266°51.3 -8°01.5	281°51.4 -8°00.6	296°51.5 -7°59.6	311°51.6 -7°58.7	326°51.7 -7°57.8	341°51.8 -7°56.8	356°52.0 -7°55.9	11°52.1 -7°54.9	26°52.2 -7°54.0	41°52.3 -7°53.0	56°52.4 -7°52.1	71°52.5 -7°51.1	+0.1 +0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Février 2031

	J	11h	12h	13h	14h	15h	16h	17h	18h	19h	20h	21h	Δ'/h	SP
	Sa 1	247°04.8	261°35.6	276°06.4	290°37.1	305°07.9	319°38.6	334°09.4	348°40.1	3°10.8	17°41.5	32°12.2	+30.7	14.8
		21°14.3	21°16.7	21°19.1	21°21.3	21°23.4	21°25.5	21°27.4	21°29.2	21°31.0	21°32.6	21°34.1	+2.0	54.1
	Di 2	240°52.5	264°23.1	278°53.8	293°24.5	307°55.1	322°25.8	336°56.5	351°27.2	5°57.9	20°28.6	34°59.3	+30.7	14.7
		21°12.9	21°45.0	21°44.8	21°44.5	21°44.1	21°43.6	21°43.1	21°42.6	21°41.6	21°40.7	21°39.7	-0.5	54.0
	Lu 3	252°40.5	267°11.3	281°42.2	296°13.0	310°43.9	325°14.7	339°45.6	354°16.5	8°47.4	23°18.4	37°49.3	+30.9	14.7
		21°12.9	21°10.3	21°07.7	21°04.9	21°02.0	20°59.0	20°56.0	20°52.8	20°49.5	20°46.2	20°42.7	-3.0	54.1
	Ma 4	255°35.4	270°06.7	284°37.9	299°09.2	313°40.5	328°11.8	342°43.1	357°14.4	11°45.8	26°17.2	40°48.6	+31.3	14.8
		19°39.5	19°34.5	19°29.5	19°24.3	19°19.1	19°13.8	19°08.3	19°02.8	18°57.2	18°51.6	18°45.8	-5.4	54.2
	Me 5	258°42.4	273°14.2	287°46.0	302°17.8	316°49.6	331°21.5	345°53.4	0°25.3	14°57.2	29°29.2	44°01.2	+31.9	14.9
		17°09.0	17°01.9	16°54.7	16°47.4	16°40.1	16°32.7	16°25.1	16°17.6	16°09.9	16°02.2	15°54.3	-7.5	54.5
	Je 6	262°03.5	276°35.8	291°08.2	305°40.5	320°12.9	334°45.3	349°17.8	3°50.2	18°22.7	32°55.2	47°27.7	+32.4	15.0
		13°48.4	13°39.5	13°30.5	13°21.4	13°12.3	13°03.1	12°53.8	12°44.5	12°35.1	12°25.6	12°16.1	-9.2	54.9
	Ve 7	265°37.1	280°09.9	294°42.6	309°15.4	323°48.2	338°20.9	352°53.7	7°26.5	21°59.4	36°32.2	51°05.0	+32.8	15.1
		9°46.7	9°36.3	9°25.9	9°15.4	9°04.9	8°54.3	8°43.7	8°33.0	8°22.3	8°11.6	8°00.8	-10.6	55.3
	Sa 8	269°18.1	283°51.0	298°23.8	312°56.7	327°29.6	342°02.5	356°35.3	11°08.2	25°41.1	40°13.9	54°46.8	+32.9	15.2
		5°14.4	5°03.0	4°51.6	4°40.2	4°28.8	4°17.3	4°05.8	3°54.3	3°42.7	3°31.1	3°19.5	-11.5	55.8
	Di 9	272°58.2	287°30.8	302°03.5	316°36.1	331°08.7	345°41.2	0°13.8	14°46.3	29°18.8	43°51.3	58°23.7	+32.6	15.3
		0°23.5	0°11.6	-0°00.2	-0°12.1	-0°24.0	-0°35.8	-0°47.7	-0°59.6	-1°11.5	-1°23.3	-1°35.2	-11.9	56.3
	Lu 10	276°27.1	290°59.0	305°30.9	320°02.8	334°34.7	349°06.5	3°38.2	18°10.0	32°41.6	47°13.3	61°44.9	+31.8	15.5
		-4°33.0	-4°44.7	-4°56.5	-5°08.2	-5°19.9	-5°31.6	-5°43.3	-5°55.0	-6°06.6	-6°18.3	-6°29.9	-11.7	56.8
	Ma 11	279°33.1	294°03.9	308°34.7	323°05.3	337°36.0	352°06.6	6°37.1	21°07.5	35°37.9	50°08.3	64°38.9	+30.5	15.6
		-9°20.4	-9°31.5	-9°42.6	-9°53.6	-10°04.6	-10°15.5	-10°26.4	-10°37.2	-10°48.0	-10°58.7	-11°09.4	-10.9	57.3
	Me 12	282°05.1	296°34.3	311°03.5	325°32.6	340°01.6	354°30.5	8°59.4	23°28.2	37°57.0	52°25.6	66°54.2	+28.9	15.8
		-13°43.1	-13°52.9	-14°02.6	-14°12.2	-14°21.7	-14°31.2	-14°40.6	-14°49.9	-14°59.2	-15°08.3	-15°17.4	-9.4	57.8
	Je 13	296°34.3	311°03.5	325°32.6	340°01.6	354°30.5	8°59.4	23°28.2	37°57.0	52°25.6	66°54.2	81°22.7	+28.8	15.8
		-15°52.9	-14°02.6	-14°12.2	-14°21.7	-14°31.2	-14°40.6	-14°49.9	-14°59.2	-15°08.3	-15°17.4	-15°26.4	-9.4	57.9
	Ve 14	298°21.7	312°49.0	327°16.3	341°43.5	356°10.6	10°37.6	25°04.6	39°31.5	53°58.3	68°25.0	82°51.7	+27.0	15.9
		-17°31.4	-17°39.0	-17°46.5	-17°53.9	-18°01.2	-18°08.4	-18°15.5	-18°22.4	-18°29.3	-18°36.1	-18°42.8	-7.1	58.4
	Sa 15	299°23.3	313°48.9	328°14.4	343°39.8	357°05.2	11°30.5	25°55.8	40°21.0	54°46.1	69°11.2	83°36.2	+25.3	16.1
		-20°09.1	-20°13.9	-20°18.6	-20°23.1	-20°27.5	-20°31.8	-20°36.0	-20°40.0	-20°43.9	-20°47.7	-20°51.3	-4.2	58.9
	Di 16	299°45.6	314°09.9	328°34.1	343°58.3	357°22.5	11°46.6	26°10.7	40°34.8	54°58.7	69°22.9	83°46.9	+24.1	16.2
		-21°29.5	-21°30.9	-21°32.1	-21°33.3	-21°34.3	-21°35.1	-21°35.8	-21°36.3	-21°36.7	-21°37.0	-21°37.1	-0.8	59.4
	Lu 17	299°44.8	314°08.9	328°32.4	343°56.2	357°20.0	11°43.9	26°07.7	40°34.1	54°55.3	69°19.2	83°43.1	+23.8	16.3
		-21°20.9	-21°18.7	-21°16.3	-21°13.7	-21°10.1	-21°08.1	-21°05.1	-21°02.0	-20°58.7	-20°55.2	-20°51.7	+2.9	59.9
	Ma 18	299°43.5	314°07.8	328°32.1	343°56.4	357°20.8	11°45.2	26°09.6	40°34.1	54°58.7	69°23.2	83°47.9	+24.4	16.4
		-19°40.6	-19°34.8	-19°28.8	-19°22.7	-19°16.4	-19°10.0	-19°03.5	-18°56.6	-18°50.1	-18°43.2	-18°36.2	+6.5	60.0
	Me 19	300°57.3	315°24.3	329°51.3	344°18.4	358°45.6	13°12.8	27°40.1	42°07.4	56°34.9	71°02.3	85°29.9	+27.3	16.3
		-16°36.0	-16°27.1	-16°18.1	-16°08.9	-15°59.7	-15°50.3	-15°40.9	-15°31.3	-15°21.7	-15°11.9	-15°02.1	+9.4	60.0
	Je 20	300°57.3	315°24.3	329°51.3	344°18.4	358°45.6	13°12.8	27°40.1	42°07.4	56°34.9	71°02.3	85°29.9	+27.3	16.3
		-12°23.8	-12°12.6	-12°01.4	-11°50.0	-11°38.6	-11°27.2	-11°15.6	-11°04.0	-10°52.4	-10°40.7	-10°28.9	+11.5	59.8
	Ve 21	302°29.9	316°58.4	331°26.9	345°55.5	0°24.1	14°52.8	29°21.5	43°50.3	58°19.1	72°48.0	87°16.9	+28.7	16.2
		-7°26.2	-7°13.7	-7°01.2	-6°48.6	-6°36.0	-6°23.4	-6°10.7	-5°58.0	-5°45.3	-5°32.6	-5°19.9	-12.6	59.4
	Sa 22	304°36.6	319°06.3	333°36.0	348°05.8	2°35.5	17°05.4	31°35.2	46°05.1	60°35.0	75°05.0	89°35.0	+29.8	16.0
		-2°07.1	-1°54.2	-1°41.3	-1°28.4	-1°15.5	-1°02.6	-0°49.8	-0°36.9	-0°24.1	-0°11.2	0°01.6	+12.9	58.7
	Di 23	307°08.8	321°39.2	336°09.7	350°40.3	5°10.8	19°41.4	34°11.9	48°42.6	63°13.2	77°43.8	92°14.5	+30.6	15.8
		3°11.5	3°24.0	3°36.4	3°48.8	4°01.2	4°13.5	4°25.7	4°38.0	4°50.2	5°02.3	5°14.5	+12.3	57.9
	Lu 24	309°56.3	324°27.2	338°58.1	353°29.0	7°59.9	22°30.8	37°01.7	51°32.7	66°03.6	80°34.5	95°05.5	+30.9	15.6
		8°10.7	8°22.1	8°33.3	8°44.6	8°55.7	9°06.8	9°17.9	9°28.9	9°39.8	9°50.7	10°01.5	+11.1	57.1
	Ma 25	312°50.1	327°21.1	341°52.0	356°23.0	10°54.0	25°25.0	39°55.9	54°26.9	68°57.8	83°28.8	97°59.8	+31.0	15.3
		12°35.5	12°45.2	12°54.8	13°04.3	13°13.8	13°23.2	13°32.5	13°41.8	13°51.0	14°00.1	14°09.1	+9.4	56.3
	Me 26	315°43.5	330°14.3	344°45.2	359°16.0	13°46.9	28°17.7	42°48.5	57°19.4	71°50.2	86°21.0	100°51.8	+30.8	15.1
		16°14.4	16°22.1	16°29.7	16°37.2	16°44.6	16°52.0	16°59.2	17°06.4	17°13.4	17°20.4	17°27.4	+7.3	55.5
	Je 27	318°32.9	333°03.5	347°34.2	2°04.9	16°35.5	31°06.2	45°36.8	60°07.5	74°38.1	89°08.7	103°39.4	+30.7	15.0
		18°59.9	19°04.9	19°10.2	19°15.4	19°20.5	19°25.5	19°30.4	19°35.2	19°39.9	19°44.6	19°49.1	+5.0	54.9
	Ve 28	321°18.2	335°48.7	350°19.3	4°49.9	19°20.4	33°51.0	48°21.5	62°52.1	77°22.6	91°53.2	106°23.7	+30.6	14.9
		20°45.2	20°48.1	20°50.9	20°53.7	20°56.3	20°58.9	21°01.3	21°03.7	21°05.9	21°08.0	21°10.1	+2.5	54.5

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PL: 7 12h46 — DQ: 14 22h49 — NL: 21 15h48

SOLEIL

Mars 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	266°54.1 -7°38.8	281°54.2 -7°37.9	296°54.3 -7°36.9	311°54.4 -7°36.0	326°54.5 -7°35.0	341°54.7 -7°34.1	356°54.8 -7°33.1	11°54.9 -7°32.2	26°55.0 -7°31.2	41°55.1 -7°30.3	56°55.3 -7°29.3	71°55.4 -7°28.4	+0.1 +1.0
Di 2	266°57.0 -7°16.0	281°57.1 -7°15.0	296°57.2 -7°14.1	311°57.4 -7°13.1	326°57.5 -7°12.2	341°57.6 -7°11.2	356°57.7 -7°10.3	11°57.9 -7°09.3	26°58.0 -7°08.3	41°58.1 -7°07.4	56°58.3 -7°06.4	71°58.4 -7°05.5	+0.1 +1.0
Lu 3	267°00.1 -6°53.0	282°00.2 -6°52.1	297°00.3 -6°51.1	312°00.4 -6°50.2	327°00.6 -6°49.2	342°00.7 -6°48.3	357°00.8 -6°47.3	12°01.0 -6°46.3	27°01.1 -6°45.4	42°01.2 -6°44.4	57°01.4 -6°43.5	72°01.5 -6°42.5	+0.1 +1.0
Ma 4	267°03.2 -6°30.0	282°03.4 -6°29.1	297°03.5 -6°28.1	312°03.6 -6°27.1	327°03.8 -6°26.2	342°03.9 -6°25.2	357°04.0 -6°24.2	12°04.2 -6°23.3	27°04.3 -6°22.3	42°04.5 -6°21.4	57°04.6 -6°20.4	72°04.7 -6°19.4	+0.1 +1.0
Me 5	267°06.5 -6°06.9	282°06.7 -6°05.9	297°06.8 -6°05.0	312°06.9 -6°04.0	327°07.1 -6°03.0	342°07.2 -6°02.1	357°07.4 -6°01.1	12°07.5 -6°00.1	27°07.7 -5°59.2	42°07.8 -5°58.2	57°07.9 -5°57.2	72°08.1 -5°56.3	+0.1 +1.0
Je 6	267°09.9 -5°43.7	282°10.1 -5°42.7	297°10.2 -5°41.8	312°10.4 -5°40.8	327°10.5 -5°39.8	342°10.7 -5°38.8	357°10.8 -5°37.9	12°11.0 -5°36.9	27°11.1 -5°35.9	42°11.2 -5°35.0	57°11.4 -5°34.0	72°11.5 -5°33.0	+0.1 +1.0
Ve 7	267°13.5 -5°20.4	282°13.6 -5°19.4	297°13.8 -5°18.5	312°13.9 -5°17.5	327°14.0 -5°16.5	342°14.2 -5°15.6	357°14.3 -5°14.6	12°14.5 -5°13.6	27°14.6 -5°12.6	42°14.8 -5°11.7	57°14.9 -5°10.7	72°15.1 -5°09.7	+0.1 +1.0
Sa 8	267°17.1 -4°57.1	282°17.2 -4°56.1	297°17.4 -4°55.1	312°17.5 -4°54.1	327°17.7 -4°53.2	342°17.8 -4°52.2	357°18.0 -4°51.2	12°18.1 -4°50.2	27°18.3 -4°49.3	42°18.5 -4°48.3	57°18.6 -4°47.3	72°18.8 -4°46.3	+0.2 +1.0
Di 9	267°20.8 -4°33.6	282°20.9 -4°32.7	297°21.1 -4°31.7	312°21.3 -4°30.7	327°21.4 -4°29.7	342°21.6 -4°28.8	357°21.7 -4°27.8	12°21.9 -4°26.8	27°22.0 -4°25.8	42°22.2 -4°24.9	57°22.4 -4°23.9	72°22.5 -4°22.9	+0.2 +1.0
Lu 10	267°24.6 -4°10.2	282°24.7 -4°09.2	297°24.9 -4°08.2	312°25.1 -4°07.2	327°25.2 -4°06.3	342°25.4 -4°05.3	357°25.5 -4°04.3	12°25.7 -4°03.3	27°25.9 -4°02.3	42°26.0 -4°01.4	57°26.2 -4°00.4	72°26.4 -3°59.4	+0.2 +1.0
Ma 11	267°28.5 -3°46.6	282°28.6 -3°45.7	297°28.8 -3°44.7	312°29.0 -3°43.7	327°29.1 -3°42.7	342°29.3 -3°41.7	357°29.5 -3°40.8	12°29.6 -3°39.8	27°29.8 -3°38.8	42°29.9 -3°37.8	57°30.1 -3°36.8	72°30.3 -3°35.8	+0.2 +1.0
Me 12	267°32.4 -3°23.1	282°32.6 -3°22.1	297°32.8 -3°21.1	312°32.9 -3°20.1	327°33.3 -3°19.1	342°33.3 -3°18.2	357°33.4 -3°17.2	12°33.6 -3°16.2	27°33.8 -3°15.2	42°33.9 -3°14.2	57°34.1 -3°13.2	72°34.3 -3°12.3	+0.2 +1.0
Je 13	267°36.5 -2°59.5	282°36.6 -2°58.5	297°36.8 -2°57.5	312°37.0 -2°56.5	327°37.1 -2°55.5	342°37.3 -2°54.5	357°37.5 -2°53.5	12°37.7 -2°52.6	27°37.9 -2°51.6	42°38.0 -2°50.6	57°38.2 -2°49.6	72°38.3 -2°48.6	+0.2 +1.0
Ve 14	267°40.6 -2°35.8	282°40.7 -2°34.8	297°40.9 -2°33.8	312°41.1 -2°32.8	327°41.3 -2°31.9	342°41.4 -2°30.9	357°41.6 -2°29.9	12°41.6 -2°28.9	27°41.8 -2°27.9	42°42.1 -2°26.9	57°42.3 -2°25.9	72°42.5 -2°25.0	+0.2 +1.0
Sa 15	267°44.7 -2°12.1	282°44.9 -2°11.1	297°45.1 -2°10.2	312°45.2 -2°09.2	327°45.4 -2°08.2	342°45.6 -2°07.2	357°45.8 -2°06.2	12°45.9 -2°05.2	27°46.1 -2°04.2	42°46.3 -2°03.2	57°46.5 -2°02.3	72°46.6 -2°01.3	+0.2 +1.0
Di 16	267°48.9 -1°48.4	282°49.1 -1°47.4	297°49.3 -1°46.4	312°49.5 -1°45.5	327°49.6 -1°44.5	342°49.8 -1°43.5	357°50.0 -1°42.5	12°50.2 -1°41.5	27°50.4 -1°40.5	42°50.5 -1°39.5	57°50.7 -1°38.5	72°50.9 -1°37.6	+0.2 +1.0
Lu 17	267°53.2 -1°24.7	282°53.4 -1°23.7	297°53.6 -1°22.7	312°53.7 -1°21.7	327°53.8 -1°20.7	342°54.1 -1°19.8	357°54.3 -1°18.8	12°54.3 -1°17.8	27°54.5 -1°16.8	42°54.6 -1°15.8	57°54.8 -1°14.8	72°55.0 -1°13.8	+0.2 +1.0
Ma 18	267°57.5 -1°01.0	282°57.7 -1°00.0	297°57.9 -0°59.0	312°58.0 -0°58.0	327°58.2 -0°57.0	342°58.4 -0°56.0	357°58.6 -0°55.0	12°58.6 -0°54.1	27°58.8 -0°53.1	42°59.1 -0°52.1	57°59.3 -0°51.1	72°59.5 -0°50.1	+0.2 +1.0
Me 19	268°01.9 -0°37.2	283°02.0 -0°36.3	298°02.2 -0°35.3	313°02.4 -0°34.3	328°02.6 -0°33.3	343°02.8 -0°32.3	358°02.9 -0°31.3	13°03.1 -0°30.3	28°03.3 -0°29.3	43°03.5 -0°28.3	58°03.7 -0°27.4	73°03.9 -0°26.4	+0.2 +1.0
Je 20	268°06.2 -0°13.5	283°06.4 -0°12.5	298°06.6 -0°11.5	313°06.8 -0°10.5	328°07.0 -0°09.6	343°07.1 -0°08.6	358°07.3 -0°07.6	13°07.5 -0°06.6	28°07.7 -0°05.6	43°07.9 -0°04.6	58°08.1 -0°03.6	73°08.3 -0°02.6	+0.2 +1.0
Ve 21	268°10.6 0°10.2	283°10.8 0°11.2	298°11.0 0°12.2	313°11.2 0°13.2	328°11.4 0°14.2	343°11.6 0°15.2	358°11.8 0°16.1	13°11.9 0°17.1	28°12.1 0°18.1	43°12.3 0°19.1	58°12.5 0°20.1	73°12.7 0°21.1	+0.2 +1.0
Sa 22	268°15.1 0°33.9	283°15.3 0°34.9	298°15.5 0°35.9	313°15.6 0°36.9	328°15.8 0°37.9	343°16.0 0°38.9	358°16.2 0°39.8	13°16.4 0°40.8	28°16.6 0°41.8	43°16.8 0°42.8	58°16.9 0°43.8	73°17.1 0°44.8	+0.2 +1.0
Di 23	268°19.5 0°57.6	283°19.7 0°58.6	298°19.9 0°59.6	313°20.1 1°00.6	328°20.3 1°01.5	343°20.5 1°02.5	358°20.7 1°03.5	13°20.8 1°04.5	28°21.0 1°05.5	43°21.2 1°06.5	58°21.4 1°07.5	73°21.6 1°08.4	+0.2 +1.0
Lu 24	268°24.2 1°21.3	283°24.2 1°22.2	298°24.4 1°23.2	313°24.6 1°24.2	328°24.8 1°25.2	343°25.0 1°26.2	358°25.1 1°27.2	13°25.5 1°28.2	28°25.5 1°29.1	43°25.7 1°30.1	58°25.9 1°31.1	73°26.1 1°32.1	+0.2 +1.0
Ma 25	268°28.5 1°44.9	283°28.7 1°45.9	298°28.9 1°46.8	313°29.1 1°47.8	328°29.3 1°48.8	343°29.4 1°49.8	358°29.6 1°50.8	13°29.8 1°51.8	28°30.0 1°52.7	43°30.2 1°53.7	58°30.4 1°54.7	73°30.6 1°55.7	+0.2 +1.0
Me 26	268°33.0 2°08.5	283°33.2 2°09.4	298°33.4 2°10.4	313°33.6 2°11.4	328°33.8 2°12.4	343°34.0 2°13.4	358°34.1 2°14.3	13°34.3 2°15.3	28°34.3 2°16.3	43°34.7 2°17.3	58°34.9 2°18.3	73°35.1 2°19.2	+0.2 +1.0
Je 27	268°37.5 2°32.0	283°37.7 2°33.0	298°37.9 2°33.9	313°38.1 2°34.9	328°38.3 2°35.9	343°38.5 2°36.9	358°38.7 2°37.9	13°38.8 2°38.8	28°39.0 2°39.8	43°39.2 2°40.8	58°39.4 2°41.8	73°39.6 2°42.8	+0.2 +1.0
Ve 28	268°42.0 2°55.5	283°42.2 2°56.4	298°42.4 2°57.4	313°42.6 2°58.4	328°42.8 2°59.4	343°43.0 3°00.3	358°43.2 3°01.3	13°43.3 3°02.3	28°43.5 3°03.3	43°43.7 3°04.3	58°43.9 3°05.2	73°44.1 3°06.2	+0.2 +1.0
Sa 29	268°46.5 3°18.9	283°46.6 3°19.9	298°46.9 3°20.8	313°47.1 3°21.8	328°47.3 3°22.8	343°47.5 3°23.8	358°47.7 3°24.7	13°47.9 3°25.7	28°48.0 3°26.7	43°48.2 3°27.6	58°48.4 3°28.6	73°48.6 3°29.6	+0.2 +1.0
Di 30	268°51.0 3°42.2	283°51.2 3°43.2	298°51.4 3°44.2	313°51.6 3°45.2	328°51.8 3°46.1	343°52.0 3°47.1	358°52.2 3°48.1	13°52.3 3°49.0	28°52.5 3°50.0	43°52.7 3°51.0	58°52.9 3°51.9	73°53.1 3°52.9	+0.2 +1.0
Lu 31	268°55.5 4°05.5	283°55.7 4°06.5	298°55.9 4°07.5	313°56.1 4°08.4	328°56.3 4°09.4	343°56.5 4°10.4	358°56.6 4°11.3	13°56.8 4°12.3	28°57.0 4°13.2	43°57.2 4°14.2	58°57.4 4°15.2	73°57.6 4°16.2	+0.2 +1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.1'

LUNE

Mars 2031

	J	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	Δ'/h	SP
●	Sa 1	236°58.8 21°23.9	251°29.3 21°24.9	265°59.9 21°25.9	280°30.5 21°26.7	295°01.1 21°27.4	309°31.7 21°28.1	324°02.3 21°28.6	338°32.9 21°29.0	353°03.5 21°29.3	7°34.1 21°29.6	22°04.7 21°29.7	+30.6 +0.6	14.8 54.3
	Di 2	239°45.0 21°19.6	254°15.8 21°18.1	268°46.5 21°16.5	283°17.3 21°14.9	297°48.1 21°13.1	312°19.0 21°11.2	326°49.8 21°09.3	341°20.6 21°07.2	355°51.5 21°05.0	10°22.4 21°02.8	24°53.2 21°00.4	+30.8 -1.9	14.8 54.1
	Lu 3	242°38.4 20°13.6	257°09.5 20°09.7	271°40.7 20°05.8	286°11.9 20°01.7	300°43.1 19°57.6	315°14.3 19°53.3	329°45.5 19°49.0	344°16.8 19°44.5	358°48.1 19°40.0	13°19.4 19°35.4	27°50.7 19°30.7	+31.2 -4.3	14.8 54.2
●	Ma 4	245°42.8 18°09.5	260°14.4 18°03.4	274°46.0 17°57.2	289°17.7 17°50.9	303°49.4 17°44.6	318°21.1 17°38.1	332°52.9 17°31.6	347°24.6 17°25.0	1°56.4 17°18.3	16°28.2 17°11.5	31°00.0 17°04.7	+31.7 -6.5	14.8 54.4
	Me 5	248°59.5 15°12.6	263°31.6 15°04.5	278°03.7 14°56.3	292°35.9 14°48.1	307°08.0 14°39.8	321°40.2 14°31.4	336°12.4 14°23.0	350°44.6 14°14.5	5°16.9 14°05.9	19°49.1 13°57.3	34°21.4 13°48.6	+32.2 -8.4	14.9 54.8
	Je 6	252°26.9 11°30.1	266°59.3 11°20.4	281°31.8 11°10.6	296°04.3 11°00.7	310°36.8 10°50.8	325°09.3 10°40.9	339°41.8 10°30.9	354°14.3 10°20.8	8°46.8 10°10.7	23°19.3 10°00.5	37°51.9 9°50.3	+32.5 -10.0	15.1 55.3
○	Ve 7	256°00.2 7°11.1	270°32.8 7°00.1	285°05.3 6°49.1	299°37.9 6°38.0	314°10.4 6°26.9	328°43.0 6°15.8	343°15.5 6°04.6	357°48.1 5°53.4	12°20.6 5°42.2	26°53.6 5°30.9	41°25.6 5°19.6	+32.5 -11.1	15.2 55.9
	Sa 8	259°32.2 -2°31.1	274°04.5 -2°43.0	288°36.8 -2°55.0	303°09.1 -2°56.8	317°41.3 -3°06.9	332°13.6 -3°18.9	346°45.8 -3°30.8	1°18.0 -3°42.8	15°50.2 -3°56.4	30°22.4 -4°06.6	44°54.5 -4°18.5	+32.2 -11.8	15.4 56.4
	Di 9	262°53.5 -2°31.1	277°25.2 -2°43.0	291°56.8 -2°55.0	306°28.4 -3°06.9	321°00.0 -3°18.9	335°31.6 -3°30.8	350°03.1 -3°42.8	4°34.6 -3°56.4	19°06.0 -4°06.6	33°37.4 -4°18.5	48°08.7 -4°30.4	+31.5 -11.9	15.5 57.0
○	Lu 10	265°54.0 -7°26.4	280°24.6 -7°37.9	294°55.2 -7°49.4	309°25.7 -8°00.8	323°56.2 -8°12.3	338°26.7 -8°23.7	352°57.1 -8°35.0	7°27.4 -8°46.4	21°57.7 -8°57.7	36°27.9 -9°08.9	50°58.1 -9°20.1	+30.4 -11.4	15.7 57.5
	Ma 11	268°23.9 -12°02.5	282°53.1 -12°12.8	297°22.3 -12°23.2	311°51.5 -12°33.4	326°20.5 -12°43.6	340°49.5 -12°53.8	355°18.4 -13°03.8	9°47.3 -13°13.9	24°16.1 -13°23.8	38°44.9 -13°33.7	53°13.6 -13°43.4	+29.0 -10.1	15.8 58.0
	Me 12	270°16.0 -16°01.0	284°43.7 -16°09.5	299°13.3 -16°17.9	313°38.8 -16°26.2	328°06.2 -16°34.5	342°33.6 -16°42.6	357°00.9 -16°50.6	11°28.2 -16°58.6	25°55.4 -17°06.4	40°22.5 -17°14.1	54°49.6 -17°21.8	+27.4 -8.1	15.9 58.4
●	Je 13	271°28.3 -19°03.6	285°54.4 -19°09.4	300°20.5 -19°15.2	314°46.5 -19°20.9	329°12.5 -19°26.4	343°38.4 -19°31.8	358°04.2 -19°37.1	12°30.0 -19°42.3	26°55.7 -19°47.3	41°21.4 -19°52.3	55°47.1 -19°57.1	+25.9 -5.4	16.0 58.7
	Ve 14	272°06.5 -20°53.6	286°31.5 -20°56.3	300°56.5 -20°58.9	315°21.4 -21°01.3	329°46.3 -21°03.6	344°11.2 -21°05.8	358°36.0 -21°07.8	13°00.8 -21°09.7	27°25.6 -21°11.4	41°50.4 -21°13.0	56°15.1 -21°14.5	+24.9 -2.1	16.1 59.0
	Sa 15	286°31.5 -20°56.3	300°56.5 -20°58.9	315°21.4 -21°01.3	329°46.3 -21°03.6	344°11.2 -21°05.8	358°36.0 -21°07.8	13°00.8 -21°09.7	27°25.6 -21°11.4	41°50.4 -21°13.0	56°15.1 -21°14.5	70°39.9 -21°15.8	+24.8 -2.0	16.1 59.0
○	Di 16	286°49.5 -21°18.9	301°17.7 -21°17.9	315°38.3 -21°16.9	330°02.9 -21°15.7	344°27.5 -21°14.3	358°52.1 -21°12.8	13°16.6 -21°11.2	27°41.2 -21°09.4	42°05.9 -21°07.5	56°30.5 -21°05.4	70°55.1 -21°03.2	+24.6 +1.6	16.1 59.2
	Lu 17	287°06.8 -20°13.7	301°31.8 -20°09.9	315°56.8 -20°04.8	330°21.9 -20°00.1	344°47.0 -19°55.4	359°12.1 -19°50.4	13°37.2 -19°45.4	28°02.4 -19°40.2	42°27.6 -19°34.9	56°52.9 -19°29.5	71°18.2 -19°23.9	+25.1 +5.0	16.2 59.3
	Ma 18	287°42.9 -17°46.0	302°09.0 -17°38.5	316°30.5 -17°30.9	331°01.2 -17°23.2	345°27.3 -17°15.4	359°53.6 -17°07.5	14°19.9 -16°59.5	28°46.2 -16°51.4	43°12.6 -16°43.2	57°39.0 -16°34.9	72°05.5 -16°26.4	+26.3 +8.0	16.2 59.2
●	Me 19	288°49.5 -14°08.5	303°16.9 -13°58.6	317°44.3 -13°48.6	332°11.8 -13°38.5	346°39.3 -13°28.4	361°15.4 -13°18.1	15°06.9 -13°07.8	15°34.5 -12°57.5	30°02.2 -12°47.0	44°30.0 -12°36.4	58°57.8 -12°25.8	+27.6 -12.2	16.1 59.1
	Je 20	290°30.0 -9°39.0	304°58.7 -9°27.4	319°27.4 -9°15.8	333°56.2 -9°04.1	348°25.0 -8°52.4	363°00.0 -8°40.6	2°53.9 -8°28.8	17°22.8 -8°17.7	31°51.8 -8°05.1	46°20.8 -7°53.1	60°49.9 -7°41.1	+28.9 -11.8	16.1 58.9
	Ve 21	292°40.7 -4°37.6	307°10.4 -4°25.2	321°40.2 -4°12.8	336°10.0 -4°00.3	350°39.0 -3°47.8	365°00.0 -3°35.3	5°09.8 -3°22.8	19°39.7 -3°10.3	34°09.6 -2°57.8	48°39.6 -2°45.3	63°09.9 -2°32.7	+29.9 -12.5	16.0 58.5
●	Sa 22	295°13.5 0°35.3	309°44.0 0°47.8	324°14.4 1°00.3	338°44.9 1°12.7	353°15.4 1°25.2	368°15.4 1°37.6	7°45.9 1°50.0	22°16.5 2°02.4	36°47.0 2°14.7	51°17.6 2°27.1	65°48.2 2°39.4	80°18.8 +30.5	15.8 58.0
	Di 23	297°59.1 5°40.8	312°29.9 5°52.6	327°00.7 6°04.4	341°31.4 6°16.1	356°02.2 6°27.8	370°33.0 6°39.4	10°33.0 6°51.0	25°03.8 7°02.6	39°34.5 7°14.1	54°05.3 7°25.5	68°36.1 7°37.0	+30.8 +11.6	15.7 57.4
	Lu 24	300°48.7 10°21.7	315°19.5 10°32.2	329°50.2 10°42.7	344°21.0 10°53.1	358°51.7 11°03.4	373°22.5 11°13.6	13°22.5 11°23.8	27°53.2 11°34.0	42°23.9 11°44.7	56°54.7 11°54.0	71°25.4 12°03.9	+30.7 +10.2	15.5 56.7
●	Ma 25	303°35.9 14°23.8	318°06.4 14°32.5	332°37.0 14°41.2	347°07.6 14°49.7	361°38.1 14°58.2	375°08.7 15°06.6	16°08.7 15°14.9	30°39.2 15°23.1	45°09.7 15°31.2	59°40.2 15°39.2	74°10.7 15°47.2	+30.5 +8.3	15.3 56.1
	Me 26	306°17.6 17°36.0	320°47.9 17°42.5	335°18.3 17°48.9	349°48.6 17°55.3	363°18.9 18°01.5	377°07.6 18°07.6	18°49.3 18°13.7	33°19.6 18°19.6	47°49.9 18°25.5	62°20.2 18°31.3	76°50.5 18°36.9	+30.3 +6.1	15.1 55.4
	Je 27	308°54.5 19°50.2	323°24.8 19°54.3	337°55.0 19°58.3	352°25.2 20°02.2	365°55.4 20°09.7	379°25.7 20°13.3	21°25.7 20°13.3	35°55.9 20°16.8	50°26.1 20°16.8	64°56.3 20°20.2	79°26.6 20°26.6	+30.2 +3.6	15.0 54.9
●	Ve 28	311°30.6 21°02.2	326°00.9 21°03.7	340°31.2 21°05.2	355°01.5 21°06.5	369°31.9 21°07.8	383°02.2 21°08.9	24°02.2 21°10.0	38°32.6 21°10.9	53°02.9 21°10.9	67°33.3 21°12.5	82°03.7 21°13.2	+30.3 +1.5	14.9 54.5
	Sa 29	314°11.5 21°02.8	328°42.1 21°09.7	343°12.8 21°08.6	357°43.4 21°07.5	372°14.1 21°06.2	386°44.8 21°04.8	26°44.8 21°03.4	41°15.5 21°03.4	55°46.2 21°01.8	70°17.0 21°00.2	84°47.7 20°58.4	+30.7 +20.5	14.8 56.6
	Di 30	317°02.8 21°02.3	331°33.9 20°13.9	346°05.1 20°10.5	360°36.3 20°06.9	375°07.5 20°03.7	389°38.7 19°59.5	29°38.7 19°55.7	44°10.0 19°51.8	58°41.2 19°47.3	73°12.5 19°43.6	87°43.8 19°39.4	+31.2 -3.8	14.8 54.2
●	Lu 31	320°08.2 18°26.0	334°40.0 18°20.4	349°11.7 18°14.7	363°43.5 18°09.0	378°15.3 18°03.2	392°47.1 17°57.2	47°19.0 17°51.2	61°50.8 17°45.2	76°22.7 17°39.0	90°54.6 17°32.8	105°26.6 17°26.4	+31.8 -6.0	14.8 54.3

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PQ: 1 04h02 — PL: 9 04h29 — DQ: 16 06h35 — NL: 23 03h49 — PQ: 31 00h32

SOLEIL

Avril 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ma 1	269°00.0 4°28.7	284°00.2 4°29.7	299°00.4 4°30.7	314°00.5 4°31.6	329°00.7 4°32.6	344°00.9 4°33.6	359°01.1 4°34.5	14°01.3 4°35.5	29°01.5 4°36.4	44°01.7 4°37.4	59°01.8 4°38.4	74°02.0 4°39.3	+0.2 +1.0
Me 2	269°04.4 4°51.9	284°04.6 4°52.8	299°04.8 4°53.8	314°05.0 4°54.7	329°05.2 4°55.7	344°05.4 4°56.7	359°05.5 4°57.6	14°05.7 4°58.6	29°05.9 4°59.5	44°06.1 5°00.5	59°06.3 5°01.5	74°06.5 5°02.4	+0.2 +1.0
Je 3	269°08.9 5°14.9	284°09.0 5°15.8	299°09.2 5°16.8	314°09.4 5°17.8	329°09.6 5°18.7	344°09.8 5°19.7	359°10.0 5°20.6	14°10.1 5°21.6	29°10.3 5°22.6	44°10.5 5°23.5	59°10.7 5°24.5	74°10.9 5°25.4	+0.2 +1.0
Ve 4	269°13.2 5°37.8	284°13.4 5°38.8	299°13.6 5°39.7	314°13.8 5°40.7	329°14.0 5°41.6	344°14.2 5°42.6	359°14.3 5°43.6	14°14.5 5°44.5	29°14.7 5°45.5	44°14.9 5°46.4	59°15.1 5°47.4	74°15.2 5°48.3	+0.2 +1.0
Sa 5	269°17.6 6°00.7	284°17.8 6°01.6	299°18.0 6°02.6	314°18.1 6°03.5	329°18.3 6°04.5	344°18.5 6°05.4	359°18.7 6°06.4	14°18.9 6°07.3	29°19.0 6°08.3	44°19.2 6°09.2	59°19.4 6°10.2	74°19.6 6°11.1	+0.2 +0.9
Di 6	269°21.9 6°23.4	284°22.1 6°24.4	299°22.3 6°25.3	314°22.4 6°26.3	329°22.6 6°27.2	344°22.8 6°28.1	359°23.0 6°29.1	14°23.2 6°30.0	29°23.3 6°31.0	44°23.5 6°31.9	59°23.7 6°32.9	74°23.9 6°33.8	+0.2 +0.9
Lu 7	269°26.2 6°46.0	284°26.3 6°47.0	299°26.5 6°47.9	314°26.7 6°48.9	329°26.9 6°49.8	344°27.0 6°50.7	359°27.2 6°51.7	14°27.4 6°52.6	29°27.6 6°53.6	44°27.7 6°54.5	59°27.9 6°55.4	74°28.1 6°56.4	+0.2 +0.9
Ma 8	269°30.4 7°08.6	284°30.5 7°09.5	299°30.7 7°10.4	314°30.9 7°11.4	329°31.1 7°12.3	344°31.2 7°13.2	359°31.4 7°14.2	14°31.6 7°15.1	29°31.8 7°16.0	44°31.9 7°17.0	59°32.1 7°17.9	74°32.3 7°18.8	+0.2 +0.9
Me 9	269°34.5 7°31.0	284°34.7 7°31.9	299°34.9 7°32.8	314°35.0 7°33.7	329°35.2 7°34.7	344°35.4 7°35.6	359°35.5 7°36.5	14°35.7 7°37.5	29°35.9 7°38.4	44°36.1 7°39.3	59°36.2 7°40.2	74°36.4 7°41.2	+0.2 +0.9
Je 10	269°38.6 7°53.2	284°38.8 7°54.1	299°38.9 7°55.1	314°39.1 7°56.0	329°39.3 7°56.9	344°39.4 7°57.8	359°39.6 7°58.8	14°39.8 7°59.7	29°39.9 8°00.6	44°40.1 8°01.5	59°40.3 8°02.5	74°40.4 8°03.5	+0.2 +0.9
Ve 11	269°42.6 8°15.4	284°42.8 8°16.3	299°42.9 8°17.2	314°43.1 8°18.1	329°43.3 8°19.0	344°43.4 8°20.0	359°43.6 8°20.8	14°43.8 8°21.8	29°43.9 8°22.7	44°44.1 8°23.6	59°44.3 8°24.5	74°44.4 8°25.5	+0.2 +0.9
Sa 12	269°46.5 8°37.4	284°46.7 8°38.3	299°46.9 8°39.2	314°47.0 8°40.1	329°47.2 8°41.0	344°47.4 8°41.9	359°47.5 8°42.8	14°47.7 8°43.7	29°47.8 8°44.7	44°48.0 8°45.6	59°48.2 8°46.5	74°48.3 8°47.4	+0.2 +0.9
Di 13	269°50.4 8°59.2	284°50.6 9°00.1	299°50.7 9°01.0	314°50.9 9°01.9	329°51.1 9°02.8	344°51.2 9°03.7	359°51.4 9°04.7	14°51.5 9°05.6	29°51.5 9°06.5	44°51.8 9°07.4	59°52.0 9°08.3	74°52.1 9°09.2	+0.2 +0.9
Lu 14	269°54.2 9°20.9	284°54.3 9°21.8	299°54.5 9°22.7	314°54.6 9°23.6	329°54.8 9°24.5	344°55.0 9°25.4	359°55.1 9°26.3	14°55.3 9°27.2	29°55.4 9°28.1	44°55.6 9°29.0	59°55.7 9°29.9	74°55.9 9°30.8	+0.2 +0.9
Ma 15	269°57.9 9°42.5	284°58.0 9°43.4	299°58.2 9°44.3	314°58.3 9°45.2	329°58.5 9°46.1	344°58.6 9°46.9	359°58.8 9°47.8	14°58.9 9°48.7	29°59.9 9°49.6	44°59.2 9°50.5	59°59.4 9°51.4	74°59.5 9°52.3	+0.2 +0.9
Me 16	270°01.5 10°03.9	285°01.6 10°04.8	300°01.7 10°05.6	315°01.9 10°06.5	330°02.0 10°07.4	345°02.2 10°08.3	0°02.3 10°09.2	15°02.8 10°10.1	30°02.6 10°11.0	45°02.8 10°11.9	60°02.9 10°12.7	75°03.1 10°13.6	+0.1 +0.9
Je 17	270°05.0 10°25.1	285°05.1 10°26.0	300°05.2 10°26.9	315°05.4 10°27.7	330°05.5 10°28.6	345°05.7 10°29.5	0°05.8 10°30.4	15°06.0 10°31.3	30°06.1 10°32.1	45°06.2 10°33.0	60°06.4 10°33.9	75°06.5 10°34.8	+0.1 +0.9
Ve 18	270°08.3 10°46.2	285°08.5 10°47.0	300°08.6 10°47.9	315°08.8 10°48.8	330°08.9 10°49.7	345°09.0 10°50.5	0°09.2 10°51.4	15°09.3 10°52.3	30°09.5 10°53.1	45°09.6 10°54.0	60°09.7 10°54.9	75°09.9 10°55.8	+0.1 +0.9
Sa 19	270°11.6 11°07.0	285°11.8 11°07.9	300°11.9 11°08.8	315°12.0 11°09.6	330°12.2 11°10.5	345°12.3 11°11.4	0°12.4 11°12.2	15°12.6 11°13.1	30°12.7 11°14.0	45°12.9 11°14.8	60°13.0 11°15.7	75°13.1 11°16.5	+0.1 +0.9
Di 20	270°14.8 11°27.7	285°15.0 11°28.6	300°15.1 11°29.5	315°15.2 11°30.3	330°15.4 11°31.2	345°15.5 11°32.0	0°15.6 11°32.9	15°15.7 11°33.7	30°15.9 11°34.6	45°16.0 11°35.5	60°16.1 11°36.3	75°16.3 11°37.2	+0.1 +0.9
Lu 21	270°17.9 11°48.2	285°18.0 11°49.1	300°18.2 11°49.9	315°18.3 11°50.8	330°18.4 11°51.6	345°18.5 11°52.5	0°18.7 11°53.3	15°18.8 11°54.2	30°18.9 11°55.0	45°19.0 11°55.9	60°19.2 11°56.7	75°19.3 11°57.6	+0.1 +0.8
Ma 22	270°20.9 12°08.6	285°21.0 12°09.4	300°21.1 12°10.2	315°21.3 12°11.1	330°21.4 12°11.9	345°21.5 12°12.8	0°21.6 12°13.6	15°21.7 12°14.4	30°21.9 12°15.3	45°22.0 12°16.1	60°22.1 12°17.0	75°22.2 12°17.8	+0.1 +0.8
Me 23	270°23.8 12°28.7	285°23.9 12°29.5	300°24.0 12°30.3	315°24.1 12°31.2	330°24.2 12°32.0	345°24.3 12°32.8	0°24.5 12°33.7	15°24.6 12°34.5	30°24.7 12°35.3	45°24.8 12°36.2	60°24.9 12°37.0	75°25.0 12°37.8	+0.1 +0.8
Je 24	270°26.5 12°48.6	285°26.6 12°49.4	300°26.7 12°50.2	315°26.8 12°51.1	330°26.9 12°51.9	345°27.1 12°52.7	0°27.2 12°53.5	15°27.3 12°54.3	30°27.4 12°55.2	45°27.5 12°56.0	60°27.6 12°56.8	75°27.7 12°57.6	+0.1 +0.8
Ve 25	270°29.1 13°08.3	285°29.2 13°09.1	300°29.4 13°09.9	315°29.5 13°10.7	330°29.6 13°11.5	345°29.7 13°12.4	0°29.8 13°13.2	15°29.9 13°14.0	30°30.0 13°14.8	45°30.1 13°15.6	60°30.2 13°16.4	75°30.3 13°17.2	+0.1 +0.8
Sa 26	270°31.7 13°27.8	285°31.8 13°28.6	300°31.9 13°29.4	315°32.0 13°30.2	330°32.1 13°31.0	345°32.2 13°31.8	0°32.3 13°32.6	15°32.4 13°33.4	30°32.5 13°34.2	45°32.6 13°35.0	60°32.7 13°35.8	75°32.8 13°36.6	+0.1 +0.8
Di 27	270°34.0 13°47.0	285°34.1 13°47.8	300°34.2 13°48.6	315°34.3 13°49.4	330°34.4 13°50.2	345°34.5 13°51.0	0°34.6 13°51.8	15°34.7 13°52.6	30°34.8 13°53.4	45°34.9 13°54.2	60°35.0 13°55.0	75°35.1 13°55.8	+0.1 +0.8
Lu 28	270°36.3 14°06.0	285°36.4 14°06.8	300°36.5 14°07.6	315°36.6 14°08.4	330°36.7 14°09.2	345°36.8 14°10.0	0°36.9 14°10.8	15°37.0 14°11.6	30°37.1 14°12.3	45°37.1 14°13.1	60°37.2 14°13.9	75°37.3 14°14.7	+0.1 +0.8
Ma 29	270°38.5 14°24.8	285°38.6 14°25.6	300°38.7 14°26.4	315°38.7 14°27.2	330°38.8 14°28.7	345°38.9 14°29.5	0°39.0 14°29.5	15°39.1 14°30.3	30°39.2 14°31.1	45°39.3 14°31.8	60°39.3 14°32.6	75°39.4 14°33.4	+0.1 +0.8
Me 30	270°40.5 14°43.4	285°40.6 14°44.2	300°40.7 14°44.9	315°40.7 14°45.7	330°40.8 14°46.5	345°40.9 14°47.2	0°41.0 14°48.0	15°41.1 14°48.8	30°41.2 14°49.5	45°41.2 14°50.3	60°41.3 14°51.1	75°41.4 14°51.8	+0.1 +0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Avril 2031

	J	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	20h	Δ'/h	SP
O	Ma 1	236°47.2 16°26.0	250°47.2 16°18.9	265°19.8 16°11.7	279°51.6 16°04.4	294°23.8 15°57.1	308°56.0 15°49.7	323°28.3 15°42.2	338°00.6 15°34.7	352°32.9 15°19.4	7°05.2 15°19.4	21°37.5 15°11.6	+32.2	14.9
	Me 2	239°44.5 13°06.7	254°17.0 12°57.9	268°49.6 12°49.0	283°22.2 12°40.0	297°54.9 12°30.0	312°27.5 12°21.8	327°00.1 12°12.6	341°32.7 12°03.4	356°05.4 11°54.1	10°38.1 11°44.8	25°10.7 11°35.4	+32.6	15.0
	Je 3	243°21.3 9°07.5	257°54.1 8°57.2	272°26.8 8°46.8	286°59.5 8°36.5	301°32.2 8°26.0	316°04.9 8°15.6	330°37.6 8°05.0	345°10.4 7°54.5	359°43.1 7°43.8	14°15.7 7°33.2	28°48.4 7°22.5	+32.7	15.2
	Ve 4	246°57.6 4°37.0	261°30.1 4°25.7	276°02.6 4°14.3	290°35.0 4°02.9	305°07.5 3°51.5	319°39.9 3°40.1	334°12.3 3°28.6	348°44.7 3°17.1	3°17.0 3°05.6	17°49.4 2°54.0	32°21.7 2°42.4	+32.4	15.3
	Sa 5	250°23.1 -0°13.9	264°55.0 -0°25.8	279°26.8 -0°37.7	293°58.5 -0°49.6	308°30.3 -1°01.5	323°02.0 -1°13.4	337°33.6 -1°25.3	352°05.3 -1°37.3	6°36.8 -1°49.2	21°08.4 -2°01.1	35°39.9 -2°13.1	+31.7	15.5
	Di 6	253°26.9 -1°05.9	267°57.6 -0°25.8	282°28.3 -0°37.7	296°58.9 -0°49.6	311°29.5 -1°01.5	326°00.0 -1°13.4	340°30.5 -1°25.3	355°00.9 -1°37.3	9°31.2 -1°49.2	24°01.5 -2°01.1	38°31.8 -2°13.1	+30.5	15.7
	Lu 7	255°57.9 -1°00.6	270°27.2 -1°11.7	284°56.3 -1°02.2	299°25.4 -1°03.7	313°54.4 -1°04.7	328°23.4 -1°05.6	342°52.3 -1°06.4	357°21.1 -1°17.2	11°49.9 -1°27.9	26°18.5 -1°38.6	40°47.2 -1°49.2	+28.9	15.9
	Ma 8	257°47.9 -1°58.5	272°15.3 -1°05.1	286°42.7 -0°55.1	301°10.1 -1°02.0	315°37.3 -1°08.1	330°04.5 -1°15.0	344°31.6 -1°21.9	358°58.7 -1°38.3	13°25.6 -1°44.8	27°52.5 -1°50.7	42°19.4 -1°56.8	+27.2	16.1
	Me 9	258°53.7 -2°08.1	273°19.4 -1°15.8	287°45.1 -1°05.1	302°10.8 -1°12.0	316°36.3 -1°18.2	331°01.9 -1°25.4	345°27.3 -1°31.9	359°52.7 -1°44.8	14°18.1 -1°50.7	28°43.3 -1°56.8	43°08.6 -1°56.8	+25.5	16.2
	Je 10	259°21.0 -2°12.0	273°45.5 -2°06.0	288°10.0 -2°01.8	302°34.4 -2°03.5	316°58.8 -2°07.7	331°23.1 -2°15.0	345°47.4 -2°23.8	0°11.7 -2°36.6	14°36.0 -2°49.9	29°00.2 -2°56.8	43°24.4 -3°03.5	+24.3	16.2
Q	Ve 11	259°25.5 -2°11.9	273°49.8 -2°09.1	288°13.8 -2°09.8	302°37.6 -2°09.9	317°01.6 -2°09.9	331°25.6 -2°19.7	345°49.6 -2°29.0	0°13.6 -2°41.9	14°37.7 -2°58.4	29°01.7 -3°07.6	43°25.8 -3°16.8	+24.0	16.2
	Sa 12	259°29.3 -2°06.4	273°53.8 -2°03.3	288°18.3 -2°00.0	302°42.8 -2°02.6	317°07.4 -2°03.0	331°32.0 -2°09.3	345°56.7 -2°15.5	0°21.4 -2°27.1	14°46.1 -2°34.7	29°10.9 -3°03.2	43°35.7 -3°15.8	+24.6	16.2
	Di 13	259°54.2 -1°38.3	274°19.9 -1°31.8	288°45.6 -1°25.4	303°11.4 -1°18.9	317°37.2 -1°12.2	332°03.1 -1°05.4	346°29.1 -1°05.4	0°55.1 -1°17.5	15°21.2 -1°44.3	29°47.4 -1°37.0	44°13.6 -1°27.9	+25.9	16.1
	Lu 14	274°19.9 -1°31.8	288°45.6 -1°25.4	303°11.4 -1°18.9	317°37.2 -1°12.2	332°03.1 -1°05.4	346°29.1 -1°05.4	0°55.1 -1°17.5	15°21.2 -1°44.3	29°47.4 -1°37.0	44°13.6 -1°27.9	43°35.7 -3°15.8	+26.0	16.1
	Ma 15	275°21.8 -1°58.3	289°49.9 -1°50.9	303°11.4 -1°50.0	317°37.2 -1°51.0	332°03.1 -1°41.7	346°29.1 -1°32.4	0°55.1 -1°42.2	15°21.2 -1°43.3	29°47.4 -1°37.0	44°13.6 -1°27.9	43°35.7 -3°15.8	+27.6	16.1
	Me 16	277°03.7 -1°09.8	291°32.5 -1°09.0	306°01.5 -1°08.1	320°30.4 -1°07.2	334°59.5 -1°06.3	349°28.6 -1°05.2	3°57.7 -1°04.1	18°26.9 -0°53.0	32°56.1 -0°41.8	47°25.4 -0°30.6	61°54.8 -0°19.3	+29.1	16.0
	Je 17	279°20.9 -0°25.6	293°51.0 -0°13.6	308°21.1 -0°01.7	322°51.3 -0°09.8	337°21.5 -0°07.9	351°51.8 -0°05.9	6°22.1 -0°13.9	20°52.4 -0°01.9	35°22.8 -0°49.9	49°53.2 -0°37.9	64°23.7 -0°25.8	+30.3	15.8
	Ve 18	282°04.0 -1°23.7	296°34.9 -1°11.5	311°05.8 -0°59.3	325°36.8 -0°47.1	340°07.7 -0°47.1	354°38.7 -0°22.7	9°09.7 -0°10.6	23°40.8 0°01.6	38°11.8 0°13.8	52°42.9 0°25.9	67°13.9 0°38.0	+31.0	15.7
	Sa 19	285°01.7 3°38.3	299°32.9 3°50.1	314°04.2 4°02.0	328°35.4 4°13.7	343°06.9 4°25.5	357°38.0 4°37.2	12°09.2 4°49.0	26°40.5 5°00.6	41°11.8 5°12.3	55°43.1 5°23.9	70°14.3 5°35.5	+31.3	15.6
	Di 20	288°03.2 8°24.3	302°34.4 8°35.2	317°05.6 8°46.1	331°36.8 8°56.9	346°08.8 9°07.6	359°39.2 9°18.3	15°10.3 9°29.0	29°41.5 9°39.5	44°12.6 9°50.1	58°43.8 10°00.6	73°14.9 10°11.0	+31.2	15.4
●	Lu 21	291°00.2 12°40.0	305°31.2 12°49.4	320°02.0 12°58.7	334°32.9 13°08.0	349°03.6 13°17.2	3°34.6 13°26.3	18°05.5 13°35.3	32°36.3 13°44.3	47°07.1 13°53.2	61°37.8 14°02.0	76°08.6 14°10.8	+30.8	15.3
	Ma 22	293°48.1 16°12.6	308°18.6 16°20.0	322°49.4 16°27.4	337°19.5 16°34.7	351°50.0 16°41.8	6°20.4 16°49.0	20°50.8 16°56.0	35°21.2 17°02.9	49°51.6 17°09.7	64°22.0 17°16.5	78°52.4 17°23.1	+30.4	15.2
	Me 23	296°26.3 18°51.9	310°56.5 18°57.1	325°26.7 19°02.1	339°56.8 19°07.1	354°27.0 19°11.9	8°57.1 19°16.7	23°27.2 19°21.4	37°57.4 19°25.9	52°27.5 19°30.4	66°57.6 19°34.9	81°27.7 19°39.1	+30.1	15.0
	Je 24	298°59.0 20°31.0	313°29.0 20°33.7	327°59.1 20°36.2	342°29.2 20°38.7	356°59.3 20°41.0	11°29.4 20°43.3	25°59.5 20°45.4	40°29.6 20°47.5	54°59.7 20°51.9	69°29.9 20°51.2	84°00.0 20°53.0	+30.1	14.9
	Ve 25	301°33.1 21°06.7	316°03.4 21°06.8	330°33.7 21°06.8	345°04.1 21°06.7	359°34.4 21°06.5	14°04.8 21°06.2	28°35.2 21°05.8	43°05.6 21°05.3	57°36.0 21°04.7	72°06.5 21°04.0	86°37.0 21°03.2	+30.4	14.8
	Sa 26	304°16.6 20°39.3	318°47.5 20°36.9	333°18.3 20°34.5	347°49.2 20°31.9	2°20.2 20°29.3	16°51.1 20°26.5	31°22.1 20°23.7	45°53.1 20°20.7	60°24.1 20°17.7	74°55.1 20°14.6	89°26.2 20°11.4	+31.0	14.8
	Di 27	307°15.9 19°12.4	321°47.5 19°07.7	336°19.0 19°03.0	350°50.6 18°58.2	5°22.3 18°52.3	19°54.0 18°48.3	34°25.7 18°43.3	48°57.4 18°38.1	63°29.1 18°32.9	78°00.9 18°27.6	92°32.8 18°22.2	+31.7	14.8
	Lu 28	310°33.6 16°51.6	325°05.9 16°44.9	339°38.2 16°38.2	354°10.5 16°31.4	8°42.9 16°24.9	23°15.3 16°17.6	37°47.7 16°10.5	52°20.2 16°03.4	66°52.6 15°56.3	81°25.1 15°51.9	95°57.6 15°41.7	+32.4	14.8
	Ma 29	314°08.2 13°43.8	328°41.1 13°35.4	343°14.0 13°26.9	357°46.9 13°18.4	12°19.8 13°09.9	26°52.8 13°01.2	41°25.7 12°52.5	55°58.7 12°43.8	70°31.7 12°34.9	85°04.7 12°26.1	99°37.7 12°17.1	+33.0	14.9
	Me 30	317°54.3 9°56.4	332°27.5 9°46.6	347°00.6 9°36.7	1°33.8 9°26.8	16°07.0 9°16.8	30°40.2 9°06.8	45°13.3 8°56.8	59°46.5 8°46.7	74°19.7 8°36.5	88°52.9 8°26.3	103°26.0 8°16.1	+33.2	15.0

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 7 17h21 — DQ: 14 12h57 — NL: 21 16h57 — PQ: 29 19h19

SOLEIL

Mai 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Je 1	270°42.4	285°42.5	300°42.6	315°42.6	330°42.7	345°42.8	0°42.9	15°42.9	30°43.0	45°43.1	60°43.2	75°43.2	+0.1
	15°01.7	15°02.5	15°03.2	15°04.0	15°04.7	15°05.5	15°06.2	15°07.0	15°07.8	15°08.5	15°09.3	15°10.0	+0.8
Ve 2	270°44.2	285°44.2	300°44.3	315°44.4	330°44.5	345°44.5	0°44.6	15°44.7	30°44.7	45°44.8	60°44.9	75°44.9	+0.1
	15°19.8	15°20.5	15°21.3	15°22.0	15°22.8	15°23.5	15°24.2	15°25.0	15°25.7	15°26.5	15°27.2	15°28.0	+0.7
Sa 3	270°45.8	285°45.9	300°45.9	315°46.0	330°46.1	345°46.1	0°46.2	15°46.3	30°46.3	45°46.4	60°46.5	75°46.5	+0.1
	15°37.6	15°38.3	15°39.1	15°39.8	15°40.5	15°41.3	15°42.0	15°42.7	15°43.5	15°44.2	15°44.9	15°45.7	+0.7
Di 4	270°47.3	285°47.4	300°47.4	315°47.5	330°47.6	345°47.6	0°47.7	15°47.7	30°47.8	45°47.8	60°47.9	75°48.0	+0.1
	15°55.1	15°55.9	15°56.6	15°57.3	15°58.0	15°58.7	15°59.5	16°00.2	16°00.9	16°01.6	16°02.4	16°03.1	+0.7
Lu 5	270°48.7	285°48.7	300°48.8	315°48.8	330°48.9	345°49.0	0°49.0	15°49.1	30°49.1	45°49.2	60°49.2	75°49.3	+0.1
	16°12.4	16°13.1	16°13.8	16°14.6	16°15.3	16°16.0	16°16.7	16°17.4	16°18.1	16°18.8	16°19.5	16°20.2	+0.7
Ma 6	270°49.9	285°50.0	300°50.0	315°50.1	330°50.1	345°50.2	0°50.2	15°50.3	30°50.3	45°50.3	60°50.4	75°50.4	+0.0
	16°29.4	16°30.1	16°30.8	16°31.5	16°32.2	16°32.9	16°33.6	16°34.3	16°35.0	16°35.7	16°36.4	16°37.1	+0.7
Me 7	270°51.0	285°51.1	300°51.1	315°51.1	330°51.2	345°51.2	0°51.3	15°51.3	30°51.3	45°51.4	60°51.4	75°51.5	+0.0
	16°46.2	16°46.9	16°47.5	16°48.2	16°48.9	16°49.6	16°50.3	16°51.0	16°51.7	16°52.4	16°53.1	16°53.7	+0.7
Je 8	270°52.0	285°52.0	300°52.0	315°52.1	330°52.1	345°52.1	0°52.2	15°52.2	30°52.3	45°52.3	60°52.3	75°52.4	+0.0
	17°02.6	17°03.3	17°04.0	17°04.7	17°05.3	17°06.0	17°06.7	17°07.4	17°08.0	17°08.7	17°09.4	17°10.1	+0.7
Ve 9	270°52.8	285°52.8	300°52.8	315°52.9	330°52.9	345°52.9	0°53.0	15°53.0	30°53.0	45°53.0	60°53.1	75°53.1	+0.0
	17°18.8	17°19.5	17°20.1	17°20.8	17°21.5	17°22.1	17°22.8	17°23.5	17°24.1	17°24.8	17°25.5	17°26.1	+0.7
Sa 10	270°53.4	285°53.5	300°53.5	315°53.5	330°53.5	345°53.6	0°53.6	15°53.6	30°53.6	45°53.6	60°53.7	75°53.7	+0.0
	17°34.7	17°35.3	17°36.0	17°36.7	17°37.3	17°38.0	17°38.6	17°39.3	17°39.9	17°40.6	17°41.2	17°41.9	+0.7
Di 11	270°54.0	285°54.0	300°54.0	315°54.0	330°54.0	345°54.0	0°54.1	15°54.1	30°54.1	45°54.1	60°54.1	75°54.1	+0.0
	17°50.3	17°50.9	17°51.6	17°52.2	17°52.9	17°53.5	17°54.1	17°54.8	17°55.4	17°56.1	17°56.7	17°57.3	+0.6
Lu 12	270°54.3	285°54.3	300°54.3	315°54.4	330°54.4	345°54.4	0°54.4	15°54.4	30°54.4	45°54.4	60°54.4	75°54.4	+0.0
	18°05.6	18°06.3	18°06.8	18°07.5	18°08.1	18°08.7	18°09.4	18°10.0	18°10.6	18°11.2	18°11.8	18°12.5	+0.6
Ma 13	270°54.5	285°54.5	300°54.6	315°54.6	330°54.6	345°54.6	0°54.6	15°54.6	30°54.6	45°54.6	60°54.6	75°54.6	+0.0
	18°20.6	18°21.2	18°21.8	18°22.4	18°23.0	18°23.7	18°24.3	18°24.9	18°25.5	18°26.1	18°26.7	18°27.3	+0.6
Me 14	270°54.6	285°54.6	300°54.6	315°54.6	330°54.6	345°54.6	0°54.6	15°54.6	30°54.6	45°54.6	60°54.6	75°54.6	-0.0
	18°35.3	18°35.9	18°36.5	18°37.1	18°37.7	18°38.3	18°38.9	18°39.5	18°40.1	18°40.7	18°41.3	18°41.9	+0.6
Je 15	270°54.5	285°54.5	300°54.5	315°54.5	330°54.5	345°54.5	0°54.5	15°54.5	30°54.5	45°54.5	60°54.5	75°54.5	-0.0
	18°49.6	18°50.2	18°50.8	18°51.4	18°52.0	18°52.6	18°53.2	18°53.8	18°54.4	18°54.9	18°55.5	18°56.1	+0.6
Ve 16	270°54.3	285°54.3	300°54.3	315°54.3	330°54.3	345°54.3	0°54.2	15°54.2	30°54.2	45°54.2	60°54.2	75°54.2	-0.0
	19°03.7	19°04.3	19°04.8	19°05.4	19°06.0	19°06.6	19°07.1	19°07.7	19°08.3	19°08.8	19°09.4	19°10.0	+0.6
Sa 17	270°54.0	285°53.9	300°53.9	315°53.9	330°53.9	345°53.9	0°53.8	15°53.8	30°53.8	45°53.8	60°53.8	75°53.7	-0.0
	19°17.4	19°18.0	19°18.5	19°19.1	19°19.7	19°20.2	19°20.8	19°21.4	19°21.9	19°22.5	19°23.0	19°23.6	+0.6
Di 18	270°53.4	285°53.4	300°53.4	315°53.4	330°53.3	345°53.3	0°53.3	15°53.3	30°53.2	45°53.2	60°53.2	75°53.2	-0.0
	19°30.8	19°31.4	19°31.9	19°32.5	19°33.0	19°33.6	19°34.1	19°34.7	19°35.2	19°35.8	19°36.3	19°36.9	+0.5
Lu 19	270°52.8	285°52.8	300°52.7	315°52.7	330°52.7	345°52.6	0°52.6	15°52.6	30°52.5	45°52.5	60°52.5	75°52.4	-0.0
	19°43.9	19°44.4	19°45.0	19°45.5	19°46.0	19°46.6	19°47.1	19°47.6	19°48.2	19°48.7	19°49.2	19°49.8	+0.5
Ma 20	270°52.0	285°52.0	300°51.9	315°51.9	330°51.9	345°51.8	0°51.8	15°51.7	30°51.7	45°51.7	60°51.6	75°51.6	-0.0
	19°56.6	19°57.1	19°57.7	19°58.2	19°58.7	19°59.2	19°59.8	20°00.3	20°00.8	20°01.3	20°01.8	20°02.3	+0.5
Me 21	270°51.1	285°51.0	300°51.0	315°51.0	330°50.9	345°50.9	0°50.8	15°50.8	30°50.7	45°50.7	60°50.7	75°50.6	-0.0
	20°09.0	20°09.5	20°10.0	20°10.5	20°11.1	20°11.6	20°12.1	20°12.6	20°13.1	20°13.6	20°14.1	20°14.6	+0.5
Je 22	270°50.0	285°50.0	300°49.9	315°49.9	330°49.8	345°49.8	0°49.7	15°49.7	30°49.6	45°49.6	60°49.5	75°49.5	-0.0
	20°21.1	20°21.6	20°22.1	20°22.6	20°23.0	20°23.5	20°24.0	20°24.5	20°25.0	20°25.5	20°26.0	20°26.5	+0.5
Ve 23	270°48.8	285°48.8	300°48.7	315°48.7	330°48.6	345°48.6	0°48.5	15°48.5	30°48.4	45°48.3	60°48.3	75°48.2	-0.1
	20°32.8	20°33.3	20°33.7	20°34.2	20°34.7	20°35.2	20°35.6	20°36.1	20°36.6	20°37.1	20°37.5	20°38.0	+0.5
Sa 24	270°47.5	285°47.5	300°47.4	315°47.3	330°47.3	345°47.2	0°47.2	15°47.1	30°47.0	45°47.0	60°47.0	75°46.9	-0.1
	20°44.1	20°44.6	20°45.0	20°45.5	20°46.0	20°46.4	20°46.9	20°47.4	20°47.8	20°48.3	20°48.7	20°49.2	+0.5
Di 25	270°46.1	285°46.0	300°45.9	315°45.9	330°45.8	345°45.8	0°45.7	15°45.6	30°45.6	45°45.5	60°45.4	75°45.4	-0.1
	20°55.1	20°55.6	20°56.0	20°56.5	20°56.9	20°57.4	20°57.8	20°58.2	20°58.7	20°59.1	20°59.6	21°00.0	+0.4
Lu 26	270°44.5	285°44.4	300°44.4	315°44.3	330°44.2	345°44.2	0°44.1	15°44.0	30°44.0	45°43.9	60°43.8	75°43.8	-0.1
	21°05.7	21°06.2	21°06.6	21°07.0	21°07.5	21°07.9	21°08.3	21°08.8	21°09.2	21°09.6	21°10.1	21°10.5	+0.4
Ma 27	270°42.8	285°42.8	300°42.7	315°42.6	330°42.5	345°42.5	0°42.4	15°42.3	30°42.2	45°42.2	60°42.1	75°42.0	-0.1
	21°16.0	21°16.4	21°16.8	21°17.3	21°17.7	21°18.1	21°18.5	21°18.9	21°19.3	21°19.8	21°20.2	21°20.6	+0.4
Me 28	270°41.0	285°41.0	300°40.9	315°40.8	330°40.7	345°40.6	0°40.6	15°40.5	30°40.4	45°40.4	60°40.3	75°40.2	-0.1
	21°25.9	21°26.3	21°26.7	21°27.1	21°27.5	21°27.9	21°28.3	21°28.7	21°29.1	21°29.5	21°29.9	21°30.3	+0.4
Je 29	270°39.1	285°39.1	300°39.0	315°38.9	330°38.8	345°38.7	0°38.6	15°38.6	30°38.5	45°38.4	60°38.3	75°38.2	-0.1
	21°35.4	21°35.8	21°36.2	21°36.6	21°37.0	21°37.4	21°37.8	21°38.1	21°38.5	21°38.9	21°39.3	21°39.7	+0.4
Ve 30	270°37.1	285°37.0	300°37.0	315°36.9	330°36.8	345°36.7	0°36.6	15°36.5	30°36.4	45°36.3	60°36.3	75°36.2	-0.1
	21°44.6	21°45.0	21°45.3	21°45.7	21°46.1	21°46.4	21°46.8	21°47.2	21°47.6	21°47.9	21°48.3	21°48.7	+0.4
Sa 31	270°35.0	285°34.9	300°34.8	315°34.7	330°34.7	345°34.6	0°34.5	15°34.4	30°34.3	45°34.2	60°34.1	75°34.0	-0.1
	21°53.4	21°53.7	21°54.1	21°54.4	21°54.8	21°55.1	21°55.5	21°55.8	21°56.2	21°56.6	21°56.9	21°57.3	+0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Mai 2031

	J	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	20h	Δ'/h	SP
O	Je 1	234°24.4 6°42.0	248°57.5 6°31.3	263°30.6 6°20.6	278°03.7 6°09.8	292°36.8 5°59.1	307°09.9 5°48.2	321°43.0 5°37.4	336°16.0 5°26.5	350°49.1 5°15.5	5°02.1 5°04.6	19°55.1 4°53.6	+33.1	15.2
	Ve 2	238°07.6 2°04.9	252°40.3 1°53.5	267°12.9 1°42.0	281°45.4 1°30.5	296°18.0 1°19.0	310°50.5 1°07.4	325°23.0 0°55.8	339°55.4 0°44.3	354°27.8 0°32.7	9°00.2 0°21.1	23°32.5 0°09.4	+32.5	15.4
	Sa 3	241°32.5 -2°46.4	256°04.1 -2°58.2	270°33.6 -3°10.0	285°07.2 -3°21.8	299°38.7 -3°33.6	314°10.1 -3°45.3	328°41.4 -3°57.1	343°12.8 -4°08.9	357°44.0 -4°20.6	12°15.2 -4°32.4	26°46.3 -4°44.1	+31.4	15.6
	Di 4	244°25.7 -7°38.8	258°55.8 -7°50.3	273°25.8 -8°01.7	287°55.7 -8°13.1	302°25.6 -8°24.5	316°55.4 -8°35.9	331°25.1 -8°47.2	345°54.8 -8°58.6	0°24.4 -9°09.8	14°53.9 -9°21.1	29°23.3 -9°32.3	+29.8	15.8
	Lu 5	246°35.0 -12°14.9	261°03.1 -12°25.3	275°31.2 -12°35.7	289°59.1 -12°46.0	304°27.0 -12°56.2	318°54.8 -13°06.4	333°22.5 -13°16.5	347°50.1 -13°26.5	2°17.6 -13°36.5	16°45.0 -13°46.4	31°12.4 -13°56.2	+27.7	16.1
	Ma 6	247°52.3 -16°13.8	262°18.3 -16°22.3	276°44.2 -16°30.7	291°10.0 -16°38.9	305°35.7 -16°47.1	320°01.3 -16°55.2	334°26.9 -17°03.1	348°52.4 -17°11.0	3°17.8 -17°18.7	17°43.1 -17°26.3	32°08.3 -17°33.9	+25.6	16.3
	Me 7	248°17.9 -19°12.7	262°42.0 -19°18.3	277°06.0 -19°23.8	291°30.0 -19°29.1	305°53.9 -19°34.3	320°17.7 -19°39.4	334°41.5 -19°44.3	349°05.2 -19°49.1	3°28.9 -19°53.8	17°52.5 -19°58.3	32°16.1 -20°02.7	+23.8	16.4
	Je 8	248°04.5 -20°51.1	262°27.5 -20°53.1	276°50.4 -20°55.0	291°13.3 -20°56.7	305°36.2 -20°58.3	319°59.1 -20°59.8	334°22.0 -21°01.0	348°44.9 -21°02.2	3°07.7 -21°03.1	17°30.6 -21°04.0	31°53.4 -21°04.6	+22.9	16.5
	Ve 9	247°36.4 -20°56.3	261°59.4 -20°54.5	276°22.4 -20°52.6	290°45.4 -20°50.5	305°08.5 -20°48.3	319°31.6 -20°45.9	333°54.7 -20°44.3	348°17.9 -20°43.1	2°41.1 -20°37.9	17°04.3 -20°34.9	31°27.6 -20°31.8	+23.1	16.4
	Sa 10	247°22.5 -19°28.2	261°46.6 -19°22.8	276°10.8 -19°17.3	290°35.0 -19°11.7	304°59.3 -19°06.0	319°23.7 -19°00.2	333°48.1 -18°54.2	348°12.6 -18°48.1	2°37.2 -18°41.8	17°01.8 -18°35.5	31°26.5 -18°29.0	+24.4	16.4
O	Di 11	247°45.9 -16°38.1	262°11.8 -16°29.9	276°37.8 -16°21.5	291°03.9 -16°13.0	305°30.0 -16°04.5	319°56.3 -15°55.9	334°22.6 -15°47.8	348°49.0 -15°38.3	3°15.4 -15°29.9	17°42.0 -15°20.4	33°39.5 -15°11.3	+22.0	16.2
	Lu 12	248°57.4 -12°45.1	263°25.3 -12°34.8	277°53.2 -12°24.4	292°21.3 -12°13.9	306°49.4 -12°03.4	321°17.5 -11°52.9	335°45.8 -11°42.2	350°14.1 -11°31.5	4°42.5 -11°20.9	19°11.0 -11°09.9	33°39.5 -10°59.1	+28.2	16.1
	Ma 13	250°55.6 -8°10.4	265°25.2 -7°58.9	279°54.8 -7°47.3	294°24.5 -7°35.6	308°54.3 -7°24.0	323°24.1 -7°12.3	337°54.0 -7°00.6	352°23.9 -6°48.8	6°53.9 -6°37.1	21°23.9 -6°25.3	35°54.0 -6°13.4	+29.8	15.9
	Me 14	265°25.2 -7°58.9	279°54.8 -7°47.3	294°24.5 -7°35.6	308°54.3 -7°24.0	323°24.1 -7°12.3	337°54.0 -7°00.6	352°23.9 -6°48.8	6°53.9 -6°37.1	21°23.9 -6°25.3	35°54.0 -6°13.4	50°24.2 -6°01.6	+29.9	15.9
	Je 15	268°02.0 -3°02.0	282°32.0 -2°50.0	297°03.7 -2°37.9	311°34.6 -2°25.8	326°05.6 -2°13.8	340°36.6 -2°01.7	355°07.7 -1°49.9	6°38.7 -1°37.6	24°09.8 -1°25.5	38°41.0 -1°13.5	53°12.1 -1°01.4	+31.0	15.7
	Ve 16	271°02.7 1°58.3	285°34.2 2°10.2	300°05.7 2°22.0	314°37.3 2°33.9	329°08.9 2°45.7	343°40.5 2°57.4	358°12.1 3°09.2	12°43.7 3°20.9	27°15.3 3°32.6	41°47.0 3°44.3	56°18.6 3°56.0	+31.6	15.6
	Sa 17	274°14.1 6°47.0	288°45.8 6°58.1	303°17.5 7°09.2	317°49.3 7°20.2	332°21.0 7°31.2	346°52.7 7°42.1	1°24.4 7°53.0	15°56.0 8°03.8	30°27.7 8°14.6	44°59.4 8°25.4	59°31.1 8°36.1	+31.7	15.4
	Di 18	277°25.0 11°10.5	291°56.5 11°20.4	306°28.0 11°30.1	320°59.5 11°39.9	335°30.9 11°49.5	350°02.4 11°59.1	4°33.8 12°08.7	19°05.2 12°18.1	33°36.6 12°27.5	48°08.0 12°36.9	62°39.3 12°46.1	+31.4	15.3
	Lu 19	280°27.4 14°56.9	294°58.5 15°05.0	309°29.5 15°13.1	324°00.5 15°21.0	338°31.5 15°28.9	353°02.4 15°36.7	7°33.4 15°44.5	22°04.3 15°52.1	36°35.2 15°59.7	51°06.2 16°07.2	65°37.0 16°14.6	+31.0	15.1
	Ma 20	283°17.6 17°55.5	297°48.2 18°01.5	312°18.7 18°07.5	326°49.3 18°13.3	341°19.8 18°19.1	355°50.3 18°24.7	10°20.7 18°30.3	24°51.2 18°35.8	39°21.6 18°41.2	53°52.1 18°46.4	68°22.5 18°51.6	+30.5	15.0
O	Me 21	285°57.2 19°58.0	300°27.4 20°01.7	314°57.6 20°05.2	329°27.8 20°08.7	343°58.0 20°12.0	358°28.2 20°15.3	12°58.4 20°18.4	27°28.6 20°21.5	41°58.8 20°24.4	56°29.0 20°27.3	70°59.2 20°30.0	+30.2	14.9
	Je 22	288°32.0 20°59.0	303°02.2 21°00.2	317°32.4 21°01.2	332°02.6 21°02.1	346°32.9 21°02.9	361°02.9 21°03.6	1°03.1 21°04.3	15°33.4 21°04.8	30°03.6 21°05.2	44°33.9 21°05.5	59°04.2 21°05.5	+30.3	14.8
	Ve 23	291°10.8 20°56.8	305°41.4 20°55.4	320°12.5 20°53.9	334°42.6 20°52.3	349°13.2 20°50.7	3°43.9 20°48.9	18°14.5 20°47.0	32°45.3 20°45.0	47°16.0 20°43.0	61°46.7 20°40.8	76°17.5 20°38.5	+30.7	14.8
	Sa 24	294°02.5 19°53.3	308°33.7 19°49.6	323°04.9 19°45.7	337°36.2 19°41.8	352°07.6 19°37.8	6°38.9 19°33.7	21°10.3 19°29.5	35°41.7 19°25.2	50°13.2 19°20.9	64°44.2 19°16.4	79°16.2 19°11.9	+31.4	14.7
	Di 25	297°13.0 17°53.7	311°45.0 14°57.4	326°17.1 14°49.8	340°49.2 14°41.9	355°21.4 14°34.0	9°53.6 14°26.1	24°25.8 14°18.2	38°58.0 14°10.1	53°30.0 14°02.0	68°02.7 13°53.8	82°35.0 13°45.6	+32.2	14.7
	Lu 26	300°44.1 15°05.1	315°16.9 14°57.4	329°49.8 14°49.8	344°22.7 14°41.9	358°55.6 14°34.0	13°28.6 14°26.1	28°01.6 14°18.2	42°34.6 14°10.1	57°07.6 14°02.0	71°40.7 13°53.8	86°13.8 13°45.6	+33.0	14.8
	Ma 27	304°32.8 11°35.2	319°06.3 11°26.1	333°39.7 11°16.9	348°13.2 11°07.7	2°46.7 10°58.4	17°20.2 10°49.1	31°53.7 10°39.7	46°27.2 10°30.2	61°00.7 10°20.7	75°34.3 10°11.2	90°07.8 10°01.6	+33.5	14.9
	Me 28	308°32.1 7°32.5	323°05.8 7°22.2	337°39.4 7°11.9	352°13.1 7°01.5	6°46.7 6°51.1	21°20.4 6°40.7	35°54.0 6°30.2	50°27.7 6°19.7	65°01.3 6°09.2	79°34.9 5°58.6	94°08.8 5°48.0	+33.6	15.5
	Je 29	312°31.6 3°05.2	327°05.0 2°54.1	341°39.4 2°43.0	356°11.8 2°31.9	10°45.1 2°20.8	25°18.4 2°09.6	39°51.7 1°58.4	54°25.0 1°47.2	68°58.2 1°36.0	83°31.2 1°24.7	98°04.4 1°13.5	+33.3	15.2
	Ve 30	316°18.4 -1°37.3	330°51.0 -1°48.8	345°23.3 -2°00.3	359°56.1 -2°11.7	14°28.6 -2°23.2	29°01.0 -2°34.7	43°33.4 -2°46.2	58°05.8 -2°57.7	72°39.0 -3°09.2	87°10.3 -3°20.7	101°42.2 -3°32.2	+32.4	15.4
O	Sa 31	319°38.3 -6°24.0	334°09.5 -6°35.4	348°40.7 -6°46.7	3°11.8 -6°58.1	17°42.8 -7°09.4	32°13.7 -7°20.7	46°44.6 -7°31.9	61°15.4 -7°43.2	75°46.1 -7°54.4	90°16.8 -8°05.6	104°47.4 -8°16.8	+30.9	15.6

Ligne 1 : GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2 : Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PL: 7 03h39 — DQ: 13 19h06 — NL: 21 07h17 — PQ: 29 11h19

SOLEIL

Juin 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	270°32.8 22°01.8	285°32.7 22°02.1	300°32.6 22°02.4	315°32.5 22°02.8	330°32.4 22°03.1	345°32.3 22°03.5	0°32.2 22°03.8	15°32.1 22°04.1	30°32.0 22°04.8	45°31.9 22°05.1	60°31.9 22°05.5	75°31.8 22°05.5	-0.1 +0.3
Lu 2	270°30.5 22°09.8	285°30.4 22°10.1	300°30.3 22°10.4	315°30.2 22°10.7	330°30.1 22°11.1	345°30.0 22°11.4	0°29.9 22°11.7	15°29.8 22°12.0	30°29.7 22°12.3	45°29.6 22°12.7	60°29.5 22°13.0	75°29.4 22°13.3	-0.1 +0.3
Ma 3	270°28.1 22°17.4	285°28.0 22°17.7	300°27.9 22°18.0	315°27.8 22°18.3	330°27.7 22°18.6	345°27.6 22°18.9	0°27.5 22°19.2	15°27.4 22°19.5	30°27.3 22°19.8	45°27.2 22°20.1	60°27.1 22°20.4	75°27.0 22°20.7	-0.1 +0.3
Me 4	270°25.6 22°24.6	285°25.5 22°24.9	300°25.4 22°25.2	315°25.3 22°25.5	330°25.2 22°25.8	345°25.1 22°26.1	0°25.0 22°26.4	15°24.9 22°26.6	30°24.8 22°26.9	45°24.7 22°27.2	60°24.6 22°27.5	75°24.4 22°27.8	-0.1 +0.3
Je 5	270°23.0 22°31.4	285°22.9 22°31.7	300°22.8 22°32.0	315°22.7 22°32.3	330°22.6 22°32.6	345°22.5 22°32.8	0°22.4 22°33.1	15°22.3 22°33.4	30°22.2 22°33.6	45°22.1 22°33.9	60°21.9 22°34.2	75°21.8 22°34.5	-0.1 +0.3
Ve 6	270°20.4 22°37.9	285°20.3 22°38.2	300°20.2 22°38.4	315°20.1 22°38.7	330°19.9 22°39.2	345°19.8 22°39.2	0°19.7 22°39.4	15°19.6 22°39.7	30°19.5 22°40.0	45°19.4 22°40.2	60°19.3 22°40.5	75°19.2 22°40.7	-0.1 +0.3
Sa 7	270°17.7 22°43.9	285°17.5 22°44.2	300°17.4 22°44.4	315°17.3 22°44.7	330°17.2 22°44.9	345°17.1 22°45.2	0°17.0 22°45.4	15°16.9 22°45.6	30°16.7 22°45.9	45°16.6 22°46.1	60°16.5 22°46.3	75°16.4 22°46.6	-0.1 +0.2
Di 8	270°14.9 22°49.6	285°14.7 22°49.8	300°14.6 22°50.0	315°14.5 22°50.3	330°14.4 22°50.5	345°14.3 22°50.7	0°14.1 22°50.9	15°14.0 22°51.2	30°13.9 22°51.4	45°13.8 22°51.6	60°13.7 22°51.8	75°13.5 22°52.1	-0.1 +0.2
Lu 9	270°12.0 22°54.8	285°11.9 22°55.1	300°11.7 22°55.3	315°11.6 22°55.5	330°11.5 22°55.7	345°11.4 22°55.9	0°11.3 22°56.1	15°11.1 22°56.3	30°11.0 22°56.5	45°10.9 22°56.7	60°10.8 22°56.9	75°10.6 22°57.1	-0.1 +0.2
Ma 10	270°09.0 22°59.7	285°08.9 22°59.9	300°08.8 22°00.1	315°08.7 22°00.3	330°08.5 22°00.5	345°08.4 22°00.6	0°08.3 22°00.8	15°08.2 22°01.0	30°08.0 22°01.2	45°07.9 22°01.4	60°07.8 22°01.6	75°07.7 22°01.8	-0.1 +0.2
Me 11	270°06.0 22°04.1	285°05.9 22°04.3	300°05.8 22°04.5	315°05.7 22°04.7	330°05.5 22°04.8	345°05.4 22°05.0	0°05.3 22°05.2	15°05.2 22°05.4	30°05.0 22°05.5	45°04.9 22°05.7	60°04.8 22°05.9	75°04.6 22°06.0	-0.1 +0.2
Je 12	270°03.0 22°08.2	285°02.8 22°08.3	300°02.7 22°08.5	315°02.6 22°08.7	330°02.5 22°08.9	345°02.3 22°09.0	0°02.2 22°09.1	15°02.1 22°09.3	30°01.9 22°09.4	45°01.8 22°09.6	60°01.7 22°09.7	75°01.6 22°09.9	-0.1 +0.2
Ve 13	269°59.9 22°11.8	284°59.7 22°11.9	299°59.6 22°12.1	314°59.5 22°12.2	329°59.3 22°12.4	344°59.2 22°12.5	359°59.1 22°12.6	14°58.9 22°12.8	29°58.8 22°13.0	44°58.7 22°13.2	59°58.6 22°13.3	74°58.4 22°13.3	-0.1 +0.1
Sa 14	269°56.7 22°15.0	284°56.6 22°15.1	299°56.4 22°15.3	314°56.3 22°15.4	329°56.2 22°15.5	344°56.0 22°15.6	359°55.9 22°15.7	14°55.8 22°15.9	29°55.6 22°16.2	44°55.5 22°16.3	59°55.4 22°16.2	74°55.2 22°16.3	-0.1 +0.1
Di 15	269°53.5 22°17.8	284°53.4 22°17.9	299°53.2 22°18.0	314°53.1 22°18.1	329°53.0 22°18.2	344°52.8 22°18.3	359°52.7 22°18.5	14°52.6 22°18.6	29°52.4 22°18.7	44°52.3 22°18.8	59°52.2 22°18.9	74°52.0 22°19.0	-0.1 +0.1
Lu 16	269°50.3 22°20.2	284°50.1 22°20.3	299°50.0 22°20.4	314°49.9 22°20.5	329°49.8 22°20.6	344°49.6 22°20.7	359°49.5 22°20.7	14°49.3 22°20.8	29°49.2 22°20.9	44°49.1 22°21.0	59°48.9 22°21.1	74°48.8 22°21.2	-0.1 +0.1
Ma 17	269°47.0 22°22.2	284°46.9 22°22.3	299°46.8 22°22.3	314°46.6 22°22.4	329°46.5 22°22.5	344°46.3 22°22.6	359°46.2 22°22.6	14°46.1 22°22.7	29°45.9 22°22.8	44°45.8 22°22.8	59°45.7 22°22.9	74°45.5 22°23.0	-0.1 +0.1
Me 18	269°43.8 22°23.8	284°43.6 22°23.8	299°43.5 22°23.9	314°43.3 22°23.9	329°43.2 22°24.0	344°43.1 22°24.0	359°42.9 22°24.1	14°42.8 22°24.1	29°42.7 22°24.2	44°42.5 22°24.2	59°42.4 22°24.3	74°42.2 22°24.3	-0.1 +0.1
Je 19	269°40.5 22°24.9	284°40.3 22°25.0	299°40.2 22°25.0	314°40.1 22°25.0	329°39.9 22°25.1	344°39.8 22°25.1	359°39.6 22°25.1	14°39.5 22°25.2	29°39.4 22°25.2	44°39.2 22°25.2	59°39.1 22°25.3	74°39.0 22°25.3	-0.1 +0.0
Ve 20	269°37.2 22°25.7	284°37.0 22°25.7	299°36.9 22°25.7	314°36.8 22°25.7	329°36.6 22°25.7	344°36.5 22°25.8	359°36.3 22°25.8	14°36.2 22°25.8	29°36.1 22°25.8	44°35.9 22°25.8	59°35.8 22°25.9	74°35.7 22°25.9	-0.1 +0.0
Sa 21	269°33.9 22°26.0	284°33.7 22°26.0	299°33.6 22°26.0	314°33.5 22°26.0	329°33.3 22°26.0	344°33.2 22°26.0	359°33.1 22°26.0	14°32.9 22°26.0	29°32.8 22°26.0	44°32.6 22°26.0	59°32.5 22°26.0	74°32.4 22°26.0	-0.1 +0.0
Di 22	269°30.6 22°25.9	284°30.5 22°25.9	299°30.3 22°25.9	314°30.2 22°25.9	329°30.0 22°25.9	344°29.9 22°25.8	359°29.8 22°25.8	14°29.6 22°25.8	29°29.5 22°25.8	44°29.4 22°25.8	59°29.2 22°25.8	74°29.1 22°25.7	-0.1 -0.0
Lu 23	269°27.3 22°25.4	284°27.2 22°25.4	299°27.1 22°25.4	314°26.9 22°25.3	329°26.8 22°25.3	344°26.6 22°25.3	359°26.5 22°25.2	14°26.4 22°25.2	29°26.2 22°25.2	44°26.1 22°25.2	59°26.0 22°25.1	74°25.8 22°25.1	-0.1 -0.0
Ma 24	269°24.1 22°24.5	284°23.9 22°24.5	299°23.8 22°24.4	314°23.7 22°24.4	329°23.5 22°24.3	344°23.4 22°24.3	359°23.3 22°24.2	14°23.1 22°24.2	29°23.0 22°24.2	44°22.9 22°24.2	59°22.7 22°24.0	74°22.6 22°24.0	-0.1 -0.1
Me 25	269°20.9 22°23.2	284°20.7 22°23.1	299°20.6 22°23.1	314°20.4 22°23.0	329°20.3 22°22.9	344°20.2 22°22.9	359°20.0 22°22.8	14°19.9 22°22.7	29°19.8 22°22.7	44°19.7 22°22.6	59°19.5 22°22.5	74°19.4 22°22.4	-0.1 -0.1
Je 26	269°17.7 22°21.5	284°17.5 22°21.4	299°17.4 22°21.3	314°17.3 22°21.1	329°17.1 22°21.1	344°17.0 22°21.0	359°16.9 22°21.0	14°16.7 22°20.9	29°16.6 22°20.8	44°16.5 22°20.7	59°16.3 22°20.6	74°16.2 22°20.5	-0.1 -0.1
Ve 27	269°14.5 22°19.3	284°14.4 22°19.2	299°14.3 22°19.1	314°14.1 22°19.0	329°14.0 22°18.9	344°13.9 22°18.8	359°13.7 22°18.7	14°13.6 22°18.6	29°13.5 22°18.5	44°13.3 22°18.4	59°13.2 22°18.3	74°13.1 22°18.2	-0.1 -0.1
Sa 28	269°11.4 22°16.8	284°11.3 22°16.7	299°11.2 22°16.5	314°11.0 22°16.4	329°10.9 22°16.3	344°10.8 22°16.2	359°10.6 22°16.1	14°10.5 22°15.9	29°10.4 22°15.8	44°10.3 22°15.7	59°10.1 22°15.6	74°10.0 22°15.5	-0.1 -0.1
Di 29	269°08.4 22°13.8	284°08.2 22°13.7	299°08.1 22°13.5	314°08.0 22°13.4	329°07.9 22°13.3	344°07.7 22°13.1	359°07.6 22°13.0	14°07.5 22°12.9	29°07.4 22°12.7	44°07.2 22°12.6	59°07.1 22°12.5	74°07.0 22°12.3	-0.1 -0.1
Lu 30	269°05.4 22°10.4	284°05.3 22°10.3	299°05.1 22°10.1	314°05.0 22°10.0	329°04.9 22°09.8	344°04.8 22°09.7	359°04.6 22°09.5	14°04.5 22°09.4	29°04.4 22°09.3	44°04.3 22°09.1	59°04.1 22°08.9	74°04.0 22°08.8	-0.1 -0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juin 2031

	J	12h	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	Δ /h	SP
O	Di 1	240°48.9 -10°07.0	264°18.6 -10°28.6	278°48.2 -10°39.3	293°17.7 -10°39.3	307°47.2 -10°50.7	322°16.5 -11°00.7	336°45.8 -11°11.3	351°15.0 -11°21.9	5°44.1 -11°32.4	20°13.1 -11°42.9	34°42.3 -11°53.3	+29.3	15.9
	Lu 2	251°44.7 -14°02.8	266°12.1 -14°32.2	280°39.4 -14°41.5	295°06.6 -14°50.8	309°33.7 -15°00.7	324°00.8 -15°09.2	338°27.7 -15°18.2	352°54.5 -15°27.2	7°21.3 -15°36.1	21°47.9 -15°44.9	36°14.4 -15°53.6	+27.0	16.1
O	Ma 3	252°40.8 -17°52.8	267°05.8 -18°06.9	281°30.7 -18°06.9	295°55.6 -18°13.8	310°20.3 -18°20.6	324°44.9 -18°27.3	339°09.5 -18°33.8	353°33.9 -18°40.6	7°58.3 -18°46.6	22°22.6 -18°52.7	36°46.8 -18°58.8	+24.6	16.4
	Me 4	252°40.3 -20°13.9	267°03.3 -20°17.8	281°26.3 -20°21.6	295°49.1 -20°25.2	310°11.9 -20°28.7	324°34.7 -20°32.0	338°57.4 -20°35.1	353°20.1 -20°38.2	7°42.7 -20°41.0	22°05.2 -20°43.7	36°27.7 -20°46.3	+22.7	16.5
O	Je 5	252°00.8 -21°06.2	266°22.8 -21°06.2	280°44.8 -21°06.1	295°06.8 -21°05.9	309°28.8 -21°05.4	323°50.7 -21°04.9	338°12.7 -21°04.1	352°34.7 -21°03.2	6°56.6 -21°02.2	21°18.6 -21°00.9	35°40.6 -20°59.6	+22.0	16.6
	Ve 6	251°12.3 -20°19.9	265°34.6 -20°16.0	279°57.0 -20°12.0	294°19.5 -20°07.8	308°41.9 -20°03.4	323°04.4 -19°59.0	337°27.0 -19°54.3	351°49.6 -19°49.5	6°12.3 -19°44.6	20°35.0 -19°39.6	34°57.8 -19°34.3	+22.5	16.6
O	Sa 7	250°47.0 -17°59.7	265°10.8 -17°52.4	279°34.8 -17°44.9	293°58.7 -17°37.3	308°22.8 -17°21.8	322°47.0 -17°13.8	337°11.2 -17°05.8	351°35.5 -16°57.6	5°59.9 -16°49.3	20°24.4 -16°40.9	34°48.9 -16°40.9	+24.2	16.6
	Di 8	251°07.4 -14°22.9	265°33.4 -14°13.0	279°59.4 -14°02.9	294°25.5 -13°52.8	308°51.7 -13°42.7	323°18.0 -13°22.1	337°44.3 -13°11.7	352°10.8 -13°01.2	6°37.3 -12°50.6	21°03.9 -12°40.4	35°30.6 -12°40.4	+26.3	16.4
O	Lu 9	252°21.3 -9°53.2	266°49.3 -9°41.7	281°17.4 -9°30.1	295°45.6 -9°18.5	310°13.8 -9°06.8	324°44.2 -8°55.1	339°10.6 -8°43.4	353°39.1 -8°31.6	8°07.6 -8°19.8	22°36.3 -8°07.9	37°05.0 -7°56.0	+28.4	16.2
	Ma 10	254°23.7 -4°54.8	268°53.4 -4°42.5	283°23.2 -4°30.3	297°53.1 -4°18.0	312°23.0 -4°05.8	326°53.0 -3°53.5	341°23.0 -3°41.3	355°53.1 -3°29.0	10°23.3 -3°16.7	24°53.5 -3°04.4	39°23.7 -2°52.1	+30.0	16.0
O	Me 11	257°02.8 0°11.5	271°33.7 0°23.7	286°04.7 0°35.8	300°35.7 0°48.0	315°06.8 0°51.1	329°37.8 1°00.1	344°08.9 1°12.2	358°40.0 1°24.2	13°11.2 1°36.3	27°42.4 1°48.3	42°13.6 2°00.3	+31.1	15.7
	Je 12	271°33.7 0°23.7	286°04.7 0°35.8	300°35.7 0°48.0	315°06.8 0°51.1	329°37.8 1°00.1	344°08.9 1°12.2	358°40.0 1°24.2	373°11.2 1°36.3	27°42.4 1°48.3	42°13.6 2°00.3	56°44.8 2°12.3	+31.1	15.7
O	Ve 13	274°36.2 5°20.1	289°07.7 5°31.5	303°39.3 5°42.9	318°10.9 5°54.3	332°42.5 6°05.6	347°14.1 6°16.9	362°17.3 6°28.2	376°17.3 6°39.4	30°49.9 6°50.6	45°20.6 7°01.7	59°52.3 7°12.7	+31.6	15.5
	Sa 14	277°47.4 9°53.0	292°19.0 10°03.2	306°50.7 10°13.4	321°22.3 10°23.6	335°54.0 10°33.7	350°25.0 10°43.7	365°17.3 10°53.7	380°19.2 11°03.6	34°00.5 11°13.4	48°32.2 11°23.2	63°03.8 11°32.9	+31.6	15.3
O	Di 15	280°56.6 15°50.9	295°28.0 15°59.6	309°59.4 16°08.2	324°30.8 16°16.7	339°02.2 16°25.1	353°33.6 16°33.5	368°04.9 16°41.7	382°36.2 16°49.9	37°07.5 16°58.1	51°38.8 17°06.1	66°10.1 17°14.1	+31.3	15.2
	Lu 16	283°57.1 17°04.2	298°28.1 17°10.9	312°59.1 17°17.5	327°30.0 17°24.0	342°01.0 17°30.4	356°31.9 17°36.7	371°02.8 17°43.0	385°33.9 17°49.2	25°33.7 17°55.2	40°04.5 18°01.2	54°35.4 18°07.1	+30.9	15.0
O	Ma 17	286°46.7 19°24.6	301°17.3 19°29.0	315°47.9 19°33.4	330°18.4 19°37.6	344°49.0 19°41.7	359°19.5 19°45.8	374°01.9 19°49.7	388°20.6 19°53.6	42°51.1 19°57.3	57°21.1 20°01.0	71°52.0 20°04.5	+30.5	14.9
	Me 18	289°28.4 20°46.1	303°58.8 20°48.1	318°29.1 20°49.9	333°59.5 20°51.7	347°29.9 20°53.4	361°30.3 20°55.0	375°45.3 20°56.5	389°51.0 20°57.8	43°31.4 20°59.1	58°31.8 21°00.3	74°34.2 21°01.4	+30.4	14.8
O	Je 19	292°08.9 21°05.5	306°39.4 21°05.0	321°09.9 21°04.3	335°40.5 21°03.6	350°11.0 21°02.8	364°41.6 21°01.9	378°12.2 21°00.9	391°42.8 21°00.9	46°13.4 21°00.9	62°44.1 21°00.9	77°14.7 21°00.9	+30.6	14.7
	Ve 20	294°57.0 20°23.1	309°28.0 20°20.2	323°59.0 20°17.1	338°30.1 20°14.0	353°01.2 20°10.8	367°32.3 20°07.5	381°03.4 20°04.1	394°34.6 20°00.6	51°05.8 19°57.0	65°37.0 19°53.3	80°08.2 19°49.6	+31.1	14.7
O	Sa 21	298°00.6 18°42.6	312°32.4 18°37.5	327°04.1 18°32.2	341°36.0 18°26.9	356°07.8 18°21.5	370°39.7 18°16.1	384°11.6 18°10.5	397°43.5 18°04.9	54°15.5 17°59.2	68°47.5 17°53.4	83°19.6 17°47.5	+31.9	14.7
	Di 22	301°24.3 16°10.4	315°56.9 16°03.3	330°29.5 15°56.2	345°02.1 15°49.0	359°34.8 15°41.8	374°07.5 15°34.4	388°28.0 15°27.0	402°40.3 15°19.6	57°45.9 15°12.1	72°18.7 15°04.5	86°51.6 14°56.8	+32.7	14.7
O	Lu 23	305°08.2 12°54.6	319°41.5 12°45.9	334°14.9 12°37.3	348°48.3 12°28.5	363°21.7 12°19.8	377°55.1 12°10.9	392°28.5 12°02.0	406°51.3 11°53.1	67°02.0 11°44.1	81°35.5 11°35.1	95°42.6 11°26.0	+33.4	14.8
	Ma 24	309°08.1 9°03.9	323°41.9 8°54.0	338°15.7 8°44.2	352°49.6 8°34.3	367°23.4 8°24.3	381°57.3 8°14.3	396°31.2 8°04.3	410°51.1 7°54.3	69°05.1 7°44.2	83°39.0 7°34.0	97°46.8 7°23.8	+33.9	14.9
O	Me 25	313°15.9 4°47.3	327°49.8 4°36.6	342°23.7 4°26.0	356°57.6 4°15.2	371°31.6 4°04.5	385°05.5 3°53.7	400°39.4 3°42.9	415°13.2 3°32.1	55°13.2 3°21.2	69°47.1 3°10.4	84°21.0 2°59.5	+33.9	15.0
	Je 26	317°20.7 0°14.1	331°54.2 0°02.9	346°27.7 -0°08.2	361°01.2 -0°19.4	375°34.7 -0°30.5	389°08.1 -0°41.7	403°08.1 -0°52.9	417°14.9 -1°04.1	59°14.9 -1°15.3	73°48.2 -1°26.5	88°21.6 -1°37.7	+33.4	15.1
O	Ve 27	321°09.3 -4°26.0	335°41.9 -4°37.1	350°14.4 -4°48.3	364°47.0 -4°59.5	379°19.4 -5°10.7	393°51.8 -5°21.8	408°24.2 -5°32.9	422°56.4 -5°44.1	67°28.7 -5°55.2	82°00.9 -6°06.3	96°33.0 -6°17.4	+32.4	15.4
	Sa 28	324°27.3 -9°01.2	338°58.4 -9°11.9	353°29.4 -9°22.6	368°00.3 -9°33.3	382°31.2 -9°43.9	396°51.9 -9°54.5	411°32.6 -10°05.1	425°32.6 -10°15.6	66°03.3 -10°26.1	80°33.8 -10°36.5	94°34.7 -10°46.9	+30.7	15.6
O	Di 29	327°00.3 -13°17.4	341°29.3 -13°27.0	355°58.3 -13°36.5	370°27.1 -13°46.0	384°55.8 -13°55.4	399°24.4 -14°04.8	413°53.0 -14°14.1	428°24.3 -14°23.3	68°21.4 -14°33.4	82°49.8 -14°41.5	97°18.0 -14°50.5	+28.6	15.9
	Lu 30	328°36.9 -16°56.4	343°03.5 -17°04.0	357°29.9 -17°11.6	371°56.3 -17°19.2	386°22.6 -17°26.6	400°48.8 -17°33.9	415°14.9 -17°48.2	429°40.9 -17°55.2	69°06.8 -18°02.1	84°06.8 -18°08.9	98°32.6 -18°15.9	+26.1	16.1

Ligne 1: GHA, Δ 'h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ 'h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 5 11h58 — DQ: 12 02h20 — NL: 19 22h24 — PQ: 28 00h19

SOLEIL

Juillet 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ma 1	268°02.5 23°06.7	284°02.3 23°06.5	299°02.2 23°06.3	314°02.1 23°06.2	329°02.0 23°06.0	344°01.8 23°05.8	359°01.7 23°05.7	14°01.6 23°05.5	29°01.5 23°05.2	44°01.4 23°05.0	59°01.3 23°04.8	74°01.1 23°04.6	-0.1 -0.2
Me 2	268°59.6 23°02.5	283°59.5 23°02.3	298°59.4 23°02.1	313°59.2 23°01.9	328°59.1 23°01.8	343°59.0 23°01.6	358°58.9 23°01.4	13°58.8 23°01.2	28°58.7 23°01.0	43°58.5 23°00.8	58°58.4 23°00.6	73°58.3 23°00.4	-0.1 -0.2
Je 3	268°56.8 22°57.9	283°56.7 22°57.9	298°56.6 22°57.5	313°56.5 22°57.3	328°56.3 22°57.1	343°56.2 22°56.9	358°56.1 22°56.7	13°56.0 22°56.5	28°55.9 22°56.3	43°55.8 22°56.1	58°55.7 22°55.9	73°55.6 22°55.7	-0.1 -0.2
Ve 4	268°54.1 22°52.9	283°54.0 22°52.7	298°53.9 22°52.5	313°53.8 22°52.3	328°53.7 22°52.1	343°53.5 22°51.9	358°53.4 22°51.6	13°53.3 22°51.4	28°53.2 22°51.2	43°53.1 22°51.0	58°53.0 22°50.8	73°52.9 22°50.5	-0.1 -0.2
Sa 5	268°51.5 22°47.6	283°51.4 22°47.3	298°51.3 22°47.1	313°51.1 22°46.9	328°51.0 22°46.6	343°50.9 22°46.4	358°50.8 22°46.2	13°50.7 22°45.9	28°50.6 22°45.7	43°50.5 22°45.5	58°50.4 22°45.2	73°50.3 22°45.0	-0.1 -0.2
Di 6	268°48.9 22°41.8	283°48.8 22°41.5	298°48.7 22°41.3	313°48.6 22°41.0	328°48.5 22°40.5	343°48.4 22°40.3	358°48.3 22°40.0	13°48.2 22°40.0	28°48.1 22°39.8	43°48.0 22°39.5	58°47.9 22°39.3	73°47.8 22°39.0	-0.1 -0.3
Lu 7	268°46.5 22°35.6	283°46.4 22°35.4	298°46.3 22°35.1	313°46.2 22°34.8	328°46.1 22°34.6	343°46.0 22°34.3	358°45.9 22°34.0	13°45.8 22°33.8	28°45.7 22°33.5	43°45.6 22°33.2	58°45.5 22°32.9	73°45.4 22°32.7	-0.1 -0.3
Ma 8	268°44.1 22°29.1	283°44.0 22°28.8	298°43.9 22°28.5	313°43.8 22°28.2	328°43.7 22°27.9	343°43.6 22°27.7	358°43.5 22°27.4	13°43.4 22°27.1	28°43.3 22°26.8	43°43.2 22°26.5	58°43.1 22°26.2	73°43.0 22°25.9	-0.1 -0.3
Me 9	268°41.8 22°22.1	283°41.7 22°21.8	298°41.6 22°21.5	313°41.5 22°21.2	328°41.5 22°20.9	343°41.4 22°20.6	358°41.3 22°20.3	13°41.3 22°20.0	28°41.2 22°19.7	43°41.1 22°19.4	58°41.0 22°19.1	73°40.8 22°18.8	-0.1 -0.3
Je 10	268°39.6 22°14.8	283°39.6 22°14.5	298°39.5 22°14.2	313°39.4 22°13.9	328°39.3 22°13.5	343°39.2 22°13.2	358°39.1 22°12.9	13°39.0 22°12.6	28°38.9 22°12.2	43°38.8 22°11.9	58°38.8 22°11.6	73°38.7 22°11.3	-0.1 -0.3
Ve 11	268°37.6 22°07.1	283°37.5 22°06.8	298°37.4 22°06.4	313°37.3 22°06.1	328°37.2 22°05.8	343°37.2 22°05.4	358°37.1 22°05.1	13°37.0 22°04.8	28°36.9 22°04.4	43°36.8 22°04.1	58°36.7 22°03.8	73°36.7 22°03.4	-0.1 -0.3
Sa 12	268°35.6 21°59.0	283°35.5 21°58.6	298°35.4 21°58.3	313°35.3 21°57.9	328°35.3 21°57.6	343°35.2 21°57.2	358°35.1 21°56.9	13°35.1 21°56.5	28°35.0 21°56.2	43°34.9 21°55.8	58°34.8 21°55.5	73°34.7 21°55.1	-0.1 -0.3
Di 13	268°33.8 21°50.5	283°33.7 21°50.1	298°33.6 21°49.8	313°33.5 21°49.4	328°33.5 21°49.1	343°33.4 21°48.7	358°33.3 21°48.3	13°33.2 21°48.0	28°33.2 21°47.6	43°33.1 21°47.2	58°33.0 21°46.9	73°32.9 21°46.5	-0.1 -0.4
Lu 14	268°32.0 21°41.7	283°31.9 21°41.3	298°31.9 21°40.9	313°31.8 21°40.5	328°31.7 21°40.1	343°31.7 21°39.8	358°31.6 21°39.4	13°31.5 21°39.0	28°31.5 21°38.6	43°31.4 21°38.2	58°31.3 21°37.9	73°31.2 21°37.5	-0.1 -0.4
Ma 15	268°30.4 21°32.4	283°30.3 21°32.0	298°30.3 21°31.7	313°30.2 21°31.3	328°30.1 21°30.9	343°30.1 21°30.5	358°30.0 21°30.1	13°29.9 21°29.7	28°29.9 21°29.3	43°29.8 21°28.9	58°29.7 21°28.5	73°29.7 21°28.1	-0.1 -0.4
Me 16	268°28.9 21°22.8	283°28.8 21°22.4	298°28.8 21°22.0	313°28.7 21°21.6	328°28.6 21°21.2	343°28.6 21°20.8	358°28.5 21°20.4	13°28.5 21°20.0	28°28.4 21°19.6	43°28.4 21°19.2	58°28.3 21°18.7	73°28.2 21°18.3	-0.1 -0.4
Je 17	268°27.5 21°12.9	283°27.5 21°12.5	298°27.4 21°12.0	313°27.3 21°11.6	328°27.2 21°11.2	343°27.2 21°10.8	358°27.2 21°10.4	13°27.1 21°09.9	28°27.1 21°09.5	43°27.0 21°09.1	58°27.0 21°08.6	73°26.9 21°08.2	-0.1 -0.4
Ve 18	268°26.3 21°02.6	283°26.2 21°02.1	298°26.2 21°01.7	313°26.1 21°01.3	328°26.1 21°00.8	343°26.0 21°00.4	358°26.0 20°59.9	13°25.9 20°59.5	28°25.9 20°59.1	43°25.8 20°58.6	58°25.8 20°58.2	73°25.7 20°57.7	-0.0 -0.4
Sa 19	268°25.1 20°51.9	283°25.1 20°51.5	298°25.1 20°51.0	313°25.0 20°50.6	328°25.0 20°50.1	343°24.9 20°49.6	358°24.9 20°49.2	13°24.8 20°48.7	28°24.8 20°48.3	43°24.8 20°47.8	58°24.7 20°47.4	73°24.7 20°46.9	-0.0 -0.5
Di 20	268°24.2 20°40.9	283°24.1 20°40.4	298°24.1 20°40.0	313°24.1 20°39.5	328°24.0 20°39.0	343°24.0 20°38.6	358°24.0 20°38.1	13°23.9 20°37.6	28°23.9 20°37.1	43°23.8 20°36.7	58°23.8 20°36.2	73°23.8 20°35.7	-0.0 -0.5
Lu 21	268°23.3 20°29.5	283°23.3 20°29.1	298°23.3 20°28.6	313°23.2 20°28.1	328°23.2 20°27.6	343°23.2 20°27.1	358°23.2 20°26.6	13°23.1 20°26.2	28°23.1 20°25.7	43°23.1 20°25.2	58°23.0 20°24.7	73°23.0 20°24.2	-0.0 -0.5
Ma 22	268°22.6 20°17.8	283°22.6 20°17.3	298°22.6 20°16.8	313°22.6 20°16.3	328°22.5 20°15.8	343°22.5 20°15.3	358°22.5 20°14.8	13°22.5 20°14.3	28°22.5 20°13.8	43°22.4 20°13.3	58°22.4 20°12.8	73°22.4 20°12.3	-0.0 -0.5
Me 23	268°22.1 20°05.8	283°22.1 20°05.3	298°22.1 20°04.8	313°22.0 20°04.2	328°22.0 20°03.7	343°22.0 20°03.2	358°22.0 20°02.7	13°22.0 20°02.2	28°22.0 20°01.7	43°22.0 20°01.2	58°22.0 20°00.7	73°22.0 20°00.1	-0.0 -0.5
Je 24	268°21.7 19°53.4	283°21.7 19°52.9	298°21.7 19°52.3	313°21.7 19°51.8	328°21.7 19°51.3	343°21.6 19°50.8	358°21.6 19°50.2	13°21.6 19°49.7	28°21.6 19°49.2	43°21.6 19°48.7	58°21.6 19°48.3	73°21.6 19°47.8	-0.0 -0.5
Ve 25	268°21.5 19°40.7	283°21.4 19°40.1	298°21.4 19°39.6	313°21.4 19°39.1	328°21.4 19°38.5	343°21.4 19°38.0	358°21.4 19°37.4	13°21.5 19°36.9	28°21.5 19°36.4	43°21.5 19°35.8	58°21.4 19°35.3	73°21.4 19°34.7	-0.0 -0.5
Sa 26	268°21.4 19°27.6	283°21.4 19°27.1	298°21.4 19°26.5	313°21.4 19°26.0	328°21.4 19°25.4	343°21.4 19°24.9	358°21.4 19°24.3	13°21.5 19°23.8	28°21.5 19°23.2	43°21.5 19°22.7	58°21.4 19°22.1	73°21.4 19°21.6	+0.0 -0.6
Di 27	268°21.4 19°14.3	283°21.4 19°13.7	298°21.4 19°13.2	313°21.4 19°12.6	328°21.4 19°12.0	343°21.4 19°11.5	358°21.5 19°10.9	13°21.5 19°10.3	28°21.5 19°09.8	43°21.5 19°09.2	58°21.5 19°08.6	73°21.5 19°08.1	+0.0 -0.6
Lu 28	268°21.6 19°00.6	283°21.6 19°00.0	298°21.7 18°59.4	313°21.7 18°58.9	328°21.7 18°58.3	343°21.7 18°57.7	358°21.7 18°57.1	13°21.7 18°56.6	28°21.7 18°56.0	43°21.7 18°55.4	58°21.8 18°54.8	73°21.8 18°54.2	+0.0 -0.6
Ma 29	268°22.0 18°46.6	283°22.0 18°46.0	298°22.0 18°45.4	313°22.1 18°44.8	328°22.1 18°44.3	343°22.1 18°43.7	358°22.1 18°43.1	13°22.1 18°42.5	28°22.2 18°41.9	43°22.2 18°41.3	58°22.2 18°40.7	73°22.2 18°40.1	+0.0 -0.6
Me 30	268°22.5 18°32.3	283°22.6 18°31.7	298°22.6 18°31.1	313°22.6 18°30.5	328°22.6 18°29.9	343°22.7 18°29.3	358°22.7 18°28.7	13°22.7 18°28.1	28°22.7 18°27.5	43°22.8 18°26.9	58°22.8 18°26.3	73°22.8 18°25.7	+0.0 -0.6
Je 31	268°23.2 18°17.7	283°23.2 18°17.1	298°23.3 18°16.5	313°23.3 18°15.9	328°23.3 18°15.3	343°23.4 18°14.6	358°23.4 18°14.0	13°23.4 18°13.4	28°23.5 18°12.8	43°23.5 18°12.2	58°23.5 18°11.6	73°23.6 18°10.9	+0.0 -0.6

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA − 15°

Ligne 2: Dec (Déclinaison, − = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juillet 2031

	J	12h	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	Δ°/h	SP
O	Ma 1	242°45.4 -19°05.0	257°10.1 -19°10.7	271°34.8 -19°16.2	285°59.4 -19°21.6	300°23.9 -19°26.9	314°48.3 -19°32.1	329°12.6 -19°37.1	343°36.8 -19°42.0	358°00.9 -19°46.8	12°25.0 -19°51.4	26°49.0 -19°56.0	+24.4	16.3
	Me 2	240°39.5 -20°47.1	257°02.3 -20°49.4	271°25.1 -20°51.5	285°47.8 -20°53.5	300°10.4 -20°55.9	314°33.1 -20°56.9	328°55.6 -20°58.4	343°18.1 -20°59.8	357°40.6 -21°01.0	12°03.0 -21°02.0	26°25.3 -21°02.9	+22.6	16.5
	Je 3	241°57.0 -20°57.2	256°18.9 -20°55.5	270°40.9 -20°53.7	285°02.8 -20°51.8	299°24.7 -20°49.6	313°46.7 -20°47.3	328°08.6 -20°44.9	342°30.5 -20°42.3	356°52.5 -20°39.5	11°14.4 -20°36.5	25°36.4 -20°33.5	+21.9	16.7
O	Ve 4	241°08.2 -19°28.5	255°30.6 -19°22.9	269°53.0 -19°17.3	284°15.5 -19°11.4	298°38.0 -19°05.5	313°00.5 -18°59.3	327°23.2 -18°53.1	341°45.8 -18°46.7	356°08.5 -18°40.1	10°31.3 -18°33.4	24°54.1 -18°26.6	+22.6	16.7
	Sa 5	240°44.0 -16°28.8	255°07.9 -16°20.0	269°31.8 -16°11.0	283°55.9 -16°02.0	298°20.0 -15°52.8	312°44.1 -15°43.6	327°08.4 -15°34.2	341°32.7 -15°24.7	355°57.2 -15°15.1	10°21.6 -15°05.4	24°46.2 -14°55.7	+24.2	16.7
	Di 6	241°04.6 -12°18.2	255°30.5 -12°07.1	269°56.4 -11°55.9	284°22.5 -11°44.6	298°48.6 -11°33.3	313°14.8 -11°21.9	327°41.1 -11°10.4	342°07.5 -10°58.9	356°34.0 -10°47.3	11°00.5 -10°35.6	25°27.1 -10°23.9	+26.3	16.5
O	Lu 7	242°15.8 -7°22.9	256°43.6 -7°10.5	271°11.6 -6°58.1	285°39.5 -6°45.7	300°07.6 -6°33.2	314°35.7 -6°20.7	329°03.9 -6°08.2	343°32.2 -5°55.7	358°00.6 -5°43.2	12°29.0 -5°30.6	26°57.4 -5°18.1	+28.2	16.3
	Ma 8	244°12.0 -3°02.8	258°41.4 -3°14.9	273°10.9 -3°27.0	287°40.5 -3°39.1	302°10.1 -3°51.1	316°39.7 -4°03.1	331°09.4 -4°15.1	345°39.1 -4°27.0	0°08.9 -4°38.9	14°38.7 -4°50.7	29°08.6 -5°02.5	+29.7	16.1
	Me 9	246°41.7 8°02.8	261°12.2 8°14.9	275°42.2 8°27.0	290°13.8 8°39.1	304°43.3 8°51.1	319°14.5 9°03.1	333°45.2 9°15.1	348°15.9 9°27.0	2°46.6 9°38.9	17°07.3 9°50.7	31°48.8 9°52.5	+30.6	15.8
O	Je 10	249°31.8 7°54.0	264°02.9 8°05.0	278°33.9 8°16.0	293°05.0 8°26.9	307°36.1 8°37.8	322°07.2 8°48.6	336°38.3 8°59.4	351°09.4 9°10.1	5°40.6 9°21.7	20°11.7 9°31.3	34°42.8 9°41.8	+31.1	15.6
	Ve 11	252°30.4 12°11.9	267°01.6 12°21.4	281°32.7 12°30.8	296°03.9 12°40.1	310°35.1 12°49.4	325°06.2 12°58.6	339°37.4 13°07.7	354°08.6 13°16.7	8°39.7 13°25.7	23°10.9 13°34.6	37°42.0 13°43.4	+37.2	15.2
	Sa 12	267°01.6 12°21.4	281°32.7 12°30.8	296°03.9 12°40.1	310°35.1 12°49.4	325°06.2 12°58.6	339°37.4 13°07.7	354°08.6 13°16.7	8°39.7 13°25.7	23°10.9 13°34.6	37°42.0 13°43.4	52°13.2 13°52.2	+31.2	15.3
O	Di 13	269°59.4 15°54.0	284°30.4 16°01.5	299°01.4 16°08.9	313°32.4 16°16.2	328°03.3 16°23.4	342°34.3 16°30.6	357°05.3 16°37.6	11°36.3 16°44.6	26°07.2 16°51.5	40°38.1 16°58.3	55°09.0 17°05.0	+31.0	15.1
	Lu 14	272°51.5 18°35.1	287°22.3 18°40.4	301°52.9 18°45.6	316°23.7 18°50.7	330°54.4 18°55.7	345°25.1 19°00.6	359°55.8 19°05.4	14°26.4 19°10.1	28°57.1 19°14.8	43°27.8 19°19.3	57°58.4 19°23.7	+30.7	15.0
	Ma 15	275°37.3 20°18.9	290°07.9 20°21.8	304°38.4 20°24.6	319°09.0 20°27.3	333°39.0 20°29.9	348°10.0 20°32.4	362°46.6 20°34.8	17°11.1 20°37.3	31°41.6 20°39.3	46°12.1 20°41.4	60°42.7 20°43.5	+30.5	14.8
O	Me 16	278°20.7 21°01.8	292°51.3 21°02.2	307°21.9 21°02.6	321°52.5 21°02.8	336°23.0 21°03.0	350°53.6 21°03.0	365°24.3 21°02.9	19°54.9 21°02.8	34°25.5 21°02.5	48°46.1 21°02.1	63°26.8 21°01.7	+30.6	14.8
	Je 17	281°08.2 20°43.2	295°39.0 20°41.2	310°09.9 20°39.0	324°40.9 20°36.9	339°11.8 20°34.6	353°42.8 20°32.2	368°13.8 20°29.7	8°13.8 20°27.1	22°44.8 20°24.5	37°15.8 20°21.7	51°46.8 20°18.8	+31.0	14.7
	Ve 18	284°06.8 19°25.1	298°38.3 19°20.8	313°09.8 19°16.4	327°41.3 19°12.0	342°12.9 19°07.4	356°44.4 19°02.8	371°16.0 18°58.0	25°47.7 18°53.2	40°19.3 18°48.3	54°51.0 18°43.4	69°22.8 18°38.3	+31.6	14.7
O	Sa 19	287°22.3 17°12.7	301°54.5 17°06.3	316°26.7 16°59.9	330°59.0 16°53.5	345°31.3 16°46.9	360°03.6 16°40.3	374°36.0 16°33.6	14°36.0 16°26.8	29°08.4 16°20.0	43°40.8 16°13.0	58°13.3 16°06.0	+32.4	14.7
	Di 20	290°56.8 14°13.1	305°29.8 14°05.1	320°02.8 14°05.1	334°35.8 13°48.8	349°08.9 13°40.6	363°35.8 13°32.3	378°18.5 13°23.9	3°41.9 13°15.5	32°48.2 13°07.1	47°21.3 12°58.6	61°54.5 12°50.0	+33.1	14.7
	Lu 21	294°48.8 10°35.1	309°22.4 10°25.7	323°56.0 10°16.2	338°29.6 10°06.8	353°03.2 9°57.2	367°36.9 9°47.7	382°10.5 9°38.1	7°36.9 9°28.1	22°10.5 9°18.7	36°44.2 9°09.0	51°17.9 8°59.2	+33.7	14.8
O	Me 22	298°52.9 6°28.0	313°26.8 6°17.6	328°00.8 6°07.2	342°34.7 5°56.5	357°08.6 5°46.4	371°52.6 5°35.9	386°26.0 5°25.4	11°42.5 5°14.9	26°16.5 5°04.3	40°50.4 4°53.8	55°24.3 4°53.8	+33.9	14.9
	Je 23	303°00.9 2°01.6	317°34.7 2°15.0	332°08.6 2°06.1	346°42.4 1°58.1	361°16.2 1°47.8	375°50.0 1°36.8	390°23.8 1°25.9	44°57.6 0°55.9	59°31.3 0°44.9	74°05.0 0°33.9	88°38.8 0°22.9	+33.8	15.0
	Sa 24	307°01.9 -2°34.0	321°35.2 -2°45.0	336°08.5 -2°56.1	350°41.8 -3°07.1	365°15.0 -3°18.1	379°48.2 -3°29.2	394°21.3 -3°40.3	48°54.5 -3°51.3	63°27.5 -4°02.3	78°00.6 -4°13.3	92°33.7 -4°24.3	+33.2	15.2
O	Ve 25	316°43.6 -7°07.6	325°15.9 -7°18.4	339°48.1 -7°29.1	354°20.3 -7°39.8	368°52.4 -7°50.4	383°24.5 -8°01.1	397°56.5 -8°11.7	52°28.4 -8°22.3	67°00.3 -8°32.8	81°32.1 -8°43.4	96°03.9 -8°53.8	+32.0	15.3
	Sa 26	313°52.9 -11°27.0	328°23.6 -11°36.8	342°54.3 -11°46.7	357°24.9 -11°56.4	371°55.4 -12°06.2	386°25.8 -12°15.8	400°56.1 -12°25.5	55°26.4 -12°35.1	69°56.6 -12°44.6	84°26.7 -12°54.0	98°56.8 -13°03.5	+30.4	15.5
	Di 27	316°17.7 -15°17.2	330°46.4 -15°25.6	345°15.0 -15°33.9	359°43.6 -15°42.1	374°12.0 -15°50.3	388°40.4 -15°58.3	403°08.7 -16°06.3	43°08.7 -16°14.9	57°36.9 -16°22.5	72°05.0 -16°29.8	86°33.0 -16°37.4	+28.3	15.8
O	Lu 28	317°49.3 -18°21.2	332°15.8 -18°27.4	346°42.2 -18°33.4	361°08.6 -18°39.3	375°34.8 -18°45.5	390°01.0 -18°50.8	404°27.1 -18°56.4	58°53.1 -19°01.9	73°19.0 -19°07.3	87°44.8 -19°12.5	102°10.5 -19°17.7	+26.1	16.0
	Me 29	318°26.9 -20°20.2	332°51.4 -20°23.4	347°15.8 -20°26.4	361°40.2 -20°29.3	376°04.0 -20°34.2	390°28.6 -20°34.6	404°52.8 -20°37.1	59°16.9 -20°39.9	73°40.9 -20°41.6	88°04.8 -20°43.7	102°28.7 -20°45.6	+24.2	16.3
	Je 30	318°20.8 -20°57.0	332°43.9 -20°56.6	347°07.0 -20°56.0	361°30.1 -20°55.2	375°53.1 -20°54.4	390°16.1 -20°53.3	404°39.1 -20°52.2	59°02.0 -20°50.8	73°24.9 -20°49.3	87°47.8 -20°47.7	102°10.7 -20°45.9	+23.0	16.5
O	Je 31	317°52.6 -20°00.8	332°15.4 -19°56.6	346°38.2 -19°52.2	361°01.0 -19°47.7	375°23.8 -19°43.0	390°46.7 -19°38.2	405°09.5 -19°33.3	58°32.4 -19°28.2	72°55.3 -19°22.9	87°18.2 -19°17.5	101°41.2 -19°12.0	+22.9	16.6

Ligne 1: GHA, Δ°/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ°/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PL: 4 19h01 — DQ: 11 11h49 — NL: 19 13h40 — PQ: 27 10h34

SOLEIL

Août 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ve 1	268°24.0 18°02.8	283°24.1 18°24.2	298°24.1 18°01.6	313°24.2 18°00.9	328°24.2 18°00.3	343°24.2 17°59.7	358°24.3 17°59.1	13°24.3 17°58.4	28°24.4 17°57.8	43°24.4 17°57.2	58°24.4 17°56.5	73°24.5 17°55.9	+0.0 -0.6
Sa 2	268°25.0 17°47.6	283°25.1 17°47.0	298°25.1 17°46.4	313°25.2 17°45.7	328°25.2 17°45.1	343°25.3 17°44.4	358°25.3 17°43.8	13°25.4 17°43.2	28°25.4 17°42.7	43°25.5 17°41.9	58°25.5 17°41.2	73°25.5 17°40.6	+0.0 -0.6
Di 3	268°26.2 17°32.2	283°26.2 17°31.5	298°26.3 17°30.9	313°26.3 17°30.2	328°26.4 17°29.5	343°26.4 17°28.9	358°26.5 17°28.2	13°26.5 17°27.6	28°26.6 17°26.9	43°26.7 17°26.3	58°26.7 17°25.6	73°26.8 17°25.0	+0.1 -0.7
Lu 4	268°27.5 17°16.4	283°27.5 17°15.7	298°27.6 17°15.1	313°27.7 17°14.4	328°27.7 17°13.7	343°27.8 17°13.1	358°27.8 17°12.4	13°27.9 17°11.7	28°27.9 17°11.1	43°28.0 17°10.4	58°28.1 17°09.7	73°28.1 17°09.1	+0.1 -0.7
Ma 5	268°28.9 17°00.3	283°29.0 16°59.7	298°29.1 16°59.0	313°29.1 16°58.3	328°29.2 16°57.6	343°29.2 16°57.0	358°29.3 16°56.3	13°29.4 16°55.6	28°29.4 16°54.9	43°29.5 16°54.3	58°29.6 16°53.6	73°29.6 16°52.9	+0.1 -0.7
Me 6	268°30.5 16°44.0	283°30.6 16°43.3	298°30.7 16°42.7	313°30.7 16°42.0	328°30.8 16°41.3	343°30.9 16°40.6	358°30.9 16°39.9	13°31.0 16°39.2	28°31.1 16°38.5	43°31.2 16°37.8	58°31.2 16°37.1	73°31.3 16°36.5	+0.1 -0.7
Je 7	268°32.3 16°27.4	283°32.3 16°26.7	298°32.4 16°26.0	313°32.5 16°25.3	328°32.6 16°24.6	343°32.6 16°23.9	358°32.7 16°23.2	13°32.8 16°22.5	28°32.9 16°21.8	43°33.0 16°21.1	58°33.0 16°20.4	73°33.1 16°19.7	+0.1 -0.7
Ve 8	268°34.1 16°10.6	283°34.2 16°09.9	298°34.3 16°09.2	313°34.4 16°08.5	328°34.5 16°07.7	343°34.6 16°07.0	358°34.6 16°06.3	13°34.7 16°05.6	28°34.8 16°04.9	43°34.9 16°04.2	58°35.0 16°03.5	73°35.1 16°02.8	+0.1 -0.7
Sa 9	268°36.2 15°53.5	283°36.3 15°52.7	298°36.3 15°52.0	313°36.4 15°51.3	328°36.5 15°50.6	343°36.6 15°49.9	358°36.7 15°49.1	13°36.8 15°48.4	28°36.8 15°47.7	43°37.0 15°47.0	58°37.1 15°46.3	73°37.1 15°45.7	+0.1 -0.7
Di 10	268°38.3 15°36.1	283°38.4 15°35.4	298°38.5 15°34.6	313°38.6 15°33.9	328°38.7 15°33.2	343°38.8 15°32.4	358°38.9 15°31.7	13°39.0 15°31.0	28°39.1 15°30.2	43°39.2 15°29.5	58°39.3 15°28.8	73°39.4 15°28.0	+0.1 -0.7
Lu 11	268°40.6 15°18.5	283°40.7 15°17.7	298°40.8 15°17.0	313°40.9 15°16.2	328°41.0 15°15.5	343°41.1 15°14.8	358°41.2 15°14.0	13°41.3 15°13.3	28°41.4 15°12.5	43°41.5 15°11.8	58°41.6 15°11.0	73°41.7 15°10.3	+0.1 -0.7
Ma 12	268°43.1 15°00.6	283°43.2 14°59.8	298°43.3 14°59.1	313°43.4 14°58.3	328°43.5 14°57.6	343°43.6 14°56.8	358°43.7 14°56.1	13°43.8 14°55.3	28°43.9 14°54.6	43°44.0 14°53.8	58°44.1 14°53.1	73°44.2 14°52.3	+0.1 -0.8
Me 13	268°45.7 14°42.5	283°45.8 14°41.7	298°45.9 14°41.0	313°46.0 14°40.2	328°46.1 14°39.4	343°46.2 14°38.7	358°46.3 14°37.9	13°46.4 14°37.1	28°46.4 14°36.4	43°46.7 14°35.6	58°46.7 14°34.9	73°46.9 14°34.1	+0.1 -0.8
Je 14	268°48.4 14°24.1	283°48.5 14°23.4	298°48.6 14°22.6	313°48.7 14°21.8	328°48.8 14°21.0	343°49.0 14°20.3	358°49.1 14°19.5	13°49.2 14°18.7	28°49.3 14°18.0	43°49.5 14°17.2	58°49.6 14°16.4	73°49.7 14°15.6	+0.1 -0.8
Ve 15	268°51.2 14°05.6	283°51.3 14°04.8	298°51.5 14°04.0	313°51.6 14°03.2	328°51.7 14°02.4	343°51.8 14°01.7	358°52.0 14°00.9	13°52.1 14°00.1	28°52.2 13°59.3	43°52.3 13°58.5	58°52.5 13°57.7	73°52.6 13°57.0	+0.1 -0.8
Sa 16	268°54.2 13°46.8	283°54.3 13°46.0	298°54.5 13°45.2	313°54.6 13°44.4	328°54.7 13°43.6	343°54.8 13°42.8	358°55.0 13°42.0	13°55.1 13°41.2	28°55.2 13°40.4	43°55.4 13°39.6	58°55.5 13°38.9	73°55.6 13°38.1	+0.1 -0.8
Di 17	268°57.3 13°27.7	283°57.4 13°26.9	298°57.6 13°26.1	313°57.7 13°25.3	328°57.8 13°24.5	343°58.0 13°23.7	358°58.1 13°22.9	13°58.2 13°22.1	28°58.4 13°21.3	43°58.5 13°20.5	58°58.6 13°19.7	73°58.8 13°18.9	+0.1 -0.8
Lu 18	269°00.5 13°08.5	284°00.7 13°07.7	299°00.7 13°06.9	314°01.0 13°06.1	329°01.1 13°05.3	344°01.2 13°04.5	359°01.2 13°03.7	14°01.5 13°02.9	29°01.7 13°02.1	44°01.8 13°01.2	59°01.9 13°00.4	74°02.1 12°59.6	+0.1 -0.8
Ma 19	269°03.9 12°49.1	284°04.1 12°48.2	299°04.2 12°47.4	314°04.3 12°46.6	329°04.5 12°45.8	344°04.6 12°45.0	359°04.6 12°44.2	14°04.9 12°43.4	29°05.1 12°42.5	44°05.2 12°41.7	59°05.3 12°40.9	74°05.5 12°40.1	+0.1 -0.8
Me 20	269°07.4 12°29.4	284°07.5 12°28.6	299°07.7 12°27.8	314°07.8 12°26.9	329°08.0 12°26.1	344°08.1 12°25.3	359°08.3 12°24.5	14°08.4 12°23.7	29°08.6 12°22.8	44°08.7 12°22.0	59°08.9 12°21.2	74°09.0 12°20.3	+0.1 -0.8
Je 21	269°11.0 12°09.6	284°11.2 12°08.7	299°11.3 12°07.9	314°11.5 12°07.1	329°11.6 12°06.3	344°11.8 12°05.4	359°11.9 12°04.6	14°12.1 12°03.8	29°12.2 12°02.9	44°12.4 12°02.1	59°12.5 12°01.3	74°12.7 12°00.4	+0.2 -0.8
Ve 22	269°14.7 11°49.5	284°14.9 11°48.7	299°15.0 11°47.9	314°15.2 11°47.0	329°15.4 11°46.2	344°15.5 11°45.4	359°15.7 11°44.5	14°15.8 11°44.0	29°16.0 11°42.8	44°16.1 11°42.0	59°16.3 11°41.1	74°16.5 11°40.3	+0.2 -0.8
Sa 23	269°18.6 11°29.3	284°18.7 11°28.5	299°18.9 11°27.6	314°19.1 11°26.8	329°19.2 11°25.9	344°19.4 11°25.1	359°19.5 11°24.3	14°19.7 11°23.4	29°19.9 11°22.6	44°20.0 11°21.7	59°20.2 11°20.9	74°20.4 11°20.0	+0.2 -0.8
Di 24	269°22.5 11°08.9	284°22.7 11°08.1	299°22.9 11°07.2	314°23.0 11°06.4	329°23.2 11°05.5	344°23.4 11°04.7	359°23.5 11°03.8	14°23.7 11°03.0	29°23.9 11°02.1	44°24.0 11°01.2	59°24.2 11°00.4	74°24.0 10°59.5	+0.2 -0.9
Lu 25	269°26.6 10°48.4	284°26.8 10°47.5	299°26.9 10°46.6	314°27.1 10°45.8	329°27.3 10°44.9	344°27.4 10°44.1	359°27.6 10°43.2	14°27.8 10°42.3	29°28.0 10°41.5	44°28.1 10°40.7	59°28.3 10°39.7	74°28.5 10°38.9	+0.2 -0.9
Ma 26	269°30.8 10°27.6	284°30.9 10°26.8	299°31.1 10°25.9	314°31.3 10°25.0	329°31.5 10°24.2	344°31.6 10°23.3	359°31.8 10°22.4	14°32.0 10°21.5	29°32.2 10°20.7	44°32.4 10°19.8	59°32.5 10°18.9	74°32.7 10°18.1	+0.2 -0.9
Me 27	269°35.0 10°06.7	284°35.2 10°05.8	299°35.4 10°05.0	314°35.6 10°04.1	329°35.8 10°03.2	344°35.9 10°02.3	359°36.1 10°01.5	14°36.3 10°00.6	29°36.6 9°59.7	44°36.7 9°58.8	59°36.8 9°58.0	74°37.0 9°57.1	+0.2 -0.9
Je 28	269°39.4 9°45.7	284°39.6 9°44.8	299°39.8 9°43.9	314°40.0 9°43.0	329°40.1 9°42.1	344°40.3 9°41.3	359°40.5 9°40.4	14°40.7 9°39.5	29°40.9 9°38.6	44°41.1 9°37.7	59°41.3 9°36.8	74°41.4 9°36.0	+0.2 -0.9
Ve 29	269°43.9 9°24.4	284°44.1 9°23.6	299°44.3 9°22.7	314°44.4 9°21.8	329°44.6 9°20.9	344°44.8 9°20.0	359°45.0 9°19.1	14°45.2 9°18.2	29°45.4 9°17.3	44°45.6 9°16.5	59°45.8 9°15.6	74°46.0 9°14.7	+0.2 -0.9
Sa 30	269°48.4 9°03.1	284°48.6 9°02.2	299°48.8 9°01.3	314°49.0 9°00.4	329°49.2 8°59.5	344°49.4 8°58.6	359°49.6 8°57.7	14°49.8 8°56.8	29°50.0 8°55.9	44°50.2 8°55.0	59°50.4 8°54.1	74°50.6 8°53.2	+0.2 -0.9
Di 31	269°53.1 8°41.6	284°53.3 8°40.7	299°53.5 8°39.8	314°53.7 8°38.9	329°53.9 8°38.0	344°54.1 8°37.1	359°54.3 8°36.2	14°54.5 8°35.3	29°54.7 8°34.4	44°54.9 8°33.5	59°55.1 8°32.6	74°55.3 8°31.7	+0.2 -0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Août 2031

	J	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	0h	Δ/h	SP
O	Ve 1	245°32.3 -18°08.8	259°55.6 -18°01.8	274°18.9 -17°54.6	288°42.3 -17°47.2	303°05.7 -17°39.8	317°29.2 -17°32.2	331°52.7 -17°24.5	346°16.3 -17°16.6	0°39.9 -17°08.6	15°03.6 -17°00.5	29°27.3 -16°52.3	+23.5 +7.7	16.7 61.1
	Sa 2	245°29.6 -14°35.2	259°54.3 -14°25.2	274°19.0 -14°15.1	288°43.7 -14°04.9	303°08.5 -13°54.6	317°33.4 -13°44.2	331°58.4 -13°33.7	346°23.4 -13°23.2	0°48.5 -13°12.5	15°13.7 -13°01.8	29°38.9 -12°51.0	+24.9 +10.4	16.7 61.1
O	Di 3	246°05.2 -9°59.6	260°31.5 -9°47.7	274°57.9 -9°35.7	289°24.3 -9°23.6	303°50.8 -9°11.5	318°17.4 -8°59.4	332°44.0 -8°47.2	347°10.7 -8°34.9	1°37.5 -8°22.5	16°04.3 -8°10.3	30°31.2 -7°57.9	+26.6 +12.6	16.6 60.7
	Lu 4	247°22.0 -4°48.3	261°49.8 -4°35.4	276°17.8 -4°22.6	290°45.7 -4°09.8	305°13.8 -3°56.9	319°41.9 -3°44.0	334°10.0 -3°31.1	348°38.2 -3°18.3	3°06.4 -3°05.4	17°34.7 -2°52.5	32°03.1 -2°39.6	+28.1 +12.9	16.4 60.1
O	Ma 5	249°14.2 0°33.1	263°43.3 0°45.8	278°12.4 0°58.6	292°41.6 1°11.3	307°10.8 1°23.9	321°40.0 1°36.6	336°09.3 1°49.2	350°38.6 2°01.8	5°08.0 2°14.3	19°37.4 2°26.9	34°06.8 2°39.4	+29.3 +12.6	16.1 59.2
	Me 6	251°32.0 5°42.4	266°01.9 5°54.2	280°31.8 6°06.0	295°01.8 6°17.8	309°31.7 6°29.5	324°01.7 6°41.1	338°31.7 6°52.8	353°01.7 7°04.3	7°31.8 7°15.8	22°01.9 7°27.2	36°31.9 7°38.6	+30.0 +11.6	15.9 58.2
O	Je 7	254°05.0 10°22.1	268°35.3 10°32.5	283°05.7 10°42.8	297°36.0 10°53.0	312°06.3 11°03.8	326°36.7 11°13.3	341°07.0 11°23.4	355°37.4 11°33.3	10°07.7 11°43.2	24°38.1 11°53.0	39°08.5 12°02.7	+30.3 +10.1	15.6 57.3
	Ve 8	256°44.6 14°19.5	271°15.0 14°28.0	285°45.4 14°36.4	300°15.8 14°44.7	314°46.3 14°52.9	329°16.7 15°01.1	343°47.1 15°09.1	358°17.5 15°17.1	12°47.9 15°25.0	27°18.4 15°32.8	41°48.8 15°40.5	+30.4 +8.1	15.4 56.3
O	Sa 9	259°24.9 17°25.4	273°55.3 17°35.8	288°25.7 17°45.7	302°56.1 17°55.0	317°26.4 18°04.1	331°56.8 18°11.7	346°27.2 18°17.5	361°57.6 18°23.1	15°28.0 18°28.6	29°58.3 18°36.1	44°28.7 18°42.4	+30.4 +5.8	15.1 55.5
	Di 10	273°55.3 17°31.8	288°25.7 17°38.0	302°56.1 17°45.0	317°26.4 17°50.7	331°56.8 17°55.9	346°27.2 18°01.7	361°57.6 18°07.5	376°27.2 18°13.1	15°28.0 18°18.6	29°58.3 18°26.4	44°28.7 18°29.4	+30.4 +5.8	15.1 55.5
O	Lu 11	276°34.5 19°37.9	291°04.8 19°41.7	305°35.2 19°45.3	320°05.5 19°48.9	334°35.9 19°52.4	349°06.2 19°55.8	363°36.6 19°59.1	378°07.0 20°02.3	18°07.0 20°05.4	32°37.3 20°08.4	47°07.7 20°11.3	+30.4 +3.3	15.0 54.9
	Ma 12	279°14.2 20°43.0	293°44.7 20°44.3	307°15.2 20°45.5	322°45.6 20°46.6	337°16.1 20°47.6	351°46.6 20°48.5	366°17.1 20°49.4	380°17.1 20°50.1	33°18.2 20°50.7	49°48.7 20°51.2	64°19.5 20°51.7	+30.5 +0.9	14.8 54.4
O	Me 13	281°59.0 20°46.3	296°29.8 20°45.1	311°00.6 20°43.9	325°31.4 20°42.6	340°02.2 20°41.2	354°33.0 20°39.6	369°03.9 20°38.0	383°05.7 20°36.3	35°18.2 20°34.5	52°36.6 20°32.6	67°07.5 20°30.6	+30.9 -1.6	14.8 54.1
	Je 14	284°54.1 19°49.6	299°25.4 19°46.1	313°56.7 19°42.6	328°28.1 19°38.9	342°59.2 19°35.2	357°30.8 19°31.4	372°02.0 19°27.4	386°02.0 19°23.4	26°33.7 19°23.4	41°05.7 19°19.4	55°36.6 19°15.2	+31.4 -3.9	14.7 54.0
O	Ve 15	288°04.1 17°56.9	302°36.1 17°51.4	317°08.0 17°45.7	331°40.0 17°39.9	346°12.0 17°34.1	360°44.1 17°28.2	375°16.2 17°22.2	389°44.1 17°16.2	29°48.4 17°10.0	44°20.5 17°03.8	58°52.7 16°57.6	+32.1 -5.9	14.7 54.0
	Sa 16	291°31.2 15°14.5	306°03.8 15°07.1	320°36.5 14°59.6	335°09.2 14°52.1	349°41.9 14°44.4	364°14.6 14°36.7	378°47.4 14°29.0	393°20.2 14°21.2	47°53.0 14°13.3	62°25.9 14°05.3	76°58.7 13°57.3	+32.8 -7.7	14.8 54.1
O	Di 17	295°14.5 11°50.1	309°47.8 11°41.2	324°21.0 11°32.2	338°54.3 11°23.2	353°27.6 11°14.1	368°00.9 11°05.0	382°34.2 10°55.8	397°07.5 10°46.5	51°40.9 10°37.3	66°14.2 10°27.9	80°47.4 10°18.5	+33.3 -9.2	14.8 54.3
	Lu 18	299°10.2 7°52.6	313°43.8 7°42.6	328°17.4 7°32.5	342°51.0 7°22.3	357°24.6 7°12.2	372°02.0 7°02.0	386°51.8 6°51.8	401°58.9 6°41.5	55°59.8 6°31.2	70°12.9 6°20.9	84°46.5 6°10.5	+33.6 -10.2	14.9 54.6
O	Ma 19	303°11.6 3°31.9	317°45.2 3°21.1	332°18.9 3°10.3	346°52.5 2°59.5	361°26.2 2°48.1	376°02.0 2°37.9	390°58.9 2°27.0	405°59.8 2°16.1	58°40.6 2°05.2	74°14.2 1°54.3	88°47.4 1°43.4	+33.6 -10.8	15.0 55.0
	Me 20	307°09.9 -1°01.5	321°43.2 -1°12.5	336°16.5 -1°23.5	350°49.8 -1°34.6	365°23.7 -1°45.6	379°56.3 -1°56.6	394°29.5 -2°07.7	409°02.5 -2°18.7	49°02.5 -2°9.7	63°35.9 -2°24.7	78°09.9 -2°40.8	+33.2 -25.1	15.1 55.4
O	Je 21	310°55.0 -5°35.9	325°27.5 -5°46.7	340°00.1 -5°57.5	354°32.6 -6°08.3	369°05.0 -6°19.1	383°37.4 -6°29.8	398°09.8 -6°40.5	412°37.4 -6°51.2	38°09.8 -6°51.2	52°42.1 -7°01.9	67°14.4 -7°12.6	+33.2 -27.3	15.1 55.9
	Ve 22	314°15.9 -9°58.8	328°47.3 -10°08.9	343°18.6 -10°18.9	357°49.9 -10°28.9	372°21.1 -10°38.9	386°52.3 -10°48.8	401°23.4 -10°58.7	415°54.4 -11°08.5	55°54.4 -11°18.3	70°25.9 -11°28.0	84°56.3 -11°37.7	+33.1 -9.9	15.4 56.5
O	Sa 23	317°02.3 -13°56.2	331°32.2 -14°05.0	346°01.9 -14°13.7	360°31.6 -14°22.3	375°01.2 -14°30.8	389°30.7 -14°39.3	404°00.2 -14°47.7	418°29.6 -14°56.1	58°29.6 -15°04.3	72°58.9 -15°12.5	87°28.2 -15°20.7	+29.5 -8.4	15.6 57.1
	Di 24	319°06.3 -17°12.8	333°34.3 -17°19.6	348°02.3 -17°26.3	362°30.1 -17°32.9	376°57.9 -17°39.4	391°25.6 -17°45.8	405°53.3 -17°52.1	420°20.8 -17°58.3	60°20.8 -18°04.5	74°48.3 -18°10.5	89°15.8 -18°16.4	+27.7 -16.4	15.8 57.8
O	Lu 25	320°24.9 -19°32.4	334°51.1 -19°36.6	349°17.3 -19°40.6	363°43.4 -19°44.6	378°09.5 -19°48.4	392°35.5 -19°52.1	407°01.4 -19°55.7	421°27.2 -19°59.1	61°27.2 -20°02.5	75°53.0 -20°05.7	90°18.8 -20°08.8	+26.0 -3.6	15.9 58.5
	Ma 26	321°03.0 -20°39.8	335°27.9 -20°40.8	349°52.7 -20°41.6	364°17.4 -20°42.4	378°42.1 -20°43.0	393°06.8 -20°43.5	407°31.5 -20°43.8	421°31.5 -20°44.0	61°56.1 -20°44.0	76°20.7 -20°44.0	90°45.2 -20°43.7	+24.7 -0.4	16.1 59.2
O	Me 27	321°14.2 -20°23.6	335°38.3 -20°21.1	350°02.4 -20°18.5	364°26.8 -20°15.7	378°50.7 -20°12.8	393°14.8 -20°10.8	407°38.9 -20°06.6	421°38.9 -20°03.3	62°03.3 -20°03.3	76°27.1 -19°59.9	90°51.2 -19°56.3	+24.1 -19°52.5	16.3 59.8
	Je 28	321°17.8 -18°40.0	335°42.1 -18°34.0	350°06.4 -18°28.0	364°30.7 -18°21.8	378°55.1 -18°15.5	393°19.4 -18°09.1	407°43.8 -18°02.5	421°43.8 -17°55.8	62°08.2 -17°49.0	76°32.7 -17°42.0	90°57.2 -17°35.0	+24.4 +6.5	16.4 60.3
O	Ve 29	321°33.4 -15°36.4	335°58.5 -15°25.7	350°23.6 -15°16.6	364°48.8 -15°07.5	379°14.0 -14°50.3	393°39.3 -14°39.5	407°54.6 -14°29.9	422°04.6 -14°20.3	62°29.9 -14°10.5	76°55.3 -14°01.8	91°20.8 -13°50.5	+25.3 +9.4	16.5 60.6
	Sa 30	322°14.3 -11°22.5	336°40.6 -11°11.3	351°06.9 -11°00.9	365°33.2 -10°48.7	379°59.6 -10°37.3	394°26.1 -10°25.9	408°52.6 -10°14.3	423°02.8 -10°02.8	63°19.2 -9°51.1	77°45.8 -9°39.4	92°12.4 -9°27.6	+26.5 +11.5	16.5 60.5
O	Di 31	323°25.4 -6°25.1	337°52.9 -6°12.6	352°20.4 -6°00.1	366°47.9 -5°47.5	381°15.5 -5°34.9	395°43.1 -5°22.3	409°10.8 -5°09.7	423°38.5 -4°57.0	64°38.5 -4°44.4	79°06.3 -4°31.6	93°34.1 -4°18.9	+27.7 +12.6	16.4 60.2

Ligne 1: GHA, Δ/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PL: 3 01h45 — DQ: 10 00h23 — NL: 18 04h32 — PQ: 25 18h39

SOLEIL

Septembre 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	260°57.8 8°19.9	284°58.0 8°19.0	299°58.2 8°18.1	314°58.4 8°17.2	329°58.6 8°16.3	344°58.8 8°15.4	359°59.0 8°14.5	14°59.2 8°13.6	29°59.4 8°12.7	44°59.6 8°11.8	59°59.8 8°10.9	75°00.0 8°10.0	+0.2 -0.9
Ma 2	270°02.6 7°58.1	285°02.8 7°57.2	300°03.0 7°56.3	315°03.2 7°55.4	330°03.4 7°54.5	345°03.6 7°53.6	0°03.8 7°52.7	15°04.0 7°51.8	30°04.3 7°50.9	45°04.5 7°49.9	60°04.7 7°49.0	75°04.9 7°48.1	+0.2 -0.9
Me 3	270°07.5 7°36.2	285°07.7 7°35.3	300°07.9 7°34.4	315°08.1 7°33.5	330°08.3 7°32.6	345°08.5 7°31.7	0°08.7 7°30.7	15°08.9 7°29.8	30°09.1 7°28.9	45°09.4 7°28.0	60°09.6 7°27.1	75°09.8 7°26.2	+0.2 -0.9
Je 4	270°12.5 7°14.2	285°12.7 7°13.3	300°12.9 7°12.4	315°13.1 7°11.4	330°13.3 7°10.5	345°13.5 7°09.6	0°13.7 7°08.7	15°13.9 7°07.8	30°14.1 7°06.8	45°14.3 7°05.9	60°14.5 7°05.0	75°14.7 7°04.1	+0.2 -0.9
Ve 5	270°17.5 6°52.1	285°17.7 6°51.1	300°17.9 6°50.2	315°18.1 6°49.3	330°18.3 6°48.4	345°18.5 6°47.4	0°18.7 6°46.5	15°18.9 6°45.6	30°19.1 6°44.6	45°19.3 6°43.7	60°19.6 6°42.8	75°19.8 6°41.9	+0.2 -0.9
Sa 6	270°22.5 6°29.8	285°22.7 6°28.9	300°22.9 6°27.9	315°23.1 6°27.0	330°23.4 6°26.1	345°23.6 6°25.1	0°23.8 6°24.2	15°24.0 6°23.3	30°24.2 6°22.3	45°24.4 6°21.4	60°24.6 6°20.5	75°24.8 6°19.5	+0.2 -0.9
Di 7	270°27.6 6°07.4	285°27.8 6°06.5	300°28.0 6°05.5	315°28.3 6°04.6	330°28.5 6°03.7	345°28.7 6°02.7	0°28.9 6°01.8	15°29.1 6°00.9	30°29.3 5°59.9	45°29.5 5°59.0	60°29.8 5°58.1	75°30.0 5°57.1	+0.2 -0.9
Lu 8	270°32.8 5°44.9	285°33.0 5°44.0	300°33.2 5°43.1	315°33.4 5°42.1	330°33.6 5°41.2	345°33.8 5°40.2	0°34.1 5°39.3	15°34.3 5°38.4	30°34.5 5°37.4	45°34.7 5°36.5	60°34.9 5°35.5	75°35.1 5°34.6	+0.2 -0.9
Ma 9	270°37.9 5°22.4	285°38.2 5°21.4	300°38.4 5°20.5	315°38.6 5°19.5	330°38.8 5°18.6	345°39.0 5°17.6	0°39.3 5°16.7	15°39.5 5°15.8	30°39.7 5°14.8	45°39.9 5°13.9	60°40.1 5°12.9	75°40.3 5°12.0	+0.2 -0.9
Me 10	270°43.2 4°59.7	285°43.4 4°58.8	300°43.6 4°57.8	315°43.8 4°56.9	330°44.0 4°55.9	345°44.3 4°55.0	0°44.5 4°54.0	15°44.7 4°53.1	30°44.9 4°52.1	45°45.1 4°51.2	60°45.4 4°50.2	75°45.6 4°49.3	+0.2 -0.9
Je 11	270°48.4 4°36.9	285°48.6 4°36.0	300°48.9 4°35.0	315°49.1 4°34.1	330°49.3 4°33.1	345°49.5 4°32.2	0°49.5 4°31.2	15°50.0 4°30.3	30°50.2 4°29.3	45°50.4 4°28.4	60°50.6 4°27.4	75°50.8 4°26.5	+0.2 -1.0
Ve 12	270°53.7 4°14.1	285°53.9 4°13.2	300°54.1 4°12.2	315°54.3 4°11.3	330°54.6 4°10.3	345°54.8 4°09.3	0°55.0 4°08.4	15°55.2 4°07.4	30°55.5 4°06.5	45°55.7 4°05.5	60°55.9 4°04.6	75°56.1 4°03.6	+0.2 -1.0
Sa 13	270°59.0 3°51.2	285°59.2 3°50.2	300°59.4 3°49.3	315°59.7 3°48.3	330°59.9 3°47.4	346°00.1 3°46.4	1°00.3 3°45.5	16°00.6 3°44.5	31°00.8 3°43.6	46°01.0 3°42.6	61°01.2 3°41.6	76°01.4 3°40.7	+0.2 -1.0
Di 14	271°04.3 3°28.2	286°04.5 3°27.3	301°04.8 3°26.3	316°05.0 3°25.4	331°05.2 3°24.4	346°05.4 3°23.4	1°05.7 3°22.5	16°05.9 3°21.5	31°06.1 3°20.6	46°06.3 3°19.6	61°06.5 3°18.6	76°06.8 3°17.7	+0.2 -1.0
Lu 15	271°09.7 3°05.2	286°09.9 3°04.2	301°10.1 3°03.3	316°10.3 3°02.3	331°10.5 3°01.3	346°10.8 3°00.4	1°11.0 2°59.4	16°11.2 2°58.5	31°11.4 2°57.5	46°11.7 2°56.5	61°11.9 2°55.6	76°12.1 2°54.6	+0.2 -1.0
Ma 16	271°15.0 2°42.1	286°15.2 2°41.1	301°15.4 2°40.2	316°15.7 2°39.2	331°15.9 2°38.2	346°16.1 2°37.3	1°16.3 2°36.3	16°16.6 2°35.3	31°16.8 2°34.4	46°17.0 2°33.4	61°17.2 2°32.4	76°17.4 2°31.5	+0.2 -1.0
Me 17	271°20.3 2°18.9	286°20.6 2°18.0	301°20.8 2°17.0	316°21.0 2°16.0	331°21.2 2°15.1	346°21.5 2°14.1	1°21.7 2°13.1	16°21.9 2°12.2	31°22.1 2°11.2	46°22.3 2°10.2	61°22.6 2°09.3	76°22.8 2°08.3	+0.2 -1.0
Je 18	271°25.7 1°55.7	286°25.9 1°54.8	301°26.1 1°53.8	316°26.4 1°52.8	331°26.7 1°51.9	346°26.8 1°50.9	1°27.0 1°49.9	16°27.2 1°49.0	31°27.5 1°48.0	46°27.7 1°47.0	61°27.9 1°46.1	76°28.1 1°45.1	+0.2 -1.0
Ve 19	271°31.0 1°32.5	286°31.3 1°31.5	301°31.5 1°30.6	316°31.7 1°29.6	331°31.9 1°28.6	346°32.1 1°27.7	1°32.4 1°26.7	16°32.6 1°25.7	31°32.8 1°24.8	46°33.0 1°23.8	61°33.3 1°22.8	76°33.5 1°21.8	+0.2 -1.0
Sa 20	271°36.4 1°09.2	286°36.6 1°08.3	301°36.8 1°07.3	316°37.0 1°06.3	331°37.3 1°05.4	346°37.5 1°04.4	1°37.7 1°03.4	16°37.9 1°02.4	31°38.1 1°01.5	46°38.4 1°00.5	61°38.6 0°59.5	76°38.8 0°58.6	+0.2 -1.0
Di 21	271°41.7 0°45.9	286°41.9 0°45.0	301°42.1 0°44.0	316°42.4 0°43.0	331°42.6 0°42.1	346°42.8 0°41.1	1°43.0 0°40.1	16°43.2 0°39.1	31°43.5 0°38.2	46°43.7 0°37.2	61°43.9 0°36.2	76°44.1 0°35.3	+0.2 -1.0
Lu 22	271°47.0 0°22.6	286°47.2 0°21.6	301°47.4 0°20.7	316°47.7 0°19.7	331°47.9 0°18.7	346°48.1 0°17.8	1°48.3 0°16.8	16°48.5 0°15.8	31°48.8 0°14.8	46°49.0 0°13.9	61°49.2 0°12.9	76°49.4 0°11.9	+0.2 -1.0
Ma 23	271°52.3 -0°00.7	286°52.5 -0°01.7	301°52.7 -0°02.7	316°52.9 -0°03.6	331°53.2 -0°04.6	346°53.4 -0°05.6	1°53.6 -0°06.6	16°53.8 -0°07.5	31°54.0 -0°08.5	46°54.3 -0°09.5	61°54.5 -0°10.4	76°54.7 -0°11.4	+0.2 -1.0
Me 24	271°57.5 -0°24.1	286°57.8 -0°25.0	301°58.0 -0°26.0	316°58.2 -0°27.0	331°58.4 -0°28.0	346°58.6 -0°28.9	1°58.9 -0°29.9	16°59.1 -0°30.9	31°59.3 -0°31.9	46°59.5 -0°32.8	61°59.7 -0°33.8	76°59.9 -0°34.8	+0.2 -1.0
Je 25	272°02.8 -0°47.4	287°03.0 -0°48.4	302°03.2 -0°49.4	317°03.4 -0°50.3	332°03.6 -0°51.3	347°03.9 -0°52.3	2°04.1 -0°53.3	17°04.3 -0°54.2	32°04.5 -0°55.2	47°04.7 -0°56.2	62°04.9 -0°57.2	77°05.2 -0°58.1	+0.2 -1.0
Ve 26	272°08.0 -1°10.8	287°08.2 -1°11.8	302°08.4 -1°12.7	317°08.6 -1°13.7	332°08.8 -1°14.7	347°09.0 -1°15.6	2°09.3 -1°16.6	17°09.5 -1°17.6	32°09.7 -1°18.6	47°09.9 -1°19.5	62°10.1 -1°20.5	77°10.3 -1°21.5	+0.2 -1.0
Sa 27	272°13.1 -1°34.1	287°13.3 -1°35.1	302°13.5 -1°36.1	317°13.8 -1°37.0	332°14.0 -1°38.0	347°14.2 -1°39.0	2°14.4 -1°40.0	17°14.6 -1°40.9	32°14.8 -1°41.9	47°15.0 -1°42.9	62°15.3 -1°43.9	77°15.5 -1°44.8	+0.2 -1.0
Di 28	272°18.2 -1°57.5	287°18.4 -1°58.4	302°18.6 -1°59.4	317°18.9 -2°00.4	332°19.1 -2°01.4	347°19.3 -2°02.3	2°19.5 -2°03.3	17°19.7 -2°04.3	32°19.9 -2°05.2	47°20.1 -2°06.2	62°20.3 -2°07.2	77°20.5 -2°08.2	+0.2 -1.0
Lu 29	272°23.3 -2°20.8	287°23.5 -2°21.8	302°23.7 -2°22.7	317°23.9 -2°23.7	332°24.1 -2°24.7	347°24.3 -2°25.6	2°24.5 -2°26.6	17°24.7 -2°27.6	32°25.0 -2°28.6	47°25.2 -2°29.5	62°25.4 -2°30.5	77°25.6 -2°31.6	+0.2 -1.0
Ma 30	272°28.3 -2°44.1	287°28.5 -2°45.1	302°28.7 -2°46.0	317°28.9 -2°47.0	332°29.1 -2°48.0	347°29.3 -2°48.9	2°29.5 -2°49.9	17°29.7 -2°50.9	32°29.9 -2°51.8	47°30.1 -2°52.8	62°30.3 -2°53.8	77°30.5 -2°54.8	+0.2 -1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Septembre 2031

	J	15h	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	Δ'/h	SP
O	Lu 1	238°14.3	262°42.5	267°10.8	281°39.1	296°07.4	310°35.8	325°04.2	339°32.7	354°01.1	8°29.6	22°58.2	+28.4	16.3
		-2°23.8	-2°11.0	-1°58.1	-1°45.3	-1°32.4	-1°19.6	-1°06.8	-0°54.0	-0°41.1	-0°28.3	-0°15.5	-12.8	59.9
Ma	2	240°09.7	254°38.7	269°07.7	283°36.7	298°05.7	312°34.8	327°03.9	341°33.3	356°02.1	10°31.3	25°00.4	+29.1	16.1
		2°54.5	3°07.0	3°19.5	3°31.9	3°44.2	3°56.6	4°08.9	4°21.2	4°33.4	4°45.6	4°57.7	+12.3	59.1
Me	3	242°19.9	256°49.3	271°18.8	285°48.1	300°17.6	314°47.0	329°16.5	343°46.0	358°15.5	12°44.9	27°14.4	+29.5	15.9
		7°54.2	8°05.6	8°16.8	8°28.1	8°39.2	8°50.3	9°01.3	9°12.3	9°23.2	9°34.1	9°44.8	+11.1	58.3
Je	4	244°37.7	259°07.3	273°36.9	288°06.5	302°36.2	317°05.8	331°35.4	346°05.0	0°34.6	15°04.3	29°33.9	+29.6	15.6
		12°17.9	12°27.5	12°37.0	12°46.5	12°55.8	13°05.1	13°14.3	13°23.4	13°32.4	13°41.4	13°50.3	+9.2	57.4
Ve	5	246°58.6	261°28.3	275°57.9	290°27.6	304°57.3	319°26.9	333°56.6	348°26.3	2°56.0	17°25.7	31°55.4	+29.7	15.4
		15°52.7	16°00.1	16°07.5	16°14.7	16°21.9	16°29.0	16°36.0	16°42.8	16°49.6	16°56.3	17°02.9	+7.0	56.5
Sa	6	249°21.1	263°50.8	278°20.6	292°50.3	307°20.1	321°49.9	336°19.7	350°49.4	5°19.2	19°49.0	34°18.8	+29.8	15.2
		18°30.1	18°35.1	18°40.1	18°44.9	18°49.6	18°54.2	18°58.8	19°03.2	19°07.5	19°11.7	19°15.9	+4.6	55.7
Di	7	251°47.0	266°17.0	280°47.0	295°17.0	309°47.0	324°17.0	338°47.0	353°17.0	7°47.1	22°17.2	36°47.3	+30.0	15.0
		20°05.5	20°08.0	20°10.4	20°12.7	20°14.9	20°17.0	20°19.0	20°20.9	20°22.7	20°24.3	20°25.9	+2.0	55.0
O	Lu 8	254°20.6	268°50.3	283°21.3	297°51.7	312°22.2	326°52.6	341°23.1	355°53.6	10°24.1	24°54.6	39°25.2	+30.5	14.9
		20°37.7	20°37.7	20°37.5	20°37.3	20°37.0	20°36.6	20°36.1	20°35.5	20°34.8	20°34.0	20°33.1	-0.5	54.5
Ma	9	268°50.9	283°21.3	297°51.7	312°22.2	326°52.6	341°23.1	355°53.6	10°24.1	24°54.6	39°25.2	53°55.8	+30.5	14.9
		20°37.7	20°37.5	20°37.3	20°37.0	20°36.6	20°36.1	20°35.5	20°34.8	20°34.0	20°33.1	20°32.1	-0.6	54.5
Me	10	271°37.5	286°08.4	300°39.5	315°10.5	329°41.0	344°12.6	358°43.8	13°14.9	27°46.1	42°17.3	56°48.5	+31.1	14.8
		20°05.8	20°03.3	20°00.7	19°58.0	19°55.3	19°52.4	19°49.4	19°46.4	19°43.2	19°40.0	19°36.7	-2.9	54.2
Je	11	274°40.4	289°12.0	303°43.8	318°15.5	332°47.3	347°19.1	1°50.9	16°22.8	30°54.7	45°26.6	59°58.5	+31.8	14.7
		18°36.5	18°31.8	18°27.0	18°22.2	18°17.2	18°12.2	18°07.1	18°01.9	17°56.6	17°51.3	17°45.9	-5.1	54.1
Ve	12	278°01.1	292°33.5	307°05.9	321°38.3	336°10.8	350°43.3	5°15.8	19°48.4	34°21.0	48°53.6	63°26.2	+32.5	14.8
		16°15.3	16°08.7	16°02.0	15°55.2	15°48.4	15°41.5	15°34.5	15°27.4	15°20.3	15°13.1	15°05.9	-6.9	54.1
Sa	13	281°38.3	296°11.3	310°44.3	325°17.3	339°50.4	354°23.4	8°56.5	23°29.6	38°02.7	52°35.8	67°09.0	+33.1	14.8
		13°09.2	13°01.0	12°52.6	12°44.3	12°35.8	12°27.3	12°18.8	12°10.1	12°01.5	11°52.7	11°44.0	-8.5	54.3
Di	14	285°27.9	300°01.3	314°34.6	329°08.0	343°41.4	358°14.8	12°48.2	27°21.6	41°55.0	56°28.4	71°01.8	+33.4	14.9
		9°26.1	9°16.6	9°06.9	8°57.3	8°47.6	8°37.8	8°28.0	8°18.2	8°08.3	7°58.4	7°48.5	-9.8	54.7
Lu	15	289°23.4	303°56.8	318°30.2	333°03.7	347°37.1	2°10.5	16°43.9	31°17.3	45°50.7	60°24.1	74°57.4	+33.4	15.0
		5°14.9	5°04.4	4°53.9	4°43.3	4°32.7	4°22.1	4°11.5	4°00.8	3°50.1	3°39.4	3°28.7	-10.6	55.1
O	Ma 16	293°16.5	307°49.6	322°22.8	336°55.9	351°28.9	6°02.0	20°35.0	35°08.1	49°41.1	64°14.0	78°47.0	+33.1	15.1
		0°45.6	0°34.6	0°23.6	0°12.5	0°01.5	-0°09.5	-0°20.5	-0°31.6	-0°42.6	-0°53.7	-1°04.7	-11.0	55.5
Me	17	296°57.8	311°30.3	326°02.7	340°35.1	355°07.1	9°39.8	24°12.1	38°44.3	53°16.5	67°48.7	82°20.8	+33.2	15.3
		-3°50.4	-4°01.4	-4°12.4	-4°23.4	-4°34.4	-4°45.3	-4°56.3	-5°07.2	-5°18.1	-5°29.0	-5°39.8	-10.9	56.0
Je	18	300°17.6	314°49.0	329°20.3	343°51.6	358°22.9	12°54.1	27°25.3	41°56.4	56°27.4	70°58.4	85°29.4	+31.2	15.4
		-8°20.1	-8°30.6	-8°41.0	-8°51.4	-9°01.7	-9°12.0	-9°22.3	-9°32.5	-9°42.7	-9°52.9	-10°03.0	-10.3	56.6
Ve	19	303°06.8	317°36.8	332°06.7	346°36.6	1°06.5	15°36.3	30°06.0	44°35.7	59°05.3	73°34.8	88°04.3	+29.8	15.6
		-12°28.8	-12°38.1	-12°47.4	-12°56.6	-13°05.7	-13°14.7	-13°23.7	-13°32.6	-13°41.5	-13°50.3	-13°59.0	-9.0	57.1
Sa	20	305°18.8	319°47.2	334°15.6	348°43.9	3°12.2	17°40.4	32°08.6	46°36.6	61°04.6	75°32.6	90°00.5	+28.2	15.7
		-16°00.9	-16°08.4	-16°15.8	-16°23.1	-16°30.3	-16°37.4	-16°44.5	-16°51.5	-16°58.3	-17°05.1	-17°11.8	-7.1	57.6
Di	21	306°51.6	321°18.5	335°45.4	350°12.2	4°39.0	19°05.7	33°32.3	47°58.9	62°25.5	76°52.0	91°18.5	+26.7	15.8
		-18°40.1	-18°45.1	-18°50.1	-18°54.9	-18°59.6	-19°04.3	-19°08.8	-19°13.1	-19°17.4	-19°21.6	-19°25.6	-4.6	58.1
Lu	22	307°49.7	322°15.4	336°41.1	351°06.8	5°32.4	19°58.0	34°23.6	48°49.2	63°14.7	77°40.1	92°05.6	+25.6	16.0
		-20°11.9	-20°14.0	-20°16.0	-20°17.8	-20°19.5	-20°21.1	-20°22.6	-20°23.9	-20°25.1	-20°26.2	-20°27.2	-1.5	58.5
Ma	23	308°24.7	322°49.8	337°15.0	351°40.1	6°05.2	20°30.3	34°55.4	49°20.5	63°45.6	78°10.7	92°35.8	+25.1	16.1
		-20°25.6	-20°24.4	-20°23.1	-20°21.7	-20°20.1	-20°18.4	-20°16.6	-20°14.6	-20°12.5	-20°10.3	-20°07.9	-1.8	58.9
O	Me 24	308°52.9	323°18.1	337°43.4	352°08.6	6°33.9	20°59.2	35°24.5	49°49.9	64°15.2	78°40.6	93°06.0	+25.3	16.2
		-19°16.7	-19°12.3	-19°07.7	-19°03.0	-18°58.2	-18°53.2	-18°48.1	-18°42.9	-18°37.6	-18°32.2	-18°26.6	-5.0	59.3
Je	25	309°30.5	323°56.4	338°22.3	352°48.3	7°14.2	21°40.3	36°06.3	50°32.4	64°58.6	79°24.7	93°50.9	+26.0	16.2
		-16°48.7	-16°41.2	-16°37.7	-16°26.0	-16°18.3	-16°10.4	-16°02.4	-15°54.3	-15°46.1	-15°37.8	-15°29.5	-7.9	59.6
Ve	26	310°28.8	324°55.7	339°22.6	353°49.5	8°16.5	22°43.9	37°10.5	51°37.6	66°04.8	80°31.9	94°59.2	+27.0	16.3
		-13°12.1	-13°02.2	-12°52.3	-12°42.2	-12°32.1	-12°21.9	-12°11.6	-12°01.3	-11°50.9	-11°40.4	-11°29.8	-10.2	59.7
Sa	27	311°52.1	326°20.0	340°47.8	355°15.7	9°43.7	24°11.7	38°39.7	53°07.7	67°35.8	82°03.9	96°32.1	+28.0	16.3
		-8°43.4	-8°31.8	-8°20.2	-8°08.5	-7°56.8	-7°45.1	-7°33.3	-7°21.5	-7°09.6	-6°57.6	-6°45.7	-11.8	59.7
Di	28	313°38.1	328°06.7	342°35.3	357°04.0	11°32.7	26°01.5	40°30.2	54°59.0	69°27.8	83°56.6	98°25.4	+28.7	16.2
		-3°42.4	-3°30.0	-3°17.6	-3°05.2	-2°52.7	-2°40.3	-2°27.8	-2°15.3	-2°02.8	-1°50.3	-1°37.8	-12.5	59.5
Lu	29	315°40.3	330°09.4	344°38.5	359°07.7	13°36.8	28°06.0	42°35.2	57°04.3	71°33.5	86°02.7	100°32.7	+29.2	16.1
		1°29.4	1°41.8	1°54.2	2°06.5	2°18.9	2°31.2	2°43.5	2°55.8	3°08.0	3°20.3	3°32.5	+12.3	59.0
O	Ma 30	317°51.0	332°20.3	346°49.6	1°18.9	15°48.2	30°17.6	44°46.9	59°16.2	73°45.5	88°14.8	102°44.1	+29.3	15.9
		6°31.3	6°42.9	6°54.5	7°06.0	7°17.4	7°28.8	7°40.2	7°51.5	8°02.7	8°13.9	8°25.0	+11.4	58.8

SOLEIL

Octobre 2031

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Me 1	257°33.0 -3°06.4	272°33.2 -3°07.4	287°33.4 -3°08.3	302°33.6 -3°09.3	317°33.8 -3°10.3	332°34.0 -3°11.2	347°34.2 -3°12.2	2°34.4 -3°13.2	17°34.6 -3°14.1	32°34.8 -3°15.1	47°35.0 -3°16.1	62°35.2 -3°17.0	+0.2 -1.0
Je 2	257°37.9 -3°29.6	272°38.1 -3°30.6	287°38.3 -3°31.6	302°38.5 -3°32.5	317°38.7 -3°33.5	332°38.9 -3°34.5	347°39.1 -3°35.4	2°39.3 -3°36.4	17°39.5 -3°37.4	32°39.7 -3°38.3	47°39.9 -3°39.3	62°40.1 -3°40.3	+0.2 -1.0
Ve 3	257°42.2 -3°52.8	272°42.8 -3°53.8	287°43.0 -3°54.8	302°43.2 -3°55.7	317°43.4 -3°56.7	332°43.6 -3°57.7	347°43.8 -3°58.6	2°44.0 -3°59.6	17°44.2 -4°00.6	32°44.4 -4°01.5	47°44.6 -4°02.5	62°44.8 -4°03.5	+0.2 -1.0
Sa 4	257°47.3 -4°16.0	272°47.5 -4°17.0	287°47.7 -4°17.9	302°47.9 -4°18.9	317°48.1 -4°19.8	332°48.3 -4°20.8	347°48.5 -4°21.8	2°48.7 -4°22.7	17°48.9 -4°23.7	32°49.1 -4°24.7	47°49.3 -4°25.6	62°49.5 -4°26.6	+0.2 -1.0
Di 5	257°52.0 -4°39.1	272°52.1 -4°40.1	287°52.3 -4°41.0	302°52.5 -4°42.0	317°52.7 -4°43.0	332°52.9 -4°43.9	347°53.1 -4°44.9	2°53.3 -4°45.8	17°53.5 -4°46.8	32°53.7 -4°47.8	47°53.8 -4°48.7	62°54.0 -4°49.7	+0.2 -1.0
Lu 6	257°56.5 -5°02.2	272°56.7 -5°03.1	287°56.8 -5°04.1	302°57.0 -5°05.0	317°57.2 -5°06.0	332°57.4 -5°07.0	347°57.6 -5°07.9	2°57.8 -5°08.9	17°58.0 -5°09.8	32°58.1 -5°10.8	47°58.3 -5°11.7	62°58.5 -5°12.7	+0.2 -1.0
Ma 7	258°00.9 -5°25.2	273°01.1 -5°26.1	288°01.2 -5°27.1	303°01.4 -5°28.0	318°01.6 -5°29.0	333°01.8 -5°29.9	348°02.0 -5°30.9	3°02.2 -5°31.8	18°02.3 -5°32.8	33°02.5 -5°33.8	48°02.7 -5°34.7	63°02.9 -5°35.7	+0.2 -1.0
Me 8	258°05.2 -5°48.1	273°05.4 -5°49.0	288°05.6 -5°50.0	303°05.7 -5°50.9	318°05.9 -5°51.9	333°06.1 -5°52.8	348°06.3 -5°53.8	3°06.4 -5°54.8	18°06.6 -5°55.7	33°06.8 -5°56.7	48°07.0 -5°57.6	63°07.1 -5°58.6	+0.2 -1.0
Je 9	258°09.4 -6°10.9	273°09.6 -6°11.9	288°09.7 -6°12.8	303°09.9 -6°13.8	318°10.1 -6°14.7	333°10.3 -6°15.7	348°10.4 -6°16.6	3°10.6 -6°17.6	18°10.8 -6°18.5	33°10.9 -6°19.5	48°11.1 -6°20.4	63°11.3 -6°21.4	+0.2 -0.9
Ve 10	258°13.5 -6°33.7	273°13.7 -6°34.7	288°13.8 -6°35.6	303°14.0 -6°36.5	318°14.2 -6°37.5	333°14.3 -6°38.4	348°14.5 -6°39.4	3°14.7 -6°40.3	18°14.8 -6°41.3	33°15.0 -6°42.2	48°15.2 -6°43.2	63°15.3 -6°44.1	+0.2 -0.9
Sa 11	258°17.8 -6°56.4	273°17.6 -6°57.3	288°17.8 -6°58.3	303°17.9 -6°59.2	318°18.1 -7°00.2	333°18.3 -7°01.1	348°18.4 -7°02.0	3°18.6 -7°03.0	18°18.7 -7°03.9	33°18.9 -7°04.9	48°19.1 -7°05.8	63°19.2 -7°06.8	+0.2 -0.9
Di 12	258°21.3 -7°19.0	273°21.5 -7°19.9	288°21.6 -7°20.9	303°21.8 -7°21.8	318°21.9 -7°22.7	333°22.1 -7°23.7	348°22.2 -7°24.6	3°22.4 -7°25.6	18°22.5 -7°26.5	33°22.7 -7°27.4	48°22.9 -7°28.4	63°23.0 -7°29.3	+0.2 -0.9
Lu 13	258°25.0 -7°41.5	273°25.2 -7°42.4	288°25.3 -7°43.3	303°25.5 -7°44.3	318°25.6 -7°45.2	333°25.8 -7°46.2	348°25.9 -7°47.1	3°26.1 -7°48.0	18°26.2 -7°49.0	33°26.4 -7°49.9	48°26.5 -7°50.8	63°26.7 -7°51.8	+0.2 -0.9
Ma 14	258°28.6 -8°03.9	273°28.7 -8°04.8	288°28.9 -8°05.7	303°28.9 -8°06.7	318°29.2 -8°07.6	333°29.3 -8°08.5	348°29.5 -8°09.4	3°29.6 -8°10.4	18°29.8 -8°11.3	33°29.9 -8°12.2	48°30.0 -8°13.2	63°30.2 -8°14.1	+0.2 -0.9
Me 15	258°32.3 -8°26.1	273°32.2 -8°27.1	288°32.3 -8°28.0	303°32.5 -8°28.9	318°32.6 -8°29.8	333°32.7 -8°30.8	348°32.9 -8°31.7	3°33.0 -8°32.6	18°33.2 -8°33.5	33°33.3 -8°34.5	48°33.4 -8°35.4	63°33.6 -8°36.3	+0.1 -0.9
Je 16	258°35.3 -8°48.3	273°35.5 -8°49.2	288°35.6 -8°50.1	303°35.7 -8°51.1	318°35.9 -8°52.0	333°36.0 -8°52.9	348°36.1 -8°53.8	3°36.3 -8°54.7	18°36.4 -8°55.7	33°36.5 -8°56.6	48°36.7 -8°57.5	63°36.8 -8°58.4	+0.1 -0.9
Ve 17	258°38.5 -9°10.3	273°38.6 -9°11.3	288°38.8 -9°12.2	303°38.9 -9°13.1	318°39.0 -9°14.0	333°39.1 -9°14.9	348°39.3 -9°15.8	3°39.4 -9°16.7	18°39.5 -9°17.7	33°39.6 -9°18.6	48°39.8 -9°19.5	63°39.9 -9°20.4	+0.1 -0.9
Sa 18	258°41.5 -9°32.2	273°41.6 -9°33.2	288°41.8 -9°34.1	303°41.9 -9°35.0	318°42.0 -9°35.9	333°42.1 -9°36.8	348°42.2 -9°37.7	3°42.4 -9°38.6	18°42.5 -9°39.5	33°42.6 -9°40.4	48°42.7 -9°41.3	63°42.8 -9°42.2	+0.1 -0.9
Di 19	258°44.4 -9°54.0	273°44.5 -9°54.9	288°44.6 -9°55.8	303°44.7 -9°56.7	318°44.8 -9°57.6	333°45.0 -9°58.5	348°45.1 -9°59.4	3°45.2 -10°00.3	18°45.3 -10°01.2	33°45.4 -10°02.1	48°45.5 -10°03.0	63°45.6 -10°03.9	+0.1 -0.9
Lu 20	258°47.1 -10°15.6	273°47.2 -10°16.5	288°47.3 -10°17.4	303°47.4 -10°18.3	318°47.5 -10°19.2	333°47.6 -10°20.1	348°47.7 -10°21.0	3°47.9 -10°21.9	18°48.0 -10°22.8	33°48.1 -10°23.7	48°48.2 -10°24.6	63°48.3 -10°25.5	+0.1 -0.9
Ma 21	258°50.9 -10°37.1	273°49.8 -10°38.0	288°49.9 -10°38.9	303°50.0 -10°39.8	318°50.1 -10°40.7	333°50.2 -10°41.5	348°50.3 -10°42.4	3°50.4 -10°43.3	18°50.5 -10°44.2	33°50.6 -10°45.1	48°50.7 -10°46.0	63°50.8 -10°46.9	+0.1 -0.9
Me 22	258°53.7 -10°58.4	273°52.1 -10°59.3	288°52.2 -11°00.2	303°52.3 -11°01.1	318°52.4 -11°01.9	333°52.5 -11°02.8	348°52.6 -11°03.7	3°52.7 -11°04.6	18°52.8 -11°05.5	33°52.9 -11°06.4	48°53.0 -11°07.2	63°53.1 -11°08.1	+0.1 -0.9
Je 23	258°56.4 -11°19.5	273°54.4 -11°20.4	288°54.5 -11°21.3	303°54.5 -11°22.1	318°54.6 -11°23.1	333°54.7 -11°23.9	348°54.8 -11°24.8	3°54.9 -11°25.7	18°55.0 -11°26.6	33°55.1 -11°27.4	48°55.2 -11°28.3	63°55.2 -11°29.2	+0.1 -0.9
Ve 24	258°59.3 -11°40.5	273°56.4 -11°41.4	288°56.5 -11°42.3	303°56.6 -11°43.1	318°56.7 -11°44.0	333°56.8 -11°44.9	348°56.8 -11°45.7	3°56.9 -11°46.6	18°57.0 -11°47.5	33°57.1 -11°48.4	48°57.2 -11°49.2	63°57.2 -11°50.1	+0.1 -0.9
Sa 25	258°58.2 -12°01.3	273°58.3 -12°02.2	288°58.4 -12°03.0	303°58.5 -12°03.9	318°58.5 -12°04.8	333°58.6 -12°05.6	348°58.7 -12°06.5	3°58.8 -12°07.3	18°58.8 -12°08.2	33°58.9 -12°09.1	48°58.9 -12°09.9	63°59.1 -12°10.8	+0.1 -0.9
Di 26	259°00.0 -12°21.9	274°00.0 -12°22.8	289°00.1 -12°23.6	304°00.2 -12°24.5	319°00.2 -12°25.3	334°00.3 -12°26.2	349°00.4 -12°27.0	4°00.4 -12°27.9	19°00.5 -12°28.8	34°00.6 -12°29.6	49°00.6 -12°30.5	64°00.7 -12°31.3	+0.1 -0.9
Lu 27	259°01.5 -12°42.3	274°01.6 -12°43.2	289°01.6 -12°44.0	304°01.7 -12°44.9	319°01.8 -12°45.7	334°01.8 -12°46.6	349°01.9 -12°47.4	4°01.9 -12°48.3	19°02.0 -12°49.1	34°02.0 -12°49.9	49°02.1 -12°50.8	64°02.1 -12°51.6	+0.2 -0.8
Ma 28	259°02.9 -13°02.6	274°02.9 -13°03.4	289°03.0 -13°04.2	304°03.0 -13°05.1	319°03.1 -13°05.9	334°03.1 -13°06.7	349°03.2 -13°07.6	4°03.2 -13°08.4	19°03.3 -13°09.3	34°03.3 -13°10.1	49°03.4 -13°10.9	64°03.4 -13°11.8	+0.1 -0.8
Me 29	259°04.1 -13°22.6	274°04.1 -13°23.4	289°04.1 -13°24.2	304°04.2 -13°25.1	319°04.2 -13°25.9	334°04.3 -13°26.7	349°04.3 -13°27.6	4°04.4 -13°28.4	19°04.4 -13°29.2	34°04.4 -13°30.0	49°04.5 -13°30.8	64°04.5 -13°31.7	+0.0 -0.8
Je 30	259°05.0 -13°42.4	274°05.1 -13°43.2	289°05.1 -13°44.0	304°05.2 -13°44.8	319°05.2 -13°45.7	334°05.2 -13°46.5	349°05.3 -13°47.3	4°05.3 -13°48.1	19°05.3 -13°48.9	34°05.4 -13°49.8	49°05.4 -13°50.6	64°05.4 -13°51.4	+0.0 -0.8
Ve 31	259°05.8 -14°02.0	274°05.9 -14°02.8	289°05.9 -14°03.6	304°05.9 -14°04.4	319°05.9 -14°05.2	334°06.0 -14°06.0	349°06.0 -14°06.8	4°06.0 -14°07.6	19°06.1 -14°08.5	34°06.1 -14°09.3	49°06.1 -14°10.1	64°06.1 -14°10.9	+0.0 -0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.0'

LUNE

Octobre 2031

J	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	Δ'/h	SP
Me 1	247°37.2 10°13.0	262°06.5 10°23.5	276°35.8 10°33.9	291°05.1 10°44.2	305°34.4 10°54.4	320°03.7 11°04.6	334°33.0 11°14.7	349°02.2 11°24.7	3°31.5 11°34.7	18°00.8 11°44.6	32°30.0 11°54.4	+29.3 +10.1	15.8 57.9
Je 2	249°48.5 14°12.0	264°17.7 14°20.5	278°46.9 14°28.9	293°16.1 14°37.2	307°45.3 14°45.4	322°14.5 14°53.6	336°43.7 15°01.7	351°12.9 15°09.6	5°42.0 15°17.5	20°11.2 15°25.3	34°40.4 15°33.0	+29.2 +8.1	15.6 57.1
Ve 3	251°57.8 17°17.1	266°26.9 17°23.3	280°56.1 17°29.4	295°25.3 17°35.3	309°54.4 17°41.2	324°23.6 17°47.0	338°52.8 17°52.6	353°21.9 17°58.2	7°51.1 18°03.6	22°20.3 18°09.0	36°49.5 18°14.3	+29.2 +5.7	15.4 56.4
Sa 4	254°08.1 19°20.8	268°37.4 19°24.4	283°06.7 19°27.9	297°36.0 19°31.3	312°05.4 19°34.6	326°34.8 19°37.8	341°04.1 19°40.9	355°33.5 19°43.9	10°02.9 19°46.8	24°32.3 19°49.5	39°01.8 19°52.2	+29.4 +3.1	15.2 55.7
Di 5	256°25.4 20°19.8	270°55.1 20°20.8	285°24.9 20°21.7	299°54.7 20°22.5	314°24.5 20°23.2	328°54.3 20°23.8	343°24.1 20°24.3	357°54.0 20°24.7	12°23.9 20°25.0	26°53.9 20°25.2	41°23.8 20°25.3	+29.8 +0.6	15.0 55.0
Lu 6	258°56.5 20°14.8	273°26.9 20°13.3	287°57.3 20°11.7	302°27.8 20°10.1	316°58.3 20°08.3	331°28.8 20°06.4	345°59.4 20°04.5	0°30.0 20°02.4	15°00.7 20°00.3	29°31.3 19°58.0	44°02.0 19°55.7	+30.6 -1.9	14.9 54.6
Ma 7	261°46.7 19°09.8	276°17.9 19°06.1	290°49.2 19°02.2	305°20.6 18°58.3	319°51.9 18°54.3	334°23.3 18°50.2	348°54.7 18°46.0	3°26.2 18°41.7	17°57.7 18°37.3	32°29.2 18°32.9	47°00.8 18°28.4	+31.4 -4.2	14.8 54.3
Me 8	276°17.9 19°06.1	290°49.2 19°02.2	305°20.6 18°58.3	319°51.9 18°54.3	334°23.3 18°50.2	348°54.7 18°46.0	3°26.2 18°41.7	17°57.7 18°37.3	32°29.2 18°32.9	47°00.8 18°28.4	61°32.4 18°23.7	+31.4 -4.2	14.8 54.3
Je 9	279°30.6 17°05.1	294°02.7 16°59.2	308°34.9 16°53.3	323°07.1 16°47.2	337°39.4 16°41.2	352°11.7 16°35.0	6°44.0 16°28.8	21°16.3 16°12.5	35°48.7 16°16.1	50°21.1 16°09.6	64°53.5 16°03.1	+32.3 -6.2	14.8 54.3
Ve 10	283°03.5 14°17.3	297°36.3 14°09.7	312°09.2 14°02.0	326°42.2 13°54.3	341°15.1 13°46.6	355°48.1 13°38.7	10°21.1 13°30.8	24°54.1 13°22.9	39°27.2 13°14.9	54°00.2 13°06.8	68°33.3 12°58.7	+33.0 -7.9	14.8 54.3
Sa 11	286°51.9 10°50.2	301°25.2 10°41.2	315°58.6 10°32.2	330°32.0 10°23.1	345°05.4 10°13.9	359°38.8 10°04.8	14°12.2 9°55.9	28°45.6 9°46.2	43°19.1 9°36.9	57°52.5 9°27.5	72°26.0 9°18.1	+33.4 -9.2	14.9 54.9
Di 12	290°48.4 6°51.8	305°21.9 6°41.7	319°55.4 6°31.6	334°28.9 6°21.5	349°02.4 6°11.3	3°35.9 6°01.1	18°09.4 5°50.9	32°42.9 5°40.6	47°16.4 5°30.3	61°49.9 5°19.9	76°23.8 5°09.6	+33.5 -10.2	15.0 54.9
Lu 13	294°43.9 2°30.8	309°17.2 2°20.0	323°50.4 2°09.2	338°23.6 1°58.4	352°56.8 1°47.6	7°30.0 1°36.7	22°03.1 1°25.8	36°36.3 1°15.0	51°09.4 1°04.1	65°42.4 0°53.1	80°15.8 0°42.2	+33.2 -10.9	15.1 55.5
Ma 14	298°27.9 -0°02.8	313°00.4 -2°13.9	327°33.3 -2°24.9	342°05.5 -2°36.0	356°37.9 -2°47.0	11°10.3 -2°58.1	25°42.7 -3°09.1	40°15.0 -3°20.1	54°47.3 -3°31.1	69°19.6 -3°42.2	83°51.8 -3°53.2	+32.4 -11.0	15.3 56.6
Me 15	301°49.5 -6°37.0	316°21.0 -6°47.8	330°52.4 -6°58.5	345°23.7 -7°09.3	359°55.0 -7°20.0	14°26.2 -7°30.7	28°57.4 -7°41.3	43°28.6 -7°51.9	57°59.6 -8°02.5	72°30.6 -8°13.1	87°01.6 -8°23.7	+31.2 -10.7	15.5 56.7
Je 16	304°38.8 -10°57.2	319°08.8 -11°07.1	333°38.7 -11°17.0	348°08.6 -11°26.8	2°38.4 -11°36.5	17°08.1 -11°46.2	31°37.8 -11°55.8	46°07.4 -12°05.4	60°36.9 -12°14.9	75°06.4 -12°24.3	89°35.7 -12°33.7	+29.7 -9.7	15.6 54.7
Ve 17	306°48.5 -14°46.8	321°16.9 -14°55.1	335°45.1 -15°03.3	350°13.3 -15°11.5	4°41.4 -15°19.5	19°09.4 -15°27.5	33°37.4 -15°35.4	48°05.3 -15°43.4	62°33.1 -15°50.9	77°00.9 -15°58.5	91°28.6 -16°06.1	+28.0 -7.9	15.8 57.9
Sa 18	308°16.4 -17°47.9	322°43.1 -17°53.9	337°09.7 -17°59.8	351°36.3 -18°05.5	6°02.8 -18°11.2	20°29.2 -18°16.7	34°55.6 -18°22.2	49°22.0 -18°27.5	63°48.3 -18°32.7	78°14.5 -18°37.9	92°40.7 -18°42.9	+26.4 -5.5	15.9 54.8
Di 19	309°07.6 -19°43.6	323°33.1 -19°46.7	337°58.5 -19°49.7	352°23.9 -19°52.5	7°15.3 -19°55.2	21°14.6 -19°57.7	35°39.8 -20°00.2	50°05.1 -20°02.5	64°30.3 -20°04.7	78°55.5 -20°06.7	93°20.7 -20°08.6	+25.3 -2.5	16.0 58.8
Lu 20	309°35.7 -20°21.6	324°00.6 -20°21.4	338°25.5 -20°21.0	352°50.4 -20°20.6	7°55.2 -20°20.0	21°40.1 -20°19.2	36°05.0 -20°18.4	50°29.9 -20°17.3	64°54.8 -20°16.2	79°19.7 -20°14.9	93°44.8 -20°13.5	+24.9 -0.8	16.1 59.0
Ma 21	309°59.3 -19°36.5	324°24.4 -19°33.0	338°49.6 -19°29.4	353°14.8 -19°25.6	7°40.0 -19°21.7	22°05.2 -19°17.7	36°30.4 -19°13.5	50°55.7 -19°09.3	65°21.0 -19°04.9	79°46.4 -19°00.3	94°11.8 -18°55.7	+25.2 +4.1	16.1 59.1
Me 22	310°36.8 -17°31.6	325°02.8 -17°25.1	339°28.8 -17°18.5	353°54.9 -17°11.7	8°21.0 -17°04.9	22°47.2 -16°57.9	37°13.4 -16°50.9	51°39.7 -16°43.7	66°06.0 -16°36.4	80°32.4 -16°29.9	94°58.8 -16°21.5	+26.2 +7.0	16.1 59.2
Je 23	311°40.6 -14°17.6	326°07.8 -14°08.6	340°35.0 -13°59.5	355°02.3 -13°50.4	9°29.6 -13°41.1	23°57.0 -13°31.8	38°24.4 -13°22.4	52°51.9 -13°12.9	67°19.4 -13°03.4	81°47.0 -12°53.7	96°14.8 -12°44.0	+27.4 +9.4	16.1 59.2
Ve 24	313°14.6 -10°10.0	327°42.9 -9°59.2	342°11.3 -9°48.4	356°39.8 -9°37.5	11°08.3 -9°26.5	25°36.8 -9°15.6	40°05.4 -9°04.5	54°34.0 -8°53.4	69°02.6 -8°42.3	83°31.3 -8°31.1	98°00.1 -8°19.9	+28.5 +11.0	16.1 59.9
Sa 25	315°15.3 -5°26.6	329°44.6 -5°14.8	344°13.9 -5°03.0	358°43.2 -4°51.1	13°12.6 -4°39.2	27°42.0 -4°27.3	42°11.4 -4°15.4	56°40.9 -4°03.4	71°10.3 -3°51.4	85°39.8 -3°39.5	100°09.3 -3°27.4	+29.4 +11.9	16.0 58.8
Di 26	317°34.6 -0°26.2	332°04.4 -0°14.1	346°34.2 -0°02.0	1°04.1 0°10.1	15°33.9 0°22.2	30°03.8 0°34.3	44°33.7 0°46.4	59°03.6 0°58.5	73°33.4 1°05.1	88°03.4 1°22.6	102°33.3 1°34.6	+29.9 +12.1	16.0 58.5
Lu 27	320°02.5 4°33.0	334°32.5 4°44.6	349°02.4 4°56.3	3°32.4 5°07.9	18°02.3 5°19.5	32°32.3 5°31.1	47°02.2 5°42.6	61°32.2 5°54.1	76°02.1 6°05.5	90°32.1 6°16.9	105°02.0 6°28.3	+30.0 +11.5	15.9 58.8
Ma 28	322°30.0 9°13.2	336°59.8 9°23.8	351°29.6 9°34.3	5°59.3 9°44.8	20°29.1 9°55.2	34°58.6 10°05.6	49°28.6 10°15.9	63°58.3 10°26.1	78°28.0 10°36.2	92°57.7 10°46.3	107°27.4 10°56.4	+29.7 +10.3	15.7 57.7
Me 29	324°50.9 13°18.6	339°20.3 13°27.4	353°49.3 13°36.8	8°19.2 13°45.0	22°48.6 13°53.6	37°18.2 14°02.0	51°47.4 14°10.7	66°16.8 14°19.1	80°46.1 14°27.4	95°15.5 14°35.6	109°44.8 14°43.8	+29.4 +8.5	15.6 57.1
Je 30	327°03.3 16°35.3	341°32.4 16°42.0	356°01.5 16°48.6	10°30.7 16°55.2	24°59.8 17°01.6	39°28.9 17°07.9	53°58.0 17°14.1	68°27.1 17°20.3	82°56.2 17°26.7	97°25.3 17°32.2	111°54.4 17°38.0	+29.1 +6.3	15.4 56.5
Ve 31	329°10.2 18°53.5	343°39.2 18°57.7	358°08.3 19°01.8	12°37.4 19°05.8	27°06.4 19°09.7	41°35.5 19°13.5	56°04.6 19°17.1	70°33.7 19°20.7	85°02.8 19°24.2	99°31.9 19°27.6	114°01.0 19°30.9	+29.1 +3.7	15.2 55.9

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 8 10h50 — NL: 16 08h20 — PQ: 23 07h36 — PL: 30 07h32

SOLEIL

Novembre 2031

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Sa 1	259°06.4 -14°21.3	274°06.5 -14°22.1	289°06.5 -14°22.9	304°06.5 -14°23.7	319°06.5 -14°24.6	334°06.5 -14°25.4	349°06.5 -14°26.2	4°06.6 -14°27.0	15°06.6 -14°27.7	34°06.6 -14°28.5	49°06.6 -14°29.3	64°06.6 -14°30.1	+0.0 -0.8
Di 2	259°06.8 -14°40.9	274°06.8 -14°41.3	289°06.9 -14°42.1	304°06.9 -14°43.6	319°06.9 -14°44.3	334°06.9 -14°44.4	349°06.9 -14°45.2	4°06.9 -14°46.0	15°06.9 -14°46.8	34°06.9 -14°47.6	49°06.9 -14°48.4	64°06.9 -14°49.2	+0.0 -0.8
Lu 3	259°07.0 -14°59.4	274°07.0 -15°00.2	289°07.0 -15°00.9	304°07.0 -15°01.7	319°07.0 -15°02.5	334°07.0 -15°03.3	349°07.0 -15°04.1	4°07.0 -15°04.9	15°07.0 -15°05.6	34°07.0 -15°06.4	49°07.0 -15°07.2	64°07.0 -15°08.0	+0.0 -0.8
Ma 4	259°07.0 -15°18.0	274°07.0 -15°18.8	289°07.0 -15°19.6	304°07.0 -15°20.4	319°07.0 -15°21.1	334°07.0 -15°21.9	349°07.0 -15°22.7	4°07.0 -15°23.4	15°07.0 -15°24.2	34°06.9 -15°25.0	49°06.9 -15°25.7	64°06.9 -15°26.5	-0.0 -0.8
Me 5	259°06.8 -15°36.5	274°06.8 -15°37.2	289°06.8 -15°38.0	304°06.7 -15°38.7	319°06.7 -15°39.5	334°06.7 -15°40.3	349°06.7 -15°41.0	4°06.7 -15°41.8	15°06.7 -15°42.5	34°06.6 -15°43.3	49°06.6 -15°44.0	64°06.6 -15°44.8	-0.0 -0.8
Je 6	259°06.3 -15°54.6	274°06.3 -15°55.4	289°06.3 -15°56.1	304°06.3 -15°56.9	319°06.3 -15°57.6	334°06.2 -15°58.4	349°06.2 -15°59.1	4°06.2 -15°59.9	15°06.2 -16°00.6	34°06.1 -16°01.3	49°06.1 -16°02.1	64°06.1 -16°02.8	-0.0 -0.7
Ve 7	259°05.7 -16°12.5	274°05.7 -16°13.2	289°05.6 -16°14.0	304°05.6 -16°14.7	319°05.6 -16°15.5	334°05.5 -16°16.2	349°05.5 -16°16.9	4°05.5 -16°17.7	15°05.4 -16°18.4	34°05.4 -16°19.1	49°05.4 -16°19.9	64°05.3 -16°20.6	-0.0 -0.7
Sa 8	259°04.8 -16°47.5	274°04.8 -16°48.2	289°04.8 -16°48.9	304°04.7 -16°49.6	319°04.7 -16°50.3	334°04.6 -16°51.0	349°04.6 -16°51.8	4°04.5 -16°52.5	15°04.5 -16°53.2	34°04.5 -16°53.9	49°04.4 -16°54.6	64°04.4 -16°55.3	-0.0 -0.7
Di 9	259°03.8 -16°47.5	274°03.7 -16°48.2	289°03.7 -16°48.9	304°03.6 -16°49.6	319°03.6 -16°50.3	334°03.5 -16°51.0	349°03.5 -16°51.8	4°03.4 -16°52.5	15°03.4 -16°53.2	34°03.3 -16°53.9	49°03.2 -16°54.6	64°03.2 -16°55.3	-0.1 -0.7
Lu 10	259°02.5 -17°02.5	274°02.4 -17°03.2	289°02.3 -17°03.9	304°02.3 -17°04.6	319°02.2 -17°05.3	334°02.2 -17°06.0	349°02.1 -17°06.7	4°02.0 -17°07.4	15°02.0 -17°08.1	34°01.9 -17°08.8	49°01.9 -17°09.5	64°01.8 -17°10.2	-0.1 -0.7
Ma 11	259°01.0 -17°21.3	274°00.9 -17°22.0	289°00.8 -17°22.7	304°00.8 -17°23.4	319°00.7 -17°24.1	334°00.6 -17°24.7	349°00.5 -17°25.4	4°00.5 -17°26.1	15°00.4 -17°26.8	34°00.3 -17°27.5	49°00.3 -17°28.2	64°00.2 -17°28.9	-0.1 -0.7
Me 12	258°59.2 -17°37.8	273°59.2 -17°38.4	288°59.1 -17°39.1	303°59.0 -17°39.8	318°58.9 -17°40.5	333°58.8 -17°41.2	348°58.8 -17°41.8	3°58.7 -17°42.5	15°58.6 -17°43.2	33°58.5 -17°43.9	48°58.4 -17°44.6	63°58.4 -17°45.2	-0.1 -0.7
Je 13	258°57.3 -17°53.9	273°57.2 -17°54.6	288°57.1 -17°55.3	303°57.0 -17°55.9	318°56.9 -17°56.6	333°56.9 -17°57.3	348°56.8 -17°57.9	3°56.7 -17°58.6	15°56.6 -17°59.2	33°56.5 -17°59.9	48°56.4 -18°00.6	63°56.3 -18°01.2	-0.1 -0.7
Ve 14	258°55.1 -18°09.8	273°55.0 -18°10.4	288°54.9 -18°11.1	303°54.9 -18°11.7	318°54.8 -18°12.4	333°54.7 -18°13.0	348°54.6 -18°13.7	3°54.5 -18°14.3	15°54.4 -18°15.0	33°54.3 -18°15.6	48°54.2 -18°16.3	63°54.1 -18°16.9	-0.1 -0.7
Sa 15	258°52.2 -18°25.3	273°52.1 -18°26.0	288°52.6 -18°26.6	303°52.5 -18°27.2	318°52.4 -18°27.9	333°52.2 -18°28.5	348°52.1 -18°29.2	3°52.0 -18°29.9	15°51.9 -18°30.4	33°51.8 -18°31.1	48°51.7 -18°31.7	63°51.6 -18°32.3	-0.1 -0.6
Di 16	258°50.2 -18°40.5	273°50.1 -18°41.2	288°50.0 -18°41.8	303°49.9 -18°42.4	318°49.7 -18°43.0	333°49.6 -18°43.7	348°49.5 -18°44.4	3°49.4 -18°44.9	15°49.3 -18°45.5	33°49.2 -18°46.2	48°49.1 -18°46.8	63°48.9 -18°47.4	-0.1 -0.6
Lu 17	258°47.4 -18°55.4	273°47.3 -18°56.0	288°47.2 -18°56.6	303°47.0 -18°57.3	318°46.9 -18°57.9	333°46.8 -18°58.5	348°46.7 -18°59.1	3°46.5 -18°59.7	15°46.4 -19°00.3	33°46.3 -19°00.9	48°46.2 -19°01.5	63°46.1 -19°02.1	-0.1 -0.6
Ma 18	258°44.4 -19°10.6	273°44.3 -19°10.6	288°44.1 -19°11.2	303°44.0 -19°11.8	318°43.9 -19°12.4	333°43.8 -19°13.0	348°43.6 -19°13.6	3°43.5 -19°14.1	15°43.4 -19°14.7	33°43.2 -19°15.3	48°43.1 -19°15.9	63°43.0 -19°16.5	-0.1 -0.6
Me 19	258°41.2 -19°24.2	273°41.1 -19°24.8	288°40.9 -19°25.3	303°40.8 -19°25.9	318°40.7 -19°26.5	333°40.5 -19°27.1	348°40.4 -19°27.7	3°40.2 -19°28.3	15°40.1 -19°28.8	33°40.0 -19°29.4	48°39.8 -19°30.0	63°39.7 -19°30.6	-0.1 -0.6
Je 20	258°37.8 -19°38.6	273°37.7 -19°38.6	288°37.5 -19°39.2	303°37.4 -19°39.7	318°37.2 -19°40.3	333°37.1 -19°40.9	348°36.9 -19°41.4	3°36.8 -19°42.0	15°36.6 -19°42.6	33°36.5 -19°43.1	48°36.3 -19°43.7	63°36.2 -19°44.3	-0.1 -0.6
Ve 21	258°34.2 -19°51.5	273°34.1 -19°52.1	288°33.9 -19°52.6	303°33.7 -19°53.2	318°33.6 -19°53.7	333°33.4 -19°54.3	348°33.3 -19°54.8	3°33.1 -19°55.4	15°33.0 -19°55.9	33°32.8 -19°56.5	48°32.7 -19°57.0	63°32.5 -19°57.6	-0.2 -0.6
Sa 22	258°30.4 -20°04.7	273°30.3 -20°05.2	288°30.1 -20°05.7	303°29.9 -20°06.3	318°29.8 -20°06.8	333°29.6 -20°07.4	348°29.4 -20°07.9	3°29.3 -20°08.4	15°29.1 -20°09.0	33°28.9 -20°09.5	48°28.8 -20°10.0	63°28.6 -20°10.6	-0.2 -0.5
Di 23	258°26.8 -20°17.4	273°26.3 -20°18.0	288°26.1 -20°18.5	303°25.9 -20°19.0	318°25.7 -20°19.5	333°25.6 -20°20.0	348°25.4 -20°20.6	3°25.2 -20°21.1	15°25.1 -20°21.6	33°24.9 -20°22.1	48°24.7 -20°22.6	63°24.5 -20°23.2	-0.2 -0.5
Lu 24	258°22.2 -20°29.8	273°22.1 -20°30.3	288°21.9 -20°30.8	303°21.7 -20°31.3	318°21.5 -20°31.9	333°21.4 -20°32.4	348°21.2 -20°32.9	3°21.0 -20°33.4	15°20.8 -20°33.9	33°20.6 -20°34.4	48°20.5 -20°34.9	63°20.3 -20°35.4	-0.2 -0.5
Ma 25	258°17.9 -20°41.8	273°17.7 -20°42.3	288°17.5 -20°42.8	303°17.3 -20°43.3	318°17.1 -20°43.8	333°16.9 -20°44.3	348°16.8 -20°44.8	3°16.6 -20°45.3	15°16.4 -20°45.8	33°16.2 -20°46.2	48°16.0 -20°46.7	63°15.8 -20°47.2	-0.2 -0.5
Me 26	258°13.3 -20°53.5	273°13.1 -20°53.9	288°12.9 -20°54.4	303°12.7 -20°54.9	318°12.6 -20°55.4	333°12.4 -20°55.8	348°12.2 -20°56.3	3°12.0 -20°56.8	15°11.8 -20°57.3	33°11.6 -20°57.7	48°11.4 -20°58.2	63°11.2 -20°58.7	-0.2 -0.5
Je 27	258°08.6 -21°04.7	273°08.4 -21°05.2	288°08.2 -21°05.6	303°08.1 -21°06.1	318°07.8 -21°06.5	333°07.6 -21°07.0	348°07.4 -21°07.5	3°07.2 -21°08.0	15°07.0 -21°08.4	33°06.8 -21°08.9	48°06.6 -21°09.3	63°06.4 -21°09.7	-0.2 -0.5
Ve 28	258°03.7 -21°15.8	273°03.5 -21°16.0	288°03.3 -21°16.4	303°03.1 -21°16.9	318°02.8 -21°17.3	333°02.6 -21°17.8	348°02.4 -21°18.2	3°02.2 -21°18.6	15°02.0 -21°19.1	33°01.8 -21°19.5	48°01.6 -21°19.9	63°01.4 -21°20.4	-0.2 -0.4
Sa 29	257°58.6 -21°26.6	272°58.4 -21°26.8	287°58.2 -21°26.8	302°57.9 -21°27.3	317°57.7 -21°27.7	332°57.5 -21°28.1	347°57.3 -21°28.5	2°57.1 -21°28.9	15°56.8 -21°29.4	32°56.6 -21°29.8	47°56.4 -21°30.2	62°56.2 -21°30.6	-0.2 -0.4
Di 30	257°53.3 -21°36.0	272°53.1 -21°36.4	287°52.9 -21°36.8	302°52.6 -21°37.3	317°52.4 -21°37.7	332°52.2 -21°38.1	347°52.0 -21°38.5	2°51.8 -21°38.9	15°51.5 -21°39.3	32°51.3 -21°39.7	47°51.1 -21°40.1	62°50.8 -21°40.5	-0.2 -0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Novembre 2031

	J	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	Δ /h	SP
Sa 1	229°54.2	244°23.4	258°52.6	273°21.8	287°51.1	302°20.3	316°49.6	331°18.9	345°48.2	0°17.6	14°46.9	+29.3	15.1	
	19°53.2	19°55.6	19°57.8	19°59.9	20°01.9	20°03.8	20°05.6	20°07.3	20°08.9	20°10.4	20°11.7	+1.9	55.5	
Di 2	232°09.9	246°39.6	261°09.4	275°39.2	290°09.0	304°38.9	319°08.8	333°38.7	348°08.6	2°38.6	17°08.8	+29.9	15.0	
	20°20.0	20°19.7	20°19.3	20°18.9	20°18.3	20°17.6	20°16.8	20°16.0	20°15.0	20°13.9	20°12.8	-0.7	54.9	
Lu 3	234°42.9	249°13.5	263°44.1	278°14.8	292°45.5	307°16.2	321°47.0	336°17.8	350°48.6	5°19.5	19°50.5	+30.8	14.9	
	19°43.6	19°40.9	19°38.1	19°35.2	19°32.2	19°29.2	19°26.0	19°22.8	19°19.4	19°16.0	19°12.5	-3.1	54.5	
Ma 4	237°39.3	252°10.9	266°42.5	281°14.1	295°45.8	310°17.6	324°49.4	339°21.2	353°53.1	8°25.0	22°56.9	+31.8	14.8	
	18°09.6	18°04.7	17°59.8	17°54.8	17°49.7	17°44.5	17°39.3	17°33.9	17°28.5	17°23.0	17°17.5	-5.2	54.2	
Me 5	241°00.7	255°33.2	270°05.8	284°38.4	299°11.1	313°43.8	328°16.5	342°49.3	357°22.1	11°54.9	26°27.8	+32.7	14.8	
	15°45.4	15°38.7	15°31.9	15°25.1	15°18.2	15°11.2	15°04.2	14°57.1	14°50.0	14°42.7	14°35.5	-7.0	54.2	
Je 6	244°44.3	259°17.6	273°51.0	288°24.4	302°57.7	317°31.2	332°04.6	346°38.1	1°11.6	15°45.1	30°18.6	+33.4	14.8	
	12°39.1	12°30.8	12°22.6	12°14.3	12°05.9	11°57.5	11°49.0	11°40.4	11°31.9	11°23.2	11°14.5	-8.5	54.2	
Ve 7	248°43.5	263°17.2	277°51.0	292°24.8	306°58.6	321°32.4	336°06.2	350°40.0	5°13.8	19°47.6	34°21.5	+33.8	14.9	
	8°58.7	8°49.3	8°39.8	8°30.3	8°20.8	8°11.2	8°01.6	7°51.9	7°42.2	7°32.5	7°22.8	-9.6	54.5	
Sa 8	263°17.2	277°51.0	292°24.8	306°58.6	321°32.4	336°06.2	350°40.0	5°13.8	19°47.6	34°21.5	48°55.3	+33.8	14.9	
	8°49.3	8°39.8	8°30.3	8°20.8	8°11.2	8°01.6	7°51.9	7°42.2	7°32.5	7°22.8	7°13.0	-9.6	54.5	
Di 9	267°22.5	281°56.3	296°30.0	311°03.8	325°37.5	340°11.2	354°44.9	9°18.6	23°52.3	38°26.0	52°59.6	+33.7	15.0	
	4°41.9	4°31.6	4°21.2	4°10.9	4°00.5	3°50.1	3°39.6	3°29.1	3°18.7	3°08.1	2°57.6	-10.4	55.0	
Lu 10	271°21.9	285°55.2	300°28.4	315°01.7	329°34.8	344°08.0	358°41.1	13°14.2	27°47.3	42°20.3	56°53.2	+33.1	15.2	
	0°17.2	0°06.4	-0°04.4	-0°15.3	-0°26.1	-0°37.0	-0°47.9	-0°58.7	-1°09.6	-1°20.5	-1°31.4	-10.9	55.6	
Ma 11	275°02.9	289°35.2	304°07.7	318°39.6	333°11.7	347°43.8	2°15.8	16°47.8	31°19.7	45°51.5	60°23.3	+32.0	15.4	
	-4°15.1	-4°26.0	-4°36.9	-4°47.7	-4°58.6	-5°09.4	-5°20.3	-5°31.1	-5°41.9	-5°52.7	-6°03.5	-10.8	56.4	
Me 12	278°12.9	292°43.7	307°14.4	321°45.0	336°15.6	350°46.1	5°16.5	19°46.9	34°17.2	48°47.4	63°17.6	+30.5	15.6	
	-8°42.9	-8°53.4	-9°03.7	-9°14.1	-9°24.4	-9°34.7	-9°44.9	-9°55.2	-10°05.3	-10°15.5	-10°25.6	-10.3	57.2	
Je 13	280°40.6	295°09.5	309°38.3	324°07.1	338°35.7	353°04.3	7°32.8	22°01.2	36°29.6	50°57.8	65°26.6	+28.5	15.8	
	-12°51.2	-13°00.5	-13°09.7	-13°18.9	-13°27.9	-13°37.0	-13°45.9	-13°54.8	-14°03.6	-14°12.4	-14°21.1	-9.0	58.0	
Ve 14	282°19.0	296°45.9	311°12.7	325°39.4	340°06.0	354°32.6	8°59.1	23°25.5	37°51.9	52°18.1	66°44.3	+26.5	16.0	
	-16°21.7	-16°29.1	-16°36.4	-16°43.5	-16°50.6	-16°57.6	-17°04.5	-17°11.2	-17°17.9	-17°24.5	-17°31.0	-6.9	58.7	
Sa 15	283°08.7	297°33.8	311°58.8	326°23.8	340°48.7	355°13.6	9°38.4	24°03.2	38°27.9	52°52.5	67°17.1	+24.8	16.2	
	-18°54.9	-18°59.5	-19°04.1	-19°08.5	-19°12.8	-19°16.9	-19°21.0	-19°24.9	-19°28.7	-19°32.4	-19°35.9	-4.1	59.3	
Di 16	291°21.0	297°45.0	312°08.9	326°32.9	340°56.8	355°20.7	9°44.6	24°08.4	38°32.3	52°56.1	67°19.9	+23.9	16.3	
	-20°12.9	-20°14.3	-20°15.5	-20°16.6	-20°17.6	-20°18.4	-20°19.1	-20°19.6	-20°20.0	-20°20.3	-20°20.4	-0.7	59.7	
Lu 17	283°16.8	297°40.7	312°04.6	326°28.4	340°52.3	355°16.3	9°40.2	24°04.2	38°28.2	52°52.2	67°16.2	+23.9	16.3	
	-20°05.0	-20°02.9	-20°00.6	-19°58.2	-19°55.6	-19°52.9	-19°50.0	-19°47.0	-19°43.9	-19°40.7	-19°37.3	+2.8	59.8	
Ma 18	283°21.1	297°45.8	312°10.5	326°35.3	341°00.1	355°25.0	9°49.9	24°14.8	38°39.9	53°04.9	67°30.1	+24.9	16.3	
	-18°30.5	-18°25.0	-18°19.4	-18°13.7	-18°07.9	-18°01.9	-17°55.8	-17°49.6	-17°43.3	-17°36.8	-17°30.3	+6.0	59.8	
Me 19	283°54.1	298°20.2	312°46.4	327°12.6	341°38.9	356°05.2	10°31.7	24°58.1	39°23.7	53°51.3	68°18.0	+26.4	16.3	
	-15°39.0	-15°30.7	-15°22.2	-15°14.0	-15°05.4	-14°56.8	-14°48.1	-14°39.3	-14°30.4	-14°21.5	-14°12.4	+8.7	59.6	
Je 20	285°05.8	299°33.5	314°01.2	328°29.0	342°56.9	357°24.8	11°52.8	26°20.9	40°49.0	55°17.2	69°45.4	+28.0	16.2	
	-11°47.2	-11°37.0	-11°26.6	-11°16.3	-11°05.8	-10°55.3	-10°44.8	-10°34.2	-10°23.5	-10°12.8	-10°02.0	-10.5	59.3	
Ve 21	286°55.5	301°24.5	315°53.7	330°22.8	344°52.1	359°21.3	13°50.6	28°20.0	42°49.4	57°18.8	71°48.3	+29.3	16.0	
	-7°14.8	-7°03.3	-6°51.8	-6°40.3	-6°28.8	-6°17.2	-6°05.6	-5°53.9	-5°42.3	-5°30.6	-5°18.8	-11.6	58.8	
Sa 22	289°15.1	303°45.2	318°15.3	332°45.4	347°15.5	1°45.7	16°15.8	30°46.1	45°16.3	59°46.5	74°16.8	+30.2	15.9	
	-2°21.2	-2°09.2	-1°57.3	-1°45.4	-1°33.4	-1°21.5	-1°09.6	-0°57.6	-0°45.7	-0°33.8	-0°21.8	-11.9	58.8	
Di 23	291°53.2	306°23.7	320°54.3	335°24.8	349°55.4	4°26.0	18°56.5	33°27.1	47°57.7	62°28.3	76°58.3	+30.6	15.8	
	2°35.8	2°47.5	2°59.2	3°10.9	3°22.5	3°34.1	3°45.7	3°57.3	4°08.9	4°20.4	4°31.8	+11.6	57.9	
Lu 24	294°37.8	309°08.3	323°38.9	338°09.4	352°40.0	7°10.5	21°41.1	36°11.6	50°42.1	65°12.6	79°43.1	+30.5	15.6	
	7°19.9	7°30.8	7°41.7	7°52.5	8°03.2	8°13.9	8°24.6	8°35.2	8°45.7	8°56.2	9°06.7	+10.7	57.4	
Ma 25	297°18.8	311°49.1	326°19.4	340°49.6	355°19.8	9°50.0	24°20.2	38°50.3	53°20.5	67°50.6	82°20.7	+30.2	15.5	
	11°36.6	11°46.1	11°55.5	12°04.9	12°14.2	12°23.4	12°32.6	12°41.7	12°50.7	12°59.6	13°08.5	+9.2	56.9	
Me 26	299°50.2	314°20.0	328°49.8	343°19.6	357°49.3	12°19.1	26°48.8	41°18.5	55°48.2	70°17.8	84°47.5	+29.7	15.4	
	15°12.5	15°20.1	15°27.7	15°35.1	15°42.5	15°49.8	15°57.0	16°04.1	16°11.1	16°18.1	16°24.9	+7.2	56.4	
Je 27	302°10.5	316°40.0	331°09.4	345°38.8	0°08.2	14°37.6	29°06.9	43°36.3	58°05.7	72°35.0	87°04.4	+29.4	15.2	
	17°56.6	18°02.0	18°07.3	18°12.4	18°17.5	18°22.5	18°27.3	18°32.1	18°36.8	18°41.3	18°45.8	+4.9	55.9	
Ve 28	304°24.1	318°53.4	333°22.8	347°52.1	2°21.4	16°50.7	31°20.1	45°49.4	60°18.8	74°48.1	89°17.5	+29.3	15.1	
	19°40.8	19°43.6	19°46.4	19°49.0	19°51.5	19°54.0	19°56.3	19°58.5	20°00.6	20°02.6	20°04.6	+2.4	55.4	
Sa 29	306°39.5	321°09.1	335°38.7	350°08.3	4°38.0	19°07.7	33°37.4	48°07.1	62°36.9	77°06.6	91°36.4	+29.7	15.0	
	20°20.8	20°21.1	20°21.2	20°21.3	20°21.2	20°21.0	20°20.8	20°20.5	20°20.0	20°19.4	20°18.8	-0.2	54.9	
Di 30	309°06.9	323°37.1	338°07.5	352°37.8	7°08.2	21°38.6	36°09.1	50°39.6	65°10.1	79°40.7	94°11.3	+30.4	14.9	
	19°57.1	19°54.9	19°52.5	19°50.1	19°47.6	19°45.0	19°42.3	19°39.5	19°36.7	19°33.7	19°30.6	-2.6	54.5	

Ligne 1: GHA, Δ /h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ /h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 7 07h02 — NL: 24 21h09 — PQ: 21 14h44 — PL: 28 73h18

SOLEIL

Décembre 2031

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Lu 1	272°47.7 -21°46.0	287°47.4 -21°46.4	302°47.2 -21°46.8	317°47.0 -21°47.2	332°46.7 -21°47.6	347°46.5 -21°48.0	2°46.3 -21°48.4	17°46.0 -21°48.8	32°45.8 -21°49.2	47°45.6 -21°49.5	62°45.3 -21°49.9	77°45.1 -21°50.3	-0.2 -0.4
Ma 2	272°42.0 -21°55.2	287°41.8 -21°55.6	302°41.6 -21°56.0	317°41.4 -21°56.4	332°41.1 -21°56.7	347°40.9 -21°57.1	2°40.6 -21°57.5	17°40.4 -21°57.8	32°40.1 -21°58.2	47°39.9 -21°58.6	62°39.7 -21°58.9	77°39.4 -21°59.3	-0.2 -0.4
Me 3	272°36.3 -22°04.0	287°36.0 -22°04.4	302°35.8 -22°04.7	317°35.5 -22°05.1	332°35.3 -22°05.4	347°35.1 -22°05.8	2°34.8 -22°06.1	17°34.6 -22°06.5	32°34.3 -22°06.8	47°34.1 -22°07.2	62°33.8 -22°07.5	77°33.6 -22°07.9	-0.2 -0.4
Je 4	272°30.4 -22°12.4	287°30.1 -22°12.7	302°29.9 -22°13.0	317°29.6 -22°13.4	332°29.4 -22°13.7	347°29.1 -22°14.0	2°28.9 -22°14.4	17°28.6 -22°14.7	32°28.3 -22°15.1	47°28.1 -22°15.4	62°27.8 -22°15.7	77°27.6 -22°16.0	-0.3 -0.3
Ve 5	272°24.3 -22°20.3	287°24.0 -22°20.6	302°23.8 -22°20.9	317°23.5 -22°21.2	332°23.3 -22°21.6	347°23.0 -22°21.9	2°22.7 -22°22.2	17°22.5 -22°22.5	32°22.2 -22°22.8	47°22.0 -22°23.1	62°21.7 -22°23.5	77°21.5 -22°23.8	-0.3 -0.3
Sa 6	272°18.1 -22°27.8	287°17.8 -22°28.1	302°17.5 -22°28.4	317°17.3 -22°28.7	332°17.0 -22°29.0	347°16.8 -22°29.3	2°16.5 -22°29.6	17°16.2 -22°29.9	32°16.0 -22°30.2	47°15.7 -22°30.5	62°15.4 -22°30.8	77°15.2 -22°31.1	-0.3 -0.3
Di 7	272°11.7 -22°34.8	287°11.4 -22°35.1	302°11.2 -22°35.4	317°10.9 -22°35.7	332°10.6 -22°35.9	347°10.4 -22°36.2	2°10.1 -22°36.5	17°09.8 -22°36.8	32°09.6 -22°37.1	47°09.3 -22°37.3	62°09.0 -22°37.6	77°08.8 -22°37.9	-0.3 -0.3
Lu 8	272°05.2 -22°41.4	2287°05.0 -22°41.7	302°04.7 -22°42.0	317°04.4 -22°42.2	332°04.1 -22°42.5	347°03.9 -22°42.7	2°08.6 -22°43.0	17°03.3 -22°43.2	32°03.0 -22°43.5	47°02.8 -22°43.8	62°02.5 -22°44.0	77°02.2 -22°44.3	-0.3 -0.3
Ma 9	271°58.6 -22°47.8	286°58.3 -22°48.1	301°58.1 -22°48.1	316°57.8 -22°48.3	331°57.5 -22°48.6	346°57.2 -22°48.8	1°56.9 -22°49.1	16°56.7 -22°49.3	31°56.4 -22°49.5	46°56.1 -22°49.8	61°55.8 -22°50.1	76°55.5 -22°50.3	-0.3 -0.2
Me 10	271°51.9 -22°53.8	286°51.6 -22°53.5	301°51.3 -22°53.8	316°51.0 -22°54.0	331°50.8 -22°54.2	346°50.5 -22°54.4	1°50.2 -22°54.9	16°49.9 -22°55.1	31°49.6 -22°55.1	46°49.3 -22°55.3	61°49.1 -22°55.5	76°48.8 -22°55.8	-0.3 -0.2
Je 11	271°45.1 -22°58.6	286°44.8 -22°58.8	301°44.5 -22°59.0	316°44.2 -22°59.2	331°43.9 -22°59.4	346°43.6 -22°59.6	1°43.3 -22°59.8	16°43.0 -22°00.0	31°42.8 -22°00.2	46°42.5 -22°00.4	61°42.2 -22°00.6	76°41.9 -22°00.8	-0.3 -0.2
Ve 12	271°38.1 -23°03.4	286°37.8 -23°03.6	301°37.5 -23°03.7	316°37.2 -23°03.9	331°36.9 -23°04.1	346°36.7 -23°04.3	1°36.4 -23°04.5	16°36.1 -23°04.7	31°35.8 -23°04.9	46°35.5 -23°05.0	61°35.2 -23°05.2	76°34.9 -23°05.4	-0.3 -0.2
Sa 13	271°31.1 -23°07.7	286°30.8 -23°07.9	301°30.5 -23°08.1	316°30.2 -23°08.2	331°29.9 -23°08.4	346°29.6 -23°08.6	1°29.5 -23°08.7	16°29.0 -23°08.9	31°28.7 -23°09.1	46°28.5 -23°09.2	61°28.1 -23°09.4	76°27.8 -23°09.6	-0.3 -0.2
Di 14	271°24.0 -23°11.8	286°23.7 -23°11.8	301°23.4 -23°11.9	316°23.1 -23°12.1	331°22.8 -23°12.2	346°22.5 -23°12.4	1°22.2 -23°12.5	16°21.9 -23°12.7	31°21.6 -23°12.8	46°21.3 -23°12.9	61°21.0 -23°13.1	76°20.7 -23°13.2	-0.3 -0.1
Lu 15	271°16.8 -23°15.9	286°16.5 -23°15.2	301°16.2 -23°15.3	316°15.9 -23°15.4	331°15.6 -23°15.6	346°15.3 -23°15.7	1°15.0 -23°15.8	16°14.7 -23°15.9	31°14.4 -23°16.1	46°14.1 -23°16.2	61°13.8 -23°16.3	76°13.5 -23°16.5	-0.3 -0.1
Ma 16	271°09.5 -23°18.0	286°09.2 -23°18.1	301°08.9 -23°18.2	316°08.6 -23°18.3	331°08.3 -23°18.4	346°08.0 -23°18.6	1°07.7 -23°18.7	16°07.4 -23°18.8	31°07.1 -23°18.9	46°06.8 -23°19.0	61°06.5 -23°19.1	76°06.2 -23°19.2	-0.3 -0.1
Me 17	271°02.2 -23°20.8	286°01.9 -23°20.6	301°01.6 -23°20.7	316°01.3 -23°20.8	331°01.0 -23°21.0	346°00.7 -23°21.1	1°00.4 -23°21.1	16°00.1 -23°21.2	31°00.0 -23°21.3	46°00.0 -23°21.3	61°00.0 -23°21.4	76°00.0 -23°21.5	-0.3 -0.1
Je 18	270°54.8 -23°22.5	285°54.5 -23°22.6	300°54.2 -23°22.7	315°53.9 -23°22.8	330°53.6 -23°22.8	345°53.3 -23°22.9	0°53.0 -23°23.0	15°52.7 -23°23.0	30°52.4 -23°23.1	45°52.1 -23°23.2	60°51.8 -23°23.2	75°51.5 -23°23.3	-0.3 -0.1
Ve 19	270°47.4 -23°24.1	285°47.1 -23°24.2	300°46.8 -23°24.2	315°46.5 -23°24.3	330°46.2 -23°24.3	345°45.9 -23°24.4	0°45.6 -23°24.4	15°45.3 -23°24.5	30°45.0 -23°24.5	45°44.7 -23°24.6	60°44.4 -23°24.6	75°44.0 -23°24.7	-0.3 -0.1
Sa 20	270°40.0 -23°25.2	285°39.7 -23°25.2	300°39.4 -23°25.3	315°39.1 -23°25.3	330°38.8 -23°25.3	345°38.5 -23°25.4	0°38.2 -23°25.4	15°37.9 -23°25.4	30°37.5 -23°25.5	45°37.2 -23°25.5	60°36.9 -23°25.5	75°36.6 -23°25.5	-0.3 -0.0
Di 21	270°32.6 -23°25.8	285°32.3 -23°25.8	300°32.0 -23°25.9	315°31.6 -23°25.9	330°31.3 -23°25.9	345°31.0 -23°25.9	0°30.7 -23°25.9	15°30.4 -23°25.9	30°30.1 -23°25.9	45°29.8 -23°25.9	60°29.5 -23°25.9	75°29.2 -23°26.0	-0.3 -0.0
Lu 22	270°25.1 -23°26.0	285°24.8 -23°26.0	300°24.5 -23°26.0	315°24.2 -23°26.0	330°23.9 -23°26.0	345°23.6 -23°26.1	0°23.3 -23°26.5	15°22.9 -23°26.5	30°22.6 -23°26.5	45°22.3 -23°26.5	60°22.0 -23°26.5	75°21.7 -23°26.9	-0.3 +0.0
Ma 23	270°17.7 -23°25.7	285°17.4 -23°25.6	300°17.0 -23°25.6	315°16.7 -23°25.6	330°16.4 -23°25.6	345°16.1 -23°25.5	0°15.8 -23°25.5	15°15.5 -23°25.5	30°15.2 -23°25.5	45°14.9 -23°25.4	60°14.6 -23°25.4	75°14.3 -23°25.4	-0.3 +0.0
Me 24	270°10.2 -23°24.9	285°09.9 -23°24.8	300°09.6 -23°24.8	315°09.3 -23°24.8	330°09.0 -23°24.7	345°08.7 -23°24.7	0°08.4 -23°24.6	15°08.0 -23°24.5	30°07.7 -23°24.5	45°07.4 -23°24.5	60°07.1 -23°24.4	75°06.8 -23°24.4	-0.3 +0.0
Je 25	270°02.8 -23°23.6	285°02.5 -23°23.6	300°02.2 -23°23.5	315°01.9 -23°23.4	330°01.5 -23°23.4	345°01.2 -23°23.4	0°00.9 -23°23.2	15°00.6 -23°23.2	30°00.3 -23°23.1	45°00.0 -23°23.0	60°00.0 -23°23.0	75°00.0 -23°22.9	-0.3 +0.1
Ve 26	269°55.4 -23°21.9	284°55.1 -23°21.7	299°54.7 -23°21.7	314°54.4 -23°21.7	329°54.1 -23°21.6	344°53.8 -23°21.5	359°53.5 -23°21.4	14°53.2 -23°21.3	29°52.9 -23°21.2	44°52.6 -23°21.1	59°52.3 -23°21.1	74°52.0 -23°21.0	-0.3 +0.1
Sa 27	269°48.0 -23°19.7	284°47.7 -23°19.6	299°47.4 -23°19.5	314°47.1 -23°19.4	329°46.8 -23°19.3	344°46.4 -23°19.2	359°46.1 -23°19.1	14°45.8 -23°19.0	29°45.5 -23°18.9	44°45.2 -23°18.8	59°44.9 -23°18.7	74°44.6 -23°18.5	-0.3 +0.1
Di 28	269°40.0 -23°17.0	284°40.3 -23°16.9	299°40.0 -23°16.8	314°39.7 -23°16.7	329°39.4 -23°16.6	344°39.1 -23°16.4	359°38.8 -23°16.3	14°38.5 -23°16.2	29°38.2 -23°16.1	44°37.9 -23°15.9	59°37.6 -23°15.8	74°37.3 -23°15.7	-0.3 +0.1
Lu 29	269°33.3 -23°13.9	284°33.0 -23°13.8	299°32.7 -23°13.6	314°32.4 -23°13.5	329°32.1 -23°13.4	344°31.8 -23°13.2	359°31.5 -23°13.1	14°31.2 -23°12.9	29°30.9 -23°12.8	44°30.6 -23°12.6	59°30.3 -23°12.5	74°30.0 -23°12.3	-0.3 +0.1
Ma 30	269°26.2 -23°10.8	284°25.8 -23°10.2	299°25.5 -23°10.0	314°25.2 -23°09.8	329°24.9 -23°09.7	344°24.6 -23°09.5	359°24.3 -23°09.4	14°24.0 -23°09.2	29°23.7 -23°09.0	44°23.4 -23°08.8	59°23.1 -23°08.7	74°22.8 -23°08.5	-0.3 +0.2
Me 31	269°18.9 -23°06.3	284°18.6 -23°06.1	299°18.3 -23°05.9	314°18.0 -23°05.7	329°17.7 -23°05.5	344°17.4 -23°05.4	359°17.1 -23°05.0	14°16.8 -23°05.0	29°16.5 -23°04.8	44°16.2 -23°04.6	59°15.9 -23°04.4	74°15.6 -23°04.3	-0.3 +0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Décembre 2031

	J	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	Δ'/h SP
O	Lu 1	224°48.4 18°59.0	239°19.4 18°55.1	253°50.5 18°51.0	268°21.6 18°46.9	282°52.7 18°42.7	297°23.8 18°38.4	311°55.0 18°34.0	326°26.3 18°29.6	340°57.6 18°25.0	355°28.9 18°20.4	10°00.3 18°15.7	+31.2 14.8 -4.3 54.3
	Ma 2	227°55.9 16°55.7	242°28.0 16°49.7	257°00.1 16°43.7	271°32.2 16°37.6	286°04.4 16°31.5	300°36.6 16°25.2	315°08.9 16°18.9	329°41.2 16°12.6	344°13.5 16°06.1	358°45.9 15°59.6	13°18.3 15°53.1	+32.2 14.8 -6.3 54.1
	Me 3	231°29.4 14°06.8	246°02.4 13°59.2	260°35.6 13°51.6	275°08.6 13°43.9	289°41.8 13°36.1	304°14.9 13°28.3	318°48.2 13°20.4	333°21.4 13°12.5	347°54.7 13°04.6	2°28.0 12°56.5	17°01.4 12°48.5	+33.2 14.7 -7.8 54.0
●	Je 4	235°25.1 10°41.2	249°58.9 10°32.4	264°32.7 10°23.5	279°06.5 10°14.5	293°40.4 10°05.5	308°14.3 9°56.5	322°48.2 9°47.4	337°22.1 9°38.3	351°56.0 9°29.1	6°30.0 9°19.9	21°04.0 9°10.7	+33.9 14.8 -9.1 54.1
	Ve 5	239°35.4 6°47.7	254°09.5 6°37.9	268°43.7 6°28.0	283°17.9 6°18.1	297°52.1 6°08.2	312°26.3 5°58.3	327°00.5 5°48.4	341°34.7 5°38.4	356°08.9 5°28.4	10°43.1 5°18.3	25°17.3 5°08.2	+34.2 14.8 -9.9 54.4
	Sa 6	243°49.7 2°34.4	258°23.8 2°23.9	272°57.9 2°13.5	287°31.9 2°03.0	302°06.0 1°52.5	316°40.0 1°42.1	331°14.0 1°31.5	345°48.0 1°21.0	0°22.0 1°10.5	14°55.9 0°59.9	29°29.9 0°49.4	+34.0 15.0 -10.5 54.9
●	Di 7	247°55.7 -1°50.2	262°29.1 -2°00.9	277°02.6 -2°11.6	291°36.0 -2°22.3	306°09.3 -2°33.0	320°42.6 -2°43.7	335°15.9 -2°54.4	349°49.2 -3°05.1	4°22.4 -3°15.8	18°55.5 -3°26.5	33°28.6 -3°37.2	+33.3 15.1 -10.7 55.5
	Lu 8	262°29.1 -2°00.9	277°02.6 -2°11.6	291°36.0 -2°22.3	306°09.3 -2°33.0	320°42.6 -2°43.7	335°15.9 -2°54.4	349°49.2 -3°05.1	4°22.4 -3°15.8	18°55.5 -3°26.5	33°28.6 -3°37.2	48°01.7 -3°47.9	+33.3 15.1 -10.7 55.5
	Ma 9	266°11.7 -6°27.2	280°44.0 -6°37.7	295°16.1 -6°48.2	309°48.3 -6°58.7	324°20.3 -7°09.1	338°52.3 -7°19.6	353°24.2 -7°30.0	7°56.1 -7°40.4	22°29.7 -7°50.8	36°59.6 -8°01.1	51°31.3 -8°11.5	+32.0 15.4 -10.4 56.3
●	Me 10	269°17.7 -10°42.9	283°48.2 -10°32.0	298°18.6 -10°22.5	312°48.9 -10°12.2	327°19.2 -10°11.9	341°49.3 -11°01.1	356°19.4 -11°41.1	10°49.4 -12°00.7	25°19.3 -12°09.2	39°49.2 -12°19.0	54°18.9 -12°19.0	+30.1 15.6 -9.6 57.2
	Je 11	271°34.6 -14°33.1	286°03.0 -14°41.5	300°31.2 -14°49.9	314°59.3 -14°58.2	329°27.4 -15°06.4	343°55.4 -15°14.5	358°23.2 -15°22.6	12°51.0 -15°30.6	27°18.7 -15°38.5	41°46.3 -15°46.3	56°13.8 -15°54.0	+27.9 15.9 -8.1 58.2
	Ve 12	275°55.2 -17°39.3	287°21.2 -17°45.6	301°47.2 -17°51.7	316°13.0 -17°57.8	330°57.1 -18°03.7	345°04.5 -18°09.5	359°30.1 -18°15.2	13°55.6 -18°20.8	28°21.0 -18°26.3	42°46.4 -18°31.7	57°11.6 -18°36.9	+25.6 16.1 -5.8 59.1
●	Sa 13	273°21.2 -19°41.4	287°45.3 -19°44.4	302°09.3 -19°47.8	316°33.2 -19°50.8	330°57.1 -19°53.7	345°04.5 -19°56.4	359°30.1 -19°59.0	14°08.3 -20°01.5	28°32.0 -20°03.8	42°55.6 -20°06.0	57°19.1 -20°08.0	+23.8 16.3 -2.7 59.9
	Di 14	273°07.1 -20°21.5	287°30.0 -20°21.2	301°52.9 -20°20.8	316°15.5 -20°20.2	330°57.1 -20°19.5	345°04.5 -20°18.6	359°30.1 -20°17.6	13°47.3 -20°16.5	28°10.1 -20°15.1	42°32.9 -20°13.7	56°55.7 -20°12.1	+22.9 16.5 -0.9 60.5
	Lu 15	272°38.4 -19°30.2	287°14.0 -19°26.2	301°24.4 -19°22.1	315°47.2 -19°17.9	330°10.5 -19°13.5	344°33.5 -19°09.0	358°56.6 -19°04.3	13°19.8 -18°59.5	27°43.0 -18°54.6	42°06.2 -18°49.5	56°29.4 -18°44.3	+23.1 16.6 +4.6 60.7
●	Ma 16	272°23.8 -17°10.3	286°47.8 -17°03.1	301°11.9 -16°55.7	315°36.1 -16°48.2	330°00.6 -16°40.2	344°24.6 -16°32.8	358°49.0 -16°25.0	13°13.4 -16°17.0	27°37.9 -16°09.9	42°02.4 -16°00.8	56°27.1 -15°52.5	+24.3 16.6 +7.8 60.7
	Me 17	273°44.6 -13°36.4	287°10.3 -13°26.6	301°36.2 -13°16.8	316°02.0 -13°06.8	330°28.0 -12°56.7	344°54.0 -12°46.6	359°20.1 -12°36.4	13°46.3 -12°26.2	28°12.6 -12°15.8	42°38.9 -12°05.4	57°05.3 -11°54.9	+26.1 16.5 -10.2 60.4
	Je 18	275°49.7 -9°10.3	288°17.3 -8°58.9	302°44.8 -8°47.4	317°12.5 -8°35.9	331°40.2 -8°24.4	346°08.0 -8°12.8	0°35.9 -8°01.2	15°03.8 -7°49.6	30°31.8 -7°37.9	43°59.8 -7°26.2	58°27.9 -7°14.4	+27.8 16.3 -11.6 59.8
●	Ve 19	275°36.5 -4°15.2	290°05.5 -4°03.1	304°34.6 -3°51.0	319°03.7 -3°38.9	333°32.9 -3°26.7	348°02.1 -3°14.6	0°21.3 -3°02.5	17°00.7 -2°50.3	31°30.0 -2°38.2	45°59.4 -2°26.0	60°28.8 -2°13.9	+29.2 16.1 -12.1 59.2
	Sa 20	277°55.1 0°47.6	292°25.2 0°59.6	306°55.2 1°11.6	321°25.3 1°23.6	335°55.5 1°35.5	350°25.6 1°47.4	4°55.8 1°59.3	19°26.0 2°11.2	33°56.2 2°23.1	48°26.4 2°34.9	62°56.7 2°46.7	+30.2 15.9 +11.9 58.4
	Di 21	280°33.1 5°40.1	295°03.6 5°51.4	309°34.2 6°02.6	324°04.7 6°13.8	338°35.3 6°24.9	353°05.9 6°36.0	7°36.5 6°47.1	22°07.1 6°58.1	36°37.7 7°09.1	51°08.3 7°20.0	65°38.9 7°30.8	+30.6 15.7 +11.1 57.7
●	Lu 22	283°18.2 10°07.6	297°48.8 10°17.6	312°19.5 10°27.5	326°50.1 10°37.4	341°20.6 10°47.2	355°51.2 10°56.9	10°21.8 11°06.6	24°52.4 11°16.2	39°23.0 11°25.8	53°53.5 11°35.3	68°24.1 11°44.7	+30.6 15.5 +9.7 57.0
	Ma 23	286°01.1 13°57.6	300°31.5 14°05.9	315°01.9 14°14.1	329°32.2 14°22.2	344°02.6 14°30.2	358°32.9 14°38.2	13°03.2 14°46.1	27°33.5 14°53.9	42°03.8 15°01.6	56°34.0 15°09.2	71°04.3 15°16.8	+30.3 15.4 +7.9 56.3
	Me 24	288°36.4 17°00.0	303°06.4 17°06.2	317°36.4 17°12.3	332°06.4 17°18.3	346°36.4 17°24.2	1°06.4 17°30.0	13°36.4 17°35.7	30°06.3 17°41.4	44°36.3 17°46.9	59°06.2 17°52.1	73°36.1 17°57.7	+30.0 15.2 +5.8 55.8
●	Je 25	291°03.6 19°06.6	305°33.4 19°10.4	320°03.2 19°14.2	334°33.0 19°17.8	349°02.7 19°21.3	3°32.5 19°24.7	18°02.2 19°28.1	32°32.0 19°31.3	47°01.7 19°34.4	61°31.4 19°37.4	76°01.2 19°40.4	+29.8 15.1 +3.4 55.3
	Ve 26	293°27.5 20°12.2	307°57.2 20°13.5	322°27.0 20°15.8	336°56.8 20°15.8	351°26.7 20°16.9	5°56.5 20°17.8	20°26.3 20°18.6	34°56.2 20°19.3	48°26.0 20°19.9	63°55.9 20°20.4	78°25.8 20°20.8	+29.8 15.0 +0.9 54.8
	Sa 27	295°55.9 20°14.9	310°26.1 20°13.8	324°56.3 20°12.5	339°26.5 20°11.1	353°56.7 20°09.6	8°27.0 20°08.1	22°57.3 20°06.4	37°27.6 20°04.2	51°57.9 20°02.8	66°28.9 20°00.8	80°58.7 19°58.8	+30.3 14.9 -1.6 54.5
●	Di 28	298°38.2 19°16.9	313°09.1 19°13.4	327°40.0 19°09.8	342°10.9 19°06.1	356°41.9 19°02.3	11°13.0 18°58.4	25°44.0 18°54.5	40°15.1 18°50.5	54°46.3 18°46.3	69°17.5 18°42.1	83°48.7 18°37.8	+31.0 14.8 -3.9 54.2
	Lu 29	301°41.4 17°23.6	316°13.3 17°18.0	330°45.5 17°12.3	345°17.1 17°06.6	359°49.1 17°00.8	14°21.0 16°54.9	28°53.0 16°49.0	43°25.1 16°43.0	57°57.2 16°36.9	72°29.4 16°30.7	87°01.6 16°24.5	+32.0 14.7 -5.9 54.0
	Ma 30	305°09.2 14°09.8	319°42.0 14°35.5	334°14.8 14°28.2	348°47.7 14°20.8	3°20.7 14°05.8	17°53.6 13°13.3	32°26.6 13°58.2	46°59.7 13°50.5	61°39.2 13°42.8	76°05.8 13°35.1	90°39.0 13°27.3	+33.0 14.7 -7.6 53.9
●	Me 31	309°00.2 11°23.8	323°33.9 11°15.1	338°07.6 11°06.5	352°41.3 10°57.8	7°15.1 10°49.0	21°48.8 10°40.2	36°22.7 10°31.3	50°56.5 10°22.4	65°30.3 10°13.5	80°04.2 10°04.5	94°38.1 9°55.5	+33.8 14.7 -8.8 53.9

Ligne 1 : GHA, Δ' h = var. GHA - 14°, SP = semi-diamètre
Ligne 2 : Dec (— = Sud), Δ' h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 7 03h19 — NL: 14 09h05 — PQ: 21 00h00 — PL: 28 17h33

SOLEIL

Janvier 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	269°11.7 -23°01.7	284°11.4 -23°01.6	299°11.1 -23°01.4	314°10.8 -23°01.2	329°10.6 -23°01.0	344°10.3 -23°00.7	359°10.0 -23°00.5	14°09.7 -23°00.3	26°09.4 -23°00.1	44°09.1 -22°59.9	56°08.8 -22°59.7	74°08.5 -22°59.5	-0.3 +0.2
Ve 2	269°04.7 -22°56.8	284°04.4 -22°56.6	299°04.1 -22°56.3	314°03.8 -22°56.1	329°03.5 -22°55.9	344°03.2 -22°55.7	359°02.9 -22°55.5	14°02.6 -22°55.2	26°02.3 -22°55.0	44°02.0 -22°54.8	56°01.8 -22°54.6	74°01.5 -22°54.3	-0.3 +0.2
Sa 3	268°57.7 -22°51.3	283°57.4 -22°51.1	298°57.1 -22°50.9	313°56.8 -22°50.6	328°56.5 -22°50.4	343°56.3 -22°50.1	358°56.0 -22°49.9	13°55.7 -22°49.7	25°55.4 -22°49.4	43°55.1 -22°49.2	55°54.8 -22°49.0	73°54.5 -22°48.7	-0.3 +0.2
Di 4	268°50.8 -22°45.4	283°50.5 -22°45.2	298°50.2 -22°44.9	313°50.0 -22°44.7	328°49.7 -22°44.4	343°49.4 -22°44.2	358°49.1 -22°43.9	13°48.8 -22°43.6	25°48.5 -22°43.4	43°48.2 -22°43.1	55°48.0 -22°42.8	73°47.7 -22°42.6	-0.3 +0.3
Lu 5	268°44.0 -22°39.1	283°43.7 -22°38.8	298°43.4 -22°38.5	313°43.2 -22°38.3	328°42.9 -22°38.0	343°42.6 -22°37.7	358°42.3 -22°37.4	13°42.0 -22°37.2	25°41.8 -22°36.9	43°41.5 -22°36.6	55°41.2 -22°36.3	73°40.9 -22°36.0	-0.3 +0.3
Ma 6	268°37.3 -22°32.3	283°37.0 -22°32.0	298°36.8 -22°31.7	313°36.5 -22°31.4	328°36.2 -22°31.1	343°35.9 -22°30.8	358°35.7 -22°30.5	13°35.4 -22°30.2	25°35.1 -22°29.9	43°34.8 -22°29.6	55°34.6 -22°29.3	73°34.3 -22°29.0	-0.3 +0.3
Me 7	268°30.7 -22°25.0	283°30.5 -22°24.7	298°30.2 -22°24.4	313°29.9 -22°24.1	328°29.6 -22°23.8	343°29.4 -22°23.5	358°29.1 -22°23.2	13°28.8 -22°22.9	25°28.6 -22°22.5	43°28.3 -22°22.2	55°28.0 -22°21.9	73°27.7 -22°21.6	-0.3 +0.3
Je 8	268°24.2 -22°17.4	283°24.0 -22°17.0	298°23.7 -22°16.7	313°23.4 -22°16.4	328°23.2 -22°16.0	343°22.9 -22°15.7	358°22.6 -22°15.4	13°22.4 -22°15.0	25°22.1 -22°14.7	43°21.9 -22°14.4	55°21.6 -22°14.0	73°21.3 -22°13.7	-0.3 +0.3
Ve 9	268°17.9 -22°09.2	283°17.6 -22°08.9	298°17.4 -22°08.5	313°17.1 -22°08.2	328°16.8 -22°07.8	343°16.6 -22°07.5	358°16.3 -22°07.1	13°16.1 -22°06.8	25°15.8 -22°06.4	43°15.5 -22°06.1	55°15.3 -22°05.7	73°15.0 -22°05.4	-0.3 +0.4
Sa 10	268°11.7 -22°00.7	283°11.4 -22°00.3	298°11.2 -22°00.1	313°10.9 -21°59.9	328°10.6 -21°59.2	343°10.4 -21°58.8	358°10.1 -21°58.4	13°09.9 -21°58.1	25°09.6 -21°57.7	43°09.4 -21°57.4	55°09.1 -21°57.0	73°08.9 -21°56.6	-0.3 +0.3
Di 11	268°05.0 -21°51.7	283°05.3 -21°51.3	298°05.1 -21°50.9	313°04.8 -21°50.5	328°04.6 -21°50.1	343°04.3 -21°49.8	358°04.1 -21°49.4	13°03.8 -21°49.0	25°03.6 -21°48.6	43°03.3 -21°48.2	55°03.1 -21°47.8	73°02.8 -21°47.4	-0.2 +0.4
Lu 12	267°59.6 -21°43.2	282°59.4 -21°41.9	297°59.1 -21°41.5	312°58.9 -21°41.1	327°58.7 -21°40.7	342°58.4 -21°40.3	357°58.2 -21°39.9	12°57.9 -21°39.6	25°57.7 -21°39.0	42°57.4 -21°38.6	57°57.2 -21°38.2	72°57.0 -21°37.8	-0.2 +0.4
Ma 13	267°53.8 -21°32.4	282°53.6 -21°32.0	297°53.4 -21°31.6	312°53.1 -21°31.2	327°52.9 -21°30.8	342°52.6 -21°30.3	357°52.4 -21°29.9	12°52.2 -21°29.5	25°51.9 -21°29.1	42°51.7 -21°28.8	57°51.5 -21°28.2	72°51.2 -21°27.8	-0.2 +0.4
Me 14	267°48.3 -21°22.2	282°48.0 -21°21.7	297°47.7 -21°21.3	312°47.5 -21°20.9	327°47.3 -21°20.4	342°47.0 -21°20.0	357°46.8 -21°19.6	12°46.6 -21°19.1	25°46.3 -21°18.7	42°46.1 -21°18.2	57°45.9 -21°17.8	72°45.7 -21°17.3	-0.2 +0.3
Je 15	267°42.7 -21°11.5	282°42.5 -21°11.1	297°42.3 -21°10.6	312°42.0 -21°10.2	327°41.8 -21°09.7	342°41.6 -21°09.2	357°41.4 -21°08.8	12°41.1 -21°08.3	25°40.9 -21°07.9	42°40.7 -21°07.4	57°40.5 -21°07.0	72°40.3 -21°06.5	-0.2 +0.5
Ve 16	267°37.4 -21°00.4	282°37.2 -21°00.0	297°37.0 -20°59.5	312°36.7 -20°59.0	327°36.5 -20°58.6	342°36.3 -20°58.1	357°36.1 -20°57.6	12°35.9 -20°57.0	25°35.7 -20°56.7	42°35.5 -20°56.2	57°35.3 -20°55.7	72°35.0 -20°55.2	-0.2 +0.5
Sa 17	267°32.3 -20°49.0	282°32.1 -20°48.5	297°31.8 -20°48.0	312°31.6 -20°47.5	327°31.4 -20°47.0	342°31.2 -20°46.5	357°31.0 -20°46.0	12°30.7 -20°45.5	25°30.6 -20°45.1	42°30.4 -20°44.6	57°30.2 -20°44.1	72°30.0 -20°43.6	-0.2 +0.5
Di 18	267°27.3 -20°37.1	282°27.1 -20°36.6	297°26.9 -20°36.1	312°26.7 -20°35.6	327°26.5 -20°35.1	342°26.3 -20°34.6	357°26.1 -20°34.1	12°25.9 -20°33.6	25°25.7 -20°33.1	42°25.5 -20°32.6	57°25.3 -20°32.0	72°25.1 -20°31.5	-0.2 +0.5
Lu 19	267°22.5 -20°24.9	282°22.3 -20°24.3	297°22.1 -20°23.8	312°21.9 -20°23.3	327°21.8 -20°22.8	342°21.6 -20°22.3	357°21.4 -20°21.7	12°21.2 -20°21.2	25°21.0 -20°20.7	42°20.8 -20°20.2	57°20.6 -20°19.6	72°20.4 -20°19.1	-0.2 +0.5
Ma 20	267°17.9 -20°12.2	282°17.8 -20°11.7	297°17.6 -20°11.1	312°17.4 -20°10.6	327°17.2 -20°10.1	342°17.0 -20°09.5	357°16.8 -20°09.0	12°16.6 -20°08.5	25°16.5 -20°07.9	42°16.3 -20°07.4	57°16.1 -20°06.8	72°15.9 -20°06.3	-0.2 +0.5
Me 21	267°13.6 -19°59.2	282°13.4 -19°58.8	297°13.2 -19°58.1	312°13.0 -19°57.5	327°12.8 -19°57.0	342°12.7 -19°56.4	357°12.5 -19°55.9	12°12.3 -19°55.3	25°12.1 -19°54.8	42°12.0 -19°54.2	57°11.8 -19°53.7	72°11.6 -19°53.1	-0.2 +0.6
Je 22	267°09.3 -19°45.8	282°09.2 -19°45.2	297°09.0 -19°44.7	312°08.8 -19°44.1	327°08.7 -19°43.5	342°08.5 -19°43.0	357°08.3 -19°42.4	12°08.2 -19°41.8	25°08.0 -19°41.3	42°07.8 -19°40.7	57°07.7 -19°40.1	72°07.5 -19°39.5	-0.2 +0.6
Ve 23	267°05.3 -19°32.0	282°05.2 -19°31.5	297°05.0 -19°30.9	312°04.9 -19°30.3	327°04.7 -19°29.7	342°04.5 -19°29.2	357°04.4 -19°28.5	12°04.2 -19°28.0	25°04.0 -19°27.4	42°03.9 -19°26.8	57°03.7 -19°26.2	72°03.6 -19°25.6	-0.2 +0.6
Sa 24	267°01.5 -19°17.9	282°01.4 -19°17.3	297°01.2 -19°16.7	312°01.2 -19°16.1	327°00.9 -19°15.5	342°00.8 -19°14.9	357°00.6 -19°14.3	12°00.5 -19°13.7	25°00.3 -19°13.1	42°00.1 -19°12.5	57°00.0 -19°11.9	71°59.8 -19°11.3	-0.2 +0.6
Di 25	266°57.9 -19°05.4	281°57.8 -19°05.2	296°57.6 -19°02.8	311°57.5 -19°01.6	326°57.3 -19°01.0	341°57.2 -19°00.4	356°57.0 -18°59.8	11°56.9 -18°59.2	26°56.8 -18°58.5	41°56.5 -18°57.9	56°56.5 -18°57.3	71°56.3 -18°56.7	-0.1 +0.6
Lu 26	266°54.5 -18°48.6	281°54.4 -18°48.0	296°54.2 -18°47.4	311°54.1 -18°46.7	326°54.0 -18°46.1	341°53.8 -18°45.5	356°53.7 -18°44.9	11°53.5 -18°44.2	26°53.4 -18°43.6	41°53.3 -18°43.0	56°53.1 -18°42.4	71°53.0 -18°41.7	-0.1 +0.6
Ma 27	266°51.3 -18°33.8	281°51.2 -18°33.2	296°51.0 -18°32.2	311°50.9 -18°31.5	326°50.8 -18°30.9	341°50.6 -18°30.3	356°50.5 -18°29.6	11°50.4 -18°29.0	26°50.3 -18°28.3	41°50.1 -18°27.7	56°50.0 -18°27.0	71°49.9 -18°26.4	-0.1 +0.6
Me 28	266°48.3 -18°18.0	281°48.2 -18°17.3	296°48.0 -18°16.6	311°47.9 -18°16.0	326°47.8 -18°15.3	341°47.7 -18°14.7	356°47.6 -18°14.0	11°47.4 -18°13.4	26°47.3 -18°12.7	41°47.2 -18°12.1	56°47.1 -18°11.4	71°47.0 -18°10.7	-0.1 +0.7
Je 29	266°45.5 -18°02.1	281°45.4 -18°01.4	296°45.2 -18°00.8	311°45.1 -18°00.1	326°45.0 -17°59.4	341°44.9 -17°58.8	356°44.8 -17°58.1	11°44.7 -17°57.4	26°44.6 -17°56.8	41°44.5 -17°56.1	56°44.4 -17°55.4	71°44.2 -17°54.7	-0.1 +0.7
Ve 30	266°42.9 -17°46.0	281°42.8 -17°45.3	296°42.7 -17°44.6	311°42.6 -17°43.9	326°42.4 -17°43.2	341°42.3 -17°42.6	356°42.2 -17°41.9	11°42.1 -17°41.2	26°42.0 -17°40.5	41°41.9 -17°39.8	56°41.8 -17°39.1	71°41.7 -17°38.4	-0.1 +0.7
Sa 31	266°40.5 -17°29.8	281°40.4 -17°28.8	296°40.3 -17°28.1	311°40.2 -17°27.4	326°40.1 -17°26.7	341°40.0 -17°26.0	356°39.9 -17°25.3	11°39.8 -17°24.6	26°39.7 -17°23.9	41°39.6 -17°23.2	56°39.5 -17°22.5	71°39.4 -17°21.8	-0.1 +0.7

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Janvier 2032

	J	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	3h	Δ'/h	SP
●	Je 1	225°44.4 8°32.6	240°18.5 8°23.2	254°52.7 8°13.8	269°26.8 8°04.3	284°01.0 7°54.8	298°35.2 7°45.3	313°09.4 7°35.7	327°43.7 7°26.1	342°17.9 7°16.5	356°52.2 7°06.9	11°26.5 6°57.2	+34.2	14.7
	Ve 2	230°01.9 4°28.6	244°36.3 4°18.5	258°10.7 4°08.4	273°45.1 3°58.3	288°19.5 3°48.1	302°53.9 3°38.0	317°28.3 3°27.8	332°02.7 3°17.6	346°37.1 3°07.3	1°11.6 2°57.1	15°46.0 2°46.8	+34.4	14.8
	Sa 3	234°20.4 0°11.4	248°55.2 0°01.0	263°29.4 -0°09.5	278°03.6 -0°19.9	292°37.8 -0°30.4	307°11.9 -0°40.9	321°46.0 -0°51.3	336°20.2 -1°01.8	350°54.2 -1°12.3	5°28.3 -1°22.7	20°02.3 -5°43.5	+34.1	14.9
	Di 4	238°29.4 -4°10.1	253°03.0 -4°20.6	267°36.5 -4°31.0	282°09.9 -4°41.4	296°43.3 -4°51.8	311°16.7 -5°02.1	325°50.0 -5°12.5	340°23.3 -5°22.8	354°56.5 -5°33.2	9°29.7 -5°43.5	24°02.9 -5°53.8	+33.3	15.1
	Lu 5	242°13.9 -8°26.2	256°46.2 -8°36.2	271°18.4 -8°46.1	285°50.6 -8°56.0	300°22.7 -9°05.9	314°54.7 -9°15.8	329°26.7 -9°25.6	343°58.6 -9°35.4	358°30.5 -9°45.2	13°02.2 -9°54.9	27°33.9 -10°04.6	+32.0	15.3
	Ma 6	245°20.9 -12°25.2	259°51.4 -12°34.2	274°21.8 -12°43.1	288°52.2 -12°52.0	303°22.5 -13°00.9	317°52.6 -13°09.7	332°22.7 -13°18.4	346°52.8 -13°27.1	1°22.7 -13°35.8	15°52.6 -13°44.3	30°22.3 -13°52.8	+30.1	15.5
	Me 7	259°51.4 -18°36.4	274°21.8 -18°41.4	288°52.2 -18°46.9	303°22.5 -18°50.9	317°52.6 -18°55.6	332°22.7 -19°00.1	346°52.8 -19°04.5	1°22.7 -19°08.8	15°52.6 -19°12.9	30°22.3 -19°17.0	44°52.0 -19°20.9	+30.1	15.5
	Je 8	262°06.6 -16°00.0	276°34.9 -16°07.4	291°03.1 -16°14.6	305°31.1 -16°21.8	319°59.1 -16°28.9	334°27.0 -16°35.9	348°54.8 -16°42.8	3°22.4 -16°49.6	17°50.0 -16°56.4	32°17.6 -17°03.0	46°45.0 -17°09.6	+27.8	15.8
	Ve 9	263°25.1 -18°36.4	277°51.1 -18°41.4	292°16.9 -18°46.9	306°42.7 -18°50.9	321°08.4 -18°55.6	335°34.0 -19°00.1	349°59.5 -19°04.5	4°24.9 -19°08.8	18°50.3 -19°12.9	33°15.5 -19°17.0	47°40.7 -19°20.9	+25.6	16.1
	Sa 10	263°49.0 -20°04.6	278°13.0 -20°06.6	292°37.0 -20°08.2	307°00.8 -20°09.8	321°24.6 -20°11.2	335°48.3 -20°12.5	350°12.0 -20°13.7	4°35.6 -20°14.7	18°59.2 -20°15.6	33°22.7 -20°16.4	47°46.2 -20°17.0	+23.7	16.3
●	Di 11	263°32.9 -20°08.6	277°55.7 -20°06.9	292°18.6 -20°05.0	306°41.4 -20°02.9	321°04.2 -20°00.8	335°26.9 -19°58.4	349°49.7 -19°55.9	4°12.4 -19°53.3	18°35.1 -19°50.5	32°57.9 -19°47.8	47°20.6 -19°44.5	+22.8	16.6
	Lu 12	263°01.5 -18°40.8	277°24.3 -18°35.4	291°47.1 -18°29.8	306°10.0 -18°24.1	320°32.9 -18°17.3	334°55.8 -18°12.3	349°18.8 -18°06.2	3°41.7 -18°00.0	18°04.8 -17°53.6	32°27.8 -17°47.1	46°50.9 -17°40.5	+22.9	16.7
	Ma 13	262°42.1 -15°45.7	277°05.9 -15°37.3	291°29.7 -15°28.4	305°53.6 -15°19.6	320°17.6 -15°10.6	334°41.6 -15°01.6	349°05.7 -14°52.4	3°29.8 -14°43.2	17°54.0 -14°33.8	32°18.3 -14°24.3	46°42.6 -14°14.8	+24.1	16.7
	Me 14	262°54.9 -11°40.4	277°20.3 -11°29.4	291°45.7 -11°18.4	306°11.2 -11°07.3	320°36.7 -10°56.1	335°02.3 -10°44.9	349°28.0 -10°33.6	3°53.8 -10°22.3	18°19.6 -10°10.8	32°45.5 -9°59.4	47°11.4 -9°47.8	+25.6	16.7
	Je 15	263°48.5 -6°48.9	278°15.5 -6°36.7	292°42.5 -6°24.4	307°09.6 -6°12.1	321°36.8 -5°59.8	336°04.0 -5°47.4	350°31.3 -5°35.0	4°58.7 -5°22.6	19°26.1 -5°10.2	33°53.5 -4°57.8	48°21.1 -4°45.3	+27.3	16.5
	Ve 16	265°20.4 -1°37.4	279°48.8 -1°24.8	294°17.2 -1°12.3	308°45.7 -0°59.8	323°14.2 -0°47.3	337°42.7 -0°34.8	352°11.3 -0°22.3	6°40.0 -0°09.8	21°08.6 0°02.7	35°37.4 0°15.1	50°06.1 0°27.5	+28.6	16.3
	Sa 17	267°22.0 3°31.0	281°51.4 3°43.0	296°20.7 3°55.0	310°50.1 4°06.9	325°19.5 4°18.8	339°48.9 4°30.6	354°18.4 4°42.4	8°47.9 4°54.2	23°17.4 5°05.9	37°40.7 5°17.5	52°16.5 5°29.2	+25.5	16.0
	Di 18	269°42.4 8°17.5	284°12.2 8°28.3	298°42.1 8°39.0	313°12.0 8°49.6	327°41.9 9°00.2	342°11.8 9°10.8	356°41.7 9°21.3	11°11.6 9°31.7	25°41.6 9°42.0	40°11.5 9°52.3	54°41.5 10°02.5	+29.9	15.8
	Lu 19	272°11.5 12°27.5	286°41.6 12°36.6	301°11.6 12°45.6	315°41.7 12°54.5	330°11.7 13°03.4	344°41.7 13°12.2	359°11.3 13°20.9	13°41.8 13°29.5	28°11.8 13°38.0	42°41.9 13°46.5	57°11.9 13°54.8	+30.0	15.5
	Ma 20	274°42.3 15°50.5	289°12.3 15°57.5	303°42.3 16°04.4	318°12.3 16°11.3	332°42.3 16°18.0	347°12.3 16°24.7	361°31.3 16°31.3	16°12.2 16°37.8	30°42.2 16°44.2	45°12.2 16°50.5	59°42.2 16°56.7	+30.0	15.3
○	Me 21	277°11.4 18°18.7	291°41.3 18°23.4	306°11.3 18°28.1	320°41.2 18°32.6	335°11.3 18°37.0	349°41.0 18°41.3	364°11.0 18°45.6	4°11.0 18°49.7	24°09.3 18°53.7	47°40.7 18°57.7	62°10.7 19°01.5	+29.9	15.1
	Je 22	279°39.8 19°40.6	294°09.8 19°49.6	308°39.8 19°51.8	323°09.8 19°53.8	337°39.8 19°55.8	352°09.8 19°57.7	6°39.8 19°59.8	21°09.8 20°01.1	35°39.9 20°02.7	50°09.9 20°04.2	64°40.0 20°05.5	+30.0	15.0
	Ve 23	282°12.2 20°14.3	296°42.5 20°14.1	311°12.8 20°13.8	325°43.1 20°13.4	340°13.4 20°12.9	354°43.7 20°12.3	9°14.1 20°11.6	23°44.4 20°10.8	38°14.8 20°10.0	52°45.2 19°14.2	67°15.7 19°10.9	+30.3	14.9
	Sa 24	284°55.0 19°40.6	299°25.8 19°38.0	313°56.6 19°35.3	328°27.5 19°32.6	342°58.4 19°29.7	357°29.4 19°26.8	12°00.3 19°23.8	26°31.3 19°20.7	41°02.3 19°17.5	55°33.4 19°14.2	70°04.5 19°10.9	+30.9	14.8
	Di 25	287°54.4 18°10.0	302°26.0 18°05.3	316°57.6 18°00.5	331°29.3 17°55.6	346°01.0 17°50.7	0°32.7 17°45.6	15°04.5 17°40.5	29°36.3 17°35.3	44°08.1 17°30.1	58°40.0 17°24.7	73°11.9 17°19.3	+31.7	14.7
	Lu 26	291°14.6 15°49.1	305°47.1 15°42.6	320°19.6 15°35.9	334°52.1 15°29.2	349°24.7 15°22.4	3°57.3 15°15.6	18°29.9 15°08.7	33°02.6 15°01.7	47°35.3 14°54.7	62°08.1 14°47.6	76°40.8 14°40.5	+32.6	14.7
	Ma 27	294°56.4 12°46.0	309°29.7 12°37.9	324°03.0 12°29.8	338°36.4 12°21.6	353°09.8 12°13.4	7°43.2 12°05.1	22°16.6 11°56.8	36°50.1 11°48.4	51°23.6 11°40.0	65°57.1 11°31.5	80°30.7 11°22.9	+33.4	14.7
	Me 28	298°57.0 9°09.9	313°31.0 9°00.5	328°04.9 8°51.3	342°38.9 8°42.0	357°12.9 8°32.7	11°46.9 8°23.4	26°21.0 8°14.0	40°55.0 8°04.6	55°29.1 7°55.7	70°03.2 7°45.6	84°37.3 7°36.1	+34.0	14.7
	Je 29	303°10.6 5°09.8	317°44.9 4°59.9	332°19.3 4°49.9	346°53.6 4°39.9	1°27.9 4°29.9	16°02.2 4°19.9	30°36.6 4°09.8	45°10.9 3°59.7	59°45.2 3°49.6	74°19.6 3°39.5	88°53.9 3°29.4	+34.3	14.8
	Ve 30	307°29.0 0°55.8	322°03.3 0°45.5	336°37.6 0°35.1	351°11.9 0°24.8	5°46.2 0°14.5	20°20.4 0°04.1	34°54.7 -0°06.2	49°28.9 -0°16.6	64°03.1 -0°26.9	78°37.3 -0°37.3	93°11.5 -0°47.7	+34.3	14.8
	Sa 31	322°03.3 0°45.5	336°37.6 0°35.1	351°11.9 0°24.8	5°46.2 0°14.5	20°20.4 0°04.1	34°54.7 -0°06.2	49°28.9 -0°16.6	64°03.1 -0°26.9	78°37.3 -0°37.3	93°11.5 -0°47.7	107°45.7 -0°58.0	+34.2	14.8

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
DQ: 5 22h04 — NL: 12 20h06 — PQ: 19 12h14 — PL: 22 12h52

SOLEIL

Février 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	266°38.3 -17°12.7	281°38.2 -17°12.0	296°38.1 -17°11.3	311°38.0 -17°10.6	326°37.9 -17°09.9	341°37.8 -17°09.2	356°37.7 -17°08.4	11°37.6 -17°07.7	26°37.6 -17°07.0	41°37.5 -17°06.3	56°37.4 -17°05.6	71°37.3 -17°04.9	-0.1 +0.7
Lu 2	266°36.2 -16°55.6	281°36.2 -16°54.9	296°36.1 -16°54.2	311°36.0 -16°53.4	326°35.9 -16°52.7	341°35.9 -16°52.0	356°35.8 -16°51.3	11°35.7 -16°50.6	26°35.6 -16°49.8	41°35.5 -16°49.1	56°35.5 -16°48.4	71°35.4 -16°47.7	-0.1 +0.7
Ma 3	266°34.4 -16°38.2	281°34.4 -16°37.5	296°34.3 -16°36.7	311°34.2 -16°36.0	326°34.2 -16°35.3	341°34.1 -16°34.5	356°34.0 -16°33.8	11°34.0 -16°33.1	26°33.9 -16°32.3	41°33.8 -16°31.6	56°33.8 -16°30.9	71°33.7 -16°30.1	-0.1 +0.7
Me 4	266°32.8 -16°20.5	281°32.8 -16°19.8	296°32.7 -16°19.0	311°32.7 -16°18.3	326°32.6 -16°17.5	341°32.5 -16°16.8	356°32.5 -16°16.1	11°32.4 -16°15.3	26°32.3 -16°14.6	41°32.3 -16°13.8	56°32.2 -16°13.1	71°32.2 -16°12.3	-0.1 +0.7
Je 5	266°31.4 -16°02.6	281°31.4 -16°01.8	296°31.3 -16°01.0	311°31.3 -16°00.3	326°31.2 -15°59.5	341°31.2 -15°58.8	356°31.1 -15°58.0	11°31.1 -15°57.3	26°31.0 -15°56.5	41°31.0 -15°55.7	56°30.9 -15°55.0	71°30.9 -15°54.2	-0.1 +0.8
Ve 6	266°30.2 -15°44.3	281°30.2 -15°43.5	296°30.1 -15°42.8	311°30.1 -15°42.0	326°30.0 -15°41.2	341°30.0 -15°40.5	356°29.9 -15°39.7	11°29.9 -15°38.9	26°29.9 -15°38.2	41°29.8 -15°37.4	56°29.8 -15°36.6	71°29.7 -15°35.9	-0.0 +0.8
Sa 7	266°29.2 -15°25.8	281°29.2 -15°25.0	296°29.1 -15°24.2	311°29.1 -15°23.5	326°29.1 -15°22.7	341°29.0 -15°21.9	356°29.0 -15°21.1	11°28.9 -15°20.3	26°28.9 -15°19.6	41°28.9 -15°18.8	56°28.8 -15°18.0	71°28.8 -15°17.2	-0.0 +0.8
Di 8	266°28.4 -15°07.0	281°28.4 -15°06.2	296°28.3 -15°05.4	311°28.3 -15°04.6	326°28.3 -15°03.9	341°28.2 -15°03.1	356°28.2 -15°02.3	11°28.2 -15°01.5	26°28.2 -15°00.7	41°28.1 -14°59.9	56°28.1 -14°59.1	71°28.1 -14°58.3	-0.0 +0.8
Lu 9	266°27.8 -14°48.0	281°27.7 -14°47.2	296°27.7 -14°46.4	311°27.6 -14°45.6	326°27.7 -14°44.8	341°27.7 -14°44.0	356°27.6 -14°43.2	11°27.6 -14°42.4	26°27.6 -14°41.6	41°27.6 -14°40.8	56°27.6 -14°40.0	71°27.5 -14°39.2	-0.0 +0.8
Ma 10	266°27.3 -14°28.7	281°27.3 -14°08.3	296°27.3 -14°07.5	311°27.3 -14°06.7	326°27.3 -14°05.9	341°27.3 -14°05.1	356°27.2 -14°04.2	11°27.2 -14°03.4	26°27.2 -14°02.6	41°27.2 -14°01.8	56°27.2 -14°01.0	71°27.2 -14°00.1	-0.0 +0.8
Me 11	266°27.1 -13°49.2	281°27.1 -13°48.6	296°27.1 -13°47.7	311°27.1 -13°46.9	326°27.1 -13°46.1	341°27.1 -13°45.2	356°27.1 -13°44.4	11°27.1 -13°43.6	26°27.1 -13°42.8	41°27.1 -13°41.9	56°27.1 -13°41.1	71°27.1 -13°40.3	+0.0 +0.8
Je 12	266°27.2 -13°29.4	281°27.2 -13°28.6	296°27.2 -13°27.7	311°27.2 -13°26.9	326°27.2 -13°26.0	341°27.2 -13°25.2	356°27.2 -13°24.4	11°27.3 -13°23.5	26°27.3 -13°22.7	41°27.3 -13°21.8	56°27.3 -13°21.0	71°27.3 -13°20.2	+0.0 +0.8
Ve 13	266°27.5 -13°09.2	281°27.5 -13°08.3	296°27.6 -13°07.5	311°27.6 -13°06.6	326°27.6 -13°05.8	341°27.6 -13°05.0	356°27.6 -13°04.1	11°27.7 -13°03.3	26°27.7 -13°02.4	41°27.7 -13°01.6	56°27.7 -13°00.7	71°27.7 -12°59.9	+0.0 +0.8
Sa 14	266°28.1 -12°48.8	281°28.1 -12°47.9	296°28.1 -12°47.1	311°28.1 -12°46.2	326°28.1 -12°45.3	341°28.1 -12°44.5	356°28.2 -12°43.6	11°28.2 -12°42.8	26°28.3 -12°41.9	41°28.3 -12°41.1	56°28.3 -12°40.2	71°28.4 -12°39.3	+0.0 +0.9
Di 15	266°28.8 -12°28.7	281°28.8 -12°27.3	296°28.8 -12°26.4	311°28.8 -12°25.5	326°28.8 -12°24.7	341°28.8 -12°23.8	356°28.9 -12°22.9	11°29.0 -12°22.1	26°29.0 -12°21.2	41°29.1 -12°20.3	56°29.1 -12°19.5	71°29.2 -12°18.6	+0.0 +0.9
Lu 16	266°29.7 -12°07.3	281°29.7 -12°06.4	296°29.7 -12°05.6	311°29.7 -12°04.7	326°29.8 -12°03.8	341°29.9 -12°02.9	356°29.9 -12°02.1	11°30.0 -12°01.2	26°30.0 -12°00.3	41°30.0 -11°59.4	56°30.1 -11°58.6	71°30.1 -11°57.7	+0.0 +0.9
Ma 17	266°30.7 -11°46.3	281°30.8 -11°45.4	296°30.8 -11°44.5	311°30.9 -11°43.6	326°30.9 -11°42.8	341°31.0 -11°41.9	356°31.0 -11°41.0	11°31.1 -11°40.1	26°31.1 -11°39.2	41°31.2 -11°38.4	56°31.2 -11°37.5	71°31.3 -11°36.6	+0.1 +0.9
Me 18	266°32.0 -11°25.1	281°32.0 -11°24.2	296°32.1 -11°23.3	311°32.2 -11°22.4	326°32.2 -11°21.5	341°32.3 -11°20.6	356°32.3 -11°19.8	11°32.4 -11°18.9	26°32.4 -11°18.0	41°32.5 -11°17.1	56°32.6 -11°16.2	71°32.6 -11°15.3	+0.1 +0.9
Je 19	266°33.4 -11°03.7	281°33.5 -11°02.8	296°33.5 -11°01.9	311°33.6 -11°01.0	326°33.7 -11°00.1	341°33.7 -10°59.2	356°33.8 -10°58.3	11°33.9 -10°57.4	26°33.9 -10°56.5	41°34.0 -10°55.6	56°34.1 -10°54.7	71°34.1 -10°53.8	+0.1 +0.9
Ve 20	266°35.0 -10°42.1	281°35.1 -10°41.2	296°35.1 -10°40.3	311°35.2 -10°39.4	326°35.3 -10°38.5	341°35.4 -10°37.6	356°35.4 -10°36.7	11°35.5 -10°35.8	26°35.6 -10°34.9	41°35.6 -10°34.0	56°35.7 -10°33.1	71°35.8 -10°32.2	+0.1 +0.9
Sa 21	266°36.8 -10°20.4	281°36.8 -10°19.5	296°36.9 -10°18.6	311°37.0 -10°17.7	326°37.1 -10°16.8	341°37.2 -10°15.9	356°37.2 -10°15.0	11°37.3 -10°14.1	26°37.4 -10°13.1	41°37.5 -10°12.2	56°37.5 -10°11.3	71°37.6 -10°10.4	+0.1 +0.9
Di 22	266°38.7 -9°58.5	281°38.8 -9°57.6	296°38.9 -9°56.7	311°38.9 -9°55.8	326°39.0 -9°54.9	341°39.1 -9°54.0	356°39.2 -9°53.1	11°39.3 -9°52.1	26°39.4 -9°51.2	41°39.5 -9°50.3	56°39.5 -9°49.4	71°39.6 -9°48.5	+0.1 +0.9
Lu 23	266°40.8 -9°36.5	281°40.9 -9°35.6	296°40.9 -9°34.7	311°41.0 -9°33.8	326°41.1 -9°32.8	341°41.2 -9°31.9	356°41.3 -9°31.0	11°41.4 -9°30.1	26°41.5 -9°29.1	41°41.6 -9°28.2	56°41.7 -9°27.3	71°41.8 -9°26.4	+0.1 +0.9
Ma 24	266°43.0 -9°14.3	281°43.1 -9°13.4	296°43.2 -9°12.5	311°43.3 -9°11.6	326°43.4 -9°10.6	341°43.5 -9°09.7	356°43.6 -9°08.8	11°43.7 -9°07.8	26°43.8 -9°06.9	41°43.9 -9°06.0	56°44.0 -9°05.1	71°44.1 -9°04.1	+0.1 +0.9
Me 25	266°45.4 -8°52.0	281°45.5 -8°51.1	296°45.6 -8°50.2	311°45.7 -8°49.3	326°45.8 -8°48.3	341°45.9 -8°47.4	356°46.0 -8°46.4	11°46.1 -8°45.5	26°46.2 -8°44.6	41°46.3 -8°43.6	56°46.4 -8°42.7	71°46.5 -8°41.8	+0.1 +0.9
Je 26	266°47.9 -8°29.6	281°48.0 -8°28.6	296°48.1 -8°27.7	311°48.2 -8°26.8	326°48.3 -8°25.8	341°48.4 -8°24.9	356°48.5 -8°24.0	11°48.7 -8°23.0	26°48.8 -8°22.1	41°48.9 -8°21.1	56°49.0 -8°20.2	71°49.1 -8°19.3	+0.1 +0.9
Sa 27	266°50.5 -8°07.0	281°50.7 -8°06.1	296°50.8 -8°05.1	311°50.9 -8°04.2	326°51.0 -8°03.2	341°51.1 -8°02.3	356°51.2 -8°01.4	11°51.3 -8°00.4	26°51.5 -7°59.5	41°51.6 -7°58.5	56°51.7 -7°57.6	71°51.8 -7°56.6	+0.1 +0.9
Di 28	266°53.3 -7°44.3	281°53.5 -7°43.4	296°53.6 -7°42.4	311°53.7 -7°41.5	326°53.8 -7°40.5	341°53.9 -7°39.6	356°54.1 -7°38.7	11°54.2 -7°37.7	26°54.3 -7°36.7	41°54.4 -7°35.8	56°54.5 -7°34.9	71°54.7 -7°33.9	+0.1 +0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Février 2032

	J	18h	19h	20h	21h	22h	23h	0h	1h	2h	3h	4h	Δ'/h	SP	
Di 1	228°20.1 -6°36.4	242°53.4 -6°46.4	257°26.5 -6°56.4	271°59.7 -7°06.3	286°32.8 -7°16.3	301°05.8 -7°26.2	315°38.8 -7°36.1	330°11.8 -7°46.0	344°44.7 -7°55.8	359°17.5 -8°05.6	13°50.3 -8°15.4	+33.0	15.1 -9.9	55.2	
	231°56.4 -10°38.3	246°28.4 -10°47.5	261°00.3 -10°56.7	275°32.1 -11°05.9	290°03.9 -11°15.0	304°35.6 -11°24.0	319°07.2 -11°33.1	333°38.8 -11°42.0	348°10.3 -11°51.0	2°41.8 -11°59.8	17°13.2 -12°08.7	+31.7	15.2 -9.0	55.2	
Ma 3	234°56.0 -14°14.7	249°26.2 -14°22.6	263°56.4 -14°30.5	278°26.6 -14°38.3	292°56.6 -14°46.0	307°26.6 -14°53.7	321°56.5 -15°01.3	336°26.3 -15°08.8	350°56.1 -15°16.3	5°25.7 -15°23.7	19°55.3 -15°31.0	+29.9	15.5 -7.6	55.2	
	237°09.7 -17°11.6	251°38.0 -17°17.7	266°06.2 -17°23.6	280°34.4 -17°29.5	295°02.5 -17°35.3	309°30.5 -17°41.0	323°58.4 -17°46.5	338°26.2 -17°52.0	352°53.9 -17°57.4	7°21.6 -18°02.7	21°49.2 -18°08.0	+27.9	15.7 -5.6	55.2	
Je 5	238°33.4 -19°13.7	252°59.7 -19°17.3	267°26.0 -19°20.7	281°52.2 -19°24.0	296°18.3 -19°27.1	310°44.3 -19°30.2	325°10.3 -19°33.1	339°36.2 -19°36.0	354°02.0 -19°38.7	8°27.7 -19°41.2	22°53.4 -19°43.7	+26.0	16.0 -3.0	55.2	
	252°59.7 -19°17.3	267°26.0 -19°20.7	281°52.2 -19°24.0	296°18.3 -19°27.1	310°44.3 -19°30.2	325°10.3 -19°33.1	339°36.2 -19°36.0	354°02.0 -19°38.7	8°27.7 -19°41.2	22°53.4 -19°43.7	37°19.0 -19°46.1	+25.9	16.0 -2.9	55.2	
Sa 7	253°35.5 -20°06.0	268°00.1 -20°06.3	282°24.7 -20°06.4	296°49.2 -20°06.5	311°13.7 -20°06.3	325°38.1 -20°06.1	340°02.5 -20°05.7	354°26.9 -20°05.2	8°51.1 -20°04.5	23°15.4 -20°03.7	37°39.6 -20°02.8	+24.4	16.2 +0.3	55.2	
	253°38.7 -19°32.0	268°02.4 -19°28.8	282°26.1 -19°25.5	296°49.8 -19°22.0	311°13.5 -19°18.4	325°37.1 -19°14.7	340°00.8 -19°10.8	354°24.4 -19°06.8	8°48.0 -19°02.6	23°11.7 -18°58.3	37°35.3 -18°33.9	+23.7	16.5 +3.8	55.2	
Lu 9	257°29.7 -17°31.0	267°53.4 -17°24.4	282°17.1 -17°17.6	296°40.8 -17°10.8	311°04.5 -17°03.8	325°28.8 -16°56.7	339°52.1 -16°49.4	354°15.9 -16°42.1	8°39.7 -16°34.6	23°08.6 -16°20.7	37°27.5 -16°19.2	+23.8	16.6 +7.6	55.2	
	254°29.4 -14°09.3	267°53.8 -13°59.8	282°18.3 -13°50.1	296°42.7 -13°40.4	311°07.3 -13°30.6	325°31.9 -13°20.6	339°56.5 -13°10.6	354°21.1 -13°00.5	8°45.8 -12°50.3	23°10.6 -12°40.0	37°35.4 -12°29.6	+24.6	16.7 +10.6	55.2	
Me 11	253°52.8 -9°43.9	268°18.3 -9°32.3	282°43.9 -9°20.6	297°09.6 -9°08.9	311°35.2 -8°57.1	326°01.0 -8°45.2	340°26.8 -8°33.3	354°52.6 -8°21.4	9°18.5 -8°09.4	23°44.4 -7°57.3	38°10.4 -7°45.2	+25.8	16.7 +11.9	55.2	
	254°45.7 -4°38.8	269°12.5 -4°26.1	283°39.2 -4°13.5	298°06.1 -4°00.8	312°32.9 -3°48.1	326°59.8 -3°35.3	341°26.8 -3°22.6	355°53.8 -3°09.8	10°20.8 -2°57.1	24°47.9 -2°44.3	39°15.0 -2°31.5	+26.9	16.6 +12.7	55.2	
Ve 13	256°06.4 0°39.8	270°34.1 0°52.4	285°01.9 1°05.1	299°29.7 1°17.7	313°57.5 1°30.3	328°25.3 1°42.9	342°53.2 1°55.4	357°21.2 2°08.0	11°49.1 2°20.5	26°17.1 2°32.9	40°45.1 2°45.4	+27.9	16.4 +12.6	55.2	
	257°48.4 5°47.4	272°16.8 5°59.2	286°45.3 6°10.9	301°13.7 6°22.6	315°42.2 6°34.2	330°10.7 6°45.8	344°39.2 6°57.3	359°07.8 7°08.8	13°36.3 7°20.2	28°04.9 7°31.5	42°33.5 7°42.8	+28.5	16.2 +11.5	55.2	
Di 15	259°44.4 10°24.2	274°13.2 10°34.4	288°42.1 10°44.5	303°10.9 10°54.6	317°39.8 11°04.5	332°08.7 11°14.4	346°37.6 11°24.3	1°06.5 11°34.0	15°35.4 11°43.7	30°40.4 11°53.3	44°33.3 12°02.8	+28.9	15.9 +9.8	55.2	
	261°48.4 14°15.3	276°17.4 14°23.4	290°46.6 14°31.5	305°15.7 14°39.4	319°44.8 14°47.3	334°13.9 14°55.1	348°43.0 15°02.8	3°12.1 15°10.4	17°41.3 15°17.9	32°10.4 15°25.3	46°39.5 15°32.6	+29.1	15.6 +7.7	55.2	
Ma 17	263°57.6 17°10.9	278°26.6 17°16.7	292°56.3 17°22.4	307°25.4 17°28.0	321°54.7 17°33.4	336°24.0 17°38.8	350°53.3 17°44.1	5°22.6 17°49.3	19°51.9 17°54.4	34°21.3 17°59.4	48°50.6 18°04.3	+29.3	15.4 +5.6	55.2	
	266°12.1 19°05.5	280°41.7 19°08.8	295°11.2 19°12.0	309°40.8 19°15.0	324°14.0 19°18.0	338°39.9 19°20.9	353°09.6 19°23.6	7°39.2 19°26.3	22°08.8 19°28.9	36°38.5 19°31.3	51°08.1 19°33.7	+29.6	15.2 +2.8	55.2	
Je 19	268°35.3 19°57.2	283°05.3 19°57.9	297°35.3 19°58.6	312°05.3 19°59.1	326°35.4 19°59.6	341°05.4 20°00.0	355°35.5 20°00.3	10°05.6 20°00.4	24°35.7 20°00.5	39°05.9 20°00.5	53°36.1 20°00.4	+30.1	15.0 +0.3	55.2	
	271°11.8 19°47.1	285°42.4 19°45.4	300°13.1 19°43.7	314°43.7 19°41.9	329°14.4 19°39.9	343°45.1 19°37.9	358°15.9 19°35.8	12°46.7 19°33.6	27°17.5 19°31.4	41°48.3 19°29.0	56°19.2 19°26.5	+30.7	14.8 -2.1	55.2	
Sa 21	274°06.1 18°39.0	288°37.5 18°35.2	303°08.9 18°31.2	317°40.3 18°27.2	332°11.8 18°23.1	346°43.3 18°18.9	361°09.0 18°14.7	1°14.9 18°10.3	15°46.5 18°05.9	30°18.1 18°01.4	44°49.8 17°56.8	59°21.5 17°56.8	+31.5	14.8 -4.2	55.2
	277°20.9 16°38.7	291°53.1 16°33.0	306°25.4 16°27.1	320°57.6 16°21.1	335°30.0 16°15.1	350°02.3 16°09.0	4°34.7 16°02.9	19°07.2 15°56.7	33°39.6 15°56.4	48°12.1 15°44.0	62°44.7 15°37.6	+32.4	14.7 -6.1	55.2	
Lu 23	280°56.4 13°53.5	295°29.4 13°46.1	310°02.4 13°38.6	324°35.5 13°31.0	339°08.6 13°23.4	353°41.8 13°15.8	8°14.9 13°08.1	22°48.1 13°00.3	37°21.3 12°52.5	51°54.6 12°44.6	66°27.9 12°36.6	+33.2	14.7 -7.7	55.2	
	284°50.0 10°31.5	299°23.6 10°22.8	313°57.3 10°14.0	328°31.0 10°05.2	343°04.7 9°56.3	357°38.5 9°47.4	12°12.2 9°38.5	26°46.0 9°29.5	41°19.8 9°20.5	55°53.6 9°11.5	70°27.5 9°02.4	+33.7	14.7 -8.9	55.2	
Me 25	288°56.7 6°41.6	303°30.7 6°31.9	318°04.8 6°22.2	332°38.9 6°12.5	347°12.9 6°02.8	1°47.0 5°53.0	16°21.1 5°43.3	30°55.2 5°33.4	45°29.3 5°23.6	60°03.4 5°13.7	74°37.5 5°03.9	+34.1	14.8 -9.8	55.2	
	293°09.5 2°33.1	307°43.6 2°22.9	322°27.5 2°12.7	336°51.8 2°02.5	351°25.9 1°52.3	6°00.0 1°42.0	20°34.1 1°31.8	35°08.2 1°21.5	49°42.3 1°11.3	64°16.4 1°01.0	78°50.4 0°50.7	+34.1	14.8 -10.2	55.2	
Ve 27	297°19.9 -1°44.0	311°53.7 -1°54.4	326°27.5 -2°04.7	341°01.3 -2°15.0	355°35.1 -2°25.3	10°08.9 -2°35.6	24°42.6 -2°45.9	39°16.3 -2°56.2	53°50.0 -3°06.5	68°23.0 -3°16.7	82°57.3 -3°27.0	+33.7	14.9 -10.3	55.2	
	301°18.6 -5°59.4	315°51.8 -6°09.4	330°24.9 -6°19.4	344°58.0 -6°29.4	359°31.1 -6°39.3	1°04.1 -6°49.3	28°37.1 -6°59.2	43°10.0 -7°09.0	57°43.0 -7°18.9	72°15.8 -7°28.7	86°48.7 -7°38.5	+33.0	15.0 -9.9	55.2	
Di 29	304°56.0 -10°01.7	319°28.2 -10°10.9	334°00.2 -10°20.1	348°32.3 -10°29.3	3°04.2 -10°38.4	17°36.2 -10°47.5	32°08.0 -10°56.6	46°39.9 -11°05.6	61°11.6 -11°14.5	75°43.3 -11°23.4	90°15.0 -11°32.3	+31.9	15.2 -9.1	55.2	

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 4 13h48 — NL: 11 06h24 — PQ: 18 03h29 — PL: 26 07h43

SOLEIL

Mars 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	266°56.3 -7°21.5	281°56.4 -7°20.6	296°56.5 -7°19.6	311°56.6 -7°18.7	326°56.7 -7°17.7	341°56.9 -7°16.8	356°57.0 -7°15.8	11°57.1 -7°14.8	26°57.2 -7°13.9	41°57.4 -7°12.9	56°57.5 -7°12.0	71°57.6 -7°11.0	+0.1 +1.0
Ma 2	266°59.3 -6°58.6	281°59.4 -6°57.7	296°59.5 -6°56.7	311°59.7 -6°55.7	326°59.8 -6°54.8	341°59.9 -6°53.8	357°00.1 -6°52.9	12°00.2 -6°51.9	27°00.3 -6°50.9	42°00.5 -6°50.0	57°00.6 -6°49.0	72°00.7 -6°48.1	+0.1 +1.0
Me 3	267°02.4 -6°35.6	282°02.6 -6°34.6	297°02.7 -6°33.7	312°02.8 -6°32.7	327°03.0 -6°31.8	342°03.1 -6°30.8	357°03.2 -6°29.8	12°03.4 -6°28.9	27°03.5 -6°27.9	42°03.6 -6°26.9	57°03.8 -6°26.0	72°03.9 -6°25.0	+0.1 +1.0
Je 4	267°05.7 -6°12.5	282°05.8 -6°11.5	297°06.0 -6°10.6	312°06.1 -6°09.6	327°06.3 -6°08.6	342°06.4 -6°07.7	357°06.5 -6°06.7	12°06.7 -6°05.7	27°06.8 -6°04.8	42°06.9 -6°03.8	57°07.1 -6°02.8	72°07.2 -6°01.9	+0.1 +1.0
Ve 5	267°09.1 -5°49.3	282°09.2 -5°48.3	297°09.4 -5°47.4	312°09.5 -5°46.4	327°09.6 -5°45.4	342°09.8 -5°44.5	357°09.9 -5°43.5	12°10.1 -5°42.5	27°10.2 -5°41.6	42°10.4 -5°40.6	57°10.5 -5°39.6	72°10.6 -5°38.6	+0.1 +1.0
Sa 6	267°12.5 -5°26.0	282°12.7 -5°25.1	297°12.8 -5°24.1	312°13.0 -5°23.1	327°13.1 -5°22.1	342°13.3 -5°21.2	357°13.4 -5°20.2	12°13.6 -5°19.2	27°13.7 -5°18.3	42°13.9 -5°17.3	57°14.0 -5°16.3	72°14.2 -5°15.3	+0.1 +1.0
Di 7	267°16.1 -4°52.7	282°16.2 -4°51.7	297°16.4 -4°50.7	312°16.5 -4°49.8	327°16.7 -4°48.8	342°16.8 -4°47.8	357°17.0 -4°46.8	12°17.2 -4°45.9	27°17.3 -4°44.9	42°17.5 -4°43.9	57°17.6 -4°42.9	72°17.8 -4°41.9	+0.2 +1.0
Lu 8	267°19.7 -4°15.8	282°19.9 -4°14.8	297°20.1 -4°13.8	312°20.2 -4°12.8	327°20.4 -4°11.9	342°20.5 -4°10.9	357°20.7 -4°09.9	12°20.8 -4°08.9	27°21.0 -4°07.9	42°21.1 -4°07.0	57°21.3 -4°06.0	72°21.5 -4°05.0	+0.2 +1.0
Ma 9	267°23.5 -3°52.3	282°23.6 -3°51.3	297°23.8 -3°50.3	312°24.0 -3°49.3	327°24.1 -3°48.3	342°24.3 -3°47.3	357°24.4 -3°46.4	12°24.6 -3°45.4	27°24.8 -3°44.4	42°24.9 -3°43.4	57°25.0 -3°42.4	72°25.2 -3°41.5	+0.2 +1.0
Me 10	267°27.3 -3°28.7	282°27.5 -3°27.7	297°27.6 -3°26.7	312°27.8 -3°25.7	327°28.0 -3°24.7	342°28.1 -3°23.8	357°28.3 -3°22.8	12°28.4 -3°21.8	27°28.6 -3°20.8	42°28.8 -3°19.8	57°28.9 -3°18.8	72°29.1 -3°17.9	+0.2 +1.0
Je 11	267°31.2 -3°05.1	282°31.4 -3°04.1	297°31.5 -3°03.1	312°31.7 -3°02.1	327°31.9 -3°01.1	342°32.0 -3°00.1	357°32.2 -2°59.2	12°32.4 -2°58.2	27°32.6 -2°57.2	42°32.9 -2°56.2	57°33.0 -2°55.2	72°33.2 -2°54.2	+0.2 +1.0
Ve 12	267°35.2 -2°41.4	282°35.4 -2°40.4	297°35.5 -2°39.4	312°35.7 -2°38.5	327°35.9 -2°37.5	342°36.0 -2°36.5	357°36.2 -2°35.5	12°36.4 -2°34.5	27°36.5 -2°33.5	42°36.7 -2°32.5	57°36.9 -2°31.5	72°37.0 -2°30.5	+0.2 +1.0
Sa 13	267°39.2 -2°17.7	282°39.4 -2°16.7	297°39.6 -2°15.8	312°39.8 -2°14.8	327°39.9 -2°13.8	342°40.1 -2°12.8	357°40.3 -2°11.8	12°40.4 -2°10.8	27°40.6 -2°09.8	42°40.8 -2°08.8	57°40.9 -2°07.9	72°41.1 -2°06.9	+0.2 +1.0
Di 14	267°43.4 -1°54.0	282°43.5 -1°53.0	297°43.7 -1°52.1	312°43.9 -1°51.1	327°44.2 -1°50.1	342°44.2 -1°49.1	357°44.4 -1°48.1	12°44.6 -1°47.1	27°44.8 -1°46.1	42°44.9 -1°45.1	57°45.1 -1°44.1	72°45.3 -1°43.2	+0.2 +1.0
Lu 15	267°47.5 -1°30.3	282°47.7 -1°29.3	297°47.9 -1°28.3	312°48.1 -1°27.3	327°48.2 -1°26.4	342°48.4 -1°25.4	357°48.6 -1°24.4	12°48.8 -1°23.4	27°48.9 -1°22.4	42°49.1 -1°21.4	57°49.3 -1°20.4	72°49.5 -1°19.4	+0.2 +1.0
Ma 16	267°51.8 -1°06.6	282°51.9 -1°05.6	297°52.1 -1°04.6	312°52.3 -1°03.6	327°52.5 -1°02.6	342°52.7 -1°01.6	357°52.8 -1°00.7	12°53.0 -0°59.7	27°53.2 -0°58.7	42°53.4 -0°57.7	57°53.6 -0°56.7	72°53.7 -0°55.7	+0.2 +1.0
Me 17	268°00.4 -0°42.9	283°00.6 -0°41.9	298°00.8 -0°40.9	313°01.0 -0°39.9	328°01.2 -0°38.9	343°01.3 -0°37.9	358°01.5 -0°36.9	13°01.7 -0°35.9	28°01.9 -0°35.0	43°02.1 -0°34.0	58°02.3 -0°33.0	73°02.4 -0°32.0	+0.2 +1.0
Ve 19	268°04.8 -0°19.1	283°05.0 -0°18.2	298°05.2 -0°17.2	313°05.3 -0°16.2	328°05.5 -0°15.2	343°05.7 -0°14.2	358°05.9 -0°13.2	13°06.1 -0°12.2	28°06.3 -0°11.2	43°06.5 -0°10.2	58°06.7 -0°09.3	73°06.8 -0°08.3	+0.2 +1.0
Sa 20	268°09.2 0°04.6	283°09.4 0°05.6	298°09.6 0°06.5	313°09.8 0°07.5	328°10.0 0°08.5	343°10.1 0°09.5	358°10.3 0°10.5	13°10.5 0°11.5	28°10.7 0°12.5	43°10.9 0°13.5	58°11.1 0°14.5	73°11.3 0°15.4	+0.2 +1.0
Di 21	268°13.7 0°28.3	283°13.9 0°29.3	298°14.0 0°30.2	313°14.2 0°31.2	328°14.4 0°32.2	343°14.6 0°33.2	358°14.8 0°34.2	13°15.0 0°35.2	28°15.2 0°36.2	43°15.4 0°37.2	58°15.5 0°38.1	73°15.7 0°39.1	+0.2 +1.0
Lu 22	268°18.2 0°51.9	283°18.3 0°52.9	298°18.5 0°53.9	313°18.7 0°54.9	328°18.9 0°55.9	343°19.1 0°56.9	358°19.3 0°57.9	13°19.5 0°58.8	28°19.7 0°59.8	43°19.8 1°00.8	58°20.0 1°01.8	73°20.2 1°02.8	+0.2 +1.0
Ma 23	268°22.7 1°15.6	283°22.9 1°16.6	298°23.0 1°17.6	313°23.2 1°18.5	328°23.4 1°19.5	343°23.6 1°20.5	358°23.8 1°21.5	13°24.0 1°22.5	28°24.2 1°23.5	43°24.4 1°24.5	58°24.6 1°25.4	73°24.7 1°26.4	+0.2 +1.0
Me 24	268°27.2 1°39.2	283°27.4 1°40.2	298°27.6 1°41.2	313°27.8 1°42.2	328°28.0 1°43.1	343°28.1 1°44.1	358°28.3 1°45.1	13°28.5 1°46.1	28°28.7 1°47.1	43°28.9 1°48.1	58°29.1 1°49.0	73°29.3 1°50.0	+0.2 +1.0
Je 25	268°31.7 2°02.8	283°31.9 2°03.8	298°32.1 2°04.7	313°32.3 2°05.7	328°32.5 2°06.7	343°32.7 2°07.7	358°32.9 2°08.7	13°33.1 2°09.6	28°33.3 2°10.6	43°33.4 2°11.6	58°33.6 2°12.6	73°33.8 2°13.6	+0.2 +1.0
Ve 26	268°36.3 2°26.3	283°36.5 2°27.3	298°36.7 2°28.3	313°36.9 2°29.2	328°37.0 2°30.2	343°37.2 2°31.2	358°37.4 2°32.2	13°37.6 2°33.2	28°37.8 2°34.1	43°38.0 2°35.1	58°38.2 2°36.1	73°38.4 2°37.1	+0.2 +1.0
Sa 27	268°40.8 2°49.8	283°41.0 2°50.8	298°41.2 2°51.7	313°41.4 2°52.7	328°41.6 2°53.7	343°41.8 2°54.7	358°42.0 2°55.7	13°42.2 2°56.6	28°42.4 2°57.6	43°42.5 2°58.6	58°42.7 2°59.6	73°42.9 3°00.5	+0.2 +1.0
Di 28	268°45.4 3°13.2	283°45.6 3°14.2	298°45.7 3°15.2	313°45.9 3°16.1	328°46.1 3°17.1	343°46.3 3°18.1	358°46.5 3°19.1	13°46.7 3°20.0	28°46.9 3°21.0	43°47.1 3°22.0	58°47.3 3°23.0	73°47.4 3°23.9	+0.2 +1.0
Lu 29	268°49.9 3°36.6	283°50.1 3°37.5	298°50.3 3°38.5	313°50.5 3°39.5	328°50.7 3°40.5	343°50.8 3°41.4	358°51.0 3°42.4	13°51.2 3°43.4	28°51.4 3°44.4	43°51.6 3°45.3	58°51.8 3°46.3	73°52.0 3°47.3	+0.2 +1.0
Ma 30	268°54.4 3°59.9	283°54.6 4°00.8	298°54.8 4°01.8	313°55.0 4°02.8	328°55.2 4°03.7	343°55.3 4°04.7	358°55.5 4°05.7	13°55.7 4°06.7	28°55.9 4°07.6	43°56.1 4°08.6	58°56.3 4°09.6	73°56.5 4°10.5	+0.2 +1.0
Me 31	268°58.9 4°23.1	283°59.1 4°24.1	298°59.3 4°25.0	313°59.5 4°26.0	328°59.7 4°27.0	343°59.8 4°27.9	359°00.0 4°28.9	14°00.2 4°29.9	29°00.0 4°30.8	44°00.6 4°31.8	59°00.8 4°32.7	74°00.9 4°33.7	+0.2 +1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.1'

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	J	18h	19h	20h	21h	22h	23h	0h	1h	2h	3h	4h	ΔH/SP
Lu 1	235°28'6"	240°59'6"	26430.6	279°01.6	293°32.4	308°03.2	322°34.0	337°04.7	351°35.3	6°05.9	20°36.4	+30.8	15.3
	-12°58.0	-13°06.3	-13°14.5	-13°22.7	-13°30.8	-13°38.8	-13°46.8	-13°54.7	-14°02.6	-14°10.4	-14°18.1	-8.0	56.1
Ma 2	238°06'5"	252°35.9	26705.4	281°34.7	296°04.0	310°33.3	325°02.4	339°31.5	354°00.6	8°29.5	22°58.4	+29.2	15.5
	-16°05.7	-16°12.2	-16°18.7	-16°25.1	-16°31.5	-16°37.7	-16°43.9	-16°50.0	-16°56.0	-17°01.9	-17°07.7	-6.2	56.6
Me 3	240°24'2"	254°32.1	26859.9	283°97.6	297°55.3	312°23.0	326°50.5	341°18.0	355°45.5	10°12.8	24°40.2	+27.6	15.7
	-18°23.2	-18°28.5	-18°32.7	-18°36.9	-18°40.9	-18°44.8	-18°48.6	-18°52.4	-18°56.0	-18°59.5	-19°02.9	-3.9	57.4
Je 4	241°23'2"	255°49.6	27016.0	284°42.4	299°08.6	313°34.9	328°01.1	342°27.3	356°53.4	11°19.4	25°45.4	+26.2	15.9
	-19°40.4	-19°42.0	-19°43.5	-19°44.9	-19°46.1	-19°47.2	-19°48.2	-19°49.1	-19°49.8	-19°50.4	-19°50.9	-1.1	58.2
Ve 5	242°11.1	256°36.5	27102.0	285°27.3	299°52.7	314°18.0	328°43.4	343°08.7	357°33.9	11°59.2	26°24.4	+25.3	16.1
	-19°43.5	-19°42.0	-19°40.4	-19°38.6	-19°36.7	-19°34.7	-19°32.5	-19°30.2	-19°27.8	-19°25.3	-19°22.6	-2.1	58.9
Sa 6	256°36'5"	271°02.0	285°27.3	299°52.7	314°18.0	328°43.4	343°08.7	357°33.9	11°59.2	26°24.4	40°49.6	+25.3	16.1
	-19°42.0	-19°40.4	-19°38.6	-19°36.7	-19°34.7	-19°32.5	-19°30.2	-19°27.8	-19°25.3	-19°22.6	-19°19.8	-2.2	59.0
Di 7	257°06.2	271°31.2	28556.2	300°21.3	314°46.3	329°11.4	34336.6	358°01.5	12°25.5	26°51.5	41°16.6	+25.0	16.3
	-18°22.4	-18°17.6	-18°12.6	-18°07.5	-18°02.3	-17°56.9	-17°51.4	-17°45.8	-17°40.1	-17°34.3	-17°28.3	-5.4	59.7
Lu 8	257°33.6	271°58.8	28624.1	300°49.4	315°14.7	329°40.0	344°05.3	358°30.9	12°56.1	27°21.5	41°46.9	+25.3	16.4
	-15°44.5	-15°36.6	-15°28.7	-15°20.8	-15°12.4	-15°04.2	-14°55.8	-14°47.3	-14°38.7	-14°30.0	-14°21.2	-8.3	60.3
Ma 9	258°11.2	272°37.1	28702.9	301°28.6	315°54.7	330°20.7	34446.6	359°12.6	13°38.7	28°04.7	42°30.8	+26.0	16.6
	-11°57.6	-11°47.3	-11°36.9	-11°26.4	-11°15.9	-11°05.3	-10°54.6	-10°43.8	-10°33.0	-10°22.0	-10°11.1	-10.7	60.7
Me 10	259°05'7"	273°32.2	28758.6	302°25.4	316°52.0	331°18.7	34545.4	0°12.1	14°38.9	29°05.6	43°32.4	+26.7	16.6
	-7°18.6	-7°06.6	-6°54.6	-6°42.6	-6°30.5	-6°18.4	-6°06.2	-5°54.0	-5°41.8	-5°29.5	-5°17.2	+12.1	60.8
Je 11	260°17'5"	274°44.7	28911.9	303°39.1	318°06.4	332°33.6	347°00.9	1°28.3	15°55.6	30°22.9	44°50.3	+27.3	16.5
	-2°09.6	-1°57.0	-1°44.3	-1°31.7	-1°19.0	-1°06.4	-0°53.7	-0°41.1	-0°28.4	-0°15.8	-0°03.1	-12.7	60.7
Ve 12	261°43'3"	276°10.6	29038.3	305°05.9	319°33.6	334°01.3	348°29.0	2°56.7	17°24.4	31°52.2	46°19.9	+27.7	16.4
	-3°04.9	-3°17.3	-3°29.6	-3°41.9	-3°54.2	-4°06.4	-4°18.6	-4°30.8	-4°42.9	-4°54.9	-5°07.0	+12.6	60.2
Sa 13	263°17'2"	277°45.0	29212.9	306°40.8	321°08.7	33536.6	350°04.6	4°32.5	19°00.4	33°28.3	47°56.3	+27.9	16.2
	-8°01.7	-8°29.8	-8°24.0	-8°35.1	-8°46.1	-8°57.0	-9°07.9	-9°18.7	-9°29.5	-9°40.1	-9°50.7	+10.9	59.4
Di 14	264°56'0"	276°24.0	29352.0	308°20.0	322°48.1	337°16.1	35144.2	6°12.2	20°40.3	35°08.3	49°36.4	+28.0	16.0
	-12°20.6	-12°30.0	-12°39.3	-12°48.4	-12°57.5	-13°06.5	-13°15.4	-13°24.2	-13°33.0	-13°41.6	-13°50.1	-9.0	58.5
Lu 15	266°38'3"	281°06.4	29534.6	310°02.8	324°31.1	338°59.3	35327.5	7°55.8	22°24.0	36°52.3	51°20.6	+28.2	15.7
	-15°47.0	-15°54.0	-16°00.9	-16°07.7	-16°14.4	-16°21.0	-16°27.5	-16°33.9	-16°40.2	-16°46.4	-16°52.5	-6.6	57.6
Ma 16	268°26'4"	282°54.9	29723.0	311°51.9	326°20.5	34049.9	35517.7	9°46.3	24°15.0	38°43.6	53°12.3	+28.6	15.4
	-18°11.5	-18°15.9	-18°20.2	-18°24.4	-18°28.5	-18°32.5	-18°36.4	-18°40.2	-18°43.9	-18°47.4	-18°50.9	-3.9	56.6
Me 17	270°25'3"	284°54.4	29923.5	31352.6	328°21.8	342°51.0	35720.2	11°49.4	26°18.7	40°48.0	55°17.3	+29.2	15.2
	-19°30.2	-19°32.0	-19°33.7	-19°35.2	-19°36.7	-19°38.1	-19°39.3	-19°40.5	-19°41.5	-19°42.5	-19°43.3	-1.3	55.8
Je 18	272°41'3"	287°11.2	30141.1	31611.0	330°41.0	345°11.0	35941.1	14°11.2	28°41.3	43°11.5	57°41.7	+30.0	15.0
	-19°43.9	-19°43.2	-19°42.3	-19°41.4	-19°40.4	-19°39.2	-19°38.0	-19°36.7	-19°35.2	-19°33.7	-19°32.1	-1.2	55.1
Ve 19	275°19'5"	289°50.3	30421.2	31852.1	333°23.1	347°54.1	225.1	16°56.2	31°27.3	45°58.5	60°29.7	+31.0	14.9
	-18°56.8	-18°53.8	-18°50.6	-18°47.4	-18°44.1	-18°40.7	-18°37.2	-18°33.6	-18°29.9	-18°26.2	-18°22.3	-3.5	54.4
Sa 20	278°22'6"	292°54.4	30726.3	32158.2	336°30.2	351°02.2	534.2	20°06.3	34°38.4	49°10.5	63°42.7	+32.0	14.8
	-17°15.2	-17°10.1	-17°04.9	-16°59.7	-16°54.4	-16°49.0	-16°43.5	-16°38.0	-16°32.4	-16°26.7	-16°20.9	-5.4	54.2
Di 21	281°50'0"	296°22.7	31055.5	32528.5	340°01.2	354°34.1	907.0	23°40.0	38°13.0	52°46.0	67°19.0	+32.9	14.7
	-14°46.5	-14°39.7	-14°32.8	-14°25.9	-14°18.9	-14°11.8	-14°04.7	-13°57.5	-13°50.3	-13°43.0	-13°35.6	-7.1	54.0
Lu 22	285°38'1	300°11.6	31445.1	32918.6	343°52.2	358°25.8	1259.4	27°33.0	42°06.6	56°40.3	71°13.9	+33.6	14.7
	-11°38.7	-11°30.5	-11°22.2	-11°13.9	-11°05.5	-10°57.1	-10°48.7	-10°40.2	-10°31.6	-10°23.1	-10°14.4	-8.4	54.0
Ma 23	289°41'1	30415.0	31848.9	33322.8	34756.8	3620.8	1704.7	31°38.7	46°12.7	60°46.7	75°20.7	+34.0	14.8
	-8°00.0	-7°50.7	-7°41.4	-7°32.1	-7°22.7	-7°13.7	-7°03.8	-6°54.4	-6°44.8	-6°35.3	-6°25.7	-9.4	54.2
Me 24	293°51'0	30825.0	32259.0	33733.0	35207.0	6410.0	2115.0	35°49.0	50°23.0	64°57.0	79°31.0	+34.0	14.8
	-3°59.0	-3°49.0	-3°39.0	-3°29.0	-3°18.9	-3°08.9	-2°58.2	-2°48.7	-2°38.6	-2°28.5	-2°18.4	-10.1	54.4
Je 25	297°59'0	312°32.8	32706.5	34140.2	356°13.9	1047.6	2521.3	39°54.9	54°28.5	69°02.1	83°35.7	+33.7	14.9
	-0°15.1	-0°25.4	-0°35.7	-0°46.0	-0°56.3	-1°06.6	-1°17.0	-1°27.3	-1°37.6	-1°47.9	-1°58.2	-10.3	54.8
Ve 26	301°55'9	316°29.0	33102.1	34535.1	0°08.1	1441.1	2914.0	43°46.9	58°19.8	72°52.6	87°25.4	+33.0	15.1
	-4°32.1	-4°42.3	-4°52.5	-5°02.7	-5°12.8	-5°22.9	-5°33.0	-5°43.1	-5°53.2	-6°03.2	-6°13.3	-10.1	55.2
Sa 27	305°32'3	320°04.4	33436.4	34908.5	3°40.4	1812.4	3244.2	47°16.0	61°47.8	76°19.5	90°51.2	+31.9	15.2
	-8°40.7	-8°50.3	-8°59.8	-9°09.3	-9°18.8	-9°28.3	-9°37.7	-9°47.0	-9°56.4	-10°05.7	-10°14.9	-9.4	55.7
Di 28	308°40'1	323°10.9	33741.7	35212.4	643.0	2113.6	3544.2	50°14.6	64°45.1	79°15.4	93°45.8	+30.6	15.3
	-12°28.0	-12°36.5	-12°44.9	-12°53.2	-13°01.5	-13°09.9	-13°17.9	-13°26.0	-13°34.0	-13°42.0	-13°49.8	-8.2	56.2
Lu 29	311°13'4	325°42.8	34012.1	35441.4	9°10.6	2339.8	3808.8	52°37.9	67°06.8	81°35.7	96°04.4	+29.1	15.5
	-15°40.4	-15°47.2	-15°53.8	-16°00.5	-16°07.0	-16°13.4	-16°19.8	-16°26.1	-16°32.8	-16°38.4	-16°44.4	-6.4	56.7
Ma 30	325°42'8	34012.1	35441.4	9°10.6	2339.8	3808.8	5237.9	67°06.8	81°35.7	96°04.4	110°33.4	+29.1	15.5
	-15°47.2	-15°53.8	-16°00.5	-16°07.0	-16°13.4	-16°19.8	-16°26.1	-16°32.8	-16°38.4	-16°44.4	-16°50.4	-6.3	56.7
Me 31	327°38'6	342°05.6	35634.4	11°02.2	2530.0	3957.7	5425.3	68°52.9	83°20.5	97°48.0	112°15.5	+27.7	15.6
	-18°08.4	-18°12.9	-18°17.2	-18°21.4	-18°25.6	-18°29.6	-18°33.5	-18°37.3	-18°41.1	-18°44.7	-18°48.2	-4.0	57.3

Ligne 1: GHA, $\Delta'/h = \text{var. GHA} - 14^\circ$, SP = semi-diamètre
 Ligne 2: Dec ($=$ Sud), $\Delta'/h = \text{var. déc.}$, SP = parallaxe horizontale
 Colonne = (heure UTC - jour) mod 24
 DQ: 5 01h47 ~ NL: 11 16h24 ~ PQ: 18 20h56 ~ PL: 27 00h46

SOLEIL

Avril 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	269°03.4 4°46.2	284°03.5 4°47.2	299°03.7 4°48.2	314°03.9 4°49.1	329°04.1 4°50.1	344°04.3 4°51.1	359°04.5 4°52.0	14°04.7 4°53.0	29°04.8 4°53.9	44°05.0 4°54.9	59°05.2 4°55.9	74°05.4 4°56.8	+0.2 +1.0
Ve 2	269°07.8 5°09.3	284°08.0 5°10.3	299°08.1 5°11.2	314°08.3 5°12.2	329°08.5 5°13.1	344°08.7 5°14.1	359°08.9 5°15.1	14°09.1 5°16.0	29°09.9 5°17.0	44°09.4 5°17.9	59°09.6 5°18.9	74°09.8 5°19.8	+0.2 +1.0
Sa 3	269°12.2 5°32.3	284°12.4 5°33.2	299°12.5 5°34.2	314°12.7 5°35.1	329°12.9 5°36.1	344°13.1 5°37.0	359°13.3 5°38.0	14°13.4 5°39.0	29°13.8 5°39.9	44°13.8 5°40.9	59°14.0 5°41.8	74°14.2 5°42.8	+0.2 +1.0
Di 4	269°16.5 5°55.2	284°16.7 5°56.1	299°16.9 5°57.1	314°17.1 5°58.0	329°17.2 5°59.0	344°17.4 5°59.9	359°17.6 6°00.9	14°17.8 6°01.8	29°17.9 6°02.8	44°18.1 6°03.7	59°18.3 6°04.7	74°18.5 6°05.6	+0.2 +1.0
Lu 5	269°20.8 6°17.9	284°21.0 6°18.9	299°21.2 6°19.8	314°21.3 6°20.8	329°21.5 6°21.7	344°21.7 6°22.7	359°21.9 6°23.6	14°22.0 6°24.5	29°22.2 6°25.5	44°22.4 6°26.4	59°22.6 6°27.4	74°22.8 6°28.3	+0.2 +0.9
Ma 6	269°25.0 6°40.6	284°25.2 6°41.5	299°25.4 6°42.5	314°25.6 6°43.4	329°25.7 6°44.4	344°25.9 6°45.3	359°26.1 6°46.2	14°26.3 6°47.2	29°26.4 6°48.1	44°26.6 6°49.1	59°26.8 6°50.0	74°27.0 6°50.9	+0.2 +0.9
Me 7	269°29.2 7°03.1	284°29.4 7°04.1	299°29.6 7°05.0	314°29.7 7°06.0	329°29.9 7°06.9	344°30.1 7°07.8	359°30.3 7°08.8	14°30.4 7°09.7	29°30.6 7°10.6	44°30.8 7°11.6	59°31.0 7°12.5	74°31.1 7°13.4	+0.2 +0.9
Je 8	269°33.3 7°25.6	284°33.5 7°26.5	299°33.7 7°27.4	314°33.9 7°28.4	329°34.0 7°29.3	344°34.2 7°30.2	359°34.4 7°31.2	14°34.5 7°32.1	29°34.7 7°33.0	44°34.9 7°34.0	59°35.0 7°34.9	74°35.2 7°35.8	+0.2 +0.9
Ve 9	269°37.3 7°47.9	284°37.6 7°48.8	299°37.7 7°49.7	314°37.9 7°50.7	329°38.1 7°51.6	344°38.2 7°52.5	359°38.4 7°53.4	14°38.6 7°54.4	29°38.9 7°55.3	44°39.3 7°56.2	59°39.1 7°57.1	74°39.2 7°58.1	+0.2 +0.9
Sa 10	269°41.4 8°10.1	284°41.6 8°11.0	299°41.7 8°11.9	314°41.9 8°12.8	329°42.1 8°13.7	344°42.2 8°14.7	359°42.4 8°15.6	14°42.5 8°16.5	29°42.7 8°17.4	44°42.9 8°18.3	59°43.0 8°19.3	74°43.2 8°20.2	+0.2 +0.9
Di 11	269°45.3 8°32.1	284°45.5 8°33.0	299°45.6 8°33.9	314°45.8 8°34.9	329°46.0 8°35.8	344°46.1 8°36.7	359°46.3 8°37.6	14°46.4 8°38.5	29°46.6 8°39.4	44°46.8 8°40.3	59°46.9 8°41.2	74°47.1 8°42.1	+0.2 +0.9
Lu 12	269°49.2 8°54.0	284°49.3 8°54.9	299°49.5 8°55.8	314°49.6 8°56.7	329°49.8 8°57.6	344°50.0 8°58.5	359°50.1 8°59.5	14°50.3 9°00.4	29°50.5 9°01.3	44°50.6 9°02.2	59°50.7 9°03.1	74°50.9 9°04.0	+0.2 +0.9
Ma 13	269°52.9 9°15.8	284°53.1 9°16.7	299°53.2 9°17.6	314°53.4 9°18.5	329°53.6 9°19.4	344°53.7 9°20.3	359°53.9 9°21.2	14°54.0 9°22.1	29°54.4 9°23.0	44°54.5 9°23.9	59°54.5 9°24.8	74°54.6 9°25.7	+0.2 +0.9
Me 14	269°56.6 9°37.3	284°56.8 9°38.2	299°56.9 9°39.1	314°57.1 9°40.0	329°57.2 9°40.9	344°57.4 9°41.8	359°57.5 9°42.7	14°57.7 9°43.6	29°57.8 9°44.5	44°58.0 9°45.4	59°58.1 9°46.3	74°58.3 9°47.2	+0.2 +0.9
Je 15	270°00.2 9°58.8	285°00.4 9°59.7	300°00.5 10°00.6	315°00.7 10°01.4	330°00.8 10°02.3	345°01.0 10°03.2	15°01.1 10°04.1	30°01.3 10°05.0	45°01.6 10°05.9	60°01.6 10°06.8	75°01.7 10°07.7	90°01.9 10°08.5	+0.1 +0.9
Ve 16	270°03.8 10°20.0	285°03.9 10°20.9	300°04.0 10°21.8	315°04.2 10°22.7	330°04.3 10°23.6	345°04.5 10°24.5	15°04.6 10°25.3	30°04.8 10°26.2	45°04.9 10°27.1	60°05.1 10°28.0	75°05.3 10°28.9	90°05.7 10°29.7	+0.1 +0.9
Sa 17	270°07.2 10°41.1	285°07.3 10°42.1	300°07.5 10°42.9	315°07.6 10°43.8	330°07.7 10°44.6	345°07.9 10°45.5	15°08.0 10°46.4	30°08.2 10°47.3	45°08.3 10°48.1	60°08.4 10°49.0	75°08.6 10°49.9	90°08.7 10°50.7	+0.1 +0.9
Di 18	270°10.5 11°02.1	285°10.7 11°02.9	300°10.8 11°03.8	315°10.9 11°04.7	330°11.1 11°05.5	345°11.2 11°06.4	15°11.3 11°07.3	30°11.5 11°08.1	45°11.6 11°09.0	60°11.8 11°09.8	75°11.9 11°10.7	90°11.9 11°11.6	+0.1 +0.9
Lu 19	270°13.8 11°22.8	285°13.9 11°23.6	300°14.0 11°24.5	315°14.2 11°25.4	330°14.3 11°26.2	345°14.4 11°27.1	15°14.6 11°27.9	30°14.7 11°28.8	45°14.8 11°29.7	60°15.0 11°30.5	75°15.1 11°31.4	90°15.2 11°32.2	+0.1 +0.9
Ma 20	270°16.9 11°43.3	285°17.0 11°44.2	300°17.2 11°45.0	315°17.3 11°45.9	330°17.4 11°46.7	345°17.6 11°47.6	15°17.7 11°48.4	30°17.8 11°49.3	45°17.9 11°50.1	60°18.1 11°51.0	75°18.2 11°51.8	90°18.3 11°52.7	+0.1 +0.8
Me 21	270°19.9 12°03.7	285°20.1 12°04.5	300°20.2 12°05.4	315°20.3 12°06.2	330°20.4 12°07.1	345°20.6 12°07.9	15°20.7 12°08.7	30°20.8 12°09.6	45°20.9 12°10.4	60°21.1 12°11.3	75°21.2 12°12.1	90°21.3 12°12.9	+0.1 +0.8
Je 22	270°22.9 12°23.8	285°23.0 12°24.7	300°23.1 12°25.5	315°23.2 12°26.3	330°23.4 12°27.2	345°23.5 12°28.0	15°23.6 12°28.8	30°23.7 12°29.6	45°23.8 12°30.5	60°24.1 12°31.3	75°24.2 12°32.2	90°24.3 12°33.0	+0.1 +0.8
Ve 23	270°25.7 12°43.8	285°25.8 12°44.6	300°25.9 12°45.4	315°26.0 12°46.3	330°26.2 12°47.1	345°26.3 12°47.9	15°26.4 12°48.7	30°26.5 12°49.6	45°26.6 12°50.4	60°26.7 12°51.2	75°27.0 12°52.0	90°26.8 12°52.8	+0.1 +0.8
Sa 24	270°28.4 13°03.5	285°28.5 13°04.3	300°28.6 13°05.1	315°28.7 13°06.0	330°28.8 13°06.8	345°28.9 13°07.6	15°29.1 13°08.4	30°29.3 13°09.2	45°29.4 13°10.0	60°29.5 13°10.9	75°29.6 13°11.7	90°29.5 13°12.5	+0.1 +0.8
Di 25	270°31.0 13°23.0	285°31.1 13°23.8	300°31.2 13°24.7	315°31.3 13°25.5	330°31.4 13°26.3	345°31.5 13°27.1	15°31.6 13°27.9	30°31.7 13°28.7	45°31.8 13°29.5	60°31.9 13°30.3	75°32.1 13°31.1	90°32.1 13°31.9	+0.1 +0.8
Lu 26	270°33.5 13°42.3	285°33.6 13°43.1	300°33.7 13°43.9	315°33.8 13°44.7	330°33.9 13°45.5	345°34.0 13°46.3	15°34.0 13°47.1	30°34.1 13°47.9	45°34.3 13°48.7	60°34.3 13°49.5	75°34.5 13°50.3	90°34.5 13°51.1	+0.1 +0.8
Ma 27	270°35.8 14°01.4	285°35.9 14°02.2	300°36.0 14°03.0	315°36.1 14°03.8	330°36.2 14°04.6	345°36.3 14°05.4	15°36.4 14°06.9	30°36.5 14°07.7	45°36.6 14°08.5	60°36.7 14°09.3	75°36.8 14°10.1	90°36.8 14°10.9	+0.1 +0.8
Me 28	270°38.0 14°20.3	285°38.1 14°21.0	300°38.2 14°21.8	315°38.3 14°22.6	330°38.4 14°23.4	345°38.4 14°24.2	15°38.5 14°24.9	30°38.6 14°25.7	45°38.8 14°26.5	60°38.9 14°27.3	75°39.0 14°28.0	90°39.0 14°28.8	+0.1 +0.8
Je 29	270°40.1 14°38.9	285°40.2 14°39.6	300°40.3 14°40.4	315°40.3 14°41.2	330°40.4 14°41.9	345°40.5 14°42.7	15°40.6 14°43.5	30°40.7 14°44.3	45°40.8 14°45.0	60°40.9 14°45.8	75°41.0 14°46.6	90°41.0 14°47.3	+0.1 +0.8
Ve 30	270°42.0 14°57.2	285°42.1 14°58.0	300°42.2 14°58.8	315°42.3 14°59.5	330°42.3 15°00.3	345°42.4 15°01.0	15°42.5 15°01.8	30°42.6 15°02.5	45°42.7 15°03.3	60°42.8 15°04.1	75°42.9 15°04.8	90°42.9 15°05.6	+0.1 +0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Avril 2032

	J	19h	20h	21h	22h	23h	0h	1h	2h	3h	4h	5h	Δ'/h SP
●	Je 1	228°59.2 -19°40.7	243°25.5 -19°40.3	257°51.7 -19°39.8	272°17.9 -19°39.1	286°44.1 -19°38.3	301°10.3 -19°37.4	315°36.4 -19°36.4	330°02.6 -19°35.3	344°28.7 -19°34.0	358°54.8 -19°32.6	13°20.9 -19°31.1	+26.2 15.9 +1.0 58.2
	Ve 2	229°51.2 -18°53.8	244°17.2 -18°50.4	258°43.2 -18°46.8	273°09.2 -18°43.1	287°35.1 -18°39.3	302°01.1 -18°35.4	316°27.1 -18°31.3	330°53.1 -18°27.1	345°19.1 -18°22.8	359°45.2 -18°18.4	14°11.2 -18°13.9	+26.0 16.0 +4.0 58.7
	Sa 3	230°42.7 -16°52.0	245°08.9 -16°45.6	259°35.2 -16°39.1	274°01.4 -16°32.5	288°27.7 -16°25.8	302°54.0 -16°19.0	317°20.3 -16°12.1	331°46.6 -16°05.1	346°13.0 -15°58.0	360°39.3 -15°50.8	15°05.7 -15°43.5	+26.3 16.1 +6.9 59.2
●	Di 4	231°44.3 -13°41.7	246°11.1 -13°32.8	260°37.8 -13°23.8	275°04.7 -13°14.8	289°31.5 -13°05.6	303°58.4 -12°56.4	318°25.3 -12°47.1	332°52.2 -12°37.7	347°19.1 -12°28.2	361°46.1 -12°18.6	16°13.1 -12°09.0	+26.9 16.3 +9.3 59.6
	Lu 5	246°11.1 -13°32.8	260°37.8 -13°23.8	275°04.7 -13°14.8	289°31.5 -13°05.6	303°58.4 -12°56.4	318°25.3 -12°47.1	332°52.2 -12°37.7	347°19.1 -12°28.2	361°46.1 -12°18.6	360°39.3 -12°09.0	30°40.1 -11°59.3	+26.9 16.3 +9.4 59.6
	Ma 6	247°28.3 -9°24.6	261°55.7 -9°13.7	276°23.1 -9°02.8	290°50.6 -8°51.9	305°18.1 -8°40.8	319°45.6 -8°29.7	334°13.1 -8°18.6	348°40.6 -8°07.4	363°08.2 -7°56.2	377°35.8 -7°44.9	32°03.4 -7°33.5	+27.5 16.3 +11.1 59.9
●	Me 7	248°59.8 -4°38.1	263°27.7 -4°26.1	277°55.6 -4°14.1	292°23.5 -4°02.1	306°51.4 -3°50.0	321°19.4 -3°37.9	335°47.3 -3°25.8	350°15.3 -3°13.7	4°43.3 -3°01.5	19°11.3 -2°49.4	33°39.3 -2°37.2	+28.0 16.4 +12.1 60.0
	Je 8	250°04.6 5°28.3	265°08.6 5°40.0	279°36.8 5°51.7	294°04.9 6°03.3	308°33.0 6°16.4	323°01.2 6°26.4	337°29.3 6°37.9	351°57.5 6°49.6	6°25.6 7°00.8	20°53.8 7°12.1	35°21.9 7°23.4	+28.1 16.3 +11.5 59.5
	Ve 9	252°04.0 10°06.0	266°52.1 10°16.3	281°20.2 10°26.6	295°48.3 10°36.8	310°16.4 10°46.9	324°44.5 10°56.9	339°12.5 11°06.9	353°40.6 11°16.8	8°08.7 11°26.6	22°36.8 11°36.4	37°04.8 11°46.1	+28.1 16.2 +10.0 59.0
●	Sa 10	254°04.7 10°06.0	268°32.6 10°16.3	283°00.5 10°26.6	297°28.4 10°36.8	311°56.3 10°46.9	326°24.2 10°56.9	340°52.1 11°06.9	355°20.0 11°16.8	9°47.8 11°26.6	24°15.7 11°36.4	38°43.5 11°46.1	+27.9 16.1 +10.0 59.0
	Di 11	255°40.3 14°01.1	270°08.1 14°09.4	284°35.8 14°17.7	299°03.5 14°25.8	313°31.2 14°33.8	327°59.0 14°41.7	342°26.7 14°49.6	356°54.4 14°57.3	11°22.1 15°04.9	25°49.8 15°12.5	40°17.5 15°19.9	+27.7 15.9 +7.9 58.3
	Lu 12	257°13.2 16°59.6	271°40.9 17°05.4	286°08.7 17°11.1	300°36.4 17°16.7	315°04.2 17°22.2	329°31.9 17°27.6	343°59.7 17°32.9	358°27.5 17°38.1	12°55.3 17°43.1	27°23.1 17°48.1	41°50.9 17°53.0	+27.8 15.7 +5.3 57.5
●	Ma 13	258°49.9 18°52.7	273°18.0 18°55.8	287°46.1 18°58.9	302°14.2 19°01.7	316°42.3 19°04.5	331°10.5 19°07.2	345°38.7 19°09.8	359°06.6 19°12.2	14°35.1 19°14.6	29°03.4 19°16.8	43°31.7 19°18.9	+28.2 15.4 +2.6 56.6
	Me 14	260°39.7 19°38.0	275°08.5 19°38.4	289°37.3 19°38.7	304°06.2 19°38.9	318°35.1 19°39.0	333°04.1 19°39.0	347°33.3 19°38.9	361°02.1 19°38.7	16°31.1 19°38.4	31°00.2 19°38.0	45°29.4 19°37.5	+29.0 15.2 -0.1 55.9
	Je 15	262°51.6 19°17.8	277°21.4 19°15.7	291°51.3 19°13.6	306°21.2 19°11.3	320°51.2 19°08.9	335°21.2 19°06.5	349°51.3 19°03.9	4°21.4 19°01.3	18°51.6 18°58.5	33°21.8 18°55.7	47°52.0 18°52.8	+30.0 15.0 -2.5 55.2
●	Ve 16	265°31.6 17°58.6	280°02.6 17°54.3	294°33.7 17°49.9	309°04.8 17°45.5	323°36.0 17°41.0	338°07.2 17°36.4	352°38.5 17°31.7	7°09.8 17°26.9	21°41.1 17°22.1	36°12.5 17°17.2	50°44.0 17°12.2	+31.2 14.9 -4.6 54.7
	Sa 17	268°41.3 15°48.5	283°13.5 15°42.4	297°45.7 15°36.2	312°18.0 15°29.9	326°50.3 15°23.6	341°22.7 15°17.1	355°55.1 15°10.7	10°27.5 15°04.2	25°00.0 14°57.6	39°32.5 14°50.9	54°05.1 14°44.2	+32.4 14.8 -6.4 54.3
	Di 18	272°18.1 12°56.3	286°51.2 12°48.6	301°24.4 12°40.9	315°57.6 12°33.2	330°30.9 12°25.4	345°04.2 12°17.5	359°37.5 12°09.6	14°10.8 12°01.7	28°44.2 11°53.7	43°17.6 11°45.6	57°51.0 11°37.5	+33.3 14.8 -7.9 54.1
●	Lu 19	276°15.5 9°30.5	290°49.4 9°21.7	305°23.2 9°12.8	319°57.0 9°04.0	334°30.9 8°55.0	349°04.8 8°46.1	363°38.7 8°37.1	18°12.6 8°28.0	32°46.5 8°18.9	47°20.5 8°09.8	61°54.4 8°00.7	+33.9 14.8 -9.0 54.2
	Ma 20	280°25.1 5°39.5	294°59.8 5°29.8	309°33.3 5°20.1	324°07.4 5°10.4	338°41.5 5°00.7	353°15.6 4°50.9	7°49.7 4°41.2	22°23.8 4°31.4	36°57.8 4°21.5	51°31.9 4°11.7	66°06.0 4°01.8	+34.1 14.8 -9.8 54.4
	Me 21	284°36.6 1°31.5	299°10.5 1°21.3	313°44.4 1°11.2	328°18.4 1°01.0	342°52.3 0°50.8	357°26.1 0°40.6	12°00.0 0°30.4	26°33.9 0°20.2	41°07.7 0°10.0	56°41.5 -0°00.3	70°15.5 -0°10.5	+33.9 14.9 -10.2 54.7
●	Je 22	288°39.2 -2°44.5	303°12.5 -2°54.7	317°45.9 -3°05.0	332°19.2 -3°15.3	346°52.4 -3°25.5	1°25.7 -3°35.7	15°58.8 -3°46.0	30°32.0 -3°56.2	45°05.1 -4°06.4	59°38.2 -4°16.6	74°11.3 -4°26.8	+33.2 15.0 -10.2 55.2
	Ve 23	292°22.1 -6°58.0	306°54.4 -7°07.9	321°26.7 -7°17.9	335°59.0 -7°27.7	350°31.2 -7°37.6	5°03.4 -7°47.4	19°35.5 -7°57.2	34°07.6 -8°07.0	48°39.6 -8°16.7	63°11.5 -8°26.1	77°43.5 -8°36.1	+32.1 15.2 -9.8 55.7
	Sa 24	295°35.4 -10°57.0	310°06.4 -11°06.1	324°37.4 -11°15.1	339°08.3 -11°24.0	353°39.1 -11°33.0	8°09.9 -11°41.8	22°40.6 -11°50.7	37°11.2 -11°59.4	51°41.8 -12°08.1	66°12.3 -12°16.8	80°42.7 -12°25.4	+30.7 15.4 -8.8 56.3
●	Di 25	298°11.9 -14°27.3	312°41.3 -14°34.9	327°10.7 -14°42.5	341°40.0 -14°49.9	356°09.2 -14°57.3	10°38.4 -15°04.6	25°07.5 -15°11.9	39°36.5 -15°19.0	54°05.5 -15°26.1	68°34.4 -15°33.1	83°03.2 -15°40.0	+29.1 15.5 -7.3 56.9
	Lu 26	300°08.3 -17°13.7	314°36.2 -17°19.2	329°04.0 -17°24.7	343°31.7 -17°30.0	357°59.4 -17°35.2	12°27.0 -17°40.4	26°54.6 -17°45.4	41°22.1 -17°50.3	55°49.5 -17°55.2	70°16.9 -17°59.9	84°44.2 -18°04.5	+27.6 15.7 -5.1 57.5
	Ma 27	301°28.2 -19°01.3	315°54.7 -19°04.2	330°21.3 -19°07.0	344°47.7 -19°09.6	359°14.2 -19°12.2	13°40.6 -19°14.6	28°06.9 -19°17.0	42°33.3 -19°19.7	56°59.5 -19°21.2	71°25.5 -19°23.2	85°52.0 -19°25.1	+26.4 15.8 -2.4 58.0
●	Me 28	302°21.9 -19°38.3	316°47.7 -19°38.2	331°13.5 -19°38.0	345°39.3 -19°37.7	0°05.1 -19°37.2	14°30.8 -19°36.6	28°56.6 -19°35.1	43°22.3 -19°35.1	57°48.0 -19°34.1	72°13.8 -19°33.0	86°39.5 -19°31.8	+25.8 15.9 +0.7 58.4
	Je 29	316°47.7 -19°38.2	331°13.5 -19°38.0	345°39.3 -19°37.7	0°05.1 -19°37.2	14°30.8 -19°36.6	28°56.6 -19°35.9	43°22.3 -19°35.1	57°48.0 -19°34.1	72°13.8 -19°33.0	86°39.5 -19°31.8	101°05.2 -19°30.4	+25.7 15.9 +0.8 58.4
	Ve 30	317°30.8 -18°55.5	331°56.6 -18°52.2	346°22.3 -18°48.8	0°48.1 -18°45.2	15°13.9 -18°41.6	29°39.7 -18°37.8	44°05.6 -18°33.9	58°31.4 -18°29.8	72°57.3 -18°25.7	87°23.1 -18°21.4	101°49.0 -18°17.0	+25.8 16.0 +3.9 58.8

Ligne 1: GHA, Δ' / h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ' / h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 3 10h10 — NL: 10 02h39 — PQ: 17 15h24 — PL: 25 15h09

SOLEIL

Mai 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	270°43.8 15°15.4	285°43.9 15°16.1	300°44.0 15°16.9	315°44.0 15°17.6	330°44.1 15°18.4	345°44.2 15°19.1	0°44.3 15°19.9	15°44.3 15°20.6	30°44.4 15°21.3	45°44.5 15°22.1	60°44.5 15°22.8	75°44.6 15°23.6	+0.1 +0.7
Di 2	270°45.5 15°33.2	285°45.6 15°34.0	300°45.6 15°34.7	315°45.7 15°35.4	330°45.8 15°36.2	345°45.8 15°36.9	0°45.9 15°37.7	15°46.0 15°38.4	30°46.0 15°39.1	45°46.1 15°39.9	60°46.2 15°40.6	75°46.2 15°41.3	+0.1 +0.7
Lu 3	270°47.0 15°50.8	285°47.1 15°51.6	300°47.1 15°52.3	315°47.2 15°53.0	330°47.3 15°53.8	345°47.3 15°54.5	0°47.4 15°55.2	15°47.4 15°55.9	30°47.5 15°56.7	45°47.6 15°57.4	60°47.6 15°58.1	75°47.7 15°58.8	+0.1 +0.7
Ma 4	270°48.4 16°08.2	285°48.5 16°08.9	300°48.5 16°09.6	315°48.6 16°10.3	330°48.6 16°11.1	345°48.7 16°11.8	0°48.7 16°12.5	15°48.8 16°13.2	30°48.8 16°13.9	45°48.9 16°14.6	60°48.9 16°15.4	75°49.0 16°16.1	+0.1 +0.7
Me 5	270°49.6 16°25.3	285°49.7 16°26.0	300°49.7 16°26.7	315°49.8 16°27.4	330°49.8 16°28.1	345°49.9 16°28.8	0°49.9 16°29.5	15°50.0 16°30.2	30°50.0 16°30.9	45°50.1 16°31.6	60°50.1 16°32.3	75°50.2 16°33.0	+0.0 +0.7
Je 6	270°50.7 16°42.1	285°50.8 16°42.8	300°50.8 16°43.5	315°50.9 16°44.2	330°50.9 16°44.9	345°50.9 16°45.6	0°51.0 16°46.3	15°51.0 16°46.9	30°51.1 16°47.6	45°51.1 16°48.3	60°51.1 16°49.0	75°51.2 16°49.7	+0.0 +0.7
Ve 7	270°51.7 16°58.6	285°51.7 16°59.3	300°51.8 17°00.0	315°51.8 17°00.7	330°51.8 17°01.4	345°51.9 17°02.0	0°51.9 17°02.7	15°51.9 17°03.4	30°52.0 17°04.1	45°52.0 17°04.8	60°52.0 17°05.4	75°52.1 17°06.1	+0.0 +0.7
Sa 8	270°52.5 17°14.9	285°52.5 17°15.6	300°52.5 17°16.2	315°52.6 17°16.9	330°52.6 17°17.6	345°52.6 17°18.2	0°52.7 17°18.9	15°52.7 17°19.6	30°52.7 17°20.2	45°52.7 17°20.9	60°52.8 17°21.6	75°52.8 17°22.2	+0.0 +0.7
Di 9	270°53.1 17°30.8	285°53.2 17°31.5	300°53.2 17°32.2	315°53.2 17°32.8	330°53.2 17°33.5	345°53.3 17°34.1	0°53.3 17°34.8	15°53.3 17°35.4	30°53.3 17°36.1	45°53.4 17°36.8	60°53.4 17°37.4	75°53.4 17°38.1	+0.0 +0.7
Lu 10	270°53.7 17°46.5	285°53.7 17°47.2	300°53.7 17°47.8	315°53.7 17°48.5	330°53.7 17°49.1	345°53.7 17°49.7	0°53.8 17°50.4	15°53.8 17°51.0	30°53.8 17°51.7	45°53.8 17°52.3	60°53.8 17°53.0	75°53.8 17°53.6	+0.0 +0.6
Ma 11	270°54.0 18°01.9	285°54.0 18°02.5	300°54.1 18°03.2	315°54.1 18°03.8	330°54.1 18°04.4	345°54.1 18°05.1	0°54.1 18°05.7	15°54.1 18°06.3	30°54.1 18°06.9	45°54.1 18°07.6	60°54.1 18°08.2	75°54.2 18°08.8	+0.0 +0.6
Me 12	270°54.3 18°17.0	285°54.3 18°17.6	300°54.3 18°18.2	315°54.3 18°18.8	330°54.3 18°19.4	345°54.3 18°20.1	0°54.3 18°20.7	15°54.3 18°21.3	30°54.3 18°21.9	45°54.3 18°22.5	60°54.3 18°23.1	75°54.3 18°23.8	+0.0 +0.6
Je 13	270°54.4 18°31.7	285°54.4 18°32.3	300°54.4 18°32.9	315°54.4 18°33.5	330°54.4 18°34.1	345°54.4 18°34.8	0°54.4 18°35.4	15°54.4 18°36.0	30°54.4 18°36.6	45°54.4 18°37.2	60°54.4 18°37.8	75°54.5 18°38.4	-0.0 +0.6
Ve 14	270°54.3 18°46.2	285°54.3 18°46.8	300°54.3 18°47.4	315°54.3 18°47.9	330°54.3 18°48.5	345°54.3 18°49.1	0°54.3 18°49.7	15°54.3 18°50.3	30°54.3 18°50.9	45°54.3 18°51.5	60°54.3 18°52.1	75°54.2 18°52.7	+0.0 +0.6
Sa 15	270°54.1 19°00.3	285°54.1 19°00.9	300°54.1 19°01.5	315°54.1 19°02.0	330°54.1 19°02.6	345°54.1 19°03.2	0°54.1 19°03.8	15°54.0 19°04.4	30°54.0 19°04.9	45°54.0 19°05.5	60°54.0 19°06.1	75°54.0 19°06.7	-0.0 +0.6
Di 16	270°53.8 19°14.1	285°53.8 19°14.7	300°53.8 19°15.2	315°53.7 19°15.8	330°53.7 19°16.4	345°53.7 19°16.9	0°53.7 19°17.5	15°53.7 19°18.1	30°53.7 19°18.6	45°53.6 19°19.2	60°53.6 19°19.8	75°53.6 19°20.3	-0.0 +0.6
Lu 17	270°53.3 19°27.6	285°53.3 19°28.1	300°53.3 19°28.7	315°53.3 19°29.2	330°53.2 19°29.8	345°53.2 19°30.4	0°53.2 19°30.9	15°53.2 19°31.5	30°53.2 19°32.0	45°53.1 19°32.6	60°53.1 19°33.1	75°53.1 19°33.7	-0.0 +0.6
Ma 18	270°52.7 19°40.7	285°52.7 19°41.3	300°52.7 19°41.8	315°52.7 19°42.4	330°52.6 19°42.9	345°52.6 19°43.4	0°52.6 19°44.0	15°52.6 19°44.5	30°52.5 19°45.0	45°52.5 19°45.6	60°52.5 19°46.1	75°52.4 19°46.6	-0.0 +0.5
Me 19	270°52.0 19°53.5	285°52.0 19°54.1	300°52.0 19°54.6	315°51.9 19°55.1	330°51.9 19°55.6	345°51.9 19°56.2	0°51.8 19°56.7	15°51.8 19°57.2	30°51.8 19°57.7	45°51.7 19°58.3	60°51.7 19°58.8	75°51.6 19°59.3	-0.0 +0.5
Je 20	270°51.2 20°06.0	285°51.1 20°06.5	300°51.1 20°07.0	315°51.1 20°07.6	330°51.0 20°08.1	345°51.0 20°08.6	0°50.9 20°09.1	15°50.9 20°09.6	30°50.9 20°10.1	45°50.8 20°10.6	60°50.8 20°11.1	75°50.7 20°11.6	-0.0 +0.5
Ve 21	270°50.2 20°18.1	285°50.1 20°18.6	300°50.1 20°19.1	315°50.0 20°19.6	330°50.0 20°20.1	345°50.0 20°20.6	0°49.9 20°21.1	15°49.9 20°21.6	30°49.8 20°22.1	45°49.8 20°22.6	60°49.7 20°23.1	75°49.7 20°23.6	-0.0 +0.5
Sa 22	270°49.1 20°29.9	285°49.0 20°30.4	300°49.0 20°30.9	315°48.9 20°31.4	330°48.9 20°31.9	345°48.8 20°32.3	0°48.8 20°32.8	15°48.7 20°33.3	30°48.7 20°33.8	45°48.6 20°34.3	60°48.6 20°34.7	75°48.5 20°35.2	-0.1 +0.5
Di 23	270°47.8 20°41.4	285°47.8 20°41.8	300°47.7 20°42.3	315°47.7 20°42.8	330°47.6 20°43.2	345°47.6 20°43.7	0°47.5 20°44.2	15°47.4 20°44.6	30°47.4 20°45.1	45°47.4 20°45.6	60°47.3 20°46.0	75°47.2 20°46.5	-0.1 +0.5
Lu 24	270°46.5 20°52.4	285°46.4 20°52.9	300°46.4 20°53.3	315°46.3 20°53.8	330°46.2 20°54.2	345°46.2 20°54.7	0°46.1 20°55.1	15°46.0 20°55.6	30°46.0 20°56.0	45°45.9 20°56.5	60°45.9 20°56.9	75°45.8 20°57.4	-0.1 +0.5
Ma 25	270°45.0 21°03.1	285°44.9 21°03.6	300°44.8 21°04.0	315°44.8 21°04.5	330°44.7 21°04.9	345°44.6 21°05.3	0°45.4 21°05.8	15°45.4 21°06.2	30°45.3 21°06.6	45°45.3 21°07.1	60°45.2 21°07.5	75°44.3 21°07.9	-0.1 +0.4
Me 26	270°43.4 21°13.5	285°43.3 21°13.9	300°43.2 21°14.3	315°43.2 21°14.8	330°43.1 21°15.2	345°43.0 21°15.6	0°42.9 21°16.0	15°42.9 21°16.4	30°42.8 21°16.9	45°42.7 21°17.3	60°42.7 21°17.7	75°42.6 21°18.1	-0.1 +0.4
Je 27	270°41.6 21°23.5	285°41.6 21°23.9	300°41.5 21°24.3	315°41.4 21°24.7	330°41.3 21°25.1	345°41.3 21°25.5	0°41.2 21°25.9	15°41.1 21°26.3	30°41.0 21°26.7	45°41.0 21°27.1	60°40.9 21°27.5	75°40.8 21°27.9	-0.1 +0.4
Ve 28	270°39.8 21°33.1	285°39.7 21°33.5	300°39.6 21°33.9	315°39.5 21°34.3	330°39.5 21°34.7	345°39.4 21°35.1	0°39.3 21°35.4	15°39.2 21°35.8	30°39.1 21°36.2	45°39.1 21°36.6	60°39.0 21°37.0	75°38.9 21°37.4	-0.1 +0.4
Sa 29	270°37.8 21°42.3	285°37.7 21°43.1	300°37.7 21°43.1	315°37.6 21°43.5	330°37.5 21°43.8	345°37.4 21°44.2	0°37.3 21°44.6	15°37.2 21°45.0	30°37.1 21°45.4	45°37.1 21°45.7	60°37.0 21°46.1	75°36.9 21°46.4	-0.1 +0.4
Di 30	270°35.7 21°51.2	285°35.7 21°51.9	300°35.6 21°51.9	315°35.5 21°52.3	330°35.4 21°52.6	345°35.3 21°53.0	0°35.2 21°53.4	15°35.1 21°53.8	30°35.0 21°54.2	45°34.9 21°54.6	60°34.8 21°54.8	75°34.8 21°55.1	-0.1 +0.4
Lu 31	270°33.6 21°59.7	285°33.5 22°00.0	300°33.4 22°00.4	315°33.3 22°00.7	330°33.2 22°01.1	345°33.1 22°01.7	0°33.0 22°02.1	15°32.9 22°02.4	30°32.8 22°02.8	45°32.7 22°03.1	60°32.6 22°03.4	75°32.5 22°03.8	-0.1 +0.3

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA = 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Mai 2032

	J	20h	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	Δ'/h	SP
●	Sa 1	232°45.5 -14°42.4	247°12.5 -14°34.3	261°39.4 -14°26.1	276°06.4 -14°17.9	290°33.5 -14°09.5	305°00.6 -14°01.1	319°27.7 -13°52.5	333°54.9 -13°43.9	348°22.1 -13°35.2	2°49.3 -13°26.4	17°16.6 -13°17.6	+27.1	16.1
	Di 2	234°10.1 -10°55.3	248°38.0 -10°45.2	263°05.8 -10°35.1	277°33.8 -10°24.9	292°01.7 -10°14.7	306°29.7 -10°04.4	320°57.7 -9°54.0	335°25.8 -9°43.6	349°53.9 -9°33.9	4°22.0 -9°22.6	18°50.1 -9°12.0	+28.0	16.2
	Lu 3	235°55.9 -6°27.0	250°24.5 -6°15.7	264°53.1 -6°04.3	279°21.8 -5°52.9	293°50.5 -5°41.4	308°19.2 -5°30.0	322°47.9 -5°18.5	337°16.6 -5°06.9	351°45.3 -4°55.3	6°14.1 -4°43.7	20°42.9 -4°32.1	+28.7	16.2
●	Ma 4	250°24.5 -6°15.7	264°53.1 -6°04.3	279°21.8 -5°52.9	293°50.5 -5°41.4	308°19.2 -5°30.0	322°47.9 -5°18.5	337°16.6 -5°06.9	351°45.3 -4°55.3	6°14.1 -4°43.7	20°42.9 -4°32.1	35°11.7 -4°20.5	+28.7	16.2
	Me 5	252°25.7 -1°23.4	266°54.7 -1°11.5	281°23.8 -0°59.6	295°52.8 -0°47.7	310°21.9 -0°35.8	324°50.9 -0°23.9	339°20.0 -0°11.9	353°49.1 0°00.0	8°18.1 0°11.9	22°47.2 0°23.8	37°16.3 0°35.7	+29.1	16.1
	Je 6	254°32.5 3°33.1	269°01.6 3°44.7	283°30.6 3°56.4	297°59.7 4°08.0	312°28.7 4°19.6	326°57.8 4°31.2	341°26.8 4°42.8	355°55.8 4°54.3	10°24.8 5°05.8	24°53.8 5°17.2	39°22.8 5°28.7	+29.0	16.1
●	Ve 7	256°36.2 8°15.2	271°04.9 8°25.9	285°33.7 8°36.6	300°02.4 8°47.2	314°31.2 8°57.8	328°59.9 9°08.3	343°28.6 9°18.8	357°57.3 9°29.2	12°25.9 9°39.5	26°54.6 9°49.8	41°23.2 10°00.0	+28.7	16.0
	Sa 8	258°30.4 12°25.2	272°58.8 12°34.3	287°27.1 12°43.4	301°55.4 12°52.3	316°23.7 13°01.2	330°51.9 13°10.0	345°20.2 13°18.7	359°48.4 13°27.3	14°16.6 13°35.8	28°44.8 13°44.3	43°13.0 13°52.7	+28.3	15.9
	Di 9	260°13.8 15°47.0	274°41.8 15°54.4	289°09.7 16°01.3	303°37.7 16°08.0	318°05.6 16°14.6	332°33.5 16°21.1	347°01.4 16°27.5	1°29.3 16°33.9	15°57.2 16°40.2	30°25.0 16°46.2	44°52.9 16°52.2	+27.9	15.7
●	Lu 10	261°50.6 18°10.1	276°18.4 18°14.4	290°46.3 18°18.6	305°14.1 18°22.8	319°42.0 18°26.8	334°09.9 18°30.7	348°37.7 18°34.5	3°05.6 18°38.2	17°33.5 18°41.8	32°01.4 18°45.3	46°29.3 18°48.6	+27.9	15.5
	Ma 11	263°29.8 19°26.0	277°58.0 19°27.6	292°26.2 19°29.1	306°54.4 19°30.5	321°22.7 19°31.8	335°50.9 19°33.0	350°19.3 19°34.1	4°47.6 19°35.1	19°16.0 19°35.9	33°44.3 19°36.7	48°12.8 19°37.3	+28.3	15.4
	Me 12	265°23.1 19°34.3	279°52.1 19°33.3	294°21.1 19°32.2	308°50.1 19°30.9	323°19.2 19°29.6	337°48.4 19°28.2	352°17.6 19°26.6	6°46.8 19°25.0	21°16.1 19°23.3	35°44.3 19°21.4	50°14.8 19°19.5	+29.2	15.2
●	Je 13	267°40.8 18°39.2	282°10.9 18°35.8	296°41.1 18°32.3	311°11.3 18°28.7	325°41.6 18°25.0	340°11.9 18°21.2	354°42.3 18°17.3	9°12.7 18°13.4	23°43.1 18°09.4	38°13.7 18°05.2	52°44.3 18°01.0	+30.3	15.0
	Ve 14	270°29.1 16°48.4	285°00.5 16°42.9	299°31.9 16°37.4	314°03.4 16°31.8	328°35.0 16°26.1	343°06.6 16°20.3	357°38.2 16°14.5	12°02.9 16°08.6	26°41.7 16°02.7	41°13.5 15°56.6	55°45.3 15°50.5	+31.6	14.9
	Sa 15	273°48.8 14°11.3	288°21.4 14°04.2	302°54.0 13°57.0	317°26.7 13°49.8	331°59.5 13°42.5	346°32.2 13°35.1	1°05.0 13°27.7	15°37.9 13°20.3	30°10.8 13°12.8	44°43.7 13°05.2	59°16.7 12°57.6	+32.8	14.8
●	Di 16	277°35.8 10°57.5	292°09.4 10°49.1	306°42.9 10°40.7	321°16.5 10°32.2	335°50.2 10°23.7	350°23.8 10°15.1	4°57.5 10°06.5	19°31.3 9°57.9	34°05.8 9°49.2	48°38.8 9°40.5	63°12.6 9°31.7	+33.7	14.8
	Lu 17	281°42.2 7°16.0	296°16.4 7°06.7	310°50.5 6°57.3	325°24.6 6°47.9	339°58.8 6°38.5	354°33.0 6°29.1	9°07.2 6°19.6	23°41.4 6°10.1	38°15.6 6°00.6	52°49.8 5°51.1	67°24.0 5°41.5	+34.2	14.8
	Ma 18	285°57.8 3°15.2	300°32.0 3°05.2	315°06.3 2°55.3	329°40.4 2°45.3	344°14.8 2°35.4	358°49.0 2°25.4	13°23.2 2°15.4	27°57.4 2°05.4	42°31.6 1°55.3	57°05.8 1°45.3	71°40.0 1°35.2	+34.2	14.9
●	Me 19	290°10.8 -0°56.8	304°44.6 -1°06.9	319°18.5 -1°17.1	333°52.4 -1°27.3	348°26.2 -1°37.5	3°00.0 -1°47.7	17°33.7 -1°57.9	32°07.4 -2°08.1	46°41.1 -2°18.3	61°14.8 -2°28.5	75°48.5 -2°38.7	+33.8	15.0
	Je 20	294°08.8 -5°10.8	308°41.8 -5°20.9	323°14.8 -5°31.0	337°47.7 -5°41.0	352°20.7 -5°51.0	6°53.5 -6°01.0	21°26.3 -6°11.0	35°59.1 -6°21.0	50°31.8 -6°31.0	65°04.4 -6°40.9	79°37.0 -6°50.8	+32.8	15.1
	Ve 21	297°39.6 -9°16.6	312°11.4 -9°26.1	326°43.0 -9°35.6	341°14.6 -9°45.0	355°46.1 -9°54.4	10°17.6 -10°03.7	24°40.9 -10°13.0	39°20.3 -10°22.3	53°51.6 -10°31.5	68°22.8 -10°40.7	82°53.9 -10°49.7	+31.4	15.3
●	Sa 22	300°32.7 -13°01.1	315°02.7 -13°09.8	329°32.6 -13°18.1	344°02.5 -13°26.3	358°32.3 -13°34.5	13°02.0 -13°42.6	27°31.7 -13°50.6	42°01.3 -13°58.6	56°30.8 -14°06.4	71°00.2 -14°14.4	85°29.9 -14°22.2	+29.7	15.5
	Di 23	302°40.7 -16°10.1	317°08.9 -16°17.6	331°37.9 -16°23.2	346°05.0 -16°29.6	360°32.9 -16°35.8	15°00.7 -16°42.1	29°28.5 -16°48.2	43°56.2 -16°54.3	58°23.9 -17°00.2	72°51.4 -17°06.1	87°18.9 -17°11.8	+27.8	15.7
	Lu 24	304°03.0 -18°26.3	318°29.4 -18°30.4	332°55.8 -18°34.4	347°22.0 -18°38.3	361°48.3 -18°42.1	16°14.5 -18°45.8	30°40.6 -18°49.3	45°06.6 -18°52.8	59°32.7 -18°56.1	73°58.6 -18°59.3	88°24.5 -19°02.4	+26.1	15.9
●	Ma 25	304°47.3 -19°34.5	319°12.5 -19°35.7	333°37.6 -19°36.7	348°02.8 -19°37.6	362°27.9 -19°38.4	16°52.9 -19°39.0	31°18.0 -19°39.5	45°43.0 -19°39.9	60°08.0 -19°40.1	74°32.9 -19°40.3	88°57.9 -19°40.2	+25.1	16.1
	Me 26	305°10.1 -19°24.5	319°34.9 -19°22.4	333°59.6 -19°20.2	348°24.4 -19°17.8	362°49.2 -19°15.3	17°13.9 -19°12.7	31°38.7 -19°10.0	46°03.5 -19°07.1	60°28.3 -19°04.1	74°53.1 -19°01.0	89°17.9 -18°57.7	+24.8	16.2
	Je 27	305°32.3 -17°53.8	319°57.4 -17°48.6	334°22.6 -17°43.2	348°47.8 -17°37.7	363°13.1 -17°32.1	17°38.3 -17°26.4	32°03.7 -17°14.7	46°29.0 -17°02.6	60°54.4 -17°08.4	75°19.8 -17°02.4	89°45.3 -16°56.2	+25.3	16.2
●	Ve 28	319°57.4 -17°48.6	334°22.6 -17°43.2	348°47.8 -17°37.7	363°13.1 -17°32.1	378°38.3 -17°26.4	32°03.7 -17°14.7	46°29.0 -17°02.6	60°54.4 -17°08.4	75°19.8 -17°02.4	89°45.3 -16°56.2	104°10.8 -16°49.8	+25.3	16.2
	Sa 29	320°38.3 -15°01.2	335°04.5 -14°53.2	349°30.8 -14°45.1	363°57.1 -14°36.9	378°23.4 -14°28.5	32°49.8 -14°20.1	47°16.3 -14°11.6	61°42.7 -14°03.0	76°09.3 -13°54.4	90°35.9 -13°45.6	105°02.5 -13°36.8	+26.4	16.2
	Di 30	321°48.0 -11°14.7	336°15.4 -11°04.6	350°42.9 -10°54.5	365°10.4 -10°44.3	379°37.9 -10°34.3	34°05.6 -10°23.8	48°33.2 -10°13.4	63°00.0 -10°03.0	77°29.7 -9°52.5	91°56.5 -9°42.0	106°24.3 -9°31.4	+27.6	16.2
●	Lu 31	323°27.3 -6°46.9	337°55.8 -6°35.6	352°24.4 -6°24.3	366°53.0 -6°12.9	381°21.6 -6°01.5	39°50.3 -5°50.1	50°19.0 -5°38.6	64°47.8 -5°27.1	79°16.5 -5°15.6	93°45.3 -5°04.1	108°14.2 -4°52.5	+28.7	16.2

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

DQ: 2 16h01 — NL: 9 13h35 — PQ: 17 09h43 — PL: 25 02h37 — DQ: 31 20h51

SOLEIL

Juin 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ma 1	270°31.3 22°07.8	285°31.2 22°08.1	300°31.1 22°08.4	315°31.0 22°08.8	330°30.9 22°09.1	345°30.8 22°09.4	6°30.7 22°09.8	15°30.6 22°10.1	30°30.5 22°10.2	45°30.4 22°10.7	60°30.3 22°11.0	75°30.2 22°11.4	-0.1 +0.3
Me 2	270°28.9 22°15.5	285°28.8 22°15.8	300°28.7 22°16.1	315°28.6 22°16.4	330°28.5 22°16.8	345°28.4 22°17.1	6°28.3 22°17.4	15°28.2 22°17.7	30°28.1 22°18.2	45°27.9 22°18.3	60°27.8 22°18.6	75°27.7 22°18.9	-0.1 +0.3
Je 3	270°26.4 22°22.8	285°26.3 22°23.1	300°26.2 22°23.0	315°26.1 22°23.7	330°26.0 22°24.0	345°25.8 22°24.3	6°25.7 22°24.6	15°25.6 22°24.9	30°25.5 22°25.2	45°25.4 22°25.5	60°25.3 22°25.8	75°25.2 22°26.1	-0.1 +0.3
Ve 4	270°23.8 22°29.8	285°23.7 22°30.0	300°23.6 22°30.3	315°23.5 22°30.6	330°23.4 22°30.9	345°23.2 22°31.2	6°23.1 22°31.4	15°23.0 22°31.7	30°22.9 22°32.0	45°22.8 22°32.3	60°22.7 22°32.5	75°22.6 22°32.8	-0.1 +0.3
Sa 5	270°21.1 22°36.3	285°21.0 22°36.6	300°20.9 22°36.8	315°20.8 22°37.1	330°20.7 22°37.4	345°20.6 22°37.6	6°20.4 22°37.9	15°20.3 22°38.1	30°20.2 22°38.4	45°20.1 22°38.7	60°20.0 22°38.9	75°19.9 22°39.2	-0.1 +0.3
Di 6	270°18.4 22°42.5	285°18.3 22°42.7	300°18.1 22°42.9	315°18.0 22°43.2	330°17.9 22°43.7	345°17.8 22°44.0	6°17.7 22°43.9	15°17.5 22°44.2	30°17.4 22°44.7	45°17.3 22°44.7	60°17.2 22°44.9	75°17.1 22°45.1	-0.1 +0.2
Lu 7	270°15.5 22°48.2	285°15.4 22°48.4	300°15.3 22°48.7	315°15.2 22°48.9	330°15.1 22°49.1	345°14.9 22°49.3	6°14.8 22°49.6	15°14.7 22°49.8	30°14.6 22°50.0	45°14.5 22°50.2	60°14.3 22°50.5	75°14.2 22°50.7	-0.1 +0.2
Ma 8	270°12.6 22°53.5	285°12.5 22°53.8	300°12.4 22°54.0	315°12.3 22°54.2	330°12.2 22°54.6	345°12.0 22°54.6	6°11.9 22°54.8	15°11.8 22°55.0	30°11.7 22°55.2	45°11.5 22°55.4	60°11.4 22°55.7	75°11.3 22°55.9	-0.1 +0.2
Me 9	270°09.7 22°58.5	285°09.6 22°58.7	300°09.4 22°58.9	315°09.3 22°59.1	330°09.2 22°59.3	345°09.1 22°59.5	6°08.9 22°59.7	15°08.8 22°59.9	30°08.7 22°60.0	45°08.6 22°60.2	60°08.4 22°60.4	75°08.3 22°60.6	-0.1 +0.2
Je 10	270°06.7 23°03.0	285°06.5 23°03.2	300°06.4 23°03.4	315°06.3 23°03.6	330°06.2 23°03.7	345°06.0 23°03.9	6°05.9 23°04.1	15°05.8 23°04.3	30°05.6 23°04.5	45°05.5 23°04.6	60°05.4 23°04.8	75°05.3 23°05.0	-0.1 +0.2
Ve 11	270°03.6 23°07.2	285°03.5 23°07.3	300°03.3 23°07.5	315°03.2 23°07.7	330°03.1 23°08.0	345°02.9 23°08.3	6°02.8 23°08.1	15°02.7 23°08.3	30°02.6 23°08.6	45°02.4 23°08.8	60°02.3 23°09.0	75°02.2 23°09.2	-0.1 +0.2
Sa 12	270°00.5 23°10.9	285°00.3 23°11.0	300°00.2 23°11.2	315°00.1 23°11.3	330°00.0 23°11.5	344°59.8 23°11.6	359°59.7 23°11.8	14°59.6 23°11.9	29°59.4 23°12.0	44°59.3 23°12.2	59°59.2 23°12.3	74°59.0 23°12.5	-0.1 +0.1
Di 13	269°57.3 23°14.2	284°57.2 23°14.3	299°57.1 23°14.5	314°56.9 23°14.6	329°56.8 23°14.7	344°56.7 23°14.8	359°56.5 23°15.0	14°56.4 23°15.1	29°56.3 23°15.3	44°56.1 23°15.5	59°56.0 23°15.6	74°55.9 23°15.6	-0.1 +0.1
Lu 14	269°54.1 23°17.1	284°54.0 23°17.2	299°53.9 23°17.3	314°53.7 23°17.5	329°53.6 23°17.6	344°53.5 23°17.7	359°53.3 23°17.8	14°53.2 23°17.9	29°53.1 23°18.0	44°52.9 23°18.2	59°52.8 23°18.3	74°52.7 23°18.3	-0.1 +0.1
Ma 15	269°50.9 23°19.6	284°50.8 23°19.7	299°50.7 23°19.8	314°50.5 23°19.9	329°50.4 23°20.0	344°50.3 23°20.1	359°50.1 23°20.2	14°50.0 23°20.3	29°49.9 23°20.4	44°49.7 23°20.5	59°49.6 23°20.6	74°49.5 23°20.6	-0.1 +0.1
Me 16	269°47.7 23°21.7	284°47.6 23°21.8	299°47.4 23°21.9	314°47.3 23°21.9	329°47.2 23°22.0	344°47.0 23°22.1	359°46.9 23°22.2	14°46.8 23°22.2	29°46.6 23°22.3	44°46.5 23°22.4	59°46.4 23°22.4	74°46.2 23°22.5	-0.1 +0.1
Je 17	269°44.5 23°23.4	284°44.3 23°23.4	299°44.2 23°23.5	314°44.1 23°23.6	329°44.0 23°23.6	344°43.8 23°23.7	359°43.6 23°23.7	14°43.5 23°23.8	29°43.3 23°23.8	44°43.2 23°23.9	59°43.1 23°23.9	74°43.0 23°24.0	-0.1 +0.1
Ve 18	269°41.2 23°24.6	284°41.1 23°24.7	299°40.9 23°24.7	314°40.8 23°24.8	329°40.7 23°24.8	344°40.5 23°24.8	359°40.4 23°24.9	14°40.3 23°24.9	29°40.2 23°25.0	44°40.0 23°25.0	59°39.9 23°25.0	74°39.7 23°25.1	-0.1 +0.0
Sa 19	269°38.0 23°25.5	284°37.8 23°25.5	299°37.7 23°25.5	314°37.6 23°25.6	329°37.4 23°25.6	344°37.3 23°25.6	359°37.1 23°25.6	14°37.0 23°25.6	29°36.9 23°25.7	44°36.7 23°25.7	59°36.6 23°25.7	74°36.5 23°25.7	-0.1 +0.0
Di 20	269°34.7 23°25.9	284°34.6 23°25.9	299°34.4 23°25.9	314°34.3 23°25.9	329°34.2 23°25.9	344°34.0 23°26.0	359°33.9 23°26.0	14°33.8 23°26.0	29°33.6 23°26.0	44°33.5 23°26.0	59°33.4 23°26.0	74°33.2 23°26.0	-0.1 +0.0
Lu 21	269°31.5 23°25.9	284°31.3 23°25.9	299°31.2 23°25.9	314°31.1 23°25.9	329°30.9 23°25.9	344°30.8 23°25.9	359°30.7 23°25.9	14°30.5 23°25.9	29°30.4 23°25.9	44°30.3 23°25.9	59°30.1 23°25.8	74°30.0 23°25.8	-0.1 -0.0
Ma 22	269°28.2 23°25.5	284°28.1 23°25.5	299°28.0 23°25.5	314°27.8 23°25.5	329°27.7 23°25.4	344°27.6 23°25.4	359°27.4 23°25.4	14°27.3 23°25.4	29°27.2 23°25.3	44°27.0 23°25.3	59°26.9 23°25.3	74°26.8 23°25.2	-0.1 -0.0
Me 23	269°25.0 23°24.7	284°24.9 23°24.7	299°24.8 23°24.7	314°24.6 23°24.6	329°24.5 23°24.6	344°24.4 23°24.5	359°24.3 23°24.5	14°24.1 23°24.4	29°24.0 23°24.4	44°23.8 23°24.3	59°23.7 23°24.3	74°23.6 23°24.2	-0.1 -0.0
Je 24	269°21.8 23°23.5	284°21.7 23°23.5	299°21.6 23°23.4	314°21.4 23°23.3	329°21.3 23°23.3	344°21.2 23°23.2	359°21.0 23°23.2	14°20.9 23°23.2	29°20.8 23°23.3	44°20.7 23°23.3	59°20.5 23°22.9	74°20.4 23°22.8	-0.1 -0.1
Ve 25	269°18.7 23°21.9	284°18.6 23°21.8	299°18.4 23°21.7	314°18.3 23°21.7	329°18.2 23°21.6	344°18.0 23°21.5	359°17.9 23°21.4	14°17.8 23°21.3	29°17.6 23°21.2	44°17.5 23°21.2	59°17.4 23°21.1	74°17.2 23°21.0	-0.1 -0.1
Sa 26	269°15.6 23°19.9	284°15.4 23°19.8	299°15.3 23°19.7	314°15.2 23°19.6	329°15.0 23°19.5	344°14.9 23°19.4	359°14.8 23°19.3	14°14.6 23°19.2	29°14.4 23°19.1	44°14.3 23°19.0	59°14.3 23°18.9	74°14.1 23°18.8	-0.1 -0.1
Di 27	269°12.5 23°17.4	284°12.3 23°17.2	299°12.2 23°17.2	314°12.1 23°17.1	329°12.0 23°17.0	344°11.8 23°16.8	359°11.7 23°16.7	14°11.6 23°16.6	29°11.4 23°16.5	44°11.3 23°16.2	59°11.2 23°16.2	74°11.1 23°16.1	-0.1 -0.1
Lu 28	269°09.4 23°14.5	284°09.3 23°14.4	299°09.2 23°14.3	314°09.0 23°14.2	329°08.8 23°14.0	344°08.8 23°13.9	359°08.7 23°13.8	14°08.5 23°13.6	29°08.4 23°13.5	44°08.3 23°13.2	59°08.2 23°13.2	74°08.0 23°13.1	-0.1 -0.1
Ma 29	269°06.4 23°11.3	284°06.3 23°11.1	299°06.2 23°11.0	314°06.0 23°10.8	329°05.9 23°10.7	344°05.8 23°10.5	359°05.7 23°10.4	14°05.5 23°10.2	29°05.4 23°10.2	44°05.3 23°09.9	59°05.2 23°09.8	74°05.1 23°09.6	-0.1 -0.1
Me 30	269°03.5 23°07.6	284°03.3 23°07.4	299°03.2 23°07.3	314°03.1 23°07.1	329°03.0 23°07.0	344°02.9 23°06.8	359°02.7 23°06.5	14°02.6 23°06.3	29°02.5 23°06.2	44°02.4 23°06.1	59°02.2 23°06.0	74°02.1 23°05.8	-0.1 -0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA − 15°

Ligne 2: Dec (Déclinaison, − = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juin 2032

	J	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	Δ'/h SP
●	Ma 1	226°20.0 1°35.2	240°49.5 1°46.9	255°19.1 1°58.6	269°48.6 2°10.3	284°18.2 2°21.9	298°47.8 2°33.6	313°17.4 2°45.2	327°47.0 2°56.8	342°16.6 3°08.4	356°46.2 3°19.9	11°15.8 3°31.5	+29.6 16.0 +11.6 58.7
	Me 2	228°39.8 6°20.9	243°09.4 6°31.9	257°38.9 6°42.9	272°08.5 6°53.8	286°38.0 7°04.7	301°07.6 7°15.5	315°37.1 7°26.3	330°06.6 7°37.1	344°36.1 7°47.8	359°05.6 7°58.4	13°35.1 8°09.1	+29.5 15.9 +10.8 58.3
	Je 3	243°09.4 6°31.9	257°38.9 6°42.9	272°08.5 6°53.8	286°38.0 7°04.7	301°07.6 7°15.5	315°37.1 7°26.3	330°06.6 7°37.1	344°36.1 7°47.8	359°05.6 7°58.4	13°35.1 8°09.1	28°04.6 8°19.6	+29.5 15.9 +10.8 58.3
	Ve 4	245°25.1 10°51.3	259°54.3 11°01.0	274°23.6 11°10.5	288°52.8 11°20.0	303°22.0 11°29.5	317°51.1 11°38.8	332°20.3 11°48.1	346°49.4 11°57.3	1°18.5 12°06.5	15°47.6 12°15.6	30°16.7 12°24.6	+29.2 15.8 +9.3 57.8
	Sa 5	247°30.7 14°30.5	261°59.5 14°38.3	276°28.2 14°45.9	290°57.0 14°53.5	305°25.7 15°01.0	319°54.4 15°08.4	334°23.1 15°15.7	348°51.8 15°22.9	3°20.4 15°30.0	17°49.1 15°37.1	32°17.7 15°44.0	+28.7 15.6 +7.4 57.4
	Di 6	249°25.3 17°17.1	263°53.7 17°22.5	278°22.1 17°27.8	292°50.5 17°33.1	307°18.9 17°38.2	321°47.2 17°43.2	336°15.6 17°48.1	350°43.9 17°52.9	5°12.3 17°57.7	19°40.6 18°02.3	34°09.0 18°06.8	+28.4 15.5 +5.0 56.8
	Lu 7	251°13.8 19°02.0	265°42.2 19°04.9	280°10.5 19°07.6	294°38.9 19°10.2	309°07.2 19°12.7	323°35.6 19°15.1	338°04.0 19°17.4	352°32.4 19°19.6	7°00.8 19°21.7	21°29.2 19°23.7	35°57.6 19°25.6	+28.4 15.4 +2.4 56.3
	Ma 8	253°05.9 19°41.0	267°34.7 19°41.2	282°03.4 19°41.2	296°32.2 19°41.2	311°01.0 19°41.1	325°29.8 19°40.8	339°58.7 19°40.5	354°27.5 19°40.0	8°56.5 19°38.8	23°25.4 19°38.8	37°54.4 19°38.1	+28.8 15.2 -0.3 55.8
	Me 9	255°13.1 19°14.7	269°42.6 19°12.4	284°12.2 19°09.9	298°41.9 19°07.4	313°11.5 19°04.8	327°41.2 19°02.0	342°11.0 18°59.2	356°40.8 18°56.3	11°10.7 18°53.3	25°40.5 18°50.2	40°10.5 18°47.6	+29.7 15.1 -2.8 55.2
	Je 10	257°45.0 17°48.6	272°15.7 17°44.0	286°46.4 17°39.4	301°17.2 17°34.6	315°48.1 17°29.8	330°18.9 17°24.9	344°49.9 17°19.9	359°20.8 17°14.9	13°51.9 17°09.7	28°23.0 17°04.5	42°54.1 16°59.2	+30.9 14.9 -4.9 54.8
○	Ve 11	260°47.0 15°31.2	275°19.0 15°24.7	289°50.9 15°18.2	304°23.0 15°11.7	318°55.0 15°05.1	333°27.1 14°58.4	347°59.3 14°51.6	2°31.5 14°44.8	17°03.8 14°38.0	31°36.1 14°31.0	46°08.4 14°24.0	+32.1 14.8 -6.7 54.4
	Sa 12	264°19.1 12°32.4	278°52.2 12°24.5	293°25.3 12°16.6	307°58.4 12°08.6	322°31.6 12°00.6	337°04.8 11°52.5	351°38.1 11°44.4	6°11.4 11°36.2	20°44.7 11°28.0	35°18.1 11°19.8	49°51.5 11°11.5	+33.2 14.8 -8.1 54.2
	Di 13	268°16.5 9°02.1	282°50.4 8°53.2	297°24.4 8°44.2	311°58.4 8°35.2	326°32.3 8°26.1	341°06.4 8°17.1	355°40.4 8°08.0	10°14.5 7°58.8	24°48.6 7°49.7	39°22.7 7°40.5	53°56.8 7°31.3	+34.0 14.8 -9.1 54.1
	Lu 14	272°30.9 5°09.6	287°05.3 5°00.0	301°39.7 4°50.3	316°14.1 4°40.6	330°48.5 4°30.9	345°22.9 4°21.2	359°57.3 4°11.5	14°31.7 4°01.7	29°06.2 3°51.9	43°40.6 3°42.1	58°15.0 3°32.3	+34.4 14.8 -9.7 54.2
	Ma 15	276°51.5 1°03.5	291°25.9 0°53.4	306°00.2 0°43.4	320°34.6 0°33.4	335°09.0 0°23.4	349°43.3 0°13.3	4°17.6 0°03.3	18°51.9 -0°06.8	33°26.2 -0°16.8	48°00.5 -0°26.9	62°34.8 -0°37.0	+34.3 14.8 -10.0 54.4
	Me 16	281°06.1 -3°08.0	295°40.0 -3°18.1	310°13.9 -3°28.1	324°47.7 -3°38.2	339°21.5 -3°48.2	353°55.2 -3°58.2	8°28.9 -4°08.2	23°02.6 -4°18.2	37°36.3 -4°28.2	52°09.9 -4°38.2	66°43.9 -4°48.2	+33.7 15.0 -10.0 54.9
	Je 17	285°01.9 -7°15.9	299°34.8 -7°25.6	314°07.6 -7°35.3	328°40.3 -7°45.0	343°13.0 -7°54.6	357°45.7 -8°04.2	12°18.3 -8°13.8	26°50.8 -8°23.3	41°23.3 -8°32.8	55°55.7 -8°42.3	70°28.1 -8°51.8	+32.6 15.1 -9.6 55.5
	Ve 18	288°26.1 -11°09.8	302°57.4 -11°18.7	317°28.7 -11°27.5	331°59.9 -11°36.3	346°31.0 -11°45.1	1°02.1 -11°53.8	15°33.1 -12°02.5	30°04.4 -12°11.1	44°34.8 -12°19.6	59°05.6 -12°28.2	73°36.3 -12°36.6	+31.0 15.3 -8.7 56.2
	Sa 19	291°07.4 -14°36.8	305°36.8 -14°44.3	320°06.2 -14°51.8	334°35.5 -14°59.2	349°04.7 -15°06.5	3°33.8 -15°13.7	18°02.8 -15°20.9	32°31.3 -15°28.0	46°00.6 -15°35.0	61°29.4 -15°41.9	75°58.1 -15°48.8	+29.1 15.6 -7.2 57.1
	Di 20	292°58.8 -17°21.7	307°26.2 -17°27.7	321°53.5 -17°32.6	336°20.7 -17°37.9	350°47.9 -17°43.1	5°14.9 -17°48.2	19°41.9 -17°53.2	34°08.8 -17°58.1	48°35.7 -18°02.9	63°02.4 -18°07.6	77°29.1 -18°12.2	+27.0 15.8 -5.0 58.0
○	Lu 21	294°00.5 -19°07.9	308°26.1 -19°10.7	322°51.5 -19°13.4	337°17.0 -19°15.9	351°42.3 -19°18.4	6°07.6 -19°20.7	20°32.8 -19°22.9	34°58.0 -19°25.0	49°23.1 -19°26.9	63°48.2 -19°28.7	78°13.2 -19°30.4	+25.3 16.0 -2.3 58.8
	Ma 22	294°22.7 -19°40.3	308°47.0 -19°39.9	323°11.3 -19°39.3	337°35.6 -19°38.7	351°59.8 -19°37.9	6°24.0 -19°36.9	20°48.2 -19°35.9	35°12.4 -19°34.7	49°36.5 -19°33.3	64°00.6 -19°31.8	78°24.7 -19°30.2	+24.2 16.2 +1.0 59.6
	Me 23	294°24.8 -18°49.7	308°48.8 -18°45.9	323°12.8 -18°42.0	337°36.9 -18°38.0	352°00.9 -18°33.8	6°24.9 -18°29.5	20°49.0 -18°25.1	35°13.0 -18°20.5	49°37.1 -18°15.8	64°01.2 -18°11.0	78°25.3 -18°06.0	+24.0 16.1 +4.4 60.1
	Je 24	294°30.1 -16°36.7	308°54.6 -16°29.8	323°19.3 -16°22.8	337°43.9 -16°15.7	352°08.6 -16°08.4	6°33.3 -16°01.0	20°58.1 -15°53.6	35°22.9 -15°46.0	49°47.8 -15°38.3	64°12.7 -15°30.5	78°37.6 -15°22.6	+24.8 16.5 +7.4 60.4
	Ve 25	294°57.6 -13°12.1	309°23.4 -13°02.7	323°49.2 -12°53.2	338°15.0 -12°43.6	352°40.9 -12°33.9	7°06.9 -12°24.2	21°32.9 -12°14.3	35°58.9 -12°04.4	50°25.1 -11°54.4	64°51.2 -11°44.4	79°17.5 -11°34.2	+26.0 16.5 +9.8 60.4
	Sa 26	295°57.4 -8°54.3	310°24.5 -8°43.2	324°51.6 -8°32.1	339°18.8 -8°20.9	353°46.0 -8°09.6	8°13.3 -7°58.3	22°40.7 -7°47.0	37°08.1 -7°35.6	51°35.5 -7°24.1	66°03.0 -7°12.7	80°30.6 -7°01.2	+27.3 16.4 +11.3 60.1
	Di 27	310°24.5 -8°43.2	324°51.6 -8°32.1	339°18.8 -8°20.9	353°46.0 -8°09.6	8°13.3 -7°58.3	22°40.7 -7°47.0	37°08.1 -7°35.6	51°35.5 -7°24.1	66°03.0 -7°12.7	80°30.6 -7°01.2	94°58.2 -6°49.6	+27.4 16.4 +11.4 60.1
	Lu 28	311°57.6 -3°53.2	326°25.9 -3°41.2	340°54.2 -3°29.3	355°22.6 -3°17.3	9°51.0 -3°05.4	24°19.5 -2°53.5	38°48.0 -2°41.4	53°16.5 -2°29.4	67°45.1 -2°17.4	82°13.7 -2°05.4	96°42.3 -1°53.4	+28.5 16.3 +12.0 59.7
	Ma 29	313°55.5 1°06.1	328°24.6 1°18.0	342°53.7 1°29.9	357°22.9 1°41.7	11°52.0 1°53.5	26°21.2 2°05.4	40°50.4 2°17.1	55°19.6 2°28.9	69°48.9 2°40.6	84°18.4 2°52.3	98°47.4 3°04.0	+29.2 16.1 +11.8 59.1
	Me 30	316°08.0 5°55.5	330°37.5 6°06.6	345°07.0 6°17.7	359°36.4 6°28.8	14°05.9 6°39.8	28°35.4 6°50.7	43°04.9 7°01.6	57°34.3 7°12.5	72°03.8 7°23.3	86°33.3 7°34.0	101°02.8 7°44.7	+29.5 15.9 +10.9 58.5

Ligne 1: GHA, Δ' / h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ' / h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
NL: 8 01h32 — PQ: 16 02h59 — PL: 23 11h32 — DQ: 30 02h11

SOLEIL

Juillet 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	268°00.6 23°03.5	284°00.4 23°03.3	299°00.3 23°03.2	314°00.2 23°03.0	329°00.1 23°02.8	344°00.0 23°02.6	358°59.9 23°02.4	13°59.7 23°02.3	28°59.6 23°02.1	43°59.5 23°01.9	58°59.4 23°01.7	73°59.3 23°01.5	-0.1 -0.2
Ve 2	268°57.7 22°59.0	283°57.6 22°58.9	298°57.5 22°58.6	313°57.4 22°58.5	328°57.3 22°58.2	343°57.2 22°58.1	358°57.0 22°57.9	13°56.9 22°57.7	28°56.8 22°57.5	43°56.7 22°57.3	58°56.6 22°57.1	73°56.5 22°56.9	-0.1 -0.2
Sa 3	268°55.0 22°54.2	283°54.9 22°53.9	298°54.7 22°53.7	313°54.6 22°53.5	328°54.5 22°53.3	343°54.4 22°53.1	358°54.3 22°52.9	13°54.2 22°52.7	28°54.1 22°52.4	43°54.0 22°52.2	58°53.8 22°52.0	73°53.7 22°51.8	-0.1 -0.2
Di 4	268°52.3 22°48.9	283°52.2 22°48.6	298°52.1 22°48.4	313°51.9 22°48.2	328°51.8 22°48.0	343°51.7 22°47.7	358°51.6 22°47.5	13°51.5 22°47.3	28°51.4 22°47.0	43°51.3 22°46.8	58°51.2 22°46.6	73°51.1 22°46.3	-0.1 -0.2
Lu 5	268°49.7 22°43.2	283°49.6 22°42.9	298°49.5 22°42.7	313°49.3 22°42.5	328°49.2 22°42.2	343°49.1 22°42.0	358°49.0 22°41.7	13°48.9 22°41.5	28°48.8 22°41.2	43°48.7 22°41.0	58°48.6 22°40.7	73°48.5 22°40.5	-0.1 -0.2
Ma 6	268°47.1 22°37.1	283°47.0 22°36.9	298°46.9 22°36.6	313°46.8 22°36.3	328°46.7 22°36.1	343°46.6 22°35.8	358°46.5 22°35.5	13°46.4 22°35.3	28°46.3 22°35.0	43°46.2 22°34.7	58°46.1 22°34.5	73°46.0 22°34.2	-0.1 -0.3
Me 7	268°44.7 22°30.6	283°44.6 22°30.4	298°44.5 22°30.1	313°44.4 22°29.8	328°44.3 22°29.5	343°44.2 22°29.3	358°44.1 22°29.0	13°44.0 22°28.7	28°43.9 22°28.4	43°43.8 22°28.1	58°43.7 22°27.8	73°43.6 22°27.6	-0.1 -0.3
Je 8	268°42.4 22°23.8	283°42.3 22°23.5	298°42.2 22°23.2	313°42.1 22°22.9	328°42.0 22°22.6	343°41.9 22°22.3	358°41.8 22°22.0	13°41.7 22°21.7	28°41.6 22°21.4	43°41.5 22°21.1	58°41.4 22°20.8	73°41.3 22°20.5	-0.1 -0.3
Ve 9	268°40.1 22°16.6	283°40.0 22°16.2	298°39.9 22°15.9	313°39.9 22°15.6	328°39.8 22°15.3	343°39.7 22°15.0	358°39.6 22°14.7	13°39.5 22°14.4	28°39.4 22°14.2	43°39.3 22°14.0	58°39.2 22°13.8	73°39.2 22°13.1	-0.1 -0.3
Sa 10	268°38.0 22°08.9	283°37.9 22°08.6	298°37.8 22°08.3	313°37.8 22°07.9	328°37.7 22°07.6	343°37.6 22°07.3	358°37.5 22°07.0	13°37.4 22°06.6	28°37.3 22°06.3	43°37.3 22°06.0	58°37.2 22°05.6	73°37.1 22°05.3	-0.1 -0.3
Di 11	268°36.0 22°00.9	283°35.9 22°00.6	298°35.8 22°00.3	313°35.8 21°59.9	328°35.7 21°59.6	343°35.6 21°59.2	358°35.5 21°58.9	13°35.4 21°58.5	28°35.3 21°58.2	43°35.3 21°57.8	58°35.2 21°57.5	73°35.1 21°57.1	-0.1 -0.3
Lu 12	268°34.1 21°52.5	283°34.0 21°52.2	298°34.0 21°51.8	313°33.9 21°51.5	328°33.8 21°51.1	343°33.7 21°50.7	358°33.7 21°50.4	13°33.6 21°50.0	28°33.5 21°49.7	43°33.4 21°49.3	58°33.4 21°48.9	73°33.3 21°48.6	-0.1 -0.4
Ma 13	268°32.3 21°43.8	283°32.3 21°43.4	298°32.2 21°43.0	313°32.1 21°42.7	328°32.1 21°42.3	343°32.0 21°41.9	358°31.9 21°41.5	13°31.8 21°41.2	28°31.8 21°40.8	43°31.7 21°40.4	58°31.7 21°40.0	73°31.6 21°39.6	-0.1 -0.4
Me 14	268°30.7 21°34.7	283°30.6 21°34.3	298°30.6 21°33.9	313°30.5 21°33.5	328°30.4 21°33.1	343°30.4 21°32.7	358°30.3 21°32.3	13°30.2 21°31.9	28°30.2 21°31.5	43°30.3 21°31.1	58°30.0 21°30.7	73°30.0 21°30.4	-0.1 -0.4
Je 15	268°29.2 21°25.2	283°29.1 21°24.8	298°29.0 21°24.4	313°29.0 21°24.0	328°28.9 21°23.5	343°28.9 21°23.1	358°28.8 21°22.7	13°28.8 21°22.3	28°28.7 21°21.9	43°28.6 21°21.5	58°28.6 21°21.1	73°28.5 21°20.7	-0.1 -0.4
Ve 16	268°27.8 21°15.3	283°27.7 21°14.9	298°27.7 21°14.5	313°27.6 21°14.0	328°27.6 21°13.6	343°27.5 21°13.2	358°27.5 21°12.8	13°27.4 21°12.4	28°27.3 21°11.9	43°27.3 21°11.5	58°27.2 21°11.1	73°27.2 21°10.7	-0.1 -0.4
Sa 17	268°26.5 21°05.1	283°26.5 21°04.7	298°26.4 21°04.2	313°26.4 21°03.8	328°26.3 21°03.4	343°26.3 21°02.9	358°26.2 21°02.5	13°26.2 21°02.0	28°26.1 21°01.6	43°26.1 21°01.2	58°26.0 21°00.7	73°26.0 21°00.3	-0.0 -0.4
Di 18	268°25.4 20°54.5	283°25.4 20°54.1	298°25.3 20°53.6	313°25.3 20°53.2	328°25.2 20°52.7	343°25.2 20°52.3	358°25.2 20°51.8	13°25.1 20°51.4	28°25.1 20°50.9	43°25.0 20°50.5	58°25.0 20°50.0	73°25.0 20°49.6	-0.0 -0.5
Lu 19	268°24.4 20°43.6	283°24.4 20°43.1	298°24.3 20°42.7	313°24.3 20°42.2	328°24.3 20°41.7	343°24.3 20°41.3	358°24.2 20°40.8	13°24.2 20°40.3	28°24.2 20°39.9	43°24.1 20°39.4	58°24.1 20°38.9	73°24.1 20°38.5	-0.0 -0.5
Ma 20	268°23.6 20°32.3	283°23.6 20°31.8	298°23.6 20°31.4	313°23.5 20°30.9	328°23.5 20°30.4	343°23.5 20°29.9	358°23.4 20°29.4	13°23.4 20°29.0	28°23.4 20°28.5	43°23.3 20°28.0	58°23.3 20°27.5	73°23.3 20°27.0	-0.0 -0.5
Me 21	268°22.9 20°20.7	283°22.9 20°20.2	298°22.9 20°19.7	313°22.9 20°19.2	328°22.8 20°18.7	343°22.8 20°18.2	358°22.8 20°17.7	13°22.8 20°17.3	28°22.7 20°16.8	43°22.7 20°16.3	58°22.7 20°15.8	73°22.7 20°15.3	-0.0 -0.5
Je 22	268°22.4 20°08.7	283°22.4 20°08.2	298°22.4 20°07.7	313°22.3 20°07.2	328°22.3 20°06.7	343°22.3 20°06.2	358°22.3 20°05.7	13°22.3 20°05.2	28°22.2 20°04.7	43°22.2 20°04.2	58°22.2 20°03.7	73°22.2 20°03.2	-0.0 -0.5
Ve 23	268°21.7 19°56.5	283°21.7 19°55.9	298°21.7 19°55.4	313°21.7 19°54.9	328°21.7 19°54.4	343°21.7 19°53.9	358°21.9 19°53.3	13°21.9 19°52.8	28°21.9 19°52.3	43°21.9 19°51.8	58°21.9 19°51.2	73°21.9 19°50.7	-0.0 -0.5
Sa 24	268°21.7 19°43.8	283°21.7 19°43.3	298°21.7 19°42.8	313°21.7 19°42.2	328°21.7 19°41.7	343°21.7 19°41.2	358°21.7 19°40.8	13°21.7 19°40.3	28°21.7 19°39.9	43°21.7 19°39.4	58°21.7 19°38.5	73°21.7 19°37.9	-0.0 -0.5
Di 25	268°21.6 19°30.9	283°21.6 19°30.3	298°21.6 19°29.8	313°21.6 19°29.2	328°21.6 19°28.7	343°21.6 19°28.1	358°21.6 19°27.6	13°21.6 19°27.0	28°21.6 19°26.5	43°21.6 19°25.9	58°21.6 19°25.4	73°21.6 19°24.8	+0.0 -0.5
Lu 26	268°21.7 19°17.6	283°21.7 19°17.0	298°21.7 19°16.5	313°21.7 19°15.9	328°21.7 19°15.4	343°21.7 19°14.8	358°21.7 19°14.2	13°21.7 19°13.7	28°21.7 19°13.1	43°21.7 19°12.5	58°21.7 19°12.0	73°21.7 19°11.4	+0.0 -0.6
Ma 27	268°21.9 19°04.0	283°21.9 19°03.4	298°21.9 19°02.9	313°21.9 19°02.3	328°21.9 19°01.7	343°21.9 19°01.1	358°21.9 19°00.6	13°21.9 19°00.0	28°21.9 18°59.4	43°22.0 18°58.8	58°22.0 18°58.2	73°22.0 18°57.7	+0.0 -0.6
Me 28	268°22.2 18°50.1	283°22.2 18°49.5	298°22.2 18°48.9	313°22.3 18°48.3	328°22.3 18°47.7	343°22.3 18°47.1	358°22.3 18°46.6	13°22.3 18°46.0	28°22.2 18°45.4	43°22.4 18°44.8	58°22.4 18°44.2	73°22.4 18°43.6	+0.0 -0.6
Je 29	268°22.7 18°35.9	283°22.7 18°35.3	298°22.7 18°34.7	313°22.8 18°34.1	328°22.8 18°33.5	343°22.8 18°32.9	358°22.8 18°32.3	13°22.9 18°31.7	28°22.9 18°31.1	43°22.9 18°30.4	58°22.9 18°29.8	73°23.0 18°29.2	+0.0 -0.6
Ve 30	268°23.3 18°21.3	283°23.3 18°20.7	298°23.3 18°20.1	313°23.4 18°19.5	328°23.4 18°18.9	343°23.5 18°18.3	358°23.5 18°17.7	13°23.5 18°17.0	28°23.6 18°16.4	43°23.6 18°15.8	58°23.6 18°15.2	73°23.7 18°14.6	+0.0 -0.6
Sa 31	268°24.1 18°06.5	283°24.1 18°05.9	298°24.2 18°05.2	313°24.2 18°04.6	328°24.2 18°04.0	343°24.3 18°03.4	358°24.3 18°02.7	13°24.3 18°02.1	28°24.4 18°01.5	43°24.5 18°00.9	58°24.5 18°00.2	73°24.5 17°59.6	+0.0 -0.6

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juillet 2032

	J	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	Δ'/h	SP
	Je 1	233 ^o 43.1	248 ^o 12.3	262 ^o 41.6	277 ^o 10.9	291 ^o 40.1	306 ^o 09.3	320 ^o 38.6	335 ^o 07.8	349 ^o 37.0	4 ^o 06.1	18 ^o 35.3	+29.2	15.6
		13 ^o 12.6	13 ^o 21.0	13 ^o 29.4	13 ^o 37.6	13 ^o 45.8	13 ^o 53.9	14 ^o 01.9	14 ^o 09.9	14 ^o 17.7	14 ^o 25.5	14 ^o 33.2	+8.1	57.4
	Ve 2	248 ^o 12.3	262 ^o 41.6	277 ^o 10.9	291 ^o 40.1	306 ^o 09.3	320 ^o 38.6	335 ^o 07.8	349 ^o 37.0	4 ^o 06.1	18 ^o 35.3	33 ^o 04.5	+29.2	15.6
		13 ^o 21.0	13 ^o 29.4	13 ^o 37.6	13 ^o 45.8	13 ^o 53.9	14 ^o 01.9	14 ^o 09.9	14 ^o 17.7	14 ^o 25.5	14 ^o 33.2	14 ^o 40.8	+8.0	57.3
	Sa 3	250 ^o 20.6	264 ^o 49.5	279 ^o 18.5	293 ^o 47.5	308 ^o 16.4	322 ^o 45.4	337 ^o 14.3	351 ^o 43.3	6 ^o 12.2	20 ^o 41.1	35 ^o 10.0	+28.9	15.5
		16 ^o 24.3	16 ^o 30.5	16 ^o 36.5	16 ^o 42.5	16 ^o 48.4	16 ^o 54.2	16 ^o 59.9	17 ^o 05.5	17 ^o 11.1	17 ^o 16.5	17 ^o 21.8	+5.8	56.7
	Di 4	252 ^o 22.9	266 ^o 51.8	281 ^o 20.6	295 ^o 49.4	310 ^o 18.3	324 ^o 47.1	339 ^o 15.9	353 ^o 44.8	8 ^o 13.6	22 ^o 42.5	37 ^o 11.3	+28.8	15.3
		18 ^o 29.8	18 ^o 33.5	18 ^o 37.2	18 ^o 40.7	18 ^o 44.1	18 ^o 47.4	18 ^o 50.7	18 ^o 53.8	18 ^o 56.8	18 ^o 59.7	19 ^o 02.5	+3.3	56.2
	Lu 5	254 ^o 24.9	268 ^o 53.9	283 ^o 22.9	297 ^o 52.0	312 ^o 21.0	326 ^o 50.1	341 ^o 19.1	355 ^o 48.2	10 ^o 17.3	24 ^o 46.5	39 ^o 15.6	+29.1	15.2
		19 ^o 32.3	19 ^o 33.5	19 ^o 34.5	19 ^o 35.5	19 ^o 36.3	19 ^o 37.1	19 ^o 37.7	19 ^o 38.3	19 ^o 38.7	19 ^o 39.1	19 ^o 39.3	+0.7	55.6
	Ma 6	256 ^o 35.5	271 ^o 05.0	285 ^o 34.6	300 ^o 04.2	314 ^o 33.8	329 ^o 03.5	343 ^o 33.2	358 ^o 02.9	12 ^o 32.6	27 ^o 02.4	41 ^o 32.2	+29.7	15.0
		19 ^o 30.7	19 ^o 29.4	19 ^o 27.9	19 ^o 26.3	19 ^o 24.7	19 ^o 22.9	19 ^o 21.0	19 ^o 19.1	19 ^o 17.1	19 ^o 14.9	19 ^o 12.7	-1.8	55.2
	Me 7	259 ^o 03.9	273 ^o 34.3	288 ^o 04.8	302 ^o 35.3	317 ^o 05.8	331 ^o 36.4	346 ^o 07.1	0 ^o 37.7	15 ^o 08.4	29 ^o 39.2	44 ^o 10.0	+30.6	14.9
		16 ^o 30.9	16 ^o 25.3	16 ^o 19.5	16 ^o 13.6	16 ^o 07.7	16 ^o 01.8	15 ^o 55.7	15 ^o 49.6	15 ^o 43.4	15 ^o 37.1	15 ^o 30.8	-6.0	54.4
	Je 8	261 ^o 57.3	276 ^o 28.8	291 ^o 00.4	305 ^o 32.0	320 ^o 03.6	334 ^o 35.3	349 ^o 07.0	3 ^o 38.8	18 ^o 10.7	32 ^o 42.5	47 ^o 14.4	+31.7	14.8
		18 ^o 28.1	18 ^o 24.4	18 ^o 20.6	18 ^o 16.7	18 ^o 12.8	18 ^o 08.7	18 ^o 04.6	18 ^o 00.4	17 ^o 56.1	17 ^o 51.7	17 ^o 47.3	-4.1	54.8
	Ve 9	265 ^o 18.6	279 ^o 51.2	294 ^o 23.9	308 ^o 56.6	323 ^o 29.3	338 ^o 02.1	352 ^o 35.0	7 ^o 07.8	21 ^o 40.7	36 ^o 13.7	50 ^o 46.7	+32.8	14.8
		13 ^o 48.4	13 ^o 41.0	13 ^o 33.7	13 ^o 26.3	13 ^o 18.8	13 ^o 11.2	13 ^o 03.7	12 ^o 56.0	12 ^o 48.3	12 ^o 40.6	12 ^o 32.8	-7.6	54.2
	Sa 10	269 ^o 06.2	283 ^o 39.8	298 ^o 13.4	312 ^o 47.1	327 ^o 20.7	341 ^o 54.5	356 ^o 28.2	11 ^o 02.0	25 ^o 35.8	40 ^o 09.6	54 ^o 43.5	+33.7	14.7
		10 ^o 30.2	10 ^o 21.7	10 ^o 13.1	10 ^o 04.5	9 ^o 55.9	9 ^o 47.2	9 ^o 38.5	9 ^o 29.7	9 ^o 20.9	9 ^o 12.1	9 ^o 03.2	-8.7	54.0
	Di 11	273 ^o 14.7	287 ^o 48.9	302 ^o 23.3	316 ^o 57.5	331 ^o 31.8	346 ^o 06.2	0 ^o 40.5	15 ^o 14.9	29 ^o 49.3	44 ^o 23.3	58 ^o 58.1	+34.3	14.7
		6 ^o 46.4	6 ^o 37.0	6 ^o 27.6	6 ^o 18.2	6 ^o 08.8	5 ^o 59.3	5 ^o 49.9	5 ^o 40.4	5 ^o 30.8	5 ^o 21.3	5 ^o 11.7	-9.5	54.0
	Lu 12	277 ^o 35.6	292 ^o 10.2	306 ^o 44.7	321 ^o 19.3	335 ^o 53.9	350 ^o 28.4	5 ^o 03.0	19 ^o 37.6	34 ^o 12.1	48 ^o 46.7	63 ^o 21.7	+34.6	14.7
		2 ^o 46.2	2 ^o 36.3	2 ^o 26.5	2 ^o 16.6	2 ^o 06.8	1 ^o 56.9	1 ^o 47.0	1 ^o 37.2	1 ^o 27.3	1 ^o 17.4	1 ^o 07.5	-9.9	54.1
	Ma 13	281 ^o 58.7	296 ^o 33.1	311 ^o 07.5	325 ^o 41.8	340 ^o 16.2	354 ^o 50.5	9 ^o 24.8	23 ^o 59.1	38 ^o 33.4	53 ^o 07.6	67 ^o 41.9	+34.3	14.8
		-1 ^o 21.7	-1 ^o 31.6	-1 ^o 41.6	-1 ^o 51.5	-2 ^o 01.4	-2 ^o 11.4	-2 ^o 21.3	-2 ^o 31.2	-2 ^o 41.2	-2 ^o 51.1	-3 ^o 01.0	-9.9	54.3
	Me 14	286 ^o 12.1	300 ^o 45.9	315 ^o 19.6	329 ^o 53.3	344 ^o 26.9	359 ^o 00.6	13 ^o 34.1	28 ^o 07.7	42 ^o 41.2	57 ^o 14.6	71 ^o 48.0	+33.6	14.9
		-5 ^o 28.4	-5 ^o 38.2	-5 ^o 47.9	-5 ^o 57.6	-6 ^o 07.2	-6 ^o 16.9	-6 ^o 26.5	-6 ^o 36.1	-6 ^o 45.7	-6 ^o 55.3	-7 ^o 04.8	-9.6	54.4
	Je 15	290 ^o 03.6	304 ^o 36.6	319 ^o 08.8	333 ^o 41.3	348 ^o 13.8	2 ^o 46.2	17 ^o 18.5	31 ^o 50.8	46 ^o 23.1	60 ^o 55.2	75 ^o 27.3	+32.4	15.1
		-9 ^o 25.0	-9 ^o 34.1	-9 ^o 43.1	-9 ^o 52.2	-10 ^o 01.2	-10 ^o 10.2	-10 ^o 19.1	-10 ^o 28.0	-10 ^o 36.8	-10 ^o 45.6	-10 ^o 54.4	-8.9	55.4
	Ve 16	293 ^o 21.1	307 ^o 52.1	322 ^o 23.3	336 ^o 54.0	351 ^o 24.8	5 ^o 55.6	20 ^o 26.2	34 ^o 56.8	49 ^o 27.4	63 ^o 57.8	78 ^o 28.2	+30.7	15.3
		-13 ^o 00.7	-13 ^o 08.7	-13 ^o 16.7	-13 ^o 24.6	-13 ^o 32.4	-13 ^o 40.2	-13 ^o 48.0	-13 ^o 55.7	-14 ^o 03.3	-14 ^o 10.9	-14 ^o 18.4	-7.8	56.2
	Sa 17	295 ^o 54.4	310 ^o 23.5	324 ^o 52.5	339 ^o 21.4	353 ^o 50.3	8 ^o 19.1	22 ^o 47.8	37 ^o 16.4	51 ^o 44.9	66 ^o 13.4	80 ^o 41.7	+28.7	15.6
		-16 ^o 02.9	-16 ^o 09.3	-16 ^o 15.6	-16 ^o 21.9	-16 ^o 28.8	-16 ^o 34.1	-16 ^o 40.1	-16 ^o 46.0	-16 ^o 51.8	-16 ^o 57.6	-17 ^o 03.2	-6.0	57.1
	Di 18	297 ^o 37.5	312 ^o 04.5	326 ^o 33.5	340 ^o 58.4	355 ^o 25.3	9 ^o 52.0	24 ^o 18.7	38 ^o 45.3	53 ^o 11.9	67 ^o 38.3	82 ^o 04.7	+26.7	15.8
		-18 ^o 17.1	-18 ^o 21.2	-18 ^o 25.2	-18 ^o 29.2	-18 ^o 33.0	-18 ^o 36.7	-18 ^o 40.4	-18 ^o 43.9	-18 ^o 47.3	-18 ^o 50.6	-18 ^o 53.7	-3.7	58.1
	Lu 19	298 ^o 31.9	312 ^o 57.2	327 ^o 22.4	341 ^o 47.6	356 ^o 12.7	10 ^o 37.7	25 ^o 02.7	39 ^o 27.7	53 ^o 52.6	68 ^o 17.4	82 ^o 42.2	+25.0	16.1
		-19 ^o 27.6	-19 ^o 28.9	-19 ^o 30.0	-19 ^o 31.1	-19 ^o 32.0	-19 ^o 32.8	-19 ^o 33.5	-19 ^o 34.0	-19 ^o 34.4	-19 ^o 34.7	-19 ^o 34.8	-0.7	59.0
	Ma 20	298 ^o 48.6	313 ^o 12.7	327 ^o 36.8	342 ^o 00.9	356 ^o 25.0	10 ^o 49.0	25 ^o 13.0	39 ^o 37.0	54 ^o 01.0	68 ^o 24.9	82 ^o 48.8	+24.0	16.3
		-19 ^o 21.2	-19 ^o 19.2	-19 ^o 17.1	-19 ^o 14.9	-19 ^o 12.5	-19 ^o 09.9	-19 ^o 07.3	-19 ^o 04.5	-19 ^o 01.6	-18 ^o 58.5	-18 ^o 55.3	-2.6	59.9
	Me 21	298 ^o 46.8	313 ^o 10.6	327 ^o 34.5	341 ^o 58.3	356 ^o 22.2	10 ^o 46.1	25 ^o 10.0	39 ^o 33.9	53 ^o 57.9	68 ^o 21.8	82 ^o 45.8	+23.9	16.5
		-17 ^o 51.1	-17 ^o 45.7	-17 ^o 40.3	-17 ^o 34.7	-17 ^o 29.0	-17 ^o 23.1	-17 ^o 17.1	-17 ^o 11.0	-17 ^o 04.8	-16 ^o 58.4	-16 ^o 51.9	+5.9	60.6
	Je 22	298 ^o 48.1	313 ^o 12.5	327 ^o 36.9	342 ^o 01.4	356 ^o 25.9	10 ^o 50.4	25 ^o 15.0	39 ^o 39.6	54 ^o 04.2	68 ^o 28.9	82 ^o 53.7	+24.6	16.6
		-15 ^o 00.3	-14 ^o 51.9	-14 ^o 43.5	-14 ^o 34.9	-14 ^o 26.3	-14 ^o 17.5	-14 ^o 08.6	-13 ^o 59.6	-13 ^o 50.6	-13 ^o 41.4	-13 ^o 32.1	+8.8	61.0
	Ve 23	299 ^o 09.8	313 ^o 35.3	328 ^o 00.8	342 ^o 26.3	356 ^o 51.9	11 ^o 17.5	25 ^o 43.2	40 ^o 08.9	54 ^o 34.7	69 ^o 00.5	83 ^o 26.4	+25.7	16.7
		-11 ^o 02.4	-10 ^o 51.8	-10 ^o 41.1	-10 ^o 30.3	-10 ^o 19.4	-10 ^o 08.5	-9 ^o 57.6	-9 ^o 46.5	-9 ^o 35.4	-9 ^o 24.3	-9 ^o 13.0	+10.9	61.1
	Sa 24	300 ^o 00.3	314 ^o 26.9	328 ^o 53.6	343 ^o 20.3	357 ^o 47.1	12 ^o 13.9	26 ^o 40.8	41 ^o 07.7	55 ^o 34.6	70 ^o 01.6	84 ^o 28.6	+26.8	16.6
		-6 ^o 18.6	-6 ^o 06.6	-5 ^o 54.6	-5 ^o 42.6	-5 ^o 30.5	-5 ^o 18.4	-5 ^o 06.3	-4 ^o 54.2	-4 ^o 42.0	-4 ^o 29.9	-4 ^o 17.7	+12.1	60.8
	Di 25	301 ^o 19.0	315 ^o 46.6	330 ^o 14.3	344 ^o 42.1	359 ^o 09.8	13 ^o 37.6	28 ^o 05.4	42 ^o 33.3	57 ^o 01.2	71 ^o 29.1	85 ^o 57.1	+27.8	16.4
		-11 ^o 13.2	-11 ^o 00.9	-10 ^o 48.6	-10 ^o 36.3	-10 ^o 24.0	-10 ^o 11.7	-10 ^o 00.6	-9 ^o 49.0	-9 ^o 37.2	-9 ^o 25.1	-9 ^o 13.4	-9 ^o 01.7	+11.2
	Lu 26	315 ^o 46.6	330 ^o 14.3	344 ^o 42.1	359 ^o 09.8	13 ^o 37.6	28 ^o 05.4	42 ^o 33.3	57 ^o 01.2	71 ^o 29.1	85 ^o 57.1	100 ^o 25.1	+27.8	16.4
		-1 ^o 00.9	-0 ^o 48.6	-0 ^o 36										

SOLEIL

Août 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	268°25.0 17°51.4	283°25.1 17°50.1	298°25.1 17°50.1	313°25.1 17°49.5	328°25.2 17°48.8	343°25.2 17°48.2	358°25.3 17°47.5	13°25.3 17°46.9	28°25.443 17°46.317	43°25.4 17°45.6	58°25.4 17°45.0	73°25.5 17°44.3	+0.0 -0.6
Lu 2	268°26.1 17°35.9	283°26.1 17°35.3	298°26.2 17°34.7	313°26.2 17°34.0	328°26.3 17°33.4	343°26.3 17°32.7	358°26.4 17°32.0	13°26.4 17°31.4	28°26.543 17°30.717	43°26.5 17°30.1	58°26.6 17°29.4	73°26.6 17°28.8	+0.0 -0.7
Ma 3	268°27.3 17°20.2	283°27.4 17°19.6	298°27.4 17°18.9	313°27.5 17°18.3	328°27.5 17°17.6	343°27.6 17°16.9	358°27.6 17°16.3	13°27.7 17°15.6	28°27.743 17°14.917	43°27.8 17°14.3	58°27.9 17°13.6	73°27.9 17°12.9	+0.1 -0.7
Me 4	268°28.7 17°04.3	283°28.7 17°03.6	298°28.8 17°02.9	313°28.8 17°02.2	328°28.9 17°01.6	343°29.0 17°00.9	358°29.0 17°00.2	13°29.1 16°59.5	28°29.243 16°58.916	43°29.2 16°58.2	58°29.3 16°57.5	73°29.3 16°56.8	+0.1 -0.7
Je 5	268°30.2 16°48.0	283°30.2 16°47.3	298°30.3 16°46.6	313°30.4 16°45.9	328°30.4 16°45.3	343°30.5 16°44.6	358°30.6 16°43.9	13°30.7 16°43.2	28°30.743 16°42.516	43°30.8 16°41.8	58°30.9 16°41.1	73°30.9 16°40.4	+0.1 -0.7
Ve 6	268°31.8 16°31.5	283°31.9 16°30.8	298°32.0 16°30.1	313°32.1 16°29.4	328°32.1 16°28.0	343°32.2 16°27.3	358°32.3 16°26.6	13°32.4 16°25.9	28°32.443 16°25.216	43°32.5 16°24.5	58°32.6 16°23.8	73°32.7 16°23.8	+0.1 -0.7
Sa 7	268°33.7 16°14.7	283°33.7 16°13.9	298°33.8 16°13.2	313°33.9 16°12.5	328°34.0 16°11.8	343°34.1 16°11.1	358°34.1 16°10.4	13°34.2 16°09.7	28°34.343 16°09.016	43°34.5 16°08.3	58°34.5 16°07.6	73°34.5 16°06.9	+0.1 -0.7
Di 8	268°35.6 15°57.6	283°35.7 15°56.9	298°35.8 15°56.2	313°35.9 15°55.4	328°36.0 15°54.7	343°36.0 15°54.0	358°36.1 15°53.3	13°36.2 15°52.6	28°36.343 15°51.815	43°36.4 15°51.1	58°36.5 15°50.4	73°36.6 15°49.7	+0.1 -0.7
Lu 9	268°37.7 15°40.3	283°37.8 15°39.5	298°37.9 15°38.8	313°38.0 15°38.1	328°38.1 15°37.4	343°38.2 15°36.6	358°38.3 15°35.9	13°38.4 15°35.2	28°38.543 15°34.415	43°38.6 15°33.7	58°38.6 15°33.0	73°38.7 15°32.3	+0.1 -0.7
Ma 10	268°40.0 15°22.7	283°40.1 15°22.0	298°40.2 15°21.2	313°40.3 15°20.5	328°40.4 15°19.8	343°40.5 15°19.0	358°40.6 15°18.3	13°40.7 15°17.5	28°40.843 15°16.815	43°40.9 15°16.1	58°41.0 15°15.3	73°41.1 15°14.6	+0.1 -0.7
Me 11	268°42.4 15°04.9	283°42.5 15°04.2	298°42.6 15°03.4	313°42.7 15°02.7	328°42.8 15°01.9	343°42.9 15°01.2	358°43.0 15°00.4	13°43.1 14°59.7	28°43.243 14°58.916	43°43.3 14°58.2	58°43.4 14°57.4	73°43.5 14°56.7	+0.1 -0.7
Je 12	268°44.9 14°46.8	283°45.0 14°46.1	298°45.1 14°45.3	313°45.3 14°44.6	328°45.4 14°43.8	343°45.5 14°43.1	358°45.6 14°42.3	13°45.7 14°41.5	28°45.843 14°40.814	43°45.9 14°40.0	58°46.0 14°39.3	73°46.1 14°38.5	+0.1 -0.8
Ve 13	268°47.6 14°28.6	283°47.7 14°27.8	298°47.8 14°27.0	313°48.0 14°26.3	328°48.1 14°25.5	343°48.2 14°24.7	358°48.3 14°24.0	13°48.4 14°23.2	28°48.543 14°22.416	43°48.7 14°21.6	58°48.8 14°20.9	73°48.9 14°20.1	+0.1 -0.8
Sa 14	268°50.4 14°10.1	283°50.6 14°09.3	298°50.7 14°08.5	313°50.8 14°07.7	328°50.9 14°06.9	343°51.0 14°06.2	358°51.2 14°05.4	13°51.3 14°04.6	28°51.443 14°03.815	43°51.5 14°03.0	58°51.7 14°02.3	73°51.8 14°01.5	+0.1 -0.8
Di 15	268°53.4 13°51.3	283°53.5 13°50.5	298°53.7 13°49.7	313°53.8 13°49.0	328°53.9 13°48.2	343°54.0 13°47.4	358°54.2 13°46.6	13°54.3 13°45.8	28°54.543 13°45.013	43°54.6 13°44.2	58°54.7 13°43.4	73°54.8 13°42.7	+0.1 -0.8
Lu 16	268°56.5 13°32.4	283°56.6 13°31.6	298°56.8 13°30.8	313°56.9 13°30.0	328°57.0 13°29.2	343°57.2 13°28.4	358°57.3 13°27.6	13°57.4 13°26.8	28°57.643 13°26.013	43°57.7 13°25.2	58°57.8 13°24.4	73°58.0 13°23.6	+0.1 -0.8
Ma 17	268°59.7 13°13.2	283°59.9 13°12.4	299°00.0 13°11.6	314°00.2 13°10.8	329°00.3 13°10.0	344°00.4 13°09.2	359°00.4 13°08.4	14°00.7 13°07.6	29°00.043 13°06.813	44°00.105 13°05.913	59°00.1 13°05.1	74°00.1 13°04.3	+0.1 -0.8
Me 18	269°03.1 12°53.8	284°03.3 12°53.0	299°03.4 12°52.2	314°03.5 12°51.4	329°03.7 12°50.6	344°03.3 12°49.7	359°04.0 12°48.9	14°04.1 12°47.8	29°04.344 12°47.312	44°04.599 12°46.512	59°04.5 12°45.7	74°04.7 12°44.9	+0.1 -0.8
Je 19	269°06.6 12°34.2	284°06.7 12°33.4	299°06.9 12°32.6	314°07.0 12°31.8	329°07.2 12°30.9	344°07.3 12°30.1	359°07.5 12°29.3	14°07.5 12°28.5	29°07.544 12°27.712	44°07.999 12°26.812	59°08.1 12°26.0	74°08.2 12°25.2	+0.1 -0.8
Ve 20	269°10.2 12°14.5	284°10.4 12°13.6	299°10.5 12°12.8	314°10.7 12°12.0	329°10.8 12°11.1	344°11.0 12°10.3	359°11.1 12°09.5	14°11.3 12°08.6	29°11.444 12°07.812	44°11.699 12°07.012	59°11.874 12°06.212	74°11.9 12°05.3	+0.2 -0.8
Sa 21	269°13.9 11°54.5	284°14.1 11°53.6	299°14.3 11°52.8	314°14.4 11°52.0	329°14.6 11°51.1	344°14.7 11°50.3	359°14.9 11°49.5	14°15.1 11°48.6	29°15.244 11°47.815	44°15.499 11°46.915	59°15.574 11°46.115	74°15.7 11°45.3	+0.2 -0.8
Di 22	269°17.8 11°34.3	284°18.0 11°33.5	299°18.1 11°32.6	314°18.3 11°31.8	329°18.4 11°30.9	344°18.6 11°30.1	359°18.8 11°29.3	14°18.9 11°28.4	29°19.144 11°27.615	44°19.399 11°26.715	59°19.474 11°25.915	74°19.6 11°25.0	+0.2 -0.8
Lu 23	269°21.8 11°14.0	284°21.9 11°13.1	299°22.1 11°12.3	314°22.3 11°11.4	329°22.5 11°10.6	344°22.6 11°09.7	359°22.8 11°08.9	14°22.9 11°08.1	29°23.144 11°07.215	44°23.399 11°06.315	59°23.474 11°05.415	74°23.6 11°04.6	+0.2 -0.9
Ma 24	269°25.8 10°53.5	284°26.0 10°52.6	299°26.2 10°51.7	314°26.3 10°50.9	329°26.5 10°50.0	344°26.7 10°49.2	359°26.8 10°48.3	14°27.0 10°47.1	29°27.244 10°46.615	44°27.699 10°45.715	59°27.574 10°44.915	74°27.7 10°44.0	+0.2 -0.9
Me 25	269°30.0 10°32.8	284°30.2 10°31.9	299°30.3 10°31.0	314°30.5 10°30.2	329°30.7 10°29.3	344°30.9 10°28.4	359°31.0 10°27.6	14°31.2 10°26.7	29°31.444 10°25.815	44°31.699 10°25.015	59°31.774 10°24.115	74°31.9 10°23.2	+0.2 -0.9
Je 26	269°34.2 10°11.9	284°34.4 10°11.0	299°34.6 10°10.1	314°34.8 10°09.3	329°35.0 10°08.4	344°35.1 10°07.5	359°35.3 10°06.7	14°35.5 10°05.8	29°35.744 10°04.915	44°35.999 10°04.015	59°36.074 10°03.215	74°36.2 10°02.3	+0.2 -0.9
Ve 27	269°38.6 9°50.9	284°38.8 9°50.0	299°39.0 9°49.1	314°39.1 9°48.2	329°39.3 9°47.3	344°39.5 9°46.5	359°39.7 9°45.6	14°39.9 9°44.7	29°40.044 9°43.815	44°40.299 9°42.915	59°40.474 9°42.115	74°40.6 9°41.2	+0.2 -0.9
Sa 28	269°43.0 9°29.7	284°43.2 9°28.8	299°43.4 9°27.9	314°43.6 9°27.0	329°43.8 9°26.1	344°44.0 9°25.2	359°44.1 9°24.4	14°44.3 9°23.5	29°44.544 9°22.615	44°44.799 9°21.715	59°44.974 9°20.815	74°45.1 9°19.9	+0.2 -0.9
Di 29	269°47.5 9°08.3	284°47.7 9°07.5	299°47.9 9°06.6	314°48.1 9°05.7	329°48.3 9°04.8	344°48.5 9°03.9	359°48.7 9°03.0	14°48.9 9°02.1	29°49.044 9°01.215	44°49.399 9°00.315	59°49.474 8°59.415	74°49.6 8°58.5	+0.2 -0.9
Lu 30	269°52.1 8°46.9	284°52.3 8°46.0	299°52.5 8°45.1	314°52.7 8°44.2	329°52.9 8°42.4	344°53.1 8°41.5	359°53.3 8°40.6	14°53.5 8°39.7	29°53.744 8°38.815	44°53.999 8°37.915	59°54.174 8°37.015	74°54.3 8°36.0	+0.2 -0.9
Ma 31	269°56.8 8°25.2	284°57.0 8°24.3	299°57.2 8°23.4	314°57.4 8°22.5	329°57.6 8°21.6	344°57.8 8°20.7	359°58.0 8°19.8	14°58.2 8°18.9	29°58.544 8°18.015	44°58.699 8°17.115	59°58.874 8°16.215	74°59.0 8°15.3	+0.2 -0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Août 2032

	J	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	Δ'/h	SP
Di 1	240°38.0	255°07.1	269°36.2	284°05.4	298°34.5	313°03.7	327°32.9	342°02.1	356°31.3	11°00.6	25°29.8	+29.2	15.2	
	19°07.8	19°09.9	19°11.9	19°13.8	19°15.6	19°17.3	19°18.9	19°20.4	19°21.8	19°23.1	19°24.3	+1.7	55.8	
Lu 2	242°51.1	257°20.7	271°50.3	286°19.9	300°49.6	315°19.3	329°49.0	344°18.8	358°48.6	13°18.4	27°48.2	+29.7	15.1	
	19°30.2	19°29.8	19°29.3	19°28.7	19°28.1	19°27.3	19°26.4	19°25.4	19°24.3	19°23.1	19°21.8	-0.8	55.2	
Ma 3	245°19.6	259°49.9	274°20.2	288°50.7	303°21.2	317°51.7	332°22.2	346°52.8	1°23.4	15°54.1	30°24.7	+30.5	14.9	
	18°51.5	18°48.7	18°45.8	18°42.9	18°39.9	18°36.8	18°33.6	18°30.3	18°26.9	18°23.4	18°19.9	-3.2	54.8	
Me 4	248°09.6	262°40.9	277°12.3	291°43.7	306°15.1	320°46.6	335°18.1	349°49.6	4°21.2	18°52.9	33°24.5	+31.5	14.8	
	17°16.6	17°11.8	17°06.8	17°01.8	16°56.7	16°51.6	16°46.3	16°41.0	16°35.6	16°30.2	16°24.7	-5.2	54.4	
Je 5	251°24.6	265°56.9	280°29.3	295°01.7	309°34.1	324°06.6	338°39.1	353°11.7	7°44.3	22°16.9	36°49.6	+32.5	14.8	
	14°53.3	14°46.7	14°40.0	14°33.3	14°26.5	14°19.6	14°12.7	14°05.7	13°58.7	13°51.6	13°44.4	-6.9	54.1	
Ve 6	255°04.3	269°37.6	284°10.9	298°44.2	313°17.6	327°51.0	342°24.4	356°57.9	11°31.4	26°04.9	40°38.5	+33.4	14.7	
	11°50.6	11°42.6	11°34.6	11°26.5	11°18.3	11°10.2	11°01.9	10°53.7	10°45.3	10°37.0	10°28.6	-8.2	54.0	
Sa 7	259°05.4	273°39.4	288°13.4	302°47.4	317°21.5	331°55.6	346°29.7	1°03.9	15°38.0	30°12.2	44°46.4	+34.1	14.7	
	8°18.0	8°09.0	8°00.0	7°50.9	7°41.8	7°32.7	7°23.6	7°14.4	7°05.2	6°56.0	6°46.8	-9.1	53.9	
Di 8	263°21.5	277°56.0	292°30.4	307°04.9	321°39.4	336°13.9	350°48.4	5°22.9	19°57.4	34°31.9	49°06.4	+34.5	14.7	
	4°25.1	4°15.5	4°05.9	3°56.3	3°46.6	3°37.0	3°27.3	3°17.6	3°07.9	2°58.2	2°48.4	-9.7	53.9	
Lu 9	267°44.6	282°19.1	296°53.6	311°28.2	326°02.7	340°37.2	355°11.7	9°46.2	24°20.7	38°55.1	53°29.6	+34.5	14.7	
	0°21.4	0°11.5	0°01.7	-0°08.2	-0°18.0	-0°27.9	-0°37.7	-0°47.6	-0°57.5	-1°07.3	-1°17.2	-9.9	54.1	
Ma 10	272°04.9	286°39.1	301°13.3	315°47.4	330°21.6	344°55.7	359°29.8	14°03.8	28°37.9	43°11.9	57°45.9	+34.1	14.8	
	-3°44.2	-3°53.9	-4°03.7	-4°13.4	-4°23.1	-4°32.7	-4°42.4	-4°52.0	-5°01.7	-5°11.3	-5°20.9	-9.7	54.3	
Me 11	276°11.9	290°45.4	305°18.8	319°52.2	334°25.5	348°58.8	3°32.1	18°05.3	32°38.7	47°11.6	61°44.7	+33.3	14.9	
	-7°42.4	-7°51.6	-8°00.8	-8°10.0	-8°19.2	-8°28.3	-8°37.4	-8°46.5	-8°55.5	-9°04.5	-9°13.4	-9.1	54.7	
Je 12	279°55.1	294°27.4	308°59.9	323°31.8	338°04.0	352°36.0	7°08.0	21°40.0	36°11.9	50°43.7	65°15.5	+32.0	15.1	
	-11°23.5	-11°31.8	-11°40.1	-11°48.3	-11°56.5	-12°04.7	-12°12.8	-12°20.9	-12°28.9	-12°36.8	-12°44.7	-8.1	55.3	
Ve 13	283°04.5	297°35.2	312°05.9	326°36.5	341°07.1	355°37.6	10°08.0	24°38.3	39°08.6	53°38.8	68°08.9	+30.4	15.3	
	-14°36.6	-14°43.6	-14°50.5	-14°57.4	-15°04.1	-15°10.9	-15°17.5	-15°24.1	-15°30.6	-15°37.0	-15°43.4	-6.7	56.0	
Sa 14	285°32.2	300°01.3	314°30.1	328°59.0	343°27.7	357°56.4	12°25.0	26°53.5	41°22.0	55°50.4	70°18.7	+28.6	15.5	
	-17°09.7	-17°14.8	-17°19.8	-17°24.8	-17°29.6	-17°34.4	-17°39.0	-17°43.9	-17°48.8	-17°52.5	-17°56.8	-4.7	56.8	
Di 15	287°15.0	301°42.2	316°09.3	330°36.3	345°03.3	359°30.2	13°57.1	28°23.9	42°50.6	57°17.3	71°43.7	+26.9	15.8	
	-18°49.5	-18°52.2	-18°54.8	-18°57.3	-18°59.6	-19°01.9	-19°04.1	-19°06.1	-19°08.0	-19°09.8	-19°11.5	-2.2	57.8	
Lu 16	288°15.7	302°41.4	317°07.1	331°32.6	345°58.2	0°23.7	14°49.1	29°14.5	43°39.8	58°05.2	72°30.4	+25.5	16.0	
	-19°23.0	-19°22.8	-19°22.5	-19°22.1	-19°21.5	-19°20.8	-19°20.0	-19°19.1	-19°18.0	-19°16.8	-19°15.5	-0.8	58.8	
Ma 17	288°45.0	303°09.7	317°34.4	331°59.1	346°23.8	0°48.4	15°13.1	29°37.1	44°02.2	58°26.8	72°51.4	+24.6	16.3	
	-18°40.2	-18°36.8	-18°33.3	-18°29.7	-18°25.9	-18°22.0	-18°18.0	-18°13.8	-18°09.5	-18°05.1	-18°00.5	-4.0	59.7	
Me 18	288°58.7	303°23.2	317°47.6	332°12.1	346°36.6	1°01.1	15°25.6	29°50.1	44°14.6	58°39.1	73°03.6	+24.5	16.5	
	-16°37.1	-16°30.6	-16°23.9	-16°17.1	-16°10.2	-16°03.1	-15°56.0	-15°48.7	-15°41.3	-15°33.8	-15°26.2	-1.7	60.6	
Je 19	289°13.5	303°38.3	318°03.2	332°28.0	346°52.9	1°17.8	15°42.8	30°07.7	44°32.7	58°57.7	73°22.8	+24.9	16.7	
	-13°18.8	-13°09.5	-13°00.1	-12°50.6	-12°40.9	-12°31.2	-12°21.4	-12°11.6	-12°01.6	-11°51.5	-11°41.4	-9.7	61.1	
Ve 20	289°42.0	304°07.5	318°33.0	332°58.6	347°24.2	1°49.9	16°15.6	30°41.3	45°07.1	59°32.8	73°58.6	+25.7	16.7	
	-8°59.7	-8°48.4	-8°37.0	-8°25.5	-8°14.0	-8°02.4	-7°50.8	-7°39.1	-7°27.4	-7°15.6	-7°03.7	-11.6	61.4	
Sa 21	290°29.7	304°56.0	319°22.3	333°48.7	348°15.1	2°41.5	17°08.0	31°34.5	46°01.0	60°27.6	74°54.1	+26.4	16.7	
	-4°01.5	-3°49.1	-3°36.7	-3°24.3	-3°11.8	-2°59.4	-2°46.9	-2°34.4	-2°21.9	-2°09.4	-1°56.9	-12.5	61.2	
Di 22	291°36.0	306°02.9	320°29.9	334°57.0	349°24.0	3°51.1	18°18.2	32°45.3	47°12.4	61°39.6	76°06.8	+27.1	16.6	
	1°10.6	1°23.0	1°35.4	1°47.8	2°00.1	2°12.4	2°24.7	2°37.0	2°49.3	3°01.5	3°13.7	+2.3	60.8	
Lu 23	292°56.5	307°23.9	321°51.4	336°18.9	350°46.3	5°13.8	19°41.3	34°08.9	48°36.4	63°04.0	77°31.5	+27.5	16.4	
	6°11.9	6°23.4	6°34.9	6°46.3	6°57.6	7°08.9	7°20.1	7°31.3	7°42.4	7°53.5	8°04.5	+11.3	60.0	
Ma 24	294°26.2	308°53.9	323°21.7	337°49.4	352°17.2	6°44.9	21°12.7	35°40.5	50°08.3	64°36.0	79°03.8	+27.8	16.1	
	10°41.2	10°51.1	11°00.9	11°10.6	11°20.2	11°29.8	11°39.2	11°48.6	11°57.9	12°07.1	12°16.3	+2.7	60.8	
Me 25	308°53.9	323°21.7	337°49.4	352°17.2	6°44.9	21°12.7	35°40.5	50°08.3	64°36.0	79°03.8	93°31.7	+27.8	16.1	
	10°51.1	11°00.9	11°10.6	11°20.2	11°29.8	11°39.2	11°48.6	11°57.9	12°07.1	12°16.3	12°25.3	+9.4	59.1	
Je 26	310°29.8	324°57.7	339°25.7	353°53.6	8°21.6	22°49.6	37°17.6	51°45.6	66°13.6	80°41.6	95°09.6	+28.0	15.8	
	14°30.3	14°37.9	14°45.4	14°52.8	15°00.1	15°07.3	15°14.4	15°21.4	15°28.3	15°35.1	15°41.9	+7.2	58.1	
Ve 27	312°11.4	326°39.6	341°07.9	355°36.1	10°04.4	24°32.7	39°01.0	53°29.3	67°57.6	82°25.5	96°54.3	+28.3	15.6	
	17°10.5	17°15.6	17°20.6	17°25.5	17°30.3	17°35.0	17°39.6	17°44.0	17°48.4	17°52.7	17°56.8	+4.6	57.1	
Sa 28	314°02.0	328°30.7	342°59.4	357°28.1	11°56.9	26°25.6	40°54.4	55°23.3	69°55.2	84°21.0	98°49.9	+28.8	15.3	
	18°46.7	18°49.2	18°51.5	18°53.8	18°56.0	18°58.1	19°00.0	19°01.9	19°03.7	19°05.3	19°06.9	+2.0	56.3	
Di 29	316°06.8	330°36.2	345°05.6	359°35.1	14°04.5	28°34.0	43°03.6	57°33.2	72°02.8	86°32.4	101°02.1	+29.5	15.1	
	19°18.0	19°17.9	19°17.8	19°17.5	19°17.1	19°16.7	19°16.1	19°15.5	19°14.7	19°13.9	19°12.9	-0.5	55.5	
Lu 30	318°31.7	333°01.9	347°32.2	2°02.6	16°33.0	31°03.4	45°33.9	60°04.4	74°35.0	89°05.6	103°36.2	+30.5	15.0	
	18°47.4	18°45.0	18°42.5	18°39.9	18°37.2	18°34.4	18°31.5	18°28.5	18°25.5	18°22.3	18°19.1	-2.8	54.9	
Ma 31	321°20.7	335°52.0	350°23.3	4°54.7	19°26.1	33°57.6	48°29.1	63°00.6	77°32.2	92°03.9	106°35.5	+31.5	14.9	
	17°20.7	17°16.2	17°11.6	17°06.9	17°02.1	16°57.3	16°52.4	16°47.4	16°42.3	16°37.2	16°32.0	-4.9	54.5	

Ligne 1 : GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2 : Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
NL: 6 05h11 — PQ: 14 07h51 — PL: 21 01h46 — DQ: 27 19h33

SOLEIL

Septembre 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Me 1	270°01.6 8°03.5	285°01.8 8°02.6	300°02.0 8°01.6	315°02.2 8°00.7	330°02.4 7°59.8	345°02.6 7°58.9	0°02.8 7°58.0	15°03.0 7°57.1	30°03.2 7°55.3	45°03.4 7°53.5	60°03.6 7°51.6	75°03.8 7°49.7	+0.2 -0.9
Je 2	270°06.4 7°41.6	285°06.7 7°40.7	300°06.8 7°39.7	315°07.0 7°38.8	330°07.2 7°37.9	345°07.4 7°37.0	0°07.6 7°36.1	15°07.8 7°35.2	30°08.0 7°33.3	45°08.2 7°32.4	60°08.4 7°30.5	75°08.6 7°28.6	+0.2 -0.9
Ve 3	270°11.3 7°19.6	285°11.5 7°18.6	300°11.7 7°17.7	315°11.9 7°16.8	330°12.1 7°15.9	345°12.3 7°15.0	0°12.5 7°14.0	15°12.7 7°13.1	30°12.9 7°12.2	45°13.1 7°11.3	60°13.3 7°10.4	75°13.5 7°09.4	+0.2 -0.9
Sa 4	270°16.2 6°57.4	285°16.4 6°56.5	300°16.6 6°55.6	315°16.8 6°54.7	330°17.1 6°53.7	345°17.3 6°52.8	0°17.5 6°51.9	15°17.7 6°50.9	30°17.9 6°50.0	45°18.1 6°49.1	60°18.3 6°48.2	75°18.5 6°47.2	+0.2 -0.9
Di 5	270°21.2 6°35.2	285°21.4 6°34.2	300°21.6 6°33.3	315°21.9 6°32.4	330°22.1 6°31.5	345°22.3 6°30.5	0°22.5 6°29.6	15°22.7 6°28.7	30°22.9 6°27.7	45°23.1 6°26.8	60°23.3 6°25.9	75°23.5 6°24.9	+0.2 -0.9
Lu 6	270°26.3 6°12.8	285°26.5 6°11.9	300°26.7 6°11.0	315°26.9 6°10.0	330°27.1 6°09.1	345°27.4 6°08.2	0°27.6 6°07.2	15°27.8 6°06.3	30°28.0 6°05.3	45°28.2 6°04.4	60°28.4 6°03.5	75°28.6 6°02.5	+0.2 -0.9
Ma 7	270°31.4 5°50.4	285°31.6 5°49.4	300°31.8 5°48.5	315°32.0 5°47.5	330°32.3 5°46.6	345°32.5 5°45.7	0°32.7 5°44.7	15°32.9 5°43.8	30°33.1 5°42.9	45°33.3 5°41.9	60°33.5 5°41.0	75°33.8 5°40.0	+0.2 -0.9
Me 8	270°36.6 5°27.8	285°36.8 5°26.9	300°37.0 5°25.9	315°37.2 5°25.0	330°37.4 5°24.0	345°37.6 5°23.1	0°37.9 5°22.2	15°38.1 5°21.2	30°38.3 5°20.3	45°38.5 5°19.3	60°38.7 5°18.4	75°38.9 5°17.4	+0.2 -0.9
Je 9	270°41.8 5°05.2	285°42.0 5°04.2	300°42.2 5°03.3	315°42.4 5°02.3	330°42.6 5°01.4	345°42.9 5°00.4	0°43.1 4°59.5	15°43.3 4°58.5	30°43.5 4°57.6	45°43.7 4°56.6	60°43.9 4°55.7	75°44.2 4°54.8	+0.2 -0.9
Ve 10	270°47.0 4°42.4	285°47.2 4°41.5	300°47.4 4°40.5	315°47.7 4°39.6	330°47.9 4°38.6	345°48.1 4°37.7	0°48.3 4°36.7	15°48.5 4°35.8	30°48.8 4°34.8	45°49.0 4°33.9	60°49.2 4°32.9	75°49.4 4°32.0	+0.2 -0.9
Sa 11	270°52.3 4°19.6	285°52.5 4°18.7	300°52.7 4°17.7	315°52.9 4°16.8	330°53.2 4°15.8	345°53.4 4°14.9	0°53.6 4°13.9	15°53.8 4°13.0	30°54.0 4°12.0	45°54.3 4°11.1	60°54.5 4°10.1	75°54.7 4°09.1	+0.2 -1.0
Di 12	270°57.6 3°56.7	285°57.8 3°55.8	300°58.0 3°54.8	315°58.2 3°53.9	330°58.5 3°52.9	345°58.7 3°52.0	0°58.9 3°51.0	15°59.1 3°50.1	30°59.4 3°49.1	45°59.6 3°48.1	60°59.8 3°47.2	75°59.9 3°46.2	+0.2 -1.0
Lu 13	271°02.9 3°33.8	286°03.1 3°32.8	301°03.4 3°31.9	316°03.6 3°30.9	331°03.8 3°30.0	346°04.0 3°29.0	1°04.3 3°28.0	16°04.5 3°27.1	31°04.7 3°26.1	46°04.9 3°25.2	61°05.1 3°24.2	76°05.4 3°23.2	+0.2 -1.0
Ma 14	271°07.8 3°10.8	286°08.0 3°09.8	301°08.7 3°08.9	316°08.9 3°07.9	331°09.2 3°06.9	346°09.4 3°06.0	1°09.6 3°05.0	16°09.8 3°04.0	31°10.1 3°03.1	46°10.4 3°02.1	61°10.6 3°01.2	76°10.7 3°00.2	+0.2 -1.0
Me 15	271°13.6 2°47.7	286°13.9 2°46.7	301°14.1 2°45.8	316°14.3 2°44.8	331°14.5 2°43.9	346°14.8 2°42.9	1°15.0 2°41.9	16°15.2 2°41.0	31°15.4 2°40.0	46°15.7 2°39.0	61°15.9 2°38.1	76°16.1 2°37.1	+0.2 -1.0
Je 16	271°19.7 2°24.6	286°19.2 2°23.6	301°19.5 2°22.6	316°19.7 2°21.7	331°19.9 2°20.7	346°20.1 2°19.8	1°20.4 2°18.8	16°20.6 2°17.8	31°20.8 2°16.9	46°21.0 2°15.9	61°21.3 2°14.9	76°21.5 2°14.0	+0.2 -1.0
Ve 17	271°24.4 2°01.4	286°24.6 2°00.4	301°24.8 1°59.5	316°25.1 1°58.5	331°25.3 1°57.5	346°25.5 1°56.6	1°25.7 1°55.6	16°26.0 1°54.6	31°26.2 1°53.7	46°26.4 1°52.7	61°26.6 1°51.7	76°26.9 1°50.8	+0.2 -1.0
Sa 18	271°29.8 1°38.2	286°30.0 1°37.2	301°30.2 1°36.3	316°30.5 1°35.3	331°30.7 1°34.3	346°30.9 1°33.4	1°31.1 1°32.4	16°31.4 1°31.4	31°31.6 1°30.4	46°31.8 1°29.5	61°32.0 1°28.5	76°32.3 1°27.5	+0.2 -1.0
Di 19	271°35.2 1°14.9	286°35.4 1°14.0	301°35.6 1°13.0	316°35.8 1°12.0	331°36.1 1°11.1	346°36.3 1°10.1	1°36.5 1°09.1	16°36.7 1°08.2	31°37.0 1°07.2	46°37.2 1°06.2	61°37.4 1°05.2	76°37.6 1°04.3	+0.2 -1.0
Lu 20	271°40.5 0°51.7	286°40.7 0°50.7	301°41.0 0°49.7	316°41.2 0°48.8	331°41.4 0°47.8	346°41.6 0°46.8	1°41.9 0°45.8	16°42.1 0°44.9	31°42.3 0°43.9	46°42.5 0°42.9	61°42.8 0°42.0	76°43.0 0°41.0	+0.2 -1.0
Ma 21	271°45.9 0°28.4	286°46.1 0°27.4	301°46.3 0°26.4	316°46.5 0°25.4	331°46.8 0°24.5	346°47.0 0°23.5	1°47.2 0°22.5	16°47.4 0°21.6	31°47.6 0°20.6	46°47.9 0°19.6	61°48.1 0°18.6	76°48.3 0°17.7	+0.2 -1.0
Me 22	271°51.2 0°05.0	286°51.4 0°04.1	301°51.6 0°03.1	316°51.9 0°02.1	331°52.1 0°01.1	346°52.3 0°00.2	1°52.5 -0°00.8	16°52.7 -0°01.8	31°53.0 -0°02.7	46°53.2 -0°03.7	61°53.4 -0°04.7	76°53.6 -0°05.7	+0.2 -1.0
Je 23	271°56.5 -0°18.3	286°56.7 -0°19.3	301°56.9 -0°20.3	316°57.1 -0°21.2	331°57.4 -0°22.2	346°57.6 -0°23.2	1°57.8 -0°24.1	16°58.0 -0°25.1	31°58.2 -0°26.1	46°58.4 -0°27.1	61°58.7 -0°28.1	76°58.9 -0°29.0	+0.2 -1.0
Ve 24	272°01.7 -0°41.7	287°01.9 -0°42.6	302°02.2 -0°43.6	317°02.4 -0°44.6	332°02.6 -0°45.6	347°02.8 -0°46.5	2°03.0 -0°47.5	17°03.2 -0°48.5	32°03.5 -0°49.4	47°03.7 -0°50.4	62°03.9 -0°51.4	77°04.1 -0°52.4	+0.2 -1.0
Sa 25	272°06.9 -1°05.0	287°07.1 -1°06.0	302°07.4 -1°07.0	317°07.6 -1°07.9	332°07.8 -1°08.9	347°08.0 -1°09.9	2°08.2 -1°10.9	17°08.4 -1°11.8	32°08.7 -1°12.8	47°08.9 -1°13.8	62°09.1 -1°14.8	77°09.3 -1°15.7	+0.2 -1.0
Di 26	272°12.1 -1°28.4	287°12.3 -1°29.3	302°12.5 -1°30.3	317°12.7 -1°31.3	332°12.9 -1°32.3	347°13.2 -1°33.2	2°13.4 -1°34.2	17°13.7 -1°35.2	32°13.8 -1°36.2	47°14.0 -1°37.1	62°14.2 -1°38.1	77°14.4 -1°39.1	+0.2 -1.0
Lu 27	272°17.2 -1°51.7	287°17.4 -1°52.7	302°17.6 -1°53.7	317°17.8 -1°54.6	332°18.0 -1°55.6	347°18.2 -1°56.6	2°18.5 -1°57.6	17°18.7 -1°58.5	32°18.9 -1°59.5	47°19.1 -2°00.5	62°19.3 -2°01.4	77°19.5 -2°02.4	+0.2 -1.0
Ma 28	272°22.2 -2°15.1	287°22.4 -2°16.0	302°22.6 -2°17.0	317°22.9 -2°18.0	332°23.1 -2°19.9	347°23.3 -2°20.9	2°23.5 -2°21.9	17°23.7 -2°22.8	32°23.9 -2°23.8	47°24.1 -2°24.8	62°24.3 -2°25.8	77°24.5 -2°26.7	+0.2 -1.0
Me 29	272°27.2 -2°38.4	287°27.4 -2°39.3	302°27.6 -2°40.3	317°27.8 -2°41.3	332°28.0 -2°42.3	347°28.2 -2°43.2	2°28.4 -2°44.2	17°28.7 -2°45.2	32°28.9 -2°46.1	47°29.1 -2°47.1	62°29.3 -2°48.1	77°29.5 -2°49.1	+0.2 -1.0
Je 30	272°32.1 -3°01.7	287°32.3 -3°02.6	302°32.5 -3°03.6	317°32.7 -3°04.6	332°32.9 -3°05.5	347°33.1 -3°06.5	2°33.3 -3°07.5	17°33.5 -3°08.5	32°33.7 -3°09.4	47°33.9 -3°10.4	62°34.1 -3°11.4	77°34.4 -3°12.3	+0.2 -1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Septembre 2032

J	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	Δ'/h SP
Me 1	237°22.4 15°41.9	251°54.5 15°36.0	266°26.4 15°30.0	280°58.8 15°23.9	295°31.0 15°17.8	310°03.3 15°11.7	324°35.5 15°05.4	339°07.9 14°59.1	353°40.2 14°52.7	8°12.6 14°46.3	22°45.1 14°39.8	+32.3 14.8 -6.2 54.2
	240°56.1 12°55.3	255°29.1 12°47.9	270°02.2 12°40.4	284°35.3 12°32.9	299°08.4 12°25.3	313°41.6 12°17.7	328°14.8 12°10.0	342°48.0 12°02.3	357°21.3 11°54.5	11°54.6 11°46.7	26°27.9 11°38.8	+33.2 14.7 -7.6 54.0
Ve 3	244°51.3 9°35.4	259°25.1 9°26.8	273°58.2 9°18.2	288°32.7 9°09.6	303°06.6 9°00.9	317°40.5 8°52.2	332°14.4 8°43.5	346°48.3 8°34.7	1°22.2 8°25.9	15°56.2 8°17.1	30°30.2 8°08.2	+33.9 14.7 -8.7 53.9
Sa 4	249°02.3 5°51.4	263°36.5 5°42.1	278°10.8 5°32.7	292°45.1 5°23.3	307°19.4 5°13.9	321°53.7 5°04.5	336°28.0 4°55.1	351°02.4 4°45.6	5°36.7 4°36.1	20°11.1 4°26.6	34°45.4 4°17.1	+34.3 14.7 -9.4 53.9
	253°21.6 1°52.5	267°56.0 1°42.8	282°30.5 1°33.0	297°04.9 1°23.3	311°39.3 1°13.5	326°13.8 1°03.8	340°48.2 0°54.0	355°22.6 0°44.2	9°57.0 0°34.5	24°31.4 0°24.7	39°05.8 0°14.9	+34.4 14.7 -9.8 54.0
Lu 6	257°41.0 -2°11.9	272°15.2 -2°21.7	286°49.4 -2°31.4	301°23.7 -2°41.2	315°57.9 -2°50.9	330°32.0 -3°00.6	345°06.2 -3°10.3	359°40.4 -3°20.0	14°14.5 -3°29.7	28°48.6 -3°39.4	43°22.7 -3°49.1	+34.2 14.8 -9.7 54.2
Ma 7	261°51.4 -6°12.3	276°25.1 -6°21.7	290°58.8 -6°31.0	305°32.4 -6°40.4	320°06.0 -6°49.7	334°39.6 -6°59.0	349°13.2 -7°08.3	3°46.7 -7°17.5	18°20.2 -7°26.7	32°53.6 -7°35.9	47°27.0 -7°45.1	+33.6 14.9 -9.3 54.5
Me 8	265°43.9 -9°58.6	280°16.7 -10°07.3	294°49.5 -10°15.8	309°22.2 -10°24.4	323°54.9 -10°32.9	338°27.5 -10°41.3	353°00.1 -10°58.1	7°32.7 -11°06.4	22°05.2 -11°14.7	36°37.6 -11°22.9	51°10.0 -11°30.7	+32.6 15.0 -8.4 54.9
Je 9	269°10.3 -13°20.4	283°41.9 -13°27.8	298°13.4 -13°35.2	312°44.9 -13°42.5	327°16.4 -13°49.7	341°47.8 -13°56.9	356°19.1 -14°04.0	10°50.4 -14°11.0	25°21.6 -14°18.0	39°52.8 -14°24.9	54°23.9 -14°31.8	+31.4 15.1 -7.1 55.4
Ve 10	272°03.8 -16°06.5	286°34.0 -16°12.2	301°04.1 -16°17.8	315°34.2 -16°23.3	330°04.2 -16°28.9	344°34.2 -16°34.3	359°04.1 -16°39.7	13°33.9 -16°45.0	28°03.7 -16°50.1	42°33.4 -16°55.2	57°03.1 -17°00.3	+29.9 15.3 -5.4 56.0
Sa 11	274°20.9 -18°05.1	288°49.6 -18°08.7	303°56.8 -18°12.2	317°46.8 -18°15.6	332°15.4 -18°19.0	346°43.9 -18°22.2	361°12.3 -18°25.3	15°40.7 -18°28.3	30°09.0 -18°31.2	44°37.2 -18°34.1	59°05.2 -18°36.8	+28.5 15.5 -3.2 56.7
	276°02.1 -19°05.2	290°29.5 -19°06.3	305°37.8 -19°07.6	319°24.1 -19°08.0	333°51.3 -19°08.7	348°18.5 -19°09.4	363°18.5 -19°10.9	2°45.6 -19°12.7	25°21.6 -19°10.5	39°52.8 -19°10.6	54°23.9 -19°10.7	+31.4 15.1 -0.5 57.5
Lu 13	277°13.3 -18°57.4	291°39.6 -18°55.5	306°06.0 -18°53.6	320°32.2 -18°51.5	334°58.5 -18°49.3	349°24.7 -18°47.0	3°50.9 -18°44.6	18°17.1 -18°42.1	32°43.3 -18°39.4	47°09.4 -18°36.6	60°33.7 -18°33.7	+26.2 15.9 -2.4 58.4
Ma 14	278°04.4 -17°35.8	292°30.2 -17°31.0	306°56.6 -17°26.1	321°21.7 -17°21.0	335°47.3 -17°15.9	350°13.3 -17°10.6	3°49.0 -17°05.2	19°04.7 -16°59.7	33°30.4 -16°54.0	47°56.2 -16°48.3	62°21.9 -16°42.4	+25.7 16.2 -5.3 59.3
Me 15	278°47.1 -15°00.9	293°12.8 -14°53.3	307°38.3 -14°45.5	322°04.2 -14°37.7	336°29.9 -14°29.7	350°55.6 -14°21.6	5°21.3 -14°13.5	21°13.9 -14°05.2	34°12.8 -13°56.8	48°38.5 -13°48.4	63°04.3 -13°39.8	+25.7 16.4 -1.8 60.1
Je 16	279°31.4 -11°20.0	293°57.3 -11°09.9	308°23.3 -10°59.8	322°49.2 -10°49.6	337°15.1 -10°39.9	351°41.1 -10°29.0	6°07.0 -10°18.6	20°33.0 -10°08.1	34°59.0 -9°57.5	49°25.0 -9°46.9	63°51.0 -9°36.2	+26.0 16.6 -1.0 60.7
Ve 17	280°23.0 -6°47.7	294°49.3 -6°36.0	309°15.5 -6°24.3	323°41.8 -6°12.5	338°08.1 -6°00.7	352°34.4 -5°48.8	7°00.7 -5°36.9	21°27.0 -5°24.9	35°53.4 -5°12.9	50°19.7 -5°00.9	64°46.1 -4°48.8	+26.3 16.7 -11.9 61.1
Sa 18	281°22.9 -1°44.7	295°49.5 -1°42.3	310°16.0 -1°19.8	324°42.6 -1°07.4	339°09.1 -0°54.9	353°35.7 -0°42.5	8°02.3 -0°30.0	22°28.9 -0°17.6	36°55.5 -0°05.1	51°22.1 0°07.3	65°48.7 0°19.8	+26.6 16.7 -12.4 61.2
	282°28.7 3°24.9	296°55.4 3°37.1	311°22.1 3°49.2	325°48.8 4°01.3	340°15.6 4°13.4	354°42.3 4°25.4	9°09.0 4°37.4	23°35.7 4°49.4	38°02.5 5°01.3	52°29.2 5°13.2	66°55.9 5°25.0	+26.7 16.6 -12.0 60.9
Lu 20	283°37.1 8°16.7	298°03.9 8°27.6	312°30.7 8°38.5	326°57.4 8°49.4	341°24.2 9°00.2	355°50.9 9°10.9	10°17.7 9°21.5	24°44.5 9°32.1	39°11.2 9°42.6	53°38.0 9°53.0	68°04.8 10°03.4	+26.8 16.4 -10.7 60.3
	284°46.5 12°29.1	299°13.3 12°38.1	313°40.1 12°47.0	328°06.9 12°55.9	342°33.7 13°04.6	357°00.6 13°13.3	11°27.4 13°21.9	25°54.2 13°30.3	40°21.0 13°38.7	54°47.0 13°47.9	69°14.7 13°55.2	+26.8 16.2 -8.6 59.4
Me 22	285°58.4 15°45.9	300°25.4 15°52.5	314°52.4 15°58.9	329°19.4 16°05.3	343°46.4 16°11.5	358°13.5 16°17.7	12°40.5 16°23.7	27°07.6 16°29.6	41°34.7 16°35.4	56°01.8 16°41.1	70°28.9 16°46.7	+27.1 15.9 -6.1 58.4
Je 23	287°18.1 17°57.5	301°45.6 18°01.3	316°13.1 18°05.1	330°40.6 18°08.7	345°08.1 18°12.2	359°35.7 18°15.6	14°03.3 18°18.9	28°30.9 18°22.0	42°58.5 18°25.1	57°26.2 18°28.1	71°53.9 18°30.9	+27.6 15.7 -3.3 57.4
Ve 24	301°45.6 18°01.3	316°13.1 18°05.1	330°40.6 18°08.7	345°08.1 18°12.2	359°35.7 18°15.6	14°03.3 18°18.9	28°30.9 18°22.0	42°58.5 18°25.1	57°26.2 18°28.1	71°53.9 18°30.9	86°21.7 18°33.7	+27.6 15.7 -3.2 57.4
Sa 25	303°21.7 19°01.7	317°50.0 19°02.7	332°18.3 19°03.6	346°46.7 19°04.4	1°15.1 19°05.6	15°43.5 19°05.6	30°12.0 19°06.1	44°40.6 19°06.5	59°09.1 19°06.8	73°37.7 19°06.9	88°06.4 19°07.0	+28.5 15.4 -0.5 56.5
	305°21.5 18°55.9	319°50.9 18°54.3	334°20.3 18°52.7	348°49.7 18°51.0	3°19.3 18°49.7	17°48.8 18°47.3	32°18.4 18°45.2	46°48.1 18°43.2	61°17.8 18°41.0	75°47.6 18°38.7	90°17.4 18°36.3	+29.6 15.2 -2.0 55.6
Lu 27	307°50.4 15°50.1	322°21.0 17°46.3	336°51.7 17°42.5	351°22.4 17°38.5	5°53.1 17°34.5	20°23.9 17°30.4	34°54.8 17°26.2	49°25.7 17°22.0	63°56.6 17°17.7	78°27.6 17°13.2	92°58.8 17°08.8	+30.8 15.0 -4.1 55.0
Ma 28	310°50.3 15°52.5	325°22.1 15°46.8	339°53.8 15°41.1	354°25.9 15°35.3	8°57.8 15°29.5	23°29.8 15°23.5	38°01.9 15°17.6	52°34.0 15°11.5	67°06.2 15°05.4	81°38.3 14°59.2	96°10.5 14°53.0	+32.0 14.9 -6.0 54.5
Me 29	314°09.1 13°12.1	328°52.0 13°04.9	343°24.0 12°57.6	357°57.9 12°50.4	12°30.9 12°43.0	27°03.9 12°35.6	41°37.0 12°28.2	56°10.1 12°20.7	70°43.2 12°13.1	85°16.4 12°05.5	99°49.6 11°57.9	+33.1 14.8 -7.4 54.2
Je 30	318°11.8 9°57.7	332°45.5 9°49.4	347°19.2 9°41.0	1°53.0 9°32.6	16°26.8 9°24.1	31°00.6 9°15.6	45°34.4 9°07.0	60°08.3 8°58.5	74°42.2 8°49.8	89°16.1 8°41.2	103°50.0 8°32.5	+33.8 14.7 -8.5 54.0

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne 2: (heure UTC - jour) mod 24
NL: 4 20h56 — PQ: 12 18h49 — PL: 19 09h30 — DQ: 26 09h12

SOLEIL

Octobre 2032

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Ve 1	257°36.8 -3°24.0	272°37.0 -3°24.9	287°37.2 -3°25.9	302°37.4 -3°26.9	317°37.6 -3°27.8	332°37.8 -3°28.8	347°38.0 -3°29.8	2°38.2 -3°30.7	17°38.4 -3°31.7	32°38.6 -3°32.7	47°38.8 -3°33.6	62°39.0 -3°34.6	+0.2 -1.0
Sa 2	257°41.5 -3°47.2	272°41.7 -3°48.1	287°41.9 -3°49.1	302°42.1 -3°50.1	317°42.3 -3°51.0	332°42.5 -3°52.0	347°42.7 -3°53.0	2°42.9 -3°53.9	17°43.1 -3°54.9	32°43.3 -3°55.9	47°43.6 -3°56.8	62°43.7 -3°57.8	+0.2 -1.0
Di 3	257°46.2 -4°10.4	272°46.4 -4°11.3	287°46.6 -4°12.3	302°46.8 -4°13.3	317°47.0 -4°14.2	332°47.2 -4°15.2	347°47.4 -4°16.2	2°47.6 -4°17.1	17°47.8 -4°18.1	32°47.9 -4°19.0	47°48.1 -4°20.0	62°48.3 -4°21.0	+0.2 -1.0
Lu 4	257°50.8 -4°33.5	272°51.0 -4°34.5	287°51.2 -4°35.4	302°51.4 -4°36.4	317°51.6 -4°37.3	332°51.8 -4°38.3	347°51.9 -4°39.3	2°52.1 -4°40.2	17°52.3 -4°41.2	32°52.5 -4°42.2	47°52.7 -4°43.1	62°52.9 -4°44.1	+0.2 -1.0
Ma 5	257°55.3 -4°56.6	272°55.5 -4°57.5	287°55.7 -4°58.5	302°55.9 -4°59.5	317°56.1 -5°00.4	332°56.2 -5°01.4	347°56.4 -5°02.3	2°56.6 -5°03.3	17°56.8 -5°04.3	32°57.0 -5°05.2	47°57.2 -5°06.2	62°57.3 -5°07.1	+0.2 -1.0
Me 6	257°59.7 -5°19.6	272°59.9 -5°20.5	288°00.1 -5°21.5	303°00.3 -5°22.5	318°00.5 -5°23.4	333°00.6 -5°24.4	348°00.8 -5°25.3	3°01.0 -5°26.3	18°01.2 -5°27.2	33°01.4 -5°28.2	48°01.5 -5°29.2	63°01.7 -5°30.1	+0.2 -1.0
Je 7	258°04.0 -5°42.5	273°04.2 -5°43.5	288°04.4 -5°44.4	303°04.6 -5°45.4	318°04.7 -5°46.4	333°04.9 -5°47.3	348°05.1 -5°48.3	3°05.3 -5°49.2	18°05.5 -5°50.2	33°05.6 -5°51.1	48°05.8 -5°52.1	63°06.0 -5°53.0	+0.2 -1.0
Ve 8	258°08.3 -6°05.4	273°08.4 -6°06.4	288°08.6 -6°07.3	303°08.8 -6°08.3	318°08.9 -6°09.2	333°09.1 -6°10.2	348°09.3 -6°11.1	3°09.5 -6°12.1	18°09.6 -6°13.0	33°09.8 -6°14.0	48°10.0 -6°14.9	63°10.1 -6°15.9	+0.2 -1.0
Sa 9	258°12.4 -6°28.2	273°12.5 -6°29.1	288°12.7 -6°30.1	303°12.9 -6°31.0	318°13.0 -6°32.0	333°13.2 -6°32.9	348°13.4 -6°33.9	3°13.5 -6°34.8	18°13.7 -6°35.8	33°13.9 -6°36.7	48°14.0 -6°37.7	63°14.2 -6°38.6	+0.2 -0.9
Di 10	258°16.4 -6°50.9	273°16.5 -6°51.8	288°16.7 -6°52.8	303°16.8 -6°53.7	318°17.0 -6°54.7	333°17.2 -6°55.6	348°17.3 -6°56.6	3°17.5 -6°57.5	18°17.7 -6°58.5	33°17.8 -6°59.4	48°18.0 -6°00.3	63°18.1 -6°01.3	+0.2 -0.9
Lu 11	258°20.2 -7°13.5	273°20.4 -7°14.5	288°20.5 -7°15.4	303°20.7 -7°16.3	318°20.9 -7°17.3	333°21.0 -7°18.2	348°21.2 -7°19.2	3°21.3 -7°20.1	18°21.5 -7°21.0	33°21.7 -7°22.0	48°21.8 -7°22.8	63°22.0 -7°23.8	+0.2 -0.9
Ma 12	258°24.0 -7°36.6	273°24.1 -7°37.0	288°24.3 -7°37.9	303°24.5 -7°38.8	318°24.6 -7°39.8	333°24.8 -7°40.7	348°24.9 -7°41.6	3°25.1 -7°42.6	18°25.2 -7°43.5	33°25.4 -7°44.0	48°25.5 -7°45.1	63°25.7 -7°46.3	+0.2 -0.9
Me 13	258°27.6 -7°58.4	273°27.8 -7°59.4	288°27.9 -8°00.3	303°28.1 -8°01.2	318°28.2 -8°02.2	333°28.4 -8°03.1	348°28.5 -8°04.0	3°28.7 -8°05.0	18°28.8 -8°05.8	33°28.9 -8°06.8	48°29.1 -8°07.7	63°29.3 -8°08.7	+0.1 -0.9
Je 14	258°31.1 -8°20.7	273°31.3 -8°21.7	288°31.4 -8°22.6	303°31.6 -8°23.5	318°31.7 -8°24.4	333°31.9 -8°25.4	348°32.0 -8°26.3	3°32.1 -8°27.2	18°32.3 -8°28.1	33°32.4 -8°29.1	48°32.6 -8°30.0	63°32.7 -8°30.9	+0.1 -0.9
Ve 15	258°34.8 -8°42.9	273°34.7 -8°43.8	288°34.8 -8°44.8	303°34.9 -8°45.7	318°35.1 -8°46.6	333°35.2 -8°47.5	348°35.3 -8°48.4	3°35.5 -8°49.4	18°35.6 -8°50.3	33°35.7 -8°51.2	48°35.9 -8°52.1	63°36.0 -8°53.0	+0.1 -0.9
Sa 16	258°37.8 -9°05.0	273°37.9 -9°05.9	288°38.0 -9°06.8	303°38.1 -9°07.7	318°38.3 -9°08.6	333°38.4 -9°09.5	348°38.5 -9°10.5	3°38.7 -9°11.4	18°38.8 -9°12.3	33°38.9 -9°13.2	48°39.1 -9°14.1	63°39.2 -9°15.0	+0.1 -0.9
Di 17	258°40.8 -9°26.9	273°41.0 -9°27.8	288°41.1 -9°28.7	303°41.2 -9°29.6	318°41.3 -9°30.5	333°41.5 -9°31.4	348°41.6 -9°32.3	3°41.7 -9°33.3	18°41.8 -9°34.2	33°41.9 -9°35.1	48°42.0 -9°36.0	63°42.2 -9°36.9	+0.1 -0.9
Lu 18	258°43.8 -9°48.7	273°43.9 -9°49.6	288°44.0 -9°50.5	303°44.2 -9°51.4	318°44.3 -9°52.3	333°44.4 -9°53.2	348°44.5 -9°54.1	3°44.6 -9°55.0	18°44.7 -9°55.9	33°44.9 -9°56.8	48°45.0 -9°57.7	63°45.1 -9°58.6	+0.1 -0.9
Ma 19	258°46.6 -10°10.3	273°46.7 -10°11.2	288°46.8 -10°12.1	303°46.9 -10°13.0	318°47.0 -10°13.9	333°47.1 -10°14.8	348°47.3 -10°15.7	3°47.4 -10°16.6	18°47.5 -10°17.5	33°47.6 -10°18.4	48°47.7 -10°19.3	63°47.8 -10°20.2	+0.1 -0.9
Me 20	258°49.2 -10°31.8	273°49.3 -10°32.7	288°49.4 -10°33.6	303°49.5 -10°34.5	318°49.6 -10°35.4	333°49.7 -10°36.3	348°49.9 -10°37.2	3°50.0 -10°38.0	18°50.1 -10°38.9	33°50.2 -10°39.8	48°50.3 -10°40.7	63°50.4 -10°41.6	+0.1 -0.9
Je 21	258°51.7 -10°53.1	273°51.8 -10°54.0	288°51.9 -10°54.9	303°52.0 -10°55.8	318°52.1 -10°56.7	333°52.2 -10°57.6	348°52.3 -10°58.5	3°52.4 -10°59.3	18°52.5 -11°00.2	33°52.6 -11°01.1	48°52.7 -11°02.0	63°52.8 -11°02.9	+0.1 -0.9
Ve 22	258°54.0 -11°14.3	273°54.1 -11°15.2	288°54.2 -11°16.1	303°54.3 -11°17.0	318°54.4 -11°17.8	333°54.4 -11°18.7	348°54.5 -11°19.6	3°54.6 -11°20.5	18°54.7 -11°21.3	33°54.8 -11°22.2	48°54.9 -11°23.1	63°55.0 -11°24.0	+0.1 -0.9
Sa 23	258°56.8 -11°35.3	273°56.2 -11°36.2	288°56.3 -11°37.1	303°56.4 -11°38.0	318°56.4 -11°38.8	333°56.5 -11°39.7	348°56.6 -11°40.6	3°56.7 -11°41.4	18°56.8 -11°42.3	33°56.9 -11°43.2	48°56.9 -11°44.0	63°58.9 -11°44.9	+0.1 -0.9
Di 24	258°58.2 -11°56.2	273°58.1 -11°57.0	288°58.1 -11°57.9	303°58.3 -11°58.8	318°58.4 -11°59.6	333°58.4 -12°00.5	348°58.5 -12°01.4	3°58.6 -12°02.2	18°58.7 -12°03.1	33°58.7 -12°03.9	48°58.8 -12°04.8	63°58.9 -12°05.7	+0.1 -0.9
Lu 25	258°59.8 -12°16.8	273°59.9 -12°17.7	289°00.0 -12°18.5	304°00.0 -12°19.4	319°00.1 -12°20.3	334°00.2 -12°21.1	349°00.2 -12°22.0	4°00.3 -12°22.8	18°00.4 -12°23.7	34°00.4 -12°24.5	49°00.5 -12°25.4	64°00.6 -12°26.2	+0.1 -0.9
Ma 26	259°01.4 -12°37.3	274°01.5 -12°38.1	289°01.5 -12°39.0	304°01.6 -12°39.8	319°01.6 -12°40.7	334°01.7 -12°41.5	349°01.8 -12°42.4	4°01.8 -12°43.2	18°01.9 -12°44.1	34°01.9 -12°44.9	49°02.0 -12°45.8	64°02.1 -12°46.6	+0.1 -0.8
Me 27	259°02.8 -12°57.6	274°02.8 -12°58.5	289°02.9 -12°59.3	304°03.0 -13°00.1	319°03.0 -13°00.9	334°03.1 -13°01.8	349°03.1 -13°02.6	4°03.2 -13°03.5	18°03.2 -13°04.3	34°03.3 -13°05.1	49°03.3 -13°06.0	64°03.4 -13°06.8	+0.1 -0.8
Je 28	259°04.0 -13°17.6	274°04.0 -13°18.5	289°04.1 -13°19.3	304°04.1 -13°20.1	319°04.2 -13°21.0	334°04.2 -13°21.8	349°04.3 -13°22.6	4°04.3 -13°23.5	18°04.4 -13°24.3	34°04.4 -13°25.1	49°04.4 -13°26.0	64°04.4 -13°26.8	+0.0 -0.8
Ve 29	259°05.0 -13°37.3	274°05.0 -13°38.3	289°05.1 -13°39.2	304°05.1 -13°40.0	319°05.1 -13°40.8	334°05.2 -13°41.6	349°05.2 -13°42.4	4°05.3 -13°43.3	18°05.3 -13°44.1	34°05.3 -13°44.9	49°05.4 -13°45.7	64°05.4 -13°46.6	+0.0 -0.8
Sa 30	259°05.8 -13°57.2	274°05.8 -13°58.8	289°05.9 -13°59.8	304°05.9 -14°00.4	319°05.9 -14°01.2	334°05.9 -14°02.0	349°06.0 -14°02.8	4°06.0 -14°02.9	18°06.0 -14°03.7	34°06.1 -14°04.5	49°06.1 -14°05.3	64°06.1 -14°06.1	+0.0 -0.8
Di 31	259°06.4 -14°16.6	274°06.4 -14°17.4	289°06.5 -14°18.2	304°06.5 -14°19.0	319°06.5 -14°19.8	334°06.5 -14°20.6	349°06.5 -14°21.4	4°06.6 -14°22.2	18°06.6 -14°23.0	34°06.6 -14°23.8	49°06.6 -14°24.6	64°06.6 -14°25.4	+0.0 -0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.0'

LUNE

Octobre 2032

	J	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	Δ'/h	SP
●	Ve 1	234°56.3 7°12.8	249°30.4 7°03.8	264°04.8 6°54.7	278°38.7 6°45.7	293°12.9 6°36.6	307°47.0 6°27.4	322°21.2 6°18.3	336°55.4 6°09.1	351°29.7 5°59.9	6°03.9 5°50.7	20°38.1 5°41.4	+34.2	14.7
	Sa 2	239°12.8 3°20.1	253°47.2 3°10.5	268°21.5 3°00.9	282°55.9 2°51.3	297°30.9 2°41.7	312°04.6 2°32.1	326°39.0 2°22.5	341°13.3 2°12.8	355°47.7 2°03.1	10°22.0 1°53.5	24°56.4 1°43.8	+34.4	14.7
●	Di 3	245°30.8 -0°42.3	258°05.1 -0°52.0	272°39.3 -1°01.8	287°13.6 -1°11.6	301°47.6 -1°21.3	316°21.8 -1°31.1	330°56.0 -1°40.8	345°30.1 -1°50.6	0°04.2 -2°00.3	14°38.3 -2°10.1	29°12.4 -2°19.8	+34.2	14.8
	Lu 4	247°41.2 -4°44.9	262°14.9 -4°54.5	276°48.6 -5°04.0	291°22.3 -5°13.6	305°55.9 -5°23.1	320°29.6 -5°32.6	335°03.2 -5°42.1	349°36.7 -5°51.5	4°10.2 -6°01.0	18°43.7 -6°10.4	33°17.2 -6°19.8	+33.6	14.9
●	Ma 5	251°35.2 -8°37.7	266°08.1 -8°46.7	280°40.9 -8°55.6	295°13.8 -9°04.5	309°46.5 -9°13.3	324°19.3 -9°22.1	338°52.0 -9°30.9	353°24.7 -9°39.7	7°57.3 -9°48.4	22°29.9 -9°57.0	37°02.4 -10°05.6	+32.7	15.0
	Me 6	255°05.1 -12°09.7	269°36.9 -12°17.6	284°08.7 -12°25.4	298°40.4 -12°33.2	313°12.0 -12°40.9	327°43.6 -12°48.6	342°15.2 -12°56.2	356°46.7 -13°03.8	11°18.2 -13°11.3	25°49.6 -13°18.7	40°21.0 -13°26.1	+31.6	15.1
●	Je 7	258°05.3 -15°09.3	272°35.9 -15°15.7	287°06.4 -15°21.9	301°36.8 -15°28.1	316°07.2 -15°34.3	330°37.5 -15°40.3	345°07.8 -15°46.3	359°38.0 -15°52.2	14°08.2 -15°58.0	28°38.4 -16°03.8	43°08.4 -16°09.5	+30.3	15.2
	Ve 8	260°33.4 -18°45.1	275°02.6 -18°47.0	289°31.9 -18°48.8	304°01.0 -18°50.6	318°30.1 -18°52.2	332°59.2 -18°53.7	347°28.2 -18°55.1	1°57.2 -18°56.4	16°26.1 -18°54.9	30°55.0 -18°58.7	45°23.8 -18°59.7	+29.0	15.3
●	Sa 9	262°30.9 -18°45.1	276°59.0 -18°47.0	291°27.1 -18°48.8	305°55.1 -18°50.6	320°23.2 -18°52.2	334°51.1 -18°53.7	349°19.1 -18°55.1	1°37.0 -18°56.4	18°14.9 -18°54.9	32°42.7 -18°58.7	47°10.5 -18°59.7	+28.0	15.5
	Di 10	264°03.7 -19°01.4	278°31.0 -19°08.0	292°58.3 -19°15.4	307°25.6 -19°22.1	321°52.8 -19°28.7	336°20.1 -19°35.3	350°47.3 -19°41.9	5°14.5 -19°48.4	19°41.6 -19°55.1	34°08.8 -19°58.5	48°35.9 -19°59.5	+27.2	15.7
●	Lu 11	265°21.1 -18°08.7	279°48.0 -18°15.4	294°14.9 -18°22.1	308°41.8 -18°28.7	323°08.7 -18°35.3	337°35.6 -18°41.9	352°02.4 -18°48.4	6°29.3 -18°55.1	20°56.2 -19°01.9	35°23.1 -19°08.5	49°49.9 -19°15.1	+26.9	15.9
	Ma 12	266°32.8 -16°06.4	280°59.7 -16°13.1	295°26.6 -15°19.7	309°53.5 -15°26.3	324°20.4 -15°33.0	338°47.3 -15°39.6	353°14.2 -15°46.2	7°41.1 -15°52.2	22°08.0 -15°58.0	36°34.9 -16°03.8	51°01.8 -16°09.5	+26.9	16.0
●	Me 13	267°46.7 -12°59.5	282°13.8 -12°50.9	296°40.9 -12°42.1	311°08.0 -12°33.2	325°35.1 -12°24.3	340°02.2 -12°15.2	354°29.3 -12°06.1	8°56.4 -11°56.7	23°23.6 -11°47.7	37°50.7 -11°38.3	52°17.9 -11°28.9	+27.1	16.2
	Je 14	269°06.4 -8°58.4	283°33.7 -8°47.8	298°01.0 -8°37.2	312°28.3 -8°26.5	326°55.6 -8°15.8	341°23.0 -8°04.9	355°50.3 -7°54.1	10°17.7 -7°43.1	24°45.0 -7°32.2	39°12.4 -7°21.1	53°39.8 -7°10.0	+27.3	16.4
●	Ve 15	270°30.8 -4°18.2	284°58.2 -4°06.4	299°25.6 -3°54.6	313°53.1 -3°42.8	328°20.4 -3°30.9	342°47.9 -3°19.0	357°15.3 -3°07.1	11°42.8 -2°55.2	26°10.2 -2°43.3	40°37.6 -2°31.3	55°05.0 -2°19.3	+27.4	16.5
	Sa 16	271°55.7 0°42.1	286°23.1 0°54.2	300°50.4 1°06.3	315°17.7 1°18.5	329°45.0 1°30.6	344°12.3 1°42.7	358°39.6 1°54.7	13°06.9 2°06.8	27°34.1 2°18.9	42°01.4 2°30.9	56°28.6 2°43.0	+27.3	16.5
●	Di 17	273°15.8 5°40.6	287°42.8 5°52.2	302°09.9 6°03.7	316°36.9 6°15.2	331°03.9 6°26.7	345°30.8 6°38.1	359°57.8 6°49.5	14°24.7 7°00.8	28°51.7 7°12.0	43°18.6 7°23.3	57°45.6 7°34.4	+27.0	16.5
	Lu 18	274°27.1 10°14.9	288°53.7 10°25.1	303°20.4 10°35.1	317°47.0 10°45.2	332°13.6 10°55.1	346°40.2 11°05.0	1°06.8 11°14.8	15°33.3 11°24.5	29°59.9 11°34.1	44°36.4 11°43.7	58°53.0 11°53.1	+26.6	16.4
●	Ma 19	275°29.6 14°04.5	289°55.9 14°12.6	304°22.3 14°20.5	318°48.7 14°28.3	333°15.0 14°36.0	347°41.4 14°43.6	2°07.7 14°51.1	16°34.1 14°58.6	31°00.4 15°05.9	45°26.8 15°13.1	59°53.1 15°20.2	+26.4	16.2
	Me 20	276°28.6 16°53.9	290°55.0 16°59.2	305°21.5 17°04.5	319°47.9 17°09.6	334°14.4 17°14.6	348°40.8 17°19.6	3°07.3 17°24.4	17°33.8 17°29.0	32°00.3 17°33.6	46°26.8 17°38.1	60°53.4 17°42.4	+26.5	15.9
●	Je 21	277°34.3 18°33.9	292°01.2 18°36.4	306°28.2 18°38.8	320°55.2 18°41.1	335°22.2 18°43.2	349°49.3 18°45.3	4°16.4 18°47.2	18°43.5 18°49.0	33°10.7 18°50.8	47°37.9 18°52.4	62°05.1 18°53.9	+27.1	15.7
	Ve 22	278°58.7 19°02.9	293°26.7 19°02.6	307°54.6 19°02.2	322°27.7 19°01.8	336°50.7 19°01.2	351°18.9 19°00.5	5°47.9 18°59.7	20°15.3 18°58.8	34°43.6 18°57.8	49°11.9 18°56.7	63°40.3 18°55.5	+28.2	15.5
●	Sa 23	280°52.6 18°25.5	295°21.8 18°22.7	309°51.2 18°19.8	324°20.6 18°16.9	338°50.0 18°13.8	353°19.5 18°10.7	7°49.1 18°07.5	22°18.7 18°04.2	36°48.3 18°00.8	51°18.1 17°57.3	65°47.9 17°53.7	+29.5	15.2
	Di 24	295°21.8 18°22.7	309°51.2 18°19.8	324°20.6 18°16.9	338°50.0 18°13.8	353°19.5 18°10.7	7°49.1 18°07.5	22°18.7 18°04.2	36°48.3 18°00.8	51°18.1 17°57.3	65°47.9 17°53.7	65°47.9 17°53.7	+29.5	15.2
●	Lu 25	297°52.6 16°45.1	312°23.4 16°40.2	326°54.2 16°35.2	341°25.1 16°30.0	355°56.1 16°24.9	10°27.1 16°19.6	24°58.2 16°14.3	39°29.3 16°08.9	54°00.5 16°03.4	68°31.8 15°57.9	83°03.1 15°52.3	+31.1	15.0
	Ma 26	300°59.2 14°20.1	315°31.3 14°13.5	330°03.3 14°06.8	344°35.8 14°00.0	359°08.1 13°53.2	13°40.5 13°46.3	28°12.9 13°39.4	42°45.3 13°32.4	57°17.8 13°25.4	71°50.4 13°18.3	86°23.0 13°11.1	+32.4	14.9
●	Me 27	304°37.2 11°17.8	319°10.5 11°09.9	333°43.8 11°01.9	348°17.1 10°53.9	2°50.5 10°45.8	17°23.9 10°37.7	31°57.4 10°29.5	46°30.9 10°21.3	61°04.4 10°13.1	75°37.9 10°04.8	90°11.5 9°56.5	+33.4	14.8
	Je 28	308°38.9 7°47.5	323°12.9 7°38.6	337°46.9 7°29.7	352°21.0 7°20.8	6°55.1 7°11.8	21°29.2 7°02.8	36°03.3 6°53.8	50°37.3 6°44.8	65°11.6 6°35.7	79°45.8 6°26.6	94°20.0 6°17.5	+34.1	14.8
●	Ve 29	312°54.5 3°57.8	327°28.8 3°48.3	342°03.3 3°38.9	356°37.6 3°29.4	11°10.2 3°19.8	25°46.3 3°10.3	40°20.7 3°00.7	54°55.1 2°51.2	69°29.9 2°41.6	84°03.9 2°32.0	98°38.3 2°22.4	+34.4	14.8
	Sa 30	317°13.5 -0°02.8	331°47.7 -0°12.6	346°22.0 -0°22.3	0°56.3 -0°32.1	15°30.5 -0°41.8	30°04.7 -0°51.5	44°38.9 -1°01.3	59°13.1 -1°11.0	73°47.3 -1°20.8	88°21.5 -1°30.5	102°55.6 -1°40.3	+34.2	14.8
●	Di 31	321°25.1 -4°05.8	335°58.9 -4°15.5	350°32.6 -4°25.1	5°06.4 -4°34.7	19°40.0 -4°44.3	34°13.7 -4°53.9	48°47.3 -5°03.5	63°20.9 -5°13.0	77°54.4 -5°22.6	92°28.0 -5°32.1	107°01.4 -5°41.6	+33.6	14.9

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
NL: 4 13h26 — PQ: 12 03h47 — PL: 18 18h58 — DQ: 26 02h28

SOLEIL

Novembre 2032

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Lu 1	259°06.8 -14°35.8	274°06.8 -14°36.6	289°06.8 -14°37.4	304°06.9 -14°38.2	319°06.9 -14°39.0	334°06.9 -14°39.8	346°06.9 -14°40.6	4°06.9 -14°41.4	16°06.9 -14°42.1	34°06.9 -14°42.9	46°06.9 -14°43.7	64°06.9 -14°44.5	+0.0 -0.8
Ma 2	259°07.0 -14°54.8	274°07.0 -14°55.6	289°07.0 -14°56.3	304°07.0 -14°57.1	319°07.0 -14°57.9	334°07.0 -14°58.7	349°07.0 -14°59.5	4°07.0 -15°00.3	19°07.0 -15°01.0	34°07.0 -15°01.8	49°07.0 -15°02.6	64°07.0 -15°03.4	+0.0 -0.8
Me 3	259°07.0 -15°13.5	274°07.0 -15°14.3	289°07.0 -15°15.0	304°07.0 -15°15.8	319°07.0 -15°16.6	334°07.0 -15°17.4	349°07.0 -15°18.1	4°07.0 -15°18.9	19°07.0 -15°19.7	34°07.0 -15°20.5	49°07.0 -15°21.2	64°07.0 -15°22.0	-0.0 -0.8
Je 4	259°06.8 -15°32.0	274°06.8 -15°32.7	289°06.8 -15°33.5	304°06.8 -15°34.3	319°06.8 -15°35.0	334°06.8 -15°35.8	349°06.7 -15°36.5	4°06.7 -15°37.3	19°06.7 -15°38.1	34°06.7 -15°38.8	49°06.7 -15°39.6	64°06.7 -15°40.4	-0.0 -0.8
Ve 5	259°06.4 -15°50.2	274°06.4 -15°50.9	289°06.4 -15°51.7	304°06.3 -15°52.4	319°06.3 -15°53.2	334°06.3 -15°54.0	349°06.3 -15°54.7	4°06.3 -15°55.5	19°06.2 -15°56.2	34°06.2 -15°57.0	49°06.2 -15°57.7	64°06.2 -15°58.5	-0.0 -0.8
Sa 6	259°05.8 -16°08.1	274°05.8 -16°08.9	289°05.7 -16°09.6	304°05.7 -16°10.4	319°05.7 -16°11.1	334°05.6 -16°11.9	349°05.6 -16°12.6	4°05.6 -16°13.3	19°05.5 -16°14.1	34°05.5 -16°14.8	49°05.5 -16°15.5	64°05.4 -16°16.3	-0.0 -0.7
Di 7	259°05.0 -16°25.8	274°04.9 -16°26.6	289°04.9 -16°27.3	304°04.9 -16°28.0	319°04.8 -16°28.8	334°04.8 -16°29.5	349°04.7 -16°30.2	4°04.7 -16°30.9	19°04.6 -16°31.7	34°04.6 -16°32.4	49°04.6 -16°33.1	64°04.5 -16°33.8	-0.0 -0.7
Lu 8	259°03.9 -16°43.2	274°03.9 -16°44.0	289°03.8 -16°44.7	304°03.8 -16°45.4	319°03.7 -16°46.1	334°03.7 -16°46.8	349°03.7 -16°47.6	4°03.6 -16°48.3	19°03.6 -16°49.0	34°03.5 -16°49.7	49°03.5 -16°50.4	64°03.4 -16°51.1	-0.0 -0.7
Ma 9	259°02.7 -17°00.4	274°02.6 -17°01.1	289°02.6 -17°01.8	304°02.5 -17°02.5	319°02.5 -17°03.2	334°02.4 -17°03.9	349°02.4 -17°04.6	4°02.3 -17°05.3	19°02.2 -17°06.0	34°02.2 -17°06.7	49°02.1 -17°07.4	64°02.1 -17°08.1	-0.1 -0.7
Me 10	259°01.3 -17°17.2	3274°01.2 -17°17.9	289°01.1 -17°18.6	304°01.1 -17°19.3	319°01.0 -17°20.0	334°00.9 -17°20.7	349°00.9 -17°21.4	4°00.8 -17°22.1	19°00.7 -17°22.8	34°00.7 -17°23.5	49°00.6 -17°24.1	64°00.5 -17°24.8	-0.1 -0.7
Je 11	258°59.6 -17°33.8	273°59.5 -17°34.4	288°59.5 -17°35.1	303°59.4 -17°35.8	318°59.3 -17°36.5	333°59.2 -17°37.2	348°59.2 -17°37.8	3°59.1 -17°38.5	18°59.0 -17°39.2	33°58.9 -17°39.9	48°58.9 -17°40.6	63°58.8 -17°41.2	-0.1 -0.7
Ve 12	258°57.8 -17°50.7	273°57.7 -17°50.7	288°57.6 -17°51.3	303°57.5 -17°52.0	318°57.4 -17°52.7	333°57.3 -17°53.3	348°57.3 -17°54.7	3°57.2 -17°55.3	18°57.1 -17°55.3	33°57.0 -17°56.0	48°56.9 -17°56.7	63°56.8 -17°57.3	-0.1 -0.7
Sa 13	258°55.7 -18°05.9	273°55.6 -18°06.6	288°55.5 -18°07.2	303°55.4 -18°07.9	318°55.3 -18°08.5	333°55.2 -18°09.2	348°55.1 -18°09.8	3°55.0 -18°10.5	18°55.0 -18°11.2	33°54.9 -18°11.8	48°54.8 -18°12.5	63°54.7 -18°13.1	-0.1 -0.7
Di 14	258°53.4 -18°21.5	273°53.3 -18°22.2	288°53.2 -18°22.8	303°53.1 -18°23.5	318°53.0 -18°24.1	333°52.9 -18°24.7	348°52.8 -18°25.4	3°52.7 -18°26.0	18°52.6 -18°26.7	33°52.5 -18°27.3	48°52.4 -18°27.9	63°52.3 -18°28.6	-0.1 -0.6
Lu 15	258°50.9 -18°36.8	273°50.8 -18°37.4	288°50.7 -18°38.1	303°50.6 -18°38.7	318°50.5 -18°39.3	333°50.4 -18°40.0	348°50.3 -18°40.6	3°50.2 -18°41.2	18°50.1 -18°41.8	33°50.0 -18°42.5	48°49.9 -18°43.1	63°49.7 -18°43.7	-0.1 -0.6
Ma 16	258°48.3 -18°51.8	273°48.1 -18°52.4	288°48.0 -18°53.0	303°47.9 -18°53.6	318°47.8 -18°54.2	333°47.7 -18°54.8	348°47.5 -18°55.5	3°47.4 -18°56.1	18°47.3 -18°56.7	33°47.2 -18°57.3	48°47.1 -18°57.9	63°47.0 -18°58.5	-0.1 -0.6
Me 17	258°45.4 -19°06.4	273°45.2 -19°07.0	288°45.1 -19°07.6	303°45.0 -19°08.2	318°44.9 -19°08.8	333°44.7 -19°09.4	348°44.6 -19°10.0	3°44.5 -19°10.6	18°44.3 -19°11.2	33°44.2 -19°11.8	48°44.1 -19°12.4	63°44.0 -19°13.0	-0.1 -0.6
Je 18	258°42.3 -19°20.7	273°42.1 -19°21.3	288°42.0 -19°21.9	303°41.9 -19°22.4	318°41.7 -19°23.0	333°41.6 -19°23.6	348°41.4 -19°24.2	3°41.3 -19°24.8	18°41.2 -19°25.4	33°41.0 -19°25.9	48°40.9 -19°26.5	63°40.8 -19°27.1	-0.1 -0.6
Ve 19	258°38.9 -19°34.6	273°38.8 -19°35.2	288°38.7 -19°35.8	303°38.5 -19°36.3	318°38.4 -19°36.9	333°38.2 -19°37.5	348°38.1 -19°38.0	3°37.9 -19°38.6	18°37.8 -19°39.2	33°37.6 -19°39.7	48°37.5 -19°40.3	63°37.4 -19°40.9	-0.1 -0.6
Sa 20	258°35.4 -19°48.2	273°35.3 -19°48.8	288°35.1 -19°49.3	303°35.0 -19°49.9	318°34.8 -19°50.4	333°34.7 -19°51.0	348°34.5 -19°51.5	3°34.4 -19°52.1	18°34.2 -19°52.6	33°34.1 -19°53.2	48°33.9 -19°53.7	63°33.7 -19°54.3	-0.2 -0.6
Di 21	258°31.7 -20°01.4	273°31.5 -20°02.0	288°31.4 -20°02.5	303°31.2 -20°03.0	318°31.1 -20°03.6	333°30.9 -20°04.1	348°30.7 -20°04.7	3°30.6 -20°05.7	18°30.4 -20°05.7	33°30.3 -20°06.3	48°30.1 -20°06.8	63°29.9 -20°07.4	-0.2 -0.5
Lu 22	258°27.8 -20°14.3	273°27.6 -20°14.8	288°27.4 -20°15.3	303°27.3 -20°15.9	318°27.1 -20°16.4	333°26.9 -20°16.9	348°26.8 -20°17.4	3°26.6 -20°18.0	18°26.4 -20°18.5	33°26.3 -20°19.0	48°26.1 -20°19.5	63°25.9 -20°20.0	-0.2 -0.5
Ma 23	258°25.8 -20°26.8	273°25.5 -20°27.3	288°25.3 -20°27.8	303°25.3 -20°28.3	318°25.2 -20°28.8	333°25.2 -20°29.3	348°25.1 -20°29.8	3°22.4 -20°30.3	18°22.2 -20°30.8	33°22.1 -20°31.3	48°22.1 -20°31.8	63°21.7 -20°32.4	-0.2 -0.5
Me 24	258°19.3 -20°38.9	273°19.1 -20°39.4	288°19.0 -20°39.9	303°18.8 -20°40.4	318°18.6 -20°40.8	333°18.4 -20°41.3	348°18.2 -20°41.8	3°18.0 -20°42.3	18°17.8 -20°42.8	33°17.7 -20°43.3	48°17.5 -20°43.8	63°17.3 -20°44.3	-0.2 -0.5
Je 25	258°15.8 -20°50.6	273°14.6 -20°51.1	288°14.4 -20°51.6	303°14.2 -20°52.0	318°14.0 -20°52.5	333°13.8 -20°53.0	348°13.6 -20°53.5	3°13.4 -20°53.9	18°13.3 -20°54.4	33°13.1 -20°54.9	48°12.9 -20°55.4	63°12.7 -20°55.8	-0.2 -0.5
Ve 26	258°10.1 -21°01.9	273°09.9 -21°10.1	288°09.7 -21°02.9	303°09.5 -21°03.3	318°09.3 -21°03.8	333°09.1 -21°04.2	348°08.9 -21°04.7	3°08.7 -21°05.2	18°08.5 -21°05.6	33°08.3 -21°06.1	48°08.1 -21°06.5	63°07.9 -21°07.0	-0.2 -0.5
Sa 27	258°05.2 -21°12.9	273°05.0 -21°13.3	288°04.8 -21°13.8	303°04.6 -21°14.2	318°04.4 -21°14.7	333°04.1 -21°15.1	348°03.9 -21°15.5	3°03.7 -21°16.0	18°03.5 -21°16.4	33°03.3 -21°16.9	48°03.1 -21°17.3	63°02.9 -21°17.8	-0.2 -0.4
Di 28	258°00.1 -21°23.4	272°59.9 -21°23.8	287°59.7 -21°24.3	302°59.5 -21°24.7	317°59.2 -21°25.1	332°59.0 -21°25.6	347°58.8 -21°26.0	2°58.6 -21°26.5	17°58.4 -21°26.8	32°58.2 -21°27.3	47°57.9 -21°27.7	62°57.7 -21°28.1	-0.2 -0.4
Lu 29	257°54.9 -21°33.6	272°54.6 -21°34.0	287°54.4 -21°34.4	302°54.2 -21°34.8	317°54.0 -21°35.2	332°53.7 -21°35.6	347°53.5 -21°36.0	2°53.3 -21°36.4	17°53.1 -21°36.8	32°52.8 -21°37.3	47°52.6 -21°37.7	62°52.4 -21°38.1	-0.2 -0.4
Ma 30	257°49.4 -21°43.3	272°49.2 -21°43.7	287°49.0 -21°44.1	302°48.7 -21°44.5	317°48.5 -21°44.9	332°48.3 -21°45.3	347°48.0 -21°45.7	2°47.8 -21°46.0	17°47.6 -21°46.4	32°47.6 -21°46.8	47°47.1 -21°47.2	62°46.9 -21°47.6	-0.2 -0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Novembre 2032

	J	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Δ'/h	SP
Lu 1	238 ⁰ 01.2 -7°06.2	252 ⁰ 34.3 -7°15.5	267 ⁰ 07.4 -7°24.8	281 ⁰ 40.4 -7°34.1	296 ⁰ 13.4 -7°43.3	310 ⁰ 46.4 -7°52.5	325 ⁰ 19.3 -8°01.6	339 ⁰ 52.2 -8°10.7	354 ⁰ 25.0 -8°19.8	8°57.8 -8°28.9	23°30.5 -9°38.0	+32.9	15.0	
	241 ⁰ 36.0 -10°49.3	256 ⁰ 08.0 -10°57.7	270 ⁰ 39.9 -11°06.1	285 ⁰ 11.8 -11°14.5	299 ⁰ 43.6 -11°22.8	314 ⁰ 15.4 -11°31.0	328 ⁰ 47.1 -11°39.3	343 ⁰ 18.8 -11°47.4	357 ⁰ 50.4 -11°55.5	12°22.0 -12°03.6	26°53.5 -12°11.6	+31.7	15.1	
Me 3	244 ⁰ 39.5 -14°05.1	259 ⁰ 10.1 -14°12.1	273 ⁰ 40.6 -14°19.2	288 ⁰ 11.2 -14°26.1	302 ⁰ 41.6 -14°33.0	317 ⁰ 12.0 -14°39.8	331 ⁰ 42.3 -14°46.6	346 ⁰ 12.6 -14°53.2	0°42.8 -14°59.9	15°13.0 -15°06.4	29°43.1 -15°12.9	+30.4	15.2	
	247 ⁰ 08.1 -16°40.7	261 ⁰ 37.3 -16°45.9	276 ⁰ 06.5 -16°51.1	290 ⁰ 35.6 -16°56.1	305 ⁰ 04.7 -17°01.0	319 ⁰ 33.7 -17°05.9	334 ⁰ 02.6 -17°10.7	348 ⁰ 31.5 -17°15.4	3°00.4 -17°20.0	17°29.2 -17°24.5	31°58.0 -17°28.9	+29.0	15.4	
Je 4	249 ⁰ 03.6 -18°23.8	263 ⁰ 31.6 -18°26.7	277 ⁰ 59.5 -18°29.4	292 ⁰ 27.5 -18°32.1	306 ⁰ 55.4 -18°34.7	321 ⁰ 23.2 -18°37.1	335 ⁰ 51.0 -18°39.5	350 ⁰ 18.8 -18°41.7	4°46.6 -18°43.9	19°14.3 -18°45.9	33°41.9 -18°47.9	+27.8	15.5	
Sa 6	250 ⁰ 33.1 -19°03.9	265 ⁰ 00.3 -19°04.1	279 ⁰ 27.5 -19°04.2	293 ⁰ 54.7 -19°04.2	308 ⁰ 21.8 -19°04.0	322 ⁰ 48.9 -19°03.8	337 ⁰ 16.0 -19°03.4	351 ⁰ 43.1 -19°02.9	6°10.2 -19°02.3	20°37.2 -19°01.6	35°04.2 -19°00.8	+27.1	15.6	
	251 ⁰ 48.4 -25°02.1	266 ⁰ 15.3 -25°03.2	280 ⁰ 42.2 -25°04.6	295 ⁰ 09.1 -25°06.7	309 ⁰ 36.0 -25°08.8	324 ⁰ 02.9 -25°11.6	338 ⁰ 29.8 -25°14.7	352 ⁰ 56.7 -25°17.9	7°23.6 -25°18.0	21°50.5 -25°18.7	36°17.4 -25°19.3	+26.9	15.8	
Lu 8	253 ⁰ 02.1 -16°56.2	267 ⁰ 29.2 -16°50.8	281 ⁰ 56.3 -16°45.3	296 ⁰ 23.4 -16°39.8	310 ⁰ 50.5 -16°34.1	325 ⁰ 17.6 -16°28.4	339 ⁰ 44.8 -16°22.5	354 ⁰ 11.9 -16°16.5	8°39.1 -16°10.5	23°06.3 -16°04.3	37°33.6 -15°58.0	+27.1	15.9	
	254 ⁰ 24.3 -14°12.5	268 ⁰ 51.8 -14°04.8	283 ⁰ 19.4 -13°56.9	297 ⁰ 47.0 -13°49.0	312 ⁰ 14.6 -13°41.0	326 ⁰ 42.3 -13°32.8	341 ⁰ 09.9 -13°24.7	355 ⁰ 37.6 -13°16.4	10°05.3 -13°08.3	24°33.0 -12°59.6	39°00.0 -12°51.0	+27.7	16.0	
Ma 9	255 ⁰ 59.7 -10°34.0	270 ⁰ 27.8 -10°24.3	284 ⁰ 55.9 -10°14.6	299 ⁰ 24.0 -10°04.7	313 ⁰ 52.2 -9°54.8	328 ⁰ 20.3 -9°44.9	342 ⁰ 48.5 -9°34.9	357 ⁰ 16.7 -9°24.8	11°44.9 -9°14.7	26°13.2 -9°04.5	40°41.4 -8°54.2	+28.2	16.1	
Je 11	257 ⁰ 47.1 -6°14.2	272 ⁰ 15.6 -6°03.1	286 ⁰ 44.1 -5°52.0	301 ⁰ 12.6 -5°40.9	315 ⁰ 41.1 -5°29.8	330 ⁰ 09.6 -5°18.6	344 ⁰ 38.1 -5°07.4	359 ⁰ 06.6 -4°56.1	13°35.2 -4°44.8	28°03.7 -4°33.5	42°32.2 -4°22.1	+28.5	16.2	
	259 ⁰ 40.7 -1°29.0	274 ⁰ 09.3 -1°17.3	288 ⁰ 37.8 -1°05.6	303 ⁰ 06.4 -0°53.9	317 ⁰ 34.9 -0°42.2	332 ⁰ 03.5 -0°30.5	346 ⁰ 32.0 -0°18.7	1°00.5 -0°07.0	15°29.1 0°04.7	29°57.6 0°16.5	44°26.1 -0°28.2	+28.5	16.2	
Sa 13	261 ⁰ 32.3 3°23.6	276 ⁰ 00.6 3°35.2	290 ⁰ 28.9 3°46.7	304 ⁰ 57.1 3°58.3	319 ⁰ 25.4 4°09.8	333 ⁰ 53.6 4°21.3	348 ⁰ 21.8 4°32.7	2°50.0 4°44.2	17°18.2 4°55.6	31°46.3 5°07.0	46°14.4 5°18.4	+28.7	16.3	
	263 ⁰ 13.7 8°04.3	277 ⁰ 41.4 8°15.0	292 ⁰ 09.2 8°25.6	306 ⁰ 36.9 8°36.2	321 ⁰ 04.5 8°46.8	335 ⁰ 32.2 8°57.2	349 ⁰ 59.8 9°07.7	4°27.4 9°18.1	18°55.0 9°28.4	33°23.6 9°38.6	47°50.1 9°48.8	+21.6	16.2	
Di 14	264 ⁰ 39.7 12°13.7	279 ⁰ 06.8 12°22.8	293 ⁰ 33.8 12°31.8	308 ⁰ 01.0 12°40.7	322 ⁰ 28.0 12°49.5	336 ⁰ 55.0 12°58.2	351 ⁰ 22.0 13°06.9	5°48.9 13°15.4	20°15.9 13°23.9	34°42.8 13°32.3	49°09.7 13°40.6	+27.0	16.1	
Lu 15	265 ⁰ 50.6 15°34.1	280 ⁰ 17.7 15°40.9	294 ⁰ 43.8 15°47.6	309 ⁰ 10.3 15°54.1	323 ⁰ 36.9 16°00.6	338 ⁰ 03.4 16°07.0	352 ⁰ 30.0 16°13.3	6°56.5 16°19.4	21°23.0 16°25.5	35°49.5 16°31.4	50°16.0 16°37.3	+26.5	16.0	
	266 ⁰ 53.0 17°51.7	281 ⁰ 19.5 17°55.7	295 ⁰ 46.0 17°59.7	310 ⁰ 12.5 18°03.5	324 ⁰ 39.0 18°07.3	339 ⁰ 05.6 18°10.9	353 ⁰ 32.1 18°14.4	7°58.6 18°17.7	22°25.2 18°21.0	36°51.7 18°24.1	51°18.3 18°27.2	+26.5	15.8	
Me 17	267 ⁰ 59.5 18°58.9	282 ⁰ 26.5 19°00.1	296 ⁰ 53.5 19°01.1	311 ⁰ 20.5 19°02.1	325 ⁰ 47.5 19°03.0	340 ⁰ 14.6 19°03.7	354 ⁰ 41.7 19°04.3	9°08.9 19°04.8	23°36.1 19°05.2	38°03.3 19°05.5	52°30.5 19°05.7	+27.1	15.6	
	269 ⁰ 24.7 18°55.3	283 ⁰ 52.6 18°53.7	298 ⁰ 20.7 18°52.1	312 ⁰ 48.8 18°50.3	327 ⁰ 16.9 18°48.5	341 ⁰ 45.1 18°46.5	356 ⁰ 13.3 18°44.4	10°41.6 18°42.3	25°10.0 18°40.0	39°38.4 18°37.7	54°06.9 18°35.2	+28.2	15.4	
Je 18	271 ⁰ 20.7 17°46.8	285 ⁰ 50.1 17°42.9	300 ⁰ 19.6 17°38.8	314 ⁰ 49.1 17°34.7	329 ⁰ 18.7 17°30.5	343 ⁰ 48.4 17°26.2	358 ⁰ 18.1 17°21.8	12°47.8 17°17.4	27°17.7 17°12.8	41°47.6 17°08.2	56°17.5 17°03.5	+29.7	15.2	
Sa 20	273 ⁰ 54.4 15°43.5	288 ⁰ 25.3 15°37.5	302 ⁰ 56.3 15°31.5	317 ⁰ 27.4 15°25.5	331 ⁰ 58.5 15°19.4	346 ⁰ 29.7 15°13.2	361 ⁰ 01.5 15°06.9	15°52.3 15°00.6	30°03.6 14°54.2	44°35.1 14°47.8	59°06.5 14°41.3	+31.2	15.1	
	277 ⁰ 05.6 12°56.5	291 ⁰ 38.0 12°49.0	306 ⁰ 10.4 12°41.6	320 ⁰ 42.9 12°34.0	335 ⁰ 15.4 12°26.5	349 ⁰ 48.0 12°18.8	4°20.6 12°11.2	18°53.3 12°03.4	33°26.0 11°55.7	47°58.8 11°47.8	62°31.6 11°40.0	+32.6	14.9	
Lu 22	291 ⁰ 38.0 12°49.0	306 ⁰ 10.4 12°41.6	320 ⁰ 42.9 12°34.0	335 ⁰ 15.4 12°26.5	349 ⁰ 48.0 12°18.8	4°20.6 12°11.2	18°53.3 12°03.4	33°26.0 11°55.7	47°58.8 11°47.8	62°31.6 11°40.0	77°04.5 11°32.1	+32.7	14.9	
	295 ⁰ 22.7 9°28.4	309 ⁰ 56.3 9°19.8	324 ⁰ 29.8 9°11.2	339 ⁰ 03.4 9°02.6	353 ⁰ 37.1 8°54.0	8°10.8 8°45.3	22°44.5 8°36.5	37°18.2 8°27.8	51°52.0 8°19.0	66°25.8 8°10.2	80°59.9 8°01.3	+33.7	14.8	
Je 25	299 ⁰ 30.4 5°45.3	314 ⁰ 04.6 5°36.0	328 ⁰ 38.8 5°26.8	343 ⁰ 13.2 5°17.5	357 ⁰ 47.4 5°08.1	12°21.7 4°58.8	26°56.1 4°49.4	41°30.4 4°40.0	56°04.4 4°30.6	70°39.1 4°21.2	85°13.5 4°11.8	+34.3	14.8	
Sa 27	303 ⁰ 50.0 1°48.5	318 ⁰ 24.4 1°38.9	332 ⁰ 58.9 1°29.2	347 ⁰ 33.3 1°19.5	3 ⁰ 27.8 1°09.9	16°42.3 1°00.2	31°16.7 0°50.5	45°51.2 0°40.8	60°25.6 0°31.1	75°00.0 0°21.4	89°34.5 0°11.7	+34.5	14.8	
	308 ⁰ 09.4 -2°13.9	322 ⁰ 43.6 -2°03.6	337 ⁰ 17.8 -2°33.3	351 ⁰ 52.0 -2°43.0	6°26.1 -2°52.7	21°00.3 -3°02.4	35°34.4 -3°12.0	50°08.4 -3°21.7	64°42.5 -3°31.3	79°16.5 -3°41.0	93°50.5 -3°50.6	+34.1	14.8	
Di 28	312 ⁰ 16.7 -6°13.5	326 ⁰ 50.2 -6°22.9	341 ⁰ 23.3 -6°32.3	355 ⁰ 57.0 -6°41.7	10°30.4 -6°51.0	25°03.7 -7°00.3	39°37.0 -7°09.6	54°10.2 -7°18.9	68°43.4 -7°28.1	83°16.5 -7°37.3	97°49.6 -7°46.5	+33.3	15.0	
	316 ⁰ 00.4 -10°00.9	330 ⁰ 32.7 -10°09.6	345 ⁰ 05.0 -10°18.2	359 ⁰ 37.2 -10°26.8	14°09.3 -10°35.4	28°41.4 -10°43.9	43°13.4 -10°52.4	57°45.4 -11°00.9	72°17.3 -11°09.3	86°49.2 -11°17.6	101°21.0 -11°26.0	+32.1	15.1	
Ma 30	319 ⁰ 10.7 -13°24.8	333 ⁰ 41.6 -13°32.3	348 ⁰ 12.3 -13°39.7	363 ⁰ 03.0 -13°47.1	377 ⁰ 13.6 -13°54.4	391 ⁰ 44.7 -14°01.7	406 ⁰ 14.2 -14°08.9	420 ⁰ 45.1 -14°16.0	435 ⁰ 15.5 -14°23.1	450 ⁰ 45.8 -14°30.0	465 ⁰ 16.3 -14°37.0	+30.5	15.3	

SOLEIL

Décembre 2032

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Me 1	272°43.6 -21°53.0	287°43.3 -21°53.4	302°43.1 -21°53.7	317°42.9 -21°54.1	332°42.6 -21°54.5	347°42.4 -21°54.9	2°42.2 -21°55.2	17°41.9 -21°55.6	32°41.7 -21°56.0	47°41.4 -21°56.4	62°41.2 -21°56.7	77°41.0 -21°57.1	-0.2 -0.4
Je 2	272°37.8 -22°01.9	287°37.6 -22°02.2	302°37.3 -22°02.6	317°37.1 -22°02.9	332°36.8 -22°03.3	347°36.6 -22°03.7	2°36.3 -22°04.0	17°36.1 -22°04.4	32°35.9 -22°04.7	47°35.6 -22°05.1	62°35.4 -22°05.4	77°35.1 -22°05.8	-0.2 -0.4
Ve 3	272°31.9 -22°10.3	287°31.6 -22°10.7	302°31.4 -22°11.0	317°31.1 -22°11.3	332°30.9 -22°11.7	347°30.6 -22°12.0	2°30.4 -22°12.4	17°30.1 -22°12.7	32°29.9 -22°13.0	47°29.6 -22°13.4	62°29.4 -22°13.7	77°29.1 -22°14.0	-0.3 -0.3
Sa 4	272°25.8 -22°18.3	287°25.6 -22°18.7	302°25.3 -22°19.0	317°25.1 -22°19.3	332°24.8 -22°19.6	347°24.5 -22°20.0	2°24.3 -22°20.3	17°24.0 -22°20.6	32°23.8 -22°20.9	47°23.5 -22°21.2	62°23.3 -22°21.6	77°23.0 -22°21.9	-0.3 -0.3
Di 5	272°19.6 -22°25.9	287°19.4 -22°26.2	302°19.1 -22°26.5	317°18.8 -22°26.8	332°18.6 -22°27.2	347°18.3 -22°27.5	2°18.0 -22°27.8	17°17.8 -22°28.1	32°17.5 -22°28.4	47°17.3 -22°28.7	62°17.0 -22°29.0	77°16.7 -22°29.3	-0.3 -0.3
Lu 6	272°13.3 -22°33.1	287°13.0 -22°33.4	302°12.7 -22°33.7	317°12.5 -22°34.0	332°12.2 -22°34.2	347°11.9 -22°34.5	2°11.7 -22°34.8	17°11.4 -22°35.1	32°11.1 -22°35.4	47°10.9 -22°35.7	62°10.6 -22°35.9	77°10.3 -22°36.2	-0.3 -0.3
Ma 7	272°06.8 -22°39.8	287°06.5 -22°40.1	302°06.3 -22°40.3	317°06.0 -22°40.6	332°05.7 -22°40.9	347°05.4 -22°41.1	2°05.2 -22°41.4	17°04.9 -22°41.7	32°04.6 -22°41.9	47°04.4 -22°42.2	62°04.1 -22°42.5	77°03.8 -22°42.7	-0.3 -0.3
Me 8	272°00.2 -22°46.1	287°00.0 -22°46.3	301°59.7 -22°46.6	316°59.4 -22°46.8	331°59.1 -22°47.1	346°58.8 -22°47.1	1°58.6 -22°47.6	16°58.3 -22°47.8	31°58.0 -22°48.1	46°57.7 -22°48.3	61°57.5 -22°48.6	76°57.2 -22°48.8	-0.3 -0.2
Je 9	271°53.5 -22°51.3	286°53.3 -22°52.1	301°53.0 -22°52.4	316°52.7 -22°52.6	331°52.4 -22°52.8	346°52.1 -22°53.1	1°51.8 -22°53.3	16°51.6 -22°53.5	31°51.3 -22°53.7	46°51.0 -22°54.0	61°50.7 -22°54.2	76°50.4 -22°54.4	-0.3 -0.2
Ve 10	271°46.7 -22°57.3	286°46.5 -22°57.5	301°46.2 -22°57.7	316°45.9 -22°57.9	331°45.6 -22°58.1	346°45.3 -22°58.3	1°45.0 -22°58.5	16°44.7 -22°58.8	31°44.5 -22°59.0	46°44.2 -22°59.2	61°43.9 -22°59.4	76°43.6 -22°59.6	-0.3 -0.2
Sa 11	271°39.9 -23°02.2	286°39.6 -23°02.4	301°39.3 -23°02.6	316°39.0 -23°02.8	331°38.7 -23°03.0	346°38.4 -23°03.2	1°38.1 -23°03.4	16°37.8 -23°03.5	31°37.5 -23°03.7	46°37.3 -23°03.9	61°37.0 -23°04.1	76°36.7 -23°04.3	-0.3 -0.2
Di 12	271°32.9 -23°06.7	286°32.6 -23°06.8	301°32.3 -23°07.0	316°32.0 -23°07.2	331°31.7 -23°07.4	346°31.4 -23°07.5	1°31.1 -23°07.7	16°30.8 -23°07.9	31°30.5 -23°08.0	46°30.3 -23°08.2	61°30.0 -23°08.4	76°29.7 -23°08.6	-0.3 -0.2
Lu 13	271°25.8 -23°10.7	286°25.5 -23°10.8	301°25.2 -23°11.0	316°24.9 -23°11.1	331°24.7 -23°11.3	346°24.4 -23°11.4	1°24.1 -23°11.6	16°23.8 -23°11.7	31°23.5 -23°11.9	46°23.2 -23°12.0	61°22.9 -23°12.2	76°22.6 -23°12.4	-0.3 -0.2
Ma 14	271°18.7 -23°14.2	286°18.4 -23°14.4	301°18.1 -23°14.5	316°17.8 -23°14.6	331°17.5 -23°14.8	346°17.2 -23°14.9	1°16.9 -23°15.2	16°16.6 -23°15.3	31°16.3 -23°15.4	46°16.0 -23°15.4	61°15.7 -23°15.6	76°15.4 -23°15.7	-0.3 -0.1
Me 15	271°11.5 -23°17.3	286°11.2 -23°17.4	301°10.9 -23°17.5	316°10.6 -23°17.6	331°10.3 -23°17.8	346°10.0 -23°17.9	1°09.7 -23°18.0	16°09.4 -23°18.1	31°09.1 -23°18.2	46°08.8 -23°18.3	61°08.5 -23°18.4	76°08.2 -23°18.5	-0.3 -0.1
Je 16	271°04.3 -23°19.9	286°04.0 -23°20.0	301°03.7 -23°20.1	316°03.4 -23°20.2	331°03.1 -23°20.3	346°02.8 -23°20.4	1°02.5 -23°20.5	16°02.1 -23°20.6	31°01.8 -23°20.7	46°01.5 -23°20.8	61°01.2 -23°20.9	76°00.9 -23°20.9	-0.3 -0.1
Ve 17	270°57.0 -23°22.1	285°56.7 -23°22.1	300°56.4 -23°22.2	315°56.1 -23°22.3	330°55.7 -23°22.4	345°55.4 -23°22.4	0°55.1 -23°22.5	15°54.8 -23°22.6	30°54.5 -23°22.7	45°54.2 -23°22.7	60°53.9 -23°22.8	75°53.6 -23°22.9	-0.3 -0.1
Sa 18	270°49.6 -23°23.7	285°49.3 -23°23.8	300°49.0 -23°23.9	315°48.7 -23°23.9	330°48.4 -23°24.0	345°48.1 -23°24.0	0°47.8 -23°24.1	15°47.5 -23°24.1	30°47.2 -23°24.2	45°46.9 -23°24.2	60°46.6 -23°24.3	75°46.2 -23°24.4	-0.3 -0.1
Di 19	270°42.2 -23°25.0	285°41.9 -23°25.0	300°41.6 -23°25.0	315°41.3 -23°25.1	330°41.0 -23°25.1	345°40.7 -23°25.1	0°40.4 -23°25.2	15°40.1 -23°25.2	30°39.8 -23°25.3	45°39.5 -23°25.3	60°39.2 -23°25.3	75°38.8 -23°25.4	-0.3 -0.0
Lu 20	270°34.8 -23°25.7	285°34.5 -23°25.7	300°34.2 -23°25.7	315°33.9 -23°25.8	330°33.6 -23°25.8	345°33.3 -23°25.8	0°33.0 -23°25.8	15°32.7 -23°25.8	30°32.4 -23°25.8	45°32.0 -23°25.9	60°31.7 -23°25.9	75°31.4 -23°25.9	-0.3 -0.0
Ma 21	270°27.4 -23°26.0	285°27.1 -23°26.0	300°26.8 -23°26.0	315°26.5 -23°26.0	330°26.2 -23°26.0	345°25.8 -23°26.0	0°25.5 -23°26.0	15°25.2 -23°26.0	30°24.9 -23°26.0	45°24.6 -23°25.9	60°24.3 -23°25.9	75°24.0 -23°25.9	-0.3 +0.0
Me 22	270°20.0 -23°25.8	285°19.6 -23°25.8	300°19.3 -23°25.7	315°19.0 -23°25.7	330°18.7 -23°25.7	345°18.4 -23°25.7	0°18.1 -23°25.6	15°17.8 -23°25.6	30°17.5 -23°25.6	45°17.2 -23°25.6	60°16.8 -23°25.5	75°16.5 -23°25.5	-0.3 +0.0
Je 23	270°12.5 -23°25.1	285°12.2 -23°25.1	300°11.9 -23°25.0	315°11.6 -23°25.0	330°11.3 -23°24.9	345°10.9 -23°24.9	0°10.6 -23°24.9	15°10.3 -23°24.8	30°10.0 -23°24.8	45°09.7 -23°24.7	60°09.4 -23°24.7	75°09.1 -23°24.6	-0.3 +0.0
Ve 24	270°05.1 -23°24.0	285°04.7 -23°23.9	300°04.4 -23°23.8	315°04.1 -23°23.8	330°03.8 -23°23.7	345°03.5 -23°23.7	0°03.2 -23°23.6	15°02.9 -23°23.5	30°02.6 -23°23.4	45°02.3 -23°23.3	60°02.0 -23°23.3	75°01.6 -23°23.3	-0.3 +0.1
Sa 25	269°57.6 -23°22.3	284°57.3 -23°22.3	299°57.0 -23°22.2	314°56.7 -23°22.1	329°56.4 -23°22.0	344°56.1 -23°22.0	359°55.8 -23°21.9	14°55.4 -23°21.8	29°55.1 -23°21.7	44°54.8 -23°21.6	59°54.5 -23°21.5	74°54.2 -23°21.5	-0.3 +0.1
Di 26	269°50.5 -23°20.3	284°49.9 -23°20.2	299°49.6 -23°20.1	314°49.3 -23°20.0	329°49.0 -23°19.9	344°48.7 -23°19.8	359°48.3 -23°19.7	14°48.8 -23°19.6	29°47.7 -23°19.5	44°47.4 -23°19.4	59°47.1 -23°19.3	74°46.8 -23°19.2	-0.3 +0.1
Lu 27	269°42.8 -23°17.8	284°42.5 -23°17.6	299°42.2 -23°17.5	314°41.9 -23°17.4	329°41.6 -23°17.2	344°41.3 -23°17.1	359°41.0 -23°17.0	14°40.7 -23°16.9	29°40.4 -23°16.8	44°40.0 -23°16.6	59°39.7 -23°16.5	74°39.4 -23°16.4	-0.3 +0.1
Ma 28	269°35.5 -23°14.7	284°35.1 -23°14.6	299°34.8 -23°14.4	314°34.5 -23°14.3	329°34.2 -23°14.2	344°33.9 -23°14.0	359°33.6 -23°13.9	14°33.3 -23°13.7	29°33.0 -23°13.6	44°32.7 -23°13.4	59°32.4 -23°13.3	74°32.1 -23°13.2	-0.3 +0.1
Me 29	269°28.1 -23°11.2	284°27.8 -23°11.1	299°27.5 -23°10.9	314°27.2 -23°10.7	329°26.9 -23°10.6	344°26.6 -23°10.4	359°26.3 -23°10.3	14°26.0 -23°10.1	29°25.7 -23°10.0	44°25.4 -23°09.8	59°25.1 -23°09.6	74°24.8 -23°09.5	-0.3 +0.2
Je 30	269°20.9 -23°07.3	284°20.6 -23°07.1	299°20.3 -23°06.9	314°20.0 -23°06.7	329°19.7 -23°06.6	344°19.4 -23°06.4	359°19.1 -23°06.2	14°18.8 -23°06.0	29°18.5 -23°05.8	44°18.2 -23°05.7	59°17.9 -23°05.5	74°17.6 -23°05.3	-0.3 +0.2
Ve 31	269°13.7 -23°02.9	284°13.4 -23°02.7	299°13.1 -23°02.5	314°12.8 -23°02.3	329°12.5 -23°02.1	344°12.2 -23°01.9	359°11.7 -23°01.5	14°11.6 -23°01.3	29°11.3 -23°01.1	44°11.0 -23°01.0	59°10.7 -23°00.9	74°10.4 -23°00.7	-0.3 +0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Décembre 2032

J	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	Δ/h SP
Me 1	245°14.7 -15°42.5	263°44.2 -15°54.7	278°13.6 -15°54.7	292°43.0 -16°00.7	307°12.3 -16°06.6	321°41.5 -16°12.4	336°10.7 -16°23.9	350°39.8 -16°29.4	5°08.9 -16°35.5	19°37.9 -16°40.4	34°06.8 -16°40.4	+29.2 15.4 -5.8 56.5
Je 2	251°13.0 -17°55.1	265°40.9 -17°55.1	280°08.8 -17°59.0	294°36.6 -18°02.8	309°04.4 -18°06.4	323°32.1 -18°10.2	337°59.8 -18°13.5	352°27.3 -18°16.8	6°54.9 -18°20.1	21°22.4 -18°23.3	35°49.8 -18°26.4	+27.7 15.6 -3.5 57.1
Ve 3	255°35.7 -18°59.5	267°02.4 -19°00.8	281°29.0 -19°02.0	295°55.7 -19°03.1	310°22.3 -19°04.1	324°48.9 -19°04.9	339°15.4 -19°05.7	353°41.6 -19°06.9	8°08.4 -19°06.9	22°34.8 -19°07.3	37°01.2 -19°07.6	+26.6 15.7 -0.8 57.7
Sa 4	253°34.6 -18°57.8	268°00.7 -18°56.2	282°26.8 -18°54.5	296°52.9 -18°52.6	311°19.0 -18°50.7	325°45.0 -18°48.6	340°11.1 -18°46.4	354°37.1 -18°44.1	9°03.2 -18°41.7	23°29.2 -18°39.1	37°55.2 -18°36.4	+26.1 15.9 +2.1 58.3
Di 5	254°26.3 -17°42.5	268°52.5 -17°37.9	283°18.6 -17°33.3	297°44.8 -17°28.6	312°11.0 -17°23.7	326°37.2 -17°18.7	341°03.5 -17°13.7	355°29.7 -17°08.5	9°56.0 -17°03.2	24°22.3 -16°57.8	38°48.6 -16°52.3	+26.2 16.0 +5.0 58.7
Lu 6	255°26.4 -15°17.2	269°53.2 -15°10.0	284°20.0 -15°02.8	298°46.8 -14°55.5	313°13.6 -14°48.0	327°40.5 -14°40.5	342°07.4 -14°32.9	356°34.4 -14°25.2	11°01.3 -14°17.4	25°28.3 -14°09.6	39°55.4 -14°01.6	+26.9 16.1 +7.6 58.9
Ma 7	256°45.3 -11°52.3	271°12.9 -11°43.0	285°40.5 -11°33.7	300°08.2 -11°24.3	314°35.9 -11°14.9	329°03.7 -11°05.4	343°31.5 -10°55.8	357°59.3 -10°46.1	12°27.1 -10°36.4	26°55.0 -10°26.6	41°22.9 -10°16.8	+27.8 16.1 +9.5 59.1
Me 8	258°25.7 -9°04.8	272°54.1 -2°53.4	287°22.5 -2°41.9	301°51.0 -2°30.4	316°19.5 -2°19.0	330°48.1 -2°07.5	345°16.6 -1°56.0	359°45.2 -1°44.4	14°13.8 -1°32.9	28°42.5 -1°21.4	43°11.1 -1°09.9	+28.5 16.1 +11.5 59.1
Je 9	260°32.6 -9°04.8	274°52.5 -2°53.4	289°21.5 -2°41.9	303°50.5 -2°30.4	318°19.5 -2°19.0	332°48.5 -2°07.5	347°17.6 -1°56.0	361°15.6 -1°44.4	16°15.7 -1°32.9	30°44.7 -1°21.4	45°13.8 -1°09.9	+29.0 16.1 +11.5 59.1
Ve 10	262°30.5 1°43.2	276°59.7 1°54.7	291°28.8 2°06.2	305°57.9 2°17.7	320°27.0 2°29.1	334°56.1 2°40.5	349°25.2 2°51.9	3°54.3 3°03.3	18°23.4 8°14.7	32°52.5 3°55.9	47°21.6 8°10.8	+29.1 16.1 +10.5 59.1
Sa 11	264°36.6 6°24.2	279°05.5 6°35.0	293°34.3 6°45.8	308°03.2 6°56.6	322°32.0 7°07.3	337°00.8 7°18.0	351°29.6 7°28.7	5°58.4 7°39.3	20°27.2 7°49.8	34°55.9 8°00.3	49°24.6 8°10.8	+28.8 16.0 +10.5 59.1
Di 12	266°32.7 10°41.1	281°01.1 10°50.6	295°29.4 11°00.1	309°57.7 11°09.5	324°26.7 11°18.9	338°54.2 11°28.1	353°22.4 11°37.3	7°50.6 11°46.5	22°18.8 11°55.5	36°46.9 12°04.5	51°15.1 12°13.5	+28.2 16.0 +9.2 58.6
Lu 13	268°13.7 14°17.9	282°41.4 14°25.5	297°09.1 14°33.0	311°36.8 14°40.5	326°04.4 14°47.9	340°32.0 14°55.1	354°59.6 15°02.3	9°27.2 15°09.4	23°54.7 15°16.4	38°22.2 15°23.3	52°49.7 15°30.1	+27.6 15.9 +7.2 58.3
Ma 14	269°40.0 17°00.6	284°07.2 17°05.8	298°34.4 17°10.9	313°01.6 17°15.9	327°28.8 17°20.8	341°56.0 17°25.6	356°23.1 17°30.3	10°50.3 17°34.9	25°17.5 17°39.4	39°44.6 17°43.8	54°11.7 17°48.0	+27.2 15.8 +4.7 57.8
Me 15	270°58.6 18°38.9	285°25.7 18°41.5	299°52.9 18°43.9	314°20.0 18°46.1	328°47.2 18°48.3	343°14.4 18°50.4	357°41.6 18°52.3	12°08.8 18°54.2	26°36.0 18°55.9	41°03.2 18°57.5	55°30.5 18°59.0	+27.2 15.6 +2.0 57.3
Je 16	272°21.7 19°08.3	286°49.3 19°08.0	301°17.0 19°07.6	315°44.7 19°07.1	330°12.4 19°06.5	344°40.3 19°05.9	359°07.9 19°05.0	13°35.7 19°04.1	28°03.6 19°03.1	42°31.5 19°02.0	56°59.4 19°00.8	+27.8 15.5 -0.8 56.7
Ve 17	274°03.4 18°30.0	288°32.0 18°27.1	303°00.7 18°24.2	317°29.4 18°21.1	331°58.2 18°18.0	346°27.0 18°14.7	361°05.9 18°11.4	15°24.8 18°08.0	29°53.8 18°04.5	44°22.8 18°00.9	58°51.9 17°57.2	+28.9 15.3 -3.3 56.1
Sa 18	276°14.8 16°51.1	290°44.8 16°46.0	305°14.9 16°40.8	319°45.0 16°35.6	334°15.3 16°30.3	348°45.3 16°24.9	3°15.6 16°19.4	17°45.9 16°13.9	32°16.3 16°08.3	46°46.6 16°02.6	61°17.3 15°56.8	+30.2 15.2 -5.4 55.6
Di 19	279°01.9 14°22.0	293°33.3 14°15.2	308°04.8 14°08.3	322°36.4 14°01.3	337°08.0 13°54.3	351°39.9 13°47.2	6°11.4 13°40.0	20°44.3 13°32.9	35°15.0 13°25.6	49°46.8 13°18.3	64°18.8 13°10.9	+31.7 15.0 -7.1 55.0
Lu 20	282°24.1 11°14.4	296°56.9 11°06.3	311°29.7 10°58.1	326°02.6 10°49.9	340°35.4 10°41.6	355°08.4 10°33.3	9°41.4 10°25.0	24°14.4 10°16.6	38°47.5 10°08.2	53°20.6 9°59.7	67°53.8 9°51.2	+33.0 14.9 -8.3 54.6
Ma 21	286°16.0 7°39.6	300°49.8 7°30.6	315°23.6 7°21.6	329°57.4 7°12.5	344°31.3 7°03.4	359°05.2 6°54.3	13°39.1 6°45.2	28°13.1 6°36.0	42°47.1 6°26.8	57°21.1 6°17.6	71°55.1 6°08.4	+33.9 14.8 +5.9 54.3
Me 22	300°49.8 3°38.1	315°23.6 3°28.6	329°57.4 3°19.1	344°31.3 3°09.5	359°05.2 3°00.0	13°39.1 2°50.4	28°13.1 2°40.8	42°47.1 2°31.3	57°21.1 2°21.7	71°55.1 2°12.1	86°29.2 1°57.5	+33.9 14.8 -9.6 54.2
Je 23	305°02.9 -9°38.1	319°37.3 -9°28.6	334°11.7 -9°19.1	348°46.2 -9°09.5	363°00.0 -8°59.0	377°55.0 -8°49.6	392°29.5 -8°40.2	47°04.0 -8°30.6	61°38.4 -8°21.1	76°12.9 -8°12.1	90°47.4 -7°53.8	+34.5 14.8 -9.4 54.2
Ve 24	309°25.2 -10°22.3	323°59.7 -10°32.0	338°34.2 -10°41.6	353°08.7 -10°51.3	367°43.2 -11°01.0	381°57.0 -11°10.7	396°52.1 -11°20.3	51°26.6 -11°30.0	66°01.1 -11°39.6	80°35.5 -11°49.3	95°09.5 -11°58.9	+34.5 14.8 -9.7 54.2
Sa 25	313°44.4 -8°14.5	328°18.6 -8°23.4	342°52.7 -8°32.4	357°26.7 -8°41.3	371°00.8 -8°50.2	384°34.8 -9°00.0	41°08.8 -9°07.8	55°42.8 -9°16.6	70°16.7 -9°25.0	84°50.6 -9°34.1	99°24.4 -9°42.8	+34.0 14.8 -8.8 54.9
Di 26	317°48.2 -14°15.8	332°21.5 -14°23.4	346°54.7 -14°32.4	361°27.9 -14°41.3	374°50.0 -14°50.2	388°12.3 -15°00.0	41°08.8 -15°07.8	55°42.8 -15°16.6	70°16.7 -15°25.0	84°50.6 -15°34.1	99°24.4 -15°42.8	+34.0 14.8 -8.8 54.9
Lu 27	321°24.7 -14°48.5	335°56.7 -14°56.5	350°28.5 -15°06.8	364°00.0 -15°13.3	377°12.4 -15°19.7	390°00.0 -15°26.0	48°35.4 -15°32.3	63°07.0 -15°38.5	77°38.5 -15°44.7	92°10.0 -15°50.7	106°41.3 -15°56.7	+31.7 15.1 -7.8 55.5
Ma 28	324°23.8 -14°53.6	338°54.1 -15°00.2	353°24.3 -15°06.8	367°54.5 -15°13.3	381°24.2 -15°19.7	394°00.0 -15°26.0	51°24.4 -15°32.3	65°54.3 -15°38.5	80°24.1 -15°44.7	94°53.8 -15°50.7	109°23.4 -15°56.7	+30.0 15.3 -6.3 55.2
Me 29	326°39.2 -17°17.0	341°07.7 -17°21.7	355°36.3 -17°26.3	370°04.4 -17°30.7	384°32.7 -17°35.1	398°00.9 -17°39.5	53°29.0 -17°43.7	67°57.1 -17°47.8	82°25.0 -17°51.8	96°63.0 -17°55.8	111°20.0 -17°59.6	+28.2 15.5 -4.3 57.0
Je 30	328°10.7 -18°45.0	342°37.5 -18°47.1	357°04.3 -18°49.2	371°31.0 -18°51.2	385°57.0 -19°00.0	40°24.3 -19°05.4	54°50.8 -18°56.4	69°17.3 -18°57.9	83°43.8 -18°59.3	98°10.2 -19°00.6	112°36.5 -19°01.7	+26.6 15.8 -1.7 57.8
Ve 31	329°06.2 -19°05.1	343°31.9 -19°04.4	357°57.5 -19°03.5	372°23.1 -19°02.5	386°48.7 -19°01.4	41°14.2 -19°00.2	55°39.8 -18°58.9	70°05.2 -18°57.4	84°30.7 -18°55.8	98°56.2 -18°54.1	113°21.6 -18°52.2	+25.5 16.0 +1.3 58.6

Ligne 1: GHA, Δ'h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
NL: 2 20h52 — PQ: 9 19h08 — PL: 16 20h49 — DQ: 24 40h39

SOLEIL

Janvier 2033

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	269°06.6 -22°58.0	284°06.3 -22°57.8	299°06.0 -22°57.6	314°05.7 -22°57.3	329°05.4 -22°57.1	344°05.1 -22°56.9	359°04.8 -22°56.7	14°04.5 -22°56.5	26°04.2 -22°56.3	44°03.9 -22°56.0	56°03.6 -22°55.8	74°03.3 -22°55.6	-0.3 +0.2
Di 2	268°59.5 -22°52.7	283°59.3 -22°52.4	298°59.0 -22°52.2	313°58.7 -22°52.0	328°58.4 -22°51.7	343°58.1 -22°51.5	358°57.8 -22°51.3	13°57.5 -22°51.0	28°57.2 -22°50.8	43°56.9 -22°50.5	58°56.6 -22°50.3	73°56.3 -22°50.1	-0.3 +0.2
Lu 3	268°52.6 -22°46.9	283°52.3 -22°46.6	298°52.0 -22°46.4	313°51.7 -22°46.1	328°51.4 -22°45.9	343°51.2 -22°45.6	358°50.9 -22°45.4	13°50.6 -22°45.1	28°50.3 -22°44.8	43°50.0 -22°44.6	58°49.7 -22°44.3	73°49.4 -22°44.1	-0.3 +0.3
Ma 4	268°45.7 -22°40.6	283°45.5 -22°40.4	298°45.2 -22°40.1	313°44.9 -22°39.8	328°44.6 -22°39.6	343°44.3 -22°39.3	358°44.1 -22°39.0	13°43.8 -22°38.7	28°43.5 -22°38.5	43°43.2 -22°38.2	58°42.9 -22°37.9	73°42.6 -22°37.6	-0.3 +0.3
Me 5	268°39.0 -22°34.0	283°38.7 -22°33.7	298°38.5 -22°33.4	313°38.2 -22°33.1	328°37.9 -22°32.8	343°37.6 -22°32.5	358°37.3 -22°32.2	13°37.1 -22°31.9	28°36.8 -22°31.6	43°36.5 -22°31.3	58°36.2 -22°31.0	73°36.0 -22°30.7	-0.3 +0.3
Je 6	268°32.4 -22°26.8	283°32.1 -22°26.5	298°31.8 -22°26.2	313°31.6 -22°25.9	328°31.3 -22°25.6	343°31.0 -22°25.3	358°30.7 -22°25.0	13°30.5 -22°24.7	28°30.2 -22°24.3	43°29.9 -22°24.0	58°29.7 -22°23.7	73°29.4 -22°23.4	-0.3 +0.3
Ve 7	268°25.9 -22°19.2	283°25.6 -22°18.9	298°25.3 -22°18.6	313°25.1 -22°18.3	328°24.8 -22°17.9	343°24.5 -22°17.6	358°24.3 -22°17.3	13°24.0 -22°16.6	28°23.7 -22°16.3	43°23.5 -22°16.0	58°23.2 -22°15.7	73°22.9 -22°15.6	-0.3 +0.3
Sa 8	268°19.5 -22°11.2	283°19.2 -22°10.9	298°19.0 -22°10.5	313°18.7 -22°10.2	328°18.5 -22°09.9	343°18.2 -22°09.5	358°17.9 -22°09.2	13°17.7 -22°08.8	28°17.4 -22°08.5	43°17.2 -22°08.1	58°16.9 -22°07.8	73°16.6 -22°07.4	-0.3 +0.3
Di 9	268°13.3 -22°03.8	283°13.0 -22°03.4	298°12.8 -22°02.1	313°12.5 -22°01.7	328°12.3 -22°01.3	343°12.0 -22°01.0	358°11.7 -22°00.2	13°11.5 -22°00.0	28°11.2 -22°00.0	43°11.0 -22°00.0	58°10.7 -22°00.0	73°10.5 -22°00.0	-0.3 +0.3
Lu 10	268°07.2 -21°53.9	283°06.9 -21°53.2	298°06.7 -21°53.2	313°06.4 -21°52.8	328°06.2 -21°52.4	343°05.9 -21°52.0	358°05.7 -21°51.6	13°05.4 -21°51.2	28°05.2 -21°50.9	43°04.9 -21°50.5	58°04.7 -21°50.1	73°04.4 -21°49.7	-0.2 +0.2
Ma 11	268°01.2 -21°44.6	283°01.0 -21°44.2	298°00.8 -21°43.8	313°00.5 -21°43.4	328°00.3 -21°43.0	343°00.0 -21°42.6	357°59.8 -21°42.2	12°59.5 -21°41.8	27°59.3 -21°41.4	42°59.1 -21°41.0	57°58.8 -21°40.6	72°58.6 -21°40.2	-0.2 +0.2
Me 12	267°55.5 -21°34.9	282°55.2 -21°34.5	297°55.0 -21°34.1	312°54.7 -21°33.6	327°54.5 -21°33.2	342°54.3 -21°32.8	357°54.0 -21°32.4	12°53.8 -21°32.0	27°53.6 -21°31.6	42°53.3 -21°31.2	57°53.1 -21°30.8	72°52.8 -21°30.3	-0.2 +0.4
Je 13	267°49.4 -21°24.7	282°49.6 -21°24.3	297°49.3 -21°23.9	312°49.1 -21°23.4	327°48.9 -21°23.0	342°48.7 -21°22.6	357°48.4 -21°22.1	12°48.2 -21°21.7	27°48.0 -21°21.3	42°47.7 -21°20.9	57°47.5 -21°20.4	72°47.3 -21°20.0	-0.2 +0.4
Ve 14	267°44.2 -21°14.2	282°44.1 -21°13.7	297°43.9 -21°13.3	312°43.7 -21°12.8	327°43.4 -21°12.4	342°43.2 -21°11.9	357°43.0 -21°11.5	12°42.8 -21°11.0	27°42.6 -21°10.6	42°42.3 -21°10.1	57°42.1 -21°09.7	72°41.9 -21°09.2	-0.2 +0.5
Sa 15	267°39.0 -21°03.2	282°38.8 -21°02.8	297°38.6 -21°02.3	312°38.4 -21°01.8	327°38.2 -21°01.4	342°38.0 -21°00.9	357°37.7 -21°00.4	12°37.5 -21°00.0	27°37.3 -20°59.5	42°37.1 -20°59.0	57°36.9 -20°58.5	72°36.7 -20°58.1	-0.2 +0.5
Di 16	267°33.9 -20°51.9	282°33.7 -20°51.4	297°33.5 -20°50.9	312°33.3 -20°50.4	327°33.1 -20°49.9	342°32.8 -20°49.4	357°32.6 -20°48.9	12°32.4 -20°48.5	27°32.2 -20°47.8	42°32.0 -20°47.0	57°31.8 -20°46.5	72°31.6 -20°46.5	-0.2 +0.5
Lu 17	267°28.9 -20°40.1	282°28.7 -20°39.6	297°28.5 -20°39.1	312°28.3 -20°38.6	327°28.1 -20°38.1	342°27.9 -20°37.6	357°27.7 -20°37.1	12°27.5 -20°36.6	27°27.3 -20°36.1	42°27.1 -20°35.6	57°26.9 -20°35.1	72°26.7 -20°34.6	-0.2 +0.5
Ma 18	267°24.1 -20°27.9	282°23.9 -20°27.4	297°23.8 -20°26.9	312°23.6 -20°26.4	327°23.4 -20°25.9	342°23.2 -20°25.4	357°23.0 -20°24.8	12°22.8 -20°24.3	27°22.6 -20°23.8	42°22.4 -20°23.3	57°22.2 -20°22.8	72°22.0 -20°22.2	-0.2 +0.5
Me 19	267°19.5 -20°15.4	282°19.3 -20°14.9	297°19.2 -20°14.3	312°19.0 -20°13.8	327°18.8 -20°13.3	342°18.6 -20°12.7	357°18.4 -20°12.2	12°18.2 -20°11.7	27°18.0 -20°11.1	42°17.8 -20°10.6	57°17.7 -20°10.1	72°17.5 -20°09.5	-0.2 +0.5
Je 20	267°15.1 -20°02.5	282°14.9 -20°01.9	297°14.7 -20°01.4	312°14.6 -20°00.8	327°14.4 -20°00.3	342°14.2 -19°59.7	357°14.0 -19°59.2	12°13.8 -19°58.6	27°13.7 -19°58.1	42°13.5 -19°57.5	57°13.3 -19°57.0	72°13.1 -19°56.4	-0.2 +0.6
Ve 21	267°10.9 -19°49.2	282°10.7 -19°48.6	297°10.5 -19°48.1	312°10.3 -19°47.5	327°10.2 -19°46.9	342°10.0 -19°46.4	357°09.8 -19°45.8	12°09.5 -19°45.2	27°09.5 -19°44.7	42°09.3 -19°44.1	57°09.1 -19°43.5	72°09.0 -19°43.0	-0.2 +0.6
Sa 22	267°06.8 -19°35.5	282°06.6 -19°34.9	297°06.5 -19°34.3	312°06.3 -19°33.8	327°06.1 -19°33.2	342°06.0 -19°32.6	357°05.8 -19°32.0	12°05.6 -19°31.4	27°05.5 -19°30.9	42°05.3 -19°30.3	57°05.2 -19°29.7	72°05.0 -19°29.1	-0.2 +0.6
Di 23	267°02.9 -19°21.5	282°02.8 -19°20.9	297°02.6 -19°20.3	312°02.5 -19°19.7	327°02.3 -19°19.1	342°02.1 -19°18.5	357°02.0 -19°17.9	12°01.8 -19°17.3	27°01.7 -19°16.7	42°01.5 -19°16.1	57°01.4 -19°15.5	72°01.2 -19°14.9	-0.2 +0.6
Lu 24	266°59.2 -19°07.1	281°59.1 -19°06.5	296°58.9 -19°05.9	311°58.8 -19°05.3	326°58.6 -19°04.6	341°58.5 -19°04.0	356°58.4 -19°03.4	11°58.2 -19°02.8	26°58.1 -19°02.2	41°57.9 -19°01.6	56°57.8 -19°01.0	71°57.6 -19°00.4	-0.1 +0.6
Ma 25	266°55.8 -18°52.3	281°55.6 -18°51.7	296°55.5 -18°51.1	311°55.3 -18°50.5	326°55.2 -18°49.8	341°55.1 -18°49.2	356°54.9 -18°48.6	11°54.8 -18°48.0	26°54.6 -18°47.3	41°54.5 -18°46.7	56°54.4 -18°46.1	71°54.2 -18°45.5	-0.1 +0.6
Me 26	266°52.5 -18°37.2	281°52.3 -18°36.6	296°52.2 -18°36.0	311°52.1 -18°35.3	326°51.9 -18°34.7	341°51.8 -18°34.0	356°51.7 -18°33.4	11°51.5 -18°32.8	26°51.4 -18°32.1	41°51.3 -18°31.5	56°51.1 -18°30.8	71°51.0 -18°30.2	-0.1 +0.6
Je 27	266°49.4 -18°21.8	281°49.2 -18°21.2	296°49.1 -18°20.5	311°49.0 -18°19.9	326°48.9 -18°19.2	341°48.7 -18°18.5	356°48.6 -18°17.9	11°48.5 -18°17.2	26°48.4 -18°16.6	41°48.3 -18°15.9	56°48.3 -18°15.3	71°48.0 -18°14.6	-0.1 +0.7
Ve 28	266°46.5 -18°06.0	281°46.3 -18°05.4	296°46.2 -18°04.7	311°46.1 -18°04.0	326°46.0 -18°03.4	341°45.9 -18°02.7	356°45.8 -18°02.0	11°45.7 -18°01.4	26°45.5 -18°00.7	41°45.4 -18°00.0	56°45.3 -17°59.4	71°45.2 -17°58.7	-0.1 +0.7
Sa 29	266°43.8 -17°49.9	281°43.7 -17°49.3	296°43.5 -17°48.6	311°43.4 -17°47.9	326°43.3 -17°47.2	341°43.2 -17°46.6	356°43.1 -17°45.9	11°43.0 -17°45.2	26°42.9 -17°44.5	41°42.8 -17°43.8	56°42.7 -17°43.2	71°42.6 -17°42.5	-0.1 +0.7
Di 30	266°41.3 -17°33.5	281°41.2 -17°32.9	296°41.1 -17°32.2	311°41.0 -17°31.5	326°40.9 -17°30.8	341°40.8 -17°30.1	356°40.7 -17°29.4	11°40.6 -17°28.7	26°40.5 -17°28.0	41°40.4 -17°27.3	56°40.3 -17°26.6	71°40.2 -17°25.9	-0.1 +0.7
Lu 31	266°39.0 -17°16.8	281°38.9 -17°16.1	296°38.8 -17°15.4	311°38.7 -17°14.7	326°38.6 -17°14.0	341°38.5 -17°13.3	356°38.4 -17°12.6	11°38.3 -17°11.9	26°38.2 -17°11.2	41°38.2 -17°10.5	56°38.1 -17°09.8	71°38.0 -17°09.1	-0.1 +0.7

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Janvier 2033

	J	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	Δ'/h	SP
●	Sa 1	243°09.5 -18°30.1	257°34.8 -18°27.7	272°00.3 -18°23.8	286°25.3 -18°20.5	300°50.5 -18°17.0	315°15.8 -18°13.5	329°41.0 -18°09.8	344°06.2 -18°06.0	358°31.4 -18°02.0	12°56.7 -17°58.0	27°21.9 -17°53.8	+25.2 +3.6	16.1 59.1
	Di 2	243°41.1 -16°30.9	258°06.4 -16°24.7	272°31.8 -16°21.4	286°57.3 -16°18.4	301°22.7 -16°12.0	315°48.2 -15°58.9	330°13.6 -15°55.2	344°39.2 -15°52.2	359°04.7 -15°45.4	13°30.2 -15°38.5	27°55.8 -15°31.5	+25.5 +6.5	16.3 59.6
	Lu 3	244°23.1 -13°34.0	258°49.2 -13°25.5	273°15.3 -13°16.8	287°41.5 -13°08.0	302°07.7 -12°59.2	316°33.9 -12°50.2	331°00.2 -12°41.2	345°26.5 -12°32.1	359°52.8 -12°23.0	14°19.2 -12°13.7	28°45.6 -12°04.4	+26.2 +9.0	16.3 59.9
●	Ma 4	245°26.6 -9°35.7	259°53.7 -9°25.3	274°20.8 -9°14.8	288°47.9 -9°04.3	303°15.1 -8°53.7	317°42.3 -8°43.0	332°09.5 -8°32.3	346°36.8 -8°21.6	1°04.1 -8°10.8	15°31.5 -7°59.9	29°58.9 -7°49.0	+27.2 +10.7	16.3 59.9
	Me 5	246°54.2 -5°00.8	261°22.1 -4°49.3	275°50.1 -4°37.8	290°18.2 -4°26.3	304°46.2 -4°14.8	319°14.3 -4°03.2	333°42.4 -3°51.6	348°10.5 -3°38.2	2°38.7 -3°28.4	17°06.9 -3°16.8	31°35.1 -3°05.2	+28.1 +11.6	16.3 59.8
	Je 6	248°41.5 4°38.3	263°10.1 4°49.5	277°38.7 5°00.7	292°07.3 5°11.8	306°36.0 5°22.9	321°04.6 5°33.9	335°33.3 5°45.0	350°02.0 5°55.9	4°30.7 6°06.9	18°59.4 6°17.7	33°28.1 6°28.6	+28.7 +11.0	16.2 59.1
●	Ve 7	250°40.3 9°05.5	265°09.1 9°15.5	279°38.8 9°25.4	294°06.9 9°35.4	308°35.7 9°45.3	323°04.6 9°55.0	337°33.4 10°04.7	352°02.3 10°14.4	6°31.2 10°24.0	21°00.0 10°33.5	35°28.9 10°43.0	+28.9 +9.8	16.1 58.6
	Sa 8	252°41.3 9°05.5	267°10.1 9°15.5	281°38.8 9°25.4	296°07.6 9°35.4	310°36.3 9°45.3	325°05.0 9°55.0	339°33.8 10°04.7	354°02.5 10°14.4	8°31.2 10°24.0	22°59.9 10°33.5	37°28.5 10°43.0	+28.7 +9.8	16.0 58.6
	Di 9	254°37.0 12°56.4	269°05.4 13°04.7	283°33.9 13°12.9	298°02.3 13°21.1	312°30.7 13°29.1	326°59.1 13°37.1	341°27.5 13°45.8	355°55.8 13°52.8	10°24.1 14°00.5	24°52.5 14°08.1	39°20.8 14°15.7	+28.4 +7.9	15.8 58.1
●	Lu 10	256°23.6 15°58.4	270°51.7 16°04.5	285°19.8 16°10.5	299°47.9 16°16.4	314°15.9 16°22.2	328°43.9 16°27.9	343°11.9 16°33.6	357°40.0 16°39.1	12°08.0 16°45.8	26°35.9 16°49.8	41°03.9 16°55.1	+28.0 +5.7	15.7 57.5
	Ma 11	258°02.8 18°01.4	272°30.6 18°05.0	286°58.8 18°08.5	301°26.4 18°11.9	315°54.3 18°15.2	330°22.2 18°18.4	344°50.1 18°21.4	359°18.0 18°24.4	13°45.8 18°27.3	28°13.7 18°30.0	42°41.6 18°32.7	+27.9 +3.1	15.5 57.0
	Me 12	259°41.0 18°59.7	274°09.1 19°00.6	288°37.2 19°01.5	303°05.2 19°02.2	317°33.3 19°02.8	332°01.5 19°03.4	346°29.6 19°03.8	360°57.8 19°04.1	15°25.9 19°04.3	29°54.1 19°04.4	44°22.4 19°04.4	+28.1 +0.5	15.4 56.5
●	Je 13	261°28.7 18°51.9	275°57.4 18°50.3	290°26.1 18°48.5	304°54.8 18°46.7	319°23.6 18°44.7	333°52.4 18°42.7	348°21.2 18°40.6	363°05.3 18°38.3	17°19.0 18°36.0	31°47.9 18°33.5	46°16.9 18°31.0	+28.8 -2.1	15.3 56.0
	Ve 14	263°36.5 17°41.8	278°06.1 17°37.8	292°35.8 17°33.7	307°05.6 17°29.5	321°35.3 17°25.3	336°05.2 17°20.9	350°35.1 17°16.5	365°08.0 17°12.0	18°35.0 17°07.4	34°00.5 17°02.7	48°35.1 16°57.9	+29.9 -4.4	15.1 55.5
	Sa 15	266°12.2 15°37.1	280°43.0 15°31.1	295°14.0 15°25.0	309°44.9 15°18.9	324°16.0 15°12.7	338°47.0 15°06.4	353°18.2 15°00.1	367°49.3 14°53.7	22°20.6 14°47.2	36°51.9 14°40.7	51°23.2 14°34.1	+31.1 -6.5	15.0 55.1
●	Di 16	269°19.1 12°47.9	283°51.3 12°40.4	298°23.4 12°32.8	312°55.7 12°25.2	327°27.9 12°17.5	342°00.2 12°09.8	356°32.6 12°02.0	370°55.1 11°54.1	25°37.0 11°46.3	40°10.0 11°38.3	54°42.5 11°30.4	+32.3 -7.8	14.9 54.7
	Lu 17	272°55.9 9°25.6	287°29.1 9°17.0	302°02.4 9°08.4	316°35.7 8°59.7	331°09.0 8°50.9	345°42.4 8°42.2	360°15.8 8°33.4	374°49.2 8°24.6	29°22.2 8°15.7	43°56.2 8°06.8	58°29.8 7°57.9	+33.4 -8.8	14.8 54.4
	Ma 18	276°56.9 5°41.1	291°30.9 5°31.8	306°05.0 5°22.5	320°39.1 5°13.2	335°13.2 5°03.8	349°47.3 4°54.5	364°21.4 4°45.1	378°55.6 4°35.7	33°29.8 4°26.2	48°04.0 4°16.8	62°38.3 4°07.4	+34.1 -9.4	14.8 54.1
●	Me 19	281°13.8 1°44.4	295°48.3 1°34.8	310°22.7 1°25.2	324°57.2 1°15.6	339°31.7 1°06.0	354°06.2 0°56.4	368°35.1 0°46.8	382°40.7 0°37.2	37°49.8 0°27.6	52°24.3 0°18.0	66°58.8 0°08.3	+34.5 -9.6	14.7 54.0
	Je 20	285°36.6 -9°15.5	300°11.0 -9°25.0	314°45.5 -9°34.5	329°20.0 -9°44.1	343°54.4 -9°53.6	358°28.9 -10°03.1	372°58.9 -10°12.6	387°33.7 -10°22.0	42°12.1 -10°31.5	56°46.5 -10°41.0	71°20.9 -10°50.4	+34.4 -9.5	14.8 54.1
	Ve 21	300°11.0 -25°05.0	314°45.5 -25°34.5	329°20.0 -25°44.1	343°54.4 -25°53.6	358°28.9 -26°03.1	372°58.9 -26°12.6	387°33.7 -26°22.0	401°58.9 -26°31.5	44°12.1 -26°41.0	58°46.5 -26°50.4	73°20.9 -27°00.4	+34.4 -9.5	14.8 54.1
●	Sa 22	304°28.2 -6°19.2	319°02.2 -6°28.3	333°36.2 -6°37.4	348°10.2 -6°46.5	362°44.1 -6°55.5	376°18.0 -7°04.6	389°51.9 -7°13.6	402°25.7 -7°22.6	60°59.5 -7°31.5	75°33.5 -7°40.2	90°07.0 -7°49.4	+33.9 -9.0	14.8 54.3
	Di 23	308°28.4 -9°59.2	323°01.3 -10°07.5	337°34.8 -10°15.9	352°07.6 -10°24.2	366°40.6 -10°32.5	380°13.5 -10°40.7	393°46.3 -10°48.9	407°19.2 -10°57.0	50°19.2 -11°05.9	64°51.9 -11°13.2	79°24.8 -11°21.2	+32.9 -8.2	14.9 54.8
	Lu 24	312°00.8 -13°15.8	326°32.6 -13°23.0	341°04.3 -13°30.2	355°36.0 -13°37.3	369°07.6 -13°44.4	382°39.1 -13°51.4	395°10.6 -13°58.3	407°40.0 -14°05.2	53°42.0 -14°12.1	68°13.3 -14°18.8	82°44.6 -14°25.6	+31.5 -7.0	15.1 54.5
●	Ma 25	314°56.2 -17°58.4	329°26.3 -16°04.1	343°56.4 -16°09.6	358°26.4 -16°15.1	372°56.4 -16°20.5	386°26.2 -16°25.9	399°56.0 -16°31.1	412°26.3 -16°36.3	56°25.8 -16°41.4	70°55.4 -16°46.4	85°25.0 -16°51.4	+29.8 -5.3	15.3 54.6
	Me 26	317°08.8 -17°55.2	331°37.2 -17°58.8	346°05.6 -18°02.2	360°33.8 -18°05.6	374°02.0 -18°08.6	387°30.1 -18°12.0	400°58.2 -18°15.1	413°26.2 -18°18.0	58°26.2 -18°20.9	72°54.1 -18°23.5	87°21.9 -18°26.3	+28.1 -3.1	15.5 57.0
	Je 27	318°38.7 -18°53.7	333°05.5 -18°54.7	347°32.2 -18°55.5	361°58.9 -18°56.2	375°32.2 -18°56.9	388°57.1 -18°57.8	401°18.0 -18°58.0	413°45.1 -18°58.0	59°45.0 -18°58.0	74°11.4 -18°58.2	88°37.8 -18°58.2	+26.5 -0.4	15.8 58.2
●	Ve 28	319°33.0 -18°42.8	333°58.6 -18°40.8	348°24.2 -18°38.7	362°49.7 -18°36.5	376°15.2 -18°34.1	389°40.7 -18°31.7	402°06.1 -18°29.0	414°31.3 -18°26.3	60°31.6 -18°23.5	74°56.9 -18°20.5	89°22.3 -18°17.4	+25.5 +2.5	16.1 58.9
	Sa 29	320°05.3 -17°16.2	334°30.4 -17°11.2	348°55.4 -17°06.0	362°50.5 -17°00.7	376°15.2 -16°55.3	389°40.7 -16°49.8	402°06.1 -16°44.1	414°31.3 -16°38.4	61°00.6 -16°33.4	75°25.7 -16°32.5	89°50.7 -16°26.5	+25.0 +5.6	16.3 59.4
	Di 30	320°32.1 -14°35.1	334°57.3 -14°27.2	349°22.5 -14°19.3	363°47.7 -14°11.2	377°13.0 -14°03.0	390°38.2 -13°54.7	403°03.5 -13°46.3	415°28.8 -13°37.8	61°28.8 -13°32.1	75°54.1 -13°29.2	90°19.4 -13°20.6	+25.3 +8.3	16.5 60.4
●	Lu 31	321°07.9 -10°49.6	335°33.7 -10°39.4	349°59.5 -10°29.2	364°25.3 -10°18.9	378°51.1 -10°08.6	392°17.0 -9°58.2	404°42.9 -9°47.7	416°08.9 -9°37.1	62°08.9 -9°26.5	76°34.8 -9°15.8	91°00.8 -9°05.1	+25.9 +10.5	16.6 60.8

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre

Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC – jour) mod 24

NL: 1 10h17 — PQ: 8 03h34 — PL: 15 13h07 — DQ: 23 17h45 — NL: 30 21h59

SOLEIL

Février 2033

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ma 1	266°36.9 -16°59.8	281°36.8 -16°59.1	296°36.7 -16°58.4	311°36.6 -16°57.6	326°36.6 -16°56.9	341°36.5 -16°56.2	356°36.4 -16°55.5	11°36.3 -16°54.8	26°36.2 -16°54.1	41°36.1 -16°53.3	56°36.1 -16°52.6	71°36.0 -16°51.9	-0.1 +0.7
Me 2	266°35.0 -16°42.8	281°34.9 -16°41.7	296°34.8 -16°41.0	311°34.8 -16°40.3	326°34.7 -16°39.6	341°34.6 -16°38.8	356°34.6 -16°38.1	11°34.5 -16°37.4	26°34.4 -16°36.6	41°34.3 -16°35.9	56°34.3 -16°35.2	71°34.2 -16°34.4	-0.1 +0.7
Je 3	266°33.3 -16°24.9	281°33.3 -16°24.1	296°33.2 -16°23.4	311°33.1 -16°22.6	326°33.1 -16°21.9	341°33.0 -16°21.2	356°32.9 -16°20.4	11°32.9 -16°19.7	26°32.8 -16°18.9	41°32.7 -16°18.2	56°32.7 -16°17.4	71°32.6 -16°16.7	-0.1 +0.7
Ve 4	266°31.8 -16°07.0	281°31.8 -16°06.2	296°31.7 -16°05.5	311°31.7 -16°04.7	326°31.6 -16°03.9	341°31.6 -16°03.2	356°31.5 -16°02.4	11°31.5 -16°01.7	26°31.4 -16°00.9	41°31.3 -16°00.2	56°31.3 -15°59.4	71°31.2 -15°58.7	-0.1 +0.8
Sa 5	266°30.6 -15°48.8	281°30.5 -15°48.0	296°30.5 -15°47.3	311°30.4 -15°46.5	326°30.4 -15°45.7	341°30.3 -15°45.0	356°30.3 -15°44.2	11°30.3 -15°43.4	26°30.2 -15°42.7	41°30.2 -15°41.9	56°30.1 -15°41.1	71°30.1 -15°40.4	-0.0 +0.8
Di 6	266°29.5 -15°30.3	281°29.5 -15°29.6	296°29.4 -15°28.8	311°29.4 -15°28.0	326°29.4 -15°27.2	341°29.3 -15°26.5	356°29.3 -15°25.7	11°29.3 -15°24.9	26°29.2 -15°24.1	41°29.2 -15°23.4	56°29.1 -15°22.6	71°29.1 -15°21.8	-0.0 +0.8
Lu 7	266°28.7 -15°11.6	281°28.6 -15°10.8	296°28.6 -15°10.1	311°28.6 -15°09.3	326°28.5 -15°08.5	341°28.5 -15°07.7	356°28.5 -15°06.9	11°28.5 -15°06.1	26°28.4 -15°05.3	41°28.4 -15°04.5	56°28.4 -15°03.8	71°28.3 -15°03.0	-0.0 +0.8
Ma 8	266°28.0 -14°33.4	281°28.0 -14°32.6	296°28.0 -14°31.8	311°28.0 -14°31.0	326°27.9 -14°30.2	341°27.9 -14°29.4	356°27.9 -14°28.6	11°27.9 -14°27.1	26°27.8 -14°26.3	41°27.8 -14°25.4	56°27.8 -14°24.7	71°27.8 -14°23.9	-0.0 +0.8
Me 9	266°27.3 -14°14.0	281°27.3 -14°13.2	296°27.3 -14°12.4	311°27.3 -14°11.5	326°27.3 -14°10.7	341°27.3 -14°09.9	356°27.3 -14°09.1	11°27.3 -14°08.3	26°27.3 -14°07.5	41°27.3 -14°06.6	56°27.3 -14°05.8	71°27.3 -14°05.0	-0.0 +0.8
Je 10	266°27.3 -13°54.3	281°27.3 -13°53.5	296°27.3 -13°52.6	311°27.3 -13°51.8	326°27.3 -13°51.0	341°27.3 -13°50.2	356°27.3 -13°49.3	11°27.3 -13°48.5	26°27.3 -13°47.7	41°27.3 -13°46.8	56°27.3 -13°46.0	71°27.3 -13°45.2	+0.0 +0.8
Ve 11	266°27.4 -13°34.4	281°27.4 -13°33.5	296°27.4 -13°32.7	311°27.4 -13°31.9	326°27.5 -13°31.0	341°27.5 -13°30.2	356°27.5 -13°29.4	11°27.5 -13°28.5	26°27.5 -13°27.7	41°27.5 -13°26.8	56°27.5 -13°26.0	71°27.5 -13°25.2	+0.0 +0.8
Sa 12	266°27.4 -13°14.2	281°27.8 -13°13.4	296°27.8 -13°12.5	311°27.8 -13°11.7	326°27.8 -13°10.9	341°27.8 -13°10.0	356°27.9 -13°09.2	11°27.9 -13°08.3	26°27.9 -13°07.5	41°27.9 -13°06.6	56°27.9 -13°05.8	71°27.8 -13°04.9	+0.0 +0.8
Di 13	266°28.3 -12°53.9	281°28.3 -12°53.0	296°28.3 -12°52.2	311°28.3 -12°51.3	326°28.4 -12°50.5	341°28.4 -12°49.6	356°28.4 -12°48.7	11°28.4 -12°47.9	26°28.5 -12°47.0	41°28.5 -12°46.2	56°28.5 -12°45.3	71°28.6 -12°44.5	+0.0 +0.9
Lu 14	266°29.0 -12°33.3	281°29.0 -12°32.4	296°29.0 -12°31.6	311°29.1 -12°30.7	326°29.1 -12°29.9	341°29.1 -12°29.0	356°29.2 -12°28.1	11°29.2 -12°27.3	26°29.2 -12°26.4	41°29.3 -12°25.5	56°29.3 -12°24.7	71°29.3 -12°23.8	+0.0 +0.9
Ma 15	266°29.8 -12°12.5	281°29.9 -12°11.7	296°29.9 -12°10.8	311°30.0 -12°09.9	326°30.0 -12°09.0	341°30.0 -12°08.2	356°30.0 -12°07.3	11°30.2 -12°06.4	26°30.2 -12°05.6	41°30.2 -12°04.7	56°30.3 -12°03.8	71°30.3 -12°02.9	+0.0 +0.9
Me 16	266°30.9 -11°51.6	281°30.9 -11°50.7	296°31.0 -11°49.8	311°31.0 -11°48.9	326°31.1 -11°48.0	341°31.1 -11°47.2	356°31.2 -11°46.3	11°31.2 -11°45.4	26°31.3 -11°44.5	41°31.3 -11°43.7	56°31.4 -11°42.8	71°31.4 -11°41.9	+0.0 +0.9
Je 17	266°32.1 -11°30.4	281°32.2 -11°29.5	296°32.2 -11°28.6	311°32.3 -11°27.7	326°32.3 -11°26.9	341°32.4 -11°26.0	356°32.4 -11°25.1	11°32.5 -11°24.2	26°32.6 -11°23.3	41°32.6 -11°22.4	56°32.7 -11°21.5	71°32.7 -11°20.6	+0.1 +0.9
Ve 18	266°33.5 -11°09.1	281°33.6 -11°08.2	296°33.6 -11°07.3	311°33.7 -11°06.4	326°33.8 -11°05.5	341°33.8 -11°04.6	356°33.9 -11°03.7	11°33.9 -11°02.8	26°34.0 -11°01.9	41°34.1 -11°01.0	56°34.1 -11°00.1	71°34.2 -10°59.2	+0.1 +0.9
Sa 19	266°35.1 -10°47.6	281°35.1 -10°46.7	296°35.2 -10°45.8	311°35.3 -10°44.9	326°35.3 -10°44.0	341°35.4 -10°43.0	356°35.5 -10°42.1	11°35.5 -10°41.2	26°35.6 -10°40.3	41°35.7 -10°39.4	56°35.8 -10°38.5	71°35.8 -10°37.6	+0.1 +0.9
Di 20	266°36.8 -10°25.9	281°36.8 -10°25.0	296°36.9 -10°24.1	311°37.0 -10°23.1	326°37.1 -10°22.2	341°37.1 -10°21.3	356°37.2 -10°20.4	11°37.3 -10°19.5	26°37.4 -10°18.6	41°37.5 -10°17.7	56°37.5 -10°16.8	71°37.6 -10°15.9	+0.1 +0.9
Lu 21	266°38.6 -10°04.0	281°38.7 -10°03.1	296°38.8 -10°02.2	311°38.9 -10°01.3	326°39.0 -10°00.4	341°39.0 -9°59.5	356°39.1 -9°58.5	11°39.2 -9°57.6	26°39.3 -9°56.7	41°39.4 -9°55.8	56°39.5 -9°54.9	71°39.5 -9°54.0	+0.1 +0.9
Ma 22	266°40.7 -9°42.0	281°40.7 -9°41.1	296°40.8 -9°40.2	311°40.9 -9°39.3	326°41.0 -9°38.3	341°41.1 -9°37.4	356°41.2 -9°36.5	11°41.3 -9°35.6	26°41.4 -9°34.7	41°41.5 -9°33.7	56°41.5 -9°32.8	71°41.6 -9°31.9	+0.1 +0.9
Me 23	266°42.8 -9°19.9	281°42.9 -9°18.9	296°43.0 -9°18.0	311°43.1 -9°17.1	326°43.2 -9°16.2	341°43.3 -9°15.2	356°43.4 -9°14.3	11°43.5 -9°13.4	26°43.6 -9°12.5	41°43.7 -9°11.5	56°43.8 -9°10.6	71°43.9 -9°09.7	+0.1 +0.9
Je 24	266°45.2 -8°57.6	281°45.2 -8°56.6	296°45.3 -8°55.7	311°45.4 -8°54.8	326°45.5 -8°53.9	341°45.6 -8°52.9	356°45.7 -8°52.0	11°45.8 -8°51.1	26°45.9 -8°50.1	41°46.0 -8°49.2	56°46.1 -8°48.3	71°46.2 -8°47.3	+0.1 +0.9
Ve 25	266°47.4 -8°35.2	281°47.7 -8°34.2	296°47.8 -8°33.3	311°47.9 -8°32.3	326°48.0 -8°31.4	341°48.1 -8°30.5	356°48.2 -8°29.5	11°48.3 -8°28.6	26°48.4 -8°27.6	41°48.5 -8°26.7	56°48.6 -8°25.8	71°48.7 -8°24.8	+0.1 +0.9
Sa 26	266°50.2 -8°12.6	281°50.3 -8°11.7	296°50.4 -8°10.7	311°50.5 -8°09.8	326°50.6 -8°08.8	341°50.7 -8°07.9	356°50.8 -8°06.9	11°50.9 -8°06.0	26°51.0 -8°05.1	41°51.2 -8°04.1	56°51.3 -8°03.2	71°51.4 -8°02.2	+0.1 +0.9
Di 27	266°52.9 -7°49.9	281°53.0 -7°49.0	296°53.1 -7°48.0	311°53.2 -7°47.1	326°53.3 -7°46.1	341°53.5 -7°45.2	356°53.6 -7°44.2	11°53.7 -7°43.3	26°53.8 -7°42.3	41°53.9 -7°41.4	56°54.0 -7°40.4	71°54.2 -7°39.5	+0.1 +0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Février 2033

	J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	Δ'/h	SP
O	Ma 1	240°48.8 -7°14.4	264°15.2 -7°03.1	278°41.5 -6°51.7	293°08.0 -6°40.2	307°34.4 -6°28.8	322°00.9 -6°17.2	336°27.4 -6°05.7	350°54.0 -5°54.1	5°20.6 -5°42.5	19°47.2 -5°30.8	34°13.8 -5°19.1	+26.5 +11.5	16.6 60.8
	Me 2	250°56.8 -9°20.6	265°23.9 -2°08.6	279°51.0 -1°56.6	294°18.1 -1°44.5	308°45.2 -1°32.5	323°12.4 -1°20.4	337°39.6 -1°08.4	352°06.9 -0°56.3	6°34.1 -0°44.3	21°01.4 -0°32.2	35°28.2 -0°20.2	+27.2 +12.1	16.5 60.6
	Je 3	255°20.5 2°39.1	266°48.1 2°50.9	281°15.7 3°02.6	295°43.3 3°14.4	310°11.0 3°26.1	324°38.6 3°37.8	339°06.3 3°49.4	353°34.8 4°01.0	8°01.7 4°12.6	22°29.4 4°24.1	36°57.1 4°35.6	+27.7 +11.7	16.4 60.2
	Ve 4	253°54.1 7°23.0	268°21.9 7°33.7	282°49.8 7°44.4	297°17.7 7°55.0	311°45.6 8°05.6	326°13.4 8°16.2	340°41.3 8°26.6	355°09.2 8°37.0	9°37.1 8°47.4	24°05.0 8°57.6	38°32.9 9°07.8	+27.9 +10.5	16.2 59.5
	Sa 5	255°31.6 11°32.7	269°59.5 11°41.7	284°27.4 11°50.7	298°55.3 11°59.6	313°23.2 12°08.5	327°51.2 12°17.2	342°19.1 12°25.9	356°47.0 12°34.4	11°14.9 12°42.9	25°42.8 12°51.3	40°10.7 12°59.7	+27.9 +8.7	16.0 58.8
	Di 6	257°09.3 14°54.0	271°37.2 15°00.9	286°05.1 15°07.7	300°33.0 15°14.4	315°00.9 15°21.0	329°28.8 15°27.5	343°56.7 15°33.9	358°24.6 15°40.3	12°52.5 15°46.5	27°20.4 15°52.6	41°48.3 15°58.6	+27.9 +6.5	15.8 58.0
	Lu 7	258°47.3 17°17.1	273°15.2 17°21.5	287°43.2 17°25.8	302°11.2 17°30.0	316°39.9 17°34.2	331°07.2 17°38.2	345°35.2 17°42.1	0°03.2 17°45.9	14°31.2 17°49.6	28°59.2 17°53.2	43°27.3 17°56.6	+28.0 +4.0	15.6 57.2
	Ma 8	260°29.4 18°36.4	274°57.7 18°38.2	289°26.0 18°40.0	303°54.3 18°41.6	318°22.6 18°43.1	332°50.9 18°44.5	347°19.3 18°45.8	1°47.7 18°47.0	16°16.1 18°48.1	30°44.5 18°49.0	45°13.0 18°49.9	+28.4 +1.3	15.4 56.6
	Me 9	262°22.6 18°50.9	276°51.5 18°50.1	291°20.4 18°49.3	305°49.3 18°48.3	320°18.3 18°47.3	334°47.3 18°46.1	349°16.3 18°44.9	3°45.3 18°44.4	18°12.4 18°45.0	32°43.6 18°46.0	47°12.7 18°39.0	+29.0 -1.2	15.3 55.9
	Je 10	264°34.4 18°03.3	279°04.2 18°00.2	293°33.9 17°56.9	308°03.8 17°53.7	322°33.7 17°50.3	337°03.6 17°46.8	351°33.5 17°43.3	6°03.5 17°39.6	20°33.6 17°35.9	35°03.6 17°32.1	49°33.8 17°28.2	+29.9 -3.5	15.1 55.4
O	Ve 11	267°10.8 16°19.9	281°41.7 16°14.7	296°12.5 16°09.5	310°43.5 16°04.1	325°14.5 15°58.7	339°45.4 15°53.3	354°16.5 15°47.7	8°47.6 15°42.1	23°18.7 15°36.4	37°49.9 15°30.7	52°21.4 15°24.8	+31.0 -5.5	15.0 55.0
	Sa 12	270°15.0 13°49.4	284°46.9 13°42.6	299°18.9 13°35.6	313°50.9 13°28.7	328°23.3 13°21.6	342°55.1 13°14.5	357°27.3 13°07.4	11°59.5 13°00.2	26°31.7 13°02.2	41°04.0 12°52.9	55°36.3 12°45.6	+32.1 -7.1	14.9 54.6
	Di 13	273°46.1 10°41.8	288°19.1 10°33.3	302°52.1 10°25.5	317°25.1 10°17.3	331°58.2 10°09.0	346°31.3 10°00.7	361°04.4 9°52.4	15°37.6 9°44.0	30°10.8 9°35.6	44°44.1 9°27.2	59°17.4 9°18.7	+33.1 -8.3	14.8 54.3
	Lu 14	277°40.4 7°07.4	292°14.2 6°58.5	306°48.0 6°49.5	321°21.8 6°40.4	335°55.7 6°31.4	350°29.7 6°22.3	5°03.5 6°13.2	19°37.4 6°04.0	34°11.3 5°54.9	48°45.3 5°45.7	63°19.3 5°36.5	+33.9 -9.1	14.8 54.1
	Ma 15	281°51.6 3°16.5	296°25.9 3°07.1	311°00.2 2°57.6	325°34.5 2°48.2	340°08.9 2°38.7	354°43.2 2°29.2	9°17.5 2°19.7	23°51.9 2°10.2	38°26.3 2°00.7	53°00.7 1°51.2	67°35.1 1°41.7	+34.3 -9.5	14.7 54.0
	Me 16	286°11.7 -0°41.3	300°46.2 -0°50.8	315°20.6 -1°00.3	329°55.1 -1°09.8	344°29.5 -1°19.3	359°04.0 -1°28.8	13°38.5 -1°38.3	28°12.9 -1°47.8	42°47.4 -1°57.5	57°21.8 -2°06.8	71°56.2 -2°16.3	+34.5 -9.5	14.7 53.9
	Je 17	290°31.7 -4°36.8	305°06.0 -4°46.0	319°40.2 -4°55.2	334°14.5 -5°04.5	348°48.1 -5°13.6	363°22.9 -5°22.8	17°57.1 -5°32.0	32°31.7 -5°41.1	47°05.4 -5°50.2	61°39.9 -5°59.3	76°13.6 -6°08.3	+34.2 -9.2	14.7 54.0
	Ve 18	294°42.3 -8°21.1	309°16.0 -8°29.7	323°49.6 -8°38.3	338°23.3 -8°46.8	352°56.9 -8°55.3	7°30.4 -9°03.8	22°04.0 -9°12.3	36°37.5 -9°20.7	51°10.9 -9°29.0	65°44.4 -9°37.4	80°17.8 -9°45.7	+33.5 -8.5	14.8 54.3
	Sa 19	309°16.0 -8°29.7	323°49.6 -8°38.3	338°23.3 -8°46.8	352°56.9 -8°55.3	7°30.4 -9°03.8	22°04.0 -9°12.3	36°37.5 -9°20.7	51°10.9 -9°29.0	65°44.4 -9°37.4	80°17.8 -9°45.7	94°51.1 -9°53.9	+33.5 -8.4	14.8 54.3
O	Di 20	313°06.8 -11°52.9	327°39.6 -12°00.5	342°12.2 -12°08.0	356°44.8 -12°15.5	11°17.4 -12°22.9	25°50.0 -12°30.2	40°22.4 -12°37.6	54°54.9 -12°44.8	69°27.3 -12°52.1	83°59.6 -12°59.2	98°31.9 -13°06.3	+32.5 -7.3	14.9 54.7
	Lu 21	316°30.2 -14°46.2	331°01.7 -14°52.4	345°33.1 -14°58.5	360°04.4 -15°04.5	10°04.4 -15°10.5	14°35.7 -15°16.4	29°06.9 -15°22.2	43°38.1 -15°28.0	72°40.3 -15°33.7	87°11.3 -15°39.3	101°42.3 -15°49.4	+31.2 -5.9	15.1 55.2
	Ma 22	319°19.6 -16°59.5	333°49.6 -17°03.9	348°19.5 -17°08.2	362°49.4 -17°12.4	20°49.4 -17°16.5	31°49.0 -17°20.5	46°18.7 -17°24.4	60°48.3 -17°28.3	75°17.9 -17°32.1	89°47.5 -17°35.7	104°16.9 -17°39.3	+29.7 -4.0	15.2 59.5
	Me 23	321°31.8 -18°22.4	336°00.3 -18°24.5	350°28.7 -18°26.6	364°57.2 -18°28.5	19°25.3 -18°30.3	33°53.8 -18°32.0	48°22.0 -18°33.6	62°50.2 -18°35.3	77°18.3 -18°36.6	91°46.4 -18°37.9	106°14.4 -18°39.1	+28.3 -1.7	15.5 56.8
	Je 24	323°08.3 -18°44.7	337°35.5 -18°44.2	352°02.6 -18°43.6	366°29.7 -18°42.8	20°56.8 -18°42.0	35°23.8 -18°41.1	49°50.8 -18°40.0	64°17.7 -18°38.9	78°44.6 -18°37.6	93°11.4 -18°36.2	107°38.2 -18°34.7	+27.0 +1.0	15.7 57.7
	Ve 25	324°15.7 -17°58.3	338°41.9 -17°54.9	353°08.1 -17°51.4	367°34.2 -17°47.8	22°00.4 -17°44.1	36°26.5 -17°40.3	50°52.6 -17°36.4	65°18.7 -17°32.3	79°44.7 -17°28.1	94°10.7 -17°23.8	108°36.7 -17°19.4	+26.1 +3.9	16.0 58.7
	Sa 26	325°04.3 -15°59.5	339°30.0 -15°53.3	353°55.7 -15°46.9	368°21.4 -15°40.5	22°47.1 -15°33.9	37°12.8 -15°27.2	51°38.5 -15°20.4	66°04.1 -15°13.5	80°29.8 -15°06.5	94°55.4 -14°59.4	109°21.1 -14°52.2	+25.7 +6.7	16.3 59.7
	Di 27	325°45.6 -12°51.5	340°11.3 -12°42.6	354°36.9 -12°33.7	369°02.6 -12°24.7	23°28.2 -12°15.5	37°53.9 -12°06.3	52°19.9 -11°57.0	66°45.2 -11°47.6	81°10.9 -11°38.2	95°36.6 -11°28.6	110°02.3 -11°19.0	+25.7 +9.3	16.5 60.5
	Lu 28	326°28.8 -8°44.9	340°54.7 -8°34.0	355°20.5 -8°23.1	369°46.4 -8°12.1	24°12.3 -8°01.1	38°38.2 -7°50.0	53°04.1 -7°38.8	67°30.0 -7°27.6	81°56.6 -7°16.4	96°21.9 -7°05.0	110°47.9 -6°53.7	+25.9 +11.1	16.7 61.1

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PQ: 6 13h34 — PL: 14 07h04 — DQ: 22 11h53

SOLEIL

Mars 2033

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ma 1	266°55.7 -7°27.1	281°55.8 -7°26.2	296°56.0 -7°25.2	311°56.1 -7°24.3	326°56.2 -7°23.3	341°56.3 -7°22.4	356°56.4 -7°21.4	11°56.6 -7°20.5	26°56.7 -7°19.5	41°56.8 -7°18.6	56°56.9 -7°17.6	71°57.1 -7°16.7	+0.1 +1.0
Me 2	266°58.7 -7°04.2	281°58.8 -7°03.3	296°58.9 -7°02.3	311°59.1 -7°01.4	326°59.2 -7°00.4	341°59.3 -6°59.5	356°59.4 -6°58.5	11°59.6 -6°57.5	26°59.7 -6°56.6	41°59.8 -6°55.6	57°00.0 -6°54.7	72°00.1 -6°53.7	+0.1 +1.0
Je 3	267°01.8 -6°41.2	282°01.9 -6°40.3	297°02.0 -6°39.3	312°02.2 -6°38.4	327°02.3 -6°37.4	342°02.4 -6°36.4	357°02.6 -6°35.5	12°02.7 -6°34.5	27°02.7 -6°33.6	42°03.0 -6°32.6	57°03.1 -6°31.6	72°03.2 -6°30.7	+0.1 +1.0
Ve 4	267°05.0 -6°18.2	282°05.1 -6°17.2	297°05.2 -6°16.2	312°05.4 -6°15.3	327°05.5 -6°14.3	342°05.7 -6°13.3	357°05.8 -6°12.4	12°05.9 -6°11.4	27°06.1 -6°10.4	42°06.2 -6°09.5	57°06.3 -6°08.5	72°06.5 -6°07.5	+0.1 +1.0
Sa 5	267°08.3 -5°55.0	282°08.4 -5°54.0	297°08.6 -5°53.0	312°08.7 -5°52.1	327°08.9 -5°51.1	342°09.0 -5°50.1	357°09.1 -5°49.2	12°09.3 -5°48.2	27°09.4 -5°47.2	42°09.6 -5°46.3	57°09.7 -5°45.3	72°09.9 -5°44.3	+0.1 +1.0
Di 6	267°11.7 -5°31.7	282°11.9 -5°30.8	297°12.0 -5°29.8	312°12.2 -5°28.8	327°12.3 -5°27.8	342°12.5 -5°26.9	357°12.6 -5°25.9	12°12.7 -5°24.9	27°12.9 -5°24.0	42°13.0 -5°23.0	57°13.2 -5°22.0	72°13.3 -5°21.0	+0.1 +1.0
Lu 7	267°15.3 -5°08.4	282°15.4 -5°07.4	297°15.6 -5°06.5	312°15.7 -5°05.5	327°15.9 -5°04.5	342°16.0 -5°03.5	357°16.2 -5°02.6	12°16.3 -5°01.6	27°16.5 -5°00.6	42°16.6 -4°59.6	57°16.8 -4°58.7	72°16.9 -4°57.7	+0.2 +1.0
Ma 8	267°18.9 -4°45.0	282°19.1 -4°44.0	297°19.2 -4°43.1	312°19.4 -4°42.1	327°19.5 -4°41.1	342°19.7 -4°40.1	357°19.8 -4°39.1	12°20.0 -4°38.2	27°20.1 -4°37.2	42°20.3 -4°36.2	57°20.4 -4°35.2	72°20.6 -4°34.3	+0.2 +1.0
Me 9	267°22.6 -4°21.6	282°22.8 -4°20.6	297°23.0 -4°19.6	312°23.1 -4°18.6	327°23.3 -4°17.6	342°23.4 -4°16.7	357°23.6 -4°15.7	12°23.7 -4°14.7	27°23.7 -4°13.7	42°24.1 -4°12.7	57°24.2 -4°11.8	72°24.4 -4°10.8	+0.2 +1.0
Je 10	267°26.5 -3°58.0	282°26.6 -3°57.1	297°26.8 -3°56.1	312°27.0 -3°55.1	327°27.1 -3°54.1	342°27.3 -3°53.1	357°27.4 -3°52.2	12°27.6 -3°51.2	27°27.8 -3°50.2	42°27.9 -3°49.2	57°28.1 -3°48.2	72°28.2 -3°47.3	+0.2 +1.0
Ve 11	267°30.4 -3°34.5	282°30.5 -3°33.5	297°30.7 -3°32.5	312°30.9 -3°31.5	327°31.0 -3°30.6	342°31.2 -3°29.6	357°31.4 -3°28.6	12°31.5 -3°27.6	27°31.7 -3°26.6	42°31.9 -3°25.6	57°32.0 -3°24.7	72°32.2 -3°23.7	+0.2 +1.0
Sa 12	267°34.4 -3°10.9	282°34.5 -3°09.9	297°34.7 -3°08.9	312°34.9 -3°07.9	327°35.0 -3°07.0	342°35.2 -3°06.0	357°35.4 -3°05.0	12°35.6 -3°04.0	27°35.7 -3°03.3	42°35.9 -3°02.0	57°36.1 -3°01.1	72°36.2 -3°00.1	+0.2 +1.0
Di 13	267°38.4 -2°47.3	282°38.6 -2°46.3	297°38.8 -2°45.3	312°39.0 -2°44.3	327°39.1 -2°43.3	342°39.3 -2°42.3	357°39.5 -2°41.4	12°39.6 -2°40.4	27°39.8 -2°39.4	42°40.0 -2°38.4	57°40.2 -2°37.4	72°40.3 -2°36.4	+0.2 +1.0
Lu 14	267°42.6 -2°23.6	282°42.8 -2°22.6	297°42.9 -2°21.6	312°43.1 -2°20.6	327°43.3 -2°19.7	342°43.4 -2°18.7	357°43.6 -2°17.7	12°43.8 -2°16.7	27°44.0 -2°15.7	42°44.1 -2°14.7	57°44.3 -2°13.7	72°44.5 -2°12.8	+0.2 +1.0
Ma 15	267°46.8 -1°59.9	282°47.0 -1°58.9	297°47.1 -1°57.9	312°47.3 -1°57.0	327°47.5 -1°56.0	342°47.7 -1°55.0	357°47.8 -1°54.0	12°48.0 -1°53.0	27°48.2 -1°52.0	42°48.4 -1°51.0	57°48.5 -1°50.0	72°48.7 -1°49.1	+0.2 +1.0
Me 16	267°51.0 -1°36.2	282°51.2 -1°35.2	297°51.4 -1°34.2	312°51.6 -1°33.3	327°51.8 -1°32.3	342°51.9 -1°31.3	357°52.1 -1°30.3	12°52.3 -1°29.3	27°52.5 -1°28.3	42°52.6 -1°27.3	57°52.8 -1°26.3	72°53.0 -1°25.4	+0.2 +1.0
Je 17	267°55.3 -1°12.5	282°55.5 -1°11.5	297°55.7 -1°10.5	312°55.9 -1°09.5	327°56.1 -1°08.6	342°56.2 -1°07.6	357°56.4 -1°06.6	12°56.6 -1°05.6	27°56.8 -1°04.6	42°57.0 -1°03.6	57°57.2 -1°02.6	72°57.4 -1°01.6	+0.2 +1.0
Ve 18	267°59.7 -0°48.8	282°59.9 -0°47.8	298°00.1 -0°46.8	313°00.2 -0°45.8	328°00.4 -0°44.8	343°00.6 -0°43.8	358°00.8 -0°42.9	13°01.0 -0°41.9	28°01.2 -0°40.9	43°01.3 -0°39.9	58°01.5 -0°38.9	73°01.7 -0°37.9	+0.2 +1.0
Sa 19	268°04.1 -0°25.1	283°04.3 -0°24.1	298°04.5 -0°23.1	313°04.6 -0°22.1	328°04.8 -0°21.1	343°05.0 -0°20.1	358°05.2 -0°19.1	13°05.4 -0°18.2	28°05.6 -0°17.2	43°05.7 -0°16.2	58°05.9 -0°15.2	73°06.1 -0°14.2	+0.2 +1.0
Di 20	268°08.5 -0°01.4	283°08.7 -0°00.4	298°08.9 0°00.6	313°09.1 0°01.6	328°09.3 0°02.6	343°09.4 0°03.6	358°09.6 0°04.6	13°09.8 0°05.6	28°10.0 0°06.5	43°10.2 0°07.5	58°10.4 0°08.5	73°10.6 0°09.5	+0.2 +1.0
Lu 21	268°13.0 0°22.3	283°13.2 0°23.3	298°13.3 0°24.3	313°13.5 0°25.3	328°13.7 0°26.3	343°13.9 0°27.3	358°14.1 0°28.3	13°14.3 0°29.3	28°14.5 0°30.2	43°14.7 0°31.2	58°14.8 0°32.2	73°15.0 0°33.2	+0.2 +1.0
Ma 22	268°17.5 0°46.0	283°17.6 0°47.0	298°17.8 0°48.0	313°18.0 0°49.0	328°18.2 0°50.0	343°18.4 0°51.0	358°18.6 0°51.9	13°18.8 0°52.9	28°19.0 0°53.9	43°19.1 0°54.9	58°19.3 0°55.9	73°19.5 0°56.9	+0.2 +1.0
Me 23	268°21.9 1°09.7	283°22.1 1°10.7	298°22.3 1°11.7	313°22.5 1°12.6	328°22.7 1°13.6	343°22.9 1°14.6	358°23.1 1°15.6	13°23.3 1°16.6	28°23.5 1°17.6	43°23.6 1°18.6	58°23.8 1°19.5	73°20.0 1°20.5	+0.2 +1.0
Je 24	268°26.5 1°33.3	283°26.6 1°34.3	298°26.8 1°35.3	313°27.0 1°36.3	328°27.2 1°37.3	343°27.4 1°38.2	358°27.6 1°39.2	13°27.6 1°40.2	28°28.0 1°41.2	43°28.1 1°42.2	58°28.3 1°43.2	73°28.5 1°44.1	+0.2 +1.0
Ve 25	268°31.0 1°56.9	283°31.2 1°57.9	298°31.3 1°58.9	313°31.5 1°59.9	328°31.7 2°00.8	343°31.9 2°01.8	358°32.1 2°02.8	13°32.3 2°03.8	28°32.5 2°04.8	43°32.7 2°05.8	58°32.8 2°06.7	73°33.0 2°07.7	+0.2 +1.0
Sa 26	268°35.5 2°20.5	283°35.7 2°21.4	298°35.9 2°22.4	313°36.0 2°23.4	328°36.2 2°24.4	343°36.4 2°25.4	358°36.6 2°26.3	13°36.8 2°27.3	28°37.0 2°28.3	43°37.2 2°29.3	58°37.5 2°30.3	73°37.5 2°31.2	+0.2 +1.0
Di 27	268°40.0 2°44.0	283°40.2 2°45.0	298°40.4 2°45.9	313°40.6 2°46.9	328°40.8 2°47.9	343°40.9 2°48.9	358°41.1 2°49.8	13°41.3 2°50.8	28°41.5 2°51.8	43°41.7 2°52.8	58°41.9 2°53.8	73°42.1 2°54.7	+0.2 +1.0
Lu 28	268°44.5 3°07.4	283°44.7 3°08.4	298°44.9 3°09.4	313°45.1 3°10.4	328°45.3 3°11.3	343°45.4 3°12.3	358°45.6 3°13.3	13°45.8 3°14.3	28°46.0 3°15.2	43°46.2 3°16.2	58°46.4 3°17.2	73°46.5 3°18.2	+0.2 +1.0
Ma 29	268°49.0 3°30.8	283°49.2 3°31.8	298°49.4 3°32.8	313°49.5 3°33.7	328°49.7 3°34.7	343°49.9 3°35.7	358°50.1 3°36.7	13°50.3 3°37.6	28°50.5 3°38.6	43°50.7 3°39.6	58°50.8 3°40.5	73°51.0 3°41.5	+0.2 +1.0
Me 30	268°53.4 3°54.1	283°53.6 3°55.1	298°53.8 3°56.1	313°54.0 3°57.1	328°54.2 3°58.0	343°54.4 3°59.0	358°54.6 4°00.0	13°54.8 4°00.9	28°54.9 4°01.9	43°55.1 4°02.9	58°55.3 4°03.8	73°55.5 4°04.8	+0.2 +1.0
Je 31	268°57.9 4°17.4	283°58.1 4°18.4	298°58.3 4°19.3	313°58.5 4°20.3	328°58.6 4°21.3	343°58.8 4°22.2	358°59.0 4°23.2	13°59.2 4°24.2	28°59.5 4°25.1	43°59.6 4°26.1	58°59.8 4°27.1	73°59.9 4°28.0	+0.2 +1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.1'

LUNE

Mars 2033

	J	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	Δ /h	SP
●	Ma 1	240°42.1 -5°09.2	255°08.1 -4°57.4	269°34.4 -4°45.5	284°00.3 -4°33.6	298°26.5 -4°21.7	312°52.6 -3°57.8	327°18.7 -3°45.8	341°44.9 -3°33.8	356°11.0 -3°21.7	10°37.2 -3°09.6	25°03.4 -2°50.8	+26.1	16.7
	Me 2	241°37.5 -0°06.7	256°03.8 0°05.6	270°30.2 0°17.8	284°56.6 0°30.0	299°22.9 0°42.9	313°49.3 0°54.4	328°15.7 1°06.6	342°42.1 1°18.8	357°08.5 1°31.0	11°34.9 1°43.2	26°01.4 1°55.3	+26.4	16.7
	Je 3	242°38.4 4°54.4	257°04.9 5°06.1	271°31.4 5°17.7	285°58.0 5°29.3	300°24.5 5°40.8	314°51.0 5°52.3	329°17.5 6°03.8	343°44.1 6°15.2	358°10.6 6°26.5	12°37.2 6°37.8	27°03.2 6°49.1	+26.5	16.6
	Ve 4	243°42.2 9°30.5	258°08.8 9°40.7	272°35.4 9°50.9	287°02.0 10°01.0	301°28.5 10°11.0	315°55.1 10°20.9	330°21.7 10°30.8	344°48.3 10°40.5	359°14.9 10°50.2	13°41.6 10°59.8	28°08.2 11°09.4	+26.6	16.4
	Sa 5	244°47.7 13°22.0	259°14.4 13°30.1	273°41.1 13°38.1	288°07.8 13°46.0	302°34.5 13°53.8	317°01.2 14°01.6	331°27.9 14°09.2	345°54.6 14°16.7	0°21.3 14°24.2	14°48.1 14°31.5	29°14.8 14°38.7	+26.7	16.2
●	Di 6	245°57.1 16°14.9	260°24.0 16°20.5	274°51.0 16°26.0	289°17.9 16°31.3	303°44.9 16°36.6	318°11.9 16°41.7	332°38.9 16°46.7	347°05.9 16°51.7	1°32.9 16°56.5	16°00.0 17°01.2	30°27.0 17°05.8	+27.0	15.9
	Lu 7	247°15.6 18°01.8	261°43.1 18°04.7	276°10.5 18°07.4	290°38.0 18°10.0	305°05.5 18°12.6	319°33.1 18°15.0	334°00.7 18°17.3	348°28.3 18°19.5	2°55.9 18°21.6	17°23.6 18°23.6	31°51.2 18°25.5	+27.6	15.7
	Ma 8	248°50.7 18°15.6	263°18.9 18°13.3	277°47.2 18°11.0	292°15.6 18°08.5	306°43.9 18°06.0	321°12.3 18°03.3	335°40.8 18°00.6	350°09.3 17°57.8	4°37.8 17°54.4	19°06.4 21°15.1	33°35.0 25°44.8	+28.4	15.4
	Me 9	250°49.5 18°15.6	265°18.8 18°13.3	279°48.2 18°11.0	294°17.6 18°08.5	308°47.1 18°06.0	323°16.6 18°03.3	337°46.1 18°00.6	352°15.7 17°57.8	6°45.4 17°54.4	21°15.1 17°51.9	35°44.9 17°48.8	+29.5	15.2
	Je 10	253°17.0 16°52.4	267°47.6 16°47.9	282°18.2 16°43.4	296°48.8 16°38.9	311°19.5 16°34.2	325°50.2 16°29.5	340°21.0 16°24.7	354°51.8 16°19.8	9°22.7 16°14.9	23°53.6 16°09.8	38°24.6 16°04.9	+30.8	15.0
●	Ve 11	256°15.1 14°39.8	270°46.8 14°33.6	285°18.8 14°27.3	299°50.4 14°21.0	314°22.3 14°14.6	328°54.2 14°08.2	343°26.2 14°01.7	357°58.2 13°55.1	12°30.3 13°48.5	27°02.4 13°41.8	41°34.5 13°35.1	+31.9	14.9
	Sa 12	259°41.8 11°47.4	274°14.6 11°39.9	288°47.5 11°32.2	303°20.4 11°24.5	317°53.3 11°16.8	332°26.2 11°09.1	346°59.2 11°01.2	1°32.3 10°53.4	16°05.4 10°45.5	30°38.5 10°37.5	45°11.6 10°29.5	+33.0	14.8
	Di 13	263°32.7 8°25.0	278°06.3 8°16.4	292°40.6 8°07.8	307°13.7 7°59.2	321°47.4 7°50.5	336°21.2 7°41.8	350°54.9 7°33.0	5°28.8 7°24.3	20°02.8 7°15.5	34°36.4 7°06.6	49°10.3 6°57.8	+33.8	14.7
	Lu 14	267°41.0 4°42.1	282°15.2 4°32.9	296°49.4 4°23.7	311°23.6 4°14.4	325°57.9 4°05.2	340°32.1 3°55.9	355°06.4 3°46.6	9°40.7 3°37.3	24°15.0 3°28.0	38°49.3 3°18.7	53°23.6 3°09.3	+34.3	14.7
	Ma 15	271°59.2 0°48.1	286°33.6 0°38.7	301°08.8 0°29.2	315°42.4 0°19.7	330°16.4 0°10.3	344°51.2 0°00.8	359°25.7 -0°08.6	14°00.1 -0°18.1	28°34.5 -0°27.6	43°08.9 -0°37.0	57°43.3 -0°46.5	+34.4	14.7
○	Me 16	276°18.8 -3°07.7	290°53.1 -3°17.0	305°27.4 -3°26.3	320°01.6 -3°35.7	334°35.9 -3°45.0	349°10.2 -3°54.2	3°44.4 -4°03.5	18°18.6 -4°12.8	32°52.8 -4°22.0	47°27.0 -4°31.2	62°01.2 -4°40.4	+34.2	14.7
	Je 17	280°31.6 -6°56.0	295°05.4 -7°04.9	309°39.2 -7°13.7	324°13.0 -7°22.5	338°46.8 -7°31.3	353°20.6 -7°40.0	7°54.3 -7°48.7	22°28.0 -7°57.4	37°01.7 -8°06.0	51°35.3 -8°14.6	66°08.9 -8°23.2	+33.7	14.8
	Ve 18	284°29.6 -10°27.6	299°02.7 -10°35.5	313°35.7 -10°43.5	328°08.8 -10°51.4	342°41.8 -10°59.2	357°14.7 -11°07.0	11°47.7 -11°14.8	26°20.6 -11°22.5	40°53.4 -11°30.1	55°26.2 -11°37.8	69°59.0 -11°45.3	+32.9	14.8
	Sa 19	288°05.8 -13°32.7	302°37.9 -13°39.4	317°10.0 -13°46.1	331°42.0 -13°52.7	346°14.0 -13°59.2	0°46.0 -14°05.7	15°17.9 -14°12.1	29°49.7 -14°18.5	44°21.5 -14°24.8	58°53.3 -14°30.1	73°25.0 -14°37.2	+31.9	14.9
	Di 20	291°15.1 -16°01.7	305°46.1 -16°06.8	320°17.0 -16°11.8	334°47.9 -16°16.7	349°18.7 -16°21.6	3°49.5 -16°26.4	18°20.2 -16°31.1	32°50.9 -16°35.7	47°21.5 -16°40.2	61°52.1 -16°44.7	76°22.6 -16°49.1	+30.7	15.0
●	Lu 21	305°46.1 -16°06.8	320°17.0 -16°11.8	334°47.9 -16°16.7	349°18.7 -16°21.6	3°49.5 -16°26.4	18°20.2 -16°31.1	32°50.9 -16°35.7	47°21.5 -16°40.2	61°52.1 -16°44.7	76°22.6 -16°49.1	90°53.1 -16°53.4	+30.7	15.1
	Ma 22	308°24.6 -17°48.2	322°54.3 -17°51.1	337°23.9 -17°54.0	351°53.6 -17°56.8	6°23.1 -17°59.5	20°52.7 -18°02.1	35°22.2 -18°04.6	49°51.6 -18°07.0	64°21.0 -18°09.4	78°50.4 -18°11.6	93°19.7 -18°13.8	+29.5	15.2
	Me 23	310°34.0 -18°34.6	325°02.6 -18°35.2	339°31.2 -18°35.7	353°59.7 -18°36.1	8°28.2 -18°36.4	22°56.7 -18°36.6	37°25.1 -18°36.7	51°53.3 -18°36.7	66°21.8 -18°36.6	80°50.1 -18°36.4	95°18.4 -18°36.1	+28.4	15.4
	Je 24	312°18.4 -18°18.8	326°46.1 -18°16.8	341°13.9 -18°14.7	355°41.6 -18°12.5	10°09.2 -18°10.2	24°36.8 -18°07.8	39°04.4 -18°05.2	53°32.0 -18°02.6	67°59.6 -17°59.9	82°57.0 -17°57.1	96°54.6 -17°54.0	+27.6	15.7
	Ve 25	313°44.4 -16°56.6	328°11.6 -16°51.9	342°38.7 -16°47.1	357°05.9 -16°42.2	11°33.0 -16°37.2	26°00.1 -16°32.1	40°27.1 -16°26.9	54°54.2 -16°21.6	69°21.3 -16°16.1	83°48.3 -16°10.6	98°15.3 -16°05.5	+27.1	15.9
●	Sa 26	314°59.3 -14°28.0	329°26.2 -14°20.7	343°53.0 -14°13.3	358°19.8 -14°05.8	12°46.7 -13°58.3	27°13.5 -13°50.6	41°40.3 -13°42.9	56°07.1 -13°35.0	70°33.9 -13°27.1	85°00.7 -13°19.0	99°27.5 -13°10.9	+26.8	16.2
	Di 27	316°08.9 -10°58.2	330°35.6 -10°54.9	345°02.3 -10°39.0	359°29.1 -10°29.4	13°55.8 -10°19.6	28°22.2 -10°09.8	42°49.2 -9°59.9	57°15.9 -9°49.9	71°42.6 -9°39.8	86°09.3 -9°29.7	100°36.0 -9°19.5	+26.7	16.4
	Lu 28	317°16.0 -6°38.6	331°42.7 -6°27.5	346°09.3 -6°16.2	0°35.9 -6°04.9	15°02.6 -5°53.6	29°29.2 -5°42.2	43°55.8 -5°30.8	58°22.4 -5°19.3	72°49.0 -5°07.8	87°15.6 -4°56.2	101°42.2 -4°44.6	+26.6	16.6
	Ma 29	318°20.3 -1°46.7	332°46.8 -1°34.6	347°13.3 -1°22.5	1°39.8 -1°10.5	16°06.2 -1°05.4	30°32.7 -0°46.3	44°59.1 -0°34.1	59°25.5 -0°22.0	73°51.5 -0°09.9	88°18.3 0°02.2	103°44.7 0°14.4	+26.4	16.7
	Me 30	319°19.3 3°15.8	333°45.5 3°27.7	348°11.7 3°39.7	1°37.2 3°31.6	17°04.0 4°03.5	31°30.1 4°15.4	45°56.3 4°27.2	60°22.4 4°39.0	74°48.5 4°50.8	89°14.6 5°02.5	103°40.7 5°14.2	+26.1	16.7
●	Je 31	320°10.3 8°04.3	334°36.1 8°15.3	349°02.0 8°26.1	3°27.8 8°36.9	17°53.7 8°47.6	32°19.5 8°58.3	46°45.3 9°08.9	61°11.1 9°19.4	75°36.8 9°29.9	90°02.6 9°40.2	104°28.3 9°50.5	+25.8	16.6
													+10.6	16.1

Ligne 1: GHA, Δ /h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (= Sud), Δ /h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

NL: 1 08h23 — PQ: 8 01h27 — PL: 16 01h37 — DQ: 24 01h49 — NL: 30 17h51

SOLEIL

Avril 2033

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ve 1	269°02.3 4°40.6	284°02.5 4°41.5	299°02.7 4°42.5	314°02.9 4°43.5	329°03.1 4°44.4	344°03.3 4°45.4	359°03.4 4°46.4	14°03.6 4°47.3	29°03.8 4°48.3	44°04.0 4°49.2	59°04.2 4°50.2	74°04.4 4°51.2	+0.2 +1.0
Sa 2	269°06.7 5°03.7	284°06.9 5°04.6	299°07.1 5°05.6	314°07.3 5°06.5	329°07.5 5°07.5	344°07.6 5°08.5	359°07.8 5°09.4	14°08.0 5°10.4	29°08.2 5°11.3	44°08.4 5°12.3	59°08.6 5°13.3	74°08.7 5°14.2	+0.2 +1.0
Di 3	269°11.1 5°26.7	284°11.3 5°27.6	299°11.5 5°28.6	314°11.6 5°29.5	329°11.8 5°30.5	344°12.0 5°31.4	359°12.2 5°32.4	14°12.4 5°33.4	29°12.6 5°34.3	44°12.7 5°35.3	59°12.9 5°36.2	74°13.1 5°37.2	+0.2 +1.0
Lu 4	269°15.4 5°49.6	284°15.6 5°50.5	299°15.8 5°51.5	314°16.0 5°52.4	329°16.2 5°53.4	344°16.3 5°54.3	359°16.5 5°55.3	14°16.7 5°56.2	29°16.9 5°57.2	44°17.1 5°58.1	59°17.2 5°59.1	74°17.4 6°00.0	+0.2 +1.0
Ma 5	269°19.7 6°12.4	284°19.9 6°13.3	299°20.1 6°14.3	314°20.3 6°15.2	329°20.5 6°16.2	344°20.6 6°17.1	359°20.8 6°18.0	14°21.0 6°19.0	29°21.2 6°19.9	44°21.3 6°20.9	59°21.5 6°21.8	74°21.7 6°22.8	+0.2 +0.9
Me 6	269°24.0 6°35.1	284°24.2 6°36.0	299°24.3 6°36.9	314°24.5 6°37.9	329°24.7 6°38.8	344°24.9 6°39.8	359°25.1 6°40.7	14°25.2 6°41.7	29°25.4 6°42.6	44°25.6 6°43.5	59°25.8 6°44.5	74°25.9 6°45.4	+0.2 +0.9
Je 7	269°28.2 7°05.6	284°28.4 7°06.5	299°28.6 7°07.5	314°28.7 7°08.4	329°28.9 7°09.3	344°29.1 7°10.2	359°29.2 7°11.1	14°29.4 7°12.1	29°29.6 7°12.9	44°29.8 7°13.7	59°29.9 7°14.6	74°30.1 7°15.0	+0.2 +0.9
Ve 8	269°32.4 7°20.1	284°32.5 7°21.0	299°32.7 7°22.0	314°32.9 7°22.9	329°33.0 7°23.8	344°33.2 7°24.8	359°33.4 7°25.7	14°33.6 7°26.6	29°33.7 7°27.5	44°33.9 7°28.5	59°34.1 7°29.4	74°34.2 7°30.3	+0.2 +0.9
Sa 9	269°36.5 7°42.4	284°36.6 7°43.3	299°36.8 7°44.3	314°37.0 7°45.2	329°37.1 7°46.1	344°37.3 7°47.1	359°37.5 7°48.0	14°37.6 7°48.9	29°37.8 7°49.8	44°38.0 7°50.8	59°38.2 7°51.7	74°38.3 7°52.6	+0.2 +0.9
Di 10	269°40.5 8°04.6	284°40.7 8°05.5	299°40.8 8°06.5	314°41.0 8°07.4	329°41.2 8°08.3	344°41.3 8°09.2	359°41.5 8°10.2	14°41.7 8°11.1	29°41.9 8°12.0	44°42.0 8°12.9	59°42.2 8°13.8	74°42.3 8°14.8	+0.2 +0.9
Lu 11	269°44.5 8°26.7	284°44.6 8°27.6	299°44.8 8°28.5	314°45.0 8°29.4	329°45.1 8°30.4	344°45.3 8°31.3	359°45.5 8°32.2	14°45.5 8°33.1	29°45.8 8°34.0	44°45.9 8°34.9	59°46.1 8°35.8	74°46.3 8°36.9	+0.2 +0.9
Ma 12	269°48.4 8°48.6	284°48.5 8°49.5	299°48.7 8°50.4	314°48.9 8°51.3	329°49.0 8°52.2	344°49.2 8°53.2	359°49.3 8°54.1	14°49.5 8°55.0	29°49.7 8°55.9	44°49.8 8°56.8	59°50.0 8°57.7	74°50.1 8°58.6	+0.2 +0.9
Me 13	269°52.2 9°10.4	284°52.4 9°11.3	299°52.5 9°12.2	314°52.7 9°13.1	329°52.8 9°14.0	344°53.0 9°14.9	359°53.1 9°15.8	14°53.3 9°16.7	29°53.5 9°17.6	44°53.6 9°18.5	59°53.8 9°19.4	74°53.9 9°20.3	+0.2 +0.9
Je 14	269°55.9 9°32.0	284°56.1 9°32.9	299°56.3 9°33.8	314°56.4 9°34.7	329°56.6 9°35.6	344°56.7 9°36.5	359°56.9 9°37.4	14°57.0 9°38.3	29°57.2 9°39.2	44°57.3 9°40.1	59°57.5 9°41.0	74°57.6 9°41.9	+0.2 +0.9
Ve 15	269°59.6 9°53.5	284°59.8 9°54.4	299°59.9 9°55.2	315°00.0 9°56.1	330°00.2 9°57.0	345°00.4 9°57.9	0°00.5 9°58.8	15°00.7 9°59.7	30°00.8 10°00.6	45°01.0 10°01.5	60°01.1 10°02.4	75°01.3 10°03.3	+0.1 +0.9
Sa 16	270°03.2 10°14.8	285°03.4 10°15.7	300°03.5 10°16.5	315°03.6 10°17.4	330°03.8 10°18.3	345°03.9 10°19.2	0°04.1 10°20.1	15°04.2 10°20.9	30°04.3 10°21.8	45°04.5 10°22.7	60°04.6 10°23.6	75°04.8 10°24.5	+0.1 +0.9
Di 17	270°06.7 10°35.9	285°06.8 10°36.8	300°06.9 10°37.7	315°07.1 10°38.5	330°07.2 10°39.4	345°07.4 10°40.3	0°07.5 10°41.2	15°07.6 10°42.0	30°07.8 10°42.9	45°07.9 10°43.8	60°08.1 10°44.7	75°08.2 10°45.5	+0.1 +0.9
Lu 18	270°10.0 10°56.9	285°10.2 10°57.7	300°10.3 10°58.6	315°10.4 10°59.5	330°10.6 11°00.3	345°10.7 11°01.2	0°10.9 11°02.1	15°11.0 11°02.9	30°11.1 11°03.8	45°11.3 11°04.7	60°11.4 11°05.5	75°11.5 11°06.4	+0.1 +0.9
Ma 19	270°13.3 11°17.6	285°13.4 11°18.5	300°13.6 11°19.4	315°13.7 11°20.2	330°13.8 11°21.1	345°14.0 11°21.9	0°14.1 11°22.8	15°14.2 11°23.7	30°14.4 11°24.5	45°14.5 11°25.4	60°14.6 11°26.2	75°14.8 11°27.1	+0.1 +0.9
Me 20	270°16.5 11°38.2	285°16.6 11°39.1	300°16.7 11°39.9	315°16.9 11°40.8	330°17.0 11°41.6	345°17.1 11°42.5	0°17.2 11°43.3	15°17.4 11°44.2	30°17.5 11°45.0	45°17.6 11°45.9	60°17.8 11°46.7	75°17.9 11°47.6	+0.1 +0.9
Je 21	270°19.5 11°58.6	285°19.7 11°59.5	300°19.8 12°00.3	315°19.9 12°01.2	330°20.0 12°02.0	345°20.2 12°02.9	0°20.3 12°03.7	15°20.4 12°04.5	30°20.5 12°05.1	45°20.6 12°06.2	60°20.8 12°07.1	75°20.9 12°07.9	+0.1 +0.8
Ve 22	270°22.5 12°18.8	285°22.6 12°19.7	300°22.7 12°20.5	315°22.8 12°21.3	330°22.9 12°22.2	345°23.1 12°23.0	0°23.2 12°23.9	15°23.3 12°24.7	30°23.4 12°25.5	45°23.5 12°26.4	60°23.7 12°27.4	75°23.8 12°28.0	+0.1 +0.8
Sa 23	270°25.3 12°38.8	285°25.4 12°39.7	300°25.5 12°40.5	315°25.6 12°41.3	330°25.8 12°42.1	345°25.9 12°43.0	0°26.0 12°43.8	15°26.1 12°44.6	30°26.2 12°45.5	45°26.3 12°46.3	60°26.5 12°47.1	75°26.5 12°47.9	+0.1 +0.8
Di 24	270°28.2 12°58.6	285°28.1 12°59.5	300°28.2 13°00.3	315°28.3 13°01.1	330°28.4 13°01.9	345°28.5 13°02.7	0°28.7 13°03.5	15°28.8 13°04.4	30°28.9 13°05.1	45°29.0 13°06.0	60°29.1 13°06.8	75°29.2 13°07.6	+0.1 +0.8
Lu 25	270°30.6 13°18.2	285°30.7 13°19.0	300°30.8 13°19.8	315°30.9 13°20.6	330°31.0 13°21.5	345°31.1 13°22.3	0°31.2 13°23.1	15°31.3 13°23.9	30°31.4 13°24.7	45°31.5 13°25.5	60°31.6 13°26.3	75°31.7 13°27.1	+0.1 +0.8
Ma 26	270°33.0 13°37.6	285°33.1 13°38.4	300°33.2 13°39.2	315°33.3 13°40.0	330°33.4 13°40.8	345°33.5 13°41.6	0°33.6 13°42.4	15°33.7 13°43.2	30°33.8 13°44.0	45°33.9 13°44.8	60°34.0 13°45.6	75°34.1 13°46.4	+0.1 +0.8
Me 27	270°35.3 13°56.7	285°35.4 13°57.5	300°35.5 13°58.3	315°35.6 13°59.1	330°35.7 13°59.9	345°35.8 14°00.7	0°35.9 14°01.5	15°36.0 14°02.3	30°36.1 14°03.1	45°36.2 14°03.8	60°36.3 14°04.6	75°36.4 14°05.4	+0.1 +0.8
Je 28	270°37.5 14°15.6	285°37.6 14°16.4	300°37.7 14°17.2	315°37.8 14°18.0	330°37.9 14°18.8	345°38.0 14°19.5	0°38.1 14°20.3	15°38.2 14°21.1	30°38.2 14°21.9	45°38.3 14°22.7	60°38.4 14°23.4	75°38.5 14°24.2	+0.1 +0.8
Ve 29	270°39.6 14°34.3	285°39.7 14°35.1	300°39.8 14°35.9	315°39.9 14°36.6	330°39.9 14°37.4	345°40.0 14°38.2	0°40.1 14°38.9	15°40.2 14°39.7	30°40.3 14°40.5	45°40.4 14°41.3	60°40.4 14°42.0	75°40.5 14°42.8	+0.1 +0.8
Sa 30	270°41.5 14°52.7	285°41.6 14°53.5	300°41.7 14°54.3	315°41.8 14°55.0	330°41.9 14°55.8	345°41.9 14°56.6	0°42.0 14°57.3	15°42.1 14°58.1	30°42.2 14°58.8	45°42.2 14°59.6	60°42.3 15°00.4	75°42.4 15°01.1	+0.1 +0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Avril 2033

	J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	Δ'/h	SP
	Ve 1	248°45.3	263°10.9	277°36.6	292°02.2	306°27.8	320°53.4	335°19.0	349°44.6	4°10.2	18°35.8	33°01.4	+25.6	16.5
		11°29.4	11°38.8	11°48.2	11°57.4	12°06.6	12°15.7	12°24.7	12°33.6	12°42.4	12°51.1	12°59.7	+9.0	60.5
	Sa 2	240°25.1	263°50.7	278°16.3	293°41.9	307°07.5	321°33.1	335°58.7	350°24.4	4°50.0	19°15.7	33°41.3	+25.6	16.3
		15°07.0	15°04.0	15°10.9	15°17.6	15°24.3	15°30.9	15°37.3	15°43.6	15°49.8	15°56.0	16°01.9	+6.5	59.7
	Di 3	250°08.3	264°34.2	279°00.2	293°26.2	307°52.2	322°18.3	336°44.4	351°10.5	5°36.7	20°02.8	34°29.0	+26.1	16.0
		17°18.2	17°22.4	17°26.4	17°30.4	17°34.2	17°37.9	17°41.5	17°45.3	17°48.3	17°51.5	17°54.6	+3.6	58.7
	Lu 4	251°06.3	265°33.1	280°00.0	294°26.8	308°53.8	323°20.8	337°47.8	352°14.8	6°42.0	21°09.1	35°36.3	+27.0	15.7
		18°27.5	18°28.7	18°29.9	18°30.9	18°31.9	18°32.7	18°33.4	18°34.0	18°34.5	18°34.9	18°35.2	+0.8	57.7
	Ma 5	252°30.6	266°58.7	281°26.8	295°55.0	310°23.2	324°51.5	339°19.8	353°48.2	8°16.6	22°45.1	37°13.7	+28.3	15.5
		18°26.4	18°25.0	18°23.4	18°21.8	18°20.1	18°18.3	18°16.4	18°14.3	18°12.2	18°10.0	18°07.7	-1.9	56.8
	Me 6	254°29.4	268°59.0	283°28.6	297°58.2	312°27.9	326°57.7	341°27.5	355°57.4	10°27.4	24°57.4	39°27.5	+29.8	15.2
		17°22.0	17°18.2	17°14.4	17°10.5	17°06.4	17°02.3	16°58.2	16°53.9	16°49.6	16°45.1	16°40.6	-4.1	55.9
	Je 7	257°05.9	271°36.9	286°08.0	300°39.1	315°10.3	329°41.6	344°12.9	358°44.3	13°15.7	27°47.7	42°18.7	+31.3	15.1
		15°24.1	15°18.4	15°12.7	15°06.9	15°01.0	14°55.0	14°49.0	14°42.9	14°36.8	14°30.6	14°24.3	-6.0	55.2
	Ve 8	260°18.1	274°50.4	289°22.8	303°55.3	318°27.8	333°00.4	347°33.0	2°05.6	16°38.3	31°11.0	45°43.8	+32.6	14.9
		12°43.4	12°36.2	12°29.0	12°21.7	12°14.4	12°07.0	11°59.6	11°52.1	11°44.6	11°37.0	11°29.4	-7.4	54.6
	Sa 9	264°00.4	278°33.8	293°07.2	307°40.7	322°14.2	336°47.8	351°21.4	5°55.0	20°28.6	35°02.3	49°36.0	+33.6	14.8
		9°30.1	9°21.9	9°13.5	9°05.2	8°56.8	8°48.4	8°40.0	8°31.5	8°23.0	8°14.5	8°05.9	-8.4	54.3
	Di 10	268°04.8	282°38.9	297°13.0	311°47.1	326°21.3	340°55.5	355°29.7	10°03.9	24°38.1	39°12.4	53°46.6	+34.2	14.7
		5°54.0	5°45.0	5°35.9	5°26.9	5°17.9	5°08.8	4°59.7	4°50.6	4°41.4	4°32.3	4°23.1	-9.1	54.0
	Lu 11	272°22.0	286°56.0	301°30.8	316°05.3	330°39.7	345°14.2	359°48.6	14°23.3	28°57.5	43°31.9	58°06.8	+34.4	14.7
		2°03.9	1°54.5	1°45.1	1°35.7	1°26.3	1°16.9	1°07.5	0°58.1	0°48.7	0°39.3	0°29.9	-9.4	53.9
	Ma 12	276°42.6	291°16.9	305°51.3	320°25.6	335°00.0	349°34.3	4°08.6	18°42.9	33°17.2	47°51.4	62°25.7	+34.3	14.7
		-1°51.4	-2°00.8	-2°10.2	-2°19.6	-2°28.9	-2°38.3	-2°47.7	-2°57.0	-3°06.3	-3°15.7	-3°25.0	-9.4	54.0
	Me 13	280°57.3	295°31.3	310°05.2	324°39.1	339°12.9	353°46.8	8°20.6	22°54.4	37°28.2	52°01.9	66°35.5	+33.8	14.8
		-5°42.9	-5°52.0	-6°01.0	-6°10.0	-6°19.0	-6°28.0	-6°36.9	-6°45.8	-6°54.7	-7°03.6	-7°12.4	-9.0	54.1
	Je 14	284°57.8	299°31.0	314°04.2	328°37.3	343°10.4	357°43.5	12°16.5	26°49.5	41°22.5	55°55.4	70°28.0	+33.1	14.8
		-9°21.4	-9°29.7	-9°38.0	-9°46.2	-9°54.5	-10°02.6	-10°10.8	-10°18.9	-10°26.9	-10°34.9	-10°42.9	-8.2	54.3
	Ve 15	288°37.0	303°09.3	317°41.5	332°13.6	346°45.8	361°19.7	15°49.9	30°21.9	44°53.8	59°25.7	73°57.7	+32.1	14.9
		-12°36.8	-12°44.0	-12°51.2	-12°58.3	-13°05.3	-13°12.3	-13°19.2	-13°26.0	-13°32.8	-13°39.9	-13°46.3	-6.9	54.6
	Sa 16	291°50.3	306°21.4	320°52.5	335°23.6	349°54.6	4°25.6	18°56.5	33°27.4	47°58.2	62°29.0	76°59.8	+31.0	15.0
		-15°19.0	-15°24.7	-15°30.3	-15°35.8	-15°41.2	-15°46.6	-15°51.9	-15°57.1	-16°02.2	-16°07.3	-16°12.3	-5.3	55.0
	Di 17	294°35.8	309°05.8	323°35.9	338°05.8	352°35.8	7°05.7	21°35.5	36°05.3	50°35.1	65°04.8	79°34.5	+29.9	15.1
		-17°17.9	-17°21.6	-17°25.2	-17°28.8	-17°32.2	-17°35.6	-17°38.9	-17°42.1	-17°45.2	-17°48.2	-17°51.2	-3.3	55.5
	Lu 18	296°55.4	311°24.5	325°53.6	340°22.6	354°51.6	9°20.6	23°49.6	38°18.5	52°47.4	67°16.2	81°45.0	+29.0	15.3
		-18°24.2	-18°25.7	-18°27.0	-18°28.3	-18°29.4	-18°30.5	-18°31.5	-18°32.4	-18°33.1	-18°33.8	-18°34.4	-1.0	56.0
	Ma 19	313°22.7	327°51.1	342°19.5	356°47.8	11°16.2	25°44.5	40°12.8	54°41.1	69°09.3	83°37.6	98°05.8	+28.3	15.5
		-18°29.9	-18°28.8	-18°27.6	-18°26.2	-18°24.8	-18°23.2	-18°21.6	-18°19.8	-18°18.0	-18°16.0	-18°13.9	-1.6	56.7
	Je 21	315°07.7	329°35.7	344°03.8	358°31.8	12°59.8	27°27.8	41°55.8	56°23.8	70°51.8	85°19.7	99°47.7	+28.0	15.6
		-17°30.6	-17°26.9	-17°23.1	-17°19.2	-17°15.1	-17°11.0	-17°06.8	-17°02.5	-16°58.0	-16°53.5	-16°48.9	+4.2	57.3
	Ve 22	316°46.8	331°14.7	345°42.7	360°10.6	14°38.5	29°06.4	43°34.3	58°02.3	72°30.2	86°58.1	101°26.0	+27.9	15.8
		-15°27.6	-15°21.5	-15°15.2	-15°08.8	-15°02.3	-14°55.7	-14°49.1	-14°42.3	-14°35.5	-14°28.5	-14°21.5	-6.6	58.1
	Sa 23	318°24.9	332°52.9	347°20.8	361°48.7	16°16.7	30°44.6	45°12.6	59°40.5	74°08.4	88°36.4	103°04.3	+27.9	16.0
		-4°01.7	-3°50.4	-3°38.9	-3°27.5	-3°15.9	-3°04.5	-2°52.9	-2°41.4	-2°29.8	-2°18.1	-2°06.5	+7.8	58.8
	Di 24	320°03.3	334°31.2	348°59.1	363°27.0	17°54.9	32°22.8	46°50.7	61°18.6	75°46.5	90°14.3	104°42.2	+27.9	16.2
		-8°32.5	-8°22.3	-8°12.0	-8°01.7	-7°51.3	-7°40.9	-7°30.4	-7°19.9	-7°09.2	-6°58.6	-6°47.9	-10.5	59.6
	Lu 25	321°39.2	336°06.9	350°34.6	365°02.3	19°30.0	33°57.7	48°25.3	62°53.0	77°20.6	91°48.2	106°15.8	+27.7	16.4
		-4°01.7	-3°50.4	-3°38.9	-3°27.5	-3°16.0	-3°04.5	-2°52.9	-2°41.4	-2°29.8	-2°18.1	-2°06.5	+11.5	60.2
	Ma 26	323°07.4	337°34.7	352°01.9	366°29.1	20°56.3	35°23.5	49°50.7	64°17.8	78°44.9	93°12.0	107°39.5	+27.2	16.5
		0°50.0	1°01.8	1°13.6	1°25.5	1°37.3	1°49.1	2°00.9	2°12.7	2°24.5	2°36.3	2°48.1	+11.8	60.6
	Me 27	324°21.7	338°48.3	353°14.9	367°41.4	22°08.0	36°34.4	51°00.9	65°27.3	79°53.7	94°20.1	108°46.5	+26.5	16.6
		5°42.3	5°53.7	6°05.0	6°16.3	6°27.6	6°38.9	6°50.1	7°01.2	7°12.3	7°23.4	7°34.4	+11.2	60.7
	Je 28	325°18.0	339°43.9	354°09.7	368°35.5	23°01.3	37°27.1	51°52.8	66°18.5	80°44.2	95°09.8	109°35.4	+25.7	16.5
		10°12.7	10°22.8	10°32.8	10°42.7	10°52.5	11°02.2	11°11.9	11°21.5	11°31.0	11°40.4	11°49.8	+9.7	60.6
	Ve 29	326°57.1	340°22.3	354°47.6	369°12.9	23°38.1	38°03.3	52°28.5	66°53.7	81°18.9	95°44.1	110°09.9	+25.2	16.4
		13°59.4	14°07.3	14°15.1	14°22.8	14°30.3	14°37.8	14°45.2	14°52.5	14°59.6	15°06.7	15°13.6	+7.4	60.2
	Sa 30	328°26.2	340°51.3	355°16.4	369°41.6	24°06.7	38°31.9	52°57.1	67°22.3	81°47.5	96°12.7	110°37.9	+25.2	16.2
		16°44.4	16°49.6	16°54.6	16°59.5	17°04.3	17°08.9	17°13.5	17°17.9	17°22.2	17°26.4	17°30.5	+4.6	59.5

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PQ: 6 15h13 — PL: 14 19h17 — DQ: 22 11h42 — NL: 29 02h46

SOLEIL

Mai 2033

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	270°43.3	285°43.4	300°43.5	315°43.6	330°43.6	345°43.7	0°43.8	15°43.8	30°43.9	45°44.0	60°44.1	75°44.1	+0.1
	15°10.9	15°11.7	15°12.4	15°13.2	15°13.9	15°14.7	15°15.4	15°16.2	15°16.9	15°17.7	15°18.4	15°19.2	+0.8
Lu 2	270°45.0	285°45.1	300°45.2	315°45.2	330°45.3	345°45.3	0°45.4	15°45.5	30°45.5	45°45.6	60°45.7	75°45.7	+0.1
	15°28.9	15°29.6	15°30.4	15°31.1	15°31.8	15°32.6	15°33.3	15°34.1	15°34.8	15°35.5	15°36.3	15°37.0	+0.7
Ma 3	270°46.6	285°46.6	300°46.7	315°46.7	330°46.8	345°46.9	0°46.9	15°47.0	30°47.0	45°47.1	60°47.2	75°47.2	+0.1
	15°46.6	15°47.3	15°48.0	15°48.8	15°49.5	15°50.2	15°50.9	15°51.7	15°52.4	15°53.1	15°53.9	15°54.6	+0.7
Me 4	270°48.0	285°48.0	300°48.1	315°48.1	330°48.2	345°48.2	0°48.3	15°48.3	30°48.4	45°48.5	60°48.5	75°48.6	+0.1
	16°04.0	16°04.7	16°05.4	16°06.1	16°06.9	16°07.6	16°08.3	16°09.0	16°09.7	16°10.4	16°11.2	16°11.9	+0.7
Je 5	270°49.2	285°49.3	300°49.3	315°49.4	330°49.4	345°49.5	0°49.5	15°49.6	30°49.6	45°49.7	60°49.7	75°49.8	+0.0
	16°21.1	16°21.8	16°22.6	16°23.3	16°24.0	16°24.7	16°25.4	16°26.1	16°26.8	16°27.5	16°28.2	16°28.9	+0.7
Ve 6	270°50.4	285°50.4	300°50.5	315°50.5	330°50.5	345°50.6	0°50.6	15°50.7	30°50.7	45°50.8	60°50.8	75°50.8	+0.0
	16°38.0	16°38.7	16°39.4	16°40.1	16°40.8	16°41.5	16°42.2	16°42.9	16°43.6	16°44.3	16°45.0	16°45.7	+0.7
Sa 7	270°51.4	285°51.4	300°51.4	315°51.5	330°51.5	345°51.6	0°51.6	15°51.6	30°51.7	45°51.7	60°51.7	75°51.8	+0.0
	16°54.6	16°55.3	16°56.0	16°56.7	16°57.4	16°58.0	16°58.7	16°59.4	17°00.1	17°00.8	17°01.4	17°02.1	+0.7
Di 8	270°52.2	285°52.3	300°52.3	315°52.3	330°52.4	345°52.4	0°52.4	15°52.4	30°52.5	45°52.5	60°52.5	75°52.6	+0.0
	17°10.9	17°11.6	17°12.3	17°13.0	17°13.6	17°14.3	17°15.0	17°15.6	17°16.3	17°17.0	17°17.6	17°18.3	+0.7
Lu 9	270°52.9	285°53.0	300°53.0	315°53.0	330°53.1	345°53.1	0°53.1	15°53.1	30°53.2	45°53.2	60°53.2	75°53.2	+0.0
	17°27.0	17°27.6	17°28.3	17°28.9	17°29.6	17°30.3	17°30.9	17°31.6	17°32.2	17°32.9	17°33.6	17°34.2	+0.7
Ma 10	270°53.5	285°53.6	300°53.6	315°53.6	330°53.6	345°53.6	0°53.7	15°53.7	30°53.7	45°53.7	60°53.7	75°53.8	+0.0
	17°42.7	17°43.3	17°44.0	17°44.6	17°45.3	17°45.9	17°46.6	17°47.2	17°47.9	17°48.5	17°49.2	17°49.8	+0.6
Me 11	270°54.0	285°54.0	300°54.0	315°54.0	330°54.0	345°54.0	0°54.1	15°54.1	30°54.1	45°54.1	60°54.1	75°54.1	+0.0
	17°58.1	17°58.8	17°59.4	18°00.0	18°00.7	18°01.3	18°02.0	18°02.6	18°03.2	18°03.9	18°04.5	18°05.1	+0.6
Je 12	270°54.3	285°54.3	300°54.3	315°54.3	330°54.3	345°54.3	0°54.3	15°54.3	30°54.3	45°54.4	60°54.4	75°54.4	+0.0
	18°13.3	18°13.9	18°14.5	18°15.1	18°15.8	18°16.4	18°17.0	18°17.6	18°18.3	18°18.9	18°19.5	18°20.1	+0.6
Ve 13	270°54.4	285°54.4	300°54.4	315°54.5	330°54.5	345°54.5	0°54.5	15°54.5	30°54.5	45°54.5	60°54.5	75°54.5	+0.0
	18°28.1	18°28.7	18°29.3	18°29.9	18°30.5	18°31.2	18°31.8	18°32.4	18°33.0	18°33.6	18°34.2	18°34.8	+0.6
Sa 14	270°54.5	285°54.5	300°54.5	315°54.5	330°54.5	345°54.5	0°54.4	15°54.4	30°54.4	45°54.4	60°54.4	75°54.4	-0.0
	18°42.6	18°43.2	18°43.8	18°44.4	18°45.0	18°45.6	18°46.2	18°46.8	18°47.4	18°48.0	18°48.6	18°49.2	+0.6
Di 15	270°54.3	285°54.3	300°54.3	315°54.3	330°54.3	345°54.3	0°54.3	15°54.3	30°54.3	45°54.3	60°54.3	75°54.2	-0.0
	18°56.8	18°57.4	18°58.0	18°58.6	18°59.2	18°59.7	19°00.3	19°00.9	19°01.5	19°02.1	19°02.7	19°03.2	+0.6
Lu 16	270°54.1	285°54.1	300°54.0	315°54.0	330°54.0	345°54.0	0°54.0	15°54.0	30°54.0	45°53.9	60°53.9	75°53.9	-0.0
	19°10.7	19°11.3	19°11.9	19°12.4	19°13.0	19°13.6	19°14.1	19°14.7	19°15.3	19°15.8	19°16.4	19°17.0	+0.6
Ma 17	270°53.7	285°53.6	300°53.6	315°53.6	330°53.6	345°53.6	0°53.6	15°53.5	30°53.5	45°53.5	60°53.5	75°53.4	-0.0
	19°24.3	19°24.8	19°25.4	19°25.9	19°26.5	19°27.1	19°27.6	19°28.2	19°28.7	19°29.3	19°29.8	19°30.4	+0.6
Me 18	270°53.1	285°53.1	300°53.1	315°53.1	330°53.0	345°53.0	0°53.0	15°52.9	30°52.9	45°52.9	60°52.9	75°52.8	-0.0
	19°37.5	19°38.0	19°38.6	19°39.1	19°39.7	19°40.2	19°40.8	19°41.3	19°41.8	19°42.4	19°42.9	19°43.4	+0.5
Je 19	270°52.4	285°52.4	300°52.4	315°52.3	330°52.3	345°52.3	0°52.2	15°52.2	30°52.2	45°52.1	60°52.1	75°52.1	-0.0
	19°50.4	19°50.9	19°51.4	19°52.0	19°52.5	19°53.0	19°53.6	19°54.1	19°54.6	19°55.1	19°55.7	19°56.2	+0.5
Ve 20	270°51.6	285°51.6	300°51.5	315°51.5	330°51.5	345°51.4	0°51.4	15°51.3	30°51.3	45°51.3	60°51.2	75°51.2	-0.0
	20°02.9	20°03.5	20°04.0	20°04.5	20°05.0	20°05.5	20°06.0	20°06.5	20°07.1	20°07.6	20°08.1	20°08.6	+0.5
Sa 21	270°50.6	285°50.6	300°50.6	315°50.5	330°50.5	345°50.4	0°50.4	15°50.3	30°50.3	45°50.2	60°50.2	75°50.2	-0.0
	20°15.2	20°15.7	20°16.2	20°16.7	20°17.2	20°17.7	20°18.2	20°18.7	20°19.2	20°19.7	20°20.1	20°20.6	+0.5
Di 22	270°49.5	285°49.5	300°49.4	315°49.4	330°49.3	345°49.3	0°49.2	15°49.2	30°49.1	45°49.1	60°49.0	75°49.0	-0.1
	20°27.0	20°27.5	20°28.0	20°28.5	20°29.0	20°29.5	20°29.9	20°30.4	20°30.9	20°31.4	20°31.9	20°32.4	+0.5
Lu 23	270°48.3	285°48.2	300°48.2	315°48.1	330°48.1	345°48.0	0°48.0	15°47.9	30°47.9	45°47.8	60°47.7	75°47.7	-0.1
	20°38.5	20°39.0	20°39.5	20°40.0	20°40.4	20°40.9	20°41.4	20°41.8	20°42.3	20°42.8	20°43.2	20°43.7	+0.5
Ma 24	270°46.9	285°46.9	300°46.8	315°46.7	330°46.7	345°46.6	0°46.6	15°46.5	30°46.4	45°46.4	60°46.3	75°46.3	-0.1
	20°49.7	20°50.2	20°50.6	20°51.1	20°51.5	20°52.0	20°52.4	20°52.9	20°53.4	20°53.8	20°54.3	20°54.7	+0.5
Me 25	270°45.4	285°45.4	300°45.3	315°45.2	330°45.2	345°45.1	0°45.0	15°45.0	30°44.9	45°44.8	60°44.8	75°44.7	-0.1
	21°00.5	21°01.0	21°01.4	21°01.8	21°02.3	21°02.7	21°03.2	21°03.6	21°04.0	21°04.5	21°04.9	21°05.3	+0.4
Je 26	270°43.8	285°43.7	300°43.7	315°43.6	330°43.5	345°43.4	0°43.4	15°43.3	30°43.2	45°43.2	60°43.1	75°43.0	-0.1
	21°11.0	21°11.4	21°11.8	21°12.2	21°12.7	21°13.1	21°13.5	21°13.9	21°14.4	21°14.8	21°15.2	21°15.6	+0.4
Ve 27	270°42.0	285°42.0	300°41.9	315°41.8	330°41.7	345°41.7	0°41.6	15°41.5	30°41.4	45°41.4	60°41.3	75°41.2	-0.1
	21°21.0	21°21.5	21°21.9	21°22.3	21°22.7	21°23.1	21°23.5	21°23.9	21°24.3	21°24.7	21°25.1	21°25.5	+0.4
Sa 28	270°40.2	285°40.1	300°40.0	315°39.9	330°39.9	345°39.8	0°39.7	15°39.6	30°39.5	45°39.4	60°39.4	75°39.3	-0.1
	21°30.7	21°31.1	21°31.5	21°31.9	21°32.3	21°32.7	21°33.1	21°33.5	21°33.9	21°34.3	21°34.7	21°35.1	+0.4
Di 29	270°38.2	285°38.1	300°38.0	315°37.9	330°37.9	345°37.8	0°37.7	15°37.6	30°37.5	45°37.4	60°37.3	75°37.2	-0.1
	21°40.1	21°40.5	21°40.8	21°41.2	21°41.6	21°42.0	21°42.4	21°42.7	21°43.1	21°43.5	21°43.9	21°44.2	+0.4
Lu 30	270°36.1	285°36.0	300°35.9	315°35.8	330°35.7	345°35.7	0°35.6	15°35.5	30°35.4	45°35.3	60°35.2	75°35.1	-0.1
	21°49.0	21°49.4	21°49.8	21°50.1	21°50.5	21°50.9	21°51.2	21°51.6	21°51.9	21°52.3	21°52.7	21°53.0	+0.4
Ma 31	270°33.9	285°33.8	300°33.7	315°33.6	330°33.5	345°33.4	0°33.3	15°33.2	30°33.2	45°33.1	60°33.0	75°32.9	-0.1
	21°57.6	21°58.0	21°58.3	21°58.7	21°59.0	21°59.4	21°59.7	22°00.0	22°00.4	22°00.7	22°01.1	22°01.4	+0.3

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Mai 2033

	J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	Δ'/h	SP
O	Di 1	240°25.8 18°01.6	254°51.2 18°04.5	269°16.9 18°07.2	283°42.2 18°09.8	298°07.7 18°12.3	312°33.3 18°14.7	326°58.8 18°17.0	341°24.5 18°19.1	355°50.1 18°21.1	10°15.8 18°23.0	24°41.5 18°24.8	+25.6 +2.3	16.0 58.8
	Lu 2	241°12.1 18°37.2	255°38.5 18°37.1	270°04.9 18°36.9	284°31.4 18°36.5	298°58.0 18°36.1	313°24.6 18°35.5	327°51.3 18°34.9	342°18.0 18°34.8	356°44.8 18°33.2	11°16.1 18°32.2	25°38.5 18°31.1	+26.6 -0.6	15.8 57.9
	Ma 3	242°29.1 18°01.7	256°57.0 17°58.9	271°24.9 17°56.1	285°52.9 17°53.1	300°21.0 17°46.9	314°49.1 17°43.6	329°17.3 17°40.3	343°45.6 17°36.8	358°14.0 17°33.3	12°42.4 17°30.3	27°10.9 17°29.7	+28.2 -3.2	15.5 57.0
O	Me 4	244°26.4 16°24.7	258°55.9 16°19.7	273°25.6 16°14.7	287°55.3 16°09.5	302°25.1 16°04.3	316°55.0 15°59.0	331°24.9 15°53.6	345°54.9 15°48.2	0°25.0 15°42.7	14°55.1 15°37.1	29°25.3 15°31.4	+29.9 -5.3	15.3 56.1
	Je 5	247°06.4 10°54.6	261°37.6 10°46.6	276°08.9 10°38.6	290°40.3 10°30.5	305°11.7 10°22.4	319°43.2 10°14.3	334°14.8 10°06.2	348°46.4 9°57.9	3°18.1 9°49.7	17°49.8 9°41.4	32°21.6 9°33.1	+31.5 -8.1	15.1 54.8
	Ve 6	250°25.3 7°24.5	264°57.9 7°15.7	279°30.7 7°06.8	294°03.4 6°58.0	308°36.2 6°49.1	323°09.1 6°40.2	337°42.0 6°31.3	352°14.9 6°22.3	6°47.9 6°13.3	21°21.0 6°04.3	35°54.0 5°55.3	+32.9 -8.9	14.9 54.4
O	Sa 7	254°15.1 3°37.7	268°48.8 3°28.4	283°22.6 3°19.1	297°56.3 3°09.8	312°30.1 3°00.5	327°03.9 2°51.2	341°37.8 2°41.8	356°11.7 2°32.5	10°45.6 2°23.1	25°19.5 2°13.7	39°53.5 2°04.3	+33.8 -9.3	14.8 54.1
	Di 8	258°25.7 -0°17.0	273°00.0 -0°26.5	287°34.3 -0°35.9	302°08.6 -0°45.4	316°43.0 -0°54.8	331°17.3 -1°04.2	345°51.7 -1°13.7	0°26.0 -1°23.1	15°00.4 -1°32.5	29°34.8 -1°41.9	44°09.2 -1°51.3	+34.4 -9.4	14.7 54.1
	Lu 9	262°45.8 -4°11.5	277°20.3 -4°20.8	291°54.7 -4°30.0	306°29.2 -4°39.2	321°03.6 -4°48.4	335°38.0 -4°57.6	350°12.5 -5°06.8	0°46.9 -5°16.0	19°21.3 -5°25.1	33°55.7 -5°34.2	48°30.1 -5°43.3	+34.4 -9.2	14.7 54.1
O	Ma 10	267°04.5 -4°11.5	281°38.7 -4°20.8	296°12.8 -4°30.0	310°47.0 -4°39.2	325°21.1 -4°48.4	339°55.2 -4°57.6	354°29.2 -5°06.8	9°03.3 -5°16.0	23°37.3 -5°25.1	38°11.3 -5°34.2	52°45.3 -5°43.3	+34.1 -9.2	14.8 54.1
	Me 11	271°11.4 -7°57.0	285°44.9 -8°05.7	300°18.6 -8°14.4	314°51.8 -8°23.1	329°25.2 -8°31.7	343°58.6 -8°40.3	358°31.9 -8°48.8	13°05.2 -8°57.3	27°38.5 -9°05.8	42°11.7 -9°14.3	56°44.8 -9°22.7	+33.3 -8.6	14.8 54.4
	Je 12	274°57.6 -11°24.2	289°30.1 -11°31.9	304°02.6 -11°39.7	318°35.0 -11°47.3	333°07.4 -11°54.9	347°39.7 -12°02.5	362°12.0 -12°10.0	16°44.3 -12°17.5	31°16.5 -12°24.9	45°48.6 -12°32.3	60°20.7 -12°39.6	+32.3 -7.5	14.9 54.7
O	Ve 13	278°16.5 -14°22.6	292°47.8 -14°29.0	307°19.1 -14°35.3	321°50.3 -14°41.6	336°21.5 -14°47.7	350°52.6 -14°53.9	365°23.7 -14°59.9	19°54.7 -15°05.9	34°25.7 -15°11.9	48°56.6 -15°17.0	63°27.5 -15°23.5	+31.1 -6.1	15.0 55.1
	Sa 14	281°04.8 -16°41.4	295°34.9 -16°46.0	310°04.9 -16°50.5	324°34.9 -16°54.9	339°04.9 -16°59.2	353°34.8 -17°03.5	368°04.6 -17°07.6	22°34.5 -17°11.7	37°04.2 -17°15.7	51°34.0 -17°19.6	66°03.6 -17°23.5	+29.9 -4.2	15.1 55.5
	Di 15	283°23.7 -18°10.1	297°62.0 -18°12.5	312°21.7 -18°14.8	326°50.7 -18°17.0	341°19.6 -18°19.1	355°48.5 -18°21.1	370°17.3 -18°23.0	24°46.1 -18°24.8	39°14.9 -18°26.5	53°43.6 -18°28.1	68°12.3 -18°29.6	+28.9 -1.9	15.3 56.0
O	Lu 16	285°19.4 -18°40.1	299°47.6 -18°40.4	314°15.9 -18°39.8	328°44.1 -18°39.5	343°12.3 -18°39.1	357°40.5 -18°38.6	372°08.6 -18°37.9	26°36.6 -18°37.2	41°04.9 -18°36.4	55°33.0 -18°35.4	70°01.1 -18°34.4	+28.2 +0.6	15.4 56.6
	Ma 17	287°01.0 -18°06.2	301°29.0 -18°03.5	315°56.9 -18°00.7	330°24.8 -17°57.8	344°52.7 -17°54.7	359°20.6 -17°51.6	374°48.5 -17°48.4	28°16.4 -17°45.0	42°44.4 -17°41.6	57°12.3 -17°38.1	72°17.0 -17°34.2	+27.9 +3.2	15.6 57.1
	Me 18	288°39.1 -16°27.7	303°07.1 -16°22.4	317°35.0 -16°17.1	332°03.0 -16°11.7	346°31.0 -16°06.1	360°59.0 -16°00.5	375°27.1 -15°54.8	15°27.1 -15°49.0	29°55.1 -15°43.0	44°23.1 -15°37.0	58°51.2 -15°30.9	+28.0 +5.7	15.7 57.6
O	Je 19	303°07.1 -16°22.4	317°35.0 -16°17.1	332°03.0 -16°11.7	346°31.0 -16°06.1	360°59.0 -16°00.5	375°27.1 -15°54.8	390°00.0 -15°49.0	15°27.1 -15°43.0	29°55.1 -15°37.0	44°23.1 -15°30.9	58°51.2 -15°24.7	+28.0 +5.8	15.7 57.6
	Ve 20	304°49.8 -13°41.1	319°18.1 -13°33.5	334°46.4 -13°25.9	348°14.7 -13°18.1	362°43.0 -13°10.2	376°11.3 -13°02.3	390°39.7 -12°54.3	17°11.3 -12°46.2	31°39.7 -12°38.1	46°08.0 -12°29.8	60°36.4 -12°19.8	+28.3 -12.2	15.9 58.2
	Sa 21	306°40.6 -10°08.1	321°09.2 -9°58.7	335°37.8 -9°49.2	350°06.4 -9°39.6	364°35.1 -9°30.0	378°03.7 -9°20.3	392°32.3 -9°10.6	19°03.7 -9°00.8	33°32.3 -8°50.9	48°01.0 -8°41.0	62°29.6 -8°31.0	+28.6 +9.7	16.0 58.7
O	Di 22	308°37.6 -5°55.3	323°06.4 -5°44.5	337°35.1 -5°33.7	352°03.8 -5°22.9	366°32.6 -5°12.1	380°01.2 -5°01.2	394°30.0 -4°50.2	15°27.1 -4°43.9	29°55.1 -4°36.3	44°23.1 -4°28.3	58°51.2 -4°17.2	+28.7 +4.0	16.1 59.2
	Lu 23	310°34.8 -1°17.2	325°03.4 -1°05.7	339°31.9 -0°54.3	354°00.5 -0°42.9	368°29.0 -0°31.4	382°57.5 -0°19.9	397°26.0 -0°08.5	51°54.5 0°03.0	66°23.0 0°14.5	80°51.4 0°26.0	95°19.8 0°37.5	+28.5 +1.5	16.2 59.9
	Ma 24	312°23.7 3°29.4	326°51.7 3°40.8	341°19.8 3°52.1	355°47.8 3°58.1	369°15.7 4°03.5	383°44.7 4°15.7	398°11.6 4°26.1	53°39.5 4°37.4	68°07.4 4°48.6	82°35.2 4°59.8	97°03.0 5°11.0	+27.9 +5.2	16.3 59.8
O	Me 25	313°56.0 8°05.6	328°23.3 8°16.1	342°50.5 8°26.6	357°17.7 8°37.1	371°44.8 8°47.5	385°11.9 8°57.8	400°39.0 9°08.1	55°06.0 9°18.3	69°33.0 9°28.5	84°00.0 9°38.6	98°26.9 9°48.7	+27.1 +9.7	16.3 59.9
	Je 26	315°06.4 12°11.5	329°32.8 12°20.4	343°59.1 12°29.3	358°25.3 12°38.1	372°51.6 12°46.8	386°18.2 12°55.4	401°44.0 13°03.9	56°10.1 13°12.3	70°36.2 13°20.7	85°02.3 13°28.9	99°28.3 13°37.1	+26.2 +8.6	16.3 59.9
	Ve 27	315°55.4 15°28.2	330°21.1 15°34.8	344°46.6 15°41.3	359°12.2 15°47.7	373°37.7 15°54.0	387°03.3 16°00.2	401°28.8 16°06.2	56°54.3 16°12.2	71°09.7 16°19.1	85°45.2 16°23.8	100°10.6 16°29.4	+25.5 +6.1	16.2 59.9
O	Sa 28	316°31.2 17°40.2	330°56.6 17°40.2	345°22.0 17°47.7	359°47.3 17°51.2	374°12.7 17°54.0	388°38.1 18°01.2	403°03.4 18°01.2	57°28.2 18°04.8	71°54.2 18°07.2	86°19.6 18°10.0	100°45.1 18°12.7	+25.4 +3.2	16.1 59.9
	Di 29	317°08.8 18°38.9	331°34.6 18°40.4	346°00.4 18°40.9	360°26.2 18°41.9	375°12.1 18°42.1	389°18.0 18°41.7	403°44.0 18°41.8	58°10.0 18°41.9	72°36.0 18°41.9	87°02.1 18°41.9	101°28.2 18°41.5	+25.9 +0.3	15.9 58.3
	Lu 30	318°05.6 18°23.7	332°32.5 18°21.7	346°59.5 18°19.5	361°26.5 18°17.2	376°13.6 18°15.8	390°20.7 18°12.3	404°47.9 18°09.8	59°15.2 18°07.1	73°42.5 18°04.3	88°09.9 18°01.4	102°37.3 17°58.4	+27.2 -2.5	15.7 57.5
O	Ma 31	319°36.7 17°01.7	334°05.2 16°57.2	348°33.7 16°52.6	363°02.4 16°47.9	377°31.1 16°43.1	391°59.8 16°38.2	406°28.7 16°33.3	60°57.6 16°28.3	75°26.6 16°23.2	89°55.6 16°18.0	104°24.7 16°12.7	+28.8 -4.9	15.5 56.7

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PQ: 6 06h45 — PL: 14 10h42 — DQ: 21 18h29 — NL: 28 11h36

SOLEIL

Juin 2033

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Me 1	270°31.6 22°05.8	285°31.5 22°06.2	300°31.4 22°06.5	315°31.3 22°06.8	330°31.2 22°07.2	345°31.1 22°07.5	6°31.0 22°07.8	15°30.9 22°08.1	30°30.8 22°08.5	45°30.7 22°08.8	60°30.6 22°09.1	75°30.5 22°09.5	-0.1 +0.3
Je 2	270°29.2 22°13.6	285°29.1 22°14.0	300°29.0 22°14.3	315°28.9 22°14.6	330°28.8 22°14.9	345°28.7 22°15.2	0°28.6 22°15.5	15°28.5 22°15.8	30°28.4 22°16.2	45°28.3 22°16.5	60°28.2 22°16.8	75°28.1 22°17.1	-0.1 +0.3
Ve 3	270°26.8 22°21.1	285°26.6 22°21.4	300°26.5 22°21.7	315°26.4 22°22.0	330°26.3 22°22.3	345°26.2 22°22.6	0°26.1 22°22.9	15°26.0 22°23.2	30°25.9 22°23.4	45°25.8 22°23.7	60°25.7 22°24.0	75°25.6 22°24.3	-0.1 +0.3
Sa 4	270°24.2 22°28.1	285°24.1 22°28.4	300°24.0 22°28.7	315°23.9 22°28.9	330°23.8 22°29.2	345°23.6 22°29.5	0°23.5 22°29.8	15°23.4 22°30.1	30°23.3 22°30.3	45°23.2 22°30.6	60°23.1 22°30.9	75°23.0 22°31.2	-0.1 +0.3
Di 5	270°21.6 22°34.7	285°21.4 22°35.0	300°21.3 22°35.3	315°21.2 22°35.5	330°21.1 22°35.8	345°21.0 22°36.1	0°20.9 22°36.3	15°20.8 22°36.6	30°20.7 22°36.9	45°20.5 22°37.1	60°20.4 22°37.4	75°20.3 22°37.6	-0.1 +0.3
Lu 6	270°18.8 22°41.0	285°18.7 22°41.2	300°18.6 22°41.5	315°18.5 22°41.7	330°18.4 22°42.2	345°18.3 22°42.2	0°18.1 22°42.5	15°18.0 22°42.7	30°17.9 22°43.0	45°17.8 22°43.2	60°17.7 22°43.5	75°17.6 22°43.7	-0.1 +0.2
Ma 7	270°16.1 22°46.8	285°15.9 22°47.1	300°15.8 22°47.3	315°15.7 22°47.5	330°15.6 22°47.8	345°15.5 22°48.0	0°15.3 22°48.2	15°15.2 22°48.4	30°15.1 22°48.7	45°15.0 22°48.9	60°14.9 22°49.1	75°14.8 22°49.4	-0.1 +0.2
Me 8	270°13.2 22°52.3	285°13.1 22°52.5	300°13.0 22°52.7	315°12.8 22°52.9	330°12.7 22°53.3	345°12.6 22°53.3	0°12.5 22°53.6	15°12.4 22°53.8	30°12.4 22°54.0	45°12.1 22°54.2	60°12.0 22°54.4	75°11.9 22°54.6	-0.1 +0.2
Je 9	270°10.3 22°57.3	285°10.2 22°57.5	300°10.0 22°57.7	315°09.9 22°57.9	330°09.8 22°58.1	345°09.7 22°58.3	0°09.6 22°58.5	15°09.4 22°58.7	30°09.3 22°58.9	45°09.2 22°59.1	60°09.1 22°59.3	75°08.9 22°59.5	-0.1 +0.2
Ve 10	270°07.3 23°01.9	285°07.2 23°02.1	300°07.1 23°02.3	315°07.0 23°02.5	330°06.8 23°02.7	345°06.7 23°02.9	0°06.6 23°03.0	15°06.5 23°03.2	30°06.3 23°03.4	45°06.2 23°03.6	60°06.1 23°03.8	75°05.9 23°03.9	-0.1 +0.2
Sa 11	270°04.3 23°06.2	285°04.2 23°06.3	300°04.1 23°06.5	315°03.9 23°06.7	330°03.8 23°06.8	345°03.7 23°07.0	0°03.5 23°07.2	15°03.4 23°07.3	30°03.3 23°07.5	45°03.2 23°07.7	60°03.0 23°07.8	75°02.9 23°08.0	-0.1 +0.2
Di 12	270°01.2 23°10.0	285°01.1 23°10.3	300°01.0 23°10.3	315°00.9 23°10.4	330°00.7 23°10.6	345°00.6 23°10.7	0°00.5 23°10.9	15°00.3 23°11.1	30°00.2 23°11.2	45°00.0 23°11.3	60°00.0 23°11.5	74°59.8 23°11.6	-0.1 +0.1
Lu 13	269°58.1 23°13.4	284°58.0 23°13.5	299°57.9 23°13.5	314°57.7 23°13.8	329°57.6 23°13.9	344°57.5 23°14.1	359°57.4 23°14.2	14°57.2 23°14.3	29°57.1 23°14.5	44°57.0 23°14.6	59°56.8 23°14.7	74°56.7 23°14.8	-0.1 +0.1
Ma 14	269°55.0 23°16.4	284°54.9 23°16.5	299°54.7 23°16.7	314°54.6 23°16.8	329°54.5 23°16.9	344°54.3 23°17.0	359°54.2 23°17.1	14°54.1 23°17.2	29°53.9 23°17.3	44°53.8 23°17.4	59°53.7 23°17.6	74°53.5 23°17.7	-0.1 +0.1
Me 15	269°51.8 23°19.0	284°51.7 23°19.1	299°51.5 23°19.2	314°51.4 23°19.3	329°51.3 23°19.4	344°51.1 23°19.5	359°51.0 23°19.6	14°50.9 23°19.7	29°50.7 23°19.8	44°50.6 23°19.9	59°50.5 23°20.0	74°50.3 23°20.1	-0.1 +0.1
Je 16	269°48.6 23°21.2	284°48.5 23°21.3	299°48.3 23°21.4	314°48.2 23°21.4	329°48.1 23°21.5	344°47.9 23°21.6	359°47.8 23°21.7	14°47.7 23°21.7	29°47.5 23°21.8	44°47.4 23°21.9	59°47.3 23°22.0	74°47.1 23°22.1	-0.1 +0.1
Ve 17	269°45.4 23°23.0	284°45.2 23°23.0	299°45.1 23°23.1	314°45.0 23°23.2	329°44.8 23°23.2	344°44.7 23°23.3	359°44.6 23°23.4	14°44.4 23°23.4	29°44.2 23°23.5	44°44.2 23°23.5	59°44.0 23°23.6	74°43.9 23°23.6	-0.1 +0.1
Sa 18	269°42.1 23°24.3	284°42.0 23°24.4	299°41.9 23°24.4	314°41.7 23°24.5	329°41.6 23°24.5	344°41.4 23°24.6	359°41.3 23°24.6	14°41.2 23°24.7	29°41.0 23°24.7	44°40.9 23°24.7	59°40.8 23°24.8	74°40.6 23°24.8	-0.1 +0.0
Di 19	269°38.9 23°25.3	284°38.7 23°25.3	299°38.6 23°25.3	314°38.5 23°25.4	329°38.3 23°25.4	344°38.2 23°25.4	359°38.0 23°25.5	14°37.9 23°25.5	29°37.8 23°25.5	44°37.6 23°25.5	59°37.5 23°25.6	74°37.4 23°25.6	-0.1 +0.0
Lu 20	269°35.6 23°25.8	284°35.5 23°25.8	299°35.3 23°25.8	314°35.2 23°25.8	329°35.0 23°25.9	344°34.9 23°25.9	359°34.8 23°25.9	14°34.6 23°25.9	29°34.5 23°25.9	44°34.4 23°25.9	59°34.2 23°25.9	74°34.1 23°25.9	-0.1 +0.0
Ma 21	269°32.3 23°25.9	284°32.2 23°25.9	299°32.1 23°25.9	314°31.9 23°25.9	329°31.8 23°25.9	344°31.6 23°25.9	359°31.5 23°25.9	14°31.4 23°25.9	29°31.2 23°25.9	44°31.1 23°25.9	59°31.0 23°25.9	74°30.8 23°25.8	-0.1 -0.0
Me 22	269°29.1 23°25.6	284°28.9 23°25.6	299°28.8 23°25.6	314°28.6 23°25.6	329°28.5 23°25.5	344°28.4 23°25.5	359°28.2 23°25.5	14°28.1 23°25.5	29°28.0 23°25.5	44°27.8 23°25.4	59°27.7 23°25.4	74°27.6 23°25.4	-0.1 -0.0
Je 23	269°25.8 23°24.9	284°25.7 23°24.9	299°25.5 23°24.8	314°25.4 23°24.8	329°25.3 23°24.8	344°25.1 23°24.7	359°25.0 23°24.7	14°24.8 23°24.6	29°24.6 23°24.6	44°24.2 23°24.6	59°24.4 23°24.6	74°24.3 23°24.5	-0.1 -0.0
Ve 24	269°22.6 23°23.8	284°22.4 23°23.8	299°22.3 23°23.7	314°22.2 23°23.6	329°22.2 23°23.5	344°22.1 23°23.5	359°21.9 23°23.5	14°21.6 23°23.4	29°21.5 23°23.3	44°21.3 23°23.3	59°21.2 23°23.2	74°21.1 23°23.2	-0.1 -0.2
Sa 25	269°19.3 23°22.3	284°19.2 23°22.2	299°19.1 23°22.1	314°18.9 23°22.1	329°18.8 23°22.0	344°18.7 23°21.9	359°18.5 23°21.8	14°18.4 23°21.7	29°18.3 23°21.7	44°18.1 23°21.8	59°18.0 23°21.5	74°17.9 23°21.4	-0.1 -0.1
Di 26	269°16.2 23°20.3	284°16.0 23°20.2	299°15.9 23°20.1	314°15.8 23°20.1	329°15.6 23°20.0	344°15.5 23°19.9	359°15.4 23°19.8	14°15.2 23°19.7	29°15.1 23°19.7	44°15.0 23°19.6	59°14.8 23°19.5	74°14.7 23°19.3	-0.1 -0.1
Lu 27	269°13.0 23°18.0	284°12.9 23°17.9	299°12.7 23°17.8	314°12.6 23°17.7	329°12.5 23°17.5	344°12.4 23°17.4	359°12.2 23°17.3	14°12.1 23°17.2	29°12.0 23°17.1	44°11.8 23°17.0	59°11.7 23°16.9	74°11.6 23°16.8	-0.1 -0.1
Ma 28	269°09.9 23°15.2	284°09.8 23°15.1	299°09.6 23°15.0	314°09.5 23°14.8	329°09.4 23°14.7	344°09.3 23°14.6	359°09.1 23°14.5	14°09.0 23°14.3	29°08.8 23°14.2	44°08.8 23°14.1	59°08.6 23°13.9	74°08.5 23°13.8	-0.1 -0.1
Me 29	269°06.9 23°12.0	284°06.7 23°11.9	299°06.6 23°11.8	314°06.5 23°11.6	329°06.3 23°11.5	344°06.2 23°11.3	359°06.1 23°11.2	14°06.0 23°11.0	29°05.8 23°10.9	44°05.7 23°10.8	59°05.6 23°10.6	74°05.5 23°10.5	-0.1 -0.1
Je 30	269°03.9 23°08.5	284°03.7 23°08.3	299°03.6 23°08.2	314°03.5 23°08.0	329°03.4 23°07.8	344°03.2 23°07.7	359°03.1 23°07.5	14°03.0 23°07.3	29°02.9 23°07.2	44°02.8 23°07.0	59°02.6 23°06.9	74°02.5 23°06.7	-0.1 -0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juin 2033

	J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h	SP
●	Me 1	234 ⁰ 49.9 15 ²⁰ 17	249 ⁰ 19.8 15 ¹⁵ 57	263 ⁰ 49.6 15 ⁰⁹ 66	278 ⁰ 19.6 15 ⁰³ 44	292 ⁰ 49.6 14 ⁵⁷ 24	307 ⁰ 19.7 14 ⁵⁰ 09	321 ⁰ 49.9 14 ⁴⁴ 55	336 ⁰ 20.1 14 ³⁸ 00	350 ⁰ 50.4 14 ³¹ 35	5 ²⁰ 28 14 ²⁴ 49	19 ⁵¹ 22 14 ¹⁸ 33	+30.1	15.3
	Je 2	237 ⁰ 35.8 12 ³⁰ 31.5	252 ⁰ 07.3 12 ²³ 39	266 ⁰ 38.8 12 ¹⁶ 33	281 ⁰ 10.4 12 ⁰⁸ 46	295 ⁰ 42.1 12 ⁰⁰ 09	310 ⁰ 13.8 11 ⁵³ 22	324 ⁰ 45.6 11 ⁴⁵ 44	339 ⁰ 17.5 11 ³⁷ 51	353 ⁰ 49.4 11 ²⁹ 66	8 ²¹ 33 11 ²¹ 27	22 ⁵³ 33 11 ¹³ 37	+31.8	15.1
	Ve 3	241 ⁰ 00.2 9 ⁰⁹ 11	255 ⁰ 33.1 9 ⁰⁰ 05	270 ⁰ 06.6 8 ⁵¹ 08	284 ⁰ 39.0 8 ⁴³ 22	299 ⁰ 12.0 8 ³⁴ 35	313 ⁰ 45.0 8 ²⁵ 48	328 ⁰ 18.1 8 ¹⁷ 00	342 ⁰ 51.2 7 ⁵⁹ 44	357 ⁰ 24.4 7 ⁵⁰ 59	11 ⁵⁷ 22 7 ⁴² 06	26 ³⁰ 49 7 ³⁴ 17	+33.1	15.0
○	Sa 4	244 ⁰ 54.4 5 ²⁵ 29	259 ⁰ 28.3 5 ¹⁶ 17	274 ⁰ 02.1 5 ⁰⁷ 55	288 ⁰ 36.0 4 ⁵⁸ 22	303 ⁰ 10.0 4 ⁴⁸ 49	317 ⁰ 43.9 4 ³⁹ 77	332 ⁰ 17.9 4 ³⁰ 44	346 ⁰ 51.9 4 ²¹ 11	1 ²⁵ 59 4 ¹¹ 17	15 ⁵⁹ 59 4 ⁰² 24	30 ³⁴ 00 3 ⁵³ 11	+34.0	14.8
	Di 5	249 ⁰ 07.4 1 ³¹ 17	263 ⁰ 41.7 1 ²² 22	278 ⁰ 16.0 1 ¹² 28	292 ⁰ 50.4 1 ⁰³ 33	307 ⁰ 24.8 0 ⁵³ 58	321 ⁰ 59.1 0 ⁴⁴ 33	336 ⁰ 33.5 0 ³⁴ 48	351 ⁰ 07.9 0 ²⁵ 33	5 ⁴² 33 0 ¹⁵ 59	20 ¹⁶ 77 0 ⁰⁶ 44	34 ⁵¹ 11 -0 ⁰³ 11	+34.4	14.8
	Lu 6	253 ⁰ 27.1 -2 ²⁵ 00	268 ⁰ 01.4 -2 ³⁴ 44	282 ⁰ 35.8 -2 ⁴³ 38	297 ⁰ 10.1 -2 ⁵³ 32	311 ⁰ 44.4 -3 ⁰² 19	326 ⁰ 18.7 -3 ¹¹ 19	340 ⁰ 53.1 -3 ²¹ 22	355 ⁰ 27.3 -3 ³⁰ 36	10 ⁰¹ 66 -3 ³⁹ 39	24 ³⁵ 99 -3 ⁴⁹ 22	39 ¹⁰ 11 -3 ⁵⁸ 55	+34.3	14.8
○	Ma 7	257 ⁰ 41.6 -6 ¹⁶ 00	272 ⁰ 15.5 -6 ²⁵ 00	286 ⁰ 49.4 -6 ³⁴ 00	301 ⁰ 23.3 -6 ⁴³ 00	315 ⁰ 57.1 -6 ⁵¹ 59	330 ⁰ 30.9 -7 ⁰⁰ 08	345 ⁰ 04.7 -7 ⁰⁹ 07	359 ⁰ 38.4 -7 ¹⁸ 66	14 ¹² 22 -7 ²⁷ 44	28 ⁴⁵ 88 -7 ³⁶ 62	43 ¹⁹ 55 -7 ⁴⁵ 00	+33.8	14.8
	Me 8	261 ⁰ 40.0 -9 ⁵³ 00	276 ⁰ 13.0 -10 ⁰¹ 22	290 ⁰ 46.0 -10 ⁰⁹ 44	305 ⁰ 19.0 -10 ¹⁷ 66	319 ⁰ 51.9 -10 ²⁵ 88	334 ⁰ 24.8 -10 ³³ 99	348 ⁰ 57.6 -10 ⁴¹ 99	3 ³⁰ 44 -10 ⁴⁹ 59	18 ⁰³ 22 -10 ⁵⁷ 99	32 ³⁵ 99 -11 ⁰⁵ 88	47 ⁰⁸ 55 -11 ¹³ 77	+32.9	14.9
	Je 9	265 ⁰ 12.6 -13 ⁰⁶ 04	279 ⁰ 44.5 -13 ¹³ 05	294 ⁰ 16.3 -13 ²⁰ 55	308 ⁰ 48.0 -13 ²⁷ 55	323 ⁰ 19.7 -13 ³⁴ 45	337 ⁰ 51.4 -13 ⁴¹ 33	352 ⁰ 23.0 -13 ⁴⁸ 54	6 ⁵⁴ 25 -14 ⁰¹ 56	21 ²⁶ 00 -14 ⁰⁸ 33	35 ⁵⁷ 44 -14 ¹⁵ 08	50 ²⁸ 88 -14 ²¹ 48	+31.6	15.0
○	Ve 10	268 ⁰ 12.9 -15 ⁴⁵ 77	282 ⁰ 43.4 -15 ⁵¹ 22	297 ⁰ 13.8 -15 ⁵⁶ 37	311 ⁰ 44.2 -16 ⁰² 00	326 ⁰ 14.5 -16 ⁰⁷ 33	340 ⁰ 44.8 -16 ¹² 55	355 ⁰ 15.0 -16 ¹⁷ 66	9 ⁴⁵ 11 -16 ²² 77	24 ¹⁵ 22 -16 ²⁷ 77	38 ⁴⁵ 33 -16 ³² 88	53 ¹⁵ 33 -16 ³⁷ 44	+30.2	15.1
	Sa 11	270 ⁰ 38.6 -17 ³⁹ 77	285 ⁰ 07.7 -17 ⁴³ 42	299 ⁰ 36.8 -17 ⁴⁶ 66	314 ⁰ 05.8 -17 ⁴⁹ 48	328 ⁰ 34.8 -17 ⁵³ 00	343 ⁰ 03.7 -17 ⁵⁶ 11	357 ⁰ 32.6 -17 ⁵⁹ 11	12 ⁰¹ 55 -18 ⁰² 00	26 ³⁰ 22 -18 ⁰⁴ 99	40 ⁵⁹ 00 -18 ⁰⁷ 66	57 ¹¹ 77 -18 ¹⁰ 22	+28.9	15.3
	Di 12	272 ⁰ 32.9 -18 ³⁷ 38	287 ⁰ 01.0 -18 ³⁸ 99	301 ⁰ 29.0 -18 ³⁹ 88	315 ⁰ 56.9 -18 ⁴⁰ 40	330 ⁰ 24.9 -18 ⁴¹ 33	344 ⁰ 52.7 -18 ⁴² 00	359 ⁰ 20.6 -18 ⁴² 55	15 ¹⁶ 33 -18 ⁴³ 22	29 ⁴³ 66 -18 ⁴³ 42	44 ¹⁰ 99 -18 ⁴³ 44	58 ³⁸ 11 -18 ⁴³ 55	+27.9	15.5
○	Lu 13	274 ⁰ 04.9 -18 ³² 00	288 ⁰ 32.3 -18 ³⁰ 33	302 ⁰ 59.6 -18 ²⁸ 66	317 ⁰ 27.0 -18 ²⁶ 77	331 ⁰ 54.3 -18 ²⁴ 24	346 ⁰ 21.7 -18 ²² 27	360 ⁰ 49.0 -18 ²⁰ 55	15 ¹⁶ 33 -18 ¹⁸ 22	29 ⁴³ 66 -18 ¹⁵ 59	44 ¹⁰ 99 -18 ¹³ 33	58 ³⁸ 11 -18 ¹⁰ 77	+27.3	15.6
	Ma 14	275 ⁰ 29.6 -17 ¹⁸ 77	289 ⁰ 54.2 -17 ¹⁴ 44	304 ⁰ 21.4 -17 ⁰⁹ 99	318 ⁰ 48.7 -17 ⁰⁵ 44	333 ⁰ 16.0 -17 ⁰⁰ 08	347 ⁰ 43.3 -16 ⁵⁶ 00	360 ⁰ 16.0 -16 ⁵¹ 22	16 ³⁷ 39 -16 ⁴⁶ 33	31 ⁰⁵ 22 -16 ⁵¹ 22	45 ³² 55 -16 ⁵⁶ 33	59 ⁵⁹ 58 -16 ³⁰ 88	+27.3	15.8
	Me 15	276 ⁰ 51.5 -15 ⁰⁰ 04	291 ⁰ 19.4 -14 ⁵³ 66	305 ⁰ 46.6 -14 ⁴⁶ 67	320 ⁰ 14.2 -14 ³⁹ 88	334 ⁰ 41.9 -14 ³² 77	349 ⁰ 09.5 -14 ²⁵ 55	360 ⁰ 37.2 -14 ¹⁸ 33	18 ⁰⁴ 49 -14 ¹⁰ 33	32 ³² 66 -14 ⁰³ 66	47 ⁰⁰ 33 -13 ⁵⁶ 11	61 ²⁷ 11 -13 ⁴⁸ 55	+27.7	15.9
○	Je 16	278 ⁰ 27.1 -11 ⁴⁵ 11	292 ⁰ 55.2 -11 ³⁶ 33	307 ⁰ 23.4 -11 ²⁷ 44	321 ⁰ 51.5 -11 ¹⁸ 44	336 ⁰ 19.7 -11 ⁰⁹ 55	350 ⁰ 47.9 -11 ⁰⁰ 22	360 ⁰ 51.1 -10 ⁵¹ 11	19 ⁴⁴ 44 -10 ⁴¹ 44	34 ¹² 77 -10 ³² 55	47 ⁰⁰ 33 -10 ²³ 11	63 ⁰⁹ 58 -10 ¹³ 77	+28.2	16.0
	Ve 17	280 ⁰ 16.5 -7 ⁴⁵ 22	294 ⁰ 45.1 -7 ³⁴ 49	309 ⁰ 13.8 -7 ²⁴ 55	323 ⁰ 42.5 -7 ¹⁴ 11	338 ⁰ 11.1 -7 ⁰³ 37	352 ⁰ 39.8 -6 ⁵³ 22	360 ⁰ 08.6 -6 ⁴² 66	21 ³⁷ 33 -6 ³² 01	36 ⁰⁶ 22 -6 ²¹ 44	50 ³⁴ 88 -6 ¹⁰ 88	65 ⁰³ 66 -6 ⁰⁰ 11	+28.7	16.1
	Sa 18	294 ⁰ 45.1 -7 ³⁴ 49	309 ⁰ 13.8 -7 ²⁴ 55	323 ⁰ 42.5 -7 ¹⁴ 11	338 ⁰ 11.1 -7 ⁰³ 37	352 ⁰ 39.8 -6 ⁵³ 22	360 ⁰ 08.6 -6 ⁴² 66	21 ³⁷ 33 -6 ³² 01	36 ⁰⁶ 22 -6 ²¹ 44	50 ³⁴ 88 -6 ¹⁰ 88	65 ⁰³ 66 -6 ⁰⁰ 11	79 ³² 44 -5 ⁴⁹ 44	+28.7	16.1
○	Di 19	296 ⁰ 45.4 -3 ⁰⁴ 66	311 ⁰ 14.3 -2 ⁵³ 55	325 ⁰ 43.3 -2 ⁴² 33	340 ⁰ 12.2 -2 ³¹ 11	354 ⁰ 41.2 -2 ¹⁹ 19	360 ⁰ 10.1 -2 ⁰⁸ 66	23 ³⁹ 11 -1 ⁵⁷ 33	38 ⁰⁸ 00 -1 ⁴⁶ 00	52 ³⁶ 99 -1 ³⁴ 88	67 ⁰⁵ 99 -1 ²³ 55	81 ³⁴ 88 -1 ¹² 22	+28.9	16.1
	Lu 20	298 ⁰ 48.6 1 ³⁷ 39	313 ⁰ 17.4 1 ⁴⁹ 22	327 ⁰ 46.3 2 ⁰⁰ 55	342 ⁰ 15.1 2 ¹¹ 88	356 ⁰ 43.9 2 ²³ 31	360 ⁰ 11.1 2 ³⁴ 44	11 ¹² 27 2 ⁴⁵ 66	25 ⁴¹ 55 2 ⁵⁶ 99	40 ¹⁰ 33 3 ⁰⁸ 11	54 ³⁹ 00 3 ¹⁹ 33	69 ⁰⁷ 88 3 ³⁰ 55	+28.8	16.2
	Ma 21	300 ⁰ 45.3 6 ¹⁵ 44	315 ⁰ 13.7 6 ²⁶ 22	329 ⁰ 42.7 6 ³⁶ 99	344 ⁰ 10.4 6 ⁴⁷ 66	358 ⁰ 38.7 6 ⁵⁸ 22	360 ⁰ 07.6 7 ⁰⁸ 88	13 ⁰⁷ 00 7 ¹⁹ 33	27 ³⁵ 33 7 ²⁹ 88	42 ⁰³ 66 7 ⁴⁰ 33	56 ³³ 18 7 ⁵⁰ 57	71 ⁰⁰ 00 7 ⁵⁷ 07	+28.3	16.2
●	Me 22	302 ⁰ 27.1 10 ³⁰ 44	316 ⁰ 54.8 10 ³⁹ 99	331 ⁰ 22.4 10 ⁴⁹ 33	345 ⁰ 50.0 10 ⁵⁸ 77	360 ⁰ 17.6 11 ⁰⁷ 99	374 ⁰ 45.1 11 ¹⁷ 22	29 ¹² 66 11 ²⁶ 33	43 ⁴⁰ 44 11 ³⁵ 44	58 ⁰⁷ 66 11 ⁴⁴ 44	72 ³⁵ 00 11 ⁵³ 33	87 ⁰² 44 12 ⁰² 22	+27.5	16.1
	Je 23	303 ⁰ 49.1 14 ⁰⁵ 77	318 ⁰ 16.0 14 ¹³ 33	332 ⁰ 42.8 14 ²⁰ 88	347 ⁰ 09.6 14 ²⁸ 11	366 ⁰ 34.4 14 ³⁵ 44	380 ⁰ 03.1 14 ⁴² 66	30 ²⁹ 88 14 ⁴⁹ 77	44 ⁵⁶ 55 14 ⁵⁶ 77	59 ²³ 66 15 ⁰³ 22	73 ⁴⁹ 88 15 ¹⁰ 44	88 ¹⁶ 44 15 ¹⁷ 22	+26.7	16.1
	Ve 24	304 ⁰ 52.5 16 ⁴⁵ 99	319 ⁰ 18.8 16 ⁵¹ 00	333 ⁰ 45.0 16 ⁵⁶ 00	348 ⁰ 11.2 17 ⁰⁰ 09	360 ⁰ 37.4 17 ⁰³ 33	370 ⁰ 06.6 17 ¹⁰ 33	31 ²⁹ 77 17 ¹⁴ 88	45 ⁵⁵ 99 17 ²² 99	60 ²² 00 17 ³⁰ 22	74 ⁴⁸ 22 17 ³⁷ 44	89 ¹⁴ 33 17 ³¹ 99	+26.2	16.0
●	Sa 25	305 ⁰ 45.6 18 ¹⁹ 77	320 ⁰ 11.7 18 ²² 00	334 ⁰ 37.8 18 ²⁴ 12	349 ⁰ 03.9 18 ²⁶ 22	360 ⁰ 30.1 18 ²⁸ 33	370 ⁰ 56.2 18 ²⁹ 99	32 ²² 33 18 ³¹ 66	46 ⁴⁸ 55 18 ³⁵ 11	61 ¹⁴ 77 18 ³³ 33	75 ⁴⁰ 88 18 ³² 66	90 ⁰⁷ 00 18 ³⁷ 22	+26.1	15.9
	Di 26	306 ⁰ 42.6 18 ⁴¹ 77	321 ⁰ 09.2 18 ⁴¹ 11	335 ⁰ 35.8 18 ⁴⁰ 44	350 ⁰ 02.4 18 ³⁹ 66	360 ⁰ 29.1 18 ³⁸ 88	370 ⁰ 55.9 18 ³⁷ 55	33 ²² 66 18 ³⁶ 44	47 ⁴⁹ 44 18 ³⁵ 11	62 ¹⁶ 33 18 ³³ 33	76 ⁴³ 11 18 ³² 22	91 ¹⁰ 11 18 ³⁰ 66	+26.7	15.7
	Lu 27	307 ⁰ 59.3 17 ⁵³ 77	322 ⁰ 27.0 17 ⁵⁰ 44	336 ⁰ 54.7 17 ⁴⁷ 00	351 ⁰ 22.5 17 ⁴³ 55	360 ⁰ 50.0 17 ⁴⁰ 40	370 ⁰ 18.3 17 ³⁶ 33	34 ⁴⁶ 22 17 ³² 25	49 ¹⁴ 22 17 ²⁸ 77	63 ⁴² 33 17 ²⁴ 47	78 ¹⁰ 33 17 ²⁰ 66	92 ³⁸ 66 17 ¹⁶ 55	+27.9	15.6
●	Ma 28	309 ⁰ 48.7 16 ⁰³ 77	324 ⁰ 17.8 15 ⁵⁸ 22	338 ⁰ 47.1 15 ⁵² 55	353 ⁰ 16.4 15 ⁴⁶ 49	360 ⁰ 45.1 15 ⁴¹ 11	370 ⁰ 15.1 15 ³⁵ 33	36 ⁴⁴ 44 15 ²⁹ 33	51 ¹⁴ 22 15 ²³ 44	65 ⁴³ 88 15 ¹⁷ 33	80 ¹³ 55 15 ¹¹ 22	94 ⁴³ 22 15 ⁰⁴ 99	+29.5	15.4
	Me 29	312 ⁰ 17.1 13 ²³ 77	326 ⁰ 47.9 13 ¹⁶ 55	341 ⁰ 18.7 13 ⁰⁹ 22	355 ⁰ 49.6 13 ⁰¹ 88	360 ⁰ 20.5 12 ⁵⁴ 66	370 ⁰ 51.5 12 ⁴⁶ 99	39 ²² 66 12 ³⁹ 11	53 ⁵³ 33 12 ³¹ 88	68 ²⁴ 99 12 ²⁴ 92	82 ⁵⁶ 22 12 ¹⁶ 55	97 ²⁷ 55 12 ⁰⁸ 27	+31.0	15.2
	Je 30	315 ⁰ 24.2 10 ⁰⁷ 11	329 ⁰ 56.4 9 ⁵⁸ 66	344 ⁰ 28.7 9 ⁵⁰ 11	359 ⁰ 01.0 9 ⁴¹ 66	360 ⁰ 33.4 9 ³³ 11	370 ⁰ 05.8 9 ²⁴ 55	42 ³⁸ 33 9 ¹⁵ 88	57 ¹⁰ 88 9 ⁰⁷ 22	71 ⁴³ 44 8 ⁵⁸ 55	86 ¹⁶ 00 8 ⁴⁹ 48	100 ⁴⁸ 77 8 ⁴¹ 00	+32.5	15.0

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PQ: 4 23h38 — PL: 12 23h19 — DQ: 19 23h29 — NL: 26 21h07

SOLEIL

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J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ve 1	268°00.9 23°04.5	284°00.8 23°04.3	299°00.7 23°04.1	314°00.6 23°04.0	329°00.4 23°03.8	344°00.3 23°03.6	359°00.2 23°03.4	14°00.1 23°03.3	29°00.0 23°03.1	43°59.8 23°02.9	58°59.7 23°02.7	73°59.6 23°02.5	-0.1 -0.2
Sa 2	268°58.1 23°00.1	283°58.0 22°59.9	298°57.8 22°59.7	313°57.7 22°59.5	328°57.6 22°59.3	343°57.5 22°59.1	358°57.4 22°58.9	13°57.3 22°58.7	28°57.1 22°58.6	43°57.0 22°58.4	58°56.9 22°58.2	73°56.8 22°58.0	-0.1 -0.2
Di 3	268°55.3 22°55.3	283°55.2 22°55.1	298°55.1 22°54.9	313°54.9 22°54.7	328°54.8 22°54.5	343°54.7 22°54.3	358°54.6 22°54.1	13°54.5 22°53.8	28°54.5 22°53.6	43°54.4 22°53.4	58°54.2 22°53.2	73°54.0 22°53.0	-0.1 -0.2
Lu 4	268°52.6 22°50.1	283°52.5 22°49.9	298°52.4 22°49.7	313°52.3 22°49.5	328°52.1 22°49.2	343°52.0 22°49.0	358°51.9 22°48.8	13°51.8 22°48.5	28°51.7 22°48.3	43°51.6 22°48.1	58°51.5 22°47.9	73°51.4 22°47.6	-0.1 -0.2
Ma 5	268°50.0 22°44.6	283°49.9 22°44.3	298°49.8 22°44.1	313°49.7 22°43.8	328°49.5 22°43.6	343°49.4 22°43.3	358°49.3 22°43.1	13°49.2 22°42.9	28°49.1 22°42.6	43°49.0 22°42.4	58°48.9 22°42.1	73°48.8 22°41.9	-0.1 -0.2
Me 6	268°47.5 22°38.6	283°47.3 22°38.3	298°47.2 22°38.1	313°47.1 22°37.8	328°47.0 22°37.5	343°46.9 22°37.3	358°46.8 22°37.0	13°46.7 22°36.8	28°46.6 22°36.5	43°46.5 22°36.2	58°46.4 22°36.0	73°46.3 22°35.7	-0.1 -0.3
Je 7	268°45.0 22°32.2	283°44.9 22°31.9	298°44.8 22°31.7	313°44.7 22°31.4	328°44.6 22°31.1	343°44.5 22°30.8	358°44.4 22°30.6	13°44.3 22°30.3	28°44.2 22°30.0	43°44.1 22°29.7	58°44.0 22°29.4	73°43.9 22°29.2	-0.1 -0.3
Ve 8	268°42.7 22°25.5	283°42.6 22°25.2	298°42.5 22°24.9	313°42.4 22°24.6	328°42.3 22°24.3	343°42.2 22°24.0	358°42.1 22°23.7	13°42.0 22°23.4	28°41.9 22°23.1	43°41.8 22°22.8	58°41.8 22°22.5	73°41.7 22°22.2	-0.1 -0.3
Sa 9	268°40.5 22°18.3	283°40.4 22°18.0	298°40.3 22°17.7	313°40.2 22°17.4	328°40.1 22°17.1	343°40.0 22°16.8	358°39.9 22°16.5	13°39.9 22°16.2	28°39.8 22°15.9	43°39.7 22°15.5	58°39.6 22°15.2	73°39.5 22°14.9	-0.1 -0.3
Di 10	268°38.4 22°10.8	283°38.3 22°10.5	298°38.2 22°10.1	313°38.1 22°09.8	328°38.0 22°09.5	343°37.9 22°09.2	358°37.9 22°08.9	13°37.8 22°08.5	28°37.7 22°08.2	43°37.6 22°07.9	58°37.5 22°07.6	73°37.4 22°07.2	-0.1 -0.3
Lu 11	268°36.4 22°02.9	283°36.3 22°02.5	298°36.2 22°02.2	313°36.1 22°01.9	328°36.0 22°01.5	343°36.0 22°01.2	358°35.9 22°00.8	13°35.8 22°00.5	28°35.7 22°00.2	43°35.6 22°00.0	58°35.6 22°00.0	73°35.5 22°00.0	-0.1 -0.3
Ma 12	268°34.5 21°54.6	283°34.4 21°54.2	298°34.3 21°53.9	313°34.2 21°53.5	328°34.2 21°53.2	343°34.1 21°52.8	358°34.0 21°52.5	13°33.9 21°52.1	28°33.9 21°51.7	43°33.8 21°51.4	58°33.7 21°51.0	73°33.7 21°50.7	-0.1 -0.4
Me 13	268°32.7 21°45.9	283°32.6 21°45.6	298°32.6 21°45.2	313°32.5 21°44.8	328°32.4 21°44.4	343°32.4 21°44.1	358°32.3 21°43.7	13°32.2 21°43.3	28°32.1 21°43.0	43°32.1 21°42.6	58°32.0 21°42.2	73°31.9 21°41.8	-0.1 -0.4
Je 14	268°31.1 21°36.9	283°31.0 21°36.5	298°30.9 21°36.1	313°30.9 21°35.7	328°30.8 21°35.3	343°30.7 21°35.0	358°30.7 21°34.6	13°30.6 21°34.2	28°30.5 21°33.8	43°30.5 21°33.4	58°30.4 21°33.0	73°30.3 21°32.6	-0.1 -0.4
Ve 15	268°29.5 21°27.5	283°29.5 21°27.1	298°29.4 21°26.7	313°29.3 21°26.3	328°29.3 21°25.9	343°29.2 21°25.5	358°29.2 21°25.1	13°29.1 21°24.7	28°29.0 21°24.3	43°29.0 21°23.9	58°28.9 21°23.5	73°28.9 21°23.1	-0.1 -0.4
Sa 16	268°28.4 21°17.7	283°28.1 21°17.3	298°28.0 21°16.9	313°28.0 21°16.5	328°27.9 21°16.1	343°27.8 21°15.6	358°27.8 21°15.2	13°27.7 21°14.8	28°27.7 21°14.2	43°27.6 21°14.0	58°27.6 21°13.5	73°27.5 21°13.1	-0.1 -0.4
Di 17	268°26.8 21°07.6	283°26.8 21°07.2	298°26.7 21°06.7	313°26.7 21°06.3	328°26.6 21°05.9	343°26.6 21°05.4	358°26.5 21°05.0	13°26.5 21°04.6	28°26.4 21°04.1	43°26.4 21°03.7	58°26.3 21°03.3	73°26.3 21°02.8	-0.0 -0.4
Lu 18	268°25.7 20°57.1	283°25.6 20°56.6	298°25.6 20°56.2	313°25.6 20°55.8	328°25.5 20°55.3	343°25.5 20°54.9	358°25.4 20°54.4	13°25.4 20°54.0	28°25.3 20°53.5	43°25.3 20°53.1	58°25.3 20°52.6	73°25.2 20°52.2	-0.0 -0.4
Ma 19	268°24.7 20°46.2	283°24.6 20°45.8	298°24.6 20°45.3	313°24.6 20°44.9	328°24.5 20°44.4	343°24.5 20°43.9	358°24.4 20°43.5	13°24.4 20°43.0	28°24.4 20°42.6	43°24.3 20°42.2	58°24.3 20°41.6	73°24.2 20°41.2	-0.0 -0.5
Me 20	268°23.8 20°35.1	283°23.8 20°34.6	298°23.7 20°34.1	313°23.7 20°33.6	328°23.6 20°33.2	343°23.6 20°32.7	358°23.6 20°32.2	13°23.6 20°31.7	28°23.5 20°31.2	43°23.5 20°30.8	58°23.5 20°30.3	73°23.4 20°29.8	-0.0 -0.5
Je 21	268°23.0 20°23.5	283°23.0 20°23.0	298°23.0 20°22.5	313°22.9 20°22.0	328°22.9 20°21.6	343°22.9 20°21.1	358°22.9 20°20.6	13°22.8 20°20.1	28°22.8 20°19.6	43°22.8 20°19.2	58°22.8 20°18.7	73°22.7 20°18.1	-0.0 -0.5
Ve 22	268°22.4 20°11.6	283°22.4 20°11.1	298°22.4 20°10.6	313°22.3 20°10.1	328°22.3 20°09.8	343°22.3 20°09.1	358°22.3 20°08.6	13°22.3 20°08.1	28°22.2 20°07.6	43°22.2 20°07.1	58°22.2 20°06.6	73°22.2 20°06.1	-0.0 -0.5
Sa 23	268°21.9 19°59.4	283°21.9 19°58.9	298°21.9 19°58.4	313°21.9 19°57.9	328°21.9 19°57.3	343°21.9 19°56.8	358°21.8 19°56.3	13°21.8 19°55.8	28°21.8 19°55.3	43°21.8 19°54.7	58°21.8 19°54.2	73°21.8 19°53.7	-0.0 -0.5
Di 24	268°21.6 19°46.8	283°21.6 19°46.3	298°21.6 19°45.8	313°21.6 19°45.3	328°21.6 19°44.7	343°21.6 19°44.2	358°21.5 19°43.7	13°21.5 19°43.1	28°21.5 19°42.6	43°21.5 19°42.1	58°21.5 19°41.5	73°21.5 19°41.0	-0.0 -0.5
Lu 25	268°21.4 19°34.0	283°21.4 19°33.4	298°21.4 19°32.9	313°21.4 19°32.3	328°21.4 19°31.8	343°21.4 19°31.2	358°21.4 19°30.7	13°21.4 19°30.1	28°21.4 19°29.6	43°21.4 19°29.0	58°21.4 19°28.5	73°21.4 19°27.9	-0.0 -0.5
Ma 26	268°21.4 19°20.8	283°21.4 19°20.2	298°21.4 19°19.6	313°21.4 19°19.1	328°21.4 19°18.5	343°21.4 19°18.0	358°21.4 19°17.4	13°21.4 19°16.8	28°21.4 19°16.3	43°21.4 19°15.7	58°21.4 19°15.2	73°21.4 19°14.6	+0.0 -0.6
Me 27	268°21.5 19°07.2	283°21.5 19°06.7	298°21.5 19°06.1	313°21.5 19°05.5	328°21.5 19°04.9	343°21.5 19°04.4	358°21.5 19°03.8	13°21.6 19°03.2	28°21.6 19°02.6	43°21.6 19°02.1	58°21.6 19°01.5	73°21.6 19°00.9	+0.0 -0.6
Je 28	268°21.8 18°53.4	283°21.8 18°52.8	298°21.8 18°52.2	313°21.8 18°51.6	328°21.8 18°51.0	343°21.8 18°50.5	358°21.8 18°49.9	13°21.9 18°49.3	28°21.9 18°48.7	43°21.9 18°48.1	58°21.9 18°47.5	73°21.9 18°46.9	+0.0 -0.6
Ve 29	268°22.2 18°39.2	283°22.2 18°38.6	298°22.2 18°38.0	313°22.2 18°37.4	328°22.2 18°36.8	343°22.2 18°36.2	358°22.3 18°35.6	13°22.3 18°35.0	28°22.3 18°34.4	43°22.3 18°33.8	58°22.4 18°33.2	73°22.4 18°32.6	+0.0 -0.6
Sa 30	268°22.7 18°24.8	283°22.8 18°24.2	298°22.8 18°23.5	313°22.8 18°22.9	328°22.9 18°22.3	343°22.9 18°21.7	358°22.9 18°21.1	13°22.9 18°20.5	28°22.9 18°19.9	43°23.0 18°19.3	58°23.0 18°18.7	73°23.1 18°18.0	+0.0 -0.6
Di 31	268°23.5 18°10.0	283°23.5 18°09.4	298°23.5 18°08.8	313°23.6 18°08.1	328°23.6 18°07.5	343°23.6 18°06.9	358°23.7 18°06.3	13°23.7 18°05.6	28°23.7 18°05.4	43°23.8 18°04.8	58°23.8 18°04.3	73°23.9 18°03.8	+0.0 -0.6

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juillet 2033

	J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h	SP
O	Ve 1	231°44.9 7°20.9	246°18.0 7°11.8	260°51.1 7°02.8	275°24.4 6°53.7	289°57.6 6°44.6	304°30.9 6°35.5	319°04.2 6°26.3	333°37.6 6°17.1	348°11.0 6°08.0	2°44.4 5°58.7	17°17.9 5°49.5	+33.3	14.9 -9.1
	Sa 2	235°43.8 3°29.2	250°17.7 3°19.8	264°51.7 3°10.3	279°25.7 3°00.9	293°59.7 2°51.4	308°33.8 2°41.9	323°07.8 2°32.4	337°41.9 2°22.9	352°16.0 2°13.4	6°50.2 2°03.9	21°24.3 1°54.4	+34.1	14.8 -9.5
	Di 3	239°58.1 -0°28.2	254°32.4 -0°37.7	269°06.7 -0°47.2	283°41.1 -0°56.7	298°15.4 -1°06.2	312°49.7 -1°15.7	327°24.1 -1°25.1	341°58.4 -1°34.6	356°32.8 -1°44.0	11°07.1 -1°53.5	25°41.5 -2°02.9	+34.3	14.8 -9.5
O	Lu 4	244°16.0 -4°23.0	258°50.2 -4°32.2	273°24.5 -4°41.4	287°58.7 -4°50.6	302°32.8 -4°59.8	317°07.0 -5°08.9	331°41.2 -5°18.0	346°15.3 -5°27.1	0°49.4 -5°36.2	15°23.5 -5°45.3	29°57.6 -5°54.3	+34.2	14.8 -9.1
	Ma 5	248°25.9 -8°06.9	262°59.6 -8°15.5	277°33.2 -8°24.1	292°06.9 -8°32.7	306°40.4 -8°41.2	321°14.0 -8°49.7	335°47.5 -8°58.1	350°20.9 -9°06.6	4°54.4 -9°14.9	19°27.8 -9°23.3	34°01.1 -9°31.6	+33.5	14.8 -8.5
	Me 6	252°16.8 -11°31.7	266°49.5 -11°39.3	281°22.1 -11°47.0	295°54.7 -11°54.5	310°27.3 -12°02.0	324°59.8 -12°09.5	339°32.2 -12°16.9	354°04.6 -12°24.3	8°37.0 -12°31.7	23°09.3 -12°38.9	37°41.6 -12°46.2	+32.5	14.9 -7.5
O	Je 7	255°39.1 -14°28.0	270°10.5 -14°34.3	284°41.8 -14°40.5	299°13.1 -14°46.7	313°44.3 -14°52.9	328°15.5 -14°58.9	342°46.6 -15°04.9	357°17.7 -15°10.8	11°48.7 -15°16.7	26°19.6 -15°22.5	40°50.5 -15°28.2	+31.1	15.1 -6.0
	Ve 8	258°26.5 -18°13.0	272°56.4 -18°15.3	287°26.3 -18°17.6	301°56.1 -18°19.7	316°25.8 -18°21.7	330°55.5 -18°23.6	345°25.1 -18°25.5	359°54.7 -18°27.1	14°24.2 -17°19.4	28°53.6 -17°23.3	43°23.0 -17°27.1	+29.7	15.2 -4.2
	Sa 9	260°37.1 -18°40.5	275°05.6 -18°40.5	289°34.0 -18°39.9	304°02.4 -18°39.4	318°30.7 -18°38.1	332°59.0 -18°37.3	347°27.3 -18°36.4	1°55.5 -18°35.2	16°23.6 -18°33.4	30°51.7 -18°31.0	45°19.7 -18°27.1	+28.3	15.4 -1.9
O	Di 10	262°15.0 -18°40.5	276°42.4 -18°40.5	291°09.7 -18°39.9	305°37.0 -18°39.4	320°04.3 -18°38.1	334°31.5 -18°37.3	348°58.7 -18°36.4	3°25.9 -18°35.2	17°53.0 -18°33.4	32°20.1 -18°31.0	46°47.2 -18°27.1	+27.2	15.6 -0.7
	Lu 11	263°30.4 -18°00.8	277°57.1 -17°57.7	292°23.8 -17°54.6	306°50.5 -17°51.3	321°17.2 -17°47.9	335°43.9 -17°44.4	350°10.5 -17°40.8	4°37.2 -17°37.3	20°09.9 -17°33.4	34°36.5 -17°29.4	47°57.1 -17°25.4	+26.7	15.8 +3.5
	Ma 12	264°36.5 -16°06.0	279°03.1 -16°06.0	293°29.8 -16°00.1	307°56.4 -15°54.2	322°23.1 -15°48.1	336°49.8 -15°41.9	351°16.5 -15°35.7	5°43.2 -15°29.3	20°33.9 -15°22.8	34°36.5 -15°16.3	49°03.3 -15°09.6	+26.7	16.0 +6.2
O	Me 13	265°46.3 -13°18.3	280°13.3 -13°10.2	294°40.3 -13°01.9	309°07.4 -12°53.6	323°34.4 -12°45.2	338°01.5 -12°36.8	352°28.7 -12°28.2	6°55.8 -12°19.6	21°23.0 -12°10.9	35°50.1 -12°02.1	50°17.3 -11°53.2	+27.1	16.1 +8.5
	Je 14	267°08.3 -9°31.6	281°35.9 -9°21.6	296°03.5 -9°11.6	310°31.1 -9°01.5	324°58.8 -8°51.4	339°26.5 -8°41.2	353°54.2 -8°30.9	8°21.9 -8°20.2	22°49.7 -8°10.3	37°17.5 -7°59.9	51°45.3 -7°49.4	+27.7	16.2 +10.2
	Ve 15	268°44.9 -5°07.4	283°13.0 -4°56.3	297°41.2 -4°45.2	312°09.3 -4°34.1	326°37.5 -4°22.9	341°05.7 -4°11.7	355°33.9 -4°00.5	10°20.2 -3°49.2	24°30.4 -3°38.0	38°58.7 -3°26.7	53°27.0 -3°15.4	+28.2	16.2 +11.2
O	Sa 16	270°32.7 -0°24.2	285°01.1 -0°12.7	299°29.6 -0°01.3	313°58.1 0°10.2	328°26.5 0°21.7	342°55.0 0°33.1	357°23.5 0°44.5	11°52.0 0°56.0	26°20.5 1°07.4	40°49.0 1°18.8	55°17.4 1°30.2	+28.5	16.2 +11.4
	Di 17	272°24.7 4°19.3	286°53.2 4°30.4	301°21.7 4°41.5	315°50.1 4°52.5	330°18.5 5°03.5	344°47.0 5°14.5	359°15.4 5°25.4	13°43.8 5°36.3	28°12.2 5°47.1	42°40.6 5°57.9	57°08.6 6°08.7	+28.4	16.2 +10.9
	Lu 18	286°53.2 4°30.4	301°21.7 4°41.5	315°50.1 4°52.5	330°18.5 5°03.5	344°47.0 5°14.5	359°15.4 5°25.4	13°43.8 5°36.3	28°12.2 5°47.1	42°40.6 5°57.9	57°08.6 6°08.7	71°37.3 6°19.5	+28.4	16.2 +10.9
O	Ma 19	288°41.2 8°55.0	303°09.3 9°05.0	317°37.4 9°14.9	332°05.5 9°24.7	346°33.5 9°34.5	361°01.7 9°44.2	375°29.7 9°53.9	15°01.7 10°03.5	29°57.7 10°13.0	44°25.7 10°22.5	58°53.7 10°26.4	+28.0	16.1 +9.7
	Me 20	290°18.6 12°44.5	304°46.2 12°52.7	319°13.8 13°00.8	333°41.4 13°08.9	348°09.5 13°16.9	362°36.5 13°24.8	377°04.0 13°32.6	31°35.1 13°40.4	45°59.9 13°48.4	60°26.4 13°55.6	74°53.9 14°03.1	+27.5	16.0 +7.9
	Je 21	292°43.0 15°44.4	306°10.1 15°50.4	320°37.2 15°56.3	335°04.3 16°02.1	349°31.4 16°07.7	363°59.4 16°13.3	378°24.1 16°18.8	32°52.5 16°24.2	47°19.5 16°29.5	61°46.5 16°34.7	76°13.5 16°39.8	+27.1	15.9 +5.5
O	Ve 22	295°57.3 17°43.6	307°24.1 17°47.0	321°51.0 17°50.3	336°17.9 17°53.4	350°44.7 17°56.5	365°11.6 17°59.5	379°38.4 18°02.3	34°05.3 18°05.0	48°32.2 18°07.8	62°59.0 18°10.2	77°25.9 18°12.6	+26.9	15.8 +2.9
	Sa 23	294°10.1 18°35.4	308°37.1 18°36.1	323°04.2 18°36.6	337°31.3 18°37.0	351°58.4 18°37.3	366°25.5 18°37.5	381°02.6 18°37.6	35°19.8 18°37.8	49°47.0 18°37.4	64°14.2 18°37.2	78°41.4 18°36.8	+27.1	15.7 +0.1
	Di 24	295°33.5 18°16.7	310°01.2 18°16.7	324°29.0 18°14.5	338°56.8 18°12.3	353°24.6 18°09.9	367°52.5 18°07.5	382°04.9 18°04.9	36°48.4 18°02.3	51°16.4 17°59.5	65°44.5 17°55.7	80°12.6 17°53.7	+27.9	15.5 -2.5
O	Lu 25	297°19.5 16°58.1	311°48.3 16°53.6	326°17.2 16°49.1	340°46.2 16°44.5	355°15.2 16°39.8	369°44.2 16°35.0	384°13.4 16°30.1	38°42.5 16°25.2	53°11.7 16°20.1	67°41.1 16°15.0	82°10.3 16°09.8	+29.1	15.4 -4.8
	Ma 26	299°36.7 14°42.4	314°06.9 14°36.0	328°37.2 14°29.5	343°07.5 14°23.0	357°37.8 14°16.4	372°08.3 14°09.7	386°38.8 14°03.0	41°09.3 13°56.2	55°39.9 13°49.3	70°10.5 13°42.4	84°41.2 13°35.4	+30.5	15.2 -6.7
	Me 27	302°28.4 11°43.6	317°00.0 11°35.7	331°31.6 11°27.8	346°03.3 11°19.8	360°35.0 11°11.8	375°06.8 11°03.7	389°38.8 10°55.6	44°10.5 10°47.5	58°42.4 10°39.3	73°14.4 10°31.1	87°46.4 10°22.8	+31.8	15.1 -8.5
O	Je 28	305°52.6 8°14.1	320°25.3 8°05.2	334°58.2 7°56.3	349°31.0 7°47.4	363°39.4 7°38.5	378°36.8 7°29.5	393°09.8 7°20.6	47°42.8 7°11.5	62°15.9 7°02.5	76°49.0 6°53.4	91°22.1 6°44.4	+33.0	15.0 -9.0
	Ve 29	309°43.3 4°25.8	324°16.9 4°16.4	338°50.6 4°07.0	353°24.3 3°57.6	367°58.1 3°48.2	382°31.9 3°38.8	397°05.7 3°29.4	51°39.5 3°19.9	66°13.3 3°10.5	80°47.2 3°01.2	95°21.1 2°51.6	+33.8	14.9 -9.4
	Sa 30	313°51.9 0°29.3	328°26.1 0°19.8	343°00.3 0°10.3	357°34.5 0°00.9	372°08.7 -0°08.6	386°42.9 -0°18.1	401°17.1 -0°27.6	55°51.4 -0°37.0	70°25.6 -0°46.5	84°56.9 -0°55.9	99°34.2 -1°05.4	+34.2	14.8 -9.5
O	Di 31	318°08.5 -3°25.8	332°42.7 -3°35.1	347°17.0 -3°44.3	361°51.3 -3°53.6	376°25.5 -4°02.8	390°59.8 -4°12.0	405°34.0 -4°21.1	60°08.3 -4°30.3	74°42.5 -4°39.4	89°16.7 -4°48.5	103°50.9 -4°57.6	+34.3	14.8 -9.2

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PQ: 4 17h12 — PL: 12 09h28 — DQ: 19 04h07 — NL: 26 08h12

SOLEIL

Août 2033

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	268°24.3 17°55.0	283°24.4 17°54.3	298°24.4 17°53.7	313°24.5 17°53.0	328°24.5 17°52.4	343°24.6 17°51.8	358°24.6 17°51.1	13°24.6 17°50.5	28°24.7 17°49.9	43°24.7 17°49.2	58°24.8 17°48.6	73°24.8 17°48.0	+0.0 -0.6
Ma 2	268°25.4 17°39.6	283°25.4 17°39.0	298°25.5 17°38.7	313°25.5 17°37.7	328°25.6 17°37.0	343°25.6 17°36.4	358°25.7 17°35.7	13°25.7 17°35.1	28°25.8 17°34.4	43°25.8 17°33.8	58°25.9 17°33.1	73°25.9 17°32.5	+0.0 -0.6
Me 3	268°26.6 17°24.0	283°26.6 17°23.3	298°26.7 17°22.7	313°26.7 17°22.0	328°26.8 17°21.3	343°26.8 17°20.7	358°26.9 17°20.0	13°27.0 17°19.4	28°27.0 17°18.7	43°27.1 17°18.0	58°27.1 17°17.4	73°27.2 17°16.7	+0.1 -0.7
Je 4	268°27.9 17°08.1	283°28.0 17°07.4	298°28.0 17°06.7	313°28.1 17°06.0	328°28.2 17°05.4	343°28.2 17°04.7	358°28.3 17°04.0	13°28.4 17°03.4	28°28.4 17°02.7	43°28.5 17°02.0	58°28.5 17°01.3	73°28.6 17°00.7	+0.1 -0.7
Ve 5	268°29.4 16°51.9	283°29.5 16°51.2	298°29.6 16°50.5	313°29.6 16°49.8	328°29.7 16°49.1	343°29.8 16°48.5	358°29.8 16°47.8	13°29.9 16°47.1	28°30.0 16°46.4	43°30.0 16°45.7	58°30.1 16°45.0	73°30.2 16°44.4	+0.1 -0.7
Sa 6	268°31.1 16°35.4	283°31.2 16°34.7	298°31.2 16°34.0	313°31.3 16°33.3	328°31.4 16°32.6	343°31.5 16°31.9	358°31.5 16°31.2	13°31.6 16°30.6	28°31.7 16°29.9	43°31.7 16°29.2	58°31.8 16°28.5	73°31.9 16°27.8	+0.1 -0.7
Di 7	268°32.9 16°18.7	283°33.0 16°18.0	298°33.1 16°17.3	313°33.1 16°16.6	328°33.2 16°15.9	343°33.3 16°15.2	358°33.4 16°14.5	13°33.5 16°13.7	28°33.5 16°13.0	43°33.6 16°12.3	58°33.7 16°11.6	73°33.8 16°10.9	+0.1 -0.7
Lu 8	268°34.9 16°01.7	283°34.9 16°01.0	298°35.0 16°00.3	313°35.1 15°59.5	328°35.2 15°58.8	343°35.3 15°58.1	358°35.4 15°57.4	13°35.5 15°56.7	28°35.5 15°56.0	43°35.6 15°55.2	58°35.7 15°54.5	73°35.8 15°53.8	+0.1 -0.7
Ma 9	268°37.0 15°44.4	283°37.1 15°43.7	298°37.2 15°43.0	313°37.2 15°42.3	328°37.3 15°41.5	343°37.4 15°40.8	358°37.5 15°40.1	13°37.6 15°39.4	28°37.7 15°38.6	43°37.8 15°37.9	58°37.9 15°37.2	73°38.0 15°36.5	+0.1 -0.7
Me 10	268°39.2 15°26.9	283°39.3 15°26.2	298°39.4 15°25.5	313°39.5 15°24.7	328°39.6 15°24.0	343°39.7 15°23.3	358°39.8 15°22.5	13°39.9 15°21.8	28°40.0 15°21.1	43°40.1 15°20.3	58°40.2 15°19.6	73°40.3 15°18.7	+0.1 -0.7
Je 11	268°41.6 15°09.2	283°41.7 15°08.5	298°41.8 15°07.7	313°41.9 15°07.0	328°42.0 15°06.2	343°42.1 15°05.5	358°42.2 15°04.7	13°42.2 15°04.0	28°42.3 15°03.2	43°42.4 15°02.5	58°42.6 15°01.7	73°42.8 15°01.0	+0.1 -0.7
Ve 12	268°44.2 14°51.2	283°44.3 14°50.5	298°44.4 14°49.7	313°44.5 14°48.9	328°44.6 14°48.2	343°44.7 14°47.4	358°44.8 14°46.7	13°44.9 14°45.9	28°45.0 14°45.2	43°45.1 14°44.4	58°45.3 14°43.6	73°45.4 14°42.9	+0.1 -0.8
Sa 13	268°46.8 14°33.0	283°47.0 14°32.2	298°47.1 14°31.5	313°47.2 14°30.7	328°47.3 14°29.9	343°47.4 14°29.2	358°47.5 14°28.4	13°47.7 14°27.6	28°47.8 14°26.9	43°47.9 14°26.1	58°48.0 14°25.3	73°48.1 14°24.6	+0.1 -0.8
Di 14	268°49.7 14°14.5	283°49.8 14°13.8	298°49.9 14°13.0	313°50.0 14°12.2	328°50.1 14°11.4	343°50.3 14°10.7	358°50.4 14°09.9	13°50.5 14°09.1	28°50.6 14°08.3	43°50.7 14°07.6	58°50.9 14°06.8	73°51.0 14°06.0	+0.1 -0.8
Lu 15	268°52.6 13°55.8	283°52.7 13°55.1	298°52.8 13°54.3	313°53.0 13°53.5	328°53.1 13°52.7	343°53.2 13°51.9	358°53.4 13°51.1	13°53.5 13°50.4	28°53.6 13°49.9	43°53.7 13°48.8	58°53.9 13°48.0	73°54.0 13°47.2	+0.1 -0.8
Ma 16	268°55.7 13°36.9	283°55.8 13°36.1	298°55.9 13°35.4	313°56.1 13°34.6	328°56.2 13°33.8	343°56.3 13°33.0	358°56.5 13°32.2	13°56.6 13°31.4	28°56.7 13°30.6	43°56.9 13°29.8	58°57.0 13°29.0	73°57.1 13°28.2	+0.1 -0.8
Me 17	268°58.9 13°17.8	283°59.0 13°17.0	298°59.1 13°16.2	313°59.3 13°15.4	328°59.4 13°14.6	343°59.5 13°13.8	358°59.7 13°13.0	13°59.8 13°12.2	28°59.9 13°11.4	43°00.1 13°10.6	58°00.2 13°09.8	74°00.4 13°09.0	+0.1 -0.8
Je 18	269°02.2 12°58.5	284°02.3 12°57.7	299°02.5 12°56.9	314°02.6 12°56.0	329°02.7 12°55.2	344°02.9 12°54.4	359°03.0 12°53.6	14°03.2 12°52.8	29°03.3 12°52.0	44°03.5 12°51.2	59°03.6 12°50.4	74°03.7 12°49.5	+0.1 -0.8
Ve 19	269°05.6 12°38.9	284°05.8 12°38.1	299°05.9 12°37.3	314°06.1 12°36.5	329°06.2 12°35.7	344°06.3 12°34.8	359°06.5 12°34.0	14°06.6 12°33.2	29°06.8 12°32.4	44°06.9 12°31.6	59°07.1 12°30.7	74°07.2 12°29.9	+0.1 -0.8
Sa 20	269°09.2 12°19.2	284°09.3 12°18.4	299°09.5 12°17.5	314°09.6 12°16.7	329°09.8 12°15.9	344°09.9 12°15.1	359°10.1 12°14.2	14°10.2 12°13.4	29°10.4 12°12.6	44°10.5 12°11.7	59°10.7 12°10.9	74°10.8 12°10.1	+0.2 -0.8
Di 21	269°12.8 11°59.3	284°13.0 11°58.4	299°13.1 11°57.6	314°13.3 11°56.7	329°13.5 11°55.9	344°13.6 11°55.1	359°13.8 11°54.2	14°13.9 11°53.4	29°14.1 11°52.6	44°14.2 11°51.7	59°14.4 11°50.9	74°14.5 11°50.1	+0.2 -0.8
Lu 22	269°16.6 11°39.1	284°16.8 11°38.3	299°16.9 11°37.4	314°17.1 11°36.6	329°17.2 11°35.8	344°17.4 11°34.9	359°17.6 11°34.1	14°17.7 11°32.7	29°17.9 11°32.1	44°18.1 11°31.5	59°18.2 11°30.7	74°18.4 11°29.8	+0.2 -0.8
Ma 23	269°20.5 11°18.8	284°20.7 11°18.0	299°20.8 11°17.1	314°21.0 11°16.3	329°21.2 11°15.4	344°21.3 11°14.6	359°21.5 11°13.7	14°21.6 11°12.9	29°21.8 11°12.0	44°22.0 11°11.1	59°22.1 11°10.3	74°22.3 11°09.4	+0.2 -0.9
Me 24	269°24.5 10°58.3	284°24.7 10°57.5	299°24.8 10°56.6	314°25.0 10°55.7	329°25.2 10°54.9	344°25.3 10°54.0	359°25.5 10°53.2	14°25.6 10°52.3	29°25.8 10°51.5	44°26.0 10°50.6	59°26.2 10°49.7	74°26.4 10°48.9	+0.2 -0.9
Je 25	269°28.6 10°37.7	284°28.8 10°36.8	299°28.9 10°35.9	314°29.1 10°35.1	329°29.3 10°34.2	344°29.5 10°33.3	359°29.6 10°32.5	14°29.8 10°31.6	29°30.0 10°30.7	44°30.1 10°29.9	59°30.3 10°29.0	74°30.5 10°28.1	+0.2 -0.9
Ve 26	269°32.8 10°16.8	284°33.0 10°16.0	299°33.1 10°15.1	314°33.3 10°14.2	329°33.5 10°13.3	344°33.7 10°12.5	359°33.9 10°11.6	14°34.0 10°10.7	29°34.4 10°09.8	44°34.4 10°09.0	59°34.6 10°08.1	74°34.7 10°07.2	+0.2 -0.9
Sa 27	269°37.1 9°55.8	284°37.3 9°54.9	299°37.4 9°54.1	314°37.6 9°53.2	329°37.8 9°52.3	344°38.0 9°51.4	359°38.2 9°50.6	14°38.4 9°49.7	29°38.8 9°48.8	44°38.7 9°47.9	59°38.7 9°47.0	74°39.1 9°46.2	+0.2 -0.9
Di 28	269°41.5 9°34.7	284°41.7 9°33.8	299°41.8 9°32.9	314°42.0 9°32.0	329°42.2 9°31.1	344°42.4 9°30.2	359°42.6 9°29.4	14°42.8 9°28.5	29°43.0 9°27.6	44°43.1 9°26.7	59°43.1 9°25.8	74°43.5 9°24.9	+0.2 -0.9
Lu 29	269°46.0 9°13.4	284°46.1 9°12.5	299°46.3 9°11.6	314°46.5 9°10.7	329°46.7 9°09.8	344°46.9 9°08.9	359°47.1 9°08.0	14°47.3 9°07.1	29°47.5 9°06.2	44°47.7 9°05.3	59°47.9 9°04.4	74°48.0 9°03.6	+0.2 -0.9
Ma 30	269°50.5 8°51.9	284°50.7 8°51.0	299°50.9 8°50.1	314°51.1 8°49.2	329°51.3 8°48.3	344°51.5 8°47.4	359°51.7 8°46.5	14°51.9 8°45.6	29°52.1 8°44.3	44°52.3 8°43.8	59°52.5 8°42.9	74°52.7 8°42.0	+0.2 -0.9
Me 31	269°55.2 8°30.3	284°55.4 8°29.4	299°55.6 8°28.5	314°55.8 8°27.6	329°56.0 8°26.7	344°56.2 8°25.8	359°56.4 8°24.9	14°56.6 8°24.0	29°56.8 8°23.1	44°57.0 8°22.2	59°57.2 8°21.3	74°57.4 8°20.4	+0.2 -0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Août 2033

	J	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h	SP
Lu 1	234 [°] 58.3 -6 [°] 18.5	249 [°] 32.3 -6 [°] 27.3	264 [°] 06.4 -6 [°] 36.2	278 [°] 40.4 -6 [°] 45.0	293 [°] 14.4 -6 [°] 53.8	307 [°] 48.4 -7 [°] 02.5	322 [°] 22.4 -7 [°] 11.3	336 [°] 56.3 -7 [°] 20.0	351 [°] 30.3 -7 [°] 28.6	6 [°] 04.2 -7 [°] 37.3	20 [°] 38.1 -7 [°] 45.9	+34.0	14.8	
	239 [°] 03.2 -9 [°] 51.0	253 [°] 36.6 -9 [°] 59.1	268 [°] 10.0 -10 [°] 07.1	282 [°] 43.4 -10 [°] 15.1	297 [°] 16.7 -10 [°] 23.0	311 [°] 50.0 -10 [°] 30.9	326 [°] 23.3 -10 [°] 38.8	340 [°] 56.5 -10 [°] 46.6	355 [°] 29.7 -10 [°] 54.3	10 [°] 02.8 -11 [°] 02.1	24 [°] 35.9 -11 [°] 09.7	+33.3	14.8	
Ma 2	242 [°] 47.6 -12 [°] 59.3	257 [°] 20.0 -13 [°] 06.2	271 [°] 52.4 -13 [°] 13.1	286 [°] 24.9 -13 [°] 19.9	300 [°] 57.0 -13 [°] 26.6	315 [°] 29.2 -13 [°] 33.3	330 [°] 01.4 -13 [°] 39.9	344 [°] 33.6 -13 [°] 46.6	359 [°] 05.7 -13 [°] 53.0	13 [°] 37.7 -13 [°] 59.4	28 [°] 09.7 -14 [°] 05.8	+32.2	14.9	
	246 [°] 03.2 -15 [°] 34.3	260 [°] 34.3 -15 [°] 39.7	275 [°] 05.4 -15 [°] 45.0	289 [°] 36.4 -15 [°] 50.2	304 [°] 07.4 -15 [°] 55.4	318 [°] 38.3 -16 [°] 00.5	333 [°] 09.1 -16 [°] 05.5	347 [°] 39.9 -16 [°] 10.5	2 [°] 10.6 -16 [°] 15.3	16 [°] 41.3 -16 [°] 20.1	31 [°] 11.9 -16 [°] 24.9	+30.9	15.1	
Je 4	248 [°] 44.4 -17 [°] 26.3	263 [°] 14.1 -17 [°] 29.8	277 [°] 43.7 -17 [°] 33.1	292 [°] 13.3 -17 [°] 36.4	306 [°] 42.8 -17 [°] 39.6	321 [°] 12.3 -17 [°] 42.7	335 [°] 41.7 -17 [°] 45.7	350 [°] 11.0 -17 [°] 48.6	4 [°] 40.3 -17 [°] 51.4	19 [°] 09.6 -17 [°] 54.2	33 [°] 38.8 -17 [°] 56.8	+29.4	15.3	
	250 [°] 49.9 -18 [°] 25.2	265 [°] 18.3 -18 [°] 26.3	279 [°] 46.5 -18 [°] 27.4	294 [°] 14.7 -18 [°] 28.3	308 [°] 42.9 -18 [°] 29.1	323 [°] 11.0 -18 [°] 30.4	337 [°] 39.1 -18 [°] 30.9	352 [°] 07.1 -18 [°] 31.3	6 [°] 35.1 -18 [°] 31.6	21 [°] 03.0 -18 [°] 31.6	35 [°] 30.9 -18 [°] 31.8	+28.1	15.5	
Sa 6	252 [°] 24.0 -18 [°] 22.0	266 [°] 51.2 -18 [°] 26.3	281 [°] 18.4 -18 [°] 27.4	295 [°] 45.5 -18 [°] 28.3	310 [°] 12.6 -18 [°] 29.1	324 [°] 39.7 -18 [°] 30.4	339 [°] 06.7 -18 [°] 30.9	353 [°] 33.8 -18 [°] 31.3	8 [°] 00.7 -18 [°] 31.6	22 [°] 27.7 -18 [°] 31.6	36 [°] 54.6 -18 [°] 31.8	+27.1	15.7	
	253 [°] 35.4 -17 [°] 10.8	268 [°] 02.0 -17 [°] 06.5	282 [°] 28.5 -17 [°] 02.1	296 [°] 55.1 -16 [°] 55.2	311 [°] 21.6 -16 [°] 52.9	325 [°] 48.1 -16 [°] 48.2	340 [°] 14.6 -16 [°] 43.3	354 [°] 41.0 -16 [°] 38.4	9 [°] 07.5 -16 [°] 33.2	23 [°] 33.9 -16 [°] 28.2	38 [°] 00.4 -16 [°] 22.9	+26.5	16.0	
Lu 8	254 [°] 36.2 -14 [°] 50.9	269 [°] 02.6 -14 [°] 44.0	283 [°] 29.0 -14 [°] 36.9	297 [°] 55.3 -14 [°] 29.8	312 [°] 21.7 -14 [°] 22.5	326 [°] 48.1 -14 [°] 15.1	341 [°] 14.5 -14 [°] 07.7	355 [°] 40.9 -14 [°] 00.2	10 [°] 07.3 -13 [°] 52.5	24 [°] 33.7 -13 [°] 44.8	39 [°] 00.1 -13 [°] 36.9	+26.6	16.2	
	255 [°] 37.3 -11 [°] 28.8	270 [°] 03.8 -11 [°] 19.5	284 [°] 30.4 -11 [°] 10.2	298 [°] 57.0 -11 [°] 00.9	313 [°] 23.6 -10 [°] 51.4	327 [°] 50.3 -10 [°] 41.9	342 [°] 16.9 -10 [°] 32.3	356 [°] 43.5 -10 [°] 22.6	11 [°] 10.2 -10 [°] 12.9	25 [°] 36.9 -10 [°] 03.1	40 [°] 03.6 -9 [°] 53.2	+26.6	16.3	
Me 10	256 [°] 45.9 -17 [°] 17.4	271 [°] 12.8 -17 [°] 06.6	285 [°] 39.8 -16 [°] 55.7	300 [°] 06.7 -16 [°] 44.7	314 [°] 33.7 -16 [°] 33.8	329 [°] 00.7 -16 [°] 22.8	343 [°] 27.8 -16 [°] 11.7	357 [°] 54.8 -16 [°] 00.6	12 [°] 21.9 -15 [°] 49.5	26 [°] 48.9 -15 [°] 38.3	41 [°] 16.0 -15 [°] 27.0	+27.0	16.4	
	258 [°] 03.9 -23 [°] 35.2	272 [°] 31.2 -23 [°] 23.5	286 [°] 58.5 -23 [°] 11.9	301 [°] 25.8 -23 [°] 00.2	315 [°] 53.5 -23 [°] 00.2	330 [°] 20.5 -1 [°] 36.9	344 [°] 47.9 -1 [°] 25.2	359 [°] 15.2 -1 [°] 13.5	13 [°] 42.6 -1 [°] 01.8	28 [°] 10.0 -0 [°] 50.0	42 [°] 37.4 -0 [°] 38.3	+27.3	16.5	
Ve 12	259 [°] 29.0 2 [°] 16.8	273 [°] 56.5 2 [°] 28.4	288 [°] 24.0 2 [°] 40.0	302 [°] 51.4 2 [°] 51.5	317 [°] 18.9 3 [°] 03.0	331 [°] 46.4 3 [°] 14.5	346 [°] 13.9 3 [°] 26.0	0 [°] 41.4 3 [°] 37.4	15 [°] 08.9 3 [°] 48.8	29 [°] 36.4 4 [°] 00.2	44 [°] 03.9 4 [°] 11.5	+27.5	16.4	
	260 [°] 56.1 6 [°] 57.3	275 [°] 23.6 7 [°] 08.0	289 [°] 51.0 7 [°] 18.7	304 [°] 18.5 7 [°] 29.3	318 [°] 45.9 7 [°] 39.8	333 [°] 13.3 7 [°] 50.3	347 [°] 40.8 8 [°] 00.7	2 [°] 08.2 8 [°] 11.1	16 [°] 35.6 8 [°] 21.4	31 [°] 03.0 8 [°] 31.7	45 [°] 30.4 8 [°] 41.9	+27.6	16.3	
Di 14	262 [°] 20.5 11 [°] 07.0	276 [°] 47.8 11 [°] 16.1	291 [°] 15.0 11 [°] 25.1	305 [°] 42.4 11 [°] 34.1	320 [°] 09.5 11 [°] 43.0	334 [°] 36.8 11 [°] 51.8	349 [°] 04.0 12 [°] 00.5	3 [°] 31.2 12 [°] 09.1	17 [°] 58.4 12 [°] 17.7	32 [°] 25.4 12 [°] 26.1	46 [°] 52.8 12 [°] 34.5	+27.2	16.2	
	263 [°] 39.6 14 [°] 29.8	278 [°] 06.6 14 [°] 36.8	292 [°] 33.7 14 [°] 43.7	307 [°] 00.8 14 [°] 50.4	321 [°] 27.8 14 [°] 57.1	335 [°] 54.9 15 [°] 03.7	350 [°] 21.9 15 [°] 10.2	4 [°] 48.9 15 [°] 16.5	19 [°] 15.9 15 [°] 22.8	33 [°] 43.0 15 [°] 29.0	48 [°] 10.0 15 [°] 35.1	+27.0	16.0	
Ma 16	278 [°] 06.7 14 [°] 36.8	292 [°] 33.7 14 [°] 43.7	307 [°] 00.8 14 [°] 50.4	321 [°] 27.8 14 [°] 57.1	335 [°] 54.9 15 [°] 03.7	350 [°] 21.9 15 [°] 10.2	4 [°] 48.9 15 [°] 16.5	19 [°] 15.9 15 [°] 22.8	33 [°] 43.0 15 [°] 29.0	48 [°] 10.0 15 [°] 35.1	62 [°] 37.0 15 [°] 41.1	+27.0	16.0	
	279 [°] 22.0 16 [°] 58.5	293 [°] 49.0 17 [°] 02.8	308 [°] 16.0 17 [°] 07.1	322 [°] 43.0 17 [°] 11.2	337 [°] 10.0 17 [°] 15.2	351 [°] 37.1 17 [°] 19.1	6 [°] 04.1 17 [°] 22.9	20 [°] 31.1 17 [°] 26.6	34 [°] 58.2 17 [°] 30.1	49 [°] 25.2 17 [°] 33.6	63 [°] 52.1 17 [°] 37.0	+27.4	15.8	
Je 18	280 [°] 39.6 18 [°] 14.5	295 [°] 06.9 18 [°] 16.1	309 [°] 34.1 18 [°] 17.6	324 [°] 01.5 18 [°] 19.0	338 [°] 28.8 18 [°] 20.3	352 [°] 56.1 18 [°] 21.5	7 [°] 23.5 18 [°] 22.6	21 [°] 50.9 18 [°] 23.6	36 [°] 18.3 18 [°] 24.5	50 [°] 45.7 18 [°] 25.2	65 [°] 13.2 18 [°] 25.9	+27.1	15.7	
	282 [°] 08.3 18 [°] 23.1	296 [°] 36.3 18 [°] 22.0	311 [°] 04.2 18 [°] 20.9	325 [°] 32.2 18 [°] 19.7	340 [°] 00.2 18 [°] 18.3	354 [°] 28.3 18 [°] 16.9	8 [°] 56.4 18 [°] 15.4	23 [°] 24.5 18 [°] 13.7	37 [°] 52.7 18 [°] 12.0	52 [°] 20.9 18 [°] 10.2	66 [°] 49.1 18 [°] 08.2	+28.1	15.5	
Sa 20	283 [°] 57.5 17 [°] 27.6	298 [°] 26.4 17 [°] 24.1	312 [°] 55.4 17 [°] 20.6	327 [°] 24.4 17 [°] 16.9	341 [°] 53.4 17 [°] 13.2	356 [°] 22.5 17 [°] 09.4	10 [°] 51.7 17 [°] 05.5	25 [°] 20.8 17 [°] 01.5	39 [°] 50.1 16 [°] 57.4	54 [°] 19.3 16 [°] 53.2	68 [°] 48.7 16 [°] 49.0	+29.1	15.3	
	286 [°] 14.3 15 [°] 35.3	300 [°] 44.4 15 [°] 29.8	315 [°] 14.6 15 [°] 24.2	329 [°] 44.8 15 [°] 18.5	344 [°] 15.1 15 [°] 12.7	358 [°] 45.4 15 [°] 06.9	13 [°] 15.7 15 [°] 01.0	27 [°] 46.1 14 [°] 55.0	42 [°] 16.6 14 [°] 45.0	56 [°] 47.1 14 [°] 42.8	71 [°] 17.7 14 [°] 36.7	+30.3	15.2	
Ma 23	289 [°] 02.0 12 [°] 56.2	303 [°] 33.4 12 [°] 49.0	318 [°] 04.8 12 [°] 41.8	332 [°] 36.2 12 [°] 34.5	347 [°] 07.7 12 [°] 27.1	1 [°] 39.3 12 [°] 19.7	16 [°] 10.8 12 [°] 12.3	30 [°] 42.5 12 [°] 04.8	45 [°] 14.2 11 [°] 57.2	59 [°] 45.9 11 [°] 49.6	74 [°] 17.7 11 [°] 41.9	+31.6	15.1	
	292 [°] 19.8 9 [°] 41.5	306 [°] 52.2 9 [°] 33.2	321 [°] 24.8 9 [°] 24.8	335 [°] 57.3 9 [°] 16.3	350 [°] 29.9 9 [°] 07.9	5 [°] 02.6 8 [°] 59.3	19 [°] 35.3 8 [°] 50.8	34 [°] 08.0 8 [°] 42.0	48 [°] 40.8 8 [°] 33.6	63 [°] 13.6 8 [°] 25.0	77 [°] 46.4 8 [°] 16.3	+32.7	15.0	
Me 24	296 [°] 03.3 6 [°] 02.8	310 [°] 36.7 5 [°] 53.7	325 [°] 10.1 5 [°] 44.5	339 [°] 43.5 5 [°] 35.4	354 [°] 17.0 5 [°] 26.3	8 [°] 50.5 5 [°] 17.1	23 [°] 24.1 5 [°] 07.9	37 [°] 57.2 4 [°] 58.7	52 [°] 31.2 4 [°] 49.5	67 [°] 04.1 4 [°] 40.2	81 [°] 38.5 4 [°] 31.0	+33.5	14.9	
	300 [°] 05.9 2 [°] 10.8	314 [°] 39.9 2 [°] 01.4	329 [°] 13.9 1 [°] 52.0	343 [°] 47.9 1 [°] 42.6	358 [°] 21.9 1 [°] 33.2	12 [°] 56.0 1 [°] 23.7	27 [°] 30.1 1 [°] 14.3	42 [°] 04.1 1 [°] 04.9	56 [°] 38.2 0 [°] 55.5	71 [°] 12.3 0 [°] 46.0	85 [°] 46.5 0 [°] 36.6	+34.1	14.8	
Sa 27	304 [°] 19.4 -1 [°] 44.2	318 [°] 53.7 -1 [°] 53.6	333 [°] 27.9 -2 [°] 02.9	348 [°] 02.2 -2 [°] 12.2	2 [°] 36.4 -2 [°] 21.5	17 [°] 10.7 -2 [°] 30.8	31 [°] 44.9 -2 [°] 40.1	46 [°] 19.2 -2 [°] 49.3	60 [°] 53.4 -2 [°] 58.6	75 [°] 27.4 -3 [°] 07.8	90 [°] 01.9 -3 [°] 17.0	+34.3	14.7	
	308 [°] 35.1 -5 [°] 33.1	323 [°] 09.9 -5 [°] 42.0	337 [°] 43.4 -5 [°] 50.9	343 [°] 17.5 -5 [°] 59.7	6 [°] 51.6 -6 [°] 08.6	21 [°] 25.7 -6 [°] 17.4	35 [°] 59.8 -6 [°] 26.1	50 [°] 33.8 -6 [°] 34.9	65 [°] 07.9 -6 [°] 43.6	79 [°] 41.9 -6 [°] 52.3	94 [°] 15.9 -7 [°] 01.0	+34.1	14.7	
Di 28	312 [°] 43.9 -9 [°] 07.2	327 [°] 17.6 -9 [°] 15.3	341 [°] 51.3 -9 [°] 23.4	3										

SOLEIL

Septembre 2033

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Je 1	269°59.9 8°08.6	285°00.1 8°07.7	300°00.3 8°06.8	315°00.5 8°05.9	330°00.7 8°05.0	345°00.9 8°04.1	0°01.1 8°03.2	15°01.3 8°02.2	30°01.5 8°01.3	45°01.7 8°00.4	60°01.9 7°59.5	75°02.1 7°58.6	+0.2 -0.9
Ve 2	270°04.7 7°46.7	285°05.0 7°45.8	300°05.2 7°44.9	315°05.4 7°44.0	330°05.6 7°43.1	345°05.8 7°42.2	0°06.0 7°41.3	15°06.2 7°40.3	30°06.4 7°39.4	45°06.6 7°38.5	60°06.8 7°37.6	75°07.0 7°36.7	+0.2 -0.9
Sa 3	270°09.6 7°24.8	285°09.8 7°23.8	300°10.0 7°22.9	315°10.3 7°22.0	330°10.5 7°21.1	345°10.7 7°20.2	0°10.9 7°19.3	15°11.1 7°18.3	30°11.3 7°17.4	45°11.5 7°16.5	60°11.7 7°15.6	75°11.9 7°14.7	+0.2 -0.9
Di 4	270°14.6 7°02.7	285°14.8 7°01.7	300°15.0 7°00.8	315°15.2 6°59.9	330°15.4 6°59.0	345°15.6 6°58.1	0°15.8 6°57.1	15°16.1 6°56.2	30°16.3 6°55.3	45°16.5 6°54.4	60°16.7 6°53.4	75°16.9 6°52.5	+0.2 -0.9
Lu 5	270°19.6 6°40.5	285°19.8 6°39.5	300°20.0 6°38.6	315°20.3 6°37.7	330°20.5 6°36.7	345°20.7 6°35.8	0°20.9 6°34.9	15°21.1 6°34.0	30°21.3 6°33.0	45°21.5 6°32.1	60°21.7 6°31.2	75°21.9 6°30.2	+0.2 -0.9
Ma 6	270°24.7 6°18.1	285°24.9 6°17.2	300°25.1 6°16.3	315°25.3 6°15.3	330°25.6 6°14.4	345°25.8 6°13.5	0°26.0 6°12.5	15°26.2 6°11.6	30°26.4 6°10.7	45°26.6 6°09.7	60°26.8 6°08.8	75°27.1 6°07.9	+0.2 -0.9
Me 7	270°29.8 5°55.7	285°30.1 5°54.8	300°30.3 5°53.8	315°30.5 5°52.9	330°30.7 5°52.0	345°30.9 5°51.0	0°31.1 5°50.1	15°31.3 5°49.2	30°31.6 5°48.2	45°31.8 5°47.3	60°32.0 5°46.3	75°32.2 5°45.4	+0.2 -0.9
Je 8	270°35.0 5°33.2	285°35.2 5°32.3	300°35.5 5°31.3	315°35.7 5°30.4	330°35.9 5°29.4	345°36.1 5°28.5	0°36.3 5°27.6	15°36.5 5°26.6	30°36.8 5°25.7	45°37.0 5°24.7	60°37.2 5°23.7	75°37.4 5°22.8	+0.2 -0.9
Ve 9	270°40.3 5°10.6	285°40.5 5°09.6	300°40.7 5°08.7	315°40.9 5°07.8	330°41.1 5°06.8	345°41.3 5°05.9	0°41.6 5°04.9	15°41.8 5°04.0	30°42.0 5°03.0	45°42.2 5°02.1	60°42.4 5°01.1	75°42.7 5°00.2	+0.2 -0.9
Sa 10	270°45.5 4°47.9	285°45.7 4°46.9	300°46.0 4°46.0	315°46.2 4°45.0	330°46.4 4°44.1	345°46.6 4°43.1	0°46.8 4°42.2	15°47.1 4°41.2	30°47.3 4°40.3	45°47.5 4°39.4	60°47.7 4°38.4	75°47.9 4°37.5	+0.2 -0.9
Di 11	270°50.8 4°25.1	285°51.0 4°24.2	300°51.3 4°23.2	315°51.5 4°22.3	330°51.7 4°21.3	345°51.9 4°20.3	0°52.1 4°19.4	15°52.4 4°18.4	30°52.6 4°17.5	45°52.8 4°16.5	60°53.0 4°15.6	75°53.3 4°14.6	+0.2 -1.0
Lu 12	270°56.1 4°02.2	285°56.4 4°01.3	300°56.6 4°00.3	315°56.8 3°59.4	330°57.0 3°58.4	345°57.2 3°57.5	0°57.5 3°56.5	15°57.7 3°55.6	30°57.9 3°54.6	45°58.1 3°53.7	60°58.4 3°52.7	75°58.6 3°51.7	+0.2 -1.0
Ma 13	271°01.5 3°39.3	286°01.7 3°38.4	301°01.9 3°37.4	316°02.1 3°36.4	331°02.4 3°35.5	346°02.6 3°34.5	1°02.8 3°33.6	16°03.0 3°32.6	31°03.3 3°31.7	46°03.5 3°30.7	61°03.7 3°29.7	76°03.9 3°28.8	+0.2 -1.0
Me 14	271°06.8 3°16.3	286°07.1 3°15.4	301°07.3 3°14.4	316°07.5 3°13.4	331°07.7 3°12.5	346°07.9 3°11.5	1°08.2 3°10.6	16°08.4 3°09.6	31°08.6 3°08.6	46°08.8 3°07.7	61°09.1 3°06.7	76°09.3 3°05.7	+0.2 -1.0
Je 15	271°12.3 2°53.2	286°12.4 2°52.3	301°12.6 2°51.3	316°12.9 2°50.4	331°13.1 2°49.4	346°13.3 2°48.4	1°13.5 2°47.5	16°13.8 2°46.5	31°14.0 2°45.5	46°14.2 2°44.6	61°14.4 2°43.6	76°14.7 2°42.7	+0.2 -1.0
Ve 16	271°17.6 2°30.1	286°17.8 2°29.2	301°18.0 2°28.2	316°18.2 2°27.2	331°18.5 2°26.3	346°18.7 2°25.3	1°18.9 2°24.3	16°19.1 2°23.4	31°19.3 2°22.4	46°19.6 2°21.4	61°19.8 2°20.5	76°20.0 2°19.5	+0.2 -1.0
Sa 17	271°22.9 2°07.0	286°23.1 2°06.0	301°23.4 2°05.0	316°23.6 2°04.1	331°23.8 2°03.1	346°24.0 2°02.1	1°24.3 2°01.2	16°24.5 2°00.2	31°24.7 1°59.2	46°24.9 1°58.3	61°25.2 1°57.3	76°25.4 1°56.3	+0.2 -1.0
Di 18	271°28.3 1°43.7	286°28.5 1°42.8	301°28.7 1°41.8	316°28.9 1°40.8	331°29.2 1°39.9	346°29.4 1°38.9	1°29.6 1°37.9	16°29.8 1°37.0	31°30.1 1°36.0	46°30.3 1°35.0	61°30.5 1°34.1	76°30.7 1°33.1	+0.2 -1.0
Lu 19	271°33.6 1°20.5	286°33.8 1°19.5	301°34.1 1°18.6	316°34.3 1°17.6	331°34.5 1°16.6	346°34.7 1°15.6	1°35.0 1°14.7	16°35.2 1°13.7	31°35.4 1°12.7	46°35.6 1°11.8	61°35.8 1°10.8	76°36.1 1°09.8	+0.2 -1.0
Ma 20	271°38.9 0°57.2	286°39.2 0°56.2	301°39.4 0°55.3	316°39.6 0°54.3	331°39.8 0°53.3	346°40.1 0°52.4	1°40.3 0°51.4	16°40.5 0°50.4	31°40.7 0°49.4	46°40.9 0°48.5	61°41.2 0°47.5	76°41.4 0°46.5	+0.2 -1.0
Me 21	271°44.3 0°33.9	286°44.5 0°32.9	301°44.7 0°32.0	316°44.9 0°31.0	331°45.1 0°30.0	346°45.4 0°29.0	1°45.6 0°28.1	16°45.8 0°27.1	31°46.0 0°26.1	46°46.2 0°25.1	61°46.5 0°24.2	76°46.7 0°23.2	+0.2 -1.0
Je 22	271°49.5 0°10.6	286°49.8 0°09.6	301°50.0 0°08.6	316°50.2 0°07.6	331°50.4 0°06.7	346°50.6 0°05.7	1°50.9 0°04.7	16°51.1 0°03.8	31°51.3 0°02.8	46°51.5 0°01.8	61°51.7 0°00.8	76°52.0 -0°00.1	+0.2 -1.0
Ve 23	271°54.8 -0°12.8	286°55.0 -0°13.8	301°55.2 -0°14.7	316°55.5 -0°15.7	331°55.7 -0°16.7	346°55.9 -0°17.7	1°56.1 -0°18.6	16°56.3 -0°19.6	31°56.5 -0°20.6	46°56.8 -0°21.5	61°57.0 -0°22.5	76°57.2 -0°23.5	+0.2 -1.0
Sa 24	272°00.0 -0°36.1	287°00.2 -0°37.1	302°00.5 -0°38.1	317°00.7 -0°39.1	332°00.9 -0°40.0	347°01.1 -0°41.0	2°01.3 -0°42.0	17°01.5 -0°43.0	32°01.8 -0°43.9	47°02.0 -0°44.9	62°02.2 -0°45.9	77°02.4 -0°46.9	+0.2 -1.0
Di 25	272°05.2 -0°59.5	287°05.4 -0°05.1	302°05.6 -0°06.1	317°05.9 -0°07.2	332°06.1 -0°08.4	347°06.3 -0°09.4	2°06.5 -1°05.4	17°06.7 -1°06.3	32°06.9 -1°07.3	47°07.1 -1°08.3	62°07.4 -1°09.2	77°07.6 -1°10.2	+0.2 -1.0
Lu 26	272°10.4 -1°22.9	287°10.6 -1°23.8	302°10.8 -1°24.8	317°11.0 -1°25.8	332°11.2 -1°26.8	347°11.4 -1°27.7	2°11.6 -1°28.7	17°11.8 -1°29.7	32°12.1 -1°30.7	47°12.3 -1°31.6	62°12.5 -1°32.6	77°12.7 -1°33.6	+0.2 -1.0
Ma 27	272°15.4 -1°46.2	287°15.7 -1°47.2	302°15.9 -1°48.2	317°16.1 -1°49.1	332°16.3 -1°50.1	347°16.5 -1°51.1	2°16.7 -1°52.1	17°16.9 -1°53.0	32°17.1 -1°54.0	47°17.3 -1°55.0	62°17.6 -1°56.0	77°17.8 -1°56.9	+0.2 -1.0
Me 28	272°20.5 -2°09.6	287°20.7 -2°10.5	302°20.9 -2°11.5	317°21.1 -2°12.5	332°21.3 -2°13.5	347°21.5 -2°14.4	2°21.7 -2°15.4	17°22.2 -2°16.4	32°22.4 -2°17.3	47°22.4 -2°18.3	62°22.6 -2°19.3	77°22.8 -2°20.3	+0.2 -1.0
Je 29	272°25.5 -2°32.9	287°25.7 -2°33.8	302°25.9 -2°34.8	317°26.1 -2°35.8	332°26.3 -2°36.8	347°26.5 -2°37.7	2°26.7 -2°38.7	17°26.9 -2°39.7	32°27.1 -2°40.7	47°27.3 -2°41.6	62°27.6 -2°42.6	77°27.8 -2°43.6	+0.2 -1.0
Ve 30	272°30.4 -2°56.2	287°30.6 -2°57.2	302°30.8 -2°58.1	317°31.0 -2°59.1	332°31.2 -3°00.1	347°31.4 -3°01.0	2°31.6 -3°02.0	17°31.8 -3°03.0	32°32.1 -3°03.9	47°32.3 -3°04.9	62°32.5 -3°05.9	77°32.7 -3°06.9	+0.2 -1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Septembre 2033

	J	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	Δ'/h	SP
●	Je 1	236°06.1 -16°31.9	250°37.0 -16°36.2	265°07.9 -16°40.4	279°38.8 -16°44.5	294°09.6 -16°48.5	308°40.4 -16°52.5	323°11.1 -17°00.1	337°41.8 -17°03.9	352°12.4 -17°07.5	6°43.0 -17°11.1	21°13.5 -17°11.1	+30.7 -3.9	15.0 55.1
	Ve 2	238°45.3 -17°54.5	253°15.0 -17°56.7	267°44.7 -17°58.8	282°14.3 -18°00.9	296°43.9 -18°02.8	311°13.4 -18°04.7	325°42.9 -18°06.4	340°12.3 -18°08.1	354°41.7 -18°09.6	9°11.0 -18°11.1	23°40.3 -18°12.5	+29.5 -1.8	15.2 55.2
	Sa 3	240°54.0 -18°51.8	255°22.6 -18°21.7	269°51.1 -18°21.4	284°19.5 -18°21.0	298°48.0 -18°20.6	313°16.3 -18°20.0	327°44.7 -18°19.3	342°13.0 -18°18.6	356°41.3 -18°17.7	11°09.5 -18°16.7	25°37.7 -18°15.6	+28.4 +0.6	15.4 56.6
	Di 4	242°36.0 -17°46.9	257°03.6 -17°44.2	271°31.2 -17°41.3	285°58.7 -17°38.3	300°26.2 -17°35.2	314°53.7 -17°32.1	329°21.2 -17°28.8	343°48.6 -17°25.4	358°16.0 -17°21.9	12°43.4 -17°18.2	27°10.7 -17°14.5	+27.5 +3.2	15.7 57.6
○	Lu 5	243°58.1 -16°05.9	258°25.1 -16°00.5	272°52.0 -15°55.0	287°19.0 -15°49.3	301°45.9 -15°43.6	316°12.8 -15°37.8	330°39.7 -15°31.8	345°06.6 -15°25.8	359°33.5 -15°19.6	14°00.4 -15°13.4	28°27.2 -15°07.0	+26.9 +5.9	16.0 58.6
	Ma 6	245°08.4 -13°19.8	259°35.1 -13°11.9	274°01.8 -13°03.9	288°28.4 -12°55.8	302°55.1 -12°47.6	317°21.8 -12°39.3	331°48.4 -12°30.9	346°15.0 -12°22.5	0°41.7 -12°15.3	15°08.3 -12°05.3	29°34.9 -11°56.6	+26.6 +8.3	16.2 59.5
	Me 7	246°13.9 -9°35.8	260°40.5 -9°25.8	275°07.1 -9°15.8	289°33.7 -9°05.6	304°00.2 -8°55.4	318°26.8 -8°45.2	332°53.4 -8°34.9	347°20.0 -8°24.5	1°46.6 -8°14.0	16°13.1 -8°03.5	30°39.7 -7°52.9	+26.6 +10.3	16.4 60.3
	Je 8	247°18.4 -5°07.7	261°44.9 -4°56.3	276°11.5 -4°44.9	290°38.1 -4°33.4	305°04.7 -4°21.9	319°31.2 -4°10.4	333°57.8 -3°58.8	348°24.4 -3°47.2	2°50.9 -3°35.6	17°17.5 -3°23.9	31°44.1 -3°12.3	+26.6 +11.5	16.6 60.9
●	Ve 9	248°22.3 -0°14.8	262°48.8 -0°02.9	277°15.3 -0°09.0	291°41.8 -0°21.0	306°08.3 -0°32.9	320°34.8 -0°44.8	335°01.3 -0°56.7	349°27.8 -1°08.6	3°54.4 -1°20.5	18°20.8 -1°32.4	32°47.0 -1°44.2	+26.5 +11.9	16.7 61.1
	Sa 10	249°23.7 -4°40.0	263°50.0 -4°51.5	278°16.4 -5°02.9	292°42.7 -5°14.4	307°09.1 -5°25.7	321°35.4 -5°37.1	336°01.8 -5°48.4	350°28.1 -5°59.6	4°54.4 -6°10.8	19°20.7 -6°22.0	33°47.0 -6°33.1	+26.3 +11.3	16.6 60.3
	Di 11	250°20.4 -9°13.3	264°46.5 -9°23.4	279°12.7 -9°33.6	293°38.1 -9°43.6	308°05.0 -9°53.6	322°31.1 -10°03.4	336°57.2 -10°13.3	351°23.3 -10°23.0	5°49.4 -10°32.7	20°15.5 -10°42.3	34°41.6 -10°51.8	+26.1 +9.9	16.5 60.5
	Lu 12	251°12.2 -13°04.3	265°38.2 -13°12.4	280°04.2 -13°20.5	294°30.2 -13°28.4	308°56.2 -13°36.2	323°22.2 -13°44.0	337°48.2 -13°51.6	352°14.2 -13°59.1	6°40.2 -14°06.4	21°06.2 -14°13.9	35°32.2 -14°21.2	+26.0 +7.7	16.3 59.9
○	Ma 13	252°02.5 -15°57.4	266°28.8 -16°02.9	280°54.6 -16°08.4	295°20.7 -16°13.7	309°46.6 -16°19.0	324°12.9 -16°24.1	338°39.1 -16°29.1	353°05.1 -16°34.0	7°31.4 -16°38.8	21°57.5 -16°43.5	36°23.7 -16°48.1	+26.1 +5.1	16.1 59.1
	Me 14	252°58.5 -17°43.2	267°25.0 -17°46.0	281°51.5 -17°48.6	296°15.1 -17°51.2	310°44.6 -17°53.4	325°11.2 -17°55.9	339°37.9 -17°58.1	354°04.5 -18°00.2	8°31.2 -18°02.2	22°57.9 -18°04.1	37°24.7 -18°05.9	+26.6 +2.3	15.9 58.2
	Je 15	253°09.9 -18°19.1	268°37.2 -18°19.1	283°04.6 -18°19.0	297°32.0 -18°18.8	311°59.4 -18°18.5	326°26.9 -18°18.0	340°54.4 -18°17.5	355°21.9 -18°16.9	9°49.6 -18°16.2	24°17.2 -18°15.3	38°44.9 -18°14.4	+27.5 -0.6	15.6 57.3
	Ve 16	268°37.2 -18°19.1	283°04.6 -18°19.0	297°32.0 -18°18.8	311°59.4 -18°18.5	326°26.9 -18°18.0	340°54.4 -18°17.5	355°21.9 -18°16.9	355°21.9 -18°16.2	9°49.6 -18°15.3	24°17.2 -18°14.4	38°44.9 -18°13.3	+27.5 -0.6	15.6 57.3
●	Sa 17	270°14.4 -17°45.6	284°42.9 -17°43.0	299°11.5 -17°40.0	313°40.1 -17°37.5	328°08.8 -17°34.6	342°37.5 -17°31.6	357°06.2 -17°28.5	11°35.1 -17°25.3	26°03.9 -17°22.0	40°32.9 -17°18.6	55°01.8 -17°15.2	+28.7 -3.0	15.4 56.6
	Di 18	272°23.0 -16°13.1	286°52.8 -16°08.3	301°22.7 -16°03.4	315°52.7 -15°58.4	330°22.7 -15°53.4	344°52.7 -15°48.3	359°22.8 -15°43.1	13°03.0 -15°37.9	28°23.2 -15°32.5	42°53.5 -15°27.1	57°23.8 -15°21.6	+30.1 -5.1	15.2 55.9
	Lu 19	275°05.2 -13°51.2	289°36.4 -13°44.6	304°07.6 -13°38.0	318°38.9 -13°31.4	333°10.2 -13°24.6	347°41.6 -13°17.9	2°13.0 -13°11.0	16°44.5 -13°04.1	31°16.0 -12°57.1	45°47.6 -12°50.1	60°19.2 -12°43.1	+31.4 -6.8	15.1 55.3
	Ma 20	278°19.2 -10°50.8	292°51.5 -10°42.9	307°23.9 -10°33.0	321°56.4 -10°27.1	336°28.8 -10°19.1	351°01.4 -10°11.0	5°33.9 -10°03.0	20°06.5 -9°54.9	34°39.2 -9°46.7	49°11.9 -9°38.5	63°44.6 -9°30.3	+32.5 -8.1	15.0 54.8
●	Me 21	281°59.9 -7°22.7	296°33.2 -7°13.9	311°06.6 -7°05.1	325°39.9 -6°56.3	340°13.3 -6°47.5	354°46.7 -6°38.6	9°20.2 -6°29.7	23°53.6 -6°20.8	38°27.2 -6°11.9	53°00.2 -6°03.0	67°34.2 -5°54.0	+33.4 -8.9	14.9 54.5
	Je 22	286°00.6 -3°37.2	300°34.5 -3°30.2	315°08.4 -3°18.7	329°42.4 -3°09.4	344°16.4 -3°00.2	358°50.4 -2°50.9	13°24.4 -2°41.6	27°58.4 -2°28.3	42°32.5 -2°23.0	57°06.5 -2°13.7	71°40.6 -2°04.4	+34.0 -9.3	14.8 54.2
	Ve 23	290°13.1 -0°15.7	304°47.3 -0°25.0	319°21.5 -0°34.4	333°55.8 -0°43.7	348°30.0 -0°53.0	3°04.3 -1°02.3	17°38.5 -1°11.6	32°12.8 -1°20.9	46°47.0 -1°30.2	61°21.3 -1°39.5	75°55.5 -1°48.8	+34.2 -9.3	14.7 54.0
	Sa 24	294°29.2 -4°06.6	309°03.4 -4°15.6	323°37.6 -4°24.7	338°11.8 -4°33.7	352°45.9 -4°42.7	7°20.1 -4°51.7	21°54.3 -5°00.6	36°28.4 -5°09.6	51°02.6 -5°18.5	65°36.7 -5°27.4	80°10.8 -5°36.3	+34.2 -9.0	14.7 53.9
●	Di 25	298°40.9 -7°46.3	313°14.8 -7°54.7	327°48.6 -8°03.1	342°22.4 -8°11.5	356°56.3 -8°11.5	11°30.0 -8°28.1	26°03.8 -8°36.4	40°37.6 -8°44.6	55°11.3 -8°52.8	69°45.0 -9°00.9	84°18.7 -9°09.1	+33.8 -8.3	14.7 53.9
	Lu 26	302°40.9 -11°06.0	317°14.2 -11°13.5	331°47.4 -11°20.9	346°20.6 -11°28.2	0°53.8 -11°35.5	15°26.9 -11°42.8	30°00.0 -11°50.0	44°33.1 -11°57.2	59°06.2 -12°04.3	73°39.2 -12°11.4	88°12.2 -12°18.4	+33.1 -7.2	14.7 54.0
	Ma 27	306°23.0 -13°57.1	320°55.4 -14°03.2	335°27.8 -14°09.3	350°00.2 -14°15.3	4°32.5 -14°21.1	19°04.8 -14°27.1	33°37.1 -14°33.0	48°09.3 -14°38.7	62°41.5 -14°44.4	77°13.7 -14°50.0	91°45.8 -14°55.6	+32.3 -5.9	14.8 54.2
	Me 28	309°42.7 -16°11.1	324°14.4 -16°15.6	338°45.7 -16°20.0	353°17.1 -16°24.3	7°48.4 -16°28.6	22°19.8 -16°32.7	36°51.1 -16°36.8	51°22.3 -16°40.8	65°53.5 -16°44.8	80°24.7 -16°48.7	94°55.8 -16°52.5	+31.3 -4.1	14.9 54.6
●	Je 29	312°37.9 -17°40.0	327°08.4 -17°42.5	341°38.8 -17°44.9	356°09.2 -17°47.2	10°39.6 -17°49.5	25°09.9 -17°51.7	39°40.2 -17°53.7	54°10.5 -17°55.7	68°40.7 -17°57.6	83°10.0 -17°59.5	97°41.0 -18°01.2	+30.3 -2.1	15.0 55.0
	Ve 30	315°08.7 -18°16.4	329°38.3 -18°16.7	344°07.8 -18°16.9	358°37.3 -18°17.0	13°06.8 -18°17.0	27°36.2 -18°16.9	42°05.6 -18°16.7	56°34.9 -18°16.4	71°04.3 -18°16.1	85°33.6 -18°15.6	100°02.8 -18°15.0	+29.4 +0.1	15.2 55.8

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PQ: 2 02h23 — PL: 9 02h20 — DQ: 15 17h33 — NL: 23 13h39

SOLEIL

Octobre 2033

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Sa 1	257°35.1 -3°18.5	272°35.3 -3°19.4	287°35.5 -3°20.4	302°35.7 -3°21.4	317°35.9 -3°22.4	332°36.1 -3°23.3	347°36.3 -3°24.3	2°36.5 -3°25.3	17°36.7 -3°26.2	32°36.9 -3°27.2	47°37.1 -3°28.2	62°37.3 -3°29.1	+0.2 -1.0
Di 2	257°39.9 -3°41.7	272°40.1 -3°42.7	287°40.3 -3°43.6	302°40.5 -3°44.6	317°40.7 -3°45.6	332°40.9 -3°46.5	347°41.1 -3°47.5	2°41.3 -3°48.5	17°41.5 -3°49.4	32°41.7 -3°50.4	47°41.9 -3°51.4	62°42.1 -3°52.3	+0.2 -1.0
Lu 3	257°44.6 -4°04.9	272°44.8 -4°05.9	287°45.0 -4°06.8	302°45.2 -4°07.8	317°45.4 -4°08.7	332°45.6 -4°09.7	347°45.8 -4°10.7	2°46.0 -4°11.6	17°46.2 -4°12.6	32°46.4 -4°13.6	47°46.6 -4°14.5	62°46.8 -4°15.5	+0.2 -1.0
Ma 4	257°49.3 -4°28.0	272°49.5 -4°29.0	287°49.7 -4°29.9	302°49.8 -4°30.9	317°50.0 -4°31.9	332°50.2 -4°32.8	347°50.4 -4°33.8	2°50.6 -4°34.8	17°50.8 -4°35.7	32°51.0 -4°36.7	47°51.2 -4°37.6	62°51.4 -4°38.6	+0.2 -1.0
Me 5	257°53.8 -4°51.1	272°54.0 -4°52.1	287°54.2 -4°53.0	302°54.4 -4°54.0	317°54.6 -4°54.9	332°54.8 -4°55.9	347°55.0 -4°56.9	2°55.1 -4°57.8	17°55.3 -4°58.8	32°55.5 -4°59.7	47°55.7 -5°00.7	62°55.9 -5°01.7	+0.2 -1.0
Je 6	257°58.3 -5°14.1	272°58.5 -5°15.1	287°58.7 -5°16.0	302°58.9 -5°17.0	317°59.0 -5°17.9	332°59.2 -5°18.9	347°59.4 -5°19.9	2°59.6 -5°20.8	17°59.8 -5°21.8	33°00.0 -5°22.7	48°00.1 -5°23.7	63°00.3 -5°24.6	+0.2 -1.0
Ve 7	258°02.7 -5°37.1	273°02.9 -5°38.0	288°03.0 -5°39.0	303°03.2 -5°39.9	318°03.4 -5°40.9	333°03.6 -5°41.8	348°03.8 -5°42.8	3°03.9 -5°43.7	18°04.1 -5°44.7	33°04.3 -5°45.7	48°04.5 -5°46.6	63°04.7 -5°47.6	+0.2 -1.0
Sa 8	258°07.0 -5°59.9	273°07.1 -6°00.9	288°07.3 -6°01.8	303°07.5 -6°02.8	318°07.7 -6°03.8	333°07.8 -6°04.7	348°08.0 -6°05.7	3°08.2 -6°06.6	18°08.4 -6°07.6	33°08.5 -6°08.5	48°08.7 -6°09.5	63°08.9 -6°10.4	+0.2 -1.0
Di 9	258°11.1 -6°22.7	273°11.3 -6°23.7	288°11.5 -6°24.6	303°11.7 -6°25.6	318°11.8 -6°26.5	333°12.0 -6°27.5	348°12.2 -6°28.4	3°12.3 -6°29.4	18°12.5 -6°30.3	33°12.7 -6°31.3	48°12.8 -6°32.2	63°13.0 -6°33.2	+0.2 -0.9
Lu 10	258°15.1 -6°45.5	273°15.4 -6°46.4	288°15.5 -6°47.4	303°15.7 -6°48.3	318°15.9 -6°49.2	333°16.0 -6°50.2	348°16.2 -6°51.1	3°16.4 -6°52.1	18°16.5 -6°53.0	33°16.7 -6°54.0	48°16.8 -6°54.9	63°17.0 -6°55.8	+0.2 -0.9
Ma 11	258°19.1 -7°08.1	273°19.3 -7°09.0	288°19.5 -7°10.0	303°19.6 -7°10.9	318°19.8 -7°11.8	333°19.9 -7°12.8	348°20.1 -7°13.7	3°20.3 -7°14.7	18°20.4 -7°15.6	33°20.6 -7°16.5	48°20.7 -7°17.5	63°20.9 -7°18.4	+0.2 -0.9
Me 12	258°22.9 -7°30.6	273°23.1 -7°31.6	288°23.3 -7°32.5	303°23.4 -7°33.4	318°23.6 -7°34.4	333°23.7 -7°35.3	348°23.9 -7°36.2	3°24.0 -7°37.2	18°24.2 -7°38.1	33°24.3 -7°39.0	48°24.5 -7°40.5	63°24.6 -7°41.9	+0.2 -0.9
Je 13	258°26.6 -7°53.0	273°26.8 -7°54.0	288°26.9 -7°54.9	303°27.1 -7°55.8	318°27.2 -7°56.8	333°27.4 -7°57.7	348°27.5 -7°58.6	3°27.7 -7°59.6	18°27.8 -8°00.5	33°28.0 -8°01.4	48°28.1 -8°02.4	63°28.3 -8°03.3	+0.1 -0.9
Ve 14	258°30.3 -8°15.4	273°30.3 -8°16.3	288°30.5 -8°17.2	303°30.6 -8°18.2	318°30.7 -8°19.1	333°30.9 -8°20.0	348°31.0 -8°20.9	3°31.2 -8°21.9	18°31.3 -8°22.8	33°31.5 -8°23.7	48°31.6 -8°24.6	63°31.7 -8°25.6	+0.1 -0.9
Sa 15	258°33.3 -8°37.6	273°33.7 -8°38.5	288°33.8 -8°39.4	303°34.0 -8°40.3	318°34.1 -8°41.3	333°34.3 -8°42.2	348°34.4 -8°43.1	3°34.5 -8°44.0	18°34.7 -8°45.0	33°34.8 -8°45.9	48°34.9 -8°46.8	63°35.1 -8°47.7	+0.1 -0.9
Di 16	258°36.8 -8°59.7	273°37.0 -9°00.6	288°37.1 -9°01.5	303°37.2 -9°02.4	318°37.4 -9°03.3	333°37.5 -9°04.2	348°37.6 -9°05.2	3°37.7 -9°06.1	18°37.9 -9°07.0	33°38.0 -9°07.9	48°38.1 -9°08.8	63°38.3 -9°09.7	+0.1 -0.9
Lu 17	258°39.9 -9°21.6	273°40.1 -9°22.5	288°40.2 -9°23.4	303°40.3 -9°24.4	318°40.4 -9°25.3	333°40.6 -9°26.2	348°40.7 -9°27.1	3°40.8 -9°28.0	18°40.9 -9°28.9	33°41.1 -9°29.8	48°41.2 -9°30.7	63°41.3 -9°31.6	+0.1 -0.9
Ma 18	258°42.9 -9°43.4	273°43.0 -9°44.4	288°43.1 -9°45.3	303°43.2 -9°46.2	318°43.4 -9°47.1	333°43.5 -9°48.0	348°43.6 -9°48.9	3°43.7 -9°49.8	18°43.8 -9°50.7	33°43.9 -9°51.6	48°44.1 -9°52.5	63°44.2 -9°53.4	+0.1 -0.9
Me 19	258°45.7 -10°05.1	273°45.8 -10°06.0	288°45.9 -10°06.9	303°46.0 -10°07.8	318°46.1 -10°08.7	333°46.2 -10°09.6	348°46.4 -10°10.5	3°46.5 -10°11.4	18°46.6 -10°12.3	33°46.7 -10°13.2	48°46.8 -10°14.1	63°46.9 -10°15.0	+0.1 -0.9
Je 20	258°48.3 -10°26.7	273°48.4 -10°27.6	288°48.5 -10°28.5	303°48.6 -10°29.4	318°48.7 -10°30.3	333°48.8 -10°31.1	348°48.9 -10°32.0	3°49.1 -10°32.9	18°49.2 -10°33.8	33°49.3 -10°34.7	48°49.4 -10°35.6	63°49.5 -10°36.5	+0.1 -0.9
Ve 21	258°50.8 -10°48.1	273°50.9 -10°48.9	288°51.0 -10°49.8	303°51.1 -10°50.7	318°51.2 -10°51.6	333°51.3 -10°52.5	348°51.4 -10°53.4	3°51.5 -10°54.3	18°51.6 -10°55.2	33°51.7 -10°56.0	48°51.8 -10°56.9	63°51.9 -10°57.8	+0.1 -0.9
Sa 22	258°53.1 -11°09.3	273°53.2 -11°10.2	288°53.3 -11°11.0	303°53.4 -11°11.9	318°53.5 -11°12.8	333°53.5 -11°13.7	348°53.6 -11°14.6	3°53.7 -11°15.4	18°53.8 -11°16.3	33°53.9 -11°17.2	48°54.0 -11°18.1	63°54.1 -11°19.0	+0.1 -0.9
Di 23	258°55.2 -11°30.3	273°55.3 -11°31.2	288°55.4 -11°32.1	303°55.5 -11°33.0	318°55.6 -11°33.8	333°55.6 -11°34.7	348°55.7 -11°35.6	3°55.8 -11°36.5	18°55.9 -11°37.3	33°56.0 -11°38.2	48°56.1 -11°39.1	63°56.1 -11°39.9	+0.1 -0.9
Lu 24	258°57.2 -11°51.2	273°57.3 -11°52.1	288°57.3 -11°53.0	303°57.4 -11°53.8	318°57.5 -11°54.7	333°57.6 -11°55.6	348°57.6 -11°56.4	3°57.7 -11°57.3	18°57.8 -11°58.2	33°57.9 -11°59.0	48°57.9 -11°59.9	63°58.0 -12°00.7	+0.1 -0.9
Ma 25	258°59.0 -12°11.9	273°59.0 -12°12.8	288°59.1 -12°13.7	303°59.2 -12°14.5	318°59.2 -12°15.4	333°59.3 -12°16.2	348°59.4 -12°17.1	3°59.4 -12°17.9	18°59.5 -12°18.8	33°59.6 -12°19.7	48°59.6 -12°20.6	63°59.7 -12°21.4	+0.1 -0.9
Me 26	259°00.6 -12°32.5	274°00.6 -12°33.3	289°00.7 -12°34.2	304°00.8 -12°35.0	319°00.8 -12°35.9	334°00.9 -12°36.7	349°00.9 -12°37.6	4°01.0 -12°38.4	19°01.1 -12°39.3	34°01.1 -12°40.1	49°01.2 -12°40.9	64°01.2 -12°41.8	+0.1 -0.8
Je 27	259°02.0 -12°52.8	274°02.0 -12°53.6	289°02.1 -12°54.5	304°02.2 -12°55.3	319°02.2 -12°56.1	334°02.3 -12°57.0	349°02.3 -12°57.8	4°02.4 -12°58.7	19°02.4 -12°59.5	34°02.5 -13°00.3	49°02.5 -13°01.2	64°02.6 -13°02.0	+0.1 -0.8
Ve 28	259°03.2 -13°12.9	274°03.3 -13°13.7	289°03.3 -13°14.6	304°03.4 -13°15.4	319°03.4 -13°16.2	334°03.5 -13°17.1	349°03.5 -13°17.9	4°03.6 -13°18.7	19°03.6 -13°19.6	34°03.6 -13°20.4	49°03.7 -13°21.2	64°03.7 -13°22.1	+0.0 -0.8
Sa 29	259°04.8 -13°32.8	274°04.3 -13°33.6	289°04.4 -13°34.5	304°04.4 -13°35.3	319°04.4 -13°36.1	334°04.5 -13°36.9	349°04.5 -13°37.8	4°04.6 -13°38.6	19°04.6 -13°39.4	34°04.6 -13°40.2	49°04.7 -13°41.1	64°04.7 -13°41.9	+0.0 -0.8
Di 30	259°05.0 -13°52.5	274°05.2 -13°53.3	289°05.2 -13°54.2	304°05.2 -13°55.0	319°05.3 -13°55.8	334°05.3 -13°56.6	349°05.3 -13°57.4	4°05.4 -13°58.2	19°05.4 -13°59.0	34°05.4 -13°59.9	49°05.5 -14°00.7	64°05.5 -14°01.5	+0.0 -0.8
Lu 31	259°05.8 -14°12.0	274°05.8 -14°13.6	289°05.9 -14°14.5	304°05.9 -14°15.2	319°05.9 -14°16.0	334°05.9 -14°16.8	349°06.0 -14°17.6	4°06.0 -14°18.4	19°06.0 -14°19.2	34°06.0 -14°20.0	49°06.0 -14°20.9	64°06.1 -14°21.7	+0.0 -0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.0'

LUNE

Octobre 2033

	J	9h	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	Δ /h	SP
●	Sa 1	244 ⁰ 53.7 -18°04.0	259 ⁰ 22.7 -18°02.3	273 ⁰ 51.6 -18°00.6	288 ⁰ 20.4 -17°58.8	302 ⁰ 49.3 -17°56.8	317 ⁰ 18.1 -17°54.8	331 ⁰ 46.9 -17°52.6	346 ⁰ 15.6 -17°50.4	3 ⁰ 44.3 -17°48.1	15 ⁰ 13.1 -17°45.6	29 ⁰ 41.7 -17°43.1	+28.8	15.4
	Di 2	246 ⁰ 49.0 -16°53.2	261 ⁰ 17.3 -16°49.0	275 ⁰ 45.6 -16°44.8	290 ⁰ 13.8 -16°40.5	304 ⁰ 42.1 -16°36.0	319 ⁰ 10.3 -16°31.5	333 ⁰ 38.5 -16°26.9	348 ⁰ 06.7 -16°22.2	2 ⁰ 34.9 -16°17.3	17 ⁰ 03.0 -16°12.4	31 ⁰ 31.1 -16°07.4	+28.2	15.6
	Lu 3	248 ⁰ 30.9 -14°40.4	262 ⁰ 58.8 -14°33.8	277 ⁰ 26.7 -14°27.1	291 ⁰ 54.5 -14°20.4	306 ⁰ 22.3 -14°13.5	320 ⁰ 50.1 -14°06.6	335 ⁰ 17.9 -13°59.5	349 ⁰ 45.7 -13°52.4	4 ⁰ 13.4 -13°45.2	18 ⁰ 41.2 -13°37.8	33 ⁰ 08.8 -13°30.4	+27.8	15.9
●	Ma 4	250 ⁰ 03.3 -11°28.8	264 ⁰ 30.9 -11°20.0	278 ⁰ 58.4 -11°11.2	293 ⁰ 25.9 -11°02.2	307 ⁰ 53.4 -10°53.2	322 ⁰ 20.8 -10°44.1	336 ⁰ 48.3 -10°34.9	351 ⁰ 15.8 -10°25.7	5 ⁰ 43.2 -10°16.3	20 ⁰ 10.6 -10°06.9	34 ⁰ 38.0 -9°57.5	+27.5	16.2
	Me 5	251 ⁰ 27.7 -7°26.9	265 ⁰ 54.9 -7°16.4	280 ⁰ 22.1 -7°05.8	294 ⁰ 49.2 -6°55.1	309 ⁰ 16.4 -6°44.4	323 ⁰ 43.5 -6°33.6	338 ⁰ 10.6 -6°22.8	352 ⁰ 37.8 -6°11.9	7 ⁰ 04.9 -6°01.0	21 ⁰ 31.9 -5°50.0	35 ⁰ 59.0 -5°38.9	+27.1	16.4
	Je 6	252 ⁰ 42.9 -2°48.5	267 ⁰ 09.7 -2°36.8	281 ⁰ 36.4 -2°25.1	296 ⁰ 03.2 -2°13.5	310 ⁰ 29.9 -2°01.7	324 ⁰ 56.6 -1°50.0	339 ⁰ 23.3 -1°38.2	353 ⁰ 49.9 -1°26.4	8 ⁰ 16.6 -1°14.6	22 ⁰ 43.2 -1°02.8	37 ⁰ 09.8 -0°51.0	+26.7	16.6
●	Ve 7	253 ⁰ 46.0 2°07.3	268 ⁰ 12.2 2°19.2	282 ⁰ 38.5 2°31.0	297 ⁰ 04.6 2°42.9	311 ⁰ 30.8 2°54.7	325 ⁰ 56.9 3°06.5	340 ⁰ 23.0 3°18.4	354 ⁰ 49.1 3°30.1	9 ⁰ 15.2 3°41.9	23 ⁰ 41.2 3°53.6	38 ⁰ 07.2 4°05.4	+26.1	16.7
	Sa 8	254 ⁰ 34.2 6°57.2	268 ⁰ 59.8 7°08.4	283 ⁰ 25.3 7°19.5	297 ⁰ 50.9 7°30.5	312 ⁰ 16.4 7°41.5	326 ⁰ 41.9 7°52.4	341 ⁰ 07.3 8°03.2	355 ⁰ 32.8 8°14.0	9 ⁰ 58.2 8°24.8	24 ⁰ 23.6 8°35.5	38 ⁰ 49.0 8°46.1	+25.5	16.7
	Di 9	255 ⁰ 06.9 11°17.0	269 ⁰ 31.9 11°26.5	283 ⁰ 56.9 11°35.8	298 ⁰ 21.9 11°45.1	312 ⁰ 46.9 11°54.3	327 ⁰ 11.8 12°03.4	341 ⁰ 36.8 12°12.2	356 ⁰ 01.7 12°21.3	10 ⁰ 26.6 12°30.6	24 ⁰ 51.5 12°38.8	39 ⁰ 16.4 12°47.4	+25.0	16.6
●	Lu 10	255 ⁰ 28.4 14°44.9	269 ⁰ 53.2 14°51.9	284 ⁰ 17.9 14°58.8	298 ⁰ 42.7 15°05.5	313 ⁰ 07.4 15°12.2	327 ⁰ 32.2 15°18.8	341 ⁰ 56.9 15°25.2	356 ⁰ 21.7 15°31.5	10 ⁰ 46.5 15°37.7	25 ⁰ 11.2 15°43.8	39 ⁰ 36.0 15°49.8	+24.8	16.5
	Ma 11	255 ⁰ 48.9 17°05.4	270 ⁰ 13.8 17°09.5	284 ⁰ 38.8 17°13.5	299 ⁰ 03.9 17°17.4	313 ⁰ 28.9 17°21.1	327 ⁰ 54.0 17°24.7	342 ⁰ 19.1 17°28.2	356 ⁰ 44.2 17°31.5	11 ⁰ 09.4 17°34.8	25 ⁰ 34.6 17°37.9	39 ⁰ 59.8 17°40.9	+25.1	16.2
	Me 12	256 ⁰ 22.1 18°11.6	270 ⁰ 47.9 18°12.7	285 ⁰ 13.7 18°13.7	299 ⁰ 39.6 18°14.5	314 ⁰ 05.6 18°15.3	328 ⁰ 31.6 18°15.9	342 ⁰ 57.6 18°16.8	357 ⁰ 23.7 18°16.8	11 ⁰ 49.8 18°17.1	26 ⁰ 16.0 18°17.2	40 ⁰ 42.2 18°17.3	+26.0	16.0
●	Je 13	257 ⁰ 22.3 18°04.7	271 ⁰ 49.4 18°03.0	286 ⁰ 16.6 18°01.2	300 ⁰ 43.8 17°59.3	315 ⁰ 11.1 17°57.3	329 ⁰ 38.5 17°55.2	344 ⁰ 06.0 17°53.0	358 ⁰ 33.5 17°50.7	13 ⁰ 54.4 17°48.2	27 ⁰ 28.6 17°45.7	41 ⁰ 56.3 17°43.1	+27.4	15.7
	Ve 14	258 ⁰ 59.6 16°52.5	273 ⁰ 28.3 16°48.4	287 ⁰ 57.1 16°44.2	302 ⁰ 26.0 16°40.0	316 ⁰ 54.9 16°35.6	331 ⁰ 24.0 16°31.2	345 ⁰ 53.0 16°26.7	0 ⁰ 22.2 16°22.1	14 ⁰ 51.4 16°17.4	29 ⁰ 20.7 16°12.6	43 ⁰ 50.0 16°07.8	+29.0	15.5
	Sa 15	273 ⁰ 28.3 16°48.4	287 ⁰ 57.1 16°44.2	302 ⁰ 26.0 16°40.0	316 ⁰ 54.9 16°35.6	331 ⁰ 24.0 16°31.2	345 ⁰ 53.0 16°26.7	0 ⁰ 22.2 16°22.1	14 ⁰ 51.4 16°17.4	29 ⁰ 20.7 16°12.6	43 ⁰ 50.0 16°07.8	58 ⁰ 19.4 16°02.8	+29.1	15.4
●	Di 16	275 ⁰ 48.6 14°40.0	290 ⁰ 19.0 14°33.9	304 ⁰ 49.5 14°27.8	319 ⁰ 20.1 14°21.6	333 ⁰ 50.8 14°15.3	348 ⁰ 21.5 14°09.0	2°52.3 14°02.6	17 ⁰ 23.1 13°56.1	31 ⁰ 54.0 13°49.6	46 ⁰ 24.9 13°43.0	60 ⁰ 56.0 13°36.3	+30.7	15.2
	Lu 17	275 ⁰ 48.2 11°49.9	293 ⁰ 20.2 11°42.4	307 ⁰ 52.1 11°34.8	322 ⁰ 24.2 11°27.2	336 ⁰ 56.2 11°19.6	351 ⁰ 28.4 11°11.9	6°00.6 11°04.1	20 ⁰ 32.8 10°56.4	35 ⁰ 05.1 10°48.5	49 ⁰ 37.4 10°40.7	64 ⁰ 09.8 10°32.7	+32.2	15.0
	Ma 18	282 ⁰ 21.1 8°29.5	296 ⁰ 54.2 8°21.0	311 ⁰ 27.3 8°12.4	326 ⁰ 00.4 8°03.9	340 ⁰ 33.6 7°55.3	355 ⁰ 06.9 7°46.7	9°40.2 7°38.0	24 ⁰ 13.5 7°29.4	38 ⁰ 46.8 7°20.7	53 ⁰ 20.2 7°11.9	67 ⁰ 53.6 7°03.2	+33.3	14.9
●	Me 19	286 ⁰ 18.5 4°49.2	300 ⁰ 52.4 4°40.1	315 ⁰ 26.3 4°31.0	330 ⁰ 00.2 4°21.9	344 ⁰ 34.2 4°12.8	359 ⁰ 08.1 4°03.6	13°42.1 3°54.5	28 ⁰ 16.1 3°45.3	42 ⁰ 50.2 3°36.1	57 ⁰ 24.2 3°26.9	71 ⁰ 58.2 3°17.7	+34.0	14.8
	Je 20	290 ⁰ 31.0 0°58.6	305 ⁰ 05.3 0°49.3	319 ⁰ 39.6 0°40.0	334 ⁰ 13.9 0°30.7	348 ⁰ 48.2 0°21.4	3 ⁰ 22.5 0°12.1	17 ⁰ 56.8 0°02.8	32 ⁰ 31.1 -0°06.5	51 ⁰ 23.2 -0°15.8	65 ⁰ 57.5 -0°25.2	80 ⁰ 31.7 -0°34.5	+34.3	14.7
	Ve 21	294 ⁰ 49.0 -2°53.2	309 ⁰ 23.3 -3°02.4	323 ⁰ 57.6 -3°11.6	338 ⁰ 31.9 -3°20.7	353 ⁰ 06.2 -3°29.9	7°40.5 -3°39.0	22 ⁰ 14.7 -3°48.1	36 ⁰ 49.0 -3°57.2	51 ⁰ 23.2 -4°06.3	65 ⁰ 57.5 -4°15.3	80 ⁰ 31.7 -4°24.4	+34.3	14.7
●	Sa 22	299 ⁰ 03.5 -6°37.5	313 ⁰ 37.4 -6°46.2	328 ⁰ 51.5 -6°54.9	342 ⁰ 45.4 -7°03.5	357 ⁰ 19.4 -7°12.1	8°23.6 -7°20.7	22 ⁰ 55.1 -7°29.2	37 ⁰ 26.6 -7°37.8	61 ⁰ 58.1 -7°46.3	66 ⁰ 29.6 -7°54.7	81 ⁰ 01.0 -7°54.4	+33.9	14.7
	Di 23	303 ⁰ 06.7 -10°05.3	317 ⁰ 40.1 -10°13.2	332 ⁰ 13.5 -10°21.0	346 ⁰ 46.9 -10°28.7	1°20.2 -10°36.0	15 ⁰ 53.5 -10°44.1	30 ⁰ 26.7 -10°51.7	44 ⁰ 59.9 -11°06.9	59 ⁰ 33.1 -11°14.3	74 ⁰ 06.3 -11°21.8	88 ⁰ 39.4 -11°28.8	+33.3	14.7
	Lu 24	306 ⁰ 52.5 -13°07.5	321 ⁰ 25.1 -13°14.2	335 ⁰ 57.7 -13°20.7	350 ⁰ 30.2 -13°27.2	5°02.7 -13°33.7	19 ⁰ 35.2 -13°40.1	34 ⁰ 07.6 -13°46.4	48 ⁰ 40.0 -13°52.7	63 ⁰ 12.4 -13°59.0	77 ⁰ 44.7 -14°05.1	92 ⁰ 17.0 -14°11.2	+32.4	14.8
●	Ma 25	310 ⁰ 17.0 -15°35.1	324 ⁰ 48.7 -15°40.2	339 ⁰ 20.3 -15°45.2	353 ⁰ 52.0 -15°50.1	8°23.6 -15°55.0	22 ⁰ 55.1 -15°59.7	37 ⁰ 26.6 -16°04.4	61 ⁰ 58.1 -16°09.1	66 ⁰ 29.6 -16°13.6	81 ⁰ 01.0 -16°18.1	95 ⁰ 32.4 -16°22.5	+31.5	14.8
	Me 26	313 ⁰ 18.8 -17°19.6	327 ⁰ 49.6 -17°22.8	342 ⁰ 20.4 -17°25.9	356 ⁰ 51.2 -17°28.9	11°21.9 -17°31.9	25 ⁰ 52.6 -17°34.7	40 ⁰ 23.2 -17°37.4	54 ⁰ 53.9 -17°40.1	69 ⁰ 24.4 -17°42.7	83 ⁰ 55.0 -17°45.2	98 ⁰ 25.5 -17°47.6	+30.7	14.9
	Je 27	315 ⁰ 59.8 -18°13.6	330 ⁰ 29.8 -18°14.6	344 ⁰ 59.9 -18°15.6	359 ⁰ 29.9 -18°16.4	13°59.8 -18°17.2	28 ⁰ 29.8 -18°18.3	42 ⁰ 59.7 -18°18.4	57 ⁰ 29.9 -18°19.6	71 ⁰ 59.5 -18°19.8	86 ⁰ 29.3 -18°19.6	100 ⁰ 59.2 -18°19.8	+29.9	15.1
●	Ve 28	318 ⁰ 23.9 -18°11.6	332 ⁰ 53.4 -18°10.3	347 ⁰ 22.9 -18°09.0	1°52.3 -18°05.9	16 ⁰ 21.8 -18°05.9	30 ⁰ 51.2 -18°04.2	45 ⁰ 20.6 -18°02.5	59 ⁰ 50.0 -18°00.6	74 ⁰ 19.3 -17°58.6	88 ⁰ 48.7 -17°56.6	103 ⁰ 18.7 -17°54.4	+29.4	15.2
	Sa 29	320 ⁰ 36.5 -17°10.8	335 ⁰ 05.6 -17°07.1	349 ⁰ 34.3 -17°04.3	4°03.9 -16°59.5	18 ⁰ 33.0 -16°55.5	33 ⁰ 02.1 -16°51.5	47 ⁰ 31.2 -16°47.3	62 ⁰ 00.2 -16°43.1	76 ⁰ 29.3 -16°38.8	90 ⁰ 58.4 -16°34.3	105 ⁰ 27.4 -16°29.8	+29.1	15.4
	Di 30	322 ⁰ 42.3 -15°11.0	337 ⁰ 11.2 -15°05.1	351 ⁰ 40.2 -14°59.0	6°09.1 -14°52.8	20 ⁰ 38.0 -14°46.6	35 ⁰ 06.9 -14°40.3	49 ⁰ 35.8 -14°33.9	64 ⁰ 04.7 -14°27.4	78 ⁰ 33.7 -14°20.8	93 ⁰ 02.5 -14°14.1	107 ⁰ 31.4 -14°07.3	+28.9	15.6
●	Lu 31	324 ⁰ 43.9 -12°15.8	339 ⁰ 12.7 -12°07.7	353 ⁰ 41.5 -11°59.6	8°10.4 -11°51.2	22 ⁰ 39.0 -11°43.0	37 ⁰ 07.8 -11°34.7	51 ⁰ 36.5 -11°26.2	66 ⁰ 05.2 -11°17.7	80 ⁰ 34.0 -11°09.0	95 ⁰ 02.7 -11°00.4	109 ⁰ 31.4 -10°51.6	+28.7	15.9

SOLEIL

Novembre 2033

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Ma 1	259°06.3 -14°31.3	274°06.3 -14°32.0	289°06.3 -14°32.8	304°06.4 -14°33.6	319°06.4 -14°34.4	334°06.4 -14°35.2	349°06.4 -14°36.0	4°06.4 -14°36.8	15°06.4 -14°37.6	34°06.4 -14°38.4	45°06.4 -14°39.2	64°06.5 -14°40.0	+0.0 -0.8
Me 2	259°06.3 -14°50.3	274°06.6 -14°51.1	289°06.6 -14°51.8	304°06.6 -14°52.6	319°06.6 -14°53.4	334°06.6 -14°54.2	349°06.6 -14°55.0	4°06.6 -14°55.8	15°06.6 -14°56.6	34°06.6 -14°57.3	45°06.7 -14°58.1	64°06.7 -14°58.9	+0.0 -0.8
Je 3	259°06.7 -15°09.0	274°06.7 -15°09.8	289°06.7 -15°10.6	304°06.7 -15°11.4	319°06.7 -15°12.1	334°06.7 -15°12.9	349°06.7 -15°13.7	4°06.7 -15°14.5	15°06.7 -15°15.2	34°06.7 -15°16.0	45°06.7 -15°16.8	64°06.7 -15°17.6	-0.0 -0.8
Ve 4	259°06.6 -15°27.6	274°06.6 -15°28.3	289°06.6 -15°29.1	304°06.5 -15°29.9	319°06.5 -15°30.6	334°06.5 -15°31.4	349°06.5 -15°32.2	4°06.5 -15°32.9	15°06.5 -15°33.7	34°06.5 -15°34.4	45°06.5 -15°35.2	64°06.5 -15°36.0	-0.0 -0.8
Sa 5	259°06.3 -15°45.8	274°06.2 -15°46.6	289°06.2 -15°47.3	304°06.2 -15°48.1	319°06.2 -15°48.9	334°06.2 -15°49.6	349°06.2 -15°50.4	4°06.1 -15°51.1	15°06.1 -15°51.9	34°06.1 -15°52.6	45°06.1 -15°53.4	64°06.1 -15°54.1	-0.0 -0.8
Di 6	259°05.7 -16°03.8	274°05.7 -16°04.6	289°05.7 -16°05.3	304°05.7 -16°06.1	319°05.6 -16°06.8	334°05.6 -16°07.6	349°05.6 -16°08.3	4°05.6 -16°09.0	15°05.5 -16°09.8	34°05.5 -16°10.5	45°05.5 -16°11.3	64°05.4 -16°12.0	-0.0 -0.7
Lu 7	259°05.0 -16°21.6	274°05.0 -16°22.3	289°05.0 -16°23.1	304°04.9 -16°23.8	319°04.9 -16°24.5	334°04.8 -16°25.3	349°04.8 -16°26.0	4°04.8 -16°26.7	15°04.7 -16°27.4	34°04.7 -16°28.2	45°04.7 -16°28.9	64°04.6 -16°29.6	-0.0 -0.7
Ma 8	259°04.1 -16°39.1	274°04.0 -16°39.8	289°04.0 -16°40.5	304°04.0 -16°41.2	319°03.9 -16°41.9	334°03.9 -16°42.7	349°03.8 -16°43.4	4°03.8 -16°44.1	15°03.7 -16°44.8	34°03.7 -16°45.5	45°03.6 -16°46.3	64°03.6 -16°47.0	-0.0 -0.7
Me 9	259°02.9 -16°56.2	274°02.9 -16°57.7	289°02.8 -16°58.4	304°02.8 -16°59.1	319°02.7 -16°59.8	334°02.7 -17°00.5	349°02.6 -17°01.2	4°02.6 -17°01.9	15°02.5 -17°02.6	34°02.4 -17°03.3	45°02.4 -17°04.0	64°02.3 -17°04.7	-0.1 -0.7
Je 10	259°01.6 -17°13.1	274°01.5 -17°13.8	289°01.4 -17°14.5	304°01.4 -17°15.2	319°01.3 -17°15.9	334°01.3 -17°16.6	349°01.2 -17°17.3	4°01.1 -17°18.0	15°01.1 -17°18.7	34°01.0 -17°19.4	45°01.0 -17°20.1	64°00.9 -17°20.8	-0.1 -0.7
Ve 11	259°00.0 -17°29.8	273°59.9 -17°30.4	288°59.9 -17°31.1	303°59.8 -17°31.8	318°59.7 -17°32.5	333°59.6 -17°33.2	348°59.6 -17°33.9	3°59.5 -17°34.5	15°59.4 -17°35.2	33°59.3 -17°35.9	45°59.3 -17°36.6	63°59.2 -17°37.3	-0.1 -0.7
Sa 12	258°58.2 -17°46.1	273°58.1 -17°46.7	288°58.0 -17°47.4	303°58.0 -17°48.1	318°57.9 -17°48.7	333°57.8 -17°49.4	348°57.7 -17°50.1	3°57.6 -17°50.8	15°57.6 -17°51.4	33°57.5 -17°52.1	45°57.4 -17°52.8	63°57.3 -17°53.4	-0.1 -0.7
Di 13	258°56.2 -18°02.1	273°56.1 -18°02.7	288°56.0 -18°03.4	303°55.9 -18°04.7	318°55.8 -18°05.4	333°55.7 -18°06.1	348°55.6 -18°06.8	3°55.6 -18°07.5	15°55.5 -18°08.1	33°55.4 -18°08.8	45°55.3 -18°09.5	63°55.2 -18°10.3	-0.1 -0.7
Lu 14	258°54.0 -18°17.7	273°53.9 -18°18.4	288°53.8 -18°19.1	303°53.7 -18°19.7	318°53.6 -18°20.3	333°53.5 -18°21.0	348°53.4 -18°21.6	3°53.3 -18°22.3	15°53.2 -18°22.9	33°53.1 -18°23.5	45°53.0 -18°24.2	63°52.9 -18°24.8	-0.1 -0.6
Ma 15	258°51.5 -18°33.1	273°51.4 -18°33.7	288°51.3 -18°34.4	303°51.2 -18°35.0	318°51.1 -18°35.6	333°51.0 -18°36.3	348°50.9 -18°36.9	3°50.8 -18°37.5	15°50.6 -18°38.2	33°50.5 -18°38.8	45°50.4 -18°39.4	63°50.3 -18°40.0	-0.1 -0.6
Me 16	258°48.9 -18°48.2	273°48.7 -18°48.8	288°48.6 -18°49.4	303°48.5 -18°50.0	318°48.4 -18°50.6	333°48.3 -18°51.1	348°48.2 -18°51.9	3°48.0 -18°52.5	15°47.9 -18°53.1	33°47.8 -18°53.7	45°47.7 -18°54.3	63°47.6 -18°54.9	-0.1 -0.6
Je 17	258°46.0 -19°02.9	273°45.9 -19°03.5	288°45.7 -19°04.1	303°45.6 -19°04.7	318°45.5 -19°05.3	333°45.3 -19°05.9	348°45.2 -19°06.5	3°45.1 -19°07.1	15°45.0 -19°07.7	33°44.8 -19°08.3	45°44.7 -19°08.9	63°44.6 -19°09.5	-0.1 -0.6
Ve 18	258°42.9 -19°17.2	273°42.8 -19°17.8	288°42.6 -19°18.4	303°42.5 -19°19.0	318°42.4 -19°19.6	333°42.2 -19°20.2	348°42.1 -19°20.8	3°41.9 -19°21.4	15°41.8 -19°21.9	33°41.7 -19°22.5	45°41.5 -19°23.1	63°41.4 -19°23.7	-0.1 -0.6
Sa 19	258°39.6 -19°31.3	273°39.5 -19°31.8	288°39.3 -19°32.4	303°39.2 -19°33.0	318°39.0 -19°33.6	333°38.9 -19°34.1	348°38.7 -19°34.7	3°38.6 -19°35.3	15°38.4 -19°35.8	33°38.3 -19°36.4	45°38.2 -19°37.0	63°38.0 -19°37.6	-0.1 -0.6
Di 20	258°36.1 -19°44.9	273°35.9 -19°45.5	288°35.8 -19°46.0	303°35.6 -19°46.6	318°35.5 -19°47.2	333°35.3 -19°47.7	348°35.2 -19°48.3	3°35.0 -19°48.8	15°34.9 -19°49.4	33°34.7 -19°50.0	45°34.6 -19°50.5	63°34.4 -19°51.1	-0.2 -0.6
Lu 21	258°32.4 -19°58.2	273°32.2 -19°58.8	288°32.1 -19°59.3	303°31.9 -19°59.9	318°31.7 -20°00.4	333°31.6 -20°01.0	348°31.4 -20°01.5	3°31.3 -20°02.0	15°31.1 -20°02.6	33°30.9 -20°03.1	45°30.8 -20°03.7	63°30.6 -20°04.2	-0.2 -0.5
Ma 22	258°28.5 -20°11.2	273°28.3 -20°11.7	288°28.1 -20°12.2	303°28.0 -20°12.8	318°27.8 -20°13.3	333°27.6 -20°13.8	348°27.5 -20°14.4	3°27.3 -20°14.9	15°27.1 -20°15.4	33°27.0 -20°15.9	45°26.8 -20°16.5	63°26.6 -20°17.0	-0.2 -0.5
Me 23	258°20.3 -20°23.8	273°24.2 -20°24.3	288°24.0 -20°24.8	303°23.8 -20°25.3	318°23.7 -20°25.8	333°23.5 -20°26.3	348°23.3 -20°26.8	3°23.1 -20°27.4	15°23.0 -20°27.9	33°22.8 -20°28.4	45°22.6 -20°28.9	63°22.4 -20°29.4	-0.2 -0.5
Je 24	258°20.0 -20°36.0	273°19.9 -20°36.5	288°19.7 -20°37.0	303°19.5 -20°37.5	318°19.3 -20°38.0	333°19.1 -20°38.5	348°19.0 -20°39.0	3°18.8 -20°39.4	15°18.6 -20°39.9	33°18.4 -20°40.4	45°18.2 -20°40.9	63°18.0 -20°41.4	-0.2 -0.5
Ve 25	258°15.6 -20°47.8	273°15.4 -20°48.3	288°15.2 -20°48.8	303°15.0 -20°49.3	318°14.8 -20°49.7	333°14.6 -20°50.2	348°14.4 -20°50.7	3°14.2 -20°51.2	15°14.0 -20°51.6	33°13.8 -20°52.1	45°13.7 -20°52.6	63°13.5 -20°53.1	-0.2 -0.5
Sa 26	258°10.9 -20°59.2	273°10.7 -20°59.7	288°10.5 -21°00.2	303°10.3 -21°00.6	318°10.1 -21°01.1	333°09.9 -21°01.5	348°09.7 -21°02.0	3°09.5 -21°02.5	15°09.3 -21°02.9	33°09.1 -21°03.4	45°08.9 -21°03.9	63°08.7 -21°04.3	-0.2 -0.5
Di 27	258°06.0 -21°10.3	273°05.8 -21°10.8	288°05.6 -21°11.2	303°05.4 -21°11.6	318°05.2 -21°12.1	333°05.0 -21°12.5	348°04.8 -21°13.0	3°04.6 -21°13.4	15°04.4 -21°13.8	33°04.2 -21°14.3	45°04.0 -21°14.7	63°03.8 -21°15.2	-0.2 -0.4
Lu 28	258°01.0 -21°20.9	273°00.8 -21°21.3	288°00.6 -21°21.8	303°00.4 -21°22.2	318°00.2 -21°22.6	332°59.9 -21°23.1	347°59.7 -21°23.5	2°59.5 -21°23.9	15°59.3 -21°24.4	32°59.1 -21°24.8	45°58.9 -21°25.2	62°58.7 -21°25.6	-0.2 -0.4
Ma 29	257°55.8 -21°31.1	272°55.6 -21°31.6	287°55.4 -21°32.0	303°55.2 -21°32.4	317°54.9 -21°32.8	332°54.7 -21°33.2	347°54.5 -21°33.6	2°54.3 -21°34.0	15°54.1 -21°34.5	32°53.8 -21°34.9	45°53.6 -21°35.3	62°53.4 -21°35.7	-0.2 -0.4
Me 30	257°50.5 -21°41.0	272°50.2 -21°41.8	287°50.0 -21°42.1	303°49.8 -21°42.6	317°49.5 -21°43.0	332°49.3 -21°43.4	347°49.1 -21°43.8	2°48.9 -21°44.1	15°48.6 -21°44.4	32°48.4 -21°44.9	45°48.2 -21°45.3	62°47.9 -21°45.8	-0.2 -0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Novembre 2033

	J	10h	11h	12h	13h	14h	15h	16h	17h	18h	19h	20h	Δ'/h	SP
O	Ma 1	239°49.3 -9°29.6	254°18.0 -9°20.1	268°46.6 -9°10.6	283°15.1 -9°01.0	297°43.7 -8°51.4	312°12.3 -8°41.7	326°40.8 -8°31.9	341°09.4 -8°22.1	355°37.9 -8°12.2	10°06.4 -8°02.2	24°34.9 -7°52.2	+28.6 +9.7	16.0 58.8
	Me 2	241°40.2 -5°15.6	256°08.5 -5°04.8	270°36.6 -4°53.9	285°04.8 -4°43.0	299°32.9 -4°32.0	314°01.1 -4°21.0	328°29.2 -4°10.0	342°57.2 -3°58.9	357°25.3 -3°47.8	11°53.3 -3°36.6	26°21.3 -3°25.5	+28.1 +11.0	16.3 59.7
	Je 3	245°18.0 -0°34.4	257°45.6 -0°22.8	272°13.3 -0°11.3	286°40.6 0°00.3	301°08.0 0°12.0	315°35.4 0°23.6	330°02.8 0°35.2	344°30.1 0°46.8	358°57.4 0°58.5	13°24.7 1°10.1	27°51.9 1°21.8	+27.4 +11.6	16.5 60.4
	Ve 4	244°35.9 8°53.5	259°02.5 9°04.0	273°29.1 9°14.5	287°55.6 9°24.9	302°22.1 9°35.2	316°48.6 9°45.5	331°15.0 9°55.7	345°41.3 10°05.8	0°07.7 10°15.9	14°33.9 10°25.8	29°00.2 10°35.8	+26.4 +10.2	16.6 61.0
	Sa 5	245°28.5 8°53.5	259°54.0 9°04.0	274°19.5 9°14.5	288°45.0 9°24.9	303°10.4 9°35.2	317°35.8 9°45.5	332°01.1 9°55.7	346°26.4 10°05.8	0°51.7 10°15.9	15°16.9 10°25.8	29°42.0 10°35.8	+25.4 +10.2	16.7 61.2
	Di 6	245°54.9 12°55.0	260°19.5 13°03.6	274°44.0 13°12.1	289°08.6 13°20.5	303°33.0 13°28.8	317°57.5 13°37.0	332°21.9 13°45.1	346°46.3 13°53.1	1°10.7 14°01.0	15°35.0 14°08.8	29°59.3 14°16.5	+24.4 +8.2	16.6 61.0
	Lu 7	246°01.7 15°58.8	260°35.7 16°04.7	274°49.8 16°10.5	289°13.8 16°16.2	303°37.8 16°21.7	318°01.8 16°27.2	332°25.8 16°32.5	346°49.9 16°37.7	1°13.9 16°42.7	15°37.9 16°47.7	30°01.9 16°52.5	+24.0 +5.4	16.5 60.6
	Ma 8	246°03.3 17°49.8	260°27.5 17°52.6	274°51.7 17°55.3	289°16.0 17°57.8	303°40.3 18°00.2	318°04.7 18°02.5	332°29.0 18°04.7	346°53.4 18°06.7	1°17.8 18°08.7	15°42.3 18°10.5	30°06.8 18°12.1	+24.3 +2.2	16.3 59.8
	Me 9	246°19.1 18°22.1	260°44.3 18°21.8	275°09.6 18°21.4	289°34.9 18°20.8	304°00.3 18°20.2	318°25.7 18°19.4	332°51.2 18°15.8	347°16.7 18°17.5	1°42.3 18°16.3	16°08.0 18°15.1	30°33.7 18°13.7	+25.5 -0.8	16.1 58.9
	Je 10	247°07.5 17°39.9	261°34.3 17°36.8	276°01.2 17°33.5	290°28.2 17°30.2	304°55.2 17°26.8	319°22.3 17°23.3	333°49.5 17°19.7	348°16.8 17°16.0	2°44.1 17°12.2	17°11.5 17°08.3	31°39.0 17°04.3	+27.1 -3.6	15.8 57.9
P	Ve 11	248°40.5 15°53.8	263°09.2 15°48.4	277°38.0 15°43.0	292°06.9 15°37.4	306°35.8 15°31.8	321°04.8 15°26.1	335°33.9 15°20.4	350°03.1 15°14.5	4°32.4 15°08.6	19°01.7 15°02.6	33°31.1 14°56.6	+29.1 +5.7	15.5 56.9
	Sa 12	251°01.2 13°17.8	265°31.8 13°10.7	280°02.5 13°03.6	294°33.2 12°56.4	309°04.0 12°49.2	323°34.9 12°41.9	338°05.8 12°34.5	352°36.8 12°27.1	7°07.9 12°19.6	21°39.0 12°12.1	36°10.2 12°04.6	+30.9 -7.3	15.3 56.1
	Di 13	254°05.8 10°05.8	268°38.0 9°57.5	283°10.3 9°49.2	297°42.6 9°40.9	312°14.9 9°32.5	326°47.3 9°24.2	341°19.8 9°15.7	355°52.3 9°07.3	10°24.8 8°58.8	24°57.5 8°50.2	39°30.1 8°41.7	+32.4 -8.4	15.1 55.3
	Lu 14	268°38.0 9°57.5	283°10.3 9°49.2	297°42.6 9°40.9	312°14.9 9°32.5	326°47.3 9°24.2	341°19.8 9°15.7	355°52.3 9°07.3	10°24.8 8°58.8	24°57.5 8°50.2	39°30.1 8°41.7	54°02.8 8°33.1	+32.5 -8.4	15.1 55.3
	Ma 15	272°19.0 6°21.0	286°52.4 6°12.0	301°25.5 6°03.0	315°59.3 5°54.0	330°32.9 5°44.9	345°06.4 5°35.8	359°40.0 5°26.7	14°13.8 5°17.6	28°47.3 5°08.5	43°21.0 4°59.4	57°54.7 4°50.2	+33.6 -9.1	14.9 54.7
	Me 16	276°23.7 2°31.5	290°57.9 2°22.2	305°32.0 2°12.9	320°06.2 2°03.5	334°40.3 1°54.2	349°14.5 1°44.9	3°48.7 1°35.5	18°23.0 1°26.2	32°57.2 1°16.8	47°31.4 1°07.5	62°05.7 0°58.1	+34.2 -9.3	14.8 54.3
	Je 17	280°40.7 -1°22.0	295°15.1 -1°31.3	309°49.5 -1°40.5	324°23.8 -1°49.8	338°58.2 -1°59.1	353°32.6 -2°08.4	8°07.0 -2°17.6	22°41.3 -2°26.9	37°15.7 -2°36.1	51°50.7 -2°45.4	66°24.4 -2°54.6	+34.4 -9.3	14.7 54.1
	Ve 18	284°58.8 -5°11.0	299°33.0 -5°20.0	314°07.2 -5°28.9	328°41.4 -5°37.8	343°15.6 -5°46.7	357°49.7 -5°55.6	12°23.8 -6°04.4	26°57.9 -6°13.2	41°32.0 -6°22.0	56°06.1 -6°30.8	70°40.1 -6°39.6	+34.1 -8.9	14.7 54.0
	Sa 19	289°08.1 -8°47.4	303°41.8 -8°55.6	318°15.4 -9°03.9	332°49.0 -9°12.1	347°22.6 -9°20.2	1°56.2 -9°28.3	16°29.7 -9°36.4	31°03.2 -9°44.5	45°36.6 -9°52.5	60°10.1 -10°00.5	74°43.5 -10°08.4	+33.5 -8.1	14.7 54.0
	Di 20	293°00.4 -12°02.2	307°33.2 -12°09.4	322°06.0 -12°16.6	336°38.8 -12°23.7	351°11.5 -12°30.8	5°44.2 -12°37.8	20°16.8 -12°44.8	34°49.5 -12°51.1	49°22.0 -12°58.5	63°54.6 -13°05.3	78°27.1 -13°12.1	+32.7 -7.0	14.8 54.2
Q	Lu 21	296°29.8 -14°46.3	311°01.6 -14°52.1	325°33.4 -14°57.9	340°05.2 -15°03.5	354°37.0 -15°09.1	9°08.6 -15°14.7	23°40.3 -15°20.1	38°11.9 -15°25.5	52°43.5 -15°30.9	67°15.0 -15°36.1	81°46.5 -15°41.8	+31.7 -5.5	14.8 54.5
	Ma 22	299°34.0 -16°50.4	314°04.8 -16°54.4	328°35.7 -16°58.4	343°06.4 -17°02.2	357°37.2 -17°06.0	12°07.9 -17°09.7	26°38.5 -17°13.3	41°09.2 -17°16.8	55°39.8 -17°20.3	70°10.3 -17°23.6	84°40.8 -17°26.9	+30.7 -3.6	14.9 54.8
	Me 23	302°14.5 -18°05.9	316°44.5 -18°07.9	331°14.4 -18°09.6	345°44.4 -18°11.3	360°14.3 -18°13.3	14°44.2 -18°14.5	29°14.0 -18°16.0	43°43.8 -18°17.3	58°13.6 -18°18.6	72°43.4 -18°19.8	87°13.1 -18°20.8	+29.9 -1.5	15.0 55.2
	Je 24	304°36.5 -18°25.9	319°05.9 -18°25.5	333°35.3 -18°25.0	348°04.6 -18°24.4	362°34.0 -18°23.7	17°03.3 -18°22.9	31°32.6 -18°22.0	46°01.9 -18°21.0	60°31.2 -18°19.9	75°00.5 -18°18.7	89°29.8 -18°17.5	+29.3 +0.8	15.2 55.6
	Ve 25	306°47.6 -17°46.8	321°16.7 -17°43.9	335°45.8 -17°41.0	350°15.0 -17°38.0	364°44.1 -17°34.9	19°13.2 -17°31.7	33°42.3 -17°28.5	48°11.4 -17°25.1	62°40.6 -17°21.6	77°09.7 -17°18.0	91°38.8 -17°14.4	+29.1 +3.2	15.3 56.1
	Sa 26	308°55.6 -16°08.2	323°24.7 -16°03.1	337°53.9 -15°57.9	352°23.0 -15°52.6	366°52.2 -15°47.2	21°21.4 -15°41.7	35°50.5 -15°36.1	50°19.7 -15°30.4	64°48.9 -15°24.7	79°18.1 -15°18.8	93°47.3 -15°12.9	+29.2 +5.5	15.5 56.7
	Di 27	311°06.0 -13°34.0	325°35.3 -13°26.7	340°04.6 -13°19.4	354°34.0 -13°12.0	369°03.3 -13°04.5	23°32.6 -12°57.0	38°02.0 -12°49.3	52°31.3 -12°41.6	67°00.7 -12°33.9	81°30.0 -12°26.0	95°59.4 -12°18.1	+29.3 +7.6	15.6 57.3
	Lu 28	313°20.4 -10°10.8	327°49.9 -10°01.8	342°19.3 -9°52.7	356°48.7 -9°43.6	371°18.2 -9°34.4	25°47.6 -9°25.2	40°17.1 -9°15.8	54°46.5 -9°06.5	69°15.9 -8°57.0	83°45.4 -8°47.5	98°14.8 -8°38.0	+29.4 +9.3	15.8 57.9
	Ma 29	315°35.9 -6°08.6	330°05.3 -5°58.2	344°34.3 -5°47.9	359°04.0 -5°37.4	373°27.3 -5°27.0	28°02.6 -5°16.5	42°31.9 -5°05.9	57°01.2 -4°55.3	71°30.5 -4°44.7	85°59.8 -4°34.1	100°29.0 -4°23.4	+29.3 +10.5	16.0 58.6
	Me 30	317°45.8 -1°39.5	332°14.8 -1°28.4	346°43.7 -1°17.2	1°12.6 -1°06.1	15°41.5 -0°54.9	30°10.3 -0°43.7	44°39.2 -0°32.5	59°08.0 -0°21.3	73°36.7 0°10.1	88°05.5 0°01.2	102°34.2 0°12.4	+28.8 +11.2	16.2 59.2

Ligne 1: GHA - Δ' /h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ' /h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 6 20h32 — DQ: 13 20h08 — NL: 22 01h39 — PQ: 29 15h15

SOLEIL

Décembre 2033

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Je 1	272°44.7 -21°50.8	287°44.5 -21°51.1	302°44.2 -21°51.5	317°44.0 -21°51.9	332°43.8 -21°52.3	347°43.5 -21°52.7	362°43.3 -21°53.0	377°43.1 -21°53.4	392°42.8 -21°53.8	407°42.6 -21°54.2	422°42.4 -21°54.6	437°42.1 -21°54.9	-0.2 -0.4
Ve 2	272°39.9 -21°59.7	287°38.8 -22°00.1	302°38.5 -22°00.5	317°38.3 -22°00.8	332°38.1 -22°01.2	347°37.8 -22°01.6	362°37.6 -22°01.9	377°37.3 -22°02.3	392°37.1 -22°02.6	407°36.8 -22°03.0	422°36.6 -22°03.4	437°36.4 -22°03.7	-0.2 -0.4
Sa 3	272°33.2 -22°08.3	287°32.9 -22°08.6	302°32.7 -22°09.0	317°32.4 -22°09.3	332°32.2 -22°09.7	347°31.9 -22°10.0	362°31.7 -22°10.4	377°31.5 -22°10.7	392°31.2 -22°11.0	407°31.0 -22°11.4	422°30.7 -22°11.7	437°30.5 -22°12.1	-0.2 -0.3
Di 4	272°27.2 -22°16.4	287°27.0 -22°16.7	302°26.7 -22°17.1	317°26.4 -22°17.4	332°26.2 -22°17.7	347°25.9 -22°18.1	362°25.7 -22°18.4	377°25.4 -22°18.7	392°25.2 -22°19.0	407°24.9 -22°19.4	422°24.7 -22°19.7	437°24.4 -22°20.0	-0.3 -0.3
Lu 5	272°21.1 -22°24.1	287°20.8 -22°24.4	302°20.6 -22°24.7	317°20.3 -22°25.0	332°20.1 -22°25.4	347°19.8 -22°25.7	362°19.5 -22°26.0	377°19.3 -22°26.3	392°19.0 -22°26.6	407°18.8 -22°26.9	422°18.5 -22°27.2	437°18.2 -22°27.5	-0.3 -0.4
Ma 6	272°14.8 -22°31.4	287°14.6 -22°31.7	302°14.3 -22°32.0	317°14.0 -22°32.2	332°13.8 -22°32.5	347°13.5 -22°32.8	362°13.2 -22°33.1	377°13.0 -22°33.4	392°12.7 -22°33.7	407°12.5 -22°34.0	422°12.2 -22°34.3	437°11.9 -22°34.5	-0.3 -0.3
Me 7	272°08.4 -22°38.2	287°08.2 -22°38.5	302°07.9 -22°38.7	317°07.6 -22°39.0	332°07.4 -22°39.3	347°07.1 -22°39.6	362°06.8 -22°39.8	377°06.6 -22°40.1	392°06.3 -22°40.4	407°06.0 -22°40.6	422°05.7 -22°40.9	437°05.5 -22°41.2	-0.3 -0.3
Je 8	272°01.9 -22°44.6	287°01.7 -22°44.8	302°01.4 -22°45.1	317°01.1 -22°45.3	332°00.8 -22°45.6	347°00.6 -22°45.8	362°00.3 -22°46.1	377°00.0 -22°46.3	392°59.7 -22°46.6	407°59.5 -22°46.8	422°59.2 -22°47.1	437°58.9 -22°47.3	-0.3 -0.3
Ve 9	271°55.3 -22°50.5	286°55.0 -22°50.7	301°54.8 -22°51.0	316°54.5 -22°51.2	331°54.2 -22°51.4	346°53.9 -22°51.7	361°53.6 -22°51.9	376°53.4 -22°52.1	391°53.1 -22°52.4	406°52.8 -22°52.6	421°52.5 -22°52.8	436°52.2 -22°53.1	-0.2 -0.3
Sa 10	271°48.8 -22°56.0	286°48.3 -22°56.2	301°48.0 -22°56.4	316°47.7 -22°56.6	331°47.4 -22°56.8	346°47.2 -22°57.1	361°46.9 -22°57.3	376°46.6 -22°57.5	391°46.3 -22°57.7	406°46.0 -22°57.9	421°45.7 -22°58.1	436°45.4 -22°58.3	-0.3 -0.2
Di 11	271°41.7 -23°01.0	286°41.4 -23°01.2	301°41.2 -23°01.4	316°40.9 -23°01.6	331°40.6 -23°01.8	346°40.3 -23°02.0	361°40.0 -23°02.2	376°39.7 -23°02.4	391°39.4 -23°02.6	406°39.1 -23°02.8	421°38.8 -23°02.9	436°38.6 -23°03.2	-0.3 -0.2
Lu 12	271°34.8 -23°05.4	286°34.5 -23°05.8	301°34.2 -23°05.9	316°33.9 -23°06.1	331°33.6 -23°06.3	346°33.3 -23°06.5	361°33.0 -23°06.7	376°32.7 -23°06.8	391°32.5 -23°07.0	406°32.2 -23°07.2	421°31.9 -23°07.3	436°31.6 -23°07.5	-0.3 -0.2
Ma 13	271°27.8 -23°09.7	286°27.5 -23°09.9	301°27.2 -23°10.0	316°26.9 -23°10.2	331°26.6 -23°10.3	346°26.3 -23°10.5	361°26.0 -23°10.7	376°25.7 -23°10.8	391°25.4 -23°11.0	406°25.1 -23°11.1	421°24.8 -23°11.3	436°24.5 -23°11.4	-0.3 -0.2
Me 14	271°20.6 -23°13.8	286°20.3 -23°13.5	301°20.0 -23°13.6	316°19.7 -23°13.8	331°19.4 -23°13.9	346°19.1 -23°14.1	361°18.8 -23°14.3	376°18.5 -23°14.5	391°18.2 -23°14.6	406°17.9 -23°14.7	421°17.6 -23°14.7	436°17.3 -23°14.9	-0.3 -0.1
Je 15	271°13.4 -23°16.5	286°13.1 -23°16.7	301°12.8 -23°16.8	316°12.5 -23°16.9	331°12.2 -23°17.0	346°11.9 -23°17.1	361°11.6 -23°17.3	376°11.3 -23°17.4	391°11.0 -23°17.5	406°10.7 -23°17.6	421°10.4 -23°17.7	436°10.1 -23°17.8	-0.3 -0.1
Ve 16	271°06.2 -23°19.3	286°05.9 -23°19.4	301°05.6 -23°19.5	316°05.3 -23°19.6	331°05.0 -23°19.7	346°04.7 -23°19.8	361°04.4 -23°19.9	376°04.1 -23°20.0	391°03.7 -23°20.1	406°03.4 -23°20.2	421°03.1 -23°20.3	436°02.8 -23°20.4	-0.3 -0.1
Sa 17	270°58.9 -23°21.5	285°58.6 -23°21.6	300°58.2 -23°21.7	315°57.9 -23°21.8	330°57.6 -23°21.9	345°57.3 -23°22.0	360°57.0 -23°22.1	375°56.7 -23°22.2	390°56.4 -23°22.3	405°56.1 -23°22.3	420°55.8 -23°22.3	435°55.5 -23°22.4	-0.3 -0.1
Di 18	270°51.5 -23°23.3	285°51.2 -23°23.4	300°50.9 -23°23.5	315°50.6 -23°23.5	330°50.3 -23°23.6	345°50.0 -23°23.6	360°49.7 -23°23.7	375°49.4 -23°23.8	390°49.0 -23°23.8	405°48.7 -23°23.9	420°48.4 -23°23.9	435°48.1 -23°24.0	-0.3 -0.1
Lu 19	270°44.1 -23°24.7	285°43.8 -23°24.7	300°43.5 -23°24.7	315°43.2 -23°24.8	330°42.8 -23°24.8	345°42.5 -23°24.9	360°42.2 -23°24.9	375°41.9 -23°24.9	390°41.6 -23°25.0	405°41.3 -23°25.0	420°41.0 -23°25.1	435°40.7 -23°25.1	-0.3 -0.0
Ma 20	270°36.6 -23°25.2	285°36.3 -23°25.5	300°36.0 -23°25.6	315°35.7 -23°25.6	330°35.4 -23°25.6	345°35.1 -23°25.6	360°34.8 -23°25.6	375°34.5 -23°25.7	390°34.2 -23°25.7	405°33.8 -23°25.7	420°33.5 -23°25.7	435°33.2 -23°25.7	-0.3 -0.0
Me 21	270°29.2 -23°25.9	285°28.9 -23°25.9	300°28.6 -23°25.9	315°28.2 -23°25.9	330°27.9 -23°25.9	345°27.6 -23°25.9	360°27.3 -23°25.9	375°27.0 -23°25.9	390°26.7 -23°25.9	405°26.4 -23°25.9	420°26.1 -23°25.9	435°25.8 -23°25.9	-0.3 -0.0
Je 22	270°21.7 -23°25.8	285°21.4 -23°25.8	300°21.1 -23°25.8	315°20.8 -23°25.8	330°20.5 -23°25.8	345°20.1 -23°25.7	360°19.8 -23°25.7	375°19.5 -23°25.7	390°19.2 -23°25.7	405°18.9 -23°25.7	420°18.6 -23°25.6	435°18.3 -23°25.6	-0.3 +0.0
Ve 23	270°14.2 -23°25.5	285°13.9 -23°25.2	300°13.6 -23°25.2	315°13.3 -23°25.2	330°13.0 -23°25.1	345°12.7 -23°25.1	360°12.4 -23°25.0	375°12.0 -23°25.0	390°11.7 -23°25.0	405°11.4 -23°24.9	420°11.1 -23°24.9	435°10.8 -23°24.8	-0.3 +0.0
Sa 24	270°06.8 -23°24.2	285°06.4 -23°24.2	300°06.1 -23°24.1	315°05.8 -23°24.1	330°05.5 -23°24.0	345°05.2 -23°24.0	360°04.9 -23°23.9	375°04.6 -23°23.8	390°04.3 -23°23.8	405°04.0 -23°23.7	420°03.7 -23°23.7	435°03.4 -23°23.6	-0.3 +0.1
Di 25	269°59.3 -23°23.7	284°59.0 -23°22.7	299°58.7 -23°22.6	314°58.4 -23°22.5	330°58.1 -23°22.4	345°57.8 -23°22.4	360°57.4 -23°22.2	375°57.1 -23°22.2	390°56.8 -23°22.1	405°56.5 -23°22.1	420°56.2 -23°22.1	435°55.9 -23°21.9	-0.3 +0.1
Lu 26	269°51.9 -23°20.8	284°51.6 -23°20.7	299°51.3 -23°20.6	314°50.9 -23°20.5	330°50.6 -23°20.4	345°50.3 -23°20.3	360°50.0 -23°20.2	375°49.7 -23°20.0	390°49.4 -23°20.0	405°49.1 -23°19.9	420°48.8 -23°19.8	435°48.5 -23°19.7	-0.3 +0.1
Ma 27	269°44.5 -23°18.3	284°44.2 -23°18.2	299°43.9 -23°18.1	314°43.6 -23°18.0	330°43.3 -23°17.9	345°42.9 -23°17.8	360°42.6 -23°17.7	375°42.3 -23°17.5	390°42.0 -23°17.4	405°41.7 -23°17.3	420°41.4 -23°17.2	435°41.1 -23°17.1	-0.3 +0.1
Me 28	269°37.1 -23°15.4	284°36.8 -23°15.3	299°36.5 -23°15.2	314°36.2 -23°15.0	330°35.9 -23°14.9	345°35.6 -23°14.8	360°35.3 -23°14.7	375°35.0 -23°14.5	390°34.7 -23°14.4	405°34.4 -23°14.2	420°34.1 -23°14.2	435°33.8 -23°14.0	-0.3 +0.1
Je 29	269°29.8 -23°12.1	284°29.5 -23°11.9	299°29.2 -23°11.8	314°28.9 -23°11.6	330°28.6 -23°11.5	345°28.3 -23°11.3	360°28.0 -23°11.2	375°27.7 -23°11.0	390°27.4 -23°10.9	405°27.1 -23°10.7	420°26.8 -23°10.6	435°26.5 -23°10.4	-0.3 +0.2
Ve 30	269°22.2 -23°08.2	284°22.3 -23°08.1	299°22.0 -23°07.9	314°21.7 -23°07.7	330°21.4 -23°07.6	345°21.1 -23°07.4	360°20.8 -23°07.2	375°20.5 -23°06.9	390°20.2 -23°06.9	405°19.9 -23°06.6	420°19.6 -23°06.5	435°19.3 -23°06.3	-0.3 +0.2
Sa 31	269°15.4 -23°04.0	284°15.1 -23°03.8	299°14.8 -23°03.6	314°14.5 -23°03.4	330°14.2 -23°03.2	345°14.0 -23°03.0	360°13.7 -23°02.8	375°13.4 -23°02.6	390°13.1 -23°02.4	405°12.8 -23°02.2	420°12.5 -23°02.0	435°12.2 -23°01.8	-0.3 +0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Décembre 2033

	J	11h	12h	13h	14h	15h	16h	17h	18h	19h	20h	21h	Δ /h	SP
	Je 1	247°19.6 2°05.1	261°48.0 2°16.4	276°16.3 2°27.7	290°44.6 2°39.0	305°12.8 2°50.2	319°41.0 3°01.5	334°09.2 3°12.7	348°37.3 3°23.9	3°05.4 3°35.2	17°33.5 3°46.4	32°01.5 3°57.6	+28.2	16.3
	Ve 2	248°56.4 6°03.0	263°23.7 6°53.7	277°50.9 7°04.5	293°18.1 7°15.2	306°45.3 7°25.9	321°12.4 7°36.6	335°39.5 7°47.2	350°06.5 7°57.5	4°33.4 8°08.2	19°00.3 8°18.7	33°27.2 8°29.1	+27.1	16.4
	Sa 3	250°03.9 10°58.9	264°29.9 11°08.4	278°55.9 11°17.8	293°21.9 11°27.1	307°47.7 11°36.4	322°13.6 11°45.6	336°39.4 11°54.7	351°05.1 12°03.8	5°30.8 12°12.7	19°56.4 12°21.6	34°22.2 12°30.4	+25.8	16.5
	Di 4	250°40.3 14°32.1	265°05.2 14°39.4	279°30.1 14°46.7	293°54.9 14°53.8	308°19.6 15°00.9	322°44.3 15°07.8	337°09.0 15°14.7	351°33.7 15°21.4	5°58.3 15°28.0	20°22.9 15°34.5	34°47.4 15°40.9	+24.7	16.5
	Lu 5	250°52.6 17°03.4	265°16.7 17°08.0	279°40.9 17°12.4	294°05.1 17°16.7	308°29.2 17°20.9	322°53.4 17°25.0	337°17.5 17°28.9	351°41.6 17°32.7	6°05.7 17°36.4	20°29.9 17°40.0	34°54.0 17°43.4	+24.1	16.4
O	Ma 6	250°56.4 18°19.9	265°20.7 18°21.3	279°45.0 18°22.6	294°09.3 18°23.7	308°33.7 18°24.7	322°58.0 18°25.6	337°22.4 18°26.4	351°46.9 18°27.1	6°11.3 18°27.6	20°35.8 18°28.0	35°00.3 18°28.2	+24.4	16.3
	Me 7	251°13.2 18°17.5	265°38.4 18°15.8	280°03.7 18°14.0	294°29.1 18°12.0	308°54.5 18°10.5	323°19.9 18°07.9	337°45.5 18°05.6	352°11.0 18°03.2	6°36.7 18°00.7	21°02.4 17°58.1	35°28.2 17°55.4	+25.5	16.1
	Je 8	252°02.8 17°01.9	266°29.7 16°57.5	280°56.6 16°53.0	295°23.6 16°48.4	309°50.7 16°43.8	324°17.9 16°39.0	338°45.2 16°34.1	353°12.5 16°29.2	7°39.9 16°24.1	22°07.4 16°19.0	36°35.0 16°13.8	+27.2	15.8
	Ve 9	253°37.8 14°45.7	268°06.7 14°39.2	282°33.6 14°32.6	297°04.5 14°26.0	311°33.6 14°19.3	326°02.7 14°12.5	340°32.0 14°05.6	355°01.2 13°58.7	9°30.6 13°51.8	24°00.1 13°44.7	38°29.6 13°37.6	+29.2	15.6
	Sa 10	256°01.6 11°44.2	270°32.3 11°36.3	285°03.1 11°28.2	299°33.9 11°20.2	314°04.8 11°12.0	328°35.8 11°03.9	343°06.9 10°55.7	357°38.0 10°47.4	12°09.2 10°39.1	26°40.5 10°30.8	41°11.8 10°22.4	+31.0	15.3
	Di 11	256°09.3 8°12.6	273°41.6 8°03.7	288°14.0 7°54.7	302°46.4 7°45.8	317°18.4 7°36.8	331°51.4 7°27.8	346°24.0 7°18.7	360°56.6 7°09.7	15°29.3 7°00.6	30°02.2 6°51.5	44°34.8 6°42.4	+32.5	15.1
O	Lu 12	262°51.7 4°23.5	277°25.2 4°14.1	291°58.6 4°04.7	306°32.2 3°55.3	321°05.7 3°45.9	335°39.3 3°36.5	350°12.9 3°27.1	4°46.6 3°17.7	19°20.3 3°08.2	33°54.0 2°58.8	48°27.7 2°49.4	+33.6	15.0
	Ma 13	277°25.2 4°14.1	291°58.6 4°04.7	306°32.2 3°55.3	321°05.7 3°45.9	335°39.3 3°36.5	350°12.9 3°27.1	4°46.6 3°17.7	19°20.3 3°08.2	33°54.0 2°58.8	48°27.7 2°49.4	48°27.7 2°39.9	+33.6	15.0
	Me 14	281°31.0 0°18.0	296°05.1 0°08.6	310°39.3 -0°00.9	325°13.4 -0°10.3	339°47.6 -0°19.7	354°21.8 -0°29.2	8°55.9 -0°38.6	23°30.1 -0°48.0	38°04.4 -0°57.4	52°38.6 -1°06.8	67°12.8 -1°16.2	+34.2	14.8
	Je 15	285°46.8 -3°35.7	300°21.1 -3°44.9	314°55.4 -3°54.1	329°29.6 -4°03.3	344°03.9 -4°12.4	358°38.1 -4°21.0	13°12.4 -4°30.6	27°46.0 -4°39.7	42°20.8 -4°48.8	56°55.1 -4°57.8	71°29.3 -5°06.8	+34.2	14.8
	Ve 16	290°00.8 -9°19.3	304°34.8 -7°27.9	319°08.7 -7°36.5	333°42.6 -7°45.0	348°16.5 -7°53.5	362°50.4 -8°02.0	17°24.2 -8°10.5	31°58.1 -8°18.9	46°31.9 -8°27.3	61°05.7 -8°35.7	75°39.4 -8°44.0	+33.9	14.8
	Sa 17	294°02.2 -10°44.6	308°35.5 -10°52.3	323°08.7 -11°00.0	337°41.9 -11°07.6	352°15.1 -11°15.2	366°48.2 -11°22.7	21°21.3 -11°30.2	35°54.3 -11°37.7	50°27.3 -11°45.1	65°00.3 -11°52.4	79°33.2 -11°59.7	+33.1	14.8
	Di 18	297°42.4 -13°43.2	312°14.7 -13°49.7	326°46.9 -13°56.1	341°19.1 -14°02.5	355°51.2 -14°08.8	369°51.2 -14°15.0	24°55.4 -14°21.2	39°27.4 -14°27.3	53°59.4 -14°33.3	68°31.3 -14°39.3	83°03.1 -14°45.2	+32.1	14.9
	Lu 19	300°55.7 -16°06.1	315°26.8 -16°10.9	329°57.9 -16°15.7	344°28.9 -16°20.4	358°59.9 -16°25.0	373°28.9 -16°29.6	28°01.8 -16°34.0	42°32.6 -16°38.4	57°03.4 -16°42.7	71°34.2 -16°47.0	86°04.5 -16°51.1	+30.9	15.0
O	Ma 20	303°40.4 -17°43.8	318°10.4 -17°46.7	332°40.4 -17°49.4	347°10.3 -17°52.1	361°40.2 -17°54.7	375°10.2 -17°57.2	16°10.1 -17°59.6	30°39.9 -18°01.9	45°09.7 -18°04.1	59°29.0 -18°06.3	74°09.1 -18°08.3	+29.8	15.1
	Me 21	305°59.7 -18°27.9	320°28.8 -18°28.5	334°57.9 -18°29.0	349°27.0 -18°29.3	363°56.0 -18°29.6	378°25.1 -18°29.7	32°54.1 -18°29.8	47°23.1 -18°29.8	61°52.0 -18°29.8	76°20.9 -18°29.4	90°49.8 -18°29.1	+29.0	15.2
	Je 22	308°01.1 -18°12.3	322°29.7 -18°10.4	336°58.3 -18°08.4	351°26.9 -18°06.3	365°55.5 -18°04.1	380°24.1 -18°01.8	20°24.1 -17°59.4	34°52.6 -17°56.9	49°21.2 -17°54.3	63°49.8 -17°51.6	78°18.3 -17°48.7	+28.6	15.4
	Ve 23	309°54.6 -16°54.8	324°23.2 -16°50.5	338°51.7 -16°46.0	353°20.2 -16°41.5	367°48.8 -16°36.8	382°17.3 -16°32.0	36°45.9 -16°27.2	51°14.4 -16°22.3	65°43.0 -16°17.2	80°11.5 -16°12.1	94°40.0 -16°06.9	+28.5	15.3
	Sa 24	311°49.9 -14°37.9	326°18.7 -14°31.3	340°47.4 -14°24.6	355°16.2 -14°17.8	369°45.0 -14°10.9	384°13.8 -14°03.9	38°42.6 -13°56.9	53°11.5 -13°49.8	67°40.3 -13°42.6	82°09.2 -13°35.3	96°38.7 -13°27.9	+28.8	15.6
	Di 25	313°53.1 -11°28.5	328°22.2 -11°20.0	342°51.4 -11°11.4	357°20.5 -11°02.7	371°49.7 -10°54.0	386°18.9 -10°45.2	40°48.1 -10°36.3	55°17.3 -10°27.4	69°46.5 -10°18.5	84°15.7 -10°09.4	98°45.4 -10°00.3	+29.2	15.8
O	Lu 26	316°05.3 -7°37.2	330°34.7 -7°27.2	345°04.2 -7°17.2	359°33.6 -7°07.2	374°03.1 -6°57.2	388°32.5 -6°47.0	43°02.0 -6°36.8	57°31.5 -6°26.6	72°01.5 -6°16.4	86°30.5 -6°06.1	101°00.0 -5°55.8	+29.5	15.9
	Ma 27	318°22.6 -3°16.9	332°52.1 -3°06.1	347°21.6 -2°55.3	361°51.1 -2°44.4	376°20.6 -2°33.6	390°50.1 -2°22.7	45°19.1 -2°11.8	59°49.0 -2°00.8	74°18.8 -1°49.5	88°47.9 -1°38.9	103°17.9 -1°28.0	+29.5	16.0
	Me 28	320°37.4 1°17.6	335°06.6 6°01.1	349°35.8 10°39.7	363°45.0 15°05.0	378°14.1 20°01.8	392°03.2 25°12.8	47°32.3 29°23.9	62°01.4 2°34.9	76°30.5 2°45.9	90°59.5 2°56.9	105°28.5 3°07.9	+29.1	16.1
	Je 29	322°40.1 5°50.5	337°08.6 6°01.1	351°37.1 6°11.8	365°05.6 6°22.3	379°34.0 6°32.9	393°02.3 6°43.4	49°30.3 6°53.9	63°59.0 7°04.3	78°27.2 7°14.7	92°55.5 7°25.1	107°23.7 7°35.4	+28.4	16.2
	Ve 30	324°21.5 10°04.7	338°49.0 10°14.3	353°16.5 10°23.7	367°48.9 10°33.2	382°11.3 10°42.5	396°38.8 10°51.8	51°05.9 11°01.1	65°33.3 11°10.2	80°00.4 11°19.3	94°27.0 11°28.3	108°54.6 11°37.2	+27.3	16.2
	Sa 31	325°35.7 13°42.6	340°02.1 13°50.3	354°28.5 13°57.9	368°54.7 14°05.5	383°21.0 14°12.9	397°47.2 14°20.3	52°13.4 14°27.5	66°39.5 14°34.7	81°05.6 14°41.8	95°31.6 14°48.8	109°57.6 14°55.7	+26.2	16.2

Ligne 1 : GHA, Δ /h = var. GHA = 14°, SP = semi-diamètre
Ligne 2 : Dec (= Sud), Δ /h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PL: 6 07h22 — DQ: 13 15h28 — NL: 21 18h46 — PQ: 29 00h20

SOLEIL

Janvier 2024

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	269°08.3 -22°59.2	284°08.1 -22°59.0	299°07.8 -22°58.8	314°07.5 -22°58.6	329°07.2 -22°58.4	344°06.9 -22°58.2	359°06.6 -22°57.9	14°06.3 -22°57.7	26°06.0 -22°57.5	44°05.7 -22°57.3	56°05.4 -22°57.1	74°05.1 -22°56.9	-0.3 +0.2
Lu 2	269°01.3 -22°54.0	284°01.1 -22°53.8	299°00.8 -22°53.5	314°00.5 -22°53.3	329°00.2 -22°53.1	343°59.9 -22°52.8	358°59.6 -22°52.6	13°59.3 -22°52.4	28°59.0 -22°52.2	43°58.7 -22°51.9	58°58.4 -22°51.7	73°58.2 -22°51.4	-0.3 +0.2
Ma 3	268°54.4 -22°48.3	283°54.1 -22°48.1	298°53.9 -22°47.8	313°53.6 -22°47.6	328°53.3 -22°47.3	343°53.0 -22°47.1	358°52.7 -22°46.8	13°52.4 -22°46.6	28°52.1 -22°46.3	43°51.9 -22°46.1	58°51.6 -22°45.8	73°51.3 -22°45.6	-0.3 +0.3
Me 4	268°47.6 -22°42.2	283°47.3 -22°41.9	298°47.0 -22°41.7	313°46.8 -22°41.4	328°46.5 -22°41.1	343°46.2 -22°40.9	358°45.9 -22°40.6	13°45.6 -22°40.3	28°45.4 -22°40.1	43°45.1 -22°39.8	58°44.8 -22°39.5	73°44.5 -22°39.2	-0.3 +0.3
Je 5	268°40.9 -22°35.6	283°40.6 -22°35.3	298°40.3 -22°35.1	313°40.1 -22°34.8	328°39.8 -22°34.5	343°39.5 -22°34.2	358°39.2 -22°33.9	13°39.0 -22°33.6	28°38.7 -22°33.3	43°38.4 -22°33.1	58°38.1 -22°32.8	73°37.9 -22°32.5	-0.3 +0.3
Ve 6	268°34.3 -22°28.6	283°34.0 -22°28.3	298°33.7 -22°28.0	313°33.5 -22°27.7	328°33.2 -22°27.4	343°32.9 -22°27.1	358°32.7 -22°26.8	13°32.4 -22°26.5	28°32.1 -22°26.2	43°31.8 -22°25.9	58°31.6 -22°25.6	73°31.3 -22°25.3	-0.3 +0.3
Sa 7	268°27.8 -22°21.2	283°27.5 -22°20.8	298°27.3 -22°20.5	313°27.0 -22°20.2	328°26.7 -22°19.9	343°26.5 -22°19.5	358°26.2 -22°19.2	13°25.9 -22°18.9	28°25.7 -22°18.6	43°25.4 -22°18.2	58°25.1 -22°17.9	73°24.9 -22°17.6	-0.3 +0.3
Di 8	268°21.4 -22°15.2	283°21.2 -22°14.9	298°20.9 -22°14.7	313°20.6 -22°14.4	328°20.4 -22°14.1	343°20.1 -22°13.8	358°19.8 -22°13.6	13°19.6 -22°13.4	28°19.3 -22°13.1	43°19.1 -22°12.9	58°18.8 -22°12.6	73°18.5 -22°12.3	-0.3 +0.3
Lu 9	268°15.9 -22°08.4	283°15.7 -22°08.2	298°15.4 -22°08.0	313°15.1 -22°07.8	328°14.9 -22°07.6	343°14.6 -22°07.3	358°14.4 -22°07.1	13°13.4 -22°07.0	28°13.1 -22°06.8	43°12.9 -22°06.5	58°12.6 -22°06.3	73°12.4 -22°06.1	-0.3 +0.3
Ma 10	268°09.1 -21°56.1	283°08.8 -21°55.8	298°08.6 -21°55.4	313°08.3 -21°55.0	328°08.1 -21°54.6	343°07.8 -21°54.3	358°07.6 -21°53.9	13°07.3 -21°53.5	28°07.1 -21°53.1	43°06.8 -21°52.8	58°06.6 -21°52.4	73°06.3 -21°52.1	-0.3 +0.3
Me 11	268°03.1 -21°46.9	283°02.8 -21°46.6	298°02.6 -21°46.2	313°02.3 -21°45.8	328°02.1 -21°45.4	343°01.9 -21°45.0	358°01.6 -21°44.6	13°01.4 -21°44.2	28°01.1 -21°43.8	43°00.9 -21°43.5	58°00.6 -21°43.0	73°00.4 -21°42.6	-0.2 +0.3
Je 12	267°57.3 -21°37.6	282°57.0 -21°36.9	297°56.8 -21°36.5	312°56.5 -21°36.1	327°56.3 -21°35.7	342°56.1 -21°35.3	357°55.8 -21°34.9	12°55.6 -21°34.4	27°55.3 -21°34.0	42°55.1 -21°33.6	57°54.9 -21°33.2	72°54.6 -21°32.8	-0.2 +0.3
Ve 13	267°51.6 -21°27.3	282°51.3 -21°26.9	297°51.1 -21°26.4	312°50.9 -21°26.0	327°50.6 -21°25.6	342°50.4 -21°25.1	357°50.2 -21°24.7	12°49.9 -21°24.3	27°49.7 -21°23.8	42°49.5 -21°23.4	57°49.2 -21°23.0	72°49.0 -21°22.5	-0.2 +0.3
Sa 14	267°46.0 -21°16.8	282°45.8 -21°16.4	297°45.6 -21°15.9	312°45.4 -21°15.5	327°45.1 -21°15.0	342°44.9 -21°14.6	357°44.7 -21°14.1	12°44.4 -21°13.7	27°44.2 -21°13.2	42°44.0 -21°12.8	57°43.8 -21°12.3	72°43.5 -21°11.9	-0.2 +0.4
Di 15	267°40.7 -21°06.6	282°40.4 -21°05.5	297°40.2 -21°05.0	312°40.0 -21°04.6	327°39.8 -21°04.1	342°39.6 -21°03.6	357°39.3 -21°03.2	12°39.1 -21°02.7	27°38.9 -21°02.2	42°38.7 -21°01.8	57°38.5 -21°01.3	72°38.2 -21°00.8	-0.2 +0.5
Lu 16	267°35.4 -20°54.7	282°35.2 -20°54.2	297°35.0 -20°53.7	312°34.8 -20°53.2	327°34.6 -20°52.8	342°34.4 -20°51.8	357°34.2 -20°51.3	12°34.0 -20°50.8	27°33.7 -20°50.5	42°33.5 -20°50.0	57°33.3 -20°49.5	72°33.1 -20°49.4	-0.2 +0.5
Ma 17	267°30.3 -20°43.0	282°30.2 -20°42.5	297°30.0 -20°42.0	312°29.8 -20°41.5	327°29.6 -20°41.0	342°29.4 -20°40.5	357°29.2 -20°40.0	12°29.0 -20°39.5	27°28.8 -20°39.0	42°28.6 -20°38.5	57°28.3 -20°38.0	72°28.1 -20°37.5	-0.2 +0.5
Me 18	267°25.5 -20°30.9	282°25.3 -20°30.4	297°25.1 -20°29.9	312°24.9 -20°29.4	327°24.7 -20°28.9	342°24.5 -20°28.4	357°24.3 -20°27.9	12°24.1 -20°27.3	27°23.9 -20°26.8	42°23.7 -20°26.3	57°23.6 -20°25.8	72°23.4 -20°25.3	-0.2 +0.5
Je 19	267°20.8 -20°16.3	282°20.6 -20°16.1	297°20.5 -20°16.0	312°20.3 -20°15.8	327°20.1 -20°15.6	342°19.9 -20°15.2	357°19.7 -20°14.8	12°19.5 -20°14.3	27°19.3 -20°13.9	42°19.1 -20°13.7	57°18.9 -20°13.2	72°18.7 -20°12.7	-0.2 +0.5
Ve 20	267°16.3 -20°05.7	282°16.1 -20°05.1	297°16.0 -20°04.6	312°15.8 -20°04.0	327°15.6 -20°03.5	342°15.4 -20°02.9	357°15.2 -20°02.4	12°15.0 -20°01.8	27°14.9 -20°01.3	42°14.7 -20°00.9	57°14.5 -20°00.2	72°14.3 -19°59.6	-0.2 +0.5
Sa 21	267°12.0 -19°52.4	282°11.8 -19°51.9	297°11.6 -19°51.3	312°11.5 -19°50.8	327°11.3 -19°50.2	342°11.1 -19°49.6	357°10.9 -19°49.1	12°10.8 -19°48.5	27°10.6 -19°48.0	42°10.4 -19°47.4	57°10.3 -19°46.8	72°10.1 -19°46.3	-0.2 +0.6
Di 22	267°07.9 -19°38.9	282°07.7 -19°38.3	297°07.5 -19°37.7	312°07.4 -19°37.1	327°07.2 -19°36.6	342°07.0 -19°36.0	357°06.9 -19°35.4	12°06.7 -19°34.8	27°06.5 -19°34.2	42°06.4 -19°33.7	57°06.2 -19°33.1	72°06.0 -19°32.5	-0.2 +0.6
Lu 23	267°03.9 -19°24.9	282°03.8 -19°24.3	297°03.6 -19°23.7	312°03.4 -19°23.1	327°03.3 -19°22.6	342°03.1 -19°22.0	357°03.0 -19°21.4	12°02.8 -19°20.8	27°02.7 -19°20.2	42°02.5 -19°19.6	57°02.3 -19°19.0	72°02.2 -19°18.4	-0.2 +0.6
Ma 24	267°00.0 -19°10.6	282°00.0 -19°10.0	297°00.0 -19°09.4	312°00.0 -19°08.8	327°00.0 -19°08.2	342°00.0 -19°07.6	357°00.0 -19°07.0	12°00.0 -19°06.4	27°00.0 -19°05.8	42°00.0 -19°05.1	57°00.0 -19°04.5	72°00.0 -19°03.9	-0.1 +0.6
Me 25	266°56.6 -18°55.9	281°56.5 -18°55.3	296°56.4 -18°54.7	311°56.2 -18°54.1	326°56.1 -18°53.5	341°55.9 -18°52.9	356°55.8 -18°52.2	11°55.6 -18°51.6	26°55.5 -18°51.0	41°55.2 -18°50.4	56°55.2 -18°49.8	71°55.1 -18°49.1	-0.1 +0.6
Je 26	266°53.3 -18°40.9	281°53.2 -18°40.3	296°53.0 -18°39.7	311°52.9 -18°39.0	326°52.8 -18°38.4	341°52.6 -18°37.8	356°52.5 -18°37.1	11°52.4 -18°36.5	26°52.2 -18°35.9	41°52.1 -18°35.2	56°52.0 -18°34.6	71°51.8 -18°34.0	-0.1 +0.6
Ve 27	266°50.0 -18°25.6	281°50.0 -18°25.0	296°49.9 -18°24.3	311°49.8 -18°23.7	326°49.7 -18°23.0	341°49.5 -18°22.4	356°49.4 -18°21.7	11°49.3 -18°21.1	26°49.2 -18°20.4	41°49.1 -18°19.8	56°48.9 -18°19.1	71°48.8 -18°18.5	-0.1 +0.6
Sa 28	266°47.2 -18°09.9	281°47.1 -18°09.3	296°47.0 -18°08.6	311°46.9 -18°07.9	326°46.8 -18°07.3	341°46.7 -18°06.6	356°46.6 -18°06.0	11°46.4 -18°05.3	26°46.3 -18°04.6	41°46.2 -18°04.0	56°46.1 -18°03.3	71°46.0 -18°02.6	-0.1 +0.7
Di 29	266°44.5 -17°53.9	281°44.4 -17°53.3	296°44.3 -17°52.6	311°44.2 -17°51.9	326°44.1 -17°51.2	341°44.0 -17°50.6	356°43.9 -17°49.9	11°43.8 -17°49.2	26°43.7 -17°48.5	41°43.6 -17°47.8	56°43.5 -17°47.2	71°43.4 -17°46.5	-0.1 +0.7
Lu 30	266°42.0 -17°37.6	281°41.9 -17°36.9	296°41.8 -17°36.2	311°41.7 -17°35.5	326°41.6 -17°34.9	341°41.5 -17°34.2	356°41.4 -17°33.5	11°41.3 -17°32.8	26°41.2 -17°32.1	41°41.1 -17°31.4	56°41.0 -17°30.7	71°40.9 -17°30.0	-0.1 +0.7
Ma 31	266°39.7 -17°21.0	281°39.6 -17°20.3	296°39.5 -17°19.6	311°39.4 -17°18.9	326°39.4 -17°18.2	341°39.3 -17°17.5	356°39.2 -17°16.8	11°39.1 -17°16.1	26°39.0 -17°15.4	41°38.9 -17°14.7	56°38.8 -17°14.0	71°38.7 -17°13.3	-0.1 +0.7

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

Janvier 2034

	J	12h	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	Δ'/h	SP
O	Di 1	239°49.9 15°53.3	254°15.5 15°59.2	268°41.1 16°05.0	283°06.6 16°10.7	297°32.2 16°16.2	311°57.7 16°21.7	326°23.1 16°27.1	340°48.5 16°32.3	355°13.9 16°37.9	9°39.3 16°42.5	24°04.7 16°47.4	+25.5 +5.4	16.2 59.5
	Lu 2	240°22.1 17°47.6	254°47.2 17°50.7	269°12.2 17°53.7	283°37.2 17°56.5	298°02.2 17°59.2	312°27.2 18°01.8	326°52.2 18°04.3	341°17.2 18°06.7	355°42.2 18°08.9	10°07.2 18°11.0	24°32.2 18°13.0	+25.0 +2.5	16.2 59.3
	Ma 3	240°47.8 18°28.3	255°12.9 18°28.3	269°38.1 18°28.3	284°03.3 18°28.1	298°28.5 18°27.7	312°53.8 18°27.3	327°19.0 18°26.7	341°44.3 18°26.1	356°09.7 18°25.3	10°35.0 18°24.3	25°00.4 18°23.3	+25.3 -0.5	16.1 58.9
O	Me 4	241°25.8 17°53.8	255°51.8 17°50.9	270°17.9 17°47.9	284°44.0 17°44.9	299°10.2 17°41.7	313°36.5 17°38.4	328°02.8 17°34.9	342°29.1 17°31.4	356°55.5 17°27.8	11°22.0 17°24.1	25°48.5 17°20.2	+26.3 -3.4	15.9 58.3
	Je 5	242°33.6 16°10.9	257°01.1 16°05.5	271°28.7 16°00.1	285°56.4 15°54.5	300°24.1 15°48.9	314°51.9 15°43.2	329°19.7 15°37.4	343°47.6 15°31.5	358°15.6 15°25.5	12°43.7 15°19.5	27°11.8 15°13.3	+27.8 -5.8	15.7 57.7
	Ve 6	244°22.3 13°32.3	258°51.6 13°25.0	273°20.9 13°17.7	287°50.3 13°10.3	302°19.8 13°02.8	316°49.3 12°55.3	331°18.9 12°47.7	345°48.6 12°40.0	0°18.4 12°32.3	14°48.2 12°24.5	29°18.1 12°16.7	+29.6 -7.6	15.5 56.9
O	Sa 7	246°54.7 10°13.3	261°25.6 10°04.7	275°56.7 9°56.1	290°27.7 9°47.5	304°58.9 9°38.8	319°30.1 9°30.0	334°01.4 9°21.3	348°32.7 9°12.4	3°04.1 9°03.6	17°35.6 8°54.7	32°07.1 8°45.8	+31.2 -8.8	15.3 56.2
	Di 8	250°06.6 6°28.9	264°39.0 6°19.6	279°11.4 6°10.2	293°43.9 6°00.9	308°16.4 5°51.5	322°49.0 5°42.1	337°21.6 5°32.7	351°54.3 5°23.3	6°27.0 5°13.9	20°59.8 5°04.4	35°32.6 4°54.9	+32.6 -9.4	15.1 55.5
	Lu 9	253°49.4 -2°32.0	268°22.8 2°02.4	282°56.2 2°12.8	297°29.7 2°03.2	312°03.2 1°53.7	326°36.7 1°44.1	341°10.3 1°34.5	355°43.9 1°24.9	10°17.5 1°15.4	24°51.1 1°05.8	39°24.8 0°56.2	+33.5 -9.6	15.0 54.9
O	Ma 10	257°52.2 -1°26.6	272°26.2 -1°36.0	287°00.2 -1°45.5	301°34.1 -1°54.9	316°08.1 -2°04.3	330°42.2 -2°13.7	345°16.2 -2°23.1	359°50.2 -2°32.4	14°24.2 -2°41.1	28°58.3 -2°51.1	43°32.3 -3°00.4	+34.0 -9.4	14.9 54.5
	Me 11	262°03.4 -5°17.8	276°37.4 -5°26.8	291°11.5 -5°35.8	305°45.5 -5°44.7	320°19.6 -5°53.6	334°53.6 -6°02.5	349°27.6 -6°11.4	364°01.6 -6°20.2	18°35.6 -6°29.0	33°09.6 -6°37.8	47°43.6 -6°46.5	+34.0 -8.9	14.8 54.2
	Je 12	276°37.4 -5°26.8	291°11.5 -5°35.8	305°45.5 -5°44.7	320°19.6 -5°53.6	334°53.6 -6°02.5	349°27.6 -6°11.4	364°01.6 -6°20.2	378°14.0 -6°29.0	33°09.6 -6°37.8	47°43.6 -6°46.5	62°17.6 -6°55.2	+34.0 -8.8	14.8 54.2
O	Ve 13	280°45.2 -9°02.1	295°18.9 -9°10.2	309°52.5 -9°18.4	324°26.2 -9°26.5	338°59.8 -9°34.6	353°33.4 -9°42.6	368°06.9 -9°50.6	382°40.5 -9°58.5	37°14.0 -10°06.4	51°47.5 -10°14.3	66°20.9 -10°22.1	+33.6 -8.0	14.8 54.2
	Sa 14	284°39.0 -10°14.1	299°12.0 -10°21.2	313°44.9 -10°28.2	328°17.7 -10°35.2	342°50.5 -10°42.1	357°23.3 -10°49.0	371°56.1 -10°55.8	386°28.8 -10°55.8	41°01.4 -13°02.6	55°34.1 -13°09.3	70°06.7 -13°16.0	+32.8 -6.9	14.8 54.3
	Di 15	288°10.4 -10°54.8	302°42.2 -10°00.5	317°14.1 -10°06.1	331°45.9 -10°11.6	346°17.7 -10°17.1	360°49.4 -10°22.5	375°21.1 -10°27.8	389°52.6 -10°33.1	42°18.2 -15°38.9	56°55.8 -15°43.4	73°27.3 -15°48.5	+31.7 -5.4	14.9 54.6
O	Lu 16	291°13.6 -10°55.7	305°44.3 -10°59.6	320°15.0 -10°03.4	334°45.6 -10°07.1	349°16.2 -10°17.0	363°46.7 -10°17.8	378°17.2 -10°17.8	392°47.6 -10°17.2	41°17.9 -17°21.2	54°24.3 -17°24.5	67°18.5 -17°27.7	+30.5 -3.5	15.0 51.1
	Ma 17	295°47.1 -18°07.8	310°16.7 -18°09.6	324°46.2 -18°11.2	339°15.7 -18°12.8	353°45.1 -18°14.3	368°14.5 -18°15.7	382°43.8 -18°16.9	397°13.1 -18°18.1	51°42.3 -18°19.3	64°11.6 -18°20.3	78°40.8 -18°21.2	+29.4 -1.3	15.2 55.7
	Me 18	295°54.1 -18°23.3	310°22.7 -18°22.6	324°51.3 -18°21.9	339°19.9 -18°21.0	353°48.4 -18°20.1	368°16.9 -18°19.0	382°45.4 -18°17.9	397°13.1 -18°16.6	51°42.3 -18°15.3	64°11.6 -18°13.8	80°39.1 -18°12.3	+28.5 +1.6	15.4 53.3
O	Je 19	297°42.2 -17°36.7	312°10.3 -17°33.5	326°38.3 -17°30.2	341°06.4 -17°26.8	355°34.4 -17°23.4	370°02.4 -17°19.8	384°58.4 -17°16.1	399°26.4 -17°12.3	53°26.4 -17°08.4	67°54.4 -17°04.4	82°22.4 -17°00.3	+28.0 +3.6	15.5 57.0
	Ve 20	299°21.5 -15°47.0	313°49.5 -15°41.1	328°17.4 -15°35.5	343°45.3 -15°29.7	358°13.3 -15°23.7	373°13.3 -15°17.7	387°41.2 -15°11.5	402°37.1 -15°05.3	55°05.1 -14°59.0	69°33.1 -14°52.6	84°01.0 -14°46.1	+28.0 +6.1	15.7 57.6
	Sa 21	301°01.7 -12°58.1	315°29.9 -12°50.3	329°58.5 -12°42.3	344°26.2 -12°34.3	358°54.3 -12°26.2	373°22.5 -12°18.0	387°50.7 -12°09.8	402°18.9 -12°01.4	56°47.1 -11°53.0	71°15.4 -11°44.6	85°43.6 -11°36.0	+28.2 +8.2	15.9 58.2
O	Di 22	302°49.1 -9°49.7	317°17.5 -9°10.1	331°46.0 -8°50.7	346°14.5 -8°50.7	360°43.1 -8°41.1	375°11.6 -8°31.1	389°40.1 -8°21.3	403°08.7 -8°11.4	58°37.3 -8°01.4	73°05.9 -7°51.9	87°34.5 -7°41.3	+28.5 +9.8	16.0 58.6
	Lu 23	304°44.9 -5°05.1	319°13.7 -4°54.4	333°42.5 -4°43.6	348°11.2 -4°32.9	362°40.0 -4°22.1	377°08.9 -4°11.3	391°37.7 -4°00.4	405°06.5 -3°49.5	60°35.3 -3°35.6	75°04.2 -3°27.7	89°33.2 -3°16.7	+28.8 +10.8	16.1 59.0
	Ma 24	306°45.9 -0°30.7	321°14.7 -0°19.5	335°43.6 -0°08.4	350°12.5 0°02.8	364°41.3 0°13.9	378°10.2 0°25.1	391°39.0 0°36.2	405°07.8 0°47.4	62°36.7 0°58.5	77°07.5 1°09.7	91°34.6 1°20.8	+28.8 +11.2	16.1 59.1
O	Me 25	308°45.4 4°06.3	323°14.1 4°17.2	337°42.7 4°28.0	352°11.3 4°38.9	366°39.9 4°49.7	380°08.5 5°00.4	393°37.0 5°11.2	406°05.5 5°21.9	64°34.1 5°32.6	79°02.1 5°43.2	93°31.1 5°53.8	+28.6 +10.8	16.1 59.2
	Je 26	310°35.7 8°28.3	325°03.8 8°38.2	339°31.9 8°48.1	353°59.9 8°57.9	367°28.0 9°07.6	381°06.0 9°17.4	394°34.0 9°27.0	407°01.5 9°36.6	66°19.8 9°46.1	80°47.7 9°55.6	95°15.6 10°05.0	+28.0 +9.7	16.1 59.2
	Ve 27	312°10.0 12°18.4	326°37.4 12°26.7	341°04.8 12°34.9	355°32.1 12°43.1	369°59.4 12°51.2	384°26.7 12°59.2	398°53.9 13°07.1	413°18.9 13°15.0	67°48.3 13°22.7	82°15.4 13°30.4	96°42.5 13°38.0	+27.2 +8.0	16.1 59.1
O	Sa 28	313°25.6 15°21.3	327°52.2 15°27.4	342°18.8 15°33.5	356°45.4 15°39.4	371°12.0 15°45.5	385°38.5 15°51.0	400°05.0 15°56.6	414°31.5 16°02.7	68°58.0 16°07.6	83°24.4 16°13.0	97°50.9 16°18.2	+26.5 +5.7	16.1 59.9
	Di 29	314°24.9 17°24.1	328°51.0 17°27.7	343°17.2 17°31.1	357°43.3 17°34.4	372°09.4 17°37.6	386°35.5 17°40.7	401°01.6 17°43.7	415°27.6 17°46.5	69°53.8 17°49.3	84°19.8 17°51.9	98°45.9 17°54.4	+26.1 +3.0	16.0 58.9
	Lu 30	315°17.0 18°18.5	329°43.3 18°19.2	344°09.2 18°19.8	358°35.3 18°20.2	373°01.5 18°20.6	387°27.6 18°20.8	401°53.8 18°20.9	416°20.9 18°20.9	70°46.2 18°20.8	85°12.4 18°20.6	99°38.7 18°20.3	+26.2 +0.2	15.9 58.3
O	Ma 31	316°15.1 18°01.8	330°41.8 17°59.6	345°08.5 17°57.4	359°35.2 17°55.1	374°02.0 17°52.6	388°28.8 17°50.1	402°55.6 17°47.4	417°22.5 17°44.7	71°49.4 17°41.8	86°16.3 17°38.9	100°43.3 17°35.8	+26.8 -2.6	15.8 57.9

Ligne 1 : GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2 : Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 4 19h47 — DQ: 12 13h17 — NL: 20 10h01 — PQ: 27 08h32

SOLEIL

Février 2034

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Me 1	266°37.6 -17°04.0	281°37.5 -17°03.3	296°37.5 -17°02.6	311°37.4 -17°01.9	326°37.3 -17°01.2	341°37.2 -17°00.5	356°37.1 -16°59.8	11°37.1 -16°59.0	26°37.0 -16°58.3	41°36.9 -16°57.6	56°36.8 -16°56.9	71°36.7 -16°56.2	-0.1 +0.7
Je 2	266°35.7 -16°46.6	281°35.7 -16°46.1	296°35.6 -16°45.3	311°35.5 -16°44.6	326°35.4 -16°43.9	341°35.4 -16°43.2	356°35.3 -16°42.4	11°35.2 -16°41.7	26°35.2 -16°41.0	41°35.1 -16°40.3	56°35.0 -16°39.5	71°34.9 -16°38.8	-0.1 +0.7
Ve 3	266°34.4 -16°29.3	281°34.0 -16°28.5	296°33.9 -16°27.8	311°33.9 -16°27.1	326°33.8 -16°26.3	341°33.7 -16°25.6	356°33.7 -16°24.8	11°33.6 -16°24.1	26°33.5 -16°23.4	41°33.5 -16°22.6	56°33.4 -16°21.9	71°33.4 -16°21.1	-0.1 +0.7
Sa 4	266°32.6 -16°11.4	281°32.5 -16°10.7	296°32.5 -16°10.0	311°32.4 -16°09.2	326°32.3 -16°08.5	341°32.3 -16°07.7	356°32.2 -16°07.0	11°32.2 -16°06.2	26°32.1 -16°05.4	41°32.1 -16°04.7	56°32.0 -16°03.9	71°32.0 -16°03.2	-0.1 +0.8
Di 5	266°31.3 -15°53.3	281°31.2 -15°52.6	296°31.2 -15°51.8	311°31.2 -15°51.1	326°31.1 -15°50.3	341°31.1 -15°49.5	356°31.0 -15°48.8	11°31.0 -15°48.0	26°30.9 -15°47.3	41°30.9 -15°46.5	56°30.8 -15°45.7	71°30.8 -15°45.0	-0.0 +0.8
Lu 6	266°30.2 -15°35.0	281°30.2 -15°34.2	296°30.1 -15°33.4	311°30.1 -15°32.7	326°30.1 -15°31.9	341°30.0 -15°31.1	356°30.0 -15°30.3	11°29.9 -15°29.6	26°29.9 -15°28.8	41°29.9 -15°28.0	56°29.8 -15°27.2	71°29.8 -15°26.5	-0.0 +0.8
Ma 7	266°29.3 -15°16.3	281°29.3 -15°15.6	296°29.3 -15°14.8	311°29.2 -15°14.0	326°29.2 -15°13.2	341°29.2 -15°12.4	356°29.1 -15°11.6	11°29.1 -15°10.9	26°29.1 -15°10.1	41°29.1 -15°09.3	56°29.0 -15°08.5	71°29.0 -15°07.7	-0.0 +0.8
Me 8	266°28.7 -14°57.4	281°28.6 -14°56.6	296°28.6 -14°55.9	311°28.6 -14°55.1	326°28.6 -14°54.3	341°28.5 -14°53.5	356°28.5 -14°52.7	11°28.5 -14°51.9	26°28.5 -14°51.1	41°28.4 -14°50.3	56°28.4 -14°49.5	71°28.4 -14°48.7	-0.0 +0.8
Je 9	266°28.2 -14°38.3	281°28.1 -14°37.5	296°28.1 -14°36.7	311°28.1 -14°35.9	326°28.1 -14°35.1	341°28.1 -14°34.3	356°28.1 -14°33.5	11°28.1 -14°32.7	26°28.0 -14°31.8	41°28.0 -14°31.0	56°28.0 -14°30.2	71°28.0 -14°29.4	-0.0 +0.8
Ve 10	266°27.9 -13°18.9	281°27.8 -13°18.1	296°27.8 -13°17.3	311°27.8 -13°16.4	326°27.8 -13°15.6	341°27.8 -13°14.8	356°27.8 -13°14.0	11°27.8 -13°13.2	26°27.8 -13°12.4	41°27.8 -13°11.5	56°27.8 -13°10.7	71°27.8 -13°10.0	-0.0 +0.8
Sa 11	266°27.7 -13°59.2	281°27.7 -13°58.4	296°27.7 -13°57.6	311°27.7 -13°56.8	326°27.7 -13°55.9	341°27.7 -13°55.1	356°27.7 -13°54.3	11°27.7 -13°53.5	26°27.7 -13°52.6	41°27.8 -13°51.7	56°27.8 -13°51.0	71°27.8 -13°50.2	+0.0 +0.8
Di 12	266°27.8 -13°39.4	281°27.8 -13°38.5	296°27.8 -13°37.7	311°27.8 -13°36.9	326°27.9 -13°36.0	341°27.9 -13°35.2	356°27.9 -13°34.4	11°27.9 -13°33.5	26°27.9 -13°32.7	41°27.9 -13°31.9	56°27.9 -13°31.2	71°27.9 -13°30.2	+0.0 +0.8
Lu 13	266°28.1 -13°19.3	281°28.1 -13°18.4	296°28.1 -13°17.6	311°28.1 -13°16.7	326°28.1 -13°15.9	341°28.2 -13°15.1	356°28.2 -13°14.2	11°28.2 -13°13.4	26°28.2 -13°12.5	41°28.2 -13°11.7	56°28.2 -13°10.8	71°28.3 -13°10.0	+0.0 +0.8
Ma 14	266°28.5 -12°59.0	281°28.5 -12°58.1	296°28.6 -12°57.3	311°28.6 -12°56.4	326°28.6 -12°55.5	341°28.6 -12°54.7	356°28.7 -12°53.8	11°28.7 -12°53.0	26°28.7 -12°52.1	41°28.7 -12°51.3	56°28.7 -12°50.4	71°28.8 -12°49.6	+0.0 +0.9
Me 15	266°29.1 -12°38.4	281°29.2 -12°37.6	296°29.2 -12°36.7	311°29.2 -12°35.8	326°29.3 -12°35.0	341°29.3 -12°34.1	356°29.3 -12°33.3	11°29.4 -12°32.4	26°29.4 -12°31.5	41°29.4 -12°30.7	56°29.4 -12°29.8	71°29.5 -12°29.0	+0.0 +0.9
Je 16	266°29.9 -12°17.7	281°30.0 -12°16.8	296°30.0 -12°16.0	311°30.0 -12°15.1	326°30.1 -12°14.2	341°30.1 -12°13.4	356°30.2 -12°12.5	11°30.2 -12°11.6	26°30.2 -12°10.7	41°30.3 -12°09.9	56°30.3 -12°09.0	71°30.4 -12°08.1	+0.0 +0.9
Ve 17	266°30.9 -11°56.8	281°30.9 -11°55.9	296°31.0 -11°55.0	311°31.0 -11°54.1	326°31.1 -11°53.3	341°31.1 -11°52.4	356°31.2 -11°51.5	11°31.2 -11°50.6	26°31.3 -11°49.7	41°31.3 -11°48.9	56°31.4 -11°48.0	71°31.4 -11°47.1	+0.0 +0.9
Sa 18	266°32.0 -11°35.6	281°32.1 -11°34.8	296°32.1 -11°33.9	311°32.2 -11°33.0	326°32.3 -11°32.1	341°32.3 -11°31.2	356°32.4 -11°30.3	11°32.4 -11°29.4	26°32.5 -11°28.6	41°32.5 -11°27.7	56°32.6 -11°26.8	71°32.6 -11°25.9	+0.0 +0.9
Di 19	266°33.4 -11°14.3	281°33.4 -11°13.4	296°33.5 -11°12.6	311°33.5 -11°11.7	326°33.6 -11°10.8	341°33.7 -11°09.9	356°33.7 -11°09.0	11°33.8 -11°08.1	26°33.8 -11°07.2	41°33.9 -11°06.3	56°34.0 -11°05.4	71°34.0 -11°04.5	+0.0 +0.9
Lu 20	266°34.8 -10°52.9	281°34.9 -10°52.0	296°35.0 -10°51.1	311°35.0 -10°50.2	326°35.1 -10°49.3	341°35.2 -10°48.4	356°35.2 -10°47.5	11°35.3 -10°46.6	26°35.4 -10°45.7	41°35.4 -10°44.8	56°35.5 -10°43.9	71°35.6 -10°43.0	+0.0 +0.9
Ma 21	266°36.5 -10°31.2	281°36.6 -10°30.3	296°36.6 -10°29.4	311°36.7 -10°28.5	326°36.8 -10°27.6	341°36.8 -10°26.7	356°36.9 -10°25.8	11°37.0 -10°24.9	26°37.1 -10°24.0	41°37.1 -10°23.1	56°37.2 -10°22.1	71°37.3 -10°21.2	+0.1 +0.9
Me 22	266°38.3 -10°09.4	281°38.4 -10°08.5	296°38.4 -10°07.6	311°38.5 -10°06.7	326°38.6 -10°05.8	341°38.7 -10°04.8	356°38.8 -10°03.9	11°38.8 -10°03.0	26°38.9 -10°02.1	41°39.0 -10°01.2	56°39.1 -10°00.3	71°39.2 -0°59.4	+0.1 +0.9
Je 23	266°40.3 -9°47.4	281°40.3 -9°46.5	296°40.4 -9°45.6	311°40.5 -9°44.7	326°40.6 -9°43.8	341°40.7 -9°42.8	356°40.8 -9°41.9	11°40.9 -9°41.0	26°40.9 -9°40.1	41°41.0 -9°39.2	56°41.1 -9°38.2	71°41.2 -9°37.3	+0.1 +0.9
Ve 24	266°42.4 -9°25.3	281°42.5 -9°24.4	296°42.6 -9°23.5	311°42.7 -9°22.6	326°42.7 -9°21.6	341°42.8 -9°20.7	356°42.9 -9°19.8	11°43.0 -9°18.8	26°43.1 -9°17.9	41°43.2 -9°17.0	56°43.3 -9°16.1	71°43.4 -9°15.1	+0.1 +0.9
Sa 25	266°44.7 -9°03.1	281°44.8 -9°02.1	296°44.9 -9°01.2	311°45.0 -9°00.3	326°45.1 -8°59.3	341°45.1 -8°58.4	356°45.2 -8°57.5	11°45.3 -8°56.6	26°45.4 -8°55.6	41°45.5 -8°54.7	56°45.6 -8°53.8	71°45.8 -8°52.8	+0.1 +0.9
Di 26	266°47.4 -8°40.7	281°47.2 -8°39.7	296°47.3 -8°38.8	311°47.4 -8°37.9	326°47.5 -8°36.9	341°47.6 -8°36.0	356°47.7 -8°35.1	11°47.8 -8°34.1	26°47.9 -8°33.2	41°48.0 -8°32.3	56°48.1 -8°31.3	71°48.2 -8°30.4	+0.1 +0.9
Lu 27	266°49.7 -8°18.2	281°49.8 -8°17.2	296°49.9 -8°16.3	311°50.0 -8°15.3	326°50.1 -8°14.4	341°50.2 -8°13.5	356°50.3 -8°12.5	11°50.4 -8°11.6	26°50.5 -8°10.6	41°50.7 -8°09.7	56°50.8 -8°08.8	71°50.9 -8°07.8	+0.1 +0.9
Ma 28	266°52.2 -7°55.5	281°52.5 -7°54.6	296°52.6 -7°53.6	311°52.7 -7°52.7	326°52.8 -7°51.7	341°52.9 -7°50.8	356°53.1 -7°49.9	11°53.2 -7°48.9	26°53.3 -7°48.0	41°53.4 -7°47.0	56°53.5 -7°46.1	71°53.6 -7°45.1	+0.1 +0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Février 2034

J	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	0h	Δ'/h	SP
Me 1	245 ⁰ 15.6 16 ⁰ 59.5	259 ⁰ 43.1 16 ⁰ 51.1	274 ⁰ 10.6 16 ⁰ 51.1	288 ⁰ 38.2 16 ⁰ 46.7	303 ⁰ 05.8 16 ⁰ 42.2	317 ⁰ 33.5 16 ⁰ 37.7	332 ⁰ 01.2 16 ⁰ 33.0	346 ⁰ 29.0 16 ⁰ 28.3	360 ⁰ 56.8 16 ⁰ 18.6	375 ⁰ 24.7 16 ⁰ 18.6	390 ⁰ 52.2 16 ⁰ 13.6	+27.7	15.7
Je 2	246 ⁰ 58.1 14 ⁰ 48.2	261 ⁰ 26.9 14 ⁰ 35.4	275 ⁰ 55.8 14 ⁰ 35.4	290 ⁰ 24.7 14 ⁰ 29.0	304 ⁰ 53.7 14 ⁰ 22.4	319 ⁰ 22.8 14 ⁰ 15.8	333 ⁰ 51.9 14 ⁰ 09.1	348 ⁰ 21.1 14 ⁰ 02.3	363 ⁰ 50.2 13 ⁰ 55.5	378 ⁰ 19.6 13 ⁰ 48.5	393 ⁰ 48.9 13 ⁰ 41.6	+29.1	15.5
Ve 3	249 ⁰ 16.1 11 ⁰ 49.2	263 ⁰ 46.4 11 ⁰ 41.3	278 ⁰ 16.7 11 ⁰ 33.3	293 ⁰ 47.1 11 ⁰ 25.2	307 ⁰ 17.1 11 ⁰ 17.1	321 ⁰ 48.0 11 ⁰ 09.0	336 ⁰ 18.6 11 ⁰ 00.8	350 ⁰ 49.2 10 ⁰ 52.5	365 ⁰ 19.9 10 ⁰ 44.2	380 ⁰ 50.6 10 ⁰ 35.9	395 ⁰ 21.4 10 ⁰ 27.5	+30.5	15.4
Sa 4	252 ⁰ 09.8 8 ⁰ 16.8	266 ⁰ 41.4 8 ⁰ 07.8	281 ⁰ 13.1 7 ⁰ 58.7	295 ⁰ 44.8 7 ⁰ 49.7	310 ⁰ 16.6 7 ⁰ 40.6	324 ⁰ 48.4 7 ⁰ 31.5	339 ⁰ 20.3 7 ⁰ 22.3	353 ⁰ 52.2 7 ⁰ 13.2	368 ⁰ 24.2 7 ⁰ 04.0	383 ⁰ 56.2 6 ⁰ 54.8	398 ⁰ 28.3 6 ⁰ 45.5	+31.9	15.2
Di 5	255 ⁰ 34.5 4 ⁰ 24.6	270 ⁰ 07.3 4 ⁰ 15.1	284 ⁰ 40.0 4 ⁰ 05.6	299 ⁰ 12.8 3 ⁰ 56.0	313 ⁰ 45.7 3 ⁰ 46.5	328 ⁰ 18.6 3 ⁰ 36.9	342 ⁰ 51.5 3 ⁰ 27.4	357 ⁰ 24.4 3 ⁰ 17.8	372 ⁰ 57.4 3 ⁰ 08.2	387 ⁰ 30.4 2 ⁰ 58.6	402 ⁰ 03.5 2 ⁰ 49.0	+32.9	15.1
Lu 6	259 ⁰ 22.7 0 ⁰ 25.1	273 ⁰ 56.1 0 ⁰ 15.5	288 ⁰ 29.6 0 ⁰ 06.0	303 ⁰ 03.2 -0 ⁰ 03.6	317 ⁰ 36.7 -0 ⁰ 13.1	332 ⁰ 10.3 -0 ⁰ 22.7	346 ⁰ 43.9 -0 ⁰ 32.2	360 ⁰ 17.5 -0 ⁰ 41.8	375 ⁰ 51.1 -0 ⁰ 51.3	390 ⁰ 24.7 -1 ⁰ 00.8	405 ⁰ 58.4 -1 ⁰ 10.3	+33.6	14.9
Ma 7	263 ⁰ 24.8 -3 ⁰ 31.0	277 ⁰ 58.6 -3 ⁰ 40.3	292 ⁰ 32.5 -3 ⁰ 49.5	307 ⁰ 06.3 -3 ⁰ 58.7	321 ⁰ 40.2 -4 ⁰ 07.9	336 ⁰ 14.0 -4 ⁰ 17.0	350 ⁰ 47.9 -4 ⁰ 26.2	365 ⁰ 21.8 -4 ⁰ 35.3	380 ⁰ 55.6 -4 ⁰ 44.4	395 ⁰ 29.5 -4 ⁰ 53.4	410 ⁰ 03.4 -5 ⁰ 02.5	+33.9	14.8
Me 8	267 ⁰ 31.0 -7 ⁰ 14.8	282 ⁰ 04.8 -7 ⁰ 23.3	296 ⁰ 38.6 -7 ⁰ 31.9	311 ⁰ 12.4 -7 ⁰ 40.4	325 ⁰ 46.2 -7 ⁰ 48.9	340 ⁰ 19.9 -7 ⁰ 57.3	354 ⁰ 53.7 -8 ⁰ 05.7	369 ⁰ 27.4 -8 ⁰ 14.1	384 ⁰ 01.1 -8 ⁰ 22.4	399 ⁰ 34.8 -8 ⁰ 30.7	414 ⁰ 08.5 -8 ⁰ 39.0	+33.7	14.8
Je 9	271 ⁰ 31.7 -10 ⁰ 38.0	286 ⁰ 05.1 -10 ⁰ 45.6	300 ⁰ 38.4 -11 ⁰ 00.7	315 ⁰ 11.8 -11 ⁰ 08.1	329 ⁰ 45.1 -11 ⁰ 15.5	344 ⁰ 18.4 -11 ⁰ 22.9	358 ⁰ 51.6 -11 ⁰ 30.2	373 ⁰ 24.8 -11 ⁰ 37.5	388 ⁰ 58.1 -11 ⁰ 44.7	403 ⁰ 31.2 -11 ⁰ 51.9	418 ⁰ 04.4 -12 ⁰ 00.8	+33.3	14.8
Ve 10	286 ⁰ 05.1 -10 ⁰ 45.6	300 ⁰ 38.4 -10 ⁰ 53.2	315 ⁰ 11.8 -11 ⁰ 00.7	329 ⁰ 45.1 -11 ⁰ 08.1	344 ⁰ 18.4 -11 ⁰ 15.5	358 ⁰ 51.6 -11 ⁰ 22.9	373 ⁰ 24.8 -11 ⁰ 30.2	388 ⁰ 58.1 -11 ⁰ 37.5	403 ⁰ 31.2 -11 ⁰ 44.7	418 ⁰ 04.4 -11 ⁰ 51.9	433 ⁰ 07.5 -12 ⁰ 00.8	+33.2	14.8
Sa 11	285 ⁰ 50.6 -13 ⁰ 39.9	304 ⁰ 23.2 -13 ⁰ 45.8	318 ⁰ 55.8 -13 ⁰ 52.0	333 ⁰ 28.4 -13 ⁰ 58.1	348 ⁰ 00.9 -14 ⁰ 04.2	363 ⁰ 10.5 -14 ⁰ 10.2	378 ⁰ 05.8 -14 ⁰ 16.2	393 ⁰ 10.5 -14 ⁰ 22.1	408 ⁰ 10.5 -14 ⁰ 27.9	423 ⁰ 10.5 -14 ⁰ 33.7	438 ⁰ 15.1 -14 ⁰ 39.4	+32.4	14.8
Di 12	293 ⁰ 14.4 -15 ⁰ 57.3	307 ⁰ 46.1 -16 ⁰ 02.0	322 ⁰ 17.6 -16 ⁰ 06.6	336 ⁰ 49.2 -16 ⁰ 11.1	351 ⁰ 20.7 -16 ⁰ 15.5	366 ⁰ 19.9 -16 ⁰ 24.2	381 ⁰ 14.5 -16 ⁰ 28.4	396 ⁰ 14.5 -16 ⁰ 32.6	411 ⁰ 14.9 -16 ⁰ 36.6	426 ⁰ 15.1 -16 ⁰ 40.6	441 ⁰ 15.2 -16 ⁰ 45.7	+31.4	14.9
Lu 13	296 ⁰ 12.0 -17 ⁰ 31.3	310 ⁰ 42.5 -17 ⁰ 34.1	325 ⁰ 13.0 -17 ⁰ 36.7	339 ⁰ 43.4 -17 ⁰ 39.3	354 ⁰ 13.8 -17 ⁰ 41.8	369 ⁰ 19.9 -17 ⁰ 44.2	384 ⁰ 14.5 -17 ⁰ 46.5	399 ⁰ 14.5 -17 ⁰ 48.7	414 ⁰ 14.9 -17 ⁰ 50.9	429 ⁰ 15.2 -17 ⁰ 52.9	444 ⁰ 15.2 -17 ⁰ 54.9	+30.3	15.0
Ma 14	298 ⁰ 42.1 -18 ⁰ 13.8	313 ⁰ 11.6 -18 ⁰ 14.4	327 ⁰ 41.0 -18 ⁰ 14.8	342 ⁰ 10.4 -18 ⁰ 15.1	356 ⁰ 39.9 -18 ⁰ 15.5	371 ⁰ 09.0 -18 ⁰ 15.6	386 ⁰ 07.5 -18 ⁰ 15.6	401 ⁰ 07.5 -18 ⁰ 15.4	416 ⁰ 07.5 -18 ⁰ 15.2	431 ⁰ 07.5 -18 ⁰ 15.2	446 ⁰ 07.5 -18 ⁰ 14.9	+29.3	15.2
Me 15	300 ⁰ 47.6 -17 ⁰ 58.3	315 ⁰ 16.2 -17 ⁰ 56.4	329 ⁰ 44.7 -17 ⁰ 54.4	344 ⁰ 13.3 -17 ⁰ 52.3	358 ⁰ 41.8 -17 ⁰ 50.1	373 ⁰ 10.2 -17 ⁰ 47.8	388 ⁰ 07.5 -17 ⁰ 45.4	403 ⁰ 07.5 -17 ⁰ 42.7	418 ⁰ 07.5 -17 ⁰ 40.3	433 ⁰ 07.5 -17 ⁰ 37.5	448 ⁰ 07.5 -17 ⁰ 34.7	+28.5	15.4
Je 16	302 ⁰ 34.5 -16 ⁰ 40.5	317 ⁰ 02.5 -16 ⁰ 36.1	331 ⁰ 30.5 -16 ⁰ 31.6	345 ⁰ 58.5 -16 ⁰ 27.7	360 ⁰ 26.4 -16 ⁰ 22.3	375 ⁰ 04.2 -16 ⁰ 17.5	390 ⁰ 22.3 -16 ⁰ 12.5	405 ⁰ 22.3 -16 ⁰ 07.5	420 ⁰ 22.3 -16 ⁰ 02.4	435 ⁰ 22.3 -15 ⁰ 57.2	450 ⁰ 22.3 -15 ⁰ 51.9	+27.9	15.7
Ve 17	304 ⁰ 10.7 -14 ⁰ 20.7	318 ⁰ 38.5 -14 ⁰ 13.8	333 ⁰ 06.2 -14 ⁰ 06.9	347 ⁰ 33.9 -13 ⁰ 59.9	362 ⁰ 01.6 -13 ⁰ 52.8	377 ⁰ 29.3 -13 ⁰ 45.6	392 ⁰ 57.0 -13 ⁰ 38.3	408 ⁰ 24.8 -13 ⁰ 30.9	423 ⁰ 52.5 -13 ⁰ 23.5	439 ⁰ 20.2 -13 ⁰ 15.9	454 ⁰ 20.2 -13 ⁰ 08.3	+27.7	15.9
Sa 18	305 ⁰ 43.3 -11 ⁰ 03.9	320 ⁰ 11.9 -10 ⁰ 54.9	334 ⁰ 38.7 -10 ⁰ 45.9	349 ⁰ 06.5 -10 ⁰ 36.9	364 ⁰ 00.5 -10 ⁰ 27.7	379 ⁰ 01.9 -10 ⁰ 18.5	394 ⁰ 29.6 -10 ⁰ 09.2	409 ⁰ 57.3 -9 ⁰ 59.9	425 ⁰ 25.0 -9 ⁰ 50.5	440 ⁰ 52.8 -9 ⁰ 41.0	456 ⁰ 20.5 -9 ⁰ 31.4	+27.7	16.1
Di 19	307 ⁰ 16.8 -7 ⁰ 01.0	321 ⁰ 44.6 -6 ⁰ 50.5	336 ⁰ 12.4 -6 ⁰ 40.0	350 ⁰ 40.1 -6 ⁰ 29.4	365 ⁰ 07.9 -6 ⁰ 18.8	380 ⁰ 07.9 -6 ⁰ 08.2	395 ⁰ 03.5 -5 ⁰ 57.5	410 ⁰ 31.3 -5 ⁰ 46.7	425 ⁰ 59.1 -5 ⁰ 36.0	441 ⁰ 26.9 -5 ⁰ 25.1	456 ⁰ 54.7 -5 ⁰ 14.3	+27.8	16.2
Lu 20	308 ⁰ 51.8 -2 ⁰ 27.7	323 ⁰ 19.6 -2 ⁰ 16.4	337 ⁰ 47.4 -2 ⁰ 05.1	352 ⁰ 15.2 -1 ⁰ 53.7	367 ⁰ 43.0 -1 ⁰ 42.4	382 ⁰ 10.8 -1 ⁰ 31.0	397 ⁰ 38.6 -1 ⁰ 19.6	412 ⁰ 06.4 -1 ⁰ 08.3	427 ⁰ 34.2 -1 ⁰ 56.9	442 ⁰ 07.0 -0 ⁰ 45.5	457 ⁰ 02.2 -0 ⁰ 34.1	+27.8	16.3
Ma 21	310 ⁰ 25.8 2 ⁰ 17.0	324 ⁰ 53.5 2 ⁰ 28.3	339 ⁰ 21.2 2 ⁰ 39.6	353 ⁰ 48.9 2 ⁰ 50.9	368 ⁰ 16.5 3 ⁰ 02.2	383 ⁰ 44.1 3 ⁰ 13.5	398 ⁰ 11.8 3 ⁰ 24.7	413 ⁰ 39.1 3 ⁰ 35.9	428 ⁰ 34.2 3 ⁰ 47.1	443 ⁰ 34.6 3 ⁰ 58.3	458 ⁰ 26.9 4 ⁰ 09.5	+27.6	16.4
Me 22	311 ⁰ 54.5 6 ⁰ 52.7	326 ⁰ 21.8 7 ⁰ 13.8	340 ⁰ 49.2 7 ⁰ 13.8	355 ⁰ 16.5 7 ⁰ 24.2	370 ⁰ 43.8 7 ⁰ 34.6	385 ⁰ 11.2 7 ⁰ 45.0	399 ⁰ 38.4 7 ⁰ 55.3	414 ⁰ 05.6 8 ⁰ 05.6	429 ⁰ 21.8 8 ⁰ 15.8	444 ⁰ 00.2 8 ⁰ 25.9	459 ⁰ 27.4 8 ⁰ 36.0	+27.3	16.3
Je 23	313 ⁰ 13.6 10 ⁰ 59.9	327 ⁰ 40.6 11 ⁰ 09.0	342 ⁰ 07.5 11 ⁰ 17.9	356 ⁰ 34.4 11 ⁰ 26.8	371 ⁰ 01.3 11 ⁰ 35.6	386 ⁰ 28.1 11 ⁰ 44.4	399 ⁰ 55.0 11 ⁰ 53.0	414 ⁰ 21.8 12 ⁰ 01.6	429 ⁰ 48.6 12 ⁰ 10.1	444 ⁰ 15.4 12 ⁰ 18.5	459 ⁰ 42.2 12 ⁰ 26.9	+26.9	16.3
Ve 24	314 ⁰ 21.8 14 ⁰ 21.5	328 ⁰ 48.3 14 ⁰ 28.4	343 ⁰ 14.8 14 ⁰ 35.2	357 ⁰ 41.3 14 ⁰ 42.0	372 ⁰ 07.8 14 ⁰ 48.6	387 ⁰ 34.2 14 ⁰ 55.1	401 ⁰ 00.7 15 ⁰ 01.5	416 ⁰ 27.1 15 ⁰ 07.9	431 ⁰ 53.6 15 ⁰ 14.1	446 ⁰ 20.0 15 ⁰ 20.2	461 ⁰ 46.4 15 ⁰ 26.3	+26.5	16.1
Sa 25	315 ⁰ 21.5 16 ⁰ 44.3	329 ⁰ 47.8 18 ⁰ 01.6	344 ⁰ 14.1 18 ⁰ 03.1	358 ⁰ 40.4 18 ⁰ 04.4	373 ⁰ 06.7 18 ⁰ 05.7	388 ⁰ 33.3 18 ⁰ 06.8	403 ⁰ 59.3 18 ⁰ 07.8	419 ⁰ 25.6 18 ⁰ 08.8	434 ⁰ 51.9 18 ⁰ 09.6	450 ⁰ 18.2 18 ⁰ 10.2	465 ⁰ 44.5 18 ⁰ 10.8	+26.3	16.0
Di 26	316 ⁰ 19.9 18 ⁰ 00.0	330 ⁰ 46.3 18 ⁰ 01.6	345 ⁰ 12.8 18 ⁰ 03.1	359 ⁰ 39.3 18 ⁰ 04.4	374 ⁰ 05.8 18 ⁰ 05.7	389 ⁰ 32.3 18 ⁰ 06.8	405 ⁰ 58.8 18 ⁰ 07.8	421 ⁰ 25.3 18 ⁰ 08.8	437 ⁰ 51.9 18 ⁰ 09.6	453 ⁰ 18.5 18 ⁰ 10.2	469 ⁰ 45.1 18 ⁰ 10.8	+26.5	15.9
Lu 27	317 ⁰ 27.2 18 ⁰ 06.2	331 ⁰ 54.2 18 ⁰ 05.1	346 ⁰ 21.3 18 ⁰ 03.8	361 ⁰ 48.4 18 ⁰ 02.4	376 ⁰ 15.5 18 ⁰ 00.9	391 ⁰ 28.1 17 ⁰ 59.3	406 ⁰ 09.9 17 ⁰ 57.6	421 ⁰ 09.9 17 ⁰ 55.8	437 ⁰ 04.9 17 ⁰ 53.9	452 ⁰ 31.7 17 ⁰ 51.9	468 ⁰ 59.1 17 ⁰ 49.7	+27.2	15.7
Ma 28	318 ⁰ 54.2 17 ⁰ 05.9	333 ⁰ 22.2 17 ⁰ 02.2	347 ⁰ 50.2 16 ⁰ 58.4	362 ⁰ 18.3 16 ⁰ 54.5	377 ⁰ 46.5 16 ⁰ 50.5	392 ⁰ 14.7 16 ⁰ 46.4	407 ⁰ 43.0 16 ⁰ 42.3	422 ⁰ 11.2 16 ⁰ 38.0	437 ⁰ 39.6 16 ⁰ 29.2	453 ⁰ 08.0 16 ⁰ 29.2	469 ⁰ 36.4 16 ⁰ 24.7	+28.2	15.6

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
PL: 3 10h04 — DQ: 11 11h09 — NL: 18 23h10 — PQ: 25 16h34

SOLEIL

Mars 2034

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Me 1	266°55.2 -7°32.8	281°55.3 -7°31.8	296°55.4 -7°30.9	311°55.6 -7°29.9	326°55.7 -7°29.0	341°55.8 -7°28.0	356°55.9 -7°27.1	11°56.1 -7°26.1	26°56.2 -7°25.2	41°56.3 -7°24.2	56°56.4 -7°23.3	71°56.6 -7°22.3	+0.1 +1.0
Je 2	266°58.2 -7°09.9	281°58.3 -7°09.0	296°58.4 -7°08.0	311°58.6 -7°07.1	326°58.7 -7°06.1	341°58.8 -7°05.2	356°58.9 -7°04.2	11°59.1 -7°03.2	26°59.2 -7°02.3	41°59.3 -7°01.3	56°59.5 -7°00.4	71°59.6 -6°59.4	+0.1 +1.0
Ve 3	267°01.3 -6°47.0	282°01.4 -6°46.0	297°01.5 -6°45.1	312°01.7 -6°44.1	327°01.8 -6°43.1	342°01.9 -6°42.2	357°02.1 -6°41.2	12°02.2 -6°40.3	27°02.3 -6°39.3	42°02.5 -6°38.3	57°02.6 -6°37.4	72°02.7 -6°36.4	+0.1 +1.0
Sa 4	267°04.5 -6°23.9	282°04.6 -6°23.0	297°04.8 -6°22.0	312°04.9 -6°21.0	327°05.0 -6°20.1	342°05.2 -6°19.1	357°05.3 -6°18.1	12°05.5 -6°17.2	27°05.6 -6°16.2	42°05.7 -6°15.2	57°05.9 -6°14.3	72°06.0 -6°13.3	+0.1 +1.0
Di 5	267°07.8 -6°00.8	282°08.0 -5°59.8	297°08.1 -5°58.8	312°08.3 -5°57.9	327°08.4 -5°56.9	342°08.5 -5°55.9	357°08.7 -5°55.0	12°08.8 -5°54.0	27°09.0 -5°53.0	42°09.1 -5°52.1	57°09.2 -5°51.1	72°09.4 -5°50.1	+0.1 +1.0
Lu 6	267°11.3 -5°37.6	282°11.4 -5°36.6	297°11.6 -5°35.6	312°11.7 -5°34.6	327°11.8 -5°33.7	342°12.0 -5°32.7	357°12.1 -5°31.7	12°12.3 -5°30.8	27°12.4 -5°29.8	42°12.6 -5°28.8	57°12.7 -5°27.9	72°12.9 -5°26.9	+0.1 +1.0
Ma 7	267°14.8 -5°14.2	282°15.0 -5°13.3	297°15.1 -5°12.3	312°15.3 -5°11.3	327°15.4 -5°10.4	342°15.6 -5°09.4	357°15.7 -5°08.4	12°15.9 -5°07.4	27°16.0 -5°06.5	42°16.2 -5°05.5	57°16.3 -5°04.5	72°16.5 -5°03.5	+0.2 +1.0
Me 8	267°18.4 -4°50.9	282°18.6 -4°49.9	297°18.7 -4°48.9	312°18.9 -4°48.0	327°19.1 -4°47.0	342°19.2 -4°46.0	357°19.4 -4°45.0	12°19.5 -4°44.0	27°19.7 -4°43.1	42°19.8 -4°42.1	57°20.0 -4°41.1	72°20.1 -4°40.1	+0.2 +1.0
Je 9	267°22.2 -4°27.4	282°22.3 -4°26.5	297°22.5 -4°25.5	312°22.6 -4°24.5	327°22.8 -4°23.5	342°23.0 -4°22.6	357°23.1 -4°21.6	12°23.3 -4°20.6	27°23.4 -4°19.6	42°23.6 -4°18.6	57°23.7 -4°17.7	72°23.9 -4°16.7	+0.2 +1.0
Ve 10	267°26.0 -4°03.9	282°26.1 -4°03.0	297°26.3 -4°02.0	312°26.5 -4°01.0	327°26.6 -4°00.0	342°26.8 -3°59.0	357°26.9 -3°58.1	12°27.1 -3°57.1	27°27.3 -3°56.1	42°27.4 -3°55.1	57°27.6 -3°54.1	72°27.7 -3°53.1	+0.2 +1.0
Sa 11	267°29.9 -3°40.4	282°30.0 -3°39.4	297°30.2 -3°38.4	312°30.4 -3°37.5	327°30.5 -3°36.5	342°30.7 -3°35.5	357°30.8 -3°34.5	12°31.0 -3°33.5	27°31.2 -3°32.5	42°31.3 -3°31.6	57°31.5 -3°30.6	72°31.7 -3°29.6	+0.2 +1.0
Di 12	267°33.8 -3°16.8	282°34.0 -3°15.8	297°34.2 -3°14.8	312°34.3 -3°13.9	327°34.5 -3°12.9	342°34.7 -3°11.9	357°34.8 -3°10.9	12°35.0 -3°09.9	27°35.2 -3°08.9	42°35.3 -3°08.0	57°35.5 -3°07.0	72°35.7 -3°06.0	+0.2 +1.0
Lu 13	267°37.9 -2°53.2	282°38.0 -2°52.2	297°38.2 -2°51.2	312°38.4 -2°50.2	327°38.5 -2°49.2	342°38.7 -2°48.3	357°38.9 -2°47.3	12°39.1 -2°46.3	27°39.2 -2°45.3	42°39.4 -2°44.3	57°39.6 -2°43.3	72°39.7 -2°42.3	+0.2 +1.0
Ma 14	267°42.0 -2°29.5	282°42.1 -2°28.5	297°42.3 -2°27.5	312°42.5 -2°26.6	327°42.6 -2°25.6	342°42.8 -2°24.6	357°43.0 -2°23.6	12°43.2 -2°22.6	27°43.3 -2°21.6	42°43.5 -2°20.6	57°43.7 -2°19.7	72°43.9 -2°18.7	+0.2 +1.0
Me 15	267°46.1 -2°05.8	282°46.3 -2°04.8	297°46.5 -2°03.9	312°46.6 -2°02.9	327°46.8 -2°01.9	342°47.0 -2°00.9	357°47.2 -1°59.9	12°47.3 -1°58.9	27°47.5 -1°57.9	42°47.7 -1°56.9	57°47.9 -1°56.0	72°48.0 -1°55.0	+0.2 +1.0
Je 16	267°50.3 -1°42.1	282°50.5 -1°41.1	297°50.7 -1°40.1	312°50.9 -1°39.2	327°51.0 -1°38.2	342°51.2 -1°37.2	357°51.4 -1°36.2	12°51.6 -1°35.2	27°51.7 -1°34.2	42°51.9 -1°33.2	57°52.1 -1°32.2	72°52.3 -1°31.2	+0.2 +1.0
Ve 17	267°54.6 -1°18.4	282°54.8 -1°17.4	297°54.9 -1°16.4	312°55.1 -1°15.4	327°55.3 -1°14.4	342°55.5 -1°13.5	357°55.7 -1°12.5	12°55.8 -1°11.5	27°56.0 -1°10.5	42°56.2 -1°09.5	57°56.4 -1°08.5	72°56.5 -1°07.5	+0.2 +1.0
Sa 18	267°58.9 -0°54.7	282°59.1 -0°53.7	297°59.2 -0°52.7	312°59.4 -0°51.7	327°59.6 -0°50.7	342°59.8 -0°49.7	358°00.0 -0°48.7	13°00.1 -0°47.7	28°00.3 -0°46.8	43°00.5 -0°45.8	58°00.7 -0°44.8	73°00.9 -0°43.8	+0.2 +1.0
Di 19	268°03.2 -0°30.9	283°03.4 -0°29.9	298°03.6 -0°29.0	313°03.8 -0°28.0	328°03.9 -0°27.0	343°04.1 -0°26.0	358°04.3 -0°25.0	13°04.3 -0°24.0	28°04.7 -0°23.0	43°04.9 -0°22.0	58°05.0 -0°21.0	73°05.2 -0°20.1	+0.2 +1.0
Lu 20	268°07.6 -0°07.2	283°07.8 -0°06.2	298°08.0 -0°05.2	313°08.1 -0°04.2	328°08.3 -0°03.3	343°08.5 -0°02.3	358°08.7 -0°01.3	13°08.9 -0°00.3	28°09.1 0°00.7	43°09.2 0°01.7	58°09.4 0°02.7	73°09.6 0°03.7	+0.2 +1.0
Ma 21	268°12.0 0°16.5	283°12.2 0°17.5	298°12.4 0°18.5	313°12.6 0°19.5	328°12.7 0°20.5	343°12.9 0°21.4	358°13.1 0°22.4	13°13.3 0°23.4	28°13.5 0°24.4	43°13.7 0°25.4	58°13.9 0°26.4	73°14.0 0°27.4	+0.2 +1.0
Me 22	268°16.4 0°40.2	283°16.6 0°41.2	298°16.8 0°42.2	313°17.0 0°43.2	328°17.2 0°44.2	343°17.4 0°45.1	358°17.6 0°46.1	13°17.7 0°47.1	28°17.9 0°48.1	43°18.1 0°49.1	58°18.3 0°50.1	73°18.5 0°51.1	+0.2 +1.0
Je 23	268°20.9 1°03.9	283°21.1 1°04.9	298°21.3 1°05.9	313°21.5 1°06.8	328°21.7 1°07.8	343°21.8 1°08.8	358°22.0 1°09.8	13°22.2 1°10.8	28°22.6 1°11.8	43°22.8 1°12.8	58°22.8 1°13.7	73°23.0 1°14.7	+0.2 +1.0
Ve 24	268°25.4 1°27.5	283°25.6 1°28.5	298°25.8 1°29.5	313°26.0 1°30.5	328°26.1 1°31.5	343°26.3 1°32.5	358°26.5 1°33.4	13°26.7 1°34.4	28°26.9 1°35.4	43°27.1 1°36.4	58°27.1 1°37.4	73°27.4 1°38.4	+0.2 +1.0
Sa 25	268°29.9 1°51.1	283°30.1 1°52.1	298°30.3 1°53.1	313°30.4 1°54.1	328°30.6 1°55.1	343°30.8 1°56.0	358°31.0 1°57.0	13°31.2 1°58.0	28°31.4 1°59.0	43°31.6 2°00.0	58°31.8 2°01.0	73°32.0 2°02.0	+0.2 +1.0
Di 26	268°34.4 2°14.7	283°34.6 2°15.7	298°34.8 2°16.8	313°35.0 2°17.6	328°35.1 2°18.6	343°35.3 2°19.6	358°35.5 2°20.6	13°35.7 2°21.6	28°35.9 2°22.5	43°36.1 2°23.5	58°36.3 2°24.5	73°36.5 2°25.5	+0.2 +1.0
Lu 27	268°38.9 2°38.2	283°39.1 2°39.2	298°39.3 2°40.2	313°39.5 2°41.2	328°39.7 2°42.1	343°39.9 2°43.1	358°40.0 2°44.1	13°40.0 2°45.1	28°40.2 2°46.0	43°40.4 2°47.0	58°40.6 2°48.0	73°41.0 2°49.0	+0.2 +1.0
Ma 28	268°43.4 3°01.7	283°43.6 3°02.7	298°43.8 3°03.6	313°44.0 3°04.6	328°44.2 3°05.6	343°44.4 3°06.6	358°44.6 3°07.5	13°44.6 3°08.5	28°44.9 3°09.5	43°45.1 3°10.5	58°45.3 3°11.4	73°45.5 3°12.4	+0.2 +1.0
Me 29	268°47.9 3°25.1	283°48.1 3°26.1	298°48.3 3°27.0	313°48.5 3°28.0	328°48.7 3°29.0	343°48.9 3°29.9	358°49.0 3°30.9	13°49.0 3°31.9	28°49.4 3°32.9	43°49.6 3°33.8	58°49.8 3°34.8	73°50.0 3°35.8	+0.2 +1.0
Je 30	268°52.4 3°48.4	283°52.6 3°49.4	298°52.8 3°50.4	313°53.0 3°51.3	328°53.2 3°52.3	343°53.4 3°53.3	358°53.6 3°54.2	13°53.8 3°55.2	28°53.9 3°56.2	43°54.1 3°57.1	58°54.3 3°58.1	73°54.5 3°59.1	+0.2 +1.0
Ve 31	268°56.9 4°11.7	283°57.1 4°12.6	298°57.3 4°13.6	313°57.5 4°14.6	328°57.7 4°15.5	343°57.9 4°16.5	358°58.1 4°17.5	13°58.2 4°18.4	28°58.4 4°19.4	43°58.6 4°20.4	58°58.8 4°21.3	73°59.0 4°22.3	+0.2 +1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.1'

LUNE

Mars 2034

	J	13h	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	Δ'/h	SP
O	Me 1	248°23.6 15°34.8	262°52.6 15°29.3	277°21.2 15°23.8	291°50.7 15°18.2	306°19.9 15°12.5	320°49.1 15°06.7	335°18.3 15°00.8	349°47.6 14°54.9	4°17.0 14°48.9	18°46.4 14°42.9	33°15.8 14°36.7	+29.2 -5.8	15.5 56.7
	Je 2	250°43.9 12°56.2	265°14.2 12°49.0	279°44.6 12°41.7	294°15.0 12°34.3	308°45.4 12°27.0	323°15.9 12°19.5	337°46.4 12°12.0	352°17.0 12°04.4	6°47.7 11°56.8	21°18.4 11°49.1	35°49.1 11°41.4	+30.5 -7.5	15.3 56.2
	Ve 3	253°36.2 9°39.5	268°07.7 9°31.0	282°39.7 9°22.5	297°10.8 9°13.9	311°42.5 9°05.3	326°14.2 8°56.7	340°45.9 8°48.0	355°17.7 8°39.3	9°49.5 8°30.5	24°21.4 8°21.8	38°53.3 8°13.0	+31.7 -8.7	15.2 55.7
O	Sa 4	256°56.7 5°57.4	271°29.2 5°48.1	286°01.8 5°38.9	300°34.4 5°29.6	315°07.0 5°20.3	329°39.7 5°11.0	344°12.4 5°01.7	358°45.1 4°52.3	13°17.9 4°43.0	27°50.7 4°33.6	42°23.5 4°24.2	+32.7 -9.3	15.1 55.2
	Di 5	260°39.3 2°02.1	275°12.6 1°52.5	289°45.9 1°43.0	304°19.2 1°33.5	318°52.5 1°24.0	333°25.8 1°14.4	347°59.2 1°04.9	2°32.6 0°55.4	17°06.0 0°45.8	31°39.4 0°36.3	46°12.9 0°26.8	+33.4 -9.5	15.0 54.8
	Lu 6	264°36.4 -1°05.2	279°10.1 -2°04.6	293°43.8 -2°13.9	308°17.5 -2°23.3	322°51.2 -2°32.6	337°24.9 -2°42.0	351°58.6 -2°51.3	6°32.3 -3°00.6	21°06.0 -3°09.8	35°39.7 -3°19.1	50°13.5 -3°28.3	+33.7 -9.3	14.9 54.5
O	Ma 7	268°39.8 -5°44.3	283°13.6 -5°53.1	297°47.0 -6°02.0	312°21.1 -6°10.8	326°54.8 -6°19.6	341°28.5 -6°28.3	356°02.3 -6°37.0	10°36.0 -6°45.7	25°09.7 -6°54.4	39°43.4 -7°03.0	54°17.1 -7°11.6	+33.7 -8.7	14.8 54.2
	Me 8	272°41.4 -9°16.1	287°15.0 -9°24.1	301°48.5 -9°32.1	316°22.0 -9°40.0	330°55.4 -9°47.9	345°28.9 -9°55.7	0°02.3 -10°03.5	14°35.8 -10°11.2	29°09.2 -10°18.9	43°42.5 -10°26.6	58°15.9 -10°34.2	+33.4 -7.8	14.7 54.1
	Je 9	276°33.9 -12°22.2	291°07.0 -12°29.4	305°40.0 -12°36.1	320°12.9 -12°42.8	334°45.9 -12°49.5	349°18.8 -12°56.1	3°51.7 -13°02.6	18°24.5 -13°09.1	32°57.4 -13°15.5	47°30.2 -13°21.9	62°03.0 -13°28.2	+32.9 -6.6	14.7 54.1
O	Ve 10	280°11.1 -14°55.8	294°43.4 -15°01.1	309°15.7 -15°06.4	323°47.9 -15°11.6	338°20.1 -15°16.8	352°52.3 -15°21.8	7°24.4 -15°26.8	21°56.5 -15°31.8	36°28.6 -15°36.6	51°00.6 -15°46.2	65°32.6 -15°50.9	+32.2 -5.0	14.8 54.2
	Sa 11	294°43.4 -15°01.1	309°15.7 -15°06.4	323°47.9 -15°11.6	338°20.1 -15°16.8	352°52.3 -15°21.8	7°24.4 -15°26.8	21°56.5 -15°31.8	36°28.6 -15°36.6	51°00.6 -15°46.2	65°32.6 -15°50.9	80°04.6 -15°54.2	+32.1 -5.0	14.8 54.2
	Di 12	297°59.9 -16°52.3	312°31.4 -16°55.8	327°02.7 -16°59.2	341°34.1 -17°02.5	356°05.4 -17°05.8	10°36.6 -17°09.0	25°07.9 -17°12.1	39°39.0 -17°15.2	54°10.2 -17°18.1	68°41.3 -17°21.0	83°12.4 -17°23.8	+31.2 -3.2	14.9 54.6
O	Lu 13	300°54.3 -17°56.0	315°24.8 -17°57.7	329°55.3 -17°58.8	344°25.8 -18°00.1	358°56.2 -18°01.3	13°26.5 -18°02.5	27°56.9 -18°03.5	42°27.2 -18°04.5	56°57.4 -18°05.3	71°27.7 -18°06.2	85°57.9 -18°06.8	+30.4 -1.1	15.0 55.1
	Ma 14	303°26.9 -18°06.2	317°56.5 -18°05.5	332°26.3 -18°04.6	346°55.8 -18°03.6	1°25.4 -18°02.6	15°54.9 -18°01.4	30°24.5 -18°00.2	44°54.0 -17°58.9	59°23.4 -17°57.4	73°52.9 -17°55.9	88°04.6 -17°54.3	+29.5 +1.2	15.2 55.8
	Me 15	305°40.1 -17°18.6	320°09.1 -17°15.4	334°38.1 -17°12.1	349°07.0 -17°08.8	3°35.9 -17°05.4	18°04.8 -17°01.8	32°33.7 -16°58.2	47°02.5 -16°54.5	61°31.3 -16°50.6	76°00.1 -16°46.7	90°28.9 -16°42.7	+28.9 +3.6	15.4 56.6
O	Je 16	307°38.1 -19°30.8	322°06.6 -15°25.3	336°35.0 -15°19.6	351°03.5 -15°13.9	5°31.9 -15°08.1	20°00.3 -15°02.1	34°28.7 -14°56.1	48°57.0 -14°50.0	63°25.4 -14°43.8	77°53.7 -14°37.5	92°22.0 -14°31.1	+28.4 +6.0	15.7 57.5
	Ve 17	309°25.0 -12°44.5	323°53.3 -12°36.7	338°21.2 -12°28.9	352°49.3 -12°20.9	7°17.3 -12°12.8	21°45.4 -12°04.7	36°13.4 -11°56.5	50°41.4 -11°48.2	65°09.4 -11°39.8	79°37.4 -11°31.4	94°05.4 -11°22.8	+28.0 +8.2	15.9 58.5
	Sa 18	311°03.7 -9°05.8	325°31.5 -8°56.1	339°59.3 -8°46.3	354°27.0 -8°36.5	8°54.8 -8°26.6	23°22.5 -8°16.6	37°50.2 -8°06.6	52°18.0 -7°56.5	66°45.7 -7°46.4	81°13.4 -7°36.2	95°41.0 -7°25.9	+27.7 -10.0	16.2 59.4
O	Di 19	312°34.7 -4°45.9	327°02.1 -4°34.8	341°29.6 -4°23.7	355°57.0 -4°12.6	10°24.4 -4°01.5	24°51.9 -3°50.3	39°19.2 -3°39.1	53°46.6 -3°27.8	68°14.0 -3°16.6	82°41.3 -3°05.2	97°08.6 -2°53.9	+27.4 -11.6	16.4 60.1
	Lu 20	313°56.4 -0°01.3	328°23.4 0°10.3	342°50.4 0°21.9	357°17.4 0°33.5	11°44.1 0°45.2	26°11.3 0°56.8	40°38.3 1°08.4	55°05.2 1°20.0	69°32.1 1°31.6	83°58.9 1°43.3	98°25.8 1°54.9	+26.9 +11.6	16.5 60.6
	Ma 21	315°05.8 -0°47.2	329°32.3 4°58.5	343°58.8 5°09.7	358°25.2 5°21.0	12°51.6 5°32.2	27°18.0 5°43.3	41°44.4 5°54.5	56°10.7 6°05.6	70°37.0 6°16.6	85°03.3 6°27.6	99°29.6 6°38.6	+26.4 +11.1	16.6 60.8
O	Me 22	316°00.7 9°16.9	330°26.6 9°27.0	344°52.5 9°37.0	359°18.3 9°47.0	13°44.2 9°56.8	28°10.0 10°06.6	42°35.7 10°16.4	57°01.5 10°26.0	71°27.2 10°35.6	85°52.9 10°45.2	100°18.6 10°54.6	+25.8 +9.8	16.6 60.7
	Je 23	316°41.7 13°06.2	331°07.1 13°14.3	345°33.2 13°22.2	359°57.8 13°30.1	14°23.2 13°37.9	28°48.5 13°45.6	43°13.8 13°53.1	57°39.2 14°00.6	72°04.5 14°08.0	86°29.4 14°15.3	100°55.1 14°22.4	+25.3 +7.6	16.5 60.3
	Ve 24	317°13.7 15°57.4	331°38.9 16°02.9	346°04.1 16°08.2	0°29.3 16°13.4	14°54.6 16°18.6	29°19.8 16°23.6	43°45.0 16°28.4	58°10.3 16°33.2	72°35.5 16°37.9	87°00.8 16°42.4	101°26.1 16°46.9	+25.2 +4.9	16.3 59.7
O	Sa 25	317°46.6 17°39.3	332°12.1 17°41.9	346°37.7 17°44.3	1°03.2 17°46.7	15°28.8 17°48.9	29°54.4 17°51.0	44°20.1 17°52.9	58°45.7 17°54.8	73°11.4 17°56.5	87°37.1 17°58.1	102°02.9 17°59.6	+25.6 +2.0	16.1 59.9
	Di 26	318°33.2 18°08.3	332°59.5 18°08.0	347°25.8 18°07.5	1°52.3 18°07.0	16°18.7 18°06.3	30°45.2 18°05.5	45°11.7 18°04.6	59°38.3 18°03.7	74°05.0 18°02.5	88°31.6 18°01.3	102°58.4 18°00.0	+26.5 -0.8	15.9 58.2
	Lu 27	319°45.3 17°27.6	334°12.8 17°24.6	348°40.4 17°21.5	3°08.1 17°18.4	17°35.8 17°15.1	32°03.6 17°11.7	46°31.4 17°08.3	60°59.3 17°04.7	75°27.3 17°01.1	89°55.3 16°57.4	104°23.3 16°53.5	+27.8 -3.4	15.7 54.7
O	Ma 28	321°31.2 15°45.4	336°00.2 15°40.2	350°29.3 15°34.9	4°58.4 15°29.6	19°27.6 15°21.5	33°56.8 15°18.6	48°26.1 15°13.0	62°55.5 15°07.3	77°24.9 15°01.6	91°54.4 14°55.7	106°23.9 14°49.8	+29.3 -5.6	15.5 56.6
	Je 29	323°53.9 13°13.0	338°24.3 13°06.1	352°54.0 12°59.0	7°25.4 12°52.0	21°56.0 12°44.8	36°26.7 12°37.6	50°57.4 12°30.3	65°28.2 12°23.0	79°59.1 12°15.7	94°30.0 12°08.2	109°00.9 12°00.7	+30.7 -7.2	15.3 56.1
	Je 30	326°51.2 10°02.6	341°23.0 9°54.3	355°54.8 9°46.0	10°26.6 9°37.7	24°58.5 9°29.4	39°30.4 9°21.0	54°02.4 9°12.5	68°34.4 9°04.0	83°06.5 8°55.5	97°38.6 8°47.0	112°10.7 8°38.4	+32.0 -8.4	15.1 55.5
O	Ve 31	330°17.7 6°26.0	344°50.5 6°16.9	359°23.3 6°07.8	13°56.1 5°58.8	28°29.0 5°49.6	43°01.9 5°40.4	57°34.8 5°31.4	72°07.7 5°22.2	86°40.7 5°13.0	101°13.8 5°03.8	115°46.8 4°54.6	+32.9 -9.1	15.0 55.1

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 5 02h10 — DQ: 13 06h44 — NL: 20 10h14 — PQ: 27 01h18

SOLEIL

Avril 2034

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	269°01.4 4°34.9	284°01.6 4°35.8	299°01.8 4°36.8	314°02.0 4°37.8	329°02.2 4°38.7	344°02.3 4°39.7	359°02.5 4°40.6	14°02.7 4°41.6	29°02.9 4°42.6	44°03.1 4°43.5	59°03.3 4°44.5	74°03.5 4°45.5	+0.2 +1.0
Di 2	269°05.9 4°58.0	284°06.0 4°58.9	299°06.2 4°59.9	314°06.4 5°00.8	329°06.6 5°01.8	344°06.8 5°02.8	359°07.0 5°03.7	14°07.1 5°04.7	29°07.3 5°05.6	44°07.5 5°06.6	59°07.6 5°07.6	74°07.9 5°08.5	+0.2 +1.0
Lu 3	269°10.3 5°21.0	284°10.5 5°21.9	299°10.6 5°22.9	314°10.8 5°23.8	329°11.0 5°24.8	344°11.2 5°25.8	359°11.4 5°26.7	14°11.6 5°27.7	29°11.7 5°28.6	44°11.9 5°29.6	59°12.1 5°30.5	74°12.3 5°31.5	+0.2 +1.0
Ma 4	269°14.6 5°43.9	284°14.8 5°44.8	299°15.0 5°45.8	314°15.2 5°46.7	329°15.4 5°47.7	344°15.6 5°48.7	359°15.7 5°49.6	14°15.9 5°50.6	29°16.1 5°51.5	44°16.3 5°52.5	59°16.5 5°53.4	74°16.6 5°54.4	+0.2 +1.0
Me 5	269°19.0 6°06.7	284°19.2 6°07.7	299°19.3 6°08.6	314°19.5 6°09.6	329°19.7 6°10.5	344°19.9 6°11.4	359°20.1 6°12.4	14°20.2 6°13.3	29°20.4 6°14.3	44°20.6 6°15.2	59°20.8 6°16.2	74°21.0 6°17.1	+0.2 +0.9
Je 6	269°23.3 6°29.4	284°23.5 6°30.4	299°23.6 6°31.3	314°23.8 6°32.2	329°24.0 6°33.2	344°24.2 6°34.1	359°24.3 6°35.1	14°24.5 6°36.0	29°24.7 6°37.0	44°24.9 6°37.9	59°25.0 6°38.8	74°25.2 6°39.8	+0.2 +0.9
Ve 7	269°27.5 6°52.0	284°27.7 6°53.0	299°27.9 6°53.9	314°28.0 6°54.8	329°28.2 6°55.8	344°28.4 6°56.7	359°28.6 6°57.7	14°28.7 6°58.6	29°28.9 6°59.5	44°29.1 7°00.5	59°29.3 7°01.4	74°29.4 7°02.3	+0.2 +0.9
Sa 8	269°31.7 7°14.5	284°31.9 7°15.4	299°32.0 7°16.4	314°32.2 7°17.3	329°32.4 7°18.2	344°32.5 7°19.2	359°32.7 7°20.1	14°32.9 7°21.0	29°33.1 7°22.0	44°33.2 7°22.9	59°33.4 7°23.8	74°33.6 7°24.8	+0.2 +0.9
Di 9	269°35.8 7°36.9	284°36.0 7°37.8	299°36.1 7°38.7	314°36.3 7°39.7	329°36.5 7°40.6	344°36.6 7°41.5	359°36.8 7°42.4	14°37.0 7°43.4	29°37.2 7°44.3	44°37.3 7°45.2	59°37.5 7°46.1	74°37.7 7°47.1	+0.2 +0.9
Lu 10	269°39.8 7°59.1	284°40.0 8°00.0	299°40.2 8°01.0	314°40.4 8°01.9	329°40.5 8°02.8	344°40.7 8°03.7	359°40.8 8°04.6	14°41.0 8°05.6	29°41.1 8°06.5	44°41.3 8°07.4	59°41.5 8°08.3	74°41.7 8°09.3	+0.2 +0.9
Ma 11	269°43.8 8°21.2	284°44.0 8°22.1	299°44.2 8°23.0	314°44.3 8°24.0	329°44.5 8°24.9	344°44.6 8°25.8	359°44.8 8°26.7	14°45.0 8°27.6	29°45.5 8°28.5	44°45.5 8°29.5	59°45.5 8°30.4	74°45.6 8°31.3	+0.2 +0.9
Me 12	269°47.7 8°43.2	284°47.9 8°44.1	299°48.0 8°45.0	314°48.2 8°45.9	329°48.4 8°46.8	344°48.5 8°47.7	359°48.7 8°48.6	14°48.8 8°49.6	29°49.0 8°50.5	44°49.2 8°51.4	59°49.3 8°52.3	74°49.5 8°53.2	+0.2 +0.9
Je 13	269°51.5 9°05.0	284°51.7 9°05.9	299°51.8 9°06.8	314°52.0 9°07.7	329°52.2 9°08.6	344°52.3 9°09.5	359°52.5 9°10.4	14°52.6 9°11.3	29°52.8 9°12.2	44°52.9 9°13.1	59°53.1 9°14.0	74°53.3 9°14.9	+0.2 +0.9
Ve 14	269°55.3 9°26.7	284°55.4 9°27.6	299°55.6 9°28.5	314°55.7 9°29.4	329°55.9 9°30.3	344°56.0 9°31.2	359°56.2 9°32.1	14°56.3 9°33.0	29°56.5 9°33.9	44°56.6 9°34.7	59°56.8 9°35.6	74°56.9 9°36.5	+0.2 +0.9
Sa 15	269°58.9 9°48.2	284°59.1 9°49.1	299°59.2 9°50.0	314°59.4 9°50.9	329°59.5 9°51.7	344°59.7 9°52.6	359°59.8 9°53.5	15°00.0 9°54.4	30°00.0 9°55.3	44°50.2 9°56.2	60°00.4 9°57.1	75°00.5 9°58.0	+0.1 +0.9
Di 16	270°02.5 10°09.5	285°02.6 10°10.4	300°02.7 10°11.3	315°02.9 10°12.2	330°03.0 10°13.1	345°03.2 10°14.0	0°03.3 10°14.8	15°03.5 10°15.7	30°03.6 10°16.6	45°03.8 10°17.5	60°03.9 10°18.4	75°04.1 10°19.3	+0.1 +0.9
Lu 17	270°05.9 10°30.7	285°06.1 10°31.6	300°06.2 10°32.5	315°06.3 10°33.4	330°06.5 10°34.2	345°06.6 10°35.1	0°06.8 10°36.0	15°06.9 10°36.9	30°07.0 10°37.7	45°07.2 10°38.6	60°07.3 10°39.5	75°07.5 10°40.4	+0.1 +0.9
Ma 18	270°09.3 10°51.7	285°09.4 10°52.6	300°09.5 10°53.5	315°09.7 10°54.3	330°09.8 10°55.2	345°10.0 10°56.1	0°10.1 10°57.0	15°10.2 10°57.8	30°10.4 10°58.7	45°10.5 10°59.6	60°10.6 11°00.4	75°10.8 11°01.3	+0.1 +0.9
Me 19	270°12.5 11°12.6	285°12.7 11°13.4	300°12.8 11°14.3	315°12.9 11°15.2	330°13.1 11°16.0	345°13.2 11°16.9	0°13.3 11°17.7	15°13.5 11°18.6	30°13.6 11°19.5	45°13.7 11°20.3	60°13.8 11°21.2	75°14.0 11°22.0	+0.1 +0.9
Je 20	270°15.7 11°33.2	285°15.8 11°34.1	300°15.9 11°34.9	315°16.1 11°35.8	330°16.2 11°36.6	345°16.3 11°37.5	0°16.4 11°38.3	15°16.6 11°39.2	30°16.7 11°40.0	45°16.8 11°40.9	60°17.0 11°41.8	75°17.1 11°42.6	+0.1 +0.9
Ve 21	270°18.7 11°53.7	285°18.8 11°54.5	300°19.0 11°55.4	315°19.1 11°56.2	330°19.2 11°57.1	345°19.3 11°57.9	0°19.5 11°58.8	15°19.6 11°59.6	30°19.7 12°00.4	45°19.8 12°01.3	60°19.8 12°02.1	75°20.1 12°03.0	+0.1 +0.8
Sa 22	270°21.7 12°13.9	285°21.8 12°14.8	300°21.9 12°15.6	315°22.0 12°16.4	330°22.1 12°17.3	345°22.3 12°18.1	0°22.4 12°19.0	15°22.5 12°19.8	30°22.6 12°20.6	45°22.7 12°21.5	60°22.9 12°22.3	75°23.0 12°23.1	+0.1 +0.8
Di 23	270°24.5 12°34.0	285°24.6 12°34.8	300°24.7 12°35.6	315°24.8 12°36.5	330°25.0 12°37.3	345°25.1 12°38.1	0°25.2 12°39.0	15°25.3 12°39.8	30°25.4 12°40.6	45°25.6 12°41.5	60°25.7 12°42.3	75°25.8 12°43.1	+0.1 +0.8
Lu 24	270°27.2 12°53.8	285°27.3 12°54.7	300°27.4 12°55.5	315°27.6 12°56.3	330°27.7 12°57.1	345°27.8 12°57.9	0°27.9 12°58.8	15°28.0 12°59.6	30°28.1 13°00.4	45°28.2 13°01.2	60°28.3 13°02.0	75°28.4 13°02.9	+0.1 +0.8
Ma 25	270°29.8 13°13.5	285°29.9 13°14.3	300°30.0 13°15.1	315°30.2 13°15.9	330°30.3 13°16.7	345°30.4 13°17.5	0°30.5 13°18.4	15°30.6 13°19.2	30°30.7 13°20.0	45°30.8 13°20.8	60°30.9 13°21.6	75°30.1 13°22.4	+0.1 +0.8
Me 26	270°32.3 13°32.9	285°32.4 13°33.7	300°32.5 13°34.5	315°32.6 13°35.3	330°32.7 13°36.1	345°32.8 13°36.9	0°32.9 13°37.7	15°33.0 13°38.5	30°33.0 13°39.3	45°33.2 13°40.1	60°33.3 13°40.9	75°33.4 13°41.7	+0.1 +0.8
Je 27	270°34.7 13°52.1	285°34.8 13°52.9	300°34.9 13°53.7	315°35.0 13°54.5	330°35.1 13°55.3	345°35.2 13°56.1	0°35.3 13°56.9	15°35.4 13°57.6	30°35.5 13°58.4	45°35.6 13°59.2	60°35.7 14°00.0	75°35.8 14°00.8	+0.1 +0.8
Ve 28	270°37.0 14°11.1	285°37.1 14°11.8	300°37.1 14°12.6	315°37.2 14°13.4	330°37.3 14°14.2	345°37.4 14°15.0	0°37.5 14°15.8	15°37.6 14°16.5	30°37.7 14°17.3	45°37.8 14°18.1	60°37.9 14°18.9	75°38.0 14°19.7	+0.1 +0.8
Sa 29	270°39.1 14°29.8	285°39.2 14°30.6	300°39.3 14°31.3	315°39.3 14°32.1	330°39.4 14°32.7	345°39.5 14°33.7	0°39.6 14°34.4	15°39.7 14°35.2	30°39.8 14°36.0	45°39.9 14°36.7	60°39.9 14°37.5	75°40.0 14°38.3	+0.1 +0.8
Di 30	270°41.1 14°48.3	285°41.2 14°49.0	300°41.3 14°49.8	315°41.3 14°50.6	330°41.4 14°51.3	345°41.5 14°52.1	0°41.6 14°52.9	15°41.7 14°53.6	30°41.7 14°54.4	45°41.8 14°55.1	60°41.9 14°55.9	75°42.0 14°56.7	+0.1 +0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA − 15°

Ligne 2: Dec (Déclinaison, − = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Avril 2034

	J	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	0h	Δ /h	SP
O	Sa 1	246°45.5 3°30.9	261°18.8 3°21.5	275°52.1 3°12.1	290°25.5 3°02.8	304°58.9 2°53.4	319°32.3 2°44.0	334°05.7 2°34.6	348°39.2 2°25.2	3°12.6 2°15.8	17°46.1 2°06.3	32°19.8 1°56.9	+33.4	14.9
	Di 2	250°44.2 -0°24.6	265°17.9 -0°34.0	279°51.7 -0°43.4	294°25.4 -0°52.8	308°59.2 -1°02.2	323°33.0 -1°11.6	338°06.8 -1°21.0	352°40.3 -1°30.6	3°14.4 -1°39.7	21°48.2 -1°49.0	36°22.0 -1°58.4	+33.8	14.8
O	Lu 3	254°49.6 -4°16.7	269°23.5 -4°25.8	283°57.3 -4°34.8	298°31.2 -4°43.9	313°05.0 -4°52.9	327°38.8 -5°01.9	342°12.7 -5°10.8	356°46.5 -5°19.8	11°20.3 -5°28.7	25°54.1 -5°37.6	40°27.9 -5°46.4	+33.8	14.8
	Ma 4	258°54.0 -7°55.9	273°27.7 -8°04.3	288°01.3 -8°12.6	302°34.9 -8°21.0	317°08.5 -8°29.2	331°42.1 -8°37.4	346°15.7 -8°45.6	0°49.3 -8°53.8	15°22.8 -9°01.9	29°56.4 -9°10.0	44°29.9 -9°18.0	+33.6	14.7
O	Me 5	262°50.5 -11°13.4	277°23.7 -11°20.8	291°56.9 -11°28.0	306°30.1 -11°35.3	321°03.2 -11°42.4	335°36.3 -11°49.6	350°09.4 -11°56.7	4°42.5 -12°03.7	19°15.6 -12°10.7	33°48.6 -12°17.6	48°21.6 -12°24.4	+33.1	14.7
	Je 6	266°33.8 -14°00.8	281°06.4 -14°06.8	295°39.0 -14°12.7	310°11.5 -14°18.5	324°44.0 -14°24.3	339°16.5 -14°30.0	353°49.0 -14°35.6	8°21.4 -14°41.2	22°53.8 -14°46.8	37°26.2 -14°52.2	51°58.6 -14°57.6	+32.5	14.7
O	Ve 7	270°00.5 -16°10.4	284°32.4 -16°14.7	299°04.2 -16°18.9	313°36.1 -16°23.1	328°07.9 -16°27.2	342°39.6 -16°31.2	357°11.4 -16°35.1	11°43.1 -16°39.0	26°14.8 -16°42.7	40°46.5 -16°46.5	55°18.1 -16°50.1	+31.8	14.8
	Sa 8	273°09.2 -18°09.9	287°40.3 -18°10.2	302°11.5 -18°10.3	316°42.6 -18°10.4	331°13.7 -18°10.4	345°44.8 -18°10.4	0°15.8 -18°10.2	14°46.8 -18°09.9	29°17.8 -18°09.6	43°48.8 -18°09.1	58°19.7 -18°08.6	+31.1	14.9
O	Di 9	276°00.7 -18°09.9	290°31.2 -18°10.3	305°01.7 -18°10.4	319°32.2 -18°10.4	334°02.6 -18°10.4	348°33.1 -18°10.2	3°03.5 -18°09.9	17°33.9 -18°09.6	32°04.2 -18°09.1	46°34.6 -18°08.6	61°04.9 -18°08.0	+30.4	15.0
	Lu 10	290°31.2 -18°10.3	305°01.7 -18°10.4	319°32.2 -18°10.4	334°02.6 -18°10.4	348°33.1 -18°10.4	3°03.5 -18°10.2	17°33.9 -18°09.9	32°04.2 -18°09.6	46°34.6 -18°09.1	61°04.9 -18°08.6	75°35.2 -18°08.0	+30.4	15.0
O	Ma 11	293°07.2 -17°47.9	307°37.2 -17°45.9	322°07.2 -17°43.7	336°37.1 -17°41.5	351°07.0 -17°39.1	5°37.0 -17°36.7	20°06.8 -17°34.2	34°36.7 -17°31.6	49°06.6 -17°28.9	63°36.4 -17°26.1	78°06.6 -17°23.2	+29.9	15.2
	Me 12	295°31.6 -16°28.9	310°01.1 -16°24.9	324°30.7 -16°20.1	339°00.2 -16°15.6	353°29.8 -16°11.0	7°59.3 -16°06.3	22°28.8 -16°01.5	36°58.3 -15°56.6	51°27.7 -15°51.6	65°57.2 -15°46.5	80°26.6 -15°41.4	+29.5	15.4
O	Je 13	297°46.6 -14°13.5	312°15.9 -14°06.9	326°45.1 -14°00.3	341°14.3 -13°53.5	355°43.5 -13°46.7	10°12.7 -13°39.8	24°41.8 -13°32.9	39°11.0 -13°25.9	53°40.1 -13°18.7	68°09.2 -13°11.4	82°38.4 -13°04.1	+29.2	15.6
	Ve 14	299°53.2 -11°04.9	314°22.1 -10°56.4	328°51.0 -10°47.8	343°19.8 -10°39.0	357°48.6 -10°30.3	12°17.4 -10°21.4	26°46.2 -10°12.5	41°15.0 -10°03.5	55°43.8 -9°54.4	70°12.5 -9°45.3	84°41.2 -9°36.1	+28.8	15.9
O	Sa 15	301°49.8 -9°10.4	316°18.2 -7°00.2	330°46.6 -6°50.0	345°14.9 -6°39.6	359°43.3 -6°29.3	14°11.6 -6°18.9	28°39.9 -6°08.4	43°08.1 -5°57.9	57°36.4 -5°47.3	72°04.6 -5°36.7	86°32.8 -5°26.1	+28.3	16.2
	Di 16	303°32.4 -9°41.2	318°00.3 -2°29.9	332°27.9 -2°18.6	346°55.5 -2°07.3	1°23.2 -1°56.0	15°50.8 -1°44.6	30°18.4 -1°33.2	44°45.9 -1°21.7	59°13.5 -1°10.3	73°40.9 -0°58.8	88°08.4 -0°47.3	+27.6	16.4
O	Lu 17	304°55.8 2°06.3	319°22.6 2°17.9	333°49.5 2°29.5	348°16.2 2°41.1	2°43.0 2°52.7	17°09.7 3°04.3	31°36.3 3°15.8	46°03.0 3°27.4	60°29.5 3°38.9	74°56.1 3°50.5	89°22.6 4°02.0	+26.7	16.6
	Ma 18	305°55.0 6°51.5	320°20.8 7°02.5	334°46.5 7°13.5	349°12.3 7°24.4	3°38.8 7°35.3	18°03.6 7°46.2	32°29.2 7°56.9	46°54.2 8°07.7	61°20.3 8°18.4	75°45.8 8°29.0	90°11.2 8°39.6	+25.6	16.7
O	Me 19	306°27.9 11°10.6	320°52.7 11°20.1	335°17.5 11°29.5	349°42.2 11°38.8	4°06.9 11°48.0	18°31.6 11°57.2	32°56.2 12°06.3	47°20.8 12°15.2	61°45.3 12°24.1	76°09.9 12°32.9	90°34.3 12°41.7	+24.6	16.7
	Je 20	306°38.4 14°40.6	321°02.5 14°47.7	335°26.6 14°54.7	349°50.7 15°01.5	4°14.7 15°08.3	18°38.7 15°14.9	33°02.7 15°21.5	47°26.7 15°27.9	61°50.7 15°34.2	76°14.7 15°40.4	90°38.6 15°46.5	+24.0	16.6
O	Ve 21	306°37.7 17°03.2	321°01.7 17°07.3	335°25.7 17°11.3	349°49.7 17°15.2	4°13.7 17°18.9	18°37.7 17°22.6	33°01.7 17°26.1	47°25.3 17°29.4	61°49.7 17°32.7	76°13.9 17°35.8	90°38.0 17°38.8	+24.0	16.5
	Sa 22	306°42.8 18°08.6	321°07.4 18°09.6	335°32.1 18°10.4	349°56.7 18°11.1	4°21.5 18°11.1	18°46.2 18°12.2	33°11.0 18°12.6	47°35.9 18°12.8	62°00.8 18°12.9	76°25.7 18°12.9	90°50.7 18°12.8	+24.8	16.2
O	Di 23	307°12.2 17°56.7	321°38.1 17°54.7	336°04.0 17°52.6	350°30.1 17°50.4	4°56.2 17°48.1	19°22.3 17°45.7	33°48.5 17°43.1	48°14.8 17°40.5	62°41.2 17°37.8	77°07.6 17°34.9	91°34.6 17°31.9	+26.2	16.0
	Lu 24	308°19.9 16°35.6	322°47.5 16°31.1	337°15.3 16°25.6	351°43.0 16°18.5	6°10.9 16°12.1	20°38.8 16°12.1	35°06.8 16°07.2	49°34.9 16°02.1	64°03.0 15°57.0	78°31.2 15°51.8	92°59.8 15°46.5	+28.0	15.7
O	Ma 25	310°12.7 14°17.8	324°42.2 14°11.3	339°11.7 14°04.7	353°41.3 13°58.1	8°11.0 13°51.4	22°40.7 13°44.6	37°10.5 13°37.8	51°40.4 13°30.9	66°10.3 13°24.0	80°40.4 13°17.0	95°10.4 13°09.9	+29.8	15.5
	Me 26	312°49.7 11°17.2	327°20.8 11°09.3	341°52.0 11°01.3	356°23.2 10°53.3	10°54.5 10°45.3	25°25.9 10°37.2	39°57.3 10°29.0	54°28.8 10°20.9	69°03.0 10°12.6	83°31.9 10°04.4	98°03.5 9°56.1	+31.4	15.3
O	Je 27	316°04.5 7°47.2	330°36.9 7°38.4	345°09.4 7°29.5	359°42.0 7°20.6	14°14.6 7°11.7	28°47.2 7°02.8	43°19.9 6°53.8	57°52.2 6°44.8	72°25.4 6°35.8	86°58.2 6°26.7	101°31.0 6°17.7	+32.7	15.1
	Ve 28	316°47.9 3°59.6	334°21.3 3°50.2	348°54.7 3°40.9	3°28.1 3°31.6	18°01.6 3°22.2	32°35.1 3°12.9	47°08.6 3°03.5	61°42.2 2°54.1	76°15.7 2°44.7	90°49.9 2°35.3	105°22.9 2°25.9	+33.5	14.9
O	Sa 29	326°49.5 0°04.7	338°23.4 -0°04.7	352°57.3 -0°14.2	7°31.2 -0°23.6	22°05.2 -0°33.0	36°39.1 -0°42.3	51°13.1 -0°51.7	65°47.0 -1°01.1	80°21.0 -1°10.5	94°55.0 -1°19.8	109°29.9 -1°29.2	+33.9	14.8
	Di 30	327°59.2 -3°48.0	342°33.2 -3°57.2	357°07.2 -4°06.3	11°41.2 -4°15.4	26°15.2 -4°24.5	40°49.3 -4°33.5	55°23.3 -4°42.6	69°57.3 -4°51.6	84°31.2 -5°00.6	99°05.2 -5°09.6	113°39.2 -5°18.5	+34.0	14.8

Ligne 1: GHA, Δ /h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ /h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
PL: 3 19h18 — DQ: 11 22h45 — NL: 18 19h25 — PQ: 25 11h34

SOLEIL

Mai 2034

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Lu 1	270°43.0	285°43.0	300°43.1	315°43.2	330°43.3	345°43.3	0°43.4	15°43.5	30°43.6	45°43.6	60°43.7	75°43.8	+0.1
	15°06.5	15°07.3	15°08.0	15°08.8	15°09.5	15°10.3	15°11.0	15°11.8	15°12.5	15°13.3	15°14.0	15°14.8	+0.8
Ma 2	270°44.7	285°44.8	300°44.8	315°44.9	330°45.0	345°45.0	0°45.1	15°45.2	30°45.3	45°45.3	60°45.4	75°45.5	+0.1
	15°24.5	15°25.3	15°26.0	15°26.7	15°27.5	15°28.2	15°29.0	15°29.7	15°30.5	15°31.2	15°31.9	15°32.7	+0.7
Me 3	270°46.3	285°46.4	300°46.4	315°46.5	330°46.6	345°46.6	0°46.7	15°46.8	30°46.8	45°46.9	60°46.9	75°47.0	+0.1
	15°42.2	15°43.0	15°43.7	15°44.4	15°45.2	15°45.9	15°46.6	15°47.4	15°48.1	15°48.8	15°49.6	15°50.3	+0.7
Je 4	270°47.8	285°47.8	300°47.9	315°47.9	330°48.0	345°48.1	0°48.1	15°48.2	30°48.2	45°48.3	60°48.3	75°48.4	+0.1
	15°59.7	16°00.4	16°01.2	16°01.9	16°02.6	16°03.3	16°04.1	16°04.8	16°05.5	16°06.2	16°06.9	16°07.6	+0.7
Ve 5	270°49.1	285°49.2	300°49.2	315°49.3	330°49.3	345°49.4	0°49.4	15°49.5	30°49.5	45°49.6	60°49.6	75°49.7	+0.1
	16°16.9	16°17.6	16°18.4	16°19.1	16°19.8	16°20.5	16°21.2	16°21.9	16°22.6	16°23.3	16°24.0	16°24.7	+0.7
Sa 6	270°50.3	285°50.3	300°50.4	315°50.4	330°50.5	345°50.5	0°50.6	15°50.6	30°50.7	45°50.7	60°50.7	75°50.8	+0.0
	16°33.9	16°34.6	16°35.3	16°36.0	16°36.7	16°37.4	16°38.1	16°38.8	16°39.5	16°40.2	16°40.9	16°41.5	+0.7
Di 7	270°51.3	285°51.4	300°51.4	315°51.5	330°51.5	345°51.5	0°51.6	15°51.6	30°51.7	45°51.7	60°51.7	75°51.8	+0.0
	16°50.5	16°51.2	16°51.9	16°52.6	16°53.3	16°54.0	16°54.7	16°55.4	16°56.0	16°56.7	16°57.4	16°58.1	+0.7
Lu 8	270°52.2	285°52.3	300°52.3	315°52.3	330°52.4	345°52.4	0°52.4	15°52.5	30°52.5	45°52.5	60°52.6	75°52.6	+0.0
	17°06.9	17°07.6	17°08.3	17°09.0	17°09.6	17°10.3	17°11.0	17°11.7	17°12.3	17°13.0	17°13.7	17°14.3	+0.7
Ma 9	270°53.0	285°53.0	300°53.0	315°53.1	330°53.1	345°53.1	0°53.2	15°53.2	30°53.2	45°53.2	60°53.3	75°53.3	+0.0
	17°23.0	17°23.7	17°24.4	17°25.0	17°25.7	17°26.3	17°27.0	17°27.7	17°28.3	17°29.0	17°29.7	17°30.3	+0.7
Me 10	270°53.6	285°53.6	300°53.6	315°53.7	330°53.7	345°53.7	0°53.7	15°53.7	30°53.8	45°53.8	60°53.8	75°53.8	+0.0
	17°38.8	17°39.5	17°40.1	17°40.8	17°41.4	17°42.1	17°42.7	17°43.4	17°44.0	17°44.7	17°45.3	17°46.0	+0.6
Je 11	270°54.1	285°54.1	300°54.1	315°54.1	330°54.1	345°54.1	0°54.1	15°54.2	30°54.2	45°54.2	60°54.2	75°54.2	+0.0
	17°54.4	17°55.0	17°55.6	17°56.3	17°56.9	17°57.5	17°58.2	17°58.8	17°59.5	18°00.1	18°00.7	18°01.4	+0.6
Ve 12	270°54.4	285°54.4	300°54.4	315°54.4	330°54.4	345°54.4	0°54.4	15°54.4	30°54.4	45°54.4	60°54.5	75°54.5	+0.0
	18°09.6	18°10.2	18°10.8	18°11.4	18°12.1	18°12.7	18°13.3	18°13.9	18°14.6	18°15.2	18°15.8	18°16.4	+0.6
Sa 13	270°54.5	285°54.5	300°54.5	315°54.5	330°54.5	345°54.5	0°54.5	15°54.5	30°54.6	45°54.6	60°54.6	75°54.6	+0.0
	18°24.5	18°25.1	18°25.7	18°26.3	18°26.9	18°27.5	18°28.2	18°28.8	18°29.4	18°30.0	18°30.6	18°31.2	+0.6
Di 14	270°54.5	285°54.5	300°54.5	315°54.5	330°54.5	345°54.5	0°54.5	15°54.5	30°54.5	45°54.5	60°54.5	75°54.5	-0.0
	18°39.1	18°39.7	18°40.3	18°40.9	18°41.5	18°42.1	18°42.7	18°43.3	18°43.9	18°44.5	18°45.1	18°45.7	+0.6
Lu 15	270°54.4	285°54.4	300°54.4	315°54.4	330°54.4	345°54.4	0°54.4	15°54.3	30°54.3	45°54.3	60°54.3	75°54.3	-0.0
	18°53.4	18°54.0	18°54.5	18°55.1	18°55.7	18°56.3	18°56.9	18°57.5	18°58.1	18°58.6	18°59.2	18°59.8	+0.6
Ma 16	270°54.1	285°54.1	300°54.1	315°54.1	330°54.1	345°54.1	0°54.0	15°54.0	30°54.0	45°54.0	60°54.0	75°54.0	-0.0
	19°07.3	19°07.9	19°08.5	19°09.1	19°09.6	19°10.2	19°10.8	19°11.3	19°11.9	19°12.5	19°13.1	19°13.6	+0.6
Me 17	270°53.7	285°53.7	300°53.7	315°53.7	330°53.6	345°53.6	0°53.6	15°53.6	30°53.5	45°53.5	60°53.5	75°53.5	-0.0
	19°21.0	19°21.5	19°22.1	19°22.7	19°23.2	19°23.8	19°24.3	19°24.9	19°25.5	19°26.0	19°26.6	19°27.1	+0.6
Je 18	270°53.2	285°53.1	300°53.1	315°53.1	330°53.1	345°53.0	0°53.0	15°53.0	30°52.9	45°52.9	60°52.9	75°52.9	-0.0
	19°34.3	19°34.8	19°35.4	19°35.9	19°36.5	19°37.0	19°37.6	19°38.1	19°38.7	19°39.2	19°39.7	19°40.3	+0.5
Ve 19	270°52.5	285°52.4	300°52.4	315°52.4	330°52.3	345°52.3	0°52.3	15°52.2	30°52.2	45°52.2	60°52.1	75°52.1	-0.0
	19°47.3	19°47.8	19°48.3	19°48.9	19°49.4	19°49.9	19°50.5	19°51.0	19°51.5	19°52.1	19°52.6	19°53.1	+0.5
Sa 20	270°51.6	285°51.6	300°51.6	315°51.5	330°51.5	345°51.4	0°51.4	15°51.4	30°51.3	45°51.3	60°51.2	75°51.2	-0.0
	19°59.9	20°00.4	20°01.0	20°01.5	20°02.0	20°02.5	20°03.0	20°03.5	20°04.1	20°04.6	20°05.1	20°05.6	+0.5
Di 21	270°50.7	285°50.6	300°50.6	315°50.5	330°50.5	345°50.5	0°50.4	15°50.4	30°50.3	45°50.3	60°50.2	75°50.2	-0.0
	20°12.2	20°12.7	20°13.2	20°13.7	20°14.2	20°14.7	20°15.3	20°15.8	20°16.3	20°16.8	20°17.3	20°17.8	+0.5
Lu 22	270°49.6	285°49.5	300°49.5	315°49.4	330°49.4	345°49.3	0°49.3	15°49.2	30°49.2	45°49.1	60°49.1	75°49.0	-0.0
	20°24.2	20°24.7	20°25.2	20°25.7	20°26.1	20°26.6	20°27.1	20°27.6	20°28.1	20°28.6	20°29.1	20°29.6	+0.5
Ma 23	270°48.4	285°48.3	300°48.2	315°48.2	330°48.1	345°48.1	0°48.0	15°48.0	30°47.9	45°47.9	60°47.8	75°47.8	-0.1
	20°35.8	20°36.3	20°36.7	20°37.2	20°37.7	20°38.2	20°38.6	20°39.1	20°39.6	20°40.1	20°40.5	20°41.0	+0.5
Me 24	270°47.0	285°47.0	300°46.9	315°46.8	330°46.8	345°46.7	0°46.7	15°46.6	30°46.5	45°46.5	60°46.4	75°46.4	-0.1
	20°47.0	20°47.5	20°48.0	20°48.4	20°48.9	20°49.3	20°49.8	20°50.3	20°50.7	20°51.2	20°51.6	20°52.1	+0.5
Je 25	270°45.6	285°45.4	300°45.4	315°45.4	330°45.3	345°45.2	0°45.2	15°45.1	30°45.0	45°45.0	60°44.9	75°44.8	-0.1
	20°57.9	20°58.4	20°58.8	20°59.3	20°59.7	21°00.2	21°00.6	21°01.1	21°01.5	21°01.9	21°02.4	21°02.8	+0.4
Ve 26	270°44.0	285°43.9	300°43.8	315°43.8	330°43.7	345°43.6	0°43.6	15°43.5	30°43.4	45°43.3	60°43.3	75°43.2	-0.1
	21°08.5	21°08.9	21°09.3	21°09.8	21°10.2	21°10.6	21°11.1	21°11.5	21°11.9	21°12.3	21°12.8	21°13.2	+0.4
Sa 27	270°42.3	285°42.2	300°42.1	315°42.1	330°42.0	345°41.9	0°41.8	15°41.8	30°41.7	45°41.6	60°41.5	75°41.5	-0.1
	21°18.6	21°19.1	21°19.5	21°19.9	21°20.3	21°20.7	21°21.1	21°21.5	21°21.9	21°22.4	21°22.8	21°23.2	+0.4
Di 28	270°40.5	285°40.4	300°40.3	315°40.2	330°40.2	345°40.1	0°40.0	15°39.9	30°39.8	45°39.8	60°39.7	75°39.6	-0.1
	21°28.4	21°28.8	21°29.2	21°29.6	21°30.0	21°30.4	21°30.8	21°31.2	21°31.6	21°32.0	21°32.4	21°32.8	+0.4
Lu 29	270°38.5	285°38.5	300°38.4	315°38.3	330°38.2	345°38.1	0°38.1	15°38.0	30°37.9	45°37.8	60°37.7	75°37.6	-0.1
	21°37.9	21°38.2	21°38.6	21°38.9	21°39.3	21°39.8	21°40.2	21°40.6	21°41.0	21°41.4	21°41.7	21°42.1	+0.4
Ma 30	270°36.5	285°36.4	300°36.3	315°36.3	330°36.2	345°36.1	0°36.0	15°35.9	30°35.8	45°35.7	60°35.6	75°35.6	-0.1
	21°46.9	21°47.3	21°47.6	21°48.0	21°48.4	21°48.8	21°49.1	21°49.5	21°49.8	21°50.2	21°50.6	21°50.9	+0.4
Me 31	270°34.4	285°34.3	300°34.2	315°34.1	330°34.0	345°33.9	0°33.8	15°33.8	30°33.7	45°33.6	60°33.5	75°33.4	-0.1
	21°55.6	21°55.9	21°56.3	21°56.6	21°57.0	21°57.3	21°57.7	21°58.0	21°58.4	21°58.7	21°59.1	21°59.4	+0.3

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Mai 2034

	J	14h	15h	16h	17h	18h	19h	20h	21h	22h	23h	0h	Δ'/h	SP
Lu 1	244°44.6 -6°37.9	259°18.5 -6°46.6	273°52.4 -6°55.3	288°26.2 -7°03.9	303°00.1 -7°12.5	317°33.9 -7°21.1	332°07.7 -7°29.6	346°41.5 -7°38.1	1°15.3 -7°46.6	15°49.1 -7°55.0	30°22.8 -8°03.4	+33.8	14.7	-8.6
	248°47.0 -10°05.1	263°20.4 -10°12.9	277°53.8 -10°20.7	292°27.2 -10°28.4	307°00.6 -10°36.1	321°34.0 -10°43.7	336°07.3 -10°51.3	350°40.6 -10°58.8	5°13.9 -11°06.3	19°47.2 -11°13.7	34°20.4 -11°21.1	+33.3	14.7	-7.6
Ma 2	252°35.9 -13°05.9	267°08.7 -13°12.5	281°41.5 -13°19.0	296°14.5 -13°25.4	310°47.0 -13°31.8	325°19.7 -13°38.2	339°52.4 -13°44.4	354°25.0 -13°50.7	8°57.7 -13°56.8	23°30.2 -14°02.9	38°02.8 -14°09.0	+32.7	14.7	-6.3
	256°07.7 -15°31.9	270°39.7 -15°36.9	285°11.8 -15°41.9	299°43.8 -15°46.7	314°15.8 -15°51.5	328°47.8 -15°56.3	343°19.7 -16°00.9	357°51.6 -16°05.5	12°23.5 -16°10.0	26°55.4 -16°14.5	41°27.2 -16°18.8	+32.0	14.7	-4.7
Je 4	259°21.1 -17°15.5	273°52.5 -17°18.7	288°23.8 -17°21.7	302°55.2 -17°24.7	317°26.4 -17°27.7	331°57.7 -17°30.5	346°29.0 -17°33.3	1°00.2 -17°36.0	15°31.4 -17°38.6	30°02.5 -17°41.1	44°33.7 -17°43.5	+31.3	14.8	-2.8
	262°18.0 -18°10.2	276°48.8 -18°11.3	291°19.5 -18°12.3	305°50.3 -18°13.2	320°21.0 -18°14.1	334°51.7 -18°14.8	349°22.4 -18°15.5	3°53.0 -18°16.1	18°23.7 -18°16.6	32°54.3 -18°17.0	47°24.9 -18°17.3	+30.7	14.9	-0.7
Sa 6	265°02.1 -18°11.5	279°32.4 -18°10.4	294°02.8 -18°09.3	308°33.1 -18°08.0	323°03.5 -18°06.6	337°33.8 -18°05.2	352°04.1 -18°03.6	6°34.4 -18°02.0	21°04.7 -18°00.3	35°35.0 -17°58.5	50°05.2 -17°56.6	+30.3	15.0	+1.5
	267°38.1 -17°17.3	282°08.3 -17°14.0	296°38.4 -17°10.6	311°08.5 -17°07.1	325°38.7 -17°03.5	340°08.8 -16°59.8	354°38.9 -16°56.0	9°09.0 -16°52.1	23°39.1 -16°48.2	38°09.2 -16°44.2	52°39.3 -16°40.4	+30.1	15.1	+3.7
Ma 9	270°10.1 -15°27.9	284°40.2 -15°22.4	299°10.2 -15°16.8	313°40.2 -15°11.1	328°10.2 -15°05.4	342°40.2 -14°59.6	357°10.2 -14°53.7	11°40.3 -14°47.7	26°10.3 -14°41.6	40°40.3 -14°35.5	55°10.3 -14°29.2	+30.0	15.3	+5.6
	284°40.2 -15°22.4	299°10.2 -15°16.8	313°40.2 -15°11.1	328°10.2 -15°05.4	342°40.2 -14°59.6	357°10.2 -14°53.7	11°40.3 -14°47.7	26°10.3 -14°41.6	40°40.3 -14°35.5	55°10.3 -14°29.2	69°40.3 -14°22.9	+30.0	15.3	+5.6
Me 10	287°09.7 -12°38.8	301°39.6 -12°31.2	316°09.9 -12°23.6	330°39.9 -12°15.9	345°09.9 -12°08.1	359°39.2 -12°00.2	14°09.1 -11°52.3	28°39.0 -11°44.3	43°08.9 -11°36.3	57°38.8 -11°28.1	72°08.6 -11°19.9	+29.9	15.6	+7.9
	289°35.3 -9°08.8	304°05.0 -8°59.6	318°34.7 -8°50.3	333°04.4 -8°40.9	347°34.0 -8°31.5	361°03.6 -8°22.0	16°33.2 -8°12.4	31°02.8 -8°02.8	45°32.4 -7°53.2	60°22.0 -7°43.5	74°31.5 -7°33.7	+29.6	15.8	+9.5
Ve 12	291°52.3 -5°01.1	306°21.5 -4°50.6	320°50.6 -4°40.0	335°19.8 -4°29.4	349°48.9 -4°18.7	363°18.5 -4°08.0	18°47.0 -3°57.3	33°16.1 -3°46.5	47°45.1 -3°35.7	62°14.1 -3°24.9	76°43.0 -3°14.0	+29.1	16.1	+10.7
	293°53.0 -0°27.5	308°21.4 -0°16.3	322°49.7 -0°05.0	337°18.0 0°06.3	351°46.8 0°17.6	365°14.5 0°29.0	20°42.6 0°40.3	35°10.8 0°51.6	49°38.8 1°03.0	64°06.9 1°14.4	78°34.9 1°25.7	+28.2	16.3	+11.3
Di 14	295°29.0 4°16.1	309°56.2 4°27.4	324°23.3 4°38.7	338°50.4 4°49.9	353°17.5 5°01.2	367°44.5 5°12.4	22°11.4 5°23.6	36°38.3 5°34.7	51°05.1 5°45.9	65°31.9 5°57.0	79°58.6 6°08.1	+27.0	16.5	+11.2
	296°32.6 8°49.9	310°58.4 9°00.4	325°24.2 9°10.7	339°49.9 9°21.1	354°15.5 9°31.3	368°41.1 9°41.5	23°06.6 9°51.7	37°32.1 10°01.8	51°57.5 10°11.8	66°22.8 10°21.7	80°48.1 10°31.6	+25.5	16.6	+10.2
Ma 16	297°00.9 12°51.1	311°25.3 12°59.7	325°49.7 13°08.2	340°14.1 13°16.7	354°38.4 13°25.0	368°62.6 13°33.3	23°26.8 13°41.5	37°50.9 13°49.5	52°15.0 13°57.5	66°39.9 14°05.4	80°52.5 14°13.2	+24.2	16.7	+8.2
	296°58.8 15°56.8	311°22.3 16°02.8	325°27.5 16°08.7	339°50.9 16°14.4	354°25.0 16°20.0	368°55.9 16°25.6	23°19.2 16°31.0	37°42.6 16°36.2	52°05.9 16°41.4	66°29.2 16°46.4	80°52.5 16°51.3	+23.4	16.7	+5.6
Je 18	296°41.0 17°49.3	311°04.3 17°52.1	325°27.5 17°54.8	339°50.9 17°57.3	354°25.0 17°59.7	368°55.9 18°02.0	23°00.8 18°04.2	37°24.1 18°06.2	51°47.5 18°08.1	66°10.9 18°09.9	80°34.3 18°11.5	+23.3	16.5	+2.6
	296°29.5 18°20.1	310°53.6 18°19.6	325°17.6 18°19.0	339°47.1 18°18.3	354°20.5 18°17.5	368°50.9 18°16.5	22°54.4 18°15.4	37°17.6 18°14.2	51°43.0 18°12.8	66°07.3 18°11.4	80°32.0 18°09.8	+24.2	16.3	-1.0
Sa 20	296°47.1 17°31.8	311°12.6 17°28.3	325°38.3 17°24.8	340°04.0 17°21.1	354°29.8 17°17.4	368°55.7 17°13.5	23°21.6 17°09.5	37°47.6 17°05.4	52°13.7 17°01.3	66°39.9 16°57.0	81°06.1 16°52.6	+25.9	16.1	-3.9
	297°49.7 15°35.6	312°17.3 15°29.8	326°44.9 15°23.9	341°12.6 15°17.9	355°40.4 15°11.8	369°08.3 15°05.4	24°36.3 14°59.4	39°04.4 14°53.1	53°32.5 14°46.7	68°00.7 14°40.2	82°29.7 14°33.6	+27.9	15.8	-6.2
Ma 23	299°43.5 12°47.4	314°13.1 12°39.8	328°42.8 12°32.1	343°12.5 12°24.4	357°42.3 12°16.7	371°12.2 12°08.9	26°42.2 12°01.0	41°12.3 11°53.1	55°42.4 11°45.2	70°12.6 11°37.1	84°42.9 11°29.1	+29.9	15.5	-7.8
	302°25.6 9°23.0	316°56.9 9°14.3	331°28.8 9°05.5	345°59.9 8°56.7	360°31.4 8°47.9	374°03.1 8°39.1	29°34.7 8°30.2	44°06.5 8°21.3	58°38.3 8°12.3	73°10.2 8°03.4	87°42.1 7°54.4	+31.7	15.3	-8.9
Me 24	305°47.2 5°36.7	320°20.0 5°27.4	334°52.8 5°18.0	349°25.6 5°08.6	363°58.4 4°59.3	378°31.4 4°49.9	33°04.3 4°40.5	47°37.3 4°31.1	62°10.3 4°21.6	76°43.4 4°12.2	91°16.5 4°02.7	+32.9	15.1	-9.4
	309°37.1 1°40.3	324°10.8 1°30.8	338°44.4 1°21.2	353°18.1 1°11.7	367°51.4 1°02.2	381°25.5 0°52.7	36°59.2 0°43.2	51°32.9 0°33.7	66°06.7 0°24.2	80°40.5 0°14.7	95°14.3 0°05.2	+33.7	14.9	-9.5
Ve 26	313°43.3 -0°16.4	328°17.3 -0°25.7	342°51.3 -0°35.0	357°25.3 -0°44.3	371°59.4 -0°53.6	385°33.4 -0°59.3	41°07.4 -1°02.9	55°41.5 -1°09.5	70°15.5 -1°16.6	84°49.6 -1°23.9	99°23.6 -1°31.6	+34.0	14.8	-8.7
	317°54.2 -6°04.5	332°28.1 -6°13.4	347°02.1 -6°22.2	361°31.0 -6°31.0	375°44.0 -6°39.7	389°57.0 -6°48.4	45°17.9 -6°57.1	59°51.9 -7°05.8	74°25.8 -7°14.4	88°59.7 -7°23.0	103°33.6 -7°31.6	+33.9	14.7	-8.7
Di 28	321°59.8 -9°36.0	336°33.4 -9°44.0	351°07.0 -9°52.0	365°40.0 -9°59.9	380°14.1 -10°07.8	394°47.6 -10°15.6	49°21.1 -10°23.4	63°54.5 -10°31.1	78°28.0 -10°38.8	93°01.4 -10°46.5	107°34.8 -10°54.1	+33.5	14.7	-8.5
	325°52.3 -12°42.6	340°25.2 -12°49.4	354°58.2 -12°56.2	369°31.0 -13°02.9	383°36.6 -13°09.6	397°36.6 -13°16.2	53°09.4 -13°22.8	67°42.2 -13°29.3	82°14.9 -13°35.7	96°47.6 -13°42.1	111°20.2 -13°48.4	+32.8	14.7	-6.5
Ma 30	329°26.2 -15°16.0	343°58.3 -15°21.3	358°30.4 -15°26.6	373°02.4 -15°31.8	387°34.5 -15°36.9	402°06.5 -15°42.0	56°38.4 -15°46.9	71°10.3 -15°51.9	85°42.2 -15°56.7	100°14.1 -16°01.5	114°45.9 -16°06.2	+32.0	14.7	-5.4
	329°26.2 -15°16.0	343°58.3 -15°21.3	358°30.4 -15°26.6	373°02.4 -15°31.8	387°34.5 -15°36.9	402°06.5 -15°42.0	56°38.4 -15°46.9	71°10.3 -15°51.9	85°42.2 -15°56.7	100°14.1 -16°01.5	114°45.9 -16°06.2	+32.0	14.7	-5.4

SOLEIL

Juin 2034

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	270°32.2 22°03.9	285°32.1 22°04.2	300°32.0 22°04.5	315°31.9 22°04.9	330°31.8 22°05.2	345°31.7 22°05.5	0°31.6 22°05.9	15°31.5 22°06.2	30°31.445°31.3 22°06.522°06.9	45°31.3 22°07.2	60°31.2 22°07.5	75°31.1 22°07.7	-0.1 +0.3
Ve 2	270°29.8 22°11.8	285°29.7 22°12.1	300°29.6 22°12.4	315°29.5 22°12.7	330°29.4 22°13.0	345°29.3 22°13.4	0°29.2 22°13.7	15°29.1 22°14.0	30°29.045°28.9 22°14.322°14.6	45°28.9 22°14.9	60°28.8 22°15.2	75°28.7 22°15.3	-0.1 +0.3
Sa 3	270°27.4 22°19.3	285°27.3 22°19.6	300°27.2 22°19.9	315°27.1 22°20.2	330°27.0 22°20.5	345°26.9 22°20.8	0°26.8 22°21.1	15°26.7 22°21.4	30°26.645°26.5 22°21.722°22.0	45°26.5 22°22.3	60°26.4 22°22.6	75°26.3 22°22.6	-0.1 +0.3
Di 4	270°24.9 22°33.1	285°24.8 22°33.4	300°24.7 22°33.7	315°24.6 22°34.0	330°24.5 22°34.2	345°24.4 22°34.5	0°24.3 22°34.8	15°24.1 22°35.0	30°24.045°23.9 22°35.322°35.6	45°23.9 22°35.8	60°23.8 22°36.1	75°23.7 22°36.1	-0.1 +0.3
Lu 5	270°22.3 22°39.5	285°22.2 22°39.7	300°22.1 22°40.0	315°22.0 22°40.2	330°21.9 22°40.3	345°21.7 22°40.7	0°21.6 22°41.0	15°21.5 22°41.2	30°21.445°21.5 22°41.522°41.7	45°21.3 22°42.0	60°21.2 22°42.2	75°21.1 22°42.2	-0.1 +0.3
Ma 6	270°19.6 22°45.4	285°19.5 22°45.7	300°19.4 22°45.9	315°19.3 22°46.1	330°19.2 22°46.4	345°19.0 22°46.6	0°18.9 22°46.8	15°18.8 22°47.1	30°18.745°18.6 22°47.322°47.5	45°18.6 22°47.8	60°18.5 22°48.0	75°18.4 22°48.0	-0.1 +0.2
Me 7	270°16.8 22°51.0	285°16.7 22°51.2	300°16.6 22°51.5	315°16.5 22°51.6	330°16.4 22°51.8	345°16.3 22°52.1	0°16.1 22°52.3	15°16.0 22°52.5	30°15.945°15.8 22°52.722°52.9	45°15.8 22°53.1	60°15.7 22°53.4	75°15.6 22°53.4	-0.1 +0.2
Je 8	270°14.0 22°56.1	285°13.9 22°56.3	300°13.8 22°56.5	315°13.6 22°56.7	330°13.5 22°56.9	345°13.4 22°57.1	0°13.3 22°57.3	15°13.2 22°57.5	30°13.045°12.9 22°57.722°57.9	45°12.9 22°58.1	60°12.8 22°58.3	75°12.7 22°58.3	-0.1 +0.2
Ve 9	270°11.1 23°00.8	285°11.0 23°01.0	300°10.9 23°01.2	315°10.7 23°01.4	330°10.6 23°01.6	345°10.5 23°01.8	0°10.4 23°01.9	15°10.2 23°02.1	30°10.045°9.9 23°02.322°02.5	45°9.9 23°02.7	60°9.9 23°02.9	75°9.7 23°02.9	-0.1 +0.2
Sa 10	270°08.1 23°05.2	285°08.0 23°05.3	300°07.9 23°05.5	315°07.7 23°05.7	330°07.6 23°05.8	345°07.5 23°06.0	0°07.4 23°06.3	15°07.2 23°06.5	30°07.145°07.0 23°06.722°06.7	45°07.0 23°06.8	60°06.9 23°07.0	75°06.7 23°07.0	-0.1 +0.2
Di 11	270°05.1 23°09.1	285°05.0 23°09.2	300°04.8 23°09.4	315°04.7 23°09.5	330°04.6 23°09.7	345°04.4 23°09.8	0°04.3 23°10.0	15°04.2 23°10.1	30°04.145°03.9 23°10.322°10.4	45°03.9 23°10.6	60°03.8 23°10.7	75°03.7 23°10.7	-0.1 +0.2
Lu 12	270°02.0 23°12.6	285°01.9 23°12.7	300°01.7 23°12.9	315°01.6 23°13.0	330°01.5 23°13.1	345°01.3 23°13.3	0°01.2 23°13.4	15°01.1 23°13.5	30°01.045°00.9 23°13.722°13.8	45°00.9 23°13.9	60°00.8 23°14.1	75°00.6 23°14.1	-0.1 +0.1
Ma 13	269°58.9 23°15.7	284°58.7 23°15.8	299°58.6 23°15.9	314°58.5 23°16.1	329°58.3 23°16.2	344°58.2 23°16.3	359°58.1 23°16.4	14°57.9 23°16.5	29°57.844°57.7 23°16.823°16.8	44°57.7 23°16.9	59°57.5 23°17.0	74°57.4 23°17.0	-0.1 +0.1
Me 14	269°55.7 23°18.4	284°55.5 23°18.5	299°55.4 23°18.6	314°55.3 23°18.7	329°55.1 23°18.8	344°55.0 23°18.9	359°54.9 23°19.0	14°54.7 23°19.1	29°54.644°54.5 23°19.223°19.3	44°54.5 23°19.4	59°54.3 23°19.5	74°54.2 23°19.5	-0.1 +0.1
Je 15	269°52.5 23°20.7	284°52.3 23°20.8	299°52.2 23°20.9	314°52.1 23°20.9	329°51.9 23°21.0	344°51.8 23°21.1	359°51.6 23°21.2	14°51.5 23°21.3	29°51.444°51.3 23°21.423°21.4	44°51.3 23°21.5	59°51.1 23°21.6	74°51.0 23°21.6	-0.1 +0.1
Ve 16	269°49.2 23°22.6	284°49.1 23°22.6	299°48.9 23°22.7	314°48.8 23°22.8	329°48.7 23°22.8	344°48.5 23°22.9	359°48.4 23°23.0	14°48.3 23°23.0	29°48.244°48.1 23°23.123°23.1	44°48.1 23°23.2	59°47.9 23°23.3	74°47.8 23°23.3	-0.1 +0.1
Sa 17	269°45.9 23°24.0	284°45.8 23°24.1	299°45.7 23°24.1	314°45.5 23°24.2	329°45.4 23°24.2	344°45.3 23°24.3	359°45.1 23°24.3	14°45.0 23°24.4	29°44.844°44.7 23°24.523°24.5	44°44.7 23°24.5	59°44.6 23°24.5	74°44.4 23°24.5	-0.1 +0.0
Di 18	269°42.7 23°25.1	284°42.5 23°25.1	299°42.4 23°25.1	314°42.3 23°25.2	329°42.2 23°25.2	344°42.0 23°25.3	359°41.8 23°25.3	14°41.7 23°25.3	29°41.644°41.5 23°25.423°25.4	44°41.5 23°25.4	59°41.3 23°25.4	74°41.1 23°25.4	-0.1 +0.0
Lu 19	269°39.4 23°25.1	284°39.2 23°25.1	299°39.1 23°25.1	314°38.9 23°25.2	329°38.8 23°25.2	344°38.7 23°25.3	359°38.5 23°25.3	14°38.4 23°25.3	29°38.344°38.1 23°25.423°25.4	44°38.1 23°25.4	59°38.0 23°25.4	74°37.9 23°25.4	-0.1 +0.0
Ma 20	269°36.1 23°25.7	284°35.9 23°25.7	299°35.8 23°25.7	314°35.7 23°25.7	329°35.5 23°25.8	344°35.4 23°25.8	359°35.2 23°25.8	14°35.1 23°25.8	29°35.044°34.8 23°25.823°25.8	44°34.8 23°25.8	59°34.7 23°25.9	74°34.6 23°25.9	-0.1 +0.0
Me 21	269°32.8 23°25.9	284°32.6 23°25.9	299°32.5 23°25.9	314°32.4 23°25.9	329°32.2 23°25.9	344°32.1 23°25.9	359°32.0 23°25.9	14°31.8 23°25.9	29°31.744°31.6 23°25.923°25.9	44°31.6 23°25.9	59°31.4 23°25.9	74°31.3 23°25.9	-0.1 -0.0
Je 22	269°29.5 23°25.7	284°29.4 23°25.7	299°29.2 23°25.7	314°29.1 23°25.7	329°29.0 23°25.7	344°28.8 23°25.6	359°28.7 23°25.6	14°28.6 23°25.6	29°28.544°28.3 23°25.623°25.6	44°28.3 23°25.6	59°28.2 23°25.6	74°28.0 23°25.6	-0.1 -0.0
Ve 23	269°26.3 23°25.1	284°26.1 23°25.1	299°26.0 23°25.1	314°25.9 23°25.0	329°25.7 23°25.0	344°25.6 23°24.9	359°25.4 23°24.9	14°25.3 23°24.9	29°25.244°25.0 23°24.923°24.8	44°25.0 23°24.8	59°24.9 23°24.8	74°24.7 23°24.7	-0.1 -0.0
Sa 24	269°23.0 23°24.1	284°22.9 23°24.1	299°22.8 23°24.0	314°22.6 23°23.9	329°22.5 23°23.8	344°22.4 23°23.8	359°22.2 23°23.8	14°22.2 23°23.7	29°22.044°21.8 23°23.723°23.6	44°21.8 23°23.6	59°21.7 23°23.6	74°21.6 23°23.5	-0.1 -0.1
Di 25	269°19.8 23°22.7	284°19.7 23°22.6	299°19.6 23°22.5	314°19.4 23°22.5	329°19.3 23°22.3	344°19.2 23°22.3	359°19.0 23°22.3	14°18.9 23°22.2	29°18.844°18.6 23°22.223°22.2	44°18.6 23°22.2	59°18.5 23°22.2	74°18.4 23°21.9	-0.1 -0.1
Lu 26	269°16.7 23°20.8	284°16.5 23°20.7	299°16.4 23°20.7	314°16.3 23°20.6	329°16.1 23°20.5	344°16.0 23°20.4	359°15.9 23°20.3	14°15.8 23°20.2	29°15.644°15.5 23°20.223°20.0	44°15.5 23°20.0	59°15.4 23°19.9	74°15.2 23°19.9	-0.1 -0.1
Ma 27	269°13.5 23°18.6	284°13.4 23°18.5	299°13.3 23°18.4	314°13.2 23°18.3	329°13.0 23°18.2	344°12.9 23°18.1	359°12.8 23°18.0	14°12.6 23°17.8	29°12.544°12.4 23°17.823°17.6	44°12.4 23°17.6	59°12.3 23°17.5	74°12.1 23°17.4	-0.1 -0.1
Me 28	269°10.5 23°15.9	284°10.3 23°15.8	299°10.2 23°15.7	314°10.1 23°15.6	329°10.0 23°15.4	344°09.8 23°15.3	359°09.7 23°15.2	14°09.6 23°15.1	29°09.544°09.3 23°14.923°14.8	44°09.3 23°14.8	59°09.2 23°14.7	74°09.1 23°14.6	-0.1 -0.1
Je 29	269°07.5 23°12.9	284°07.3 23°12.7	299°07.2 23°12.6	314°07.1 23°12.4	329°07.0 23°12.3	344°06.8 23°12.2	359°06.7 23°12.0	14°06.6 23°11.9	29°06.544°06.3 23°11.723°11.6	44°06.3 23°11.6	59°06.2 23°11.5	74°06.1 23°11.3	-0.1 -0.1
Ve 30	269°04.5 23°09.4	284°04.4 23°09.2	299°04.2 23°09.1	314°04.1 23°08.9	329°04.0 23°08.8	344°03.9 23°08.6	359°03.8 23°08.3	14°03.6 23°08.2	29°03.544°03.4 23°08.023°08.0	44°03.4 23°07.8	59°03.3 23°07.8	74°03.1 23°07.6	-0.1 -0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA − 15°

Ligne 2: Dec (Déclinaison, − = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juin 2034

	J	15h	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	Δ°/h	SP
Je 1	245 ⁰ 30.9 -16 ⁰ 45.4	260 ⁰ 02.4 -16 ⁰ 49.3	274 ⁰ 33.9 -16 ⁰ 53.2	289 ⁰ 05.3 -16 ⁰ 57.1	303 ⁰ 36.7 -17 ⁰ 03.8	318 ⁰ 08.1 -17 ⁰ 04.5	332 ⁰ 39.4 -17 ⁰ 08.1	347 ⁰ 10.7 -17 ⁰ 11.6	1 ⁰ 42.0 -17 ⁰ 15.1	16 ⁰ 13.3 -17 ⁰ 18.4	30 ⁰ 44.5 -17 ⁰ 21.7	+31.4	14.8	
	248 ⁰ 29.4 -18 ⁰ 01.1	263 ⁰ 00.1 -18 ⁰ 03.2	277 ⁰ 30.9 -18 ⁰ 05.1	292 ⁰ 01.6 -18 ⁰ 06.9	306 ⁰ 32.3 -18 ⁰ 08.6	321 ⁰ 03.0 -18 ⁰ 10.2	335 ⁰ 33.6 -18 ⁰ 11.8	350 ⁰ 04.3 -18 ⁰ 13.2	4 ⁰ 34.9 -18 ⁰ 14.6	19 ⁰ 05.5 -18 ⁰ 15.9	33 ⁰ 36.0 -18 ⁰ 17.1	+30.7	14.9	
Sa 3	251 ⁰ 12.1 -18 ⁰ 24.4	265 ⁰ 42.4 -18 ⁰ 24.2	280 ⁰ 12.6 -18 ⁰ 23.9	294 ⁰ 42.9 -18 ⁰ 23.5	309 ⁰ 13.1 -18 ⁰ 23.0	323 ⁰ 43.3 -18 ⁰ 22.4	338 ⁰ 13.5 -18 ⁰ 21.7	352 ⁰ 43.7 -18 ⁰ 21.0	7 ⁰ 13.9 -18 ⁰ 21.9	21 ⁰ 44.1 -18 ⁰ 19.2	36 ⁰ 14.2 -18 ⁰ 18.1	+30.2	15.0	
	253 ⁰ 45.5 -17 ⁰ 51.7	268 ⁰ 15.5 -17 ⁰ 49.2	282 ⁰ 45.6 -17 ⁰ 46.6	297 ⁰ 15.6 -17 ⁰ 43.9	311 ⁰ 45.6 -17 ⁰ 41.2	326 ⁰ 15.7 -17 ⁰ 38.3	340 ⁰ 45.7 -17 ⁰ 35.4	355 ⁰ 15.7 -17 ⁰ 32.4	9 ⁰ 45.7 -17 ⁰ 29.2	24 ⁰ 15.7 -17 ⁰ 26.0	38 ⁰ 45.7 -17 ⁰ 22.7	+30.0	15.1	
Lu 5	256 ⁰ 16.1 -16 ⁰ 22.7	270 ⁰ 46.1 -16 ⁰ 18.0	285 ⁰ 16.2 -16 ⁰ 13.2	299 ⁰ 46.2 -16 ⁰ 08.4	314 ⁰ 16.3 -16 ⁰ 03.4	328 ⁰ 46.4 -15 ⁰ 58.4	343 ⁰ 16.4 -15 ⁰ 53.3	357 ⁰ 46.5 -15 ⁰ 48.1	12 ⁰ 16.6 -15 ⁰ 42.8	26 ⁰ 46.7 -15 ⁰ 37.4	41 ⁰ 16.7 -15 ⁰ 32.0	+30.1	15.2	
	258 ⁰ 48.7 -14 ⁰ 00.5	273 ⁰ 18.9 -13 ⁰ 53.8	287 ⁰ 49.1 -13 ⁰ 47.0	302 ⁰ 19.2 -13 ⁰ 40.1	316 ⁰ 49.4 -13 ⁰ 33.2	331 ⁰ 19.6 -13 ⁰ 26.1	345 ⁰ 49.8 -13 ⁰ 19.0	0 ⁰ 20.1 -13 ⁰ 11.9	14 ⁰ 50.3 -13 ⁰ 04.6	29 ⁰ 20.5 -12 ⁰ 57.3	43 ⁰ 50.7 -12 ⁰ 49.9	+30.2	15.4	
Me 7	261 ⁰ 24.6 -10 ⁰ 50.8	275 ⁰ 54.9 -10 ⁰ 42.4	290 ⁰ 25.2 -10 ⁰ 33.9	304 ⁰ 55.5 -10 ⁰ 25.3	319 ⁰ 25.7 -10 ⁰ 16.6	333 ⁰ 56.0 -10 ⁰ 07.9	348 ⁰ 26.3 -9 ⁰ 59.1	2 ⁰ 56.6 -9 ⁰ 50.3	17 ⁰ 26.9 -9 ⁰ 42.1	31 ⁰ 57.1 -9 ⁰ 32.5	46 ⁰ 27.4 -9 ⁰ 23.5	+30.3	15.6	
	264 ⁰ 01.1 -7 ⁰ 01.9	278 ⁰ 31.3 -6 ⁰ 52.1	293 ⁰ 01.5 -6 ⁰ 42.2	307 ⁰ 31.6 -6 ⁰ 32.3	322 ⁰ 01.8 -6 ⁰ 22.3	336 ⁰ 31.9 -6 ⁰ 12.3	351 ⁰ 02.1 -5 ⁰ 52.2	5 ⁰ 32.2 -5 ⁰ 42.1	20 ⁰ 02.3 -5 ⁰ 42.1	34 ⁰ 32.4 -5 ⁰ 31.9	49 ⁰ 02.5 -5 ⁰ 21.7	+30.1	15.7	
Je 8	278 ⁰ 31.3 -6 ⁰ 52.1	293 ⁰ 01.5 -6 ⁰ 42.2	307 ⁰ 31.6 -6 ⁰ 32.3	322 ⁰ 01.8 -6 ⁰ 22.3	336 ⁰ 31.9 -6 ⁰ 12.3	351 ⁰ 02.1 -5 ⁰ 52.2	5 ⁰ 32.2 -5 ⁰ 42.1	20 ⁰ 02.3 -5 ⁰ 42.1	34 ⁰ 32.4 -5 ⁰ 31.9	49 ⁰ 02.5 -5 ⁰ 21.7	63 ⁰ 32.6 -5 ⁰ 11.4	+30.1	15.8	
	281 ⁰ 01.4 -2 ⁰ 33.5	295 ⁰ 31.1 -2 ⁰ 22.7	310 ⁰ 00.9 -2 ⁰ 12.0	324 ⁰ 30.6 -2 ⁰ 01.2	339 ⁰ 00.2 -1 ⁰ 50.3	353 ⁰ 29.9 -1 ⁰ 39.5	7 ⁰ 59.5 -1 ⁰ 28.6	22 ⁰ 29.1 -1 ⁰ 17.7	36 ⁰ 58.6 -1 ⁰ 06.8	51 ⁰ 28.1 -0 ⁰ 55.9	65 ⁰ 57.6 -0 ⁰ 44.9	+29.6	16.0	
Di 11	283 ⁰ 15.9 2 ⁰ 00.5	297 ⁰ 44.8 2 ⁰ 11.6	312 ⁰ 13.7 2 ⁰ 22.7	326 ⁰ 42.5 2 ⁰ 33.7	341 ⁰ 11.3 2 ⁰ 44.8	355 ⁰ 40.0 2 ⁰ 55.9	10 ⁰ 08.7 3 ⁰ 06.9	24 ⁰ 37.3 3 ⁰ 18.0	39 ⁰ 05.9 3 ⁰ 29.0	53 ⁰ 34.5 3 ⁰ 40.0	68 ⁰ 03.0 3 ⁰ 51.0	+28.7	16.2	
	285 ⁰ 04.5 6 ⁰ 34.2	299 ⁰ 32.2 6 ⁰ 44.9	313 ⁰ 59.8 6 ⁰ 55.6	328 ⁰ 27.3 7 ⁰ 06.2	342 ⁰ 54.8 7 ⁰ 16.8	357 ⁰ 22.3 7 ⁰ 27.4	11 ⁰ 49.7 7 ⁰ 37.9	26 ⁰ 17.0 7 ⁰ 48.3	40 ⁰ 44.3 7 ⁰ 58.8	55 ⁰ 11.5 8 ⁰ 09.2	69 ⁰ 38.6 8 ⁰ 19.5	+27.4	16.3	
Ma 13	286 ⁰ 18.6 10 ⁰ 48.9	300 ⁰ 44.7 10 ⁰ 58.4	315 ⁰ 10.8 11 ⁰ 07.8	329 ⁰ 36.9 11 ⁰ 17.2	344 ⁰ 02.9 11 ⁰ 26.5	358 ⁰ 28.8 11 ⁰ 35.7	12 ⁰ 54.7 11 ⁰ 44.9	27 ⁰ 20.4 11 ⁰ 54.0	41 ⁰ 46.2 12 ⁰ 03.0	56 ⁰ 11.9 12 ⁰ 11.9	70 ⁰ 37.5 12 ⁰ 20.8	+25.9	16.5	
	286 ⁰ 54.5 14 ⁰ 23.6	301 ⁰ 19.2 14 ⁰ 31.1	315 ⁰ 43.9 14 ⁰ 38.4	330 ⁰ 08.4 14 ⁰ 45.7	344 ⁰ 33.0 14 ⁰ 52.8	358 ⁰ 57.4 14 ⁰ 59.9	13 ⁰ 21.8 15 ⁰ 06.9	27 ⁰ 46.2 15 ⁰ 13.7	42 ⁰ 10.5 15 ⁰ 20.5	56 ⁰ 34.8 15 ⁰ 27.1	70 ⁰ 59.1 15 ⁰ 33.6	+24.4	16.6	
Je 15	286 ⁰ 57.6 16 ⁰ 58.0	301 ⁰ 21.2 17 ⁰ 02.7	315 ⁰ 44.3 17 ⁰ 07.3	330 ⁰ 08.3 17 ⁰ 11.7	344 ⁰ 31.9 17 ⁰ 16.0	358 ⁰ 55.4 17 ⁰ 20.2	13 ⁰ 18.9 17 ⁰ 24.2	27 ⁰ 46.2 17 ⁰ 28.2	42 ⁰ 05.8 17 ⁰ 32.0	56 ⁰ 29.3 17 ⁰ 35.6	70 ⁰ 52.7 17 ⁰ 39.2	+23.5	16.7	
	286 ⁰ 43.2 18 ⁰ 16.7	301 ⁰ 06.8 18 ⁰ 18.2	315 ⁰ 30.3 18 ⁰ 19.5	329 ⁰ 53.4 18 ⁰ 20.7	344 ⁰ 16.8 18 ⁰ 21.7	358 ⁰ 40.2 18 ⁰ 22.6	13 ⁰ 03.7 18 ⁰ 23.4	27 ⁰ 27.2 18 ⁰ 24.1	41 ⁰ 50.7 18 ⁰ 24.6	56 ⁰ 14.2 18 ⁰ 25.0	70 ⁰ 37.7 18 ⁰ 25.2	+23.4	16.5	
Sa 17	286 ⁰ 34.6 18 ⁰ 13.4	300 ⁰ 58.8 18 ⁰ 11.6	315 ⁰ 22.9 18 ⁰ 09.7	329 ⁰ 47.2 18 ⁰ 07.6	344 ⁰ 11.4 18 ⁰ 05.5	358 ⁰ 35.8 18 ⁰ 03.2	13 ⁰ 00.2 18 ⁰ 00.7	27 ⁰ 24.6 17 ⁰ 58.2	41 ⁰ 49.1 17 ⁰ 55.5	56 ⁰ 13.9 17 ⁰ 52.7	70 ⁰ 38.3 17 ⁰ 49.8	+24.4	16.3	
	286 ⁰ 55.2 16 ⁰ 52.7	301 ⁰ 20.9 16 ⁰ 48.0	315 ⁰ 46.7 16 ⁰ 43.2	330 ⁰ 12.5 16 ⁰ 38.3	344 ⁰ 38.5 16 ⁰ 33.3	359 ⁰ 04.4 16 ⁰ 28.3	13 ⁰ 30.5 16 ⁰ 23.1	27 ⁰ 56.7 16 ⁰ 17.8	42 ⁰ 22.9 16 ⁰ 12.4	56 ⁰ 49.9 16 ⁰ 07.0	71 ⁰ 15.6 16 ⁰ 01.4	+26.0	16.1	
Lu 19	288 ⁰ 01.1 14 ⁰ 27.5	302 ⁰ 28.8 14 ⁰ 20.6	316 ⁰ 56.6 14 ⁰ 13.6	331 ⁰ 24.5 14 ⁰ 06.5	345 ⁰ 52.4 13 ⁰ 59.4	0 ⁰ 20.4 13 ⁰ 52.2	14 ⁰ 48.5 13 ⁰ 44.9	29 ⁰ 16.7 13 ⁰ 37.6	43 ⁰ 45.0 13 ⁰ 30.2	58 ⁰ 13.4 13 ⁰ 22.7	72 ⁰ 41.8 13 ⁰ 15.2	+28.1	15.8	
	289 ⁰ 58.0 11 ⁰ 15.0	304 ⁰ 27.8 11 ⁰ 06.6	318 ⁰ 57.5 10 ⁰ 58.1	333 ⁰ 27.4 10 ⁰ 49.6	347 ⁰ 57.4 10 ⁰ 41.0	2 ⁰ 27.4 10 ⁰ 32.4	16 ⁰ 57.5 10 ⁰ 23.7	31 ⁰ 27.6 10 ⁰ 15.0	45 ⁰ 57.9 10 ⁰ 06.3	60 ⁰ 28.2 9 ⁰ 57.5	74 ⁰ 58.6 9 ⁰ 48.7	+30.1	15.6	
Me 21	292 ⁰ 42.6 7 ⁰ 32.3	307 ⁰ 14.0 7 ⁰ 23.0	321 ⁰ 45.5 7 ⁰ 13.7	336 ⁰ 17.1 7 ⁰ 04.3	350 ⁰ 48.7 6 ⁰ 54.9	5 ⁰ 20.4 6 ⁰ 45.5	19 ⁰ 52.2 6 ⁰ 36.1	34 ⁰ 24.0 6 ⁰ 26.6	48 ⁰ 55.9 6 ⁰ 17.2	63 ⁰ 27.8 6 ⁰ 07.7	77 ⁰ 59.8 5 ⁰ 58.2	+31.7	15.3	
	296 ⁰ 05.5 9 ⁰ 34.1	310 ⁰ 38.2 3 ⁰ 24.5	325 ⁰ 11.0 3 ⁰ 14.8	339 ⁰ 43.9 3 ⁰ 05.1	354 ⁰ 16.7 2 ⁰ 55.4	8 ⁰ 49.7 2 ⁰ 45.7	23 ⁰ 22.6 2 ⁰ 36.0	37 ⁰ 55.6 2 ⁰ 26.4	52 ⁰ 28.6 2 ⁰ 16.7	67 ⁰ 01.7 2 ⁰ 07.0	81 ⁰ 34.8 1 ⁰ 57.3	+32.9	15.1	
Ve 23	299 ⁰ 55.0 -0 ⁰ 27.6	314 ⁰ 28.6 -0 ⁰ 37.2	329 ⁰ 02.1 -0 ⁰ 46.8	343 ⁰ 35.7 -0 ⁰ 56.4	358 ⁰ 09.4 -1 ⁰ 06.0	12 ⁰ 43.0 -1 ⁰ 15.5	27 ⁰ 16.7 -1 ⁰ 25.1	41 ⁰ 50.3 -1 ⁰ 34.6	56 ⁰ 24.0 -1 ⁰ 44.1	70 ⁰ 57.7 -1 ⁰ 53.6	85 ⁰ 31.5 -2 ⁰ 03.1	+33.7	15.0	
	303 ⁰ 58.7 -4 ⁰ 23.3	318 ⁰ 32.6 -4 ⁰ 32.8	333 ⁰ 06.5 -4 ⁰ 41.7	347 ⁰ 40.4 -4 ⁰ 50.8	2 ⁰ 14.3 -4 ⁰ 59.9	16 ⁰ 48.2 -5 ⁰ 09.0	31 ⁰ 22.0 -5 ⁰ 18.0	45 ⁰ 55.9 -5 ⁰ 27.1	60 ⁰ 29.8 -5 ⁰ 36.1	75 ⁰ 03.7 -5 ⁰ 45.1	89 ⁰ 37.6 -5 ⁰ 54.0	+33.9	14.8	
Sa 24	308 ⁰ 05.0 -8 ⁰ 04.6	322 ⁰ 38.8 -8 ⁰ 13.1	337 ⁰ 12.5 -8 ⁰ 21.5	351 ⁰ 46.2 -8 ⁰ 29.9	6 ⁰ 19.2 -8 ⁰ 38.8	20 ⁰ 53.6 -8 ⁰ 46.5	35 ⁰ 27.3 -8 ⁰ 54.8	50 ⁰ 01.0 -9 ⁰ 03.0	64 ⁰ 34.6 -9 ⁰ 11.2	79 ⁰ 08.2 -9 ⁰ 19.3	93 ⁰ 41.8 -9 ⁰ 27.4	+33.7	14.8	
	312 ⁰ 03.5 -11 ⁰ 23.9	326 ⁰ 36.8 -11 ⁰ 31.3	341 ⁰ 10.0 -11 ⁰ 38.6	355 ⁰ 43.2 -11 ⁰ 45.9	10 ⁰ 16.4 -11 ⁰ 53.2	24 ⁰ 49.6 -12 ⁰ 00.4	39 ⁰ 22.7 -12 ⁰ 07.5	53 ⁰ 55.8 -12 ⁰ 14.6	68 ⁰ 28.8 -12 ⁰ 21.7	83 ⁰ 01.9 -12 ⁰ 28.7	97 ⁰ 34.9 -12 ⁰ 35.6	+33.1	14.7	
Ma 27	315 ⁰ 46.3 -14 ⁰ 13.2	330 ⁰ 18.8 -14 ⁰ 19.3	344 ⁰ 51.2 -14 ⁰ 25.3	359 ⁰ 23.7 -14 ⁰ 31.2	13 ⁰ 56.1 -14 ⁰ 37.1	28 ⁰ 28.4 -14 ⁰ 42.8	43 ⁰ 00.7 -14 ⁰ 48.6	57 ⁰ 33.0 -14 ⁰ 54.2	72 ⁰ 05.3 -14 ⁰ 59.8	86 ⁰ 37.5 -15 ⁰ 05.4	101 ⁰ 09.7 -15 ⁰ 10.9	+32.3	14.8	
	319 ⁰ 08.2 -16 ⁰ 24.9	333 ⁰ 39.8 -16 ⁰ 29.3	348 ⁰ 11.3 -16 ⁰ 33.6	2 ⁰ 42.9 -16 ⁰ 37.8	17 ⁰ 14.4 -16 ⁰ 41.9	31 ⁰ 45.8 -16 ⁰ 46.0	46 ⁰ 17.3 -16 ⁰ 50.0	60 ⁰ 48.7 -16 ⁰ 53.9	75 ⁰ 20.0 -16 ⁰ 57.8	89 ⁰ 51.3 -17 ⁰ 01.5	104 ⁰ 22.6 -17 ⁰ 05.2	+31.4	14.8	
Je 29	322 ⁰ 07.8 -17 ⁰ 51.1	336 ⁰ 38.5 -17 ⁰ 53.5	351 ⁰ 09.3 -17 ⁰ 55.9	5 ⁰ 39.9 -17 ⁰ 58.1	td									

SOLEIL

Juillet 2024

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	268°01.6	284°01.5	299°01.3	314°01.2	329°01.1	344°01.0	356°00.9	14°00.7	29°00.6	44°00.5	59°00.4	74°00.3	-0.1
	23°05.5	23°05.3	23°05.2	23°05.0	23°04.8	23°04.6	23°04.5	23°04.3	23°04.2	23°03.9	23°03.8	23°03.6	-0.2
Di 2	268°58.7	283°58.6	298°58.5	313°58.4	328°58.3	343°58.2	358°58.0	13°57.9	28°57.8	43°57.7	58°57.6	73°57.5	-0.1
	23°01.2	23°01.0	23°00.8	23°00.6	23°00.5	23°00.3	23°00.1	22°59.9	22°59.7	22°59.5	22°59.3	22°59.1	-0.2
Lu 3	268°56.0	283°55.9	298°55.7	313°55.6	328°55.5	343°55.4	358°55.3	13°55.2	28°55.1	43°55.0	58°54.8	73°54.7	-0.1
	22°56.5	22°56.3	22°56.1	22°55.9	22°55.7	22°55.5	22°55.3	22°55.1	22°54.9	22°54.7	22°54.4	22°54.2	-0.2
Ma 4	268°53.3	283°53.2	298°53.1	313°52.9	328°52.8	343°52.7	358°52.6	13°52.5	28°52.4	43°52.3	58°52.2	73°52.1	-0.1
	22°51.4	22°51.2	22°51.0	22°50.8	22°50.5	22°50.3	22°50.1	22°49.9	22°49.6	22°49.4	22°49.2	22°49.0	-0.2
Me 5	268°50.7	283°50.6	298°50.5	313°50.3	328°50.2	343°50.1	358°50.0	13°49.9	28°49.8	43°49.7	58°49.6	73°49.5	-0.1
	22°45.9	22°45.7	22°45.5	22°45.2	22°45.0	22°44.8	22°44.5	22°44.3	22°44.0	22°43.8	22°43.5	22°43.3	-0.2
Je 6	268°48.1	283°48.0	298°47.9	313°47.8	328°47.7	343°47.6	358°47.5	13°47.4	28°47.3	43°47.2	58°47.1	73°47.0	-0.1
	22°40.1	22°39.8	22°39.6	22°39.3	22°39.0	22°38.8	22°38.5	22°38.3	22°38.0	22°37.8	22°37.5	22°37.2	-0.3
Ve 7	268°45.7	283°45.6	298°45.5	313°45.4	328°45.3	343°45.2	358°45.1	13°45.0	28°44.9	43°44.8	58°44.7	73°44.6	-0.1
	22°33.8	22°33.5	22°33.3	22°33.0	22°32.7	22°32.4	22°32.2	22°31.9	22°31.6	22°31.3	22°31.1	22°30.8	-0.3
Sa 8	268°43.3	283°43.2	298°43.1	313°43.0	328°42.9	343°42.9	358°42.8	13°42.7	28°42.6	43°42.5	58°42.4	73°42.3	-0.1
	22°27.1	22°26.8	22°26.6	22°26.3	22°26.0	22°25.7	22°25.4	22°25.1	22°24.8	22°24.5	22°24.2	22°23.9	-0.3
Di 9	268°41.1	283°41.0	298°40.9	313°40.8	328°40.7	343°40.6	358°40.5	13°40.4	28°40.3	43°40.2	58°40.0	73°40.0	-0.1
	22°20.1	22°19.8	22°19.5	22°19.2	22°18.9	22°18.6	22°18.2	22°17.9	22°17.6	22°17.3	22°17.0	22°16.7	-0.3
Lu 10	268°38.9	283°38.8	298°38.7	313°38.6	328°38.6	343°38.5	358°38.4	13°38.3	28°38.2	43°38.1	58°38.0	73°37.9	-0.1
	22°12.6	22°12.3	22°12.0	22°11.7	22°11.4	22°11.0	22°10.7	22°10.4	22°10.2	22°10.0	22°09.7	22°09.4	-0.3
Ma 11	268°36.8	283°36.8	298°36.7	313°36.6	328°36.5	343°36.4	358°36.3	13°36.2	28°36.1	43°36.1	58°36.0	73°35.9	-0.1
	22°04.8	22°04.5	22°04.1	22°03.8	22°03.5	22°03.1	22°02.8	22°02.5	22°02.2	22°01.9	22°01.6	22°01.3	-0.3
Me 12	268°34.9	283°34.8	298°34.7	313°34.7	328°34.6	343°34.5	358°34.4	13°34.3	28°34.3	43°34.2	58°34.1	73°34.0	-0.1
	21°56.6	21°56.3	21°55.9	21°55.6	21°55.2	21°54.8	21°54.5	21°54.1	21°53.8	21°53.4	21°53.1	21°52.7	-0.4
Je 13	268°33.0	283°33.0	298°32.9	313°32.8	328°32.8	343°32.7	358°32.6	13°32.5	28°32.5	43°32.4	58°32.3	73°32.2	-0.1
	21°48.0	21°47.7	21°47.3	21°46.9	21°46.6	21°46.2	21°45.8	21°45.5	21°45.1	21°44.7	21°44.3	21°44.0	-0.4
Ve 14	268°31.3	283°31.3	298°31.2	313°31.1	328°31.0	343°31.0	358°30.9	13°30.8	28°30.8	43°30.7	58°30.6	73°30.6	-0.1
	21°39.1	21°38.7	21°38.3	21°37.9	21°37.5	21°37.2	21°36.8	21°36.4	21°36.0	21°35.6	21°35.2	21°34.8	-0.4
Sa 15	268°29.7	283°29.7	298°29.6	313°29.5	328°29.5	343°29.4	358°29.3	13°29.3	28°29.2	43°29.2	58°29.1	73°29.0	-0.1
	21°29.8	21°29.4	21°29.0	21°28.6	21°28.2	21°27.8	21°27.4	21°27.0	21°26.6	21°26.2	21°25.8	21°25.4	-0.4
Di 16	268°28.2	283°28.2	298°28.1	313°28.1	328°28.0	343°28.0	358°27.9	13°27.8	28°27.8	43°27.7	58°27.7	73°27.6	-0.1
	21°20.1	21°19.7	21°19.2	21°18.8	21°18.4	21°18.0	21°17.6	21°17.2	21°16.8	21°16.3	21°15.9	21°15.5	-0.4
Lu 17	268°26.9	283°26.8	298°26.8	313°26.7	328°26.7	343°26.6	358°26.6	13°26.5	28°26.5	43°26.4	58°26.4	73°26.3	-0.1
	21°10.0	21°09.6	21°09.2	21°08.7	21°08.3	21°07.9	21°07.5	21°07.0	21°06.6	21°06.2	21°05.7	21°05.3	-0.4
Ma 18	268°25.7	283°25.6	298°25.6	313°25.5	328°25.5	343°25.4	358°25.4	13°25.4	28°25.3	43°25.3	58°25.2	73°25.2	-0.0
	20°59.6	20°59.2	20°58.7	20°58.3	20°57.8	20°57.4	20°57.0	20°56.5	20°56.1	20°55.6	20°55.2	20°54.7	-0.4
Me 19	268°24.6	283°24.6	298°24.5	313°24.5	328°24.4	343°24.4	358°24.4	13°24.3	28°24.3	43°24.2	58°24.2	73°24.2	-0.0
	20°48.9	20°48.4	20°47.9	20°47.5	20°47.0	20°46.6	20°46.1	20°45.7	20°45.2	20°44.7	20°44.3	20°43.8	-0.5
Je 20	268°23.7	283°23.6	298°23.6	313°23.6	328°23.5	343°23.5	358°23.5	13°23.4	28°23.4	43°23.4	58°23.3	73°23.3	-0.0
	20°37.7	20°37.3	20°36.8	20°36.3	20°35.9	20°35.4	20°34.9	20°34.4	20°34.0	20°33.5	20°33.0	20°32.5	-0.5
Ve 21	268°22.9	283°22.9	298°22.8	313°22.8	328°22.8	343°22.7	358°22.7	13°22.7	28°22.7	43°22.6	58°22.6	73°22.6	-0.0
	20°26.3	20°25.8	20°25.3	20°24.8	20°24.3	20°23.9	20°23.4	20°22.9	20°22.4	20°21.9	20°21.4	20°20.9	-0.5
Sa 22	268°22.2	283°22.2	298°22.2	313°22.2	328°22.1	343°22.1	358°22.1	13°22.1	28°22.1	43°22.0	58°22.0	73°22.0	-0.0
	20°14.5	20°14.0	20°13.5	20°13.0	20°12.5	20°12.0	20°11.5	20°11.0	20°10.5	20°10.0	20°09.5	20°09.0	-0.5
Di 23	268°21.7	283°21.7	298°21.7	313°21.7	328°21.7	343°21.7	358°21.6	13°21.6	28°21.6	43°21.6	58°21.6	73°21.6	-0.0
	20°02.4	20°01.8	20°01.3	20°00.8	20°00.3	19°59.8	19°59.3	19°58.8	19°58.2	19°57.7	19°57.2	19°56.7	-0.5
Lu 24	268°21.4	283°21.4	298°21.4	313°21.4	328°21.4	343°21.3	358°21.3	13°21.3	28°21.3	43°21.3	58°21.3	73°21.3	-0.0
	19°49.9	19°49.4	19°48.8	19°48.3	19°47.8	19°47.2	19°46.7	19°46.2	19°45.7	19°45.1	19°44.6	19°44.1	-0.5
Ma 25	268°21.2	283°21.2	298°21.2	313°21.2	328°21.2	343°21.2	358°21.2	13°21.2	28°21.2	43°21.2	58°21.2	73°21.2	-0.0
	19°37.1	19°36.5	19°36.0	19°35.5	19°34.9	19°34.4	19°33.8	19°33.3	19°32.7	19°32.2	19°31.7	19°31.1	-0.5
Me 26	268°21.2	283°21.2	298°21.2	313°21.2	328°21.2	343°21.2	358°21.2	13°21.2	28°21.2	43°21.2	58°21.2	73°21.2	+0.0
	19°24.0	19°23.4	19°22.9	19°22.3	19°21.7	19°21.2	19°20.6	19°20.1	19°19.5	19°19.0	19°18.4	19°17.8	-0.6
Je 27	268°21.3	283°21.3	298°21.3	313°21.3	328°21.3	343°21.3	358°21.3	13°21.3	28°21.3	43°21.3	58°21.3	73°21.4	+0.0
	19°10.5	19°10.0	19°09.4	19°08.8	19°08.2	19°07.7	19°07.1	19°06.5	19°06.0	19°05.4	19°04.8	19°04.3	-0.6
Ve 28	268°21.5	283°21.6	298°21.6	313°21.6	328°21.6	343°21.6	358°21.6	13°21.7	28°21.7	43°21.7	58°21.7	73°21.7	+0.0
	18°56.8	18°56.2	18°55.6	18°55.0	18°54.4	18°53.9	18°53.3	18°52.7	18°52.1	18°51.5	18°50.9	18°50.3	-0.6
Sa 29	268°22.0	283°22.0	298°22.0	313°22.0	328°22.1	343°22.1	358°22.1	13°22.1	28°22.1	43°22.2	58°22.2	73°22.2	+0.0
	18°42.7	18°42.1	18°41.5	18°40.9	18°40.3	18°39.7	18°39.1	18°38.5	18°37.9	18°37.3	18°36.7	18°36.1	-0.6
Di 30	268°22.5	283°22.6	298°22.6	313°22.6	328°22.7	343°22.7	358°22.7	13°22.7	28°22.7	43°22.8	58°22.8	73°22.9	+0.0
	18°28.3	18°27.7	18°27.1	18°26.5	18°25.9	18°25.3	18°24.7	18°24.1	18°23.4	18°22.8	18°22.2	18°21.6	-0.6
Lu 31	268°23.3	283°23.3	298°23.3	313°23.4	328°23.4	343°23.4	358°23.5	13°23.5	28°23.5	43°23.6	58°23.6	73°23.7	+0.0
	18°13.6	18°13.0	18°12.4	18°11.8	18°11.2	18°10.5	18°09.9	18°09.3	18°08.7	18°08.0	18°07.4	18°06.8	-0.6

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA − 15°

Ligne 2: Dec (Déclinaison, − = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juillet 2034

	J	15h	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	Δ'/h SP
○	Sa 1	240°16.0 -18°13.6	254°45.7 -18°12.1	269°15.5 -18°10.5	283°45.2 -18°08.7	298°14.9 -18°06.9	312°44.6 -18°05.0	327°14.3 -18°03.0	341°44.0 -18°00.9	356°13.7 -17°58.7	10°43.4 -17°56.4	25°13.0 -17°54.0	+29.7 15.1 +2.0 55.4
	Di 2	242°37.4 -17°07.3	257°07.0 -17°03.5	271°36.6 -16°59.5	286°06.2 -16°55.5	300°35.9 -16°51.4	315°05.5 -16°47.2	329°35.1 -16°42.9	344°04.7 -16°38.8	358°34.3 -16°34.0	13°03.9 -16°29.5	27°33.6 -16°24.8	+29.6 15.2 +4.3 55.8
	Lu 3	244°58.7 -15°04.7	259°28.4 -14°58.7	273°58.1 -14°52.6	288°27.9 -14°46.5	302°57.7 -14°40.2	317°27.4 -14°33.9	331°57.2 -14°27.5	346°27.0 -14°21.0	3°56.8 -14°14.4	15°26.6 -14°07.7	29°56.4 -14°01.0	+29.8 15.4 +6.4 56.3
	Ma 4	247°24.8 -12°11.2	261°54.8 -12°03.3	276°24.8 -11°55.3	290°54.8 -11°47.3	305°24.8 -11°39.2	319°54.8 -11°31.1	334°24.9 -11°22.8	348°54.9 -11°14.6	3°24.9 -11°06.2	17°55.0 -10°57.8	32°25.1 -10°49.3	+30.0 15.5 +8.2 56.9
	Me 5	249°56.9 -8°35.1	264°27.1 -8°25.8	278°57.3 -8°16.3	293°27.5 -8°06.9	307°57.7 -7°57.3	322°27.9 -7°47.8	336°58.0 -7°38.1	351°28.2 -7°28.5	5°58.4 -7°18.8	20°28.6 -7°09.0	34°58.8 -6°59.2	+30.2 15.7 +9.6 57.4
	Je 6	252°31.7 -4°27.5	267°01.8 -4°17.1	281°32.0 -4°06.7	296°02.1 -3°56.2	310°32.2 -3°45.8	325°02.4 -3°35.3	339°32.5 -3°24.7	354°02.6 -3°14.2	8°32.7 -3°03.6	23°02.7 -2°53.0	37°32.8 -2°42.4	+30.1 15.8 +10.5 57.9
	Ve 7	255°02.0 -0°01.0	269°31.8 0°09.8	284°01.5 0°20.7	298°31.3 0°31.6	313°01.0 0°42.4	327°30.7 0°53.3	342°00.4 1°04.2	356°30.0 1°15.1	10°59.6 1°25.9	25°29.2 1°36.8	39°58.8 1°47.7	+29.7 15.9 +10.9 58.5
	Sa 8	257°18.5 4°29.9	271°47.5 4°40.6	286°16.5 4°51.3	300°45.4 5°02.0	315°14.3 5°12.6	329°43.2 5°23.5	344°12.0 5°33.9	358°40.8 5°44.4	13°09.6 5°55.0	27°38.3 6°05.5	42°06.9 6°16.0	+28.8 16.1 +10.6 59.0
○	Di 9	271°47.5 4°40.6	286°16.5 4°51.3	300°45.4 5°02.0	315°14.3 5°12.6	329°43.2 5°23.5	344°12.0 5°33.9	358°40.8 5°44.4	13°09.6 5°55.0	27°38.3 6°05.5	42°06.9 6°16.0	56°35.5 6°26.4	+28.8 16.1 +10.6 59.0
	Lu 10	273°39.1 8°59.1	288°07.0 9°08.9	302°34.8 9°18.7	317°02.5 9°28.4	331°30.2 9°38.1	345°57.8 9°47.8	360°25.4 9°57.3	14°52.9 10°06.9	29°20.4 10°16.3	43°47.8 10°25.7	58°15.2 10°35.1	+27.6 16.2 +9.6 59.4
	Ma 11	274°59.1 12°47.5	289°25.5 12°55.8	303°52.0 13°04.0	318°18.3 13°12.1	332°44.7 13°20.1	347°10.9 13°28.0	361°37.1 13°35.9	16°03.3 13°43.6	30°29.4 13°51.3	44°55.4 13°58.9	59°21.4 14°06.4	+26.2 16.3 +7.9 59.7
	Me 12	275°45.0 15°47.8	290°10.2 15°53.8	304°35.4 15°59.7	319°00.5 16°05.4	333°25.5 16°11.1	347°50.5 16°16.6	362°15.5 16°22.0	16°40.4 16°27.3	31°05.3 16°32.6	45°30.2 16°37.7	59°55.0 16°42.6	+25.0 16.3 +5.5 59.9
	Je 13	276°03.2 17°43.5	290°27.5 17°46.6	304°51.8 17°49.6	319°16.1 17°52.5	333°40.4 17°55.2	348°04.6 17°57.8	362°28.9 18°00.3	16°53.1 18°02.6	31°17.3 18°04.9	45°41.5 18°07.0	60°05.7 18°09.0	+24.3 16.3 +2.5 59.9
	Ve 14	276°08.5 18°23.5	290°32.8 18°23.4	304°57.0 18°23.3	319°21.3 18°23.0	333°45.6 18°22.5	348°09.9 18°22.0	362°34.2 18°21.3	16°58.5 18°20.5	31°22.9 18°19.5	45°47.3 18°18.5	60°11.7 18°17.3	+24.3 16.3 -0.6 59.7
●	Sa 15	276°22.0 17°44.9	290°47.0 17°41.8	305°12.0 17°38.6	319°37.2 17°35.2	334°02.3 17°31.8	348°27.5 17°28.2	362°52.7 17°24.5	17°18.0 17°20.7	31°43.4 17°16.8	46°08.8 17°12.8	60°34.3 17°08.7	+25.2 16.2 -3.6 59.3
	Di 16	277°03.5 15°54.3	291°30.0 15°48.6	305°56.6 15°42.7	320°23.2 15°36.8	334°49.8 15°30.8	349°16.6 15°24.7	363°43.4 15°18.5	18°10.3 15°12.2	32°37.2 15°05.8	47°04.3 14°59.3	61°31.4 14°52.8	+26.8 16.0 -6.2 58.6
	Lu 17	278°26.6 13°05.3	292°54.9 12°57.6	307°23.2 12°49.8	321°51.6 12°41.9	336°20.1 12°34.0	350°48.7 12°26.0	365°17.3 12°18.0	19°46.1 12°09.9	34°14.8 12°01.7	48°43.7 11°53.5	63°12.6 11°45.2	+28.6 15.8 -8.0 57.9
	Ma 18	280°35.3 9°35.0	295°05.4 9°26.0	309°35.5 9°16.9	324°05.7 9°07.8	338°36.0 8°58.8	353°06.3 8°49.5	367°36.7 8°40.3	22°07.2 8°31.0	36°37.7 8°21.7	51°08.7 8°12.4	65°39.0 8°03.1	+30.4 15.6 -9.2 57.1
	Me 19	283°26.1 5°40.1	297°57.7 5°30.4	312°29.3 5°20.7	327°01.0 5°11.0	341°32.8 5°01.2	356°04.6 4°51.5	10°36.5 4°41.8	25°08.4 4°32.0	39°40.3 4°22.2	54°12.3 4°12.4	68°44.4 4°02.6	+31.8 15.3 -9.7 56.3
	Je 20	286°50.5 1°35.3	301°23.2 1°25.5	315°55.9 1°15.6	330°28.7 1°05.8	345°01.6 0°56.0	359°34.4 0°46.2	14°07.3 0°36.4	28°40.2 0°26.6	43°13.2 0°16.9	57°46.2 0°07.1	72°19.2 -0°02.7	+32.9 15.1 -9.8 55.5
	Ve 21	290°37.5 -2°27.5	305°10.9 -2°37.0	319°44.3 -2°46.6	334°17.8 -2°56.0	348°51.2 -3°05.5	363°24.7 -3°15.0	17°58.1 -3°24.4	32°31.5 -3°33.8	47°05.1 -3°43.2	61°38.6 -3°52.5	76°12.2 -4°01.9	+33.5 15.0 -9.4 54.9
	Sa 22	294°35.9 -6°18.7	309°09.5 -6°27.6	323°43.1 -6°36.4	338°16.7 -6°45.2	352°50.3 -6°54.0	367°22.8 -7°02.8	21°57.5 -7°11.5	36°31.1 -7°20.2	51°04.7 -7°28.8	65°38.4 -7°37.4	80°11.9 -7°46.0	+33.6 14.9 -8.7 54.5
○	Di 23	298°34.6 -9°50.0	313°08.0 -9°58.0	327°41.4 -13°07.5	342°14.8 -13°14.1	356°48.2 -13°21.5	11°21.5 -10°29.3	25°54.9 -10°37.0	40°28.2 -10°44.6	55°01.5 -10°52.3	69°34.8 -10°59.8	84°08.0 -11°07.4	+33.3 14.8 -7.7 54.2
	Lu 24	302°24.2 -12°54.2	316°57.1 -13°00.9	331°29.9 -13°07.5	346°02.7 -13°14.1	360°35.5 -13°20.8	375°08.3 -13°27.1	29°41.0 -13°33.5	44°13.7 -13°39.9	58°46.4 -13°46.2	73°19.1 -13°51.6	87°51.7 -13°58.6	+32.8 14.8 -6.4 54.2
	Ma 25	305°57.1 -12°54.2	320°29.2 -13°00.9	335°01.3 -13°07.5	349°33.3 -13°14.1	364°05.3 -13°20.8	18°37.3 -15°49.0	33°09.2 -15°53.8	47°41.1 -15°58.6	62°12.9 -16°03.3	76°44.8 -16°07.9	91°16.5 -16°12.4	+31.9 14.8 -4.9 54.3
	Me 26	309°08.9 -17°11.7	323°40.9 -17°15.1	338°11.3 -17°18.3	352°42.4 -17°21.5	367°13.5 -17°24.6	21°44.6 -17°27.7	36°15.6 -17°30.6	50°46.6 -17°33.5	65°17.6 -17°36.3	79°48.5 -17°39.0	94°19.4 -17°41.6	+31.0 14.9 -3.0 54.5
	Je 27	311°58.6 -18°10.9	326°28.9 -18°12.1	340°59.2 -18°13.3	355°29.5 -18°14.4	369°59.8 -18°16.3	24°30.0 -18°17.1	39°00.2 -18°17.8	53°30.4 -18°18.5	68°00.5 -18°18.5	82°30.7 -18°19.0	97°00.7 -18°19.5	+30.2 15.0 -0.9 54.9
	Ve 28	314°28.9 -18°15.4	328°58.6 -18°14.4	343°28.8 -18°13.3	357°57.9 -18°12.1	12°27.6 -18°10.6	26°57.2 -18°09.4	41°26.8 -18°08.0	55°56.3 -18°06.4	70°25.9 -18°04.7	84°55.4 -18°02.9	99°24.9 -18°01.1	+29.6 15.1 +1.4 55.5
	Sa 29	316°46.0 -17°21.9	331°15.3 -17°18.5	345°44.6 -17°15.1	360°13.9 -17°11.5	14°43.3 -17°07.9	29°12.5 -17°04.2	43°41.7 -17°00.3	58°11.0 -16°56.4	72°40.3 -16°52.4	87°09.5 -16°48.3	101°38.8 -16°44.1	+29.3 15.3 +3.8 56.0
	Di 30	318°57.2 -15°30.2	333°26.4 -15°24.6	347°55.6 -15°18.8	362°24.9 -15°13.8	16°54.1 -15°07.7	31°23.3 -15°01.2	45°52.6 -14°55.1	60°21.8 -14°48.9	74°51.1 -14°42.7	89°20.3 -14°36.4	103°49.6 -14°30.0	+29.2 15.4 +6.0 56.6
○	Lu 31	321°09.0 -12°44.3	335°38.4 -12°36.6	350°07.7 -12°28.9	364°37.1 -12°21.1	19°06.5 -12°13.2	33°35.9 -12°05.3	48°05.3 -11°57.2	62°34.6 -11°49.2	77°04.1 -11°41.0	91°33.5 -11°32.8	106°02.9 -11°24.5	+29.4 15.6 +8.0 57.2

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC – jour) mod 24

PL: 1 17h44 — DQ: 9 01h59 — NL: 15 18h15 — PQ: 23 07h05 — PL: 31 05h54

SOLEIL

Août 2034

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ma 1	268°24.1 17°58.6	283°24.2 17°58.0	298°24.2 17°57.4	313°24.3 17°56.8	328°24.3 17°56.1	343°24.3 17°55.5	358°24.4 17°54.9	13°24.4 17°54.2	28°24.5 17°53.6	43°24.5 17°53.0	58°24.6 17°52.3	73°24.6 17°51.7	+0.0 -0.6
Me 2	268°25.2 17°43.4	283°25.2 17°42.7	298°25.3 17°42.1	313°25.3 17°41.4	328°25.4 17°40.8	343°25.4 17°40.2	358°25.5 17°39.5	13°25.5 17°38.9	28°25.6 17°38.2	43°25.6 17°37.6	58°25.7 17°36.9	73°25.7 17°36.3	+0.0 -0.6
Je 3	268°26.4 17°27.8	283°26.4 17°27.2	298°26.5 17°26.5	313°26.5 17°25.9	328°26.6 17°25.2	343°26.6 17°24.5	358°26.7 17°23.9	13°26.7 17°23.2	28°26.8 17°22.6	43°26.8 17°21.9	58°26.9 17°21.3	73°26.9 17°20.6	+0.1 -0.7
Ve 4	268°27.7 17°12.0	283°27.7 17°11.3	298°27.8 17°10.6	313°27.9 17°10.0	328°27.9 17°09.3	343°28.0 17°08.6	358°28.0 17°08.0	13°28.1 17°07.3	28°28.2 17°06.6	43°28.2 17°06.0	58°28.3 17°05.3	73°28.3 17°04.6	+0.1 -0.7
Sa 5	268°29.2 16°55.8	283°29.2 16°55.2	298°29.3 16°54.5	313°29.4 16°53.8	328°29.4 16°53.1	343°29.5 16°52.5	358°29.6 16°51.8	13°29.6 16°51.1	28°29.7 16°50.4	43°29.8 16°49.7	58°29.8 16°49.0	73°29.9 16°48.4	+0.1 -0.7
Di 6	268°30.8 16°39.5	283°30.9 16°38.8	298°30.9 16°38.1	313°31.0 16°37.4	328°31.1 16°36.7	343°31.1 16°36.0	358°31.2 16°35.3	13°31.3 16°34.6	28°31.4 16°33.9	43°31.4 16°33.2	58°31.5 16°32.5	73°31.6 16°31.8	+0.1 -0.7
Lu 7	268°32.5 16°22.8	283°32.6 16°22.1	298°32.7 16°21.4	313°32.8 16°20.7	328°32.9 16°20.0	343°32.9 16°19.3	358°33.0 16°18.6	13°33.1 16°17.9	28°33.2 16°17.2	43°33.2 16°16.5	58°33.3 16°15.8	73°33.4 16°15.1	+0.1 -0.7
Ma 8	268°34.5 16°05.8	283°34.5 16°05.1	298°34.6 16°04.4	313°34.7 16°03.7	328°34.8 16°03.0	343°34.9 16°02.3	358°35.0 16°01.6	13°35.0 16°00.9	28°35.1 15°59.2	43°35.2 15°58.5	58°35.3 15°57.8	73°35.4 15°57.0	+0.1 -0.7
Me 9	268°36.5 15°48.7	283°36.6 15°47.9	298°36.7 15°47.2	313°36.8 15°46.5	328°36.9 15°45.8	343°36.9 15°45.0	358°37.0 15°44.3	13°37.1 15°43.6	28°37.2 15°42.9	43°37.3 15°42.1	58°37.4 15°41.4	73°37.5 15°40.7	+0.1 -0.7
Je 10	268°38.7 15°31.2	283°38.8 15°30.5	298°38.9 15°29.7	313°39.0 15°29.0	328°39.1 15°28.3	343°39.2 15°27.5	358°39.3 15°26.8	13°39.4 15°26.1	28°39.5 15°25.3	43°39.5 15°24.6	58°39.6 15°23.9	73°39.7 15°23.1	+0.1 -0.7
Ve 11	268°41.0 15°13.5	283°41.1 15°12.8	298°41.2 15°12.0	313°41.3 15°11.3	328°41.4 15°10.5	343°41.5 15°09.8	358°41.6 15°09.1	13°41.7 15°08.3	28°41.8 15°07.6	43°41.9 15°06.8	58°42.0 15°06.1	73°42.1 15°05.3	+0.1 -0.7
Sa 12	268°43.5 14°55.6	283°43.6 14°54.8	298°43.7 14°54.1	313°43.8 14°53.3	328°43.9 14°52.6	343°44.0 14°51.8	358°44.1 14°51.1	13°44.2 14°50.3	28°44.3 14°49.5	43°44.4 14°48.8	58°44.5 14°48.0	73°44.7 14°47.3	+0.1 -0.8
Di 13	268°46.1 14°37.4	283°46.2 14°36.6	298°46.3 14°35.9	313°46.4 14°35.1	328°46.5 14°34.3	343°46.6 14°33.6	358°46.8 14°32.8	13°46.9 14°32.1	28°47.0 14°31.3	43°47.1 14°30.5	58°47.2 14°29.8	73°47.3 14°29.0	+0.1 -0.8
Lu 14	268°48.8 14°19.0	283°48.9 14°18.2	298°49.1 14°17.4	313°49.2 14°16.7	328°49.3 14°15.9	343°49.4 14°15.1	358°49.5 14°14.4	13°49.6 14°13.6	28°49.8 14°12.8	43°49.9 14°12.0	58°50.0 14°11.3	73°50.1 14°10.5	+0.1 -0.8
Ma 15	268°51.7 14°00.4	283°51.8 13°59.6	298°51.9 13°58.8	313°52.1 13°58.0	328°52.2 13°57.2	343°52.3 13°56.4	358°52.4 13°55.7	13°52.6 13°54.9	28°52.7 13°54.1	43°52.8 13°53.3	58°52.9 13°52.5	73°53.1 13°51.7	+0.1 -0.8
Me 16	268°54.7 13°41.5	283°54.8 13°40.7	298°55.0 13°39.9	313°55.1 13°39.1	328°55.2 13°38.3	343°55.3 13°37.5	358°55.5 13°36.7	13°55.6 13°36.0	28°55.7 13°35.2	43°55.9 13°34.4	58°56.0 13°33.6	73°56.1 13°32.8	+0.1 -0.8
Je 17	268°57.8 13°22.4	283°58.0 13°21.6	298°58.1 13°20.8	313°58.2 13°20.0	328°58.3 13°19.2	343°58.5 13°18.4	358°58.6 13°17.6	13°58.8 13°16.8	28°58.9 13°16.0	43°59.1 13°15.2	58°59.2 13°14.3	73°59.3 13°13.6	+0.1 -0.8
Ve 18	269°01.1 13°03.1	284°01.2 13°02.3	299°01.4 13°01.5	314°01.5 13°00.7	329°01.7 12°59.9	344°01.8 12°59.1	359°02.0 12°58.3	14°02.1 12°57.5	29°02.2 12°56.7	44°02.4 12°55.8	59°02.5 12°55.0	74°02.7 12°54.2	+0.1 -0.8
Sa 19	269°04.5 12°43.6	284°04.7 12°42.8	299°04.8 12°42.0	314°04.9 12°41.2	329°05.1 12°40.4	344°05.2 12°39.6	359°05.4 12°38.7	14°05.5 12°37.9	29°05.6 12°37.1	44°05.8 12°36.3	59°06.0 12°35.5	74°06.1 12°34.6	+0.1 -0.8
Di 20	269°08.0 12°23.9	284°08.2 12°23.1	299°08.3 12°22.3	314°08.5 12°21.5	329°08.6 12°20.6	344°08.8 12°19.8	359°08.9 12°19.0	14°09.1 12°18.2	29°09.2 12°17.3	44°09.4 12°16.5	59°09.5 12°15.7	74°09.7 12°14.9	+0.2 -0.8
Lu 21	269°11.7 12°04.1	284°11.8 12°03.2	299°12.0 12°02.4	314°12.2 12°01.6	329°12.3 12°00.7	344°12.5 11°59.9	359°12.6 11°59.1	14°12.8 11°58.2	29°12.9 11°57.4	44°13.1 11°56.6	59°13.2 11°55.7	74°13.4 11°54.9	+0.2 -0.8
Ma 22	269°15.5 11°44.0	284°15.6 11°43.1	299°15.8 11°42.3	314°15.9 11°41.5	329°16.1 11°40.6	344°16.3 11°39.8	359°16.4 11°38.9	14°16.6 11°38.1	29°16.7 11°37.3	44°16.9 11°36.4	59°17.1 11°35.6	74°17.2 11°34.7	+0.2 -0.8
Me 23	269°19.3 11°23.7	284°19.5 11°22.9	299°19.7 11°22.0	314°19.8 11°21.2	329°20.0 11°20.3	344°20.2 11°19.5	359°20.3 11°18.6	14°20.5 11°17.8	29°20.7 11°16.9	44°20.9 11°16.1	59°21.0 11°15.2	74°21.2 11°14.4	+0.2 -0.8
Je 24	269°23.3 11°03.3	284°23.5 11°02.4	299°23.7 11°01.6	314°23.8 11°00.7	329°24.0 10°59.9	344°24.2 10°59.0	359°24.4 10°58.1	14°24.5 10°57.3	29°24.7 10°56.4	44°24.9 10°55.6	59°25.0 10°54.7	74°25.2 10°53.9	+0.2 -0.9
Ve 25	269°27.4 10°42.7	284°27.6 10°41.8	299°27.8 10°40.9	314°28.0 10°40.1	329°28.2 10°39.2	344°28.3 10°38.3	359°28.5 10°37.5	14°28.7 10°36.6	29°28.9 10°35.8	44°29.0 10°34.9	59°29.2 10°34.0	74°29.4 10°33.2	+0.2 -0.9
Sa 26	269°31.7 10°21.9	284°31.8 10°21.0	299°32.0 10°20.1	314°32.2 10°19.3	329°32.4 10°18.4	344°32.5 10°17.5	359°32.7 10°16.7	14°32.9 10°15.8	29°33.0 10°14.9	44°33.3 10°14.1	59°33.4 10°13.2	74°33.6 10°12.3	+0.2 -0.9
Di 27	269°36.0 10°00.9	284°36.2 10°00.1	299°36.3 9°59.2	314°36.5 9°58.3	329°36.7 9°57.4	344°36.9 9°56.6	359°37.1 9°55.7	14°37.2 9°54.8	29°37.3 9°53.9	44°37.6 9°53.0	59°37.8 9°52.2	74°38.0 9°51.3	+0.2 -0.9
Lu 28	269°40.4 9°39.8	284°40.6 9°39.0	299°40.8 9°38.1	314°40.9 9°37.2	329°41.1 9°36.3	344°41.3 9°35.4	359°41.5 9°34.5	14°41.7 9°33.7	29°41.9 9°32.8	44°42.1 9°31.9	59°42.1 9°31.0	74°42.4 9°30.1	+0.2 -0.9
Ma 29	269°44.9 9°18.6	284°45.1 9°17.7	299°45.3 9°16.8	314°45.5 9°15.9	329°45.6 9°15.0	344°45.8 9°14.1	359°46.0 9°13.2	14°46.2 9°12.4	29°46.4 9°11.5	44°46.6 9°10.6	59°46.8 9°09.7	74°47.0 9°08.8	+0.2 -0.9
Me 30	269°49.5 8°57.2	284°49.7 8°56.3	299°49.9 8°55.4	314°50.1 8°54.5	329°50.2 8°53.6	344°50.4 8°52.7	359°50.6 8°51.8	14°50.8 8°50.9	29°50.1 8°50.0	44°51.2 8°49.1	59°51.4 8°48.2	74°51.6 8°47.3	+0.2 -0.9
Je 31	269°54.1 8°35.6	284°54.3 8°34.7	299°54.5 8°33.8	314°54.7 8°32.9	329°54.9 8°32.0	344°55.1 8°31.1	359°55.3 8°30.2	14°55.5 8°29.3	29°55.7 8°28.4	44°55.9 8°27.5	59°56.1 8°26.6	74°56.3 8°25.7	+0.2 -0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Août 2034

	J	16h	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	Δ°/h	SP
Ma 1	236°28.0	250°57.5	265°27.0	279°56.5	294°26.1	308°55.6	323°25.1	337°54.7	352°24.2	6°53.8	21°23.3	+29.5	15.7	
	-10°06.8	-0°57.9	-9°48.9	-9°39.8	-9°30.7	-9°21.5	-9°12.3	-9°03.0	-8°53.7	-8°44.4	-8°34.8	+9.2	57.6	
Me 2	238°47.3	253°17.0	267°46.6	282°16.2	296°45.9	311°15.5	325°45.1	340°14.8	354°44.4	9°14.0	23°43.6	+29.6	15.8	
	-6°07.3	-5°57.2	-5°46.9	-5°36.7	-5°26.4	-5°16.1	-5°05.7	-4°55.3	-4°44.9	-4°34.5	-4°24.0	+10.3	58.1	
Je 3	241°07.7	255°37.2	270°06.8	284°36.3	299°05.8	313°35.3	328°04.8	342°34.3	357°03.8	11°33.3	26°02.7	+29.5	16.0	
Ve 4	-1°43.8	-1°32.9	-1°22.1	-1°11.2	-1°00.4	-0°49.5	-0°38.6	-0°27.7	-0°16.8	-0°05.9	0°05.0	+10.9	58.5	
	243°22.6	257°51.8	272°20.9	286°50.0	301°19.1	315°48.2	330°17.3	344°46.3	359°15.3	13°44.3	28°13.3	+29.1	16.0	
Sa 5	2°48.5	2°59.4	3°10.2	3°21.0	3°31.8	3°42.6	3°53.4	4°04.1	4°14.8	4°25.6	4°36.2	+10.8	58.8	
	245°24.1	259°52.6	274°21.0	288°49.4	303°17.8	317°46.1	332°14.4	346°42.7	1°10.9	15°39.1	30°07.3	+28.3	16.1	
Di 6	7°13.1	7°23.3	7°33.4	7°43.5	7°53.6	8°03.6	8°13.6	8°23.5	8°33.4	8°43.2	8°53.0	+10.0	59.1	
	247°04.8	261°32.3	275°59.8	290°27.2	304°54.6	319°22.0	333°49.3	348°16.6	2°43.8	17°11.0	31°38.1	+27.3	16.1	
Lu 7	11°13.0	11°21.9	11°30.6	11°39.3	11°48.0	11°56.5	12°05.0	12°13.5	12°21.8	12°30.1	12°38.3	+8.5	59.2	
	248°20.2	262°46.7	277°13.1	291°39.5	306°05.8	320°32.2	334°58.5	349°24.7	3°50.9	18°17.1	32°43.2	+26.3	16.2	
Ma 8	14°31.6	14°38.4	14°45.2	14°51.9	14°58.5	15°04.9	15°11.3	15°17.6	15°23.8	15°29.9	15°35.9	+6.4	59.3	
	262°46.7	277°13.1	291°39.5	306°05.8	320°32.2	334°58.5	349°24.7	3°50.9	18°17.1	32°43.2	47°09.3	+26.3	16.2	
Me 9	14°38.4	14°45.2	14°51.9	14°58.5	15°04.9	15°11.3	15°17.6	15°23.8	15°29.9	15°35.9	15°41.8	+6.3	59.3	
	263°36.8	278°02.3	292°27.9	306°53.5	321°19.0	335°44.5	350°09.9	4°35.4	19°00.8	33°26.2	47°51.6	+25.5	16.2	
Je 10	16°58.0	17°02.2	17°06.3	17°10.3	17°14.2	17°17.9	17°21.6	17°25.1	17°28.6	17°31.9	17°35.1	+3.7	59.2	
	264°10.8	278°36.1	293°01.3	307°26.5	321°51.7	336°16.9	350°42.1	5°07.4	19°32.6	33°57.8	48°23.0	+25.2	16.1	
Ve 11	18°09.0	18°10.4	18°11.6	18°12.6	18°13.6	18°14.4	18°15.1	18°15.5	18°16.2	18°16.6	18°16.8	+0.8	59.1	
	264°43.1	279°08.6	293°34.2	307°59.7	322°25.3	336°50.9	351°16.5	5°42.2	20°07.8	34°33.6	48°59.3	+25.6	16.0	
Sa 12	18°06.0	18°04.4	18°02.6	18°00.7	17°58.7	17°56.6	17°54.3	17°52.0	17°49.9	17°46.9	17°44.2	-2.2	58.8	
	265°30.3	279°56.7	294°23.1	308°49.6	323°16.2	337°42.8	352°09.4	6°36.1	21°02.9	35°29.7	49°56.6	+26.6	15.9	
Di 13	16°50.7	16°46.3	16°41.7	16°37.1	16°32.4	16°27.6	16°22.7	16°17.7	16°12.6	16°07.3	16°02.0	-4.9	58.4	
	266°46.2	281°14.0	295°41.8	310°09.7	324°37.6	339°05.6	353°33.7	8°01.9	22°30.1	36°58.3	51°26.6	+28.0	15.8	
Lu 14	14°31.7	14°25.0	14°18.2	14°11.4	14°04.4	13°57.4	13°50.4	13°43.2	13°36.0	13°28.7	13°21.3	-7.0	59.7	
	268°38.9	283°08.2	297°37.5	312°07.0	326°36.5	341°06.0	355°35.6	10°05.3	24°35.0	39°04.8	53°34.7	+29.6	15.6	
Ma 15	11°22.8	11°14.5	11°06.0	10°57.6	10°49.0	10°40.5	10°31.8	10°23.2	10°14.4	10°05.7	9°56.9	-8.6	57.3	
	271°09.4	285°40.2	300°11.0	314°41.9	329°12.8	343°43.8	358°14.8	12°45.9	27°17.0	41°48.2	56°19.4	+31.0	15.4	
Me 16	7°39.9	7°30.5	7°21.1	7°11.6	7°02.1	6°52.6	6°43.1	6°33.5	6°24.0	6°14.4	6°04.7	-9.5	56.7	
	274°13.6	288°45.5	303°17.5	317°49.6	332°21.7	346°53.8	361°25.9	12°59.8	15°58.1	30°30.4	45°02.6	+32.1	15.3	
Je 17	3°38.5	3°28.6	3°18.8	3°08.9	2°59.1	2°49.2	2°39.4	2°29.5	2°19.6	2°09.8	1°59.9	-9.9	56.0	
	277°43.5	292°16.3	306°49.1	321°22.0	335°54.9	350°27.8	5°00.7	19°33.6	34°06.6	48°39.6	63°12.6	+32.9	15.1	
Ve 18	-0°27.6	-0°37.4	-0°47.2	-0°56.9	-1°06.6	-1°16.4	-1°26.1	-1°35.7	-1°45.4	-1°55.1	-2°04.7	-9.7	55.4	
	281°29.9	296°03.1	310°36.4	325°09.7	339°43.0	354°16.3	8°49.6	23°22.9	37°56.2	52°29.5	67°02.9	+33.3	15.0	
Sa 19	-4°26.8	-4°36.1	-4°45.3	-4°54.6	-5°03.7	-5°12.9	-5°22.1	-5°31.2	-5°40.2	-5°49.3	-5°58.3	-9.2	54.9	
	285°23.1	299°56.4	314°29.8	329°03.1	343°36.4	358°09.7	12°43.0	27°16.3	41°49.6	56°22.9	70°56.2	+33.3	14.9	
Di 20	-8°09.4	-8°17.8	-8°26.2	-8°34.6	-8°42.9	-8°51.2	-8°59.4	-9°07.6	-9°15.8	-9°23.9	-9°31.9	-8.3	54.5	
	289°14.1	303°47.1	318°20.2	332°53.2	347°26.3	362°32.3	1°59.3	16°32.3	31°05.2	45°38.2	60°11.1	+33.0	14.8	
Lu 21	-11°27.3	-11°34.6	-11°41.8	-11°49.0	-11°56.2	-12°03.3	-12°10.3	-12°17.3	-12°24.2	-12°31.1	-12°37.1	-7.1	54.2	
	292°55.0	307°27.5	322°00.0	336°32.5	351°05.0	5°37.4	20°09.8	34°42.2	49°14.5	63°46.9	78°19.1	+32.4	14.8	
Ma 22	-14°13.2	-14°19.1	-14°24.9	-14°30.7	-14°36.4	-14°42.0	-14°47.5	-14°53.0	-14°58.5	-15°03.8	-15°09.1	-5.6	54.4	
	296°19.9	310°51.8	325°23.5	339°55.3	354°27.0	8°58.7	23°30.3	38°01.9	52°33.9	67°05.1	81°36.6	+31.7	14.8	
Me 23	-16°20.4	-16°24.6	-16°28.7	-16°32.8	-16°36.8	-16°40.6	-16°44.5	-16°48.2	-16°51.9	-16°55.5	-16°59.0	-3.9	54.3	
	299°25.5	313°56.5	328°27.5	342°58.4	357°29.3	12°00.2	26°31.0	41°01.8	55°32.6	70°03.4	84°34.1	+30.9	14.9	
Je 24	-17°42.4	-17°44.7	-17°46.8	-17°48.9	-17°50.9	-17°52.8	-17°54.7	-17°56.4	-17°58.1	-17°59.7	-18°01.2	-1.9	54.6	
	302°11.2	316°41.4	331°11.7	345°41.8	0°12.0	14°42.1	29°12.2	43°42.3	58°12.4	72°42.4	87°12.4	+30.1	15.0	
Ve 25	-18°13.3	-18°13.4	-18°13.4	-18°13.3	-18°13.2	-18°12.9	-18°12.5	-18°12.1	-18°11.6	-18°11.0	-18°10.2	+0.3	55.1	
	304°39.5	319°09.1	333°38.8	348°08.3	2°37.9	17°07.5	31°37.0	46°06.5	60°36.0	75°05.5	89°35.0	+29.5	15.2	
Sa 26	-17°48.5	-17°46.3	-17°44.0	-17°41.6	-17°39.1	-17°36.6	-17°33.9	-17°31.1	-17°28.3	-17°25.4	-17°22.3	+2.6	55.8	
	306°55.1	321°24.3	335°53.6	350°22.8	4°52.0	19°21.2	33°50.4	48°19.5	62°48.7	77°17.9	91°47.0	+29.2	15.4	
Di 27	-16°25.6	-16°21.1	-16°16.5	-16°11.8	-16°07.1	-16°02.1	-15°57.1	-15°52.1	-15°46.9	-15°41.6	-15°36.3	+4.9	56.5	
	309°03.4	323°32.4	338°01.5	352°30.5	6°59.5	21°28.6	35°57.6	50°26.6	64°55.6	79°24.6	93°53.7	+29.0	15.6	
Lu 28	-14°05.6	-13°58.9	-13°52.0	-13°45.2	-13°38.2	-13°31.1	-13°24.0	-13°16.7	-13°09.2	-13°02.0	-12°54.6	+7.1	57.2	
	311°08.6	325°37.6	340°06.6	354°35.6	9°04.5	23°33.5	38°02.5	52°31.5	67°00.4	81°29.4	95°58.4	+29.0	15.8	
Ma 29	-10°53.5	-10°44.8	-10°36.1	-10°27.3	-10°18.5	-10°09.5	-10°00.5	-9°51.5	-9°42.4	-9°33.2	-9°24.0	+9.0	57.9	
	313°12.7	327°41.6	342°10.6	356°39.5	11°08.4	25°37.3	40°06.2	54°35.1	69°04.1	83°32.9	98°01.8	+28.9	16.0	
Me 30	-6°58.5	-6°48.4	-6°38.3	-6°28.1	-6°17.8	-6°07.5	-5°57.2	-5°46.8	-5°36.4	-5°25.9	-5°15.5	+10.3	58.6	
	315°14.4	329°43.2	344°11.9	358°40.7	13°09.4	27°38.2	42°06.9	56°35.6	71°04.3	85°33.0	100°01.6	+28.7	16.1	
Je 31	-2°34.2	-2°23.2	-2°12.2	-2°01.2	-1°50.2	-1°39.2	-1°28.1	-1°17.0	-1°06.0	-0°54.9	-0°43.8	+11.0	59.1	
	317°09.9	331°38.3	346°06.7	360°35.0	15°03.4	29°31.7	44°00.0	58°28.3	72°56.6	87°24.9	101°53.1	+28.3	16.2	
	2°03.2	2°14.3	2°25.4	2°36.5	2°47.5	2°58.6	3°09.6	3°20.7	3°31.7	3°42.7	3°53.6	+11.1	59.4	

SOLEIL

Septembre 2024

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Ve 1	269°58.9 8°13.9	284°59.1 8°13.0	299°59.3 8°12.1	314°59.5 8°11.2	329°59.7 8°10.3	344°59.9 8°09.4	0°00.1 8°08.5	15°00.3 8°07.6	30°00.5 8°06.7	45°00.5 8°05.8	60°00.9 8°04.9	75°01.1 8°04.0	+0.2 -0.9
Sa 2	270°03.7 7°52.1	285°03.9 7°51.2	300°04.1 7°50.3	315°04.3 7°49.4	330°04.5 7°48.5	345°04.7 7°47.6	0°04.9 7°46.7	15°05.1 7°45.7	30°05.3 7°44.8	45°05.5 7°43.9	60°05.7 7°43.0	75°05.9 7°42.1	+0.2 -0.9
Di 3	270°08.6 7°30.2	285°08.8 7°29.3	300°09.0 7°28.3	315°09.2 7°27.4	330°09.4 7°26.5	345°09.6 7°25.6	0°09.8 7°24.7	15°10.0 7°23.8	30°10.2 7°22.8	45°10.4 7°21.9	60°10.6 7°21.0	75°10.9 7°20.1	+0.2 -0.9
Lu 4	270°13.5 7°08.1	285°13.7 7°07.2	300°14.0 7°06.3	315°14.2 7°05.3	330°14.4 7°04.4	345°14.6 7°03.5	0°14.8 7°02.6	15°15.0 7°01.6	30°15.2 7°00.7	45°15.4 6°59.8	60°15.6 6°58.9	75°15.8 6°58.0	+0.2 -0.9
Ma 5	270°18.5 6°45.9	285°18.8 6°45.0	300°19.0 6°44.1	315°19.2 6°43.1	330°19.4 6°42.2	345°19.6 6°41.3	0°19.8 6°40.4	15°20.0 6°39.4	30°20.2 6°38.5	45°20.4 6°37.6	60°20.6 6°36.6	75°20.9 6°35.7	+0.2 -0.9
Me 6	270°23.6 6°23.6	285°23.8 6°22.7	300°24.0 6°21.8	315°24.2 6°20.8	330°24.4 6°19.9	345°24.7 6°19.0	0°24.9 6°18.0	15°25.1 6°17.1	30°25.3 6°16.2	45°25.5 6°15.2	60°25.7 6°14.3	75°25.9 6°13.4	+0.2 -0.9
Je 7	270°28.7 6°01.2	285°28.9 6°00.3	300°29.1 5°59.3	315°29.3 5°58.4	330°29.6 5°57.5	345°29.8 5°56.5	0°30.0 5°55.6	15°30.2 5°54.7	30°30.4 5°53.7	45°30.6 5°52.8	60°30.8 5°51.9	75°31.1 5°50.9	+0.2 -0.9
Ve 8	270°33.8 5°38.7	285°34.1 5°37.8	300°34.3 5°36.8	315°34.5 5°35.9	330°34.7 5°35.0	345°34.9 5°34.0	0°35.1 5°33.1	15°35.4 5°32.1	30°35.6 5°31.2	45°35.8 5°30.2	60°36.0 5°29.3	75°36.2 5°28.4	+0.2 -0.9
Sa 9	270°39.0 5°16.1	285°39.2 5°15.2	300°39.5 5°14.2	315°39.7 5°13.3	330°39.9 5°12.3	345°40.1 5°11.4	0°40.3 5°10.4	15°40.5 5°09.5	30°40.8 5°08.6	45°41.0 5°07.6	60°41.2 5°06.7	75°41.4 5°05.7	+0.2 -0.9
Di 10	270°44.2 4°53.4	285°44.5 4°52.5	300°44.7 4°51.5	315°44.9 4°50.6	330°45.1 4°49.6	345°45.3 4°48.7	0°45.6 4°47.7	15°45.8 4°46.8	30°46.0 4°45.8	45°46.2 4°44.9	60°46.4 4°43.9	75°46.6 4°43.0	+0.2 -0.9
Lu 11	270°49.5 4°30.6	285°49.7 4°29.7	300°49.9 4°28.7	315°50.1 4°27.8	330°50.3 4°26.8	345°50.6 4°25.9	0°50.8 4°24.9	15°51.0 4°24.0	30°51.2 4°23.0	45°51.2 4°22.1	60°51.2 4°21.1	75°51.9 4°20.2	+0.2 -1.0
Ma 12	270°54.8 4°07.8	285°55.0 4°06.8	300°55.2 4°05.9	315°55.4 4°04.9	330°55.6 4°04.0	345°55.9 4°03.0	0°56.1 4°02.1	15°56.3 4°01.1	30°56.5 4°00.2	45°56.8 3°59.2	60°57.0 3°58.2	75°57.2 3°57.3	+0.2 -1.0
Me 13	271°00.1 3°44.9	286°00.3 3°43.9	301°00.5 3°43.0	316°00.7 3°42.0	331°01.0 3°41.0	346°01.2 3°40.1	1°01.4 3°39.1	16°01.6 3°38.2	31°01.8 3°37.2	46°02.1 3°36.2	61°02.3 3°35.3	76°02.5 3°34.3	+0.2 -1.0
Je 14	271°05.4 3°21.9	286°05.6 3°20.9	301°05.8 3°20.0	316°06.1 3°19.0	331°06.3 3°18.0	346°06.5 3°17.1	1°06.7 3°16.1	16°06.9 3°15.2	31°07.2 3°14.2	46°07.4 3°13.2	61°07.6 3°12.3	76°07.8 3°11.3	+0.2 -1.0
Ve 15	271°10.7 2°58.8	286°10.9 2°57.9	301°11.2 2°56.9	316°11.4 2°55.9	331°11.6 2°55.0	346°11.8 2°54.0	1°12.1 2°53.0	16°12.3 2°52.1	31°12.5 2°51.1	46°12.7 2°50.2	61°12.9 2°49.2	76°13.2 2°48.2	+0.2 -1.0
Sa 16	271°16.1 2°35.7	286°16.3 2°34.7	301°16.5 2°33.8	316°16.7 2°32.8	331°17.0 2°31.9	346°17.2 2°30.9	1°17.4 2°29.9	16°17.6 2°29.0	31°17.8 2°28.0	46°18.1 2°27.0	61°18.3 2°26.1	76°18.5 2°25.1	+0.2 -1.0
Di 17	271°21.4 2°12.5	286°21.6 2°11.6	301°21.9 2°10.6	316°22.2 2°09.7	331°22.3 2°08.7	346°22.5 2°07.7	1°22.8 2°06.8	16°23.0 2°05.8	31°23.3 2°04.8	46°23.6 2°03.9	61°23.6 2°02.9	76°23.9 2°01.9	+0.2 -1.0
Lu 18	271°26.8 1°49.3	286°27.0 1°48.4	301°27.2 1°47.4	316°27.4 1°46.4	331°27.7 1°45.5	346°27.9 1°44.5	1°28.1 1°43.5	16°28.3 1°42.6	31°28.6 1°41.6	46°28.8 1°40.6	61°29.0 1°39.7	76°29.2 1°38.7	+0.2 -1.0
Ma 19	271°32.1 1°26.1	286°32.3 1°25.1	301°32.6 1°24.2	316°32.8 1°23.2	331°33.0 1°22.2	346°33.2 1°21.3	1°33.5 1°20.3	16°33.7 1°19.3	31°33.9 1°18.3	46°34.1 1°17.4	61°34.4 1°16.4	76°34.6 1°15.4	+0.2 -1.0
Me 20	271°37.5 1°02.8	286°37.7 1°01.9	301°37.9 1°00.9	316°38.1 0°59.9	331°38.4 0°58.9	346°38.6 0°58.0	1°38.8 0°57.0	16°39.0 0°56.0	31°39.2 0°55.1	46°39.5 0°54.1	61°39.7 0°53.1	76°39.9 0°52.2	+0.2 -1.0
Je 21	271°42.8 0°39.5	286°43.0 0°38.6	301°43.2 0°37.6	316°43.5 0°36.6	331°43.7 0°35.6	346°43.9 0°34.7	1°44.1 0°33.7	16°44.4 0°32.7	31°44.6 0°31.8	46°44.8 0°30.8	61°45.0 0°29.8	76°45.2 0°28.8	+0.2 -1.0
Ve 22	271°48.1 0°16.2	286°48.3 0°15.2	301°48.6 0°14.3	316°48.8 0°13.3	331°49.0 0°12.3	346°49.2 0°11.3	1°49.4 0°10.4	16°49.7 0°09.4	31°49.9 0°08.4	46°50.1 0°07.5	61°50.3 0°06.5	76°50.5 0°05.5	+0.2 -1.0
Sa 23	271°53.4 -0°07.1	286°53.6 -0°08.1	301°53.8 -0°09.1	316°54.1 -0°10.0	331°54.3 -0°11.0	346°54.5 -0°12.0	1°54.7 -0°13.0	16°54.9 -0°13.9	31°55.2 -0°14.6	46°55.4 -0°15.9	61°55.6 -0°16.9	76°55.8 -0°17.8	+0.2 -1.0
Di 24	271°58.7 -0°30.5	286°58.9 -0°31.5	301°59.1 -0°32.4	316°59.3 -0°33.4	331°59.6 -0°34.4	346°59.8 -0°35.3	2°00.0 -0°36.3	17°00.2 -0°37.3	32°00.4 -0°38.3	47°00.6 -0°39.2	62°00.9 -0°40.2	77°01.1 -0°41.2	+0.2 -1.0
Lu 25	272°03.9 -0°53.8	287°04.1 -0°54.8	302°04.3 -0°55.8	317°04.6 -0°56.7	332°04.8 -0°57.7	347°05.0 -0°58.7	2°05.2 -0°59.7	17°05.4 -1°00.6	32°05.6 -1°01.6	47°05.9 -1°02.6	62°06.1 -1°03.6	77°06.3 -1°04.5	+0.2 -1.0
Ma 26	272°09.1 -1°17.2	287°09.3 -1°18.2	302°09.5 -1°19.1	317°09.7 -1°20.1	332°10.0 -1°21.1	347°10.2 -1°22.0	2°10.4 -1°23.0	17°10.6 -1°24.0	32°10.8 -1°25.0	47°11.0 -1°25.9	62°11.3 -1°26.9	77°11.5 -1°27.9	+0.2 -1.0
Me 27	272°14.3 -1°40.5	287°14.5 -1°41.5	302°14.7 -1°42.5	317°14.9 -1°43.4	332°15.1 -1°44.4	347°15.3 -1°45.4	2°15.5 -1°46.4	17°15.7 -1°47.3	32°16.0 -1°48.3	47°16.2 -1°49.3	62°16.4 -1°50.2	77°16.6 -1°51.2	+0.2 -1.0
Je 28	272°19.4 -2°03.9	287°19.6 -2°04.8	302°19.8 -2°05.8	317°20.0 -2°06.8	332°20.2 -2°07.7	347°20.4 -2°08.7	2°20.6 -2°09.7	17°20.8 -2°10.7	32°21.0 -2°11.6	47°21.2 -2°12.6	62°21.5 -2°13.6	77°21.7 -2°14.5	+0.2 -1.0
Ve 29	272°24.4 -2°27.2	287°24.6 -2°28.1	302°24.8 -2°29.1	317°25.0 -2°30.1	332°25.2 -2°31.1	347°25.4 -2°32.0	2°25.6 -2°33.0	17°25.9 -2°34.0	32°26.1 -2°34.9	47°26.3 -2°35.9	62°26.5 -2°36.9	77°26.7 -2°37.8	+0.2 -1.0
Sa 30	272°29.4 -2°50.5	287°29.6 -2°51.4	302°29.8 -2°52.4	317°30.0 -2°53.4	332°30.2 -2°54.3	347°30.4 -2°55.3	2°30.6 -2°56.3	17°30.8 -2°57.2	32°31.0 -2°58.2	47°31.2 -2°59.2	62°31.4 -3°00.2	77°31.6 -3°01.1	+0.2 -1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Septembre 2034

J	17h	18h	19h	20h	21h	22h	23h	0h	1h	2h	3h	Δ°/h SP
Ve 1	233°06.1 5°31.3	246°34.1 5°42.0	261°02.1 5°52.7	275°30.0 6°03.3	289°58.0 6°13.9	304°25.8 6°24.5	318°53.7 6°35.0	333°21.6 6°45.5	347°49.4 6°56.0	2°17.1 7°06.4	16°44.9 7°16.8	+27.9 16.2 +10.6 59.5
Sa 2	239°37.8 9°46.4	248°05.1 9°55.9	262°32.4 10°05.4	276°59.6 10°14.8	291°26.8 10°24.1	305°54.0 10°33.4	320°21.1 10°42.6	334°48.2 10°51.7	349°15.3 11°00.8	3°42.3 11°09.8	18°09.4 11°18.7	+27.2 16.2 +9.2 59.6
Di 3	234°50.9 13°23.1	249°17.5 13°31.1	263°44.0 13°38.6	278°10.5 13°46.1	292°36.9 13°53.5	307°03.3 14°00.8	321°29.7 14°08.0	335°56.1 14°15.1	350°22.4 14°22.2	4°48.8 14°29.1	19°15.1 14°35.9	+26.4 16.2 +7.3 59.5
Lu 4	235°46.5 16°06.7	250°12.4 16°11.9	264°38.3 16°17.0	279°04.2 16°22.0	293°30.1 16°26.9	307°56.0 16°31.7	322°21.8 16°36.4	336°47.6 16°41.0	351°13.5 16°45.5	5°39.3 16°49.9	20°05.0 16°54.1	+25.9 16.1 +4.7 59.2
Ma 5	236°30.8 17°44.5	250°56.5 17°46.9	265°22.1 17°49.2	279°47.8 17°51.5	294°13.5 17°53.6	308°39.2 17°55.5	323°04.9 17°57.4	337°30.6 17°59.1	351°56.3 18°00.8	6°22.0 18°02.3	20°47.7 18°08.7	+25.7 16.1 +1.9 58.9
Me 6	237°14.8 18°10.7	251°40.7 18°10.3	266°06.7 18°09.7	280°32.7 18°09.0	294°58.7 18°08.2	309°24.7 18°07.3	323°50.8 18°06.3	338°16.9 18°05.2	352°43.0 18°03.9	7°09.1 18°02.5	21°35.3 18°01.1	+26.0 16.0 -1.0 58.5
Je 7	251°40.7 18°10.3	266°06.7 18°09.7	280°32.7 18°09.0	294°58.7 18°08.2	309°24.7 18°07.3	323°50.8 18°06.3	338°16.9 18°05.2	352°43.0 18°03.9	7°09.1 18°02.5	21°35.3 18°01.1	36°01.5 17°59.5	+26.1 16.0 -1.1 58.5
Ve 8	252°38.4 17°22.5	267°05.1 17°19.2	281°31.9 17°15.8	295°58.8 17°12.3	310°25.6 17°08.7	324°52.6 17°04.9	339°19.9 17°01.1	353°46.6 16°57.2	8°13.6 16°53.1	22°40.7 16°49.0	37°07.9 16°44.8	+26.9 15.8 -3.8 58.1
Sa 9	254°00.8 15°30.1	268°28.8 15°24.4	282°56.8 15°18.7	297°24.8 15°12.8	311°52.9 15°06.9	326°21.0 15°00.8	340°49.2 14°54.7	355°17.5 14°48.5	9°45.8 14°42.2	24°14.1 14°35.9	38°42.5 14°29.5	+28.2 15.7 -6.1 57.6
Di 10	255°55.2 14°44.1	270°24.5 12°36.6	284°53.8 12°28.9	299°23.2 12°21.3	313°52.8 12°13.5	328°22.1 12°05.7	342°51.7 11°57.8	357°21.3 11°49.9	11°50.9 11°33.8	26°20.6 11°33.8	40°50.4 11°25.7	+29.5 15.6 -7.8 57.1
Lu 11	258°23.0 9°18.1	272°53.6 9°09.3	287°24.2 9°00.3	301°54.9 8°51.4	316°25.7 8°42.4	330°56.4 8°33.4	345°27.3 8°24.3	359°58.3 8°15.2	11°49.9 8°06.1	29°00.0 7°56.9	43°31.0 7°47.7	+30.8 15.4 -9.0 56.6
Ma 12	261°21.4 5°26.4	275°53.1 5°16.8	290°24.9 5°07.2	304°56.6 4°57.6	319°28.9 4°47.9	334°00.3 4°38.3	348°32.2 4°28.6	3°04.1 4°18.9	17°36.1 4°09.2	32°08.1 3°59.4	46°40.1 3°49.7	+31.9 15.3 -9.7 56.0
Me 13	264°44.4 1°22.9	279°16.9 1°13.1	293°49.4 1°03.3	308°22.0 0°53.5	322°54.6 0°43.7	337°27.2 0°33.9	351°59.9 0°24.1	6°32.5 0°14.3	21°05.2 0°04.5	35°38.0 -0°05.2	50°17.0 -0°15.0	+32.6 15.1 -9.8 55.5
Je 14	268°24.1 -0°40.0	282°57.2 -2°49.9	297°30.2 -2°59.1	312°03.3 -3°08.6	326°36.3 -3°18.1	341°09.4 -3°27.5	355°42.5 -3°37.0	10°15.6 -3°46.4	24°48.7 -3°55.8	39°21.8 -4°05.1	53°55.0 -4°14.5	+33.1 15.0 -9.5 55.0
Ve 15	277°12.7 -6°31.3	286°45.9 -6°40.2	301°19.2 -6°49.0	315°52.4 -6°57.8	330°25.6 -7°06.6	344°58.8 -7°15.3	359°32.0 -7°24.0	14°05.2 -7°32.7	28°38.4 -7°41.3	43°11.7 -7°49.9	57°44.0 -7°58.4	+33.2 14.9 -8.7 54.6
Sa 16	276°02.4 -10°01.6	290°35.5 -10°09.4	305°08.6 -10°17.2	319°41.7 -10°25.0	334°14.8 -10°32.7	348°47.9 -10°40.4	3°20.9 -10°48.0	17°54.0 -10°55.5	32°27.0 -11°03.1	47°00.0 -11°10.5	61°33.1 -11°17.9	+33.1 14.8 -7.6 54.3
Di 17	279°46.5 -13°02.6	294°19.3 -13°09.2	308°52.0 -13°15.6	323°24.7 -13°22.0	337°57.4 -13°28.4	352°30.1 -13°34.7	7°02.8 -13°40.9	21°35.5 -13°47.1	36°08.1 -13°53.2	50°40.7 -13°59.9	65°13.3 -14°05.2	+32.7 14.8 -6.3 54.1
Lu 18	283°19.7 -15°27.3	297°51.9 -15°32.3	312°24.1 -15°37.1	326°56.3 -15°41.9	341°28.5 -15°46.7	356°00.6 -15°51.3	10°32.8 -15°55.9	25°04.9 -16°00.5	39°36.9 -16°09.4	54°09.0 -16°09.3	68°41.0 -16°13.6	+32.1 14.8 -4.6 54.1
Ma 19	286°38.4 -17°09.4	301°10.1 -17°12.5	315°41.6 -17°15.6	330°13.2 -17°18.5	344°44.8 -17°21.4	359°16.3 -17°24.2	13°47.8 -17°26.9	28°19.3 -17°29.6	42°50.7 -17°32.1	57°22.1 -17°34.6	71°53.5 -17°37.0	+31.5 14.8 -2.8 54.2
Me 20	289°41.3 -18°03.4	304°12.3 -18°04.5	318°43.3 -18°05.5	333°14.2 -18°06.4	347°45.1 -18°07.2	2°16.0 -18°08.0	16°46.9 -18°08.7	31°17.7 -18°09.2	45°48.6 -18°09.7	60°19.4 -18°10.2	74°50.4 -18°10.5	+30.9 14.9 -0.7 54.6
Je 21	292°28.9 -18°04.8	306°59.3 -18°03.8	321°29.7 -18°02.6	336°00.1 -18°01.3	350°30.5 -18°00.5	5°00.8 -17°58.5	19°31.1 -17°57.0	34°01.4 -17°55.4	48°31.6 -17°53.7	63°01.9 -17°51.9	77°32.1 -17°50.0	+30.3 15.0 +1.5 55.1
Ve 22	295°03.3 -17°10.9	309°33.3 -17°07.5	324°03.2 -17°04.1	338°33.1 -17°00.6	353°03.0 -16°57.0	7°32.8 -16°53.3	22°02.7 -16°49.5	36°32.5 -16°49.5	51°02.4 -16°41.7	65°32.2 -16°37.6	80°02.8 -16°33.5	+29.9 15.2 +3.7 55.5
Sa 23	297°27.2 -15°20.6	311°56.8 -15°15.0	326°26.3 -15°09.4	340°55.9 -15°03.6	355°25.4 -14°57.8	9°54.9 -14°51.9	24°24.5 -14°45.9	38°54.0 -14°39.8	53°23.4 -14°33.6	67°52.9 -14°27.4	82°22.4 -14°21.0	+29.5 15.4 +6.0 56.6
Di 24	299°42.9 -12°36.0	314°12.2 -12°28.4	328°04.4 -12°20.6	343°10.7 -12°12.8	357°39.9 -12°05.9	12°09.1 -11°57.0	26°38.3 -11°49.0	41°07.5 -11°40.9	55°36.7 -11°32.7	70°05.9 -11°24.4	84°35.9 -11°16.1	+29.2 15.7 +8.0 57.5
Lu 25	301°51.1 -9°02.8	316°20.0 -8°53.3	330°49.0 -8°43.9	345°17.9 -8°34.3	359°46.8 -8°24.8	14°15.7 -8°15.1	28°44.6 -8°05.3	43°13.5 -7°55.6	57°42.4 -7°45.7	72°11.2 -7°35.8	86°40.0 -7°25.9	+28.9 15.9 +9.7 58.4
Ma 26	303°50.5 -4°50.7	318°19.0 -4°40.0	332°47.5 -4°29.2	347°16.0 -4°18.4	1°44.5 -4°07.5	16°13.0 -3°56.8	30°41.5 -3°45.9	45°09.9 -3°34.9	59°38.3 -3°24.0	74°06.7 -3°13.0	88°35.0 -3°02.0	+28.5 16.1 +10.9 59.2
Me 27	305°37.6 -0°13.9	320°05.6 -0°02.6	334°33.6 0°08.7	349°01.5 0°20.1	3°29.4 0°31.5	17°57.2 0°42.8	32°25.1 0°54.2	46°52.2 1°05.6	61°20.6 1°16.9	75°48.4 1°28.3	90°16.1 1°39.7	+27.8 16.3 +11.4 59.9
Je 28	307°08.2 4°29.2	321°35.4 4°20.5	336°02.6 4°51.5	350°29.7 5°02.6	4°56.9 5°13.7	19°23.9 5°24.7	33°51.0 5°35.7	48°18.0 5°46.7	62°45.0 5°57.7	77°11.9 6°08.6	91°38.8 6°19.5	+27.1 16.4 +11.0 60.3
Ve 29	308°18.3 8°57.7	322°44.7 9°07.8	337°11.0 9°17.9	351°37.3 9°27.9	6°03.5 9°37.8	20°29.8 9°47.7	34°55.9 9°57.5	49°22.1 10°07.3	63°48.2 10°17.0	78°14.2 10°26.6	92°40.3 10°36.1	+26.2 16.5 +9.9 60.4
Sa 30	309°07.1 12°50.2	323°32.6 12°58.5	337°58.2 13°06.7	352°23.6 13°14.8	6°49.1 13°22.8	21°14.5 13°30.7	35°39.9 13°38.5	50°05.3 13°46.2	64°30.7 13°53.8	78°56.0 14°01.4	93°21.3 14°08.8	+25.4 16.4 +7.9 60.3

Ligne 1: GHA, Δ°/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ°/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 5 11h41 — NL: 12 16h13 — PQ: 20 18h39 — PL: 28 02h56

SOLEIL

Octobre 2034

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Di 1	257°34.1 -3°12.8	272°34.3 -3°13.7	287°34.5 -3°14.7	302°34.7 -3°15.7	317°34.9 -3°16.6	332°35.1 -3°17.6	347°35.3 -3°18.6	2°35.5 -3°19.5	17°35.7 -3°20.5	32°35.9 -3°21.5	47°36.1 -3°22.4	62°36.3 -3°23.4	+0.2 -1.0
Lu 2	257°38.9 -3°36.0	272°39.1 -3°37.0	287°39.3 -3°37.9	302°39.5 -3°38.9	317°39.7 -3°39.9	332°39.9 -3°40.8	347°40.1 -3°41.8	2°40.3 -3°42.8	17°40.5 -3°43.7	32°40.7 -3°44.7	47°40.9 -3°45.7	62°41.1 -3°46.6	+0.2 -1.0
Ma 3	257°43.9 -3°59.2	272°43.9 -4°00.1	287°44.1 -4°01.1	302°44.3 -4°02.1	317°44.4 -4°03.0	332°44.6 -4°04.0	347°44.8 -4°05.0	2°45.0 -4°05.9	17°45.2 -4°06.9	32°45.4 -4°07.9	47°45.6 -4°08.8	62°45.8 -4°09.8	+0.2 -1.0
Me 4	257°48.3 -4°22.3	272°48.5 -4°23.3	287°48.7 -4°24.3	302°48.9 -4°25.2	317°49.1 -4°26.2	332°49.3 -4°27.1	347°49.5 -4°28.1	2°49.7 -4°29.1	17°49.9 -4°30.0	32°50.1 -4°31.0	47°50.2 -4°32.0	62°50.4 -4°32.9	+0.2 -1.0
Je 5	257°52.9 -4°45.4	272°53.1 -4°46.4	287°53.3 -4°47.3	302°53.5 -4°48.3	317°53.7 -4°49.3	332°53.8 -4°50.2	347°54.0 -4°51.2	2°54.2 -4°52.1	17°54.4 -4°53.1	32°54.6 -4°54.1	47°54.8 -4°55.0	62°55.0 -4°56.0	+0.2 -1.0
Ve 6	257°57.4 -5°08.5	272°57.6 -5°09.4	287°57.7 -5°10.4	302°57.9 -5°11.3	317°58.1 -5°12.3	332°58.3 -5°13.3	347°58.5 -5°14.2	2°58.7 -5°15.2	17°58.9 -5°16.1	32°59.0 -5°17.1	47°59.2 -5°18.0	62°59.4 -5°19.0	+0.2 -1.0
Sa 7	258°01.8 -5°31.4	273°01.9 -5°32.4	288°02.1 -5°33.3	303°02.3 -5°34.3	318°02.5 -5°35.3	333°02.7 -5°36.2	348°02.8 -5°37.2	3°03.0 -5°38.1	18°03.2 -5°39.1	33°03.4 -5°40.0	48°03.5 -5°41.0	63°03.7 -5°41.9	+0.2 -1.0
Di 8	258°06.0 -5°54.3	273°06.2 -5°55.3	288°06.4 -5°56.2	303°06.6 -5°57.2	318°06.7 -5°58.2	333°06.9 -5°59.1	348°07.1 -6°00.1	3°07.2 -6°01.0	18°07.4 -6°02.0	33°07.6 -6°02.9	48°07.8 -6°03.9	63°07.9 -6°04.8	+0.2 -1.0
Lu 9	258°10.2 -6°17.2	273°10.4 -6°18.1	288°10.5 -6°19.1	303°10.7 -6°20.0	318°10.9 -6°21.0	333°11.0 -6°21.9	348°11.2 -6°22.9	3°11.4 -6°23.8	18°11.5 -6°24.8	33°11.7 -6°25.7	48°11.9 -6°26.7	63°12.1 -6°27.6	+0.2 -0.9
Ma 10	258°14.9 -6°39.9	273°14.4 -6°40.9	288°14.6 -6°41.8	303°14.7 -6°42.8	318°14.9 -6°43.7	333°15.1 -6°44.7	348°15.2 -6°45.6	3°15.4 -6°46.5	18°15.5 -6°47.5	33°15.7 -6°48.4	48°15.9 -6°49.4	63°16.0 -6°50.3	+0.2 -0.9
Me 11	258°18.8 -7°02.6	273°18.3 -7°03.5	288°18.5 -7°04.5	303°18.6 -7°05.4	318°18.8 -7°06.3	333°19.0 -7°07.3	348°19.1 -7°08.2	3°19.3 -7°09.2	18°19.4 -7°10.1	33°19.6 -7°11.1	48°19.8 -7°12.0	63°19.9 -7°12.9	+0.2 -0.9
Je 12	258°22.0 -7°25.5	273°22.1 -7°26.1	288°22.3 -7°27.0	303°22.4 -7°28.0	318°22.6 -7°28.9	333°22.7 -7°29.8	348°22.9 -7°30.8	3°23.0 -7°31.7	18°23.2 -7°32.6	33°23.3 -7°33.6	48°23.5 -7°34.5	63°23.7 -7°35.5	+0.2 -0.9
Ve 13	258°25.6 -7°47.6	273°25.8 -7°48.5	288°25.9 -7°49.5	303°26.1 -7°50.4	318°26.2 -7°51.3	333°26.4 -7°52.3	348°26.5 -7°53.2	3°26.7 -7°54.1	18°26.8 -7°55.1	33°27.0 -7°56.0	48°27.1 -7°56.9	63°27.3 -7°57.9	+0.3 -0.9
Sa 14	258°29.2 -8°10.0	273°29.3 -8°10.9	288°29.5 -8°11.8	303°29.6 -8°12.8	318°29.8 -8°13.7	333°29.9 -8°14.6	348°30.0 -8°15.5	3°30.2 -8°16.5	18°30.3 -8°17.4	33°30.5 -8°18.3	48°30.6 -8°19.2	63°30.8 -8°20.2	+0.3 -0.9
Di 15	258°32.7 -8°32.2	273°32.7 -8°33.1	288°32.9 -8°34.1	303°33.0 -8°35.0	318°33.1 -8°35.9	333°33.3 -8°36.8	348°33.4 -8°37.8	3°33.6 -8°38.7	18°33.7 -8°39.6	33°33.8 -8°40.5	48°34.0 -8°41.4	63°34.1 -8°42.4	+0.3 -0.9
Lu 16	258°35.9 -8°54.3	273°36.0 -8°55.3	288°36.1 -8°56.2	303°36.3 -8°57.1	318°36.4 -8°58.0	333°36.5 -8°58.9	348°36.7 -8°59.8	3°36.8 -9°00.8	18°36.9 -9°01.7	33°37.1 -9°02.6	48°37.2 -9°03.5	63°37.3 -9°04.4	+0.3 -0.9
Ma 17	258°39.9 -9°16.3	273°39.1 -9°17.2	288°39.3 -9°18.2	303°39.4 -9°19.1	318°39.5 -9°20.0	333°39.6 -9°20.9	348°39.8 -9°21.8	3°39.9 -9°22.7	18°40.0 -9°23.6	33°40.1 -9°24.5	48°40.3 -9°25.5	63°40.4 -9°26.4	+0.4 -0.9
Me 18	258°42.0 -9°38.2	273°42.1 -9°39.1	288°42.2 -9°40.0	303°42.4 -9°40.9	318°42.5 -9°41.8	333°42.6 -9°42.7	348°42.7 -9°43.6	3°42.8 -9°44.5	18°43.0 -9°45.4	33°43.1 -9°46.3	48°43.2 -9°47.3	63°43.3 -9°48.2	+0.3 -0.9
Je 19	258°44.8 -9°59.9	273°44.9 -10°00.8	288°45.1 -10°01.7	303°45.2 -10°02.6	318°45.3 -10°03.5	333°45.4 -10°04.4	348°45.5 -10°05.3	3°45.6 -10°06.2	18°45.7 -10°07.1	33°45.9 -10°08.0	48°45.9 -10°08.9	63°46.1 -10°09.8	+0.4 -0.9
Ve 20	258°47.5 -10°21.5	273°47.6 -10°22.4	288°47.7 -10°23.3	303°47.8 -10°24.2	318°48.0 -10°25.1	333°48.1 -10°26.0	348°48.2 -10°26.9	3°48.3 -10°27.7	18°48.4 -10°28.6	33°48.5 -10°29.5	48°48.6 -10°30.4	63°48.7 -10°31.3	+0.4 -0.9
Sa 21	258°50.0 -10°42.9	273°50.2 -10°43.8	288°50.3 -10°44.7	303°50.4 -10°45.6	318°50.5 -10°46.5	333°50.6 -10°47.3	348°50.7 -10°48.2	3°50.8 -10°49.1	18°50.9 -10°50.0	33°51.0 -10°50.9	48°51.1 -10°51.8	63°51.2 -10°52.7	+0.4 -0.9
Di 22	258°52.4 -11°04.2	273°52.5 -11°05.0	288°52.6 -11°05.9	303°52.7 -11°06.8	318°52.8 -11°07.7	333°52.9 -11°08.6	348°53.0 -11°09.5	3°53.1 -11°10.3	18°53.2 -11°11.2	33°53.3 -11°12.1	48°53.4 -11°13.0	63°53.5 -11°13.8	+0.4 -0.9
Lu 23	258°54.6 -11°25.3	273°54.7 -11°26.1	288°54.8 -11°27.0	303°54.9 -11°27.9	318°55.0 -11°28.8	333°55.1 -11°29.6	348°55.2 -11°30.5	3°55.2 -11°31.4	18°55.3 -11°32.2	33°55.4 -11°33.1	48°55.5 -11°34.0	63°55.6 -11°34.9	+0.4 -0.9
Ma 24	258°56.7 -11°46.2	273°56.7 -11°47.0	288°56.8 -11°47.9	303°56.9 -11°48.8	318°57.0 -11°49.6	333°57.1 -11°50.5	348°57.2 -11°51.4	3°57.2 -11°52.2	18°57.3 -11°53.1	33°57.4 -11°54.0	48°57.5 -11°54.8	63°57.5 -11°55.7	+0.4 -0.9
Me 25	258°58.9 -12°06.9	273°58.6 -12°07.8	288°58.7 -12°08.6	303°58.8 -12°09.5	318°58.8 -12°10.4	333°58.9 -12°11.2	348°58.9 -12°12.1	3°59.0 -12°12.9	18°59.1 -12°13.8	33°59.2 -12°14.6	48°59.3 -12°15.5	63°59.3 -12°16.4	+0.4 -0.9
Je 26	259°00.0 -12°27.5	274°00.3 -12°28.3	289°00.4 -12°29.2	304°00.4 -12°30.0	319°00.5 -12°30.9	334°00.6 -12°31.7	349°00.6 -12°32.6	4°00.7 -12°33.4	19°00.7 -12°34.3	34°00.8 -12°35.1	49°00.9 -12°36.0	64°00.9 -12°36.8	+0.4 -0.9
Ve 27	259°01.7 -12°47.8	274°01.8 -12°48.7	289°01.8 -12°49.5	304°01.9 -12°50.4	319°02.0 -12°51.2	334°02.0 -12°52.0	349°02.1 -12°52.9	4°02.1 -12°53.7	19°02.2 -12°54.6	34°02.3 -12°55.4	49°02.3 -12°56.3	64°02.4 -12°57.1	+0.4 -0.8
Sa 28	259°03.1 -13°08.0	274°03.1 -13°08.8	289°03.2 -13°09.7	304°03.2 -13°10.5	319°03.3 -13°11.3	334°03.3 -13°12.2	349°03.4 -13°13.0	4°03.4 -13°13.8	19°03.5 -13°14.7	34°03.5 -13°15.5	49°03.6 -13°16.3	64°03.6 -13°17.2	+0.0 -0.8
Di 29	259°04.2 -13°27.9	274°04.2 -13°28.8	289°04.3 -13°29.6	304°04.3 -13°30.4	319°04.4 -13°31.2	334°04.4 -13°32.1	349°04.4 -13°32.9	4°04.5 -13°33.7	19°04.5 -13°34.5	34°04.6 -13°35.4	49°04.6 -13°36.2	64°04.6 -13°37.0	+0.0 -0.8
Lu 30	259°05.5 -13°47.7	274°05.2 -13°48.5	289°05.2 -13°49.3	304°05.2 -13°50.1	319°05.3 -13°51.0	334°05.3 -13°51.8	349°05.3 -13°52.6	4°05.4 -13°53.4	19°05.4 -13°54.2	34°05.4 -13°55.0	49°05.5 -13°55.9	64°05.5 -13°56.7	+0.0 -0.8
Ma 31	259°05.9 -14°07.2	274°05.9 -14°08.0	289°05.9 -14°08.8	304°05.9 -14°09.6	319°06.0 -14°10.5	334°06.0 -14°11.3	349°06.0 -14°12.1	4°06.0 -14°12.9	19°06.1 -14°13.7	34°06.1 -14°14.5	49°06.1 -14°15.3	64°06.1 -14°16.1	+0.0 -0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.0'

LUNE

Octobre 2034

	J	18h	19h	20h	21h	22h	23h	0h	1h	2h	3h	4h	Δ'/h	SP
●	Di 1	237°33.2 15°17.5	251°58.2 15°23.8	266°23.2 15°30.0	280°48.4 15°36.1	295°13.4 15°42.1	309°38.4 15°48.0	324°03.4 15°53.7	338°28.4 15°59.4	352°53.4 16°04.9	7°18.4 16°10.3	21°43.3 16°15.6	+25.0 +5.8	16.4 60.1
	Lu 2	237°57.2 17°21.4	252°22.2 17°24.8	266°47.1 17°28.1	281°12.0 17°31.3	295°37.0 17°34.4	310°01.9 17°37.4	324°26.9 17°40.2	338°51.9 17°42.9	353°16.9 17°45.5	7°41.9 17°48.0	22°06.9 17°50.4	+25.0 +2.9	16.2 59.6
	Ma 3	238°24.4 18°11.3	252°49.8 18°11.3	267°15.2 18°12.0	281°40.6 18°12.2	296°06.0 18°12.2	310°31.5 18°12.2	324°57.0 18°12.1	339°22.6 18°11.4	353°48.2 18°11.4	8°13.8 18°10.9	22°39.5 18°10.3	+25.5 -0.1	16.1 59.0
○	Me 4	239°09.3 17°47.2	253°35.6 17°44.8	268°02.0 17°42.3	282°28.5 17°39.6	296°55.0 17°36.9	311°21.5 17°34.0	325°48.1 17°31.1	340°14.8 17°28.0	354°41.5 17°24.8	9°08.2 17°21.6	23°35.0 17°18.2	+26.6 -2.9	15.9 58.3
	Je 5	240°23.8 16°15.8	254°51.5 16°10.9	269°19.3 16°05.9	283°47.1 16°00.8	298°15.0 15°55.6	312°42.9 15°50.3	327°11.0 15°45.0	341°39.0 15°39.5	356°07.1 15°34.0	10°35.3 15°28.4	25°03.6 15°22.7	+28.0 -5.3	15.7 57.7
	Ve 6	254°51.5 16°10.9	269°19.3 16°05.9	283°47.1 16°00.8	298°15.0 15°55.6	312°42.9 15°50.3	327°11.0 15°45.0	341°39.0 15°39.5	356°07.1 15°34.0	356°07.1 15°34.0	10°35.3 15°28.4	25°03.6 15°22.7	+28.0 -5.3	15.7 57.7
●	Sa 7	256°43.7 13°41.1	271°12.9 13°34.1	285°42.2 13°27.1	300°11.6 13°19.9	314°41.1 13°12.8	329°10.6 13°05.5	343°40.1 12°58.2	358°09.7 12°50.9	12°39.4 12°43.5	27°09.1 12°36.0	41°38.9 12°28.4	+29.5 -7.3	15.6 57.0
	Di 8	259°12.3 6°46.7	273°43.0 6°37.4	288°13.7 6°28.1	302°44.5 6°18.8	317°15.3 6°10.9	331°46.1 6°00.0	346°17.0 5°50.6	0°48.0 5°41.2	15°19.0 5°31.7	29°50.0 5°22.3	44°21.2 5°12.8	+30.9 -9.4	15.4 55.9
	Lu 9	262°13.2 6°46.7	276°45.0 6°37.4	291°16.9 6°28.1	305°48.7 6°18.8	320°20.7 6°09.4	334°52.6 6°00.0	349°24.6 5°50.6	3°56.7 5°41.2	18°28.7 5°31.7	33°00.9 5°22.3	47°33.0 5°12.8	+32.0 -9.4	15.2 55.9
○	Ma 10	265°39.1 2°48.6	280°11.7 2°38.9	294°44.4 2°29.2	309°17.1 2°19.5	323°49.8 2°09.8	338°22.6 2°00.1	352°55.3 1°50.4	7°28.1 1°40.7	22°00.9 1°30.9	36°33.8 1°21.2	51°06.6 1°11.5	+32.8 -9.7	15.1 55.4
	Me 11	269°21.7 -1°13.9	283°54.8 -1°23.5	298°28.8 -1°33.2	313°01.2 -1°42.8	327°34.3 -1°52.4	342°07.5 -2°01.9	356°40.7 -2°11.5	11°13.9 -2°21.1	25°47.1 -2°30.6	40°20.3 -2°40.1	54°53.6 -2°49.6	+33.2 -9.6	15.0 55.0
	Je 12	273°12.7 -5°09.8	287°46.0 -5°18.9	302°19.4 -5°28.1	316°52.7 -5°37.2	331°26.0 -5°46.2	345°59.3 -5°55.3	0°32.6 -6°04.3	15°05.9 -6°13.3	29°39.2 -6°22.2	44°12.5 -6°31.1	58°45.8 -6°40.0	+33.3 -9.0	14.9 54.6
●	Ve 13	277°04.7 -8°49.0	291°37.9 -8°57.3	306°11.1 -9°05.6	320°44.3 -9°13.8	335°17.4 -9°21.9	349°50.6 -9°30.1	4°23.7 -9°38.1	18°56.9 -9°46.2	33°30.0 -9°54.2	48°03.1 -10°02.1	62°36.3 -10°10.0	+33.2 -8.1	14.8 54.3
	Sa 14	280°51.3 -12°02.6	295°24.2 -12°09.6	309°57.1 -12°16.7	324°29.9 -12°23.7	339°02.8 -12°30.6	353°35.6 -12°37.4	8°08.4 -12°44.3	22°41.2 -12°51.0	37°14.0 -12°57.7	51°46.7 -13°04.3	66°19.5 -13°10.9	+32.8 -6.8	14.7 54.4
	Di 15	284°28.3 -14°42.3	299°00.7 -14°47.9	313°33.1 -14°53.4	328°05.5 -14°58.9	342°37.9 -15°04.3	357°10.3 -15°09.6	11°42.6 -15°14.8	26°14.9 -15°20.0	40°47.2 -15°25.1	55°19.5 -15°30.2	69°51.7 -15°35.2	+32.3 -5.3	14.7 54.0
○	Lu 16	287°53.1 -16°41.4	302°25.0 -16°45.2	316°56.9 -16°49.0	331°28.8 -16°52.6	346°00.7 -16°56.3	0°32.6 -16°59.8	15°04.4 -17°03.2	29°36.2 -17°06.6	44°08.0 -17°09.9	58°39.7 -17°13.1	73°11.5 -17°16.3	+31.8 -3.5	14.7 54.0
	Ma 17	291°05.4 -17°54.0	305°36.8 -17°55.9	320°08.2 -17°57.7	334°39.6 -18°01.1	349°11.0 -18°02.6	3°42.4 -18°04.1	18°13.8 -18°05.5	32°45.1 -18°06.8	47°16.4 -18°06.8	61°47.7 -18°08.0	76°19.0 -18°09.1	+31.4 -1.5	14.8 54.1
	Me 18	294°06.3 -18°16.1	308°37.3 -18°15.8	323°08.3 -18°15.5	337°39.4 -18°15.1	352°10.4 -18°14.7	6°41.3 -18°14.7	21°12.3 -18°13.5	35°43.3 -18°12.7	50°14.2 -18°11.9	64°45.1 -18°11.0	79°16.0 -18°10.0	+31.0 +0.6	14.9 54.5
●	Je 19	296°58.1 -17°44.8	311°28.8 -17°42.4	325°59.6 -17°39.9	340°30.2 -17°37.4	355°00.9 -17°34.7	9°31.6 -17°32.0	24°02.3 -17°29.2	38°32.9 -17°26.3	53°03.6 -17°23.3	67°34.2 -17°20.3	82°04.8 -17°17.1	+30.7 +2.8	15.0 55.0
	Ve 20	299°43.0 -16°19.4	314°13.5 -16°14.9	328°43.9 -16°10.2	343°14.4 -16°05.5	357°44.8 -16°00.7	12°15.2 -15°55.9	14°52.9 -15°50.9	41°16.1 -15°45.9	55°46.5 -15°40.8	70°16.9 -15°35.5	84°47.3 -15°30.3	+30.4 +4.9	15.2 56.5
	Sa 21	302°21.9 -14°01.0	316°52.1 -13°54.4	331°22.4 -13°47.8	345°52.6 -13°41.0	360°22.8 -13°34.2	0°22.8 -13°27.3	14°52.9 -13°20.3	29°23.1 -13°13.2	43°53.3 -13°06.1	58°23.4 -12°58.9	72°53.6 -12°51.6	+30.2 +6.9	15.4 56.5
○	Di 22	304°54.0 -10°53.3	319°23.9 -10°44.8	333°53.8 -10°36.3	348°23.7 -10°27.7	363°53.5 -10°19.0	17°23.4 -10°10.3	31°53.2 -10°01.5	46°23.0 -9°52.6	60°52.8 -9°43.7	75°22.6 -9°34.7	89°52.3 -9°25.6	+29.8 +8.8	15.7 57.4
	Lu 23	307°16.0 -7°02.5	321°45.4 -6°52.5	336°14.8 -6°42.4	350°44.2 -6°32.3	365°13.5 -6°22.4	19°42.8 -6°11.9	34°12.1 -6°01.7	48°41.3 -5°51.4	63°10.5 -5°41.0	77°39.7 -5°30.6	92°08.8 -5°20.2	+29.3 +10.5	15.8 58.4
	Ma 24	309°22.5 -6°38.6	323°51.2 -6°27.8	338°19.8 -6°16.5	352°48.4 -6°05.4	367°16.9 -5°54.2	21°45.4 -5°43.1	36°13.9 -5°31.9	50°42.3 -5°20.7	65°10.7 -5°09.4	79°39.0 -5°08.2	94°07.3 -5°06.9	+28.5 +11.2	16.2 59.4
●	Me 25	311°06.7 2°03.9	325°34.3 2°15.3	340°01.9 2°26.7	354°29.4 2°38.2	8°56.9 2°49.6	23°24.3 3°01.0	37°51.7 3°12.4	52°19.0 3°23.8	66°46.2 3°35.2	81°13.5 3°46.6	95°40.6 3°58.0	+27.4 +11.6	16.4 60.2
	Je 26	312°22.1 6°46.1	326°48.4 6°57.1	341°17.4 7°08.0	355°41.0 7°18.9	10°07.2 7°29.8	24°33.3 7°40.6	38°59.4 7°51.4	53°25.4 8°02.1	67°51.4 8°12.8	82°17.3 8°23.4	96°43.2 8°34.0	+26.1 +10.8	16.6 60.9
	Ve 27	313°05.0 11°05.6	327°30.0 11°15.2	341°55.0 11°24.7	356°20.0 11°34.1	10°44.9 11°43.4	25°09.7 11°52.7	39°34.3 12°01.8	53°59.9 12°10.9	68°24.0 12°19.0	82°48.8 12°28.9	97°13.3 12°37.7	+24.8 +9.2	16.7 61.1
○	Sa 28	313°17.6 14°38.9	327°41.6 14°46.2	342°05.6 14°53.4	356°29.5 15°00.4	10°53.4 15°07.3	25°17.3 15°14.2	39°41.1 15°20.9	54°04.9 15°27.5	68°28.9 15°34.0	82°52.5 15°40.4	97°16.2 15°46.6	+23.9 +8.6	16.7 61.1
	Di 29	313°10.4 17°06.2	327°33.9 17°10.5	341°57.5 17°14.6	356°21.0 17°18.7	10°44.5 17°22.6	25°08.0 17°26.4	39°31.6 17°30.1	53°55.1 17°33.6	68°18.7 17°40.2	82°42.2 17°47.0	97°05.8 17°43.5	+23.5 +3.7	16.6 60.7
	Lu 30	327°33.9 17°10.5	341°57.5 17°14.6	356°21.0 17°18.7	10°44.5 17°22.6	25°08.0 17°26.4	39°31.6 17°30.1	53°55.1 17°33.6	68°18.7 17°40.2	82°42.2 17°47.0	97°05.8 17°43.5	111°29.4 17°46.5	+23.5 +3.6	16.5 60.7
●	Ma 31	327°25.1 18°16.2	341°49.0 18°17.1	356°12.9 18°17.9	10°36.9 18°18.6	25°01.0 18°19.2	39°25.0 18°19.6	53°49.1 18°19.9	68°13.3 18°20.0	82°37.4 18°20.1	97°01.7 18°20.0	111°25.9 18°19.8	+24.1 +0.4	16.4 60.0

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
DQ: 4 18h04 — NL: 12 07h32 — PQ: 20 12h03 — PL: 27 12h42

SOLEIL

Novembre 2034

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Me 1	259°06.4 -14°26.8	274°06.4 -14°27.3	289°06.4 -14°28.1	304°06.5 -14°28.9	319°06.5 -14°29.7	334°06.5 -14°30.5	349°06.5 -14°31.3	4°06.5 -14°32.1	15°06.5 -14°32.9	34°06.6 -14°33.7	45°06.6 -14°34.5	64°06.6 -14°35.3	+0.0 -0.8
Je 2	259°06.7 -14°45.7	274°06.8 -14°46.4	289°06.8 -14°47.2	304°06.8 -14°48.0	319°06.8 -14°48.7	334°06.8 -14°49.5	349°06.8 -14°50.3	4°06.8 -14°51.1	15°06.8 -14°51.9	34°06.8 -14°52.7	45°06.8 -14°53.5	64°06.8 -14°54.3	+0.0 -0.8
Ve 3	259°06.9 -15°04.9	274°06.9 -15°05.2	289°06.9 -15°06.0	304°06.9 -15°06.8	319°06.9 -15°07.5	334°06.9 -15°08.3	349°06.9 -15°09.1	4°06.9 -15°09.9	15°06.9 -15°10.7	34°06.9 -15°11.4	45°06.9 -15°12.2	64°06.9 -15°13.0	-0.0 -0.8
Sa 4	259°06.8 -15°23.0	274°06.8 -15°23.8	289°06.8 -15°24.6	304°06.8 -15°25.3	319°06.8 -15°26.1	334°06.8 -15°26.9	349°06.7 -15°27.6	4°06.7 -15°28.4	15°06.7 -15°29.2	34°06.7 -15°29.9	45°06.7 -15°30.7	64°06.7 -15°31.5	-0.0 -0.8
Di 5	259°06.5 -15°41.4	274°06.5 -15°42.1	289°06.5 -15°42.9	304°06.5 -15°43.6	319°06.4 -15°44.4	334°06.4 -15°45.1	349°06.4 -15°45.9	4°06.4 -15°46.7	15°06.4 -15°47.4	34°06.3 -15°48.2	45°06.3 -15°48.9	64°06.3 -15°49.7	-0.0 -0.8
Lu 6	259°06.0 -15°59.4	274°06.0 -16°00.2	289°06.0 -16°00.9	304°05.9 -16°01.7	319°05.9 -16°02.4	334°05.9 -16°03.2	349°05.8 -16°04.0	4°05.8 -16°04.7	15°05.8 -16°05.4	34°05.8 -16°06.2	45°05.7 -16°06.9	64°05.7 -16°07.6	-0.0 -0.7
Ma 7	259°05.3 -16°17.3	274°05.3 -16°18.0	289°05.2 -16°18.7	304°05.2 -16°19.5	319°05.1 -16°20.2	334°05.1 -16°20.9	349°05.1 -16°21.7	4°05.0 -16°22.4	15°05.0 -16°23.1	34°05.0 -16°23.9	45°04.9 -16°24.6	64°04.9 -16°25.3	-0.0 -0.7
Me 8	259°04.4 -16°35.2	274°04.3 -16°35.5	289°04.3 -16°36.2	304°04.2 -16°37.0	319°04.2 -16°37.7	334°04.1 -16°38.4	349°04.1 -16°39.1	4°04.1 -16°39.9	15°04.0 -16°40.6	34°04.0 -16°41.3	45°03.9 -16°42.0	64°03.9 -16°42.7	-0.0 -0.7
Je 9	259°03.2 -16°52.1	274°03.2 -16°52.8	289°03.1 -16°53.5	304°03.1 -16°54.2	319°03.0 -16°54.9	334°03.0 -16°55.6	349°02.9 -16°56.3	4°02.8 -16°57.0	15°02.8 -16°57.8	34°02.7 -16°58.5	45°02.7 -16°59.2	64°02.6 -16°59.9	-0.1 -0.7
Ve 10	259°01.9 -17°09.0	274°01.9 -17°09.7	289°01.7 -17°10.4	304°01.7 -17°11.1	319°01.6 -17°11.8	334°01.6 -17°12.5	349°01.5 -17°13.2	4°01.4 -17°13.9	15°01.4 -17°14.6	34°01.3 -17°15.3	45°01.2 -17°16.0	64°01.2 -17°16.7	-0.1 -0.7
Sa 11	259°00.3 -17°25.7	274°00.2 -17°26.4	289°00.2 -17°27.1	304°00.1 -17°27.8	319°00.0 -17°28.5	333°59.9 -17°29.2	348°59.9 -17°30.0	3°59.8 -17°30.5	15°59.7 -17°31.2	33°59.7 -17°31.9	45°59.6 -17°32.6	63°59.5 -17°33.3	-0.1 -0.7
Di 12	258°58.5 -17°42.1	273°58.4 -17°42.8	288°58.4 -17°43.5	303°58.3 -17°44.1	318°58.2 -17°44.8	333°58.1 -17°45.5	348°58.0 -17°46.2	3°58.0 -17°46.8	15°57.9 -17°47.5	33°57.8 -17°48.2	45°57.7 -17°48.9	63°57.6 -17°49.5	-0.1 -0.7
Lu 13	258°56.5 -17°58.2	273°56.4 -17°58.9	288°56.4 -17°59.5	303°56.2 -18°00.2	318°56.2 -18°00.8	333°56.1 -18°01.5	348°56.0 -18°02.2	3°55.9 -18°02.8	15°55.8 -18°03.5	33°55.7 -18°04.1	45°55.6 -18°04.8	63°55.6 -18°05.5	-0.1 -0.7
Ma 14	258°54.3 -18°14.0	273°54.2 -18°14.6	288°54.1 -18°15.3	303°54.0 -18°15.9	318°53.9 -18°16.6	333°53.8 -18°17.2	348°53.7 -18°17.9	3°53.7 -18°18.5	15°53.6 -18°19.2	33°53.5 -18°19.8	45°53.4 -18°20.4	63°53.3 -18°21.1	-0.1 -0.6
Me 15	258°51.9 -18°29.4	273°51.8 -18°30.1	288°51.7 -18°30.7	303°51.6 -18°31.3	318°51.5 -18°32.0	333°51.4 -18°32.6	348°51.3 -18°33.2	3°51.2 -18°33.9	15°51.1 -18°34.5	33°51.0 -18°35.1	45°50.9 -18°35.8	63°50.8 -18°36.4	-0.1 -0.6
Je 16	258°49.3 -18°44.5	273°49.2 -18°45.2	288°49.1 -18°45.8	303°49.0 -18°46.4	318°48.9 -18°47.0	333°48.7 -18°47.7	348°48.6 -18°48.3	3°48.5 -18°48.9	15°48.4 -18°49.5	33°48.3 -18°50.1	45°48.2 -18°50.7	63°48.0 -18°51.4	-0.1 -0.6
Ve 17	258°46.5 -18°59.3	273°46.4 -18°59.9	288°46.2 -19°00.6	303°46.1 -19°01.2	318°46.0 -19°01.8	333°45.9 -19°02.4	348°45.7 -19°03.0	3°45.6 -19°03.6	15°45.5 -19°04.2	33°45.4 -19°04.8	45°45.2 -19°05.4	63°45.1 -19°06.0	-0.1 -0.6
Sa 18	258°43.5 -19°13.8	273°43.3 -19°14.4	288°43.2 -19°15.0	303°43.1 -19°15.6	318°42.9 -19°16.2	333°42.8 -19°16.8	348°42.7 -19°17.3	3°42.5 -19°17.9	15°42.4 -19°18.5	33°42.3 -19°19.1	45°42.1 -19°19.7	63°42.0 -19°20.3	-0.1 -0.6
Di 19	258°40.2 -19°27.9	273°40.1 -19°28.5	288°39.9 -19°29.1	303°39.8 -19°29.6	318°39.7 -19°30.2	333°39.5 -19°30.8	348°39.4 -19°31.4	3°39.2 -19°31.9	15°39.1 -19°32.5	33°39.0 -19°33.1	45°38.8 -19°33.7	63°38.7 -19°34.2	-0.1 -0.6
Lu 20	258°36.8 -19°41.6	273°36.7 -19°42.2	288°36.5 -19°42.8	303°36.4 -19°43.3	318°36.2 -19°43.9	333°36.1 -19°44.5	348°35.9 -19°45.0	3°35.8 -19°45.6	15°35.6 -19°46.2	33°35.4 -19°46.7	45°35.3 -19°47.3	63°35.2 -19°47.8	-0.1 -0.6
Ma 21	258°33.2 -19°55.0	273°33.0 -19°55.6	288°32.9 -19°56.1	303°32.7 -19°56.7	318°32.5 -19°57.2	333°32.4 -19°57.8	348°32.2 -19°58.3	3°32.1 -19°58.9	15°31.9 -19°59.4	33°31.8 -20°00.0	45°31.6 -20°00.5	63°31.4 -20°01.1	-0.2 -0.5
Me 22	258°29.3 -20°08.1	273°29.2 -20°08.6	288°29.0 -20°09.1	303°28.9 -20°09.7	318°28.7 -20°10.2	333°28.5 -20°10.7	348°28.4 -20°11.3	3°28.2 -20°11.8	15°28.0 -20°12.3	33°27.9 -20°12.9	45°27.7 -20°13.4	63°27.5 -20°13.9	-0.2 -0.5
Je 23	258°25.3 -20°20.7	273°25.2 -20°21.3	288°25.0 -20°21.8	303°24.8 -20°22.3	318°24.6 -20°22.8	333°24.5 -20°23.3	348°24.3 -20°23.8	3°24.1 -20°24.4	15°23.9 -20°24.9	33°23.8 -20°25.4	45°23.6 -20°25.9	63°23.4 -20°26.4	-0.2 -0.5
Ve 24	258°21.1 -20°33.0	273°20.9 -20°33.5	288°20.8 -20°34.0	303°20.6 -20°34.5	318°20.4 -20°35.0	333°20.3 -20°35.5	348°20.0 -20°36.0	3°19.9 -20°36.5	15°23.7 -20°37.0	33°19.7 -20°37.5	45°23.3 -20°38.0	63°19.1 -20°38.5	-0.2 -0.5
Sa 25	258°16.7 -20°44.9	273°16.5 -20°45.4	288°16.3 -20°45.9	303°16.2 -20°46.4	318°16.0 -20°46.9	333°15.8 -20°47.4	348°15.6 -20°47.9	3°15.4 -20°48.3	15°15.2 -20°48.8	33°15.0 -20°49.3	45°14.8 -20°49.8	63°14.6 -20°50.3	-0.2 -0.5
Di 26	258°12.1 -20°56.5	273°11.9 -20°56.9	288°11.7 -20°57.4	303°11.5 -20°57.9	318°11.4 -20°58.3	333°11.2 -20°58.8	348°11.0 -20°59.3	3°10.8 -20°59.7	15°10.6 -21°00.2	33°10.4 -21°00.7	45°10.2 -21°01.1	63°10.0 -21°01.6	-0.2 -0.5
Lu 27	258°07.4 -21°07.6	273°07.2 -21°08.1	288°07.0 -21°08.5	303°06.8 -21°08.9	318°06.6 -21°09.4	333°06.3 -21°09.9	348°06.1 -21°10.3	3°05.9 -21°10.8	15°05.7 -21°11.2	33°05.3 -21°11.7	45°05.3 -21°12.1	63°05.1 -21°12.6	-0.2 -0.5
Ma 28	258°02.4 -21°18.3	273°02.2 -21°18.8	288°02.0 -21°19.2	303°01.8 -21°19.6	318°01.6 -21°20.1	333°01.4 -21°20.5	348°01.1 -21°20.9	3°00.9 -21°21.4	15°00.7 -21°21.8	33°00.5 -21°22.2	45°00.3 -21°22.7	63°00.1 -21°23.1	-0.2 -0.4
Me 29	257°57.3 -21°27.8	272°57.1 -21°28.3	287°56.8 -21°28.9	303°56.6 -21°29.3	317°56.4 -21°30.3	332°56.2 -21°30.8	347°56.0 -21°31.2	2°55.7 -21°31.6	15°55.5 -21°32.0	32°55.3 -21°32.4	47°55.1 -21°32.8	62°54.9 -21°33.2	-0.2 -0.4
Je 30	257°52.0 -21°38.6	272°51.7 -21°39.0	287°51.5 -21°39.4	303°51.3 -21°39.8	317°51.1 -21°40.2	332°50.8 -21°40.6	347°50.6 -21°41.0	2°50.4 -21°41.4	15°50.2 -21°41.8	32°49.9 -21°42.2	47°49.7 -21°42.6	62°49.5 -21°43.0	-0.2 -0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Novembre 2034

	J	19h	20h	21h	22h	23h	0h	1h	2h	3h	4h	5h	Δ'/h	SP
O	Me 1	227°17.5 17°05.6	241°43.8 17°01.5	256°10.1 16°50.7	270°36.6 16°52.9	285°03.1 16°48.5	299°29.7 16°43.9	313°56.3 16°39.3	328°23.1 16°34.6	342°49.9 16°29.8	357°16.8 16°24.8	11°43.7 16°19.8	+26.6 -4.6	16.0 58.6
	Je 2	228°37.0 14°54.2	243°05.2 14°47.8	257°33.4 14°41.4	272°01.7 14°34.8	286°30.1 14°28.2	300°58.6 14°21.6	315°27.1 14°14.8	329°55.7 14°08.0	344°24.4 14°01.1	358°53.2 13°54.2	13°22.0 13°47.2	+28.5 -6.7	15.7 57.7
	Ve 3	230°43.0 11°54.2	245°13.0 11°46.2	259°43.0 11°38.1	274°13.1 11°30.1	288°43.3 11°22.0	303°13.5 11°13.8	317°43.8 11°05.5	332°14.1 10°57.2	346°44.5 10°49.0	1°15.0 10°40.5	15°45.6 10°32.1	+30.3 -8.2	15.5 56.9
●	Sa 4	233°30.9 8°20.7	248°02.4 8°11.7	262°33.9 8°02.6	277°05.5 7°53.5	291°37.1 7°44.4	306°08.8 7°35.2	320°40.5 7°26.0	335°12.3 7°16.8	349°44.1 7°07.6	4°16.0 6°58.3	18°47.9 6°49.0	+31.7 -9.2	15.3 56.2
	Di 5	248°02.4 8°11.7	262°33.9 8°02.6	277°05.5 7°53.5	291°37.1 7°44.4	306°08.8 7°35.2	320°40.5 7°26.0	335°12.3 7°16.8	349°44.1 7°07.6	4°16.0 6°58.3	18°47.9 6°49.0	33°19.8 6°39.7	+31.8 -9.2	15.3 56.1
	Lu 6	251°24.5 4°17.6	265°57.1 4°08.0	280°29.8 3°58.4	295°02.5 3°48.8	309°35.2 3°39.2	324°07.9 3°29.6	338°40.7 3°19.9	353°13.5 3°10.3	7°46.4 3°00.6	22°19.3 2°50.9	36°52.2 2°41.2	+32.8 -9.6	15.1 55.5
●	Ma 7	255°08.9 0°15.9	269°42.2 0°06.2	284°15.5 -0°03.5	298°48.8 -0°13.1	313°22.2 -0°22.8	327°55.5 -0°32.5	342°28.9 -0°42.1	357°02.3 -0°51.7	11°35.7 -1°01.4	26°09.1 -1°11.0	40°42.5 -1°20.6	+33.4 -9.7	15.0 55.0
	Me 8	259°05.2 -3°43.1	273°38.7 -3°52.5	288°12.3 -4°01.8	302°45.8 -4°11.1	317°19.4 -4°20.4	331°53.0 -4°29.7	346°26.5 -4°39.0	1°00.1 -4°48.2	15°33.7 -4°57.4	30°07.2 -5°06.6	44°40.8 -5°15.8	+33.6 -9.3	14.9 54.6
	Je 9	263°03.8 -7°29.7	277°37.3 -7°38.4	292°10.8 -7°47.0	306°44.3 -7°55.6	321°17.7 -8°04.2	335°51.1 -8°12.8	350°24.6 -8°21.2	4°58.0 -8°29.7	19°31.4 -8°38.1	34°04.8 -8°46.8	48°38.2 -8°54.9	+33.4 -8.5	14.8 54.3
●	Ve 10	266°57.3 -10°54.9	281°30.4 -11°02.5	296°03.5 -11°10.1	310°36.6 -11°17.6	325°09.7 -11°25.1	339°42.8 -11°32.6	354°15.8 -11°40.0	8°48.9 -11°47.3	23°21.9 -11°54.6	37°54.9 -12°01.8	52°27.9 -12°09.0	+33.1 -7.4	14.7 54.0
	Sa 11	270°40.0 -13°50.0	285°12.6 -13°56.3	299°45.3 -14°02.8	314°17.8 -14°08.7	328°50.4 -14°14.7	343°23.0 -14°20.8	357°55.5 -14°26.7	12°28.0 -14°32.6	27°00.5 -14°38.2	41°32.9 -14°44.2	56°05.4 -14°49.9	+32.5 -6.0	14.7 53.9
	Di 12	274°09.3 -16°07.4	288°41.3 -16°12.0	303°13.4 -16°16.5	317°45.4 -16°21.0	332°17.5 -16°25.4	346°49.4 -16°29.7	1°21.4 -16°33.9	15°53.4 -16°38.1	30°25.3 -16°42.2	44°57.2 -16°46.2	59°29.1 -16°50.2	+32.0 -4.3	14.7 53.9
●	Lu 13	277°25.0 -17°40.2	291°56.6 -17°42.9	306°28.2 -17°45.5	320°59.7 -17°48.1	335°31.3 -17°50.5	350°02.8 -17°52.9	4°34.3 -17°55.2	19°05.7 -17°57.4	33°37.2 -17°59.6	48°08.6 -18°01.7	62°40.1 -18°03.6	+31.5 -2.3	14.7 53.9
	Ma 14	280°29.8 -18°23.4	295°01.0 -18°24.0	309°32.2 -18°24.6	324°03.4 -18°25.1	338°34.6 -18°25.8	353°05.8 -18°26.6	7°37.0 -18°26.1	22°08.1 -18°26.1	36°39.2 -18°26.2	51°10.4 -18°26.2	65°41.5 -18°26.0	+31.2 -0.3	14.8 54.1
	Me 15	283°27.5 -18°14.0	297°58.6 -18°12.5	312°29.6 -18°10.9	327°00.6 -18°09.2	341°31.6 -18°07.5	356°02.6 -18°05.7	10°33.6 -18°03.7	25°04.6 -18°01.7	39°35.6 -17°59.6	54°06.6 -17°57.1	68°37.6 -17°55.2	+31.0 -1.9	14.8 54.4
●	Je 16	286°22.3 -18°11.1	300°53.3 -17°07.5	315°24.3 -17°03.8	329°55.2 -17°00.0	344°26.2 -16°56.2	358°57.2 -16°52.2	13°28.2 -16°48.2	27°59.2 -16°44.1	42°30.1 -16°39.4	57°01.1 -16°35.6	71°32.1 -16°31.3	+31.0 -0.4	15.0 54.9
	Ve 17	289°16.8 -15°16.3	303°47.8 -15°10.6	318°18.8 -15°04.9	332°49.8 -14°59.1	347°20.8 -14°53.3	351°51.8 -14°47.3	16°22.8 -14°41.3	30°53.8 -14°35.2	45°24.7 -14°29.0	59°55.7 -14°22.8	74°26.7 -14°16.5	+31.0 -6.6	15.1 55.5
	Sa 18	292°11.2 -12°32.8	306°42.2 -12°25.3	321°13.1 -12°17.8	335°44.0 -12°10.2	350°15.0 -12°02.5	4°45.9 -11°54.7	19°16.8 -11°46.9	33°47.7 -11°39.0	48°18.6 -11°31.1	62°49.5 -11°23.0	77°20.4 -11°14.9	+30.9 -7.8	15.3 56.2
●	Di 19	295°02.4 -9°06.1	309°33.1 -8°57.0	324°03.8 -8°47.9	338°34.5 -8°38.7	353°05.1 -8°29.4	7°35.7 -8°20.1	22°06.4 -8°10.8	36°37.0 -8°01.4	51°07.6 -7°51.9	65°38.1 -7°42.4	80°08.7 -7°32.8	+30.6 -9.3	15.6 57.1
	Lu 20	297°44.1 -5°03.5	312°14.3 -4°53.2	326°44.4 -4°42.2	341°15.4 -4°32.4	355°44.6 -4°22.0	10°14.6 -4°11.5	24°44.6 -4°01.0	39°14.6 -3°50.5	53°44.5 -3°39.9	68°14.4 -3°29.3	82°44.3 -3°18.6	+30.0 -10.5	15.8 58.1
	Ma 21	300°07.7 -0°35.3	314°36.9 -0°24.3	329°06.1 -0°13.2	343°35.2 -0°02.1	358°04.3 0°09.1	12°33.3 0°20.2	27°02.3 0°31.4	41°31.2 0°42.6	56°00.1 0°53.7	70°29.0 1°04.9	84°57.7 1°16.1	+29.0 +11.2	16.1 59.1
●	Me 22	302°03.0 4°04.6	316°30.8 4°15.8	330°58.7 4°26.9	345°26.4 4°38.1	359°54.1 4°49.3	5°01.4 5°00.4	28°49.3 5°11.5	43°16.8 5°22.7	57°44.3 5°33.7	72°11.7 5°44.8	86°39.9 5°55.9	+27.6 +5.5	16.4 60.0
	Je 23	303°20.7 8°37.9	317°46.9 8°48.4	332°13.1 8°58.9	346°39.2 9°09.3	1°05.2 9°19.6	15°31.2 9°29.9	29°57.0 9°40.2	44°22.9 9°50.4	58°48.6 10°00.5	73°14.8 10°10.6	87°39.9 10°20.6	+25.9 +10.3	16.6 60.8
	Ve 24	303°55.6 15°54.8	318°20.1 12°51.5	332°44.6 13°00.2	347°09.0 13°08.9	1°33.3 13°17.5	15°57.5 13°26.0	30°21.7 13°34.4	44°45.9 13°42.7	59°09.9 13°50.9	73°33.9 13°59.1	87°57.9 14°07.1	+24.2 +5.6	16.7 61.3
●	Sa 25	303°50.6 15°54.8	318°13.7 16°01.1	332°36.8 16°07.3	346°59.8 16°13.3	1°22.9 16°19.3	15°45.8 16°25.1	30°08.7 16°30.7	44°31.6 16°36.3	58°54.5 16°41.7	73°17.3 16°47.0	87°40.1 16°52.2	+22.9 +5.7	16.8 61.4
	Di 26	303°19.5 17°54.2	317°42.1 17°57.2	332°04.6 18°00.1	346°27.1 18°02.9	0°49.6 18°05.6	15°12.2 18°08.1	29°34.7 18°10.4	43°57.2 18°12.7	58°19.8 18°14.8	72°42.3 18°16.7	87°04.9 18°18.5	+22.5 +2.4	16.7 61.2
	Lu 27	302°46.1 18°29.1	317°09.0 18°28.7	331°32.1 18°28.2	345°55.2 18°27.5	0°18.3 18°26.7	14°41.4 18°25.8	29°04.7 18°24.7	43°27.9 18°23.5	57°51.2 18°22.2	72°14.6 18°20.8	86°38.0 18°19.2	+23.2 -1.0	16.5 60.6
●	Ma 28	302°36.6 17°40.2	317°01.0 17°36.6	331°25.5 17°32.9	345°50.1 17°29.1	0°14.8 17°25.2	14°39.5 17°21.2	29°04.4 17°17.0	43°29.3 17°12.8	57°54.2 17°08.4	72°19.2 17°03.9	86°44.4 16°59.4	+24.8 -4.1	16.3 59.4
	Me 29	317°01.0 17°36.6	331°25.5 17°32.9	345°50.1 17°29.1	0°14.8 17°25.2	14°39.5 17°21.2	29°04.4 17°17.0	43°29.3 17°12.8	57°54.2 17°08.4	72°19.2 17°03.9	86°44.4 16°59.4	101°09.6 16°54.7	+24.9 -4.2	16.3 59.4
	Je 30	317°37.9 15°32.4	332°04.5 15°26.2	346°31.1 15°19.8	0°57.9 15°13.4	15°24.7 15°06.9	29°51.6 15°00.4	44°18.6 14°53.7	58°45.7 14°47.0	73°12.9 14°40.2	87°40.2 14°33.3	102°07.6 14°26.3	+27.0 -6.6	16.0 58.8

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 3 03h27 — NL: 11 01h16 — PQ: 19 04h01 — PL: 25 22h32

SOLEIL

Décembre 2034

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Ve 1	272°46.3 -21°48.5	287°46.0 -21°48.9	302°45.8 -21°49.2	317°45.6 -21°49.6	332°45.3 -21°50.0	347°45.1 -21°50.4	2°44.9 -21°50.8	17°44.6 -21°51.2	32°44.4 -21°51.5	47°44.2 -21°51.9	62°43.9 -21°52.3	77°43.7 -21°52.7	-0.2 -0.4
Sa 2	272°40.6 -21°57.6	287°40.4 -21°57.9	302°40.1 -21°58.3	317°39.9 -21°58.7	332°39.6 -21°59.1	347°39.4 -21°59.4	2°39.2 -21°59.8	17°38.9 -22°00.1	32°38.7 -22°00.5	47°38.4 -22°00.8	62°38.2 -22°01.2	77°38.0 -22°01.6	-0.2 -0.4
Di 3	272°34.8 -22°06.2	287°34.5 -22°06.6	302°34.3 -22°06.9	317°34.1 -22°07.3	332°33.8 -22°07.6	347°33.6 -22°08.0	2°33.3 -22°08.3	17°33.1 -22°08.7	32°32.8 -22°09.0	47°32.6 -22°09.3	62°32.3 -22°09.7	77°32.1 -22°10.0	-0.2 -0.3
Lu 4	272°28.8 -22°14.4	287°28.6 -22°14.8	302°28.3 -22°15.1	317°28.1 -22°15.4	332°27.8 -22°15.8	347°27.6 -22°16.1	2°27.3 -22°16.4	17°27.0 -22°16.8	32°26.8 -22°17.1	47°26.5 -22°17.4	62°26.3 -22°17.7	77°26.0 -22°18.1	-0.3 -0.3
Ma 5	272°22.7 -22°22.2	287°22.4 -22°22.6	302°22.2 -22°22.9	317°21.9 -22°23.2	332°21.7 -22°23.5	347°21.4 -22°23.8	2°21.1 -22°24.1	17°20.9 -22°24.4	32°20.6 -22°24.7	47°20.4 -22°25.1	62°20.1 -22°25.4	77°19.8 -22°25.7	-0.3 -0.4
Me 6	272°16.4 -22°29.5	287°16.2 -22°29.9	302°15.9 -22°30.2	317°15.6 -22°30.5	332°15.4 -22°30.8	347°15.1 -22°31.1	2°14.9 -22°31.4	17°14.6 -22°31.7	32°14.3 -22°32.0	47°14.1 -22°32.3	62°13.8 -22°32.5	77°13.5 -22°32.8	-0.3 -0.3
Je 7	272°10.0 -22°36.5	287°09.8 -22°36.8	302°09.5 -22°37.1	317°09.2 -22°37.4	332°09.0 -22°37.6	347°08.7 -22°37.9	2°08.4 -22°38.2	17°08.2 -22°38.5	32°07.9 -22°38.7	47°07.6 -22°39.0	62°07.3 -22°39.3	77°07.1 -22°39.6	-0.3 -0.3
Ve 8	272°03.5 -22°43.0	287°03.2 -22°43.3	302°03.0 -22°43.5	317°02.7 -22°43.8	332°02.4 -22°44.1	347°02.1 -22°44.3	2°01.9 -22°44.6	17°01.6 -22°44.8	32°01.3 -22°45.1	47°01.0 -22°45.3	62°00.8 -22°45.6	77°00.5 -22°45.8	-0.3 -0.3
Sa 9	271°56.9 -22°49.1	286°56.6 -22°49.3	301°56.3 -22°49.6	316°56.0 -22°49.8	331°55.8 -22°50.0	346°55.5 -22°50.3	1°55.2 -22°50.5	16°54.9 -22°50.7	31°54.6 -22°51.0	46°54.4 -22°51.2	61°54.1 -22°51.5	76°53.8 -22°51.7	-0.3 -0.2
Di 10	271°50.7 -22°54.7	286°49.8 -22°54.9	301°49.6 -22°55.1	316°49.3 -22°55.3	331°49.0 -22°55.5	346°48.7 -22°55.8	1°48.4 -22°56.0	16°48.1 -22°56.2	31°47.8 -22°56.4	46°47.6 -22°56.6	61°47.3 -22°56.9	76°47.0 -22°57.1	-0.3 -0.2
Lu 11	271°43.3 -22°59.8	286°43.0 -22°00.0	301°42.7 -22°00.2	316°42.4 -22°00.4	331°42.1 -22°00.6	346°41.8 -22°00.8	1°41.5 -22°01.0	16°41.2 -22°01.2	31°41.0 -22°01.4	46°40.7 -22°01.6	61°40.4 -22°01.8	76°40.1 -22°02.0	-0.3 -0.3
Ma 12	271°36.3 -23°04.5	286°36.0 -23°04.7	301°35.7 -23°04.9	316°35.4 -23°05.0	331°35.1 -23°05.2	346°34.8 -23°05.4	1°34.6 -23°05.6	16°34.3 -23°05.8	31°34.0 -23°05.9	46°33.7 -23°06.1	61°33.4 -23°06.3	76°33.1 -23°06.5	-0.3 -0.2
Me 13	271°29.3 -23°08.7	286°29.0 -23°08.9	301°28.7 -23°09.1	316°28.4 -23°09.2	331°28.1 -23°09.4	346°27.8 -23°09.5	1°27.5 -23°09.7	16°27.4 -23°09.9	31°26.9 -23°10.0	46°26.6 -23°10.2	61°26.3 -23°10.3	76°26.0 -23°10.5	-0.3 -0.2
Je 14	271°22.2 -23°12.9	286°21.8 -23°12.6	301°21.5 -23°12.8	316°21.2 -23°12.9	331°20.9 -23°13.1	346°20.6 -23°13.2	1°20.3 -23°13.4	16°20.0 -23°13.5	31°19.7 -23°13.6	46°19.4 -23°13.8	61°19.2 -23°13.9	76°18.9 -23°14.1	-0.3 -0.1
Ve 15	271°14.9 -23°15.8	286°14.6 -23°15.9	301°14.3 -23°16.1	316°14.0 -23°16.2	331°13.7 -23°16.3	346°13.4 -23°16.4	1°13.1 -23°16.6	16°12.8 -23°16.7	31°12.5 -23°16.8	46°12.2 -23°16.9	61°12.0 -23°17.0	76°11.6 -23°17.2	-0.3 -0.1
Sa 16	271°07.7 -23°18.6	286°07.4 -23°18.8	301°07.1 -23°18.9	316°06.8 -23°19.0	331°06.5 -23°19.1	346°06.2 -23°19.2	1°05.9 -23°19.3	16°05.6 -23°19.4	31°05.3 -23°19.5	46°05.0 -23°19.6	61°04.7 -23°19.7	76°04.4 -23°19.8	-0.3 -0.1
Di 17	271°00.4 -23°21.0	286°00.1 -23°21.1	300°59.8 -23°21.2	315°59.5 -23°21.3	330°59.2 -23°21.4	345°58.9 -23°21.5	0°58.6 -23°21.6	15°58.3 -23°21.6	30°57.9 -23°21.7	45°57.6 -23°21.8	60°57.3 -23°21.9	75°57.0 -23°22.0	-0.3 -0.1
Lu 18	270°53.0 -23°22.9	285°52.7 -23°23.0	300°52.4 -23°23.1	315°52.1 -23°23.1	330°51.8 -23°23.2	345°51.5 -23°23.3	0°51.2 -23°23.3	15°50.9 -23°23.4	30°50.6 -23°23.5	45°50.3 -23°23.5	60°50.0 -23°23.6	75°49.7 -23°23.7	-0.3 -0.1
Ma 19	270°45.7 -23°24.4	285°45.4 -23°24.4	300°45.1 -23°24.5	315°44.7 -23°24.5	330°44.4 -23°24.6	345°44.1 -23°24.7	0°43.8 -23°24.7	15°43.5 -23°24.7	30°43.2 -23°24.7	45°42.9 -23°24.8	60°42.6 -23°24.8	75°42.3 -23°24.9	-0.3 -0.0
Me 20	270°38.3 -23°25.3	285°38.0 -23°25.4	300°37.6 -23°25.4	315°37.3 -23°25.4	330°37.0 -23°25.5	345°36.7 -23°25.5	0°36.4 -23°25.5	15°36.1 -23°25.5	30°35.8 -23°25.6	45°35.5 -23°25.6	60°35.2 -23°25.6	75°34.9 -23°25.6	-0.3 -0.0
Je 21	270°30.8 -23°25.8	285°30.5 -23°25.9	300°30.2 -23°25.9	315°29.9 -23°25.9	330°29.6 -23°25.9	345°29.3 -23°25.9	0°29.0 -23°25.9	15°28.7 -23°25.9	30°28.4 -23°25.9	45°28.1 -23°25.9	60°27.7 -23°25.9	75°27.4 -23°25.9	-0.3 -0.0
Ve 22	270°23.4 -23°25.9	285°23.1 -23°25.9	300°22.8 -23°25.9	315°22.5 -23°25.8	330°22.2 -23°25.8	345°21.9 -23°25.8	0°21.5 -23°25.8	15°21.2 -23°25.8	30°20.9 -23°25.8	45°20.6 -23°25.8	60°20.3 -23°25.8	75°20.0 -23°25.7	-0.3 +0.0
Sa 23	270°16.0 -23°25.4	285°15.7 -23°25.4	300°15.4 -23°25.4	315°15.0 -23°25.3	330°14.7 -23°25.3	345°14.4 -23°25.3	0°14.1 -23°25.3	15°13.8 -23°25.2	30°13.5 -23°25.2	45°13.2 -23°25.2	60°12.9 -23°25.1	75°12.6 -23°25.1	-0.3 +0.0
Di 24	270°08.5 -23°24.5	285°08.2 -23°24.5	300°07.9 -23°24.4	315°07.6 -23°24.4	330°07.3 -23°24.3	345°07.0 -23°24.3	0°06.7 -23°24.2	15°06.4 -23°24.2	30°06.1 -23°24.1	45°05.8 -23°24.1	60°05.5 -23°24.0	75°05.1 -23°24.0	-0.3 +0.1
Lu 25	270°01.1 -23°23.1	285°00.8 -23°23.1	300°00.5 -23°23.0	315°00.2 -23°22.9	329°59.9 -23°22.9	344°59.6 -23°22.8	344°59.6 -23°22.7	14°59.0 -23°22.7	29°58.7 -23°22.6	44°58.4 -23°22.5	59°58.0 -23°22.4	74°57.7 -23°22.4	-0.3 +0.1
Ma 26	269°53.7 -23°21.3	284°53.4 -23°21.2	299°53.1 -23°21.1	314°52.8 -23°21.0	329°52.5 -23°20.9	344°52.2 -23°20.9	344°52.2 -23°20.9	14°51.6 -23°20.7	29°51.3 -23°20.6	44°51.0 -23°20.6	59°50.7 -23°20.5	74°50.4 -23°20.3	-0.3 +0.1
Me 27	269°46.4 -23°19.0	284°46.1 -23°18.9	299°45.8 -23°18.8	314°45.5 -23°18.7	329°45.1 -23°18.5	344°44.8 -23°18.4	344°44.8 -23°18.3	14°44.2 -23°18.2	29°43.9 -23°18.1	44°43.6 -23°18.0	59°43.3 -23°17.9	74°43.0 -23°17.8	-0.3 +0.1
Je 28	269°39.9 -23°16.2	284°38.7 -23°16.1	299°38.4 -23°15.9	314°38.1 -23°15.8	329°37.8 -23°15.7	344°37.5 -23°15.6	344°37.5 -23°15.6	14°36.9 -23°15.3	29°36.6 -23°15.2	44°36.3 -23°15.0	59°36.0 -23°14.9	74°35.7 -23°14.8	-0.3 +0.1
Ve 29	269°31.8 -23°12.9	284°31.5 -23°12.8	299°31.1 -23°12.6	314°30.8 -23°12.5	329°30.5 -23°12.4	344°30.2 -23°12.2	344°30.2 -23°12.1	14°29.6 -23°11.9	29°29.3 -23°11.8	44°29.0 -23°11.6	59°28.7 -23°11.4	74°28.4 -23°11.3	-0.3 +0.2
Sa 30	269°24.5 -23°09.2	284°24.2 -23°09.1	299°23.9 -23°08.9	314°23.6 -23°08.7	329°23.3 -23°08.6	344°23.0 -23°08.4	344°23.0 -23°08.2	14°22.4 -23°08.0	29°22.1 -23°07.9	44°21.8 -23°07.7	59°21.5 -23°07.5	74°21.2 -23°07.4	-0.3 +0.2
Di 31	269°17.3 -23°05.0	284°17.0 -23°04.9	299°16.7 -23°04.8	314°16.4 -23°04.5	329°16.1 -23°04.4	344°15.8 -23°04.1	344°15.8 -23°03.9	14°15.2 -23°03.7	29°14.9 -23°03.5	44°14.7 -23°03.4	59°14.4 -23°03.2	74°14.1 -23°03.0	-0.3 +0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Décembre 2034

	J	20h	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	Δ'/h SP
●	Ve 1	234°28.0 9°51.6	248°58.3 9°42.6	263°28.6 9°33.6	277°58.9 9°24.6	292°29.4 9°15.5	306°59.9 8°57.3	321°30.5 8°57.3	336°01.1 8°48.1	350°31.8 8°38.9	5°02.6 8°29.7	19°33.5 8°20.4	+30.5 15.6 -9.1 57.1
	Sa 2	237°23.8 5°58.4	251°55.6 5°48.7	266°27.5 5°39.1	280°59.4 5°29.4	295°31.4 5°19.7	310°03.4 5°10.0	324°35.5 5°00.3	339°07.6 4°50.6	353°39.8 4°40.9	8°12.0 4°31.1	22°44.3 4°21.4	+32.1 15.3 -9.7 56.2
	Di 3	240°53.5 1°54.4	255°26.5 1°44.6	269°59.4 1°34.8	284°32.4 1°24.9	299°05.4 1°15.1	313°38.5 1°05.3	328°11.6 0°55.5	342°44.7 0°45.7	357°17.8 0°35.9	11°51.0 0°26.1	26°24.2 0°16.4	+33.1 15.1 -9.8 55.4
●	Lu 4	255°26.5 1°44.6	269°59.4 1°34.8	284°32.4 1°24.9	299°05.4 1°15.1	313°38.5 1°05.3	328°11.6 0°55.5	342°44.7 0°45.7	357°17.8 0°35.9	11°51.0 0°26.1	26°24.2 0°16.4	40°57.4 0°06.6	+33.1 15.1 -9.8 55.4
	Ma 5	259°18.3 -2°18.7	273°51.9 -2°28.3	288°25.4 -2°37.9	302°59.0 -2°47.4	317°32.6 -2°57.0	332°06.2 -3°06.5	346°39.8 -3°15.9	1°13.4 -3°25.4	15°47.0 -3°34.9	30°20.6 -3°44.3	44°54.2 -3°53.7	+33.6 14.9 -9.5 54.8
	Me 6	263°19.3 -6°11.8	277°53.0 -6°20.8	292°26.6 -6°29.8	307°00.3 -6°38.7	321°34.0 -6°47.6	336°07.6 -6°56.5	350°41.3 -7°05.3	5°14.9 -7°14.1	16°48.6 -7°22.8	34°22.2 -7°31.6	48°55.8 -7°40.3	+33.7 14.8 -8.8 54.4
●	Je 7	267°19.0 -9°46.2	281°52.5 -9°54.3	296°25.9 -10°02.3	310°59.3 -10°10.3	325°32.7 -10°18.2	340°06.1 -10°26.1	354°39.4 -10°33.9	9°12.8 -10°41.8	23°46.1 -10°49.5	38°19.4 -10°57.2	52°52.7 -11°04.9	+33.4 14.7 -7.9 54.1
	Ve 8	271°09.5 -12°53.8	285°42.5 -13°00.6	300°15.4 -13°07.4	314°48.3 -13°14.1	329°21.1 -13°20.7	343°54.0 -13°27.4	358°26.8 -13°33.9	12°59.6 -13°40.4	27°32.4 -13°46.8	42°05.1 -13°53.2	56°37.8 -13°59.5	+32.8 14.7 -6.6 53.9
	Sa 9	274°45.6 -15°26.7	289°17.9 -15°32.0	303°50.1 -15°37.2	318°22.4 -15°42.4	332°54.6 -15°47.4	347°26.8 -15°57.4	1°59.9 -16°02.3	16°31.1 -16°07.1	31°03.3 -16°11.9	45°35.4 -16°16.4	60°07.4 -16°20.5	+32.2 14.7 -5.0 53.9
●	Di 10	278°05.4 -17°17.7	292°37.1 -17°21.2	307°08.7 -17°24.6	321°40.3 -17°27.9	336°11.9 -17°31.1	350°43.5 -17°34.3	5°15.0 -17°37.8	19°46.6 -17°40.4	34°18.1 -17°43.3	48°49.6 -17°48.9	63°21.0 -17°48.9	+31.6 14.7 -3.1 53.9
	Lu 11	281°10.7 -18°20.1	295°41.8 -18°22.0	310°13.0 -18°23.8	324°44.1 -18°24.6	339°15.2 -18°25.8	353°46.3 -18°26.9	8°17.4 -18°27.9	22°48.5 -18°28.9	37°19.6 -18°29.7	51°50.6 -18°30.5	66°21.7 -18°31.1	+31.1 14.7 -1.1 54.1
	Ma 12	284°06.0 -18°30.9	298°36.9 -18°30.2	313°07.8 -18°29.4	327°38.6 -18°28.5	342°09.5 -18°27.6	356°40.4 -18°26.5	11°11.2 -18°25.4	25°42.1 -18°24.1	40°13.0 -18°22.8	54°43.8 -18°21.4	69°14.7 -18°19.9	+30.9 14.8 +1.1 54.3
●	Me 13	286°57.4 -17°47.2	301°28.2 -17°44.3	315°59.1 -17°41.3	330°30.0 -17°38.3	345°00.8 -17°35.2	359°31.7 -17°31.9	14°02.6 -17°28.6	28°33.5 -17°25.3	43°04.4 -17°21.8	57°35.3 -17°18.3	72°06.2 -17°14.6	+30.9 14.9 +3.3 54.6
	Je 14	289°50.5 -16°10.3	304°21.5 -16°05.3	318°52.5 -16°00.3	333°23.5 -15°55.2	347°54.6 -15°50.1	362°25.6 -15°44.8	16°56.7 -15°39.9	31°27.7 -15°34.1	45°58.8 -15°28.4	60°29.9 -15°23.0	75°01.0 -15°17.4	+31.1 15.0 +5.3 55.0
	Ve 15	292°48.4 -13°44.0	307°19.6 -13°37.2	321°50.9 -13°30.3	336°22.1 -13°23.4	350°53.4 -13°16.4	5°24.6 -13°09.3	19°55.9 -13°02.1	34°27.2 -12°54.9	48°58.4 -12°47.6	63°29.7 -12°40.3	78°01.7 -12°32.9	+31.3 15.1 +7.1 55.5
●	Sa 16	295°50.9 -10°34.1	310°22.3 -10°25.7	324°54.6 -10°17.2	339°25.0 -10°08.7	353°56.3 -10°00.1	8°27.2 -9°51.5	22°59.0 -9°42.8	37°30.4 -9°34.1	52°01.7 -9°25.3	66°33.1 -9°16.5	81°04.4 -9°07.6	+31.3 15.3 +8.7 56.2
	Di 17	298°53.8 -6°48.2	313°25.0 -6°38.5	327°56.2 -6°28.8	342°27.4 -6°19.0	356°58.6 -6°09.3	11°29.8 -5°59.4	26°00.9 -5°49.6	40°32.1 -5°39.6	55°03.2 -5°29.7	69°34.3 -5°19.7	84°05.4 -5°09.7	+31.2 15.5 +9.8 56.9
	Lu 18	301°49.3 -2°35.4	316°20.0 -2°24.8	330°50.0 -2°14.3	345°21.3 -2°03.7	359°52.0 -1°53.1	14°22.6 -1°42.5	28°53.1 -1°31.9	43°23.7 -1°21.2	57°54.2 -1°10.5	72°24.7 -0°59.8	86°55.1 -0°49.1	+30.6 15.7 +10.6 57.7
●	Ma 19	304°26.9 1°53.1	318°56.7 2°04.0	333°26.6 2°14.9	347°56.1 2°25.8	362°27.5 2°36.7	16°55.3 2°47.6	31°24.8 2°58.5	45°54.3 3°09.3	60°23.7 3°20.2	74°53.0 3°31.1	89°22.4 3°41.9	+29.5 16.0 +10.9 58.6
	Me 20	306°35.1 6°23.5	321°03.4 6°34.1	335°31.7 6°44.7	350°00.0 6°55.2	4°28.1 7°05.8	18°56.2 8°16.3	33°24.2 7°26.8	47°52.2 7°37.2	62°20.1 7°47.6	76°47.9 7°58.0	91°15.6 8°08.3	+28.1 16.2 +10.5 59.5
	Je 21	308°03.2 10°38.3	322°29.8 10°47.8	336°56.3 10°57.4	351°22.7 11°06.8	5°49.1 11°16.3	20°15.3 11°25.6	34°41.5 11°34.9	49°07.7 11°44.1	63°33.7 11°53.2	77°59.7 12°02.3	92°25.6 12°11.3	+26.2 16.4 +9.3 60.2
●	Ve 22	308°45.1 14°17.0	323°09.8 14°24.7	337°34.4 14°32.3	351°59.0 14°39.8	6°23.5 14°47.7	20°47.9 14°54.5	35°12.3 15°01.7	49°36.6 15°08.8	63°00.8 15°15.8	78°25.0 15°22.7	92°49.1 15°29.5	+24.4 16.6 +7.3 60.8
	Sa 23	308°43.4 16°58.1	323°06.5 17°03.0	337°29.7 17°07.9	351°52.8 17°12.6	6°15.8 17°15.2	20°38.8 17°21.6	35°01.8 17°26.0	49°24.7 17°30.2	63°47.6 17°34.2	78°10.5 17°38.2	92°33.3 17°42.0	+23.0 16.7 +4.4 61.1
	Di 24	308°12.6 18°23.0	322°35.1 18°24.7	336°57.6 18°26.2	351°20.1 18°27.5	5°42.6 18°28.7	20°05.0 18°29.8	34°27.5 18°30.8	48°50.0 18°31.6	63°12.5 18°32.2	77°35.0 18°32.7	91°57.5 18°33.1	+22.5 16.7 +1.0 61.1
●	Lu 25	307°37.7 18°22.2	322°00.6 18°20.4	336°23.6 18°18.5	350°46.6 18°16.4	5°09.6 18°14.2	19°32.7 18°11.8	33°55.9 18°09.3	48°19.1 18°06.7	62°42.3 18°04.0	77°05.6 18°01.1	91°28.9 17°58.1	+23.1 16.6 -2.4 60.7
	Ma 26	307°26.4 16°58.3	321°50.8 16°53.4	336°15.2 16°48.3	350°39.7 16°43.2	5°04.3 16°37.9	19°29.0 16°32.5	33°53.7 16°27.1	48°18.6 16°21.5	62°43.5 16°15.8	77°08.5 16°10.0	91°33.5 16°04.1	+24.7 16.4 -5.4 60.1
	Me 27	307°59.6 14°24.5	322°26.0 14°17.1	336°52.6 14°09.7	351°19.2 14°02.2	5°45.9 18°54.6	20°12.6 18°54.6	34°39.9 18°54.6	49°06.5 18°54.6	63°33.5 18°54.6	78°00.6 18°54.6	92°27.8 18°54.6	+26.8 16.1 -7.7 59.2
●	Je 28	322°26.0 13°17.1	336°52.6 14°09.7	351°19.2 14°02.2	5°45.9 18°54.6	20°12.6 18°54.6	34°39.9 18°54.6	49°06.5 18°54.6	63°33.5 18°54.6	78°00.6 18°54.6	92°27.8 18°54.6	106°55.1 18°54.6	+26.9 16.1 -7.8 59.1
	Ve 29	323°55.2 10°51.0	338°23.8 10°42.0	352°52.6 10°33.0	7°21.4 10°23.9	21°50.4 10°14.8	36°19.4 10°05.6	50°48.5 9°56.4	65°17.7 9°47.1	79°46.9 9°37.8	94°16.2 9°28.5	108°45.6 9°19.1	+29.1 15.9 -9.2 58.1
	Sa 30	326°15.9 6°54.6	340°46.4 6°44.8	355°17.1 6°34.9	9°47.1 6°25.1	24°18.6 6°15.2	38°49.5 6°05.3	53°20.4 5°55.3	67°51.4 5°45.4	82°22.4 5°35.4	96°63.5 5°25.5	111°24.7 5°15.5	+30.9 15.6 -9.9 57.1
●	Di 31	329°19.0 2°44.8	343°51.0 2°34.8	358°23.1 2°24.7	12°55.3 2°14.6	27°27.4 2°04.6	41°59.7 1°54.5	56°31.9 1°44.4	71°04.2 1°34.4	85°36.6 1°24.3	100°09.0 1°14.3	114°41.4 1°04.3	+32.2 15.3 -10.1 56.2

Ligne 1: GHA, Δ' h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (— = Sud), Δ' h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
DQ: 2 16h46 — NL: 10 20h14 — PQ: 18 17h44 — PL: 25 08h54

SOLEIL

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J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Lu 1	269°10.2	284°09.9	299°09.6	314°09.3	329°09.0	344°08.7	359°08.4	14°08.1	26°07.9	44°07.6	56°07.3	74°07.0	-0.3
	-23°00.4	-23°00.2	-23°00.0	-22°59.8	-22°59.6	-22°59.4	-22°59.2	-22°59.0	-22°58.7	-22°58.5	-22°58.3	-22°58.1	+0.2
Ma 2	269°03.2	284°02.9	299°02.6	314°02.3	329°02.0	344°01.7	359°01.4	14°01.1	26°00.8	44°00.5	56°00.3	74°00.0	-0.3
	-22°55.3	-22°55.1	-22°54.8	-22°54.6	-22°54.4	-22°54.2	-22°54.0	-22°53.7	-22°53.5	-22°53.3	-22°53.0	-22°52.8	+0.2
Me 3	268°56.2	283°55.9	298°55.6	313°55.3	328°55.0	343°54.8	358°54.5	13°54.2	28°53.9	43°53.6	58°53.3	73°53.0	-0.3
	-22°49.7	-22°49.5	-22°49.2	-22°49.0	-22°48.8	-22°48.5	-22°48.3	-22°48.0	-22°47.8	-22°47.5	-22°47.3	-22°47.0	+0.2
Je 4	268°49.3	283°49.0	298°48.8	313°48.5	328°48.2	343°47.9	358°47.6	13°47.3	28°47.1	43°46.8	58°46.5	73°46.2	-0.3
	-22°43.7	-22°43.5	-22°43.2	-22°42.9	-22°42.7	-22°42.4	-22°42.1	-22°41.9	-22°41.6	-22°41.3	-22°41.1	-22°40.8	+0.3
Ve 5	268°42.5	283°42.3	298°42.0	313°41.7	328°41.4	343°41.1	358°40.9	13°40.6	28°40.3	43°40.0	58°39.7	73°39.5	-0.3
	-22°37.2	-22°37.0	-22°36.7	-22°36.4	-22°36.1	-22°35.8	-22°35.6	-22°35.3	-22°35.0	-22°34.7	-22°34.4	-22°34.1	+0.3
Sa 6	268°35.9	283°35.6	298°35.3	313°35.0	328°34.8	343°34.5	358°34.2	13°33.9	28°33.7	43°33.4	58°33.1	73°32.8	-0.3
	-22°30.3	-22°30.0	-22°29.7	-22°29.4	-22°29.1	-22°28.8	-22°28.5	-22°28.2	-22°27.9	-22°27.6	-22°27.3	-22°27.0	+0.3
Di 7	268°29.3	283°29.0	298°28.8	313°28.5	328°28.2	343°27.9	358°27.7	13°27.4	28°27.1	43°26.9	58°26.6	73°26.3	-0.3
	-22°23.0	-22°22.7	-22°22.3	-22°22.0	-22°21.7	-22°21.4	-22°21.1	-22°20.7	-22°20.4	-22°20.1	-22°19.8	-22°19.5	+0.3
Lu 8	268°22.9	283°22.6	298°22.3	313°22.1	328°21.8	343°21.5	358°21.3	13°21.0	28°20.7	43°20.5	58°20.2	73°19.9	-0.3
	-22°15.2	-22°14.8	-22°14.5	-22°14.2	-22°13.8	-22°13.5	-22°13.2	-22°12.8	-22°12.5	-22°12.1	-22°11.8	-22°11.5	+0.3
Ma 9	268°16.5	283°16.3	298°16.0	313°15.8	328°15.5	343°15.2	358°15.0	13°14.7	28°14.5	43°14.2	58°13.9	73°13.7	-0.3
	-22°06.9	-22°06.6	-22°06.2	-22°05.9	-22°05.5	-22°05.2	-22°04.8	-22°04.5	-22°04.1	-22°03.7	-22°03.4	-22°03.0	+0.4
Me 10	268°10.3	283°10.1	298°09.8	313°09.6	328°09.3	343°09.1	358°08.8	13°08.6	28°08.3	43°08.1	58°07.8	73°07.6	-0.3
	-21°58.3	-21°57.9	-21°57.5	-21°57.2	-21°56.8	-21°56.4	-21°56.0	-21°55.7	-21°55.3	-21°54.9	-21°54.5	-21°54.2	+0.4
Je 11	268°04.3	283°04.1	298°03.8	313°03.6	328°03.3	343°03.1	358°02.8	13°02.6	28°02.3	43°02.1	58°01.8	73°01.6	-0.2
	-21°49.2	-21°48.8	-21°48.4	-21°48.0	-21°47.6	-21°47.2	-21°46.8	-21°46.4	-21°46.0	-21°45.7	-21°45.3	-21°44.9	+0.4
Ve 12	267°58.4	282°58.2	297°57.9	312°57.7	327°57.4	342°57.2	357°57.0	12°56.7	27°56.5	42°56.2	57°56.0	72°55.8	-0.2
	-21°39.2	-21°39.2	-21°38.8	-21°38.4	-21°38.0	-21°37.6	-21°37.2	-21°36.8	-21°36.4	-21°36.0	-21°35.6	-21°35.1	+0.4
Sa 13	267°52.7	282°52.4	297°52.2	312°52.0	327°51.7	342°51.5	357°51.2	12°51.0	27°50.8	42°50.5	57°50.3	72°50.1	-0.2
	-21°29.7	-21°29.3	-21°28.9	-21°28.4	-21°28.0	-21°27.6	-21°27.2	-21°26.7	-21°26.3	-21°25.9	-21°25.4	-21°25.0	+0.4
Di 14	267°47.1	282°46.8	297°46.6	312°46.4	327°46.2	342°45.9	357°45.7	12°45.5	27°45.2	42°45.0	57°44.8	72°44.6	-0.2
	-21°19.4	-21°18.9	-21°18.5	-21°18.0	-21°17.6	-21°17.1	-21°16.7	-21°16.3	-21°15.8	-21°15.4	-21°14.9	-21°14.5	+0.4
Lu 15	267°41.7	282°41.4	297°41.2	312°41.0	327°40.8	342°40.5	357°40.3	12°40.1	27°39.9	42°39.7	57°39.4	72°39.2	-0.2
	-21°08.6	-21°08.1	-21°07.7	-21°07.2	-21°06.8	-21°06.3	-21°05.8	-21°05.4	-21°04.9	-21°04.4	-21°04.0	-21°03.5	+0.5
Ma 16	267°36.4	282°36.2	297°36.0	312°35.8	327°35.6	342°35.3	357°35.1	12°34.9	27°34.7	42°34.5	57°34.3	72°34.1	-0.2
	-20°57.4	-20°56.9	-20°56.5	-20°56.0	-20°55.5	-20°55.0	-20°54.6	-20°54.1	-20°53.6	-20°53.1	-20°52.6	-20°52.2	+0.5
Me 17	267°31.3	282°31.1	297°30.9	312°30.7	327°30.5	342°30.3	357°30.1	12°29.9	27°29.7	42°29.5	57°29.3	72°29.1	-0.2
	-20°45.8	-20°45.4	-20°44.9	-20°44.4	-20°43.9	-20°43.4	-20°42.9	-20°42.4	-20°41.9	-20°41.4	-20°40.9	-20°40.4	+0.5
Je 18	267°26.4	282°26.2	297°26.0	312°25.8	327°25.7	342°25.5	357°25.3	12°25.1	27°24.9	42°24.7	57°24.5	72°24.3	-0.2
	-20°33.9	-20°33.4	-20°32.9	-20°32.4	-20°31.8	-20°31.3	-20°30.8	-20°30.3	-20°29.8	-20°29.3	-20°28.8	-20°28.3	+0.5
Ve 19	267°21.7	282°21.6	297°21.4	312°21.2	327°21.0	342°20.8	357°20.6	12°20.4	27°20.2	42°20.0	57°19.8	72°19.6	-0.2
	-20°21.5	-20°21.0	-20°20.5	-20°20.0	-20°19.4	-20°18.9	-20°18.4	-20°17.8	-20°17.3	-20°16.8	-20°16.3	-20°15.7	+0.5
Sa 20	267°17.2	282°17.0	297°16.9	312°16.7	327°16.5	342°16.3	357°16.1	12°15.9	27°15.8	42°15.6	57°15.4	72°15.2	-0.2
	-20°08.8	-20°08.2	-20°07.7	-20°07.2	-20°06.6	-20°06.1	-20°05.5	-20°05.0	-20°04.5	-20°03.9	-20°03.4	-20°02.8	+0.5
Di 21	267°12.9	282°12.7	297°12.5	312°12.4	327°12.2	342°12.0	357°11.8	12°11.7	27°11.5	42°11.3	57°11.2	72°11.0	-0.2
	-19°55.7	-19°55.1	-19°54.6	-19°54.0	-19°53.4	-19°52.9	-19°52.3	-19°51.8	-19°51.2	-19°50.7	-19°50.1	-19°49.5	+0.6
Lu 22	267°08.8	282°08.6	297°08.4	312°08.3	327°08.1	342°07.9	357°07.8	12°07.6	27°07.4	42°07.3	57°07.1	72°06.9	-0.2
	-19°42.2	-19°41.6	-19°41.1	-19°40.5	-19°39.9	-19°39.3	-19°38.8	-19°38.2	-19°37.6	-19°37.0	-19°36.5	-19°35.9	+0.6
Ma 23	267°04.8	282°04.7	297°04.5	312°04.3	327°04.2	342°04.0	357°03.9	12°03.7	27°03.5	42°03.4	57°03.2	72°03.1	-0.2
	-19°28.3	-19°27.7	-19°27.2	-19°26.6	-19°26.0	-19°25.4	-19°24.8	-19°24.2	-19°23.6	-19°23.0	-19°22.5	-19°21.9	+0.6
Me 24	267°01.1	282°00.9	297°00.8	312°00.6	327°00.5	342°00.3	357°00.2	12°00.0	26°59.9	41°59.7	56°59.6	71°59.4	-0.2
	-19°14.1	-19°13.5	-19°12.9	-19°12.3	-19°11.7	-19°11.1	-19°10.5	-19°09.9	-19°09.3	-19°08.7	-19°08.1	-19°07.5	+0.6
Je 25	266°57.5	281°57.4	296°57.2	311°57.1	326°56.9	341°56.8	356°56.7	11°56.5	26°56.4	41°56.2	56°56.1	71°56.0	-0.1
	-18°59.6	-18°58.9	-18°58.3	-18°57.7	-18°57.1	-18°56.5	-18°55.9	-18°55.2	-18°54.6	-18°54.0	-18°53.4	-18°52.8	+0.6
Ve 26	266°54.2	281°54.0	296°53.9	311°53.8	326°53.6	341°53.5	356°53.4	11°53.2	26°53.1	41°53.0	56°52.8	71°52.7	-0.1
	-18°44.6	-18°44.0	-18°43.4	-18°42.7	-18°42.1	-18°41.5	-18°40.9	-18°40.2	-18°39.6	-18°39.0	-18°38.3	-18°37.7	+0.6
Sa 27	266°51.0	281°50.9	296°50.8	311°50.6	326°50.5	341°50.4	356°50.2	11°50.1	26°50.0	41°49.9	56°49.8	71°49.6	-0.1
	-18°29.4	-18°28.7	-18°28.1	-18°27.4	-18°26.8	-18°26.2	-18°25.5	-18°24.9	-18°24.2	-18°23.6	-18°22.9	-18°22.3	+0.6
Di 28	266°48.0	281°47.9	296°47.8	311°47.7	326°47.6	341°47.5	356°47.3	11°47.2	26°47.1	41°47.0	56°46.9	71°46.8	-0.1
	-18°13.8	-18°13.1	-18°12.5	-18°11.8	-18°11.2	-18°10.5	-18°09.8	-18°09.2	-18°08.5	-18°07.9	-18°07.2	-18°06.5	+0.7
Lu 29	266°45.3	281°45.2	296°45.1	311°45.0	326°44.8	341°44.7	356°44.6	11°44.5	26°44.4	41°44.3	56°44.2	71°44.1	-0.1
	-17°57.9	-17°57.2	-17°56.5	-17°55.9	-17°55.2	-17°54.5	-17°53.8	-17°53.2	-17°52.5	-17°51.8	-17°51.1	-17°50.5	+0.7
Ma 30	266°42.7	281°42.6	296°42.5	311°42.4	326°42.3	341°42.2	356°42.1	11°42.0	26°41.9	41°41.8	56°41.7	71°41.6	-0.1
	-17°41.6	-17°40.9	-17°40.3	-17°39.6	-17°38.9	-17°38.2	-17°37.5	-17°36.8	-17°36.1	-17°35.4	-17°34.8	-17°34.1	+0.7
Me 31	266°40.4	281°40.3	296°40.2	311°40.1	326°40.0	341°39.9	356°39.8	11°39.7	26°39.6	41°39.5	56°39.4	71°39.3	-0.1
	-17°25.1	-17°24.4	-17°23.7	-17°23.0	-17°22.3	-17°21.6	-17°20.9	-17°20.2	-17°19.5	-17°18.8	-17°18.1	-17°17.4	+0.7

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.3'

LUNE

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	J	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	Δ'/h SP
●	Lu 1	234 ⁰ 49.4 -4 ⁰ 18.9	249 ⁰ 22.8 -4 ⁰ 28.3	263 ⁰ 56.1 -4 ⁰ 37.7	278 ⁰ 29.5 -4 ⁰ 47.1	293 ⁰ 02.9 -4 ⁰ 56.5	307 ⁰ 36.3 -5 ⁰ 05.8	322 ⁰ 09.7 -5 ⁰ 15.1	336 ⁰ 43.1 -5 ⁰ 24.4	351 ⁰ 16.5 -5 ⁰ 33.6	5 ⁰ 49.9 -5 ⁰ 42.8	20 ⁰ 23.4 -5 ⁰ 52.0	33.4 15.0 -9.3 54.9
		238 ⁰ 45.3 -8 ⁰ 05.4	253 ⁰ 18.8 -8 ⁰ 14.0	267 ⁰ 52.3 -8 ⁰ 22.6	282 ⁰ 25.7 -8 ⁰ 31.1	296 ⁰ 59.2 -8 ⁰ 39.6	311 ⁰ 32.6 -8 ⁰ 48.0	326 ⁰ 06.0 -8 ⁰ 56.4	340 ⁰ 39.5 -9 ⁰ 04.8	355 ⁰ 12.9 -9 ⁰ 13.1	9 ⁰ 46.3 -9 ⁰ 29.6	24 ⁰ 19.7 -9 ⁰ 29.6	33.4 14.8 -8.4 54.4
●	Ma 2	253 ⁰ 18.8 -8 ⁰ 14.0	267 ⁰ 52.3 -8 ⁰ 22.6	282 ⁰ 25.7 -8 ⁰ 31.1	296 ⁰ 59.2 -8 ⁰ 39.6	311 ⁰ 32.6 -8 ⁰ 48.0	326 ⁰ 06.0 -8 ⁰ 56.4	340 ⁰ 39.5 -9 ⁰ 04.8	355 ⁰ 12.9 -9 ⁰ 13.1	9 ⁰ 46.3 -9 ⁰ 29.6	24 ⁰ 19.7 -9 ⁰ 29.6	33 ⁰ 51.3 -9 ⁰ 37.8	33.4 14.8 -8.4 54.4
		257 ⁰ 12.6 -11 ⁰ 35.0	271 ⁰ 45.8 -11 ⁰ 42.4	286 ⁰ 19.0 -11 ⁰ 49.8	300 ⁰ 52.1 -11 ⁰ 57.1	315 ⁰ 25.3 -12 ⁰ 04.4	329 ⁰ 58.4 -12 ⁰ 11.6	344 ⁰ 31.5 -12 ⁰ 18.8	359 ⁰ 04.5 -12 ⁰ 25.9	13 ⁰ 37.6 -12 ⁰ 32.9	28 ⁰ 10.6 -12 ⁰ 39.9	42 ⁰ 43.6 -12 ⁰ 46.8	33.1 14.8 -7.2 54.1
●	Je 4	260 ⁰ 56.1 -14 ⁰ 24.0	275 ⁰ 28.8 -14 ⁰ 30.0	290 ⁰ 01.4 -14 ⁰ 36.0	304 ⁰ 34.0 -14 ⁰ 41.8	319 ⁰ 06.6 -14 ⁰ 47.7	333 ⁰ 39.1 -14 ⁰ 53.4	348 ⁰ 11.6 -15 ⁰ 04.7	2 ⁰ 44.1 -15 ⁰ 10.2	17 ⁰ 16.6 -15 ⁰ 15.7	31 ⁰ 49.0 -15 ⁰ 21.1	46 ⁰ 21.4 -15 ⁰ 21.1	32.5 14.7 -5.7 54.0
		264 ⁰ 24.2 -16 ⁰ 34.2	278 ⁰ 56.2 -16 ⁰ 38.5	293 ⁰ 28.1 -16 ⁰ 42.7	308 ⁰ 00.0 -16 ⁰ 46.8	322 ⁰ 31.9 -16 ⁰ 50.9	337 ⁰ 03.8 -16 ⁰ 54.9	351 ⁰ 35.6 -17 ⁰ 02.7	6 ⁰ 07.4 -17 ⁰ 06.5	20 ⁰ 39.2 -17 ⁰ 10.2	35 ⁰ 10.9 -17 ⁰ 13.8	49 ⁰ 42.7 -17 ⁰ 13.8	31.8 14.7 -4.0 54.0
●	Di 7	267 ⁰ 35.3 -17 ⁰ 58.8	282 ⁰ 06.6 -18 ⁰ 01.2	296 ⁰ 37.9 -18 ⁰ 03.5	311 ⁰ 09.2 -18 ⁰ 05.7	325 ⁰ 40.4 -18 ⁰ 07.8	340 ⁰ 11.7 -18 ⁰ 09.8	354 ⁰ 42.8 -18 ⁰ 11.8	9 ⁰ 14.0 -18 ⁰ 13.6	23 ⁰ 45.2 -18 ⁰ 15.4	38 ⁰ 16.3 -18 ⁰ 17.1	52 ⁰ 47.4 -18 ⁰ 18.7	31.2 14.8 -2.0 54.1
		270 ⁰ 31.7 -18 ⁰ 32.6	285 ⁰ 02.5 -18 ⁰ 32.9	299 ⁰ 33.3 -18 ⁰ 33.0	314 ⁰ 04.1 -18 ⁰ 33.1	328 ⁰ 34.8 -18 ⁰ 33.0	343 ⁰ 05.6 -18 ⁰ 32.9	357 ⁰ 36.3 -18 ⁰ 32.7	12 ⁰ 07.1 -18 ⁰ 32.4	26 ⁰ 37.8 -18 ⁰ 32.1	41 ⁰ 08.5 -18 ⁰ 31.6	55 ⁰ 39.2 -18 ⁰ 31.0	30.7 14.8 +0.2 54.3
●	Lu 8	273 ⁰ 18.5 -18 ⁰ 12.1	287 ⁰ 49.0 -18 ⁰ 10.1	302 ⁰ 19.6 -18 ⁰ 08.1	316 ⁰ 50.2 -18 ⁰ 05.9	331 ⁰ 20.7 -18 ⁰ 03.7	345 ⁰ 51.3 -18 ⁰ 01.4	3 ⁰ 21.8 -17 ⁰ 58.9	14 ⁰ 52.4 -17 ⁰ 56.4	29 ⁰ 22.9 -17 ⁰ 53.9	43 ⁰ 53.5 -17 ⁰ 51.2	58 ⁰ 24.0 -17 ⁰ 51.2	30.6 14.9 +2.4 54.7
		276 ⁰ 02.3 -16 ⁰ 56.6	290 ⁰ 32.9 -16 ⁰ 52.4	305 ⁰ 03.5 -16 ⁰ 48.2	319 ⁰ 34.1 -16 ⁰ 43.9	334 ⁰ 04.7 -16 ⁰ 39.5	348 ⁰ 35.3 -16 ⁰ 35.1	3 ⁰ 05.9 -16 ⁰ 30.5	17 ⁰ 36.6 -16 ⁰ 25.5	32 ⁰ 07.2 -16 ⁰ 21.1	46 ⁰ 37.8 -16 ⁰ 16.3	61 ⁰ 08.5 -16 ⁰ 11.5	30.6 15.0 +4.5 55.0
●	Me 10	278 ⁰ 49.3 -14 ⁰ 48.6	293 ⁰ 20.1 -14 ⁰ 42.5	307 ⁰ 50.9 -14 ⁰ 36.3	322 ⁰ 21.7 -14 ⁰ 30.0	336 ⁰ 52.5 -14 ⁰ 23.6	351 ⁰ 23.4 -14 ⁰ 17.2	5 ⁰ 54.2 -14 ⁰ 10.7	20 ⁰ 25.1 -14 ⁰ 04.1	34 ⁰ 56.0 -13 ⁰ 57.5	49 ⁰ 26.9 -13 ⁰ 50.0	63 ⁰ 57.8 -13 ⁰ 43.9	30.9 15.1 +6.5 55.5
		281 ⁰ 42.6 -11 ⁰ 53.8	296 ⁰ 13.7 -11 ⁰ 45.9	310 ⁰ 44.8 -11 ⁰ 38.0	325 ⁰ 15.9 -11 ⁰ 30.0	339 ⁰ 47.0 -11 ⁰ 22.0	354 ⁰ 18.1 -11 ⁰ 13.9	8 ⁰ 49.2 -11 ⁰ 05.7	23 ⁰ 20.4 -10 ⁰ 57.5	37 ⁰ 51.5 -10 ⁰ 49.2	52 ⁰ 22.7 -10 ⁰ 40.9	66 ⁰ 53.8 -10 ⁰ 32.5	31.1 15.3 +8.1 55.9
●	Sa 13	284 ⁰ 42.0 -8 ⁰ 20.1	299 ⁰ 13.3 -8 ⁰ 10.9	313 ⁰ 44.5 -8 ⁰ 01.6	328 ⁰ 15.8 -7 ⁰ 52.3	342 ⁰ 47.0 -7 ⁰ 42.9	357 ⁰ 18.3 -7 ⁰ 33.5	11 ⁰ 49.6 -7 ⁰ 24.1	26 ⁰ 20.8 -7 ⁰ 14.6	40 ⁰ 52.1 -7 ⁰ 05.1	55 ⁰ 23.4 -6 ⁰ 55.5	69 ⁰ 54.6 -6 ⁰ 45.9	31.3 15.4 +9.6 56.5
		287 ⁰ 43.1 -4 ⁰ 17.3	302 ⁰ 14.3 -4 ⁰ 07.2	316 ⁰ 45.4 -3 ⁰ 57.0	331 ⁰ 16.6 -3 ⁰ 46.8	345 ⁰ 47.7 -3 ⁰ 36.6	360 ⁰ 18.9 -3 ⁰ 26.3	14 ⁰ 50.0 -3 ⁰ 16.0	29 ⁰ 21.1 -3 ⁰ 05.7	43 ⁰ 52.2 -2 ⁰ 55.3	58 ⁰ 23.3 -2 ⁰ 45.0	72 ⁰ 54.3 -2 ⁰ 34.6	31.1 15.6 +10.3 57.0
●	Lu 15	290 ⁰ 38.1 0 ⁰ 03.1	305 ⁰ 08.8 0 ⁰ 13.7	319 ⁰ 39.5 0 ⁰ 24.4	334 ⁰ 10.2 0 ⁰ 35.0	348 ⁰ 46.6 0 ⁰ 45.6	3 ⁰ 11.5 0 ⁰ 56.2	17 ⁰ 42.1 1 ⁰ 06.9	32 ⁰ 12.6 1 ⁰ 17.5	46 ⁰ 43.2 1 ⁰ 28.2	61 ⁰ 13.7 1 ⁰ 38.8	75 ⁰ 44.1 1 ⁰ 49.5	30.6 15.7 +10.6 57.7
		293 ⁰ 16.8 4 ⁰ 28.5	307 ⁰ 46.7 4 ⁰ 39.1	322 ⁰ 16.5 4 ⁰ 49.6	336 ⁰ 46.3 5 ⁰ 00.1	351 ⁰ 16.0 5 ⁰ 10.5	5 ⁰ 45.7 5 ⁰ 21.0	20 ⁰ 15.3 5 ⁰ 31.4	34 ⁰ 44.9 5 ⁰ 41.8	49 ⁰ 14.4 5 ⁰ 52.2	63 ⁰ 43.9 6 ⁰ 02.6	78 ⁰ 13.3 6 ⁰ 12.9	29.7 15.9 +10.4 58.3
●	Me 17	295 ⁰ 28.5 8 ⁰ 44.4	309 ⁰ 57.0 8 ⁰ 54.2	324 ⁰ 25.5 9 ⁰ 03.9	338 ⁰ 54.0 9 ⁰ 13.7	353 ⁰ 22.4 9 ⁰ 23.3	7 ⁰ 50.7 9 ⁰ 33.0	22 ⁰ 18.9 9 ⁰ 42.6	36 ⁰ 47.9 9 ⁰ 52.1	51 ⁰ 15.2 10 ⁰ 01.6	65 ⁰ 43.3 10 ⁰ 11.0	80 ⁰ 11.3 10 ⁰ 20.4	28.3 16.1 +9.6 58.9
		297 ⁰ 03.6 12 ⁰ 34.1	311 ⁰ 30.5 12 ⁰ 42.5	325 ⁰ 57.4 12 ⁰ 50.8	340 ⁰ 24.2 12 ⁰ 59.0	354 ⁰ 51.0 13 ⁰ 07.2	9 ⁰ 17.6 13 ⁰ 15.3	23 ⁰ 44.2 13 ⁰ 23.3	38 ⁰ 10.8 13 ⁰ 31.2	52 ⁰ 37.3 13 ⁰ 39.1	67 ⁰ 03.7 13 ⁰ 46.9	81 ⁰ 30.0 13 ⁰ 54.6	+26.6 16.2 +8.1 59.5
●	Je 18	297 ⁰ 57.2 15 ⁰ 39.5	312 ⁰ 22.5 15 ⁰ 45.7	326 ⁰ 47.7 15 ⁰ 51.9	341 ⁰ 12.9 15 ⁰ 57.9	355 ⁰ 38.0 16 ⁰ 03.8	10 ⁰ 03.1 16 ⁰ 09.6	24 ⁰ 28.1 16 ⁰ 15.4	38 ⁰ 53.0 16 ⁰ 21.0	53 ⁰ 17.9 16 ⁰ 26.5	67 ⁰ 42.7 16 ⁰ 31.9	82 ⁰ 07.5 16 ⁰ 37.2	+25.0 16.4 +5.8 60.0
		298 ⁰ 12.8 17 ⁰ 42.7	312 ⁰ 36.8 17 ⁰ 46.2	327 ⁰ 00.7 17 ⁰ 49.5	341 ⁰ 24.6 17 ⁰ 52.6	355 ⁰ 48.5 17 ⁰ 55.7	10 ⁰ 12.3 17 ⁰ 58.6	24 ⁰ 36.1 18 ⁰ 01.4	38 ⁰ 59.9 18 ⁰ 04.0	53 ⁰ 23.7 18 ⁰ 06.6	67 ⁰ 47.4 18 ⁰ 09.0	82 ⁰ 11.1 18 ⁰ 11.3	+23.8 16.4 +2.9 60.3
●	Sa 20	298 ⁰ 03.9 18 ⁰ 29.8	312 ⁰ 27.3 18 ⁰ 30.0	326 ⁰ 50.8 18 ⁰ 30.0	341 ⁰ 14.2 18 ⁰ 29.9	355 ⁰ 37.6 18 ⁰ 29.7	10 ⁰ 01.0 18 ⁰ 29.4	24 ⁰ 24.5 18 ⁰ 28.9	38 ⁰ 47.9 18 ⁰ 28.3	53 ⁰ 11.4 18 ⁰ 27.5	67 ⁰ 34.8 18 ⁰ 26.6	81 ⁰ 58.3 18 ⁰ 25.6	+23.4 16.5 +0.6 60.4
		297 ⁰ 52.5 17 ⁰ 54.6	312 ⁰ 16.3 17 ⁰ 51.6	326 ⁰ 40.2 17 ⁰ 48.3	341 ⁰ 04.1 17 ⁰ 45.0	355 ⁰ 28.0 17 ⁰ 41.5	9 ⁰ 52.0 17 ⁰ 38.0	24 ⁰ 16.1 17 ⁰ 34.2	38 ⁰ 40.1 17 ⁰ 30.4	53 ⁰ 04.3 17 ⁰ 26.5	67 ⁰ 28.4 17 ⁰ 22.4	81 ⁰ 52.6 17 ⁰ 18.2	+24.0 16.4 -3.6 60.2
●	Lu 22	298 ⁰ 02.1 16 ⁰ 01.7	312 ⁰ 27.2 15 ⁰ 55.7	326 ⁰ 52.4 15 ⁰ 49.6	341 ⁰ 17.6 15 ⁰ 43.4	355 ⁰ 42.9 15 ⁰ 37.2	10 ⁰ 08.3 15 ⁰ 30.8	24 ⁰ 33.7 15 ⁰ 24.3	38 ⁰ 59.2 15 ⁰ 17.8	53 ⁰ 24.8 15 ⁰ 11.1	67 ⁰ 50.5 15 ⁰ 04.1	82 ⁰ 16.2 14 ⁰ 57.5	+25.4 16.3 -6.4 59.7
		298 ⁰ 50.5 13 ⁰ 04.5	313 ⁰ 17.4 12 ⁰ 56.3	327 ⁰ 44.4 12 ⁰ 48.1	342 ⁰ 11.4 12 ⁰ 39.8	356 ⁰ 38.6 12 ⁰ 31.4	11 ⁰ 05.7 12 ⁰ 23.0	25 ⁰ 33.0 12 ⁰ 14.5	40 ⁰ 00.4 12 ⁰ 05.9	54 ⁰ 27.8 11 ⁰ 57.1	68 ⁰ 55.3 11 ⁰ 48.6	83 ⁰ 22.9 11 ⁰ 39.8	+27.2 16.1 -8.5 59.1
●	Je 25	300 ⁰ 25.5 9 ⁰ 22.0	314 ⁰ 54.3 9 ⁰ 12.4	329 ⁰ 23.2 9 ⁰ 02.8	343 ⁰ 52.1 8 ⁰ 53.2	358 ⁰ 21.1 8 ⁰ 43.5	12 ⁰ 50.1 8 ⁰ 33.8	27 ⁰ 19.3 8 ⁰ 24.0	41 ⁰ 48.5 8 ⁰ 14.2	56 ⁰ 17.8 8 ⁰ 04.4	70 ⁰ 47.1 7 ⁰ 54.6	85 ⁰ 16.5 7 ⁰ 44.7	+29.1 15.9 -9.7 58.2
		302 ⁰ 45.7 5 ⁰ 13.7	317 ⁰ 16.1 5 ⁰ 03.5	331 ⁰ 46.6 4 ⁰ 53.2	346 ⁰ 17.2 4 ⁰ 43.0	361 ⁰ 17.2 4 ⁰ 32.8	15 ⁰ 18.5 4 ⁰ 22.5	29 ⁰ 49.3 4 ⁰ 12.2	44 ⁰ 20.1 3 ⁰ 51.7	58 ⁰ 50.9 3 ⁰ 41.4	73 ⁰ 21.8 3 ⁰ 31.1	87 ⁰ 52.8 3 ⁰ 20.8	+30.7 15.6 -10.3 57.3
●	Sa 27	317 ⁰ 16.1 5 ⁰ 03.5	331 ⁰ 46.6 4 ⁰ 53.2	346 ⁰ 17.2 4 ⁰ 43.0	361 ⁰ 17.2 4 ⁰ 32.8	376 ⁰ 17.2 4 ⁰ 22.5	15 ⁰ 18.5 4 ⁰ 12.2	29 ⁰ 49.3 4 ⁰ 02.0	44 ⁰ 20.1 3 ⁰ 51.7	58 ⁰ 50.9 3 ⁰ 41.4	73 ⁰ 21.8 3 ⁰ 31.1	87 ⁰ 52.8 3 ⁰ 20.8	+30.8 15.6 -10.3 57.3
		320 ⁰ 15.1 0 ⁰ 46.6	334 ⁰ 46.9 0 ⁰ 36.4	349 ⁰ 18.7 0 ⁰ 26.2	364 ⁰ 18.7 0 ⁰ 16.0	379 ⁰ 18.7 0 ⁰ 05.8	15 ⁰ 18.5 -0 ⁰ 04.4	29 ⁰ 49.3 -0 ⁰ 14.6	44 ⁰ 20.1 -0 ⁰ 24.8	58 ⁰ 50.9 -0 ⁰ 34.9	73 ⁰ 21.8 -0 ⁰ 45.0	87 ⁰ 52.8 -0 ⁰ 55.1	+32.0 15.4 -10.2 56.4
●	Lu 29	323 ⁰ 40.5 -3 ⁰ 24.4	338										

SOLEIL

Février 2035

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	266°38.2 -17°08.2	281°38.1 -17°07.5	296°38.0 -17°06.8	311°37.9 -17°06.1	326°37.8 -17°05.3	341°37.8 -17°04.6	356°37.7 -17°03.9	11°37.6 -17°03.2	26°37.5 -17°02.5	41°37.4 -17°01.8	56°37.3 -17°01.1	71°37.3 -17°00.4	-0.1 +0.7
Ve 2	266°36.2 -16°51.0	281°36.1 -16°50.3	296°36.1 -16°49.6	311°36.0 -16°48.8	326°35.9 -16°48.1	341°35.8 -16°47.4	356°35.8 -16°46.7	11°35.7 -16°45.9	26°35.6 -16°45.2	41°35.5 -16°44.5	56°35.5 -16°43.8	71°35.4 -16°43.0	-0.1 +0.7
Sa 3	266°34.5 -16°33.5	281°34.4 -16°32.8	296°34.3 -16°32.1	311°34.3 -16°31.3	326°34.2 -16°30.6	341°34.1 -16°29.9	356°34.0 -16°29.1	11°34.0 -16°28.4	26°33.9 -16°27.7	41°33.8 -16°26.9	56°33.8 -16°26.2	71°33.7 -16°25.4	-0.1 +0.7
Di 4	266°32.9 -16°15.8	281°32.8 -16°15.0	296°32.8 -16°14.3	311°32.7 -16°13.5	326°32.6 -16°12.8	341°32.6 -16°12.0	356°32.5 -16°11.3	11°32.5 -16°10.5	26°32.4 -16°09.8	41°32.4 -16°09.0	56°32.3 -16°08.3	71°32.2 -16°07.5	-0.1 +0.7
Lu 5	266°31.5 -15°57.7	281°31.5 -15°57.0	296°31.4 -15°56.2	311°31.4 -15°55.5	326°31.3 -15°54.7	341°31.3 -15°53.9	356°31.2 -15°53.2	11°31.2 -15°52.4	26°31.1 -15°51.7	41°31.1 -15°50.9	56°31.0 -15°50.1	71°31.0 -15°49.4	-0.1 +0.8
Ma 6	266°30.4 -15°39.4	281°30.3 -15°38.7	296°30.3 -15°37.9	311°30.2 -15°37.1	326°30.2 -15°36.3	341°30.1 -15°35.6	356°30.1 -15°34.8	11°30.0 -15°34.0	26°30.0 -15°33.3	41°30.0 -15°32.5	56°29.9 -15°31.7	71°29.9 -15°30.9	-0.0 +0.8
Me 7	266°29.4 -15°20.8	281°29.3 -15°20.1	296°29.3 -15°19.3	311°29.3 -15°18.5	326°29.2 -15°17.7	341°29.2 -15°16.9	356°29.2 -15°16.2	11°29.1 -15°15.4	26°29.1 -15°14.6	41°29.1 -15°13.8	56°29.0 -15°13.0	71°29.0 -15°12.2	-0.0 +0.8
Je 8	266°28.6 -15°02.0	281°28.6 -15°01.2	296°28.6 -15°00.4	311°28.5 -14°59.6	326°28.5 -14°58.8	341°28.5 -14°58.0	356°28.4 -14°57.2	11°28.4 -14°56.4	26°28.4 -14°55.7	41°28.4 -14°54.9	56°28.3 -14°54.1	71°28.3 -14°53.3	-0.0 +0.8
Ve 9	266°28.0 -14°42.9	281°28.0 -14°42.1	296°28.0 -14°41.3	311°28.0 -14°40.5	326°28.0 -14°39.7	341°27.9 -14°38.9	356°27.9 -14°38.1	11°27.9 -14°37.3	26°27.9 -14°36.5	41°27.9 -14°35.7	56°27.9 -14°34.9	71°27.8 -14°34.1	-0.0 +0.8
Sa 10	266°27.7 -14°23.5	281°27.6 -14°22.7	296°27.6 -14°21.9	311°27.6 -14°21.1	326°27.6 -14°20.3	341°27.6 -14°19.5	356°27.6 -14°18.7	11°27.6 -14°17.9	26°27.6 -14°17.0	41°27.6 -14°16.2	56°27.6 -14°15.4	71°27.5 -14°14.6	-0.0 +0.8
Di 11	266°27.5 -14°04.0	281°27.5 -14°03.1	296°27.5 -14°02.3	311°27.5 -14°01.5	326°27.5 -14°00.7	341°27.5 -13°59.8	356°27.5 -13°59.0	11°27.5 -13°58.2	26°27.5 -13°57.4	41°27.5 -13°56.6	56°27.5 -13°55.7	71°27.5 -13°54.9	-0.0 +0.8
Lu 12	266°27.5 -13°44.1	281°27.5 -13°43.3	296°27.5 -13°42.5	311°27.5 -13°41.7	326°27.5 -13°40.8	341°27.5 -13°40.0	356°27.5 -13°39.1	11°27.5 -13°38.3	26°27.5 -13°37.5	41°27.5 -13°36.6	56°27.5 -13°35.8	71°27.6 -13°35.0	+0.0 +0.8
Ma 13	266°27.7 -13°24.7	281°27.7 -13°23.9	296°27.7 -13°22.4	311°27.7 -13°21.6	326°27.7 -13°20.7	341°27.8 -13°19.9	356°27.8 -13°19.0	11°27.8 -13°18.2	26°27.8 -13°17.4	41°27.8 -13°16.5	56°27.8 -13°15.7	71°27.8 -13°14.8	+0.0 +0.8
Me 14	266°28.7 -13°03.8	281°28.7 -13°03.0	296°28.7 -13°02.1	311°28.7 -13°01.3	326°28.7 -13°00.4	341°28.7 -12°59.6	356°28.7 -12°58.8	11°28.7 -12°57.9	26°28.7 -12°57.0	41°28.7 -12°56.2	56°28.7 -12°55.3	71°28.7 -12°54.5	+0.0 +0.9
Je 15	266°28.7 -12°43.4	281°28.7 -12°42.5	296°28.7 -12°41.6	311°28.8 -12°40.8	326°28.8 -12°39.9	341°28.8 -12°39.1	356°28.8 -12°38.2	11°28.9 -12°37.3	26°28.9 -12°36.5	41°28.9 -12°35.6	56°28.9 -12°34.8	71°29.0 -12°33.9	+0.0 +0.9
Ve 16	266°29.5 -12°22.7	281°29.5 -12°21.8	296°29.5 -12°20.9	311°29.5 -12°20.1	326°29.6 -12°19.2	341°29.6 -12°18.3	356°29.7 -12°17.5	11°29.7 -12°16.6	26°29.7 -12°15.7	41°29.8 -12°14.9	56°29.8 -12°14.0	71°29.9 -12°13.1	+0.0 +0.9
Sa 17	266°30.4 -12°01.8	281°30.4 -12°00.9	296°30.5 -12°00.1	311°30.5 -11°59.2	326°30.6 -11°58.3	341°30.6 -11°57.4	356°30.7 -11°56.6	11°30.7 -11°55.7	26°30.8 -11°54.8	41°30.8 -11°53.9	56°30.8 -11°53.0	71°30.9 -11°52.2	+0.0 +0.9
Di 18	266°31.5 -11°40.7	281°31.6 -11°39.9	296°31.6 -11°39.0	311°31.7 -11°38.1	326°31.7 -11°37.2	341°31.8 -11°36.3	356°31.8 -11°35.4	11°31.9 -11°34.6	26°31.9 -11°33.7	41°32.0 -11°32.8	56°32.1 -11°31.9	71°32.1 -11°31.0	+0.1 +0.9
Lu 19	266°32.8 -11°19.5	281°32.9 -11°18.6	296°33.0 -11°17.7	311°33.0 -11°16.8	326°33.1 -11°15.9	341°33.1 -11°15.0	356°33.2 -11°14.1	11°33.2 -11°13.3	26°33.3 -11°12.4	41°33.4 -11°11.5	56°33.4 -11°10.6	71°33.5 -11°09.7	+0.0 +0.9
Ma 20	266°34.3 -10°58.1	281°34.4 -10°57.2	296°34.4 -10°56.3	311°34.5 -10°55.4	326°34.6 -10°54.5	341°34.6 -10°53.6	356°34.7 -10°52.7	11°34.8 -10°51.8	26°34.8 -10°50.9	41°34.9 -10°50.0	56°35.0 -10°49.1	71°35.1 -10°48.2	+0.1 +0.9
Me 21	266°36.0 -10°36.5	281°36.0 -10°35.6	296°36.1 -10°34.7	311°36.2 -10°33.7	326°36.3 -10°32.8	341°36.3 -10°31.9	356°36.4 -10°31.0	11°36.5 -10°30.0	26°36.5 -10°29.2	41°36.6 -10°28.3	56°36.7 -10°27.4	71°36.8 -10°26.5	+0.1 +0.9
Je 22	266°37.8 -10°14.7	281°37.9 -10°13.8	296°37.9 -10°12.9	311°38.0 -10°12.0	326°38.1 -10°11.1	341°38.2 -10°10.1	356°38.3 -10°09.2	11°38.3 -10°08.3	26°38.4 -10°07.4	41°38.5 -10°06.5	56°38.6 -10°05.6	71°38.7 -10°04.7	+0.1 +0.9
Ve 23	266°39.7 -9°52.8	281°39.8 -9°51.9	296°39.8 -9°50.9	311°40.0 -9°50.0	326°40.1 -9°49.1	341°40.2 -9°48.2	356°40.3 -9°47.3	11°40.3 -9°46.4	26°40.4 -9°45.4	41°40.5 -9°44.5	56°40.6 -9°43.6	71°40.7 -9°42.7	+0.1 +0.9
Sa 24	266°41.9 -9°30.7	281°42.1 -9°29.8	296°42.0 -9°28.9	311°42.1 -9°27.9	326°42.2 -9°27.0	341°42.3 -9°26.1	356°42.4 -9°25.2	11°42.5 -9°24.2	26°42.6 -9°23.3	41°42.7 -9°22.4	56°42.8 -9°21.5	71°42.9 -9°20.6	+0.1 +0.9
Di 25	266°44.1 -9°08.5	281°44.2 -9°07.6	296°44.3 -9°06.6	311°44.4 -9°05.7	326°44.5 -9°04.8	341°44.6 -9°03.9	356°44.7 -9°02.9	11°44.8 -9°02.0	26°44.9 -9°01.1	41°45.0 -9°00.1	56°45.0 -8°59.2	71°45.2 -8°58.3	+0.1 +0.9
Lu 26	266°46.5 -8°46.2	281°46.6 -8°45.2	296°46.7 -8°44.3	311°46.8 -8°43.3	326°46.9 -8°42.4	341°47.1 -8°41.5	356°47.2 -8°40.5	11°47.3 -8°39.5	26°47.4 -8°38.7	41°47.5 -8°37.7	56°47.6 -8°36.8	71°47.7 -8°35.9	+0.1 +0.9
Ma 27	266°49.4 -8°23.7	281°49.2 -8°22.7	296°49.3 -8°21.8	311°49.4 -8°20.8	326°49.5 -8°19.9	341°49.6 -8°19.0	356°49.7 -8°18.0	11°49.8 -8°17.1	26°50.0 -8°16.1	41°50.1 -8°15.2	56°50.2 -8°14.3	71°50.3 -8°13.3	+0.1 +0.9
Me 28	266°51.8 -8°01.1	281°51.9 -8°00.1	296°52.0 -7°59.2	311°52.1 -7°58.2	326°52.2 -7°57.3	341°52.3 -7°56.3	356°52.4 -7°55.4	11°52.6 -7°54.4	26°52.7 -7°53.5	41°52.8 -7°52.6	56°52.9 -7°51.6	71°53.0 -7°50.7	+0.1 +0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Février 2035

J	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	Δ'/h SP
Je 1	236°32.7 -15°29.9	251°05.0 -15°35.0	265°37.8 -15°40.1	280°09.5 -15°45.1	294°41.7 -15°50.1	309°13.9 -15°55.0	323°46.1 -15°59.8	338°18.2 -16°04.5	352°50.4 -16°09.2	7°22.5 -16°13.8	21°54.6 -16°18.3	+32.2 14.8 -4.8 54.1
	251°05.0 -15°35.0	265°37.8 -15°40.1	280°09.5 -15°45.1	294°41.7 -15°50.1	309°13.9 -15°55.0	323°46.1 -15°59.8	338°18.2 -16°04.5	352°50.4 -16°09.2	7°22.5 -16°13.8	21°54.6 -16°18.3	36°26.6 -16°22.8	+32.2 14.8 -4.8 54.1
Ve 2	254°24.5 -17°20.7	268°56.2 -17°27.8	283°27.8 -17°27.1	297°59.4 -17°30.2	312°31.0 -17°36.2	327°02.6 -17°39.0	341°34.1 -17°41.8	356°05.6 -17°44.5	10°37.1 -17°44.5	25°08.6 -17°47.1	39°40.0 -17°49.7	+31.6 14.8 -2.9 54.1
Sa 3	257°28.9 -18°17.9	272°00.0 -18°19.1	286°31.0 -18°20.3	301°02.1 -18°21.3	315°33.1 -18°22.3	330°04.1 -18°23.1	344°35.0 -18°23.9	359°06.0 -18°24.6	13°36.9 -18°25.2	28°07.8 -18°25.8	42°38.7 -18°26.2	+31.0 14.8 -0.8 54.3
Di 4	260°20.0 -18°22.4	274°50.6 -18°21.4	289°21.2 -18°20.4	303°51.8 -18°19.2	318°22.4 -18°18.0	332°53.0 -18°16.7	347°23.5 -18°15.3	1°54.1 -18°13.8	16°24.6 -18°12.2	30°55.1 -18°10.6	45°25.7 -18°08.8	+30.6 14.9 +1.4 54.6
Lu 5	263°02.3 -17°31.7	277°32.7 -17°28.6	292°03.0 -17°25.3	306°33.4 -17°22.0	321°03.8 -17°18.5	335°34.1 -17°15.0	350°04.5 -17°11.4	4°34.9 -17°07.7	19°05.2 -17°03.9	33°35.6 -17°00.0	48°05.9 -16°56.0	+30.4 15.0 +3.6 55.1
Ma 6	265°41.2 -15°46.3	280°11.6 -15°41.0	294°41.9 -15°35.6	309°12.3 -15°30.2	323°42.7 -15°24.6	338°13.0 -15°19.0	352°43.4 -15°13.2	7°13.8 -15°07.4	21°44.2 -15°01.5	36°14.6 -14°55.6	50°45.0 -14°49.5	+30.4 15.2 +5.7 55.6
Me 7	268°21.5 -13°09.7	282°52.0 -13°02.5	297°22.5 -12°55.2	311°53.0 -12°47.8	326°23.5 -12°40.1	340°54.0 -12°32.8	355°24.5 -12°25.2	9°55.0 -12°17.6	24°25.6 -12°09.9	38°56.1 -12°02.1	53°26.7 -11°54.2	+30.5 15.3 +7.6 56.1
Je 8	271°05.6 -9°48.8	285°36.2 -9°40.0	300°06.9 -9°31.1	314°37.5 -9°22.1	329°08.2 -9°13.1	343°38.8 -9°04.1	358°09.5 -8°55.0	12°40.2 -8°45.8	27°10.8 -8°36.6	41°41.5 -8°27.4	56°12.2 -8°18.1	+30.7 15.4 +9.1 56.7
Ve 9	273°52.5 -5°53.2	288°23.2 -5°43.3	302°53.9 -5°33.2	317°24.6 -5°23.2	331°55.3 -5°13.1	346°26.0 -5°03.0	0°56.6 -4°52.9	15°27.3 -4°42.7	29°58.0 -4°32.5	44°28.6 -4°22.2	58°59.3 -4°12.0	+30.7 15.6 +10.1 57.2
Sa 10	276°38.1 -1°35.1	291°08.6 -1°24.5	305°39.1 -1°13.9	320°09.6 -1°03.3	334°40.1 -0°52.7	349°10.5 -0°42.0	3°41.0 -0°31.4	18°11.4 -0°20.7	32°41.8 -0°10.0	47°12.2 0°00.7	61°42.5 0°11.4	+30.4 15.7 +10.7 57.7
Di 11	279°15.5 2°51.7	293°45.5 3°02.3	308°15.5 3°13.0	322°45.5 3°23.6	337°15.4 3°34.2	351°45.3 3°44.8	6°15.1 3°55.4	15°20.4 4°05.9	35°14.8 4°16.5	49°44.6 4°27.0	64°14.3 4°37.5	+29.9 15.8 +10.6 58.1
Lu 12	281°36.3 7°12.2	296°05.5 7°22.3	310°34.6 7°32.3	325°03.7 7°42.3	339°32.7 7°52.3	354°01.7 8°02.2	8°30.7 8°12.1	22°59.6 8°21.9	37°28.5 8°31.7	51°57.3 8°41.4	66°26.1 8°51.1	+29.0 15.9 +9.9 58.5
Ma 13	283°32.3 11°10.5	298°00.4 11°19.3	312°28.3 11°28.1	326°56.3 11°36.8	341°24.2 11°45.5	355°52.0 11°54.1	10°19.8 12°02.6	24°47.5 12°11.0	39°15.2 12°19.4	53°42.8 12°27.7	68°10.4 12°35.9	+27.8 16.0 +8.5 58.8
Me 14	284°58.0 14°30.2	299°24.7 14°37.1	313°51.4 14°44.0	328°18.1 14°50.8	342°44.7 14°57.5	357°11.3 15°04.1	11°37.8 15°10.6	26°04.2 15°17.0	40°30.7 15°23.3	54°57.0 15°29.5	69°23.3 15°35.7	+26.5 16.1 +6.6 59.1
Je 15	285°52.6 16°55.6	300°18.2 17°00.0	314°43.7 17°04.4	329°09.3 17°08.7	343°34.8 17°12.8	358°00.2 17°16.9	12°25.6 17°20.8	26°51.0 17°24.6	41°16.3 17°28.3	55°41.6 17°31.9	70°06.9 17°35.4	+25.4 16.2 +4.0 59.3
Ve 16	286°22.6 18°13.5	300°47.5 18°15.1	315°12.4 18°16.5	329°37.2 18°17.8	344°02.0 18°19.1	358°26.8 18°20.1	12°51.6 18°21.1	27°16.4 18°21.9	41°14.1 18°22.7	56°05.9 18°23.3	70°30.7 18°23.7	+24.8 16.2 +1.0 59.5
Sa 17	286°41.8 18°15.9	301°06.5 18°14.4	315°31.3 18°12.8	329°56.1 18°11.0	344°21.0 18°09.2	358°45.8 18°07.2	13°10.6 18°05.0	27°35.5 18°02.8	42°00.4 18°00.4	56°25.4 17°58.0	70°50.2 17°55.4	+24.8 16.2 -2.1 59.4
Di 18	287°07.5 17°02.3	301°32.9 16°57.8	315°58.3 16°53.3	330°23.8 16°48.6	344°49.3 16°43.3	359°14.9 16°38.9	13°40.5 16°33.9	28°06.2 16°28.8	42°31.9 16°23.6	56°57.6 16°18.3	71°23.4 16°12.9	+25.6 16.2 -4.9 59.3
Lu 19	287°56.2 14°39.9	302°22.8 14°32.9	316°49.4 14°25.9	331°16.1 14°18.8	345°42.9 14°11.6	360°14.9 14°04.3	0°09.7 13°56.9	14°36.6 13°49.5	29°03.6 13°41.9	43°30.6 13°34.3	57°57.6 13°26.6	+26.9 16.1 -7.3 59.8
Ma 20	287°56.2 11°22.6	302°22.8 11°13.8	316°49.4 11°04.9	331°16.1 10°56.0	345°42.9 10°47.1	360°14.9 10°38.0	0°09.7 10°29.0	14°36.6 10°19.8	29°03.6 10°10.6	43°30.6 10°01.4	57°57.6 9°52.1	+26.9 16.1 -9.1 58.4
Je 21	289°18.6 9°08.1	303°46.7 9°16.6	318°14.8 9°25.0	332°43.0 9°33.3	347°11.3 9°41.6	361°11.3 9°49.9	1°39.6 -9°58.1	16°07.9 -10°06.3	30°36.4 -10°14.4	45°04.9 -10°22.9	59°33.4 -10°30.4	+28.3 15.9 -8.2 55.0
Me 22	291°18.3 -1°04.9	305°47.8 -1°15.1	320°17.4 -1°25.3	334°47.1 -1°35.4	349°16.8 -1°45.6	364°16.8 -1°55.7	3°46.6 -1°55.7	18°16.4 -2°05.8	32°46.2 -2°15.9	47°16.2 -2°25.9	61°46.1 -2°35.9	+29.8 15.8 -10.0 57.8
Ve 23	293°52.5 -3°13.1	308°23.3 -3°02.8	322°54.4 -2°52.4	337°25.0 -2°42.1	351°56.0 -2°31.4	366°26.0 -2°21.3	6°26.9 -2°11.0	20°58.0 -2°00.6	35°29.9 -1°50.2	50°00.1 -1°50.2	64°31.2 -1°39.9	+31.0 15.6 -10.4 57.1
Sa 24	296°54.5 -5°12.8	311°26.2 -5°02.4	325°58.0 -4°51.9	340°29.8 -4°41.3	355°01.6 -4°30.8	369°33.5 -4°20.9	9°33.5 -4°10.9	24°05.4 -3°58.1	38°37.3 -3°47.1	53°09.9 -3°37.1	67°41.2 -3°25.9	+31.9 15.4 -10.1 56.3
Di 25	300°15.7 -5°22.4	314°48.0 -5°12.4	329°20.3 -5°01.9	343°52.7 -4°51.3	358°25.1 -4°40.8	372°55.1 -4°30.3	12°57.4 -4°20.9	27°29.8 -4°08.9	42°02.2 -3°58.1	56°34.7 -3°47.1	71°07.1 -3°35.9	+32.4 15.2 -9.3 55.6
Lu 26	314°48.0 -5°22.4	329°20.3 -5°12.4	343°52.7 -5°01.9	358°25.1 -4°51.3	372°55.1 -4°40.8	387°25.1 -4°30.3	12°57.4 -4°20.9	27°29.8 -4°08.9	42°02.2 -3°58.1	56°34.7 -3°47.1	71°07.1 -3°35.9	+32.4 15.2 -9.3 55.6
Ma 27	318°19.8 -9°08.1	332°52.4 -8°51.9	347°24.9 -8°41.3	361°57.5 -8°30.8	376°30.1 -8°19.1	391°02.7 -8°07.4	16°30.1 -7°55.8	31°02.7 -7°44.4	45°35.2 -7°36.4	60°07.8 -7°28.0	74°40.4 -7°19.4	+32.6 15.0 -8.2 55.0
Me 28	321°53.7 -12°23.8	336°26.2 -12°30.9	350°58.6 -12°37.9	365°31.1 -12°44.9	380°03.6 -12°51.8	394°36.1 -12°58.7	49°08.4 -13°05.4	63°41.0 -13°12.2	78°13.4 -13°18.8	92°45.8 -13°25.5	107°18.2 -13°32.0	+32.5 14.9 -6.8 54.6

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
NL: 8 08h22 — PQ: 15 13h17 — PL: 22 08h53

SOLEIL

Mars 2035

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Je 1	266°54.6 -7°38.3	281°54.7 -7°37.4	296°54.8 -7°36.4	311°54.9 -7°35.5	326°55.0 -7°34.5	341°55.2 -7°33.6	356°55.3 -7°32.6	11°55.4 -7°31.7	26°55.5 -7°30.7	41°55.6 -7°29.8	56°55.8 -7°28.8	71°55.9 -7°27.9	+0.1 +1.0
Ve 2	266°57.5 -7°15.5	281°57.6 -7°14.5	296°57.7 -7°13.6	311°57.9 -7°12.6	326°58.0 -7°11.7	341°58.1 -7°10.7	356°58.2 -7°09.8	11°58.4 -7°08.8	26°58.5 -7°07.9	41°58.6 -7°06.9	56°58.7 -7°06.0	71°58.9 -7°05.0	+0.1 +1.0
Sa 3	267°00.5 -6°52.6	282°00.7 -6°51.6	297°00.8 -6°50.6	312°00.9 -6°49.7	327°01.1 -6°48.7	342°01.2 -6°47.8	357°01.3 -6°46.8	12°01.4 -6°45.8	27°01.4 -6°44.9	42°01.7 -6°43.9	57°01.8 -6°43.0	72°02.0 -6°42.0	+0.1 +1.0
Di 4	267°03.7 -6°29.5	282°03.8 -6°28.6	297°04.0 -6°27.6	312°04.1 -6°26.6	327°04.2 -6°25.7	342°04.4 -6°24.7	357°04.5 -6°23.7	12°04.6 -6°22.8	27°04.8 -6°21.8	42°04.9 -6°20.9	57°05.0 -6°19.9	72°05.2 -6°18.9	+0.1 +1.0
Lu 5	267°07.0 -6°06.4	282°07.1 -6°05.4	297°07.2 -6°04.5	312°07.4 -6°03.5	327°07.5 -6°02.5	342°07.7 -6°01.6	357°07.8 -6°00.6	12°07.9 -5°59.6	27°08.1 -5°58.7	42°08.2 -5°57.7	57°08.4 -5°56.7	72°08.5 -5°55.8	+0.1 +1.0
Ma 6	267°10.3 -5°43.2	282°10.5 -5°42.2	297°10.6 -5°41.2	312°10.8 -5°40.3	327°10.9 -5°39.3	342°11.1 -5°38.3	357°11.2 -5°37.4	12°11.3 -5°36.4	27°11.5 -5°35.4	42°11.6 -5°34.4	57°11.8 -5°33.5	72°11.9 -5°32.5	+0.1 +1.0
Me 7	267°13.8 -5°19.9	282°14.0 -5°18.9	297°14.1 -5°17.9	312°14.3 -5°17.0	327°14.4 -5°16.0	342°14.6 -5°15.0	357°14.7 -5°14.0	12°14.8 -5°13.1	27°15.0 -5°12.1	42°15.1 -5°11.1	57°15.3 -5°10.1	72°15.4 -5°09.2	+0.1 +1.0
Je 8	267°17.4 -4°56.5	282°17.5 -4°55.5	297°17.7 -4°54.6	312°17.8 -4°53.6	327°18.0 -4°52.6	342°18.1 -4°51.6	357°18.3 -4°50.7	12°18.4 -4°49.7	27°18.6 -4°48.7	42°18.7 -4°47.7	57°18.9 -4°46.8	72°19.1 -4°45.8	+0.2 +1.0
Ve 9	267°21.1 -4°33.1	282°21.2 -4°32.1	297°21.4 -4°31.1	312°21.5 -4°30.1	327°21.7 -4°29.2	342°21.8 -4°28.2	357°22.0 -4°27.2	12°22.1 -4°26.2	27°22.2 -4°25.2	42°22.4 -4°24.3	57°22.6 -4°23.3	72°22.8 -4°22.3	+0.2 +1.0
Sa 10	267°24.8 -4°09.6	282°25.0 -4°08.6	297°25.1 -4°07.6	312°25.3 -4°06.6	327°25.4 -4°05.4	342°25.6 -4°04.7	357°25.8 -4°03.7	12°25.9 -4°02.7	27°26.1 -4°01.7	42°26.2 -4°00.8	57°26.4 -3°59.8	72°26.6 -3°58.8	+0.2 +1.0
Di 11	267°28.6 -3°46.0	282°28.8 -3°45.1	297°29.0 -3°44.1	312°29.1 -3°43.1	327°29.3 -3°42.1	342°29.5 -3°41.1	357°29.6 -3°40.1	12°29.8 -3°39.2	27°29.9 -3°38.2	42°30.1 -3°37.2	57°30.3 -3°36.2	72°30.4 -3°35.2	+0.2 +1.0
Lu 12	267°32.6 -3°23.5	282°32.7 -3°21.5	297°32.9 -3°20.5	312°33.1 -3°19.5	327°33.2 -3°18.5	342°33.4 -3°17.5	357°33.6 -3°16.5	12°33.7 -3°15.6	27°33.9 -3°14.6	42°34.1 -3°13.6	57°34.2 -3°12.6	72°34.4 -3°11.6	+0.2 +1.0
Ma 13	267°36.6 -2°58.8	282°36.7 -2°57.8	297°36.9 -2°56.9	312°37.1 -2°55.9	327°37.2 -2°54.9	342°37.4 -2°53.9	357°37.6 -2°52.9	12°37.7 -2°51.9	27°37.9 -2°50.9	42°38.1 -2°50.0	57°38.2 -2°49.0	72°38.4 -2°48.0	+0.2 +1.0
Me 14	267°40.6 -2°35.2	282°40.8 -2°34.2	297°41.0 -2°33.2	312°41.1 -2°32.2	327°41.3 -2°31.2	342°41.5 -2°30.2	357°41.7 -2°29.2	12°41.8 -2°28.3	27°42.0 -2°27.3	42°42.2 -2°26.3	57°42.3 -2°25.3	72°42.5 -2°24.3	+0.2 +1.0
Je 15	267°44.8 -2°11.5	282°44.9 -2°10.5	297°45.1 -2°09.5	312°45.3 -2°08.5	327°45.5 -2°07.5	342°45.6 -2°06.5	357°45.8 -2°05.6	12°45.8 -2°04.6	27°46.0 -2°03.6	42°46.3 -2°02.6	57°46.5 -2°01.6	72°46.7 -2°00.6	+0.2 +1.0
Ve 16	267°49.0 -1°47.8	282°49.1 -1°46.8	297°49.3 -1°45.8	312°49.5 -1°44.8	327°49.7 -1°43.8	342°49.8 -1°42.8	357°50.0 -1°41.8	12°50.0 -1°40.9	27°50.2 -1°39.9	42°50.5 -1°38.9	57°50.7 -1°37.9	72°50.9 -1°36.9	+0.2 +1.0
Sa 17	267°53.2 -1°24.1	282°53.4 -1°23.1	297°53.6 -1°22.1	312°53.8 -1°21.1	327°53.9 -1°20.1	342°54.1 -1°19.1	357°54.3 -1°18.1	12°54.3 -1°17.1	27°54.6 -1°16.1	42°54.8 -1°15.2	57°55.0 -1°14.2	72°55.2 -1°13.2	+0.2 +1.0
Di 18	267°57.5 -1°00.3	282°57.7 -0°59.3	297°57.9 -0°58.4	312°58.1 -0°57.4	327°58.3 -0°56.4	342°58.4 -0°55.4	357°58.6 -0°54.4	12°58.6 -0°53.4	27°59.0 -0°52.4	42°59.2 -0°51.4	57°59.3 -0°50.4	72°59.5 -0°49.5	+0.2 +1.0
Lu 19	268°01.9 -0°36.6	283°02.1 -0°35.6	298°02.3 -0°34.6	313°02.4 -0°33.6	328°02.6 -0°32.7	343°02.8 -0°31.7	358°03.0 -0°30.7	13°03.2 -0°29.7	28°03.4 -0°28.7	43°03.5 -0°27.7	58°03.7 -0°26.7	73°03.9 -0°25.7	+0.2 +1.0
Ma 20	268°06.3 -0°12.9	283°06.5 -0°11.9	298°06.7 -0°10.9	313°06.8 -0°09.9	328°07.0 -0°08.9	343°07.2 -0°07.9	358°07.4 -0°07.0	13°07.2 -0°06.0	28°07.4 -0°05.0	43°08.0 -0°04.0	58°08.1 -0°03.0	73°08.3 -0°02.0	+0.2 +1.0
Me 21	268°10.7 0°10.8	283°10.9 0°11.8	298°11.1 0°12.8	313°11.3 0°13.8	328°11.5 0°14.8	343°11.7 0°15.8	358°11.9 0°16.7	13°12.0 0°17.7	28°12.2 0°18.7	43°12.4 0°19.7	58°12.6 0°20.7	73°12.8 0°21.7	+0.2 +1.0
Je 22	268°15.2 0°34.5	283°15.4 0°35.5	298°15.6 0°36.5	313°15.8 0°37.5	328°16.0 0°38.5	343°16.1 0°39.4	358°16.3 0°40.4	13°16.5 0°41.4	28°16.7 0°42.4	43°16.9 0°43.4	58°17.1 0°44.4	73°17.3 0°45.4	+0.2 +1.0
Ve 23	268°19.7 0°58.2	283°19.9 0°59.2	298°20.1 1°00.2	313°20.3 1°01.1	328°20.5 1°02.1	343°20.6 1°03.1	358°20.8 1°04.1	13°21.0 1°05.1	28°21.2 1°06.1	43°21.4 1°07.0	58°21.6 1°08.0	73°21.8 1°09.0	+0.2 +1.0
Sa 24	268°24.2 1°21.8	283°24.4 1°22.8	298°24.6 1°23.8	313°24.8 1°24.8	328°25.0 1°25.8	343°25.2 1°26.7	358°25.3 1°27.7	13°25.8 1°28.7	28°25.9 1°29.7	43°25.9 1°30.7	58°26.1 1°31.7	73°26.3 1°32.6	+0.2 +1.0
Di 25	268°28.7 1°45.4	283°28.9 1°46.4	298°29.1 1°47.4	313°29.3 1°48.4	328°29.5 1°49.4	343°29.7 1°50.3	358°29.9 1°51.3	13°30.1 1°52.3	28°30.3 1°53.3	43°30.4 1°54.3	58°30.6 1°55.2	73°30.8 1°56.2	+0.2 +1.0
Lu 26	268°33.3 2°09.0	283°33.5 2°10.0	298°33.7 2°11.0	313°33.8 2°11.9	328°34.0 2°12.9	343°34.2 2°13.9	358°34.4 2°14.9	13°34.6 2°15.9	28°34.8 2°16.8	43°35.0 2°17.8	58°35.2 2°18.8	73°35.4 2°19.8	+0.2 +1.0
Ma 27	268°37.8 2°32.5	283°38.0 2°33.5	298°38.2 2°34.5	313°38.4 2°35.4	328°38.6 2°36.4	343°38.8 2°37.4	358°39.0 2°38.4	13°39.1 2°39.4	28°39.3 2°40.3	43°39.5 2°41.3	58°39.7 2°42.3	73°39.9 2°43.3	+0.2 +1.0
Me 28	268°42.3 2°56.0	283°42.5 2°57.0	298°42.7 2°57.9	313°42.9 2°58.9	328°43.1 2°59.9	343°43.3 3°00.9	358°43.5 3°01.8	13°43.7 3°02.8	28°43.9 3°03.8	43°44.0 3°04.8	58°44.2 3°05.7	73°44.4 3°06.7	+0.2 +1.0
Je 29	268°46.9 3°19.4	283°47.1 3°20.4	298°47.3 3°21.3	313°47.4 3°22.3	328°47.6 3°23.3	343°47.8 3°24.3	358°48.0 3°25.8	13°48.2 3°26.2	28°48.4 3°27.2	43°48.6 3°28.2	58°48.8 3°29.1	73°48.9 3°30.1	+0.2 +1.0
Ve 30	268°51.4 3°42.7	283°51.6 3°43.7	298°51.7 3°44.7	313°51.9 3°45.7	328°52.1 3°46.6	343°52.3 3°47.6	358°52.5 3°48.6	13°52.7 3°49.5	28°52.9 3°50.5	43°53.1 3°51.5	58°53.2 3°52.5	73°53.4 3°53.4	+0.2 +1.0
Sa 31	268°55.9 4°06.0	283°56.0 4°07.0	298°56.2 4°08.0	313°56.4 4°08.9	328°56.6 4°09.6	343°56.8 4°10.9	358°57.0 4°11.8	13°57.2 4°12.8	28°57.4 4°13.8	43°57.5 4°14.7	58°57.7 4°15.7	73°57.9 4°16.7	+0.2 +1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.1'

LUNE

Mars 2035

	J	20h	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	Δ'/h SP
O	Je 1	227°00.4 -16°30.2	241°32.3 -16°34.4	256°04.2 -16°38.5	270°36.1 -16°42.6	285°07.9 -16°46.5	299°39.8 -16°50.4	314°11.6 -16°54.3	328°43.4 -16°58.0	343°15.2 -17°01.7	357°47.0 -17°05.2	12°18.7 -17°08.7	+31.8 14.8 -3.9 54.2
	Ve 2	230°12.8 -17°51.9	244°44.2 -17°54.2	259°15.7 -17°56.3	273°47.1 -17°58.4	288°18.5 -18°00.4	302°49.9 -18°02.3	317°21.2 -18°04.1	331°52.6 -18°05.9	346°23.9 -18°07.5	0°55.2 -18°09.1	15°26.5 -18°10.6	+31.4 14.8 -1.9 54.2
O	Sa 3	233°13.8 -18°22.9	247°44.9 -18°23.1	262°15.9 -18°23.1	276°46.9 -18°23.1	291°17.8 -18°23.0	305°48.8 -18°22.8	320°19.7 -18°22.5	334°50.7 -18°22.1	349°21.6 -18°21.1	3°52.5 -18°20.5	18°23.4 -18°19.7	+31.0 14.8 +0.5 54.5
	Di 4	247°44.9 -18°23.1	262°15.9 -18°23.1	276°46.9 -18°23.1	291°17.8 -18°23.0	305°48.8 -18°22.8	320°19.7 -18°22.5	334°50.7 -18°22.1	349°21.6 -18°21.1	3°52.5 -18°20.5	18°23.4 -18°19.7	32°54.3 -18°19.7	+30.9 14.8 +0.3 54.5
O	Lu 5	250°35.8 -17°58.4	265°06.5 -17°56.2	279°37.2 -17°54.0	294°07.8 -17°51.7	308°38.5 -17°49.3	323°09.1 -17°46.9	337°39.7 -17°44.3	352°10.3 -17°41.6	6°40.9 -17°38.9	21°11.5 -17°36.1	35°42.1 -17°33.2	+30.6 15.0 +2.5 54.9
	Ma 6	253°20.0 -16°39.0	267°50.5 -16°34.7	282°20.9 -16°30.3	296°51.4 -16°25.8	311°21.9 -16°21.3	325°52.3 -16°16.6	340°22.8 -16°11.9	354°53.2 -16°07.1	6°23.6 -16°02.2	23°54.1 -15°57.2	38°24.5 -15°52.2	+30.4 15.1 +4.7 55.4
O	Me 7	256°00.5 -14°26.3	270°30.9 -14°20.0	285°01.2 -14°13.5	299°31.6 -14°07.0	314°02.0 -14°00.4	328°32.3 -13°53.7	343°02.7 -13°47.0	357°33.1 -13°40.2	12°03.4 -13°33.3	26°33.8 -13°26.3	41°04.1 -13°19.2	+30.4 15.3 +6.7 56.0
	Je 8	258°39.2 -11°24.7	273°09.5 -11°16.5	287°39.8 -11°08.3	302°10.1 -10°59.9	316°40.4 -10°51.5	331°10.8 -10°43.1	345°41.1 -10°34.6	0°11.4 -10°26.0	14°41.7 -10°17.4	29°12.0 -10°08.7	43°42.2 -9°59.9	+30.3 15.5 +8.5 56.7
O	Ve 9	261°16.0 -7°41.6	275°46.3 -7°31.9	290°16.5 -7°22.2	304°46.7 -7°12.5	319°16.8 -7°02.7	333°47.0 -6°52.9	348°17.2 -6°43.0	2°47.4 -6°33.1	17°17.5 -6°23.1	31°47.7 -6°13.1	46°17.8 -6°03.0	+30.2 15.7 +9.9 57.4
	Sa 10	263°48.5 -3°27.8	278°18.5 -3°17.2	292°48.4 -3°06.6	307°18.3 -2°55.9	321°48.2 -2°45.3	336°18.1 -2°34.6	350°48.0 -2°23.8	5°17.8 -2°13.1	19°47.7 -2°02.3	34°17.5 -1°51.5	48°47.3 -1°40.7	+29.9 15.8 +10.7 58.0
O	Di 11	266°11.9 1°02.7	280°41.4 1°13.7	295°10.8 1°24.6	309°40.2 1°35.6	324°09.6 1°46.5	338°39.0 1°57.5	353°08.3 2°08.4	7°37.6 2°19.3	22°06.9 2°30.3	36°36.2 2°41.2	51°05.4 2°52.1	+29.7 16.0 +10.9 58.5
	Lu 12	268°20.2 5°33.8	282°48.9 5°44.4	297°17.6 5°55.0	311°46.3 6°05.5	326°14.9 6°16.1	340°43.5 6°26.5	355°12.1 6°37.0	9°40.6 6°47.4	24°09.1 6°57.8	38°37.1 7°08.1	53°05.9 7°18.4	+28.6 16.1 +10.5 58.9
O	Ma 13	270°07.5 9°47.6	284°35.3 9°57.2	299°03.1 10°06.6	313°30.8 10°16.1	327°58.5 10°25.4	342°26.1 10°34.7	356°53.7 10°43.9	11°21.2 10°53.1	25°48.8 11°02.2	40°16.2 11°13.1	54°43.6 11°20.2	+27.6 16.1 +9.3 59.2
	Me 14	271°30.1 13°26.2	285°56.9 13°33.9	300°23.7 13°41.6	314°50.4 13°49.2	329°17.0 13°56.7	343°43.6 14°04.1	358°10.2 14°11.5	12°36.8 14°18.7	27°03.3 14°25.9	41°29.7 14°32.9	55°56.2 14°39.9	+26.6 16.2 +7.4 59.3
O	Je 15	272°28.4 16°12.9	286°54.3 16°18.3	301°20.1 16°23.6	315°46.0 16°28.7	330°11.8 16°33.8	344°37.6 16°38.8	359°03.3 16°43.6	13°29.0 16°48.4	27°54.7 16°53.0	42°20.4 16°57.5	56°46.0 17°01.9	+25.8 16.2 +4.9 59.3
	Ve 16	273°08.3 17°54.6	287°33.7 17°57.2	301°59.0 17°59.6	316°24.4 18°02.0	330°49.7 18°04.2	345°15.0 18°06.3	359°40.4 18°08.3	14°05.7 18°10.2	28°31.4 18°11.9	42°56.3 18°13.5	57°21.6 18°15.1	+25.3 16.1 +2.0 59.2
O	Sa 17	273°41.4 18°23.3	288°06.7 18°22.9	302°32.1 18°22.4	316°57.5 18°21.7	331°23.0 18°21.0	345°48.4 18°20.1	359°13.8 18°19.1	14°39.3 18°18.0	28°58.4 18°16.7	43°30.8 18°15.4	57°55.8 18°13.9	+25.4 16.1 -0.9 59.0
	Di 18	274°21.8 17°37.8	288°47.8 17°34.5	303°13.8 17°31.1	317°39.8 17°27.6	332°05.9 17°23.9	346°32.0 17°20.2	359°58.2 17°16.3	15°24.2 17°12.4	29°50.6 17°08.3	44°16.9 17°04.1	58°43.2 16°59.8	+26.1 16.0 -3.8 58.7
O	Lu 19	275°23.0 15°43.5	289°50.0 15°37.6	304°17.1 15°31.6	318°44.2 15°25.6	333°11.3 15°19.4	347°38.6 15°13.2	360°05.8 15°06.9	16°33.1 15°00.5	31°00.5 14°54.0	45°27.9 14°47.4	59°55.4 14°40.7	+27.2 15.9 -6.3 58.4
	Ma 20	276°53.6 12°51.1	291°21.9 12°43.2	305°50.3 12°35.3	320°18.7 12°27.2	334°47.7 12°19.1	349°15.7 12°10.9	363°44.2 12°02.7	18°12.8 11°54.4	32°41.5 11°46.0	47°10.2 11°37.6	61°39.0 11°29.1	+28.5 15.8 -8.2 58.0
O	Me 21	278°56.7 9°15.2	293°26.3 9°05.9	307°56.0 8°56.5	322°25.6 8°47.1	336°55.4 8°37.7	351°25.2 8°28.2	365°55.0 8°18.7	20°24.8 8°09.1	34°54.8 7°59.5	49°24.7 7°49.8	63°54.7 7°40.2	+29.8 15.7 -9.5 57.5
	Je 22	281°30.2 5°11.5	296°00.9 5°01.4	310°31.6 4°51.2	325°02.4 4°41.1	339°33.2 4°31.0	354°04.0 4°20.8	368°34.9 4°10.6	23°05.8 4°00.4	37°36.8 3°50.2	52°07.8 3°39.9	66°38.8 3°29.7	+30.9 15.5 -10.2 57.0
O	Ve 23	284°28.3 0°55.5	298°59.8 0°45.2	313°31.4 0°34.9	328°02.9 0°24.6	342°34.6 0°14.4	357°06.2 0°04.1	371°37.9 -0°06.1	26°09.9 -0°16.4	40°41.3 -0°26.6	55°13.3 -0°36.9	69°44.8 -0°47.1	+31.7 15.4 -10.3 56.5
	Sa 24	287°43.7 -3°18.4	302°15.8 -3°28.3	316°47.9 -3°38.2	331°20.0 -3°48.1	345°52.1 -3°58.0	0°24.2 -4°07.8	14°56.4 -4°17.6	29°28.8 -4°27.4	44°00.7 -4°37.1	58°32.9 -4°46.8	73°05.0 -4°56.5	+32.1 15.2 -9.8 55.9
O	Di 25	291°09.0 -7°17.6	305°41.3 -7°26.7	320°13.6 -7°35.8	334°45.9 -7°44.8	349°18.3 -7°53.8	3°50.6 -8°02.7	18°22.9 -8°11.6	32°55.3 -8°20.5	47°27.6 -8°29.3	61°59.9 -8°38.0	76°32.3 -8°46.8	+32.3 15.1 -8.9 55.3
	Lu 26	294°37.3 -10°51.5	309°09.6 -10°59.4	323°41.9 -11°07.3	338°14.2 -11°15.1	352°46.5 -11°22.8	7°18.8 -11°30.5	21°51.1 -11°38.1	36°23.4 -11°45.7	50°55.7 -11°53.2	65°27.9 -12°00.6	80°00.2 -12°08.0	+32.3 15.0 -7.6 54.9
O	Ma 27	298°03.3 -13°51.4	312°35.4 -13°57.8	327°07.5 -14°04.1	341°39.6 -14°10.3	356°11.7 -14°16.5	10°43.8 -14°22.6	25°15.9 -14°28.7	39°48.0 -14°34.6	54°20.0 -14°40.5	68°52.1 -14°46.4	83°24.1 -14°52.2	+32.1 14.9 -6.1 54.5
	Me 28	312°35.4 -13°57.8	327°07.5 -14°04.1	341°39.6 -14°10.3	356°11.7 -14°16.5	10°43.8 -14°22.6	25°15.9 -14°28.7	39°48.0 -14°34.6	54°20.0 -14°40.5	68°52.1 -14°46.4	83°24.1 -14°52.2	97°56.1 -14°57.9	+32.1 14.9 -6.0 54.5
O	Je 29	315°55.1 -16°14.8	330°27.0 -16°19.3	344°58.8 -16°23.8	359°30.6 -16°28.2	14°02.4 -16°32.5	28°34.2 -16°36.7	43°06.0 -16°40.9	57°37.7 -16°45.0	72°09.5 -16°49.0	86°41.2 -16°52.9	101°12.9 -16°56.8	+31.8 14.8 -4.2 54.2
	Ve 30	319°07.2 -17°45.1	333°38.8 -17°47.7	348°10.3 -17°50.2	2°41.8 -17°52.6	17°13.3 -17°55.0	31°44.7 -17°57.2	46°16.2 -17°59.4	60°47.6 -18°01.5	75°19.1 -18°03.5	89°50.6 -18°05.5	104°21.9 -18°07.3	+31.5 14.8 -2.2 54.1
O	Sa 31	322°11.9 -18°25.0	336°43.1 -18°25.5	351°14.4 -18°25.9	5°45.6 -18°26.2	20°16.8 -18°26.5	34°48.0 -18°26.7	49°19.2 -18°26.7	63°50.4 -18°26.7	78°21.6 -18°26.6	92°52.8 -18°26.5	107°23.9 -18°26.2	+31.2 14.8 -0.1 54.2

Ligne 1: GHA, Δ'h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (= Sud), Δ'h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

DQ: 2 03h01 — NL: 9 23h09 — PQ: 16 20h15 — PL: 23 22h42 — DQ: 31 23h06

SOLEIL

Avril 2035

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	269°00.3 4°29.2	284°00.5 4°30.2	299°00.7 4°31.2	314°00.9 4°32.1	329°01.1 4°33.1	344°01.2 4°34.1	359°01.4 4°35.0	14°01.6 4°36.0	29°01.8 4°37.0	44°02.0 4°37.9	59°02.2 4°38.9	74°02.4 4°39.8	+0.2 +1.0
Lu 2	269°04.7 4°52.4	284°04.9 4°53.3	299°05.1 4°54.3	314°05.3 4°55.2	329°05.5 4°56.2	344°05.7 4°57.2	359°05.8 4°58.1	14°06.0 4°59.1	29°06.3 5°00.1	44°06.4 5°01.0	59°06.6 5°02.0	74°06.8 5°02.9	+0.2 +1.0
Ma 3	269°09.1 5°15.4	284°09.3 5°16.4	299°09.5 5°17.3	314°09.7 5°18.3	329°09.9 5°19.2	344°10.0 5°20.2	359°10.2 5°21.2	14°10.4 5°22.1	29°10.6 5°23.1	44°10.8 5°24.0	59°11.0 5°25.0	74°11.1 5°25.9	+0.2 +1.0
Me 4	269°13.5 5°38.4	284°13.7 5°39.3	299°13.9 5°40.3	314°14.0 5°41.2	329°14.2 5°42.2	344°14.4 5°43.1	359°14.6 5°44.1	14°14.8 5°45.0	29°14.9 5°46.0	44°15.1 5°46.9	59°15.3 5°47.9	74°15.5 5°48.8	+0.2 +1.0
Je 5	269°17.8 6°01.2	284°18.0 6°02.2	299°18.2 6°03.1	314°18.3 6°04.1	329°18.5 6°05.0	344°18.7 6°06.0	359°18.9 6°06.9	14°19.0 6°07.9	29°19.2 6°08.8	44°19.4 6°09.8	59°19.6 6°10.7	74°19.8 6°11.7	+0.2 +0.9
Ve 6	269°22.1 6°24.0	284°22.2 6°24.9	299°22.4 6°25.9	314°22.6 6°26.8	329°22.8 6°27.7	344°22.9 6°28.7	359°23.1 6°29.6	14°23.3 6°30.6	29°23.5 6°31.5	44°23.6 6°32.5	59°23.8 6°33.4	74°24.0 6°34.4	+0.2 +0.9
Sa 7	269°26.3 6°46.6	284°26.4 6°47.5	299°26.6 6°48.5	314°26.8 6°49.4	329°27.0 6°50.4	344°27.1 6°51.3	359°27.3 6°52.2	14°27.5 6°53.2	29°27.7 6°54.1	44°27.8 6°55.1	59°28.0 6°56.0	74°28.2 6°56.9	+0.2 +0.9
Di 8	269°30.4 7°09.1	284°30.6 7°10.1	299°30.8 7°11.0	314°30.9 7°11.9	329°31.1 7°12.9	344°31.3 7°13.8	359°31.4 7°14.7	14°31.6 7°15.7	29°31.8 7°16.6	44°32.0 7°17.5	59°32.1 7°18.5	74°32.3 7°19.4	+0.2 +0.9
Lu 9	269°34.5 7°31.5	284°34.7 7°32.5	299°34.9 7°33.4	314°35.0 7°34.3	329°35.2 7°35.3	344°35.4 7°36.2	359°35.5 7°37.1	14°35.7 7°38.0	29°35.9 7°39.0	44°36.0 7°39.9	59°36.2 7°40.8	74°36.4 7°41.8	+0.2 +0.9
Ma 10	269°38.5 7°53.8	284°38.7 7°54.7	299°38.9 7°55.7	314°39.0 7°56.6	329°39.2 7°57.5	344°39.4 7°58.4	359°39.5 7°59.4	14°39.7 8°00.3	29°39.9 8°01.2	44°40.0 8°02.1	59°40.2 8°03.1	74°40.4 8°04.0	+0.2 +0.9
Me 11	269°42.5 8°16.0	284°42.7 8°16.9	299°42.8 8°17.8	314°43.0 8°18.7	329°43.2 8°19.6	344°43.3 8°20.5	359°43.5 8°21.5	14°43.7 8°22.4	29°43.9 8°23.3	44°44.0 8°24.2	59°44.1 8°25.1	74°44.3 8°26.1	+0.2 +0.9
Je 12	269°46.4 8°38.0	284°46.6 8°38.9	299°46.7 8°39.8	314°46.9 8°40.7	329°47.1 8°41.6	344°47.2 8°42.5	359°47.4 8°43.4	14°47.5 8°44.3	29°47.7 8°45.3	44°47.9 8°46.2	59°48.0 8°47.1	74°48.2 8°48.8	+0.2 +0.9
Ve 13	269°50.2 8°59.8	284°50.4 9°00.7	299°50.6 9°01.6	314°50.7 9°02.5	329°50.9 9°03.4	344°51.0 9°04.4	359°51.2 9°05.3	14°51.3 9°06.2	29°51.8 9°07.1	44°51.7 9°08.0	59°51.7 9°08.9	74°52.0 9°09.8	+0.2 +0.9
Sa 14	269°54.0 9°21.5	284°54.1 9°22.4	299°54.3 9°23.3	314°54.4 9°24.2	329°54.6 9°25.1	344°54.8 9°26.0	359°54.9 9°26.9	14°55.1 9°27.8	29°55.2 9°28.7	44°55.4 9°29.6	59°55.5 9°30.5	74°55.7 9°31.4	+0.2 +0.9
Di 15	269°57.7 9°43.1	284°57.8 9°44.0	299°58.0 9°44.9	314°58.1 9°45.8	329°58.3 9°46.7	344°58.4 9°47.5	359°58.6 9°48.4	14°58.7 9°49.3	29°58.9 9°50.2	44°59.0 9°51.1	59°59.2 9°52.0	74°59.3 9°52.9	+0.2 +0.9
Lu 16	270°01.2 10°04.5	285°01.4 10°05.4	300°01.5 10°06.2	315°01.7 10°07.1	330°01.8 10°08.0	345°02.0 10°08.9	0°02.1 10°09.8	15°02.3 10°10.7	30°02.4 10°11.6	45°02.6 10°12.4	60°02.7 10°13.3	75°02.9 10°14.2	+0.1 +0.9
Ma 17	270°04.8 10°25.7	285°04.9 10°26.6	300°05.0 10°27.4	315°05.2 10°28.3	330°05.3 10°29.2	345°05.5 10°30.1	0°05.6 10°31.0	15°05.8 10°31.8	30°05.9 10°32.7	45°06.0 10°33.6	60°06.2 10°34.5	75°06.3 10°35.4	+0.1 +0.9
Me 18	270°08.2 10°46.7	285°08.3 10°47.6	300°08.4 10°48.5	315°08.6 10°49.4	330°08.7 10°50.2	345°08.9 10°51.1	0°09.0 10°52.0	15°09.1 10°52.8	30°09.3 10°53.7	45°09.4 10°54.6	60°09.6 10°55.5	75°09.7 10°56.3	+0.1 +0.9
Je 19	270°11.5 11°07.6	285°11.6 11°08.5	300°11.8 11°09.3	315°11.9 11°10.2	330°12.0 11°11.1	345°12.2 11°11.9	0°12.3 11°12.8	15°12.4 11°13.7	30°12.6 11°14.5	45°12.7 11°15.4	60°12.8 11°16.2	75°13.0 11°17.1	+0.1 +0.9
Ve 20	270°14.7 11°28.3	285°14.8 11°29.1	300°15.0 11°30.0	315°15.1 11°30.9	330°15.2 11°31.7	345°15.4 11°32.6	0°15.5 11°33.4	15°15.6 11°34.3	30°15.8 11°35.1	45°15.9 11°36.0	60°16.0 11°36.8	75°16.1 11°37.7	+0.1 +0.9
Sa 21	270°17.8 11°48.8	285°17.9 11°49.6	300°18.1 11°50.5	315°18.2 11°51.3	330°18.3 11°52.2	345°18.5 11°53.0	0°18.6 11°53.9	15°18.7 11°54.7	30°18.8 11°55.6	45°19.0 11°56.4	60°19.1 11°57.3	75°19.2 11°58.1	+0.1 +0.8
Di 22	270°20.8 12°09.1	285°21.0 12°09.9	300°21.1 12°10.8	315°21.2 12°11.6	330°21.3 12°12.4	345°21.4 12°13.3	0°21.6 12°14.1	15°21.7 12°15.0	30°21.8 12°15.8	45°21.9 12°16.6	60°22.0 12°17.5	75°22.2 12°18.3	+0.1 +0.8
Lu 23	270°23.7 12°29.2	285°23.8 12°30.0	300°24.0 12°30.8	315°24.1 12°31.7	330°24.2 12°32.5	345°24.3 12°33.3	0°24.4 12°34.2	15°24.5 12°35.0	30°24.7 12°35.8	45°24.8 12°36.6	60°24.9 12°37.5	75°25.0 12°38.3	+0.1 +0.8
Ma 24	270°26.5 12°49.1	285°26.6 12°49.9	300°26.7 12°50.7	315°26.8 12°51.5	330°26.9 12°52.4	345°27.1 12°53.2	0°27.2 12°54.0	15°27.3 12°54.8	30°27.4 12°55.6	45°27.5 12°56.5	60°27.6 12°57.3	75°27.7 12°58.1	+0.1 +0.8
Me 25	270°29.2 13°08.7	285°29.3 13°09.6	300°29.4 13°10.4	315°29.5 13°11.2	330°29.6 13°12.0	345°29.7 13°12.8	0°29.8 13°13.6	15°29.9 13°14.4	30°30.0 13°15.1	45°30.1 13°16.1	60°30.2 13°16.9	75°30.3 13°17.7	+0.1 +0.8
Je 26	270°31.7 13°28.2	285°31.8 13°29.0	300°31.9 13°29.8	315°32.0 13°30.6	330°32.1 13°31.4	345°32.2 13°32.2	0°32.3 13°33.0	15°32.4 13°33.8	30°32.5 13°34.6	45°32.6 13°35.5	60°32.7 13°36.3	75°32.8 13°37.1	+0.1 +0.8
Ve 27	270°34.1 13°47.5	285°34.2 13°48.3	300°34.3 13°49.0	315°34.4 13°49.8	330°34.5 13°50.6	345°34.6 13°51.4	0°34.7 13°52.1	15°34.8 13°53.0	30°34.9 13°53.8	45°35.0 13°54.6	60°35.1 13°55.4	75°35.2 13°56.2	+0.1 +0.8
Sa 28	270°36.4 14°06.5	285°36.5 14°07.3	300°36.6 14°08.0	315°36.7 14°08.8	330°36.8 14°09.6	345°36.9 14°10.4	0°37.0 14°11.2	15°37.0 14°12.0	30°37.1 14°12.8	45°37.2 14°13.5	60°37.3 14°14.3	75°37.4 14°15.1	+0.1 +0.8
Di 29	270°38.6 14°25.3	285°38.6 14°26.0	300°38.7 14°26.8	315°38.8 14°27.6	330°38.9 14°28.4	345°39.0 14°29.1	0°39.1 14°29.9	15°39.2 14°30.7	30°39.3 14°31.5	45°39.3 14°32.2	60°39.4 14°33.0	75°39.5 14°33.8	+0.1 +0.8
Lu 30	270°40.6 14°43.8	285°40.7 14°44.6	300°40.7 14°45.3	315°40.8 14°46.1	330°40.9 14°46.9	345°41.0 14°47.6	0°41.1 14°48.4	15°41.1 14°49.2	30°41.2 14°49.9	45°41.3 14°50.7	60°41.4 14°51.5	75°41.5 14°52.2	+0.1 +0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Avril 2035

	J	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	Δ'/h	SP
●	Di 1	226°28.4 -17°29.4	240°59.4 -17°26.2	255°30.3 -17°22.9	270°01.2 -17°19.6	284°32.2 -17°16.2	299°03.1 -17°12.6	313°34.0 -17°09.0	328°04.9 -17°05.3	342°35.9 -17°01.6	357°06.8 -16°57.7	11°37.7 -16°53.8	+30.9 +3.6	15.0 54.9
	Lu 2	229°20.8 -15°44.7	243°51.6 -15°39.4	258°22.4 -15°34.1	272°53.3 -15°28.7	287°24.1 -15°23.2	301°54.9 -15°17.6	316°25.7 -15°11.9	330°56.6 -15°06.2	345°27.4 -15°00.3	359°58.2 -14°54.4	14°29.0 -14°48.5	+30.8 +5.7	15.1 55.5
●	Ma 3	243°51.6 -15°39.4	258°22.4 -15°34.1	272°53.3 -15°28.7	287°24.1 -15°23.2	301°54.9 -15°17.6	316°25.7 -15°11.9	330°56.6 -15°06.2	345°27.4 -15°00.3	359°58.2 -14°54.4	14°29.0 -14°48.5	28°59.8 -14°42.7	+30.8 +5.7	15.1 55.5
	Me 4	246°41.1 -13°02.3	261°11.8 -12°55.0	275°42.5 -12°47.6	290°13.2 -12°40.2	304°43.9 -12°32.7	319°14.6 -12°25.2	333°45.3 -12°17.5	348°16.0 -12°09.8	2°46.6 -12°02.0	17°17.3 -11°54.2	31°47.9 -11°46.3	+30.7 +7.6	15.3 56.2
●	Je 5	249°26.5 -9°39.6	263°56.9 -9°30.7	278°27.4 -9°21.7	292°57.9 -9°12.6	307°28.3 -9°03.5	321°58.8 -8°54.3	336°29.2 -8°45.0	350°59.6 -8°35.7	5°30.0 -8°26.4	20°00.3 -8°17.0	34°30.7 -8°07.5	+30.4 +9.2	15.6 57.0
	Ve 6	252°04.0 -5°39.4	266°34.1 -5°29.1	281°04.2 -5°18.8	295°34.2 -5°08.5	310°04.2 -4°58.1	324°34.2 -4°47.7	339°04.1 -4°37.3	353°34.1 -4°26.8	8°04.0 -4°16.3	22°33.9 -4°05.7	37°03.7 -3°55.1	+30.0 +10.4	15.8 57.9
●	Sa 7	254°28.4 -1°12.7	268°57.8 -1°01.6	283°27.2 -0°50.6	297°56.5 -0°39.6	312°25.9 -0°28.5	326°55.1 -0°17.4	341°24.4 -0°06.3	355°53.6 0°04.8	10°22.8 0°15.9	24°51.9 0°27.1	39°21.0 0°38.2	+29.3 +11.1	16.0 58.7
	Di 8	256°33.1 3°25.6	271°01.6 3°36.7	285°30.0 3°47.8	300°29.9 3°58.9	314°26.8 4°10.0	328°55.1 4°21.1	343°23.3 4°32.1	357°51.6 4°43.2	12°19.8 4°54.2	26°47.9 5°05.2	41°16.0 5°16.2	+28.3 +5.6	16.2 59.3
●	Lu 9	258°11.9 7°57.2	272°39.2 8°07.6	287°06.5 8°18.0	301°33.8 8°28.4	316°01.0 8°38.7	330°28.1 8°48.9	344°55.2 8°59.1	359°22.3 9°09.3	13°49.3 9°19.4	28°16.2 9°29.4	42°43.2 9°39.4	+27.1 +10.2	16.3 59.8
	Ma 10	259°21.0 12°01.7	273°47.2 12°10.6	288°13.3 12°19.4	302°39.3 12°28.2	317°05.3 12°36.9	331°31.3 12°45.5	345°57.2 12°54.0	0°23.1 13°02.4	14°48.9 13°18.0	29°14.7 13°19.1	43°40.5 13°27.2	+25.9 +6.8	16.4 60.1
●	Me 11	260°01.7 15°18.7	274°26.9 15°25.4	288°51.9 15°31.9	303°17.9 15°38.3	317°42.0 15°44.6	332°07.0 15°50.8	346°32.0 15°56.9	0°56.9 16°02.9	15°21.8 16°08.8	29°46.7 16°14.4	44°11.6 16°20.3	+25.0 +6.2	16.4 60.1
	Je 12	260°21.8 17°31.3	274°46.3 17°35.1	289°10.9 17°38.7	303°35.4 17°42.3	317°59.9 17°45.7	332°24.4 17°49.0	346°49.0 17°52.2	1°13.5 17°55.2	15°38.0 17°58.1	30°02.5 18°00.9	44°27.0 18°03.6	+24.5 +3.2	16.3 59.9
●	Ve 13	260°35.3 18°28.7	274°59.9 18°29.4	289°24.6 18°29.9	303°49.3 18°30.3	318°14.0 18°30.6	332°38.7 18°30.8	347°03.5 18°30.8	1°28.2 18°30.7	15°53.0 18°30.5	30°17.9 18°30.2	44°42.7 18°29.7	+24.2 +0.1	16.2 59.5
	Sa 14	260°59.5 18°08.4	275°24.9 18°06.0	289°50.4 18°03.5	304°15.9 18°00.9	318°41.4 17°58.2	333°07.1 17°55.3	347°32.7 17°52.4	1°58.4 17°49.3	16°24.1 17°46.1	30°49.5 17°42.9	45°15.8 17°39.5	+25.6 -2.9	16.1 59.0
●	Di 15	261°49.7 16°35.7	276°16.4 16°30.6	290°43.2 16°25.5	305°10.2 16°20.2	319°36.9 16°14.9	334°03.8 16°09.4	348°30.8 16°03.9	2°57.9 15°58.2	17°25.0 15°52.5	31°52.2 15°46.7	46°19.4 15°40.8	+27.0 -5.5	15.9 58.5
	Lu 16	263°15.3 14°01.9	277°43.5 13°54.6	292°11.8 13°47.3	306°40.1 13°40.0	321°08.5 13°32.5	335°37.0 13°25.0	350°05.5 13°17.4	4°34.1 13°09.7	16°02.7 13°02.0	33°31.4 12°54.2	48°00.2 12°46.3	+25.5 -7.6	15.8 59.7
●	Ma 17	265°18.5 10°41.1	279°48.2 10°32.3	294°17.9 10°23.4	308°47.7 10°14.5	323°17.5 10°05.6	337°47.4 9°56.6	352°17.4 9°47.6	6°47.4 9°38.5	21°17.4 9°29.3	35°47.5 9°20.2	50°17.7 9°11.0	+22.9 -9.0	15.6 57.1
	Me 18	267°55.7 6°48.3	282°26.6 6°38.6	296°57.6 6°28.8	311°28.6 6°18.9	325°59.6 6°09.1	340°30.7 5°59.2	355°01.8 5°49.3	9°32.9 5°39.4	24°04.1 5°29.5	38°35.3 5°19.5	53°06.6 5°09.6	+31.1 -9.9	15.5 56.8
●	Je 19	270°59.7 2°38.2	285°31.5 2°28.0	300°03.3 2°17.8	314°35.2 2°07.6	329°07.0 1°57.4	343°38.9 1°47.3	358°10.9 1°37.1	12°42.8 1°26.9	27°14.8 1°16.7	41°46.8 1°06.5	56°18.8 0°56.3	+31.9 -10.2	15.3 56.3
	Ve 20	274°21.7 -1°35.9	288°54.0 -1°46.0	303°26.4 -1°56.0	317°58.7 -2°06.0	332°31.1 -2°16.1	347°03.5 -2°26.1	355°01.8 -2°36.1	16°08.3 -2°46.0	30°40.7 -2°56.0	45°13.1 -3°05.9	59°45.5 -3°15.8	+32.4 -10.0	15.2 55.8
●	Sa 21	277°53.0 -5°41.5	292°25.5 -5°51.0	306°58.1 -6°00.5	321°30.6 -6°09.9	336°03.1 -6°19.3	350°35.7 -6°28.7	355°01.8 -6°38.0	19°40.2 -6°47.3	34°13.3 -6°56.5	48°45.8 -7°05.7	63°18.4 -7°14.9	+32.5 -9.3	15.1 55.3
	Di 22	281°26.1 -9°27.7	295°58.5 -9°36.2	310°31.0 -9°44.6	325°03.4 -9°53.0	339°35.9 -10°01.3	354°08.3 -10°09.6	358°10.9 -10°17.9	20°40.8 -10°26.1	33°13.2 -10°34.2	52°18.0 -10°42.3	66°50.4 -10°50.4	+32.4 -8.3	15.0 54.9
●	Lu 23	284°55.2 -12°44.4	299°27.4 -12°51.5	313°59.4 -12°58.6	328°31.8 -13°05.6	343°04.0 -13°12.6	357°36.2 -13°19.4	362°05.5 -13°26.3	12°08.4 -13°33.0	26°40.5 -13°39.7	41°12.7 -13°46.3	55°44.8 -13°52.9	+32.2 -6.9	14.9 54.5
	Ma 24	288°17.0 -15°23.3	302°48.9 -15°28.8	317°20.8 -15°34.2	331°52.7 -15°39.5	346°24.5 -15°44.7	361°05.4 -15°49.9	370°00.0 -15°55.0	15°28.2 -16°00.1	30°00.0 -16°05.0	44°31.8 -16°10.9	59°03.6 -16°17.4	+31.8 -5.1	14.8 54.3
●	Me 25	291°30.6 -17°17.6	306°02.1 -17°21.2	320°33.7 -17°24.7	335°05.3 -17°28.1	349°36.8 -17°31.4	364°08.4 -17°34.7	373°00.0 -17°37.8	18°39.9 -17°40.9	33°11.4 -17°43.9	47°42.9 -17°46.9	62°14.4 -17°49.7	+31.5 -3.2	14.7 54.1
	Je 26	294°37.1 -18°02.5	309°08.5 -18°24.0	323°39.8 -18°25.4	338°11.2 -18°26.8	352°42.5 -18°28.0	367°13.9 -18°29.2	376°00.0 -18°30.3	21°45.2 -18°31.3	36°16.5 -18°32.2	50°47.8 -18°33.1	65°19.1 -18°33.8	+31.3 -1.1	14.7 54.0
●	Ve 27	309°08.5 -18°24.0	323°39.8 -18°25.4	338°11.2 -18°26.8	352°42.5 -18°28.0	367°13.9 -18°29.2	376°00.0 -18°30.3	385°00.0 -18°31.3	50°47.8 -18°32.2	65°19.1 -18°33.1	79°50.4 -18°33.8	94°21.7 -18°34.5	+31.3 -1.1	14.7 54.0
	Sa 28	312°10.8 -18°34.3	326°42.0 -18°33.6	341°13.3 -18°32.8	355°44.5 -18°32.0	370°15.8 -18°31.0	385°00.0 -18°28.8	399°18.3 -18°27.6	53°49.5 -18°26.3	68°20.8 -18°25.0	82°52.0 -18°25.0	97°23.2 -18°23.5	+31.2 +1.5	14.8 54.8
●	Di 29	315°12.1 -17°51.4	329°43.3 -17°48.5	344°14.6 -17°45.6	358°45.9 -17°42.7	373°17.1 -17°39.6	388°00.0 -17°36.4	402°19.7 -17°33.2	56°51.0 -17°29.9	71°22.3 -17°26.5	85°53.5 -17°23.0	100°24.8 -17°19.4	+31.3 +3.2	14.8 54.5
	Lu 30	318°14.5 -16°16.2	332°45.8 -16°11.3	347°17.2 -16°06.4	361°48.5 -16°01.4	376°19.8 -15°56.3	391°51.2 -15°51.1	406°22.5 -15°45.9	59°53.9 -15°40.5	74°25.2 -15°35.1	88°56.6 -15°29.6	103°27.9 -15°24.1	+31.3 +2.5	15.0 54.9

Ligne 1: GHA, Δ'h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (- = Sud), Δ'h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
NL: 8 10h57 — PQ: 15 02h54 — PL: 22 13h20 — DQ: 30 16h53

SOLEIL

Mai 2035

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ°/h
Ma 1	270°42.5	285°42.5	300°42.6	315°42.7	330°42.8	345°42.8	0°42.9	15°43.0	30°43.1	45°43.1	60°43.2	75°43.3	+0.1
	15°02.1	15°02.9	15°03.6	15°04.4	15°05.1	15°05.9	15°06.7	15°07.4	15°08.2	15°08.9	15°09.7	15°10.4	+0.8
Me 2	270°44.2	285°44.3	300°44.3	315°44.4	330°44.5	345°44.6	0°44.6	15°44.7	30°44.8	45°44.8	60°44.9	75°45.0	+0.1
	15°20.2	15°20.9	15°21.7	15°22.4	15°23.2	15°23.9	15°24.6	15°25.4	15°26.1	15°26.9	15°27.6	15°28.4	+0.7
Je 3	270°45.8	285°45.9	300°45.9	315°46.0	330°46.1	345°46.1	0°46.2	15°46.3	30°46.3	45°46.4	60°46.4	75°46.5	+0.1
	15°38.0	15°38.7	15°39.4	15°40.2	15°40.9	15°41.7	15°42.4	15°43.1	15°43.9	15°44.6	15°45.3	15°46.1	+0.7
Ve 4	270°47.3	285°47.3	300°47.4	315°47.5	330°47.5	345°47.6	0°47.6	15°47.7	30°47.7	45°47.8	60°47.8	75°47.9	+0.1
	15°55.5	15°56.3	15°57.0	15°57.7	15°58.4	15°59.1	15°59.9	16°00.6	16°01.3	16°02.0	16°02.8	16°03.5	+0.7
Sa 5	270°48.6	285°48.7	300°48.7	315°48.8	330°48.8	345°48.9	0°48.9	15°49.0	30°49.0	45°49.1	60°49.1	75°49.2	+0.1
	16°12.8	16°13.5	16°14.2	16°15.0	16°15.7	16°16.4	16°17.1	16°17.8	16°18.5	16°19.2	16°19.9	16°20.6	+0.7
Di 6	270°49.8	285°49.8	300°49.9	315°49.9	330°50.0	345°50.0	0°50.1	15°50.1	30°50.1	45°50.2	60°50.2	75°50.3	+0.0
	16°29.8	16°30.5	16°31.2	16°31.9	16°32.6	16°33.3	16°34.0	16°34.7	16°35.4	16°36.1	16°36.8	16°37.5	+0.7
Lu 7	270°50.8	285°50.9	300°50.9	315°50.9	330°51.0	345°51.0	0°51.1	15°51.1	30°51.1	45°51.2	60°51.2	75°51.2	+0.0
	16°46.6	16°47.3	16°48.0	16°48.6	16°49.3	16°50.0	16°50.7	16°51.4	16°52.1	16°52.8	16°53.5	16°54.1	+0.7
Ma 8	270°51.7	285°51.7	300°51.8	315°51.8	330°51.8	345°51.9	0°51.9	15°51.9	30°52.0	45°52.0	60°52.0	75°52.1	+0.0
	17°03.0	17°03.7	17°04.4	17°05.1	17°05.7	17°06.4	17°07.1	17°07.8	17°08.5	17°09.1	17°09.8	17°10.5	+0.7
Me 9	270°52.5	285°52.5	300°52.5	315°52.5	330°52.6	345°52.6	0°52.6	15°52.7	30°52.7	45°52.7	60°52.7	75°52.8	+0.0
	17°19.2	17°19.9	17°20.5	17°21.2	17°21.9	17°22.5	17°23.2	17°23.9	17°24.5	17°25.2	17°25.9	17°26.5	+0.7
Je 10	270°53.1	285°53.1	300°53.1	315°53.1	330°53.2	345°53.2	0°53.2	15°53.2	30°53.2	45°53.3	60°53.3	75°53.3	+0.0
	17°35.1	17°35.8	17°36.4	17°37.1	17°37.7	17°38.4	17°39.0	17°39.7	17°40.3	17°41.0	17°41.6	17°42.3	+0.7
Ve 11	270°53.5	285°53.6	300°53.6	315°53.6	330°53.6	345°53.6	0°53.6	15°53.7	30°53.7	45°53.7	60°53.7	75°53.7	+0.0
	17°50.7	17°51.3	17°52.0	17°52.6	17°53.3	17°53.9	17°54.5	17°55.2	17°55.8	17°56.5	17°57.1	17°57.7	+0.6
Sa 12	270°53.9	285°53.9	300°53.9	315°53.9	330°53.9	345°53.9	0°53.9	15°54.0	30°54.0	45°54.0	60°54.0	75°54.0	+0.0
	18°06.0	18°06.6	18°07.2	18°07.9	18°08.5	18°09.1	18°09.8	18°10.4	18°11.0	18°11.6	18°12.3	18°12.9	+0.6
Di 13	270°54.1	285°54.1	300°54.1	315°54.1	330°54.1	345°54.1	0°54.1	15°54.1	30°54.1	45°54.1	60°54.1	75°54.1	+0.0
	18°21.0	18°21.6	18°22.2	18°22.8	18°23.4	18°24.1	18°24.7	18°25.3	18°25.9	18°26.5	18°27.1	18°27.7	+0.6
Lu 14	270°54.1	285°54.1	300°54.1	315°54.1	330°54.1	345°54.1	0°54.1	15°54.1	30°54.1	45°54.1	60°54.1	75°54.1	-0.0
	18°35.6	18°36.3	18°36.9	18°37.5	18°38.1	18°38.7	18°39.3	18°39.9	18°40.5	18°41.1	18°41.7	18°42.3	+0.6
Ma 15	270°54.1	285°54.0	300°54.0	315°54.0	330°54.0	345°54.0	0°54.0	15°54.0	30°54.0	45°54.0	60°54.0	75°54.0	-0.0
	18°50.0	18°50.6	18°51.2	18°51.8	18°52.4	18°53.0	18°53.6	18°54.1	18°54.7	18°55.3	18°55.9	18°56.5	+0.6
Me 16	270°53.8	285°53.8	300°53.8	315°53.8	330°53.8	345°53.8	0°53.8	15°53.8	30°53.7	45°53.7	60°53.7	75°53.7	-0.0
	19°04.1	19°04.6	19°05.2	19°05.8	19°06.4	19°06.9	19°07.5	19°08.1	19°08.7	19°09.2	19°09.8	19°10.4	+0.6
Je 17	270°53.5	285°53.5	300°53.5	315°53.5	330°53.4	345°53.4	0°53.4	15°53.4	30°53.3	45°53.3	60°53.3	75°53.3	-0.0
	19°17.8	19°18.3	19°18.9	19°19.5	19°20.0	19°20.6	19°21.2	19°21.7	19°22.3	19°22.8	19°23.4	19°23.9	+0.6
Ve 18	270°53.0	285°53.0	300°53.0	315°52.9	330°52.9	345°52.9	0°52.9	15°52.8	30°52.8	45°52.8	60°52.8	75°52.7	-0.0
	19°31.2	19°31.7	19°32.3	19°32.8	19°33.4	19°33.9	19°34.5	19°35.0	19°35.6	19°36.1	19°36.6	19°37.2	+0.5
Sa 19	270°52.4	285°52.4	300°52.3	315°52.3	330°52.3	345°52.2	0°52.2	15°52.2	30°52.1	45°52.1	60°52.1	75°52.1	-0.0
	19°44.2	19°44.8	19°45.3	19°45.8	19°46.4	19°46.9	19°47.4	19°48.0	19°48.5	19°49.0	19°49.6	19°50.1	+0.5
Di 20	270°51.6	285°51.6	300°51.6	315°51.5	330°51.5	345°51.5	0°51.4	15°51.4	30°51.3	45°51.3	60°51.3	75°51.2	-0.0
	19°56.9	19°57.5	19°58.0	19°58.5	19°59.0	19°59.5	20°00.1	20°00.6	20°01.1	20°01.6	20°02.1	20°02.7	+0.5
Lu 21	270°50.7	285°50.7	300°50.7	315°50.6	330°50.6	345°50.5	0°50.5	15°50.5	30°50.4	45°50.4	60°50.3	75°50.3	-0.0
	20°09.3	20°09.8	20°10.3	20°10.8	20°11.3	20°11.9	20°12.4	20°12.9	20°13.4	20°13.9	20°14.4	20°14.9	+0.5
Ma 22	270°49.7	285°49.7	300°49.6	315°49.6	330°49.5	345°49.5	0°49.4	15°49.4	30°49.3	45°49.3	60°49.2	75°49.2	-0.0
	20°21.3	20°21.8	20°22.3	20°22.8	20°23.3	20°23.8	20°24.3	20°24.8	20°25.3	20°25.8	20°26.3	20°26.7	+0.5
Me 23	270°48.6	285°48.5	300°48.5	315°48.4	330°48.4	345°48.3	0°48.3	15°48.2	30°48.1	45°48.1	60°48.0	75°48.0	-0.1
	20°33.0	20°33.5	20°34.0	20°34.5	20°34.9	20°35.4	20°35.9	20°36.4	20°36.8	20°37.3	20°37.8	20°38.3	+0.5
Je 24	270°47.3	285°47.2	300°47.2	315°47.1	330°47.1	345°47.0	0°46.9	15°46.9	30°46.8	45°46.8	60°46.7	75°46.6	-0.1
	20°44.4	20°44.8	20°45.3	20°45.8	20°46.2	20°46.7	20°47.1	20°47.6	20°48.1	20°48.5	20°49.0	20°49.4	+0.5
Ve 25	270°45.9	285°45.8	300°45.7	315°45.7	330°45.6	345°45.6	0°45.5	15°45.4	30°45.4	45°45.3	60°45.2	75°45.2	-0.1
	20°55.3	20°55.8	20°56.2	20°56.7	20°57.1	20°57.6	20°58.0	20°58.5	20°58.9	20°59.4	20°59.8	21°00.2	+0.4
Sa 26	270°44.3	285°44.3	300°44.2	315°44.1	330°44.1	345°44.0	0°43.9	15°43.9	30°43.8	45°43.7	60°43.7	75°43.6	-0.1
	21°06.0	21°06.4	21°06.8	21°07.3	21°07.7	21°08.1	21°08.6	21°09.0	21°09.4	21°09.8	21°10.3	21°10.7	+0.4
Di 27	270°42.7	285°42.6	300°42.5	315°42.5	330°42.4	345°42.3	0°42.2	15°42.2	30°42.1	45°42.0	60°41.9	75°41.9	-0.1
	21°16.2	21°16.6	21°17.0	21°17.5	21°17.9	21°18.3	21°18.7	21°19.1	21°19.5	21°19.9	21°20.4	21°20.8	+0.4
Lu 28	270°40.9	285°40.8	300°40.7	315°40.7	330°40.6	345°40.5	0°40.4	15°40.4	30°40.3	45°40.2	60°40.1	75°40.0	-0.1
	21°26.1	21°26.5	21°26.9	21°27.3	21°27.7	21°28.1	21°28.5	21°28.9	21°29.3	21°29.7	21°30.1	21°30.5	+0.4
Ma 29	270°39.0	285°38.9	300°38.8	315°38.7	330°38.7	345°38.6	0°38.5	15°38.4	30°38.3	45°38.2	60°38.2	75°38.1	-0.1
	21°35.6	21°36.0	21°36.4	21°36.8	21°37.2	21°37.5	21°37.9	21°38.3	21°38.7	21°39.1	21°39.5	21°39.8	+0.4
Me 30	270°37.0	285°36.9	300°36.8	315°36.7	330°36.6	345°36.5	0°36.5	15°36.4	30°36.3	45°36.2	60°36.1	75°36.0	-0.1
	21°44.7	21°45.1	21°45.5	21°45.9	21°46.2	21°46.6	21°47.0	21°47.4	21°47.7	21°48.1	21°48.4	21°48.8	+0.4
Je 31	270°34.8	285°34.8	300°34.7	315°34.6	330°34.5	345°34.4	0°34.3	15°34.2	30°34.1	45°34.0	60°33.9	75°33.8	-0.1
	21°53.5	21°53.9	21°54.2	21°54.6	21°54.9	21°55.3	21°55.6	21°56.0	21°56.3	21°56.7	21°57.0	21°57.4	+0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ°/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ°/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Mai 2035

	J	21h	22h	23h	0h	1h	2h	3h	4h	5h	6h	7h	Δ'/h SP
●	Ma 1	222°42.1 -11°39.2	237°13.4 -11°31.2	251°44.6 -11°23.2	266°15.9 -11°15.1	280°47.1 -11°06.9	295°18.4 -10°58.6	309°49.6 -10°50.3	324°20.9 -10°41.9	338°52.1 -10°33.5	353°23.3 -10°25.0	7°54.5 -10°16.4	+31.2 15.3 +8.3 56.1
	Me 2	225°40.9 -8°00.9	240°11.8 -7°51.4	254°42.8 -7°41.9	269°13.7 -7°32.3	283°44.6 -7°22.7	298°15.5 -7°13.0	312°46.4 -7°03.3	327°17.2 -6°53.5	341°48.1 -6°43.7	356°18.9 -6°33.8	10°49.6 -6°23.9	+30.9 15.5 +9.7 57.0
	Je 3	240°11.8 -7°51.4	254°42.8 -7°41.9	269°13.7 -7°32.3	283°44.6 -7°22.7	298°15.5 -7°13.0	312°46.4 -7°03.3	327°17.2 -6°53.5	341°48.1 -6°43.7	356°18.9 -6°33.8	10°49.6 -6°23.9	25°20.4 -6°13.9	+30.9 15.6 +9.8 57.0
●	Ve 4	242°58.6 -3°39.3	257°28.9 -3°28.7	271°59.2 -3°18.1	286°29.4 -3°07.4	300°59.6 -2°56.7	315°29.8 -2°46.0	329°59.9 -2°35.2	344°30.0 -2°24.4	359°00.1 -2°13.6	13°30.1 -2°02.7	28°00.1 -1°51.8	+30.2 15.8 +10.8 58.0
	Sa 5	245°24.9 0°53.9	259°54.2 1°05.1	274°23.4 1°16.2	288°52.6 1°27.4	303°21.7 1°38.6	317°50.8 1°49.8	332°19.9 2°01.0	346°48.9 2°12.2	1°17.8 2°23.5	15°46.7 2°34.7	30°15.6 2°45.9	+29.1 16.1 +11.2 58.9
	Di 6	247°21.5 5°33.2	261°49.4 5°44.2	276°17.3 5°55.2	290°45.1 6°06.2	305°12.8 6°17.2	319°40.5 6°28.1	334°08.1 6°39.1	348°35.7 6°49.9	3°03.2 7°00.8	17°30.6 7°11.6	31°58.0 7°22.4	+27.7 16.3 +10.9 59.8
●	Lu 7	248°40.8 9°59.3	263°07.1 10°09.4	277°33.4 10°19.4	291°59.6 10°29.4	306°25.7 10°39.2	320°51.8 10°49.1	335°17.8 10°58.8	349°43.7 11°08.5	4°09.6 11°18.2	18°35.4 11°27.7	33°01.1 11°37.2	+26.0 16.5 +9.8 60.4
	Ma 8	249°19.8 13°50.2	263°44.5 13°58.4	278°09.2 14°06.5	292°33.9 14°14.5	306°58.5 14°23.5	321°23.0 14°30.1	335°47.5 14°37.8	350°11.9 14°45.4	4°36.3 14°52.9	19°00.6 15°00.3	33°24.9 15°07.6	+24.5 16.6 +7.7 60.8
	Me 9	249°23.5 16°43.9	263°47.0 16°49.1	278°10.6 16°54.4	292°34.1 16°59.7	306°57.6 17°04.8	321°21.1 17°09.7	335°44.5 17°14.6	350°07.9 17°19.3	4°31.3 17°23.9	18°54.7 17°28.4	33°18.0 17°32.7	+23.5 16.6 +4.9 60.9
●	Je 10	249°06.6 18°22.1	263°29.8 18°24.3	277°53.0 18°26.4	292°16.2 18°28.4	306°39.4 18°30.2	321°02.7 18°31.9	335°25.9 18°33.4	349°49.1 18°34.8	4°12.4 18°36.1	18°35.7 18°37.2	32°59.0 18°38.2	+23.2 16.5 +1.6 60.6
	Ve 11	248°51.4 18°37.2	263°15.1 18°36.0	277°38.9 18°34.8	292°02.8 18°33.4	306°26.6 18°31.9	320°50.6 18°30.2	335°14.6 18°28.4	349°38.6 18°26.5	4°02.7 18°24.5	18°26.8 18°22.3	32°51.0 18°20.0	+24.0 16.4 -1.7 60.1
	Sa 12	249°00.5 17°31.2	263°25.6 17°27.1	277°50.8 17°22.8	292°16.1 17°18.4	306°41.4 17°13.8	321°06.8 17°09.2	335°32.3 17°04.5	349°57.9 16°59.7	4°23.5 16°54.7	18°49.2 16°49.7	33°14.9 16°44.5	+25.4 16.2 -4.7 59.4
●	Di 13	249°50.3 15°15.6	264°17.3 15°09.9	278°44.3 15°02.2	293°11.4 14°55.4	307°38.6 14°48.5	322°05.9 14°41.5	336°33.2 14°34.4	351°00.7 14°27.3	5°28.2 14°20.1	19°55.8 14°12.8	34°23.4 14°05.4	+27.3 16.0 -7.0 58.7
	Lu 14	251°27.2 12°06.4	265°56.1 11°57.9	280°25.0 11°49.4	294°54.0 11°40.9	309°23.0 11°32.3	323°52.2 11°23.6	338°21.4 11°14.9	352°50.6 11°06.1	7°20.0 10°57.3	21°49.4 10°54.1	36°18.8 10°39.5	+29.2 15.8 -8.7 57.9
	Ma 15	253°48.7 8°20.5	268°19.2 8°10.9	282°49.7 8°01.3	297°20.7 7°51.7	311°51.0 7°42.0	326°21.7 7°32.3	340°52.4 7°22.6	355°23.3 7°12.9	10°54.3 7°03.1	24°25.0 6°53.3	38°56.0 6°43.5	+30.7 15.6 -9.7 57.1
●	Me 16	256°46.5 4°13.6	271°18.2 4°03.5	285°49.9 3°53.4	300°21.7 3°43.3	314°53.8 3°33.1	329°25.4 3°23.0	343°57.3 3°12.8	358°29.3 3°02.7	15°01.3 2°52.5	27°33.1 2°42.3	42°05.3 2°32.2	+31.9 15.4 -10.2 56.4
	Je 17	260°09.7 -0°00.5	274°42.2 -0°10.6	289°14.7 -0°20.8	303°47.3 -0°30.9	318°19.8 -0°41.0	332°52.4 -0°51.1	347°25.0 -1°01.2	3°57.5 -1°11.3	16°30.3 -1°21.4	31°02.9 -1°31.4	45°35.6 -1°41.5	+32.6 15.2 -10.1 55.8
	Ve 18	263°47.3 -4°10.0	278°20.3 -4°19.8	292°53.1 -4°29.5	310°25.9 -4°39.2	325°40.8 -4°48.8	340°13.7 -4°58.4	354°46.5 -5°08.0	9°19.3 -5°17.6	23°57.2 -5°27.2	38°24.9 -5°36.7	52°57.7 -5°46.2	+32.8 15.0 -9.6 55.3
●	Sa 19	267°29.4 -8°04.4	282°02.3 -8°13.3	296°35.1 -8°22.2	311°08.0 -8°31.0	325°40.8 -8°39.8	340°13.7 -8°48.6	354°46.5 -8°57.3	9°19.3 -9°06.0	23°57.2 -9°14.6	38°24.9 -9°23.2	52°57.7 -9°31.7	+32.8 15.0 -8.7 54.8
	Di 20	271°08.0 -11°33.9	285°40.6 -11°41.7	300°13.3 -11°49.3	314°45.7 -11°57.0	329°18.3 -12°04.5	343°50.8 -12°12.1	358°23.3 -12°19.5	12°55.8 -12°26.9	27°28.3 -12°34.3	42°00.8 -12°41.6	56°33.2 -12°48.8	+32.5 14.9 -7.5 54.5
	Lu 21	274°37.9 -14°29.8	289°10.0 -14°36.0	303°42.2 -14°42.8	318°14.3 -14°48.3	332°46.4 -14°54.3	347°18.5 -15°00.2	361°18.5 -15°06.1	1°50.6 -15°11.9	16°22.7 -15°17.7	30°54.7 -15°23.4	45°26.8 -15°29.4	+32.1 14.8 -5.9 54.2
●	Ma 22	277°56.8 -16°44.3	292°28.5 -16°48.7	307°00.3 -16°53.1	321°32.0 -16°57.4	336°03.6 -17°01.5	350°35.3 -17°05.7	365°05.7 -17°09.7	5°07.0 -17°13.7	19°38.6 -17°17.5	34°10.2 -17°21.3	48°41.8 -17°25.1	+31.7 14.7 -4.1 54.0
	Me 23	281°05.8 -18°11.2	295°37.2 -18°13.6	310°08.6 -18°16.0	324°40.0 -18°18.2	339°11.3 -18°20.4	353°42.7 -18°22.5	368°14.1 -18°24.5	8°14.1 -18°28.2	22°45.4 -18°30.8	37°16.7 -18°34.0	51°48.1 -18°38.1	+31.4 14.7 -2.0 53.9
	Je 24	284°08.5 -18°46.4	298°39.7 -18°46.7	313°10.9 -18°46.9	327°42.2 -18°47.0	342°13.4 -18°47.0	356°44.7 -18°47.0	371°15.9 -18°46.9	25°47.1 -18°46.6	40°18.4 -18°46.6	54°49.6 -18°45.9	69°20.8 -18°45.5	+31.2 14.7 +0.1 54.0
●	Ve 25	287°09.6 -18°28.0	301°40.9 -18°26.1	316°12.2 -18°24.2	330°43.5 -18°22.2	345°14.8 -18°20.1	359°46.1 -18°17.9	374°17.4 -18°15.6	28°48.8 -18°13.3	43°20.1 -18°10.8	57°51.4 -18°08.3	72°22.8 -18°05.7	+31.3 14.8 +2.2 54.1
	Sa 26	290°13.9 -17°16.6	304°45.4 -17°12.7	319°16.8 -17°08.7	333°48.3 -17°04.6	348°19.8 -17°00.5	363°19.8 -16°56.2	378°51.4 -16°51.9	2°51.4 -16°47.5	17°22.2 -16°47.5	31°54.4 -16°43.0	46°26.0 -16°38.5	+31.5 14.8 +3.4 54.4
	Di 27	304°45.4 -17°12.7	319°16.8 -17°08.7	333°48.3 -17°04.6	348°19.8 -17°00.5	363°19.8 -16°56.2	378°51.4 -16°51.9	393°22.9 -16°47.5	4°56.2 -16°43.0	17°22.2 -16°43.0	31°54.4 -16°38.5	46°26.0 -16°33.9	+31.5 14.8 +4.4 54.4
●	Lu 28	307°59.5 -15°09.3	322°27.2 -15°03.4	336°58.9 -14°57.4	351°30.7 -14°51.3	366°02.4 -14°45.2	380°34.2 -14°39.0	394°05.9 -14°32.7	49°37.7 -14°26.4	64°09.5 -14°19.9	78°41.3 -14°13.5	93°13.1 -14°06.9	+31.8 15.0 +6.2 54.8
	Ma 29	311°10.7 -12°20.4	325°42.5 -12°12.8	340°14.4 -12°05.1	354°46.3 -11°57.3	369°18.2 -11°49.5	383°50.0 -11°41.6	398°21.9 -11°33.7	52°53.8 -11°25.7	67°25.7 -11°17.7	81°57.5 -11°09.5	96°29.4 -11°01.4	+31.9 15.1 +7.9 55.4
	Me 30	314°27.0 -8°51.9	328°58.8 -8°42.8	343°30.6 -8°33.7	358°02.3 -8°24.5	372°34.1 -8°15.3	386°50.0 -8°06.1	401°37.6 -7°56.7	56°09.3 -7°47.4	70°41.0 -7°38.0	85°12.7 -7°28.5	99°44.3 -7°19.0	+31.7 15.3 +9.3 56.2
●	Je 31	317°37.2 -4°51.1	332°08.6 -4°41.0	346°39.9 -4°30.7	361°11.2 -4°20.5	375°42.5 -4°10.2	390°13.7 -3°59.9	404°44.9 -3°49.5	59°16.1 -3°39.1	73°47.3 -3°28.7	88°18.4 -3°18.3	102°49.5 -3°07.8	+31.2 15.6 +10.3 57.1

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
NL: 7 20h03 — PQ: 14 10h28 — PL: 22 04h25 — DQ: 30 07h30

SOLEIL

Juin 2035

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Ve 1	276°32.6 22°01.9	285°32.5 22°02.2	300°32.4 22°02.6	315°32.3 22°02.9	330°32.2 22°03.2	345°32.1 22°03.6	6°32.0 22°03.9	15°31.9 22°04.3	30°31.8 22°04.6	45°31.7 22°04.9	60°31.6 22°05.3	75°31.5 22°05.6	-0.1 +0.3
Sa 2	270°30.3 22°09.9	285°30.2 22°10.2	300°30.1 22°10.5	315°30.0 22°10.9	330°29.9 22°11.2	345°29.8 22°11.5	0°29.7 22°11.8	15°29.6 22°12.1	30°29.5 22°12.5	45°29.4 22°12.8	60°29.3 22°13.1	75°29.2 22°13.4	-0.1 +0.3
Di 3	270°27.8 22°17.5	285°27.7 22°17.8	300°27.6 22°18.1	315°27.5 22°18.4	330°27.4 22°18.7	345°27.3 22°19.0	0°27.2 22°19.3	15°27.1 22°19.6	30°27.0 22°19.9	45°26.9 22°20.2	60°26.8 22°20.5	75°26.7 22°20.8	-0.1 +0.3
Lu 4	270°25.3 22°24.7	285°25.2 22°25.0	300°25.1 22°25.3	315°25.0 22°25.6	330°24.9 22°25.9	345°24.8 22°26.2	0°24.6 22°26.5	15°24.5 22°26.7	30°24.4 22°27.0	45°24.3 22°27.3	60°24.2 22°27.6	75°24.1 22°27.9	-0.1 +0.3
Ma 5	270°22.7 22°31.5	285°22.6 22°31.8	300°22.4 22°32.1	315°22.3 22°32.4	330°22.2 22°32.6	345°22.1 22°32.9	0°22.0 22°33.2	15°21.9 22°33.5	30°21.8 22°33.7	45°21.7 22°34.0	60°21.5 22°34.3	75°21.4 22°34.5	-0.1 +0.3
Me 6	270°20.0 22°38.0	285°19.8 22°38.2	300°19.7 22°38.5	315°19.6 22°38.8	330°19.5 22°39.3	345°19.4 22°39.6	0°19.3 22°39.5	15°19.2 22°39.8	30°19.0 22°40.0	45°18.9 22°40.3	60°18.8 22°40.5	75°18.7 22°40.8	-0.1 +0.3
Je 7	270°17.2 22°44.0	285°17.1 22°44.3	300°16.9 22°44.5	315°16.8 22°44.7	330°16.7 22°45.0	345°16.6 22°45.2	0°16.5 22°45.5	15°16.3 22°45.7	30°16.2 22°45.9	45°16.1 22°46.2	60°16.0 22°46.4	75°15.9 22°46.7	-0.1 +0.2
Ve 8	270°14.3 22°49.7	285°14.2 22°49.9	300°14.1 22°50.1	315°14.0 22°50.3	330°13.8 22°50.6	345°13.7 22°50.8	0°13.6 22°51.0	15°13.5 22°51.2	30°13.4 22°51.4	45°13.2 22°51.7	60°13.1 22°51.9	75°13.0 22°52.1	-0.1 +0.2
Sa 9	270°11.4 22°54.9	285°11.3 22°55.1	300°11.2 22°55.3	315°11.0 22°55.5	330°10.9 22°55.7	345°10.8 22°55.9	0°10.7 22°56.1	15°10.5 22°56.4	30°10.4 22°56.6	45°10.3 22°56.8	60°10.2 22°57.0	75°10.0 22°57.2	-0.1 +0.2
Di 10	270°08.4 22°59.7	285°08.3 22°59.9	300°08.2 22°00.1	315°08.0 22°00.3	330°07.9 22°00.5	345°07.8 22°00.7	0°07.7 23°00.9	15°07.5 23°01.1	30°07.4 23°01.2	45°07.3 23°01.4	60°07.2 23°01.6	75°07.0 23°01.8	-0.1 +0.2
Lu 11	270°05.4 23°04.2	285°05.3 23°04.5	300°05.1 23°04.5	315°05.0 23°04.7	330°04.9 23°04.9	345°04.8 23°05.0	0°04.6 23°05.2	15°04.5 23°05.4	30°04.4 23°05.6	45°04.2 23°05.7	60°04.1 23°05.9	75°04.0 23°06.1	-0.1 +0.2
Ma 12	270°02.3 23°08.2	285°02.2 23°08.3	300°02.1 23°08.5	315°01.9 23°08.7	330°01.8 23°08.9	345°01.7 23°09.0	0°01.5 23°09.1	15°01.4 23°09.3	30°01.3 23°09.4	45°01.2 23°09.6	60°01.0 23°09.7	75°00.9 23°09.9	-0.1 +0.2
Me 13	269°59.2 23°11.8	284°59.1 23°11.9	299°58.9 23°12.1	314°58.8 23°12.2	329°58.7 23°12.4	344°58.6 23°12.5	359°58.4 23°12.6	14°58.3 23°12.8	29°58.2 23°12.9	44°58.0 23°13.1	59°57.9 23°13.2	74°57.8 23°13.3	-0.1 +0.1
Je 14	269°56.1 23°15.0	284°55.9 23°15.1	299°55.8 23°15.3	314°55.7 23°15.4	329°55.5 23°15.5	344°55.4 23°15.6	359°55.3 23°15.7	14°55.1 23°15.9	29°55.0 23°16.0	44°54.8 23°16.2	59°54.7 23°16.3	74°54.6 23°16.3	-0.1 +0.1
Ve 15	269°52.9 23°17.8	284°52.7 23°17.9	299°52.6 23°18.0	314°52.5 23°18.1	329°52.4 23°18.2	344°52.3 23°18.3	359°52.1 23°18.4	14°52.0 23°18.5	29°51.8 23°18.6	44°51.7 23°18.7	59°51.6 23°18.8	74°51.4 23°18.9	-0.1 +0.1
Sa 16	269°49.7 23°20.2	284°49.5 23°20.3	299°49.4 23°20.4	314°49.3 23°20.5	329°49.1 23°20.5	344°49.0 23°20.6	359°48.9 23°20.7	14°48.7 23°20.8	29°48.5 23°20.9	44°48.3 23°21.0	59°48.1 23°21.1	74°48.0 23°21.1	-0.1 +0.1
Di 17	269°46.5 23°22.2	284°46.3 23°22.2	299°46.2 23°22.3	314°46.1 23°22.4	329°45.9 23°22.4	344°45.8 23°22.5	359°45.7 23°22.6	14°45.5 23°22.7	29°45.4 23°22.7	44°45.2 23°22.8	59°45.1 23°22.9	74°45.0 23°22.9	-0.1 +0.1
Lu 18	269°43.2 23°23.7	284°43.1 23°23.8	299°43.0 23°23.8	314°42.8 23°23.9	329°42.7 23°23.9	344°42.5 23°24.0	359°42.4 23°24.0	14°42.3 23°24.1	29°42.2 23°24.1	44°42.0 23°24.2	59°41.9 23°24.2	74°41.7 23°24.3	-0.1 +0.1
Ma 19	269°40.0 23°24.9	284°39.8 23°24.9	299°39.7 23°24.9	314°39.6 23°25.0	329°39.4 23°25.0	344°39.3 23°25.0	359°39.2 23°25.1	14°39.0 23°25.1	29°38.9 23°25.2	44°38.8 23°25.2	59°38.6 23°25.2	74°38.5 23°25.2	-0.1 +0.0
Me 20	269°36.7 23°25.6	284°36.6 23°25.6	299°36.5 23°25.6	314°36.3 23°25.7	329°36.2 23°25.7	344°36.1 23°25.7	359°35.9 23°25.7	14°35.8 23°25.7	29°35.6 23°25.7	44°35.5 23°25.8	59°35.4 23°25.8	74°35.2 23°25.8	-0.1 +0.0
Je 21	269°33.5 23°25.9	284°33.3 23°25.9	299°33.2 23°25.9	314°33.1 23°25.9	329°32.9 23°25.9	344°32.8 23°25.9	359°32.7 23°25.9	14°32.5 23°25.9	29°32.4 23°25.9	44°32.3 23°25.9	59°32.1 23°25.9	74°32.0 23°25.9	-0.1 +0.0
Ve 22	269°30.2 23°25.8	284°30.1 23°25.8	299°30.0 23°25.8	314°29.8 23°25.8	329°29.7 23°25.8	344°29.6 23°25.7	359°29.4 23°25.7	14°29.3 23°25.7	29°29.2 23°25.7	44°29.0 23°25.7	59°28.9 23°25.7	74°28.8 23°25.6	-0.1 -0.0
Sa 23	269°27.0 23°25.3	284°26.9 23°25.3	299°26.7 23°25.2	314°26.6 23°25.2	329°26.5 23°25.2	344°26.3 23°25.2	359°26.2 23°25.1	14°26.1 23°25.1	29°25.9 23°25.2	44°25.8 23°25.0	59°25.7 23°25.0	74°25.5 23°24.9	-0.1 -0.0
Di 24	269°23.8 23°24.4	284°23.7 23°24.3	299°23.5 23°24.3	314°23.4 23°24.2	329°23.3 23°24.2	344°23.1 23°24.1	359°23.0 23°24.1	14°22.9 23°24.0	29°22.6 23°24.0	44°22.3 23°23.9	59°22.5 23°23.9	74°22.3 23°23.8	-0.1 -0.1
Lu 25	269°20.6 23°23.1	284°20.5 23°23.0	299°20.3 23°22.9	314°20.2 23°22.9	329°20.1 23°22.8	344°20.0 23°22.7	359°19.8 23°22.7	14°19.7 23°22.6	29°19.6 23°22.5	44°19.4 23°22.5	59°19.3 23°22.4	74°19.2 23°22.3	-0.1 -0.1
Ma 26	269°17.4 23°21.3	284°17.3 23°21.2	299°17.2 23°21.1	314°17.1 23°21.1	329°16.9 23°21.0	344°16.8 23°20.9	359°16.7 23°20.8	14°16.5 23°20.7	29°16.4 23°20.6	44°16.3 23°20.5	59°16.1 23°20.5	74°16.0 23°20.4	-0.1 -0.1
Me 27	269°14.3 23°19.2	284°14.2 23°19.1	299°14.1 23°19.0	314°13.9 23°18.9	329°13.8 23°18.8	344°13.7 23°18.7	359°13.5 23°18.6	14°13.4 23°18.5	29°13.3 23°18.3	44°13.2 23°18.2	59°13.0 23°18.1	74°12.9 23°18.0	-0.1 -0.1
Je 28	269°11.2 23°16.6	284°11.1 23°16.5	299°11.0 23°16.4	314°10.8 23°16.2	329°10.7 23°16.1	344°10.6 23°16.0	359°10.5 23°15.9	14°10.3 23°15.8	29°10.2 23°15.6	44°10.1 23°15.5	59°09.9 23°15.4	74°09.8 23°15.3	-0.1 -0.1
Ve 29	269°08.2 23°13.6	284°08.0 23°13.5	299°07.9 23°13.4	314°07.8 23°13.2	329°07.7 23°13.1	344°07.5 23°12.9	359°07.4 23°12.8	14°07.3 23°12.9	29°07.2 23°12.9	44°07.0 23°12.9	59°06.9 23°12.8	74°06.8 23°12.6	-0.1 -0.1
Sa 30	269°05.2 23°10.2	284°05.0 23°10.1	299°04.9 23°09.9	314°04.8 23°09.8	329°04.7 23°09.6	344°04.5 23°09.5	359°04.3 23°09.2	14°04.3 23°09.2	29°04.2 23°09.2	44°04.0 23°08.9	59°03.9 23°08.7	74°03.8 23°08.6	-0.1 -0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juin 2035

	J	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	Δ'/h	SP
●	Ve 1	247°58.5 -1°21.5	262°29.2 -1°10.7	276°59.8 -0°59.9	291°30.5 -0°49.1	306°01.0 -0°38.3	320°31.6 -0°27.4	335°02.0 -0°16.5	349°32.5 -0°05.7	4°02.9 0°05.3	18°33.2 0°16.2	33°03.8 0°27.1	+30.5 +10.9	15.8 57.8
	Sa 2	250°31.9 3°12.1	265°01.3 3°23.2	279°30.7 3°34.2	294°00.1 3°45.2	308°29.9 3°56.2	322°58.5 4°07.2	337°27.7 4°18.2	351°56.8 4°29.2	6°25.8 4°20.8	20°54.8 4°51.2	35°23.6 5°02.1	+29.2 +11.0	16.0 58.8
●	Di 3	253°28.8 7°44.3	266°56.6 7°54.3	281°24.3 8°05.4	295°51.9 8°15.9	310°19.5 8°26.4	324°47.0 8°36.9	339°14.4 8°47.3	353°41.7 8°57.7	8°08.9 9°08.0	22°36.1 9°18.3	37°03.2 9°28.5	+27.4 +10.4	16.3 59.8
	Lu 4	253°40.1 11°55.7	268°06.0 12°05.1	282°31.7 12°14.3	296°57.4 12°23.5	311°23.0 12°32.6	325°48.5 12°41.6	340°13.9 12°50.6	354°39.3 12°59.4	9°04.6 13°08.2	23°29.8 13°16.9	37°54.9 13°25.6	+25.5 +9.0	16.5 60.6
●	Ma 5	254°02.8 15°24.2	268°26.7 15°31.3	282°50.6 15°38.3	297°14.5 15°45.2	311°38.2 15°52.0	326°01.9 15°58.6	340°25.6 16°05.2	354°49.1 16°11.7	9°12.6 16°18.0	23°36.1 16°24.2	37°59.5 16°30.3	+23.7 +6.6	16.7 61.1
	Me 6	253°44.3 17°47.1	268°06.9 17°51.2	282°29.5 17°55.2	296°52.1 17°59.0	311°14.6 18°02.7	325°37.2 18°06.2	339°59.6 18°09.6	354°22.1 18°12.9	8°44.6 18°16.1	23°07.0 18°19.1	37°29.4 18°21.9	+22.5 +3.5	16.7 61.3
●	Je 7	253°04.2 18°47.9	267°26.5 18°48.5	281°48.9 18°48.9	296°11.2 18°49.2	310°33.6 18°49.4	324°56.0 18°49.4	339°18.4 18°49.3	353°40.8 18°48.6	8°03.3 18°16.1	22°25.7 18°19.1	36°48.2 18°47.4	+22.4 -0.0	16.7 61.1
	Ve 8	252°30.2 18°20.5	266°53.3 18°17.6	281°16.5 18°14.6	295°39.8 18°11.5	310°03.2 18°08.2	324°26.5 18°04.8	338°50.0 18°01.3	353°13.5 15°48.5	7°37.1 17°53.9	22°00.7 17°50.0	36°24.4 17°45.9	+23.4 -3.5	16.5 60.6
●	Sa 9	252°28.6 16°31.6	266°53.3 16°25.7	281°16.5 16°19.8	295°39.8 16°13.7	310°03.2 16°07.5	324°26.5 16°01.3	338°50.0 15°59.1	353°13.5 15°48.5	7°37.1 15°41.9	22°00.7 15°35.3	36°24.4 15°28.5	+23.4 -6.3	16.3 59.9
	Di 10	253°16.0 13°37.1	267°43.1 13°29.0	282°10.2 13°20.9	296°37.4 13°12.7	311°04.6 13°04.4	325°32.0 12°56.1	339°59.4 12°47.6	354°27.0 12°39.2	8°54.6 12°30.6	23°22.3 12°22.0	37°50.1 12°13.4	+27.4 -8.4	16.1 59.0
●	Lu 11	254°56.8 9°56.8	269°25.9 9°47.3	283°55.0 9°37.8	298°24.3 9°28.3	312°53.6 9°18.6	327°23.0 9°09.0	341°52.4 8°59.3	356°22.0 8°49.6	10°51.6 8°39.9	25°21.3 8°30.1	39°51.0 8°20.3	+29.4 -9.7	15.8 58.1
	Ma 12	257°25.4 5°49.8	271°56.2 5°39.6	286°27.0 5°29.4	300°57.9 5°19.2	315°28.9 5°08.9	329°59.9 4°58.7	344°31.0 4°48.4	359°02.1 4°38.1	13°33.3 4°27.8	28°04.6 4°17.5	42°35.9 4°07.2	+31.1 -10.3	15.6 57.1
●	Me 13	260°31.9 1°32.2	275°03.0 1°21.9	289°35.1 1°11.5	304°07.1 1°01.2	318°39.3 0°50.9	333°11.4 0°40.6	347°43.6 0°30.3	361°48.1 0°20.0	16°48.1 0°09.7	31°20.4 -0°00.6	45°52.8 -0°10.8	+32.2 -10.6	15.4 56.3
	Je 14	264°01.0 -9°43.0	278°33.8 -2°53.0	293°06.5 -3°02.9	307°39.3 -3°12.9	322°12.1 -3°22.8	336°44.9 -3°32.7	351°17.7 -3°42.6	365°01.3 -3°52.5	9°34.3 -4°02.3	24°07.3 -4°12.1	38°40.3 -4°21.9	+33.0 -9.9	15.0 55.5
●	Ve 15	267°43.4 -6°44.9	282°16.3 -6°54.2	296°49.3 -7°03.4	311°22.3 -7°12.6	325°55.5 -7°21.8	340°28.3 -7°30.9	355°01.3 -7°40.0	369°51.3 -7°49.0	9°34.3 -7°58.0	24°07.3 -8°07.2	38°40.3 -8°15.9	+33.0 -9.1	15.0 55.0
	Sa 16	271°27.4 -10°24.5	286°00.0 -10°32.7	300°33.3 -10°40.8	315°06.0 -10°48.9	329°38.0 -10°57.0	344°11.7 -11°05.0	358°44.5 -11°12.9	373°17.3 -11°20.8	27°50.1 -11°28.6	42°22.9 -11°36.4	56°55.7 -11°44.1	+32.8 -8.0	14.9 54.5
●	Di 17	275°05.3 -13°33.3	289°37.8 -13°40.1	304°10.3 -13°46.8	318°42.8 -13°53.5	333°15.7 -14°00.1	347°47.6 -14°06.1	362°02.0 -14°13.2	376°24.6 -14°19.6	31°24.8 -14°25.9	45°57.2 -14°32.2	60°29.5 -14°38.5	+32.4 -6.5	14.8 54.2
	Lu 18	278°32.1 -16°03.7	293°04.1 -16°08.8	307°36.1 -16°13.9	322°08.1 -16°18.9	336°40.1 -16°23.8	351°12.0 -16°28.6	365°43.9 -16°33.3	380°15.8 -16°38.8	20°19.6 -16°42.6	34°47.7 -16°47.2	49°19.5 -16°51.6	+31.9 -4.8	14.7 54.0
●	Ma 19	281°46.7 -17°49.1	296°18.3 -17°52.2	310°49.8 -17°55.4	325°21.3 -17°58.4	339°52.8 -18°01.4	354°24.3 -18°04.2	368°55.8 -18°07.0	383°27.3 -18°09.7	37°58.7 -18°12.4	52°30.1 -18°14.9	67°01.5 -18°17.4	+31.5 -2.8	14.7 53.9
	Me 20	284°51.3 -18°44.1	299°22.6 -18°45.2	313°53.8 -18°46.2	328°25.0 -18°47.2	342°56.3 -18°48.0	357°27.5 -18°48.8	371°58.7 -18°49.5	386°29.9 -18°50.0	41°01.1 -18°50.5	55°32.2 -18°51.0	70°03.4 -18°51.3	+31.2 -0.7	14.7 53.9
●	Je 21	285°50.9 -18°45.8	302°22.0 -18°44.7	316°53.2 -18°43.6	331°24.4 -18°42.3	345°55.5 -18°41.0	360°26.7 -18°39.6	375°57.9 -18°38.1	390°29.1 -18°36.5	44°00.2 -18°34.9	58°31.4 -18°33.1	73°02.6 -18°31.3	+31.2 +1.4	14.7 54.0
	Ve 22	290°51.3 -17°53.5	305°22.6 -17°50.4	319°54.0 -17°47.1	334°25.3 -17°43.7	348°56.6 -17°40.3	363°28.0 -17°36.8	378°59.4 -17°33.2	393°30.7 -17°29.5	47°02.1 -17°25.7	61°33.5 -17°21.9	76°05.0 -17°18.0	+31.4 +3.6	14.8 54.2
●	Sa 23	293°57.7 -16°09.6	308°29.3 -16°04.4	323°01.0 -15°59.2	337°32.6 -15°53.9	352°04.3 -15°48.5	366°36.0 -15°43.0	380°07.7 -15°37.4	393°39.4 -15°31.8	50°11.1 -15°26.1	64°42.9 -15°20.4	79°14.0 -15°14.5	+31.7 +5.5	14.9 54.3
	Di 24	297°12.5 -13°38.5	311°44.5 -13°31.5	326°16.5 -13°24.5	340°48.5 -13°17.4	355°20.5 -13°10.3	369°52.5 -13°03.1	384°24.5 -12°55.8	398°56.5 -12°48.5	53°28.6 -12°41.1	68°00.6 -12°33.7	82°32.7 -12°26.1	+32.0 +7.3	15.0 54.9
●	Lu 25	311°44.5 -13°31.5	326°16.5 -13°24.5	340°48.5 -13°17.4	355°20.5 -13°10.3	369°52.5 -13°03.1	384°24.5 -12°55.8	398°56.5 -12°48.5	413°28.6 -12°41.1	58°00.6 -12°33.7	73°00.6 -12°26.1	87°54.9 -12°18.6	+32.0 +7.3	15.0 54.9
	Ma 26	315°06.8 -10°17.9	329°39.0 -10°09.4	344°11.2 -10°00.9	358°43.4 -9°52.3	373°15.6 -9°43.6	387°47.8 -9°35.0	402°20.0 -9°26.2	416°52.2 -9°17.4	56°52.2 -9°08.6	71°24.4 -8°59.7	85°56.6 -8°50.7	+32.2 +8.7	15.1 55.5
●	Me 27	318°31.3 -6°31.2	333°03.4 -6°21.5	347°35.5 -6°11.8	361°39.7 -6°02.1	375°41.6 -5°52.4	389°43.8 -5°42.6	403°46.0 -5°32.7	417°48.2 -5°22.9	60°15.9 -5°13.0	74°47.9 -5°03.1	89°19.9 -4°53.1	+32.1 +4.9	15.3 56.1
	Je 28	321°49.6 -9°20.0	336°21.3 -2°09.6	350°52.9 -1°59.2	365°24.5 -1°48.7	379°56.1 -1°38.2	394°27.6 -1°27.7	408°59.2 -1°17.2	423°30.8 -1°06.7	63°30.6 -1°06.7	78°02.1 -0°56.1	92°33.3 -0°45.5	+31.5 +0.3	15.5 56.9
●	Ve 29	324°50.9 2°05.3	339°21.7 2°16.0	353°52.3 2°26.7	368°23.0 2°37.5	382°53.5 2°48.2	397°24.1 2°58.9	411°54.5 3°09.7	426°25.0 3°20.4	66°25.0 3°31.1	80°55.3 3°41.9	95°25.7 3°52.6	+30.5 +10.7	15.8 57.8
	Sa 30	327°22.9 6°32.0	341°52.2 6°42.2	356°21.4 6°53.0	370°50.5 7°03.4	385°19.6 7°13.8	399°48.6 7°24.2	413°17.6 7°34.6	427°17.6 7°44.9	68°46.5 7°55.2	83°15.3 8°05.5	97°44.0 8°15.7	+29.0 +10.4	16.0 58.7

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (– = Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC – jour) mod 24
NL: 6 03h20 — PQ: 12 19h50 — PL: 20 19h37 — DQ: 28 17h42

SOLEIL

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J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Di 1	266°02.2 23°06.5	284°02.1 23°06.3	299°02.0 23°06.1	314°01.8 23°05.9	329°01.7 23°05.8	344°01.6 23°05.6	356°01.5 23°05.4	14°01.4 23°05.3	29°01.2 23°05.1	44°01.1 23°04.9	59°01.0 23°04.8	74°00.9 23°04.6	-0.1 -0.2
Lu 2	268°59.3 23°02.3	283°59.2 23°02.1	298°59.1 23°01.9	313°59.0 23°01.7	328°58.8 23°01.5	343°58.7 23°01.3	358°58.6 23°01.1	13°58.5 23°01.0	28°58.4 23°00.8	43°58.3 23°00.6	58°58.1 23°00.4	73°58.0 23°00.2	-0.1 -0.2
Ma 3	268°56.5 22°57.7	283°56.4 22°57.5	298°56.3 22°57.3	313°56.1 22°57.1	328°56.0 22°56.9	343°55.9 22°56.7	358°55.8 22°56.5	13°55.7 22°56.3	28°55.5 22°56.2	43°55.4 22°55.8	58°55.3 22°55.6	73°55.2 22°55.4	-0.1 -0.2
Me 4	268°53.7 22°52.7	283°53.6 22°52.5	298°53.5 22°52.2	313°53.4 22°52.0	328°53.3 22°51.8	343°53.2 22°51.6	358°53.1 22°51.4	13°52.9 22°51.1	28°52.8 22°50.9	43°52.7 22°50.7	58°52.6 22°50.5	73°52.5 22°50.3	-0.1 -0.2
Je 5	268°51.1 22°47.3	283°50.9 22°47.0	298°50.8 22°46.8	313°50.7 22°46.6	328°50.6 22°46.3	343°50.5 22°46.1	358°50.4 22°45.9	13°50.3 22°45.6	28°50.2 22°45.4	43°50.1 22°45.2	58°50.0 22°44.9	73°49.9 22°44.7	-0.1 -0.2
Ve 6	268°48.5 22°41.5	283°48.4 22°41.2	298°48.3 22°41.0	313°48.1 22°40.7	328°48.0 22°40.5	343°47.9 22°40.2	358°47.8 22°40.0	13°47.7 22°39.7	28°47.6 22°39.5	43°47.5 22°39.2	58°47.4 22°39.0	73°47.3 22°38.7	-0.1 -0.3
Sa 7	268°46.0 22°35.3	283°45.9 22°35.0	298°45.8 22°34.8	313°45.7 22°34.5	328°45.6 22°34.2	343°45.5 22°34.0	358°45.4 22°33.7	13°45.3 22°33.4	28°45.2 22°33.2	43°45.0 22°32.9	58°44.9 22°32.6	73°44.8 22°32.4	-0.1 -0.3
Di 8	268°43.6 22°28.7	283°43.5 22°28.5	298°43.4 22°28.2	313°43.3 22°27.9	328°43.2 22°27.6	343°43.1 22°27.3	358°43.0 22°26.8	13°42.9 22°26.6	28°42.8 22°26.5	43°42.7 22°26.2	58°42.6 22°25.9	73°42.5 22°25.6	-0.1 -0.3
Lu 9	268°41.3 22°21.8	283°41.2 22°21.5	298°41.1 22°21.2	313°41.0 22°20.9	328°40.9 22°20.6	343°40.8 22°20.3	358°40.7 22°20.0	13°40.6 22°19.7	28°40.5 22°19.4	43°40.4 22°19.1	58°40.3 22°18.8	73°40.2 22°18.5	-0.1 -0.3
Ma 10	268°39.1 22°14.4	283°39.0 22°14.1	298°38.9 22°13.8	313°38.8 22°13.5	328°38.7 22°13.2	343°38.6 22°12.9	358°38.5 22°12.5	13°38.4 22°12.2	28°38.4 22°11.9	43°38.3 22°11.6	58°38.2 22°11.3	73°38.1 22°10.9	-0.1 -0.3
Me 11	268°37.0 22°06.7	283°36.9 22°06.4	298°36.8 22°06.1	313°36.7 22°05.7	328°36.6 22°05.4	343°36.5 22°05.1	358°36.5 22°04.7	13°36.4 22°04.4	28°36.3 22°04.2	43°36.2 22°03.9	58°36.1 22°03.6	73°36.0 22°03.3	-0.1 -0.3
Je 12	268°35.0 21°58.6	283°34.9 21°58.3	298°34.9 21°57.9	313°34.8 21°57.6	328°34.7 21°57.2	343°34.6 21°56.9	358°34.5 21°56.5	13°34.5 21°56.2	28°34.4 21°55.8	43°34.3 21°55.5	58°34.2 21°55.1	73°34.1 21°54.8	-0.1 -0.3
Ve 13	268°33.2 21°50.1	283°33.1 21°49.8	298°33.0 21°49.4	313°32.9 21°49.0	328°32.9 21°48.7	343°32.8 21°48.3	358°32.7 21°47.9	13°32.6 21°47.6	28°32.6 21°47.2	43°32.5 21°46.8	58°32.4 21°46.5	73°32.4 21°46.1	-0.1 -0.4
Sa 14	268°31.4 21°41.3	283°31.4 21°40.9	298°31.3 21°40.5	313°31.2 21°40.1	328°31.2 21°39.8	343°31.1 21°39.4	358°31.0 21°39.0	13°31.0 21°38.6	28°30.9 21°38.2	43°30.8 21°37.8	58°30.8 21°37.5	73°30.7 21°37.1	-0.1 -0.4
Di 15	268°29.8 21°32.0	283°29.8 21°31.6	298°29.7 21°31.3	313°29.7 21°30.9	328°29.6 21°30.5	343°29.5 21°30.1	358°29.5 21°29.7	13°29.4 21°29.3	28°29.3 21°28.9	43°29.3 21°28.5	58°29.2 21°28.1	73°29.2 21°27.7	-0.1 -0.4
Lu 16	268°28.4 21°22.4	283°28.3 21°22.0	298°28.3 21°21.6	313°28.2 21°21.2	328°28.2 21°20.8	343°28.1 21°20.4	358°28.0 21°20.0	13°28.0 21°19.6	28°27.9 21°19.2	43°27.9 21°18.8	58°27.8 21°18.3	73°27.8 21°17.9	-0.1 -0.4
Ma 17	268°27.0 21°12.5	283°27.0 21°12.1	298°26.9 21°11.6	313°26.9 21°11.2	328°26.8 21°10.8	343°26.8 21°10.4	358°26.7 21°09.9	13°26.7 21°09.5	28°26.6 21°09.1	43°26.6 21°08.7	58°26.5 21°08.2	73°26.5 21°07.8	-0.1 -0.4
Me 18	268°25.8 21°02.2	283°25.8 21°01.7	298°25.8 21°01.3	313°25.7 21°00.9	328°25.7 21°00.4	343°25.6 21°00.0	358°25.6 20°59.5	13°25.5 20°59.1	28°25.4 20°58.7	43°25.4 20°58.2	58°25.4 20°57.8	73°25.3 20°57.3	-0.0 -0.4
Je 19	268°24.8 20°51.5	283°24.7 20°51.1	298°24.7 20°50.6	313°24.7 20°50.1	328°24.6 20°49.7	343°24.6 20°49.2	358°24.5 20°48.8	13°24.5 20°48.3	28°24.4 20°47.9	43°24.4 20°47.4	58°24.4 20°47.0	73°24.3 20°46.5	-0.0 -0.5
Ve 20	268°23.9 20°40.5	283°23.8 20°40.0	298°23.8 20°39.5	313°23.7 20°39.1	328°23.7 20°38.6	343°23.7 20°38.1	358°23.6 20°37.7	13°23.6 20°37.2	28°23.6 20°36.7	43°23.5 20°36.3	58°23.5 20°35.8	73°23.5 20°35.3	-0.0 -0.5
Sa 21	268°23.1 20°29.1	283°23.0 20°28.6	298°23.0 20°28.1	313°23.0 20°27.7	328°23.0 20°27.2	343°22.9 20°26.7	358°22.9 20°26.2	13°22.9 20°25.7	28°22.8 20°25.2	43°22.8 20°24.8	58°22.8 20°24.3	73°22.8 20°23.8	-0.0 -0.5
Di 22	268°22.4 20°17.4	283°22.4 20°16.9	298°22.4 20°16.4	313°22.4 20°15.9	328°22.3 20°15.4	343°22.3 20°14.9	358°22.3 20°14.4	13°22.3 20°13.9	28°22.2 20°13.4	43°22.2 20°12.9	58°22.2 20°12.4	73°22.2 20°11.9	-0.0 -0.5
Lu 23	268°21.9 20°05.3	283°21.9 20°04.8	298°21.9 20°04.3	313°21.9 20°03.8	328°21.9 20°03.3	343°21.8 20°02.8	358°21.8 20°02.3	13°21.8 20°01.8	28°21.8 20°01.3	43°21.8 20°00.7	58°21.8 20°00.2	73°21.7 19°59.7	-0.0 -0.5
Ma 24	268°21.6 19°53.0	283°21.5 19°52.4	298°21.5 19°51.9	313°21.5 19°51.4	328°21.5 19°50.9	343°21.5 19°50.3	358°21.5 19°49.8	13°21.5 19°49.3	28°21.5 19°48.8	43°21.5 19°48.3	58°21.5 19°47.8	73°21.4 19°47.2	-0.0 -0.5
Me 25	268°21.3 19°40.2	283°21.3 19°39.7	298°21.3 19°39.2	313°21.3 19°38.6	328°21.3 19°38.1	343°21.3 19°37.6	358°21.3 19°37.0	13°21.3 19°36.5	28°21.3 19°35.9	43°21.3 19°35.4	58°21.3 19°34.8	73°21.3 19°34.3	+0.0 -0.5
Je 26	268°21.5 19°27.2	283°21.3 19°26.6	298°21.3 19°26.1	313°21.3 19°25.5	328°21.3 19°25.0	343°21.3 19°24.4	358°21.3 19°23.9	13°21.3 19°23.3	28°21.3 19°22.8	43°21.3 19°22.2	58°21.3 19°21.7	73°21.3 19°21.1	+0.0 -0.6
Ve 27	268°21.3 19°13.8	283°21.4 19°13.3	298°21.4 19°12.7	313°21.4 19°12.1	328°21.4 19°11.6	343°21.4 19°11.0	358°21.4 19°10.4	13°21.4 19°09.9	28°21.4 19°09.3	43°21.4 19°08.7	58°21.4 19°08.2	73°21.4 19°07.6	+0.0 -0.6
Sa 28	268°21.6 19°00.1	283°21.6 18°59.6	298°21.6 18°59.0	313°21.6 18°58.4	328°21.6 18°57.8	343°21.6 18°57.3	358°21.6 18°56.7	13°21.6 18°56.1	28°21.7 18°55.5	43°21.7 18°54.9	58°21.7 18°54.3	73°21.7 18°53.8	+0.0 -0.6
Di 29	268°21.9 18°46.1	283°21.9 18°45.6	298°22.0 18°45.0	313°22.0 18°44.4	328°22.0 18°43.8	343°22.0 18°43.2	358°22.0 18°42.6	13°22.1 18°42.0	28°22.1 18°41.4	43°22.1 18°40.8	58°22.1 18°40.2	73°22.1 18°39.6	+0.0 -0.6
Lu 30	268°22.4 18°31.8	283°22.5 18°31.2	298°22.5 18°30.6	313°22.5 18°30.0	328°22.5 18°29.4	343°22.6 18°28.8	358°22.6 18°28.2	13°22.6 18°27.6	28°22.6 18°27.0	43°22.6 18°26.4	58°22.7 18°25.8	73°22.7 18°25.2	+0.0 -0.6
Ma 31	268°23.1 18°17.2	283°23.1 18°16.6	298°23.2 18°16.0	313°23.2 18°15.4	328°23.2 18°14.8	343°23.2 18°14.1	358°23.3 18°13.5	13°23.3 18°12.9	28°23.3 18°12.3	43°23.3 18°11.7	58°23.4 18°11.0	73°23.4 18°10.4	+0.0 -0.6

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.7'

LUNE

Juillet 2035

	J	23h	0h	1h	2h	3h	4h	5h	6h	7h	8h	9h	Δ'/h	SP
●	Di 1	242°27.3 9°46.2	256°55.2 9°56.1	271°23.2 10°05.9	285°50.8 10°15.6	300°18.5 10°25.3	314°46.1 10°35.0	329°13.6 10°44.6	343°41.0 10°54.1	358°08.4 11°03.6	12°35.6 11°13.0	27°02.8 11°22.4	+27.6	16.2
	Lu 2	243°40.8 13°35.2	258°06.7 13°43.5	272°32.5 13°51.7	286°58.2 13°59.8	301°23.8 14°07.8	315°49.3 14°15.8	330°14.8 14°23.6	344°40.2 14°31.4	359°05.5 14°39.1	13°30.7 14°46.7	27°55.8 14°54.2	+25.5	16.4
●	Ma 3	244°03.5 16°34.7	258°27.4 16°40.5	272°51.2 16°46.3	287°15.0 16°51.9	301°38.7 16°57.4	316°02.4 17°02.7	330°26.0 17°08.0	344°49.5 17°13.1	359°13.0 17°18.2	13°36.4 17°23.1	27°59.7 17°27.8	+23.6	16.6
	Me 4	243°43.6 18°24.0	258°06.2 18°26.7	272°28.7 18°29.2	286°51.2 18°31.6	301°13.7 18°33.9	315°36.1 18°36.0	329°58.6 18°38.0	344°21.0 18°39.8	358°43.3 18°41.5	13°05.7 18°43.1	27°28.0 18°44.5	+22.4	16.7
●	Je 5	243°02.0 18°48.6	257°24.2 18°47.7	271°46.5 18°46.7	286°08.8 18°45.5	300°31.2 18°44.2	314°53.5 18°42.8	329°15.9 18°41.2	343°38.3 18°39.5	358°00.7 18°37.6	12°23.1 18°35.6	26°45.6 18°33.5	+22.4	16.7
	Ve 6	242°27.2 17°44.9	256°50.3 17°40.7	271°13.5 17°36.2	285°36.8 17°31.7	300°00.1 17°27.0	314°23.5 17°22.2	328°46.9 17°17.3	343°10.4 17°12.3	357°34.0 17°07.1	11°57.7 17°01.9	26°21.4 16°56.5	+23.4	16.6
●	Sa 7	242°25.6 15°22.2	256°50.5 15°15.1	271°15.5 15°07.9	285°40.5 15°00.6	300°05.7 14°53.2	314°30.9 14°45.7	328°56.2 14°38.1	343°21.6 14°30.5	357°47.1 14°22.7	12°12.6 14°14.8	26°38.3 14°06.9	+25.3	16.4
	Di 8	243°13.2 7°56.0	257°40.2 7°45.8	272°07.2 7°35.6	286°34.5 7°25.3	301°01.8 7°15.0	315°29.1 7°04.6	329°56.6 6°54.3	344°24.1 6°43.3	358°51.7 6°33.5	13°19.4 6°23.1	27°47.2 6°12.6	+27.4	16.2
●	Lu 9	244°53.5 3°34.4	259°22.2 3°23.8	273°51.6 3°13.2	288°20.6 3°02.6	302°50.8 2°52.0	317°19.4 2°41.4	331°48.9 2°30.8	346°18.3 2°20.1	36°49.3 2°09.5	15°17.5 1°58.9	29°47.2 1°48.3	+29.4	15.9
	Ma 10	247°20.4 2°50.7	261°51.1 2°39.8	276°21.9 2°28.3	290°52.7 2°17.2	305°23.5 2°06.2	319°54.5 1°51.3	334°25.4 1°40.5	348°56.5 1°30.8	3°27.5 1°09.5	17°58.7 1°58.9	32°29.8 1°48.3	+30.9	15.6
●	Me 11	250°22.9 -0°49.5	264°54.8 -0°59.9	279°26.7 -1°10.3	293°58.6 -1°20.7	308°30.6 -1°31.0	323°02.6 -1°41.3	337°34.7 -1°51.6	352°06.7 -2°01.9	6°38.8 -2°12.2	21°11.0 -2°22.5	35°43.1 -2°32.7	+32.0	15.4
	Je 12	253°48.6 -5°02.7	268°21.1 -5°12.5	282°53.7 -5°22.2	297°26.2 -5°31.9	311°58.8 -5°41.5	326°31.4 -5°51.2	341°04.0 -6°00.7	355°36.9 -6°10.3	10°09.3 -6°19.8	24°41.9 -6°29.3	39°14.6 -6°38.7	+32.6	15.2
●	Ve 13	257°25.4 -8°55.2	271°58.1 -9°03.9	286°30.9 -9°12.6	301°03.6 -9°21.3	315°36.4 -9°29.9	330°09.1 -9°38.4	344°41.9 -9°46.9	359°14.6 -9°55.4	13°47.4 -10°03.8	28°20.1 -10°12.1	42°52.9 -10°20.4	+32.8	15.0
	Sa 14	261°03.2 -15°18.6	275°35.8 -12°26.0	290°08.4 -12°33.4	304°41.0 -12°40.7	319°13.6 -12°47.9	333°46.2 -12°55.1	348°18.7 -13°02.2	36°20.0 -13°09.3	20°52.1 -13°16.3	31°56.3 -13°23.3	46°28.8 -13°30.1	+32.6	14.9
●	Di 15	264°34.6 -15°05.6	279°06.8 -15°11.5	293°39.1 -15°17.2	308°11.3 -15°22.9	322°43.5 -15°28.6	337°15.7 -15°34.1	351°47.8 -15°39.6	6°20.0 -15°45.0	35°24.1 -15°50.4	49°56.3 -15°55.6	32°21.4 -16°00.8	+32.2	14.8
	Lu 16	267°55.3 -17°10.0	282°27.1 -17°14.0	296°58.9 -17°17.9	311°30.6 -17°21.7	326°02.3 -17°25.5	340°34.1 -17°29.2	355°05.7 -17°32.8	9°37.4 -17°36.3	24°50.1 -17°39.8	48°40.7 -17°43.2	53°12.3 -17°46.4	+31.7	14.7
●	Ma 17	271°04.7 -18°26.0	285°36.6 -18°28.0	300°07.4 -18°29.9	314°38.8 -18°31.7	329°10.4 -18°33.4	343°41.4 -18°35.1	358°12.7 -18°36.6	12°44.0 -18°38.1	27°15.3 -18°39.9	41°46.6 -18°40.8	56°17.8 -18°42.0	+31.3	14.7
	Me 18	274°05.5 -18°49.8	288°36.6 -18°49.6	303°07.7 -18°49.4	317°38.9 -18°49.0	332°10.0 -18°48.6	346°41.1 -18°48.1	1°12.2 -18°47.5	15°43.2 -18°46.8	30°14.3 -18°46.0	44°45.4 -18°45.1	59°16.5 -18°44.2	+31.1	14.7
●	Je 19	277°02.8 -18°19.4	291°33.9 -18°17.0	306°05.0 -18°14.6	320°36.1 -18°12.1	335°07.2 -18°09.5	349°38.3 -18°06.8	4°09.5 -18°04.0	18°40.6 -18°01.2	33°11.7 -17°58.3	47°42.9 -17°55.2	62°14.0 -17°52.1	+31.1	14.8
	Ve 20	280°02.3 -16°55.5	294°33.6 -16°51.1	309°04.9 -16°46.6	323°36.2 -16°42.0	338°07.6 -16°37.4	352°38.9 -16°32.6	7°10.3 -16°27.8	21°41.7 -16°22.9	36°13.0 -16°17.9	50°44.4 -16°12.9	65°15.8 -16°07.7	+31.4	14.9
●	Sa 21	283°08.6 -14°41.8	297°40.1 -14°35.4	312°11.9 -14°29.1	326°43.6 -14°22.6	341°15.3 -14°16.1	355°47.0 -14°09.5	10°18.7 -14°02.8	24°50.4 -13°56.1	39°22.1 -13°49.3	53°53.9 -13°42.4	68°25.6 -13°35.5	+31.7	14.9
	Di 22	286°23.6 -11°43.9	300°55.6 -11°36.0	315°27.6 -11°28.0	329°59.6 -11°20.0	344°31.6 -11°11.9	359°03.6 -11°03.7	13°35.6 -10°55.5	28°07.6 -10°47.3	42°39.7 -10°38.8	57°11.7 -10°30.6	71°43.8 -10°22.1	+32.0	15.1
●	Lu 23	289°45.5 -8°09.8	304°17.7 -8°00.6	318°49.8 -7°51.4	333°22.0 -7°42.1	347°54.1 -7°32.8	2°26.3 -7°23.5	16°58.5 -7°14.1	31°30.6 -7°04.6	46°02.8 -6°55.1	60°35.0 -6°46.5	75°07.1 -6°36.1	+32.2	15.2
	Ma 24	293°09.0 -5°08.7	307°41.1 -5°09.0	322°13.2 -4°58.5	336°45.2 -4°48.5	351°17.2 -4°38.4	3°54.9 -4°28.3	5°49.2 -4°18.1	20°21.3 -3°07.9	34°53.2 -2°57.7	49°25.2 -2°47.5	63°57.2 -2°37.2	+32.0	15.3
●	Je 25	307°41.1 0°19.7	322°13.2 0°30.2	336°45.2 0°40.7	351°17.2 0°51.2	3°54.9 1°01.8	5°49.2 1°12.3	20°21.3 1°22.8	34°53.2 1°33.4	49°25.2 1°43.9	63°57.2 1°54.4	78°29.1 2°05.0	+32.0	15.4
	Ve 26	310°57.5 0°19.7	325°29.0 0°30.2	340°00.6 0°40.7	354°32.1 0°51.2	9°03.5 1°01.8	23°35.0 1°12.3	38°06.4 1°22.8	52°37.8 1°33.4	67°09.1 1°43.9	81°40.4 1°54.4	96°11.7 2°05.0	+31.4	15.5
●	Sa 27	313°56.1 4°42.5	328°26.8 5°03.4	342°57.3 5°03.4	357°27.8 5°13.7	11°58.3 5°24.1	26°28.7 5°34.5	40°59.1 5°44.8	55°29.1 5°55.1	69°59.7 6°05.4	84°29.9 6°15.7	99°00.1 6°26.0	+30.4	15.7
	Di 28	316°25.7 8°56.4	330°54.9 9°06.1	345°24.0 9°15.9	359°53.1 9°25.5	14°22.1 9°32.1	28°51.1 9°44.7	43°20.0 9°54.3	57°48.8 10°03.8	72°17.6 10°13.2	86°46.2 10°22.6	101°14.9 10°32.0	+28.9	15.9
●	Lu 29	318°15.6 12°45.6	332°43.1 12°54.0	347°10.4 13°02.3	357°10.4 13°10.6	16°05.0 13°18.8	30°32.2 13°26.9	44°59.2 13°34.9	59°26.3 13°42.9	73°55.2 13°50.8	88°20.1 13°58.6	102°46.8 14°06.4	+27.1	16.1
	Ma 30	319°19.6 15°52.2	333°45.2 15°58.5	348°10.7 16°04.7	356°10.7 16°10.9	17°01.5 16°16.9	31°26.8 16°22.8	45°52.1 16°28.6	60°17.2 16°34.3	74°42.2 16°39.3	89°07.4 16°45.4	103°32.3 16°50.8	+25.3	16.3
●	Je 31	319°39.2 17°57.9	334°03.2 18°01.4	348°27.1 18°04.8	356°10.7 18°08.1	17°14.8 18°11.2	31°38.6 18°14.2	46°02.4 18°17.1	60°26.1 18°19.9	74°49.7 18°22.5	89°13.3 18°25.0	103°36.9 18°27.4	+23.8	16.5
													+3.0	60.3

Ligne 1: GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
NL: 5 09h59 — PQ: 12 07h32 — PL: 20 10h36 — DQ: 28 02h55

SOLEIL

Août 2035

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Me 1	268°23.9 18°02.3	283°23.9 18°01.7	298°24.0 18°01.0	313°24.0 18°00.4	328°24.0 17°59.8	343°24.1 17°59.2	358°24.1 17°58.5	13°24.2 17°57.9	28°24.2 17°57.3	43°24.2 17°56.6	58°24.3 17°56.0	73°24.3 17°55.4	+0.0 -0.6
Je 2	268°24.9 17°47.1	283°24.9 17°46.5	298°24.9 17°45.8	313°25.0 17°45.2	328°25.0 17°44.5	343°25.1 17°43.9	358°25.1 17°43.2	13°25.2 17°42.6	28°25.2 17°42.0	43°25.2 17°41.3	58°25.3 17°40.7	73°25.3 17°40.0	+0.0 -0.6
Ve 3	268°26.0 17°31.6	283°26.0 17°30.9	298°26.1 17°30.3	313°26.1 17°29.6	328°26.2 17°29.0	343°26.2 17°28.3	358°26.3 17°27.7	13°26.3 17°27.0	28°26.4 17°26.4	43°26.4 17°25.7	58°26.5 17°25.1	73°26.5 17°24.4	+0.1 -0.7
Sa 4	268°27.2 17°15.8	283°27.3 17°15.1	298°27.3 17°14.5	313°27.4 17°13.8	328°27.4 17°13.2	343°27.5 17°12.5	358°27.5 17°11.8	13°27.6 17°11.2	28°27.7 17°10.5	43°27.7 17°09.8	58°27.8 17°09.2	73°27.8 17°08.5	+0.1 -0.7
Di 5	268°28.6 16°59.8	283°28.7 16°59.1	298°28.7 16°58.4	313°28.8 16°57.7	328°28.9 16°57.0	343°28.9 16°56.4	358°29.0 16°55.7	13°29.1 16°55.0	28°29.1 16°54.3	43°29.2 16°53.7	58°29.2 16°53.0	73°29.3 16°52.3	+0.1 -0.7
Lu 6	268°30.2 16°43.4	283°30.2 16°42.7	298°30.3 16°42.0	313°30.4 16°41.4	328°30.4 16°40.7	343°30.5 16°40.0	358°30.6 16°39.3	13°30.7 16°38.6	28°30.7 16°37.9	43°30.8 16°37.2	58°30.9 16°36.5	73°30.9 16°35.8	+0.1 -0.7
Ma 7	268°31.9 16°26.8	283°32.0 16°26.1	298°32.0 16°25.4	313°32.1 16°24.7	328°32.2 16°24.0	343°32.3 16°23.3	358°32.3 16°22.6	13°32.4 16°21.9	28°32.5 16°21.2	43°32.6 16°20.5	58°32.6 16°19.8	73°32.7 16°19.1	+0.1 -0.7
Me 8	268°33.7 16°09.9	283°33.8 16°09.2	298°33.9 16°08.5	313°34.0 16°07.8	328°34.1 16°07.1	343°34.2 16°06.4	358°34.2 16°05.7	13°34.3 16°05.0	28°34.4 16°04.3	43°34.5 16°03.5	58°34.6 16°02.8	73°34.6 16°02.1	+0.1 -0.7
Je 9	268°35.8 15°52.8	283°35.8 15°52.1	298°35.9 15°51.4	313°36.0 15°50.7	328°36.1 15°49.9	343°36.2 15°49.2	358°36.3 15°48.5	13°36.4 15°47.8	28°36.5 15°47.1	43°36.6 15°46.3	58°36.6 15°45.6	73°36.7 15°44.9	+0.1 -0.7
Ve 10	268°37.9 15°35.4	283°38.0 15°34.7	298°38.1 15°34.0	313°38.2 15°33.2	328°38.3 15°32.5	343°38.4 15°31.8	358°38.5 15°31.0	13°38.6 15°30.3	28°38.7 15°29.6	43°38.8 15°28.9	58°38.9 15°28.1	73°39.0 15°27.4	+0.1 -0.7
Sa 11	268°40.2 15°17.8	283°40.3 15°17.1	298°40.4 15°16.3	313°40.5 15°15.6	328°40.6 15°14.8	343°40.7 15°14.1	358°40.8 15°13.4	13°40.9 15°12.6	28°40.9 15°11.9	43°41.1 15°11.1	58°41.2 15°10.4	73°41.3 15°09.6	+0.1 -0.7
Di 12	268°42.7 14°59.9	283°42.8 14°59.2	298°42.9 14°58.4	313°43.0 14°57.7	328°43.1 14°56.9	343°43.2 14°56.2	358°43.3 14°55.4	13°43.4 14°54.7	28°43.5 14°53.9	43°43.7 14°53.2	58°43.8 14°52.4	73°43.9 14°51.7	+0.1 -0.8
Lu 13	268°45.3 14°41.8	283°45.4 14°41.1	298°45.5 14°40.3	313°45.6 14°39.5	328°45.7 14°38.8	343°45.9 14°38.0	358°46.0 14°37.3	13°46.1 14°36.5	28°46.2 14°35.7	43°46.3 14°35.0	58°46.4 14°34.2	73°46.5 14°33.4	+0.1 -0.8
Ma 14	268°48.0 14°23.5	283°48.2 14°22.7	298°48.3 14°21.9	313°48.4 14°21.2	328°48.5 14°20.4	343°48.6 14°19.6	358°48.7 14°18.9	13°48.9 14°18.1	28°48.9 14°17.3	43°49.0 14°16.5	58°49.1 14°15.8	73°49.3 14°15.0	+0.1 -0.8
Me 15	268°50.9 14°04.9	283°51.0 14°04.1	298°51.2 14°03.3	313°51.3 14°02.6	328°51.4 14°01.8	343°51.5 14°01.0	358°51.7 14°00.2	13°51.8 13°59.4	28°51.9 13°58.7	43°52.0 13°57.9	58°52.2 13°57.1	73°52.3 13°56.3	+0.1 -0.8
Je 16	268°53.9 13°46.1	283°54.1 13°45.3	298°54.2 13°44.5	313°54.3 13°43.7	328°54.5 13°43.0	343°54.6 13°42.2	358°54.7 13°41.4	13°54.8 13°40.6	28°55.0 13°39.8	43°55.1 13°39.0	58°55.2 13°38.2	73°55.4 13°37.4	+0.1 -0.8
Ve 17	268°57.1 13°27.1	283°57.2 13°26.3	298°57.4 13°25.5	313°57.5 13°24.7	328°57.6 13°23.9	343°57.8 13°23.1	358°57.9 13°22.3	13°58.0 13°21.5	28°58.2 13°20.7	43°58.3 13°19.9	58°58.4 13°19.1	73°58.6 13°18.3	+0.1 -0.8
Sa 18	269°00.4 13°07.9	284°00.5 13°07.1	299°00.7 13°06.3	314°00.8 13°05.5	329°00.9 13°04.6	344°01.1 13°03.8	359°01.2 13°03.0	14°01.4 13°02.2	29°01.5 13°01.4	44°01.6 13°00.6	59°01.8 12°59.8	74°01.9 12°59.0	+0.1 -0.8
Di 19	269°03.8 12°48.4	284°03.9 12°47.6	299°04.1 12°46.8	314°04.2 12°46.0	329°04.4 12°45.2	344°04.5 12°44.4	359°04.7 12°43.5	14°04.8 12°42.7	29°04.9 12°41.9	44°05.1 12°41.1	59°05.2 12°40.3	74°05.4 12°39.5	+0.1 -0.8
Lu 20	269°07.3 12°28.8	284°07.5 12°28.0	299°07.6 12°27.2	314°07.8 12°26.3	329°07.9 12°25.5	344°08.1 12°24.7	359°08.2 12°23.9	14°08.4 12°23.0	29°08.5 12°22.2	44°08.7 12°21.4	59°08.8 12°20.6	74°09.0 12°19.7	+0.2 -0.8
Ma 21	269°11.0 12°09.0	284°11.1 12°08.1	299°11.3 12°07.3	314°11.4 12°06.5	329°11.6 12°05.6	344°11.7 12°04.8	359°11.9 12°04.0	14°12.0 12°03.2	29°12.2 12°02.3	44°12.4 12°01.5	59°12.5 12°00.7	74°12.7 11°59.8	+0.2 -0.8
Me 22	269°14.7 11°48.9	284°14.9 11°48.1	299°15.0 11°47.3	314°15.2 11°46.4	329°15.4 11°45.6	344°15.5 11°44.8	359°15.7 11°43.9	14°15.8 11°43.1	29°16.0 11°42.2	44°16.2 11°41.4	59°16.3 11°40.5	74°16.5 11°39.7	+0.2 -0.8
Je 23	269°18.6 11°28.7	284°18.8 11°27.9	299°18.9 11°27.0	314°19.1 11°26.2	329°19.3 11°25.3	344°19.4 11°24.5	359°19.6 11°23.7	14°19.8 11°22.8	29°19.9 11°22.0	44°20.1 11°21.1	59°20.2 11°20.3	74°20.4 11°19.4	+0.2 -0.8
Ve 24	269°22.6 11°08.3	284°22.7 11°07.5	299°22.9 11°06.6	314°23.1 11°05.8	329°23.3 11°04.9	344°23.4 11°04.1	359°23.6 11°03.2	14°23.8 11°02.4	29°23.9 11°01.5	44°24.1 11°00.6	59°24.2 10°59.8	74°24.4 10°58.9	+0.2 -0.9
Sa 25	269°26.7 10°47.8	284°26.8 10°46.9	299°27.0 10°46.0	314°27.2 10°45.2	329°27.4 10°44.3	344°27.5 10°43.5	359°27.7 10°42.6	14°27.9 10°41.7	29°28.0 10°40.4	44°28.2 10°39.5	59°28.4 10°38.7	74°28.6 10°38.3	+0.2 -0.9
Di 26	269°30.8 10°27.0	284°31.0 10°26.2	299°31.2 10°25.3	314°31.4 10°24.4	329°31.5 10°23.6	344°31.7 10°22.7	359°31.9 10°21.8	14°32.1 10°20.9	29°32.3 10°19.2	44°32.4 10°18.3	59°32.6 10°17.5	74°32.8 10°17.5	+0.2 -0.9
Lu 27	269°35.1 10°06.1	284°35.3 10°05.4	299°35.5 10°04.5	314°35.7 10°03.5	329°35.8 10°02.6	344°36.0 10°01.7	359°36.2 10°00.9	14°36.4 10°00.0	29°36.6 9°59.9	44°36.7 9°58.2	59°36.7 9°57.4	74°36.5 9°56.5	+0.2 -0.9
Ma 28	269°39.5 9°45.0	284°39.7 9°44.2	299°39.8 9°43.3	314°40.0 9°42.4	329°40.2 9°41.5	344°40.4 9°40.6	359°40.6 9°39.7	14°40.6 9°38.9	29°41.0 9°38.0	44°41.1 9°37.1	59°41.3 9°36.2	74°41.5 9°35.3	+0.2 -0.9
Me 29	269°43.9 9°23.8	284°44.1 9°22.9	299°44.3 9°22.0	314°44.5 9°21.1	329°44.7 9°20.3	344°44.9 9°19.4	359°45.1 9°18.5	14°45.2 9°17.6	29°45.4 9°16.7	44°45.6 9°15.8	59°45.8 9°14.9	74°46.0 9°14.0	+0.2 -0.9
Je 30	269°48.5 9°02.4	284°48.7 9°01.5	299°48.8 9°00.6	314°49.0 8°59.8	329°49.2 8°58.9	344°49.4 8°58.0	359°49.6 8°57.1	14°49.8 8°56.2	29°49.5 8°55.3	44°50.0 8°54.4	59°50.2 8°53.5	74°50.6 8°52.6	+0.2 -0.9
Ve 31	269°53.1 8°40.9	284°53.3 8°40.0	299°53.5 8°39.1	314°53.7 8°38.2	329°53.8 8°37.3	344°54.0 8°36.4	359°54.2 8°35.5	14°54.4 8°34.6	29°54.6 8°33.7	44°54.8 8°32.8	59°54.8 8°31.9	74°55.2 8°31.0	+0.2 -0.9

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.8'

LUNE

Août 2035

J	1h	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	Δ /h SP
Me 1	247°30.6 18°43.9	261°53.8 18°44.8	276°17.0 18°45.6	290°40.2 18°46.2	305°03.3 18°46.6	319°26.4 18°47.0	333°49.5 18°47.3	348°12.6 18°47.3	2°35.7 18°47.3	16°58.8 18°47.1	31°21.8 18°46.8	+23.1 16.5 +0.3 60.6
Je 2	247°07.4 18°05.4	261°30.5 18°22.9	275°53.7 18°20.2	290°16.8 18°17.5	304°40.0 18°14.5	319°03.2 18°11.5	333°26.4 18°08.3	347°49.6 18°05.0	2°12.9 18°01.5	16°36.2 17°58.0	30°59.8 17°54.2	+23.2 16.6 -3.1 60.7
Ve 3	246°54.0 16°43.5	261°18.0 16°37.8	275°42.0 16°32.0	290°06.1 16°26.1	304°30.3 16°20.0	318°54.5 16°13.9	333°18.8 16°07.6	347°43.3 16°01.3	2°07.5 15°54.8	16°32.0 15°48.2	30°56.5 15°41.5	+24.2 16.5 -6.2 60.5
Sa 4	247°12.0 13°49.3	261°37.6 13°41.1	276°03.3 13°32.8	290°29.0 13°24.4	304°54.8 13°16.0	319°20.7 13°07.4	333°46.7 12°58.8	348°12.7 12°50.1	2°38.8 12°41.3	17°05.0 12°32.5	31°31.2 12°23.7	+25.9 16.4 -8.6 60.0
Di 5	248°13.9 10°02.0	262°41.4 9°52.1	277°08.9 9°42.2	291°36.5 9°32.2	306°04.2 9°22.1	320°31.9 9°12.1	334°59.7 9°01.9	349°27.6 8°51.8	3°55.6 8°41.6	18°23.6 8°31.3	32°51.7 8°21.0	+27.8 16.2 -10.1 59.3
Lu 6	250°01.5 5°43.1	264°30.7 5°32.4	279°00.0 5°21.6	293°29.3 5°10.9	307°58.7 5°00.7	322°28.1 4°49.3	336°57.6 4°38.5	351°27.2 4°27.7	5°56.8 4°16.9	20°26.5 4°06.1	34°56.2 3°55.3	+29.5 15.9 -10.8 58.4
Ma 7	252°29.0 5°26.6	266°59.6 5°19.9	281°30.2 5°05.1	296°00.9 4°40.3	310°31.7 4°29.5	325°02.4 4°18.8	339°33.3 4°08.0	354°04.1 -0°02.7	8°35.1 -0°13.4	23°06.0 -0°24.1	37°37.0 -0°34.8	+30.8 15.7 -10.8 57.5
Me 8	255°26.6 -3°12.5	269°58.1 -3°22.8	284°29.7 -3°33.1	299°01.4 -3°43.3	313°33.0 -3°53.6	328°04.7 -4°03.7	342°36.4 -4°13.9	357°08.2 -4°24.0	11°40.0 -4°34.1	26°11.7 -4°44.1	40°43.6 -4°54.2	+31.7 15.4 -10.2 56.6
Je 9	258°43.3 -7°19.7	273°15.4 -7°29.0	287°44.6 -7°38.3	302°19.7 -7°47.6	316°51.9 -7°56.8	331°24.0 -8°06.0	345°56.2 -8°15.2	0°28.4 -8°24.2	15°00.6 -8°33.3	29°32.8 -8°42.3	44°05.1 -8°51.2	+32.2 15.2 -9.2 55.8
Ve 10	262°09.0 -10°58.9	276°41.3 -11°07.0	291°13.6 -11°15.0	305°45.9 -11°23.0	320°18.2 -11°30.9	334°50.5 -11°38.7	349°22.7 -11°46.5	3°55.0 -11°54.3	18°27.3 -12°01.9	32°59.6 -12°09.5	47°31.9 -12°17.1	+32.3 15.0 -7.8 55.1
Sa 11	265°35.2 -14°02.6	280°07.4 -14°09.2	294°39.6 -14°15.6	309°11.7 -14°22.0	323°43.8 -14°28.3	338°16.0 -14°34.5	352°48.1 -14°40.7	7°20.2 -14°46.8	21°52.3 -14°52.9	36°24.4 -14°58.8	50°56.4 -15°04.7	+32.1 14.9 -6.2 54.6
Di 12	268°56.0 -16°24.5	283°27.8 -16°29.2	297°59.7 -16°33.9	312°31.5 -16°38.4	327°03.3 -16°42.9	341°35.2 -16°47.4	356°06.9 -16°51.7	10°38.7 -16°56.0	25°10.5 -17°00.2	39°42.2 -17°04.3	54°14.0 -17°08.3	+31.8 14.8 -4.4 54.2
Lu 13	272°08.3 -17°59.3	286°39.8 -18°02.0	301°11.3 -18°04.7	315°42.7 -18°07.3	330°14.2 -18°09.8	344°45.7 -18°12.2	359°17.1 -18°14.5	13°48.5 -18°16.8	28°19.9 -18°19.0	42°51.3 -18°21.1	57°22.7 -18°23.1	+31.4 14.7 -2.4 54.1
Ma 14	275°12.1 -18°42.9	289°43.4 -18°43.6	304°14.6 -18°44.1	318°45.8 -18°44.6	333°16.9 -18°45.0	347°48.1 -18°45.3	2°19.3 -18°45.5	16°50.4 -18°45.6	31°21.6 -18°45.6	45°52.7 -18°45.9	60°23.9 -18°45.4	+31.2 14.7 -0.3 54.1
Me 15	278°10.3 -18°32.9	292°41.4 -18°31.4	307°12.4 -18°29.8	321°43.5 -18°28.1	336°14.6 -18°26.3	350°45.6 -18°24.4	5°16.7 -18°22.4	19°47.8 -18°20.4	34°18.8 -18°18.2	48°45.9 -18°16.0	63°20.9 -18°13.7	+31.1 14.8 +1.9 54.2
Je 16	281°07.0 -17°28.8	295°38.1 -17°25.1	310°09.3 -17°21.4	324°40.4 -17°17.5	339°11.5 -17°13.6	353°42.6 -17°09.6	8°13.7 -17°05.5	22°44.9 -17°01.3	37°16.0 -16°57.1	51°47.2 -16°52.7	66°18.3 -16°48.3	+31.1 14.9 +4.0 54.5
Ve 17	284°06.6 -15°32.5	298°37.9 -15°26.8	313°09.2 -15°21.1	327°40.5 -15°15.3	342°11.9 -15°09.4	357°03.4 -15°03.4	11°14.5 -14°57.3	25°45.9 -14°51.2	40°17.2 -14°45.6	54°48.6 -14°38.7	69°20.0 -14°32.4	+31.3 15.0 +6.0 54.9
Sa 18	287°11.9 -12°48.8	301°43.5 -12°41.3	316°15.0 -12°33.8	330°46.6 -12°26.2	345°18.2 -12°18.6	358°30.2 -12°10.9	14°21.3 -12°03.1	28°52.9 -11°55.3	43°24.6 -11°47.4	57°56.2 -11°39.5	72°27.8 -11°31.5	+31.6 15.1 +7.7 55.3
Di 19	290°23.2 -9°24.6	304°54.9 -9°15.7	319°26.7 -9°06.7	333°58.4 -8°57.8	348°30.2 -8°48.7	3°02.0 -8°39.7	17°33.7 -8°30.5	32°05.5 -8°21.4	46°37.3 -8°12.1	61°09.1 -8°02.9	75°40.9 -7°53.6	+31.8 15.2 +9.1 55.8
Lu 20	293°37.6 -5°29.2	308°09.4 -5°19.2	322°41.2 -5°09.3	337°13.0 -4°59.3	351°44.7 -4°49.3	6°16.5 -4°39.3	20°48.2 -4°29.2	35°20.0 -4°19.1	50°01.3 -4°09.0	64°23.4 -3°58.8	78°55.4 -3°48.6	+31.8 15.3 +10.1 56.3
Ma 21	296°49.6 -1°13.4	311°21.1 -1°03.0	325°52.6 -0°52.5	340°24.1 -0°42.0	354°55.6 -0°31.4	9°27.0 -0°20.9	23°58.5 -0°10.4	38°29.9 0°00.1	53°01.3 0°10.7	67°32.6 0°21.2	82°04.0 0°31.8	+31.4 15.5 -10.5 56.8
Me 22	299°51.1 8°10.2	314°22.0 3°20.7	328°52.9 3°31.2	343°23.8 3°41.7	357°54.6 3°52.2	12°25.4 4°02.7	26°56.1 4°13.2	41°26.8 4°23.6	55°57.5 4°34.4	70°28.1 4°44.5	84°58.7 4°54.9	+30.8 15.6 +10.5 57.3
Je 23	314°22.0 3°20.7	328°52.9 3°31.2	343°23.8 3°41.7	357°54.6 3°52.2	12°25.4 4°02.7	26°56.1 4°13.2	41°26.8 4°23.6	55°57.5 4°34.4	70°28.1 4°44.5	84°58.7 4°54.9	99°29.3 5°05.2	+30.7 15.6 +10.5 57.4
Ve 24	317°02.9 7°38.1	331°32.7 7°48.0	346°02.6 7°57.9	0°32.4 8°07.8	15°02.1 8°17.7	29°31.8 8°27.5	44°01.4 8°37.3	58°31.0 8°47.0	73°00.6 8°56.7	87°30.0 9°06.3	101°59.5 9°15.9	+29.7 15.8 +9.8 57.9
Sa 25	319°14.5 11°34.1	333°43.1 11°42.8	348°11.6 11°51.6	2°40.0 12°00.2	17°08.4 12°08.8	31°36.7 12°17.3	46°05.0 12°25.8	60°33.2 12°34.2	75°01.3 12°42.5	89°29.4 12°50.7	103°57.3 12°58.9	+28.3 15.9 +8.5 58.4
Di 26	320°50.4 14°52.7	335°17.4 14°59.6	349°44.5 15°06.4	4°11.3 15°13.2	18°38.2 15°19.9	33°05.0 15°26.5	47°31.7 15°33.0	61°58.4 15°39.4	76°25.0 15°45.7	90°51.6 15°51.9	105°18.1 15°58.0	+26.8 16.1 +6.5 58.9
Lu 27	321°48.7 17°17.8	336°14.3 17°22.2	350°39.9 17°26.6	5°05.4 17°30.8	19°30.8 17°35.0	33°56.2 17°39.0	48°21.6 17°42.9	62°46.9 17°46.7	77°12.2 17°50.4	91°37.2 17°54.0	106°02.6 17°57.4	+25.4 16.2 +4.0 59.3
Ma 28	322°15.3 18°34.9	336°39.9 18°36.4	351°04.5 18°37.8	5°29.0 18°39.0	19°53.5 18°40.2	34°17.9 18°41.2	48°42.4 18°42.0	63°06.6 18°42.8	77°31.2 18°43.4	91°55.6 18°43.9	106°19.9 18°44.3	+24.5 16.3 +0.9 59.7
Me 29	323°24.0 18°34.3	336°48.2 18°32.6	351°12.4 18°30.8	5°36.7 18°28.9	20°00.9 18°26.8	34°25.2 18°26.8	48°49.4 18°22.2	63°13.7 18°19.8	77°38.0 18°17.2	92°02.3 18°14.4	106°26.6 18°11.6	+24.3 16.3 -2.3 59.9
Je 30	322°33.5 17°14.0	336°58.2 17°09.2	351°22.9 17°04.3	5°47.6 16°59.3	20°12.4 16°54.1	34°37.2 16°48.4	49°02.0 16°43.5	63°26.9 16°32.4	77°51.8 16°26.7	92°16.8 16°20.7	106°41.8 16°20.8	+24.8 16.3 -5.3 59.9
Ve 31	323°02.3 14°40.8	337°28.0 14°33.4	351°53.8 14°25.8	6°19.7 14°18.2	20°45.6 14°10.4	35°11.6 14°02.6	49°37.6 13°54.7	64°03.7 13°46.7	78°29.8 13°38.6	92°56.0 13°30.4	107°22.3 13°22.2	+26.0 16.3 -7.9 59.7

Ligne 1: GHA, Δ /h = var. GHA - 14°, SP = semi-diamètre
Ligne 2: Dec (= Sud), Δ /h = var. déc., SP = parallaxe horizontale
Colonne = (heure UTC - jour) mod 24
NL: 3 17h11 — PQ: 10 21h52 — PL: 19 01h00 — DQ: 26 09h08

SOLEIL

Septembre 2035

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	260°57.8 8°19.2	284°58.0 8°18.3	299°58.2 8°17.4	314°58.4 8°16.5	329°58.6 8°15.6	344°58.8 8°14.7	359°58.9 8°13.8	14°59.1 8°12.9	29°59.3 8°12.0	44°59.5 8°11.1	59°59.7 8°10.2	74°59.9 8°09.3	+0.2 -0.9
Di 2	270°02.5 7°57.5	285°02.7 7°56.5	300°02.9 7°55.6	315°03.1 7°54.7	330°03.3 7°53.8	345°03.5 7°52.9	0°03.7 7°52.0	15°03.9 7°51.1	30°04.1 7°50.2	45°04.3 7°49.2	60°04.5 7°48.3	75°04.7 7°47.4	+0.2 -0.9
Lu 3	270°07.4 7°35.5	285°07.6 7°34.6	300°07.8 7°33.7	315°08.0 7°32.8	330°08.2 7°31.9	345°08.4 7°30.9	0°08.6 7°30.0	15°08.8 7°29.1	30°09.0 7°28.2	45°09.2 7°27.3	60°09.4 7°26.4	75°09.6 7°25.4	+0.2 -0.9
Ma 4	270°12.3 7°13.5	285°12.5 7°12.6	300°12.7 7°11.6	315°12.9 7°10.7	330°13.1 7°09.8	345°13.3 7°08.9	0°13.5 7°08.0	15°13.7 7°07.0	30°13.9 7°06.1	45°14.1 7°05.2	60°14.3 7°04.3	75°14.5 7°03.3	+0.2 -0.9
Me 5	270°17.2 6°51.3	285°17.4 6°50.4	300°17.7 6°49.5	315°17.9 6°48.5	330°18.1 6°47.6	345°18.3 6°46.7	0°18.5 6°45.8	15°18.7 6°44.8	30°18.9 6°43.9	45°19.1 6°43.0	60°19.3 6°42.0	75°19.5 6°41.1	+0.2 -0.9
Je 6	270°22.3 6°29.0	285°22.5 6°28.1	300°22.7 6°27.2	315°22.9 6°26.3	330°23.1 6°25.3	345°23.3 6°24.4	0°23.5 6°23.5	15°23.7 6°22.5	30°24.0 6°21.6	45°24.2 6°20.7	60°24.4 6°19.7	75°24.6 6°18.8	+0.2 -0.9
Ve 7	270°27.4 6°06.7	285°27.6 6°05.7	300°27.8 6°04.8	315°28.0 6°03.9	330°28.2 6°02.0	345°28.4 6°02.0	0°28.6 6°01.1	15°28.8 6°00.1	30°29.1 5°59.2	45°29.3 5°58.2	60°29.5 5°57.3	75°29.7 5°56.4	+0.2 -0.9
Sa 8	270°32.5 5°44.2	285°32.7 5°43.2	300°32.9 5°42.3	315°33.1 5°41.4	330°33.3 5°40.4	345°33.5 5°39.6	0°33.8 5°38.5	15°34.0 5°37.6	30°34.2 5°36.7	45°34.4 5°35.7	60°34.6 5°34.8	75°34.9 5°33.8	+0.2 -0.9
Di 9	270°37.7 5°21.6	285°37.9 5°20.7	300°38.1 5°19.7	315°38.3 5°18.8	330°38.5 5°17.8	345°38.8 5°16.9	0°39.0 5°15.9	15°39.2 5°15.0	30°39.4 5°14.1	45°39.6 5°13.1	60°39.9 5°12.2	75°40.1 5°11.2	+0.2 -0.9
Lu 10	270°42.9 4°58.9	285°43.1 4°58.0	300°43.3 4°57.0	315°43.6 4°56.1	330°43.8 4°55.2	345°44.0 4°54.2	0°44.2 4°53.3	15°44.4 4°52.3	30°44.7 4°51.4	45°44.9 4°50.4	60°45.1 4°49.5	75°45.3 4°48.5	+0.2 -0.9
Ma 11	270°48.2 4°36.2	285°48.4 4°35.2	300°48.6 4°34.3	315°48.8 4°33.3	330°49.1 4°32.4	345°49.3 4°31.4	0°49.5 4°30.5	15°49.7 4°29.5	30°49.9 4°28.6	45°50.2 4°27.6	60°50.4 4°26.7	75°50.6 4°25.7	+0.2 -1.0
Me 12	270°53.5 4°13.4	285°53.7 4°12.4	300°53.9 4°11.5	315°54.1 4°10.5	330°54.4 4°09.6	345°54.6 4°08.6	0°54.8 4°07.7	15°55.0 4°06.7	30°55.3 4°05.7	45°55.5 4°04.8	60°55.7 4°03.8	75°55.9 4°02.9	+0.2 -1.0
Je 13	270°58.8 3°50.5	285°59.0 3°49.5	300°59.3 3°48.6	315°59.5 3°47.6	330°59.7 3°46.6	345°59.9 3°45.7	1°00.1 3°44.7	16°00.4 3°43.8	31°00.6 3°42.8	46°00.6 3°41.9	61°01.0 3°40.9	76°01.3 3°40.0	+0.2 -1.0
Ve 14	271°04.2 3°27.5	286°04.4 3°26.5	301°04.6 3°25.6	316°04.8 3°24.6	331°05.1 3°23.7	346°05.3 3°22.7	1°05.5 3°21.8	16°05.7 3°20.8	31°06.0 3°19.8	46°06.2 3°18.9	61°06.4 3°17.9	76°06.6 3°17.0	+0.2 -1.0
Sa 15	271°09.5 3°04.5	286°09.8 3°03.5	301°10.0 3°02.6	316°10.3 3°01.6	331°10.7 3°00.6	346°10.7 2°59.7	1°10.9 2°58.7	16°11.1 2°57.8	31°11.3 2°56.8	46°11.6 2°55.8	61°11.8 2°54.9	76°12.0 2°53.9	+0.2 -1.0
Di 16	271°14.9 2°41.4	286°15.1 2°40.4	301°15.4 2°39.5	316°15.6 2°38.5	331°15.8 2°37.5	346°16.0 2°36.6	1°16.3 2°35.6	16°16.5 2°34.7	31°16.7 2°33.7	46°16.9 2°32.7	61°17.2 2°31.8	76°17.4 2°30.8	+0.2 -1.0
Lu 17	271°20.3 2°18.3	286°20.5 2°17.3	301°20.8 2°16.3	316°21.0 2°15.4	331°21.2 2°14.4	346°21.4 2°13.4	1°21.7 2°12.5	16°21.9 2°11.5	31°22.1 2°10.5	46°22.3 2°09.6	61°22.6 2°08.6	76°22.6 2°07.6	+0.2 -1.0
Ma 18	271°25.7 1°55.1	286°25.9 1°54.1	301°26.1 1°53.1	316°26.4 1°52.2	331°26.6 1°51.2	346°26.8 1°50.2	1°27.0 1°49.3	16°27.3 1°48.3	31°27.5 1°47.3	46°27.7 1°46.4	61°27.9 1°45.4	76°28.2 1°44.4	+0.2 -1.0
Me 19	271°31.1 1°31.9	286°31.3 1°30.9	301°31.5 1°29.9	316°31.8 1°29.0	331°32.0 1°28.0	346°32.2 1°27.0	1°32.4 1°26.0	16°32.7 1°25.1	31°32.9 1°24.1	46°33.5 1°23.1	61°33.7 1°22.2	76°33.9 1°21.2	+0.2 -1.0
Je 20	271°36.5 1°08.6	286°36.7 1°07.6	301°36.9 1°06.7	316°37.1 1°05.7	331°37.4 1°04.7	346°37.6 1°03.8	1°37.8 1°02.8	16°38.0 1°01.8	31°38.2 1°00.8	46°38.5 0°59.9	61°38.7 0°58.9	76°38.9 0°57.9	+0.2 -1.0
Ve 21	271°41.8 0°45.3	286°42.0 0°44.3	301°42.3 0°43.4	316°42.5 0°42.4	331°42.7 0°41.4	346°42.9 0°40.5	1°43.1 0°39.5	16°43.4 0°38.5	31°43.6 0°37.5	46°43.8 0°36.6	61°44.0 0°35.6	76°44.3 0°34.6	+0.2 -1.0
Sa 22	271°47.1 0°22.0	286°47.4 0°21.0	301°47.6 0°20.1	316°47.8 0°19.1	331°48.0 0°18.1	346°48.3 0°17.1	1°48.5 0°16.2	16°48.7 0°15.2	31°48.9 0°14.2	46°49.1 0°13.3	61°49.4 0°12.3	76°49.6 0°11.3	+0.2 -1.0
Di 23	271°52.4 -0°01.3	286°52.7 -0°02.3	301°52.9 -0°03.3	316°53.1 -0°04.2	331°53.3 -0°05.2	346°53.5 -0°06.2	1°53.8 -0°07.2	16°54.0 -0°08.1	31°54.2 -0°09.1	46°54.4 -0°10.1	61°54.6 -0°11.1	76°54.9 -0°12.0	+0.2 -1.0
Lu 24	271°57.7 -0°24.7	286°57.9 -0°25.6	301°58.2 -0°26.6	316°58.4 -0°27.6	331°58.6 -0°28.6	346°58.8 -0°29.5	1°59.0 -0°30.5	16°59.2 -0°31.5	31°59.5 -0°32.5	46°59.7 -0°33.4	61°59.9 -0°34.4	77°00.1 -0°35.4	+0.2 -1.0
Ma 25	272°02.9 -0°48.0	287°03.2 -0°49.0	302°03.4 -0°50.0	317°03.6 -0°50.9	332°03.8 -0°51.8	347°04.0 -0°52.9	2°04.2 -0°53.9	17°04.5 -0°54.8	32°04.7 -0°55.8	47°04.9 -0°56.8	62°05.1 -0°57.8	77°05.3 -0°58.7	+0.2 -1.0
Me 26	272°08.1 -1°11.4	287°08.3 -1°12.4	302°08.6 -1°13.3	317°08.8 -1°14.3	332°09.0 -1°15.3	347°09.2 -1°16.3	2°09.4 -1°17.2	17°09.6 -1°18.2	32°09.8 -1°19.2	47°10.1 -1°20.1	62°10.1 -1°21.1	77°10.5 -1°22.1	+0.2 -1.0
Je 27	272°13.3 -1°34.7	287°13.5 -1°35.7	302°13.7 -1°36.7	317°13.9 -1°37.7	332°14.1 -1°38.6	347°14.3 -1°39.6	2°14.5 -1°40.6	17°14.7 -1°41.6	32°15.0 -1°42.5	47°15.2 -1°43.5	62°15.4 -1°44.5	77°15.6 -1°45.4	+0.2 -1.0
Ve 28	272°18.3 -1°58.1	287°18.5 -1°59.1	302°18.7 -2°00.0	317°19.0 -2°01.0	332°19.2 -2°02.0	347°19.4 -2°03.0	2°19.6 -2°03.9	17°19.8 -2°04.9	32°20.0 -2°05.9	47°20.2 -2°06.8	62°20.4 -2°07.8	77°20.6 -2°08.8	+0.2 -1.0
Sa 29	272°23.3 -2°21.4	287°23.6 -2°22.4	302°23.8 -2°23.4	317°24.0 -2°24.3	332°24.2 -2°25.3	347°24.4 -2°26.3	2°24.6 -2°27.2	17°24.8 -2°28.2	32°25.0 -2°29.2	47°25.2 -2°30.2	62°25.4 -2°31.1	77°25.6 -2°32.1	+0.2 -1.0
Di 30	272°28.3 -2°44.7	287°28.5 -2°45.7	302°28.7 -2°46.7	317°28.9 -2°47.6	332°29.1 -2°48.6	347°29.3 -2°49.6	2°29.5 -2°50.6	17°29.7 -2°51.5	32°29.9 -2°52.5	47°30.1 -2°53.5	62°30.3 -2°54.4	77°30.5 -2°55.4	+0.2 -1.0

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 15.9'

LUNE

Septembre 2035

	J	2h	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	Δ'/h	SP
●	Sa 1	237°21.1 12°04.3	251°47.9 11°55.3	266°14.8 11°46.2	280°41.7 11°37.0	295°08.7 11°27.8	309°35.8 11°18.5	324°02.9 11°09.2	338°30.1 10°59.7	352°57.3 10°50.3	7°24.6 10°40.7	21°52.0 10°31.1	+27.1 -9.3	16.2 59.4
	Di 2	238°49.5 8°00.9	253°17.8 7°50.5	267°46.6 7°40.1	282°14.6 7°29.6	296°43.4 7°19.2	311°11.6 7°08.6	325°40.2 6°58.1	340°08.8 6°47.5	354°37.5 6°36.9	9°06.2 6°26.3	23°35.1 6°15.6	+28.6 -10.5	16.1 58.9
	Lu 3	240°53.4 3°33.3	255°33.0 3°22.4	269°52.7 3°11.5	284°22.4 3°00.5	298°52.2 2°49.6	313°22.0 2°38.6	327°51.8 2°27.7	342°21.7 2°16.7	356°51.7 2°05.8	11°21.7 1°54.8	25°51.7 1°43.9	+29.8 -10.9	15.9 58.2
●	Ma 4	243°27.0 -0°59.4	257°57.6 -1°10.2	272°28.3 -1°21.0	286°59.0 -1°31.7	301°29.8 -1°42.4	316°00.6 -1°53.1	330°31.4 -2°03.8	345°02.2 -2°14.4	359°33.1 -2°25.1	14°04.0 -2°35.7	28°34.9 -2°46.3	+30.8 -10.7	15.6 57.4
	Me 5	246°22.1 -5°21.2	260°53.5 -5°31.3	275°24.8 -5°41.3	289°56.2 -5°51.3	304°27.6 -6°01.2	318°59.0 -6°11.1	333°30.4 -6°21.0	348°01.9 -6°30.8	2°33.3 -6°40.5	17°04.8 -6°50.2	31°36.3 -6°59.9	+31.4 -9.9	15.4 56.6
	Je 6	249°30.4 -9°19.3	264°02.1 -9°28.2	278°33.8 -9°37.0	293°05.5 -9°45.8	307°37.2 -9°54.5	322°08.9 -10°03.1	336°40.6 -10°11.7	351°12.4 -10°20.3	5°44.1 -10°28.8	20°15.9 -10°37.2	34°47.6 -10°45.6	+31.7 -8.6	15.2 55.8
●	Ve 7	252°44.2 -12°43.8	267°15.9 -12°51.1	281°47.7 -12°58.4	296°19.5 -13°05.7	310°51.3 -13°12.8	325°23.0 -13°19.9	339°54.8 -13°27.0	354°26.6 -13°33.9	8°58.3 -13°40.4	23°30.1 -13°47.6	38°01.9 -13°54.4	+31.8 -7.1	15.0 55.1
	Sa 8	255°57.7 -15°27.2	270°29.4 -15°32.8	285°01.0 -15°38.3	299°32.7 -15°43.8	313°04.4 -15°49.2	327°37.2 -15°54.5	343°07.7 -15°59.7	357°39.3 -16°04.8	12°10.9 -16°09.9	26°42.6 -16°14.9	41°14.2 -16°19.8	+31.6 -5.3	14.9 54.6
	Di 9	259°07.4 -17°24.1	273°38.9 -17°27.7	288°10.4 -17°31.3	302°41.9 -17°34.8	317°13.3 -17°38.2	331°44.8 -17°41.5	346°16.2 -17°44.7	360°47.7 -17°50.9	15°19.1 -17°53.9	29°50.5 -17°58.9	44°21.9 -17°56.8	+31.4 -3.3	14.8 54.3
●	Lu 10	263°12.2 -18°30.4	276°43.5 -18°31.9	291°14.8 -18°33.4	305°46.1 -18°34.8	320°17.3 -18°36.1	334°48.6 -18°37.3	349°19.9 -18°38.4	363°51.1 -18°39.5	18°22.4 -18°40.4	32°53.6 -18°41.3	47°24.9 -18°42.1	+31.3 -1.2	14.8 54.2
	Ma 11	265°12.9 -18°43.5	279°14.1 -18°42.2	294°15.2 -18°42.2	308°46.4 -18°41.5	323°17.6 -18°40.6	337°48.7 -18°39.7	352°19.9 -18°38.6	366°51.0 -18°37.5	21°22.2 -18°36.3	35°53.3 -18°35.0	50°24.5 -18°33.6	+31.2 +1.0	14.8 54.2
	Me 12	268°11.8 -18°02.6	282°42.9 -17°59.9	297°14.1 -17°57.0	311°45.2 -17°54.1	326°16.4 -17°51.1	340°47.6 -17°48.0	355°18.7 -17°44.8	369°49.9 -17°41.6	24°21.1 -17°38.2	38°52.3 -17°34.8	53°23.4 -17°31.3	+31.2 +3.1	14.8 54.4
●	Je 13	271°11.5 -16°28.6	285°42.8 -16°23.8	300°14.4 -16°18.8	314°45.3 -16°13.9	329°16.5 -16°08.8	343°47.8 -16°03.6	358°19.0 -15°58.4	373°53.1 -15°53.1	27°21.6 -15°47.7	41°52.9 -15°42.2	56°26.7 -15°36.7	+31.3 +5.2	14.9 54.8
	Ve 14	274°14.0 -17°04.5	288°45.4 -17°07.7	303°16.8 -17°03.8	317°48.2 -17°00.0	332°19.5 -16°56.2	346°50.9 -16°51.0	361°22.2 -16°45.8	376°53.1 -16°40.6	30°25.1 -16°35.1	44°56.5 -16°30.1	59°27.9 -16°25.3	+31.4 +7.1	15.1 55.3
	Sa 15	277°19.5 -10°55.5	291°50.9 -10°47.2	306°22.4 -10°38.7	320°53.9 -10°30.2	335°25.3 -10°21.7	349°56.8 -10°13.0	364°28.2 -10°04.4	379°58.7 -9°55.6	33°31.2 -9°46.8	48°02.6 -9°38.0	62°34.1 -9°29.1	+31.5 +8.6	15.2 55.5
●	Di 16	280°25.8 -7°09.6	294°57.2 -6°59.9	309°28.6 -6°50.2	324°00.0 -6°40.5	338°31.4 -6°30.7	353°02.8 -6°20.8	367°34.2 -6°10.9	382°05.2 -6°01.0	36°36.9 -5°51.1	51°08.3 -5°41.1	65°39.6 -5°31.1	+31.4 +9.9	15.4 56.1
	Lu 17	283°28.5 -2°56.8	297°59.7 -2°46.3	312°30.7 -2°35.8	327°01.9 -2°25.2	341°33.0 -2°14.6	356°04.1 -2°04.1	370°35.2 -1°53.5	385°06.2 -1°42.8	39°37.2 -1°32.2	54°08.3 -1°21.5	68°39.2 -1°10.9	+31.1 +10.6	15.5 57.0
	Ma 18	286°21.4 1°30.4	300°52.0 1°41.2	315°22.6 1°52.0	329°53.1 2°02.8	344°23.3 2°13.6	358°54.1 2°24.4	373°24.6 2°35.1	387°55.0 2°45.9	42°25.4 2°56.7	56°55.5 3°07.4	71°26.1 3°18.2	+30.5 +10.8	15.7 57.6
●	Me 19	288°57.0 5°57.5	303°26.7 6°08.0	317°56.5 6°18.4	332°26.1 6°28.8	346°55.8 6°39.2	361°25.4 6°49.5	375°54.9 6°59.8	390°24.4 7°10.1	44°53.9 7°20.4	59°23.3 7°30.6	73°52.7 7°40.8	+29.6 +10.3	15.8 58.1
	Je 20	291°08.0 10°08.3	305°36.7 10°17.8	320°05.3 10°27.2	334°33.8 10°36.5	349°02.3 10°45.8	363°30.8 10°55.1	377°59.2 11°04.2	392°27.5 11°13.3	46°55.9 11°22.3	61°24.1 11°31.4	75°52.3 11°40.3	+28.4 +9.2	15.9 58.5
	Ve 21	292°49.3 13°45.9	307°16.7 13°53.7	321°04.0 14°01.4	336°11.3 14°09.0	350°38.6 14°16.5	365°05.8 14°23.9	379°32.9 14°31.3	394°00.0 14°38.6	48°27.1 14°45.8	62°54.1 14°52.9	77°21.0 14°59.9	+27.2 +7.4	16.0 58.8
●	Sa 22	307°16.7 13°53.7	321°44.0 14°01.4	336°11.3 14°09.0	350°38.6 14°16.5	365°05.8 14°23.9	379°32.9 14°31.3	394°00.0 14°38.6	408°27.1 14°45.8	62°54.1 14°52.9	77°21.0 14°59.9	91°47.9 15°06.8	+27.1 +7.3	16.0 58.8
	Di 23	308°25.8 16°39.2	322°51.9 16°44.5	337°18.0 16°49.8	351°44.1 16°54.9	366°10.2 17°00.0	380°36.2 17°04.9	395°02.1 17°09.8	409°28.1 17°14.5	63°54.0 17°19.1	78°19.6 17°23.6	92°45.6 17°28.0	+26.0 +4.9	16.1 59.0
	Lu 24	309°08.9 18°20.2	323°34.2 18°22.7	337°59.5 18°25.2	352°24.8 18°27.5	367°50.0 18°31.7	382°15.3 18°36.6	396°40.5 18°42.1	411°10.9 18°47.5	65°30.9 18°53.7	80°55.6 18°58.7	93°21.2 18°40.2	+25.2 +2.0	16.1 59.2
●	Ma 25	309°37.2 18°47.2	324°02.3 18°46.6	338°27.3 18°46.0	352°52.3 18°45.2	367°17.4 18°44.3	381°47.3 18°49.8	396°07.5 18°55.3	411°10.9 18°58.2	64°57.6 18°58.2	79°22.7 18°58.0	93°47.8 18°36.3	+25.1 -1.1	16.2 59.2
	Je 26	310°06.1 17°57.1	324°31.5 17°53.5	338°56.9 17°56.9	353°22.4 17°46.1	367°47.8 17°42.7	382°18.3 17°38.1	396°38.9 17°34.0	411°10.9 17°29.7	65°30.9 17°25.3	80°55.6 17°20.8	94°21.3 17°16.2	+25.5 -4.1	16.1 59.2
	Me 27	310°50.5 15°54.3	325°16.8 15°48.0	339°43.1 15°41.6	354°09.5 15°35.1	368°35.9 15°28.9	383°06.2 15°21.9	397°28.8 15°15.1	412°01.9 15°08.2	66°22.0 15°01.2	81°48.6 14°54.2	95°15.3 14°47.0	+26.5 -6.7	16.1 59.1
●	Ve 28	312°01.3 12°49.5	326°28.7 12°41.1	340°56.2 12°32.5	355°23.3 12°23.9	369°51.4 12°15.2	384°21.9 12°06.4	398°46.8 11°57.6	413°14.5 11°48.7	67°42.3 11°39.7	82°10.2 11°30.7	96°38.1 11°21.6	+27.7 -8.8	16.0 58.8
	Sa 29	313°42.7 8°58.2	328°11.4 8°50.2	342°40.1 8°38.2	357°08.9 8°28.1	371°37.8 8°18.0	385°06.6 8°07.8	398°35.6 7°57.6	413°14.5 7°47.4	69°33.6 7°37.1	84°02.6 7°26.8	98°31.7 7°16.5	+28.9 -10.2	15.9 58.5
	Di 30	315°53.5 4°37.8	330°23.3 4°27.0	344°53.1 4°16.2	359°23.0 4°05.4	373°52.8 3°54.6	387°22.8 3°43.8	400°52.7 3°32.9	413°14.5 3°22.1	71°52.8 3°11.2	86°22.8 3°00.3	100°53.0 2°49.5	+29.9 -10.8	15.8 58.0

Ligne 1: GHA, Δ'/h = var. GHA - 14°, SP = semi-diamètre
 Ligne 2: Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale
 Colonne = (heure UTC - jour) mod 24
 NL: 2 01h59 — PQ: 9 14h47 — PL: 17 14h23 — DQ: 24 14h39

SOLEIL

Octobre 2035

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Lu 1	257°33.0 -3°07.0	272°33.2 -3°08.0	287°33.4 -3°09.0	302°33.6 -3°10.0	317°33.8 -3°10.9	332°34.0 -3°11.9	347°34.2 -3°12.9	2°34.4 -3°13.8	17°34.6 -3°14.8	32°34.8 -3°15.8	47°35.0 -3°16.7	62°35.2 -3°17.7	+0.2 -1.0
Ma 2	257°37.8 -3°30.3	272°38.0 -3°31.3	287°38.2 -3°32.2	302°38.4 -3°33.2	317°38.6 -3°34.2	332°38.8 -3°35.1	347°39.0 -3°36.1	2°39.2 -3°37.1	17°39.4 -3°38.0	32°39.6 -3°39.0	47°39.8 -3°40.0	62°40.0 -3°40.9	+0.2 +1.0
Me 3	257°42.5 -3°53.5	272°42.7 -3°54.7	287°42.9 -3°55.4	302°43.1 -3°56.4	317°43.3 -3°57.4	332°43.5 -3°58.3	347°43.7 -3°59.3	2°43.9 -4°00.3	17°44.1 -4°01.2	32°44.3 -4°02.2	47°44.5 -4°03.2	62°44.7 -4°04.1	+0.2 -1.0
Je 4	257°47.2 -4°16.7	272°47.4 -4°17.6	287°47.6 -4°18.6	302°47.8 -4°19.6	317°48.0 -4°20.5	332°48.2 -4°21.5	347°48.4 -4°22.5	2°48.5 -4°23.4	17°48.7 -4°24.4	32°48.9 -4°25.3	47°49.1 -4°26.3	62°49.3 -4°27.3	+0.2 -1.0
Ve 5	257°51.8 -4°39.8	272°52.0 -4°40.8	287°52.2 -4°41.7	302°52.4 -4°42.7	317°52.5 -4°43.6	332°52.7 -4°44.6	347°52.9 -4°45.6	2°53.1 -4°46.5	17°53.3 -4°47.5	32°53.5 -4°48.4	47°53.7 -4°49.4	62°53.9 -4°50.4	+0.2 -1.0
Sa 6	257°56.3 -5°02.8	272°56.5 -5°03.8	287°56.6 -5°04.8	302°56.8 -5°05.7	317°57.0 -5°06.7	332°57.2 -5°07.6	347°57.4 -5°08.6	2°57.6 -5°09.6	17°57.8 -5°10.5	32°57.9 -5°11.5	47°58.1 -5°12.4	62°58.3 -5°13.4	+0.2 -1.0
Di 7	258°00.7 -5°25.8	273°00.9 -5°26.8	288°01.0 -5°27.8	303°01.2 -5°28.7	318°01.4 -5°29.7	333°01.6 -5°30.6	348°01.8 -5°31.6	3°01.9 -5°32.5	18°02.1 -5°33.5	33°02.3 -5°34.4	48°02.5 -5°35.4	63°02.7 -5°36.4	+0.2 -1.0
Lu 8	258°05.0 -5°48.8	273°05.2 -5°49.7	288°05.3 -5°50.7	303°05.5 -5°51.6	318°05.7 -5°52.6	333°05.9 -5°53.5	348°06.0 -5°54.5	3°06.2 -5°55.4	18°06.4 -5°56.4	33°06.6 -5°57.3	48°06.7 -5°58.3	63°06.9 -5°59.2	+0.2 -1.0
Ma 9	258°09.2 -6°11.6	273°09.3 -6°12.6	288°09.5 -6°13.5	303°09.7 -6°14.5	318°09.9 -6°15.4	333°10.0 -6°16.4	348°10.2 -6°17.3	3°10.4 -6°18.3	18°10.5 -6°19.2	33°10.7 -6°20.2	48°10.9 -6°21.1	63°11.1 -6°22.1	+0.2 -0.9
Me 10	258°13.4 -6°34.4	273°13.4 -6°35.3	288°13.6 -6°36.3	303°13.8 -6°37.2	318°13.9 -6°38.2	333°14.1 -6°39.1	348°14.3 -6°40.1	3°14.4 -6°41.0	18°14.6 -6°41.9	33°14.8 -6°42.8	48°14.9 -6°43.8	63°15.1 -6°44.8	+0.2 -0.9
Je 11	258°17.8 -6°57.1	273°17.4 -6°58.0	288°17.6 -6°58.9	303°17.7 -6°59.9	318°17.9 -7°00.8	333°18.1 -7°01.8	348°18.2 -7°02.7	3°18.4 -7°03.7	18°18.5 -7°04.6	33°18.7 -7°05.5	48°18.9 -7°06.5	63°19.0 -7°07.4	+0.2 -0.9
Ve 12	258°21.6 -7°19.6	273°21.3 -7°20.6	288°21.4 -7°21.5	303°21.6 -7°22.5	318°21.7 -7°23.4	333°21.9 -7°24.3	348°22.1 -7°25.3	3°22.2 -7°26.2	18°22.4 -7°27.1	33°22.5 -7°28.1	48°22.5 -7°29.0	63°22.8 -7°30.0	+0.2 -0.9
Sa 13	258°24.9 -7°42.1	273°25.0 -7°43.1	288°25.2 -7°44.0	303°25.3 -7°44.9	318°25.5 -7°45.9	333°25.6 -7°46.8	348°25.8 -7°47.7	3°25.9 -7°48.7	18°26.1 -7°49.6	33°26.2 -7°50.5	48°26.4 -7°51.5	63°26.5 -7°52.4	+0.2 -0.9
Di 14	258°28.5 -8°04.8	273°28.6 -8°05.4	288°28.8 -8°06.4	303°28.9 -8°07.3	318°29.1 -8°08.2	333°29.2 -8°09.1	348°29.4 -8°10.1	3°29.5 -8°11.0	18°29.6 -8°11.9	33°29.8 -8°12.9	48°29.9 -8°13.8	63°30.1 -8°14.7	+0.1 -0.9
Lu 15	258°32.3 -8°26.8	273°32.1 -8°27.7	288°32.2 -8°28.6	303°32.4 -8°29.5	318°32.5 -8°30.4	333°32.7 -8°31.4	348°32.8 -8°32.3	3°32.9 -8°33.2	18°33.1 -8°34.1	33°33.2 -8°35.1	48°33.4 -8°36.0	63°33.5 -8°36.9	+0.1 -0.9
Ma 16	258°35.3 -8°48.9	273°35.4 -8°49.8	288°35.6 -8°50.7	303°35.7 -8°51.6	318°35.9 -8°52.6	333°36.0 -8°53.5	348°36.1 -8°54.4	3°36.3 -8°55.3	18°36.4 -8°56.2	33°36.5 -8°57.2	48°36.7 -8°58.1	63°36.8 -8°59.0	+0.1 -0.9
Me 17	258°38.5 -9°10.9	273°38.6 -9°11.8	288°38.8 -9°12.7	303°38.9 -9°13.6	318°39.0 -9°14.6	333°39.2 -9°15.5	348°39.3 -9°16.4	3°39.4 -9°17.3	18°39.6 -9°18.2	33°39.7 -9°19.1	48°39.8 -9°20.0	63°39.9 -9°21.0	+0.1 -0.9
Je 18	258°41.6 -9°32.8	273°41.7 -9°33.7	288°41.8 -9°34.6	303°41.9 -9°35.5	318°42.1 -9°36.4	333°42.2 -9°37.3	348°42.3 -9°38.2	3°42.4 -9°39.1	18°42.6 -9°40.1	33°42.7 -9°41.0	48°42.8 -9°41.9	63°42.9 -9°42.8	+0.1 -0.9
Ve 19	258°44.5 -9°54.5	273°44.6 -9°55.4	288°44.7 -9°56.3	303°44.8 -9°57.2	318°44.9 -9°58.1	333°45.1 -9°59.0	348°45.2 -9°59.9	3°45.3 -10°00.8	18°45.4 -10°01.7	33°45.5 -10°02.6	48°45.6 -10°03.6	63°45.8 -10°04.5	+0.1 -0.9
Sa 20	258°47.2 -10°16.1	273°47.3 -10°17.0	288°47.4 -10°17.9	303°47.6 -10°18.8	318°47.7 -10°19.7	333°47.8 -10°20.6	348°47.9 -10°21.5	3°48.0 -10°22.4	18°48.1 -10°23.3	33°48.2 -10°24.2	48°48.3 -10°25.1	63°48.4 -10°26.0	+0.1 -0.9
Di 21	258°49.8 -10°37.6	273°49.9 -10°38.5	288°50.0 -10°39.4	303°50.1 -10°40.3	318°50.2 -10°41.1	333°50.3 -10°42.0	348°50.4 -10°42.9	3°50.5 -10°43.8	18°50.6 -10°44.7	33°50.7 -10°45.6	48°50.8 -10°46.5	63°50.9 -10°47.4	+0.1 -0.9
Lu 22	258°52.2 -10°58.5	273°52.3 -10°59.8	288°52.4 -11°00.6	303°52.5 -11°01.5	318°52.6 -11°02.4	333°52.7 -11°03.3	348°52.8 -11°04.2	3°52.9 -11°05.1	18°53.0 -11°05.9	33°53.1 -11°06.8	48°53.2 -11°07.7	63°53.3 -11°08.6	+0.1 -0.9
Ma 23	258°55.4 -11°20.0	273°54.6 -11°20.9	288°54.6 -11°21.8	303°54.7 -11°22.6	318°54.8 -11°23.5	333°54.9 -11°24.4	348°55.0 -11°25.3	3°55.1 -11°26.1	18°55.2 -11°27.0	33°55.3 -11°27.9	48°55.4 -11°28.8	63°55.4 -11°29.6	+0.1 -0.9
Me 24	258°56.5 -11°41.0	273°56.6 -11°41.9	288°56.7 -11°42.7	303°56.8 -11°43.6	318°56.9 -11°44.5	333°56.9 -11°45.3	348°57.0 -11°46.2	3°57.1 -11°47.1	18°57.2 -11°47.9	33°57.3 -11°48.8	48°57.4 -11°49.7	63°57.4 -11°50.5	+0.1 -0.9
Je 25	258°58.4 -12°01.8	273°58.5 -12°02.6	288°58.6 -12°03.5	303°58.6 -12°04.4	318°58.7 -12°05.2	333°58.8 -12°06.0	348°58.9 -12°06.9	3°58.9 -12°07.8	18°59.0 -12°08.7	33°59.1 -12°09.5	48°59.2 -12°10.4	63°59.2 -12°11.2	+0.1 -0.9
Ve 26	259°00.1 -12°22.4	274°00.2 -12°23.2	289°00.3 -12°24.1	304°00.3 -12°24.9	319°00.4 -12°25.8	334°00.5 -12°26.6	349°00.5 -12°27.5	4°00.6 -12°28.3	19°00.7 -12°29.2	34°00.7 -12°30.1	49°00.8 -12°30.9	64°00.8 -12°31.8	+0.1 -0.9
Sa 27	259°01.6 -12°42.8	274°01.7 -12°43.6	289°01.8 -12°44.5	304°01.8 -12°45.3	319°01.9 -12°46.2	334°01.9 -12°47.0	349°02.0 -12°47.9	4°02.0 -12°48.7	19°02.1 -12°49.6	34°02.2 -12°50.4	49°02.2 -12°51.2	64°02.3 -12°52.1	+0.1 -0.8
Di 28	259°03.0 -13°03.0	274°03.0 -13°03.9	289°03.1 -13°04.7	304°03.1 -13°05.5	319°03.2 -13°06.4	334°03.2 -13°07.2	349°03.3 -13°08.0	4°03.3 -13°08.9	19°03.4 -13°09.7	34°03.4 -13°10.5	49°03.5 -13°11.4	64°03.5 -13°12.2	+0.0 -0.8
Lu 29	259°04.1 -13°23.0	274°04.1 -13°23.9	289°04.2 -13°24.7	304°04.2 -13°25.5	319°04.3 -13°26.4	334°04.3 -13°27.2	349°04.4 -13°28.0	4°04.4 -13°28.9	19°04.4 -13°29.7	34°04.5 -13°30.5	49°04.5 -13°31.3	64°04.6 -13°32.1	+0.0 -0.8
Ma 30	259°05.0 -13°42.8	274°05.1 -13°43.7	289°05.1 -13°44.5	304°05.2 -13°45.3	319°05.2 -13°46.1	334°05.2 -13°46.9	349°05.3 -13°47.8	4°05.3 -13°48.6	19°05.3 -13°49.4	34°05.4 -13°50.2	49°05.4 -13°51.0	64°05.4 -13°51.9	+0.0 -0.8
Me 31	259°05.8 -14°02.4	274°05.8 -14°03.3	289°05.8 -14°04.1	304°05.9 -14°04.9	319°05.9 -14°05.7	334°05.9 -14°06.5	349°06.0 -14°07.3	4°06.0 -14°08.1	19°06.0 -14°08.9	34°06.0 -14°09.7	49°06.0 -14°10.5	64°06.1 -14°11.3	+0.0 -0.8

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. dec.

Semi-diamètre: 16.0'

LUNE

Octobre 2035

	J	3h	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	Δ'/h	SP
●	Lu 1	245°55.8 1°00.4	260°26.3 0°49.5	274°56.8 0°38.6	289°27.3 0°27.7	303°57.8 0°16.9	318°28.4 0°06.0	332°59.0 -0°04.9	347°29.6 -0°15.7	2°00.3 -0°26.6	16°30.9 -0°37.4	31°01.7 -0°48.3	+30.6 -10.9	15.7 57.5
	Ma 2	248°44.9 -3°28.5	263°15.9 -3°39.0	277°47.0 -3°49.5	292°18.1 -3°59.9	306°49.2 -4°10.3	321°20.3 -4°20.7	335°51.4 -4°31.1	350°22.5 -4°41.4	4°53.7 -5°02.0	19°24.9 -5°12.2	33°56.1 -5°12.2	+31.1 -10.4	15.5 56.9
	Me 3	251°45.2 -7°40.8	266°16.5 -7°50.4	280°47.9 -7°59.9	295°19.3 -8°09.4	309°50.6 -8°18.8	324°22.0 -8°28.2	338°53.4 -8°37.5	353°24.8 -8°46.7	7°56.2 -8°56.0	22°27.6 -9°05.1	36°59.0 -9°14.2	+31.4 -9.3	15.3 56.2
	Je 4	254°50.3 -11°24.2	269°21.8 -11°32.4	283°53.2 -11°40.5	298°24.7 -11°48.6	312°56.1 -11°56.6	327°27.5 -12°04.5	341°59.0 -12°12.4	356°30.4 -12°20.2	11°01.8 -12°28.0	25°33.2 -12°35.6	40°04.7 -12°43.2	+31.4 -7.9	15.2 55.6
	Ve 5	257°55.8 -14°29.1	272°27.2 -14°35.6	286°58.5 -14°42.0	301°29.9 -14°48.3	316°01.3 -14°54.6	330°32.6 -15°00.8	345°04.0 -15°06.9	359°35.4 -15°12.9	14°06.7 -15°18.9	28°38.1 -15°24.7	43°09.4 -15°30.6	+31.4 -6.1	15.0 55.0
●	Sa 6	260°59.0 -16°48.2	275°30.3 -16°52.8	290°01.6 -16°57.2	304°32.9 -17°01.6	319°04.1 -17°05.9	333°35.4 -17°10.1	348°06.6 -17°14.2	2°37.9 -17°18.3	17°09.1 -17°22.3	31°40.4 -17°26.1	46°11.6 -17°29.9	+31.3 -4.2	14.9 54.6
	Di 7	263°59.8 -18°52.0	278°31.0 -18°52.3	293°02.2 -18°52.5	307°33.4 -18°52.6	322°04.6 -18°52.6	336°35.8 -18°52.8	351°07.0 -18°53.0	5°38.1 -18°52.1	20°09.3 -18°51.8	34°40.5 -18°51.4	49°11.7 -18°51.0	+31.2 -0.1	14.8 54.2
	Lu 8	266°59.5 -18°52.0	281°30.7 -18°52.3	296°01.9 -18°52.5	310°33.0 -18°52.6	325°04.2 -18°52.6	339°35.5 -18°52.8	354°06.7 -18°53.0	8°37.9 -18°52.1	23°09.1 -18°51.8	37°40.3 -18°51.4	52°11.5 -18°51.0	+31.2 -0.1	14.8 54.2
	Ma 9	270°00.2 -18°33.0	284°31.5 -18°31.1	299°02.8 -18°29.1	313°34.1 -18°27.1	328°05.4 -18°25.9	342°36.7 -18°24.4	357°08.0 -18°23.0	11°39.3 -18°20.4	26°10.6 -18°15.5	40°46.1 -18°12.9	55°13.3 -18°10.3	+31.3 -2.3	14.8 54.2
	Me 10	273°04.1 -17°20.5	287°35.5 -17°16.5	302°06.9 -17°12.5	316°38.4 -17°08.3	331°09.8 -17°04.1	345°41.3 -16°59.8	359°12.8 -16°55.4	0°12.8 -16°51.0	14°44.3 -16°46.4	29°15.7 -16°41.8	43°47.2 -16°37.1	+31.5 -4.3	14.9 54.5
●	Je 11	276°11.9 -15°17.1	290°43.5 -15°11.2	305°15.1 -15°05.1	319°46.7 -14°59.1	334°18.3 -14°52.9	348°49.9 -14°46.6	362°21.1 -14°33.9	5°21.5 -14°33.9	17°53.2 -14°27.5	32°24.8 -14°20.9	46°56.4 -14°14.3	+31.6 -6.3	15.0 54.9
	Ve 12	279°22.8 -12°26.8	293°54.5 -12°19.1	308°26.1 -12°11.4	322°57.8 -12°03.5	337°29.5 -11°55.6	352°01.1 -11°47.7	365°32.8 -11°39.6	6°32.8 -11°31.5	35°36.1 -11°23.4	50°07.8 -11°15.2	64°39.4 -11°06.9	+31.7 -8.0	15.1 55.5
	Sa 13	282°33.6 -8°55.6	297°05.2 -8°46.4	311°36.7 -8°37.2	326°08.3 -8°27.9	340°39.8 -8°18.5	355°11.3 -8°09.1	369°42.8 -7°59.7	9°42.8 -7°50.2	38°45.8 -7°40.6	53°17.3 -7°31.0	67°48.8 -7°21.4	+31.5 -9.4	15.3 56.2
	Di 14	285°38.9 -4°51.5	300°10.2 -4°41.1	314°41.3 -4°30.8	329°12.5 -4°20.4	343°43.6 -4°10.0	358°14.8 -3°59.6	372°45.9 -3°49.1	12°45.9 -3°38.6	27°16.9 -3°28.0	41°48.0 -3°17.5	56°19.0 -3°06.9	+31.1 -10.5	15.5 57.0
	Lu 15	288°31.8 -0°25.0	303°02.4 -0°14.1	317°32.9 -0°03.1	332°03.4 0°07.8	346°33.0 0°18.8	360°42.1 0°29.8	374°55.1 0°40.8	15°04.2 0°51.8	30°05.0 1°02.8	44°35.3 1°13.8	59°05.5 1°24.8	+30.4 -11.0	15.7 57.7
●	Ma 16	291°04.4 4°10.0	305°33.9 4°21.0	320°03.5 4°31.9	334°32.9 4°42.8	349°02.4 4°53.7	363°17.8 5°04.6	377°18.1 5°15.5	18°01.1 5°26.4	32°30.4 5°37.2	46°56.9 5°48.0	61°28.8 5°58.8	+29.4 -10.9	15.9 58.4
	Me 17	293°09.0 8°37.0	307°37.3 8°47.3	322°05.5 8°57.5	336°37.7 9°07.7	351°01.9 9°17.8	365°04.0 9°27.8	378°58.0 9°37.9	19°58.0 9°47.8	34°26.6 9°57.7	48°54.0 10°07.6	63°21.8 10°17.4	+28.1 -10.0	16.1 59.0
	Je 18	294°40.4 12°37.2	309°07.3 12°46.0	323°34.2 12°54.6	338°01.0 13°03.3	352°27.8 13°11.8	366°54.5 13°20.3	381°21.2 13°28.6	21°21.2 13°36.9	35°47.8 13°45.2	50°14.3 13°53.3	64°40.8 14°01.3	+26.7 -8.4	16.2 59.4
	Ve 19	295°38.1 15°51.1	310°03.8 15°57.6	324°29.4 16°04.0	338°55.0 16°10.4	353°20.5 16°16.6	367°46.0 16°22.7	382°11.5 16°28.7	22°11.5 16°34.9	36°36.9 16°40.4	51°02.3 16°46.1	65°27.6 16°51.7	+25.5 -16.1	16.2 59.6
	Sa 20	296°08.4 18°01.5	310°33.3 18°05.3	324°58.0 18°08.8	339°22.8 18°12.3	353°47.6 18°15.7	368°12.3 18°18.9	383°12.3 18°22.0	22°37.0 18°24.9	37°01.7 18°27.8	51°26.4 18°30.5	65°51.1 18°30.5	+24.7 -3.2	16.3 59.6
●	Di 21	310°33.3 18°05.3	324°58.0 18°08.8	339°22.8 18°12.3	353°47.6 18°15.7	368°12.3 18°18.9	383°12.3 18°22.0	397°01.7 18°24.9	21°21.2 18°27.8	35°47.8 18°30.5	50°14.3 18°33.1	64°40.8 18°33.1	+26.7 -3.0	16.2 59.6
	Lu 22	310°49.4 18°57.4	325°14.0 18°57.8	339°38.6 18°58.1	354°03.3 18°58.3	368°27.9 18°58.3	382°52.6 18°58.2	397°17.2 18°58.0	37°17.2 18°57.8	51°41.9 18°57.2	66°06.6 18°57.2	80°31.3 18°55.9	+24.7 -0.1	16.2 59.6
	Ma 23	311°09.8 18°30.2	325°35.0 18°27.4	340°00.2 18°24.6	354°25.4 18°21.7	368°50.6 18°16.1	383°15.9 18°15.5	397°41.3 18°12.2	52°06.7 18°08.7	66°32.1 18°05.2	80°57.5 18°01.6	95°23.6 17°57.8	+25.3 -3.2	16.2 59.4
	Me 24	311°51.0 16°48.0	326°17.3 16°42.5	340°43.6 16°36.8	355°10.0 16°31.1	369°36.4 16°25.3	384°02.8 16°19.4	398°29.4 16°13.4	62°55.9 16°07.3	67°22.6 16°01.1	81°49.3 15°54.8	96°16.8 15°48.4	+26.5 -6.0	16.1 59.8
	Je 25	313°03.9 14°01.6	327°31.5 14°01.6	341°59.2 13°53.9	356°27.0 13°46.0	370°54.8 13°38.0	385°22.6 13°30.4	399°50.6 13°21.9	54°18.5 13°13.8	68°46.6 13°05.5	83°14.7 12°57.2	97°42.8 12°48.8	+27.9 -8.1	16.0 58.5
●	Ve 26	314°51.7 10°25.9	329°20.7 10°16.5	343°49.8 10°07.0	358°12.9 9°57.4	372°48.7 9°47.9	387°17.3 9°38.2	401°46.6 9°28.5	56°15.5 9°18.8	70°45.2 9°09.0	85°14.7 8°59.2	99°44.3 8°49.4	+29.2 -9.7	15.8 58.1
	Sa 27	317°11.5 6°16.9	331°41.7 6°06.4	346°06.1 5°56.0	360°42.2 5°45.5	374°52.4 5°35.0	389°24.8 5°24.5	403°13.1 5°14.0	58°43.5 5°03.4	73°14.5 4°52.8	87°44.4 4°42.2	102°14.6 4°31.6	+30.3 -10.5	15.7 57.6
	Di 28	319°56.3 1°50.7	334°27.3 1°39.9	348°58.3 1°29.1	363°29.4 1°18.3	377°04.4 1°07.5	391°04.4 1°00.8	405°02.6 0°46.0	61°33.8 0°35.2	76°04.9 0°24.4	90°36.1 0°13.6	105°07.3 0°02.9	+31.1 -9.8	15.6 57.1
	Lu 29	322°57.4 -0°37.4	337°28.9 -2°48.0	352°00.4 -2°58.5	366°31.9 -3°09.0	380°54.3 -3°19.5	395°26.6 -3°30.0	409°50.6 -3°40.5	64°37.9 -3°50.9	79°09.4 -4°01.3	93°41.0 -4°11.7	108°12.5 -4°22.0	+31.5 -10.5	15.6 56.6
	Ma 30	326°06.4 -6°53.4	340°38.0 -7°03.2	355°09.6 -7°13.0	369°41.3 -7°22.7	384°12.9 -7°32.4	398°44.5 -7°42.0	413°16.1 -7°51.6	67°47.7 -8°01.2	82°19.3 -8°10.7	96°61.0 -8°20.1	111°22.6 -8°29.5	+31.6 -9.6	15.3 56.1
●	Me 31	329°16.3 -10°44.7	343°47.8 -10°53.3	358°19.4 -11°01.8	372°50.9 -11°10.3	387°22.4 -11°18.8	401°53.9 -11°27.1	416°25.5 -11°35.4	56°57.0 -11°43.6	70°57.0 -11°51.7	85°28.4 -12°00.9	99°59.9 -12°07.9	+31.5 -8.3	15.2 56.6

Ligne 1 : GHA, Δ'/h = var. GHA = 14°, SP = semi-diamètre

Ligne 2 : Dec (= Sud), Δ'/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

NL: 1 13h06 — PQ: 9 09h49 — PL: 17 02h35 — DQ: 23 20h56 — NL: 31 02h58

SOLEIL

Novembre 2035

J	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	Δ'/h
Je 1	259°06.3 -14°21.8	274°06.4 -14°22.6	289°06.4 -14°23.4	304°06.4 -14°24.2	319°06.4 -14°25.0	334°06.4 -14°25.8	349°06.5 -14°26.6	4°06.5 -14°27.4	15°06.5 -14°28.2	34°06.5 -14°29.0	45°06.5 -14°29.8	64°06.5 -14°30.6	+0.0 -0.8
Ve 2	259°06.7 -14°41.0	274°06.7 -14°41.7	289°06.7 -14°42.5	304°06.7 -14°43.3	319°06.7 -14°44.1	334°06.7 -14°44.9	349°06.8 -14°45.7	4°06.8 -14°46.5	15°06.8 -14°47.3	34°06.8 -14°48.1	45°06.8 -14°48.9	64°06.8 -14°49.6	+0.0 -0.8
Sa 3	259°06.9 -14°59.9	274°06.9 -15°00.6	289°06.9 -15°01.4	304°06.9 -15°02.2	319°06.9 -15°03.0	334°06.9 -15°03.8	349°06.9 -15°04.5	4°06.9 -15°05.3	15°06.9 -15°06.1	34°06.9 -15°06.9	45°06.9 -15°07.7	64°06.9 -15°08.4	-0.0 -0.8
Di 4	259°06.8 -15°18.5	274°06.8 -15°19.3	289°06.8 -15°20.1	304°06.8 -15°20.8	319°06.8 -15°21.6	334°06.8 -15°22.4	349°06.8 -15°23.1	4°06.8 -15°23.9	15°06.7 -15°24.7	34°06.7 -15°25.4	45°06.7 -15°26.2	64°06.7 -15°27.0	-0.0 -0.8
Lu 5	259°06.6 -15°36.9	274°06.5 -15°37.7	289°06.5 -15°38.4	304°06.5 -15°39.2	319°06.5 -15°40.0	334°06.5 -15°40.7	349°06.5 -15°41.5	4°06.5 -15°42.2	15°06.4 -15°43.0	34°06.4 -15°43.8	45°06.4 -15°44.5	64°06.4 -15°45.3	-0.0 -0.8
Ma 6	259°06.1 -15°55.1	274°06.1 -15°55.8	289°06.1 -15°56.6	304°06.0 -15°57.3	319°06.0 -15°58.1	334°06.0 -15°58.8	349°06.0 -15°59.6	4°05.9 -16°00.3	15°05.9 -16°01.1	34°05.9 -16°01.8	45°05.9 -16°02.6	64°05.8 -16°03.3	-0.0 -0.7
Me 7	259°05.5 -16°13.0	274°05.4 -16°13.7	289°05.4 -16°14.4	304°05.4 -16°15.2	319°05.3 -16°15.9	334°05.3 -16°16.6	349°05.3 -16°17.4	4°05.2 -16°18.1	15°05.2 -16°18.9	34°05.2 -16°19.6	45°05.1 -16°20.3	64°05.1 -16°21.1	-0.0 -0.7
Je 8	259°04.6 -16°30.6	274°04.6 -16°31.3	289°04.5 -16°32.0	304°04.5 -16°32.7	319°04.4 -16°33.5	334°04.4 -16°34.2	349°04.3 -16°34.9	4°04.3 -16°35.6	15°04.3 -16°36.4	34°04.2 -16°37.1	45°04.2 -16°37.8	64°04.1 -16°38.5	-0.0 -0.7
Ve 9	259°03.5 -16°47.9	274°03.5 -16°48.6	289°03.4 -16°49.3	304°03.4 -16°50.0	319°03.3 -16°50.8	334°03.3 -16°51.5	349°03.2 -16°52.2	4°03.2 -16°52.9	15°03.1 -16°53.6	34°03.1 -16°54.3	45°03.0 -16°55.0	64°03.0 -16°55.7	-0.1 -0.7
Sa 10	259°02.3 -17°04.9	274°02.2 -17°05.6	289°02.1 -17°06.3	304°02.1 -17°07.1	319°02.0 -17°07.8	334°02.0 -17°08.5	349°01.9 -17°09.2	4°01.8 -17°09.9	15°01.8 -17°10.6	34°01.7 -17°11.3	45°01.7 -17°12.0	64°01.6 -17°12.7	-0.1 -0.7
Di 11	259°00.8 -17°21.7	274°00.7 -17°22.4	289°00.6 -17°23.1	304°00.6 -17°23.8	319°00.5 -17°24.5	334°00.4 -17°25.1	349°00.4 -17°25.8	4°00.3 -17°26.5	15°00.2 -17°27.2	34°00.2 -17°27.9	45°00.1 -17°28.6	64°00.0 -17°29.3	-0.1 -0.7
Lu 12	258°59.1 -17°38.2	273°59.0 -17°38.8	288°58.9 -17°39.5	303°58.9 -17°40.2	318°58.8 -17°40.9	333°58.7 -17°41.5	348°58.6 -17°42.2	3°58.5 -17°42.9	15°58.5 -17°43.6	33°58.4 -17°44.2	48°58.3 -17°44.9	63°58.2 -17°45.6	-0.1 -0.7
Ma 13	258°57.2 -17°54.4	273°57.1 -17°55.0	288°57.0 -17°55.6	303°56.9 -17°56.3	318°56.8 -17°57.0	333°56.8 -17°57.6	348°56.7 -17°58.3	3°56.6 -17°59.0	15°56.5 -17°59.6	33°56.4 -18°00.3	48°56.3 -18°00.9	63°56.2 -18°01.6	-0.1 -0.7
Me 14	258°55.1 -18°10.1	273°55.0 -18°10.8	288°54.9 -18°11.4	303°54.8 -18°12.1	318°54.7 -18°12.7	333°54.6 -18°13.4	348°54.5 -18°14.0	3°54.4 -18°14.7	15°54.3 -18°15.3	33°54.2 -18°16.0	48°54.1 -18°16.6	63°54.0 -18°17.3	-0.1 -0.6
Je 15	258°52.8 -18°25.7	273°52.7 -18°26.3	288°52.6 -18°26.9	303°52.5 -18°27.6	318°52.3 -18°28.2	333°52.2 -18°28.8	348°52.1 -18°29.5	3°52.0 -18°30.1	15°51.9 -18°30.8	33°51.8 -18°31.4	48°51.7 -18°32.0	63°51.6 -18°32.7	-0.1 -0.6
Ve 16	258°50.2 -18°40.9	273°50.1 -18°41.5	288°50.0 -18°42.1	303°49.9 -18°42.7	318°49.8 -18°43.4	333°49.7 -18°44.0	348°49.6 -18°44.6	3°49.5 -18°45.2	15°49.3 -18°45.8	33°49.2 -18°46.5	48°49.1 -18°47.1	63°49.0 -18°47.7	-0.1 -0.6
Sa 17	258°47.5 -18°55.7	273°47.4 -18°56.3	288°47.2 -18°56.9	303°47.1 -18°57.6	318°47.0 -18°58.2	333°46.9 -18°58.8	348°46.8 -18°59.4	3°46.6 -19°00.0	15°46.5 -19°00.6	33°46.4 -19°01.2	48°46.3 -19°01.8	63°46.2 -19°02.4	-0.1 -0.6
Di 18	258°44.5 -19°10.2	273°44.4 -19°10.8	288°44.3 -19°11.4	303°44.0 -19°12.0	318°44.0 -19°12.6	333°43.9 -19°13.2	348°43.8 -19°13.8	3°43.6 -19°14.4	15°43.5 -19°15.0	33°43.4 -19°15.6	48°43.2 -19°16.2	63°43.1 -19°16.8	-0.1 -0.6
Lu 19	258°41.4 -19°24.4	273°41.2 -19°25.0	288°41.1 -19°25.6	303°41.0 -19°26.2	318°40.8 -19°26.8	333°40.7 -19°27.3	348°40.6 -19°27.9	3°40.4 -19°28.5	15°40.3 -19°29.1	33°40.1 -19°29.7	48°40.0 -19°30.2	63°39.9 -19°30.8	-0.1 -0.6
Ma 20	258°38.0 -19°38.3	273°37.9 -19°38.8	288°37.7 -19°39.4	303°37.6 -19°40.0	318°37.4 -19°40.5	333°37.3 -19°41.1	348°37.1 -19°41.7	3°37.0 -19°42.2	15°36.8 -19°42.8	33°36.7 -19°43.4	48°36.5 -19°43.9	63°36.4 -19°44.5	-0.1 -0.6
Me 21	258°34.4 -19°51.8	273°34.3 -19°52.3	288°34.1 -19°52.9	303°34.0 -19°53.4	318°33.8 -19°54.0	333°33.6 -19°54.5	348°33.5 -19°55.1	3°33.3 -19°55.6	15°33.2 -19°56.2	33°33.0 -19°56.7	48°32.9 -19°57.3	63°32.7 -19°57.8	-0.2 -0.5
Je 22	258°30.6 -20°04.9	273°30.5 -20°05.4	288°30.3 -20°06.0	303°30.1 -20°06.5	318°30.0 -20°07.0	333°29.8 -20°07.6	348°29.7 -20°08.1	3°29.5 -20°08.9	15°29.3 -20°09.2	33°29.2 -20°09.7	48°29.0 -20°10.1	63°28.8 -20°10.8	-0.2 -0.5
Ve 23	258°26.6 -20°17.6	273°26.5 -20°18.2	288°26.3 -20°18.7	303°26.1 -20°19.2	318°26.0 -20°19.7	333°25.8 -20°20.2	348°25.6 -20°20.8	3°25.4 -20°21.3	15°25.3 -20°21.8	33°25.1 -20°22.3	48°24.9 -20°22.8	63°24.7 -20°23.4	-0.2 -0.5
Sa 24	258°22.2 -20°30.0	273°22.3 -20°30.5	288°22.1 -20°31.0	303°21.9 -20°31.5	318°21.7 -20°32.0	333°21.6 -20°32.6	348°21.4 -20°33.1	3°21.2 -20°33.6	15°21.0 -20°34.1	33°20.8 -20°34.6	48°20.6 -20°35.1	63°20.5 -20°35.6	-0.2 -0.5
Di 25	258°18.1 -20°42.0	273°17.9 -20°42.5	288°17.7 -20°43.0	303°17.5 -20°43.5	318°17.3 -20°44.0	333°17.1 -20°44.5	348°16.9 -20°45.0	3°16.7 -20°45.5	15°16.6 -20°45.9	33°16.4 -20°46.4	48°16.3 -20°46.9	63°16.0 -20°47.2	-0.2 -0.5
Lu 26	258°13.5 -20°53.6	273°13.3 -20°54.1	288°13.1 -20°54.6	303°12.9 -20°55.1	318°12.7 -20°55.5	333°12.5 -20°56.0	348°12.3 -20°56.5	3°12.1 -20°57.0	15°11.9 -20°57.4	33°11.7 -20°57.9	48°11.5 -20°58.4	63°11.3 -20°58.8	-0.2 -0.5
Ma 27	258°08.7 -21°04.9	273°08.5 -21°05.3	288°08.3 -21°05.8	303°08.1 -21°06.3	318°07.9 -21°06.7	333°07.7 -21°07.2	348°07.5 -21°07.6	3°07.3 -21°08.1	15°07.1 -21°08.5	33°06.9 -21°09.0	48°06.7 -21°09.5	63°06.5 -21°09.9	-0.2 -0.5
Me 28	258°03.7 -21°15.7	273°03.5 -21°16.2	288°03.3 -21°16.6	303°03.1 -21°17.0	318°02.9 -21°17.5	333°02.7 -21°17.9	348°02.5 -21°18.4	3°02.3 -21°18.8	15°02.1 -21°19.2	33°01.8 -21°19.7	48°01.6 -21°20.1	63°01.4 -21°20.6	-0.2 -0.4
Je 29	257°58.0 -21°26.2	272°58.4 -21°26.6	287°58.2 -21°27.0	303°58.0 -21°27.4	317°57.7 -21°27.9	332°57.5 -21°28.3	347°57.3 -21°28.7	2°57.1 -21°29.1	15°56.9 -21°29.5	32°56.6 -21°30.0	47°56.4 -21°30.4	62°56.2 -21°30.8	-0.2 -0.4
Ve 30	257°53.3 -21°36.2	272°53.1 -21°36.6	287°52.8 -21°37.0	303°52.6 -21°37.4	317°52.4 -21°37.8	332°52.2 -21°38.2	347°51.9 -21°38.6	2°51.7 -21°39.0	15°51.5 -21°39.4	32°51.3 -21°39.8	47°51.0 -21°40.2	62°50.8 -21°40.6	-0.2 -0.4

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Novembre 2035

	J	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	Δ°/h	SP	
O	Je 1	245 ⁰ 14.3 -13 ⁰ 17.4	259 ⁰ 45.7 -13 ⁰ 24.8	274 ⁰ 17.1 -13 ⁰ 32.1	288 ⁰ 48.5 -13 ⁰ 39.3	303 ⁰ 19.9 -13 ⁰ 46.5	317 ⁰ 51.2 -13 ⁰ 53.6	332 ⁰ 22.6 -14 ⁰ 00.7	346 ⁰ 53.9 -14 ⁰ 07.6	1 ⁰ 25.3 -14 ⁰ 14.5	15 ⁰ 56.6 -14 ⁰ 21.3	30 ⁰ 27.9 -14 ⁰ 28.1	+31.4 -7.1	15.1 55.2	
	Ve 2	248 ⁰ 16.6 -16 ⁰ 00.4	262 ⁰ 47.8 -16 ⁰ 06.0	277 ⁰ 19.0 -16 ⁰ 11.4	291 ⁰ 50.1 -16 ⁰ 16.8	306 ⁰ 21.1 -16 ⁰ 22.1	320 ⁰ 52.4 -16 ⁰ 27.3	335 ⁰ 23.6 -16 ⁰ 32.5	349 ⁰ 54.7 -16 ⁰ 37.5	4 ⁰ 25.9 -16 ⁰ 42.5	18 ⁰ 57.0 -16 ⁰ 47.4	33 ⁰ 28.1 -16 ⁰ 52.2	+31.1 -5.2	14.9 54.8	
	Sa 3	251 ⁰ 14.2 -17 ⁰ 54.4	265 ⁰ 45.3 -17 ⁰ 57.9	280 ⁰ 16.3 -18 ⁰ 01.3	294 ⁰ 47.3 -18 ⁰ 04.6	309 ⁰ 18.4 -18 ⁰ 07.8	323 ⁰ 49.4 -18 ⁰ 10.9	338 ⁰ 20.4 -18 ⁰ 14.0	352 ⁰ 51.5 -18 ⁰ 16.9	7 ⁰ 22.5 -18 ⁰ 19.8	21 ⁰ 53.5 -18 ⁰ 22.6	36 ⁰ 24.5 -18 ⁰ 25.3	+31.0 -3.1	14.8 54.4	
	Di 4	254 ⁰ 10.0 -18 ⁰ 55.2	268 ⁰ 41.1 -18 ⁰ 56.4	283 ⁰ 12.1 -18 ⁰ 57.6	297 ⁰ 43.2 -18 ⁰ 58.7	312 ⁰ 14.2 -18 ⁰ 59.8	326 ⁰ 45.3 -19 ⁰ 00.7	341 ⁰ 16.4 -19 ⁰ 01.6	355 ⁰ 47.4 -19 ⁰ 02.3	10 ⁰ 18.5 -19 ⁰ 03.0	24 ⁰ 49.6 -19 ⁰ 03.6	39 ⁰ 20.7 -19 ⁰ 04.1	+31.1 -0.9	14.8 54.2	
	Lu 5	257 ⁰ 08.0 -19 ⁰ 00.9	271 ⁰ 39.2 -19 ⁰ 00.0	286 ⁰ 10.5 -18 ⁰ 59.0	300 ⁰ 41.7 -18 ⁰ 57.9	315 ⁰ 13.0 -18 ⁰ 56.7	329 ⁰ 44.2 -18 ⁰ 55.5	344 ⁰ 15.5 -18 ⁰ 54.1	358 ⁰ 46.8 -18 ⁰ 52.7	13 ⁰ 18.1 -18 ⁰ 51.2	27 ⁰ 49.4 -18 ⁰ 49.6	42 ⁰ 20.7 -18 ⁰ 47.9	+31.3 +1.3	14.7 54.1	
	Ma 6	260 ⁰ 12.0 -18 ⁰ 12.3	274 ⁰ 43.5 -18 ⁰ 09.3	289 ⁰ 15.1 -18 ⁰ 06.2	303 ⁰ 46.6 -18 ⁰ 03.0	318 ⁰ 18.2 -17 ⁰ 59.7	332 ⁰ 49.8 -17 ⁰ 56.3	347 ⁰ 21.3 -17 ⁰ 52.8	1 ⁰ 53.0 -17 ⁰ 49.3	16 ⁰ 24.6 -17 ⁰ 45.7	30 ⁰ 56.2 -17 ⁰ 42.0	45 ⁰ 27.8 -17 ⁰ 38.2	+31.6 +3.4	14.8 54.1	
	Me 7	263 ⁰ 24.2 -16 ⁰ 32.0	277 ⁰ 56.0 -16 ⁰ 27.0	292 ⁰ 27.9 -16 ⁰ 21.9	306 ⁰ 59.8 -16 ⁰ 16.7	321 ⁰ 31.7 -16 ⁰ 11.4	336 ⁰ 03.6 -16 ⁰ 06.1	350 ⁰ 35.5 -16 ⁰ 00.7	5 ⁰ 07.5 -15 ⁰ 55.2	19 ⁰ 39.4 -15 ⁰ 49.6	34 ⁰ 11.4 -15 ⁰ 44.0	48 ⁰ 43.3 -15 ⁰ 38.3	+31.9 +5.4	14.8 54.4	
	Je 8	266 ⁰ 44.1 -14 ⁰ 04.0	281 ⁰ 16.2 -13 ⁰ 57.2	295 ⁰ 48.3 -13 ⁰ 50.3	310 ⁰ 20.5 -13 ⁰ 43.3	324 ⁰ 52.6 -13 ⁰ 36.2	339 ⁰ 24.7 -13 ⁰ 29.1	353 ⁰ 56.9 -13 ⁰ 21.9	8 ⁰ 29.1 -13 ⁰ 14.7	23 ⁰ 01.2 -13 ⁰ 07.4	37 ⁰ 33.4 -13 ⁰ 00.0	52 ⁰ 05.6 -12 ⁰ 52.6	+32.1 +7.1	15.0 54.9	
	Ve 9	270 ⁰ 08.4 -10 ⁰ 53.4	284 ⁰ 40.6 -10 ⁰ 45.0	299 ⁰ 12.8 -10 ⁰ 36.5	313 ⁰ 44.9 -10 ⁰ 28.0	328 ⁰ 17.1 -10 ⁰ 19.4	342 ⁰ 49.3 -10 ⁰ 10.7	357 ⁰ 21.5 -10 ⁰ 02.0	11 ⁰ 53.6 -9 ⁰ 53.3	26 ⁰ 25.8 -9 ⁰ 44.5	40 ⁰ 57.9 -9 ⁰ 35.6	55 ⁰ 30.4 -9 ⁰ 26.7	+32.2 +8.7	15.1 55.5	
	O	Sa 10	273 ⁰ 31.0 -7 ⁰ 06.6	288 ⁰ 02.9 -6 ⁰ 56.9	302 ⁰ 34.9 -6 ⁰ 47.1	317 ⁰ 06.8 -6 ⁰ 37.3	331 ⁰ 38.7 -6 ⁰ 27.5	346 ⁰ 10.6 -6 ⁰ 17.6	6 ⁰ 42.5 -6 ⁰ 07.7	15 ⁰ 14.3 -5 ⁰ 57.7	29 ⁰ 46.1 -5 ⁰ 47.7	44 ⁰ 17.9 -5 ⁰ 37.6	58 ⁰ 49.7 -5 ⁰ 27.5	+31.9 +9.9	15.3 56.3
Di 11		276 ⁰ 43.4 -2 ⁰ 51.7	291 ⁰ 14.8 -2 ⁰ 41.0	305 ⁰ 46.1 -2 ⁰ 30.3	320 ⁰ 17.4 -2 ⁰ 19.6	334 ⁰ 48.6 -2 ⁰ 08.9	349 ⁰ 19.8 -1 ⁰ 58.2	3 ⁰ 51.0 -1 ⁰ 47.4	18 ⁰ 22.1 -1 ⁰ 36.6	32 ⁰ 53.2 -1 ⁰ 25.8	47 ⁰ 24.3 -1 ⁰ 14.9	61 ⁰ 55.3 -1 ⁰ 04.1	+31.2 +10.8	15.6 57.2	
Lu 12		279 ⁰ 35.6 1 ⁰ 40.9	294 ⁰ 05.9 1 ⁰ 52.0	308 ⁰ 36.2 2 ⁰ 03.1	323 ⁰ 06.4 2 ⁰ 14.2	337 ⁰ 36.6 2 ⁰ 25.3	352 ⁰ 06.7 2 ⁰ 36.4	6 ⁰ 36.8 2 ⁰ 47.5	21 ⁰ 06.8 2 ⁰ 58.6	35 ⁰ 36.7 3 ⁰ 09.7	50 ⁰ 06.6 3 ⁰ 20.8	64 ⁰ 36.5 3 ⁰ 31.9	+30.1 +11.1	15.8 58.1	
Ma 13		281 ⁰ 57.1 6 ⁰ 17.2	296 ⁰ 26.0 6 ⁰ 28.1	310 ⁰ 54.8 6 ⁰ 39.0	325 ⁰ 23.6 6 ⁰ 49.8	339 ⁰ 52.3 7 ⁰ 00.7	354 ⁰ 20.9 7 ⁰ 11.4	8 ⁰ 49.5 7 ⁰ 22.2	23 ⁰ 18.0 7 ⁰ 32.9	37 ⁰ 46.4 7 ⁰ 43.6	52 ⁰ 14.7 7 ⁰ 54.3	66 ⁰ 43.9 8 ⁰ 04.9	+28.6 +10.8	16.1 59.0	
Me 14		283 ⁰ 38.9 10 ⁰ 39.5	298 ⁰ 06.1 10 ⁰ 49.4	312 ⁰ 33.2 10 ⁰ 59.3	327 ⁰ 00.2 11 ⁰ 09.1	341 ⁰ 27.1 11 ⁰ 18.8	355 ⁰ 54.0 11 ⁰ 28.5	10 ⁰ 20.8 11 ⁰ 38.1	24 ⁰ 47.5 11 ⁰ 47.6	39 ⁰ 14.2 11 ⁰ 57.1	53 ⁰ 40.8 12 ⁰ 06.5	68 ⁰ 07.3 12 ⁰ 15.9	+26.8 +9.6	16.3 59.7	
Je 15		284 ⁰ 36.4 14 ⁰ 26.8	299 ⁰ 01.8 14 ⁰ 34.9	313 ⁰ 27.2 14 ⁰ 42.8	327 ⁰ 52.4 14 ⁰ 50.7	342 ⁰ 17.6 14 ⁰ 58.5	356 ⁰ 42.7 15 ⁰ 06.2	11 ⁰ 07.8 15 ⁰ 13.7	25 ⁰ 32.6 15 ⁰ 21.2	39 ⁰ 57.7 15 ⁰ 28.6	54 ⁰ 22.6 15 ⁰ 35.9	68 ⁰ 47.4 15 ⁰ 43.0	+25.1 +7.6	16.4 60.2	
Ve 16		284 ⁰ 52.9 17 ⁰ 17.5	299 ⁰ 16.9 17 ⁰ 22.9	313 ⁰ 40.8 17 ⁰ 28.1	328 ⁰ 04.7 17 ⁰ 33.2	342 ⁰ 28.5 17 ⁰ 38.2	356 ⁰ 52.3 17 ⁰ 43.1	11 ⁰ 16.1 17 ⁰ 47.9	25 ⁰ 39.8 17 ⁰ 52.5	40 ⁰ 03.5 17 ⁰ 57.0	54 ⁰ 27.2 18 ⁰ 01.4	68 ⁰ 50.8 18 ⁰ 05.6	+23.8 +4.8	16.5 60.5	
Sa 17		284 ⁰ 42.0 18 ⁰ 53.4	299 ⁰ 05.3 18 ⁰ 55.5	313 ⁰ 28.5 18 ⁰ 57.5	327 ⁰ 51.8 18 ⁰ 59.3	342 ⁰ 15.1 19 ⁰ 01.0	356 ⁰ 38.3 19 ⁰ 02.6	11 ⁰ 01.6 19 ⁰ 04.0	25 ⁰ 24.9 19 ⁰ 05.3	39 ⁰ 48.1 19 ⁰ 06.6	54 ⁰ 11.4 19 ⁰ 07.4	68 ⁰ 34.7 19 ⁰ 08.3	+23.3 +1.5	16.5 60.5	
Di 18		284 ⁰ 25.6 19 ⁰ 04.8	298 ⁰ 49.2 19 ⁰ 03.4	313 ⁰ 12.8 19 ⁰ 02.0	327 ⁰ 36.4 19 ⁰ 00.4	342 ⁰ 00.1 18 ⁰ 58.7	356 ⁰ 23.8 18 ⁰ 56.8	10 ⁰ 47.6 18 ⁰ 54.8	25 ⁰ 11.4 18 ⁰ 52.7	39 ⁰ 35.2 18 ⁰ 50.4	53 ⁰ 59.1 18 ⁰ 48.0	68 ⁰ 23.1 18 ⁰ 45.5	+23.7 -1.9	16.4 60.2	
O		Lu 19	284 ⁰ 27.8 17 ⁰ 52.6	298 ⁰ 52.5 17 ⁰ 48.1	313 ⁰ 17.3 17 ⁰ 43.5	327 ⁰ 42.2 17 ⁰ 38.8	342 ⁰ 07.2 17 ⁰ 33.9	356 ⁰ 32.2 17 ⁰ 29.0	10 ⁰ 57.3 17 ⁰ 23.9	25 ⁰ 22.4 17 ⁰ 18.7	39 ⁰ 47.6 17 ⁰ 13.4	54 ⁰ 12.9 17 ⁰ 08.0	68 ⁰ 38.3 17 ⁰ 02.5	+25.0 -5.0	16.3 59.7
	Ma 20	298 ⁰ 52.5 17 ⁰ 48.1	313 ⁰ 17.3 17 ⁰ 43.5	327 ⁰ 42.2 17 ⁰ 38.8	342 ⁰ 07.2 17 ⁰ 33.9	356 ⁰ 32.2 17 ⁰ 29.0	10 ⁰ 57.3 17 ⁰ 23.9	25 ⁰ 22.4 17 ⁰ 18.7	39 ⁰ 47.6 17 ⁰ 13.4	54 ⁰ 12.9 17 ⁰ 08.0	68 ⁰ 38.3 17 ⁰ 02.5	83 ⁰ 03.3 16 ⁰ 56.9	+25.1 -5.1	16.3 59.7	
	Me 21	299 ⁰ 33.2 15 ⁰ 20.5	313 ⁰ 59.8 15 ⁰ 13.3	328 ⁰ 26.4 15 ⁰ 06.1	342 ⁰ 53.1 14 ⁰ 58.7	357 ⁰ 19.9 14 ⁰ 51.3	11 ⁰ 46.7 14 ⁰ 43.7	26 ⁰ 13.6 14 ⁰ 36.1	40 ⁰ 40.6 14 ⁰ 28.4	55 ⁰ 07.7 14 ⁰ 20.6	69 ⁰ 34.8 14 ⁰ 12.8	84 ⁰ 02.1 14 ⁰ 04.8	+26.9 -7.6	16.1 59.1	
	Je 22	300 ⁰ 58.9 11 ⁰ 57.1	315 ⁰ 27.3 11 ⁰ 48.1	329 ⁰ 55.7 11 ⁰ 39.0	344 ⁰ 24.2 11 ⁰ 29.9	358 ⁰ 52.8 11 ⁰ 20.6	13 ⁰ 21.4 11 ⁰ 11.4	27 ⁰ 50.1 11 ⁰ 02.0	42 ⁰ 18.9 10 ⁰ 52.7	56 ⁰ 47.7 10 ⁰ 43.2	71 ⁰ 16.6 10 ⁰ 33.8	85 ⁰ 45.6 10 ⁰ 24.2	+28.7 -9.3	15.9 58.4	
	Ve 23	303 ⁰ 07.6 7 ⁰ 56.0	317 ⁰ 37.6 7 ⁰ 45.8	332 ⁰ 07.6 7 ⁰ 35.6	346 ⁰ 37.6 7 ⁰ 25.3	1 ⁰ 07.7 7 ⁰ 15.1	15 ⁰ 37.9 7 ⁰ 04.7	30 ⁰ 08.1 6 ⁰ 54.4	44 ⁰ 38.4 6 ⁰ 44.0	59 ⁰ 08.7 6 ⁰ 33.7	73 ⁰ 39.0 6 ⁰ 23.2	88 ⁰ 09.4 6 ⁰ 12.8	+30.2 -10.3	15.7 57.7	
	Sa 24	305 ⁰ 51.1 3 ⁰ 34.0	320 ⁰ 22.3 3 ⁰ 23.3	334 ⁰ 53.4 3 ⁰ 12.6	349 ⁰ 24.6 3 ⁰ 01.9	3 ⁰ 55.8 2 ⁰ 51.1	18 ⁰ 27.1 2 ⁰ 40.4	32 ⁰ 58.4 2 ⁰ 29.7	47 ⁰ 29.7 2 ⁰ 19.0	62 ⁰ 01.1 2 ⁰ 08.2	76 ⁰ 32.4 1 ⁰ 57.5	91 ⁰ 03.4 1 ⁰ 46.8	+31.3 -10.7	15.6 57.1	
	Di 25	308 ⁰ 58.5 -0 ⁰ 53.9	323 ⁰ 30.3 -1 ⁰ 04.5	338 ⁰ 02.2 -1 ⁰ 15.2	352 ⁰ 34.0 -1 ⁰ 25.8	7 ⁰ 05.9 -1 ⁰ 36.4	21 ⁰ 37.8 -1 ⁰ 47.0	36 ⁰ 09.7 -1 ⁰ 57.6	50 ⁰ 41.7 -2 ⁰ 08.1	65 ⁰ 13.6 -2 ⁰ 18.6	79 ⁰ 45.6 -2 ⁰ 29.2	94 ⁰ 17.6 -2 ⁰ 39.7	+31.9 -10.6	15.4 56.5	
	Lu 26	312 ⁰ 18.4 -5 ⁰ 14.4	326 ⁰ 50.6 -5 ⁰ 24.5	341 ⁰ 22.7 -5 ⁰ 34.6	355 ⁰ 54.8 -5 ⁰ 44.6	10 ⁰ 26.9 -5 ⁰ 54.6	24 ⁰ 59.0 -6 ⁰ 04.6	39 ⁰ 31.2 -6 ⁰ 14.5	54 ⁰ 03.4 -6 ⁰ 24.4	68 ⁰ 35.4 -6 ⁰ 34.3	83 ⁰ 07.5 -6 ⁰ 44.1	97 ⁰ 39.7 -6 ⁰ 53.9	+32.1 -9.9	15.3 59.5	
	O	Ma 27	315 ⁰ 41.2 -9 ⁰ 15.8	330 ⁰ 13.2 -9 ⁰ 24.9	344 ⁰ 45.3 -9 ⁰ 33.9	359 ⁰ 17.3 -9 ⁰ 42.9	13 ⁰ 49.3 -9 ⁰ 51.9	28 ⁰ 21.4 -10 ⁰ 00.8	42 ⁰ 53.4 -10 ⁰ 09.6	57 ⁰ 25.4 -10 ⁰ 18.4	71 ⁰ 57.4 -10 ⁰ 27.2	86 ⁰ 29.3 -10 ⁰ 35.9	101 ⁰ 01.3 -10 ⁰ 44.5	+32.0 -8.9	15.1 55.5
		Me 28	318 ⁰ 59.4 -12 ⁰ 47.3	333 ⁰ 31.2 -12 ⁰ 55.0	348 ⁰ 02.6 -13 ⁰ 02.6	2 ⁰ 34.7 -13 ⁰ 10.2	17 ⁰ 06.4 -13 ⁰ 17.7	31 ⁰ 38.1 -13 ⁰ 25.1	46 ⁰ 09.8 -13 ⁰ 32.5	60 ⁰ 41.5 -13					

SOLEIL

Décembre 2035

J	6h	7h	8h	9h	10h	11h	12h	13h	14h	15h	16h	17h	Δ'/h
Sa 1	272°47.6 -21°46.2	287°47.4 -21°46.6	302°47.1 -21°47.0	317°46.9 -21°47.4	332°46.7 -21°47.8	347°46.4 -21°48.1	2°46.2 -21°48.5	17°46.0 -21°48.9	32°45.7 -21°49.3	47°45.5 -21°49.7	62°45.3 -21°50.1	77°45.0 -21°50.5	-0.2 -0.4
Di 2	272°41.9 -21°55.4	287°41.7 -21°55.8	302°41.5 -21°56.1	317°41.2 -21°56.5	332°41.0 -21°56.9	347°40.7 -21°57.2	2°40.5 -21°57.6	17°40.3 -21°58.0	32°40.0 -21°58.4	47°39.8 -21°58.7	62°39.5 -21°59.1	77°39.3 -21°59.5	-0.2 -0.4
Lu 3	272°36.1 -22°04.2	287°35.9 -22°04.6	302°35.7 -22°04.9	317°35.4 -22°05.2	332°35.2 -22°05.6	347°34.9 -22°05.9	2°34.7 -22°06.3	17°34.4 -22°06.6	32°34.2 -22°07.0	47°33.9 -22°07.3	62°33.7 -22°07.7	77°33.4 -22°08.0	-0.2 -0.4
Ma 4	272°30.2 -22°12.5	287°29.9 -22°12.8	302°29.7 -22°13.2	317°29.4 -22°13.5	332°29.2 -22°13.8	347°28.9 -22°14.2	2°28.7 -22°14.5	17°28.4 -22°14.8	32°28.2 -22°15.2	47°27.9 -22°15.5	62°27.7 -22°15.8	77°27.4 -22°16.2	-0.3 -0.3
Me 5	272°24.1 -22°20.4	287°23.8 -22°20.7	302°23.6 -22°21.0	317°23.3 -22°21.4	332°23.1 -22°21.7	347°22.8 -22°22.0	2°22.6 -22°22.3	17°22.3 -22°22.6	32°22.0 -22°22.9	47°21.8 -22°23.3	62°21.5 -22°23.6	77°21.3 -22°23.9	-0.3 -0.3
Je 6	272°17.9 -22°27.9	287°17.6 -22°28.2	302°17.4 -22°28.5	317°17.1 -22°28.8	332°16.8 -22°29.1	347°16.6 -22°29.4	2°16.3 -22°29.7	17°16.0 -22°30.0	32°15.8 -22°30.3	47°15.5 -22°30.6	62°15.2 -22°30.9	77°15.0 -22°31.2	-0.3 -0.3
Ve 7	272°11.5 -22°34.9	287°11.3 -22°35.2	302°11.0 -22°35.5	317°10.7 -22°35.8	332°10.4 -22°36.1	347°10.2 -22°36.3	2°09.9 -22°36.6	17°09.6 -22°36.9	32°09.4 -22°37.2	47°09.1 -22°37.4	62°08.8 -22°37.7	77°08.6 -22°38.0	-0.3 -0.3
Sa 8	272°05.0 -22°47.7	287°04.8 -22°47.9	302°04.5 -22°48.2	317°04.2 -22°48.4	332°04.0 -22°48.7	347°03.7 -22°48.9	2°03.4 -22°49.1	17°03.1 -22°49.4	32°02.9 -22°49.6	47°02.6 -22°49.9	62°02.3 -22°50.1	77°02.0 -22°50.3	-0.3 -0.2
Di 9	271°58.5 -22°51.8	286°58.2 -22°53.6	301°57.9 -22°53.8	316°57.6 -22°54.1	331°57.3 -22°54.3	346°57.1 -22°54.5	1°56.8 -22°54.9	16°56.5 -22°55.2	31°56.2 -22°55.4	46°56.0 -22°55.6	61°55.7 -22°55.8	76°55.4 -22°56.2	-0.3 -0.2
Lu 10	271°51.8 -22°58.0	286°51.5 -22°59.8	301°51.2 -22°59.9	316°50.9 -22°59.9	331°50.6 -22°59.5	346°50.3 -22°59.5	1°50.1 -22°59.9	16°49.8 -22°59.9	31°49.5 -22°59.9	46°49.2 -22°59.9	61°48.9 -22°59.9	76°48.7 -22°59.9	-0.3 -0.2
Ma 11	271°45.0 -22°58.6	286°44.7 -22°58.8	301°44.4 -22°59.0	316°44.1 -22°59.2	331°43.8 -22°59.5	346°43.5 -22°59.5	1°43.2 -22°59.9	16°43.0 -22°59.9	31°42.7 -22°59.9	46°42.4 -22°59.9	61°42.1 -22°59.9	76°41.8 -22°59.9	-0.3 -0.2
Me 12	271°38.1 -23°03.4	286°37.8 -23°03.6	301°37.5 -23°03.8	316°37.2 -23°04.0	331°36.9 -23°04.2	346°36.6 -23°04.4	1°36.3 -23°04.5	16°36.0 -23°04.7	31°35.7 -23°04.9	46°35.5 -23°05.1	61°35.2 -23°05.1	76°34.9 -23°05.5	-0.3 -0.2
Je 13	271°31.1 -23°07.8	286°30.8 -23°07.9	301°30.5 -23°08.1	316°30.2 -23°08.3	331°29.9 -23°08.4	346°29.6 -23°08.6	1°29.3 -23°08.8	16°29.0 -23°08.9	31°28.7 -23°09.1	46°28.8 -23°09.3	61°28.2 -23°09.4	76°27.9 -23°09.6	-0.3 -0.2
Ve 14	271°24.0 -23°11.9	286°23.7 -23°11.9	301°23.4 -23°11.9	316°23.1 -23°12.1	331°22.8 -23°12.2	346°22.5 -23°12.4	1°22.2 -23°12.5	16°22.0 -23°12.7	31°21.7 -23°12.8	46°21.4 -23°13.0	61°21.1 -23°13.1	76°20.8 -23°13.3	-0.3 -0.1
Sa 15	271°16.9 -23°15.1	286°16.6 -23°15.2	301°16.3 -23°15.3	316°16.0 -23°15.4	331°15.7 -23°15.6	346°15.4 -23°15.7	1°15.1 -23°15.8	16°14.8 -23°16.0	31°14.5 -23°16.1	46°14.0 -23°16.2	61°13.9 -23°16.3	76°13.6 -23°16.5	-0.3 -0.1
Di 16	271°09.7 -23°20.2	286°09.4 -23°20.6	301°09.1 -23°20.7	316°08.8 -23°20.8	331°08.5 -23°20.9	346°08.2 -23°21.0	1°07.9 -23°21.3	16°07.6 -23°21.4	31°07.3 -23°21.5	46°07.0 -23°21.6	61°06.7 -23°21.7	76°06.4 -23°21.9	-0.3 -0.1
Lu 17	271°02.4 -23°20.5	286°02.1 -23°20.6	301°01.8 -23°20.7	316°01.5 -23°20.8	331°01.2 -23°20.9	346°00.9 -23°21.0	1°00.6 -23°21.3	16°00.3 -23°21.4	31°00.0 -23°21.5	46°59.7 -23°21.6	61°59.4 -23°21.7	76°59.1 -23°21.9	-0.3 -0.1
Ma 18	270°55.1 -23°22.5	285°54.8 -23°22.6	300°54.5 -23°22.7	315°54.2 -23°22.7	330°53.9 -23°22.8	345°53.6 -23°22.9	0°53.3 -23°22.9	15°53.0 -23°23.0	30°52.7 -23°23.1	45°52.4 -23°23.2	60°52.1 -23°23.2	75°51.8 -23°23.3	-0.3 -0.1
Me 19	270°47.8 -23°24.1	285°47.5 -23°24.1	300°47.2 -23°24.2	315°46.8 -23°24.2	330°46.5 -23°24.3	345°46.2 -23°24.3	0°45.9 -23°24.4	15°45.6 -23°24.4	30°45.3 -23°24.5	45°45.0 -23°24.5	60°44.7 -23°24.6	75°44.4 -23°24.6	-0.3 -0.1
Je 20	270°40.4 -23°25.2	285°40.1 -23°25.2	300°39.8 -23°25.2	315°39.4 -23°25.3	330°39.1 -23°25.3	345°38.8 -23°25.3	0°38.8 -23°25.4	15°38.2 -23°25.4	30°37.9 -23°25.4	45°37.6 -23°25.4	60°37.3 -23°25.5	75°37.0 -23°25.5	-0.3 -0.0
Ve 21	270°32.9 -23°25.8	285°32.6 -23°25.8	300°32.3 -23°25.8	315°32.0 -23°25.8	330°31.7 -23°25.8	345°31.4 -23°25.8	0°31.1 -23°25.9	15°30.8 -23°25.9	30°30.5 -23°25.9	45°30.2 -23°25.9	60°29.8 -23°25.9	75°29.5 -23°25.9	-0.3 -0.0
Sa 22	270°25.5 -23°25.9	285°25.2 -23°25.9	300°24.9 -23°25.9	315°24.6 -23°25.9	330°24.3 -23°25.9	345°23.9 -23°25.9	0°23.6 -23°25.9	15°23.3 -23°25.9	30°23.0 -23°25.9	45°22.7 -23°25.9	60°22.4 -23°25.8	75°22.1 -23°25.8	-0.3 +0.0
Di 23	270°18.6 -23°25.9	285°17.7 -23°25.6	300°17.4 -23°25.5	315°17.1 -23°25.5	330°16.8 -23°25.5	345°16.5 -23°25.5	0°16.2 -23°25.4	15°15.9 -23°25.4	30°15.6 -23°25.4	45°15.2 -23°25.5	60°14.9 -23°25.3	75°14.6 -23°25.3	-0.3 +0.0
Lu 24	270°10.6 -23°24.8	285°10.3 -23°24.8	300°10.0 -23°24.7	315°09.7 -23°24.7	330°09.3 -23°24.6	345°09.0 -23°24.6	0°08.7 -23°24.5	15°08.4 -23°24.5	30°08.1 -23°24.4	45°07.8 -23°24.4	60°07.5 -23°24.3	75°07.2 -23°24.3	-0.3 +0.0
Ma 25	270°03.1 -23°23.5	285°02.8 -23°23.5	300°02.5 -23°23.4	315°02.2 -23°23.3	330°01.9 -23°23.3	345°01.6 -23°23.3	0°01.3 -23°23.1	15°00.9 -23°23.1	30°00.6 -23°23.0	45°00.3 -23°22.9	60°00.0 -23°22.9	74°59.7 -23°22.8	-0.3 +0.1
Me 26	269°55.7 -23°21.8	284°55.4 -23°21.7	299°55.1 -23°21.6	314°54.7 -23°21.5	329°54.4 -23°21.5	344°54.1 -23°21.4	359°53.8 -23°21.3	14°53.5 -23°21.2	29°53.2 -23°21.1	44°52.9 -23°21.0	59°52.6 -23°20.9	74°52.3 -23°20.8	-0.3 +0.1
Je 27	269°48.3 -23°19.6	284°47.9 -23°19.5	299°47.6 -23°19.4	314°47.3 -23°19.3	329°47.0 -23°19.2	344°46.7 -23°19.1	359°46.4 -23°19.0	14°46.1 -23°18.9	29°45.8 -23°18.7	44°45.5 -23°18.6	59°45.2 -23°18.5	74°44.9 -23°18.4	-0.3 +0.1
Ve 28	269°40.9 -23°16.9	284°40.6 -23°16.8	299°40.3 -23°16.7	314°39.9 -23°16.5	329°39.6 -23°16.4	344°39.3 -23°16.3	359°39.0 -23°16.2	14°38.7 -23°16.0	29°38.4 -23°15.9	44°38.1 -23°15.8	59°37.8 -23°15.7	74°37.5 -23°15.5	-0.3 +0.1
Sa 29	269°33.3 -23°13.8	284°33.2 -23°13.6	299°32.9 -23°13.5	314°32.6 -23°13.3	329°32.3 -23°13.2	344°32.0 -23°13.1	359°31.7 -23°12.9	14°31.4 -23°12.8	29°31.1 -23°12.6	44°30.8 -23°12.5	59°30.5 -23°12.4	74°30.2 -23°12.2	-0.3 +0.1
Di 30	269°26.2 -23°10.2	284°25.9 -23°10.0	299°25.6 -23°09.8	314°25.3 -23°09.7	329°25.0 -23°09.5	344°24.7 -23°09.4	359°24.4 -23°09.2	14°24.1 -23°09.0	29°23.8 -23°08.9	44°23.5 -23°08.8	59°23.2 -23°08.5	74°22.9 -23°08.4	-0.3 +0.2
Lu 31	269°19.0 -23°06.1	284°18.7 -23°05.9	299°18.4 -23°05.7	314°18.1 -23°05.6	329°17.8 -23°05.2	344°17.5 -23°05.2	359°17.2 -23°05.0	14°16.9 -23°04.8	29°16.6 -23°04.6	44°16.3 -23°04.5	59°16.0 -23°04.3	74°15.7 -23°04.1	-0.3 +0.2

Ligne 1: GHA (Angle Horaire Greenwich), Δ'/h = var. GHA - 15°

Ligne 2: Dec (Déclinaison, - = Sud), Δ'/h = var. déc.

Semi-diamètre: 16.2'

LUNE

Décembre 2035

	J	4h	5h	6h	7h	8h	9h	10h	11h	12h	13h	14h	Δ°/h	SP
O	Sa 1	240°59.7 -18°45.1	255°30.7 -18°47.4	270°01.7 -18°49.6	284°32.6 -18°51.7	299°03.6 -18°53.7	313°34.6 -18°55.7	328°05.6 -18°57.5	342°36.5 -18°59.3	357°07.5 -19°01.0	11°38.5 -19°02.6	26°09.5 -19°04.1	+31.0	14.8 -1.954.1
	Di 2	240°54.5 -19°15.9	258°25.6 -18°49.2	272°56.6 -19°16.0	287°27.7 -19°15.9	301°58.8 -19°15.7	316°29.9 -19°15.4	331°01.0 -19°15.4	345°32.1 -19°14.0	0°03.2 -19°14.0	14°34.3 -19°13.4	29°05.4 -19°12.7	+31.1	14.7 +0.354.0
	Lu 3	240°53.9 -18°51.3	261°25.3 -18°49.2	275°56.7 -18°47.0	290°28.1 -18°44.7	304°59.5 -18°42.4	319°30.9 -18°39.9	334°02.3 -18°37.4	348°33.8 -18°34.7	3°05.2 -18°32.0	17°36.2 -18°29.2	32°08.2 -18°26.4	+31.4	14.7 +2.553.9
O	Ma 4	250°03.1 -17°33.4	264°34.9 -17°29.2	279°06.7 -17°25.0	293°38.6 -17°20.7	308°10.4 -17°16.3	322°42.3 -17°11.8	337°14.2 -17°07.2	351°46.2 -17°02.6	6°18.1 -16°57.9	20°50.1 -16°53.1	35°22.1 -16°48.2	+31.9	14.7 +4.554.0
	Me 5	253°24.3 -15°26.4	267°56.6 -15°20.4	282°28.9 -15°14.3	297°01.3 -15°08.1	311°33.6 -15°01.8	326°06.0 -14°55.5	340°38.4 -14°49.2	355°10.8 -14°42.7	9°43.2 -14°36.2	24°15.7 -14°29.7	38°48.1 -14°23.0	+32.4	14.8 +6.354.3
	Je 6	256°56.7 -12°35.7	271°29.3 -12°28.1	286°02.0 -12°20.4	300°34.7 -12°12.6	315°07.4 -12°04.8	329°40.1 -11°56.9	344°12.8 -11°49.0	358°45.5 -11°41.0	13°18.3 -11°32.9	27°51.0 -11°24.8	42°23.7 -11°16.7	+32.7	14.9 +7.954.7
O	Ve 7	260°35.3 -9°07.8	275°08.1 -8°58.9	289°40.9 -8°49.8	304°13.6 -8°40.7	318°46.4 -8°31.6	333°19.1 -8°22.4	347°51.9 -8°13.2	2°24.7 -7°54.4	16°57.4 -7°45.2	31°30.1 -7°35.8	46°02.9 -7°25.5	+32.8	15.1 +9.255.3
	Sa 8	264°12.3 -5°09.9	278°44.8 -4°59.8	293°17.3 -4°49.8	307°49.8 -4°39.6	322°22.2 -4°29.5	336°54.6 -4°19.3	351°27.0 -4°09.1	5°59.4 -3°58.9	20°31.7 -3°48.6	35°04.1 -3°38.4	49°36.4 -3°28.0	+32.4	15.3 +10.256.0
	Di 9	267°37.1 -0°50.0	282°08.9 -0°39.3	296°40.6 -0°28.6	311°12.3 -0°17.9	325°43.9 -0°07.1	340°15.5 0°03.7	354°47.1 0°14.5	1°08.1 0°25.3	23°50.1 0°36.1	38°21.5 0°46.9	52°52.9 0°57.8	+31.6	15.5 +10.657.0
O	Lu 10	270°37.3 3°41.2	285°07.9 3°52.1	299°38.3 4°03.1	314°08.7 4°14.0	328°39.0 4°24.9	343°09.3 4°35.7	357°39.5 4°46.6	12°09.6 4°57.5	26°39.7 5°08.4	41°09.7 5°19.2	55°39.7 5°30.1	+30.2	15.8 +10.957.9
	Ma 11	273°00.2 8°10.5	287°29.0 8°20.9	301°57.7 8°31.4	316°26.3 8°41.8	330°54.8 8°52.2	345°23.3 9°02.6	359°51.6 9°12.9	14°19.9 9°23.2	28°48.1 9°33.4	43°16.3 9°43.6	57°44.3 9°53.8	+28.4	16.1 +10.359.0
	Me 12	274°34.7 12°20.0	289°01.4 12°29.3	303°28.4 12°38.5	317°54.5 12°47.7	332°20.9 12°56.7	346°47.2 13°05.7	1°13.4 13°14.7	15°39.6 13°23.5	30°05.6 13°32.3	44°31.6 13°41.0	58°57.5 13°49.6	+26.3	16.3 +9.059.9
O	Je 13	275°15.5 15°48.6	289°40.0 15°55.7	304°04.4 16°02.8	318°28.8 16°09.7	332°53.1 16°16.6	347°17.3 16°23.3	1°41.5 16°30.5	16°05.5 16°36.5	30°29.5 16°42.9	44°53.5 16°49.2	59°17.3 16°55.4	+24.2	16.5 +6.760.6
	Ve 14	275°07.1 18°13.5	289°29.9 18°17.7	303°52.8 18°21.7	318°15.5 18°25.6	332°38.2 18°29.4	347°00.9 18°33.0	1°23.5 18°36.5	15°46.1 18°39.9	30°48.9 18°43.1	44°31.1 18°46.2	58°53.6 18°49.2	+22.6	16.7 +3.661.1
	Sa 15	274°27.5 19°16.2	288°49.6 19°16.8	303°11.8 19°17.3	317°33.9 19°17.7	331°56.9 19°17.9	346°18.2 19°17.9	0°40.3 19°17.8	15°02.5 19°17.6	29°24.6 19°17.2	43°46.8 19°16.6	58°09.0 19°16.0	+22.1	16.7 -0.061.2
O	Di 16	273°44.6 18°48.3	288°07.3 18°45.3	302°30.0 18°42.2	316°52.7 18°38.9	331°15.5 18°35.6	345°38.4 18°32.0	0°01.2 18°28.4	14°24.2 18°24.6	28°47.2 18°20.6	43°10.2 18°16.6	57°33.3 18°12.4	+22.9	16.6 -3.661.0
	Lu 17	273°27.6 16°54.5	287°51.8 16°48.3	302°16.3 16°42.1	316°40.4 16°35.7	331°04.8 16°29.2	345°29.3 16°22.6	359°53.9 16°15.9	14°18.6 16°09.1	28°43.3 16°02.2	43°08.1 15°55.2	57°33.0 15°48.1	+24.5	16.5 -6.660.5
	Ma 18	273°56.5 13°50.4	288°22.7 13°41.8	302°49.1 13°33.2	317°15.5 13°24.5	331°42.0 13°15.8	346°08.6 13°06.9	0°35.3 12°58.0	15°02.0 12°49.1	29°28.9 12°40.0	43°55.8 12°30.9	58°22.8 12°21.7	+26.6	16.3 -8.959.7
O	Me 19	275°18.0 9°57.0	289°46.3 9°46.9	304°14.7 9°36.8	318°43.2 9°26.7	333°11.8 9°16.5	347°40.4 9°06.3	2°09.1 8°56.0	16°37.9 8°45.7	31°06.8 8°35.4	45°35.7 8°25.0	60°04.7 8°25.0	+28.7	16.0 -10.258.8
	Je 20	289°46.3 9°46.9	304°14.7 9°36.8	318°43.2 9°26.7	333°11.8 9°16.5	347°40.4 9°06.3	3°09.1 8°56.0	16°37.9 8°45.7	31°06.8 8°35.4	45°35.7 8°25.0	60°04.7 8°14.6	74°33.8 8°04.2	+28.7	16.0 -10.358.8
	Ve 21	291°58.0 5°24.5	306°28.2 5°13.6	320°58.4 5°02.8	335°28.6 5°52.0	349°58.9 4°41.1	3°29.3 4°30.3	18°59.7 4°19.4	33°30.2 4°08.6	48°00.2 3°57.7	62°31.3 3°46.8	77°01.9 3°35.9	+30.4	15.8 -10.957.9
O	Sa 22	294°47.1 0°52.4	309°18.5 0°41.5	323°49.8 0°30.6	338°21.3 0°19.8	352°52.7 0°08.9	7°24.3 -0°01.9	21°55.8 -0°12.7	36°27.4 -0°23.5	50°59.0 -0°34.3	65°30.0 -0°45.1	80°02.3 -0°55.8	+31.5	15.6 -10.857.0
	Di 23	298°00.6 -3°34.8	312°32.7 -3°45.2	327°04.7 -3°55.6	341°36.8 -4°05.9	356°09.0 -4°16.3	10°41.1 -4°26.6	25°13.3 -4°36.8	39°45.4 -4°47.1	54°17.6 -4°57.3	68°49.8 -5°07.4	83°22.0 -5°17.6	+32.1	15.3 -10.356.3
	Lu 24	301°26.1 -7°45.2	315°58.4 -7°54.7	330°30.7 -8°04.2	345°03.0 -8°13.6	359°35.3 -8°23.0	14°07.7 -8°32.4	28°40.0 -8°41.7	43°12.3 -8°50.9	57°44.6 -9°00.1	72°16.9 -9°09.2	86°49.2 -9°18.4	+32.3	15.2 -9.355.6
O	Ma 25	304°53.1 -11°28.8	319°25.3 -11°37.1	333°57.5 -11°45.3	348°29.7 -11°53.4	3°01.8 -12°01.5	17°34.0 -12°09.5	32°06.1 -12°17.5	46°38.3 -12°25.4	61°10.4 -12°33.2	75°42.5 -12°41.0	90°14.6 -12°48.7	+32.1	15.0 -8.055.0
	Me 26	308°14.2 -14°36.8	322°46.1 -14°43.5	337°17.9 -14°50.1	351°49.8 -14°56.6	6°21.6 -15°03.1	20°53.4 -15°09.5	35°25.1 -15°15.8	49°56.9 -15°22.0	64°28.6 -15°28.2	79°00.4 -15°34.3	93°32.1 -15°40.3	+31.8	14.9 -6.354.6
	Je 27	311°25.7 -17°01.5	325°57.2 -17°06.3	340°28.6 -17°11.0	355°00.1 -17°15.7	9°31.5 -17°20.2	24°02.9 -17°24.7	38°34.2 -17°29.1	53°05.6 -17°33.4	67°36.9 -17°37.6	82°08.3 -17°41.7	96°39.9 -17°45.8	+31.4	14.8 -4.454.3
O	Ve 28	314°28.0 -18°36.6	328°59.1 -18°39.3	343°30.2 -18°41.9	358°01.4 -18°44.4	12°42.5 -18°46.4	27°03.6 -18°49.2	41°34.7 -18°51.5	56°05.8 -18°53.7	70°36.9 -18°55.8	85°08.0 -18°57.8	99°39.0 -18°59.7	+31.1	14.7 -2.354.1
	Sa 29	317°24.9 -19°17.7	331°55.9 -19°18.1	346°27.0 -19°18.6	0°58.0 -19°19.0	15°29.1 -19°19.2	30°00.2 -19°19.3	44°31.2 -19°19.4	59°02.3 -19°19.3	73°33.4 -19°19.2	88°04.4 -19°19.0	102°35.5 -19°18.7	+31.1	14.7 -0.153.9
	Di 30	320°22.8 -19°03.4	334°54.0 -19°01.7	349°25.2 -18°59.8	3°56.5 -18°58.0	18°27.8 -18°57.8	32°59.1 -18°53.9	47°30.4 -18°51.7	62°01.7 -18°49.5	76°33.0 -18°47.2	91°04.4 -18°44.8	105°35.7 -18°42.3	+31.3	14.7 +2.153.9
O	Lu 31	323°28.2 -17°54.8	337°59.9 -17°51.0	352°31.6 -17°47.0	7°03.3 -17°43.1	21°35.0 -17°39.0	36°06.7 -17°34.9	50°38.5 -17°30.6	65°10.2 -17°26.3	79°42.0 -17°22.0	94°13.9 -17°17.5	108°45.7 -17°13.0	+31.7	14.7 +4.253.9

Ligne 1: GHA, Δ°/h = var. GHA = 14°, SP = semi-diamètre

Ligne 2: Dec (= Sud), Δ°/h = var. déc., SP = parallaxe horizontale

Colonne = (heure UTC - jour) mod 24

PQ: 8 01h05 — PL: 15 00h33 — DQ: 21 16h28 — NL: 29 14h30