KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A_W	A_Z	α	δ	D	F
	λ=0°		φ=50°			0^h UT			
LIPIEC 2024									
	h m	h m	h m	–°	+°	h m s	° '	'	
1	0 19	7 54	15 49	115	121	2 15 38	15 53.8	32.1	-0.27
2	0 40	8 47	17 14	124	129	3 10 13	21 03.7	31.9	-0.18
3	1 09	9 44	18 34	131	135	4 07 37	25 01.9	31.7	-0.10
4	1 48	10 43	19 43	136	137	5 07 20	27 31.4	31.4	-0.05
5	2 41	11 41	20 36	137	136	6 07 55	28 22.0	31.2	-0.01
6	3 47	12 38	21 15	135	132	7 07 27	27 33.5	30.9	0.00
7	5 02	13 30	21 42	130	126	8 04 11	25 15.7	30.6	0.01
8	6 18	14 19	22 02	123	118	8 57 11	21 45.2	30.3	0.05
9	7 32	15 03	22 17	115	110	9 46 22	17 20.5	30.0	0.10
10	8 44	15 45	22 30	106	101	10 32 14	12 18.7	29.8	0.16
11	9 53	16 24	22 41	97	92	11 15 42	6 54.0	29.6	0.24
12	11 00	17 03	22 52	88	84	11 57 45	1 18.1	29.6	0.32
13	12 08	17 42	23 04	79	75	12 39 28	- 4 19.3	29.6	0.41
14	13 18	18 23	23 17	70	66	13 21 57	- 9 49.2	29.7	0.51
15	14 30	19 07	23 34	61	58	14 06 17	-15 01.8	29.9	0.60
16	15 46	19 55	23 56	53	51	14 53 31	-19 45.1	30.2	0.69
17	17 02	20 48	—	47	—	15 44 33	-23 44.0	30.5	0.78
18	18 15	21 45	0 27	43	45	16 39 49	-26 40.2	30.9	0.86
19	19 17	22 45	1 12	42	42	17 39 01	-28 14.3	31.4	0.93
20	20 05	23 46	2 14	45	43	18 40 48	-28 09.3	31.8	0.97
21	20 40	—	3 32	52	47	19 43 08	-26 17.6	32.2	1.00
22	21 05	0 45	5 00	60	55	20 43 57	-22 43.6	32.5	-0.99
23	21 24	1 41	6 29	70	64	21 41 58	-17 43.3	32.7	-0.97
24	21 40	2 33	7 58	81	75	22 36 57	-11 40.0	32.7	-0.91
25	21 54	3 23	9 24	92	86	23 29 29	- 4 59.1	32.7	-0.83
26	22 09	4 12	10 48	103	98	0 20 36	1 54.5	32.6	-0.74
27	22 25	5 01	12 12	113	108	1 11 32	8 38.0	32.4	-0.63
28	22 45	5 51	13 37	122	119	2 03 29	14 50.4	32.1	-0.51
29	23 10	6 43	15 02	130	127	2 57 22	20 12.0	31.9	-0.40
30	23 45	7 38	16 23	135	134	3 53 40	24 24.6	31.6	-0.30
31	—	8 36	17 35	—	137	4 52 10	27 12.4	31.3	-0.20

nów:	5 VII	22^h57^m
pierwsza kwadra:	13 VII	22^h49^m
pełnia:	21 VII	10^h17^m
ostatnia kwadra:	28 VII	2^h52^m
apogeum:	12 VII	8^h13^m
perygeum:	24 VII	5^h39^m

1 VII	18.5^h	Mars	4ºS
2 VII	10.2^h	Uran	4°S
3 VII	8.5^h	Jowisz	5ºS
6 VII	15.1^h	Wenus	4ºS
7 VII	18.6^h	Merkury	3ºS
24 VII	20.8^h	Saturn	0.4ºS
25 VII	15.0^h	Neptun	0.6ºS
29 VII	17.4^h	Uran	4ºS
30 VII	10.6^h	Mars	5ºS
30 VII	24.0^h	Jowisz	5ºS