

KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A _W	A _Z	α	δ	D	F
	λ=0°		φ=50°			0 ^h UT			
LIPIEC 2015									
	h m	h m	h m	-°	+°	h m s	° ' "	' "	
1	19 20	23 57	3 37	61	60	17 37 57	-18 24.1	31.5	0.98
2	20 10	—	4 36	63	61	18 35 56	-18 09.8	31.9	1.00
3	20 53	0 54	5 42	66	64	19 34 36	-16 49.0	32.2	-0.99
4	21 31	1 50	6 54	72	68	20 33 00	-14 24.8	32.4	-0.95
5	22 05	2 46	8 09	78	74	21 30 27	-11 06.6	32.5	-0.89
6	22 35	3 40	9 25	85	81	22 26 40	- 7 08.2	32.5	-0.81
7	23 05	4 33	10 41	92	89	23 21 43	- 2 45.7	32.5	-0.71
8	23 35	5 25	11 56	99	96	0 16 00	1 44.3	32.4	-0.60
9	—	6 17	13 11	—	103	1 10 01	6 05.9	32.2	-0.48
10	0 06	7 09	14 23	106	109	2 04 13	10 04.5	32.0	-0.37
11	0 40	8 02	15 33	111	114	2 58 58	13 27.1	31.8	-0.27
12	1 19	8 55	16 38	115	117	3 54 20	16 02.7	31.5	-0.18
13	2 03	9 49	17 38	118	119	4 50 03	17 43.1	31.3	-0.10
14	2 53	10 42	18 30	119	119	5 45 39	18 24.1	31.0	-0.05
15	3 48	11 34	19 16	118	117	6 40 28	18 05.4	30.7	-0.01
16	4 48	12 25	19 54	116	114	7 33 53	16 51.3	30.4	-0.00
17	5 49	13 13	20 27	112	110	8 25 28	14 49.2	30.2	0.01
18	6 52	13 59	20 56	108	105	9 15 06	12 08.4	29.9	0.04
19	7 54	14 43	21 22	102	99	10 02 53	8 58.7	29.7	0.08
20	8 56	15 26	21 47	96	93	10 49 11	5 29.7	29.6	0.14
21	9 57	16 08	22 10	90	87	11 34 30	1 49.7	29.5	0.22
22	10 58	16 51	22 34	84	82	12 19 27	- 1 53.5	29.5	0.30
23	12 00	17 34	23 00	78	76	13 04 40	- 5 32.5	29.6	0.39
24	13 02	18 18	23 28	73	71	13 50 49	- 9 00.2	29.8	0.48
25	14 04	19 05	—	68	—	14 38 31	-12 08.6	30.1	0.58
26	15 07	19 55	0 01	64	66	15 28 20	-14 48.8	30.4	0.68
27	16 08	20 47	0 39	62	63	16 20 37	-16 50.8	30.8	0.77
28	17 06	21 42	1 25	61	61	17 15 28	-18 04.0	31.3	0.85
29	17 59	22 39	2 19	61	61	18 12 32	-18 18.3	31.8	0.92
30	18 46	23 36	3 22	64	62	19 11 11	-17 27.1	32.2	0.97
31	19 27	24 32	4 32	69	66	20 10 30	-15 29.0	32.6	1.00

pełnia:	2 VII	2 ^h 20 ^m	6 VII	8.5 ^h	Neptun	3°S
ostatnia kwadra:	8 VII	20 ^h 24 ^m	9 VII	2.8 ^h	Uran	0.8°N
nów:	16 VII	1 ^h 24 ^m	15 VII	6.4 ^h	Merkury	6°N
pierwsza kwadra:	24 VII	4 ^h 04 ^m	15 VII	9.1 ^h	Mars	6°N
pełnia:	31 VII	10 ^h 43 ^m	18 VII	17.7 ^h	Jowisz	4°N
			19 VII	1.2 ^h	Wenus	0.4°N
perygeum:	5 VII	18 ^h 55 ^m	26 VII	8.3 ^h	Saturn	2°S
apogeum:	21 VII	11 ^h 03 ^m				