

KSIĘŻYC

d	Wsch.	Kulm.	Zach.	A _w	A _z	α	δ	D	F
	λ=0°		φ=50°			0 ^h UT			
LIPIEC 2016									
	h m	h m	h m	-°	+°	h m s	° ' "	' "	
1	1 44	9 10	16 46	112	115	3 26 47	13 56.9	32.6	-0.16
2	2 26	10 08	17 56	117	118	4 26 00	16 35.9	32.6	-0.08
3	3 16	11 07	18 59	119	120	5 26 21	18 10.9	32.5	-0.03
4	4 14	12 05	19 53	119	119	6 26 47	18 35.0	32.3	-0.00
5	5 17	13 02	20 39	118	116	7 26 05	17 48.7	32.0	0.01
6	6 24	13 55	21 17	114	111	8 23 14	15 59.9	31.6	0.03
7	7 31	14 46	21 49	109	106	9 17 40	13 21.1	31.2	0.08
8	8 39	15 33	22 18	104	100	10 09 19	10 06.1	30.7	0.14
9	9 44	16 19	22 43	98	94	10 58 29	6 28.3	30.4	0.22
10	10 48	17 02	23 07	91	88	11 45 45	2 39.2	30.0	0.31
11	11 50	17 45	23 31	85	82	12 31 45	- 1 11.7	29.8	0.40
12	12 52	18 28	23 56	79	77	13 17 14	- 4 56.5	29.6	0.50
13	13 53	19 12	—	74	—	14 02 50	- 8 28.1	29.6	0.59
14	14 54	19 56	0 23	69	71	14 49 13	-11 39.4	29.6	0.68
15	15 54	20 43	0 53	65	67	15 36 52	-14 23.2	29.7	0.77
16	16 52	21 31	1 28	62	63	16 26 09	-16 32.0	29.9	0.84
17	17 47	22 22	2 08	60	61	17 17 12	-17 57.9	30.1	0.91
18	18 38	23 13	2 56	60	60	18 09 52	-18 33.6	30.4	0.96
19	19 24	—	3 51	62	61	19 03 47	-18 13.6	30.7	0.99
20	20 04	0 06	4 52	66	64	19 58 21	-16 55.7	31.1	-1.00
21	20 40	0 58	5 59	71	68	20 53 01	-14 41.7	31.4	-0.99
22	21 12	1 51	7 09	77	73	21 47 20	-11 37.5	31.6	-0.95
23	21 42	2 42	8 22	83	80	22 41 08	- 7 52.9	31.9	-0.89
24	22 10	3 33	9 36	91	87	23 34 31	- 3 40.4	32.1	-0.81
25	22 39	4 24	10 50	98	94	0 27 50	0 46.0	32.2	-0.72
26	—	5 16	12 05	—	101	1 21 33	5 11.2	32.3	-0.61
27	23 45	6 09	13 19	110	108	2 16 12	9 20.1	32.3	-0.50
28	24 24	7 03	14 32	115	113	3 12 08	12 57.3	32.3	-0.38
29	0 24	7 59	15 42	115	117	4 09 30	15 48.8	32.3	-0.27
30	1 10	8 56	16 47	118	119	5 08 00	17 42.4	32.2	-0.18
31	2 02	9 53	17 44	119	119	6 07 01	18 30.4	32.0	-0.10

nów:	4 VII	11 ^h 01 ^m	4 VII	5.4 ^h	Merkury	6°N
pierwsza kwadra:	12 VII	0 ^h 52 ^m	5 VII	2.7 ^h	Wenus	5°N
pełnia:	19 VII	22 ^h 57 ^m	9 VII	10.2 ^h	Jowisz	1°N
ostatnia kwadra:	26 VII	23 ^h 00 ^m	14 VII	18.5 ^h	Mars	8°S
			16 VII	4.8 ^h	Saturn	3°S
perygeum:	1 VII	6 ^h 46 ^m	23 VII	5.6 ^h	Neptun	1°S
apogeum:	13 VII	5 ^h 25 ^m	26 VII	4.5 ^h	Uran	3°N
perygeum:	27 VII	11 ^h 26 ^m				