

Astronomical Almanac for 2018 December

Blackpool, Lancs

Latitude: 53°49'08" N Longitude: 3°02'01" W

Elevation: 10 metres

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						1
						SR: 08:07
						SS: 15:55
						MR: 00:32
						MS: 13:59
2	3	4	5	6	7	8
SR: 08:08	SR: 08:10	SR: 08:11	SR: 08:12	SR: 08:14	SR: 08:15	SR: 08:16
SS: 15:55	SS: 15:54	SS: 15:53	SS: 15:53	SS: 15:52	SS: 15:52	SS: 15:52
MR: 01:50	MR: 03:08	MR: 04:24	MR: 05:39	MR: 06:52	MR: 08:01	MR: 09:05
MS: 14:19	MS: 14:39	MS: 15:00	MS: 15:23	MS: 15:51	MS: 16:24	MS: 17:05
					NM: 07:22	
9	10	11	12	13	14	15
SR: 08:17	SR: 08:19	SR: 08:20	SR: 08:21	SR: 08:22	SR: 08:23	SR: 08:24
SS: 15:51	SS: 15:51	SS: 15:51	SS: 15:51	SS: 15:51	SS: 15:51	SS: 15:51
MR: 10:00	MR: 10:45	MR: 11:22	MR: 11:52	MR: 12:17	MR: 12:38	MR: 12:57
MS: 17:53	MS: 18:48	MS: 19:49	MS: 20:54	MS: 22:00	MS: 23:07	MS: None
						FQ: 11:50
16	17	18	19	20	21	22
SR: 08:25	SR: 08:25	SR: 08:26	SR: 08:27	SR: 08:27	SR: 08:28	SR: 08:28
SS: 15:51	SS: 15:51	SS: 15:51	SS: 15:52	SS: 15:52	SS: 15:52	SS: 15:53
MR: 13:14	MR: 13:32	MR: 13:52	MR: 14:14	MR: 14:41	MR: 15:16	MR: 16:01
MS: 00:16	MS: 01:26	MS: 02:39	MS: 03:54	MS: 05:12	MS: 06:31	MS: 07:48
					DSO:22:24	FM: 17:50
23	24	25	26	27	28	29
SR: 08:29	SR: 08:29	SR: 08:30	SR: 08:30	SR: 08:30	SR: 08:30	SR: 08:30
SS: 15:54	SS: 15:54	SS: 15:55	SS: 15:56	SS: 15:56	SS: 15:57	SS: 15:58
MR: 17:00	MR: 18:11	MR: 19:31	MR: 20:55	MR: 22:18	MR: 23:39	MR: None
MS: 08:58	MS: 09:56	MS: 10:41	MS: 11:16	MS: 11:43	MS: 12:06	MS: 12:27
						LQ: 09:37
30	31					
SR: 08:30	SR: 08:30					
SS: 15:59	SS: 16:00					
MR: 00:57	MR: 02:13					
MS: 12:47	MS: 13:07					

Meteor Showers Report for 2018-12-01 to 2018-12-31

Date	Meteor Shower	ZHR	RA	DEC	Illum. Frac.	Longitude
2018-12-14	Geminids	75	7h28m	32°	0.36	262°
2018-12-23	Ursids	5	14h28m	78°	1.00	271°

Planet View Info Report for 2018-12-01 to 2018-12-31

Mercury

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2018-12-01	07:08	15:41	15h54m58s	-18°20'13"	8°28'44"	0.059	0.70346
2018-12-08	06:21	15:12	15h42m57s	-16°55'14"	18°39'01"	0.354	0.83757
2018-12-15	06:22	14:54	16h00m44s	-18°16'18"	21°15'42"	0.616	1.00269
2018-12-22	06:44	14:45	16h34m01s	-20°30'36"	20°11'42"	0.775	1.14652
2018-12-29	07:11	14:44	17h14m35s	-22°30'52"	17°40'58"	0.866	1.25801

Venus

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2018-12-01	04:14	14:31	13h50m12s	-9°52'55"	39°38'19"	0.257	0.40989
2018-12-08	04:07	14:16	14h06m59s	-10°29'35"	42°40'45"	0.315	0.45749
2018-12-15	04:06	14:03	14h27m23s	-11°35'50"	44°43'35"	0.367	0.50756
2018-12-22	04:11	13:50	14h50m39s	-13°01'13"	46°00'40"	0.414	0.55926
2018-12-29	04:18	13:39	15h16m20s	-14°36'41"	46°42'27"	0.457	0.61195

Mars

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2018-12-01	13:04	23:32	22h45m56s	-9°04'50"	90°44'48"	0.860	1.00896
2018-12-08	12:42	23:32	23h02m31s	-7°08'58"	88°10'31"	0.862	1.06413
2018-12-15	12:20	23:32	23h19m14s	-5°10'37"	85°39'16"	0.865	1.12043
2018-12-22	11:58	23:33	23h36m03s	-3°10'36"	83°10'28"	0.868	1.17770
2018-12-29	11:37	23:33	23h52m58s	-1°09'45"	80°43'19"	0.871	1.23586

Jupiter

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2018-12-01	07:43	15:45	16h12m44s	-20°29'07"	3°47'02"	1.000	6.34219
2018-12-08	07:24	15:22	16h19m17s	-20°45'52"	9°17'33"	1.000	6.32647
2018-12-15	07:05	15:00	16h25m50s	-21°01'29"	14°51'05"	0.999	6.30011
2018-12-22	06:45	14:37	16h32m18s	-21°15'53"	20°26'30"	0.999	6.26335
2018-12-29	06:26	14:14	16h38m41s	-21°29'04"	26°04'02"	0.998	6.21650

Saturn

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2018-12-01	10:19	17:50	18h33m40s	-22°40'42"	29°02'32"	0.999	10.93082
2018-12-08	09:55	17:26	18h37m01s	-22°38'30"	22°42'40"	1.000	10.98134
2018-12-15	09:31	17:02	18h40m27s	-22°35'55"	16°23'29"	1.000	11.01994
2018-12-22	09:06	16:38	18h43m57s	-22°32'56"	10°05'03"	1.000	11.04620
2018-12-29	08:42	16:15	18h47m31s	-22°29'35"	3°47'47"	1.000	11.05989

Uranus

Date	Rise	Set	RA	Dec	Elongation	Ill Fr	DIST(AU)
2018-12-01	14:16	04:25	1h49m13s	10°39'29"	140°25'06"	1.000	19.09748
2018-12-08	13:48	03:56	1h48m30s	10°35'44"	133°07'51"	1.000	19.18014
2018-12-15	13:20	03:28	1h47m56s	10°32'43"	125°51'51"	1.000	19.27317
2018-12-22	12:53	03:00	1h47m29s	10°30'30"	118°37'41"	1.000	19.37498
2018-12-29	12:25	02:32	1h47m12s	10°29'08"	111°25'30"	0.999	19.48393