superior conj	8601 Jul 27 03:19	10°♌46'15	-0°10'29
minimum elong	8601 Jul 27 05:50	10°♌54'03	0°10'32
behind sun begin	8601 Jul 26 11:17	9°♌56'23	
behind sun end	8601 Jul 28 00:23	11°♌51'43	
max. Earth dist.	8601 Jul 30 04:49	14°♌34'35	1.72381 AU
asc. node	8601 Jul 31 11:03	16°♌08'32	
	8601 Aug 11 15:06	0°♍	
evening rise	8601 Sep 03 00:49	27°♍42'44	
	8601 Sep 04 21:18	0°♎	
	8601 Sep 29 06:32	0°♏	
	8601 Oct 23 19:55	0°♐	
	8601 Nov 17 14:56	0°♑	
desc. node	8601 Nov 20 04:57	3°♑06'25	
	8601 Dec 12 17:05	0°♒	
	8602 Jan 07 04:52	0°♓	
	8602 Feb 02 09:53	0°♈	
evening max el	8602 Mar 02 05:45	29°♈46'18	46°50'01
	8602 Mar 02 11:13	0°♉	
asc. node	8602 Mar 13 04:43	10°♉17'44	
	8602 Apr 10 02:34	0°♊	
greatest brilliancy	8602 Apr 11 19:30	0°♊39'00	-4.9m
retrograde	8602 Apr 21 14:52	2°♊27'47	
	8602 May 02 14:50	30°℞♉	
evening set	8602 May 09 19:04	26°♉09'17	
inferior conj	8602 May 12 06:24	24°♉38'19	9°08'34
minimum elong	8602 May 12 09:10	24°♉34'03	9°08'18
min. Earth dist.	8602 May 12 05:21	24°♉39'57	0.27140 AU
morning rise	8602 May 14 23:21	22°♉59'05	
direct	8602 Jun 01 22:45	16°♉51'06	
greatest brilliancy	8602 Jun 11 11:57	18°♉34'31	-4.9m
	8602 Jun 30 21:11	0°♊	
desc. node	8602 Jul 02 23:51	1°♊40'17	
morning max el	8602 Jul 22 00:39	18°♊59'01	46°32'23
	8602 Aug 01 19:46	0°♋	
	8602 Aug 29 05:31	0°♌	
	8602 Sep 24 07:23	0°♍	
	8602 Oct 19 17:27	0°♎	
asc. node	8602 Oct 23 22:01	5°♎00'04	
	8602 Nov 13 16:45	0°♏	
	8602 Dec 08 07:54	0°♐	
	8603 Jan 01 17:11	0°♑	
morning set	8603 Jan 16 22:14	18°♑49'20	
	8603 Jan 25 22:25	0°♒	
desc. node	8603 Feb 12 14:56	22°♒00'42	
	8603 Feb 19 00:37	0°♓	
max. Earth dist.	8603 Feb 21 18:23	3°♓25'16	1.71834 AU
superior conj	8603 Feb 25 00:26	7°♓28'59	-0°29'35
minimum elong	8603 Feb 24 17:25	7°♓07'02	0°29'09
	8603 Mar 15 00:18	0°♈	
evening rise	8603 Apr 05 23:47	27°♈34'05	
	8603 Apr 07 22:17	0°♉	
	8603 May 01 20:14	0°♊	
	8603 May 25 20:36	0°♋	
asc. node	8603 Jun 05 13:02	13°♋16'06	
	8603 Jun 19 02:08	0°♌	
	8603 Jul 13 15:57	0°♍	
	8603 Aug 07 18:56	0°♎	
	8603 Sep 02 21:16	0°♏	
desc. node	8603 Sep 25 08:06	24°♏11'00	
	8603 Oct 01 02:07	0°♐	
evening max el	8603 Oct 06 08:00	5°♐07'38	45°41'59
	8603 Nov 06 23:55	0°♑	
greatest brilliancy	8603 Nov 14 11:48	3°♑16'38	-4.7m
retrograde	8603 Nov 24 00:49	4°♑55'51	
	8603 Dec 10 03:24	30°℞♐	
evening set	8603 Dec 11 01:45	29°♐27'46	
inferior conj	8603 Dec 15 09:16	26°♐49'15	-6°49'14
minimum elong	8603 Dec 15 19:08	26°♐33'48	6°47'11
min. Earth dist.	8603 Dec 16 04:10	26°♐19'38	0.28624 AU
morning rise	8603 Dec 20 12:05	23°♐41'35	
direct	8604 Jan 05 18:27	18°♐34'32	
asc. node	8604 Jan 16 07:54	20°♐37'37	
greatest brilliancy	8604 Jan 16 21:39	20°♐50'43	-4.8m
	8604 Feb 01 14:00	0°♑	
morning max el	8604 Feb 24 17:46	20°♑34'12	46°28'26
	8604 Mar 04 21:46	0°♒	
	8604 Mar 31 21:57	0°♓	
	8604 Apr 26 08:38	0°♈	
desc. node	8604 May 07 01:55	12°♈55'42	
	8604 May 21 02:27	0°♉	
	8604 Jun 14 12:13	0°♊	
	8604 Jul 08 18:54	0°♋	
	8604 Aug 02 01:21	0°♌	
	8604 Aug 26 08:30	0°♍	
asc. node	8604 Aug 27 23:15	1°♍59'37	
morning set	8604 Aug 28 15:04	2°♍48'23	
	8604 Sep 19 16:05	0°♎	
superior conj	8604 Oct 04 21:37	18°♎47'18	1°15'20
minimum elong	8604 Oct 04 13:35	18°♎22'31	1°15'11
max. Earth dist.	8604 Oct 05 09:15	19°♎23'10	1.73252 AU
	8604 Oct 13 23:52	0°♏	
	8604 Nov 07 08:11	0°♐	
evening rise	8604 Nov 10 07:50	3°♐40'27	
	8604 Dec 01 17:48	0°♑	
desc. node	8604 Dec 17 16:44	19°♑34'07	
	8604 Dec 26 05:05	0°♒	
	8605 Jan 19 17:54	0°♓	
	8605 Feb 13 08:40	0°♈	
	8605 Mar 10 04:09	0°♉	
	8605 Apr 04 12:02	0°♊	
asc. node	8605 Apr 09 15:52	5°♊58'24	
	8605 May 01 02:47	0°♋	
evening max el	8605 May 13 20:57	13°♋20'15	46°52'35
	8605 May 31 18:57	0°♌	
greatest brilliancy	8605 Jun 22 16:27	13°♌58'02	-4.9m
retrograde	8605 Jul 03 07:00	16°♌04'48	
evening set	8605 Jul 18 07:34	11°♌39'14	
inferior conj	8605 Jul 24 08:33	8°♌03'44	1°32'11
minimum elong	8605 Jul 24 12:02	7°♌58'21	1°30'55
min. Earth dist.	8605 Jul 24 01:06	8°♌15'14	0.27651 AU
desc. node	8605 Jul 30 11:22	4°♌26'18	
morning rise	8605 Jul 30 16:56	4°♌18'48	
direct	8605 Aug 14 06:39	0°♌09'53	
greatest brilliancy	8605 Aug 24 03:15	1°♌55'59	-4.8m
	8605 Oct 01 22:55	0°♍	
morning max el	8605 Oct 02 05:32	0°♍15'49	45°49'36
	8605 Oct 30 23:47	0°♎	
asc. node	8605 Nov 20 10:16	22°♎53'24	
	8605 Nov 26 14:40	0°♏	
	8605 Dec 22 02:34	0°♐	
	8606 Jan 15 22:52	0°♑	
	8606 Feb 09 09:38	0°♒	
	8606 Mar 05 14:15	0°♓	
desc. node	8606 Mar 12 03:08	8°♓08'58	
	8606 Mar 29 14:35	0°♈	
morning set	8606 Mar 31 17:54	2°♈40'47	
	8606 Apr 22 12:07	0°♉	

superior conj	8606 May 11 12:11	23°♉53'45	-1°27'14
minimum elong	8606 May 11 14:47	24°♉01'56	1°27'22
max. Earth dist.	8606 May 12 10:12	25°♉02'58	1.71263 AU
	8606 May 16 08:42	0°♊	
	8606 Jun 09 06:25	0°♋	
evening rise	8606 Jun 20 22:43	14°♋36'22	
asc. node	8606 Jul 03 00:58	29°♋41'02	
	8606 Jul 03 07:04	0°♌	
	8606 Jul 27 11:55	0°♍	
	8606 Aug 20 22:18	0°♎	
	8606 Sep 14 16:32	0°♏	
	8606 Oct 09 22:44	0°♐	
desc. node	8606 Oct 22 19:21	14°♐57'02	
	8606 Nov 05 00:03	0°♑	
	8606 Dec 02 12:24	0°♒	
evening max el	8606 Dec 17 01:29	14°♒40'03	46°04'22
	8607 Jan 03 04:45	0°♓	
greatest brilliancy	8607 Jan 25 14:07	13°♓39'39	-4.8m
retrograde	8607 Feb 04 10:00	15°♓26'59	
asc. node	8607 Feb 12 19:21	14°♓01'10	
evening set	8607 Feb 18 21:58	11°♓18'17	
inferior conj	8607 Feb 25 03:37	7°♓38'29	3°06'34
minimum elong	8607 Feb 24 20:46	7°♓49'00	3°04'34
min. Earth dist.	8607 Feb 25 06:39	7°♓33'49	0.27212 AU
morning rise	8607 Mar 02 19:15	4°♓17'11	
	8607 Mar 14 10:33	30°℞♒	
direct	8607 Mar 17 23:23	29°♒44'35	
	8607 Mar 21 13:32	0°♓	
greatest brilliancy	8607 Mar 28 06:19	1°♓44'53	-4.9m
	8607 May 04 19:58	0°♈	
morning max el	8607 May 07 13:00	2°♈42'14	46°59'17
	8607 Jun 01 22:51	0°♉	
desc. node	8607 Jun 04 14:09	2°♉58'33	
	8607 Jun 27 22:29	0°♊	
	8607 Jul 23 03:16	0°♋	
	8607 Aug 17 00:17	0°♌	
	8607 Sep 10 17:29	0°♍	
asc. node	8607 Sep 25 11:37	17°♍58'56	
	8607 Oct 05 07:44	0°♎	
	8607 Oct 29 19:00	0°♏	
morning set	8607 Nov 06 11:49	9°♏28'08	
	8607 Nov 23 03:41	0°♐	
max. Earth dist.	8607 Dec 11 16:04	22°♐51'46	1.73008 AU
superior conj	8607 Dec 13 02:38	24°♐38'32	1°09'01
minimum elong	8607 Dec 13 11:57	25°♐07'19	1°08'56
	8607 Dec 17 10:38	0°♑	
	8608 Jan 10 16:26	0°♒	
desc. node	8608 Jan 15 04:47	5°♒35'36	
evening rise	8608 Jan 20 02:58	11°♒41'52	
	8608 Feb 03 21:06	0°♓	
	8608 Feb 28 00:38	0°♈	
	8608 Mar 23 03:56	0°♉	
	8608 Apr 16 09:33	0°♊	
asc. node	8608 May 07 03:22	25°♊25'18	
	8608 May 10 21:49	0°♋	
	8608 Jun 04 23:34	0°♌	
	8608 Jul 01 04:04	0°♍	
evening max el	8608 Jul 24 04:35	24°♍15'46	46°10'14
	8608 Jul 30 03:28	0°♎	
desc. node	8608 Aug 26 22:51	21°♎10'02	
greatest brilliancy	8608 Aug 31 17:29	23°♎18'06	-4.8m
retrograde	8608 Sep 11 17:34	25°♎29'50	
evening set	8608 Sep 28 13:04	20°♎04'25	
min. Earth dist.	8608 Oct 02 15:33	17°♎33'29	0.28970 AU
inferior conj	8608 Oct 03 05:20	17°♎11'52	-7°28'15
minimum elong	8608 Oct 02 20:32	17°♎25'40	7°26'53
morning rise	8608 Oct 07 04:17	14°♎45'38	
direct	8608 Oct 24 17:11	8°♎59'21	
greatest brilliancy	8608 Nov 03 14:53	10°♎46'24	-4.7m
	8608 Dec 02 18:24	0°♏	
morning max el	8608 Dec 12 15:06	9°♏08'16	45°46'37
asc. node	8608 Dec 17 22:15	14°♏21'34	
	8609 Jan 01 21:33	0°♐	
	8609 Jan 28 13:22	0°♑	
	8609 Feb 22 21:30	0°♒	
	8609 Mar 19 13:40	0°♓	
desc. node	8609 Apr 08 15:36	24°♓46'18	
	8609 Apr 12 20:45	0°♈	
	8609 May 06 22:34	0°♉	
	8609 May 30 21:58	0°♊	
morning set	8609 Jun 15 14:43	19°♊39'02	
	8609 Jun 23 21:22	0°♋	
	8609 Jul 17 22:29	0°♌	
superior conj	8609 Jul 24 17:28	8°♌26'55	-0°14'05
minimum elong	8609 Jul 24 20:49	8°♌37'20	0°14'05
behind sun begin	8609 Jul 24 08:55	8°♌00'21	
behind sun end	8609 Jul 25 08:43	9°♌14'19	
max. Earth dist.	8609 Jul 27 22:13	12°♌25'28	1.72336 AU
asc. node	8609 Jul 30 12:57	15°♌40'20	
	8609 Aug 11 02:03	0°♍	
evening rise	8609 Aug 31 17:20	25°♍31'43	
	8609 Sep 04 08:17	0°♎	
	8609 Sep 28 17:38	0°♏	
	8609 Oct 23 07:16	0°♐	
	8609 Nov 17 02:44	0°♑	
desc. node	8609 Nov 19 07:03	2°♑37'07	
	8609 Dec 12 05:42	0°♒	
	8610 Jan 06 18:52	0°♓	
	8610 Feb 02 02:32	0°♈	
evening max el	8610 Feb 27 18:36	27°♈20'13	46°48'41
	8610 Mar 02 10:59	0°♉	
asc. node	8610 Mar 12 06:38	9°♉15'15	
greatest brilliancy	8610 Apr 09 09:13	28°♉13'11	-4.9m
	8610 Apr 18 06:05	0°♊	
retrograde	8610 Apr 19 03:12	0°♊00'56	
	8610 Apr 20 00:14	30°℞♉	
evening set	8610 May 07 08:25	23°♉42'14	
inferior conj	8610 May 09 19:15	22°♉12'00	9°11'04
minimum elong	8610 May 09 21:03	22°♉09'14	9°10'51
min. Earth dist.	8610 May 09 18:09	22°♉13'42	0.27131 AU
morning rise	8610 May 12 09:43	20°♉36'21	
direct	8610 May 30 11:04	14°♉24'50	
greatest brilliancy	8610 Jun 09 00:55	16°♉08'25	-4.9m
	8610 Jul 01 10:52	0°♊	
desc. node	8610 Jul 02 01:50	0°♊30'50	
morning max el	8610 Jul 19 12:43	16°♊32'22	46°33'57
	8610 Aug 01 15:13	0°♋	
	8610 Aug 28 20:38	0°♌	
	8610 Sep 23 20:35	0°♍	
	8610 Oct 19 05:36	0°♎	
asc. node	8610 Oct 22 24:00	4°♎30'05	
	8610 Nov 13 04:16	0°♏	
	8610 Dec 07 19:04	0°♐	
	8611 Jan 01 04:09	0°♑	
morning set	8611 Jan 14 13:40	16°♑34'31	
	8611 Jan 25 09:19	0°♒	
desc. node	8611 Feb 11 16:49	21°♒32'28	
	8611 Feb 18 11:34	0°♓	
max. Earth dist.	8611 Feb 19 07:24	1°♓01'53	1.71881 AU
superior conj	8611 Feb 22 13:18	5°♓05'04	-0°26'01
minimum elong	8611 Feb 22 07:04	4°♓45'36	0°25'37

	8611 Mar 14 11:20	0°♈	
evening rise	8611 Apr 03 11:19	25°♈04'49	
	8611 Apr 07 09:25	0°♉	
	8611 May 01 07:29	0°♊	
	8611 May 25 08:01	0°♋	
asc. node	8611 Jun 04 15:03	12°♋46'39	
	8611 Jun 18 13:51	0°♌	
	8611 Jul 13 04:12	0°♍	
	8611 Aug 07 08:10	0°♎	
	8611 Sep 02 12:33	0°♏	
desc. node	8611 Sep 24 10:03	23°♏26'59	
	8611 Sep 30 23:06	0°♐	
evening max el	8611 Oct 03 21:52	2°♐51'42	45°42'11
	8611 Nov 09 06:20	0°♑	
greatest brilliancy	8611 Nov 12 02:23	1°♑03'56	-4.7m
retrograde	8611 Nov 21 16:06	2°♑44'02	
	8611 Dec 03 11:27	30°℞♐	
evening set	8611 Dec 08 20:01	27°♐11'01	
inferior conj	8611 Dec 13 00:54	24°♐36'33	-7°01'28
minimum elong	8611 Dec 13 10:34	24°♐21'24	6°59'33
min. Earth dist.	8611 Dec 13 19:30	24°♐07'25	0.28674 AU
morning rise	8611 Dec 18 00:42	21°♐33'20	
direct	8612 Jan 03 09:59	16°♐21'07	
greatest brilliancy	8612 Jan 14 13:55	18°♐37'51	-4.8m
asc. node	8612 Jan 15 09:45	18°♐57'45	
	8612 Feb 02 03:55	0°♑	
morning max el	8612 Feb 22 08:56	18°♑17'30	46°26'57
	8612 Mar 04 16:38	0°♒	
	8612 Mar 31 12:49	0°♓	
	8612 Apr 25 21:51	0°♈	
desc. node	8612 May 06 04:01	12°♈23'19	
	8612 May 20 14:48	0°♉	
	8612 Jun 14 00:00	0°♊	
	8612 Jul 08 06:19	0°♋	
	8612 Aug 01 12:29	0°♌	
	8612 Aug 25 19:24	0°♍	
morning set	8612 Aug 26 06:56	0°♍35'36	
asc. node	8612 Aug 27 01:10	1°♍31'53	
	8612 Sep 19 02:51	0°♎	
superior conj	8612 Oct 02 14:54	16°♎39'29	1°13'41
minimum elong	8612 Oct 02 06:29	16°♎13'32	1°13'31
max. Earth dist.	8612 Oct 03 03:57	17°♎19'43	1.73242 AU
	8612 Oct 13 10:35	0°♏	
	8612 Nov 06 18:59	0°♐	
evening rise	8612 Nov 08 01:02	1°♐32'26	
	8612 Dec 01 04:47	0°♑	
desc. node	8612 Dec 16 18:44	19°♑06'08	
	8612 Dec 25 16:21	0°♒	
	8613 Jan 19 05:34	0°♓	
	8613 Feb 12 20:53	0°♈	
	8613 Mar 09 17:18	0°♉	
	8613 Apr 04 02:54	0°♊	
asc. node	8613 Apr 08 17:54	5°♊20'09	
	8613 Apr 30 21:35	0°♋	
evening max el	8613 May 11 11:09	10°♋59'11	46°53'28
	8613 Jun 01 06:16	0°♌	
greatest brilliancy	8613 Jun 20 07:28	11°♌38'38	-4.9m
retrograde	8613 Jun 30 22:05	13°♌45'30	
evening set	8613 Jul 15 23:29	9°♌17'37	
inferior conj	8613 Jul 21 22:42	5°♌44'47	1°54'34
minimum elong	8613 Jul 22 03:00	5°♌38'08	1°53'03
min. Earth dist.	8613 Jul 21 15:51	5°♌55'20	0.27618 AU
morning rise	8613 Jul 28 07:01	2°♌00'27	
desc. node	8613 Jul 29 13:18	1°♌21'06	
	8613 Aug 01 12:18	30°℞♋	
direct	8613 Aug 11 20:33	27°♋51'16	
greatest brilliancy	8613 Aug 21 17:10	29°♋37'56	-4.8m
	8613 Aug 22 17:42	0°♌	
morning max el	8613 Sep 29 21:03	28°♌03'04	45°50'36
	8613 Oct 01 21:30	0°♍	
	8613 Oct 30 15:29	0°♎	
asc. node	8613 Nov 19 12:20	22°♎20'09	
	8613 Nov 26 03:55	0°♏	
	8613 Dec 21 14:40	0°♐	
	8614 Jan 15 10:22	0°♑	
	8614 Feb 08 20:49	0°♒	
	8614 Mar 05 01:14	0°♓	
desc. node	8614 Mar 11 05:09	7°♓41'05	
morning set	8614 Mar 29 05:00	0°♈11'08	
	8614 Mar 29 01:27	0°♈	
	8614 Apr 21 22:55	0°♉	
superior conj	8614 May 08 23:34	21°♉24'42	-1°27'34
minimum elong	8614 May 09 01:06	21°♉29'29	1°27'44
max. Earth dist.	8614 May 09 20:01	22°♉29'00	1.71252 AU
	8614 May 15 19:29	0°♊	
	8614 Jun 08 17:14	0°♋	
evening rise	8614 Jun 18 10:55	12°♋10'50	
asc. node	8614 Jul 02 02:51	29°♋13'05	
	8614 Jul 02 17:56	0°♌	
	8614 Jul 26 22:54	0°♍	
	8614 Aug 20 09:33	0°♎	
	8614 Sep 14 04:16	0°♏	
	8614 Oct 09 11:24	0°♐	
desc. node	8614 Oct 21 21:28	14°♐24'38	
	8614 Nov 04 14:33	0°♑	
	8614 Dec 02 07:10	0°♒	
evening max el	8614 Dec 14 16:38	12°♒25'09	46°02'53
	8615 Jan 03 17:33	0°♓	
greatest brilliancy	8615 Jan 23 03:29	11°♓18'13	-4.8m
retrograde	8615 Feb 01 23:23	13°♓04'53	
asc. node	8615 Feb 11 21:20	11°♓05'48	
evening set	8615 Feb 16 10:32	8°♓57'36	
inferior conj	8615 Feb 22 16:59	5°♓16'15	2°44'03
minimum elong	8615 Feb 22 10:54	5°♓25'37	2°42'17
min. Earth dist.	8615 Feb 22 20:46	5°♓10'25	0.27234 AU
morning rise	8615 Feb 28 10:58	1°♓51'31	
	8615 Mar 04 03:52	30°℞♒	
direct	8615 Mar 15 13:36	27°♒22'06	
greatest brilliancy	8615 Mar 25 20:38	29°♒22'30	-4.9m
	8615 Mar 27 10:26	0°♓	
	8615 May 04 18:53	0°♈	
morning max el	8615 May 05 02:54	0°♈20'11	46°59'10
	8615 Jun 01 15:00	0°♉	
desc. node	8615 Jun 03 16:09	2°♉19'18	
	8615 Jun 27 12:10	0°♊	
	8615 Jul 22 15:41	0°♋	
	8615 Aug 16 11:55	0°♌	
	8615 Sep 10 04:37	0°♍	
asc. node	8615 Sep 24 13:38	17°♍31'44	
	8615 Oct 04 18:32	0°♎	
	8615 Oct 29 05:36	0°♏	
morning set	8615 Nov 04 05:06	7°♏21'09	
	8615 Nov 22 14:13	0°♐	
max. Earth dist.	8615 Dec 09 09:21	20°♐44'23	1.73033 AU
superior conj	8615 Dec 10 19:13	22°♐28'59	1°10'58
minimum elong	8615 Dec 11 04:15	22°♐56'53	1°10'55
	8615 Dec 16 21:11	0°♑	
	8616 Jan 10 03:05	0°♒	
desc. node	8616 Jan 14 06:37	5°♒08'12	
evening rise	8616 Jan 17 17:40	9°♒25'27	
	8616 Feb 03 07:56	0°♓	

	8616 Feb 27 11:41	0°♈	
	8616 Mar 22 15:17	0°♉	
	8616 Apr 15 21:17	0°♊	
asc. node	8616 May 06 05:25	24°♊54'24	
	8616 May 10 10:10	0°♋	
	8616 Jun 04 13:05	0°♌	
	8616 Jun 30 20:12	0°♍	
evening max el	8616 Jul 21 20:08	22°♍02'40	46°11'37
	8616 Jul 30 04:08	0°♎	
desc. node	8616 Aug 26 00:50	19°♎41'45	
greatest brilliancy	8616 Aug 29 09:48	21°♎08'33	-4.8m
retrograde	8616 Sep 09 09:31	23°♎20'00	
evening set	8616 Sep 26 02:07	17°♎59'46	
inferior conj	8616 Sep 30 21:30	15°♎02'28	-7°17'55
minimum elong	8616 Sep 30 12:22	15°♎16'50	7°16'26
min. Earth dist.	8616 Sep 30 07:08	15°♎25'03	0.28937 AU
morning rise	8616 Oct 04 22:53	12°♎32'27	
direct	8616 Oct 22 09:05	6°♎50'43	
greatest brilliancy	8616 Nov 01 05:51	8°♎36'33	-4.7m
	8616 Dec 02 20:29	0°♏	
morning max el	8616 Dec 10 05:17	6°♏53'56	45°45'46
asc. node	8616 Dec 17 00:07	13°♏36'45	
	8617 Jan 01 13:53	0°♐	
	8617 Jan 28 02:52	0°♑	
	8617 Feb 22 09:45	0°♒	
	8617 Mar 19 01:17	0°♓	
desc. node	8617 Apr 07 17:35	24°♓17'23	
	8617 Apr 12 08:00	0°♈	
	8617 May 06 09:34	0°♉	
	8617 May 30 08:46	0°♊	
morning set	8617 Jun 13 03:33	17°♊15'35	
	8617 Jun 23 08:00	0°♋	
	8617 Jul 17 08:59	0°♌	
superior conj	8617 Jul 22 07:58	6°♌10'10	-0°17'36
minimum elong	8617 Jul 22 12:09	6°♌23'09	0°17'35
max. Earth dist.	8617 Jul 25 14:42	10°♌14'56	1.72287 AU
asc. node	8617 Jul 29 14:53	15°♌13'45	
	8617 Aug 10 12:30	0°♍	
evening rise	8617 Aug 29 10:11	23°♍23'10	
	8617 Sep 03 18:46	0°♎	
	8617 Sep 28 04:16	0°♏	
	8617 Oct 22 18:11	0°♐	
	8617 Nov 16 14:10	0°♑	
desc. node	8617 Nov 18 08:57	2°♑08'20	
	8617 Dec 11 17:59	0°♒	
	8618 Jan 06 08:36	0°♓	
	8618 Feb 01 19:06	0°♈	
evening max el	8618 Feb 25 06:46	24°♈53'42	46°47'26
	8618 Mar 02 11:23	0°♉	
asc. node	8618 Mar 11 08:42	8°♉12'48	
greatest brilliancy	8618 Apr 06 22:49	25°♉48'23	-4.9m
retrograde	8618 Apr 16 15:40	27°♉35'31	
evening set	8618 May 04 21:07	21°♉17'17	
inferior conj	8618 May 07 08:06	19°♉46'54	9°12'28
minimum elong	8618 May 07 08:53	19°♉45'42	9°12'19
min. Earth dist.	8618 May 07 07:00	19°♉48'37	0.27123 AU
morning rise	8618 May 09 20:41	18°♉14'05	
direct	8618 May 27 23:06	11°♉59'30	
greatest brilliancy	8618 Jun 06 14:10	13°♉43'49	-4.9m
desc. node	8618 Jul 01 03:43	29°♉24'14	
	8618 Jul 01 20:30	0°♊	
morning max el	8618 Jul 17 01:33	14°♊08'49	46°35'47
	8618 Aug 01 09:37	0°♋	
	8618 Aug 28 11:01	0°♌	
	8618 Sep 23 09:09	0°♍	
	8618 Oct 18 17:10	0°♎	
asc. node	8618 Oct 22 02:00	4°♎01'44	
	8618 Nov 12 15:18	0°♏	
	8618 Dec 07 05:47	0°♐	
	8618 Dec 31 14:44	0°♑	
morning set	8619 Jan 12 05:08	14°♑20'58	
	8619 Jan 24 19:53	0°♒	
desc. node	8619 Feb 10 18:49	21°♒05'43	
max. Earth dist.	8619 Feb 16 22:08	28°♒45'02	1.71926 AU
	8619 Feb 17 22:10	0°♓	
superior conj	8619 Feb 20 02:03	2°♓41'57	-0°22'23
minimum elong	8619 Feb 19 20:39	2°♓25'06	0°22'01
	8619 Mar 13 22:00	0°♈	
evening rise	8619 Mar 31 22:52	22°♈36'51	
	8619 Apr 06 20:10	0°♉	
	8619 Apr 30 18:22	0°♊	
	8619 May 24 19:07	0°♋	
asc. node	8619 Jun 03 16:56	12°♋17'48	
	8619 Jun 18 01:15	0°♌	
	8619 Jul 12 16:07	0°♍	
	8619 Aug 06 21:03	0°♎	
	8619 Sep 02 03:33	0°♏	
desc. node	8619 Sep 23 12:10	22°♏44'17	
	8619 Sep 30 20:12	0°♐	
evening max el	8619 Oct 01 12:41	0°♐39'42	45°42'29
greatest brilliancy	8619 Nov 09 16:23	28°♐52'32	-4.7m
	8619 Nov 13 19:58	0°♑	
retrograde	8619 Nov 19 07:55	0°♑34'09	
	8619 Nov 24 16:19	30°℞♐	
evening set	8619 Dec 06 14:23	24°♐56'13	
inferior conj	8619 Dec 10 16:42	22°♐25'34	-7°12'51
minimum elong	8619 Dec 11 02:07	22°♐10'50	7°11'05
min. Earth dist.	8619 Dec 11 10:35	21°♐57'38	0.28727 AU
morning rise	8619 Dec 15 13:30	19°♐26'58	
direct	8620 Jan 01 02:14	14°♐09'28	
greatest brilliancy	8620 Jan 12 05:53	16°♐26'11	-4.8m
asc. node	8620 Jan 14 11:45	17°♐22'53	
	8620 Feb 02 13:46	0°♑	
morning max el	8620 Feb 20 01:16	16°♑04'45	46°25'18
	8620 Mar 04 10:44	0°♒	
	8620 Mar 31 03:15	0°♓	
	8620 Apr 25 10:42	0°♈	
desc. node	8620 May 05 05:58	11°♈51'28	
	8620 May 20 02:48	0°♉	
	8620 Jun 13 11:28	0°♊	
	8620 Jul 07 17:25	0°♋	
	8620 Jul 31 23:19	0°♌	
morning set	8620 Aug 23 22:58	28°♌24'05	
	8620 Aug 25 06:02	0°♍	
asc. node	8620 Aug 26 03:13	1°♍05'24	
	8620 Sep 18 13:20	0°♎	
superior conj	8620 Sep 30 08:25	14°♎33'15	1°11'57
minimum elong	8620 Sep 29 23:41	14°♎06'20	1°11'45
max. Earth dist.	8620 Oct 01 00:32	15°♎22'59	1.73227 AU
	8620 Oct 12 21:00	0°♏	
evening rise	8620 Nov 05 18:38	29°♏26'40	
	8620 Nov 06 05:28	0°♐	
	8620 Nov 30 15:28	0°♑	
desc. node	8620 Dec 15 20:39	18°♑38'43	
	8620 Dec 25 03:22	0°♒	
	8621 Jan 18 17:02	0°♓	
	8621 Feb 12 09:01	0°♈	
	8621 Mar 09 06:26	0°♉	
	8621 Apr 03 17:52	0°♊	
asc. node	8621 Apr 07 19:55	4°♊41'44	
	8621 Apr 30 16:49	0°♋	

evening max el	8621 May 09 02:09	8°♋40'28	46°54'25
	8621 Jun 01 21:17	0°♌	
greatest brilliancy	8621 Jun 17 22:22	9°♌19'22	-4.9m
retrograde	8621 Jun 28 13:12	11°♌26'05	
evening set	8621 Jul 13 15:31	6°♌55'56	
inferior conj	8621 Jul 19 12:43	3°♌25'45	2°16'49
minimum elong	8621 Jul 19 17:50	3°♌17'52	2°15'04
min. Earth dist.	8621 Jul 19 06:17	3°♌35'41	0.27583 AU
	8621 Jul 25 07:37	30°℞♋	
morning rise	8621 Jul 25 20:44	29°♋42'16	
desc. node	8621 Jul 28 15:23	28°♋19'26	
direct	8621 Aug 09 10:47	25°♋32'46	
greatest brilliancy	8621 Aug 19 06:25	27°♋19'11	-4.8m
	8621 Aug 25 11:22	0°♌	
morning max el	8621 Sep 27 12:34	25°♌50'43	45°51'42
	8621 Oct 01 19:02	0°♍	
	8621 Oct 30 06:45	0°♎	
asc. node	8621 Nov 18 14:10	21°♎46'58	
	8621 Nov 25 16:51	0°♏	
	8621 Dec 21 02:30	0°♐	
	8622 Jan 14 21:40	0°♑	
	8622 Feb 08 07:51	0°♒	
	8622 Mar 04 12:09	0°♓	
desc. node	8622 Mar 10 07:10	7°♓13'22	
morning set	8622 Mar 26 15:52	27°♓40'51	
	8622 Mar 28 12:18	0°♈	
	8622 Apr 21 09:45	0°♉	
superior conj	8622 May 06 10:28	18°♉53'59	-1°27'44
minimum elong	8622 May 06 10:55	18°♉55'22	1°27'53
max. Earth dist.	8622 May 07 04:19	19°♉50'06	1.71242 AU
	8622 May 15 06:19	0°♊	
	8622 Jun 08 04:05	0°♋	
evening rise	8622 Jun 15 22:33	9°♋43'22	
asc. node	8622 Jul 01 04:48	28°♋45'18	
	8622 Jul 02 04:49	0°♌	
	8622 Jul 26 09:55	0°♍	
	8622 Aug 19 20:50	0°♎	
	8622 Sep 13 16:05	0°♏	
	8622 Oct 09 00:10	0°♐	
desc. node	8622 Oct 20 23:23	13°♐51'34	
	8622 Nov 04 05:10	0°♑	
	8622 Dec 02 02:19	0°♒	
evening max el	8622 Dec 12 07:30	10°♒10'08	46°01'29
	8623 Jan 04 10:19	0°♓	
greatest brilliancy	8623 Jan 20 17:32	8°♓58'31	-4.8m
retrograde	8623 Jan 30 12:26	10°♓43'58	
asc. node	8623 Feb 10 23:22	8°♓06'43	
evening set	8623 Feb 13 23:36	6°♓37'44	
inferior conj	8623 Feb 20 06:41	2°♓55'14	2°21'35
minimum elong	8623 Feb 20 01:23	3°♓03'25	2°20'02
min. Earth dist.	8623 Feb 20 11:29	2°♓47'49	0.27264 AU
	8623 Feb 25 03:16	30°℞♒	
morning rise	8623 Feb 26 02:47	29°♒27'06	
direct	8623 Mar 13 03:42	25°♒00'38	
greatest brilliancy	8623 Mar 23 11:48	27°♒01'31	-4.9m
	8623 Mar 29 21:13	0°♓	
morning max el	8623 May 02 16:11	27°♓56'01	46°58'42
	8623 May 04 17:02	0°♈	
	8623 Jun 01 07:07	0°♉	
desc. node	8623 Jun 02 18:00	1°♉39'21	
	8623 Jun 27 01:58	0°♊	
	8623 Jul 22 04:16	0°♋	
	8623 Aug 15 23:44	0°♌	
	8623 Sep 09 15:54	0°♍	
asc. node	8623 Sep 23 15:34	17°♍03'44	
	8623 Oct 04 05:29	0°♎	
	8623 Oct 28 16:23	0°♏	
morning set	8623 Nov 01 22:25	5°♏13'46	
	8623 Nov 22 00:54	0°♐	
max. Earth dist.	8623 Dec 07 01:49	18°♐34'00	1.73054 AU
superior conj	8623 Dec 08 12:12	20°♐20'12	1°12'47
minimum elong	8623 Dec 08 20:55	20°♐47'08	1°12'46
	8623 Dec 16 07:52	0°♑	
	8624 Jan 09 13:50	0°♒	
desc. node	8624 Jan 13 08:40	4°♒41'06	
evening rise	8624 Jan 15 08:50	7°♒10'16	
	8624 Feb 02 18:51	0°♓	
	8624 Feb 26 22:52	0°♈	
	8624 Mar 22 02:48	0°♉	
	8624 Apr 15 09:17	0°♊	
asc. node	8624 May 05 07:15	24°♊21'49	
	8624 May 09 22:54	0°♋	
	8624 Jun 04 03:08	0°♌	
	8624 Jun 30 13:09	0°♍	
evening max el	8624 Jul 19 10:44	19°♍45'41	46°13'10
	8624 Jul 30 06:49	0°♎	
desc. node	8624 Aug 25 02:53	18°♎08'49	
greatest brilliancy	8624 Aug 27 02:07	18°♎57'17	-4.8m
retrograde	8624 Sep 07 01:11	21°♎08'35	
evening set	8624 Sep 23 14:59	15°♎53'17	
min. Earth dist.	8624 Sep 27 22:51	13°♎14'34	0.28899 AU
inferior conj	8624 Sep 28 13:30	12°♎51'32	-7°07'01
minimum elong	8624 Sep 28 04:03	13°♎06'24	7°05'22
morning rise	8624 Oct 02 17:22	10°♎17'41	
direct	8624 Oct 20 00:15	4°♎40'21	
greatest brilliancy	8624 Oct 29 21:12	6°♎25'46	-4.7m
	8624 Dec 02 21:37	0°♏	
morning max el	8624 Dec 07 19:20	4°♏38'17	45°45'10
asc. node	8624 Dec 16 02:08	12°♏51'58	
	8625 Jan 01 06:13	0°♐	
	8625 Jan 27 16:30	0°♑	
	8625 Feb 21 22:10	0°♒	
	8625 Mar 18 13:04	0°♓	
desc. node	8625 Apr 06 19:32	23°♓47'46	
	8625 Apr 11 19:26	0°♈	
	8625 May 05 20:48	0°♉	
	8625 May 29 19:51	0°♊	
morning set	8625 Jun 10 16:01	14°♊49'54	
	8625 Jun 22 18:59	0°♋	
	8625 Jul 16 19:54	0°♌	
superior conj	8625 Jul 19 21:58	3°♌50'27	-0°21'10
minimum elong	8625 Jul 20 02:57	4°♌06'00	0°21'06
max. Earth dist.	8625 Jul 23 03:32	7°♌51'45	1.72241 AU
asc. node	8625 Jul 28 16:56	14°♌46'18	
	8625 Aug 09 23:24	0°♍	
evening rise	8625 Aug 27 02:24	21°♍11'24	
	8625 Sep 03 05:42	0°♎	
	8625 Sep 27 15:20	0°♏	
	8625 Oct 22 05:33	0°♐	
	8625 Nov 16 02:04	0°♑	
desc. node	8625 Nov 17 10:53	1°♑38'22	
	8625 Dec 11 06:45	0°♒	
	8626 Jan 05 22:52	0°♓	
	8626 Feb 01 12:20	0°♈	
evening max el	8626 Feb 22 19:19	22°♈27'39	46°46'22
	8626 Mar 02 13:20	0°♉	
asc. node	8626 Mar 10 10:41	7°♉07'55	
greatest brilliancy	8626 Apr 04 11:57	23°♉22'44	-4.9m
retrograde	8626 Apr 14 04:38	25°♉10'08	
evening set	8626 May 02 09:18	18°♉52'57	
inferior conj	8626 May 04 21:07	17°♉21'30	9°12'49

minimum elong	8626 May 04 20:53	17°♉21'52	9°12'40
min. Earth dist.	8626 May 04 19:41	17°♉23'43	0.27120 AU
morning rise	8626 May 07 08:30	15°♉50'39	
direct	8626 May 25 11:37	9°♉33'45	
greatest brilliancy	8626 Jun 04 03:18	11°♉18'45	-4.9m
desc. node	8626 Jun 30 05:50	28°♉19'06	
	8626 Jul 02 03:50	0°♊	
morning max el	8626 Jul 14 15:25	11°♊46'47	46°37'16
	8626 Aug 01 04:00	0°♋	
	8626 Aug 28 01:44	0°♌	
	8626 Sep 22 22:10	0°♍	
	8626 Oct 18 05:13	0°♎	
asc. node	8626 Oct 21 03:53	3°♎31'35	
	8626 Nov 12 02:45	0°♏	
	8626 Dec 06 16:55	0°♐	
	8626 Dec 31 01:43	0°♑	
morning set	8627 Jan 09 20:33	12°♑06'07	
	8627 Jan 24 06:50	0°♒	
desc. node	8627 Feb 09 20:49	20°♒37'47	
max. Earth dist.	8627 Feb 14 13:25	26°♒28'46	1.71967 AU
	8627 Feb 17 09:08	0°♓	
superior conj	8627 Feb 17 14:53	0°♓17'56	-0°18'44
minimum elong	8627 Feb 17 10:21	0°♓03'47	0°18'23
	8627 Mar 13 09:02	0°♈	
evening rise	8627 Mar 29 10:44	20°♈08'51	
	8627 Apr 06 07:16	0°♉	
	8627 Apr 30 05:34	0°♊	
	8627 May 24 06:31	0°♋	
asc. node	8627 Jun 02 18:57	11°♋48'26	
	8627 Jun 17 12:59	0°♌	
	8627 Jul 12 04:26	0°♍	
	8627 Aug 06 10:27	0°♎	
	8627 Sep 01 19:18	0°♏	
desc. node	8627 Sep 22 14:04	21°♏58'47	
evening max el	8627 Sep 29 04:19	28°♏28'00	45°42'47
	8627 Sep 30 18:51	0°♐	
greatest brilliancy	8627 Nov 07 06:08	26°♐39'08	-4.7m
retrograde	8627 Nov 16 23:45	28°♐22'08	
evening set	8627 Dec 04 08:34	22°♐39'40	
inferior conj	8627 Dec 08 08:19	20°♐12'39	-7°23'41
minimum elong	8627 Dec 08 17:25	19°♐58'26	7°22'04
min. Earth dist.	8627 Dec 09 01:10	19°♐46'19	0.28774 AU
morning rise	8627 Dec 13 01:59	17°♐18'45	
direct	8627 Dec 29 18:41	11°♐56'11	
greatest brilliancy	8628 Jan 09 20:58	14°♐12'00	-4.8m
asc. node	8628 Jan 13 13:50	15°♐49'47	
	8628 Feb 02 21:31	0°♑	
morning max el	8628 Feb 17 17:40	13°♑51'06	46°23'38
	8628 Mar 04 04:49	0°♒	
	8628 Mar 30 17:53	0°♓	
	8628 Apr 24 23:48	0°♈	
desc. node	8628 May 04 07:50	11°♈18'28	
	8628 May 19 15:02	0°♉	
	8628 Jun 12 23:09	0°♊	
	8628 Jul 07 04:45	0°♋	
	8628 Jul 31 10:23	0°♌	
morning set	8628 Aug 21 15:03	26°♌11'52	
	8628 Aug 24 16:55	0°♍	
asc. node	8628 Aug 25 05:07	0°♍37'38	
	8628 Sep 18 00:08	0°♎	
superior conj	8628 Sep 28 01:42	12°♎25'11	1°10'06
minimum elong	8628 Sep 27 16:42	11°♎57'26	1°09'52
max. Earth dist.	8628 Sep 28 21:44	13°♎27'00	1.73216 AU
	8628 Oct 12 07:47	0°♏	
evening rise	8628 Nov 03 11:52	27°♏18'34	
	8628 Nov 05 16:20	0°♐	
	8628 Nov 30 02:32	0°♑	
desc. node	8628 Dec 14 22:39	18°♑10'29	
	8628 Dec 24 14:45	0°♒	
	8629 Jan 18 04:53	0°♓	
	8629 Feb 11 21:32	0°♈	
	8629 Mar 08 20:00	0°♉	
	8629 Apr 03 09:21	0°♊	
asc. node	8629 Apr 06 21:48	4°♊01'45	
	8629 Apr 30 12:56	0°♋	
evening max el	8629 May 06 17:41	6°♋22'14	46°55'19
	8629 Jun 02 17:51	0°♌	
greatest brilliancy	8629 Jun 15 13:46	7°♌00'18	-4.9m
retrograde	8629 Jun 26 04:15	9°♌06'09	
evening set	8629 Jul 11 07:50	4°♌33'55	
inferior conj	8629 Jul 17 02:51	1°♌06'27	2°38'52
minimum elong	8629 Jul 17 08:44	0°♌57'23	2°36'53
min. Earth dist.	8629 Jul 16 20:51	1°♌15'42	0.27546 AU
	8629 Jul 18 22:08	30°℞♋	
morning rise	8629 Jul 23 10:16	27°♋23'55	
desc. node	8629 Jul 27 17:20	25°♋22'00	
direct	8629 Aug 07 01:05	23°♋14'14	
greatest brilliancy	8629 Aug 16 19:32	24°♋59'53	-4.8m
	8629 Aug 27 03:57	0°♌	
morning max el	8629 Sep 25 03:27	23°♌36'17	45°52'39
	8629 Oct 01 15:56	0°♍	
	8629 Oct 29 22:02	0°♎	
asc. node	8629 Nov 17 16:11	21°♎13'39	
	8629 Nov 25 05:59	0°♏	
	8629 Dec 20 14:36	0°♐	
	8630 Jan 14 09:14	0°♑	
	8630 Feb 07 19:07	0°♒	
	8630 Mar 03 23:16	0°♓	
desc. node	8630 Mar 09 09:01	6°♓44'28	
morning set	8630 Mar 24 02:40	25°♓09'50	
	8630 Mar 27 23:20	0°♈	
	8630 Apr 20 20:46	0°♉	
superior conj	8630 May 03 21:26	16°♉22'55	-1°27'44
minimum elong	8630 May 03 20:46	16°♉20'49	1°27'52
max. Earth dist.	8630 May 04 10:36	17°♉04'21	1.71232 AU
	8630 May 14 17:20	0°♊	
	8630 Jun 07 15:05	0°♋	
evening rise	8630 Jun 13 10:10	7°♋15'12	
asc. node	8630 Jun 30 06:51	28°♋17'23	
	8630 Jul 01 15:51	0°♌	
	8630 Jul 25 21:03	0°♍	
	8630 Aug 19 08:13	0°♎	
	8630 Sep 13 04:00	0°♏	
	8630 Oct 08 13:06	0°♐	
desc. node	8630 Oct 20 01:19	13°♐17'55	
	8630 Nov 03 20:10	0°♑	
	8630 Dec 01 22:20	0°♒	
evening max el	8630 Dec 09 21:32	7°♒52'19	45°59'56
	8631 Jan 05 09:35	0°♓	
greatest brilliancy	8631 Jan 18 07:53	6°♓38'11	-4.8m
retrograde	8631 Jan 28 01:00	8°♓22'13	
asc. node	8631 Feb 10 01:18	5°♓01'59	
evening set	8631 Feb 11 12:44	4°♓16'29	
inferior conj	8631 Feb 17 20:16	0°♓33'28	1°58'48
minimum elong	8631 Feb 17 15:47	0°♓40'24	1°57'29
min. Earth dist.	8631 Feb 18 02:27	0°♓23'55	0.27295 AU
	8631 Feb 18 17:56	30°℞♒	
morning rise	8631 Feb 23 18:20	27°♒02'09	
direct	8631 Mar 10 17:13	22°♒38'11	
greatest brilliancy	8631 Mar 21 03:27	24°♒40'29	-4.9m
	8631 Mar 31 11:02	0°♓	

morning max el	8631 Apr 30 04:51	25°♓30'01	46°58'20
	8631 May 04 14:29	0°♈	
	8631 May 31 23:01	0°♉	
desc. node	8631 Jun 01 20:07	1°♉00'19	
	8631 Jun 26 15:41	0°♊	
	8631 Jul 21 16:48	0°♋	
	8631 Aug 15 11:30	0°♌	
	8631 Sep 09 03:09	0°♍	
asc. node	8631 Sep 22 17:28	16°♍35'49	
	8631 Oct 03 16:23	0°♎	
	8631 Oct 28 03:05	0°♏	
morning set	8631 Oct 30 15:52	3°♏06'56	
	8631 Nov 21 11:33	0°♐	
max. Earth dist.	8631 Dec 04 19:02	16°♐26'05	1.73084 AU
superior conj	8631 Dec 06 05:14	18°♐11'44	1°14'30
minimum elong	8631 Dec 06 13:36	18°♐37'33	1°14'30
	8631 Dec 15 18:33	0°♑	
	8632 Jan 09 00:39	0°♒	
desc. node	8632 Jan 12 10:39	4°♒13'44	
evening rise	8632 Jan 12 23:54	4°♒54'44	
	8632 Feb 02 05:52	0°♓	
	8632 Feb 26 10:08	0°♈	
	8632 Mar 21 14:23	0°♉	
	8632 Apr 14 21:18	0°♊	
asc. node	8632 May 04 09:18	23°♊49'51	
	8632 May 09 11:39	0°♋	
	8632 Jun 03 17:15	0°♌	
	8632 Jun 30 06:20	0°♍	
evening max el	8632 Jul 17 01:09	17°♍28'34	46°14'49
	8632 Jul 30 10:58	0°♎	
desc. node	8632 Aug 24 04:49	16°♎33'06	
greatest brilliancy	8632 Aug 24 18:08	16°♎46'08	-4.8m
retrograde	8632 Sep 04 17:08	18°♎58'05	
evening set	8632 Sep 21 04:00	13°♎47'17	
min. Earth dist.	8632 Sep 25 14:39	11°♎04'54	0.28860 AU
inferior conj	8632 Sep 26 05:36	10°♎41'26	-6°55'24
minimum elong	8632 Sep 25 19:55	10°♎56'39	6°53'38
morning rise	8632 Sep 30 12:03	8°♎03'49	
direct	8632 Oct 17 15:19	2°♎30'44	
greatest brilliancy	8632 Oct 27 12:53	4°♎16'19	-4.7m
	8632 Dec 02 21:11	0°♏	
morning max el	8632 Dec 05 10:01	2°♏25'04	45°44'34
asc. node	8632 Dec 15 04:11	12°♏08'42	
	8632 Dec 31 22:01	0°♐	
	8633 Jan 27 05:50	0°♑	
	8633 Feb 21 10:25	0°♒	
	8633 Mar 18 00:45	0°♓	
desc. node	8633 Apr 05 21:28	23°♓18'22	
	8633 Apr 11 06:48	0°♈	
	8633 May 05 07:55	0°♉	
	8633 May 29 06:47	0°♊	
morning set	8633 Jun 08 04:12	12°♊23'41	
	8633 Jun 22 05:47	0°♋	
	8633 Jul 16 06:37	0°♌	
superior conj	8633 Jul 17 11:49	1°♌30'55	-0°24'42
minimum elong	8633 Jul 17 17:36	1°♌48'56	0°24'36
max. Earth dist.	8633 Jul 20 15:24	5°♌26'08	1.72196 AU
asc. node	8633 Jul 27 18:48	14°♌18'52	
	8633 Aug 09 10:04	0°♍	
evening rise	8633 Aug 24 18:44	19°♍00'37	
	8633 Sep 02 16:24	0°♎	
	8633 Sep 27 02:09	0°♏	
	8633 Oct 21 16:39	0°♐	
	8633 Nov 15 13:41	0°♑	
desc. node	8633 Nov 16 12:59	1°♑09'45	
	8633 Dec 10 19:17	0°♒	
	8634 Jan 05 12:59	0°♓	
	8634 Feb 01 05:43	0°♈	
evening max el	8634 Feb 20 08:42	20°♈04'13	46°44'59
	8634 Mar 02 16:44	0°♉	
asc. node	8634 Mar 09 12:36	6°♉01'13	
greatest brilliancy	8634 Apr 02 00:14	20°♉55'47	-4.9m
retrograde	8634 Apr 11 17:47	22°♉44'02	
evening set	8634 Apr 29 20:29	16°♉28'48	
inferior conj	8634 May 02 09:47	14°♉55'20	9°12'04
minimum elong	8634 May 02 08:33	14°♉57'13	9°11'54
min. Earth dist.	8634 May 02 07:48	14°♉58'22	0.27116 AU
morning rise	8634 May 04 20:39	13°♉25'27	
direct	8634 May 23 00:26	7°♉07'26	
greatest brilliancy	8634 Jun 01 15:41	8°♉52'36	-4.9m
desc. node	8634 Jun 29 07:47	27°♉15'30	
	8634 Jul 02 08:52	0°♊	
morning max el	8634 Jul 12 05:49	9°♊26'32	46°38'52
	8634 Jul 31 21:42	0°♋	
	8634 Aug 27 15:59	0°♌	
	8634 Sep 22 10:45	0°♍	
	8634 Oct 17 16:52	0°♎	
asc. node	8634 Oct 20 05:52	3°♎02'48	
	8634 Nov 11 13:50	0°♏	
	8634 Dec 06 03:39	0°♐	
	8634 Dec 30 12:18	0°♑	
morning set	8635 Jan 07 12:34	9°♑54'24	
	8635 Jan 23 17:24	0°♒	
desc. node	8635 Feb 08 22:41	20°♒10'36	
max. Earth dist.	8635 Feb 12 05:01	24°♒14'40	1.72011 AU
superior conj	8635 Feb 15 04:08	27°♒56'25	-0°15'05
minimum elong	8635 Feb 15 00:29	27°♒45'01	0°14'46
behind sun begin	8635 Feb 14 14:17	27°♒13'14	
behind sun end	8635 Feb 15 10:40	28°♒16'48	
	8635 Feb 16 19:45	0°♓	
	8635 Mar 12 19:45	0°♈	
evening rise	8635 Mar 26 22:42	17°♈42'03	
	8635 Apr 05 18:06	0°♉	
	8635 Apr 29 16:33	0°♊	
	8635 May 23 17:43	0°♋	
asc. node	8635 Jun 01 20:57	11°♋19'42	
	8635 Jun 17 00:31	0°♌	
	8635 Jul 11 16:32	0°♍	
	8635 Aug 05 23:38	0°♎	
	8635 Sep 01 10:55	0°♏	
desc. node	8635 Sep 21 16:02	21°♏13'56	
evening max el	8635 Sep 26 20:37	26°♏19'10	45°43'11
	8635 Sep 30 17:58	0°♐	
greatest brilliancy	8635 Nov 04 20:27	24°♐28'10	-4.7m
retrograde	8635 Nov 14 15:35	26°♐12'03	
evening set	8635 Dec 02 02:58	20°♐25'27	
inferior conj	8635 Dec 06 00:12	18°♐01'53	-7°33'52
minimum elong	8635 Dec 06 08:56	17°♐48'13	7°32'22
min. Earth dist.	8635 Dec 06 15:57	17°♐37'14	0.28815 AU
morning rise	8635 Dec 10 14:41	15°♐12'35	
direct	8635 Dec 27 11:28	9°♐45'17	
greatest brilliancy	8636 Jan 07 11:49	11°♐59'28	-4.8m
asc. node	8636 Jan 12 15:41	14°♐21'19	
	8636 Feb 03 02:15	0°♑	
morning max el	8636 Feb 15 09:37	11°♑38'05	46°21'57
	8636 Mar 03 21:56	0°♒	
	8636 Mar 30 07:52	0°♓	
	8636 Apr 24 12:24	0°♈	
desc. node	8636 May 03 09:53	10°♈47'20	
	8636 May 19 02:53	0°♉	
	8636 Jun 12 10:33	0°♊	

	8636 Jul 06 15:49	0°♋	
	8636 Jul 30 21:12	0°♌	
morning set	8636 Aug 19 06:48	23°♌59'31	
asc. node	8636 Aug 24 07:01	0°♍10'48	
	8636 Aug 24 03:31	0°♍	
	8636 Sep 17 10:34	0°♎	
superior conj	8636 Sep 25 18:46	10°♎17'35	1°08'08
minimum elong	8636 Sep 25 09:33	9°♎49'09	1°07'53
max. Earth dist.	8636 Sep 26 18:59	11°♎32'19	1.73197 AU
	8636 Oct 11 18:13	0°♏	
evening rise	8636 Nov 01 05:09	25°♏11'45	
	8636 Nov 05 02:52	0°♐	
	8636 Nov 29 13:16	0°♑	
desc. node	8636 Dec 14 00:38	17°♑43'17	
	8636 Dec 24 01:47	0°♒	
	8637 Jan 17 16:21	0°♓	
	8637 Feb 11 09:39	0°♈	
	8637 Mar 08 09:12	0°♉	
	8637 Apr 03 00:37	0°♊	
asc. node	8637 Apr 05 23:52	3°♊23'09	
	8637 Apr 30 09:16	0°♋	
evening max el	8637 May 04 08:32	4°♋03'12	46°55'47
	8637 Jun 03 21:42	0°♌	
greatest brilliancy	8637 Jun 13 05:32	4°♌41'55	-4.9m
retrograde	8637 Jun 23 18:31	6°♌46'01	
evening set	8637 Jul 09 00:05	2°♌11'37	
	8637 Jul 12 17:32	30°℞♋	
inferior conj	8637 Jul 14 16:46	28°♋47'11	3°00'53
minimum elong	8637 Jul 14 23:23	28°♋36'58	2°58'41
min. Earth dist.	8637 Jul 14 11:38	28°♋55'08	0.27513 AU
morning rise	8637 Jul 20 23:17	25°♋05'36	
desc. node	8637 Jul 26 19:15	22°♋28'50	
direct	8637 Aug 04 14:52	20°♋55'36	
greatest brilliancy	8637 Aug 14 09:04	22°♋40'55	-4.8m
	8637 Aug 28 07:58	0°♌	
morning max el	8637 Sep 22 17:18	21°♌19'47	45°53'45
	8637 Oct 01 11:54	0°♍	
	8637 Oct 29 12:46	0°♎	
asc. node	8637 Nov 16 18:13	20°♎41'33	
	8637 Nov 24 18:39	0°♏	
	8637 Dec 20 02:17	0°♐	
	8638 Jan 13 20:24	0°♑	
	8638 Feb 07 06:00	0°♒	
	8638 Mar 03 09:59	0°♓	
desc. node	8638 Mar 08 11:01	6°♓17'18	
morning set	8638 Mar 21 14:01	22°♓41'43	
	8638 Mar 27 09:59	0°♈	
	8638 Apr 20 07:23	0°♉	
superior conj	8638 May 01 08:53	13°♉54'39	-1°27'32
minimum elong	8638 May 01 07:06	13°♉49'05	1°27'40
max. Earth dist.	8638 May 01 15:17	14°♉14'46	1.71226 AU
	8638 May 14 03:57	0°♊	
	8638 Jun 07 01:44	0°♋	
evening rise	8638 Jun 10 21:53	4°♋48'21	
asc. node	8638 Jun 29 08:43	27°♋49'51	
	8638 Jul 01 02:34	0°♌	
	8638 Jul 25 07:56	0°♍	
	8638 Aug 18 19:25	0°♎	
	8638 Sep 12 15:45	0°♏	
	8638 Oct 08 01:54	0°♐	
desc. node	8638 Oct 19 03:25	12°♐45'19	
	8638 Nov 03 11:04	0°♑	
	8638 Dec 01 18:39	0°♒	
evening max el	8638 Dec 07 10:45	5°♒33'40	45°58'35
	8639 Jan 06 17:04	0°♓	
greatest brilliancy	8639 Jan 15 22:14	4°♓19'10	-4.8m
retrograde	8639 Jan 25 13:45	6°♓02'15	
evening set	8639 Feb 09 02:12	1°♓56'15	
asc. node	8639 Feb 09 03:17	1°♓54'49	
	8639 Feb 12 12:02	30°℞♒	
inferior conj	8639 Feb 15 10:00	28°♒13'11	1°35'51
minimum elong	8639 Feb 15 06:22	28°♒18'49	1°34'49
min. Earth dist.	8639 Feb 15 17:37	28°♒01'27	0.27328 AU
morning rise	8639 Feb 21 09:53	24°♒39'07	
direct	8639 Mar 08 06:47	20°♒16'58	
greatest brilliancy	8639 Mar 18 19:38	22°♒21'25	-4.9m
	8639 Apr 01 13:01	0°♓	
morning max el	8639 Apr 27 18:05	23°♓06'27	46°58'06
	8639 May 04 10:48	0°♈	
desc. node	8639 May 31 22:03	0°♉22'11	
	8639 May 31 14:19	0°♉	
	8639 Jun 26 04:56	0°♊	
	8639 Jul 21 04:57	0°♋	
	8639 Aug 14 22:58	0°♌	
	8639 Sep 08 14:11	0°♍	
asc. node	8639 Sep 21 19:30	16°♍08'47	
	8639 Oct 03 03:08	0°♎	
	8639 Oct 27 13:39	0°♏	
morning set	8639 Oct 28 09:01	0°♏59'34	
	8639 Nov 20 22:02	0°♐	
max. Earth dist.	8639 Dec 02 13:24	14°♐22'15	1.73108 AU
superior conj	8639 Dec 03 22:08	16°♐03'20	1°16'06
minimum elong	8639 Dec 04 06:05	16°♐27'52	1°16'07
	8639 Dec 15 05:03	0°♑	
	8640 Jan 08 11:17	0°♒	
evening rise	8640 Jan 10 15:04	2°♒40'11	
desc. node	8640 Jan 11 12:30	3°♒46'28	
	8640 Feb 01 16:42	0°♓	
	8640 Feb 25 21:14	0°♈	
	8640 Mar 21 01:49	0°♉	
	8640 Apr 14 09:11	0°♊	
asc. node	8640 May 03 11:19	23°♊18'18	
	8640 May 09 00:16	0°♋	
	8640 Jun 03 07:17	0°♌	
	8640 Jun 29 23:38	0°♍	
evening max el	8640 Jul 14 15:47	15°♍12'36	46°16'25
	8640 Jul 30 16:54	0°♎	
greatest brilliancy	8640 Aug 22 09:23	14°♎34'16	-4.8m
desc. node	8640 Aug 23 06:49	14°♎54'11	
retrograde	8640 Sep 02 09:23	16°♎47'41	
evening set	8640 Sep 18 16:56	11°♎40'59	
inferior conj	8640 Sep 23 21:36	8°♎31'07	-6°42'58
minimum elong	8640 Sep 23 11:43	8°♎46'36	6°41'06
min. Earth dist.	8640 Sep 23 06:10	8°♎55'18	0.28825 AU
morning rise	8640 Sep 28 06:46	5°♎49'49	
direct	8640 Oct 15 06:38	0°♎20'45	
greatest brilliancy	8640 Oct 25 04:30	2°♎06'41	-4.7m
	8640 Dec 02 19:47	0°♏	
morning max el	8640 Dec 03 01:37	0°♏14'01	45°44'02
asc. node	8640 Dec 14 06:03	11°♏25'20	
	8640 Dec 31 13:34	0°♐	
	8641 Jan 26 19:03	0°♑	
	8641 Feb 20 22:33	0°♒	
	8641 Mar 17 12:20	0°♓	
desc. node	8641 Apr 04 23:28	22°♓49'22	
	8641 Apr 10 18:04	0°♈	
	8641 May 04 18:59	0°♉	
	8641 May 28 17:42	0°♊	
morning set	8641 Jun 05 16:28	9°♊57'42	
	8641 Jun 21 16:33	0°♋	

superior conj	8641 Jul 15 01:46	29°♋11'39	-0°28'11
minimum elong	8641 Jul 15 08:20	29°♋32'04	0°28'03
	8641 Jul 15 17:18	0°♌	
max. Earth dist.	8641 Jul 18 04:50	3°♌05'22	1.72151 AU
asc. node	8641 Jul 26 20:45	13°♌51'52	
	8641 Aug 08 20:44	0°♍	
evening rise	8641 Aug 22 11:12	16°♍50'19	
	8641 Sep 02 03:07	0°♎	
	8641 Sep 26 13:02	0°♏	
	8641 Oct 21 03:52	0°♐	
	8641 Nov 15 01:29	0°♑	
desc. node	8641 Nov 15 14:52	0°♑40'02	
	8641 Dec 10 08:02	0°♒	
	8642 Jan 05 03:25	0°♓	
	8642 Jan 31 23:36	0°♈	
evening max el	8642 Feb 17 22:54	17°♈42'47	46°43'43
	8642 Mar 02 22:01	0°♉	
asc. node	8642 Mar 08 14:40	4°♉52'49	
greatest brilliancy	8642 Mar 30 12:06	18°♉28'31	-4.9m
retrograde	8642 Apr 09 07:13	20°♉17'50	
evening set	8642 Apr 27 07:10	14°♉05'32	
inferior conj	8642 Apr 29 22:30	12°♉29'01	9°10'17
minimum elong	8642 Apr 29 20:18	12°♉32'23	9°10'05
min. Earth dist.	8642 Apr 29 19:41	12°♉33'20	0.27111 AU
morning rise	8642 May 02 09:28	10°♉59'04	
direct	8642 May 20 13:44	4°♉41'11	
greatest brilliancy	8642 May 30 03:42	6°♉25'45	-4.9m
desc. node	8642 Jun 28 09:41	26°♉13'03	
	8642 Jul 02 12:14	0°♊	
morning max el	8642 Jul 09 20:26	7°♊06'29	46°40'25
	8642 Jul 31 15:07	0°♋	
	8642 Aug 27 06:11	0°♌	
	8642 Sep 21 23:22	0°♍	
	8642 Oct 17 04:36	0°♎	
asc. node	8642 Oct 19 07:52	2°♎33'48	
	8642 Nov 11 01:03	0°♏	
	8642 Dec 05 14:37	0°♐	
	8642 Dec 29 23:09	0°♑	
morning set	8643 Jan 05 04:25	7°♑41'27	
	8643 Jan 23 04:14	0°♒	
desc. node	8643 Feb 08 00:43	19°♒43'10	
max. Earth dist.	8643 Feb 09 17:58	21°♒51'39	1.72051 AU
superior conj	8643 Feb 12 17:15	25°♒33'46	-0°11'23
minimum elong	8643 Feb 12 14:30	25°♒25'11	0°11'07
behind sun begin	8643 Feb 11 20:18	24°♒28'28	
behind sun end	8643 Feb 13 08:42	26°♒21'55	
	8643 Feb 16 06:38	0°♓	
	8643 Mar 12 06:41	0°♈	
evening rise	8643 Mar 24 10:32	15°♈14'11	
	8643 Apr 05 05:08	0°♉	
	8643 Apr 29 03:46	0°♊	
	8643 May 23 05:10	0°♋	
asc. node	8643 May 31 22:49	10°♋49'46	
	8643 Jun 16 12:20	0°♌	
	8643 Jul 11 04:56	0°♍	
	8643 Aug 05 13:11	0°♎	
	8643 Sep 01 03:04	0°♏	
desc. node	8643 Sep 20 18:09	20°♏27'58	
evening max el	8643 Sep 24 12:29	24°♏08'26	45°43'33
	8643 Sep 30 18:31	0°♐	
greatest brilliancy	8643 Nov 02 11:06	22°♐16'48	-4.7m
retrograde	8643 Nov 12 06:53	24°♐01'00	
evening set	8643 Nov 29 21:14	18°♐10'34	
inferior conj	8643 Dec 03 16:04	15°♐50'15	-7°43'14
minimum elong	8643 Dec 04 00:21	15°♐37'14	7°41'54
min. Earth dist.	8643 Dec 04 06:51	15°♐27'03	0.28857 AU
morning rise	8643 Dec 08 03:19	13°♐05'23	
direct	8643 Dec 25 04:01	7°♐33'28	
greatest brilliancy	8644 Jan 05 02:48	9°♐45'55	-4.8m
asc. node	8644 Jan 11 17:43	12°♐54'45	
	8644 Feb 03 05:46	0°♑	
morning max el	8644 Feb 13 00:39	9°♑21'29	46°20'12
	8644 Mar 03 15:12	0°♒	
	8644 Mar 29 22:08	0°♓	
	8644 Apr 24 01:18	0°♈	
desc. node	8644 May 02 11:51	10°♈14'56	
	8644 May 18 15:01	0°♉	
	8644 Jun 11 22:13	0°♊	
	8644 Jul 06 03:10	0°♋	
	8644 Jul 30 08:18	0°♌	
morning set	8644 Aug 16 22:33	21°♌46'00	
asc. node	8644 Aug 23 09:04	29°♌43'24	
	8644 Aug 23 14:26	0°♍	
	8644 Sep 16 21:22	0°♎	
superior conj	8644 Sep 23 11:58	8°♎09'16	1°06'04
minimum elong	8644 Sep 23 02:36	7°♎40'21	1°05'47
max. Earth dist.	8644 Sep 24 14:56	9°♎32'28	1.73174 AU
	8644 Oct 11 04:59	0°♏	
evening rise	8644 Oct 29 22:36	23°♏04'23	
	8644 Nov 04 13:44	0°♐	
	8644 Nov 29 00:21	0°♑	
desc. node	8644 Dec 13 02:33	17°♑14'46	
	8644 Dec 23 13:12	0°♒	
	8645 Jan 17 04:16	0°♓	
	8645 Feb 10 22:19	0°♈	
	8645 Mar 07 23:02	0°♉	
	8645 Apr 02 16:38	0°♊	
asc. node	8645 Apr 05 01:51	2°♊42'25	
	8645 Apr 30 06:52	0°♋	
evening max el	8645 May 01 22:21	1°♋40'06	46°56'26
	8645 Jun 05 14:54	0°♌	
greatest brilliancy	8645 Jun 10 21:38	2°♌22'38	-4.9m
retrograde	8645 Jun 21 08:15	4°♌24'46	
	8645 Jul 06 07:42	30°℞♋	
evening set	8645 Jul 06 16:30	29°♋47'49	
inferior conj	8645 Jul 12 06:45	26°♋26'48	3°22'30
minimum elong	8645 Jul 12 14:03	26°♋15'30	3°20'08
min. Earth dist.	8645 Jul 12 02:38	26°♋33'10	0.27481 AU
morning rise	8645 Jul 18 12:06	22°♋46'24	
desc. node	8645 Jul 25 21:21	19°♋39'17	
direct	8645 Aug 02 04:14	18°♋35'39	
greatest brilliancy	8645 Aug 11 23:07	20°♋21'15	-4.8m
	8645 Aug 29 04:58	0°♌	
morning max el	8645 Sep 20 06:42	19°♌00'45	45°54'57
	8645 Oct 01 07:41	0°♍	
	8645 Oct 29 03:44	0°♎	
asc. node	8645 Nov 15 20:03	20°♎07'55	
	8645 Nov 24 07:39	0°♏	
	8645 Dec 19 14:19	0°♐	
	8646 Jan 13 07:56	0°♑	
	8646 Feb 06 17:17	0°♒	
	8646 Mar 02 21:09	0°♓	
desc. node	8646 Mar 07 13:02	5°♓48'48	
morning set	8646 Mar 19 01:06	20°♓11'19	
	8646 Mar 26 21:06	0°♈	
	8646 Apr 19 18:30	0°♉	
superior conj	8646 Apr 28 19:52	11°♉23'26	-1°27'09
minimum elong	8646 Apr 28 17:01	11°♉14'28	1°27'17
max. Earth dist.	8646 Apr 28 17:07	11°♉14'45	1.71223 AU
	8646 May 13 15:04	0°♊	
	8646 Jun 06 12:50	0°♋	

evening rise	8646 Jun 08 09:06	2°♋18'31	
asc. node	8646 Jun 28 10:41	27°♋21'17	
	8646 Jun 30 13:44	0°♌	
	8646 Jul 24 19:15	0°♍	
	8646 Aug 18 07:03	0°♎	
	8646 Sep 12 03:59	0°♏	
	8646 Oct 07 15:13	0°♐	
desc. node	8646 Oct 18 05:20	12°♐10'41	
	8646 Nov 03 02:38	0°♑	
	8646 Dec 01 16:07	0°♒	
evening max el	8646 Dec 04 23:59	3°♒14'11	45°57'22
	8647 Jan 08 16:28	0°♓	
greatest brilliancy	8647 Jan 13 12:01	1°♓58'48	-4.8m
retrograde	8647 Jan 23 03:02	3°♓41'47	
	8647 Feb 05 20:43	30°℞♒	
evening set	8647 Feb 06 15:57	29°♒34'55	
asc. node	8647 Feb 08 05:19	28°♒43'33	
inferior conj	8647 Feb 12 23:48	25°♒52'04	1°12'54
minimum elong	8647 Feb 12 21:00	25°♒56'22	1°12'08
min. Earth dist.	8647 Feb 13 08:32	25°♒38'36	0.27368 AU
morning rise	8647 Feb 19 01:22	22°♒15'47	
direct	8647 Mar 05 20:41	17°♒54'51	
greatest brilliancy	8647 Mar 16 11:40	20°♒01'23	-4.9m
	8647 Apr 02 08:36	0°♓	
morning max el	8647 Apr 25 08:15	20°♓43'56	46°57'39
	8647 May 04 07:00	0°♈	
desc. node	8647 May 30 23:57	29°♈42'47	
	8647 May 31 05:55	0°♉	
	8647 Jun 25 18:35	0°♊	
	8647 Jul 20 17:29	0°♋	
	8647 Aug 14 10:48	0°♌	
	8647 Sep 08 01:33	0°♍	
asc. node	8647 Sep 20 21:25	15°♍40'26	
	8647 Oct 02 14:11	0°♎	
morning set	8647 Oct 26 02:12	28°♎51'17	
	8647 Oct 27 00:32	0°♏	
	8647 Nov 20 08:51	0°♐	
max. Earth dist.	8647 Nov 30 09:13	12°♐21'49	1.73131 AU
superior conj	8647 Dec 01 15:14	13°♐54'27	1°17'35
minimum elong	8647 Dec 01 22:43	14°♐17'36	1°17'38
	8647 Dec 14 15:54	0°♑	
	8648 Jan 07 22:14	0°♒	
evening rise	8648 Jan 08 06:32	0°♒25'40	
desc. node	8648 Jan 10 14:33	3°♒18'56	
	8648 Feb 01 03:50	0°♓	
	8648 Feb 25 08:38	0°♈	
	8648 Mar 20 13:33	0°♉	
	8648 Apr 13 21:26	0°♊	
asc. node	8648 May 02 13:10	22°♊45'01	
	8648 May 08 13:20	0°♋	
	8648 Jun 02 21:54	0°♌	
	8648 Jun 29 17:50	0°♍	
evening max el	8648 Jul 12 07:13	12°♍57'25	46°18'11
	8648 Jul 31 01:51	0°♎	
greatest brilliancy	8648 Aug 20 00:18	12°♎20'54	-4.8m
desc. node	8648 Aug 22 08:51	13°♎10'34	
retrograde	8648 Aug 31 02:04	14°♎36'03	
evening set	8648 Sep 16 05:55	9°♎33'25	
min. Earth dist.	8648 Sep 20 21:15	6°♎44'59	0.28786 AU
inferior conj	8648 Sep 21 13:30	6°♎19'36	-6°30'00
minimum elong	8648 Sep 21 03:30	6°♎35'14	6°28'01
morning rise	8648 Sep 26 01:23	3°♎34'42	
	8648 Oct 03 07:35	30°℞♍	
direct	8648 Oct 12 22:18	28°♍09'47	
greatest brilliancy	8648 Oct 22 19:28	29°♍55'32	-4.7m
	8648 Oct 23 00:40	0°♎	

morning max el	8648 Nov 30 17:43	28°♎03'38	45°43'30
	8648 Dec 02 17:44	0°♏	
asc. node	8648 Dec 13 08:04	10°♏42'20	
	8648 Dec 31 05:06	0°♐	
	8649 Jan 26 08:21	0°♑	
	8649 Feb 20 10:49	0°♒	
	8649 Mar 17 00:03	0°♓	
desc. node	8649 Apr 04 01:23	22°♓19'46	
	8649 Apr 10 05:28	0°♈	
	8649 May 04 06:10	0°♉	
	8649 May 28 04:44	0°♊	
morning set	8649 Jun 03 04:37	7°♊30'51	
	8649 Jun 21 03:30	0°♋	
superior conj	8649 Jul 12 15:20	26°♋50'25	-0°31'39
minimum elong	8649 Jul 12 22:38	27°♋13'09	0°31'31
	8649 Jul 15 04:11	0°♌	
max. Earth dist.	8649 Jul 15 19:13	0°♌46'48	1.72108 AU
asc. node	8649 Jul 25 22:48	13°♌24'31	
	8649 Aug 08 07:35	0°♍	
evening rise	8649 Aug 20 03:16	14°♍38'05	
	8649 Sep 01 13:59	0°♎	
	8649 Sep 26 00:03	0°♏	
	8649 Oct 20 15:12	0°♐	
desc. node	8649 Nov 14 16:49	0°♑10'10	
	8649 Nov 14 13:25	0°♑	
	8649 Dec 09 20:59	0°♒	
	8650 Jan 04 18:07	0°♓	
	8650 Jan 31 17:59	0°♈	
evening max el	8650 Feb 15 13:40	15°♈22'49	46°42'25
	8650 Mar 03 05:28	0°♉	
asc. node	8650 Mar 07 16:39	3°♉42'23	
greatest brilliancy	8650 Mar 28 00:23	16°♉02'15	-4.9m
retrograde	8650 Apr 06 20:40	17°♉52'04	
evening set	8650 Apr 24 17:30	11°♉43'56	
inferior conj	8650 Apr 27 11:23	10°♉03'26	9°07'30
minimum elong	8650 Apr 27 08:13	10°♉08'18	9°07'15
min. Earth dist.	8650 Apr 27 07:44	10°♉09'03	0.27102 AU
morning rise	8650 Apr 29 23:00	8°♉32'31	
direct	8650 May 18 03:15	2°♉15'56	
greatest brilliancy	8650 May 27 15:47	3°♉59'30	-4.9m
desc. node	8650 Jun 27 11:48	25°♉12'54	
	8650 Jul 02 13:56	0°♊	
morning max el	8650 Jul 07 10:17	4°♊44'42	46°41'42
	8650 Jul 31 08:08	0°♋	
	8650 Aug 26 20:14	0°♌	
	8650 Sep 21 11:57	0°♍	
	8650 Oct 16 16:18	0°♎	
asc. node	8650 Oct 18 09:44	2°♎04'26	
	8650 Nov 10 12:13	0°♏	
	8650 Dec 05 01:29	0°♐	
	8650 Dec 29 09:54	0°♑	
morning set	8651 Jan 02 20:23	5°♑29'09	
	8651 Jan 22 14:59	0°♒	
max. Earth dist.	8651 Feb 07 05:32	19°♒24'41	1.72094 AU
desc. node	8651 Feb 07 02:41	19°♒15'50	
superior conj	8651 Feb 10 06:37	23°♒12'19	-0°07'42
minimum elong	8651 Feb 10 04:47	23°♒06'34	0°07'29
behind sun begin	8651 Feb 09 06:38	21°♒57'34	
behind sun end	8651 Feb 11 02:55	24°♒15'34	
	8651 Feb 15 17:25	0°♓	
	8651 Mar 11 17:32	0°♈	
evening rise	8651 Mar 21 22:35	12°♈47'21	
	8651 Apr 04 16:05	0°♉	
	8651 Apr 28 14:50	0°♊	
	8651 May 22 16:27	0°♋	

asc. node	8651 May 31 00:52	10°♋20'55	
	8651 Jun 15 23:58	0°♌	
	8651 Jul 10 17:12	0°♍	
	8651 Aug 05 02:41	0°♎	
	8651 Aug 31 19:22	0°♏	
desc. node	8651 Sep 19 20:03	19°♏41'09	
evening max el	8651 Sep 22 03:40	21°♏56'19	45°43'53
	8651 Sep 30 20:14	0°♐	
greatest brilliancy	8651 Oct 31 02:30	20°♐06'47	-4.7m
retrograde	8651 Nov 09 21:59	21°♐50'52	
evening set	8651 Nov 27 15:29	15°♐56'52	
inferior conj	8651 Dec 01 08:05	13°♐39'41	-7°51'50
minimum elong	8651 Dec 01 15:53	13°♐27'26	7°50'40
min. Earth dist.	8651 Dec 01 22:09	13°♐17'35	0.28895 AU
morning rise	8651 Dec 05 16:07	10°♐59'15	
direct	8651 Dec 22 20:13	5°♐22'44	
greatest brilliancy	8652 Jan 02 18:20	7°♐33'59	-4.8m
asc. node	8652 Jan 10 19:46	11°♐31'49	
	8652 Feb 03 07:23	0°♑	
morning max el	8652 Feb 10 14:49	7°♑03'35	46°18'27
	8652 Mar 03 07:48	0°♒	
	8652 Mar 29 11:59	0°♓	
	8652 Apr 23 13:52	0°♈	
desc. node	8652 May 01 13:42	9°♈43'05	
	8652 May 18 02:51	0°♉	
	8652 Jun 11 09:35	0°♊	
	8652 Jul 05 14:11	0°♋	
	8652 Jul 29 19:04	0°♌	
morning set	8652 Aug 14 14:30	19°♌34'07	
asc. node	8652 Aug 22 10:56	29°♌16'32	
	8652 Aug 23 01:01	0°♍	
	8652 Sep 16 07:52	0°♎	
superior conj	8652 Sep 21 05:18	6°♎02'21	1°03'55
minimum elong	8652 Sep 20 19:50	5°♎33'08	1°03'37
max. Earth dist.	8652 Sep 22 09:12	7°♎28'24	1.73155 AU
	8652 Oct 10 15:29	0°♏	
evening rise	8652 Oct 27 16:06	20°♏58'04	
	8652 Nov 04 00:20	0°♐	
	8652 Nov 28 11:08	0°♑	
desc. node	8652 Dec 12 04:35	16°♑47'31	
	8652 Dec 23 00:19	0°♒	
	8653 Jan 16 15:54	0°♓	
	8653 Feb 10 10:42	0°♈	
	8653 Mar 07 12:39	0°♉	
	8653 Apr 02 08:34	0°♊	
asc. node	8653 Apr 04 03:46	2°♊02'02	
evening max el	8653 Apr 29 11:21	29°♊15'48	46°57'00
	8653 Apr 30 04:55	0°♋	
	8653 Jun 08 09:09	0°♌	
greatest brilliancy	8653 Jun 08 13:47	0°♌04'20	-4.9m
retrograde	8653 Jun 18 22:02	2°♌04'51	
	8653 Jun 29 01:39	30°℞♋	
evening set	8653 Jul 04 09:02	27°♋24'51	
inferior conj	8653 Jul 09 20:45	24°♋07'41	3°43'46
minimum elong	8653 Jul 10 04:42	23°♋55'24	3°41'15
min. Earth dist.	8653 Jul 09 17:46	24°♋12'18	0.27450 AU
morning rise	8653 Jul 16 00:44	20°♋28'55	
desc. node	8653 Jul 24 23:17	16°♋56'25	
direct	8653 Jul 30 17:15	16°♋16'49	
greatest brilliancy	8653 Aug 09 13:28	18°♋03'18	-4.8m
	8653 Aug 29 19:53	0°♌	
morning max el	8653 Sep 17 20:19	16°♌43'33	45°56'15
	8653 Oct 01 02:21	0°♍	
	8653 Oct 28 18:02	0°♎	
asc. node	8653 Nov 14 22:05	19°♎36'13	
	8653 Nov 23 20:10	0°♏	
	8653 Dec 19 01:56	0°♐	
	8654 Jan 12 19:04	0°♑	
	8654 Feb 06 04:09	0°♒	
	8654 Mar 02 07:53	0°♓	
desc. node	8654 Mar 06 14:53	5°♓21'06	
morning set	8654 Mar 16 12:16	17°♓42'34	
	8654 Mar 26 07:48	0°♈	
	8654 Apr 19 05:12	0°♉	
superior conj	8654 Apr 26 06:49	8°♉53'20	-1°26'37
minimum elong	8654 Apr 26 02:55	8°♉41'03	1°26'43
max. Earth dist.	8654 Apr 25 20:46	8°♉21'43	1.71228 AU
	8654 May 13 01:46	0°♊	
evening rise	8654 Jun 05 20:19	29°♊49'49	
	8654 Jun 05 23:34	0°♋	
asc. node	8654 Jun 27 12:44	26°♋54'06	
	8654 Jun 30 00:31	0°♌	
	8654 Jul 24 06:10	0°♍	
	8654 Aug 17 18:16	0°♎	
	8654 Sep 11 15:46	0°♏	
	8654 Oct 07 04:08	0°♐	
desc. node	8654 Oct 17 07:17	11°♐37'24	
	8654 Nov 02 17:55	0°♑	
	8654 Dec 01 13:53	0°♒	
evening max el	8654 Dec 02 14:00	0°♒58'06	45°56'08
greatest brilliancy	8655 Jan 11 01:26	29°♒39'30	-4.8m
	8655 Jan 12 02:38	0°♓	
retrograde	8655 Jan 20 17:00	1°♓22'49	
	8655 Jan 28 23:34	30°℞♒	
evening set	8655 Feb 04 06:00	27°♒14'52	
asc. node	8655 Feb 07 07:14	25°♒31'25	
inferior conj	8655 Feb 10 13:38	23°♒32'21	0°49'56
minimum elong	8655 Feb 10 11:43	23°♒35'19	0°49'27
min. Earth dist.	8655 Feb 10 23:11	23°♒17'40	0.27409 AU
morning rise	8655 Feb 16 16:46	19°♒54'14	
direct	8655 Mar 03 11:04	15°♒34'18	
greatest brilliancy	8655 Mar 14 03:10	17°♒42'16	-4.9m
	8655 Apr 02 22:32	0°♓	
morning max el	8655 Apr 22 23:16	18°♓25'08	46°57'03
	8655 May 04 02:05	0°♈	
desc. node	8655 May 30 02:04	29°♈05'43	
	8655 May 30 20:49	0°♉	
	8655 Jun 25 07:40	0°♊	
	8655 Jul 20 05:33	0°♋	
	8655 Aug 13 22:12	0°♌	
	8655 Sep 07 12:30	0°♍	
asc. node	8655 Sep 19 23:20	15°♍13'22	
	8655 Oct 02 00:50	0°♎	
morning set	8655 Oct 23 19:38	26°♎45'07	
	8655 Oct 26 10:59	0°♏	
	8655 Nov 19 19:14	0°♐	
max. Earth dist.	8655 Nov 28 06:39	10°♐27'38	1.73153 AU
superior conj	8655 Nov 29 08:30	11°♐47'27	1°18'57
minimum elong	8655 Nov 29 15:31	12°♐09'06	1°19'01
	8655 Dec 14 02:20	0°♑	
evening rise	8656 Jan 05 22:04	28°♑12'35	
	8656 Jan 07 08:49	0°♒	
desc. node	8656 Jan 09 16:33	2°♒52'18	
	8656 Jan 31 14:39	0°♓	
	8656 Feb 24 19:42	0°♈	
	8656 Mar 20 00:59	0°♉	
	8656 Apr 13 09:22	0°♊	
asc. node	8656 May 01 15:14	22°♊13'18	
	8656 May 08 02:08	0°♋	
	8656 Jun 02 12:20	0°♌	
	8656 Jun 29 12:08	0°♍	

evening max el	8656 Jul 09 23:21	10°♍44'45	46°19'50
	8656 Jul 31 13:33	0°♎	
greatest brilliancy	8656 Aug 17 15:22	10°♎08'17	-4.8m
desc. node	8656 Aug 21 10:48	11°♎23'38	
retrograde	8656 Aug 28 18:45	12°♎24'40	
evening set	8656 Sep 13 18:54	7°♎26'16	
min. Earth dist.	8656 Sep 18 12:06	4°♎35'13	0.28740 AU
inferior conj	8656 Sep 19 05:13	4°♎08'29	-6°16'23
minimum elong	8656 Sep 18 19:10	4°♎24'11	6°14'17
morning rise	8656 Sep 23 19:52	1°♎19'55	
	8656 Sep 26 05:22	30°℞♍	
direct	8656 Oct 10 14:09	25°♍59'30	
greatest brilliancy	8656 Oct 20 09:37	27°♍44'15	-4.7m
	8656 Oct 25 20:04	0°♎	
morning max el	8656 Nov 28 09:36	25°♎53'59	45°43'04
	8656 Dec 02 14:25	0°♏	
asc. node	8656 Dec 12 10:07	10°♏01'05	
	8656 Dec 30 19:59	0°♐	
	8657 Jan 25 21:11	0°♑	
	8657 Feb 19 22:44	0°♒	
	8657 Mar 16 11:29	0°♓	
desc. node	8657 Apr 03 03:22	21°♓51'09	
	8657 Apr 09 16:37	0°♈	
	8657 May 03 17:07	0°♉	
	8657 May 27 15:31	0°♊	
morning set	8657 May 31 16:29	5°♊03'52	
	8657 Jun 20 14:11	0°♋	
superior conj	8657 Jul 10 04:38	24°♋29'04	-0°35'06
minimum elong	8657 Jul 10 12:38	24°♋53'59	0°34'55
max. Earth dist.	8657 Jul 13 11:20	28°♋34'21	1.72065 AU
	8657 Jul 14 14:49	0°♌	
asc. node	8657 Jul 25 00:39	12°♌57'19	
	8657 Aug 07 18:13	0°♍	
evening rise	8657 Aug 17 19:10	12°♍25'58	
	8657 Sep 01 00:40	0°♎	
	8657 Sep 25 10:53	0°♏	
	8657 Oct 20 02:22	0°♐	
desc. node	8657 Nov 13 18:55	29°♐41'20	
	8657 Nov 14 01:10	0°♑	
	8657 Dec 09 09:44	0°♒	
	8658 Jan 04 08:42	0°♓	
	8658 Jan 31 12:36	0°♈	
evening max el	8658 Feb 13 03:54	13°♈02'01	46°40'49
	8658 Mar 03 15:29	0°♉	
asc. node	8658 Mar 06 18:34	2°♉30'02	
greatest brilliancy	8658 Mar 25 13:03	13°♉36'22	-4.9m
retrograde	8658 Apr 04 09:23	15°♉25'49	
evening set	8658 Apr 22 03:10	9°♉22'51	
inferior conj	8658 Apr 25 00:07	7°♉37'33	9°03'42
minimum elong	8658 Apr 24 20:00	7°♉43'53	9°03'20
min. Earth dist.	8658 Apr 24 20:01	7°♉43'52	0.27095 AU
morning rise	8658 Apr 27 12:54	6°♉04'42	
	8658 May 12 20:42	30°℞♈	
direct	8658 May 15 16:16	29°♈50'19	
	8658 May 18 12:37	0°♉	
greatest brilliancy	8658 May 25 04:13	1°♉33'12	-4.9m
desc. node	8658 Jun 26 13:45	24°♉13'43	
	8658 Jul 02 14:23	0°♊	
morning max el	8658 Jul 04 22:58	2°♊19'53	46°43'01
	8658 Jul 31 00:45	0°♋	
	8658 Aug 26 10:04	0°♌	
	8658 Sep 21 00:21	0°♍	
	8658 Oct 16 03:52	0°♎	
asc. node	8658 Oct 17 11:45	1°♎35'48	
	8658 Nov 09 23:17	0°♏	
	8658 Dec 04 12:16	0°♐	
	8658 Dec 28 20:33	0°♑	
morning set	8658 Dec 31 12:36	3°♑17'57	
	8659 Jan 22 01:37	0°♒	
max. Earth dist.	8659 Feb 04 18:06	17°♒01'17	1.72138 AU
desc. node	8659 Feb 06 04:33	18°♒48'32	
superior conj	8659 Feb 07 20:21	20°♒52'26	-0°04'04
minimum elong	8659 Feb 07 19:24	20°♒49'28	0°03'52
behind sun begin	8659 Feb 06 19:20	19°♒34'30	
behind sun end	8659 Feb 08 19:29	22°♒04'27	
	8659 Feb 15 04:06	0°♓	
	8659 Mar 11 04:18	0°♈	
evening rise	8659 Mar 19 10:49	10°♈21'21	
	8659 Apr 04 03:00	0°♉	
	8659 Apr 28 01:57	0°♊	
	8659 May 22 03:49	0°♋	
asc. node	8659 May 30 02:51	9°♋51'37	
	8659 Jun 15 11:42	0°♌	
	8659 Jul 10 05:35	0°♍	
	8659 Aug 04 16:23	0°♎	
	8659 Aug 31 12:05	0°♏	
desc. node	8659 Sep 18 22:03	18°♏53'31	
evening max el	8659 Sep 19 17:52	19°♏41'29	45°44'20
	8659 Sep 30 23:37	0°♐	
greatest brilliancy	8659 Oct 28 17:54	17°♐56'19	-4.7m
retrograde	8659 Nov 07 13:02	19°♐40'29	
evening set	8659 Nov 25 09:30	13°♐42'51	
inferior conj	8659 Nov 29 00:02	11°♐28'48	-7°59'52
minimum elong	8659 Nov 29 07:16	11°♐17'23	7°58'50
min. Earth dist.	8659 Nov 29 13:34	11°♐07'29	0.28930 AU
morning rise	8659 Dec 03 04:52	8°♐52'53	
direct	8659 Dec 20 11:51	3°♐11'29	
greatest brilliancy	8659 Dec 31 10:13	5°♐22'18	-4.8m
asc. node	8660 Jan 09 21:38	10°♐10'56	
	8660 Feb 03 07:44	0°♑	
morning max el	8660 Feb 08 04:54	4°♑45'25	46°16'59
	8660 Mar 03 00:05	0°♒	
	8660 Mar 29 01:42	0°♓	
	8660 Apr 23 02:23	0°♈	
desc. node	8660 Apr 30 15:48	9°♈11'59	
	8660 May 17 14:44	0°♉	
	8660 Jun 10 21:04	0°♊	
	8660 Jul 05 01:23	0°♋	
	8660 Jul 29 06:01	0°♌	
morning set	8660 Aug 12 05:54	17°♌19'46	
asc. node	8660 Aug 21 12:52	28°♌49'14	
	8660 Aug 22 11:46	0°♍	
	8660 Sep 15 18:31	0°♎	
superior conj	8660 Sep 18 22:11	3°♎53'28	1°01'39
minimum elong	8660 Sep 18 12:38	3°♎24'01	1°01'19
max. Earth dist.	8660 Sep 20 01:56	5°♎19'07	1.73133 AU
	8660 Oct 10 02:09	0°♏	
evening rise	8660 Oct 25 09:22	18°♏50'32	
	8660 Nov 03 11:07	0°♐	
	8660 Nov 27 22:09	0°♑	
desc. node	8660 Dec 11 06:31	16°♑19'15	
	8660 Dec 22 11:40	0°♒	
	8661 Jan 16 03:44	0°♓	
	8661 Feb 09 23:17	0°♈	
	8661 Mar 07 02:30	0°♉	
	8661 Apr 02 00:53	0°♊	
asc. node	8661 Apr 03 05:50	1°♊21'23	
evening max el	8661 Apr 26 23:54	26°♊50'03	46°57'26
	8661 Apr 30 04:03	0°♋	
greatest brilliancy	8661 Jun 06 05:12	27°♋44'06	-4.9m
retrograde	8661 Jun 16 11:56	29°♋43'44	

evening set	8661 Jul 02 01:29	25°♋00'01	
inferior conj	8661 Jul 07 10:33	21°♋46'59	4°04'53
minimum elong	8661 Jul 07 19:06	21°♋33'47	4°02'13
min. Earth dist.	8661 Jul 07 08:33	21°♋50'03	0.27428 AU
morning rise	8661 Jul 13 13:00	18°♋10'23	
desc. node	8661 Jul 24 01:14	14°♋17'20	
direct	8661 Jul 28 06:10	13°♋56'06	
greatest brilliancy	8661 Aug 07 03:41	15°♋43'44	-4.8m
	8661 Aug 30 07:34	0°♌	
morning max el	8661 Sep 15 10:36	14°♌26'37	45°57'37
	8661 Sep 30 20:58	0°♍	
	8661 Oct 28 08:32	0°♎	
asc. node	8661 Nov 14 00:06	19°♎03'44	
	8661 Nov 23 08:54	0°♏	
	8661 Dec 18 13:48	0°♐	
	8662 Jan 12 06:27	0°♑	
	8662 Feb 05 15:18	0°♒	
	8662 Mar 01 18:54	0°♓	
desc. node	8662 Mar 05 16:54	4°♓53'03	
morning set	8662 Mar 13 23:48	15°♓14'10	
	8662 Mar 25 18:45	0°♈	
	8662 Apr 18 16:07	0°♉	
max. Earth dist.	8662 Apr 23 04:22	5°♉40'23	1.71231 AU
superior conj	8662 Apr 23 18:06	6°♉23'33	-1°25'54
minimum elong	8662 Apr 23 13:09	6°♉08'00	1°25'58
	8662 May 12 12:41	0°♊	
evening rise	8662 Jun 03 07:51	27°♊21'27	
	8662 Jun 05 10:31	0°♋	
asc. node	8662 Jun 26 14:35	26°♋25'34	
	8662 Jun 29 11:33	0°♌	
	8662 Jul 23 17:25	0°♍	
	8662 Aug 17 05:52	0°♎	
	8662 Sep 11 04:00	0°♏	
	8662 Oct 06 17:34	0°♐	
desc. node	8662 Oct 16 09:22	11°♐03'03	
	8662 Nov 02 09:55	0°♑	
evening max el	8662 Nov 30 04:42	28°♑42'42	45°55'00
	8662 Dec 01 13:05	0°♒	
greatest brilliancy	8663 Jan 08 14:36	27°♒18'53	-4.8m
retrograde	8663 Jan 18 06:59	29°♒02'26	
evening set	8663 Feb 01 20:14	24°♒53'23	
asc. node	8663 Feb 06 09:15	22°♒15'51	
inferior conj	8663 Feb 08 03:22	21°♒11'15	0°26'48
minimum elong	8663 Feb 08 02:20	21°♒12'51	0°26'36
min. Earth dist.	8663 Feb 08 13:33	20°♒55'35	0.27449 AU
morning rise	8663 Feb 14 07:51	17°♒31'29	
direct	8663 Mar 01 01:49	13°♒12'30	
greatest brilliancy	8663 Mar 11 18:03	15°♒21'07	-4.9m
	8663 Apr 03 09:26	0°♓	
morning max el	8663 Apr 20 14:37	16°♓06'09	46°56'34
	8663 May 03 21:02	0°♈	
desc. node	8663 May 29 03:57	28°♈27'32	
	8663 May 30 11:49	0°♉	
	8663 Jun 24 20:53	0°♊	
	8663 Jul 19 17:48	0°♋	
	8663 Aug 13 09:51	0°♌	
	8663 Sep 06 23:45	0°♍	
asc. node	8663 Sep 19 01:21	14°♍45'36	
	8663 Oct 01 11:49	0°♎	
morning set	8663 Oct 21 12:52	24°♎37'10	
	8663 Oct 25 21:49	0°♏	
	8663 Nov 19 06:01	0°♐	
max. Earth dist.	8663 Nov 26 03:13	8°♐29'41	1.73171 AU
superior conj	8663 Nov 27 01:33	9°♐38'35	1°20'12
minimum elong	8663 Nov 27 08:01	9°♐58'33	1°20'17
	8663 Dec 13 13:09	0°♑	
evening rise	8664 Jan 03 13:23	25°♑57'41	
	8664 Jan 06 19:47	0°♒	
desc. node	8664 Jan 08 18:22	2°♒24'00	
	8664 Jan 31 01:50	0°♓	
	8664 Feb 24 07:12	0°♈	
	8664 Mar 19 12:50	0°♉	
	8664 Apr 12 21:44	0°♊	
asc. node	8664 Apr 30 17:13	21°♊40'08	
	8664 May 07 15:22	0°♋	
	8664 Jun 02 03:14	0°♌	
	8664 Jun 29 07:10	0°♍	
evening max el	8664 Jul 07 15:45	8°♍32'06	46°21'30
	8664 Aug 01 05:36	0°♎	
greatest brilliancy	8664 Aug 15 07:05	7°♎55'59	-4.8m
desc. node	8664 Aug 20 12:46	9°♎32'23	
retrograde	8664 Aug 26 11:17	10°♎12'41	
evening set	8664 Sep 11 08:12	5°♎18'38	
min. Earth dist.	8664 Sep 16 03:19	2°♎24'43	0.28695 AU
inferior conj	8664 Sep 16 21:06	1°♎56'55	-6°02'08
minimum elong	8664 Sep 16 11:04	2°♎12'36	5°59'59
	8664 Sep 20 00:53	30°℞♍	
morning rise	8664 Sep 21 14:26	29°♍04'32	
direct	8664 Oct 08 06:17	23°♍48'51	
greatest brilliancy	8664 Oct 17 23:52	25°♍32'12	-4.7m
	8664 Oct 27 13:20	0°♎	
morning max el	8664 Nov 26 01:01	23°♎42'08	45°42'29
	8664 Dec 02 10:50	0°♏	
asc. node	8664 Dec 11 11:57	9°♏18'42	
	8664 Dec 30 11:05	0°♐	
	8665 Jan 25 10:20	0°♑	
	8665 Feb 19 10:57	0°♒	
	8665 Mar 15 23:14	0°♓	
desc. node	8665 Apr 02 05:20	21°♓21'29	
	8665 Apr 09 04:04	0°♈	
	8665 May 03 04:23	0°♉	
	8665 May 27 02:38	0°♊	
morning set	8665 May 29 04:21	2°♊35'52	
	8665 Jun 20 01:11	0°♋	
superior conj	8665 Jul 07 18:09	22°♋07'27	-0°38'28
minimum elong	8665 Jul 08 02:46	22°♋34'21	0°38'16
max. Earth dist.	8665 Jul 11 03:53	26°♋22'20	1.72014 AU
	8665 Jul 14 01:44	0°♌	
asc. node	8665 Jul 24 02:38	12°♌29'41	
	8665 Aug 07 05:04	0°♍	
evening rise	8665 Aug 15 11:15	10°♍13'39	
	8665 Aug 31 11:34	0°♎	
	8665 Sep 24 21:57	0°♏	
	8665 Oct 19 13:49	0°♐	
desc. node	8665 Nov 12 20:46	29°♐10'46	
	8665 Nov 13 13:17	0°♑	
	8665 Dec 08 22:57	0°♒	
	8666 Jan 03 23:52	0°♓	
	8666 Jan 31 08:09	0°♈	
evening max el	8666 Feb 10 17:13	10°♈37'57	46°39'13
	8666 Mar 04 05:31	0°♉	
asc. node	8666 Mar 05 20:38	1°♉14'47	
greatest brilliancy	8666 Mar 23 02:17	11°♉10'08	-4.9m
retrograde	8666 Apr 01 21:40	12°♉58'41	
evening set	8666 Apr 19 12:23	7°♉01'34	
inferior conj	8666 Apr 22 12:51	5°♉10'53	8°58'47
minimum elong	8666 Apr 22 07:50	5°♉18'37	8°58'18
min. Earth dist.	8666 Apr 22 08:44	5°♉17'14	0.27089 AU
morning rise	8666 Apr 25 03:19	3°♉35'18	
	8666 May 01 19:54	30°℞♈	
direct	8666 May 13 04:40	27°♈23'39	

greatest brilliancy	8666 May 22 17:21	29°♈06'39	-4.9m
	8666 May 25 01:05	0°♉	
desc. node	8666 Jun 25 15:39	23°♉14'51	
morning max el	8666 Jul 02 11:09	29°♉52'45	46°44'30
	8666 Jul 02 14:04	0°♊	
	8666 Jul 30 17:20	0°♋	
	8666 Aug 25 23:58	0°♌	
	8666 Sep 20 12:51	0°♍	
	8666 Oct 15 15:32	0°♎	
asc. node	8666 Oct 16 13:43	1°♎06'41	
	8666 Nov 09 10:29	0°♏	
	8666 Dec 03 23:13	0°♐	
	8666 Dec 28 07:26	0°♑	
morning set	8666 Dec 29 04:48	1°♑06'03	
	8667 Jan 21 12:30	0°♒	
max. Earth dist.	8667 Feb 02 07:18	14°♒39'06	1.72186 AU
superior conj	8667 Feb 05 10:01	18°♒31'37	-0°00'21
minimum elong	8667 Feb 05 09:59	18°♒31'30	0°00'12
behind sun begin	8667 Feb 04 09:35	17°♒15'33	
behind sun end	8667 Feb 06 10:23	19°♒47'27	
desc. node	8667 Feb 05 06:36	18°♒20'56	
	8667 Feb 14 15:02	0°♓	
	8667 Mar 10 15:19	0°♈	
evening rise	8667 Mar 16 22:59	7°♈54'33	
	8667 Apr 03 14:08	0°♉	
	8667 Apr 27 13:17	0°♊	
	8667 May 21 15:24	0°♋	
asc. node	8667 May 29 04:43	9°♋21'17	
	8667 Jun 14 23:40	0°♌	
	8667 Jul 09 18:14	0°♍	
	8667 Aug 04 06:22	0°♎	
	8667 Aug 31 05:14	0°♏	
evening max el	8667 Sep 17 07:58	17°♏26'22	45°45'02
desc. node	8667 Sep 18 00:07	18°♏05'16	
	8667 Oct 01 04:49	0°♐	
greatest brilliancy	8667 Oct 26 08:58	15°♐45'58	-4.7m
retrograde	8667 Nov 05 04:39	17°♐31'02	
evening set	8667 Nov 23 03:34	11°♐29'45	
inferior conj	8667 Nov 26 16:14	9°♐18'38	-8°06'59
minimum elong	8667 Nov 26 22:55	9°♐08'07	8°06'05
min. Earth dist.	8667 Nov 27 05:07	8°♐58'23	0.28967 AU
morning rise	8667 Nov 30 18:05	6°♐47'11	
direct	8667 Dec 18 03:37	1°♐00'51	
greatest brilliancy	8667 Dec 29 02:33	3°♐11'40	-4.8m
asc. node	8668 Jan 08 23:39	8°♐52'59	
	8668 Feb 03 07:04	0°♑	
morning max el	8668 Feb 05 20:02	2°♑29'43	46°15'20
	8668 Mar 02 16:15	0°♒	
	8668 Mar 28 15:28	0°♓	
	8668 Apr 22 15:00	0°♈	
desc. node	8668 Apr 29 17:43	8°♈39'59	
	8668 May 17 02:42	0°♉	
	8668 Jun 10 08:37	0°♊	
	8668 Jul 04 12:37	0°♋	
	8668 Jul 28 17:01	0°♌	
morning set	8668 Aug 09 21:14	15°♌04'57	
asc. node	8668 Aug 20 14:55	28°♌22'03	
	8668 Aug 21 22:35	0°♍	
	8668 Sep 15 05:14	0°♎	
superior conj	8668 Sep 16 15:11	1°♎44'46	0°59'17
minimum elong	8668 Sep 16 05:37	1°♎15'16	0°58'56
max. Earth dist.	8668 Sep 17 18:49	3°♎10'04	1.73109 AU
	8668 Oct 09 12:51	0°♏	
evening rise	8668 Oct 23 02:59	16°♏44'10	
	8668 Nov 02 21:53	0°♐	
	8668 Nov 27 09:07	0°♑	
desc. node	8668 Dec 10 08:28	15°♑51'10	
	8668 Dec 21 23:00	0°♒	
	8669 Jan 15 15:38	0°♓	
	8669 Feb 09 12:01	0°♈	
	8669 Mar 06 16:36	0°♉	
	8669 Apr 01 17:38	0°♊	
asc. node	8669 Apr 02 07:47	0°♊39'34	
evening max el	8669 Apr 24 13:18	24°♊26'09	46°57'57
	8669 Apr 30 04:25	0°♋	
greatest brilliancy	8669 Jun 03 19:58	25°♋22'43	-4.9m
retrograde	8669 Jun 14 02:16	27°♋22'11	
evening set	8669 Jun 29 17:59	22°♋34'27	
inferior conj	8669 Jul 05 00:13	19°♋25'43	4°25'35
minimum elong	8669 Jul 05 09:20	19°♋11'41	4°22'49
min. Earth dist.	8669 Jul 04 22:52	19°♋27'48	0.27405 AU
morning rise	8669 Jul 11 00:56	15°♋51'51	
desc. node	8669 Jul 23 03:18	11°♋43'29	
direct	8669 Jul 25 19:21	11°♋34'56	
greatest brilliancy	8669 Aug 04 17:14	13°♋23'16	-4.8m
	8669 Aug 30 16:10	0°♌	
morning max el	8669 Sep 13 01:49	12°♌12'05	45°59'03
	8669 Sep 30 15:03	0°♍	
	8669 Oct 27 22:45	0°♎	
asc. node	8669 Nov 13 01:56	18°♎31'13	
	8669 Nov 22 21:26	0°♏	
	8669 Dec 18 01:27	0°♐	
	8670 Jan 11 17:38	0°♑	
	8670 Feb 05 02:14	0°♒	
	8670 Mar 01 05:46	0°♓	
desc. node	8670 Mar 04 18:54	4°♓25'26	
morning set	8670 Mar 11 11:31	12°♓46'52	
	8670 Mar 25 05:37	0°♈	
	8670 Apr 18 02:59	0°♉	
max. Earth dist.	8670 Apr 20 13:14	3°♉03'07	1.71241 AU
superior conj	8670 Apr 21 05:03	3°♉52'51	-1°24'59
minimum elong	8670 Apr 20 23:07	3°♉34'12	1°25'02
	8670 May 11 23:33	0°♊	
evening rise	8670 May 31 18:52	24°♊51'30	
	8670 Jun 04 21:25	0°♋	
asc. node	8670 Jun 25 16:35	25°♋57'39	
	8670 Jun 28 22:32	0°♌	
	8670 Jul 23 04:34	0°♍	
	8670 Aug 16 17:22	0°♎	
	8670 Sep 10 16:09	0°♏	
	8670 Oct 06 06:56	0°♐	
desc. node	8670 Oct 15 11:16	10°♐28'27	
	8670 Nov 02 01:55	0°♑	
evening max el	8670 Nov 27 20:22	26°♑30'38	45°54'00
	8670 Dec 01 12:57	0°♒	
greatest brilliancy	8671 Jan 06 04:13	25°♒00'39	-4.8m
retrograde	8671 Jan 15 21:03	26°♒44'01	
evening set	8671 Jan 30 11:01	22°♒33'57	
asc. node	8671 Feb 05 11:15	19°♒01'49	
inferior conj	8671 Feb 05 17:26	18°♒52'17	0°03'56
minimum elong	8671 Feb 05 17:17	18°♒52'31	0°04'02
transit middle	8671 Feb 05 17:17	18°♒52'31	0°04'02
transit begin	8671 Feb 05 13:20	18°♒58'36	
transit end	8671 Feb 05 21:13	18°♒46'27	
min. Earth dist.	8671 Feb 06 04:09	18°♒35'46	0.27490 AU
morning rise	8671 Feb 11 23:00	15°♒10'57	
direct	8671 Feb 26 16:59	10°♒53'05	
greatest brilliancy	8671 Mar 09 08:53	13°♒01'36	-4.9m
	8671 Apr 03 16:56	0°♓	
morning max el	8671 Apr 18 05:36	13°♓47'19	46°55'39
	8671 May 03 15:12	0°♈	

desc. node	8671 May 28 05:52	27°♈50'13		
	8671 May 30 02:27	0°♉		
	8671 Jun 24 09:54	0°♊		
	8671 Jul 19 05:53	0°♋		
	8671 Aug 12 21:19	0°♌		
	8671 Sep 06 10:47	0°♍		
asc. node	8671 Sep 18 03:15	14°♍18'13		
	8671 Sep 30 22:34	0°♎		
morning set	8671 Oct 19 05:59	22°♎29'37		
	8671 Oct 25 08:24	0°♏		
	8671 Nov 18 16:31	0°♐		
max. Earth dist.	8671 Nov 23 22:16	6°♐27'54	1.73184 AU	
superior conj	8671 Nov 24 18:45	7°♐31'06	1°21'20	
minimum elong	8671 Nov 25 00:38	7°♐49'16	1°21'26	
	8671 Dec 12 23:42	0°♑		
evening rise	8672 Jan 01 04:59	23°♑44'40		
	8672 Jan 06 06:27	0°♒		
desc. node	8672 Jan 07 20:27	1°♒57'25		
	8672 Jan 30 12:42	0°♓		
	8672 Feb 23 18:18	0°♈		
	8672 Mar 19 00:19	0°♉		
	8672 Apr 12 09:47	0°♊		
asc. node	8672 Apr 29 19:05	21°♊07'25		
	8672 May 07 04:23	0°♋		
	8672 Jun 01 18:06	0°♌		
	8672 Jun 29 02:36	0°♍		
evening max el	8672 Jul 05 07:42	6°♍18'28	46°23'01	
	8672 Aug 02 03:14	0°♎		
greatest brilliancy	8672 Aug 12 23:19	5°♎44'11	-4.8m	
desc. node	8672 Aug 19 14:49	7°♎36'53		
retrograde	8672 Aug 24 03:10	8°♎00'20		
evening set	8672 Sep 08 21:22	3°♎10'44		
min. Earth dist.	8672 Sep 13 18:42	0°♎13'30	0.28647 AU	
	8672 Sep 14 03:20	30°℞♍		
inferior conj	8672 Sep 14 12:44	29°♍45'17	-5°47'14	
minimum elong	8672 Sep 14 02:47	0°♎00'52	5°45'01	
morning rise	8672 Sep 19 08:43	26°♍48'58		
direct	8672 Oct 05 21:49	21°♍38'13		
greatest brilliancy	8672 Oct 15 14:13	23°♍20'24	-4.7m	
	8672 Oct 28 17:31	0°♎		
morning max el	8672 Nov 23 15:23	21°♎28'28	45°42'04	
	8672 Dec 02 06:17	0°♏		
asc. node	8672 Dec 10 14:01	8°♏38'17		
	8672 Dec 30 01:38	0°♐		
	8673 Jan 24 23:02	0°♑		
	8673 Feb 18 22:45	0°♒		
	8673 Mar 15 10:32	0°♓		
desc. node	8673 Apr 01 07:15	20°♓53'06		
	8673 Apr 08 15:04	0°♈		
	8673 May 02 15:11	0°♉		
morning set	8673 May 26 16:15	0°♊09'07		
	8673 May 26 13:20	0°♊		
	8673 Jun 19 11:50	0°♋		
superior conj	8673 Jul 05 07:23	19°♋45'57	-0°41'46	
minimum elong	8673 Jul 05 16:35	20°♋14'40	0°41'35	
max. Earth dist.	8673 Jul 08 18:00	24°♋03'39	1.71971 AU	
	8673 Jul 13 12:20	0°♌		
asc. node	8673 Jul 23 04:39	12°♌03'05		
	8673 Aug 06 15:40	0°♍		
evening rise	8673 Aug 13 02:43	8°♍00'11		
	8673 Aug 30 22:12	0°♎		
	8673 Sep 24 08:47	0°♏		
	8673 Oct 19 01:02	0°♐		
desc. node	8673 Nov 11 22:45	28°♐41'23		
	8673 Nov 13 01:09	0°♑		
	8673 Dec 08 11:56	0°♒		
	8674 Jan 03 14:53	0°♓		
	8674 Jan 31 03:50	0°♈		
evening max el	8674 Feb 08 06:01	8°♈13'57	46°37'48	
asc. node	8674 Mar 04 22:37	29°♈58'37		
	8674 Mar 04 23:22	0°♉		
greatest brilliancy	8674 Mar 20 15:54	8°♉46'08	-4.9m	
retrograde	8674 Mar 30 10:06	10°♉33'55		
evening set	8674 Apr 16 21:29	4°♉42'56		
inferior conj	8674 Apr 20 01:51	2°♉46'33	8°52'52	
minimum elong	8674 Apr 19 19:56	2°♉55'39	8°52'15	
min. Earth dist.	8674 Apr 19 21:51	2°♉52'42	0.27081 AU	
morning rise	8674 Apr 22 18:24	1°♉07'44		
	8674 Apr 24 16:27	30°℞♈		
direct	8674 May 10 16:57	24°♈59'06		
greatest brilliancy	8674 May 20 07:07	26°♈42'59	-4.9m	
	8674 May 27 13:02	0°♉		
desc. node	8674 Jun 24 17:47	22°♉19'36		
morning max el	8674 Jun 29 23:33	27°♉27'40	46°45'48	
	8674 Jul 02 12:06	0°♊		
	8674 Jul 30 09:09	0°♋		
	8674 Aug 25 13:22	0°♌		
	8674 Sep 20 00:59	0°♍		
	8674 Oct 15 02:55	0°♎		
asc. node	8674 Oct 15 15:36	0°♎38'12		
	8674 Nov 08 21:23	0°♏		
	8674 Dec 03 09:53	0°♐		
morning set	8674 Dec 26 20:51	28°♐54'39		
	8674 Dec 27 18:00	0°♑		
	8675 Jan 20 23:03	0°♒		
max. Earth dist.	8675 Jan 30 22:37	12°♒24'30	1.72232 AU	
superior conj	8675 Feb 02 23:42	16°♒11'53	0°03'21	
minimum elong	8675 Feb 03 00:33	16°♒14'30	0°03'28	
behind sun begin	8675 Feb 02 00:28	14°♒59'34		
behind sun end	8675 Feb 04 00:37	17°♒29'26		
desc. node	8675 Feb 04 08:33	17°♒54'06		
	8675 Feb 14 01:38	0°♓		
	8675 Mar 10 02:01	0°♈		
evening rise	8675 Mar 14 11:24	5°♈29'39		
	8675 Apr 03 00:57	0°♉		
	8675 Apr 27 00:15	0°♊		
	8675 May 21 02:35	0°♋		
asc. node	8675 May 28 06:46	8°♋52'45		
	8675 Jun 14 11:14	0°♌		
	8675 Jul 09 06:32	0°♍		
	8675 Aug 03 20:08	0°♎		
	8675 Aug 30 22:28	0°♏		
evening max el	8675 Sep 14 22:32	15°♏12'59	45°45'38	
desc. node	8675 Sep 17 02:02	17°♏16'21		
	8675 Oct 01 12:03	0°♐		
greatest brilliancy	8675 Oct 23 23:18	13°♐34'58	-4.7m	
retrograde	8675 Nov 02 20:30	15°♐21'37		
evening set	8675 Nov 20 21:13	9°♐16'51		
inferior conj	8675 Nov 24 08:14	7°♐08'23	-8°13'19	
minimum elong	8675 Nov 24 14:18	6°♐58'52	8°12'34	
min. Earth dist.	8675 Nov 24 20:12	6°♐49'37	0.29002 AU	
morning rise	8675 Nov 28 07:13	4°♐41'24		
	8675 Dec 08 05:11	30°℞♏		
direct	8675 Dec 15 19:33	28°♏50'08		
	8675 Dec 23 17:15	0°♐		
greatest brilliancy	8675 Dec 26 18:28	1°♐01'00	-4.8m	
asc. node	8676 Jan 08 01:42	7°♐37'49		
	8676 Feb 03 05:11	0°♑		
morning max el	8676 Feb 03 11:49	0°♑16'25	46°13'46	
	8676 Mar 02 07:53	0°♒		
	8676 Mar 28 04:50	0°♓		

	8676 Apr 22 03:16	0°♈	
desc. node	8676 Apr 28 19:36	8°♈08'54	
	8676 May 16 14:20	0°♉	
	8676 Jun 09 19:50	0°♊	
	8676 Jul 03 23:31	0°♋	
	8676 Jul 28 03:40	0°♌	
morning set	8676 Aug 07 12:50	12°♌51'52	
asc. node	8676 Aug 19 16:46	27°♌55'18	
	8676 Aug 21 09:06	0°♍	
superior conj	8676 Sep 14 08:12	29°♍36'53	0°56'50
minimum elong	8676 Sep 13 22:42	29°♍07'33	0°56'28
	8676 Sep 14 15:41	0°♎	
max. Earth dist.	8676 Sep 15 13:40	1°♎07'52	1.73091 AU
	8676 Oct 08 23:20	0°♏	
evening rise	8676 Oct 20 20:35	14°♏38'16	
	8676 Nov 02 08:29	0°♐	
	8676 Nov 26 19:58	0°♑	
desc. node	8676 Dec 09 10:29	15°♑23'41	
	8676 Dec 21 10:13	0°♒	
	8677 Jan 15 03:25	0°♓	
	8677 Feb 09 00:41	0°♈	
	8677 Mar 06 06:40	0°♉	
asc. node	8677 Apr 01 09:43	29°♉57'45	
	8677 Apr 01 10:31	0°♊	
evening max el	8677 Apr 22 03:49	22°♊05'38	46°58'27
	8677 Apr 30 05:47	0°♋	
greatest brilliancy	8677 Jun 01 10:30	23°♋01'47	-4.9m
retrograde	8677 Jun 11 17:01	25°♋01'17	
evening set	8677 Jun 27 10:41	20°♋09'33	
inferior conj	8677 Jul 02 13:56	17°♋05'06	4°45'48
minimum elong	8677 Jul 02 23:32	16°♋50'20	4°42'58
min. Earth dist.	8677 Jul 02 12:53	17°♋06'44	0.27379 AU
morning rise	8677 Jul 08 12:41	13°♋34'20	
desc. node	8677 Jul 22 05:14	9°♋16'16	
direct	8677 Jul 23 09:05	9°♋14'39	
greatest brilliancy	8677 Aug 02 06:12	11°♋02'56	-4.8m
	8677 Aug 30 21:57	0°♌	
morning max el	8677 Sep 10 17:24	9°♌59'13	46°00'24
	8677 Sep 30 08:24	0°♍	
	8677 Oct 27 12:38	0°♎	
asc. node	8677 Nov 12 03:59	17°♎59'57	
	8677 Nov 22 09:47	0°♏	
	8677 Dec 17 13:01	0°♐	
	8678 Jan 11 04:48	0°♑	
	8678 Feb 04 13:11	0°♒	
	8678 Feb 28 16:37	0°♓	
desc. node	8678 Mar 03 20:45	3°♓57'25	
morning set	8678 Mar 08 23:11	10°♓19'35	
	8678 Mar 24 16:26	0°♈	
	8678 Apr 17 13:48	0°♉	
max. Earth dist.	8678 Apr 17 22:17	0°♉26'40	1.71248 AU
superior conj	8678 Apr 18 15:54	1°♉22'02	-1°23'54
minimum elong	8678 Apr 18 09:03	1°♉00'31	1°23'55
	8678 May 11 10:23	0°♊	
evening rise	8678 May 29 05:49	22°♊21'28	
	8678 Jun 04 08:17	0°♋	
asc. node	8678 Jun 24 18:35	25°♋29'51	
	8678 Jun 28 09:29	0°♌	
	8678 Jul 22 15:42	0°♍	
	8678 Aug 16 04:50	0°♎	
	8678 Sep 10 04:15	0°♏	
	8678 Oct 05 20:21	0°♐	
desc. node	8678 Oct 14 13:16	9°♐54'05	
	8678 Nov 01 18:15	0°♑	
evening max el	8678 Nov 25 11:43	24°♑17'33	45°52'42
	8678 Dec 01 14:12	0°♒	
greatest brilliancy	8679 Jan 03 18:15	22°♒42'13	-4.8m
retrograde	8679 Jan 13 10:28	24°♒24'35	
evening set	8679 Jan 28 01:52	20°♒13'26	
inferior conj	8679 Feb 03 07:22	16°♒32'32	-0°18'55
minimum elong	8679 Feb 03 08:05	16°♒31'26	0°18'32
min. Earth dist.	8679 Feb 03 18:57	16°♒14'37	0.27533 AU
asc. node	8679 Feb 04 13:11	15°♒46'30	
morning rise	8679 Feb 09 13:46	12°♒49'39	
direct	8679 Feb 24 07:42	8°♒32'49	
greatest brilliancy	8679 Mar 06 23:59	10°♒41'27	-4.9m
	8679 Apr 03 22:29	0°♓	
morning max el	8679 Apr 15 19:32	11°♓25'12	46°54'48
	8679 May 03 09:07	0°♈	
desc. node	8679 May 27 08:00	27°♈13'31	
	8679 May 29 17:00	0°♉	
	8679 Jun 23 22:54	0°♊	
	8679 Jul 18 17:59	0°♋	
	8679 Aug 12 08:50	0°♌	
	8679 Sep 05 21:53	0°♍	
asc. node	8679 Sep 17 05:10	13°♍50'35	
	8679 Sep 30 09:23	0°♎	
morning set	8679 Oct 16 23:26	20°♎22'54	
	8679 Oct 24 19:02	0°♏	
	8679 Nov 18 03:08	0°♐	
max. Earth dist.	8679 Nov 21 16:39	4°♐23'46	1.73201 AU
superior conj	8679 Nov 22 12:20	5°♐24'30	1°22'20
minimum elong	8679 Nov 22 17:37	5°♐40'49	1°22'28
	8679 Dec 12 10:23	0°♑	
evening rise	8679 Dec 29 20:45	21°♑31'38	
	8680 Jan 05 17:20	0°♒	
desc. node	8680 Jan 06 22:25	1°♒29'51	
	8680 Jan 29 23:49	0°♓	
	8680 Feb 23 05:44	0°♈	
	8680 Mar 18 12:07	0°♉	
	8680 Apr 11 22:11	0°♊	
asc. node	8680 Apr 28 21:09	20°♊34'24	
	8680 May 06 17:47	0°♋	
	8680 Jun 01 09:26	0°♌	
	8680 Jun 28 22:53	0°♍	
evening max el	8680 Jul 02 22:53	4°♍02'12	46°24'36
	8680 Aug 03 09:38	0°♎	
greatest brilliancy	8680 Aug 10 16:05	3°♎32'24	-4.8m
desc. node	8680 Aug 18 16:45	5°♎36'42	
retrograde	8680 Aug 21 18:48	5°♎47'45	
evening set	8680 Sep 06 10:49	1°♎02'14	
	8680 Sep 08 05:37	30°℞♍	
min. Earth dist.	8680 Sep 11 10:38	28°♍01'33	0.28596 AU
inferior conj	8680 Sep 12 04:33	27°♍33'30	-5°31'52
minimum elong	8680 Sep 11 18:42	27°♍48'55	5°29'36
morning rise	8680 Sep 17 03:06	24°♍33'15	
direct	8680 Oct 03 12:56	19°♍27'16	
greatest brilliancy	8680 Oct 13 05:18	21°♍08'58	-4.7m
	8680 Oct 29 14:07	0°♎	
morning max el	8680 Nov 21 05:25	19°♎13'30	45°41'49
	8680 Dec 02 01:19	0°♏	
asc. node	8680 Dec 09 16:01	7°♏57'44	
	8680 Dec 29 16:12	0°♐	
	8681 Jan 24 11:53	0°♑	
	8681 Feb 18 10:49	0°♒	
	8681 Mar 14 22:11	0°♓	
desc. node	8681 Mar 31 09:14	20°♓23'43	
	8681 Apr 08 02:28	0°♈	
	8681 May 02 02:24	0°♉	
morning set	8681 May 24 03:39	27°♉39'34	
	8681 May 26 00:25	0°♊	

	8681 Jun 18 22:49	0°♋	
superior conj	8681 Jul 02 20:26	17°♋22'45	-0°45'02
minimum elong	8681 Jul 03 06:10	17°♋53'09	0°44'50
max. Earth dist.	8681 Jul 06 06:10	21°♋37'46	1.71923 AU
	8681 Jul 12 23:16	0°♌	
asc. node	8681 Jul 22 06:30	11°♌34'54	
	8681 Aug 06 02:34	0°♍	
evening rise	8681 Aug 10 18:11	5°♍45'39	
	8681 Aug 30 09:11	0°♎	
	8681 Sep 23 19:58	0°♏	
	8681 Oct 18 12:35	0°♐	
desc. node	8681 Nov 11 00:51	28°♐11'24	
	8681 Nov 12 13:22	0°♑	
	8681 Dec 08 01:17	0°♒	
	8682 Jan 03 06:24	0°♓	
	8682 Jan 31 00:33	0°♈	
evening max el	8682 Feb 05 18:29	5°♈48'11	46°36'07
asc. node	8682 Mar 04 00:32	28°♈38'27	
	8682 Mar 06 00:34	0°♉	
greatest brilliancy	8682 Mar 18 04:47	6°♉19'29	-4.9m
retrograde	8682 Mar 27 22:27	8°♉07'18	
evening set	8682 Apr 14 06:00	2°♉22'25	
inferior conj	8682 Apr 17 14:37	0°♉19'59	8°45'50
minimum elong	8682 Apr 17 07:52	0°♉30'23	8°45'03
min. Earth dist.	8682 Apr 17 10:42	0°♉26'01	0.27080 AU
	8682 Apr 18 03:35	30°℞♈	
morning rise	8682 Apr 20 09:43	28°♈37'28	
direct	8682 May 08 05:15	22°♈32'03	
greatest brilliancy	8682 May 17 20:50	24°♈17'11	-4.9m
	8682 May 29 04:13	0°♉	
desc. node	8682 Jun 23 19:41	21°♉23'13	
morning max el	8682 Jun 27 12:43	25°♉02'38	46°47'14
	8682 Jul 02 09:59	0°♊	
	8682 Jul 30 01:14	0°♋	
	8682 Aug 25 03:05	0°♌	
	8682 Sep 19 13:25	0°♍	
asc. node	8682 Oct 14 17:37	0°♎09'05	
	8682 Oct 14 14:36	0°♎	
	8682 Nov 08 08:38	0°♏	
	8682 Dec 02 20:53	0°♐	
morning set	8682 Dec 24 13:30	26°♐44'05	
	8682 Dec 27 04:53	0°♑	
	8683 Jan 20 09:55	0°♒	
max. Earth dist.	8683 Jan 28 16:32	10°♒17'07	1.72276 AU
superior conj	8683 Jan 31 13:55	13°♒52'54	0°06'57
minimum elong	8683 Jan 31 15:37	13°♒58'11	0°07'02
behind sun begin	8683 Jan 30 17:23	12°♒49'00	
behind sun end	8683 Feb 01 13:52	15°♒07'23	
desc. node	8683 Feb 03 10:26	17°♒26'05	
	8683 Feb 13 12:33	0°♓	
	8683 Mar 09 13:04	0°♈	
evening rise	8683 Mar 12 00:14	3°♈05'01	
	8683 Apr 02 12:11	0°♉	
	8683 Apr 26 11:40	0°♊	
	8683 May 20 14:17	0°♋	
asc. node	8683 May 27 08:44	8°♋22'19	
	8683 Jun 13 23:22	0°♌	
	8683 Jul 08 19:26	0°♍	
	8683 Aug 03 10:33	0°♎	
	8683 Aug 30 16:37	0°♏	
evening max el	8683 Sep 12 13:57	13°♏00'35	45°46'27
desc. node	8683 Sep 16 04:02	16°♏25'42	
	8683 Oct 01 22:37	0°♐	
greatest brilliancy	8683 Oct 21 13:15	11°♐22'50	-4.7m
retrograde	8683 Oct 31 12:51	13°♐11'30	
evening set	8683 Nov 18 14:49	7°♐03'35	
inferior conj	8683 Nov 22 00:21	4°♐57'27	-8°19'04
minimum elong	8683 Nov 22 05:46	4°♐48'57	8°18'26
min. Earth dist.	8683 Nov 22 10:59	4°♐40'45	0.29032 AU
morning rise	8683 Nov 25 20:35	2°♐34'49	
	8683 Nov 30 12:26	30°℞♏	
direct	8683 Dec 13 12:08	26°♏38'59	
greatest brilliancy	8683 Dec 24 09:54	28°♏49'12	-4.8m
	8683 Dec 27 05:31	0°♐	
asc. node	8684 Jan 07 03:33	6°♐23'52	
morning max el	8684 Feb 01 04:21	28°♐04'25	46°12'17
	8684 Feb 03 02:44	0°♑	
	8684 Mar 01 23:31	0°♒	
	8684 Mar 27 18:21	0°♓	
	8684 Apr 21 15:47	0°♈	
desc. node	8684 Apr 27 21:41	7°♈37'36	
	8684 May 16 02:18	0°♉	
	8684 Jun 09 07:25	0°♊	
	8684 Jul 03 10:50	0°♋	
	8684 Jul 27 14:45	0°♌	
morning set	8684 Aug 05 04:00	10°♌35'58	
asc. node	8684 Aug 18 18:44	27°♌27'32	
	8684 Aug 20 20:01	0°♍	
superior conj	8684 Sep 12 00:49	27°♍26'29	0°54'17
minimum elong	8684 Sep 11 15:25	26°♍57'27	0°53'53
max. Earth dist.	8684 Sep 13 09:52	29°♍08'35	1.73066 AU
	8684 Sep 14 02:31	0°♎	
	8684 Oct 08 10:10	0°♏	
evening rise	8684 Oct 18 14:05	12°♏31'02	
	8684 Nov 01 19:26	0°♐	
	8684 Nov 26 07:08	0°♑	
desc. node	8684 Dec 08 12:26	14°♑54'55	
	8684 Dec 20 21:47	0°♒	
	8685 Jan 14 15:33	0°♓	
	8685 Feb 08 13:39	0°♈	
	8685 Mar 05 21:04	0°♉	
asc. node	8685 Mar 31 11:48	29°♉15'24	
	8685 Apr 01 03:57	0°♊	
evening max el	8685 Apr 19 18:54	19°♊45'55	46°58'40
	8685 Apr 30 08:52	0°♋	
greatest brilliancy	8685 May 30 00:51	20°♋39'39	-4.9m
retrograde	8685 Jun 09 07:29	22°♋38'49	
evening set	8685 Jun 25 03:24	17°♋43'10	
inferior conj	8685 Jun 30 03:30	14°♋42'58	5°05'41
minimum elong	8685 Jun 30 13:32	14°♋27'33	5°02'47
min. Earth dist.	8685 Jun 30 02:41	14°♋44'14	0.27360 AU
morning rise	8685 Jul 06 00:01	11°♋15'28	
direct	8685 Jul 20 23:04	6°♋52'57	
desc. node	8685 Jul 21 07:12	6°♋53'05	
greatest brilliancy	8685 Jul 30 18:56	8°♋40'37	-4.8m
	8685 Aug 31 02:23	0°♌	
morning max el	8685 Sep 08 08:27	7°♌43'36	46°01'44
	8685 Sep 30 01:51	0°♍	
	8685 Oct 27 02:44	0°♎	
asc. node	8685 Nov 11 05:59	17°♎27'47	
	8685 Nov 21 22:20	0°♏	
	8685 Dec 17 00:46	0°♐	
	8686 Jan 10 16:06	0°♑	
	8686 Feb 04 00:17	0°♒	
	8686 Feb 28 03:37	0°♓	
desc. node	8686 Mar 02 22:47	3°♓29'29	
morning set	8686 Mar 06 11:17	7°♓53'13	
	8686 Mar 24 03:23	0°♈	
max. Earth dist.	8686 Apr 15 05:28	27°♈44'02	1.71255 AU
superior conj	8686 Apr 16 03:13	28°♈52'24	-1°22'41

minimum elong	8686 Apr 15 19:31	28°♈28'12	1°22'38
	8686 Apr 17 00:44	0°♉	
	8686 May 10 21:19	0°♊	
evening rise	8686 May 26 17:03	19°♊51'51	
	8686 Jun 03 19:15	0°♋	
asc. node	8686 Jun 23 20:28	25°♋01'13	
	8686 Jun 27 20:35	0°♌	
	8686 Jul 22 03:01	0°♍	
	8686 Aug 15 16:32	0°♎	
	8686 Sep 09 16:39	0°♏	
	8686 Oct 05 10:07	0°♐	
desc. node	8686 Oct 13 15:20	9°♐19'08	
	8686 Nov 01 11:04	0°♑	
evening max el	8686 Nov 23 02:18	22°♑02'24	45°51'37
	8686 Dec 01 16:59	0°♒	
greatest brilliancy	8687 Jan 01 08:56	20°♒24'53	-4.8m
retrograde	8687 Jan 10 23:38	22°♒05'57	
evening set	8687 Jan 25 17:07	17°♒53'19	
inferior conj	8687 Jan 31 21:35	14°♒13'38	-0°41'32
minimum elong	8687 Jan 31 23:09	14°♒11'11	0°40'52
min. Earth dist.	8687 Feb 01 10:16	13°♒53'58	0.27576 AU
asc. node	8687 Feb 03 15:12	12°♒32'41	
morning rise	8687 Feb 07 04:34	10°♒29'21	
direct	8687 Feb 21 22:11	6°♒13'13	
greatest brilliancy	8687 Mar 04 15:51	8°♒22'39	-4.9m
	8687 Apr 04 02:05	0°♓	
morning max el	8687 Apr 13 08:49	9°♓01'32	46°54'00
	8687 May 03 02:34	0°♈	
desc. node	8687 May 26 09:52	26°♈36'33	
	8687 May 29 07:20	0°♉	
	8687 Jun 23 11:44	0°♊	
	8687 Jul 18 05:59	0°♋	
	8687 Aug 11 20:17	0°♌	
	8687 Sep 05 08:59	0°♍	
asc. node	8687 Sep 16 07:12	13°♍23'14	
	8687 Sep 29 20:13	0°♎	
morning set	8687 Oct 14 16:34	18°♎14'59	
	8687 Oct 24 05:44	0°♏	
	8687 Nov 17 13:46	0°♐	
max. Earth dist.	8687 Nov 19 09:11	2°♐13'54	1.73215 AU
superior conj	8687 Nov 20 05:41	3°♐17'10	1°23'13
minimum elong	8687 Nov 20 10:21	3°♐31'32	1°23'21
	8687 Dec 11 21:05	0°♑	
evening rise	8687 Dec 27 12:22	19°♑18'22	
	8688 Jan 05 04:10	0°♒	
desc. node	8688 Jan 06 00:16	1°♒02'06	
	8688 Jan 29 10:53	0°♓	
	8688 Feb 22 17:05	0°♈	
	8688 Mar 17 23:53	0°♉	
	8688 Apr 11 10:33	0°♊	
asc. node	8688 Apr 27 23:08	20°♊01'16	
	8688 May 06 07:09	0°♋	
	8688 Jun 01 00:49	0°♌	
	8688 Jun 28 19:39	0°♍	
evening max el	8688 Jun 30 13:07	1°♍43'56	46°26'09
	8688 Aug 05 06:11	0°♎	
greatest brilliancy	8688 Aug 08 08:28	1°♎20'23	-4.8m
desc. node	8688 Aug 17 18:45	3°♎32'17	
retrograde	8688 Aug 19 10:14	3°♎35'28	
	8688 Sep 01 22:33	30°℞♍	
evening set	8688 Sep 04 00:15	28°♍53'27	
min. Earth dist.	8688 Sep 09 02:39	25°♍49'26	0.28551 AU
inferior conj	8688 Sep 09 20:15	25°♍21'53	-5°15'51
minimum elong	8688 Sep 09 10:36	25°♍36'59	5°13'33
morning rise	8688 Sep 14 21:24	22°♍17'49	
direct	8688 Oct 01 03:39	17°♍16'13	
greatest brilliancy	8688 Oct 10 20:59	18°♍58'17	-4.7m
	8688 Oct 30 05:17	0°♎	
morning max el	8688 Nov 18 19:36	16°♎59'03	45°41'37
	8688 Dec 01 19:47	0°♏	
asc. node	8688 Dec 08 17:53	7°♏17'31	
	8688 Dec 29 06:30	0°♐	
	8689 Jan 24 00:32	0°♑	
	8689 Feb 17 22:40	0°♒	
	8689 Mar 14 09:35	0°♓	
desc. node	8689 Mar 30 11:13	19°♓55'04	
	8689 Apr 07 13:35	0°♈	
	8689 May 01 13:21	0°♉	
morning set	8689 May 21 14:58	25°♉10'22	
	8689 May 25 11:16	0°♊	
	8689 Jun 18 09:35	0°♋	
superior conj	8689 Jun 30 09:32	15°♋00'24	-0°48'13
minimum elong	8689 Jun 30 19:44	15°♋32'16	0°47'59
max. Earth dist.	8689 Jul 03 16:21	19°♋06'28	1.71875 AU
	8689 Jul 12 09:56	0°♌	
asc. node	8689 Jul 21 08:30	11°♌07'58	
	8689 Aug 05 13:13	0°♍	
evening rise	8689 Aug 08 09:43	3°♍32'10	
	8689 Aug 29 19:53	0°♎	
	8689 Sep 23 06:53	0°♏	
	8689 Oct 17 23:55	0°♐	
desc. node	8689 Nov 10 02:42	27°♐41'18	
	8689 Nov 12 01:25	0°♑	
	8689 Dec 07 14:32	0°♒	
	8690 Jan 02 21:57	0°♓	
	8690 Jan 30 21:42	0°♈	
evening max el	8690 Feb 03 07:27	3°♈24'41	46°34'42
asc. node	8690 Mar 03 02:37	27°♈16'57	
	8690 Mar 07 11:16	0°♉	
greatest brilliancy	8690 Mar 15 17:03	3°♉53'14	-4.9m
retrograde	8690 Mar 25 11:23	5°♉41'54	
evening set	8690 Apr 11 14:23	0°♉03'03	
	8690 Apr 11 16:28	30°℞♈	
inferior conj	8690 Apr 15 03:24	27°♈54'24	8°37'49
minimum elong	8690 Apr 14 19:53	28°♈05'57	8°36'52
min. Earth dist.	8690 Apr 14 23:11	28°♈00'53	0.27079 AU
morning rise	8690 Apr 18 01:21	26°♈07'50	
direct	8690 May 05 18:05	20°♈06'07	
greatest brilliancy	8690 May 15 10:05	21°♈52'04	-4.9m
	8690 May 30 07:06	0°♉	
desc. node	8690 Jun 22 21:38	20°♉29'12	
morning max el	8690 Jun 25 02:49	22°♉41'02	46°48'31
	8690 Jul 02 06:41	0°♊	
	8690 Jul 29 16:41	0°♋	
	8690 Aug 24 16:19	0°♌	
	8690 Sep 19 01:26	0°♍	
asc. node	8690 Oct 13 19:35	29°♍40'57	
	8690 Oct 14 01:53	0°♎	
	8690 Nov 07 19:31	0°♏	
	8690 Dec 02 07:33	0°♐	
morning set	8690 Dec 22 05:59	24°♐34'02	
	8690 Dec 26 15:29	0°♑	
	8691 Jan 19 20:31	0°♒	
max. Earth dist.	8691 Jan 26 09:29	8°♒07'32	1.72318 AU
superior conj	8691 Jan 29 03:51	11°♒33'53	0°10'34
minimum elong	8691 Jan 29 06:25	11°♒41'50	0°10'37
behind sun begin	8691 Jan 28 11:51	10°♒44'07	
behind sun end	8691 Jan 30 00:58	12°♒39'33	
desc. node	8691 Feb 02 12:29	16°♒59'21	
	8691 Feb 12 23:12	0°♓	
	8691 Mar 08 23:49	0°♈	

evening rise	8691 Mar 09 12:46	0°♈40'28	
	8691 Apr 01 23:04	0°♉	
	8691 Apr 25 22:45	0°♊	
	8691 May 20 01:38	0°♋	
asc. node	8691 May 26 10:37	7°♋52'45	
	8691 Jun 13 11:10	0°♌	
	8691 Jul 08 08:02	0°♍	
	8691 Aug 03 00:46	0°♎	
	8691 Aug 30 10:46	0°♏	
evening max el	8691 Sep 10 06:03	10°♏50'55	45°47'19
desc. node	8691 Sep 15 06:08	15°♏35'33	
	8691 Oct 02 12:07	0°♐	
greatest brilliancy	8691 Oct 19 03:10	9°♐12'04	-4.7m
retrograde	8691 Oct 29 05:14	11°♐02'30	
evening set	8691 Nov 16 08:14	4°♐52'03	
inferior conj	8691 Nov 19 16:26	2°♐47'44	-8°24'04
minimum elong	8691 Nov 19 21:12	2°♐40'16	8°23'32
min. Earth dist.	8691 Nov 20 01:29	2°♐33'32	0.29060 AU
morning rise	8691 Nov 23 10:05	0°♐29'04	
	8691 Nov 24 05:39	30°℞♏	
direct	8691 Dec 11 04:59	24°♏29'18	
greatest brilliancy	8691 Dec 22 00:40	26°♏37'56	-4.8m
	8691 Dec 29 03:23	0°♐	
asc. node	8692 Jan 06 05:37	5°♐13'34	
morning max el	8692 Jan 29 20:40	25°♐53'01	46°10'34
	8692 Feb 02 23:10	0°♑	
	8692 Mar 01 14:38	0°♒	
	8692 Mar 27 07:30	0°♓	
	8692 Apr 21 03:57	0°♈	
desc. node	8692 Apr 26 23:35	7°♈06'44	
	8692 May 15 13:53	0°♉	
	8692 Jun 08 18:36	0°♊	
	8692 Jul 02 21:44	0°♋	
	8692 Jul 27 01:27	0°♌	
morning set	8692 Aug 02 19:07	8°♌21'06	
asc. node	8692 Aug 17 20:45	27°♌01'03	
	8692 Aug 20 06:35	0°♍	
superior conj	8692 Sep 09 17:24	25°♍17'02	0°51'38
minimum elong	8692 Sep 09 08:09	24°♍48'29	0°51'14
max. Earth dist.	8692 Sep 11 06:40	27°♍12'10	1.73039 AU
	8692 Sep 13 13:01	0°♎	
	8692 Oct 07 20:39	0°♏	
evening rise	8692 Oct 16 07:37	10°♏25'00	
	8692 Nov 01 06:00	0°♐	
	8692 Nov 25 17:56	0°♑	
desc. node	8692 Dec 07 14:23	14°♑27'22	
	8692 Dec 20 08:59	0°♒	
	8693 Jan 14 03:23	0°♓	
	8693 Feb 08 02:25	0°♈	
	8693 Mar 05 11:24	0°♉	
asc. node	8693 Mar 30 13:44	28°♉32'42	
	8693 Mar 31 21:33	0°♊	
evening max el	8693 Apr 17 09:44	17°♊26'04	46°58'51
	8693 Apr 30 13:27	0°♋	
greatest brilliancy	8693 May 27 15:34	18°♋18'32	-4.9m
retrograde	8693 Jun 06 21:28	20°♋16'36	
evening set	8693 Jun 22 20:10	15°♋17'10	
inferior conj	8693 Jun 27 16:58	12°♋21'22	5°25'06
minimum elong	8693 Jun 28 03:21	12°♋05'23	5°22'11
min. Earth dist.	8693 Jun 27 16:29	12°♋22'07	0.27337 AU
morning rise	8693 Jul 03 10:55	8°♋57'15	
direct	8693 Jul 18 12:44	4°♋31'54	
desc. node	8693 Jul 20 09:17	4°♋35'59	
greatest brilliancy	8693 Jul 28 07:34	6°♋18'48	-4.8m
	8693 Aug 31 04:43	0°♌	
morning max el	8693 Sep 05 22:27	5°♌26'18	46°03'04
	8693 Sep 29 18:33	0°♍	
	8693 Oct 26 16:20	0°♎	
asc. node	8693 Nov 10 07:48	16°♎56'17	
	8693 Nov 21 10:29	0°♏	
	8693 Dec 16 12:08	0°♐	
	8694 Jan 10 03:04	0°♑	
	8694 Feb 03 11:04	0°♒	
	8694 Feb 27 14:20	0°♓	
desc. node	8694 Mar 02 00:45	3°♓02'11	
morning set	8694 Mar 03 23:20	5°♓27'33	
	8694 Mar 23 14:06	0°♈	
max. Earth dist.	8694 Apr 12 08:39	24°♈49'29	1.71268 AU
superior conj	8694 Apr 13 14:15	26°♈22'29	-1°21'16
minimum elong	8694 Apr 13 05:45	25°♈55'46	1°21'11
	8694 Apr 16 11:27	0°♉	
	8694 May 10 08:03	0°♊	
evening rise	8694 May 24 03:41	17°♊20'50	
	8694 Jun 03 06:03	0°♋	
asc. node	8694 Jun 22 22:27	24°♋33'35	
	8694 Jun 27 07:29	0°♌	
	8694 Jul 21 14:07	0°♍	
	8694 Aug 15 04:01	0°♎	
	8694 Sep 09 04:51	0°♏	
	8694 Oct 04 23:46	0°♐	
desc. node	8694 Oct 12 17:12	8°♐44'06	
	8694 Nov 01 03:59	0°♑	
evening max el	8694 Nov 20 16:03	19°♑46'02	45°50'37
	8694 Dec 01 21:06	0°♒	
greatest brilliancy	8694 Dec 29 23:46	18°♒08'45	-4.8m
retrograde	8695 Jan 08 12:48	19°♒48'45	
evening set	8695 Jan 23 08:34	15°♒34'00	
inferior conj	8695 Jan 29 11:52	11°♒55'59	-1°03'56
minimum elong	8695 Jan 29 14:17	11°♒52'14	1°03'00
min. Earth dist.	8695 Jan 30 01:45	11°♒34'27	0.27623 AU
asc. node	8695 Feb 02 17:11	9°♒21'37	
morning rise	8695 Feb 04 19:17	8°♒10'43	
direct	8695 Feb 19 12:25	3°♒54'40	
greatest brilliancy	8695 Mar 02 08:08	6°♒05'31	-4.9m
	8695 Apr 04 03:49	0°♓	
morning max el	8695 Apr 10 21:59	6°♓38'13	46°53'02
	8695 May 02 19:27	0°♈	
desc. node	8695 May 25 11:47	26°♈00'23	
	8695 May 28 21:23	0°♉	
	8695 Jun 23 00:26	0°♊	
	8695 Jul 17 17:51	0°♋	
	8695 Aug 11 07:37	0°♌	
	8695 Sep 04 19:55	0°♍	
asc. node	8695 Sep 15 09:05	12°♍55'54	
	8695 Sep 29 06:54	0°♎	
morning set	8695 Oct 12 09:31	16°♎06'58	
	8695 Oct 23 16:15	0°♏	
max. Earth dist.	8695 Nov 17 02:20	0°♐06'24	1.73231 AU
	8695 Nov 17 00:16	0°♐	
superior conj	8695 Nov 17 23:06	1°♐10'25	1°24'00
minimum elong	8695 Nov 18 03:06	1°♐22'45	1°24'08
	8695 Dec 11 07:40	0°♑	
evening rise	8695 Dec 25 04:14	17°♑06'18	
	8696 Jan 04 14:54	0°♒	
desc. node	8696 Jan 05 02:20	0°♒35'19	
	8696 Jan 28 21:49	0°♓	
	8696 Feb 22 04:19	0°♈	
	8696 Mar 17 11:32	0°♉	
	8696 Apr 10 22:52	0°♊	
asc. node	8696 Apr 27 01:00	19°♊27'57	
	8696 May 05 20:36	0°♋	

	8696 May 31 16:27	0°♌	
evening max el	8696 Jun 28 03:11	29°♌25'00	46°27'46
	8696 Jun 28 17:15	0°♍	
greatest brilliancy	8696 Aug 06 00:22	29°♍07'10	-4.8m
	8696 Aug 08 12:34	0°♎	
desc. node	8696 Aug 16 20:45	1°♎22'40	
retrograde	8696 Aug 17 01:51	1°♎22'43	
	8696 Aug 25 08:37	30°℞♍	
evening set	8696 Sep 01 13:40	26°♍43'42	
inferior conj	8696 Sep 07 11:48	23°♍09'39	-4°59'10
minimum elong	8696 Sep 07 02:24	23°♍24'21	4°56'52
min. Earth dist.	8696 Sep 06 18:21	23°♍36'54	0.28502 AU
morning rise	8696 Sep 12 15:33	20°♍02'05	
direct	8696 Sep 28 18:15	15°♍04'28	
greatest brilliancy	8696 Oct 08 12:33	16°♍47'18	-4.7m
	8696 Oct 30 16:34	0°♎	
morning max el	8696 Nov 16 10:20	14°♎46'01	45°41'31
	8696 Dec 01 13:45	0°♏	
asc. node	8696 Dec 07 19:57	6°♏38'25	
	8696 Dec 28 20:37	0°♐	
	8697 Jan 23 13:06	0°♑	
	8697 Feb 17 10:27	0°♒	
	8697 Mar 13 20:56	0°♓	
desc. node	8697 Mar 29 13:06	19°♓26'14	
	8697 Apr 07 00:40	0°♈	
	8697 May 01 00:17	0°♉	
morning set	8697 May 19 02:26	22°♉41'38	
	8697 May 24 22:07	0°♊	
	8697 Jun 17 20:22	0°♋	
superior conj	8697 Jun 27 22:31	12°♋37'27	-0°51'19
minimum elong	8697 Jun 28 09:08	13°♋10'35	0°51'05
max. Earth dist.	8697 Jul 01 02:10	16°♋33'45	1.71835 AU
	8697 Jul 11 20:41	0°♌	
asc. node	8697 Jul 20 10:31	10°♌40'48	
	8697 Aug 04 23:57	0°♍	
evening rise	8697 Aug 06 00:58	1°♍17'27	
	8697 Aug 29 06:43	0°♎	
	8697 Sep 22 17:55	0°♏	
	8697 Oct 17 11:23	0°♐	
desc. node	8697 Nov 09 04:41	27°♐11'15	
	8697 Nov 11 13:36	0°♑	
	8697 Dec 07 04:00	0°♒	
	8698 Jan 02 13:51	0°♓	
	8698 Jan 30 19:48	0°♈	
evening max el	8698 Jan 31 21:31	1°♈03'49	46°33'16
asc. node	8698 Mar 02 04:34	25°♈52'19	
	8698 Mar 09 16:07	0°♉	
greatest brilliancy	8698 Mar 13 05:01	1°♉26'44	-4.9m
retrograde	8698 Mar 23 00:53	3°♉16'31	
	8698 Apr 04 18:33	30°℞♈	
evening set	8698 Apr 08 22:46	27°♈43'58	
inferior conj	8698 Apr 12 16:15	25°♈28'50	8°28'46
minimum elong	8698 Apr 12 08:02	25°♈41'25	8°27'39
min. Earth dist.	8698 Apr 12 11:27	25°♈36'11	0.27074 AU
morning rise	8698 Apr 15 17:19	23°♈37'50	
direct	8698 May 03 07:26	17°♈40'30	
greatest brilliancy	8698 May 12 22:46	19°♈26'22	-4.9m
	8698 May 31 02:44	0°♉	
desc. node	8698 Jun 21 23:44	19°♉36'33	
morning max el	8698 Jun 22 17:15	20°♉20'15	46°49'42
	8698 Jul 02 02:45	0°♊	
	8698 Jul 29 07:59	0°♋	
	8698 Aug 24 05:35	0°♌	
	8698 Sep 18 13:36	0°♍	
asc. node	8698 Oct 12 21:27	29°♍11'57	
	8698 Oct 13 13:23	0°♎	
	8698 Nov 07 06:35	0°♏	
	8698 Dec 01 18:24	0°♐	
morning set	8698 Dec 19 22:31	22°♐23'41	
	8698 Dec 26 02:14	0°♑	
	8699 Jan 19 07:16	0°♒	
max. Earth dist.	8699 Jan 24 01:54	5°♒55'54	1.72360 AU
superior conj	8699 Jan 26 17:57	9°♒14'55	0°14'09
minimum elong	8699 Jan 26 21:19	9°♒25'23	0°14'09
behind sun begin	8699 Jan 26 09:38	8°♒49'05	
behind sun end	8699 Jan 27 09:00	10°♒01'42	
desc. node	8699 Feb 01 14:24	16°♒31'40	
	8699 Feb 12 10:04	0°♓	
evening rise	8699 Mar 07 01:30	28°♓15'55	
	8699 Mar 08 10:48	0°♈	
	8699 Apr 01 10:12	0°♉	
	8699 Apr 25 10:03	0°♊	
	8699 May 19 13:11	0°♋	
asc. node	8699 May 25 12:41	7°♋23'08	
	8699 Jun 12 23:10	0°♌	
	8699 Jul 07 20:53	0°♍	
	8699 Aug 02 15:20	0°♎	
	8699 Aug 30 05:42	0°♏	
evening max el	8699 Sep 07 22:24	8°♏41'03	45°48'02
desc. node	8699 Sep 14 07:59	14°♏43'05	
	8699 Oct 03 06:56	0°♐	
greatest brilliancy	8699 Oct 16 17:51	7°♐01'16	-4.7m
retrograde	8699 Oct 26 21:23	8°♐52'33	
evening set	8699 Nov 14 01:27	2°♐40'21	
inferior conj	8699 Nov 17 08:37	0°♐37'21	-8°28'16
minimum elong	8699 Nov 17 12:41	0°♐30'58	8°27'51
min. Earth dist.	8699 Nov 17 16:11	0°♐25'28	0.29083 AU
	8699 Nov 18 08:25	30°℞♏	
morning rise	8699 Nov 20 23:51	28°♏22'12	
direct	8699 Dec 08 21:52	22°♏19'08	
greatest brilliancy	8699 Dec 19 15:16	24°♏25'41	-4.8m
	8699 Dec 30 10:36	0°♐	
asc. node	8700 Jan 05 07:37	4°♐04'20	
morning max el	8700 Jan 27 12:09	23°♐38'52	46°08'51
	8700 Feb 02 19:13	0°♑	
	8700 Mar 02 05:47	0°♒	
	8700 Mar 27 20:48	0°♓	
	8700 Apr 21 16:20	0°♈	
desc. node	8700 Apr 27 01:29	6°♈35'07	
	8700 May 16 01:43	0°♉	
	8700 Jun 09 06:04	0°♊	
	8700 Jul 03 08:53	0°♋	
	8700 Jul 27 12:23	0°♌	
morning set	8700 Aug 01 10:31	6°♌06'18	
asc. node	8700 Aug 17 22:37	26°♌33'21	
	8700 Aug 20 17:23	0°♍	
superior conj	8700 Sep 08 10:09	23°♍07'19	0°48'55
minimum elong	8700 Sep 08 01:09	22°♍39'31	0°48'31
max. Earth dist.	8700 Sep 10 03:40	25°♍15'34	1.73012 AU
	8700 Sep 13 23:45	0°♎	
	8700 Oct 08 07:25	0°♏	
evening rise	8700 Oct 15 01:14	8°♏18'13	
	8700 Nov 01 16:54	0°♐	
	8700 Nov 26 05:06	0°♑	
desc. node	8700 Dec 07 16:24	13°♑58'58	
	8700 Dec 20 20:34	0°♒	
	8701 Jan 14 15:35	0°♓	
	8701 Feb 08 15:36	0°♈	
	8701 Mar 06 02:15	0°♉	
asc. node	8701 Mar 30 15:40	27°♉48'28	
	8701 Apr 01 15:56	0°♊	

evening max el	8701 Apr 15 23:36	15°♊02'36	46°58'51
	8701 May 01 20:37	0°♋	
greatest brilliancy	8701 May 26 06:56	15°♋56'53	-4.9m
retrograde	8701 Jun 05 10:58	17°♋53'10	
evening set	8701 Jun 21 13:00	12°♋49'55	
inferior conj	8701 Jun 26 06:27	9°♋58'45	5°43'54
minimum elong	8701 Jun 26 17:06	9°♋42'19	5°41'01
min. Earth dist.	8701 Jun 26 06:36	9°♋58'32	0.27313 AU
morning rise	8701 Jul 01 21:33	6°♋38'12	
direct	8701 Jul 17 01:53	2°♋09'45	
desc. node	8701 Jul 20 11:11	2°♋23'09	
greatest brilliancy	8701 Jul 26 20:39	3°♋56'21	-4.8m
	8701 Sep 01 06:00	0°♌	
morning max el	8701 Sep 04 11:34	3°♌05'48	46°04'37
	8701 Sep 30 11:11	0°♍	
	8701 Oct 27 06:04	0°♎	
asc. node	8701 Nov 10 09:53	16°♎24'49	
	8701 Nov 21 22:52	0°♏	
	8701 Dec 16 23:48	0°♐	
	8702 Jan 10 14:22	0°♑	
	8702 Feb 03 22:11	0°♒	
	8702 Feb 28 01:23	0°♓	
morning set	8702 Mar 02 11:29	3°♓01'15	
desc. node	8702 Mar 02 02:37	2°♓33'36	
	8702 Mar 24 01:07	0°♈	
max. Earth dist.	8702 Apr 10 11:54	21°♈54'19	1.71287 AU
superior conj	8702 Apr 12 01:21	23°♈52'00	-1°19'41
minimum elong	8702 Apr 11 16:09	23°♈23'03	1°19'35
	8702 Apr 16 22:29	0°♉	
	8702 May 10 19:08	0°♊	
evening rise	8702 May 22 14:22	14°♊48'57	
	8702 Jun 03 17:12	0°♋	
asc. node	8702 Jun 23 00:27	24°♋04'50	
	8702 Jun 27 18:46	0°♌	
	8702 Jul 22 01:35	0°♍	
	8702 Aug 15 15:51	0°♎	
	8702 Sep 09 17:26	0°♏	
	8702 Oct 05 13:51	0°♐	
desc. node	8702 Oct 12 19:13	8°♐08'24	
	8702 Nov 01 21:36	0°♑	
evening max el	8702 Nov 19 05:16	17°♑27'39	45°49'36
	8702 Dec 03 03:43	0°♒	
greatest brilliancy	8702 Dec 28 14:19	15°♒51'20	-4.8m
retrograde	8703 Jan 07 02:23	17°♒30'49	
evening set	8703 Jan 22 00:11	13°♒13'21	
inferior conj	8703 Jan 28 02:12	9°♒37'21	-1°26'08
minimum elong	8703 Jan 28 05:26	9°♒32'19	1°24'57
min. Earth dist.	8703 Jan 28 17:14	9°♒14'02	0.27674 AU
asc. node	8703 Feb 02 19:07	6°♒11'55	
morning rise	8703 Feb 03 09:52	5°♒51'35	
direct	8703 Feb 18 02:39	1°♒34'58	
greatest brilliancy	8703 Mar 01 00:37	3°♒47'42	-4.9m
	8703 Apr 05 04:41	0°♓	
morning max el	8703 Apr 09 11:59	4°♓15'58	46°52'08
	8703 May 03 12:22	0°♈	
desc. node	8703 May 25 13:55	25°♈24'08	
	8703 May 29 11:37	0°♉	
	8703 Jun 23 13:20	0°♊	
	8703 Jul 18 06:00	0°♋	
	8703 Aug 11 19:15	0°♌	
	8703 Sep 05 07:10	0°♍	
asc. node	8703 Sep 15 11:02	12°♍27'48	
	8703 Sep 29 17:51	0°♎	
morning set	8703 Oct 11 02:40	13°♎58'35	
	8703 Oct 24 03:02	0°♏	
max. Earth dist.	8703 Nov 15 21:58	28°♏05'45	1.73245 AU
superior conj	8703 Nov 16 16:44	29°♏03'38	1°24'37
minimum elong	8703 Nov 16 20:04	29°♏13'55	1°24'48
	8703 Nov 17 11:01	0°♐	
	8703 Dec 11 18:30	0°♑	
evening rise	8703 Dec 23 20:22	14°♑54'21	
desc. node	8704 Jan 05 04:17	0°♒07'21	
	8704 Jan 05 01:54	0°♒	
	8704 Jan 29 09:04	0°♓	
	8704 Feb 22 15:53	0°♈	
	8704 Mar 17 23:33	0°♉	
	8704 Apr 11 11:33	0°♊	
asc. node	8704 Apr 27 03:05	18°♊54'16	
	8704 May 06 10:25	0°♋	
	8704 Jun 01 08:36	0°♌	
evening max el	8704 Jun 26 17:42	27°♌06'25	46°29'24
	8704 Jun 29 16:03	0°♍	
greatest brilliancy	8704 Aug 04 15:45	26°♍52'20	-4.8m
retrograde	8704 Aug 15 17:58	29°♍08'53	
desc. node	8704 Aug 16 22:42	29°♍07'10	
evening set	8704 Aug 31 03:08	24°♍32'32	
min. Earth dist.	8704 Sep 05 09:41	21°♍23'28	0.28454 AU
inferior conj	8704 Sep 06 03:13	20°♍56'10	-4°41'55
minimum elong	8704 Sep 05 18:07	21°♍10'21	4°39'37
morning rise	8704 Sep 11 09:33	17°♍45'22	
direct	8704 Sep 27 09:02	12°♍51'31	
greatest brilliancy	8704 Oct 07 03:33	14°♍34'48	-4.7m
	8704 Nov 01 01:10	0°♎	
morning max el	8704 Nov 15 01:55	12°♎34'32	45°41'35
	8704 Dec 02 07:29	0°♏	
asc. node	8704 Dec 07 21:55	5°♏58'59	
	8704 Dec 29 10:45	0°♐	
	8705 Jan 24 01:45	0°♑	
	8705 Feb 17 22:22	0°♒	
	8705 Mar 14 08:27	0°♓	
desc. node	8705 Mar 29 15:06	18°♓57'06	
	8705 Apr 07 11:58	0°♈	
	8705 May 01 11:26	0°♉	
morning set	8705 May 17 13:30	20°♉10'59	
	8705 May 25 09:09	0°♊	
	8705 Jun 18 07:19	0°♋	
superior conj	8705 Jun 26 11:04	10°♋12'31	-0°54'20
minimum elong	8705 Jun 26 22:01	10°♋46'45	0°54'08
max. Earth dist.	8705 Jun 29 13:40	14°♋05'40	1.71794 AU
	8705 Jul 12 07:34	0°♌	
asc. node	8705 Jul 20 12:21	10°♌12'36	
evening rise	8705 Aug 04 15:57	29°♌01'27	
	8705 Aug 05 10:51	0°♍	
	8705 Aug 29 17:43	0°♎	
	8705 Sep 23 05:10	0°♏	
	8705 Oct 17 23:01	0°♐	
desc. node	8705 Nov 09 06:46	26°♐41'03	
	8705 Nov 12 01:57	0°♑	
	8705 Dec 07 17:38	0°♒	
	8706 Jan 03 06:04	0°♓	
evening max el	8706 Jan 30 12:06	28°♓44'16	46°31'39
	8706 Jan 31 18:53	0°♈	
asc. node	8706 Mar 02 06:30	24°♈24'20	
greatest brilliancy	8706 Mar 11 16:49	28°♈59'41	-4.9m
	8706 Mar 15 00:26	0°♉	
retrograde	8706 Mar 21 14:11	0°♉50'13	
	8706 Mar 27 23:00	30°℞♈	
evening set	8706 Apr 07 06:58	25°♈24'22	
inferior conj	8706 Apr 11 04:56	23°♈02'28	8°18'44
minimum elong	8706 Apr 10 20:06	23°♈16'03	8°17'26
min. Earth dist.	8706 Apr 10 23:34	23°♈10'43	0.27073 AU
morning rise	8706 Apr 14 09:17	21°♈06'38	

direct	8706 May 01	20:51	15°♈14'14	
greatest brilliancy	8706 May 11	11:09	16°♈59'29	-4.9m
	8706 Jun 01	17:41	0°♉	
morning max el	8706 Jun 21	07:19	17°♉57'57	46°50'45
desc. node	8706 Jun 22	01:38	18°♉43'53	
	8706 Jul 02	22:23	0°♊	
	8706 Jul 29	23:11	0°♋	
	8706 Aug 24	18:48	0°♌	
	8706 Sep 19	01:43	0°♍	
asc. node	8706 Oct 12	23:28	28°♍43'23	
	8706 Oct 14	00:50	0°♎	
	8706 Nov 07	17:39	0°♏	
	8706 Dec 02	05:15	0°♐	
morning set	8706 Dec 18	15:17	20°♐14'05	
	8706 Dec 26	12:58	0°♑	
	8707 Jan 19	17:59	0°♒	
max. Earth dist.	8707 Jan 22	16:58	3°♒40'20	1.72398 AU
superior conj	8707 Jan 25	08:28	6°♒57'34	0°17'40
minimum elong	8707 Jan 25	12:37	7°♒10'26	0°17'39
desc. node	8707 Feb 01	16:18	16°♒04'08	
	8707 Feb 12	20:50	0°♓	
evening rise	8707 Mar 05	14:31	25°♓52'36	
	8707 Mar 08	21:42	0°♈	
	8707 Apr 01	21:16	0°♉	
	8707 Apr 25	21:19	0°♊	
	8707 May 20	00:45	0°♋	
asc. node	8707 May 25	14:38	6°♋53'11	
	8707 Jun 13	11:14	0°♌	
	8707 Jul 08	09:50	0°♍	
	8707 Aug 03	06:05	0°♎	
	8707 Aug 31	01:10	0°♏	
evening max el	8707 Sep 06	14:03	6°♏29'24	45°48'50
desc. node	8707 Sep 14	10:02	13°♏50'07	
	8707 Oct 05	08:37	0°♐	
greatest brilliancy	8707 Oct 15	09:03	4°♐51'03	-4.7m
retrograde	8707 Oct 25	12:56	6°♐42'34	
evening set	8707 Nov 12	18:20	0°♐29'09	
	8707 Nov 13	13:21	30°℞♏	
inferior conj	8707 Nov 16	00:42	28°♏27'07	-8°31'49
minimum elong	8707 Nov 16	04:01	28°♏21'54	8°31'29
min. Earth dist.	8707 Nov 16	07:05	28°♏17'05	0.29101 AU
morning rise	8707 Nov 19	13:41	26°♏15'07	
direct	8707 Dec 07	14:16	20°♏09'05	
greatest brilliancy	8707 Dec 18	06:00	22°♏13'43	-4.8m
	8708 Jan 01	08:53	0°♐	
asc. node	8708 Jan 05	09:30	2°♐56'59	
morning max el	8708 Jan 26	02:48	21°♐23'05	46°07'23
	8708 Feb 03	14:30	0°♑	
	8708 Mar 01	20:32	0°♒	
	8708 Mar 27	09:46	0°♓	
	8708 Apr 21	04:25	0°♈	
desc. node	8708 Apr 26	03:34	6°♈04'53	
	8708 May 15	13:17	0°♉	
	8708 Jun 08	17:17	0°♊	
	8708 Jul 02	19:51	0°♋	
	8708 Jul 26	23:10	0°♌	
morning set	8708 Jul 30	01:27	3°♌50'26	
asc. node	8708 Aug 17	00:35	26°♌06'27	
	8708 Aug 20	04:02	0°♍	
superior conj	8708 Sep 06	02:28	20°♍56'49	0°46'06
minimum elong	8708 Sep 05	17:46	20°♍29'53	0°45'41
max. Earth dist.	8708 Sep 07	22:28	23°♍12'43	1.72980 AU
	8708 Sep 13	10:19	0°♎	
	8708 Oct 07	17:59	0°♏	
evening rise	8708 Oct 12	18:32	6°♏11'07	
	8708 Nov 01	03:36	0°♐	
	8708 Nov 25	16:05	0°♑	
desc. node	8708 Dec 06	18:19	13°♑30'51	
	8708 Dec 20	07:59	0°♒	
	8709 Jan 14	03:38	0°♓	
	8709 Feb 08	04:36	0°♈	
	8709 Mar 05	16:54	0°♉	
asc. node	8709 Mar 29	17:46	27°♉05'25	
	8709 Apr 01	10:20	0°♊	
evening max el	8709 Apr 13	12:31	12°♊38'00	46°58'52
	8709 May 02	05:44	0°♋	
greatest brilliancy	8709 May 23	22:28	13°♋36'46	-4.9m
retrograde	8709 Jun 03	00:13	15°♋31'19	
evening set	8709 Jun 19	05:58	10°♋23'49	
inferior conj	8709 Jun 23	20:04	7°♋37'32	6°02'02
minimum elong	8709 Jun 24	06:54	7°♋20'48	5°59'12
min. Earth dist.	8709 Jun 23	21:00	7°♋36'06	0.27296 AU
morning rise	8709 Jun 29	08:05	4°♋20'54	
	8709 Jul 11	12:56	30°℞♊	
direct	8709 Jul 14	14:45	29°♊48'40	
	8709 Jul 17	17:37	0°♋	
desc. node	8709 Jul 19	13:10	0°♋16'42	
greatest brilliancy	8709 Jul 24	10:24	1°♋35'40	-4.8m
	8709 Sep 01	05:44	0°♌	
morning max el	8709 Sep 02	00:42	0°♌45'53	46°06'04
	8709 Sep 30	03:16	0°♍	
	8709 Oct 26	19:25	0°♎	
asc. node	8709 Nov 09	11:50	15°♎53'53	
	8709 Nov 21	10:53	0°♏	
	8709 Dec 16	11:08	0°♐	
	8710 Jan 10	01:20	0°♑	
	8710 Feb 03	08:59	0°♒	
morning set	8710 Feb 27	23:47	0°♓36'24	
	8710 Feb 27	12:06	0°♓	
desc. node	8710 Mar 01	04:38	2°♓06'26	
	8710 Mar 23	11:48	0°♈	
max. Earth dist.	8710 Apr 07	17:32	19°♈07'45	1.71303 AU
superior conj	8710 Apr 09	12:43	21°♈23'25	-1°17'57
minimum elong	8710 Apr 09	02:52	20°♈52'29	1°17'48
	8710 Apr 16	09:08	0°♉	
	8710 May 10	05:47	0°♊	
evening rise	8710 May 20	01:25	12°♊19'35	
	8710 Jun 03	03:55	0°♋	
asc. node	8710 Jun 22	02:20	23°♋37'05	
	8710 Jun 27	05:35	0°♌	
	8710 Jul 21	12:39	0°♍	
	8710 Aug 15	03:20	0°♎	
	8710 Sep 09	05:43	0°♏	
	8710 Oct 05	03:45	0°♐	
desc. node	8710 Oct 11	21:18	7°♐33'33	
	8710 Nov 01	15:17	0°♑	
evening max el	8710 Nov 16	18:55	15°♑11'28	45°48'45
	8710 Dec 03	12:21	0°♒	
greatest brilliancy	8710 Dec 26	04:15	13°♒34'26	-4.8m
retrograde	8711 Jan 04	16:24	15°♒14'05	
evening set	8711 Jan 19	15:56	10°♒53'32	
inferior conj	8711 Jan 25	16:28	7°♒19'41	-1°48'04
minimum elong	8711 Jan 25	20:30	7°♒13'26	1°46'39
min. Earth dist.	8711 Jan 26	08:21	6°♒55'06	0.27729 AU
morning rise	8711 Feb 01	00:15	3°♒33'55	
asc. node	8711 Feb 01	21:08	3°♒06'01	
	8711 Feb 09	18:06	30°℞♑	
direct	8711 Feb 15	17:14	29°♑16'14	
	8711 Feb 21	20:43	0°♒	
greatest brilliancy	8711 Feb 26	16:44	1°♒30'37	-4.8m
	8711 Apr 05	03:59	0°♓	

morning max el	8711 Apr 07 03:05	1°♓57'42	46°51'17
	8711 May 03 04:33	0°♈	
desc. node	8711 May 24 15:44	24°♈48'30	
	8711 May 29 01:15	0°♉	
	8711 Jun 23 01:42	0°♊	
	8711 Jul 17 17:36	0°♋	
	8711 Aug 11 06:21	0°♌	
	8711 Sep 04 17:54	0°♍	
asc. node	8711 Sep 14 13:02	12°♍01'17	
	8711 Sep 29 04:22	0°♎	
morning set	8711 Oct 08 19:46	11°♎51'21	
	8711 Oct 23 13:26	0°♏	
superior conj	8711 Nov 14 10:14	26°♏57'30	1°25'09
minimum elong	8711 Nov 14 12:54	27°♏05'41	1°25'19
max. Earth dist.	8711 Nov 13 18:36	26°♏09'15	1.73259 AU
	8711 Nov 16 21:24	0°♐	
	8711 Dec 11 04:58	0°♑	
evening rise	8711 Dec 21 12:21	12°♑43'09	
desc. node	8712 Jan 04 06:09	29°♑40'17	
	8712 Jan 04 12:33	0°♒	
	8712 Jan 28 19:57	0°♓	
	8712 Feb 22 03:07	0°♈	
	8712 Mar 17 11:16	0°♉	
	8712 Apr 10 23:58	0°♊	
asc. node	8712 Apr 26 05:01	18°♊21'05	
	8712 May 05 23:59	0°♋	
	8712 Jun 01 00:34	0°♌	
evening max el	8712 Jun 24 09:17	24°♌52'04	46°31'13
	8712 Jun 29 15:11	0°♍	
greatest brilliancy	8712 Aug 02 07:06	24°♍39'29	-4.8m
retrograde	8712 Aug 13 10:39	26°♍57'04	
desc. node	8712 Aug 16 00:43	26°♍48'57	
evening set	8712 Aug 28 17:04	22°♍23'15	
min. Earth dist.	8712 Sep 03 01:00	19°♍12'24	0.28406 AU
inferior conj	8712 Sep 03 18:50	18°♍44'39	-4°24'20
minimum elong	8712 Sep 03 10:06	18°♍58'15	4°22'04
morning rise	8712 Sep 09 03:41	15°♍30'45	
direct	8712 Sep 25 00:28	10°♍40'40	
greatest brilliancy	8712 Oct 04 18:11	12°♍23'42	-4.7m
	8712 Nov 01 06:38	0°♎	
morning max el	8712 Nov 12 18:09	10°♎25'58	45°41'27
	8712 Dec 02 00:24	0°♏	
asc. node	8712 Dec 06 23:47	5°♏20'44	
	8712 Dec 29 00:23	0°♐	
	8713 Jan 23 14:00	0°♑	
	8713 Feb 17 09:56	0°♒	
	8713 Mar 13 19:37	0°♓	
desc. node	8713 Mar 28 17:04	18°♓28'52	
	8713 Apr 06 22:55	0°♈	
	8713 Apr 30 22:16	0°♉	
morning set	8713 May 15 00:29	17°♉41'00	
	8713 May 24 19:54	0°♊	
	8713 Jun 17 17:59	0°♋	
superior conj	8713 Jun 23 23:37	7°♋48'21	-0°57'17
minimum elong	8713 Jun 24 10:50	8°♋23'25	0°57'04
max. Earth dist.	8713 Jun 27 02:28	11°♋42'25	1.71750 AU
	8713 Jul 11 18:10	0°♌	
asc. node	8713 Jul 19 14:23	9°♌45'57	
evening rise	8713 Aug 02 07:04	26°♌46'48	
	8713 Aug 04 21:25	0°♍	
	8713 Aug 29 04:22	0°♎	
	8713 Sep 22 16:03	0°♏	
	8713 Oct 17 10:21	0°♐	
desc. node	8713 Nov 08 08:38	26°♐11'03	
	8713 Nov 11 14:04	0°♑	
	8713 Dec 07 07:09	0°♒	
	8714 Jan 02 22:22	0°♓	
evening max el	8714 Jan 28 02:51	26°♓25'50	46°30'00
	8714 Jan 31 18:47	0°♈	
asc. node	8714 Mar 01 08:34	22°♈54'07	
greatest brilliancy	8714 Mar 09 05:19	26°♈34'20	-4.9m
retrograde	8714 Mar 19 03:11	28°♈24'40	
evening set	8714 Apr 04 15:20	23°♈05'47	
inferior conj	8714 Apr 08 17:45	20°♈37'08	8°07'52
minimum elong	8714 Apr 08 08:21	20°♈51'35	8°06'22
min. Earth dist.	8714 Apr 08 12:10	20°♈45'43	0.27069 AU
morning rise	8714 Apr 12 01:26	18°♈36'10	
direct	8714 Apr 29 10:13	12°♈49'02	
greatest brilliancy	8714 May 09 00:03	14°♈33'50	-4.9m
	8714 Jun 02 04:32	0°♉	
morning max el	8714 Jun 18 20:40	15°♉34'19	46°51'44
desc. node	8714 Jun 21 03:37	17°♉52'58	
	8714 Jul 02 17:15	0°♊	
	8714 Jul 29 13:58	0°♋	
	8714 Aug 24 07:43	0°♌	
	8714 Sep 18 13:34	0°♍	
asc. node	8714 Oct 12 01:25	28°♍15'20	
	8714 Oct 13 12:03	0°♎	
	8714 Nov 07 04:29	0°♏	
	8714 Dec 01 15:53	0°♐	
morning set	8714 Dec 16 08:16	18°♐05'45	
	8714 Dec 25 23:32	0°♑	
	8715 Jan 19 04:36	0°♒	
max. Earth dist.	8715 Jan 20 06:21	1°♒19'56	1.72441 AU
superior conj	8715 Jan 22 23:10	4°♒41'07	0°21'08
minimum elong	8715 Jan 23 04:03	4°♒56'17	0°21'06
desc. node	8715 Jan 31 18:23	15°♒37'24	
	8715 Feb 12 07:33	0°♓	
evening rise	8715 Mar 03 03:27	23°♓29'13	
	8715 Mar 08 08:33	0°♈	
	8715 Apr 01 08:16	0°♉	
	8715 Apr 25 08:32	0°♊	
	8715 May 19 12:18	0°♋	
asc. node	8715 May 24 16:31	6°♋23'09	
	8715 Jun 12 23:19	0°♌	
	8715 Jul 07 22:51	0°♍	
	8715 Aug 02 20:59	0°♎	
	8715 Aug 30 21:07	0°♏	
evening max el	8715 Sep 04 05:10	4°♏16'38	45°49'47
desc. node	8715 Sep 13 12:06	12°♏56'31	
	8715 Oct 06 20:37	0°♐	
greatest brilliancy	8715 Oct 13 00:51	2°♐42'18	-4.7m
retrograde	8715 Oct 23 04:35	4°♐33'56	
	8715 Nov 07 14:37	30°℞♏	
evening set	8715 Nov 10 11:11	28°♏19'44	
inferior conj	8715 Nov 13 17:07	26°♏18'16	-8°34'38
minimum elong	8715 Nov 13 19:41	26°♏14'15	8°34'22
min. Earth dist.	8715 Nov 13 22:34	26°♏09'41	0.29116 AU
morning rise	8715 Nov 17 04:07	24°♏09'02	
direct	8715 Dec 05 06:25	18°♏00'19	
greatest brilliancy	8715 Dec 15 21:29	20°♏03'37	-4.8m
	8716 Jan 02 00:56	0°♐	
asc. node	8716 Jan 04 11:34	1°♐52'23	
morning max el	8716 Jan 23 17:11	19°♐06'56	46°05'46
	8716 Feb 03 09:10	0°♑	
	8716 Mar 01 11:09	0°♒	
	8716 Mar 26 22:46	0°♓	
	8716 Apr 20 16:36	0°♈	
desc. node	8716 Apr 25 05:27	5°♈33'45	
	8716 May 15 00:56	0°♉	
	8716 Jun 08 04:35	0°♊	

	8716 Jul 02 06:54	0°♋	
	8716 Jul 26 10:03	0°♌	
morning set	8716 Jul 27 16:13	1°♌33'36	
asc. node	8716 Aug 16 02:36	25°♌39'18	
	8716 Aug 19 14:47	0°♍	
superior conj	8716 Sep 03 18:52	18°♍46'05	0°43'13
minimum elong	8716 Sep 03 10:28	18°♍20'10	0°42'47
max. Earth dist.	8716 Sep 05 15:13	21°♍03'08	1.72947 AU
	8716 Sep 12 21:00	0°♎	
	8716 Oct 07 04:41	0°♏	
evening rise	8716 Oct 10 12:06	4°♏04'28	
	8716 Oct 31 14:24	0°♐	
	8716 Nov 25 03:08	0°♑	
desc. node	8716 Dec 05 20:18	13°♑02'45	
	8716 Dec 19 19:29	0°♒	
	8717 Jan 13 15:49	0°♓	
	8717 Feb 07 17:50	0°♈	
	8717 Mar 05 08:00	0°♉	
asc. node	8717 Mar 28 19:40	26°♉20'13	
	8717 Apr 01 05:36	0°♊	
evening max el	8717 Apr 11 00:58	10°♊11'06	46°58'46
	8717 May 02 18:47	0°♋	
greatest brilliancy	8717 May 21 13:39	11°♋14'35	-4.9m
retrograde	8717 May 31 13:27	13°♋07'52	
evening set	8717 Jun 16 22:47	7°♋55'38	
inferior conj	8717 Jun 21 09:27	5°♋14'33	6°19'39
minimum elong	8717 Jun 21 20:25	4°♋57'38	6°16'52
min. Earth dist.	8717 Jun 21 11:09	5°♋11'55	0.27280 AU
morning rise	8717 Jun 26 18:13	2°♋02'22	
	8717 Jun 30 19:16	30°℞♊	
direct	8717 Jul 12 03:09	27°♊25'37	
desc. node	8717 Jul 18 15:15	28°♊13'42	
greatest brilliancy	8717 Jul 22 00:02	29°♊13'28	-4.8m
	8717 Jul 24 01:02	0°♋	
morning max el	8717 Aug 30 14:26	28°♋26'18	46°07'42
	8717 Sep 01 04:49	0°♌	
	8717 Sep 29 19:21	0°♍	
	8717 Oct 26 08:55	0°♎	
asc. node	8717 Nov 08 13:41	15°♎22'01	
	8717 Nov 20 23:05	0°♏	
	8717 Dec 15 22:38	0°♐	
	8718 Jan 09 12:29	0°♑	
	8718 Feb 02 19:58	0°♒	
morning set	8718 Feb 25 12:31	28°♒12'21	
	8718 Feb 26 23:03	0°♓	
desc. node	8718 Feb 28 06:37	1°♓38'28	
	8718 Mar 22 22:45	0°♈	
max. Earth dist.	8718 Apr 05 02:03	16°♈29'17	1.71330 AU
superior conj	8718 Apr 06 23:59	18°♈53'32	-1°16'04
minimum elong	8718 Apr 06 13:34	18°♈20'51	1°15'52
	8718 Apr 15 20:07	0°♉	
	8718 May 09 16:50	0°♊	
evening rise	8718 May 17 12:04	9°♊47'43	
	8718 Jun 02 15:03	0°♋	
asc. node	8718 Jun 21 04:20	23°♋08'29	
	8718 Jun 26 16:51	0°♌	
	8718 Jul 21 00:08	0°♍	
	8718 Aug 14 15:15	0°♎	
	8718 Sep 08 18:29	0°♏	
	8718 Oct 04 18:13	0°♐	
desc. node	8718 Oct 10 23:10	6°♐56'44	
	8718 Nov 01 09:48	0°♑	
evening max el	8718 Nov 14 09:47	12°♑57'28	45°48'06
	8718 Dec 04 00:29	0°♒	
greatest brilliancy	8718 Dec 23 18:00	11°♒17'17	-4.8m
retrograde	8719 Jan 02 07:02	12°♒57'29	
evening set	8719 Jan 17 08:09	8°♒33'52	
inferior conj	8719 Jan 23 07:00	5°♒02'12	-2°09'38
minimum elong	8719 Jan 23 11:48	4°♒54'47	2°07'59
min. Earth dist.	8719 Jan 23 23:20	4°♒36'57	0.27780 AU
morning rise	8719 Jan 29 14:43	1°♒16'47	
asc. node	8719 Jan 31 23:08	0°♒04'15	
	8719 Feb 01 02:41	30°℞♑	
direct	8719 Feb 13 08:35	26°♑57'57	
greatest brilliancy	8719 Feb 24 08:23	29°♑13'06	-4.8m
	8719 Feb 26 05:20	0°♒	
morning max el	8719 Apr 04 18:59	29°♒41'04	46°50'07
	8719 Apr 05 02:30	0°♓	
	8719 May 02 20:45	0°♈	
desc. node	8719 May 23 17:44	24°♈12'27	
	8719 May 28 15:10	0°♉	
	8719 Jun 22 14:28	0°♊	
	8719 Jul 17 05:41	0°♋	
	8719 Aug 10 17:55	0°♌	
	8719 Sep 04 05:06	0°♍	
asc. node	8719 Sep 13 14:56	11°♍33'01	
	8719 Sep 28 15:19	0°♎	
morning set	8719 Oct 06 12:36	9°♎41'57	
	8719 Oct 23 00:16	0°♏	
max. Earth dist.	8719 Nov 11 15:58	24°♏13'43	1.73268 AU
superior conj	8719 Nov 12 03:38	24°♏49'43	1°25'33
minimum elong	8719 Nov 12 05:35	24°♏55'42	1°25'43
	8719 Nov 16 08:14	0°♐	
	8719 Dec 10 15:53	0°♑	
evening rise	8719 Dec 19 04:28	10°♑31'04	
desc. node	8720 Jan 03 08:14	29°♑12'38	
	8720 Jan 03 23:35	0°♒	
	8720 Jan 28 07:13	0°♓	
	8720 Feb 21 14:42	0°♈	
	8720 Mar 16 23:19	0°♉	
	8720 Apr 10 12:46	0°♊	
asc. node	8720 Apr 25 06:56	17°♊46'36	
	8720 May 05 14:04	0°♋	
	8720 May 31 17:20	0°♌	
evening max el	8720 Jun 22 01:30	22°♌37'24	46°32'40
	8720 Jun 29 16:16	0°♍	
greatest brilliancy	8720 Jul 30 22:30	22°♍23'58	-4.8m
retrograde	8720 Aug 11 02:47	24°♍41'51	
desc. node	8720 Aug 15 02:44	24°♍22'24	
evening set	8720 Aug 26 06:46	20°♍10'46	
min. Earth dist.	8720 Aug 31 15:59	16°♍58'00	0.28354 AU
inferior conj	8720 Sep 01 10:00	16°♍29'59	-4°05'56
minimum elong	8720 Sep 01 01:42	16°♍42'54	4°03'45
morning rise	8720 Sep 06 21:19	13°♍12'57	
direct	8720 Sep 22 15:47	8°♍26'54	
greatest brilliancy	8720 Oct 02 08:04	10°♍09'07	-4.7m
	8720 Nov 01 11:02	0°♎	
morning max el	8720 Nov 10 09:39	8°♎13'59	45°41'26
	8720 Dec 01 17:32	0°♏	
asc. node	8720 Dec 06 01:54	4°♏42'05	
	8720 Dec 28 14:22	0°♐	
	8721 Jan 23 02:37	0°♑	
	8721 Feb 16 21:49	0°♒	
	8721 Mar 13 07:07	0°♓	
desc. node	8721 Mar 27 18:58	17°♓59'26	
	8721 Apr 06 10:11	0°♈	
	8721 Apr 30 09:23	0°♉	
morning set	8721 May 12 11:51	15°♉11'22	
	8721 May 24 06:56	0°♊	
	8721 Jun 17 04:56	0°♋	

superior conj	8721 Jun 21 12:15	5°♋23'23	-1°00'07
minimum elong	8721 Jun 21 23:37	5°♋58'55	0°59'55
max. Earth dist.	8721 Jun 24 16:30	9°♋21'53	1.71714 AU
	8721 Jul 11 05:07	0°♌	
asc. node	8721 Jul 18 16:23	9°♌18'03	
evening rise	8721 Jul 30 21:51	24°♌29'43	
	8721 Aug 04 08:25	0°♍	
	8721 Aug 28 15:29	0°♎	
	8721 Sep 22 03:24	0°♏	
	8721 Oct 16 22:10	0°♐	
desc. node	8721 Nov 07 10:38	25°♐40'07	
	8721 Nov 11 02:41	0°♑	
	8721 Dec 06 21:14	0°♒	
	8722 Jan 02 15:24	0°♓	
evening max el	8722 Jan 25 17:06	24°♓05'05	46°28'22
	8722 Jan 31 20:21	0°♈	
asc. node	8722 Feb 28 10:31	21°♈19'30	
greatest brilliancy	8722 Mar 06 18:35	24°♈09'06	-4.9m
retrograde	8722 Mar 16 15:44	25°♈58'37	
evening set	8722 Apr 01 23:52	20°♈46'47	
inferior conj	8722 Apr 06 06:42	18°♈11'34	7°56'05
minimum elong	8722 Apr 05 20:50	18°♈26'46	7°54'24
min. Earth dist.	8722 Apr 06 01:19	18°♈19'51	0.27062 AU
morning rise	8722 Apr 09 17:49	16°♈05'16	
direct	8722 Apr 26 23:08	10°♈23'35	
greatest brilliancy	8722 May 06 13:38	12°♈08'33	-4.9m
	8722 Jun 02 12:39	0°♉	
morning max el	8722 Jun 16 09:03	13°♉07'49	46°52'41
desc. node	8722 Jun 20 05:42	17°♉02'51	
	8722 Jul 02 11:45	0°♊	
	8722 Jul 29 04:45	0°♋	
	8722 Aug 23 20:48	0°♌	
	8722 Sep 18 01:41	0°♍	
asc. node	8722 Oct 11 03:19	27°♍46'05	
	8722 Oct 12 23:35	0°♎	
	8722 Nov 06 15:38	0°♏	
	8722 Dec 01 02:49	0°♐	
morning set	8722 Dec 14 00:51	15°♐55'19	
	8722 Dec 25 10:23	0°♑	
max. Earth dist.	8723 Jan 17 20:23	29°♑00'49	1.72484 AU
	8723 Jan 18 15:27	0°♒	
superior conj	8723 Jan 20 13:41	2°♒23'27	0°24'35
minimum elong	8723 Jan 20 19:16	2°♒40'47	0°24'30
desc. node	8723 Jan 30 20:16	15°♒09'21	
	8723 Feb 11 18:30	0°♓	
evening rise	8723 Feb 28 16:24	21°♓05'18	
	8723 Mar 07 19:38	0°♈	
	8723 Mar 31 19:30	0°♉	
	8723 Apr 24 19:57	0°♊	
	8723 May 18 24:00	0°♋	
asc. node	8723 May 23 18:35	5°♋53'15	
	8723 Jun 12 11:31	0°♌	
	8723 Jul 07 12:02	0°♍	
	8723 Aug 02 12:12	0°♎	
	8723 Aug 30 17:58	0°♏	
evening max el	8723 Sep 01 19:31	2°♏01'22	45°50'33
desc. node	8723 Sep 12 13:58	12°♏00'33	
	8723 Oct 09 06:14	0°♐	
greatest brilliancy	8723 Oct 10 16:13	0°♐31'48	-4.7m
retrograde	8723 Oct 20 20:05	2°♐24'06	
	8723 Oct 31 21:23	30°℞♏	
evening set	8723 Nov 08 03:28	26°♏09'23	
inferior conj	8723 Nov 11 09:20	24°♏08'07	-8°36'36
minimum elong	8723 Nov 11 11:07	24°♏05'18	8°36'23
min. Earth dist.	8723 Nov 11 14:03	24°♏00'41	0.29132 AU
morning rise	8723 Nov 14 18:43	22°♏01'16	
direct	8723 Dec 02 22:04	15°♏50'03	
greatest brilliancy	8723 Dec 13 13:25	17°♏53'01	-4.8m
	8724 Jan 02 13:17	0°♐	
asc. node	8724 Jan 03 13:33	0°♐48'19	
morning max el	8724 Jan 21 07:36	16°♐50'14	46°04'19
	8724 Feb 03 03:35	0°♑	
	8724 Mar 01 01:44	0°♒	
	8724 Mar 26 11:47	0°♓	
	8724 Apr 20 04:46	0°♈	
desc. node	8724 Apr 24 07:22	5°♈02'32	
	8724 May 14 12:36	0°♉	
	8724 Jun 07 15:53	0°♊	
	8724 Jul 01 17:57	0°♋	
morning set	8724 Jul 25 07:12	29°♋17'28	
	8724 Jul 25 20:53	0°♌	
asc. node	8724 Aug 15 04:27	25°♌11'50	
	8724 Aug 19 01:30	0°♍	
superior conj	8724 Sep 01 11:24	16°♍35'58	0°40'16
minimum elong	8724 Sep 01 03:24	16°♍11'14	0°39'51
max. Earth dist.	8724 Sep 03 07:52	18°♍53'24	1.72918 AU
	8724 Sep 12 07:39	0°♎	
	8724 Oct 06 15:22	0°♏	
evening rise	8724 Oct 08 05:45	1°♏58'07	
	8724 Oct 31 01:15	0°♐	
	8724 Nov 24 14:17	0°♑	
desc. node	8724 Dec 04 22:19	12°♑34'31	
	8724 Dec 19 07:06	0°♒	
	8725 Jan 13 04:07	0°♓	
	8725 Feb 07 07:12	0°♈	
	8725 Mar 04 23:18	0°♉	
asc. node	8725 Mar 27 21:38	25°♉34'36	
	8725 Apr 01 01:25	0°♊	
evening max el	8725 Apr 08 13:43	7°♊45'10	46°58'44
	8725 May 03 12:10	0°♋	
greatest brilliancy	8725 May 19 04:14	8°♋51'49	-4.9m
retrograde	8725 May 29 03:07	10°♋44'39	
evening set	8725 Jun 14 15:36	5°♋27'17	
inferior conj	8725 Jun 18 22:47	2°♋51'37	6°36'34
minimum elong	8725 Jun 19 09:49	2°♋34'38	6°33'53
min. Earth dist.	8725 Jun 19 01:01	2°♋48'11	0.27265 AU
	8725 Jun 23 17:06	30°℞♊	
morning rise	8725 Jun 24 04:08	29°♊44'26	
direct	8725 Jul 09 15:47	25°♊02'34	
desc. node	8725 Jul 17 17:08	26°♊15'41	
greatest brilliancy	8725 Jul 19 13:21	26°♊51'14	-4.8m
	8725 Jul 26 13:28	0°♋	
morning max el	8725 Aug 28 05:02	26°♋09'25	46°09'26
	8725 Sep 01 02:43	0°♌	
	8725 Sep 29 10:56	0°♍	
	8725 Oct 25 22:05	0°♎	
asc. node	8725 Nov 07 15:45	14°♎51'27	
	8725 Nov 20 11:05	0°♏	
	8725 Dec 15 10:01	0°♐	
	8726 Jan 08 23:34	0°♑	
	8726 Feb 02 06:54	0°♒	
morning set	8726 Feb 23 01:08	25°♒48'13	
	8726 Feb 26 09:54	0°♓	
desc. node	8726 Feb 27 08:29	1°♓10'30	
	8726 Mar 22 09:34	0°♈	
max. Earth dist.	8726 Apr 02 12:28	13°♈57'15	1.71353 AU
superior conj	8726 Apr 04 11:00	16°♈23'23	-1°14'00
minimum elong	8726 Apr 04 00:07	15°♈49'13	1°13'46
	8726 Apr 15 06:56	0°♉	
	8726 May 09 03:42	0°♊	
evening rise	8726 May 14 22:43	7°♊16'25	

	8726 Jun 02 02:00	0°♋	
asc. node	8726 Jun 20 06:20	22°♋40'24	
	8726 Jun 26 03:56	0°♌	
	8726 Jul 20 11:25	0°♍	
	8726 Aug 14 02:57	0°♎	
	8726 Sep 08 07:02	0°♏	
	8726 Oct 04 08:32	0°♐	
desc. node	8726 Oct 10 01:13	6°♐21'03	
	8726 Nov 01 04:30	0°♑	
evening max el	8726 Nov 12 01:12	10°♑45'44	45°47'16
	8726 Dec 04 16:24	0°♒	
greatest brilliancy	8726 Dec 21 07:31	9°♒00'33	-4.8m
retrograde	8726 Dec 30 21:29	10°♒41'03	
evening set	8727 Jan 15 00:27	6°♒14'27	
inferior conj	8727 Jan 20 21:26	2°♒44'56	-2°31'00
minimum elong	8727 Jan 21 02:58	2°♒36'22	2°29'08
min. Earth dist.	8727 Jan 21 14:04	2°♒19'11	0.27835 AU
	8727 Jan 25 10:12	30°℞♑	
morning rise	8727 Jan 27 04:49	29°♑00'00	
asc. node	8727 Jan 31 01:03	27°♑06'31	
direct	8727 Feb 11 00:13	24°♑40'01	
greatest brilliancy	8727 Feb 21 23:36	26°♑55'13	-4.8m
	8727 Feb 28 09:43	0°♒	
morning max el	8727 Apr 02 10:37	27°♒24'13	46°48'56
	8727 Apr 05 00:02	0°♓	
	8727 May 02 12:30	0°♈	
desc. node	8727 May 22 19:49	23°♈37'36	
	8727 May 28 04:42	0°♉	
	8727 Jun 22 02:52	0°♊	
	8727 Jul 16 17:23	0°♋	
	8727 Aug 10 05:08	0°♌	
	8727 Sep 03 15:57	0°♍	
asc. node	8727 Sep 12 16:52	11°♍05'55	
	8727 Sep 28 01:55	0°♎	
morning set	8727 Oct 04 05:46	7°♎34'37	
	8727 Oct 22 10:44	0°♏	
superior conj	8727 Nov 09 21:22	22°♏44'11	1°25'49
minimum elong	8727 Nov 09 22:36	22°♏47'57	1°26'00
max. Earth dist.	8727 Nov 09 13:25	22°♏19'40	1.73274 AU
	8727 Nov 15 18:41	0°♐	
	8727 Dec 10 02:24	0°♑	
evening rise	8727 Dec 16 20:49	8°♑20'50	
desc. node	8728 Jan 02 10:09	28°♑45'34	
	8728 Jan 03 10:18	0°♒	
	8728 Jan 27 18:12	0°♓	
	8728 Feb 21 02:04	0°♈	
	8728 Mar 16 11:13	0°♉	
	8728 Apr 10 01:24	0°♊	
asc. node	8728 Apr 24 09:01	17°♊13'10	
	8728 May 05 04:00	0°♋	
	8728 May 31 10:05	0°♌	
evening max el	8728 Jun 19 17:36	20°♌23'21	46°34'13
	8728 Jun 29 18:12	0°♍	
greatest brilliancy	8728 Jul 28 14:33	20°♍10'27	-4.8m
retrograde	8728 Aug 08 18:38	22°♍27'46	
desc. node	8728 Aug 14 04:39	21°♍52'04	
evening set	8728 Aug 23 20:44	17°♍59'26	
min. Earth dist.	8728 Aug 29 07:19	14°♍44'34	0.28299 AU
inferior conj	8728 Aug 30 01:14	14°♍16'40	-3°47'10
minimum elong	8728 Aug 29 17:25	14°♍28'50	3°45'05
morning rise	8728 Sep 04 14:50	10°♍56'27	
direct	8728 Sep 20 07:05	6°♍14'35	
greatest brilliancy	8728 Sep 29 22:08	7°♍55'53	-4.7m
	8728 Nov 01 13:08	0°♎	
morning max el	8728 Nov 08 00:32	6°♎01'52	45°41'33
	8728 Dec 01 09:48	0°♏	
asc. node	8728 Dec 05 03:48	4°♏04'38	
	8728 Dec 28 03:43	0°♐	
	8729 Jan 22 14:41	0°♑	
	8729 Feb 16 09:16	0°♒	
	8729 Mar 12 18:15	0°♓	
desc. node	8729 Mar 26 20:58	17°♓31'20	
	8729 Apr 05 21:08	0°♈	
	8729 Apr 29 20:15	0°♉	
morning set	8729 May 09 22:39	12°♉40'44	
	8729 May 23 17:41	0°♊	
	8729 Jun 16 15:36	0°♋	
superior conj	8729 Jun 19 00:27	2°♋57'58	-1°02'51
minimum elong	8729 Jun 19 11:53	3°♋33'45	1°02'40
max. Earth dist.	8729 Jun 22 05:17	6°♋58'25	1.71669 AU
	8729 Jul 10 15:43	0°♌	
asc. node	8729 Jul 17 18:13	8°♌50'45	
evening rise	8729 Jul 28 12:18	22°♌12'37	
	8729 Aug 03 19:03	0°♍	
	8729 Aug 28 02:14	0°♎	
	8729 Sep 21 14:23	0°♏	
	8729 Oct 16 09:35	0°♐	
desc. node	8729 Nov 06 12:41	25°♐10'29	
	8729 Nov 10 14:54	0°♑	
	8729 Dec 06 10:57	0°♒	
	8730 Jan 02 08:15	0°♓	
evening max el	8730 Jan 23 06:18	21°♓43'21	46°26'35
	8730 Jan 31 22:45	0°♈	
asc. node	8730 Feb 27 12:27	19°♈42'30	
greatest brilliancy	8730 Mar 04 07:52	21°♈45'06	-4.9m
retrograde	8730 Mar 14 03:50	23°♈33'45	
evening set	8730 Mar 30 08:20	18°♈28'32	
inferior conj	8730 Apr 03 19:36	15°♈46'59	7°43'13
minimum elong	8730 Apr 03 09:19	16°♈02'51	7°41'22
min. Earth dist.	8730 Apr 03 14:44	15°♈54'30	0.27065 AU
morning rise	8730 Apr 07 10:17	13°♈35'15	
direct	8730 Apr 24 11:40	7°♈58'39	
greatest brilliancy	8730 May 04 03:59	9°♈44'44	-4.9m
	8730 Jun 02 18:14	0°♉	
morning max el	8730 Jun 13 21:15	10°♉41'06	46°53'38
desc. node	8730 Jun 19 07:34	16°♉13'28	
	8730 Jul 02 05:37	0°♊	
	8730 Jul 28 19:08	0°♋	
	8730 Aug 23 09:29	0°♌	
	8730 Sep 17 13:25	0°♍	
asc. node	8730 Oct 10 05:20	27°♍18'24	
	8730 Oct 12 10:43	0°♎	
	8730 Nov 06 02:24	0°♏	
	8730 Nov 30 13:22	0°♐	
morning set	8730 Dec 11 17:47	13°♐47'01	
	8730 Dec 24 20:51	0°♑	
max. Earth dist.	8731 Jan 15 12:36	26°♑49'42	1.72524 AU
superior conj	8731 Jan 18 04:45	0°♒08'42	0°27'56
minimum elong	8731 Jan 18 10:59	0°♒28'04	0°27'50
	8731 Jan 18 01:56	0°♒	
desc. node	8731 Jan 29 22:11	14°♒42'36	
	8731 Feb 11 05:04	0°♓	
evening rise	8731 Feb 26 05:55	18°♓44'31	
	8731 Mar 07 06:20	0°♈	
	8731 Mar 31 06:23	0°♉	
	8731 Apr 24 07:05	0°♊	
	8731 May 18 11:30	0°♋	
asc. node	8731 May 22 20:31	5°♋23'30	
	8731 Jun 11 23:37	0°♌	
	8731 Jul 07 01:08	0°♍	
	8731 Aug 02 03:26	0°♎	

evening max el	8731 Aug 30 09:50	29°♎46'43	45°51'41
	8731 Aug 30 15:18	0°♏	
desc. node	8731 Sep 11 16:01	11°♏04'33	
greatest brilliancy	8731 Oct 08 07:01	28°♏21'42	-4.7m
	8731 Oct 14 19:35	0°♐	
retrograde	8731 Oct 18 12:02	0°♐15'34	
	8731 Oct 22 03:03	30°℞♏	
evening set	8731 Nov 05 19:30	24°♏00'32	
inferior conj	8731 Nov 09 01:38	21°♏59'04	-8°37'50
minimum elong	8731 Nov 09 02:37	21°♏57'30	8°37'40
min. Earth dist.	8731 Nov 09 05:20	21°♏53'14	0.29144 AU
morning rise	8731 Nov 12 09:42	19°♏54'22	
direct	8731 Nov 30 13:54	13°♏40'49	
greatest brilliancy	8731 Dec 11 05:28	15°♏43'47	-4.8m
asc. node	8732 Jan 02 15:27	29°♏46'41	
	8732 Jan 02 21:55	0°♐	
morning max el	8732 Jan 18 23:00	14°♐37'09	46°03'02
	8732 Feb 02 21:11	0°♑	
	8732 Feb 29 15:47	0°♒	
	8732 Mar 26 00:21	0°♓	
	8732 Apr 19 16:35	0°♈	
desc. node	8732 Apr 23 09:26	4°♈32'52	
	8732 May 13 23:57	0°♉	
	8732 Jun 07 02:57	0°♊	
	8732 Jul 01 04:49	0°♋	
morning set	8732 Jul 22 21:43	27°♋00'08	
	8732 Jul 25 07:37	0°♌	
asc. node	8732 Aug 14 06:27	24°♌45'10	
	8732 Aug 18 12:06	0°♍	
superior conj	8732 Aug 30 03:26	14°♍24'30	0°37'13
minimum elong	8732 Aug 29 19:52	14°♍01'06	0°36'48
max. Earth dist.	8732 Sep 01 00:10	16°♍42'51	1.72885 AU
	8732 Sep 11 18:11	0°♎	
evening rise	8732 Oct 05 23:06	29°♎51'23	
	8732 Oct 06 01:54	0°♏	
	8732 Oct 30 11:57	0°♐	
	8732 Nov 24 01:17	0°♑	
desc. node	8732 Dec 04 00:13	12°♑06'24	
	8732 Dec 18 18:35	0°♒	
	8733 Jan 12 16:17	0°♓	
	8733 Feb 06 20:28	0°♈	
	8733 Mar 04 14:34	0°♉	
asc. node	8733 Mar 26 23:45	24°♉49'33	
	8733 Mar 31 21:32	0°♊	
evening max el	8733 Apr 06 03:26	5°♊22'41	46°58'39
	8733 May 04 11:08	0°♋	
greatest brilliancy	8733 May 16 18:00	6°♋28'58	-4.9m
retrograde	8733 May 26 17:07	8°♋22'08	
evening set	8733 Jun 12 08:28	2°♋59'29	
inferior conj	8733 Jun 16 12:08	0°♋29'07	6°52'39
minimum elong	8733 Jun 16 23:08	0°♋12'13	6°50'06
min. Earth dist.	8733 Jun 16 14:26	0°♋25'35	0.27256 AU
	8733 Jun 17 07:05	30°℞♊	
morning rise	8733 Jun 21 13:54	27°♊27'18	
direct	8733 Jul 07 05:13	22°♊40'01	
desc. node	8733 Jul 16 19:08	24°♊22'44	
greatest brilliancy	8733 Jul 17 02:13	24°♊28'51	-4.8m
	8733 Jul 28 03:32	0°♋	
morning max el	8733 Aug 25 20:19	23°♋54'08	46°10'58
	8733 Aug 31 23:47	0°♌	
	8733 Sep 29 02:17	0°♍	
	8733 Oct 25 11:09	0°♎	
asc. node	8733 Nov 06 17:42	14°♎20'36	
	8733 Nov 19 22:59	0°♏	
	8733 Dec 14 21:18	0°♐	
	8734 Jan 08 10:32	0°♑	
	8734 Feb 01 17:43	0°♒	
morning set	8734 Feb 20 14:04	23°♒25'30	
	8734 Feb 25 20:39	0°♓	
desc. node	8734 Feb 26 10:30	0°♓43'11	
	8734 Mar 21 20:18	0°♈	
max. Earth dist.	8734 Mar 30 22:32	11°♈24'23	1.71373 AU
superior conj	8734 Apr 01 22:24	13°♈54'39	-1°11'49
minimum elong	8734 Apr 01 11:10	13°♈19'24	1°11'33
	8734 Apr 14 17:42	0°♉	
	8734 May 08 14:30	0°♊	
evening rise	8734 May 12 09:46	4°♊46'32	
	8734 Jun 01 12:52	0°♋	
asc. node	8734 Jun 19 08:12	22°♋12'09	
	8734 Jun 25 14:56	0°♌	
	8734 Jul 19 22:42	0°♍	
	8734 Aug 13 14:44	0°♎	
	8734 Sep 07 19:46	0°♏	
	8734 Oct 03 23:10	0°♐	
desc. node	8734 Oct 09 03:14	5°♐44'36	
	8734 Oct 31 23:53	0°♑	
evening max el	8734 Nov 09 16:51	8°♑34'13	45°46'35
	8734 Dec 05 14:02	0°♒	
greatest brilliancy	8734 Dec 18 21:33	6°♒44'32	-4.8m
retrograde	8734 Dec 28 11:42	8°♒24'41	
evening set	8735 Jan 12 17:01	3°♒55'13	
inferior conj	8735 Jan 18 11:58	0°♒27'55	-2°51'52
minimum elong	8735 Jan 18 18:11	0°♒18'17	2°49'50
min. Earth dist.	8735 Jan 19 04:55	0°♒01'38	0.27888 AU
	8735 Jan 19 05:58	30°℞♑	
morning rise	8735 Jan 24 18:46	26°♑43'33	
asc. node	8735 Jan 30 03:05	24°♑13'11	
direct	8735 Feb 08 15:51	22°♑22'30	
greatest brilliancy	8735 Feb 19 14:44	24°♑37'17	-4.8m
	8735 Mar 01 20:00	0°♒	
morning max el	8735 Mar 31 01:27	25°♒05'12	46°47'40
	8735 Apr 04 20:51	0°♓	
	8735 May 02 04:03	0°♈	
desc. node	8735 May 21 21:37	23°♈01'59	
	8735 May 27 18:11	0°♉	
	8735 Jun 21 15:16	0°♊	
	8735 Jul 16 05:06	0°♋	
	8735 Aug 09 16:23	0°♌	
	8735 Sep 03 02:54	0°♍	
asc. node	8735 Sep 11 18:52	10°♍38'41	
	8735 Sep 27 12:40	0°♎	
morning set	8735 Oct 01 22:44	5°♎26'14	
	8735 Oct 21 21:24	0°♏	
superior conj	8735 Nov 07 14:54	20°♏37'25	1°25'58
minimum elong	8735 Nov 07 15:25	20°♏38'59	1°26'09
max. Earth dist.	8735 Nov 07 08:26	20°♏17'27	1.73280 AU
	8735 Nov 15 05:21	0°♐	
	8735 Dec 09 13:09	0°♑	
evening rise	8735 Dec 14 12:54	6°♑09'08	
desc. node	8736 Jan 01 12:02	28°♑17'46	
	8736 Jan 02 21:13	0°♒	
	8736 Jan 27 05:24	0°♓	
	8736 Feb 20 13:39	0°♈	
	8736 Mar 15 23:19	0°♉	
	8736 Apr 09 14:18	0°♊	
asc. node	8736 Apr 23 10:56	16°♊38'29	
	8736 May 04 18:16	0°♋	
	8736 May 31 03:21	0°♌	
evening max el	8736 Jun 17 08:59	18°♌06'55	46°35'45
	8736 Jun 29 21:53	0°♍	
greatest brilliancy	8736 Jul 26 07:09	17°♍57'11	-4.8m

retrograde	8736 Aug 06 10:04	20°♍13'20		
desc. node	8736 Aug 13 06:41	19°♍16'19		
evening set	8736 Aug 21 10:58	15°♍47'30		
min. Earth dist.	8736 Aug 26 23:04	12°♍30'24	0.28247 AU	
inferior conj	8736 Aug 27 16:34	12°♍03'07	-3°28'07	
minimum elong	8736 Aug 27 09:17	12°♍14'29	3°26'08	
morning rise	8736 Sep 02 08:19	8°♍39'43		
direct	8736 Sep 17 22:04	4°♍01'56		
greatest brilliancy	8736 Sep 27 12:52	5°♍42'46	-4.7m	
	8736 Nov 01 14:10	0°♎		
morning max el	8736 Nov 05 14:34	3°♎46'48	45°41'33	
	8736 Dec 01 02:07	0°♏		
asc. node	8736 Dec 04 05:43	3°♏26'31		
	8736 Dec 27 17:19	0°♐		
	8737 Jan 22 03:04	0°♑		
	8737 Feb 15 21:01	0°♒		
	8737 Mar 12 05:39	0°♓		
desc. node	8737 Mar 25 22:56	17°♓02'17		
	8737 Apr 05 08:21	0°♈		
	8737 Apr 29 07:21	0°♉		
morning set	8737 May 07 09:20	10°♉08'51		
	8737 May 23 04:43	0°♊		
	8737 Jun 16 02:34	0°♋		
superior conj	8737 Jun 16 12:43	0°♋31'47	-1°05'28	
minimum elong	8737 Jun 17 00:08	1°♋07'33	1°05'19	
max. Earth dist.	8737 Jun 19 15:29	4°♋25'50	1.71626 AU	
	8737 Jul 10 02:38	0°♌		
asc. node	8737 Jul 16 20:15	8°♌23'08		
evening rise	8737 Jul 26 02:42	19°♌54'25		
	8737 Aug 03 05:59	0°♍		
	8737 Aug 27 13:16	0°♎		
	8737 Sep 21 01:41	0°♏		
	8737 Oct 15 21:23	0°♐		
desc. node	8737 Nov 05 14:32	24°♐39'04		
	8737 Nov 10 03:36	0°♑		
	8737 Dec 06 01:17	0°♒		
	8738 Jan 02 02:01	0°♓		
evening max el	8738 Jan 20 18:51	19°♓18'42	46°24'55	
	8738 Feb 01 03:28	0°♈		
asc. node	8738 Feb 26 14:32	18°♈00'30		
greatest brilliancy	8738 Mar 01 21:03	19°♈19'35	-4.9m	
retrograde	8738 Mar 11 16:06	21°♈07'53		
evening set	8738 Mar 27 16:52	16°♈08'42		
inferior conj	8738 Apr 01 08:30	13°♈21'14	7°29'34	
minimum elong	8738 Mar 31 21:52	13°♈37'37	7°27'32	
min. Earth dist.	8738 Apr 01 04:07	13°♈27'59	0.27067 AU	
morning rise	8738 Apr 05 02:47	11°♈04'12		
direct	8738 Apr 22 00:06	5°♈32'23		
greatest brilliancy	8738 May 01 18:26	7°♈20'06	-4.9m	
	8738 Jun 02 22:20	0°♉		
morning max el	8738 Jun 11 09:52	8°♉14'27	46°54'33	
desc. node	8738 Jun 18 09:35	15°♉24'16		
	8738 Jul 01 23:26	0°♊		
	8738 Jul 28 09:41	0°♋		
	8738 Aug 22 22:28	0°♌		
	8738 Sep 17 01:28	0°♍		
asc. node	8738 Oct 09 07:16	26°♍49'24		
	8738 Oct 11 22:10	0°♎		
	8738 Nov 05 13:30	0°♏		
	8738 Nov 30 00:16	0°♐		
morning set	8738 Dec 09 10:44	11°♐37'39		
	8738 Dec 24 07:43	0°♑		
max. Earth dist.	8739 Jan 13 06:18	24°♑41'54	1.72569 AU	
superior conj	8739 Jan 15 19:40	27°♑52'13	0°31'15	
minimum elong	8739 Jan 16 02:31	28°♑13'29	0°31'08	
	8739 Jan 17 12:52	0°♒		
desc. node	8739 Jan 29 00:15	14°♒14'58		
	8739 Feb 10 16:06	0°♓		
evening rise	8739 Feb 23 19:12	16°♓21'39		
	8739 Mar 06 17:31	0°♈		
	8739 Mar 30 17:43	0°♉		
	8739 Apr 23 18:39	0°♊		
	8739 May 17 23:25	0°♋		
asc. node	8739 May 21 22:26	4°♋52'30		
	8739 Jun 11 12:08	0°♌		
	8739 Jul 06 14:45	0°♍		
	8739 Aug 01 19:20	0°♎		
evening max el	8739 Aug 28 00:49	27°♎32'32	45°52'53	
	8739 Aug 30 13:57	0°♏		
desc. node	8739 Sep 10 18:04	10°♏06'08		
greatest brilliancy	8739 Oct 05 21:18	26°♏10'00	-4.7m	
retrograde	8739 Oct 16 04:32	28°♏06'03		
evening set	8739 Nov 03 11:09	21°♏51'08		
inferior conj	8739 Nov 06 17:53	19°♏48'56	-8°38'20	
minimum elong	8739 Nov 06 18:06	19°♏48'36	8°38'11	
min. Earth dist.	8739 Nov 06 20:12	19°♏45'19	0.29155 AU	
morning rise	8739 Nov 10 01:00	17°♏45'56		
direct	8739 Nov 28 06:08	11°♏30'39		
greatest brilliancy	8739 Dec 08 20:58	13°♏33'12	-4.7m	
asc. node	8740 Jan 01 17:30	28°♏45'49		
	8740 Jan 03 04:30	0°♐		
morning max el	8740 Jan 16 15:02	12°♐24'43	46°01'36	
	8740 Feb 02 14:48	0°♑		
	8740 Feb 29 06:09	0°♒		
	8740 Mar 25 13:21	0°♓		
	8740 Apr 19 04:49	0°♈		
desc. node	8740 Apr 22 11:18	4°♈01'13		
	8740 May 13 11:43	0°♉		
	8740 Jun 06 14:23	0°♊		
	8740 Jun 30 16:01	0°♋		
morning set	8740 Jul 20 12:05	24°♋41'16		
	8740 Jul 24 18:39	0°♌		
asc. node	8740 Aug 13 08:26	24°♌17'26		
	8740 Aug 17 23:01	0°♍		
superior conj	8740 Aug 27 19:21	12°♍11'36	0°34'06	
minimum elong	8740 Aug 27 12:16	11°♍49'42	0°33'41	
max. Earth dist.	8740 Aug 29 18:05	14°♍36'10	1.72854 AU	
	8740 Sep 11 05:02	0°♎		
evening rise	8740 Oct 03 16:35	27°♎43'58		
	8740 Oct 05 12:47	0°♏		
	8740 Oct 29 22:58	0°♐		
	8740 Nov 23 12:37	0°♑		
desc. node	8740 Dec 03 02:13	11°♑37'39		
	8740 Dec 18 06:23	0°♒		
	8741 Jan 12 04:50	0°♓		
	8741 Feb 06 10:12	0°♈		
	8741 Mar 04 06:31	0°♉		
asc. node	8741 Mar 26 01:36	24°♉01'39		
	8741 Mar 31 18:56	0°♊		
evening max el	8741 Apr 03 17:55	3°♊00'37	46°58'25	
	8741 May 05 20:25	0°♋		
greatest brilliancy	8741 May 14 07:25	4°♋04'01	-4.9m	
retrograde	8741 May 24 07:10	5°♋57'28		
evening set	8741 Jun 10 01:15	0°♋29'45		
	8741 Jun 10 21:25	30°℞♊		
inferior conj	8741 Jun 14 01:16	28°♊04'37	7°08'14	
minimum elong	8741 Jun 14 12:09	27°♊47'54	7°05'48	
min. Earth dist.	8741 Jun 14 03:19	28°♊01'28	0.27243 AU	
morning rise	8741 Jun 18 23:12	25°♊08'30		
direct	8741 Jul 04 18:45	20°♊15'54		
greatest brilliancy	8741 Jul 14 14:16	22°♊04'03	-4.8m	

desc. node	8741 Jul 15 21:12	22°♊32'41	
	8741 Jul 29 06:54	0°♋	
morning max el	8741 Aug 23 11:13	21°♋37'00	46°12'29
	8741 Aug 31 20:27	0°♌	
	8741 Sep 28 17:40	0°♍	
	8741 Oct 25 00:21	0°♎	
asc. node	8741 Nov 05 19:32	13°♎48'53	
	8741 Nov 19 11:04	0°♏	
	8741 Dec 14 08:47	0°♐	
	8742 Jan 07 21:42	0°♑	
	8742 Feb 01 04:44	0°♒	
morning set	8742 Feb 18 03:22	21°♒03'21	
	8742 Feb 25 07:37	0°♓	
desc. node	8742 Feb 25 12:28	0°♓15'07	
	8742 Mar 21 07:16	0°♈	
max. Earth dist.	8742 Mar 28 06:39	8°♈44'46	1.71400 AU
superior conj	8742 Mar 30 09:48	11°♈25'15	-1°09'30
minimum elong	8742 Mar 29 22:19	10°♈49'14	1°09'10
	8742 Apr 14 04:43	0°♉	
	8742 May 08 01:35	0°♊	
evening rise	8742 May 09 20:23	2°♊14'22	
	8742 Jun 01 00:02	0°♋	
asc. node	8742 Jun 18 10:14	21°♋43'33	
	8742 Jun 25 02:13	0°♌	
	8742 Jul 19 10:13	0°♍	
	8742 Aug 13 02:46	0°♎	
	8742 Sep 07 08:46	0°♏	
	8742 Oct 03 14:10	0°♐	
desc. node	8742 Oct 08 05:07	5°♐06'55	
	8742 Oct 31 20:03	0°♑	
evening max el	8742 Nov 07 08:03	6°♑21'17	45°45'51
	8742 Dec 06 20:03	0°♒	
greatest brilliancy	8742 Dec 16 12:19	4°♒29'27	-4.8m
retrograde	8742 Dec 26 01:40	6°♒08'41	
evening set	8743 Jan 10 09:51	1°♒36'16	
	8743 Jan 13 04:10	30°℞♑	
inferior conj	8743 Jan 16 02:42	28°♑11'29	-3°12'18
minimum elong	8743 Jan 16 09:32	28°♑00'51	3°10'07
min. Earth dist.	8743 Jan 16 20:10	27°♑44'21	0.27939 AU
morning rise	8743 Jan 22 08:38	24°♑27'47	
asc. node	8743 Jan 29 05:03	21°♑25'03	
direct	8743 Feb 06 07:06	20°♑05'33	
greatest brilliancy	8743 Feb 17 06:12	22°♑20'03	-4.8m
	8743 Mar 02 20:15	0°♒	
morning max el	8743 Mar 28 15:19	22°♒43'49	46°46'21
	8743 Apr 04 16:59	0°♓	
	8743 May 01 19:25	0°♈	
desc. node	8743 May 20 23:38	22°♈26'54	
	8743 May 27 07:39	0°♉	
	8743 Jun 21 03:44	0°♊	
	8743 Jul 15 16:55	0°♋	
	8743 Aug 09 03:44	0°♌	
	8743 Sep 02 13:53	0°♍	
asc. node	8743 Sep 10 20:45	10°♍10'57	
	8743 Sep 26 23:26	0°♎	
morning set	8743 Sep 29 15:34	3°♎17'18	
	8743 Oct 21 08:04	0°♏	
superior conj	8743 Nov 05 08:32	18°♏30'59	1°26'01
minimum elong	8743 Nov 05 08:19	18°♏30'20	1°26'10
max. Earth dist.	8743 Nov 05 02:16	18°♏11'40	1.73284 AU
	8743 Nov 14 16:00	0°♐	
	8743 Dec 08 23:54	0°♑	
evening rise	8743 Dec 12 05:13	3°♑58'14	
desc. node	8743 Dec 31 14:07	27°♑50'35	
	8744 Jan 02 08:08	0°♒	
	8744 Jan 26 16:35	0°♓	
	8744 Feb 20 01:11	0°♈	
	8744 Mar 15 11:22	0°♉	
	8744 Apr 09 03:09	0°♊	
asc. node	8744 Apr 22 12:52	16°♊03'59	
	8744 May 04 08:35	0°♋	
	8744 May 30 20:58	0°♌	
evening max el	8744 Jun 14 23:24	15°♌47'55	46°37'05
	8744 Jun 30 03:31	0°♍	
greatest brilliancy	8744 Jul 23 23:56	15°♍43'33	-4.8m
retrograde	8744 Aug 04 01:05	17°♍58'29	
desc. node	8744 Aug 12 08:40	16°♍34'59	
evening set	8744 Aug 19 01:14	13°♍34'42	
min. Earth dist.	8744 Aug 24 15:01	10°♍15'21	0.28195 AU
inferior conj	8744 Aug 25 07:47	9°♍49'13	-3°08'28
minimum elong	8744 Aug 25 01:05	9°♍59'40	3°06'38
morning rise	8744 Aug 31 01:36	6°♍22'46	
direct	8744 Sep 15 12:26	1°♍48'48	
greatest brilliancy	8744 Sep 25 04:03	3°♍29'55	-4.7m
	8744 Nov 01 13:53	0°♎	
morning max el	8744 Nov 03 04:11	1°♎30'58	45°41'47
	8744 Nov 30 17:58	0°♏	
asc. node	8744 Dec 03 07:49	2°♏49'48	
	8744 Dec 27 06:35	0°♐	
	8745 Jan 21 15:10	0°♑	
	8745 Feb 15 08:31	0°♒	
	8745 Mar 11 16:50	0°♓	
desc. node	8745 Mar 25 00:49	16°♓33'44	
	8745 Apr 04 19:20	0°♈	
	8745 Apr 28 18:12	0°♉	
morning set	8745 May 04 20:19	7°♉38'41	
	8745 May 22 15:27	0°♊	
superior conj	8745 Jun 14 01:09	28°♊06'58	-1°07'57
minimum elong	8745 Jun 14 12:28	28°♊42'24	1°07'49
	8745 Jun 15 13:15	0°♋	
max. Earth dist.	8745 Jun 16 23:46	1°♋48'04	1.71588 AU
	8745 Jul 09 13:19	0°♌	
asc. node	8745 Jul 15 22:14	7°♌56'04	
evening rise	8745 Jul 23 17:00	17°♌36'33	
	8745 Aug 02 16:43	0°♍	
	8745 Aug 27 00:07	0°♎	
	8745 Sep 20 12:47	0°♏	
	8745 Oct 15 08:58	0°♐	
desc. node	8745 Nov 04 16:35	24°♐08'52	
	8745 Nov 09 16:06	0°♑	
	8745 Dec 05 15:28	0°♒	
	8746 Jan 01 19:51	0°♓	
evening max el	8746 Jan 18 07:43	16°♓56'05	46°23'19
	8746 Feb 01 09:46	0°♈	
asc. node	8746 Feb 25 16:28	16°♈15'31	
greatest brilliancy	8746 Feb 27 09:50	16°♈54'52	-4.9m
retrograde	8746 Mar 09 04:57	18°♈43'34	
evening set	8746 Mar 25 01:38	13°♈49'51	
inferior conj	8746 Mar 29 21:28	10°♈56'46	7°15'04
minimum elong	8746 Mar 29 10:35	11°♈13'29	7°12'51
min. Earth dist.	8746 Mar 29 17:23	11°♈03'04	0.27070 AU
morning rise	8746 Apr 02 19:27	8°♈34'35	
direct	8746 Apr 19 12:56	3°♈07'27	
greatest brilliancy	8746 Apr 29 08:34	4°♈56'32	-4.9m
	8746 Jun 03 00:16	0°♉	
morning max el	8746 Jun 08 23:31	5°♉51'42	46°55'32
desc. node	8746 Jun 17 11:38	14°♉37'17	
	8746 Jul 01 16:22	0°♊	
	8746 Jul 27 23:38	0°♋	
	8746 Aug 22 10:57	0°♌	
	8746 Sep 16 13:06	0°♍	

asc. node	8746 Oct 08 09:10	26°♍21'26	
	8746 Oct 11 09:15	0°♎	
	8746 Nov 05 00:14	0°♏	
	8746 Nov 29 10:49	0°♐	
morning set	8746 Dec 07 03:45	9°♐29'38	
	8746 Dec 23 18:12	0°♑	
max. Earth dist.	8747 Jan 11 01:49	22°♑40'57	1.72610 AU
superior conj	8747 Jan 13 10:43	25°♑37'20	0°34'30
minimum elong	8747 Jan 13 18:08	26°♑00'21	0°34'22
	8747 Jan 16 23:23	0°♒	
desc. node	8747 Jan 28 02:08	13°♒48'01	
	8747 Feb 10 02:45	0°♓	
evening rise	8747 Feb 21 08:43	14°♓00'51	
	8747 Mar 06 04:18	0°♈	
	8747 Mar 30 04:41	0°♉	
	8747 Apr 23 05:50	0°♊	
	8747 May 17 10:58	0°♋	
asc. node	8747 May 21 00:30	4°♋23'12	
	8747 Jun 11 00:16	0°♌	
	8747 Jul 06 03:57	0°♍	
	8747 Aug 01 10:56	0°♎	
evening max el	8747 Aug 25 16:42	25°♎22'02	45°53'59
	8747 Aug 30 13:00	0°♏	
desc. node	8747 Sep 09 19:57	9°♏07'20	
greatest brilliancy	8747 Oct 03 11:30	23°♏59'33	-4.7m
retrograde	8747 Oct 13 21:22	25°♏57'42	
evening set	8747 Nov 01 02:36	19°♏43'33	
inferior conj	8747 Nov 04 10:11	17°♏40'02	-8°38'07
minimum elong	8747 Nov 04 09:38	17°♏40'54	8°37'57
min. Earth dist.	8747 Nov 04 10:51	17°♏38'59	0.29162 AU
morning rise	8747 Nov 07 16:41	15°♏38'09	
direct	8747 Nov 25 22:50	9°♏21'57	
greatest brilliancy	8747 Dec 06 11:56	11°♏23'20	-4.7m
asc. node	8747 Dec 31 19:28	27°♏47'21	
	8748 Jan 03 08:28	0°♐	
morning max el	8748 Jan 14 07:26	10°♐14'38	46°00'11
	8748 Feb 02 07:35	0°♑	
	8748 Feb 28 19:55	0°♒	
	8748 Mar 25 01:47	0°♓	
	8748 Apr 18 16:33	0°♈	
desc. node	8748 Apr 21 13:16	3°♈31'22	
	8748 May 12 23:01	0°♉	
	8748 Jun 06 01:23	0°♊	
	8748 Jun 30 02:47	0°♋	
morning set	8748 Jul 18 02:42	22°♋24'28	
	8748 Jul 24 05:14	0°♌	
asc. node	8748 Aug 12 10:18	23°♌50'48	
	8748 Aug 17 09:28	0°♍	
superior conj	8748 Aug 25 11:28	10°♍00'43	0°30'56
minimum elong	8748 Aug 25 04:55	9°♍40'26	0°30'32
max. Earth dist.	8748 Aug 27 14:08	12°♍37'30	1.72821 AU
	8748 Sep 10 15:26	0°♎	
evening rise	8748 Oct 01 10:19	25°♎38'37	
	8748 Oct 04 23:14	0°♏	
	8748 Oct 29 09:36	0°♐	
	8748 Nov 22 23:34	0°♑	
desc. node	8748 Dec 02 04:14	11°♑10'08	
	8748 Dec 17 17:49	0°♒	
	8749 Jan 11 17:01	0°♓	
	8749 Feb 05 23:37	0°♈	
	8749 Mar 03 22:16	0°♉	
asc. node	8749 Mar 25 03:37	23°♉14'41	
	8749 Mar 31 16:37	0°♊	
evening max el	8749 Apr 01 08:33	0°♊40'12	46°58'01
	8749 May 07 21:15	0°♋	
greatest brilliancy	8749 May 11 21:12	1°♋40'45	-4.9m
retrograde	8749 May 21 21:02	3°♋33'45	
	8749 Jun 04 04:01	30°℞♊	
evening set	8749 Jun 07 18:06	28°♊01'12	
inferior conj	8749 Jun 11 14:24	25°♊41'15	7°23'02
minimum elong	8749 Jun 12 01:06	25°♊24'48	7°20'45
min. Earth dist.	8749 Jun 11 16:17	25°♊38'22	0.27229 AU
morning rise	8749 Jun 16 08:18	22°♊50'49	
direct	8749 Jul 02 08:17	17°♊52'57	
greatest brilliancy	8749 Jul 12 02:18	19°♊40'02	-4.8m
desc. node	8749 Jul 14 23:07	20°♊47'42	
	8749 Jul 30 02:23	0°♋	
morning max el	8749 Aug 21 01:23	19°♋19'03	46°14'09
	8749 Aug 31 16:00	0°♌	
	8749 Sep 28 08:21	0°♍	
	8749 Oct 24 13:00	0°♎	
asc. node	8749 Nov 04 21:39	13°♎19'20	
	8749 Nov 18 22:42	0°♏	
	8749 Dec 13 19:53	0°♐	
	8750 Jan 07 08:32	0°♑	
	8750 Jan 31 15:26	0°♒	
morning set	8750 Feb 15 16:41	18°♒42'16	
desc. node	8750 Feb 24 14:22	29°♒47'52	
	8750 Feb 24 18:15	0°♓	
	8750 Mar 20 17:54	0°♈	
max. Earth dist.	8750 Mar 25 13:03	6°♈00'55	1.71427 AU
superior conj	8750 Mar 27 21:13	8°♈57'04	-1°07'02
minimum elong	8750 Mar 27 09:35	8°♈20'33	1°06'41
	8750 Apr 13 15:24	0°♉	
evening rise	8750 May 07 06:59	29°♉43'09	
	8750 May 07 12:21	0°♊	
	8750 May 31 10:54	0°♋	
asc. node	8750 Jun 17 12:12	21°♋15'35	
	8750 Jun 24 13:14	0°♌	
	8750 Jul 18 21:31	0°♍	
	8750 Aug 12 14:35	0°♎	
	8750 Sep 06 21:32	0°♏	
	8750 Oct 03 05:00	0°♐	
desc. node	8750 Oct 07 07:12	4°♐30'30	
	8750 Oct 31 16:28	0°♑	
evening max el	8750 Nov 04 22:17	4°♑07'03	45°45'09
	8750 Dec 08 15:05	0°♒	
greatest brilliancy	8750 Dec 14 03:29	2°♒15'50	-4.8m
retrograde	8750 Dec 23 15:21	3°♒53'58	
	8751 Jan 06 19:50	30°℞♑	
evening set	8751 Jan 08 02:52	29°♑18'07	
inferior conj	8751 Jan 13 17:33	25°♑56'15	-3°32'21
minimum elong	8751 Jan 14 00:58	25°♑44'41	3°30'01
min. Earth dist.	8751 Jan 14 11:47	25°♑27'50	0.27994 AU
morning rise	8751 Jan 19 22:25	22°♑13'26	
asc. node	8751 Jan 28 07:00	18°♑42'48	
direct	8751 Feb 03 22:03	17°♑49'28	
greatest brilliancy	8751 Feb 14 22:24	20°♑04'30	-4.8m
	8751 Mar 03 13:48	0°♒	
morning max el	8751 Mar 26 04:51	20°♒22'05	46°45'03
	8751 Apr 04 12:19	0°♓	
	8751 May 01 10:23	0°♈	
desc. node	8751 May 20 01:43	21°♈52'55	
	8751 May 26 20:49	0°♉	
	8751 Jun 20 15:55	0°♊	
	8751 Jul 15 04:29	0°♋	
	8751 Aug 08 14:52	0°♌	
	8751 Sep 02 00:44	0°♍	
asc. node	8751 Sep 09 22:42	9°♍43'52	
	8751 Sep 26 10:04	0°♎	
morning set	8751 Sep 27 08:23	1°♎08'41	

	8751 Oct 20 18:35	0°♏	
superior conj	8751 Nov 03 02:19	16°♏25'34	1°25'55
minimum elong	8751 Nov 03 01:23	16°♏22'40	1°26'04
max. Earth dist.	8751 Nov 02 19:32	16°♏04'40	1.73286 AU
	8751 Nov 14 02:30	0°♐	
	8751 Dec 08 10:29	0°♑	
evening rise	8751 Dec 09 21:46	1°♑48'42	
desc. node	8751 Dec 30 16:02	27°♑23'20	
	8752 Jan 01 18:55	0°♒	
	8752 Jan 26 03:40	0°♓	
	8752 Feb 19 12:42	0°♈	
	8752 Mar 14 23:26	0°♉	
	8752 Apr 08 16:04	0°♊	
asc. node	8752 Apr 21 14:57	15°♊29'42	
	8752 May 03 23:03	0°♋	
	8752 May 30 14:59	0°♌	
evening max el	8752 Jun 12 12:51	13°♌26'25	46°38'32
	8752 Jun 30 11:30	0°♍	
greatest brilliancy	8752 Jul 21 16:17	13°♍28'58	-4.8m
retrograde	8752 Aug 01 16:04	15°♍43'13	
desc. node	8752 Aug 11 10:38	13°♍48'06	
evening set	8752 Aug 16 15:27	11°♍20'48	
inferior conj	8752 Aug 22 22:49	7°♍34'40	-2°48'18
minimum elong	8752 Aug 22 16:44	7°♍44'08	2°46'37
min. Earth dist.	8752 Aug 22 06:51	7°♍59'32	0.28146 AU
morning rise	8752 Aug 28 18:37	4°♍05'26	
	8752 Sep 08 11:14	30°℞♌	
direct	8752 Sep 13 02:23	29°♌34'42	
	8752 Sep 17 20:14	0°♍	
greatest brilliancy	8752 Sep 22 19:22	1°♍16'43	-4.7m
morning max el	8752 Oct 31 18:23	29°♍16'16	45°42'16
	8752 Nov 01 12:38	0°♎	
	8752 Nov 30 09:35	0°♏	
asc. node	8752 Dec 02 09:42	2°♏12'44	
	8752 Dec 26 19:45	0°♐	
	8753 Jan 21 03:13	0°♑	
	8753 Feb 14 20:01	0°♒	
	8753 Mar 11 04:02	0°♓	
desc. node	8753 Mar 24 02:51	16°♓05'25	
	8753 Apr 04 06:25	0°♈	
	8753 Apr 28 05:10	0°♉	
morning set	8753 May 02 06:50	5°♉06'34	
	8753 May 22 02:21	0°♊	
superior conj	8753 Jun 11 13:06	25°♊40'04	-1°10'20
minimum elong	8753 Jun 12 00:14	26°♊14'55	1°10'13
max. Earth dist.	8753 Jun 14 06:25	29°♊04'41	1.71551 AU
	8753 Jun 15 00:05	0°♋	
	8753 Jul 09 00:08	0°♌	
asc. node	8753 Jul 15 00:04	7°♌28'09	
evening rise	8753 Jul 21 06:56	15°♌17'07	
	8753 Aug 02 03:35	0°♍	
	8753 Aug 26 11:08	0°♎	
	8753 Sep 20 00:05	0°♏	
	8753 Oct 14 20:47	0°♐	
desc. node	8753 Nov 03 18:37	23°♐37'57	
	8753 Nov 09 04:51	0°♑	
	8753 Dec 05 05:59	0°♒	
	8754 Jan 01 14:15	0°♓	
evening max el	8754 Jan 15 21:23	14°♓35'28	46°21'48
	8754 Feb 01 18:39	0°♈	
asc. node	8754 Feb 24 18:26	14°♈26'09	
greatest brilliancy	8754 Feb 24 22:00	14°♈29'21	-4.9m
retrograde	8754 Mar 06 18:20	16°♈18'56	
evening set	8754 Mar 22 10:34	11°♈30'22	
inferior conj	8754 Mar 27 10:25	8°♈31'45	6°59'37
minimum elong	8754 Mar 26 23:23	8°♈48'41	6°57'17
min. Earth dist.	8754 Mar 27 06:20	8°♈38'02	0.27077 AU
morning rise	8754 Mar 31 12:06	6°♈04'25	
direct	8754 Apr 17 02:17	0°♈42'02	
greatest brilliancy	8754 Apr 26 22:17	2°♈31'50	-4.9m
	8754 Jun 03 01:14	0°♉	
morning max el	8754 Jun 06 14:06	3°♉30'23	46°56'15
desc. node	8754 Jun 16 13:31	13°♉49'34	
	8754 Jul 01 09:19	0°♊	
	8754 Jul 27 13:47	0°♋	
	8754 Aug 21 23:41	0°♌	
	8754 Sep 16 00:59	0°♍	
asc. node	8754 Oct 07 11:12	25°♍53'04	
	8754 Oct 10 20:36	0°♎	
	8754 Nov 04 11:15	0°♏	
	8754 Nov 28 21:39	0°♐	
morning set	8754 Dec 04 20:46	7°♐20'48	
	8754 Dec 23 04:59	0°♑	
max. Earth dist.	8755 Jan 08 20:34	20°♑36'46	1.72643 AU
superior conj	8755 Jan 11 01:57	23°♑22'16	0°37'42
minimum elong	8755 Jan 11 09:52	23°♑46'49	0°37'32
	8755 Jan 16 10:12	0°♒	
desc. node	8755 Jan 27 04:04	13°♒20'23	
	8755 Feb 09 13:39	0°♓	
evening rise	8755 Feb 18 22:30	11°♓40'08	
	8755 Mar 05 15:19	0°♈	
	8755 Mar 29 15:53	0°♉	
	8755 Apr 22 17:20	0°♊	
	8755 May 16 22:53	0°♋	
asc. node	8755 May 20 02:25	3°♋52'15	
	8755 Jun 10 12:50	0°♌	
	8755 Jul 05 17:43	0°♍	
	8755 Aug 01 03:18	0°♎	
evening max el	8755 Aug 23 09:01	23°♎11'05	45°55'12
	8755 Aug 30 13:46	0°♏	
desc. node	8755 Sep 08 22:01	8°♏06'07	
greatest brilliancy	8755 Oct 01 01:55	21°♏47'52	-4.7m
retrograde	8755 Oct 11 13:55	23°♏47'27	
evening set	8755 Oct 29 17:34	17°♏34'53	
inferior conj	8755 Nov 02 02:19	15°♏29'26	-8°37'10
minimum elong	8755 Nov 02 01:00	15°♏31'30	8°36'59
min. Earth dist.	8755 Nov 02 01:18	15°♏31'02	0.29163 AU
morning rise	8755 Nov 05 08:29	13°♏28'04	
direct	8755 Nov 23 15:31	7°♏11'44	
greatest brilliancy	8755 Dec 04 02:08	9°♏11'05	-4.7m
asc. node	8755 Dec 30 21:24	26°♏48'45	
	8756 Jan 03 11:21	0°♐	
morning max el	8756 Jan 11 23:27	8°♐02'27	45°58'50
	8756 Feb 02 00:28	0°♑	
	8756 Feb 28 09:54	0°♒	
	8756 Mar 24 14:28	0°♓	
	8756 Apr 18 04:31	0°♈	
desc. node	8756 Apr 20 15:18	3°♈00'54	
	8756 May 12 10:34	0°♉	
	8756 Jun 05 12:41	0°♊	
	8756 Jun 29 13:55	0°♋	
morning set	8756 Jul 15 17:03	20°♋05'33	
	8756 Jul 23 16:13	0°♌	
asc. node	8756 Aug 11 12:19	23°♌23'19	
	8756 Aug 16 20:20	0°♍	
superior conj	8756 Aug 23 03:07	7°♍46'54	0°27'41
minimum elong	8756 Aug 22 21:09	7°♍28'28	0°27'18
max. Earth dist.	8756 Aug 25 09:48	10°♍36'12	1.72786 AU
	8756 Sep 10 02:15	0°♎	
evening rise	8756 Sep 29 03:32	23°♎30'20	

	8756 Oct 04 10:07	0°♏	
	8756 Oct 28 20:40	0°♐	
	8756 Nov 22 10:58	0°♑	
desc. node	8756 Dec 01 06:07	10°♑40'48	
	8756 Dec 17 05:45	0°♒	
	8757 Jan 11 05:44	0°♓	
	8757 Feb 05 13:36	0°♈	
	8757 Mar 03 14:42	0°♉	
asc. node	8757 Mar 24 05:42	22°♉26'16	
evening max el	8757 Mar 29 22:46	28°♉17'48	46°57'39
	8757 Mar 31 15:34	0°♊	
greatest brilliancy	8757 May 09 11:33	29°♊17'35	-4.9m
	8757 May 11 15:51	0°♋	
retrograde	8757 May 19 10:29	1°♋09'27	
	8757 May 26 22:39	30°℞♊	
evening set	8757 Jun 05 11:02	25°♊32'20	
inferior conj	8757 Jun 09 03:42	23°♊17'29	7°36'52
minimum elong	8757 Jun 09 14:06	23°♊01'27	7°34'46
min. Earth dist.	8757 Jun 09 05:33	23°♊14'38	0.27217 AU
morning rise	8757 Jun 13 17:22	20°♊32'48	
direct	8757 Jun 29 21:35	15°♊29'35	
greatest brilliancy	8757 Jul 09 14:48	17°♊15'47	-4.8m
desc. node	8757 Jul 14 01:06	19°♊06'02	
	8757 Jul 30 17:16	0°♋	
morning max el	8757 Aug 18 14:46	16°♋57'56	46°15'36
	8757 Aug 31 11:24	0°♌	
	8757 Sep 27 23:19	0°♍	
	8757 Oct 24 02:03	0°♎	
asc. node	8757 Nov 03 23:32	12°♎47'53	
	8757 Nov 18 10:44	0°♏	
	8757 Dec 13 07:23	0°♐	
	8758 Jan 06 19:44	0°♑	
	8758 Jan 31 02:30	0°♒	
morning set	8758 Feb 13 05:55	16°♒19'43	
desc. node	8758 Feb 23 16:23	29°♒19'48	
	8758 Feb 24 05:16	0°♓	
	8758 Mar 20 04:56	0°♈	
max. Earth dist.	8758 Mar 22 18:14	3°♈12'09	1.71455 AU
superior conj	8758 Mar 25 08:45	6°♈28'06	-1°04'26
minimum elong	8758 Mar 24 21:02	5°♈51'22	1°04'03
	8758 Apr 13 02:27	0°♉	
evening rise	8758 May 04 17:47	27°♉11'34	
	8758 May 06 23:26	0°♊	
	8758 May 30 22:02	0°♋	
asc. node	8758 Jun 16 14:05	20°♋46'33	
	8758 Jun 24 00:31	0°♌	
	8758 Jul 18 09:07	0°♍	
	8758 Aug 12 02:44	0°♎	
	8758 Sep 06 10:46	0°♏	
	8758 Oct 02 20:28	0°♐	
desc. node	8758 Oct 06 09:11	3°♐52'14	
	8758 Oct 31 14:08	0°♑	
evening max el	8758 Nov 02 11:57	1°♑50'16	45°44'33
	8758 Dec 11 17:24	0°♒	
greatest brilliancy	8758 Dec 11 18:31	0°♒00'56	-4.8m
retrograde	8758 Dec 21 05:10	1°♒38'26	
	8758 Dec 30 07:53	30°℞♑	
evening set	8759 Jan 05 19:56	26°♑58'37	
inferior conj	8759 Jan 11 08:24	23°♑40'00	-3°51'50
minimum elong	8759 Jan 11 16:22	23°♑27'36	3°49'24
min. Earth dist.	8759 Jan 12 03:28	23°♑10'17	0.28051 AU
morning rise	8759 Jan 17 12:02	19°♑58'33	
asc. node	8759 Jan 27 09:01	16°♑04'29	
direct	8759 Feb 01 12:46	15°♑32'12	
greatest brilliancy	8759 Feb 12 14:55	17°♑48'28	-4.8m
	8759 Mar 04 03:21	0°♒	
morning max el	8759 Mar 23 18:52	18°♒00'34	46°43'47
	8759 Apr 04 07:29	0°♓	
	8759 May 01 01:30	0°♈	
desc. node	8759 May 19 03:31	21°♈17'22	
	8759 May 26 10:10	0°♉	
	8759 Jun 20 04:17	0°♊	
	8759 Jul 14 16:13	0°♋	
	8759 Aug 08 02:10	0°♌	
	8759 Sep 01 11:43	0°♍	
asc. node	8759 Sep 09 00:43	9°♍16'28	
morning set	8759 Sep 25 01:19	28°♍59'44	
	8759 Sep 25 20:53	0°♎	
	8759 Oct 20 05:20	0°♏	
superior conj	8759 Oct 31 20:06	14°♏19'21	1°25'41
minimum elong	8759 Oct 31 18:27	14°♏14'17	1°25'51
max. Earth dist.	8759 Oct 31 13:24	13°♏58'43	1.73293 AU
	8759 Nov 13 13:15	0°♐	
evening rise	8759 Dec 07 14:15	29°♐38'13	
	8759 Dec 07 21:20	0°♑	
desc. node	8759 Dec 29 17:56	26°♑55'15	
	8760 Jan 01 05:58	0°♒	
	8760 Jan 25 15:01	0°♓	
	8760 Feb 19 00:29	0°♈	
	8760 Mar 14 11:48	0°♉	
	8760 Apr 08 05:19	0°♊	
asc. node	8760 Apr 20 16:50	14°♊53'54	
	8760 May 03 13:56	0°♋	
	8760 May 30 09:39	0°♌	
evening max el	8760 Jun 10 02:50	11°♌05'52	46°40'08
	8760 Jun 30 22:31	0°♍	
greatest brilliancy	8760 Jul 19 08:19	11°♍13'57	-4.8m
retrograde	8760 Jul 30 07:42	13°♍28'19	
desc. node	8760 Aug 10 12:38	10°♍57'10	
evening set	8760 Aug 14 06:00	9°♍06'46	
min. Earth dist.	8760 Aug 19 22:35	5°♍44'17	0.28096 AU
inferior conj	8760 Aug 20 14:00	5°♍20'20	-2°28'01
minimum elong	8760 Aug 20 08:35	5°♍28'46	2°26'31
morning rise	8760 Aug 26 11:42	1°♍48'49	
	8760 Aug 30 02:25	30°℞♌	
direct	8760 Sep 10 16:36	27°♌20'51	
greatest brilliancy	8760 Sep 20 10:35	29°♌03'46	-4.7m
	8760 Sep 22 22:46	0°♍	
morning max el	8760 Oct 29 09:37	27°♍04'04	45°42'36
	8760 Nov 01 10:29	0°♎	
	8760 Nov 30 01:01	0°♏	
asc. node	8760 Dec 01 11:38	1°♏35'50	
	8760 Dec 26 08:57	0°♐	
	8761 Jan 20 15:22	0°♑	
	8761 Feb 14 07:37	0°♒	
	8761 Mar 10 15:21	0°♓	
desc. node	8761 Mar 23 04:47	15°♓36'37	
	8761 Apr 03 17:33	0°♈	
	8761 Apr 27 16:12	0°♉	
morning set	8761 Apr 29 17:16	2°♉33'59	
	8761 May 21 13:19	0°♊	
superior conj	8761 Jun 09 00:59	23°♊12'34	-1°12'35
minimum elong	8761 Jun 09 11:51	23°♊46'38	1°12'30
max. Earth dist.	8761 Jun 11 13:38	26°♊22'41	1.71517 AU
	8761 Jun 14 11:00	0°♋	
	8761 Jul 08 11:02	0°♌	
asc. node	8761 Jul 14 02:08	7°♌00'42	
evening rise	8761 Jul 18 20:54	12°♌57'36	
	8761 Aug 01 14:29	0°♍	
	8761 Aug 25 22:08	0°♎	
	8761 Sep 19 11:20	0°♏	

	8761 Oct 14 08:35	0°♐	
desc. node	8761 Nov 02 20:28	23°♐06'33	
	8761 Nov 08 17:39	0°♑	
	8761 Dec 04 20:41	0°♒	
	8762 Jan 01 09:13	0°♓	
evening max el	8762 Jan 13 12:07	12°♓17'28	46°20'10
	8762 Feb 02 06:47	0°♈	
greatest brilliancy	8762 Feb 22 10:08	12°♈03'43	-4.8m
asc. node	8762 Feb 23 20:30	12°♈32'16	
retrograde	8762 Mar 04 07:49	13°♈53'58	
evening set	8762 Mar 19 19:43	9°♈10'37	
inferior conj	8762 Mar 24 23:19	6°♈06'36	6°43'26
minimum elong	8762 Mar 24 12:13	6°♈23'38	6°40'58
min. Earth dist.	8762 Mar 24 19:09	6°♈12'59	0.27083 AU
morning rise	8762 Mar 29 04:41	3°♈34'04	
	8762 Apr 05 12:34	30°♓	
direct	8762 Apr 14 15:57	28°♓16'43	
	8762 Apr 24 04:04	0°♈	
greatest brilliancy	8762 Apr 24 11:34	0°♈06'36	-4.9m
	8762 Jun 03 00:59	0°♉	
morning max el	8762 Jun 04 04:38	1°♉09'10	46°56'50
desc. node	8762 Jun 15 15:33	13°♉03'07	
	8762 Jul 01 01:54	0°♊	
	8762 Jul 27 03:44	0°♋	
	8762 Aug 21 12:16	0°♌	
	8762 Sep 15 12:43	0°♍	
asc. node	8762 Oct 06 13:06	25°♍24'47	
	8762 Oct 10 07:46	0°♎	
	8762 Nov 03 22:04	0°♏	
	8762 Nov 28 08:18	0°♐	
morning set	8762 Dec 02 14:06	5°♐13'34	
	8762 Dec 22 15:36	0°♑	
max. Earth dist.	8763 Jan 06 13:59	18°♑29'00	1.72682 AU
superior conj	8763 Jan 08 17:24	21°♑08'21	0°40'47
minimum elong	8763 Jan 09 01:46	21°♑34'14	0°40'38
	8763 Jan 15 20:54	0°♒	
desc. node	8763 Jan 26 06:08	12°♒53'29	
	8763 Feb 09 00:27	0°♓	
evening rise	8763 Feb 16 12:10	9°♓19'22	
	8763 Mar 05 02:17	0°♈	
	8763 Mar 29 03:02	0°♉	
	8763 Apr 22 04:45	0°♊	
	8763 May 16 10:43	0°♋	
asc. node	8763 May 19 04:20	3°♋21'39	
	8763 Jun 10 01:20	0°♌	
	8763 Jul 05 07:27	0°♍	
	8763 Jul 31 19:46	0°♎	
evening max el	8763 Aug 21 01:29	21°♎01'00	45°56'28
	8763 Aug 30 15:34	0°♏	
desc. node	8763 Sep 08 00:02	7°♏04'07	
greatest brilliancy	8763 Sep 28 17:16	19°♏38'17	-4.7m
retrograde	8763 Oct 09 06:16	21°♏38'28	
evening set	8763 Oct 27 08:29	15°♏28'19	
inferior conj	8763 Oct 30 18:41	13°♏20'27	-8°35'32
minimum elong	8763 Oct 30 16:35	13°♏23'45	8°35'20
min. Earth dist.	8763 Oct 30 16:13	13°♏24'19	0.29157 AU
morning rise	8763 Nov 03 00:45	11°♏19'05	
direct	8763 Nov 21 08:12	5°♏03'20	
greatest brilliancy	8763 Dec 01 16:29	7°♏00'27	-4.7m
asc. node	8763 Dec 29 23:27	25°♏53'01	
	8764 Jan 03 12:15	0°♐	
morning max el	8764 Jan 09 14:43	5°♐49'39	45°57'23
	8764 Feb 01 16:40	0°♑	
	8764 Feb 27 23:29	0°♒	
	8764 Mar 24 02:53	0°♓	
	8764 Apr 17 16:18	0°♈	
desc. node	8764 Apr 19 17:10	2°♈30'27	
	8764 May 11 21:56	0°♉	
	8764 Jun 04 23:47	0°♊	
	8764 Jun 29 00:49	0°♋	
morning set	8764 Jul 13 07:09	17°♋46'33	
	8764 Jul 23 02:57	0°♌	
asc. node	8764 Aug 10 14:16	22°♌56'25	
	8764 Aug 16 06:57	0°♍	
superior conj	8764 Aug 20 18:39	5°♍33'33	0°24'23
minimum elong	8764 Aug 20 13:20	5°♍17'05	0°24'00
max. Earth dist.	8764 Aug 23 04:47	8°♍33'32	1.72747 AU
	8764 Sep 09 12:49	0°♎	
evening rise	8764 Sep 26 20:49	21°♎23'01	
	8764 Oct 03 20:44	0°♏	
	8764 Oct 28 07:27	0°♐	
	8764 Nov 21 22:02	0°♑	
desc. node	8764 Nov 30 08:08	10°♑12'56	
	8764 Dec 16 17:19	0°♒	
	8765 Jan 10 18:07	0°♓	
	8765 Feb 05 03:22	0°♈	
	8765 Mar 03 07:09	0°♉	
asc. node	8765 Mar 23 07:34	21°♉37'00	
evening max el	8765 Mar 27 11:58	25°♉53'16	46°56'55
	8765 Mar 31 15:22	0°♊	
greatest brilliancy	8765 May 07 02:13	26°♊54'32	-4.9m
retrograde	8765 May 16 23:14	28°♊44'46	
evening set	8765 Jun 03 03:41	23°♊03'06	
inferior conj	8765 Jun 06 16:45	20°♊53'29	7°49'58
minimum elong	8765 Jun 07 02:46	20°♊38'02	7°48'04
min. Earth dist.	8765 Jun 06 18:57	20°♊50'06	0.27206 AU
morning rise	8765 Jun 11 01:59	18°♊14'49	
direct	8765 Jun 27 10:03	13°♊05'46	
greatest brilliancy	8765 Jul 07 03:40	14°♊51'51	-4.8m
desc. node	8765 Jul 13 03:09	17°♊28'15	
	8765 Jul 31 04:13	0°♋	
morning max el	8765 Aug 16 03:28	14°♋35'29	46°17'16
	8765 Aug 31 05:58	0°♌	
	8765 Sep 27 13:46	0°♍	
	8765 Oct 23 14:39	0°♎	
asc. node	8765 Nov 03 01:25	12°♎17'35	
	8765 Nov 17 22:22	0°♏	
	8765 Dec 12 18:28	0°♐	
	8766 Jan 06 06:31	0°♑	
	8766 Jan 30 13:08	0°♒	
morning set	8766 Feb 10 19:45	14°♒00'24	
desc. node	8766 Feb 22 18:18	28°♒52'48	
	8766 Feb 23 15:51	0°♓	
	8766 Mar 19 15:33	0°♈	
max. Earth dist.	8766 Mar 20 02:13	0°♈33'25	1.71493 AU
superior conj	8766 Mar 22 20:36	4°♈01'27	-1°01'45
minimum elong	8766 Mar 22 08:55	3°♈24'49	1°01'20
	8766 Apr 12 13:09	0°♉	
evening rise	8766 May 02 04:35	24°♉40'56	
	8766 May 06 10:13	0°♊	
	8766 May 30 08:56	0°♋	
asc. node	8766 Jun 15 16:07	20°♋18'41	
	8766 Jun 23 11:35	0°♌	
	8766 Jul 17 20:29	0°♍	
	8766 Aug 11 14:40	0°♎	
	8766 Sep 05 23:48	0°♏	
	8766 Oct 02 11:51	0°♐	
desc. node	8766 Oct 05 11:05	3°♐14'18	
evening max el	8766 Oct 31 01:43	29°♐34'54	45°44'10
	8766 Oct 31 12:14	0°♑	
greatest brilliancy	8766 Dec 09 09:10	27°♑47'11	-4.8m

retrograde	8766 Dec 18 19:38	29°♑24'50	
evening set	8767 Jan 03 13:14	24°♑40'42	
inferior conj	8767 Jan 08 23:24	21°♑25'32	-4°10'47
minimum elong	8767 Jan 09 07:50	21°♑12'23	4°08'17
min. Earth dist.	8767 Jan 09 19:03	20°♑54'56	0.28106 AU
morning rise	8767 Jan 15 01:40	17°♑45'59	
asc. node	8767 Jan 26 11:00	13°♑33'23	
direct	8767 Jan 30 03:43	13°♑16'45	
greatest brilliancy	8767 Feb 10 07:24	15°♑34'22	-4.8m
	8767 Mar 04 12:39	0°♒	
morning max el	8767 Mar 21 09:51	15°♒43'13	46°42'31
	8767 Apr 04 01:35	0°♓	
	8767 Apr 30 15:56	0°♈	
desc. node	8767 May 18 05:32	20°♈43'58	
	8767 May 25 23:02	0°♉	
	8767 Jun 19 16:18	0°♊	
	8767 Jul 14 03:39	0°♋	
	8767 Aug 07 13:12	0°♌	
	8767 Aug 31 22:29	0°♍	
asc. node	8767 Sep 08 02:35	8°♍49'23	
morning set	8767 Sep 22 17:45	26°♍50'02	
	8767 Sep 25 07:27	0°♎	
	8767 Oct 19 15:47	0°♏	
superior conj	8767 Oct 29 13:32	12°♏12'58	1°25'21
minimum elong	8767 Oct 29 11:11	12°♏05'44	1°25'29
max. Earth dist.	8767 Oct 29 09:02	11°♏59'06	1.73297 AU
	8767 Nov 12 23:42	0°♐	
evening rise	8767 Dec 05 06:44	27°♐28'40	
	8767 Dec 07 07:53	0°♑	
desc. node	8767 Dec 28 20:00	26°♑28'33	
	8767 Dec 31 16:44	0°♒	
	8768 Jan 25 02:04	0°♓	
	8768 Feb 18 11:54	0°♈	
	8768 Mar 13 23:47	0°♉	
	8768 Apr 07 18:13	0°♊	
asc. node	8768 Apr 19 18:49	14°♊19'28	
	8768 May 03 04:35	0°♋	
	8768 May 30 04:28	0°♌	
evening max el	8768 Jun 07 17:35	8°♌48'08	46°41'28
	8768 Jul 01 13:05	0°♍	
greatest brilliancy	8768 Jul 16 23:34	8°♍57'57	-4.8m
retrograde	8768 Jul 27 23:25	11°♍12'51	
desc. node	8768 Aug 09 14:37	8°♍01'16	
evening set	8768 Aug 11 20:26	6°♍51'56	
min. Earth dist.	8768 Aug 17 13:47	3°♍28'36	0.28050 AU
inferior conj	8768 Aug 18 04:49	3°♍05'19	-2°07'06
minimum elong	8768 Aug 18 00:06	3°♍12'37	2°05'47
	8768 Aug 23 08:04	30°℞♌	
morning rise	8768 Aug 24 04:22	29°♌31'44	
direct	8768 Sep 08 06:57	25°♌06'19	
greatest brilliancy	8768 Sep 18 01:07	26°♌49'46	-4.8m
	8768 Sep 25 06:55	0°♍	
morning max el	8768 Oct 27 01:23	24°♍53'34	45°43'03
	8768 Nov 01 07:21	0°♎	
	8768 Nov 29 16:01	0°♏	
asc. node	8768 Nov 30 13:44	1°♏00'22	
	8768 Dec 25 21:47	0°♐	
	8769 Jan 20 03:11	0°♑	
	8769 Feb 13 18:55	0°♒	
	8769 Mar 10 02:22	0°♓	
desc. node	8769 Mar 22 06:39	15°♓08'28	
	8769 Apr 03 04:24	0°♈	
morning set	8769 Apr 27 04:10	0°♉03'55	
	8769 Apr 27 02:55	0°♉	
	8769 May 20 23:56	0°♊	
superior conj	8769 Jun 06 13:05	20°♊46'42	-1°14'41
minimum elong	8769 Jun 06 23:35	21°♊19'40	1°14'38
max. Earth dist.	8769 Jun 09 00:33	23°♊53'12	1.71487 AU
	8769 Jun 13 21:35	0°♋	
	8769 Jul 07 21:39	0°♌	
asc. node	8769 Jul 13 04:04	6°♌33'44	
evening rise	8769 Jul 16 10:50	10°♌38'44	
	8769 Aug 01 01:10	0°♍	
	8769 Aug 25 08:58	0°♎	
	8769 Sep 18 22:29	0°♏	
	8769 Oct 13 20:18	0°♐	
desc. node	8769 Nov 01 22:31	22°♐35'56	
	8769 Nov 08 06:25	0°♑	
	8769 Dec 04 11:27	0°♒	
	8770 Jan 01 04:34	0°♓	
evening max el	8770 Jan 11 03:14	10°♓00'55	46°18'33
	8770 Feb 02 22:46	0°♈	
greatest brilliancy	8770 Feb 19 22:38	9°♈39'09	-4.8m
asc. node	8770 Feb 22 22:24	10°♈34'11	
retrograde	8770 Mar 01 20:56	11°♈29'23	
evening set	8770 Mar 17 05:07	6°♈51'18	
inferior conj	8770 Mar 22 12:14	3°♈42'04	6°26'35
minimum elong	8770 Mar 22 01:09	3°♈59'05	6°24'01
min. Earth dist.	8770 Mar 22 08:13	3°♈48'14	0.27085 AU
morning rise	8770 Mar 26 21:10	1°♈04'18	
	8770 Mar 28 19:26	30°℞♓	
direct	8770 Apr 12 05:41	25°♓52'12	
greatest brilliancy	8770 Apr 22 00:55	27°♓41'55	-4.9m
	8770 Apr 27 07:43	0°♈	
morning max el	8770 Jun 01 18:28	28°♈46'56	46°57'29
	8770 Jun 02 23:26	0°♉	
desc. node	8770 Jun 14 17:34	12°♉18'11	
	8770 Jun 30 17:53	0°♊	
	8770 Jul 26 17:17	0°♋	
	8770 Aug 21 00:34	0°♌	
	8770 Sep 15 00:16	0°♍	
asc. node	8770 Oct 05 15:01	24°♍56'51	
	8770 Oct 09 18:50	0°♎	
	8770 Nov 03 08:50	0°♏	
	8770 Nov 27 18:55	0°♐	
morning set	8770 Nov 30 07:09	3°♐05'32	
	8770 Dec 22 02:11	0°♑	
max. Earth dist.	8771 Jan 04 05:30	16°♑15'38	1.72717 AU
superior conj	8771 Jan 06 08:44	18°♑54'17	0°43'49
minimum elong	8771 Jan 06 17:28	19°♑21'21	0°43'40
	8771 Jan 15 07:32	0°♒	
desc. node	8771 Jan 25 07:59	12°♒26'06	
	8771 Feb 08 11:13	0°♓	
evening rise	8771 Feb 14 01:46	6°♓58'36	
	8771 Mar 04 13:12	0°♈	
	8771 Mar 28 14:10	0°♉	
	8771 Apr 21 16:09	0°♊	
	8771 May 15 22:30	0°♋	
asc. node	8771 May 18 06:24	2°♋51'38	
	8771 Jun 09 13:47	0°♌	
	8771 Jul 04 21:09	0°♍	
	8771 Jul 31 12:25	0°♎	
evening max el	8771 Aug 18 17:11	18°♎49'08	45°57'31
	8771 Aug 30 18:48	0°♏	
desc. node	8771 Sep 07 01:55	6°♏00'22	
greatest brilliancy	8771 Sep 26 08:56	17°♏28'48	-4.7m
retrograde	8771 Oct 06 21:59	19°♏29'11	
evening set	8771 Oct 24 23:01	13°♏21'54	
inferior conj	8771 Oct 28 10:59	11°♏11'11	-8°33'09
minimum elong	8771 Oct 28 08:08	11°♏15'41	8°32'53
min. Earth dist.	8771 Oct 28 07:30	11°♏16'41	0.29153 AU

morning rise	8771 Oct 31 17:19	9°♏09'13	
direct	8771 Nov 19 00:30	2°♏54'28	
greatest brilliancy	8771 Nov 29 07:30	4°♏50'00	-4.7m
asc. node	8771 Dec 29 01:23	24°♏57'42	
	8772 Jan 03 12:11	0°♐	
morning max el	8772 Jan 07 05:08	3°♐34'19	45°56'01
	8772 Feb 01 08:44	0°♑	
	8772 Feb 27 13:04	0°♒	
	8772 Mar 23 15:19	0°♓	
	8772 Apr 17 04:06	0°♈	
desc. node	8772 Apr 18 19:09	2°♈00'20	
	8772 May 11 09:22	0°♉	
	8772 Jun 04 10:57	0°♊	
	8772 Jun 28 11:46	0°♋	
morning set	8772 Jul 10 21:24	15°♋27'43	
	8772 Jul 22 13:44	0°♌	
asc. node	8772 Aug 09 16:08	22°♌29'07	
	8772 Aug 15 17:36	0°♍	
superior conj	8772 Aug 18 10:28	3°♍20'55	0°21'03
minimum elong	8772 Aug 18 05:48	3°♍06'30	0°20'43
max. Earth dist.	8772 Aug 20 23:02	6°♍28'30	1.72706 AU
	8772 Sep 08 23:26	0°♎	
evening rise	8772 Sep 24 14:19	19°♎16'12	
	8772 Oct 03 07:26	0°♏	
	8772 Oct 27 18:22	0°♐	
	8772 Nov 21 09:19	0°♑	
desc. node	8772 Nov 29 10:08	9°♑44'19	
	8772 Dec 16 05:09	0°♒	
	8773 Jan 10 06:49	0°♓	
	8773 Feb 04 17:32	0°♈	
	8773 Mar 03 00:10	0°♉	
asc. node	8773 Mar 22 09:34	20°♉46'39	
evening max el	8773 Mar 25 00:17	23°♉25'55	46°56'18
	8773 Mar 31 16:36	0°♊	
greatest brilliancy	8773 May 04 16:52	24°♊30'47	-4.9m
retrograde	8773 May 14 11:54	26°♊19'41	
evening set	8773 May 31 20:17	20°♊33'09	
inferior conj	8773 Jun 04 05:50	18°♊28'54	8°02'17
minimum elong	8773 Jun 04 15:23	18°♊14'08	8°00'34
min. Earth dist.	8773 Jun 04 08:31	18°♊24'45	0.27195 AU
morning rise	8773 Jun 08 10:34	15°♊56'34	
direct	8773 Jun 24 22:16	10°♊41'02	
greatest brilliancy	8773 Jul 04 17:01	12°♊27'49	-4.8m
desc. node	8773 Jul 12 05:04	15°♊53'18	
	8773 Jul 31 12:29	0°♋	
morning max el	8773 Aug 13 16:31	12°♋13'11	46°19'08
	8773 Aug 31 00:14	0°♌	
	8773 Sep 27 04:11	0°♍	
	8773 Oct 23 03:20	0°♎	
asc. node	8773 Nov 02 03:31	11°♎47'34	
	8773 Nov 17 10:09	0°♏	
	8773 Dec 12 05:46	0°♐	
	8774 Jan 05 17:35	0°♑	
	8774 Jan 30 00:06	0°♒	
morning set	8774 Feb 08 09:25	11°♒39'35	
desc. node	8774 Feb 21 20:14	28°♒24'40	
	8774 Feb 23 02:48	0°♓	
max. Earth dist.	8774 Mar 17 12:14	28°♓00'02	1.71528 AU
	8774 Mar 19 02:31	0°♈	
superior conj	8774 Mar 20 08:09	1°♈32'53	-0°58'55
minimum elong	8774 Mar 19 20:34	0°♈56'34	0°58'28
	8774 Apr 12 00:09	0°♉	
evening rise	8774 Apr 29 15:16	22°♉09'06	
	8774 May 05 21:17	0°♊	
	8774 May 29 20:07	0°♋	
asc. node	8774 Jun 14 18:03	19°♋49'34	
	8774 Jun 22 22:57	0°♌	
	8774 Jul 17 08:10	0°♍	
	8774 Aug 11 02:57	0°♎	
	8774 Sep 05 13:11	0°♏	
	8774 Oct 02 03:42	0°♐	
desc. node	8774 Oct 04 13:11	2°♐35'57	
evening max el	8774 Oct 28 16:04	27°♐20'27	45°43'48
	8774 Oct 31 11:33	0°♑	
greatest brilliancy	8774 Dec 06 23:03	25°♑32'02	-4.8m
retrograde	8774 Dec 16 10:28	27°♑10'32	
evening set	8775 Jan 01 06:39	22°♑21'50	
inferior conj	8775 Jan 06 14:24	19°♑10'06	-4°29'18
minimum elong	8775 Jan 06 23:16	18°♑56'18	4°26'43
min. Earth dist.	8775 Jan 07 10:16	18°♑39'13	0.28168 AU
morning rise	8775 Jan 12 15:10	15°♑32'49	
asc. node	8775 Jan 25 12:55	11°♑06'34	
direct	8775 Jan 27 19:22	11°♑00'18	
greatest brilliancy	8775 Feb 07 23:38	13°♑18'54	-4.8m
	8775 Mar 04 19:58	0°♒	
morning max el	8775 Mar 19 01:42	13°♒26'41	46°41'06
	8775 Apr 03 19:48	0°♓	
	8775 Apr 30 06:43	0°♈	
desc. node	8775 May 17 07:36	20°♈09'31	
	8775 May 25 12:15	0°♉	
	8775 Jun 19 04:38	0°♊	
	8775 Jul 13 15:25	0°♋	
	8775 Aug 07 00:34	0°♌	
	8775 Aug 31 09:34	0°♍	
asc. node	8775 Sep 07 04:33	8°♍21'34	
morning set	8775 Sep 20 10:26	24°♍40'00	
	8775 Sep 24 18:20	0°♎	
	8775 Oct 19 02:33	0°♏	
superior conj	8775 Oct 27 07:19	10°♏06'37	1°24'54
minimum elong	8775 Oct 27 04:17	9°♏57'14	1°25'01
max. Earth dist.	8775 Oct 27 06:20	10°♏03'35	1.73296 AU
	8775 Nov 12 10:28	0°♐	
evening rise	8775 Dec 02 23:40	25°♐19'35	
	8775 Dec 06 18:45	0°♑	
desc. node	8775 Dec 27 21:54	26°♑00'21	
	8775 Dec 31 03:50	0°♒	
	8776 Jan 24 13:31	0°♓	
	8776 Feb 17 23:49	0°♈	
	8776 Mar 13 12:19	0°♉	
	8776 Apr 07 07:44	0°♊	
asc. node	8776 Apr 18 20:52	13°♊43'26	
	8776 May 02 19:57	0°♋	
	8776 May 30 00:24	0°♌	
evening max el	8776 Jun 05 09:08	6°♌30'57	46°42'58
	8776 Jul 02 09:30	0°♍	
greatest brilliancy	8776 Jul 14 14:49	6°♍40'49	-4.8m
retrograde	8776 Jul 25 15:19	8°♍56'04	
desc. node	8776 Aug 08 16:35	5°♍00'37	
evening set	8776 Aug 09 11:09	4°♍35'46	
min. Earth dist.	8776 Aug 15 04:50	1°♍11'56	0.28001 AU
inferior conj	8776 Aug 15 19:38	0°♍49'01	-1°45'52
minimum elong	8776 Aug 15 15:40	0°♍55'09	1°44'47
	8776 Aug 17 03:23	30°℞♌	
morning rise	8776 Aug 21 20:54	27°♌13'35	
direct	8776 Sep 05 21:46	22°♌50'42	
greatest brilliancy	8776 Sep 15 15:10	24°♌34'02	-4.8m
	8776 Sep 26 19:40	0°♍	
morning max el	8776 Oct 24 17:20	22°♍42'33	45°43'34
	8776 Nov 01 03:53	0°♎	
	8776 Nov 29 07:07	0°♏	
asc. node	8776 Nov 29 15:35	0°♏23'39	

	8776 Dec 25 10:49	0°♐	
	8777 Jan 19 15:16	0°♑	
	8777 Feb 13 06:31	0°♒	
	8777 Mar 09 13:44	0°♓	
desc. node	8777 Mar 21 08:43	14°♓39'46	
	8777 Apr 02 15:38	0°♈	
morning set	8777 Apr 24 14:43	27°♈31'21	
	8777 Apr 26 14:05	0°♉	
	8777 May 20 11:02	0°♊	
superior conj	8777 Jun 04 00:38	18°♊17'34	-1°16'40
minimum elong	8777 Jun 04 10:39	18°♊49'02	1°16'38
max. Earth dist.	8777 Jun 06 11:56	21°♊23'38	1.71455 AU
	8777 Jun 13 08:39	0°♋	
	8777 Jul 07 08:41	0°♌	
asc. node	8777 Jul 12 05:56	6°♌05'09	
evening rise	8777 Jul 14 00:14	8°♌16'48	
	8777 Jul 31 12:16	0°♍	
	8777 Aug 24 20:12	0°♎	
	8777 Sep 18 10:01	0°♏	
	8777 Oct 13 08:26	0°♐	
desc. node	8777 Nov 01 00:32	22°♐04'09	
	8777 Nov 07 19:37	0°♑	
	8777 Dec 04 02:41	0°♒	
	8778 Jan 01 00:45	0°♓	
evening max el	8778 Jan 08 17:59	7°♓43'06	46°16'54
	8778 Feb 03 20:29	0°♈	
greatest brilliancy	8778 Feb 17 11:44	7°♈15'17	-4.8m
asc. node	8778 Feb 22 00:23	8°♈31'18	
retrograde	8778 Feb 27 09:44	9°♈04'51	
evening set	8778 Mar 14 15:00	4°♈31'47	
inferior conj	8778 Mar 20 01:23	1°♈17'40	6°09'02
minimum elong	8778 Mar 19 14:26	1°♈34'32	6°06'24
min. Earth dist.	8778 Mar 19 21:51	1°♈23'07	0.27093 AU
	8778 Mar 22 04:05	30°♓℞	
morning rise	8778 Mar 24 13:49	28°♓34'36	
direct	8778 Apr 09 19:18	23°♓27'41	
greatest brilliancy	8778 Apr 19 15:06	25°♓17'39	-4.9m
	8778 Apr 29 04:28	0°♈	
morning max el	8778 May 30 07:29	26°♈21'20	46°57'49
	8778 Jun 02 21:28	0°♉	
desc. node	8778 Jun 13 19:28	11°♉32'17	
	8778 Jun 30 10:05	0°♊	
	8778 Jul 26 07:10	0°♋	
	8778 Aug 20 13:11	0°♌	
	8778 Sep 14 12:06	0°♍	
asc. node	8778 Oct 04 17:03	24°♍28'31	
	8778 Oct 09 06:09	0°♎	
	8778 Nov 02 19:49	0°♏	
	8778 Nov 27 05:45	0°♐	
morning set	8778 Nov 28 00:23	0°♐57'22	
	8778 Dec 21 13:00	0°♑	
max. Earth dist.	8779 Jan 01 20:14	13°♑59'11	1.72750 AU
superior conj	8779 Jan 04 00:36	16°♑41'19	0°46'45
minimum elong	8779 Jan 04 09:40	17°♑09'22	0°46'35
	8779 Jan 14 18:23	0°♒	
desc. node	8779 Jan 24 09:57	11°♒58'27	
	8779 Feb 07 22:09	0°♓	
evening rise	8779 Feb 11 15:56	4°♓39'12	
	8779 Mar 04 00:16	0°♈	
	8779 Mar 28 01:27	0°♉	
	8779 Apr 21 03:46	0°♊	
	8779 May 15 10:34	0°♋	
asc. node	8779 May 17 08:18	2°♋20'18	
	8779 Jun 09 02:35	0°♌	
	8779 Jul 04 11:20	0°♍	
	8779 Jul 31 05:48	0°♎	
evening max el	8779 Aug 16 07:59	16°♎33'57	45°58'48
	8779 Aug 31 00:21	0°♏	
desc. node	8779 Sep 06 04:01	4°♏54'34	
greatest brilliancy	8779 Sep 24 00:44	15°♏18'35	-4.7m
retrograde	8779 Oct 04 13:40	17°♏19'22	
evening set	8779 Oct 22 13:17	11°♏15'14	
inferior conj	8779 Oct 26 03:18	9°♏01'25	-8°30'02
minimum elong	8779 Oct 25 23:43	9°♏07'04	8°29'42
min. Earth dist.	8779 Oct 25 23:00	9°♏08'13	0.29144 AU
morning rise	8779 Oct 29 10:11	6°♏58'29	
direct	8779 Nov 16 16:16	0°♏45'01	
greatest brilliancy	8779 Nov 26 23:03	2°♏39'46	-4.7m
asc. node	8779 Dec 28 03:20	24°♏03'16	
	8780 Jan 03 11:10	0°♐	
morning max el	8780 Jan 04 19:24	1°♐18'19	45°54'51
	8780 Feb 01 00:37	0°♑	
	8780 Feb 27 02:34	0°♒	
	8780 Mar 23 03:41	0°♓	
	8780 Apr 16 15:51	0°♈	
desc. node	8780 Apr 17 21:11	1°♈30'25	
	8780 May 10 20:46	0°♉	
	8780 Jun 03 22:07	0°♊	
	8780 Jun 27 22:46	0°♋	
morning set	8780 Jul 08 11:19	13°♋07'33	
	8780 Jul 22 00:36	0°♌	
asc. node	8780 Aug 08 18:10	22°♌01'56	
	8780 Aug 15 04:22	0°♍	
superior conj	8780 Aug 16 01:50	1°♍06'31	0°17'39
minimum elong	8780 Aug 15 21:54	0°♍54'18	0°17'20
max. Earth dist.	8780 Aug 18 14:21	4°♍13'57	1.72666 AU
	8780 Sep 08 10:11	0°♎	
evening rise	8780 Sep 22 07:25	17°♎07'50	
	8780 Oct 02 18:14	0°♏	
	8780 Oct 27 05:20	0°♐	
	8780 Nov 20 20:38	0°♑	
desc. node	8780 Nov 28 12:02	9°♑15'20	
	8780 Dec 15 17:01	0°♒	
	8781 Jan 09 19:34	0°♓	
	8781 Feb 04 07:46	0°♈	
	8781 Mar 02 17:24	0°♉	
asc. node	8781 Mar 21 11:41	19°♉56'17	
evening max el	8781 Mar 22 12:47	20°♉59'42	46°55'48
	8781 Mar 31 18:58	0°♊	
greatest brilliancy	8781 May 02 07:00	22°♊07'28	-4.9m
retrograde	8781 May 12 01:05	23°♊56'03	
evening set	8781 May 29 12:55	18°♊04'28	
inferior conj	8781 Jun 01 19:07	16°♊05'27	8°13'27
minimum elong	8781 Jun 02 04:10	15°♊51'30	8°11'55
min. Earth dist.	8781 Jun 01 21:57	16°♊01'04	0.27190 AU
morning rise	8781 Jun 05 19:27	13°♊39'39	
direct	8781 Jun 22 10:53	8°♊17'20	
greatest brilliancy	8781 Jul 02 06:23	10°♊04'51	-4.9m
desc. node	8781 Jul 11 07:05	14°♊22'47	
	8781 Jul 31 18:08	0°♋	
morning max el	8781 Aug 11 06:32	9°♋53'34	46°20'45
	8781 Aug 30 17:58	0°♌	
	8781 Sep 26 18:24	0°♍	
	8781 Oct 22 15:55	0°♎	
asc. node	8781 Nov 01 05:23	11°♎17'05	
	8781 Nov 16 21:50	0°♏	
	8781 Dec 11 16:57	0°♐	
	8782 Jan 05 04:29	0°♑	
	8782 Jan 29 10:52	0°♒	
morning set	8782 Feb 05 23:20	9°♒20'08	
desc. node	8782 Feb 20 22:15	27°♒57'25	

	8782 Feb 22 13:33	0°♓	
max. Earth dist.	8782 Mar 15 00:13	25°♓33'27	1.71563 AU
superior conj	8782 Mar 17 19:55	29°♓05'32	-0°55'58
minimum elong	8782 Mar 17 08:32	28°♓29'51	0°55'31
	8782 Mar 18 13:18	0°♈	
	8782 Apr 11 10:58	0°♉	
evening rise	8782 Apr 27 02:20	19°♉39'08	
	8782 May 05 08:09	0°♊	
	8782 May 29 07:03	0°♋	
asc. node	8782 Jun 13 19:58	19°♋21'09	
	8782 Jun 22 10:05	0°♌	
	8782 Jul 16 19:39	0°♍	
	8782 Aug 10 15:03	0°♎	
	8782 Sep 05 02:30	0°♏	
	8782 Oct 01 19:41	0°♐	
desc. node	8782 Oct 03 15:10	1°♐57'21	
evening max el	8782 Oct 26 07:21	25°♐08'44	45°43'31
	8782 Oct 31 11:49	0°♑	
greatest brilliancy	8782 Dec 04 12:42	23°♑17'27	-4.7m
retrograde	8782 Dec 14 01:35	24°♑56'53	
evening set	8782 Dec 30 00:14	20°♑03'50	
inferior conj	8783 Jan 04 05:25	16°♑55'27	-4°47'17
minimum elong	8783 Jan 04 14:40	16°♑41'04	4°44'40
min. Earth dist.	8783 Jan 05 01:05	16°♑24'53	0.28225 AU
morning rise	8783 Jan 10 04:29	13°♑20'45	
asc. node	8783 Jan 24 14:58	8°♑45'55	
direct	8783 Jan 25 11:26	8°♑45'02	
greatest brilliancy	8783 Feb 05 15:08	11°♑03'38	-4.8m
	8783 Mar 05 00:42	0°♒	
morning max el	8783 Mar 16 17:45	11°♒11'55	46°39'37
	8783 Apr 03 13:14	0°♓	
	8783 Apr 29 20:57	0°♈	
desc. node	8783 May 16 09:24	19°♈35'35	
	8783 May 25 01:01	0°♉	
	8783 Jun 18 16:32	0°♊	
	8783 Jul 13 02:46	0°♋	
	8783 Aug 06 11:32	0°♌	
	8783 Aug 30 20:16	0°♍	
asc. node	8783 Sep 06 06:33	7°♍54'58	
morning set	8783 Sep 18 03:11	22°♍31'16	
	8783 Sep 24 04:52	0°♎	
	8783 Oct 18 13:01	0°♏	
superior conj	8783 Oct 25 00:58	8°♏00'44	1°24'19
minimum elong	8783 Oct 24 21:15	7°♏49'16	1°24'25
max. Earth dist.	8783 Oct 25 03:35	8°♏08'49	1.73297 AU
	8783 Nov 11 20:57	0°♐	
evening rise	8783 Nov 30 16:20	23°♐10'32	
	8783 Dec 06 05:21	0°♑	
desc. node	8783 Dec 26 23:51	25°♑33'10	
	8783 Dec 30 14:39	0°♒	
	8784 Jan 24 00:39	0°♓	
	8784 Feb 17 11:23	0°♈	
	8784 Mar 13 00:31	0°♉	
	8784 Apr 06 20:58	0°♊	
asc. node	8784 Apr 17 22:46	13°♊07'55	
	8784 May 02 11:09	0°♋	
	8784 May 29 20:30	0°♌	
evening max el	8784 Jun 03 01:07	4°♌15'56	46°44'21
	8784 Jul 03 12:40	0°♍	
greatest brilliancy	8784 Jul 12 06:29	4°♍25'24	-4.8m
retrograde	8784 Jul 23 07:00	6°♍40'15	
evening set	8784 Aug 07 02:05	2°♍20'42	
desc. node	8784 Aug 07 18:37	1°♍57'49	
	8784 Aug 11 02:36	30°℞♌	
inferior conj	8784 Aug 13 10:26	28°♌33'55	-1°24'28
minimum elong	8784 Aug 13 07:14	28°♌38'51	1°23'37
min. Earth dist.	8784 Aug 12 19:55	28°♌56'24	0.27951 AU
morning rise	8784 Aug 19 13:12	24°♌56'40	
direct	8784 Sep 03 12:48	20°♌36'30	
greatest brilliancy	8784 Sep 13 04:59	22°♌19'13	-4.8m
	8784 Sep 27 20:47	0°♍	
morning max el	8784 Oct 22 08:25	20°♍30'38	45°43'58
	8784 Oct 31 23:16	0°♎	
asc. node	8784 Nov 28 17:32	29°♎48'32	
	8784 Nov 28 21:38	0°♏	
	8784 Dec 24 23:27	0°♐	
	8785 Jan 19 02:59	0°♑	
	8785 Feb 12 17:46	0°♒	
	8785 Mar 09 00:43	0°♓	
desc. node	8785 Mar 20 10:39	14°♓11'54	
	8785 Apr 02 02:28	0°♈	
morning set	8785 Apr 22 01:09	24°♈59'48	
	8785 Apr 26 00:48	0°♉	
	8785 May 19 21:43	0°♊	
superior conj	8785 Jun 01 12:11	15°♊49'42	-1°18'29
minimum elong	8785 Jun 01 21:39	16°♊19'25	1°18'30
max. Earth dist.	8785 Jun 03 22:37	18°♊53'06	1.71424 AU
	8785 Jun 12 19:18	0°♋	
	8785 Jul 06 19:21	0°♌	
asc. node	8785 Jul 11 07:59	5°♌38'23	
evening rise	8785 Jul 11 13:33	5°♌55'41	
	8785 Jul 30 22:57	0°♍	
	8785 Aug 24 07:01	0°♎	
	8785 Sep 17 21:09	0°♏	
	8785 Oct 12 20:11	0°♐	
desc. node	8785 Oct 31 02:25	21°♐33'05	
	8785 Nov 07 08:30	0°♑	
	8785 Dec 03 17:48	0°♒	
	8785 Dec 31 21:17	0°♓	
evening max el	8786 Jan 06 07:47	5°♓23'42	46°15'08
	8786 Feb 05 02:00	0°♈	
greatest brilliancy	8786 Feb 15 01:21	4°♈52'32	-4.8m
asc. node	8786 Feb 21 02:27	6°♈23'58	
retrograde	8786 Feb 24 22:04	6°♈40'57	
evening set	8786 Mar 12 00:57	2°♈12'31	
	8786 Mar 15 19:32	30°℞♓	
inferior conj	8786 Mar 17 14:28	28°♓54'03	5°50'43
minimum elong	8786 Mar 17 03:41	29°♓10'40	5°48'03
min. Earth dist.	8786 Mar 17 11:45	28°♓58'13	0.27100 AU
morning rise	8786 Mar 22 06:18	26°♓05'46	
direct	8786 Apr 07 08:15	21°♓03'47	
greatest brilliancy	8786 Apr 17 05:45	22°♓54'46	-4.9m
	8786 Apr 30 10:31	0°♈	
morning max el	8786 May 27 19:29	23°♈54'14	46°58'12
	8786 Jun 02 18:15	0°♉	
desc. node	8786 Jun 12 21:31	10°♉48'41	
	8786 Jun 30 01:35	0°♊	
	8786 Jul 25 20:31	0°♋	
	8786 Aug 20 01:22	0°♌	
	8786 Sep 13 23:31	0°♍	
asc. node	8786 Oct 03 18:56	24°♍00'49	
	8786 Oct 08 17:04	0°♎	
	8786 Nov 02 06:27	0°♏	
morning set	8786 Nov 25 17:40	28°♏50'25	
	8786 Nov 26 16:15	0°♐	
	8786 Dec 20 23:28	0°♑	
max. Earth dist.	8786 Dec 30 12:22	11°♑48'04	1.72789 AU
superior conj	8787 Jan 01 16:28	14°♑29'20	0°49'36
minimum elong	8787 Jan 02 01:48	14°♑58'12	0°49'26
	8787 Jan 14 04:56	0°♒	

desc. node	8787 Jan 23 12:01	11°♒31'57	
	8787 Feb 07 08:50	0°♓	
evening rise	8787 Feb 09 05:54	2°♓20'06	
	8787 Mar 03 11:07	0°♈	
	8787 Mar 27 12:32	0°♉	
	8787 Apr 20 15:08	0°♊	
	8787 May 14 22:23	0°♋	
asc. node	8787 May 16 10:15	1°♋49'54	
	8787 Jun 08 15:09	0°♌	
	8787 Jul 04 01:21	0°♍	
	8787 Jul 30 23:15	0°♎	
evening max el	8787 Aug 13 22:13	14°♎18'09	46°00'06
	8787 Aug 31 07:46	0°♏	
desc. node	8787 Sep 05 06:01	3°♏47'40	
greatest brilliancy	8787 Sep 21 16:13	13°♏08'40	-4.7m
retrograde	8787 Oct 02 05:35	15°♏10'29	
evening set	8787 Oct 20 03:11	9°♏09'41	
inferior conj	8787 Oct 23 19:36	6°♏52'29	-8°26'05
minimum elong	8787 Oct 23 15:16	6°♏59'18	8°25'41
min. Earth dist.	8787 Oct 23 14:26	7°♏00'37	0.29133 AU
morning rise	8787 Oct 27 03:22	4°♏48'14	
	8787 Nov 05 22:23	30°℞♎	
direct	8787 Nov 14 07:48	28°♎36'16	
	8787 Nov 23 01:40	0°♏	
greatest brilliancy	8787 Nov 24 14:52	0°♏30'52	-4.7m
asc. node	8787 Dec 27 05:24	23°♏11'07	
morning max el	8788 Jan 02 09:58	29°♏04'01	45°53'44
	8788 Jan 03 08:51	0°♐	
	8788 Jan 31 15:57	0°♑	
	8788 Feb 26 15:45	0°♒	
	8788 Mar 22 15:51	0°♓	
	8788 Apr 16 03:28	0°♈	
desc. node	8788 Apr 16 23:02	1°♈00'22	
	8788 May 10 08:02	0°♉	
	8788 Jun 03 09:09	0°♊	
	8788 Jun 27 09:35	0°♋	
morning set	8788 Jul 06 00:58	10°♋46'56	
	8788 Jul 21 11:15	0°♌	
asc. node	8788 Aug 07 20:06	21°♌35'03	
superior conj	8788 Aug 13 17:06	28°♌52'17	0°14'13
minimum elong	8788 Aug 13 13:54	28°♌42'22	0°13'55
behind sun begin	8788 Aug 13 01:56	28°♌05'18	
behind sun end	8788 Aug 14 01:51	29°♌19'25	
	8788 Aug 14 14:57	0°♍	
max. Earth dist.	8788 Aug 16 05:23	1°♍59'05	1.72627 AU
	8788 Sep 07 20:45	0°♎	
evening rise	8788 Sep 20 00:37	15°♎00'17	
	8788 Oct 02 04:54	0°♏	
	8788 Oct 26 16:11	0°♐	
	8788 Nov 20 07:48	0°♑	
desc. node	8788 Nov 27 14:04	8°♑47'11	
	8788 Dec 15 04:46	0°♒	
	8789 Jan 09 08:15	0°♓	
	8789 Feb 03 22:04	0°♈	
	8789 Mar 02 11:00	0°♉	
evening max el	8789 Mar 20 01:42	18°♉34'31	46°55'04
asc. node	8789 Mar 20 13:31	19°♉04'12	
	8789 Mar 31 23:05	0°♊	
greatest brilliancy	8789 Apr 29 20:13	19°♊42'13	-4.9m
retrograde	8789 May 09 14:26	21°♊31'11	
evening set	8789 May 27 05:07	15°♊34'30	
inferior conj	8789 May 30 08:02	13°♊40'34	8°23'47
minimum elong	8789 May 30 16:30	13°♊27'34	8°22'28
min. Earth dist.	8789 May 30 10:40	13°♊36'31	0.27184 AU
morning rise	8789 Jun 03 03:54	11°♊21'34	
direct	8789 Jun 19 23:41	5°♊52'17	
greatest brilliancy	8789 Jun 29 18:53	7°♊40'06	-4.9m
desc. node	8789 Jul 10 09:07	12°♊54'52	
	8789 Jul 31 22:00	0°♋	
morning max el	8789 Aug 08 21:00	7°♋34'54	46°22'30
	8789 Aug 30 11:17	0°♌	
	8789 Sep 26 08:24	0°♍	
	8789 Oct 22 04:22	0°♎	
asc. node	8789 Oct 31 07:18	10°♎46'59	
	8789 Nov 16 09:27	0°♏	
	8789 Dec 11 04:05	0°♐	
	8790 Jan 04 15:20	0°♑	
	8790 Jan 28 21:37	0°♒	
morning set	8790 Feb 03 13:39	7°♒02'12	
desc. node	8790 Feb 20 00:10	27°♒29'57	
	8790 Feb 22 00:17	0°♓	
max. Earth dist.	8790 Mar 12 13:17	23°♓10'20	1.71601 AU
superior conj	8790 Mar 15 07:51	26°♓38'46	-0°52'56
minimum elong	8790 Mar 14 20:46	26°♓04'03	0°52'28
	8790 Mar 18 00:05	0°♈	
	8790 Apr 10 21:50	0°♉	
evening rise	8790 Apr 24 13:20	17°♉08'41	
	8790 May 04 19:06	0°♊	
	8790 May 28 18:08	0°♋	
asc. node	8790 Jun 12 22:00	18°♋52'39	
	8790 Jun 21 21:22	0°♌	
	8790 Jul 16 07:17	0°♍	
	8790 Aug 10 03:19	0°♎	
	8790 Sep 04 16:01	0°♏	
	8790 Oct 01 12:02	0°♐	
desc. node	8790 Oct 02 17:03	1°♐17'49	
evening max el	8790 Oct 23 23:06	22°♐57'56	45°43'16
	8790 Oct 31 13:28	0°♑	
greatest brilliancy	8790 Dec 02 02:45	21°♑03'23	-4.7m
retrograde	8790 Dec 11 16:42	22°♑43'08	
evening set	8790 Dec 27 18:00	17°♑45'57	
inferior conj	8791 Jan 01 20:31	14°♑40'52	-5°04'41
minimum elong	8791 Jan 02 06:05	14°♑25'59	5°02'04
min. Earth dist.	8791 Jan 02 15:52	14°♑10'45	0.28279 AU
morning rise	8791 Jan 07 17:39	11°♑08'50	
direct	8791 Jan 23 03:36	6°♑30'02	
asc. node	8791 Jan 23 16:56	6°♑30'25	
greatest brilliancy	8791 Feb 03 06:09	8°♑47'44	-4.8m
	8791 Mar 05 03:43	0°♒	
morning max el	8791 Mar 14 09:21	8°♒55'54	46°38'07
	8791 Apr 03 06:21	0°♓	
	8791 Apr 29 11:07	0°♈	
desc. node	8791 May 15 11:27	19°♈02'15	
	8791 May 24 13:50	0°♉	
	8791 Jun 18 04:35	0°♊	
	8791 Jul 12 14:19	0°♋	
	8791 Aug 05 22:44	0°♌	
	8791 Aug 30 07:12	0°♍	
asc. node	8791 Sep 05 08:25	7°♍27'17	
morning set	8791 Sep 15 19:42	20°♍21'08	
	8791 Sep 23 15:37	0°♎	
	8791 Oct 17 23:40	0°♏	
superior conj	8791 Oct 22 18:29	5°♏53'55	1°23'36
minimum elong	8791 Oct 22 14:07	5°♏40'30	1°23'42
max. Earth dist.	8791 Oct 23 00:36	6°♏12'49	1.73292 AU
	8791 Nov 11 07:37	0°♐	
evening rise	8791 Nov 28 09:02	21°♐00'58	
	8791 Dec 05 16:10	0°♑	
desc. node	8791 Dec 26 01:52	25°♑05'32	
	8791 Dec 30 01:42	0°♒	
	8792 Jan 23 12:02	0°♓	

	8792 Feb 16 23:12	0°♈	
	8792 Mar 12 12:57	0°♉	
	8792 Apr 06 10:28	0°♊	
asc. node	8792 Apr 17 00:45	12°♊31'58	
	8792 May 02 02:46	0°♋	
	8792 May 29 17:35	0°♌	
evening max el	8792 May 31 16:32	1°♌58'37	46°45'26
	8792 Jul 05 04:46	0°♍	
greatest brilliancy	8792 Jul 09 22:38	2°♍09'15	-4.8m
retrograde	8792 Jul 20 22:07	4°♍22'48	
evening set	8792 Aug 04 17:05	0°♍03'55	
	8792 Aug 04 19:57	30°℞♌	
desc. node	8792 Aug 06 20:34	28°♌50'44	
min. Earth dist.	8792 Aug 10 11:13	26°♌38'52	0.27902 AU
inferior conj	8792 Aug 11 01:06	26°♌17'20	-1°02'46
minimum elong	8792 Aug 10 22:43	26°♌21'02	1°02'09
morning rise	8792 Aug 17 05:11	22°♌38'16	
direct	8792 Sep 01 03:27	18°♌20'50	
greatest brilliancy	8792 Sep 10 19:01	20°♌03'02	-4.8m
	8792 Sep 28 15:51	0°♍	
morning max el	8792 Oct 19 22:32	18°♍15'12	45°44'30
	8792 Oct 31 18:30	0°♎	
asc. node	8792 Nov 27 19:39	29°♎13'17	
	8792 Nov 28 12:16	0°♏	
	8792 Dec 24 12:15	0°♐	
	8793 Jan 18 14:55	0°♑	
	8793 Feb 12 05:16	0°♒	
	8793 Mar 08 11:59	0°♓	
desc. node	8793 Mar 19 12:31	13°♓42'55	
	8793 Apr 01 13:33	0°♈	
morning set	8793 Apr 19 11:55	22°♈28'25	
	8793 Apr 25 11:47	0°♉	
	8793 May 19 08:38	0°♊	
superior conj	8793 May 30 00:07	13°♊22'19	-1°20'09
minimum elong	8793 May 30 08:57	13°♊50'03	1°20'12
max. Earth dist.	8793 Jun 01 07:44	16°♊16'50	1.71393 AU
	8793 Jun 12 06:13	0°♋	
	8793 Jul 06 06:17	0°♌	
evening rise	8793 Jul 09 02:57	3°♌33'57	
asc. node	8793 Jul 10 09:56	5°♌10'23	
	8793 Jul 30 09:57	0°♍	
	8793 Aug 23 18:11	0°♎	
	8793 Sep 17 08:40	0°♏	
	8793 Oct 12 08:21	0°♐	
desc. node	8793 Oct 30 04:28	21°♐01'21	
	8793 Nov 06 21:51	0°♑	
	8793 Dec 03 09:30	0°♒	
	8793 Dec 31 18:57	0°♓	
evening max el	8794 Jan 03 20:45	3°♓01'35	46°13'29
	8794 Feb 06 21:32	0°♈	
greatest brilliancy	8794 Feb 12 15:07	2°♈29'14	-4.8m
asc. node	8794 Feb 20 04:21	4°♈10'46	
retrograde	8794 Feb 22 10:26	4°♈16'45	
evening set	8794 Mar 09 11:11	29°♓52'08	
	8794 Mar 09 05:25	30°℞♓	
inferior conj	8794 Mar 15 03:39	26°♓29'53	5°31'52
minimum elong	8794 Mar 14 17:07	26°♓46'07	5°29'09
min. Earth dist.	8794 Mar 15 01:57	26°♓32'30	0.27111 AU
morning rise	8794 Mar 19 22:49	23°♓36'39	
direct	8794 Apr 04 21:01	18°♓39'00	
greatest brilliancy	8794 Apr 14 20:55	20°♓31'42	-4.9m
	8794 May 01 08:43	0°♈	
morning max el	8794 May 25 08:01	21°♈27'29	46°58'46
	8794 Jun 02 14:41	0°♉	
desc. node	8794 Jun 11 23:30	10°♉04'41	
	8794 Jun 29 17:08	0°♊	
	8794 Jul 25 10:01	0°♋	
	8794 Aug 19 13:44	0°♌	
	8794 Sep 13 11:12	0°♍	
asc. node	8794 Oct 02 20:52	23°♍32'17	
	8794 Oct 08 04:18	0°♎	
	8794 Nov 01 17:25	0°♏	
morning set	8794 Nov 23 10:51	26°♏42'07	
	8794 Nov 26 03:05	0°♐	
	8794 Dec 20 10:17	0°♑	
max. Earth dist.	8794 Dec 28 06:33	9°♑42'20	1.72826 AU
superior conj	8794 Dec 30 08:19	12°♑16'21	0°52'21
minimum elong	8794 Dec 30 17:51	12°♑45'53	0°52'12
	8795 Jan 13 15:48	0°♒	
desc. node	8795 Jan 22 13:51	11°♒03'46	
evening rise	8795 Feb 06 20:00	0°♓00'36	
	8795 Feb 06 19:49	0°♓	
	8795 Mar 02 22:18	0°♈	
	8795 Mar 26 23:58	0°♉	
	8795 Apr 20 02:53	0°♊	
	8795 May 14 10:35	0°♋	
asc. node	8795 May 15 12:19	1°♋18'48	
	8795 Jun 08 04:05	0°♌	
	8795 Jul 03 15:48	0°♍	
	8795 Jul 30 17:23	0°♎	
evening max el	8795 Aug 11 12:48	12°♎02'34	46°01'29
	8795 Aug 31 18:21	0°♏	
desc. node	8795 Sep 04 07:53	2°♏38'06	
greatest brilliancy	8795 Sep 19 07:08	10°♏57'27	-4.7m
retrograde	8795 Sep 29 22:01	13°♏01'06	
evening set	8795 Oct 17 16:58	7°♏03'39	
inferior conj	8795 Oct 21 11:57	4°♏42'49	-8°21'28
minimum elong	8795 Oct 21 06:56	4°♏50'43	8°20'58
min. Earth dist.	8795 Oct 21 05:41	4°♏52'41	0.29124 AU
morning rise	8795 Oct 24 20:56	2°♏36'59	
	8795 Oct 29 12:29	30°℞♎	
direct	8795 Nov 11 23:41	26°♎26'46	
greatest brilliancy	8795 Nov 22 06:40	28°♎21'17	-4.7m
	8795 Nov 26 06:38	0°♏	
asc. node	8795 Dec 26 07:19	22°♏18'46	
morning max el	8795 Dec 31 01:33	26°♏51'24	45°52'38
	8796 Jan 03 06:07	0°♐	
	8796 Jan 31 07:23	0°♑	
	8796 Feb 26 05:06	0°♒	
	8796 Mar 22 04:13	0°♓	
	8796 Apr 15 15:18	0°♈	
desc. node	8796 Apr 16 01:02	0°♈30'03	
	8796 May 09 19:33	0°♉	
	8796 Jun 02 20:26	0°♊	
	8796 Jun 26 20:41	0°♋	
morning set	8796 Jul 03 14:38	8°♋25'23	
	8796 Jul 20 22:11	0°♌	
asc. node	8796 Aug 06 21:59	21°♌07'11	
superior conj	8796 Aug 11 08:26	26°♌37'27	0°10'45
minimum elong	8796 Aug 11 06:00	26°♌29'52	0°10'29
behind sun begin	8796 Aug 10 11:41	25°♌33'05	
behind sun end	8796 Aug 12 00:18	27°♌26'38	
max. Earth dist.	8796 Aug 13 21:16	29°♌46'02	1.72586 AU
	8796 Aug 14 01:46	0°♍	
	8796 Sep 07 07:33	0°♎	
evening rise	8796 Sep 17 18:01	12°♎52'45	
	8796 Oct 01 15:46	0°♏	
	8796 Oct 26 03:16	0°♐	
	8796 Nov 19 19:16	0°♑	
desc. node	8796 Nov 26 16:03	8°♑18'06	
	8796 Dec 14 16:50	0°♒	

	8797 Jan 08 21:19	0°♓	
	8797 Feb 03 12:48	0°♈	
	8797 Mar 02 05:16	0°♉	
evening max el	8797 Mar 17 15:30	16°♉10'58	46°54'21
asc. node	8797 Mar 19 15:34	18°♉10'58	
	8797 Apr 01 05:29	0°♊	
greatest brilliancy	8797 Apr 27 08:55	17°♊15'46	-4.9m
retrograde	8797 May 07 04:06	19°♊05'25	
evening set	8797 May 24 21:08	13°♊03'53	
inferior conj	8797 May 27 20:53	11°♊14'42	8°33'17
minimum elong	8797 May 28 04:41	11°♊02'43	8°32'08
min. Earth dist.	8797 May 27 22:56	11°♊11'33	0.27179 AU
morning rise	8797 May 31 12:17	9°♊02'29	
direct	8797 Jun 17 12:55	3°♊26'29	
greatest brilliancy	8797 Jun 27 06:46	5°♊13'43	-4.9m
desc. node	8797 Jul 09 11:02	11°♊29'01	
	8797 Aug 01 00:34	0°♋	
morning max el	8797 Aug 06 11:48	5°♋16'15	46°24'16
	8797 Aug 30 04:28	0°♌	
	8797 Sep 25 22:27	0°♍	
	8797 Oct 21 16:53	0°♎	
asc. node	8797 Oct 30 09:23	10°♎17'05	
	8797 Nov 15 21:08	0°♏	
	8797 Dec 10 15:18	0°♐	
	8798 Jan 04 02:21	0°♑	
	8798 Jan 28 08:32	0°♒	
morning set	8798 Feb 01 04:03	4°♒43'58	
desc. node	8798 Feb 19 02:06	27°♒01'54	
	8798 Feb 21 11:12	0°♓	
max. Earth dist.	8798 Mar 10 00:23	20°♓40'38	1.71636 AU
superior conj	8798 Mar 12 19:44	24°♓11'24	-0°49'48
minimum elong	8798 Mar 12 09:02	23°♓37'55	0°49'19
	8798 Mar 17 11:02	0°♈	
	8798 Apr 10 08:49	0°♉	
evening rise	8798 Apr 22 00:15	14°♉37'34	
	8798 May 04 06:10	0°♊	
	8798 May 28 05:20	0°♋	
asc. node	8798 Jun 11 23:56	18°♋23'26	
	8798 Jun 21 08:48	0°♌	
	8798 Jul 15 19:05	0°♍	
	8798 Aug 09 15:47	0°♎	
	8798 Sep 04 05:46	0°♏	
	8798 Oct 01 04:46	0°♐	
desc. node	8798 Oct 01 19:10	0°♐38'22	
evening max el	8798 Oct 21 14:44	20°♐46'49	45°43'02
	8798 Oct 31 16:37	0°♑	
greatest brilliancy	8798 Nov 29 17:23	18°♑50'17	-4.7m
retrograde	8798 Dec 09 07:27	20°♑29'42	
evening set	8798 Dec 25 11:57	15°♑28'32	
inferior conj	8798 Dec 30 11:47	12°♑26'50	-5°21'28
minimum elong	8798 Dec 30 21:34	12°♑11'33	5°18'52
min. Earth dist.	8798 Dec 31 06:57	11°♑56'55	0.28334 AU
morning rise	8799 Jan 05 06:44	8°♑57'27	
direct	8799 Jan 20 19:39	4°♑15'34	
asc. node	8799 Jan 22 18:51	4°♑20'10	
greatest brilliancy	8799 Jan 31 21:23	6°♑32'11	-4.8m
	8799 Mar 05 05:22	0°♒	
morning max el	8799 Mar 12 00:11	6°♒37'42	46°36'27
	8799 Apr 02 23:16	0°♓	
	8799 Apr 29 01:16	0°♈	
desc. node	8799 May 14 13:28	18°♈28'40	
	8799 May 24 02:38	0°♉	
	8799 Jun 17 16:37	0°♊	
	8799 Jul 12 01:51	0°♋	
	8799 Aug 05 09:55	0°♌	
	8799 Aug 29 18:08	0°♍	
asc. node	8799 Sep 04 10:24	6°♍59'51	
morning set	8799 Sep 13 12:07	18°♍10'37	
	8799 Sep 23 02:22	0°♎	
	8799 Oct 17 10:19	0°♏	
superior conj	8799 Oct 20 12:06	3°♏47'26	1°22'48
minimum elong	8799 Oct 20 07:07	3°♏32'05	1°22'50
max. Earth dist.	8799 Oct 20 19:44	4°♏11'00	1.73282 AU
	8799 Nov 10 18:16	0°♐	
evening rise	8799 Nov 26 01:54	18°♐52'06	
	8799 Dec 05 02:55	0°♑	
desc. node	8799 Dec 25 03:46	24°♑37'45	
	8799 Dec 29 12:42	0°♒	
	8800 Jan 22 23:23	0°♓	
	8800 Feb 16 11:01	0°♈	
	8800 Mar 12 01:28	0°♉	
	8800 Apr 06 00:08	0°♊	
asc. node	8800 Apr 16 02:48	11°♊55'50	
	8800 May 01 18:41	0°♋	
evening max el	8800 May 29 06:51	29°♋38'21	46°46'37
	8800 May 29 15:28	0°♌	
greatest brilliancy	8800 Jul 07 15:14	29°♌53'29	-4.8m
	8800 Jul 07 22:05	0°♍	
retrograde	8800 Jul 18 12:45	2°♍05'12	
	8800 Jul 28 16:50	30°℞♌	
evening set	8800 Aug 02 08:10	27°♌46'38	
desc. node	8800 Aug 05 22:32	25°♌41'15	
min. Earth dist.	8800 Aug 08 02:46	24°♌20'47	0.27854 AU
inferior conj	8800 Aug 08 15:41	24°♌00'43	-0°40'46
minimum elong	8800 Aug 08 14:08	24°♌03'08	0°40'26
morning rise	8800 Aug 14 20:52	20°♌19'53	
direct	8800 Aug 29 17:23	16°♌04'57	
greatest brilliancy	8800 Sep 08 09:30	17°♌47'12	-4.8m
	8800 Sep 29 05:57	0°♍	
morning max el	8800 Oct 17 12:05	15°♍58'29	45°45'11
	8800 Oct 31 13:03	0°♎	
asc. node	8800 Nov 26 21:28	28°♎37'56	
	8800 Nov 28 02:34	0°♏	
	8800 Dec 24 00:49	0°♐	
	8801 Jan 18 02:38	0°♑	
	8801 Feb 11 16:33	0°♒	
	8801 Mar 07 23:01	0°♓	
desc. node	8801 Mar 18 14:34	13°♓15'05	
	8801 Apr 01 00:28	0°♈	
morning set	8801 Apr 16 22:21	19°♈56'25	
	8801 Apr 24 22:39	0°♉	
	8801 May 18 19:28	0°♊	
superior conj	8801 May 27 11:35	10°♊53'43	-1°21'40
minimum elong	8801 May 27 19:41	11°♊19'10	1°21'44
max. Earth dist.	8801 May 29 12:22	13°♊26'51	1.71365 AU
	8801 Jun 11 17:01	0°♋	
	8801 Jul 05 17:04	0°♌	
evening rise	8801 Jul 06 15:43	1°♌10'35	
asc. node	8801 Jul 09 11:48	4°♌42'35	
	8801 Jul 29 20:47	0°♍	
	8801 Aug 23 05:11	0°♎	
	8801 Sep 16 20:02	0°♏	
	8801 Oct 11 20:24	0°♐	
desc. node	8801 Oct 29 06:27	20°♐29'51	
	8801 Nov 06 11:07	0°♑	
	8801 Dec 03 01:11	0°♒	
	8801 Dec 31 17:04	0°♓	
evening max el	8802 Jan 01 09:36	0°♓40'18	46°12'01
	8802 Feb 09 20:51	0°♈	
greatest brilliancy	8802 Feb 10 04:29	0°♈06'47	-4.8m
asc. node	8802 Feb 19 06:21	1°♈53'33	

retrograde	8802 Feb 19 23:14	1°♈54'09	
	8802 Mar 01 16:21	30°℞♓	
evening set	8802 Mar 06 21:44	27°♓32'36	
inferior conj	8802 Mar 12 16:54	24°♓07'01	5°12'26
minimum elong	8802 Mar 12 06:42	24°♓22'43	5°09'44
min. Earth dist.	8802 Mar 12 16:04	24°♓08'18	0.27128 AU
morning rise	8802 Mar 17 15:22	21°♓09'11	
direct	8802 Apr 02 10:01	16°♓15'24	
greatest brilliancy	8802 Apr 12 12:05	18°♓10'00	-4.9m
	8802 May 02 00:42	0°♈	
morning max el	8802 May 22 21:35	19°♈04'11	46°59'03
	8802 Jun 02 10:14	0°♉	
desc. node	8802 Jun 11 01:23	9°♉21'37	
	8802 Jun 29 08:17	0°♊	
	8802 Jul 24 23:14	0°♋	
	8802 Aug 19 01:51	0°♌	
	8802 Sep 12 22:36	0°♍	
asc. node	8802 Oct 01 22:54	23°♍04'54	
	8802 Oct 07 15:15	0°♎	
	8802 Nov 01 04:06	0°♏	
morning set	8802 Nov 21 03:55	24°♏34'16	
	8802 Nov 25 13:39	0°♐	
	8802 Dec 19 20:49	0°♑	
max. Earth dist.	8802 Dec 26 01:45	7°♑40'38	1.72858 AU
superior conj	8802 Dec 28 00:14	10°♑04'28	0°55'02
minimum elong	8802 Dec 28 09:57	10°♑34'30	0°54'53
	8803 Jan 13 02:22	0°♒	
desc. node	8803 Jan 21 15:49	10°♒36'56	
evening rise	8803 Feb 04 10:23	27°♒43'02	
	8803 Feb 06 06:29	0°♓	
	8803 Mar 02 09:08	0°♈	
	8803 Mar 26 11:02	0°♉	
	8803 Apr 19 14:17	0°♊	
	8803 May 13 22:27	0°♋	
asc. node	8803 May 14 14:12	0°♋48'09	
	8803 Jun 07 16:48	0°♌	
	8803 Jul 03 06:09	0°♍	
	8803 Jul 30 11:44	0°♎	
evening max el	8803 Aug 09 04:09	9°♎49'31	46°02'59
	8803 Sep 01 08:19	0°♏	
desc. node	8803 Sep 03 10:00	1°♏27'29	
greatest brilliancy	8803 Sep 16 21:34	8°♏46'05	-4.7m
retrograde	8803 Sep 27 14:47	10°♏51'52	
evening set	8803 Oct 15 06:23	4°♏58'04	
inferior conj	8803 Oct 19 04:06	2°♏33'17	-8°16'06
minimum elong	8803 Oct 18 22:25	2°♏42'12	8°15'30
min. Earth dist.	8803 Oct 18 20:27	2°♏45'18	0.29110 AU
morning rise	8803 Oct 22 14:32	0°♏25'30	
	8803 Oct 23 07:34	30°℞♎	
direct	8803 Nov 09 15:43	24°♎17'33	
greatest brilliancy	8803 Nov 19 21:35	26°♎11'22	-4.7m
	8803 Nov 28 02:31	0°♏	
asc. node	8803 Dec 25 09:17	21°♏28'20	
morning max el	8803 Dec 28 17:47	24°♏41'26	45°51'34
	8804 Jan 03 02:18	0°♐	
	8804 Jan 30 22:16	0°♑	
	8804 Feb 25 18:00	0°♒	
	8804 Mar 21 16:10	0°♓	
desc. node	8804 Apr 15 03:01	0°♈00'59	
	8804 Apr 15 02:42	0°♈	
	8804 May 09 06:37	0°♉	
	8804 Jun 02 07:16	0°♊	
	8804 Jun 26 07:21	0°♋	
morning set	8804 Jul 01 04:17	6°♋04'57	
	8804 Jul 20 08:45	0°♌	
asc. node	8804 Aug 06 00:01	20°♌40'48	
superior conj	8804 Aug 08 23:26	24°♌22'25	0°07'14
minimum elong	8804 Aug 08 21:47	24°♌17'19	0°07'01
behind sun begin	8804 Aug 07 23:59	23°♌09'41	
behind sun end	8804 Aug 09 19:35	25°♌24'56	
max. Earth dist.	8804 Aug 11 13:53	27°♌36'09	1.72550 AU
	8804 Aug 13 12:17	0°♍	
	8804 Sep 06 18:03	0°♎	
evening rise	8804 Sep 15 11:03	10°♎44'54	
	8804 Oct 01 02:21	0°♏	
	8804 Oct 25 14:03	0°♐	
	8804 Nov 19 06:26	0°♑	
desc. node	8804 Nov 25 17:56	7°♑49'36	
	8804 Dec 14 04:40	0°♒	
	8805 Jan 08 10:09	0°♓	
	8805 Feb 03 03:25	0°♈	
	8805 Mar 01 23:37	0°♉	
evening max el	8805 Mar 15 06:14	13°♉51'03	46°53'41
asc. node	8805 Mar 18 17:38	17°♉18'01	
	8805 Apr 01 13:40	0°♊	
greatest brilliancy	8805 Apr 24 21:53	14°♊51'24	-4.9m
retrograde	8805 May 04 17:59	16°♊41'21	
evening set	8805 May 22 13:11	10°♊35'37	
inferior conj	8805 May 25 09:56	8°♊50'47	8°41'49
minimum elong	8805 May 25 17:02	8°♊39'53	8°40'51
min. Earth dist.	8805 May 25 11:16	8°♊48'45	0.27168 AU
morning rise	8805 May 28 20:57	6°♊45'04	
direct	8805 Jun 15 02:25	1°♊02'57	
greatest brilliancy	8805 Jun 24 18:26	2°♊48'53	-4.9m
desc. node	8805 Jul 08 13:03	10°♊07'59	
	8805 Aug 01 01:06	0°♋	
morning max el	8805 Aug 04 02:17	2°♋58'16	46°25'46
	8805 Aug 29 20:51	0°♌	
	8805 Sep 25 12:00	0°♍	
	8805 Oct 21 05:03	0°♎	
asc. node	8805 Oct 29 11:14	9°♎47'27	
	8805 Nov 15 08:31	0°♏	
	8805 Dec 10 02:14	0°♐	
	8806 Jan 03 13:03	0°♑	
	8806 Jan 27 19:09	0°♒	
morning set	8806 Jan 29 18:25	2°♒26'38	
desc. node	8806 Feb 18 04:06	26°♒35'01	
	8806 Feb 20 21:50	0°♓	
max. Earth dist.	8806 Mar 07 08:57	18°♓04'01	1.71672 AU
superior conj	8806 Mar 10 07:42	21°♓45'19	-0°46'34
minimum elong	8806 Mar 09 21:28	21°♓13'17	0°46'05
	8806 Mar 16 21:42	0°♈	
	8806 Apr 09 19:33	0°♉	
evening rise	8806 Apr 19 11:16	12°♉07'41	
	8806 May 03 16:56	0°♊	
	8806 May 27 16:13	0°♋	
asc. node	8806 Jun 11 01:51	17°♋55'17	
	8806 Jun 20 19:52	0°♌	
	8806 Jul 15 06:32	0°♍	
	8806 Aug 09 03:55	0°♎	
	8806 Sep 03 19:18	0°♏	
desc. node	8806 Sep 30 21:07	29°♏58'51	
	8806 Sep 30 21:33	0°♐	
evening max el	8806 Oct 19 05:53	18°♐35'05	45°42'43
	8806 Oct 31 21:16	0°♑	
greatest brilliancy	8806 Nov 27 08:35	16°♑38'28	-4.7m
retrograde	8806 Dec 06 21:44	18°♑17'09	
evening set	8806 Dec 23 06:00	13°♑11'51	
inferior conj	8806 Dec 28 03:08	10°♑13'46	-5°37'40
minimum elong	8806 Dec 28 13:05	9°♑58'11	5°35'06
min. Earth dist.	8806 Dec 28 22:24	9°♑43'38	0.28389 AU
morning rise	8807 Jan 02 19:43	6°♑47'10	

direct	8807 Jan 18 11:17	2°♑01'56	
asc. node	8807 Jan 21 20:54	2°♑15'29	
greatest brilliancy	8807 Jan 29 13:04	4°♑17'58	-4.8m
	8807 Mar 05 05:29	0°♒	
morning max el	8807 Mar 09 14:16	4°♒18'19	46°34'48
	8807 Apr 02 15:38	0°♓	
	8807 Apr 28 15:03	0°♈	
desc. node	8807 May 13 15:17	17°♈55'16	
	8807 May 23 15:09	0°♉	
	8807 Jun 17 04:23	0°♊	
	8807 Jul 11 13:07	0°♋	
	8807 Aug 04 20:50	0°♌	
	8807 Aug 29 04:47	0°♍	
asc. node	8807 Sep 03 12:22	6°♍33'14	
morning set	8807 Sep 11 04:49	16°♍01'42	
	8807 Sep 22 12:51	0°♎	
	8807 Oct 16 20:44	0°♏	
superior conj	8807 Oct 18 05:55	1°♏42'15	1°21'51
minimum elong	8807 Oct 18 00:20	1°♏25'03	1°21'53
max. Earth dist.	8807 Oct 18 13:50	2°♏06'40	1.73278 AU
	8807 Nov 10 04:45	0°♐	
evening rise	8807 Nov 23 18:51	16°♐44'02	
	8807 Dec 04 13:34	0°♑	
desc. node	8807 Dec 24 05:44	24°♑10'29	
	8807 Dec 28 23:36	0°♒	
	8808 Jan 22 10:37	0°♓	
	8808 Feb 15 22:45	0°♈	
	8808 Mar 11 13:57	0°♉	
	8808 Apr 05 13:51	0°♊	
asc. node	8808 Apr 15 04:40	11°♊19'11	
	8808 May 01 10:47	0°♋	
evening max el	8808 May 26 20:35	27°♋16'49	46°47'49
	8808 May 29 14:09	0°♌	
greatest brilliancy	8808 Jul 05 08:04	27°♌38'15	-4.8m
retrograde	8808 Jul 16 03:21	29°♌48'21	
evening set	8808 Jul 30 23:30	25°♌29'32	
desc. node	8808 Aug 05 00:35	22°♌31'06	
inferior conj	8808 Aug 06 06:25	21°♌44'51	-0°18'43
minimum elong	8808 Aug 06 05:41	21°♌45'58	0°18'39
min. Earth dist.	8808 Aug 05 18:39	22°♌03'06	0.27805 AU
morning rise	8808 Aug 12 12:31	18°♌02'33	
direct	8808 Aug 27 07:03	13°♌49'37	
greatest brilliancy	8808 Sep 06 00:28	15°♌32'36	-4.8m
	8808 Sep 29 16:05	0°♍	
morning max el	8808 Oct 15 01:54	13°♍42'55	45°45'58
	8808 Oct 31 06:55	0°♎	
asc. node	8808 Nov 25 23:27	28°♎03'36	
	8808 Nov 27 16:35	0°♏	
	8808 Dec 23 13:16	0°♐	
	8809 Jan 17 14:19	0°♑	
	8809 Feb 11 03:50	0°♒	
	8809 Mar 07 10:05	0°♓	
desc. node	8809 Mar 17 16:30	12°♓46'48	
	8809 Mar 31 11:25	0°♈	
morning set	8809 Apr 14 08:44	17°♈24'09	
	8809 Apr 24 09:31	0°♉	
	8809 May 18 06:19	0°♊	
superior conj	8809 May 24 22:58	8°♊24'43	-1°23'02
minimum elong	8809 May 25 06:17	8°♊47'41	1°23'07
max. Earth dist.	8809 May 26 15:47	10°♊32'52	1.71343 AU
	8809 Jun 11 03:52	0°♋	
evening rise	8809 Jul 04 04:27	28°♋46'50	
	8809 Jul 05 03:56	0°♌	
asc. node	8809 Jul 08 13:51	4°♌15'09	
	8809 Jul 29 07:41	0°♍	
	8809 Aug 22 16:16	0°♎	
	8809 Sep 16 07:28	0°♏	
	8809 Oct 11 08:30	0°♐	
desc. node	8809 Oct 28 08:21	19°♐58'00	
	8809 Nov 06 00:30	0°♑	
	8809 Dec 02 17:13	0°♒	
evening max el	8809 Dec 29 23:17	28°♒20'54	46°10'26
	8809 Dec 31 16:20	0°♓	
greatest brilliancy	8810 Feb 07 17:23	27°♓43'14	-4.8m
retrograde	8810 Feb 17 12:31	29°♓30'58	
asc. node	8810 Feb 18 08:24	29°♓30'08	
evening set	8810 Mar 04 08:29	25°♓12'04	
inferior conj	8810 Mar 10 06:07	21°♓43'25	4°52'15
minimum elong	8810 Mar 09 20:19	21°♓58'28	4°49'37
min. Earth dist.	8810 Mar 10 05:57	21°♓43'40	0.27146 AU
morning rise	8810 Mar 15 07:51	18°♓41'15	
direct	8810 Mar 30 23:32	13°♓51'07	
greatest brilliancy	8810 Apr 10 02:52	15°♓47'16	-4.9m
	8810 May 02 12:55	0°♈	
morning max el	8810 May 20 12:03	16°♈42'37	46°59'17
	8810 Jun 02 05:26	0°♉	
desc. node	8810 Jun 10 03:28	8°♉39'03	
	8810 Jun 28 23:24	0°♊	
	8810 Jul 24 12:32	0°♋	
	8810 Aug 18 14:06	0°♌	
	8810 Sep 12 10:10	0°♍	
asc. node	8810 Oct 01 00:46	22°♍36'24	
	8810 Oct 07 02:22	0°♎	
	8810 Oct 31 14:57	0°♏	
morning set	8810 Nov 18 21:28	22°♏27'30	
	8810 Nov 25 00:22	0°♐	
	8810 Dec 19 07:31	0°♑	
max. Earth dist.	8810 Dec 23 22:35	5°♑43'24	1.72891 AU
superior conj	8810 Dec 25 16:35	7°♑53'21	0°57'36
minimum elong	8810 Dec 26 02:22	8°♑23'38	0°57'28
	8811 Jan 12 13:09	0°♒	
desc. node	8811 Jan 20 17:53	10°♒09'42	
evening rise	8811 Feb 02 00:59	25°♒25'24	
	8811 Feb 05 17:26	0°♓	
	8811 Mar 01 20:18	0°♈	
	8811 Mar 25 22:27	0°♉	
	8811 Apr 19 02:02	0°♊	
	8811 May 13 10:43	0°♋	
asc. node	8811 May 13 16:10	0°♋16'39	
	8811 Jun 07 05:57	0°♌	
	8811 Jul 02 21:03	0°♍	
	8811 Jul 30 07:01	0°♎	
evening max el	8811 Aug 06 20:31	7°♎37'50	46°04'29
desc. node	8811 Sep 02 11:59	0°♏13'37	
	8811 Sep 02 03:47	0°♏	
greatest brilliancy	8811 Sep 14 12:16	6°♏34'11	-4.8m
retrograde	8811 Sep 25 07:44	8°♏41'42	
evening set	8811 Oct 12 19:45	2°♏52'06	
inferior conj	8811 Oct 16 20:19	0°♏23'02	-8°09'59
minimum elong	8811 Oct 16 14:01	0°♏32'55	8°09'17
min. Earth dist.	8811 Oct 16 11:11	0°♏37'21	0.29087 AU
	8811 Oct 17 11:00	30°℞♎	
morning rise	8811 Oct 20 08:25	28°♎12'55	
direct	8811 Nov 07 08:08	22°♎07'52	
greatest brilliancy	8811 Nov 17 11:58	24°♎00'14	-4.7m
	8811 Nov 29 08:35	0°♏	
asc. node	8811 Dec 24 11:20	20°♏38'26	
morning max el	8811 Dec 26 10:06	22°♏31'11	45°50'33
	8812 Jan 02 22:04	0°♐	
	8812 Jan 30 13:11	0°♑	
	8812 Feb 25 07:07	0°♒	

	8812 Mar 21 04:25	0°♓	
desc. node	8812 Apr 14 04:54	29°♓30'19	
	8812 Apr 14 14:30	0°♈	
	8812 May 08 18:08	0°♉	
	8812 Jun 01 18:33	0°♊	
	8812 Jun 25 18:27	0°♋	
morning set	8812 Jun 28 17:35	3°♋42'04	
	8812 Jul 19 19:43	0°♌	
asc. node	8812 Aug 05 01:57	20°♌12'51	
superior conj	8812 Aug 06 14:09	22°♌05'14	0°03'42
minimum elong	8812 Aug 06 13:19	22°♌02'38	0°03'30
behind sun begin	8812 Aug 05 13:43	20°♌49'24	
behind sun end	8812 Aug 07 12:54	23°♌15'52	
max. Earth dist.	8812 Aug 09 08:11	25°♌30'10	1.72510 AU
	8812 Aug 12 23:11	0°♍	
	8812 Sep 06 04:58	0°♎	
evening rise	8812 Sep 13 04:01	8°♎35'33	
	8812 Sep 30 13:20	0°♏	
	8812 Oct 25 01:14	0°♐	
	8812 Nov 18 18:00	0°♑	
desc. node	8812 Nov 24 20:00	7°♑20'35	
	8812 Dec 13 16:51	0°♒	
	8813 Jan 07 23:23	0°♓	
	8813 Feb 02 18:31	0°♈	
	8813 Mar 01 18:51	0°♉	
evening max el	8813 Mar 12 20:41	11°♉29'09	46°52'35
asc. node	8813 Mar 17 19:29	16°♉22'06	
	8813 Apr 02 01:36	0°♊	
greatest brilliancy	8813 Apr 22 11:10	12°♊25'30	-4.9m
retrograde	8813 May 02 07:12	14°♊14'51	
evening set	8813 May 20 04:47	8°♊05'38	
inferior conj	8813 May 22 22:48	6°♊24'42	8°49'17
minimum elong	8813 May 23 05:07	6°♊14'59	8°48'30
min. Earth dist.	8813 May 22 23:43	6°♊23'17	0.27162 AU
morning rise	8813 May 26 05:32	4°♊25'06	
	8813 Jun 04 10:04	30°℞♉	
direct	8813 Jun 12 15:34	28°♉37'10	
	8813 Jun 21 03:49	0°♊	
greatest brilliancy	8813 Jun 22 06:28	0°♊22'04	-4.9m
desc. node	8813 Jul 07 15:05	8°♊47'36	
	8813 Aug 01 01:13	0°♋	
morning max el	8813 Aug 01 15:43	0°♋35'42	46°27'20
	8813 Aug 29 13:29	0°♌	
	8813 Sep 25 01:55	0°♍	
	8813 Oct 20 17:35	0°♎	
asc. node	8813 Oct 28 13:10	9°♎16'47	
	8813 Nov 14 20:16	0°♏	
	8813 Dec 09 13:32	0°♐	
	8814 Jan 03 00:06	0°♑	
morning set	8814 Jan 27 09:19	0°♒09'55	
	8814 Jan 27 06:07	0°♒	
desc. node	8814 Feb 17 06:02	26°♒06'54	
	8814 Feb 20 08:47	0°♓	
max. Earth dist.	8814 Mar 04 17:46	15°♓27'17	1.71711 AU
superior conj	8814 Mar 07 20:13	19°♓20'04	-0°43'18
minimum elong	8814 Mar 07 10:31	18°♓49'44	0°42'49
	8814 Mar 16 08:42	0°♈	
	8814 Apr 09 06:36	0°♉	
evening rise	8814 Apr 16 22:32	9°♉37'25	
	8814 May 03 04:07	0°♊	
	8814 May 27 03:34	0°♋	
asc. node	8814 Jun 10 03:54	17°♋26'02	
	8814 Jun 20 07:29	0°♌	
	8814 Jul 14 18:33	0°♍	
	8814 Aug 08 16:39	0°♎	
	8814 Sep 03 09:30	0°♏	
desc. node	8814 Sep 29 23:02	29°♏17'19	
	8814 Sep 30 15:15	0°♐	
evening max el	8814 Oct 16 20:01	16°♐19'33	45°42'33
	8814 Nov 01 04:44	0°♑	
greatest brilliancy	8814 Nov 24 23:57	14°♑25'36	-4.7m
retrograde	8814 Dec 04 12:00	16°♑03'44	
evening set	8814 Dec 21 00:05	10°♑53'59	
inferior conj	8814 Dec 25 18:31	7°♑59'47	-5°53'15
minimum elong	8814 Dec 26 04:35	7°♑44'01	5°50'45
min. Earth dist.	8814 Dec 26 14:07	7°♑29'07	0.28440 AU
morning rise	8814 Dec 31 08:35	4°♑36'22	
	8815 Jan 12 20:27	30°℞♐	
direct	8815 Jan 16 02:33	29°♐47'15	
	8815 Jan 19 09:51	0°♑	
asc. node	8815 Jan 20 22:52	0°♑14'24	
greatest brilliancy	8815 Jan 27 05:18	2°♑03'35	-4.8m
	8815 Mar 05 04:49	0°♒	
morning max el	8815 Mar 07 04:18	1°♒58'01	46°33'25
	8815 Apr 02 07:55	0°♓	
	8815 Apr 28 04:55	0°♈	
desc. node	8815 May 12 17:22	17°♈22'08	
	8815 May 23 03:51	0°♉	
	8815 Jun 16 16:24	0°♊	
	8815 Jul 11 00:43	0°♋	
	8815 Aug 04 08:08	0°♌	
	8815 Aug 28 15:50	0°♍	
asc. node	8815 Sep 02 14:15	6°♍05'07	
morning set	8815 Sep 08 20:58	13°♍49'48	
	8815 Sep 21 23:43	0°♎	
superior conj	8815 Oct 15 23:20	29°♎34'45	1°20'47
minimum elong	8815 Oct 15 17:12	29°♎15'48	1°20'48
	8815 Oct 16 07:32	0°♏	
max. Earth dist.	8815 Oct 16 07:11	29°♎58'57	1.73271 AU
	8815 Nov 09 15:35	0°♐	
evening rise	8815 Nov 21 11:40	14°♐34'33	
	8815 Dec 04 00:33	0°♑	
desc. node	8815 Dec 23 07:47	23°♑42'31	
	8815 Dec 28 10:49	0°♒	
	8816 Jan 21 22:11	0°♓	
	8816 Feb 15 10:46	0°♈	
	8816 Mar 11 02:41	0°♉	
	8816 Apr 05 03:49	0°♊	
asc. node	8816 Apr 14 06:43	10°♊42'27	
	8816 May 01 03:17	0°♋	
evening max el	8816 May 24 09:55	24°♋53'49	46°48'51
	8816 May 29 14:02	0°♌	
greatest brilliancy	8816 Jul 03 00:07	25°♌20'59	-4.8m
retrograde	8816 Jul 13 17:56	27°♌30'19	
evening set	8816 Jul 28 14:48	23°♌10'32	
inferior conj	8816 Aug 03 20:56	19°♌27'26	0°03'31
minimum elong	8816 Aug 03 21:04	19°♌27'14	0°03'19
transit middle	8816 Aug 03 21:04	19°♌27'14	0°03'19
transit begin	8816 Aug 03 17:05	19°♌33'24	
transit end	8816 Aug 04 01:02	19°♌21'04	
min. Earth dist.	8816 Aug 03 10:17	19°♌43'56	0.27767 AU
desc. node	8816 Aug 04 02:32	19°♌18'45	
morning rise	8816 Aug 10 03:52	15°♌44'05	
direct	8816 Aug 24 20:31	11°♌32'26	
greatest brilliancy	8816 Sep 03 15:31	13°♌16'39	-4.8m
	8816 Sep 30 00:01	0°♍	
morning max el	8816 Oct 12 16:31	11°♍28'01	45°46'48
	8816 Oct 31 00:46	0°♎	
asc. node	8816 Nov 25 01:32	27°♎28'54	
	8816 Nov 27 06:46	0°♏	
	8816 Dec 23 01:53	0°♐	

	8817 Jan 17 02:10	0°♉	
	8817 Feb 10 15:16	0°♒	
	8817 Mar 06 21:16	0°♓	
desc. node	8817 Mar 16 18:23	12°♓17'59	
	8817 Mar 30 22:27	0°♈	
morning set	8817 Apr 11 19:25	14°♈52'36	
	8817 Apr 23 20:28	0°♉	
	8817 May 17 17:12	0°♊	
superior conj	8817 May 22 10:41	5°♊56'35	-1°24'12
minimum elong	8817 May 22 17:09	6°♊16'56	1°24'20
max. Earth dist.	8817 May 23 22:26	7°♊48'54	1.71321 AU
	8817 Jun 10 14:43	0°♋	
evening rise	8817 Jul 01 17:27	26°♋23'55	
	8817 Jul 04 14:47	0°♌	
asc. node	8817 Jul 07 15:47	3°♌47'17	
	8817 Jul 28 18:39	0°♍	
	8817 Aug 22 03:27	0°♎	
	8817 Sep 15 19:03	0°♏	
	8817 Oct 10 20:49	0°♐	
desc. node	8817 Oct 27 10:25	19°♐26'00	
	8817 Nov 05 14:09	0°♑	
	8817 Dec 02 09:40	0°♒	
evening max el	8817 Dec 27 13:45	26°♒03'22	46°09'00
	8817 Dec 31 16:48	0°♓	
greatest brilliancy	8818 Feb 05 05:50	25°♓19'18	-4.8m
retrograde	8818 Feb 15 02:04	27°♓07'39	
asc. node	8818 Feb 17 10:18	27°♓00'59	
evening set	8818 Mar 01 19:31	22°♓51'18	
inferior conj	8818 Mar 07 19:17	19°♓19'41	4°31'38
minimum elong	8818 Mar 07 09:57	19°♓33'59	4°29'04
min. Earth dist.	8818 Mar 07 19:31	19°♓19'18	0.27163 AU
morning rise	8818 Mar 13 00:07	16°♓13'22	
direct	8818 Mar 28 13:29	11°♓26'57	
greatest brilliancy	8818 Apr 07 17:06	13°♓23'53	-4.9m
	8818 May 02 21:55	0°♈	
morning max el	8818 May 18 03:03	14°♈22'45	46°59'33
	8818 Jun 02 00:01	0°♉	
desc. node	8818 Jun 09 05:26	7°♉57'03	
	8818 Jun 28 14:09	0°♊	
	8818 Jul 24 01:32	0°♋	
	8818 Aug 18 02:06	0°♌	
	8818 Sep 11 21:33	0°♍	
asc. node	8818 Sep 30 02:44	22°♍08'35	
	8818 Oct 06 13:23	0°♎	
	8818 Oct 31 01:44	0°♏	
morning set	8818 Nov 16 14:43	20°♏19'57	
	8818 Nov 24 11:02	0°♐	
	8818 Dec 18 18:10	0°♑	
max. Earth dist.	8818 Dec 21 17:42	3°♑41'09	1.72920 AU
superior conj	8818 Dec 23 08:37	5°♑41'28	1°00'05
minimum elong	8818 Dec 23 18:25	6°♑11'48	0°59'58
	8819 Jan 11 23:51	0°♒	
desc. node	8819 Jan 19 19:43	9°♒42'04	
evening rise	8819 Jan 30 15:16	23°♒07'08	
	8819 Feb 05 04:16	0°♓	
	8819 Mar 01 07:21	0°♈	
	8819 Mar 25 09:45	0°♉	
	8819 Apr 18 13:40	0°♊	
asc. node	8819 May 12 18:13	29°♊45'53	
	8819 May 12 22:50	0°♋	
	8819 Jun 06 18:57	0°♌	
	8819 Jul 02 11:50	0°♍	
	8819 Jul 30 02:28	0°♎	
evening max el	8819 Aug 04 13:10	5°♎27'49	46°05'55
desc. node	8819 Sep 01 13:52	28°♎58'20	
	8819 Sep 03 05:47	0°♏	
greatest brilliancy	8819 Sep 12 03:14	4°♏23'31	-4.8m
retrograde	8819 Sep 23 00:16	6°♏32'08	
evening set	8819 Oct 10 08:59	0°♏47'10	
	8819 Oct 11 16:09	30°℞♎	
min. Earth dist.	8819 Oct 14 02:00	28°♎29'59	0.29066 AU
inferior conj	8819 Oct 14 12:30	28°♎13'30	-8°03'13
minimum elong	8819 Oct 14 05:37	28°♎24'19	8°02'23
morning rise	8819 Oct 18 02:25	26°♎00'39	
direct	8819 Nov 05 00:45	19°♎59'00	
greatest brilliancy	8819 Nov 15 02:15	21°♎49'31	-4.7m
	8819 Nov 30 05:56	0°♏	
asc. node	8819 Dec 23 13:15	19°♏49'30	
morning max el	8819 Dec 24 01:49	20°♏19'57	45°49'25
	8820 Jan 02 17:06	0°♐	
	8820 Jan 30 03:45	0°♑	
	8820 Feb 24 19:56	0°♒	
	8820 Mar 20 16:23	0°♓	
desc. node	8820 Apr 13 06:56	29°♓01'02	
	8820 Apr 14 02:00	0°♈	
	8820 May 08 05:19	0°♉	
	8820 Jun 01 05:31	0°♊	
	8820 Jun 25 05:14	0°♋	
morning set	8820 Jun 26 06:55	1°♋20'13	
	8820 Jul 19 06:22	0°♌	
superior conj	8820 Aug 04 05:02	19°♌49'34	0°00'07
minimum elong	8820 Aug 04 05:01	19°♌49'32	0°00'03
behind sun begin	8820 Aug 03 06:04	18°♌38'14	
behind sun end	8820 Aug 05 03:58	21°♌00'50	
asc. node	8820 Aug 04 03:53	19°♌45'59	
max. Earth dist.	8820 Aug 07 03:07	23°♌27'12	1.72464 AU
	8820 Aug 12 09:44	0°♍	
	8820 Sep 05 15:30	0°♎	
evening rise	8820 Sep 10 21:10	6°♎27'53	
	8820 Sep 29 23:57	0°♏	
	8820 Oct 24 12:05	0°♐	
	8820 Nov 18 05:16	0°♑	
desc. node	8820 Nov 23 21:58	6°♑52'08	
	8820 Dec 13 04:49	0°♒	
	8821 Jan 07 12:29	0°♓	
	8821 Feb 02 09:34	0°♈	
	8821 Mar 01 14:21	0°♉	
evening max el	8821 Mar 10 10:17	9°♉05'54	46°51'34
asc. node	8821 Mar 16 21:33	15°♉26'26	
	8821 Apr 02 17:01	0°♊	
greatest brilliancy	8821 Apr 20 00:55	10°♊01'09	-4.9m
retrograde	8821 Apr 29 19:46	11°♊49'24	
evening set	8821 May 17 20:06	5°♊37'14	
inferior conj	8821 May 20 11:43	3°♊59'48	8°55'52
minimum elong	8821 May 20 17:09	3°♊51'24	8°55'14
min. Earth dist.	8821 May 20 12:29	3°♊58'36	0.27153 AU
morning rise	8821 May 23 14:16	2°♊06'08	
	8821 May 27 08:08	30°℞♉	
direct	8821 Jun 10 04:16	26°♉12'26	
greatest brilliancy	8821 Jun 19 19:07	27°♉56'59	-4.9m
	8821 Jun 24 16:06	0°♊	
desc. node	8821 Jul 06 17:01	7°♊30'39	
morning max el	8821 Jul 30 04:24	28°♊12'13	46°29'01
	8821 Jul 31 23:49	0°♋	
	8821 Aug 29 05:23	0°♌	
	8821 Sep 24 15:14	0°♍	
	8821 Oct 20 05:35	0°♎	
asc. node	8821 Oct 27 15:15	8°♎48'03	
	8821 Nov 14 07:32	0°♏	
	8821 Dec 09 00:24	0°♐	
	8822 Jan 02 10:47	0°♑	

morning set	8822 Jan 25 00:01	27°♑53'38	
	8822 Jan 26 16:45	0°♒	
desc. node	8822 Feb 16 07:58	25°♒39'45	
	8822 Feb 19 19:26	0°♓	
max. Earth dist.	8822 Mar 02 02:37	12°♓51'37	1.71754 AU
superior conj	8822 Mar 05 08:26	16°♓54'49	-0°39'55
minimum elong	8822 Mar 04 23:20	16°♓26'23	0°39'27
	8822 Mar 15 19:23	0°♈	
	8822 Apr 08 17:21	0°♉	
evening rise	8822 Apr 14 09:30	7°♉07'22	
	8822 May 02 14:57	0°♊	
	8822 May 26 14:33	0°♋	
asc. node	8822 Jun 09 05:48	16°♋57'32	
	8822 Jun 19 18:43	0°♌	
	8822 Jul 14 06:11	0°♍	
	8822 Aug 08 05:02	0°♎	
	8822 Sep 02 23:22	0°♏	
desc. node	8822 Sep 29 01:09	28°♏37'22	
	8822 Sep 30 08:47	0°♐	
evening max el	8822 Oct 14 09:49	14°♐04'52	45°42'33
	8822 Nov 01 14:02	0°♑	
greatest brilliancy	8822 Nov 22 14:51	12°♑14'15	-4.7m
retrograde	8822 Dec 02 02:43	13°♑52'42	
evening set	8822 Dec 18 18:18	8°♑38'03	
inferior conj	8822 Dec 23 10:06	5°♑47'51	-6°08'01
minimum elong	8822 Dec 23 20:12	5°♑32'02	6°05'36
min. Earth dist.	8822 Dec 24 05:49	5°♑17'00	0.28497 AU
morning rise	8822 Dec 28 21:34	2°♑28'00	
	8823 Jan 02 18:19	30°℞♐	
direct	8823 Jan 13 18:01	27°♐34'26	
asc. node	8823 Jan 20 00:48	28°♐19'32	
greatest brilliancy	8823 Jan 24 22:04	29°♐51'38	-4.8m
	8823 Jan 25 06:31	0°♑	
morning max el	8823 Mar 04 19:01	29°♑40'32	46°31'48
	8823 Mar 05 02:47	0°♒	
	8823 Apr 01 23:40	0°♓	
	8823 Apr 27 18:24	0°♈	
desc. node	8823 May 11 19:20	16°♈49'35	
	8823 May 22 16:11	0°♉	
	8823 Jun 16 04:04	0°♊	
	8823 Jul 10 11:56	0°♋	
	8823 Aug 03 19:01	0°♌	
	8823 Aug 28 02:29	0°♍	
asc. node	8823 Sep 01 16:14	5°♍38'29	
morning set	8823 Sep 06 13:12	11°♍39'15	
	8823 Sep 21 10:12	0°♎	
superior conj	8823 Oct 13 17:01	27°♎29'11	1°19'37
minimum elong	8823 Oct 13 10:20	27°♎08'35	1°19'35
max. Earth dist.	8823 Oct 14 01:16	27°♎54'37	1.73261 AU
	8823 Oct 15 17:56	0°♏	
	8823 Nov 09 02:00	0°♐	
evening rise	8823 Nov 19 04:54	12°♐27'43	
	8823 Dec 03 11:07	0°♑	
desc. node	8823 Dec 22 09:39	23°♑15'19	
	8823 Dec 27 21:38	0°♒	
	8824 Jan 21 09:22	0°♓	
	8824 Feb 14 22:30	0°♈	
	8824 Mar 10 15:15	0°♉	
	8824 Apr 04 17:43	0°♊	
asc. node	8824 Apr 13 08:44	10°♊05'53	
	8824 Apr 30 19:55	0°♋	
evening max el	8824 May 21 23:43	22°♋32'31	46°50'03
	8824 May 29 14:53	0°♌	
greatest brilliancy	8824 Jun 30 15:33	23°♌03'24	-4.8m
retrograde	8824 Jul 11 08:55	25°♌12'41	
evening set	8824 Jul 26 06:09	20°♌51'33	
inferior conj	8824 Aug 01 11:18	17°♌10'16	0°25'55
minimum elong	8824 Aug 01 12:17	17°♌08'45	0°25'26
min. Earth dist.	8824 Aug 01 01:29	17°♌25'28	0.27726 AU
desc. node	8824 Aug 03 04:30	16°♌06'48	
morning rise	8824 Aug 07 18:56	13°♌26'22	
direct	8824 Aug 22 10:10	9°♌15'33	
greatest brilliancy	8824 Sep 01 06:03	11°♌00'49	-4.8m
	8824 Sep 30 05:12	0°♍	
morning max el	8824 Oct 10 07:54	9°♍15'58	45°47'45
	8824 Oct 30 17:49	0°♎	
asc. node	8824 Nov 24 03:21	26°♎54'43	
	8824 Nov 26 20:26	0°♏	
	8824 Dec 22 14:03	0°♐	
	8825 Jan 16 13:36	0°♑	
	8825 Feb 10 02:19	0°♒	
	8825 Mar 06 08:08	0°♓	
desc. node	8825 Mar 15 20:25	11°♓50'34	
	8825 Mar 30 09:13	0°♈	
morning set	8825 Apr 09 06:00	12°♈21'30	
	8825 Apr 23 07:13	0°♉	
	8825 May 17 03:57	0°♊	
superior conj	8825 May 19 21:51	3°♊27'05	-1°25'14
minimum elong	8825 May 20 03:24	3°♊44'34	1°25'23
max. Earth dist.	8825 May 21 06:02	5°♊08'15	1.71305 AU
	8825 Jun 10 01:27	0°♋	
evening rise	8825 Jun 29 05:48	23°♋59'21	
	8825 Jul 04 01:31	0°♌	
asc. node	8825 Jul 06 17:39	3°♌19'40	
	8825 Jul 28 05:27	0°♍	
	8825 Aug 21 14:27	0°♎	
	8825 Sep 15 06:29	0°♏	
	8825 Oct 10 08:58	0°♐	
desc. node	8825 Oct 26 12:23	18°♐54'14	
	8825 Nov 05 03:41	0°♑	
	8825 Dec 02 02:07	0°♒	
evening max el	8825 Dec 25 05:00	23°♒48'53	46°07'37
	8825 Dec 31 18:06	0°♓	
greatest brilliancy	8826 Feb 02 18:36	22°♓57'23	-4.8m
retrograde	8826 Feb 12 15:43	24°♓45'57	
asc. node	8826 Feb 16 12:19	24°♓27'51	
evening set	8826 Feb 27 07:08	20°♓32'05	
inferior conj	8826 Mar 05 08:41	16°♓57'39	4°10'45
minimum elong	8826 Mar 04 23:55	17°♓11'07	4°08'17
min. Earth dist.	8826 Mar 05 09:17	16°♓56'44	0.27184 AU
morning rise	8826 Mar 10 16:30	13°♓47'14	
direct	8826 Mar 26 03:58	9°♓04'39	
greatest brilliancy	8826 Apr 05 07:18	11°♓01'42	-4.9m
	8826 May 03 04:06	0°♈	
morning max el	8826 May 15 17:36	12°♈02'18	46°59'23
	8826 Jun 01 18:02	0°♉	
desc. node	8826 Jun 08 07:19	7°♉15'27	
	8826 Jun 28 04:43	0°♊	
	8826 Jul 23 14:28	0°♋	
	8826 Aug 17 14:05	0°♌	
	8826 Sep 11 08:54	0°♍	
asc. node	8826 Sep 29 04:45	21°♍41'04	
	8826 Oct 06 00:19	0°♎	
	8826 Oct 30 12:26	0°♏	
morning set	8826 Nov 14 08:00	18°♏12'52	
	8826 Nov 23 21:37	0°♐	
	8826 Dec 18 04:43	0°♑	
max. Earth dist.	8826 Dec 19 11:14	1°♑34'18	1.72946 AU
superior conj	8826 Dec 21 00:59	3°♑30'58	1°02'27
minimum elong	8826 Dec 21 10:45	4°♑01'11	1°02'22

	8827 Jan 11 10:29	0°♒	
desc. node	8827 Jan 18 21:42	9°♒15'08	
evening rise	8827 Jan 28 05:56	20°♒50'24	
	8827 Feb 04 15:02	0°♓	
	8827 Feb 28 18:18	0°♈	
	8827 Mar 24 20:58	0°♉	
	8827 Apr 18 01:14	0°♊	
asc. node	8827 May 11 20:06	29°♊14'36	
	8827 May 12 10:59	0°♋	
	8827 Jun 06 08:06	0°♌	
	8827 Jul 02 02:58	0°♍	
	8827 Jul 29 22:46	0°♎	
evening max el	8827 Aug 02 05:20	3°♎15'49	46°07'19
desc. node	8827 Aug 31 15:59	27°♎40'19	
	8827 Sep 04 19:41	0°♏	
greatest brilliancy	8827 Sep 09 18:58	2°♏12'56	-4.8m
retrograde	8827 Sep 20 16:21	4°♏21'47	
	8827 Oct 05 15:33	30°℞♎	
evening set	8827 Oct 07 22:08	28°♎41'48	
min. Earth dist.	8827 Oct 11 17:06	26°♎21'36	0.29037 AU
inferior conj	8827 Oct 12 04:38	26°♎03'28	-7°55'50
minimum elong	8827 Oct 11 21:12	26°♎15'09	7°54'51
morning rise	8827 Oct 15 20:29	23°♎47'34	
direct	8827 Nov 02 17:01	17°♎49'45	
greatest brilliancy	8827 Nov 12 16:41	19°♎38'33	-4.7m
	8827 Nov 30 21:47	0°♏	
morning max el	8827 Dec 21 16:31	18°♏06'10	45°48'24
asc. node	8827 Dec 22 15:14	19°♏01'27	
	8828 Jan 02 11:38	0°♐	
	8828 Jan 29 18:09	0°♑	
	8828 Feb 24 08:42	0°♒	
	8828 Mar 20 04:20	0°♓	
desc. node	8828 Apr 12 08:53	28°♓31'26	
	8828 Apr 13 13:29	0°♈	
	8828 May 07 16:31	0°♉	
	8828 May 31 16:30	0°♊	
morning set	8828 Jun 23 20:17	28°♊58'05	
	8828 Jun 24 16:06	0°♋	
	8828 Jul 18 17:09	0°♌	
superior conj	8828 Aug 01 19:40	17°♌32'35	-0°03'30
minimum elong	8828 Aug 01 20:31	17°♌35'15	0°03'37
behind sun begin	8828 Jul 31 20:51	16°♌21'44	
behind sun end	8828 Aug 02 20:11	18°♌48'45	
asc. node	8828 Aug 03 05:53	19°♌18'53	
max. Earth dist.	8828 Aug 04 20:23	21°♌18'26	1.72422 AU
	8828 Aug 11 20:29	0°♍	
	8828 Sep 05 02:15	0°♎	
evening rise	8828 Sep 08 13:53	4°♎18'10	
	8828 Sep 29 10:47	0°♏	
	8828 Oct 23 23:08	0°♐	
	8828 Nov 17 16:46	0°♑	
desc. node	8828 Nov 22 23:51	6°♑22'51	
	8828 Dec 12 17:02	0°♒	
	8829 Jan 07 01:51	0°♓	
	8829 Feb 02 01:01	0°♈	
	8829 Mar 01 10:37	0°♉	
evening max el	8829 Mar 07 23:05	6°♉40'13	46°50'32
asc. node	8829 Mar 15 23:36	14°♉29'04	
	8829 Apr 03 13:56	0°♊	
greatest brilliancy	8829 Apr 17 14:58	7°♊36'56	-4.9m
retrograde	8829 Apr 27 08:17	9°♊24'11	
evening set	8829 May 15 11:08	3°♊09'29	
inferior conj	8829 May 18 00:46	1°♊35'02	9°01'22
minimum elong	8829 May 18 05:19	1°♊28'01	9°00'52
min. Earth dist.	8829 May 18 01:34	1°♊33'48	0.27146 AU
morning rise	8829 May 20 23:32	29°♉46'55	
	8829 May 20 14:49	30°℞♉	
direct	8829 Jun 07 16:39	23°♉47'38	
greatest brilliancy	8829 Jun 17 08:18	25°♉32'28	-4.9m
	8829 Jun 26 15:33	0°♊	
desc. node	8829 Jul 05 19:01	6°♊15'57	
morning max el	8829 Jul 27 16:55	25°♊47'45	46°30'37
	8829 Jul 31 21:41	0°♋	
	8829 Aug 28 21:14	0°♌	
	8829 Sep 24 04:44	0°♍	
	8829 Oct 19 17:51	0°♎	
asc. node	8829 Oct 26 17:04	8°♎17'38	
	8829 Nov 13 19:05	0°♏	
	8829 Dec 08 11:32	0°♐	
	8830 Jan 01 21:43	0°♑	
morning set	8830 Jan 22 14:48	25°♑36'54	
	8830 Jan 26 03:37	0°♒	
desc. node	8830 Feb 15 09:58	25°♒12'05	
	8830 Feb 19 06:19	0°♓	
max. Earth dist.	8830 Feb 27 14:33	10°♓24'56	1.71799 AU
superior conj	8830 Mar 02 20:48	14°♓29'25	-0°36'29
minimum elong	8830 Mar 02 12:21	14°♓03'00	0°36'01
	8830 Mar 15 06:19	0°♈	
	8830 Apr 08 04:21	0°♉	
evening rise	8830 Apr 11 20:51	4°♉37'42	
	8830 May 02 02:03	0°♊	
	8830 May 26 01:48	0°♋	
asc. node	8830 Jun 08 07:44	16°♋28'21	
	8830 Jun 19 06:12	0°♌	
	8830 Jul 13 18:05	0°♍	
	8830 Aug 07 17:44	0°♎	
	8830 Sep 02 13:44	0°♏	
desc. node	8830 Sep 28 03:04	27°♏55'08	
	8830 Sep 30 03:14	0°♐	
evening max el	8830 Oct 11 23:56	11°♐49'44	45°42'33
	8830 Nov 02 03:29	0°♑	
greatest brilliancy	8830 Nov 20 05:08	10°♑00'50	-4.7m
retrograde	8830 Nov 29 17:53	11°♑40'15	
evening set	8830 Dec 16 12:26	6°♑20'34	
inferior conj	8830 Dec 21 01:34	3°♑34'24	-6°22'17
minimum elong	8830 Dec 21 11:40	3°♑18'37	6°19'58
min. Earth dist.	8830 Dec 21 21:04	3°♑03'55	0.28552 AU
morning rise	8830 Dec 26 10:22	0°♑18'32	
	8830 Dec 26 23:27	30°℞♐	
direct	8831 Jan 11 09:38	25°♐20'11	
asc. node	8831 Jan 19 02:50	26°♐27'37	
greatest brilliancy	8831 Jan 22 14:22	27°♐38'07	-4.8m
	8831 Jan 27 17:10	0°♑	
morning max el	8831 Mar 02 10:27	27°♑24'01	46°30'15
	8831 Mar 05 00:19	0°♒	
	8831 Apr 01 15:28	0°♓	
	8831 Apr 27 08:03	0°♈	
desc. node	8831 May 10 21:09	16°♈15'46	
	8831 May 22 04:46	0°♉	
	8831 Jun 15 16:01	0°♊	
	8831 Jul 09 23:27	0°♋	
	8831 Aug 03 06:12	0°♌	
	8831 Aug 27 13:25	0°♍	
asc. node	8831 Aug 31 18:12	5°♍10'55	
morning set	8831 Sep 04 05:31	9°♍27'57	
	8831 Sep 20 20:59	0°♎	
superior conj	8831 Oct 11 10:35	25°♎22'11	1°18'20
minimum elong	8831 Oct 11 03:23	25°♎00'01	1°18'16
max. Earth dist.	8831 Oct 11 20:57	25°♎54'11	1.73257 AU
	8831 Oct 15 04:41	0°♏	
	8831 Nov 08 12:50	0°♐	

evening rise	8831 Nov 16 22:01	10°♐19'17	
	8831 Dec 02 22:07	0°♑	
desc. node	8831 Dec 21 11:38	22°♑47'10	
	8831 Dec 27 08:53	0°♒	
	8832 Jan 20 20:59	0°♓	
	8832 Feb 14 10:40	0°♈	
	8832 Mar 10 04:15	0°♉	
	8832 Apr 04 08:09	0°♊	
asc. node	8832 Apr 12 10:36	9°♊27'29	
	8832 Apr 30 13:17	0°♋	
evening max el	8832 May 19 14:29	20°♋12'36	46°51'11
	8832 May 29 17:35	0°♌	
greatest brilliancy	8832 Jun 28 06:34	20°♌44'13	-4.8m
retrograde	8832 Jul 09 00:15	22°♌53'46	
evening set	8832 Jul 23 21:42	18°♌31'12	
min. Earth dist.	8832 Jul 29 16:18	15°♌06'10	0.27685 AU
inferior conj	8832 Jul 30 01:36	14°♌51'48	0°48'26
minimum elong	8832 Jul 30 03:27	14°♌48'57	0°47'41
desc. node	8832 Aug 02 06:33	12°♌54'34	
morning rise	8832 Aug 05 09:45	11°♌07'43	
direct	8832 Aug 20 00:23	6°♌57'34	
greatest brilliancy	8832 Aug 29 19:56	8°♌43'14	-4.8m
	8832 Sep 30 08:55	0°♍	
morning max el	8832 Oct 07 23:30	7°♍03'37	45°48'38
	8832 Oct 30 10:50	0°♎	
asc. node	8832 Nov 23 05:22	26°♎20'15	
	8832 Nov 26 10:19	0°♏	
	8832 Dec 22 02:35	0°♐	
	8833 Jan 16 01:26	0°♑	
	8833 Feb 09 13:46	0°♒	
	8833 Mar 05 19:22	0°♓	
desc. node	8833 Mar 14 22:21	11°♓21'38	
	8833 Mar 29 20:21	0°♈	
morning set	8833 Apr 06 16:35	9°♈49'27	
	8833 Apr 22 18:18	0°♉	
	8833 May 16 15:00	0°♊	
superior conj	8833 May 17 08:57	0°♊56'25	-1°26'06
minimum elong	8833 May 17 13:32	1°♊10'47	1°26'15
max. Earth dist.	8833 May 18 15:45	2°♊33'11	1.71289 AU
	8833 Jun 09 12:30	0°♋	
evening rise	8833 Jun 26 18:06	21°♋33'29	
	8833 Jul 03 12:36	0°♌	
asc. node	8833 Jul 05 19:44	2°♌51'39	
	8833 Jul 27 16:37	0°♍	
	8833 Aug 21 01:49	0°♎	
	8833 Sep 14 18:14	0°♏	
	8833 Oct 09 21:29	0°♐	
desc. node	8833 Oct 25 14:18	18°♐21'17	
	8833 Nov 04 17:40	0°♑	
	8833 Dec 01 19:19	0°♒	
evening max el	8833 Dec 22 20:04	21°♒32'46	46°05'59
	8833 Dec 31 21:28	0°♓	
greatest brilliancy	8834 Jan 31 07:49	20°♓34'27	-4.8m
retrograde	8834 Feb 10 04:48	22°♓22'22	
asc. node	8834 Feb 15 14:20	21°♓47'00	
evening set	8834 Feb 24 18:49	18°♓11'00	
inferior conj	8834 Mar 02 21:57	14°♓34'00	3°49'14
minimum elong	8834 Mar 02 13:47	14°♓46'33	3°46'54
min. Earth dist.	8834 Mar 02 23:14	14°♓32'01	0.27203 AU
morning rise	8834 Mar 08 08:33	11°♓19'28	
direct	8834 Mar 23 18:01	6°♓40'50	
greatest brilliancy	8834 Apr 02 21:36	8°♓38'02	-4.9m
	8834 May 03 08:47	0°♈	
morning max el	8834 May 13 06:57	9°♈37'40	46°59'17
	8834 Jun 01 11:57	0°♉	
desc. node	8834 Jun 07 09:25	6°♉33'59	
	8834 Jun 27 19:22	0°♊	
	8834 Jul 23 03:33	0°♋	
	8834 Aug 17 02:15	0°♌	
	8834 Sep 10 20:28	0°♍	
asc. node	8834 Sep 28 06:36	21°♍12'23	
	8834 Oct 05 11:29	0°♎	
	8834 Oct 29 23:20	0°♏	
morning set	8834 Nov 12 01:28	16°♏05'39	
	8834 Nov 23 08:23	0°♐	
max. Earth dist.	8834 Dec 17 04:10	29°♐25'02	1.72975 AU
	8834 Dec 17 15:29	0°♑	
superior conj	8834 Dec 18 17:35	1°♑20'38	1°04'44
minimum elong	8834 Dec 19 03:15	1°♑50'30	1°04'38
	8835 Jan 10 21:21	0°♒	
desc. node	8835 Jan 17 23:45	8°♒47'40	
evening rise	8835 Jan 25 20:37	18°♒32'58	
	8835 Feb 04 02:05	0°♓	
	8835 Feb 28 05:34	0°♈	
	8835 Mar 24 08:30	0°♉	
	8835 Apr 17 13:07	0°♊	
asc. node	8835 May 10 22:04	28°♊42'44	
	8835 May 11 23:26	0°♋	
	8835 Jun 05 21:33	0°♌	
	8835 Jul 01 18:30	0°♍	
	8835 Jul 29 19:59	0°♎	
evening max el	8835 Jul 30 20:31	1°♎00'44	46°08'45
desc. node	8835 Aug 30 17:55	26°♎19'02	
	8835 Sep 07 08:45	0°♏	
greatest brilliancy	8835 Sep 07 11:11	0°♏02'18	-4.8m
retrograde	8835 Sep 18 08:10	2°♏11'02	
	8835 Sep 28 19:52	30°℞♎	
evening set	8835 Oct 05 11:11	26°♎36'09	
inferior conj	8835 Oct 09 20:47	23°♎53'07	-7°47'37
minimum elong	8835 Oct 09 12:52	24°♎05'35	7°46'31
min. Earth dist.	8835 Oct 09 08:36	24°♎12'18	0.29006 AU
morning rise	8835 Oct 13 14:45	21°♎33'55	
direct	8835 Oct 31 08:46	15°♎40'07	
greatest brilliancy	8835 Nov 10 07:44	17°♎27'51	-4.7m
	8835 Dec 01 09:41	0°♏	
morning max el	8835 Dec 19 06:26	15°♏50'12	45°47'33
asc. node	8835 Dec 21 17:16	18°♏14'00	
	8836 Jan 02 05:46	0°♐	
	8836 Jan 29 08:27	0°♑	
	8836 Feb 23 21:29	0°♒	
	8836 Mar 19 16:23	0°♓	
desc. node	8836 Apr 11 10:46	28°♓01'13	
	8836 Apr 13 01:07	0°♈	
	8836 May 07 03:52	0°♉	
	8836 May 31 03:38	0°♊	
morning set	8836 Jun 21 09:08	26°♊33'57	
	8836 Jun 24 03:04	0°♋	
	8836 Jul 18 04:00	0°♌	
superior conj	8836 Jul 30 10:03	15°♌14'39	-0°07'05
minimum elong	8836 Jul 30 11:45	15°♌19'58	0°07'10
behind sun begin	8836 Jul 29 13:51	14°♌11'53	
behind sun end	8836 Jul 31 09:40	16°♌28'02	
asc. node	8836 Aug 02 07:46	18°♌51'14	
max. Earth dist.	8836 Aug 02 12:15	19°♌05'08	1.72376 AU
	8836 Aug 11 07:16	0°♍	
	8836 Sep 04 13:02	0°♎	
evening rise	8836 Sep 06 06:31	2°♎08'04	
	8836 Sep 28 21:40	0°♏	
	8836 Oct 23 10:15	0°♐	
	8836 Nov 17 04:18	0°♑	
desc. node	8836 Nov 22 01:55	5°♑54'00	

	8836 Dec 12 05:17	0°♒	
	8837 Jan 06 15:17	0°♓	
	8837 Feb 01 16:39	0°♈	
	8837 Mar 01 07:35	0°♉	
evening max el	8837 Mar 05 11:01	4°♉12'25	46°49'18
asc. node	8837 Mar 15 01:26	13°♉29'40	
	8837 Apr 04 18:57	0°♊	
greatest brilliancy	8837 Apr 15 04:28	5°♊11'20	-4.9m
retrograde	8837 Apr 24 20:45	6°♊58'08	
evening set	8837 May 13 01:25	0°♊41'17	
	8837 May 14 04:35	30°℞♉	
inferior conj	8837 May 15 13:35	29°♉09'14	9°05'47
minimum elong	8837 May 15 17:12	29°♉03'39	9°05'24
min. Earth dist.	8837 May 15 14:24	29°♉07'58	0.27142 AU
morning rise	8837 May 18 08:59	27°♉26'11	
direct	8837 Jun 05 04:45	21°♉21'32	
greatest brilliancy	8837 Jun 14 21:27	23°♉07'10	-4.9m
	8837 Jun 27 23:55	0°♊	
desc. node	8837 Jul 04 21:02	5°♊02'57	
morning max el	8837 Jul 25 05:52	23°♊23'57	46°32'22
	8837 Jul 31 18:50	0°♋	
	8837 Aug 28 12:50	0°♌	
	8837 Sep 23 18:01	0°♍	
	8837 Oct 19 05:55	0°♎	
asc. node	8837 Oct 25 19:02	7°♎48'05	
	8837 Nov 13 06:28	0°♏	
	8837 Dec 07 22:32	0°♐	
	8838 Jan 01 08:31	0°♑	
morning set	8838 Jan 20 06:04	23°♑22'09	
	8838 Jan 25 14:21	0°♒	
desc. node	8838 Feb 14 11:52	24°♒44'41	
	8838 Feb 18 17:02	0°♓	
max. Earth dist.	8838 Feb 25 05:42	8°♓08'51	1.71841 AU
superior conj	8838 Feb 28 09:34	12°♓05'49	-0°33'01
minimum elong	8838 Feb 28 01:49	11°♓41'35	0°32'34
	8838 Mar 14 17:04	0°♈	
	8838 Apr 07 15:11	0°♉	
evening rise	8838 Apr 09 08:30	2°♉09'39	
	8838 May 01 13:01	0°♊	
	8838 May 25 12:57	0°♋	
asc. node	8838 Jun 07 09:47	15°♋59'48	
	8838 Jun 18 17:36	0°♌	
	8838 Jul 13 05:55	0°♍	
	8838 Aug 07 06:22	0°♎	
	8838 Sep 02 04:05	0°♏	
desc. node	8838 Sep 27 05:01	27°♏13'05	
	8838 Sep 29 21:55	0°♐	
evening max el	8838 Oct 09 14:46	9°♐37'08	45°42'44
	8838 Nov 02 21:02	0°♑	
greatest brilliancy	8838 Nov 17 19:06	7°♑48'13	-4.7m
retrograde	8838 Nov 27 09:36	9°♑28'56	
evening set	8838 Dec 14 06:44	4°♑04'16	
inferior conj	8838 Dec 18 17:07	1°♑22'02	-6°35'55
minimum elong	8838 Dec 19 03:10	1°♑06'21	6°33'42
min. Earth dist.	8838 Dec 19 12:03	0°♑52'29	0.28605 AU
	8838 Dec 20 21:52	30°℞♐	
morning rise	8838 Dec 23 23:09	28°♐10'24	
direct	8839 Jan 09 01:50	23°♐07'11	
asc. node	8839 Jan 18 04:48	24°♐40'43	
greatest brilliancy	8839 Jan 20 06:06	25°♐25'05	-4.8m
	8839 Jan 29 05:42	0°♑	
morning max el	8839 Feb 28 02:43	25°♑10'47	46°28'47
	8839 Mar 04 20:43	0°♒	
	8839 Apr 01 06:39	0°♓	
	8839 Apr 26 21:15	0°♈	
desc. node	8839 May 09 23:15	15°♈43'59	
	8839 May 21 16:58	0°♉	
	8839 Jun 15 03:37	0°♊	
	8839 Jul 09 10:40	0°♋	
	8839 Aug 02 17:07	0°♌	
	8839 Aug 27 00:05	0°♍	
asc. node	8839 Aug 30 20:04	4°♍43'49	
morning set	8839 Sep 01 21:34	7°♍16'32	
	8839 Sep 20 07:30	0°♎	
superior conj	8839 Oct 09 03:54	23°♎15'17	1°16'55
minimum elong	8839 Oct 08 20:15	22°♎51'41	1°16'50
max. Earth dist.	8839 Oct 09 17:56	23°♎58'32	1.73246 AU
	8839 Oct 14 15:08	0°♏	
	8839 Nov 07 23:20	0°♐	
evening rise	8839 Nov 14 15:08	8°♐11'52	
	8839 Dec 02 08:47	0°♑	
desc. node	8839 Dec 20 13:39	22°♑20'07	
	8839 Dec 26 19:49	0°♒	
	8840 Jan 20 08:18	0°♓	
	8840 Feb 13 22:32	0°♈	
	8840 Mar 09 16:56	0°♉	
	8840 Apr 03 22:16	0°♊	
asc. node	8840 Apr 11 12:41	8°♊50'46	
	8840 Apr 30 06:29	0°♋	
evening max el	8840 May 17 05:51	17°♋55'36	46°52'08
	8840 May 29 21:16	0°♌	
greatest brilliancy	8840 Jun 25 21:39	18°♌26'26	-4.9m
retrograde	8840 Jul 06 15:34	20°♌35'48	
evening set	8840 Jul 21 13:29	16°♌11'51	
inferior conj	8840 Jul 27 15:54	12°♌34'18	1°10'55
minimum elong	8840 Jul 27 18:36	12°♌30'08	1°09'53
min. Earth dist.	8840 Jul 27 06:58	12°♌48'04	0.27647 AU
desc. node	8840 Aug 01 08:29	9°♌45'18	
morning rise	8840 Aug 03 00:22	8°♌50'11	
direct	8840 Aug 17 14:57	4°♌40'44	
greatest brilliancy	8840 Aug 27 09:28	6°♌26'02	-4.8m
	8840 Sep 30 10:40	0°♍	
morning max el	8840 Oct 05 14:57	4°♍51'43	45°49'29
	8840 Oct 30 03:10	0°♎	
asc. node	8840 Nov 22 07:25	25°♎47'12	
	8840 Nov 25 23:41	0°♏	
	8840 Dec 21 14:37	0°♐	
	8841 Jan 15 12:48	0°♑	
	8841 Feb 09 00:47	0°♒	
	8841 Mar 05 06:11	0°♓	
desc. node	8841 Mar 14 00:14	10°♓53'51	
	8841 Mar 29 07:05	0°♈	
morning set	8841 Apr 04 03:30	7°♈19'42	
	8841 Apr 22 04:58	0°♉	
superior conj	8841 May 14 20:25	28°♉28'13	-1°26'46
minimum elong	8841 May 14 23:59	28°♉39'25	1°26'57
max. Earth dist.	8841 May 16 01:14	29°♉58'47	1.71270 AU
	8841 May 16 01:37	0°♊	
	8841 Jun 08 23:05	0°♋	
evening rise	8841 Jun 24 06:36	19°♋09'35	
	8841 Jul 02 23:12	0°♌	
asc. node	8841 Jul 04 21:38	2°♌24'33	
	8841 Jul 27 03:20	0°♍	
	8841 Aug 20 12:47	0°♎	
	8841 Sep 14 05:38	0°♏	
	8841 Oct 09 09:40	0°♐	
desc. node	8841 Oct 24 16:22	17°♐49'44	
	8841 Nov 04 07:23	0°♑	
	8841 Dec 01 12:25	0°♒	
evening max el	8841 Dec 20 10:29	19°♒16'28	46°04'27
	8842 Jan 01 01:58	0°♓	

greatest brilliancy	8842 Jan 28 21:46	18°♓14'10	-4.8m
retrograde	8842 Feb 07 17:34	20°♓00'47	
asc. node	8842 Feb 14 16:14	19°♓02'30	
evening set	8842 Feb 22 06:56	15°♓51'29	
inferior conj	8842 Feb 28 11:24	12°♓12'26	3°27'27
minimum elong	8842 Feb 28 03:55	12°♓24'00	3°25'18
min. Earth dist.	8842 Feb 28 13:44	12°♓08'51	0.27225 AU
morning rise	8842 Mar 06 00:36	8°♓53'51	
direct	8842 Mar 21 07:38	4°♓18'50	
greatest brilliancy	8842 Mar 31 12:39	6°♓16'46	-4.9m
	8842 May 03 11:13	0°♈	
morning max el	8842 May 10 19:47	7°♈12'59	46°59'15
	8842 Jun 01 05:01	0°♉	
desc. node	8842 Jun 06 11:21	5°♉53'50	
	8842 Jun 27 09:24	0°♊	
	8842 Jul 22 16:05	0°♋	
	8842 Aug 16 13:53	0°♌	
	8842 Sep 10 07:34	0°♍	
asc. node	8842 Sep 27 08:34	20°♍45'21	
	8842 Oct 04 22:13	0°♎	
	8842 Oct 29 09:52	0°♏	
morning set	8842 Nov 09 18:51	13°♏59'17	
	8842 Nov 22 18:49	0°♐	
max. Earth dist.	8842 Dec 14 20:22	27°♐14'34	1.73002 AU
superior conj	8842 Dec 16 10:13	29°♐11'32	1°06'53
minimum elong	8842 Dec 16 19:44	29°♐40'55	1°06'49
	8842 Dec 17 01:54	0°♑	
	8843 Jan 10 07:52	0°♒	
desc. node	8843 Jan 17 01:35	8°♒20'43	
evening rise	8843 Jan 23 11:21	16°♒17'01	
	8843 Feb 03 12:46	0°♓	
	8843 Feb 27 16:29	0°♈	
	8843 Mar 23 19:42	0°♉	
	8843 Apr 17 00:42	0°♊	
asc. node	8843 May 10 00:07	28°♊11'57	
	8843 May 11 11:37	0°♋	
	8843 Jun 05 10:47	0°♌	
	8843 Jul 01 09:52	0°♍	
evening max el	8843 Jul 28 11:01	28°♍45'09	46°10'17
	8843 Jul 29 17:28	0°♎	
desc. node	8843 Aug 29 19:51	24°♎56'30	
greatest brilliancy	8843 Sep 05 03:19	27°♎52'51	-4.8m
	8843 Sep 14 17:16	0°♏	
retrograde	8843 Sep 16 00:03	0°♏01'55	
	8843 Sep 17 06:38	30°℞♎	
evening set	8843 Oct 03 00:16	24°♎31'53	
min. Earth dist.	8843 Oct 07 00:22	22°♎04'17	0.28977 AU
inferior conj	8843 Oct 07 13:05	21°♎44'17	-7°38'44
minimum elong	8843 Oct 07 04:41	21°♎57'29	7°37'30
morning rise	8843 Oct 11 09:16	19°♎21'39	
direct	8843 Oct 29 00:16	13°♎31'44	
greatest brilliancy	8843 Nov 07 23:26	15°♎19'07	-4.7m
	8843 Dec 01 17:58	0°♏	
morning max el	8843 Dec 16 20:43	13°♏36'02	45°46'43
asc. node	8843 Dec 20 19:10	17°♏27'49	
	8844 Jan 01 23:10	0°♐	
	8844 Jan 28 22:22	0°♑	
	8844 Feb 23 09:57	0°♒	
	8844 Mar 19 04:07	0°♓	
desc. node	8844 Apr 10 12:49	27°♓32'28	
	8844 Apr 12 12:27	0°♈	
	8844 May 06 14:55	0°♉	
	8844 May 30 14:32	0°♊	
morning set	8844 Jun 18 21:52	24°♊09'57	
	8844 Jun 23 13:49	0°♋	
	8844 Jul 17 14:39	0°♌	
superior conj	8844 Jul 28 00:31	12°♌57'30	-0°10'39
minimum elong	8844 Jul 28 03:04	13°♌05'27	0°10'43
behind sun begin	8844 Jul 27 08:43	12°♌08'26	
behind sun end	8844 Jul 28 21:25	14°♌02'29	
max. Earth dist.	8844 Jul 31 01:44	16°♌45'04	1.72327 AU
asc. node	8844 Aug 01 09:42	18°♌24'20	
	8844 Aug 10 17:50	0°♍	
evening rise	8844 Sep 03 23:20	29°♍59'13	
	8844 Sep 03 23:35	0°♎	
	8844 Sep 28 08:19	0°♏	
	8844 Oct 22 21:10	0°♐	
	8844 Nov 16 15:42	0°♑	
desc. node	8844 Nov 21 03:54	5°♑25'24	
	8844 Dec 11 17:27	0°♒	
	8845 Jan 06 04:42	0°♓	
	8845 Feb 01 08:24	0°♈	
	8845 Mar 01 05:08	0°♉	
evening max el	8845 Mar 02 23:35	1°♉46'53	46°48'16
asc. node	8845 Mar 14 03:32	12°♉29'59	
	8845 Apr 06 12:25	0°♊	
greatest brilliancy	8845 Apr 12 17:26	2°♊45'48	-4.9m
retrograde	8845 Apr 22 09:47	4°♊33'01	
	8845 May 07 14:33	30°℞♉	
evening set	8845 May 10 15:15	28°♉14'30	
inferior conj	8845 May 13 02:29	26°♉44'01	9°09'05
minimum elong	8845 May 13 05:08	26°♉39'56	9°08'48
min. Earth dist.	8845 May 13 02:55	26°♉43'20	0.27141 AU
morning rise	8845 May 15 19:02	25°♉05'26	
direct	8845 Jun 02 17:21	18°♉56'00	
greatest brilliancy	8845 Jun 12 10:16	20°♉42'07	-4.9m
	8845 Jun 28 22:59	0°♊	
desc. node	8845 Jul 03 22:59	3°♊52'14	
morning max el	8845 Jul 22 19:56	21°♊03'09	46°34'03
	8845 Jul 31 15:11	0°♋	
	8845 Aug 28 04:07	0°♌	
	8845 Sep 23 07:09	0°♍	
	8845 Oct 18 17:53	0°♎	
asc. node	8845 Oct 24 21:06	7°♎19'06	
	8845 Nov 12 17:45	0°♏	
	8845 Dec 07 09:27	0°♐	
	8845 Dec 31 19:17	0°♑	
morning set	8846 Jan 17 21:26	21°♑07'49	
	8846 Jan 25 01:05	0°♒	
desc. node	8846 Feb 13 13:51	24°♒17'24	
	8846 Feb 18 03:48	0°♓	
max. Earth dist.	8846 Feb 22 20:47	5°♓52'28	1.71884 AU
superior conj	8846 Feb 25 22:11	9°♓41'38	-0°29'28
minimum elong	8846 Feb 25 15:12	9°♓19'47	0°29'03
	8846 Mar 14 03:52	0°♈	
evening rise	8846 Apr 06 20:00	29°♈40'55	
	8846 Apr 07 02:04	0°♉	
	8846 May 01 00:02	0°♊	
	8846 May 25 00:09	0°♋	
asc. node	8846 Jun 06 11:41	15°♋30'35	
	8846 Jun 18 05:06	0°♌	
	8846 Jul 12 17:53	0°♍	
	8846 Aug 06 19:14	0°♎	
	8846 Sep 01 18:45	0°♏	
desc. node	8846 Sep 26 07:09	26°♏30'38	
	8846 Sep 29 17:17	0°♐	
evening max el	8846 Oct 07 06:32	7°♐26'35	45°43'02
	8846 Nov 03 21:03	0°♑	
greatest brilliancy	8846 Nov 15 09:02	5°♑35'41	-4.7m
retrograde	8846 Nov 25 01:23	7°♑17'32	
evening set	8846 Dec 12 01:05	1°♑48'13	
	8846 Dec 15 00:28	30°℞♐	

inferior conj	8846 Dec 16 08:45	29°♐09'42	-6°48'47
minimum elong	8846 Dec 16 18:39	28°♐54'14	6°46'42
min. Earth dist.	8846 Dec 17 02:46	28°♐41'33	0.28654 AU
morning rise	8846 Dec 21 11:52	26°♐02'21	
direct	8847 Jan 06 18:24	20°♐54'29	
asc. node	8847 Jan 17 06:44	22°♐57'32	
greatest brilliancy	8847 Jan 17 21:11	23°♐11'18	-4.8m
	8847 Jan 30 07:23	0°♑	
morning max el	8847 Feb 25 18:58	22°♑57'09	46°27'03
	8847 Mar 04 16:39	0°♒	
	8847 Mar 31 21:52	0°♓	
	8847 Apr 26 10:36	0°♈	
desc. node	8847 May 09 01:13	15°♈11'11	
	8847 May 21 05:21	0°♉	
	8847 Jun 14 15:25	0°♊	
	8847 Jul 08 22:04	0°♋	
	8847 Aug 02 04:13	0°♌	
	8847 Aug 26 10:58	0°♍	
asc. node	8847 Aug 29 22:05	4°♍16'29	
morning set	8847 Aug 30 13:30	5°♍04'05	
	8847 Sep 19 18:16	0°♎	
superior conj	8847 Oct 06 21:12	21°♎07'28	1°15'23
minimum elong	8847 Oct 06 13:08	20°♎42'37	1°15'16
max. Earth dist.	8847 Oct 07 14:49	22°♎01'49	1.73232 AU
	8847 Oct 14 01:52	0°♏	
	8847 Nov 07 10:06	0°♐	
evening rise	8847 Nov 12 08:19	6°♐03'51	
	8847 Dec 01 19:41	0°♑	
desc. node	8847 Dec 19 15:33	21°♑51'58	
	8847 Dec 26 06:59	0°♒	
	8848 Jan 19 19:53	0°♓	
	8848 Feb 13 10:43	0°♈	
	8848 Mar 09 06:02	0°♉	
	8848 Apr 03 12:56	0°♊	
asc. node	8848 Apr 10 14:39	8°♊12'11	
	8848 Apr 30 00:33	0°♋	
evening max el	8848 May 14 21:08	15°♋36'55	46°53'02
	8848 May 30 03:34	0°♌	
greatest brilliancy	8848 Jun 23 13:13	16°♌07'33	-4.9m
retrograde	8848 Jul 04 06:26	18°♌15'43	
evening set	8848 Jul 19 05:17	13°♌50'29	
inferior conj	8848 Jul 25 06:00	10°♌14'56	1°33'24
minimum elong	8848 Jul 25 09:32	10°♌09'28	1°32'06
min. Earth dist.	8848 Jul 24 21:39	10°♌27'49	0.27608 AU
desc. node	8848 Jul 31 10:28	6°♌36'14	
morning rise	8848 Jul 31 14:30	6°♌30'50	
direct	8848 Aug 15 05:11	2°♌22'09	
greatest brilliancy	8848 Aug 24 22:46	4°♌06'49	-4.8m
	8848 Sep 30 11:37	0°♍	
morning max el	8848 Oct 03 05:23	2°♍36'04	45°50'22
	8848 Oct 29 19:38	0°♎	
asc. node	8848 Nov 21 09:14	25°♎12'33	
	8848 Nov 25 13:21	0°♏	
	8848 Dec 21 02:59	0°♐	
	8849 Jan 15 00:29	0°♑	
	8849 Feb 08 12:05	0°♒	
	8849 Mar 04 17:19	0°♓	
desc. node	8849 Mar 13 02:18	10°♓25'43	
	8849 Mar 28 18:09	0°♈	
morning set	8849 Apr 01 14:23	4°♈48'49	
	8849 Apr 21 16:01	0°♉	
superior conj	8849 May 12 07:36	25°♉57'46	-1°27'16
minimum elong	8849 May 12 10:06	26°♉05'40	1°27'28
max. Earth dist.	8849 May 13 07:09	27°♉11'48	1.71257 AU
	8849 May 15 12:39	0°♊	
	8849 Jun 08 10:07	0°♋	
evening rise	8849 Jun 21 18:26	16°♋42'02	
	8849 Jul 02 10:16	0°♌	
asc. node	8849 Jul 03 23:32	1°♌55'58	
	8849 Jul 26 14:32	0°♍	
	8849 Aug 20 00:13	0°♎	
	8849 Sep 13 17:31	0°♏	
	8849 Oct 08 22:25	0°♐	
desc. node	8849 Oct 23 18:19	17°♐16'11	
	8849 Nov 03 21:46	0°♑	
	8849 Dec 01 06:26	0°♒	
evening max el	8849 Dec 18 00:11	16°♒57'17	46°03'03
	8850 Jan 01 09:07	0°♓	
greatest brilliancy	8850 Jan 26 12:12	15°♓53'34	-4.8m
retrograde	8850 Feb 05 06:16	17°♓38'51	
asc. node	8850 Feb 13 18:17	16°♓11'54	
evening set	8850 Feb 19 19:24	13°♓30'56	
inferior conj	8850 Feb 26 01:03	9°♓50'31	3°05'32
minimum elong	8850 Feb 25 18:15	10°♓01'01	3°03'33
min. Earth dist.	8850 Feb 26 04:39	9°♓44'56	0.27248 AU
morning rise	8850 Mar 03 16:39	6°♓28'08	
direct	8850 Mar 18 21:01	1°♓56'15	
greatest brilliancy	8850 Mar 29 04:18	3°♓55'42	-4.9m
	8850 May 03 12:37	0°♈	
morning max el	8850 May 08 08:27	4°♈46'48	46°59'01
	8850 May 31 22:08	0°♉	
desc. node	8850 Jun 05 13:17	5°♉12'52	
	8850 Jun 26 23:43	0°♊	
	8850 Jul 22 05:01	0°♋	
	8850 Aug 16 02:00	0°♌	
	8850 Sep 09 19:07	0°♍	
asc. node	8850 Sep 26 10:36	20°♍17'07	
	8850 Oct 04 09:25	0°♎	
	8850 Oct 28 20:49	0°♏	
morning set	8850 Nov 07 11:58	11°♏50'40	
	8850 Nov 22 05:40	0°♐	
max. Earth dist.	8850 Dec 12 13:17	25°♐05'00	1.73031 AU
superior conj	8850 Dec 14 02:47	27°♐00'52	1°08'56
minimum elong	8850 Dec 14 12:06	27°♐29'38	1°08'55
	8850 Dec 16 12:47	0°♑	
	8851 Jan 09 18:50	0°♒	
desc. node	8851 Jan 16 03:35	7°♒52'53	
evening rise	8851 Jan 21 02:12	14°♒00'08	
	8851 Feb 02 23:53	0°♓	
	8851 Feb 27 03:47	0°♈	
	8851 Mar 23 07:15	0°♉	
	8851 Apr 16 12:38	0°♊	
asc. node	8851 May 09 02:00	27°♊39'33	
	8851 May 11 00:12	0°♋	
	8851 Jun 05 00:31	0°♌	
	8851 Jul 01 01:59	0°♍	
evening max el	8851 Jul 26 01:19	26°♍27'24	46°11'46
	8851 Jul 29 16:32	0°♎	
desc. node	8851 Aug 28 21:58	23°♎29'30	
greatest brilliancy	8851 Sep 02 18:55	25°♎40'37	-4.8m
retrograde	8851 Sep 13 16:03	27°♎50'42	
evening set	8851 Sep 30 13:04	22°♎25'17	
min. Earth dist.	8851 Oct 04 15:50	19°♎54'07	0.28947 AU
inferior conj	8851 Oct 05 05:08	19°♎33'15	-7°29'08
minimum elong	8851 Oct 04 20:19	19°♎47'06	7°27'45
morning rise	8851 Oct 09 03:43	17°♎07'11	
direct	8851 Oct 26 15:22	11°♎21'04	
greatest brilliancy	8851 Nov 05 15:01	13°♎08'34	-4.7m
	8851 Dec 02 00:29	0°♏	
morning max el	8851 Dec 14 11:36	11°♏22'03	45°45'59
asc. node	8851 Dec 19 21:11	16°♏41'18	

	8852 Jan 01 16:40	0°♐	
	8852 Jan 28 12:32	0°♑	
	8852 Feb 22 22:44	0°♒	
	8852 Mar 18 16:11	0°♓	
desc. node	8852 Apr 09 14:44	27°♓02'19	
	8852 Apr 12 00:03	0°♈	
	8852 May 06 02:14	0°♉	
	8852 May 30 01:38	0°♊	
morning set	8852 Jun 16 10:47	21°♊45'44	
	8852 Jun 23 00:48	0°♋	
	8852 Jul 17 01:33	0°♌	
superior conj	8852 Jul 25 14:56	10°♌39'18	-0°14'13
minimum elong	8852 Jul 25 18:20	10°♌49'53	0°14'14
behind sun begin	8852 Jul 25 06:51	10°♌14'10	
behind sun end	8852 Jul 26 05:49	11°♌25'37	
max. Earth dist.	8852 Jul 28 14:40	14°♌22'20	1.72287 AU
asc. node	8852 Jul 31 11:44	17°♌56'57	
	8852 Aug 10 04:42	0°♍	
evening rise	8852 Sep 01 15:58	27°♍48'49	
	8852 Sep 03 10:28	0°♎	
	8852 Sep 27 19:19	0°♏	
	8852 Oct 22 08:26	0°♐	
	8852 Nov 16 03:27	0°♑	
desc. node	8852 Nov 20 05:46	4°♑55'27	
	8852 Dec 11 06:00	0°♒	
	8853 Jan 05 18:35	0°♓	
	8853 Feb 01 00:46	0°♈	
evening max el	8853 Feb 28 13:16	29°♈23'22	46°47'14
	8853 Mar 01 03:56	0°♉	
asc. node	8853 Mar 13 05:34	11°♉27'47	
	8853 Apr 09 09:09	0°♊	
greatest brilliancy	8853 Apr 10 05:57	0°♊19'10	-4.9m
retrograde	8853 Apr 19 23:23	2°♊07'17	
	8853 Apr 30 03:24	30°℞♉	
evening set	8853 May 08 04:35	25°♉47'55	
inferior conj	8853 May 10 15:22	24°♉18'13	9°11'30
minimum elong	8853 May 10 17:03	24°♉15'38	9°11'16
min. Earth dist.	8853 May 10 15:06	24°♉18'38	0.27134 AU
morning rise	8853 May 13 05:32	22°♉43'24	
direct	8853 May 31 06:24	16°♉30'12	
greatest brilliancy	8853 Jun 09 22:25	18°♉16'02	-4.9m
	8853 Jun 29 16:08	0°♊	
desc. node	8853 Jul 03 00:59	2°♊43'29	
morning max el	8853 Jul 20 10:40	18°♊43'54	46°35'40
	8853 Jul 31 10:57	0°♋	
	8853 Aug 27 19:16	0°♌	
	8853 Sep 22 20:18	0°♍	
	8853 Oct 18 05:57	0°♎	
asc. node	8853 Oct 23 22:55	6°♎48'56	
	8853 Nov 12 05:11	0°♏	
	8853 Dec 06 20:32	0°♐	
	8853 Dec 31 06:13	0°♑	
morning set	8854 Jan 15 12:44	18°♑52'54	
	8854 Jan 24 11:57	0°♒	
desc. node	8854 Feb 12 15:50	23°♒49'43	
	8854 Feb 17 14:41	0°♓	
max. Earth dist.	8854 Feb 20 10:30	3°♓31'28	1.71926 AU
superior conj	8854 Feb 23 10:44	7°♓16'53	-0°25'53
minimum elong	8854 Feb 23 04:33	6°♓57'34	0°25'28
	8854 Mar 13 14:49	0°♈	
evening rise	8854 Apr 04 07:29	27°♈11'45	
	8854 Apr 06 13:07	0°♉	
	8854 Apr 30 11:12	0°♊	
	8854 May 24 11:27	0°♋	
asc. node	8854 Jun 05 13:38	15°♋01'20	
	8854 Jun 17 16:38	0°♌	
	8854 Jul 12 05:52	0°♍	
	8854 Aug 06 08:07	0°♎	
	8854 Sep 01 09:35	0°♏	
desc. node	8854 Sep 25 09:02	25°♏46'59	
	8854 Sep 29 13:15	0°♐	
evening max el	8854 Oct 04 22:47	5°♐17'05	45°43'08
	8854 Nov 05 06:56	0°♑	
greatest brilliancy	8854 Nov 12 23:27	3°♑23'42	-4.7m
retrograde	8854 Nov 22 16:54	5°♑05'59	
	8854 Dec 09 00:33	30°℞♐	
evening set	8854 Dec 09 19:30	29°♐32'23	
inferior conj	8854 Dec 14 00:26	26°♐57'29	-7°01'01
minimum elong	8854 Dec 14 10:08	26°♐42'19	6°59'04
min. Earth dist.	8854 Dec 14 17:36	26°♐30'37	0.28703 AU
morning rise	8854 Dec 19 00:30	23°♐54'21	
direct	8855 Jan 04 10:58	18°♐42'03	
greatest brilliancy	8855 Jan 15 12:03	20°♐57'14	-4.8m
asc. node	8855 Jan 16 08:46	21°♐18'01	
	8855 Jan 31 02:11	0°♑	
morning max el	8855 Feb 23 10:35	20°♑42'00	46°25'15
	8855 Mar 04 11:59	0°♒	
	8855 Mar 31 12:51	0°♓	
	8855 Apr 25 23:48	0°♈	
desc. node	8855 May 08 03:03	14°♈38'12	
	8855 May 20 17:38	0°♉	
	8855 Jun 14 03:09	0°♊	
	8855 Jul 08 09:22	0°♋	
	8855 Aug 01 15:11	0°♌	
	8855 Aug 25 21:42	0°♍	
morning set	8855 Aug 28 05:51	2°♍53'23	
asc. node	8855 Aug 29 00:02	3°♍49'28	
	8855 Sep 19 04:51	0°♎	
superior conj	8855 Oct 04 14:49	19°♎01'13	1°13'47
minimum elong	8855 Oct 04 06:24	18°♎35'14	1°13'37
max. Earth dist.	8855 Oct 05 12:01	20°♎06'37	1.73218 AU
	8855 Oct 13 12:25	0°♏	
	8855 Nov 06 20:44	0°♐	
evening rise	8855 Nov 10 01:43	3°♐56'54	
	8855 Dec 01 06:29	0°♑	
desc. node	8855 Dec 18 17:33	21°♑24'27	
	8855 Dec 25 18:03	0°♒	
	8856 Jan 19 07:23	0°♓	
	8856 Feb 12 22:50	0°♈	
	8856 Mar 08 19:06	0°♉	
	8856 Apr 03 03:39	0°♊	
asc. node	8856 Apr 09 16:33	7°♊33'22	
	8856 Apr 29 18:56	0°♋	
evening max el	8856 May 12 11:51	13°♋17'01	46°53'46
	8856 May 30 12:05	0°♌	
greatest brilliancy	8856 Jun 21 05:27	13°♌49'45	-4.9m
retrograde	8856 Jul 01 20:51	15°♌55'59	
evening set	8856 Jul 16 21:14	11°♌29'22	
inferior conj	8856 Jul 22 20:07	7°♌56'12	1°55'53
minimum elong	8856 Jul 23 00:28	7°♌49'28	1°54'19
min. Earth dist.	8856 Jul 22 12:44	8°♌07'38	0.27566 AU
morning rise	8856 Jul 29 04:23	4°♌12'12	
desc. node	8856 Jul 30 12:31	3°♌30'47	
direct	8856 Aug 12 18:55	0°♌04'11	
greatest brilliancy	8856 Aug 22 12:29	1°♌48'35	-4.8m
	8856 Sep 30 10:59	0°♍	
morning max el	8856 Sep 30 19:06	0°♍19'26	45°51'29
	8856 Oct 29 11:26	0°♎	
asc. node	8856 Nov 20 11:16	24°♎39'41	
	8856 Nov 25 02:33	0°♏	
	8856 Dec 20 14:59	0°♐	

	8857 Jan 14 11:53	0°♉	
	8857 Feb 07 23:10	0°♒	
	8857 Mar 04 04:15	0°♓	
desc. node	8857 Mar 12 04:11	9°♓57'41	
	8857 Mar 28 04:59	0°♈	
morning set	8857 Mar 30 01:06	2°♈18'10	
	8857 Apr 21 02:49	0°♉	
superior conj	8857 May 09 18:40	23°♉27'53	-1°27'37
minimum elong	8857 May 09 20:06	23°♉32'21	1°27'47
max. Earth dist.	8857 May 10 10:53	24°♉18'51	1.71247 AU
	8857 May 14 23:26	0°♊	
	8857 Jun 07 20:54	0°♋	
evening rise	8857 Jun 19 06:08	14°♋14'52	
	8857 Jul 01 21:06	0°♌	
asc. node	8857 Jul 03 01:36	1°♌28'43	
	8857 Jul 26 01:28	0°♍	
	8857 Aug 19 11:22	0°♎	
	8857 Sep 13 05:05	0°♏	
	8857 Oct 08 10:48	0°♐	
desc. node	8857 Oct 22 20:15	16°♐43'44	
	8857 Nov 03 11:49	0°♑	
	8857 Dec 01 00:25	0°♒	
evening max el	8857 Dec 15 13:23	14°♒38'18	46°01'33
	8858 Jan 01 18:22	0°♓	
greatest brilliancy	8858 Jan 24 02:15	13°♓33'32	-4.8m
retrograde	8858 Feb 02 19:02	15°♓18'06	
asc. node	8858 Feb 12 20:17	13°♓16'59	
evening set	8858 Feb 17 08:02	11°♓10'49	
inferior conj	8858 Feb 23 14:40	7°♓29'27	2°43'11
minimum elong	8858 Feb 23 08:37	7°♓38'47	2°41'25
min. Earth dist.	8858 Feb 23 19:37	7°♓21'49	0.27280 AU
morning rise	8858 Mar 01 08:37	4°♓03'40	
	8858 Mar 11 20:25	30°♓℞♒	
direct	8858 Mar 16 10:27	29°♒34'15	
	8858 Mar 21 02:58	0°♓	
greatest brilliancy	8858 Mar 26 20:20	1°♓35'53	-4.9m
	8858 May 03 12:31	0°♈	
morning max el	8858 May 05 21:50	2°♈23'11	46°58'49
	8858 May 31 14:37	0°♉	
desc. node	8858 Jun 04 15:20	4°♉33'35	
	8858 Jun 26 13:34	0°♊	
	8858 Jul 21 17:32	0°♋	
	8858 Aug 15 13:43	0°♌	
	8858 Sep 09 06:18	0°♍	
asc. node	8858 Sep 25 12:26	19°♍49'26	
	8858 Oct 03 20:13	0°♎	
	8858 Oct 28 07:22	0°♏	
morning set	8858 Nov 05 05:24	9°♏44'19	
	8858 Nov 21 16:05	0°♐	
max. Earth dist.	8858 Dec 10 09:04	23°♐05'39	1.73058 AU
superior conj	8858 Dec 11 19:46	24°♐52'50	1°10'53
minimum elong	8858 Dec 12 04:50	25°♐20'51	1°10'51
	8858 Dec 15 23:12	0°♑	
	8859 Jan 09 05:22	0°♒	
desc. node	8859 Jan 15 05:37	7°♒26'26	
evening rise	8859 Jan 18 17:26	11°♒45'52	
	8859 Feb 02 10:36	0°♓	
	8859 Feb 26 14:45	0°♈	
	8859 Mar 22 18:31	0°♉	
	8859 Apr 16 00:20	0°♊	
asc. node	8859 May 08 04:00	27°♊08'13	
	8859 May 10 12:34	0°♋	
	8859 Jun 04 14:04	0°♌	
	8859 Jun 30 18:01	0°♍	
evening max el	8859 Jul 23 16:12	24°♍12'08	46°13'25
	8859 Jul 29 16:11	0°♎	
desc. node	8859 Aug 27 23:52	22°♎00'23	
greatest brilliancy	8859 Aug 31 09:58	23°♎28'47	-4.8m
retrograde	8859 Sep 11 08:31	25°♎40'32	
evening set	8859 Sep 28 01:51	20°♎19'33	
inferior conj	8859 Oct 02 21:07	17°♎23'10	-7°18'48
minimum elong	8859 Oct 02 11:57	17°♎37'33	7°17'17
min. Earth dist.	8859 Oct 02 07:04	17°♎45'11	0.28911 AU
morning rise	8859 Oct 06 22:14	14°♎53'39	
direct	8859 Oct 24 06:46	9°♎11'25	
greatest brilliancy	8859 Nov 03 06:16	10°♎58'57	-4.7m
	8859 Dec 02 04:19	0°♏	
morning max el	8859 Dec 12 03:26	9°♏11'56	45°45'27
asc. node	8859 Dec 18 23:11	15°♏56'53	
	8860 Jan 01 09:13	0°♐	
	8860 Jan 28 02:03	0°♑	
	8860 Feb 22 10:58	0°♒	
	8860 Mar 18 03:46	0°♓	
desc. node	8860 Apr 08 16:38	26°♓33'18	
	8860 Apr 11 11:18	0°♈	
	8860 May 05 13:15	0°♉	
	8860 May 29 12:29	0°♊	
morning set	8860 Jun 13 23:10	19°♊20'33	
	8860 Jun 22 11:31	0°♋	
	8860 Jul 16 12:10	0°♌	
superior conj	8860 Jul 23 04:49	8°♌20'13	-0°17'49
minimum elong	8860 Jul 23 09:03	8°♌33'26	0°17'47
max. Earth dist.	8860 Jul 26 04:37	12°♌03'36	1.72243 AU
asc. node	8860 Jul 30 13:37	17°♌30'00	
	8860 Aug 09 15:16	0°♍	
evening rise	8860 Aug 30 08:21	25°♍38'36	
	8860 Sep 02 21:02	0°♎	
	8860 Sep 27 06:00	0°♏	
	8860 Oct 21 19:24	0°♐	
	8860 Nov 15 14:53	0°♑	
desc. node	8860 Nov 19 07:50	4°♑27'05	
	8860 Dec 10 18:12	0°♒	
	8861 Jan 05 08:06	0°♓	
	8861 Jan 31 16:54	0°♈	
evening max el	8861 Feb 26 03:39	27°♈03'05	46°45'57
	8861 Mar 01 03:11	0°♉	
asc. node	8861 Mar 12 07:24	10°♉24'50	
greatest brilliancy	8861 Apr 07 18:00	27°♉52'52	-4.9m
retrograde	8861 Apr 17 12:50	29°♉41'46	
evening set	8861 May 05 17:07	23°♉22'40	
inferior conj	8861 May 08 04:06	21°♉52'37	9°12'46
minimum elong	8861 May 08 04:48	21°♉51'32	9°12'34
min. Earth dist.	8861 May 08 03:00	21°♉54'18	0.27133 AU
morning rise	8861 May 10 16:32	20°♉20'29	
direct	8861 May 28 19:44	14°♉04'40	
greatest brilliancy	8861 Jun 07 10:17	15°♉49'40	-4.9m
	8861 Jun 30 04:51	0°♊	
desc. node	8861 Jul 02 03:00	1°♊36'49	
morning max el	8861 Jul 18 01:10	16°♊24'15	46°37'10
	8861 Jul 31 06:02	0°♋	
	8861 Aug 27 10:03	0°♌	
	8861 Sep 22 09:08	0°♍	
	8861 Oct 17 17:43	0°♎	
asc. node	8861 Oct 23 00:54	6°♎20'10	
	8861 Nov 11 16:20	0°♏	
	8861 Dec 06 07:21	0°♐	
	8861 Dec 30 16:51	0°♑	
morning set	8862 Jan 13 04:27	16°♑40'15	
	8862 Jan 23 22:31	0°♒	
desc. node	8862 Feb 11 17:43	23°♒22'48	
	8862 Feb 17 01:14	0°♓	

max. Earth dist.	8862 Feb 17 23:07	1°♓08'15	1.71964 AU
superior conj	8862 Feb 20 23:54	4°♓55'12	-0°22'17
minimum elong	8862 Feb 20 18:33	4°♓38'30	0°21'54
	8862 Mar 13 01:25	0°♈	
evening rise	8862 Apr 01 19:27	24°♈45'10	
	8862 Apr 05 23:50	0°♉	
	8862 Apr 29 22:05	0°♊	
	8862 May 23 22:33	0°♋	
asc. node	8862 Jun 04 15:40	14°♋32'52	
	8862 Jun 17 04:01	0°♌	
	8862 Jul 11 17:47	0°♍	
	8862 Aug 05 21:01	0°♎	
	8862 Sep 01 00:31	0°♏	
desc. node	8862 Sep 24 11:00	25°♏03'12	
	8862 Sep 29 09:47	0°♐	
evening max el	8862 Oct 02 14:21	3°♐06'09	45°43'22
	8862 Nov 07 10:20	0°♑	
greatest brilliancy	8862 Nov 10 14:25	1°♑12'41	-4.7m
retrograde	8862 Nov 20 07:49	2°♑54'48	
	8862 Dec 02 12:15	30°℞♐	
evening set	8862 Dec 07 13:52	27°♐17'03	
inferior conj	8862 Dec 11 16:07	24°♐45'49	-7°12'43
minimum elong	8862 Dec 12 01:33	24°♐31'01	7°10'54
min. Earth dist.	8862 Dec 12 08:42	24°♐19'48	0.28745 AU
morning rise	8862 Dec 16 12:59	21°♐46'55	
direct	8863 Jan 02 03:10	16°♐30'06	
greatest brilliancy	8863 Jan 13 03:12	18°♐43'55	-4.8m
asc. node	8863 Jan 15 10:45	19°♐42'17	
	8863 Jan 31 15:54	0°♑	
morning max el	8863 Feb 21 01:20	18°♑25'20	46°23'41
	8863 Mar 04 06:32	0°♒	
	8863 Mar 31 03:22	0°♓	
	8863 Apr 25 12:40	0°♈	
desc. node	8863 May 07 05:09	14°♈07'00	
	8863 May 20 05:38	0°♉	
	8863 Jun 13 14:38	0°♊	
	8863 Jul 07 20:30	0°♋	
	8863 Aug 01 02:04	0°♌	
	8863 Aug 25 08:24	0°♍	
morning set	8863 Aug 25 21:39	0°♍40'57	
asc. node	8863 Aug 28 01:55	3°♍22'20	
	8863 Sep 18 15:26	0°♎	
superior conj	8863 Oct 02 07:53	16°♎53'20	1°12'01
minimum elong	8863 Oct 01 23:09	16°♎26'21	1°11'50
max. Earth dist.	8863 Oct 03 07:01	18°♎04'40	1.73199 AU
	8863 Oct 12 22:58	0°♏	
	8863 Nov 06 07:20	0°♐	
evening rise	8863 Nov 07 18:41	1°♐48'46	
	8863 Nov 30 17:15	0°♑	
desc. node	8863 Dec 17 19:32	20°♑56'54	
	8863 Dec 25 05:08	0°♒	
	8864 Jan 18 18:54	0°♓	
	8864 Feb 12 10:58	0°♈	
	8864 Mar 08 08:10	0°♉	
	8864 Apr 02 18:24	0°♊	
asc. node	8864 Apr 08 18:38	6°♊55'14	
	8864 Apr 29 13:34	0°♋	
evening max el	8864 May 10 01:31	10°♋54'55	46°54'27
	8864 May 30 23:22	0°♌	
greatest brilliancy	8864 Jun 18 21:45	11°♌32'19	-4.9m
retrograde	8864 Jun 29 10:45	13°♌36'36	
evening set	8864 Jul 14 13:20	9°♌08'01	
inferior conj	8864 Jul 20 10:16	5°♌37'42	2°18'10
minimum elong	8864 Jul 20 15:25	5°♌29'43	2°16'21
min. Earth dist.	8864 Jul 20 04:05	5°♌47'15	0.27534 AU
morning rise	8864 Jul 26 18:03	1°♌53'56	
desc. node	8864 Jul 29 14:26	0°♌29'22	
	8864 Jul 30 17:34	30°℞♋	
direct	8864 Aug 10 08:17	27°♋46'02	
greatest brilliancy	8864 Aug 20 02:56	29°♋30'57	-4.8m
	8864 Aug 21 10:54	0°♌	
morning max el	8864 Sep 28 08:38	28°♌01'50	45°52'31
	8864 Sep 30 09:31	0°♍	
	8864 Oct 29 03:07	0°♎	
asc. node	8864 Nov 19 13:18	24°♎06'40	
	8864 Nov 24 15:47	0°♏	
	8864 Dec 20 03:02	0°♐	
	8865 Jan 13 23:19	0°♑	
	8865 Feb 07 10:17	0°♒	
	8865 Mar 03 15:13	0°♓	
desc. node	8865 Mar 11 06:05	9°♓29'29	
morning set	8865 Mar 27 11:58	29°♓47'44	
	8865 Mar 27 15:53	0°♈	
	8865 Apr 20 13:39	0°♉	
superior conj	8865 May 07 06:02	20°♉58'45	-1°27'45
minimum elong	8865 May 07 06:21	20°♉59'46	1°27'56
max. Earth dist.	8865 May 07 14:03	21°♉23'59	1.71236 AU
	8865 May 14 10:13	0°♊	
	8865 Jun 07 07:41	0°♋	
evening rise	8865 Jun 16 18:07	11°♋48'30	
	8865 Jul 01 07:56	0°♌	
asc. node	8865 Jul 02 03:28	1°♌00'49	
	8865 Jul 25 12:27	0°♍	
	8865 Aug 18 22:37	0°♎	
	8865 Sep 12 16:51	0°♏	
	8865 Oct 07 23:29	0°♐	
desc. node	8865 Oct 21 22:18	16°♐10'42	
	8865 Nov 03 02:20	0°♑	
	8865 Nov 30 19:11	0°♒	
evening max el	8865 Dec 13 02:42	12°♒18'59	46°00'15
	8866 Jan 02 07:18	0°♓	
greatest brilliancy	8866 Jan 21 15:41	11°♓12'13	-4.8m
retrograde	8866 Jan 31 08:15	12°♓56'50	
asc. node	8866 Feb 11 22:11	10°♓16'33	
evening set	8866 Feb 14 20:50	8°♓49'37	
inferior conj	8866 Feb 21 04:11	5°♓07'34	2°20'30
minimum elong	8866 Feb 20 22:55	5°♓15'41	2°18'58
min. Earth dist.	8866 Feb 21 10:11	4°♓58'19	0.27312 AU
morning rise	8866 Feb 27 00:23	1°♓38'52	
	8866 Mar 02 05:57	30°℞♒	
direct	8866 Mar 14 00:09	27°♒11'25	
greatest brilliancy	8866 Mar 24 11:59	29°♒15'05	-4.9m
	8866 Mar 26 08:34	0°♓	
	8866 May 03 11:34	0°♈	
morning max el	8866 May 03 12:14	0°♈01'39	46°58'40
	8866 May 31 06:58	0°♉	
desc. node	8866 Jun 03 17:16	3°♉53'51	
	8866 Jun 26 03:25	0°♊	
	8866 Jul 21 06:06	0°♋	
	8866 Aug 15 01:30	0°♌	
	8866 Sep 08 17:36	0°♍	
asc. node	8866 Sep 24 14:26	19°♍21'47	
	8866 Oct 03 07:11	0°♎	
	8866 Oct 27 18:09	0°♏	
morning set	8866 Nov 02 22:39	7°♏36'35	
	8866 Nov 21 02:48	0°♐	
max. Earth dist.	8866 Dec 08 05:04	21°♐05'59	1.73084 AU
superior conj	8866 Dec 09 12:28	22°♐43'00	1°12'43
minimum elong	8866 Dec 09 21:13	23°♐10'01	1°12'43
	8866 Dec 15 09:57	0°♑	

	8867 Jan 08 16:13	0°♒	
desc. node	8867 Jan 14 07:27	6°♒58'24	
evening rise	8867 Jan 16 08:23	9°♒29'52	
	8867 Feb 01 21:39	0°♓	
	8867 Feb 26 02:01	0°♈	
	8867 Mar 22 06:06	0°♉	
	8867 Apr 15 12:22	0°♊	
asc. node	8867 May 07 06:01	26°♊35'57	
	8867 May 10 01:17	0°♋	
	8867 Jun 04 03:59	0°♌	
	8867 Jun 30 10:34	0°♍	
evening max el	8867 Jul 21 08:04	21°♍58'49	46°15'11
	8867 Jul 29 17:13	0°♎	
desc. node	8867 Aug 27 01:50	20°♎27'58	
greatest brilliancy	8867 Aug 29 00:41	21°♎16'15	-4.8m
retrograde	8867 Sep 09 01:22	23°♎29'57	
evening set	8867 Sep 25 14:47	18°♎13'23	
min. Earth dist.	8867 Sep 29 22:04	15°♎36'15	0.28878 AU
inferior conj	8867 Sep 30 13:12	15°♎12'35	-7°07'46
minimum elong	8867 Sep 30 03:44	15°♎27'24	7°06'08
morning rise	8867 Oct 04 16:56	12°♎39'32	
direct	8867 Oct 21 22:47	7°♎01'23	
greatest brilliancy	8867 Oct 31 21:04	8°♎48'16	-4.7m
	8867 Dec 02 06:54	0°♏	
morning max el	8867 Dec 09 19:50	7°♏02'17	45°44'40
asc. node	8867 Dec 18 01:06	15°♏11'50	
	8868 Jan 01 01:55	0°♐	
	8868 Jan 27 15:54	0°♑	
	8868 Feb 21 23:34	0°♒	
	8868 Mar 17 15:43	0°♓	
desc. node	8868 Apr 07 18:42	26°♓03'48	
	8868 Apr 10 22:51	0°♈	
	8868 May 05 00:33	0°♉	
	8868 May 28 23:38	0°♊	
morning set	8868 Jun 11 11:31	16°♊54'15	
	8868 Jun 21 22:34	0°♋	
	8868 Jul 15 23:07	0°♌	
superior conj	8868 Jul 20 18:43	6°♌00'07	-0°21'22
minimum elong	8868 Jul 20 23:48	6°♌15'54	0°21'19
max. Earth dist.	8868 Jul 23 20:10	9°♌48'43	1.72198 AU
asc. node	8868 Jul 29 15:32	17°♌02'07	
	8868 Aug 09 02:08	0°♍	
evening rise	8868 Aug 28 00:52	23°♍27'50	
	8868 Sep 02 07:53	0°♎	
	8868 Sep 26 16:59	0°♏	
	8868 Oct 21 06:41	0°♐	
	8868 Nov 15 02:42	0°♑	
desc. node	8868 Nov 18 09:48	3°♑57'12	
	8868 Dec 10 06:53	0°♒	
	8869 Jan 04 22:15	0°♓	
	8869 Jan 31 09:55	0°♈	
evening max el	8869 Feb 23 18:19	24°♈41'59	46°44'38
	8869 Mar 01 04:14	0°♉	
asc. node	8869 Mar 11 09:31	9°♉19'20	
greatest brilliancy	8869 Apr 05 06:21	25°♉25'35	-4.9m
retrograde	8869 Apr 15 01:56	27°♉14'38	
evening set	8869 May 03 05:00	20°♉57'08	
inferior conj	8869 May 05 16:47	19°♉25'44	9°13'01
minimum elong	8869 May 05 16:30	19°♉26'11	9°12'51
min. Earth dist.	8869 May 05 14:58	19°♉28'32	0.27126 AU
morning rise	8869 May 08 04:02	17°♉55'17	
direct	8869 May 26 09:00	11°♉38'03	
greatest brilliancy	8869 Jun 04 22:10	13°♉22'01	-4.9m
	8869 Jun 30 14:45	0°♊	
desc. node	8869 Jul 01 04:56	0°♊30'42	
morning max el	8869 Jul 15 14:49	14°♊01'18	46°38'38
	8869 Jul 31 00:57	0°♋	
	8869 Aug 27 00:58	0°♌	
	8869 Sep 21 22:11	0°♍	
	8869 Oct 17 05:44	0°♎	
asc. node	8869 Oct 22 02:56	5°♎50'39	
	8869 Nov 11 03:45	0°♏	
	8869 Dec 05 18:27	0°♐	
	8869 Dec 30 03:49	0°♑	
morning set	8870 Jan 10 20:13	14°♑26'40	
	8870 Jan 23 09:27	0°♒	
desc. node	8870 Feb 10 19:42	22°♒54'47	
max. Earth dist.	8870 Feb 15 09:19	28°♒36'12	1.72010 AU
	8870 Feb 16 12:13	0°♓	
superior conj	8870 Feb 18 12:58	2°♓31'58	-0°18'38
minimum elong	8870 Feb 18 08:28	2°♓17'58	0°18'18
	8870 Mar 12 12:30	0°♈	
evening rise	8870 Mar 30 07:04	22°♈16'07	
	8870 Apr 05 11:01	0°♉	
	8870 Apr 29 09:22	0°♊	
	8870 May 23 10:01	0°♋	
asc. node	8870 Jun 03 17:33	14°♋02'44	
	8870 Jun 16 15:48	0°♌	
	8870 Jul 11 06:06	0°♍	
	8870 Aug 05 10:21	0°♎	
	8870 Aug 31 16:00	0°♏	
desc. node	8870 Sep 23 13:07	24°♏18'29	
	8870 Sep 29 07:22	0°♐	
evening max el	8870 Sep 30 05:19	0°♐52'58	45°43'44
greatest brilliancy	8870 Nov 08 05:51	29°♐02'02	-4.7m
	8870 Nov 11 15:46	0°♑	
retrograde	8870 Nov 17 22:43	0°♑43'59	
	8870 Nov 24 01:19	30°℞♐	
evening set	8870 Dec 05 08:24	25°♐02'06	
inferior conj	8870 Dec 09 08:07	22°♐34'29	-7°23'26
minimum elong	8870 Dec 09 17:13	22°♐20'11	7°21'46
min. Earth dist.	8870 Dec 10 00:15	22°♐09'08	0.28789 AU
morning rise	8870 Dec 14 01:47	19°♐39'54	
direct	8870 Dec 30 19:14	14°♐18'26	
greatest brilliancy	8871 Jan 10 19:05	16°♐31'28	-4.8m
asc. node	8871 Jan 14 12:39	18°♐09'40	
	8871 Feb 01 02:15	0°♑	
morning max el	8871 Feb 18 15:30	16°♑06'28	46°21'53
	8871 Mar 04 00:56	0°♒	
	8871 Mar 30 18:07	0°♓	
	8871 Apr 25 01:52	0°♈	
desc. node	8871 May 06 07:04	13°♈34'03	
	8871 May 19 18:00	0°♉	
	8871 Jun 13 02:28	0°♊	
	8871 Jul 07 07:57	0°♋	
	8871 Jul 31 13:13	0°♌	
morning set	8871 Aug 23 13:22	28°♌27'24	
	8871 Aug 24 19:21	0°♍	
asc. node	8871 Aug 27 03:55	2°♍54'45	
	8871 Sep 18 02:16	0°♎	
superior conj	8871 Sep 30 01:09	14°♎45'15	1°10'10
minimum elong	8871 Sep 29 16:09	14°♎17'29	1°09'57
max. Earth dist.	8871 Oct 01 00:25	15°♎57'00	1.73179 AU
	8871 Oct 12 09:45	0°♏	
evening rise	8871 Nov 05 12:03	29°♏41'11	
	8871 Nov 05 18:10	0°♐	
	8871 Nov 30 04:14	0°♑	
desc. node	8871 Dec 16 21:26	20°♑28'33	
	8871 Dec 24 16:24	0°♒	
	8872 Jan 18 06:37	0°♓	
	8872 Feb 11 23:22	0°♈	

	8872 Mar 07 21:36	0°♉	
	8872 Apr 02 09:41	0°♊	
asc. node	8872 Apr 07 20:35	6°♊15'18	
	8872 Apr 29 09:12	0°♋	
evening max el	8872 May 07 14:30	8°♋29'46	46°55'06
	8872 May 31 15:18	0°♌	
greatest brilliancy	8872 Jun 16 13:49	9°♌13'01	-4.9m
retrograde	8872 Jun 27 00:35	11°♌15'50	
evening set	8872 Jul 12 05:25	6°♌44'45	
inferior conj	8872 Jul 18 00:16	3°♌17'44	2°40'16
minimum elong	8872 Jul 18 06:11	3°♌08'34	2°38'15
min. Earth dist.	8872 Jul 17 19:21	3°♌25'20	0.27500 AU
	8872 Jul 23 12:50	30°℞♋	
morning rise	8872 Jul 24 07:24	29°♋34'43	
desc. node	8872 Jul 28 16:26	27°♋30'40	
direct	8872 Aug 07 21:16	25°♋26'17	
greatest brilliancy	8872 Aug 17 17:31	27°♋12'24	-4.8m
	8872 Aug 24 03:32	0°♌	
morning max el	8872 Sep 25 22:29	25°♌44'17	45°53'45
	8872 Sep 30 07:23	0°♍	
	8872 Oct 28 18:42	0°♎	
asc. node	8872 Nov 18 15:06	23°♎32'50	
	8872 Nov 24 05:00	0°♏	
	8872 Dec 19 15:07	0°♐	
	8873 Jan 13 10:47	0°♑	
	8873 Feb 06 21:27	0°♒	
	8873 Mar 03 02:14	0°♓	
desc. node	8873 Mar 10 08:09	9°♓01'43	
morning set	8873 Mar 24 23:11	27°♓18'15	
	8873 Mar 27 02:51	0°♈	
	8873 Apr 20 00:36	0°♉	
superior conj	8873 May 04 17:14	18°♉28'37	-1°27'43
minimum elong	8873 May 04 16:27	18°♉26'12	1°27'54
max. Earth dist.	8873 May 04 18:13	18°♉31'45	1.71237 AU
	8873 May 13 21:11	0°♊	
	8873 Jun 06 18:39	0°♋	
evening rise	8873 Jun 14 05:37	9°♋20'02	
	8873 Jun 30 18:58	0°♌	
asc. node	8873 Jul 01 05:24	0°♌32'29	
	8873 Jul 24 23:36	0°♍	
	8873 Aug 18 10:01	0°♎	
	8873 Sep 12 04:44	0°♏	
	8873 Oct 07 12:19	0°♐	
desc. node	8873 Oct 21 00:15	15°♐37'03	
	8873 Nov 02 17:03	0°♑	
	8873 Nov 30 14:27	0°♒	
evening max el	8873 Dec 10 17:04	10°♒02'43	45°59'08
	8874 Jan 03 00:19	0°♓	
greatest brilliancy	8874 Jan 19 04:57	8°♓51'51	-4.8m
retrograde	8874 Jan 28 22:17	10°♓36'59	
asc. node	8874 Feb 11 00:14	7°♓13'26	
evening set	8874 Feb 12 10:15	6°♓29'40	
inferior conj	8874 Feb 18 18:01	2°♓47'03	1°57'53
minimum elong	8874 Feb 18 13:33	2°♓53'55	1°56'36
min. Earth dist.	8874 Feb 19 00:40	2°♓36'48	0.27345 AU
	8874 Feb 23 08:53	30°℞♒	
morning rise	8874 Feb 24 16:17	29°♒15'49	
direct	8874 Mar 11 14:41	24°♒50'13	
greatest brilliancy	8874 Mar 22 03:16	26°♒55'07	-4.9m
	8874 Mar 28 16:43	0°♓	
morning max el	8874 May 01 03:21	27°♓42'40	46°58'11
	8874 May 03 09:29	0°♈	
	8874 May 30 22:56	0°♉	
desc. node	8874 Jun 02 19:12	3°♉14'46	
	8874 Jun 25 17:08	0°♊	
	8874 Jul 20 18:38	0°♋	

	8874 Aug 14 13:19	0°♌	
	8874 Sep 08 04:53	0°♍	
asc. node	8874 Sep 23 16:26	18°♍54'14	
	8874 Oct 02 18:06	0°♎	
	8874 Oct 27 04:51	0°♏	
morning set	8874 Oct 31 15:51	5°♏29'01	
	8874 Nov 20 13:24	0°♐	
max. Earth dist.	8874 Dec 06 01:36	19°♐08'23	1.73106 AU
superior conj	8874 Dec 07 05:20	20°♐34'00	1°14'26
minimum elong	8874 Dec 07 13:43	20°♐59'55	1°14'29
	8874 Dec 14 20:34	0°♑	
	8875 Jan 08 02:58	0°♒	
desc. node	8875 Jan 13 09:29	6°♒31'25	
evening rise	8875 Jan 13 23:40	7°♒15'18	
	8875 Feb 01 08:32	0°♓	
	8875 Feb 25 13:06	0°♈	
	8875 Mar 21 17:28	0°♉	
	8875 Apr 15 00:11	0°♊	
asc. node	8875 May 06 07:55	26°♊03'57	
	8875 May 09 13:50	0°♋	
	8875 Jun 03 17:52	0°♌	
	8875 Jun 30 03:19	0°♍	
evening max el	8875 Jul 19 00:30	19°♍46'54	46°16'41
	8875 Jul 29 19:38	0°♎	
desc. node	8875 Aug 26 03:57	18°♎52'13	
greatest brilliancy	8875 Aug 26 15:43	19°♎03'46	-4.8m
retrograde	8875 Sep 06 18:03	21°♎18'38	
evening set	8875 Sep 23 03:36	16°♎06'52	
min. Earth dist.	8875 Sep 27 12:52	13°♎26'51	0.28838 AU
inferior conj	8875 Sep 28 05:03	13°♎01'33	-6°56'05
minimum elong	8875 Sep 27 19:21	13°♎16'44	6°54'19
morning rise	8875 Oct 02 11:26	10°♎24'49	
direct	8875 Oct 19 14:52	4°♎51'11	
greatest brilliancy	8875 Oct 29 11:15	6°♎36'50	-4.7m
	8875 Dec 02 07:52	0°♏	
morning max el	8875 Dec 07 11:38	4°♏51'51	45°44'00
asc. node	8875 Dec 17 03:07	14°♏28'22	
	8875 Dec 31 18:01	0°♐	
	8876 Jan 27 05:20	0°♑	
	8876 Feb 21 11:48	0°♒	
	8876 Mar 17 03:19	0°♓	
desc. node	8876 Apr 06 20:35	25°♓34'47	
	8876 Apr 10 10:04	0°♈	
	8876 May 04 11:31	0°♉	
	8876 May 28 10:26	0°♊	
morning set	8876 Jun 09 00:09	14°♊29'57	
	8876 Jun 21 09:15	0°♋	
	8876 Jul 15 09:44	0°♌	
superior conj	8876 Jul 18 08:39	3°♌40'57	-0°24'53
minimum elong	8876 Jul 18 14:31	3°♌59'14	0°24'50
max. Earth dist.	8876 Jul 21 13:33	7°♌40'27	1.72158 AU
asc. node	8876 Jul 28 17:36	16°♌35'37	
	8876 Aug 08 12:42	0°♍	
evening rise	8876 Aug 25 17:10	21°♍17'05	
	8876 Sep 01 18:30	0°♎	
	8876 Sep 26 03:45	0°♏	
	8876 Oct 20 17:45	0°♐	
	8876 Nov 14 14:16	0°♑	
desc. node	8876 Nov 17 11:42	3°♑28'01	
	8876 Dec 09 19:18	0°♒	
	8877 Jan 04 12:10	0°♓	
	8877 Jan 31 02:50	0°♈	
evening max el	8877 Feb 21 08:27	22°♈20'48	46°43'16
	8877 Mar 01 06:02	0°♉	
asc. node	8877 Mar 10 11:31	8°♉13'18	

greatest brilliancy	8877 Apr 02 19:30	23°♉00'54	-4.9m
retrograde	8877 Apr 12 14:45	24°♉49'25	
evening set	8877 Apr 30 16:32	18°♉34'41	
inferior conj	8877 May 03 05:44	17°♉00'59	9°12'17
minimum elong	8877 May 03 04:25	17°♉03'00	9°12'06
min. Earth dist.	8877 May 03 03:28	17°♉04'28	0.27116 AU
morning rise	8877 May 05 16:23	15°♉31'16	
direct	8877 May 23 22:02	9°♉13'36	
greatest brilliancy	8877 Jun 02 10:45	10°♉56'57	-4.9m
desc. node	8877 Jun 30 06:57	29°♉28'12	
	8877 Jun 30 21:15	0°♊	
morning max el	8877 Jul 13 03:29	11°♊37'26	46°40'03
	8877 Jul 30 18:49	0°♋	
	8877 Aug 26 15:12	0°♌	
	8877 Sep 21 10:45	0°♍	
	8877 Oct 16 17:21	0°♎	
asc. node	8877 Oct 21 04:45	5°♎21'39	
	8877 Nov 10 14:50	0°♏	
	8877 Dec 05 05:13	0°♐	
	8877 Dec 29 14:25	0°♑	
morning set	8878 Jan 08 11:55	12°♑14'01	
	8878 Jan 22 20:00	0°♒	
desc. node	8878 Feb 09 21:42	22°♒28'06	
max. Earth dist.	8878 Feb 12 20:46	26°♒09'23	1.72055 AU
	8878 Feb 15 22:47	0°♓	
superior conj	8878 Feb 16 02:08	0°♓10'28	-0°14'59
minimum elong	8878 Feb 15 22:32	29°♒59'13	0°14'40
behind sun begin	8878 Feb 15 12:04	29°♒26'36	
behind sun end	8878 Feb 16 09:00	0°♓31'50	
	8878 Mar 11 23:09	0°♈	
evening rise	8878 Mar 27 18:55	19°♈49'07	
	8878 Apr 04 21:47	0°♉	
	8878 Apr 28 20:17	0°♊	
	8878 May 22 21:05	0°♋	
asc. node	8878 Jun 02 19:32	13°♋34'11	
	8878 Jun 16 03:10	0°♌	
	8878 Jul 10 18:01	0°♍	
	8878 Aug 04 23:19	0°♎	
	8878 Aug 31 07:16	0°♏	
desc. node	8878 Sep 22 15:01	23°♏33'38	
evening max el	8878 Sep 27 19:21	28°♏38'31	45°43'56
	8878 Sep 29 05:23	0°♐	
greatest brilliancy	8878 Nov 05 21:05	26°♐51'43	-4.7m
retrograde	8878 Nov 15 13:42	28°♐33'53	
evening set	8878 Dec 03 02:41	22°♐47'44	
inferior conj	8878 Dec 06 23:59	20°♐23'46	-7°33'31
minimum elong	8878 Dec 07 08:42	20°♐10'04	7°32'01
min. Earth dist.	8878 Dec 07 15:47	19°♐58'56	0.28832 AU
morning rise	8878 Dec 11 14:26	17°♐33'44	
direct	8878 Dec 28 10:50	12°♐07'13	
greatest brilliancy	8879 Jan 08 11:21	14°♐20'16	-4.8m
asc. node	8879 Jan 13 14:44	16°♐41'04	
	8879 Feb 01 09:26	0°♑	
morning max el	8879 Feb 16 05:44	13°♑48'48	46°20'18
	8879 Mar 03 18:31	0°♒	
	8879 Mar 30 08:16	0°♓	
	8879 Apr 24 14:34	0°♈	
desc. node	8879 May 05 08:57	13°♈02'31	
	8879 May 19 05:54	0°♉	
	8879 Jun 12 13:51	0°♊	
	8879 Jul 06 18:57	0°♋	
	8879 Jul 30 23:57	0°♌	
morning set	8879 Aug 21 05:17	26°♌15'38	
	8879 Aug 24 05:52	0°♍	
asc. node	8879 Aug 26 05:51	2°♍28'17	
	8879 Sep 17 12:41	0°♎	
superior conj	8879 Sep 27 18:34	12°♎38'55	1°08'14
minimum elong	8879 Sep 27 09:21	12°♎10'26	1°07'59
max. Earth dist.	8879 Sep 28 17:58	13°♎51'04	1.73163 AU
	8879 Oct 11 20:09	0°♏	
evening rise	8879 Nov 03 05:32	27°♏35'06	
	8879 Nov 05 04:39	0°♐	
	8879 Nov 29 14:55	0°♑	
desc. node	8879 Dec 15 23:28	20°♑01'25	
	8879 Dec 24 03:24	0°♒	
	8880 Jan 17 18:06	0°♓	
	8880 Feb 11 11:31	0°♈	
	8880 Mar 07 10:48	0°♉	
	8880 Apr 02 00:49	0°♊	
asc. node	8880 Apr 06 22:30	5°♊35'57	
	8880 Apr 29 05:00	0°♋	
evening max el	8880 May 05 03:29	6°♋05'47	46°55'46
	8880 Jun 01 12:06	0°♌	
greatest brilliancy	8880 Jun 14 05:15	6°♌53'50	-4.9m
retrograde	8880 Jun 24 14:46	8°♌56'04	
evening set	8880 Jul 09 21:34	4°♌21'54	
inferior conj	8880 Jul 15 14:11	0°♌58'25	3°02'15
minimum elong	8880 Jul 15 20:51	0°♌48'08	3°00'01
min. Earth dist.	8880 Jul 15 10:16	1°♌04'28	0.27471 AU
	8880 Jul 17 04:10	30°℞♋	
morning rise	8880 Jul 21 20:29	27°♋16'44	
desc. node	8880 Jul 27 18:30	24°♋37'30	
direct	8880 Aug 05 10:22	23°♋07'04	
greatest brilliancy	8880 Aug 15 07:48	24°♋54'23	-4.8m
	8880 Aug 25 19:06	0°♌	
morning max el	8880 Sep 23 13:08	23°♌29'38	45°55'06
	8880 Sep 30 04:02	0°♍	
	8880 Oct 28 09:41	0°♎	
asc. node	8880 Nov 17 17:10	23°♎00'57	
	8880 Nov 23 17:48	0°♏	
	8880 Dec 19 02:53	0°♐	
	8881 Jan 12 22:02	0°♑	
	8881 Feb 06 08:26	0°♒	
	8881 Mar 02 13:05	0°♓	
desc. node	8881 Mar 09 10:02	8°♓33'55	
morning set	8881 Mar 22 10:15	24°♓48'58	
	8881 Mar 26 13:37	0°♈	
	8881 Apr 19 11:19	0°♉	
superior conj	8881 May 02 04:11	15°♉58'28	-1°27'31
minimum elong	8881 May 02 02:19	15°♉52'36	1°27'41
max. Earth dist.	8881 May 02 01:45	15°♉50'48	1.71237 AU
	8881 May 13 07:53	0°♊	
	8881 Jun 06 05:24	0°♋	
evening rise	8881 Jun 11 17:04	6°♋52'09	
asc. node	8881 Jun 30 07:27	0°♌05'11	
	8881 Jun 30 05:48	0°♌	
	8881 Jul 24 10:34	0°♍	
	8881 Aug 17 21:14	0°♎	
	8881 Sep 11 16:26	0°♏	
	8881 Oct 07 00:59	0°♐	
desc. node	8881 Oct 20 02:13	15°♐03'59	
	8881 Nov 02 07:44	0°♑	
	8881 Nov 30 10:07	0°♒	
evening max el	8881 Dec 08 08:00	7°♒48'27	45°57'50
	8882 Jan 03 23:15	0°♓	
greatest brilliancy	8882 Jan 16 17:52	6°♓31'13	-4.8m
retrograde	8882 Jan 26 12:07	8°♓16'38	
evening set	8882 Feb 09 23:43	4°♓09'13	
asc. node	8882 Feb 10 02:13	4°♓05'52	
inferior conj	8882 Feb 16 07:37	0°♓26'03	1°34'57
minimum elong	8882 Feb 16 04:00	0°♓31'37	1°33'56
min. Earth dist.	8882 Feb 16 14:48	0°♓14'58	0.27380 AU

	8882 Feb 17 00:32	30°♓	
morning rise	8882 Feb 22 07:48	26°♒52'23	
direct	8882 Mar 09 05:23	22°♒28'41	
greatest brilliancy	8882 Mar 19 17:55	24°♒34'00	-4.9m
	8882 Mar 30 05:04	0°♓	
morning max el	8882 Apr 28 18:22	25°♓23'22	46°57'42
	8882 May 03 06:37	0°♈	
	8882 May 30 14:36	0°♉	
desc. node	8882 Jun 01 21:17	2°♉36'40	
	8882 Jun 25 06:37	0°♊	
	8882 Jul 20 06:59	0°♋	
	8882 Aug 14 00:58	0°♌	
	8882 Sep 07 16:03	0°♍	
asc. node	8882 Sep 22 18:16	18°♍26'24	
	8882 Oct 02 04:57	0°♎	
	8882 Oct 26 15:28	0°♏	
morning set	8882 Oct 29 09:15	3°♏22'15	
	8882 Nov 19 23:57	0°♐	
max. Earth dist.	8882 Dec 03 21:56	17°♐10'23	1.73124 AU
superior conj	8882 Dec 04 22:25	18°♐25'59	1°16'03
minimum elong	8882 Dec 05 06:24	18°♐50'38	1°16'06
	8882 Dec 14 07:09	0°♑	
	8883 Jan 07 13:40	0°♒	
evening rise	8883 Jan 11 15:02	5°♒01'08	
desc. node	8883 Jan 12 11:29	6°♒04'23	
	8883 Jan 31 19:26	0°♓	
	8883 Feb 25 00:16	0°♈	
	8883 Mar 21 04:59	0°♉	
	8883 Apr 14 12:10	0°♊	
asc. node	8883 May 05 09:55	25°♊31'47	
	8883 May 09 02:34	0°♋	
	8883 Jun 03 07:58	0°♌	
	8883 Jun 29 20:29	0°♍	
evening max el	8883 Jul 16 16:45	17°♍34'15	46°18'16
	8883 Jul 29 23:47	0°♎	
greatest brilliancy	8883 Aug 24 07:23	16°♎51'46	-4.8m
desc. node	8883 Aug 25 05:50	17°♎12'39	
retrograde	8883 Sep 04 10:19	19°♎06'53	
evening set	8883 Sep 20 16:31	14°♎00'02	
min. Earth dist.	8883 Sep 25 03:56	11°♎16'46	0.28794 AU
inferior conj	8883 Sep 25 20:53	10°♎50'14	-6°43'47
minimum elong	8883 Sep 25 11:00	11°♎05'42	6°41'53
morning rise	8883 Sep 30 05:56	8°♎09'37	
direct	8883 Oct 17 06:58	2°♎40'48	
greatest brilliancy	8883 Oct 27 01:24	4°♎24'58	-4.7m
	8883 Dec 02 07:44	0°♏	
morning max el	8883 Dec 05 02:35	2°♏39'10	45°43'27
asc. node	8883 Dec 16 05:07	13°♏45'13	
	8883 Dec 31 09:56	0°♐	
	8884 Jan 26 18:44	0°♑	
	8884 Feb 21 00:05	0°♒	
	8884 Mar 16 15:02	0°♓	
desc. node	8884 Apr 05 22:30	25°♓05'18	
	8884 Apr 09 21:27	0°♈	
	8884 May 03 22:42	0°♉	
	8884 May 27 21:29	0°♊	
morning set	8884 Jun 06 12:14	12°♊03'05	
	8884 Jun 20 20:11	0°♋	
	8884 Jul 14 20:33	0°♌	
superior conj	8884 Jul 15 22:11	1°♌19'52	-0°28'25
minimum elong	8884 Jul 16 04:49	1°♌40'32	0°28'19
max. Earth dist.	8884 Jul 19 06:28	5°♌29'58	1.72109 AU
asc. node	8884 Jul 27 19:28	16°♌07'51	
	8884 Aug 07 23:28	0°♍	
evening rise	8884 Aug 23 09:13	19°♍04'54	
	8884 Sep 01 05:20	0°♎	
	8884 Sep 25 14:44	0°♏	
	8884 Oct 20 05:03	0°♐	
	8884 Nov 14 02:06	0°♑	
desc. node	8884 Nov 16 13:46	2°♑58'34	
	8884 Dec 09 08:00	0°♒	
	8885 Jan 04 02:25	0°♓	
	8885 Jan 30 20:20	0°♈	
evening max el	8885 Feb 18 21:26	19°♈56'11	46°41'46
	8885 Mar 01 09:42	0°♉	
asc. node	8885 Mar 09 13:22	7°♉04'26	
greatest brilliancy	8885 Mar 31 08:53	20°♉35'27	-4.9m
retrograde	8885 Apr 10 03:02	22°♉23'04	
evening set	8885 Apr 28 03:17	16°♉11'57	
inferior conj	8885 Apr 30 18:35	14°♉35'01	9°10'28
minimum elong	8885 Apr 30 16:17	14°♉38'35	9°10'14
min. Earth dist.	8885 Apr 30 16:15	14°♉38'37	0.27112 AU
morning rise	8885 May 03 05:18	13°♉05'03	
direct	8885 May 21 10:29	6°♉47'33	
greatest brilliancy	8885 May 30 23:59	8°♉31'07	-4.9m
desc. node	8885 Jun 29 08:58	28°♉25'51	
	8885 Jul 01 02:16	0°♊	
morning max el	8885 Jul 10 15:34	9°♊10'25	46°41'32
	8885 Jul 30 12:43	0°♋	
	8885 Aug 26 05:40	0°♌	
	8885 Sep 20 23:33	0°♍	
	8885 Oct 16 05:14	0°♎	
asc. node	8885 Oct 20 06:47	4°♎52'27	
	8885 Nov 10 02:11	0°♏	
	8885 Dec 04 16:16	0°♐	
	8885 Dec 29 01:19	0°♑	
morning set	8886 Jan 06 03:52	10°♑01'14	
	8886 Jan 22 06:50	0°♒	
desc. node	8886 Feb 08 23:35	22°♒00'09	
max. Earth dist.	8886 Feb 10 10:43	23°♒49'34	1.72099 AU
superior conj	8886 Feb 13 15:42	27°♒49'17	-0°11'21
minimum elong	8886 Feb 13 12:58	27°♒40'47	0°11'03
behind sun begin	8886 Feb 12 18:43	26°♒43'57	
behind sun end	8886 Feb 14 07:13	28°♒37'38	
	8886 Feb 15 09:39	0°♓	
	8886 Mar 11 10:06	0°♈	
evening rise	8886 Mar 25 07:10	17°♈22'37	
	8886 Apr 04 08:51	0°♉	
	8886 Apr 28 07:30	0°♊	
	8886 May 22 08:32	0°♋	
asc. node	8886 Jun 01 21:34	13°♋04'34	
	8886 Jun 15 14:58	0°♌	
	8886 Jul 10 06:25	0°♍	
	8886 Aug 04 12:51	0°♎	
	8886 Aug 30 23:14	0°♏	
desc. node	8886 Sep 21 17:00	22°♏47'12	
evening max el	8886 Sep 25 09:12	26°♏22'33	45°44'28
	8886 Sep 29 04:50	0°♐	
greatest brilliancy	8886 Nov 03 11:54	24°♐40'09	-4.7m
retrograde	8886 Nov 13 05:11	26°♐23'16	
evening set	8886 Nov 30 20:58	20°♐32'39	
inferior conj	8886 Dec 04 15:57	18°♐12'18	-7°42'58
minimum elong	8886 Dec 05 00:14	17°♐59'18	7°41'36
min. Earth dist.	8886 Dec 05 07:12	17°♐48'22	0.28875 AU
morning rise	8886 Dec 09 03:14	15°♐27'00	
direct	8886 Dec 26 02:32	9°♐55'08	
greatest brilliancy	8887 Jan 06 03:43	12°♐08'32	-4.8m
asc. node	8887 Jan 12 16:40	15°♐14'26	
	8887 Feb 01 14:49	0°♑	
morning max el	8887 Feb 13 20:57	11°♑32'41	46°18'49
	8887 Mar 03 12:03	0°♒	

	8887 Mar 29 22:37	0°♓	
	8887 Apr 24 03:29	0°♈	
desc. node	8887 May 04 11:02	12°♈30'44	
	8887 May 18 18:03	0°♉	
	8887 Jun 12 01:31	0°♊	
	8887 Jul 06 06:18	0°♋	
	8887 Jul 30 11:03	0°♌	
morning set	8887 Aug 18 20:53	24°♌01'31	
	8887 Aug 23 16:49	0°♍	
asc. node	8887 Aug 25 07:45	2°♍00'22	
	8887 Sep 16 23:30	0°♎	
superior conj	8887 Sep 25 11:39	10°♎30'11	1°06'09
minimum elong	8887 Sep 25 02:14	10°♎01'07	1°05'53
max. Earth dist.	8887 Sep 26 11:32	11°♎43'54	1.73144 AU
	8887 Oct 11 06:56	0°♏	
evening rise	8887 Oct 31 22:52	25°♏27'28	
	8887 Nov 04 15:29	0°♐	
	8887 Nov 29 01:57	0°♑	
desc. node	8887 Dec 15 01:25	19°♑32'58	
	8887 Dec 23 14:47	0°♒	
	8888 Jan 17 05:58	0°♓	
	8888 Feb 11 00:06	0°♈	
	8888 Mar 07 00:28	0°♉	
	8888 Apr 01 16:30	0°♊	
asc. node	8888 Apr 06 00:36	4°♊55'52	
	8888 Apr 29 01:46	0°♋	
evening max el	8888 May 02 17:14	3°♋43'02	46°56'27
	8888 Jun 02 17:17	0°♌	
greatest brilliancy	8888 Jun 11 20:04	4°♌33'15	-4.9m
retrograde	8888 Jun 22 05:31	6°♌35'32	
evening set	8888 Jul 07 13:54	1°♌57'59	
	8888 Jul 10 22:40	30°℞♋	
inferior conj	8888 Jul 13 04:07	28°♋38'07	3°23'57
minimum elong	8888 Jul 13 11:29	28°♋26'46	3°21'31
min. Earth dist.	8888 Jul 13 00:48	28°♋43'13	0.27445 AU
morning rise	8888 Jul 19 09:25	24°♋58'13	
desc. node	8888 Jul 26 20:22	21°♋48'57	
direct	8888 Aug 03 00:01	20°♋46'54	
greatest brilliancy	8888 Aug 12 21:34	22°♋34'50	-4.8m
	8888 Aug 26 23:09	0°♌	
morning max el	8888 Sep 21 04:38	21°♌15'50	45°56'20
	8888 Sep 30 00:27	0°♍	
	8888 Oct 28 00:52	0°♎	
asc. node	8888 Nov 16 19:10	22°♎27'53	
	8888 Nov 23 06:54	0°♏	
	8888 Dec 18 14:56	0°♐	
	8889 Jan 12 09:32	0°♑	
	8889 Feb 05 19:40	0°♒	
	8889 Mar 02 00:12	0°♓	
desc. node	8889 Mar 08 11:56	8°♓05'17	
morning set	8889 Mar 19 21:31	22°♓19'30	
	8889 Mar 26 00:41	0°♈	
	8889 Apr 18 22:20	0°♉	
superior conj	8889 Apr 29 15:18	13°♉27'47	-1°27'08
minimum elong	8889 Apr 29 12:20	13°♉18'28	1°27'16
max. Earth dist.	8889 Apr 29 10:27	13°♉12'34	1.71236 AU
	8889 May 12 18:53	0°♊	
	8889 Jun 05 16:24	0°♋	
evening rise	8889 Jun 09 04:42	4°♋23'58	
asc. node	8889 Jun 29 09:20	29°♋36'37	
	8889 Jun 29 16:51	0°♌	
	8889 Jul 23 21:46	0°♍	
	8889 Aug 17 08:43	0°♎	
	8889 Sep 11 04:28	0°♏	
	8889 Oct 06 14:04	0°♐	
desc. node	8889 Oct 19 04:16	14°♐30'04	
	8889 Nov 01 22:57	0°♑	
	8889 Nov 30 06:45	0°♒	
evening max el	8889 Dec 05 23:28	5°♒34'46	45°56'39
	8890 Jan 05 07:31	0°♓	
greatest brilliancy	8890 Jan 14 07:29	4°♓11'18	-4.8m
retrograde	8890 Jan 24 01:56	5°♓56'14	
evening set	8890 Feb 07 13:41	1°♓48'47	
asc. node	8890 Feb 09 04:07	0°♓55'36	
	8890 Feb 10 18:12	30°℞♒	
inferior conj	8890 Feb 13 21:28	28°♒05'14	1°12'02
minimum elong	8890 Feb 13 18:42	28°♒09'29	1°11'18
min. Earth dist.	8890 Feb 14 05:17	27°♒53'10	0.27416 AU
morning rise	8890 Feb 19 23:17	24°♒29'10	
direct	8890 Mar 06 20:14	20°♒07'29	
greatest brilliancy	8890 Mar 17 08:39	22°♒12'45	-4.9m
	8890 Mar 31 06:53	0°♓	
morning max el	8890 Apr 26 08:56	23°♓02'26	46°57'01
	8890 May 03 03:15	0°♈	
	8890 May 30 06:14	0°♉	
desc. node	8890 May 31 23:10	1°♉57'43	
	8890 Jun 24 20:12	0°♊	
	8890 Jul 19 19:27	0°♋	
	8890 Aug 13 12:43	0°♌	
	8890 Sep 07 03:20	0°♍	
asc. node	8890 Sep 21 20:17	17°♍58'46	
	8890 Oct 01 15:54	0°♎	
	8890 Oct 26 02:15	0°♏	
morning set	8890 Oct 27 02:41	1°♏15'07	
	8890 Nov 19 10:40	0°♐	
max. Earth dist.	8890 Dec 01 16:12	15°♐05'32	1.73143 AU
superior conj	8890 Dec 02 15:33	16°♐17'36	1°17'33
minimum elong	8890 Dec 02 23:04	16°♐40'48	1°17'36
	8890 Dec 13 17:54	0°♑	
	8891 Jan 07 00:32	0°♒	
evening rise	8891 Jan 09 06:18	2°♒46'16	
desc. node	8891 Jan 11 13:19	5°♒36'24	
	8891 Jan 31 06:28	0°♓	
	8891 Feb 24 11:33	0°♈	
	8891 Mar 20 16:38	0°♉	
	8891 Apr 14 00:21	0°♊	
asc. node	8891 May 04 11:56	24°♊59'06	
	8891 May 08 15:33	0°♋	
	8891 Jun 02 22:22	0°♌	
	8891 Jun 29 14:08	0°♍	
evening max el	8891 Jul 14 08:30	15°♍19'55	46°19'52
	8891 Jul 30 05:57	0°♎	
greatest brilliancy	8891 Aug 21 23:45	14°♎40'35	-4.8m
desc. node	8891 Aug 24 07:49	15°♎29'41	
retrograde	8891 Sep 02 02:18	16°♎55'17	
evening set	8891 Sep 18 05:38	11°♎53'20	
min. Earth dist.	8891 Sep 22 19:28	9°♎06'30	0.28748 AU
inferior conj	8891 Sep 23 12:50	8°♎39'17	-6°30'51
minimum elong	8891 Sep 23 02:51	8°♎54'56	6°28'52
morning rise	8891 Sep 28 00:29	5°♎54'42	
direct	8891 Oct 14 22:43	0°♎30'50	
greatest brilliancy	8891 Oct 24 16:02	2°♎13'45	-4.7m
	8891 Dec 02 06:33	0°♏	
morning max el	8891 Dec 02 16:53	0°♏24'51	45°42'52
asc. node	8891 Dec 15 07:02	13°♏02'25	
	8891 Dec 31 01:38	0°♐	
	8892 Jan 26 08:05	0°♑	
	8892 Feb 20 12:21	0°♒	
	8892 Mar 16 02:43	0°♓	
desc. node	8892 Apr 05 00:34	24°♓36'24	
	8892 Apr 09 08:47	0°♈	

	8892 May 03 09:51	0°♉	
	8892 May 27 08:30	0°♊	
morning set	8892 Jun 04 00:08	9°♊35'37	
	8892 Jun 20 07:06	0°♋	
superior conj	8892 Jul 13 11:39	28°♋58'32	-0°31'54
minimum elong	8892 Jul 13 19:01	29°♋21'28	0°31'46
	8892 Jul 14 07:23	0°♌	
max. Earth dist.	8892 Jul 16 20:34	3°♌10'40	1.72061 AU
asc. node	8892 Jul 26 21:25	15°♌40'18	
	8892 Aug 07 10:15	0°♍	
evening rise	8892 Aug 21 01:09	16°♍52'24	
	8892 Aug 31 16:07	0°♎	
	8892 Sep 25 01:40	0°♏	
	8892 Oct 19 16:16	0°♐	
	8892 Nov 13 13:52	0°♑	
desc. node	8892 Nov 15 15:42	2°♑28'58	
	8892 Dec 08 20:43	0°♒	
	8893 Jan 03 16:49	0°♓	
	8893 Jan 30 14:14	0°♈	
evening max el	8893 Feb 16 09:50	17°♈30'15	46°40'19
	8893 Mar 01 15:11	0°♉	
asc. node	8893 Mar 08 15:29	5°♉54'16	
greatest brilliancy	8893 Mar 28 22:15	18°♉10'01	-4.9m
retrograde	8893 Apr 07 15:20	19°♉57'05	
evening set	8893 Apr 25 13:23	13°♉50'14	
inferior conj	8893 Apr 28 07:24	12°♉09'18	9°07'29
minimum elong	8893 Apr 28 04:08	12°♉14'21	9°07'10
min. Earth dist.	8893 Apr 28 05:05	12°♉12'53	0.27109 AU
morning rise	8893 Apr 30 18:53	10°♉38'09	
direct	8893 May 18 22:34	4°♉21'32	
greatest brilliancy	8893 May 28 13:26	6°♉05'55	-4.9m
desc. node	8893 Jun 28 10:54	27°♉25'15	
	8893 Jul 01 05:22	0°♊	
morning max el	8893 Jul 08 04:05	6°♊44'46	46°42'58
	8893 Jul 30 06:06	0°♋	
	8893 Aug 25 19:52	0°♌	
	8893 Sep 20 12:10	0°♍	
	8893 Oct 15 16:56	0°♎	
asc. node	8893 Oct 19 08:46	4°♎23'40	
	8893 Nov 09 13:19	0°♏	
	8893 Dec 04 03:06	0°♐	
	8893 Dec 28 12:00	0°♑	
morning set	8894 Jan 03 19:56	7°♑49'28	
	8894 Jan 21 17:30	0°♒	
max. Earth dist.	8894 Feb 08 02:25	21°♒35'36	1.72147 AU
desc. node	8894 Feb 08 01:34	21°♒33'00	
superior conj	8894 Feb 11 05:11	25°♒28'25	-0°07'40
minimum elong	8894 Feb 11 03:21	25°♒22'42	0°07'26
behind sun begin	8894 Feb 10 05:12	24°♒13'43	
behind sun end	8894 Feb 12 01:30	26°♒31'41	
	8894 Feb 14 20:22	0°♓	
	8894 Mar 10 20:55	0°♈	
evening rise	8894 Mar 22 19:16	14°♈56'13	
	8894 Apr 03 19:46	0°♉	
	8894 Apr 27 18:33	0°♊	
	8894 May 21 19:48	0°♋	
asc. node	8894 May 31 23:26	12°♋35'02	
	8894 Jun 15 02:35	0°♌	
	8894 Jul 09 18:41	0°♍	
	8894 Aug 04 02:17	0°♎	
	8894 Aug 30 15:15	0°♏	
desc. node	8894 Sep 20 19:06	22°♏01'01	
evening max el	8894 Sep 22 23:54	24°♏09'20	45°45'08
	8894 Sep 29 05:07	0°♐	
greatest brilliancy	8894 Nov 01 02:08	22°♐28'51	-4.7m
retrograde	8894 Nov 10 21:11	24°♐13'36	
evening set	8894 Nov 28 15:07	18°♐18'40	
inferior conj	8894 Dec 02 07:54	16°♐01'46	-7°51'36
minimum elong	8894 Dec 02 15:43	15°♐49'30	7°50'23
min. Earth dist.	8894 Dec 02 22:14	15°♐39'18	0.28914 AU
morning rise	8894 Dec 06 16:05	13°♐21'16	
direct	8894 Dec 23 18:36	7°♐44'10	
greatest brilliancy	8895 Jan 03 19:30	9°♐57'26	-4.8m
asc. node	8895 Jan 11 18:37	13°♐51'44	
	8895 Feb 01 17:54	0°♑	
morning max el	8895 Feb 11 12:58	9°♑19'48	46°17'11
	8895 Mar 03 04:53	0°♒	
	8895 Mar 29 12:33	0°♓	
	8895 Apr 23 16:07	0°♈	
desc. node	8895 May 03 12:56	11°♈59'07	
	8895 May 18 05:57	0°♉	
	8895 Jun 11 12:56	0°♊	
	8895 Jul 05 17:22	0°♋	
	8895 Jul 29 21:52	0°♌	
morning set	8895 Aug 16 12:14	21°♌47'25	
	8895 Aug 23 03:28	0°♍	
asc. node	8895 Aug 24 09:45	1°♍33'39	
	8895 Sep 16 10:04	0°♎	
superior conj	8895 Sep 23 04:30	8°♎21'32	1°03'58
minimum elong	8895 Sep 22 18:58	7°♎52'06	1°03'41
max. Earth dist.	8895 Sep 24 06:18	9°♎41'10	1.73125 AU
	8895 Oct 10 17:28	0°♏	
evening rise	8895 Oct 29 16:13	23°♏20'43	
	8895 Nov 04 02:05	0°♐	
	8895 Nov 28 12:43	0°♑	
desc. node	8895 Dec 14 03:19	19°♑05'18	
	8895 Dec 23 01:52	0°♒	
	8896 Jan 16 17:32	0°♓	
	8896 Feb 10 12:23	0°♈	
	8896 Mar 06 13:54	0°♉	
	8896 Apr 01 08:10	0°♊	
asc. node	8896 Apr 05 02:32	4°♊15'39	
	8896 Apr 28 23:05	0°♋	
evening max el	8896 Apr 30 07:53	1°♋23'02	46°56'58
	8896 Jun 04 11:37	0°♌	
greatest brilliancy	8896 Jun 09 10:33	2°♌12'17	-4.9m
retrograde	8896 Jun 19 20:13	4°♌14'29	
	8896 Jul 04 10:57	30°℞♋	
evening set	8896 Jul 05 06:10	29°♋33'36	
inferior conj	8896 Jul 10 17:44	26°♋17'24	3°45'27
minimum elong	8896 Jul 11 01:46	26°♋05'03	3°42'53
min. Earth dist.	8896 Jul 10 14:48	26°♋21'55	0.27418 AU
morning rise	8896 Jul 16 21:47	22°♋39'38	
desc. node	8896 Jul 25 22:24	19°♋05'17	
direct	8896 Jul 31 13:49	18°♋26'37	
greatest brilliancy	8896 Aug 10 10:27	20°♋14'23	-4.8m
	8896 Aug 27 19:23	0°♌	
morning max el	8896 Sep 18 19:54	19°♌02'16	45°57'34
	8896 Sep 29 19:53	0°♍	
	8896 Oct 27 15:30	0°♎	
asc. node	8896 Nov 15 20:59	21°♎55'29	
	8896 Nov 22 19:33	0°♏	
	8896 Dec 18 02:36	0°♐	
	8897 Jan 11 20:40	0°♑	
	8897 Feb 05 06:32	0°♒	
	8897 Mar 01 10:56	0°♓	
desc. node	8897 Mar 07 13:59	7°♓38'17	
morning set	8897 Mar 17 09:10	19°♓52'31	
	8897 Mar 25 11:21	0°♈	
	8897 Apr 18 09:00	0°♉	

superior conj	8897 Apr 27 02:25	10°♉58'13	-1°26'34
minimum elong	8897 Apr 26 22:24	10°♉45'37	1°26'42
max. Earth dist.	8897 Apr 26 19:05	10°♉35'11	1.71241 AU
	8897 May 12 05:34	0°♊	
	8897 Jun 05 03:08	0°♋	
evening rise	8897 Jun 06 15:55	1°♋55'12	
asc. node	8897 Jun 28 11:16	29°♋08'59	
	8897 Jun 29 03:40	0°♌	
	8897 Jul 23 08:42	0°♍	
	8897 Aug 16 19:56	0°♎	
	8897 Sep 10 16:16	0°♏	
	8897 Oct 06 02:58	0°♐	
desc. node	8897 Oct 18 06:11	13°♐56'27	
	8897 Nov 01 14:06	0°♑	
	8897 Nov 30 03:47	0°♒	
evening max el	8897 Dec 03 14:37	3°♒21'14	45°55'28
	8898 Jan 07 06:36	0°♓	
greatest brilliancy	8898 Jan 11 21:46	1°♓53'19	-4.8m
retrograde	8898 Jan 21 15:18	3°♓37'03	
	8898 Feb 04 04:31	30°℞♒	
evening set	8898 Feb 05 03:54	29°♒29'25	
asc. node	8898 Feb 08 06:12	27°♒43'46	
inferior conj	8898 Feb 11 11:22	25°♒45'55	0°49'05
minimum elong	8898 Feb 11 09:29	25°♒48'50	0°48'38
min. Earth dist.	8898 Feb 11 20:09	25°♒32'20	0.27449 AU
morning rise	8898 Feb 17 14:35	22°♒07'29	
direct	8898 Mar 04 10:39	17°♒47'46	
greatest brilliancy	8898 Mar 14 23:45	19°♒53'17	-4.9m
	8898 Apr 01 01:09	0°♓	
morning max el	8898 Apr 23 22:26	20°♓40'06	46°56'19
	8898 May 02 22:44	0°♈	
	8898 May 29 21:14	0°♉	
desc. node	8898 May 31 01:07	1°♉20'30	
	8898 Jun 24 09:20	0°♊	
	8898 Jul 19 07:35	0°♋	
	8898 Aug 13 00:13	0°♌	
	8898 Sep 06 14:21	0°♍	
asc. node	8898 Sep 20 22:15	17°♍31'39	
	8898 Oct 01 02:35	0°♎	
morning set	8898 Oct 24 19:43	29°♎07'38	
	8898 Oct 25 12:45	0°♏	
	8898 Nov 18 21:06	0°♐	
max. Earth dist.	8898 Nov 29 09:12	12°♐57'38	1.73161 AU
superior conj	8898 Nov 30 08:33	14°♐09'39	1°18'55
minimum elong	8898 Nov 30 15:33	14°♐31'17	1°19'01
	8898 Dec 13 04:24	0°♑	
	8899 Jan 06 11:09	0°♒	
evening rise	8899 Jan 06 21:34	0°♒32'11	
desc. node	8899 Jan 10 15:20	5°♒09'40	
	8899 Jan 30 17:16	0°♓	
	8899 Feb 23 22:36	0°♈	
	8899 Mar 20 04:00	0°♉	
	8899 Apr 13 12:12	0°♊	
asc. node	8899 May 03 13:49	24°♊27'07	
	8899 May 08 04:12	0°♋	
	8899 Jun 02 12:32	0°♌	
	8899 Jun 29 07:52	0°♍	
evening max el	8899 Jul 11 23:18	13°♍03'51	46°21'17
	8899 Jul 30 14:21	0°♎	
greatest brilliancy	8899 Aug 19 16:19	12°♎29'33	-4.8m
desc. node	8899 Aug 23 09:54	13°♎43'03	
retrograde	8899 Aug 30 17:52	14°♎43'38	
evening set	8899 Sep 15 18:37	9°♎46'19	
min. Earth dist.	8899 Sep 20 11:15	6°♎55'35	0.28703 AU
inferior conj	8899 Sep 21 04:37	6°♎28'20	-6°17'11
minimum elong	8899 Sep 20 18:34	6°♎44'06	6°15'06
morning rise	8899 Sep 25 18:56	3°♎39'41	
	8899 Oct 03 09:20	30°℞♍	
direct	8899 Oct 12 13:42	28°♍20'36	
	8899 Oct 22 03:28	0°♎	
greatest brilliancy	8899 Oct 22 07:12	0°♎03'07	-4.7m
morning max el	8899 Nov 30 06:42	28°♎09'44	45°42'25
	8899 Dec 02 04:16	0°♏	
asc. node	8899 Dec 14 09:03	12°♏20'57	
	8899 Dec 30 16:54	0°♐	
	8900 Jan 25 21:08	0°♑	
	8900 Feb 20 00:22	0°♒	
	8900 Mar 16 14:10	0°♓	
desc. node	8900 Apr 05 02:24	24°♓07'21	
	8900 Apr 09 19:55	0°♈	
	8900 May 03 20:46	0°♉	
	8900 May 27 19:16	0°♊	
morning set	8900 Jun 02 12:19	7°♊09'47	
	8900 Jun 20 17:44	0°♋	
superior conj	8900 Jul 12 01:24	26°♋38'47	-0°35'17
minimum elong	8900 Jul 12 09:26	27°♋03'51	0°35'09
	8900 Jul 14 17:56	0°♌	
max. Earth dist.	8900 Jul 15 09:25	0°♌48'13	1.72016 AU
asc. node	8900 Jul 26 23:26	15°♌13'44	
	8900 Aug 07 20:48	0°♍	
evening rise	8900 Aug 19 17:07	14°♍40'34	
	8900 Sep 01 02:45	0°♎	
	8900 Sep 25 12:28	0°♏	
	8900 Oct 20 03:24	0°♐	
	8900 Nov 14 01:35	0°♑	
desc. node	8900 Nov 15 17:37	1°♑59'30	
	8900 Dec 09 09:25	0°♒	
	8901 Jan 04 07:18	0°♓	
	8901 Jan 31 08:31	0°♈	
evening max el	8901 Feb 14 22:17	15°♈04'49	46°38'54
	8901 Mar 02 22:53	0°♉	
asc. node	8901 Mar 08 17:28	4°♉41'55	
greatest brilliancy	8901 Mar 27 11:13	15°♉44'17	-4.9m
retrograde	8901 Apr 06 04:00	17°♉31'28	
evening set	8901 Apr 23 22:56	11°♉29'20	
inferior conj	8901 Apr 26 20:12	9°♉43'45	9°03'27
minimum elong	8901 Apr 26 15:58	9°♉50'17	9°03'04
min. Earth dist.	8901 Apr 26 17:45	9°♉47'32	0.27104 AU
morning rise	8901 Apr 29 08:59	8°♉10'46	
direct	8901 May 17 10:51	1°♉55'36	
greatest brilliancy	8901 May 27 02:43	3°♉40'56	-4.9m
desc. node	8901 Jun 28 12:54	26°♉26'46	
	8901 Jul 02 06:45	0°♊	
morning max el	8901 Jul 06 17:36	4°♊22'06	46°44'34
	8901 Jul 30 22:53	0°♋	
	8901 Aug 26 09:42	0°♌	
	8901 Sep 21 00:33	0°♍	
	8901 Oct 16 04:30	0°♎	
asc. node	8901 Oct 19 10:35	3°♎54'36	
	8901 Nov 10 00:25	0°♏	
	8901 Dec 04 13:55	0°♐	
	8901 Dec 28 22:41	0°♑	
morning set	8902 Jan 02 12:01	5°♑37'44	
	8902 Jan 22 04:09	0°♒	
max. Earth dist.	8902 Feb 06 19:25	19°♒25'48	1.72193 AU
desc. node	8902 Feb 08 03:33	21°♒05'47	
superior conj	8902 Feb 09 18:38	23°♒07'29	-0°03'59
minimum elong	8902 Feb 09 17:42	23°♒04'34	0°03'47
behind sun begin	8902 Feb 08 17:38	21°♒49'37	
behind sun end	8902 Feb 10 17:46	24°♒19'32	
	8902 Feb 15 07:06	0°♓	

	8902 Mar 11 07:45	0°♈	
evening rise	8902 Mar 21 07:30	12°♈30'11	
	8902 Apr 04 06:45	0°♉	
	8902 Apr 28 05:41	0°♊	
	8902 May 22 07:08	0°♋	
asc. node	8902 Jun 01 01:25	12°♋05'46	
	8902 Jun 15 14:15	0°♌	
	8902 Jul 10 06:58	0°♍	
	8902 Aug 04 15:46	0°♎	
	8902 Aug 31 07:29	0°♏	
desc. node	8902 Sep 20 20:58	21°♏13'37	
evening max el	8902 Sep 21 15:36	21°♏58'42	45°45'42
	8902 Sep 30 06:38	0°♐	
greatest brilliancy	8902 Oct 30 16:05	20°♐17'24	-4.7m
retrograde	8902 Nov 09 13:28	22°♐03'53	
evening set	8902 Nov 27 09:14	16°♐05'00	
inferior conj	8902 Nov 30 23:57	13°♐51'09	-7°59'27
minimum elong	8902 Dec 01 07:15	13°♐39'42	7°58'23
min. Earth dist.	8902 Dec 01 13:02	13°♐30'39	0.28953 AU
morning rise	8902 Dec 05 05:06	11°♐15'21	
direct	8902 Dec 22 11:17	5°♐33'16	
greatest brilliancy	8903 Jan 02 10:50	7°♐45'39	-4.8m
asc. node	8903 Jan 11 20:39	12°♐31'32	
	8903 Feb 02 19:39	0°♑	
morning max el	8903 Feb 10 05:37	7°♑08'11	46°15'31
	8903 Mar 03 21:34	0°♒	
	8903 Mar 30 02:30	0°♓	
	8903 Apr 24 04:49	0°♈	
desc. node	8903 May 03 14:50	11°♈27'13	
	8903 May 18 17:58	0°♉	
	8903 Jun 12 00:29	0°♊	
	8903 Jul 06 04:35	0°♋	
	8903 Jul 30 08:50	0°♌	
morning set	8903 Aug 15 03:54	19°♌33'53	
	8903 Aug 23 14:14	0°♍	
asc. node	8903 Aug 24 11:41	1°♍06'19	
	8903 Sep 16 20:43	0°♎	
superior conj	8903 Sep 21 21:38	6°♎13'25	1°01'43
minimum elong	8903 Sep 21 12:02	5°♎43'48	1°01'24
max. Earth dist.	8903 Sep 23 03:39	7°♎46'05	1.73104 AU
	8903 Oct 11 04:05	0°♏	
evening rise	8903 Oct 28 09:55	21°♏14'34	
	8903 Nov 04 12:48	0°♐	
	8903 Nov 28 23:40	0°♑	
desc. node	8903 Dec 14 05:22	18°♑37'26	
	8903 Dec 23 13:12	0°♒	
	8904 Jan 17 05:24	0°♓	
	8904 Feb 11 00:59	0°♈	
	8904 Mar 07 03:44	0°♉	
	8904 Apr 02 00:22	0°♊	
asc. node	8904 Apr 05 04:27	3°♊34'09	
evening max el	8904 Apr 28 23:04	29°♊03'32	46°57'21
	8904 Apr 29 21:33	0°♋	
greatest brilliancy	8904 Jun 08 01:20	29°♋50'51	-4.9m
	8904 Jun 08 11:20	0°♌	
retrograde	8904 Jun 18 10:45	1°♌52'18	
	8904 Jun 28 00:01	30°℞♋	
evening set	8904 Jul 03 22:37	27°♋08'16	
inferior conj	8904 Jul 09 07:21	23°♋55'44	4°06'39
minimum elong	8904 Jul 09 15:59	23°♋42'27	4°03'57
min. Earth dist.	8904 Jul 09 04:50	23°♋59'38	0.27389 AU
morning rise	8904 Jul 15 09:50	20°♋20'14	
desc. node	8904 Jul 26 00:27	16°♋26'14	
direct	8904 Jul 30 03:42	16°♋05'33	
greatest brilliancy	8904 Aug 08 23:08	17°♋52'36	-4.8m
	8904 Aug 29 10:47	0°♌	
morning max el	8904 Sep 17 10:46	16°♌46'51	45°58'57
	8904 Sep 30 15:01	0°♍	
	8904 Oct 28 06:08	0°♎	
asc. node	8904 Nov 15 23:03	21°♎23'21	
	8904 Nov 23 08:19	0°♏	
	8904 Dec 18 14:27	0°♐	
	8905 Jan 12 08:04	0°♑	
	8905 Feb 05 17:43	0°♒	
	8905 Mar 01 22:01	0°♓	
desc. node	8905 Mar 07 15:53	7°♓09'40	
morning set	8905 Mar 15 20:44	17°♓24'12	
	8905 Mar 25 22:23	0°♈	
	8905 Apr 18 20:00	0°♉	
max. Earth dist.	8905 Apr 25 01:36	7°♉50'09	1.71244 AU
superior conj	8905 Apr 25 13:24	8°♉27'14	-1°25'49
minimum elong	8905 Apr 25 08:23	8°♉11'28	1°25'55
	8905 May 12 16:35	0°♊	
evening rise	8905 Jun 05 02:56	29°♊24'41	
	8905 Jun 05 14:12	0°♋	
asc. node	8905 Jun 28 13:19	28°♋40'38	
	8905 Jun 29 14:50	0°♌	
	8905 Jul 23 20:01	0°♍	
	8905 Aug 17 07:33	0°♎	
	8905 Sep 11 04:27	0°♏	
	8905 Oct 06 16:16	0°♐	
desc. node	8905 Oct 18 08:10	13°♐22'01	
	8905 Nov 02 05:45	0°♑	
	8905 Dec 01 01:55	0°♒	
evening max el	8905 Dec 02 04:59	1°♒05'11	45°54'13
greatest brilliancy	8906 Jan 10 12:23	29°♒35'05	-4.8m
	8906 Jan 11 19:36	0°♓	
retrograde	8906 Jan 20 04:14	1°♓17'28	
	8906 Jan 28 05:22	30°℞♒	
evening set	8906 Feb 03 18:24	27°♒09'03	
asc. node	8906 Feb 08 08:08	24°♒29'48	
inferior conj	8906 Feb 10 01:26	23°♒26'06	0°26'16
minimum elong	8906 Feb 10 00:25	23°♒27'40	0°26'06
min. Earth dist.	8906 Feb 10 11:28	23°♒10'33	0.27491 AU
morning rise	8906 Feb 16 05:51	19°♒45'27	
direct	8906 Mar 03 00:50	15°♒27'09	
greatest brilliancy	8906 Mar 13 15:43	17°♒33'47	-4.9m
	8906 Apr 02 15:22	0°♓	
morning max el	8906 Apr 22 11:35	18°♓15'20	46°55'34
	8906 May 03 18:12	0°♈	
	8906 May 30 12:31	0°♉	
desc. node	8906 May 31 03:12	0°♉42'33	
	8906 Jun 24 22:49	0°♊	
	8906 Jul 19 20:04	0°♋	
	8906 Aug 13 12:02	0°♌	
	8906 Sep 07 01:44	0°♍	
asc. node	8906 Sep 21 00:06	17°♍03'04	
	8906 Oct 01 13:39	0°♎	
morning set	8906 Oct 23 13:01	26°♎59'43	
	8906 Oct 25 23:37	0°♏	
	8906 Nov 19 07:54	0°♐	
max. Earth dist.	8906 Nov 28 02:36	10°♐49'58	1.73176 AU
superior conj	8906 Nov 29 02:02	12°♐02'15	1°20'09
minimum elong	8906 Nov 29 08:31	12°♐22'16	1°20'17
	8906 Dec 13 15:14	0°♑	
evening rise	8907 Jan 05 13:23	28°♑18'59	
	8907 Jan 06 22:05	0°♒	
desc. node	8907 Jan 10 17:21	4°♒41'59	
	8907 Jan 31 04:24	0°♓	
	8907 Feb 24 10:02	0°♈	
	8907 Mar 20 15:50	0°♉	

	8907 Apr 14 00:35	0°♊	
asc. node	8907 May 03 15:50	23°♊53'53	
	8907 May 08 17:27	0°♋	
	8907 Jun 03 03:24	0°♌	
	8907 Jun 30 02:35	0°♍	
evening max el	8907 Jul 10 13:28	10°♍44'40	46°22'52
	8907 Aug 01 02:32	0°♎	
greatest brilliancy	8907 Aug 18 08:30	10°♎16'33	-4.8m
desc. node	8907 Aug 23 11:47	11°♎50'53	
retrograde	8907 Aug 29 09:24	12°♎30'44	
evening set	8907 Sep 14 07:38	7°♎37'29	
min. Earth dist.	8907 Sep 19 03:05	4°♎43'05	0.28657 AU
inferior conj	8907 Sep 19 20:22	4°♎16'00	-6°02'58
minimum elong	8907 Sep 19 10:19	4°♎31'46	6°00'47
morning rise	8907 Sep 24 13:21	1°♎23'27	
	8907 Sep 27 01:46	30°℞♍	
direct	8907 Oct 11 04:24	26°♍08'47	
greatest brilliancy	8907 Oct 20 22:48	27°♍51'41	-4.7m
	8907 Oct 26 03:36	0°♎	
morning max el	8907 Nov 28 21:07	25°♎55'02	45°42'16
	8907 Dec 03 01:36	0°♏	
asc. node	8907 Dec 14 11:02	11°♏38'57	
	8907 Dec 31 08:16	0°♐	
	8908 Jan 26 10:22	0°♑	
	8908 Feb 20 12:36	0°♒	
	8908 Mar 16 01:53	0°♓	
desc. node	8908 Apr 04 04:23	23°♓37'49	
	8908 Apr 09 07:21	0°♈	
	8908 May 03 08:03	0°♉	
	8908 May 27 06:26	0°♊	
morning set	8908 May 30 23:55	4°♊40'38	
	8908 Jun 20 04:48	0°♋	
superior conj	8908 Jul 09 14:31	24°♋15'45	-0°38'41
minimum elong	8908 Jul 09 23:13	24°♋42'51	0°38'31
max. Earth dist.	8908 Jul 12 19:36	28°♋16'08	1.71970 AU
	8908 Jul 14 04:55	0°♌	
asc. node	8908 Jul 26 01:18	14°♌45'26	
	8908 Aug 07 07:45	0°♍	
evening rise	8908 Aug 17 08:40	12°♍26'13	
	8908 Aug 31 13:46	0°♎	
	8908 Sep 24 23:39	0°♏	
	8908 Oct 19 14:55	0°♐	
	8908 Nov 13 13:40	0°♑	
desc. node	8908 Nov 14 19:42	1°♑29'31	
	8908 Dec 08 22:30	0°♒	
	8909 Jan 03 22:11	0°♓	
	8909 Jan 31 03:25	0°♈	
evening max el	8909 Feb 12 11:37	12°♈41'35	46°37'33
	8909 Mar 03 09:29	0°♉	
asc. node	8909 Mar 07 19:20	3°♉27'03	
greatest brilliancy	8909 Mar 24 23:28	13°♉17'42	-4.9m
retrograde	8909 Apr 03 17:11	15°♉05'51	
evening set	8909 Apr 21 08:12	9°♉08'42	
inferior conj	8909 Apr 24 09:06	7°♉17'54	8°58'24
minimum elong	8909 Apr 24 03:57	7°♉25'49	8°57'53
min. Earth dist.	8909 Apr 24 06:10	7°♉22'26	0.27106 AU
morning rise	8909 Apr 26 23:42	5°♉42'22	
	8909 May 10 00:40	30°℞♈	
direct	8909 May 14 23:57	29°♈29'25	
	8909 May 20 02:16	0°♉	
greatest brilliancy	8909 May 24 15:46	1°♉15'13	-4.9m
desc. node	8909 Jun 27 14:55	25°♉28'42	
	8909 Jul 02 07:16	0°♊	
morning max el	8909 Jul 04 08:04	2°♊00'51	46°45'51
	8909 Jul 30 15:44	0°♋	
	8909 Aug 25 23:46	0°♌	
	8909 Sep 20 13:12	0°♍	
	8909 Oct 15 16:19	0°♎	
asc. node	8909 Oct 18 12:39	3°♎25'30	
	8909 Nov 09 11:44	0°♏	
	8909 Dec 04 00:56	0°♐	
	8909 Dec 28 09:34	0°♑	
morning set	8909 Dec 31 04:17	3°♑26'07	
	8910 Jan 21 15:00	0°♒	
max. Earth dist.	8910 Feb 04 12:00	17°♒14'20	1.72230 AU
superior conj	8910 Feb 07 08:29	20°♒47'22	-0°00'19
minimum elong	8910 Feb 07 08:27	20°♒47'17	0°00'08
behind sun begin	8910 Feb 06 08:10	19°♒31'41	
behind sun end	8910 Feb 08 08:44	22°♒02'53	
desc. node	8910 Feb 07 05:27	20°♒37'55	
	8910 Feb 14 17:57	0°♓	
	8910 Mar 10 18:41	0°♈	
evening rise	8910 Mar 18 20:13	10°♈05'29	
	8910 Apr 03 17:47	0°♉	
	8910 Apr 27 16:52	0°♊	
	8910 May 21 18:35	0°♋	
asc. node	8910 May 31 03:27	11°♋36'14	
	8910 Jun 15 02:07	0°♌	
	8910 Jul 09 19:32	0°♍	
	8910 Aug 04 05:39	0°♎	
	8910 Aug 31 00:20	0°♏	
evening max el	8910 Sep 19 07:43	19°♏48'14	45°46'22
desc. node	8910 Sep 19 23:00	20°♏25'01	
	8910 Sep 30 10:02	0°♐	
greatest brilliancy	8910 Oct 28 06:06	18°♐05'17	-4.7m
retrograde	8910 Nov 07 05:29	19°♐53'04	
evening set	8910 Nov 25 03:06	13°♐50'46	
inferior conj	8910 Nov 28 15:49	11°♐39'40	-8°06'47
minimum elong	8910 Nov 28 22:33	11°♐29'07	8°05'51
min. Earth dist.	8910 Nov 29 03:32	11°♐21'18	0.28986 AU
morning rise	8910 Dec 02 17:54	9°♐08'27	
direct	8910 Dec 20 04:00	3°♐21'45	
greatest brilliancy	8910 Dec 31 01:30	5°♐32'30	-4.8m
asc. node	8911 Jan 10 22:37	11°♐13'09	
	8911 Feb 02 20:15	0°♑	
morning max el	8911 Feb 07 21:46	4°♑55'13	46°13'57
	8911 Mar 03 13:59	0°♒	
	8911 Mar 29 16:18	0°♓	
	8911 Apr 23 17:22	0°♈	
desc. node	8911 May 02 16:55	10°♈56'15	
	8911 May 18 05:48	0°♉	
	8911 Jun 11 11:53	0°♊	
	8911 Jul 05 15:42	0°♋	
	8911 Jul 29 19:45	0°♌	
morning set	8911 Aug 12 19:19	17°♌19'36	
	8911 Aug 23 01:01	0°♍	
asc. node	8911 Aug 23 13:35	0°♍38'54	
	8911 Sep 16 07:23	0°♎	
superior conj	8911 Sep 19 14:20	4°♎03'49	0°59'21
minimum elong	8911 Sep 19 04:44	3°♎34'10	0°58'59
max. Earth dist.	8911 Sep 21 00:26	5°♎49'06	1.73081 AU
	8911 Oct 10 14:44	0°♏	
evening rise	8911 Oct 26 03:09	19°♏06'58	
	8911 Nov 03 23:32	0°♐	
	8911 Nov 28 10:38	0°♑	
desc. node	8911 Dec 13 07:19	18°♑09'20	
	8911 Dec 23 00:31	0°♒	
	8912 Jan 16 17:14	0°♓	
	8912 Feb 10 13:35	0°♈	
	8912 Mar 06 17:34	0°♉	
	8912 Apr 01 16:37	0°♊	

asc. node	8912 Apr 04 06:34	2°♊53'29	
evening max el	8912 Apr 26 13:58	26°♊44'06	46°57'48
	8912 Apr 29 20:36	0°♋	
greatest brilliancy	8912 Jun 05 16:41	27°♋31'26	-4.9m
retrograde	8912 Jun 16 01:01	29°♋31'27	
evening set	8912 Jul 01 15:23	24°♋44'17	
inferior conj	8912 Jul 06 21:12	21°♋35'35	4°27'19
minimum elong	8912 Jul 07 06:22	21°♋21'27	4°24'30
min. Earth dist.	8912 Jul 06 19:15	21°♋38'36	0.27364 AU
morning rise	8912 Jul 12 21:49	18°♋02'22	
desc. node	8912 Jul 25 02:21	13°♋54'16	
direct	8912 Jul 27 17:33	13°♋45'57	
greatest brilliancy	8912 Aug 06 12:23	15°♋32'24	-4.8m
	8912 Aug 29 21:52	0°♌	
morning max el	8912 Sep 15 00:52	14°♌30'05	46°00'05
	8912 Sep 30 09:25	0°♍	
	8912 Oct 27 20:29	0°♎	
asc. node	8912 Nov 15 01:02	20°♎51'25	
	8912 Nov 22 20:54	0°♏	
	8912 Dec 18 02:07	0°♐	
	8913 Jan 11 19:16	0°♑	
	8913 Feb 05 04:41	0°♒	
	8913 Mar 01 08:51	0°♓	
desc. node	8913 Mar 06 17:48	6°♓41'51	
morning set	8913 Mar 13 08:16	14°♓56'29	
	8913 Mar 25 09:10	0°♈	
	8913 Apr 18 06:45	0°♉	
max. Earth dist.	8913 Apr 22 04:42	4°♉55'14	1.71247 AU
superior conj	8913 Apr 23 00:33	5°♉57'35	-1°24'55
minimum elong	8913 Apr 22 18:33	5°♉38'46	1°24'58
	8913 May 12 03:20	0°♊	
evening rise	8913 Jun 02 14:07	26°♊55'39	
	8913 Jun 05 00:58	0°♋	
asc. node	8913 Jun 27 15:11	28°♋12'50	
	8913 Jun 29 01:38	0°♌	
	8913 Jul 23 06:59	0°♍	
	8913 Aug 16 18:50	0°♎	
	8913 Sep 10 16:22	0°♏	
	8913 Oct 06 05:24	0°♐	
desc. node	8913 Oct 17 10:13	12°♐48'16	
	8913 Nov 01 21:26	0°♑	
evening max el	8913 Nov 29 18:27	28°♑47'38	45°53'02
	8913 Dec 01 00:46	0°♒	
greatest brilliancy	8914 Jan 08 02:58	27°♒17'27	-4.8m
retrograde	8914 Jan 17 17:11	28°♒58'50	
evening set	8914 Feb 01 09:01	24°♒49'00	
asc. node	8914 Feb 07 10:04	21°♒15'26	
inferior conj	8914 Feb 07 15:28	21°♒07'04	0°03'26
minimum elong	8914 Feb 07 15:19	21°♒07'17	0°03'32
transit middle	8914 Feb 07 15:19	21°♒07'17	0°03'32
transit begin	8914 Feb 07 11:21	21°♒13'26	
transit end	8914 Feb 07 19:17	21°♒01'09	
min. Earth dist.	8914 Feb 08 02:51	20°♒49'25	0.27534 AU
morning rise	8914 Feb 13 20:54	17°♒24'40	
direct	8914 Feb 28 14:44	13°♒07'11	
greatest brilliancy	8914 Mar 11 08:05	15°♒15'43	-4.9m
	8914 Apr 03 01:32	0°♓	
morning max el	8914 Apr 20 00:52	15°♓51'58	46°54'52
	8914 May 03 12:45	0°♈	
desc. node	8914 May 30 05:05	0°♉05'27	
	8914 May 30 03:12	0°♉	
	8914 Jun 24 11:47	0°♊	
	8914 Jul 19 08:03	0°♋	
	8914 Aug 12 23:23	0°♌	
	8914 Sep 06 12:37	0°♍	
asc. node	8914 Sep 20 02:07	16°♍36'25	
	8914 Oct 01 00:15	0°♎	
morning set	8914 Oct 21 06:17	24°♎52'56	
	8914 Oct 25 10:05	0°♏	
	8914 Nov 18 18:21	0°♐	
max. Earth dist.	8914 Nov 25 20:17	8°♐44'14	1.73198 AU
superior conj	8914 Nov 26 19:22	9°♐55'28	1°21'18
minimum elong	8914 Nov 27 01:18	10°♐13'45	1°21'25
	8914 Dec 13 01:43	0°♑	
evening rise	8915 Jan 03 04:56	26°♑06'04	
	8915 Jan 06 08:42	0°♒	
desc. node	8915 Jan 09 19:11	4°♒14'46	
	8915 Jan 30 15:13	0°♓	
	8915 Feb 23 21:08	0°♈	
	8915 Mar 20 03:20	0°♉	
	8915 Apr 13 12:38	0°♊	
asc. node	8915 May 02 17:49	23°♊21'36	
	8915 May 08 06:23	0°♋	
	8915 Jun 02 18:00	0°♌	
	8915 Jun 29 21:17	0°♍	
evening max el	8915 Jul 08 03:54	8°♍27'36	46°24'38
	8915 Aug 01 17:55	0°♎	
greatest brilliancy	8915 Aug 16 00:11	8°♎04'38	-4.8m
desc. node	8915 Aug 22 13:48	9°♎56'25	
retrograde	8915 Aug 27 01:27	10°♎19'49	
evening set	8915 Sep 11 20:52	5°♎30'07	
min. Earth dist.	8915 Sep 16 18:46	2°♎32'43	0.28611 AU
inferior conj	8915 Sep 17 12:13	2°♎05'27	-5°48'07
minimum elong	8915 Sep 17 02:12	2°♎21'05	5°45'52
	8915 Sep 20 21:30	30°℞♍	
morning rise	8915 Sep 22 07:54	29°♍09'15	
direct	8915 Oct 08 19:20	23°♍58'42	
greatest brilliancy	8915 Oct 18 14:21	25°♍42'07	-4.7m
	8915 Oct 27 21:12	0°♎	
morning max el	8915 Nov 26 12:25	23°♎44'01	45°41'57
	8915 Dec 02 21:37	0°♏	
asc. node	8915 Dec 13 12:56	10°♏58'34	
	8915 Dec 30 22:59	0°♐	
	8916 Jan 25 23:09	0°♑	
	8916 Feb 20 00:28	0°♒	
	8916 Mar 15 13:14	0°♓	
desc. node	8916 Apr 03 06:26	23°♓09'36	
	8916 Apr 08 18:26	0°♈	
	8916 May 02 18:57	0°♉	
	8916 May 26 17:12	0°♊	
morning set	8916 May 28 11:18	2°♊12'05	
	8916 Jun 19 15:27	0°♋	
superior conj	8916 Jul 07 03:35	21°♋53'38	-0°42'01
minimum elong	8916 Jul 07 12:53	22°♋22'38	0°41'50
max. Earth dist.	8916 Jul 10 06:11	25°♋46'24	1.71926 AU
	8916 Jul 13 15:30	0°♌	
asc. node	8916 Jul 25 03:15	14°♌18'37	
	8916 Aug 06 18:19	0°♍	
evening rise	8916 Aug 15 00:20	10°♍13'32	
	8916 Aug 31 00:21	0°♎	
	8916 Sep 24 10:23	0°♏	
	8916 Oct 19 01:59	0°♐	
	8916 Nov 13 01:21	0°♑	
desc. node	8916 Nov 13 21:38	1°♑00'23	
	8916 Dec 08 11:16	0°♒	
	8917 Jan 03 12:57	0°♓	
	8917 Jan 30 22:37	0°♈	
evening max el	8917 Feb 10 01:52	10°♈21'20	46°36'03
	8917 Mar 03 23:28	0°♉	
asc. node	8917 Mar 06 21:28	2°♉10'40	
greatest brilliancy	8917 Mar 22 11:13	10°♉50'58	-4.9m

retrograde	8917 Apr 01 06:33	12°♉40'17	
evening set	8917 Apr 18 16:58	6°♉48'47	
inferior conj	8917 Apr 21 21:48	4°♉52'10	8°52'18
minimum elong	8917 Apr 21 15:48	5°♉01'23	8°51'38
min. Earth dist.	8917 Apr 21 18:08	4°♉57'49	0.27103 AU
morning rise	8917 Apr 24 14:41	3°♉13'23	
	8917 Apr 30 12:42	30°℞♈	
direct	8917 May 12 13:15	27°♈03'43	
greatest brilliancy	8917 May 22 04:04	28°♈49'10	-4.9m
	8917 May 25 03:46	0°♉	
desc. node	8917 Jun 26 16:51	24°♉32'36	
morning max el	8917 Jul 01 22:33	29°♉40'37	46°47'07
	8917 Jul 02 06:18	0°♊	
	8917 Jul 30 07:53	0°♋	
	8917 Aug 25 13:19	0°♌	
	8917 Sep 20 01:24	0°♍	
	8917 Oct 15 03:43	0°♎	
asc. node	8917 Oct 17 14:36	2°♎57'16	
	8917 Nov 08 22:38	0°♏	
	8917 Dec 03 11:34	0°♐	
	8917 Dec 27 20:04	0°♑	
morning set	8917 Dec 28 20:55	1°♑16'45	
	8918 Jan 21 01:31	0°♒	
max. Earth dist.	8918 Feb 02 03:12	14°♒59'29	1.72275 AU
superior conj	8918 Feb 04 22:27	18°♒28'34	0°03'22
minimum elong	8918 Feb 04 23:18	18°♒31'13	0°03'30
behind sun begin	8918 Feb 03 23:17	17°♒16'31	
behind sun end	8918 Feb 05 23:19	19°♒45'55	
desc. node	8918 Feb 06 07:27	20°♒11'12	
	8918 Feb 14 04:34	0°♓	
	8918 Mar 10 05:26	0°♈	
evening rise	8918 Mar 16 08:40	7°♈40'30	
	8918 Apr 03 04:39	0°♉	
	8918 Apr 27 03:54	0°♊	
	8918 May 21 05:52	0°♋	
asc. node	8918 May 30 05:19	11°♋06'46	
	8918 Jun 14 13:49	0°♌	
	8918 Jul 09 07:56	0°♍	
	8918 Aug 03 19:23	0°♎	
	8918 Aug 30 17:13	0°♏	
evening max el	8918 Sep 17 00:02	17°♏39'03	45°47'06
desc. node	8918 Sep 19 01:05	19°♏36'37	
	8918 Sep 30 14:45	0°♐	
greatest brilliancy	8918 Oct 25 20:58	15°♐55'34	-4.7m
retrograde	8918 Nov 04 21:23	17°♐43'58	
evening set	8918 Nov 22 21:06	11°♐38'48	
inferior conj	8918 Nov 26 08:01	9°♐30'09	-8°13'20
minimum elong	8918 Nov 26 14:09	9°♐20'31	8°12'31
min. Earth dist.	8918 Nov 26 18:26	9°♐13'47	0.29012 AU
morning rise	8918 Nov 30 07:08	7°♐03'09	
direct	8918 Dec 17 20:51	1°♐12'22	
greatest brilliancy	8918 Dec 28 16:15	3°♐21'04	-4.8m
asc. node	8919 Jan 10 00:33	9°♐58'29	
	8919 Feb 02 19:15	0°♑	
morning max el	8919 Feb 05 13:04	2°♑41'15	46°12'11
	8919 Mar 03 05:50	0°♒	
	8919 Mar 29 05:49	0°♓	
	8919 Apr 23 05:48	0°♈	
desc. node	8919 May 01 18:47	10°♈24'48	
	8919 May 17 17:35	0°♉	
	8919 Jun 10 23:15	0°♊	
	8919 Jul 05 02:45	0°♋	
	8919 Jul 29 06:34	0°♌	
morning set	8919 Aug 10 10:35	15°♌05'02	
	8919 Aug 22 11:40	0°♍	
asc. node	8919 Aug 22 15:36	0°♍12'09	
	8919 Sep 15 17:57	0°♎	
superior conj	8919 Sep 17 07:04	1°♎54'38	0°56'52
minimum elong	8919 Sep 16 21:31	1°♎25'10	0°56'31
max. Earth dist.	8919 Sep 18 20:30	3°♎50'17	1.73054 AU
	8919 Oct 10 01:17	0°♏	
evening rise	8919 Oct 23 20:36	17°♏00'21	
	8919 Nov 03 10:10	0°♐	
	8919 Nov 27 21:29	0°♑	
desc. node	8919 Dec 12 09:14	17°♑41'34	
	8919 Dec 22 11:43	0°♒	
	8920 Jan 16 04:57	0°♓	
	8920 Feb 10 02:07	0°♈	
	8920 Mar 06 07:29	0°♉	
	8920 Apr 01 09:16	0°♊	
asc. node	8920 Apr 03 08:29	2°♊11'31	
evening max el	8920 Apr 24 03:47	24°♊21'16	46°57'50
	8920 Apr 29 21:01	0°♋	
greatest brilliancy	8920 Jun 03 08:18	25°♋10'50	-4.9m
retrograde	8920 Jun 13 14:21	27°♋08'51	
evening set	8920 Jun 29 07:56	22°♋18'20	
inferior conj	8920 Jul 04 10:43	19°♋13'52	4°47'44
minimum elong	8920 Jul 04 20:22	18°♋58'58	4°44'50
min. Earth dist.	8920 Jul 04 09:42	19°♋15'27	0.27339 AU
morning rise	8920 Jul 10 09:11	15°♋43'11	
desc. node	8920 Jul 24 04:22	11°♋26'02	
direct	8920 Jul 25 06:36	11°♋24'37	
greatest brilliancy	8920 Aug 04 01:52	13°♋11'11	-4.8m
	8920 Aug 30 06:18	0°♌	
morning max el	8920 Sep 12 13:53	12°♌10'00	46°01'31
	8920 Sep 30 03:27	0°♍	
	8920 Oct 27 10:41	0°♎	
asc. node	8920 Nov 14 02:52	20°♎19'08	
	8920 Nov 22 09:25	0°♏	
	8920 Dec 17 13:46	0°♐	
	8921 Jan 11 06:28	0°♑	
	8921 Feb 04 15:38	0°♒	
	8921 Feb 28 19:42	0°♓	
desc. node	8921 Mar 05 19:51	6°♓14'28	
morning set	8921 Mar 10 20:20	12°♓30'28	
	8921 Mar 24 19:58	0°♈	
	8921 Apr 17 17:35	0°♉	
max. Earth dist.	8921 Apr 19 07:46	1°♉59'59	1.71263 AU
superior conj	8921 Apr 20 11:53	3°♉28'22	-1°23'50
minimum elong	8921 Apr 20 04:58	3°♉06'38	1°23'52
	8921 May 11 14:12	0°♊	
evening rise	8921 May 31 01:03	24°♊25'13	
	8921 Jun 04 11:55	0°♋	
asc. node	8921 Jun 26 17:09	27°♋44'36	
	8921 Jun 28 12:41	0°♌	
	8921 Jul 22 18:11	0°♍	
	8921 Aug 16 06:23	0°♎	
	8921 Sep 10 04:34	0°♏	
	8921 Oct 05 18:51	0°♐	
desc. node	8921 Oct 16 12:07	12°♐13'20	
	8921 Nov 01 13:34	0°♑	
evening max el	8921 Nov 27 07:51	26°♑29'45	45°52'04
	8921 Dec 01 00:48	0°♒	
greatest brilliancy	8922 Jan 05 17:22	24°♒59'53	-4.8m
retrograde	8922 Jan 15 06:51	26°♒40'59	
evening set	8922 Jan 30 00:04	22°♒29'11	
inferior conj	8922 Feb 05 05:44	18°♒48'34	-0°19'17
minimum elong	8922 Feb 05 06:28	18°♒47'26	0°18'52
min. Earth dist.	8922 Feb 05 18:15	18°♒29'12	0.27577 AU
asc. node	8922 Feb 06 12:09	18°♒01'33	
morning rise	8922 Feb 11 12:04	15°♒04'58	

direct	8922 Feb 26 05:00	10°♒47'42	
greatest brilliancy	8922 Mar 09 00:29	12°♒58'13	-4.9m
	8922 Apr 03 08:55	0°♓	
morning max el	8922 Apr 17 15:02	13°♓30'47	46°54'07
	8922 May 03 06:54	0°♈	
desc. node	8922 May 29 07:03	29°♈28'27	
	8922 May 29 17:52	0°♉	
	8922 Jun 24 00:54	0°♊	
	8922 Jul 18 20:17	0°♋	
	8922 Aug 12 11:01	0°♌	
	8922 Sep 05 23:51	0°♍	
asc. node	8922 Sep 19 04:05	16°♍08'30	
	8922 Sep 30 11:11	0°♎	
morning set	8922 Oct 18 23:15	22°♎44'15	
	8922 Oct 24 20:51	0°♏	
	8922 Nov 18 05:03	0°♐	
max. Earth dist.	8922 Nov 23 15:56	6°♐43'44	1.73214 AU
superior conj	8922 Nov 24 12:36	7°♐47'31	1°22'19
minimum elong	8922 Nov 24 17:55	8°♐03'55	1°22'28
	8922 Dec 12 12:28	0°♑	
evening rise	8922 Dec 31 20:41	23°♑52'57	
	8923 Jan 05 19:35	0°♒	
desc. node	8923 Jan 08 21:14	3°♒47'20	
	8923 Jan 30 02:19	0°♓	
	8923 Feb 23 08:31	0°♈	
	8923 Mar 19 15:05	0°♉	
	8923 Apr 13 00:56	0°♊	
asc. node	8923 May 01 19:44	22°♊48'20	
	8923 May 07 19:37	0°♋	
	8923 Jun 02 09:04	0°♌	
	8923 Jun 29 16:57	0°♍	
evening max el	8923 Jul 05 18:55	6°♍10'48	46°26'09
	8923 Aug 02 15:47	0°♎	
greatest brilliancy	8923 Aug 13 15:15	5°♎50'06	-4.8m
desc. node	8923 Aug 21 15:52	7°♎55'28	
retrograde	8923 Aug 24 17:45	8°♎06'37	
evening set	8923 Sep 09 09:57	3°♎20'19	
min. Earth dist.	8923 Sep 14 09:57	0°♎20'17	0.28566 AU
	8923 Sep 14 22:58	30°℞♍	
inferior conj	8923 Sep 15 03:45	29°♍52'32	-5°32'28
minimum elong	8923 Sep 14 17:52	0°♎07'57	5°30'11
morning rise	8923 Sep 20 02:11	26°♍52'50	
direct	8923 Oct 06 10:27	21°♍46'20	
greatest brilliancy	8923 Oct 16 05:18	23°♍29'59	-4.7m
	8923 Oct 29 02:43	0°♎	
morning max el	8923 Nov 24 04:11	21°♎32'51	45°41'48
	8923 Dec 02 17:31	0°♏	
asc. node	8923 Dec 12 15:00	10°♏17'50	
	8923 Dec 30 13:53	0°♐	
	8924 Jan 25 12:09	0°♑	
	8924 Feb 19 12:34	0°♒	
	8924 Mar 15 00:52	0°♓	
desc. node	8924 Apr 02 08:15	22°♓39'49	
	8924 Apr 08 05:47	0°♈	
	8924 May 02 06:06	0°♉	
morning set	8924 May 25 23:07	29°♉43'58	
	8924 May 26 04:13	0°♊	
	8924 Jun 19 02:22	0°♋	
superior conj	8924 Jul 04 16:51	19°♋31'08	-0°45'15
minimum elong	8924 Jul 05 02:40	20°♋01'48	0°45'04
max. Earth dist.	8924 Jul 07 19:46	23°♋25'05	1.71888 AU
	8924 Jul 13 02:22	0°♌	
asc. node	8924 Jul 24 05:17	13°♌51'07	
	8924 Aug 06 05:12	0°♍	
evening rise	8924 Aug 12 16:00	7°♍59'42	
	8924 Aug 30 11:20	0°♎	
	8924 Sep 23 21:34	0°♏	
	8924 Oct 18 13:31	0°♐	
desc. node	8924 Nov 12 23:32	0°♑29'48	
	8924 Nov 12 13:31	0°♑	
	8924 Dec 08 00:33	0°♒	
	8925 Jan 03 04:19	0°♓	
	8925 Jan 30 18:49	0°♈	
evening max el	8925 Feb 07 16:31	8°♈01'15	46°34'34
	8925 Mar 04 18:46	0°♉	
asc. node	8925 Mar 05 23:25	0°♉50'33	
greatest brilliancy	8925 Mar 19 23:14	8°♉23'53	-4.9m
retrograde	8925 Mar 29 19:52	10°♉13'47	
evening set	8925 Apr 16 01:35	4°♉28'40	
inferior conj	8925 Apr 19 10:35	2°♉25'44	8°45'10
minimum elong	8925 Apr 19 03:47	2°♉36'11	8°44'22
min. Earth dist.	8925 Apr 19 06:14	2°♉32'25	0.27098 AU
morning rise	8925 Apr 22 06:01	0°♉43'04	
	8925 Apr 23 11:15	30°℞♈	
direct	8925 May 10 02:43	24°♈37'28	
greatest brilliancy	8925 May 19 16:20	26°♈22'09	-4.9m
	8925 May 27 12:50	0°♉	
desc. node	8925 Jun 25 18:52	23°♉37'00	
morning max el	8925 Jun 29 12:25	27°♉17'58	46°48'21
	8925 Jul 02 04:42	0°♊	
	8925 Jul 30 00:02	0°♋	
	8925 Aug 25 03:03	0°♌	
	8925 Sep 19 13:53	0°♍	
	8925 Oct 14 15:28	0°♎	
asc. node	8925 Oct 16 16:26	2°♎27'35	
	8925 Nov 08 09:56	0°♏	
	8925 Dec 02 22:36	0°♐	
morning set	8925 Dec 26 13:19	29°♐05'28	
	8925 Dec 27 06:58	0°♑	
	8926 Jan 20 12:25	0°♒	
max. Earth dist.	8926 Jan 30 16:55	12°♒39'04	1.72316 AU
superior conj	8926 Feb 02 12:22	16°♒08'41	0°07'00
minimum elong	8926 Feb 02 14:05	16°♒13'59	0°07'05
behind sun begin	8926 Feb 01 15:56	15°♒05'10	
behind sun end	8926 Feb 03 12:13	17°♒22'49	
desc. node	8926 Feb 05 09:24	19°♒43'19	
	8926 Feb 13 15:31	0°♓	
	8926 Mar 09 16:29	0°♈	
evening rise	8926 Mar 13 21:09	5°♈14'42	
	8926 Apr 02 15:50	0°♉	
	8926 Apr 26 15:16	0°♊	
	8926 May 20 17:29	0°♋	
asc. node	8926 May 29 07:19	10°♋36'43	
	8926 Jun 14 01:51	0°♌	
	8926 Jul 08 20:40	0°♍	
	8926 Aug 03 09:32	0°♎	
	8926 Aug 30 10:46	0°♏	
evening max el	8926 Sep 14 15:23	15°♏26'28	45°47'40
desc. node	8926 Sep 18 02:56	18°♏45'50	
	8926 Sep 30 22:09	0°♐	
greatest brilliancy	8926 Oct 23 12:14	13°♐44'58	-4.7m
retrograde	8926 Nov 02 12:44	15°♐33'28	
evening set	8926 Nov 20 14:44	9°♐25'49	
inferior conj	8926 Nov 24 00:06	7°♐19'18	-8°19'04
minimum elong	8926 Nov 24 05:35	7°♐10'40	8°18'24
min. Earth dist.	8926 Nov 24 09:32	7°♐04'27	0.29039 AU
morning rise	8926 Nov 27 20:22	4°♐56'17	
	8926 Dec 08 13:28	30°℞♏	
direct	8926 Dec 15 13:11	29°♏01'31	
	8926 Dec 22 17:54	0°♐	
greatest brilliancy	8926 Dec 26 07:25	1°♐08'39	-4.8m

asc. node	8927 Jan 09 02:36	8°♐44'46	
	8927 Feb 02 17:50	0°♑	
morning max el	8927 Feb 03 03:27	0°♑23'45	46°10'33
	8927 Mar 02 21:49	0°♒	
	8927 Mar 28 19:30	0°♓	
	8927 Apr 22 18:23	0°♈	
desc. node	8927 Apr 30 20:43	9°♈52'57	
	8927 May 17 05:33	0°♉	
	8927 Jun 10 10:48	0°♊	
	8927 Jul 04 14:01	0°♋	
	8927 Jul 28 17:38	0°♌	
morning set	8927 Aug 08 01:52	12°♌49'46	
asc. node	8927 Aug 21 17:30	29°♌44'22	
	8927 Aug 21 22:33	0°♍	
superior conj	8927 Sep 14 23:52	29°♍45'05	0°54'20
minimum elong	8927 Sep 14 14:27	29°♍16'00	0°53'57
	8927 Sep 15 04:42	0°♎	
max. Earth dist.	8927 Sep 16 15:28	1°♎47'22	1.73025 AU
	8927 Oct 09 12:01	0°♏	
evening rise	8927 Oct 21 14:07	14°♏53'18	
	8927 Nov 02 21:02	0°♐	
	8927 Nov 27 08:36	0°♑	
desc. node	8927 Dec 11 11:17	17°♑13'21	
	8927 Dec 21 23:13	0°♒	
	8928 Jan 15 17:01	0°♓	
	8928 Feb 09 15:01	0°♈	
	8928 Mar 05 21:47	0°♉	
	8928 Apr 01 02:27	0°♊	
asc. node	8928 Apr 02 10:25	1°♊28'30	
evening max el	8928 Apr 21 16:24	21°♊54'51	46°57'58
	8928 Apr 29 22:55	0°♋	
greatest brilliancy	8928 May 31 23:52	22°♋49'35	-4.9m
retrograde	8928 Jun 11 03:31	24°♋45'55	
evening set	8928 Jun 27 00:33	19°♋51'29	
inferior conj	8928 Jul 02 00:14	16°♋51'36	5°07'36
minimum elong	8928 Jul 02 10:17	16°♋36'04	5°04'40
min. Earth dist.	8928 Jul 02 00:14	16°♋51'36	0.27318 AU
morning rise	8928 Jul 07 20:19	13°♋23'54	
direct	8928 Jul 22 19:16	9°♋02'29	
desc. node	8928 Jul 23 06:25	9°♋02'44	
greatest brilliancy	8928 Aug 01 15:44	10°♋49'48	-4.8m
	8928 Aug 30 12:31	0°♌	
morning max el	8928 Sep 10 03:06	9°♌49'46	46°03'05
	8928 Sep 29 21:10	0°♍	
	8928 Oct 27 00:49	0°♎	
asc. node	8928 Nov 13 04:56	19°♎47'23	
	8928 Nov 21 21:56	0°♏	
	8928 Dec 17 01:30	0°♐	
	8929 Jan 10 17:47	0°♑	
	8929 Feb 04 02:45	0°♒	
	8929 Feb 28 06:43	0°♓	
desc. node	8929 Mar 04 21:43	5°♓45'56	
morning set	8929 Mar 08 08:10	10°♓03'11	
	8929 Mar 24 06:55	0°♈	
max. Earth dist.	8929 Apr 16 12:45	29°♈10'25	1.71276 AU
	8929 Apr 17 04:31	0°♉	
superior conj	8929 Apr 17 22:55	0°♉57'49	-1°22'34
minimum elong	8929 Apr 17 15:09	0°♉33'24	1°22'34
	8929 May 11 01:10	0°♊	
evening rise	8929 May 28 11:51	21°♊54'15	
	8929 Jun 03 22:55	0°♋	
asc. node	8929 Jun 25 19:11	27°♋16'28	
	8929 Jun 27 23:46	0°♌	
	8929 Jul 22 05:28	0°♍	
	8929 Aug 15 18:01	0°♎	
	8929 Sep 09 16:51	0°♏	
	8929 Oct 05 08:25	0°♐	
desc. node	8929 Oct 15 14:08	11°♐38'27	
	8929 Nov 01 05:58	0°♑	
evening max el	8929 Nov 24 21:38	24°♑13'05	45°51'08
	8929 Dec 01 02:02	0°♒	
greatest brilliancy	8930 Jan 03 06:59	22°♒41'31	-4.8m
retrograde	8930 Jan 12 20:56	24°♒22'58	
evening set	8930 Jan 27 15:11	20°♒08'50	
inferior conj	8930 Feb 02 19:52	16°♒29'38	-0°41'52
minimum elong	8930 Feb 02 21:27	16°♒27'10	0°41'11
min. Earth dist.	8930 Feb 03 09:09	16°♒09'05	0.27627 AU
asc. node	8930 Feb 05 14:04	14°♒47'59	
morning rise	8930 Feb 09 02:57	12°♒45'14	
direct	8930 Feb 23 19:37	8°♒27'47	
greatest brilliancy	8930 Mar 06 16:22	10°♒39'48	-4.9m
	8930 Apr 03 14:18	0°♓	
morning max el	8930 Apr 15 06:12	11°♓11'50	46°53'17
	8930 May 03 00:45	0°♈	
desc. node	8930 May 28 09:06	28°♈51'45	
	8930 May 29 08:25	0°♉	
	8930 Jun 23 13:54	0°♊	
	8930 Jul 18 08:23	0°♋	
	8930 Aug 11 22:31	0°♌	
	8930 Sep 05 10:56	0°♍	
asc. node	8930 Sep 18 05:55	15°♍40'33	
	8930 Sep 29 22:01	0°♎	
morning set	8930 Oct 16 16:19	20°♎36'10	
	8930 Oct 24 07:31	0°♏	
	8930 Nov 17 15:39	0°♐	
max. Earth dist.	8930 Nov 21 13:02	4°♐48'05	1.73227 AU
superior conj	8930 Nov 22 06:00	5°♐40'26	1°23'12
minimum elong	8930 Nov 22 10:42	5°♐54'56	1°23'22
	8930 Dec 11 23:05	0°♑	
evening rise	8930 Dec 29 12:38	21°♑41'00	
	8931 Jan 05 06:20	0°♒	
desc. node	8931 Jan 07 23:12	3°♒20'10	
	8931 Jan 29 13:18	0°♓	
	8931 Feb 22 19:49	0°♈	
	8931 Mar 19 02:49	0°♉	
	8931 Apr 12 13:16	0°♊	
asc. node	8931 Apr 30 21:45	22°♊15'20	
	8931 May 07 08:54	0°♋	
	8931 Jun 02 00:16	0°♌	
	8931 Jun 29 13:04	0°♍	
evening max el	8931 Jul 03 10:39	3°♍56'14	46°27'53
	8931 Aug 03 21:43	0°♎	
greatest brilliancy	8931 Aug 11 06:17	3°♎36'05	-4.8m
desc. node	8931 Aug 20 17:43	5°♎50'23	
retrograde	8931 Aug 22 10:15	5°♎53'46	
evening set	8931 Sep 06 23:13	1°♎10'52	
	8931 Sep 09 00:06	30°℞♍	
min. Earth dist.	8931 Sep 12 00:51	28°♍08'36	0.28517 AU
inferior conj	8931 Sep 12 19:14	27°♍39'59	-5°16'22
minimum elong	8931 Sep 12 09:32	27°♍55'06	5°14'02
morning rise	8931 Sep 17 20:22	24°♍36'51	
direct	8931 Oct 04 01:57	19°♍34'33	
greatest brilliancy	8931 Oct 13 19:37	21°♍17'41	-4.7m
	8931 Oct 29 23:43	0°♎	
morning max el	8931 Nov 21 20:08	19°♎22'56	45°41'39
	8931 Dec 02 12:32	0°♏	
asc. node	8931 Dec 11 16:56	9°♏37'56	
	8931 Dec 30 04:19	0°♐	
	8932 Jan 25 00:47	0°♑	
	8932 Feb 19 00:20	0°♒	
	8932 Mar 14 12:12	0°♓	

desc. node	8932 Apr 01 10:13	22°♓11'16	
	8932 Apr 07 16:53	0°♈	
	8932 May 01 17:04	0°♉	
morning set	8932 May 23 10:28	27°♉14'59	
	8932 May 25 15:04	0°♊	
	8932 Jun 18 13:07	0°♋	
superior conj	8932 Jul 02 05:32	17°♋07'21	-0°48'27
minimum elong	8932 Jul 02 15:50	17°♋39'31	0°48'16
max. Earth dist.	8932 Jul 05 09:56	21°♋06'02	1.71843 AU
	8932 Jul 12 13:03	0°♌	
asc. node	8932 Jul 23 07:08	13°♌23'44	
	8932 Aug 05 15:51	0°♍	
evening rise	8932 Aug 10 07:10	5°♍45'06	
	8932 Aug 29 22:02	0°♎	
	8932 Sep 23 08:27	0°♏	
	8932 Oct 18 00:46	0°♐	
desc. node	8932 Nov 12 01:36	0°♑00'30	
	8932 Nov 12 01:26	0°♑	
	8932 Dec 07 13:37	0°♒	
	8933 Jan 02 19:32	0°♓	
	8933 Jan 30 15:12	0°♈	
evening max el	8933 Feb 05 06:58	5°♈41'56	46°32'59
asc. node	8933 Mar 05 01:18	29°♈28'55	
	8933 Mar 05 20:11	0°♉	
greatest brilliancy	8933 Mar 17 11:44	5°♉58'45	-4.9m
retrograde	8933 Mar 27 08:43	7°♉48'27	
evening set	8933 Apr 13 10:06	2°♉10'12	
inferior conj	8933 Apr 16 23:24	0°♉00'39	8°37'06
minimum elong	8933 Apr 16 15:50	0°♉12'17	8°36'08
	8933 Apr 16 23:49	30°℞♈	
min. Earth dist.	8933 Apr 16 18:41	0°♉07'55	0.27095 AU
morning rise	8933 Apr 19 21:38	28°♈13'39	
direct	8933 May 07 16:00	22°♈12'32	
greatest brilliancy	8933 May 17 05:08	23°♈56'39	-4.9m
	8933 May 29 01:05	0°♉	
desc. node	8933 Jun 24 20:51	22°♉43'11	
morning max el	8933 Jun 27 01:22	24°♉53'37	46°49'24
	8933 Jul 02 01:59	0°♊	
	8933 Jul 29 15:42	0°♋	
	8933 Aug 24 16:25	0°♌	
	8933 Sep 19 02:00	0°♍	
	8933 Oct 14 02:49	0°♎	
asc. node	8933 Oct 15 18:30	1°♎59'39	
	8933 Nov 07 20:49	0°♏	
	8933 Dec 02 09:13	0°♐	
morning set	8933 Dec 24 05:49	26°♐55'43	
	8933 Dec 26 17:30	0°♑	
	8934 Jan 19 22:56	0°♒	
max. Earth dist.	8934 Jan 28 05:55	10°♒17'37	1.72356 AU
superior conj	8934 Jan 31 02:42	13°♒51'16	0°10'35
minimum elong	8934 Jan 31 05:14	13°♒59'11	0°10'38
behind sun begin	8934 Jan 30 10:46	13°♒01'47	
behind sun end	8934 Jan 31 23:42	14°♒56'35	
desc. node	8934 Feb 04 11:17	19°♒16'22	
	8934 Feb 13 02:06	0°♓	
	8934 Mar 09 03:09	0°♈	
evening rise	8934 Mar 11 10:02	2°♈51'34	
	8934 Apr 02 02:37	0°♉	
	8934 Apr 26 02:14	0°♊	
	8934 May 20 04:45	0°♋	
asc. node	8934 May 28 09:20	10°♋07'49	
	8934 Jun 13 13:34	0°♌	
	8934 Jul 08 09:08	0°♍	
	8934 Aug 02 23:30	0°♎	
	8934 Aug 30 04:22	0°♏	
evening max el	8934 Sep 12 05:59	13°♏12'57	45°48'28
desc. node	8934 Sep 17 04:59	17°♏55'30	
	8934 Oct 01 07:44	0°♐	
greatest brilliancy	8934 Oct 21 03:53	11°♐35'58	-4.7m
retrograde	8934 Oct 31 04:07	13°♐24'36	
evening set	8934 Nov 18 08:15	7°♐14'42	
inferior conj	8934 Nov 21 16:20	5°♐10'04	-8°24'07
minimum elong	8934 Nov 21 21:07	5°♐02'32	8°23'33
min. Earth dist.	8934 Nov 22 00:59	4°♐56'26	0.29063 AU
morning rise	8934 Nov 25 09:54	2°♐50'54	
	8934 Nov 30 14:24	30°℞♏	
direct	8934 Dec 13 05:08	26°♏52'10	
greatest brilliancy	8934 Dec 23 23:10	28°♏58'27	-4.8m
	8934 Dec 26 11:06	0°♐	
asc. node	8935 Jan 08 04:32	7°♐34'13	
morning max el	8935 Jan 31 17:39	28°♐07'08	46°09'01
	8935 Feb 02 15:02	0°♑	
	8935 Mar 02 13:06	0°♒	
	8935 Mar 28 08:40	0°♓	
	8935 Apr 22 06:29	0°♈	
desc. node	8935 Apr 29 22:46	9°♈22'51	
	8935 May 16 17:02	0°♉	
	8935 Jun 09 21:54	0°♊	
	8935 Jul 04 00:52	0°♋	
	8935 Jul 28 04:18	0°♌	
morning set	8935 Aug 05 17:01	10°♌35'08	
asc. node	8935 Aug 20 19:25	29°♌17'45	
	8935 Aug 21 09:04	0°♍	
superior conj	8935 Sep 12 16:29	27°♍35'56	0°51'41
minimum elong	8935 Sep 12 07:14	27°♍07'21	0°51'17
max. Earth dist.	8935 Sep 14 07:51	29°♍37'32	1.72996 AU
	8935 Sep 14 15:08	0°♎	
	8935 Oct 08 22:27	0°♏	
evening rise	8935 Oct 19 07:28	12°♏46'45	
	8935 Nov 02 07:35	0°♐	
	8935 Nov 26 19:23	0°♑	
desc. node	8935 Dec 10 13:12	16°♑45'49	
	8935 Dec 21 10:24	0°♒	
	8936 Jan 15 04:46	0°♓	
	8936 Feb 09 03:39	0°♈	
	8936 Mar 05 11:54	0°♉	
	8936 Mar 31 19:36	0°♊	
asc. node	8936 Apr 01 12:32	0°♊46'35	
evening max el	8936 Apr 19 04:52	19°♊29'20	46°58'11
	8936 Apr 30 01:45	0°♋	
greatest brilliancy	8936 May 29 15:12	20°♋29'36	-4.9m
retrograde	8936 Jun 08 17:13	22°♋24'57	
evening set	8936 Jun 24 17:22	17°♋26'07	
inferior conj	8936 Jun 29 13:55	14°♋31'03	5°26'48
minimum elong	8936 Jun 30 00:19	14°♋15'01	5°23'52
min. Earth dist.	8936 Jun 29 14:45	14°♋29'46	0.27300 AU
morning rise	8936 Jul 05 07:27	11°♋06'52	
direct	8936 Jul 20 08:02	6°♋41'53	
desc. node	8936 Jul 22 08:17	6°♋46'37	
greatest brilliancy	8936 Jul 30 05:43	8°♋30'11	-4.8m
	8936 Aug 30 16:10	0°♌	
morning max el	8936 Sep 07 17:14	7°♌32'49	46°04'34
	8936 Sep 29 14:07	0°♍	
	8936 Oct 26 14:30	0°♎	
asc. node	8936 Nov 12 06:53	19°♎16'13	
	8936 Nov 21 10:08	0°♏	
	8936 Dec 16 12:55	0°♐	
	8937 Jan 10 04:47	0°♑	
	8937 Feb 03 13:33	0°♒	
	8937 Feb 27 17:24	0°♓	
desc. node	8937 Mar 03 23:39	5°♓18'38	

morning set	8937 Mar 05 20:13	7°♓37'39	
	8937 Mar 23 17:36	0°♈	
max. Earth dist.	8937 Apr 13 20:32	26°♈30'26	1.71294 AU
superior conj	8937 Apr 15 10:04	28°♈28'25	-1°21'09
minimum elong	8937 Apr 15 01:31	28°♈01'31	1°21'06
	8937 Apr 16 15:13	0°♉	
	8937 May 10 11:53	0°♊	
evening rise	8937 May 25 22:52	19°♊24'41	
	8937 Jun 03 09:40	0°♋	
asc. node	8937 Jun 24 21:02	26°♋48'39	
	8937 Jun 27 10:35	0°♌	
	8937 Jul 21 16:28	0°♍	
	8937 Aug 15 05:23	0°♎	
	8937 Sep 09 04:57	0°♏	
	8937 Oct 04 21:53	0°♐	
desc. node	8937 Oct 14 16:10	11°♐03'58	
	8937 Oct 31 22:29	0°♑	
evening max el	8937 Nov 22 12:32	21°♑59'46	45°50'17
	8937 Dec 01 04:27	0°♒	
greatest brilliancy	8937 Dec 31 20:32	20°♒24'02	-4.8m
retrograde	8938 Jan 10 11:24	22°♒05'53	
evening set	8938 Jan 25 06:41	17°♒49'28	
inferior conj	8938 Jan 31 10:08	14°♒11'41	-1°04'11
minimum elong	8938 Jan 31 12:34	14°♒07'55	1°03'15
min. Earth dist.	8938 Jan 31 23:55	13°♒50'23	0.27677 AU
asc. node	8938 Feb 04 16:00	11°♒37'03	
morning rise	8938 Feb 06 17:45	10°♒26'46	
direct	8938 Feb 21 10:49	6°♒09'05	
greatest brilliancy	8938 Mar 04 07:43	8°♒21'44	-4.9m
	8938 Apr 03 17:33	0°♓	
morning max el	8938 Apr 12 21:53	8°♓55'01	46°52'16
	8938 May 02 18:01	0°♈	
desc. node	8938 May 27 10:59	28°♈15'20	
	8938 May 28 22:39	0°♉	
	8938 Jun 23 02:41	0°♊	
	8938 Jul 17 20:17	0°♋	
	8938 Aug 11 09:51	0°♌	
	8938 Sep 04 21:51	0°♍	
asc. node	8938 Sep 17 07:58	15°♍13'47	
	8938 Sep 29 08:40	0°♎	
morning set	8938 Oct 14 09:35	18°♎29'08	
	8938 Oct 23 18:03	0°♏	
	8938 Nov 17 02:10	0°♐	
superior conj	8938 Nov 19 23:30	3°♐33'52	1°23'58
minimum elong	8938 Nov 20 03:34	3°♐46'23	1°24'09
max. Earth dist.	8938 Nov 19 10:14	2°♐52'57	1.73241 AU
	8938 Dec 11 09:40	0°♑	
evening rise	8938 Dec 27 04:34	19°♑29'05	
	8939 Jan 04 17:04	0°♒	
desc. node	8939 Jan 07 01:04	2°♒52'47	
	8939 Jan 29 00:15	0°♓	
	8939 Feb 22 07:06	0°♈	
	8939 Mar 18 14:31	0°♉	
	8939 Apr 12 01:36	0°♊	
asc. node	8939 Apr 29 23:44	21°♊42'03	
	8939 May 06 22:17	0°♋	
	8939 Jun 01 15:43	0°♌	
	8939 Jun 29 09:56	0°♍	
evening max el	8939 Jul 01 03:00	1°♍42'59	46°29'32
	8939 Aug 05 17:54	0°♎	
greatest brilliancy	8939 Aug 08 21:58	1°♎22'47	-4.8m
desc. node	8939 Aug 19 19:48	3°♎40'36	
retrograde	8939 Aug 20 02:40	3°♎40'42	
	8939 Sep 02 17:07	30°℞♍	
evening set	8939 Sep 04 12:44	29°♍01'21	
min. Earth dist.	8939 Sep 09 15:56	25°♍56'45	0.28463 AU
inferior conj	8939 Sep 10 10:44	25°♍27'29	-4°59'44
minimum elong	8939 Sep 10 01:18	25°♍42'10	4°57'25
morning rise	8939 Sep 15 14:29	22°♍20'50	
direct	8939 Oct 01 17:38	17°♍23'02	
greatest brilliancy	8939 Oct 11 09:30	19°♍04'58	-4.7m
	8939 Oct 30 15:09	0°♎	
morning max el	8939 Nov 19 11:34	17°♎11'51	45°41'26
	8939 Dec 02 07:02	0°♏	
asc. node	8939 Dec 10 18:52	8°♏58'22	
	8939 Dec 29 18:39	0°♐	
	8940 Jan 24 13:29	0°♑	
	8940 Feb 18 12:14	0°♒	
	8940 Mar 13 23:40	0°♓	
desc. node	8940 Mar 31 12:17	21°♓42'39	
	8940 Apr 07 04:06	0°♈	
	8940 May 01 04:07	0°♉	
morning set	8940 May 20 21:41	24°♉45'13	
	8940 May 25 02:00	0°♊	
	8940 Jun 17 24:00	0°♋	
superior conj	8940 Jun 29 18:08	14°♋42'41	-0°51'35
minimum elong	8940 Jun 30 04:49	15°♋16'06	0°51'23
max. Earth dist.	8940 Jul 03 00:08	18°♋46'29	1.71802 AU
	8940 Jul 11 23:54	0°♌	
asc. node	8940 Jul 22 09:07	12°♌56'09	
	8940 Aug 05 02:43	0°♍	
evening rise	8940 Aug 07 22:14	3°♍29'21	
	8940 Aug 29 08:58	0°♎	
	8940 Sep 22 19:32	0°♏	
	8940 Oct 17 12:14	0°♐	
desc. node	8940 Nov 11 03:32	29°♐30'12	
	8940 Nov 11 13:35	0°♑	
	8940 Dec 07 03:00	0°♒	
	8941 Jan 02 11:17	0°♓	
	8941 Jan 30 12:42	0°♈	
evening max el	8941 Feb 02 20:47	3°♈20'04	46°31'16
asc. node	8941 Mar 04 03:26	28°♈03'47	
	8941 Mar 07 08:55	0°♉	
greatest brilliancy	8941 Mar 15 00:59	3°♉33'23	-4.9m
retrograde	8941 Mar 24 21:07	5°♉22'13	
evening set	8941 Apr 10 18:34	29°♈51'04	
	8941 Apr 10 12:28	30°℞♈	
inferior conj	8941 Apr 14 12:17	27°♈34'50	8°28'05
minimum elong	8941 Apr 14 04:02	27°♈47'34	8°26'55
min. Earth dist.	8941 Apr 14 07:38	27°♈42'01	0.27091 AU
morning rise	8941 Apr 17 13:32	25°♈43'07	
direct	8941 May 05 04:39	19°♈46'45	
greatest brilliancy	8941 May 14 18:34	21°♈31'01	-4.9m
	8941 May 30 03:08	0°♉	
desc. node	8941 Jun 23 22:49	21°♉49'36	
morning max el	8941 Jun 24 13:34	22°♉26'27	46°50'26
	8941 Jul 01 22:49	0°♊	
	8941 Jul 29 07:22	0°♋	
	8941 Aug 24 05:57	0°♌	
	8941 Sep 18 14:22	0°♍	
	8941 Oct 13 14:27	0°♎	
asc. node	8941 Oct 14 20:26	1°♎30'29	
	8941 Nov 07 08:00	0°♏	
	8941 Dec 01 20:08	0°♐	
morning set	8941 Dec 21 22:35	24°♐45'49	
	8941 Dec 26 04:19	0°♑	
	8942 Jan 19 09:47	0°♒	
max. Earth dist.	8942 Jan 25 20:25	7°♒59'52	1.72403 AU
superior conj	8942 Jan 28 17:12	11°♒33'28	0°14'07
minimum elong	8942 Jan 28 20:33	11°♒43'54	0°14'09

behind sun begin	8942 Jan 28 08:55	11°♒07'45	
behind sun end	8942 Jan 29 08:11	12°♒20'03	
desc. node	8942 Feb 03 13:19	18°♒48'51	
	8942 Feb 12 13:03	0°♓	
evening rise	8942 Mar 08 22:54	0°♈27'12	
	8942 Mar 08 14:12	0°♈	
	8942 Apr 01 13:49	0°♉	
	8942 Apr 25 13:38	0°♊	
	8942 May 19 16:26	0°♋	
asc. node	8942 May 27 11:12	9°♋37'11	
	8942 Jun 13 01:43	0°♌	
	8942 Jul 07 22:06	0°♍	
	8942 Aug 02 14:05	0°♎	
	8942 Aug 29 22:56	0°♏	
evening max el	8942 Sep 09 20:11	10°♏57'03	45°49'18
desc. node	8942 Sep 16 07:04	17°♏02'53	
	8942 Oct 01 21:32	0°♐	
greatest brilliancy	8942 Oct 18 19:10	9°♐25'10	-4.7m
retrograde	8942 Oct 28 19:43	11°♐14'34	
evening set	8942 Nov 16 01:27	5°♐02'35	
inferior conj	8942 Nov 19 08:32	2°♐59'35	-8°28'26
minimum elong	8942 Nov 19 12:36	2°♐53'11	8°27'58
min. Earth dist.	8942 Nov 19 16:24	2°♐47'10	0.29084 AU
morning rise	8942 Nov 22 23:38	0°♐44'07	
	8942 Nov 24 05:16	30°♑	
direct	8942 Dec 10 20:43	24°♏41'29	
greatest brilliancy	8942 Dec 21 15:05	26°♏47'30	-4.8m
	8942 Dec 28 11:46	0°♐	
asc. node	8943 Jan 07 06:30	6°♐24'34	
morning max el	8943 Jan 29 08:21	25°♐50'46	46°07'35
	8943 Feb 02 11:54	0°♑	
	8943 Mar 02 04:34	0°♒	
	8943 Mar 27 22:09	0°♓	
	8943 Apr 21 19:00	0°♈	
desc. node	8943 Apr 29 00:39	8°♈50'49	
	8943 May 16 04:59	0°♉	
	8943 Jun 09 09:29	0°♊	
	8943 Jul 03 12:11	0°♋	
	8943 Jul 27 15:23	0°♌	
morning set	8943 Aug 03 07:49	8°♌17'55	
asc. node	8943 Aug 19 21:26	28°♌50'06	
	8943 Aug 20 20:00	0°♍	
superior conj	8943 Sep 10 08:53	25°♍24'43	0°48'57
minimum elong	8943 Sep 09 23:51	24°♍56'47	0°48'32
max. Earth dist.	8943 Sep 11 23:48	27°♍24'58	1.72970 AU
	8943 Sep 14 01:59	0°♎	
	8943 Oct 08 09:20	0°♏	
evening rise	8943 Oct 17 00:51	10°♏38'58	
	8943 Nov 01 18:35	0°♐	
	8943 Nov 26 06:37	0°♑	
desc. node	8943 Dec 09 15:08	16°♑16'58	
	8943 Dec 20 22:00	0°♒	
	8944 Jan 14 16:57	0°♓	
	8944 Feb 08 16:44	0°♈	
	8944 Mar 05 02:35	0°♉	
asc. node	8944 Mar 31 14:25	0°♊02'05	
	8944 Mar 31 13:39	0°♊	
evening max el	8944 Apr 16 17:55	17°♊03'51	46°58'14
	8944 Apr 30 07:06	0°♋	
greatest brilliancy	8944 May 27 05:44	18°♋06'24	-4.9m
retrograde	8944 Jun 06 07:05	20°♋01'26	
evening set	8944 Jun 22 10:02	14°♋57'49	
inferior conj	8944 Jun 27 03:18	12°♋07'47	5°45'40
minimum elong	8944 Jun 27 13:59	11°♋51'20	5°42'44
min. Earth dist.	8944 Jun 27 04:42	12°♋05'37	0.27285 AU
morning rise	8944 Jul 02 18:05	8°♋47'41	
direct	8944 Jul 17 20:54	4°♋18'34	
desc. node	8944 Jul 21 10:21	4°♋33'21	
greatest brilliancy	8944 Jul 27 19:01	6°♋07'36	-4.8m
	8944 Aug 30 18:56	0°♌	
morning max el	8944 Sep 05 08:01	5°♌15'47	46°06'07
	8944 Sep 29 07:14	0°♍	
	8944 Oct 26 04:30	0°♎	
asc. node	8944 Nov 11 08:44	18°♎43'38	
	8944 Nov 20 22:41	0°♏	
	8944 Dec 16 00:43	0°♐	
	8945 Jan 09 16:11	0°♑	
	8945 Feb 03 00:42	0°♒	
	8945 Feb 27 04:26	0°♓	
morning set	8945 Mar 03 08:47	5°♓12'44	
desc. node	8945 Mar 03 01:42	4°♓50'37	
	8945 Mar 23 04:35	0°♈	
max. Earth dist.	8945 Apr 11 07:34	23°♈59'40	1.71314 AU
superior conj	8945 Apr 12 21:24	25°♈58'33	-1°19'34
minimum elong	8945 Apr 12 12:07	25°♈29'24	1°19'28
	8945 Apr 16 02:14	0°♉	
	8945 May 09 22:57	0°♊	
evening rise	8945 May 23 09:50	16°♊53'46	
	8945 Jun 02 20:47	0°♋	
asc. node	8945 Jun 23 23:01	26°♋19'55	
	8945 Jun 26 21:49	0°♌	
	8945 Jul 21 03:55	0°♍	
	8945 Aug 14 17:14	0°♎	
	8945 Sep 08 17:32	0°♏	
	8945 Oct 04 11:55	0°♐	
desc. node	8945 Oct 13 18:05	10°♐27'39	
	8945 Oct 31 15:47	0°♑	
evening max el	8945 Nov 20 04:07	19°♑47'02	45°49'26
	8945 Dec 01 09:06	0°♒	
greatest brilliancy	8945 Dec 29 10:15	18°♒05'51	-4.8m
retrograde	8946 Jan 08 01:41	19°♒47'40	
evening set	8946 Jan 22 22:22	15°♒29'08	
inferior conj	8946 Jan 29 00:22	11°♒52'50	-1°26'28
minimum elong	8946 Jan 29 03:38	11°♒47'48	1°25'15
min. Earth dist.	8946 Jan 29 14:37	11°♒30'49	0.27722 AU
asc. node	8946 Feb 03 18:06	8°♒27'00	
morning rise	8946 Feb 04 08:17	8°♒07'32	
direct	8946 Feb 19 02:12	3°♒49'44	
greatest brilliancy	8946 Mar 01 22:38	6°♒02'17	-4.8m
	8946 Apr 03 19:33	0°♓	
morning max el	8946 Apr 10 13:09	6°♓36'37	46°51'18
	8946 May 02 11:08	0°♈	
desc. node	8946 May 26 12:57	27°♈38'53	
	8946 May 28 12:54	0°♉	
	8946 Jun 22 15:34	0°♊	
	8946 Jul 17 08:23	0°♋	
	8946 Aug 10 21:25	0°♌	
	8946 Sep 04 09:04	0°♍	
asc. node	8946 Sep 16 09:53	14°♍45'44	
	8946 Sep 28 19:38	0°♎	
morning set	8946 Oct 12 02:34	16°♎20'25	
	8946 Oct 23 04:51	0°♏	
	8946 Nov 16 12:55	0°♐	
superior conj	8946 Nov 17 16:49	1°♐26'05	1°24'38
minimum elong	8946 Nov 17 20:11	1°♐36'28	1°24'49
max. Earth dist.	8946 Nov 17 06:38	0°♐54'39	1.73251 AU
	8946 Dec 10 20:28	0°♑	
evening rise	8946 Dec 24 20:24	17°♑16'10	
	8947 Jan 04 04:02	0°♒	
desc. node	8947 Jan 06 03:07	2°♒25'13	
	8947 Jan 28 11:28	0°♓	

	8947 Feb 21 18:36	0°♈	
	8947 Mar 18 02:25	0°♉	
	8947 Apr 11 14:05	0°♊	
asc. node	8947 Apr 29 01:39	21°♊08'18	
	8947 May 06 11:50	0°♋	
	8947 Jun 01 07:26	0°♌	
evening max el	8947 Jun 28 19:01	29°♌28'36	46°30'57
	8947 Jun 29 07:38	0°♍	
greatest brilliancy	8947 Aug 06 14:12	29°♍09'34	-4.8m
	8947 Aug 08 23:12	0°♎	
retrograde	8947 Aug 17 18:33	1°♎26'48	
desc. node	8947 Aug 18 21:49	1°♎25'15	
	8947 Aug 26 05:27	30°℞♍	
evening set	8947 Sep 02 02:22	26°♍51'00	
min. Earth dist.	8947 Sep 07 07:25	23°♍43'36	0.28412 AU
inferior conj	8947 Sep 08 02:11	23°♍14'20	-4°42'26
minimum elong	8947 Sep 07 17:04	23°♍28'33	4°40'08
morning rise	8947 Sep 13 08:28	20°♍04'03	
direct	8947 Sep 29 09:04	15°♍10'54	
greatest brilliancy	8947 Oct 08 23:49	16°♍51'50	-4.7m
	8947 Oct 31 02:53	0°♎	
morning max el	8947 Nov 17 02:08	14°♎58'07	45°41'17
	8947 Dec 02 01:13	0°♏	
asc. node	8947 Dec 09 20:54	8°♏19'05	
	8947 Dec 29 08:55	0°♐	
	8948 Jan 24 02:08	0°♑	
	8948 Feb 18 00:07	0°♒	
	8948 Mar 13 11:09	0°♓	
desc. node	8948 Mar 30 14:05	21°♓13'09	
	8948 Apr 06 15:20	0°♈	
	8948 Apr 30 15:10	0°♉	
morning set	8948 May 18 09:05	22°♉16'05	
	8948 May 24 12:54	0°♊	
	8948 Jun 17 10:47	0°♋	
superior conj	8948 Jun 27 07:04	12°♋19'24	-0°54'35
minimum elong	8948 Jun 27 18:03	12°♋53'46	0°54'24
max. Earth dist.	8948 Jun 30 14:03	16°♋26'19	1.71756 AU
	8948 Jul 11 10:38	0°♌	
asc. node	8948 Jul 21 11:08	12°♌29'07	
	8948 Aug 04 13:27	0°♍	
evening rise	8948 Aug 05 13:26	1°♍14'23	
	8948 Aug 28 19:47	0°♎	
	8948 Sep 22 06:34	0°♏	
	8948 Oct 16 23:40	0°♐	
desc. node	8948 Nov 10 05:28	28°♐59'54	
	8948 Nov 11 01:45	0°♑	
	8948 Dec 06 16:27	0°♒	
	8949 Jan 02 03:12	0°♓	
	8949 Jan 30 10:56	0°♈	
evening max el	8949 Jan 31 09:37	0°♈56'12	46°29'34
asc. node	8949 Mar 03 05:21	26°♈35'32	
	8949 Mar 09 17:28	0°♉	
greatest brilliancy	8949 Mar 12 14:25	1°♉08'27	-4.9m
retrograde	8949 Mar 22 09:19	2°♉56'24	
	8949 Apr 03 11:45	30°℞♈	
evening set	8949 Apr 08 02:52	27°♈32'10	
inferior conj	8949 Apr 12 01:08	25°♈09'23	8°18'00
minimum elong	8949 Apr 11 16:15	25°♈23'06	8°16'40
min. Earth dist.	8949 Apr 11 20:55	25°♈15'54	0.27088 AU
morning rise	8949 Apr 15 05:37	23°♈12'41	
direct	8949 May 02 16:55	17°♈20'58	
greatest brilliancy	8949 May 12 08:40	19°♈06'23	-4.9m
	8949 May 30 22:07	0°♉	
morning max el	8949 Jun 22 01:51	19°♉59'54	46°51'44
desc. node	8949 Jun 23 00:49	20°♉57'38	
	8949 Jul 01 18:44	0°♊	
	8949 Jul 28 22:33	0°♋	
	8949 Aug 23 19:04	0°♌	
	8949 Sep 18 02:22	0°♍	
	8949 Oct 13 01:47	0°♎	
asc. node	8949 Oct 13 22:17	1°♎01'55	
	8949 Nov 06 18:55	0°♏	
	8949 Dec 01 06:50	0°♐	
morning set	8949 Dec 19 15:17	22°♐36'23	
	8949 Dec 25 14:56	0°♑	
	8950 Jan 18 20:24	0°♒	
max. Earth dist.	8950 Jan 23 12:44	5°♒48'35	1.72448 AU
superior conj	8950 Jan 26 07:39	9°♒16'17	0°17'39
minimum elong	8950 Jan 26 11:47	9°♒29'07	0°17'38
desc. node	8950 Feb 02 15:16	18°♒21'50	
	8950 Feb 11 23:44	0°♓	
evening rise	8950 Mar 06 11:50	28°♓03'57	
	8950 Mar 08 01:00	0°♈	
	8950 Apr 01 00:47	0°♉	
	8950 Apr 25 00:49	0°♊	
	8950 May 19 03:55	0°♋	
asc. node	8950 May 26 13:13	9°♋07'43	
	8950 Jun 12 13:38	0°♌	
	8950 Jul 07 10:48	0°♍	
	8950 Aug 02 04:23	0°♎	
	8950 Aug 29 17:27	0°♏	
evening max el	8950 Sep 07 10:40	8°♏43'18	45°50'15
desc. node	8950 Sep 15 08:55	16°♏10'10	
	8950 Oct 02 15:09	0°♐	
greatest brilliancy	8950 Oct 16 09:51	7°♐15'14	-4.7m
retrograde	8950 Oct 26 11:50	9°♐06'18	
evening set	8950 Nov 13 18:28	2°♐52'23	
inferior conj	8950 Nov 17 00:51	0°♐50'39	-8°31'54
minimum elong	8950 Nov 17 04:12	0°♐45'23	8°31'31
min. Earth dist.	8950 Nov 17 07:44	0°♐39'50	0.29107 AU
	8950 Nov 18 09:05	30°℞♏	
morning rise	8950 Nov 20 13:50	28°♏38'32	
direct	8950 Dec 08 12:43	22°♏32'14	
greatest brilliancy	8950 Dec 19 07:11	24°♏38'13	-4.8m
	8950 Dec 29 19:21	0°♐	
asc. node	8951 Jan 06 08:32	5°♐18'01	
morning max el	8951 Jan 27 00:09	23°♐38'19	46°06'06
	8951 Feb 02 07:42	0°♑	
	8951 Mar 01 19:28	0°♒	
	8951 Mar 27 11:11	0°♓	
	8951 Apr 21 07:05	0°♈	
desc. node	8951 Apr 28 02:37	8°♈20'21	
	8951 May 15 16:31	0°♉	
	8951 Jun 08 20:41	0°♊	
	8951 Jul 02 23:08	0°♋	
	8951 Jul 27 02:07	0°♌	
morning set	8951 Jul 31 22:43	6°♌02'01	
asc. node	8951 Aug 18 23:19	28°♌23'19	
	8951 Aug 20 06:33	0°♍	
superior conj	8951 Sep 08 01:28	23°♍15'18	0°46'08
minimum elong	8951 Sep 07 16:42	22°♍48'11	0°45'44
max. Earth dist.	8951 Sep 09 17:31	25°♍19'06	1.72938 AU
	8951 Sep 13 12:25	0°♎	
	8951 Oct 07 19:46	0°♏	
evening rise	8951 Oct 14 18:38	8°♏33'49	
	8951 Nov 01 05:09	0°♐	
	8951 Nov 25 17:26	0°♑	
desc. node	8951 Dec 08 17:12	15°♑49'46	
	8951 Dec 20 09:14	0°♒	
	8952 Jan 14 04:48	0°♓	
	8952 Feb 08 05:34	0°♈	

	8952 Mar 04 17:04	0°♉	
asc. node	8952 Mar 30 16:23	29°♉18'19	
	8952 Mar 31 07:44	0°♊	
evening max el	8952 Apr 14 07:53	14°♊41'51	46°58'15
	8952 Apr 30 14:08	0°♋	
greatest brilliancy	8952 May 24 19:38	15°♋43'35	-4.9m
retrograde	8952 Jun 03 21:13	17°♋38'46	
evening set	8952 Jun 20 02:44	12°♋30'15	
inferior conj	8952 Jun 24 16:34	9°♋45'13	6°03'53
minimum elong	8952 Jun 25 03:28	9°♋28'28	6°01'00
min. Earth dist.	8952 Jun 24 18:12	9°♋42'43	0.27271 AU
morning rise	8952 Jun 30 04:23	6°♋29'35	
direct	8952 Jul 15 10:15	1°♋56'05	
desc. node	8952 Jul 20 12:23	2°♋26'07	
greatest brilliancy	8952 Jul 25 07:43	3°♋45'09	-4.8m
	8952 Aug 30 19:48	0°♌	
morning max el	8952 Sep 02 23:26	3°♌01'27	46°07'47
	8952 Sep 28 23:32	0°♍	
	8952 Oct 25 17:53	0°♎	
asc. node	8952 Nov 10 10:49	18°♎13'18	
	8952 Nov 20 10:41	0°♏	
	8952 Dec 15 12:00	0°♐	
	8953 Jan 09 03:05	0°♑	
	8953 Feb 02 11:26	0°♒	
	8953 Feb 26 15:06	0°♓	
morning set	8953 Feb 28 21:22	2°♓49'02	
desc. node	8953 Mar 02 03:33	4°♓23'10	
	8953 Mar 22 15:15	0°♈	
max. Earth dist.	8953 Apr 08 16:55	21°♈24'47	1.71332 AU
superior conj	8953 Apr 10 08:29	23°♈29'03	-1°17'49
minimum elong	8953 Apr 09 22:35	22°♈57'57	1°17'40
	8953 Apr 15 12:55	0°♉	
	8953 May 09 09:40	0°♊	
evening rise	8953 May 20 20:32	14°♊23'06	
	8953 Jun 02 07:34	0°♋	
asc. node	8953 Jun 23 01:02	25°♋52'23	
	8953 Jun 26 08:43	0°♌	
	8953 Jul 20 15:02	0°♍	
	8953 Aug 14 04:45	0°♎	
	8953 Sep 08 05:46	0°♏	
	8953 Oct 04 01:37	0°♐	
desc. node	8953 Oct 12 20:06	9°♐52'43	
	8953 Oct 31 08:53	0°♑	
evening max el	8953 Nov 17 19:49	17°♑36'18	45°48'39
	8953 Dec 01 14:55	0°♒	
greatest brilliancy	8953 Dec 27 00:30	15°♒50'34	-4.8m
retrograde	8954 Jan 05 15:45	17°♒31'45	
evening set	8954 Jan 20 14:30	13°♒11'02	
inferior conj	8954 Jan 26 14:55	9°♒36'23	-1°48'17
minimum elong	8954 Jan 26 18:58	9°♒30'06	1°46'49
min. Earth dist.	8954 Jan 27 05:41	9°♒13'30	0.27772 AU
morning rise	8954 Feb 01 22:50	5°♒50'41	
asc. node	8954 Feb 02 20:00	5°♒22'34	
direct	8954 Feb 16 17:39	1°♒32'45	
greatest brilliancy	8954 Feb 27 13:59	3°♒45'03	-4.8m
	8954 Apr 03 19:49	0°♓	
morning max el	8954 Apr 08 03:49	4°♓17'40	46°50'01
	8954 May 02 03:37	0°♈	
desc. node	8954 May 25 15:00	27°♈03'41	
	8954 May 28 02:46	0°♉	
	8954 Jun 22 04:07	0°♊	
	8954 Jul 16 20:09	0°♋	
	8954 Aug 10 08:39	0°♌	
	8954 Sep 03 19:56	0°♍	
asc. node	8954 Sep 15 11:45	14°♍18'29	
	8954 Sep 28 06:16	0°♎	
morning set	8954 Oct 09 19:34	14°♎12'41	
	8954 Oct 22 15:20	0°♏	
superior conj	8954 Nov 15 10:25	29°♏20'12	1°25'09
minimum elong	8954 Nov 15 13:06	29°♏28'26	1°25'21
max. Earth dist.	8954 Nov 15 01:26	28°♏52'30	1.73254 AU
	8954 Nov 15 23:20	0°♐	
	8954 Dec 10 06:56	0°♑	
evening rise	8954 Dec 22 12:34	15°♑05'31	
	8955 Jan 03 14:38	0°♒	
desc. node	8955 Jan 05 05:03	1°♒58'29	
	8955 Jan 27 22:19	0°♓	
	8955 Feb 21 05:48	0°♈	
	8955 Mar 17 14:05	0°♉	
	8955 Apr 11 02:27	0°♊	
asc. node	8955 Apr 28 03:41	20°♊35'06	
	8955 May 06 01:21	0°♋	
	8955 May 31 23:18	0°♌	
evening max el	8955 Jun 26 10:07	27°♌12'00	46°32'25
	8955 Jun 29 06:07	0°♍	
greatest brilliancy	8955 Aug 04 06:43	26°♍56'36	-4.8m
retrograde	8955 Aug 15 09:47	29°♍12'43	
desc. node	8955 Aug 17 23:42	29°♍04'45	
evening set	8955 Aug 30 15:56	24°♍40'14	
min. Earth dist.	8955 Sep 04 23:05	21°♍29'52	0.28359 AU
inferior conj	8955 Sep 05 17:27	21°♍01'11	-4°24'38
minimum elong	8955 Sep 05 08:43	21°♍14'50	4°22'23
morning rise	8955 Sep 11 02:09	17°♍47'17	
direct	8955 Sep 26 23:47	12°♍58'37	
greatest brilliancy	8955 Oct 06 14:33	14°♍39'11	-4.7m
	8955 Oct 31 11:19	0°♎	
morning max el	8955 Nov 14 16:01	12°♎43'08	45°41'22
	8955 Dec 01 18:43	0°♏	
asc. node	8955 Dec 08 22:51	7°♏40'37	
	8955 Dec 28 22:46	0°♐	
	8956 Jan 23 14:28	0°♑	
	8956 Feb 17 11:42	0°♒	
	8956 Mar 12 22:20	0°♓	
desc. node	8956 Mar 29 16:05	20°♓45'06	
	8956 Apr 06 02:19	0°♈	
	8956 Apr 30 02:02	0°♉	
morning set	8956 May 15 20:08	19°♉46'11	
	8956 May 23 23:41	0°♊	
	8956 Jun 16 21:32	0°♋	
superior conj	8956 Jun 24 19:29	9°♋54'38	-0°57'31
minimum elong	8956 Jun 25 06:43	10°♋29'45	0°57'21
max. Earth dist.	8956 Jun 28 00:04	13°♋54'07	1.71713 AU
	8956 Jul 10 21:21	0°♌	
asc. node	8956 Jul 20 12:58	12°♌01'34	
evening rise	8956 Aug 03 03:59	28°♌57'23	
	8956 Aug 04 00:10	0°♍	
	8956 Aug 28 06:34	0°♎	
	8956 Sep 21 17:34	0°♏	
	8956 Oct 16 11:06	0°♐	
desc. node	8956 Nov 09 07:32	28°♐30'02	
	8956 Nov 10 13:56	0°♑	
	8956 Dec 06 05:57	0°♒	
	8957 Jan 01 19:16	0°♓	
evening max el	8957 Jan 28 22:18	28°♓32'46	46°28'06
	8957 Jan 30 09:51	0°♈	
asc. node	8957 Mar 02 07:17	25°♈05'12	
greatest brilliancy	8957 Mar 10 03:30	28°♈44'11	-4.9m
	8957 Mar 14 16:06	0°♉	
retrograde	8957 Mar 19 21:49	0°♉32'08	
	8957 Mar 25 00:52	30°℞♈	
evening set	8957 Apr 05 11:19	25°♈14'15	

inferior conj	8957 Apr 09 14:12	22°♈45'06	8°06'58
minimum elong	8957 Apr 09 04:44	22°♈59'40	8°05'26
min. Earth dist.	8957 Apr 09 10:11	22°♈51'17	0.27091 AU
morning rise	8957 Apr 12 22:05	20°♈43'25	
direct	8957 Apr 30 05:34	14°♈56'08	
greatest brilliancy	8957 May 09 22:59	16°♈42'58	-4.9m
	8957 May 31 12:02	0°♉	
morning max el	8957 Jun 19 14:58	17°♉35'31	46°52'40
desc. node	8957 Jun 22 02:49	20°♉06'41	
	8957 Jul 01 14:05	0°♊	
	8957 Jul 28 13:37	0°♋	
	8957 Aug 23 08:15	0°♌	
	8957 Sep 17 14:28	0°♍	
	8957 Oct 12 13:11	0°♎	
asc. node	8957 Oct 13 00:21	0°♎33'44	
	8957 Nov 06 05:54	0°♏	
	8957 Nov 30 17:36	0°♐	
morning set	8957 Dec 17 07:52	20°♐26'22	
	8957 Dec 25 01:38	0°♑	
	8958 Jan 18 07:07	0°♒	
max. Earth dist.	8958 Jan 21 06:22	3°♒41'04	1.72487 AU
superior conj	8958 Jan 23 22:13	6°♒59'14	0°21'07
minimum elong	8958 Jan 24 03:05	7°♒14'23	0°21'05
desc. node	8958 Feb 01 17:08	17°♒54'21	
	8958 Feb 11 10:29	0°♓	
evening rise	8958 Mar 04 01:08	25°♓41'51	
	8958 Mar 07 11:50	0°♈	
	8958 Mar 31 11:46	0°♉	
	8958 Apr 24 12:01	0°♊	
	8958 May 18 15:26	0°♋	
asc. node	8958 May 25 15:13	8°♋38'00	
	8958 Jun 12 01:40	0°♌	
	8958 Jul 06 23:43	0°♍	
	8958 Aug 01 19:08	0°♎	
	8958 Aug 29 12:53	0°♏	
evening max el	8958 Sep 05 01:52	6°♏30'20	45°51'17
desc. node	8958 Sep 14 10:59	15°♏15'48	
	8958 Oct 03 16:04	0°♐	
greatest brilliancy	8958 Oct 13 23:49	5°♐03'19	-4.7m
retrograde	8958 Oct 24 04:11	6°♐56'32	
evening set	8958 Nov 11 10:57	0°♐41'11	
	8958 Nov 12 13:51	30°℞♏	
inferior conj	8958 Nov 14 16:57	28°♏40'11	-8°34'39
minimum elong	8958 Nov 14 19:32	28°♏36'07	8°34'21
min. Earth dist.	8958 Nov 14 22:26	28°♏31'34	0.29125 AU
morning rise	8958 Nov 18 04:03	26°♏31'10	
direct	8958 Dec 06 05:02	20°♏21'40	
greatest brilliancy	8958 Dec 16 22:32	22°♏27'08	-4.8m
	8958 Dec 30 18:25	0°♐	
asc. node	8959 Jan 05 10:29	4°♐12'08	
morning max el	8959 Jan 24 16:26	21°♐26'28	46°04'39
	8959 Feb 02 03:11	0°♑	
	8959 Mar 01 10:22	0°♒	
	8959 Mar 27 00:17	0°♓	
	8959 Apr 20 19:15	0°♈	
desc. node	8959 Apr 27 04:38	7°♈49'41	
	8959 May 15 04:09	0°♉	
	8959 Jun 08 07:58	0°♊	
	8959 Jul 02 10:11	0°♋	
	8959 Jul 26 13:00	0°♌	
morning set	8959 Jul 29 13:35	3°♌45'26	
asc. node	8959 Aug 18 01:15	27°♌55'55	
	8959 Aug 19 17:19	0°♍	
superior conj	8959 Sep 05 17:40	21°♍03'47	0°43'14
minimum elong	8959 Sep 05 09:15	20°♍37'43	0°42'49
max. Earth dist.	8959 Sep 07 12:04	23°♍14'52	1.72913 AU
	8959 Sep 12 23:09	0°♎	
	8959 Oct 07 06:32	0°♏	
evening rise	8959 Oct 12 11:57	6°♏26'15	
	8959 Oct 31 16:02	0°♐	
	8959 Nov 25 04:35	0°♑	
desc. node	8959 Dec 07 19:05	15°♑20'59	
	8959 Dec 19 20:48	0°♒	
	8960 Jan 13 17:02	0°♓	
	8960 Feb 07 18:48	0°♈	
	8960 Mar 04 08:05	0°♉	
asc. node	8960 Mar 29 18:29	28°♉33'31	
	8960 Mar 31 02:35	0°♊	
evening max el	8960 Apr 11 22:44	12°♊21'27	46°58'19
	8960 May 01 00:05	0°♋	
greatest brilliancy	8960 May 22 09:34	13°♋20'35	-4.9m
retrograde	8960 Jun 01 11:33	15°♋15'44	
evening set	8960 Jun 17 19:38	10°♋02'33	
inferior conj	8960 Jun 22 05:57	7°♋22'26	6°21'22
minimum elong	8960 Jun 22 16:59	7°♋05'30	6°18'34
min. Earth dist.	8960 Jun 22 07:32	7°♋20'01	0.27255 AU
morning rise	8960 Jun 27 14:34	4°♋11'29	
	8960 Jul 08 08:41	30°℞♊	
direct	8960 Jul 13 00:03	29°♊33'41	
	8960 Jul 17 17:58	0°♋	
desc. node	8960 Jul 19 14:14	0°♋23'42	
greatest brilliancy	8960 Jul 22 20:03	1°♋22'00	-4.8m
	8960 Aug 30 19:41	0°♌	
morning max el	8960 Aug 31 14:27	0°♌45'28	46°09'09
	8960 Sep 28 15:51	0°♍	
	8960 Oct 25 07:31	0°♎	
asc. node	8960 Nov 09 12:43	17°♎41'27	
	8960 Nov 19 23:02	0°♏	
	8960 Dec 14 23:39	0°♐	
	8961 Jan 08 14:21	0°♑	
	8961 Feb 01 22:30	0°♒	
morning set	8961 Feb 26 09:51	0°♓24'08	
	8961 Feb 26 02:06	0°♓	
desc. node	8961 Mar 01 05:30	3°♓54'58	
	8961 Mar 22 02:15	0°♈	
max. Earth dist.	8961 Apr 05 23:25	18°♈39'53	1.71351 AU
superior conj	8961 Apr 07 19:37	20°♈58'41	-1°15'54
minimum elong	8961 Apr 07 09:12	20°♈25'59	1°15'44
	8961 Apr 14 23:57	0°♉	
	8961 May 08 20:42	0°♊	
evening rise	8961 May 18 07:17	11°♊51'30	
	8961 Jun 01 18:38	0°♋	
asc. node	8961 Jun 22 02:53	25°♋23'27	
	8961 Jun 25 19:53	0°♌	
	8961 Jul 20 02:25	0°♍	
	8961 Aug 13 16:34	0°♎	
	8961 Sep 07 18:23	0°♏	
	8961 Oct 03 15:50	0°♐	
desc. node	8961 Oct 11 22:06	9°♐16'16	
	8961 Oct 31 02:55	0°♑	
evening max el	8961 Nov 15 10:42	15°♑22'05	45°47'43
	8961 Dec 01 23:59	0°♒	
greatest brilliancy	8961 Dec 24 15:15	13°♒34'09	-4.8m
retrograde	8962 Jan 03 05:13	15°♒14'09	
evening set	8962 Jan 18 06:39	10°♒51'02	
inferior conj	8962 Jan 24 05:22	7°♒18'26	-2°09'48
minimum elong	8962 Jan 24 10:10	7°♒10'58	2°08'08
min. Earth dist.	8962 Jan 24 20:58	6°♒54'12	0.27821 AU
morning rise	8962 Jan 30 13:03	3°♒32'29	
asc. node	8962 Feb 01 21:56	2°♒19'35	
	8962 Feb 08 05:19	30°℞♑	

direct	8962 Feb 14 08:31	29°♑14'09	
	8962 Feb 20 15:25	0°♒	
greatest brilliancy	8962 Feb 25 05:40	1°♒26'44	-4.8m
	8962 Apr 03 19:29	0°♓	
morning max el	8962 Apr 05 17:17	1°♓54'27	46°48'48
	8962 May 01 20:12	0°♈	
desc. node	8962 May 24 16:52	26°♈27'07	
	8962 May 27 16:51	0°♉	
	8962 Jun 21 16:56	0°♊	
	8962 Jul 16 08:11	0°♋	
	8962 Aug 09 20:10	0°♌	
	8962 Sep 03 07:05	0°♍	
asc. node	8962 Sep 14 13:48	13°♍51'01	
	8962 Sep 27 17:10	0°♎	
morning set	8962 Oct 07 12:42	12°♎04'27	
	8962 Oct 22 02:07	0°♏	
superior conj	8962 Nov 13 04:05	27°♏13'29	1°25'33
minimum elong	8962 Nov 13 06:04	27°♏19'35	1°25'46
max. Earth dist.	8962 Nov 12 18:44	26°♏44'38	1.73265 AU
	8962 Nov 15 10:06	0°♐	
	8962 Dec 09 17:47	0°♑	
evening rise	8962 Dec 20 04:38	12°♑53'16	
	8963 Jan 03 01:40	0°♒	
desc. node	8963 Jan 04 06:56	1°♒30'13	
	8963 Jan 27 09:36	0°♓	
	8963 Feb 20 17:26	0°♈	
	8963 Mar 17 02:11	0°♉	
	8963 Apr 10 15:14	0°♊	
asc. node	8963 Apr 27 05:37	20°♊00'20	
	8963 May 05 15:22	0°♋	
	8963 May 31 15:49	0°♌	
evening max el	8963 Jun 24 00:27	24°♌52'25	46°33'58
	8963 Jun 29 05:59	0°♍	
greatest brilliancy	8963 Aug 01 23:26	24°♍43'03	-4.8m
retrograde	8963 Aug 13 01:01	26°♍58'20	
desc. node	8963 Aug 17 01:45	26°♍38'48	
evening set	8963 Aug 28 05:49	22°♍28'34	
min. Earth dist.	8963 Sep 02 15:05	19°♍15'30	0.28304 AU
inferior conj	8963 Sep 03 08:53	18°♍47'42	-4°06'29
minimum elong	8963 Sep 03 00:34	19°♍00'42	4°04'17
morning rise	8963 Sep 08 19:55	15°♍30'22	
direct	8963 Sep 24 14:12	10°♍45'52	
greatest brilliancy	8963 Oct 04 05:54	12°♍26'47	-4.7m
	8963 Oct 31 17:31	0°♎	
morning max el	8963 Nov 12 05:54	10°♎27'35	45°41'27
	8963 Dec 01 12:04	0°♏	
asc. node	8963 Dec 08 00:46	7°♏01'45	
	8963 Dec 28 12:47	0°♐	
	8964 Jan 23 03:05	0°♑	
	8964 Feb 16 23:38	0°♒	
	8964 Mar 12 09:55	0°♓	
desc. node	8964 Mar 28 18:08	20°♓16'02	
	8964 Apr 05 13:39	0°♈	
	8964 Apr 29 13:12	0°♉	
morning set	8964 May 13 06:56	17°♉14'32	
	8964 May 23 10:45	0°♊	
	8964 Jun 16 08:32	0°♋	
superior conj	8964 Jun 22 07:53	7°♋28'51	-1°00'21
minimum elong	8964 Jun 22 19:16	8°♋04'30	1°00'12
max. Earth dist.	8964 Jun 25 08:20	11°♋15'32	1.71672 AU
	8964 Jul 10 08:19	0°♌	
asc. node	8964 Jul 19 14:58	11°♌33'42	
evening rise	8964 Jul 31 18:35	26°♌39'45	
	8964 Aug 03 11:08	0°♍	
	8964 Aug 27 17:36	0°♎	
	8964 Sep 21 04:48	0°♏	
	8964 Oct 15 22:44	0°♐	
desc. node	8964 Nov 08 09:27	27°♐59'05	
	8964 Nov 10 02:21	0°♑	
	8964 Dec 05 19:47	0°♒	
	8965 Jan 01 11:55	0°♓	
evening max el	8965 Jan 26 11:17	26°♓09'13	46°26'24
	8965 Jan 30 10:18	0°♈	
asc. node	8965 Mar 01 09:23	23°♈30'13	
greatest brilliancy	8965 Mar 07 15:50	26°♈17'30	-4.9m
retrograde	8965 Mar 17 10:36	28°♈06'09	
evening set	8965 Apr 02 19:33	22°♈54'22	
inferior conj	8965 Apr 07 02:59	20°♈18'55	7°54'57
minimum elong	8965 Apr 06 17:02	20°♈34'13	7°53'13
min. Earth dist.	8965 Apr 06 22:58	20°♈25'05	0.27095 AU
morning rise	8965 Apr 10 14:27	18°♈12'12	
direct	8965 Apr 27 18:22	12°♈29'31	
greatest brilliancy	8965 May 07 12:41	14°♈17'28	-4.9m
	8965 May 31 22:54	0°♉	
morning max el	8965 Jun 17 04:47	15°♉12'04	46°53'44
desc. node	8965 Jun 21 04:45	19°♉15'43	
	8965 Jul 01 09:11	0°♊	
	8965 Jul 28 04:41	0°♋	
	8965 Aug 22 21:29	0°♌	
	8965 Sep 17 02:38	0°♍	
asc. node	8965 Oct 12 02:15	0°♎04'45	
	8965 Oct 12 00:41	0°♎	
	8965 Nov 05 16:58	0°♏	
	8965 Nov 30 04:26	0°♐	
morning set	8965 Dec 15 00:56	18°♐17'42	
	8965 Dec 24 12:23	0°♑	
	8966 Jan 17 17:53	0°♒	
max. Earth dist.	8966 Jan 19 01:26	1°♒37'52	1.72530 AU
superior conj	8966 Jan 21 13:05	4°♒42'56	0°24'32
minimum elong	8966 Jan 21 18:40	5°♒00'15	0°24'29
desc. node	8966 Jan 31 19:11	17°♒27'04	
	8966 Feb 10 21:22	0°♓	
evening rise	8966 Mar 01 14:29	23°♓19'28	
	8966 Mar 06 22:51	0°♈	
	8966 Mar 30 22:57	0°♉	
	8966 Apr 23 23:27	0°♊	
	8966 May 18 03:10	0°♋	
asc. node	8966 May 24 17:05	8°♋07'14	
	8966 Jun 11 13:53	0°♌	
	8966 Jul 06 12:51	0°♍	
	8966 Aug 01 10:09	0°♎	
	8966 Aug 29 08:56	0°♏	
evening max el	8966 Sep 02 18:00	4°♏19'35	45°52'25
desc. node	8966 Sep 13 13:01	14°♏20'17	
	8966 Oct 05 03:09	0°♐	
greatest brilliancy	8966 Oct 11 13:59	2°♐52'05	-4.7m
retrograde	8966 Oct 21 20:55	4°♐47'18	
	8966 Nov 06 14:56	30°℞♏	
evening set	8966 Nov 09 03:24	28°♏31'12	
inferior conj	8966 Nov 12 09:13	26°♏30'23	-8°36'45
minimum elong	8966 Nov 12 11:03	26°♏27'31	8°36'30
min. Earth dist.	8966 Nov 12 13:00	26°♏24'27	0.29136 AU
morning rise	8966 Nov 15 18:41	24°♏24'01	
direct	8966 Dec 03 21:51	18°♏12'08	
greatest brilliancy	8966 Dec 14 13:18	20°♏16'08	-4.8m
	8966 Dec 31 11:04	0°♐	
asc. node	8967 Jan 04 12:26	3°♐08'32	
morning max el	8967 Jan 22 08:51	19°♐15'37	46°03'10
	8967 Feb 01 21:56	0°♑	
	8967 Mar 01 00:59	0°♒	
	8967 Mar 26 13:14	0°♓	

	8967 Apr 20 07:23	0°♈	
desc. node	8967 Apr 26 06:29	7°♈18'31	
	8967 May 14 15:49	0°♉	
	8967 Jun 07 19:20	0°♊	
	8967 Jul 01 21:17	0°♋	
	8967 Jul 25 23:53	0°♌	
morning set	8967 Jul 27 04:08	1°♌27'46	
asc. node	8967 Aug 17 03:15	27°♌28'53	
	8967 Aug 19 04:02	0°♍	
superior conj	8967 Sep 03 09:40	18°♍51'44	0°40'15
minimum elong	8967 Sep 03 01:37	18°♍26'50	0°39'49
max. Earth dist.	8967 Sep 05 08:22	21°♍16'12	1.72881 AU
	8967 Sep 12 09:48	0°♎	
	8967 Oct 06 17:13	0°♏	
evening rise	8967 Oct 10 05:21	4°♏19'09	
	8967 Oct 31 02:51	0°♐	
	8967 Nov 24 15:38	0°♑	
desc. node	8967 Dec 06 21:02	14°♑52'47	
	8967 Dec 19 08:15	0°♒	
	8968 Jan 13 05:07	0°♓	
	8968 Feb 07 07:56	0°♈	
	8968 Mar 03 23:04	0°♉	
asc. node	8968 Mar 28 20:22	27°♉47'53	
	8968 Mar 30 21:49	0°♊	
evening max el	8968 Apr 09 13:27	10°♊00'50	46°57'55
	8968 May 01 13:31	0°♋	
greatest brilliancy	8968 May 19 23:38	10°♋57'17	-4.9m
retrograde	8968 May 30 01:14	12°♋51'37	
evening set	8968 Jun 15 12:23	7°♋33'59	
inferior conj	8968 Jun 19 19:06	4°♋58'50	6°38'25
minimum elong	8968 Jun 20 06:10	4°♋41'49	6°35'42
min. Earth dist.	8968 Jun 19 20:48	4°♋56'13	0.27241 AU
morning rise	8968 Jun 25 00:11	1°♋52'42	
	8968 Jun 28 16:18	30°℞♊	
direct	8968 Jul 10 13:33	27°♊10'32	
desc. node	8968 Jul 18 16:19	28°♊25'31	
greatest brilliancy	8968 Jul 20 08:20	28°♊57'59	-4.8m
	8968 Jul 22 23:55	0°♋	
morning max el	8968 Aug 29 04:21	28°♋26'35	46°10'42
	8968 Aug 30 18:32	0°♌	
	8968 Sep 28 07:45	0°♍	
	8968 Oct 24 20:50	0°♎	
asc. node	8968 Nov 08 14:36	17°♎10'20	
	8968 Nov 19 11:06	0°♏	
	8968 Dec 14 11:01	0°♐	
	8969 Jan 08 01:20	0°♑	
	8969 Feb 01 09:17	0°♒	
morning set	8969 Feb 23 23:01	28°♒02'17	
	8969 Feb 25 12:48	0°♓	
desc. node	8969 Feb 28 07:32	3°♓27'59	
	8969 Mar 21 12:57	0°♈	
max. Earth dist.	8969 Apr 03 05:15	15°♈54'03	1.71376 AU
superior conj	8969 Apr 05 07:19	18°♈31'09	-1°13'53
minimum elong	8969 Apr 04 20:28	17°♈57'06	1°13'39
	8969 Apr 14 10:39	0°♉	
	8969 May 08 07:28	0°♊	
evening rise	8969 May 15 18:10	9°♊21'07	
	8969 Jun 01 05:29	0°♋	
asc. node	8969 Jun 21 04:54	24°♋55'33	
	8969 Jun 25 06:53	0°♌	
	8969 Jul 19 13:40	0°♍	
	8969 Aug 13 04:15	0°♎	
	8969 Sep 07 06:52	0°♏	
	8969 Oct 03 05:58	0°♐	
desc. node	8969 Oct 11 00:02	8°♐40'06	
	8969 Oct 30 21:02	0°♑	
evening max el	8969 Nov 13 00:43	13°♑06'47	45°46'58
	8969 Dec 02 11:35	0°♒	
greatest brilliancy	8969 Dec 22 06:25	11°♒19'40	-4.8m
retrograde	8969 Dec 31 18:46	12°♒58'36	
evening set	8970 Jan 15 23:08	8°♒32'33	
inferior conj	8970 Jan 21 20:04	5°♒02'24	-2°31'00
minimum elong	8970 Jan 22 01:35	4°♒53'50	2°29'07
min. Earth dist.	8970 Jan 22 12:39	4°♒36'36	0.27870 AU
morning rise	8970 Jan 28 03:18	1°♒16'35	
	8970 Jan 30 15:01	30°℞♑	
asc. node	8970 Feb 01 00:03	29°♑22'26	
direct	8970 Feb 11 23:12	26°♑57'19	
greatest brilliancy	8970 Feb 22 22:01	29°♑10'55	-4.8m
	8970 Feb 24 21:02	0°♒	
morning max el	8970 Apr 03 06:39	29°♒32'24	46°47'44
	8970 Apr 03 17:37	0°♓	
	8970 May 01 12:00	0°♈	
desc. node	8970 May 23 18:52	25°♈52'36	
	8970 May 27 06:20	0°♉	
	8970 Jun 21 05:16	0°♊	
	8970 Jul 15 19:49	0°♋	
	8970 Aug 09 07:21	0°♌	
	8970 Sep 02 17:57	0°♍	
asc. node	8970 Sep 13 15:42	13°♍23'54	
	8970 Sep 27 03:47	0°♎	
morning set	8970 Oct 05 05:28	9°♎55'52	
	8970 Oct 21 12:35	0°♏	
superior conj	8970 Nov 10 21:35	25°♏07'20	1°25'51
minimum elong	8970 Nov 10 22:50	25°♏11'12	1°26'02
max. Earth dist.	8970 Nov 10 11:53	24°♏37'25	1.73271 AU
	8970 Nov 14 20:31	0°♐	
	8970 Dec 09 04:16	0°♑	
evening rise	8970 Dec 17 20:46	10°♑42'34	
	8971 Jan 02 12:20	0°♒	
desc. node	8971 Jan 03 08:59	1°♒03'37	
	8971 Jan 26 20:32	0°♓	
	8971 Feb 20 04:42	0°♈	
	8971 Mar 16 13:53	0°♉	
	8971 Apr 10 03:38	0°♊	
asc. node	8971 Apr 26 07:35	19°♊26'59	
	8971 May 05 05:00	0°♋	
	8971 May 31 08:06	0°♌	
evening max el	8971 Jun 21 14:11	22°♌32'41	46°35'19
	8971 Jun 29 06:27	0°♍	
greatest brilliancy	8971 Jul 30 15:31	22°♍29'29	-4.8m
retrograde	8971 Aug 10 16:15	24°♍44'39	
desc. node	8971 Aug 16 03:46	24°♍08'21	
evening set	8971 Aug 25 19:39	20°♍16'58	
min. Earth dist.	8971 Aug 31 06:56	17°♍01'30	0.28257 AU
inferior conj	8971 Sep 01 00:09	16°♍34'40	-3°47'36
minimum elong	8971 Aug 31 16:19	16°♍46'53	3°45'30
morning rise	8971 Sep 06 13:30	13°♍14'10	
direct	8971 Sep 22 04:28	8°♍33'16	
greatest brilliancy	8971 Oct 01 21:30	10°♍15'11	-4.7m
	8971 Oct 31 21:24	0°♎	
morning max el	8971 Nov 09 20:23	8°♎14'12	45°41'41
	8971 Dec 01 04:44	0°♏	
asc. node	8971 Dec 07 02:49	6°♏24'31	
	8971 Dec 28 02:17	0°♐	
	8972 Jan 22 15:14	0°♑	
	8972 Feb 16 11:07	0°♒	
	8972 Mar 11 21:02	0°♓	
desc. node	8972 Mar 27 19:55	19°♓47'32	
	8972 Apr 05 00:33	0°♈	
	8972 Apr 28 23:57	0°♉	

morning set	8972 May 10 17:57	14°♉44'48	
	8972 May 22 21:24	0°♊	
	8972 Jun 15 19:06	0°♋	
superior conj	8972 Jun 19 20:28	5°♋05'00	-1°03'04
minimum elong	8972 Jun 20 07:56	5°♋40'54	1°02'55
max. Earth dist.	8972 Jun 22 17:07	8°♋39'52	1.71633 AU
	8972 Jul 09 18:51	0°♌	
asc. node	8972 Jul 18 16:58	11°♌07'10	
evening rise	8972 Jul 29 09:19	24°♌23'50	
	8972 Aug 02 21:41	0°♍	
	8972 Aug 27 04:16	0°♎	
	8972 Sep 20 15:42	0°♏	
	8972 Oct 15 10:07	0°♐	
desc. node	8972 Nov 07 11:24	27°♐29'02	
	8972 Nov 09 14:33	0°♑	
	8972 Dec 05 09:25	0°♒	
	8973 Jan 01 04:31	0°♓	
evening max el	8973 Jan 24 01:06	23°♓49'04	46°24'54
	8973 Jan 30 11:30	0°♈	
asc. node	8973 Feb 28 11:17	21°♈52'50	
greatest brilliancy	8973 Mar 05 03:49	23°♈51'57	-4.9m
retrograde	8973 Mar 14 24:00	25°♈41'38	
evening set	8973 Mar 31 03:59	20°♈35'45	
inferior conj	8973 Apr 04 15:50	17°♈54'04	7°42'03
minimum elong	8973 Apr 04 05:29	18°♈09'57	7°40'09
min. Earth dist.	8973 Apr 04 11:33	18°♈00'38	0.27097 AU
morning rise	8973 Apr 08 06:57	15°♈42'12	
direct	8973 Apr 25 07:45	10°♈04'24	
greatest brilliancy	8973 May 05 01:53	11°♈52'45	-4.9m
	8973 Jun 01 06:21	0°♉	
morning max el	8973 Jun 14 19:17	12°♉51'36	46°54'44
desc. node	8973 Jun 20 06:47	18°♉27'07	
	8973 Jul 01 03:19	0°♊	
	8973 Jul 27 19:07	0°♋	
	8973 Aug 22 10:11	0°♌	
	8973 Sep 16 14:20	0°♍	
asc. node	8973 Oct 11 04:07	29°♍36'47	
	8973 Oct 11 11:48	0°♎	
	8973 Nov 05 03:44	0°♏	
	8973 Nov 29 15:02	0°♐	
morning set	8973 Dec 12 17:51	16°♐09'21	
	8973 Dec 23 22:55	0°♑	
max. Earth dist.	8974 Jan 16 19:15	29°♑31'31	1.72567 AU
	8974 Jan 17 04:26	0°♒	
superior conj	8974 Jan 19 03:50	2°♒27'01	0°27'55
minimum elong	8974 Jan 19 10:05	2°♒46'22	0°27'50
desc. node	8974 Jan 30 21:07	17°♒00'13	
	8974 Feb 10 07:58	0°♓	
evening rise	8974 Feb 27 03:44	20°♓57'38	
	8974 Mar 06 09:36	0°♈	
	8974 Mar 30 09:53	0°♉	
	8974 Apr 23 10:37	0°♊	
	8974 May 17 14:40	0°♋	
asc. node	8974 May 23 19:07	7°♋37'44	
	8974 Jun 11 01:54	0°♌	
	8974 Jul 06 01:48	0°♍	
	8974 Aug 01 01:04	0°♎	
	8974 Aug 29 05:20	0°♏	
evening max el	8974 Aug 31 10:18	2°♏10'01	45°53'27
desc. node	8974 Sep 12 14:54	13°♏24'08	
	8974 Oct 07 08:48	0°♐	
greatest brilliancy	8974 Oct 09 04:31	0°♐41'57	-4.7m
retrograde	8974 Oct 19 13:20	2°♐38'22	
	8974 Oct 31 02:07	30°℞♏	
evening set	8974 Nov 06 19:29	26°♏22'17	
inferior conj	8974 Nov 10 01:26	24°♏21'04	-8°38'06
minimum elong	8974 Nov 10 02:31	24°♏19'22	8°37'53
min. Earth dist.	8974 Nov 10 03:35	24°♏17'40	0.29148 AU
morning rise	8974 Nov 13 09:33	22°♏16'40	
direct	8974 Dec 01 14:44	16°♏03'06	
greatest brilliancy	8974 Dec 12 03:45	18°♏05'01	-4.7m
	8974 Dec 31 23:19	0°♐	
asc. node	8975 Jan 03 14:29	2°♐06'54	
morning max el	8975 Jan 20 00:39	17°♐03'29	46°01'38
	8975 Feb 01 16:09	0°♑	
	8975 Feb 28 15:20	0°♒	
	8975 Mar 26 02:01	0°♓	
	8975 Apr 19 19:21	0°♈	
desc. node	8975 Apr 25 08:30	6°♈48'23	
	8975 May 14 03:19	0°♉	
	8975 Jun 07 06:31	0°♊	
	8975 Jul 01 08:14	0°♋	
morning set	8975 Jul 24 18:44	29°♋10'36	
	8975 Jul 25 10:38	0°♌	
asc. node	8975 Aug 16 05:08	27°♌01'46	
	8975 Aug 18 14:39	0°♍	
superior conj	8975 Sep 01 01:46	16°♍40'21	0°37'12
minimum elong	8975 Aug 31 18:10	16°♍16'51	0°36'47
max. Earth dist.	8975 Sep 03 04:55	19°♍18'37	1.72845 AU
	8975 Sep 11 20:21	0°♎	
	8975 Oct 06 03:47	0°♏	
evening rise	8975 Oct 07 22:55	2°♏12'51	
	8975 Oct 30 13:33	0°♐	
	8975 Nov 24 02:38	0°♑	
desc. node	8975 Dec 05 23:06	14°♑25'00	
	8975 Dec 18 19:43	0°♒	
	8976 Jan 12 17:18	0°♓	
	8976 Feb 06 21:14	0°♈	
	8976 Mar 03 14:21	0°♉	
asc. node	8976 Mar 27 22:21	27°♉01'49	
	8976 Mar 30 17:39	0°♊	
evening max el	8976 Apr 07 03:16	7°♊37'49	46°57'38
	8976 May 02 07:30	0°♋	
greatest brilliancy	8976 May 17 14:17	8°♋34'46	-4.9m
retrograde	8976 May 27 14:28	10°♋27'39	
evening set	8976 Jun 13 05:17	5°♋05'31	
inferior conj	8976 Jun 17 08:20	2°♋35'27	6°54'41
minimum elong	8976 Jun 17 19:21	2°♋18'28	6°52'05
min. Earth dist.	8976 Jun 17 10:20	2°♋32'21	0.27226 AU
	8976 Jun 21 15:32	30°℞♊	
morning rise	8976 Jun 22 09:39	29°♊34'15	
direct	8976 Jul 08 02:38	24°♊47'30	
desc. node	8976 Jul 17 18:20	26°♊32'00	
greatest brilliancy	8976 Jul 17 21:04	26°♊34'24	-4.8m
	8976 Jul 25 09:19	0°♋	
morning max el	8976 Aug 26 17:29	26°♋05'34	46°12'17
	8976 Aug 30 16:28	0°♌	
	8976 Sep 27 23:24	0°♍	
	8976 Oct 24 10:05	0°♎	
asc. node	8976 Nov 07 16:40	16°♎39'48	
	8976 Nov 18 23:08	0°♏	
	8976 Dec 13 22:25	0°♐	
	8977 Jan 07 12:24	0°♑	
	8977 Jan 31 20:12	0°♒	
morning set	8977 Feb 21 11:56	25°♒39'07	
	8977 Feb 24 23:41	0°♓	
desc. node	8977 Feb 27 09:24	2°♓59'52	
	8977 Mar 20 23:50	0°♈	
max. Earth dist.	8977 Mar 31 09:27	13°♈02'29	1.71403 AU
superior conj	8977 Apr 02 18:38	16°♈01'51	-1°11'41

minimum elong	8977 Apr 02 07:25	15°♈26'40	1°11'24
	8977 Apr 13 21:34	0°♉	
	8977 May 07 18:25	0°♊	
evening rise	8977 May 13 04:40	6°♊48'58	
	8977 May 31 16:30	0°♋	
asc. node	8977 Jun 20 06:53	24°♋27'07	
	8977 Jun 24 18:02	0°♌	
	8977 Jul 19 01:05	0°♍	
	8977 Aug 12 16:08	0°♎	
	8977 Sep 06 19:37	0°♏	
	8977 Oct 02 20:26	0°♐	
desc. node	8977 Oct 10 02:04	8°♐03'28	
	8977 Oct 30 15:49	0°♑	
evening max el	8977 Nov 10 14:06	10°♑49'39	45°46'20
	8977 Dec 03 03:26	0°♒	
greatest brilliancy	8977 Dec 19 21:13	9°♒04'29	-4.8m
retrograde	8977 Dec 29 08:37	10°♒42'58	
evening set	8978 Jan 13 15:43	6°♒13'22	
inferior conj	8978 Jan 19 10:47	2°♒45'59	-2°51'48
minimum elong	8978 Jan 19 16:59	2°♒36'21	2°49'44
min. Earth dist.	8978 Jan 20 04:18	2°♒18'45	0.27926 AU
	8978 Jan 23 23:37	30°♑℞	
morning rise	8978 Jan 25 17:26	29°♑00'45	
asc. node	8978 Jan 31 01:54	26°♑29'36	
direct	8978 Feb 09 13:48	24°♑39'51	
greatest brilliancy	8978 Feb 20 14:36	26°♑54'56	-4.8m
	8978 Feb 27 01:00	0°♒	
morning max el	8978 Mar 31 20:46	27°♒11'12	46°46'30
	8978 Apr 03 15:18	0°♓	
	8978 May 01 03:58	0°♈	
desc. node	8978 May 22 20:54	25°♈17'12	
	8978 May 26 20:06	0°♉	
	8978 Jun 20 17:52	0°♊	
	8978 Jul 15 07:43	0°♋	
	8978 Aug 08 18:47	0°♌	
	8978 Sep 02 05:03	0°♍	
asc. node	8978 Sep 12 17:35	12°♍55'56	
	8978 Sep 26 14:41	0°♎	
morning set	8978 Oct 02 22:13	7°♎46'20	
	8978 Oct 20 23:20	0°♏	
superior conj	8978 Nov 08 15:15	23°♏00'45	1°26'00
minimum elong	8978 Nov 08 15:47	23°♏02'22	1°26'12
max. Earth dist.	8978 Nov 08 06:07	22°♏32'36	1.73277 AU
	8978 Nov 14 07:14	0°♐	
	8978 Dec 08 15:04	0°♑	
evening rise	8978 Dec 15 13:13	8°♑31'59	
	8979 Jan 01 23:18	0°♒	
desc. node	8979 Jan 02 10:55	0°♒35'45	
	8979 Jan 26 07:47	0°♓	
	8979 Feb 19 16:18	0°♈	
	8979 Mar 16 02:00	0°♉	
	8979 Apr 09 16:32	0°♊	
asc. node	8979 Apr 25 09:36	18°♊52'10	
	8979 May 04 19:16	0°♋	
	8979 May 31 01:15	0°♌	
evening max el	8979 Jun 19 04:20	20°♌12'33	46°36'56
	8979 Jun 29 08:53	0°♍	
greatest brilliancy	8979 Jul 28 07:05	20°♍13'47	-4.8m
retrograde	8979 Aug 08 07:59	22°♍29'32	
desc. node	8979 Aug 15 05:39	21°♍31'32	
evening set	8979 Aug 23 09:35	18°♍03'30	
min. Earth dist.	8979 Aug 28 22:21	14°♍46'19	0.28208 AU
inferior conj	8979 Aug 29 15:18	14°♍19'59	-3°28'17
minimum elong	8979 Aug 29 07:59	14°♍31'21	3°26'18
morning rise	8979 Sep 04 06:56	10°♍56'43	
direct	8979 Sep 19 18:51	6°♍19'03	
greatest brilliancy	8979 Sep 29 12:32	8°♍01'42	-4.7m
	8979 Nov 01 00:06	0°♎	
morning max el	8979 Nov 07 11:46	6°♎01'53	45°41'59
	8979 Nov 30 21:28	0°♏	
asc. node	8979 Dec 06 04:45	5°♏46'17	
	8979 Dec 27 16:03	0°♐	
	8980 Jan 22 03:42	0°♑	
	8980 Feb 15 22:56	0°♒	
	8980 Mar 11 08:29	0°♓	
desc. node	8980 Mar 26 21:58	19°♓18'46	
	8980 Apr 04 11:48	0°♈	
	8980 Apr 28 11:06	0°♉	
morning set	8980 May 08 04:44	12°♉13'00	
	8980 May 22 08:29	0°♊	
	8980 Jun 15 06:09	0°♋	
superior conj	8980 Jun 17 08:31	2°♋37'50	-1°05'41
minimum elong	8980 Jun 17 19:58	3°♋13'43	1°05'34
max. Earth dist.	8980 Jun 20 01:51	6°♋02'28	1.71598 AU
	8980 Jul 09 05:52	0°♌	
asc. node	8980 Jul 17 18:49	10°♌38'40	
evening rise	8980 Jul 26 23:30	22°♌04'44	
	8980 Aug 02 08:42	0°♍	
	8980 Aug 26 15:22	0°♎	
	8980 Sep 20 03:03	0°♏	
	8980 Oct 14 21:57	0°♐	
desc. node	8980 Nov 06 13:27	26°♐57'59	
	8980 Nov 09 03:14	0°♑	
	8980 Dec 04 23:37	0°♒	
	8980 Dec 31 21:52	0°♓	
evening max el	8981 Jan 21 15:58	21°♓30'47	46°23'27
	8981 Jan 30 14:32	0°♈	
asc. node	8981 Feb 27 13:15	20°♈11'19	
greatest brilliancy	8981 Mar 02 15:55	21°♈26'13	-4.9m
retrograde	8981 Mar 12 13:35	23°♈16'38	
evening set	8981 Mar 28 12:48	18°♈16'48	
inferior conj	8981 Apr 02 04:51	15°♈28'54	7°28'20
minimum elong	8981 Apr 01 18:12	15°♈45'14	7°26'16
min. Earth dist.	8981 Apr 02 00:12	15°♈36'02	0.27099 AU
morning rise	8981 Apr 05 23:36	13°♈11'46	
direct	8981 Apr 22 21:34	7°♈39'13	
greatest brilliancy	8981 May 02 14:52	9°♈27'09	-4.9m
	8981 Jun 01 11:59	0°♉	
morning max el	8981 Jun 12 09:42	10°♉29'52	46°55'23
desc. node	8981 Jun 19 08:46	17°♉38'06	
	8981 Jun 30 21:29	0°♊	
	8981 Jul 27 09:53	0°♋	
	8981 Aug 21 23:18	0°♌	
	8981 Sep 16 02:28	0°♍	
asc. node	8981 Oct 10 06:13	29°♍08'15	
	8981 Oct 10 23:18	0°♎	
	8981 Nov 04 14:51	0°♏	
	8981 Nov 29 01:58	0°♐	
morning set	8981 Dec 10 10:50	14°♐00'15	
	8981 Dec 23 09:48	0°♑	
max. Earth dist.	8982 Jan 14 11:24	27°♑19'03	1.72603 AU
superior conj	8982 Jan 16 18:53	0°♒11'03	0°31'14
minimum elong	8982 Jan 17 01:44	0°♒32'15	0°31'08
	8982 Jan 16 15:19	0°♒	
desc. node	8982 Jan 29 23:00	16°♒32'08	
	8982 Feb 09 18:56	0°♓	
evening rise	8982 Feb 24 17:17	18°♓35'48	
	8982 Mar 05 20:40	0°♈	
	8982 Mar 29 21:08	0°♉	
	8982 Apr 22 22:05	0°♊	
	8982 May 17 02:29	0°♋	

asc. node	8982 May 22 21:06	7°♋07'07	
	8982 Jun 10 14:16	0°♌	
	8982 Jul 05 15:12	0°♍	
	8982 Jul 31 16:39	0°♎	
evening max el	8982 Aug 29 02:26	29°♎58'33	45°54'29
	8982 Aug 29 03:02	0°♏	
desc. node	8982 Sep 11 16:59	12°♏25'52	
greatest brilliancy	8982 Oct 06 19:52	28°♏31'28	-4.7m
	8982 Oct 12 05:08	0°♐	
retrograde	8982 Oct 17 05:20	0°♐28'17	
	8982 Oct 22 02:26	30°℞♏	
evening set	8982 Nov 04 11:17	24°♏13'05	
inferior conj	8982 Nov 07 17:42	22°♏10'54	-8°38'41
minimum elong	8982 Nov 07 18:00	22°♏10'26	8°38'29
min. Earth dist.	8982 Nov 07 18:30	22°♏09'39	0.29151 AU
morning rise	8982 Nov 11 00:45	20°♏07'58	
direct	8982 Nov 29 07:20	13°♏53'23	
greatest brilliancy	8982 Dec 09 18:17	15°♏53'11	-4.7m
	8983 Jan 01 08:41	0°♐	
asc. node	8983 Jan 02 16:25	1°♐05'48	
morning max el	8983 Jan 17 15:32	14°♐48'26	46°00'07
	8983 Feb 01 10:10	0°♑	
	8983 Feb 28 05:46	0°♒	
	8983 Mar 25 14:56	0°♓	
	8983 Apr 19 07:29	0°♈	
desc. node	8983 Apr 24 10:30	6°♈17'39	
	8983 May 13 14:58	0°♉	
	8983 Jun 06 17:51	0°♊	
	8983 Jun 30 19:19	0°♋	
morning set	8983 Jul 22 09:26	26°♋53'06	
	8983 Jul 24 21:33	0°♌	
asc. node	8983 Aug 15 07:06	26°♌34'16	
	8983 Aug 18 01:28	0°♍	
superior conj	8983 Aug 29 17:48	14°♍28'03	0°34'05
minimum elong	8983 Aug 29 10:43	14°♍06'06	0°33'40
max. Earth dist.	8983 Aug 31 23:39	17°♍14'41	1.72810 AU
	8983 Sep 11 07:08	0°♎	
evening rise	8983 Oct 05 16:15	0°♏05'05	
	8983 Oct 05 14:36	0°♏	
	8983 Oct 30 00:29	0°♐	
	8983 Nov 23 13:50	0°♑	
desc. node	8983 Dec 05 00:58	13°♑56'01	
	8983 Dec 18 07:23	0°♒	
	8984 Jan 12 05:42	0°♓	
	8984 Feb 06 10:48	0°♈	
	8984 Mar 03 06:00	0°♉	
asc. node	8984 Mar 27 00:27	26°♉14'59	
	8984 Mar 30 14:17	0°♊	
evening max el	8984 Apr 04 16:17	5°♊12'21	46°57'16
	8984 May 03 08:00	0°♋	
greatest brilliancy	8984 May 15 05:27	6°♋12'36	-4.9m
retrograde	8984 May 25 03:29	8°♋03'47	
evening set	8984 Jun 10 22:14	2°♋37'05	
inferior conj	8984 Jun 14 21:41	0°♋12'16	7°10'02
minimum elong	8984 Jun 15 08:34	29°♊55'28	7°07'35
min. Earth dist.	8984 Jun 15 00:14	0°♋08'19	0.27211 AU
	8984 Jun 15 05:38	30°℞♊	
morning rise	8984 Jun 19 19:02	27°♊16'19	
direct	8984 Jul 05 15:18	22°♊24'27	
greatest brilliancy	8984 Jul 15 10:20	24°♊11'29	-4.8m
desc. node	8984 Jul 16 20:12	24°♊42'56	
	8984 Jul 26 22:14	0°♋	
morning max el	8984 Aug 24 06:19	23°♋43'37	46°13'53
	8984 Aug 30 13:36	0°♌	
	8984 Sep 27 14:52	0°♍	
	8984 Oct 23 23:18	0°♎	
asc. node	8984 Nov 06 18:34	16°♎08'38	
	8984 Nov 18 11:12	0°♏	
	8984 Dec 13 09:51	0°♐	
	8985 Jan 06 23:29	0°♑	
	8985 Jan 31 07:07	0°♒	
morning set	8985 Feb 19 00:58	23°♒16'26	
	8985 Feb 24 10:33	0°♓	
desc. node	8985 Feb 26 11:22	2°♓32'09	
	8985 Mar 20 10:43	0°♈	
max. Earth dist.	8985 Mar 28 16:36	10°♈20'12	1.71435 AU
superior conj	8985 Mar 31 06:03	13°♈32'56	-1°09'20
minimum elong	8985 Mar 30 18:34	12°♈56'57	1°09'02
	8985 Apr 13 08:29	0°♉	
	8985 May 07 05:22	0°♊	
evening rise	8985 May 10 15:21	4°♊17'24	
	8985 May 31 03:31	0°♋	
asc. node	8985 Jun 19 08:45	23°♋58'19	
	8985 Jun 24 05:11	0°♌	
	8985 Jul 18 12:28	0°♍	
	8985 Aug 12 03:58	0°♎	
	8985 Sep 06 08:19	0°♏	
	8985 Oct 02 11:00	0°♐	
desc. node	8985 Oct 09 04:05	7°♐26'41	
	8985 Oct 30 11:05	0°♑	
evening max el	8985 Nov 08 03:56	8°♑33'57	45°45'45
	8985 Dec 04 00:42	0°♒	
greatest brilliancy	8985 Dec 17 11:41	6°♒49'21	-4.8m
retrograde	8985 Dec 26 23:05	8°♒28'01	
evening set	8986 Jan 11 08:33	3°♒54'33	
inferior conj	8986 Jan 17 01:37	0°♒30'09	-3°12'06
minimum elong	8986 Jan 17 08:27	0°♒19'31	3°09'53
	8986 Jan 17 21:01	30°℞♑	
min. Earth dist.	8986 Jan 17 19:48	0°♒01'54	0.27982 AU
morning rise	8986 Jan 23 07:32	26°♑46'00	
asc. node	8986 Jan 30 03:54	23°♑42'13	
direct	8986 Feb 07 04:45	22°♑23'00	
greatest brilliancy	8986 Feb 18 07:04	24°♑39'35	-4.8m
	8986 Feb 28 10:47	0°♒	
morning max el	8986 Mar 29 11:52	24°♒53'12	46°45'13
	8986 Apr 03 12:01	0°♓	
	8986 Apr 30 19:29	0°♈	
desc. node	8986 May 21 22:46	24°♈42'07	
	8986 May 26 09:34	0°♉	
	8986 Jun 20 06:16	0°♊	
	8986 Jul 14 19:27	0°♋	
	8986 Aug 08 06:03	0°♌	
	8986 Sep 01 15:58	0°♍	
asc. node	8986 Sep 11 19:38	12°♍29'06	
	8986 Sep 26 01:21	0°♎	
morning set	8986 Sep 30 15:11	5°♎38'03	
	8986 Oct 20 09:52	0°♏	
superior conj	8986 Nov 06 09:00	20°♏55'02	1°26'02
minimum elong	8986 Nov 06 08:49	20°♏54'29	1°26'14
max. Earth dist.	8986 Nov 06 02:30	20°♏35'00	1.73285 AU
	8986 Nov 13 17:46	0°♐	
	8986 Dec 08 01:42	0°♑	
evening rise	8986 Dec 13 05:44	6°♑22'10	
	8987 Jan 01 10:07	0°♒	
desc. node	8987 Jan 01 12:49	0°♒08'18	
	8987 Jan 25 18:51	0°♓	
	8987 Feb 19 03:43	0°♈	
	8987 Mar 15 13:56	0°♉	
	8987 Apr 09 05:17	0°♊	
asc. node	8987 Apr 24 11:33	18°♊17'42	
	8987 May 04 09:28	0°♋	

	8987 May 30 18:33	0°♌	
evening max el	8987 Jun 16 19:23	17°♌55'14	46°38'26
	8987 Jun 29 12:42	0°♍	
greatest brilliancy	8987 Jul 25 22:22	17°♍58'07	-4.8m
retrograde	8987 Aug 06 00:05	20°♍14'33	
desc. node	8987 Aug 14 07:45	18°♍49'54	
evening set	8987 Aug 20 23:36	15°♍50'05	
min. Earth dist.	8987 Aug 26 13:27	12°♍31'36	0.28155 AU
inferior conj	8987 Aug 27 06:17	12°♍05'29	-3°08'32
minimum elong	8987 Aug 26 23:33	12°♍15'56	3°06'41
morning rise	8987 Sep 02 00:07	8°♍39'42	
direct	8987 Sep 17 09:29	4°♍05'13	
greatest brilliancy	8987 Sep 27 02:49	5°♍48'01	-4.7m
	8987 Nov 01 00:57	0°♎	
morning max el	8987 Nov 05 03:35	3°♎51'42	45°42'21
	8987 Nov 30 13:30	0°♏	
asc. node	8987 Dec 05 06:41	5°♏09'28	
	8987 Dec 27 05:21	0°♐	
	8988 Jan 21 15:48	0°♑	
	8988 Feb 15 10:26	0°♒	
	8988 Mar 10 19:40	0°♓	
desc. node	8988 Mar 25 23:58	18°♓50'42	
	8988 Apr 03 22:46	0°♈	
	8988 Apr 27 21:55	0°♉	
morning set	8988 May 05 15:26	9°♉42'03	
	8988 May 21 19:14	0°♊	
superior conj	8988 Jun 14 20:27	0°♋11'15	-1°08'11
minimum elong	8988 Jun 15 07:49	0°♋46'52	1°08'05
	8988 Jun 14 16:51	0°♋	
max. Earth dist.	8988 Jun 17 13:15	3°♋34'18	1.71566 AU
	8988 Jul 08 16:34	0°♌	
asc. node	8988 Jul 16 20:49	10°♌11'35	
evening rise	8988 Jul 24 13:36	19°♌46'12	
	8988 Aug 01 19:25	0°♍	
	8988 Aug 26 02:11	0°♎	
	8988 Sep 19 14:06	0°♏	
	8988 Oct 14 09:28	0°♐	
desc. node	8988 Nov 05 15:22	26°♐27'34	
	8988 Nov 08 15:35	0°♑	
	8988 Dec 04 13:33	0°♒	
	8988 Dec 31 15:12	0°♓	
evening max el	8989 Jan 19 06:54	19°♓13'40	46°21'44
	8989 Jan 30 18:54	0°♈	
asc. node	8989 Feb 26 15:21	18°♈26'31	
greatest brilliancy	8989 Feb 28 04:25	19°♈01'31	-4.9m
retrograde	8989 Mar 10 02:39	20°♈51'47	
evening set	8989 Mar 25 21:37	15°♈58'11	
inferior conj	8989 Mar 30 17:44	13°♈04'10	7°13'42
minimum elong	8989 Mar 30 06:52	13°♈20'54	7°11'30
min. Earth dist.	8989 Mar 30 13:05	13°♈11'20	0.27101 AU
morning rise	8989 Apr 03 16:08	10°♈41'34	
direct	8989 Apr 20 11:06	5°♈14'34	
greatest brilliancy	8989 Apr 30 04:05	7°♈02'12	-4.9m
	8989 Jun 01 15:24	0°♉	
morning max el	8989 Jun 09 23:10	8°♉06'33	46°56'00
desc. node	8989 Jun 18 10:42	16°♉50'44	
	8989 Jun 30 14:52	0°♊	
	8989 Jul 27 00:05	0°♋	
	8989 Aug 21 11:56	0°♌	
	8989 Sep 15 14:11	0°♍	
asc. node	8989 Oct 09 08:04	28°♍40'04	
	8989 Oct 10 10:26	0°♎	
	8989 Nov 04 01:38	0°♏	
	8989 Nov 28 12:32	0°♐	
morning set	8989 Dec 08 03:59	11°♐52'46	
	8989 Dec 22 20:17	0°♑	
max. Earth dist.	8990 Jan 12 02:44	25°♑05'21	1.72641 AU
superior conj	8990 Jan 14 10:12	27°♑57'11	0°34'27
minimum elong	8990 Jan 14 17:34	28°♑20'03	0°34'21
	8990 Jan 16 01:49	0°♒	
desc. node	8990 Jan 29 01:02	16°♒05'40	
	8990 Feb 09 05:32	0°♓	
evening rise	8990 Feb 22 06:52	16°♓15'13	
	8990 Mar 05 07:26	0°♈	
	8990 Mar 29 08:06	0°♉	
	8990 Apr 22 09:18	0°♊	
	8990 May 16 14:02	0°♋	
asc. node	8990 May 21 22:58	6°♋36'58	
	8990 Jun 10 02:23	0°♌	
	8990 Jul 05 04:24	0°♍	
	8990 Jul 31 08:08	0°♎	
evening max el	8990 Aug 26 17:40	27°♎45'40	45°55'31
	8990 Aug 29 01:12	0°♏	
desc. node	8990 Sep 10 18:59	11°♏27'00	
greatest brilliancy	8990 Oct 04 11:36	26°♏22'06	-4.7m
retrograde	8990 Oct 14 20:55	28°♏19'00	
evening set	8990 Nov 02 02:40	22°♏05'11	
inferior conj	8990 Nov 05 09:54	20°♏01'37	-8°38'35
minimum elong	8990 Nov 05 09:24	20°♏02'25	8°38'24
min. Earth dist.	8990 Nov 05 09:42	20°♏01'55	0.29151 AU
morning rise	8990 Nov 08 16:09	17°♏59'40	
direct	8990 Nov 26 23:18	11°♏44'27	
greatest brilliancy	8990 Dec 07 09:14	13°♏42'44	-4.7m
asc. node	8991 Jan 01 18:23	0°♐07'16	
	8991 Jan 01 14:58	0°♐	
morning max el	8991 Jan 15 05:46	12°♐32'54	45°58'50
	8991 Feb 01 03:20	0°♑	
	8991 Feb 27 19:38	0°♒	
	8991 Mar 25 03:25	0°♓	
	8991 Apr 18 19:16	0°♈	
desc. node	8991 Apr 23 12:20	5°♈47'26	
	8991 May 13 02:20	0°♉	
	8991 Jun 06 04:55	0°♊	
	8991 Jun 30 06:10	0°♋	
morning set	8991 Jul 19 23:38	24°♋34'45	
	8991 Jul 24 08:13	0°♌	
asc. node	8991 Aug 14 09:05	26°♌07'42	
	8991 Aug 17 12:01	0°♍	
superior conj	8991 Aug 27 09:30	12°♍15'32	0°30'53
minimum elong	8991 Aug 27 02:57	11°♍55'16	0°30'29
max. Earth dist.	8991 Aug 29 16:44	15°♍06'30	1.72774 AU
	8991 Sep 10 17:38	0°♎	
evening rise	8991 Oct 03 09:25	27°♎57'38	
	8991 Oct 05 01:09	0°♏	
	8991 Oct 29 11:11	0°♐	
	8991 Nov 23 00:49	0°♑	
desc. node	8991 Dec 04 02:56	13°♑28'03	
	8991 Dec 17 18:49	0°♒	
	8992 Jan 11 17:52	0°♓	
	8992 Feb 06 00:09	0°♈	
	8992 Mar 02 21:32	0°♉	
asc. node	8992 Mar 26 02:19	25°♉27'45	
	8992 Mar 30 11:17	0°♊	
evening max el	8992 Apr 02 04:32	2°♊45'50	46°56'44
	8992 May 04 18:06	0°♋	
greatest brilliancy	8992 May 12 20:11	3°♋50'01	-4.9m
retrograde	8992 May 22 16:19	5°♋39'58	
evening set	8992 Jun 08 14:57	0°♋08'13	
	8992 Jun 08 20:32	30°℞♊	
inferior conj	8992 Jun 12 10:49	27°♊48'50	7°24'42
minimum elong	8992 Jun 12 21:28	27°♊32'24	7°22'26

min. Earth dist.	8992 Jun 12 13:58	27°♊43'59	0.27204 AU
morning rise	8992 Jun 17 04:04	24°♊58'37	
direct	8992 Jul 03 03:32	20°♊00'50	
greatest brilliancy	8992 Jul 12 23:45	21°♊48'38	-4.8m
desc. node	8992 Jul 15 22:17	22°♊58'10	
	8992 Jul 28 00:16	0°♋	
morning max el	8992 Aug 21 19:38	21°♋22'54	46°15'37
	8992 Aug 30 09:55	0°♌	
	8992 Sep 27 05:57	0°♍	
	8992 Oct 23 12:14	0°♎	
asc. node	8992 Nov 05 20:28	15°♎38'11	
	8992 Nov 17 23:02	0°♏	
	8992 Dec 12 21:04	0°♐	
	8993 Jan 06 10:22	0°♑	
	8993 Jan 30 17:51	0°♒	
morning set	8993 Feb 16 14:25	20°♒55'38	
	8993 Feb 23 21:14	0°♓	
desc. node	8993 Feb 25 13:22	2°♓05'07	
	8993 Mar 19 21:23	0°♈	
max. Earth dist.	8993 Mar 26 03:28	7°♈50'21	1.71466 AU
superior conj	8993 Mar 28 17:48	11°♈05'48	-1°06'53
minimum elong	8993 Mar 28 06:09	10°♈29'18	1°06'32
	8993 Apr 12 19:10	0°♉	
	8993 May 06 16:06	0°♊	
evening rise	8993 May 08 02:22	1°♊47'35	
	8993 May 30 14:22	0°♋	
asc. node	8993 Jun 18 10:46	23°♋30'26	
	8993 Jun 23 16:13	0°♌	
	8993 Jul 17 23:47	0°♍	
	8993 Aug 11 15:45	0°♎	
	8993 Sep 05 21:03	0°♏	
	8993 Oct 02 01:41	0°♐	
desc. node	8993 Oct 08 05:59	6°♐49'28	
	8993 Oct 30 06:54	0°♑	
evening max el	8993 Nov 05 18:29	6°♑20'12	45°45'18
	8993 Dec 05 06:04	0°♒	
greatest brilliancy	8993 Dec 15 01:28	4°♒33'43	-4.8m
retrograde	8993 Dec 24 13:47	6°♒13'02	
evening set	8994 Jan 09 01:25	1°♒35'35	
	8994 Jan 11 19:20	30°♑℞	
inferior conj	8994 Jan 14 16:18	28°♑14'08	-3°32'08
minimum elong	8994 Jan 14 23:44	28°♑02'36	3°29'47
min. Earth dist.	8994 Jan 15 10:49	27°♑45'25	0.28038 AU
morning rise	8994 Jan 20 21:19	24°♑31'28	
asc. node	8994 Jan 29 05:59	20°♑59'36	
direct	8994 Feb 04 20:09	20°♑06'06	
greatest brilliancy	8994 Feb 15 22:53	22°♑23'32	-4.8m
	8994 Mar 01 10:46	0°♒	
morning max el	8994 Mar 27 03:48	22°♒37'42	46°44'05
	8994 Apr 03 07:58	0°♓	
	8994 Apr 30 10:37	0°♈	
desc. node	8994 May 21 00:45	24°♈08'03	
	8994 May 25 22:46	0°♉	
	8994 Jun 19 18:27	0°♊	
	8994 Jul 14 07:02	0°♋	
	8994 Aug 07 17:13	0°♌	
	8994 Sep 01 02:51	0°♍	
asc. node	8994 Sep 10 21:30	12°♍01'41	
	8994 Sep 25 12:01	0°♎	
morning set	8994 Sep 28 07:49	3°♎28'43	
	8994 Oct 19 20:25	0°♏	
superior conj	8994 Nov 04 02:24	18°♏48'08	1°25'56
minimum elong	8994 Nov 04 01:30	18°♏45'21	1°26'08
max. Earth dist.	8994 Nov 03 23:57	18°♏40'37	1.73288 AU
	8994 Nov 13 04:18	0°♐	
	8994 Dec 07 12:21	0°♑	
evening rise	8994 Dec 10 22:02	4°♑11'37	
desc. node	8994 Dec 31 14:50	29°♑41'06	
	8994 Dec 31 20:59	0°♒	
	8995 Jan 25 06:00	0°♓	
	8995 Feb 18 15:14	0°♈	
	8995 Mar 15 01:58	0°♉	
	8995 Apr 08 18:08	0°♊	
asc. node	8995 Apr 23 13:30	17°♊43'08	
	8995 May 03 23:47	0°♋	
	8995 May 30 12:06	0°♌	
evening max el	8995 Jun 14 11:17	15°♌40'21	46°39'54
	8995 Jun 29 18:16	0°♍	
greatest brilliancy	8995 Jul 23 13:42	15°♍42'48	-4.8m
retrograde	8995 Aug 03 16:09	17°♍59'31	
desc. node	8995 Aug 13 09:42	16°♍03'53	
evening set	8995 Aug 18 13:56	13°♍36'35	
min. Earth dist.	8995 Aug 24 04:32	10°♍16'58	0.28106 AU
inferior conj	8995 Aug 24 21:19	9°♍50'57	-2°48'24
minimum elong	8995 Aug 24 15:13	10°♍00'24	2°46'42
morning rise	8995 Aug 30 17:14	6°♍22'40	
direct	8995 Sep 15 00:38	1°♍51'27	
greatest brilliancy	8995 Sep 24 16:52	3°♍33'47	-4.7m
	8995 Nov 01 00:46	0°♎	
morning max el	8995 Nov 02 19:22	1°♎41'02	45°42'35
	8995 Nov 30 05:25	0°♏	
asc. node	8995 Dec 04 08:43	4°♏32'49	
	8995 Dec 26 18:41	0°♐	
	8996 Jan 21 03:59	0°♑	
	8996 Feb 14 22:02	0°♒	
	8996 Mar 10 06:56	0°♓	
desc. node	8996 Mar 25 01:45	18°♓21'33	
	8996 Apr 03 09:51	0°♈	
	8996 Apr 27 08:53	0°♉	
morning set	8996 May 03 02:15	7°♉11'00	
	8996 May 21 06:07	0°♊	
superior conj	8996 Jun 12 08:37	27°♊45'03	-1°10'33
minimum elong	8996 Jun 12 19:47	28°♊20'02	1°10'28
	8996 Jun 14 03:40	0°♋	
max. Earth dist.	8996 Jun 15 01:58	1°♋09'51	1.71527 AU
	8996 Jul 08 03:20	0°♌	
asc. node	8996 Jul 15 22:48	9°♌44'13	
evening rise	8996 Jul 22 03:53	17°♌27'59	
	8996 Aug 01 06:12	0°♍	
	8996 Aug 25 13:05	0°♎	
	8996 Sep 19 01:19	0°♏	
	8996 Oct 13 21:12	0°♐	
desc. node	8996 Nov 04 17:18	25°♐56'31	
	8996 Nov 08 04:14	0°♑	
	8996 Dec 04 03:54	0°♒	
	8996 Dec 31 09:12	0°♓	
evening max el	8997 Jan 16 21:17	16°♓54'30	46°20'01
	8997 Jan 31 01:39	0°♈	
greatest brilliancy	8997 Feb 25 17:33	16°♈37'00	-4.8m
asc. node	8997 Feb 25 17:13	16°♈36'42	
retrograde	8997 Mar 07 15:09	18°♈26'24	
evening set	8997 Mar 23 06:40	13°♈38'49	
inferior conj	8997 Mar 28 06:41	10°♈39'03	6°58'23
minimum elong	8997 Mar 27 19:40	10°♈56'01	6°56'01
min. Earth dist.	8997 Mar 28 02:28	10°♈45'33	0.27104 AU
morning rise	8997 Apr 01 08:40	8°♈10'54	
direct	8997 Apr 18 00:16	2°♈49'18	
greatest brilliancy	8997 Apr 27 18:04	4°♈37'18	-4.9m
	8997 Jun 01 17:37	0°♉	
morning max el	8997 Jun 07 11:49	5°♉40'18	46°56'44
desc. node	8997 Jun 17 12:43	16°♉03'34	

	8997 Jun 30 08:09	0°♊	
	8997 Jul 26 14:20	0°♋	
	8997 Aug 21 00:40	0°♌	
	8997 Sep 15 02:02	0°♍	
asc. node	8997 Oct 08 09:58	28°♍11'32	
	8997 Oct 09 21:44	0°♎	
	8997 Nov 03 12:37	0°♏	
	8997 Nov 27 23:22	0°♐	
morning set	8997 Dec 05 21:07	9°♐44'24	
	8997 Dec 22 07:03	0°♑	
max. Earth dist.	8998 Jan 09 17:18	22°♑48'22	1.72679 AU
superior conj	8998 Jan 12 01:32	25°♑42'34	0°37'37
minimum elong	8998 Jan 12 09:25	26°♑06'59	0°37'30
	8998 Jan 15 12:38	0°♒	
desc. node	8998 Jan 28 02:57	15°♒37'53	
	8998 Feb 08 16:26	0°♓	
evening rise	8998 Feb 19 20:27	13°♓53'48	
	8998 Mar 04 18:30	0°♈	
	8998 Mar 28 19:23	0°♉	
	8998 Apr 21 20:51	0°♊	
	8998 May 16 01:57	0°♋	
asc. node	8998 May 21 01:01	6°♋06'16	
	8998 Jun 09 14:55	0°♌	
	8998 Jul 04 18:01	0°♍	
	8998 Jul 31 00:08	0°♎	
evening max el	8998 Aug 24 08:17	25°♎30'42	45°56'44
	8998 Aug 29 00:34	0°♏	
desc. node	8998 Sep 09 20:52	10°♏26'10	
greatest brilliancy	8998 Oct 02 03:22	24°♏12'34	-4.7m
retrograde	8998 Oct 12 12:44	26°♏10'02	
evening set	8998 Oct 30 17:59	19°♏57'49	
inferior conj	8998 Nov 03 02:24	17°♏52'31	-8°37'44
minimum elong	8998 Nov 03 01:07	17°♏54'33	8°37'32
min. Earth dist.	8998 Nov 03 01:23	17°♏54'08	0.29152 AU
morning rise	8998 Nov 06 08:15	15°♏51'05	
direct	8998 Nov 24 15:11	9°♏35'27	
greatest brilliancy	8998 Dec 05 01:08	11°♏33'07	-4.7m
asc. node	8998 Dec 31 20:25	29°♏09'32	
	8999 Jan 01 19:31	0°♐	
morning max el	8999 Jan 12 20:19	10°♐17'14	45°57'28
	8999 Jan 31 20:31	0°♑	
	8999 Feb 27 09:46	0°♒	
	8999 Mar 24 16:12	0°♓	
	8999 Apr 18 07:21	0°♈	
desc. node	8999 Apr 22 14:23	5°♈16'49	
	8999 May 12 14:01	0°♉	
	8999 Jun 05 16:19	0°♊	
	8999 Jun 29 17:20	0°♋	
morning set	8999 Jul 17 13:45	22°♋14'54	
	8999 Jul 23 19:14	0°♌	
asc. node	8999 Aug 13 10:58	25°♌39'39	
	8999 Aug 16 22:55	0°♍	
superior conj	8999 Aug 25 01:18	10°♍02'16	0°27'39
minimum elong	8999 Aug 24 19:20	9°♍43'48	0°27'15
max. Earth dist.	8999 Aug 27 08:13	12°♍52'18	1.72732 AU
	8999 Sep 10 04:28	0°♎	
evening rise	8999 Oct 01 02:52	25°♎50'13	
	8999 Oct 04 11:59	0°♏	
	8999 Oct 28 22:10	0°♐	
	8999 Nov 22 12:06	0°♑	
desc. node	8999 Dec 03 05:00	12°♑59'29	
	8999 Dec 17 06:38	0°♒	
	9000 Jan 11 06:29	0°♓	
	9000 Feb 05 14:02	0°♈	
	9000 Mar 03 13:48	0°♉	
asc. node	9000 Mar 26 04:19	24°♉38'49	
	9000 Mar 31 09:36	0°♊	
evening max el	9000 Mar 31 17:00	0°♊18'39	46°56'18
	9000 May 07 22:59	0°♋	
greatest brilliancy	9000 May 11 10:17	1°♋25'26	-4.9m
retrograde	9000 May 21 05:31	3°♋15'00	
	9000 Jun 02 22:53	30°℞♊	
evening set	9000 Jun 07 07:37	27°♊37'51	
inferior conj	9000 Jun 10 23:54	25°♊24'02	7°38'35
minimum elong	9000 Jun 11 10:16	25°♊08'04	7°36'28
min. Earth dist.	9000 Jun 11 03:23	25°♊18'40	0.27197 AU
morning rise	9000 Jun 15 12:57	22°♊39'57	
direct	9000 Jul 01 15:58	17°♊35'44	
greatest brilliancy	9000 Jul 11 12:55	19°♊24'19	-4.8m
desc. node	9000 Jul 16 00:16	21°♊16'08	
	9000 Jul 29 19:57	0°♋	
morning max el	9000 Aug 20 09:56	19°♋03'26	46°17'24
	9000 Aug 31 05:59	0°♌	
	9000 Sep 27 21:10	0°♍	
	9000 Oct 24 01:22	0°♎	
asc. node	9000 Nov 05 22:31	15°♎07'25	
	9000 Nov 18 11:04	0°♏	
	9000 Dec 13 08:30	0°♐	
	9001 Jan 06 21:30	0°♑	
	9001 Jan 31 04:52	0°♒	
morning set	9001 Feb 15 04:03	18°♒34'32	
	9001 Feb 24 08:14	0°♓	
desc. node	9001 Feb 25 15:14	1°♓36'36	
	9001 Mar 20 08:25	0°♈	
max. Earth dist.	9001 Mar 24 14:40	5°♈20'22	1.71500 AU
superior conj	9001 Mar 27 05:20	8°♈36'50	-1°04'17
minimum elong	9001 Mar 26 17:37	8°♈00'06	1°03'54
	9001 Apr 13 06:13	0°♉	
evening rise	9001 May 06 13:05	29°♉15'40	
	9001 May 07 03:13	0°♊	
	9001 May 31 01:34	0°♋	
asc. node	9001 Jun 18 12:45	23°♋01'21	
	9001 Jun 24 03:35	0°♌	
	9001 Jul 18 11:27	0°♍	
	9001 Aug 12 03:56	0°♎	
	9001 Sep 06 10:11	0°♏	
	9001 Oct 02 16:53	0°♐	
desc. node	9001 Oct 08 08:02	6°♐11'33	
	9001 Oct 31 03:38	0°♑	
evening max el	9001 Nov 04 10:01	4°♑08'26	45°45'00
	9001 Dec 08 00:57	0°♒	
greatest brilliancy	9001 Dec 13 15:14	2°♒18'23	-4.8m
retrograde	9001 Dec 23 04:50	3°♒58'24	
	9002 Jan 06 11:08	30°℞♑	
evening set	9002 Jan 07 18:42	29°♑17'09	
inferior conj	9002 Jan 13 07:17	25°♑58'34	-3°51'35
minimum elong	9002 Jan 13 15:15	25°♑46'12	3°49'07
min. Earth dist.	9002 Jan 14 01:45	25°♑29'55	0.28095 AU
morning rise	9002 Jan 19 11:10	22°♑17'35	
asc. node	9002 Jan 29 07:49	18°♑22'59	
direct	9002 Feb 03 12:15	17°♑49'56	
greatest brilliancy	9002 Feb 14 14:20	20°♑07'13	-4.8m
	9002 Mar 03 04:31	0°♒	
morning max el	9002 Mar 25 19:54	20°♒22'06	46°42'32
	9002 Apr 04 03:34	0°♓	
	9002 May 01 01:53	0°♈	
desc. node	9002 May 21 02:46	23°♈33'12	
	9002 May 26 12:13	0°♉	
	9002 Jun 20 06:55	0°♊	
	9002 Jul 14 18:53	0°♋	
	9002 Aug 08 04:39	0°♌	

	9002 Sep 01 13:58	0°♍	
asc. node	9002 Sep 10 23:25	11°♍33'40	
	9002 Sep 25 22:54	0°♎	
morning set	9002 Sep 27 00:26	1°♎18'35	
	9002 Oct 20 07:11	0°♏	
superior conj	9002 Nov 02 19:58	16°♏41'08	1°25'44
minimum elong	9002 Nov 02 18:20	16°♏36'07	1°25'54
max. Earth dist.	9002 Nov 02 21:13	16°♏44'58	1.73286 AU
	9002 Nov 13 15:03	0°♐	
	9002 Dec 07 23:10	0°♑	
evening rise	9002 Dec 09 14:39	2°♑01'37	
desc. node	9002 Dec 31 16:46	29°♑13'13	
	9003 Jan 01 07:58	0°♒	
	9003 Jan 25 17:15	0°♓	
	9003 Feb 19 02:53	0°♈	
	9003 Mar 15 14:11	0°♉	
	9003 Apr 09 07:16	0°♊	
asc. node	9003 Apr 23 15:32	17°♊07'58	
	9003 May 04 14:31	0°♋	
	9003 May 31 06:26	0°♌	
evening max el	9003 Jun 13 03:21	13°♌24'46	46°41'15
	9003 Jul 01 02:41	0°♍	
greatest brilliancy	9003 Jul 22 05:28	13°♍26'42	-4.8m
retrograde	9003 Aug 02 07:44	15°♍42'50	
desc. node	9003 Aug 13 11:36	13°♍11'44	
evening set	9003 Aug 17 04:17	11°♍21'34	
min. Earth dist.	9003 Aug 22 19:38	8°♍00'38	0.28053 AU
inferior conj	9003 Aug 23 12:08	7°♍35'02	-2°27'45
minimum elong	9003 Aug 23 06:43	7°♍43'26	2°26'15
morning rise	9003 Aug 29 09:58	4°♍04'16	
	9003 Sep 09 05:01	30°℞♌	
direct	9003 Sep 13 15:36	29°♌36'30	
	9003 Sep 18 04:30	0°♍	
greatest brilliancy	9003 Sep 23 06:41	1°♍18'06	-4.8m
morning max el	9003 Nov 01 10:17	29°♍27'45	45°42'55
	9003 Nov 01 23:45	0°♎	
	9003 Nov 30 21:11	0°♏	
asc. node	9003 Dec 04 10:38	3°♏55'51	
	9003 Dec 27 07:59	0°♐	
	9004 Jan 21 16:09	0°♑	
	9004 Feb 15 09:36	0°♒	
	9004 Mar 10 18:09	0°♓	
desc. node	9004 Mar 25 03:48	17°♓53'22	
	9004 Apr 03 20:54	0°♈	
	9004 Apr 27 19:51	0°♉	
morning set	9004 May 01 13:05	4°♉40'01	
	9004 May 21 17:02	0°♊	
superior conj	9004 Jun 10 20:28	25°♊17'32	-1°12'48
minimum elong	9004 Jun 11 07:19	25°♊51'32	1°12'44
max. Earth dist.	9004 Jun 13 12:47	28°♊39'12	1.71495 AU
	9004 Jun 14 14:34	0°♋	
	9004 Jul 08 14:12	0°♌	
asc. node	9004 Jul 16 00:39	9°♌16'05	
evening rise	9004 Jul 20 17:27	15°♌07'05	
	9004 Aug 01 17:05	0°♍	
	9004 Aug 26 00:07	0°♎	
	9004 Sep 19 12:37	0°♏	
	9004 Oct 14 09:02	0°♐	
desc. node	9004 Nov 04 19:23	25°♐25'39	
	9004 Nov 08 17:00	0°♑	
	9004 Dec 04 18:24	0°♒	
	9005 Jan 01 03:35	0°♓	
evening max el	9005 Jan 15 10:59	14°♓34'10	46°18'28
	9005 Feb 01 10:40	0°♈	
greatest brilliancy	9005 Feb 24 07:12	14°♈14'07	-4.8m
asc. node	9005 Feb 25 19:13	14°♈43'44	
retrograde	9005 Mar 06 03:34	16°♈02'35	
evening set	9005 Mar 21 16:09	11°♈20'31	
inferior conj	9005 Mar 26 19:55	8°♈15'32	6°42'18
minimum elong	9005 Mar 26 08:50	8°♈32'36	6°39'50
min. Earth dist.	9005 Mar 26 16:22	8°♈21'00	0.27108 AU
morning rise	9005 Mar 31 01:26	5°♈41'59	
direct	9005 Apr 16 13:11	0°♈25'31	
greatest brilliancy	9005 Apr 26 08:46	2°♈14'35	-4.9m
	9005 Jun 02 18:09	0°♉	
morning max el	9005 Jun 06 00:06	3°♉13'45	46°57'13
desc. node	9005 Jun 17 14:41	15°♉17'40	
	9005 Jul 01 00:53	0°♊	
	9005 Jul 27 04:20	0°♋	
	9005 Aug 21 13:16	0°♌	
	9005 Sep 15 13:47	0°♍	
asc. node	9005 Oct 08 12:03	27°♍43'42	
	9005 Oct 10 08:56	0°♎	
	9005 Nov 03 23:29	0°♏	
	9005 Nov 28 10:03	0°♐	
morning set	9005 Dec 04 14:01	7°♐35'42	
	9005 Dec 22 17:40	0°♑	
max. Earth dist.	9006 Jan 08 09:05	20°♑35'39	1.72717 AU
superior conj	9006 Jan 10 16:55	23°♑28'32	0°40'44
minimum elong	9006 Jan 11 01:15	23°♑54'21	0°40'36
	9006 Jan 15 23:16	0°♒	
desc. node	9006 Jan 28 04:51	15°♒10'32	
	9006 Feb 09 03:10	0°♓	
evening rise	9006 Feb 18 10:16	11°♓33'50	
	9006 Mar 05 05:22	0°♈	
	9006 Mar 29 06:25	0°♉	
	9006 Apr 22 08:06	0°♊	
	9006 May 16 13:34	0°♋	
asc. node	9006 May 21 02:59	5°♋36'20	
	9006 Jun 10 03:11	0°♌	
	9006 Jul 05 07:30	0°♍	
	9006 Jul 31 16:13	0°♎	
evening max el	9006 Aug 22 22:37	23°♎15'14	45°57'52
	9006 Aug 30 00:57	0°♏	
desc. node	9006 Sep 09 22:58	9°♏24'22	
greatest brilliancy	9006 Sep 30 18:25	22°♏01'57	-4.7m
retrograde	9006 Oct 11 04:36	24°♏00'47	
evening set	9006 Oct 29 08:37	17°♏50'29	
inferior conj	9006 Nov 01 18:37	15°♏43'02	-8°36'01
minimum elong	9006 Nov 01 16:33	15°♏46'18	8°35'47
min. Earth dist.	9006 Nov 01 16:40	15°♏46'05	0.29151 AU
morning rise	9006 Nov 05 00:27	13°♏41'43	
direct	9006 Nov 23 06:45	7°♏26'01	
greatest brilliancy	9006 Dec 03 17:00	9°♏23'39	-4.7m
asc. node	9006 Dec 31 22:20	28°♏13'14	
	9007 Jan 02 22:08	0°♐	
morning max el	9007 Jan 11 11:12	8°♐03'08	45°56'15
	9007 Feb 01 13:05	0°♑	
	9007 Feb 27 23:27	0°♒	
	9007 Mar 25 04:37	0°♓	
	9007 Apr 18 19:05	0°♈	
desc. node	9007 Apr 22 16:20	4°♈47'02	
	9007 May 13 01:18	0°♉	
	9007 Jun 06 03:17	0°♊	
	9007 Jun 30 04:05	0°♋	
morning set	9007 Jul 16 04:01	19°♋56'45	
	9007 Jul 24 05:49	0°♌	
asc. node	9007 Aug 13 12:55	25°♌13'06	
	9007 Aug 17 09:25	0°♍	
superior conj	9007 Aug 23 17:02	7°♍49'54	0°24'21

minimum elong	9007 Aug 23 11:42	7°♍33'22	0°23'59
max. Earth dist.	9007 Aug 25 23:39	10°♍39'01	1.72701 AU
	9007 Sep 10 14:57	0°♎	
evening rise	9007 Sep 29 20:11	23°♎43'18	
	9007 Oct 04 22:31	0°♏	
	9007 Oct 29 08:52	0°♐	
	9007 Nov 22 23:07	0°♑	
desc. node	9007 Dec 03 06:52	12°♑31'11	
	9007 Dec 17 18:10	0°♒	
	9008 Jan 11 18:50	0°♓	
	9008 Feb 06 03:42	0°♈	
	9008 Mar 03 05:57	0°♉	
asc. node	9008 Mar 25 06:24	23°♉50'28	
evening max el	9008 Mar 29 06:29	27°♉55'21	46°55'56
	9008 Mar 31 08:22	0°♊	
greatest brilliancy	9008 May 08 23:52	29°♊01'48	-4.9m
	9008 May 12 03:50	0°♋	
retrograde	9008 May 18 19:18	0°♋51'44	
	9008 May 25 06:28	30°℞♊	
evening set	9008 Jun 05 00:20	25°♊09'11	
inferior conj	9008 Jun 08 13:04	23°♊00'49	7°51'31
minimum elong	9008 Jun 08 23:05	22°♊45'25	7°49'35
min. Earth dist.	9008 Jun 08 16:27	22°♊55'38	0.27188 AU
morning rise	9008 Jun 12 21:52	20°♊23'11	
direct	9008 Jun 29 05:08	15°♊12'29	
greatest brilliancy	9008 Jul 09 01:32	17°♊01'14	-4.8m
desc. node	9008 Jul 15 02:09	19°♊39'35	
	9008 Jul 30 09:47	0°♋	
morning max el	9008 Aug 18 00:52	16°♋47'11	46°19'03
	9008 Aug 31 00:50	0°♌	
	9008 Sep 27 11:40	0°♍	
	9008 Oct 23 13:59	0°♎	
asc. node	9008 Nov 05 00:24	14°♎37'22	
	9008 Nov 17 22:43	0°♏	
	9008 Dec 12 19:36	0°♐	
	9009 Jan 06 08:18	0°♑	
	9009 Jan 30 15:32	0°♒	
morning set	9009 Feb 12 17:41	16°♒14'40	
	9009 Feb 23 18:52	0°♓	
desc. node	9009 Feb 24 17:14	1°♓09'43	
	9009 Mar 19 19:03	0°♈	
max. Earth dist.	9009 Mar 22 02:00	2°♈52'05	1.71532 AU
superior conj	9009 Mar 24 16:49	6°♈08'56	-1°01'33
minimum elong	9009 Mar 24 05:08	5°♈32'18	1°01'09
	9009 Apr 12 16:54	0°♉	
evening rise	9009 May 03 23:52	26°♉45'06	
	9009 May 06 13:57	0°♊	
	9009 May 30 12:24	0°♋	
asc. node	9009 Jun 17 14:37	22°♋33'13	
	9009 Jun 23 14:34	0°♌	
	9009 Jul 17 22:40	0°♍	
	9009 Aug 11 15:39	0°♎	
	9009 Sep 05 22:56	0°♏	
	9009 Oct 02 07:50	0°♐	
desc. node	9009 Oct 07 10:02	5°♐34'23	
	9009 Oct 31 00:41	0°♑	
evening max el	9009 Nov 02 01:51	1°♑58'21	45°44'26
greatest brilliancy	9009 Dec 11 05:19	0°♒04'13	-4.8m
	9009 Dec 11 00:18	0°♒	
retrograde	9009 Dec 20 19:31	1°♒44'13	
	9009 Dec 30 03:35	30°℞♑	
evening set	9010 Jan 05 12:02	26°♑59'22	
inferior conj	9010 Jan 10 22:11	23°♑43'41	-4°10'39
minimum elong	9010 Jan 11 06:38	23°♑30'32	4°08'06
min. Earth dist.	9010 Jan 11 16:38	23°♑14'59	0.28150 AU
morning rise	9010 Jan 17 00:41	20°♑04'28	
asc. node	9010 Jan 28 09:50	15°♑51'56	
direct	9010 Feb 01 04:16	15°♑34'36	
greatest brilliancy	9010 Feb 12 05:28	17°♑51'13	-4.8m
	9010 Mar 03 17:21	0°♒	
morning max el	9010 Mar 23 11:02	18°♒05'02	46°41'02
	9010 Apr 03 22:17	0°♓	
	9010 Apr 30 16:35	0°♈	
desc. node	9010 May 20 04:40	22°♈59'15	
	9010 May 26 01:12	0°♉	
	9010 Jun 19 18:58	0°♊	
	9010 Jul 14 06:21	0°♋	
	9010 Aug 07 15:41	0°♌	
	9010 Sep 01 00:40	0°♍	
asc. node	9010 Sep 10 01:28	11°♍07'20	
morning set	9010 Sep 24 17:23	29°♍10'46	
	9010 Sep 25 09:22	0°♎	
	9010 Oct 19 17:33	0°♏	
superior conj	9010 Oct 31 13:48	14°♏36'09	1°25'24
minimum elong	9010 Oct 31 11:29	14°♏28'59	1°25'34
max. Earth dist.	9010 Oct 31 17:56	14°♏48'53	1.73287 AU
	9010 Nov 13 01:26	0°♐	
evening rise	9010 Dec 07 07:21	29°♐52'46	
	9010 Dec 07 09:42	0°♑	
desc. node	9010 Dec 30 18:42	28°♑46'09	
	9010 Dec 31 18:43	0°♒	
	9011 Jan 25 04:17	0°♓	
	9011 Feb 18 14:19	0°♈	
	9011 Mar 15 02:13	0°♉	
	9011 Apr 08 20:13	0°♊	
asc. node	9011 Apr 22 17:27	16°♊33'05	
	9011 May 04 05:08	0°♋	
	9011 May 31 00:54	0°♌	
evening max el	9011 Jun 10 18:44	11°♌08'07	46°42'32
	9011 Jul 01 13:38	0°♍	
greatest brilliancy	9011 Jul 19 21:58	11°♍12'19	-4.8m
retrograde	9011 Jul 30 22:56	13°♍27'01	
desc. node	9011 Aug 12 13:44	10°♍16'04	
evening set	9011 Aug 14 18:54	9°♍07'17	
min. Earth dist.	9011 Aug 20 11:10	5°♍44'51	0.27998 AU
inferior conj	9011 Aug 21 03:02	5°♍20'13	-2°06'52
minimum elong	9011 Aug 20 22:20	5°♍27'32	2°05'34
morning rise	9011 Aug 27 02:34	1°♍46'58	
	9011 Aug 30 16:46	30°℞♌	
direct	9011 Sep 11 06:13	27°♌22'39	
greatest brilliancy	9011 Sep 20 20:58	29°♌03'49	-4.8m
	9011 Sep 23 09:08	0°♍	
morning max el	9011 Oct 30 00:16	27°♍13'13	45°43'23
	9011 Nov 01 21:21	0°♎	
	9011 Nov 30 12:20	0°♏	
asc. node	9011 Dec 03 12:35	3°♏20'16	
	9011 Dec 26 20:54	0°♐	
	9012 Jan 21 04:03	0°♑	
	9012 Feb 14 20:59	0°♒	
	9012 Mar 10 05:16	0°♓	
desc. node	9012 Mar 24 05:48	17°♓25'17	
	9012 Apr 03 07:50	0°♈	
	9012 Apr 27 06:42	0°♉	
morning set	9012 Apr 28 23:33	2°♉08'14	
	9012 May 21 03:49	0°♊	
superior conj	9012 Jun 08 08:09	22°♊50'01	-1°14'53
minimum elong	9012 Jun 08 18:36	23°♊22'47	1°14'53
max. Earth dist.	9012 Jun 10 21:45	26°♊03'09	1.71461 AU
	9012 Jun 14 01:18	0°♋	
	9012 Jul 08 00:55	0°♌	
asc. node	9012 Jul 15 02:40	8°♌48'55	

evening rise	9012 Jul 18 06:54	12°♌46'11	
	9012 Aug 01 03:51	0°♍	
	9012 Aug 25 11:01	0°♎	
	9012 Sep 18 23:47	0°♏	
	9012 Oct 13 20:42	0°♐	
desc. node	9012 Nov 03 21:17	24°♐54'49	
	9012 Nov 08 05:37	0°♑	
	9012 Dec 04 08:52	0°♒	
	9012 Dec 31 22:19	0°♓	
evening max el	9013 Jan 12 23:44	12°♓11'52	46°16'41
	9013 Feb 01 22:52	0°♈	
greatest brilliancy	9013 Feb 21 20:36	11°♈50'34	-4.8m
asc. node	9013 Feb 24 21:17	12°♈45'43	
retrograde	9013 Mar 03 15:52	13°♈38'28	
evening set	9013 Mar 19 01:34	9°♈01'11	
inferior conj	9013 Mar 24 08:59	5°♈51'25	6°25'17
minimum elong	9013 Mar 23 21:55	6°♈08'28	6°22'43
min. Earth dist.	9013 Mar 24 06:14	5°♈55'39	0.27119 AU
morning rise	9013 Mar 28 18:05	3°♈12'36	
	9013 Apr 04 04:54	30°℞♓	
direct	9013 Apr 14 01:52	28°♓00'46	
greatest brilliancy	9013 Apr 23 23:46	29°♓51'38	-4.9m
	9013 Apr 24 08:58	0°♈	
	9013 Jun 02 17:43	0°♉	
morning max el	9013 Jun 03 12:40	0°♉47'30	46°57'50
desc. node	9013 Jun 16 16:39	14°♉32'06	
	9013 Jun 30 17:22	0°♊	
	9013 Jul 26 18:12	0°♋	
	9013 Aug 21 01:47	0°♌	
	9013 Sep 15 01:29	0°♍	
asc. node	9013 Oct 07 13:53	27°♍15'15	
	9013 Oct 09 20:07	0°♎	
	9013 Nov 03 10:20	0°♏	
	9013 Nov 27 20:43	0°♐	
morning set	9013 Dec 02 07:22	5°♐28'30	
	9013 Dec 22 04:16	0°♑	
max. Earth dist.	9014 Jan 06 03:54	18°♑32'26	1.72755 AU
superior conj	9014 Jan 08 08:46	21°♑16'07	0°43'43
minimum elong	9014 Jan 08 17:29	21°♑43'08	0°43'35
	9014 Jan 15 09:54	0°♒	
desc. node	9014 Jan 27 06:54	14°♒43'41	
	9014 Feb 08 13:56	0°♓	
evening rise	9014 Feb 16 00:28	9°♓15'01	
	9014 Mar 04 16:20	0°♈	
	9014 Mar 28 17:36	0°♉	
	9014 Apr 21 19:34	0°♊	
	9014 May 16 01:27	0°♋	
asc. node	9014 May 20 04:52	5°♋05'20	
	9014 Jun 09 15:44	0°♌	
	9014 Jul 04 21:19	0°♍	
	9014 Jul 31 08:49	0°♎	
evening max el	9014 Aug 20 13:22	21°♎00'25	45°59'14
	9014 Aug 30 02:49	0°♏	
desc. node	9014 Sep 09 00:57	8°♏20'24	
greatest brilliancy	9014 Sep 28 09:03	19°♏50'39	-4.7m
retrograde	9014 Oct 08 21:05	21°♏51'31	
evening set	9014 Oct 26 23:04	15°♏43'23	
inferior conj	9014 Oct 30 10:54	13°♏33'22	-8°33'36
minimum elong	9014 Oct 30 08:04	13°♏37'50	8°33'20
min. Earth dist.	9014 Oct 30 07:42	13°♏38'25	0.29145 AU
morning rise	9014 Nov 02 17:04	11°♏31'49	
direct	9014 Nov 20 22:43	5°♏16'28	
greatest brilliancy	9014 Dec 01 08:32	7°♏13'52	-4.7m
asc. node	9014 Dec 31 00:20	27°♏18'12	
	9015 Jan 02 23:21	0°♐	
morning max el	9015 Jan 09 03:05	5°♐51'29	45°55'11
	9015 Feb 01 05:24	0°♑	
	9015 Feb 27 13:06	0°♒	
	9015 Mar 24 17:06	0°♓	
	9015 Apr 18 06:58	0°♈	
desc. node	9015 Apr 21 18:12	4°♈16'23	
	9015 May 12 12:49	0°♉	
	9015 Jun 05 14:33	0°♊	
	9015 Jun 29 15:10	0°♋	
morning set	9015 Jul 13 17:48	17°♋35'51	
	9015 Jul 23 16:45	0°♌	
asc. node	9015 Aug 12 14:55	24°♌45'39	
	9015 Aug 16 20:15	0°♍	
superior conj	9015 Aug 21 08:20	5°♍35'07	0°20'59
minimum elong	9015 Aug 21 03:41	5°♍20'41	0°20'38
max. Earth dist.	9015 Aug 23 16:16	8°♍28'26	1.72663 AU
	9015 Sep 10 01:44	0°♎	
evening rise	9015 Sep 27 13:25	21°♎35'14	
	9015 Oct 04 09:21	0°♏	
	9015 Oct 28 19:51	0°♐	
	9015 Nov 22 10:25	0°♑	
desc. node	9015 Dec 02 08:51	12°♑02'26	
	9015 Dec 17 06:00	0°♒	
	9016 Jan 11 07:28	0°♓	
	9016 Feb 05 17:41	0°♈	
	9016 Mar 02 22:36	0°♉	
asc. node	9016 Mar 24 08:17	23°♉00'03	
evening max el	9016 Mar 26 20:40	25°♉33'09	46°55'16
	9016 Mar 31 08:28	0°♊	
greatest brilliancy	9016 May 06 12:41	26°♊36'03	-4.9m
retrograde	9016 May 16 09:03	28°♊26'35	
evening set	9016 Jun 02 16:50	22°♊38'46	
inferior conj	9016 Jun 06 02:02	20°♊35'35	8°03'36
minimum elong	9016 Jun 06 11:36	20°♊20'54	8°01'52
min. Earth dist.	9016 Jun 06 04:57	20°♊31'06	0.27185 AU
morning rise	9016 Jun 10 06:27	18°♊04'31	
direct	9016 Jun 26 18:36	12°♊47'21	
greatest brilliancy	9016 Jul 06 13:32	14°♊35'26	-4.9m
desc. node	9016 Jul 14 04:16	18°♊05'01	
	9016 Jul 30 20:52	0°♋	
morning max el	9016 Aug 15 15:44	14°♋29'01	46°20'41
	9016 Aug 30 19:47	0°♌	
	9016 Sep 27 02:29	0°♍	
	9016 Oct 23 02:56	0°♎	
asc. node	9016 Nov 04 02:20	14°♎06'24	
	9016 Nov 17 10:39	0°♏	
	9016 Dec 12 06:59	0°♐	
	9017 Jan 05 19:25	0°♑	
	9017 Jan 30 02:31	0°♒	
morning set	9017 Feb 10 07:49	13°♒55'30	
	9017 Feb 23 05:48	0°♓	
desc. node	9017 Feb 23 19:12	0°♓41'47	
	9017 Mar 19 05:58	0°♈	
max. Earth dist.	9017 Mar 19 12:28	0°♈20'21	1.71563 AU
superior conj	9017 Mar 22 04:51	3°♈41'59	-0°58'45
minimum elong	9017 Mar 21 17:18	3°♈05'49	0°58'19
	9017 Apr 12 03:51	0°♉	
evening rise	9017 May 01 11:02	24°♉14'46	
	9017 May 06 00:59	0°♊	
	9017 May 29 23:35	0°♋	
asc. node	9017 Jun 16 16:39	22°♋04'25	
	9017 Jun 23 01:57	0°♌	
	9017 Jul 17 10:23	0°♍	
	9017 Aug 11 03:56	0°♎	
	9017 Sep 05 12:18	0°♏	
	9017 Oct 01 23:33	0°♐	

desc. node	9017 Oct 06 11:57	4°♐55'15	
evening max el	9017 Oct 30 17:14	29°♐45'58	45°44'05
	9017 Oct 30 23:07	0°♑	
greatest brilliancy	9017 Dec 08 20:05	27°♑50'05	-4.8m
retrograde	9017 Dec 18 09:54	29°♑29'28	
evening set	9018 Jan 03 05:37	24°♑40'58	
inferior conj	9018 Jan 08 13:15	21°♑28'23	-4°29'07
minimum elong	9018 Jan 08 22:07	21°♑14'33	4°26'31
min. Earth dist.	9018 Jan 09 07:51	20°♑59'24	0.28201 AU
morning rise	9018 Jan 14 14:06	17°♑50'59	
asc. node	9018 Jan 27 11:55	13°♑25'26	
direct	9018 Jan 29 20:00	13°♑18'50	
greatest brilliancy	9018 Feb 09 20:53	15°♑34'46	-4.8m
	9018 Mar 04 03:14	0°♒	
morning max el	9018 Mar 21 01:27	15°♒45'20	46°39'37
	9018 Apr 03 16:48	0°♓	
	9018 Apr 30 07:21	0°♈	
desc. node	9018 May 19 06:39	22°♈25'00	
	9018 May 25 14:20	0°♉	
	9018 Jun 19 07:14	0°♊	
	9018 Jul 13 18:05	0°♋	
	9018 Aug 07 03:03	0°♌	
	9018 Aug 31 11:46	0°♍	
asc. node	9018 Sep 09 03:19	10°♍39'02	
morning set	9018 Sep 22 09:54	27°♍00'12	
	9018 Sep 24 20:17	0°♎	
	9018 Oct 19 04:22	0°♏	
superior conj	9018 Oct 29 07:17	12°♏28'47	1°24'57
minimum elong	9018 Oct 29 04:16	12°♏19'31	1°25'06
max. Earth dist.	9018 Oct 29 12:15	12°♏44'06	1.73281 AU
	9018 Nov 12 12:15	0°♐	
evening rise	9018 Dec 04 23:48	27°♐42'01	
	9018 Dec 06 20:36	0°♑	
desc. node	9018 Dec 29 20:44	28°♑18'18	
	9018 Dec 31 05:49	0°♒	
	9019 Jan 24 15:41	0°♓	
	9019 Feb 18 02:08	0°♈	
	9019 Mar 14 14:38	0°♉	
	9019 Apr 08 09:34	0°♊	
asc. node	9019 Apr 21 19:26	15°♊57'18	
	9019 May 03 20:13	0°♋	
	9019 May 30 20:09	0°♌	
evening max el	9019 Jun 08 08:58	8°♌47'48	46°43'43
	9019 Jul 02 04:49	0°♍	
greatest brilliancy	9019 Jul 17 14:34	8°♍56'56	-4.8m
retrograde	9019 Jul 28 13:36	11°♍10'07	
desc. node	9019 Aug 11 15:38	7°♍15'25	
evening set	9019 Aug 12 09:35	6°♍51'23	
min. Earth dist.	9019 Aug 18 02:57	3°♍27'26	0.27951 AU
inferior conj	9019 Aug 18 17:52	3°♍04'15	-1°45'42
minimum elong	9019 Aug 18 13:55	3°♍10'24	1°44'37
	9019 Aug 23 20:19	30°℞♌	
morning rise	9019 Aug 24 18:59	29°♌28'35	
direct	9019 Sep 08 20:21	25°♌07'20	
greatest brilliancy	9019 Sep 18 11:54	26°♌48'48	-4.8m
	9019 Sep 25 18:26	0°♍	
morning max el	9019 Oct 27 13:47	24°♍56'02	45°43'54
	9019 Nov 01 18:42	0°♎	
	9019 Nov 30 03:44	0°♏	
asc. node	9019 Dec 02 14:37	2°♏43'54	
	9019 Dec 26 10:07	0°♐	
	9020 Jan 20 16:14	0°♑	
	9020 Feb 14 08:36	0°♒	
	9020 Mar 09 16:35	0°♓	
desc. node	9020 Mar 23 07:35	16°♓55'50	
	9020 Apr 02 19:00	0°♈	
morning set	9020 Apr 26 10:06	29°♈35'55	
	9020 Apr 26 17:47	0°♉	
	9020 May 20 14:49	0°♊	
superior conj	9020 Jun 05 20:08	20°♊22'39	-1°16'51
minimum elong	9020 Jun 06 06:07	20°♊53'59	1°16'51
max. Earth dist.	9020 Jun 08 03:55	23°♊17'39	1.71426 AU
	9020 Jun 13 12:14	0°♋	
	9020 Jul 07 11:49	0°♌	
asc. node	9020 Jul 14 04:39	8°♌21'06	
evening rise	9020 Jul 15 20:33	10°♌25'17	
	9020 Jul 31 14:48	0°♍	
	9020 Aug 24 22:07	0°♎	
	9020 Sep 18 11:13	0°♏	
	9020 Oct 13 08:42	0°♐	
desc. node	9020 Nov 02 23:15	24°♐23'06	
	9020 Nov 07 18:38	0°♑	
	9020 Dec 03 23:52	0°♒	
	9020 Dec 31 17:55	0°♓	
evening max el	9021 Jan 10 12:32	9°♓49'10	46°15'11
	9021 Feb 02 15:34	0°♈	
greatest brilliancy	9021 Feb 19 09:36	9°♈26'12	-4.8m
asc. node	9021 Feb 23 23:09	10°♈42'20	
retrograde	9021 Mar 01 04:41	11°♈14'16	
evening set	9021 Mar 16 11:16	6°♈41'05	
inferior conj	9021 Mar 21 22:06	3°♈26'56	6°07'42
minimum elong	9021 Mar 21 11:07	3°♈43'49	6°05'02
min. Earth dist.	9021 Mar 21 19:55	3°♈30'17	0.27131 AU
morning rise	9021 Mar 26 10:45	0°♈43'12	
	9021 Mar 27 17:26	30°℞♓	
direct	9021 Apr 11 14:52	25°♓35'38	
greatest brilliancy	9021 Apr 21 14:32	27°♓28'13	-4.9m
	9021 Apr 27 07:31	0°♈	
morning max el	9021 Jun 01 02:18	28°♈23'35	46°58'25
	9021 Jun 02 16:26	0°♉	
desc. node	9021 Jun 15 18:40	13°♉46'53	
	9021 Jun 30 09:40	0°♊	
	9021 Jul 26 08:02	0°♋	
	9021 Aug 20 14:18	0°♌	
	9021 Sep 14 13:13	0°♍	
asc. node	9021 Oct 06 15:49	26°♍46'49	
	9021 Oct 09 07:22	0°♎	
	9021 Nov 02 21:18	0°♏	
	9021 Nov 27 07:31	0°♐	
morning set	9021 Nov 30 00:30	3°♐20'06	
	9021 Dec 21 15:01	0°♑	
max. Earth dist.	9022 Jan 03 23:19	16°♑30'33	1.72791 AU
superior conj	9022 Jan 06 00:19	19°♑02'13	0°46'40
minimum elong	9022 Jan 06 09:22	19°♑30'17	0°46'33
	9022 Jan 14 20:42	0°♒	
desc. node	9022 Jan 26 08:49	14°♒15'58	
	9022 Feb 08 00:50	0°♓	
evening rise	9022 Feb 13 14:24	6°♓55'06	
	9022 Mar 04 03:23	0°♈	
	9022 Mar 28 04:52	0°♉	
	9022 Apr 21 07:07	0°♊	
	9022 May 15 13:26	0°♋	
asc. node	9022 May 19 06:56	4°♋34'39	
	9022 Jun 09 04:25	0°♌	
	9022 Jul 04 11:17	0°♍	
	9022 Jul 31 01:42	0°♎	
evening max el	9022 Aug 18 04:57	18°♎47'42	46°00'41
	9022 Aug 30 06:09	0°♏	
desc. node	9022 Sep 08 02:51	7°♏14'43	
greatest brilliancy	9022 Sep 25 23:18	17°♏39'07	-4.7m
retrograde	9022 Oct 06 13:56	19°♏42'12	

evening set	9022 Oct 24 13:14	13°♏36'43	
inferior conj	9022 Oct 28 03:08	11°♏23'39	-8°30'31
minimum elong	9022 Oct 27 23:33	11°♏29'16	8°30'10
min. Earth dist.	9022 Oct 27 22:20	11°♏31'11	0.29139 AU
morning rise	9022 Oct 31 09:55	9°♏21'23	
direct	9022 Nov 18 15:07	3°♏07'03	
greatest brilliancy	9022 Nov 28 23:26	5°♏03'29	-4.7m
asc. node	9022 Dec 30 02:21	26°♏24'13	
	9023 Jan 02 23:23	0°♐	
morning max el	9023 Jan 06 19:24	3°♐40'55	45°53'56
	9023 Jan 31 21:30	0°♑	
	9023 Feb 27 02:42	0°♒	
	9023 Mar 24 05:34	0°♓	
	9023 Apr 17 18:47	0°♈	
desc. node	9023 Apr 20 20:15	3°♈46'26	
	9023 May 12 00:15	0°♉	
	9023 Jun 05 01:42	0°♊	
	9023 Jun 29 02:07	0°♋	
morning set	9023 Jul 11 07:31	15°♋15'04	
	9023 Jul 23 03:35	0°♌	
asc. node	9023 Aug 11 16:47	24°♌18'06	
	9023 Aug 16 06:58	0°♍	
superior conj	9023 Aug 18 23:35	3°♍20'23	0°17'34
minimum elong	9023 Aug 18 19:38	3°♍08'08	0°17'14
max. Earth dist.	9023 Aug 21 10:11	6°♍22'02	1.72625 AU
	9023 Sep 09 12:24	0°♎	
evening rise	9023 Sep 25 06:40	19°♎27'39	
	9023 Oct 03 20:02	0°♏	
	9023 Oct 28 06:42	0°♐	
	9023 Nov 21 21:37	0°♑	
desc. node	9023 Dec 01 10:54	11°♑34'15	
	9023 Dec 16 17:46	0°♒	
	9024 Jan 10 20:07	0°♓	
	9024 Feb 05 07:47	0°♈	
	9024 Mar 02 15:33	0°♉	
asc. node	9024 Mar 23 10:17	22°♉09'09	
evening max el	9024 Mar 24 11:09	23°♉11'52	46°54'37
	9024 Mar 31 09:45	0°♊	
greatest brilliancy	9024 May 04 01:46	24°♊10'56	-4.9m
retrograde	9024 May 13 22:41	26°♊01'25	
evening set	9024 May 31 09:14	20°♊08'49	
inferior conj	9024 Jun 03 14:56	18°♊10'37	8°14'56
minimum elong	9024 Jun 03 23:58	17°♊56'44	8°13'23
min. Earth dist.	9024 Jun 03 17:19	18°♊06'57	0.27177 AU
morning rise	9024 Jun 07 14:48	15°♊46'07	
direct	9024 Jun 24 07:58	10°♊22'47	
greatest brilliancy	9024 Jul 04 01:13	12°♊09'39	-4.9m
desc. node	9024 Jul 13 06:13	16°♊34'05	
	9024 Jul 31 04:45	0°♋	
morning max el	9024 Aug 13 05:51	12°♋09'35	46°22'15
	9024 Aug 30 13:59	0°♌	
	9024 Sep 26 16:51	0°♍	
	9024 Oct 22 15:32	0°♎	
asc. node	9024 Nov 03 04:22	13°♎36'35	
	9024 Nov 16 22:18	0°♏	
	9024 Dec 11 18:06	0°♐	
	9025 Jan 05 06:16	0°♑	
	9025 Jan 29 13:16	0°♒	
morning set	9025 Feb 07 21:53	11°♒36'47	
desc. node	9025 Feb 22 21:04	0°♓14'08	
	9025 Feb 22 16:32	0°♓	
max. Earth dist.	9025 Mar 16 19:48	27°♓39'23	1.71599 AU
	9025 Mar 18 16:44	0°♈	
superior conj	9025 Mar 19 16:37	1°♈14'46	-0°55'48
minimum elong	9025 Mar 19 05:18	0°♈39'21	0°55'21
	9025 Apr 11 14:39	0°♉	
evening rise	9025 Apr 28 21:42	21°♉43'24	
	9025 May 05 11:52	0°♊	
	9025 May 29 10:34	0°♋	
asc. node	9025 Jun 15 18:36	21°♋36'04	
	9025 Jun 22 13:06	0°♌	
	9025 Jul 16 21:49	0°♍	
	9025 Aug 10 15:57	0°♎	
	9025 Sep 05 01:27	0°♏	
	9025 Oct 01 15:10	0°♐	
desc. node	9025 Oct 05 14:00	4°♐17'00	
evening max el	9025 Oct 28 07:52	27°♐32'44	45°43'46
	9025 Oct 30 22:04	0°♑	
greatest brilliancy	9025 Dec 06 11:24	25°♑37'50	-4.7m
retrograde	9025 Dec 16 00:02	27°♑16'19	
evening set	9025 Dec 31 23:20	22°♑23'56	
inferior conj	9026 Jan 06 04:27	19°♑14'44	-4°47'00
minimum elong	9026 Jan 06 13:40	19°♑00'20	4°44'23
min. Earth dist.	9026 Jan 06 23:24	18°♑45'07	0.28255 AU
morning rise	9026 Jan 12 03:28	15°♑39'21	
asc. node	9026 Jan 26 13:45	11°♑05'30	
direct	9026 Jan 27 11:20	11°♑04'32	
greatest brilliancy	9026 Feb 07 12:47	13°♑20'20	-4.8m
	9026 Mar 04 09:56	0°♒	
morning max el	9026 Mar 18 15:14	13°♒24'57	46°38'02
	9026 Apr 03 10:33	0°♓	
	9026 Apr 29 21:43	0°♈	
desc. node	9026 May 18 08:39	21°♈51'31	
	9026 May 25 03:11	0°♉	
	9026 Jun 18 19:15	0°♊	
	9026 Jul 13 05:33	0°♋	
	9026 Aug 06 14:06	0°♌	
	9026 Aug 30 22:30	0°♍	
asc. node	9026 Sep 08 05:14	10°♍12'06	
morning set	9026 Sep 20 02:20	24°♍50'25	
	9026 Sep 24 06:50	0°♎	
	9026 Oct 18 14:50	0°♏	
superior conj	9026 Oct 27 00:53	10°♏22'55	1°24'22
minimum elong	9026 Oct 26 21:12	10°♏11'33	1°24'30
max. Earth dist.	9026 Oct 27 05:16	10°♏36'24	1.73277 AU
	9026 Nov 11 22:43	0°♐	
evening rise	9026 Dec 02 16:30	25°♐33'13	
	9026 Dec 06 07:10	0°♑	
desc. node	9026 Dec 28 22:37	27°♑51'08	
	9026 Dec 30 16:34	0°♒	
	9027 Jan 24 02:43	0°♓	
	9027 Feb 17 13:37	0°♈	
	9027 Mar 14 02:47	0°♉	
	9027 Apr 07 22:44	0°♊	
asc. node	9027 Apr 20 21:27	15°♊22'10	
	9027 May 03 11:15	0°♋	
	9027 May 30 15:44	0°♌	
evening max el	9027 Jun 05 22:26	6°♌25'58	46°44'57
	9027 Jul 03 00:58	0°♍	
greatest brilliancy	9027 Jul 15 07:02	6°♍41'38	-4.8m
retrograde	9027 Jul 26 04:13	8°♍53'39	
evening set	9027 Aug 10 00:18	4°♍35'21	
desc. node	9027 Aug 10 17:33	4°♍11'33	
inferior conj	9027 Aug 16 08:34	0°♍48'41	-1°24'07
minimum elong	9027 Aug 16 05:24	0°♍53'37	1°23'17
min. Earth dist.	9027 Aug 15 18:41	1°♍10'15	0.27901 AU
	9027 Aug 17 15:59	30°℞♌	
morning rise	9027 Aug 22 11:08	27°♌10'58	
direct	9027 Sep 06 09:57	22°♌52'18	
greatest brilliancy	9027 Sep 16 02:56	24°♌34'40	-4.8m
	9027 Sep 27 06:42	0°♍	

morning max el	9027 Oct 25 03:40	22°♍40'46	45°44'32
	9027 Nov 01 14:51	0°♎	
	9027 Nov 29 18:30	0°♏	
asc. node	9027 Dec 01 16:32	2°♏08'41	
	9027 Dec 25 22:50	0°♐	
	9028 Jan 20 03:57	0°♑	
	9028 Feb 13 19:49	0°♒	
	9028 Mar 09 03:30	0°♓	
desc. node	9028 Mar 22 09:39	16°♓28'31	
	9028 Apr 02 05:47	0°♈	
morning set	9028 Apr 23 20:45	27°♈05'03	
	9028 Apr 26 04:29	0°♉	
	9028 May 20 01:30	0°♊	
superior conj	9028 Jun 03 07:51	17°♊55'23	-1°18'39
minimum elong	9028 Jun 03 17:16	18°♊24'57	1°18'42
max. Earth dist.	9028 Jun 05 08:16	20°♊27'21	1.71401 AU
	9028 Jun 12 22:53	0°♋	
	9028 Jul 06 22:28	0°♌	
evening rise	9028 Jul 13 09:41	8°♌03'37	
asc. node	9028 Jul 13 06:30	7°♌53'40	
	9028 Jul 31 01:30	0°♍	
	9028 Aug 24 08:57	0°♎	
	9028 Sep 17 22:21	0°♏	
	9028 Oct 12 20:24	0°♐	
desc. node	9028 Nov 02 01:17	23°♐52'30	
	9028 Nov 07 07:24	0°♑	
	9028 Dec 03 14:42	0°♒	
	9028 Dec 31 13:42	0°♓	
evening max el	9029 Jan 08 02:23	7°♓30'27	46°13'46
	9029 Feb 03 13:16	0°♈	
greatest brilliancy	9029 Feb 16 22:15	7°♈03'02	-4.8m
asc. node	9029 Feb 23 01:12	8°♈35'32	
retrograde	9029 Feb 26 18:14	8°♈51'48	
evening set	9029 Mar 13 21:21	4°♈22'21	
inferior conj	9029 Mar 19 11:18	1°♈04'04	5°49'26
minimum elong	9029 Mar 19 00:31	1°♈20'38	5°46'44
min. Earth dist.	9029 Mar 19 09:26	1°♈06'57	0.27143 AU
	9029 Mar 21 05:06	30°♓	
morning rise	9029 Mar 24 03:28	28°♓15'36	
direct	9029 Apr 09 04:25	23°♓12'16	
greatest brilliancy	9029 Apr 19 04:46	25°♓05'52	-4.9m
	9029 Apr 29 01:04	0°♈	
morning max el	9029 May 29 16:55	26°♈03'30	46°58'47
	9029 Jun 02 13:47	0°♉	
desc. node	9029 Jun 14 20:37	13°♉03'16	
	9029 Jun 30 01:20	0°♊	
	9029 Jul 25 21:27	0°♋	
	9029 Aug 20 02:32	0°♌	
	9029 Sep 14 00:42	0°♍	
asc. node	9029 Oct 05 17:52	26°♍19'30	
	9029 Oct 08 18:22	0°♎	
	9029 Nov 02 07:58	0°♏	
	9029 Nov 26 18:01	0°♐	
morning set	9029 Nov 27 17:38	1°♐12'45	
	9029 Dec 21 01:29	0°♑	
max. Earth dist.	9030 Jan 01 19:12	14°♑31'03	1.72825 AU
superior conj	9030 Jan 03 16:00	16°♑49'42	0°49'32
minimum elong	9030 Jan 04 01:21	17°♑18'36	0°49'24
	9030 Jan 14 07:13	0°♒	
desc. node	9030 Jan 25 10:42	13°♒49'00	
	9030 Feb 07 11:30	0°♓	
evening rise	9030 Feb 11 04:35	4°♓36'47	
	9030 Mar 03 14:13	0°♈	
	9030 Mar 27 15:53	0°♉	
	9030 Apr 20 18:24	0°♊	
	9030 May 15 01:07	0°♋	
asc. node	9030 May 18 08:53	4°♋04'34	
	9030 Jun 08 16:51	0°♌	
	9030 Jul 04 01:07	0°♍	
	9030 Jul 30 18:43	0°♎	
evening max el	9030 Aug 15 21:26	16°♎37'41	46°02'00
	9030 Aug 30 11:07	0°♏	
desc. node	9030 Sep 07 04:57	6°♏07'59	
greatest brilliancy	9030 Sep 23 13:56	15°♏28'20	-4.7m
retrograde	9030 Oct 04 06:46	17°♏33'00	
evening set	9030 Oct 22 03:12	11°♏30'51	
inferior conj	9030 Oct 25 19:21	9°♏14'17	-8°26'40
minimum elong	9030 Oct 25 15:05	9°♏21'00	8°26'14
min. Earth dist.	9030 Oct 25 12:55	9°♏24'22	0.29126 AU
morning rise	9030 Oct 29 03:03	7°♏10'44	
direct	9030 Nov 16 07:44	0°♏58'14	
greatest brilliancy	9030 Nov 26 13:41	2°♏52'53	-4.7m
asc. node	9030 Dec 29 04:16	25°♏31'39	
	9031 Jan 02 22:05	0°♐	
morning max el	9031 Jan 04 11:29	1°♐30'34	45°52'41
	9031 Jan 31 13:06	0°♑	
	9031 Feb 26 15:59	0°♒	
	9031 Mar 23 17:46	0°♓	
	9031 Apr 17 06:24	0°♈	
desc. node	9031 Apr 19 22:10	3°♈16'40	
	9031 May 11 11:29	0°♉	
	9031 Jun 04 12:40	0°♊	
	9031 Jun 28 12:54	0°♋	
morning set	9031 Jul 08 21:33	12°♋55'50	
	9031 Jul 22 14:13	0°♌	
asc. node	9031 Aug 10 18:46	23°♌51'28	
	9031 Aug 15 17:32	0°♍	
superior conj	9031 Aug 16 14:56	1°♍06'22	0°14'08
minimum elong	9031 Aug 16 11:44	0°♍56'26	0°13'50
behind sun begin	9031 Aug 15 23:30	0°♍18'29	
behind sun end	9031 Aug 16 23:57	1°♍34'22	
max. Earth dist.	9031 Aug 19 05:26	4°♍20'11	1.72588 AU
	9031 Sep 08 22:57	0°♎	
evening rise	9031 Sep 22 23:54	17°♎20'11	
	9031 Oct 03 06:39	0°♏	
	9031 Oct 27 17:30	0°♐	
	9031 Nov 21 08:47	0°♑	
desc. node	9031 Nov 30 12:45	11°♑05'36	
	9031 Dec 16 05:30	0°♒	
	9032 Jan 10 08:45	0°♓	
	9032 Feb 04 21:57	0°♈	
	9032 Mar 02 08:48	0°♉	
evening max el	9032 Mar 22 01:26	20°♉50'07	46°53'47
asc. node	9032 Mar 22 12:22	21°♉17'33	
	9032 Mar 31 12:23	0°♊	
greatest brilliancy	9032 May 01 15:36	21°♊46'52	-4.9m
retrograde	9032 May 11 11:56	23°♊36'23	
evening set	9032 May 29 01:38	17°♊39'31	
inferior conj	9032 Jun 01 03:56	15°♊46'08	8°25'19
minimum elong	9032 Jun 01 12:22	15°♊33'09	8°23'57
min. Earth dist.	9032 Jun 01 06:07	15°♊42'47	0.27166 AU
morning rise	9032 Jun 04 23:13	13°♊28'04	
direct	9032 Jun 21 21:04	7°♊58'40	
greatest brilliancy	9032 Jul 01 13:21	9°♊44'32	-4.9m
desc. node	9032 Jul 12 08:06	15°♊06'29	
	9032 Jul 31 10:12	0°♋	
morning max el	9032 Aug 10 19:05	9°♋48'03	46°23'54
	9032 Aug 30 07:37	0°♌	
	9032 Sep 26 07:00	0°♍	
	9032 Oct 22 04:03	0°♎	
asc. node	9032 Nov 02 06:14	13°♎06'18	

	9032 Nov 16 09:56	0°♏	
	9032 Dec 11 05:15	0°♐	
	9033 Jan 04 17:10	0°♑	
	9033 Jan 29 00:04	0°♒	
morning set	9033 Feb 05 12:05	9°♒18'24	
desc. node	9033 Feb 21 23:05	29°♒46'50	
	9033 Feb 22 03:18	0°♓	
max. Earth dist.	9033 Mar 14 03:30	24°♓59'31	1.71638 AU
superior conj	9033 Mar 17 04:34	28°♓48'09	-0°52'46
minimum elong	9033 Mar 16 17:33	28°♓13'40	0°52'18
	9033 Mar 18 03:32	0°♈	
	9033 Apr 11 01:32	0°♉	
evening rise	9033 Apr 26 08:34	19°♉12'23	
	9033 May 04 22:51	0°♊	
	9033 May 28 21:40	0°♋	
asc. node	9033 Jun 14 20:29	21°♋07'07	
	9033 Jun 22 00:22	0°♌	
	9033 Jul 16 09:24	0°♍	
	9033 Aug 10 04:07	0°♎	
	9033 Sep 04 14:49	0°♏	
	9033 Oct 01 07:11	0°♐	
desc. node	9033 Oct 04 15:59	3°♐37'51	
evening max el	9033 Oct 25 21:51	25°♐17'36	45°43'24
	9033 Oct 30 22:18	0°♑	
greatest brilliancy	9033 Dec 04 02:45	23°♑25'09	-4.7m
retrograde	9033 Dec 13 14:14	25°♑03'02	
evening set	9033 Dec 29 17:10	20°♑06'18	
inferior conj	9034 Jan 03 19:45	17°♑00'47	-5°04'21
minimum elong	9034 Jan 04 05:16	16°♑45'54	5°01'43
min. Earth dist.	9034 Jan 04 15:15	16°♑30'19	0.28311 AU
morning rise	9034 Jan 09 16:46	13°♑27'50	
direct	9034 Jan 25 02:29	8°♑49'44	
asc. node	9034 Jan 25 15:47	8°♑50'06	
greatest brilliancy	9034 Feb 05 05:19	11°♑06'15	-4.8m
	9034 Mar 04 14:47	0°♒	
morning max el	9034 Mar 16 05:14	11°♒04'36	46°36'33
	9034 Apr 03 04:06	0°♓	
	9034 Apr 29 12:06	0°♈	
desc. node	9034 May 17 10:32	21°♈17'19	
	9034 May 24 16:09	0°♉	
	9034 Jun 18 07:26	0°♊	
	9034 Jul 12 17:12	0°♋	
	9034 Aug 06 01:21	0°♌	
	9034 Aug 30 09:28	0°♍	
asc. node	9034 Sep 07 07:17	9°♍44'48	
morning set	9034 Sep 17 18:54	22°♍40'15	
	9034 Sep 23 17:36	0°♎	
	9034 Oct 18 01:30	0°♏	
superior conj	9034 Oct 24 18:42	8°♏17'00	1°23'40
minimum elong	9034 Oct 24 14:21	8°♏03'35	1°23'47
max. Earth dist.	9034 Oct 24 23:07	8°♏30'38	1.73274 AU
	9034 Nov 11 09:25	0°♐	
evening rise	9034 Nov 30 09:27	23°♐24'28	
	9034 Dec 05 18:00	0°♑	
desc. node	9034 Dec 28 00:35	27°♑23'18	
	9034 Dec 30 03:37	0°♒	
	9035 Jan 23 14:06	0°♓	
	9035 Feb 17 01:28	0°♈	
	9035 Mar 13 15:17	0°♉	
	9035 Apr 07 12:17	0°♊	
asc. node	9035 Apr 19 23:22	14°♊45'37	
	9035 May 03 02:48	0°♋	
	9035 May 30 12:18	0°♌	
evening max el	9035 Jun 03 11:51	4°♌03'04	46°46'10
	9035 Jul 04 05:26	0°♍	
greatest brilliancy	9035 Jul 12 23:02	4°♍24'28	-4.8m
retrograde	9035 Jul 23 19:10	6°♍36'00	
evening set	9035 Aug 07 15:06	2°♍17'31	
desc. node	9035 Aug 09 19:41	1°♍03'09	
	9035 Aug 11 13:52	30°℞♌	
inferior conj	9035 Aug 13 23:11	28°♌31'40	-1°02'14
minimum elong	9035 Aug 13 20:49	28°♌35'20	1°01'39
min. Earth dist.	9035 Aug 13 10:14	28°♌51'43	0.27854 AU
morning rise	9035 Aug 20 03:05	24°♌52'19	
direct	9035 Sep 03 23:32	20°♌35'38	
greatest brilliancy	9035 Sep 13 17:53	22°♌19'09	-4.8m
	9035 Sep 28 08:53	0°♍	
morning max el	9035 Oct 22 18:28	20°♍26'39	45°45'22
	9035 Nov 01 10:45	0°♎	
	9035 Nov 29 09:23	0°♏	
asc. node	9035 Nov 30 18:28	1°♏32'49	
	9035 Dec 25 11:47	0°♐	
	9036 Jan 19 15:59	0°♑	
	9036 Feb 13 07:23	0°♒	
	9036 Mar 08 14:50	0°♓	
desc. node	9036 Mar 21 11:37	15°♓59'34	
	9036 Apr 01 16:59	0°♈	
morning set	9036 Apr 21 07:12	24°♈32'22	
	9036 Apr 25 15:36	0°♉	
	9036 May 19 12:32	0°♊	
superior conj	9036 May 31 19:18	15°♊26'04	-1°20'19
minimum elong	9036 Jun 01 04:05	15°♊53'37	1°20'23
max. Earth dist.	9036 Jun 02 15:00	17°♊43'16	1.71378 AU
	9036 Jun 12 09:53	0°♋	
	9036 Jul 06 09:29	0°♌	
evening rise	9036 Jul 10 22:42	5°♌40'18	
asc. node	9036 Jul 12 08:31	7°♌25'38	
	9036 Jul 30 12:36	0°♍	
	9036 Aug 23 20:14	0°♎	
	9036 Sep 17 09:56	0°♏	
	9036 Oct 12 08:34	0°♐	
desc. node	9036 Nov 01 03:12	23°♐20'14	
	9036 Nov 06 20:39	0°♑	
	9036 Dec 03 06:08	0°♒	
	9036 Dec 31 10:36	0°♓	
evening max el	9037 Jan 05 17:00	5°♓12'42	46°12'12
	9037 Feb 04 20:14	0°♈	
greatest brilliancy	9037 Feb 14 10:33	4°♈38'10	-4.8m
asc. node	9037 Feb 22 03:14	6°♈21'50	
retrograde	9037 Feb 24 07:47	6°♈27'32	
evening set	9037 Mar 11 07:36	2°♈01'46	
	9037 Mar 14 19:38	30°℞♓	
inferior conj	9037 Mar 17 00:24	28°♓39'26	5°30'23
minimum elong	9037 Mar 16 13:53	28°♓55'35	5°27'41
min. Earth dist.	9037 Mar 16 22:44	28°♓41'59	0.27157 AU
morning rise	9037 Mar 21 20:00	25°♓46'14	
direct	9037 Apr 06 18:20	20°♓47'17	
greatest brilliancy	9037 Apr 16 18:40	22°♓41'18	-4.9m
	9037 Apr 30 06:38	0°♈	
morning max el	9037 May 27 07:44	23°♈42'24	46°59'04
	9037 Jun 02 10:59	0°♉	
desc. node	9037 Jun 13 22:35	12°♉18'43	
	9037 Jun 29 17:14	0°♊	
	9037 Jul 25 11:11	0°♋	
	9037 Aug 19 15:05	0°♌	
	9037 Sep 13 12:33	0°♍	
asc. node	9037 Oct 04 19:43	25°♍50'20	
	9037 Oct 08 05:44	0°♎	
	9037 Nov 01 19:02	0°♏	
morning set	9037 Nov 25 11:01	29°♏04'55	
	9037 Nov 26 04:54	0°♐	

	9037 Dec 20 12:19	0°♑	
max. Earth dist.	9037 Dec 30 14:16	12°♑27'55	1.72854 AU
superior conj	9038 Jan 01 08:04	14°♑37'16	0°52'18
minimum elong	9038 Jan 01 17:36	15°♑06'46	0°52'10
	9038 Jan 13 18:07	0°♒	
desc. node	9038 Jan 24 12:46	13°♒21'33	
	9038 Feb 06 22:31	0°♓	
evening rise	9038 Feb 08 19:00	2°♓18'10	
	9038 Mar 03 01:25	0°♈	
	9038 Mar 27 03:18	0°♉	
	9038 Apr 20 06:08	0°♊	
	9038 May 14 13:20	0°♋	
asc. node	9038 May 17 10:46	3°♋32'45	
	9038 Jun 08 05:50	0°♌	
	9038 Jul 03 15:34	0°♍	
	9038 Jul 30 12:36	0°♎	
evening max el	9038 Aug 13 13:50	14°♎26'00	46°03'22
	9038 Aug 30 18:57	0°♏	
desc. node	9038 Sep 06 06:54	4°♏57'44	
greatest brilliancy	9038 Sep 21 05:06	13°♏16'46	-4.8m
retrograde	9038 Oct 01 23:08	15°♏22'10	
evening set	9038 Oct 19 16:51	9°♏24'02	
inferior conj	9038 Oct 23 11:29	7°♏03'30	-8°22'04
minimum elong	9038 Oct 23 06:31	7°♏11'19	8°21'34
min. Earth dist.	9038 Oct 23 03:41	7°♏15'46	0.29108 AU
morning rise	9038 Oct 26 20:18	4°♏58'10	
	9038 Nov 06 06:00	30°℞♎	
direct	9038 Nov 14 00:12	28°♎48'07	
	9038 Nov 22 01:09	0°♏	
greatest brilliancy	9038 Nov 24 03:46	0°♏40'41	-4.7m
asc. node	9038 Dec 28 06:16	24°♏39'11	
morning max el	9039 Jan 02 02:55	29°♏17'36	45°51'37
	9039 Jan 02 20:18	0°♐	
	9039 Jan 31 04:47	0°♑	
	9039 Feb 26 05:26	0°♒	
	9039 Mar 23 06:12	0°♓	
	9039 Apr 16 18:16	0°♈	
desc. node	9039 Apr 19 00:04	2°♈46'00	
	9039 May 10 23:00	0°♉	
	9039 Jun 03 23:58	0°♊	
	9039 Jun 28 00:01	0°♋	
morning set	9039 Jul 06 11:03	10°♋33'45	
	9039 Jul 22 01:13	0°♌	
asc. node	9039 Aug 09 20:45	23°♌23'47	
superior conj	9039 Aug 14 05:47	28°♌49'46	0°10'38
minimum elong	9039 Aug 14 03:22	28°♌42'16	0°10'21
behind sun begin	9039 Aug 13 08:51	27°♌44'47	
behind sun end	9039 Aug 14 21:53	29°♌39'44	
	9039 Aug 15 04:25	0°♍	
max. Earth dist.	9039 Aug 17 00:11	2°♍15'46	1.72546 AU
	9039 Sep 08 09:47	0°♎	
evening rise	9039 Sep 20 16:48	15°♎10'44	
	9039 Oct 02 17:33	0°♏	
	9039 Oct 27 04:37	0°♐	
	9039 Nov 20 20:16	0°♑	
desc. node	9039 Nov 29 14:46	10°♑36'31	
	9039 Dec 15 17:33	0°♒	
	9040 Jan 09 21:42	0°♓	
	9040 Feb 04 12:26	0°♈	
	9040 Mar 02 02:33	0°♉	
evening max el	9040 Mar 19 14:44	18°♉25'35	46°52'51
asc. node	9040 Mar 21 14:13	20°♉24'05	
	9040 Mar 31 16:50	0°♊	
greatest brilliancy	9040 Apr 29 05:44	19°♊22'36	-4.9m
retrograde	9040 May 09 00:34	21°♊10'50	
evening set	9040 May 26 17:48	15°♊09'53	
inferior conj	9040 May 29 16:58	13°♊21'07	8°34'38
minimum elong	9040 May 30 00:43	13°♊09'09	8°33'29
min. Earth dist.	9040 May 29 19:12	13°♊17'39	0.27161 AU
morning rise	9040 Jun 02 07:42	11°♊09'25	
direct	9040 Jun 19 09:42	5°♊33'43	
greatest brilliancy	9040 Jun 29 02:12	7°♊19'21	-4.9m
desc. node	9040 Jul 11 10:14	13°♊41'21	
	9040 Jul 31 14:08	0°♋	
morning max el	9040 Aug 08 07:48	7°♋24'09	46°25'31
	9040 Aug 30 01:10	0°♌	
	9040 Sep 25 21:13	0°♍	
	9040 Oct 21 16:40	0°♎	
asc. node	9040 Nov 01 08:11	12°♎35'51	
	9040 Nov 15 21:40	0°♏	
	9040 Dec 10 16:31	0°♐	
	9041 Jan 04 04:12	0°♑	
	9041 Jan 28 10:59	0°♒	
morning set	9041 Feb 03 02:28	7°♒00'16	
desc. node	9041 Feb 21 01:02	29°♒19'07	
	9041 Feb 21 14:10	0°♓	
max. Earth dist.	9041 Mar 11 12:51	22°♓24'43	1.71675 AU
superior conj	9041 Mar 14 16:54	26°♓22'34	-0°49'39
minimum elong	9041 Mar 14 06:15	25°♓49'16	0°49'11
	9041 Mar 17 14:22	0°♈	
	9041 Apr 10 12:25	0°♉	
evening rise	9041 Apr 23 19:51	16°♉42'50	
	9041 May 04 09:49	0°♊	
	9041 May 28 08:46	0°♋	
asc. node	9041 Jun 13 22:31	20°♋38'39	
	9041 Jun 21 11:40	0°♌	
	9041 Jul 15 21:03	0°♍	
	9041 Aug 09 16:26	0°♎	
	9041 Sep 04 04:23	0°♏	
	9041 Sep 30 23:34	0°♐	
desc. node	9041 Oct 03 17:55	2°♐57'51	
evening max el	9041 Oct 23 11:31	23°♐01'35	45°43'15
	9041 Oct 30 23:54	0°♑	
greatest brilliancy	9041 Dec 01 17:27	21°♑11'45	-4.7m
retrograde	9041 Dec 11 04:47	22°♑49'54	
evening set	9041 Dec 27 10:59	17°♑48'22	
inferior conj	9042 Jan 01 10:59	14°♑46'45	-5°21'07
minimum elong	9042 Jan 01 20:46	14°♑31'29	5°18'30
min. Earth dist.	9042 Jan 02 06:50	14°♑15'44	0.28367 AU
morning rise	9042 Jan 07 05:53	11°♑16'41	
direct	9042 Jan 22 17:36	6°♑34'42	
asc. node	9042 Jan 24 17:51	6°♑39'28	
greatest brilliancy	9042 Feb 02 21:53	8°♑52'21	-4.8m
	9042 Mar 04 17:51	0°♒	
morning max el	9042 Mar 13 20:13	8°♒46'52	46°35'14
	9042 Apr 02 21:13	0°♓	
	9042 Apr 29 02:12	0°♈	
desc. node	9042 May 16 12:33	20°♈44'07	
	9042 May 24 04:52	0°♉	
	9042 Jun 17 19:21	0°♊	
	9042 Jul 12 04:37	0°♋	
	9042 Aug 05 12:25	0°♌	
	9042 Aug 29 20:16	0°♍	
asc. node	9042 Sep 06 09:07	9°♍17'20	
morning set	9042 Sep 15 11:17	20°♍29'50	
	9042 Sep 23 04:14	0°♎	
	9042 Oct 17 12:04	0°♏	
superior conj	9042 Oct 22 12:15	6°♏10'35	1°22'51
minimum elong	9042 Oct 22 07:16	5°♏55'14	1°22'56
max. Earth dist.	9042 Oct 22 17:47	6°♏27'40	1.73271 AU

	9042 Nov 10 20:00	0°♐	
evening rise	9042 Nov 28 02:15	21°♐15'45	
	9042 Dec 05 04:41	0°♑	
desc. node	9042 Dec 27 02:36	26°♑56'07	
	9042 Dec 29 14:31	0°♒	
	9043 Jan 23 01:21	0°♓	
	9043 Feb 16 13:11	0°♈	
	9043 Mar 13 03:40	0°♉	
	9043 Apr 07 01:43	0°♊	
asc. node	9043 Apr 19 01:22	14°♊09'47	
	9043 May 02 18:16	0°♋	
	9043 May 30 09:07	0°♌	
evening max el	9043 Jun 01 02:16	1°♌43'57	46°47'31
	9043 Jul 05 21:22	0°♍	
greatest brilliancy	9043 Jul 10 14:30	2°♍08'10	-4.8m
retrograde	9043 Jul 21 10:42	4°♍19'58	
evening set	9043 Aug 05 06:16	0°♍00'58	
	9043 Aug 05 06:59	30°℞♌	
desc. node	9043 Aug 08 21:36	27°♌54'52	
min. Earth dist.	9043 Aug 11 01:36	26°♌35'08	0.27812 AU
inferior conj	9043 Aug 11 13:56	26°♌16'04	-0°40'23
minimum elong	9043 Aug 11 12:23	26°♌18'28	0°40'03
morning rise	9043 Aug 17 19:05	22°♌35'30	
direct	9043 Sep 01 13:43	18°♌20'24	
greatest brilliancy	9043 Sep 11 08:35	20°♌04'42	-4.8m
	9043 Sep 29 03:26	0°♍	
morning max el	9043 Oct 20 10:18	18°♍16'01	45°46'02
	9043 Nov 01 05:42	0°♎	
	9043 Nov 28 23:48	0°♏	
asc. node	9043 Nov 29 20:31	0°♏58'18	
	9043 Dec 25 00:23	0°♐	
	9044 Jan 19 03:41	0°♑	
	9044 Feb 12 18:36	0°♒	
	9044 Mar 08 01:49	0°♓	
desc. node	9044 Mar 20 13:26	15°♓31'12	
	9044 Apr 01 03:51	0°♈	
morning set	9044 Apr 18 17:43	22°♈00'54	
	9044 Apr 25 02:23	0°♉	
	9044 May 18 23:15	0°♊	
superior conj	9044 May 29 06:50	12°♊57'56	-1°21'49
minimum elong	9044 May 29 14:55	13°♊23'18	1°21'55
max. Earth dist.	9044 May 30 23:53	15°♊06'52	1.71352 AU
	9044 Jun 11 20:33	0°♋	
	9044 Jul 05 20:08	0°♌	
evening rise	9044 Jul 08 11:53	3°♌18'45	
asc. node	9044 Jul 11 10:29	6°♌58'38	
	9044 Jul 29 23:17	0°♍	
	9044 Aug 23 07:04	0°♎	
	9044 Sep 16 21:06	0°♏	
	9044 Oct 11 20:21	0°♐	
desc. node	9044 Oct 31 05:12	22°♐49'13	
	9044 Nov 06 09:36	0°♑	
	9044 Dec 02 21:26	0°♒	
	9044 Dec 31 07:50	0°♓	
evening max el	9045 Jan 03 08:20	2°♓57'53	46°10'41
	9045 Feb 06 16:35	0°♈	
greatest brilliancy	9045 Feb 11 23:13	2°♈15'17	-4.8m
asc. node	9045 Feb 21 05:06	4°♈04'09	
retrograde	9045 Feb 21 21:08	4°♈04'41	
	9045 Mar 08 05:22	30°℞♓	
evening set	9045 Mar 08 18:15	29°♓42'36	
inferior conj	9045 Mar 14 13:35	26°♓16'24	5°10'54
minimum elong	9045 Mar 14 03:25	26°♓32'03	5°08'12
min. Earth dist.	9045 Mar 14 12:14	26°♓18'30	0.27172 AU
morning rise	9045 Mar 19 12:28	23°♓18'31	
direct	9045 Apr 04 08:31	18°♓24'05	
greatest brilliancy	9045 Apr 14 08:35	20°♓18'08	-4.9m
	9045 May 01 03:28	0°♈	
morning max el	9045 May 24 22:00	21°♈21'12	46°59'13
	9045 Jun 02 07:00	0°♉	
desc. node	9045 Jun 13 00:37	11°♉36'08	
	9045 Jun 29 08:27	0°♊	
	9045 Jul 25 00:20	0°♋	
	9045 Aug 19 03:07	0°♌	
	9045 Sep 12 23:51	0°♍	
asc. node	9045 Oct 03 21:40	25°♍23'06	
	9045 Oct 07 16:35	0°♎	
	9045 Nov 01 05:36	0°♏	
morning set	9045 Nov 23 04:31	26°♏58'53	
	9045 Nov 25 15:20	0°♐	
	9045 Dec 19 22:44	0°♑	
max. Earth dist.	9045 Dec 28 07:04	10°♑19'09	1.72885 AU
superior conj	9045 Dec 30 00:14	12°♑26'27	0°54'57
minimum elong	9045 Dec 30 09:54	12°♑56'22	0°54'51
	9046 Jan 13 04:36	0°♒	
desc. node	9046 Jan 23 14:40	12°♒54'45	
evening rise	9046 Feb 06 09:17	0°♓00'27	
	9046 Feb 06 09:09	0°♓	
	9046 Mar 02 12:13	0°♈	
	9046 Mar 26 14:20	0°♉	
	9046 Apr 19 17:29	0°♊	
	9046 May 14 01:12	0°♋	
asc. node	9046 May 16 12:50	3°♋02'35	
	9046 Jun 07 18:30	0°♌	
	9046 Jul 03 05:45	0°♍	
	9046 Jul 30 06:23	0°♎	
evening max el	9046 Aug 11 05:53	12°♎14'45	46°04'49
	9046 Aug 31 04:45	0°♏	
desc. node	9046 Sep 05 08:51	3°♏47'14	
greatest brilliancy	9046 Sep 18 20:59	11°♏07'51	-4.8m
retrograde	9046 Sep 29 15:13	13°♏13'27	
evening set	9046 Oct 17 06:35	7°♏19'44	
inferior conj	9046 Oct 21 03:51	4°♏55'03	-8°16'53
minimum elong	9046 Oct 20 22:12	5°♏03'56	8°16'16
min. Earth dist.	9046 Oct 20 18:59	5°♏09'00	0.29086 AU
morning rise	9046 Oct 24 13:58	2°♏47'34	
	9046 Oct 29 14:57	30°℞♎	
direct	9046 Nov 11 16:34	26°♎40'22	
greatest brilliancy	9046 Nov 21 18:32	28°♎31'12	-4.7m
	9046 Nov 25 10:28	0°♏	
asc. node	9046 Dec 27 08:17	23°♏49'13	
morning max el	9046 Dec 30 17:35	27°♏04'16	45°50'25
	9047 Jan 02 17:05	0°♐	
	9047 Jan 30 19:48	0°♑	
	9047 Feb 25 18:26	0°♒	
	9047 Mar 22 18:13	0°♓	
	9047 Apr 16 05:45	0°♈	
desc. node	9047 Apr 18 02:07	2°♈17'01	
	9047 May 10 10:08	0°♉	
	9047 Jun 03 10:52	0°♊	
	9047 Jun 27 10:47	0°♋	
morning set	9047 Jul 04 00:24	8°♋12'12	
	9047 Jul 21 11:51	0°♌	
asc. node	9047 Aug 08 22:36	22°♌56'48	
superior conj	9047 Aug 11 20:41	26°♌34'19	0°07'07
minimum elong	9047 Aug 11 19:04	26°♌29'18	0°06'51
behind sun begin	9047 Aug 10 21:08	25°♌21'13	
behind sun end	9047 Aug 12 17:00	27°♌37'24	
max. Earth dist.	9047 Aug 14 17:02	0°♍06'26	1.72500 AU
	9047 Aug 14 14:58	0°♍	
	9047 Sep 07 20:17	0°♎	

evening rise	9047 Sep 18 09:49	13°♎02'44	
	9047 Oct 02 04:05	0°♏	
	9047 Oct 26 15:20	0°♐	
	9047 Nov 20 07:21	0°♑	
desc. node	9047 Nov 28 16:50	10°♑08'47	
	9047 Dec 15 05:15	0°♒	
	9048 Jan 09 10:22	0°♓	
	9048 Feb 04 02:49	0°♈	
	9048 Mar 01 20:30	0°♉	
evening max el	9048 Mar 17 03:14	15°♉59'37	46°51'51
asc. node	9048 Mar 20 16:16	19°♉30'34	
	9048 Mar 31 23:04	0°♊	
greatest brilliancy	9048 Apr 26 19:56	16°♊58'49	-4.9m
retrograde	9048 May 06 13:02	18°♊45'54	
evening set	9048 May 24 09:39	12°♊41'00	
inferior conj	9048 May 27 05:56	10°♊56'36	8°42'59
minimum elong	9048 May 27 12:55	10°♊45'49	8°42'02
min. Earth dist.	9048 May 27 08:24	10°♊52'47	0.27156 AU
morning rise	9048 May 30 16:12	8°♊51'21	
direct	9048 Jun 16 21:55	3°♊09'02	
greatest brilliancy	9048 Jun 26 15:28	4°♊55'14	-4.9m
desc. node	9048 Jul 10 12:10	12°♊19'20	
	9048 Jul 31 16:10	0°♋	
morning max el	9048 Aug 05 20:34	5°♋00'53	46°27'12
	9048 Aug 29 18:03	0°♌	
	9048 Sep 25 11:01	0°♍	
	9048 Oct 21 04:57	0°♎	
asc. node	9048 Oct 31 10:12	12°♎06'30	
	9048 Nov 15 09:06	0°♏	
	9048 Dec 10 03:29	0°♐	
	9049 Jan 03 14:55	0°♑	
	9049 Jan 27 21:36	0°♒	
morning set	9049 Jan 31 17:11	4°♒43'57	
desc. node	9049 Feb 20 02:55	28°♒51'54	
	9049 Feb 21 00:47	0°♓	
max. Earth dist.	9049 Mar 09 00:34	19°♓57'51	1.71720 AU
superior conj	9049 Mar 12 05:10	23°♓57'23	-0°46'27
minimum elong	9049 Mar 11 18:59	23°♓25'32	0°45'58
	9049 Mar 17 01:04	0°♈	
	9049 Apr 09 23:12	0°♉	
evening rise	9049 Apr 21 06:55	14°♉12'54	
	9049 May 03 20:42	0°♊	
	9049 May 27 19:46	0°♋	
asc. node	9049 Jun 13 00:28	20°♋10'06	
	9049 Jun 20 22:53	0°♌	
	9049 Jul 15 08:38	0°♍	
	9049 Aug 09 04:42	0°♎	
	9049 Sep 03 17:58	0°♏	
	9049 Sep 30 16:08	0°♐	
desc. node	9049 Oct 02 19:59	2°♐18'08	
evening max el	9049 Oct 21 01:57	20°♐48'00	45°43'20
	9049 Oct 31 02:42	0°♑	
greatest brilliancy	9049 Nov 29 07:47	18°♑59'09	-4.7m
retrograde	9049 Dec 08 20:06	20°♑38'16	
evening set	9049 Dec 25 05:05	15°♑31'50	
inferior conj	9049 Dec 30 02:28	12°♑34'05	-5°37'10
minimum elong	9049 Dec 30 12:25	12°♑18'34	5°34'35
min. Earth dist.	9049 Dec 30 22:14	12°♑03'15	0.28421 AU
morning rise	9050 Jan 04 19:09	9°♑07'22	
direct	9050 Jan 20 09:26	4°♑21'15	
asc. node	9050 Jan 23 19:41	4°♑35'02	
greatest brilliancy	9050 Jan 31 14:12	6°♑39'37	-4.8m
	9050 Mar 04 19:04	0°♒	
morning max el	9050 Mar 11 12:04	6°♒32'12	46°33'38
	9050 Apr 02 13:48	0°♓	
	9050 Apr 28 16:07	0°♈	
desc. node	9050 May 15 14:32	20°♈11'01	
	9050 May 23 17:32	0°♉	
	9050 Jun 17 07:18	0°♊	
	9050 Jul 11 16:04	0°♋	
	9050 Aug 04 23:30	0°♌	
	9050 Aug 29 07:06	0°♍	
asc. node	9050 Sep 05 11:05	8°♍50'10	
morning set	9050 Sep 13 03:23	18°♍18'25	
	9050 Sep 22 14:55	0°♎	
	9050 Oct 16 22:41	0°♏	
superior conj	9050 Oct 20 05:38	4°♏03'31	1°21'55
minimum elong	9050 Oct 20 00:03	3°♏46'18	1°21'58
max. Earth dist.	9050 Oct 20 13:44	4°♏28'27	1.73265 AU
	9050 Nov 10 06:37	0°♐	
evening rise	9050 Nov 25 19:10	19°♐07'16	
	9050 Dec 04 15:24	0°♑	
desc. node	9050 Dec 26 04:29	26°♑28'29	
	9050 Dec 29 01:26	0°♒	
	9051 Jan 22 12:36	0°♓	
	9051 Feb 16 00:55	0°♈	
	9051 Mar 12 16:06	0°♉	
	9051 Apr 06 15:20	0°♊	
asc. node	9051 Apr 18 03:23	13°♊33'20	
	9051 May 02 10:10	0°♋	
evening max el	9051 May 29 17:24	29°♋25'37	46°48'35
	9051 May 30 07:07	0°♌	
greatest brilliancy	9051 Jul 08 05:25	29°♌49'25	-4.8m
	9051 Jul 08 16:35	0°♍	
retrograde	9051 Jul 19 02:02	2°♍01'26	
	9051 Jul 29 01:13	30°℞♌	
evening set	9051 Aug 02 21:13	27°♌41'54	
desc. node	9051 Aug 07 23:31	24°♌42'16	
min. Earth dist.	9051 Aug 08 16:19	24°♌16'23	0.27769 AU
inferior conj	9051 Aug 09 04:12	23°♌58'03	-0°18'01
minimum elong	9051 Aug 09 03:30	23°♌59'07	0°17'58
morning rise	9051 Aug 15 10:26	20°♌16'31	
direct	9051 Aug 30 03:57	16°♌02'57	
greatest brilliancy	9051 Sep 08 22:18	17°♌47'23	-4.8m
	9051 Sep 29 17:50	0°♍	
morning max el	9051 Oct 18 01:56	16°♍04'03	45°46'47
	9051 Nov 01 00:27	0°♎	
asc. node	9051 Nov 28 22:25	0°♏23'00	
	9051 Nov 28 14:16	0°♏	
	9051 Dec 24 13:05	0°♐	
	9052 Jan 18 15:30	0°♑	
	9052 Feb 12 05:57	0°♒	
	9052 Mar 07 12:55	0°♓	
desc. node	9052 Mar 19 15:31	15°♓03'24	
	9052 Mar 31 14:49	0°♈	
morning set	9052 Apr 16 04:37	19°♈30'23	
	9052 Apr 24 13:17	0°♉	
	9052 May 18 10:08	0°♊	
superior conj	9052 May 26 18:21	10°♊29'05	-1°23'09
minimum elong	9052 May 27 01:37	10°♊51'57	1°23'17
max. Earth dist.	9052 May 28 10:41	12°♊35'49	1.71335 AU
	9052 Jun 11 07:26	0°♋	
	9052 Jul 05 07:03	0°♌	
evening rise	9052 Jul 06 00:37	0°♌54'46	
asc. node	9052 Jul 10 12:21	6°♌30'24	
	9052 Jul 29 10:18	0°♍	
	9052 Aug 22 18:16	0°♎	
	9052 Sep 16 08:38	0°♏	
	9052 Oct 11 08:33	0°♐	
desc. node	9052 Oct 30 07:13	22°♐17'04	
	9052 Nov 05 23:02	0°♑	

	9052 Dec 02 13:21	0°♒	
	9052 Dec 31 06:18	0°♓	
evening max el	9052 Dec 31 23:24	0°♓41'37	46°09'12
greatest brilliancy	9053 Feb 09 12:38	29°♓52'52	-4.8m
	9053 Feb 09 20:54	0°♈	
retrograde	9053 Feb 19 10:12	1°♈41'32	
asc. node	9053 Feb 20 07:10	1°♈40'38	
	9053 Feb 28 13:37	30°℞♓	
evening set	9053 Mar 06 05:20	27°♓23'02	
inferior conj	9053 Mar 12 02:57	23°♓53'21	4°51'00
minimum elong	9053 Mar 11 17:12	24°♓08'22	4°48'21
min. Earth dist.	9053 Mar 12 02:11	23°♓54'32	0.27182 AU
morning rise	9053 Mar 17 04:56	20°♓50'47	
direct	9053 Apr 01 22:26	16°♓00'57	
greatest brilliancy	9053 Apr 11 22:54	17°♓55'09	-4.9m
	9053 May 01 19:02	0°♈	
morning max el	9053 May 22 11:13	18°♈56'51	46°59'15
	9053 Jun 02 02:33	0°♉	
desc. node	9053 Jun 12 02:33	10°♉53'19	
	9053 Jun 28 23:40	0°♊	
	9053 Jul 24 13:42	0°♋	
	9053 Aug 18 15:28	0°♌	
	9053 Sep 12 11:34	0°♍	
asc. node	9053 Oct 02 23:43	24°♍54'55	
	9053 Oct 07 03:51	0°♎	
	9053 Oct 31 16:34	0°♏	
morning set	9053 Nov 20 21:35	24°♏50'21	
	9053 Nov 25 02:09	0°♐	
	9053 Dec 19 09:32	0°♑	
max. Earth dist.	9053 Dec 25 22:31	8°♑05'07	1.72915 AU
superior conj	9053 Dec 27 16:13	10°♑14'02	0°57'32
minimum elong	9053 Dec 28 01:59	10°♑44'13	0°57'27
	9054 Jan 12 15:29	0°♒	
desc. node	9054 Jan 22 16:34	12°♒26'49	
evening rise	9054 Feb 03 23:33	27°♒41'32	
	9054 Feb 05 20:09	0°♓	
	9054 Mar 01 23:23	0°♈	
	9054 Mar 26 01:43	0°♉	
	9054 Apr 19 05:10	0°♊	
	9054 May 13 13:22	0°♋	
asc. node	9054 May 15 14:46	2°♋31'07	
	9054 Jun 07 07:31	0°♌	
	9054 Jul 02 20:23	0°♍	
	9054 Jul 30 01:03	0°♎	
evening max el	9054 Aug 08 20:56	9°♎59'35	46°06'00
	9054 Aug 31 18:59	0°♏	
desc. node	9054 Sep 04 10:56	2°♏33'08	
greatest brilliancy	9054 Sep 16 12:54	8°♏56'52	-4.8m
retrograde	9054 Sep 27 06:48	11°♏02'36	
evening set	9054 Oct 14 19:51	5°♏13'28	
inferior conj	9054 Oct 18 19:59	2°♏44'28	-8°10'51
minimum elong	9054 Oct 18 13:43	2°♏54'21	8°10'07
min. Earth dist.	9054 Oct 18 10:25	2°♏59'32	0.29065 AU
morning rise	9054 Oct 22 07:42	0°♏34'26	
	9054 Oct 23 06:47	30°℞♎	
direct	9054 Nov 09 08:13	24°♎30'18	
greatest brilliancy	9054 Nov 19 09:47	26°♎20'16	-4.7m
	9054 Nov 27 09:19	0°♏	
asc. node	9054 Dec 26 10:12	22°♏58'21	
morning max el	9054 Dec 28 07:31	24°♏47'36	45°49'23
	9055 Jan 02 13:46	0°♐	
	9055 Jan 30 11:05	0°♑	
	9055 Feb 25 07:44	0°♒	
	9055 Mar 22 06:35	0°♓	
	9055 Apr 15 17:33	0°♈	
desc. node	9055 Apr 17 04:01	1°♈46'28	
	9055 May 09 21:35	0°♉	
	9055 Jun 02 22:04	0°♊	
	9055 Jun 26 21:49	0°♋	
morning set	9055 Jul 01 14:01	5°♋50'34	
	9055 Jul 20 22:46	0°♌	
asc. node	9055 Aug 08 00:37	22°♌29'25	
superior conj	9055 Aug 09 11:47	24°♌18'37	0°03'35
minimum elong	9055 Aug 09 10:59	24°♌16'09	0°03'23
behind sun begin	9055 Aug 08 11:21	23°♌02'44	
behind sun end	9055 Aug 10 10:38	25°♌29'33	
max. Earth dist.	9055 Aug 12 08:53	27°♌53'06	1.72459 AU
	9055 Aug 14 01:47	0°♍	
	9055 Sep 07 07:06	0°♎	
evening rise	9055 Sep 16 02:51	10°♎53'40	
	9055 Oct 01 15:01	0°♏	
	9055 Oct 26 02:30	0°♐	
	9055 Nov 19 18:55	0°♑	
desc. node	9055 Nov 27 18:39	9°♑38'55	
	9055 Dec 14 17:26	0°♒	
	9056 Jan 08 23:34	0°♓	
	9056 Feb 03 17:48	0°♈	
	9056 Mar 01 15:21	0°♉	
evening max el	9056 Mar 14 15:26	13°♉31'49	46°50'56
asc. node	9056 Mar 19 18:19	18°♉34'45	
	9056 Apr 01 08:20	0°♊	
greatest brilliancy	9056 Apr 24 09:40	14°♊33'19	-4.9m
retrograde	9056 May 04 01:45	16°♊20'02	
evening set	9056 May 22 01:13	10°♊11'10	
inferior conj	9056 May 24 18:51	8°♊30'57	8°50'27
minimum elong	9056 May 25 01:03	8°♊21'25	8°49'38
min. Earth dist.	9056 May 24 21:24	8°♊27'03	0.27150 AU
morning rise	9056 May 28 00:52	6°♊32'08	
direct	9056 Jun 14 10:10	0°♊43'06	
greatest brilliancy	9056 Jun 24 04:34	2°♊30'05	-4.9m
desc. node	9056 Jul 09 14:04	10°♊59'05	
	9056 Jul 31 17:07	0°♋	
morning max el	9056 Aug 03 09:58	2°♋38'28	46°29'02
	9056 Aug 29 10:49	0°♌	
	9056 Sep 25 00:54	0°♍	
	9056 Oct 20 17:26	0°♎	
asc. node	9056 Oct 30 12:05	11°♎35'55	
	9056 Nov 14 20:50	0°♏	
	9056 Dec 09 14:47	0°♐	
	9057 Jan 03 02:01	0°♑	
	9057 Jan 27 08:35	0°♒	
morning set	9057 Jan 29 07:43	2°♒26'06	
desc. node	9057 Feb 19 04:56	28°♒24'04	
	9057 Feb 20 11:44	0°♓	
max. Earth dist.	9057 Mar 06 14:29	17°♓36'59	1.71762 AU
superior conj	9057 Mar 09 17:12	21°♓30'33	-0°43'08
minimum elong	9057 Mar 09 07:32	21°♓00'19	0°42'39
	9057 Mar 16 12:03	0°♈	
	9057 Apr 09 10:16	0°♉	
evening rise	9057 Apr 18 18:00	11°♉42'13	
	9057 May 03 07:52	0°♊	
	9057 May 27 07:04	0°♋	
asc. node	9057 Jun 12 02:20	19°♋40'31	
	9057 Jun 20 10:22	0°♌	
	9057 Jul 14 20:28	0°♍	
	9057 Aug 08 17:12	0°♎	
	9057 Sep 03 07:51	0°♏	
	9057 Sep 30 09:14	0°♐	
desc. node	9057 Oct 01 21:57	1°♐37'10	
evening max el	9057 Oct 18 17:04	18°♐35'33	45°43'15
	9057 Oct 31 07:37	0°♑	

greatest brilliancy	9057 Nov 26 21:29	16°♑45'00	-4.7m
retrograde	9057 Dec 06 11:31	18°♑25'20	
evening set	9057 Dec 22 23:08	13°♑14'04	
inferior conj	9057 Dec 27 17:48	10°♑20'04	-5°52'46
minimum elong	9057 Dec 28 03:53	10°♑04'22	5°50'14
min. Earth dist.	9057 Dec 28 13:08	9°♑49'57	0.28479 AU
morning rise	9058 Jan 02 08:07	6°♑56'57	
direct	9058 Jan 18 01:41	2°♑06'36	
asc. node	9058 Jan 22 21:45	2°♑33'54	
greatest brilliancy	9058 Jan 29 05:53	4°♑24'58	-4.8m
	9058 Mar 04 19:31	0°♒	
morning max el	9058 Mar 09 04:12	4°♒17'23	46°32'03
	9058 Apr 02 06:25	0°♓	
	9058 Apr 28 06:09	0°♈	
desc. node	9058 May 14 16:25	19°♈37'11	
	9058 May 23 06:20	0°♉	
	9058 Jun 16 19:22	0°♊	
	9058 Jul 11 03:39	0°♋	
	9058 Aug 04 10:43	0°♌	
	9058 Aug 28 18:02	0°♍	
asc. node	9058 Sep 04 13:05	8°♍22'50	
morning set	9058 Sep 10 19:50	16°♍07'41	
	9058 Sep 22 01:40	0°♎	
	9058 Oct 16 09:21	0°♏	
superior conj	9058 Oct 17 23:19	1°♏57'05	1°20'52
minimum elong	9058 Oct 17 17:09	1°♏38'05	1°20'53
max. Earth dist.	9058 Oct 18 11:37	2°♏35'00	1.73257 AU
	9058 Nov 09 17:19	0°♐	
evening rise	9058 Nov 23 12:20	16°♐59'17	
	9058 Dec 04 02:14	0°♑	
desc. node	9058 Dec 25 06:28	26°♑00'36	
	9058 Dec 28 12:31	0°♒	
	9059 Jan 22 00:04	0°♓	
	9059 Feb 15 12:54	0°♈	
	9059 Mar 12 04:49	0°♉	
	9059 Apr 06 05:14	0°♊	
asc. node	9059 Apr 17 05:18	12°♊55'51	
	9059 May 02 02:28	0°♋	
evening max el	9059 May 27 08:55	27°♋07'56	46°49'40
	9059 May 30 06:07	0°♌	
greatest brilliancy	9059 Jul 05 20:41	27°♌31'00	-4.8m
retrograde	9059 Jul 16 17:20	29°♌42'37	
evening set	9059 Jul 31 12:27	25°♌22'39	
inferior conj	9059 Aug 06 18:30	21°♌39'53	0°04'30
minimum elong	9059 Aug 06 18:40	21°♌39'38	0°04'16
transit middle	9059 Aug 06 18:40	21°♌39'38	0°04'16
transit begin	9059 Aug 06 14:44	21°♌45'42	
transit end	9059 Aug 06 22:35	21°♌33'34	
min. Earth dist.	9059 Aug 06 07:05	21°♌57'30	0.27722 AU
desc. node	9059 Aug 07 01:39	21°♌28'51	
morning rise	9059 Aug 13 01:36	17°♌57'30	
direct	9059 Aug 27 18:30	13°♌45'35	
greatest brilliancy	9059 Sep 06 11:48	15°♌29'39	-4.8m
	9059 Sep 30 04:29	0°♍	
morning max el	9059 Oct 15 17:02	13°♍50'53	45°47'39
	9059 Oct 31 18:37	0°♎	
asc. node	9059 Nov 28 00:22	29°♎48'21	
	9059 Nov 28 04:28	0°♏	
	9059 Dec 24 01:37	0°♐	
	9060 Jan 18 03:14	0°♑	
	9060 Feb 11 17:17	0°♒	
	9060 Mar 07 00:04	0°♓	
desc. node	9060 Mar 18 17:26	14°♓34'53	
	9060 Mar 31 01:51	0°♈	
morning set	9060 Apr 13 15:10	16°♈58'33	
	9060 Apr 24 00:15	0°♉	
	9060 May 17 21:02	0°♊	
superior conj	9060 May 24 05:33	7°♊59'18	-1°24'20
minimum elong	9060 May 24 11:56	8°♊19'21	1°24'29
max. Earth dist.	9060 May 25 20:12	10°♊00'43	1.71312 AU
	9060 Jun 10 18:18	0°♋	
evening rise	9060 Jul 03 13:06	28°♋30'03	
	9060 Jul 04 17:56	0°♌	
asc. node	9060 Jul 09 14:23	6°♌02'49	
	9060 Jul 28 21:16	0°♍	
	9060 Aug 22 05:23	0°♎	
	9060 Sep 15 20:06	0°♏	
	9060 Oct 10 20:38	0°♐	
desc. node	9060 Oct 29 09:07	21°♐44'58	
	9060 Nov 05 12:22	0°♑	
	9060 Dec 02 05:17	0°♒	
evening max el	9060 Dec 29 13:27	28°♒23'36	46°07'34
	9060 Dec 31 05:27	0°♓	
greatest brilliancy	9061 Feb 07 02:27	27°♓31'24	-4.8m
retrograde	9061 Feb 16 22:46	29°♓18'51	
asc. node	9061 Feb 19 09:10	29°♓11'46	
evening set	9061 Mar 03 16:35	25°♓03'24	
inferior conj	9061 Mar 09 16:19	21°♓30'43	4°30'25
minimum elong	9061 Mar 09 07:04	21°♓45'00	4°27'52
min. Earth dist.	9061 Mar 09 16:34	21°♓30'21	0.27202 AU
morning rise	9061 Mar 14 21:18	18°♓23'30	
direct	9061 Mar 30 11:52	13°♓37'51	
greatest brilliancy	9061 Apr 09 14:01	15°♓33'03	-4.9m
	9061 May 02 06:43	0°♈	
morning max el	9061 May 19 23:37	16°♈30'16	46°59'17
	9061 Jun 01 21:35	0°♉	
desc. node	9061 Jun 11 04:31	10°♉11'04	
	9061 Jun 28 14:38	0°♊	
	9061 Jul 24 02:51	0°♋	
	9061 Aug 18 03:35	0°♌	
	9061 Sep 11 23:01	0°♍	
asc. node	9061 Oct 02 01:31	24°♍26'41	
	9061 Oct 06 14:51	0°♎	
	9061 Oct 31 03:17	0°♏	
morning set	9061 Nov 18 14:59	22°♏43'31	
	9061 Nov 24 12:43	0°♐	
	9061 Dec 18 20:04	0°♑	
max. Earth dist.	9061 Dec 23 15:03	5°♑55'21	1.72944 AU
superior conj	9061 Dec 25 08:45	8°♑04'15	1°00'00
minimum elong	9061 Dec 25 18:33	8°♑34'30	0°59'54
	9062 Jan 12 02:05	0°♒	
desc. node	9062 Jan 21 18:37	12°♒00'16	
evening rise	9062 Feb 01 14:20	25°♒25'16	
	9062 Feb 05 06:53	0°♓	
	9062 Mar 01 10:19	0°♈	
	9062 Mar 25 12:54	0°♉	
	9062 Apr 18 16:44	0°♊	
	9062 May 13 01:28	0°♋	
asc. node	9062 May 14 16:41	1°♋59'52	
	9062 Jun 06 20:29	0°♌	
	9062 Jul 02 11:03	0°♍	
	9062 Jul 29 19:59	0°♎	
evening max el	9062 Aug 06 11:06	7°♎42'52	46°07'29
	9062 Sep 01 13:35	0°♏	
desc. node	9062 Sep 03 12:52	1°♏17'28	
greatest brilliancy	9062 Sep 14 04:42	6°♏46'34	-4.8m
retrograde	9062 Sep 24 22:39	8°♏52'59	
evening set	9062 Oct 12 09:03	3°♏08'20	
min. Earth dist.	9062 Oct 16 01:59	0°♏51'08	0.29040 AU
inferior conj	9062 Oct 16 12:12	0°♏35'02	-8°04'06
minimum elong	9062 Oct 16 05:20	0°♏45'51	8°03'15

	9062 Oct 17 10:29	30℞♎	
morning rise	9062 Oct 20 01:42	28°♎22'18	
direct	9062 Nov 06 23:35	22°♎21'15	
greatest brilliancy	9062 Nov 17 01:31	24°♎11'04	-4.7m
	9062 Nov 28 16:05	0°♏	
asc. node	9062 Dec 25 12:13	22°♏09'49	
morning max el	9062 Dec 25 21:58	22°♏33'26	45°48'35
	9063 Jan 02 09:18	0°♐	
	9063 Jan 30 01:42	0°♑	
	9063 Feb 24 20:31	0°♒	
	9063 Mar 21 18:28	0°♓	
	9063 Apr 15 04:57	0°♈	
desc. node	9063 Apr 16 05:54	1°♈17'05	
	9063 May 09 08:42	0°♉	
	9063 Jun 02 09:01	0°♊	
	9063 Jun 26 08:37	0°♋	
morning set	9063 Jun 29 03:01	3°♋27'32	
	9063 Jul 20 09:26	0°♌	
superior conj	9063 Aug 07 02:20	22°♌01'53	-0°00'02
minimum elong	9063 Aug 07 02:21	22°♌01'57	0°00'12
behind sun begin	9063 Aug 06 02:24	20°♌47'32	
behind sun end	9063 Aug 08 02:18	23°♌16'21	
asc. node	9063 Aug 07 02:37	22°♌02'48	
max. Earth dist.	9063 Aug 09 22:37	25°♌33'55	1.72414 AU
	9063 Aug 13 12:21	0°♍	
	9063 Sep 06 17:38	0°♎	
evening rise	9063 Sep 13 19:32	8°♎44'32	
	9063 Oct 01 01:38	0°♏	
	9063 Oct 25 13:21	0°♐	
	9063 Nov 19 06:08	0°♑	
desc. node	9063 Nov 26 20:40	9°♑10'44	
	9063 Dec 14 05:17	0°♒	
	9064 Jan 08 12:26	0°♓	
	9064 Feb 03 08:29	0°♈	
	9064 Mar 01 10:09	0°♉	
evening max el	9064 Mar 12 04:09	11°♉07'05	46°49'59
asc. node	9064 Mar 18 20:11	17°♉38'58	
	9064 Apr 01 19:59	0°♊	
greatest brilliancy	9064 Apr 21 22:32	12°♊08'20	-4.9m
retrograde	9064 May 01 14:55	13°♊55'39	
evening set	9064 May 19 16:25	7°♊43'02	
inferior conj	9064 May 22 07:47	6°♊06'24	8°56'42
minimum elong	9064 May 22 13:08	5°♊58'10	8°56'03
min. Earth dist.	9064 May 22 09:57	6°♊03'04	0.27152 AU
morning rise	9064 May 25 09:52	4°♊13'38	
	9064 Jun 02 20:40	30℞♉	
direct	9064 Jun 11 22:58	28°♉18'13	
	9064 Jun 21 10:53	0°♊	
greatest brilliancy	9064 Jun 21 17:16	0°♊05'32	-4.9m
desc. node	9064 Jul 08 16:11	9°♊42'38	
	9064 Jul 31 16:36	0°♋	
morning max el	9064 Aug 01 00:21	0°♋19'08	46°30'43
	9064 Aug 29 03:01	0°♌	
	9064 Sep 24 14:23	0°♍	
	9064 Oct 20 05:32	0°♎	
asc. node	9064 Oct 29 14:02	11°♎06'43	
	9064 Nov 14 08:09	0°♏	
	9064 Dec 09 01:41	0°♐	
	9065 Jan 02 12:41	0°♑	
morning set	9065 Jan 26 22:42	0°♒10'59	
	9065 Jan 26 19:09	0°♒	
desc. node	9065 Feb 18 06:52	27°♒57'12	
	9065 Feb 19 22:17	0°♓	
max. Earth dist.	9065 Mar 04 04:52	15°♓18'56	1.71800 AU
superior conj	9065 Mar 07 05:46	19°♓06'43	-0°39'47
minimum elong	9065 Mar 06 20:41	18°♓38'21	0°39'19
	9065 Mar 15 22:38	0°♈	
	9065 Apr 08 20:55	0°♉	
evening rise	9065 Apr 16 05:40	9°♉14'45	
	9065 May 02 18:36	0°♊	
	9065 May 26 17:57	0°♋	
asc. node	9065 Jun 11 04:25	19°♋12'42	
	9065 Jun 19 21:29	0°♌	
	9065 Jul 14 08:01	0°♍	
	9065 Aug 08 05:30	0°♎	
	9065 Sep 02 21:36	0°♏	
	9065 Sep 30 02:24	0°♐	
desc. node	9065 Sep 30 23:53	0°♐56'27	
evening max el	9065 Oct 16 08:51	16°♐25'34	45°43'23
	9065 Oct 31 14:14	0°♑	
greatest brilliancy	9065 Nov 24 11:29	14°♑32'33	-4.7m
retrograde	9065 Dec 04 03:02	16°♑13'40	
evening set	9065 Dec 20 17:22	10°♑57'52	
inferior conj	9065 Dec 25 09:14	8°♑07'31	-6°07'44
minimum elong	9065 Dec 25 19:23	7°♑51'41	6°05'16
min. Earth dist.	9065 Dec 26 03:52	7°♑38'27	0.28530 AU
morning rise	9065 Dec 30 21:00	4°♑48'03	
	9066 Jan 13 11:20	30℞♐	
direct	9066 Jan 15 18:08	29°♐53'41	
	9066 Jan 18 01:31	0°♑	
asc. node	9066 Jan 21 23:46	0°♑38'38	
greatest brilliancy	9066 Jan 26 20:57	2°♑11'00	-4.8m
	9066 Mar 04 18:22	0°♒	
morning max el	9066 Mar 06 20:14	2°♒03'40	46°30'26
	9066 Apr 01 22:18	0°♓	
	9066 Apr 27 19:38	0°♈	
desc. node	9066 May 13 18:25	19°♈05'06	
	9066 May 22 18:38	0°♉	
	9066 Jun 16 06:59	0°♊	
	9066 Jul 10 14:48	0°♋	
	9066 Aug 03 21:34	0°♌	
	9066 Aug 28 04:41	0°♍	
asc. node	9066 Sep 03 14:55	7°♍55'50	
morning set	9066 Sep 08 12:02	13°♍57'05	
	9066 Sep 21 12:11	0°♎	
superior conj	9066 Oct 15 16:39	29°♎50'19	1°19'41
minimum elong	9066 Oct 15 09:57	29°♎29'40	1°19'41
	9066 Oct 15 19:47	0°♏	
max. Earth dist.	9066 Oct 16 08:25	0°♏38'55	1.73245 AU
	9066 Nov 09 03:46	0°♐	
evening rise	9066 Nov 21 05:11	14°♐51'03	
	9066 Dec 03 12:48	0°♑	
desc. node	9066 Dec 24 08:28	25°♑33'41	
	9066 Dec 27 23:21	0°♒	
	9067 Jan 21 11:16	0°♓	
	9067 Feb 15 00:37	0°♈	
	9067 Mar 11 17:17	0°♉	
	9067 Apr 05 18:56	0°♊	
asc. node	9067 Apr 16 07:19	12°♊19'23	
	9067 May 01 18:41	0°♋	
evening max el	9067 May 25 00:18	24°♋51'02	46°50'41
	9067 May 30 05:39	0°♌	
greatest brilliancy	9067 Jul 03 12:33	25°♌14'38	-4.8m
retrograde	9067 Jul 14 08:19	27°♌25'02	
evening set	9067 Jul 29 04:01	23°♌04'36	
inferior conj	9067 Aug 04 08:55	19°♌23'05	0°26'53
minimum elong	9067 Aug 04 09:57	19°♌21'30	0°26'22
min. Earth dist.	9067 Aug 03 22:09	19°♌39'44	0.27680 AU
desc. node	9067 Aug 06 03:31	18°♌17'35	
morning rise	9067 Aug 10 16:39	15°♌39'52	
direct	9067 Aug 25 09:03	11°♌29'37	

greatest brilliancy	9067 Sep 04	01:35	13°♌13'07	-4.8m	
	9067 Sep 30	11:54	0°♍		
morning max el	9067 Oct 13	07:21	11°♍36'20	45°48'21	
	9067 Oct 31	12:09	0°♎		
asc. node	9067 Nov 27	02:23	29°♎14'35		
	9067 Nov 27	18:22	0°♏		
	9067 Dec 23	13:58	0°♐		
	9068 Jan 17	14:47	0°♑		
	9068 Feb 11	04:25	0°♒		
	9068 Mar 06	10:59	0°♓		
desc. node	9068 Mar 17	19:16	14°♓06'46		
	9068 Mar 30	12:41	0°♈		
morning set	9068 Apr 11	01:45	14°♈27'29		
	9068 Apr 23	11:01	0°♉		
	9068 May 17	07:45	0°♊		
superior conj	9068 May 21	16:56	5°♊30'32	-1°25'20	
minimum elong	9068 May 21	22:23	5°♊47'40	1°25'31	
max. Earth dist.	9068 May 23	02:20	7°♊15'30	1.71290 AU	
	9068 Jun 10	05:00	0°♋		
evening rise	9068 Jul 01	01:35	26°♋05'47		
	9068 Jul 04	04:39	0°♌		
asc. node	9068 Jul 08	16:19	5°♌35'29		
	9068 Jul 28	08:03	0°♍		
	9068 Aug 21	16:21	0°♎		
	9068 Sep 15	07:26	0°♏		
	9068 Oct 10	08:43	0°♐		
desc. node	9068 Oct 28	11:08	21°♐13'07		
	9068 Nov 05	01:49	0°♑		
	9068 Dec 01	21:33	0°♒		
evening max el	9068 Dec 27	02:45	26°♒03'48	46°06'03	
	9068 Dec 31	05:45	0°♓		
greatest brilliancy	9069 Feb 04	16:29	25°♓10'17	-4.8m	
retrograde	9069 Feb 14	11:16	26°♓56'40		
asc. node	9069 Feb 18	11:02	26°♓37'30		
evening set	9069 Mar 01	04:04	22°♓43'31		
inferior conj	9069 Mar 07	05:44	19°♓08'28	4°09'27	
minimum elong	9069 Mar 06	21:01	19°♓21'56	4°07'01	
min. Earth dist.	9069 Mar 07	07:08	19°♓06'19	0.27222 AU	
morning rise	9069 Mar 12	13:35	15°♓56'56		
direct	9069 Mar 28	00:58	11°♓14'56		
greatest brilliancy	9069 Apr 07	05:31	13°♓11'48	-4.9m	
	9069 May 02	15:13	0°♈		
morning max el	9069 May 17	12:10	14°♈04'12	46°59'17	
	9069 Jun 01	16:02	0°♉		
desc. node	9069 Jun 10	06:33	9°♉29'46		
	9069 Jun 28	05:21	0°♊		
	9069 Jul 23	15:52	0°♋		
	9069 Aug 17	15:37	0°♌		
	9069 Sep 11	10:25	0°♍		
asc. node	9069 Oct 01	03:31	23°♍59'11		
	9069 Oct 06	01:49	0°♎		
	9069 Oct 30	14:00	0°♏		
morning set	9069 Nov 16	08:18	20°♏36'18		
	9069 Nov 23	23:20	0°♐		
	9069 Dec 18	06:42	0°♑		
max. Earth dist.	9069 Dec 21	08:34	3°♑48'15	1.72977 AU	
superior conj	9069 Dec 23	01:10	5°♑53'44	1°02'22	
minimum elong	9069 Dec 23	10:56	6°♑23'53	1°02'18	
	9070 Jan 11	12:49	0°♒		
desc. node	9070 Jan 20	20:30	11°♒32'45		
evening rise	9070 Jan 30	04:55	23°♒08'08		
	9070 Feb 04	17:45	0°♓		
	9070 Feb 28	21:21	0°♈		
	9070 Mar 25	00:12	0°♉		
	9070 Apr 18	04:25	0°♊		
	9070 May 12	13:42	0°♋		
asc. node	9070 May 13	18:44	1°♋28'38		
	9070 Jun 06	09:38	0°♌		
	9070 Jul 02	02:01	0°♍		
	9070 Jul 29	15:38	0°♎		
evening max el	9070 Aug 04	01:29	5°♎26'17	46°09'05	
desc. node	9070 Sep 02	14:50	29°♎59'20		
	9070 Sep 02	15:17	0°♏		
greatest brilliancy	9070 Sep 11	19:59	4°♏35'19	-4.8m	
retrograde	9070 Sep 22	14:55	6°♏43'13		
evening set	9070 Oct 09	22:07	1°♏02'55		
	9070 Oct 11	15:42	30°℞♎		
min. Earth dist.	9070 Oct 13	17:19	28°♎42'42	0.29016 AU	
inferior conj	9070 Oct 14	04:25	28°♎25'15	-7°56'36	
minimum elong	9070 Oct 13	20:58	28°♎36'57	7°55'37	
morning rise	9070 Oct 17	19:56	26°♎09'41		
direct	9070 Nov 04	15:04	20°♎11'46		
greatest brilliancy	9070 Nov 14	17:07	22°♎01'36	-4.7m	
	9070 Nov 29	14:18	0°♏		
morning max el	9070 Dec 23	13:09	20°♏20'39	45°47'42	
asc. node	9070 Dec 24	14:12	21°♏21'35		
	9071 Jan 02	04:31	0°♐		
	9071 Jan 29	16:26	0°♑		
	9071 Feb 24	09:32	0°♒		
	9071 Mar 21	06:37	0°♓		
	9071 Apr 14	16:37	0°♈		
desc. node	9071 Apr 15	07:59	0°♈47'33		
	9071 May 08	20:03	0°♉		
	9071 Jun 01	20:10	0°♊		
	9071 Jun 25	19:38	0°♋		
morning set	9071 Jun 26	15:53	1°♋03'19		
	9071 Jul 19	20:19	0°♌		
superior conj	9071 Aug 04	16:46	19°♌43'57	-0°03'39	
minimum elong	9071 Aug 04	17:40	19°♌46'44	0°03'48	
behind sun begin	9071 Aug 03	18:00	18°♌33'10		
behind sun end	9071 Aug 05	17:20	21°♌00'16		
asc. node	9071 Aug 06	04:25	21°♌34'44		
max. Earth dist.	9071 Aug 07	12:12	23°♌13'27	1.72372 AU	
	9071 Aug 12	23:11	0°♍		
	9071 Sep 06	04:27	0°♎		
evening rise	9071 Sep 11	12:20	6°♎34'53		
	9071 Sep 30	12:32	0°♏		
	9071 Oct 25	00:28	0°♐		
	9071 Nov 18	17:39	0°♑		
desc. node	9071 Nov 25	22:43	8°♑41'40		
	9071 Dec 13	17:28	0°♒		
	9072 Jan 08	01:45	0°♓		
	9072 Feb 02	23:50	0°♈		
	9072 Mar 01	06:04	0°♉		
evening max el	9072 Mar 09	17:52	8°♉43'32	46°48'59	
asc. node	9072 Mar 17	22:15	16°♉40'52		
	9072 Apr 02	12:32	0°♊		
greatest brilliancy	9072 Apr 19	10:57	9°♊41'20	-4.9m	
retrograde	9072 Apr 29	04:30	11°♊29'29		
evening set	9072 May 17	07:08	5°♊13'47		
inferior conj	9072 May 19	20:35	3°♊40'06	9°02'03	
minimum elong	9072 May 20	01:02	3°♊33'15	9°01'32	
min. Earth dist.	9072 May 19	22:00	3°♊37'55	0.27148 AU	
morning rise	9072 May 22	18:59	1°♊53'02		
	9072 May 26	02:22	30°℞♉		
direct	9072 Jun 09	12:07	25°♉51'57		
greatest brilliancy	9072 Jun 19	05:10	27°♉38'45	-4.9m	
	9072 Jun 24	16:28	0°♊		
desc. node	9072 Jul 07	18:07	8°♊27'06		
morning max el	9072 Jul 29	15:00	27°♊59'23	46°32'18	
	9072 Jul 31	15:28	0°♋		

	9072 Aug 28 19:16	0°♌	
	9072 Sep 24 04:05	0°♍	
	9072 Oct 19 17:56	0°♎	
asc. node	9072 Oct 28 16:03	10°♎36'43	
	9072 Nov 13 19:49	0°♏	
	9072 Dec 08 12:55	0°♐	
	9073 Jan 01 23:41	0°♑	
morning set	9073 Jan 24 13:56	27°♑55'35	
	9073 Jan 26 06:05	0°♒	
desc. node	9073 Feb 17 08:46	27°♒29'03	
	9073 Feb 19 09:14	0°♓	
max. Earth dist.	9073 Mar 01 17:50	12°♓55'14	1.71842 AU
superior conj	9073 Mar 04 18:17	16°♓41'29	-0°36'21
minimum elong	9073 Mar 04 09:53	16°♓15'14	0°35'53
	9073 Mar 15 09:39	0°♈	
	9073 Apr 08 08:02	0°♉	
evening rise	9073 Apr 13 16:58	6°♉44'38	
	9073 May 02 05:49	0°♊	
	9073 May 26 05:18	0°♋	
asc. node	9073 Jun 10 06:18	18°♋42'55	
	9073 Jun 19 09:04	0°♌	
	9073 Jul 13 20:02	0°♍	
	9073 Aug 07 18:18	0°♎	
	9073 Sep 02 11:56	0°♏	
	9073 Sep 29 20:27	0°♐	
desc. node	9073 Sep 30 01:58	0°♐14'23	
evening max el	9073 Oct 14 00:48	14°♐14'45	45°43'29
	9073 Nov 01 00:01	0°♑	
greatest brilliancy	9073 Nov 22 02:12	12°♑20'02	-4.7m
retrograde	9073 Dec 01 18:19	14°♑01'09	
evening set	9073 Dec 18 11:43	8°♑41'08	
inferior conj	9073 Dec 23 00:48	5°♑54'24	-6°21'57
minimum elong	9073 Dec 23 10:56	5°♑38'34	6°19'36
min. Earth dist.	9073 Dec 23 18:50	5°♑26'12	0.28579 AU
morning rise	9073 Dec 28 09:48	2°♑38'35	
	9074 Jan 02 16:02	30°℞♐	
direct	9074 Jan 13 10:29	27°♐40'19	
asc. node	9074 Jan 21 01:36	28°♐46'46	
greatest brilliancy	9074 Jan 24 11:53	29°♐56'06	-4.8m
	9074 Jan 24 15:51	0°♑	
morning max el	9074 Mar 04 11:24	29°♑46'47	46°28'41
	9074 Mar 04 16:42	0°♒	
	9074 Apr 01 14:21	0°♓	
	9074 Apr 27 09:29	0°♈	
desc. node	9074 May 12 20:24	18°♈31'37	
	9074 May 22 07:24	0°♉	
	9074 Jun 15 19:05	0°♊	
	9074 Jul 10 02:26	0°♋	
	9074 Aug 03 08:51	0°♌	
	9074 Aug 27 15:43	0°♍	
asc. node	9074 Sep 02 16:54	7°♍28'04	
morning set	9074 Sep 06 04:07	11°♍44'49	
	9074 Sep 20 23:04	0°♎	
superior conj	9074 Oct 13 10:02	27°♎42'30	1°18'23
minimum elong	9074 Oct 13 02:51	27°♎20'21	1°18'21
max. Earth dist.	9074 Oct 14 04:17	28°♎38'48	1.73232 AU
	9074 Oct 15 06:37	0°♏	
	9074 Nov 08 14:37	0°♐	
evening rise	9074 Nov 18 22:13	12°♐42'10	
	9074 Dec 02 23:47	0°♑	
desc. node	9074 Dec 23 10:21	25°♑05'10	
	9074 Dec 27 10:34	0°♒	
	9075 Jan 20 22:51	0°♓	
	9075 Feb 14 12:44	0°♈	
	9075 Mar 11 06:10	0°♉	
	9075 Apr 05 09:11	0°♊	
asc. node	9075 Apr 15 09:19	11°♊41'22	
	9075 May 01 11:42	0°♋	
evening max el	9075 May 22 14:46	22°♋30'01	46°51'28
	9075 May 30 07:04	0°♌	
greatest brilliancy	9075 Jul 01 04:57	22°♌56'43	-4.9m
retrograde	9075 Jul 11 22:43	25°♌05'08	
evening set	9075 Jul 26 19:34	20°♌44'02	
inferior conj	9075 Aug 01 23:11	17°♌04'13	0°49'25
minimum elong	9075 Aug 02 01:03	17°♌01'18	0°48'38
min. Earth dist.	9075 Aug 01 13:25	17°♌19'19	0.27636 AU
desc. node	9075 Aug 05 05:30	15°♌04'43	
morning rise	9075 Aug 08 07:17	13°♌20'13	
direct	9075 Aug 22 22:45	9°♌11'30	
greatest brilliancy	9075 Sep 01 15:39	10°♌54'56	-4.8m
	9075 Sep 30 17:40	0°♍	
morning max el	9075 Oct 10 20:49	9°♍18'22	45°49'16
	9075 Oct 31 05:40	0°♎	
asc. node	9075 Nov 26 04:18	28°♎39'47	
	9075 Nov 27 08:27	0°♏	
	9075 Dec 23 02:32	0°♐	
	9076 Jan 17 02:36	0°♑	
	9076 Feb 10 15:50	0°♒	
	9076 Mar 05 22:11	0°♓	
desc. node	9076 Mar 16 21:21	13°♓38'41	
	9076 Mar 29 23:45	0°♈	
morning set	9076 Apr 08 12:43	11°♈56'52	
	9076 Apr 22 22:00	0°♉	
	9076 May 16 18:43	0°♊	
superior conj	9076 May 19 04:28	3°♊01'27	-1°26'10
minimum elong	9076 May 19 08:57	3°♊15'34	1°26'22
max. Earth dist.	9076 May 20 06:22	4°♊22'51	1.71277 AU
	9076 Jun 09 15:59	0°♋	
evening rise	9076 Jun 28 13:48	23°♋39'41	
	9076 Jul 03 15:42	0°♌	
asc. node	9076 Jul 07 18:12	5°♌06'55	
	9076 Jul 27 19:12	0°♍	
	9076 Aug 21 03:40	0°♎	
	9076 Sep 14 19:08	0°♏	
	9076 Oct 09 21:09	0°♐	
desc. node	9076 Oct 27 13:10	20°♐40'28	
	9076 Nov 04 15:39	0°♑	
	9076 Dec 01 14:22	0°♒	
evening max el	9076 Dec 24 15:54	23°♒43'17	46°04'39
	9076 Dec 31 07:33	0°♓	
greatest brilliancy	9077 Feb 02 06:26	22°♓48'56	-4.8m
retrograde	9077 Feb 12 00:17	24°♓34'52	
asc. node	9077 Feb 17 13:08	23°♓57'48	
evening set	9077 Feb 26 15:59	20°♓23'20	
inferior conj	9077 Mar 04 19:20	16°♓46'25	3°48'12
minimum elong	9077 Mar 04 11:12	16°♓58'57	3°45'53
min. Earth dist.	9077 Mar 04 21:50	16°♓42'32	0.27243 AU
morning rise	9077 Mar 10 05:58	13°♓30'58	
direct	9077 Mar 25 14:17	8°♓52'04	
greatest brilliancy	9077 Apr 04 21:11	10°♓50'58	-4.9m
	9077 May 02 21:20	0°♈	
morning max el	9077 May 15 01:46	11°♈40'46	46°59'20
	9077 Jun 01 10:04	0°♉	
desc. node	9077 Jun 09 08:28	8°♉48'28	
	9077 Jun 27 19:59	0°♊	
	9077 Jul 23 04:56	0°♋	
	9077 Aug 17 03:46	0°♌	
	9077 Sep 10 21:58	0°♍	
asc. node	9077 Sep 30 05:32	23°♍31'14	
	9077 Oct 05 12:57	0°♎	
	9077 Oct 30 00:51	0°♏	

morning set	9077 Nov 14 01:32	18°♏28'28	
	9077 Nov 23 10:04	0°♐	
	9077 Dec 17 17:25	0°♑	
max. Earth dist.	9077 Dec 19 04:22	1°♑48'00	1.73007 AU
superior conj	9077 Dec 20 17:38	3°♑43'10	1°04'38
minimum elong	9077 Dec 21 03:19	4°♑13'05	1°04'36
	9078 Jan 10 23:36	0°♒	
desc. node	9078 Jan 19 22:26	11°♒05'11	
evening rise	9078 Jan 27 19:46	20°♒51'39	
	9078 Feb 04 04:41	0°♓	
	9078 Feb 28 08:28	0°♈	
	9078 Mar 24 11:34	0°♉	
	9078 Apr 17 16:08	0°♊	
	9078 May 12 01:57	0°♋	
asc. node	9078 May 12 20:40	0°♋57'05	
	9078 Jun 05 22:50	0°♌	
	9078 Jul 01 17:07	0°♍	
	9078 Jul 29 11:52	0°♎	
evening max el	9078 Aug 01 16:44	3°♎11'52	46°10'32
desc. node	9078 Sep 01 16:55	28°♎38'43	
	9078 Sep 04 04:06	0°♏	
greatest brilliancy	9078 Sep 09 10:47	2°♏23'10	-4.8m
retrograde	9078 Sep 20 07:38	4°♏33'01	
	9078 Oct 05 15:07	30°℞♎	
evening set	9078 Oct 07 11:02	28°♎57'08	
inferior conj	9078 Oct 11 20:32	26°♎14'59	-7°48'24
minimum elong	9078 Oct 11 12:35	26°♎27'28	7°47'16
min. Earth dist.	9078 Oct 11 08:21	26°♎34'06	0.28990 AU
morning rise	9078 Oct 15 14:16	23°♎56'27	
direct	9078 Nov 02 06:50	18°♎01'56	
greatest brilliancy	9078 Nov 12 08:14	19°♎51'26	-4.7m
	9078 Nov 30 06:44	0°♏	
morning max el	9078 Dec 21 05:12	18°♏10'10	45°46'55
asc. node	9078 Dec 23 16:07	20°♏34'02	
	9079 Jan 01 23:09	0°♐	
	9079 Jan 29 06:53	0°♑	
	9079 Feb 23 22:20	0°♒	
	9079 Mar 20 18:35	0°♓	
desc. node	9079 Apr 14 09:51	0°♈17'47	
	9079 Apr 14 04:06	0°♈	
	9079 May 08 07:16	0°♉	
	9079 Jun 01 07:11	0°♊	
morning set	9079 Jun 24 05:02	28°♊40'30	
	9079 Jun 25 06:27	0°♋	
	9079 Jul 19 07:01	0°♌	
superior conj	9079 Aug 02 07:24	17°♌27'09	-0°07'13
minimum elong	9079 Aug 02 09:10	17°♌32'37	0°07'19
behind sun begin	9079 Aug 01 11:18	16°♌24'38	
behind sun end	9079 Aug 03 07:01	18°♌40'35	
max. Earth dist.	9079 Aug 05 04:02	21°♌00'28	1.72332 AU
asc. node	9079 Aug 05 06:27	21°♌08'00	
	9079 Aug 12 09:47	0°♍	
	9079 Sep 05 15:05	0°♎	
evening rise	9079 Sep 09 05:18	4°♎26'15	
	9079 Sep 29 23:17	0°♏	
	9079 Oct 24 11:26	0°♐	
	9079 Nov 18 05:02	0°♑	
desc. node	9079 Nov 25 00:34	8°♑12'28	
	9079 Dec 13 05:31	0°♒	
	9080 Jan 07 14:57	0°♓	
	9080 Feb 02 15:09	0°♈	
	9080 Mar 01 02:19	0°♉	
evening max el	9080 Mar 07 08:25	6°♉22'56	46°47'52
asc. node	9080 Mar 17 00:16	15°♉42'14	
	9080 Apr 03 10:19	0°♊	
greatest brilliancy	9080 Apr 16 23:23	7°♊15'14	-4.9m
retrograde	9080 Apr 26 18:05	9°♊03'54	
evening set	9080 May 14 21:27	2°♊46'02	
inferior conj	9080 May 17 09:22	1°♊14'33	9°06'27
minimum elong	9080 May 17 12:55	1°♊09'07	9°06'03
min. Earth dist.	9080 May 17 09:59	1°♊13'36	0.27143 AU
	9080 May 19 10:09	30°℞♉	
morning rise	9080 May 20 04:25	29°♉32'31	
direct	9080 Jun 07 01:27	23°♉26'37	
greatest brilliancy	9080 Jun 16 16:49	25°♉12'17	-4.9m
	9080 Jun 26 13:16	0°♊	
desc. node	9080 Jul 06 20:02	7°♊14'40	
morning max el	9080 Jul 27 05:22	25°♊39'51	46°33'57
	9080 Jul 31 13:04	0°♋	
	9080 Aug 28 10:51	0°♌	
	9080 Sep 23 17:18	0°♍	
	9080 Oct 19 05:56	0°♎	
asc. node	9080 Oct 27 17:54	10°♎07'20	
	9080 Nov 13 07:08	0°♏	
	9080 Dec 07 23:51	0°♐	
	9081 Jan 01 10:25	0°♑	
morning set	9081 Jan 22 05:11	25°♑41'14	
	9081 Jan 25 16:42	0°♒	
desc. node	9081 Feb 16 10:48	27°♒02'19	
	9081 Feb 18 19:51	0°♓	
max. Earth dist.	9081 Feb 27 05:10	10°♓27'35	1.71883 AU
superior conj	9081 Mar 02 06:53	14°♓17'40	-0°32'53
minimum elong	9081 Mar 01 23:12	13°♓53'40	0°32'25
	9081 Mar 14 20:21	0°♈	
	9081 Apr 07 18:49	0°♉	
evening rise	9081 Apr 11 04:21	4°♉15'49	
	9081 May 01 16:43	0°♊	
	9081 May 25 16:21	0°♋	
asc. node	9081 Jun 09 08:14	18°♋14'06	
	9081 Jun 18 20:22	0°♌	
	9081 Jul 13 07:45	0°♍	
	9081 Aug 07 06:46	0°♎	
	9081 Sep 02 01:58	0°♏	
desc. node	9081 Sep 29 03:56	29°♏32'52	
	9081 Sep 29 14:25	0°♐	
evening max el	9081 Oct 11 16:12	12°♐03'49	45°43'30
	9081 Nov 01 12:29	0°♑	
greatest brilliancy	9081 Nov 19 17:24	10°♑09'20	-4.7m
retrograde	9081 Nov 29 09:04	11°♑50'01	
evening set	9081 Dec 16 06:10	6°♑25'47	
inferior conj	9081 Dec 20 16:30	3°♑42'48	-6°35'35
minimum elong	9081 Dec 21 02:31	3°♑27'04	6°33'21
min. Earth dist.	9081 Dec 21 10:14	3°♑14'59	0.28627 AU
morning rise	9081 Dec 25 22:34	0°♑30'42	
	9081 Dec 26 20:21	30°℞♐	
direct	9082 Jan 11 02:34	25°♐28'21	
asc. node	9082 Jan 20 03:42	27°♐00'21	
greatest brilliancy	9082 Jan 22 03:25	27°♐43'05	-4.8m
	9082 Jan 27 02:52	0°♑	
morning max el	9082 Mar 02 01:52	27°♑29'13	46°27'00
	9082 Mar 04 13:47	0°♒	
	9082 Apr 01 05:46	0°♓	
	9082 Apr 26 22:47	0°♈	
desc. node	9082 May 11 22:18	17°♈59'25	
	9082 May 21 19:39	0°♉	
	9082 Jun 15 06:42	0°♊	
	9082 Jul 09 13:38	0°♋	
	9082 Aug 02 19:45	0°♌	
	9082 Aug 27 02:23	0°♍	
asc. node	9082 Sep 01 18:54	7°♍01'31	
morning set	9082 Sep 03 20:15	9°♍33'51	

	9082 Sep 20 09:34	0°♎	
superior conj	9082 Oct 11 03:35	25°♎36'31	1°17'00
minimum elong	9082 Oct 10 19:56	25°♎12'56	1°16'55
max. Earth dist.	9082 Oct 11 23:00	26°♎36'23	1.73215 AU
	9082 Oct 14 17:01	0°♏	
	9082 Nov 08 01:02	0°♐	
evening rise	9082 Nov 16 15:26	10°♐35'13	
	9082 Dec 02 10:22	0°♑	
desc. node	9082 Dec 22 12:22	24°♑38'13	
	9082 Dec 26 21:26	0°♒	
	9083 Jan 20 10:07	0°♓	
	9083 Feb 14 00:32	0°♈	
	9083 Mar 10 18:47	0°♉	
	9083 Apr 04 23:11	0°♊	
asc. node	9083 Apr 14 11:14	11°♊03'56	
	9083 May 01 04:40	0°♋	
evening max el	9083 May 20 04:06	20°♋07'13	46°52'14
	9083 May 30 09:26	0°♌	
greatest brilliancy	9083 Jun 28 21:24	20°♌39'34	-4.9m
retrograde	9083 Jul 09 12:41	22°♌46'01	
evening set	9083 Jul 24 11:07	18°♌23'38	
min. Earth dist.	9083 Jul 30 04:52	14°♌59'05	0.27597 AU
inferior conj	9083 Jul 30 13:18	14°♌46'02	1°12'07
minimum elong	9083 Jul 30 16:03	14°♌41'47	1°11'03
desc. node	9083 Aug 04 07:38	11°♌53'55	
morning rise	9083 Aug 05 21:34	11°♌01'30	
direct	9083 Aug 20 11:56	6°♌53'41	
greatest brilliancy	9083 Aug 30 06:11	8°♌37'53	-4.8m
	9083 Sep 30 21:06	0°♍	
morning max el	9083 Oct 08 10:18	7°♍01'14	45°50'25
	9083 Oct 30 22:24	0°♎	
asc. node	9083 Nov 25 06:15	28°♎06'31	
	9083 Nov 26 21:58	0°♏	
	9083 Dec 22 14:37	0°♐	
	9084 Jan 16 13:58	0°♑	
	9084 Feb 10 02:52	0°♒	
	9084 Mar 05 09:03	0°♓	
desc. node	9084 Mar 15 23:16	13°♓10'58	
	9084 Mar 29 10:31	0°♈	
morning set	9084 Apr 05 23:22	9°♈26'05	
	9084 Apr 22 08:43	0°♉	
	9084 May 16 05:24	0°♊	
superior conj	9084 May 16 15:39	0°♊32'15	-1°26'50
minimum elong	9084 May 16 19:07	0°♊43'06	1°27'02
max. Earth dist.	9084 May 17 09:24	1°♊28'02	1.71265 AU
	9084 Jun 09 02:40	0°♋	
evening rise	9084 Jun 26 01:47	21°♋13'47	
	9084 Jul 03 02:25	0°♌	
asc. node	9084 Jul 06 20:14	4°♌39'52	
	9084 Jul 27 06:00	0°♍	
	9084 Aug 20 14:42	0°♎	
	9084 Sep 14 06:33	0°♏	
	9084 Oct 09 09:19	0°♐	
desc. node	9084 Oct 26 15:03	20°♐08'15	
	9084 Nov 04 05:16	0°♑	
	9084 Dec 01 07:07	0°♒	
evening max el	9084 Dec 22 05:25	21°♒25'04	46°03'21
	9084 Dec 31 10:21	0°♓	
greatest brilliancy	9085 Jan 30 19:39	20°♓27'51	-4.8m
retrograde	9085 Feb 09 13:40	22°♓14'02	
asc. node	9085 Feb 16 15:06	21°♓13'28	
evening set	9085 Feb 24 04:03	18°♓03'35	
inferior conj	9085 Mar 02 08:50	14°♓25'00	3°26'26
minimum elong	9085 Mar 02 01:21	14°♓36'30	3°24'17
min. Earth dist.	9085 Mar 02 12:12	14°♓19'48	0.27272 AU
morning rise	9085 Mar 07 22:11	11°♓06'00	
direct	9085 Mar 23 04:04	6°♓29'48	
greatest brilliancy	9085 Apr 02 12:35	8°♓30'31	-4.9m
	9085 May 03 01:16	0°♈	
morning max el	9085 May 12 16:23	9°♈20'25	46°59'11
	9085 Jun 01 03:32	0°♉	
desc. node	9085 Jun 08 10:28	8°♉08'17	
	9085 Jun 27 10:16	0°♊	
	9085 Jul 22 17:41	0°♋	
	9085 Aug 16 15:38	0°♌	
	9085 Sep 10 09:13	0°♍	
asc. node	9085 Sep 29 07:21	23°♍03'23	
	9085 Oct 04 23:49	0°♎	
	9085 Oct 29 11:29	0°♏	
morning set	9085 Nov 11 18:45	16°♏21'13	
	9085 Nov 22 20:35	0°♐	
max. Earth dist.	9085 Dec 17 00:58	29°♐50'55	1.73030 AU
	9085 Dec 17 03:55	0°♑	
superior conj	9085 Dec 18 10:12	1°♑33'35	1°06'49
minimum elong	9085 Dec 18 19:45	2°♑03'05	1°06'47
	9086 Jan 10 10:10	0°♒	
desc. node	9086 Jan 19 00:28	10°♒38'38	
evening rise	9086 Jan 25 10:46	18°♒36'29	
	9086 Feb 03 15:22	0°♓	
	9086 Feb 27 19:23	0°♈	
	9086 Mar 23 22:47	0°♉	
	9086 Apr 17 03:45	0°♊	
asc. node	9086 May 11 22:34	0°♋25'37	
	9086 May 11 14:10	0°♋	
	9086 Jun 05 12:03	0°♌	
	9086 Jul 01 08:24	0°♍	
	9086 Jul 29 08:45	0°♎	
evening max el	9086 Jul 30 08:39	0°♎59'14	46°12'09
desc. node	9086 Aug 31 18:50	27°♎15'19	
	9086 Sep 06 14:12	0°♏	
greatest brilliancy	9086 Sep 07 01:20	0°♏10'47	-4.8m
retrograde	9086 Sep 18 00:23	2°♏22'25	
	9086 Sep 28 21:27	30°ᴿ♎	
evening set	9086 Oct 04 23:46	26°♎51'09	
min. Earth dist.	9086 Oct 08 23:01	24°♎25'24	0.28959 AU
inferior conj	9086 Oct 09 12:27	24°♎04'22	-7°39'27
minimum elong	9086 Oct 09 04:03	24°♎17'32	7°38'11
morning rise	9086 Oct 13 08:32	21°♎42'33	
direct	9086 Oct 30 22:49	15°♎51'52	
greatest brilliancy	9086 Nov 09 22:36	17°♎40'20	-4.7m
	9086 Nov 30 18:54	0°♏	
morning max el	9086 Dec 18 21:29	16°♏00'36	45°46'12
asc. node	9086 Dec 22 18:10	19°♏47'48	
	9087 Jan 01 17:13	0°♐	
	9087 Jan 28 21:04	0°♑	
	9087 Feb 23 10:55	0°♒	
	9087 Mar 20 06:23	0°♓	
desc. node	9087 Apr 13 11:46	29°♓48'32	
	9087 Apr 13 15:28	0°♈	
	9087 May 07 18:23	0°♉	
	9087 May 31 18:08	0°♊	
morning set	9087 Jun 21 17:47	26°♊16'20	
	9087 Jun 24 17:17	0°♋	
	9087 Jul 18 17:44	0°♌	
superior conj	9087 Jul 30 21:28	15°♌08'19	-0°10'50
minimum elong	9087 Jul 31 00:05	15°♌16'28	0°10'54
behind sun begin	9087 Jul 30 05:56	14°♌20'00	
behind sun end	9087 Jul 31 18:14	16°♌12'56	
max. Earth dist.	9087 Aug 02 20:36	18°♌49'33	1.72290 AU
asc. node	9087 Aug 04 08:23	20°♌40'48	

	9087 Aug 11 20:27	0°♍	
	9087 Sep 05 01:45	0°♎	
evening rise	9087 Sep 06 21:45	2°♎15'56	
	9087 Sep 29 10:03	0°♏	
	9087 Oct 23 22:28	0°♐	
	9087 Nov 17 16:30	0°♑	
desc. node	9087 Nov 24 02:35	7°♑43'34	
	9087 Dec 12 17:42	0°♒	
	9088 Jan 07 04:19	0°♓	
	9088 Feb 02 06:43	0°♈	
	9088 Feb 29 23:13	0°♉	
evening max el	9088 Mar 04 23:00	4°♉02'36	46°46'46
asc. node	9088 Mar 16 02:10	14°♉42'11	
	9088 Apr 04 16:13	0°♊	
greatest brilliancy	9088 Apr 14 12:11	4°♊50'01	-4.9m
retrograde	9088 Apr 24 07:19	6°♊38'30	
evening set	9088 May 12 11:23	0°♊19'33	
	9088 May 13 00:16	30°℞♉	
inferior conj	9088 May 14 22:17	28°♉49'25	9°09'47
minimum elong	9088 May 15 00:53	28°♉45'25	9°09'28
min. Earth dist.	9088 May 14 22:16	28°♉49'27	0.27139 AU
morning rise	9088 May 17 14:25	27°♉11'34	
direct	9088 Jun 04 14:46	21°♉01'42	
greatest brilliancy	9088 Jun 14 04:54	22°♉46'17	-4.9m
	9088 Jun 27 19:48	0°♊	
desc. node	9088 Jul 05 22:10	6°♊04'38	
morning max el	9088 Jul 24 19:01	23°♊18'01	46°35'21
	9088 Jul 31 10:02	0°♋	
	9088 Aug 28 02:24	0°♌	
	9088 Sep 23 06:37	0°♍	
	9088 Oct 18 18:03	0°♎	
asc. node	9088 Oct 26 19:54	9°♎37'54	
	9088 Nov 12 18:35	0°♏	
	9088 Dec 07 10:54	0°♐	
	9088 Dec 31 21:16	0°♑	
morning set	9089 Jan 19 20:22	23°♑26'08	
	9089 Jan 25 03:30	0°♒	
desc. node	9089 Feb 15 12:41	26°♒34'30	
	9089 Feb 18 06:40	0°♓	
max. Earth dist.	9089 Feb 24 14:18	7°♓52'38	1.71922 AU
superior conj	9089 Feb 27 19:41	11°♓54'01	-0°29'21
minimum elong	9089 Feb 27 12:44	11°♓32'23	0°28'55
	9089 Mar 14 07:12	0°♈	
	9089 Apr 07 05:43	0°♉	
evening rise	9089 Apr 08 16:01	1°♉47'33	
	9089 May 01 03:43	0°♊	
	9089 May 25 03:30	0°♋	
asc. node	9089 Jun 08 10:17	17°♋45'24	
	9089 Jun 18 07:48	0°♌	
	9089 Jul 12 19:40	0°♍	
	9089 Aug 06 19:32	0°♎	
	9089 Sep 01 16:27	0°♏	
desc. node	9089 Sep 28 05:52	28°♏49'52	
	9089 Sep 29 09:13	0°♐	
evening max el	9089 Oct 09 06:44	9°♐49'47	45°43'38
	9089 Nov 02 05:52	0°♑	
greatest brilliancy	9089 Nov 17 08:46	7°♑57'56	-4.7m
retrograde	9089 Nov 26 23:38	9°♑38'17	
evening set	9089 Dec 14 00:32	4°♑09'36	
inferior conj	9089 Dec 18 08:11	1°♑30'29	-6°48'33
minimum elong	9089 Dec 18 18:04	1°♑14'58	6°46'25
min. Earth dist.	9089 Dec 19 01:49	1°♑02'47	0.28676 AU
	9089 Dec 20 18:06	30°℞♐	
morning rise	9089 Dec 23 11:15	28°♐22'19	
direct	9090 Jan 08 18:12	23°♐15'28	
asc. node	9090 Jan 19 05:42	25°♐16'53	
greatest brilliancy	9090 Jan 19 19:28	25°♐29'56	-4.8m
	9090 Jan 28 16:37	0°♑	
morning max el	9090 Feb 27 16:03	25°♑10'03	46°25'22
	9090 Mar 04 10:29	0°♒	
	9090 Mar 31 21:14	0°♓	
	9090 Apr 26 12:14	0°♈	
desc. node	9090 May 11 00:17	17°♈26'50	
	9090 May 21 08:03	0°♉	
	9090 Jun 14 18:28	0°♊	
	9090 Jul 09 00:58	0°♋	
	9090 Aug 02 06:48	0°♌	
	9090 Aug 26 13:15	0°♍	
asc. node	9090 Aug 31 20:43	6°♍33'43	
morning set	9090 Sep 01 12:22	7°♍22'02	
	9090 Sep 19 20:18	0°♎	
superior conj	9090 Oct 08 21:01	23°♎29'16	1°15'28
minimum elong	9090 Oct 08 12:57	23°♎04'24	1°15'23
max. Earth dist.	9090 Oct 09 16:06	24°♎28'10	1.73202 AU
	9090 Oct 14 03:42	0°♏	
	9090 Nov 07 11:46	0°♐	
evening rise	9090 Nov 14 08:30	8°♐26'53	
	9090 Dec 01 21:15	0°♑	
desc. node	9090 Dec 21 14:20	24°♑10'10	
	9090 Dec 26 08:37	0°♒	
	9091 Jan 19 21:43	0°♓	
	9091 Feb 13 12:43	0°♈	
	9091 Mar 10 07:50	0°♉	
	9091 Apr 04 13:43	0°♊	
asc. node	9091 Apr 13 13:15	10°♊25'28	
	9091 Apr 30 22:20	0°♋	
evening max el	9091 May 17 17:18	17°♋43'16	46°53'11
	9091 May 30 13:44	0°♌	
greatest brilliancy	9091 Jun 26 13:31	18°♌21'36	-4.9m
retrograde	9091 Jul 07 02:57	20°♌26'57	
evening set	9091 Jul 22 02:57	16°♌02'39	
inferior conj	9091 Jul 28 03:36	12°♌27'40	1°34'33
minimum elong	9091 Jul 28 07:11	12°♌22'07	1°33'12
min. Earth dist.	9091 Jul 27 20:22	12°♌38'50	0.27559 AU
morning rise	9091 Aug 03 11:52	8°♌43'06	
desc. node	9091 Aug 03 09:27	8°♌46'20	
direct	9091 Aug 18 01:10	4°♌35'32	
greatest brilliancy	9091 Aug 27 20:58	6°♌20'55	-4.8m
	9091 Sep 30 23:11	0°♍	
morning max el	9091 Oct 06 00:40	4°♍45'33	45°51'28
	9091 Oct 30 15:05	0°♎	
asc. node	9091 Nov 24 08:16	27°♎32'41	
	9091 Nov 26 11:41	0°♏	
	9091 Dec 22 03:00	0°♐	
	9092 Jan 16 01:41	0°♑	
	9092 Feb 09 14:13	0°♒	
	9092 Mar 04 20:14	0°♓	
desc. node	9092 Mar 15 01:06	12°♓42'00	
	9092 Mar 28 21:36	0°♈	
morning set	9092 Apr 03 09:58	6°♈54'16	
	9092 Apr 21 19:45	0°♉	
superior conj	9092 May 14 02:47	28°♉01'41	-1°27'20
minimum elong	9092 May 14 05:11	28°♉09'12	1°27'32
max. Earth dist.	9092 May 14 14:06	28°♉37'13	1.71255 AU
	9092 May 15 16:25	0°♊	
	9092 Jun 08 13:41	0°♋	
evening rise	9092 Jun 23 13:48	18°♋47'03	
	9092 Jul 02 13:27	0°♌	
asc. node	9092 Jul 05 22:09	4°♌11'29	
	9092 Jul 26 17:06	0°♍	
	9092 Aug 20 01:58	0°♎	

	9092 Sep 13 18:16	0°♏	
	9092 Oct 08 21:51	0°♐	
desc. node	9092 Oct 25 17:04	19°♐35'20	
	9092 Nov 03 19:21	0°♑	
	9092 Dec 01 00:39	0°♒	
evening max el	9092 Dec 19 20:02	19°♒08'36	46°02'03
	9092 Dec 31 15:26	0°♓	
greatest brilliancy	9093 Jan 28 08:30	18°♓05'35	-4.8m
retrograde	9093 Feb 07 03:28	19°♓52'20	
asc. node	9093 Feb 15 16:59	18°♓23'06	
evening set	9093 Feb 21 16:29	15°♓42'50	
inferior conj	9093 Feb 27 22:23	12°♓02'40	3°04'20
minimum elong	9093 Feb 27 15:36	12°♓13'05	3°02'23
min. Earth dist.	9093 Feb 28 02:18	11°♓56'38	0.27301 AU
morning rise	9093 Mar 05 14:18	8°♓40'24	
direct	9093 Mar 20 18:26	4°♓06'52	
greatest brilliancy	9093 Mar 31 03:27	6°♓08'35	-4.9m
	9093 May 03 04:00	0°♈	
morning max el	9093 May 10 07:33	7°♈00'34	46°58'52
	9093 May 31 21:00	0°♉	
desc. node	9093 Jun 07 12:28	7°♉27'35	
	9093 Jun 27 00:45	0°♊	
	9093 Jul 22 06:42	0°♋	
	9093 Aug 16 03:45	0°♌	
	9093 Sep 09 20:44	0°♍	
asc. node	9093 Sep 28 09:21	22°♍35'23	
	9093 Oct 04 10:54	0°♎	
	9093 Oct 28 22:21	0°♏	
morning set	9093 Nov 09 12:17	14°♏14'16	
	9093 Nov 22 07:21	0°♐	
max. Earth dist.	9093 Dec 14 21:27	27°♐52'32	1.73056 AU
superior conj	9093 Dec 16 02:59	29°♐23'47	1°08'52
minimum elong	9093 Dec 16 12:19	29°♐52'36	1°08'52
	9093 Dec 16 14:43	0°♑	
	9094 Jan 09 21:03	0°♒	
desc. node	9094 Jan 18 02:21	10°♒10'34	
evening rise	9094 Jan 23 01:46	16°♒20'18	
	9094 Feb 03 02:25	0°♓	
	9094 Feb 27 06:38	0°♈	
	9094 Mar 23 10:21	0°♉	
	9094 Apr 16 15:43	0°♊	
asc. node	9094 May 11 00:39	29°♊53'35	
	9094 May 11 02:45	0°♋	
	9094 Jun 05 01:42	0°♌	
	9094 Jul 01 00:15	0°♍	
evening max el	9094 Jul 28 01:22	28°♍47'39	46°13'48
	9094 Jul 29 06:46	0°♎	
desc. node	9094 Aug 30 20:49	25°♎48'51	
greatest brilliancy	9094 Sep 04 16:32	27°♎58'43	-4.8m
	9094 Sep 12 13:51	0°♏	
retrograde	9094 Sep 15 17:07	0°♏11'26	
	9094 Sep 18 19:10	30°℞♎	
evening set	9094 Oct 02 12:44	24°♎45'11	
min. Earth dist.	9094 Oct 06 13:54	22°♎16'35	0.28920 AU
inferior conj	9094 Oct 07 04:32	21°♎53'40	-7°29'52
minimum elong	9094 Oct 06 19:44	22°♎07'28	7°28'29
morning rise	9094 Oct 11 03:00	19°♎28'25	
direct	9094 Oct 28 15:10	13°♎42'02	
greatest brilliancy	9094 Nov 07 12:44	15°♎28'53	-4.7m
	9094 Dec 01 03:55	0°♏	
morning max el	9094 Dec 16 13:17	13°♏49'35	45°45'21
asc. node	9094 Dec 21 20:07	19°♏01'46	
	9095 Jan 01 11:00	0°♐	
	9095 Jan 28 11:18	0°♑	
	9095 Feb 22 23:41	0°♒	
	9095 Mar 19 18:25	0°♓	
desc. node	9095 Apr 12 13:50	29°♓18'56	
	9095 Apr 13 03:06	0°♈	
	9095 May 07 05:45	0°♉	
	9095 May 31 05:19	0°♊	
morning set	9095 Jun 19 06:20	23°♊50'51	
	9095 Jun 24 04:20	0°♋	
	9095 Jul 18 04:40	0°♌	
superior conj	9095 Jul 28 11:24	12°♌48'22	-0°14'26
minimum elong	9095 Jul 28 14:53	12°♌59'11	0°14'28
behind sun begin	9095 Jul 28 04:04	12°♌25'32	
behind sun end	9095 Jul 29 01:41	13°♌32'50	
max. Earth dist.	9095 Jul 31 13:46	16°♌39'44	1.72246 AU
asc. node	9095 Aug 03 10:16	20°♌12'43	
	9095 Aug 11 07:20	0°♍	
evening rise	9095 Sep 04 14:11	0°♎04'48	
	9095 Sep 04 12:38	0°♎	
	9095 Sep 28 21:01	0°♏	
	9095 Oct 23 09:38	0°♐	
	9095 Nov 17 04:05	0°♑	
desc. node	9095 Nov 23 04:37	7°♑14'22	
	9095 Dec 12 06:02	0°♒	
	9096 Jan 06 17:56	0°♓	
	9096 Feb 01 22:44	0°♈	
	9096 Feb 29 21:14	0°♉	
evening max el	9096 Mar 02 12:49	1°♉39'28	46°45'20
asc. node	9096 Mar 15 04:13	13°♉40'07	
	9096 Apr 06 12:53	0°♊	
greatest brilliancy	9096 Apr 12 01:29	2°♊24'05	-4.9m
retrograde	9096 Apr 21 19:45	4°♊11'42	
	9096 May 06 08:24	30°℞♉	
evening set	9096 May 10 00:31	27°♉52'50	
inferior conj	9096 May 12 11:03	26°♉23'07	9°11'59
minimum elong	9096 May 12 12:39	26°♉20'39	9°11'44
min. Earth dist.	9096 May 12 10:46	26°♉23'32	0.27134 AU
morning rise	9096 May 15 00:49	24°♉48'38	
direct	9096 Jun 02 03:30	18°♉35'34	
greatest brilliancy	9096 Jun 11 17:29	20°♉19'44	-4.9m
	9096 Jun 28 18:19	0°♊	
desc. node	9096 Jul 05 00:02	4°♊55'22	
morning max el	9096 Jul 22 07:28	20°♊52'26	46°36'51
	9096 Jul 31 06:29	0°♋	
	9096 Aug 27 17:51	0°♌	
	9096 Sep 22 19:55	0°♍	
	9096 Oct 18 06:12	0°♎	
asc. node	9096 Oct 25 21:53	9°♎08'19	
	9096 Nov 12 06:02	0°♏	
	9096 Dec 06 21:57	0°♐	
	9096 Dec 31 08:05	0°♑	
morning set	9097 Jan 17 12:03	21°♑12'43	
	9097 Jan 24 14:15	0°♒	
desc. node	9097 Feb 14 14:37	26°♒06'55	
	9097 Feb 17 17:27	0°♓	
max. Earth dist.	9097 Feb 22 01:41	5°♓24'50	1.71970 AU
superior conj	9097 Feb 25 08:50	9°♓31'36	-0°25'47
minimum elong	9097 Feb 25 02:41	9°♓12'27	0°25'24
	9097 Mar 13 18:04	0°♈	
evening rise	9097 Apr 06 03:42	29°♈19'14	
	9097 Apr 06 16:42	0°♉	
	9097 Apr 30 14:49	0°♊	
	9097 May 24 14:47	0°♋	
asc. node	9097 Jun 07 12:10	17°♋15'49	
	9097 Jun 17 19:22	0°♌	
	9097 Jul 12 07:41	0°♍	
	9097 Aug 06 08:26	0°♎	
	9097 Sep 01 07:09	0°♏	

desc. node	9097 Sep 27 07:56	28°♏06'37		
	9097 Sep 29 04:33	0°♐		
evening max el	9097 Oct 06 20:41	7°♐34'26	45°43'56	
	9097 Nov 03 05:18	0°♑		
greatest brilliancy	9097 Nov 15 00:02	5°♑46'51	-4.7m	
retrograde	9097 Nov 24 14:38	7°♑27'28		
evening set	9097 Dec 11 19:00	1°♑54'07		
	9097 Dec 14 21:51	30°℞♐		
inferior conj	9097 Dec 16 00:01	29°♐19'01	-7°00'43	
minimum elong	9097 Dec 16 09:42	29°♐03'49	6°58'44	
min. Earth dist.	9097 Dec 16 17:32	28°♐51'32	0.28720 AU	
morning rise	9097 Dec 21 00:02	26°♐15'09		
direct	9098 Jan 06 09:44	21°♐03'25		
greatest brilliancy	9098 Jan 17 11:56	23°♐18'18	-4.8m	
asc. node	9098 Jan 18 07:33	23°♐37'51		
	9098 Jan 29 18:33	0°♑		
morning max el	9098 Feb 25 06:33	22°♑52'32	46°23'48	
	9098 Mar 04 06:14	0°♒		
	9098 Mar 31 12:17	0°♓		
	9098 Apr 26 01:28	0°♈		
desc. node	9098 May 10 02:15	16°♈54'35		
	9098 May 20 20:20	0°♉		
	9098 Jun 14 06:11	0°♊		
	9098 Jul 08 12:18	0°♋		
	9098 Aug 01 17:50	0°♌		
	9098 Aug 26 00:04	0°♍		
morning set	9098 Aug 30 04:00	5°♍08'46		
asc. node	9098 Aug 30 22:44	6°♍06'40		
	9098 Sep 19 06:58	0°♎		
superior conj	9098 Oct 06 14:09	21°♎21'25	1°13'50	
minimum elong	9098 Oct 06 05:43	20°♎55'23	1°13'42	
max. Earth dist.	9098 Oct 07 09:19	22°♎20'31	1.73188 AU	
	9098 Oct 13 14:18	0°♏		
	9098 Nov 06 22:24	0°♐		
evening rise	9098 Nov 12 01:37	6°♐19'05		
	9098 Dec 01 08:02	0°♑		
desc. node	9098 Dec 20 16:13	23°♑42'20		
	9098 Dec 25 19:39	0°♒		
	9099 Jan 19 09:08	0°♓		
	9099 Feb 13 00:40	0°♈		
	9099 Mar 09 20:40	0°♉		
	9099 Apr 04 04:07	0°♊		
asc. node	9099 Apr 12 15:15	9°♊47'26		
	9099 Apr 30 16:12	0°♋		
evening max el	9099 May 15 06:40	15°♋20'13	46°53'51	
	9099 May 30 19:58	0°♌		
greatest brilliancy	9099 Jun 24 04:48	16°♌02'11	-4.9m	
retrograde	9099 Jul 04 17:21	18°♌07'08		
evening set	9099 Jul 19 18:39	13°♌40'27		
inferior conj	9099 Jul 25 17:33	10°♌08'20	1°57'04	
minimum elong	9099 Jul 25 21:58	10°♌01'32	1°55'28	
min. Earth dist.	9099 Jul 25 11:19	10°♌17'57	0.27527 AU	
morning rise	9099 Aug 01 01:41	6°♌24'16		
desc. node	9099 Aug 02 11:28	5°♌40'36		
direct	9099 Aug 15 14:22	2°♌16'22		
greatest brilliancy	9099 Aug 25 11:16	4°♌02'57	-4.8m	
	9099 Sep 30 23:51	0°♍		
morning max el	9099 Oct 03 15:35	2°♍31'22	45°52'38	
	9099 Oct 30 07:16	0°♎		
asc. node	9099 Nov 23 10:11	26°♎59'23		
	9099 Nov 26 01:04	0°♏		
	9099 Dec 21 15:05	0°♐		
	9100 Jan 15 13:06	0°♑		
	9100 Feb 09 01:17	0°♒		
	9100 Mar 05 07:05	0°♓		
desc. node	9100 Mar 15 03:12	12°♓14'54		
	9100 Mar 29 08:20	0°♈		
morning set	9100 Apr 01 21:15	4°♈25'42		
	9100 Apr 22 06:25	0°♉		
superior conj	9100 May 12 14:13	25°♉33'08	-1°27'38	
minimum elong	9100 May 12 15:32	25°♉37'19	1°27'51	
max. Earth dist.	9100 May 12 22:53	26°♉00'23	1.71253 AU	
	9100 May 16 03:05	0°♊		
	9100 Jun 09 00:24	0°♋		
evening rise	9100 Jun 22 01:48	16°♋21'05		
	9100 Jul 03 00:12	0°♌		
asc. node	9100 Jul 06 00:03	3°♌43'48		
	9100 Jul 27 03:58	0°♍		
	9100 Aug 20 13:04	0°♎		
	9100 Sep 14 05:48	0°♏		
	9100 Oct 09 10:14	0°♐		
desc. node	9100 Oct 25 19:05	19°♐02'57		
	9100 Nov 04 09:21	0°♑		
	9100 Dec 01 18:17	0°♒		
evening max el	9100 Dec 18 11:13	16°♒54'27	46°00'47	
	9101 Jan 01 22:15	0°♓		
greatest brilliancy	9101 Jan 26 21:29	15°♓44'42	-4.8m	
retrograde	9101 Feb 05 17:18	17°♓31'38		
asc. node	9101 Feb 15 19:06	15°♓28'34		
evening set	9101 Feb 20 05:14	13°♓23'13		
inferior conj	9101 Feb 26 11:56	9°♓41'35	2°42'01	
minimum elong	9101 Feb 26 05:55	9°♓50'51	2°40'16	
min. Earth dist.	9101 Feb 26 16:20	9°♓34'48	0.27326 AU	
morning rise	9101 Mar 04 06:13	6°♓16'08		
direct	9101 Mar 19 09:02	1°♓45'28		
greatest brilliancy	9101 Mar 29 17:52	3°♓47'26	-4.9m	
	9101 May 04 04:44	0°♈		
morning max el	9101 May 08 22:20	4°♈41'21	46°58'35	
	9101 Jun 01 13:34	0°♉		
desc. node	9101 Jun 07 14:23	6°♉48'34		
	9101 Jun 27 14:34	0°♊		
	9101 Jul 22 19:11	0°♋		
	9101 Aug 16 15:26	0°♌		
	9101 Sep 10 07:53	0°♍		
asc. node	9101 Sep 28 11:21	22°♍08'13		
	9101 Oct 04 21:42	0°♎		
	9101 Oct 29 08:55	0°♏		
morning set	9101 Nov 08 05:26	12°♏07'04		
	9101 Nov 22 17:49	0°♐		
max. Earth dist.	9101 Dec 13 16:24	25°♐50'33	1.73078 AU	
superior conj	9101 Dec 14 19:32	27°♐14'22	1°10'49	
minimum elong	9101 Dec 15 04:36	27°♐42'22	1°10'51	
	9101 Dec 17 01:10	0°♑		
	9102 Jan 10 07:36	0°♒		