

Sun Dec 1, 2019 UTC

UTC	+Sun		+Saturn		+Jupiter		+Venus		-Formalhaut	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	53°31.1'	3204	14°09.0'	2873	32°25.8'	2908	25°47.4'	3293	36°40.3'	3417
1	53°59.8'	3208	14°39.9'	2877	32°56.5'	2913	26°15.5'	3298	36°13.0'	3436
2	54°28.5'	3213	15°10.9'	2881	33°27.2'	2917	26°43.6'	3303	35°45.8'	3456
3	54°57.1'	3218	15°41.8'	2886	33°57.8'	2922	27°11.6'	3307	35°18.7'	3477
4	55°25.7'	3223	16°12.6'	2890	34°28.4'	2926	27°39.7'	3312	34°51.8'	3498
5	55°54.3'	3228	16°43.5'	2894	34°59.0'	2931	28°07.7'	3317	34°25.0'	3520
6	56°22.8'	3232	17°14.3'	2898	35°29.6'	2935	28°35.6'	3321	33°58.3'	3543
7	56°51.3'	3237	17°45.1'	2902	36°00.1'	2940	29°03.5'	3326	33°31.8'	3566
8	57°19.8'	3242	18°15.8'	2906	36°30.6'	2944	29°31.4'	3330	33°05.4'	3590
9	57°48.2'	3247	18°46.6'	2910	37°01.0'	2949	29°59.3'	3335	32°39.1'	3615
10	58°16.6'	3251	19°17.3'	2914	37°31.5'	2953	30°27.1'	3339	32°13.0'	3642
11	58°45.0'	3256	19°47.9'	2919	38°01.9'	2958	30°55.0'	3344	31°47.1'	3669
12	59°13.4'	3260	20°18.6'	2923	38°32.2'	2962	31°22.7'	3348	31°21.3'	3697
13	59°41.7'	3265	20°49.2'	2927	39°02.6'	2966	31°50.5'	3353	30°55.7'	3726
14	60°10.0'	3269	21°19.8'	2931	39°32.9'	2970	32°18.2'	3357	30°30.2'	3756
15	60°38.2'	3274	21°50.3'	2935	40°03.2'	2975	32°45.9'	3362	30°05.0'	3788
16	61°06.5'	3278	22°20.9'	2939	40°33.4'	2979	33°13.6'	3366	29°39.9'	3820
17	61°34.7'	3282	22°51.4'	2943	41°03.6'	2983	33°41.2'	3370	29°15.0'	3855
18	62°02.9'	3287	23°21.8'	2947	41°33.8'	2987	34°08.8'	3375	28°50.3'	3890
19	62°31.0'	3291	23°52.3'	2950	42°04.0'	2991	34°36.4'	3379	28°25.8'	3928
20	62°59.1'	3295	24°22.7'	2954	42°34.1'	2995	35°04.0'	3383	28°01.5'	3966
21	63°27.2'	3300	24°53.1'	2958	43°04.2'	2999	35°31.5'	3387	27°37.4'	4007
22	63°55.3'	3304	25°23.4'	2962	43°34.3'	3003	35°59.0'	3392	27°13.6'	4050
23	64°23.3'	3308	25°53.8'	2966	44°04.3'	3007	36°26.5'	3396	26°50.0'	4095

Mon Dec 2, 2019 UTC

UTC	+Sun		+Saturn		+Jupiter		+Venus		-Formalhaut	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	64°51.4'	3312	26°24.1'	2970	44°34.4'	3011	36°53.9'	3400	26°26.6'	4141
1	65°19.3'	3316	26°54.4'	2973	45°04.4'	3015	37°21.4'	3404	26°03.5'	4191
2	65°47.3'	3320	27°24.6'	2977	45°34.3'	3018	37°48.8'	3408	25°40.6'	4242
3	66°15.2'	3324	27°54.8'	2981	46°04.3'	3022	38°16.1'	3412	25°18.0'	4296
4	66°43.1'	3328	28°25.1'	2984	46°34.2'	3026	38°43.5'	3416	24°55.7'	4354
5	67°11.0'	3332	28°55.2'	2988	47°04.1'	3030	39°10.8'	3420	24°33.7'	4414
6	67°38.9'	3335	29°25.4'	2991	47°33.9'	3033	39°38.1'	3423	24°12.0'	4477
7	68°06.7'	3339	29°55.5'	2995	48°03.8'	3037	40°05.4'	3427	23°50.6'	4545
8	68°34.5'	3343	30°25.6'	2998	48°33.6'	3040	40°32.7'	3431	23°29.5'	4615
9	69°02.3'	3347	30°55.7'	3002	49°03.4'	3044	40°59.9'	3435	23°08.8'	4690
10	69°30.1'	3350	31°25.8'	3005	49°33.2'	3047	41°27.1'	3438	22°48.4'	4770
11	69°57.8'	3354	31°55.8'	3008	50°02.9'	3051	41°54.3'	3442	22°28.4'	4854
12	70°25.6'	3357	32°25.8'	3011	50°32.6'	3054	42°21.4'	3445	22°08.8'	4944
13	70°53.3'	3361	32°55.8'	3015	51°02.3'	3057	42°48.6'	3449	21°49.6'	5039
14	71°20.9'	3364	33°25.8'	3018	51°32.0'	3060	43°15.7'	3452	21°30.8'	5140
15	71°48.6'	3368	33°55.7'	3021	52°01.7'	3064	43°42.8'	3456	21°12.4'	5247
16	72°16.2'	3371	34°25.7'	3024	52°31.3'	3067	44°09.9'	3459	20°54.5'	5362
17	72°43.8'	3374	34°55.6'	3027	53°00.9'	3070	44°36.9'	3462	20°37.0'	5485
18	73°11.4'	3377	35°25.5'	3030	53°30.5'	3073	45°04.0'	3466	20°20.0'	5616
19	73°39.0'	3381	35°55.3'	3033	54°00.1'	3076	45°31.0'	3469	20°03.6'	5757
20	74°06.5'	3384	36°25.2'	3036	54°29.6'	3079	45°58.0'	3472	19°47.6'	5908
21	74°34.1'	3387	36°55.0'	3039	54°59.2'	3082	46°24.9'	3475	19°32.2'	6070
22	75°01.6'	3390	37°24.8'	3042	55°28.7'	3085	46°51.9'	3478	19°17.4'	6244
23	75°29.1'	3393	37°54.6'	3044	55°58.2'	3087	47°18.8'	3481	19°03.2'	6433

Tue Dec 3, 2019 UTC

UTC	+Sun		+Saturn		+Jupiter		+Venus		-Aldebaran	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	75°56.5'	3396	38°24.3'	3047	56°27.6'	3090	47°45.7'	3484	103°10.8'	3015
1	76°24.0'	3399	38°54.1'	3050	56°57.1'	3093	48°12.6'	3487	102°40.8'	3017
2	76°51.4'	3401	39°23.8'	3052	57°26.5'	3096	48°39.5'	3490	102°10.9'	3020
3	77°18.8'	3404	39°53.5'	3055	57°55.9'	3098	49°06.4'	3493	101°40.9'	3022
4	77°46.2'	3407	40°23.2'	3057	58°25.3'	3101	49°33.2'	3495	101°11.0'	3025
5	78°13.6'	3409	40°52.9'	3060	58°54.7'	3103	50°00.1'	3498	100°41.1'	3027
6	78°41.0'	3412	41°22.6'	3062	59°24.1'	3106	50°26.9'	3501	100°11.2'	3030
7	79°08.3'	3414	41°52.2'	3064	59°53.4'	3108	50°53.7'	3503	99°41.4'	3032
8	79°35.7'	3417	42°21.8'	3067	60°22.8'	3110	51°20.5'	3506	99°11.5'	3034
9	80°03.0'	3419	42°51.5'	3069	60°52.1'	3113	51°47.2'	3508	98°41.7'	3036
10	80°30.3'	3422	43°21.0'	3071	61°21.4'	3115	52°14.0'	3510	98°11.8'	3039
11	80°57.6'	3424	43°50.6'	3073	61°50.7'	3117	52°40.7'	3513	97°42.0'	3041
12	81°24.8'	3426	44°20.2'	3075	62°19.9'	3119	53°07.4'	3515	97°12.3'	3043
13	81°52.1'	3428	44°49.8'	3077	62°49.2'	3121	53°34.2'	3517	96°42.5'	3045
14	82°19.4'	3431	45°19.3'	3079	63°18.4'	3123	54°00.8'	3519	96°12.7'	3047
15	82°46.6'	3433	45°48.8'	3081	63°47.7'	3125	54°27.5'	3521	95°43.0'	3049
16	83°13.8'	3435	46°18.3'	3083	64°16.9'	3127	54°54.2'	3523	95°13.2'	3051
17	83°41.0'	3437	46°47.8'	3085	64°46.1'	3129	55°20.9'	3525	94°43.5'	3052
18	84°08.2'	3438	47°17.3'	3087	65°15.3'	3131	55°47.5'	3527	94°13.8'	3054
19	84°35.4'	3440	47°46.8'	3089	65°44.5'	3132	56°14.1'	3529	93°44.1'	3056
20	85°02.6'	3442	48°16.3'	3090	66°13.6'	3134	56°40.8'	3531	93°14.4'	3057
21	85°29.7'	3444	48°45.7'	3092	66°42.8'	3136	57°07.4'	3533	92°44.7'	3059
22	85°56.9'	3445	49°15.2'	3093	67°11.9'	3137	57°34.0'	3534	92°15.1'	3061
23	86°24.0'	3447	49°44.6'	3095	67°41.1'	3139	58°00.6'	3536	91°45.4'	3062

Wed Dec 4, 2019 UTC

UTC	+Sun		+Saturn		+Jupiter		+Venus		-Aldebaran	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	86°51.1'	3449	50°14.0'	3096	68°10.2'	3140	58°27.1'	3537	91°15.8'	3063
1	87°18.3'	3450	50°43.4'	3098	68°39.3'	3142	58°53.7'	3539	90°46.1'	3065
2	87°45.4'	3451	51°12.8'	3099	69°08.4'	3143	59°20.3'	3540	90°16.5'	3066
3	88°12.5'	3453	51°42.2'	3100	69°37.5'	3144	59°46.8'	3542	89°46.9'	3067
4	88°39.6'	3454	52°11.6'	3101	70°06.6'	3146	60°13.4'	3543	89°17.3'	3069
5	89°06.7'	3455	52°41.0'	3103	70°35.7'	3147	60°39.9'	3544	88°47.7'	3070
6	89°33.7'	3457	53°10.3'	3104	71°04.8'	3148	61°06.4'	3545	88°18.1'	3071
7	90°00.8'	3458	53°39.7'	3105	71°33.8'	3149	61°33.0'	3547	87°48.5'	3072
8	90°27.9'	3459	54°09.1'	3106	72°02.9'	3150	61°59.5'	3548	87°18.9'	3073
9	90°54.9'	3460	54°38.4'	3107	72°31.9'	3151	62°26.0'	3549	86°49.4'	3074
10	91°22.0'	3461	55°07.7'	3108	73°01.0'	3152	62°52.5'	3550	86°19.8'	3075
11	91°49.0'	3461	55°37.1'	3108	73°30.0'	3153	63°19.0'	3550	85°50.2'	3076
12	92°16.1'	3462	56°06.4'	3109	73°59.0'	3153	63°45.5'	3551	85°20.7'	3076
13	92°43.1'	3463	56°35.7'	3110	74°28.1'	3154	64°12.0'	3552	84°51.1'	3077
14	93°10.1'	3464	57°05.1'	3111	74°57.1'	3155	64°38.4'	3553	84°21.6'	3078
15	93°37.2'	3464	57°34.4'	3111	75°26.1'	3155	65°04.9'	3553	83°52.1'	3078
16	94°04.2'	3465	58°03.7'	3112	75°55.1'	3156	65°31.4'	3554	83°22.5'	3079
17	94°31.2'	3465	58°33.0'	3112	76°24.1'	3156	65°57.9'	3554	82°53.0'	3079
18	94°58.2'	3466	59°02.3'	3113	76°53.1'	3157	66°24.3'	3555	82°23.5'	3080
19	95°25.2'	3466	59°31.6'	3113	77°22.1'	3157	66°50.8'	3555	81°53.9'	3080
20	95°52.2'	3467	60°00.9'	3113	77°51.1'	3158	67°17.3'	3556	81°24.4'	3080
21	96°19.2'	3467	60°30.2'	3114	78°20.1'	3158	67°43.7'	3556	80°54.9'	3081
22	96°46.2'	3467	60°59.5'	3114	78°49.1'	3158	68°10.2'	3556	80°25.4'	3081
23	97°13.2'	3467	61°28.8'	3114	79°18.1'	3158	68°36.6'	3556	79°55.9'	3081

Thu Dec 5, 2019 UTC

UTC	+Sun		+Saturn		-Aldebaran		+Jupiter		+Venus	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	97°40.3'	3467	61°58.1'	3114	79°26.3'	3081	79°47.1'	3158	69°03.1'	3556
1	98°07.3'	3467	62°27.4'	3114	78°56.8'	3081	80°16.1'	3158	69°29.5'	3556
2	98°34.3'	3467	62°56.7'	3114	78°27.3'	3081	80°45.1'	3158	69°56.0'	3556
3	99°01.3'	3467	63°25.9'	3114	77°57.8'	3081	81°14.1'	3158	70°22.5'	3556
4	99°28.3'	3467	63°55.2'	3114	77°28.3'	3081	81°43.1'	3158	70°48.9'	3556
5	99°55.3'	3467	64°24.5'	3114	76°58.8'	3081	82°12.1'	3158	71°15.4'	3556
6	100°22.3'	3467	64°53.8'	3114	76°29.3'	3081	82°41.1'	3158	71°41.8'	3555
7	100°49.3'	3466	65°23.1'	3113	75°59.7'	3081	83°10.1'	3158	72°08.3'	3555
8	101°16.3'	3466	65°52.4'	3113	75°30.2'	3080	83°39.1'	3157	72°34.8'	3555
9	101°43.3'	3466	66°21.7'	3113	75°00.7'	3080	84°08.1'	3157	73°01.2'	3554
10	102°10.3'	3465	66°51.0'	3112	74°31.2'	3079	84°37.1'	3156	73°27.7'	3554
11	102°37.3'	3464	67°20.3'	3112	74°01.7'	3079	85°06.1'	3156	73°54.2'	3553
12	103°04.4'	3464	67°49.6'	3111	73°32.1'	3078	85°35.1'	3155	74°20.6'	3552
13	103°31.4'	3463	68°18.9'	3110	73°02.6'	3078	86°04.1'	3155	74°47.1'	3552
14	103°58.4'	3462	68°48.3'	3110	72°33.1'	3077	86°33.2'	3154	75°13.6'	3551
15	104°25.4'	3462	69°17.6'	3109	72°03.5'	3077	87°02.2'	3153	75°40.1'	3550
16	104°52.5'	3461	69°46.9'	3108	71°34.0'	3076	87°31.2'	3152	76°06.6'	3549
17	105°19.5'	3460	70°16.2'	3107	71°04.4'	3075	88°00.2'	3152	76°33.1'	3548
18	105°46.6'	3459	70°45.6'	3107	70°34.9'	3074	88°29.3'	3151	76°59.6'	3547
19	106°13.6'	3458	71°14.9'	3106	70°05.3'	3073	88°58.3'	3150	77°26.1'	3546
20	106°40.7'	3457	71°44.3'	3105	69°35.7'	3072	89°27.4'	3149	77°52.6'	3545
21	107°07.8'	3456	72°13.6'	3104	69°06.2'	3071	89°56.4'	3148	78°19.2'	3544
22	107°34.8'	3454	72°43.0'	3102	68°36.6'	3070	90°25.5'	3147	78°45.7'	3543
23	108°01.9'	3453	73°12.4'	3101	68°07.0'	3069	90°54.6'	3145	79°12.2'	3541

Fri Dec 6, 2019 UTC

UTC	+Sun		-Aldebaran		+Saturn		+Formalhaut		-Betelgeuse	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	108°29.0'	3452	67°37.4'	3068	73°41.7'	3100	31°27.7'	3846	85°37.1'	3215
1	108°56.1'	3451	67°07.8'	3067	74°11.1'	3099	31°52.5'	3823	85°08.4'	3214
2	109°23.2'	3449	66°38.2'	3066	74°40.5'	3098	32°17.3'	3801	84°39.8'	3212
3	109°50.3'	3448	66°08.6'	3064	75°09.9'	3096	32°42.3'	3780	84°11.2'	3211
4	110°17.5'	3446	65°38.9'	3063	75°39.3'	3095	33°07.5'	3760	83°42.5'	3210
5	110°44.6'	3445	65°09.3'	3062	76°08.8'	3093	33°32.7'	3740	83°13.9'	3209
6	111°11.7'	3443	64°39.6'	3060	76°38.2'	3092	33°58.1'	3721	82°45.2'	3208
7	111°38.9'	3441	64°10.0'	3059	77°07.6'	3090	34°23.5'	3703	82°16.6'	3207
8	112°06.1'	3439	63°40.3'	3057	77°37.1'	3089	34°49.1'	3685	81°47.9'	3206
9	112°33.2'	3438	63°10.6'	3056	78°06.5'	3087	35°14.8'	3668	81°19.2'	3204
10	113°00.4'	3436	62°40.9'	3054	78°36.0'	3085	35°40.6'	3652	80°50.5'	3203
11	113°27.6'	3434	62°11.2'	3052	79°05.5'	3084	36°06.5'	3636	80°21.8'	3202
12	113°54.8'	3432	61°41.5'	3051	79°35.0'	3082	36°32.5'	3620	79°53.1'	3201
13	114°22.1'	3430	61°11.8'	3049	80°04.5'	3080	36°58.5'	3605	79°24.4'	3199
14	114°49.3'	3428	60°42.1'	3047	80°34.0'	3078	37°24.7'	3591	78°55.7'	3198
15	115°16.6'	3426	60°12.3'	3045	81°03.6'	3076	37°50.9'	3576	78°27.0'	3197
16	115°43.8'	3424	59°42.6'	3043	81°33.1'	3074	38°17.3'	3563	77°58.2'	3195
17	116°11.1'	3421	59°12.8'	3041	82°02.7'	3072	38°43.7'	3549	77°29.5'	3194
18	116°38.4'	3419	58°43.0'	3039	82°32.2'	3070	39°10.2'	3536	77°00.7'	3192
19	117°05.7'	3417	58°13.2'	3037	83°01.8'	3068	39°36.8'	3524	76°31.9'	3191
20	117°33.0'	3415	57°43.4'	3035	83°31.4'	3066	40°03.4'	3511	76°03.2'	3189
21	118°00.3'	3412	57°13.6'	3033	84°01.1'	3064	40°30.1'	3499	75°34.4'	3188
22	118°27.7'	3410	56°43.7'	3031	84°30.7'	3061	40°56.9'	3488	75°05.6'	3187
23	118°55.1'	3407	56°13.9'	3029	85°00.3'	3059	41°23.8'	3476	74°36.8'	3185

Sat Dec 7, 2019 UTC

UTC	+Sun		-Aldebaran		+Formalhaut		-Betelgeuse		+Saturn	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	119°22.4'	3405	55°44.0'	3026	41°50.8'	3465	74°08.0'	3183	85°30.0'	3057
1	119°49.8'	3402	55°14.1'	3024	42°17.8'	3454	73°39.1'	3182	85°59.7'	3054
2	120°17.2'	3400	54°44.2'	3022	42°44.9'	3444	73°10.3'	3180	86°29.4'	3052
3	120°44.7'	3397	54°14.3'	3020	43°12.0'	3433	72°41.4'	3179	86°59.1'	3049
4	121°12.1'	3394	53°44.3'	3017	43°39.2'	3423	72°12.6'	3177	87°28.8'	3047
5	121°39.6'	3391	53°14.4'	3015	44°06.5'	3413	71°43.7'	3176	87°58.6'	3044
6	122°07.1'	3389	52°44.4'	3012	44°33.9'	3403	71°14.8'	3174	88°28.3'	3042
7	122°34.6'	3386	52°14.4'	3010	45°01.3'	3394	70°45.9'	3173	88°58.1'	3039
8	123°02.1'	3383	51°44.4'	3007	45°28.7'	3384	70°17.0'	3171	89°27.9'	3036
9	123°29.6'	3380	51°14.4'	3005	45°56.3'	3375	69°48.1'	3169	89°57.8'	3034
10	123°57.2'	3377	50°44.4'	3002	46°23.8'	3366	69°19.2'	3168	90°27.6'	3031
11	124°24.7'	3374	50°14.3'	2999	46°51.5'	3357	68°50.3'	3166	90°57.4'	3028
12	124°52.3'	3371	49°44.2'	2997	47°19.2'	3348	68°21.3'	3165	91°27.3'	3025
13	125°19.9'	3368	49°14.1'	2994	47°46.9'	3340	67°52.4'	3163	91°57.2'	3022
14	125°47.6'	3365	48°44.0'	2991	48°14.7'	3331	67°23.4'	3162	92°27.1'	3020
15	126°15.2'	3361	48°13.9'	2988	48°42.6'	3323	66°54.5'	3160	92°57.1'	3017
16	126°42.9'	3358	47°43.7'	2986	49°10.5'	3315	66°25.5'	3158	93°27.0'	3014
17	127°10.6'	3355	47°13.6'	2983	49°38.5'	3307	65°56.5'	3157	93°57.0'	3011
18	127°38.3'	3352	46°43.4'	2980	50°06.5'	3299	65°27.5'	3155	94°27.0'	3007
19	128°06.0'	3348	46°13.2'	2977	50°34.6'	3291	64°58.5'	3154	94°57.0'	3004
20	128°33.8'	3345	45°42.9'	2974	51°02.7'	3283	64°29.4'	3152	95°27.1'	3001
21	129°01.5'	3341	45°12.7'	2971	51°30.9'	3276	64°00.4'	3151	95°57.1'	2998
22	129°29.3'	3338	44°42.4'	2968	51°59.1'	3268	63°31.4'	3149	96°27.2'	2995
23	129°57.2'	3335	44°12.1'	2965	52°27.4'	3261	63°02.3'	3148	96°57.3'	2992

Sun Dec 8, 2019 UTC

UTC	-Aldebaran		+Formalhaut		-Betelgeuse		-Pollux		-Capella	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	43°41.8'	2962	52°55.7'	3253	62°33.2'	3146	87°55.2'	2969	61°18.6'	3490
1	43°11.5'	2959	53°24.1'	3246	62°04.2'	3145	87°24.9'	2966	60°51.7'	3492
2	42°41.1'	2956	53°52.5'	3239	61°35.1'	3143	86°54.6'	2962	60°24.8'	3494
3	42°10.8'	2953	54°20.9'	3232	61°06.0'	3142	86°24.2'	2959	59°58.0'	3497
4	41°40.4'	2950	54°49.4'	3225	60°36.9'	3141	85°53.9'	2956	59°31.2'	3499
5	41°09.9'	2947	55°18.0'	3218	60°07.8'	3139	85°23.5'	2952	59°04.4'	3502
6	40°39.5'	2944	55°46.6'	3211	59°38.6'	3138	84°53.1'	2949	58°37.6'	3505
7	40°09.0'	2940	56°15.2'	3204	59°09.5'	3137	84°22.7'	2945	58°10.8'	3508
8	39°38.5'	2937	56°43.9'	3197	58°40.4'	3136	83°52.2'	2942	57°44.1'	3511
9	39°08.0'	2934	57°12.7'	3191	58°11.2'	3135	83°21.7'	2938	57°17.3'	3514
10	38°37.5'	2931	57°41.4'	3184	57°42.1'	3133	82°51.2'	2935	56°50.6'	3517
11	38°06.9'	2928	58°10.3'	3178	57°12.9'	3132	82°20.7'	2931	56°23.9'	3521
12	37°36.4'	2924	58°39.1'	3171	56°43.7'	3131	81°50.1'	2928	55°57.3'	3525
13	37°05.8'	2921	59°08.0'	3165	56°14.6'	3130	81°19.6'	2924	55°30.6'	3529
14	36°35.1'	2918	59°37.0'	3158	55°45.4'	3130	80°49.0'	2921	55°04.0'	3533
15	36°04.5'	2915	60°06.0'	3152	55°16.2'	3129	80°18.3'	2917	54°37.4'	3537
16	35°33.8'	2911	60°35.0'	3146	54°47.0'	3128	79°47.7'	2913	54°10.8'	3542
17	35°03.1'	2908	61°04.1'	3140	54°17.8'	3127	79°17.0'	2910	53°44.3'	3547
18	34°32.4'	2905	61°33.2'	3133	53°48.6'	3127	78°46.3'	2906	53°17.8'	3552
19	34°01.7'	2901	62°02.4'	3127	53°19.4'	3126	78°15.6'	2902	52°51.3'	3557
20	33°30.9'	2898	62°31.6'	3121	52°50.2'	3126	77°44.8'	2899	52°24.8'	3563
21	33°00.1'	2895	63°00.8'	3115	52°21.0'	3125	77°14.0'	2895	51°58.4'	3569
22	32°29.3'	2892	63°30.1'	3109	51°51.8'	3125	76°43.2'	2891	51°32.0'	3575
23	31°58.5'	2888	63°59.4'	3103	51°22.5'	3125	76°12.4'	2887	51°05.7'	3582

Mon Dec 9, 2019 UTC

UTC	−Aldebaran		−Betelgeuse		−Pollux		+Formalhaut		−Procyon	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	31°27.6′	2885	50°53.3′	3125	75°41.5′	2884	64°28.8′	3097	76°48.6′	3082
1	30°56.8′	2882	50°24.1′	3125	75°10.7′	2880	64°58.2′	3091	76°19.1′	3080
2	30°25.9′	2879	49°54.9′	3125	74°39.7′	2876	65°27.7′	3086	75°49.5′	3077
3	29°54.9′	2875	49°25.7′	3125	74°08.8′	2872	65°57.1′	3080	75°20.0′	3074
4	29°24.0′	2872	48°56.5′	3126	73°37.8′	2868	66°26.7′	3074	74°50.4′	3071
5	28°53.0′	2869	48°27.2′	3126	73°06.8′	2864	66°56.2′	3068	74°20.9′	3068
6	28°22.0′	2866	47°58.0′	3127	72°35.8′	2860	67°25.8′	3063	73°51.3′	3065
7	27°51.0′	2863	47°28.8′	3128	72°04.7′	2857	67°55.5′	3057	73°21.6′	3063
8	27°20.0′	2860	46°59.6′	3129	71°33.7′	2853	68°25.1′	3051	72°52.0′	3060
9	26°48.9′	2857	46°30.4′	3130	71°02.6′	2849	68°54.9′	3046	72°22.3′	3057
10	26°17.9′	2854	46°01.3′	3131	70°31.4′	2845	69°24.6′	3040	71°52.6′	3054
11	25°46.8′	2851	45°32.1′	3133	70°00.3′	2841	69°54.4′	3035	71°23.0′	3052
12	25°15.6′	2848	45°02.9′	3135	69°29.1′	2837	70°24.2′	3029	70°53.2′	3049
13	24°44.5′	2845	44°33.8′	3136	68°57.8′	2833	70°54.1′	3024	70°23.5′	3047
14	24°13.3′	2843	44°04.6′	3139	68°26.6′	2829	71°24.0′	3019	69°53.8′	3044
15	23°42.2′	2840	43°35.5′	3141	67°55.3′	2825	71°54.0′	3013	69°24.0′	3042
16	23°11.0′	2838	43°06.4′	3144	67°24.0′	2821	72°23.9′	3008	68°54.2′	3039
17	22°39.7′	2835	42°37.3′	3146	66°52.7′	2817	72°54.0′	3003	68°24.4′	3037
18	22°08.5′	2833	42°08.2′	3149	66°21.3′	2813	73°24.0′	2997	67°54.6′	3035
19	21°37.3′	2831	41°39.2′	3153	65°49.9′	2809	73°54.1′	2992	67°24.8′	3032
20	21°06.0′	2829	41°10.1′	3156	65°18.5′	2806	74°24.2′	2987	66°54.9′	3030
21	20°34.7′	2827	40°41.1′	3160	64°47.1′	2802	74°54.4′	2982	66°25.0′	3028
22	20°03.4′	2825	40°12.1′	3165	64°15.6′	2798	75°24.6′	2977	65°55.2′	3026
23	19°32.1′	2824	39°43.2′	3169	63°44.1′	2794	75°54.8′	2971	65°25.3′	3024

Tue Dec 10, 2019 UTC

UTC	−Aldebaran		−Pollux		−Betelgeuse		−Procyon		+Formalhaut	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	19°00.8′	2823	63°12.5′	2790	39°14.3′	3174	64°55.4′	3022	76°25.1′	2966
1	18°29.5′	2822	62°41.0′	2786	38°45.4′	3180	64°25.5′	3020	76°55.4′	2961
2	17°58.1′	2821	62°09.4′	2782	38°16.5′	3185	63°55.5′	3018	77°25.7′	2956
3	17°26.8′	2821	61°37.8′	2778	37°47.7′	3192	63°25.6′	3017	77°56.1′	2951
4	16°55.5′	2821	61°06.1′	2774	37°18.9′	3198	62°55.6′	3015	78°26.5′	2946
5	16°24.1′	2821	60°34.4′	2770	36°50.2′	3205	62°25.7′	3013	78°57.0′	2941
6	15°52.8′	2822	60°02.7′	2766	36°21.5′	3213	61°55.7′	3012	79°27.4′	2937
7	15°21.5′	2824	59°31.0′	2762	35°52.9′	3221	61°25.7′	3010	79°58.0′	2932
8	14°50.2′	2826	58°59.2′	2758	35°24.3′	3230	60°55.7′	3009	80°28.5′	2927
9	14°18.9′	2829	58°27.4′	2754	34°55.8′	3239	60°25.7′	3008	80°59.1′	2922
10	13°47.6′	2832	57°55.6′	2750	34°27.3′	3249	59°55.7′	3007	81°29.7′	2917
11	13°16.3′	2837	57°23.8′	2747	33°58.9′	3259	59°25.6′	3005	82°00.4′	2913
12	12°45.1′	2843	56°51.9′	2743	33°30.6′	3271	58°55.6′	3005	82°31.0′	2908
13	12°13.9′	2850	56°20.0′	2739	33°02.3′	3283	58°25.6′	3004	83°01.7′	2903
14	11°42.8′	2859	55°48.0′	2735	32°34.2′	3296	57°55.5′	3003	83°32.5′	2899
15	11°11.7′	2870	55°16.1′	2731	32°06.1′	3309	57°25.5′	3002	84°03.3′	2894
16	10°40.8′	2884	54°44.1′	2727	31°38.1′	3324	56°55.4′	3002	84°34.1′	2890
17	10°09.9′	2900	54°12.1′	2724	31°10.2′	3339	56°25.3′	3001	85°04.9′	2885
18	9°39.1′	2919	53°40.0′	2720	30°42.3′	3356	55°55.3′	3001	85°35.8′	2881
19	9°08.5′	2944	53°07.9′	2716	30°14.6′	3374	55°25.2′	3001	86°06.7′	2876
20	8°38.0′	2974	52°35.8′	2712	29°47.1′	3393	54°55.2′	3001	86°37.7′	2872
21	8°07.7′	3010	52°03.7′	2709	29°19.6′	3413	54°25.1′	3001	87°08.6′	2868
22	7°37.7′	3057	51°31.6′	2705	28°52.2′	3434	53°55.0′	3002	87°39.6′	2863
23	7°08.1′	3115	50°59.4′	2701	28°25.0′	3457	53°25.0′	3002	88°10.7′	2859

Wed Dec 11, 2019 UTC

UTC	−Aldebaran		−Pollux		−Procyon		−Betelgeuse		+Formalhaut	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	6°38.8′	3189	50°27.2′	2698	52°54.9′	3003	27°58.0′	3482	88°41.7′	2855
1	6°10.0′	3286	49°54.9′	2694	52°24.9′	3004	27°31.0′	3508	89°12.8′	2851
2	–	–	49°22.6′	2690	51°54.8′	3005	27°04.3′	3536	89°43.9′	2847
3	–	–	48°50.3′	2687	51°24.8′	3006	26°37.7′	3566	90°15.1′	2842
4	–	–	48°18.0′	2683	50°54.7′	3007	26°11.3′	3598	90°46.3′	2838
5	–	–	47°45.7′	2680	50°24.7′	3009	25°45.1′	3633	91°17.5′	2834
6	–	–	47°13.3′	2676	49°54.7′	3011	25°19.1′	3669	91°48.7′	2830
7	–	–	46°40.9′	2673	49°24.7′	3013	24°53.4′	3709	92°20.0′	2827
8	–	–	46°08.5′	2669	48°54.7′	3015	24°27.8′	3751	92°51.3′	2823
9	–	–	45°36.0′	2666	48°24.8′	3017	24°02.5′	3796	93°22.6′	2819
10	–	–	45°03.6′	2663	47°54.8′	3020	23°37.5′	3845	93°54.0′	2815
11	–	–	44°31.1′	2659	47°24.9′	3023	23°12.7′	3897	94°25.3′	2811
12	–	–	43°58.5′	2656	46°55.0′	3026	22°48.3′	3954	94°56.8′	2808
13	–	–	43°26.0′	2653	46°25.1′	3030	22°24.1′	4014	95°28.2′	2804
14	–	–	42°53.4′	2650	45°55.2′	3034	22°00.3′	4079	95°59.6′	2800
15	–	–	42°20.8′	2647	45°25.4′	3038	21°36.9′	4150	96°31.1′	2797
16	–	–	41°48.2′	2644	44°55.6′	3042	21°13.8′	4226	97°02.6′	2793
17	–	–	41°15.6′	2641	44°25.8′	3047	20°51.1′	4308	97°34.2′	2790
18	–	–	40°42.9′	2638	43°56.0′	3052	20°28.9′	4397	98°05.7′	2787
19	–	–	40°10.2′	2635	43°26.3′	3058	20°07.1′	4493	98°37.3′	2783
20	–	–	39°37.5′	2632	42°56.7′	3064	19°45.7′	4598	99°08.9′	2780
21	6°15.6′	3088	39°04.8′	2629	42°27.0′	3070	19°24.9′	4711	99°40.6′	2777
22	6°45.1′	3008	38°32.0′	2627	41°57.4′	3077	19°04.6′	4835	100°12.2′	2774
23	7°15.1′	2943	37°59.3′	2624	41°27.9′	3084	18°44.9′	4970	100°43.9′	2770

Thu Dec 12, 2019 UTC

UTC	+Aldebaran		−Pollux		−Regulus		−Procyon		+Formalhaut	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	7°45.5′	2891	37°26.5′	2622	73°08.6′	2580	40°58.4′	3092	101°15.6′	2767
1	8°16.4′	2847	36°53.7′	2619	72°35.5′	2576	40°29.0′	3100	101°47.3′	2764
2	8°47.5′	2810	36°20.8′	2617	72°02.4′	2573	39°59.6′	3109	102°19.1′	2761
3	9°18.9′	2779	35°48.0′	2615	71°29.2′	2569	39°30.3′	3118	102°50.9′	2759
4	9°50.6′	2752	35°15.1′	2612	70°56.0′	2565	39°01.0′	3128	103°22.7′	2756
5	10°22.4′	2728	34°42.2′	2610	70°22.7′	2562	38°31.8′	3139	103°54.5′	2753
6	10°54.4′	2708	34°09.4′	2608	69°49.5′	2558	38°02.7′	3150	104°26.3′	2750
7	11°26.6′	2689	33°36.4′	2606	69°16.2′	2555	37°33.6′	3162	104°58.1′	2748
8	11°58.9′	2673	33°03.5′	2605	68°42.9′	2551	37°04.6′	3174	105°30.0′	2745
9	12°31.3′	2658	32°30.6′	2603	68°09.5′	2548	36°35.7′	3187	106°01.9′	2743
10	13°03.9′	2645	31°57.6′	2602	67°36.1′	2544	36°06.9′	3201	106°33.8′	2740
11	13°36.5′	2633	31°24.7′	2600	67°02.7′	2541	35°38.2′	3216	107°05.7′	2738
12	14°09.2′	2622	30°51.7′	2599	66°29.3′	2537	35°09.6′	3232	107°37.7′	2736
13	14°42.0′	2611	30°18.7′	2598	65°55.9′	2534	34°41.1′	3249	108°09.6′	2734
14	15°14.9′	2602	29°45.7′	2597	65°22.4′	2530	34°12.7′	3267	108°41.6′	2732
15	15°47.9′	2593	29°12.7′	2596	64°48.9′	2527	33°44.4′	3286	109°13.6′	2730
16	16°20.9′	2584	28°39.7′	2596	64°15.3′	2524	33°16.3′	3306	109°45.6′	2728
17	16°54.0′	2576	28°06.7′	2596	63°41.8′	2520	32°48.3′	3327	110°17.6′	2726
18	17°27.1′	2569	27°33.7′	2596	63°08.2′	2517	32°20.4′	3349	110°49.6′	2724
19	18°00.4′	2562	27°00.7′	2596	62°34.6′	2514	31°52.6′	3373	111°21.7′	2722
20	18°33.6′	2555	26°27.7′	2596	62°01.0′	2511	31°25.0′	3398	111°53.7′	2721
21	19°06.9′	2549	25°54.7′	2597	61°27.3′	2507	30°57.6′	3425	112°25.8′	2719
22	19°40.3′	2543	25°21.7′	2598	60°53.6′	2504	30°30.3′	3454	112°57.9′	2718
23	20°13.7′	2537	24°48.7′	2599	60°19.9′	2501	30°03.2′	3484	113°30.0′	2716

Fri Dec 13, 2019 UTC

UTC	+Aldebaran		-Pollux		-Regulus		-Procyon		-Spica	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	20°47.2'	2531	24°15.8'	2601	59°46.2'	2498	29°36.3'	3516	113°43.1'	2526
1	21°20.7'	2526	23°42.8'	2603	59°12.4'	2495	29°09.6'	3551	113°09.6'	2522
2	21°54.2'	2521	23°09.8'	2605	58°38.6'	2492	28°43.1'	3587	112°36.0'	2519
3	22°27.8'	2515	22°36.9'	2608	58°04.8'	2489	28°16.9'	3626	112°02.4'	2516
4	23°01.4'	2511	22°04.0'	2612	57°31.0'	2486	27°50.8'	3667	111°28.8'	2512
5	23°35.1'	2506	21°31.1'	2616	56°57.2'	2483	27°25.0'	3711	110°55.2'	2509
6	24°08.8'	2501	20°58.3'	2620	56°23.3'	2480	26°59.5'	3757	110°21.5'	2505
7	24°42.5'	2497	20°25.4'	2626	55°49.4'	2477	26°34.3'	3807	109°47.8'	2502
8	25°16.2'	2492	19°52.7'	2632	55°15.5'	2474	26°09.3'	3861	109°14.1'	2499
9	25°50.0'	2488	19°19.9'	2639	54°41.5'	2472	25°44.6'	3917	108°40.3'	2496
10	26°23.9'	2484	18°47.2'	2647	54°07.6'	2469	25°20.3'	3978	108°06.6'	2492
11	26°57.7'	2480	18°14.6'	2656	53°33.6'	2466	24°56.3'	4043	107°32.8'	2489
12	27°31.6'	2476	17°42.1'	2666	52°59.6'	2464	24°32.6'	4113	106°58.9'	2486
13	28°05.6'	2472	17°09.6'	2677	52°25.6'	2461	24°09.3'	4187	106°25.1'	2483
14	28°39.5'	2469	16°37.2'	2690	51°51.5'	2458	23°46.5'	4267	105°51.2'	2480
15	29°13.5'	2465	16°04.9'	2705	51°17.5'	2456	23°24.0'	4353	105°17.3'	2477
16	29°47.5'	2461	15°32.7'	2722	50°43.4'	2453	23°02.0'	4445	104°43.4'	2474
17	30°21.6'	2458	15°00.7'	2741	50°09.3'	2451	22°40.4'	4544	104°09.4'	2471
18	30°55.6'	2454	14°28.7'	2763	49°35.1'	2448	22°19.3'	4650	103°35.5'	2468
19	31°29.7'	2451	13°57.0'	2788	49°01.0'	2446	21°58.8'	4765	103°01.5'	2465
20	32°03.9'	2448	13°25.4'	2816	48°26.8'	2443	21°38.7'	4890	102°27.5'	2463
21	32°38.0'	2444	12°54.0'	2849	47°52.6'	2441	21°19.3'	5024	101°53.5'	2460
22	33°12.2'	2441	12°22.9'	2887	47°18.4'	2439	21°00.4'	5169	101°19.4'	2457
23	33°46.4'	2438	11°52.0'	2931	46°44.2'	2437	20°42.2'	5327	100°45.3'	2454

Sat Dec 14, 2019 UTC

UTC	+Aldebaran		-Regulus		-Pollux		-Spica		+Betelgeuse	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	34°20.6'	2435	46°10.0'	2434	11°21.5'	2982	100°11.2'	2452	22°07.9'	3796
1	34°54.9'	2432	45°35.7'	2432	10°51.3'	3042	99°37.1'	2449	22°32.9'	3727
2	35°29.1'	2429	45°01.5'	2430	10°21.5'	3113	99°03.0'	2447	22°58.4'	3663
3	36°03.4'	2426	44°27.2'	2428	9°52.2'	3196	98°28.8'	2444	23°24.2'	3603
4	36°37.7'	2423	43°52.9'	2426	9°23.5'	3296	97°54.6'	2442	23°50.3'	3547
5	37°12.1'	2421	43°18.6'	2424	8°55.4'	3416	97°20.4'	2439	24°16.8'	3495
6	37°46.4'	2418	42°44.2'	2422	–	–	96°46.2'	2437	24°43.7'	3446
7	38°20.8'	2415	42°09.9'	2420	–	–	96°12.0'	2434	25°10.8'	3399
8	38°55.2'	2412	41°35.5'	2418	–	–	95°37.7'	2432	25°38.2'	3356
9	39°29.7'	2410	41°01.1'	2417	–	–	95°03.5'	2430	26°06.0'	3315
10	40°04.1'	2407	40°26.7'	2415	–	–	94°29.2'	2427	26°33.9'	3276
11	40°38.6'	2405	39°52.3'	2413	–	–	93°54.9'	2425	27°02.1'	3239
12	41°13.1'	2402	39°17.9'	2412	–	–	93°20.5'	2423	27°30.6'	3205
13	41°47.6'	2400	38°43.5'	2410	–	–	92°46.2'	2421	27°59.3'	3172
14	42°22.1'	2397	38°09.0'	2409	–	–	92°11.8'	2419	28°28.2'	3141
15	42°56.7'	2395	37°34.6'	2407	–	–	91°37.4'	2416	28°57.3'	3112
16	43°31.2'	2393	37°00.1'	2406	–	–	91°03.0'	2414	29°26.6'	3084
17	44°05.8'	2390	36°25.6'	2404	–	–	90°28.6'	2412	29°56.1'	3058
18	44°40.4'	2388	35°51.1'	2403	–	–	89°54.2'	2410	30°25.8'	3033
19	45°15.0'	2386	35°16.6'	2402	–	–	89°19.8'	2408	30°55.6'	3009
20	45°49.7'	2384	34°42.1'	2401	–	–	88°45.3'	2407	31°25.6'	2986
21	46°24.3'	2382	34°07.6'	2400	–	–	88°10.8'	2405	31°55.8'	2965
22	46°59.0'	2380	33°33.1'	2399	–	–	87°36.3'	2403	32°26.1'	2944
23	47°33.7'	2378	32°58.5'	2398	–	–	87°01.8'	2401	32°56.6'	2925

Sun Dec 15, 2019 UTC

UTC	−Regulus		+Aldebaran		+Betelgeuse		−Spica		+Capella	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	32°24.0′	2397	48°08.4′	2376	33°27.2′	2906	86°27.3′	2399	40°27.7′	3463
1	31°49.4′	2396	48°43.1′	2374	33°57.9′	2888	85°52.8′	2398	40°54.7′	3436
2	31°14.9′	2396	49°17.8′	2372	34°28.8′	2871	85°18.2′	2396	41°21.9′	3409
3	30°40.3′	2395	49°52.6′	2370	34°59.7′	2855	84°43.7′	2394	41°49.3′	3384
4	30°05.7′	2395	50°27.4′	2368	35°30.8′	2839	84°09.1′	2393	42°16.8′	3359
5	29°31.2′	2394	51°02.1′	2366	36°02.0′	2824	83°34.5′	2391	42°44.5′	3336
6	28°56.6′	2394	51°36.9′	2364	36°33.3′	2810	82°59.9′	2389	43°12.3′	3313
7	28°22.0′	2394	52°11.7′	2363	37°04.8′	2796	82°25.3′	2388	43°40.3′	3291
8	27°47.5′	2394	52°46.6′	2361	37°36.3′	2783	81°50.7′	2386	44°08.4′	3270
9	27°12.9′	2394	53°21.4′	2359	38°07.9′	2771	81°16.1′	2385	44°36.7′	3250
10	26°38.3′	2395	53°56.3′	2358	38°39.6′	2759	80°41.4′	2384	45°05.1′	3230
11	26°03.7′	2395	54°31.1′	2356	39°11.4′	2747	80°06.8′	2382	45°33.6′	3211
12	25°29.2′	2396	55°06.0′	2354	39°43.3′	2736	79°32.1′	2381	46°02.2′	3193
13	24°54.6′	2396	55°40.9′	2353	40°15.2′	2725	78°57.4′	2380	46°31.0′	3175
14	24°20.1′	2397	56°15.8′	2351	40°47.2′	2715	78°22.7′	2378	46°59.9′	3158
15	23°45.5′	2399	56°50.7′	2350	41°19.4′	2705	77°48.0′	2377	47°28.9′	3141
16	23°11.0′	2400	57°25.6′	2348	41°51.5′	2695	77°13.3′	2376	47°58.0′	3125
17	22°36.5′	2402	58°00.6′	2347	42°23.8′	2686	76°38.6′	2375	48°27.2′	3110
18	22°01.9′	2403	58°35.5′	2346	42°56.1′	2677	76°03.9′	2374	48°56.5′	3095
19	21°27.4′	2406	59°10.5′	2344	43°28.5′	2669	75°29.1′	2372	49°26.0′	3080
20	20°53.0′	2408	59°45.5′	2343	44°01.0′	2661	74°54.4′	2371	49°55.5′	3066
21	20°18.5′	2411	60°20.4′	2341	44°33.5′	2653	74°19.6′	2370	50°25.1′	3053
22	19°44.1′	2414	60°55.4′	2340	45°06.1′	2645	73°44.9′	2369	50°54.8′	3040
23	19°09.6′	2418	61°30.4′	2339	45°38.7′	2638	73°10.1′	2368	51°24.6′	3027

Mon Dec 16, 2019 UTC

UTC	−Regulus		+Pollux		+Aldebaran		+Betelgeuse		−Spica	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	18°35.3′	2423	18°30.0′	2516	62°05.5′	2338	46°11.4′	2631	72°35.3′	2368
1	18°00.9′	2427	19°03.6′	2504	62°40.5′	2336	46°44.1′	2624	72°00.5′	2367
2	17°26.6′	2433	19°37.3′	2494	63°15.5′	2335	47°16.9′	2617	71°25.7′	2366
3	16°52.3′	2439	20°11.1′	2484	63°50.6′	2334	47°49.8′	2611	70°50.9′	2365
4	16°18.1′	2446	20°44.9′	2474	64°25.6′	2333	48°22.7′	2605	70°16.1′	2364
5	15°44.0′	2454	21°18.9′	2466	65°00.7′	2332	48°55.6′	2599	69°41.3′	2364
6	15°09.9′	2463	21°52.9′	2458	65°35.8′	2331	49°28.6′	2593	69°06.5′	2363
7	14°35.8′	2474	22°26.9′	2450	66°10.8′	2330	50°01.6′	2587	68°31.7′	2362
8	14°01.9′	2486	23°01.1′	2443	66°45.9′	2329	50°34.7′	2582	67°56.9′	2361
9	13°28.0′	2499	23°35.3′	2437	67°21.0′	2328	51°07.8′	2577	67°22.0′	2361
10	12°54.3′	2515	24°09.5′	2431	67°56.1′	2327	51°40.9′	2572	66°47.2′	2360
11	12°20.7′	2533	24°43.8′	2425	68°31.2′	2326	52°14.1′	2567	66°12.3′	2360
12	11°47.2′	2554	25°18.1′	2420	69°06.4′	2325	52°47.3′	2562	65°37.5′	2359
13	11°13.9′	2579	25°52.5′	2415	69°41.5′	2324	53°20.6′	2558	65°02.6′	2359
14	10°40.7′	2608	26°26.9′	2410	70°16.6′	2323	53°53.9′	2553	64°27.8′	2358
15	10°07.8′	2643	27°01.3′	2405	70°51.8′	2322	54°27.2′	2549	63°52.9′	2358
16	9°35.2′	2685	27°35.8′	2401	71°26.9′	2321	55°00.6′	2545	63°18.1′	2358
17	9°02.8′	2735	28°10.3′	2397	72°02.1′	2321	55°34.0′	2541	62°43.2′	2357
18	8°30.9′	2796	28°44.9′	2393	72°37.2′	2320	56°07.4′	2537	62°08.3′	2357
19	7°59.4′	2871	29°19.5′	2390	73°12.4′	2319	56°40.9′	2533	61°33.5′	2357
20	7°28.4′	2965	29°54.1′	2386	73°47.6′	2318	57°14.4′	2530	60°58.6′	2357
21	–	–	30°28.7′	2383	74°22.8′	2318	57°47.9′	2526	60°23.7′	2357
22	–	–	31°03.4′	2380	74°58.0′	2317	58°21.4′	2523	59°48.8′	2356
23	–	–	31°38.0′	2377	75°33.1′	2316	58°55.0′	2520	59°14.0′	2356

Tue Dec 17, 2019 UTC

UTC	−Sun		+Pollux		−Spica		+Betelgeuse		+Aldebaran	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	118°55.6′	2635	32°12.8′	2375	58°39.1′	2356	59°28.5′	2517	76°08.3′	2316
1	118°22.9′	2635	32°47.5′	2372	58°04.2′	2356	60°02.2′	2513	76°43.5′	2315
2	117°50.2′	2634	33°22.2′	2369	57°29.3′	2356	60°35.8′	2511	77°18.8′	2314
3	117°17.4′	2633	33°57.0′	2367	56°54.5′	2356	61°09.5′	2508	77°54.0′	2314
4	116°44.7′	2633	34°31.8′	2365	56°19.6′	2357	61°43.1′	2505	78°29.2′	2313
5	116°12.0′	2632	35°06.6′	2363	55°44.7′	2357	62°16.8′	2502	79°04.4′	2313
6	115°39.3′	2632	35°41.4′	2360	55°09.9′	2357	62°50.6′	2500	79°39.6′	2312
7	115°06.5′	2631	36°16.3′	2358	54°35.0′	2357	63°24.3′	2497	80°14.9′	2312
8	114°33.8′	2630	36°51.1′	2357	54°00.1′	2357	63°58.1′	2495	80°50.1′	2311
9	114°01.0′	2630	37°26.0′	2355	53°25.2′	2358	64°31.8′	2493	81°25.3′	2311
10	113°28.3′	2629	38°00.9′	2353	52°50.4′	2358	65°05.6′	2490	82°00.6′	2310
11	112°55.6′	2629	38°35.8′	2351	52°15.5′	2359	65°39.5′	2488	82°35.8′	2310
12	112°22.8′	2628	39°10.7′	2350	51°40.7′	2359	66°13.3′	2486	83°11.1′	2309
13	111°50.0′	2628	39°45.6′	2348	51°05.8′	2360	66°47.1′	2484	83°46.3′	2309
14	111°17.3′	2628	40°20.6′	2347	50°31.0′	2360	67°21.0′	2482	84°21.6′	2309
15	110°44.5′	2627	40°55.5′	2345	49°56.1′	2361	67°54.9′	2480	84°56.9′	2308
16	110°11.8′	2627	41°30.5′	2344	49°21.3′	2362	68°28.8′	2479	85°32.1′	2308
17	109°39.0′	2626	42°05.5′	2343	48°46.5′	2362	69°02.7′	2477	86°07.4′	2308
18	109°06.2′	2626	42°40.4′	2342	48°11.6′	2363	69°36.6′	2475	86°42.7′	2307
19	108°33.4′	2626	43°15.4′	2341	47°36.8′	2364	70°10.5′	2474	87°17.9′	2307
20	108°00.7′	2626	43°50.4′	2339	47°02.0′	2365	70°44.5′	2472	87°53.2′	2307
21	107°27.9′	2625	44°25.5′	2338	46°27.2′	2366	71°18.4′	2471	88°28.5′	2306
22	106°55.1′	2625	45°00.5′	2337	45°52.4′	2367	71°52.4′	2469	89°03.8′	2306
23	106°22.3′	2625	45°35.5′	2336	45°17.6′	2368	72°26.4′	2468	89°39.0′	2306

Wed Dec 18, 2019 UTC

UTC	−Sun		+Regulus		+Pollux		−Spica		+Procyon	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	105°49.5′	2624	10°36.1′	2566	46°10.5′	2335	44°42.8′	2370	47°60.0′	2687
1	105°16.7′	2624	11°09.4′	2539	46°45.6′	2335	44°08.1′	2371	48°32.3′	2680
2	104°44.0′	2624	11°42.8′	2516	47°20.6′	2334	43°33.3′	2372	49°04.7′	2673
3	104°11.2′	2624	12°16.4′	2497	47°55.7′	2333	42°58.5′	2374	49°37.1′	2666
4	103°38.4′	2624	12°50.2′	2479	48°30.7′	2332	42°23.8′	2375	50°09.6′	2660
5	103°05.6′	2623	13°24.1′	2464	49°05.8′	2331	41°49.1′	2377	50°42.1′	2654
6	102°32.8′	2623	13°58.1′	2451	49°40.9′	2331	41°14.4′	2378	51°14.7′	2648
7	101°60.0′	2623	14°32.2′	2439	50°16.0′	2330	40°39.7′	2380	51°47.3′	2642
8	101°27.2′	2623	15°06.4′	2429	50°51.1′	2330	40°05.0′	2382	52°19.9′	2637
9	100°54.4′	2623	15°40.7′	2420	51°26.2′	2329	39°30.3′	2384	52°52.6′	2631
10	100°21.6′	2623	16°15.1′	2411	52°01.2′	2328	38°55.7′	2386	53°25.4′	2626
11	99°48.8′	2623	16°49.5′	2404	52°36.3′	2328	38°21.0′	2389	53°58.1′	2621
12	99°16.0′	2623	17°24.0′	2397	53°11.5′	2327	37°46.4′	2391	54°30.9′	2617
13	98°43.2′	2623	17°58.6′	2391	53°46.6′	2327	37°11.8′	2393	55°03.8′	2612
14	98°10.4′	2623	18°33.2′	2386	54°21.7′	2326	36°37.2′	2396	55°36.7′	2608
15	97°37.6′	2623	19°07.8′	2381	54°56.8′	2326	36°02.7′	2399	56°09.6′	2603
16	97°04.8′	2623	19°42.5′	2376	55°31.9′	2326	35°28.1′	2402	56°42.5′	2599
17	96°32.0′	2623	20°17.2′	2372	56°07.0′	2325	34°53.6′	2405	57°15.5′	2595
18	95°59.2′	2623	20°52.0′	2368	56°42.2′	2325	34°19.2′	2408	57°48.5′	2591
19	95°26.4′	2623	21°26.8′	2364	57°17.3′	2325	33°44.7′	2412	58°21.6′	2588
20	94°53.6′	2623	22°01.6′	2361	57°52.4′	2324	33°10.3′	2415	58°54.6′	2584
21	94°20.8′	2623	22°36.4′	2358	58°27.5′	2324	32°35.9′	2419	59°27.7′	2581
22	93°48.0′	2623	23°11.3′	2356	59°02.7′	2324	32°01.5′	2423	60°00.8′	2578
23	93°15.2′	2623	23°46.1′	2353	59°37.8′	2324	31°27.1′	2428	60°34.0′	2575

Thu Dec 19, 2019 UTC

UTC	−Sun		+Regulus		−Spica		+Pollux		−Mars	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	92°42.4′	2623	24°21.1′	2351	30°52.8′	2432	60°13.0′	2323	55°43.9′	2521
1	92°09.6′	2623	24°56.0′	2349	30°18.6′	2437	60°48.1′	2323	55°10.3′	2521
2	91°36.8′	2623	25°30.9′	2347	29°44.3′	2442	61°23.2′	2323	54°36.7′	2521
3	91°04.0′	2623	26°05.9′	2345	29°10.1′	2448	61°58.4′	2323	54°03.1′	2522
4	90°31.2′	2623	26°40.8′	2343	28°36.0′	2454	62°33.5′	2323	53°29.6′	2522
5	89°58.4′	2624	27°15.8′	2342	28°01.9′	2460	63°08.7′	2323	52°56.0′	2522
6	89°25.6′	2624	27°50.8′	2340	27°27.8′	2467	63°43.8′	2323	52°22.4′	2523
7	88°52.8′	2624	28°25.8′	2339	26°53.8′	2474	64°19.0′	2323	51°48.8′	2523
8	88°20.0′	2624	29°00.8′	2338	26°19.9′	2481	64°54.1′	2323	51°15.3′	2523
9	87°47.2′	2624	29°35.9′	2337	25°46.0′	2489	65°29.3′	2323	50°41.7′	2524
10	87°14.4′	2625	30°10.9′	2335	25°12.2′	2498	66°04.4′	2323	50°08.2′	2524
11	86°41.7′	2625	30°45.9′	2335	24°38.4′	2507	66°39.5′	2323	49°34.6′	2525
12	86°08.9′	2625	31°21.0′	2334	24°04.7′	2517	67°14.7′	2323	49°01.1′	2525
13	85°36.1′	2625	31°56.0′	2333	23°31.1′	2528	67°49.8′	2323	48°27.5′	2526
14	85°03.3′	2626	32°31.1′	2332	22°57.6′	2539	68°25.0′	2323	47°54.0′	2526
15	84°30.5′	2626	33°06.2′	2331	22°24.2′	2552	69°00.1′	2323	47°20.4′	2527
16	83°57.8′	2626	33°41.2′	2331	21°50.8′	2565	69°35.3′	2323	46°46.9′	2527
17	83°25.0′	2627	34°16.3′	2330	21°17.6′	2580	70°10.4′	2323	46°13.4′	2528
18	82°52.2′	2627	34°51.4′	2330	20°44.5′	2596	70°45.6′	2324	45°39.9′	2528
19	82°19.4′	2627	35°26.5′	2329	20°11.5′	2613	71°20.7′	2324	45°06.3′	2529
20	81°46.7′	2628	36°01.6′	2329	19°38.6′	2632	71°55.8′	2324	44°32.8′	2530
21	81°13.9′	2628	36°36.7′	2329	19°05.9′	2652	72°31.0′	2324	43°59.3′	2530
22	80°41.2′	2628	37°11.8′	2328	18°33.3′	2674	73°06.1′	2324	43°25.8′	2531
23	80°08.4′	2629	37°46.9′	2328	18°00.9′	2699	73°41.2′	2325	42°52.3′	2532

Fri Dec 20, 2019 UTC

UTC	−Sun		+Regulus		−Spica		−Mars		−Antares	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	79°35.6′	2629	38°22.0′	2328	17°28.6′	2726	42°18.8′	2533	62°30.1′	2347
1	79°02.9′	2630	38°57.1′	2328	16°56.6′	2756	41°45.3′	2533	61°55.2′	2348
2	78°30.1′	2630	39°32.2′	2328	16°24.8′	2789	41°11.8′	2534	61°20.3′	2349
3	77°57.4′	2631	40°07.3′	2327	15°53.2′	2825	40°38.4′	2535	60°45.3′	2350
4	77°24.7′	2631	40°42.4′	2327	15°21.9′	2866	40°04.9′	2536	60°10.4′	2351
5	76°51.9′	2631	41°17.5′	2327	14°50.9′	2912	39°31.4′	2537	59°35.5′	2352
6	76°19.2′	2632	41°52.6′	2327	14°20.2′	2963	38°58.0′	2538	59°00.6′	2353
7	75°46.5′	2632	42°27.7′	2327	13°49.9′	3021	38°24.5′	2539	58°25.7′	2354
8	75°13.7′	2633	43°02.9′	2327	13°20.0′	3086	37°51.1′	2540	57°50.8′	2355
9	74°41.0′	2634	43°38.0′	2328	12°50.5′	3160	37°17.7′	2541	57°15.9′	2356
10	74°08.3′	2634	44°13.1′	2328	12°21.5′	3245	36°44.2′	2542	56°41.0′	2357
11	73°35.6′	2635	44°48.2′	2328	11°53.1′	3342	36°10.8′	2543	56°06.1′	2359
12	73°02.9′	2635	45°23.3′	2328	11°25.3′	3454	35°37.4′	2544	55°31.3′	2360
13	72°30.2′	2636	45°58.4′	2328	10°58.2′	3584	35°04.0′	2545	54°56.4′	2361
14	71°57.5′	2636	46°33.5′	2328	–	–	34°30.6′	2547	54°21.6′	2362
15	71°24.8′	2637	47°08.6′	2329	–	–	33°57.2′	2548	53°46.8′	2364
16	70°52.1′	2638	47°43.7′	2329	–	–	33°23.9′	2549	53°12.0′	2365
17	70°19.4′	2638	48°18.8′	2329	–	–	32°50.5′	2551	52°37.1′	2367
18	69°46.7′	2639	48°53.9′	2330	–	–	32°17.2′	2552	52°02.4′	2368
19	69°14.0′	2640	49°29.0′	2330	–	–	31°43.8′	2554	51°27.6′	2370
20	68°41.3′	2640	50°04.1′	2330	–	–	31°10.5′	2555	50°52.8′	2371
21	68°08.7′	2641	50°39.1′	2331	–	–	30°37.2′	2557	50°18.0′	2373
22	67°36.0′	2642	51°14.2′	2331	–	–	30°03.9′	2559	49°43.3′	2374
23	67°03.4′	2643	51°49.3′	2332	–	–	29°30.6′	2560	49°08.6′	2376

Sat Dec 21, 2019 UTC

UTC	−Sun		−Mars		−Antares		+Regulus		+Pollux	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	66°30.7'	2643	28°57.3'	2562	48°33.9'	2378	52°24.4'	2332	88°18.5'	2337
1	65°58.1'	2644	28°24.1'	2564	47°59.2'	2380	52°59.4'	2333	88°53.6'	2337
2	65°25.4'	2645	27°50.8'	2566	47°24.5'	2382	53°34.5'	2333	89°28.6'	2338
3	64°52.8'	2646	27°17.6'	2568	46°49.8'	2384	54°09.6'	2334	90°03.6'	2339
4	64°20.2'	2647	26°44.4'	2571	46°15.1'	2386	54°44.6'	2334	90°38.6'	2340
5	63°47.6'	2648	26°11.2'	2573	45°40.5'	2388	55°19.7'	2335	91°13.6'	2341
6	63°14.9'	2648	25°38.0'	2576	45°05.9'	2390	55°54.7'	2336	91°48.6'	2341
7	62°42.3'	2649	25°04.8'	2578	44°31.3'	2392	56°29.8'	2336	92°23.6'	2342
8	62°09.7'	2650	24°31.7'	2581	43°56.7'	2395	57°04.8'	2337	92°58.6'	2343
9	61°37.1'	2651	23°58.6'	2584	43°22.1'	2397	57°39.8'	2338	93°33.6'	2344
10	61°04.6'	2652	23°25.5'	2587	42°47.6'	2399	58°14.8'	2339	94°08.6'	2345
11	60°32.0'	2653	22°52.4'	2590	42°13.0'	2402	58°49.9'	2339	94°43.5'	2346
12	59°59.4'	2654	22°19.4'	2593	41°38.5'	2405	59°24.9'	2340	95°18.5'	2347
13	59°26.8'	2655	21°46.3'	2597	41°04.0'	2407	59°59.9'	2341	95°53.5'	2348
14	58°54.3'	2656	21°13.4'	2601	40°29.6'	2410	60°34.9'	2342	96°28.4'	2349
15	58°21.7'	2657	20°40.4'	2605	39°55.1'	2413	61°09.9'	2342	97°03.3'	2350
16	57°49.2'	2658	20°07.5'	2610	39°20.7'	2416	61°44.9'	2343	97°38.3'	2351
17	57°16.7'	2659	19°34.6'	2614	38°46.3'	2419	62°19.8'	2344	98°13.2'	2352
18	56°44.1'	2660	19°01.7'	2619	38°11.9'	2423	62°54.8'	2345	98°48.1'	2353
19	56°11.6'	2662	18°28.9'	2625	37°37.6'	2426	63°29.8'	2346	99°23.0'	2354
20	55°39.1'	2663	17°56.1'	2631	37°03.3'	2430	64°04.7'	2347	99°57.9'	2355
21	55°06.6'	2664	17°23.3'	2637	36°29.0'	2433	64°39.7'	2348	100°32.8'	2356
22	54°34.1'	2665	16°50.6'	2644	35°54.7'	2437	65°14.6'	2349	101°07.7'	2358
23	54°01.6'	2666	16°18.0'	2652	35°20.5'	2441	65°49.6'	2350	101°42.5'	2359

Sun Dec 22, 2019 UTC

UTC	−Sun		−Mars		−Antares		+Spica		+Regulus	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	53°29.2'	2668	15°45.4'	2660	34°46.3'	2445	14°03.4'	2973	66°24.5'	2351
1	52°56.7'	2669	15°12.9'	2669	34°12.1'	2450	14°33.6'	2926	66°59.4'	2352
2	52°24.2'	2670	14°40.4'	2679	33°38.0'	2454	15°04.2'	2885	67°34.3'	2353
3	51°51.8'	2671	14°08.1'	2690	33°03.9'	2459	15°35.1'	2848	68°09.2'	2354
4	51°19.4'	2673	13°35.8'	2702	32°29.8'	2464	16°06.2'	2815	68°44.1'	2356
5	50°46.9'	2674	13°03.6'	2716	31°55.8'	2469	16°37.6'	2785	69°19.0'	2357
6	50°14.5'	2675	12°31.5'	2732	31°21.8'	2475	17°09.2'	2758	69°53.9'	2358
7	49°42.1'	2677	11°59.5'	2750	30°47.9'	2480	17°41.0'	2734	70°28.7'	2359
8	49°09.7'	2678	11°27.6'	2770	30°14.0'	2486	18°13.0'	2712	71°03.6'	2360
9	48°37.3'	2680	10°55.9'	2793	29°40.1'	2493	18°45.1'	2693	71°38.4'	2362
10	48°05.0'	2681	10°24.4'	2819	29°06.3'	2499	19°17.4'	2675	72°13.2'	2363
11	47°32.6'	2683	9°53.0'	2851	28°32.6'	2506	19°49.8'	2659	72°48.1'	2364
12	47°00.2'	2684	9°21.9'	2887	27°58.9'	2513	20°22.3'	2644	73°22.9'	2366
13	46°27.9'	2686	8°51.0'	2931	27°25.3'	2521	20°55.0'	2630	73°57.7'	2367
14	45°55.6'	2687	8°20.5'	2983	26°51.7'	2529	21°27.7'	2618	74°32.5'	2368
15	45°23.3'	2689	7°50.3'	3047	26°18.2'	2538	22°00.5'	2607	75°07.3'	2370
16	44°51.0'	2690	7°20.5'	3125	25°44.7'	2547	22°33.5'	2597	75°42.0'	2371
17	44°18.7'	2692	6°51.3'	3222	25°11.4'	2557	23°06.5'	2587	76°16.8'	2373
18	43°46.4'	2694	–	–	24°38.0'	2567	23°39.5'	2579	76°51.5'	2374
19	43°14.1'	2696	–	–	24°04.8'	2578	24°12.7'	2571	77°26.2'	2376
20	42°41.9'	2697	–	–	23°31.7'	2590	24°45.9'	2564	78°01.0'	2377
21	42°09.6'	2699	–	–	22°58.6'	2602	25°19.1'	2557	78°35.7'	2379
22	41°37.4'	2701	–	–	22°25.7'	2615	25°52.4'	2551	79°10.4'	2381
23	41°05.2'	2703	–	–	21°52.8'	2630	26°25.8'	2546	79°45.0'	2382

Mon Dec 23, 2019 UTC

UTC	−Sun		+Spica		−Antares		+Regulus		+Pollux	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	40°33.0′	2704	26°59.1′	2541	21°20.1′	2645	80°19.7′	2384	116°10.5′	2398
1	40°00.8′	2706	27°32.6′	2536	20°47.4′	2662	80°54.4′	2386	116°45.0′	2400
2	39°28.6′	2708	28°06.0′	2532	20°14.9′	2679	81°29.0′	2387	117°19.5′	2402
3	38°56.4′	2710	28°39.5′	2528	19°42.6′	2699	82°03.6′	2389	117°54.0′	2404
4	38°24.3′	2712	29°13.1′	2525	19°10.3′	2719	82°38.3′	2391	118°28.5′	2406
5	37°52.2′	2714	29°46.6′	2521	18°38.2′	2742	83°12.9′	2393	119°03.0′	2408
6	37°20.0′	2716	30°20.2′	2519	18°06.3′	2767	83°47.4′	2394	119°37.5′	2410
7	36°47.9′	2718	30°53.8′	2516	17°34.6′	2794	84°22.0′	2396	120°11.9′	2412
8	36°15.9′	2720	31°27.4′	2514	17°03.1′	2823	84°56.6′	2398	120°46.4′	2414
9	35°43.8′	2722	32°01.0′	2512	16°31.8′	2856	85°31.1′	2400	121°20.8′	2417
10	35°11.7′	2724	32°34.7′	2510	16°00.7′	2892	86°05.6′	2402	121°55.2′	2419
11	34°39.7′	2726	33°08.3′	2508	15°29.8′	2931	86°40.1′	2404	122°29.5′	2421
12	34°07.7′	2729	33°42.0′	2507	14°59.3′	2975	87°14.6′	2406	123°03.9′	2424
13	33°35.6′	2731	34°15.7′	2506	14°29.0′	3024	87°49.1′	2408	123°38.2′	2426
14	33°03.6′	2733	34°49.4′	2505	13°59.1′	3079	88°23.6′	2410	124°12.6′	2428
15	32°31.7′	2735	35°23.1′	2504	13°29.6′	3140	88°58.0′	2412	124°46.9′	2431
16	31°59.7′	2738	35°56.8′	2503	13°00.5′	3210	89°32.5′	2414	125°21.1′	2433
17	31°27.8′	2740	36°30.5′	2503	12°31.8′	3288	90°06.9′	2416	125°55.4′	2436
18	30°55.8′	2742	37°04.2′	2503	12°03.7′	3378	90°41.3′	2419	126°29.7′	2439
19	30°23.9′	2745	37°38.0′	2502	11°36.1′	3480	91°15.6′	2421	127°03.9′	2441
20	29°52.0′	2747	38°11.7′	2502	11°09.2′	3598	91°50.0′	2423	127°38.1′	2444
21	29°20.2′	2749	38°45.4′	2502	–	–	92°24.3′	2425	128°12.3′	2447
22	28°48.3′	2752	39°19.1′	2503	–	–	92°58.7′	2428	128°46.4′	2449
23	28°16.5′	2754	39°52.8′	2503	–	–	93°33.0′	2430	129°20.5′	2452

Tue Dec 24, 2019 UTC

UTC	+Mars		+Spica		+Regulus		+Arcturus	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	11°31.0′	2826	40°26.6′	2503	94°07.3′	2432	46°38.9′	3364
1	12°02.3′	2812	41°00.3′	2504	94°41.5′	2435	47°06.5′	3349
2	12°33.7′	2801	41°34.0′	2505	95°15.8′	2437	47°34.3′	3334
3	13°05.2′	2791	42°07.7′	2505	95°50.0′	2439	48°02.1′	3320
4	13°36.8′	2783	42°41.4′	2506	96°24.2′	2442	48°30.1′	3307
5	14°08.4′	2776	43°15.1′	2507	96°58.4′	2444	48°58.1′	3295
6	14°40.0′	2770	43°48.8′	2508	97°32.6′	2447	49°26.2′	3282
7	15°11.8′	2765	44°22.4′	2509	98°06.8′	2449	49°54.4′	3271
8	15°43.5′	2761	44°56.1′	2510	98°40.9′	2452	50°22.6′	3260
9	16°15.3′	2757	45°29.8′	2512	99°15.0′	2455	50°50.9′	3249
10	16°47.1′	2754	46°03.4′	2513	99°49.1′	2457	51°19.3′	3239
11	17°18.9′	2752	46°37.1′	2514	100°23.2′	2460	51°47.8′	3229
12	17°50.7′	2750	47°10.7′	2516	100°57.2′	2463	52°16.3′	3220
13	18°22.6′	2748	47°44.3′	2517	101°31.3′	2465	52°44.9′	3211
14	18°54.5′	2747	48°17.9′	2519	102°05.3′	2468	53°13.6′	3203
15	19°26.3′	2747	48°51.5′	2521	102°39.3′	2471	53°42.3′	3195
16	19°58.2′	2746	49°25.1′	2523	103°13.3′	2474	54°11.0′	3187
17	20°30.1′	2746	49°58.7′	2524	103°47.2′	2476	54°39.8′	3180
18	21°02.0′	2746	50°32.2′	2526	104°21.1′	2479	55°08.7′	3173
19	21°33.8′	2746	51°05.7′	2528	104°55.0′	2482	55°37.6′	3166
20	22°05.7′	2747	51°39.3′	2530	105°28.9′	2485	56°06.5′	3160
21	22°37.6′	2748	52°12.8′	2532	106°02.8′	2488	56°35.5′	3154
22	23°09.5′	2749	52°46.3′	2534	106°36.6′	2491	57°04.5′	3148
23	23°41.3′	2750	53°19.7′	2537	107°10.4′	2494	57°33.6′	3143

Wed Dec 25, 2019 UTC

UTC	+Mars		+Spica		+Arcturus	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	24°13.2'	2751	53°53.2'	2539	58°02.7'	3137
1	24°45.0'	2753	54°26.6'	2541	58°31.8'	3133
2	25°16.9'	2754	55°00.1'	2543	59°01.0'	3128
3	25°48.7'	2756	55°33.5'	2546	59°30.2'	3124
4	26°20.5'	2758	56°06.8'	2548	59°59.4'	3120
5	26°52.3'	2760	56°40.2'	2551	60°28.7'	3116
6	27°24.1'	2762	57°13.6'	2553	60°57.9'	3113
7	27°55.8'	2764	57°46.9'	2556	61°27.2'	3109
8	28°27.6'	2766	58°20.2'	2558	61°56.6'	3106
9	28°59.3'	2768	58°53.5'	2561	62°25.9'	3103
10	29°31.1'	2771	59°26.8'	2564	62°55.3'	3101
11	30°02.8'	2773	60°00.0'	2567	63°24.7'	3098
12	30°34.4'	2776	60°33.2'	2569	63°54.1'	3096
13	31°06.1'	2778	61°06.4'	2572	64°23.5'	3094
14	31°37.8'	2781	61°39.6'	2575	64°52.9'	3092
15	32°09.4'	2784	62°12.8'	2578	65°22.3'	3090
16	32°41.0'	2787	62°45.9'	2581	65°51.8'	3089
17	33°12.6'	2789	63°19.0'	2584	66°21.3'	3088
18	33°44.1'	2792	63°52.1'	2587	66°50.7'	3087
19	34°15.7'	2795	64°25.2'	2590	67°20.2'	3086
20	34°47.2'	2798	64°58.3'	2593	67°49.7'	3085
21	35°18.7'	2801	65°31.3'	2596	68°19.2'	3084
22	35°50.2'	2805	66°04.3'	2599	68°48.7'	3084
23	36°21.6'	2808	66°37.3'	2603	69°18.2'	3083

Sat Dec 28, 2019 UTC

UTC	+Saturn		-Venus		-Formalhaut		-Achernar	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	6°29.7'	2863	12°18.9'	3206	40°54.4'	3225	68°40.8'	5891
1	7°00.7'	2857	11°50.2'	3212	40°25.9'	3240	68°25.3'	5921
2	7°31.8'	2853	11°21.6'	3218	39°57.4'	3255	68°10.0'	5950
3	8°02.9'	2851	10°53.0'	3224	39°29.1'	3270	67°54.7'	5981
4	8°34.0'	2850	10°24.4'	3230	39°00.8'	3286	67°39.6'	6011
5	9°05.1'	2850	9°55.9'	3237	38°32.7'	3302	67°24.6'	6043
6	9°36.3'	2850	9°27.4'	3244	38°04.6'	3319	67°09.6'	6075
7	10°07.4'	2851	8°59.0'	3251	37°36.7'	3336	66°54.8'	6108
8	10°38.5'	2852	8°30.6'	3259	37°08.8'	3353	66°40.1'	6141
9	11°09.6'	2854	8°02.3'	3267	36°41.1'	3372	66°25.5'	6175
10	11°40.7'	2856	7°34.0'	3276	36°13.5'	3390	66°11.1'	6209
11	12°11.8'	2858	7°05.8'	3286	35°46.0'	3410	65°56.7'	6244
12	12°42.9'	2861	6°37.7'	3298	35°18.7'	3430	65°42.5'	6280
13	13°13.9'	2863	6°09.6'	3311	34°51.4'	3451	65°28.3'	6316
14	13°45.0'	2866	5°41.6'	3326	34°24.3'	3472	65°14.3'	6354
15	14°16.0'	2869	5°13.7'	3345	33°57.3'	3495	65°00.4'	6391
16	14°47.0'	2872	4°45.9'	3368	33°30.5'	3518	64°46.6'	6430
17	15°17.9'	2875	4°18.3'	3398	33°03.8'	3542	64°33.0'	6469
18	15°48.9'	2878	3°50.8'	3439	32°37.3'	3567	64°19.5'	6509
19	16°19.8'	2882	3°23.7'	3496	32°10.9'	3592	64°06.1'	6550
20	16°50.7'	2885	2°56.8'	3584	31°44.6'	3619	63°52.8'	6592
21	17°21.6'	2888	–	–	31°18.6'	3647	63°39.6'	6634
22	17°52.4'	2892	–	–	30°52.6'	3676	63°26.6'	6677
23	18°23.3'	2895	–	–	30°26.9'	3706	63°13.7'	6721

Sun Dec 29, 2019 UTC

UTC	+Saturn		-Formalhaut		-Aldebaran		-Rigel	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	18°54.1'	2899	30°01.4'	3738	119°49.9'	2857	119°36.7'	3659
1	19°24.9'	2902	29°36.0'	3771	119°18.8'	2861	119°10.9'	3654
2	19°55.6'	2906	29°10.8'	3805	118°47.8'	2864	118°45.0'	3650
3	20°26.4'	2909	28°45.8'	3841	118°16.8'	2868	118°19.1'	3646
4	20°57.1'	2913	28°21.0'	3878	117°45.8'	2872	117°53.2'	3643
5	21°27.7'	2916	27°56.5'	3917	117°14.8'	2876	117°27.3'	3639
6	21°58.4'	2920	27°32.1'	3959	116°43.8'	2879	117°01.3'	3636
7	22°29.0'	2923	27°08.0'	4002	116°12.9'	2883	116°35.3'	3633
8	22°59.6'	2927	26°44.1'	4047	115°42.0'	2887	116°09.3'	3630
9	23°30.2'	2930	26°20.5'	4094	115°11.2'	2890	115°43.3'	3627
10	24°00.8'	2934	25°57.1'	4144	114°40.3'	2894	115°17.3'	3625
11	24°31.3'	2937	25°34.0'	4197	114°09.5'	2898	114°51.3'	3622
12	25°01.8'	2941	25°11.2'	4252	113°38.7'	2901	114°25.2'	3620
13	25°32.3'	2944	24°48.7'	4310	113°08.0'	2905	113°59.1'	3618
14	26°02.8'	2948	24°26.4'	4371	112°37.2'	2909	113°33.0'	3616
15	26°33.2'	2951	24°04.5'	4436	112°06.5'	2912	113°06.9'	3614
16	27°03.6'	2955	23°42.9'	4505	111°35.8'	2916	112°40.8'	3612
17	27°34.0'	2958	23°21.6'	4577	111°05.2'	2919	112°14.7'	3611
18	28°04.4'	2962	23°00.7'	4654	110°34.5'	2923	111°48.6'	3609
19	28°34.7'	2965	22°40.2'	4736	110°03.9'	2926	111°22.5'	3608
20	29°05.0'	2968	22°20.0'	4822	109°33.3'	2930	110°56.3'	3607
21	29°35.3'	2972	22°00.2'	4914	109°02.8'	2933	110°30.2'	3605
22	30°05.6'	2975	21°40.9'	5012	108°32.2'	2936	110°04.0'	3604
23	30°35.8'	2978	21°21.9'	5116	108°01.7'	2940	109°37.8'	3604

Mon Dec 30, 2019 UTC

UTC	+Sun		+Venus		-Aldebaran		-Formalhaut		-Rigel	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	44°12.7'	3314	10°15.1'	3414	107°31.2'	2943	21°03.5'	5227	109°11.7'	3603
1	44°40.6'	3318	10°42.5'	3417	107°00.7'	2946	20°45.5'	5346	108°45.5'	3602
2	45°08.6'	3321	11°09.8'	3419	106°30.3'	2950	20°27.9'	5473	108°19.3'	3602
3	45°36.5'	3325	11°37.1'	3421	105°59.9'	2953	20°10.9'	5609	107°53.1'	3601
4	46°04.4'	3328	12°04.4'	3424	105°29.5'	2956	19°54.4'	5755	107°27.0'	3601
5	46°32.3'	3332	12°31.7'	3426	104°59.1'	2959	19°38.5'	5911	107°00.8'	3600
6	47°00.1'	3335	12°58.9'	3429	104°28.7'	2962	19°23.1'	6080	106°34.6'	3600
7	47°28.0'	3339	13°26.2'	3432	103°58.4'	2966	19°08.3'	6262	106°08.4'	3600
8	47°55.8'	3342	13°53.4'	3435	103°28.1'	2969	18°54.1'	6459	105°42.2'	3600
9	48°23.6'	3346	14°20.6'	3437	102°57.8'	2972	18°40.6'	6672	105°16.0'	3600
10	48°51.4'	3349	14°47.8'	3440	102°27.6'	2975	18°27.7'	6904	104°49.8'	3600
11	49°19.1'	3352	15°15.0'	3443	101°57.3'	2978	18°15.4'	7157	104°23.6'	3600
12	49°46.8'	3356	15°42.1'	3446	101°27.1'	2981	18°03.9'	7433	103°57.4'	3601
13	50°14.6'	3359	16°09.3'	3449	100°56.9'	2984	17°53.0'	7737	103°31.2'	3601
14	50°42.2'	3362	16°36.4'	3452	100°26.7'	2987	17°42.9'	8073	103°05.1'	3601
15	51°09.9'	3365	17°03.5'	3454	99°56.5'	2990	17°33.6'	8446	102°38.9'	3602
16	51°37.6'	3368	17°30.6'	3457	99°26.4'	2992	17°25.0'	8864	102°12.7'	3602
17	52°05.2'	3371	17°57.6'	3460	98°56.3'	2995	–	–	101°46.5'	3603
18	52°32.8'	3374	18°24.7'	3463	98°26.2'	2998	–	–	101°20.3'	3603
19	53°00.4'	3377	18°51.7'	3466	97°56.1'	3001	–	–	100°54.2'	3604
20	53°27.9'	3380	19°18.7'	3468	97°26.0'	3003	–	–	100°28.0'	3605
21	53°55.5'	3383	19°45.7'	3471	96°56.0'	3006	–	–	100°01.9'	3606
22	54°23.0'	3386	20°12.7'	3474	96°25.9'	3009	–	–	99°35.7'	3607
23	54°50.5'	3389	20°39.7'	3476	95°55.9'	3011	–	–	99°09.5'	3607

Tue Dec 31, 2019 UTC

UTC	+Sun		+Venus		-Aldebaran		-Betelgeuse		-Rigel	
	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.	Lunar Dist.	P.L.
0	55°18.0'	3392	21°06.6'	3479	95°25.9'	3014	112°26.9'	3187	98°43.4'	3608
1	55°45.5'	3395	21°33.5'	3482	94°56.0'	3016	111°58.1'	3188	98°17.3'	3609
2	56°13.0'	3397	22°00.4'	3484	94°26.0'	3019	111°29.3'	3190	97°51.1'	3610
3	56°40.4'	3400	22°27.3'	3487	93°56.1'	3021	111°00.5'	3191	97°25.0'	3612
4	57°07.8'	3403	22°54.2'	3489	93°26.1'	3024	110°31.7'	3192	96°58.9'	3613
5	57°35.2'	3405	23°21.1'	3492	92°56.2'	3026	110°02.9'	3194	96°32.8'	3614
6	58°02.6'	3408	23°47.9'	3494	92°26.3'	3028	109°34.2'	3195	96°06.6'	3615
7	58°30.0'	3410	24°14.8'	3497	91°56.5'	3031	109°05.4'	3196	95°40.5'	3616
8	58°57.4'	3413	24°41.6'	3499	91°26.6'	3033	108°36.7'	3197	95°14.5'	3618
9	59°24.7'	3415	25°08.4'	3501	90°56.8'	3035	108°07.9'	3198	94°48.4'	3619
10	59°52.1'	3417	25°35.2'	3504	90°26.9'	3037	107°39.2'	3200	94°22.3'	3620
11	60°19.4'	3420	26°02.0'	3506	89°57.1'	3039	107°10.5'	3201	93°56.2'	3622
12	60°46.7'	3422	26°28.7'	3508	89°27.3'	3041	106°41.8'	3202	93°30.2'	3623
13	61°14.0'	3424	26°55.5'	3510	88°57.5'	3043	106°13.1'	3203	93°04.1'	3625
14	61°41.2'	3426	27°22.2'	3512	88°27.7'	3045	105°44.4'	3204	92°38.1'	3626
15	62°08.5'	3428	27°49.0'	3514	87°58.0'	3047	105°15.7'	3206	92°12.0'	3628
16	62°35.7'	3430	28°15.7'	3516	87°28.2'	3049	104°47.0'	3207	91°46.0'	3629
17	63°03.0'	3432	28°42.4'	3518	86°58.5'	3051	104°18.3'	3208	91°20.0'	3631
18	63°30.2'	3434	29°09.1'	3520	86°28.8'	3053	103°49.7'	3209	90°54.0'	3632
19	63°57.4'	3436	29°35.7'	3522	85°59.1'	3055	103°21.0'	3210	90°28.0'	3634
20	64°24.6'	3438	30°02.4'	3524	85°29.4'	3056	102°52.4'	3211	90°02.0'	3636
21	64°51.8'	3440	30°29.1'	3526	84°59.7'	3058	102°23.7'	3212	89°36.0'	3637
22	65°19.0'	3442	30°55.7'	3527	84°30.0'	3059	101°55.1'	3213	89°10.1'	3639
23	65°46.1'	3443	31°22.3'	3529	84°00.4'	3061	101°26.5'	3214	88°44.1'	3641