

# Ephemeris data for Comet Leonard (C/2021 A1)

For Brunei Darussalam



Local Time	Az (Compass)	Altitude	RA	Dec	Constellation	Rise	Set	Mag	Distance observer	Sun Dist.	Size	Remarks
02 Dec 2021 03:00 AM	60° 39.797'	1° 27.342'	13h 29.206m	29° 19.237'	Canes Venatici	2:52 AM	3:22 PM	6.60	0.494728429 au	0.919669453 au	0.056"	Visible in early pre-dawn hours as it approaches close to Earth
02 Dec 2021 03:30 AM	61° 2.730'	7° 43.513'	13h 29.398m	29° 18.349'	Canes Venatici	2:52 AM	3:22 PM	6.60	0.493998490 au	0.919365347 au	0.056"	
02 Dec 2021 04:00 AM	61° 0.689'	14° 11.487'	13h 29.591m	29° 17.457'	Canes Venatici	2:52 AM	3:22 PM	6.59	0.493268845 au	0.919061292 au	0.056"	
02 Dec 2021 04:30 AM	60° 31.926'	20° 40.279'	13h 29.783m	29° 16.560'	Canes Venatici	2:52 AM	3:22 PM	6.59	0.492539555 au	0.918757289 au	0.056"	
02 Dec 2021 05:00 AM	59° 32.771'	27° 6.888'	13h 29.976m	29° 15.659'	Canes Venatici	2:52 AM	3:22 PM	6.58	0.491810742 au	0.918453338 au	0.056"	
02 Dec 2021 05:30 AM	57° 57.011'	33° 28.723'	13h 30.169m	29° 14.753'	Canes Venatici	2:52 AM	3:22 PM	6.58	0.491082461 au	0.918149438 au	0.056"	
03 Dec 2021 03:00 AM	61° 20.519'	0° 13.233'	13h 39.063m	28° 30.987'	Canes Venatici	2:58 AM	3:28 PM	6.38	0.460209731 au	0.905132224 au	0.060"	Naked Eye Visibility. Observe Before Sunrise. Comet is above the Northeast to East horizon.
03 Dec 2021 03:30 AM	61° 49.030'	6° 25.163'	13h 39.283m	28° 29.890'	Canes Venatici	2:58 AM	3:28 PM	6.37	0.459492598 au	0.904830705 au	0.060"	
03 Dec 2021 04:00 AM	61° 53.236'	12° 55.016'	13h 39.503m	28° 28.788'	Canes Venatici	2:58 AM	3:28 PM	6.37	0.458775823 au	0.904529244 au	0.060"	
03 Dec 2021 04:30 AM	61° 31.778'	19° 26.750'	13h 39.723m	28° 27.680'	Canes Venatici	2:58 AM	3:28 PM	6.36	0.458059458 au	0.904227839 au	0.060"	
03 Dec 2021 05:00 AM	60° 41.464'	25° 57.020'	13h 39.943m	28° 26.567'	Canes Venatici	2:58 AM	3:28 PM	6.36	0.457343649 au	0.903926490 au	0.060"	
03 Dec 2021 05:30 AM	59° 16.707'	32° 23.375'	13h 40.164m	28° 25.447'	Canes Venatici	2:58 AM	3:28 PM	6.35	0.456628442 au	0.903625199 au	0.060"	
04 Dec 2021 03:30 AM	62° 44.620'	4° 46.985'	13h 50.596m	27° 29.885'	Bootes	3:06 AM	3:36 PM	6.14	0.425707959 au	0.890426356 au	0.065"	
04 Dec 2021 04:00 AM	62° 56.237'	11° 18.366'	13h 50.848m	27° 28.509'	Bootes	3:06 AM	3:36 PM	6.13	0.425008557 au	0.890127738 au	0.065"	
04 Dec 2021 04:30 AM	62° 43.401'	17° 53.385'	13h 51.101m	27° 27.126'	Bootes	3:06 AM	3:36 PM	6.13	0.424309685 au	0.889829182 au	0.065"	
04 Dec 2021 05:00 AM	62° 3.494'	24° 27.813'	13h 51.354m	27° 25.737'	Bootes	3:06 AM	3:36 PM	6.12	0.423611377 au	0.889530689 au	0.065"	
04 Dec 2021 05:30 AM	60° 51.679'	30° 59.297'	13h 51.607m	27° 24.339'	Bootes	3:06 AM	3:36 PM	6.12	0.422913814 au	0.889232258 au	0.065"	
05 Dec 2021 03:30 AM	63° 51.769'	2° 45.811'	14h 3.605m	26° 14.820'	Bootes	3:16 AM	3:45 PM	5.89	0.392893811 au	0.876164780 au	0.070"	
05 Dec 2021 04:00 AM	64° 12.033'	9° 16.972'	14h 3.896m	26° 13.087'	Bootes	3:16 AM	3:45 PM	5.89	0.392217754 au	0.875869276 au	0.070"	
05 Dec 2021 04:30 AM	64° 9.195'	15° 55.516'	14h 4.187m	26° 11.344'	Bootes	3:16 AM	3:45 PM	5.88	0.391542347 au	0.875573840 au	0.070"	
05 Dec 2021 05:00 AM	63° 41.313'	22° 34.587'	14h 4.479m	26° 9.593'	Bootes	3:16 AM	3:45 PM	5.88	0.390867612 au	0.875278472 au	0.071"	
05 Dec 2021 05:30 AM	62° 44.431'	29° 11.789'	14h 4.771m	26° 7.831'	Bootes	3:16 AM	3:45 PM	5.87	0.390193758 au	0.874983172 au	0.071"	
06 Dec 2021 03:30 AM	65° 13.410'	0° 22.031'	14h 18.620m	24° 40.078'	Bootes	3:27 AM	3:57 PM	5.64	0.361381866 au	0.862059363 au	0.076"	
06 Dec 2021 04:00 AM	65° 43.553'	6° 45.450'	14h 18.956m	24° 37.877'	Bootes	3:27 AM	3:57 PM	5.63	0.360737129 au	0.861767261 au	0.076"	
06 Dec 2021 04:30 AM	65° 52.059'	13° 27.378'	14h 19.293m	24° 35.664'	Bootes	3:27 AM	3:57 PM	5.63	0.360093203 au	0.861475233 au	0.077"	
06 Dec 2021 05:00 AM	65° 37.760'	20° 11.487'	14h 19.630m	24° 33.440'	Bootes	3:27 AM	3:57 PM	5.62	0.359450108 au	0.861183280 au	0.077"	
06 Dec 2021 05:30 AM	64° 57.708'	26° 54.921'	14h 19.969m	24° 31.204'	Bootes	3:27 AM	3:57 PM	5.62	0.358808066 au	0.860891401 au	0.077"	
07 Dec 2021 04:00 AM	67° 34.460'	3° 38.707'	14h 36.366m	22° 36.940'	Bootes	3:42 AM	4:11 PM	5.38	0.331012188 au	0.847836048 au	0.083"	
07 Dec 2021 04:30 AM	67° 55.456'	10° 22.168'	14h 36.756m	22° 34.119'	Bootes	3:42 AM	4:11 PM	5.37	0.330410444 au	0.847547738 au	0.083"	
07 Dec 2021 05:00 AM	67° 56.044'	17° 11.448'	14h 37.146m	22° 31.284'	Bootes	3:42 AM	4:11 PM	5.37	0.329809818 au	0.847259510 au	0.084"	
07 Dec 2021 05:30 AM	67° 34.381'	24° 1.441'	14h 37.537m	22° 28.433'	Bootes	3:42 AM	4:11 PM	5.36	0.329210338 au	0.846971362 au	0.084"	
08 Dec 2021 04:30 AM	70° 23.450'	6° 32.876'	14h 56.908m	19° 59.500'	Bootes	3:59 AM	4:27 PM	5.11	0.303089013 au	0.833806736 au	0.091"	
08 Dec 2021 05:00 AM	70° 39.645'	13° 26.548'	14h 57.358m	19° 55.893'	Bootes	3:59 AM	4:27 PM	5.11	0.302544983 au	0.833522563 au	0.091"	
08 Dec 2021 05:30 AM	70° 37.218'	20° 23.054'	14h 57.808m	19° 52.266'	Bootes	3:59 AM	4:27 PM	5.10	0.302002455 au	0.833238479 au	0.091"	
09 Dec 2021 04:30 AM	73° 20.652'	1° 57.844'	15h 20.016m	16° 44.062'	Serpens Caput	4:20 AM	4:47 PM	4.86	0.278902511 au	0.820268657 au	0.099"	
09 Dec 2021 05:00 AM	73° 52.093'	8° 49.465'	15h 20.530m	16° 39.525'	Serpens Caput	4:20 AM	4:47 PM	4.86	0.278433243 au	0.819988894 au	0.099"	
09 Dec 2021 05:30 AM	74° 8.499'	15° 51.559'	15h 21.044m	16° 34.967'	Serpens Caput	4:20 AM	4:47 PM	4.85	0.277965843 au	0.819709228 au	0.099"	
10 Dec 2021 05:00 AM	77° 36.527'	3° 18.943'	15h 46.753m	12° 35.938'	Serpens Caput	4:44 AM	5:09 PM	4.62	0.258439454 au	0.806676048 au	0.11"	
10 Dec 2021 05:30 AM	78° 9.438'	10° 21.702'	15h 47.330m	12° 30.356'	Serpens Caput	4:44 AM	5:09 PM	4.62	0.258069070 au	0.806401176 au	0.11"	
11 Dec 2021 05:30 AM	82° 39.442'	3° 58.179'	16h 16.444m	7° 37.610'	Hercules	5:12 AM	5:34 PM	4.42	0.243410226 au	0.793333016 au	0.11"	Not Visible (Daylight)
12 Dec 2021 06:00 AM	88° 20.535'	4° 1.238'	16h 48.411m	1° 58.644'	Ophiuchus	5:41 AM	6:01 PM	4.27	0.234942445 au	0.780260643 au	0.12"	Close Approach to Earth
13 Dec 2021 06:30 AM	94° 18.446'	3° 44.377'	17h 21.515m	-3° 58.688'	Ophiuchus	6:13 AM	6:28 PM	4.19	0.233825347 au	0.767481244 au	0.12"	Not Visible (Daylight)
14 Dec 2021 06:00 PM	256° 22.314'	12° 31.833'	18h 8.536m	-12° 9.609'	Serpens Cauda	6:43 AM	6:54 PM	4.19	0.245422870 au	0.749532255 au	0.11"	
14 Dec 2021 06:30 PM	257° 9.756'	5° 27.464'	18h 9.175m	-12° 15.961'	Serpens Cauda	6:43 AM	6:54 PM	4.19	0.245697034 au	0.749284558 au	0.11"	
15 Dec 2021 06:00 PM	250° 30.537'	17° 50.617'	18h 38.050m	-16° 52.245'	Sagittarius	7:12 AM	7:18 PM	4.26	0.261270070 au	0.737812600 au	0.11"	
15 Dec 2021 06:30 PM	251° 39.734'	10° 54.538'	18h 38.635m	-16° 57.588'	Sagittarius	7:12 AM	7:18 PM	4.26	0.261665475 au	0.737572217 au	0.11"	
15 Dec 2021 07:00 PM	252° 30.006'	4° 0.951'	18h 39.220m	-17° 2.908'	Sagittarius	7:12 AM	7:18 PM	4.26	0.262063317 au	0.737331992 au	0.11"	
16 Dec 2021 06:00 PM	245° 12.654'	22° 13.386'	19h 4.751m	-20° 45.035'	Sagittarius	7:39 AM	7:40 PM	4.36	0.282417668 au	0.726456341 au	0.098"	
16 Dec 2021 06:30 PM	246° 47.726'	15° 29.826'	19h 5.273m	-20° 49.338'	Sagittarius	7:39 AM	7:40 PM	4.36	0.282911607 au	0.726223801 au	0.097"	
16 Dec 2021 07:00 PM	247° 57.903'	8° 43.764'	19h 5.794m	-20° 53.619'	Sagittarius	7:39 AM	7:40 PM	4.37	0.283407552 au	0.725991430 au	0.097"	
16 Dec 2021 07:30 PM	248° 46.720'	2° 3.981'	19h 6.314m	-20° 57.878'	Sagittarius	7:39 AM	7:40 PM	4.37	0.283905432 au	0.725759229 au	0.097"	

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For Brunei Darussalam



Local Time	Az (Compass)	Altitude	RA	Dec	Constellation	Rise	Set	Mag	Distance observer	Sun Dist.	Size	Remarks
17 Dec 2021 06:00 PM	240° 33.470'	25° 41.426'	19h 28.324m	-23° 50.325'	Sagittarius	8:01 AM	7:58 PM	4.48	0.307795051 au	0.715489421 au	0.090"	
17 Dec 2021 06:30 PM	242° 35.273'	19° 11.714'	19h 28.780m	-23° 53.705'	Sagittarius	8:01 AM	7:58 PM	4.49	0.308366144 au	0.715265275 au	0.089"	
17 Dec 2021 07:00 PM	244° 6.612'	12° 36.605'	19h 29.234m	-23° 57.066'	Sagittarius	8:01 AM	7:58 PM	4.49	0.308938931 au	0.715041310 au	0.089"	
17 Dec 2021 07:30 PM	245° 12.311'	5° 59.900'	19h 29.688m	-24° 0.409'	Sagittarius	8:01 AM	7:58 PM	4.49	0.309513266 au	0.714817526 au	0.089"	
18 Dec 2021 06:00 PM	236° 33.752'	28° 21.863'	19h 48.792m	-26° 15.248'	Sagittarius	8:20 AM	8:14 PM	4.61	0.336455170 au	0.704938763 au	0.082"	
18 Dec 2021 06:30 PM	239° 0.840'	22° 5.972'	19h 49.185m	-26° 17.876'	Sagittarius	8:20 AM	8:14 PM	4.61	0.337085582 au	0.704723582 au	0.082"	
18 Dec 2021 07:00 PM	240° 52.550'	15° 42.107'	19h 49.576m	-26° 20.489'	Sagittarius	8:20 AM	8:14 PM	4.62	0.337717400 au	0.704508594 au	0.082"	
18 Dec 2021 07:30 PM	242° 14.809'	9° 13.586'	19h 49.968m	-26° 23.087'	Sagittarius	8:20 AM	8:14 PM	4.62	0.338350472 au	0.704293799 au	0.082"	
18 Dec 2021 08:00 PM	243° 11.460'	2° 47.710'	19h 50.358m	-26° 25.670'	Sagittarius	8:20 AM	8:14 PM	4.62	0.338984747 au	0.704079197 au	0.081"	
19 Dec 2021 06:00 PM	233° 11.520'	30° 23.426'	20h 6.385m	-28° 8.013'	Sagittarius	8:36 AM	8:26 PM	4.74	0.367629269 au	0.694832153 au	0.075"	
19 Dec 2021 06:30 PM	236° 1.141'	24° 20.514'	20h 6.721m	-28° 10.055'	Sagittarius	8:36 AM	8:26 PM	4.74	0.368304919 au	0.694626524 au	0.075"	
19 Dec 2021 07:00 PM	238° 11.261'	18° 7.241'	20h 7.056m	-28° 12.086'	Sagittarius	8:36 AM	8:26 PM	4.75	0.368981713 au	0.694421100 au	0.075"	
19 Dec 2021 07:30 PM	239° 48.665'	11° 47.140'	20h 7.391m	-28° 14.104'	Sagittarius	8:36 AM	8:26 PM	4.75	0.369659614 au	0.694215882 au	0.075"	
19 Dec 2021 08:00 PM	240° 57.945'	5° 24.720'	20h 7.725m	-28° 16.111'	Sagittarius	8:36 AM	8:26 PM	4.75	0.370338459 au	0.694010870 au	0.074"	
20 Dec 2021 06:00 PM	230° 23.307'	31° 54.237'	20h 21.427m	-29° 36.017'	Sagittarius	8:49 AM	8:37 PM	4.87	0.400719332 au	0.685198086 au	0.069"	
20 Dec 2021 06:30 PM	233° 32.162'	26° 3.013'	20h 21.713m	-29° 37.614'	Sagittarius	8:49 AM	8:37 PM	4.87	0.401429411 au	0.685002609 au	0.069"	
20 Dec 2021 07:00 PM	235° 58.202'	19° 59.274'	20h 21.999m	-29° 39.201'	Sagittarius	8:49 AM	8:37 PM	4.87	0.402140459 au	0.684807349 au	0.069"	
20 Dec 2021 07:30 PM	237° 48.821'	13° 46.914'	20h 22.284m	-29° 40.779'	Sagittarius	8:49 AM	8:37 PM	4.88	0.402852447 au	0.684612308 au	0.068"	
20 Dec 2021 08:00 PM	239° 9.196'	7° 29.843'	20h 22.569m	-29° 42.348'	Sagittarius	8:49 AM	8:37 PM	4.88	0.403565208 au	0.684417485 au	0.068"	
20 Dec 2021 08:30 PM	240° 2.660'	1° 20.027'	20h 22.854m	-29° 43.909'	Sagittarius	8:49 AM	8:37 PM	4.88	0.404278705 au	0.684222881 au	0.068"	
21 Dec 2021 06:00 PM	228° 5.077'	33° 1.026'	20h 34.259m	-30° 45.250'	Microscopium	8:59 AM	8:45 PM	4.99	0.435267633 au	0.676065568 au	0.063"	
21 Dec 2021 06:30 PM	231° 29.802'	27° 19.996'	20h 34.503m	-30° 46.510'	Microscopium	8:59 AM	8:45 PM	4.99	0.436003930 au	0.675880850 au	0.063"	
21 Dec 2021 07:00 PM	234° 9.147'	21° 24.580'	20h 34.746m	-30° 47.763'	Microscopium	8:59 AM	8:45 PM	4.99	0.436741021 au	0.675696363 au	0.063"	
21 Dec 2021 07:30 PM	236° 10.899'	15° 19.029'	20h 34.990m	-30° 49.009'	Microscopium	8:59 AM	8:45 PM	5.00	0.437478877 au	0.675512107 au	0.063"	
21 Dec 2021 08:00 PM	237° 40.667'	9° 7.179'	20h 35.232m	-30° 50.247'	Microscopium	8:59 AM	8:45 PM	5.00	0.438217465 au	0.675328082 au	0.063"	
21 Dec 2021 08:30 PM	238° 42.194'	2° 56.335'	20h 35.475m	-30° 51.479'	Microscopium	8:59 AM	8:45 PM	5.00	0.438956621 au	0.675144289 au	0.063"	
22 Dec 2021 06:00 PM	226° 12.797'	33° 49.057'	20h 45.203m	-31° 40.305'	Microscopium	9:07 AM	8:51 PM	5.10	0.470923714 au	0.667463886 au	0.059"	
22 Dec 2021 06:30 PM	229° 50.228'	28° 16.696'	20h 45.411m	-31° 41.311'	Microscopium	9:07 AM	8:51 PM	5.11	0.471679841 au	0.667290539 au	0.058"	
22 Dec 2021 07:00 PM	232° 40.360'	22° 28.373'	20h 45.619m	-31° 42.312'	Microscopium	9:07 AM	8:51 PM	5.11	0.472436660 au	0.667117436 au	0.058"	
22 Dec 2021 07:30 PM	234° 51.210'	16° 28.654'	20h 45.826m	-31° 43.306'	Microscopium	9:07 AM	8:51 PM	5.11	0.473194143 au	0.666944576 au	0.058"	
22 Dec 2021 08:00 PM	236° 28.685'	10° 21.449'	20h 46.033m	-31° 44.295'	Microscopium	9:07 AM	8:51 PM	5.11	0.473952256 au	0.666771961 au	0.058"	
22 Dec 2021 08:30 PM	237° 36.832'	4° 12.438'	20h 46.240m	-31° 45.279'	Microscopium	9:07 AM	8:51 PM	5.12	0.474710842 au	0.666599589 au	0.058"	
23 Dec 2021 06:00 PM	224° 42.733'	34° 22.340'	20h 54.544m	-32° 24.619'	Microscopium	9:14 AM	8:56 PM	5.21	0.507416180 au	0.659422333 au	0.054"	
23 Dec 2021 06:30 PM	228° 30.019'	28° 57.182'	20h 54.722m	-32° 25.432'	Microscopium	9:14 AM	8:56 PM	5.22	0.508187183 au	0.659260966 au	0.054"	
23 Dec 2021 07:00 PM	231° 28.632'	23° 14.779'	20h 54.899m	-32° 26.241'	Microscopium	9:14 AM	8:56 PM	5.22	0.508958802 au	0.659099854 au	0.054"	
23 Dec 2021 07:30 PM	233° 46.689'	17° 19.955'	20h 55.076m	-32° 27.045'	Microscopium	9:14 AM	8:56 PM	5.22	0.509731004 au	0.658938999 au	0.054"	
23 Dec 2021 08:00 PM	235° 30.291'	11° 16.730'	20h 55.252m	-32° 27.844'	Microscopium	9:14 AM	8:56 PM	5.22	0.510503752 au	0.658778400 au	0.054"	
23 Dec 2021 08:30 PM	236° 43.705'	5° 10.112'	20h 55.429m	-32° 28.639'	Microscopium	9:14 AM	8:56 PM	5.22	0.511276901 au	0.658618058 au	0.054"	
24 Dec 2021 06:00 PM	223° 31.567'	34° 43.892'	21h 2.526m	-33° 0.735'	Microscopium	9:18 AM	9:00 PM	5.32	0.544531251 au	0.651969901 au	0.051"	
24 Dec 2021 06:30 PM	227° 26.211'	29° 24.585'	21h 2.677m	-33° 1.401'	Microscopium	9:18 AM	9:00 PM	5.32	0.545313191 au	0.651821112 au	0.051"	
24 Dec 2021 07:00 PM	230° 31.247'	23° 47.025'	21h 2.828m	-33° 2.063'	Microscopium	9:18 AM	9:00 PM	5.32	0.546095685 au	0.651672590 au	0.050"	
24 Dec 2021 07:30 PM	232° 54.808'	17° 56.233'	21h 2.979m	-33° 2.721'	Microscopium	9:18 AM	9:00 PM	5.32	0.546878696 au	0.651524337 au	0.050"	
24 Dec 2021 08:00 PM	234° 43.105'	11° 56.340'	21h 3.130m	-33° 3.375'	Microscopium	9:18 AM	9:00 PM	5.33	0.547662182 au	0.651376353 au	0.050"	
24 Dec 2021 08:30 PM	236° 0.550'	5° 52.050'	21h 3.281m	-33° 4.025'	Microscopium	9:18 AM	9:00 PM	5.33	0.548446010 au	0.651228638 au	0.050"	
25 Dec 2021 06:00 PM	222° 36.428'	34° 55.982'	21h 9.352m	-33° 30.533'	Microscopium	9:22 AM	9:02 PM	5.42	0.582096903 au	0.645134935 au	0.047"	
25 Dec 2021 06:30 PM	226° 36.270'	29° 41.309'	21h 9.481m	-33° 31.085'	Microscopium	9:22 AM	9:02 PM	5.42	0.582886570 au	0.644999304 au	0.047"	
25 Dec 2021 07:00 PM	229° 45.926'	24° 7.624'	21h 9.611m	-33° 31.632'	Microscopium	9:22 AM	9:02 PM	5.42	0.583676742 au	0.644863953 au	0.047"	
25 Dec 2021 07:30 PM	232° 13.482'	18° 20.093'	21h 9.740m	-33° 32.177'	Microscopium	9:22 AM	9:02 PM	5.42	0.584467375 au	0.644728883 au	0.047"	
25 Dec 2021 08:00 PM	234° 5.200'	12° 22.937'	21h 9.869m	-33° 32.718'	Microscopium	9:22 AM	9:02 PM	5.42	0.585258421 au	0.644594093 au	0.047"	
25 Dec 2021 08:30 PM	235° 25.576'	6° 20.721'	21h 9.997m	-33° 33.257'	Microscopium	9:22 AM	9:02 PM	5.43	0.586049764 au	0.644459584 au	0.047"	
25 Dec 2021 09:00 PM	236° 17.499'	0° 30.248'	21h 10.126m	-33° 33.793'	Microscopium	9:22 AM	9:02 PM	5.43	0.586841346 au	0.644325356 au	0.047"	

Naked Eye Visibility. Comet is above the West to Southwest horizon after Sunset.

# Ephemeris data for Comet Leonard (C/2021 A1)

For Brunei Darussalam



Local Time	Az (Compass)	Altitude	RA	Dec	Constellation	Rise	Set	Mag	Distance observer	Sun Dist.	Size	Remarks
26 Dec 2021 06:00 PM	221° 54.860'	35° 0.323'	21h 15.193m	-33° 55.404'	Microscopium	9:24 AM	9:04 PM	5.51	0.619971467 au	0.638944758 au	0.044"	
26 Dec 2021 06:30 PM	225° 58.049'	29° 49.209'	21h 15.304m	-33° 55.865'	Microscopium	9:24 AM	9:04 PM	5.51	0.620766188 au	0.638822841 au	0.044"	
26 Dec 2021 07:00 PM	229° 10.760'	24° 18.542'	21h 15.414m	-33° 56.324'	Microscopium	9:24 AM	9:04 PM	5.52	0.621561370 au	0.638701216 au	0.044"	
26 Dec 2021 07:30 PM	231° 40.995'	18° 33.589'	21h 15.525m	-33° 56.779'	Microscopium	9:24 AM	9:04 PM	5.52	0.622356965 au	0.638579882 au	0.044"	
26 Dec 2021 08:00 PM	233° 35.013'	12° 38.640'	21h 15.635m	-33° 57.232'	Microscopium	9:24 AM	9:04 PM	5.52	0.623152920 au	0.638458840 au	0.044"	
26 Dec 2021 08:30 PM	234° 57.346'	6° 38.206'	21h 15.745m	-33° 57.683'	Microscopium	9:24 AM	9:04 PM	5.52	0.623949130 au	0.638338089 au	0.044"	
26 Dec 2021 09:00 PM	235° 50.938'	0° 47.212'	21h 15.855m	-33° 58.131'	Microscopium	9:24 AM	9:04 PM	5.52	0.624745534 au	0.638217632 au	0.044"	
27 Dec 2021 06:00 PM	221° 24.778'	34° 58.222'	21h 20.192m	-34° 16.384'	Microscopium	9:26 AM	9:05 PM	5.60	0.658035507 au	0.633425273 au	0.042"	
27 Dec 2021 06:30 PM	225° 29.736'	29° 49.723'	21h 20.286m	-34° 16.774'	Microscopium	9:26 AM	9:05 PM	5.61	0.658833002 au	0.633317591 au	0.042"	
27 Dec 2021 07:00 PM	228° 44.154'	24° 21.327'	21h 20.381m	-34° 17.161'	Microscopium	9:26 AM	9:05 PM	5.61	0.659630916 au	0.633210212 au	0.042"	
27 Dec 2021 07:30 PM	231° 15.923'	18° 38.357'	21h 20.475m	-34° 17.546'	Microscopium	9:26 AM	9:05 PM	5.61	0.660429201 au	0.633103135 au	0.042"	
27 Dec 2021 08:00 PM	233° 11.263'	12° 45.151'	21h 20.569m	-34° 17.929'	Microscopium	9:26 AM	9:05 PM	5.61	0.661227801 au	0.632996360 au	0.042"	
27 Dec 2021 08:30 PM	234° 34.703'	6° 46.212'	21h 20.663m	-34° 18.309'	Microscopium	9:26 AM	9:05 PM	5.61	0.662026616 au	0.632898887 au	0.042"	
27 Dec 2021 09:00 PM	235° 29.203'	0° 55.643'	21h 20.758m	-34° 18.689'	Microscopium	9:26 AM	9:05 PM	5.61	0.662825583 au	0.632783717 au	0.042"	
28 Dec 2021 06:00 PM	221° 4.415'	34° 50.680'	21h 24.466m	-34° 34.250'	Microscopium	9:27 AM	9:05 PM	5.69	0.696186053 au	0.628600553 au	0.040"	
28 Dec 2021 06:30 PM	225° 9.802'	29° 43.981'	21h 24.546m	-34° 34.583'	Microscopium	9:27 AM	9:05 PM	5.69	0.696984335 au	0.628507587 au	0.040"	
28 Dec 2021 07:00 PM	228° 24.770'	24° 17.208'	21h 24.627m	-34° 34.913'	Microscopium	9:27 AM	9:05 PM	5.70	0.697782995 au	0.628414932 au	0.040"	
28 Dec 2021 07:30 PM	230° 57.085'	18° 35.706'	21h 24.707m	-34° 35.241'	Microscopium	9:27 AM	9:05 PM	5.70	0.698581987 au	0.628322589 au	0.039"	
28 Dec 2021 08:00 PM	232° 52.899'	12° 43.841'	21h 24.787m	-34° 35.567'	Microscopium	9:27 AM	9:05 PM	5.70	0.699381256 au	0.628230557 au	0.039"	
28 Dec 2021 08:30 PM	234° 16.705'	6° 46.143'	21h 24.868m	-34° 35.892'	Microscopium	9:27 AM	9:05 PM	5.70	0.700180700 au	0.628138837 au	0.039"	
28 Dec 2021 09:00 PM	235° 11.444'	0° 56.621'	21h 24.948m	-34° 36.215'	Microscopium	9:27 AM	9:05 PM	5.70	0.700980258 au	0.628047429 au	0.039"	
29 Dec 2021 06:00 PM	220° 52.275'	34° 38.483'	21h 28.113m	-34° 49.591'	Microscopium	9:27 AM	9:04 PM	5.78	0.734332522 au	0.624492434 au	0.038"	
29 Dec 2021 06:30 PM	224° 56.953'	29° 32.882'	21h 28.181m	-34° 49.877'	Microscopium	9:27 AM	9:04 PM	5.78	0.735129827 au	0.624414611 au	0.038"	
29 Dec 2021 07:00 PM	228° 11.484'	24° 7.172'	21h 28.250m	-34° 50.161'	Microscopium	9:27 AM	9:04 PM	5.78	0.735927467 au	0.624337107 au	0.037"	
29 Dec 2021 07:30 PM	230° 43.496'	18° 26.695'	21h 28.318m	-34° 50.442'	Microscopium	9:27 AM	9:04 PM	5.79	0.736725402 au	0.624259924 au	0.037"	
29 Dec 2021 08:00 PM	232° 39.051'	12° 35.828'	21h 28.387m	-34° 50.722'	Microscopium	9:27 AM	9:04 PM	5.79	0.737523586 au	0.624183060 au	0.037"	
29 Dec 2021 08:30 PM	234° 2.577'	6° 39.152'	21h 28.455m	-34° 51.000'	Microscopium	9:27 AM	9:04 PM	5.79	0.738321901 au	0.624106516 au	0.037"	
29 Dec 2021 09:00 PM	234° 56.973'	0° 51.191'	21h 28.524m	-34° 51.278'	Microscopium	9:27 AM	9:04 PM	5.79	0.739120294 au	0.624030293 au	0.037"	
30 Dec 2021 06:00 PM	220° 47.088'	34° 22.249'	21h 31.217m	-35° 2.855'	Piscis Austrinus	9:26 AM	9:03 PM	5.87	0.772393848 au	0.621120111 au	0.036"	
30 Dec 2021 06:30 PM	224° 50.094'	29° 17.146'	21h 31.275m	-35° 3.102'	Piscis Austrinus	9:26 AM	9:03 PM	5.87	0.773188584 au	0.621057800 au	0.036"	
30 Dec 2021 07:00 PM	228° 3.346'	23° 52.023'	21h 31.333m	-35° 3.347'	Piscis Austrinus	9:26 AM	9:03 PM	5.87	0.773983610 au	0.620995816 au	0.036"	
30 Dec 2021 07:30 PM	230° 34.329'	18° 12.192'	21h 31.391m	-35° 3.590'	Piscis Austrinus	9:26 AM	9:03 PM	5.87	0.774778897 au	0.620934159 au	0.036"	
30 Dec 2021 08:00 PM	232° 28.991'	12° 22.031'	21h 31.449m	-35° 3.831'	Piscis Austrinus	9:26 AM	9:03 PM	5.87	0.775574409 au	0.620872828 au	0.036"	
30 Dec 2021 08:30 PM	233° 51.680'	6° 26.198'	21h 31.507m	-35° 4.072'	Piscis Austrinus	9:26 AM	9:03 PM	5.87	0.776370008 au	0.620811825 au	0.036"	
30 Dec 2021 09:00 PM	234° 45.226'	0° 40.332'	21h 31.565m	-35° 4.311'	Piscis Austrinus	9:26 AM	9:03 PM	5.88	0.777165651 au	0.620751148 au	0.035"	
31 Dec 2021 06:00 PM	220° 47.771'	34° 2.476'	21h 33.847m	-35° 14.386'	Piscis Austrinus	9:25 AM	9:02 PM	5.95	0.810296476 au	0.618499775 au	0.034"	
31 Dec 2021 06:30 PM	224° 48.293'	28° 57.361'	21h 33.896m	-35° 14.600'	Piscis Austrinus	9:25 AM	9:02 PM	5.95	0.811087188 au	0.618453280 au	0.034"	
31 Dec 2021 07:00 PM	227° 59.552'	23° 32.419'	21h 33.945m	-35° 14.812'	Piscis Austrinus	9:25 AM	9:02 PM	5.96	0.811878147 au	0.618407116 au	0.034"	
31 Dec 2021 07:30 PM	230° 28.884'	17° 52.914'	21h 33.994m	-35° 15.023'	Piscis Austrinus	9:25 AM	9:02 PM	5.96	0.812669334 au	0.618361285 au	0.034"	
31 Dec 2021 08:00 PM	232° 22.113'	12° 3.213'	21h 34.043m	-35° 15.232'	Piscis Austrinus	9:25 AM	9:02 PM	5.96	0.813460724 au	0.618315786 au	0.034"	
31 Dec 2021 08:30 PM	233° 43.481'	6° 8.087'	21h 34.092m	-35° 15.440'	Piscis Austrinus	9:25 AM	9:02 PM	5.96	0.814252158 au	0.618270620 au	0.034"	
31 Dec 2021 09:00 PM	234° 35.735'	0° 24.337'	21h 34.141m	-35° 15.648'	Piscis Austrinus	9:25 AM	9:02 PM	5.96	0.815043602 au	0.618225786 au	0.034"	
01 Jan 2022 09:30 AM	125° 34.258'	1° 1.788'	21h 35.346m	-35° 20.971'	Piscis Austrinus	9:24 AM	9:00 PM	6.01	0.834682380 au	0.617213303 au	0.033"	
01 Jan 2022 06:00 PM	220° 53.402'	33° 39.569'	21h 36.064m	-35° 24.450'	Piscis Austrinus	9:24 AM	9:00 PM	6.04	0.847973034 au	0.616644281 au	0.033"	
01 Jan 2022 06:30 PM	224° 50.756'	28° 34.014'	21h 36.104m	-35° 24.636'	Piscis Austrinus	9:24 AM	9:00 PM	6.04	0.848758382 au	0.616613831 au	0.032"	
01 Jan 2022 07:00 PM	227° 59.418'	23° 8.911'	21h 36.145m	-35° 24.821'	Piscis Austrinus	9:24 AM	9:00 PM	6.04	0.849543936 au	0.616583717 au	0.032"	
01 Jan 2022 07:30 PM	230° 26.573'	17° 29.460'	21h 36.186m	-35° 25.004'	Piscis Austrinus	9:24 AM	9:00 PM	6.04	0.850329687 au	0.616553940 au	0.032"	
01 Jan 2022 08:00 PM	232° 17.902'	11° 40.014'	21h 36.227m	-35° 25.186'	Piscis Austrinus	9:24 AM	9:00 PM	6.04	0.851115620 au	0.616524498 au	0.032"	
01 Jan 2022 08:30 PM	233° 37.532'	5° 45.503'	21h 36.268m	-35° 25.367'	Piscis Austrinus	9:24 AM	9:00 PM	6.05	0.851901555 au	0.616495393 au	0.032"	
01 Jan 2022 09:00 PM	234° 28.108'	0° 1.734'	21h 36.310m	-35° 25.547'	Piscis Austrinus	9:24 AM	9:00 PM	6.05	0.852687470 au	0.616466625 au	0.032"	
02 Jan 2022 06:00 PM	221° 3.189'	33° 13.866'	21h 37.917m	-35° 33.257'	Piscis Austrinus	9:22 AM	8:58 PM	6.12	0.885361371 au	0.615562886 au	0.031"	

# Ephemeris data for Comet Leonard (C/2021 A1)

For Brunei Darussalam



Local Time	Az (Compass)	Altitude	RA	Dec	Constellation	Rise	Set	Mag	Distance observer	Sun Dist.	Size	Remarks
02 Jan 2022 06:30 PM	224° 56.802'	28° 7.510'	21h 37.951m	-35° 33.419'	Piscis Austrinus	9:22 AM	8:58 PM	6.13	0.886140114 au	0.615548635 au	0.031"	Visible in the evening sky as the comet gets further from the Earth
02 Jan 2022 07:00 PM	228° 2.361'	22° 41.959'	21h 37.985m	-35° 33.580'	Piscis Austrinus	9:22 AM	8:58 PM	6.13	0.886919030 au	0.615534721 au	0.031"	
02 Jan 2022 07:30 PM	230° 26.890'	17° 2.336'	21h 38.019m	-35° 33.739'	Piscis Austrinus	9:22 AM	8:58 PM	6.13	0.887698114 au	0.615521147 au	0.031"	
02 Jan 2022 08:00 PM	232° 15.924'	11° 12.979'	21h 38.053m	-35° 33.897'	Piscis Austrinus	9:22 AM	8:58 PM	6.13	0.888477353 au	0.615507911 au	0.031"	
02 Jan 2022 08:30 PM	233° 33.457'	5° 19.034'	21h 38.087m	-35° 34.055'	Piscis Austrinus	9:22 AM	8:58 PM	6.13	0.889256560 au	0.615495013 au	0.031"	
03 Jan 2022 06:00 PM	221° 16.452'	32° 45.650'	21h 39.452m	-35° 40.971'	Piscis Austrinus	9:19 AM	8:55 PM	6.21	0.922404159 au	0.615261042 au	0.030"	
03 Jan 2022 06:30 PM	225° 5.848'	27° 38.196'	21h 39.480m	-35° 41.112'	Piscis Austrinus	9:19 AM	8:55 PM	6.21	0.923175151 au	0.615263061 au	0.030"	
03 Jan 2022 07:00 PM	228° 7.880'	22° 11.958'	21h 39.507m	-35° 41.252'	Piscis Austrinus	9:19 AM	8:55 PM	6.21	0.923946291 au	0.615265420 au	0.030"	
03 Jan 2022 07:30 PM	230° 29.408'	16° 31.976'	21h 39.535m	-35° 41.391'	Piscis Austrinus	9:19 AM	8:55 PM	6.22	0.924717570 au	0.615268117 au	0.030"	
03 Jan 2022 08:00 PM	232° 15.809'	10° 42.573'	21h 39.563m	-35° 41.528'	Piscis Austrinus	9:19 AM	8:55 PM	6.22	0.925488973 au	0.615271153 au	0.030"	
03 Jan 2022 08:30 PM	233° 30.936'	4° 49.202'	21h 39.591m	-35° 41.665'	Piscis Austrinus	9:19 AM	8:55 PM	6.22	0.926260318 au	0.615274529 au	0.030"	
04 Jan 2022 06:00 PM	221° 32.607'	32° 15.166'	21h 40.706m	-35° 47.723'	Piscis Austrinus	9:17 AM	8:53 PM	6.30	0.959048526 au	0.615740284 au	0.029"	
04 Jan 2022 06:30 PM	225° 17.391'	27° 6.369'	21h 40.729m	-35° 47.845'	Piscis Austrinus	9:17 AM	8:53 PM	6.30	0.959810713 au	0.615758563 au	0.029"	
04 Jan 2022 07:00 PM	228° 15.545'	21° 39.247'	21h 40.751m	-35° 47.967'	Piscis Austrinus	9:17 AM	8:53 PM	6.30	0.960573029 au	0.615777181 au	0.029"	
04 Jan 2022 07:30 PM	230° 33.758'	15° 58.754'	21h 40.773m	-35° 48.087'	Piscis Austrinus	9:17 AM	8:53 PM	6.30	0.961335457 au	0.615796137 au	0.029"	
04 Jan 2022 08:00 PM	232° 17.240'	10° 9.202'	21h 40.796m	-35° 48.206'	Piscis Austrinus	9:17 AM	8:53 PM	6.31	0.962097972 au	0.615815430 au	0.029"	
04 Jan 2022 08:30 PM	233° 29.695'	4° 16.473'	21h 40.819m	-35° 48.325'	Piscis Austrinus	9:17 AM	8:53 PM	6.31	0.962860410 au	0.615835062 au	0.029"	
05 Jan 2022 06:00 PM	221° 51.146'	31° 42.627'	21h 41.714m	-35° 53.618'	Piscis Austrinus	9:14 AM	8:50 PM	6.39	0.995245924 au	0.616998190 au	0.028"	
05 Jan 2022 06:30 PM	225° 30.999'	26° 32.288'	21h 41.731m	-35° 53.724'	Piscis Austrinus	9:14 AM	8:50 PM	6.39	0.995998340 au	0.617032638 au	0.028"	
05 Jan 2022 07:00 PM	228° 24.986'	21° 4.125'	21h 41.749m	-35° 53.829'	Piscis Austrinus	9:14 AM	8:50 PM	6.39	0.996750871 au	0.617067421 au	0.028"	
05 Jan 2022 07:30 PM	230° 39.622'	15° 22.996'	21h 41.767m	-35° 53.932'	Piscis Austrinus	9:14 AM	8:50 PM	6.39	0.997503488 au	0.617102540 au	0.028"	
05 Jan 2022 08:00 PM	232° 19.946'	9° 33.222'	21h 41.785m	-35° 54.035'	Piscis Austrinus	9:14 AM	8:50 PM	6.40	0.998256155 au	0.617137993 au	0.028"	
05 Jan 2022 08:30 PM	233° 29.502'	3° 41.285'	21h 41.802m	-35° 54.137'	Piscis Austrinus	9:14 AM	8:50 PM	6.40	0.999008730 au	0.617173782 au	0.028"	
06 Jan 2022 06:00 PM	222° 11.631'	31° 8.221'	21h 42.504m	-35° 58.742'	Piscis Austrinus	9:11 AM	8:46 PM	6.48	1.030952025 au	0.619028441 au	0.027"	
06 Jan 2022 06:30 PM	225° 46.296'	25° 56.184'	21h 42.518m	-35° 58.833'	Piscis Austrinus	9:11 AM	8:46 PM	6.48	1.031693795 au	0.619078885 au	0.027"	
06 Jan 2022 07:00 PM	228° 35.882'	20° 26.851'	21h 42.531m	-35° 58.922'	Piscis Austrinus	9:11 AM	8:46 PM	6.48	1.032435666 au	0.619129660 au	0.027"	
06 Jan 2022 07:30 PM	230° 46.727'	14° 44.991'	21h 42.544m	-35° 59.011'	Piscis Austrinus	9:11 AM	8:46 PM	6.48	1.033177598 au	0.619180765 au	0.027"	
06 Jan 2022 08:00 PM	232° 23.692'	8° 54.948'	21h 42.558m	-35° 59.099'	Piscis Austrinus	9:11 AM	8:46 PM	6.49	1.033919544 au	0.619232202 au	0.027"	
06 Jan 2022 08:30 PM	233° 30.155'	3° 4.068'	21h 42.572m	-35° 59.186'	Piscis Austrinus	9:11 AM	8:46 PM	6.49	1.034661384 au	0.619283968 au	0.027"	
07 Jan 2022 06:00 PM	222° 33.683'	30° 32.117'	21h 43.103m	-36° 3.165'	Piscis Austrinus	9:08 AM	8:43 PM	6.57	1.066126641 au	0.621820953 au	0.026"	
07 Jan 2022 06:30 PM	226° 2.957'	25° 18.259'	21h 43.113m	-36° 3.242'	Piscis Austrinus	9:08 AM	8:43 PM	6.57	1.066856974 au	0.621887144 au	0.026"	
07 Jan 2022 07:00 PM	228° 47.957'	19° 47.659'	21h 43.123m	-36° 3.318'	Piscis Austrinus	9:08 AM	8:43 PM	6.57	1.067587393 au	0.621953660 au	0.026"	
07 Jan 2022 07:30 PM	230° 54.838'	14° 4.995'	21h 43.133m	-36° 3.393'	Piscis Austrinus	9:08 AM	8:43 PM	6.58	1.068317850 au	0.622020501 au	0.026"	
07 Jan 2022 08:00 PM	232° 28.276'	8° 14.664'	21h 43.143m	-36° 3.467'	Piscis Austrinus	9:08 AM	8:43 PM	6.58	1.069048290 au	0.622087667 au	0.026"	
07 Jan 2022 08:30 PM	233° 31.480'	2° 25.270'	21h 43.153m	-36° 3.541'	Piscis Austrinus	9:08 AM	8:43 PM	6.58	1.069778608 au	0.622155157 au	0.026"	
08 Jan 2022 06:00 PM	222° 56.972'	29° 54.470'	21h 43.535m	-36° 6.947'	Piscis Austrinus	9:04 AM	8:39 PM	6.66	1.100733633 au	0.625362094 au	0.025"	
08 Jan 2022 06:30 PM	226° 20.701'	24° 38.698'	21h 43.541m	-36° 7.011'	Piscis Austrinus	9:04 AM	8:39 PM	6.67	1.101451823 au	0.625443713 au	0.025"	
08 Jan 2022 07:00 PM	229° 0.970'	19° 6.757'	21h 43.548m	-36° 7.075'	Piscis Austrinus	9:04 AM	8:39 PM	6.67	1.102170083 au	0.625525649 au	0.025"	
08 Jan 2022 07:30 PM	231° 3.747'	13° 23.237'	21h 43.555m	-36° 7.137'	Piscis Austrinus	9:04 AM	8:39 PM	6.67	1.102888358 au	0.625607903 au	0.025"	
08 Jan 2022 08:00 PM	232° 33.522'	7° 32.629'	21h 43.561m	-36° 7.199'	Piscis Austrinus	9:04 AM	8:39 PM	6.67	1.103606589 au	0.625690473 au	0.025"	
08 Jan 2022 08:30 PM	233° 33.326'	1° 45.400'	21h 43.568m	-36° 7.260'	Piscis Austrinus	9:04 AM	8:39 PM	6.67	1.104324679 au	0.625773361 au	0.025"	
09 Jan 2022 06:00 PM	223° 21.212'	29° 15.416'	21h 43.820m	-36° 10.139'	Piscis Austrinus	9:01 AM	8:36 PM	6.76	1.134740831 au	0.629634968 au	0.024"	
09 Jan 2022 06:30 PM	226° 39.282'	23° 57.666'	21h 43.823m	-36° 10.191'	Piscis Austrinus	9:01 AM	8:36 PM	6.76	1.135446252 au	0.629731629 au	0.024"	
09 Jan 2022 07:00 PM	229° 14.713'	18° 24.330'	21h 43.827m	-36° 10.243'	Piscis Austrinus	9:01 AM	8:36 PM	6.76	1.136151725 au	0.629828600 au	0.024"	
09 Jan 2022 07:30 PM	231° 13.278'	12° 39.922'	21h 43.831m	-36° 10.294'	Piscis Austrinus	9:01 AM	8:36 PM	6.77	1.136857192 au	0.629925880 au	0.024"	
09 Jan 2022 08:00 PM	232° 39.277'	6° 49.081'	21h 43.835m	-36° 10.344'	Piscis Austrinus	9:01 AM	8:36 PM	6.77	1.137562594 au	0.630023467 au	0.024"	
09 Jan 2022 08:30 PM	233° 35.563'	1° 5.068'	21h 43.839m	-36° 10.394'	Piscis Austrinus	9:01 AM	8:36 PM	6.77	1.138267834 au	0.630121364 au	0.024"	
10 Jan 2022 06:00 PM	223° 46.154'	28° 35.084'	21h 43.977m	-36° 12.785'	Piscis Austrinus	8:57 AM	8:32 PM	6.86	1.168119945 au	0.634619749 au	0.024"	
10 Jan 2022 06:30 PM	226° 58.490'	23° 15.311'	21h 43.978m	-36° 12.827'	Piscis Austrinus	8:57 AM	8:32 PM	6.86	1.168812040 au	0.634731013 au	0.024"	
10 Jan 2022 07:00 PM	229° 29.004'	17° 40.547'	21h 43.979m	-36° 12.868'	Piscis Austrinus	8:57 AM	8:32 PM	6.86	1.169504179 au	0.634842575 au	0.024"	
10 Jan 2022 07:30 PM	231° 23.275'	11° 55.237'	21h 43.980m	-36° 12.908'	Piscis Austrinus	8:57 AM	8:32 PM	6.86	1.170196303 au	0.634954437 au	0.024"	

# Ephemeris data for Comet Leonard (C/2021 A1)

For Brunei Darussalam



Local Time	Az (Compass)	Altitude	RA	Dec	Constellation	Rise	Set	Mag	Distance observer	Sun Dist.	Size	Remarks
10 Jan 2022 08:00 PM	232° 45.408'	6° 4.246'	21h 43.982m	-36° 12.948'	Piscis Austrinus	8:57 AM	8:32 PM	6.87	1.170888321 au	0.635066597 au	0.024"	
10 Jan 2022 08:30 PM	233° 38.075'	0° 24.347'	21h 43.984m	-36° 12.987'	Piscis Austrinus	8:57 AM	8:32 PM	6.87	1.171580167 au	0.635179056 au	0.024"	
11 Jan 2022 06:00 PM	224° 11.585'	27° 53.590'	21h 44.022m	-36° 14.925'	Piscis Austrinus	8:53 AM	8:28 PM	6.96	1.200846433 au	0.640294064 au	0.023"	
11 Jan 2022 06:30 PM	227° 18.141'	22° 31.771'	21h 44.021m	-36° 14.956'	Piscis Austrinus	8:53 AM	8:28 PM	6.96	1.201524741 au	0.640419438 au	0.023"	
11 Jan 2022 07:00 PM	229° 43.687'	16° 55.560'	21h 44.020m	-36° 14.988'	Piscis Austrinus	8:53 AM	8:28 PM	6.96	1.202203074 au	0.640545102 au	0.023"	
11 Jan 2022 07:30 PM	231° 33.602'	11° 9.351'	21h 44.019m	-36° 15.018'	Piscis Austrinus	8:53 AM	8:28 PM	6.96	1.202881379 au	0.640671053 au	0.023"	
11 Jan 2022 08:00 PM	232° 51.799'	5° 18.344'	21h 44.019m	-36° 15.048'	Piscis Austrinus	8:53 AM	8:28 PM	6.96	1.203559554 au	0.640797292 au	0.023"	
12 Jan 2022 06:00 PM	224° 37.318'	27° 11.041'	21h 43.970m	-36° 16.594'	Piscis Austrinus	8:49 AM	8:24 PM	7.06	1.232899409 au	0.646633385 au	0.022"	
12 Jan 2022 06:30 PM	227° 38.074'	21° 47.169'	21h 43.968m	-36° 16.617'	Piscis Austrinus	8:49 AM	8:24 PM	7.06	1.233563532 au	0.646772340 au	0.022"	
12 Jan 2022 07:00 PM	229° 58.623'	16° 9.507'	21h 43.965m	-36° 16.639'	Piscis Austrinus	8:49 AM	8:24 PM	7.06	1.234227664 au	0.646911572 au	0.022"	
12 Jan 2022 07:30 PM	231° 44.143'	10° 22.417'	21h 43.962m	-36° 16.660'	Piscis Austrinus	8:49 AM	8:24 PM	7.06	1.234891753 au	0.647051081 au	0.022"	
12 Jan 2022 08:00 PM	232° 58.347'	4° 31.601'	21h 43.960m	-36° 16.680'	Piscis Austrinus	8:49 AM	8:24 PM	7.06	1.235555693 au	0.647190866 au	0.022"	
13 Jan 2022 06:00 PM	225° 3.194'	26° 27.535'	21h 43.836m	-36° 17.827'	Piscis Austrinus	8:45 AM	8:20 PM	7.16	1.264261459 au	0.653611450 au	0.022"	
13 Jan 2022 06:30 PM	227° 58.154'	21° 1.616'	21h 43.832m	-36° 17.841'	Piscis Austrinus	8:45 AM	8:20 PM	7.16	1.264911069 au	0.653763423 au	0.022"	
13 Jan 2022 07:00 PM	230° 13.696'	15° 22.513'	21h 43.827m	-36° 17.854'	Piscis Austrinus	8:45 AM	8:20 PM	7.16	1.265560674 au	0.653915660 au	0.022"	
13 Jan 2022 07:30 PM	231° 54.794'	9° 34.579'	21h 43.823m	-36° 17.866'	Piscis Austrinus	8:45 AM	8:20 PM	7.16	1.266210224 au	0.654068163 au	0.022"	
13 Jan 2022 08:00 PM	233° 4.964'	3° 44.261'	21h 43.819m	-36° 17.878'	Piscis Austrinus	8:45 AM	8:20 PM	7.17	1.266859605 au	0.654220930 au	0.022"	
14 Jan 2022 06:00 PM	225° 29.077'	25° 43.163'	21h 43.630m	-36° 18.653'	Piscis Austrinus	8:41 AM	8:16 PM	7.26	1.294918462 au	0.661200663 au	0.021"	
14 Jan 2022 06:30 PM	228° 18.262'	20° 15.217'	21h 43.624m	-36° 18.659'	Piscis Austrinus	8:41 AM	8:16 PM	7.26	1.295553300 au	0.661365068 au	0.021"	
14 Jan 2022 07:00 PM	230° 28.802'	14° 34.691'	21h 43.619m	-36° 18.664'	Piscis Austrinus	8:41 AM	8:16 PM	7.26	1.296188118 au	0.661529724 au	0.021"	
14 Jan 2022 07:30 PM	232° 5.467'	8° 45.968'	21h 43.614m	-36° 18.668'	Piscis Austrinus	8:41 AM	8:16 PM	7.27	1.296822870 au	0.661694633 au	0.021"	
14 Jan 2022 08:00 PM	233° 11.571'	2° 56.616'	21h 43.608m	-36° 18.672'	Piscis Austrinus	8:41 AM	8:16 PM	7.27	1.297457435 au	0.661859794 au	0.021"	