

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

January 0 – February 1 a = 0 , b = 32

CN	R.A.	Dec.	H.P.
N	h	°	°
0	2.38848964586775	-9.00558559065383	0.940404589584883
1	14.0731210633029	2.70569549872784	0.0130943831531773
2	0.289004814547438	-15.9846962031536	-0.0219131962485973
3	-0.117466292238479	-15.9864089299602	-0.0439600063176868
4	-0.235002144107567	8.24729963553462	0.00496525807937436
5	-0.0220378355021647	4.87876318399523	0.013679945309316
6	0.19989680408885	-0.68194115793539	0.00529299927915828
7	0.0405514910375205	-1.12919066313204	-0.00280657504305101
8	-0.0825948502008009	-0.409691880704883	-0.0028045018607298
9	-0.0268467754425613	0.279275394333424	0.0000401469011774338
10	0.0168147505458139	0.304212882413462	0.000796541835382358
11	0.0160996920988576	-0.0416671082603685	0.000274569390890906
12	0.000922752276940971	-0.129678386714369	-0.00013373325588395
13	-0.0083058178782063	-0.0196290606247425	-0.000135213658177211
14	-0.00315738810748274	0.0398911929824588	-0.00000995670720319786
15	0.00312271166517187	0.0227120078960662	0.0000390106774558232
16	0.00223078396599535	-0.00805366640755192	0.0000177524125122826
17	-0.000605795536045536	-0.013172792122249	-0.0000057877877665685
18	-0.00118406150582201	-0.000670918148715479	-0.00000772054133424949
19	-0.000193062224311428	0.00554306905600208	-0.00000104253814932188
20	0.000505911908853723	0.00201360579393976	0.00000204408928985441
21	0.000278549609080023	-0.00169021508120032	0.00000109684052937513
22	-0.000153201457235814	-0.00146706223615279	-0.000000236788812027085
23	-0.000182752827568582	0.000233035956601002	-0.000000438724364010523
24	0.00000932192431968306	0.00075742505073424	-0.0000000894656719095608
25	0.0000890892142828315	0.000152384978168245	0.000000106677025494391
26	0.0000283673916564006	-0.000298243040258003	0.0000000687598933955691
27	-0.000032972527258533	-0.000170267514484288	-0.00000000830479668917985
28	-0.0000259364146988083	0.0000784810463883587	-0.0000000251808099500091
29	0.00000699928839734601	0.000105993812563324	-0.00000000682664769198598
30	0.0000151293198406218	0.000000815326390144688	0.00000000551934561701719
31	0.00000194646576823079	-0.0000496852068848155	0.00000000428124724449095
32	-0.00000666112028474247	-0.0000178549593609652	-0.000000000161216769549374
33	-0.00000336489235691484	0.0000173478346856047	-0.000000000144165845328783
34	0.00000205562062397918	0.0000145316982351697	-0.000000000492886883872995
35	0.00000240976403967425	-0.00000314326661026487	0.000000000279054927874064
36	-0.000000149459247566197	-0.00000803081947288509	0.000000000265107294406614
37	-0.00000124648686114897	-0.00000134709781092092	0.0000000000994950186350974
38	-0.000000374094461283274	0.00000337892045078451	-0.0000000000820314569567019
39	0.00000048186871940906	0.00000185061824950795	-0.0000000000346996285363956
40	0.000000359947153565186	-0.000000974323446385287	0.0000000000136663564566481
41	-0.000000108870219747485	-0.00000124091627557895	0.000000000016264336024581
42	-0.000000218838237903903	0.0000000303327550623146	0.00000000000181225758856821
43	-0.0000000249997047994276	0.000000061243157111998	-0.00000000000474708680502518
44	0.000000100180849312599	0.000000204097144033562	-0.0000000000023939386389113
45	0.0000000487637555951038	-0.000000225218284862338	0.000000000000662830041907567

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

January 31 – March 1 a = 31 , b = 60

CN	R.A.	Dec.	H.P.
N	h	°	°
0	4.26179889811728	-10.2496143153153	0.937312221125318
1	12.8064005048972	3.5773166026601	0.0205695219806818
2	0.258689976284528	-24.2767468030953	-0.0349994174604776
3	-0.139808626980567	-6.59046542824021	-0.0305176205662416
4	-0.198805737147583	9.43171783325623	0.00720369224002626
5	0.131170597840511	2.23888841874646	0.00895386021487247
6	0.119899941758985	-1.25133822540854	0.00293874163308067
7	-0.0562941118783068	-0.794457590527843	-0.00185311331226779
8	-0.0475722216693631	0.104750015157795	-0.00149307802049236
9	0.00922534221443085	0.30055552407057	0.000119447862850591
10	0.0175829843786314	0.0134191198421202	0.000405247105312769
11	0.00100399032563264	-0.101339598872584	0.0000890078066823076
12	-0.00720690718237925	-0.0208726522740356	-0.0000725435652954225
13	-0.00160962797515011	0.0304854717169679	-0.0000466091695967577
14	0.00276731538300086	0.0132564720652204	0.00000293171058788791
15	0.0011157832630877	-0.00881437790601648	0.0000136175991943258
16	-0.000915089649489794	-0.00656197951040865	0.00000384009565101396
17	-0.00064754523308912	0.00234770133837058	-0.00000246820038706883
18	0.000257388110570175	0.00292907880759437	-0.00000185900515009824
19	0.000329050060844018	-0.000431889990015889	0.0000000646824856646207
20	-0.0000493323617659352	-0.00124341681767258	0.00000052425753119249
21	-0.000151080054702789	-0.0000483428915149022	0.000000155244587122055
22	-0.00000722877698820842	0.000502320558165582	-0.0000000907040143107086
23	0.0000640676511119443	0.000110785157701806	-0.0000000726210161138079
24	0.0000156260744019184	-0.000189454007312063	0.000000000520880865701183
25	-0.0000250687722047147	-0.000080965863783856	0.000000020125714810021
26	-0.0000117447142063642	0.0000647976471090839	0.00000000658459309310667
27	0.00000880012681154058	0.0000463603974988217	-0.00000000334607289277245
28	0.00000689443762377472	-0.0000188525433405192	-0.0000000029313408456068
29	-0.00000256402924499442	-0.0000233710058483409	-0.0000000000559444150555517
30	-0.00000356235947085401	0.0000036677994059099	0.000000000790055281820984
31	0.00000044810216281526	0.000010751043719424	0.000000000279920761168893
32	0.00000167879424161699	0.000000460576554477585	-0.000000000124698031952332
33	0.000000126873909268676	-0.00000456498167611106	-0.000000000119315940509802
34	-0.00000072804359958925	-0.0000010724663727341	-0.00000000000548406398139409
35	-0.000000199150341664081	0.00000178161399197812	0.0000000000314368345590063
36	0.000000288585754246019	0.000000809625747427925	0.0000000000119165215208355
37	0.000000146192563387148	-0.000000623882430603589	-0.00000000000469023655979935
38	-0.000000101597197107082	-0.000000474880301740092	-0.0000000000048201775166613
39	-0.0000000860134056049159	0.000000182770995176456	0.00000000000000368485670330936
40	0.0000000291182202727471	0.000000244273071520443	0.00000000000122010502388333
41	0.0000000446577902936364	-0.0000000334515555249672	0.0000000000004894625589335
42	-0.00000000443480363884211	-0.000000114492517000436	-0.000000000000210689224614967
43	-0.0000000211730939741569	-0.00000000724379521610474	0.000000000000114946544965195
44	-0.00000000213804116293569	0.0000000493788732812267	-0.0000000000000184406461111398
45	0.00000000918847939828305	0.0000000127716534910946	-0.0000000000000730523686775398

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

February 28 – April 1 a = 59 , b = 91

CN	R.A.	Dec.	H.P.
N	h	°	°
0	6.18740507616932	-11.5007467886594	0.932302736875131
1	14.1166037867468	-0.31181430655279	0.00559175221622832
2	0.201519452929616	-22.836549078577	-0.0384638884747785
3	-0.16965125793027	3.57522449733829	-0.0156128538639031
4	-0.0802480884456033	12.7016518891853	0.0171890725543676
5	0.166392232690666	-0.489921614981142	0.00605374744832822
6	-0.0268314729593672	-2.56228029543175	0.000477991430482788
7	-0.111000549744032	-0.178670320460782	-0.00198593832247112
8	0.0129836641107633	0.569663202559018	-0.00120372090297361
9	0.0420346542020347	0.0547566777787771	0.00045077888201036
10	-0.000497955146347534	-0.186310234951648	0.000455922714692784
11	-0.0141239855594218	-0.00313081339897112	-0.0000485878080159016
12	0.000167931776272782	0.0699114936551773	-0.000130070884940858
13	0.00577317986775268	0.000399390013522113	-0.0000130323267673618
14	-0.00058240167403495	-0.026275578982048	0.000028218436070034
15	-0.00264186827524616	-0.000342636212589745	0.0000104838554275125
16	0.000309843184031137	0.0101996458067818	-0.00000383850636303026
17	0.00118436893532495	-0.000249517944136003	-0.00000408351714998002
18	-0.000112578309544584	-0.00423674311475282	-0.000000255812423728194
19	-0.000515991014600261	0.000288259404488968	0.00000114651757694089
20	0.0000523133322794585	0.00183802626847045	0.000000411311232909019
21	0.000227259401555437	-0.000149512645662816	-0.000000230346166959034
22	-0.0000292120740962738	-0.000801166299246509	-0.000000178452389750501
23	-0.000103005939864232	0.0000669270135305466	0.0000000199293417033883
24	0.0000149739763152546	0.000347387032718022	0.0000000544652198884571
25	0.000047295786432113	-0.0000324929854041342	0.00000000890914118686761
26	-0.00000718017578911443	-0.00015160541169627	-0.0000000124761008930117
27	-0.0000216674026261075	0.0000164179199098628	-0.0000000059935216638449
28	0.00000350011819739817	0.0000670454843956526	0.0000000017712071755556
29	0.00000993271383364506	-0.00000809465832706893	0.00000000222303573598289
30	-0.00000175169626138068	-0.0000299004249184701	0.00000000013050861895736
31	-0.00000458805563497756	0.000003931359272099	-0.000000000606373062150864
32	0.000000875041301157833	0.0000133864563929868	-0.000000000207175318795435
33	0.00000213326487543401	-0.00000192301272772399	0.000000000117510472363552
34	-0.000000432803315977495	-0.00000602228418830891	0.000000000091623952611914
35	-0.000000994230361095087	0.000000947242668880829	-0.00000000000848355273909961
36	0.000000213794044467559	0.00000272678147239399	-0.0000000000281726162211423
37	0.000000464129413432671	-0.000000465653952754393	-0.0000000000054719078560584
38	-0.000000105965883511102	-0.00000124124882269531	0.00000000000644242322571623
39	-0.00000021723848165046	0.000000228063384028502	0.00000000000325863961036218
40	0.0000000525724088733501	0.000000567265040084219	-0.000000000000671237463444651
41	0.000000102013867782153	-0.00000011529027052361	-0.00000000000122000477967538
42	-0.0000000260527644969383	-0.000000260013902882258	-0.000000000000135465375360018
43	-0.0000000479749363616727	0.000000054586993415813	0.000000000000276838056076773
44	0.0000000129002855401179	0.000000119590359543387	0.000000000000123806311686375
45	0.0000000226001571496369	-0.0000000267162558869725	-0.00000000000046754514772537

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

March 31 – May 1 a = 90 , b = 121

CN	R.A.	Dec.	H.P.
N	h	°	°
0	8.91284061497713	-7.53557681090507	0.933730155871714
1	13.6687008349915	-4.62039476144734	-0.00354134603707505
2	0.0247730807829314	-15.2434717596052	-0.0377676464454346
3	-0.270836213123317	16.1223095187585	0.0117782479532234
4	0.0860709806874948	7.50060528566088	0.0154867493236724
5	0.0135014135423531	-4.33758970786274	-0.000658025031058252
6	-0.142603938330814	-1.31254957658695	-0.000120843284620524
7	0.0260700956522238	0.863062715869943	-0.000868063348220188
8	0.0682870821967517	0.0689986568979669	-0.00059803087566048
9	-0.0120609355258893	-0.199901384558076	0.000400490841076178
10	-0.0195899311306975	0.0983011792625752	0.000181613149148112
11	0.0065346514409671	0.0506067635465197	-0.00012548297588626
12	0.00318722165368717	-0.0608827367849662	-0.0000404054640216101
13	-0.00414446432219341	-0.0104469941893523	0.0000288040048802487
14	0.000452769553943123	0.0235489390729355	0.00000716524893223234
15	0.00213149844660047	-0.00111695573351272	-0.00000444485637511597
16	-0.000683399582084447	-0.00742677015431337	-0.0000011183052832293
17	-0.00080955314978749	0.00293658757536194	0.000000157842501380916
18	0.000423990801553893	0.00198377209341851	0.000000210764122450134
19	0.000199046509553873	-0.00198785023501016	0.000000189530677501559
20	-0.000222662033825541	-0.000351503201212662	-0.0000000585567897442094
21	-0.0000016327910588098	0.000939174427182727	-0.0000000860341763795648
22	0.000103444729497929	-0.0000711626731565441	0.0000000178123882230582
23	-0.0000329868804838762	-0.00035061089520925	0.0000000245082251493959
24	-0.0000398804643968268	0.000125435462631155	-0.00000000441845566782256
25	0.0000250618676501988	0.000102690193913857	-0.00000000533980850960142
26	0.0000109337005709633	-0.000086673894486866	0.000000000679659624028685
27	-0.000013566980139411	-0.0000180658001368574	0.000000000900749735701016
28	-0.0000005975835227825	0.0000440809131171051	0.0000000000392583576040145
29	0.00000613252368548114	-0.00000420664942026717	-0.000000000103400241765566
30	-0.00000171292865187115	-0.0000179224736760714	-0.0000000000742853153109491
31	-0.00000231005079755908	0.0000067059665135255	0.00000000000122837903831724
32	0.00000147793695547843	0.00000567886401215082	0.0000000000326603815003752
33	0.000000638018005059772	-0.00000456929432323488	0.00000000000349095529804893
34	-0.000000844621918500936	-0.00000108593856611669	-0.00000000000972373194783522
35	-0.0000000415377480206364	0.00000235711015003692	-0.00000000000120162653097787
36	0.000000388659742871185	-0.000000214341239668401	0.00000000000225711110998634
37	-0.0000000998786694304404	-0.000000989091827250088	0.000000000000546220130014084
38	-0.000000146488853505434	0.000000378361385983708	-0.000000000000425408167250733
39	0.0000000907432672765937	0.000000327116729842181	-0.0000000000000689135772635941
40	0.000000040449183998274	-0.000000261806578254752	0.000000000000339458629139526
41	-0.0000000536873922968594	-0.0000000668159783162859	0.0000000000000825348938419659
42	-0.0000000027724634702424	0.000000136553515173475	-0.0000000000000281500657469477
43	0.0000000253072821769831	-0.0000000109427948629908	-0.00000000000000866690878203113
44	-0.00000000627284430402084	-0.0000000582419735088733	-0.000000000000135826250221207
45	-0.000000009672539790416	0.0000000221604441676158	0.000000000000020468796033234

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

April 30 – June 1 a = 120 , b = 152

CN	R.A.	Dec.	H.P.
N	h	°	°
0	11.5498670749801	-1.01651387953878	0.941668323747274
1	14.0094895304451	-3.56127405895467	-0.0074526547529661
2	-0.30979863105815	0.451839962277443	-0.0174797481490733
3	-0.234371179982858	21.4270345489157	0.0354133265304453
4	0.13698128956661	-0.867064610174956	0.0075907739423976
5	-0.11325421149105	-5.66054639366409	-0.00531823557395436
6	0.00313399981200562	0.966067500494855	0.00177438069478025
7	0.127298740591537	0.729086256528743	-0.000919935045573026
8	-0.0219442811421703	-0.351707282258834	-0.000888283325614518
9	-0.0443308106978933	0.108910116850985	0.000599409664933855
10	0.0146269844945957	0.0287565480658607	0.0000699825232800424
11	0.00624205642631426	-0.129425601463939	-0.000187537553328832
12	-0.00486587654677851	0.0350595289157035	0.0000363470145609385
13	0.00301131955443621	0.0466594959983343	0.0000327500276645529
14	0.000106007611372973	-0.0243502034981216	-0.000016702106495563
15	-0.00259156552686001	-0.00604005839468178	-0.000000201111587025986
16	0.000925143454106454	0.00823255614165298	0.00000333106566260797
17	0.000919911571299318	-0.00337772111213518	-0.00000169615167864768
18	-0.000613335052277525	-0.000668868409282649	0.0000000406763023666798
19	-0.000070309266842345	0.00261531338812992	0.000000517048739916863
20	0.000199998539384936	-0.00102435195901294	-0.000000261356917600439
21	-0.000121066387834609	-0.00084129244511381	-0.0000000501388371185183
22	-0.000000701941530761786	0.000717972427555184	0.0000000929976540898087
23	0.000080329848297342	0.0000225251775418969	-0.0000000201874615113299
24	-0.0000407264406894634	-0.00023884960570184	-0.0000000158393794818826
25	-0.000022904911339484	0.000130224603012355	0.0000000106705575590201
26	0.0000258342693696232	0.00000987482591995596	-0.000000000515563158696014
27	-0.00000224836161745086	-0.0000755284616517326	-0.00000000230406902813136
28	-0.00000784555508228433	0.0000386370641192447	0.0000000011824274380175
29	0.00000578042833595056	0.0000185496083329471	0.0000000000496877466459897
30	-0.000000418787955429755	-0.0000249689540309568	-0.000000000354901544504614
31	-0.00000292638526944778	0.00000356674049507581	0.000000000147329401924719
32	0.0000018884522956402	0.00000759663598785599	0.0000000000369289291695132
33	0.000000548913123254185	-0.00000558359367657313	-0.0000000000561027424264087
34	-0.00000109356604757715	0.00000024705303808679	0.0000000000127193235608438
35	0.000000279492072957052	0.00000254886481114167	0.00000000000985793887372439
36	0.000000289092940297174	-0.00000162475154112396	-0.00000000000700995268710058
37	-0.000000283911949099608	-0.000000391950248965589	0.000000000000520814601367122
38	0.0000000483533900557974	0.000000930351988172725	0.00000000000159651573459785
39	0.000000113202076960798	-0.000000278533294235676	-0.000000000000458518117783875
40	-0.000000090734671612497	-0.000000240381091261981	0.0000000000000629316101789116
41	-0.00000000839430800602724	0.000000246078344448807	0.000000000000351155228216761
42	0.0000000462854189790055	-0.0000000398987993120793	-0.0000000000000879280266917585
43	-0.0000000192657060403112	-0.000000090940805760276	0.0000000000000458231573483959
44	-0.0000000096230307673027	0.0000000723230110073676	0.0000000000000303126082905165
45	0.0000000137632154679223	0.00000000430951615768524	-0.000000000000053327231457753

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

May 31 – July 1 a = 151 , b = 182

CN	R.A.	Dec.	H.P.
N	h	°	°
0	14.2456062661823	5.72554050627095	0.954833899606188
1	13.5497893105251	-4.02738287349086	-0.0152552764451184
2	-0.538553494969526	16.5343612576643	0.0126001254256372
3	0.0572925954484037	15.2738756101692	0.0420425652000238
4	0.095199100470749	-8.45750951793781	-0.00661496936834549
5	-0.0380544625276237	-2.21210340535372	-0.0026917298472148
6	0.158786761625589	1.68418783539072	0.00267442434904436
7	-0.00282929543226805	-0.301437291358461	-0.00242728659062926
8	-0.0670450474280241	-0.0515015820568016	-0.000225876198768633
9	0.0183971813431428	0.006880437746632	0.000647007823492032
10	0.00932723933778159	-0.126617659045491	-0.000224093384247304
11	-0.00470458079961867	0.0803751061823109	-0.0000436480220557816
12	0.00124117401601351	0.030013140242514	0.000074132954682187
13	-0.00249301973820564	-0.0372786110508561	-0.0000231643220827556
14	-0.00000415169615864907	0.00465538234649185	-0.00000328432145135142
15	0.00185650104433801	0.00489255521088668	0.00000802547604911412
16	-0.000695770380018183	-0.00195861201833907	-0.00000372734991175452
17	-0.000403471100991011	0.00205963406414986	-0.000000248989233074069
18	0.000285508391689752	-0.00135553394077193	0.0000011209732364603
19	-0.0000359197751492495	-0.000757164863951843	-0.000000508836426000765
20	0.00002978740488084	0.00105943765983908	-0.0000000383470629338687
21	0.0000107783877638733	-0.000136928257916742	0.000000145980211956957
22	-0.0000612478328572515	-0.00023252195737772	-0.0000000642323119001993
23	0.0000260619853426523	0.000106137520449363	-0.00000000305182876310755
24	0.0000179379964904681	-0.0000392335163485677	0.0000000181691203510047
25	-0.0000154120136434776	0.0000214097379967319	-0.00000000887158130584291
26	0.00000118903382307963	0.0000252086805927264	-0.0000000000725220463630254
27	0.0000012750370720195	-0.0000344630323145812	0.00000000239201234727979
28	-0.00000109891711647991	0.00000453050718095006	-0.00000000123194313386747
29	0.00000203648876441357	0.0000106906787893078	0.000000000010963052207955
30	-0.0000008777410906368	-0.00000541715337655492	0.000000000315086330245037
31	-0.000000817025260059212	0.000000562294795182446	-0.000000000166460129643139
32	0.000000766770896433048	0.000000211444424141609	0.00000000000501304506272527
33	-0.0000000369722141693951	-0.00000100436512657786	0.0000000000408537341261253
34	-0.000000158148457114852	0.00000114038641273307	-0.0000000000227845687918462
35	0.0000000815095015146219	-0.000000116497398191234	0.0000000000016790412109583
36	-0.0000000619570390990229	-0.000000486441979839405	0.00000000000537120322709764
37	0.0000000216553720803402	0.000000260644901290514	-0.00000000000260740777874066
38	0.0000000377844315784121	0.0000000118964606009296	0.000000000000304048295899555
39	-0.0000000354789664559756	-0.0000000522282070178741	0.000000000000869116369551407
40	0.000000000494768354637099	0.0000000439051164183546	-0.00000000000048323511984338
41	0.000000011199451817854	-0.0000000350262130889725	0.000000000000212446190946394
42	-0.00000000516648925601587	0.000000000953587039422945	0.000000000000113338692681086
43	0.00000000144151418555062	0.0000000217709660211023	-0.0000000000000837312755347725
44	0.0000000000715706954645228	-0.0000000116534264937427	0.000000000000059520603450587
45	-0.00000000176935841798946	-0.00000000193622431581563	0.0000000000000712944723403795

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

June 30 – August 1 a = 181 , b = 213

CN	R.A.	Dec.	H.P.
N	h	°	°
0	17.1208732632535	9.70769438216517	0.968868489177216
1	14.020599962104	0.323049856314929	-0.00738807348260617
2	-0.343730026893178	23.8479553028232	0.0422673228307459
3	0.392739651637056	1.42312316436064	0.0344236275339269
4	0.1275872647884	-12.1853981415511	-0.0183578435025301
5	0.097192915535115	0.719794655290659	0.000173209191630939
6	0.0386263625310993	0.778521970593931	0.00067388715603195
7	-0.119376436925883	-0.554208927468058	-0.00348233895770446
8	-0.00175006295683375	0.0929033308016318	0.000818027078252305
9	0.0232291364596511	-0.01472625339845	0.000429896742124225
10	-0.00979262097920624	0.103590334165459	-0.000289295580246138
11	-0.00145747867485626	0.0386596723395806	0.00013171488712353
12	0.00110484046950499	-0.0520143210507276	0.0000157454241770007
13	0.00230246023926593	0.00918318956728723	-0.0000350197267687997
14	0.000609800116836527	0.00835925409200791	0.0000188044480457762
15	-0.00145995326992239	-0.00576670716081306	-0.00000364679611401673
16	0.00025627600929226	-0.00130710855161445	-0.00000420021731520276
17	0.00036548497986504	-0.000208158946944945	0.00000295716944020321
18	-0.000208171713750985	0.001219892253279	-0.000000714838264813626
19	-0.0000711688924939929	0.000105899382243347	-0.000000313986720095078
20	0.0000129481581602233	-0.000601693334169761	0.000000394631719551544
21	0.000048818590109802	0.000227745264048618	-0.000000143673117342689
22	0.00000136023052227671	0.000136994881168279	-0.00000000977517441779556
23	-0.0000282203462297269	-0.0000744039159935847	0.0000000462332823164565
24	0.0000100635848861331	-0.0000323366798585583	-0.000000025888952153127
25	0.0000081704152226043	0.00000111156025565709	0.00000000276058121210433
26	-0.00000455879713767659	0.0000235352347922908	0.00000000498270174359866
27	-0.00000188549977409975	-0.00000484620727410542	-0.00000000381126691684842
28	0.000000532362030449228	-0.0000110813171673472	0.000000000970832013277794
29	0.00000118562357781045	0.00000534944725500435	0.000000000426899462123509
30	-0.000000275485864417046	0.00000253238905797168	-0.000000000513182038591616
31	-0.000000656664173668666	-0.0000014925089379864	0.000000000202960119770363
32	0.000000309206976686969	-0.000000725860855615684	0.0000000000158420894498186
33	0.000000187377006790934	0.000000229610140216821	-0.0000000000639104743103017
34	-0.000000118242559673658	0.000000527834338876139	0.0000000000343544840071884
35	-0.0000000487828180009926	-0.000000205736755241337	-0.00000000000371553258804671
36	0.0000000250515461713053	-0.000000226116373843374	-0.00000000000702333453642045
37	0.0000000314516394997027	0.000000133105277678349	0.00000000000530042199013963
38	-0.0000000137365767490523	0.0000000507462186373889	-0.00000000000127887384511692
39	-0.0000000157567844771282	-0.0000000392224778003498	-0.00000000000224935960757094
40	0.00000000943725091540787	-0.000000018232594957238	0.000000000000481510421458954
41	0.00000000432350473011131	0.0000000105257366832627	-0.000000000000104850660746389
42	-0.00000000350170202262644	0.0000000122499360887337	0.000000000000754446274500965
43	-0.00000000129690874713757	-0.00000000682521952734533	0.00000000000014375264082279
44	0.00000000100356626205021	-0.00000000471804607001287	-0.000000000000474219635926688
45	0.000000000816021994964292	0.0000000036027648817188	-0.000000000000356503265752391

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

July 31 – September 1 a = 212 , b = 244

CN	R.A.	Dec.	H.P.
N	h	°	°
0	20.5504004701888	6.6446905006893	0.976484954224297
1	13.9508624075986	2.37245788155942	-0.00268262801225081
2	0.054412706152798	16.7168614205572	0.0585183673448508
3	0.395702948096693	-16.547472047309	0.00310552764697165
4	0.0421419127456714	-8.29050349882299	-0.0224042547485423
5	-0.055827860697189	2.93758225513625	0.00260822567364672
6	-0.156485541115138	0.342596363724484	-0.00308120109234604
7	-0.00836097345985543	0.211829896982417	-0.00131041187136224
8	0.052654783639121	0.271163952791694	0.00152313291213906
9	0.00273371499232944	0.0375139944989384	0.0000318385425697523
10	0.0000502915340337482	-0.0761487267616849	0.0000356053298717853
11	0.00305869059210118	-0.0658577665523539	0.0000500950990239362
12	-0.00217058968415881	0.00902197275962854	-0.0000610707210459042
13	-0.00334533527893458	0.00741494958343223	0.00000596064938238455
14	-0.0000619774735913552	0.000174948007454798	-0.00000169426806930385
15	0.00107445824605569	0.00504228947926412	-0.00000506027314307329
16	0.000098376203628586	0.00154617512526484	0.00000317112889541175
17	0.00000630317745362587	-0.00200577744387582	0.0000000111694423388657
18	0.000117914032593532	-0.00106273118878699	-0.0000000160651050307971
19	-0.000067121827109798	0.00020716551492671	0.000000255257090801623
20	-0.000102893127638228	0.0000875694626254004	-0.000000162095005694863
21	0.00000159762110522355	0.00000741148015984184	0.0000000069629542904638
22	0.0000289094828033456	0.000130594987932183	0.00000000783166037092239
23	0.00000223047074771135	0.0000424133528725533	-0.0000000176670519898044
24	0.00000127409049405541	-0.0000532501288139974	0.0000000077822827117854
25	0.00000449986965023888	-0.0000265392624406531	0.000000000195053086294913
26	-0.00000232162036449079	0.00000542843134995005	-0.000000000638615814178979
27	-0.00000351589779972467	0.000000990474465735526	0.00000000100287057836175
28	0.000000121045207526488	0.000000093962799755547	-0.00000000041505142430116
29	0.000000873229181851863	0.00000420383085735248	-0.0000000000212297469564797
30	0.000000028660211145479	0.00000131658124461147	0.0000000000583277872680928
31	0.0000000886498575705476	-0.00000163049296083496	-0.0000000000604037586381052
32	0.000000179231924798888	-0.000000734146849476929	0.0000000000199173113795984
33	-0.0000000873748802024558	0.000000150835071266151	0.00000000000262352329716607
34	-0.000000125850762465032	-0.0000000219385577396045	-0.00000000000433024649013277
35	0.00000000604940421567456	0.00000000283373608513552	0.0000000000035720649151683
36	0.0000000275122679838822	0.000000146695475697883	-0.00000000000114773692899883
37	-0.000000000779368641322958	0.0000000432999454948992	-0.000000000000210787234312874
38	0.00000000487673107705578	-0.000000052887252224251	0.000000000000391819314320804
39	0.00000000734313898748256	-0.0000000218390565326293	-0.000000000000148074877788283
40	-0.00000000345417563896695	0.00000000424673068553503	-0.000000000000250138822925085
41	-0.00000000460946451041352	-0.0000000025460049053205	0.000000000000735865383670524
42	0.000000000283274854649541	0.000000000112969213490255	0.000000000000292120653199159
43	0.000000000881051573845598	0.00000000535658758233925	0.000000000000103377877752481
44	-0.0000000000985760005201841	0.0000000014542312105605	-0.000000000000406737466913312
45	0.00000000023292014961986	-0.0000000017588996618674	-0.0000000000000277898803765478

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

August 31 – October 1 a = 243 , b = 274

CN	R.A.	Dec.	H.P.
N	h	°	°
0	23.3916929220919	-0.700950565896475	0.970117155505629
1	13.4717912299672	6.16953476723131	0.00381568104532895
2	0.185694500933322	0.354708664887312	0.0474578428942785
3	0.217663103995801	-21.588292231455	-0.0227921003508843
4	-0.084733950989713	-0.487459149273843	-0.0139735537087899
5	-0.184227499542486	3.73723217625739	0.00317959349773341
6	-0.0010062820537301	0.54568529557795	-0.00280122442534163
7	0.0925061624628358	0.222749285281845	0.000463462919481383
8	0.0106052402112073	-0.157713634794983	0.00098183387207724
9	-0.0140133518236093	-0.201165546253641	0.0000582343781224078
10	-0.00559289076074774	-0.00656014845191841	0.0000047489665040988
11	-0.00467054010186681	0.0532311703147467	-0.000074832946684688
12	0.000907927396200859	0.0163011834886462	-0.0000227411144266453
13	0.00341717522484884	-0.00238062573188064	0.00000765880543531057
14	0.000506161547437012	-0.00529205993153837	-0.000000839913006397391
15	-0.000860224950301847	-0.00499994513340149	0.00000158051404307699
16	-0.000387170968827048	0.00020157938999344	0.000000879009042750675
17	-0.0000855873661820212	0.00234589739532196	0.0000000344630434879096
18	0.000101924714964744	0.000651636326206577	-0.00000000447933173312322
19	0.000155176310069051	-0.000355620305453785	-0.000000155160114174623
20	0.0000155405315746916	-0.000328662553188863	-0.0000000342252694846391
21	-0.0000556802999411997	-0.000152331779950093	0.0000000148198034232106
22	-0.0000244613468418119	0.000053397680744414	0.00000000466131348416607
23	0.00000209676616063501	0.00011171147125607	0.00000000422703955001664
24	0.00000911706967483823	0.0000250979309831113	0.000000000275209777065998
25	0.00000733497199822146	-0.0000271148506017072	-0.000000000259935899772283
26	-0.000000270652068927221	-0.0000195527647861343	-0.0000000000955951753245825
27	-0.00000361771847378879	-0.0000038623928073142	-0.000000000258341894338709
28	-0.00000140213251573756	0.00000509142631546943	-0.000000000034145066013021
29	0.000000509634472605509	0.00000556712048271314	0.0000000000273270411139695
30	0.000000718255699235336	0.000000689623134539084	0.0000000000169788742330504
31	0.000000332979182793613	-0.00000189527842732023	0.00000000000906376830127724
32	-0.00000010790131364882	-0.00000111400076674438	-0.00000000000175880193465336
33	-0.00000023343193737604	0.0000000173444503762152	-0.00000000000127809087837771
34	-0.0000000697945080912766	0.000000407242747925447	-0.000000000000600780759417081
35	0.0000000543361203273402	0.000000277701783432827	-0.000000000000542757244485452
36	0.0000000518357385646455	-0.0000000122949539239324	0.000000000000187900541463526
37	0.0000000126495931191814	-0.000000128279710326218	-0.000000000000247167852914765
38	-0.0000000130402299110051	-0.0000000593440515732827	0.0000000000000825856636974252
39	-0.0000000147263384510553	0.0000000150715283727198	-0.0000000000000448125478679176
40	-0.00000000257016942174127	0.0000000296956295823241	-0.000000000000357500380183262
41	0.00000000479647251027031	0.0000000130582120023971	-0.0000000000000704365747911149
42	0.00000000346436620869647	-0.00000000429438230194304	0.0000000000000279372415478365
43	0.000000000221249306546088	-0.000000000841237323841346	0.00000000000000471065535127941
44	-0.00000000122673580236664	-0.00000000280176123340171	0.000000000000134451619263642
45	-0.000000000898812962561626	0.00000000175120109300453	-0.0000000000000419946046902633

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

September 30 – November 1 a = 273 , b = 305

CN	R.A.	Dec.	H.P.
N	h	°	°
0	2.18536308618734	-7.79043900079344	0.957596946649152
1	14.0084176756171	2.74854752495711	0.00319541880016434
2	0.190130019386342	-15.3517628521612	0.0165249222670337
3	0.104218267681637	-16.3840696201551	-0.0365834581915283
4	-0.184382029578004	7.80562150129748	-0.00337556469750193
5	-0.0171315016029407	4.1128747018326	0.00573293616842961
6	0.163754998220164	-0.342090048594503	-0.00215276347401245
7	0.00985473703210962	-0.63704555166978	0.000656315804101075
8	-0.0617414876680532	-0.325447775922556	0.000849046521912917
9	-0.0122047731273178	0.184982902043489	0.00000470163940106084
10	0.00941781377011733	0.140839354211197	-0.000179451389950805
11	0.00920878060837776	-0.0550125752767242	-0.000104341349077427
12	0.000454652879873841	-0.0503721015221424	0.0000268627352077707
13	-0.00492078328500751	0.00279697090652815	0.0000264604490769927
14	-0.00106252555539056	0.0168116442060765	-0.000000699270016746973
15	0.00176246534804482	0.0066560550547885	-0.00000290188782572399
16	0.000796221500111677	-0.00500908719766114	-0.000000294535882416391
17	-0.0003449744724092	-0.00436724291372276	0.000000355038931763899
18	-0.000472380611582029	0.000952255123398705	-0.0000001543737088539
19	-0.000034353920236795	0.00186613135651127	-0.00000016809646004949
20	0.000215681777287102	0.000218949689712175	0.0000000673112496720553
21	0.0000744933217414513	-0.000638243878807617	0.0000000656759375395518
22	-0.000070551832761232	-0.000330292445537869	-0.00000000263096931105051
23	-0.0000507028984233272	0.000165196630882393	-0.0000000166301458197142
24	0.0000116409560369373	0.00019475043141074	-0.00000000339513475110467
25	0.0000262300542780414	-0.0000125714741255531	0.00000000282531062430032
26	0.00000411376938908969	-0.0000827908022478749	0.00000000090828400938285
27	-0.0000106897264204438	-0.0000211818852764448	-0.00000000039526849587251
28	-0.00000514331261605842	0.0000271986269346003	-0.000000000106971155089706
29	0.00000308125828828575	0.0000183935100398851	0.000000000103408626475136
30	0.00000318859086592159	-0.00000575904535975302	0.000000000018620368176079
31	-0.000000266428126440922	-0.0000098467765133769	-0.000000000037585238387474
32	-0.00000150660582972237	-0.00000060359549131837	-0.0000000000109586659391198
33	-0.000000393147485498696	0.00000399422178630382	0.00000000000926888236585581
34	0.000000553434798048546	0.0000015522137469146	0.00000000000448760451930882
35	0.000000355318214593863	-0.00000120280948277313	-0.00000000000158092836769854
36	-0.000000131769920180415	-0.00000107716184289031	-0.00000000000123329382973528
37	-0.000000200545164660256	0.000000173078456532289	0.000000000000897145158629818
38	-0.00000000830893975734198	0.000000528914867653387	0.000000000000250276923158678
39	0.0000000873684357107168	0.0000000947899535593439	-0.000000000000381016534018474
40	0.0000000330726822475819	-0.000000199606871531655	-0.000000000000903483295458831
41	-0.0000000286297002849046	-0.00000010688419691458	-0.000000000000954011953810481
42	-0.0000000243735606591324	0.000000052275221436469	0.000000000000192112703990255
43	0.00000000489946846532815	0.0000000644163911893223	-0.0000000000000840170720387213
44	0.0000000125918973157009	-0.00000000190265189104377	0.000000000000204478748451627
45	0.00000000198295302042273	-0.0000000291630199880235	0.000000000000457011516630365

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

October 31 – December 1 a = 304 , b = 335

CN	R.A.	Dec.	H.P.
N	h	°	°
0	5.00896087429339	-10.7865194051242	0.943315749807275
1	13.6506602061433	0.8891797039707	0.00683685584136727
2	0.256015271150996	-23.2747814785239	-0.0167002643461366
3	-0.0427110897554781	-2.28684903154918	-0.0297557679212635
4	-0.135746923648271	11.2337130419337	0.0115401947464209
5	0.183238147640907	1.28487492020464	0.00419731202096254
6	0.0389138031235893	-1.69084297035125	-0.0036777297905107
7	-0.112935685893444	-0.590681620498931	0.000279398688778976
8	-0.022732549623073	0.378017264440048	0.00108368865428614
9	0.0314151480771315	0.181959820211307	-0.00000732071256422728
10	0.012726462274502	-0.175424595809171	-0.000319211432215202
11	-0.00901812669016111	-0.0651246134587868	-0.0000409763892320648
12	-0.00559863938203846	0.0629854220489658	0.0000819220215738894
13	0.00410181701207633	0.0308417265272555	0.0000149440773811777
14	0.0025242286736963	-0.0189816835420131	-0.0000184380942686081
15	-0.00167541483683681	-0.0136514529962512	-0.0000037738339107742
16	-0.00124441390012938	0.00641000640976587	0.00000435275379770124
17	0.000566731943232147	0.00568961172271762	0.000000881964323334092
18	0.000592856155351782	-0.0023152375807614	-0.00000116250347846814
19	-0.00019712360361794	-0.00247154986536228	-0.000000227204866545054
20	-0.000271540929881179	0.000758382242240523	0.000000319544260656829
21	0.0000712142053822308	0.00109689914530392	0.000000068010699448525
22	0.000125690361352372	-0.00022425436002213	-0.0000000847354163146149
23	-0.0000222791291672292	-0.000478837064005571	-0.0000000208797042000475
24	-0.0000585060318826652	0.000059892946472788	0.0000000217532828389967
25	0.00000512745211737686	0.000207979497311796	0.00000000603661300037897
26	0.0000268120384941911	-0.0000105443743091925	-0.00000000555673514803559
27	-0.000000249523651233872	-0.0000908366759592501	-0.00000000166578340831182
28	-0.0000121496042363509	-0.00000248197293664911	0.00000000144211858194577
29	-0.000000801444979816893	0.0000395369168957995	0.000000000457887469892917
30	0.00000548439801106684	0.00000416981236211789	-0.000000000380030486645449
31	0.000000795479085895937	-0.0000170550971338871	-0.000000000128213939329407
32	-0.00000245576887104119	-0.00000314491258303192	0.000000000100343049663907
33	-0.000000559255482143504	0.00000730800429103724	0.0000000000362560798385376
34	0.00000108594249760663	0.00000195873419420985	-0.0000000000262269594386491
35	0.000000342498444350097	-0.00000310876498611115	-0.0000000000105017341961129
36	-0.000000474361389759844	-0.00000111679382385739	0.00000000000687725912444697
37	-0.000000195326037187978	0.0000013074550720642	0.00000000000247880571662956
38	0.000000204486329222523	0.000000603263505633569	-0.00000000000179808801269661
39	0.000000106698351582426	-0.000000541952199861135	-0.000000000000883397786303496
40	-0.0000000866395227794998	-0.000000314105554695594	0.000000000000595908274064332
41	-0.0000000564469117739511	0.000000220732461119413	0.000000000000118391382033735
42	0.0000000359026216253484	0.000000159558237170001	-0.000000000000144101033297041
43	0.0000000291582824954329	-0.0000000878577855973422	-0.0000000000000639030905561988
44	-0.0000000144639963471639	-0.000000079524924144791	-0.0000000000000220425437384426
45	-0.0000000147577037065132	0.0000000338400505759719	-0.0000000000000420637033433626

2027Year Coefficient Tables for Computerized Celestial Position Calculations

Lunar Apparent Right Ascension(R.A.) , Apparent Declination(Dec.) , Horizontal Parallax(H.P.)

November 30 – December 32 a = 334 , b = 366

CN	R.A.	Dec.	H.P.
N	h	°	°
0	7.78935308601964	-9.08850603801397	0.933357349092079
1	14.1168538104312	-1.80120874259887	-0.000961160315564011
2	0.201901425046976	-17.8068113336505	-0.0385521647351902
3	-0.271684239704507	12.1705170294999	-0.0114553737442907
4	-0.0240644552433251	10.1165928091596	0.0230218267310468
5	0.126510706054479	-3.08379130108202	-0.000850527732762961
6	-0.144417008371154	-2.31110455877592	-0.00636334797427915
7	-0.059614392305985	0.543342411428957	0.00188064780126044
8	0.0761585137168602	0.498766222623618	0.00185624407051184
9	0.0262725643728846	-0.289644501495383	-0.000678996620036192
10	-0.0249610403283889	-0.0890534169314004	-0.000553943844110707
11	-0.00737660748926317	0.16573759411521	0.000211299413164045
12	0.00937621676708144	0.017014660656789	0.000155083828168173
13	-0.0000413555030375723	-0.0722436920963241	-0.0000691447213753943
14	-0.00447363421214001	-0.00305031024129992	-0.0000406156094604653
15	0.00111782423356078	0.0271324710886731	0.0000231895751589271
16	0.00215574062603095	-0.00227293022327882	0.0000103496888649272
17	-0.000729751773071873	-0.00980314558579852	-0.00000776922249339676
18	-0.000901825582854247	0.00301995833348735	-0.00000260467965897908
19	0.000411982822351928	0.00366376381193663	0.00000256089302137508
20	0.000316356622723995	-0.00203666825288857	0.000000632013632077579
21	-0.000240419342816873	-0.00136557567327069	-0.00000082669090321792
22	-0.0000953349757099925	0.00108505410857817	-0.000000141042331650286
23	0.000135262954142331	0.000447464033385721	0.000000262424456261877
24	0.0000234569500874799	-0.00052951021675089	0.0000000262288676510587
25	-0.0000693578956590211	-0.000105606442127074	-0.0000000823058366819106
26	-0.00000137441792379534	0.000251445633828291	-0.00000000261905361465824
27	0.0000325317532963048	0.00000215185900306954	0.0000000255469070193507
28	-0.00000443736946171286	-0.000116071973426423	-0.000000000893142015737658
29	-0.0000143661074653213	0.0000181814321872333	-0.000000000784285161881303
30	0.00000464039204891324	0.000050781292809944	0.000000000797420459444068
31	0.00000606746969091312	-0.0000162146548470977	0.000000000237867818723694
32	-0.00000329709381894404	-0.0000206489649388057	-0.000000000405103403942682
33	-0.000002403132784307	0.0000107694241876208	-0.000000000711832575466974
34	0.00000198058541039811	0.00000769196344600373	0.000000000173162386602828
35	0.000000840379268291322	-0.00000630478672941788	0.000000000209779617486981
36	-0.00000108486128333597	-0.00000252944834687408	-0.000000000067662443017789
37	-0.000000223087838310054	0.00000338739500033368	-0.0000000000608866411128378
38	0.000000559781859560335	0.000000634807495351861	0.0000000000250157011954859
39	0.0000000125907674710009	-0.00000169814587851604	0.0000000000171736373467754
40	-0.000000274358292317227	-0.0000000220338322865111	-0.00000000000868655784024983
41	0.0000000399243055117782	0.000000802928902759814	-0.00000000000487943695836623
42	0.000000127174386494787	-0.000000122720340926327	0.00000000000295918768907729
43	-0.0000000404313440858863	-0.000000359381043313427	0.0000000000012828576001552
44	-0.0000000552146687069558	0.000000118417648201541	-0.000000000000952398020429699
45	0.0000000288592287524364	0.00000015137933287463	-0.000000000000314299447524781