Cat Num	Canon Plate	Calendar Date	TD of Greatest Eclipse	ΔT s	Luna Num	Saros Num	Ecl. Type	QLE	Gamma	Ecl. Mag.	Lat. °	Long. °	Sun Alt °	Sun Azm °	Path Width km	Central Line Dur.
9481	475	1987 Sep 23	03:12:22	56	-152	134	A	-n	0.2787	0.9634	14.3N	138.4E	74	210	137	03m49s
9482	475	1988 Mar 18	01:58:56	56	-146	139	T	n-	0.4188	1.0464	20.7N	140.0E	65	149	169	03m46s
9483	475	1988 Sep 11	04:44:29	56	-140	144	A	p-	-0.4681	0.9377	20.0S	94.4E	62	31	258	06m57s
9484	475	1989 Mar 07	18:08:41	56	-134	149	P	t-	1.0981	0.8268	61.2N	169.8W	0	101		
9485	475	1989 Aug 31	05:31:47	57	-128	154	P	t-	-1.1928	0.6344	61.3S	23.6E	0	72		
9486	475	1990 Jan 26	19:31:24	57	-123	121	A	-t	-0.9457	0.9670	71.0S	22.2W	18	266	373	02m03s
9487	475	1990 Jul 22	03:03:07	57	-117	126	T	-p	0.7597	1.0391	65.2N	168.9E	40	222	201	02m33s
9488	475	1991 Jan 15	23:53:51	58	-111	131	A	-n	-0.2727	0.9290	36.4S	170.4W	74	341	277	07m53s
9489	475	1991 Jul 11	19:07:01	58	-105	136	Tm	nn	-0.0041	1.0800	22.0N	105.2W	90	30	258	06m53s
9490	475	1992 Jan 04	23:05:37	58	-99	141	A	p-	0.4091	0.9179	1.0N	169.7W	66	169	340	11m41s
9491	475	1992 Jun 30	12:11:22	59	-93	146	T	p-	-0.7512	1.0592	25.2S	9.5W	41	10	294	05m21s
9492	475	1992 Dec 24	00:31:41	59	-87	151	P	t-	1.0711	0.8422	65.7N	155.7E	0	165		
9493	475	1993 May 21	14:20:15	59	-82	118	P	-t	1.1372	0.7352	68.8N	162.3E	0	17		
9494	475	1993 Nov 13	21:45:51	60	-76	123	P	-t	-1.0411	0.9280	69.6S	58.3E	0	153		
9495	475	1994 May 10	17:12:26	60	-70	128	A	-p	0.4077	0.9431	41.5N	84.1W	66	168	230	06m13s
9496	475	1994 Nov 03	13:40:06	61	-64	133	T	-n	-0.3522	1.0535	35.4S	34.2W	69	15	189	04m23s
9497	475	1995 Apr 29	17:33:21	61	-58	138	A	p-	-0.3382	0.9497	4.8S	79.4W	70	348	196	06m37s
9498	475	1995 Oct 24	04:33:30	61	-52	143	T	n-	0.3518	1.0213	8.4N	113.2E	69	195	78	02m10s
9499	475	1996 Apr 17	22:38:12	62	-46	148	P	t-	-1.0580	0.8799	71.3S	104.0W	0	306		
9500	475	1996 Oct 12	14:03:04	62	-40	153	P	t-	1.1227	0.7575	71.7N	32.1E	0	245		
9501	476	1997 Mar 09	01:24:51	62	-35	120	T	-p	0.9183	1.0420	57.8N	130.7E	23	146	356	02m50s
9502	476	1997 Sep 02	00:04:48	63	-29	125	P	-t	-1.0352	0.8988	71.8S	114.3E	0	64		
9503	476	1998 Feb 26	17:29:27	63	-23	130	T	-n	0.2391	1.0441	4.7N	82.7W	76	164	151	04m09s
9504	476	1998 Aug 22	02:07:11	63	-17	135	A	nn	-0.2644	0.9734	3.0S	145.4E	75	14	99	03m14s
9505	476	1999 Feb 16	06:34:38	63	-11	140	A	n-	-0.4726	0.9928	39.8S	93.9E	62	342	29	00m40s
9506	476	1999 Aug 11	11:04:09	64	-5	145	T	p-	0.5062	1.0286	45.1N	24.3E	59	197	112	02m23s
9507	476	2000 Feb 05	12:50:27	64	1	150	P	t-	-1.2233	0.5795	70.2S	134.1E	0	215		
9508	476	2000 Jul 01	19:33:34	64	6	117	P	-t	-1.2821	0.4768	66.9S	109.5W	0	358		
9509	476	2000 Jul 31	02:14:08	64	7	155	P	t-	1.2166	0.6034	69.5N	59.9W	0	333		
9510	476	2000 Dec 25	17:35:57	64	12	122	P	-t	1.1367	0.7228	66.3N	74.1W	0	189		
9511	476	2001 Jun 21	12:04:46	64	18	127	T	-p	-0.5701	1.0495	11.3S	2.7E	55	355	200	04m57s
9512	476	2001 Dec 14	20:53:01	64	24	132	A	-n	0.4089	0.9681	0.6N	130.7W	66	188	126	03m53s
9513	476	2002 Jun 10	23:45:22	64	30	137	A	nn	0.1993	0.9962	34.5N	178.6W	78	169	13	00m23s
9514	476	2002 Dec 04	07:32:16	64	36	142	T	n-	-0.3020	1.0244	39.5S	59.6E	72	16	87	02m04s
9515	476	2003 May 31	04:09:22	64	42	147	An	t-	0.9960	0.9384	66.6N	24.5W	3	35	-	03m37s
9516	476	2003 Nov 23	22:50:22	64	48	152	T	t-	-0.9638	1.0379	72.7S	88.4E	15	111	495	01m57s
9517	476	2004 Apr 19	13:35:05	65	53	119	P	-t	-1.1335	0.7367	61.6S	44.3E	0	295		
9518	476	2004 Oct 14	03:00:23	65	59	124	P	-t	1.0348	0.9282	61.2N	153.7W	0	253		
9519	476	2005 Apr 08	20:36:51	65	65	129	H	-n	-0.3473	1.0074	10.6S	119.0W	70	332	27	00m42s
9520	476	2005 Oct 03	10:32:47	65	71	134	A	-p	0.3306	0.9576	12.9N	28.7E	71	209	162	04m32s
9521	477	2006 Mar 29	10:12:23	65	77	139	T	n-	0.3843	1.0515	23.2N	16.7E	67	149	184	04m07s
9522	477	2006 Sep 22	11:41:16	65	83	144	A	p-	-0.4062	0.9352	20.6S	9.1W	66	31	261	07m09s
9523	477	2007 Mar 19	02:32:57	65	89	149	P	t-	1.0728	0.8756	61.0N	55.5E	0	92		
9524	477	2007 Sep 11	12:32:24	66	95	154	P	t-	-1.1255	0.7507	61.0S	90.2W	0	80		
9525	477	2008 Feb 07	03:56:10	66	100	121	A	-t	-0.9570	0.9650	67.6S	150.5W	16	269	444	02m12s
9526	477	2008 Aug 01	10:22:12	66	106	126	T	-p	0.8307	1.0394	65.7N	72.3E	34	235	237	02m27s
9527	477	2009 Jan 26	07:59:45	66	112	131	A	-n	-0.2820	0.9282	34.1S	70.2E	73	337	280	07m54s
9528	477	2009 Jul 22	02:36:25	66	118	136	T	nn	0.0698	1.0799	24.2N	144.1E	86	198	258	06m39s
9529	477	2010 Jan 15	07:07:39	67	124	141	A	p-	0.4002	0.9190	1.6N	69.3E	66	165	333	11m08s
9530	477	2010 Jul 11	19:34:38	67	130	146	T	p-	-0.6788	1.0580	19.7S	121.9W	47	14	259	05m20s
9531	477	2011 Jan 04	08:51:42	67	136	151	P	t-	1.0627	0.8576	64.7N	20.8E	0	155		
9532	477	2011 Jun 01	21:17:18	67	141	118	P	-t	1.2130	0.6010	67.8N	46.8E	0	6		
9533	477	2011 Jul 01	08:39:30	67	142	156	Pb	t-	-1.4917	0.0971	65.2S	28.6E	0	21		
9534	477	2011 Nov 25	06:21:24	68	147	123	P	-t	-1.0536	0.9047	68.6S	82.4W	0	165		
9535	477	2012 May 20	23:53:54	68	153	128	A	-p	0.4828	0.9439	49.1N	176.3E	61	171	237	05m46s
9536	477	2012 Nov 13	22:12:55	68	159	133	T	-n	-0.3719	1.0500	40.0S	161.3W	68	11	179	04m02s
9537	477	2013 May 10	00:26:20	68	165	138	A	pn	-0.2694	0.9544	2.2N	175.5E	74	350	173	06m03s
9538	477	2013 Nov 03	12:47:36	68	171	143	H3	n-	0.3272	1.0159	3.5N	11.7W	71	192	58	01m40s
9539	477	2014 Apr 29	06:04:33	69	177	148	A-	t-	-1.0000	0.9868	70.6S	131.3E	0	319	-	-
9540	477	2014 Oct 23	21:45:39	69	183	153	P	t-	1.0908	0.8114	71.2N	97.2W	0	231		

Cat Num	Canon Plate	Calendar Date	TD of Greatest Eclipse	ΔT s	Luna Num	Saros Num	Ecl. Type	QLE	Gamma	Ecl. Mag.	Lat. °	Long. °	Sun Alt °	Sun Azm °	Path Width km	Central Line Dur.
9541	478	2015 Mar 20	09:46:47	69	188	120	T	-t	0.9454	1.0445	64.4N	6.6W	18	135	463	02m47s
9542	478	2015 Sep 13	06:55:19	69	194	125	P	-t	-1.1004	0.7875	72.1S	2.3W	0	77		
9543	478	2016 Mar 09	01:58:19	70	200	130	T	-n	0.2609	1.0450	10.1N	148.8E	75	162	155	04m09s
9544	478	2016 Sep 01	09:08:02	70	206	135	A	-n	-0.3330	0.9736	10.7S	37.8E	70	16	100	03m06s
9545	478	2017 Feb 26	14:54:33	70	212	140	A	n-	-0.4578	0.9922	34.7S	31.2W	63	340	31	00m44s
9546	478	2017 Aug 21	18:26:40	70	218	145	T	p-	0.4367	1.0306	37.0N	87.7W	64	198	115	02m40s
9547	478	2018 Feb 15	20:52:33	71	224	150	P	t-	-1.2116	0.5991	71.0S	0.6E	0	228		
9548	478	2018 Jul 13	03:02:16	71	229	117	P	-t	-1.3542	0.3365	67.9S	127.4E	0	8		
9549	478	2018 Aug 11	09:47:28	71	230	155	P	t-	1.1476	0.7368	70.4N	174.5E	0	321		
9550	478	2019 Jan 06	01:42:38	71	235	122	P	-t	1.1417	0.7145	67.4N	153.6E	0	178		
9551	478	2019 Jul 02	19:24:07	71	241	127	T	-p	-0.6466	1.0459	17.4S	109.0W	50	359	201	04m33s
9552	478	2019 Dec 26	05:18:53	72	247	132	A	-n	0.4135	0.9701	1.0N	102.3E	66	184	118	03m40s
9553	478	2020 Jun 21	06:41:15	72	253	137	Am	nn	0.1209	0.9940	30.5N	79.7E	83	174	21	00m38s
9554	478	2020 Dec 14	16:14:39	72	259	142	T	n-	-0.2939	1.0254	40.3S	67.9W	73	10	90	02m10s
9555	478	2021 Jun 10	10:43:07	72	265	147	A	t-	0.9152	0.9435	80.8N	66.8W	23	90	527	03m51s
9556	478	2021 Dec 04	07:34:38	73	271	152	T	p-	-0.9526	1.0367	76.8S	46.2W	17	115	419	01m54s
9557	478	2022 Apr 30	20:42:36	73	276	119	P	-t	-1.1901	0.6396	62.1S	71.5W	0	304		
9558	478	2022 Oct 25	11:01:20	73	282	124	P	-t	1.0701	0.8619	61.6N	77.4E	0	244		
9559	478	2023 Apr 20	04:17:56	73	288	129	H	-n	-0.3952	1.0132	9.6S	125.8E	67	334	49	01m16s
9560	478	2023 Oct 14	18:00:41	74	294	134	A	-p	0.3753	0.9520	11.4N	83.1W	68	208	187	05m17s
9561	479	2024 Apr 08	18:18:29	74	300	139	T	n-	0.3431	1.0566	25.3N	104.1W	70	149	198	04m28s
9562	479	2024 Oct 02	18:46:13	74	306	144	A	p-	-0.3509	0.9326	22.0S	114.5W	69	31	266	07m25s
9563	479	2025 Mar 29	10:48:36	75	312	149	P	t-	1.0405	0.9376	61.1N	77.1W	0	83		
9564	479	2025 Sep 21	19:43:04	75	318	154	P	t-	-1.0651	0.8550	60.9S	153.5E	0	89		
9565	479	2026 Feb 17	12:13:06	75	323	121	A	-t	-0.9743	0.9630	64.7S	86.8E	12	268	616	02m20s
9566	479	2026 Aug 12	17:47:06	75	329	126	T	-p	0.8977	1.0386	65.2N	25.2W	26	248	294	02m18s
9567	479	2027 Feb 06	16:00:48	76	335	131	A	-n	-0.2952	0.9281	31.3S	48.5W	73	334	282	07m51s
9568	479	2027 Aug 02	10:07:50	76	341	136	T	nn	0.1421	1.0790	25.5N	33.2E	82	202	258	06m23s
9569	479	2028 Jan 26	15:08:59	76	347	141	A	p-	0.3901	0.9208	3.0N	51.5W	67	161	323	10m27s
9570	479	2028 Jul 22	02:56:40	77	353	146	T	p-	-0.6056	1.0560	15.6S	126.7E	53	17	230	05m10s
9571	479	2029 Jan 14	17:13:48	77	359	151	P	t-	1.0553	0.8714	63.7N	114.2W	0	145		
9572	479	2029 Jun 12	04:06:13	77	364	118	P	-t	1.2943	0.4576	66.8N	66.2W	0	355		
9573	479	2029 Jul 11	15:37:19	77	365	156	P	t-	-1.4191	0.2303	64.3S	85.6W	0	30		
9574	479	2029 Dec 05	15:03:58	77	370	123	P	-t	-1.0609	0.8911	67.5S	135.7E	0	177		
9575	479	2030 Jun 01	06:29:13	78	376	128	A	-p	0.5626	0.9443	56.5N	80.1E	55	176	250	05m21s
9576	479	2030 Nov 25	06:51:37	78	382	133	T	-n	-0.3867	1.0468	43.6S	71.2E	67	7	169	03m44s
9577	479	2031 May 21	07:16:04	78	388	138	A	nn	-0.1970	0.9589	8.9N	71.7E	79	354	152	05m26s
9578	479	2031 Nov 14	21:07:31	79	394	143	H	n-	0.3078	1.0106	0.6S	137.6W	72	189	38	01m08s
9579	479	2032 May 09	13:26:42	79	400	148	A	t-	-0.9375	0.9957	51.3S	7.1W	20	345	44	00m22s
9580	479	2032 Nov 03	05:34:13	79	406	153	P	t-	1.0643	0.8554	70.4N	132.6E	0	218		
9581	480	2033 Mar 30	18:02:36	80	411	120	T	-t	0.9778	1.0462	71.3N	155.8W	11	111	781	02m37s
9582	480	2033 Sep 23	13:54:31	80	417	125	P	-t	-1.1583	0.6890	72.2S	121.2W	0	91		
9583	480	2034 Mar 20	10:18:45	80	423	130	T	-n	0.2894	1.0458	16.1N	22.2E	73	162	159	04m09s
9584	480	2034 Sep 12	16:19:28	81	429	135	A	-p	-0.3936	0.9736	18.2S	72.6W	67	18	102	02m58s
9585	480	2035 Mar 09	23:05:54	81	435	140	A	n-	-0.4368	0.9919	29.0S	154.9W	64	340	31	00m48s
9586	480	2035 Sep 02	01:56:46	81	441	145	T	p-	0.3727	1.0320	29.1N	158.0E	68	199	116	02m54s
9587	480	2036 Feb 27	04:46:49	82	447	150	P	t-	-1.1942	0.6286	71.6S	131.4W	0	242		
9588	480	2036 Jul 23	10:32:06	82	452	117	P	-t	-1.4250	0.1991	68.9S	3.6E	0	19		
9589	480	2036 Aug 21	17:25:45	82	453	155	P	t-	1.0825	0.8622	71.1N	47.0E	0	309		
9590	480	2037 Jan 16	09:48:55	82	458	122	P	-t	1.1477	0.7049	68.5N	20.8E	0	166		
9591	480	2037 Jul 13	02:40:36	83	464	127	T	-p	-0.7246	1.0413	24.8S	139.1E	43	3	201	03m58s
9592	480	2038 Jan 05	13:47:11	83	470	132	A	-n	0.4169	0.9728	2.1N	25.4W	65	179	107	03m18s
9593	480	2038 Jul 02	13:32:55	84	476	137	A	nn	0.0398	0.9911	25.4N	21.9W	88	179	31	01m00s
9594	480	2038 Dec 26	01:00:10	84	482	142	T	n-	-0.2881	1.0268	40.3S	164.0E	73	5	95	02m18s
9595	480	2039 Jun 21	17:12:54	84	488	147	A	p-	0.8312	0.9454	78.9N	102.1W	33	153	365	04m05s
9596	480	2039 Dec 15	16:23:46	85	494	152	T	p-	-0.9458	1.0356	80.9S	172.8E	18	123	380	01m51s
9597	480	2040 May 11	03:43:02	85	499	119	P	-t	-1.2529	0.5306	62.8S	174.4E	0	313		
9598	480	2040 Nov 04	19:09:02	85	505	124	P	-t	1.0993	0.8074	62.2N	53.4W	0	234		
9599	480	2041 Apr 30	11:52:21	86	511	129	T	-p	-0.4492	1.0189	9.6S	12.2E	63	337	72	01m51s
9600	480	2041 Oct 25	01:36:22	86	517	134	A	-p	0.4133	0.9467	9.9N	162.9E	66	206	213	06m07s