

TABLE 10

TOTAL SOLAR ECLIPSE OF 2012 NOVEMBER 13/14
 LOCAL CIRCUMSTANCES FOR SOUTH AMERICA & ANTARCTICA

Location Name	Latitude	Longitude	Elev. m	First Contact				Second Contact				Third Contact				Fourth Contact				Maximum Eclipse					Eclip. Mag.	Eclip. Obs.	Umbral Depth	Umbral Durat.
				U.T. h m s	P °	V °	Alt °	U.T. h m s	P °	V °	U.T. h m s	P °	V °	U.T. h m s	P °	V °	Alt °	U.T. h m s	P °	V °	Alt °	Azm °						
ARGENTINA																												
Bahia Blanca	38°43'S	062°17'W	-	22:46:34.3	295	164	2	-	-	-	-	-	-	-	-	-	-	22:57:56.2	301	169	0	246	0.204	0.108				
Mendoza	32°53'S	068°49'W	-	22:50:25.3	283	160	4	-	-	-	-	-	-	-	-	-	-	23:11:44.4	290	165	0	248	0.402	0.289				
San Juan	31°32'S	068°31'W	-	22:51:13.1	281	159	3	-	-	-	-	-	-	-	-	-	-	23:07:56.9	285	162	0	248	0.319	0.208				
CHILE																												
Concepción	36°50'S	073°03'W	-	22:48:00.5	287	161	9	-	-	-	-	-	-	-	-	-	-	23:36:47.8	351	222	0	247	0.765	0.710				
Santiago	33°27'S	070°40'W	-	22:50:12.1	283	160	5	-	-	-	-	-	-	-	-	-	-	23:20:15.2	296	171	0	248	0.558	0.460				
Valparaíso	33°02'S	071°38'W	-	22:50:30.9	282	159	6	-	-	-	-	-	-	-	-	-	-	23:23:18.0	296	171	0	248	0.609	0.520				
Viña del Mar	33°02'S	071°34'W	-	22:50:30.7	282	159	6	-	-	-	-	-	-	-	-	-	-	23:23:02.0	296	171	0	248	0.604	0.515				
PERU																												
Lima	12°03'S	077°03'W	-	23:09:37.6	244	141	0	-	-	-	-	-	-	-	-	-	-	23:11:07.8	243	140	0	251	0.025	0.005				
ANTARCTICA																												
McMurdo	77°50'S	166°40'E	-	21:56:48.7	353	164	27	-	-	-	-	-	-	-	-	-	-	22:15:28.9	11	183	28	39	0.052	0.014				
Palmer	64°46'S	064°03'W	-	22:35:33.5	332	177	13	-	-	-	-	-	-	-	-	-	-	23:05:32.3	6	210	10	248	0.175	0.087				

Eclipse Predictions by Fred Espenak, NASA's GSFC (2012 August)