

## Eclipses During 2020

**Table 2a – Local Circumstances for the Annular Solar Eclipse of 2020 June 21 - EUROPE & AFRICA**

Country	City	Eclipse Begins	Maximum Eclipse	Eclipse Ends	Sun Alt	Sun Azm	Eclipse Mag.	Eclipse Obs.
<b>EUROPE</b>								
Bulgaria	Sofia	07:05	07:36	08:08	28	83	0.117	0.047
Greece	Athens	06:48	07:28	08:11	26	80	0.208	0.110
Italy	Rome	06:18	06:32	06:46	19	75	0.024	0.005
Romania	Bucharest	07:08	07:40	08:12	31	86	0.114	0.045
Russia	Chelyabinsk	08:38	09:26	10:15	54	143	0.199	0.103
	Kazan	08:40	09:14	09:49	47	124	0.104	0.039
	Krasnojarsk	09:10	10:06	11:00	55	211	0.259	0.152
	Moscow	08:51	09:05	09:19	40	109	0.019	0.003
	Niznij Novgorod	08:45	09:10	09:35	44	117	0.056	0.016
	Novosibirsk	08:55	09:53	10:51	58	190	0.283	0.173
	Omsk	08:45	09:41	10:37	58	168	0.260	0.152
	Perm	08:49	09:23	09:58	50	137	0.104	0.039
	Rostov-na-Donu	08:09	08:53	09:39	42	101	0.198	0.102
	Samara	08:29	09:11	09:55	49	122	0.166	0.079
	Saratov	08:23	09:05	09:49	47	114	0.168	0.080
	Sverdlovsk	08:44	09:27	10:10	53	143	0.154	0.071
	Ufa	08:35	09:19	10:05	52	133	0.174	0.085
	Volgograd	08:13	08:59	09:48	46	108	0.212	0.113
Serbia-Mont.	Belgrade	06:17	06:38	07:00	26	82	0.052	0.014
Ukraine	Dnepropetrovsk	08:16	08:51	09:28	39	98	0.129	0.054
	Donetsk	08:13	08:52	09:34	41	100	0.164	0.078
	Kharkov	08:21	08:55	09:29	40	101	0.112	0.044
	Kiev	08:29	08:52	09:15	36	96	0.052	0.014
	Odessa	08:12	08:45	09:20	35	92	0.124	0.051
<b>AFRICA</b>								
Algeria	Algiers	06:13	06:26	06:39	9	68	0.023	0.004
Angola	Luanda	-	-	06:45	0	66	0.386	0.268
Burkina Faso	Ouagadougou	-	-	05:52	0	66	0.114	0.045
Cameroon	Douala	-	-	06:52	0	66	0.591	0.490
Egypt	Alexandria	06:26	07:21	08:21	28	78	0.416	0.300
	Cairo	06:23	07:20	08:22	29	78	0.457	0.343
Dem. Rep. Congo	Kinshasa	-	-	07:48	0	67	0.649	0.559
	Lubumbashi	-	06:43	07:42	3	65	0.510	0.399
	Mbuji-Mayi	-	06:44	07:48	2	66	0.713	0.635
Ethiopia	Addis Abeba	03:50	04:57	06:15	24	68	0.920	0.893
Burkina Faso	Ouagadougou	-	-	05:52	0	66	0.114	0.045
Cameroon	Douala	-	-	06:52	0	66	0.591	0.490
Madagascar	Antananarivo	07:29	07:49	08:09	17	57	0.034	0.008
Mozambique	Maputo	-	06:45	07:06	1	63	0.047	0.012
Nigeria	Benin City	-	-	06:52	0	66	0.400	0.283
	Ibadan	-	-	06:52	0	66	0.291	0.179
	Kaduna	-	-	06:53	0	66	0.559	0.455
	Kano	-	-	06:53	0	66	0.590	0.490
	Lagos	-	-	06:52	0	66	0.271	0.161
	Port Harcourt	-	-	06:51	0	66	0.446	0.330
Somalia	Mogadishu	06:49	07:55	09:13	27	65	0.635	0.543
South Africa	Johannesburg	-	-	07:13	0	64	0.078	0.026
Sudan	Khartoum	05:57	07:01	08:14	22	71	0.810	0.755
Tanzania	Dar-es-Salaam	06:49	07:46	08:51	16	63	0.484	0.372
Tunisia	Tunis	06:00	06:25	06:51	15	71	0.090	0.032
Uganda	Kampala	06:46	07:47	08:58	13	66	0.777	0.713
Zambia	Lusaka	-	06:43	07:36	2	65	0.394	0.277
Zimbabwe	Harare	-	06:43	07:31	3	64	0.291	0.178

All times listed are in Local Time.

"Eclipses During 2020", Fred Espenak,  
*Observer's Handbook 2020*, Royal Astronomical Society of Canada