



NOAA Global Monitoring Laboratory

Global Radiation Group

<https://gml.noaa.gov/grad/solcalc>

Sunrise Table for 2023

Location: Latitude 46.44921 Longitude -86.60248

Time Zone Offset: America/Detroit -5.0

All times are in local time. Cells with light green color indicate when daylight saving time is in effect.

Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	08:30	08:10	07:26	07:26	06:32	05:58	05:58	06:27	07:06	07:45	08:28	08:09
2	08:30	08:09	07:24	07:24	06:31	05:57	05:58	06:28	07:08	07:46	08:29	08:10
3	08:30	08:08	07:22	07:22	06:29	05:56	05:59	06:30	07:09	07:47	08:31	08:12
4	08:30	08:06	07:20	07:20	06:28	05:56	05:59	06:31	07:10	07:49	08:32	08:13
5	08:30	08:05	07:19	07:19	06:26	05:55	06:00	06:32	07:11	07:50	07:33	08:14
6	08:30	08:04	07:17	07:17	06:25	05:55	06:01	06:33	07:13	07:51	07:35	08:15
7	08:29	08:02	07:15	07:15	06:24	05:55	06:02	06:35	07:14	07:53	07:36	08:16
8	08:29	08:01	07:13	07:13	06:22	05:54	06:02	06:36	07:15	07:54	07:38	08:17
9	08:29	07:59	07:11	07:11	06:21	05:54	06:03	06:37	07:16	07:55	07:39	08:18
10	08:28	07:58	07:09	07:09	06:19	05:54	06:04	06:38	07:18	07:57	07:41	08:19
11	08:28	07:56	07:07	07:07	06:18	05:54	06:05	06:40	07:19	07:58	07:42	08:20
12	08:28	07:55	08:05	07:05	06:17	05:53	06:06	06:41	07:20	07:59	07:44	08:21
13	08:27	07:53	08:03	07:03	06:15	05:53	06:07	06:42	07:22	08:01	07:45	08:22
14	08:27	07:52	08:01	07:02	06:14	05:53	06:08	06:43	07:23	08:02	07:46	08:22
15	08:26	07:50	07:59	07:00	06:13	05:53	06:09	06:45	07:24	08:04	07:48	08:23
16	08:25	07:48	07:58	06:58	06:12	05:53	06:10	06:46	07:25	08:05	07:49	08:24
17	08:25	07:47	07:56	06:56	06:11	05:53	06:11	06:47	07:27	08:06	07:51	08:25
18	08:24	07:45	07:54	06:54	06:10	05:53	06:12	06:49	07:28	08:08	07:52	08:25
19	08:23	07:44	07:52	06:53	06:08	05:53	06:13	06:50	07:29	08:09	07:54	08:26
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21	08:22	07:40	07:48	06:49	06:06	05:54	06:15	06:52	07:32	08:12	07:56	08:27
22	08:21	07:38	07:46	06:47	06:05	05:54	06:16	06:54	07:33	08:13	07:58	08:28
23	08:20	07:37	07:44	06:46	06:04	05:54	06:17	06:55	07:34	08:15	07:59	08:28
24	08:19	07:35	07:42	06:44	06:04	05:54	06:18	06:56	07:36	08:16	08:00	08:28
25	08:18	07:33	07:40	06:42	06:03	05:55	06:19	06:57	07:37	08:18	08:02	08:29
26	08:17	07:31	07:38	06:41	06:02	05:55	06:20	06:59	07:38	08:19	08:03	08:29
27	08:16	07:30	07:36	06:39	06:01	05:56	06:21	07:00	07:40	08:20	08:04	08:29
28	08:15	07:28	07:34	06:37	06:00	05:56	06:23	07:01	07:41	08:22	08:06	08:30
29	08:14		07:32	06:36	06:00	05:57	06:24	07:03	07:42	08:23	08:07	08:30
30	08:12		07:30	06:34	05:59	05:57	06:25	07:04	07:43	08:25	08:08	08:30
31	08:11		07:28		05:58		06:26	07:05		08:26		08:30



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Sunset Table for 2023

Location: Latitude 46.44921 Longitude -86.60248

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Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	17:10	17:50	18:32	20:15	20:55	21:31	21:43	21:17	20:26	19:27	18:32	17:01
2	17:11	17:52	18:34	20:16	20:57	21:32	21:42	21:16	20:24	19:25	18:30	17:01
3	17:12	17:53	18:35	20:18	20:58	21:33	21:42	21:15	20:22	19:23	18:29	17:01
4	17:13	17:55	18:36	20:19	20:59	21:34	21:42	21:13	20:20	19:21	18:27	17:00
5	17:14	17:56	18:38	20:20	21:01	21:35	21:42	21:12	20:18	19:19	17:26	17:00
6	17:15	17:58	18:39	20:22	21:02	21:36	21:41	21:10	20:16	19:17	17:24	17:00
7	17:16	18:00	18:41	20:23	21:03	21:36	21:41	21:09	20:14	19:15	17:23	17:00
8	17:17	18:01	18:42	20:25	21:04	21:37	21:40	21:07	20:12	19:13	17:22	16:59
9	17:19	18:03	18:44	20:26	21:06	21:38	21:40	21:06	20:10	19:11	17:21	16:59
10	17:20	18:04	18:45	20:27	21:07	21:38	21:39	21:04	20:08	19:09	17:19	16:59
11	17:21	18:06	18:46	20:29	21:08	21:39	21:38	21:03	20:06	19:07	17:18	16:59
12	17:22	18:07	19:48	20:30	21:10	21:39	21:38	21:01	20:04	19:06	17:17	16:59
13	17:23	18:09	19:49	20:31	21:11	21:40	21:37	21:00	20:02	19:04	17:16	16:59
14	17:25	18:10	19:51	20:33	21:12	21:40	21:36	20:58	20:00	19:02	17:15	17:00
15	17:26	18:12	19:52	20:34	21:13	21:41	21:36	20:56	19:58	19:00	17:14	17:00
16	17:27	18:13	19:53	20:35	21:14	21:41	21:35	20:55	19:56	18:58	17:12	17:00
17	17:29	18:15	19:55	20:37	21:16	21:42	21:34	20:53	19:54	18:56	17:11	17:00
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19	17:31	18:18	19:57	20:39	21:18	21:42	21:32	20:49	19:50	18:53	17:10	17:01
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21	17:34	18:21	20:00	20:42	21:20	21:43	21:30	20:46	19:46	18:49	17:08	17:02
22	17:36	18:22	20:02	20:43	21:21	21:43	21:29	20:44	19:44	18:48	17:07	17:02
23	17:37	18:23	20:03	20:45	21:22	21:43	21:28	20:42	19:42	18:46	17:06	17:03
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30	17:47		20:12	20:54	21:30	21:43	21:20	20:29	19:29	18:35	17:02	17:08
31	17:49		20:14		21:31		21:19	20:28		18:33		17:09



Solar Noon Table for 2023

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Day	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	12:49:44	12:59:55	12:58:50	13:50:24	13:43:34	13:44:11	13:50:12	13:52:48	13:46:36	13:36:15	13:29:58	12:35:14
2	12:50:12	13:00:03	12:58:38	13:50:06	13:43:27	13:44:21	13:50:24	13:52:44	13:46:17	13:35:56	13:29:56	12:35:37
3	12:50:40	13:00:11	12:58:26	13:49:49	13:43:21	13:44:30	13:50:35	13:52:40	13:45:57	13:35:37	13:29:55	12:36:00
4	12:51:08	13:00:17	12:58:13	13:49:31	13:43:15	13:44:40	13:50:46	13:52:35	13:45:38	13:35:18	13:29:55	12:36:24
5	12:51:35	13:00:22	12:58:00	13:49:14	13:43:09	13:44:51	13:50:57	13:52:29	13:45:18	13:34:59	12:29:56	12:36:48
6	12:52:01	13:00:27	12:57:46	13:48:57	13:43:05	13:45:01	13:51:07	13:52:23	13:44:58	13:34:41	12:29:58	12:37:13
7	12:52:28	13:00:31	12:57:32	13:48:40	13:43:00	13:45:12	13:51:17	13:52:16	13:44:38	13:34:23	12:30:01	12:37:39
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17	12:56:20	13:00:27	13:54:52	13:46:05	13:42:48	13:47:15	13:52:33	13:50:36	13:41:07	13:31:51	12:31:14	12:42:16
18	12:56:39	13:00:22	13:54:35	13:45:52	13:42:50	13:47:28	13:52:38	13:50:23	13:40:46	13:31:39	12:31:26	12:42:45
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26	12:58:50	12:59:22	13:52:12	13:44:18	13:43:25	13:49:11	13:52:58	13:48:23	13:37:56	13:30:23	12:33:32	12:46:42
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30	12:59:37		13:51:00	13:43:42	13:43:54	13:50:00	13:52:54	13:47:13	13:36:35	13:30:03	12:34:52	12:48:40
31	12:59:47		13:50:42		13:44:03		13:52:51	13:46:54		13:30:00		12:49:09