

## Răsăritul și Apusul Soarelui în anul 2019

pentru orașul Oradea

Longitudine 21°55'57" Est

Latitudine 47°03'26" Nord

| Zi | IANUARIE      | FEBRUARIE     | MARTIE        | APRILIE       | MAI           | IUNIE         | IULIE         | AUGUST        | SEPTEMBRIE    | OCTOMBRIE     | NOIEMBRIE     | DECEMBRIE     | Zi |
|----|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----|
|    | Răsare Apune  | Răsare Apune  | Răsare Apune  | Răsare Apune  | Răsare Apune  | Răsare Apune  | Răsare Apune  | Răsare Apune  | Răsare Apune  | Răsare Apune  | Răsare Apune  | Răsare Apune  |    |
| 01 | M 08:18 16:53 | V 07:58 17:34 | V 07:13 18:17 | L 06:12 19:01 | M 05:17 19:42 | S 04:41 20:19 | L 04:41 20:31 | J 05:11 20:06 | D 05:51 19:13 | M 06:30 18:13 | V 07:14 17:17 | D 07:57 16:45 | 01 |
| 02 | M 08:18 16:54 | S 07:57 17:36 | S 07:11 18:18 | M 06:10 19:02 | J 05:16 19:44 | D 04:41 20:20 | M 04:41 20:31 | V 05:12 20:04 | L 05:52 19:11 | M 06:32 18:11 | S 07:16 17:15 | L 07:58 16:45 | 02 |
| 03 | J 08:18 16:55 | D 07:55 17:37 | D 07:09 18:20 | M 06:08 19:04 | V 05:14 19:45 | L 04:40 20:21 | M 04:42 20:31 | S 05:13 20:03 | M 05:54 19:09 | J 06:33 18:09 | D 07:17 17:14 | M 07:59 16:44 | 03 |
| 04 | V 08:18 16:56 | L 07:54 17:39 | L 07:07 18:21 | J 06:06 19:05 | S 05:13 19:46 | M 04:40 20:22 | J 04:43 20:30 | D 05:15 20:01 | M 05:55 19:07 | V 06:34 18:07 | L 07:19 17:12 | M 08:00 16:44 | 04 |
| 05 | S 08:18 16:57 | M 07:53 17:40 | M 07:06 18:23 | V 06:04 19:07 | D 05:11 19:48 | M 04:39 20:23 | V 04:43 20:30 | L 05:16 20:00 | J 05:56 19:05 | S 06:36 18:05 | M 07:20 17:11 | J 08:02 16:44 | 05 |
| 06 | D 08:18 16:58 | M 07:51 17:42 | M 07:04 18:24 | S 06:03 19:08 | L 05:10 19:49 | J 04:39 20:24 | S 04:44 20:30 | M 05:17 19:58 | V 05:57 19:03 | D 06:37 18:03 | M 07:22 17:09 | V 08:03 16:43 | 06 |
| 07 | L 08:18 16:59 | J 07:50 17:44 | J 07:02 18:26 | D 06:01 19:09 | M 05:08 19:50 | V 04:38 20:24 | D 04:45 20:29 | M 05:18 19:57 | S 05:59 19:01 | L 06:39 18:01 | J 07:23 17:08 | S 08:04 16:43 | 07 |
| 08 | M 08:17 17:01 | V 07:48 17:45 | V 07:00 18:27 | L 05:59 19:11 | M 05:07 19:52 | S 04:38 20:25 | L 04:46 20:29 | J 05:20 19:55 | D 06:00 18:59 | M 06:40 17:59 | V 07:25 17:07 | D 08:05 16:43 | 08 |
| 09 | M 08:17 17:02 | S 07:47 17:47 | S 06:58 18:29 | M 05:57 19:12 | J 05:05 19:53 | D 04:37 20:26 | M 04:46 20:28 | V 05:21 19:54 | L 06:01 18:57 | M 06:41 17:57 | S 07:26 17:05 | L 08:06 16:43 | 09 |
| 10 | J 08:17 17:03 | D 07:45 17:48 | D 06:56 18:30 | M 05:55 19:13 | V 05:04 19:54 | L 04:37 20:26 | M 04:47 20:28 | S 05:22 19:52 | M 06:03 18:55 | J 06:43 17:55 | D 07:28 17:04 | M 08:07 16:43 | 10 |
| 11 | V 08:16 17:04 | L 07:44 17:50 | L 06:54 18:32 | J 05:53 19:15 | S 05:03 19:56 | M 04:37 20:27 | J 04:48 20:27 | D 05:24 19:51 | M 06:04 18:53 | V 06:44 17:53 | L 07:29 17:03 | M 08:08 16:43 | 11 |
| 12 | S 08:16 17:06 | M 07:42 17:51 | M 06:52 18:33 | V 05:51 19:16 | D 05:01 19:57 | M 04:37 20:28 | V 04:49 20:26 | L 05:25 19:49 | J 06:05 18:51 | S 06:45 17:51 | M 07:31 17:02 | J 08:09 16:43 | 12 |
| 13 | D 08:15 17:07 | M 07:41 17:53 | M 06:50 18:34 | S 05:49 19:18 | L 05:00 19:58 | J 04:37 20:28 | S 04:50 20:26 | M 05:26 19:47 | V 06:07 18:49 | D 06:47 17:50 | M 07:32 17:00 | V 08:09 16:43 | 13 |
| 14 | L 08:15 17:08 | J 07:39 17:54 | J 06:48 18:36 | D 05:47 19:19 | M 04:59 19:59 | V 04:36 20:29 | D 04:51 20:25 | M 05:27 19:46 | S 06:08 18:47 | L 06:48 17:48 | J 07:34 16:59 | S 08:10 16:43 | 14 |
| 15 | M 08:14 17:09 | V 07:38 17:56 | V 06:46 18:37 | L 05:45 19:20 | M 04:57 20:01 | S 04:36 20:29 | L 04:52 20:24 | J 05:29 19:44 | D 06:09 18:45 | M 06:50 17:46 | V 07:35 16:58 | D 08:11 16:43 | 15 |
| 16 | M 08:13 17:11 | S 07:36 17:57 | S 06:44 18:39 | M 05:43 19:22 | J 04:56 20:02 | D 04:36 20:30 | M 04:53 20:23 | V 05:30 19:42 | L 06:11 18:43 | M 06:51 17:44 | S 07:37 16:57 | L 08:12 16:43 | 16 |
| 17 | J 08:13 17:12 | D 07:34 17:59 | D 06:42 18:40 | M 05:42 19:23 | V 04:55 20:03 | L 04:36 20:30 | M 04:54 20:22 | S 05:31 19:41 | M 06:12 18:41 | J 06:53 17:42 | D 07:38 16:56 | M 08:13 16:44 | 17 |
| 18 | V 08:12 17:14 | L 07:33 18:00 | L 06:40 18:41 | J 05:40 19:25 | S 04:54 20:04 | M 04:36 20:30 | J 04:55 20:22 | D 05:33 19:39 | M 06:13 18:39 | V 06:54 17:40 | L 07:39 16:55 | M 08:13 16:44 | 18 |
| 19 | S 08:11 17:15 | M 07:31 18:02 | M 06:38 18:43 | V 05:38 19:26 | D 04:53 20:06 | M 04:37 20:31 | V 04:56 20:21 | L 05:34 19:37 | J 06:14 18:37 | S 06:55 17:39 | M 07:41 16:54 | J 08:14 16:44 | 19 |
| 20 | D 08:10 17:16 | M 07:29 18:04 | M 06:36 18:44 | S 05:36 19:27 | L 04:52 20:07 | J 04:37 20:31 | S 04:57 20:20 | M 05:35 19:35 | V 06:16 18:35 | D 06:57 17:37 | M 07:42 16:53 | V 08:15 16:45 | 20 |
| 21 | L 08:10 17:18 | J 07:28 18:05 | J 06:34 18:46 | D 05:34 19:29 | M 04:51 20:08 | V 04:37 20:31 | D 04:58 20:19 | M 05:37 19:34 | S 06:17 18:33 | L 06:58 17:35 | J 07:44 16:52 | S 08:15 16:45 | 21 |
| 22 | M 08:09 17:19 | V 07:26 18:07 | V 06:32 18:47 | L 05:33 19:30 | M 04:49 20:09 | S 04:37 20:31 | L 04:59 20:18 | J 05:38 19:32 | D 06:18 18:31 | M 07:00 17:33 | V 07:45 16:51 | D 08:16 16:46 | 22 |
| 23 | M 08:08 17:21 | S 07:24 18:08 | S 06:30 18:49 | M 05:31 19:31 | J 04:48 20:10 | D 04:37 20:32 | M 05:00 20:17 | V 05:39 19:30 | L 06:20 18:29 | M 07:01 17:31 | S 07:46 16:50 | L 08:16 16:46 | 23 |
| 24 | J 08:07 17:22 | D 07:22 18:10 | D 06:28 18:50 | M 05:29 19:33 | V 04:48 20:11 | L 04:38 20:32 | S 05:01 20:16 | S 05:40 19:28 | M 06:21 18:27 | J 07:03 17:30 | D 07:48 16:50 | M 08:17 16:47 | 24 |
| 25 | V 08:06 17:24 | L 07:20 18:11 | L 06:26 18:51 | J 05:27 19:34 | S 04:47 20:12 | M 04:38 20:32 | J 05:03 20:14 | D 05:42 19:26 | M 06:22 18:25 | V 07:04 17:28 | L 07:49 16:49 | M 08:17 16:47 | 25 |
| 26 | S 08:05 17:25 | M 07:19 18:13 | M 06:24 18:53 | V 05:26 19:36 | D 04:46 20:13 | M 04:38 20:32 | V 05:04 20:13 | L 05:43 19:24 | J 06:24 18:23 | S 07:06 17:26 | M 07:50 16:48 | J 08:17 16:48 | 26 |
| 27 | D 08:04 17:27 | M 07:17 18:14 | M 06:22 18:54 | S 05:24 19:37 | L 04:45 20:15 | J 04:39 20:32 | S 05:05 20:12 | M 05:44 19:22 | V 06:25 18:21 | D 07:07 17:25 | M 07:52 16:47 | V 08:18 16:49 | 27 |
| 28 | L 08:03 17:28 | J 07:15 18:16 | J 06:20 18:55 | D 05:22 19:38 | M 04:44 20:16 | V 04:39 20:32 | D 05:06 20:11 | M 05:46 19:21 | S 06:26 18:19 | L 07:08 17:23 | J 07:53 16:47 | S 08:18 16:50 | 28 |
| 29 | M 08:02 17:30 |               | V 06:18 18:57 | L 05:21 19:40 | M 04:43 20:17 | S 04:40 20:32 | L 05:07 20:10 | J 05:47 19:19 | D 06:28 18:17 | M 07:10 17:21 | V 07:54 16:46 | D 08:18 16:50 | 29 |
| 30 | M 08:00 17:31 |               | S 06:16 18:58 | M 05:19 19:41 | J 04:43 20:18 | D 04:40 20:31 | M 05:08 20:08 | V 05:48 19:17 | L 06:29 18:15 | M 07:11 17:20 | S 07:56 16:46 | L 08:18 16:51 | 30 |
| 31 | J 07:59 17:33 |               | D 06:14 19:00 |               | V 04:42 20:18 |               | M 05:10 20:07 | S 05:50 19:15 |               | J 07:13 17:18 |               | M 08:18 16:52 | 31 |

Note:

1. Pentru întreg anul orele de răsărit și apus ale Soarelui sunt date în **Timp Legal Român** - UTC+2h
2. În anul 2019 **Ora de Vară** - UTC+3h este introdusă între 31 Martie și 27 Octombrie

## Începutul și sfârșitul Crepusculului Civil în anul 2019

pentru orașul Oradea

Longitudine 21°55'57" Est

Latitudine 47°03'26" Nord

| Zi | IANUARIE        | FEBRUARIE       | MARTIE               | APRILIE         | MAI             | IUNIE           | IULIE           | AUGUST          | SEPTEMBRIE      | OCTOMBRIE            | NOIEMBRIE       | DECEMBRIE       | Zi |
|----|-----------------|-----------------|----------------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------------|-----------------|-----------------|----|
|    | Început Sfârșit | Început Sfârșit | Început Sfârșit      | Început Sfârșit | Început Sfârșit | Început Sfârșit | Început Sfârșit | Început Sfârșit | Început Sfârșit | Început Sfârșit      | Început Sfârșit | Început Sfârșit |    |
| 01 | M 07:43 17:29   | V 07:25 18:07   | V 06:43 18:48        | L 05:42 19:32   | M 04:44 20:16   | S 04:03 20:58   | L 04:01 21:11   | J 04:35 20:41   | D 05:19 19:44   | M 06:00 18:43        | V 06:43 17:49   | D 07:22 17:20   | 01 |
| 02 | M 07:43 17:29   | S 07:24 18:08   | S 06:41 18:49        | M 05:40 19:33   | J 04:42 20:18   | D 04:02 20:59   | M 04:02 21:11   | V 04:37 20:40   | L 05:21 19:42   | M 06:01 18:41        | S 06:44 17:47   | L 07:23 17:19   | 02 |
| 03 | J 07:43 17:30   | D 07:23 18:10   | D 06:39 18:50        | M 05:38 19:35   | V 04:40 20:19   | L 04:01 21:00   | M 04:02 21:10   | S 04:38 20:38   | M 05:22 19:40   | J 06:03 18:39        | D 06:45 17:46   | M 07:24 17:19   | 03 |
| 04 | V 07:43 17:31   | L 07:22 18:11   | L 06:37 18:52        | J 05:35 19:36   | S 04:38 20:21   | M 04:01 21:01   | J 04:03 21:10   | D 04:39 20:36   | M 05:23 19:38   | V 06:04 18:37        | L 06:47 17:44   | M 07:26 17:19   | 04 |
| 05 | S 07:43 17:32   | M 07:20 18:13   | M 06:35 18:53        | V 05:33 19:38   | D 04:37 20:22   | M 04:00 21:02   | V 04:04 21:09   | L 04:41 20:35   | J 05:25 19:36   | S 06:05 18:35        | M 06:48 17:43   | J 07:27 17:19   | 05 |
| 06 | D 07:43 17:33   | M 07:19 18:14   | M 06:33 18:55        | S 05:31 19:39   | L 04:35 20:24   | J 03:59 21:03   | S 04:05 21:09   | M 04:42 20:33   | V 05:26 19:34   | D 06:07 18:33        | M 06:49 17:42   | V 07:28 17:18   | 06 |
| 07 | L 07:43 17:34   | J 07:18 18:16   | J 06:31 18:56        | D 05:29 19:41   | M 04:33 20:25   | V 03:59 21:04   | D 04:06 21:08   | M 04:44 20:31   | S 05:28 19:32   | L 06:08 18:31        | J 06:51 17:40   | S 07:29 17:18   | 07 |
| 08 | M 07:42 17:36   | V 07:16 18:17   | V 06:29 18:58        | L 05:27 19:42   | M 04:32 20:27   | S 03:58 21:05   | L 04:06 21:08   | J 04:45 20:30   | D 05:29 19:30   | M 06:09 18:30        | V 06:52 17:39   | D 07:30 17:18   | 08 |
| 09 | M 07:42 17:37   | S 07:15 18:19   | S 06:28 18:59        | M 05:25 19:44   | J 04:30 20:28   | D 03:58 21:05   | M 04:07 21:07   | V 04:47 20:28   | L 05:30 19:28   | M 06:11 18:28        | S 06:54 17:38   | L 07:31 17:18   | 09 |
| 10 | J 07:42 17:38   | D 07:14 18:20   | D 06:26 19:00        | M 05:23 19:45   | V 04:29 20:30   | L 03:58 21:06   | M 04:08 21:06   | S 04:48 20:26   | M 05:32 19:26   | J 06:12 18:26        | D 06:55 17:37   | M 07:32 17:18   | 10 |
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| 12 | S 07:41 17:40   | M 07:11 18:23   | M 06:22 19:03        | V 05:19 19:48   | D 04:26 20:33   | M 03:57 21:07   | V 04:10 21:05   | L 04:51 20:23   | J 05:34 19:22   | S 06:15 18:22        | M 06:58 17:34   | J 07:33 17:18   | 12 |
| 13 | D 07:41 17:41   | M 07:09 18:24   | M 06:20 19:05        | S 05:17 19:49   | L 04:24 20:34   | J 03:57 21:08   | S 04:11 21:04   | M 04:52 20:21   | V 05:36 19:20   | D 06:16 18:20        | M 06:59 17:33   | V 07:34 17:18   | 13 |
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| 16 | M 07:39 17:45   | S 07:05 18:29   | S 06:14 19:09        | M 05:11 19:54   | J 04:20 20:38   | D 03:56 21:10   | M 04:15 21:01   | V 04:57 20:16   | L 05:40 19:14   | M 06:20 18:15        | S 07:03 17:30   | L 07:36 17:19   | 16 |
| 17 | J 07:39 17:46   | D 07:03 18:30   | D 06:12 19:10        | M 05:10 19:55   | V 04:19 20:40   | L 03:56 21:10   | M 04:16 21:00   | S 04:58 20:14   | M 05:41 19:12   | J 06:22 18:13        | D 07:05 17:29   | M 07:37 17:19   | 17 |
| 18 | V 07:38 17:48   | L 07:01 18:32   | L 06:10 19:12        | J 05:08 19:57   | S 04:17 20:41   | M 03:56 21:10   | J 04:17 20:59   | D 04:59 20:12   | M 05:43 19:10   | V 06:23 18:11        | L 07:06 17:28   | M 07:38 17:20   | 18 |
| 19 | S 07:37 17:49   | M 07:00 18:33   | M 06:08 19:13        | V 05:06 19:58   | D 04:16 20:42   | M 03:57 21:11   | V 04:18 20:58   | L 05:01 20:10   | J 05:44 19:07   | S 06:24 18:09        | M 07:07 17:27   | J 07:38 17:20   | 19 |
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| 31 | J 07:26 18:05   |                 | <b>D 05:44 19:30</b> |                 | V 04:03 20:57   |                 | M 04:34 20:43   | S 05:18 19:46   |                 | J 06:41 17:50        |                 | M 07:43 17:27   | 31 |

Note:

1. Pentru întreg anul orele de început și sfârșit ale Crepusculului Civil sunt date în **Timp Legal Român** - UTC+2 h
2. În anul 2019 **Ora de Vară** - UTC+3 h este introdusă între 31 Martie și 27 Octombrie