

# OBSERVATÓRIO ASTRONÓMICO DE LISBOA

Tapada da Ajuda, 1349-018 LISBOA

## NASCIMENTO E OCASO DO SOL (FUNCHAL)

(Hora Legal)

2013

| DIA | JANEIRO |       | FEVEREIRO |       | MARÇO |       | ABRIL |       | MAIO  |       | JUNHO |       |
|-----|---------|-------|-----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|     | Nasc.   | Ocaso | Nasc.     | Ocaso | Nasc. | Ocaso | Nasc. | Ocaso | Nasc. | Ocaso | Nasc. | Ocaso |
|     | h       | min   | h         | min   | h     | min   | h     | min   | h     | min   | h     | min   |
| 1   | 08:10   | 18:13 | 08:02     | 18:41 | 07:35 | 19:05 | 07:56 | 20:28 | 07:21 | 20:49 | 07:01 | 21:10 |
| 2   | 08:10   | 18:14 | 08:02     | 18:42 | 07:34 | 19:06 | 07:54 | 20:28 | 07:20 | 20:50 | 07:01 | 21:11 |
| 3   | 08:10   | 18:14 | 08:01     | 18:42 | 07:33 | 19:07 | 07:53 | 20:29 | 07:19 | 20:51 | 07:00 | 21:11 |
| 4   | 08:10   | 18:15 | 08:00     | 18:43 | 07:32 | 19:07 | 07:52 | 20:30 | 07:18 | 20:51 | 07:00 | 21:12 |
| 5   | 08:10   | 18:16 | 07:59     | 18:44 | 07:30 | 19:08 | 07:50 | 20:31 | 07:17 | 20:52 | 07:00 | 21:13 |
| 6   | 08:10   | 18:17 | 07:59     | 18:45 | 07:29 | 19:09 | 07:49 | 20:31 | 07:16 | 20:53 | 07:00 | 21:13 |
| 7   | 08:11   | 18:18 | 07:58     | 18:46 | 07:28 | 19:10 | 07:48 | 20:32 | 07:15 | 20:54 | 07:00 | 21:14 |
| 8   | 08:11   | 18:19 | 07:57     | 18:47 | 07:27 | 19:10 | 07:47 | 20:33 | 07:14 | 20:54 | 07:00 | 21:14 |
| 9   | 08:11   | 18:19 | 07:56     | 18:48 | 07:25 | 19:11 | 07:45 | 20:33 | 07:13 | 20:55 | 06:59 | 21:14 |
| 10  | 08:10   | 18:20 | 07:55     | 18:49 | 07:24 | 19:12 | 07:44 | 20:34 | 07:13 | 20:56 | 06:59 | 21:15 |
| 11  | 08:10   | 18:21 | 07:54     | 18:50 | 07:23 | 19:13 | 07:43 | 20:35 | 07:12 | 20:56 | 06:59 | 21:15 |
| 12  | 08:10   | 18:22 | 07:53     | 18:51 | 07:22 | 19:13 | 07:42 | 20:35 | 07:11 | 20:57 | 06:59 | 21:16 |
| 13  | 08:10   | 18:23 | 07:52     | 18:52 | 07:20 | 19:14 | 07:41 | 20:36 | 07:10 | 20:58 | 06:59 | 21:16 |
| 14  | 08:10   | 18:24 | 07:52     | 18:52 | 07:19 | 19:15 | 07:39 | 20:37 | 07:10 | 20:59 | 06:59 | 21:16 |
| 15  | 08:10   | 18:25 | 07:51     | 18:53 | 07:18 | 19:16 | 07:38 | 20:38 | 07:09 | 20:59 | 07:00 | 21:17 |
| 16  | 08:10   | 18:26 | 07:50     | 18:54 | 07:17 | 19:16 | 07:37 | 20:38 | 07:08 | 21:00 | 07:00 | 21:17 |
| 17  | 08:09   | 18:27 | 07:49     | 18:55 | 07:15 | 19:17 | 07:36 | 20:39 | 07:08 | 21:01 | 07:00 | 21:17 |
| 18  | 08:09   | 18:27 | 07:48     | 18:56 | 07:14 | 19:18 | 07:35 | 20:40 | 07:07 | 21:01 | 07:00 | 21:18 |
| 19  | 08:09   | 18:28 | 07:46     | 18:57 | 07:13 | 19:19 | 07:33 | 20:40 | 07:06 | 21:02 | 07:00 | 21:18 |
| 20  | 08:08   | 18:29 | 07:45     | 18:58 | 07:11 | 19:19 | 07:32 | 20:41 | 07:06 | 21:03 | 07:00 | 21:18 |
| 21  | 08:08   | 18:30 | 07:44     | 18:59 | 07:10 | 19:20 | 07:31 | 20:42 | 07:05 | 21:04 | 07:00 | 21:18 |
| 22  | 08:08   | 18:31 | 07:43     | 18:59 | 07:09 | 19:21 | 07:30 | 20:43 | 07:05 | 21:04 | 07:01 | 21:19 |
| 23  | 08:07   | 18:32 | 07:42     | 19:00 | 07:07 | 19:21 | 07:29 | 20:43 | 07:04 | 21:05 | 07:01 | 21:19 |
| 24  | 08:07   | 18:33 | 07:41     | 19:01 | 07:06 | 19:22 | 07:28 | 20:44 | 07:04 | 21:05 | 07:01 | 21:19 |
| 25  | 08:06   | 18:34 | 07:40     | 19:02 | 07:05 | 19:23 | 07:27 | 20:45 | 07:03 | 21:06 | 07:01 | 21:19 |
| 26  | 08:06   | 18:35 | 07:39     | 19:03 | 07:03 | 19:23 | 07:26 | 20:46 | 07:03 | 21:07 | 07:02 | 21:19 |
| 27  | 08:05   | 18:36 | 07:38     | 19:03 | 07:02 | 19:24 | 07:25 | 20:46 | 07:02 | 21:07 | 07:02 | 21:19 |
| 28  | 08:05   | 18:37 | 07:36     | 19:04 | 07:01 | 19:25 | 07:24 | 20:47 | 07:02 | 21:08 | 07:02 | 21:19 |
| 29  | 08:04   | 18:38 | -         | -     | 07:00 | 19:26 | 07:23 | 20:48 | 07:02 | 21:09 | 07:03 | 21:19 |
| 30  | 08:04   | 18:39 | -         | -     | 06:58 | 19:26 | 07:22 | 20:48 | 07:01 | 21:09 | 07:03 | 21:19 |
| 31  | 08:03   | 18:40 | -         | -     | 07:57 | 20:27 | -     | -     | 07:01 | 21:10 | -     | -     |

**OBSERVATÓRIO ASTRONÓMICO DE LISBOA**

Tapada da Ajuda, 1349-018 LISBOA

**NASCIMENTO E OCASO DO SOL (FUNCHAL)**

(Hora Legal)

**2013**

| JULHO |       | AGOSTO |       | SETEMBRO |       | OUTUBRO |       | NOVEMBRO |       | DEZEMBRO |       | DIA |
|-------|-------|--------|-------|----------|-------|---------|-------|----------|-------|----------|-------|-----|
| Nasc. | Ocaso | Nasc.  | Ocaso | Nasc.    | Ocaso | Nasc.   | Ocaso | Nasc.    | Ocaso | Nasc.    | Ocaso |     |
| h min | h min | h min  | h min | h min    | h min | h min   | h min | h min    | h min | h min    | h min |     |
| 07:04 | 21:19 | 07:22  | 21:06 | 07:42    | 20:32 | 08:02   | 19:52 | 07:25    | 18:17 | 07:52    | 18:02 | 1   |
| 07:04 | 21:19 | 07:22  | 21:05 | 07:43    | 20:31 | 08:02   | 19:51 | 07:26    | 18:16 | 07:53    | 18:01 | 2   |
| 07:04 | 21:19 | 07:23  | 21:04 | 07:44    | 20:30 | 08:03   | 19:50 | 07:27    | 18:15 | 07:53    | 18:01 | 3   |
| 07:05 | 21:19 | 07:24  | 21:03 | 07:44    | 20:28 | 08:04   | 19:48 | 07:28    | 18:14 | 07:54    | 18:01 | 4   |
| 07:05 | 21:19 | 07:24  | 21:02 | 07:45    | 20:27 | 08:04   | 19:47 | 07:29    | 18:13 | 07:55    | 18:01 | 5   |
| 07:06 | 21:19 | 07:25  | 21:01 | 07:46    | 20:26 | 08:05   | 19:46 | 07:30    | 18:13 | 07:56    | 18:02 | 6   |
| 07:06 | 21:19 | 07:26  | 21:00 | 07:46    | 20:24 | 08:06   | 19:44 | 07:30    | 18:12 | 07:57    | 18:02 | 7   |
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| 07:07 | 21:18 | 07:27  | 20:58 | 07:48    | 20:22 | 08:07   | 19:42 | 07:32    | 18:10 | 07:58    | 18:02 | 9   |
| 07:08 | 21:18 | 07:28  | 20:58 | 07:48    | 20:20 | 08:08   | 19:41 | 07:33    | 18:10 | 07:59    | 18:02 | 10  |
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| 07:10 | 21:17 | 07:30  | 20:54 | 07:50    | 20:16 | 08:10   | 19:37 | 07:36    | 18:08 | 08:01    | 18:03 | 13  |
| 07:10 | 21:17 | 07:31  | 20:53 | 07:51    | 20:15 | 08:11   | 19:36 | 07:37    | 18:07 | 08:02    | 18:03 | 14  |
| 07:11 | 21:16 | 07:31  | 20:52 | 07:51    | 20:14 | 08:12   | 19:35 | 07:38    | 18:07 | 08:02    | 18:03 | 15  |
| 07:11 | 21:16 | 07:32  | 20:51 | 07:52    | 20:12 | 08:12   | 19:33 | 07:39    | 18:06 | 08:03    | 18:04 | 16  |
| 07:12 | 21:15 | 07:33  | 20:50 | 07:53    | 20:11 | 08:13   | 19:32 | 07:39    | 18:06 | 08:04    | 18:04 | 17  |
| 07:13 | 21:15 | 07:33  | 20:49 | 07:53    | 20:10 | 08:14   | 19:31 | 07:40    | 18:05 | 08:04    | 18:05 | 18  |
| 07:13 | 21:14 | 07:34  | 20:48 | 07:54    | 20:08 | 08:15   | 19:30 | 07:41    | 18:05 | 08:05    | 18:05 | 19  |
| 07:14 | 21:14 | 07:35  | 20:47 | 07:55    | 20:07 | 08:15   | 19:29 | 07:42    | 18:04 | 08:05    | 18:05 | 20  |
| 07:14 | 21:13 | 07:35  | 20:46 | 07:55    | 20:06 | 08:16   | 19:28 | 07:43    | 18:04 | 08:06    | 18:06 | 21  |
| 07:15 | 21:13 | 07:36  | 20:44 | 07:56    | 20:04 | 08:17   | 19:27 | 07:44    | 18:03 | 08:06    | 18:06 | 22  |
| 07:16 | 21:12 | 07:37  | 20:43 | 07:56    | 20:03 | 08:18   | 19:26 | 07:45    | 18:03 | 08:07    | 18:07 | 23  |
| 07:16 | 21:11 | 07:37  | 20:42 | 07:57    | 20:01 | 08:19   | 19:25 | 07:46    | 18:03 | 08:07    | 18:07 | 24  |
| 07:17 | 21:11 | 07:38  | 20:41 | 07:58    | 20:00 | 08:19   | 19:23 | 07:47    | 18:03 | 08:08    | 18:08 | 25  |
| 07:18 | 21:10 | 07:39  | 20:40 | 07:58    | 19:59 | 08:20   | 19:22 | 07:47    | 18:02 | 08:08    | 18:09 | 26  |
| 07:18 | 21:09 | 07:39  | 20:38 | 07:59    | 19:57 | 07:21   | 18:21 | 07:48    | 18:02 | 08:08    | 18:09 | 27  |
| 07:19 | 21:09 | 07:40  | 20:37 | 08:00    | 19:56 | 07:22   | 18:20 | 07:49    | 18:02 | 08:09    | 18:10 | 28  |
| 07:20 | 21:08 | 07:41  | 20:36 | 08:00    | 19:55 | 07:23   | 18:20 | 07:50    | 18:02 | 08:09    | 18:11 | 29  |
| 07:20 | 21:07 | 07:41  | 20:35 | 08:01    | 19:53 | 07:24   | 18:19 | 07:51    | 18:02 | 08:09    | 18:11 | 30  |
| 07:21 | 21:06 | 07:42  | 20:33 | -        | -     | 07:24   | 18:18 | -        | -     | 08:09    | 18:12 | 31  |