

**OBSERVATÓRIO ASTRONÓMICO DE LISBOA**

Tapada da Ajuda, 1349-018 LISBOA

**TEMPO UNIVERSAL AO MEIO-DIA SOLAR VERDADEIRO****BRAGANÇA****2013**

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

**OBSERVATÓRIO ASTRONÓMICO DE LISBOA**  
Tapada da Ajuda, 1349-018 LISBOA

**TEMPO UNIVERSAL AO MEIO-DIA SOLAR VERDADEIRO**

**BRAGANÇA**

**2013**

JULHO	AGOSTO	SETEMBRO	OUTUBRO	NOVEMBRO	DEZEMBRO	DIA
h m s	h m s	h m s	h m s	h m s	h m s	
12:30:55	12:33:20	12:26:58	12:16:37	12:10:37	12:16:08	1
12:31:07	12:33:16	12:26:38	12:16:18	12:10:36	12:16:31	2
12:31:18	12:33:12	12:26:19	12:16:00	12:10:36	12:16:55	3
12:31:29	12:33:06	12:25:59	12:15:41	12:10:37	12:17:19	4
12:31:39	12:33:00	12:25:39	12:15:23	12:10:39	12:17:44	5
12:31:49	12:32:54	12:25:19	12:15:06	12:10:41	12:18:09	6
12:31:59	12:32:47	12:24:59	12:14:49	12:10:44	12:18:35	7
12:32:09	12:32:39	12:24:38	12:14:32	12:10:48	12:19:01	8
12:32:18	12:32:31	12:24:17	12:14:15	12:10:53	12:19:28	9
12:32:26	12:32:22	12:23:57	12:13:59	12:10:59	12:19:55	10
12:32:34	12:32:12	12:23:35	12:13:44	12:11:06	12:20:23	11
12:32:42	12:32:02	12:23:14	12:13:29	12:11:13	12:20:51	12
12:32:49	12:31:51	12:22:53	12:13:14	12:11:21	12:21:19	13
12:32:56	12:31:40	12:22:32	12:13:00	12:11:30	12:21:47	14
12:33:02	12:31:29	12:22:10	12:12:47	12:11:40	12:22:16	15
12:33:08	12:31:16	12:21:49	12:12:34	12:11:51	12:22:45	16
12:33:13	12:31:03	12:21:27	12:12:21	12:12:02	12:23:14	17
12:33:17	12:30:50	12:21:06	12:12:10	12:12:15	12:23:44	18
12:33:21	12:30:36	12:20:44	12:11:58	12:12:28	12:24:13	19
12:33:25	12:30:22	12:20:23	12:11:48	12:12:42	12:24:43	20
12:33:28	12:30:07	12:20:02	12:11:38	12:12:57	12:25:13	21
12:33:30	12:29:52	12:19:40	12:11:29	12:13:13	12:25:42	22
12:33:32	12:29:36	12:19:19	12:11:20	12:13:29	12:26:12	23
12:33:33	12:29:20	12:18:58	12:11:12	12:13:46	12:26:42	24
12:33:33	12:29:03	12:18:38	12:11:05	12:14:04	12:27:12	25
12:33:33	12:28:46	12:18:17	12:10:59	12:14:23	12:27:41	26
12:33:32	12:28:29	12:17:57	12:10:53	12:14:43	12:28:11	27
12:33:31	12:28:11	12:17:36	12:10:49	12:15:03	12:28:40	28
12:33:29	12:27:53	12:17:16	12:10:45	12:15:24	12:29:10	29
12:33:27	12:27:35	12:16:57	12:10:41	12:15:46	12:29:39	30
12:33:24	12:27:16	-	12:10:39	-	12:30:07	31