

London

Longitude W000 10  
Latitude N51 30

Civil Date			Twilight	Sunrise	Transit	Shadow 1	Shadow 2	Sunset	Twilight
Year	mth	d	h m	h m	h m	h m	h m	h m	h m
2015	1	1	06 03	08 06	12 04	13 46	14 16	16 02	18 06
2015	1	2	06 03	08 06	12 05	13 47	14 17	16 03	18 07
2015	1	3	06 03	08 06	12 05	13 48	14 18	16 04	18 07
2015	1	4	06 03	08 06	12 05	13 49	14 20	16 05	18 08
2015	1	5	06 03	08 06	12 06	13 50	14 21	16 07	18 09
2015	1	6	06 03	08 05	12 06	13 51	14 22	16 08	18 10
2015	1	7	06 02	08 05	12 07	13 52	14 23	16 09	18 12
2015	1	8	06 02	08 04	12 07	13 53	14 24	16 10	18 13
2015	1	9	06 02	08 04	12 08	13 54	14 26	16 12	18 14
2015	1	10	06 02	08 03	12 08	13 55	14 27	16 13	18 15
2015	1	11	06 01	08 03	12 08	13 57	14 28	16 15	18 16
2015	1	12	06 01	08 02	12 09	13 58	14 30	16 16	18 17
2015	1	13	06 00	08 01	12 09	13 59	14 31	16 17	18 18
2015	1	14	06 00	08 01	12 10	14 00	14 33	16 19	18 20
2015	1	15	05 59	08 00	12 10	14 02	14 34	16 21	18 21
2015	1	16	05 59	07 59	12 10	14 03	14 36	16 22	18 22
2015	1	17	05 58	07 58	12 11	14 04	14 37	16 24	18 24
2015	1	18	05 58	07 57	12 11	14 06	14 39	16 25	18 25
2015	1	19	05 57	07 56	12 11	14 07	14 40	16 27	18 26
2015	1	20	05 56	07 55	12 12	14 08	14 42	16 29	18 28
2015	1	21	05 55	07 54	12 12	14 10	14 43	16 30	18 29
2015	1	22	05 55	07 53	12 12	14 11	14 45	16 32	18 30
2015	1	23	05 54	07 52	12 12	14 13	14 47	16 34	18 32
2015	1	24	05 53	07 51	12 13	14 14	14 48	16 35	18 33
2015	1	25	05 52	07 49	12 13	14 15	14 50	16 37	18 35
2015	1	26	05 51	07 48	12 13	14 17	14 51	16 39	18 36
2015	1	27	05 50	07 47	12 13	14 18	14 53	16 41	18 38
2015	1	28	05 49	07 45	12 14	14 20	14 55	16 42	18 39
2015	1	29	05 48	07 44	12 14	14 21	14 56	16 44	18 41
2015	1	30	05 46	07 42	12 14	14 22	14 58	16 46	18 42
2015	1	31	05 45	07 41	12 14	14 24	15 00	16 48	18 44
2015	2	1	05 44	07 39	12 14	14 25	15 02	16 50	18 45
2015	2	2	05 43	07 38	12 14	14 27	15 03	16 51	18 47
2015	2	3	05 42	07 36	12 14	14 28	15 05	16 53	18 48
2015	2	4	05 40	07 35	12 15	14 30	15 07	16 55	18 50
2015	2	5	05 39	07 33	12 15	14 31	15 08	16 57	18 51
2015	2	6	05 37	07 31	12 15	14 33	15 10	16 59	18 53
2015	2	7	05 36	07 30	12 15	14 34	15 12	17 00	18 54
2015	2	8	05 34	07 28	12 15	14 35	15 14	17 02	18 56
2015	2	9	05 33	07 26	12 15	14 37	15 15	17 04	18 58
2015	2	10	05 31	07 24	12 15	14 38	15 17	17 06	18 59
2015	2	11	05 30	07 23	12 15	14 40	15 19	17 08	19 01
2015	2	12	05 28	07 21	12 15	14 41	15 20	17 10	19 03
2015	2	13	05 26	07 19	12 15	14 43	15 22	17 11	19 04
2015	2	14	05 25	07 17	12 15	14 44	15 24	17 13	19 06
2015	2	15	05 23	07 15	12 15	14 45	15 25	17 15	19 07
2015	2	16	05 21	07 13	12 15	14 47	15 27	17 17	19 09
2015	2	17	05 20	07 11	12 15	14 48	15 29	17 19	19 11
2015	2	18	05 18	07 09	12 15	14 50	15 30	17 21	19 12
2015	2	19	05 16	07 07	12 14	14 51	15 32	17 22	19 14
2015	2	20	05 14	07 05	12 14	14 52	15 34	17 24	19 16
2015	2	21	05 12	07 03	12 14	14 54	15 35	17 26	19 18
2015	2	22	05 10	07 01	12 14	14 55	15 37	17 28	19 19
2015	2	23	05 08	06 59	12 14	14 56	15 39	17 30	19 21

NOTE: These times are in GMT, except between 0100 on Mar.29 and 0100 on Oct.25, when they are in BST (1 hour in advance of GMT).

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 Shadow 2 = Times when the length of the shadow cast by a vertical stick is equal to twice its length plus length of its shadow at transit  
 Transit = Time of Meridian passage of Sun

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Longitude W000 10  
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Civil Date			Twilight	Sunrise	Transit	Shadow 1	Shadow 2	Sunset	Twilight
Year	mth	d	h m	h m	h m	h m	h m	h m	h m
2015	2	24	05 06	06 57	12 14	14 58	15 40	17 31	19 23
2015	2	25	05 04	06 55	12 14	14 59	15 42	17 33	19 24
2015	2	26	05 02	06 53	12 14	15 00	15 43	17 35	19 26
2015	2	27	05 00	06 51	12 13	15 02	15 45	17 37	19 28
2015	2	28	04 58	06 49	12 13	15 03	15 47	17 39	19 30
2015	3	1	04 56	06 47	12 13	15 04	15 48	17 40	19 31
2015	3	2	04 54	06 45	12 13	15 05	15 50	17 42	19 33
2015	3	3	04 52	06 42	12 13	15 07	15 51	17 44	19 35
2015	3	4	04 49	06 40	12 12	15 08	15 53	17 46	19 37
2015	3	5	04 47	06 38	12 12	15 09	15 54	17 47	19 39
2015	3	6	04 45	06 36	12 12	15 10	15 56	17 49	19 40
2015	3	7	04 43	06 34	12 12	15 11	15 57	17 51	19 42
2015	3	8	04 40	06 31	12 11	15 13	15 59	17 53	19 44
2015	3	9	04 38	06 29	12 11	15 14	16 00	17 54	19 46
2015	3	10	04 36	06 27	12 11	15 15	16 02	17 56	19 48
2015	3	11	04 33	06 25	12 11	15 16	16 03	17 58	19 50
2015	3	12	04 31	06 22	12 10	15 17	16 05	17 59	19 51
2015	3	13	04 28	06 20	12 10	15 18	16 06	18 01	19 53
2015	3	14	04 26	06 18	12 10	15 19	16 07	18 03	19 55
2015	3	15	04 24	06 16	12 10	15 20	16 09	18 05	19 57
2015	3	16	04 21	06 13	12 09	15 22	16 10	18 06	19 59
2015	3	17	04 19	06 11	12 09	15 23	16 12	18 08	20 01
2015	3	18	04 16	06 09	12 09	15 24	16 13	18 10	20 03
2015	3	19	04 14	06 07	12 09	15 25	16 14	18 11	20 05
2015	3	20	04 11	06 04	12 08	15 26	16 16	18 13	20 07
2015	3	21	04 08	06 02	12 08	15 27	16 17	18 15	20 09
2015	3	22	04 06	06 00	12 08	15 28	16 18	18 17	20 11
2015	3	23	04 03	05 57	12 07	15 29	16 20	18 18	20 13
2015	3	24	04 01	05 55	12 07	15 30	16 21	18 20	20 15
2015	3	25	03 58	05 53	12 07	15 31	16 22	18 22	20 17
2015	3	26	03 55	05 51	12 06	15 32	16 24	18 23	20 19
2015	3	27	03 53	05 48	12 06	15 33	16 25	18 25	20 21
2015	3	28	03 50	05 46	12 06	15 34	16 26	18 27	20 23
2015	3	29	04 47	06 44	13 06	16 35	17 27	19 28	21 26
2015	3	30	04 44	06 42	13 05	16 36	17 29	19 30	21 28
2015	3	31	04 42	06 39	13 05	16 36	17 30	19 32	21 30
2015	4	1	04 39	06 37	13 05	16 37	17 31	19 33	21 32
2015	4	2	04 36	06 35	13 04	16 38	17 32	19 35	21 34
2015	4	3	04 33	06 32	13 04	16 39	17 34	19 37	21 37
2015	4	4	04 30	06 30	13 04	16 40	17 35	19 38	21 39
2015	4	5	04 28	06 28	13 03	16 41	17 36	19 40	21 41
2015	4	6	04 25	06 26	13 03	16 42	17 37	19 42	21 44
2015	4	7	04 22	06 23	13 03	16 43	17 38	19 43	21 46
2015	4	8	04 19	06 21	13 03	16 43	17 40	19 45	21 48
2015	4	9	04 16	06 19	13 02	16 44	17 41	19 47	21 51
2015	4	10	04 13	06 17	13 02	16 45	17 42	19 48	21 53
2015	4	11	04 10	06 15	13 02	16 46	17 43	19 50	21 56
2015	4	12	04 07	06 12	13 02	16 47	17 44	19 52	21 58
2015	4	13	04 04	06 10	13 01	16 47	17 45	19 53	22 01
2015	4	14	04 01	06 08	13 01	16 48	17 46	19 55	22 03
2015	4	15	03 58	06 06	13 01	16 49	17 48	19 57	22 06
2015	4	16	03 55	06 04	13 01	16 50	17 49	19 58	22 09
2015	4	17	03 52	06 02	13 00	16 51	17 50	20 00	22 11
2015	4	18	03 48	05 59	13 00	16 51	17 51	20 02	22 14

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Civil Date			Twilight	Sunrise	Transit	Shadow 1	Shadow 2	Sunset	Twilight
Year	mth	d	h m	h m	h m	h m	h m	h m	h m
2015	4	19	03 45	05 57	13 00	16 52	17 52	20 03	22 17
2015	4	20	03 42	05 55	13 00	16 53	17 53	20 05	22 19
2015	4	21	03 39	05 53	12 59	16 54	17 54	20 07	22 22
2015	4	22	03 36	05 51	12 59	16 54	17 55	20 08	22 25
2015	4	23	03 32	05 49	12 59	16 55	17 56	20 10	22 28
2015	4	24	03 29	05 47	12 59	16 56	17 57	20 12	22 31
2015	4	25	03 26	05 45	12 59	16 56	17 58	20 13	22 34
2015	4	26	03 23	05 43	12 59	16 57	17 59	20 15	22 37
2015	4	27	03 19	05 41	12 58	16 58	18 01	20 17	22 40
2015	4	28	03 16	05 39	12 58	16 58	18 02	20 18	22 43
2015	4	29	03 12	05 37	12 58	16 59	18 03	20 20	22 46
2015	4	30	03 09	05 35	12 58	17 00	18 04	20 22	22 50
2015	5	1	03 05	05 33	12 58	17 01	18 05	20 23	22 53
2015	5	2	03 02	05 31	12 58	17 01	18 06	20 25	22 56
2015	5	3	02 58	05 30	12 58	17 02	18 07	20 27	23 00
2015	5	4	02 55	05 28	12 57	17 02	18 08	20 28	23 03
2015	5	5	02 51	05 26	12 57	17 03	18 09	20 30	23 07
2015	5	6	02 47	05 24	12 57	17 04	18 10	20 31	23 11
2015	5	7	02 43	05 22	12 57	17 04	18 11	20 33	23 14
2015	5	8	02 39	05 21	12 57	17 05	18 11	20 35	23 18
2015	5	9	02 35	05 19	12 57	17 06	18 12	20 36	23 22
2015	5	10	02 31	05 17	12 57	17 06	18 13	20 38	23 26
2015	5	11	02 27	05 16	12 57	17 07	18 14	20 39	23 31
2015	5	12	02 23	05 14	12 57	17 08	18 15	20 41	23 35
2015	5	13	02 18	05 13	12 57	17 08	18 16	20 42	23 40
2015	5	14	02 14	05 11	12 57	17 09	18 17	20 44	23 44
2015	5	15	02 09	05 09	12 57	17 09	18 18	20 45	23 49
2015	5	16	02 04	05 08	12 57	17 10	18 19	20 47	23 55
2015	5	17	01 59	05 07	12 57	17 10	18 20	20 48	24 00
2015	5	18	01 53	05 05	12 57	17 11	18 21	20 50	24 06
2015	5	19	01 47	05 04	12 57	17 12	18 21	20 51	24 13
2015	5	20	01 41	05 02	12 57	17 12	18 22	20 53	24 21
2015	5	21	01 33	05 01	12 57	17 13	18 23	20 54	24 31
2015	5	22	01 23	05 00	12 57	17 13	18 24	20 56	24 48
2015	5	23	01 06	04 59	12 57	17 14	18 25	20 57	** **
2015	5	24	** **	04 57	12 57	17 14	18 25	20 58	** **
2015	5	25	** **	04 56	12 58	17 15	18 26	21 00	** **
2015	5	26	** **	04 55	12 58	17 15	18 27	21 01	** **
2015	5	27	** **	04 54	12 58	17 16	18 28	21 02	** **
2015	5	28	** **	04 53	12 58	17 16	18 28	21 03	** **
2015	5	29	** **	04 52	12 58	17 17	18 29	21 05	** **
2015	5	30	** **	04 51	12 58	17 17	18 30	21 06	** **
2015	5	31	** **	04 50	12 58	17 18	18 31	21 07	** **
2015	6	1	** **	04 50	12 58	17 18	18 31	21 08	** **
2015	6	2	** **	04 49	12 59	17 19	18 32	21 09	** **
2015	6	3	** **	04 48	12 59	17 19	18 32	21 10	** **
2015	6	4	** **	04 47	12 59	17 20	18 33	21 11	** **
2015	6	5	** **	04 47	12 59	17 20	18 34	21 12	** **
2015	6	6	** **	04 46	12 59	17 21	18 34	21 13	** **
2015	6	7	** **	04 46	12 59	17 21	18 35	21 14	** **
2015	6	8	** **	04 45	13 00	17 21	18 35	21 15	** **
2015	6	9	** **	04 45	13 00	17 22	18 36	21 16	** **
2015	6	10	** **	04 44	13 00	17 22	18 36	21 16	** **
2015	6	11	** **	04 44	13 00	17 22	18 37	21 17	** **

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Civil Date			Twilight	Sunrise	Transit	Shadow 1	Shadow 2	Sunset	Twilight
Year	mth	d	h m	h m	h m	h m	h m	h m	h m
2015	6	12	** **	04 44	13 00	17 23	18 37	21 18	** **
2015	6	13	** **	04 43	13 01	17 23	18 38	21 18	** **
2015	6	14	** **	04 43	13 01	17 23	18 38	21 19	** **
2015	6	15	** **	04 43	13 01	17 24	18 38	21 19	** **
2015	6	16	** **	04 43	13 01	17 24	18 39	21 20	** **
2015	6	17	** **	04 43	13 02	17 24	18 39	21 20	** **
2015	6	18	** **	04 43	13 02	17 25	18 39	21 21	** **
2015	6	19	** **	04 43	13 02	17 25	18 40	21 21	** **
2015	6	20	** **	04 43	13 02	17 25	18 40	21 21	** **
2015	6	21	** **	04 43	13 02	17 25	18 40	21 22	** **
2015	6	22	** **	04 43	13 03	17 26	18 40	21 22	** **
2015	6	23	** **	04 44	13 03	17 26	18 41	21 22	** **
2015	6	24	** **	04 44	13 03	17 26	18 41	21 22	** **
2015	6	25	** **	04 44	13 03	17 26	18 41	21 22	** **
2015	6	26	** **	04 45	13 03	17 26	18 41	21 22	** **
2015	6	27	** **	04 45	13 04	17 26	18 41	21 22	** **
2015	6	28	** **	04 46	13 04	17 26	18 41	21 22	** **
2015	6	29	** **	04 46	13 04	17 27	18 41	21 22	** **
2015	6	30	** **	04 47	13 04	17 27	18 41	21 21	** **
2015	7	1	** **	04 48	13 04	17 27	18 41	21 21	** **
2015	7	2	** **	04 48	13 05	17 27	18 41	21 21	** **
2015	7	3	** **	04 49	13 05	17 27	18 41	21 20	** **
2015	7	4	** **	04 50	13 05	17 27	18 41	21 20	** **
2015	7	5	** **	04 51	13 05	17 27	18 40	21 19	** **
2015	7	6	** **	04 51	13 05	17 27	18 40	21 19	** **
2015	7	7	** **	04 52	13 06	17 26	18 40	21 18	** **
2015	7	8	** **	04 53	13 06	17 26	18 40	21 18	** **
2015	7	9	** **	04 54	13 06	17 26	18 39	21 17	** **
2015	7	10	** **	04 55	13 06	17 26	18 39	21 16	** **
2015	7	11	** **	04 56	13 06	17 26	18 39	21 15	** **
2015	7	12	** **	04 57	13 06	17 26	18 38	21 15	** **
2015	7	13	** **	04 58	13 06	17 25	18 38	21 14	** **
2015	7	14	** **	04 59	13 07	17 25	18 38	21 13	** **
2015	7	15	** **	05 01	13 07	17 25	18 37	21 12	** **
2015	7	16	** **	05 02	13 07	17 25	18 37	21 11	** **
2015	7	17	** **	05 03	13 07	17 24	18 36	21 10	** **
2015	7	18	** **	05 04	13 07	17 24	18 35	21 09	** **
2015	7	19	** **	05 06	13 07	17 24	18 35	21 08	** **
2015	7	20	** **	05 07	13 07	17 23	18 34	21 06	** **
2015	7	21	** **	05 08	13 07	17 23	18 34	21 05	24 48
2015	7	22	01 27	05 09	13 07	17 22	18 33	21 04	24 36
2015	7	23	01 39	05 11	13 07	17 22	18 32	21 03	24 28
2015	7	24	01 47	05 12	13 07	17 22	18 31	21 01	24 20
2015	7	25	01 54	05 14	13 07	17 21	18 31	21 00	24 14
2015	7	26	02 01	05 15	13 07	17 21	18 30	20 58	24 08
2015	7	27	02 07	05 16	13 07	17 20	18 29	20 57	24 03
2015	7	28	02 12	05 18	13 07	17 19	18 28	20 56	23 58
2015	7	29	02 17	05 19	13 07	17 19	18 27	20 54	23 53
2015	7	30	02 22	05 21	13 07	17 18	18 26	20 52	23 48
2015	7	31	02 26	05 22	13 07	17 18	18 25	20 51	23 44
2015	8	1	02 31	05 24	13 07	17 17	18 24	20 49	23 39
2015	8	2	02 35	05 25	13 07	17 16	18 23	20 48	23 35
2015	8	3	02 39	05 27	13 07	17 15	18 22	20 46	23 31
2015	8	4	02 43	05 28	13 07	17 15	18 21	20 44	23 27

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Latitude N51 30

Civil Date			Twilight	Sunrise	Transit	Shadow 1	Shadow 2	Sunset	Twilight
Year	mth	d	h m	h m	h m	h m	h m	h m	h m
2015	8	5	02 47	05 30	13 07	17 14	18 20	20 42	23 23
2015	8	6	02 51	05 31	13 07	17 13	18 19	20 41	23 19
2015	8	7	02 54	05 33	13 06	17 12	18 18	20 39	23 15
2015	8	8	02 58	05 34	13 06	17 11	18 17	20 37	23 12
2015	8	9	03 01	05 36	13 06	17 10	18 15	20 35	23 08
2015	8	10	03 05	05 38	13 06	17 10	18 14	20 33	23 04
2015	8	11	03 08	05 39	13 06	17 09	18 13	20 32	23 01
2015	8	12	03 12	05 41	13 06	17 08	18 12	20 30	22 57
2015	8	13	03 15	05 42	13 06	17 07	18 10	20 28	22 54
2015	8	14	03 18	05 44	13 05	17 06	18 09	20 26	22 50
2015	8	15	03 21	05 45	13 05	17 05	18 08	20 24	22 47
2015	8	16	03 24	05 47	13 05	17 04	18 06	20 22	22 43
2015	8	17	03 27	05 49	13 05	17 03	18 05	20 20	22 40
2015	8	18	03 30	05 50	13 05	17 02	18 03	20 18	22 37
2015	8	19	03 33	05 52	13 04	17 00	18 02	20 16	22 33
2015	8	20	03 36	05 53	13 04	16 59	18 00	20 14	22 30
2015	8	21	03 39	05 55	13 04	16 58	17 59	20 12	22 27
2015	8	22	03 41	05 57	13 04	16 57	17 57	20 10	22 24
2015	8	23	03 44	05 58	13 03	16 56	17 56	20 07	22 20
2015	8	24	03 47	06 00	13 03	16 55	17 54	20 05	22 17
2015	8	25	03 49	06 01	13 03	16 53	17 53	20 03	22 14
2015	8	26	03 52	06 03	13 03	16 52	17 51	20 01	22 11
2015	8	27	03 55	06 05	13 02	16 51	17 50	19 59	22 08
2015	8	28	03 57	06 06	13 02	16 49	17 48	19 57	22 05
2015	8	29	04 00	06 08	13 02	16 48	17 46	19 54	22 02
2015	8	30	04 02	06 09	13 01	16 47	17 45	19 52	21 59
2015	8	31	04 05	06 11	13 01	16 45	17 43	19 50	21 56
2015	9	1	04 07	06 13	13 01	16 44	17 41	19 48	21 53
2015	9	2	04 09	06 14	13 00	16 43	17 39	19 46	21 50
2015	9	3	04 12	06 16	13 00	16 41	17 38	19 43	21 47
2015	9	4	04 14	06 17	13 00	16 40	17 36	19 41	21 44
2015	9	5	04 16	06 19	12 59	16 38	17 34	19 39	21 41
2015	9	6	04 19	06 21	12 59	16 37	17 32	19 37	21 38
2015	9	7	04 21	06 22	12 59	16 36	17 31	19 34	21 35
2015	9	8	04 23	06 24	12 58	16 34	17 29	19 32	21 32
2015	9	9	04 25	06 25	12 58	16 33	17 27	19 30	21 29
2015	9	10	04 27	06 27	12 58	16 31	17 25	19 28	21 26
2015	9	11	04 30	06 28	12 57	16 30	17 23	19 25	21 23
2015	9	12	04 32	06 30	12 57	16 28	17 21	19 23	21 21
2015	9	13	04 34	06 32	12 57	16 26	17 20	19 21	21 18
2015	9	14	04 36	06 33	12 56	16 25	17 18	19 18	21 15
2015	9	15	04 38	06 35	12 56	16 23	17 16	19 16	21 12
2015	9	16	04 40	06 36	12 56	16 22	17 14	19 14	21 10
2015	9	17	04 42	06 38	12 55	16 20	17 12	19 11	21 07
2015	9	18	04 44	06 40	12 55	16 19	17 10	19 09	21 04
2015	9	19	04 46	06 41	12 55	16 17	17 08	19 07	21 02
2015	9	20	04 48	06 43	12 54	16 15	17 06	19 05	20 59
2015	9	21	04 50	06 44	12 54	16 14	17 04	19 02	20 56
2015	9	22	04 52	06 46	12 53	16 12	17 02	19 00	20 54
2015	9	23	04 54	06 48	12 53	16 10	17 00	18 58	20 51
2015	9	24	04 56	06 49	12 53	16 09	16 58	18 55	20 48
2015	9	25	04 58	06 51	12 52	16 07	16 56	18 53	20 46
2015	9	26	04 59	06 52	12 52	16 05	16 54	18 51	20 43
2015	9	27	05 01	06 54	12 52	16 04	16 52	18 48	20 41

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 Transit = Time of Meridian passage of Sun

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London Longitude W000 10  
Latitude N51 30

Civil Date			Twilight	Sunrise	Transit	Shadow 1	Shadow 2	Sunset	Twilight
Year	mth	d	h m	h m	h m	h m	h m	h m	h m
2015	9	28	05 03	06 56	12 51	16 02	16 50	18 46	20 38
2015	9	29	05 05	06 57	12 51	16 00	16 48	18 44	20 36
2015	9	30	05 07	06 59	12 51	15 59	16 46	18 42	20 33
2015	10	1	05 09	07 01	12 50	15 57	16 44	18 39	20 31
2015	10	2	05 10	07 02	12 50	15 55	16 42	18 37	20 28
2015	10	3	05 12	07 04	12 50	15 54	16 40	18 35	20 26
2015	10	4	05 14	07 06	12 49	15 52	16 38	18 32	20 24
2015	10	5	05 16	07 07	12 49	15 50	16 36	18 30	20 21
2015	10	6	05 17	07 09	12 49	15 49	16 34	18 28	20 19
2015	10	7	05 19	07 10	12 49	15 47	16 32	18 26	20 17
2015	10	8	05 21	07 12	12 48	15 45	16 30	18 24	20 14
2015	10	9	05 23	07 14	12 48	15 43	16 29	18 21	20 12
2015	10	10	05 24	07 15	12 48	15 42	16 27	18 19	20 10
2015	10	11	05 26	07 17	12 47	15 40	16 25	18 17	20 08
2015	10	12	05 28	07 19	12 47	15 38	16 23	18 15	20 06
2015	10	13	05 29	07 21	12 47	15 37	16 21	18 13	20 03
2015	10	14	05 31	07 22	12 47	15 35	16 19	18 10	20 01
2015	10	15	05 33	07 24	12 47	15 33	16 17	18 08	19 59
2015	10	16	05 34	07 26	12 46	15 32	16 15	18 06	19 57
2015	10	17	05 36	07 27	12 46	15 30	16 13	18 04	19 55
2015	10	18	05 38	07 29	12 46	15 28	16 11	18 02	19 53
2015	10	19	05 39	07 31	12 46	15 27	16 09	18 00	19 51
2015	10	20	05 41	07 32	12 46	15 25	16 07	17 58	19 49
2015	10	21	05 43	07 34	12 45	15 24	16 05	17 56	19 47
2015	10	22	05 44	07 36	12 45	15 22	16 03	17 54	19 45
2015	10	23	05 46	07 38	12 45	15 20	16 01	17 52	19 43
2015	10	24	05 47	07 39	12 45	15 19	16 00	17 50	19 41
2015	10	25	04 49	06 41	11 45	14 17	14 58	16 48	18 39
2015	10	26	04 51	06 43	11 45	14 16	14 56	16 46	18 38
2015	10	27	04 52	06 45	11 45	14 14	14 54	16 44	18 36
2015	10	28	04 54	06 46	11 44	14 13	14 52	16 42	18 34
2015	10	29	04 55	06 48	11 44	14 11	14 51	16 40	18 32
2015	10	30	04 57	06 50	11 44	14 10	14 49	16 38	18 31
2015	10	31	04 59	06 52	11 44	14 08	14 47	16 36	18 29
2015	11	1	05 00	06 53	11 44	14 07	14 45	16 34	18 28
2015	11	2	05 02	06 55	11 44	14 06	14 44	16 33	18 26
2015	11	3	05 03	06 57	11 44	14 04	14 42	16 31	18 24
2015	11	4	05 05	06 59	11 44	14 03	14 40	16 29	18 23
2015	11	5	05 06	07 01	11 44	14 01	14 39	16 27	18 21
2015	11	6	05 08	07 02	11 44	14 00	14 37	16 26	18 20
2015	11	7	05 09	07 04	11 44	13 59	14 36	16 24	18 19
2015	11	8	05 11	07 06	11 44	13 58	14 34	16 22	18 17
2015	11	9	05 12	07 08	11 44	13 56	14 33	16 21	18 16
2015	11	10	05 14	07 09	11 45	13 55	14 31	16 19	18 15
2015	11	11	05 15	07 11	11 45	13 54	14 30	16 18	18 13
2015	11	12	05 17	07 13	11 45	13 53	14 28	16 16	18 12
2015	11	13	05 18	07 15	11 45	13 52	14 27	16 15	18 11
2015	11	14	05 20	07 16	11 45	13 50	14 26	16 13	18 10
2015	11	15	05 21	07 18	11 45	13 49	14 24	16 12	18 09
2015	11	16	05 22	07 20	11 45	13 48	14 23	16 11	18 08
2015	11	17	05 24	07 21	11 46	13 47	14 22	16 09	18 07
2015	11	18	05 25	07 23	11 46	13 46	14 21	16 08	18 06
2015	11	19	05 27	07 25	11 46	13 46	14 20	16 07	18 05
2015	11	20	05 28	07 26	11 46	13 45	14 18	16 05	18 04

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London

Longitude W000 10

Latitude N51 30

Civil Date			Twilight	Sunrise	Transit	Shadow 1	Shadow 2	Sunset	Twilight
Year	mth	d	h m	h m	h m	h m	h m	h m	h m
2015	11	21	05 29	07 28	11 46	13 44	14 17	16 04	18 03
2015	11	22	05 31	07 30	11 47	13 43	14 16	16 03	18 02
2015	11	23	05 32	07 31	11 47	13 42	14 15	16 02	18 01
2015	11	24	05 33	07 33	11 47	13 42	14 15	16 01	18 01
2015	11	25	05 35	07 34	11 48	13 41	14 14	16 00	18 00
2015	11	26	05 36	07 36	11 48	13 40	14 13	15 59	17 59
2015	11	27	05 37	07 38	11 48	13 40	14 12	15 58	17 59
2015	11	28	05 38	07 39	11 49	13 39	14 11	15 58	17 58
2015	11	29	05 40	07 41	11 49	13 39	14 11	15 57	17 58
2015	11	30	05 41	07 42	11 49	13 38	14 10	15 56	17 57
2015	12	1	05 42	07 43	11 50	13 38	14 09	15 55	17 57
2015	12	2	05 43	07 45	11 50	13 37	14 09	15 55	17 56
2015	12	3	05 44	07 46	11 50	13 37	14 08	15 54	17 56
2015	12	4	05 45	07 47	11 51	13 36	14 08	15 54	17 56
2015	12	5	05 46	07 49	11 51	13 36	14 07	15 53	17 56
2015	12	6	05 47	07 50	11 52	13 36	14 07	15 53	17 55
2015	12	7	05 48	07 51	11 52	13 36	14 07	15 52	17 55
2015	12	8	05 49	07 52	11 52	13 36	14 06	15 52	17 55
2015	12	9	05 50	07 54	11 53	13 36	14 06	15 52	17 55
2015	12	10	05 51	07 55	11 53	13 36	14 06	15 52	17 55
2015	12	11	05 52	07 56	11 54	13 36	14 06	15 52	17 55
2015	12	12	05 53	07 57	11 54	13 36	14 06	15 52	17 55
2015	12	13	05 54	07 58	11 55	13 36	14 06	15 52	17 55
2015	12	14	05 55	07 59	11 55	13 36	14 06	15 52	17 55
2015	12	15	05 55	07 59	11 56	13 36	14 06	15 52	17 56
2015	12	16	05 56	08 00	11 56	13 36	14 06	15 52	17 56
2015	12	17	05 57	08 01	11 57	13 37	14 07	15 52	17 56
2015	12	18	05 58	08 02	11 57	13 37	14 07	15 52	17 57
2015	12	19	05 58	08 02	11 58	13 37	14 07	15 53	17 57
2015	12	20	05 59	08 03	11 58	13 38	14 08	15 53	17 57
2015	12	21	05 59	08 04	11 59	13 38	14 08	15 53	17 58
2015	12	22	06 00	08 04	11 59	13 39	14 09	15 54	17 58
2015	12	23	06 00	08 05	12 00	13 39	14 09	15 55	17 59
2015	12	24	06 01	08 05	12 00	13 40	14 10	15 55	17 59
2015	12	25	06 01	08 05	12 01	13 41	14 10	15 56	18 00
2015	12	26	06 02	08 06	12 01	13 41	14 11	15 57	18 01
2015	12	27	06 02	08 06	12 02	13 42	14 12	15 57	18 01
2015	12	28	06 02	08 06	12 02	13 43	14 13	15 58	18 02
2015	12	29	06 02	08 06	12 03	13 43	14 13	15 59	18 03
2015	12	30	06 03	08 06	12 03	13 44	14 14	16 00	18 04
2015	12	31	06 03	08 06	12 04	13 45	14 15	16 01	18 05

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