

Date	Gnomon height [cm ]	Shadow length [cm ]	Angle (°)
5 Jan	12.5	30	67.4
9 Jan	12.5	30	67.4
15 Jan	19.7	45	66.4
16 Jan	19	43	66.2
18 Jan	18	40	65.8
19 Jan	16.3	36	65.6
24 Jan	23.4	49	64.5
25 Jan	31.4	65	64.2
26 Jan	16.1	33	64
29 Jan	20.2	40	63.2
30 Jan	14.8	29	63
31 Jan	12.9	25	62.7
1 Feb	28.7	55	62.4
12 Feb	20.4	34	59
15 Feb	13.1	21	58
22 Feb	50	73	55.6
23 Feb	21.0	30.0	55.0
1 Mar	54.2	72	53
2 Mar	12.2	16	52.7
5 Mar	52	65	51.3
7 Mar	10.6	13	50.8
8 Mar	58	70	50.4
9 Mar	64	71	48
12 Mar	11	12.5	48.7
14 Mar	72.2	80	47.9
15 Mar	15	16.3	47.4
17 Mar	32	34	46.7
21 Mar	31.9	32	45.1
27 Mar	29.3	27	42.7
28 Mar	30.8	28	42.3
29 Mar	41.2	37	41.9
30 Mar	23	20.3	41.4
11 Apr	5.3	4	37
12 Apr	5.3	3.9	36.3
13 Apr	100	73	36.1
16 Apr	40	28	35
18 Apr	40	27.2	34.2
19 Apr	100	67.3	33.9
20 Apr	100	66.4	33.6
23 Apr	36	23	32.6
24 Apr	100	63	32.2

25 Apr	100	62.2	31.9
26 Apr	100	61.4	31.5
27 Apr	100	59.1	30.6
2 May	100	57	29.7
3 May	100	56.3	29.4
4 May	100	55.7	29.1
7 May	26	14	28.3
8 May	100	53.1	28
9 May	100	52.5	27.7
10 May	27	14	27.4
11 May	100	51.4	27.2
14 May	42.2	21	26.5
15 May	30	14.8	26.3
16 May	44	21.5	26
18 May	100	47.8	25.5
21 May	86	40	24.9
22 May	100	46.1	24.7
23 May	100	45.7	24.6
25 May	100	45	24.2
29 May	100	43.6	23.6
30 May	100	43.3	23.4
31 May	100	43	23.3
5 Jun	100	41.8	22.7
6 Jun	100	41.7	22.6
7 Jun	100	41.5	22.5
8 Jun	100	41.3	22.4
11 Jun	100	40.9	22.2
12 Jun	100	40.8	22.2
13 Jun	20.9	8.5	22.1
19 Jun	34.7	14	22
20 Jun	27.2	11	22
21 Jun	20	8.1	22
22 Jun	22.3	9	22
25 Jun	24.6	10	22.1
6 Jul	19.3	8	22.5
7 Jul	20	8.3	22.5
25 Aug	14.6	10	34.4
27 Aug	7.1	5	35.2
29 Aug	30.5	22	35.8
11 Sep	23.2	20	40.8
12 Sep	23.2	20.3	41.2
14 Sep	48.5	43.6	42
17 Sep	58.6	55	43.2

19 Sep	48.5	46.8	44
20 Sep	48.5	47.4	44.3
21 Sep	48.5	48.1	44.8
22 Sep	29.8	30	45.2
24 Sep	58.7	60	45.6
25 Sep	59	62	46.4
26 Sep	59	62.8	46.8
27 Sep	59	63.7	47.2
28 Sep	59	64.6	47.6
2 Oct	25.9	30	49.2
3 Oct	59.6	70	49.6
4 Oct	60.4	72	50
5 Oct	22.3	27	50.4
6 Oct	24.5	30	50.8
8 Oct	59.5	75	51.6
9 Oct	59.5	76	51.9
10 Oct	59.5	77	52.3
11 Oct	59.5	78.1	52.7
12 Oct	74	98.6	53.1
15 Oct	59.5	82.6	54.2
16 Oct	59.5	83.7	54.6
17 Oct	57.6	82.2	55
18 Oct	57.6	83.3	55.3
19 Oct	59.5	87.2	55.7
22 Oct	65.5	100	56.8
23 Oct	65.9	102	57.1
25 Oct	100	158.9	57.8
26 Oct	66.8	108	58.3
30 Oct	100	169.7	59.5
31 Oct	20.3	35	59.9
5 Nov	42.6	78	61.4
6 Nov	48.5	90	61.7
8 Nov	50	95	62.2
9 Nov	50	96	62.5
12 Nov	50	99.4	63.3
14 Nov	50	101.6	63.8
15 Nov	50	102.7	64
20 Nov	23	49.8	65.2
26 Nov	50	114.4	66.4
27 Nov	50	115.5	66.6
29 Nov	50	117.2	66.9
3 Dec	50	120.7	67.5
4 Dec	50	121.5	67.6

6 Dec	50	123	67.9
7 Dec	50	123.6	68
12 Dec	50.0	126.5	68.4
13 Dec	50.0	127.0	68.5
14 Dec	50.0	127.5	68.6
15 Dec	6.0	15.3	68.6
20 Dec	50.0	129.0	68.8
21 Dec	21.3	55.0	68.8