



VI. Tables of the sun's altitude and zenith distance, for every day in the year, when it passes the meridian, in latitude 51°29'8"

Rev. Mr. L. Evans

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Tables of the Sun's Altitude and Zenith Distances. 35

Meteoric iron, hammered	7·965
Iron, and 3 per cent. nickel	7·804
Iron, and 10 per cent. nickel	7·849
Steel, and 10 per cent. platinum, (mirror) ..	8·100
Steel, and 10 per cent. nickel, (mirror) ..	7·684
Steel, and 1 per cent. gold, hammered ..	7·870
Steel, and 2 per cent. silver, hammered ..	7·808
Steel, and 1·5 per cent. platinum, hammered	7·732
Steel, and 1·5 per cent. rhodium, hammered	7·795
Steel, and 3 per cent. nickel, hammered ..	7·750
Platinum 60, and steel 50, unhammered*	9·862
Platinum 90, and steel 20, unhammered† ..	15·88
Platinum, hammered and rolled	21·25

(*Quarterly Journal of Literature, &c.*)

* The calculated mean specific gravity of this alloy is 11·2723, assuming the specific gravity of platinum and steel as expressed in this table.

† The calculated mean specific gravity of this alloy is 16·0766.

VI. Tables of the Sun's Altitude and Zenith Distance, for every Day in the Year, when it passes the Meridian, in Latitude 51° 29' 8". By the Rev. Mr. L. EVANS.

To Mr. Tilloch.

SIR, — As every auxiliary is useful to the amateur of practical astronomy, I have thought the annexed Tables would not be an unacceptable article, in your valuable publication, The Philosophical Magazine, should you have the goodness to insert it. They were computed for the latitude of my Observatory, on Woolwich Common, and are applicable to other latitudes not considerably differing from it.

I remain, sir,

Your obliged humble servant,

Woolwich Common,
July 19, 1820.

L. EVANS.

The first column, in the Tables, contains the days of the month; the second, the sun's meridian altitudes; and the third, the sun's zenith distances.

JANUARY.			FEBRUARY.			MARCH.		
D.	☉'s M. A.	☉'s Z. D.	D.	☉'s M. A.	☉'s Z. D.	D.	☉'s M. A.	☉'s Z. D.
1	15 25 50	74 34 10	1	21 11 46	68 48 14	1	31 1 8	58 58 52
2	15 30 42	74 29 18	2	21 28 47	68 31 13	2	31 24 0	58 36 0
3	15 36 17	74 23 59	3	21 46 66	60 13 54	3	31 46 57	58 13 3
4	15 41 47	74 18 13	4	22 3 42	67 56 18	4	32 10 0	57 50 0
5	15 48 0	74 12 0	5	22 21 35	67 38 25	5	32 33 9	57 26 51
6	15 54 41	74 5 19	6	22 39 45	67 20 15	6	32 56 23	57 3 37
7	16 1 48	73 58 12	7	22 58 11	67 1 49	7	33 19 41	56 40 19
8	16 9 22	73 50 38	8	23 16 54	66 43 6	8	33 43 3	56 16 57
9	16 17 23	73 42 37	9	23 35 51	66 24 9	9	34 6 29	55 53 31
10	16 25 49	73 34 11	10	23 55 46	66 4 56	10	34 29 59	55 30 1
11	16 34 42	73 25 18	11	24 14 32	65 45 28	11	34 53 32	55 6 28
12	16 44 0	73 16 0	12	24 34 14	65 25 46	12	35 17 7	54 42 53
13	16 53 44	73 6 16	13	24 54 9	65 5 51	13	35 40 45	54 19 15
14	17 3 54	72 56 6	14	25 14 18	64 45 42	14	36 4 24	53 55 36
15	17 14 27	72 45 33	15	25 34 40	64 25 20	15	36 28 6	53 31 54
16	17 25 25	72 34 35	16	25 55 14	64 4 46	16	36 51 49	53 8 11
17	17 36 48	72 23 12	17	26 16 1	63 43 59	17	37 15 32	52 44 28
18	17 48 34	72 11 26	18	26 36 59	63 23 1	18	37 39 14	52 20 46
19	18 0 44	71 59 16	19	26 58 8	63 1 52	19	38 2 57	51 57 3
20	18 13 17	71 46 43	20	27 19 28	62 40 32	20	38 26 38	51 33 22
21	18 26 13	71 33 47	21	27 40 58	62 19 2	21	38 50 19	51 9 41
22	18 39 31	71 20 29	22	28 2 38	61 57 22	22	39 13 59	50 46 1
23	18 53 11	71 6 49	23	28 24 28	61 35 32	23	39 37 37	50 22 23
24	19 7 13	70 52 47	24	28 46 27	61 13 33	24	40 1 14	49 58 46
25	19 21 37	70 38 23	25	29 8 34	60 51 26	25	40 24 48	49 35 12
26	19 36 21	70 23 39	26	29 30 50	60 29 10	26	40 48 20	49 11 40
27	19 51 26	70 8 34	27	29 53 13	60 6 47	27	41 11 49	48 48 11
28	20 6 51	69 53 9	28	30 15 45	59 44 15	28	41 35 14	48 24 46
29	20 22 37	69 37 23	29	30 38 23	59 21 37	29	41 58 36	48 1 24
30	20 38 41	69 21 19				30	42 21 54	47 38 6
31	20 55 46	69 4 56				31	42 45 8	47 14 52

APRIL.

for every Day in the Year, when it passes the Meridian. 37

APRIL.			MAY.			JUNE.		
D.	☉'s M.A.	☉'s Z. D.	D.	☉'s M.A.	☉'s Z. D.	D.	☉'s M.A.	☉'s Z. D.
1	43 8 16	46 51 44	1	53 39 7	36 20 53	1	60 36 25	29 23 35
2	43 31 20	46 28 40	2	53 57 6	36 2 54	2	60 44 20	29 15 40
3	43 54 19	46 5 41	3	54 14 49	35 45 11	3	60 51 52	29 8 8
4	44 17 13	45 42 47	4	54 32 17	35 27 43	4	60 59 0	29 1 0
5	44 40 0	45 20 0	5	54 49 29	35 10 31	5	61 5 45	28 54 15
6	45 2 41	44 57 19	6	55 6 25	34 53 35	6	61 12 7	28 47 53
7	45 25 16	44 34 44	7	55 23 5	34 36 55	7	61 18 4	28 41 56
8	45 47 44	44 12 16	8	55 39 28	34 20 32	8	61 23 38	28 36 22
9	46 10 4	43 49 56	9	55 55 34	34 4 26	9	61 28 47	28 31 13
10	46 32 17	43 27 43	10	56 11 22	33 48 38	10	61 33 33	28 26 27
11	46 54 22	43 5 38	11	56 26 53	33 33 7	11	61 37 54	28 22 6
12	47 16 19	42 43 41	12	56 41 6	33 17 54	12	61 41 50	28 18 10
13	47 38 7	42 21 53	13	56 57 1	33 2 59	13	61 45 22	28 14 38
14	47 59 46	42 0 14	14	57 11 37	32 48 23	14	61 48 30	28 11 30
15	48 21 16	41 38 44	15	57 25 54	32 34 6	15	61 51 13	28 8 47
16	48 42 35	41 17 25	16	57 39 52	32 20 8	16	61 53 31	28 6 29
17	49 3 44	40 56 16	17	57 53 30	32 6 30	17	61 55 24	28 4 36
18	49 24 43	40 35 17	18	58 6 49	31 53 11	18	61 56 53	28 3 7
19	49 45 31	40 14 29	19	58 19 48	31 40 12	19	61 57 57	28 2 3
20	50 6 9	39 53 51	20	58 32 27	31 27 33	20	61 58 35	28 1 25
21	50 26 34	39 33 26	21	58 44 45	31 15 15	21	61 58 50	28 1 10
22	50 46 48	39 13 12	22	58 56 42	31 3 18	22	61 58 39	28 1 21
23	51 6 49	38 53 11	23	59 8 18	30 51 42	23	61 58 4	28 1 56
24	51 26 38	38 33 22	24	59 19 33	30 40 27	24	61 57 3	28 2 57
25	51 46 14	38 13 46	25	59 30 27	30 29 33	25	61 55 39	28 4 21
26	52 5 37	37 54 23	26	59 40 59	30 19 1	26	61 53 49	28 6 11
27	52 24 47	37 35 13	27	59 51 9	30 8 51	27	61 51 35	28 8 25
28	52 43 44	37 16 16	28	60 0 57	29 59 3	28	61 48 56	28 11 4
29	53 2 26	36 57 34	29	60 10 23	29 49 37	29	61 45 53	28 14 7
30	53 20 54	36 39 6	30	60 19 27	29 40 33	30	61 42 25	28 17 35
			31	60 28 8	29 31 52			

JULY.

JULY.			AUGUST.			SEPTEMBER.		
D.	☉'s M.A.	☉'s Z. D.	D.	☉'s M.A.	☉'s Z. D.	D.	☉'s M.A.	☉'s Z. D.
1	61° 38' 33"	28 21 27	1	56° 31' 35"	33 28 25	1	46° 45' 29"	43 14 31
2	61 34 16	28 25 44	2	56 16 17	33 43 43	2	46 23 36	43 36 24
3	61 29 35	28 30 25	3	56 0 41	33 59 19	3	46 1 34	43 58 26
4	61 24 31	28 35 29	4	55 44 49	34 15 11	4	45 39 26	44 20 34
5	61 19 2	28 40 58	5	55 28 39	34 31 21	5	45 17 10	44 42 50
6	61 13 10	28 46 50	6	55 12 13	34 47 47	6	44 54 48	45 5 12
7	61 6 54	28 53 6	7	54 55 30	35 4 30	7	44 32 19	45 27 41
8	61 0 14	28 59 46	8	54 38 32	35 21 28	8	44 9 44	45 50 16
9	60 53 11	29 6 49	9	54 21 18	35 38 42	9	43 47 3	46 12 57
10	60 45 45	29 14 15	10	54 3 49	35 56 11	10	43 24 17	46 35 43
11	60 37 56	29 22 4	11	53 46 5	36 13 55	11	43 1 26	46 58 34
12	60 29 43	29 30 17	12	53 28 6	36 31 54	12	42 38 31	47 21 29
13	60 21 9	29 38 51	13	53 9 53	36 50 7	13	42 15 31	47 44 29
14	60 12 12	29 47 48	14	52 51 26	37 8 34	14	41 52 27	48 7 33
15	60 2 52	29 57 8	15	52 32 46	37 27 14	15	41 29 20	48 30 40
16	59 53 11	30 6 49	16	52 13 51	37 46 9	16	41 6 10	48 53 50
17	59 43 8	30 16 52	17	51 54 44	38 5 16	17	40 42 56	49 17 4
18	59 32 44	30 27 16	18	51 35 25	38 24 35	18	40 19 40	49 40 20
19	59 21 58	30 38 2	19	51 15 53	38 44 7	19	39 56 22	50 3 38
20	59 10 51	30 49 9	20	50 56 9	39 3 51	20	39 33 1	50 26 59
21	58 59 23	31 0 37	21	50 36 13	39 23 47	21	39 9 40	50 50 20
22	58 47 35	31 12 25	22	50 16 6	39 43 54	22	38 46 16	51 13 44
23	58 35 26	31 24 34	23	49 55 47	40 4 13	23	38 22 52	51 37 8
24	58 22 57	31 37 3	24	49 35 18	40 24 42	24	37 59 27	52 0 33
25	58 10 9	31 49 51	25	49 14 38	40 45 22	25	37 36 1	52 23 59
26	57 57 1	32 2 59	26	48 53 48	41 6 12	26	37 12 36	52 47 24
27	57 43 33	32 16 27	27	48 32 49	41 27 11	27	36 49 11	53 10 49
28	57 29 47	32 30 13	28	48 11 39	41 48 21	28	36 25 46	53 34 14
29	57 15 41	32 44 19	29	47 50 20	42 9 40	29	36 2 22	53 57 38
30	57 1 17	32 58 43	30	47 28 51	42 31 9	30	35 39 0	54 21 0
31	56 46 35	33 13 25	31	47 7 14	42 52 46			

OCTOBER.

for every Day in the Year, when it passes the Meridian. 39

OCTOBER.			NOVEMBER.			DECEMBER.		
D.	☉'s M.A.	☉'s Z.D.	D.	☉'s M.A.	☉'s Z.D.	D.	☉'s M.A.	☉'s Z.D.
1	35° 15' 39"	54° 44' 21"	1	24° 0' 6"	65° 59' 54"	1	16° 38' 55"	73° 21' 5"
2	34° 52' 20"	55° 7' 40"	2	23° 41' 0"	66° 19' 0"	2	16° 29' 53"	73° 30' 7"
3	34° 29' 35"	55° 30' 57"	3	23° 22' 8"	66° 37' 52"	3	16° 21' 16"	73° 38' 44"
4	34° 5' 49"	55° 54' 11"	4	23° 3' 30"	66° 56' 30"	4	16° 13' 57"	73° 46' 55"
5	33° 42' 39"	56° 17' 21"	5	22° 45' 8"	67° 14' 52"	5	16° 5' 20"	73° 54' 40"
6	33° 19' 32"	56° 40' 28"	6	22° 27' 2"	67° 32' 58"	6	15° 58' 17"	74° 1' 59"
7	32° 56' 29"	57° 3' 31"	7	22° 9' 12"	67° 50' 48"	7	15° 51' 8"	74° 8' 52"
8	32° 33' 30"	57° 26' 30"	8	21° 51' 38"	68° 8' 22"	8	15° 44' 43"	74° 15' 17"
9	32° 10' 35"	57° 49' 25"	9	21° 34' 22"	68° 25' 38"	9	15° 38' 44"	74° 21' 16"
10	31° 47' 46"	58° 12' 14"	10	21° 17' 22"	68° 42' 38"	10	15° 33' 13"	74° 26' 47"
11	31° 25' 35"	58° 34' 57"	11	21° 0' 41"	68° 59' 19"	11	15° 28' 8"	74° 31' 52"
12	31° 2' 25"	58° 57' 35"	12	20° 44' 18"	69° 15' 42"	12	15° 23' 32"	74° 36' 28"
13	30° 39' 53"	59° 20' 7"	13	20° 28' 13"	69° 31' 47"	13	15° 19' 22"	74° 40' 38"
14	30° 17' 28"	59° 42' 32"	14	20° 12' 27"	69° 47' 33"	14	15° 15' 41"	74° 44' 19"
15	29° 55' 10"	60° 4' 50"	15	19° 57' 17"	70° 2' 59"	15	15° 12' 27"	74° 47' 33"
16	29° 33' 0"	60° 27' 0"	16	19° 41' 55"	70° 18' 5"	16	15° 9' 42"	74° 50' 18"
17	29° 10' 57"	60° 49' 3"	17	19° 27' 9"	70° 32' 51"	17	15° 7' 24"	74° 52' 36"
18	28° 49' 36"	61° 10' 57"	18	19° 12' 43"	70° 47' 17"	18	15° 5' 35"	74° 54' 25"
19	28° 27' 17"	61° 32' 43"	19	18° 58' 38"	71° 1' 22"	19	15° 4' 14"	74° 55' 46"
20	28° 5' 40"	61° 54' 20"	20	18° 44' 55"	71° 15' 5"	20	15° 3' 21"	74° 56' 39"
21	27° 44' 12"	62° 15' 48"	21	18° 31' 33"	71° 28' 27"	21	15° 2' 57"	74° 57' 3"
22	27° 22' 54"	62° 37' 6"	22	18° 18' 33"	71° 41' 27"	22	15° 3' 07"	74° 57' 0"
23	27° 1' 46"	62° 58' 14"	23	18° 5' 55"	71° 54' 5"	23	15° 3' 32"	74° 56' 28"
24	26° 40' 48"	63° 19' 12"	24	17° 53' 40"	72° 6' 20"	24	15° 4' 33"	74° 55' 27"
25	26° 20' 16"	63° 39' 59"	25	17° 41' 48"	72° 18' 12"	25	15° 6' 17"	74° 53' 59"
26	25° 59' 25"	64° 0' 35"	26	17° 30' 19"	72° 29' 41"	26	15° 7' 58"	74° 52' 2"
27	25° 39' 16"	64° 20' 59"	27	17° 19' 15"	72° 40' 47"	27	15° 10' 24"	74° 49' 36"
28	25° 18' 48"	64° 41' 12"	28	17° 8' 32"	72° 51' 28"	28	15° 13' 17"	74° 46' 43"
29	24° 58' 48"	65° 1' 12"	29	16° 58' 15"	73° 1' 45"	29	15° 16' 38"	74° 43' 22"
30	24° 39' 16"	65° 20' 59"	30	16° 48' 23"	73° 11' 37"	30	15° 20' 28"	74° 39' 32"
31	24° 19' 27"	65° 40' 33"				31	15° 24' 45"	74° 35' 15"