

DR. BRADLEY'S REFRACTIONS.

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TABLE 1.

A TABLE of MEAN REFRACTIONS to every Ten Minutes of Zenith Distance.														
Barometer 29 . 60 Inches. Thermometer 50.														
App. Z. D.	Refract.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.
0° 0	0".00	.17	9° 00	9".00	.17	18° 00'	18".50'	.18	27° 00'	29".00	.22	36° 00'	41".40	.25
0 10	0 .17	.16	9 10	9 .17	.16	18 10	18 .68	.19	27 10	29 .22	.21	36 10	41 .65	.25
0 20	0 .33	.17	9 20	9 .33	.17	18 20	18 .87	.18	27 20	29 .43	.22	36 20	41 .90	.25
0 30	0 .50	.17	9 30	9 .50	.17	18 30	19 .05	.18	27 30	29 .65	.22	36 30	42 .15	.25
0 40	0 .67	.16	9 40	9 .67	.16	18 40	19 .23	.19	27 40	29 .87	.21	36 40	42 .40	.25
0 50	0 .83	.17	9 50	9 .83	.17	18 50	19 .42	.18	27 50	30 .08	.22	36 50	42 .65	.25
1 0	1 .00	.17	10 00	10 .00	.18	19 00	19 .60	.18	28 00	30 .30	.22	37 00	42 .90	.27
1 10	1 .17	.16	10 10	10 .18	.19	19 10	19 .78	.19	28 10	30 .52	.21	37 10	43 .17	.26
1 20	1 .33	.17	10 20	10 .37	.18	19 20	19 .97	.18	28 20	30 .73	.22	37 20	43 .43	.27
1 30	1 .50	.17	10 30	10 .55	.18	19 30	20 .15	.18	28 30	30 .95	.22	37 30	43 .70	.27
1 40	1 .67	.16	10 40	10 .73	.19	19 40	20 .33	.19	28 40	31 .17	.21	37 40	43 .97	.26
1 50	1 .83	.17	10 50	10 .92	.18	19 50	20 .52	.18	28 50	31 .38	.22	37 50	44 .23	.27
2 0	2 .00	.17	11 00	11 .10	.17	20 00	20 .70	.20	29 00	31 .60	.22	38 00	44 .50	.27
2 10	2 .17	.16	11 10	11 .27	.16	20 10	20 .90	.20	29 10	31 .82	.21	38 10	44 .77	.26
2 20	2 .33	.17	11 20	11 .43	.17	20 20	21 .10	.20	29 20	32 .03	.22	38 20	45 .03	.27
2 30	2 .50	.17	11 30	11 .60	.17	20 30	21 .30	.20	29 30	32 .25	.22	38 30	45 .30	.27
2 40	2 .67	.16	11 40	11 .77	.17	20 40	21 .50	.20	29 40	32 .47	.21	38 40	45 .57	.26
2 50	2 .83	.17	11 50	11 .93	.16	20 50	21 .70	.20	29 50	32 .68	.21	38 50	45 .83	.26
3 0	3 .00	.17	12 00	12 .10	.17	21 00	21 .90	.20	30 00	32 .90	.22	39 00	46 .10	.27
3 10	3 .17	.16	12 10	12 .27	.17	21 10	22 .08	.18	30 10	33 .12	.21	39 10	46 .38	.28
3 20	3 .33	.17	12 20	12 .43	.16	21 20	22 .27	.18	30 20	33 .33	.22	39 20	46 .67	.29
3 30	3 .50	.17	12 30	12 .60	.17	21 30	22 .45	.18	30 30	33 .55	.22	39 30	46 .95	.28
3 40	3 .67	.16	12 40	12 .77	.16	21 40	22 .63	.19	30 40	33 .77	.21	39 40	47 .23	.29
3 50	3 .83	.17	12 50	12 .93	.17	21 50	22 .82	.18	30 50	33 .98	.22	39 50	47 .52	.28
4 0	4 .00	.17	13 00	13 .10	.18	22 00	23 .00	.20	31 00	34 .20	.23	40 00	47 .80	.28
4 10	4 .17	.16	13 10	13 .28	.19	22 10	23 .20	.20	31 10	34 .43	.24	40 10	48 .08	.29
4 20	4 .33	.17	13 20	13 .47	.18	22 20	23 .40	.20	31 20	34 .67	.23	40 20	48 .37	.28
4 30	4 .50	.17	13 30	13 .65	.18	22 30	23 .60	.20	31 30	34 .90	.23	40 30	48 .65	.28
4 40	4 .67	.16	13 40	13 .83	.19	22 40	23 .80	.20	31 40	35 .13	.23	40 40	48 .93	.29
4 50	4 .83	.17	13 50	14 .02	.18	22 50	24 .00	.20	31 50	35 .37	.24	40 50	49 .22	.29
5 0	5 .00	.17	14 00	14 .20	.18	23 00	24 .20	.20	32 00	35 .60	.23	41 00	49 .50	.30
5 10	5 .17	.16	14 10	14 .38	.19	23 10	24 .40	.20	32 10	35 .83	.24	41 10	49 .80	.30
5 20	5 .33	.17	14 20	14 .57	.18	23 20	24 .60	.20	32 20	36 .07	.23	41 20	50 .10	.30
5 30	5 .50	.17	14 30	14 .75	.18	23 30	24 .80	.20	32 30	36 .30	.23	41 30	50 .40	.30
5 40	5 .67	.16	14 40	14 .93	.19	23 40	25 .00	.20	32 40	36 .53	.24	41 40	50 .70	.30
5 50	5 .83	.17	14 50	15 .12	.18	23 50	25 .20	.20	32 50	36 .77	.23	41 50	51 .00	.30
6 0	6 .00	.17	15 00	15 .30	.17	24 00	25 .40	.20	33 00	37 .00	.23	42 00	51 .30	.30
6 10	6 .17	.16	15 10	15 .47	.16	24 10	25 .60	.20	33 10	37 .23	.24	42 10	51 .60	.30
6 20	6 .33	.17	15 20	15 .63	.17	24 20	25 .80	.20	33 20	37 .47	.23	42 20	51 .90	.30
6 30	6 .50	.17	15 30	15 .80	.17	24 30	26 .00	.20	33 30	37 .70	.23	42 30	52 .20	.30
6 40	6 .67	.16	15 40	15 .97	.16	24 40	26 .20	.20	33 40	37 .93	.23	42 40	52 .50	.30
6 50	6 .83	.17	15 50	16 .13	.17	24 50	26 .40	.20	33 50	38 .16	.24	42 50	52 .80	.30
7 0	7 .00	.17	16 00	16 .30	.18	25 00	26 .60	.20	34 00	38 .40	.25	43 00	53 .10	.32
7 10	7 .17	.16	16 10	16 .48	.19	25 10	26 .80	.20	34 10	38 .65	.25	43 10	53 .42	.31
7 20	7 .33	.17	16 20	16 .67	.18	25 20	27 .00	.20	34 20	38 .90	.25	43 20	53 .73	.32
7 30	7 .50	.17	16 30	16 .85	.18	25 30	27 .20	.20	34 30	39 .15	.25	43 30	54 .05	.32
7 40	7 .67	.16	16 40	17 .03	.19	25 40	27 .40	.20	34 40	39 .40	.25	43 40	54 .37	.31
7 50	7 .83	.17	16 50	17 .22	.18	25 50	27 .60	.20	34 50	39 .65	.25	43 50	54 .68	.32
8 0	8 .00	.17	17 00	17 .40	.18	26 00	27 .80	.20	35 00	39 .90	.25	44 00	55 .00	.32
8 10	8 .17	.16	17 10	17 .58	.19	26 10	28 .00	.20	35 10	40 .15	.25	44 10	55 .32	.31
8 20	8 .33	.17	17 20	17 .77	.18	26 20	28 .20	.20	35 20	40 .40	.25	44 20	55 .63	.32
8 30	8 .50	.17	17 30	17 .95	.18	26 30	28 .40	.20	35 30	40 .65	.25	44 30	55 .95	.32
8 40	8 .67	.16	17 40	18 .13	.19	26 40	28 .60	.20	35 40	40 .90	.25	44 40	56 .27	.31
8 50	8 .83	.17	17 50	18 .32	.18	26 50	28 .80	.20	35 50	41 .15	.25	44 50	56 .58	.32

DR. BRADLEY'S REFRACTIONS concluded.

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A TABLE of MEAN REFRACTIONS to every Ten Minutes of Zenith Distance.														
Barometer 29.60 Inches. Thermometer 50.														
App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.	App. Z. D.	Refraction.	Diff.
45° 00'	0' 56".90	.33	53° 30'	1' 16".89	.47	62° 00'	1' 46".80	0".76	70° 30'	2' 39".80	1".48	79° 00'	4' 46".85	4".33
45 10	0 57.23	.33	53 40	1 17.36	.47	62 10	1 47.46	0.77	70 40	2 41.28	1.50	79 10	4 51.18	4.45
45 20	0 57.56	.33	53 50	1 17.83	.47	62 20	1 48.33	0.78	70 50	2 42.78	1.52	79 20	4 55.63	4.58
45 30	0 57.89	.33	54 00	1 18.30	.47	62 30	1 49.11	0.79	71 00	2 44.30	1.53	79 30	5 0.21	4.72
45 40	0 58.22	.34	54 10	1 18.77	.48	62 40	1 49.90	0.80	71 10	2 45.83	1.56	79 40	5 4.93	4.88
45 50	0 58.56	.34	54 20	1 19.25	.48	62 50	1 50.70	0.80	71 20	2 47.39	1.58	79 50	5 9.81	5.02
46 00	0 58.90	.35	54 30	1 19.73	.49	63 00	1 51.50	0.80	71 30	2 48.97	1.62	80 00	5 14.83	5.16
46 10	0 59.25	.35	54 40	1 20.22	.49	63 10	1 52.30	0.80	71 40	2 50.59	1.64	80 10	5 19.99	5.32
46 20	0 59.59	.35	54 50	1 20.71	.49	63 20	1 53.10	0.81	71 50	2 52.23	1.67	80 20	5 25.31	5.50
46 30	0 59.94	.35	55 00	1 21.20	.51	63 30	1 53.91	0.82	72 00	2 53.90	1.72	80 30	5 30.81	5.68
46 40	1 0.29	.36	55 10	1 21.71	.51	63 40	1 54.73	0.83	72 10	2 55.62	1.75	80 40	5 36.49	5.89
46 50	1 0.65	.36	55 20	1 22.22	.51	63 50	1 55.56	0.84	72 20	2 57.37	1.78	80 50	5 42.38	6.07
47 00	1 1.00	.36	55 30	1 22.73	.52	64 00	1 56.40	0.85	72 30	2 59.15	1.82	81 00	5 48.45	6.25
47 10	1 1.36	.37	55 40	1 23.25	.52	64 10	1 57.25	0.87	72 40	3 0.97	1.85	81 10	5 54.70	6.47
47 20	1 1.73	.36	55 50	1 23.77	.53	64 20	1 58.12	0.88	72 50	3 2.82	1.88	81 20	6 1.17	6.71
47 30	1 2.09	.37	56 00	1 24.30	.52	64 30	1 59.00	0.89	73 00	3 4.70	1.91	81 30	6 7.88	6.95
47 40	1 2.46	.37	56 10	1 24.82	.52	64 40	1 59.89	0.90	73 10	3 6.61	1.94	81 40	6 14.83	7.22
47 50	1 2.83	.37	56 20	1 25.34	.53	64 50	2 0.79	0.91	73 20	3 8.55	1.98	81 50	6 22.05	7.50
48 00	1 3.20	.36	56 30	1 25.87	.54	65 00	2 1.70	0.92	73 30	3 10.53	2.02	82 00	6 29.55	7.72
48 10	1 3.56	.36	56 40	1 26.41	.54	65 10	2 2.62	0.93	73 40	3 12.55	2.06	82 10	6 37.27	8.02
48 20	1 3.92	.37	56 50	1 26.95	.55	65 20	2 3.55	0.94	73 50	3 14.61	2.09	82 20	6 45.29	8.35
48 30	1 4.29	.37	57 00	1 27.50	.57	65 30	2 4.49	0.96	74 00	3 16.70	2.13	82 30	6 53.64	8.69
48 40	1 4.66	.37	57 10	1 28.07	.57	65 40	2 5.44	0.97	74 10	3 18.83	2.18	82 40	7 2.33	9.06
48 50	1 5.03	.37	57 20	1 28.64	.58	65 50	2 6.42	0.98	74 20	3 21.01	2.23	82 50	7 11.39	9.45
49 00	1 5.40	.39	57 30	1 29.22	.59	66 00	2 7.40	1.00	74 30	3 23.24	2.27	83 00	7 20.84	9.74
49 10	1 5.79	.40	57 40	1 29.81	.59	66 10	2 8.40	1.01	74 40	3 25.51	2.32	83 10	7 30.58	10.17
49 20	1 6.19	.40	57 50	1 30.40	.60	66 20	2 9.41	1.03	74 50	3 27.83	2.37	83 20	7 40.75	10.64
49 30	1 6.59	.40	58 00	1 31.00	.59	66 30	2 10.44	1.04	75 00	3 30.20	2.41	83 30	7 51.39	11.12
49 40	1 6.99	.40	58 10	1 31.59	.59	66 40	2 11.48	1.05	75 10	3 32.61	2.47	83 40	8 2.51	11.67
49 50	1 7.39	.41	58 20	1 32.18	.60	66 50	2 12.53	1.07	75 20	3 35.08	2.52	83 50	8 14.18	12.23
50 00	1 7.80	.39	58 30	1 32.78	.60	67 00	2 13.60	1.08	75 30	3 37.60	2.58	84 00	8 26.41	12.60
50 10	1 8.19	.40	58 40	1 33.38	.61	67 10	2 14.68	1.10	75 40	3 40.18	2.63	84 10	8 39.01	13.24
50 20	1 8.59	.40	58 50	1 33.99	.61	67 20	2 15.78	1.11	75 50	3 42.81	2.69	84 20	8 52.25	13.94
50 30	1 8.99	.40	59 00	1 34.60	.62	67 30	2 16.89	1.12	76 00	3 45.50	2.75	84 30	9 6.19	14.66
50 40	1 9.39	.40	59 10	1 35.22	.62	67 40	2 18.01	1.14	76 10	3 48.25	2.81	84 40	9 20.85	15.46
50 50	1 9.79	.41	59 20	1 35.84	.63	67 50	2 19.15	1.15	76 20	3 51.06	2.88	84 50	9 36.31	16.19
51 00	1 10.20	.42	59 30	1 36.47	.64	68 00	2 20.30	1.16	76 30	3 53.94	2.95	85 00	9 52.50	
51 10	1 10.62	.43	59 40	1 37.11	.64	68 10	2 21.46	1.17	76 40	3 56.89	3.02	90 00	32 59.43	
51 20	1 11.05	.43	59 50	1 37.75	.65	68 20	2 22.63	1.19	76 50	3 59.91	3.09			
51 30	1 11.48	.44	60 00	1 38.40	.67	68 30	2 23.82	1.21	77 00	4 3.00	3.15			
51 40	1 11.92	.44	60 10	1 39.07	.67	68 40	2 25.03	1.22	77 10	4 6.15	3.25			
51 50	1 12.36	.44	60 20	1 39.74	.68	68 50	2 26.25	1.25	77 20	4 9.40	3.31			
52 00	1 12.80	.44	60 30	1 40.42	.69	69 00	2 27.50	1.28	77 30	4 12.71	3.42			
52 10	1 13.24	.45	60 40	1 41.11	.69	69 10	2 28.78	1.30	77 40	4 16.13	3.49			
52 20	1 13.69	.45	60 50	1 41.80	.70	69 20	2 30.08	1.32	77 50	4 19.62	3.56			
52 30	1 14.14	.45	61 00	1 42.50	.70	69 30	2 31.40	1.34	78 00	4 23.18	3.69			
52 40	1 14.59	.46	61 10	1 43.20	.70	69 40	2 32.74	1.37	78 10	4 26.87	3.79			
52 50	1 15.04	.46	61 20	1 43.90	.71	69 50	2 34.11	1.39	78 20	4 30.66	3.88			
53 00	1 15.50	.46	61 30	1 44.61	.72	70 00	2 35.50	1.41	78 30	4 34.54	3.99			
53 10	1 15.96	.46	61 40	1 45.33	.73	70 10	2 36.91	1.43	78 40	4 38.53	4.11			
53 20	1 16.42	.47	61 50	1 46.06	.74	70 20	2 38.34	1.46	78 50	4 42.64	4.21			

DECIMAL FACTORS for computing DR. BRADLEY'S CORRECTIONS
of the mean Astronomical REFRACTIONS, depending on the Barometer and Thermometer.
TABLE 2.

Bar.	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	30.0	Bar.
Fahr. Ther.												Fahr. Ther.
20	+ .059	+ .063	+ .067	+ .070	+ .074	+ .077	+ .081	+ .085	+ .088	+ .092	+ .096	20°
21	+ .056	+ .060	+ .064	+ .067	+ .071	+ .075	+ .078	+ .082	+ .085	+ .089	+ .093	21
22	+ .054	+ .057	+ .061	+ .064	+ .068	+ .072	+ .075	+ .079	+ .083	+ .086	+ .090	22
23	+ .051	+ .054	+ .058	+ .062	+ .065	+ .069	+ .072	+ .076	+ .080	+ .083	+ .087	23
24	+ .048	+ .051	+ .055	+ .059	+ .062	+ .066	+ .070	+ .073	+ .077	+ .080	+ .084	24
25	+ .045	+ .049	+ .052	+ .056	+ .060	+ .063	+ .067	+ .070	+ .074	+ .078	+ .081	25
26	+ .042	+ .046	+ .049	+ .053	+ .057	+ .060	+ .064	+ .067	+ .071	+ .075	+ .078	26
27	+ .040	+ .043	+ .047	+ .050	+ .054	+ .057	+ .061	+ .065	+ .068	+ .072	+ .075	27
28	+ .037	+ .040	+ .044	+ .048	+ .051	+ .055	+ .058	+ .062	+ .065	+ .069	+ .073	28
29	+ .034	+ .038	+ .041	+ .045	+ .048	+ .052	+ .055	+ .059	+ .063	+ .066	+ .070	29
30	+ .031	+ .035	+ .038	+ .042	+ .046	+ .049	+ .053	+ .056	+ .060	+ .063	+ .067	30
31	+ .029	+ .032	+ .036	+ .039	+ .043	+ .046	+ .050	+ .053	+ .057	+ .061	+ .064	31
32	+ .026	+ .029	+ .033	+ .037	+ .040	+ .044	+ .047	+ .051	+ .054	+ .058	+ .061	32
33	+ .023	+ .027	+ .030	+ .034	+ .037	+ .041	+ .044	+ .048	+ .051	+ .055	+ .059	33
34	+ .021	+ .024	+ .028	+ .031	+ .035	+ .038	+ .042	+ .045	+ .049	+ .052	+ .056	34
35	+ .018	+ .021	+ .025	+ .028	+ .032	+ .036	+ .039	+ .043	+ .046	+ .050	+ .053	35
36	+ .015	+ .019	+ .022	+ .026	+ .029	+ .033	+ .036	+ .040	+ .043	+ .047	+ .050	36
37	+ .013	+ .016	+ .020	+ .023	+ .027	+ .030	+ .034	+ .037	+ .041	+ .044	+ .048	37
38	+ .010	+ .014	+ .017	+ .020	+ .024	+ .027	+ .031	+ .034	+ .038	+ .041	+ .045	38
39	+ .007	+ .011	+ .014	+ .018	+ .021	+ .025	+ .028	+ .032	+ .035	+ .039	+ .042	39
40	+ .005	+ .008	+ .012	+ .015	+ .019	+ .022	+ .026	+ .029	+ .033	+ .036	+ .040	40
41	+ .002	+ .006	+ .009	+ .013	+ .016	+ .020	+ .023	+ .026	+ .030	+ .033	+ .037	41
42	.000	+ .003	+ .007	+ .010	+ .014	+ .017	+ .020	+ .024	+ .027	+ .031	+ .034	42
43	-.003	+ .001	+ .004	+ .008	+ .011	+ .014	+ .018	+ .021	+ .025	+ .028	+ .032	43
44	-.005	-.002	+ .002	+ .005	+ .008	+ .012	+ .015	+ .019	+ .022	+ .026	+ .029	44
45	-.008	-.004	-.001	+ .002	+ .006	+ .009	+ .013	+ .016	+ .020	+ .023	+ .026	45
46	-.010	-.007	-.004	.000	+ .003	+ .007	+ .010	+ .014	+ .017	+ .020	+ .024	46
47	-.013	-.009	-.006	-.003	+ .001	+ .004	+ .008	+ .011	+ .014	+ .018	+ .021	47
48	-.015	-.012	-.009	-.005	-.002	+ .002	+ .005	+ .008	+ .012	+ .015	+ .019	48
49	-.018	-.015	-.011	-.008	-.004	-.001	+ .003	+ .006	+ .009	+ .013	+ .016	49
50	-.020	-.017	-.014	-.010	-.007	-.003	.000	+ .003	+ .007	+ .010	+ .014	50
51	-.023	-.019	-.016	-.013	-.009	-.006	-.003	+ .001	+ .004	+ .008	+ .011	51
52	-.025	-.022	-.019	-.015	-.012	-.008	-.005	-.002	+ .002	+ .005	+ .008	52
53	-.028	-.024	-.021	-.018	-.014	-.011	-.008	-.004	-.001	+ .003	+ .006	53
54	-.030	-.027	-.023	-.020	-.017	-.013	-.010	-.007	-.003	.000	+ .004	54
55	-.032	-.029	-.026	-.022	-.019	-.016	-.012	-.009	-.006	-.002	+ .001	55
56	-.035	-.032	-.028	-.025	-.022	-.018	-.015	-.012	-.008	-.005	-.002	56
57	-.037	-.034	-.031	-.027	-.024	-.021	-.017	-.014	-.011	-.007	-.004	57
58	-.040	-.036	-.033	-.030	-.026	-.023	-.020	-.016	-.013	-.010	-.006	58
59	-.042	-.039	-.035	-.032	-.029	-.025	-.022	-.019	-.015	-.012	-.009	59
60	-.044	-.041	-.038	-.034	-.031	-.028	-.024	-.021	-.018	-.015	-.011	60
61	-.047	-.043	-.040	-.037	-.033	-.030	-.027	-.024	-.020	-.017	-.014	61
62	-.049	-.046	-.042	-.039	-.036	-.032	-.029	-.026	-.023	-.019	-.016	62
63	-.051	-.048	-.045	-.041	-.038	-.035	-.032	-.028	-.025	-.022	-.018	63
64	-.053	-.050	-.047	-.044	-.040	-.037	-.034	-.031	-.027	-.024	-.021	64
65	-.056	-.052	-.049	-.046	-.043	-.039	-.036	-.033	-.030	-.026	-.023	65
66	-.058	-.055	-.052	-.048	-.045	-.042	-.039	-.035	-.032	-.029	-.026	66
67	-.060	-.057	-.054	-.051	-.047	-.044	-.041	-.038	-.034	-.031	-.028	67
68	-.063	-.059	-.056	-.053	-.050	-.046	-.043	-.040	-.037	-.033	-.030	68
69	-.065	-.062	-.058	-.055	-.052	-.049	-.045	-.042	-.039	-.036	-.032	69
70	-.067	-.064	-.061	-.057	-.054	-.051	-.048	-.044	-.041	-.038	-.035	70
71	-.069	-.066	-.063	-.060	-.056	-.053	-.050	-.047	-.044	-.040	-.037	71
72	-.071	-.068	-.065	-.062	-.059	-.055	-.052	-.049	-.046	-.043	-.039	72
73	-.074	-.070	-.067	-.064	-.061	-.058	-.054	-.051	-.048	-.045	-.042	73
74	-.076	-.073	-.069	-.066	-.063	-.060	-.057	-.053	-.050	-.047	-.044	74
75	-.078	-.075	-.072	-.068	-.065	-.062	-.059	-.056	-.053	-.049	-.046	75
76	-.080	-.077	-.074	-.071	-.067	-.064	-.061	-.058	-.055	-.052	-.048	76
77	-.082	-.079	-.076	-.073	-.070	-.066	-.063	-.060	-.057	-.054	-.051	77
78	-.084	-.081	-.078	-.075	-.072	-.069	-.065	-.062	-.059	-.056	-.053	78
79	-.087	-.083	-.080	-.077	-.074	-.071	-.068	-.065	-.061	-.058	-.055	79
80	-.089	-.086	-.082	-.079	-.076	-.073	-.070	-.067	-.064	-.060	-.057	80

Multiply the mean Refraction by the Tabular correcting decimal Number under Bar. at top, and Ther. at side, and the product, applied with the proper Sign, + or -, to the mean Refraction, will give the corrected Refraction.

4 DECIMAL FACTORS for computing DR. BRADLEY'S CORRECTIONS, &c. concluded.

TABLE 2.

Bar.	30 . 1	30 . 2	30 . 3	30 . 4	30 . 5	30 . 6	30 . 7	30 . 8	30 . 9	31 . 0	Bar.
Fahr. Ther.											Fahr. Ther.
20°	+ .099	+ .103	+ .107	+ .110	+ .114	+ .118	+ .121	+ .125	+ .129	+ .132	20°
21	+ .096	+ .100	+ .104	+ .107	+ .111	+ .115	+ .118	+ .122	+ .126	+ .129	21
22	+ .094	+ .097	+ .101	+ .104	+ .108	+ .112	+ .115	+ .119	+ .123	+ .126	22
23	+ .091	+ .094	+ .098	+ .101	+ .105	+ .109	+ .112	+ .116	+ .120	+ .123	23
24	+ .088	+ .091	+ .095	+ .098	+ .102	+ .106	+ .109	+ .113	+ .117	+ .120	24
25	+ .085	+ .088	+ .092	+ .096	+ .099	+ .103	+ .106	+ .110	+ .114	+ .117	25
26	+ .082	+ .085	+ .089	+ .093	+ .096	+ .100	+ .103	+ .107	+ .111	+ .114	26
27	+ .079	+ .083	+ .086	+ .090	+ .093	+ .097	+ .100	+ .104	+ .108	+ .111	27
28	+ .076	+ .080	+ .083	+ .087	+ .090	+ .094	+ .098	+ .101	+ .105	+ .108	28
29	+ .073	+ .077	+ .080	+ .084	+ .088	+ .091	+ .095	+ .098	+ .102	+ .105	29
30	+ .070	+ .074	+ .078	+ .081	+ .085	+ .088	+ .092	+ .095	+ .099	+ .102	30
31	+ .068	+ .071	+ .075	+ .078	+ .082	+ .085	+ .089	+ .093	+ .096	+ .100	31
32	+ .065	+ .068	+ .072	+ .075	+ .079	+ .083	+ .086	+ .090	+ .093	+ .097	32
33	+ .062	+ .066	+ .069	+ .073	+ .076	+ .080	+ .083	+ .087	+ .090	+ .094	33
34	+ .059	+ .063	+ .066	+ .070	+ .073	+ .077	+ .080	+ .084	+ .088	+ .091	34
35	+ .057	+ .060	+ .064	+ .067	+ .071	+ .074	+ .078	+ .081	+ .085	+ .088	35
36	+ .054	+ .057	+ .061	+ .064	+ .068	+ .071	+ .075	+ .078	+ .082	+ .085	36
37	+ .051	+ .055	+ .058	+ .062	+ .065	+ .069	+ .072	+ .076	+ .079	+ .083	37
38	+ .048	+ .052	+ .055	+ .059	+ .062	+ .066	+ .069	+ .073	+ .076	+ .080	38
39	+ .046	+ .049	+ .053	+ .056	+ .060	+ .063	+ .067	+ .070	+ .074	+ .077	39
40	+ .043	+ .046	+ .050	+ .053	+ .057	+ .060	+ .064	+ .067	+ .071	+ .074	40
41	+ .040	+ .044	+ .047	+ .051	+ .054	+ .058	+ .061	+ .065	+ .068	+ .071	41
42	+ .038	+ .041	+ .045	+ .048	+ .051	+ .055	+ .058	+ .062	+ .065	+ .069	42
43	+ .035	+ .038	+ .042	+ .045	+ .049	+ .052	+ .056	+ .059	+ .063	+ .066	43
44	+ .032	+ .036	+ .039	+ .043	+ .046	+ .050	+ .053	+ .056	+ .060	+ .063	44
45	+ .030	+ .033	+ .037	+ .040	+ .044	+ .047	+ .050	+ .054	+ .057	+ .061	45
46	+ .027	+ .031	+ .034	+ .037	+ .041	+ .044	+ .048	+ .051	+ .054	+ .058	46
47	+ .025	+ .028	+ .031	+ .035	+ .038	+ .042	+ .045	+ .049	+ .052	+ .055	47
48	+ .022	+ .025	+ .029	+ .032	+ .036	+ .039	+ .042	+ .046	+ .049	+ .053	48
49	+ .019	+ .023	+ .026	+ .030	+ .033	+ .036	+ .040	+ .043	+ .047	+ .050	49
50	+ .017	+ .020	+ .024	+ .027	+ .030	+ .034	+ .037	+ .041	+ .044	+ .047	50
51	+ .014	+ .018	+ .021	+ .025	+ .028	+ .031	+ .035	+ .038	+ .041	+ .045	51
52	+ .012	+ .015	+ .019	+ .022	+ .025	+ .029	+ .032	+ .035	+ .039	+ .042	52
53	+ .009	+ .013	+ .016	+ .019	+ .023	+ .026	+ .030	+ .033	+ .036	+ .040	53
54	+ .007	+ .010	+ .014	+ .017	+ .020	+ .024	+ .027	+ .030	+ .034	+ .037	54
55	+ .004	+ .008	+ .011	+ .014	+ .018	+ .021	+ .024	+ .028	+ .031	+ .034	55
56	+ .002	+ .005	+ .009	+ .012	+ .015	+ .019	+ .022	+ .025	+ .029	+ .032	56
57	— .001	+ .003	+ .006	+ .009	+ .013	+ .016	+ .019	+ .023	+ .026	+ .029	57
58	— .003	— .000	+ .004	+ .007	+ .010	+ .014	+ .017	+ .020	+ .024	+ .027	58
59	— .006	— .002	+ .001	+ .004	+ .008	+ .011	+ .014	+ .018	+ .021	+ .024	59
60	— .008	— .005	— .001	+ .002	+ .005	+ .009	+ .012	+ .015	+ .019	+ .022	60
61	— .010	— .007	— .004	— .001	+ .003	+ .006	+ .009	+ .013	+ .016	+ .019	61
62	— .013	— .009	— .006	— .003	— .000	+ .004	+ .007	+ .010	+ .014	+ .017	62
63	— .015	— .012	— .009	— .005	— .002	+ .001	+ .005	+ .008	+ .011	+ .014	63
64	— .018	— .014	— .011	— .008	— .004	— .001	+ .002	+ .005	+ .009	+ .012	64
65	— .020	— .017	— .013	— .010	— .007	— .004	— .000	+ .003	+ .006	+ .010	65
66	— .022	— .019	— .016	— .013	— .009	— .006	— .003	+ .001	+ .004	+ .007	66
67	— .025	— .021	— .018	— .015	— .012	— .008	— .005	— .002	+ .001	+ .005	67
68	— .027	— .024	— .020	— .017	— .014	— .011	— .008	— .004	— .001	+ .002	68
69	— .029	— .026	— .023	— .020	— .016	— .013	— .010	— .007	— .004	— .000	69
70	— .032	— .028	— .025	— .022	— .019	— .015	— .012	— .009	— .006	— .003	70
71	— .034	— .031	— .027	— .024	— .021	— .018	— .015	— .011	— .008	— .005	71
72	— .036	— .033	— .030	— .027	— .023	— .020	— .017	— .014	— .011	— .007	72
73	— .038	— .035	— .032	— .029	— .026	— .022	— .019	— .016	— .013	— .010	73
74	— .041	— .038	— .034	— .031	— .028	— .025	— .022	— .018	— .015	— .012	74
75	— .043	— .040	— .037	— .033	— .030	— .027	— .024	— .021	— .017	— .014	75
76	— .045	— .042	— .039	— .036	— .032	— .029	— .026	— .023	— .020	— .017	76
77	— .047	— .044	— .041	— .038	— .035	— .032	— .028	— .025	— .022	— .019	77
78	— .050	— .047	— .043	— .040	— .037	— .034	— .031	— .028	— .024	— .021	78
79	— .052	— .049	— .046	— .042	— .039	— .036	— .033	— .030	— .027	— .023	79
80	— .054	— .051	— .048	— .045	— .042	— .038	— .035	— .032	— .029	— .026	80

Multiply the mean Refraction by the Tabular correcting decimal Number under Bar. at top, and Ther. at side, and the product, applied with the proper Signs, + or —, to the mean Refraction, will give the corrected Refraction.

LOGARITHMS of DR. BRADLEY'S REFRACTIONS.

TABLE 3.

LOGARITHMS of DR. BRADLEY'S MEAN REFRACTIONS for every Ten Minutes in Zenith Distance.								
Apparent Zen. Dist.	Log. Refract.	Diff.	Apparent Zen. Dist.	Log. Refract.	Diff.	Apparent Zen. Dist.	Log. Refract.	Diff.
0° 0'	— ∞		10° 0	1 .00000	775	20° 0'	1 .31597	418
10	9 .23045	28806	10 10	1 .00775	803	10 10	1 .32015	413
20	9 .51851	18046	20	1 .01578	747	20 20	1 .32428	410
30	9 .69897	12710	30	1 .02325	735	30	1 .32838	406
40	9 .82607	9301	40	1 .03060	762	40	1 .33244	402
50	9 .91908		50	1 .03822	710	50	1 .33646	398
		8092						
1 0	0 .00000	6819	11 0	1 .04532	660	21 0	1 .34044	360
10	0 .06819	5566	10 10	1 .05192	613	10 10	1 .34400	372
20	0 .12385	5224	20	1 .05805	641	20 20	1 .34772	350
30	0 .17609	4663	30	1 .06446	632	30	1 .35122	346
40	0 .22272	3973	40	1 .07078	586	40	1 .35468	364
50	0 .26245	3858	50	1 .07664	615	50	1 .35832	341
		3543						
2 0	0 .30103	3000	12 0	1 .08279	605	22 0	1 .36173	376
10	0 .33646	3058	10 10	1 .08884	563	10 10	1 .36549	373
20	0 .36736	2857	20	1 .09447	590	20 20	1 .36922	369
30	0 .39794	2528	30	1 .10037	582	30	1 .37291	367
40	0 .42651	2533	40	1 .10619	541	40	1 .37658	363
50	0 .45179	2394	50	1 .11160	567	50	1 .38021	361
		2138						
3 0	0 .47712	2138	13 0	1 .11727	593	23 0	1 .38382	357
10	0 .50106	2163	10 10	1 .12320	617	10 10	1 .38739	355
20	0 .52244	2060	20	1 .12937	576	20 20	1 .39094	351
30	0 .54407	1853	30	1 .13513	569	30	1 .39445	349
40	0 .56467	1886	40	1 .14082	593	40	1 .39794	346
50	0 .58320	1808	50	1 .14675	554	50	1 .40140	343
		1635						
4 0	0 .60206	1672	14 0	1 .15229	547	24 0	1 .40483	341
10	0 .62014	1611	10 10	1 .15776	570	10 10	1 .40824	338
20	0 .63649	1463	20	1 .16346	533	20 20	1 .41462	335
30	0 .65321	1502	30	1 .16879	527	30	1 .41497	333
40	0 .66932	1452	40	1 .17406	549	40	1 .41830	330
50	0 .68395	1324	50	1 .17955	514	50	1 .42160	328
		1360						
5 0	0 .69897	1325	15 0	1 .18469	480	25 0	1 .42488	325
10	0 .71349	1209	10 10	1 .18949	447	10 10	1 .42813	323
20	0 .72673	1248	20	1 .19396	470	20 20	1 .43136	321
30	0 .74033	1214	30	1 .19866	464	30	1 .43457	318
40	0 .75358	1111	40	1 .20330	433	40	1 .43775	316
50	0 .76567	1151	50	1 .20763	456	50	1 .44091	313
		1122						
6 0	0 .77815	1029	16 0	1 .21219	477	26 0	1 .44404	312
10	0 .79029	1068	10 10	1 .21696	498	10 10	1 .44716	309
20	0 .80140	1042	20	1 .22194	466	20 20	1 .45025	307
30	0 .81291	958	30	1 .22660	461	30	1 .45332	305
40	0 .82413	996	40	1 .23121	482	40	1 .45637	302
50	0 .83442	974	50	1 .23603	452	50	1 .45939	301
		896						
7 0	0 .84510	933	17 0	1 .24055	447	27 0	1 .46204	328
10	0 .85552	913	10 10	1 .24502	467	10 10	1 .46568	311
20	0 .86510	843	20	1 .24969	437	20 20	1 .46879	323
30	0 .87506	877	30	1 .25406	434	30	1 .47202	322
40	0 .88480	860	40	1 .25840	453	40	1 .47524	304
50	0 .89376	794	50	1 .26293	424	50	1 .47828	316
		828						
8 0	0 .90309	813	18 0	1 .26717	421	28 0	1 .48144	314
10	0 .91222	751	10 10	1 .27138	439	10 10	1 .48458	298
20	0 .92065	784	20	1 .27577	412	20 20	1 .48756	310
30	0 .92942	771	30	1 .27989	409	30	1 .49066	308
40	0 .93802	712	40	1 .28398	427	40	1 .49374	291
50	0 .94569	745	50	1 .28825	401	50	1 .49665	304
9 0	0 .95424	813	19 0	1 .29226	397	29 0	1 .49969	301
10	0 .96237	751	10 10	1 .29623	415	10 10	1 .50270	286
20	0 .96988	784	20	1 .30038	390	20 20	1 .50556	297
30	0 .97772	771	30	1 .30428	386	30	1 .50853	295
40	0 .98543	712	40	1 .30814	404	40	1 .51148	280
50	0 .99255		50	1 .31218	379	50	1 .51428	292

LOGARITHMS of DR. BRADLEY'S REFRACTIONS continued.

TABLE 3.

LOGARITHMS of DR. BRADLEY'S MEAN REFRACTIONS for every Ten Minutes in Zenith Distance.								
Apparent Zen. Dist.	Log. Refract.	Diff.	Apparent Zen. Dist.	Log. Refract.	Diff.	Apparent Zen. Dist.	Log. Refract.	Diff.
30° 0'	1 . 51720	289	40° 0'	1 . 67943	253	50° 0	1 . 83123	249
10	1 . 52009	275	10	1 . 68196	262	10	1 . 83372	254
20	1 . 52284	285	20	1 . 68458	250	20	1 . 83626	253
30	1 . 52569	284	30	1 . 68708	250	30	1 . 83879	251
40	1 . 52853	269	40	1 . 68958	256	40	1 . 84130	249
50	1 . 53122	281	50	1 . 69214	247	50	1 . 84379	255
31 0	1 . 53403	291	41 0	1 . 69461	262	51 0	1 . 84634	259
10	1 . 53694	301	10	1 . 69723	261	10	1 . 84893	263
20	1 . 53995	288	20	1 . 69984	259	20	1 . 85156	262
30	1 . 54283	285	30	1 . 70243	258	30	1 . 85418	267
40	1 . 54568	296	40	1 . 70501	256	40	1 . 85685	265
50	1 . 54864	281	50	1 . 70757	255	50	1 . 85950	263
32 0	1 . 55145	280	42 0	1 . 71012	253	52 0	1 . 86213	262
10	1 . 55425	290	10	1 . 71265	252	10	1 . 86475	266
20	1 . 55715	276	20	1 . 71517	250	20	1 . 86741	264
30	1 . 55991	274	30	1 . 71769	249	30	1 . 87005	263
40	1 . 56265	284	40	1 . 72016	247	40	1 . 87268	261
50	1 . 56549	271	50	1 . 72263	246	50	1 . 87529	266
33 0	1 . 56820	269	43 0	1 . 72509	261	53 0	1 . 87795	263
10	1 . 57089	279	10	1 . 72770	252	10	1 . 88058	263
20	1 . 57368	266	20	1 . 73022	258	20	1 . 88321	266
30	1 . 57634	264	30	1 . 73280	256	30	1 . 88587	265
40	1 . 57898	263	40	1 . 73536	247	40	1 . 88852	263
50	1 . 58161	272	50	1 . 73783	253	50	1 . 89115	261
34 0	1 . 58433	282	44 0	1 . 74036	252	54 0	1 . 89376	260
10	1 . 58715	280	10	1 . 74288	245	10	1 . 89636	267
20	1 . 58995	278	20	1 . 74531	249	20	1 . 89903	259
30	1 . 59273	277	30	1 . 74780	248	30	1 . 90162	266
40	1 . 59550	274	40	1 . 75028	238	40	1 . 90428	265
50	1 . 59824	273	50	1 . 75266	245	50	1 . 90693	263
35 0	1 . 60097	272	45 0	1 . 75511	251	55 0	1 . 90956	272
10	1 . 60369	269	10	1 . 75762	250	10	1 . 91228	270
20	1 . 60638	268	20	1 . 76012	248	20	1 . 91498	268
30	1 . 60906	266	30	1 . 76260	247	30	1 . 91766	272
40	1 . 61172	265	40	1 . 76507	253	40	1 . 92038	271
50	1 . 61437	263	50	1 . 76760	252	50	1 . 92309	274
36 0	1 . 61700	262	46 0	1 . 77012	257	56 0	1 . 92583	267
10	1 . 61962	259	10	1 . 77269	248	10	1 . 92850	265
20	1 . 62221	259	20	1 . 77517	255	20	1 . 93115	269
30	1 . 62480	257	30	1 . 77772	253	30	1 . 93384	272
40	1 . 62737	255	40	1 . 78025	258	40	1 . 93656	271
50	1 . 62992	256	50	1 . 78283	250	50	1 . 93927	274
37 0	1 . 63246	272	47 0	1 . 78533	256	57 0	1 . 94201	282
10	1 . 63518	261	10	1 . 78789	261	10	1 . 94483	280
20	1 . 63779	269	20	1 . 79050	252	20	1 . 94763	283
30	1 . 64048	268	30	1 . 79302	258	30	1 . 95046	286
40	1 . 64316	256	40	1 . 79560	257	40	1 . 95332	285
50	1 . 64572	264	50	1 . 79817	255	50	1 . 95617	287
38 0	1 . 64836	263	48 0	1 . 80072	246	58 0	1 . 95904	281
10	1 . 65099	251	10	1 . 80318	246	10	1 . 96185	279
20	1 . 65350	260	20	1 . 80564	250	20	1 . 96464	280
30	1 . 65610	258	30	1 . 80814	250	30	1 . 96744	281
40	1 . 65868	247	40	1 . 81064	247	40	1 . 97025	283
50	1 . 66115	255	50	1 . 81311	246	50	1 . 97308	281
39 0	1 . 66370	263	49 0	1 . 81558	258	59 0	1 . 97589	284
10	1 . 66633	271	10	1 . 81816	263	10	1 . 97873	282
20	1 . 66904	260	20	1 . 82079	262	20	1 . 98155	284
30	1 . 67164	258	30	1 . 82341	260	30	1 . 98439	287
40	1 . 67422	266	40	1 . 82601	259	40	1 . 98726	286
50	1 . 67688	255	50	1 . 82860	263	50	1 . 99012	288

LOGARITHMS of DR. BRADLEY'S REFRACTIONS concluded.

TABLE 3.

LOGARITHMS of DR. BRADLEY'S MEAN REFRACTIONS for every Ten Minutes in Zenith Distance.								
Apparent Zen. Dist.	Log. Refract.	Diff.	Apparent Zen. Dist.	Log. Refract.	Diff.	Apparent Zen. Dist.	Log. Refract.	Diff.
60° 0	1 .99300	294	70° 0'	2 .19173	392	80° 0	2 .49808	706
10	1 .99594	293	10	2 .19565	394	10	2 .50514	716
20	1 .99887	295	20	2 .19959	399	20	2 .51230	728
30	2 .00182	297	30	2 .20358	400	30	2 .51958	739
40	2 .00479	296	40	2 .20758	402	40	2 .52697	754
50	2 .00775	297	50	2 .21160	404	50	2 .53451	763
61 0	2 .01072	296	71 0	2 .21564	402	81 0	2 .54214	772
10	2 .01368	293	10	2 .21966	407	10	2 .54986	785
20	2 .01661	296	20	2 .22373	408	20	2 .55771	800
30	2 .01957	298	30	2 .22781	414	30	2 .56571	812
40	2 .02255	300	40	2 .23195	416	40	2 .57383	829
50	2 .02555	302	50	2 .23611	419	50	2 .58212	844
62 0	2 .02857	308	72 0	2 .24030	427	82 0	2 .59056	852
10	2 .03165	310	10	2 .24457	431	10	2 .59908	868
20	2 .03475	311	20	2 .24888	434	20	2 .60776	886
30	2 .03786	313	30	2 .25322	439	30	2 .61662	903
40	2 .04099	316	40	2 .25761	441	40	2 .62565	922
50	2 .04415	322	50	2 .26202	445	50	2 .63487	941
63 0	2 .04727	311	73 0	2 .26647	446	83 0	2 .64428	949
10	2 .05038	308	10	2 .27093	450	10	2 .65377	969
20	2 .05346	310	20	2 .27543	453	20	2 .66346	992
30	2 .05656	312	30	2 .27996	458	30	2 .67338	1013
40	2 .05968	313	40	2 .28454	462	40	2 .68351	1037
50	2 .06281	314	50	2 .28916	464	50	2 .69388	1062
64 0	2 .06595	316	74 0	2 .29380	468	84 0	2 .70450	1067
10	2 .06911	321	10	2 .29848	473	10	2 .71517	1095
20	2 .07232	323	20	2 .30321	480	20	2 .72612	1122
30	2 .07555	323	30	2 .30801	482	30	2 .73734	1151
40	2 .07878	325	40	2 .31283	488	40	2 .74885	1181
50	2 .08203	326	50	2 .31771	492	50	2 .76066	1203
65 0	2 .08529	327	75 0	2 .32263	495	85 0	2 .77269	
10	2 .08856	328	10	2 .32758	502			
20	2 .09184	329	20	2 .33260	506			
30	2 .09513	334	30	2 .33766	512			
40	2 .09847	334	40	2 .34278	515			
50	2 .00181	336	50	2 .34793	522			
66 0	2 .10517	339	76 0	2 .35315	526			
10	2 .10856	341	10	2 .35841	531			
20	2 .11197	344	20	2 .36372	538			
30	2 .11541	345	30	2 .36910	545			
40	2 .11886	345	40	2 .37455	550			
50	2 .12231	350	50	2 .38005	556			
67 0	2 .12581	349	77 0	2 .38561	559			
10	2 .12930	354	10	2 .39120	570			
20	2 .13284	353	20	2 .39690	572			
30	2 .13637	354	30	2 .40262	584			
40	2 .13991	357	40	2 .40846	588			
50	2 .14348	358	50	2 .41434	591			
68 0	2 .14706	357	78 0	2 .42025	605			
10	2 .15063	358	10	2 .42630	612			
20	2 .15421	361	20	2 .43242	619			
30	2 .15782	364	30	2 .43861	626			
40	2 .16146	364	40	2 .44487	636			
50	2 .16510	369	50	2 .45123	642			
69 0	2 .16879	375	79 0	2 .45765	651			
10	2 .17254	378	10	2 .46416	659			
20	2 .17632	380	20	2 .47075	667			
30	2 .18012	383	30	2 .47742	678			
40	2 .18395	388	40	2 .48420	689			
50	2 .18783	390	50	2 .49109	699			

To the Logarithms found in this Table, add the Logarithms for
the Barometer and Thermometer taken out of the following Table,
and the Sums will be the Logarithms of the corrected Refractions.

8 LOGARITHMS for correcting DR. BRADLEY'S MEAN REFRACTIONS.
TABLE 4.

Fahr. Therm.	Height of the Barometer in English Inches.								Fahr. Therm.
0	29 . 0	29 . 1	29 . 2	29 . 3	29 . 4	29 . 5	29 . 6	29 . 7	0
20	10 . 02497	10 . 02646	10 . 02795	10 . 02944	10 . 03092	10 . 03239	10 . 03386	10 . 05533	20
21	. 02380	. 02529	. 02678	. 02827	. 02975	. 03122	. 03269	. 03416	21
22	. 02263	. 02412	. 02561	. 02710	. 02858	. 03005	. 03152	. 03299	22
23	. 02146	. 02295	. 02444	. 02593	. 02741	. 02888	. 03035	. 03182	23
24	. 02030	. 02179	. 02328	. 02477	. 02625	. 02772	. 02919	. 03066	24
25	10 . 01914	10 . 02063	10 . 02212	10 . 02361	10 . 02509	10 . 02656	10 . 02803	10 . 02950	25
26	. 01798	. 01947	. 02096	. 02245	. 02393	. 02540	. 02687	. 02834	26
27	. 01683	. 01832	. 01981	. 02130	. 02278	. 02425	. 02572	. 02719	27
28	. 01568	. 01717	. 01866	. 02015	. 02163	. 02310	. 02457	. 02604	28
29	. 01453	. 01602	. 01751	. 01900	. 02048	. 02195	. 02342	. 02489	29
30	10 . 01339	10 . 01488	10 . 01637	10 . 01786	10 . 01934	10 . 02081	10 . 02228	10 . 02375	30
31	. 01225	. 01374	. 01523	. 01672	. 01820	. 01967	. 02114	. 02261	31
32	. 01111	. 01260	. 01409	. 01558	. 01706	. 01853	. 02000	. 02147	32
33	. 00997	. 01146	. 01295	. 01444	. 01592	. 01739	. 01886	. 02033	33
34	. 00884	. 01033	. 01182	. 01331	. 01479	. 01626	. 01773	. 01920	34
35	10 . 00771	10 . 00920	10 . 01069	10 . 01218	10 . 01366	10 . 01513	10 . 01661	10 . 01807	35
36	. 00658	. 00807	. 00956	. 01105	. 01253	. 01400	. 01547	. 01694	36
37	. 00546	. 00695	. 00844	. 00993	. 01141	. 01288	. 01435	. 01582	37
38	. 00434	. 00583	. 00732	. 00881	. 01029	. 01176	. 01323	. 01470	38
39	. 00322	. 00471	. 00620	. 00769	. 00917	. 01064	. 01211	. 01358	39
40	10 . 00211	10 . 00360	10 . 00509	10 . 00658	10 . 00806	10 . 00953	10 . 01100	10 . 01247	40
41	. 00099	. 00248	. 00397	. 00546	. 00694	. 00841	. 00988	. 01135	41
42	9 . 99988	. 00137	. 00286	. 00435	. 00583	. 00730	. 00877	. 01024	42
43	. 99878	. 00027	. 00176	. 00325	. 00473	. 00620	. 00767	. 00914	43
44	. 99767	9 . 99916	. 00065	. 00214	. 00362	. 00509	. 00656	. 00803	44
45	9 . 99657	9 . 99806	9 . 99955	10 . 00104	10 . 00252	10 . 00399	10 . 00546	10 . 00693	45
46	. 99547	. 99696	. 99845	9 . 99994	. 00142	. 00289	. 00436	. 00583	46
47	. 99438	. 99587	. 99736	. 99885	. 00033	. 00180	. 00327	. 00474	47
48	. 99329	. 99478	. 99627	. 99776	9 . 99924	. 00071	. 00218	. 00365	48
49	. 99220	. 99369	. 99518	. 99667	. 99815	9 . 99962	. 00109	. 00256	49
50	9 . 99111	9 . 99260	9 . 99409	9 . 99558	9 . 99706	9 . 99853	10 . 00000	10 . 00147	50
51	. 99003	. 99152	. 99301	. 99450	. 99598	. 99745	9 . 99892	. 00039	51
52	. 98894	. 99043	. 99192	. 99341	. 99489	. 99636	. 99783	9 . 99930	52
53	. 98786	. 98935	. 99084	. 99233	. 99381	. 99528	. 99675	. 99822	53
54	. 98679	. 98828	. 98977	. 99126	. 99274	. 99421	. 99568	. 99715	54
55	9 . 98571	9 . 98720	9 . 98869	9 . 99018	9 . 99166	9 . 99313	9 . 99460	9 . 99607	55
56	. 98474	. 98613	. 98762	. 98911	. 99059	. 99206	. 99353	. 99500	56
57	. 98358	. 98507	. 98656	. 98805	. 98953	. 99100	. 99247	. 99394	57
58	. 98251	. 98400	. 98549	. 98698	. 98846	. 98993	. 99140	. 99287	58
59	. 98145	. 98294	. 98443	. 98592	. 98740	. 98887	. 99034	. 99181	59
60	9 . 98039	9 . 98188	9 . 98337	9 . 98486	9 . 98634	9 . 98781	9 . 98928	9 . 99075	60
61	. 97933	. 98082	. 98231	. 98380	. 98528	. 98675	. 98822	. 98969	61
62	. 97827	. 97976	. 98125	. 98274	. 98422	. 98569	. 98716	. 98863	62
63	. 97722	. 97871	. 98020	. 98169	. 98317	. 98464	. 98611	. 98758	63
64	. 97617	. 97766	. 97915	. 98064	. 98212	. 98359	. 98506	. 98653	64
65	9 . 97512	9 . 97661	9 . 97810	9 . 97959	9 . 98107	9 . 98254	9 . 98401	9 . 98548	65
66	. 97408	. 97557	. 97706	. 97855	. 98003	. 98150	. 98297	. 98444	66
67	. 97303	. 97452	. 97601	. 97750	. 97898	. 98045	. 98192	. 98339	67
68	. 97199	. 97348	. 97497	. 97646	. 97794	. 97941	. 98088	. 98235	68
69	. 97096	. 97245	. 97394	. 97543	. 97691	. 97838	. 97985	. 98132	69
70	9 . 96992	9 . 97141	9 . 97290	9 . 97439	9 . 97587	9 . 97734	9 . 97881	9 . 98028	70
71	. 96889	. 97038	. 97187	. 97336	. 97484	. 97631	. 97778	. 97925	71
72	. 96786	. 96935	. 97084	. 97233	. 97381	. 97528	. 97675	. 97822	72
73	. 96683	. 96832	. 96981	. 97130	. 97278	. 97425	. 97572	. 97719	73
74	. 96580	. 96729	. 96878	. 97027	. 97175	. 97322	. 97469	. 97616	74

Proportional Parts for Hundredths of an Inch of the Barometer.

.01	.02	.03	.04	.05	.06	.07	.08	.09
+ 14	+ 29	+ 43	+ 58	+ 72	+ 87	+ 101	+ 116	+ 131

LOGARITHMS for correcting DR. BRADLEY'S MEAN REFRACTIONS. 9

TABLE 4 concluded.

Fahr. Therm.	Height of the Barometer in English Inches.									Fahr. Therm.
0	29 . 8	29 . 9	30 . 0	30 . 1	30 . 2	30 . 3	30 . 4	30 . 5	0	
20°	10 .03679	10 .03824	10 .03969	10 .04114	10 .04258	10 .04401	10 .04544	10 .04687	20°	
21	.03569	.03707	.03852	.03997	.04141	.04284	.04427	.04570	21	
22	.03445	.03590	.03735	.03880	.04024	.04167	.04310	.04453	22	
23	.03328	.03473	.03618	.03763	.03907	.04050	.04193	.04336	23	
24	.03212	.03357	.03502	.03647	.03791	.03934	.04077	.04220	24	
25	10 .03096	10 .03241	10 .03386	10 .03531	10 .03675	10 .03818	10 .03961	10 .04104	25	
26	.02980	.03125	.03270	.03415	.03559	.03702	.03845	.03988	26	
27	.02865	.03010	.03155	.03300	.03444	.03587	.03730	.03875	27	
28	.02750	.02895	.03040	.03185	.03329	.03472	.03615	.03758	28	
29	.02635	.02780	.02925	.03070	.03214	.03357	.03500	.03648	29	
30	10 .02521	10 .02666	10 .02811	10 .02956	10 .03100	10 .03243	10 .03386	10 .03529	30	
31	.02407	.02552	.02697	.02842	.02986	.03129	.03272	.03415	31	
32	.02293	.02438	.02583	.02728	.02872	.03015	.03158	.03301	32	
33	.02179	.02324	.02469	.02614	.02758	.02901	.03044	.03187	33	
34	.02066	.02211	.02356	.02501	.02645	.02788	.02931	.03074	34	
35	10 .01953	10 .02098	10 .02243	10 .02388	10 .02532	10 .02675	10 .02818	10 .02961	35	
36	.01840	.01985	.02130	.02275	.02419	.02562	.02705	.02848	36	
37	.01728	.01873	.02018	.02163	.02307	.02450	.02593	.02736	37	
38	.01616	.01761	.01906	.02051	.02195	.02338	.02481	.02624	38	
39	.01504	.01649	.01794	.01939	.02083	.02226	.02369	.02512	39	
40	10 .01393	10 .01538	10 .01683	10 .01828	10 .01972	10 .02115	10 .02258	10 .02401	40	
41	.01281	.01426	.01571	.01716	.01860	.02003	.02146	.02289	41	
42	.01170	.01315	.01460	.01605	.01749	.01892	.02035	.02176	42	
43	.01060	.01205	.01350	.01495	.01639	.01782	.01925	.02068	43	
44	.00949	.01094	.01239	.01384	.01528	.01671	.01814	.01957	44	
45	10 .00839	10 .00984	10 .01129	10 .01274	10 .01418	10 .01561	10 .01704	10 .01847	45	
46	.00729	.00874	.01019	.01164	.01308	.01451	.01594	.01737	46	
47	.00620	.00765	.00910	.01055	.01199	.01342	.01485	.01628	47	
48	.00511	.00656	.00801	.00946	.01090	.01233	.01376	.01519	48	
49	.00402	.00547	.00692	.00837	.00981	.01124	.01267	.01410	49	
50	10 .00293	10 .00438	10 .00583	10 .00728	10 .00872	10 .01015	10 .01158	10 .01301	50	
51	.00185	.00330	.00475	.00620	.00764	.00907	.01050	.01193	51	
52	.00076	.00221	.00366	.00511	.00655	.00798	.00941	.01084	52	
53	9 .99968	.00113	.00258	.00403	.00547	.00690	.00833	.00976	53	
54	.99861	.00006	.00151	.00296	.00440	.00583	.00726	.00869	54	
55	9 .99753	9 .99898	10 .00043	10 .00188	10 .00332	10 .00475	10 .00618	10 .00761	55	
56	.99646	.99791	9 .99936	.00081	.00225	.00368	.00511	.00654	56	
57	.99540	.99685	.99830	9 .99975	.00119	.00262	.00405	.00548	57	
58	.99433	.99578	.99723	.99868	.00012	.00155	.00298	.00441	58	
59	.99327	.99472	.99617	.99762	9 .99906	.00049	.00192	.00335	59	
60	9 .99221	9 .99366	9 .99511	9 .99656	9 .99800	9 .99943	10 .00086	10 .00229	60	
61	.99115	.99260	.99405	.99550	.99694	.99837	9 .99980	.00123	61	
62	.99009	.99154	.99299	.99444	.99588	.99731	.99874	.00017	62	
63	.98904	.99049	.99194	.99339	.99483	.99626	.99769	9 .99912	63	
64	.98799	.98944	.99089	.99234	.99378	.99521	.99664	.99807	64	
65	9 .98694	9 .98839	9 .98984	9 .99129	9 .99273	9 .99416	9 .99559	9 .99702	65	
66	.98590	.98735	.98880	.99025	.99169	.99319	.99455	.99598	66	
67	.98485	.98630	.98775	.98920	.99064	.99207	.99350	.99493	67	
68	.98381	.98526	.98671	.98816	.98960	.99103	.99246	.99389	68	
69	.98278	.98423	.98568	.98713	.98857	.99000	.99143	.99286	69	
70	9 .98174	9 .98319	9 .98464	9 .98609	9 .98753	9 .98896	9 .99039	9 .99182	70	
71	.98071	.98216	.98361	.98506	.98650	.98793	.98936	.99079	71	
72	.97968	.98113	.98258	.98403	.98547	.98690	.98833	.98976	72	
73	.97865	.98010	.98155	.98300	.98444	.98587	.98730	.98873	73	
74	.97762	.97907	.98052	.98197	.98341	.98484	.98627	.98770	74	

Proportional Parts for Hundredths of an Inch of the Barometer.

.01	.02	.03	.04	.05	.06	.07	.08	.09
+ 14	+ 29	+ 43	+ 58	+ 72	+ 87	+ 101	+ 116	+ 131

10 FRENCH TABLE of MEAN REFRACTIONS with their LOGARITHMS.

TABLE 1,

0.760 Bar. Metrique. +10° Therm. Centigrade; or English Barometer 29.94. Fahrenheit's Thermometer 50°.											
Zen. Dist.	Refractions.	Logarithms.	Diff. for 1 Min.	Zen. Dist.	Refractions.	Logarithms.	Diff. for 1 Min.	Zen. Dist.	Refractions.	Logarithms.	Diff. for 1 Min.
0° 0'				10° 0'	10". 3	1 . 0118		20° 0'	21". 2	1 . 3264	
10				10 10	10 . 5	1 . 0185		10	21 . 4	1 . 3303	
20				20	10 . 7	1 . 0259	7 . 0	20	21 . 6	1 . 3342	
30				30	10 . 8	1 . 0349		30	21 . 8	1 . 3380	3 . 9
40				40	11 . 0	1 . 0440		40	22 . 0	1 . 3419	
50				50	11 . 2	1 . 0471		50	22 . 2	1 . 3458	
1 0	1". 0	0 . 0000		11 0	11 . 3	1 . 0541		21 0	22 . 4	1 . 3496	
10	1 . 1	0 . 0514		10	11 . 5	1 . 0605	6 . 4	10	22 . 6	1 . 3533	
20	1 . 3	0 . 1029	51 . 4	20	11 . 7	1 . 0669		20	22 . 8	1 . 3570	3 . 7
30	1 . 5	0 . 1543		30	11 . 9	1 . 0733		30	23 . 0	1 . 3607	
40	1 . 7	0 . 2058		40	12 . 0	1 . 0798		40	23 . 2	1 . 3644	
50	1 . 9	0 . 2573		50	12 . 2	1 . 0862		50	23 . 4	1 . 3681	
2 0	2 . 0	0 . 3087		12 0	12 . 4	1 . 0929		22 0	23 . 5	1 . 3718	
10	2 . 2	0 . 3379	29 . 2	10	12 . 6	1 . 0989	6 . 0	10	23 . 7	1 . 3754	
20	2 . 4	0 . 3671		20	12 . 8	1 . 1049		20	23 . 9	1 . 3790	3 . 6
30	2 . 6	0 . 3963		30	13 . 0	1 . 1109		30	24 . 1	1 . 3826	
40	2 . 8	0 . 4255		40	13 . 2	1 . 1169		40	24 . 3	1 . 3862	
50	2 . 9	0 . 4549		50	13 . 4	1 . 1229		50	24 . 5	1 . 3898	
3 0	3 . 1	0 . 4841		13 0	13 . 5	1 . 1289		23 0	24 . 7	1 . 3934	
10	3 . 3	0 . 5051	21 . 0	10	13 . 7	1 . 1344	5 . 5	10	24 . 9	1 . 3968	
20	3 . 4	0 . 5262		20	13 . 8	1 . 1400		20	25 . 1	1 . 4002	3 . 4
30	3 . 6	0 . 5472		30	14 . 0	1 . 1455		30	25 . 3	1 . 4036	
40	3 . 7	0 . 5683		40	14 . 2	1 . 1511		40	25 . 5	1 . 4071	
50	3 . 9	0 . 5893		50	14 . 3	1 . 1566		50	25 . 7	1 . 4105	
4 0	4 . 1	0 . 6104		14 0	14 . 5	1 . 1622		24 0	25 . 9	1 . 4140	
10	4 . 3	0 . 6265	16 . 1	10	14 . 7	1 . 1674	5 . 2	10	26 . 1	1 . 4173	
20	4 . 5	0 . 6427		20	14 . 8	1 . 1726		20	26 . 3	1 . 4206	3 . 3
30	4 . 6	0 . 6588		30	15 . 0	1 . 1779		30	26 . 5	1 . 4240	
40	4 . 8	0 . 6750		40	15 . 2	1 . 1831		40	26 . 7	1 . 4273	
50	4 . 9	0 . 6912		50	15 . 4	1 . 1883		50	26 . 9	1 . 4306	
5 0	5 . 1	0 . 7073		15 0	15 . 6	1 . 1936		25 0	27 . 2	1 . 4340	
10	5 . 3	0 . 7206	13 . 3	10	15 . 8	1 . 1985	4 . 9	10	27 . 4	1 . 4373	
20	5 . 5	0 . 7339		20	16 . 0	1 . 2034		20	27 . 6	1 . 4406	3 . 3
30	5 . 6	0 . 7472		30	16 . 1	1 . 2083		30	27 . 8	1 . 4438	
40	5 . 8	0 . 7606		40	16 . 3	1 . 2132		40	28 . 0	1 . 4471	
50	5 . 9	0 . 7739		50	16 . 5	1 . 2181		50	28 . 2	1 . 4504	
6 0	6 . 1	0 . 7872		16 0	16 . 7	1 . 2230		26 0	28 . 4	1 . 4536	
10	6 . 3	0 . 7984	11 . 2	10	16 . 8	1 . 2276	4 . 6	10	28 . 6	1 . 4567	
20	6 . 5	0 . 8096		20	17 . 0	1 . 2322		20	28 . 8	1 . 4599	3 . 1
30	6 . 7	0 . 8208		30	17 . 2	1 . 2369		30	29 . 0	1 . 4630	
40	6 . 9	0 . 8320		40	17 . 4	1 . 2415		40	29 . 2	1 . 4662	
50	7 . 0	0 . 8432		50	17 . 6	1 . 2461		50	29 . 4	1 . 4693	
7 0	7 . 2	0 . 8544		17 0	17 . 8	1 . 2508		27 0	29 . 7	1 . 4725	
10	7 . 4	0 . 8642	9 . 8	10	18 . 0	1 . 2553	4 . 4	10	30 . 0	1 . 4756	
20	7 . 7	0 . 8740		20	18 . 2	1 . 2597		20	30 . 2	1 . 4787	3 . 1
30	7 . 8	0 . 8838		30	18 . 4	1 . 2641		30	30 . 4	1 . 4818	
40	7 . 9	0 . 8936		40	18 . 6	1 . 2685		40	30 . 6	1 . 4849	
50	8 . 1	0 . 9034		50	18 . 8	1 . 2729		50	30 . 8	1 . 4880	
8 0	8 . 2	0 . 9133		18 0	18 . 9	1 . 2773		28 0	31 . 0	1 . 4911	
10	8 . 4	0 . 9220	8 . 7	10	19 . 0	1 . 2815	4 . 2	10	31 . 2	1 . 4941	
20	8 . 6	0 . 9307		20	19 . 2	1 . 2857		20	31 . 4	1 . 4971	3 . 0
30	8 . 7	0 . 9394		30	19 . 4	1 . 2899		30	31 . 6	1 . 5001	
40	8 . 9	0 . 9480		40	19 . 6	1 . 2941		40	31 . 8	1 . 5031	
50	9 . 0	0 . 9567		50	19 . 8	1 . 2983		50	32 . 0	1 . 5061	
9 0	9 . 2	0 . 9652		19 0	20 . 0	1 . 3024		29 0	32 . 3	1 . 5091	
10	9 . 4	0 . 9729	7 . 7	10	20 . 2	1 . 3064	4 . 0	10	32 . 5	1 . 5121	
20	9 . 6	0 . 9807		20	20 . 4	1 . 3104		20	32 . 7	1 . 5150	3 . 0
30	9 . 8	0 . 9884		30	20 . 6	1 . 3144		30	32 . 9	1 . 5180	
40	10 . 0	0 . 9962		40	20 . 8	1 . 3184		40	33 . 1	1 . 5209	
50	10 . 1	1 . 0039		50	21 . 0	1 . 3224		50	33 . 4	1 . 5239	