

Test Report No. 07286A

Luminaire Information: 18" Parking Garage with A.L.P. Octagon Edgelit Parking Garage Lens with Diffuse White Backing, Averaged Data

Lamp Information: As supplied

Ballast / Driver Information: As supplied

Test Distance (ft): 22.25

Test Standards: IESNA LM-79-19

Electrical Measurements: 120.030 V, 0.262 A, 31.020 W, 0.987 PF, 59.988 Hz, 10.270% ITHD, 0.090% VTHD.

RP-08-2015 Cut Off Type = Cutoff

BUG Rating - TM15-11 2011 Type V Square Type = B2 U1 G1

Type = Type V Square Type ; Throw = Short

Total Luminous Flux (lm) = 3453.19

Luminous Efficacy (lm/W) = 111.393

Peak Luminous Intensity (candela) = 892.05

Location of peak intensity (degrees) = 45.00 H, 58.00 V

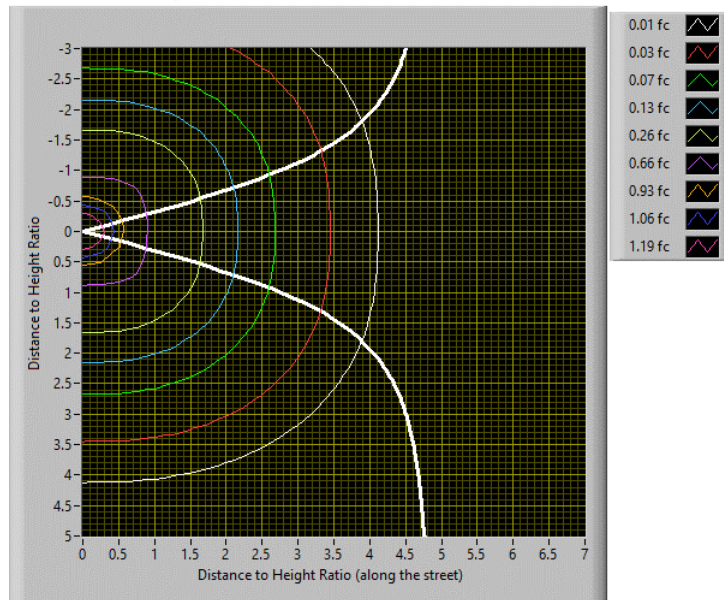
Luminous Diameter / Width (feet) = 1.16

Luminous Diameter / Length (feet) = 1.16

Luminous Diameter / Height (feet) = 0



Mounting Height (feet) = 19.685



Prepared For: Joel Robinson

Tested by: JRF _____

Approved by: _____ 2/20/2024

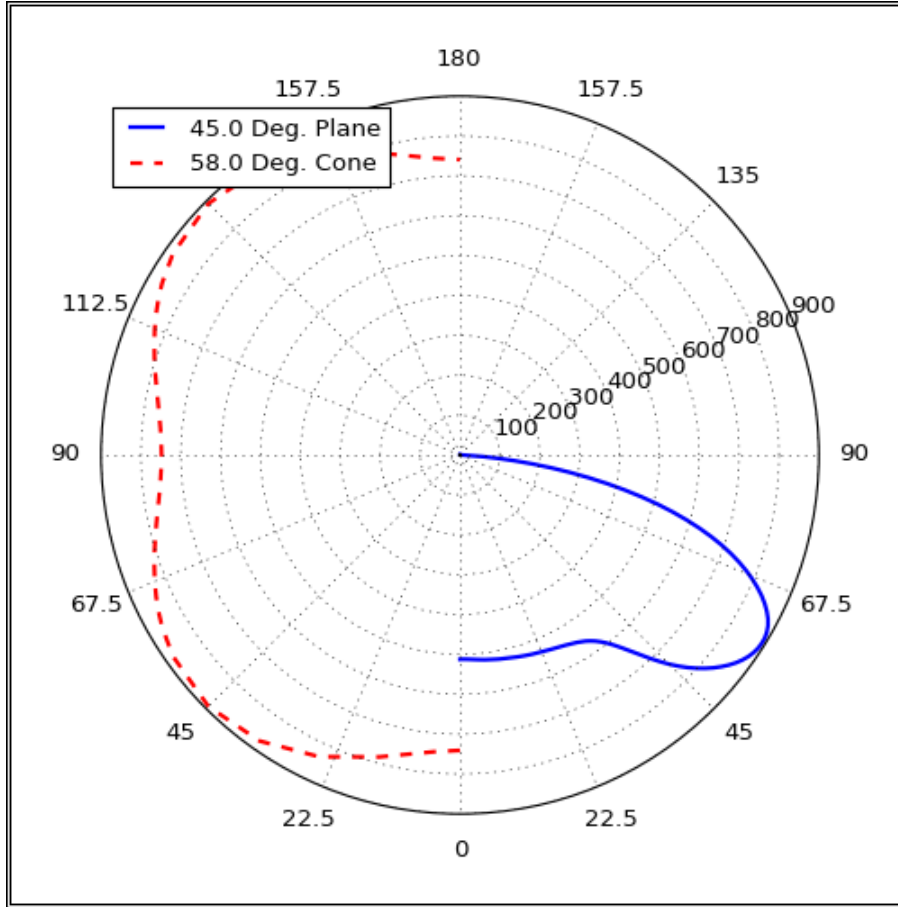
Max Cone and Plane

Horizontal Angles

0	740.8
5	747.1
10	765.5
15	784
20	809.5
25	835
30	855.4
35	875.7
40	883.9
45	892
50	885.6
55	879.2
60	862.6
65	840.7
70	815.8
75	791
80	769.2
85	754
90	748.4
95	754
100	769.2
105	791
110	815.8
115	840.7
120	862.6
125	879.2
130	885.6
135	892
140	883.9
145	875.7
150	855.4
155	835
160	809.5
165	784
170	765.5
175	747.1
180	740.8

Vertical Angles

0	512.4
5	515.1
10	520.1
15	525.3
20	531.4
25	538.1
30	548
35	569.3
40	631.4
45	741.9
50	830.3
55	882
60	888.5
65	834.6
70	723.2
75	552.4
80	327.6
85	95
90	1.5
95	1.4
100	1.3
105	1.2
110	1.2
115	1.2
120	1.3
125	1.3
130	1.3
135	1.3
140	1.3
145	1.3
150	1.3
155	1.3
160	1.4
165	1.4
170	1.4
175	1.4
180	1.4

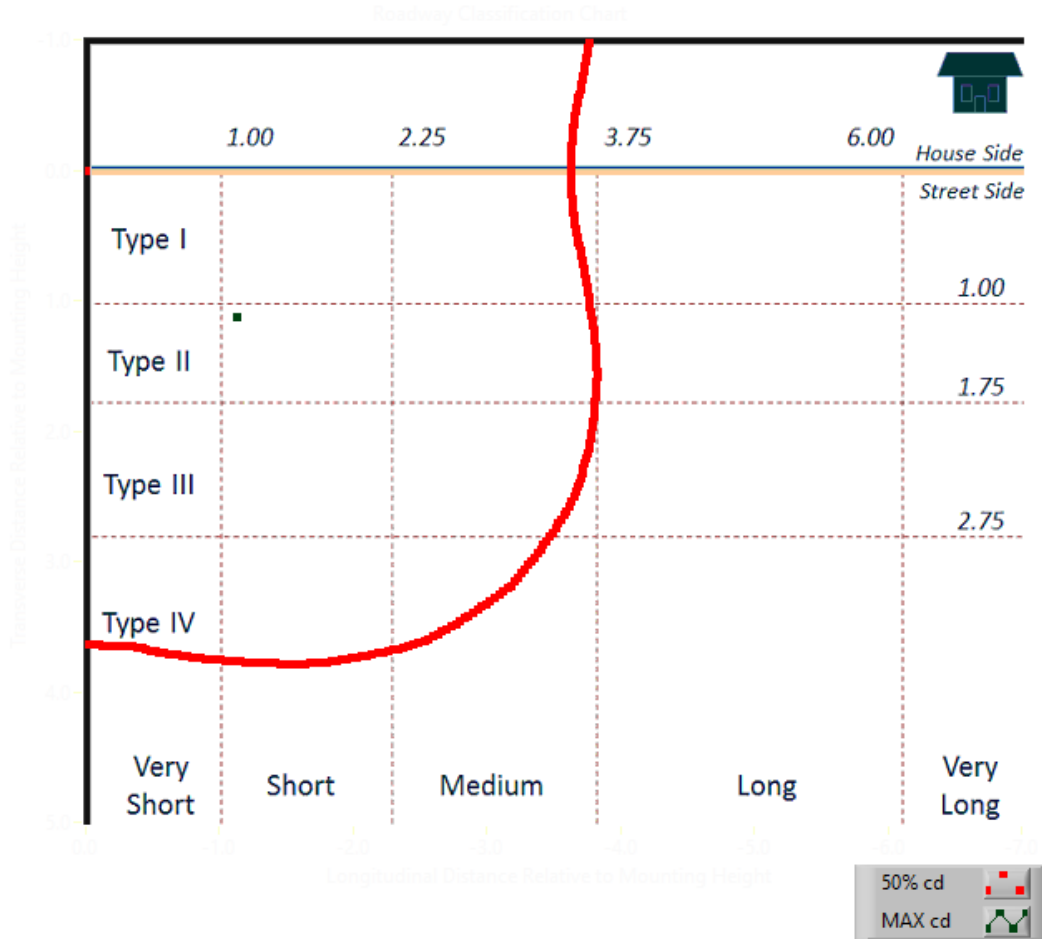


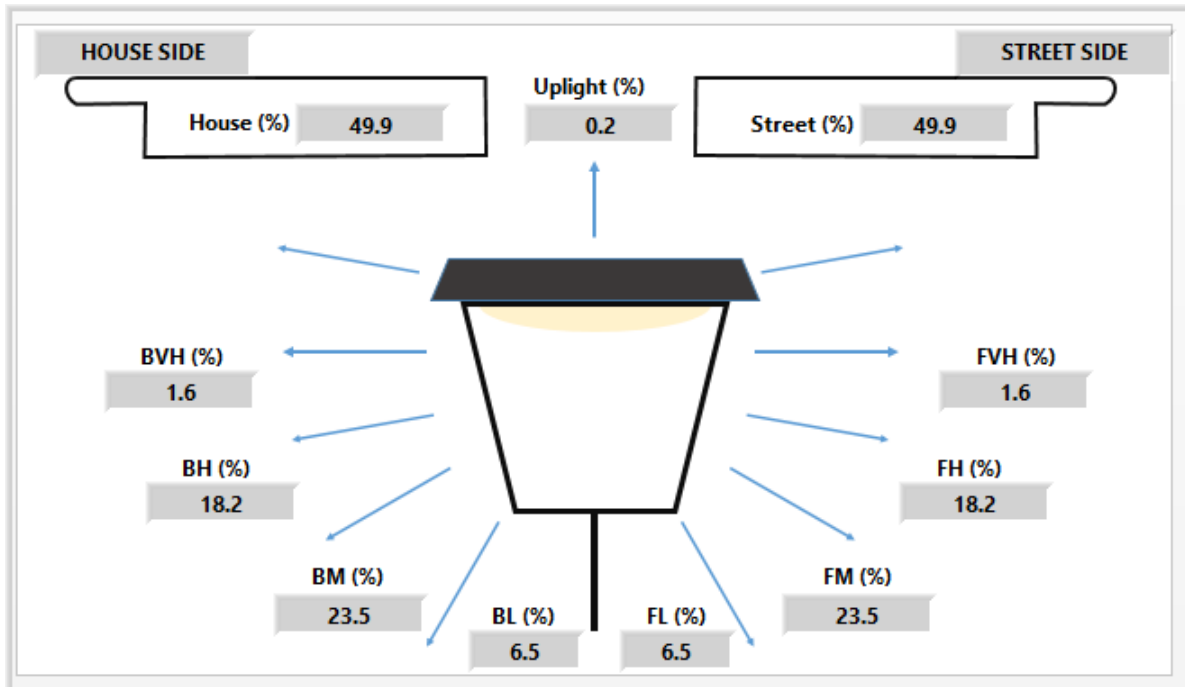
Vertical Angle of Max Cone (degrees) = 58
 Horiz. Angle of Maximum Plane(degrees) = 45
 Peak Luminous Intensity (candela) = 892.048

Max. Intensity MH Longitudinal (X) = -1.13

Max. Intensity MH Transverse (Y) = 1.13

Type = Type V Square Type ; Throw = Short





Total Backward Light - House Side

Backward (lm)	1722.70
(%)	49.89
BL (0 to 30 deg)	223.92
BL (%)	6.48
BM (30 to 60 deg)	812.86
BM (%)	23.54
BH (60 to 80 deg)	630.03
BH (%)	18.24
BVH (80 to 90 deg)	55.89
BVH (%)	1.62

Total Forward Light - Street Side

Forward (lm)	1722.70
(%)	49.89
FL (0 to 30 deg)	223.92
FL (%)	6.48
FM (30 to 60 deg)	812.86
FM (%)	23.54
FH (60 to 80 deg)	630.03
FH (%)	18.24
FVH (80 to 90 deg)	55.89
FVH (%)	1.62

Total Uplight and Trapped Light

Uplight (lm)	7.80
Uplight (%)	0.23
UL (90 to 100 deg)	1.44
UL (%)	0.04
UH (100 to 180 deg)	6.36
UH (%)	0.18
Trapped Light (lm)	NaN
(%)	NaN

Luminous Intensity Values - Street Side (cd)

H/V	0.0	5.0	15.0	25.0	35.0	45.0	55.0	65.0	70.0	75.0	85.0
0.0	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36
5.0	514.97	515.7	515.7	515.41	515.3	515.13	515.22	515.32	515.47	515.42	515.57
10.0	520.11	520.96	520.76	520.57	520.31	520.13	520.25	520.57	520.66	520.73	520.83
15.0	525.24	526.12	526.01	525.6	525.43	525.33	525.57	525.87	526.26	526.41	526.65
20.0	530.41	531.37	531.42	531.52	531.4	531.44	531.52	532	532.08	532.24	532.56
25.0	534.94	536.05	536.41	537.2	537.77	538.07	538	537.96	537.81	537.81	537.71
30.0	539.72	541.36	542.85	545.08	547	548.04	547.66	546.34	545.58	544.97	543.88
35.0	550.81	552.9	556.89	562.53	567.27	569.32	568.24	564.59	562.32	560.16	556.99
40.0	584.11	588.94	599.2	614.45	626.09	631.38	628.04	618.45	612.14	605.85	596.58
45.0	654.28	658.22	679.35	708.83	732.22	741.94	734.73	711.93	698.12	684.72	665.67
50.0	709.85	715.33	743	783.18	816.48	830.29	819.76	788.67	769.62	750.26	722.8
55.0	739.61	745.57	779.42	827.56	866.22	881.99	869.79	833.49	810.21	786.9	752.66
58.0	740.82	747.06	784	835.01	875.73	892.05	879.2	840.69	815.75	790.98	754.04
60.0	732.97	739.25	777.87	830.29	871.98	888.51	875.25	835.48	809.87	784.21	745.89
65.0	678.03	684.1	723.78	776.41	818.5	834.59	820.46	780.36	754.41	728.41	688.92
70.0	578.21	583	620.31	669.06	708.28	723.22	709.81	672.41	647.82	623.12	585.67
70.5	565.63	570.16	607.11	654.99	693.94	708.75	695.53	658.46	634.12	609.65	572.7
75.0	433.89	436.73	466.96	506.24	539.4	552.44	542.65	510.02	490.33	468.51	436.86
80.0	252.75	253.91	272.77	296.15	319.18	327.64	322.08	301.22	287.74	272.93	251.64
85.0	66.87	65.96	73.85	82.17	91.72	95.03	93.28	84.67	79.5	72.99	64.08
90.0	1.36	1.44	1.49	1.53	1.6	1.66	1.84	1.57	1.57	1.55	1.48

Luminous Intensity Values - House Side (cd)

H/V	90.0	95.0	105.0	115.0	125.0	135.0	145.0	155.0	165.0	175.0	180.0
0.0	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36
5.0	515.76	515.57	515.42	515.32	515.22	515.13	515.3	515.41	515.7	515.7	514.97
10.0	520.94	520.83	520.73	520.57	520.25	520.13	520.31	520.57	520.76	520.96	520.11
15.0	526.77	526.65	526.41	525.87	525.57	525.33	525.43	525.6	526.01	526.12	525.24
20.0	532.55	532.56	532.24	532	531.52	531.44	531.4	531.52	531.42	531.37	530.41
25.0	537.72	537.71	537.81	537.96	538	538.07	537.77	537.2	536.41	536.05	534.94
30.0	543.6	543.88	544.97	546.34	547.66	548.04	547	545.08	542.85	541.36	539.72
35.0	556.54	556.99	560.16	564.59	568.24	569.32	567.27	562.53	556.89	552.9	550.81
40.0	595.83	596.58	605.85	618.45	628.04	631.38	626.09	614.45	599.2	588.94	584.11
45.0	663.22	665.67	684.72	711.93	734.73	741.94	732.22	708.83	679.35	658.22	654.28
50.0	719.16	722.8	750.26	788.67	819.76	830.29	816.48	783.18	743	715.33	709.85
55.0	747.75	752.66	786.9	833.49	869.79	881.99	866.22	827.56	779.42	745.57	739.61
58.0	748.41	754.04	790.98	840.69	879.2	892.05	875.73	835.01	784	747.06	740.82
60.0	739.94	745.89	784.21	835.48	875.25	888.51	871.98	830.29	777.87	739.25	732.97
65.0	682.22	688.92	728.41	780.36	820.46	834.59	818.5	776.41	723.78	684.1	678.03
70.0	579.71	585.67	623.12	672.41	709.81	723.22	708.28	669.06	620.31	583	578.21
70.5	566.82	572.7	609.65	658.46	695.53	708.75	693.94	654.99	607.11	570.16	565.63
75.0	432.4	436.86	468.51	510.02	542.65	552.44	539.4	506.24	466.96	436.73	433.89
80.0	248.97	251.64	272.93	301.22	322.08	327.64	319.18	296.15	272.77	253.91	252.75
85.0	63.33	64.08	72.99	84.67	93.28	95.03	91.72	82.17	73.85	65.96	66.87
90.0	1.48	1.48	1.55	1.57	1.84	1.66	1.6	1.53	1.49	1.44	1.36

Peak Luminous Intensity (candela) = 892.05

Location of peak intensity (degrees) = 45.00 H, 58.00 V



Candela Distribution (cd)

H/V	0.0	5.0	15.0	25.0	35.0	45.0	55.0	60.0	62.5	65.0	67.5	70.0	72.5	75.0	77.5	80.0
0.0	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36	512.36
1.0	511.91	512.76	512.68	512.58	512.40	512.16	512.30	512.28	512.30	512.35	512.38	512.51	512.58	512.62	512.65	512.76
2.0	512.38	513.06	513.11	512.93	512.75	512.54	512.78	512.60	512.75	512.78	512.85	512.89	513.06	513.07	513.09	513.09
3.0	513.12	513.80	513.86	513.59	513.45	513.37	513.33	513.37	513.35	513.47	513.40	513.60	513.65	513.71	513.76	513.78
4.0	513.97	514.71	514.64	514.51	514.23	514.06	514.12	514.19	514.23	514.39	514.37	514.47	514.44	514.62	514.61	514.63
5.0	514.97	515.70	515.70	515.41	515.30	515.13	515.22	515.16	515.30	515.32	515.32	515.47	515.48	515.42	515.56	515.62
6.0	516.04	516.75	516.65	516.49	516.26	516.24	516.30	516.22	516.21	516.49	516.42	516.59	516.51	516.64	516.59	516.72
7.0	517.27	517.72	517.72	517.44	517.38	517.28	517.19	517.39	517.37	517.36	517.53	517.56	517.48	517.83	517.65	517.74
8.0	518.03	518.85	518.67	518.65	518.25	518.20	518.25	518.38	518.32	518.47	518.41	518.59	518.67	518.74	518.68	518.90
9.0	519.13	519.82	519.84	519.43	519.27	519.23	519.23	519.24	519.36	519.57	519.63	519.60	519.47	519.69	519.80	519.87
10.0	520.11	520.96	520.76	520.57	520.31	520.13	520.25	520.30	520.34	520.57	520.54	520.66	520.58	520.73	520.83	520.88
11.0	521.23	521.89	521.65	521.36	521.34	521.25	521.26	521.23	521.27	521.41	521.53	521.70	521.76	521.81	521.97	521.96
12.0	521.95	522.91	522.74	522.47	522.27	522.03	522.20	522.40	522.25	522.63	522.59	522.87	522.84	522.87	522.90	523.05
13.0	523.03	523.96	523.77	523.41	523.21	523.08	523.19	523.40	523.64	523.71	523.84	523.86	523.95	524.07	524.10	524.22
14.0	524.08	525.09	524.82	524.57	524.20	524.17	524.44	524.53	524.58	524.74	524.77	525.03	525.16	525.31	525.31	525.41
15.0	525.24	526.12	526.01	525.60	525.43	525.33	525.57	525.75	525.78	525.87	525.99	526.26	526.23	526.41	526.49	526.58
16.0	526.39	527.12	526.97	526.78	526.63	526.61	526.65	526.94	526.98	527.15	527.25	527.42	527.45	527.55	527.68	527.78
17.0	527.48	528.29	528.32	528.00	527.82	527.83	527.97	528.15	528.12	528.31	528.48	528.61	528.81	528.82	528.90	529.06
18.0	528.36	529.41	529.41	529.18	529.01	528.93	529.21	529.26	529.43	529.63	529.63	529.86	529.93	530.02	530.14	530.21
19.0	529.51	530.38	530.56	530.28	530.26	530.22	530.30	530.58	530.60	530.74	530.74	530.99	531.08	531.16	531.26	531.35
20.0	530.41	531.37	531.42	531.52	531.40	531.44	531.52	531.72	531.78	532.00	532.02	532.08	532.31	532.24	532.44	532.47
21.0	531.39	532.33	532.50	532.52	532.63	532.47	532.69	532.86	532.96	533.03	533.14	533.21	533.34	533.40	533.47	533.53
22.0	532.18	533.33	533.46	533.69	533.80	533.90	534.07	534.11	534.20	534.29	534.33	534.42	534.43	534.54	534.47	534.56
23.0	533.00	534.20	534.47	534.97	535.07	535.06	535.32	535.32	535.25	535.38	535.39	535.54	535.47	535.56	535.54	535.59
24.0	533.90	535.05	535.50	535.97	536.41	536.61	536.65	536.67	536.59	536.74	536.62	536.65	536.68	536.73	536.68	536.67
25.0	534.94	536.05	536.41	537.20	537.77	538.07	538.00	538.06	537.95	537.96	537.93	537.81	537.78	537.81	537.66	537.78
26.0	535.71	536.92	537.60	538.50	539.36	539.59	539.58	539.60	539.33	539.27	539.14	539.16	539.01	538.96	538.79	538.90
27.0	536.72	538.00	538.65	539.79	540.84	541.33	541.27	541.14	540.98	540.83	540.58	540.46	540.31	540.22	540.08	539.96
28.0	537.47	538.96	539.94	541.36	542.62	543.32	543.06	542.84	542.60	542.49	542.13	541.96	541.75	541.50	541.36	541.27
29.0	538.75	540.05	541.24	543.11	544.83	545.45	545.17	544.71	544.44	544.26	543.86	543.67	543.30	543.06	542.79	542.54
30.0	539.72	541.36	542.85	545.08	547.00	548.04	547.66	547.02	546.74	546.34	545.88	545.58	545.10	544.97	544.39	544.16
31.0	541.33	542.92	544.72	547.40	549.82	550.92	550.39	549.62	549.17	548.78	548.12	547.74	547.20	546.86	546.32	545.92
32.0	542.97	544.70	546.89	550.15	552.84	554.21	553.67	552.68	552.28	551.53	550.75	550.29	549.62	549.10	548.62	548.15
33.0	544.99	546.91	549.58	553.37	556.73	558.34	557.48	556.47	555.80	554.94	554.16	553.47	552.73	552.07	551.38	550.73
34.0	547.53	549.50	552.69	557.38	561.52	563.05	562.47	560.90	560.32	559.22	558.18	557.35	556.39	555.61	554.70	553.99
35.0	550.81	552.90	556.89	562.53	567.27	569.32	568.24	566.79	565.83	564.59	563.37	562.32	561.18	560.16	559.03	558.14
36.0	554.73	557.29	561.99	568.83	574.76	576.90	575.82	574.04	572.77	571.48	569.81	568.54	567.15	565.90	564.59	563.46
37.0	559.78	562.73	568.40	576.85	583.81	586.65	585.11	582.97	581.54	579.96	578.03	576.53	574.66	573.24	571.41	570.11
38.0	566.20	569.86	576.59	587.08	595.38	598.72	596.87	594.27	592.39	590.50	587.97	586.38	583.99	582.04	580.00	578.44
39.0	574.33	578.50	586.89	599.51	609.29	613.63	611.03	607.69	605.79	603.39	600.37	598.23	595.23	592.98	590.32	588.50
40.0	584.11	588.94	599.20	614.45	626.09	631.38	628.04	623.78	621.46	618.45	614.90	612.14	608.52	605.85	602.69	600.35
41.0	596.96	601.33	613.68	631.67	645.41	651.50	647.45	641.98	639.40	635.46	631.48	627.93	623.59	620.23	616.48	613.56
42.0	610.84	614.99	629.75	650.51	666.52	673.53	668.80	662.01	658.80	654.08	649.43	645.09	640.20	635.75	631.73	627.93
43.0	625.49	629.54	646.64	670.26	688.79	696.74	690.98	682.46	679.00	673.41	667.92	662.88	657.34	652.10	647.33	643.08
44.0	640.20	644.08	663.26	690.13	711.02	719.58	713.26	703.72	699.10	692.88	686.82	680.61	674.51	668.70	663.02	658.21

H/V	82.5	85.0	87.5	90.0
0.0	512.36	512.36	512.36	512.36
1.0	512.66	512.75	512.79	512.74
2.0	513.05	513.16	513.11	513.22
3.0	513.79	513.82	513.84	513.81
4.0	514.57	514.67	514.70	514.77
5.0	515.74	515.57	515.69	515.76
6.0	516.72	516.67	516.67	516.82
7.0	517.74	517.70	517.85	517.79
8.0	518.71	518.73	518.92	518.93
9.0	519.88	519.87	519.86	519.94
10.0	520.89	520.83	520.90	520.94
11.0	521.98	522.09	522.06	522.08
12.0	523.05	523.14	523.18	523.12
13.0	524.27	524.28	524.48	524.32
14.0	525.54	525.46	525.53	525.70
15.0	526.57	526.65	526.73	526.77
16.0	528.00	527.92	527.96	528.04
17.0	529.17	529.17	529.11	529.17
18.0	530.14	530.31	530.37	530.35
19.0	531.47	531.37	531.44	531.57
20.0	532.49	532.56	532.51	532.55
21.0	533.47	533.62	533.58	533.64
22.0	534.62	534.68	534.64	534.72
23.0	535.70	535.59	535.64	535.67
24.0	536.64	536.70	536.59	536.71
25.0	537.73	537.71	537.66	537.72
26.0	538.89	538.82	538.82	538.72
27.0	539.95	539.93	539.90	539.84
28.0	541.13	541.07	540.92	540.90
29.0	542.49	542.36	542.23	542.19
30.0	544.06	543.88	543.69	543.60
31.0	545.57	545.50	545.32	545.50
32.0	547.78	547.50	547.29	547.39
33.0	550.31	549.99	549.72	549.61
34.0	553.61	553.18	552.87	552.57
35.0	557.72	556.99	556.60	556.54
36.0	562.78	561.99	561.54	561.39
37.0	569.22	568.36	567.64	567.65
38.0	577.16	576.08	575.28	575.18
39.0	586.79	585.54	584.57	584.68
40.0	598.08	596.58	595.16	595.83
41.0	610.92	609.24	607.71	607.89
42.0	624.99	622.90	621.17	621.37
43.0	639.74	637.25	635.18	635.22
44.0	654.62	651.61	649.35	649.50



H/V	0.0	5.0	15.0	25.0	35.0	45.0	55.0	60.0	62.5	65.0	67.5	70.0	72.5	75.0	77.5	80.0
45.0	654.28	658.22	679.35	708.83	732.22	741.94	734.73	724.13	718.58	711.93	704.93	698.12	691.38	684.72	678.48	673.22
46.0	667.04	671.47	694.22	726.39	752.16	762.45	754.53	743.31	737.02	729.94	722.17	714.74	707.03	699.93	693.27	687.30
47.0	678.91	683.73	707.96	742.40	770.36	781.77	773.02	761.02	753.98	746.37	738.07	730.18	721.77	714.11	706.79	700.64
48.0	689.97	695.06	720.48	757.10	786.95	799.27	789.87	777.28	769.87	761.70	752.96	744.40	735.37	727.19	719.37	712.60
49.0	700.39	705.65	732.01	770.85	802.28	815.45	805.23	792.34	784.48	775.86	766.52	757.47	747.66	739.33	731.01	723.71
50.0	709.85	715.33	743.00	783.18	816.48	830.29	819.76	805.86	797.82	788.67	779.20	769.62	759.36	750.26	741.62	734.11
51.0	718.38	723.81	752.66	794.78	829.24	843.52	832.64	818.48	809.92	800.61	790.34	780.50	769.99	760.44	751.30	743.20
52.0	725.48	731.13	761.39	804.82	840.94	855.55	844.24	829.49	820.75	811.06	800.65	790.12	779.17	769.12	759.74	751.25
53.0	731.53	737.24	768.79	813.85	850.95	866.01	854.44	839.08	830.19	820.01	809.26	798.06	787.01	776.33	766.53	757.74
54.0	736.42	741.96	774.84	821.43	859.42	874.88	863.08	847.30	837.81	827.61	816.50	804.93	793.36	782.44	772.04	762.87
55.0	739.61	745.57	779.42	827.56	866.22	881.99	869.79	853.90	844.13	833.49	822.03	810.21	798.38	786.90	776.27	766.67
56.0	741.50	747.61	782.69	831.67	871.20	887.32	874.85	858.68	848.64	837.82	825.89	813.72	801.61	789.82	778.91	769.19
57.0	742.00	748.12	784.27	834.27	874.34	890.71	878.08	861.55	851.25	840.12	828.12	815.71	803.32	791.24	780.04	770.10
58.0	740.82	747.06	784.00	835.01	875.73	892.05	879.20	862.58	852.12	840.69	828.51	815.75	803.21	790.98	779.45	769.18
59.0	737.80	744.08	782.12	833.63	874.92	891.53	878.41	861.44	850.87	839.24	826.95	813.95	801.19	788.83	776.84	766.46
60.0	732.97	739.25	777.87	830.29	871.98	888.51	875.25	857.99	847.32	835.48	822.92	809.87	796.91	784.21	772.17	761.56
61.0	726.38	732.28	771.59	824.43	866.37	883.06	869.34	852.05	841.16	829.44	816.78	803.47	790.47	777.65	765.28	754.62
62.0	717.27	723.20	762.87	816.11	858.20	874.74	861.12	843.72	832.63	820.71	807.81	794.51	781.36	768.50	756.00	745.32
63.0	706.46	711.94	752.03	805.23	847.43	863.63	849.97	832.54	821.57	809.55	796.63	783.33	770.11	757.12	744.58	733.78
64.0	693.05	698.87	738.97	791.98	834.03	850.22	836.46	819.09	808.24	796.12	783.12	769.76	756.59	743.76	731.21	720.46
65.0	678.03	684.10	723.78	776.41	818.50	834.59	820.46	803.52	792.48	780.36	767.53	754.41	741.13	728.41	715.89	705.10
66.0	661.49	667.53	706.81	758.89	800.71	816.35	802.50	785.46	774.86	762.50	750.00	737.00	723.81	711.11	698.62	687.82
67.0	643.01	649.18	688.11	739.41	780.98	796.44	782.49	765.61	755.08	742.97	730.65	717.60	704.45	691.91	679.60	668.92
68.0	623.02	628.92	667.41	718.10	759.02	774.32	760.29	743.80	733.50	721.34	709.62	696.38	683.22	670.96	658.89	648.37
69.0	601.62	606.86	644.89	694.57	735.01	749.83	736.04	719.65	709.49	697.98	686.32	673.13	660.21	648.22	636.11	625.89
70.0	578.21	583.00	620.31	669.06	708.28	723.22	709.81	693.43	683.32	672.41	661.14	647.82	635.32	623.12	611.77	601.52
71.0	553.04	557.31	593.91	640.92	679.60	694.28	681.26	664.77	654.85	644.52	633.64	620.42	608.17	596.18	584.94	575.16
72.0	526.38	529.82	565.11	610.72	647.99	662.26	650.25	633.92	623.85	613.95	603.68	590.82	578.96	567.29	556.26	546.86
73.0	496.89	500.30	534.23	578.09	613.89	628.01	616.70	600.65	590.92	581.62	571.64	559.56	547.66	536.20	525.71	516.69
74.0	466.34	469.51	501.51	543.23	577.75	591.54	580.70	565.68	555.89	546.69	537.32	525.68	514.27	503.41	493.19	484.58
75.0	433.89	436.73	466.96	506.24	539.40	552.44	542.65	528.40	519.05	510.02	501.02	490.33	479.05	468.51	458.96	450.60
76.0	400.44	403.07	430.69	467.20	498.81	511.56	502.14	488.25	480.20	471.07	462.76	452.91	441.96	432.21	423.35	415.44
77.0	365.18	367.68	392.96	426.19	456.38	467.93	459.69	446.75	439.27	430.66	422.81	413.48	403.19	394.12	386.32	378.84
78.0	328.44	330.77	353.83	383.82	411.92	422.50	414.88	403.00	396.50	388.47	381.18	373.09	363.08	354.76	347.82	340.88
79.0	291.10	292.69	313.87	340.47	366.29	375.68	369.08	357.99	352.29	345.27	338.59	330.92	321.71	314.29	307.93	301.59
80.0	252.75	253.91	272.77	296.15	319.18	327.64	322.08	311.88	307.15	301.22	294.80	287.74	279.16	272.93	267.18	261.52
81.0	214.11	214.50	231.37	251.59	271.69	279.33	274.44	265.37	260.81	256.03	250.41	244.35	236.34	230.83	225.95	221.12
82.0	175.67	175.17	189.84	206.93	224.25	230.51	226.43	218.67	214.53	210.88	205.91	200.80	193.49	189.07	184.81	180.87
83.0	137.75	136.89	149.32	162.71	177.54	182.82	179.56	172.82	169.33	166.65	162.43	158.36	152.05	148.47	144.36	141.50
84.0	101.16	100.25	110.32	121.16	132.92	137.04	134.83	129.27	126.14	124.04	120.80	117.25	112.11	109.26	106.06	103.53
85.0	66.87	65.96	73.85	82.17	91.72	95.03	93.28	88.98	86.48	84.67	82.33	79.50	75.54	72.99	70.23	68.29
86.0	35.67	35.62	41.68	47.65	55.19	57.58	56.53	53.03	51.16	49.50	48.02	45.85	42.77	40.70	38.86	37.39
87.0	11.61	14.05	17.60	20.61	24.81	26.00	25.26	23.10	22.33	21.85	20.90	19.74	18.40	17.48	16.52	15.63
88.0	1.95	3.64	4.79	5.94	7.95	9.04	9.25	8.04	8.05	7.61	7.34	6.89	5.97	5.60	5.23	4.97
89.0	1.36	1.44	1.49	1.53	1.60	1.66	1.84	1.63	1.74	1.57	1.63	1.57	1.57	1.55	1.52	1.52

H/V	82.5	85.0	87.5	90.0
45.0	669.25	665.67	663.37	663.22
46.0	682.65	678.91	676.42	675.88
47.0	695.37	691.29	688.73	688.21
48.0	707.06	702.58	699.85	699.40
49.0	717.79	712.98	710.10	709.59
50.0	727.65	722.80	719.59	719.16
51.0	736.42	731.28	728.17	727.48
52.0	744.10	738.57	735.25	734.42
53.0	750.37	744.51	741.21	740.24
54.0	755.23	749.32	745.77	744.46
55.0	758.78	752.66	749.02	747.75
56.0	761.00	754.63	750.98	749.65
57.0	761.64	755.17	751.25	749.70
58.0	760.59	754.04	750.03	748.41
59.0	757.62	751.09	746.87	745.14
60.0	752.71	745.89	741.82	739.94
61.0	745.42	738.56	734.41	732.57
62.0	736.01	729.30	724.88	722.82
63.0	724.40	717.61	713.14	711.17
64.0	710.79	704.24	699.59	697.37
65.0	695.13	688.92	684.27	682.22
66.0	677.99	671.78	667.33	664.90
67.0	659.06	652.83	648.66	646.28
68.0	638.46	632.24	628.15	625.89
69.0	616.32	609.87	605.86	603.65
70.0	592.29	585.67	581.86	579.71
71.0	565.99	559.73	555.90	553.92
72.0	538.00	531.79	528.09	526.43
73.0	507.63	501.95	498.20	496.84
74.0	475.44	470.26	466.55	465.33
75.0	441.49	436.86	433.00	432.40
76.0	406.29	402.37	398.86	398.16
77.0	369.99	366.45	363.11	362.70
78.0	332.39	329.20	326.05	325.78
79.0	294.02	291.15	287.96	287.63
80.0	254.76	251.64	249.24	248.97
81.0	215.16	212.35	210.16	210.02
82.0	175.85	173.29	171.49	171.11
83.0	137.16	135.03	133.52	133.42
84.0	100.02	98.18	97.03	97.01
85.0	65.22	64.08	63.13	63.33
86.0	35.02	34.34	33.62	33.70
87.0	14.44	14.03	13.65	13.96
88.0	4.39	4.31	4.06	4.14
89.0	1.48	1.48	1.48	1.48



H/V	0.0	5.0	15.0	25.0	35.0	45.0	55.0	60.0	62.5	65.0	67.5	70.0	72.5	75.0	77.5	80.0
90.0	1.31	1.31	1.35	1.41	1.47	1.49	1.48	1.46	1.45	1.44	1.43	1.41	1.40	1.39	1.37	1.36
91.0	1.29	1.28	1.32	1.38	1.43	1.45	1.44	1.43	1.41	1.40	1.39	1.37	1.36	1.35	1.34	1.33
92.0	1.27	1.26	1.30	1.36	1.41	1.43	1.42	1.41	1.39	1.38	1.37	1.36	1.34	1.33	1.32	1.31
93.0	1.26	1.25	1.29	1.35	1.40	1.42	1.41	1.40	1.38	1.37	1.36	1.34	1.33	1.32	1.31	1.30
94.0	1.24	1.23	1.27	1.33	1.38	1.40	1.39	1.38	1.36	1.35	1.34	1.32	1.31	1.30	1.29	1.28
95.0	1.22	1.22	1.26	1.31	1.36	1.38	1.38	1.36	1.35	1.34	1.33	1.31	1.30	1.29	1.28	1.27
96.0	1.22	1.21	1.25	1.30	1.35	1.37	1.37	1.35	1.34	1.33	1.32	1.31	1.30	1.28	1.27	1.26
97.0	1.20	1.20	1.24	1.29	1.34	1.36	1.35	1.34	1.33	1.32	1.31	1.30	1.28	1.27	1.26	1.25
98.0	1.18	1.19	1.22	1.28	1.32	1.35	1.33	1.32	1.31	1.30	1.29	1.28	1.27	1.25	1.24	1.23
99.0	1.16	1.17	1.20	1.26	1.30	1.33	1.32	1.30	1.29	1.28	1.27	1.26	1.25	1.24	1.22	1.22
100.0	1.14	1.15	1.19	1.24	1.29	1.30	1.30	1.28	1.27	1.26	1.25	1.24	1.22	1.21	1.21	1.19
101.0	1.12	1.12	1.16	1.22	1.26	1.29	1.27	1.26	1.25	1.24	1.23	1.21	1.20	1.19	1.18	1.17
102.0	1.10	1.10	1.14	1.19	1.24	1.26	1.25	1.23	1.23	1.21	1.20	1.19	1.18	1.17	1.16	1.15
103.0	1.08	1.08	1.12	1.17	1.22	1.24	1.23	1.21	1.20	1.19	1.18	1.17	1.16	1.14	1.13	1.12
104.0	1.05	1.06	1.10	1.15	1.19	1.21	1.20	1.19	1.18	1.17	1.15	1.14	1.13	1.12	1.10	1.10
105.0	1.02	1.03	1.07	1.12	1.16	1.18	1.17	1.15	1.14	1.13	1.12	1.11	1.09	1.09	1.07	1.07
106.0	1.00	1.02	1.05	1.10	1.15	1.17	1.15	1.14	1.13	1.12	1.11	1.09	1.08	1.07	1.06	1.05
107.0	1.01	1.02	1.05	1.10	1.15	1.17	1.16	1.13	1.12	1.11	1.10	1.09	1.08	1.07	1.05	1.05
108.0	1.01	1.02	1.05	1.11	1.15	1.17	1.16	1.14	1.13	1.12	1.10	1.09	1.08	1.07	1.06	1.05
109.0	1.01	1.03	1.06	1.11	1.16	1.17	1.16	1.14	1.13	1.12	1.11	1.10	1.08	1.07	1.06	1.05
110.0	1.02	1.03	1.06	1.11	1.16	1.18	1.16	1.15	1.14	1.12	1.11	1.10	1.09	1.07	1.06	1.06
111.0	1.02	1.03	1.07	1.12	1.17	1.18	1.17	1.15	1.14	1.12	1.12	1.10	1.09	1.08	1.07	1.06
112.0	1.03	1.03	1.07	1.12	1.16	1.18	1.17	1.15	1.14	1.13	1.11	1.10	1.09	1.08	1.07	1.06
113.0	1.03	1.04	1.07	1.12	1.17	1.18	1.17	1.15	1.14	1.13	1.12	1.11	1.09	1.08	1.07	1.07
114.0	1.04	1.05	1.09	1.14	1.18	1.19	1.19	1.17	1.16	1.15	1.13	1.12	1.11	1.10	1.09	1.08
115.0	1.06	1.07	1.10	1.15	1.20	1.21	1.20	1.18	1.17	1.16	1.15	1.14	1.12	1.11	1.10	1.09
116.0	1.08	1.09	1.12	1.18	1.22	1.24	1.22	1.21	1.19	1.18	1.17	1.16	1.15	1.13	1.12	1.11
117.0	1.10	1.11	1.15	1.20	1.24	1.25	1.24	1.22	1.21	1.20	1.19	1.18	1.17	1.15	1.14	1.13
118.0	1.12	1.12	1.16	1.21	1.25	1.26	1.25	1.24	1.23	1.22	1.20	1.19	1.18	1.17	1.16	1.15
119.0	1.13	1.14	1.17	1.22	1.26	1.28	1.26	1.25	1.23	1.23	1.21	1.20	1.19	1.18	1.17	1.16
120.0	1.14	1.14	1.18	1.23	1.27	1.28	1.27	1.25	1.24	1.23	1.22	1.21	1.20	1.19	1.18	1.17
121.0	1.15	1.16	1.19	1.23	1.28	1.29	1.28	1.26	1.25	1.24	1.23	1.22	1.21	1.20	1.19	1.18
122.0	1.15	1.16	1.19	1.23	1.27	1.29	1.27	1.26	1.25	1.24	1.23	1.22	1.21	1.20	1.19	1.18
123.0	1.15	1.15	1.19	1.22	1.27	1.28	1.27	1.25	1.25	1.24	1.23	1.21	1.20	1.19	1.19	1.18
124.0	1.12	1.14	1.17	1.21	1.24	1.26	1.25	1.24	1.23	1.22	1.21	1.20	1.19	1.18	1.17	1.16
125.0	1.12	1.14	1.17	1.21	1.24	1.25	1.25	1.23	1.23	1.22	1.21	1.20	1.19	1.18	1.17	1.17
126.0	1.14	1.15	1.18	1.22	1.25	1.26	1.25	1.24	1.23	1.22	1.21	1.21	1.20	1.19	1.18	1.18
127.0	1.14	1.16	1.18	1.22	1.25	1.26	1.25	1.24	1.23	1.23	1.22	1.21	1.20	1.20	1.19	1.18
128.0	1.16	1.17	1.20	1.24	1.26	1.27	1.26	1.25	1.25	1.24	1.23	1.23	1.22	1.21	1.20	1.20
129.0	1.18	1.19	1.21	1.24	1.27	1.28	1.27	1.26	1.26	1.25	1.24	1.23	1.23	1.22	1.21	1.21
130.0	1.19	1.20	1.22	1.25	1.27	1.29	1.28	1.27	1.26	1.26	1.25	1.24	1.24	1.23	1.22	1.22
131.0	1.19	1.20	1.22	1.25	1.28	1.29	1.28	1.27	1.26	1.26	1.25	1.25	1.24	1.24	1.23	1.22
132.0	1.20	1.21	1.23	1.25	1.28	1.29	1.28	1.27	1.27	1.26	1.25	1.25	1.24	1.24	1.23	1.23
133.0	1.20	1.21	1.23	1.25	1.28	1.29	1.28	1.27	1.27	1.26	1.25	1.25	1.25	1.24	1.23	1.23
134.0	1.20	1.22	1.24	1.26	1.28	1.29	1.28	1.27	1.27	1.27	1.26	1.26	1.25	1.24	1.24	1.24

H/V	82.5	85.0	87.5	90.0
90.0	1.35	1.35	1.34	1.34
91.0	1.32	1.31	1.31	1.31
92.0	1.30	1.29	1.29	1.28
93.0	1.29	1.28	1.28	1.28
94.0	1.27	1.27	1.27	1.26
95.0	1.26	1.26	1.25	1.25
96.0	1.25	1.25	1.25	1.24
97.0	1.24	1.24	1.24	1.23
98.0	1.23	1.22	1.22	1.22
99.0	1.21	1.20	1.20	1.20
100.0	1.19	1.18	1.18	1.18
101.0	1.16	1.16	1.15	1.15
102.0	1.14	1.13	1.13	1.14
103.0	1.12	1.11	1.11	1.11
104.0	1.09	1.08	1.08	1.08
105.0	1.06	1.05	1.05	1.05
106.0	1.04	1.04	1.03	1.04
107.0	1.04	1.04	1.03	1.03
108.0	1.04	1.04	1.04	1.03
109.0	1.05	1.04	1.04	1.03
110.0	1.05	1.04	1.04	1.04
111.0	1.06	1.05	1.04	1.04
112.0	1.05	1.05	1.04	1.04
113.0	1.06	1.05	1.05	1.05
114.0	1.07	1.06	1.06	1.06
115.0	1.08	1.08	1.08	1.07
116.0	1.10	1.10	1.10	1.10
117.0	1.13	1.12	1.12	1.12
118.0	1.14	1.13	1.13	1.13
119.0	1.15	1.15	1.15	1.14
120.0	1.16	1.16	1.15	1.15
121.0	1.17	1.17	1.17	1.16
122.0	1.17	1.17	1.17	1.17
123.0	1.17	1.17	1.16	1.16
124.0	1.16	1.16	1.15	1.15
125.0	1.16	1.16	1.16	1.15
126.0	1.17	1.17	1.16	1.16
127.0	1.18	1.17	1.18	1.17
128.0	1.19	1.19	1.19	1.19
129.0	1.20	1.20	1.20	1.20
130.0	1.21	1.21	1.21	1.21
131.0	1.22	1.22	1.21	1.21
132.0	1.22	1.22	1.22	1.22
133.0	1.23	1.23	1.22	1.22
134.0	1.24	1.23	1.23	1.23

H/V	0.0	5.0	15.0	25.0	35.0	45.0	55.0	60.0	62.5	65.0	67.5	70.0	72.5	75.0	77.5	80.0
135.0	1.20	1.21	1.24	1.25	1.28	1.28	1.28	1.27	1.26	1.26	1.25	1.25	1.25	1.24	1.24	1.23
136.0	1.21	1.22	1.23	1.26	1.28	1.28	1.28	1.27	1.27	1.26	1.26	1.26	1.25	1.25	1.24	1.24
137.0	1.22	1.23	1.24	1.26	1.28	1.28	1.28	1.28	1.27	1.27	1.26	1.26	1.26	1.25	1.25	1.25
138.0	1.22	1.23	1.25	1.26	1.28	1.29	1.28	1.28	1.28	1.27	1.27	1.27	1.26	1.26	1.26	1.25
139.0	1.22	1.24	1.25	1.26	1.27	1.29	1.28	1.28	1.27	1.27	1.27	1.26	1.26	1.26	1.25	1.25
140.0	1.23	1.24	1.25	1.27	1.28	1.29	1.29	1.28	1.27	1.27	1.27	1.27	1.26	1.26	1.26	1.26
141.0	1.23	1.24	1.25	1.27	1.28	1.29	1.28	1.28	1.27	1.27	1.27	1.27	1.26	1.26	1.26	1.25
142.0	1.24	1.25	1.26	1.27	1.28	1.29	1.29	1.28	1.28	1.27	1.27	1.27	1.27	1.26	1.26	1.26
143.0	1.24	1.25	1.26	1.27	1.28	1.29	1.29	1.29	1.28	1.28	1.28	1.28	1.27	1.27	1.27	1.27
144.0	1.25	1.26	1.27	1.28	1.29	1.30	1.30	1.29	1.29	1.28	1.28	1.28	1.28	1.27	1.27	1.27
145.0	1.26	1.26	1.27	1.29	1.30	1.30	1.30	1.29	1.29	1.29	1.29	1.28	1.28	1.28	1.28	1.27
146.0	1.27	1.27	1.28	1.29	1.30	1.30	1.30	1.30	1.30	1.29	1.29	1.29	1.29	1.29	1.29	1.29
147.0	1.27	1.28	1.29	1.30	1.31	1.31	1.31	1.31	1.31	1.30	1.30	1.30	1.30	1.30	1.29	1.29
148.0	1.28	1.29	1.30	1.31	1.31	1.32	1.32	1.32	1.31	1.31	1.31	1.30	1.30	1.30	1.30	1.30
149.0	1.28	1.29	1.30	1.31	1.32	1.32	1.32	1.31	1.32	1.31	1.31	1.31	1.31	1.30	1.30	1.30
150.0	1.29	1.29	1.30	1.31	1.32	1.32	1.32	1.32	1.32	1.32	1.31	1.31	1.31	1.31	1.31	1.31
151.0	1.30	1.30	1.31	1.32	1.32	1.33	1.33	1.32	1.32	1.32	1.32	1.32	1.31	1.32	1.31	1.31
152.0	1.30	1.31	1.31	1.32	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.32	1.32	1.32	1.32	1.32
153.0	1.31	1.32	1.32	1.33	1.33	1.33	1.34	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33	1.33
154.0	1.31	1.32	1.32	1.33	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.33	1.33	1.33	1.33	1.33
155.0	1.32	1.33	1.33	1.34	1.34	1.35	1.35	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.33
156.0	1.32	1.33	1.33	1.34	1.35	1.35	1.35	1.35	1.34	1.34	1.34	1.34	1.34	1.34	1.34	1.33
157.0	1.32	1.33	1.34	1.34	1.34	1.35	1.35	1.34	1.35	1.35	1.34	1.34	1.34	1.34	1.34	1.34
158.0	1.33	1.33	1.34	1.34	1.35	1.35	1.35	1.35	1.35	1.34	1.34	1.35	1.34	1.34	1.34	1.34
159.0	1.33	1.34	1.34	1.34	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.34	1.35	1.34	1.35
160.0	1.33	1.34	1.34	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35	1.35
161.0	1.34	1.35	1.35	1.35	1.35	1.36	1.36	1.36	1.35	1.36	1.36	1.35	1.35	1.36	1.35	1.35
162.0	1.35	1.35	1.35	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.36	1.35
163.0	1.35	1.36	1.36	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.36	1.36	1.36	1.36	1.36
164.0	1.36	1.37	1.37	1.37	1.37	1.37	1.37	1.38	1.37	1.37	1.37	1.37	1.37	1.37	1.37	1.37
165.0	1.36	1.37	1.37	1.37	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.38	1.37
166.0	1.37	1.38	1.38	1.39	1.39	1.39	1.38	1.39	1.39	1.38	1.39	1.39	1.38	1.38	1.38	1.38
167.0	1.38	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39
168.0	1.39	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
169.0	1.40	1.40	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
170.0	1.41	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
171.0	1.41	1.42	1.42	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43
172.0	1.42	1.42	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.42	1.43	1.43
173.0	1.42	1.42	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.43	1.42	1.43
174.0	1.41	1.41	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
175.0	1.41	1.41	1.42	1.42	1.41	1.42	1.42	1.41	1.42	1.42	1.42	1.41	1.42	1.41	1.42	1.42
176.0	1.40	1.41	1.41	1.41	1.41	1.42	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41	1.41
177.0	1.39	1.40	1.40	1.40	1.41	1.41	1.40	1.41	1.41	1.40	1.40	1.40	1.40	1.41	1.40	1.40
178.0	1.39	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40	1.40
179.0	1.39	1.39	1.39	1.39	1.40	1.40	1.39	1.40	1.39	1.40	1.40	1.39	1.39	1.39	1.39	1.39

H/V	82.5	85.0	87.5	90.0
135.0	1.23	1.23	1.23	1.23
136.0	1.24	1.24	1.23	1.23
137.0	1.24	1.24	1.24	1.24
138.0	1.25	1.25	1.24	1.25
139.0	1.25	1.25	1.24	1.24
140.0	1.25	1.25	1.25	1.25
141.0	1.25	1.25	1.25	1.25
142.0	1.26	1.26	1.26	1.25
143.0	1.26	1.26	1.26	1.26
144.0	1.27	1.27	1.27	1.27
145.0	1.27	1.27	1.27	1.27
146.0	1.28	1.28	1.28	1.28
147.0	1.29	1.29	1.29	1.29
148.0	1.30	1.30	1.30	1.29
149.0	1.30	1.30	1.30	1.30
150.0	1.30	1.30	1.30	1.30
151.0	1.31	1.31	1.31	1.31
152.0	1.32	1.32	1.32	1.32
153.0	1.32	1.33	1.32	1.32
154.0	1.33	1.33	1.33	1.33
155.0	1.33	1.34	1.33	1.33
156.0	1.33	1.34	1.33	1.33
157.0	1.34	1.34	1.34	1.34
158.0	1.34	1.34	1.34	1.34
159.0	1.34	1.34	1.34	1.34
160.0	1.35	1.35	1.35	1.34
161.0	1.35	1.35	1.35	1.35
162.0	1.36	1.36	1.35	1.35
163.0	1.36	1.36	1.36	1.36
164.0	1.37	1.37	1.37	1.36
165.0	1.37	1.37	1.38	1.38
166.0	1.38	1.39	1.38	1.38
167.0	1.39	1.39	1.39	1.39
168.0	1.40	1.40	1.40	1.40
169.0	1.41	1.41	1.41	1.41
170.0	1.42	1.42	1.42	1.42
171.0	1.42	1.43	1.42	1.43
172.0	1.43	1.43	1.42	1.42
173.0	1.42	1.43	1.42	1.42
174.0	1.42	1.42	1.41	1.42
175.0	1.41	1.42	1.42	1.42
176.0	1.41	1.41	1.41	1.41
177.0	1.40	1.41	1.40	1.40
178.0	1.39	1.40	1.40	1.40
179.0	1.39	1.39	1.39	1.39



H/V	0.0	5.0	15.0	25.0	35.0	45.0	55.0	60.0	62.5	65.0	67.5	70.0	72.5	75.0	77.5	80.0
180.0	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39	1.39



H/V	82.5	85.0	87.5	90.0
180.0	1.39	1.39	1.39	1.39