

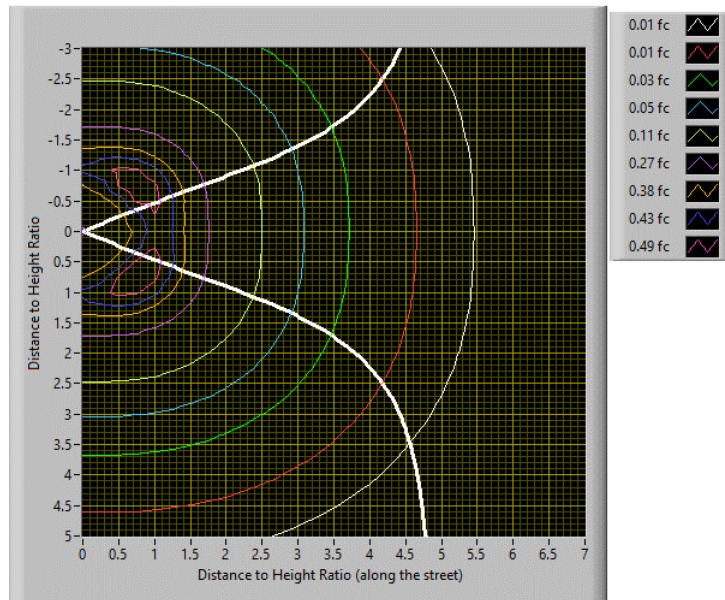
Test Report No. 07284A

Luminaire Information: 18" Parking Garage with A.L.P. Edgelit Octagon Parking Garage Panel, Averaged Data
 Lamp Information: As supplied
 Ballast / Driver Information: As supplied
 Test Distance (ft): 22.25
 Test Standards: IESNA LM-79-19
 Electrical Measurements: 119.930 V, 0.262 A, 30.969 W, 0.987 PF, 59.988 Hz, 10.260% ITHD, 0.090% VTHD.

RP-08-2015 Cut Off Type = Semicutoff
 BUG Rating - TM15-11 2011 Type V Square Type = B2 U1 G1
 Type = Type V Square Type ; Throw = Short
 Total Luminous Flux (lm) = 3242.62
 Luminous Efficacy (lm/W) = 104.601
 Peak Luminous Intensity (candela) = 1057.84
 Location of peak intensity (degrees) = 45.00 H, 63.00 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

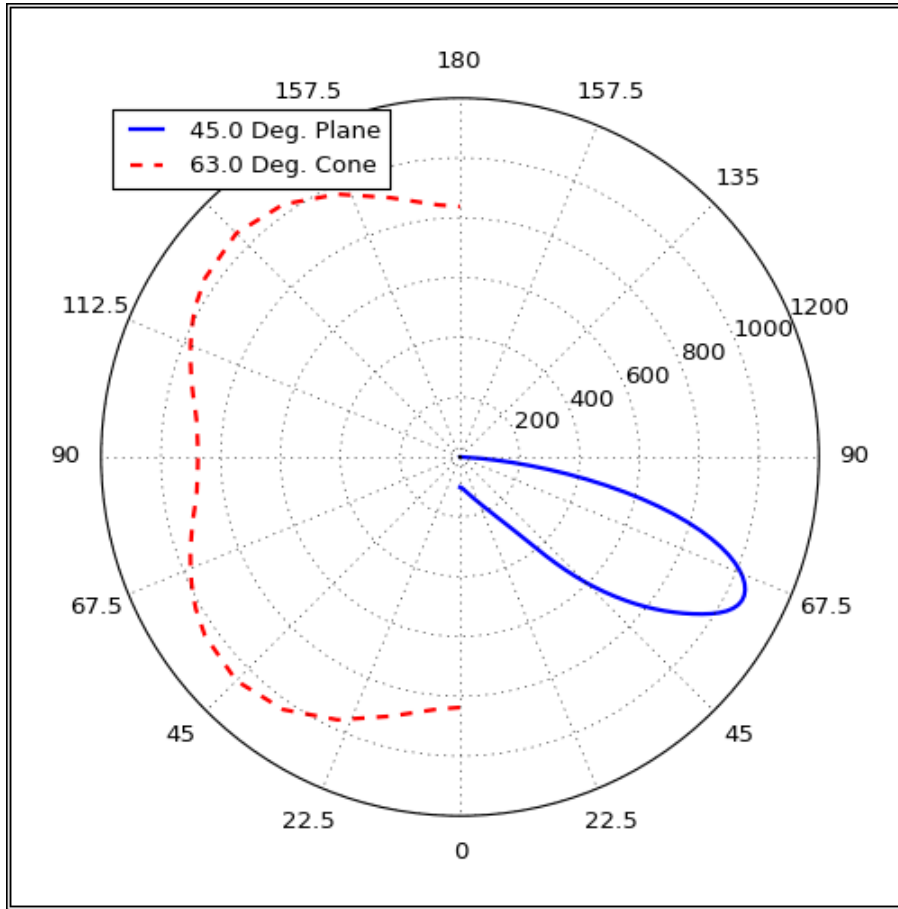
Tested by: JRF _____

Approved by: _____ 2/14/2024

Max Cone and Plane

Horizontal Angles

0	837.7
5	846.2
10	871.8
15	897.4
20	933.5
25	969.6
30	1000.3
35	1031
40	1044.4
45	1057.8
50	1049.5
55	1041.3
60	1019.5
65	990.8
70	959.1
75	927.8
80	898.6
85	881.7
90	876.2
95	881.7
100	898.6
105	927.8
110	959.1
115	990.8
120	1019.5
125	1041.3
130	1049.5
135	1057.8
140	1044.4
145	1031
150	1000.3
155	969.6
160	933.5
165	897.4
170	871.8
175	846.2
180	837.7



Vertical Angles

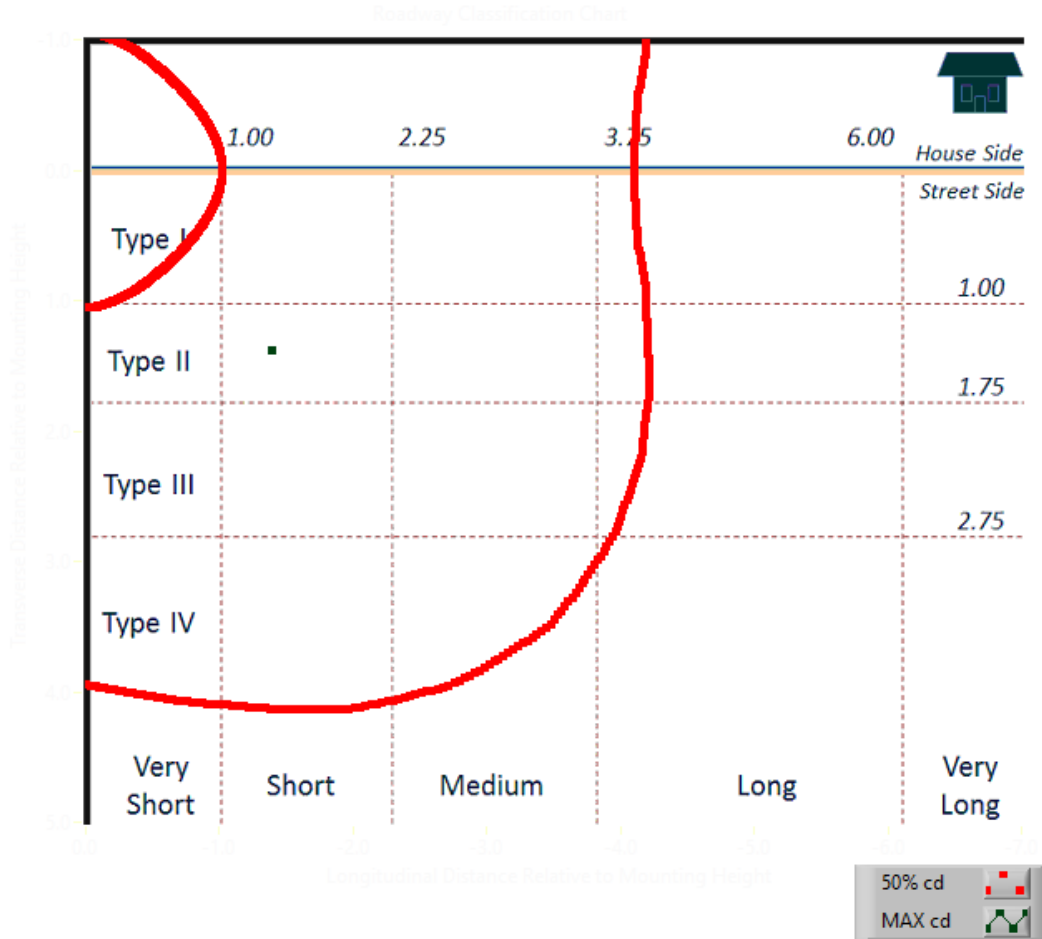
0	101
5	106.1
10	117.7
15	133
20	153
25	180
30	219.1
35	280.5
40	403.1
45	591.3
50	762.7
55	911.1
60	1030
65	1051.9
70	955.1
75	741
80	430.6
85	120.5
90	1.9
95	1.8
100	1.7
105	1.5
110	1.4
115	1.4
120	1.4
125	1.2
130	1.1
135	0.9
140	0.8
145	0.7
150	0.7
155	0.6
160	0.5
165	0.5
170	0.5
175	0.5
180	0.4

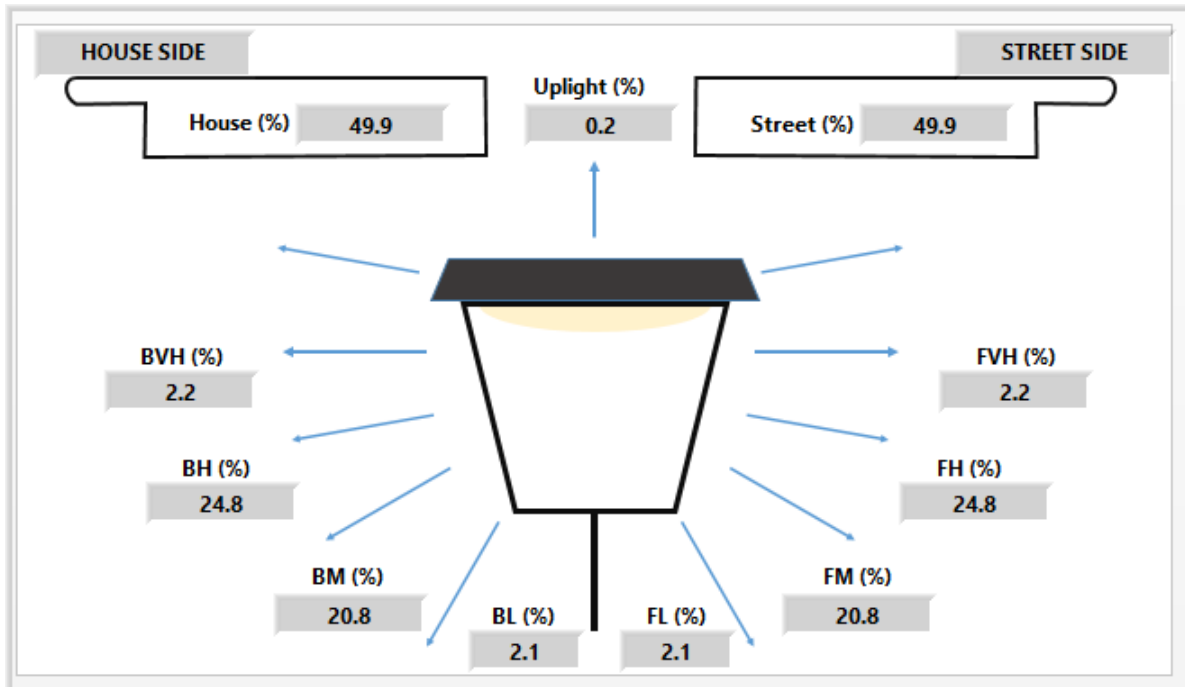
Vertical Angle of Max Cone (degrees) = 63
 Horiz. Angle of Maximum Plane(degrees) = 45
 Peak Luminous Intensity (candela) = 1057.842

Max. Intensity MH Longitudinal (X) = -1.39

Max. Intensity MH Transverse (Y) = 1.39

Type = Type V Square Type ; Throw = Short





Total Backward Light - House Side

Backward (lm)	1617.63
(%)	49.89
BL (0 to 30 deg)	66.76
BL (%)	2.06
BM (30 to 60 deg)	674.72
BM (%)	20.81
BH (60 to 80 deg)	804.61
BH (%)	24.81
BVH (80 to 90 deg)	71.54
BVH (%)	2.21

Total Forward Light - Street Side

Forward (lm)	1617.63
(%)	49.89
FL (0 to 30 deg)	66.76
FL (%)	2.06
FM (30 to 60 deg)	674.72
FM (%)	20.81
FH (60 to 80 deg)	804.61
FH (%)	24.81
FVH (80 to 90 deg)	71.54
FVH (%)	2.21

Total Uplight and Trapped Light

Uplight (lm)	7.37
Uplight (%)	0.23
UL (90 to 100 deg)	1.84
UL (%)	0.06
UH (100 to 180 deg)	5.53
UH (%)	0.17
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	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0
5.0	106.1	105.8	105.9	106.0	106.1	106.1	106.2	106.2	106.3	106.3	106.4
10.0	117.7	117.3	117.4	117.4	117.6	117.7	117.9	118.1	118.2	118.3	118.5
15.0	132.8	132.5	132.5	132.6	132.8	133.0	133.4	133.7	133.8	134.1	134.3
20.0	151.8	151.5	151.6	152.1	152.6	153.0	153.4	153.8	153.6	153.8	153.9
25.0	176.0	175.5	176.5	178.0	179.4	180.0	180.4	180.1	179.5	179.5	179.4
30.0	209.0	208.4	210.9	214.5	217.7	219.1	219.0	217.4	216.0	215.5	214.3
35.0	258.5	257.8	263.8	271.4	278.2	280.5	279.3	275.3	272.3	270.3	267.3
40.0	348.5	348.0	362.5	380.6	397.3	403.1	399.0	387.5	379.5	374.3	363.9
45.0	488.9	490.0	516.4	549.5	580.0	591.3	582.5	560.1	545.7	532.9	513.9
50.0	624.4	627.9	661.8	705.9	745.5	762.7	751.9	720.2	700.9	683.9	657.2
55.0	737.1	742.6	784.1	839.5	889.7	911.1	897.0	858.5	833.6	810.7	776.1
60.0	823.1	829.9	878.6	946.2	1003.9	1030.0	1014.8	967.6	937.9	909.2	865.8
63.0	837.7	846.2	897.4	969.6	1031.0	1057.8	1041.3	990.8	959.1	927.8	881.7
65.0	828.0	837.3	889.5	963.3	1024.9	1051.9	1034.7	983.1	950.8	919.2	872.1
70.0	740.3	751.5	801.3	872.0	930.5	955.1	937.3	887.6	857.8	826.1	781.5
70.5	726.0	737.5	786.5	856.2	914.0	938.5	920.7	871.7	842.0	810.5	766.5
75.0	563.0	575.6	614.7	671.6	718.5	741.0	725.0	683.4	658.4	632.3	595.4
80.0	319.7	329.5	352.7	387.9	417.0	430.6	418.7	392.7	377.3	360.9	337.9
85.0	76.1	83.2	91.4	105.0	115.6	120.5	114.1	104.2	98.4	90.7	82.1
90.0	1.8	1.8	1.8	1.9	2.0	2.1	2.0	1.9	1.9	1.8	1.8

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	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0	101.0
5.0	106.5	106.4	106.3	106.2	106.2	106.1	106.1	106.0	105.9	105.8	106.1
10.0	118.6	118.5	118.3	118.1	117.9	117.7	117.6	117.4	117.4	117.3	117.7
15.0	134.3	134.3	134.1	133.7	133.4	133.0	132.8	132.6	132.5	132.5	132.8
20.0	153.9	153.9	153.8	153.8	153.4	153.0	152.6	152.1	151.6	151.5	151.8
25.0	179.1	179.4	179.5	180.1	180.4	180.0	179.4	178.0	176.5	175.5	176.0
30.0	213.9	214.3	215.5	217.4	219.0	219.1	217.7	214.5	210.9	208.4	209.0
35.0	266.0	267.3	270.3	275.3	279.3	280.5	278.2	271.4	263.8	257.8	258.5
40.0	362.1	363.9	374.3	387.5	399.0	403.1	397.3	380.6	362.5	348.0	348.5
45.0	511.0	513.9	532.9	560.1	582.5	591.3	580.0	549.5	516.4	490.0	488.9
50.0	654.3	657.2	683.9	720.2	751.9	762.7	745.5	705.9	661.8	627.9	624.4
55.0	772.4	776.1	810.7	858.5	897.0	911.1	889.7	839.5	784.1	742.6	737.1
60.0	861.2	865.8	909.2	967.6	1014.8	1030.0	1003.9	946.2	878.6	829.9	823.1
63.0	876.2	881.7	927.8	990.8	1041.3	1057.8	1031.0	969.6	897.4	846.2	837.7
65.0	866.5	872.1	919.2	983.1	1034.7	1051.9	1024.9	963.3	889.5	837.3	828.0
70.0	775.5	781.5	826.1	887.6	937.3	955.1	930.5	872.0	801.3	751.5	740.3
70.5	760.7	766.5	810.5	871.7	920.7	938.5	914.0	856.2	786.5	737.5	726.0
75.0	591.4	595.4	632.3	683.4	725.0	741.0	718.5	671.6	614.7	575.6	563.0
80.0	335.9	337.9	360.9	392.7	418.7	430.6	417.0	387.9	352.7	329.5	319.7
85.0	81.9	82.1	90.7	104.2	114.1	120.5	115.6	105.0	91.4	83.2	76.1
90.0	1.8	1.8	1.8	1.9	2.0	2.1	2.0	1.9	1.8	1.8	1.8

Peak Luminous Intensity (candela) = 1057.84

Location of peak intensity (degrees) = 45.00 H, 63.00 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	100.98	100.98	100.98	100.98	100.98	100.98	100.98	100.98	100.98	100.98	100.98	100.98	100.98	100.98	100.98	100.98
1.0	101.22	101.02	101.09	101.16	101.19	101.29	101.31	101.36	101.39	101.39	101.39	101.41	101.44	101.45	101.47	101.45
2.0	102.02	101.77	101.85	101.92	101.97	102.03	102.05	102.09	102.11	102.12	102.16	102.15	102.18	102.17	102.23	102.21
3.0	103.09	102.80	102.92	103.02	103.04	103.11	103.13	103.15	103.19	103.19	103.24	103.24	103.27	103.27	103.35	103.33
4.0	104.43	104.17	104.27	104.38	104.38	104.45	104.48	104.48	104.52	104.54	104.60	104.59	104.64	104.64	104.74	104.71
5.0	106.12	105.84	105.89	106.00	106.06	106.11	106.18	106.18	106.19	106.23	106.28	106.26	106.31	106.32	106.41	106.40
6.0	108.05	107.76	107.78	107.93	107.98	108.04	108.15	108.16	108.15	108.23	108.27	108.23	108.26	108.31	108.40	108.39
7.0	110.25	109.92	109.92	110.08	110.14	110.19	110.35	110.39	110.34	110.47	110.47	110.44	110.47	110.55	110.63	110.68
8.0	112.56	112.24	112.22	112.39	112.45	112.54	112.74	112.80	112.73	112.87	112.88	112.85	112.86	112.99	113.07	113.14
9.0	115.03	114.72	114.69	114.81	114.95	115.05	115.26	115.36	115.30	115.43	115.44	115.42	115.42	115.58	115.69	115.77
10.0	117.65	117.30	117.35	117.41	117.56	117.72	117.89	118.03	118.01	118.11	118.16	118.16	118.16	118.34	118.44	118.53
11.0	120.38	120.08	120.12	120.14	120.29	120.50	120.69	120.83	120.87	120.94	121.00	121.05	121.06	121.22	121.35	121.43
12.0	123.26	122.95	123.04	123.01	123.16	123.42	123.61	123.77	123.84	123.91	124.04	124.04	124.08	124.24	124.37	124.42
13.0	126.30	125.98	126.04	126.02	126.19	126.45	126.69	126.84	126.92	127.02	127.16	127.16	127.23	127.37	127.52	127.55
14.0	129.42	129.17	129.21	129.22	129.39	129.59	129.95	130.09	130.17	130.30	130.41	130.37	130.49	130.66	130.79	130.83
15.0	132.76	132.51	132.53	132.58	132.75	132.96	133.41	133.53	133.55	133.73	133.83	133.75	133.87	134.08	134.22	134.23
16.0	136.25	135.99	136.02	136.11	136.29	136.52	137.01	137.15	137.17	137.38	137.39	137.33	137.47	137.68	137.80	137.85
17.0	139.88	139.66	139.65	139.82	140.07	140.29	140.82	140.98	140.94	141.19	141.14	141.06	141.21	141.45	141.53	141.58
18.0	143.74	143.45	143.45	143.71	144.02	144.29	144.84	144.98	144.91	145.19	145.08	144.99	145.15	145.38	145.45	145.53
19.0	147.70	147.37	147.39	147.78	148.20	148.51	149.02	149.17	149.11	149.36	149.22	149.16	149.27	149.47	149.56	149.64
20.0	151.84	151.47	151.56	152.10	152.62	152.99	153.44	153.62	153.59	153.77	153.62	153.57	153.62	153.84	153.88	153.98
21.0	156.21	155.78	155.97	156.63	157.32	157.73	158.14	158.33	158.32	158.35	158.29	158.21	158.28	158.38	158.49	158.51
22.0	160.80	160.29	160.67	161.48	162.31	162.78	163.13	163.31	163.32	163.27	163.22	163.02	163.16	163.21	163.29	163.26
23.0	165.59	165.09	165.64	166.63	167.62	168.14	168.52	168.68	168.62	168.49	168.46	168.21	168.34	168.33	168.36	168.36
24.0	170.63	170.12	170.88	172.13	173.35	173.83	174.22	174.31	174.23	174.09	174.00	173.65	173.84	173.77	173.77	173.72
25.0	176.00	175.55	176.50	177.98	179.39	179.96	180.38	180.47	180.20	180.13	179.88	179.48	179.69	179.53	179.40	179.46
26.0	181.78	181.30	182.48	184.29	186.00	186.64	187.02	187.07	186.66	186.54	186.15	185.70	185.93	185.77	185.50	185.59
27.0	187.83	187.42	188.85	191.03	193.02	193.82	194.15	194.17	193.53	193.47	192.93	192.39	192.66	192.41	191.98	192.14
28.0	194.31	193.91	195.66	198.26	200.60	201.62	201.87	201.74	200.99	200.84	200.19	199.63	199.84	199.55	199.04	199.10
29.0	201.34	200.87	203.00	206.06	208.84	210.01	210.10	209.92	209.06	208.84	208.08	207.48	207.52	207.24	206.67	206.61
30.0	209.00	208.39	210.89	214.49	217.75	219.10	218.97	218.76	217.77	217.35	216.57	215.95	215.88	215.49	214.85	214.70
31.0	217.24	216.54	219.52	223.67	227.46	229.00	228.65	228.31	227.38	226.66	225.83	225.20	224.94	224.39	223.79	223.46
32.0	226.12	225.37	228.90	233.77	238.15	239.83	239.29	238.75	237.88	236.91	235.95	235.23	234.85	234.13	233.50	233.04
33.0	235.85	235.06	239.33	244.89	250.01	251.85	251.06	250.34	249.38	248.28	247.26	246.31	245.88	244.89	244.15	243.52
34.0	246.52	245.79	250.84	257.33	263.26	265.24	264.33	263.43	262.22	260.99	259.80	258.56	258.06	256.86	255.86	255.19
35.0	258.45	257.81	263.81	271.38	278.21	280.55	279.32	278.17	276.62	275.33	273.84	272.26	271.86	270.34	269.06	268.21
36.0	271.98	271.31	278.43	287.50	295.45	298.14	296.67	295.18	293.12	291.81	289.93	287.90	287.51	285.87	284.07	283.07
37.0	287.49	286.82	295.29	306.14	315.50	318.69	316.81	315.04	312.30	310.87	308.53	305.97	305.44	303.54	301.13	300.16
38.0	305.28	304.65	314.77	327.58	338.95	342.79	340.40	338.07	334.54	332.96	329.92	327.05	326.16	324.06	321.08	319.83
39.0	325.57	324.92	337.16	352.48	366.29	370.89	367.87	364.89	360.69	358.56	355.24	351.43	349.91	347.70	343.78	342.22
40.0	348.51	347.96	362.47	380.65	397.32	403.12	399.03	395.42	390.38	387.48	383.57	379.50	377.02	374.31	370.25	367.64
41.0	374.01	373.54	390.87	412.07	431.72	438.48	433.45	428.56	423.41	419.43	415.16	410.30	406.82	403.64	399.14	395.93
42.0	401.65	401.29	421.19	445.53	468.13	476.43	470.06	464.06	458.66	453.45	449.16	443.62	439.21	434.95	430.05	426.18
43.0	430.43	430.48	452.83	480.31	506.25	515.51	507.86	500.55	494.91	489.31	484.34	477.95	472.68	467.38	462.38	458.16
44.0	459.78	460.44	484.84	515.55	543.62	553.85	545.68	537.26	530.75	525.07	519.36	512.23	506.46	500.37	494.80	490.12

H/V	82.5	85.0	87.5	90.0
0.0	100.98	100.98	100.98	100.98
1.0	101.48	101.51	101.49	101.51
2.0	102.23	102.25	102.25	102.26
3.0	103.36	103.37	103.38	103.38
4.0	104.74	104.74	104.78	104.77
5.0	106.42	106.41	106.47	106.48
6.0	108.39	108.39	108.47	108.48
7.0	110.65	110.62	110.72	110.72
8.0	113.07	113.05	113.14	113.17
9.0	115.71	115.67	115.78	115.80
10.0	118.50	118.46	118.55	118.57
11.0	121.39	121.39	121.47	121.49
12.0	124.43	124.40	124.52	124.51
13.0	127.57	127.56	127.67	127.65
14.0	130.83	130.84	130.95	130.90
15.0	134.25	134.27	134.36	134.32
16.0	137.80	137.84	137.99	137.87
17.0	141.54	141.58	141.73	141.65
18.0	145.45	145.51	145.66	145.55
19.0	149.57	149.63	149.73	149.64
20.0	153.91	153.94	154.03	153.94
21.0	158.47	158.51	158.56	158.44
22.0	163.29	163.30	163.31	163.19
23.0	168.38	168.36	168.32	168.16
24.0	173.73	173.72	173.63	173.48
25.0	179.38	179.37	179.29	179.15
26.0	185.45	185.40	185.29	185.16
27.0	191.93	191.84	191.70	191.58
28.0	198.89	198.74	198.60	198.52
29.0	206.35	206.26	206.04	205.96
30.0	214.46	214.34	214.08	213.91
31.0	223.27	223.08	222.74	222.49
32.0	232.81	232.62	232.24	231.78
33.0	243.19	243.03	242.61	241.96
34.0	254.73	254.49	254.05	253.42
35.0	267.57	267.31	266.88	266.00
36.0	282.31	281.80	281.32	280.47
37.0	298.97	298.33	297.83	296.88
38.0	318.41	317.22	316.81	315.80
39.0	340.48	339.13	338.50	337.57
40.0	365.62	363.94	362.98	362.11
41.0	393.53	391.40	390.33	389.17
42.0	423.06	420.69	420.00	418.73
43.0	454.38	451.95	450.78	449.20
44.0	485.79	482.95	482.04	480.04



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	488.9	490.0	516.4	549.5	580.0	591.3	582.5	573.0	565.9	560.1	553.8	545.7	539.5	532.9	526.8	521.8
46.0	517.3	519.4	547.1	582.7	615.0	627.4	618.4	607.9	599.9	594.1	587.1	578.7	572.0	564.9	558.2	553.2
47.0	545.2	547.7	576.8	614.9	648.7	662.4	653.1	641.8	633.2	627.0	619.1	610.3	603.2	596.0	588.3	583.3
48.0	572.5	575.3	606.0	646.0	681.6	696.7	686.9	675.0	665.7	659.0	650.6	641.1	633.6	626.1	618.0	612.4
49.0	599.0	602.1	634.1	676.5	714.0	730.0	720.0	707.0	697.5	689.9	681.2	671.3	663.0	655.4	647.0	640.9
50.0	624.4	627.9	661.8	705.9	745.5	762.7	751.9	738.3	728.6	720.2	711.0	700.9	691.9	683.9	675.4	668.4
51.0	649.1	652.9	688.1	734.7	776.1	794.3	783.0	768.4	758.3	749.5	740.1	729.6	719.6	710.9	702.5	695.1
52.0	672.9	676.9	713.6	762.3	805.9	824.9	812.5	798.0	787.4	778.0	768.3	757.1	746.4	737.3	728.7	720.7
53.0	695.4	699.7	738.0	789.1	834.8	854.7	841.5	826.3	815.4	805.7	795.7	783.4	772.5	762.6	753.8	745.2
54.0	716.4	721.5	761.5	814.9	862.8	883.1	869.6	853.6	842.4	832.5	822.1	809.1	797.4	787.2	777.6	768.6
55.0	737.1	742.6	784.1	839.5	889.7	911.1	897.0	880.5	868.5	858.5	847.2	833.6	821.5	810.7	800.5	791.1
56.0	757.1	762.9	805.8	863.9	915.7	938.1	923.9	906.3	894.0	883.8	871.7	857.6	844.9	833.7	822.4	812.6
57.0	776.3	782.4	826.9	887.4	941.2	964.3	949.8	931.7	918.8	908.0	895.3	880.8	867.6	855.7	843.5	833.0
58.0	794.1	800.7	846.8	909.8	964.9	989.1	974.4	955.3	942.1	930.9	917.3	902.9	888.7	876.4	863.2	851.8
59.0	810.1	816.9	864.4	929.7	986.0	1011.2	996.3	976.4	963.4	951.0	937.0	922.1	907.7	894.5	880.7	868.3
60.0	823.1	829.9	878.6	946.2	1003.9	1030.0	1014.8	994.2	980.6	967.6	952.7	937.9	922.5	909.2	894.9	881.6
61.0	832.0	839.5	889.1	958.3	1017.8	1043.9	1028.3	1007.3	993.7	979.7	964.7	949.2	934.0	919.5	905.2	891.5
62.0	836.7	844.8	895.2	966.4	1026.7	1053.4	1037.3	1015.9	1002.2	987.6	972.0	956.4	940.7	925.9	911.3	897.0
63.0	837.7	846.2	897.4	969.6	1031.0	1057.8	1041.3	1019.5	1005.9	990.8	974.9	959.1	943.0	927.8	912.9	898.6
64.0	834.5	843.7	895.5	968.8	1030.2	1057.3	1040.3	1018.4	1004.6	989.2	973.0	957.2	941.0	925.6	910.8	895.8
65.0	828.0	837.3	889.5	963.3	1024.9	1051.9	1034.7	1012.6	998.9	983.1	966.9	950.8	934.7	919.2	904.1	889.5
66.0	817.5	827.4	879.5	953.8	1014.6	1041.8	1024.4	1002.2	988.7	972.7	956.4	940.4	924.3	908.6	893.7	879.1
67.0	803.7	813.8	865.9	939.8	1000.4	1027.0	1009.6	987.4	974.0	957.6	941.8	925.8	909.8	894.3	879.4	865.0
68.0	786.3	796.7	848.3	921.6	981.5	1007.5	990.3	968.1	955.1	938.6	922.9	907.3	891.4	875.6	861.2	847.1
69.0	765.2	775.9	826.7	898.9	958.3	983.6	966.2	944.1	931.3	915.4	900.1	884.5	868.8	852.8	839.1	825.3
70.0	740.3	751.5	801.3	872.0	930.5	955.1	937.3	915.9	903.4	887.6	872.8	857.8	841.6	826.1	813.1	799.5
71.0	711.6	723.5	771.6	840.5	897.5	921.9	904.0	882.9	870.4	855.8	840.9	826.3	810.3	795.0	782.9	769.6
72.0	679.3	691.6	738.1	804.4	859.8	883.4	865.8	844.9	832.8	818.8	804.8	790.2	774.7	759.6	748.4	735.8
73.0	643.6	656.0	700.6	764.0	816.7	840.3	822.8	802.5	790.8	777.6	763.8	750.1	734.9	720.5	709.9	697.4
74.0	604.8	617.2	659.2	719.7	769.6	792.9	776.0	756.1	744.9	732.2	719.2	706.0	691.2	678.1	668.3	656.2
75.0	563.0	575.6	614.7	671.6	718.5	741.0	725.0	705.8	695.8	683.4	671.1	658.4	644.2	632.3	622.7	611.4
76.0	518.9	530.9	567.0	620.2	664.0	685.2	670.2	651.6	643.0	630.6	619.6	607.3	594.0	583.4	574.6	563.5
77.0	471.3	483.6	516.5	565.6	605.9	625.5	611.0	594.1	586.1	574.5	565.0	553.0	540.9	530.9	523.2	512.9
78.0	422.5	433.7	463.5	508.2	544.4	562.2	549.2	533.2	526.6	515.8	507.5	496.0	485.1	476.0	469.3	459.5
79.0	371.4	382.2	408.8	448.5	481.1	497.0	484.4	470.6	464.8	454.8	447.8	436.9	427.4	419.1	413.8	405.1
80.0	319.7	329.5	352.7	387.9	417.0	430.6	418.7	406.6	401.5	392.7	387.4	377.3	368.4	360.9	356.9	349.4
81.0	267.2	276.6	296.5	327.3	352.6	363.6	352.7	342.6	338.1	330.8	326.0	317.3	309.2	302.7	299.8	293.5
82.0	216.1	224.6	241.1	267.5	288.6	297.6	288.1	279.9	275.6	269.7	265.3	258.4	250.9	245.3	243.6	238.2
83.0	166.4	174.2	187.8	209.3	226.7	234.4	225.6	219.2	215.3	210.8	206.7	201.4	194.2	190.0	189.4	184.2
84.0	119.4	126.9	137.4	154.9	168.5	174.7	167.3	162.3	158.9	155.0	151.7	147.5	141.4	138.0	137.8	133.5
85.0	76.1	83.2	91.4	105.0	115.6	120.5	114.1	110.4	107.8	104.2	101.6	98.4	93.4	90.7	90.6	86.7
86.0	38.4	44.7	50.9	61.4	69.1	72.6	67.7	65.1	63.0	59.8	57.7	55.7	51.8	49.6	49.7	45.9
87.0	11.6	17.3	20.5	25.9	30.5	32.3	29.2	27.8	26.8	24.4	23.1	22.0	20.1	18.8	19.0	17.1
88.0	2.5	4.6	5.7	7.6	8.9	9.7	7.8	7.6	7.1	6.1	5.8	5.5	5.1	4.6	4.8	4.3
89.0	1.8	1.8	1.8	1.9	2.0	2.1	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.8	1.8	1.8

H/V	82.5	85.0	87.5	90.0
45.0	517.11	513.88	512.80	510.99
46.0	547.55	544.13	543.07	540.97
47.0	577.37	573.69	572.83	570.88
48.0	606.30	602.37	601.17	599.59
49.0	634.51	630.22	628.91	627.38
50.0	661.80	657.25	655.79	654.30
51.0	688.20	683.05	681.43	680.21
52.0	713.42	707.91	706.21	704.74
53.0	737.54	731.52	729.91	728.23
54.0	760.59	754.50	752.51	750.66
55.0	782.52	776.13	774.20	772.43
56.0	803.62	797.09	795.09	793.11
57.0	823.38	817.37	814.88	813.33
58.0	841.98	836.04	833.46	831.93
59.0	858.32	852.48	849.49	848.21
60.0	871.48	865.78	862.63	861.22
61.0	881.00	875.21	871.58	870.19
62.0	886.47	880.41	876.80	875.21
63.0	887.72	881.70	877.84	876.18
64.0	884.75	878.91	874.56	873.36
65.0	878.12	872.09	867.52	866.52
66.0	867.44	861.43	856.68	855.96
67.0	853.11	847.15	842.15	841.35
68.0	834.95	829.03	824.10	823.60
69.0	813.09	807.23	802.30	801.10
70.0	787.77	781.53	777.08	775.52
71.0	757.94	751.53	747.59	745.78
72.0	724.11	718.06	713.96	712.05
73.0	686.68	680.68	676.63	674.84
74.0	645.42	639.25	635.76	634.71
75.0	600.64	595.38	591.81	591.37
76.0	553.01	548.58	544.65	544.72
77.0	502.91	498.99	495.45	495.40
78.0	449.86	446.26	443.33	443.74
79.0	395.86	392.44	389.73	390.38
80.0	340.82	337.92	335.38	335.94
81.0	285.70	283.16	281.03	281.54
82.0	231.22	229.25	227.66	227.89
83.0	178.50	176.93	175.73	176.48
84.0	128.33	127.71	126.73	127.42
85.0	82.50	82.11	81.24	81.93
86.0	42.74	42.48	41.98	42.17
87.0	15.48	15.43	15.08	15.10
88.0	3.86	3.83	3.73	3.87
89.0	1.81	1.80	1.79	1.77



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	1.72	1.69	1.74	1.82	1.89	1.91	1.88	1.86	1.84	1.82	1.80	1.78	1.76	1.75	1.73	1.72
91.0	1.69	1.65	1.71	1.78	1.85	1.87	1.85	1.82	1.80	1.79	1.77	1.75	1.74	1.71	1.70	1.68
92.0	1.67	1.63	1.69	1.76	1.82	1.85	1.83	1.80	1.78	1.76	1.75	1.73	1.71	1.70	1.68	1.67
93.0	1.66	1.62	1.67	1.75	1.81	1.83	1.81	1.78	1.77	1.75	1.74	1.72	1.70	1.68	1.67	1.65
94.0	1.63	1.60	1.65	1.72	1.79	1.81	1.79	1.76	1.75	1.73	1.71	1.69	1.68	1.66	1.65	1.63
95.0	1.62	1.58	1.63	1.70	1.76	1.79	1.76	1.74	1.73	1.71	1.69	1.68	1.66	1.64	1.63	1.62
96.0	1.61	1.57	1.62	1.69	1.75	1.77	1.75	1.73	1.71	1.70	1.68	1.66	1.65	1.63	1.62	1.60
97.0	1.60	1.56	1.60	1.68	1.73	1.76	1.73	1.71	1.69	1.68	1.66	1.65	1.63	1.61	1.60	1.59
98.0	1.57	1.53	1.58	1.65	1.71	1.73	1.71	1.69	1.67	1.66	1.64	1.62	1.61	1.59	1.58	1.56
99.0	1.53	1.50	1.55	1.62	1.68	1.70	1.69	1.66	1.65	1.63	1.61	1.60	1.58	1.57	1.55	1.54
100.0	1.51	1.48	1.52	1.59	1.65	1.68	1.65	1.63	1.62	1.60	1.59	1.57	1.56	1.54	1.53	1.52
101.0	1.47	1.44	1.49	1.56	1.62	1.64	1.62	1.60	1.59	1.57	1.55	1.54	1.52	1.51	1.50	1.48
102.0	1.43	1.41	1.45	1.53	1.58	1.61	1.59	1.57	1.55	1.54	1.52	1.51	1.49	1.48	1.47	1.45
103.0	1.40	1.38	1.42	1.49	1.55	1.58	1.56	1.54	1.52	1.51	1.49	1.48	1.46	1.45	1.43	1.43
104.0	1.35	1.33	1.38	1.45	1.51	1.53	1.52	1.50	1.49	1.47	1.45	1.44	1.42	1.41	1.39	1.39
105.0	1.30	1.28	1.33	1.40	1.46	1.48	1.47	1.45	1.44	1.42	1.41	1.39	1.38	1.36	1.35	1.34
106.0	1.27	1.25	1.30	1.37	1.42	1.45	1.44	1.42	1.41	1.40	1.38	1.37	1.35	1.34	1.33	1.31
107.0	1.25	1.24	1.29	1.36	1.42	1.44	1.43	1.41	1.40	1.39	1.37	1.36	1.35	1.33	1.32	1.31
108.0	1.25	1.24	1.29	1.36	1.42	1.45	1.44	1.41	1.40	1.39	1.37	1.36	1.34	1.34	1.32	1.32
109.0	1.25	1.24	1.28	1.36	1.42	1.45	1.44	1.41	1.40	1.39	1.38	1.36	1.35	1.34	1.32	1.31
110.0	1.25	1.24	1.28	1.35	1.42	1.44	1.43	1.41	1.40	1.39	1.37	1.36	1.35	1.33	1.32	1.31
111.0	1.24	1.23	1.28	1.35	1.41	1.44	1.43	1.41	1.40	1.39	1.37	1.36	1.34	1.33	1.32	1.31
112.0	1.22	1.22	1.26	1.33	1.39	1.43	1.41	1.40	1.38	1.37	1.36	1.34	1.33	1.32	1.30	1.30
113.0	1.22	1.22	1.26	1.32	1.38	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.30	1.29
114.0	1.21	1.21	1.25	1.32	1.38	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.30	1.29
115.0	1.22	1.21	1.26	1.32	1.39	1.41	1.40	1.38	1.37	1.36	1.35	1.33	1.32	1.31	1.30	1.29
116.0	1.22	1.22	1.27	1.33	1.39	1.42	1.41	1.39	1.38	1.37	1.35	1.34	1.33	1.32	1.31	1.29
117.0	1.23	1.23	1.27	1.34	1.40	1.43	1.42	1.40	1.39	1.38	1.36	1.35	1.34	1.32	1.32	1.31
118.0	1.23	1.23	1.27	1.33	1.39	1.42	1.41	1.40	1.39	1.37	1.36	1.35	1.33	1.32	1.31	1.30
119.0	1.22	1.22	1.26	1.32	1.38	1.41	1.40	1.39	1.37	1.36	1.35	1.34	1.33	1.32	1.30	1.30
120.0	1.21	1.21	1.25	1.31	1.37	1.40	1.39	1.37	1.36	1.35	1.34	1.33	1.32	1.31	1.30	1.29
121.0	1.20	1.20	1.24	1.30	1.35	1.38	1.37	1.36	1.35	1.34	1.32	1.31	1.30	1.29	1.28	1.27
122.0	1.18	1.17	1.21	1.27	1.32	1.35	1.35	1.33	1.32	1.31	1.30	1.29	1.28	1.27	1.26	1.25
123.0	1.15	1.15	1.18	1.24	1.29	1.31	1.31	1.29	1.28	1.27	1.27	1.26	1.25	1.24	1.23	1.22
124.0	1.11	1.10	1.14	1.19	1.24	1.27	1.26	1.25	1.24	1.23	1.22	1.21	1.20	1.19	1.19	1.18
125.0	1.08	1.07	1.10	1.16	1.21	1.23	1.22	1.21	1.20	1.20	1.19	1.18	1.17	1.16	1.15	1.15
126.0	1.06	1.05	1.08	1.13	1.18	1.20	1.20	1.19	1.18	1.17	1.16	1.15	1.14	1.14	1.13	1.12
127.0	1.04	1.03	1.06	1.11	1.15	1.18	1.17	1.16	1.15	1.15	1.14	1.13	1.12	1.11	1.11	1.10
128.0	1.03	1.02	1.04	1.09	1.13	1.15	1.15	1.14	1.13	1.13	1.12	1.12	1.10	1.10	1.09	1.08
129.0	1.01	1.00	1.03	1.07	1.11	1.13	1.13	1.12	1.11	1.11	1.10	1.09	1.09	1.08	1.08	1.07
130.0	0.99	0.98	1.01	1.05	1.09	1.11	1.11	1.10	1.09	1.08	1.08	1.07	1.06	1.06	1.06	1.05
131.0	0.98	0.96	0.99	1.02	1.06	1.08	1.08	1.07	1.06	1.06	1.06	1.05	1.04	1.03	1.03	1.03
132.0	0.95	0.94	0.96	1.00	1.03	1.05	1.05	1.04	1.04	1.03	1.02	1.02	1.01	1.01	1.00	1.00
133.0	0.92	0.91	0.94	0.97	1.00	1.02	1.02	1.01	1.01	1.00	1.00	0.99	0.98	0.98	0.97	0.97
134.0	0.90	0.89	0.92	0.94	0.97	0.99	0.99	0.98	0.98	0.97	0.97	0.96	0.96	0.95	0.95	0.95

H/V	82.5	85.0	87.5	90.0
90.0	1.71	1.70	1.69	1.69
91.0	1.67	1.66	1.66	1.66
92.0	1.65	1.65	1.64	1.64
93.0	1.64	1.64	1.63	1.63
94.0	1.62	1.61	1.61	1.60
95.0	1.60	1.60	1.59	1.59
96.0	1.59	1.59	1.58	1.58
97.0	1.58	1.57	1.57	1.56
98.0	1.56	1.55	1.54	1.54
99.0	1.53	1.52	1.52	1.51
100.0	1.50	1.50	1.49	1.49
101.0	1.47	1.47	1.46	1.46
102.0	1.44	1.44	1.43	1.43
103.0	1.42	1.41	1.40	1.40
104.0	1.38	1.37	1.36	1.36
105.0	1.34	1.33	1.32	1.32
106.0	1.31	1.30	1.29	1.30
107.0	1.30	1.30	1.29	1.29
108.0	1.30	1.30	1.30	1.29
109.0	1.30	1.30	1.29	1.29
110.0	1.30	1.29	1.29	1.30
111.0	1.30	1.29	1.29	1.29
112.0	1.29	1.28	1.28	1.28
113.0	1.28	1.28	1.27	1.28
114.0	1.28	1.28	1.27	1.27
115.0	1.28	1.28	1.27	1.27
116.0	1.29	1.28	1.28	1.28
117.0	1.30	1.29	1.29	1.29
118.0	1.29	1.29	1.28	1.29
119.0	1.29	1.28	1.28	1.28
120.0	1.28	1.27	1.27	1.27
121.0	1.26	1.26	1.26	1.26
122.0	1.25	1.24	1.23	1.23
123.0	1.21	1.21	1.21	1.21
124.0	1.17	1.17	1.17	1.16
125.0	1.14	1.14	1.14	1.14
126.0	1.12	1.11	1.11	1.11
127.0	1.10	1.10	1.09	1.09
128.0	1.08	1.08	1.08	1.07
129.0	1.06	1.06	1.06	1.06
130.0	1.04	1.04	1.04	1.04
131.0	1.02	1.02	1.02	1.02
132.0	0.99	0.99	0.99	0.99
133.0	0.97	0.96	0.96	0.96
134.0	0.94	0.94	0.94	0.94



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	0.87	0.86	0.88	0.91	0.94	0.95	0.95	0.94	0.94	0.94	0.93	0.93	0.93	0.92	0.92	0.91
136.0	0.85	0.84	0.86	0.89	0.91	0.93	0.92	0.92	0.92	0.91	0.91	0.90	0.90	0.89	0.89	0.89
137.0	0.82	0.82	0.84	0.86	0.89	0.90	0.90	0.90	0.89	0.89	0.88	0.88	0.88	0.87	0.87	0.87
138.0	0.81	0.80	0.82	0.84	0.86	0.87	0.88	0.87	0.87	0.86	0.86	0.86	0.85	0.85	0.85	0.84
139.0	0.79	0.78	0.80	0.81	0.83	0.84	0.84	0.84	0.84	0.83	0.83	0.83	0.83	0.82	0.82	0.82
140.0	0.76	0.76	0.77	0.79	0.81	0.82	0.82	0.82	0.82	0.81	0.81	0.81	0.81	0.80	0.80	0.80
141.0	0.74	0.74	0.75	0.76	0.79	0.79	0.80	0.79	0.79	0.79	0.79	0.78	0.78	0.78	0.77	0.77
142.0	0.72	0.72	0.73	0.75	0.76	0.77	0.77	0.77	0.77	0.77	0.76	0.76	0.76	0.75	0.75	0.75
143.0	0.71	0.71	0.71	0.73	0.74	0.75	0.75	0.75	0.75	0.75	0.74	0.74	0.74	0.74	0.74	0.73
144.0	0.69	0.69	0.70	0.71	0.72	0.73	0.73	0.73	0.73	0.73	0.72	0.72	0.72	0.72	0.72	0.72
145.0	0.68	0.68	0.68	0.70	0.71	0.71	0.72	0.71	0.71	0.71	0.71	0.71	0.71	0.70	0.70	0.70
146.0	0.66	0.66	0.67	0.68	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.69	0.69	0.69	0.69	0.69
147.0	0.65	0.65	0.66	0.67	0.68	0.69	0.69	0.69	0.69	0.69	0.68	0.68	0.68	0.68	0.68	0.68
148.0	0.65	0.64	0.65	0.65	0.67	0.68	0.68	0.68	0.68	0.67	0.67	0.67	0.67	0.67	0.66	0.67
149.0	0.64	0.63	0.63	0.65	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.65	0.65
150.0	0.62	0.62	0.63	0.63	0.64	0.65	0.65	0.65	0.65	0.65	0.65	0.64	0.64	0.65	0.64	0.64
151.0	0.61	0.61	0.62	0.63	0.63	0.64	0.64	0.64	0.64	0.63	0.64	0.63	0.64	0.64	0.64	0.63
152.0	0.60	0.60	0.61	0.61	0.62	0.63	0.63	0.63	0.63	0.63	0.63	0.62	0.62	0.63	0.62	0.62
153.0	0.59	0.59	0.60	0.60	0.61	0.62	0.62	0.62	0.62	0.62	0.62	0.61	0.62	0.61	0.61	0.61
154.0	0.58	0.58	0.59	0.60	0.60	0.61	0.61	0.61	0.61	0.60	0.60	0.60	0.60	0.60	0.60	0.60
155.0	0.58	0.57	0.58	0.58	0.59	0.59	0.60	0.60	0.59	0.59	0.59	0.60	0.59	0.59	0.59	0.59
156.0	0.56	0.56	0.56	0.57	0.58	0.58	0.59	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58	0.58
157.0	0.56	0.55	0.56	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57	0.57
158.0	0.55	0.54	0.55	0.55	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56	0.56
159.0	0.54	0.53	0.54	0.54	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55	0.55
160.0	0.53	0.52	0.53	0.53	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54	0.54
161.0	0.52	0.51	0.52	0.52	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53	0.53
162.0	0.51	0.51	0.51	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52
163.0	0.50	0.50	0.50	0.51	0.51	0.51	0.52	0.52	0.52	0.51	0.52	0.51	0.51	0.51	0.51	0.52
164.0	0.50	0.49	0.50	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51	0.51
165.0	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.51	0.50	0.50	0.50	0.50	0.50	0.51	0.50	0.50
166.0	0.49	0.49	0.49	0.49	0.50	0.50	0.50	0.50	0.50	0.50	0.49	0.49	0.49	0.49	0.49	0.49
167.0	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
168.0	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.48	0.49	0.49	0.48	0.49
169.0	0.48	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49	0.49
170.0	0.48	0.48	0.48	0.48	0.48	0.49	0.49	0.49	0.49	0.49	0.48	0.48	0.49	0.49	0.49	0.49
171.0	0.47	0.48	0.48	0.48	0.48	0.48	0.48	0.49	0.48	0.48	0.48	0.48	0.48	0.48	0.49	0.48
172.0	0.47	0.47	0.47	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48	0.48
173.0	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.48	0.47	0.47	0.47	0.47	0.48	0.47	0.47
174.0	0.46	0.46	0.46	0.46	0.46	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.47	0.46
175.0	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.47
176.0	0.44	0.45	0.45	0.45	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46
177.0	0.44	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.46	0.45	0.45	0.45	0.45	0.45	0.45	0.45
178.0	0.43	0.44	0.44	0.44	0.45	0.44	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45
179.0	0.43	0.44	0.44	0.44	0.44	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45	0.45

H/V	82.5	85.0	87.5	90.0
135.0	0.91	0.91	0.91	0.90
136.0	0.89	0.88	0.88	0.88
137.0	0.86	0.86	0.86	0.86
138.0	0.84	0.84	0.84	0.84
139.0	0.81	0.81	0.82	0.82
140.0	0.80	0.80	0.79	0.79
141.0	0.77	0.77	0.77	0.77
142.0	0.75	0.75	0.75	0.74
143.0	0.73	0.73	0.73	0.73
144.0	0.71	0.71	0.71	0.71
145.0	0.70	0.70	0.70	0.70
146.0	0.69	0.69	0.68	0.68
147.0	0.68	0.68	0.67	0.67
148.0	0.66	0.67	0.67	0.67
149.0	0.65	0.65	0.65	0.65
150.0	0.64	0.64	0.64	0.64
151.0	0.63	0.63	0.63	0.63
152.0	0.62	0.62	0.62	0.62
153.0	0.61	0.61	0.61	0.61
154.0	0.60	0.60	0.60	0.59
155.0	0.59	0.59	0.59	0.59
156.0	0.58	0.58	0.58	0.58
157.0	0.57	0.57	0.57	0.57
158.0	0.56	0.56	0.56	0.56
159.0	0.54	0.55	0.55	0.55
160.0	0.54	0.54	0.54	0.54
161.0	0.53	0.53	0.53	0.53
162.0	0.52	0.52	0.52	0.52
163.0	0.51	0.51	0.51	0.51
164.0	0.51	0.51	0.51	0.51
165.0	0.50	0.50	0.50	0.50
166.0	0.50	0.49	0.50	0.50
167.0	0.49	0.49	0.49	0.49
168.0	0.49	0.49	0.49	0.48
169.0	0.48	0.49	0.49	0.49
170.0	0.48	0.49	0.49	0.48
171.0	0.48	0.48	0.48	0.48
172.0	0.48	0.48	0.48	0.48
173.0	0.47	0.47	0.47	0.47
174.0	0.47	0.46	0.47	0.46
175.0	0.46	0.46	0.46	0.46
176.0	0.46	0.46	0.46	0.45
177.0	0.45	0.45	0.45	0.45
178.0	0.45	0.45	0.45	0.45
179.0	0.45	0.45	0.45	0.45



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	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44



H/V	82.5	85.0	87.5	90.0
180.0	0.44	0.44	0.44	0.44