

Luminaire Property

Luminaire: RH-MRD42 42W 4000K

Report NO.:

Voltage: 220.1 V

Test NO.:

Current: 0.187 A

Lamp:

Power: 40.7 W

Sum Lumens: 3468.36 lm

Power Factor: 0.99

Number of Lamps: 1

Ballast Type:

Diameter: 500mm

Width: 500mm

Length: mm

Height: 38mm

Photometric Type: Type C

Remark: PMMA+0.5W SMD2835

Photometric Results

Lumens: 3468.36 lm

Angle of maximum intensity: C:135.0 G:1.0

Effective luminous flux: 3415.85 lm

Half Peak Side Angle(50%): Left: -55.2 Right:54.5

Efficiency: 85.2177 lm/W

Light Out Rate(LOR) : 100.00%

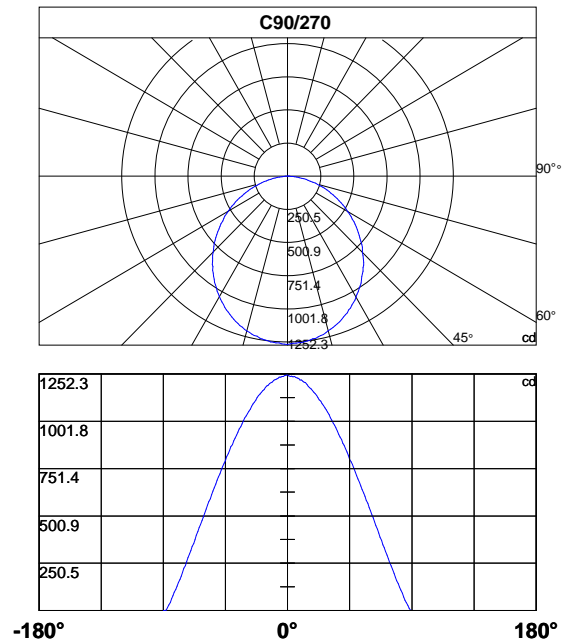
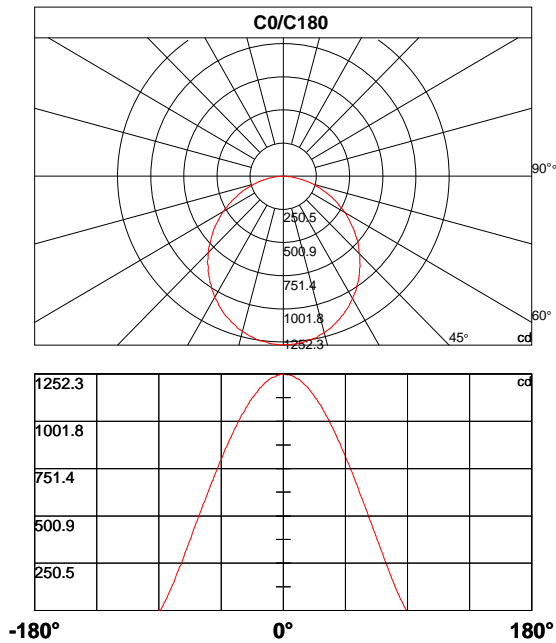
Central Intensity: 1247.094cd

Up Flux Rate: 0.0%

Maximum Intensity: 1252.348cd

Down Flux Rate: 100.0%

Beam Angle(10%): Left: -81.1 Right:80.8



Photometric Data Table [cd]

C\G	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	9.0
0.0	1247.1	1248.4	1249.9	1247.7	1249.1	1244.9	1244.5	1241.4	1237.0	1232.8
45.0	1247.1	1242.9	1239.4	1240.5	1237.0	1239.0	1233.9	1230.7	1228.2	1221.4
90.0	1247.1	1242.9	1239.4	1240.5	1237.0	1239.0	1233.9	1230.7	1228.2	1221.4
135.0	1247.1	1252.3	1248.4	1247.1	1246.4	1242.0	1237.0	1233.7	1233.9	1229.5
180.0	1247.1	1252.3	1248.4	1247.1	1246.4	1242.0	1237.0	1233.7	1233.9	1229.5
225.0	1247.1	1245.3	1244.0	1238.7	1239.2	1236.1	1235.5	1228.9	1226.3	1221.9
270.0	1247.1	1245.3	1244.0	1238.7	1239.2	1236.1	1235.5	1228.9	1226.3	1221.9
315.0	1247.1	1248.4	1249.9	1247.7	1249.1	1244.9	1244.5	1241.4	1237.0	1232.8
360.0	1247.1	1248.4	1249.9	1247.7	1249.1	1244.9	1244.5	1241.4	1237.0	1232.8

C\G	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0	18.0	19.0
0.0	1227.3	1225.2	1221.7	1211.3	1206.3	1200.8	1191.9	1185.5	1179.1	1168.2
45.0	1220.3	1213.5	1208.7	1206.1	1196.5	1187.0	1179.1	1174.1	1165.1	1157.0
90.0	1220.3	1213.5	1208.7	1206.1	1196.5	1187.0	1179.1	1174.1	1165.1	1157.0
135.0	1224.1	1216.6	1211.8	1206.1	1199.5	1191.2	1183.5	1178.7	1166.2	1156.5
180.0	1224.1	1216.6	1211.8	1206.1	1199.5	1191.2	1183.5	1178.7	1166.2	1156.5
225.0	1218.6	1209.8	1207.2	1201.7	1192.9	1189.0	1181.1	1170.6	1163.6	1154.8
270.0	1218.6	1209.8	1207.2	1201.7	1192.9	1189.0	1181.1	1170.6	1163.6	1154.8
315.0	1227.3	1225.2	1221.7	1211.3	1206.3	1200.8	1191.9	1185.5	1179.1	1168.2
360.0	1227.3	1225.2	1221.7	1211.3	1206.3	1200.8	1191.9	1185.5	1179.1	1168.2

C\G	20.0	21.0	22.0	23.0	24.0	25.0	26.0	27.0	28.0	29.0
0.0	1159.6	1148.0	1140.3	1126.3	1121.3	1107.1	1097.4	1087.3	1072.6	1058.4
45.0	1150.0	1138.8	1127.0	1115.6	1108.8	1095.4	1086.5	1072.6	1062.5	1049.9
90.0	1150.0	1138.8	1127.0	1115.6	1108.8	1095.4	1086.5	1072.6	1062.5	1049.9
135.0	1147.8	1137.3	1130.7	1120.0	1109.2	1096.3	1085.1	1072.9	1056.7	1046.8
180.0	1147.8	1137.3	1130.7	1120.0	1109.2	1096.3	1085.1	1072.9	1056.7	1046.8
225.0	1146.1	1137.3	1126.3	1114.3	1102.7	1093.7	1080.9	1066.7	1055.3	1043.1
270.0	1146.1	1137.3	1126.3	1114.3	1102.7	1093.7	1080.9	1066.7	1055.3	1043.1
315.0	1159.6	1148.0	1140.3	1126.3	1121.3	1107.1	1097.4	1087.3	1072.6	1058.4
360.0	1159.6	1148.0	1140.3	1126.3	1121.3	1107.1	1097.4	1087.3	1072.6	1058.4

C\G	30.0	31.0	32.0	33.0	34.0	35.0	36.0	37.0	38.0	39.0
0.0	1048.5	1032.9	1021.6	1008.9	993.3	977.1	964.1	948.1	933.0	914.8
45.0	1036.5	1020.0	1009.5	992.4	981.4	967.6	950.1	933.2	919.6	905.2
90.0	1036.5	1020.0	1009.5	992.4	981.4	967.6	950.1	933.2	919.6	905.2
135.0	1037.1	1020.0	1006.2	992.9	973.8	965.0	946.4	932.1	916.1	901.0
180.0	1037.1	1020.0	1006.2	992.9	973.8	965.0	946.4	932.1	916.1	901.0
225.0	1030.1	1018.1	1003.4	988.0	973.1	962.2	944.0	928.8	912.2	897.5
270.0	1030.1	1018.1	1003.4	988.0	973.1	962.2	944.0	928.8	912.2	897.5
315.0	1048.5	1032.9	1021.6	1008.9	993.3	977.1	964.1	948.1	933.0	914.8
360.0	1048.5	1032.9	1021.6	1008.9	993.3	977.1	964.1	948.1	933.0	914.8

Photometric Data Table [cd]

C\G	40.0	41.0	42.0	43.0	44.0	45.0	46.0	47.0	48.0	49.0
0.0	898.2	886.6	865.3	849.1	832.6	816.4	796.2	780.7	764.2	746.1
45.0	885.7	874.7	858.3	839.6	821.9	801.1	786.6	772.6	754.2	733.4
90.0	885.7	874.7	858.3	839.6	821.9	801.1	786.6	772.6	754.2	733.4
135.0	881.3	867.5	853.7	834.0	816.0	798.2	785.3	764.2	745.2	727.6
180.0	881.3	867.5	853.7	834.0	816.0	798.2	785.3	764.2	745.2	727.6
225.0	877.6	867.2	847.3	830.0	815.8	794.0	779.0	761.0	744.3	724.6
270.0	877.6	867.2	847.3	830.0	815.8	794.0	779.0	761.0	744.3	724.6
315.0	898.2	886.6	865.3	849.1	832.6	816.4	796.2	780.7	764.2	746.1
360.0	898.2	886.6	865.3	849.1	832.6	816.4	796.2	780.7	764.2	746.1

C\G	50.0	51.0	52.0	53.0	54.0	55.0	56.0	57.0	58.0	59.0
0.0	726.6	707.7	689.5	672.4	651.6	631.2	610.2	594.2	572.9	557.1
45.0	713.2	697.0	678.1	659.1	641.5	622.2	604.9	582.5	567.9	545.5
90.0	713.2	697.0	678.1	659.1	641.5	622.2	604.9	582.5	567.9	545.5
135.0	709.5	690.6	674.4	654.7	637.3	614.5	595.9	576.9	562.4	539.4
180.0	709.5	690.6	674.4	654.7	637.3	614.5	595.9	576.9	562.4	539.4
225.0	707.5	689.1	669.1	648.9	632.5	613.9	590.9	575.3	558.0	536.5
270.0	707.5	689.1	669.1	648.9	632.5	613.9	590.9	575.3	558.0	536.5
315.0	726.6	707.7	689.5	672.4	651.6	631.2	610.2	594.2	572.9	557.1
360.0	726.6	707.7	689.5	672.4	651.6	631.2	610.2	594.2	572.9	557.1

C\G	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0
0.0	537.6	517.3	492.9	472.7	457.2	434.6	413.6	396.5	374.1	355.7
45.0	528.4	505.9	489.0	468.8	448.2	430.7	410.7	388.2	371.3	348.2
90.0	528.4	505.9	489.0	468.8	448.2	430.7	410.7	388.2	371.3	348.2
135.0	521.9	501.3	479.5	465.5	441.9	425.4	405.2	381.4	363.8	344.1
180.0	521.9	501.3	479.5	465.5	441.9	425.4	405.2	381.4	363.8	344.1
225.0	513.7	494.3	475.8	454.1	438.8	418.8	398.0	374.1	354.2	339.5
270.0	513.7	494.3	475.8	454.1	438.8	418.8	398.0	374.1	354.2	339.5
315.0	537.6	517.3	492.9	472.7	457.2	434.6	413.6	396.5	374.1	355.7
360.0	537.6	517.3	492.9	472.7	457.2	434.6	413.6	396.5	374.1	355.7

C\G	70.0	71.0	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0
0.0	335.6	316.7	297.8	274.2	257.3	240.6	218.1	200.6	182.6	159.6
45.0	334.0	313.6	293.2	273.5	254.0	235.2	219.0	196.0	176.2	157.6
90.0	334.0	313.6	293.2	273.5	254.0	235.2	219.0	196.0	176.2	157.6
135.0	324.4	306.8	283.6	265.2	244.8	230.2	211.7	193.1	174.2	152.3
180.0	324.4	306.8	283.6	265.2	244.8	230.2	211.7	193.1	174.2	152.3
225.0	317.2	300.5	280.3	259.3	237.2	223.4	201.4	182.4	164.2	147.5
270.0	317.2	300.5	280.3	259.3	237.2	223.4	201.4	182.4	164.2	147.5
315.0	335.6	316.7	297.8	274.2	257.3	240.6	218.1	200.6	182.6	159.6
360.0	335.6	316.7	297.8	274.2	257.3	240.6	218.1	200.6	182.6	159.6

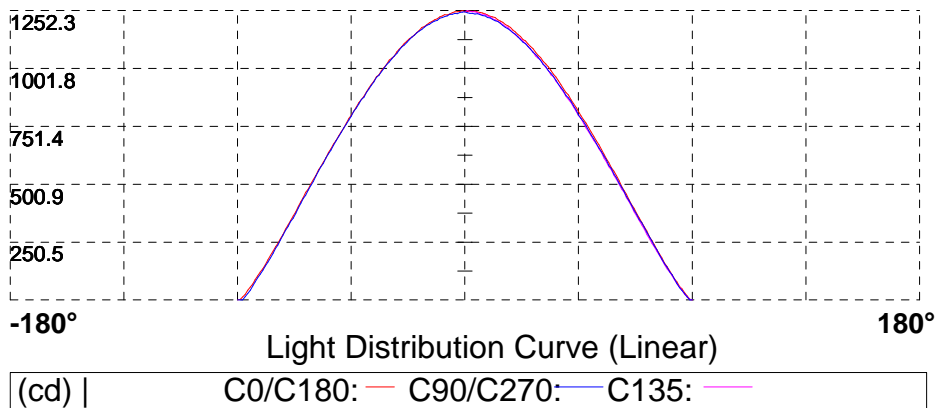
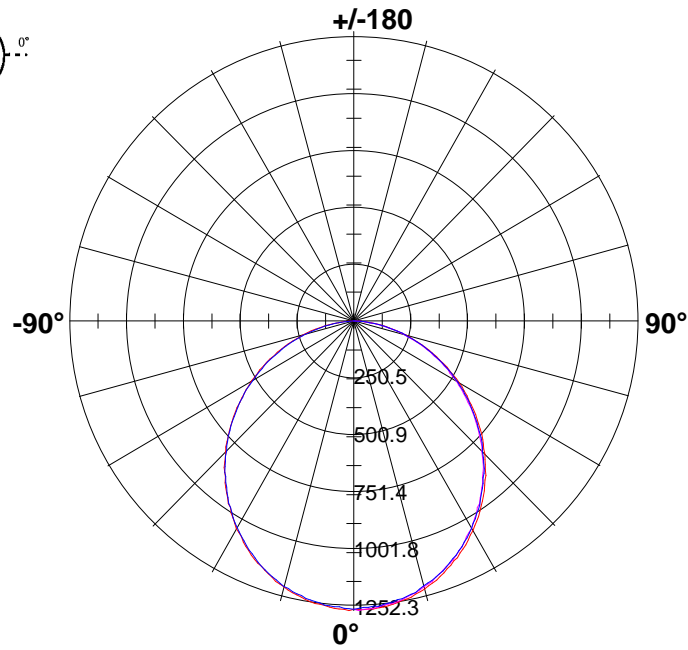
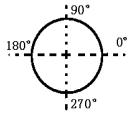
Photometric Data Table [cd]

C\G	80.0	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	145.1	126.7	109.1	91.6	78.0	59.4	47.3	30.7	17.1	3.7
45.0	142.0	123.2	108.7	90.7	70.8	53.7	41.2	26.9	12.7	1.1
90.0	142.0	123.2	108.7	90.7	70.8	53.7	41.2	26.9	12.7	1.1
135.0	135.4	121.9	105.0	87.7	69.3	55.9	41.4	24.7	13.6	1.7
180.0	135.4	121.9	105.0	87.7	69.3	55.9	41.4	24.7	13.6	1.7
225.0	128.9	111.3	96.2	78.5	61.6	42.5	28.5	14.7	1.5	0.0
270.0	128.9	111.3	96.2	78.5	61.6	42.5	28.5	14.7	1.5	0.0
315.0	145.1	126.7	109.1	91.6	78.0	59.4	47.3	30.7	17.1	3.7
360.0	145.1	126.7	109.1	91.6	78.0	59.4	47.3	30.7	17.1	3.7

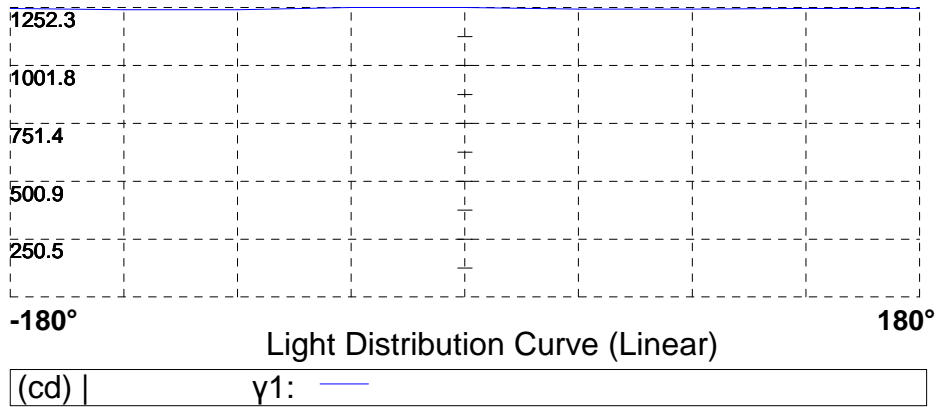
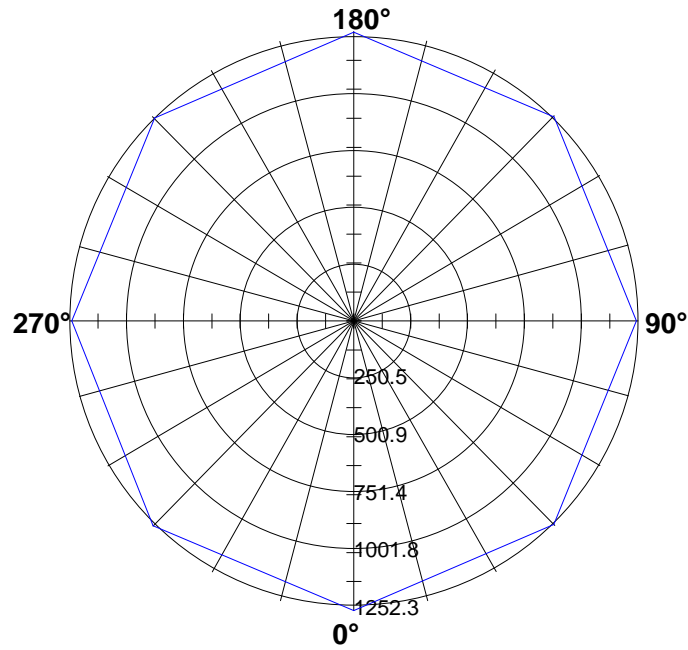
C\G	90.0
0.0	0.0
45.0	0.0
90.0	0.0
135.0	0.0
180.0	0.0
225.0	0.0
270.0	0.0
315.0	0.0
360.0	0.0

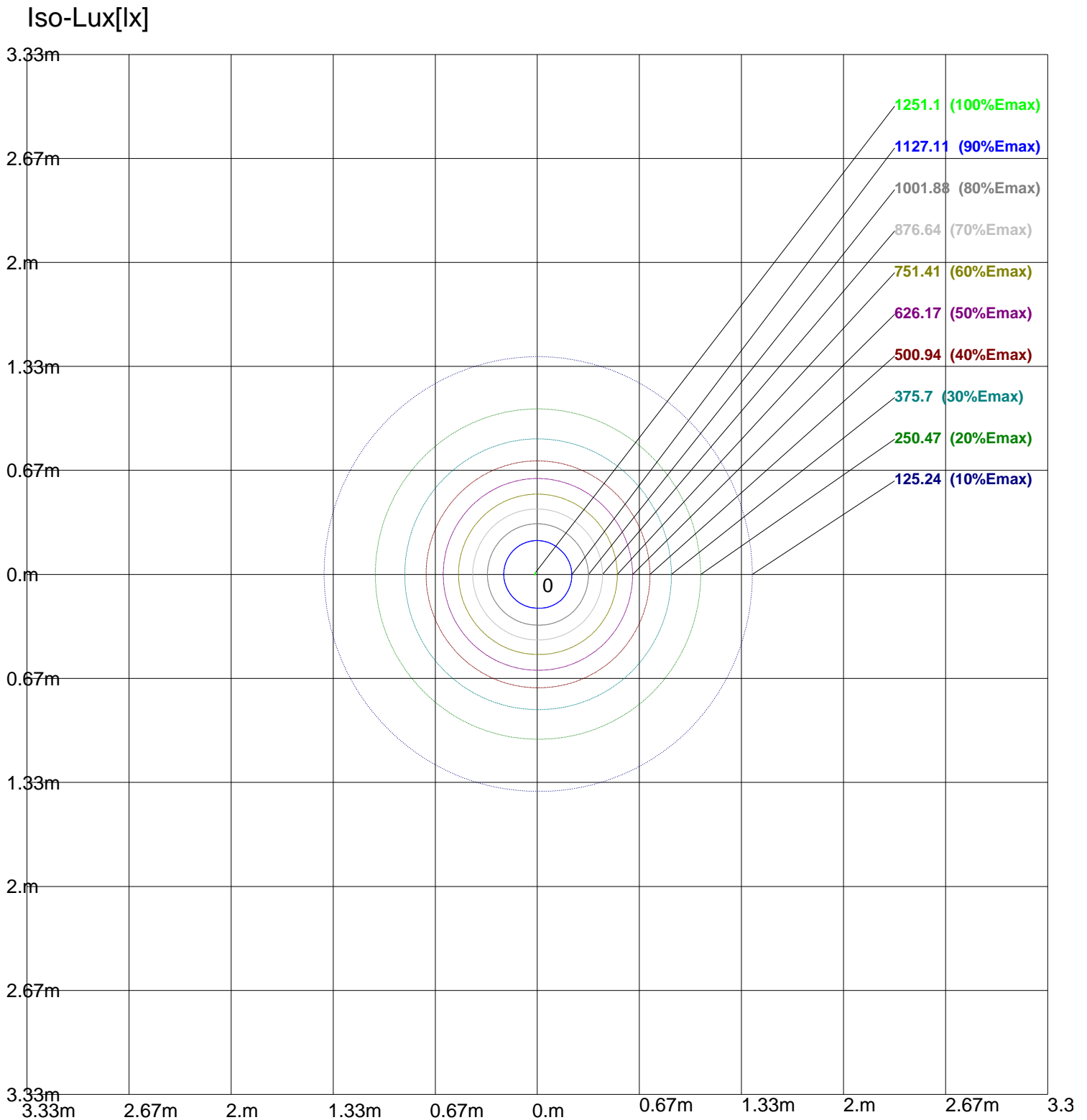
Light Distribution Curve [Unit: cd]

Luminaire



Max Plane Light Distribution Curve [Unit: cd]





Height: 1 m
Max Illuminance : 1252.35lx

Luminance Limiting Curve

Diameter: 500mm

Length: mm

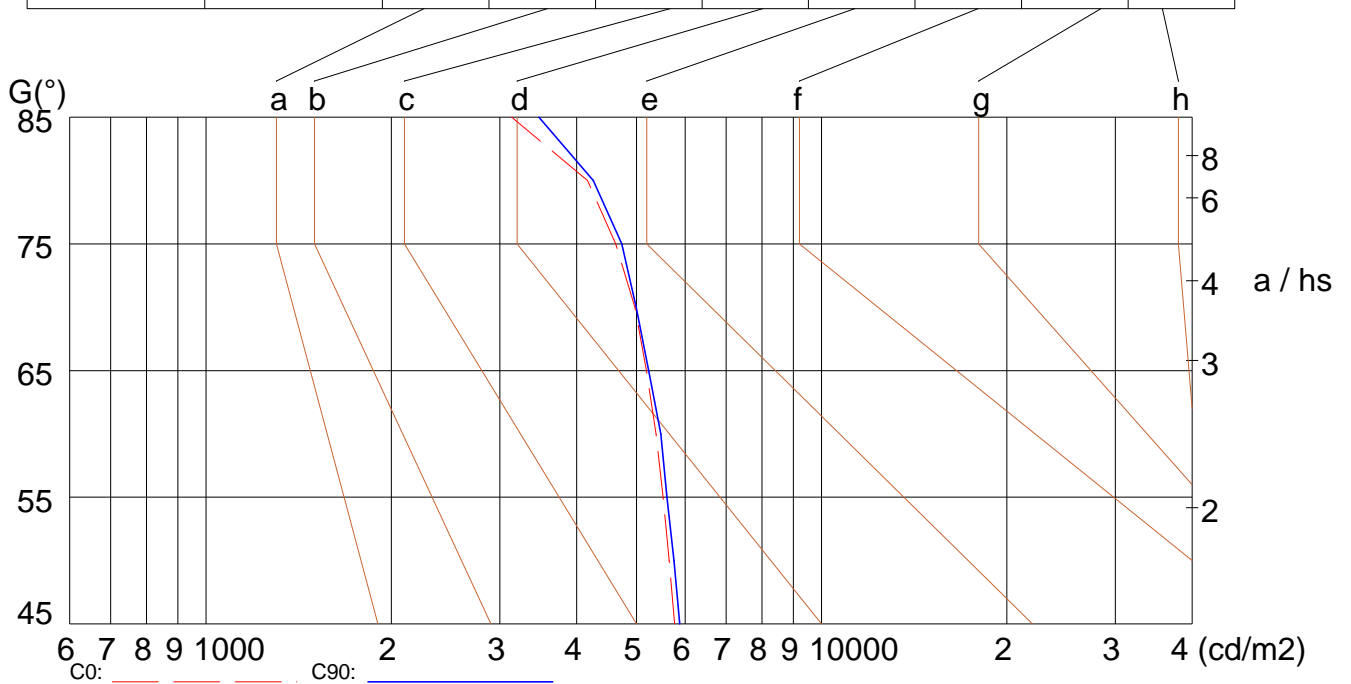
Width: 500mm

Height: 38mm

(cd/m²)

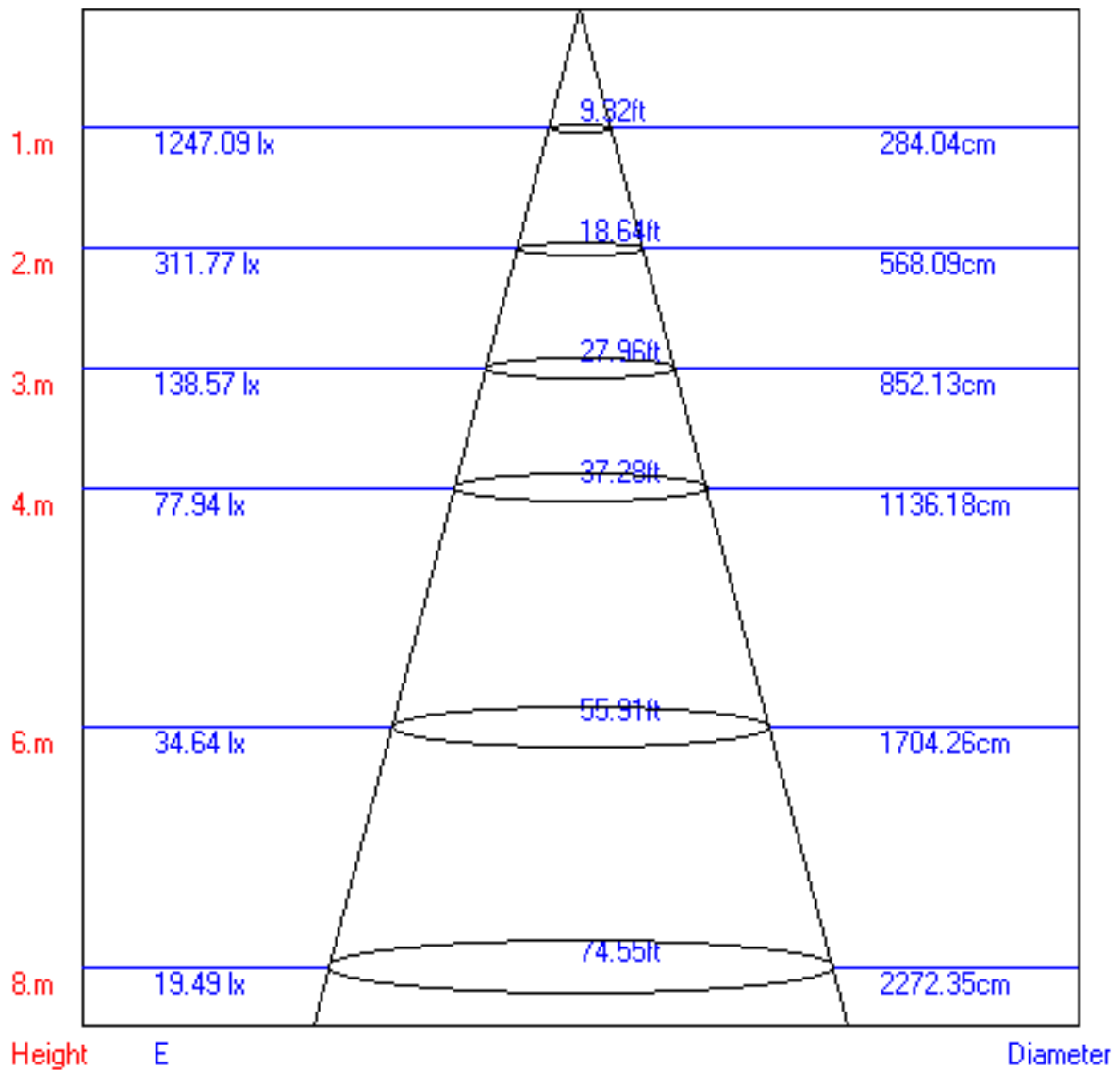
γ	45°	50°	55°	60°	65°	70°	75°	80°	85°
C0	5771	5652	5526	5384	5191	4975	4629	4166	3138
C90	5882	5758	5606	5477	5239	4998	4736	4256	3472

Glare	Quality	Service Values Illuminance (lx)							
1.15	A	2000	1000	500	≤300				
1.5	B		2000	1000	500	≤300			
1.85	C			2000	1000	500	≤300		
2.2	D				2000	1000	500	≤300	
2.55	E					2000	1000	500	≤300



Lum. Limiting Curve (C0/C90)

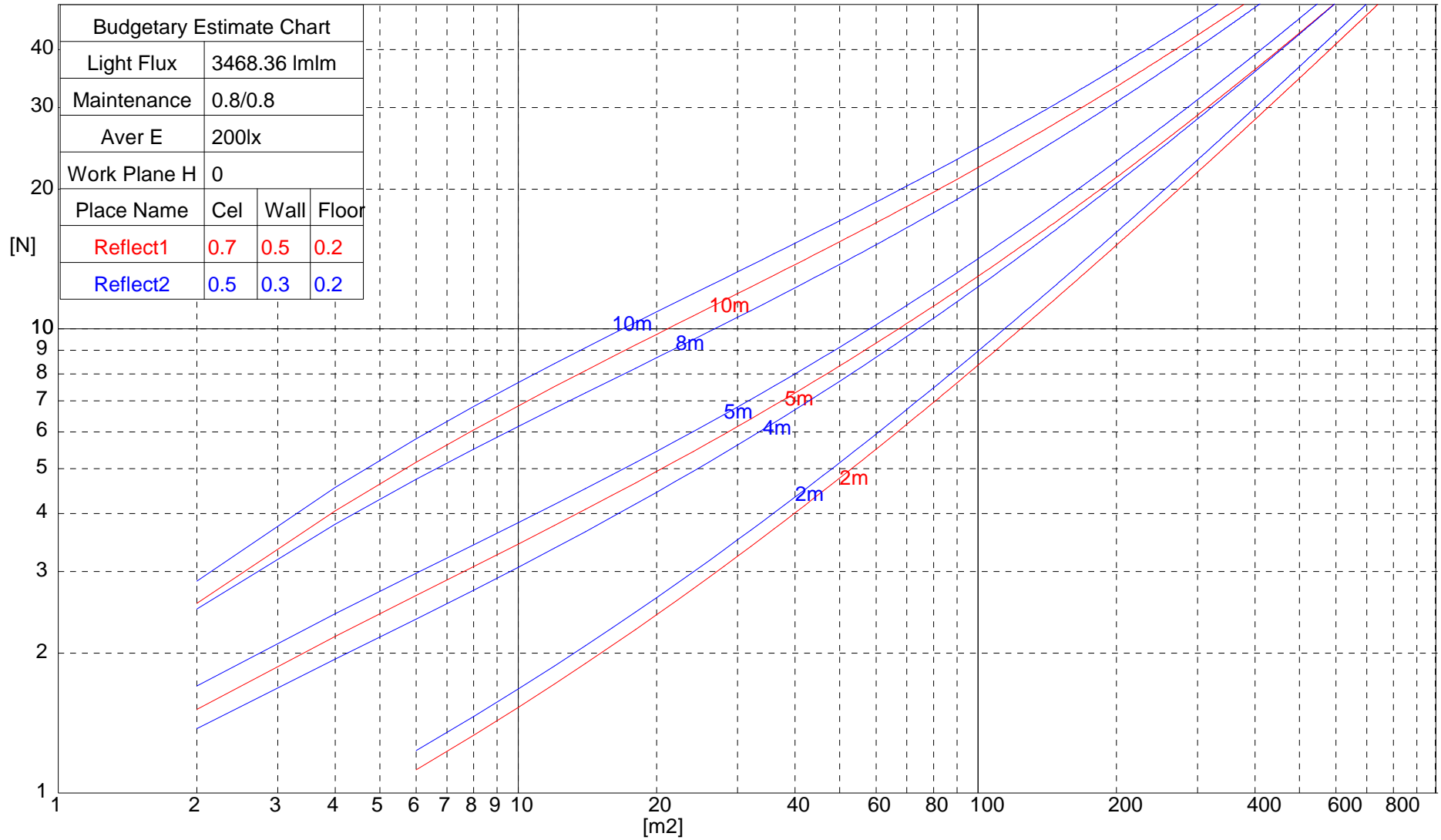
Lux-Distance Curve



Beam Angle:109.70°

Utilization Coefficient Table

RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION FOR RHOFC=20															
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.04	1.03	1.01	1.03	1.01	0.99	0.99	0.97	0.95	0.95	0.92	0.90	0.88	0.86	0.84	0.78
2	0.88	0.86	0.84	0.88	0.85	0.82	0.86	0.82	0.79	0.82	0.78	0.75	0.78	0.74	0.70	0.65
3	0.76	0.73	0.71	0.76	0.72	0.69	0.74	0.70	0.67	0.72	0.67	0.63	0.69	0.64	0.59	0.55
4	0.65	0.62	0.60	0.66	0.62	0.59	0.65	0.60	0.57	0.64	0.59	0.54	0.62	0.56	0.51	0.47
5	0.57	0.54	0.52	0.58	0.54	0.51	0.58	0.53	0.49	0.57	0.51	0.47	0.56	0.50	0.44	0.41
6	0.50	0.47	0.46	0.51	0.47	0.45	0.52	0.47	0.43	0.52	0.46	0.41	0.51	0.44	0.39	0.36
7	0.45	0.42	0.40	0.46	0.42	0.40	0.47	0.42	0.38	0.47	0.41	0.37	0.47	0.40	0.35	0.31
8	0.40	0.38	0.36	0.41	0.38	0.35	0.42	0.37	0.34	0.43	0.37	0.33	0.43	0.36	0.31	0.28
9	0.36	0.34	0.32	0.37	0.34	0.32	0.39	0.34	0.31	0.40	0.34	0.29	0.40	0.33	0.28	0.25
10	0.33	0.31	0.29	0.34	0.31	0.29	0.36	0.31	0.28	0.37	0.31	0.27	0.37	0.30	0.26	0.23



UGR Glare Index

Ceiling	70	70	50	50	30	70	70	50	50	30	
Wall	50	30	50	30	30	50	30	50	30	30	
Floor	20	20	20	20	20	20	20	20	20	20	
Room Size X Y	Weft to light axis direction of observation					Direction of light axis parallel observation					
2H	2H	14.7	16.0	14.9	15.9	16.5	14.7	15.9	14.8	16.0	16.5
	3H	16.3	17.4	16.7	17.9	17.9	16.2	17.4	16.4	17.8	18.0
	4H	16.9	18.1	17.4	18.7	18.8	16.9	18.1	17.3	18.5	18.8
	6H	17.6	18.5	18.0	18.9	18.9	17.4	18.3	17.8	18.9	19.0
	8H	17.8	18.9	18.1	19.0	19.3	17.7	18.7	17.9	19.0	19.3
4H	12H	17.9	18.8	18.1	19.2	19.5	17.7	18.7	18.1	19.2	19.6
	2H	15.7	16.6	15.9	16.8	17.0	15.6	16.6	15.8	16.9	17.0
	3H	17.5	18.4	17.7	18.4	18.8	17.3	18.2	17.6	18.3	18.7
	4H	18.3	18.9	18.5	19.1	19.5	18.0	18.9	18.4	19.1	19.6
	6H	18.8	19.5	19.1	19.8	20.2	18.7	19.5	18.9	19.7	20.0
8H	8H	19.0	19.7	19.4	20.0	20.3	19.0	19.5	19.3	20.0	20.3
	12H	19.2	19.8	19.7	20.0	20.5	19.1	19.8	19.5	20.1	20.5
	4H	18.5	19.2	18.8	19.4	19.8	18.5	19.1	18.7	19.4	19.8
	6H	19.3	19.8	19.8	20.2	20.6	19.2	19.7	19.6	20.2	20.5
	8H	19.8	20.2	20.2	20.5	20.9	19.6	20.0	20.1	20.4	21.0
12H	12H	20.0	20.4	20.4	20.9	21.1	19.8	20.3	20.3	20.8	21.2
	4H	18.6	19.2	19.1	19.6	19.8	18.5	19.0	18.9	19.4	19.8
	6H	19.5	20.0	19.9	20.2	20.7	19.4	19.9	19.8	20.2	20.6
	8H	19.9	20.3	20.4	20.5	21.1	19.8	20.2	20.3	20.6	21.0