

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2024 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P243258

Luminaire Tested: S122RDRP-H485D835-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243258
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-68)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S122RDRP-H485D835-X4F0-XX-UDD-A-W
Description: DEFINE 2 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

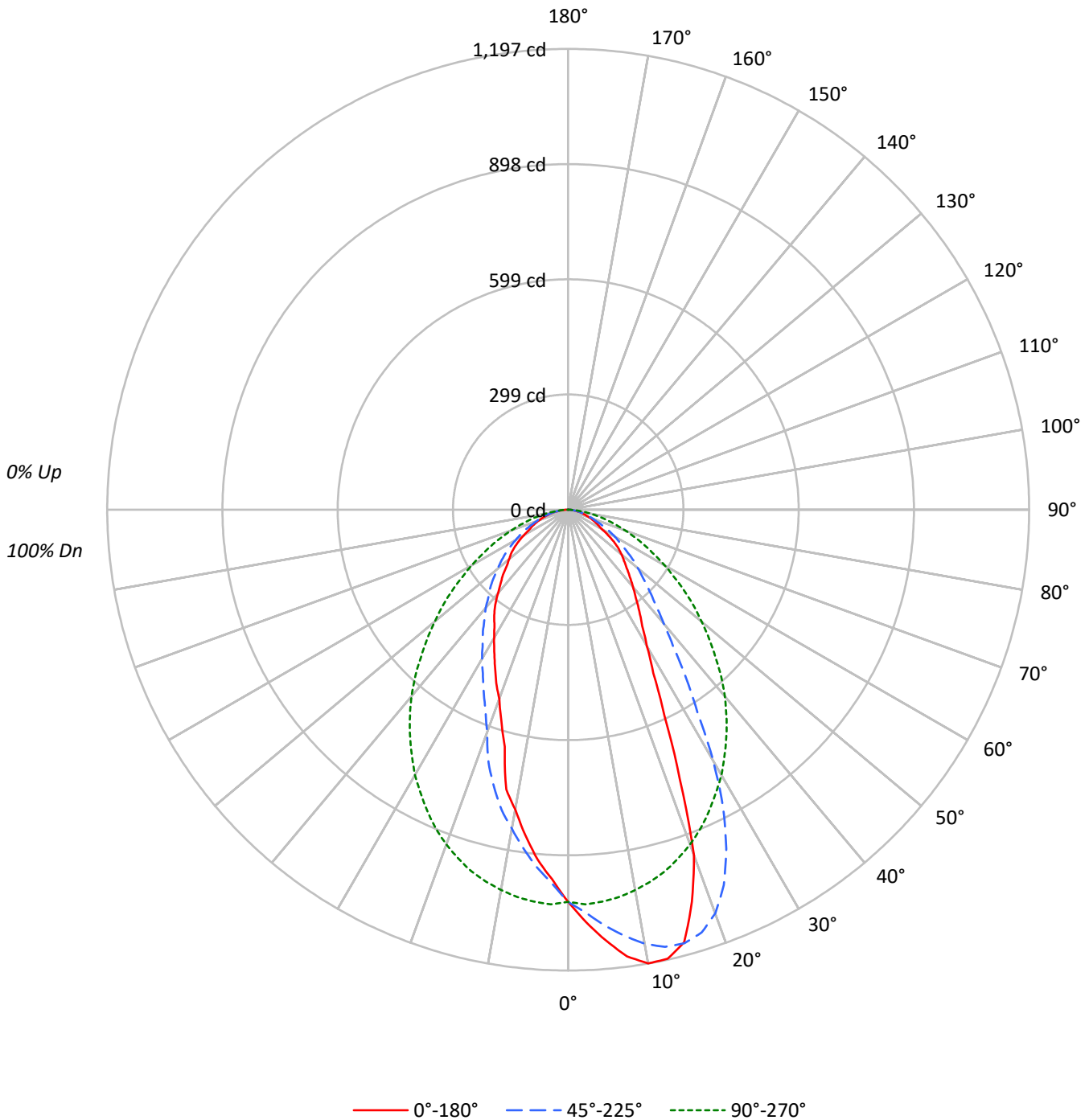
Lumens per Lamp: N/A
Luminaire Lumens: 1716.9 lumens
Efficiency: N/A
Efficacy: 99.8 lumens/watt
Spacing Criteria (0/90/45): 0.81 / 1.17 / 0.99
Luminous Opening: Rectangular (W 3.88' x L: 0.15' x H: 0')
CIE Type: Direct

Input Watts (W): 17.2
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

TEST NUMBER: P243258

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P243258

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-A-W

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20					
RC	80					70					50					30					10					0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	110	106	103	100	108	104	101	98	100	97	95	96	94	92	93	91	89					87				
2	102	95	89	84	100	93	88	83	90	85	81	86	83	79	84	80	78					76				
3	94	85	78	72	92	84	77	72	81	75	70	78	73	69	76	72	68					66				
4	87	77	69	63	85	76	68	63	73	67	62	71	65	61	69	64	60					58				
5	81	70	62	56	79	69	61	56	67	60	55	65	59	54	63	58	54					52				
6	76	64	56	50	74	63	55	50	61	54	49	60	54	49	58	53	49					47				
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44					42				
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40					38				
9	62	50	43	38	61	50	42	37	48	42	37	47	41	37	46	41	37					35				
10	59	47	39	35	58	46	39	35	45	39	34	44	38	34	44	38	34					33				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	19404	19404	19404	19404	19404
5°	21480	20728	19535	17828	17440
10°	23146	22140	19402	16280	15293
15°	22942	22987	19175	14685	12569
20°	19352	22624	18752	12474	10609
25°	12442	20416	18173	10916	9445
30°	8989	16555	17501	9831	8461
35°	7487	12394	16658	8976	7783
40°	6497	9608	15732	8280	7044
45°	5800	8046	14557	7704	6446
50°	5355	7002	13406	7073	5927
55°	4805	6044	12244	6599	5645
60°	3836	5322	11025	5992	5078
65°	3516	4521	9902	5499	4687
70°	3230	3731	8744	4884	4455
75°	2944	3334	7654	4636	4217
80°	2556	2929	6362	4245	3949
85°	2032	2404	5092	3868	3650

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 75°
 Vertical Angle: 45°
 Luminance: 19271 cd/sqm



TEST NUMBER: P243258

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.4	5.6
10°-20°	263.8	15.4
20°-30°	332.6	19.4
30°-40°	319.3	18.6
40°-50°	275.0	16.0
50°-60°	210.2	12.2
60°-70°	133.8	7.8
70°-80°	67.8	3.9
80°-90°	17.9	1.0
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	692.9	40.4
0°-40°	1012.2	59.0
0°-60°	1497.4	87.2
0°-90°	1716.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1716.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1019	1019	1019	1019	1019	
5°	1123	1084	1022	932	912	110
15°	1163	1166	972	745	637	315
25°	592	971	865	519	449	283
35°	322	533	716	386	335	203
45°	215	299	540	286	239	168
55°	145	182	369	199	170	128
65°	78	100	220	122	104	78
75°	40	45	104	63	57	42
85°	9	11	23	18	17	11
90°	0	0	0	0	0	

TEST NUMBER: P243258

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7
2.5°	1072.7	1074.1	1074.7	1073.1	1069.4	1069.7	1066.4	1060.7	1053.7	1047.4	1051.1
5°	1123.4	1125.1	1124.7	1121.7	1118.1	1114.7	1109.1	1101.1	1092.7	1084.1	1082.4
7.5°	1170.1	1173.7	1172.7	1167.1	1164.4	1159.7	1150.1	1141.1	1128.4	1116.1	1111.1
10°	1196.7	1199.7	1198.1	1196.7	1193.7	1189.1	1180.4	1171.7	1157.7	1144.7	1137.4
12.5°	1194.7	1197.4	1198.7	1200.1	1199.1	1197.4	1193.7	1186.4	1175.1	1163.1	1153.7
15°	1163.4	1159.1	1156.1	1164.4	1167.4	1178.7	1181.4	1182.4	1174.7	1165.7	1163.4
17.5°	1068.1	1069.4	1092.4	1088.7	1093.7	1121.4	1132.4	1147.4	1153.7	1151.7	1155.7
20°	954.7	939.1	950.4	967.1	982.7	1023.1	1049.7	1073.4	1100.7	1116.1	1130.7
22.5°	757.4	757.7	785.0	812.4	847.7	891.4	932.1	977.4	1026.1	1055.7	1090.1
25°	592.0	608.0	620.0	632.0	683.4	725.4	793.0	848.0	915.1	971.4	1029.1
27.5°	478.7	495.4	497.4	524.4	554.7	588.7	633.0	719.7	788.4	871.1	942.4
30°	408.7	412.0	419.0	426.0	448.4	480.0	527.7	582.0	658.4	752.7	848.4
32.5°	358.0	357.4	364.4	375.4	387.7	409.0	436.0	481.0	550.0	625.0	736.7
35°	322.0	321.0	326.0	330.0	337.4	354.7	379.0	408.7	458.4	533.0	619.7
37.5°	288.0	290.0	293.0	297.4	307.0	318.0	334.4	359.0	398.4	447.7	530.7
40°	261.3	263.7	267.0	270.0	277.3	286.3	297.4	317.0	343.4	386.4	450.0
42.5°	237.3	238.3	241.0	245.3	250.7	258.7	269.3	284.3	306.4	336.4	392.0
45°	215.3	215.3	218.3	222.3	225.7	233.3	241.7	256.0	273.0	298.7	338.4
47.5°	196.7	197.0	198.7	199.3	203.0	210.0	219.0	230.3	244.3	264.0	301.0
50°	180.7	182.0	182.7	183.7	185.0	188.7	195.0	203.7	219.0	236.3	261.0
52.5°	164.0	165.7	167.0	169.0	171.0	171.3	176.0	181.7	192.3	210.3	230.3
55°	144.7	146.0	148.7	150.3	153.0	155.3	159.0	163.0	170.0	182.0	202.7
57.5°	122.7	123.0	125.7	127.3	132.7	138.0	141.3	145.7	150.7	159.0	174.7
60°	100.7	101.7	102.0	103.3	108.0	113.7	120.3	127.0	132.3	139.7	150.7
62.5°	88.7	89.0	90.0	91.3	91.7	94.3	96.3	104.3	113.7	121.0	128.3
65°	78.0	78.3	78.3	79.3	80.7	82.0	83.0	86.0	90.0	100.3	109.3
67.5°	68.0	67.7	68.3	69.3	69.7	70.7	72.3	74.0	76.7	79.7	89.0
70°	58.0	58.0	57.7	58.7	59.7	60.0	61.0	62.7	64.3	67.0	70.0
72.5°	48.0	48.7	48.7	49.3	49.7	51.0	51.7	52.3	54.7	56.0	58.3
75°	40.0	39.7	40.7	40.3	41.0	41.3	42.3	43.3	44.0	45.3	47.3
77.5°	32.0	31.3	32.0	31.7	32.3	33.0	33.0	34.0	34.7	36.0	37.0
80°	23.3	23.3	23.7	24.3	24.3	24.7	25.3	25.0	26.3	26.7	27.7
82.5°	16.0	16.3	16.3	16.7	16.7	16.7	17.3	17.3	17.7	18.3	18.7
85°	9.3	9.0	9.3	9.3	9.3	9.7	10.0	9.7	10.3	11.0	11.0
87.5°	2.7	2.7	3.0	3.3	3.3	3.7	3.7	3.7	4.0	4.0	4.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243258

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7
2.5°	1051.1	1049.4	1045.1	1041.1	1033.7	1027.7	1025.7	1026.1	1017.1	1007.7	1005.1
5°	1080.1	1074.1	1065.4	1056.4	1045.4	1034.4	1027.4	1021.7	1007.7	993.7	985.7
7.5°	1104.1	1094.4	1081.7	1067.4	1053.1	1036.7	1025.4	1014.7	995.4	976.4	966.1
10°	1126.1	1112.4	1095.1	1076.4	1057.4	1036.1	1019.7	1003.1	978.7	957.4	939.7
12.5°	1147.1	1125.4	1107.7	1080.7	1059.7	1030.7	1008.4	989.1	960.4	933.7	914.1
15°	1149.1	1133.7	1110.1	1082.1	1050.1	1023.1	995.1	972.4	939.7	910.1	876.4
17.5°	1148.7	1136.7	1112.1	1083.4	1045.1	1009.7	979.4	949.7	912.4	877.7	848.7
20°	1136.7	1128.4	1107.1	1073.1	1034.4	993.7	960.1	925.1	881.4	845.7	814.0
22.5°	1108.4	1110.4	1093.7	1063.4	1021.7	976.4	937.4	897.1	852.4	811.4	771.4
25°	1060.4	1081.7	1076.7	1048.4	1004.1	954.4	910.1	864.7	816.7	773.0	736.0
27.5°	1000.7	1040.7	1049.4	1027.4	985.1	929.4	879.1	829.7	780.7	733.7	695.7
30°	930.1	989.7	1011.7	999.7	960.7	902.4	844.0	795.7	742.0	692.0	652.0
32.5°	841.0	924.7	963.4	967.1	935.1	872.4	807.7	755.7	700.7	653.4	610.4
35°	741.7	844.4	907.4	924.4	901.4	839.4	771.4	716.4	657.7	610.0	566.7
37.5°	641.7	762.4	845.0	878.1	862.7	802.7	730.7	675.0	617.0	568.4	527.7
40°	549.7	664.4	771.7	823.4	818.7	763.0	690.4	632.7	573.7	528.7	484.0
42.5°	467.4	578.0	696.0	765.4	769.0	720.4	646.0	588.0	531.4	486.7	440.0
45°	402.4	499.7	616.7	699.4	715.4	675.4	600.0	540.4	488.7	446.7	400.0
47.5°	350.4	426.0	534.7	631.7	660.0	625.0	553.0	496.4	447.7	411.7	367.7
50°	305.4	376.4	468.7	558.4	600.0	573.7	506.4	452.4	408.4	373.7	335.0
52.5°	265.3	320.4	400.4	486.4	542.4	518.4	461.0	411.4	370.0	337.7	305.4
55°	232.3	278.3	349.0	425.7	477.4	464.0	413.0	368.7	332.4	301.7	275.3
57.5°	198.3	237.0	294.0	362.4	413.0	411.0	369.0	326.4	297.7	268.7	249.7
60°	168.7	200.0	246.3	304.4	355.4	355.7	323.0	289.4	264.7	239.7	221.7
62.5°	142.3	167.3	207.7	254.3	295.0	305.4	281.0	251.7	231.7	212.3	197.0
65°	119.7	138.3	168.7	211.0	243.0	257.0	241.0	219.7	203.0	185.7	172.0
67.5°	98.7	112.3	134.7	168.0	200.0	210.3	203.7	187.3	175.3	161.0	150.7
70°	77.7	89.3	105.0	130.0	156.3	170.7	168.7	157.0	147.0	136.7	127.0
72.5°	61.7	68.3	80.3	98.3	119.3	135.3	136.0	130.0	121.7	113.0	106.7
75°	49.7	52.7	58.3	72.3	89.0	102.3	107.0	104.0	97.3	92.0	87.7
77.5°	38.3	41.0	44.7	51.3	64.3	74.7	80.3	80.7	76.7	72.0	68.7
80°	28.7	29.7	32.3	35.7	42.3	51.3	58.0	58.0	55.7	53.3	51.3
82.5°	19.7	20.7	22.0	23.7	27.0	32.3	38.3	39.3	38.0	37.3	34.7
85°	11.0	12.0	12.7	13.7	15.0	17.7	22.0	23.3	23.7	21.7	20.3
87.5°	4.3	4.3	4.7	5.0	5.3	6.3	8.0	10.0	10.0	9.0	8.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TEST NUMBER: P243258

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7	1018.7
2.5°	1001.7	997.1	991.1	985.7	978.4	971.1	969.7	972.4	973.1	969.7	970.7
5°	978.1	969.4	962.1	950.1	942.4	932.4	925.7	925.7	925.7	920.7	916.1
7.5°	953.4	941.7	927.7	916.4	900.7	887.7	881.4	878.4	872.4	867.4	861.7
10°	924.7	908.4	891.1	873.4	859.7	841.7	831.0	824.4	814.0	809.7	801.4
12.5°	891.1	874.7	853.7	825.0	821.0	799.0	784.0	771.7	759.0	748.7	745.0
15°	864.1	835.7	807.7	787.4	757.7	744.7	722.7	720.7	710.4	680.0	656.4
17.5°	820.4	795.0	764.0	741.4	717.7	688.7	665.4	642.4	620.4	599.0	598.4
20°	781.7	752.0	722.7	698.0	656.7	615.4	601.0	580.0	567.0	550.0	545.0
22.5°	739.4	708.4	671.7	635.7	587.4	561.4	545.7	529.0	516.0	508.4	500.7
25°	696.7	665.7	617.0	572.7	539.7	519.4	506.0	488.0	478.7	472.0	462.0
27.5°	655.0	615.7	564.4	529.0	502.4	479.4	467.4	452.7	442.4	433.7	427.4
30°	613.7	559.7	516.0	488.7	461.4	447.0	431.4	420.4	412.7	404.7	394.4
32.5°	568.4	511.7	483.4	449.7	433.7	413.0	401.7	390.4	380.4	374.7	371.0
35°	515.7	470.0	444.7	420.0	399.7	386.0	370.0	363.0	357.7	346.7	342.0
37.5°	471.0	438.0	411.4	389.4	370.7	356.0	348.7	336.7	329.0	325.4	320.4
40°	434.0	404.7	381.7	359.4	343.7	333.0	320.0	313.7	303.7	300.0	296.0
42.5°	402.0	375.0	351.0	334.0	320.4	305.7	299.0	288.4	284.0	275.0	271.7
45°	369.7	345.7	324.7	308.0	295.0	286.0	274.0	267.3	259.7	255.0	246.0
47.5°	337.4	316.0	298.7	284.7	273.3	262.3	252.3	246.7	237.0	232.0	227.3
50°	312.4	291.7	275.3	261.3	249.7	238.7	232.3	223.0	214.3	208.7	207.0
52.5°	282.7	264.7	249.7	239.0	227.3	219.3	210.7	200.3	196.0	190.3	189.0
55°	256.3	241.7	229.0	217.7	207.7	198.7	188.7	181.3	178.0	175.3	173.3
57.5°	231.7	217.7	206.0	195.7	187.0	177.7	169.3	165.0	162.0	159.0	157.0
60°	207.3	194.7	184.0	175.3	166.3	157.3	151.3	147.7	145.3	141.0	139.7
62.5°	185.7	174.0	163.0	155.0	146.7	139.7	134.7	129.7	126.0	122.7	115.7
65°	162.0	151.7	143.3	135.3	127.3	122.0	116.3	110.7	106.0	106.0	106.0
67.5°	141.0	132.0	123.3	116.3	109.3	103.0	97.3	97.0	95.3	94.7	93.7
70°	119.7	113.3	105.3	97.7	90.7	87.7	86.7	85.0	83.0	82.7	81.3
72.5°	100.3	93.0	85.7	79.0	77.7	76.3	74.3	72.7	71.3	70.3	69.7
75°	82.0	74.7	68.7	67.0	65.3	63.0	61.3	60.0	59.3	59.3	59.0
77.5°	62.7	58.3	55.7	53.0	51.7	50.3	49.3	48.7	47.7	48.0	47.3
80°	46.0	44.7	42.3	40.7	40.0	38.7	38.0	37.7	37.0	37.0	36.7
82.5°	33.0	30.7	29.7	28.7	28.0	27.3	27.7	27.3	27.0	26.7	27.0
85°	19.0	18.7	18.0	18.0	18.0	17.7	17.7	17.7	17.3	17.0	17.0
87.5°	8.3	8.7	8.7	8.0	9.0	9.0	8.7	8.7	8.3	9.0	8.3
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P243258

CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1018.7	1018.7	1018.7	1018.7
2.5°	966.4	966.1	964.1	960.7
5°	914.1	912.7	909.4	912.1
7.5°	858.0	854.4	851.0	852.7
10°	798.0	796.7	794.7	790.7
12.5°	731.7	737.0	731.4	744.0
15°	633.4	657.0	627.4	637.4
17.5°	584.4	584.7	580.7	576.0
20°	538.4	526.7	531.0	523.4
22.5°	494.0	491.4	490.0	487.4
25°	454.4	449.4	447.7	449.4
27.5°	425.0	422.7	416.4	415.4
30°	388.4	387.4	385.4	384.7
32.5°	365.4	361.0	360.0	356.0
35°	339.7	337.4	335.7	334.7
37.5°	314.0	312.7	309.7	311.4
40°	293.0	286.3	283.7	283.3
42.5°	270.0	266.3	261.0	259.3
45°	243.3	241.7	240.0	239.3
47.5°	220.0	219.0	217.0	216.0
50°	203.3	200.7	200.3	200.0
52.5°	187.3	186.3	185.3	186.7
55°	172.3	171.0	170.0	170.0
57.5°	156.0	153.7	151.7	152.0
60°	137.0	135.7	134.0	133.3
62.5°	115.0	115.0	114.7	114.7
65°	104.7	104.0	103.7	104.0
67.5°	93.3	92.7	91.7	92.0
70°	80.3	80.0	80.3	80.0
72.5°	68.7	68.3	68.7	69.3
75°	58.0	57.7	57.3	57.3
77.5°	47.0	46.7	46.0	46.7
80°	36.7	36.3	36.0	36.0
82.5°	26.0	26.3	26.0	26.0
85°	17.0	17.3	17.0	16.7
87.5°	8.7	9.0	8.3	8.0
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243258
 CATALOG NUMBER: S122RDRP-H485D835-X4F0-XX-UDD-A-W

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	15.14	16.60	15.51	16.91	17.23	21.48	22.93	21.84	23.24	23.56
	3H	16.32	17.62	16.69	17.95	18.31	22.73	24.03	23.10	24.36	24.72
	4H	16.77	17.99	17.17	18.34	18.72	23.16	24.38	23.56	24.73	25.11
	6H	17.10	18.23	17.52	18.60	18.99	23.45	24.58	23.87	24.95	25.34
	8H	17.20	18.27	17.63	18.66	19.07	23.54	24.61	23.97	25.00	25.40
	12H	17.26	18.28	17.69	18.66	19.09	23.59	24.61	24.02	24.99	25.42
4H	2H	15.87	17.09	16.27	17.44	17.82	21.46	22.68	21.86	23.03	23.41
	3H	17.20	18.21	17.61	18.61	19.01	22.84	23.85	23.25	24.25	24.66
	4H	17.75	18.65	18.18	19.07	19.51	23.37	24.28	23.81	24.70	25.14
	6H	18.18	18.97	18.64	19.41	19.87	23.79	24.58	24.25	25.02	25.48
	8H	18.31	19.04	18.77	19.49	19.96	23.92	24.66	24.39	25.10	25.57
	12H	18.39	19.04	18.87	19.52	20.00	24.01	24.67	24.50	25.15	25.62
8H	4H	18.09	18.83	18.56	19.27	19.74	23.37	24.11	23.83	24.55	25.02
	6H	18.62	19.22	19.11	19.71	20.19	23.83	24.44	24.33	24.93	25.41
	8H	18.80	19.34	19.32	19.86	20.35	24.00	24.55	24.52	25.06	25.55
	12H	18.93	19.41	19.45	19.91	20.47	24.15	24.63	24.66	25.12	25.69
12H	4H	18.13	18.79	18.62	19.27	19.74	23.35	24.00	23.83	24.48	24.96
	6H	18.68	19.22	19.19	19.73	20.22	23.81	24.36	24.33	24.87	25.36
	8H	18.91	19.39	19.42	19.89	20.45	24.02	24.50	24.53	24.99	25.56