

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: P243789

Luminaire Tested: S125RDRP-H610D935-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243789
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-71)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-H610D935-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

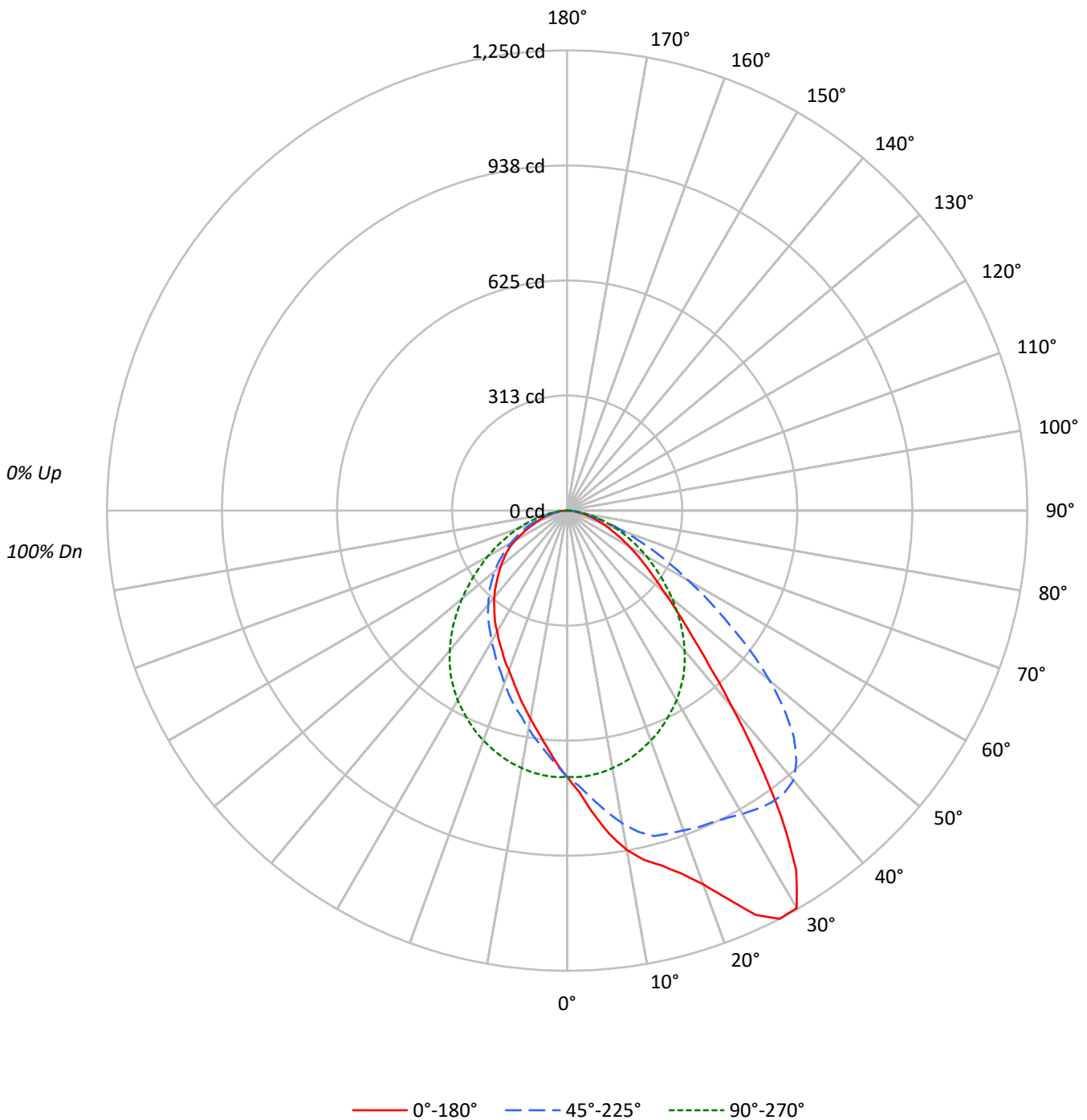
Lumens per Lamp: N/A
Luminaire Lumens: 1926.3 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot



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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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88					86				
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75					73				
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65					63				
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56					54				
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50					48				
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44					42				
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39					37				
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35					33				
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32					30				
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29					27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	5144	5144	5144	5144	5144
5°	5905	5611	5152	4697	4582
10°	6757	6224	5126	4348	4143
15°	7348	6734	5085	4048	3789
20°	8166	6992	5027	3768	3491
25°	9502	7324	4956	3552	3286
30°	10231	7808	4882	3368	3119
35°	8790	8399	4774	3222	2983
40°	6476	8875	4601	3091	2859
45°	4782	8755	4387	2977	2712
50°	3789	7946	4125	2853	2602
55°	3201	6632	3823	2678	2503
60°	2758	5417	3541	2513	2317
65°	2393	4373	3224	2307	2018
70°	2099	3323	2953	2086	1766
75°	1782	2419	2584	1845	1670
80°	1388	1752	2161	1621	1388
85°	1215	1288	1729	1378	1264

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8755 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	69.7	3.6
10°-20°	206.1	10.7
20°-30°	328.8	17.1
30°-40°	399.2	20.7
40°-50°	359.7	18.7
50°-60°	276.6	14.4
60°-70°	179.5	9.3
70°-80°	86.4	4.5
80°-90°	20.4	1.1
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°	604.5	31.4
0°-40°	1003.7	52.1
0°-60°	1640.0	85.1
0°-90°	1926.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1926.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	724	724	724	724	724	
5°	828	786	722	658	642	82
15°	999	915	691	550	515	286
25°	1212	934	632	453	419	554
35°	1013	968	550	371	344	620
45°	476	871	436	296	270	378
55°	258	535	308	216	202	234
65°	142	260	192	137	120	143
75°	65	88	94	67	61	70
85°	15	16	21	17	16	17
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8
2.5°	765.7	768.6	766.3	767.7	765.4	764.3	761.4	757.1	752.8	748.8	748.5
5°	827.7	827.1	824.8	821.7	819.4	813.6	810.8	801.0	794.4	786.4	782.4
7.5°	886.8	885.4	881.9	877.6	875.6	868.2	860.1	847.8	837.5	824.8	815.4
10°	936.2	935.9	933.3	930.4	922.7	914.4	906.6	893.7	878.2	862.4	849.2
12.5°	972.3	970.9	967.7	962.9	956.6	950.8	940.5	928.7	909.8	893.7	875.6
15°	998.7	998.2	993.6	991.9	979.5	971.5	957.7	945.9	931.3	915.2	895.7
17.5°	1033.8	1034.9	1030.9	1021.1	1009.9	997.6	978.1	958.9	938.5	919.8	904.0
20°	1079.7	1076.8	1069.9	1058.2	1038.1	1022.9	1003.3	979.5	952.0	924.4	901.7
22.5°	1141.1	1137.9	1127.0	1112.7	1087.4	1059.6	1029.7	994.2	962.6	931.0	901.2
25°	1211.7	1205.7	1189.6	1174.1	1138.2	1108.7	1064.2	1021.7	975.8	933.9	900.3
27.5°	1250.2	1250.2	1242.7	1225.8	1197.3	1153.7	1108.4	1051.8	998.7	941.3	893.7
30°	1246.7	1244.7	1247.6	1240.4	1222.0	1189.3	1144.3	1084.8	1017.1	951.4	894.3
32.5°	1157.7	1158.6	1175.8	1187.6	1196.8	1188.7	1159.5	1105.8	1038.4	961.1	892.0
35°	1013.1	1015.4	1045.8	1065.9	1106.9	1130.5	1137.4	1108.4	1047.8	968.0	888.0
37.5°	847.8	847.8	883.1	913.5	959.4	1017.4	1060.7	1071.6	1042.1	967.7	884.5
40°	698.0	697.1	725.0	762.3	811.3	875.3	939.9	995.3	1002.5	956.6	872.5
42.5°	571.1	569.7	600.1	620.8	672.4	729.5	815.4	893.7	938.5	921.8	854.7
45°	475.8	474.7	494.5	518.0	554.5	613.9	685.9	772.9	848.1	871.0	821.4
47.5°	404.1	404.7	415.3	435.1	466.1	508.6	573.1	653.8	746.8	799.9	779.5
50°	342.7	344.7	352.7	367.6	390.3	424.5	479.9	552.8	648.3	718.6	722.9
52.5°	296.8	299.6	308.2	316.3	335.2	359.3	402.4	465.5	544.4	628.8	658.9
55°	258.3	259.7	264.6	273.2	287.3	307.4	338.7	386.9	460.1	535.2	588.3
57.5°	226.2	226.2	229.3	235.3	246.5	264.6	285.6	325.5	387.2	455.2	511.7
60°	194.0	195.2	197.5	204.1	211.5	225.3	245.7	270.9	324.3	381.1	442.0
62.5°	167.0	169.0	171.3	174.5	181.4	191.1	205.5	228.7	264.6	317.1	371.4
65°	142.3	144.4	144.6	148.4	153.0	161.0	171.9	188.8	218.7	260.0	304.8
67.5°	120.5	121.4	122.3	125.1	129.4	134.6	141.8	154.4	177.9	205.8	249.4
70°	101.0	101.6	101.9	105.0	107.0	111.6	115.4	123.4	138.3	159.9	193.7
72.5°	82.7	81.8	81.5	84.1	85.0	88.7	93.3	99.0	107.0	122.3	147.5
75°	64.9	65.1	65.4	66.9	67.2	68.9	71.7	75.5	79.2	88.1	104.2
77.5°	49.9	48.8	48.8	50.5	51.1	51.4	53.4	55.4	57.4	62.6	68.9
80°	33.9	34.4	34.4	34.4	34.7	35.3	36.4	38.2	39.6	42.8	43.9
82.5°	24.1	24.1	23.8	24.4	24.7	25.0	25.0	25.0	25.8	26.7	27.8
85°	14.9	15.2	14.3	14.9	15.2	15.2	15.2	15.2	16.1	15.8	16.1
87.5°	6.3	6.6	6.6	6.9	6.9	7.2	6.9	7.2	6.9	6.9	7.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8
2.5°	747.6	744.2	742.5	739.0	734.4	731.6	728.7	724.7	721.5	716.6	712.3
5°	775.2	768.3	762.0	753.4	745.0	737.9	730.4	722.1	714.6	706.3	697.4
7.5°	805.9	795.0	781.8	766.6	753.7	742.5	729.8	717.5	706.3	693.1	681.0
10°	835.4	817.9	800.4	780.1	761.1	744.5	727.5	710.3	695.7	679.3	664.4
12.5°	858.4	841.8	815.6	790.4	765.7	744.2	722.9	702.0	682.8	664.7	646.9
15°	878.5	850.9	828.8	801.3	771.2	741.9	715.5	691.1	667.8	646.6	628.5
17.5°	884.2	859.6	835.4	803.3	770.9	737.6	707.2	678.2	652.3	628.8	608.4
20°	883.7	858.7	832.6	801.9	767.4	731.0	697.1	664.7	635.4	608.4	586.6
22.5°	875.0	850.9	824.5	793.5	758.5	720.9	685.3	649.5	617.6	589.5	567.1
25°	865.9	835.4	807.9	776.6	743.3	708.6	670.7	632.0	598.7	569.4	544.1
27.5°	857.8	821.4	787.5	756.8	722.7	691.4	653.8	613.3	579.2	548.4	522.3
30°	844.9	806.5	765.4	731.8	698.8	666.1	631.7	594.9	557.6	526.3	500.2
32.5°	833.7	785.2	740.7	702.9	669.8	641.1	608.1	572.8	536.4	506.5	478.4
35°	821.4	763.4	716.9	672.4	639.4	608.1	582.0	550.2	514.0	482.4	457.2
37.5°	806.7	741.0	687.6	642.3	608.1	576.0	552.5	524.1	491.3	460.1	435.1
40°	790.4	718.1	656.6	609.9	573.1	541.0	521.2	495.9	468.1	437.1	413.8
42.5°	769.7	693.7	628.5	577.4	536.7	507.7	487.9	466.9	441.4	414.4	389.2
45°	743.6	663.2	594.9	541.0	500.8	472.7	452.0	436.5	416.1	390.9	367.1
47.5°	711.7	631.4	560.5	504.5	465.8	438.8	419.6	404.1	388.6	366.8	344.1
50°	669.6	594.9	526.9	469.8	428.8	402.7	385.4	373.1	359.0	341.2	320.6
52.5°	623.1	553.9	487.3	433.9	394.3	368.2	350.4	340.1	329.5	314.8	297.0
55°	569.1	512.9	449.4	397.2	358.5	332.6	318.6	308.5	299.6	288.4	273.5
57.5°	512.0	462.6	407.5	359.3	322.9	298.5	286.1	277.8	270.3	262.3	250.0
60°	452.0	417.0	364.8	320.6	288.7	268.6	256.9	249.1	242.2	235.6	226.4
62.5°	389.5	360.5	321.4	283.8	255.4	236.5	227.9	221.3	214.1	208.4	201.8
65°	326.0	309.4	282.4	247.1	221.0	205.5	197.2	191.7	188.3	181.7	176.5
67.5°	268.3	259.2	236.2	212.4	192.3	178.2	170.5	166.5	162.7	159.6	153.8
70°	213.5	206.9	193.7	176.8	161.0	149.0	143.2	142.1	136.9	133.7	130.9
72.5°	162.7	161.0	150.1	142.6	133.7	124.3	120.0	117.7	114.2	111.4	110.2
75°	115.7	118.2	114.8	111.1	106.8	99.0	95.3	94.1	91.0	90.1	88.7
77.5°	78.9	82.7	83.8	82.1	80.1	77.5	74.9	73.8	70.6	70.0	69.2
80°	49.7	55.1	57.1	56.8	56.0	56.3	53.1	52.8	51.4	50.5	51.4
82.5°	30.1	33.0	36.7	37.6	36.4	37.0	36.2	35.0	35.0	35.6	34.4
85°	16.4	16.6	18.4	19.5	21.0	22.1	21.0	21.2	21.0	21.0	20.1
87.5°	7.2	7.5	7.5	7.2	7.7	8.3	9.5	10.0	9.8	8.9	7.7
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8	723.8
2.5°	708.9	706.9	703.4	700.6	694.0	689.4	688.8	689.1	688.5	687.9	687.6
5°	691.7	685.1	678.7	673.3	665.8	658.4	654.9	653.5	652.9	649.8	651.5
7.5°	673.3	663.2	655.8	645.5	636.6	630.2	624.2	621.3	620.8	616.5	615.3
10°	653.8	641.7	630.5	620.2	611.3	602.4	595.2	592.6	589.2	585.8	580.6
12.5°	634.5	619.6	607.3	595.8	583.7	573.7	568.0	564.2	559.9	556.8	555.0
15°	611.6	599.0	583.7	571.4	559.1	550.2	542.4	535.5	531.5	528.9	521.8
17.5°	590.9	574.3	559.9	548.2	534.7	524.6	516.6	510.9	504.0	498.8	494.2
20°	568.8	551.6	538.4	524.3	510.6	498.2	488.2	483.6	478.7	473.8	471.2
22.5°	545.0	530.1	515.2	500.5	485.9	472.7	466.4	459.8	455.5	450.6	447.1
25°	524.3	508.0	493.1	476.7	460.6	452.9	444.3	437.7	434.2	429.3	425.6
27.5°	502.2	486.5	468.7	451.7	442.3	429.1	423.3	418.2	413.6	408.7	406.1
30°	481.6	463.2	445.4	432.2	419.9	410.4	405.0	398.6	392.3	390.0	386.6
32.5°	459.8	440.0	424.5	411.3	400.9	389.5	384.3	379.1	373.1	370.2	367.1
35°	437.1	417.9	402.7	390.6	380.0	371.4	365.6	360.2	356.4	352.1	349.8
37.5°	413.3	396.6	382.0	369.9	360.2	353.3	346.1	341.8	336.6	332.6	330.9
40°	390.6	375.7	361.6	350.4	341.5	333.2	326.9	321.4	318.3	314.8	312.0
42.5°	370.2	354.7	342.7	330.9	322.9	314.8	308.5	304.5	299.0	297.6	293.6
45°	348.4	334.1	322.0	311.1	302.8	296.2	288.7	283.8	280.4	277.0	275.5
47.5°	326.3	313.1	301.9	291.9	283.3	275.8	270.1	264.9	261.2	258.0	256.3
50°	304.8	293.3	282.1	272.4	263.5	258.0	251.1	245.4	242.5	239.1	237.1
52.5°	282.1	272.6	260.6	252.3	243.9	236.8	229.9	226.2	223.3	220.4	219.0
55°	260.9	250.8	240.5	231.6	223.6	216.1	210.7	207.8	204.1	202.3	202.0
57.5°	239.1	228.7	220.1	212.1	202.9	197.2	192.3	188.8	185.7	184.3	184.3
60°	215.2	206.9	198.9	190.0	183.4	176.8	171.6	169.3	166.2	165.6	163.6
62.5°	193.4	185.7	177.9	169.6	163.6	157.0	153.3	150.1	148.4	146.1	143.8
65°	170.8	163.9	156.4	149.2	144.4	137.2	133.7	130.0	128.0	125.4	122.5
67.5°	149.0	142.3	135.5	128.9	124.8	118.0	115.7	111.1	109.6	106.8	104.2
70°	126.0	121.4	115.9	109.3	105.9	100.4	98.2	93.8	91.6	89.8	88.4
72.5°	106.2	101.9	95.6	91.3	87.0	83.5	79.8	77.8	75.8	74.3	74.0
75°	86.7	81.2	77.5	73.5	70.6	67.2	65.4	64.0	63.1	62.3	61.4
77.5°	66.3	64.0	60.3	56.3	54.0	52.5	51.4	50.8	49.9	49.7	48.8
80°	49.4	46.2	43.9	42.5	40.8	39.6	38.7	36.7	35.6	35.0	34.4
82.5°	32.7	31.9	30.1	28.7	27.3	27.0	26.1	25.5	25.3	25.3	25.0
85°	19.8	17.5	17.5	17.2	17.2	16.9	16.4	16.4	15.8	16.6	16.6
87.5°	8.0	8.0	7.5	7.5	7.7	7.2	6.9	6.9	6.9	6.6	6.9
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: P243789

CATALOG NUMBER: S125RDRP-H610D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	723.8	723.8	723.8	723.8
2.5°	687.6	686.2	686.5	684.8
5°	648.3	647.5	644.6	642.3
7.5°	612.4	608.7	608.4	606.1
10°	578.9	575.4	573.7	574.0
12.5°	549.6	545.9	545.9	543.6
15°	518.3	514.6	515.2	514.9
17.5°	492.5	489.9	487.9	486.2
20°	467.2	464.1	462.9	461.5
22.5°	444.0	441.7	442.0	442.0
25°	421.9	422.2	419.6	419.0
27.5°	402.4	401.8	401.2	400.1
30°	384.0	381.7	381.1	380.0
32.5°	365.1	364.8	362.5	363.3
35°	345.8	345.0	344.4	343.8
37.5°	328.0	326.3	326.0	325.5
40°	310.0	309.4	306.8	308.2
42.5°	290.4	289.3	289.3	289.3
45°	274.1	270.9	270.9	269.8
47.5°	255.7	254.6	254.0	252.0
50°	237.6	235.9	235.3	235.3
52.5°	219.0	218.7	219.3	218.1
55°	202.6	202.9	202.6	202.0
57.5°	184.8	183.4	183.4	183.7
60°	163.6	163.6	164.2	163.0
62.5°	143.2	142.6	140.6	140.1
65°	122.3	120.0	119.7	120.0
67.5°	103.6	102.7	101.3	101.6
70°	87.5	87.2	85.8	85.0
72.5°	73.2	73.2	72.3	72.3
75°	61.1	60.6	60.3	60.8
77.5°	47.1	45.6	46.2	45.3
80°	34.2	34.7	34.2	33.9
82.5°	25.3	24.7	25.0	24.7
85°	16.1	15.5	15.8	15.5
87.5°	6.6	6.9	6.9	6.3
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243789
 CATALOG NUMBER: S125RDRP-H610D935-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	15.61	17.15	15.98	17.47	17.78	16.31	17.85	16.68	18.16	18.48
	3H	16.69	18.08	17.07	18.40	18.77	17.79	19.17	18.16	19.50	19.86
	4H	17.05	18.35	17.45	18.70	19.07	18.31	19.61	18.71	19.96	20.33
	6H	17.27	18.47	17.68	18.83	19.22	18.67	19.86	19.08	20.23	20.62
	8H	17.33	18.47	17.75	18.86	19.26	18.77	19.91	19.19	20.30	20.70
	12H	17.36	18.45	17.79	18.83	19.26	18.83	19.92	19.26	20.30	20.73
4H	2H	17.13	18.43	17.53	18.78	19.15	17.18	18.48	17.58	18.83	19.20
	3H	18.18	19.25	18.59	19.65	20.05	18.84	19.92	19.25	20.32	20.72
	4H	18.54	19.51	18.97	19.92	20.36	19.44	20.41	19.87	20.82	21.26
	6H	18.78	19.62	19.24	20.07	20.53	19.88	20.72	20.33	21.16	21.62
	8H	18.85	19.63	19.31	20.07	20.54	20.00	20.78	20.46	21.23	21.70
	12H	18.89	19.59	19.37	20.07	20.54	20.08	20.79	20.57	21.26	21.73
8H	4H	18.90	19.69	19.36	20.13	20.60	19.60	20.38	20.06	20.82	21.29
	6H	19.19	19.84	19.69	20.33	20.81	20.12	20.77	20.61	21.26	21.73
	8H	19.29	19.87	19.80	20.38	20.87	20.29	20.88	20.81	21.39	21.87
	12H	19.37	19.89	19.88	20.38	20.94	20.43	20.95	20.94	21.44	22.00
12H	4H	18.92	19.63	19.41	20.10	20.57	19.59	20.29	20.07	20.76	21.24
	6H	19.22	19.81	19.74	20.32	20.80	20.11	20.69	20.62	21.20	21.69
	8H	19.36	19.87	19.87	20.37	20.93	20.33	20.84	20.84	21.33	21.90