

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: P243784

Luminaire Tested: S125RDRP-H610D930-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243784
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-H610D930-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

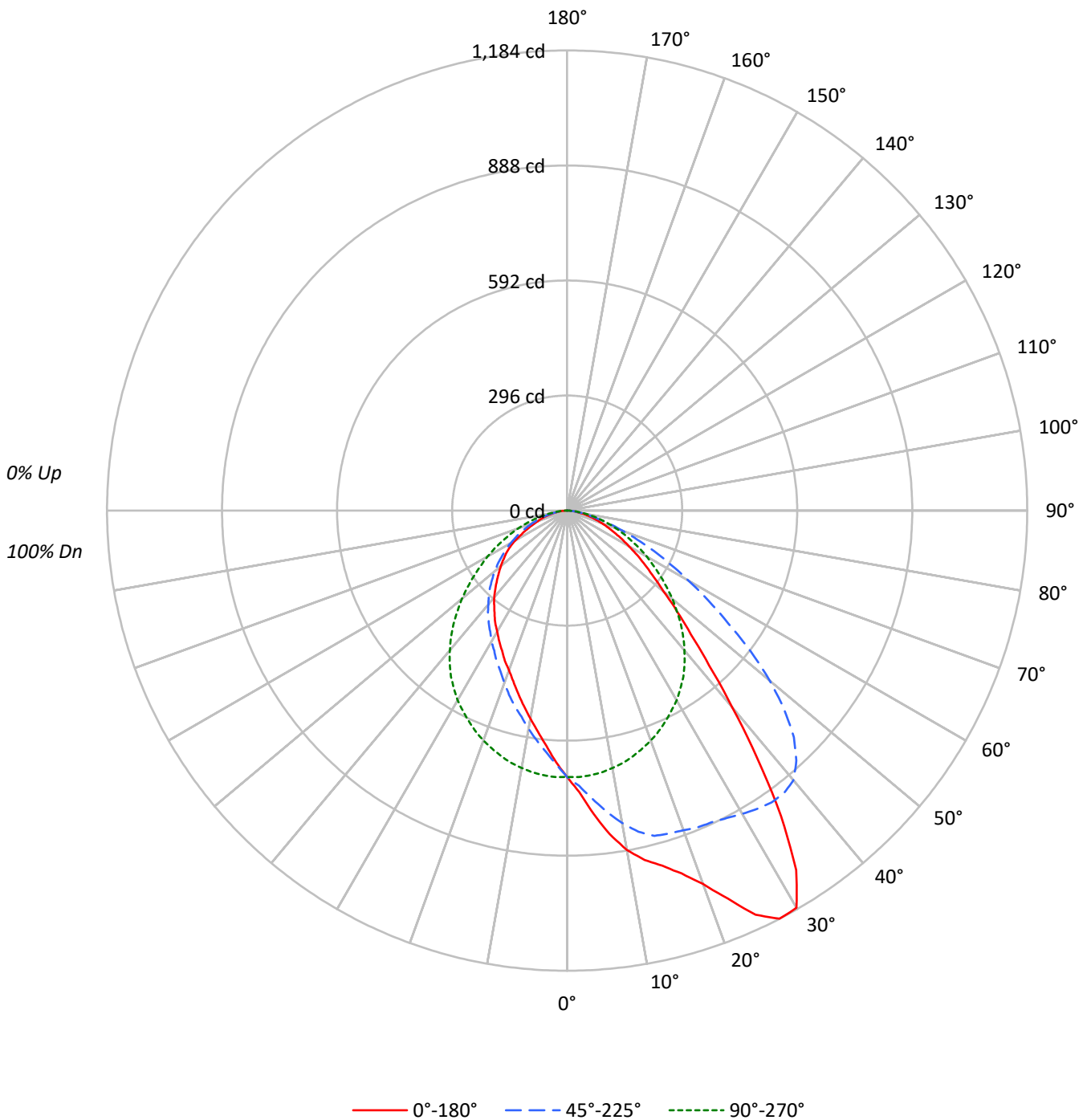
Lumens per Lamp: N/A
Luminaire Lumens: 1824.1 lumens
Efficiency: N/A
Efficacy: 106.0 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P243784

CATALOG NUMBER: S125RDRP-H610D930-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P243784

CATALOG NUMBER: S125RDRP-H610D930-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	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73					73			
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63					63			
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54					54			
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48					48			
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42					42			
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37					37			
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33					33			
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32	30					30			
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29	27					27			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4871	4871	4871	4871	4871
5°	5592	5312	4879	4448	4339
10°	6398	5893	4854	4117	3922
15°	6959	6376	4815	3834	3587
20°	7733	6620	4760	3568	3305
25°	8998	6935	4693	3363	3112
30°	9688	7394	4624	3189	2953
35°	8323	7954	4520	3052	2825
40°	6132	8404	4357	2927	2708
45°	4529	8290	4155	2819	2568
50°	3588	7524	3906	2701	2464
55°	3031	6280	3619	2535	2370
60°	2611	5130	3353	2380	2195
65°	2267	4140	3052	2185	1910
70°	1989	3146	2795	1976	1671
75°	1686	2290	2447	1746	1582
80°	1314	1658	2046	1535	1314
85°	1150	1215	1639	1305	1199

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8290 cd/sqm



TEST NUMBER: P243784

CATALOG NUMBER: S125RDRP-H610D930-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.0	3.6
10°-20°	195.2	10.7
20°-30°	311.3	17.1
30°-40°	378.0	20.7
40°-50°	340.6	18.7
50°-60°	261.9	14.4
60°-70°	170.0	9.3
70°-80°	81.8	4.5
80°-90°	19.3	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°	572.5	31.4
0°-40°	950.4	52.1
0°-60°	1553.0	85.1
0°-90°	1824.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1824.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	685	685	685	685	685	
5°	784	745	684	623	608	78
15°	946	867	654	521	488	271
25°	1147	884	598	429	397	525
35°	959	917	521	352	326	587
45°	451	825	413	280	256	358
55°	245	507	292	205	191	222
65°	135	246	182	130	114	135
75°	61	83	89	64	58	66
85°	14	15	20	16	15	16
90°	0	0	0	0	0	



TEST NUMBER: P243784

CATALOG NUMBER: S125RDRP-H610D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4
2.5°	725.1	727.8	725.6	727.0	724.8	723.7	721.0	716.9	712.8	709.0	708.8
5°	783.8	783.2	781.0	778.1	775.9	770.4	767.7	758.5	752.2	744.6	740.8
7.5°	839.7	838.4	835.1	831.0	829.1	822.1	814.5	802.8	793.0	781.0	772.1
10°	886.5	886.2	883.8	881.1	873.7	865.8	858.5	846.3	831.6	816.6	804.1
12.5°	920.7	919.4	916.4	911.8	905.8	900.3	890.6	879.4	861.5	846.3	829.1
15°	945.7	945.2	940.8	939.2	927.5	919.9	906.9	895.7	881.9	866.6	848.2
17.5°	978.9	980.0	976.2	966.9	956.3	944.6	926.2	908.0	888.7	871.0	856.1
20°	1022.4	1019.7	1013.1	1002.0	983.0	968.6	950.1	927.5	901.4	875.3	853.9
22.5°	1080.5	1077.5	1067.2	1053.6	1029.7	1003.3	975.1	941.4	911.5	881.6	853.3
25°	1147.4	1141.7	1126.5	1111.8	1077.8	1049.8	1007.7	967.5	924.0	884.3	852.5
27.5°	1183.8	1183.8	1176.7	1160.7	1133.8	1092.5	1049.5	996.0	945.7	891.4	846.3
30°	1180.5	1178.6	1181.4	1174.6	1157.2	1126.2	1083.5	1027.3	963.1	900.9	846.8
32.5°	1096.3	1097.1	1113.4	1124.6	1133.2	1125.6	1097.9	1047.1	983.2	910.1	844.6
35°	959.3	961.5	990.3	1009.3	1048.2	1070.5	1077.0	1049.5	992.2	916.7	840.8
37.5°	802.8	802.8	836.2	865.0	908.5	963.4	1004.4	1014.8	986.8	916.4	837.6
40°	660.9	660.1	686.5	721.8	768.3	828.9	890.0	942.5	949.3	905.8	826.2
42.5°	540.8	539.4	568.3	587.8	636.7	690.8	772.1	846.3	888.7	872.9	809.3
45°	450.6	449.5	468.2	490.5	525.0	581.3	649.5	731.9	803.1	824.8	777.8
47.5°	382.6	383.2	393.2	412.0	441.3	481.6	542.7	619.1	707.1	757.4	738.1
50°	324.5	326.4	334.0	348.1	369.6	401.9	454.4	523.4	613.9	680.5	684.6
52.5°	281.0	283.7	291.9	299.5	317.4	340.2	381.0	440.8	515.5	595.4	624.0
55°	244.6	245.9	250.6	258.7	272.0	291.1	320.7	366.3	435.6	506.8	557.1
57.5°	214.1	214.1	217.1	222.8	233.4	250.6	270.4	308.2	366.6	431.0	484.6
60°	183.7	184.8	187.0	193.2	200.3	213.3	232.6	256.5	307.1	360.9	418.5
62.5°	158.2	160.1	162.2	165.2	171.8	181.0	194.6	216.6	250.6	300.3	351.7
65°	134.8	136.7	137.0	140.5	144.8	152.5	162.8	178.8	207.1	246.2	288.6
67.5°	114.1	115.0	115.8	118.5	122.6	127.5	134.3	146.2	168.5	194.9	236.2
70°	95.7	96.2	96.5	99.5	101.4	105.7	109.2	116.9	131.0	151.4	183.4
72.5°	78.3	77.5	77.2	79.6	80.4	84.0	88.3	93.8	101.4	115.8	139.7
75°	61.4	61.7	62.0	63.3	63.6	65.2	67.9	71.5	75.0	83.4	98.6
77.5°	47.3	46.2	46.2	47.8	48.4	48.6	50.5	52.5	54.4	59.2	65.2
80°	32.1	32.6	32.6	32.6	32.9	33.4	34.5	36.1	37.5	40.5	41.6
82.5°	22.8	22.8	22.6	23.1	23.4	23.6	23.6	23.6	24.5	25.3	26.4
85°	14.1	14.4	13.6	14.1	14.4	14.4	14.4	14.4	15.2	14.9	15.2
87.5°	6.0	6.3	6.3	6.5	6.5	6.8	6.5	6.8	6.5	6.5	6.8
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: P243784

CATALOG NUMBER: S125RDRP-H610D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4
2.5°	707.9	704.7	703.0	699.8	695.4	692.7	690.0	686.2	683.2	678.6	674.5
5°	734.0	727.5	721.5	713.4	705.5	698.7	691.6	683.8	676.7	668.8	660.4
7.5°	763.1	752.8	740.3	725.9	713.6	703.0	691.1	679.4	668.8	656.3	644.9
10°	791.1	774.5	757.9	738.6	720.7	705.0	688.9	672.6	658.8	643.3	629.1
12.5°	812.8	797.1	772.3	748.4	725.1	704.7	684.6	664.7	646.5	629.4	612.6
15°	831.9	805.8	784.8	758.8	730.2	702.5	677.5	654.4	632.4	612.3	595.2
17.5°	837.3	813.9	791.1	760.7	730.0	698.4	669.6	642.2	617.7	595.4	576.1
20°	836.8	813.1	788.4	759.3	726.7	692.2	660.1	629.4	601.7	576.1	555.5
22.5°	828.6	805.8	780.8	751.4	718.3	682.7	649.0	615.0	584.8	558.2	537.0
25°	819.9	791.1	765.0	735.4	703.9	671.0	635.1	598.4	566.9	539.2	515.3
27.5°	812.3	777.8	745.7	716.6	684.3	654.7	619.1	580.8	548.4	519.3	494.6
30°	800.1	763.7	724.8	693.0	661.7	630.8	598.1	563.4	528.0	498.4	473.7
32.5°	789.5	743.5	701.4	665.5	634.3	607.1	575.9	542.4	507.9	479.7	453.0
35°	777.8	722.9	678.9	636.7	605.5	575.9	551.1	521.0	486.7	456.8	432.9
37.5°	763.9	701.7	651.1	608.2	575.9	545.4	523.1	496.2	465.3	435.6	412.0
40°	748.4	679.9	621.8	577.5	542.7	512.3	493.5	469.6	443.2	413.9	391.9
42.5°	728.9	656.8	595.2	546.8	508.2	480.7	462.0	442.2	418.0	392.4	368.5
45°	704.1	628.0	563.4	512.3	474.2	447.6	428.0	413.4	394.1	370.1	347.6
47.5°	674.0	597.9	530.8	477.8	441.1	415.5	397.3	382.6	368.0	347.3	325.8
50°	634.0	563.4	499.0	444.9	406.0	381.3	365.0	353.3	340.0	323.1	303.6
52.5°	590.0	524.5	461.5	410.9	373.4	348.7	331.8	322.0	312.0	298.1	281.3
55°	538.9	485.6	425.6	376.1	339.4	315.0	301.7	292.1	283.7	273.1	259.0
57.5°	484.8	438.1	385.9	340.2	305.7	282.6	270.9	263.1	256.0	248.4	236.7
60°	428.0	394.9	345.4	303.6	273.4	254.4	243.2	235.9	229.4	223.1	214.4
62.5°	368.8	341.3	304.4	268.8	241.9	223.9	215.8	209.5	202.7	197.3	191.0
65°	308.7	293.0	267.4	234.0	209.3	194.6	186.7	181.5	178.3	172.0	167.1
67.5°	254.1	245.4	223.7	201.1	182.1	168.8	161.4	157.6	154.1	151.1	145.7
70°	202.2	195.9	183.4	167.4	152.5	141.0	135.6	134.5	129.6	126.6	123.9
72.5°	154.1	152.5	142.1	135.1	126.6	117.7	113.6	111.4	108.2	105.4	104.4
75°	109.5	112.0	108.7	105.2	101.1	93.8	90.2	89.1	86.1	85.3	84.0
77.5°	74.7	78.3	79.4	77.7	75.8	73.4	70.9	69.8	66.9	66.3	65.5
80°	47.0	52.2	54.1	53.8	53.0	53.3	50.3	50.0	48.6	47.8	48.6
82.5°	28.5	31.3	34.8	35.6	34.5	35.1	34.2	33.2	33.2	33.7	32.6
85°	15.5	15.8	17.4	18.5	19.8	20.9	19.8	20.1	19.8	19.8	19.0
87.5°	6.8	7.1	7.1	6.8	7.3	7.9	9.0	9.5	9.2	8.4	7.3
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: P243784

CATALOG NUMBER: S125RDRP-H610D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4	685.4
2.5°	671.3	669.4	666.1	663.4	657.1	652.8	652.2	652.5	652.0	651.4	651.1
5°	654.9	648.7	642.7	637.6	630.5	623.4	620.2	618.8	618.3	615.3	616.9
7.5°	637.6	628.0	621.0	611.2	602.8	596.8	591.1	588.4	587.8	583.7	582.7
10°	619.1	607.7	597.1	587.3	578.9	570.4	563.6	561.2	557.9	554.7	549.8
12.5°	600.9	586.7	575.0	564.2	552.8	543.3	537.8	534.3	530.2	527.2	525.6
15°	579.1	567.2	552.8	541.1	529.4	521.0	513.6	507.1	503.3	500.9	494.1
17.5°	559.6	543.8	530.2	519.1	506.3	496.8	489.2	483.7	477.2	472.3	468.0
20°	538.6	522.3	509.8	496.5	483.5	471.8	462.3	457.9	453.3	448.7	446.2
22.5°	516.1	501.9	487.8	474.0	460.1	447.6	441.6	435.4	431.3	426.7	423.4
25°	496.5	481.0	466.9	451.4	436.2	428.8	420.7	414.4	411.2	406.6	403.0
27.5°	475.6	460.6	443.8	427.8	418.8	406.3	400.8	396.0	391.6	387.0	384.5
30°	456.0	438.6	421.8	409.3	397.6	388.6	383.5	377.5	371.5	369.3	366.1
32.5°	435.4	416.6	401.9	389.4	379.7	368.8	363.9	359.0	353.3	350.6	347.6
35°	413.9	395.7	381.3	369.9	359.8	351.7	346.2	341.1	337.5	333.5	331.3
37.5°	391.3	375.6	361.7	350.3	341.1	334.5	327.7	323.7	318.8	315.0	313.3
40°	369.9	355.7	342.4	331.8	323.4	315.5	309.5	304.4	301.4	298.1	295.4
42.5°	350.6	335.9	324.5	313.3	305.7	298.1	292.1	288.3	283.2	281.8	278.0
45°	329.9	316.3	304.9	294.6	286.7	280.5	273.4	268.8	265.5	262.3	260.9
47.5°	309.0	296.5	285.9	276.4	268.2	261.2	255.7	250.8	247.3	244.3	242.7
50°	288.6	277.7	267.1	257.9	249.5	244.3	237.8	232.4	229.6	226.4	224.5
52.5°	267.1	258.2	246.8	238.9	231.0	224.2	217.7	214.1	211.4	208.7	207.4
55°	247.0	237.5	227.7	219.3	211.7	204.6	199.5	196.8	193.2	191.6	191.3
57.5°	226.4	216.6	208.4	200.8	192.1	186.7	182.1	178.8	175.8	174.5	174.5
60°	203.8	195.9	188.3	179.9	173.7	167.4	162.5	160.3	157.4	156.8	154.9
62.5°	183.2	175.8	168.5	160.6	154.9	148.7	145.1	142.1	140.5	138.3	136.2
65°	161.7	155.2	148.1	141.3	136.7	129.9	126.6	123.1	121.2	118.8	116.0
67.5°	141.0	134.8	128.3	122.0	118.2	111.7	109.5	105.2	103.8	101.1	98.6
70°	119.3	115.0	109.8	103.5	100.3	95.1	92.9	88.9	86.7	85.1	83.7
72.5°	100.6	96.5	90.5	86.4	82.3	79.1	75.5	73.6	71.7	70.4	70.1
75°	82.1	76.9	73.4	69.6	66.9	63.6	62.0	60.6	59.8	59.0	58.2
77.5°	62.8	60.6	57.1	53.3	51.1	49.7	48.6	48.1	47.3	47.0	46.2
80°	46.7	43.8	41.6	40.2	38.6	37.5	36.7	34.8	33.7	33.2	32.6
82.5°	31.0	30.2	28.5	27.2	25.8	25.5	24.7	24.2	23.9	23.9	23.6
85°	18.8	16.6	16.6	16.3	16.3	16.0	15.5	15.5	14.9	15.8	15.8
87.5°	7.6	7.6	7.1	7.1	7.3	6.8	6.5	6.5	6.5	6.3	6.5
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: P243784

CATALOG NUMBER: S125RDRP-H610D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	685.4	685.4	685.4	685.4
2.5°	651.1	649.8	650.1	648.4
5°	613.9	613.1	610.4	608.2
7.5°	579.9	576.4	576.1	574.0
10°	548.1	544.9	543.3	543.5
12.5°	520.4	516.9	516.9	514.7
15°	490.8	487.3	487.8	487.5
17.5°	466.3	463.9	462.0	460.4
20°	442.4	439.4	438.4	437.0
22.5°	420.4	418.2	418.5	418.5
25°	399.5	399.8	397.3	396.8
27.5°	381.0	380.5	379.9	378.8
30°	363.6	361.4	360.9	359.8
32.5°	345.7	345.4	343.2	344.1
35°	327.5	326.7	326.1	325.6
37.5°	310.6	309.0	308.7	308.2
40°	293.5	293.0	290.5	291.9
42.5°	275.0	273.9	273.9	273.9
45°	259.5	256.5	256.5	255.5
47.5°	242.1	241.1	240.5	238.6
50°	225.0	223.4	222.8	222.8
52.5°	207.4	207.1	207.6	206.5
55°	191.9	192.1	191.9	191.3
57.5°	175.0	173.7	173.7	173.9
60°	154.9	154.9	155.4	154.4
62.5°	135.6	135.1	133.2	132.6
65°	115.8	113.6	113.3	113.6
67.5°	98.1	97.3	95.9	96.2
70°	82.9	82.6	81.3	80.4
72.5°	69.3	69.3	68.5	68.5
75°	57.9	57.3	57.1	57.6
77.5°	44.6	43.2	43.8	42.9
80°	32.3	32.9	32.3	32.1
82.5°	23.9	23.4	23.6	23.4
85°	15.2	14.7	14.9	14.7
87.5°	6.3	6.5	6.5	6.0
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243784
 CATALOG NUMBER: S125RDRP-H610D930-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	15.42	16.96	15.79	17.28	17.59	16.12	17.66	16.49	17.97	18.29
	3H	16.51	17.89	16.88	18.22	18.58	17.60	18.98	17.97	19.31	19.67
	4H	16.86	18.16	17.26	18.51	18.89	18.12	19.42	18.52	19.77	20.14
	6H	17.08	18.28	17.49	18.64	19.04	18.48	19.67	18.89	20.04	20.43
	8H	17.14	18.28	17.56	18.67	19.07	18.58	19.72	19.00	20.11	20.51
	12H	17.17	18.26	17.60	18.65	19.07	18.64	19.73	19.07	20.11	20.54
4H	2H	16.94	18.24	17.34	18.59	18.97	16.99	18.29	17.39	18.64	19.01
	3H	17.99	19.06	18.40	19.46	19.86	18.65	19.73	19.06	20.13	20.53
	4H	18.35	19.32	18.78	19.73	20.17	19.25	20.22	19.68	20.63	21.07
	6H	18.59	19.43	19.05	19.88	20.34	19.69	20.53	20.14	20.97	21.43
	8H	18.66	19.44	19.12	19.89	20.35	19.81	20.59	20.27	21.04	21.51
	12H	18.70	19.41	19.19	19.88	20.35	19.89	20.59	20.38	21.07	21.54
8H	4H	18.71	19.50	19.17	19.94	20.41	19.41	20.19	19.87	20.63	21.10
	6H	19.00	19.65	19.50	20.14	20.62	19.93	20.58	20.42	21.07	21.54
	8H	19.10	19.68	19.61	20.19	20.68	20.10	20.69	20.62	21.20	21.68
	12H	19.18	19.70	19.69	20.19	20.75	20.24	20.76	20.75	21.25	21.81
12H	4H	18.74	19.44	19.22	19.91	20.39	19.40	20.10	19.88	20.57	21.05
	6H	19.04	19.62	19.55	20.13	20.62	19.92	20.50	20.43	21.01	21.50
	8H	19.17	19.68	19.68	20.18	20.74	20.14	20.65	20.65	21.14	21.71