

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: P242904

Luminaire Tested: S125RDRP-S610D927-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242904
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-32)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-S610D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

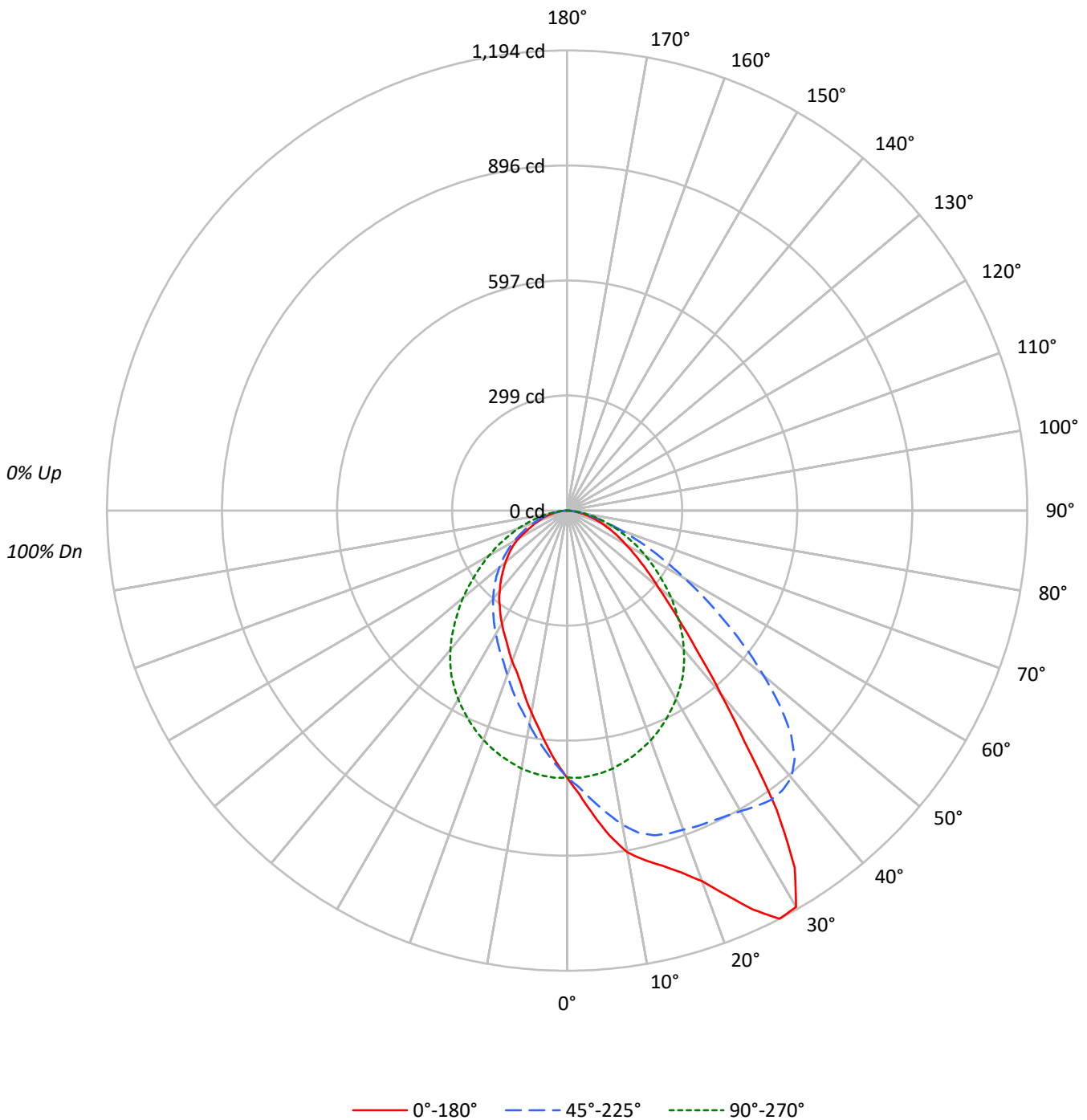
Lumens per Lamp: N/A
Luminaire Lumens: 1794.9 lumens
Efficiency: N/A
Efficacy: 95.5 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 18.8
Input Voltage (V): 120
Input Current (A_{in}): 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					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	69	78	72	67	76	70	66	73	69	65	63					63			
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55					55			
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50	48					48			
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44	42					42			
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37					37			
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35	34					34			
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30					30			
10	55	42	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28					28			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	4924	4924	4924	4924	4924
5°	5665	5385	4931	4480	4354
10°	6498	5973	4905	4072	3842
15°	7018	6418	4855	3739	3415
20°	7739	6663	4797	3433	3153
25°	8956	6969	4719	3209	2926
30°	9746	7389	4638	3032	2777
35°	8222	7965	4543	2892	2640
40°	5741	8396	4372	2770	2523
45°	4259	8261	4142	2656	2407
50°	3396	7361	3902	2531	2308
55°	2882	6181	3605	2404	2221
60°	2490	5009	3339	2256	2078
65°	2220	3997	3051	2090	1789
70°	1949	3067	2795	1897	1631
75°	1686	2287	2422	1686	1530
80°	1281	1641	2038	1502	1281
85°	1068	1158	1598	1272	1207

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 8261 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	66.4	3.7
10°-20°	194.8	10.9
20°-30°	308.8	17.2
30°-40°	373.2	20.8
40°-50°	332.3	18.5
50°-60°	254.8	14.2
60°-70°	165.5	9.2
70°-80°	80.3	4.5
80°-90°	18.9	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°	570.0	31.8
0°-40°	943.2	52.5
0°-60°	1530.3	85.3
0°-90°	1794.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1794.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	693	693	693	693	693	
5°	794	755	691	628	610	79
15°	954	872	660	508	464	273
25°	1142	889	602	409	373	526
35°	948	918	524	333	304	574
45°	424	822	412	264	240	336
55°	233	499	291	194	179	211
65°	132	238	181	124	106	131
75°	61	83	88	61	56	65
85°	13	14	20	16	15	16
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°	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8
2.5°	737.7	737.1	738.3	735.1	735.4	730.6	730.6	726.9	722.1	718.4	716.7
5°	794.0	794.6	793.4	789.2	786.3	782.1	777.2	768.7	761.6	754.8	749.4
7.5°	851.5	852.0	848.3	847.5	840.1	835.5	824.7	813.6	804.0	791.2	782.1
10°	900.4	900.1	896.1	893.0	886.7	878.8	868.2	854.6	841.8	827.6	813.9
12.5°	928.8	928.0	927.4	923.4	917.7	910.9	902.4	889.0	872.5	856.6	840.1
15°	953.8	951.8	948.1	943.3	935.1	926.8	916.9	904.9	889.8	872.2	857.4
17.5°	984.0	984.3	978.6	973.5	962.6	949.0	934.2	916.0	896.7	878.8	864.0
20°	1023.2	1022.4	1016.7	1003.6	990.8	972.6	955.0	931.4	906.3	881.0	861.4
22.5°	1079.5	1077.0	1071.0	1052.8	1031.2	1006.4	977.2	947.0	915.4	885.9	858.6
25°	1142.1	1140.4	1128.7	1108.8	1081.0	1044.8	1009.6	970.0	926.5	888.7	857.4
27.5°	1193.9	1190.4	1179.9	1161.2	1133.8	1094.9	1046.3	995.1	943.3	893.5	850.6
30°	1187.6	1191.9	1190.7	1183.0	1163.7	1129.6	1085.5	1026.1	961.5	900.4	846.6
32.5°	1098.3	1102.0	1114.8	1135.6	1141.8	1133.3	1103.1	1049.4	982.0	910.3	843.5
35°	947.6	952.7	972.0	1002.5	1042.3	1075.6	1082.4	1052.8	992.8	918.0	840.4
37.5°	755.9	789.2	802.3	833.3	895.8	956.4	1009.0	1020.9	988.5	916.3	836.7
40°	618.8	625.7	654.7	690.8	741.4	805.1	889.0	949.6	951.6	904.9	824.7
42.5°	507.3	516.4	534.1	561.1	602.6	666.3	753.6	838.4	884.2	873.6	809.1
45°	423.7	430.3	444.8	467.0	500.2	552.8	627.4	719.8	793.2	821.9	778.7
47.5°	358.3	361.7	375.1	393.0	418.6	458.4	519.0	602.6	689.9	748.2	736.8
50°	307.1	311.1	320.8	333.6	354.3	386.8	432.8	499.7	590.4	665.7	680.8
52.5°	267.3	270.5	275.6	287.5	303.7	326.8	361.7	420.6	500.0	581.3	621.1
55°	232.6	234.9	239.7	246.6	260.2	278.1	310.3	352.1	418.0	498.8	550.0
57.5°	203.1	204.2	207.0	213.9	223.8	237.2	261.6	299.7	347.5	423.5	479.8
60°	175.2	176.3	180.3	184.6	192.0	203.9	222.1	246.8	292.3	352.4	409.5
62.5°	153.0	153.6	154.7	159.0	165.2	173.8	187.1	206.2	240.0	290.9	344.1
65°	132.0	132.2	132.8	136.2	140.2	147.0	156.4	170.6	197.9	237.7	285.5
67.5°	110.9	111.5	113.5	114.6	119.4	122.9	128.8	140.2	161.2	189.7	228.4
70°	93.8	93.6	95.6	97.0	98.4	102.7	106.4	115.2	127.1	147.6	178.6
72.5°	77.9	77.1	77.6	77.9	79.9	82.5	86.2	90.7	99.3	111.8	133.7
75°	61.4	61.7	61.7	62.3	63.7	64.8	66.0	68.8	73.9	83.3	96.1
77.5°	46.1	45.5	46.9	46.9	48.1	49.5	50.3	51.5	53.5	57.7	65.4
80°	31.3	31.3	31.6	32.4	32.1	32.7	34.1	35.3	37.8	40.1	42.4
82.5°	22.2	21.9	22.2	22.2	22.2	22.8	23.0	23.0	23.6	24.5	25.9
85°	13.1	13.1	13.4	13.4	13.7	13.7	13.9	13.9	13.9	14.2	14.5
87.5°	6.3	6.0	5.7	5.7	6.0	6.5	6.3	6.0	6.0	6.0	6.3
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°	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8
2.5°	716.7	714.7	711.0	707.6	703.3	699.6	697.0	693.9	689.9	685.1	681.1
5°	743.4	737.1	728.9	721.8	712.7	705.6	698.2	691.1	684.0	674.8	666.9
7.5°	773.0	760.7	749.4	734.6	721.2	709.5	698.2	686.5	675.4	662.9	651.2
10°	799.7	784.1	766.7	746.8	728.6	711.3	695.3	679.7	663.2	648.7	633.0
12.5°	824.7	803.4	782.9	756.5	733.7	711.5	690.2	669.7	651.8	631.9	614.8
15°	837.8	817.9	795.7	765.0	734.6	709.0	685.1	659.8	637.9	616.8	598.1
17.5°	845.5	824.4	798.8	769.0	736.3	704.4	674.3	647.3	622.2	598.1	577.3
20°	842.1	821.9	795.4	767.3	731.7	698.2	664.9	634.2	605.5	579.6	557.1
22.5°	833.8	812.8	787.5	757.3	724.0	687.9	651.8	618.5	588.1	561.1	536.1
25°	825.6	797.1	771.0	742.0	709.8	674.6	637.9	601.8	569.6	542.3	515.6
27.5°	817.6	783.2	750.8	722.9	688.5	656.6	620.8	583.6	550.0	522.4	495.1
30°	806.0	766.1	729.5	696.7	664.6	634.8	601.2	565.1	530.4	501.7	473.8
32.5°	791.4	748.5	707.3	668.3	637.6	608.0	578.4	544.3	510.8	480.9	452.5
35°	779.8	725.8	682.0	641.9	607.5	578.7	551.4	523.6	489.7	459.0	431.4
37.5°	763.6	704.1	654.7	610.9	575.0	546.6	524.7	498.2	466.7	436.8	411.2
40°	749.1	680.3	624.8	581.6	543.5	513.0	492.8	471.2	443.1	415.5	389.9
42.5°	729.7	658.4	594.7	549.2	510.8	481.8	461.3	443.1	420.6	395.0	367.1
45°	703.3	628.8	563.7	515.3	476.6	447.9	428.9	412.1	394.2	370.3	346.4
47.5°	671.7	600.6	532.1	478.9	441.7	414.6	395.9	381.9	368.8	348.1	323.9
50°	632.2	564.2	497.7	446.5	406.1	380.8	363.4	352.9	341.3	322.8	303.4
52.5°	585.6	526.7	461.8	409.2	371.7	348.4	331.9	321.4	312.3	298.0	279.8
55°	536.1	482.9	423.2	375.7	340.7	316.8	300.9	290.9	285.2	272.4	257.9
57.5°	480.0	439.1	385.1	338.7	307.1	283.2	271.3	262.5	255.9	246.6	235.8
60°	420.9	394.2	347.0	303.4	275.0	252.5	242.0	234.9	228.9	221.3	213.3
62.5°	360.9	343.3	303.7	267.9	242.3	224.4	214.7	208.5	201.3	196.8	189.1
65°	308.6	291.2	262.8	233.5	209.3	194.2	187.1	181.4	177.2	171.5	166.1
67.5°	250.5	242.6	221.5	199.6	182.0	167.5	161.2	156.7	151.9	148.4	144.5
70°	197.9	194.5	180.6	167.2	151.0	141.9	136.2	134.5	128.3	124.8	122.3
72.5°	151.3	150.2	143.6	135.4	125.1	117.5	112.3	110.3	106.9	104.4	102.9
75°	110.1	110.6	109.2	103.2	99.0	93.8	89.3	88.2	85.3	83.0	81.6
77.5°	75.1	77.9	77.4	77.1	75.1	71.4	69.4	68.5	65.4	64.6	64.3
80°	47.8	50.9	53.7	53.5	52.9	52.0	50.6	49.8	48.3	47.5	46.9
82.5°	27.9	30.7	33.0	35.0	35.0	34.1	33.3	33.0	33.0	32.4	32.4
85°	15.1	15.6	16.5	18.5	19.9	20.2	19.9	19.6	18.8	19.1	19.3
87.5°	6.5	6.5	6.8	6.8	6.5	8.0	8.8	9.1	8.5	8.0	7.4
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°	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8	692.8
2.5°	678.3	674.3	671.4	665.7	661.8	660.1	656.9	656.1	659.2	656.9	656.6
5°	660.9	652.7	646.1	639.6	632.5	627.9	621.1	620.0	618.3	615.7	615.1
7.5°	640.7	630.5	622.8	612.0	603.2	596.1	587.5	584.1	582.4	579.3	574.2
10°	620.2	607.5	596.1	585.3	573.6	564.2	555.7	549.2	544.9	540.9	539.2
12.5°	600.1	587.0	571.6	558.0	544.6	533.8	524.1	520.4	515.6	510.8	506.2
15°	579.0	561.7	545.7	530.7	519.6	508.2	499.1	492.8	485.7	483.7	476.1
17.5°	556.5	540.3	521.6	505.4	492.8	480.9	470.9	463.6	458.1	450.5	446.8
20°	535.8	515.6	497.4	482.9	468.7	453.9	443.6	437.7	432.6	426.6	423.7
22.5°	513.6	494.0	475.2	457.6	443.1	428.6	422.0	415.8	409.8	404.4	400.4
25°	492.0	472.1	452.5	434.8	419.8	409.2	400.7	393.6	390.5	385.1	381.1
27.5°	470.4	449.3	429.4	410.9	399.3	388.8	381.9	376.2	370.3	365.4	361.7
30°	449.6	428.0	405.8	391.9	379.4	369.4	361.7	356.3	352.1	347.8	345.2
32.5°	428.9	406.4	387.3	372.0	360.3	352.1	344.1	339.0	334.4	329.6	326.5
35°	406.4	383.6	367.7	352.9	341.3	333.3	327.9	320.5	316.8	313.4	310.3
37.5°	386.2	364.6	347.0	334.2	323.3	315.7	308.6	304.9	300.0	297.2	294.6
40°	363.4	344.1	328.5	314.8	307.4	298.6	292.1	286.9	283.5	279.6	276.7
42.5°	343.0	325.3	310.3	298.3	288.7	281.5	275.3	270.2	265.6	263.1	260.8
45°	323.9	306.0	291.2	279.8	271.3	264.2	257.7	255.1	249.4	246.0	244.9
47.5°	304.0	287.8	273.3	262.8	254.0	247.4	241.2	235.5	232.6	229.2	227.5
50°	283.8	268.5	255.1	244.9	236.3	228.9	223.2	219.8	215.6	212.4	210.2
52.5°	263.6	249.7	236.3	226.7	219.5	212.2	205.6	202.2	198.2	196.5	195.1
55°	244.6	229.5	218.1	208.5	200.8	194.0	188.0	184.6	182.0	180.0	179.4
57.5°	222.7	210.4	199.6	191.1	182.9	176.3	170.9	167.8	165.5	165.2	163.2
60°	201.3	190.5	180.9	171.5	164.7	158.7	154.1	150.4	148.2	147.9	147.3
62.5°	180.0	169.8	161.0	153.0	147.0	141.3	137.1	132.8	131.7	130.0	128.5
65°	159.0	149.6	142.2	135.7	129.1	124.3	120.0	117.5	114.3	112.6	109.5
67.5°	138.2	130.5	123.4	118.0	112.6	107.8	104.1	100.4	98.1	96.7	94.1
70°	117.7	112.0	104.9	99.0	95.0	91.3	88.4	84.2	82.8	81.6	80.5
72.5°	98.4	93.6	87.9	83.3	79.3	75.9	72.5	71.1	69.7	68.5	68.0
75°	80.5	75.6	70.5	67.1	64.3	61.4	59.7	58.3	57.7	57.4	56.3
77.5°	62.6	59.7	55.5	52.3	50.3	49.2	47.5	46.9	47.2	45.8	45.5
80°	45.2	43.8	40.4	39.2	37.8	36.7	35.8	34.4	33.0	32.4	31.6
82.5°	30.7	29.3	28.4	26.4	25.3	24.7	23.9	23.6	24.2	23.3	23.0
85°	17.9	16.5	15.9	15.6	15.1	15.6	15.4	15.1	14.8	14.5	14.8
87.5°	7.1	7.1	6.8	7.4	6.5	6.8	6.8	6.5	6.5	6.5	6.3
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: P242904

CATALOG NUMBER: S125RDRP-S610D927-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	692.8	692.8	692.8	692.8
2.5°	656.4	653.2	652.4	653.5
5°	612.3	609.4	610.9	610.3
7.5°	575.0	571.3	567.1	568.2
10°	535.5	532.7	531.0	532.4
12.5°	502.2	500.8	499.4	498.2
15°	472.7	469.2	467.8	464.1
17.5°	444.2	443.1	439.4	436.8
20°	419.5	418.3	414.6	416.9
22.5°	399.0	396.2	395.6	394.2
25°	379.9	376.2	374.8	373.1
27.5°	360.6	358.6	356.6	356.1
30°	341.8	339.8	338.4	338.4
32.5°	325.1	323.6	322.2	321.9
35°	308.8	306.6	306.0	304.3
37.5°	291.8	289.8	289.8	290.1
40°	275.6	274.1	273.9	271.9
42.5°	258.2	257.7	256.5	255.9
45°	242.9	240.9	240.9	239.5
47.5°	226.7	224.9	225.2	223.5
50°	210.4	209.6	209.3	208.7
52.5°	194.2	194.0	195.4	194.0
55°	180.0	179.2	180.9	179.2
57.5°	163.2	162.7	164.4	163.2
60°	146.7	145.0	145.9	146.2
62.5°	127.1	126.3	126.8	125.1
65°	108.9	108.1	106.9	106.4
67.5°	94.7	92.1	92.1	92.7
70°	78.8	78.8	78.5	78.5
72.5°	67.7	67.4	66.8	66.5
75°	56.3	56.6	56.0	55.7
77.5°	44.1	42.7	43.2	42.7
80°	31.6	31.3	32.1	31.3
82.5°	23.3	23.0	23.3	22.8
85°	15.1	14.8	14.5	14.8
87.5°	6.5	6.3	6.3	6.3
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242904
 CATALOG NUMBER: S125RDRP-S610D927-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	15.16	16.70	15.53	17.01	17.33	16.14	17.68	16.51	17.99	18.30
	3H	16.29	17.67	16.67	17.99	18.36	17.62	18.99	18.00	19.32	19.68
	4H	16.68	17.97	17.08	18.31	18.69	18.13	19.42	18.53	19.77	20.15
	6H	16.91	18.10	17.32	18.46	18.86	18.48	19.67	18.89	20.04	20.43
	8H	16.96	18.10	17.39	18.49	18.89	18.58	19.71	19.00	20.10	20.50
	12H	17.00	18.08	17.43	18.46	18.89	18.63	19.72	19.06	20.10	20.53
4H	2H	16.75	18.04	17.15	18.39	18.77	16.99	18.28	17.39	18.63	19.01
	3H	17.82	18.89	18.23	19.29	19.69	18.65	19.72	19.06	20.12	20.52
	4H	18.20	19.16	18.63	19.58	20.02	19.24	20.20	19.67	20.61	21.05
	6H	18.46	19.29	18.91	19.74	20.20	19.66	20.50	20.12	20.94	21.40
	8H	18.52	19.30	18.98	19.75	20.21	19.79	20.57	20.25	21.01	21.48
	12H	18.56	19.26	19.05	19.74	20.21	19.87	20.57	20.35	21.05	21.52
8H	4H	18.58	19.36	19.04	19.80	20.27	19.38	20.17	19.85	20.61	21.08
	6H	18.88	19.53	19.38	20.02	20.49	19.90	20.55	20.40	21.04	21.51
	8H	18.97	19.55	19.49	20.06	20.55	20.08	20.66	20.59	21.16	21.65
	12H	19.05	19.57	19.56	20.06	20.62	20.21	20.72	20.72	21.22	21.78
12H	4H	18.60	19.30	19.08	19.78	20.25	19.37	20.07	19.86	20.55	21.02
	6H	18.91	19.49	19.43	20.00	20.49	19.89	20.47	20.41	20.98	21.47
	8H	19.05	19.56	19.56	20.05	20.62	20.11	20.62	20.62	21.11	21.68