

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: P242908

Luminaire Tested: S125RDRP-S375D830-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242908
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-S375D830-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

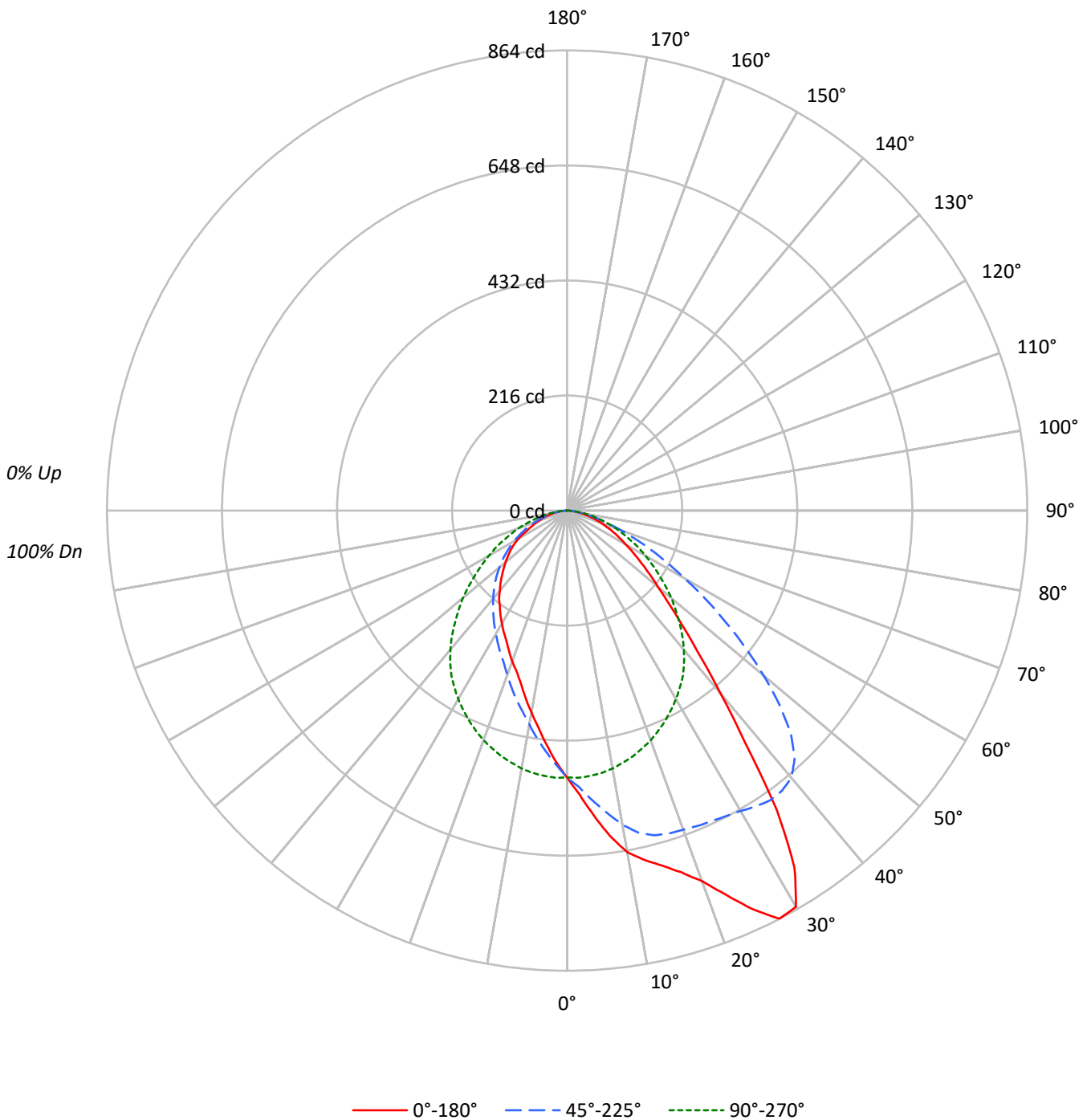
Lumens per Lamp: N/A
Luminaire Lumens: 1298.6 lumens
Efficiency: N/A
Efficacy: 112.0 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 11.6
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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CATALOG NUMBER: S125RDRP-S375D830-X4F0-XX-UDD-A-W

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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	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	69	78	72	67	76	70	66	73	69	65	63
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57	55
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50	48
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44	42
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39	37
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35	34
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32	30
10	55	42	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29	28

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3562	3562	3562	3562	3562
5°	4099	3896	3567	3241	3151
10°	4701	4321	3549	2946	2780
15°	5078	4644	3513	2706	2471
20°	5599	4821	3470	2484	2281
25°	6480	5042	3414	2322	2117
30°	7051	5346	3355	2194	2009
35°	5949	5763	3287	2092	1911
40°	4154	6074	3163	2004	1825
45°	3082	5977	2996	1921	1741
50°	2457	5326	2823	1831	1670
55°	2085	4472	2608	1738	1606
60°	1801	3623	2416	1632	1504
65°	1606	2893	2208	1512	1295
70°	1411	2219	2022	1372	1180
75°	1219	1656	1752	1219	1107
80°	925	1187	1473	1085	925
85°	775	840	1158	921	873

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5977 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	48.1	3.7
10°-20°	140.9	10.9
20°-30°	223.4	17.2
30°-40°	270.0	20.8
40°-50°	240.4	18.5
50°-60°	184.3	14.2
60°-70°	119.7	9.2
70°-80°	58.1	4.5
80°-90°	13.7	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°	412.4	31.8
0°-40°	682.4	52.5
0°-60°	1107.2	85.3
0°-90°	1298.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1298.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	501	501	501	501	501	
5°	574	546	500	454	442	57
15°	690	631	477	368	336	198
25°	826	643	435	296	270	380
35°	686	664	379	241	220	416
45°	307	595	298	191	173	243
55°	168	361	210	140	130	152
65°	96	172	131	90	77	95
75°	44	60	64	44	40	47
85°	10	10	14	11	11	11
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°	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2
2.5°	533.7	533.3	534.1	531.9	532.1	528.6	528.6	525.9	522.4	519.7	518.5
5°	574.5	574.9	574.1	571.0	568.9	565.8	562.3	556.2	551.0	546.1	542.2
7.5°	616.0	616.4	613.8	613.2	607.8	604.5	596.7	588.7	581.7	572.4	565.8
10°	651.4	651.2	648.3	646.1	641.5	635.8	628.2	618.3	609.0	598.7	588.9
12.5°	672.0	671.4	671.0	668.1	664.0	659.0	652.9	643.2	631.3	619.7	607.8
15°	690.1	688.7	686.0	682.5	676.5	670.6	663.4	654.7	643.8	631.1	620.4
17.5°	711.9	712.1	708.0	704.3	696.5	686.6	675.9	662.7	648.7	635.8	625.1
20°	740.3	739.7	735.6	726.1	716.9	703.7	690.9	673.9	655.7	637.4	623.2
22.5°	781.0	779.2	774.9	761.7	746.1	728.2	707.0	685.2	662.3	640.9	621.2
25°	826.3	825.1	816.6	802.2	782.1	755.9	730.4	701.8	670.4	643.0	620.4
27.5°	863.8	861.3	853.7	840.1	820.3	792.2	757.0	719.9	682.5	646.5	615.4
30°	859.2	862.3	861.5	855.9	842.0	817.3	785.4	742.4	695.7	651.4	612.5
32.5°	794.6	797.3	806.6	821.6	826.1	819.9	798.1	759.2	710.5	658.6	610.3
35°	685.6	689.3	703.3	725.3	754.1	778.2	783.1	761.7	718.3	664.2	608.0
37.5°	546.9	571.0	580.4	602.9	648.1	692.0	730.0	738.7	715.2	662.9	605.3
40°	447.7	452.7	473.6	499.8	536.4	582.5	643.2	687.0	688.5	654.7	596.7
42.5°	367.1	373.7	386.4	406.0	436.0	482.1	545.3	606.6	639.7	632.1	585.4
45°	306.6	311.3	321.8	337.9	361.9	400.0	453.9	520.8	573.9	594.6	563.4
47.5°	259.3	261.7	271.4	284.4	302.9	331.7	375.5	436.0	499.2	541.3	533.1
50°	222.2	225.1	232.1	241.4	256.4	279.8	313.2	361.5	427.1	481.7	492.6
52.5°	193.4	195.7	199.4	208.0	219.7	236.4	261.7	304.3	361.7	420.6	449.4
55°	168.3	170.0	173.5	178.4	188.3	201.2	224.5	254.7	302.5	360.9	397.9
57.5°	146.9	147.7	149.8	154.7	161.9	171.6	189.3	216.9	251.4	306.4	347.1
60°	126.7	127.6	130.4	133.5	138.9	147.5	160.7	178.6	211.5	254.9	296.3
62.5°	110.7	111.1	111.9	115.0	119.5	125.7	135.4	149.2	173.7	210.5	249.0
65°	95.5	95.7	96.1	98.6	101.4	106.4	113.2	123.5	143.2	172.0	206.6
67.5°	80.2	80.7	82.1	82.9	86.4	88.9	93.2	101.4	116.7	137.2	165.2
70°	67.9	67.7	69.1	70.2	71.2	74.3	77.0	83.3	92.0	106.8	129.2
72.5°	56.4	55.8	56.2	56.4	57.8	59.7	62.3	65.6	71.8	80.9	96.7
75°	44.4	44.6	44.6	45.1	46.1	46.9	47.7	49.8	53.5	60.3	69.5
77.5°	33.3	32.9	33.9	33.9	34.8	35.8	36.4	37.2	38.7	41.8	47.3
80°	22.6	22.6	22.8	23.5	23.3	23.7	24.7	25.5	27.4	29.0	30.7
82.5°	16.0	15.8	16.0	16.0	16.0	16.5	16.7	16.7	17.1	17.7	18.7
85°	9.5	9.5	9.7	9.7	9.9	9.9	10.1	10.1	10.1	10.3	10.5
87.5°	4.5	4.3	4.1	4.1	4.3	4.7	4.5	4.3	4.3	4.3	4.5
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°	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2
2.5°	518.5	517.1	514.4	511.9	508.8	506.2	504.3	502.0	499.2	495.7	492.8
5°	537.8	533.3	527.4	522.2	515.6	510.5	505.1	500.0	494.8	488.3	482.5
7.5°	559.2	550.4	542.2	531.5	521.8	513.4	505.1	496.7	488.7	479.6	471.2
10°	578.6	567.3	554.7	540.3	527.1	514.6	503.1	491.8	479.8	469.3	458.0
12.5°	596.7	581.3	566.4	547.3	530.8	514.8	499.4	484.6	471.6	457.2	444.8
15°	606.2	591.8	575.7	553.5	531.5	512.9	495.7	477.4	461.5	446.3	432.7
17.5°	611.7	596.5	578.0	556.4	532.7	509.7	487.8	468.3	450.2	432.7	417.7
20°	609.2	594.6	575.5	555.1	529.4	505.1	481.1	458.8	438.1	419.3	403.1
22.5°	603.3	588.1	569.7	547.9	523.9	497.7	471.6	447.5	425.5	406.0	387.8
25°	597.3	576.7	557.8	536.8	513.6	488.1	461.5	435.4	412.1	392.4	373.0
27.5°	591.5	566.7	543.2	523.0	498.1	475.1	449.2	422.2	397.9	378.0	358.2
30°	583.1	554.3	527.8	504.1	480.9	459.2	435.0	408.8	383.7	363.0	342.8
32.5°	572.6	541.5	511.7	483.5	461.3	439.9	418.5	393.8	369.5	347.9	327.4
35°	564.2	525.1	493.4	464.4	439.5	418.7	399.0	378.8	354.3	332.1	312.1
37.5°	552.5	509.5	473.6	442.0	416.0	395.5	379.6	360.5	337.6	316.0	297.5
40°	542.0	492.2	452.0	420.8	393.2	371.2	356.6	340.9	320.6	300.6	282.1
42.5°	528.0	476.3	430.2	397.3	369.5	348.6	333.7	320.6	304.3	285.8	265.6
45°	508.8	454.9	407.8	372.8	344.8	324.1	310.3	298.1	285.2	267.9	250.6
47.5°	486.0	434.6	385.0	346.5	319.5	300.0	286.4	276.3	266.9	251.8	234.4
50°	457.4	408.2	360.1	323.0	293.8	275.5	263.0	255.3	246.9	233.5	219.5
52.5°	423.7	381.1	334.1	296.1	268.9	252.1	240.1	232.5	225.9	215.6	202.5
55°	387.8	349.4	306.2	271.8	246.5	229.2	217.7	210.5	206.4	197.1	186.6
57.5°	347.3	317.7	278.6	245.1	222.2	204.9	196.3	189.9	185.2	178.4	170.6
60°	304.5	285.2	251.0	219.5	199.0	182.7	175.1	170.0	165.6	160.1	154.3
62.5°	261.1	248.3	219.7	193.8	175.3	162.3	155.3	150.8	145.7	142.4	136.8
65°	223.2	210.7	190.1	168.9	151.4	140.5	135.4	131.3	128.2	124.1	120.2
67.5°	181.3	175.5	160.3	144.4	131.7	121.2	116.7	113.4	109.9	107.4	104.5
70°	143.2	140.7	130.7	121.0	109.3	102.7	98.6	97.3	92.8	90.3	88.5
72.5°	109.5	108.6	103.9	97.9	90.5	85.0	81.3	79.8	77.4	75.5	74.5
75°	79.6	80.0	79.0	74.7	71.6	67.9	64.6	63.8	61.7	60.1	59.1
77.5°	54.3	56.4	56.0	55.8	54.3	51.6	50.2	49.6	47.3	46.7	46.5
80°	34.6	36.8	38.9	38.7	38.3	37.7	36.6	36.0	35.0	34.4	33.9
82.5°	20.2	22.2	23.9	25.3	25.3	24.7	24.1	23.9	23.9	23.5	23.5
85°	10.9	11.3	11.9	13.4	14.4	14.6	14.4	14.2	13.6	13.8	14.0
87.5°	4.7	4.7	4.9	4.9	4.7	5.8	6.4	6.6	6.2	5.8	5.3
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2	501.2
2.5°	490.7	487.8	485.8	481.7	478.8	477.6	475.3	474.7	476.9	475.3	475.1
5°	478.2	472.2	467.5	462.7	457.6	454.3	449.4	448.5	447.3	445.5	445.0
7.5°	463.6	456.2	450.6	442.8	436.4	431.3	425.1	422.6	421.4	419.1	415.4
10°	448.8	439.5	431.3	423.4	415.0	408.2	402.0	397.3	394.2	391.3	390.1
12.5°	434.1	424.7	413.6	403.7	394.0	386.2	379.2	376.5	373.0	369.5	366.2
15°	418.9	406.4	394.8	383.9	375.9	367.7	361.1	356.6	351.4	350.0	344.4
17.5°	402.7	390.9	377.4	365.6	356.6	347.9	340.7	335.4	331.5	325.9	323.2
20°	387.6	373.0	359.9	349.4	339.1	328.4	321.0	316.7	313.0	308.6	306.6
22.5°	371.6	357.4	343.8	331.1	320.6	310.1	305.3	300.8	296.5	292.6	289.7
25°	356.0	341.6	327.4	314.6	303.7	296.1	289.9	284.8	282.5	278.6	275.7
27.5°	340.3	325.1	310.7	297.3	288.9	281.3	276.3	272.2	267.9	264.4	261.7
30°	325.3	309.7	293.6	283.5	274.5	267.3	261.7	257.8	254.7	251.6	249.8
32.5°	310.3	294.0	280.2	269.1	260.7	254.7	249.0	245.3	242.0	238.5	236.2
35°	294.0	277.6	266.0	255.3	246.9	241.1	237.2	231.9	229.2	226.7	224.5
37.5°	279.4	263.8	251.0	241.8	233.9	228.4	223.2	220.6	217.1	215.0	213.2
40°	263.0	249.0	237.6	227.8	222.4	216.0	211.3	207.6	205.1	202.3	200.2
42.5°	248.1	235.4	224.5	215.8	208.8	203.7	199.2	195.5	192.2	190.3	188.7
45°	234.4	221.4	210.7	202.5	196.3	191.1	186.4	184.6	180.4	178.0	177.2
47.5°	220.0	208.2	197.7	190.1	183.7	179.0	174.5	170.4	168.3	165.8	164.6
50°	205.3	194.2	184.6	177.2	171.0	165.6	161.5	159.0	156.0	153.7	152.1
52.5°	190.7	180.7	171.0	164.0	158.8	153.5	148.8	146.3	143.4	142.2	141.1
55°	176.9	166.0	157.8	150.8	145.3	140.3	136.0	133.5	131.7	130.2	129.8
57.5°	161.1	152.3	144.4	138.3	132.3	127.6	123.7	121.4	119.7	119.5	118.1
60°	145.7	137.9	130.9	124.1	119.1	114.8	111.5	108.8	107.2	107.0	106.6
62.5°	130.2	122.8	116.5	110.7	106.4	102.3	99.2	96.1	95.3	94.0	93.0
65°	115.0	108.2	102.9	98.1	93.4	89.9	86.8	85.0	82.7	81.5	79.2
67.5°	100.0	94.4	89.3	85.4	81.5	78.0	75.3	72.6	71.0	70.0	68.1
70°	85.2	81.1	75.9	71.6	68.7	66.0	64.0	60.9	59.9	59.1	58.2
72.5°	71.2	67.7	63.6	60.3	57.4	54.9	52.5	51.4	50.4	49.6	49.2
75°	58.2	54.7	51.0	48.6	46.5	44.4	43.2	42.2	41.8	41.6	40.7
77.5°	45.3	43.2	40.1	37.9	36.4	35.6	34.4	33.9	34.2	33.1	32.9
80°	32.7	31.7	29.2	28.4	27.4	26.5	25.9	24.9	23.9	23.5	22.8
82.5°	22.2	21.2	20.6	19.1	18.3	17.9	17.3	17.1	17.5	16.9	16.7
85°	13.0	11.9	11.5	11.3	10.9	11.3	11.1	10.9	10.7	10.5	10.7
87.5°	5.1	5.1	4.9	5.3	4.7	4.9	4.9	4.7	4.7	4.7	4.5
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: P242908

CATALOG NUMBER: S125RDRP-S375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	501.2	501.2	501.2	501.2
2.5°	474.9	472.6	472.0	472.8
5°	443.0	440.9	442.0	441.6
7.5°	416.0	413.4	410.3	411.1
10°	387.4	385.4	384.1	385.2
12.5°	363.4	362.3	361.3	360.5
15°	342.0	339.5	338.5	335.8
17.5°	321.4	320.6	317.9	316.0
20°	303.5	302.7	300.0	301.6
22.5°	288.7	286.6	286.2	285.2
25°	274.9	272.2	271.2	270.0
27.5°	260.9	259.5	258.0	257.6
30°	247.3	245.9	244.8	244.8
32.5°	235.2	234.2	233.1	232.9
35°	223.5	221.8	221.4	220.2
37.5°	211.1	209.7	209.7	209.9
40°	199.4	198.3	198.1	196.7
42.5°	186.8	186.4	185.6	185.2
45°	175.7	174.3	174.3	173.2
47.5°	164.0	162.8	163.0	161.7
50°	152.3	151.6	151.4	151.0
52.5°	140.5	140.3	141.4	140.3
55°	130.2	129.6	130.9	129.6
57.5°	118.1	117.7	118.9	118.1
60°	106.2	104.9	105.6	105.8
62.5°	92.0	91.4	91.8	90.5
65°	78.8	78.2	77.4	77.0
67.5°	68.5	66.7	66.7	67.1
70°	57.0	57.0	56.8	56.8
72.5°	49.0	48.8	48.4	48.1
75°	40.7	40.9	40.5	40.3
77.5°	31.9	30.9	31.3	30.9
80°	22.8	22.6	23.3	22.6
82.5°	16.9	16.7	16.9	16.5
85°	10.9	10.7	10.5	10.7
87.5°	4.7	4.5	4.5	4.5
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P242908
 CATALOG NUMBER: S125RDRP-S375D830-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	14.04	15.57	14.40	15.89	16.20	15.02	16.55	15.38	16.87	17.18
	3H	15.17	16.54	15.54	16.87	17.23	16.50	17.87	16.87	18.20	18.56
	4H	15.55	16.84	15.95	17.19	17.57	17.01	18.30	17.41	18.65	19.03
	6H	15.78	16.97	16.19	17.34	17.73	17.36	18.55	17.77	18.92	19.31
	8H	15.84	16.97	16.26	17.36	17.76	17.45	18.59	17.88	18.98	19.38
	12H	15.87	16.96	16.30	17.34	17.77	17.51	18.60	17.94	18.98	19.41
4H	2H	15.63	16.92	16.03	17.27	17.64	15.87	17.16	16.26	17.50	17.88
	3H	16.69	17.76	17.11	18.16	18.57	17.53	18.60	17.94	19.00	19.40
	4H	17.08	18.04	17.51	18.46	18.89	18.11	19.08	18.55	19.49	19.93
	6H	17.33	18.17	17.79	18.61	19.07	18.54	19.38	19.00	19.82	20.28
	8H	17.39	18.18	17.86	18.62	19.09	18.66	19.45	19.13	19.89	20.36
	12H	17.44	18.14	17.92	18.61	19.09	18.75	19.44	19.23	19.92	20.39
8H	4H	17.45	18.23	17.91	18.68	19.14	18.26	19.04	18.72	19.49	19.95
	6H	17.76	18.40	18.25	18.89	19.37	18.78	19.42	19.27	19.91	20.39
	8H	17.85	18.43	18.36	18.94	19.43	18.95	19.53	19.47	20.04	20.53
	12H	17.93	18.44	18.44	18.93	19.50	19.09	19.60	19.60	20.09	20.66
12H	4H	17.48	18.17	17.96	18.65	19.12	18.25	18.95	18.73	19.43	19.90
	6H	17.79	18.37	18.30	18.88	19.37	18.77	19.35	19.28	19.86	20.35
	8H	17.92	18.43	18.43	18.93	19.49	18.98	19.50	19.49	19.99	20.55