

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: P242918

Luminaire Tested: S125RDRP-S375D840-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242918
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-S375D840-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

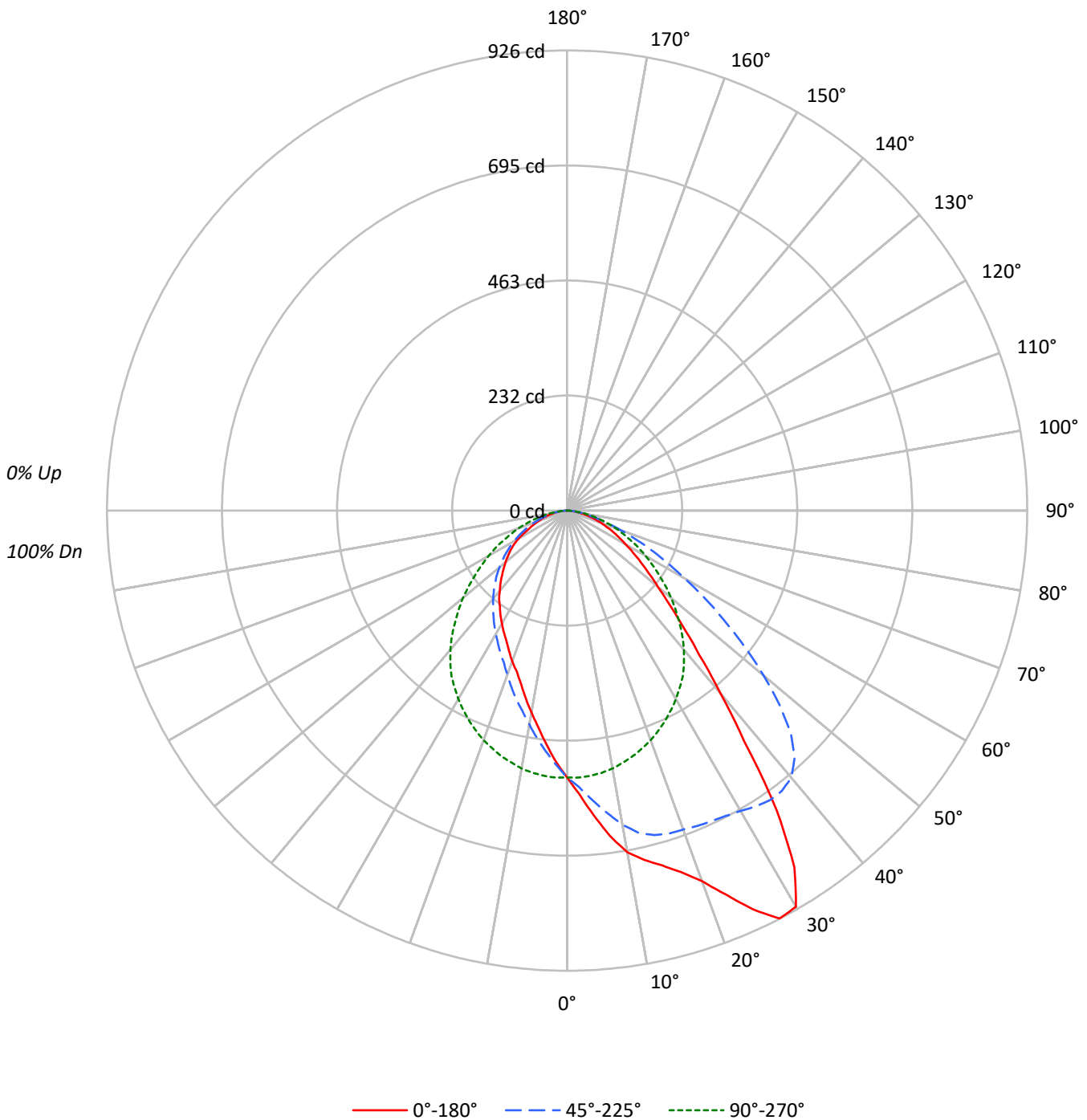
Lumens per Lamp: N/A
Luminaire Lumens: 1391.4 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (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

TEST NUMBER: P242918

CATALOG NUMBER: S125RDRP-S375D840-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot





TEST NUMBER: P242918

CATALOG NUMBER: S125RDRP-S375D840-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				
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°	3817	3817	3817	3817	3817
5°	4391	4174	3822	3473	3375
10°	5037	4630	3803	3157	2978
15°	5441	4975	3763	2898	2647
20°	5999	5166	3718	2661	2445
25°	6943	5402	3658	2488	2268
30°	7555	5728	3595	2350	2153
35°	6373	6174	3522	2242	2047
40°	4451	6509	3389	2148	1956
45°	3302	6404	3210	2059	1866
50°	2633	5707	3025	1963	1789
55°	2234	4792	2794	1862	1721
60°	1930	3882	2588	1748	1611
65°	1720	3099	2365	1620	1386
70°	1511	2377	2167	1471	1263
75°	1307	1774	1876	1307	1186
80°	990	1273	1580	1162	990
85°	824	897	1240	987	938

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6404 cd/sqm



TEST NUMBER: P242918

CATALOG NUMBER: S125RDRP-S375D840-X4F0-XX-UDD-A-W

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.5	3.7
10°-20°	151.0	10.9
20°-30°	239.4	17.2
30°-40°	289.3	20.8
40°-50°	257.6	18.5
50°-60°	197.5	14.2
60°-70°	128.3	9.2
70°-80°	62.2	4.5
80°-90°	14.6	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°	441.9	31.8
0°-40°	731.1	52.5
0°-60°	1186.3	85.3
0°-90°	1391.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1391.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	537	537	537	537	537	
5°	616	585	536	487	473	61
15°	739	676	511	394	360	212
25°	885	689	466	317	289	408
35°	734	712	406	258	236	445
45°	328	637	319	205	186	261
55°	180	387	226	150	139	163
65°	102	184	141	96	82	102
75°	48	65	68	48	43	51
85°	10	11	15	12	12	12
90°	0	0	0	0	0	



TEST NUMBER: P242918

CATALOG NUMBER: S125RDRP-S375D840-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0
2.5°	571.9	571.4	572.3	569.9	570.1	566.3	566.3	563.5	559.7	556.9	555.5
5°	615.5	615.9	615.1	611.8	609.6	606.2	602.5	595.9	590.4	585.1	580.9
7.5°	660.0	660.5	657.6	656.9	651.2	647.7	639.3	630.7	623.2	613.3	606.2
10°	698.0	697.7	694.6	692.2	687.4	681.2	673.0	662.5	652.5	641.5	630.9
12.5°	720.0	719.3	718.9	715.8	711.4	706.1	699.5	689.1	676.3	664.0	651.2
15°	739.4	737.9	735.0	731.2	724.8	718.5	710.7	701.5	689.8	676.1	664.7
17.5°	762.8	763.0	758.6	754.6	746.2	735.6	724.2	710.1	695.1	681.2	669.7
20°	793.2	792.5	788.1	778.0	768.1	753.9	740.3	722.0	702.6	683.0	667.7
22.5°	836.8	834.9	830.2	816.1	799.4	780.2	757.5	734.1	709.6	686.7	665.5
25°	885.3	884.0	875.0	859.5	837.9	809.9	782.6	752.0	718.2	688.9	664.7
27.5°	925.5	922.8	914.7	900.1	878.9	848.7	811.0	771.4	731.2	692.7	659.4
30°	920.6	923.9	923.0	917.1	902.1	875.6	841.5	795.4	745.3	698.0	656.3
32.5°	851.4	854.3	864.2	880.3	885.1	878.5	855.1	813.5	761.2	705.7	653.9
35°	734.5	738.5	753.5	777.1	808.0	833.8	839.0	816.1	769.6	711.6	651.4
37.5°	586.0	611.8	621.9	645.9	694.4	741.4	782.2	791.4	766.3	710.3	648.6
40°	479.7	485.0	507.5	535.5	574.7	624.1	689.1	736.1	737.6	701.5	639.3
42.5°	393.3	400.3	414.0	435.0	467.1	516.5	584.2	649.9	685.4	677.2	627.2
45°	328.5	333.5	344.8	362.0	387.8	428.6	486.3	558.0	614.8	637.1	603.6
47.5°	277.8	280.4	290.8	304.7	324.5	355.4	402.3	467.1	534.8	580.0	571.2
50°	238.1	241.2	248.7	258.6	274.7	299.8	335.5	387.3	457.7	516.1	527.8
52.5°	207.2	209.7	213.6	222.9	235.4	253.3	280.4	326.0	387.6	450.6	481.5
55°	180.3	182.1	185.8	191.1	201.7	215.6	240.5	272.9	324.1	386.7	426.4
57.5°	157.4	158.3	160.5	165.8	173.5	183.9	202.8	232.4	269.4	328.3	371.9
60°	135.8	136.7	139.8	143.1	148.8	158.1	172.2	191.4	226.6	273.1	317.5
62.5°	118.6	119.0	119.9	123.2	128.1	134.7	145.1	159.8	186.1	225.5	266.7
65°	102.3	102.5	103.0	105.6	108.7	114.0	121.2	132.3	153.4	184.3	221.3
67.5°	86.0	86.4	88.0	88.8	92.6	95.2	99.9	108.7	125.0	147.0	177.0
70°	72.7	72.5	74.1	75.2	76.3	79.6	82.4	89.3	98.5	114.4	138.4
72.5°	60.4	59.7	60.2	60.4	61.9	63.9	66.8	70.3	76.9	86.6	103.6
75°	47.6	47.8	47.8	48.3	49.4	50.3	51.1	53.3	57.3	64.6	74.5
77.5°	35.7	35.3	36.4	36.4	37.3	38.4	39.0	39.9	41.4	44.8	50.7
80°	24.2	24.2	24.5	25.1	24.9	25.4	26.5	27.3	29.3	31.1	32.8
82.5°	17.2	17.0	17.2	17.2	17.2	17.6	17.9	17.9	18.3	19.0	20.1
85°	10.1	10.1	10.4	10.4	10.6	10.6	10.8	10.8	10.8	11.0	11.2
87.5°	4.8	4.6	4.4	4.4	4.6	5.1	4.8	4.6	4.6	4.6	4.8
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: P242918

CATALOG NUMBER: S125RDRP-S375D840-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0
2.5°	555.5	554.0	551.1	548.5	545.2	542.3	540.3	537.9	534.8	531.1	528.0
5°	576.3	571.4	565.0	559.5	552.5	546.9	541.2	535.7	530.2	523.1	517.0
7.5°	599.2	589.7	580.9	569.4	559.1	550.0	541.2	532.2	523.6	513.9	504.8
10°	619.9	607.8	594.3	578.9	564.8	551.4	539.0	526.9	514.1	502.9	490.7
12.5°	639.3	622.8	606.9	586.4	568.8	551.6	535.0	519.2	505.3	489.8	476.6
15°	649.5	634.0	616.8	593.0	569.4	549.6	531.1	511.4	494.5	478.2	463.6
17.5°	655.4	639.1	619.3	596.1	570.8	546.1	522.7	501.7	482.3	463.6	447.5
20°	652.8	637.1	616.6	594.8	567.2	541.2	515.4	491.6	469.3	449.3	431.9
22.5°	646.4	630.1	610.4	587.1	561.3	533.3	505.3	479.5	455.9	435.0	415.6
25°	640.0	617.9	597.6	575.2	550.2	522.9	494.5	466.5	441.6	420.4	399.7
27.5°	633.8	607.1	582.0	560.4	533.7	509.0	481.2	452.4	426.4	405.0	383.8
30°	624.8	593.9	565.5	540.1	515.2	492.0	466.0	438.0	411.1	388.9	367.3
32.5°	613.5	580.2	548.3	518.1	494.3	471.3	448.4	421.9	395.9	372.8	350.7
35°	604.5	562.6	528.6	497.6	470.9	448.6	427.5	405.9	379.6	355.8	334.4
37.5°	591.9	545.8	507.5	473.5	445.8	423.7	406.7	386.2	361.8	338.6	318.8
40°	580.7	527.3	484.3	450.8	421.3	397.7	382.0	365.3	343.5	322.1	302.2
42.5°	565.7	510.3	461.0	425.7	395.9	373.4	357.6	343.5	326.0	306.2	284.6
45°	545.2	487.4	436.9	399.5	369.5	347.2	332.4	319.4	305.5	287.0	268.5
47.5°	520.7	465.6	412.5	371.2	342.4	321.4	306.9	296.1	285.9	269.8	251.1
50°	490.1	437.4	385.8	346.1	314.8	295.2	281.7	273.6	264.5	250.2	235.2
52.5°	453.9	408.3	358.0	317.2	288.1	270.1	257.3	249.1	242.1	231.0	216.9
55°	415.6	374.3	328.0	291.2	264.1	245.6	233.2	225.5	221.1	211.2	200.0
57.5°	372.1	340.4	298.5	262.6	238.1	219.6	210.3	203.5	198.4	191.1	182.8
60°	326.3	305.5	269.0	235.2	213.2	195.8	187.6	182.1	177.5	171.5	165.3
62.5°	279.8	266.1	235.4	207.7	187.8	173.9	166.4	161.6	156.1	152.6	146.6
65°	239.2	225.7	203.7	181.0	162.3	150.6	145.1	140.6	137.3	132.9	128.7
67.5°	194.2	188.0	171.7	154.8	141.1	129.8	125.0	121.5	117.7	115.1	112.0
70°	153.4	150.8	140.0	129.6	117.1	110.0	105.6	104.3	99.4	96.8	94.8
72.5°	117.3	116.4	111.3	104.9	97.0	91.0	87.1	85.5	82.9	80.9	79.8
75°	85.3	85.8	84.7	80.0	76.7	72.7	69.2	68.3	66.1	64.4	63.3
77.5°	58.2	60.4	60.0	59.7	58.2	55.3	53.8	53.1	50.7	50.0	49.8
80°	37.0	39.5	41.7	41.4	41.0	40.3	39.2	38.6	37.5	36.8	36.4
82.5°	21.6	23.8	25.6	27.1	27.1	26.5	25.8	25.6	25.6	25.1	25.1
85°	11.7	12.1	12.8	14.3	15.4	15.7	15.4	15.2	14.5	14.8	15.0
87.5°	5.1	5.1	5.3	5.3	5.1	6.2	6.8	7.1	6.6	6.2	5.7
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: P242918

CATALOG NUMBER: S125RDRP-S375D840-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0	537.0
2.5°	525.8	522.7	520.5	516.1	513.0	511.7	509.2	508.6	511.0	509.2	509.0
5°	512.3	505.9	500.9	495.8	490.3	486.8	481.5	480.6	479.3	477.3	476.8
7.5°	496.7	488.7	482.8	474.4	467.6	462.1	455.5	452.8	451.5	449.1	445.1
10°	480.8	470.9	462.1	453.7	444.7	437.4	430.8	425.7	422.4	419.3	418.0
12.5°	465.2	455.0	443.1	432.5	422.2	413.8	406.3	403.4	399.7	395.9	392.4
15°	448.8	435.4	423.0	411.4	402.8	393.9	386.9	382.0	376.5	375.0	369.0
17.5°	431.4	418.9	404.3	391.7	382.0	372.8	365.1	359.3	355.1	349.2	346.3
20°	415.3	399.7	385.6	374.3	363.3	351.8	343.9	339.3	335.3	330.7	328.5
22.5°	398.1	382.9	368.4	354.7	343.5	332.2	327.2	322.3	317.7	313.5	310.4
25°	381.4	366.0	350.7	337.1	325.4	317.2	310.6	305.1	302.7	298.5	295.4
27.5°	364.6	348.3	332.9	318.6	309.5	301.4	296.1	291.7	287.0	283.3	280.4
30°	348.5	331.8	314.6	303.8	294.1	286.4	280.4	276.2	272.9	269.6	267.6
32.5°	332.4	315.0	300.3	288.4	279.3	272.9	266.7	262.8	259.3	255.5	253.1
35°	315.0	297.4	285.0	273.6	264.5	258.4	254.2	248.4	245.6	242.9	240.5
37.5°	299.4	282.6	269.0	259.0	250.7	244.7	239.2	236.3	232.6	230.4	228.4
40°	281.7	266.7	254.6	244.0	238.3	231.5	226.4	222.4	219.8	216.7	214.5
42.5°	265.9	252.2	240.5	231.3	223.8	218.2	213.4	209.4	205.9	203.9	202.2
45°	251.1	237.2	225.7	216.9	210.3	204.8	199.7	197.7	193.3	190.7	189.8
47.5°	235.7	223.1	211.9	203.7	196.9	191.8	186.9	182.5	180.3	177.7	176.4
50°	220.0	208.1	197.7	189.8	183.2	177.5	173.1	170.4	167.1	164.7	162.9
52.5°	204.4	193.6	183.2	175.7	170.2	164.5	159.4	156.7	153.7	152.3	151.2
55°	189.6	177.9	169.1	161.6	155.6	150.3	145.7	143.1	141.1	139.5	139.1
57.5°	172.6	163.1	154.8	148.1	141.8	136.7	132.5	130.1	128.3	128.1	126.5
60°	156.1	147.7	140.2	132.9	127.6	123.0	119.5	116.6	114.9	114.6	114.2
62.5°	139.5	131.6	124.8	118.6	114.0	109.6	106.3	103.0	102.1	100.7	99.6
65°	123.2	116.0	110.2	105.2	100.1	96.3	93.0	91.0	88.6	87.3	84.9
67.5°	107.1	101.2	95.7	91.5	87.3	83.6	80.7	77.8	76.1	75.0	73.0
70°	91.3	86.9	81.3	76.7	73.6	70.8	68.6	65.3	64.2	63.3	62.4
72.5°	76.3	72.5	68.1	64.6	61.5	58.9	56.2	55.1	54.0	53.1	52.7
75°	62.4	58.6	54.7	52.0	49.8	47.6	46.3	45.2	44.8	44.5	43.6
77.5°	48.5	46.3	43.0	40.6	39.0	38.1	36.8	36.4	36.6	35.5	35.3
80°	35.1	33.9	31.3	30.4	29.3	28.4	27.8	26.7	25.6	25.1	24.5
82.5°	23.8	22.7	22.0	20.5	19.6	19.2	18.5	18.3	18.7	18.1	17.9
85°	13.9	12.8	12.3	12.1	11.7	12.1	11.9	11.7	11.5	11.2	11.5
87.5°	5.5	5.5	5.3	5.7	5.1	5.3	5.3	5.1	5.1	5.1	4.8
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: P242918

CATALOG NUMBER: S125RDRP-S375D840-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	537.0	537.0	537.0	537.0
2.5°	508.8	506.4	505.7	506.6
5°	474.6	472.4	473.5	473.1
7.5°	445.8	442.9	439.6	440.5
10°	415.1	412.9	411.6	412.7
12.5°	389.3	388.2	387.1	386.2
15°	366.4	363.7	362.6	359.8
17.5°	344.3	343.5	340.6	338.6
20°	325.2	324.3	321.4	323.2
22.5°	309.3	307.1	306.6	305.5
25°	294.5	291.7	290.6	289.2
27.5°	279.5	278.0	276.4	276.0
30°	265.0	263.4	262.3	262.3
32.5°	252.0	250.9	249.8	249.6
35°	239.4	237.6	237.2	235.9
37.5°	226.2	224.6	224.6	224.9
40°	213.6	212.5	212.3	210.8
42.5°	200.2	199.7	198.8	198.4
45°	188.3	186.7	186.7	185.6
47.5°	175.7	174.4	174.6	173.3
50°	163.1	162.5	162.3	161.8
52.5°	150.6	150.3	151.5	150.3
55°	139.5	138.9	140.2	138.9
57.5°	126.5	126.1	127.4	126.5
60°	113.8	112.4	113.1	113.3
62.5°	98.5	97.9	98.3	97.0
65°	84.4	83.8	82.9	82.4
67.5°	73.4	71.4	71.4	71.9
70°	61.1	61.1	60.8	60.8
72.5°	52.5	52.2	51.8	51.6
75°	43.6	43.9	43.4	43.2
77.5°	34.2	33.1	33.5	33.1
80°	24.5	24.2	24.9	24.2
82.5°	18.1	17.9	18.1	17.6
85°	11.7	11.5	11.2	11.5
87.5°	5.1	4.8	4.8	4.8
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242918
 CATALOG NUMBER: S125RDRP-S375D840-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	14.28	15.81	14.64	16.13	16.44	15.26	16.79	15.62	17.10	17.42
	3H	15.41	16.78	15.78	17.11	17.47	16.73	18.11	17.11	18.44	18.80
	4H	15.79	17.08	16.19	17.43	17.81	17.25	18.54	17.65	18.89	19.26
	6H	16.02	17.21	16.43	17.58	17.97	17.60	18.79	18.01	19.15	19.55
	8H	16.08	17.21	16.51	17.60	18.00	17.69	18.83	18.12	19.22	19.62
	12H	16.11	17.20	16.54	17.58	18.01	17.75	18.84	18.18	19.22	19.65
4H	2H	15.87	17.16	16.27	17.51	17.88	16.10	17.40	16.50	17.74	18.12
	3H	16.93	18.00	17.35	18.40	18.81	17.77	18.84	18.18	19.24	19.64
	4H	17.32	18.28	17.75	18.70	19.13	18.35	19.31	18.78	19.73	20.17
	6H	17.57	18.41	18.03	18.85	19.31	18.78	19.62	19.24	20.06	20.52
	8H	17.64	18.42	18.10	18.86	19.33	18.90	19.68	19.37	20.13	20.59
	12H	17.68	18.38	18.16	18.86	19.33	18.98	19.68	19.47	20.16	20.63
8H	4H	17.69	18.47	18.15	18.92	19.38	18.50	19.28	18.96	19.73	20.19
	6H	18.00	18.64	18.49	19.13	19.61	19.02	19.66	19.51	20.15	20.63
	8H	18.09	18.67	18.60	19.18	19.67	19.19	19.77	19.70	20.28	20.77
	12H	18.17	18.68	18.68	19.17	19.74	19.33	19.84	19.84	20.33	20.90
12H	4H	17.72	18.42	18.20	18.89	19.36	18.49	19.19	18.97	19.67	20.14
	6H	18.03	18.61	18.54	19.12	19.61	19.01	19.59	19.52	20.10	20.59
	8H	18.16	18.67	18.67	19.17	19.73	19.22	19.74	19.73	20.23	20.79