

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: P242933

Luminaire Tested: S125RDRP-S375D940-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242933
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-S375D940-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

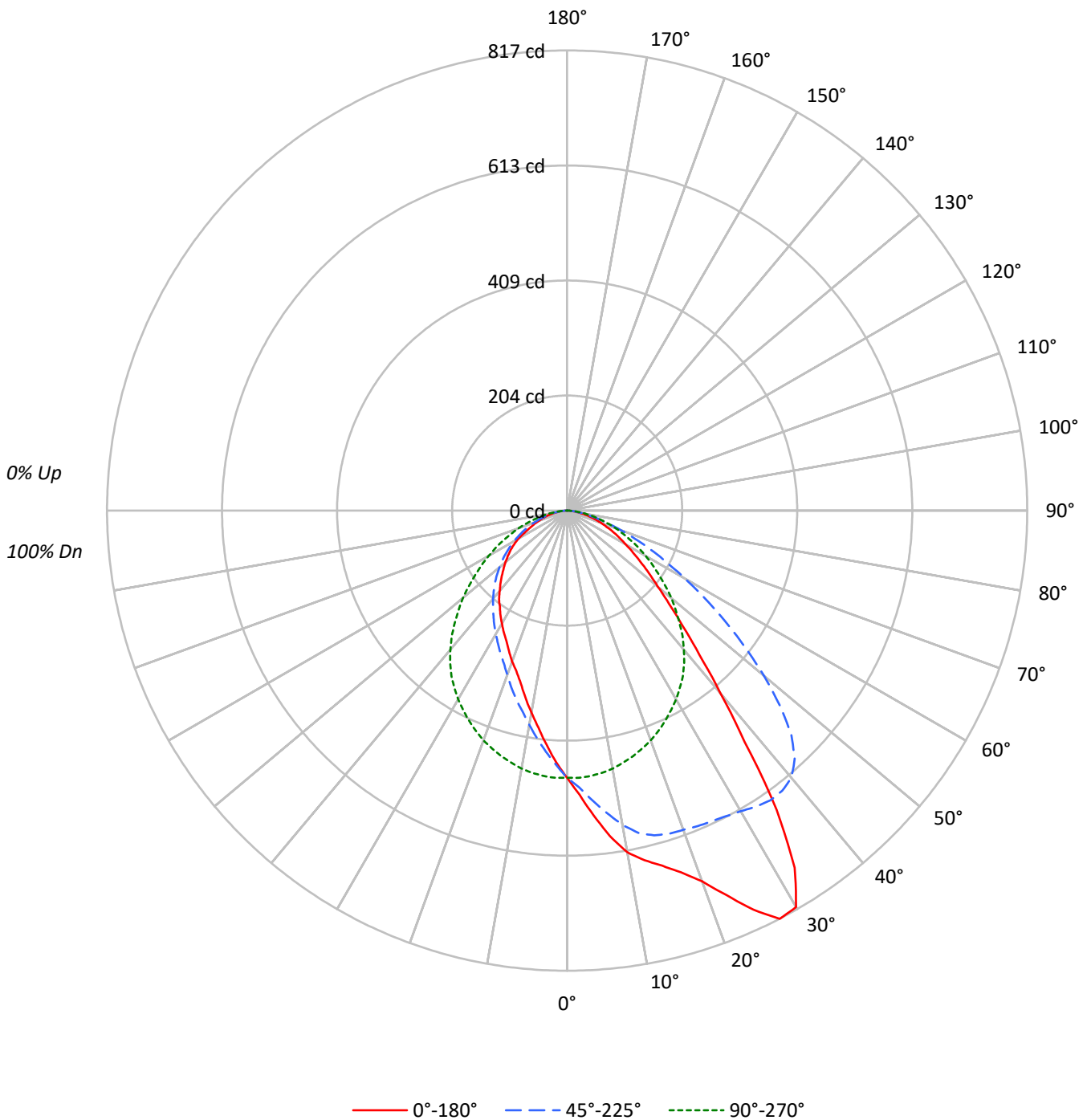
Lumens per Lamp: N/A
Luminaire Lumens: 1228.6 lumens
Efficiency: N/A
Efficacy: 105.9 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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

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Luminous Intensity Polar Plot





TEST NUMBER: P242933

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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°	3370	3370	3370	3370	3370
5°	3878	3686	3375	3066	2980
10°	4448	4088	3357	2787	2630
15°	4804	4393	3323	2560	2338
20°	5297	4562	3283	2350	2159
25°	6131	4770	3230	2197	2003
30°	6671	5058	3174	2076	1901
35°	5628	5452	3110	1979	1807
40°	3930	5747	2993	1896	1727
45°	2915	5655	2835	1817	1647
50°	2324	5039	2671	1733	1580
55°	1973	4230	2467	1646	1519
60°	1704	3429	2286	1544	1423
65°	1519	2736	2089	1431	1224
70°	1334	2099	1914	1299	1116
75°	1153	1565	1656	1153	1049
80°	876	1121	1396	1027	876
85°	734	791	1093	873	824

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5655 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	45.5	3.7
10°-20°	133.3	10.9
20°-30°	211.4	17.2
30°-40°	255.4	20.8
40°-50°	227.5	18.5
50°-60°	174.4	14.2
60°-70°	113.3	9.2
70°-80°	55.0	4.5
80°-90°	12.9	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°	390.2	31.8
0°-40°	645.6	52.5
0°-60°	1047.5	85.3
0°-90°	1228.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1228.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	474	474	474	474	474	
5°	544	517	473	430	418	54
15°	653	597	452	348	318	187
25°	782	608	412	280	255	360
35°	649	628	358	228	208	393
45°	290	563	282	181	164	230
55°	159	341	199	133	123	144
65°	90	163	124	85	73	90
75°	42	57	60	42	38	45
85°	9	10	13	11	10	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°	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2
2.5°	504.9	504.6	505.3	503.2	503.4	500.1	500.1	497.5	494.2	491.7	490.5
5°	543.5	543.9	543.1	540.2	538.2	535.3	532.0	526.2	521.3	516.6	512.9
7.5°	582.8	583.2	580.7	580.1	575.0	571.9	564.5	556.9	550.3	541.5	535.3
10°	616.3	616.1	613.4	611.2	606.9	601.5	594.3	585.0	576.2	566.5	557.1
12.5°	635.8	635.2	634.8	632.1	628.2	623.5	617.7	608.5	597.2	586.3	575.0
15°	652.9	651.5	649.0	645.7	640.0	634.4	627.6	619.4	609.1	597.0	586.9
17.5°	673.5	673.7	669.8	666.3	658.9	649.6	639.5	627.0	613.8	601.5	591.4
20°	700.4	699.8	695.9	687.0	678.2	665.7	653.7	637.5	620.4	603.1	589.6
22.5°	738.9	737.2	733.1	720.6	705.8	688.9	668.8	648.2	626.6	606.4	587.7
25°	781.8	780.6	772.6	759.0	739.9	715.2	691.0	664.0	634.2	608.3	586.9
27.5°	817.2	814.8	807.6	794.8	776.1	749.4	716.2	681.1	645.7	611.6	582.2
30°	812.9	815.8	815.0	809.8	796.5	773.2	743.0	702.3	658.1	616.3	579.5
32.5°	751.8	754.3	763.1	777.3	781.6	775.7	755.1	718.3	672.2	623.1	577.4
35°	648.6	652.1	665.3	686.2	713.4	736.2	740.9	720.6	679.6	628.4	575.2
37.5°	517.4	540.2	549.1	570.4	613.2	654.6	690.7	698.8	676.6	627.2	572.7
40°	423.6	428.3	448.1	472.8	507.5	551.1	608.5	650.0	651.3	619.4	564.5
42.5°	347.3	353.5	365.6	384.1	412.5	456.1	515.8	573.9	605.2	598.0	553.8
45°	290.0	294.5	304.4	319.6	342.4	378.4	429.4	492.7	542.9	562.6	533.0
47.5°	245.3	247.6	256.8	269.0	286.5	313.8	355.3	412.5	472.2	512.1	504.4
50°	210.2	213.0	219.6	228.3	242.5	264.7	296.3	342.0	404.1	455.7	466.0
52.5°	183.0	185.1	188.6	196.8	207.9	223.7	247.6	287.9	342.2	397.9	425.1
55°	159.2	160.8	164.1	168.8	178.1	190.4	212.4	241.0	286.1	341.4	376.5
57.5°	139.0	139.8	141.7	146.4	153.2	162.3	179.1	205.2	237.9	289.8	328.4
60°	119.9	120.7	123.4	126.3	131.4	139.6	152.0	169.0	200.1	241.2	280.3
62.5°	104.7	105.1	105.9	108.8	113.1	118.9	128.1	141.1	164.3	199.1	235.5
65°	90.3	90.5	90.9	93.2	96.0	100.6	107.1	116.8	135.5	162.7	195.4
67.5°	75.9	76.3	77.7	78.4	81.8	84.1	88.2	96.0	110.4	129.8	156.3
70°	64.2	64.0	65.4	66.4	67.4	70.3	72.8	78.8	87.0	101.0	122.2
72.5°	53.3	52.8	53.1	53.3	54.7	56.5	59.0	62.1	67.9	76.5	91.5
75°	42.0	42.2	42.2	42.6	43.6	44.4	45.2	47.1	50.6	57.0	65.8
77.5°	31.5	31.1	32.1	32.1	32.9	33.9	34.5	35.2	36.6	39.5	44.8
80°	21.4	21.4	21.6	22.2	22.0	22.4	23.4	24.1	25.9	27.4	29.0
82.5°	15.2	15.0	15.2	15.2	15.2	15.6	15.8	15.8	16.2	16.7	17.7
85°	9.0	9.0	9.1	9.1	9.3	9.3	9.5	9.5	9.5	9.7	9.9
87.5°	4.3	4.1	3.9	3.9	4.1	4.5	4.3	4.1	4.1	4.1	4.3
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°	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2
2.5°	490.5	489.2	486.6	484.3	481.4	478.9	477.1	475.0	472.2	468.9	466.2
5°	508.8	504.6	498.9	494.0	487.8	482.9	477.9	473.0	468.2	461.9	456.5
7.5°	529.1	520.7	512.9	502.8	493.7	485.7	477.9	469.9	462.3	453.8	445.8
10°	547.4	536.7	524.8	511.2	498.7	486.8	475.9	465.2	453.9	444.0	433.3
12.5°	564.5	549.9	535.9	517.8	502.2	487.0	472.4	458.4	446.2	432.5	420.9
15°	573.5	559.8	544.7	523.6	502.8	485.3	468.9	451.6	436.6	422.2	409.4
17.5°	578.7	564.3	546.8	526.4	504.0	482.2	461.5	443.0	425.9	409.4	395.2
20°	576.4	562.6	544.5	525.2	500.9	477.9	455.1	434.1	414.4	396.7	381.3
22.5°	570.7	556.3	539.0	518.4	495.6	470.9	446.2	423.4	402.6	384.1	366.9
25°	565.1	545.6	527.7	507.9	485.9	461.7	436.6	411.9	389.9	371.2	352.9
27.5°	559.6	536.1	513.9	494.8	471.3	449.5	424.9	399.4	376.5	357.6	338.9
30°	551.7	524.4	499.3	476.9	454.9	434.5	411.5	386.8	363.0	343.4	324.3
32.5°	541.7	512.3	484.1	457.4	436.4	416.2	395.9	372.6	349.6	329.2	309.7
35°	533.8	496.8	466.8	439.3	415.8	396.1	377.4	358.4	335.2	314.2	295.3
37.5°	522.7	482.0	448.1	418.1	393.6	374.1	359.1	341.0	319.4	299.0	281.5
40°	512.7	465.6	427.7	398.1	372.0	351.2	337.3	322.6	303.3	284.4	266.9
42.5°	499.5	450.6	407.0	375.9	349.6	329.8	315.7	303.3	287.9	270.4	251.3
45°	481.4	430.4	385.8	352.7	326.2	306.6	293.5	282.1	269.8	253.4	237.1
47.5°	459.8	411.1	364.2	327.8	302.3	283.8	271.0	261.4	252.5	238.3	221.7
50°	432.7	386.2	340.7	305.6	278.0	260.6	248.8	241.6	233.6	220.9	207.7
52.5°	400.8	360.5	316.1	280.1	254.4	238.5	227.2	220.0	213.7	204.0	191.5
55°	366.9	330.5	289.7	257.1	233.2	216.9	205.9	199.1	195.2	186.5	176.6
57.5°	328.6	300.6	263.6	231.8	210.2	193.9	185.7	179.7	175.2	168.8	161.4
60°	288.1	269.8	237.5	207.7	188.2	172.9	165.7	160.8	156.7	151.4	146.0
62.5°	247.0	235.0	207.9	183.4	165.8	153.6	147.0	142.7	137.8	134.7	129.4
65°	211.2	199.3	179.9	159.8	143.3	133.0	128.1	124.2	121.3	117.4	113.7
67.5°	171.5	166.0	151.6	136.7	124.6	114.7	110.4	107.3	103.9	101.6	98.9
70°	135.5	133.1	123.6	114.5	103.4	97.1	93.2	92.1	87.8	85.5	83.7
72.5°	103.6	102.8	98.3	92.7	85.7	80.4	76.9	75.5	73.2	71.4	70.5
75°	75.3	75.7	74.7	70.7	67.7	64.2	61.1	60.3	58.4	56.8	55.9
77.5°	51.4	53.3	52.9	52.8	51.4	48.9	47.5	46.9	44.8	44.2	44.0
80°	32.7	34.8	36.8	36.6	36.2	35.6	34.6	34.1	33.1	32.5	32.1
82.5°	19.1	21.0	22.6	23.9	23.9	23.4	22.8	22.6	22.6	22.2	22.2
85°	10.3	10.7	11.3	12.7	13.6	13.8	13.6	13.4	12.8	13.0	13.2
87.5°	4.5	4.5	4.7	4.7	4.5	5.5	6.0	6.2	5.8	5.5	5.1
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°	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2	474.2
2.5°	464.3	461.5	459.6	455.7	453.0	451.8	449.7	449.1	451.2	449.7	449.5
5°	452.4	446.7	442.3	437.8	432.9	429.8	425.1	424.4	423.2	421.4	421.0
7.5°	438.6	431.6	426.3	418.9	412.9	408.0	402.2	399.8	398.7	396.5	393.0
10°	424.6	415.8	408.0	400.6	392.6	386.2	380.4	375.9	373.0	370.2	369.1
12.5°	410.7	401.8	391.3	381.9	372.8	365.4	358.8	356.2	352.9	349.6	346.5
15°	396.3	384.5	373.6	363.2	355.6	347.9	341.6	337.3	332.5	331.1	325.9
17.5°	380.9	369.9	357.0	345.9	337.3	329.2	322.4	317.3	313.6	308.3	305.8
20°	366.7	352.9	340.5	330.5	320.8	310.7	303.7	299.6	296.1	292.0	290.0
22.5°	351.6	338.1	325.3	313.2	303.3	293.4	288.9	284.6	280.5	276.8	274.1
25°	336.8	323.1	309.7	297.6	287.3	280.1	274.3	269.4	267.3	263.6	260.8
27.5°	322.0	307.6	293.9	281.3	273.3	266.1	261.4	257.5	253.4	250.1	247.6
30°	307.8	293.0	277.8	268.2	259.7	252.9	247.6	243.9	241.0	238.1	236.3
32.5°	293.5	278.2	265.1	254.6	246.6	241.0	235.5	232.0	228.9	225.6	223.5
35°	278.2	262.6	251.7	241.6	233.6	228.1	224.4	219.4	216.9	214.5	212.4
37.5°	264.3	249.6	237.5	228.7	221.3	216.1	211.2	208.7	205.4	203.4	201.7
40°	248.8	235.5	224.8	215.5	210.4	204.4	199.9	196.4	194.1	191.4	189.4
42.5°	234.8	222.7	212.4	204.2	197.6	192.7	188.4	184.9	181.8	180.1	178.5
45°	221.7	209.5	199.3	191.5	185.7	180.8	176.4	174.6	170.7	168.4	167.6
47.5°	208.1	197.0	187.1	179.9	173.8	169.4	165.1	161.2	159.2	156.9	155.7
50°	194.3	183.8	174.6	167.6	161.8	156.7	152.8	150.5	147.6	145.4	143.9
52.5°	180.4	170.9	161.8	155.1	150.3	145.2	140.7	138.4	135.7	134.5	133.5
55°	167.4	157.1	149.3	142.7	137.4	132.8	128.7	126.3	124.6	123.2	122.8
57.5°	152.4	144.0	136.7	130.8	125.2	120.7	117.0	114.8	113.3	113.1	111.7
60°	137.8	130.4	123.8	117.4	112.7	108.6	105.5	103.0	101.4	101.2	100.8
62.5°	123.2	116.2	110.2	104.7	100.6	96.7	93.8	90.9	90.1	89.0	88.0
65°	108.8	102.4	97.3	92.9	88.4	85.1	82.1	80.4	78.3	77.1	74.9
67.5°	94.6	89.3	84.5	80.8	77.1	73.8	71.2	68.7	67.2	66.2	64.4
70°	80.6	76.7	71.8	67.7	65.0	62.5	60.5	57.6	56.6	55.9	55.1
72.5°	67.4	64.0	60.1	57.0	54.3	52.0	49.6	48.7	47.7	46.9	46.5
75°	55.1	51.8	48.3	45.9	44.0	42.0	40.9	39.9	39.5	39.3	38.5
77.5°	42.8	40.9	38.0	35.8	34.5	33.7	32.5	32.1	32.3	31.3	31.1
80°	31.0	30.0	27.6	26.9	25.9	25.1	24.5	23.6	22.6	22.2	21.6
82.5°	21.0	20.0	19.5	18.1	17.3	16.9	16.4	16.2	16.5	16.0	15.8
85°	12.3	11.3	10.9	10.7	10.3	10.7	10.5	10.3	10.1	9.9	10.1
87.5°	4.9	4.9	4.7	5.1	4.5	4.7	4.7	4.5	4.5	4.5	4.3
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: P242933

CATALOG NUMBER: S125RDRP-S375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	474.2	474.2	474.2	474.2
2.5°	449.3	447.1	446.5	447.3
5°	419.1	417.2	418.1	417.7
7.5°	393.6	391.1	388.2	388.9
10°	366.5	364.6	363.4	364.4
12.5°	343.8	342.8	341.8	341.0
15°	323.5	321.2	320.2	317.7
17.5°	304.1	303.3	300.7	299.0
20°	287.1	286.3	283.8	285.4
22.5°	273.1	271.2	270.8	269.8
25°	260.1	257.5	256.6	255.4
27.5°	246.8	245.5	244.1	243.7
30°	234.0	232.6	231.6	231.6
32.5°	222.5	221.5	220.5	220.4
35°	211.4	209.8	209.5	208.3
37.5°	199.7	198.4	198.4	198.6
40°	188.6	187.7	187.5	186.1
42.5°	176.8	176.4	175.6	175.2
45°	166.2	164.9	164.9	163.9
47.5°	155.1	154.0	154.2	153.0
50°	144.0	143.5	143.3	142.9
52.5°	133.0	132.8	133.7	132.8
55°	123.2	122.6	123.8	122.6
57.5°	111.7	111.3	112.5	111.7
60°	100.4	99.3	99.9	100.1
62.5°	87.0	86.4	86.8	85.7
65°	74.6	74.0	73.2	72.8
67.5°	64.8	63.1	63.1	63.5
70°	53.9	53.9	53.7	53.7
72.5°	46.3	46.1	45.7	45.6
75°	38.5	38.7	38.3	38.2
77.5°	30.2	29.2	29.6	29.2
80°	21.6	21.4	22.0	21.4
82.5°	16.0	15.8	16.0	15.6
85°	10.3	10.1	9.9	10.1
87.5°	4.5	4.3	4.3	4.3
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242933
 CATALOG NUMBER: S125RDRP-S375D940-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	13.84	15.38	14.21	15.69	16.01	14.82	16.36	15.19	16.67	16.99
	3H	14.97	16.35	15.35	16.68	17.04	16.30	17.68	16.68	18.01	18.37
	4H	15.36	16.65	15.76	17.00	17.37	16.81	18.11	17.21	18.45	18.83
	6H	15.59	16.78	16.00	17.15	17.54	17.16	18.36	17.58	18.72	19.11
	8H	15.64	16.78	16.07	17.17	17.57	17.26	18.40	17.69	18.79	19.19
	12H	15.68	16.76	16.11	17.15	17.58	17.32	18.40	17.75	18.78	19.21
4H	2H	15.43	16.72	15.83	17.07	17.45	15.67	16.96	16.07	17.31	17.69
	3H	16.50	17.57	16.91	17.97	18.37	17.33	18.40	17.74	18.80	19.20
	4H	16.88	17.85	17.32	18.26	18.70	17.92	18.88	18.35	19.30	19.74
	6H	17.14	17.98	17.60	18.42	18.88	18.35	19.18	18.80	19.63	20.09
	8H	17.20	17.98	17.67	18.43	18.89	18.47	19.25	18.93	19.70	20.16
	12H	17.25	17.94	17.73	18.42	18.89	18.55	19.25	19.03	19.73	20.20
8H	4H	17.26	18.04	17.72	18.48	18.95	18.07	18.85	18.53	19.29	19.76
	6H	17.56	18.21	18.06	18.70	19.18	18.58	19.23	19.08	19.72	20.20
	8H	17.66	18.24	18.17	18.75	19.23	18.76	19.34	19.27	19.85	20.34
	12H	17.74	18.25	18.25	18.74	19.30	18.89	19.41	19.40	19.90	20.46
12H	4H	17.28	17.98	17.77	18.46	18.93	18.06	18.76	18.54	19.23	19.70
	6H	17.60	18.18	18.11	18.69	19.17	18.58	19.16	19.09	19.67	20.15
	8H	17.73	18.24	18.24	18.73	19.30	18.79	19.30	19.30	19.80	20.36