

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: P242913

Luminaire Tested: S125RDRP-S375D835-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242913
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-S375D835-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

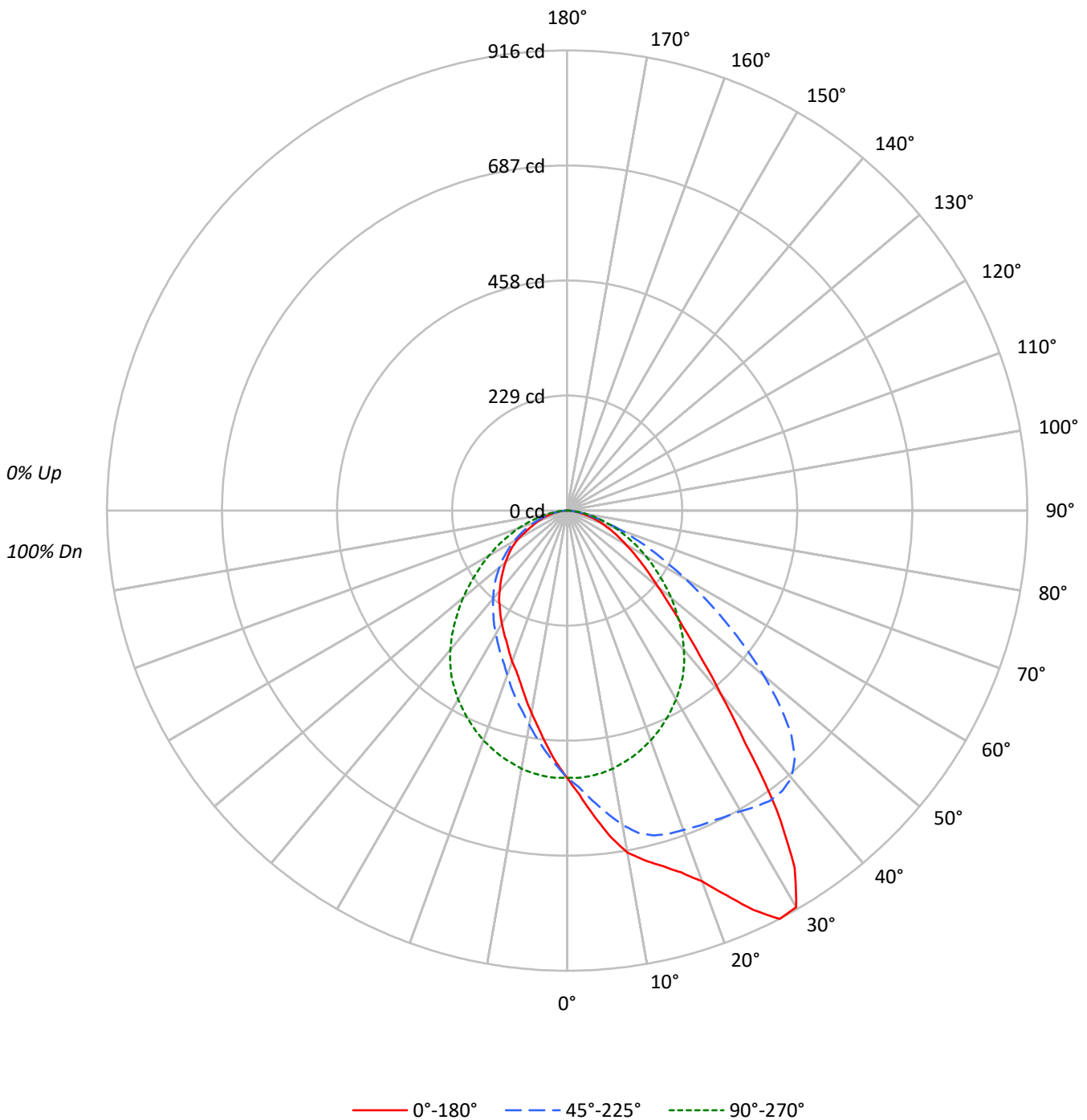
Lumens per Lamp: N/A
Luminaire Lumens: 1377.8 lumens
Efficiency: N/A
Efficacy: 118.8 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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



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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	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°	3780	3780	3780	3780	3780
5°	4348	4134	3785	3439	3343
10°	4988	4584	3765	3126	2950
15°	5388	4926	3727	2870	2622
20°	5940	5115	3682	2635	2420
25°	6875	5350	3622	2463	2246
30°	7481	5672	3560	2327	2132
35°	6311	6114	3487	2219	2027
40°	4407	6444	3356	2127	1936
45°	3270	6341	3179	2038	1847
50°	2607	5650	2995	1943	1771
55°	2213	4745	2767	1845	1704
60°	1912	3845	2563	1731	1595
65°	1704	3069	2343	1604	1372
70°	1496	2354	2147	1457	1253
75°	1296	1757	1859	1296	1175
80°	982	1261	1564	1154	982
85°	815	889	1231	979	930

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6341 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.0	3.7
10°-20°	149.5	10.9
20°-30°	237.0	17.2
30°-40°	286.4	20.8
40°-50°	255.1	18.5
50°-60°	195.6	14.2
60°-70°	127.0	9.2
70°-80°	61.6	4.5
80°-90°	14.5	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°	437.5	31.8
0°-40°	724.0	52.5
0°-60°	1174.7	85.3
0°-90°	1377.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1377.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	532	532	532	532	532	
5°	610	579	530	482	468	61
15°	732	670	506	390	356	210
25°	877	682	462	314	286	404
35°	727	705	402	256	234	441
45°	325	631	316	203	184	258
55°	179	383	223	149	138	162
65°	101	182	139	95	82	101
75°	47	64	68	47	43	50
85°	10	11	15	12	11	12
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°	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8
2.5°	566.3	565.8	566.7	564.3	564.5	560.8	560.8	558.0	554.3	551.4	550.1
5°	609.5	609.9	609.1	605.8	603.6	600.3	596.6	590.1	584.6	579.4	575.2
7.5°	653.6	654.0	651.2	650.5	644.9	641.4	633.1	624.6	617.1	607.3	600.3
10°	691.1	690.9	687.9	685.5	680.7	674.5	666.5	656.0	646.2	635.2	624.8
12.5°	713.0	712.3	711.9	708.8	704.4	699.2	692.7	682.4	669.7	657.5	644.9
15°	732.2	730.6	727.8	724.1	717.8	711.4	703.8	694.6	683.1	669.5	658.2
17.5°	755.3	755.5	751.2	747.2	738.9	728.5	717.1	703.1	688.3	674.5	663.2
20°	785.4	784.8	780.4	770.4	760.6	746.6	733.0	714.9	695.7	676.3	661.2
22.5°	828.7	826.7	822.1	808.1	791.6	772.6	750.1	726.9	702.7	680.0	659.0
25°	876.7	875.4	866.4	851.1	829.8	802.0	775.0	744.6	711.2	682.2	658.2
27.5°	916.4	913.8	905.7	891.3	870.4	840.4	803.1	763.8	724.1	685.9	652.9
30°	911.6	914.9	914.0	908.1	893.3	867.1	833.2	787.6	738.1	691.1	649.9
32.5°	843.1	845.9	855.7	871.7	876.5	869.9	846.8	805.5	753.8	698.8	647.5
35°	727.4	731.3	746.1	769.5	800.1	825.6	830.8	808.1	762.1	704.7	645.1
37.5°	580.2	605.8	615.8	639.6	687.6	734.1	774.5	783.7	758.8	703.4	642.2
40°	475.0	480.3	502.5	530.2	569.1	618.0	682.4	728.9	730.4	694.6	633.1
42.5°	389.4	396.4	410.0	430.7	462.6	511.5	578.5	643.5	678.7	670.6	621.1
45°	325.3	330.3	341.4	358.4	384.0	424.4	481.6	552.5	608.8	630.9	597.7
47.5°	275.1	277.7	287.9	301.7	321.3	351.9	398.4	462.6	529.6	574.3	565.6
50°	235.8	238.8	246.2	256.1	272.0	296.9	332.3	383.6	453.2	511.0	522.6
52.5°	205.2	207.6	211.5	220.7	233.1	250.8	277.7	322.9	383.8	446.2	476.8
55°	178.6	180.3	184.0	189.3	199.7	213.5	238.2	270.3	320.9	382.9	422.2
57.5°	155.9	156.7	158.9	164.2	171.8	182.1	200.8	230.1	266.8	325.0	368.3
60°	134.5	135.3	138.4	141.7	147.4	156.5	170.5	189.5	224.4	270.5	314.4
62.5°	117.4	117.9	118.8	122.0	126.8	133.4	143.6	158.3	184.2	223.3	264.1
65°	101.3	101.5	101.9	104.6	107.6	112.9	120.1	131.0	151.9	182.5	219.2
67.5°	85.1	85.6	87.1	88.0	91.7	94.3	98.9	107.6	123.8	145.6	175.3
70°	72.0	71.8	73.3	74.4	75.5	78.8	81.6	88.4	97.6	113.3	137.1
72.5°	59.8	59.2	59.6	59.8	61.3	63.3	66.1	69.6	76.2	85.8	102.6
75°	47.2	47.4	47.4	47.8	48.9	49.8	50.6	52.8	56.8	64.0	73.8
77.5°	35.4	34.9	36.0	36.0	36.9	38.0	38.6	39.5	41.0	44.3	50.2
80°	24.0	24.0	24.2	24.9	24.7	25.1	26.2	27.1	29.0	30.8	32.5
82.5°	17.0	16.8	17.0	17.0	17.0	17.5	17.7	17.7	18.1	18.8	19.9
85°	10.0	10.0	10.3	10.3	10.5	10.5	10.7	10.7	10.7	10.9	11.1
87.5°	4.8	4.6	4.4	4.4	4.6	5.0	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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8
2.5°	550.1	548.6	545.7	543.1	539.9	537.0	535.1	532.6	529.6	525.9	522.8
5°	570.6	565.8	559.5	554.0	547.1	541.6	535.9	530.5	525.0	518.0	511.9
7.5°	593.3	583.9	575.2	563.9	553.6	544.7	535.9	527.0	518.5	508.9	499.9
10°	613.9	601.8	588.5	573.3	559.3	546.0	533.7	521.7	509.1	497.9	485.9
12.5°	633.1	616.7	601.0	580.7	563.2	546.2	529.8	514.1	500.3	485.1	472.0
15°	643.1	627.8	610.8	587.2	563.9	544.2	525.9	506.5	489.6	473.5	459.1
17.5°	649.0	632.8	613.2	590.3	565.2	540.7	517.6	496.8	477.6	459.1	443.1
20°	646.4	630.9	610.6	589.0	561.7	535.9	510.4	486.8	464.8	444.9	427.6
22.5°	640.1	623.9	604.5	581.3	555.8	528.1	500.3	474.8	451.4	430.7	411.5
25°	633.7	611.9	591.8	569.5	544.9	517.8	489.6	461.9	437.3	416.3	395.8
27.5°	627.6	601.2	576.3	554.9	528.5	504.1	476.5	447.9	422.2	401.0	380.1
30°	618.7	588.1	559.9	534.8	510.2	487.2	461.5	433.8	407.1	385.1	363.7
32.5°	607.5	574.6	542.9	513.0	489.4	466.7	444.0	417.8	392.1	369.1	347.3
35°	598.6	557.1	523.5	492.7	466.3	444.2	423.3	401.9	375.9	352.3	331.2
37.5°	586.1	540.5	502.5	468.9	441.4	419.6	402.8	382.5	358.2	335.3	315.7
40°	575.0	522.2	479.6	446.4	417.2	393.8	378.3	361.7	340.1	318.9	299.3
42.5°	560.2	505.4	456.5	421.5	392.1	369.8	354.1	340.1	322.9	303.2	281.8
45°	539.9	482.7	432.7	395.6	365.9	343.8	329.2	316.3	302.6	284.2	265.9
47.5°	515.6	461.0	408.4	367.6	339.0	318.3	303.9	293.2	283.1	267.2	248.6
50°	485.3	433.1	382.0	342.7	311.7	292.3	279.0	270.9	262.0	247.8	232.9
52.5°	449.5	404.3	354.5	314.1	285.3	267.4	254.8	246.7	239.7	228.8	214.8
55°	411.5	370.7	324.8	288.4	261.5	243.2	231.0	223.3	219.0	209.1	198.0
57.5°	368.5	337.1	295.6	260.0	235.8	217.4	208.3	201.5	196.5	189.3	181.0
60°	323.1	302.6	266.3	232.9	211.1	193.8	185.8	180.3	175.7	169.8	163.7
62.5°	277.0	263.5	233.1	205.6	186.0	172.2	164.8	160.0	154.6	151.1	145.2
65°	236.9	223.5	201.7	179.2	160.7	149.1	143.6	139.3	136.0	131.6	127.5
67.5°	192.3	186.2	170.1	153.2	139.7	128.6	123.8	120.3	116.6	114.0	110.9
70°	151.9	149.3	138.6	128.4	115.9	108.9	104.6	103.3	98.5	95.8	93.9
72.5°	116.1	115.3	110.2	103.9	96.1	90.2	86.2	84.7	82.1	80.1	79.0
75°	84.5	84.9	83.8	79.2	76.0	72.0	68.5	67.7	65.5	63.7	62.7
77.5°	57.6	59.8	59.4	59.2	57.6	54.8	53.3	52.6	50.2	49.6	49.3
80°	36.7	39.1	41.3	41.0	40.6	39.9	38.9	38.2	37.1	36.5	36.0
82.5°	21.4	23.6	25.3	26.9	26.9	26.2	25.5	25.3	25.3	24.9	24.9
85°	11.6	12.0	12.7	14.2	15.3	15.5	15.3	15.1	14.4	14.6	14.8
87.5°	5.0	5.0	5.2	5.2	5.0	6.1	6.8	7.0	6.5	6.1	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



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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8	531.8
2.5°	520.6	517.6	515.4	511.0	508.0	506.7	504.3	503.6	506.0	504.3	504.1
5°	507.3	501.0	496.0	491.0	485.5	482.0	476.8	475.9	474.6	472.6	472.2
7.5°	491.8	484.0	478.1	469.8	463.0	457.6	451.0	448.4	447.1	444.7	440.7
10°	476.1	466.3	457.6	449.3	440.3	433.1	426.6	421.5	418.3	415.2	413.9
12.5°	460.6	450.6	438.8	428.3	418.0	409.7	402.3	399.5	395.8	392.1	388.6
15°	444.5	431.1	418.9	407.3	398.8	390.1	383.1	378.3	372.9	371.3	365.4
17.5°	427.2	414.8	400.4	387.9	378.3	369.1	361.5	355.8	351.7	345.8	342.9
20°	411.3	395.8	381.8	370.7	359.8	348.4	340.5	336.0	332.0	327.4	325.3
22.5°	394.2	379.2	364.8	351.2	340.1	329.0	324.0	319.2	314.6	310.4	307.4
25°	377.7	362.4	347.3	333.8	322.2	314.1	307.6	302.1	299.7	295.6	292.5
27.5°	361.1	344.9	329.6	315.4	306.5	298.4	293.2	288.8	284.2	280.5	277.7
30°	345.1	328.5	311.5	300.8	291.2	283.6	277.7	273.5	270.3	267.0	265.0
32.5°	329.2	311.9	297.3	285.5	276.6	270.3	264.1	260.2	256.7	253.0	250.6
35°	311.9	294.5	282.3	270.9	262.0	255.8	251.7	246.0	243.2	240.6	238.2
37.5°	296.4	279.9	266.3	256.5	248.2	242.3	236.9	234.0	230.3	228.1	226.2
40°	279.0	264.1	252.1	241.7	236.0	229.2	224.2	220.3	217.6	214.6	212.4
42.5°	263.3	249.7	238.2	229.0	221.6	216.1	211.3	207.4	203.9	201.9	200.2
45°	248.6	234.9	223.5	214.8	208.3	202.8	197.8	195.8	191.4	188.8	188.0
47.5°	233.4	220.9	209.8	201.7	194.9	189.9	185.1	180.8	178.6	175.9	174.6
50°	217.9	206.1	195.8	188.0	181.4	175.7	171.4	168.7	165.5	163.1	161.3
52.5°	202.4	191.7	181.4	174.0	168.5	162.9	157.8	155.2	152.2	150.8	149.8
55°	187.7	176.2	167.4	160.0	154.1	148.9	144.3	141.7	139.7	138.2	137.7
57.5°	170.9	161.5	153.2	146.7	140.4	135.3	131.2	128.8	127.0	126.8	125.3
60°	154.6	146.3	138.8	131.6	126.4	121.8	118.3	115.5	113.7	113.5	113.1
62.5°	138.2	130.3	123.6	117.4	112.9	108.5	105.2	101.9	101.1	99.8	98.7
65°	122.0	114.8	109.1	104.1	99.1	95.4	92.1	90.2	87.8	86.4	84.0
67.5°	106.1	100.2	94.7	90.6	86.4	82.7	79.9	77.1	75.3	74.2	72.3
70°	90.4	86.0	80.6	76.0	72.9	70.1	67.9	64.6	63.5	62.7	61.8
72.5°	75.5	71.8	67.5	64.0	60.9	58.3	55.7	54.6	53.5	52.6	52.2
75°	61.8	58.1	54.1	51.5	49.3	47.2	45.8	44.8	44.3	44.1	43.2
77.5°	48.0	45.8	42.6	40.2	38.6	37.8	36.5	36.0	36.2	35.1	34.9
80°	34.7	33.6	31.0	30.1	29.0	28.2	27.5	26.4	25.3	24.9	24.2
82.5°	23.6	22.5	21.8	20.3	19.4	19.0	18.3	18.1	18.6	17.9	17.7
85°	13.8	12.7	12.2	12.0	11.6	12.0	11.8	11.6	11.4	11.1	11.4
87.5°	5.5	5.5	5.2	5.7	5.0	5.2	5.2	5.0	5.0	5.0	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



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CATALOG NUMBER: S125RDRP-S375D835-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	531.8	531.8	531.8	531.8
2.5°	503.8	501.4	500.8	501.7
5°	470.0	467.8	468.9	468.5
7.5°	441.4	438.6	435.3	436.2
10°	411.1	408.9	407.6	408.7
12.5°	385.5	384.4	383.3	382.5
15°	362.8	360.2	359.1	356.3
17.5°	341.0	340.1	337.3	335.3
20°	322.0	321.1	318.3	320.0
22.5°	306.3	304.1	303.7	302.6
25°	291.6	288.8	287.7	286.4
27.5°	276.8	275.3	273.7	273.3
30°	262.4	260.9	259.8	259.8
32.5°	249.5	248.4	247.3	247.1
35°	237.1	235.3	234.9	233.6
37.5°	224.0	222.4	222.4	222.7
40°	211.5	210.4	210.2	208.7
42.5°	198.2	197.8	196.9	196.5
45°	186.4	184.9	184.9	183.8
47.5°	174.0	172.7	172.9	171.6
50°	161.5	160.9	160.7	160.2
52.5°	149.1	148.9	150.0	148.9
55°	138.2	137.5	138.8	137.5
57.5°	125.3	124.9	126.2	125.3
60°	112.6	111.3	112.0	112.2
62.5°	97.6	96.9	97.4	96.1
65°	83.6	83.0	82.1	81.6
67.5°	72.7	70.7	70.7	71.2
70°	60.5	60.5	60.3	60.3
72.5°	52.0	51.7	51.3	51.1
75°	43.2	43.4	43.0	42.8
77.5°	33.8	32.7	33.2	32.7
80°	24.2	24.0	24.7	24.0
82.5°	17.9	17.7	17.9	17.5
85°	11.6	11.4	11.1	11.4
87.5°	5.0	4.8	4.8	4.8
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242913
 CATALOG NUMBER: S125RDRP-S375D835-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	14.24	15.78	14.61	16.09	16.41	15.22	16.76	15.59	17.07	17.39
	3H	15.37	16.75	15.75	17.08	17.44	16.70	18.08	17.08	18.40	18.77
	4H	15.76	17.05	16.16	17.40	17.77	17.21	18.50	17.61	18.85	19.23
	6H	15.99	17.18	16.40	17.55	17.94	17.56	18.75	17.97	19.12	19.51
	8H	16.04	17.18	16.47	17.57	17.97	17.66	18.80	18.09	19.18	19.59
	12H	16.08	17.16	16.51	17.54	17.97	17.72	18.80	18.15	19.18	19.61
4H	2H	15.83	17.12	16.23	17.47	17.85	16.07	17.36	16.47	17.71	18.09
	3H	16.90	17.97	17.31	18.37	18.77	17.73	18.80	18.14	19.20	19.60
	4H	17.28	18.25	17.72	18.66	19.10	18.32	19.28	18.75	19.70	20.13
	6H	17.54	18.38	18.00	18.82	19.28	18.75	19.58	19.20	20.03	20.48
	8H	17.60	18.38	18.06	18.83	19.29	18.87	19.65	19.33	20.09	20.56
	12H	17.64	18.34	18.13	18.82	19.29	18.95	19.65	19.43	20.13	20.60
8H	4H	17.66	18.44	18.12	18.88	19.35	18.47	19.25	18.93	19.69	20.16
	6H	17.96	18.61	18.46	19.10	19.58	18.98	19.63	19.48	20.12	20.60
	8H	18.05	18.63	18.57	19.14	19.63	19.16	19.74	19.67	20.25	20.73
	12H	18.13	18.65	18.64	19.14	19.70	19.29	19.81	19.80	20.30	20.86
12H	4H	17.68	18.38	18.16	18.86	19.33	18.46	19.15	18.94	19.63	20.10
	6H	18.00	18.58	18.51	19.09	19.57	18.97	19.55	19.49	20.06	20.55
	8H	18.13	18.64	18.64	19.13	19.70	19.19	19.70	19.70	20.19	20.76