

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: P243778

Luminaire Tested: S125RDRP-H375D840-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243778
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-71)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-H375D840-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

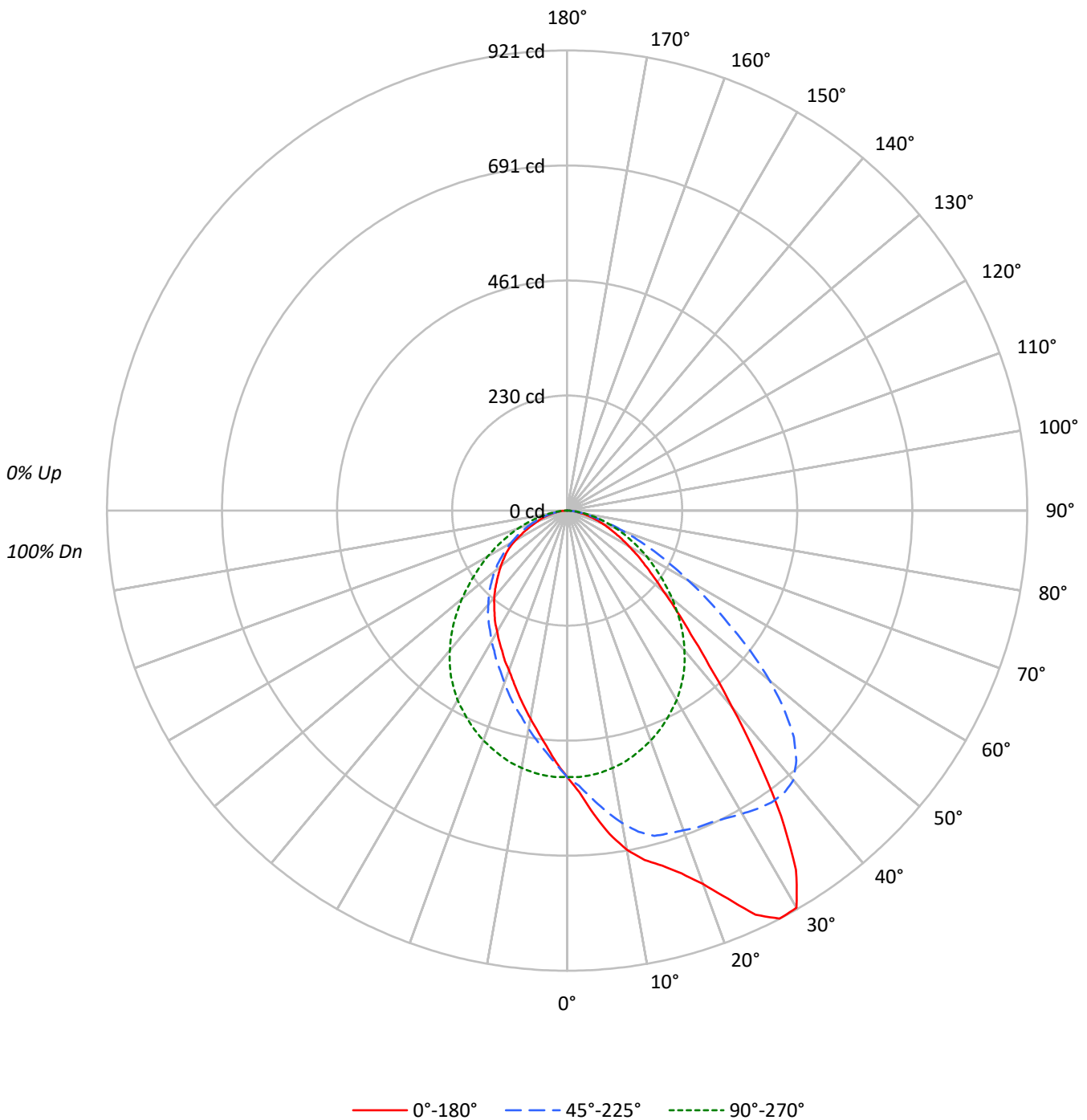
Lumens per Lamp: N/A
Luminaire Lumens: 1418.7 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 11.2
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-H375D840-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	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	68	78	72	67	75	70	66	73	69	65					63				
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56					54				
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50					48				
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44					42				
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39					37				
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35					33				
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32					30				
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29					27				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3789	3789	3789	3789	3789
5°	4349	4132	3794	3460	3375
10°	4976	4584	3775	3202	3051
15°	5413	4960	3745	2981	2790
20°	6014	5149	3702	2775	2571
25°	6998	5394	3650	2615	2420
30°	7536	5751	3596	2481	2297
35°	6474	6186	3516	2373	2197
40°	4770	6536	3389	2277	2106
45°	3523	6448	3231	2192	1997
50°	2791	5853	3038	2101	1916
55°	2357	4885	2815	1973	1844
60°	2031	3990	2608	1851	1707
65°	1762	3221	2375	1699	1487
70°	1546	2446	2174	1538	1301
75°	1313	1782	1903	1359	1230
80°	1019	1289	1592	1195	1019
85°	897	946	1272	1019	930

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6448 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.3	3.6
10°-20°	151.8	10.7
20°-30°	242.1	17.1
30°-40°	294.0	20.7
40°-50°	264.9	18.7
50°-60°	203.7	14.4
60°-70°	132.2	9.3
70°-80°	63.6	4.5
80°-90°	15.1	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°	445.2	31.4
0°-40°	739.2	52.1
0°-60°	1207.9	85.1
0°-90°	1418.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1418.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	533	533	533	533	533	
5°	610	579	532	485	473	61
15°	736	674	509	405	379	211
25°	892	688	465	334	309	408
35°	746	713	405	274	253	456
45°	350	642	322	218	199	278
55°	190	394	227	159	149	172
65°	105	192	141	101	88	105
75°	48	65	69	50	45	51
85°	11	12	16	12	11	13
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°	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1
2.5°	563.9	566.1	564.4	565.4	563.7	562.9	560.8	557.6	554.4	551.5	551.3
5°	609.6	609.2	607.5	605.2	603.5	599.2	597.1	589.9	585.1	579.2	576.2
7.5°	653.1	652.1	649.5	646.4	644.9	639.4	633.5	624.4	616.8	607.5	600.5
10°	689.5	689.3	687.4	685.3	679.6	673.4	667.7	658.2	646.8	635.2	625.5
12.5°	716.1	715.1	712.7	709.2	704.5	700.3	692.7	684.0	670.1	658.2	644.9
15°	735.6	735.2	731.8	730.5	721.4	715.5	705.4	696.7	685.9	674.1	659.7
17.5°	761.4	762.2	759.3	752.1	743.8	734.7	720.4	706.2	691.2	677.4	665.8
20°	795.2	793.1	788.0	779.3	764.5	753.3	739.0	721.4	701.1	680.8	664.1
22.5°	840.4	838.1	830.1	819.5	800.9	780.4	758.4	732.2	708.9	685.7	663.7
25°	892.4	888.0	876.1	864.7	838.3	816.5	783.8	752.5	718.7	687.8	663.1
27.5°	920.7	920.7	915.2	902.8	881.8	849.7	816.3	774.7	735.6	693.3	658.2
30°	918.2	916.7	918.8	913.6	900.0	875.9	842.7	799.0	749.1	700.7	658.6
32.5°	852.7	853.3	866.0	874.7	881.4	875.5	853.9	814.4	764.7	707.9	656.9
35°	746.1	747.8	770.2	785.0	815.3	832.6	837.7	816.3	771.7	713.0	654.0
37.5°	624.4	624.4	650.4	672.8	706.6	749.3	781.2	789.3	767.5	712.7	651.5
40°	514.1	513.4	533.9	561.4	597.6	644.7	692.2	733.0	738.3	704.5	642.6
42.5°	420.6	419.6	442.0	457.2	495.2	537.3	600.5	658.2	691.2	678.9	629.5
45°	350.5	349.6	364.2	381.5	408.4	452.1	505.2	569.2	624.6	641.5	604.9
47.5°	297.6	298.0	305.9	320.4	343.3	374.6	422.1	481.5	550.0	589.1	574.1
50°	252.4	253.9	259.8	270.8	287.5	312.6	353.4	407.1	477.5	529.3	532.4
52.5°	218.6	220.7	227.0	232.9	246.9	264.6	296.3	342.8	401.0	463.1	485.3
55°	190.2	191.3	194.9	201.2	211.6	226.4	249.4	284.9	338.8	394.2	433.3
57.5°	166.6	166.6	168.9	173.3	181.6	194.9	210.3	239.7	285.1	335.2	376.9
60°	142.9	143.7	145.4	150.3	155.8	165.9	180.9	199.5	238.9	280.7	325.5
62.5°	123.0	124.5	126.2	128.5	133.6	140.8	151.3	168.5	194.9	233.6	273.5
65°	104.8	106.3	106.5	109.3	112.7	118.6	126.6	139.1	161.1	191.5	224.5
67.5°	88.8	89.4	90.0	92.2	95.3	99.1	104.4	113.7	131.1	151.6	183.7
70°	74.4	74.8	75.0	77.4	78.8	82.2	85.0	90.9	101.9	117.7	142.7
72.5°	60.9	60.2	60.0	61.9	62.6	65.3	68.7	72.9	78.8	90.0	108.6
75°	47.8	48.0	48.2	49.2	49.5	50.7	52.8	55.6	58.3	64.9	76.7
77.5°	36.8	35.9	35.9	37.2	37.6	37.8	39.3	40.8	42.3	46.1	50.7
80°	24.9	25.4	25.4	25.4	25.6	26.0	26.8	28.1	29.2	31.5	32.3
82.5°	17.8	17.8	17.5	18.0	18.2	18.4	18.4	18.4	19.0	19.7	20.5
85°	11.0	11.2	10.6	11.0	11.2	11.2	11.2	11.2	11.8	11.6	11.8
87.5°	4.7	4.9	4.9	5.1	5.1	5.3	5.1	5.3	5.1	5.1	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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1
2.5°	550.6	548.1	546.8	544.3	540.9	538.8	536.7	533.7	531.4	527.8	524.6
5°	570.9	565.8	561.2	554.9	548.7	543.4	537.9	531.8	526.3	520.2	513.6
7.5°	593.5	585.5	575.8	564.6	555.1	546.8	537.5	528.4	520.2	510.5	501.6
10°	615.3	602.4	589.5	574.5	560.6	548.3	535.8	523.1	512.4	500.3	489.3
12.5°	632.2	620.0	600.7	582.1	563.9	548.1	532.4	517.0	502.9	489.5	476.4
15°	647.0	626.7	610.4	590.2	568.0	546.4	527.0	509.0	491.9	476.2	462.9
17.5°	651.2	633.1	615.3	591.6	567.7	543.2	520.8	499.5	480.5	463.1	448.1
20°	650.8	632.4	613.2	590.6	565.2	538.4	513.4	489.5	468.0	448.1	432.0
22.5°	644.5	626.7	607.3	584.4	558.7	531.0	504.8	478.3	454.9	434.2	417.7
25°	637.7	615.3	595.0	572.0	547.5	521.9	494.0	465.4	440.9	419.4	400.8
27.5°	631.8	604.9	580.0	557.4	532.2	509.2	481.5	451.7	426.6	403.9	384.7
30°	622.3	594.0	563.7	539.0	514.7	490.6	465.2	438.2	410.7	387.7	368.4
32.5°	614.0	578.3	545.6	517.7	493.3	472.2	447.9	421.9	395.1	373.1	352.4
35°	604.9	562.3	528.0	495.2	470.9	447.9	428.7	405.2	378.6	355.3	336.7
37.5°	594.2	545.8	506.4	473.1	447.9	424.2	406.9	386.0	361.9	338.8	320.4
40°	582.1	528.9	483.6	449.2	422.1	398.4	383.9	365.3	344.7	321.9	304.8
42.5°	566.9	510.9	462.9	425.3	395.3	373.9	359.3	343.9	325.1	305.2	286.6
45°	547.7	488.5	438.2	398.4	368.8	348.1	332.9	321.5	306.5	287.9	270.3
47.5°	524.2	465.0	412.8	371.6	343.1	323.2	309.0	297.6	286.2	270.1	253.4
50°	493.1	438.2	388.1	346.0	315.8	296.6	283.9	274.8	264.4	251.3	236.1
52.5°	458.9	407.9	358.9	319.6	290.4	271.2	258.1	250.5	242.7	231.9	218.8
55°	419.2	377.7	331.0	292.5	264.0	245.0	234.6	227.2	220.7	212.4	201.4
57.5°	377.1	340.7	300.1	264.6	237.8	219.8	210.7	204.6	199.1	193.2	184.1
60°	332.9	307.1	268.7	236.1	212.6	197.8	189.2	183.5	178.4	173.5	166.8
62.5°	286.8	265.5	236.7	209.0	188.1	174.2	167.8	163.0	157.7	153.5	148.6
65°	240.1	227.9	208.0	182.0	162.8	151.3	145.2	141.2	138.7	133.8	130.0
67.5°	197.6	190.9	174.0	156.4	141.6	131.3	125.6	122.6	119.8	117.5	113.3
70°	157.3	152.4	142.7	130.2	118.6	109.7	105.5	104.6	100.8	98.5	96.4
72.5°	119.8	118.6	110.5	105.1	98.5	91.5	88.4	86.7	84.1	82.0	81.2
75°	85.2	87.1	84.5	81.8	78.6	72.9	70.2	69.3	67.0	66.4	65.3
77.5°	58.1	60.9	61.7	60.5	59.0	57.1	55.2	54.3	52.0	51.6	50.9
80°	36.6	40.6	42.1	41.9	41.2	41.4	39.1	38.9	37.8	37.2	37.8
82.5°	22.2	24.3	27.1	27.7	26.8	27.3	26.6	25.8	25.8	26.2	25.4
85°	12.0	12.3	13.5	14.4	15.4	16.3	15.4	15.6	15.4	15.4	14.8
87.5°	5.3	5.5	5.5	5.3	5.7	6.1	7.0	7.4	7.2	6.6	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°	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1	533.1
2.5°	522.1	520.6	518.1	516.0	511.1	507.7	507.3	507.5	507.1	506.7	506.4
5°	509.4	504.5	499.9	495.9	490.4	484.9	482.4	481.3	480.9	478.5	479.8
7.5°	495.9	488.5	483.0	475.4	468.8	464.2	459.7	457.6	457.2	454.0	453.2
10°	481.5	472.6	464.4	456.8	450.2	443.7	438.4	436.5	433.9	431.4	427.6
12.5°	467.3	456.4	447.3	438.8	429.9	422.5	418.3	415.6	412.4	410.1	408.8
15°	450.4	441.1	429.9	420.8	411.8	405.2	399.5	394.4	391.5	389.6	384.3
17.5°	435.2	423.0	412.4	403.7	393.8	386.4	380.5	376.2	371.2	367.4	364.0
20°	418.9	406.3	396.5	386.2	376.0	366.9	359.5	356.2	352.6	349.0	347.1
22.5°	401.4	390.4	379.4	368.6	357.9	348.1	343.5	338.6	335.4	331.9	329.3
25°	386.2	374.1	363.1	351.1	339.3	333.5	327.2	322.3	319.8	316.2	313.5
27.5°	369.9	358.3	345.2	332.7	325.7	316.0	311.8	308.0	304.6	301.0	299.1
30°	354.7	341.2	328.1	318.3	309.2	302.3	298.2	293.6	288.9	287.3	284.7
32.5°	338.6	324.0	312.6	302.9	295.3	286.8	283.0	279.2	274.8	272.7	270.3
35°	321.9	307.8	296.6	287.7	279.9	273.5	269.3	265.3	262.5	259.4	257.7
37.5°	304.4	292.1	281.3	272.5	265.3	260.2	254.9	251.7	247.9	245.0	243.7
40°	287.7	276.7	266.3	258.1	251.5	245.4	240.8	236.7	234.4	231.9	229.8
42.5°	272.7	261.3	252.4	243.7	237.8	231.9	227.2	224.3	220.3	219.2	216.2
45°	256.6	246.0	237.2	229.1	223.0	218.1	212.6	209.0	206.5	204.0	202.9
47.5°	240.3	230.6	222.4	215.0	208.6	203.1	198.9	195.1	192.3	190.0	188.8
50°	224.5	216.0	207.8	200.6	194.0	190.0	185.0	180.7	178.6	176.1	174.6
52.5°	207.8	200.8	191.9	185.8	179.7	174.4	169.3	166.6	164.4	162.3	161.3
55°	192.1	184.7	177.1	170.6	164.7	159.2	155.1	153.0	150.3	149.0	148.8
57.5°	176.1	168.5	162.1	156.2	149.4	145.2	141.6	139.1	136.8	135.7	135.7
60°	158.5	152.4	146.5	139.9	135.1	130.2	126.4	124.7	122.4	122.0	120.5
62.5°	142.5	136.8	131.1	124.9	120.5	115.6	112.9	110.5	109.3	107.6	105.9
65°	125.8	120.7	115.2	109.9	106.3	101.0	98.5	95.8	94.3	92.4	90.3
67.5°	109.7	104.8	99.8	94.9	91.9	86.9	85.2	81.8	80.7	78.6	76.7
70°	92.8	89.4	85.4	80.5	78.0	74.0	72.3	69.1	67.4	66.2	65.1
72.5°	78.2	75.0	70.4	67.2	64.0	61.5	58.8	57.3	55.8	54.7	54.5
75°	63.8	59.8	57.1	54.1	52.0	49.5	48.2	47.1	46.5	45.9	45.2
77.5°	48.8	47.1	44.4	41.4	39.7	38.7	37.8	37.4	36.8	36.6	35.9
80°	36.4	34.0	32.3	31.3	30.0	29.2	28.5	27.1	26.2	25.8	25.4
82.5°	24.1	23.5	22.2	21.1	20.1	19.9	19.2	18.8	18.6	18.6	18.4
85°	14.6	12.9	12.9	12.7	12.7	12.5	12.0	12.0	11.6	12.3	12.3
87.5°	5.9	5.9	5.5	5.5	5.7	5.3	5.1	5.1	5.1	4.9	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



TEST NUMBER: P243778

CATALOG NUMBER: S125RDRP-H375D840-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	533.1	533.1	533.1	533.1
2.5°	506.4	505.4	505.6	504.3
5°	477.5	476.9	474.7	473.1
7.5°	451.1	448.3	448.1	446.4
10°	426.3	423.8	422.5	422.7
12.5°	404.8	402.0	402.0	400.3
15°	381.7	379.0	379.4	379.2
17.5°	362.7	360.8	359.3	358.1
20°	344.1	341.8	340.9	339.9
22.5°	327.0	325.3	325.5	325.5
25°	310.7	310.9	309.0	308.6
27.5°	296.3	295.9	295.5	294.7
30°	282.8	281.1	280.7	279.9
32.5°	268.9	268.7	267.0	267.6
35°	254.7	254.1	253.6	253.2
37.5°	241.6	240.3	240.1	239.7
40°	228.3	227.9	226.0	227.0
42.5°	213.9	213.1	213.1	213.1
45°	201.9	199.5	199.5	198.7
47.5°	188.3	187.5	187.1	185.6
50°	175.0	173.7	173.3	173.3
52.5°	161.3	161.1	161.5	160.6
55°	149.2	149.4	149.2	148.8
57.5°	136.1	135.1	135.1	135.3
60°	120.5	120.5	120.9	120.1
62.5°	105.5	105.1	103.6	103.1
65°	90.0	88.4	88.1	88.4
67.5°	76.3	75.7	74.6	74.8
70°	64.5	64.3	63.2	62.6
72.5°	53.9	53.9	53.3	53.3
75°	45.0	44.6	44.4	44.8
77.5°	34.7	33.6	34.0	33.4
80°	25.2	25.6	25.2	24.9
82.5°	18.6	18.2	18.4	18.2
85°	11.8	11.4	11.6	11.4
87.5°	4.9	5.1	5.1	4.7
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P243778

CATALOG NUMBER: S125RDRP-H375D840-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	14.55	16.09	14.92	16.40	16.72	15.25	16.79	15.61	17.10	17.42
	3H	15.63	17.01	16.01	17.34	17.70	16.72	18.11	17.10	18.43	18.80
	4H	15.99	17.29	16.39	17.63	18.01	17.25	18.54	17.65	18.89	19.27
	6H	16.21	17.40	16.62	17.77	18.16	17.61	18.80	18.02	19.17	19.56
	8H	16.26	17.40	16.69	17.79	18.19	17.70	18.84	18.13	19.23	19.63
	12H	16.30	17.39	16.73	17.77	18.20	17.76	18.85	18.19	19.24	19.67
4H	2H	16.07	17.37	16.47	17.72	18.09	16.12	17.42	16.52	17.76	18.14
	3H	17.12	18.19	17.53	18.59	18.99	17.78	18.86	18.19	19.26	19.66
	4H	17.48	18.44	17.91	18.86	19.30	18.38	19.35	18.81	19.76	20.20
	6H	17.72	18.56	18.18	19.00	19.46	18.81	19.65	19.27	20.10	20.56
	8H	17.78	18.57	18.25	19.01	19.48	18.94	19.72	19.40	20.17	20.63
	12H	17.83	18.53	18.31	19.01	19.48	19.02	19.72	19.50	20.20	20.67
8H	4H	17.84	18.62	18.30	19.07	19.53	18.53	19.32	19.00	19.76	20.23
	6H	18.13	18.78	18.63	19.27	19.75	19.06	19.70	19.55	20.19	20.67
	8H	18.23	18.81	18.74	19.32	19.81	19.23	19.81	19.75	20.32	20.81
	12H	18.31	18.83	18.82	19.32	19.88	19.37	19.88	19.88	20.38	20.94
12H	4H	17.86	18.56	18.34	19.04	19.51	18.52	19.22	19.00	19.70	20.17
	6H	18.16	18.75	18.68	19.25	19.74	19.05	19.63	19.56	20.14	20.63
	8H	18.30	18.81	18.81	19.30	19.87	19.27	19.78	19.77	20.27	20.84