

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: P243768

Luminaire Tested: S125RDRP-H375D830-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243768
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-H375D830-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

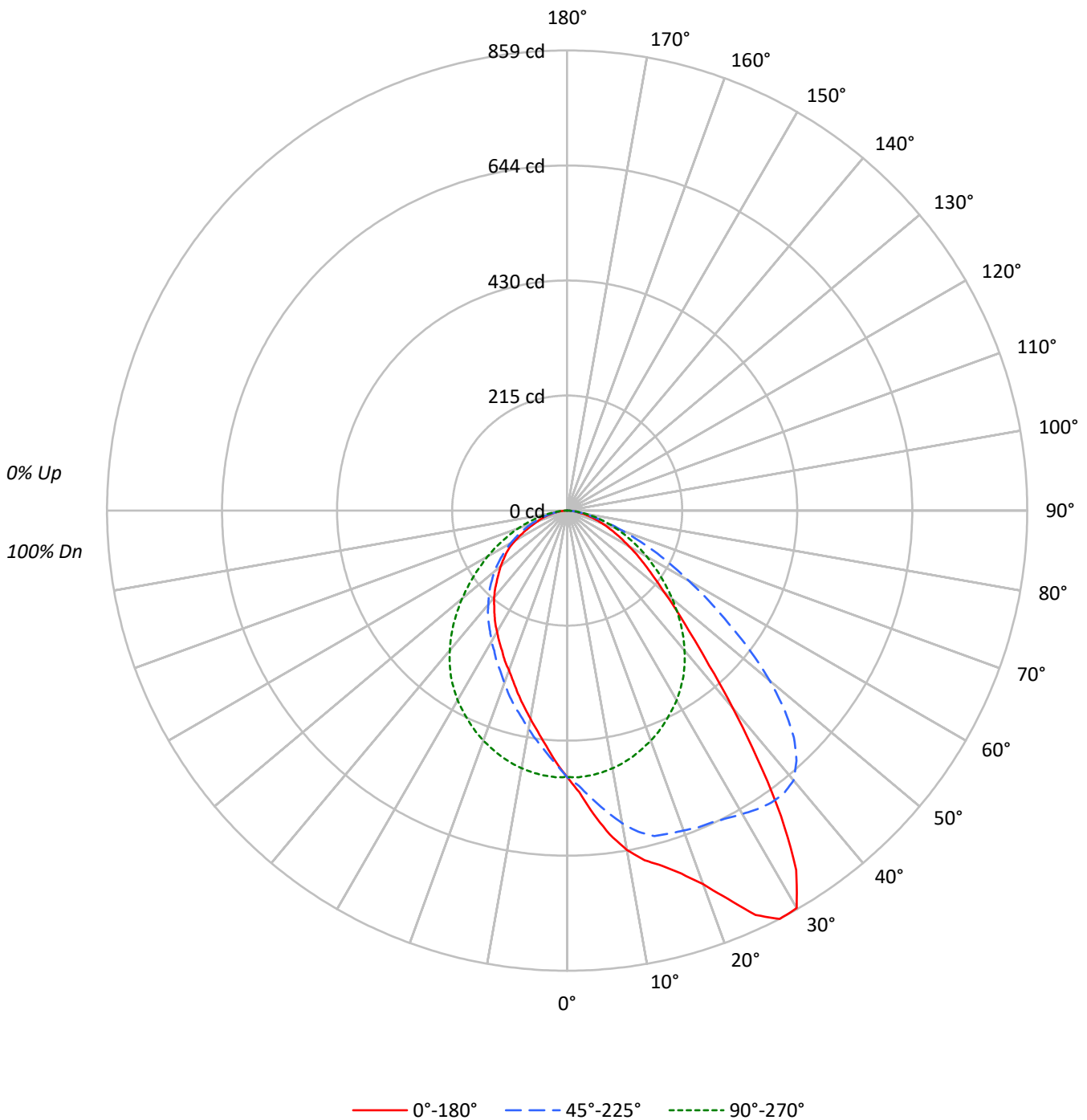
Lumens per Lamp: N/A
Luminaire Lumens: 1324.1 lumens
Efficiency: N/A
Efficacy: 118.2 lumens/watt
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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-H375D830-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P243768

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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°	3536	3536	3536	3536	3536
5°	4060	3857	3542	3229	3150
10°	4644	4278	3524	2989	2848
15°	5051	4629	3496	2783	2604
20°	5614	4806	3456	2590	2399
25°	6532	5035	3407	2441	2259
30°	7033	5367	3357	2315	2144
35°	6042	5773	3281	2215	2050
40°	4452	6100	3163	2125	1966
45°	3288	6018	3016	2046	1864
50°	2605	5462	2836	1962	1789
55°	2201	4559	2628	1841	1721
60°	1896	3724	2434	1727	1593
65°	1646	3005	2217	1586	1387
70°	1442	2284	2030	1434	1214
75°	1225	1664	1777	1269	1148
80°	954	1203	1486	1113	954
85°	840	889	1191	946	873

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6018 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.9	3.6
10°-20°	141.7	10.7
20°-30°	226.0	17.1
30°-40°	274.4	20.7
40°-50°	247.3	18.7
50°-60°	190.1	14.4
60°-70°	123.4	9.3
70°-80°	59.4	4.5
80°-90°	14.0	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°	415.6	31.4
0°-40°	690.0	52.1
0°-60°	1127.3	85.1
0°-90°	1324.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1324.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	498	498	498	498	498	
5°	569	541	496	453	442	57
15°	686	629	475	378	354	197
25°	833	642	434	311	288	381
35°	696	665	378	255	236	426
45°	327	599	300	204	185	260
55°	178	368	212	149	139	161
65°	98	179	132	94	82	98
75°	45	61	65	46	42	48
85°	10	11	15	12	11	12
90°	0	0	0	0	0	



TEST NUMBER: P243768

CATALOG NUMBER: S125RDRP-H375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5
2.5°	526.3	528.3	526.7	527.7	526.1	525.4	523.4	520.4	517.5	514.7	514.5
5°	569.0	568.6	567.0	564.8	563.2	559.3	557.3	550.6	546.1	540.6	537.8
7.5°	609.6	608.6	606.2	603.3	601.9	596.8	591.3	582.8	575.7	567.0	560.5
10°	643.5	643.3	641.6	639.6	634.3	628.5	623.2	614.3	603.7	592.8	583.8
12.5°	668.4	667.4	665.2	661.9	657.5	653.6	646.5	638.4	625.4	614.3	601.9
15°	686.5	686.1	683.0	681.8	673.3	667.8	658.3	650.2	640.2	629.1	615.7
17.5°	710.6	711.4	708.6	701.9	694.2	685.8	672.3	659.1	645.1	632.3	621.4
20°	742.2	740.2	735.5	727.4	713.6	703.1	689.7	673.3	654.4	635.4	619.9
22.5°	784.4	782.2	774.7	764.9	747.5	728.4	707.8	683.4	661.7	640.0	619.5
25°	832.9	828.8	817.7	807.1	782.4	762.1	731.5	702.3	670.8	642.0	618.9
27.5°	859.4	859.4	854.2	842.6	823.1	793.1	761.9	723.0	686.5	647.1	614.3
30°	857.0	855.6	857.6	852.7	840.0	817.5	786.6	745.7	699.2	654.0	614.7
32.5°	795.8	796.4	808.3	816.4	822.7	817.1	797.0	760.1	713.8	660.7	613.2
35°	696.4	698.0	718.9	732.7	760.9	777.1	781.8	761.9	720.3	665.4	610.4
37.5°	582.8	582.8	607.0	627.9	659.5	699.4	729.2	736.6	716.3	665.2	608.0
40°	479.8	479.2	498.3	524.0	557.7	601.7	646.1	684.2	689.1	657.5	599.7
42.5°	392.6	391.6	412.5	426.7	462.2	501.5	560.5	614.3	645.1	633.7	587.5
45°	327.1	326.3	339.9	356.1	381.1	422.0	471.5	531.3	583.0	598.7	564.6
47.5°	277.8	278.2	285.5	299.1	320.4	349.6	394.0	449.4	513.3	549.8	535.8
50°	235.6	236.9	242.5	252.7	268.3	291.8	329.9	380.0	445.7	494.0	497.0
52.5°	204.0	206.0	211.9	217.4	230.4	247.0	276.6	320.0	374.2	432.2	453.0
55°	177.6	178.5	181.9	187.8	197.5	211.3	232.8	265.9	316.2	367.9	404.4
57.5°	155.5	155.5	157.6	161.8	169.5	181.9	196.3	223.7	266.1	312.9	351.8
60°	133.4	134.2	135.7	140.3	145.4	154.9	168.9	186.2	222.9	262.0	303.8
62.5°	114.8	116.2	117.8	119.9	124.7	131.4	141.3	157.2	181.9	218.0	255.3
65°	97.9	99.2	99.4	102.0	105.2	110.7	118.2	129.8	150.3	178.7	209.5
67.5°	82.9	83.5	84.0	86.0	89.0	92.5	97.5	106.1	122.3	141.5	171.4
70°	69.4	69.8	70.0	72.2	73.6	76.7	79.3	84.8	95.1	109.9	133.2
72.5°	56.8	56.2	56.0	57.8	58.4	61.0	64.1	68.1	73.6	84.0	101.4
75°	44.6	44.8	45.0	46.0	46.2	47.3	49.3	51.9	54.4	60.6	71.6
77.5°	34.3	33.5	33.5	34.7	35.1	35.3	36.7	38.1	39.5	43.0	47.3
80°	23.3	23.7	23.7	23.7	23.9	24.3	25.1	26.2	27.2	29.4	30.2
82.5°	16.6	16.6	16.4	16.8	17.0	17.2	17.2	17.2	17.8	18.3	19.1
85°	10.3	10.5	9.9	10.3	10.5	10.5	10.5	10.5	11.0	10.9	11.0
87.5°	4.3	4.5	4.5	4.7	4.7	4.9	4.7	4.9	4.7	4.7	4.9
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°	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5
2.5°	513.9	511.6	510.4	508.0	504.8	502.9	500.9	498.1	496.0	492.6	489.7
5°	532.9	528.1	523.8	517.9	512.1	507.2	502.1	496.4	491.2	485.5	479.4
7.5°	554.0	546.5	537.4	526.9	518.1	510.4	501.7	493.2	485.5	476.4	468.1
10°	574.3	562.3	550.2	536.2	523.2	511.7	500.1	488.3	478.2	467.0	456.7
12.5°	590.1	578.6	560.7	543.3	526.3	511.6	497.0	482.6	469.3	456.9	444.7
15°	603.9	584.9	569.7	550.8	530.1	510.0	491.8	475.1	459.1	444.5	432.0
17.5°	607.8	590.9	574.3	552.2	529.9	507.0	486.1	466.2	448.4	432.2	418.2
20°	607.4	590.3	572.3	551.2	527.5	502.5	479.2	456.9	436.8	418.2	403.2
22.5°	601.5	584.9	566.8	545.5	521.4	495.6	471.1	446.4	424.5	405.2	389.8
25°	595.2	574.3	555.3	533.8	511.0	487.1	461.0	434.4	411.5	391.4	374.0
27.5°	589.7	564.6	541.3	520.2	496.8	475.3	449.4	421.6	398.1	377.0	359.1
30°	580.8	554.4	526.1	503.1	480.4	457.9	434.2	409.0	383.3	361.8	343.9
32.5°	573.1	539.8	509.2	483.1	460.5	440.7	418.0	393.8	368.7	348.2	328.9
35°	564.6	524.8	492.8	462.2	439.5	418.0	400.1	378.2	353.3	331.6	314.3
37.5°	554.6	509.4	472.7	441.5	418.0	395.9	379.8	360.2	337.7	316.2	299.1
40°	543.3	493.6	451.4	419.2	394.0	371.9	358.3	340.9	321.8	300.5	284.5
42.5°	529.1	476.8	432.0	396.9	368.9	349.0	335.4	321.0	303.4	284.9	267.5
45°	511.2	455.9	409.0	371.9	344.3	324.9	310.7	300.1	286.1	268.7	252.3
47.5°	489.3	434.0	385.3	346.8	320.2	301.6	288.4	277.8	267.1	252.1	236.5
50°	460.3	409.0	362.2	322.9	294.7	276.8	264.9	256.5	246.8	234.6	220.4
52.5°	428.3	380.8	335.0	298.3	271.1	253.1	240.9	233.8	226.5	216.4	204.2
55°	391.2	352.5	308.9	273.0	246.4	228.6	219.0	212.1	206.0	198.3	188.0
57.5°	352.0	318.0	280.1	247.0	221.9	205.2	196.7	191.0	185.8	180.3	171.8
60°	310.7	286.7	250.7	220.4	198.5	184.7	176.6	171.2	166.5	162.0	155.7
62.5°	267.7	247.8	221.0	195.1	175.6	162.6	156.6	152.1	147.2	143.2	138.7
65°	224.1	212.7	194.1	169.9	151.9	141.3	135.5	131.8	129.4	124.9	121.3
67.5°	184.5	178.1	162.4	146.0	132.2	122.5	117.2	114.4	111.9	109.7	105.7
70°	146.8	142.2	133.2	121.5	110.7	102.4	98.4	97.7	94.1	91.9	90.0
72.5°	111.9	110.7	103.2	98.0	91.9	85.4	82.5	80.9	78.5	76.5	75.8
75°	79.5	81.3	78.9	76.3	73.4	68.1	65.5	64.7	62.5	61.9	61.0
77.5°	54.3	56.8	57.6	56.4	55.0	53.3	51.5	50.7	48.5	48.1	47.5
80°	34.1	37.9	39.3	39.1	38.5	38.7	36.5	36.3	35.3	34.7	35.3
82.5°	20.7	22.7	25.3	25.8	25.1	25.4	24.9	24.1	24.1	24.5	23.7
85°	11.2	11.4	12.6	13.4	14.4	15.2	14.4	14.6	14.4	14.4	13.8
87.5°	4.9	5.1	5.1	4.9	5.3	5.7	6.5	6.9	6.7	6.1	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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5	497.5
2.5°	487.3	485.9	483.5	481.6	477.0	473.9	473.5	473.7	473.3	472.9	472.7
5°	475.4	470.9	466.6	462.8	457.7	452.6	450.2	449.2	448.8	446.6	447.8
7.5°	462.8	455.9	450.8	443.7	437.6	433.2	429.1	427.1	426.7	423.8	423.0
10°	449.4	441.1	433.4	426.3	420.2	414.1	409.2	407.4	405.0	402.7	399.1
12.5°	436.2	425.9	417.4	409.6	401.3	394.4	390.4	387.9	384.9	382.7	381.5
15°	420.4	411.7	401.3	392.8	384.3	378.2	372.9	368.1	365.4	363.6	358.7
17.5°	406.2	394.8	384.9	376.8	367.5	360.6	355.1	351.2	346.4	342.9	339.7
20°	391.0	379.2	370.1	360.4	351.0	342.5	335.6	332.4	329.1	325.7	323.9
22.5°	374.6	364.4	354.1	344.1	334.0	324.9	320.6	316.0	313.1	309.7	307.4
25°	360.4	349.2	338.9	327.7	316.6	311.3	305.4	300.9	298.5	295.1	292.6
27.5°	345.2	334.4	322.2	310.5	304.0	294.9	291.0	287.4	284.3	280.9	279.2
30°	331.0	318.4	306.2	297.1	288.6	282.1	278.4	274.0	269.7	268.1	265.7
32.5°	316.0	302.4	291.8	282.7	275.6	267.7	264.2	260.6	256.5	254.5	252.3
35°	300.5	287.2	276.8	268.5	261.2	255.3	251.3	247.6	245.0	242.1	240.5
37.5°	284.1	272.6	262.6	254.3	247.6	242.9	237.9	235.0	231.4	228.6	227.5
40°	268.5	258.2	248.6	240.9	234.8	229.0	224.7	221.0	218.8	216.4	214.4
42.5°	254.5	243.8	235.6	227.5	221.9	216.4	212.1	209.3	205.6	204.6	201.8
45°	239.5	229.6	221.3	213.9	208.1	203.6	198.5	195.1	192.7	190.4	189.4
47.5°	224.3	215.2	207.5	200.6	194.7	189.6	185.6	182.1	179.5	177.4	176.2
50°	209.5	201.6	193.9	187.2	181.1	177.4	172.6	168.7	166.7	164.3	163.0
52.5°	193.9	187.4	179.1	173.4	167.7	162.8	158.0	155.5	153.5	151.5	150.5
55°	179.3	172.4	165.3	159.2	153.7	148.6	144.8	142.8	140.3	139.1	138.9
57.5°	164.3	157.2	151.3	145.8	139.5	135.5	132.2	129.8	127.6	126.7	126.7
60°	148.0	142.2	136.7	130.6	126.1	121.5	118.0	116.4	114.2	113.8	112.5
62.5°	133.0	127.6	122.3	116.6	112.5	107.9	105.3	103.2	102.0	100.4	98.8
65°	117.4	112.6	107.5	102.6	99.2	94.3	91.9	89.4	88.0	86.2	84.2
67.5°	102.4	97.9	93.1	88.6	85.8	81.1	79.5	76.3	75.4	73.4	71.6
70°	86.6	83.5	79.7	75.2	72.8	69.0	67.5	64.5	62.9	61.7	60.8
72.5°	73.0	70.0	65.7	62.7	59.8	57.4	54.8	53.5	52.1	51.1	50.9
75°	59.6	55.8	53.3	50.5	48.5	46.2	45.0	44.0	43.4	42.8	42.2
77.5°	45.6	44.0	41.4	38.7	37.1	36.1	35.3	34.9	34.3	34.1	33.5
80°	33.9	31.8	30.2	29.2	28.0	27.2	26.6	25.3	24.5	24.1	23.7
82.5°	22.5	21.9	20.7	19.7	18.7	18.5	18.0	17.6	17.4	17.4	17.2
85°	13.6	12.0	12.0	11.8	11.8	11.6	11.2	11.2	10.9	11.4	11.4
87.5°	5.5	5.5	5.1	5.1	5.3	4.9	4.7	4.7	4.7	4.5	4.7
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: P243768

CATALOG NUMBER: S125RDRP-H375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	497.5	497.5	497.5	497.5
2.5°	472.7	471.7	471.9	470.7
5°	445.7	445.1	443.1	441.5
7.5°	421.0	418.4	418.2	416.7
10°	397.9	395.5	394.4	394.6
12.5°	377.8	375.2	375.2	373.7
15°	356.3	353.7	354.1	353.9
17.5°	338.5	336.8	335.4	334.2
20°	321.2	319.0	318.2	317.2
22.5°	305.2	303.6	303.8	303.8
25°	290.0	290.2	288.4	288.0
27.5°	276.6	276.2	275.8	275.0
30°	264.0	262.4	262.0	261.2
32.5°	250.9	250.7	249.2	249.8
35°	237.7	237.1	236.7	236.3
37.5°	225.5	224.3	224.1	223.7
40°	213.1	212.7	210.9	211.9
42.5°	199.6	198.9	198.9	198.9
45°	188.4	186.2	186.2	185.4
47.5°	175.8	175.0	174.6	173.2
50°	163.3	162.2	161.8	161.8
52.5°	150.5	150.3	150.7	149.9
55°	139.3	139.5	139.3	138.9
57.5°	127.0	126.1	126.1	126.3
60°	112.5	112.5	112.8	112.1
62.5°	98.4	98.0	96.7	96.3
65°	84.0	82.5	82.3	82.5
67.5°	71.2	70.6	69.6	69.8
70°	60.2	60.0	59.0	58.4
72.5°	50.3	50.3	49.7	49.7
75°	42.0	41.6	41.4	41.8
77.5°	32.4	31.4	31.8	31.2
80°	23.5	23.9	23.5	23.3
82.5°	17.4	17.0	17.2	17.0
85°	11.0	10.7	10.9	10.7
87.5°	4.5	4.7	4.7	4.3
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243768
 CATALOG NUMBER: S125RDRP-H375D830-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	14.31	15.85	14.68	16.16	16.48	15.01	16.55	15.37	16.86	17.18
	3H	15.39	16.77	15.77	17.10	17.46	16.48	17.86	16.86	18.19	18.55
	4H	15.75	17.05	16.15	17.40	17.77	17.01	18.30	17.41	18.65	19.03
	6H	15.97	17.17	16.38	17.53	17.92	17.36	18.56	17.78	18.93	19.32
	8H	16.03	17.17	16.45	17.55	17.96	17.46	18.60	17.89	18.99	19.39
	12H	16.06	17.15	16.49	17.53	17.96	17.52	18.61	17.95	19.00	19.43
4H	2H	15.83	17.13	16.23	17.48	17.85	15.88	17.17	16.28	17.52	17.90
	3H	16.88	17.95	17.29	18.35	18.75	17.54	18.62	17.95	19.01	19.42
	4H	17.24	18.20	17.67	18.62	19.06	18.14	19.10	18.57	19.52	19.96
	6H	17.48	18.32	17.94	18.76	19.22	18.57	19.41	19.03	19.86	20.31
	8H	17.54	18.33	18.01	18.77	19.24	18.70	19.48	19.16	19.93	20.39
	12H	17.59	18.29	18.07	18.77	19.24	18.78	19.48	19.26	19.96	20.43
8H	4H	17.60	18.38	18.06	18.83	19.29	18.29	19.08	18.76	19.52	19.99
	6H	17.89	18.54	18.39	19.03	19.51	18.81	19.46	19.31	19.95	20.43
	8H	17.99	18.57	18.50	19.08	19.57	18.99	19.57	19.50	20.08	20.57
	12H	18.07	18.59	18.58	19.08	19.64	19.13	19.64	19.64	20.14	20.70
12H	4H	17.62	18.32	18.10	18.80	19.27	18.28	18.98	18.76	19.46	19.93
	6H	17.92	18.51	18.44	19.01	19.50	18.81	19.39	19.32	19.90	20.39
	8H	18.06	18.57	18.57	19.06	19.63	19.02	19.54	19.53	20.03	20.60