

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: P243665

Luminaire Tested: S125DRP-H375D830-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243665
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-61)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125DRP-H375D830-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

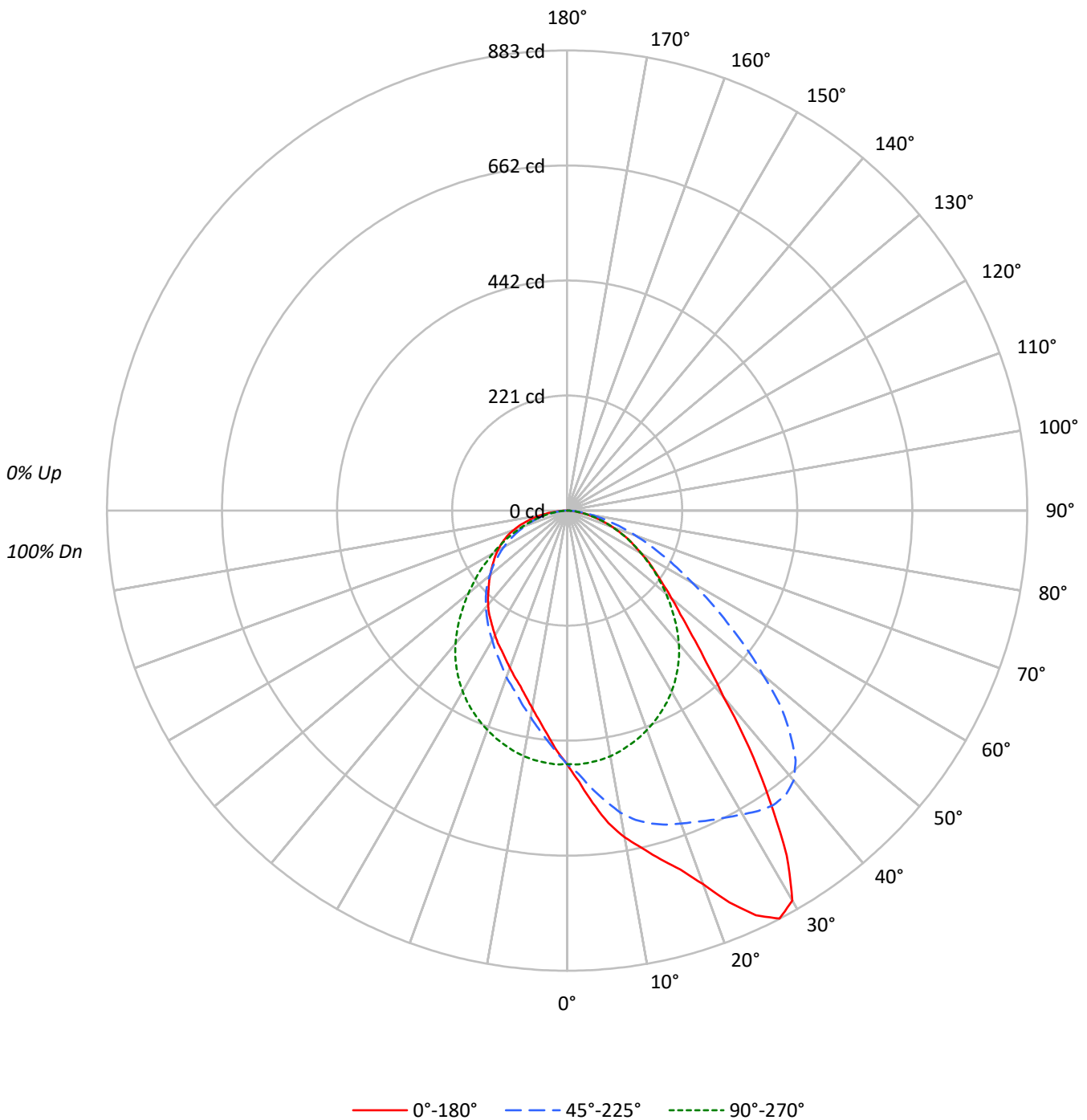
Lumens per Lamp: N/A
Luminaire Lumens: 1386.5 lumens
Efficiency: N/A
Efficacy: 123.8 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.22 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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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Luminous Intensity Polar Plot





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CATALOG NUMBER: S125DRP-H375D830-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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87				85	
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74				72	
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63				61	
4	84	73	64	58	82	71	63	57	69	62	56	66	61	56	64	59	55				53	
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48				46	
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43				40	
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38				36	
8	62	49	40	35	60	48	40	35	47	40	34	46	39	34	44	38	34				32	
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31				29	
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28				26	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	3458	3458	3458	3458	3458
5°	4017	3814	3465	3153	3080
10°	4596	4247	3454	2903	2779
15°	5095	4575	3423	2707	2561
20°	5769	4833	3388	2575	2429
25°	6718	5138	3345	2443	2327
30°	7092	5526	3290	2360	2270
35°	5864	5986	3209	2300	2222
40°	4338	6275	3093	2252	2189
45°	3410	6080	2925	2207	2142
50°	2888	5429	2736	2146	2133
55°	2571	4652	2548	2078	2141
60°	2333	3943	2338	1994	2188
65°	2163	3370	2143	1892	2250
70°	1943	2882	1918	1766	2263
75°	1659	2439	1686	1615	2233
80°	1355	1969	1379	1404	2083
85°	930	1386	979	1109	1770

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6080 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	47.0	3.4
10°-20°	140.4	10.1
20°-30°	228.3	16.5
30°-40°	277.8	20.0
40°-50°	254.2	18.3
50°-60°	203.4	14.7
60°-70°	141.7	10.2
70°-80°	75.3	5.4
80°-90°	18.5	1.3
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°	415.7	30.0
0°-40°	693.5	50.0
0°-60°	1151.1	83.0
0°-90°	1386.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1386.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	486	486	486	486	486	
5°	563	535	486	442	432	56
15°	692	622	465	368	348	199
25°	857	655	426	312	297	391
35°	676	690	370	265	256	419
45°	339	605	291	220	213	268
55°	208	375	206	168	173	187
65°	129	200	127	112	134	127
75°	60	89	61	59	81	65
85°	11	17	12	14	22	15
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°	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5
2.5°	520.8	518.7	518.1	518.3	517.1	516.1	513.7	510.6	508.4	505.6	504.8
5°	563.0	557.7	558.7	557.1	554.6	551.2	548.2	543.5	539.0	534.6	528.9
7.5°	604.5	603.5	600.7	600.3	596.2	590.5	584.5	578.0	568.4	561.7	554.0
10°	636.8	638.8	634.9	635.0	627.7	622.0	616.9	608.4	597.6	588.5	577.2
12.5°	662.9	663.7	663.1	660.5	655.8	646.1	641.2	632.3	620.4	608.0	599.3
15°	692.5	690.3	686.9	683.8	676.9	670.0	659.7	649.3	634.3	621.8	609.2
17.5°	722.0	721.7	717.5	710.8	702.1	693.0	677.7	664.2	648.3	631.9	616.1
20°	762.7	760.5	754.4	746.7	730.7	717.9	698.8	680.4	659.5	639.0	620.6
22.5°	813.6	806.5	800.4	788.5	770.2	747.9	726.4	699.8	670.6	646.5	623.6
25°	856.6	853.4	846.9	833.7	812.8	786.0	754.0	723.8	687.1	655.2	625.4
27.5°	882.6	881.3	877.3	864.9	847.5	820.9	786.8	748.3	706.7	663.5	627.7
30°	864.1	864.3	866.5	865.1	857.4	840.2	809.8	771.2	723.0	673.3	628.3
32.5°	784.4	789.7	806.7	814.8	825.6	829.2	815.6	783.4	736.8	683.2	630.3
35°	675.9	688.9	700.3	724.0	752.2	775.3	788.7	778.3	742.6	689.9	631.3
37.5°	573.7	572.7	590.5	616.1	646.1	685.4	723.4	744.3	732.7	688.5	629.5
40°	467.6	476.6	487.7	510.4	545.5	593.8	639.2	684.0	700.2	676.3	622.6
42.5°	395.0	399.1	410.1	427.9	453.2	502.5	547.3	604.9	646.3	649.1	607.4
45°	339.3	343.9	347.0	364.6	388.1	421.2	467.2	525.2	580.8	604.9	582.8
47.5°	294.7	297.3	304.2	314.9	330.2	359.6	396.3	449.0	509.6	556.3	548.8
50°	261.2	263.2	268.7	274.6	287.2	308.9	338.5	381.7	439.9	491.0	507.8
52.5°	231.6	234.2	236.9	242.7	254.3	268.9	293.0	326.7	380.8	433.0	459.7
55°	207.5	208.5	211.5	215.8	224.7	235.8	254.9	285.5	323.3	375.4	412.1
57.5°	186.6	185.6	188.8	191.8	197.7	206.9	220.8	243.4	279.5	323.9	362.2
60°	164.1	165.1	167.5	169.9	174.0	182.1	192.9	211.1	237.5	277.4	316.4
62.5°	144.8	145.6	146.2	149.5	153.3	159.0	167.9	182.7	204.6	237.5	272.4
65°	128.6	127.2	128.0	130.4	133.4	138.1	146.4	157.2	173.6	200.4	229.4
67.5°	109.7	110.1	110.3	111.7	114.2	118.8	124.7	133.6	147.0	168.1	193.5
70°	93.5	93.7	93.9	95.1	97.3	99.8	104.0	110.9	122.3	138.7	158.6
72.5°	76.9	77.7	77.7	78.7	80.3	81.7	85.6	91.3	100.0	113.0	129.8
75°	60.4	61.7	62.1	63.3	64.7	65.1	68.1	72.6	78.1	88.8	102.0
77.5°	47.0	47.0	47.7	49.1	49.1	50.3	53.5	55.4	59.8	67.1	77.1
80°	33.1	33.7	33.7	34.1	34.9	35.9	37.3	39.1	42.8	48.1	53.5
82.5°	21.7	21.9	22.1	23.1	22.7	23.7	24.3	26.4	28.2	30.8	34.1
85°	11.4	11.4	11.6	12.2	12.8	13.0	13.4	14.4	15.8	17.0	18.9
87.5°	4.7	4.5	4.5	4.9	4.9	5.1	5.3	5.7	6.5	6.5	7.3
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°	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5
2.5°	504.3	502.7	499.9	497.5	494.6	492.4	490.2	487.5	484.7	481.8	478.6
5°	524.4	519.6	514.3	509.0	502.7	497.5	492.0	485.7	480.4	474.5	468.1
7.5°	547.5	539.2	529.9	519.4	509.6	500.7	491.6	482.9	475.1	466.2	457.5
10°	569.7	555.3	543.7	529.5	515.5	502.5	490.0	478.6	467.2	456.1	445.5
12.5°	584.9	568.6	554.0	537.6	521.2	504.8	488.5	472.7	459.1	445.7	434.4
15°	595.4	584.0	564.6	544.9	523.4	502.1	483.5	465.2	449.0	433.4	420.0
17.5°	601.9	587.1	568.2	547.5	523.8	501.5	479.2	457.3	438.8	422.0	406.8
20°	603.7	586.3	566.6	545.1	521.4	497.0	471.9	448.0	427.9	408.8	393.4
22.5°	601.9	581.8	560.7	539.8	514.9	490.0	463.8	437.8	414.7	395.0	378.8
25°	598.9	574.7	552.6	527.9	504.8	481.2	454.1	426.5	402.5	381.9	363.8
27.5°	595.2	567.4	540.2	515.9	490.8	467.6	442.7	414.5	389.4	366.9	350.0
30°	590.9	557.7	527.5	498.7	475.1	451.8	427.5	400.9	375.6	354.1	335.8
32.5°	585.9	547.5	511.9	481.0	455.7	434.2	411.5	386.1	361.2	338.1	322.2
35°	579.0	533.4	495.2	461.6	435.4	412.1	392.2	369.9	345.2	323.7	307.2
37.5°	570.9	521.0	478.2	441.9	413.3	389.4	371.1	352.9	329.9	309.1	293.2
40°	560.1	506.0	460.3	421.0	390.4	366.9	349.0	333.4	314.3	293.4	279.0
42.5°	545.9	489.5	439.9	398.1	368.5	343.5	326.7	312.5	296.1	278.0	263.8
45°	529.7	470.5	417.2	376.2	344.1	320.2	303.8	291.0	278.6	262.4	249.2
47.5°	504.4	448.2	396.7	351.4	319.8	296.7	281.3	269.1	259.8	247.0	234.0
50°	474.5	423.0	372.5	326.9	294.9	272.6	258.0	247.4	239.5	229.6	219.8
52.5°	441.5	394.6	345.8	303.2	271.3	250.2	234.8	225.3	220.2	212.3	204.6
55°	403.0	362.6	317.2	278.4	247.0	225.5	212.3	205.6	199.8	195.9	189.0
57.5°	364.4	330.2	289.8	251.3	222.5	203.4	191.6	184.1	179.9	177.2	172.2
60°	322.2	295.3	258.2	224.9	199.3	181.1	170.6	164.5	160.8	159.2	155.9
62.5°	281.9	261.4	227.7	199.8	177.0	161.0	150.5	145.6	143.2	141.5	139.5
65°	242.3	226.1	199.5	173.4	154.1	139.7	131.4	127.4	125.7	123.7	123.5
67.5°	206.6	191.8	170.5	149.1	133.0	120.7	113.4	109.5	107.5	107.7	106.7
70°	171.4	160.0	142.6	125.3	111.5	101.8	94.9	92.3	91.5	91.3	90.6
72.5°	138.7	132.2	117.0	102.4	91.5	84.0	78.5	76.3	75.4	75.0	75.0
75°	109.9	105.2	92.1	81.1	72.8	66.7	62.9	61.4	60.0	60.8	60.2
77.5°	82.5	78.5	69.6	61.7	55.4	50.3	48.5	47.2	46.4	46.2	47.0
80°	58.0	55.6	50.1	43.8	39.1	36.1	34.9	33.7	33.1	32.7	33.1
82.5°	37.3	35.9	32.0	28.2	25.4	23.9	22.7	22.1	21.1	21.3	21.7
85°	20.3	19.9	17.4	16.2	13.6	13.4	12.6	12.0	12.2	11.8	12.4
87.5°	8.3	7.9	7.3	6.7	5.9	5.3	4.9	5.3	4.7	5.3	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°	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5	486.5
2.5°	477.0	474.9	472.3	469.9	466.4	464.0	462.8	463.2	461.8	461.4	461.2
5°	464.4	459.5	454.7	450.8	446.6	441.9	438.6	437.6	437.2	436.2	434.0
7.5°	451.4	445.1	439.0	433.2	427.3	421.8	418.4	415.7	414.1	411.3	410.7
10°	437.6	429.9	423.4	415.1	408.0	402.3	397.9	395.5	394.2	391.6	389.4
12.5°	424.4	416.3	406.2	398.7	391.2	385.3	380.4	376.4	375.4	372.1	370.3
15°	410.1	400.3	391.2	382.5	375.4	367.9	365.0	361.4	357.9	354.9	354.3
17.5°	396.5	384.7	375.8	367.3	358.7	353.1	349.2	346.8	344.1	342.5	339.7
20°	380.2	370.5	360.6	352.7	345.2	340.5	335.2	333.0	331.0	327.3	326.1
22.5°	366.4	354.7	346.4	338.5	331.8	325.1	321.4	319.2	316.2	314.3	312.7
25°	351.9	342.3	331.8	323.9	318.2	311.5	308.9	306.2	303.6	301.8	300.3
27.5°	337.9	327.3	318.8	310.9	305.0	300.3	296.7	293.8	292.0	290.6	289.6
30°	323.3	313.5	305.6	298.3	291.6	287.6	284.3	283.1	281.1	280.1	278.6
32.5°	310.1	300.1	292.6	286.3	280.3	276.4	274.4	272.6	270.7	268.9	268.7
35°	295.1	286.5	279.5	272.6	268.3	265.1	263.0	261.2	259.6	258.2	257.5
37.5°	281.9	273.6	265.9	261.0	256.3	253.5	251.1	250.5	249.0	249.2	248.0
40°	267.7	260.2	253.7	248.8	245.6	242.7	241.1	239.1	238.1	238.3	237.3
42.5°	253.9	247.0	241.1	236.5	233.2	231.0	229.6	228.1	226.9	226.1	225.9
45°	239.9	233.8	228.8	224.3	221.5	219.6	217.8	215.8	214.8	214.4	214.2
47.5°	226.1	220.6	215.2	212.1	209.5	207.7	206.0	204.4	203.6	203.0	202.0
50°	211.9	206.4	202.6	198.7	196.5	194.1	192.2	191.4	190.4	190.2	191.2
52.5°	197.1	192.7	189.4	186.2	183.7	181.1	179.1	178.1	178.7	178.7	179.9
55°	183.1	178.5	175.4	172.8	170.1	167.7	165.7	165.7	165.7	166.9	168.5
57.5°	167.5	163.5	161.2	158.2	155.7	154.1	152.7	152.5	153.3	155.3	157.0
60°	151.7	148.9	146.4	144.0	141.5	140.3	140.1	139.7	140.9	142.8	146.6
62.5°	136.1	134.3	131.2	130.0	127.8	126.5	126.5	126.9	128.6	131.8	135.1
65°	121.1	118.6	116.2	115.0	113.6	112.5	112.5	114.0	116.6	119.6	123.7
67.5°	105.7	103.6	102.0	100.8	99.2	98.6	99.2	101.0	104.2	107.1	111.5
70°	89.2	88.8	87.4	85.8	85.0	85.0	85.6	87.6	90.0	94.5	98.2
72.5°	74.0	74.0	73.2	72.2	71.6	72.2	72.6	74.6	77.5	81.5	85.6
75°	60.2	59.6	59.0	58.6	58.4	58.8	59.4	61.0	64.5	68.3	71.6
77.5°	46.6	46.2	45.6	46.0	46.0	46.2	47.9	49.7	51.7	54.6	58.2
80°	33.5	33.7	33.1	32.9	33.9	34.3	35.7	37.1	38.5	41.8	44.4
82.5°	22.1	22.5	22.3	22.7	23.1	23.1	24.7	26.0	27.2	29.6	31.6
85°	12.6	12.8	12.8	13.4	13.8	13.6	15.0	15.8	16.4	18.1	19.3
87.5°	5.5	5.7	5.9	5.9	5.9	6.7	6.9	7.3	7.5	7.9	8.5
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: P243665

CATALOG NUMBER: S125DRP-H375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	486.5	486.5	486.5	486.5
2.5°	459.5	459.3	460.3	460.8
5°	432.6	432.0	431.3	431.7
7.5°	408.8	407.2	406.8	406.8
10°	387.7	386.1	385.7	385.1
12.5°	369.7	367.3	366.4	365.4
15°	352.7	352.3	350.2	348.0
17.5°	337.2	337.7	335.6	334.6
20°	324.1	322.4	321.6	321.2
22.5°	310.9	309.5	309.5	308.2
25°	299.1	297.9	298.1	296.7
27.5°	288.0	287.8	287.6	287.2
30°	277.8	277.0	276.2	276.6
32.5°	267.9	266.7	266.1	265.9
35°	257.6	257.3	256.5	256.1
37.5°	247.6	247.8	246.8	246.6
40°	236.7	236.5	236.3	235.9
42.5°	225.3	224.7	225.1	224.9
45°	213.9	213.3	213.7	213.1
47.5°	202.6	203.0	203.0	203.2
50°	191.6	192.3	192.3	192.9
52.5°	181.3	182.9	182.9	182.7
55°	170.3	172.0	172.6	172.8
57.5°	159.8	161.6	163.3	163.7
60°	148.6	151.7	153.5	153.9
62.5°	138.5	141.5	143.8	144.0
65°	127.2	130.8	133.0	133.8
67.5°	115.8	118.6	121.5	122.7
70°	102.8	106.1	108.1	108.9
72.5°	89.2	92.9	95.5	95.9
75°	76.2	78.9	80.9	81.3
77.5°	61.4	64.1	65.9	66.3
80°	46.6	48.9	50.1	50.9
82.5°	32.9	34.5	35.1	35.9
85°	20.3	21.5	21.7	21.7
87.5°	8.9	9.1	9.1	9.5
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243665
 CATALOG NUMBER: S125DRP-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	15.15	16.72	15.51	17.03	17.34	14.89	16.46	15.25	16.77	17.09
	3H	16.50	17.91	16.88	18.24	18.60	16.31	17.72	16.69	18.05	18.41
	4H	16.98	18.31	17.38	18.65	19.03	16.80	18.13	17.20	18.47	18.85
	6H	17.29	18.51	17.70	18.88	19.27	17.12	18.34	17.53	18.71	19.10
	8H	17.36	18.53	17.79	18.92	19.32	17.19	18.36	17.62	18.75	19.15
	12H	17.40	18.52	17.83	18.90	19.33	17.23	18.35	17.66	18.74	19.16
4H	2H	16.53	17.86	16.93	18.21	18.59	15.95	17.28	16.35	17.63	18.00
	3H	17.89	19.00	18.30	19.40	19.80	17.61	18.71	18.02	19.11	19.51
	4H	18.40	19.39	18.83	19.81	20.25	18.17	19.16	18.60	19.58	20.02
	6H	18.75	19.62	19.21	20.06	20.52	18.54	19.41	19.00	19.85	20.31
	8H	18.84	19.65	19.30	20.09	20.56	18.64	19.45	19.10	19.89	20.36
	12H	18.89	19.62	19.37	20.09	20.56	18.70	19.42	19.18	19.90	20.37
8H	4H	18.85	19.66	19.31	20.11	20.57	18.52	19.33	18.98	19.77	20.24
	6H	19.28	19.95	19.78	20.44	20.92	19.02	19.69	19.52	20.18	20.66
	8H	19.41	20.01	19.92	20.52	21.01	19.17	19.77	19.68	20.28	20.77
	12H	19.49	20.03	20.00	20.52	21.08	19.27	19.80	19.78	20.29	20.85
12H	4H	18.89	19.62	19.37	20.10	20.57	18.54	19.27	19.02	19.74	20.21
	6H	19.35	19.96	19.86	20.46	20.95	19.07	19.67	19.58	20.18	20.67
	8H	19.53	20.06	20.04	20.55	21.11	19.27	19.81	19.78	20.30	20.86