

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: P243675

Luminaire Tested: S125DRP-H375D840-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243675  
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-H375D840-X4F0-XX-UDD-A-W  
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 4000K CCT, 80 CRI LEDS  
Ballast/Driver: -

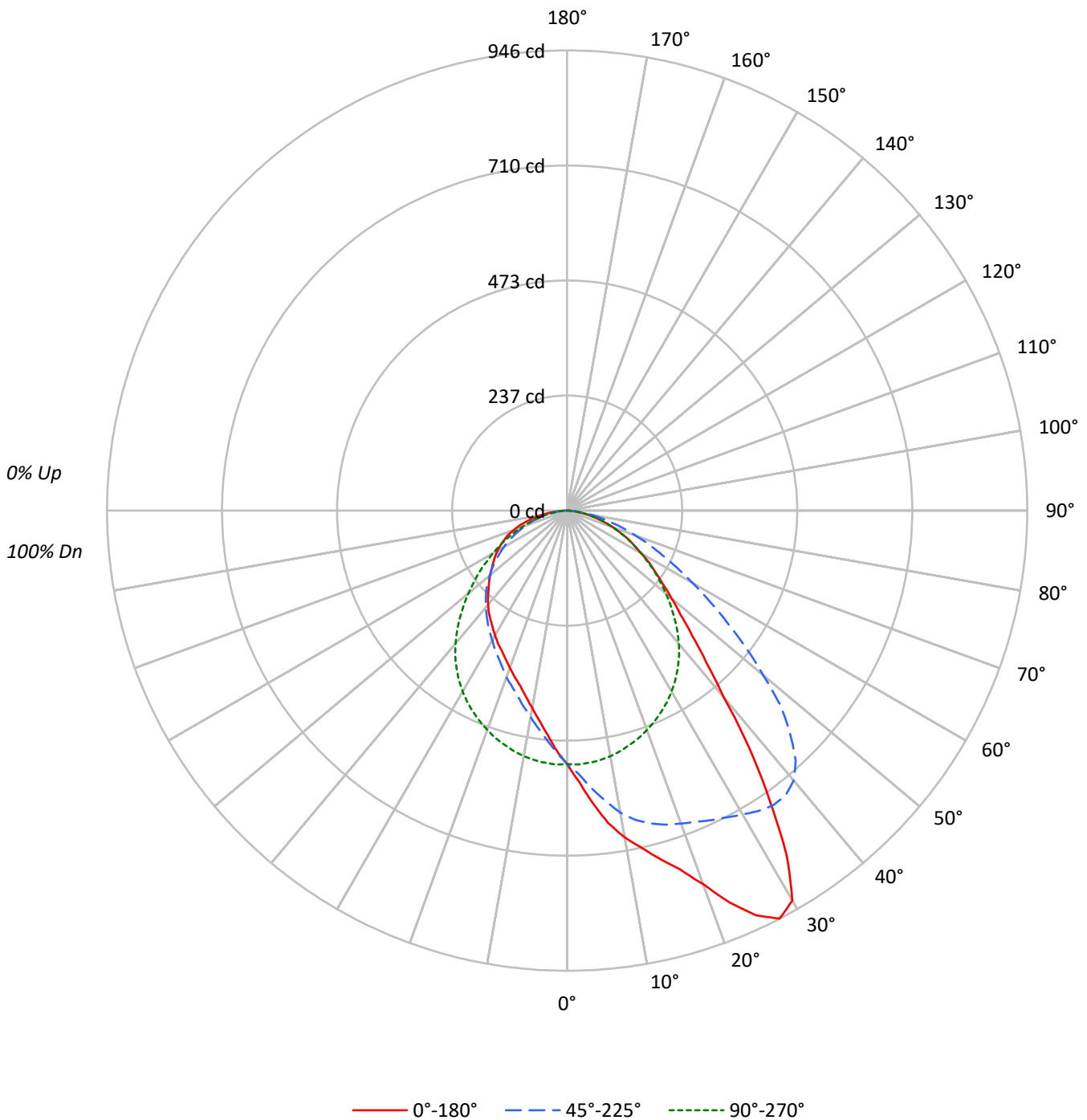
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1485.6 lumens  
Efficiency: N/A  
Efficacy: 132.6 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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**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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87	85					85			
2	100	92	86	80	97	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63	61					61			
4	84	73	64	58	82	71	63	57	69	62	56	66	61	56	64	59	55	53					53			
5	78	65	56	50	75	64	56	50	62	55	49	60	54	49	58	53	48	46					46			
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	43	40					40			
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36					36			
8	62	49	40	35	60	48	40	35	47	40	34	46	39	34	44	38	34	32					32			
9	58	45	37	31	57	44	36	31	43	36	31	42	36	31	41	35	31	29					29			
10	54	41	34	28	53	41	33	28	40	33	28	39	33	28	38	32	28	26					26			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	3704	3704	3704	3704	3704
5°	4304	4087	3713	3378	3300
10°	4924	4550	3701	3111	2978
15°	5459	4902	3667	2901	2744
20°	6181	5178	3630	2759	2603
25°	7197	5505	3584	2618	2493
30°	7598	5920	3525	2529	2432
35°	6283	6414	3438	2465	2381
40°	4648	6723	3314	2412	2345
45°	3655	6514	3134	2365	2295
50°	3095	5817	2931	2300	2285
55°	2756	4984	2729	2227	2295
60°	2500	4225	2506	2136	2344
65°	2317	3612	2296	2026	2410
70°	2082	3088	2055	1893	2425
75°	1777	2612	1804	1730	2392
80°	1453	2112	1478	1506	2231
85°	1003	1484	1052	1191	1900

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 6514 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.3	3.4
10°-20°	150.5	10.1
20°-30°	244.6	16.5
30°-40°	297.6	20.0
40°-50°	272.3	18.3
50°-60°	217.9	14.7
60°-70°	151.8	10.2
70°-80°	80.7	5.4
80°-90°	19.8	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°	445.4	30.0
0°-40°	743.0	50.0
0°-60°	1233.3	83.0
0°-90°	1485.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1485.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	521	521	521	521	521	
5°	603	573	520	474	462	60
15°	742	666	498	394	373	213
25°	918	702	457	334	318	419
35°	724	739	396	284	274	449
45°	364	648	312	235	228	287
55°	222	402	220	180	185	201
65°	138	215	136	120	143	136
75°	65	95	66	63	87	70
85°	12	18	13	15	23	16
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°	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2
2.5°	558.0	555.7	555.1	555.3	554.0	552.9	550.4	547.0	544.7	541.7	540.9
5°	603.3	597.5	598.6	596.9	594.2	590.6	587.4	582.3	577.5	572.8	566.7
7.5°	647.6	646.6	643.6	643.2	638.8	632.6	626.3	619.3	609.0	601.8	593.5
10°	682.3	684.4	680.2	680.4	672.6	666.5	661.0	651.9	640.2	630.5	618.5
12.5°	710.2	711.1	710.4	707.7	702.6	692.2	687.0	677.4	664.8	651.4	642.1
15°	741.9	739.6	736.0	732.6	725.2	717.8	706.8	695.6	679.6	666.2	652.7
17.5°	773.6	773.2	768.8	761.6	752.3	742.5	726.1	711.7	694.6	677.0	660.1
20°	817.2	814.8	808.3	800.0	782.9	769.2	748.7	729.0	706.6	684.6	665.0
22.5°	871.7	864.1	857.5	844.9	825.2	801.3	778.3	749.7	718.5	692.7	668.1
25°	917.8	914.4	907.4	893.3	870.9	842.1	807.9	775.5	736.2	702.0	670.0
27.5°	945.7	944.2	940.0	926.7	908.1	879.5	843.0	801.7	757.1	710.8	672.6
30°	925.8	926.0	928.3	926.9	918.6	900.2	867.7	826.3	774.7	721.4	673.2
32.5°	840.4	846.1	864.3	873.0	884.6	888.4	873.8	839.4	789.5	732.0	675.3
35°	724.2	738.1	750.4	775.7	806.0	830.7	845.1	833.9	795.6	739.2	676.4
37.5°	614.7	613.6	632.6	660.1	692.2	734.3	775.1	797.5	785.0	737.7	674.5
40°	501.0	510.7	522.5	546.8	584.4	636.2	684.8	732.8	750.2	724.6	667.1
42.5°	423.2	427.6	439.4	458.5	485.5	538.4	586.3	648.1	692.5	695.4	650.8
45°	363.6	368.4	371.8	390.6	415.8	451.3	500.5	562.7	622.3	648.1	624.4
47.5°	315.8	318.5	325.9	337.3	353.8	385.3	424.6	481.1	546.0	596.1	588.0
50°	279.9	282.0	287.9	294.2	307.8	331.0	362.7	409.0	471.4	526.1	544.1
52.5°	248.2	250.9	253.9	260.0	272.5	288.1	313.9	350.0	407.9	464.0	492.5
55°	222.4	223.4	226.6	231.2	240.8	252.6	273.1	305.9	346.4	402.2	441.6
57.5°	200.0	198.9	202.3	205.5	211.8	221.7	236.5	260.8	299.5	347.1	388.1
60°	175.9	176.9	179.5	182.0	186.4	195.1	206.7	226.2	254.5	297.2	339.0
62.5°	155.1	156.0	156.6	160.2	164.2	170.4	179.9	195.7	219.2	254.5	291.9
65°	137.8	136.3	137.2	139.7	142.9	148.0	156.8	168.5	186.0	214.8	245.8
67.5°	117.5	117.9	118.2	119.6	122.4	127.2	133.6	143.1	157.5	180.1	207.4
70°	100.2	100.4	100.6	101.9	104.2	107.0	111.4	118.8	131.1	148.6	169.9
72.5°	82.4	83.3	83.3	84.3	86.0	87.5	91.7	97.9	107.2	121.1	139.1
75°	64.7	66.2	66.6	67.9	69.3	69.8	72.9	77.8	83.7	95.1	109.3
77.5°	50.3	50.3	51.2	52.6	52.6	53.9	57.3	59.4	64.0	71.9	82.6
80°	35.5	36.1	36.1	36.6	37.4	38.5	39.9	41.9	45.9	51.6	57.3
82.5°	23.3	23.5	23.7	24.7	24.3	25.4	26.0	28.3	30.2	33.0	36.6
85°	12.3	12.3	12.5	13.1	13.7	14.0	14.4	15.4	16.9	18.2	20.3
87.5°	5.1	4.9	4.9	5.3	5.3	5.5	5.7	6.1	7.0	7.0	7.8
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°	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2
2.5°	540.3	538.6	535.6	533.1	529.9	527.6	525.3	522.3	519.3	516.2	512.8
5°	561.8	556.8	551.0	545.3	538.6	533.1	527.2	520.4	514.7	508.3	501.6
7.5°	586.6	577.7	567.7	556.5	546.0	536.5	526.7	517.4	509.0	499.5	490.2
10°	610.4	595.0	582.5	567.3	552.3	538.4	525.0	512.8	500.5	488.7	477.3
12.5°	626.7	609.2	593.5	576.0	558.4	540.9	523.4	506.4	491.9	477.5	465.4
15°	637.9	625.7	604.9	583.8	560.8	537.9	518.1	498.4	481.1	464.4	450.0
17.5°	644.9	629.0	608.8	586.6	561.2	537.3	513.4	490.0	470.1	452.1	435.8
20°	646.8	628.2	607.1	584.0	558.7	532.4	505.6	480.0	458.5	438.0	421.5
22.5°	644.9	623.3	600.7	578.3	551.7	525.0	496.9	469.0	444.3	423.2	405.8
25°	641.7	615.7	592.1	565.6	540.9	515.5	486.6	457.0	431.2	409.2	389.8
27.5°	637.7	607.9	578.7	552.7	525.9	501.0	474.3	444.1	417.2	393.2	375.0
30°	633.1	597.5	565.2	534.3	509.0	484.0	458.0	429.5	402.5	379.4	359.8
32.5°	627.8	586.6	548.5	515.3	488.3	465.2	440.9	413.7	387.0	362.3	345.2
35°	620.4	571.5	530.5	494.6	466.5	441.6	420.2	396.3	369.9	346.9	329.1
37.5°	611.7	558.2	512.4	473.5	442.8	417.2	397.6	378.1	353.4	331.2	314.1
40°	600.1	542.2	493.1	451.1	418.3	393.2	373.9	357.2	336.7	314.3	298.9
42.5°	584.9	524.4	471.4	426.5	394.8	368.0	350.0	334.8	317.3	297.8	282.6
45°	567.5	504.1	447.1	403.1	368.6	343.1	325.5	311.8	298.5	281.1	267.0
47.5°	540.5	480.2	425.1	376.5	342.6	317.9	301.4	288.3	278.4	264.6	250.7
50°	508.3	453.2	399.1	350.2	316.0	292.1	276.5	265.1	256.6	246.0	235.5
52.5°	473.1	422.7	370.5	324.9	290.6	268.0	251.5	241.4	235.9	227.4	219.2
55°	431.8	388.5	339.9	298.2	264.6	241.6	227.4	220.2	214.1	209.9	202.5
57.5°	390.4	353.8	310.5	269.3	238.4	217.9	205.2	197.2	192.8	189.8	184.5
60°	345.2	316.4	276.7	241.0	213.5	194.0	182.8	176.3	172.3	170.6	167.0
62.5°	302.1	280.1	243.9	214.1	189.6	172.5	161.3	156.0	153.5	151.6	149.4
65°	259.6	242.2	213.7	185.8	165.1	149.7	140.8	136.5	134.6	132.5	132.3
67.5°	221.3	205.5	182.6	159.8	142.5	129.4	121.5	117.3	115.2	115.4	114.4
70°	183.7	171.4	152.8	134.2	119.4	109.1	101.7	98.9	98.1	97.9	97.0
72.5°	148.6	141.6	125.3	109.7	98.1	90.0	84.1	81.8	80.7	80.3	80.3
75°	117.7	112.7	98.7	86.9	78.0	71.4	67.4	65.7	64.3	65.1	64.5
77.5°	88.4	84.1	74.6	66.2	59.4	53.9	52.0	50.5	49.7	49.5	50.3
80°	62.1	59.6	53.7	46.9	41.9	38.7	37.4	36.1	35.5	35.1	35.5
82.5°	39.9	38.5	34.2	30.2	27.3	25.6	24.3	23.7	22.6	22.8	23.3
85°	21.8	21.3	18.6	17.3	14.6	14.4	13.5	12.9	13.1	12.7	13.3
87.5°	8.9	8.5	7.8	7.2	6.3	5.7	5.3	5.7	5.1	5.7	5.5
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°	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2	521.2
2.5°	511.1	508.8	506.0	503.5	499.7	497.1	495.9	496.3	494.8	494.4	494.2
5°	497.6	492.3	487.2	483.0	478.5	473.5	469.9	468.8	468.4	467.3	465.0
7.5°	483.6	476.9	470.3	464.2	457.8	451.9	448.3	445.4	443.7	440.7	440.1
10°	468.8	460.6	453.6	444.7	437.1	431.0	426.3	423.8	422.3	419.6	417.2
12.5°	454.7	446.0	435.2	427.2	419.2	412.8	407.5	403.3	402.2	398.6	396.7
15°	439.4	428.9	419.2	409.9	402.2	394.2	391.0	387.2	383.4	380.3	379.6
17.5°	424.9	412.2	402.7	393.6	384.3	378.4	374.1	371.6	368.6	366.9	364.0
20°	407.3	397.0	386.4	377.9	369.9	364.8	359.1	356.8	354.7	350.7	349.4
22.5°	392.5	380.0	371.2	362.7	355.5	348.3	344.3	342.0	338.8	336.7	335.0
25°	377.1	366.7	355.5	347.1	340.9	333.8	331.0	328.0	325.3	323.4	321.7
27.5°	362.1	350.7	341.6	333.1	326.8	321.7	317.9	314.7	312.8	311.4	310.3
30°	346.4	335.9	327.4	319.6	312.4	308.2	304.6	303.3	301.2	300.1	298.5
32.5°	332.3	321.5	313.5	306.7	300.4	296.1	294.0	292.1	290.0	288.1	287.9
35°	316.2	306.9	299.5	292.1	287.5	284.1	281.8	279.9	278.2	276.7	275.8
37.5°	302.1	293.2	284.9	279.6	274.6	271.6	269.1	268.4	266.8	267.0	265.7
40°	286.8	278.8	271.8	266.5	263.2	260.0	258.3	256.2	255.1	255.3	254.3
42.5°	272.0	264.6	258.3	253.4	249.8	247.5	246.0	244.3	243.1	242.2	242.0
45°	257.0	250.5	245.2	240.3	237.4	235.3	233.4	231.2	230.2	229.8	229.6
47.5°	242.2	236.3	230.6	227.2	224.5	222.6	220.7	219.0	218.1	217.5	216.4
50°	227.0	221.1	217.1	212.9	210.5	208.0	205.9	205.0	204.0	203.8	204.8
52.5°	211.2	206.5	202.9	199.5	196.8	194.0	191.9	190.9	191.5	191.5	192.8
55°	196.2	191.3	187.9	185.2	182.2	179.7	177.6	177.6	177.6	178.8	180.5
57.5°	179.5	175.2	172.7	169.5	166.8	165.1	163.6	163.4	164.2	166.3	168.3
60°	162.5	159.6	156.8	154.3	151.6	150.3	150.1	149.7	150.9	153.0	157.0
62.5°	145.8	143.9	140.6	139.3	137.0	135.5	135.5	135.9	137.8	141.2	144.8
65°	129.8	127.0	124.5	123.2	121.8	120.5	120.5	122.2	124.9	128.1	132.5
67.5°	113.3	111.0	109.3	108.0	106.3	105.7	106.3	108.2	111.6	114.8	119.4
70°	95.5	95.1	93.6	91.9	91.1	91.1	91.7	93.8	96.4	101.2	105.3
72.5°	79.3	79.3	78.4	77.4	76.7	77.4	77.8	79.9	83.1	87.3	91.7
75°	64.5	63.8	63.2	62.8	62.6	63.0	63.6	65.3	69.1	73.1	76.7
77.5°	49.9	49.5	48.8	49.2	49.2	49.5	51.4	53.3	55.4	58.6	62.4
80°	35.9	36.1	35.5	35.3	36.4	36.8	38.3	39.7	41.2	44.8	47.6
82.5°	23.7	24.1	23.9	24.3	24.7	24.7	26.4	27.9	29.2	31.7	33.8
85°	13.5	13.7	13.7	14.4	14.8	14.6	16.1	16.9	17.5	19.4	20.7
87.5°	5.9	6.1	6.3	6.3	6.3	7.2	7.4	7.8	8.0	8.5	9.1
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: P243675

CATALOG NUMBER: S125DRP-H375D840-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	521.2	521.2	521.2	521.2
2.5°	492.3	492.1	493.1	493.8
5°	463.5	462.9	462.1	462.5
7.5°	438.0	436.3	435.8	435.8
10°	415.3	413.7	413.2	412.6
12.5°	396.1	393.6	392.5	391.5
15°	377.9	377.5	375.2	372.9
17.5°	361.2	361.9	359.5	358.5
20°	347.3	345.4	344.5	344.1
22.5°	333.1	331.6	331.6	330.2
25°	320.4	319.2	319.4	317.9
27.5°	308.6	308.4	308.2	307.8
30°	297.6	296.8	295.9	296.3
32.5°	287.0	285.8	285.1	284.9
35°	276.1	275.6	274.8	274.4
37.5°	265.3	265.5	264.4	264.2
40°	253.6	253.4	253.2	252.8
42.5°	241.4	240.8	241.2	241.0
45°	229.1	228.5	228.9	228.3
47.5°	217.1	217.5	217.5	217.7
50°	205.2	206.1	206.1	206.7
52.5°	194.3	195.9	195.9	195.7
55°	182.4	184.3	185.0	185.2
57.5°	171.2	173.1	175.0	175.4
60°	159.2	162.5	164.4	164.9
62.5°	148.4	151.6	154.1	154.3
65°	136.3	140.1	142.5	143.3
67.5°	124.1	127.0	130.2	131.5
70°	110.1	113.7	115.8	116.7
72.5°	95.5	99.6	102.3	102.7
75°	81.6	84.5	86.7	87.1
77.5°	65.7	68.7	70.6	71.0
80°	49.9	52.4	53.7	54.5
82.5°	35.3	37.0	37.6	38.5
85°	21.8	23.0	23.3	23.3
87.5°	9.5	9.7	9.7	10.1
90°	0.0	0.0	0.0	0.0

TEST NUMBER: P243675  
 CATALOG NUMBER: S125DRP-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	15.39	16.96	15.75	17.27	17.58	15.13	16.70	15.49	17.01	17.33
	3H	16.74	18.15	17.12	18.48	18.84	16.55	17.97	16.93	18.29	18.65
	4H	17.22	18.55	17.62	18.89	19.27	17.04	18.37	17.44	18.71	19.09
	6H	17.53	18.76	17.94	19.12	19.51	17.36	18.58	17.77	18.95	19.34
	8H	17.60	18.77	18.03	19.16	19.56	17.43	18.60	17.86	18.99	19.39
	12H	17.64	18.76	18.07	19.14	19.57	17.47	18.59	17.90	18.98	19.40
4H	2H	16.77	18.10	17.17	18.45	18.83	16.19	17.52	16.59	17.86	18.24
	3H	18.13	19.24	18.54	19.64	20.04	17.85	18.95	18.26	19.35	19.75
	4H	18.64	19.63	19.07	20.05	20.49	18.41	19.40	18.84	19.82	20.25
	6H	18.99	19.86	19.45	20.30	20.76	18.78	19.65	19.24	20.09	20.55
	8H	19.08	19.89	19.54	20.33	20.80	18.88	19.69	19.34	20.13	20.60
	12H	19.13	19.86	19.61	20.33	20.80	18.94	19.66	19.42	20.14	20.61
8H	4H	19.09	19.90	19.55	20.35	20.81	18.76	19.57	19.22	20.01	20.48
	6H	19.52	20.19	20.02	20.68	21.16	19.26	19.93	19.76	20.42	20.90
	8H	19.65	20.25	20.16	20.76	21.25	19.41	20.01	19.92	20.52	21.01
	12H	19.73	20.27	20.24	20.76	21.32	19.51	20.04	20.02	20.53	21.09
12H	4H	19.13	19.86	19.61	20.34	20.81	18.78	19.51	19.26	19.98	20.45
	6H	19.59	20.20	20.10	20.70	21.19	19.31	19.91	19.82	20.42	20.91
	8H	19.77	20.30	20.28	20.79	21.35	19.51	20.05	20.02	20.54	21.10