

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: P242830

Luminaire Tested: S125DRP-S375D940-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P242830  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-22)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125DRP-S375D940-X4F0-XX-UDD-A-W  
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER  
STANDARD LIGHT ENGINE  
Light Source: (92) 4000K CCT, 90 CRI LEDS  
Ballast/Driver: -

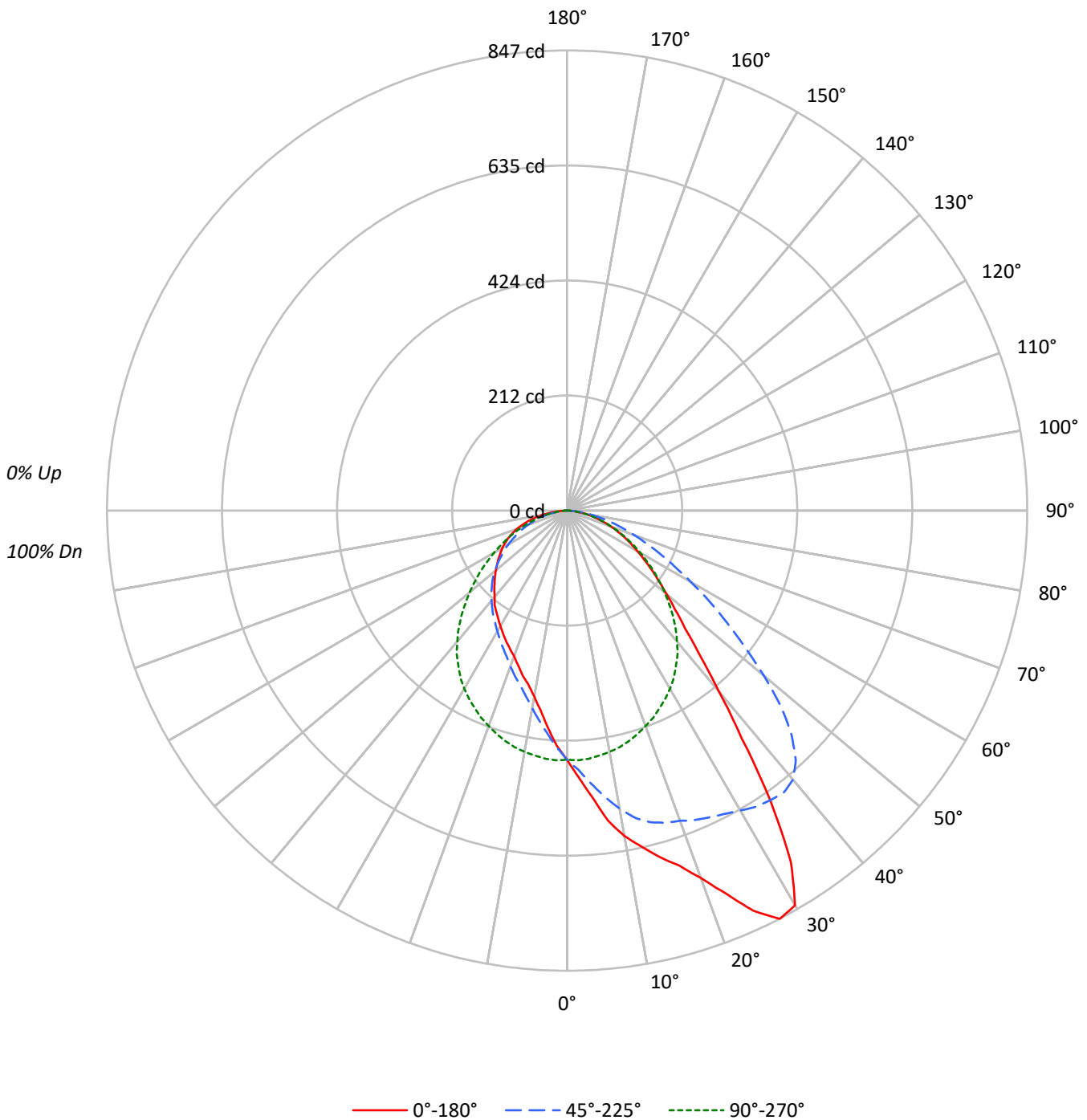
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1294.2 lumens  
Efficiency: N/A  
Efficacy: 111.6 lumens/watt  
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53  
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 (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: S125DRP-S375D940-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	109	105	101	97	107	103	99	96	99	96	93	95	92	90	91	89	87					85				
2	100	92	86	80	98	90	84	79	87	82	78	84	80	76	81	77	74					72				
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64					61				
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55					53				
5	78	65	56	50	76	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					41				
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38					36				
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34					32				
9	58	45	37	31	57	44	37	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°	3259	3259	3259	3259	3259
5°	3775	3596	3270	2942	2864
10°	4392	4021	3253	2665	2509
15°	4861	4370	3230	2449	2315
20°	5442	4596	3192	2307	2159
25°	6375	4883	3149	2188	2082
30°	6886	5230	3107	2108	2016
35°	5661	5649	3028	2052	1973
40°	4024	6000	2919	2007	1925
45°	3092	5872	2770	1966	1898
50°	2639	5223	2587	1917	1894
55°	2349	4436	2408	1848	1911
60°	2119	3747	2210	1783	1959
65°	1958	3192	2013	1692	2010
70°	1781	2714	1808	1577	2039
75°	1571	2320	1593	1453	2021
80°	1322	1903	1297	1236	1850
85°	1044	1378	938	1019	1492

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 5872 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	44.1	3.4
10°-20°	131.5	10.2
20°-30°	213.6	16.5
30°-40°	261.0	20.2
40°-50°	236.8	18.3
50°-60°	188.6	14.6
60°-70°	131.4	10.1
70°-80°	70.0	5.4
80°-90°	17.4	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°	389.2	30.1
0°-40°	650.2	50.2
0°-60°	1075.6	83.1
0°-90°	1294.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1294.2	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	459	459	459	459	459	
5°	529	504	458	412	401	53
15°	661	594	439	333	315	189
25°	813	623	402	279	266	372
35°	652	651	349	236	227	400
45°	308	584	276	196	189	245
55°	190	358	194	149	154	170
65°	116	190	120	101	120	115
75°	57	84	58	53	74	62
85°	13	17	12	12	18	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°	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6
2.5°	491.7	490.9	490.2	488.6	489.8	486.5	484.9	482.2	478.9	477.7	476.3
5°	529.1	530.1	531.0	526.9	527.3	524.6	518.4	513.3	509.2	504.0	500.3
7.5°	575.4	572.5	572.7	570.2	565.7	562.0	556.0	547.6	540.0	531.4	524.0
10°	608.5	608.7	607.0	603.8	599.0	595.5	586.9	578.7	568.8	557.1	548.8
12.5°	633.4	634.4	632.1	627.6	625.8	616.9	610.7	600.5	588.3	579.5	565.7
15°	660.7	658.5	657.0	651.7	647.6	639.5	628.8	618.6	605.8	593.9	582.0
17.5°	684.8	686.6	684.0	680.1	668.1	658.5	645.3	632.5	617.1	602.3	588.5
20°	719.5	721.0	716.6	708.2	693.0	683.5	664.6	646.7	628.2	607.7	592.2
22.5°	762.7	760.7	754.3	740.5	727.8	708.2	687.4	664.6	640.2	616.5	594.5
25°	812.9	804.7	801.0	785.3	767.9	742.1	714.0	682.1	653.3	622.7	596.2
27.5°	847.2	843.9	838.6	825.8	805.9	776.5	743.4	705.3	666.5	629.1	595.9
30°	839.0	839.4	839.8	836.3	824.6	803.8	770.9	729.0	680.7	637.3	597.2
32.5°	766.6	775.3	783.7	794.6	801.6	801.8	784.3	747.5	697.5	646.7	596.4
35°	652.5	654.6	676.6	698.4	728.0	751.0	766.4	749.6	707.8	651.1	595.9
37.5°	527.5	538.2	554.8	579.3	623.7	659.9	707.4	723.8	704.1	654.8	595.7
40°	433.7	443.4	453.4	478.5	514.5	560.8	616.7	664.4	675.5	646.7	589.8
42.5°	361.3	368.5	379.8	397.1	425.7	465.4	518.2	584.2	629.3	622.9	577.6
45°	307.6	312.4	321.0	336.0	357.8	389.9	437.0	505.1	564.5	584.2	556.7
47.5°	269.4	269.6	276.6	287.3	303.9	333.5	368.7	424.8	488.8	534.2	527.7
50°	238.7	237.7	242.9	251.9	264.4	282.5	315.7	358.4	419.3	472.4	487.2
52.5°	212.2	212.6	215.3	221.3	231.3	246.1	268.8	306.2	356.0	410.9	442.1
55°	189.6	188.8	192.5	197.0	204.6	214.7	232.6	262.0	304.3	358.0	394.2
57.5°	167.8	169.9	171.5	174.6	181.2	188.2	204.2	226.8	261.6	309.3	347.7
60°	149.1	151.3	152.4	155.5	160.6	166.4	178.1	195.6	223.9	263.6	301.5
62.5°	132.4	133.9	134.1	136.8	140.7	146.4	155.0	169.0	189.8	223.3	260.3
65°	116.4	116.4	117.2	120.1	122.1	127.1	134.1	144.8	162.7	189.8	221.5
67.5°	100.8	101.8	101.6	103.0	104.7	109.0	114.3	123.2	137.4	157.9	184.2
70°	85.7	86.4	86.2	87.2	89.2	91.7	95.8	104.1	113.7	130.6	152.4
72.5°	72.0	72.2	71.6	73.0	74.0	76.1	80.8	84.3	93.0	106.7	123.6
75°	57.2	57.6	58.0	58.8	60.0	61.1	63.5	67.9	73.8	84.5	96.0
77.5°	45.6	44.6	45.7	45.6	46.1	47.1	49.2	51.8	56.8	64.0	73.6
80°	32.3	32.5	32.5	32.7	33.7	34.3	36.0	37.8	41.5	46.5	52.8
82.5°	21.4	22.0	21.6	22.0	22.8	23.2	23.9	25.3	27.1	30.8	34.8
85°	12.8	11.9	12.3	12.7	12.7	12.8	13.6	14.2	15.4	16.9	18.7
87.5°	4.7	5.1	5.3	5.3	5.5	5.5	6.2	6.2	6.8	7.4	8.2
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°	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6
2.5°	475.2	473.8	472.2	469.5	466.2	464.5	461.7	460.0	456.5	453.6	450.4
5°	495.8	490.7	486.1	480.0	473.4	469.1	464.1	458.4	452.6	446.6	439.9
7.5°	516.4	508.1	498.9	489.4	480.0	471.3	463.1	454.7	447.1	437.6	429.6
10°	537.3	526.0	513.9	499.7	485.9	473.8	461.5	450.8	439.9	428.3	417.9
12.5°	558.1	542.1	523.8	507.9	490.5	475.4	460.4	446.0	431.6	418.3	405.9
15°	565.7	552.5	536.7	514.5	495.8	475.8	456.7	439.0	422.4	408.0	392.8
17.5°	573.1	556.1	539.4	518.0	493.7	472.1	450.4	431.2	412.9	394.8	381.0
20°	574.8	557.3	539.6	518.8	493.7	468.0	446.4	422.0	402.0	383.1	365.2
22.5°	574.3	553.8	534.2	512.5	488.2	465.0	437.8	412.9	390.7	372.2	353.3
25°	570.0	548.8	524.6	503.0	478.9	453.8	427.3	401.6	379.4	358.2	339.7
27.5°	567.4	540.6	514.1	489.2	466.0	442.9	417.2	390.7	366.4	344.7	327.6
30°	561.8	531.6	500.9	474.6	450.6	428.3	404.3	378.6	352.9	331.9	313.2
32.5°	556.7	520.3	487.4	458.2	432.5	410.9	389.3	365.2	340.1	318.7	300.0
35°	549.9	509.2	472.1	439.7	412.7	390.3	371.8	349.0	325.9	305.2	287.3
37.5°	541.9	494.8	455.5	421.8	392.4	369.1	351.6	333.8	310.7	290.4	274.5
40°	532.2	479.3	437.0	402.4	371.6	347.1	331.1	314.6	296.1	277.6	260.5
42.5°	519.9	465.2	418.3	380.4	350.0	326.3	309.3	295.9	280.1	263.2	247.6
45°	504.4	447.7	397.9	357.8	327.0	303.5	286.2	275.6	263.4	247.0	233.6
47.5°	483.7	427.9	376.5	335.0	303.3	281.5	264.9	254.6	245.7	232.8	220.2
50°	454.3	405.1	352.9	311.8	280.1	258.1	243.1	234.0	226.6	217.2	206.9
52.5°	421.4	376.5	329.8	289.3	257.9	236.3	221.7	213.9	208.1	202.1	191.9
55°	386.2	347.3	302.9	264.4	235.3	214.1	201.3	194.3	189.2	184.2	177.9
57.5°	348.2	316.7	276.0	240.0	213.2	193.3	181.2	174.0	169.9	167.2	163.3
60°	307.8	281.7	247.8	215.7	189.6	172.5	160.8	155.5	152.2	150.1	147.4
62.5°	270.2	249.9	219.2	190.6	168.6	152.6	142.5	137.4	134.3	133.5	131.4
65°	233.4	216.9	191.0	166.6	147.2	133.3	124.6	119.7	117.8	116.6	116.8
67.5°	196.4	185.7	164.1	142.7	126.7	114.5	107.3	103.6	102.6	100.8	100.8
70°	163.1	155.5	138.0	119.9	106.1	97.1	90.9	87.0	86.0	85.3	85.1
72.5°	133.7	127.3	112.7	99.1	87.0	79.4	74.6	72.6	70.9	70.5	70.5
75°	104.9	101.2	89.2	77.7	69.1	63.7	60.2	58.0	56.8	56.6	56.8
77.5°	79.2	75.7	67.4	58.8	53.1	48.9	45.6	45.0	43.4	43.6	43.2
80°	56.1	53.9	49.1	42.6	38.2	34.6	33.1	31.7	31.3	30.8	31.3
82.5°	36.8	34.5	31.5	28.0	24.5	22.8	21.2	21.0	20.8	20.6	20.6
85°	20.1	20.2	18.3	15.2	13.6	12.5	11.5	11.5	11.3	11.1	11.3
87.5°	8.6	8.2	7.4	6.8	5.8	5.3	5.1	5.3	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



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6	458.6
2.5°	448.7	446.6	444.8	440.9	438.8	435.8	433.5	436.0	433.3	434.5	432.7
5°	436.6	431.2	427.3	421.6	416.8	412.3	409.0	408.4	406.8	406.1	403.7
7.5°	422.2	416.0	409.6	402.6	396.7	390.5	386.8	383.3	381.1	378.4	376.3
10°	409.8	400.6	392.8	383.9	376.1	369.3	363.8	361.1	358.6	354.9	353.5
12.5°	394.4	384.8	374.9	365.2	357.8	350.0	345.5	341.0	339.5	335.2	335.0
15°	382.7	368.5	359.2	349.4	339.1	332.9	329.0	324.5	322.6	319.6	317.5
17.5°	368.3	355.5	343.8	333.8	324.5	319.4	314.4	311.3	308.0	305.8	302.3
20°	352.3	340.3	328.6	317.9	311.1	305.0	301.1	298.2	294.7	293.7	290.2
22.5°	338.9	325.3	314.2	305.6	298.0	291.0	286.7	285.0	282.8	279.3	279.3
25°	324.1	310.3	300.8	291.8	285.2	279.0	276.0	273.5	271.2	269.0	268.2
27.5°	311.7	299.4	287.7	279.5	273.9	268.0	265.5	262.2	260.5	258.7	256.4
30°	298.4	285.8	275.8	268.0	261.8	256.8	254.0	251.9	250.3	248.8	247.6
32.5°	284.8	273.3	263.8	256.2	249.9	246.4	244.1	242.7	241.0	239.0	237.5
35°	273.1	260.3	250.9	244.3	239.4	236.5	233.8	232.4	230.5	230.5	228.9
37.5°	259.3	248.0	239.6	233.6	229.3	226.6	223.5	222.7	221.3	220.6	220.0
40°	247.2	236.9	229.1	223.1	218.4	216.3	213.9	212.4	211.6	210.6	210.2
42.5°	234.8	225.0	217.6	212.2	208.3	206.5	204.4	203.4	201.7	200.3	200.1
45°	222.1	212.6	205.8	201.3	197.8	195.6	194.3	191.9	191.2	189.6	189.4
47.5°	210.4	201.1	194.3	190.6	187.5	185.9	183.8	181.2	180.3	179.3	179.1
50°	197.0	188.6	182.4	178.9	176.0	173.4	171.3	169.7	169.2	169.2	169.6
52.5°	183.4	176.6	171.5	167.0	164.3	161.6	159.6	158.8	157.9	159.0	159.8
55°	170.1	162.9	159.0	155.0	152.2	149.1	148.1	147.7	147.2	148.7	149.5
57.5°	155.9	151.1	146.4	142.1	139.8	137.8	136.3	136.1	137.2	137.6	140.0
60°	142.5	136.7	132.6	129.5	126.5	125.4	125.0	124.6	125.4	127.5	130.8
62.5°	127.7	123.2	118.7	116.6	114.7	112.5	112.5	112.9	114.7	117.2	120.5
65°	113.3	109.2	106.3	103.6	101.8	100.6	101.0	101.8	103.6	106.9	110.6
67.5°	98.5	95.8	93.0	90.5	88.8	89.0	89.2	90.1	92.3	96.2	99.7
70°	84.3	81.2	79.0	78.1	76.7	75.9	77.1	79.0	80.8	84.3	87.2
72.5°	70.1	67.5	66.0	65.4	65.0	64.4	64.6	66.8	69.3	72.8	76.3
75°	56.1	55.1	53.9	53.1	52.6	52.9	53.3	55.3	57.2	60.9	64.8
77.5°	43.4	42.2	41.5	41.3	40.9	41.1	42.0	43.6	45.6	48.3	51.4
80°	31.0	30.6	30.2	30.0	30.0	30.2	31.7	32.7	34.5	37.0	39.3
82.5°	20.4	20.2	20.2	20.2	20.4	20.4	21.2	22.6	23.9	25.7	27.6
85°	11.9	11.5	12.1	12.3	11.9	12.5	12.8	13.6	14.2	15.2	16.2
87.5°	4.9	5.3	5.1	5.3	5.3	5.6	5.5	6.2	6.6	7.0	6.8
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: P242830

CATALOG NUMBER: S125DRP-S375D940-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	458.6	458.6	458.6	458.6
2.5°	431.6	432.9	431.8	433.3
5°	402.8	401.0	402.2	401.4
7.5°	376.1	374.5	372.2	371.4
10°	351.4	349.2	349.0	347.7
12.5°	333.3	331.3	328.6	328.2
15°	316.3	314.8	313.4	314.6
17.5°	301.9	300.6	300.2	299.0
20°	288.5	287.5	287.9	285.4
22.5°	277.8	275.6	275.3	275.3
25°	266.5	265.5	264.5	265.5
27.5°	256.6	255.6	255.2	255.4
30°	247.6	245.7	245.9	245.7
32.5°	237.9	236.7	236.3	235.9
35°	228.3	228.3	227.4	227.4
37.5°	219.6	219.4	218.8	219.2
40°	209.5	209.3	208.7	207.5
42.5°	199.7	198.9	198.7	198.6
45°	189.4	189.4	189.0	188.8
47.5°	179.3	179.7	180.5	180.3
50°	170.3	170.5	171.1	171.3
52.5°	160.4	161.8	162.5	162.3
55°	151.3	152.6	154.0	154.2
57.5°	142.1	143.9	145.2	145.6
60°	132.8	135.3	137.0	137.8
62.5°	123.8	126.7	128.5	128.5
65°	113.9	116.8	118.4	119.5
67.5°	103.6	106.5	108.0	109.0
70°	92.1	95.0	97.3	98.1
72.5°	80.8	83.3	85.1	86.0
75°	67.4	70.9	72.6	73.6
77.5°	54.5	58.0	59.0	59.6
80°	41.7	43.6	45.0	45.2
82.5°	29.6	31.1	31.3	31.9
85°	17.5	18.3	18.5	18.3
87.5°	7.2	7.0	7.0	7.4
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242830  
 CATALOG NUMBER: S125DRP-S375D940-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	14.76	16.33	15.13	16.64	16.96	14.74	16.30	15.10	16.62	16.93
	3H	16.13	17.54	16.51	17.87	18.23	16.16	17.57	16.54	17.90	18.26
	4H	16.62	17.95	17.02	18.30	18.67	16.65	17.98	17.05	18.32	18.70
	6H	16.96	18.19	17.37	18.55	18.94	16.97	18.19	17.38	18.56	18.95
	8H	17.05	18.22	17.48	18.61	19.01	17.05	18.21	17.47	18.60	19.00
	12H	17.10	18.22	17.53	18.60	19.03	17.09	18.21	17.52	18.59	19.02
4H	2H	16.27	17.59	16.67	17.94	18.32	15.81	17.14	16.21	17.49	17.86
	3H	17.61	18.72	18.02	19.11	19.52	17.47	18.58	17.88	18.98	19.38
	4H	18.12	19.11	18.55	19.53	19.97	18.03	19.02	18.46	19.44	19.88
	6H	18.49	19.36	18.95	19.80	20.26	18.40	19.27	18.86	19.71	20.17
	8H	18.60	19.41	19.06	19.85	20.32	18.50	19.31	18.96	19.75	20.22
	12H	18.66	19.38	19.14	19.86	20.33	18.56	19.28	19.04	19.76	20.23
8H	4H	18.60	19.41	19.07	19.86	20.32	18.37	19.18	18.83	19.62	20.09
	6H	19.06	19.73	19.55	20.22	20.69	18.87	19.54	19.37	20.03	20.51
	8H	19.20	19.80	19.71	20.31	20.80	19.02	19.62	19.53	20.13	20.62
	12H	19.30	19.83	19.81	20.33	20.89	19.12	19.65	19.63	20.14	20.71
12H	4H	18.65	19.38	19.13	19.85	20.32	18.39	19.11	18.87	19.59	20.06
	6H	19.14	19.74	19.65	20.25	20.74	18.92	19.52	19.43	20.03	20.52
	8H	19.33	19.86	19.84	20.35	20.92	19.13	19.66	19.63	20.15	20.71