

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: P243690

Luminaire Tested: S125DRP-H375D940-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243690
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-H375D940-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

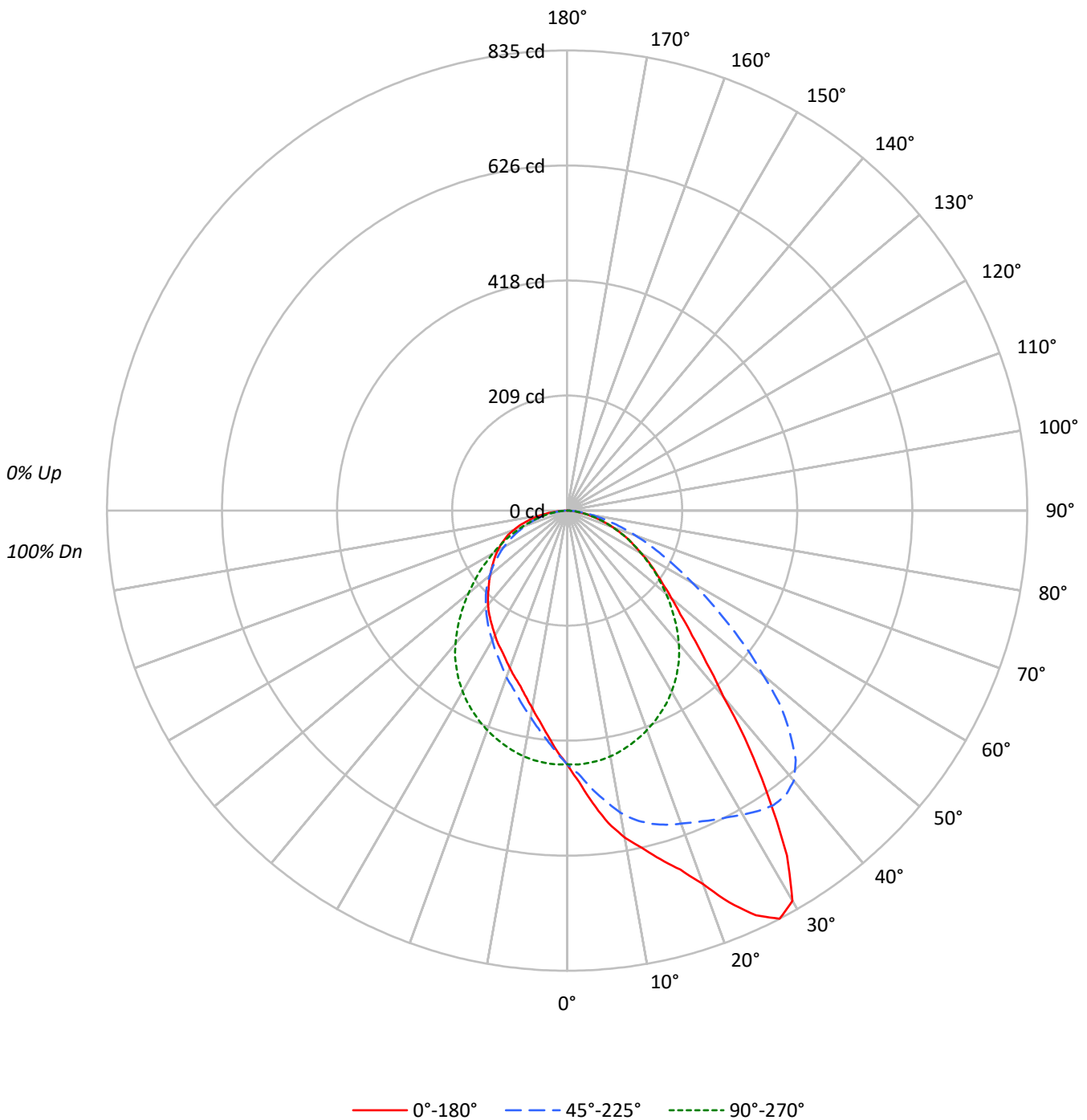
Lumens per Lamp: N/A
Luminaire Lumens: 1311.8 lumens
Efficiency: N/A
Efficacy: 117.1 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.22 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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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CATALOG NUMBER: S125DRP-H375D940-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P243690

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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	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°	3272	3272	3272	3272	3272
5°	3801	3609	3278	2983	2914
10°	4348	4018	3268	2747	2629
15°	4820	4329	3238	2561	2422
20°	5458	4572	3206	2436	2299
25°	6355	4861	3164	2311	2201
30°	6709	5228	3113	2233	2148
35°	5548	5663	3037	2176	2102
40°	4104	5936	2926	2130	2071
45°	3226	5751	2767	2088	2026
50°	2732	5137	2587	2031	2018
55°	2432	4401	2410	1965	2026
60°	2208	3730	2213	1886	2070
65°	2047	3189	2028	1789	2127
70°	1839	2726	1814	1671	2140
75°	1568	2307	1593	1527	2112
80°	1285	1862	1306	1330	1973
85°	881	1313	930	1052	1672

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5751 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	44.5	3.4
10°-20°	132.9	10.1
20°-30°	216.0	16.5
30°-40°	262.8	20.0
40°-50°	240.5	18.3
50°-60°	192.4	14.7
60°-70°	134.0	10.2
70°-80°	71.2	5.4
80°-90°	17.5	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°	393.3	30.0
0°-40°	656.1	50.0
0°-60°	1089.0	83.0
0°-90°	1311.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1311.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	460	460	460	460	460	
5°	533	506	460	418	408	53
15°	655	588	440	348	329	188
25°	810	620	404	295	281	370
35°	639	653	350	251	242	396
45°	321	572	275	208	202	253
55°	196	355	194	159	164	177
65°	122	190	121	106	126	120
75°	57	84	58	56	77	62
85°	11	16	11	13	20	14
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°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	492.7	490.7	490.1	490.3	489.2	488.3	486.0	483.0	481.0	478.4	477.6
5°	532.7	527.6	528.6	527.1	524.6	521.5	518.7	514.2	509.9	505.8	500.4
7.5°	571.9	570.9	568.3	568.0	564.0	558.6	553.0	546.9	537.7	531.4	524.1
10°	602.5	604.3	600.6	600.8	593.9	588.5	583.6	575.6	565.3	556.8	546.1
12.5°	627.1	627.9	627.3	624.9	620.4	611.3	606.6	598.2	587.0	575.2	567.0
15°	655.1	653.1	649.9	646.9	640.4	633.8	624.1	614.2	600.1	588.3	576.3
17.5°	683.1	682.7	678.8	672.5	664.3	655.7	641.1	628.4	613.3	597.8	582.9
20°	721.6	719.5	713.7	706.4	691.3	679.2	661.1	643.7	623.9	604.5	587.2
22.5°	769.7	763.0	757.2	746.0	728.6	707.6	687.2	662.0	634.4	611.6	590.0
25°	810.4	807.4	801.3	788.7	769.0	743.6	713.3	684.8	650.1	619.8	591.7
27.5°	835.0	833.7	830.0	818.2	801.8	776.6	744.3	707.9	668.5	627.7	593.9
30°	817.5	817.7	819.7	818.4	811.1	794.9	766.2	729.6	684.0	637.0	594.5
32.5°	742.1	747.1	763.2	770.8	781.1	784.5	771.6	741.2	697.1	646.3	596.3
35°	639.4	651.8	662.6	685.0	711.7	733.5	746.2	736.3	702.5	652.7	597.3
37.5°	542.8	541.8	558.6	582.9	611.3	648.4	684.4	704.2	693.2	651.4	595.6
40°	442.3	450.9	461.4	482.8	516.1	561.8	604.7	647.1	662.4	639.8	589.0
42.5°	373.7	377.6	388.0	404.8	428.7	475.4	517.7	572.2	611.4	614.1	574.7
45°	321.0	325.3	328.3	344.9	367.1	398.5	442.0	496.8	549.5	572.2	551.3
47.5°	278.8	281.3	287.8	297.9	312.4	340.2	375.0	424.8	482.1	526.3	519.2
50°	247.1	249.0	254.2	259.8	271.8	292.3	320.3	361.2	416.2	464.6	480.4
52.5°	219.1	221.5	224.2	229.6	240.6	254.4	277.2	309.1	360.2	409.7	434.9
55°	196.3	197.3	200.1	204.2	212.6	223.0	241.1	270.1	305.9	355.2	389.9
57.5°	176.6	175.6	178.6	181.4	187.0	195.8	208.9	230.3	264.5	306.5	342.7
60°	155.3	156.2	158.5	160.7	164.6	172.3	182.5	199.7	224.7	262.4	299.4
62.5°	137.0	137.7	138.3	141.5	145.0	150.4	158.8	172.8	193.5	224.7	257.8
65°	121.7	120.4	121.1	123.4	126.2	130.6	138.5	148.8	164.2	189.6	217.1
67.5°	103.8	104.1	104.3	105.6	108.1	112.4	118.0	126.4	139.0	159.0	183.1
70°	88.5	88.7	88.8	90.0	92.0	94.4	98.4	104.9	115.7	131.2	150.1
72.5°	72.8	73.5	73.5	74.5	76.0	77.3	81.0	86.4	94.6	106.9	122.8
75°	57.1	58.4	58.8	59.9	61.2	61.6	64.4	68.7	73.9	84.0	96.5
77.5°	44.4	44.4	45.2	46.5	46.5	47.6	50.6	52.4	56.6	63.5	73.0
80°	31.4	31.9	31.9	32.3	33.0	34.0	35.3	37.0	40.5	45.5	50.6
82.5°	20.5	20.7	20.9	21.8	21.5	22.4	23.0	25.0	26.7	29.1	32.3
85°	10.8	10.8	11.0	11.6	12.1	12.3	12.7	13.6	14.9	16.1	17.9
87.5°	4.5	4.3	4.3	4.7	4.7	4.9	5.0	5.4	6.2	6.2	6.9
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°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	477.1	475.6	472.9	470.7	467.9	465.9	463.8	461.2	458.6	455.8	452.8
5°	496.1	491.6	486.6	481.5	475.6	470.7	465.5	459.5	454.5	448.9	442.9
7.5°	517.9	510.1	501.3	491.4	482.1	473.7	465.1	456.9	449.4	441.0	432.8
10°	539.0	525.4	514.4	500.9	487.7	475.4	463.6	452.8	442.0	431.5	421.4
12.5°	553.4	537.9	524.1	508.6	493.1	477.6	462.1	447.2	434.3	421.6	411.0
15°	563.3	552.5	534.2	515.5	495.2	475.0	457.5	440.1	424.8	410.1	397.4
17.5°	569.4	555.4	537.5	517.9	495.5	474.4	453.4	432.6	415.1	399.2	384.9
20°	571.1	554.7	536.0	515.7	493.3	470.1	446.4	423.9	404.8	386.7	372.2
22.5°	569.4	550.4	530.4	510.7	487.1	463.6	438.8	414.2	392.3	373.7	358.4
25°	566.6	543.7	522.8	499.5	477.6	455.2	429.6	403.5	380.7	361.3	344.2
27.5°	563.1	536.8	511.0	488.1	464.4	442.3	418.8	392.1	368.4	347.2	331.1
30°	559.0	527.6	499.1	471.8	449.4	427.4	404.5	379.3	355.4	335.0	317.7
32.5°	554.3	517.9	484.3	455.0	431.1	410.8	389.3	365.3	341.7	319.9	304.8
35°	547.8	504.7	468.5	436.7	411.9	389.9	371.0	350.0	326.6	306.3	290.6
37.5°	540.1	492.9	452.4	418.1	391.0	368.4	351.1	333.9	312.1	292.5	277.3
40°	529.9	478.7	435.4	398.3	369.4	347.2	330.2	315.4	297.3	277.5	263.9
42.5°	516.4	463.1	416.2	376.6	348.6	324.9	309.1	295.6	280.1	263.0	249.5
45°	501.1	445.1	394.7	355.9	325.5	302.9	287.4	275.3	263.5	248.2	235.7
47.5°	477.2	424.0	375.3	332.4	302.5	280.7	266.2	254.6	245.8	233.7	221.4
50°	448.9	400.2	352.4	309.3	279.0	257.9	244.1	234.0	226.6	217.3	207.9
52.5°	417.7	373.3	327.2	286.9	256.6	236.7	222.1	213.1	208.3	200.8	193.5
55°	381.3	343.0	300.1	263.4	233.7	213.3	200.8	194.5	189.1	185.3	178.8
57.5°	344.7	312.4	274.2	237.8	210.5	192.4	181.2	174.1	170.2	167.6	162.9
60°	304.8	279.4	244.3	212.8	188.5	171.3	161.4	155.7	152.1	150.6	147.4
62.5°	266.7	247.3	215.4	189.1	167.4	152.3	142.4	137.7	135.5	133.8	132.0
65°	229.2	213.9	188.7	164.1	145.8	132.1	124.3	120.6	118.9	117.0	116.8
67.5°	195.4	181.4	161.3	141.1	125.8	114.2	107.3	103.6	101.7	101.9	101.0
70°	162.2	151.4	134.9	118.5	105.5	96.3	89.8	87.3	86.6	86.4	85.7
72.5°	131.2	125.0	110.7	96.9	86.6	79.5	74.3	72.2	71.3	70.9	70.9
75°	104.0	99.5	87.2	76.7	68.9	63.1	59.5	58.0	56.7	57.5	56.9
77.5°	78.0	74.3	65.9	58.4	52.4	47.6	45.9	44.6	43.9	43.7	44.4
80°	54.9	52.6	47.4	41.4	37.0	34.2	33.0	31.9	31.4	31.0	31.4
82.5°	35.3	34.0	30.2	26.7	24.1	22.6	21.5	20.9	20.0	20.2	20.5
85°	19.2	18.9	16.4	15.3	12.9	12.7	11.9	11.4	11.6	11.2	11.8
87.5°	7.8	7.5	6.9	6.3	5.6	5.0	4.7	5.0	4.5	5.0	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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3	460.3
2.5°	451.3	449.2	446.8	444.6	441.2	439.0	437.9	438.2	436.9	436.6	436.4
5°	439.4	434.7	430.2	426.5	422.6	418.1	414.9	414.0	413.6	412.7	410.6
7.5°	427.0	421.1	415.3	409.9	404.3	399.0	395.9	393.3	391.8	389.1	388.6
10°	414.0	406.7	400.5	392.7	386.0	380.6	376.5	374.2	372.9	370.5	368.4
12.5°	401.5	393.8	384.3	377.2	370.1	364.5	359.8	356.1	355.2	352.0	350.3
15°	388.0	378.7	370.1	361.9	355.2	348.1	345.3	341.9	338.6	335.8	335.2
17.5°	375.1	364.0	355.6	347.5	339.3	334.1	330.4	328.1	325.5	324.0	321.4
20°	359.7	350.5	341.2	333.7	326.6	322.1	317.1	315.1	313.2	309.6	308.5
22.5°	346.6	335.6	327.7	320.3	313.9	307.6	304.0	302.0	299.2	297.3	295.8
25°	333.0	323.8	313.9	306.5	301.1	294.7	292.3	289.7	287.2	285.6	284.1
27.5°	319.7	309.6	301.6	294.1	288.5	284.1	280.7	277.9	276.2	274.9	274.0
30°	305.9	296.6	289.1	282.2	275.9	272.1	269.0	267.8	266.0	265.0	263.5
32.5°	293.4	283.9	276.8	270.8	265.2	261.5	259.6	257.9	256.1	254.4	254.2
35°	279.2	271.0	264.5	257.9	253.8	250.8	248.8	247.1	245.6	244.3	243.6
37.5°	266.7	258.9	251.6	246.9	242.4	239.8	237.6	237.0	235.5	235.7	234.6
40°	253.3	246.2	240.0	235.4	232.4	229.6	228.1	226.2	225.3	225.5	224.5
42.5°	240.2	233.7	228.1	223.8	220.6	218.6	217.3	215.8	214.6	213.9	213.7
45°	227.0	221.2	216.5	212.2	209.6	207.7	206.1	204.2	203.3	202.9	202.7
47.5°	213.9	208.7	203.6	200.6	198.2	196.5	194.9	193.4	192.6	192.1	191.1
50°	200.5	195.2	191.7	187.9	185.9	183.7	181.8	181.0	180.1	179.9	180.9
52.5°	186.5	182.3	179.2	176.2	173.8	171.3	169.5	168.5	169.1	169.1	170.2
55°	173.2	168.9	165.9	163.5	160.9	158.6	156.8	156.8	156.8	157.9	159.4
57.5°	158.5	154.7	152.5	149.7	147.3	145.8	144.5	144.3	145.0	146.9	148.6
60°	143.5	140.9	138.5	136.2	133.8	132.7	132.5	132.1	133.3	135.1	138.7
62.5°	128.8	127.1	124.1	123.0	120.9	119.6	119.6	120.0	121.7	124.7	127.8
65°	114.6	112.2	109.9	108.8	107.5	106.4	106.4	107.9	110.3	113.1	117.0
67.5°	100.0	98.0	96.5	95.4	93.9	93.3	93.9	95.6	98.5	101.3	105.5
70°	84.4	84.0	82.7	81.2	80.4	80.4	81.0	82.9	85.1	89.4	92.9
72.5°	70.0	70.0	69.2	68.3	67.8	68.3	68.7	70.6	73.4	77.1	81.0
75°	56.9	56.4	55.8	55.4	55.2	55.6	56.2	57.7	61.0	64.6	67.8
77.5°	44.0	43.7	43.1	43.5	43.5	43.7	45.4	47.0	48.9	51.7	55.1
80°	31.7	31.9	31.4	31.2	32.1	32.5	33.8	35.1	36.4	39.6	42.0
82.5°	20.9	21.3	21.1	21.5	21.8	21.8	23.3	24.6	25.8	28.0	29.9
85°	11.9	12.1	12.1	12.7	13.1	12.9	14.2	14.9	15.5	17.2	18.3
87.5°	5.2	5.4	5.6	5.6	5.6	6.3	6.5	6.9	7.1	7.5	8.0
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: P243690

CATALOG NUMBER: S125DRP-H375D940-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	460.3	460.3	460.3	460.3
2.5°	434.7	434.5	435.4	436.0
5°	409.3	408.7	408.0	408.4
7.5°	386.7	385.2	384.9	384.9
10°	366.8	365.3	364.9	364.3
12.5°	349.8	347.5	346.6	345.7
15°	333.7	333.3	331.3	329.2
17.5°	319.0	319.5	317.5	316.5
20°	306.7	305.0	304.2	303.9
22.5°	294.1	292.8	292.8	291.5
25°	282.9	281.8	282.0	280.7
27.5°	272.5	272.3	272.1	271.8
30°	262.8	262.0	261.3	261.7
32.5°	253.5	252.3	251.8	251.6
35°	243.8	243.4	242.6	242.3
37.5°	234.2	234.4	233.5	233.3
40°	224.0	223.8	223.6	223.2
42.5°	213.1	212.6	213.0	212.8
45°	202.3	201.8	202.1	201.6
47.5°	191.7	192.1	192.1	192.2
50°	181.2	182.0	182.0	182.5
52.5°	171.5	173.0	173.0	172.8
55°	161.1	162.8	163.3	163.5
57.5°	151.2	152.9	154.5	154.9
60°	140.5	143.5	145.2	145.6
62.5°	131.0	133.8	136.1	136.2
65°	120.4	123.7	125.8	126.5
67.5°	109.6	112.2	115.0	116.1
70°	97.2	100.4	102.3	103.0
72.5°	84.4	87.9	90.3	90.7
75°	72.0	74.7	76.5	76.9
77.5°	58.0	60.7	62.3	62.7
80°	44.0	46.3	47.4	48.2
82.5°	31.2	32.7	33.2	34.0
85°	19.2	20.3	20.5	20.5
87.5°	8.4	8.6	8.6	9.0
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243690
 CATALOG NUMBER: S125DRP-H375D940-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	14.95	16.52	15.32	16.84	17.15	14.69	16.26	15.06	16.58	16.89
	3H	16.31	17.72	16.69	18.05	18.41	16.12	17.53	16.50	17.86	18.22
	4H	16.79	18.11	17.19	18.46	18.84	16.61	17.93	17.01	18.28	18.66
	6H	17.09	18.32	17.51	18.69	19.08	16.92	18.15	17.33	18.52	18.91
	8H	17.17	18.34	17.60	18.73	19.13	17.00	18.17	17.43	18.56	18.96
	12H	17.20	18.33	17.63	18.71	19.14	17.04	18.16	17.47	18.54	18.97
4H	2H	16.34	17.67	16.74	18.02	18.39	15.76	17.08	16.16	17.43	17.81
	3H	17.70	18.81	18.11	19.20	19.61	17.41	18.52	17.83	18.92	19.32
	4H	18.20	19.20	18.64	19.62	20.05	17.97	18.97	18.41	19.39	19.82
	6H	18.56	19.43	19.01	19.87	20.33	18.35	19.22	18.81	19.66	20.12
	8H	18.65	19.46	19.11	19.90	20.37	18.45	19.26	18.91	19.70	20.17
	12H	18.70	19.42	19.18	19.90	20.37	18.50	19.23	18.98	19.71	20.18
8H	4H	18.66	19.47	19.12	19.91	20.38	18.33	19.14	18.79	19.58	20.05
	6H	19.09	19.76	19.58	20.25	20.73	18.83	19.50	19.32	19.99	20.47
	8H	19.22	19.82	19.73	20.33	20.81	18.98	19.58	19.49	20.09	20.57
	12H	19.30	19.84	19.81	20.33	20.89	19.07	19.61	19.58	20.10	20.66
12H	4H	18.70	19.43	19.18	19.90	20.37	18.35	19.07	18.83	19.55	20.02
	6H	19.16	19.76	19.67	20.27	20.76	18.88	19.48	19.39	19.99	20.48
	8H	19.33	19.87	19.84	20.36	20.92	19.08	19.61	19.59	20.11	20.67