

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: P242820

Luminaire Tested: S125DRP-S375D930-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242820
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-S375D930-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

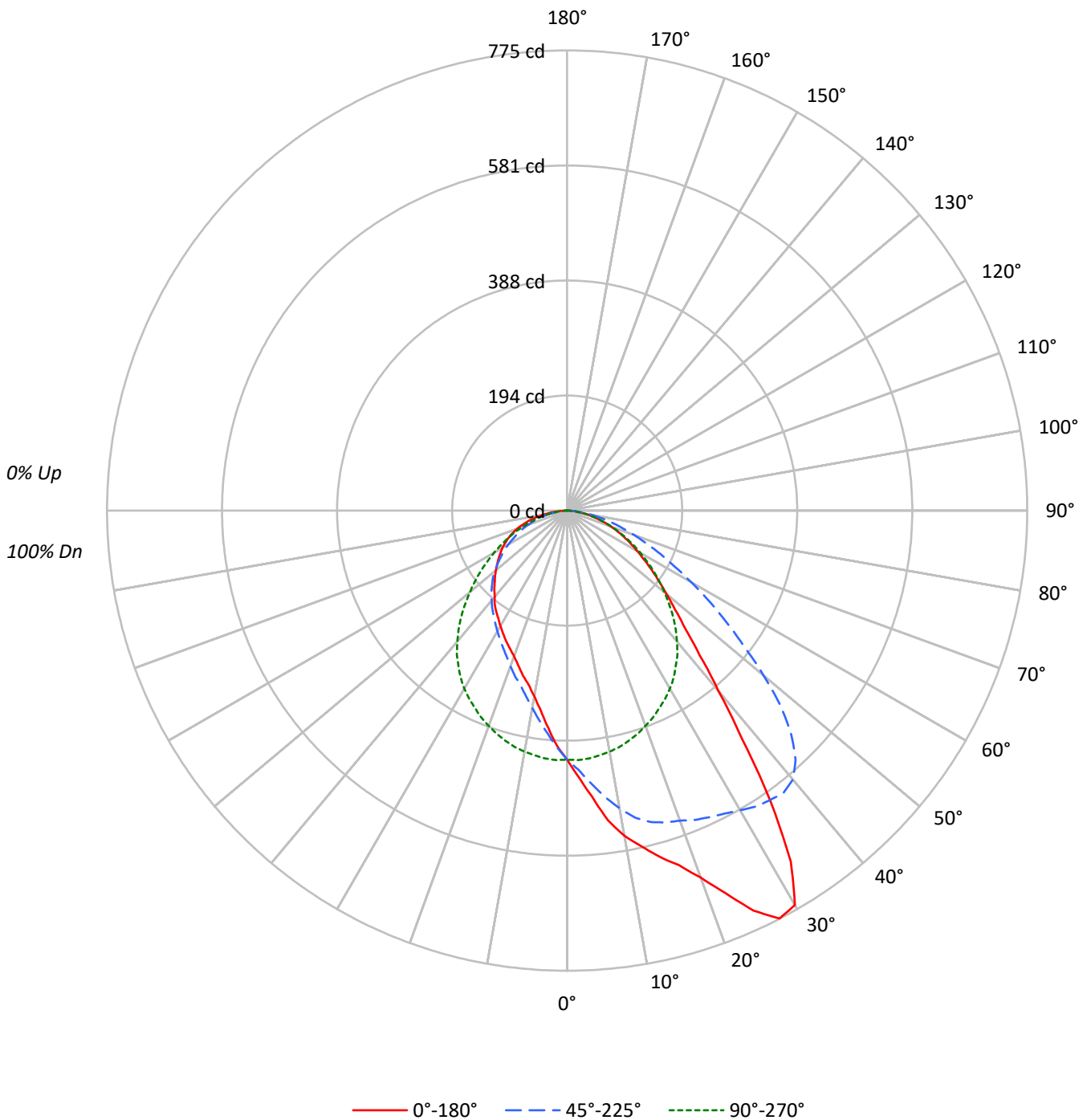
Lumens per Lamp: N/A
Luminaire Lumens: 1183.3 lumens
Efficiency: N/A
Efficacy: 102.0 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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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Luminous Intensity Polar Plot





TEST NUMBER: P242820

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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	98	90	84	79	87	82	78	84	80	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	64	61					61			
4	84	73	64	58	82	71	63	57	69	62	57	67	61	56	64	59	55	53					53			
5	78	65	56	50	76	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	41					41			
7	67	53	45	39	65	53	45	39	51	44	39	50	43	38	48	42	38	36					36			
8	62	49	41	35	61	48	40	35	47	40	34	46	39	34	44	39	34	32					32			
9	58	45	37	31	57	44	37	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°	2980	2980	2980	2980	2980
5°	3452	3288	2990	2690	2618
10°	4016	3676	2975	2436	2294
15°	4445	3995	2953	2239	2116
20°	4975	4203	2919	2109	1973
25°	5828	4465	2880	2000	1904
30°	6295	4782	2841	1927	1843
35°	5176	5165	2769	1876	1804
40°	3679	5486	2668	1834	1760
45°	2826	5368	2533	1798	1735
50°	2413	4777	2365	1754	1732
55°	2149	4056	2201	1689	1747
60°	1937	3426	2021	1629	1791
65°	1789	2918	1842	1547	1838
70°	1627	2481	1654	1442	1864
75°	1436	2120	1455	1329	1848
80°	1207	1740	1187	1130	1690
85°	954	1264	856	930	1362

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5368 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.4	3.4
10°-20°	120.2	10.2
20°-30°	195.3	16.5
30°-40°	238.6	20.2
40°-50°	216.5	18.3
50°-60°	172.4	14.6
60°-70°	120.1	10.1
70°-80°	64.0	5.4
80°-90°	15.9	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°	355.8	30.1
0°-40°	594.5	50.2
0°-60°	983.4	83.1
0°-90°	1183.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1183.3	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	419	419	419	419	419	
5°	484	461	419	377	367	49
15°	604	543	401	304	288	173
25°	743	569	367	255	243	340
35°	597	595	319	216	208	366
45°	281	534	252	179	173	224
55°	173	327	178	136	141	156
65°	106	174	110	92	109	106
75°	52	77	53	48	67	56
85°	12	16	10	11	17	14
90°	0	0	0	0	0	



TEST NUMBER: P242820

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3
2.5°	449.6	448.9	448.2	446.7	447.8	444.8	443.4	440.9	437.8	436.8	435.5
5°	483.8	484.6	485.5	481.8	482.2	479.7	474.0	469.3	465.6	460.8	457.4
7.5°	526.1	523.4	523.6	521.3	517.2	513.8	508.3	500.7	493.7	485.9	479.1
10°	556.4	556.5	554.9	552.1	547.6	544.4	536.6	529.1	520.1	509.4	501.7
12.5°	579.2	580.0	577.9	573.8	572.2	564.0	558.3	549.1	537.9	529.8	517.2
15°	604.1	602.1	600.7	595.9	592.1	584.7	574.9	565.6	553.9	543.0	532.2
17.5°	626.1	627.7	625.4	621.9	610.8	602.1	590.0	578.3	564.2	550.7	538.0
20°	657.8	659.2	655.1	647.5	633.6	624.9	607.6	591.3	574.3	555.7	541.4
22.5°	697.3	695.6	689.7	677.0	665.5	647.5	628.5	607.6	585.4	563.7	543.6
25°	743.2	735.8	732.4	718.0	702.1	678.5	652.8	623.6	597.3	569.4	545.2
27.5°	774.6	771.5	766.7	755.0	736.8	710.0	679.7	644.8	609.4	575.2	544.8
30°	767.1	767.5	767.8	764.6	753.9	734.9	704.8	666.5	622.4	582.7	546.0
32.5°	700.9	708.9	716.6	726.5	732.9	733.1	717.1	683.4	637.7	591.3	545.3
35°	596.6	598.6	618.7	638.6	665.6	686.7	700.7	685.4	647.1	595.3	544.8
37.5°	482.3	492.1	507.2	529.7	570.3	603.4	646.8	661.7	643.8	598.7	544.6
40°	396.5	405.4	414.5	437.5	470.4	512.8	563.8	607.4	617.6	591.3	539.3
42.5°	330.3	336.9	347.2	363.1	389.2	425.6	473.8	534.1	575.4	569.5	528.1
45°	281.2	285.7	293.5	307.2	327.1	356.5	399.6	461.9	516.1	534.1	509.0
47.5°	246.3	246.5	252.9	262.7	277.8	304.9	337.1	388.4	446.9	488.4	482.5
50°	218.2	217.3	222.1	230.3	241.7	258.3	288.7	327.7	383.4	432.0	445.5
52.5°	194.0	194.4	196.8	202.4	211.4	225.0	245.8	280.0	325.5	375.7	404.2
55°	173.4	172.6	176.0	180.1	187.1	196.3	212.7	239.6	278.2	327.3	360.4
57.5°	153.4	155.4	156.8	159.6	165.7	172.1	186.7	207.3	239.2	282.8	317.9
60°	136.3	138.3	139.4	142.2	146.8	152.2	162.9	178.9	204.7	241.0	275.7
62.5°	121.0	122.5	122.6	125.1	128.7	133.8	141.7	154.5	173.5	204.1	238.0
65°	106.4	106.4	107.1	109.8	111.6	116.2	122.6	132.4	148.8	173.5	202.5
67.5°	92.2	93.1	92.9	94.2	95.8	99.7	104.5	112.7	125.7	144.3	168.4
70°	78.3	79.0	78.8	79.7	81.5	83.8	87.6	95.2	103.9	119.4	139.4
72.5°	65.9	66.0	65.5	66.7	67.6	69.6	73.9	77.1	85.1	97.5	113.0
75°	52.3	52.7	53.0	53.8	54.8	55.9	58.0	62.1	67.5	77.2	87.7
77.5°	41.6	40.8	41.8	41.6	42.2	43.1	45.0	47.3	52.0	58.6	67.3
80°	29.5	29.7	29.7	29.9	30.8	31.3	32.9	34.5	37.9	42.5	48.2
82.5°	19.6	20.1	19.8	20.1	20.8	21.2	21.9	23.1	24.7	28.1	31.9
85°	11.7	10.9	11.2	11.6	11.6	11.7	12.5	13.0	14.1	15.5	17.1
87.5°	4.3	4.6	4.8	4.8	5.0	5.0	5.7	5.7	6.2	6.8	7.5
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3
2.5°	434.5	433.2	431.8	429.3	426.3	424.7	422.2	420.6	417.4	414.7	411.8
5°	453.3	448.7	444.4	438.9	432.8	428.9	424.3	419.1	413.8	408.3	402.2
7.5°	472.2	464.5	456.2	447.4	438.9	430.9	423.4	415.8	408.8	400.1	392.8
10°	491.2	480.9	469.9	456.9	444.2	433.2	422.0	412.2	402.2	391.6	382.1
12.5°	510.3	495.7	478.9	464.4	448.5	434.6	420.9	407.8	394.6	382.5	371.1
15°	517.2	505.1	490.7	470.4	453.3	435.0	417.5	401.3	386.2	373.0	359.2
17.5°	524.0	508.5	493.2	473.6	451.4	431.6	411.8	394.2	377.5	360.9	348.3
20°	525.6	509.6	493.4	474.3	451.4	427.9	408.1	385.9	367.5	350.3	333.9
22.5°	525.0	506.4	488.4	468.6	446.4	425.2	400.3	377.5	357.2	340.3	323.0
25°	521.1	501.7	479.7	459.9	437.8	414.9	390.7	367.2	346.9	327.5	310.6
27.5°	518.8	494.3	470.0	447.3	426.1	404.9	381.4	357.2	335.0	315.2	299.5
30°	513.7	486.1	457.9	433.9	412.0	391.6	369.7	346.2	322.7	303.5	286.4
32.5°	509.0	475.7	445.7	419.0	395.5	375.7	356.0	333.9	310.9	291.4	274.3
35°	502.8	465.6	431.6	402.1	377.3	356.9	339.9	319.1	297.9	279.1	262.7
37.5°	495.5	452.4	416.5	385.7	358.8	337.5	321.4	305.2	284.1	265.5	251.0
40°	486.6	438.2	399.6	367.9	339.8	317.3	302.7	287.6	270.7	253.8	238.1
42.5°	475.4	425.4	382.5	347.8	320.0	298.3	282.8	270.5	256.1	240.6	226.4
45°	461.1	409.4	363.8	327.1	299.0	277.5	261.6	252.0	240.8	225.9	213.6
47.5°	442.3	391.2	344.2	306.3	277.3	257.4	242.2	232.8	224.6	212.9	201.3
50°	415.4	370.4	322.7	285.1	256.1	236.0	222.3	213.9	207.2	198.6	189.2
52.5°	385.3	344.2	301.5	264.5	235.8	216.1	202.7	195.6	190.3	184.7	175.5
55°	353.1	317.5	276.9	241.7	215.2	195.8	184.0	177.6	173.0	168.4	162.7
57.5°	318.4	289.6	252.4	219.5	194.9	176.7	165.7	159.1	155.4	152.9	149.3
60°	281.4	257.5	226.6	197.2	173.4	157.7	147.0	142.2	139.2	137.2	134.7
62.5°	247.0	228.5	200.4	174.2	154.1	139.5	130.3	125.7	122.8	122.1	120.1
65°	213.4	198.3	174.6	152.4	134.6	121.9	113.9	109.5	107.7	106.6	106.8
67.5°	179.6	169.8	150.0	130.5	115.9	104.7	98.1	94.7	93.8	92.2	92.2
70°	149.1	142.2	126.2	109.6	97.0	88.8	83.1	79.6	78.7	78.0	77.8
72.5°	122.3	116.4	103.1	90.6	79.6	72.6	68.2	66.4	64.8	64.4	64.4
75°	95.9	92.6	81.5	71.0	63.2	58.2	55.0	53.0	52.0	51.8	52.0
77.5°	72.4	69.2	61.6	53.8	48.6	44.7	41.6	41.1	39.7	39.9	39.5
80°	51.3	49.3	44.9	39.0	34.9	31.7	30.3	29.0	28.7	28.1	28.7
82.5°	33.6	31.5	28.8	25.6	22.4	20.8	19.4	19.2	19.0	18.9	18.9
85°	18.3	18.5	16.7	13.9	12.5	11.4	10.5	10.5	10.3	10.1	10.3
87.5°	7.8	7.5	6.8	6.2	5.3	4.8	4.6	4.8	4.3	4.1	4.3
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°	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3	419.3
2.5°	410.2	408.3	406.7	403.1	401.2	398.5	396.4	398.7	396.2	397.3	395.7
5°	399.2	394.2	390.7	385.5	381.1	377.0	373.9	373.4	372.0	371.3	369.1
7.5°	386.0	380.3	374.5	368.1	362.7	357.0	353.6	350.4	348.5	346.0	344.0
10°	374.7	366.3	359.2	351.0	343.9	337.6	332.6	330.2	327.8	324.5	323.2
12.5°	360.6	351.9	342.8	333.9	327.1	320.0	315.9	311.8	310.4	306.5	306.3
15°	349.9	336.9	328.4	319.5	310.0	304.3	300.8	296.7	294.9	292.2	290.3
17.5°	336.7	325.0	314.3	305.2	296.7	292.1	287.4	284.6	281.6	279.6	276.4
20°	322.1	311.1	300.4	290.6	284.4	278.9	275.3	272.7	269.5	268.6	265.4
22.5°	309.9	297.4	287.3	279.4	272.5	266.1	262.2	260.6	258.6	255.4	255.4
25°	296.3	283.7	275.0	266.8	260.7	255.0	252.4	250.1	247.9	246.0	245.3
27.5°	284.9	273.7	263.1	255.6	250.4	245.1	242.8	239.7	238.1	236.5	234.4
30°	272.8	261.3	252.2	245.1	239.4	234.8	232.3	230.3	228.9	227.5	226.4
32.5°	260.4	249.9	241.2	234.2	228.5	225.3	223.2	221.9	220.3	218.6	217.1
35°	249.7	238.0	229.4	223.4	218.9	216.2	213.8	212.5	210.7	210.7	209.3
37.5°	237.1	226.7	219.1	213.6	209.7	207.2	204.3	203.6	202.4	201.7	201.1
40°	226.0	216.6	209.5	204.0	199.7	197.7	195.6	194.2	193.5	192.6	192.2
42.5°	214.6	205.7	199.0	194.0	190.4	188.8	186.9	186.0	184.4	183.1	183.0
45°	203.1	194.4	188.1	184.0	180.8	178.9	177.6	175.5	174.8	173.4	173.2
47.5°	192.4	183.9	177.6	174.2	171.4	170.0	168.0	165.7	164.8	163.9	163.7
50°	180.1	172.5	166.8	163.6	160.9	158.6	156.6	155.2	154.7	154.7	155.0
52.5°	167.7	161.4	156.8	152.7	150.2	147.7	145.9	145.2	144.3	145.4	146.1
55°	155.6	149.0	145.4	141.7	139.2	136.3	135.4	135.1	134.6	136.0	136.7
57.5°	142.6	138.1	133.8	129.9	127.8	126.0	124.6	124.4	125.5	125.8	128.0
60°	130.3	124.9	121.2	118.4	115.7	114.6	114.3	113.9	114.6	116.6	119.6
62.5°	116.8	112.7	108.6	106.6	104.8	102.9	102.9	103.2	104.8	107.1	110.2
65°	103.6	99.8	97.2	94.7	93.1	92.0	92.4	93.1	94.7	97.7	101.1
67.5°	90.1	87.6	85.1	82.8	81.2	81.3	81.5	82.4	84.4	87.9	91.1
70°	77.1	74.2	72.3	71.4	70.1	69.4	70.5	72.3	73.9	77.1	79.7
72.5°	64.1	61.8	60.3	59.8	59.4	58.9	59.1	61.0	63.4	66.6	69.8
75°	51.3	50.4	49.3	48.6	48.1	48.4	48.8	50.5	52.3	55.7	59.3
77.5°	39.7	38.6	37.9	37.7	37.4	37.6	38.4	39.9	41.6	44.1	47.0
80°	28.3	27.9	27.6	27.4	27.4	27.6	29.0	29.9	31.5	33.8	36.0
82.5°	18.7	18.5	18.5	18.5	18.7	18.7	19.4	20.6	21.9	23.5	25.3
85°	10.9	10.5	11.0	11.2	10.9	11.4	11.7	12.5	13.0	13.9	14.8
87.5°	4.4	4.8	4.6	4.8	4.8	5.2	5.0	5.7	6.1	6.4	6.2
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: P242820

CATALOG NUMBER: S125DRP-S375D930-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	419.3	419.3	419.3	419.3
2.5°	394.6	395.8	394.8	396.2
5°	368.2	366.6	367.7	367.0
7.5°	343.9	342.4	340.3	339.6
10°	321.3	319.3	319.1	317.9
12.5°	304.7	302.9	300.4	300.1
15°	289.2	287.8	286.5	287.6
17.5°	276.0	274.8	274.4	273.4
20°	263.8	262.9	263.2	260.9
22.5°	254.0	252.0	251.7	251.7
25°	243.7	242.8	241.9	242.8
27.5°	234.6	233.7	233.3	233.5
30°	226.4	224.6	224.8	224.6
32.5°	217.5	216.4	216.1	215.7
35°	208.8	208.8	207.9	207.9
37.5°	200.8	200.6	200.1	200.4
40°	191.5	191.3	190.8	189.7
42.5°	182.6	181.9	181.7	181.5
45°	173.2	173.2	172.8	172.6
47.5°	163.9	164.3	165.0	164.8
50°	155.7	155.9	156.4	156.6
52.5°	146.7	147.9	148.6	148.4
55°	138.3	139.5	140.8	141.0
57.5°	129.9	131.5	132.8	133.1
60°	121.4	123.7	125.3	126.0
62.5°	113.2	115.9	117.5	117.5
65°	104.1	106.8	108.2	109.3
67.5°	94.7	97.4	98.8	99.7
70°	84.2	86.9	89.0	89.7
72.5°	73.9	76.2	77.8	78.7
75°	61.6	64.8	66.4	67.3
77.5°	49.8	53.0	53.9	54.5
80°	38.1	39.9	41.1	41.3
82.5°	27.1	28.5	28.7	29.2
85°	16.0	16.7	16.9	16.7
87.5°	6.6	6.4	6.4	6.8
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242820
 CATALOG NUMBER: S125DRP-S375D930-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	14.45	16.02	14.81	16.33	16.65	14.42	15.99	14.79	16.31	16.62
	3H	15.82	17.23	16.20	17.56	17.92	15.85	17.26	16.23	17.59	17.95
	4H	16.31	17.64	16.71	17.99	18.36	16.34	17.66	16.74	18.01	18.39
	6H	16.65	17.88	17.06	18.24	18.63	16.65	17.88	17.07	18.25	18.64
	8H	16.74	17.91	17.17	18.30	18.70	16.73	17.90	17.16	18.29	18.69
	12H	16.79	17.91	17.22	18.29	18.72	16.77	17.89	17.20	18.27	18.70
4H	2H	15.96	17.28	16.36	17.63	18.01	15.50	16.83	15.90	17.17	17.55
	3H	17.30	18.41	17.71	18.80	19.20	17.16	18.27	17.57	18.67	19.07
	4H	17.81	18.80	18.24	19.22	19.66	17.72	18.71	18.15	19.13	19.57
	6H	18.18	19.05	18.64	19.49	19.95	18.09	18.96	18.55	19.40	19.86
	8H	18.28	19.09	18.75	19.54	20.00	18.19	19.00	18.65	19.44	19.91
	12H	18.35	19.07	18.83	19.55	20.02	18.24	18.97	18.73	19.45	19.92
8H	4H	18.29	19.10	18.76	19.55	20.01	18.06	18.87	18.52	19.31	19.78
	6H	18.74	19.41	19.24	19.90	20.38	18.56	19.23	19.06	19.72	20.20
	8H	18.89	19.49	19.40	20.00	20.48	18.71	19.31	19.22	19.82	20.31
	12H	18.99	19.52	19.50	20.01	20.58	18.81	19.34	19.32	19.83	20.39
12H	4H	18.34	19.07	18.82	19.54	20.01	18.08	18.80	18.56	19.28	19.75
	6H	18.83	19.43	19.34	19.94	20.42	18.61	19.21	19.12	19.72	20.21
	8H	19.02	19.55	19.53	20.04	20.61	18.81	19.35	19.32	19.84	20.40