

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: P242825

Luminaire Tested: S125DRP-S375D935-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242825
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-S375D935-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

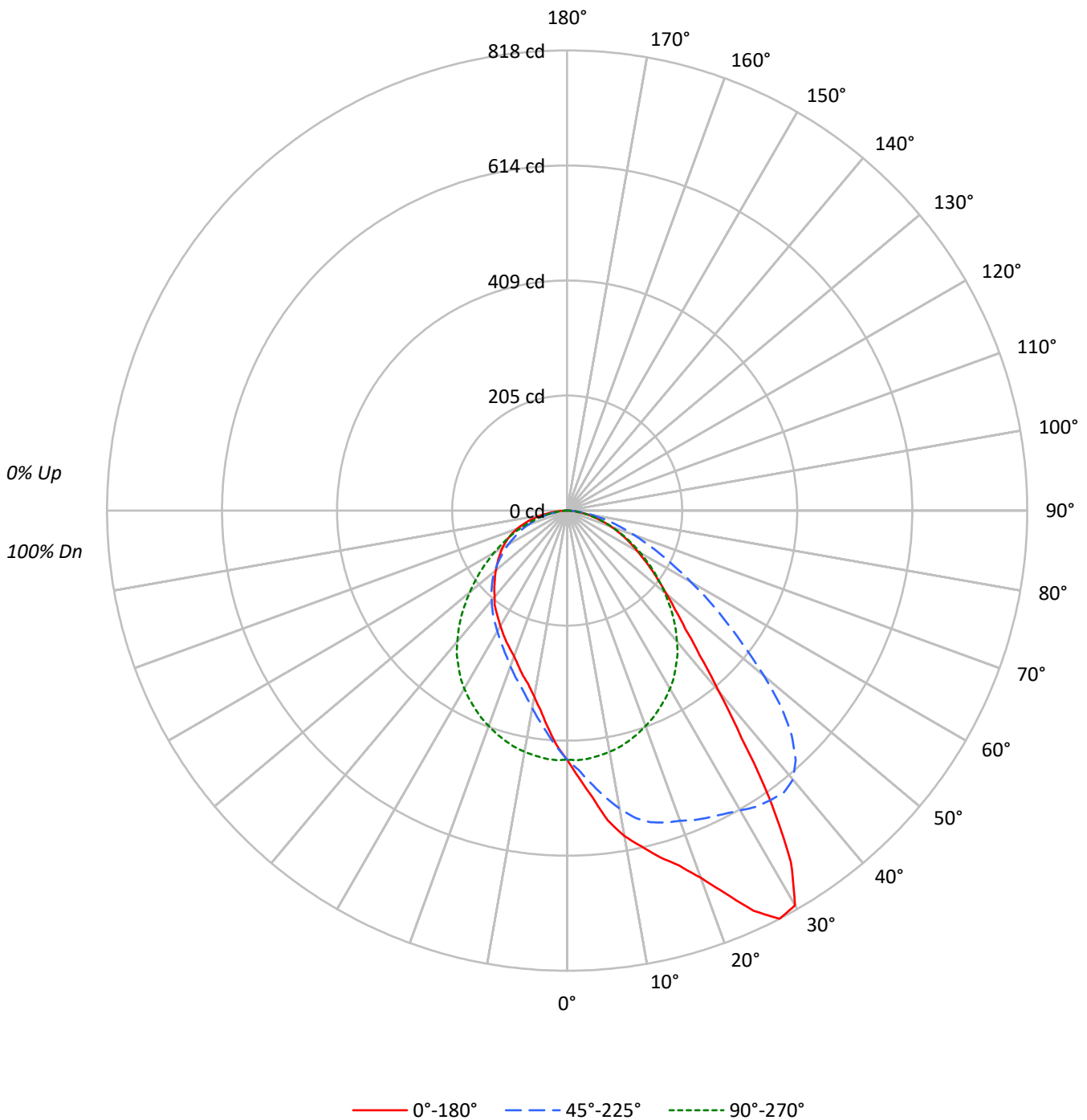
Lumens per Lamp: N/A
Luminaire Lumens: 1249.7 lumens
Efficiency: N/A
Efficacy: 107.7 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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: P242825

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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°	3147	3147	3147	3147	3147
5°	3645	3472	3158	2840	2765
10°	4241	3882	3142	2574	2423
15°	4694	4220	3118	2365	2235
20°	5254	4438	3082	2227	2084
25°	6155	4715	3041	2112	2011
30°	6648	5050	3000	2034	1947
35°	5466	5455	2924	1982	1904
40°	3886	5793	2818	1937	1859
45°	2985	5670	2675	1899	1832
50°	2548	5044	2498	1852	1829
55°	2269	4284	2325	1784	1845
60°	2047	3618	2135	1720	1892
65°	1890	3083	1944	1635	1941
70°	1719	2620	1746	1523	1968
75°	1519	2241	1538	1403	1950
80°	1277	1838	1252	1191	1785
85°	1011	1337	905	979	1443

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5670 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	42.6	3.4
10°-20°	126.9	10.2
20°-30°	206.2	16.5
30°-40°	252.0	20.2
40°-50°	228.6	18.3
50°-60°	182.1	14.6
60°-70°	126.8	10.1
70°-80°	67.6	5.4
80°-90°	16.8	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°	375.8	30.1
0°-40°	627.8	50.2
0°-60°	1038.5	83.1
0°-90°	1249.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1249.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	443	443	443	443	443	
5°	511	487	443	398	388	51
15°	638	574	424	321	304	182
25°	785	601	388	269	256	360
35°	630	629	337	228	220	387
45°	297	564	266	189	182	236
55°	183	346	188	144	149	165
65°	112	183	116	97	115	112
75°	55	82	56	51	71	60
85°	12	16	11	12	18	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°	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8
2.5°	474.8	474.0	473.3	471.8	472.9	469.7	468.2	465.6	462.4	461.2	459.9
5°	510.9	511.8	512.7	508.8	509.2	506.5	500.5	495.6	491.7	486.6	483.1
7.5°	555.6	552.8	553.0	550.5	546.2	542.6	536.8	528.7	521.4	513.1	506.0
10°	587.6	587.7	586.1	583.0	578.3	575.0	566.7	558.8	549.2	537.9	529.9
12.5°	611.6	612.6	610.3	606.0	604.3	595.6	589.6	579.8	568.0	559.5	546.2
15°	637.9	635.9	634.4	629.3	625.3	617.4	607.1	597.3	584.9	573.5	562.0
17.5°	661.2	662.9	660.5	656.7	645.1	635.9	623.1	610.7	595.8	581.5	568.2
20°	694.7	696.2	691.9	683.8	669.1	659.9	641.7	624.4	606.5	586.8	571.8
22.5°	736.4	734.5	728.3	715.0	702.8	683.8	663.7	641.7	618.2	595.3	574.0
25°	784.9	777.0	773.4	758.2	741.5	716.5	689.4	658.6	630.8	601.3	575.7
27.5°	818.0	814.8	809.7	797.3	778.1	749.8	717.8	681.0	643.6	607.5	575.3
30°	810.1	810.5	810.8	807.5	796.2	776.1	744.3	703.9	657.3	615.4	576.7
32.5°	740.2	748.6	756.7	767.2	774.0	774.2	757.3	721.8	673.5	624.4	575.9
35°	630.0	632.1	653.3	674.4	703.0	725.1	740.0	723.8	683.4	628.7	575.3
37.5°	509.4	519.7	535.7	559.4	602.2	637.2	683.0	698.8	679.8	632.3	575.2
40°	418.8	428.2	437.8	462.0	496.8	541.5	595.4	641.5	652.2	624.4	569.5
42.5°	348.8	355.8	366.7	383.4	411.1	449.4	500.3	564.1	607.7	601.5	557.7
45°	297.0	301.7	309.9	324.4	345.5	376.5	422.0	487.7	545.1	564.1	537.6
47.5°	260.1	260.3	267.1	277.4	293.4	322.0	356.0	410.1	472.0	515.8	509.6
50°	230.4	229.5	234.6	243.2	255.2	272.7	304.9	346.0	404.9	456.2	470.5
52.5°	204.9	205.2	207.9	213.7	223.3	237.6	259.6	295.7	343.8	396.8	426.9
55°	183.1	182.3	185.9	190.2	197.5	207.3	224.6	253.0	293.8	345.7	380.6
57.5°	162.0	164.1	165.6	168.6	175.0	181.8	197.2	219.0	252.6	298.7	335.7
60°	144.0	146.0	147.2	150.2	155.1	160.7	172.0	188.9	216.2	254.5	291.1
62.5°	127.8	129.3	129.5	132.1	135.9	141.3	149.6	163.1	183.3	215.6	251.3
65°	112.4	112.4	113.2	116.0	117.8	122.7	129.5	139.8	157.1	183.3	213.9
67.5°	97.4	98.3	98.1	99.4	101.1	105.3	110.3	119.0	132.7	152.4	177.8
70°	82.7	83.5	83.3	84.2	86.1	88.5	92.5	100.6	109.8	126.1	147.2
72.5°	69.5	69.7	69.2	70.5	71.4	73.5	78.0	81.4	89.8	103.0	119.4
75°	55.3	55.6	56.0	56.8	57.9	59.0	61.3	65.6	71.2	81.6	92.7
77.5°	44.0	43.0	44.2	44.0	44.5	45.5	47.6	50.0	54.9	61.8	71.0
80°	31.2	31.4	31.4	31.6	32.5	33.1	34.8	36.5	40.0	44.9	50.9
82.5°	20.7	21.2	20.9	21.2	22.0	22.4	23.1	24.4	26.1	29.7	33.6
85°	12.4	11.5	11.8	12.2	12.2	12.4	13.2	13.7	14.8	16.4	18.0
87.5°	4.5	4.9	5.1	5.1	5.3	5.3	6.0	6.0	6.6	7.1	7.9
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°	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8
2.5°	458.8	457.5	456.0	453.4	450.2	448.5	445.8	444.1	440.8	437.9	434.9
5°	478.7	473.8	469.3	463.5	457.1	453.0	448.1	442.6	437.0	431.2	424.8
7.5°	498.7	490.6	481.7	472.5	463.5	455.0	447.2	439.1	431.7	422.5	414.8
10°	518.8	507.9	496.2	482.5	469.1	457.5	445.6	435.3	424.8	413.5	403.5
12.5°	538.9	523.5	505.8	490.4	473.7	459.0	444.5	430.6	416.7	403.9	391.9
15°	546.2	533.4	518.2	496.8	478.7	459.4	440.9	423.8	407.9	394.0	379.3
17.5°	553.3	537.0	520.8	500.2	476.7	455.8	434.9	416.3	398.7	381.2	367.8
20°	555.0	538.1	521.0	500.9	476.7	451.9	431.0	407.5	388.1	369.9	352.6
22.5°	554.5	534.7	515.8	494.9	471.4	449.0	422.7	398.7	377.2	359.4	341.1
25°	550.3	529.9	506.5	485.7	462.4	438.1	412.6	387.8	366.3	345.8	328.0
27.5°	547.9	522.0	496.4	472.3	450.0	427.6	402.8	377.2	353.7	332.9	316.3
30°	542.4	513.3	483.6	458.2	435.1	413.5	390.4	365.6	340.8	320.5	302.4
32.5°	537.6	502.4	470.6	442.5	417.6	396.8	375.9	352.6	328.4	307.7	289.6
35°	531.0	491.7	455.8	424.6	398.5	376.9	359.0	337.0	314.6	294.7	277.4
37.5°	523.3	477.8	439.8	407.3	378.9	356.4	339.5	322.3	300.0	280.4	265.0
40°	513.9	462.8	422.0	388.5	358.8	335.1	319.7	303.7	285.9	268.0	251.5
42.5°	502.0	449.2	403.9	367.3	337.9	315.0	298.7	285.7	270.5	254.1	239.1
45°	487.0	432.3	384.2	345.5	315.8	293.0	276.3	266.1	254.3	238.5	225.5
47.5°	467.1	413.1	363.5	323.5	292.8	271.8	255.8	245.8	237.2	224.8	212.6
50°	438.7	391.1	340.8	301.1	270.5	249.2	234.8	225.9	218.8	209.8	199.8
52.5°	406.9	363.5	318.4	279.3	249.0	228.2	214.1	206.6	200.9	195.1	185.3
55°	372.9	335.3	292.5	255.2	227.2	206.8	194.3	187.6	182.7	177.8	171.8
57.5°	336.3	305.8	266.5	231.8	205.8	186.6	175.0	168.0	164.1	161.5	157.7
60°	297.2	272.0	239.3	208.3	183.1	166.5	155.3	150.2	147.0	144.9	142.3
62.5°	260.9	241.3	211.6	184.0	162.8	147.4	137.6	132.7	129.7	128.9	126.9
65°	225.4	209.4	184.4	160.9	142.1	128.8	120.3	115.6	113.7	112.6	112.8
67.5°	189.6	179.3	158.4	137.8	122.4	110.5	103.6	100.0	99.1	97.4	97.4
70°	157.5	150.2	133.3	115.8	102.4	93.8	87.8	84.0	83.1	82.3	82.1
72.5°	129.1	122.9	108.8	95.7	84.0	76.7	72.0	70.1	68.4	68.0	68.0
75°	101.3	97.7	86.1	75.0	66.7	61.5	58.1	56.0	54.9	54.7	54.9
77.5°	76.5	73.1	65.0	56.8	51.3	47.2	44.0	43.4	41.9	42.1	41.7
80°	54.1	52.1	47.4	41.2	36.8	33.5	32.0	30.6	30.3	29.7	30.3
82.5°	35.5	33.3	30.4	27.1	23.7	22.0	20.5	20.3	20.1	19.9	19.9
85°	19.4	19.5	17.7	14.7	13.2	12.0	11.1	11.1	10.9	10.7	10.9
87.5°	8.3	7.9	7.1	6.6	5.6	5.1	4.9	5.1	4.5	4.3	4.5
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°	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8	442.8
2.5°	433.2	431.2	429.5	425.7	423.7	420.8	418.6	421.0	418.4	419.5	417.8
5°	421.6	416.3	412.6	407.1	402.4	398.1	394.9	394.3	392.8	392.1	389.8
7.5°	407.7	401.7	395.5	388.7	383.1	377.0	373.5	370.1	368.0	365.4	363.3
10°	395.7	386.8	379.3	370.7	363.1	356.6	351.3	348.7	346.2	342.6	341.3
12.5°	380.8	371.6	362.0	352.6	345.5	337.9	333.6	329.3	327.8	323.7	323.5
15°	369.5	355.8	346.8	337.4	327.4	321.4	317.6	313.3	311.4	308.6	306.6
17.5°	355.6	343.2	331.9	322.3	313.3	308.4	303.6	300.5	297.3	295.3	291.9
20°	340.2	328.5	317.3	306.9	300.4	294.5	290.8	288.0	284.6	283.6	280.2
22.5°	327.2	314.1	303.4	295.1	287.8	281.0	276.9	275.2	273.1	269.7	269.7
25°	312.9	299.6	290.4	281.7	275.4	269.3	266.5	264.1	261.8	259.8	259.0
27.5°	300.9	289.1	277.8	269.9	264.5	258.8	256.4	253.2	251.5	249.8	247.5
30°	288.1	275.9	266.3	258.8	252.8	247.9	245.3	243.2	241.7	240.2	239.1
32.5°	275.0	263.9	254.7	247.4	241.3	238.0	235.7	234.4	232.7	230.8	229.3
35°	263.7	251.3	242.3	235.9	231.2	228.4	225.7	224.4	222.5	222.5	221.0
37.5°	250.4	239.5	231.4	225.5	221.4	218.8	215.8	215.0	213.7	213.0	212.4
40°	238.7	228.7	221.2	215.4	210.9	208.8	206.6	205.1	204.3	203.4	203.0
42.5°	226.7	217.3	210.1	204.9	201.1	199.4	197.4	196.4	194.7	193.4	193.2
45°	214.5	205.2	198.7	194.3	191.0	188.9	187.6	185.3	184.6	183.1	182.9
47.5°	203.2	194.2	187.6	184.0	181.0	179.5	177.4	175.0	174.0	173.1	172.9
50°	190.2	182.1	176.1	172.7	169.9	167.5	165.4	163.9	163.3	163.3	163.7
52.5°	177.1	170.5	165.6	161.3	158.6	156.0	154.1	153.4	152.4	153.6	154.3
55°	164.3	157.3	153.6	149.6	147.0	144.0	143.0	142.7	142.1	143.6	144.4
57.5°	150.6	145.9	141.3	137.2	135.0	133.1	131.6	131.4	132.5	132.9	135.1
60°	137.6	131.9	128.0	125.0	122.2	121.0	120.7	120.3	121.0	123.1	126.3
62.5°	123.3	119.0	114.7	112.6	110.7	108.6	108.6	109.0	110.7	113.2	116.3
65°	109.4	105.4	102.6	100.0	98.3	97.2	97.5	98.3	100.0	103.2	106.8
67.5°	95.1	92.5	89.8	87.4	85.7	85.9	86.1	87.0	89.1	92.9	96.2
70°	81.4	78.4	76.3	75.4	74.1	73.3	74.4	76.3	78.0	81.4	84.2
72.5°	67.7	65.2	63.7	63.2	62.8	62.2	62.4	64.5	66.9	70.3	73.7
75°	54.1	53.2	52.1	51.3	50.7	51.1	51.5	53.4	55.3	58.8	62.6
77.5°	41.9	40.8	40.0	39.8	39.5	39.7	40.6	42.1	44.0	46.6	49.6
80°	29.9	29.5	29.1	28.9	28.9	29.1	30.6	31.6	33.3	35.7	38.0
82.5°	19.7	19.5	19.5	19.5	19.7	19.7	20.5	21.8	23.1	24.8	26.7
85°	11.5	11.1	11.7	11.8	11.5	12.0	12.4	13.2	13.7	14.7	15.6
87.5°	4.7	5.1	4.9	5.1	5.1	5.5	5.3	6.0	6.4	6.8	6.6
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: P242825

CATALOG NUMBER: S125DRP-S375D935-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	442.8	442.8	442.8	442.8
2.5°	416.7	418.0	416.9	418.4
5°	388.9	387.2	388.3	387.6
7.5°	363.1	361.6	359.4	358.6
10°	339.3	337.2	337.0	335.7
12.5°	321.8	319.9	317.3	316.9
15°	305.4	303.9	302.6	303.7
17.5°	291.5	290.2	289.8	288.7
20°	278.6	277.6	278.0	275.5
22.5°	268.2	266.1	265.8	265.8
25°	257.3	256.4	255.4	256.4
27.5°	247.7	246.8	246.4	246.6
30°	239.1	237.2	237.4	237.2
32.5°	229.7	228.6	228.2	227.8
35°	220.5	220.5	219.5	219.5
37.5°	212.0	211.8	211.3	211.6
40°	202.2	202.1	201.5	200.4
42.5°	192.8	192.1	191.9	191.7
45°	182.9	182.9	182.5	182.3
47.5°	173.1	173.5	174.2	174.0
50°	164.5	164.7	165.2	165.4
52.5°	154.9	156.2	156.9	156.8
55°	146.0	147.4	148.7	148.9
57.5°	137.2	138.9	140.2	140.6
60°	128.2	130.6	132.3	133.1
62.5°	119.5	122.4	124.1	124.1
65°	110.0	112.8	114.3	115.4
67.5°	100.0	102.8	104.3	105.3
70°	88.9	91.7	94.0	94.7
72.5°	78.0	80.4	82.1	83.1
75°	65.0	68.4	70.1	71.0
77.5°	52.6	56.0	57.0	57.5
80°	40.2	42.1	43.4	43.6
82.5°	28.6	30.1	30.3	30.8
85°	16.9	17.7	17.9	17.7
87.5°	7.0	6.8	6.8	7.1
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242825

CATALOG NUMBER: S125DRP-S375D935-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	14.64	16.21	15.01	16.52	16.84	14.61	16.18	14.98	16.50	16.81
	3H	16.01	17.42	16.39	17.75	18.11	16.04	17.45	16.42	17.78	18.14
	4H	16.50	17.83	16.90	18.18	18.55	16.53	17.85	16.93	18.20	18.58
	6H	16.84	18.07	17.25	18.43	18.82	16.84	18.07	17.26	18.43	18.83
	8H	16.93	18.10	17.36	18.49	18.89	16.92	18.09	17.35	18.48	18.88
	12H	16.98	18.10	17.41	18.48	18.91	16.96	18.08	17.39	18.46	18.89
4H	2H	16.15	17.47	16.55	17.82	18.20	15.69	17.02	16.09	17.36	17.74
	3H	17.49	18.60	17.90	18.99	19.39	17.35	18.46	17.76	18.86	19.26
	4H	18.00	18.99	18.43	19.41	19.85	17.91	18.90	18.34	19.32	19.75
	6H	18.37	19.24	18.83	19.68	20.14	18.28	19.15	18.74	19.59	20.05
	8H	18.47	19.28	18.94	19.73	20.19	18.38	19.19	18.84	19.63	20.10
	12H	18.54	19.26	19.02	19.74	20.21	18.43	19.16	18.91	19.64	20.11
8H	4H	18.48	19.29	18.95	19.74	20.20	18.25	19.06	18.71	19.50	19.97
	6H	18.93	19.61	19.43	20.10	20.57	18.75	19.42	19.25	19.91	20.39
	8H	19.08	19.68	19.59	20.19	20.68	18.90	19.50	19.41	20.01	20.50
	12H	19.18	19.71	19.69	20.20	20.77	19.00	19.53	19.51	20.02	20.58
12H	4H	18.53	19.26	19.01	19.73	20.20	18.27	18.99	18.75	19.47	19.94
	6H	19.02	19.62	19.53	20.13	20.61	18.80	19.40	19.31	19.91	20.40
	8H	19.21	19.74	19.72	20.23	20.80	19.00	19.54	19.51	20.03	20.59