

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: P242810

Luminaire Tested: S125DRP-S375D835-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242810
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-S375D835-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

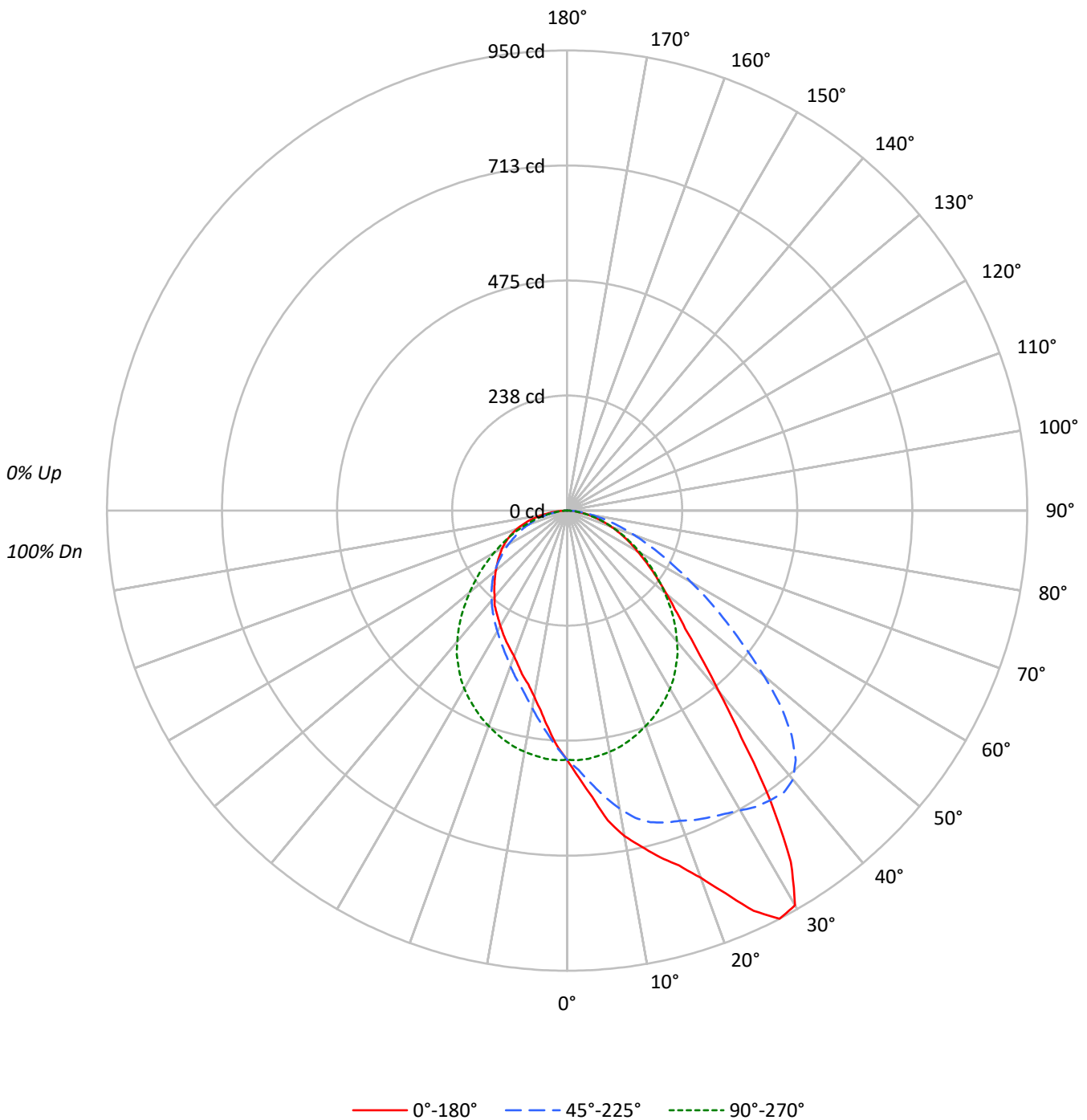
Lumens per Lamp: N/A
Luminaire Lumens: 1451.4 lumens
Efficiency: N/A
Efficacy: 125.1 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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-S375D835-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P242810

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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°	3655	3655	3655	3655	3655
5°	4233	4032	3668	3299	3211
10°	4925	4509	3649	2989	2814
15°	5452	4900	3622	2747	2596
20°	6102	5155	3580	2587	2420
25°	7149	5476	3532	2453	2335
30°	7722	5865	3485	2363	2261
35°	6349	6336	3396	2301	2212
40°	4513	6728	3273	2250	2159
45°	3467	6585	3107	2205	2129
50°	2959	5858	2901	2151	2124
55°	2634	4975	2700	2072	2142
60°	2377	4202	2479	1999	2198
65°	2195	3579	2259	1899	2254
70°	1997	3044	2028	1768	2286
75°	1763	2601	1788	1631	2266
80°	1482	2137	1457	1383	2071
85°	1174	1549	1052	1142	1672

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6585 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.5	3.4
10°-20°	147.4	10.2
20°-30°	239.5	16.5
30°-40°	292.7	20.2
40°-50°	265.5	18.3
50°-60°	211.5	14.6
60°-70°	147.3	10.1
70°-80°	78.5	5.4
80°-90°	19.5	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°	436.4	30.1
0°-40°	729.1	50.2
0°-60°	1206.2	83.1
0°-90°	1451.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1451.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	514	514	514	514	514	
5°	593	565	514	462	450	60
15°	741	666	492	373	353	212
25°	912	698	450	313	298	418
35°	732	730	391	265	255	449
45°	345	655	309	219	212	274
55°	213	402	218	167	173	191
65°	130	213	134	113	134	129
75°	64	95	65	59	82	69
85°	14	19	13	14	20	17
90°	0	0	0	0	0	



TEST NUMBER: P242810

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3
2.5°	551.4	550.6	549.7	547.9	549.2	545.5	543.8	540.7	537.0	535.7	534.2
5°	593.3	594.4	595.5	590.9	591.4	588.3	581.3	575.7	571.1	565.2	561.0
7.5°	645.3	642.0	642.2	639.4	634.4	630.2	623.5	614.1	605.6	596.0	587.7
10°	682.4	682.6	680.7	677.2	671.7	667.8	658.2	649.0	637.9	624.8	615.4
12.5°	710.4	711.4	708.8	703.8	701.8	691.8	684.8	673.5	659.7	649.9	634.4
15°	740.9	738.5	736.8	730.9	726.3	717.1	705.1	693.8	679.4	666.0	652.7
17.5°	768.0	769.9	767.1	762.7	749.2	738.5	723.7	709.3	692.0	675.4	659.9
20°	806.8	808.6	803.6	794.2	777.2	766.5	745.3	725.2	704.5	681.5	664.1
22.5°	855.3	853.1	845.9	830.4	816.2	794.2	770.8	745.3	718.0	691.4	666.7
25°	911.6	902.5	898.3	880.6	861.2	832.2	800.7	764.9	732.6	698.3	668.7
27.5°	950.0	946.3	940.4	926.0	903.8	870.8	833.7	790.9	747.5	705.6	668.2
30°	940.9	941.3	941.8	937.8	924.7	901.4	864.5	817.5	763.4	714.7	669.7
32.5°	859.7	869.5	878.9	891.1	899.0	899.2	879.5	838.3	782.2	725.2	668.9
35°	731.7	734.1	758.8	783.3	816.4	842.2	859.5	840.7	793.7	730.2	668.2
37.5°	591.6	603.6	622.2	649.7	699.4	740.0	793.3	811.6	789.6	734.4	668.0
40°	486.4	497.3	508.4	536.6	577.0	628.9	691.6	745.1	757.5	725.2	661.5
42.5°	405.2	413.2	425.9	445.3	477.4	522.0	581.1	655.1	705.8	698.6	647.7
45°	344.9	350.4	360.0	376.8	401.2	437.3	490.1	566.5	633.1	655.1	624.3
47.5°	302.1	302.3	310.2	322.2	340.8	374.0	413.5	476.3	548.2	599.0	591.8
50°	267.6	266.5	272.4	282.5	296.5	316.8	354.1	401.9	470.2	529.8	546.4
52.5°	237.9	238.4	241.4	248.2	259.3	275.9	301.5	343.4	399.3	460.8	495.8
55°	212.6	211.8	215.9	220.9	229.4	240.8	260.9	293.8	341.2	401.5	442.1
57.5°	188.2	190.6	192.3	195.8	203.2	211.1	229.0	254.3	293.4	346.9	389.9
60°	167.2	169.6	170.9	174.4	180.1	186.6	199.7	219.4	251.0	295.6	338.1
62.5°	148.4	150.2	150.4	153.5	157.8	164.2	173.8	189.5	212.8	250.4	291.9
65°	130.5	130.5	131.4	134.7	136.9	142.6	150.4	162.4	182.5	212.8	248.4
67.5°	113.1	114.2	114.0	115.5	117.4	122.2	128.1	138.2	154.1	177.0	206.5
70°	96.1	96.9	96.7	97.8	100.0	102.8	107.4	116.8	127.5	146.5	170.9
72.5°	80.8	81.0	80.3	81.9	83.0	85.4	90.6	94.5	104.3	119.6	138.6
75°	64.2	64.6	65.1	65.9	67.2	68.5	71.2	76.2	82.7	94.7	107.6
77.5°	51.1	50.0	51.3	51.1	51.7	52.8	55.2	58.1	63.7	71.8	82.5
80°	36.2	36.5	36.5	36.7	37.8	38.4	40.4	42.4	46.5	52.2	59.2
82.5°	24.0	24.7	24.2	24.7	25.5	26.0	26.9	28.4	30.3	34.5	39.1
85°	14.4	13.3	13.8	14.2	14.2	14.4	15.3	15.9	17.2	19.0	21.0
87.5°	5.2	5.7	5.9	5.9	6.1	6.1	7.0	7.0	7.6	8.3	9.2
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°	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3
2.5°	532.9	531.3	529.6	526.5	522.8	520.9	517.8	515.8	511.9	508.6	505.1
5°	556.0	550.3	545.1	538.3	530.9	526.1	520.4	514.1	507.6	500.8	493.4
7.5°	579.2	569.8	559.5	548.8	538.3	528.5	519.3	510.0	501.4	490.7	481.8
10°	602.5	589.9	576.3	560.4	544.9	531.3	517.6	505.6	493.4	480.3	468.7
12.5°	625.9	608.0	587.4	569.5	550.1	533.1	516.3	500.1	484.0	469.1	455.2
15°	634.4	619.5	601.9	577.0	556.0	533.5	512.1	492.3	473.7	457.6	440.5
17.5°	642.7	623.7	604.9	580.9	553.6	529.4	505.1	483.5	463.0	442.7	427.2
20°	644.6	625.0	605.1	581.8	553.6	524.8	500.6	473.3	450.8	429.6	409.5
22.5°	644.0	621.1	599.0	574.8	547.5	521.5	491.0	463.0	438.1	417.4	396.2
25°	639.2	615.4	588.3	564.1	537.0	508.9	479.2	450.4	425.5	401.7	380.9
27.5°	636.3	606.2	576.5	548.6	522.6	496.6	467.8	438.1	410.8	386.6	367.4
30°	630.0	596.2	561.7	532.2	505.4	480.3	453.4	424.6	395.8	372.2	351.2
32.5°	624.3	583.5	546.6	513.9	485.1	460.8	436.6	409.5	381.4	357.4	336.4
35°	616.7	571.1	529.4	493.1	462.8	437.7	417.0	391.4	365.4	342.3	322.2
37.5°	607.8	554.9	510.8	473.1	440.1	413.9	394.3	374.4	348.4	325.7	307.8
40°	596.8	537.5	490.1	451.2	416.7	389.2	371.3	352.8	332.0	311.3	292.1
42.5°	583.1	521.7	469.1	426.6	392.5	365.9	346.9	331.8	314.1	295.1	277.7
45°	565.6	502.1	446.2	401.2	366.7	340.3	320.9	309.1	295.4	277.0	262.0
47.5°	542.5	479.8	422.2	375.7	340.1	315.7	297.1	285.5	275.5	261.1	246.9
50°	509.5	454.3	395.8	349.7	314.1	289.5	272.7	262.4	254.1	243.6	232.1
52.5°	472.6	422.2	369.8	324.4	289.2	265.0	248.6	239.9	233.4	226.6	215.2
55°	433.1	389.4	339.7	296.5	263.9	240.1	225.7	217.9	212.2	206.5	199.5
57.5°	390.5	355.2	309.6	269.2	239.0	216.8	203.2	195.2	190.6	187.5	183.2
60°	345.1	315.9	277.9	241.9	212.6	193.4	180.3	174.4	170.7	168.3	165.3
62.5°	303.0	280.3	245.8	213.7	189.0	171.1	159.8	154.1	150.6	149.8	147.4
65°	261.7	243.2	214.2	186.9	165.0	149.5	139.7	134.3	132.1	130.8	131.0
67.5°	220.3	208.3	184.0	160.0	142.1	128.4	120.3	116.1	115.0	113.1	113.1
70°	182.9	174.4	154.8	134.5	119.0	108.9	101.9	97.6	96.5	95.6	95.4
72.5°	150.0	142.8	126.4	111.1	97.6	89.1	83.6	81.4	79.5	79.0	79.0
75°	117.7	113.5	100.0	87.1	77.5	71.4	67.5	65.1	63.7	63.5	63.7
77.5°	88.8	84.9	75.5	65.9	59.6	54.8	51.1	50.4	48.7	48.9	48.5
80°	62.9	60.5	55.0	47.8	42.8	38.9	37.1	35.6	35.1	34.5	35.1
82.5°	41.3	38.6	35.4	31.4	27.5	25.5	23.8	23.6	23.4	23.1	23.1
85°	22.5	22.7	20.5	17.0	15.3	14.0	12.9	12.9	12.7	12.4	12.7
87.5°	9.6	9.2	8.3	7.6	6.5	5.9	5.7	5.9	5.2	5.0	5.2
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3	514.3
2.5°	503.2	500.8	498.8	494.5	492.1	488.8	486.2	489.0	485.9	487.2	485.3
5°	489.7	483.5	479.2	472.8	467.4	462.4	458.7	458.0	456.3	455.4	452.8
7.5°	473.5	466.5	459.3	451.4	444.9	437.9	433.8	429.8	427.4	424.4	422.0
10°	459.5	449.3	440.5	430.5	421.8	414.1	408.0	404.9	402.1	398.0	396.4
12.5°	442.3	431.6	420.4	409.5	401.2	392.5	387.5	382.5	380.7	375.9	375.7
15°	429.2	413.2	402.8	391.9	380.3	373.3	368.9	363.9	361.7	358.5	356.0
17.5°	413.0	398.6	385.5	374.4	363.9	358.2	352.6	349.1	345.4	343.0	339.0
20°	395.1	381.6	368.5	356.5	348.8	342.1	337.7	334.4	330.5	329.4	325.5
22.5°	380.1	364.8	352.3	342.7	334.2	326.4	321.6	319.6	317.2	313.3	313.3
25°	363.5	348.0	337.3	327.2	319.8	312.8	309.6	306.7	304.1	301.7	300.8
27.5°	349.5	335.7	322.6	313.5	307.2	300.6	297.8	294.1	292.1	290.1	287.5
30°	334.7	320.5	309.3	300.6	293.6	287.9	284.9	282.5	280.7	279.0	277.7
32.5°	319.4	306.5	295.8	287.3	280.3	276.4	273.8	272.2	270.3	268.1	266.3
35°	306.3	291.9	281.4	274.0	268.5	265.2	262.2	260.7	258.5	258.5	256.7
37.5°	290.8	278.1	268.7	262.0	257.2	254.1	250.6	249.7	248.2	247.3	246.7
40°	277.2	265.7	256.9	250.2	244.9	242.5	239.9	238.2	237.3	236.2	235.8
42.5°	263.3	252.4	244.1	237.9	233.6	231.6	229.2	228.1	226.2	224.6	224.4
45°	249.1	238.4	230.7	225.7	221.8	219.4	217.9	215.2	214.4	212.6	212.4
47.5°	236.0	225.5	217.9	213.7	210.2	208.5	206.1	203.2	202.1	201.1	200.8
50°	220.9	211.5	204.5	200.6	197.3	194.5	192.1	190.4	189.7	189.7	190.1
52.5°	205.6	198.0	192.3	187.3	184.2	181.2	179.0	178.1	177.0	178.4	179.2
55°	190.8	182.7	178.4	173.8	170.7	167.2	166.1	165.7	165.0	166.8	167.7
57.5°	174.9	169.4	164.2	159.4	156.7	154.6	152.8	152.6	153.9	154.3	157.0
60°	159.8	153.2	148.7	145.2	141.9	140.6	140.1	139.7	140.6	143.0	146.7
62.5°	143.2	138.2	133.2	130.8	128.6	126.2	126.2	126.6	128.6	131.4	135.1
65°	127.1	122.5	119.2	116.1	114.2	112.9	113.3	114.2	116.1	119.8	124.0
67.5°	110.5	107.4	104.3	101.5	99.5	99.8	100.0	101.1	103.5	107.8	111.8
70°	94.5	91.0	88.6	87.5	86.0	85.1	86.4	88.6	90.6	94.5	97.8
72.5°	78.6	75.8	74.0	73.3	72.9	72.3	72.5	74.9	77.7	81.6	85.6
75°	62.9	61.8	60.5	59.6	58.9	59.4	59.8	62.0	64.2	68.3	72.7
77.5°	48.7	47.4	46.5	46.3	45.8	46.1	47.2	48.9	51.1	54.1	57.6
80°	34.7	34.3	33.8	33.6	33.6	33.8	35.6	36.7	38.6	41.5	44.1
82.5°	22.9	22.7	22.7	22.7	22.9	22.9	23.8	25.3	26.9	28.8	31.0
85°	13.3	12.9	13.5	13.8	13.3	14.0	14.4	15.3	15.9	17.0	18.1
87.5°	5.5	5.9	5.7	5.9	5.9	6.3	6.1	7.0	7.4	7.9	7.6
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: P242810

CATALOG NUMBER: S125DRP-S375D835-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	514.3	514.3	514.3	514.3
2.5°	484.0	485.5	484.2	485.9
5°	451.7	449.7	451.0	450.1
7.5°	421.8	420.0	417.4	416.5
10°	394.0	391.6	391.4	389.9
12.5°	373.7	371.5	368.5	368.1
15°	354.7	353.0	351.5	352.8
17.5°	338.6	337.1	336.6	335.3
20°	323.5	322.4	322.9	320.0
22.5°	311.5	309.1	308.7	308.7
25°	298.9	297.8	296.7	297.8
27.5°	287.7	286.6	286.2	286.4
30°	277.7	275.5	275.7	275.5
32.5°	266.8	265.5	265.0	264.6
35°	256.1	256.1	255.0	255.0
37.5°	246.2	246.0	245.4	245.8
40°	234.9	234.7	234.0	232.7
42.5°	224.0	223.1	222.9	222.7
45°	212.4	212.4	212.0	211.8
47.5°	201.1	201.5	202.4	202.1
50°	191.0	191.2	191.9	192.1
52.5°	179.9	181.4	182.3	182.1
55°	169.6	171.1	172.7	172.9
57.5°	159.4	161.3	162.9	163.3
60°	148.9	151.7	153.7	154.6
62.5°	138.8	142.1	144.1	144.1
65°	127.7	131.0	132.7	134.0
67.5°	116.1	119.4	121.2	122.2
70°	103.3	106.5	109.2	110.0
72.5°	90.6	93.4	95.4	96.5
75°	75.5	79.5	81.4	82.5
77.5°	61.1	65.1	66.1	66.8
80°	46.7	48.9	50.4	50.6
82.5°	33.2	34.9	35.1	35.8
85°	19.6	20.5	20.7	20.5
87.5°	8.1	7.9	7.9	8.3
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242810
 CATALOG NUMBER: S125DRP-S375D835-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	15.16	16.73	15.52	17.04	17.35	15.13	16.70	15.50	17.01	17.33
	3H	16.53	17.94	16.91	18.27	18.63	16.56	17.97	16.94	18.30	18.66
	4H	17.02	18.35	17.42	18.70	19.07	17.05	18.37	17.45	18.72	19.10
	6H	17.36	18.59	17.77	18.95	19.34	17.36	18.59	17.77	18.95	19.35
	8H	17.45	18.62	17.88	19.01	19.41	17.44	18.61	17.87	19.00	19.40
	12H	17.50	18.62	17.93	19.00	19.43	17.48	18.60	17.91	18.98	19.41
4H	2H	16.67	17.99	17.06	18.34	18.72	16.21	17.54	16.61	17.88	18.26
	3H	18.01	19.11	18.42	19.51	19.91	17.87	18.98	18.28	19.37	19.78
	4H	18.52	19.51	18.95	19.93	20.37	18.43	19.42	18.86	19.84	20.27
	6H	18.89	19.76	19.35	20.20	20.66	18.80	19.67	19.26	20.11	20.57
	8H	18.99	19.80	19.46	20.25	20.71	18.90	19.71	19.36	20.15	20.62
	12H	19.06	19.78	19.54	20.26	20.73	18.95	19.68	19.43	20.16	20.63
8H	4H	19.00	19.81	19.46	20.26	20.72	18.77	19.58	19.23	20.02	20.49
	6H	19.45	20.13	19.95	20.61	21.09	19.27	19.94	19.77	20.43	20.91
	8H	19.60	20.20	20.11	20.71	21.19	19.42	20.02	19.93	20.53	21.02
	12H	19.70	20.23	20.21	20.72	21.29	19.52	20.05	20.02	20.54	21.10
12H	4H	19.05	19.77	19.53	20.25	20.72	18.79	19.51	19.27	19.99	20.46
	6H	19.54	20.14	20.05	20.65	21.13	19.32	19.92	19.83	20.43	20.92
	8H	19.73	20.26	20.24	20.75	21.32	19.52	20.06	20.03	20.55	21.11