

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: P242805

Luminaire Tested: S125DRP-S375D830-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242805
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-S375D830-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

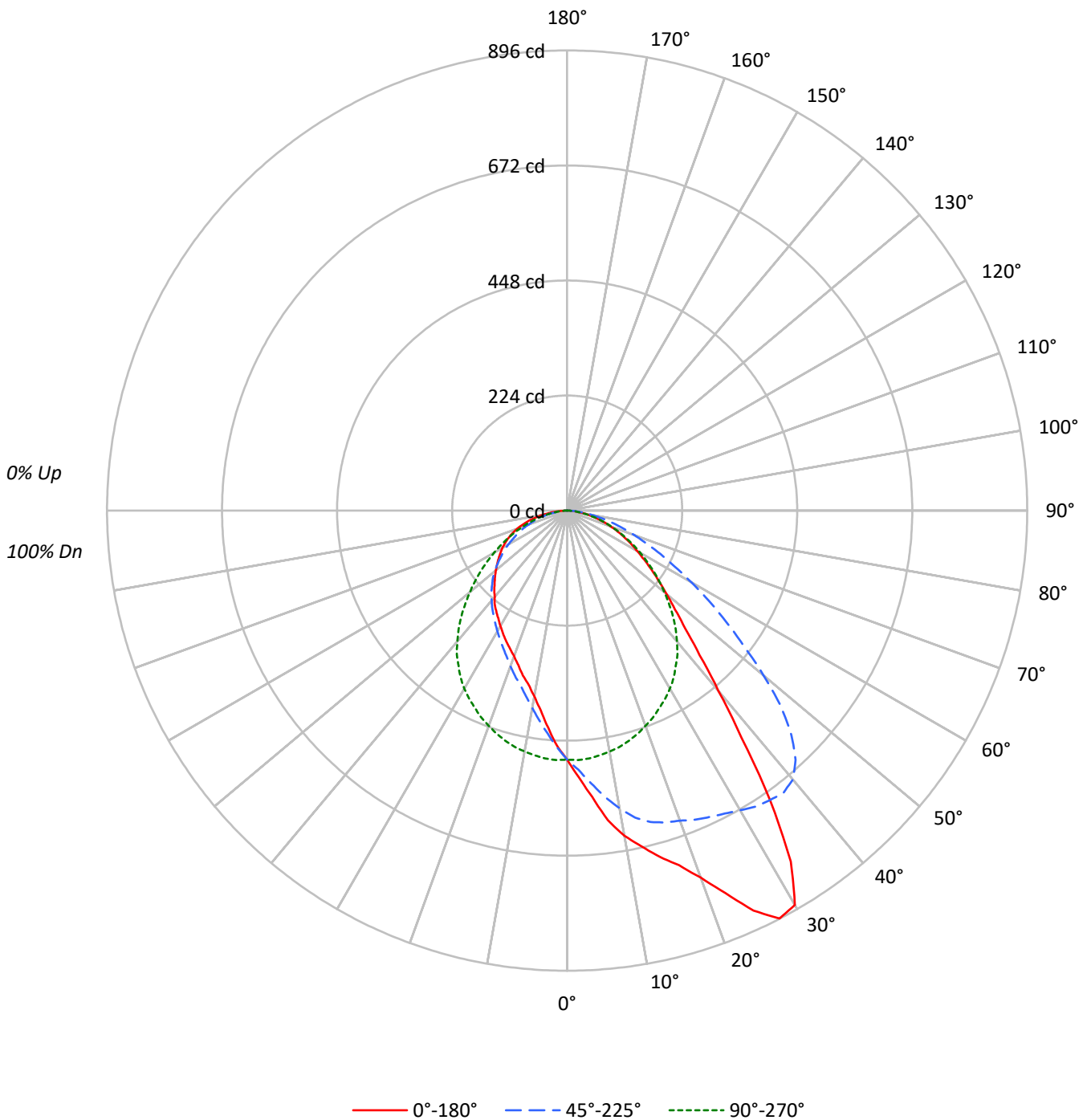
Lumens per Lamp: N/A
Luminaire Lumens: 1368.0 lumens
Efficiency: N/A
Efficacy: 117.9 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.23 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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-S375D830-X4F0-XX-UDD-A-W

Luminous Intensity Polar Plot



TEST NUMBER: P242805

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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°	3446	3446	3446	3446	3446
5°	3990	3801	3457	3109	3027
10°	4642	4250	3439	2817	2652
15°	5138	4619	3414	2589	2447
20°	5752	4859	3374	2438	2281
25°	6738	5162	3329	2313	2201
30°	7278	5529	3284	2227	2131
35°	5984	5972	3201	2169	2085
40°	4253	6341	3085	2121	2035
45°	3268	6207	2929	2079	2006
50°	2790	5522	2734	2027	2002
55°	2483	4689	2544	1953	2020
60°	2240	3960	2337	1883	2071
65°	2069	3374	2127	1789	2124
70°	1881	2870	1912	1667	2155
75°	1661	2452	1683	1538	2136
80°	1400	2014	1371	1306	1952
85°	1109	1460	987	1076	1574

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6207 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	46.7	3.4
10°-20°	139.0	10.2
20°-30°	225.7	16.5
30°-40°	275.9	20.2
40°-50°	250.3	18.3
50°-60°	199.3	14.6
60°-70°	138.8	10.1
70°-80°	74.0	5.4
80°-90°	18.3	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°	411.4	30.1
0°-40°	687.2	50.2
0°-60°	1136.9	83.1
0°-90°	1368.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1368.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	485	485	485	485	485	
5°	559	533	485	436	424	56
15°	698	628	464	352	332	200
25°	859	658	424	295	281	394
35°	690	688	369	250	240	423
45°	325	618	291	207	200	259
55°	200	378	205	158	163	180
65°	123	201	126	106	126	122
75°	60	89	61	56	78	65
85°	14	18	12	13	19	16
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°	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8
2.5°	519.7	518.9	518.1	516.5	517.7	514.2	512.5	509.7	506.2	504.9	503.5
5°	559.3	560.3	561.3	557.0	557.4	554.5	547.9	542.6	538.3	532.7	528.8
7.5°	608.2	605.1	605.3	602.7	597.9	594.0	587.6	578.8	570.8	561.7	553.9
10°	643.2	643.4	641.6	638.3	633.1	629.4	620.4	611.7	601.2	588.9	580.0
12.5°	669.5	670.6	668.1	663.4	661.5	652.0	645.5	634.8	621.8	612.5	597.9
15°	698.3	696.1	694.4	688.9	684.6	675.9	664.6	653.9	640.3	627.8	615.2
17.5°	723.9	725.7	723.0	718.9	706.2	696.1	682.1	668.5	652.3	636.6	622.0
20°	760.5	762.1	757.4	748.5	732.5	722.4	702.5	683.5	664.0	642.4	625.9
22.5°	806.2	804.1	797.3	782.7	769.3	748.5	726.5	702.5	676.7	651.6	628.4
25°	859.2	850.6	846.7	830.0	811.7	784.4	754.7	721.0	690.5	658.2	630.2
27.5°	895.5	892.0	886.4	872.8	851.8	820.8	785.8	745.5	704.5	665.0	629.8
30°	886.8	887.2	887.6	883.9	871.6	849.6	814.8	770.6	719.5	673.7	631.3
32.5°	810.3	819.5	828.4	839.9	847.3	847.5	829.0	790.1	737.2	683.5	630.4
35°	689.7	692.0	715.2	738.3	769.5	793.8	810.1	792.4	748.1	688.3	629.8
37.5°	557.6	568.9	586.4	612.3	659.3	697.5	747.7	765.0	744.2	692.2	629.6
40°	458.4	468.7	479.2	505.8	543.8	592.8	651.8	702.3	714.0	683.5	623.4
42.5°	381.9	389.5	401.4	419.7	450.0	492.0	547.7	617.5	665.2	658.4	610.5
45°	325.1	330.2	339.3	355.1	378.2	412.1	461.9	533.9	596.7	617.5	588.5
47.5°	284.8	285.0	292.4	303.7	321.2	352.5	389.7	449.0	516.7	564.6	557.8
50°	252.3	251.2	256.8	266.3	279.4	298.6	333.7	378.8	443.2	499.4	515.0
52.5°	224.3	224.7	227.6	233.9	244.4	260.1	284.2	323.7	376.3	434.4	467.3
55°	200.4	199.6	203.5	208.2	216.3	227.0	245.9	277.0	321.6	378.4	416.7
57.5°	177.4	179.6	181.3	184.6	191.6	199.0	215.8	239.7	276.5	327.0	367.5
60°	157.6	159.9	161.1	164.4	169.8	175.9	188.3	206.8	236.6	278.6	318.7
62.5°	139.9	141.6	141.8	144.6	148.8	154.7	163.8	178.6	200.6	236.0	275.1
65°	123.0	123.0	123.9	127.0	129.0	134.4	141.8	153.1	172.0	200.6	234.2
67.5°	106.6	107.6	107.4	108.8	110.7	115.2	120.8	130.2	145.3	166.9	194.6
70°	90.5	91.4	91.2	92.2	94.2	96.9	101.2	110.1	120.2	138.1	161.1
72.5°	76.1	76.3	75.7	77.2	78.2	80.5	85.4	89.1	98.4	112.8	130.7
75°	60.5	60.9	61.3	62.1	63.4	64.6	67.1	71.8	78.0	89.3	101.4
77.5°	48.1	47.1	48.4	48.1	48.8	49.8	52.1	54.7	60.1	67.7	77.8
80°	34.2	34.4	34.4	34.6	35.6	36.2	38.1	39.9	43.8	49.2	55.8
82.5°	22.6	23.3	22.8	23.3	24.1	24.5	25.3	26.7	28.6	32.5	36.8
85°	13.6	12.6	13.0	13.4	13.4	13.6	14.4	15.0	16.3	17.9	19.8
87.5°	4.9	5.3	5.6	5.6	5.8	5.8	6.6	6.6	7.2	7.8	8.6
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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CATALOG NUMBER: S125DRP-S375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8
2.5°	502.3	500.8	499.2	496.3	492.8	490.9	488.1	486.2	482.5	479.4	476.1
5°	524.1	518.7	513.8	507.4	500.4	495.9	490.5	484.6	478.4	472.0	465.0
7.5°	545.9	537.0	527.4	517.3	507.4	498.1	489.5	480.7	472.6	462.5	454.1
10°	567.9	556.0	543.2	528.2	513.6	500.8	487.9	476.5	465.0	452.7	441.8
12.5°	589.9	573.0	553.7	536.8	518.5	502.5	486.6	471.4	456.2	442.2	429.0
15°	597.9	583.9	567.3	543.8	524.1	502.9	482.7	464.0	446.5	431.3	415.2
17.5°	605.8	587.9	570.2	547.5	521.8	499.0	476.1	455.8	436.4	417.3	402.7
20°	607.6	589.1	570.4	548.3	521.8	494.6	471.8	446.1	424.9	404.9	386.0
22.5°	607.0	585.4	564.6	541.8	516.0	491.6	462.8	436.4	413.0	393.4	373.5
25°	602.5	580.0	554.5	531.7	506.2	479.6	451.6	424.5	401.0	378.6	359.0
27.5°	599.8	571.4	543.4	517.1	492.6	468.1	440.9	413.0	387.2	364.4	346.3
30°	593.8	561.9	529.4	501.6	476.3	452.7	427.4	400.2	373.0	350.8	331.1
32.5°	588.5	550.0	515.2	484.4	457.2	434.4	411.5	386.0	359.5	336.8	317.1
35°	581.3	538.3	499.0	464.8	436.2	412.5	393.0	368.9	344.4	322.6	303.7
37.5°	572.8	523.0	481.5	445.9	414.8	390.1	371.6	352.9	328.4	307.0	290.1
40°	562.5	506.6	461.9	425.3	392.8	366.9	350.0	332.5	313.0	293.4	275.3
42.5°	549.6	491.8	442.2	402.1	370.0	344.9	327.0	312.8	296.1	278.2	261.7
45°	533.1	473.2	420.6	378.2	345.7	320.8	302.5	291.4	278.4	261.1	246.9
47.5°	511.3	452.3	397.9	354.1	320.6	297.5	280.0	269.1	259.7	246.1	232.7
50°	480.2	428.2	373.0	329.6	296.1	272.8	257.0	247.3	239.5	229.6	218.7
52.5°	445.5	397.9	348.6	305.8	272.6	249.8	234.4	226.1	220.0	213.6	202.9
55°	408.2	367.1	320.2	279.4	248.8	226.3	212.8	205.3	200.0	194.6	188.1
57.5°	368.1	334.8	291.8	253.7	225.3	204.3	191.6	183.9	179.6	176.7	172.6
60°	325.3	297.7	261.9	228.0	200.4	182.3	170.0	164.4	160.9	158.6	155.8
62.5°	285.6	264.2	231.7	201.4	178.2	161.3	150.6	145.3	142.0	141.2	138.9
65°	246.7	229.2	201.8	176.1	155.6	140.9	131.7	126.5	124.5	123.2	123.5
67.5°	207.6	196.3	173.5	150.8	133.9	121.0	113.4	109.5	108.4	106.6	106.6
70°	172.4	164.4	145.9	126.7	112.1	102.7	96.1	92.0	90.9	90.1	89.9
72.5°	141.4	134.6	119.1	104.7	92.0	83.9	78.8	76.7	74.9	74.5	74.5
75°	110.9	107.0	94.2	82.1	73.0	67.3	63.6	61.3	60.1	59.9	60.1
77.5°	83.7	80.0	71.2	62.1	56.2	51.6	48.1	47.5	45.9	46.1	45.7
80°	59.3	57.0	51.9	45.1	40.3	36.6	35.0	33.5	33.1	32.5	33.1
82.5°	38.9	36.4	33.3	29.6	25.9	24.1	22.4	22.2	22.0	21.8	21.8
85°	21.2	21.4	19.3	16.0	14.4	13.2	12.1	12.1	11.9	11.7	11.9
87.5°	9.1	8.6	7.8	7.2	6.2	5.6	5.3	5.6	4.9	4.7	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



TEST NUMBER: P242805

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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8	484.8
2.5°	474.3	472.0	470.2	466.0	463.8	460.7	458.2	460.9	458.0	459.3	457.4
5°	461.5	455.8	451.6	445.7	440.5	435.8	432.3	431.7	430.0	429.2	426.7
7.5°	446.3	439.7	432.9	425.5	419.3	412.8	408.8	405.1	402.9	400.0	397.7
10°	433.1	423.5	415.2	405.8	397.5	390.3	384.6	381.7	379.0	375.1	373.7
12.5°	416.9	406.8	396.3	386.0	378.2	370.0	365.2	360.5	358.8	354.3	354.1
15°	404.5	389.5	379.6	369.3	358.4	351.8	347.7	343.0	340.9	337.9	335.6
17.5°	389.3	375.7	363.4	352.9	343.0	337.6	332.3	329.0	325.5	323.2	319.5
20°	372.4	359.7	347.3	336.0	328.8	322.4	318.3	315.2	311.5	310.5	306.8
22.5°	358.2	343.8	332.1	323.0	315.0	307.6	303.1	301.2	299.0	295.3	295.3
25°	342.6	328.0	317.9	308.4	301.4	294.9	291.8	289.1	286.6	284.4	283.5
27.5°	329.4	316.5	304.1	295.5	289.5	283.3	280.7	277.2	275.3	273.5	271.0
30°	315.4	302.1	291.6	283.3	276.7	271.4	268.5	266.3	264.6	263.0	261.7
32.5°	301.0	288.9	278.8	270.8	264.2	260.5	258.0	256.6	254.7	252.7	251.0
35°	288.7	275.1	265.2	258.2	253.1	250.0	247.1	245.7	243.6	243.6	242.0
37.5°	274.1	262.1	253.3	246.9	242.4	239.5	236.2	235.4	233.9	233.1	232.5
40°	261.3	250.4	242.2	235.8	230.9	228.6	226.1	224.5	223.7	222.6	222.2
42.5°	248.1	237.9	230.0	224.3	220.2	218.3	216.0	215.0	213.2	211.7	211.5
45°	234.8	224.7	217.5	212.8	209.1	206.8	205.3	202.9	202.1	200.4	200.2
47.5°	222.4	212.5	205.3	201.4	198.1	196.5	194.2	191.6	190.5	189.5	189.3
50°	208.2	199.4	192.8	189.1	186.0	183.3	181.1	179.4	178.8	178.8	179.2
52.5°	193.8	186.6	181.3	176.5	173.7	170.8	168.7	167.9	166.9	168.1	168.9
55°	179.8	172.2	168.1	163.8	160.9	157.6	156.6	156.2	155.6	157.2	158.0
57.5°	164.8	159.7	154.7	150.2	147.7	145.7	144.0	143.8	145.1	145.5	147.9
60°	150.6	144.4	140.1	136.8	133.7	132.5	132.1	131.7	132.5	134.8	138.3
62.5°	135.0	130.2	125.5	123.2	121.2	118.9	118.9	119.3	121.2	123.9	127.4
65°	119.8	115.4	112.3	109.5	107.6	106.4	106.8	107.6	109.5	113.0	116.9
67.5°	104.1	101.2	98.4	95.7	93.8	94.0	94.2	95.3	97.5	101.6	105.3
70°	89.1	85.8	83.5	82.5	81.1	80.2	81.5	83.5	85.4	89.1	92.2
72.5°	74.1	71.4	69.8	69.1	68.7	68.1	68.3	70.6	73.3	77.0	80.7
75°	59.3	58.2	57.0	56.2	55.6	56.0	56.4	58.4	60.5	64.4	68.5
77.5°	45.9	44.6	43.8	43.6	43.2	43.4	44.4	46.1	48.1	51.0	54.3
80°	32.7	32.3	31.9	31.7	31.7	31.9	33.5	34.6	36.4	39.1	41.6
82.5°	21.6	21.4	21.4	21.4	21.6	21.6	22.4	23.9	25.3	27.2	29.2
85°	12.6	12.1	12.8	13.0	12.6	13.2	13.6	14.4	15.0	16.0	17.1
87.5°	5.1	5.6	5.3	5.6	5.6	6.0	5.8	6.6	7.0	7.4	7.2
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: P242805

CATALOG NUMBER: S125DRP-S375D830-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	484.8	484.8	484.8	484.8
2.5°	456.2	457.6	456.4	458.0
5°	425.7	423.9	425.1	424.3
7.5°	397.5	395.9	393.4	392.6
10°	371.4	369.1	368.9	367.5
12.5°	352.3	350.2	347.3	346.9
15°	334.4	332.7	331.3	332.5
17.5°	319.1	317.7	317.3	316.0
20°	304.9	303.9	304.3	301.6
22.5°	293.6	291.4	290.9	290.9
25°	281.7	280.7	279.6	280.7
27.5°	271.2	270.2	269.7	270.0
30°	261.7	259.7	259.9	259.7
32.5°	251.4	250.2	249.8	249.4
35°	241.4	241.4	240.3	240.3
37.5°	232.1	231.9	231.3	231.7
40°	221.4	221.2	220.6	219.3
42.5°	211.1	210.3	210.1	209.9
45°	200.2	200.2	199.8	199.6
47.5°	189.5	189.9	190.7	190.5
50°	180.0	180.2	180.9	181.1
52.5°	169.5	171.0	171.8	171.6
55°	159.9	161.3	162.8	163.0
57.5°	150.2	152.1	153.5	153.9
60°	140.3	143.0	144.9	145.7
62.5°	130.9	133.9	135.8	135.8
65°	120.4	123.5	125.1	126.3
67.5°	109.5	112.5	114.2	115.2
70°	97.3	100.4	102.9	103.7
72.5°	85.4	88.1	89.9	90.9
75°	71.2	74.9	76.7	77.8
77.5°	57.6	61.3	62.3	63.0
80°	44.0	46.1	47.5	47.7
82.5°	31.3	32.9	33.1	33.7
85°	18.5	19.3	19.5	19.3
87.5°	7.6	7.4	7.4	7.8
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242805
 CATALOG NUMBER: S125DRP-S375D830-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	14.96	16.52	15.32	16.84	17.15	14.93	16.50	15.29	16.81	17.12
	3H	16.33	17.74	16.70	18.06	18.42	16.36	17.77	16.73	18.09	18.46
	4H	16.82	18.14	17.22	18.49	18.87	16.84	18.17	17.24	18.52	18.89
	6H	17.16	18.38	17.57	18.75	19.14	17.16	18.38	17.57	18.75	19.14
	8H	17.25	18.41	17.67	18.80	19.20	17.24	18.41	17.66	18.80	19.20
	12H	17.30	18.41	17.73	18.80	19.22	17.28	18.40	17.71	18.78	19.21
4H	2H	16.46	17.79	16.86	18.13	18.51	16.01	17.33	16.40	17.68	18.06
	3H	17.81	18.91	18.22	19.31	19.71	17.67	18.77	18.08	19.17	19.57
	4H	18.31	19.31	18.75	19.72	20.16	18.22	19.22	18.65	19.63	20.07
	6H	18.69	19.55	19.14	20.00	20.45	18.60	19.46	19.05	19.90	20.36
	8H	18.79	19.60	19.25	20.04	20.51	18.69	19.50	19.15	19.95	20.41
	12H	18.85	19.58	19.33	20.06	20.53	18.75	19.47	19.23	19.95	20.42
8H	4H	18.80	19.61	19.26	20.05	20.52	18.56	19.37	19.03	19.82	20.28
	6H	19.25	19.92	19.74	20.41	20.89	19.07	19.74	19.56	20.23	20.70
	8H	19.39	19.99	19.90	20.50	20.99	19.21	19.81	19.72	20.32	20.81
	12H	19.50	20.03	20.00	20.52	21.08	19.31	19.84	19.82	20.33	20.90
12H	4H	18.84	19.57	19.33	20.05	20.52	18.58	19.31	19.06	19.78	20.25
	6H	19.33	19.93	19.84	20.44	20.93	19.11	19.72	19.62	20.22	20.71
	8H	19.52	20.06	20.03	20.55	21.11	19.32	19.85	19.83	20.34	20.91