

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: P243670

Luminaire Tested: S125DRP-H375D835-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P243670
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-H375D835-X4F0-XX-UDD-A-W
Description: DEFINE 5 DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.
HIGH PERFORMANCE LIGHT ENGINE
Light Source: (184) 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

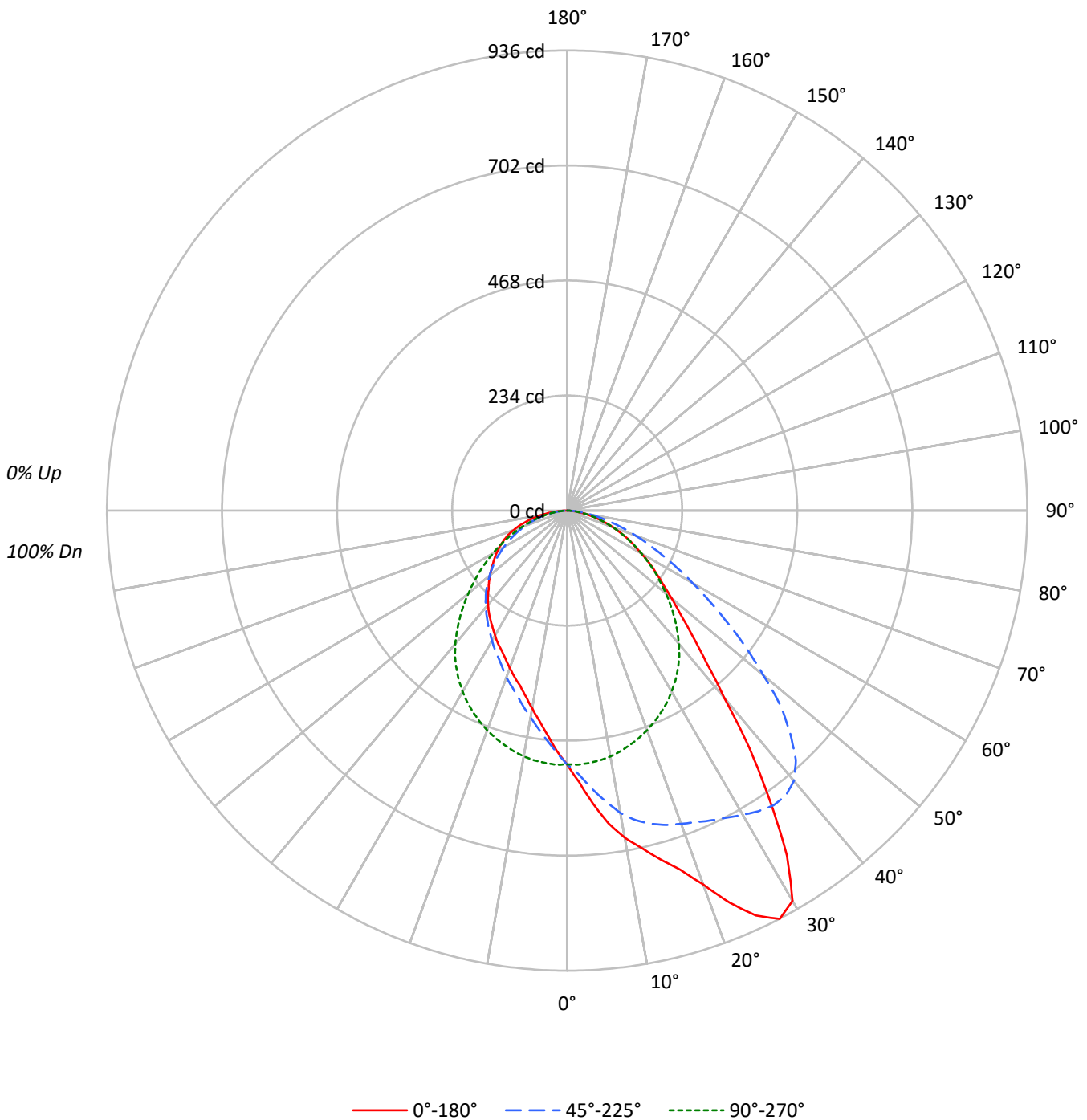
Lumens per Lamp: N/A
Luminaire Lumens: 1471.1 lumens
Efficiency: N/A
Efficacy: 131.3 lumens/watt
Spacing Criteria (0/90/45): 1.43 / 1.22 / 1.53
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

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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Luminous Intensity Polar Plot





TEST NUMBER: P243670

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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	97	90	84	79	87	82	78	84	79	76	81	77	74	72					72			
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63	61					61			
4	84	73	64	58	82	71	63	57	69	62	56	66	61	56	64	59	55	53					53			
5	78	65	56	50	75	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	40					40			
7	67	53	45	39	65	53	44	39	51	44	38	50	43	38	48	42	38	36					36			
8	62	49	40	35	60	48	40	35	47	40	34	46	39	34	44	38	34	32					32			
9	58	45	37	31	57	44	36	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°	3669	3669	3669	3669	3669
5°	4262	4047	3676	3345	3268
10°	4876	4506	3665	3080	2949
15°	5406	4854	3631	2873	2717
20°	6120	5127	3595	2733	2578
25°	7127	5451	3549	2592	2469
30°	7524	5863	3490	2505	2408
35°	6222	6350	3406	2441	2357
40°	4603	6657	3282	2388	2322
45°	3618	6450	3103	2342	2273
50°	3064	5761	2902	2278	2263
55°	2729	4935	2703	2204	2273
60°	2475	4183	2482	2115	2321
65°	2296	3577	2274	2006	2386
70°	2061	3057	2036	1874	2400
75°	1757	2587	1788	1714	2367
80°	1441	2092	1465	1490	2210
85°	987	1468	1044	1174	1876

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 6450 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	49.9	3.4
10°-20°	149.0	10.1
20°-30°	242.2	16.5
30°-40°	294.7	20.0
40°-50°	269.7	18.3
50°-60°	215.8	14.7
60°-70°	150.3	10.2
70°-80°	79.9	5.4
80°-90°	19.6	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°	441.1	30.0
0°-40°	735.8	50.0
0°-60°	1221.3	83.0
0°-90°	1471.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1471.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	516	516	516	516	516	
5°	597	567	515	469	458	59
15°	735	660	494	390	369	211
25°	909	695	452	330	315	415
35°	717	732	392	281	272	445
45°	360	642	309	233	226	284
55°	220	398	218	178	183	199
65°	136	213	135	119	142	134
75°	64	94	65	62	86	69
85°	12	18	13	14	23	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°	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2
2.5°	552.6	550.3	549.6	549.9	548.6	547.5	545.0	541.7	539.4	536.5	535.6
5°	597.4	591.7	592.8	591.1	588.4	584.8	581.7	576.6	571.8	567.2	561.2
7.5°	641.3	640.3	637.3	636.9	632.5	626.5	620.2	613.3	603.0	595.9	587.7
10°	675.6	677.7	673.6	673.8	666.0	659.9	654.5	645.5	634.0	624.4	612.4
12.5°	703.3	704.1	703.5	700.8	695.7	685.5	680.2	670.8	658.3	645.1	635.9
15°	734.7	732.4	728.8	725.5	718.1	710.8	699.9	688.8	672.9	659.7	646.3
17.5°	766.1	765.6	761.3	754.1	744.9	735.3	719.0	704.7	687.8	670.4	653.7
20°	809.2	806.9	800.4	792.2	775.3	761.7	741.4	721.9	699.7	677.9	658.5
22.5°	863.2	855.6	849.2	836.6	817.1	793.5	770.7	742.4	711.4	685.9	661.6
25°	908.8	905.5	898.6	884.5	862.3	833.9	800.0	767.9	729.0	695.1	663.5
27.5°	936.4	935.0	930.8	917.6	899.2	870.9	834.7	793.9	749.7	703.9	666.0
30°	916.8	917.0	919.3	917.8	909.6	891.4	859.2	818.2	767.1	714.4	666.6
32.5°	832.2	837.9	855.9	864.4	876.0	879.7	865.3	831.2	781.8	724.8	668.7
35°	717.1	730.9	743.0	768.2	798.1	822.6	836.8	825.7	787.8	731.9	669.8
37.5°	608.7	607.6	626.5	653.7	685.5	727.1	767.5	789.7	777.4	730.5	667.9
40°	496.1	505.7	517.4	541.5	578.7	630.0	678.2	725.7	742.8	717.5	660.6
42.5°	419.0	423.4	435.1	454.0	480.8	533.1	580.6	641.7	685.7	688.6	644.5
45°	360.0	364.8	368.2	386.8	411.7	446.9	495.6	557.2	616.2	641.7	618.3
47.5°	312.7	315.4	322.8	334.1	350.4	381.6	420.5	476.4	540.6	590.2	582.3
50°	277.1	279.2	285.1	291.4	304.8	327.8	359.2	405.0	466.8	521.0	538.8
52.5°	245.7	248.4	251.4	257.4	269.8	285.3	310.8	346.6	404.0	459.4	487.7
55°	220.2	221.2	224.4	229.0	238.4	250.1	270.4	302.9	343.1	398.3	437.2
57.5°	198.0	197.0	200.3	203.4	209.7	219.6	234.2	258.3	296.6	343.7	384.3
60°	174.1	175.2	177.7	180.2	184.6	193.2	204.7	224.0	252.0	294.3	335.7
62.5°	153.6	154.5	155.1	158.7	162.6	168.7	178.1	193.8	217.1	252.0	289.1
65°	136.5	135.0	135.8	138.4	141.5	146.5	155.3	166.8	184.2	212.7	243.4
67.5°	116.4	116.8	117.0	118.5	121.2	126.0	132.3	141.7	155.9	178.3	205.3
70°	99.2	99.4	99.6	100.9	103.2	105.9	110.3	117.6	129.8	147.1	168.3
72.5°	81.6	82.5	82.5	83.5	85.2	86.7	90.8	96.9	106.1	119.9	137.7
75°	64.0	65.5	65.9	67.2	68.7	69.1	72.2	77.0	82.9	94.2	108.2
77.5°	49.8	49.8	50.7	52.1	52.1	53.4	56.7	58.8	63.4	71.2	81.8
80°	35.2	35.8	35.8	36.2	37.0	38.1	39.6	41.4	45.4	51.1	56.7
82.5°	23.0	23.2	23.4	24.5	24.1	25.1	25.7	28.0	29.9	32.7	36.2
85°	12.1	12.1	12.3	13.0	13.6	13.8	14.2	15.3	16.7	18.0	20.1
87.5°	5.0	4.8	4.8	5.2	5.2	5.4	5.7	6.1	6.9	6.9	7.7
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°	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2
2.5°	535.0	533.3	530.4	527.9	524.7	522.4	520.1	517.2	514.3	511.1	507.8
5°	556.3	551.3	545.7	540.0	533.3	527.9	522.0	515.3	509.7	503.4	496.7
7.5°	580.8	572.0	562.2	551.1	540.6	531.2	521.6	512.4	504.0	494.6	485.4
10°	604.5	589.2	576.9	561.8	546.9	533.1	519.9	507.8	495.6	483.9	472.6
12.5°	620.6	603.2	587.7	570.4	553.0	535.6	518.2	501.5	487.1	472.8	460.9
15°	631.7	619.5	599.0	578.1	555.3	532.7	513.0	493.5	476.4	459.8	445.6
17.5°	638.6	622.9	602.8	580.8	555.7	532.1	508.4	485.2	465.5	447.7	431.6
20°	640.5	622.1	601.1	578.3	553.2	527.2	500.7	475.3	454.0	433.7	417.4
22.5°	638.6	617.2	594.9	572.7	546.3	519.9	492.1	464.5	440.0	419.0	401.9
25°	635.5	609.7	586.3	560.1	535.6	510.5	481.8	452.5	427.0	405.2	386.0
27.5°	631.5	602.0	573.1	547.3	520.8	496.1	469.7	439.8	413.2	389.3	371.3
30°	626.9	591.7	559.7	529.1	504.0	479.3	453.6	425.3	398.5	375.7	356.2
32.5°	621.6	580.8	543.2	510.3	483.5	460.7	436.6	409.6	383.2	358.8	341.8
35°	614.3	566.0	525.4	489.8	461.9	437.2	416.1	392.5	366.3	343.5	325.9
37.5°	605.7	552.8	507.4	468.8	438.5	413.2	393.7	374.5	350.0	328.0	311.0
40°	594.2	536.9	488.3	446.7	414.2	389.3	370.3	353.7	333.4	311.2	296.0
42.5°	579.2	519.3	466.8	422.4	391.0	364.4	346.6	331.5	314.2	294.9	279.8
45°	562.0	499.2	442.7	399.1	365.0	339.7	322.3	308.7	295.5	278.4	264.4
47.5°	535.2	475.5	420.9	372.8	339.3	314.8	298.5	285.5	275.7	262.1	248.2
50°	503.4	448.8	395.2	346.8	312.9	289.3	273.8	262.5	254.1	243.6	233.2
52.5°	468.4	418.6	366.9	321.7	287.8	265.4	249.1	239.0	233.6	225.2	217.1
55°	427.6	384.7	336.6	295.3	262.1	239.2	225.2	218.1	212.0	207.8	200.5
57.5°	386.6	350.4	307.5	266.7	236.1	215.8	203.2	195.3	190.9	188.0	182.7
60°	341.8	313.3	274.0	238.6	211.4	192.1	181.1	174.6	170.6	168.9	165.4
62.5°	299.1	277.3	241.5	212.0	187.7	170.8	159.7	154.5	152.0	150.1	148.0
65°	257.0	239.9	211.6	184.0	163.5	148.2	139.4	135.2	133.3	131.2	131.0
67.5°	219.1	203.4	180.8	158.2	141.1	128.1	120.4	116.2	114.1	114.3	113.2
70°	181.9	169.7	151.3	132.9	118.3	108.0	100.7	98.0	97.1	96.9	96.1
72.5°	147.1	140.2	124.1	108.6	97.1	89.2	83.3	81.0	80.0	79.5	79.5
75°	116.6	111.6	97.7	86.0	77.2	70.7	66.8	65.1	63.6	64.5	63.8
77.5°	87.5	83.3	73.9	65.5	58.8	53.4	51.5	50.0	49.2	49.0	49.8
80°	61.5	59.0	53.2	46.5	41.4	38.3	37.0	35.8	35.2	34.7	35.2
82.5°	39.6	38.1	33.9	29.9	27.0	25.3	24.1	23.4	22.4	22.6	23.0
85°	21.6	21.1	18.4	17.2	14.4	14.2	13.4	12.8	13.0	12.6	13.2
87.5°	8.8	8.4	7.7	7.1	6.3	5.7	5.2	5.7	5.0	5.7	5.4
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°	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2	516.2
2.5°	506.1	503.8	501.1	498.6	494.8	492.3	491.0	491.5	490.0	489.6	489.4
5°	492.7	487.5	482.5	478.3	473.9	468.8	465.3	464.2	463.8	462.8	460.5
7.5°	478.9	472.2	465.7	459.6	453.4	447.5	443.9	441.0	439.3	436.4	435.8
10°	464.2	456.1	449.2	440.4	432.8	426.8	422.2	419.7	418.2	415.5	413.2
12.5°	450.2	441.6	431.0	423.0	415.1	408.8	403.5	399.4	398.3	394.8	392.9
15°	435.1	424.7	415.1	405.8	398.3	390.4	387.2	383.5	379.7	376.5	375.9
17.5°	420.7	408.1	398.7	389.7	380.5	374.7	370.5	368.0	365.0	363.4	360.4
20°	403.3	393.1	382.6	374.2	366.3	361.3	355.6	353.3	351.2	347.2	346.0
22.5°	388.7	376.3	367.5	359.2	352.1	344.9	341.0	338.7	335.5	333.4	331.8
25°	373.4	363.1	352.1	343.7	337.6	330.5	327.8	324.8	322.1	320.2	318.6
27.5°	358.5	347.2	338.2	329.9	323.6	318.6	314.8	311.7	309.8	308.3	307.3
30°	343.1	332.6	324.2	316.5	309.4	305.2	301.6	300.4	298.3	297.2	295.5
32.5°	329.0	318.4	310.4	303.7	297.4	293.2	291.1	289.3	287.2	285.3	285.1
35°	313.1	303.9	296.6	289.3	284.7	281.3	279.0	277.1	275.4	274.0	273.1
37.5°	299.1	290.3	282.1	276.9	271.9	269.0	266.4	265.8	264.1	264.4	263.1
40°	284.0	276.1	269.2	263.9	260.6	257.4	255.8	253.7	252.6	252.8	251.8
42.5°	269.4	262.1	255.8	251.0	247.4	245.1	243.6	242.0	240.7	239.9	239.7
45°	254.5	248.0	242.8	238.0	235.1	233.0	231.1	229.0	227.9	227.5	227.3
47.5°	239.9	234.0	228.4	225.0	222.3	220.4	218.5	216.8	216.0	215.4	214.3
50°	224.8	218.9	215.0	210.8	208.5	206.0	203.9	203.0	202.0	201.8	202.8
52.5°	209.1	204.5	200.9	197.6	194.9	192.1	190.1	189.0	189.6	189.6	190.9
55°	194.2	189.4	186.1	183.4	180.4	177.9	175.8	175.8	175.8	177.1	178.7
57.5°	177.7	173.5	171.0	167.9	165.1	163.5	162.0	161.8	162.6	164.7	166.6
60°	161.0	158.0	155.3	152.8	150.1	148.8	148.6	148.2	149.4	151.5	155.5
62.5°	144.4	142.5	139.2	137.9	135.6	134.2	134.2	134.6	136.5	139.8	143.4
65°	128.5	125.8	123.3	122.0	120.6	119.3	119.3	121.0	123.7	126.8	131.2
67.5°	112.2	109.9	108.2	107.0	105.3	104.7	105.3	107.2	110.5	113.7	118.3
70°	94.6	94.2	92.7	91.0	90.2	90.2	90.8	92.9	95.4	100.3	104.2
72.5°	78.5	78.5	77.7	76.6	76.0	76.6	77.0	79.1	82.3	86.4	90.8
75°	63.8	63.2	62.6	62.2	62.0	62.4	63.0	64.7	68.4	72.4	76.0
77.5°	49.4	49.0	48.3	48.8	48.8	49.0	50.9	52.7	54.8	58.0	61.7
80°	35.6	35.8	35.2	35.0	36.0	36.4	37.9	39.3	40.8	44.4	47.1
82.5°	23.4	23.9	23.7	24.1	24.5	24.5	26.2	27.6	28.9	31.4	33.5
85°	13.4	13.6	13.6	14.2	14.7	14.4	15.9	16.7	17.4	19.3	20.5
87.5°	5.9	6.1	6.3	6.3	6.3	7.1	7.3	7.7	8.0	8.4	9.0
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: P243670

CATALOG NUMBER: S125DRP-H375D835-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	516.2	516.2	516.2	516.2
2.5°	487.5	487.3	488.3	488.9
5°	459.0	458.4	457.5	458.0
7.5°	433.7	432.0	431.6	431.6
10°	411.3	409.6	409.2	408.6
12.5°	392.2	389.7	388.7	387.6
15°	374.2	373.8	371.5	369.2
17.5°	357.7	358.3	356.0	355.0
20°	343.9	342.0	341.2	340.8
22.5°	329.9	328.4	328.4	326.9
25°	317.3	316.1	316.3	314.8
27.5°	305.6	305.4	305.2	304.8
30°	294.7	293.9	293.0	293.4
32.5°	284.2	283.0	282.4	282.1
35°	273.4	272.9	272.1	271.7
37.5°	262.7	262.9	261.8	261.6
40°	251.2	251.0	250.8	250.3
42.5°	239.0	238.4	238.8	238.6
45°	226.9	226.3	226.7	226.1
47.5°	215.0	215.4	215.4	215.6
50°	203.2	204.1	204.1	204.7
52.5°	192.4	194.0	194.0	193.8
55°	180.6	182.5	183.1	183.4
57.5°	169.5	171.4	173.3	173.7
60°	157.6	161.0	162.8	163.3
62.5°	146.9	150.1	152.6	152.8
65°	135.0	138.8	141.1	141.9
67.5°	122.9	125.8	128.9	130.2
70°	109.0	112.6	114.7	115.5
72.5°	94.6	98.6	101.3	101.7
75°	80.8	83.7	85.8	86.2
77.5°	65.1	68.0	69.9	70.3
80°	49.4	51.9	53.2	54.0
82.5°	35.0	36.6	37.3	38.1
85°	21.6	22.8	23.0	23.0
87.5°	9.4	9.6	9.6	10.0
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243670
 CATALOG NUMBER: S125DRP-H375D835-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	15.35	16.92	15.72	17.24	17.55	15.09	16.66	15.46	16.98	17.29
	3H	16.71	18.12	17.08	18.45	18.81	16.52	17.93	16.90	18.26	18.62
	4H	17.18	18.51	17.58	18.86	19.24	17.01	18.33	17.40	18.68	19.06
	6H	17.49	18.72	17.90	19.09	19.48	17.32	18.55	17.73	18.91	19.31
	8H	17.57	18.74	17.99	19.13	19.53	17.40	18.57	17.83	18.96	19.36
	12H	17.60	18.72	18.03	19.11	19.53	17.44	18.56	17.87	18.94	19.37
4H	2H	16.74	18.07	17.14	18.41	18.79	16.16	17.48	16.55	17.83	18.21
	3H	18.10	19.20	18.51	19.60	20.00	17.81	18.92	18.22	19.32	19.72
	4H	18.60	19.60	19.03	20.01	20.45	18.37	19.37	18.80	19.78	20.22
	6H	18.96	19.82	19.41	20.27	20.72	18.75	19.62	19.21	20.06	20.52
	8H	19.05	19.86	19.51	20.30	20.77	18.84	19.66	19.31	20.10	20.57
	12H	19.09	19.82	19.58	20.30	20.77	18.90	19.63	19.38	20.11	20.58
8H	4H	19.06	19.87	19.52	20.31	20.78	18.73	19.54	19.19	19.98	20.45
	6H	19.49	20.16	19.98	20.65	21.12	19.23	19.90	19.72	20.39	20.87
	8H	19.61	20.22	20.13	20.73	21.21	19.37	19.98	19.89	20.48	20.97
	12H	19.70	20.23	20.21	20.72	21.29	19.47	20.01	19.98	20.50	21.06
12H	4H	19.10	19.83	19.58	20.30	20.77	18.75	19.47	19.23	19.95	20.42
	6H	19.56	20.16	20.07	20.67	21.16	19.27	19.88	19.79	20.39	20.87
	8H	19.73	20.27	20.24	20.76	21.32	19.48	20.01	19.99	20.50	21.07