

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: P243788

Luminaire Tested: S125RDRP-H375D935-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243788  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-71)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S125RDRP-H375D935-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 90 CRI LEDS  
Ballast/Driver: -

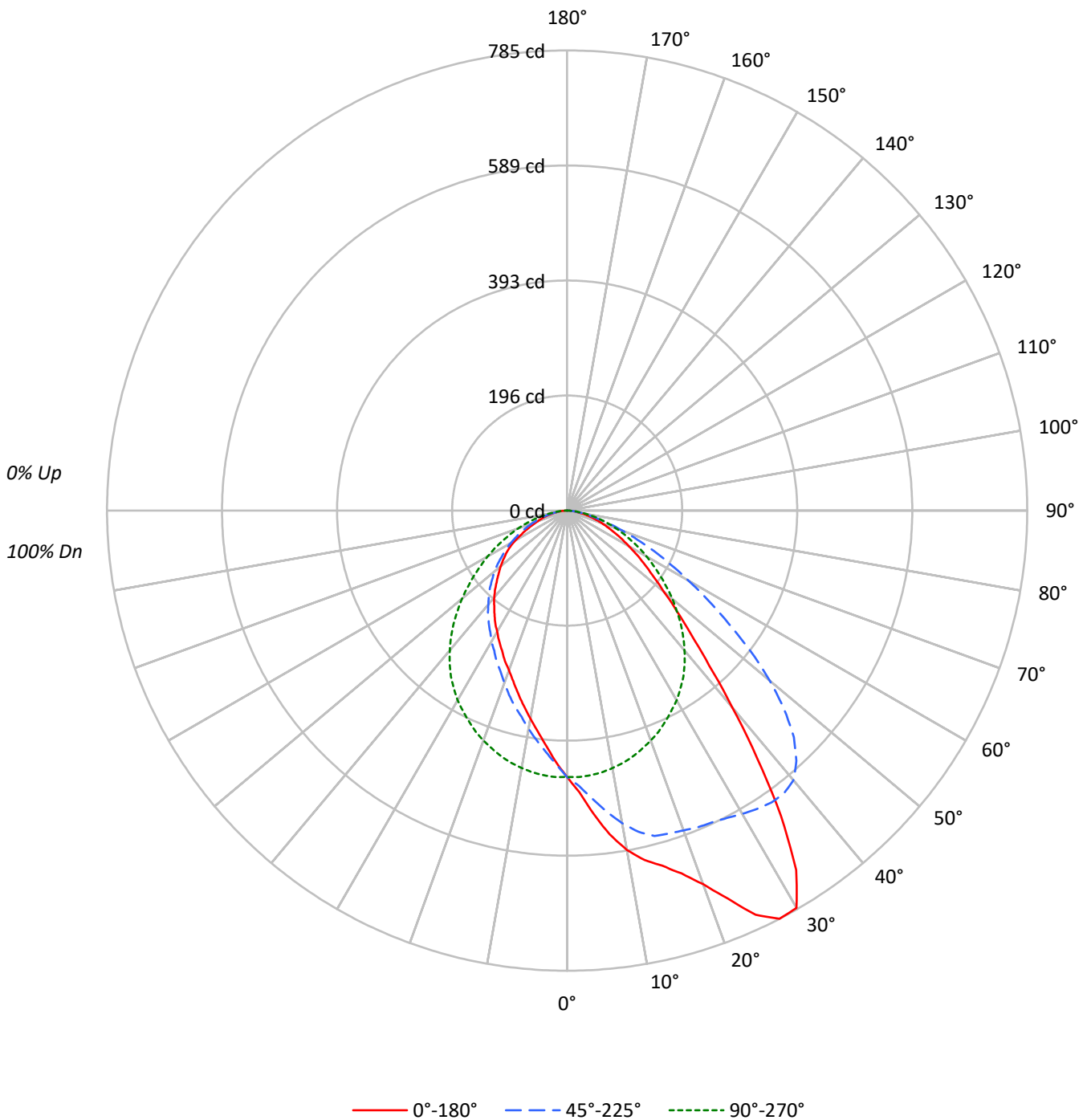
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1209.6 lumens  
Efficiency: N/A  
Efficacy: 108.0 lumens/watt  
Spacing Criteria (0/90/45): 1.42 / 1.22 / 1.5  
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



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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	0	
RCR																						
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100				100
1	110	106	102	98	107	103	100	97	99	96	94	95	93	91	92	90	88	86				86
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75	73				73
3	92	83	75	69	90	81	74	68	78	72	67	75	70	66	73	69	65	63				63
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56	54				54
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50	48				48
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44	42				42
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39	37				37
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35	33				33
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32	30				30
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29	27				27

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	3230	3230	3230	3230	3230
5°	3708	3523	3235	2949	2877
10°	4243	3908	3219	2730	2601
15°	4614	4229	3193	2542	2379
20°	5128	4391	3157	2367	2192
25°	5967	4599	3112	2230	2063
30°	6424	4903	3066	2115	1958
35°	5520	5274	2998	2023	1873
40°	4067	5573	2889	1941	1795
45°	3003	5497	2755	1870	1703
50°	2379	4990	2591	1791	1634
55°	2010	4165	2400	1681	1572
60°	1731	3402	2223	1578	1456
65°	1503	2746	2025	1448	1266
70°	1317	2086	1854	1311	1108
75°	1118	1519	1623	1159	1049
80°	872	1101	1359	1019	872
85°	767	807	1085	864	791

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 5497 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	43.7	3.6
10°-20°	129.4	10.7
20°-30°	206.4	17.1
30°-40°	250.7	20.7
40°-50°	225.9	18.7
50°-60°	173.7	14.4
60°-70°	112.7	9.3
70°-80°	54.2	4.5
80°-90°	12.8	1.1
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°	379.6	31.4
0°-40°	630.3	52.1
0°-60°	1029.8	85.1
0°-90°	1209.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1209.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	454	454	454	454	454	
5°	520	494	453	413	403	52
15°	627	575	434	346	323	180
25°	761	586	397	284	263	348
35°	636	608	346	233	216	389
45°	299	547	274	186	169	237
55°	162	336	194	136	127	147
65°	89	163	120	86	75	90
75°	41	55	59	42	38	44
85°	9	10	13	11	10	11
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°	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5
2.5°	480.8	482.6	481.2	482.1	480.6	479.9	478.1	475.4	472.7	470.2	470.0
5°	519.7	519.4	517.9	516.0	514.5	510.9	509.1	503.0	498.8	493.8	491.3
7.5°	556.9	556.0	553.8	551.1	549.8	545.1	540.1	532.4	525.9	517.9	512.0
10°	587.9	587.7	586.1	584.3	579.4	574.2	569.3	561.2	551.5	541.5	533.3
12.5°	610.6	609.7	607.7	604.6	600.7	597.0	590.6	583.2	571.3	561.2	549.8
15°	627.1	626.8	623.9	622.8	615.1	610.0	601.4	594.0	584.8	574.7	562.4
17.5°	649.1	649.9	647.3	641.2	634.2	626.4	614.2	602.1	589.3	577.6	567.7
20°	678.0	676.2	671.8	664.4	651.8	642.3	630.0	615.1	597.8	580.5	566.2
22.5°	716.5	714.5	707.7	698.7	682.8	665.4	646.6	624.3	604.4	584.6	565.9
25°	760.9	757.1	747.0	737.3	714.7	696.2	668.2	641.6	612.7	586.4	565.3
27.5°	785.0	785.0	780.3	769.7	751.9	724.5	696.0	660.5	627.1	591.1	561.2
30°	782.8	781.6	783.4	778.9	767.4	746.8	718.5	681.2	638.7	597.4	561.5
32.5°	727.0	727.5	738.3	745.7	751.5	746.4	728.1	694.4	652.0	603.5	560.1
35°	636.2	637.6	656.7	669.3	695.1	709.9	714.2	696.0	658.0	607.9	557.6
37.5°	532.4	532.4	554.5	573.6	602.5	638.9	666.1	672.9	654.4	607.7	555.4
40°	438.3	437.7	455.2	478.6	509.5	549.7	590.2	625.0	629.5	600.7	547.9
42.5°	358.6	357.7	376.8	389.8	422.2	458.1	512.0	561.2	589.3	578.8	536.7
45°	298.8	298.1	310.5	325.3	348.2	385.5	430.7	485.3	532.5	546.9	515.8
47.5°	253.7	254.1	260.8	273.2	292.7	319.3	359.9	410.5	468.9	502.3	489.5
50°	215.2	216.4	221.5	230.9	245.1	266.5	301.3	347.1	407.1	451.3	454.0
52.5°	186.3	188.1	193.5	198.6	210.5	225.6	252.7	292.3	341.9	394.8	413.8
55°	162.2	163.1	166.2	171.6	180.4	193.0	212.7	242.9	288.9	336.1	369.4
57.5°	142.0	142.0	144.0	147.8	154.8	166.2	179.3	204.4	243.1	285.8	321.3
60°	121.8	122.5	124.0	128.1	132.8	141.5	154.3	170.1	203.6	239.3	277.5
62.5°	104.9	106.1	107.6	109.6	113.9	120.0	129.0	143.6	166.2	199.1	233.2
65°	89.4	90.6	90.8	93.2	96.1	101.1	107.9	118.6	137.3	163.3	191.4
67.5°	75.7	76.2	76.8	78.6	81.3	84.5	89.0	97.0	111.7	129.2	156.6
70°	63.4	63.8	64.0	66.0	67.2	70.1	72.4	77.5	86.9	100.4	121.6
72.5°	51.9	51.4	51.2	52.8	53.3	55.7	58.6	62.2	67.2	76.8	92.6
75°	40.7	40.9	41.1	42.0	42.2	43.3	45.1	47.4	49.7	55.3	65.4
77.5°	31.4	30.6	30.6	31.7	32.1	32.3	33.5	34.8	36.0	39.3	43.3
80°	21.3	21.6	21.6	21.6	21.8	22.2	22.9	24.0	24.9	26.9	27.6
82.5°	15.1	15.1	15.0	15.3	15.5	15.7	15.7	15.7	16.2	16.8	17.5
85°	9.4	9.6	9.0	9.4	9.6	9.6	9.6	9.6	10.1	9.9	10.1
87.5°	4.0	4.1	4.1	4.3	4.3	4.5	4.3	4.5	4.3	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):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5
2.5°	469.5	467.3	466.2	464.1	461.2	459.4	457.6	455.0	453.1	450.0	447.3
5°	486.8	482.4	478.5	473.1	467.8	463.3	458.6	453.4	448.7	443.5	437.9
7.5°	506.0	499.2	490.9	481.4	473.2	466.2	458.3	450.5	443.5	435.2	427.6
10°	524.6	513.6	502.6	489.8	477.9	467.5	456.8	446.0	436.8	426.6	417.2
12.5°	539.0	528.6	512.2	496.3	480.8	467.3	454.0	440.8	428.7	417.4	406.2
15°	551.6	534.3	520.5	503.2	484.2	465.9	449.3	434.0	419.4	406.0	394.7
17.5°	555.2	539.7	524.6	504.4	484.1	463.2	444.0	425.8	409.6	394.8	382.1
20°	554.9	539.2	522.8	503.5	481.9	459.0	437.7	417.4	399.0	382.1	368.4
22.5°	549.5	534.3	517.8	498.3	476.3	452.7	430.4	407.8	387.8	370.2	356.1
25°	543.7	524.6	507.3	487.7	466.8	444.9	421.2	396.8	375.9	357.5	341.7
27.5°	538.7	515.8	494.5	475.2	453.8	434.1	410.5	385.1	363.7	344.4	328.0
30°	530.6	506.4	480.6	459.5	438.8	418.3	396.7	373.6	350.2	330.5	314.1
32.5°	523.5	493.1	465.1	441.3	420.6	402.6	381.9	359.7	336.8	318.1	300.4
35°	515.8	479.4	450.2	422.2	401.5	381.9	365.5	345.5	322.8	302.9	287.1
37.5°	506.6	465.3	431.8	403.3	381.9	361.7	346.9	329.1	308.5	288.9	273.2
40°	496.3	450.9	412.3	383.0	359.9	339.7	327.3	311.4	293.9	274.5	259.9
42.5°	483.3	435.6	394.7	362.6	337.0	318.8	306.4	293.2	277.2	260.2	244.4
45°	466.9	416.5	373.6	339.7	314.5	296.8	283.8	274.1	261.3	245.5	230.5
47.5°	446.9	396.5	352.0	316.8	292.5	275.5	263.5	253.7	244.0	230.3	216.1
50°	420.4	373.6	330.9	295.0	269.2	252.8	242.0	234.3	225.4	214.3	201.3
52.5°	391.2	347.8	306.0	272.5	247.6	231.2	220.0	213.6	206.9	197.7	186.5
55°	357.4	322.0	282.2	249.4	225.1	208.9	200.0	193.7	188.1	181.1	171.7
57.5°	321.5	290.5	255.9	225.6	202.7	187.4	179.7	174.4	169.8	164.7	157.0
60°	283.8	261.9	229.1	201.3	181.3	168.7	161.3	156.4	152.1	148.0	142.2
62.5°	244.6	226.3	201.8	178.2	160.4	148.5	143.1	138.9	134.4	130.8	126.7
65°	204.7	194.3	177.3	155.2	138.8	129.0	123.8	120.4	118.2	114.1	110.8
67.5°	168.5	162.7	148.3	133.4	120.7	111.9	107.0	104.5	102.2	100.2	96.6
70°	134.1	129.9	121.6	111.0	101.1	93.5	89.9	89.2	86.0	84.0	82.2
72.5°	102.2	101.1	94.3	89.6	84.0	78.0	75.3	73.9	71.7	69.9	69.2
75°	72.6	74.2	72.1	69.7	67.0	62.2	59.8	59.1	57.1	56.6	55.7
77.5°	49.6	51.9	52.6	51.5	50.3	48.7	47.0	46.3	44.3	44.0	43.4
80°	31.2	34.6	35.9	35.7	35.1	35.3	33.3	33.2	32.3	31.7	32.3
82.5°	18.9	20.7	23.1	23.6	22.9	23.2	22.7	22.0	22.0	22.3	21.6
85°	10.3	10.5	11.5	12.3	13.2	13.9	13.2	13.3	13.2	13.2	12.6
87.5°	4.5	4.7	4.7	4.5	4.9	5.2	5.9	6.3	6.1	5.6	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



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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5	454.5
2.5°	445.1	443.9	441.7	439.9	435.8	432.9	432.5	432.7	432.3	432.0	431.8
5°	434.3	430.2	426.2	422.8	418.1	413.4	411.2	410.3	410.0	408.0	409.1
7.5°	422.8	416.5	411.8	405.3	399.7	395.8	392.0	390.2	389.8	387.1	386.4
10°	410.5	403.0	395.9	389.4	383.9	378.3	373.8	372.1	370.0	367.8	364.6
12.5°	398.5	389.1	381.3	374.1	366.6	360.2	356.6	354.3	351.6	349.6	348.5
15°	384.0	376.1	366.6	358.8	351.1	345.5	340.6	336.3	333.8	332.1	327.6
17.5°	371.1	360.6	351.6	344.2	335.7	329.4	324.4	320.8	316.5	313.2	310.3
20°	357.2	346.4	338.1	329.3	320.6	312.9	306.5	303.7	300.6	297.5	295.9
22.5°	342.2	332.9	323.5	314.3	305.1	296.8	292.8	288.7	286.0	282.9	280.8
25°	329.3	319.0	309.6	299.3	289.2	284.4	279.0	274.8	272.7	269.6	267.3
27.5°	315.4	305.5	294.3	283.7	277.7	269.4	265.8	262.6	259.7	256.6	255.0
30°	302.4	290.9	279.7	271.4	263.7	257.7	254.3	250.3	246.4	244.9	242.7
32.5°	288.7	276.3	266.5	258.2	251.8	244.6	241.3	238.1	234.3	232.5	230.5
35°	274.5	262.4	252.8	245.3	238.6	233.2	229.6	226.2	223.8	221.1	219.7
37.5°	259.5	249.1	239.9	232.3	226.2	221.8	217.3	214.6	211.4	208.9	207.8
40°	245.3	235.9	227.1	220.0	214.5	209.2	205.3	201.8	199.9	197.7	195.9
42.5°	232.5	222.7	215.2	207.8	202.7	197.7	193.7	191.2	187.8	186.9	184.4
45°	218.8	209.8	202.2	195.4	190.1	186.0	181.3	178.2	176.1	173.9	173.0
47.5°	204.9	196.6	189.6	183.3	177.9	173.2	169.6	166.3	164.0	162.0	160.9
50°	191.4	184.2	177.2	171.0	165.4	162.0	157.7	154.1	152.3	150.1	148.9
52.5°	177.2	171.2	163.6	158.4	153.2	148.7	144.4	142.0	140.2	138.4	137.5
55°	163.8	157.5	151.0	145.4	140.4	135.7	132.3	130.5	128.1	127.1	126.9
57.5°	150.1	143.6	138.2	133.2	127.4	123.8	120.7	118.6	116.6	115.7	115.7
60°	135.2	129.9	124.9	119.3	115.2	111.0	107.8	106.3	104.3	104.0	102.7
62.5°	121.5	116.6	111.7	106.5	102.7	98.6	96.2	94.3	93.2	91.7	90.3
65°	107.2	102.9	98.2	93.7	90.6	86.1	84.0	81.6	80.4	78.8	77.0
67.5°	93.5	89.4	85.1	80.9	78.4	74.1	72.6	69.7	68.8	67.0	65.4
70°	79.1	76.2	72.8	68.7	66.5	63.1	61.6	58.9	57.5	56.4	55.5
72.5°	66.7	64.0	60.0	57.3	54.6	52.4	50.1	48.8	47.6	46.7	46.5
75°	54.4	51.0	48.7	46.1	44.3	42.2	41.1	40.2	39.6	39.1	38.6
77.5°	41.6	40.2	37.8	35.3	33.9	33.0	32.3	31.9	31.4	31.2	30.6
80°	31.0	29.0	27.6	26.7	25.6	24.9	24.3	23.1	22.3	22.0	21.6
82.5°	20.5	20.0	18.9	18.0	17.1	16.9	16.4	16.0	15.9	15.9	15.7
85°	12.4	11.0	11.0	10.8	10.8	10.6	10.3	10.3	9.9	10.5	10.5
87.5°	5.0	5.0	4.7	4.7	4.9	4.5	4.3	4.3	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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CATALOG NUMBER: S125RDRP-H375D935-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	454.5	454.5	454.5	454.5
2.5°	431.8	430.9	431.1	430.0
5°	407.1	406.6	404.8	403.3
7.5°	384.6	382.2	382.1	380.6
10°	363.5	361.3	360.2	360.4
12.5°	345.1	342.8	342.8	341.3
15°	325.5	323.1	323.5	323.3
17.5°	309.2	307.6	306.4	305.3
20°	293.4	291.4	290.7	289.8
22.5°	278.8	277.3	277.5	277.5
25°	264.9	265.1	263.5	263.1
27.5°	252.7	252.3	251.9	251.2
30°	241.1	239.7	239.3	238.6
32.5°	229.2	229.1	227.6	228.2
35°	217.2	216.6	216.3	215.9
37.5°	206.0	204.9	204.7	204.4
40°	194.6	194.3	192.6	193.5
42.5°	182.4	181.7	181.7	181.7
45°	172.1	170.1	170.1	169.4
47.5°	160.6	159.8	159.5	158.2
50°	149.2	148.1	147.8	147.8
52.5°	137.5	137.3	137.7	137.0
55°	127.2	127.4	127.2	126.9
57.5°	116.1	115.2	115.2	115.3
60°	102.7	102.7	103.1	102.4
62.5°	89.9	89.6	88.3	87.9
65°	76.8	75.3	75.1	75.3
67.5°	65.1	64.5	63.6	63.8
70°	55.0	54.8	53.9	53.3
72.5°	46.0	46.0	45.4	45.4
75°	38.4	38.0	37.8	38.2
77.5°	29.6	28.7	29.0	28.5
80°	21.4	21.8	21.4	21.3
82.5°	15.9	15.5	15.7	15.5
85°	10.1	9.7	9.9	9.7
87.5°	4.1	4.3	4.3	4.0
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243788  
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**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	14.00	15.54	14.36	15.85	16.16	14.69	16.23	15.06	16.55	16.86
	3H	15.08	16.46	15.46	16.79	17.15	16.17	17.55	16.55	17.88	18.24
	4H	15.44	16.73	15.84	17.08	17.46	16.69	17.99	17.09	18.34	18.72
	6H	15.65	16.85	16.07	17.22	17.61	17.05	18.25	17.46	18.61	19.00
	8H	15.71	16.85	16.14	17.24	17.64	17.15	18.29	17.58	18.68	19.08
	12H	15.75	16.84	16.18	17.22	17.65	17.21	18.30	17.64	18.68	19.11
4H	2H	15.52	16.81	15.92	17.16	17.54	15.56	16.86	15.96	17.21	17.59
	3H	16.56	17.64	16.97	18.04	18.44	17.23	18.30	17.64	18.70	19.10
	4H	16.93	17.89	17.36	18.31	18.74	17.82	18.79	18.26	19.21	19.64
	6H	17.17	18.01	17.63	18.45	18.91	18.26	19.10	18.72	19.54	20.00
	8H	17.23	18.02	17.69	18.46	18.93	18.38	19.17	18.85	19.61	20.08
	12H	17.28	17.98	17.76	18.46	18.93	18.47	19.17	18.95	19.65	20.12
8H	4H	17.29	18.07	17.75	18.51	18.98	17.98	18.76	18.44	19.21	19.67
	6H	17.58	18.23	18.07	18.72	19.19	18.50	19.15	19.00	19.64	20.12
	8H	17.67	18.25	18.19	18.76	19.25	18.68	19.26	19.19	19.77	20.26
	12H	17.76	18.27	18.27	18.76	19.33	18.82	19.33	19.32	19.82	20.39
12H	4H	17.31	18.01	17.79	18.49	18.96	17.97	18.67	18.45	19.15	19.62
	6H	17.61	18.19	18.12	18.70	19.19	18.49	19.08	19.01	19.58	20.07
	8H	17.74	18.26	18.25	18.75	19.31	18.71	19.22	19.22	19.72	20.28