

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: P242903

Luminaire Tested: S125RDRP-S375D927-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-2024
Report Number: P242903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1802-639-32)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S125RDRP-S375D927-X4F0-XX-UDD-A-W
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER
STANDARD LIGHT ENGINE
Light Source: (92) 2700K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

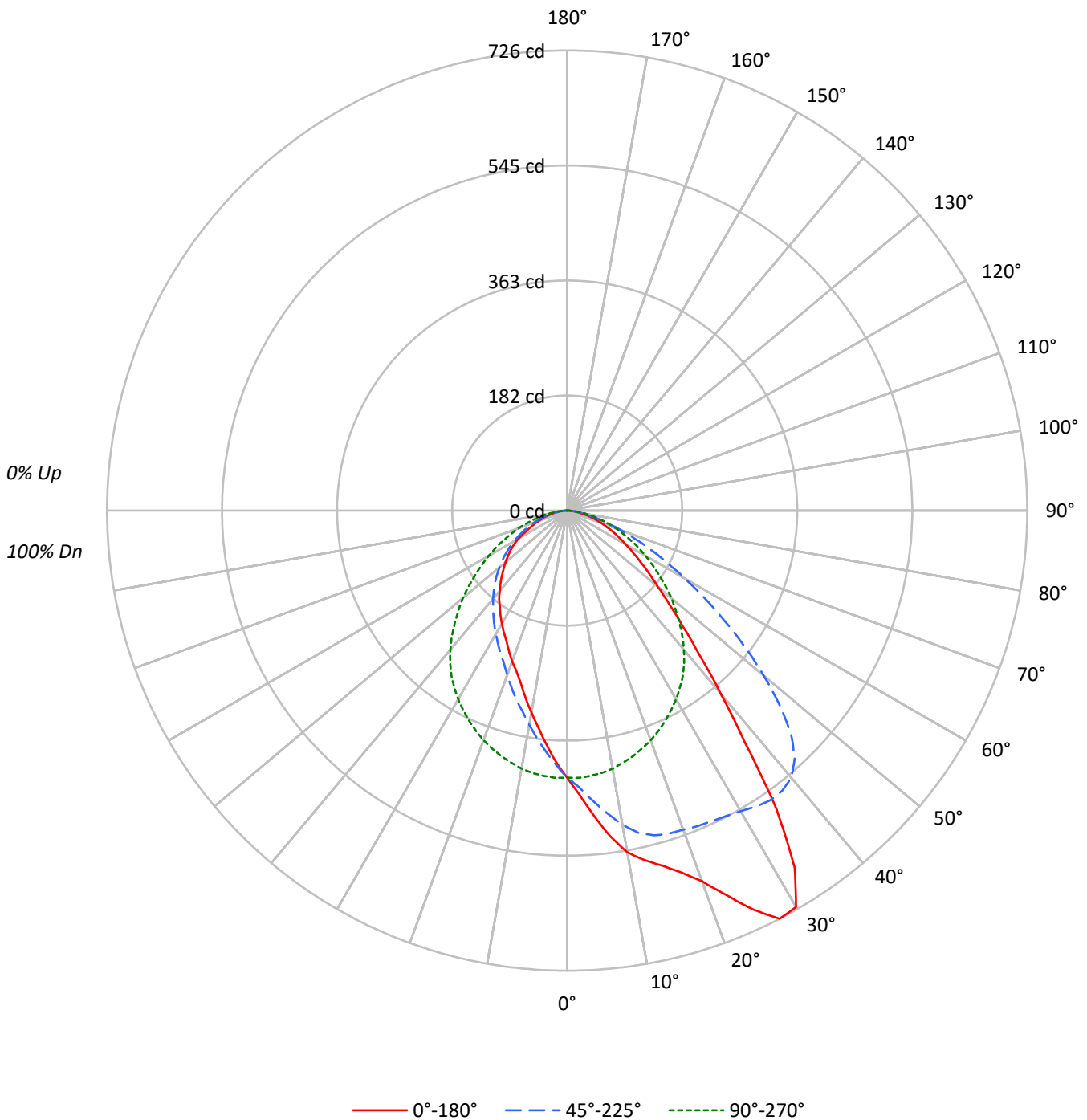
Lumens per Lamp: N/A
Luminaire Lumens: 1091.5 lumens
Efficiency: N/A
Efficacy: 94.1 lumens/watt
Spacing Criteria (0/90/45): 1.4 / 1.21 / 1.48
Luminous Opening: Rectangular (W 3.88' x L: 0.39' x H: 0')
CIE Type: Direct

Input Watts (W): 11.6
Input Voltage (V): 120
Input Current (A_{in}): 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	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				
2	101	93	87	82	98	91	86	81	88	83	79	85	81	77	82	78	75					73				
3	92	83	75	69	90	81	74	69	78	72	67	76	70	66	73	69	65					63				
4	85	74	66	59	83	73	65	59	70	63	58	68	62	57	66	61	57					55				
5	79	66	58	52	77	65	57	51	63	56	51	61	55	50	60	54	50					48				
6	73	60	52	45	71	59	51	45	57	50	45	56	49	44	54	49	44					42				
7	68	55	46	40	66	54	46	40	52	45	40	51	44	40	50	44	39					37				
8	63	50	42	36	61	49	42	36	48	41	36	47	40	36	46	40	35					34				
9	59	46	38	33	58	45	38	33	44	37	32	43	37	32	42	36	32					30				
10	55	42	35	30	54	42	35	30	41	34	30	40	34	29	39	33	29					28				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	2994	2994	2994	2994	2994
5°	3445	3275	2998	2724	2648
10°	3951	3632	2983	2476	2336
15°	4268	3903	2952	2274	2076
20°	4706	4052	2916	2088	1917
25°	5446	4238	2869	1951	1779
30°	5927	4493	2820	1843	1689
35°	4999	4843	2763	1759	1605
40°	3491	5106	2658	1685	1534
45°	2590	5024	2519	1615	1463
50°	2065	4476	2373	1539	1403
55°	1753	3758	2192	1461	1349
60°	1514	3046	2030	1372	1264
65°	1349	2432	1855	1271	1088
70°	1187	1866	1700	1153	991
75°	1027	1392	1472	1027	931
80°	778	999	1240	913	778
85°	652	701	970	775	734

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 45°
 Vertical Angle: 45°
 Luminance: 5024 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	40.4	3.7
10°-20°	118.4	10.9
20°-30°	187.8	17.2
30°-40°	226.9	20.8
40°-50°	202.1	18.5
50°-60°	154.9	14.2
60°-70°	100.6	9.2
70°-80°	48.8	4.5
80°-90°	11.5	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°	346.6	31.8
0°-40°	573.5	52.5
0°-60°	930.6	85.3
0°-90°	1091.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1091.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	421	421	421	421	421	
5°	483	459	420	382	371	48
15°	580	530	401	309	282	166
25°	694	540	366	249	227	320
35°	576	558	318	203	185	349
45°	258	500	251	161	146	204
55°	142	303	177	118	109	128
65°	80	145	110	76	65	80
75°	37	51	54	37	34	40
85°	8	9	12	10	9	9
90°	0	0	0	0	0	



TEST NUMBER: P242903

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
2.5°	448.6	448.2	448.9	447.0	447.2	444.3	444.3	442.0	439.1	436.8	435.8
5°	482.8	483.2	482.5	479.9	478.2	475.6	472.6	467.4	463.1	459.0	455.7
7.5°	517.8	518.1	515.9	515.3	510.8	508.1	501.5	494.8	488.9	481.1	475.6
10°	547.5	547.3	544.9	543.0	539.2	534.4	528.0	519.7	511.9	503.2	494.9
12.5°	564.8	564.3	563.9	561.5	558.1	553.9	548.7	540.6	530.6	520.9	510.8
15°	580.0	578.8	576.6	573.6	568.6	563.6	557.5	550.3	541.1	530.4	521.4
17.5°	598.3	598.5	595.1	591.9	585.4	577.1	568.1	557.0	545.3	534.4	525.4
20°	622.2	621.7	618.2	610.3	602.5	591.4	580.7	566.4	551.1	535.7	523.8
22.5°	656.5	654.9	651.3	640.2	627.1	612.0	594.2	575.9	556.7	538.7	522.1
25°	694.5	693.5	686.4	674.3	657.3	635.4	613.9	589.9	563.4	540.4	521.4
27.5°	726.0	723.9	717.5	706.1	689.5	665.8	636.2	605.1	573.6	543.4	517.2
30°	722.2	724.8	724.1	719.4	707.6	686.9	660.1	623.9	584.7	547.5	514.8
32.5°	667.9	670.1	677.9	690.5	694.3	689.1	670.8	638.1	597.1	553.6	512.9
35°	576.2	579.3	591.1	609.6	633.8	654.0	658.2	640.2	603.7	558.2	511.0
37.5°	459.7	479.9	487.8	506.7	544.7	581.6	613.6	620.8	601.1	557.2	508.8
40°	376.3	380.5	398.1	420.1	450.8	489.6	540.6	577.4	578.6	550.3	501.5
42.5°	308.5	314.0	324.8	341.2	366.4	405.2	458.3	509.8	537.6	531.2	492.0
45°	257.7	261.6	270.5	284.0	304.2	336.2	381.5	437.7	482.3	499.8	473.5
47.5°	217.9	220.0	228.1	239.0	254.6	278.8	315.6	366.4	419.5	455.0	448.1
50°	186.8	189.2	195.1	202.8	215.5	235.2	263.2	303.8	359.0	404.8	414.0
52.5°	162.6	164.5	167.6	174.8	184.7	198.7	220.0	255.8	304.0	353.5	377.7
55°	141.5	142.8	145.8	149.9	158.2	169.1	188.7	214.1	254.2	303.3	334.5
57.5°	123.5	124.2	125.9	130.0	136.1	144.2	159.1	182.3	211.3	257.5	291.7
60°	106.5	107.2	109.6	112.2	116.7	124.0	135.1	150.1	177.8	214.3	249.0
62.5°	93.0	93.4	94.1	96.7	100.5	105.7	113.8	125.4	146.0	176.9	209.2
65°	80.2	80.4	80.8	82.8	85.3	89.4	95.1	103.8	120.4	144.6	173.6
67.5°	67.4	67.8	69.0	69.7	72.6	74.7	78.3	85.3	98.1	115.3	138.9
70°	57.1	56.9	58.1	59.0	59.8	62.4	64.7	70.0	77.3	89.8	108.6
72.5°	47.4	46.9	47.2	47.4	48.6	50.2	52.4	55.2	60.4	68.0	81.3
75°	37.4	37.5	37.5	37.9	38.7	39.4	40.1	41.8	45.0	50.7	58.5
77.5°	28.0	27.7	28.5	28.5	29.2	30.1	30.6	31.3	32.5	35.1	39.8
80°	19.0	19.0	19.2	19.7	19.5	19.9	20.8	21.4	23.0	24.4	25.8
82.5°	13.5	13.3	13.5	13.5	13.5	13.8	14.0	14.0	14.4	14.9	15.7
85°	8.0	8.0	8.1	8.1	8.3	8.3	8.5	8.5	8.5	8.6	8.8
87.5°	3.8	3.6	3.5	3.5	3.6	4.0	3.8	3.6	3.6	3.6	3.8
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°	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
2.5°	435.8	434.6	432.3	430.3	427.7	425.4	423.9	422.0	419.5	416.6	414.2
5°	452.0	448.2	443.2	438.9	433.4	429.0	424.5	420.2	415.9	410.4	405.5
7.5°	470.0	462.6	455.7	446.7	438.6	431.5	424.5	417.5	410.7	403.1	396.0
10°	486.3	476.8	466.2	454.1	443.1	432.5	422.8	413.3	403.3	394.5	384.9
12.5°	501.5	488.5	476.1	460.0	446.2	432.7	419.7	407.3	396.4	384.3	373.9
15°	509.5	497.4	483.9	465.2	446.7	431.1	416.6	401.2	387.9	375.1	363.7
17.5°	514.1	501.3	485.8	467.6	447.7	428.4	410.0	393.6	378.4	363.7	351.1
20°	512.1	499.8	483.7	466.6	445.0	424.5	404.3	385.6	368.2	352.4	338.8
22.5°	507.0	494.2	478.8	460.5	440.3	418.3	396.4	376.1	357.6	341.2	326.0
25°	502.0	484.7	468.8	451.2	431.6	410.2	387.9	365.9	346.4	329.8	313.5
27.5°	497.2	476.3	456.5	439.6	418.7	399.3	377.5	354.9	334.5	317.7	301.1
30°	490.1	465.9	443.6	423.7	404.1	386.0	365.6	343.6	322.5	305.1	288.1
32.5°	481.3	455.2	430.1	406.4	387.7	369.7	351.7	331.0	310.6	292.4	275.1
35°	474.2	441.3	414.7	390.3	369.4	351.9	335.3	318.4	297.8	279.1	262.3
37.5°	464.3	428.2	398.1	371.5	349.7	332.4	319.1	303.0	283.8	265.6	250.1
40°	455.5	413.7	379.9	353.6	330.5	312.0	299.7	286.5	269.4	252.7	237.1
42.5°	443.7	400.3	361.6	333.9	310.6	292.9	280.5	269.4	255.8	240.2	223.3
45°	427.7	382.4	342.8	313.4	289.8	272.4	260.8	250.6	239.7	225.2	210.6
47.5°	408.5	365.2	323.6	291.2	268.6	252.1	240.7	232.2	224.3	211.7	197.0
50°	384.4	343.1	302.6	271.5	246.9	231.6	221.0	214.6	207.5	196.3	184.5
52.5°	356.1	320.3	280.8	248.8	226.0	211.8	201.8	195.4	189.9	181.2	170.2
55°	326.0	293.6	257.3	228.4	207.2	192.6	183.0	176.9	173.5	165.7	156.8
57.5°	291.9	267.0	234.2	206.0	186.8	172.2	165.0	159.6	155.6	149.9	143.4
60°	255.9	239.7	211.0	184.5	167.2	153.6	147.2	142.8	139.2	134.5	129.7
62.5°	219.5	208.7	184.7	162.9	147.3	136.4	130.6	126.8	122.4	119.7	115.0
65°	187.6	177.1	159.8	142.0	127.3	118.1	113.8	110.3	107.7	104.3	101.0
67.5°	152.4	147.5	134.7	121.4	110.7	101.9	98.1	95.3	92.3	90.3	87.8
70°	120.4	118.3	109.8	101.7	91.8	86.3	82.8	81.8	78.0	75.9	74.4
72.5°	92.0	91.3	87.3	82.3	76.1	71.4	68.3	67.1	65.0	63.5	62.6
75°	66.9	67.3	66.4	62.8	60.2	57.1	54.3	53.6	51.9	50.5	49.6
77.5°	45.7	47.4	47.0	46.9	45.7	43.4	42.2	41.7	39.8	39.3	39.1
80°	29.1	31.0	32.7	32.5	32.2	31.6	30.8	30.3	29.4	28.9	28.5
82.5°	16.9	18.7	20.1	21.3	21.3	20.8	20.2	20.1	20.1	19.7	19.7
85°	9.2	9.5	10.0	11.2	12.1	12.3	12.1	11.9	11.4	11.6	11.8
87.5°	4.0	4.0	4.2	4.2	4.0	4.8	5.4	5.5	5.2	4.8	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°	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3	421.3
2.5°	412.4	410.0	408.3	404.8	402.4	401.4	399.5	399.0	400.9	399.5	399.3
5°	401.9	396.9	392.9	388.9	384.6	381.8	377.7	377.0	376.0	374.4	374.1
7.5°	389.6	383.4	378.7	372.2	366.8	362.5	357.3	355.2	354.2	352.3	349.2
10°	377.2	369.4	362.5	355.9	348.8	343.1	337.9	333.9	331.3	328.9	327.9
12.5°	364.9	356.9	347.6	339.3	331.2	324.6	318.7	316.5	313.5	310.6	307.8
15°	352.1	341.5	331.9	322.7	315.9	309.0	303.5	299.7	295.4	294.2	289.5
17.5°	338.4	328.6	317.2	307.3	299.7	292.4	286.4	281.9	278.6	273.9	271.7
20°	325.8	313.5	302.5	293.6	285.0	276.0	269.8	266.1	263.0	259.4	257.7
22.5°	312.3	300.4	289.0	278.2	269.4	260.6	256.6	252.8	249.2	245.9	243.5
25°	299.2	287.1	275.1	264.4	255.2	248.8	243.7	239.3	237.4	234.2	231.7
27.5°	286.0	273.2	261.1	249.9	242.8	236.4	232.2	228.8	225.2	222.2	220.0
30°	273.4	260.3	246.8	238.3	230.7	224.6	220.0	216.7	214.1	211.5	209.9
32.5°	260.8	247.1	235.5	226.2	219.1	214.1	209.2	206.1	203.4	200.4	198.5
35°	247.1	233.3	223.6	214.6	207.5	202.7	199.4	194.9	192.6	190.6	188.7
37.5°	234.8	221.7	211.0	203.2	196.6	192.0	187.6	185.4	182.4	180.7	179.2
40°	221.0	209.2	199.7	191.4	186.9	181.6	177.6	174.5	172.4	170.0	168.3
42.5°	208.6	197.8	188.7	181.4	175.5	171.2	167.4	164.3	161.5	160.0	158.6
45°	197.0	186.1	177.1	170.2	165.0	160.7	156.7	155.1	151.7	149.6	148.9
47.5°	184.9	175.0	166.2	159.8	154.4	150.5	146.6	143.2	141.5	139.4	138.3
50°	172.6	163.2	155.1	148.9	143.7	139.2	135.8	133.7	131.1	129.2	127.8
52.5°	160.3	151.8	143.7	137.8	133.5	129.0	125.0	123.0	120.5	119.5	118.6
55°	148.7	139.6	132.6	126.8	122.1	117.9	114.3	112.2	110.7	109.5	109.1
57.5°	135.4	128.0	121.4	116.2	111.2	107.2	103.9	102.0	100.6	100.5	99.3
60°	122.4	115.9	110.0	104.3	100.1	96.5	93.7	91.5	90.1	89.9	89.6
62.5°	109.5	103.2	97.9	93.0	89.4	85.9	83.4	80.8	80.1	79.0	78.2
65°	96.7	91.0	86.5	82.5	78.5	75.6	73.0	71.4	69.5	68.5	66.6
67.5°	84.0	79.4	75.1	71.8	68.5	65.5	63.3	61.0	59.7	58.8	57.2
70°	71.6	68.1	63.8	60.2	57.8	55.5	53.8	51.2	50.3	49.6	48.9
72.5°	59.8	56.9	53.4	50.7	48.2	46.2	44.1	43.2	42.4	41.7	41.3
75°	48.9	46.0	42.9	40.8	39.1	37.4	36.3	35.5	35.1	34.9	34.2
77.5°	38.0	36.3	33.7	31.8	30.6	29.9	28.9	28.5	28.7	27.8	27.7
80°	27.5	26.6	24.6	23.9	23.0	22.3	21.8	20.9	20.1	19.7	19.2
82.5°	18.7	17.8	17.3	16.1	15.4	15.0	14.5	14.4	14.7	14.2	14.0
85°	10.9	10.0	9.7	9.5	9.2	9.5	9.3	9.2	9.0	8.8	9.0
87.5°	4.3	4.3	4.2	4.5	4.0	4.2	4.2	4.0	4.0	4.0	3.8
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: P242903

CATALOG NUMBER: S125RDRP-S375D927-X4F0-XX-UDD-A-W

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	421.3	421.3	421.3	421.3
2.5°	399.1	397.2	396.7	397.4
5°	372.3	370.6	371.5	371.1
7.5°	349.7	347.4	344.8	345.5
10°	325.6	323.9	322.9	323.7
12.5°	305.4	304.5	303.7	303.0
15°	287.4	285.3	284.5	282.2
17.5°	270.1	269.4	267.2	265.6
20°	255.1	254.4	252.1	253.5
22.5°	242.6	240.9	240.5	239.7
25°	231.0	228.8	227.9	226.9
27.5°	219.3	218.1	216.9	216.5
30°	207.9	206.7	205.8	205.8
32.5°	197.7	196.8	195.9	195.8
35°	187.8	186.4	186.1	185.0
37.5°	177.4	176.2	176.2	176.4
40°	167.6	166.7	166.5	165.3
42.5°	157.0	156.7	156.0	155.6
45°	147.7	146.5	146.5	145.6
47.5°	137.8	136.8	137.0	135.9
50°	128.0	127.5	127.3	126.9
52.5°	118.1	117.9	118.8	117.9
55°	109.5	108.9	110.0	108.9
57.5°	99.3	98.9	100.0	99.3
60°	89.2	88.2	88.7	88.9
62.5°	77.3	76.8	77.1	76.1
65°	66.2	65.7	65.0	64.7
67.5°	57.6	56.0	56.0	56.4
70°	47.9	47.9	47.7	47.7
72.5°	41.2	41.0	40.6	40.5
75°	34.2	34.4	34.1	33.9
77.5°	26.8	25.9	26.3	25.9
80°	19.2	19.0	19.5	19.0
82.5°	14.2	14.0	14.2	13.8
85°	9.2	9.0	8.8	9.0
87.5°	4.0	3.8	3.8	3.8
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P242903
 CATALOG NUMBER: S125RDRP-S375D927-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	13.43	14.97	13.80	15.28	15.60	14.41	15.95	14.78	16.26	16.58
	3H	14.56	15.94	14.94	16.27	16.63	15.89	17.27	16.27	17.60	17.96
	4H	14.95	16.24	15.35	16.59	16.96	16.40	17.69	16.80	18.04	18.42
	6H	15.18	16.37	15.59	16.74	17.13	16.75	17.95	17.17	18.31	18.70
	8H	15.23	16.37	15.66	16.76	17.16	16.85	17.99	17.28	18.38	18.78
	12H	15.27	16.35	15.70	16.74	17.16	16.91	17.99	17.34	18.37	18.80
4H	2H	15.02	16.31	15.42	16.66	17.04	15.26	16.55	15.66	16.90	17.28
	3H	16.09	17.16	16.50	17.56	17.96	16.92	17.99	17.33	18.39	18.79
	4H	16.47	17.44	16.91	17.85	18.29	17.51	18.47	17.94	18.89	19.33
	6H	16.73	17.57	17.19	18.01	18.47	17.94	18.77	18.39	19.22	19.68
	8H	16.79	17.57	17.25	18.02	18.48	18.06	18.84	18.52	19.29	19.75
	12H	16.83	17.53	17.32	18.01	18.48	18.14	18.84	18.62	19.32	19.79
8H	4H	16.85	17.63	17.31	18.07	18.54	17.66	18.44	18.12	18.88	19.35
	6H	17.15	17.80	17.65	18.29	18.77	18.17	18.82	18.67	19.31	19.79
	8H	17.24	17.82	17.76	18.33	18.82	18.35	18.93	18.86	19.44	19.93
	12H	17.32	17.84	17.83	18.33	18.89	18.49	19.00	18.99	19.49	20.05
12H	4H	16.87	17.57	17.36	18.05	18.52	17.65	18.35	18.13	18.82	19.29
	6H	17.19	17.77	17.70	18.28	18.76	18.17	18.75	18.68	19.26	19.74
	8H	17.32	17.83	17.83	18.32	18.89	18.38	18.89	18.89	19.39	19.95