

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: P243763

Luminaire Tested: S125RDRP-H375D927-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243763  
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-H375D927-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 2700K CCT, 90 CRI LEDS  
Ballast/Driver: -

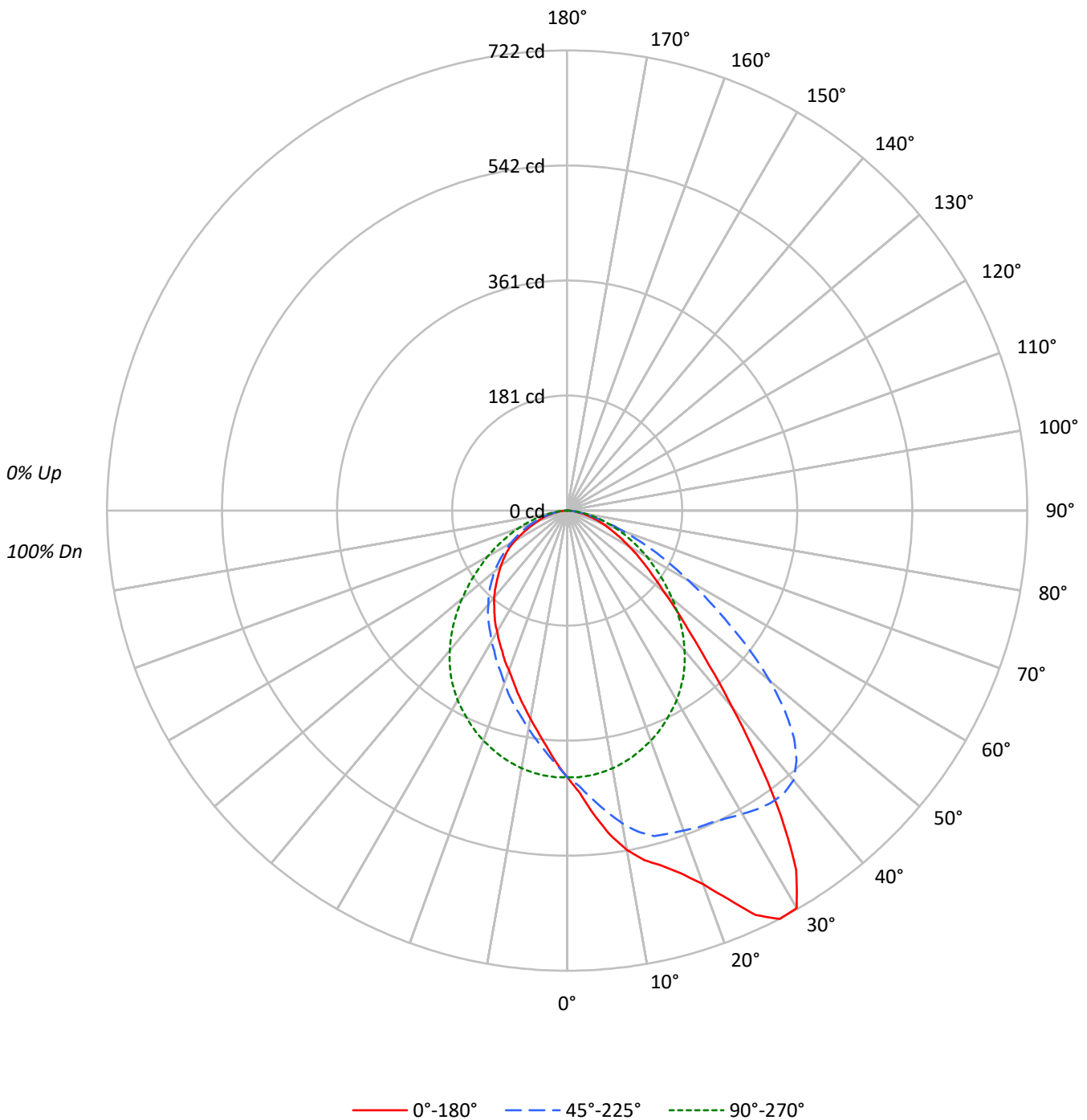
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1112.9 lumens  
Efficiency: N/A  
Efficacy: 99.4 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	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°	2972	2972	2972	2972	2972
5°	3412	3241	2977	2714	2648
10°	3904	3596	2962	2512	2393
15°	4246	3891	2938	2339	2189
20°	4718	4040	2904	2177	2016
25°	5489	4231	2863	2051	1899
30°	5911	4511	2821	1946	1801
35°	5078	4853	2758	1862	1723
40°	3741	5127	2658	1786	1652
45°	2763	5058	2535	1720	1567
50°	2189	4591	2384	1649	1504
55°	1849	3831	2208	1548	1446
60°	1593	3130	2045	1451	1339
65°	1382	2526	1863	1334	1165
70°	1214	1920	1706	1205	1020
75°	1030	1398	1494	1065	967
80°	802	1011	1248	937	802
85°	701	742	1003	799	734

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 5058 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	40.2	3.6
10°-20°	119.1	10.7
20°-30°	189.9	17.1
30°-40°	230.6	20.7
40°-50°	207.8	18.7
50°-60°	159.8	14.4
60°-70°	103.7	9.3
70°-80°	49.9	4.5
80°-90°	11.8	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°	349.3	31.4
0°-40°	579.9	52.1
0°-60°	947.5	85.1
0°-90°	1112.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1112.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	418	418	418	418	418	
5°	478	454	417	380	371	48
15°	577	529	399	318	298	165
25°	700	540	365	262	242	320
35°	585	559	318	215	199	358
45°	275	503	252	171	156	218
55°	149	309	178	125	117	135
65°	82	150	111	79	69	82
75°	38	51	54	39	35	40
85°	9	9	12	10	9	10
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°	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2
2.5°	442.4	444.0	442.7	443.5	442.2	441.6	439.9	437.4	434.9	432.6	432.4
5°	478.2	477.9	476.5	474.7	473.4	470.1	468.4	462.8	459.0	454.3	452.0
7.5°	512.4	511.5	509.5	507.0	505.9	501.6	496.9	489.8	483.8	476.5	471.1
10°	540.9	540.7	539.2	537.6	533.1	528.3	523.8	516.3	507.4	498.3	490.6
12.5°	561.8	560.9	559.1	556.3	552.6	549.3	543.4	536.6	525.6	516.3	505.9
15°	577.0	576.7	574.0	573.0	565.9	561.3	553.3	546.5	538.1	528.8	517.5
17.5°	597.2	597.9	595.6	590.0	583.5	576.4	565.1	554.0	542.2	531.4	522.3
20°	623.8	622.1	618.1	611.3	599.7	590.9	579.7	565.9	550.0	534.1	521.0
22.5°	659.3	657.4	651.1	642.8	628.3	612.2	594.9	574.4	556.1	537.9	520.6
25°	700.0	696.6	687.3	678.3	657.6	640.5	614.8	590.3	563.8	539.5	520.1
27.5°	722.3	722.3	718.0	708.2	691.8	666.6	640.4	607.7	577.0	543.9	516.3
30°	720.3	719.1	720.8	716.6	706.0	687.1	661.1	626.8	587.6	549.7	516.7
32.5°	668.9	669.4	679.3	686.1	691.4	686.8	669.9	638.9	599.9	555.3	515.3
35°	585.3	586.6	604.2	615.8	639.5	653.1	657.1	640.4	605.4	559.3	513.0
37.5°	489.8	489.8	510.2	527.8	554.3	587.8	612.8	619.1	602.1	559.1	511.0
40°	403.2	402.8	418.8	440.4	468.7	505.7	543.0	575.0	579.2	552.6	504.1
42.5°	330.0	329.1	346.7	358.6	388.5	421.5	471.1	516.3	542.2	532.6	493.8
45°	274.9	274.2	285.7	299.3	320.3	354.7	396.3	446.5	490.0	503.2	474.5
47.5°	233.5	233.8	239.9	251.4	269.3	293.8	331.1	377.7	431.4	462.1	450.3
50°	198.0	199.1	203.8	212.4	225.5	245.2	277.2	319.4	374.6	415.2	417.7
52.5°	171.4	173.1	178.1	182.7	193.7	207.6	232.5	268.9	314.5	363.3	380.7
55°	149.2	150.1	152.9	157.9	166.0	177.6	195.7	223.5	265.8	309.2	339.9
57.5°	130.7	130.7	132.5	136.0	142.4	152.9	165.0	188.0	223.7	263.0	295.6
60°	112.1	112.8	114.1	117.9	122.2	130.2	141.9	156.5	187.4	220.2	255.3
62.5°	96.5	97.7	99.0	100.8	104.8	110.4	118.7	132.2	152.9	183.2	214.6
65°	82.2	83.4	83.6	85.7	88.4	93.0	99.3	109.1	126.3	150.2	176.1
67.5°	69.6	70.1	70.6	72.3	74.8	77.8	81.9	89.2	102.8	118.9	144.1
70°	58.4	58.7	58.9	60.7	61.8	64.5	66.7	71.3	79.9	92.4	111.9
72.5°	47.8	47.3	47.1	48.6	49.1	51.2	53.9	57.2	61.8	70.6	85.2
75°	37.5	37.6	37.8	38.6	38.8	39.8	41.5	43.6	45.8	50.9	60.2
77.5°	28.9	28.2	28.2	29.2	29.5	29.7	30.8	32.0	33.2	36.1	39.8
80°	19.6	19.9	19.9	19.9	20.1	20.4	21.1	22.1	22.9	24.7	25.4
82.5°	13.9	13.9	13.8	14.1	14.3	14.4	14.4	14.4	14.9	15.4	16.1
85°	8.6	8.8	8.3	8.6	8.8	8.8	8.8	8.8	9.3	9.1	9.3
87.5°	3.6	3.8	3.8	4.0	4.0	4.1	4.0	4.1	4.0	4.0	4.1
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°	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2
2.5°	431.9	429.9	429.0	427.0	424.3	422.6	421.0	418.7	416.8	414.0	411.5
5°	447.9	443.9	440.2	435.3	430.4	426.3	422.0	417.2	412.9	408.1	402.9
7.5°	465.6	459.3	451.7	442.9	435.4	429.0	421.7	414.5	408.1	400.4	393.5
10°	482.7	472.6	462.4	450.7	439.7	430.1	420.3	410.4	401.9	392.5	383.9
12.5°	495.9	486.3	471.2	456.6	442.4	429.9	417.7	405.6	394.5	384.0	373.7
15°	507.5	491.6	478.9	462.9	445.5	428.6	413.4	399.3	385.8	373.6	363.1
17.5°	510.9	496.6	482.7	464.1	445.4	426.1	408.6	391.8	376.9	363.3	351.5
20°	510.5	496.1	481.0	463.3	443.4	422.3	402.8	384.0	367.1	351.5	338.9
22.5°	505.6	491.6	476.4	458.5	438.2	416.5	396.0	375.2	356.8	340.6	327.6
25°	500.2	482.7	466.8	448.7	429.4	409.4	387.5	365.1	345.9	329.0	314.4
27.5°	495.6	474.5	455.0	437.2	417.5	399.4	377.7	354.3	334.6	316.9	301.8
30°	488.1	465.9	442.2	422.8	403.7	384.8	364.9	343.7	322.2	304.1	289.0
32.5°	481.7	453.7	428.0	406.1	387.0	370.4	351.4	331.0	309.9	292.7	276.4
35°	474.5	441.1	414.2	388.5	369.4	351.4	336.3	317.9	297.0	278.7	264.1
37.5°	466.1	428.1	397.3	371.1	351.4	332.8	319.2	302.8	283.9	265.8	251.4
40°	456.6	414.9	379.4	352.3	331.1	312.6	301.1	286.5	270.4	252.5	239.1
42.5°	444.7	400.8	363.1	333.6	310.1	293.3	281.9	269.8	255.0	239.4	224.8
45°	429.6	383.2	343.7	312.6	289.3	273.1	261.2	252.2	240.4	225.8	212.1
47.5°	411.2	364.8	323.8	291.5	269.1	253.5	242.4	233.5	224.5	211.9	198.8
50°	386.8	343.7	304.4	271.4	247.7	232.6	222.7	215.6	207.4	197.1	185.2
52.5°	360.0	320.0	281.5	250.7	227.8	212.7	202.5	196.5	190.3	181.9	171.6
55°	328.8	296.3	259.7	229.5	207.1	192.2	184.0	178.2	173.1	166.6	158.0
57.5°	295.8	267.3	235.5	207.6	186.5	172.4	165.3	160.5	156.2	151.6	144.4
60°	261.2	240.9	210.7	185.2	166.8	155.2	148.4	143.9	139.9	136.1	130.8
62.5°	225.0	208.3	185.7	164.0	147.6	136.6	131.7	127.8	123.7	120.4	116.6
65°	188.4	178.7	163.2	142.8	127.7	118.7	113.9	110.8	108.8	105.0	102.0
67.5°	155.0	149.7	136.5	122.7	111.1	103.0	98.5	96.2	94.0	92.2	88.9
70°	123.4	119.5	111.9	102.1	93.0	86.1	82.7	82.1	79.1	77.3	75.6
72.5°	94.0	93.0	86.7	82.4	77.3	71.8	69.3	68.0	66.0	64.3	63.7
75°	66.8	68.3	66.3	64.2	61.7	57.2	55.0	54.4	52.6	52.1	51.2
77.5°	45.6	47.8	48.4	47.4	46.3	44.8	43.3	42.6	40.8	40.5	40.0
80°	28.7	31.8	33.0	32.8	32.3	32.5	30.7	30.5	29.7	29.2	29.7
82.5°	17.4	19.1	21.2	21.7	21.1	21.4	20.9	20.2	20.2	20.6	19.9
85°	9.5	9.6	10.6	11.3	12.1	12.8	12.1	12.3	12.1	12.1	11.6
87.5°	4.1	4.3	4.3	4.1	4.5	4.8	5.5	5.8	5.6	5.1	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°	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2	418.2
2.5°	409.6	408.4	406.4	404.7	400.9	398.3	397.9	398.1	397.8	397.4	397.3
5°	399.6	395.8	392.1	389.0	384.7	380.4	378.4	377.5	377.2	375.4	376.4
7.5°	389.0	383.2	378.9	372.9	367.8	364.1	360.6	359.0	358.6	356.2	355.5
10°	377.7	370.8	364.3	358.3	353.2	348.0	343.9	342.4	340.4	338.4	335.4
12.5°	366.6	358.0	350.9	344.2	337.3	331.5	328.1	326.0	323.5	321.7	320.7
15°	353.3	346.0	337.3	330.1	323.0	317.9	313.4	309.4	307.1	305.6	301.4
17.5°	341.4	331.8	323.5	316.7	308.9	303.1	298.5	295.1	291.2	288.2	285.5
20°	328.6	318.7	311.1	302.9	295.0	287.8	282.0	279.4	276.6	273.8	272.3
22.5°	314.9	306.3	297.6	289.2	280.7	273.1	269.4	265.6	263.1	260.3	258.3
25°	302.9	293.5	284.9	275.4	266.1	261.6	256.7	252.9	250.9	248.1	245.9
27.5°	290.2	281.0	270.8	261.0	255.5	247.9	244.6	241.6	238.9	236.1	234.6
30°	278.2	267.6	257.3	249.7	242.6	237.1	234.0	230.3	226.7	225.3	223.3
32.5°	265.6	254.2	245.2	237.6	231.6	225.0	222.0	219.0	215.6	213.9	212.1
35°	252.5	241.4	232.6	225.7	219.5	214.6	211.2	208.1	205.9	203.4	202.1
37.5°	238.8	229.1	220.7	213.7	208.1	204.1	200.0	197.5	194.5	192.2	191.2
40°	225.7	217.0	208.9	202.5	197.3	192.5	188.9	185.7	183.9	181.9	180.2
42.5°	213.9	204.9	198.0	191.2	186.5	181.9	178.2	175.9	172.8	171.9	169.6
45°	201.3	193.0	186.0	179.7	174.9	171.1	166.8	164.0	162.0	160.0	159.2
47.5°	188.5	180.9	174.4	168.6	163.7	159.3	156.0	153.0	150.9	149.1	148.1
50°	176.1	169.5	163.0	157.4	152.2	149.1	145.1	141.8	140.1	138.1	137.0
52.5°	163.0	157.5	150.6	145.7	140.9	136.8	132.8	130.7	129.0	127.3	126.5
55°	150.7	144.9	138.9	133.8	129.2	124.9	121.7	120.0	117.9	116.9	116.7
57.5°	138.1	132.2	127.2	122.5	117.2	113.9	111.1	109.1	107.3	106.5	106.5
60°	124.4	119.5	114.9	109.8	106.0	102.1	99.2	97.8	96.0	95.7	94.5
62.5°	111.8	107.3	102.8	98.0	94.5	90.7	88.5	86.7	85.7	84.4	83.1
65°	98.7	94.7	90.4	86.2	83.4	79.3	77.3	75.1	74.0	72.5	70.8
67.5°	86.1	82.2	78.3	74.4	72.1	68.1	66.8	64.2	63.3	61.7	60.2
70°	72.8	70.1	67.0	63.2	61.2	58.0	56.7	54.2	52.9	51.9	51.1
72.5°	61.3	58.9	55.2	52.7	50.2	48.3	46.1	44.9	43.8	42.9	42.8
75°	50.1	46.9	44.8	42.4	40.8	38.8	37.8	37.0	36.5	36.0	35.5
77.5°	38.3	37.0	34.8	32.5	31.2	30.3	29.7	29.3	28.9	28.7	28.2
80°	28.5	26.7	25.4	24.5	23.5	22.9	22.4	21.2	20.6	20.2	19.9
82.5°	18.9	18.4	17.4	16.6	15.8	15.6	15.1	14.8	14.6	14.6	14.4
85°	11.4	10.1	10.1	9.9	9.9	9.8	9.5	9.5	9.1	9.6	9.6
87.5°	4.6	4.6	4.3	4.3	4.5	4.1	4.0	4.0	4.0	3.8	4.0
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: P243763

CATALOG NUMBER: S125RDRP-H375D927-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	418.2	418.2	418.2	418.2
2.5°	397.3	396.5	396.6	395.6
5°	374.6	374.1	372.4	371.1
7.5°	353.8	351.7	351.5	350.2
10°	334.4	332.4	331.5	331.6
12.5°	317.5	315.4	315.4	314.0
15°	299.5	297.3	297.6	297.5
17.5°	284.5	283.0	281.9	280.9
20°	269.9	268.1	267.5	266.6
22.5°	256.5	255.2	255.3	255.3
25°	243.7	243.9	242.4	242.1
27.5°	232.5	232.1	231.8	231.1
30°	221.9	220.5	220.2	219.5
32.5°	210.9	210.7	209.4	209.9
35°	199.8	199.3	199.0	198.6
37.5°	189.5	188.5	188.4	188.0
40°	179.1	178.7	177.3	178.1
42.5°	167.8	167.1	167.1	167.1
45°	158.3	156.5	156.5	155.9
47.5°	147.7	147.1	146.7	145.6
50°	137.3	136.3	136.0	136.0
52.5°	126.5	126.3	126.7	126.0
55°	117.1	117.2	117.1	116.7
57.5°	106.8	106.0	106.0	106.1
60°	94.5	94.5	94.8	94.2
62.5°	82.7	82.4	81.2	80.9
65°	70.6	69.3	69.1	69.3
67.5°	59.9	59.4	58.5	58.7
70°	50.6	50.4	49.6	49.1
72.5°	42.3	42.3	41.8	41.8
75°	35.3	35.0	34.8	35.2
77.5°	27.2	26.4	26.7	26.2
80°	19.7	20.1	19.7	19.6
82.5°	14.6	14.3	14.4	14.3
85°	9.3	9.0	9.1	9.0
87.5°	3.8	4.0	4.0	3.6
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243763  
 CATALOG NUMBER: S125RDRP-H375D927-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	13.71	15.25	14.07	15.56	15.87	14.40	15.94	14.77	16.26	16.57
	3H	14.79	16.17	15.17	16.50	16.86	15.88	17.26	16.26	17.59	17.95
	4H	15.15	16.44	15.55	16.79	17.17	16.40	17.70	16.80	18.05	18.43
	6H	15.36	16.56	15.78	16.93	17.32	16.76	17.96	17.17	18.32	18.72
	8H	15.42	16.56	15.85	16.95	17.35	16.86	18.00	17.29	18.39	18.79
	12H	15.46	16.55	15.89	16.93	17.36	16.92	18.01	17.35	18.39	18.82
4H	2H	15.23	16.52	15.63	16.87	17.25	15.28	16.57	15.68	16.92	17.30
	3H	16.27	17.35	16.68	17.75	18.15	16.94	18.01	17.35	18.41	18.81
	4H	16.63	17.60	17.07	18.02	18.45	17.54	18.50	17.97	18.92	19.36
	6H	16.88	17.72	17.34	18.16	18.62	17.97	18.81	18.43	19.25	19.71
	8H	16.94	17.73	17.40	18.17	18.64	18.09	18.88	18.56	19.32	19.79
	12H	16.99	17.69	17.47	18.17	18.64	18.18	18.88	18.66	19.36	19.83
8H	4H	16.99	17.78	17.46	18.22	18.69	17.69	18.47	18.15	18.92	19.38
	6H	17.29	17.94	17.78	18.43	18.90	18.21	18.86	18.71	19.35	19.83
	8H	17.38	17.97	17.90	18.47	18.96	18.39	18.97	18.90	19.48	19.97
	12H	17.47	17.98	17.98	18.47	19.04	18.53	19.04	19.04	19.53	20.10
12H	4H	17.02	17.72	17.50	18.20	18.67	17.68	18.38	18.16	18.86	19.33
	6H	17.32	17.90	17.83	18.41	18.90	18.20	18.79	18.72	19.30	19.78
	8H	17.45	17.97	17.96	18.46	19.02	18.42	18.94	18.93	19.43	19.99