

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: P243773

Luminaire Tested: S125RDRP-H375D835-X4F0-XX-UDD-A-W

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-2024  
Report Number: P243773  
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-H375D835-X4F0-XX-UDD-A-W  
Description: DEFINE 5 REGRESSED DIRECT RECESSED WITH ASYMMETRIC FLUSH DIFFUSER.  
HIGH PERFORMANCE LIGHT ENGINE  
Light Source: (184) 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

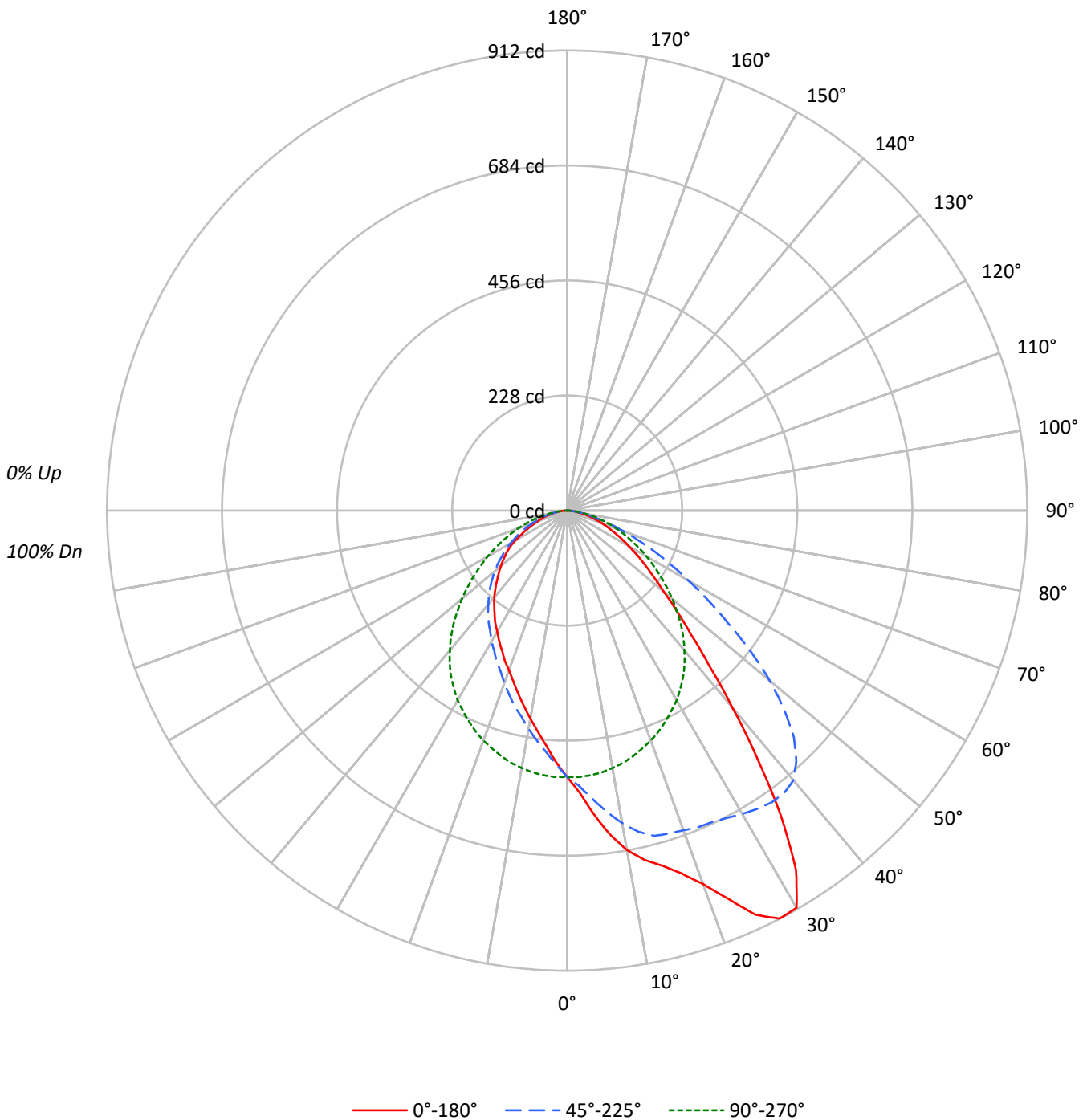
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1404.9 lumens  
Efficiency: N/A  
Efficacy: 125.4 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	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	68	78	72	67	75	70	66	73	69	65				63	
4	85	74	65	59	83	72	65	59	70	63	58	68	62	57	66	61	56				54	
5	78	66	58	51	76	65	57	51	63	56	51	61	55	50	59	54	50				48	
6	73	60	51	45	71	59	51	45	57	50	45	56	49	44	54	48	44				42	
7	67	54	46	40	66	54	46	40	52	45	40	51	44	39	49	44	39				37	
8	63	50	42	36	61	49	41	36	48	41	36	47	40	35	45	40	35				33	
9	59	46	38	32	57	45	38	32	44	37	32	43	37	32	42	36	32				30	
10	55	42	35	29	54	42	34	29	41	34	29	40	34	29	39	33	29				27	

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

	0°	45°	90°	135°	180°
0°	3752	3752	3752	3752	3752
5°	4306	4092	3757	3426	3342
10°	4928	4539	3738	3170	3021
15°	5360	4912	3708	2952	2763
20°	5955	5099	3667	2749	2546
25°	6930	5341	3614	2590	2397
30°	7462	5695	3561	2456	2274
35°	6411	6126	3481	2350	2176
40°	4722	6472	3356	2255	2086
45°	3488	6385	3200	2171	1977
50°	2763	5795	3009	2081	1897
55°	2335	4838	2788	1953	1826
60°	2011	3952	2583	1832	1690
65°	1746	3189	2351	1682	1472
70°	1532	2423	2153	1523	1288
75°	1299	1766	1887	1346	1219
80°	1011	1277	1576	1183	1011
85°	889	938	1264	1003	921

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 45°  
 Vertical Angle: 45°  
 Luminance: 6385 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	50.8	3.6
10°-20°	150.3	10.7
20°-30°	239.8	17.1
30°-40°	291.1	20.7
40°-50°	262.3	18.7
50°-60°	201.7	14.4
60°-70°	130.9	9.3
70°-80°	63.0	4.5
80°-90°	14.9	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°	440.9	31.4
0°-40°	732.0	52.1
0°-60°	1196.1	85.1
0°-90°	1404.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1404.9	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	528	528	528	528	528	
5°	604	574	527	480	468	60
15°	728	668	504	401	376	209
25°	884	681	461	330	306	404
35°	739	706	401	271	251	452
45°	347	635	318	216	197	276
55°	188	390	225	158	147	171
65°	104	190	140	100	88	104
75°	47	64	69	49	44	51
85°	11	12	16	12	11	12
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°	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9
2.5°	558.4	560.5	558.9	559.9	558.2	557.4	555.3	552.2	549.0	546.1	545.9
5°	603.6	603.2	601.6	599.2	597.6	593.4	591.3	584.2	579.4	573.5	570.6
7.5°	646.8	645.7	643.2	640.1	638.6	633.2	627.3	618.3	610.8	601.6	594.6
10°	682.8	682.6	680.7	678.6	672.9	666.9	661.2	651.8	640.5	629.0	619.3
12.5°	709.1	708.1	705.8	702.2	697.6	693.4	685.9	677.3	663.5	651.8	638.6
15°	728.4	728.0	724.6	723.4	714.4	708.5	698.5	689.9	679.2	667.5	653.2
17.5°	753.9	754.8	751.8	744.7	736.6	727.6	713.3	699.3	684.4	670.8	659.3
20°	787.4	785.3	780.3	771.7	757.1	746.0	731.7	714.4	694.3	674.2	657.6
22.5°	832.2	829.9	822.0	811.5	793.1	772.8	751.0	725.0	702.0	679.0	657.2
25°	883.7	879.3	867.6	856.3	830.1	808.6	776.1	745.1	711.6	681.1	656.6
27.5°	911.7	911.7	906.3	894.0	873.2	841.4	808.3	767.1	728.4	686.5	651.8
30°	909.2	907.8	909.9	904.6	891.2	867.4	834.5	791.2	741.8	693.9	652.2
32.5°	844.3	845.0	857.5	866.1	872.8	867.0	845.6	806.5	757.3	701.0	650.5
35°	738.9	740.5	762.7	777.4	807.3	824.5	829.5	808.3	764.2	706.0	647.6
37.5°	618.3	618.3	644.0	666.2	699.7	742.0	773.6	781.6	760.0	705.8	645.1
40°	509.0	508.4	528.7	555.9	591.7	638.4	685.5	725.9	731.1	697.6	636.3
42.5°	416.5	415.5	437.7	452.7	490.4	532.1	594.6	651.8	684.4	672.3	623.3
45°	347.0	346.2	360.6	377.8	404.4	447.7	500.2	563.7	618.5	635.2	599.0
47.5°	294.7	295.1	302.9	317.3	339.9	370.9	418.0	476.8	544.6	583.3	568.5
50°	249.9	251.4	257.2	268.1	284.7	309.6	350.0	403.1	472.8	524.1	527.2
52.5°	216.4	218.5	224.8	230.7	244.5	262.1	293.4	339.5	397.1	458.6	480.6
55°	188.4	189.4	193.0	199.3	209.5	224.2	247.0	282.1	335.5	390.4	429.1
57.5°	164.9	164.9	167.2	171.6	179.8	193.0	208.3	237.4	282.4	332.0	373.2
60°	141.5	142.3	144.0	148.8	154.3	164.3	179.2	197.6	236.5	278.0	322.3
62.5°	121.8	123.3	125.0	127.3	132.3	139.4	149.9	166.8	193.0	231.3	270.8
65°	103.8	105.3	105.5	108.2	111.6	117.4	125.4	137.7	159.5	189.6	222.3
67.5°	87.9	88.5	89.2	91.3	94.4	98.2	103.4	112.6	129.8	150.1	181.9
70°	73.7	74.1	74.3	76.6	78.1	81.4	84.1	90.0	100.9	116.6	141.3
72.5°	60.3	59.7	59.4	61.3	62.0	64.7	68.0	72.2	78.1	89.2	107.6
75°	47.3	47.5	47.7	48.8	49.0	50.2	52.3	55.0	57.8	64.3	76.0
77.5°	36.4	35.6	35.6	36.8	37.3	37.5	38.9	40.4	41.9	45.6	50.2
80°	24.7	25.1	25.1	25.1	25.3	25.7	26.6	27.8	28.9	31.2	32.0
82.5°	17.6	17.6	17.4	17.8	18.0	18.2	18.2	18.2	18.8	19.5	20.3
85°	10.9	11.1	10.5	10.9	11.1	11.1	11.1	11.1	11.7	11.5	11.7
87.5°	4.6	4.8	4.8	5.0	5.0	5.2	5.0	5.2	5.0	5.0	5.2
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°	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9
2.5°	545.2	542.7	541.5	539.0	535.6	533.5	531.4	528.5	526.2	522.6	519.5
5°	565.3	560.3	555.7	549.4	543.4	538.1	532.7	526.6	521.2	515.1	508.6
7.5°	587.7	579.8	570.2	559.1	549.6	541.5	532.3	523.3	515.1	505.5	496.7
10°	609.3	596.5	583.8	568.9	555.1	542.9	530.6	518.0	507.4	495.4	484.5
12.5°	626.0	613.9	594.9	576.4	558.4	542.7	527.2	512.0	497.9	484.8	471.8
15°	640.7	620.6	604.5	584.4	562.4	541.1	521.8	504.0	487.1	471.6	458.4
17.5°	644.9	626.9	609.3	585.9	562.2	537.9	515.7	494.6	475.8	458.6	443.7
20°	644.5	626.2	607.2	584.8	559.7	533.1	508.4	484.8	463.4	443.7	427.8
22.5°	638.2	620.6	601.3	578.7	553.2	525.8	499.8	473.7	450.4	429.9	413.6
25°	631.5	609.3	589.2	566.4	542.1	516.8	489.2	460.9	436.6	415.3	396.8
27.5°	625.6	599.0	574.3	551.9	527.0	504.2	476.8	447.3	422.4	400.0	380.9
30°	616.2	588.2	558.2	533.7	509.7	485.8	460.7	433.9	406.7	383.9	364.8
32.5°	608.0	572.7	540.2	512.6	488.5	467.6	443.5	417.8	391.2	369.4	348.9
35°	599.0	556.8	522.9	490.4	466.3	443.5	424.5	401.2	374.9	351.8	333.4
37.5°	588.4	540.4	501.5	468.4	443.5	420.1	402.9	382.2	358.3	335.5	317.3
40°	576.4	523.7	478.9	444.8	418.0	394.5	380.1	361.7	341.4	318.8	301.8
42.5°	561.4	505.9	458.4	421.1	391.4	370.3	355.8	340.5	321.9	302.2	283.8
45°	542.3	483.7	433.9	394.5	365.2	344.7	329.7	318.4	303.5	285.1	267.7
47.5°	519.1	460.5	408.8	368.0	339.7	320.0	306.0	294.7	283.4	267.5	251.0
50°	488.3	433.9	384.3	342.6	312.7	293.7	281.1	272.1	261.8	248.9	233.8
52.5°	454.4	404.0	355.4	316.5	287.6	268.5	255.6	248.0	240.3	229.6	216.6
55°	415.1	374.0	327.8	289.7	261.4	242.6	232.3	225.0	218.5	210.4	199.5
57.5°	373.4	337.4	297.2	262.1	235.5	217.7	208.7	202.6	197.2	191.3	182.3
60°	329.7	304.1	266.0	233.8	210.6	195.9	187.3	181.7	176.7	171.8	165.1
62.5°	284.0	262.9	234.4	207.0	186.3	172.5	166.2	161.4	156.1	152.0	147.1
65°	237.8	225.6	206.0	180.2	161.2	149.9	143.8	139.8	137.3	132.5	128.7
67.5°	195.7	189.0	172.3	154.9	140.2	130.0	124.3	121.4	118.7	116.4	112.2
70°	155.7	150.9	141.3	128.9	117.4	108.6	104.4	103.6	99.8	97.5	95.4
72.5°	118.7	117.4	109.5	104.0	97.5	90.6	87.5	85.8	83.3	81.2	80.4
75°	84.4	86.2	83.7	81.0	77.9	72.2	69.5	68.7	66.4	65.7	64.7
77.5°	57.6	60.3	61.1	59.9	58.4	56.5	54.6	53.8	51.5	51.1	50.4
80°	36.2	40.2	41.7	41.4	40.8	41.0	38.7	38.5	37.5	36.8	37.5
82.5°	22.0	24.1	26.8	27.4	26.6	27.0	26.4	25.5	25.5	26.0	25.1
85°	11.9	12.1	13.4	14.2	15.3	16.1	15.3	15.5	15.3	15.3	14.7
87.5°	5.2	5.4	5.4	5.2	5.7	6.1	6.9	7.3	7.1	6.5	5.7
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):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9	527.9
2.5°	517.0	515.5	513.0	510.9	506.1	502.8	502.3	502.5	502.1	501.7	501.5
5°	504.4	499.6	495.0	491.0	485.6	480.2	477.6	476.6	476.2	473.9	475.1
7.5°	491.0	483.7	478.3	470.7	464.2	459.6	455.2	453.2	452.7	449.6	448.8
10°	476.8	468.0	459.8	452.3	445.8	439.3	434.1	432.2	429.7	427.2	423.4
12.5°	462.8	451.9	442.9	434.5	425.7	418.4	414.2	411.5	408.4	406.1	404.8
15°	446.0	436.8	425.7	416.7	407.7	401.2	395.6	390.6	387.6	385.8	380.5
17.5°	431.0	418.8	408.4	399.8	389.9	382.6	376.8	372.6	367.5	363.8	360.4
20°	414.8	402.3	392.7	382.4	372.4	363.4	356.0	352.7	349.1	345.6	343.7
22.5°	397.5	386.6	375.7	365.0	354.4	344.7	340.1	335.3	332.2	328.6	326.1
25°	382.4	370.5	359.6	347.7	335.9	330.3	324.0	319.2	316.7	313.1	310.4
27.5°	366.3	354.8	341.8	329.5	322.5	312.9	308.7	305.0	301.6	298.1	296.2
30°	351.2	337.8	324.8	315.2	306.2	299.3	295.3	290.7	286.1	284.4	281.9
32.5°	335.3	320.9	309.6	299.9	292.4	284.0	280.3	276.5	272.1	270.0	267.7
35°	318.8	304.8	293.7	284.9	277.1	270.8	266.7	262.7	260.0	256.8	255.1
37.5°	301.4	289.3	278.6	269.8	262.7	257.7	252.4	249.3	245.5	242.6	241.3
40°	284.9	274.0	263.7	255.6	249.1	243.0	238.4	234.4	232.1	229.6	227.5
42.5°	270.0	258.7	249.9	241.3	235.5	229.6	225.0	222.1	218.1	217.1	214.1
45°	254.1	243.6	234.8	226.9	220.8	216.0	210.6	207.0	204.5	202.0	200.9
47.5°	238.0	228.4	220.2	212.9	206.6	201.1	197.0	193.2	190.5	188.2	186.9
50°	222.3	213.9	205.7	198.6	192.1	188.2	183.1	179.0	176.9	174.4	172.9
52.5°	205.7	198.8	190.1	184.0	177.9	172.7	167.7	164.9	162.8	160.7	159.7
55°	190.3	182.9	175.4	168.9	163.1	157.6	153.6	151.5	148.8	147.6	147.4
57.5°	174.4	166.8	160.5	154.7	148.0	143.8	140.2	137.7	135.4	134.4	134.4
60°	157.0	150.9	145.1	138.6	133.7	128.9	125.2	123.5	121.2	120.8	119.3
62.5°	141.1	135.4	129.8	123.7	119.3	114.5	111.8	109.5	108.2	106.5	104.9
65°	124.5	119.5	114.1	108.8	105.3	100.0	97.5	94.8	93.4	91.5	89.4
67.5°	108.6	103.8	98.8	94.0	91.0	86.0	84.4	81.0	80.0	77.9	76.0
70°	91.9	88.5	84.6	79.7	77.2	73.3	71.6	68.4	66.8	65.5	64.5
72.5°	77.4	74.3	69.7	66.6	63.4	60.9	58.2	56.7	55.3	54.2	54.0
75°	63.2	59.2	56.5	53.6	51.5	49.0	47.7	46.7	46.0	45.4	44.8
77.5°	48.4	46.7	44.0	41.0	39.3	38.3	37.5	37.0	36.4	36.2	35.6
80°	36.0	33.7	32.0	31.0	29.7	28.9	28.3	26.8	26.0	25.5	25.1
82.5°	23.9	23.2	22.0	20.9	19.9	19.7	19.0	18.6	18.4	18.4	18.2
85°	14.4	12.8	12.8	12.6	12.6	12.3	11.9	11.9	11.5	12.1	12.1
87.5°	5.9	5.9	5.4	5.4	5.7	5.2	5.0	5.0	5.0	4.8	5.0
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: P243773

CATALOG NUMBER: S125RDRP-H375D835-X4F0-XX-UDD-A-W

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	527.9	527.9	527.9	527.9
2.5°	501.5	500.5	500.7	499.4
5°	472.8	472.2	470.1	468.4
7.5°	446.7	443.9	443.7	442.1
10°	422.2	419.7	418.4	418.6
12.5°	400.8	398.1	398.1	396.4
15°	378.0	375.3	375.7	375.5
17.5°	359.2	357.3	355.8	354.6
20°	340.8	338.5	337.6	336.6
22.5°	323.8	322.1	322.3	322.3
25°	307.7	307.9	306.0	305.6
27.5°	293.4	293.0	292.6	291.8
30°	280.1	278.4	278.0	277.1
32.5°	266.2	266.0	264.4	265.0
35°	252.2	251.6	251.2	250.8
37.5°	239.2	238.0	237.8	237.4
40°	226.1	225.6	223.8	224.8
42.5°	211.8	211.0	211.0	211.0
45°	199.9	197.6	197.6	196.7
47.5°	186.5	185.7	185.2	183.8
50°	173.3	172.1	171.6	171.6
52.5°	159.7	159.5	159.9	159.1
55°	147.8	148.0	147.8	147.4
57.5°	134.8	133.7	133.7	134.0
60°	119.3	119.3	119.7	118.9
62.5°	104.4	104.0	102.6	102.1
65°	89.2	87.5	87.3	87.5
67.5°	75.6	74.9	73.9	74.1
70°	63.8	63.6	62.6	62.0
72.5°	53.4	53.4	52.7	52.7
75°	44.6	44.2	44.0	44.4
77.5°	34.3	33.3	33.7	33.1
80°	24.9	25.3	24.9	24.7
82.5°	18.4	18.0	18.2	18.0
85°	11.7	11.3	11.5	11.3
87.5°	4.8	5.0	5.0	4.6
90°	0.0	0.0	0.0	0.0



TEST NUMBER: P243773  
 CATALOG NUMBER: S125RDRP-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	14.52	16.06	14.88	16.37	16.68	15.21	16.75	15.58	17.07	17.38
	3H	15.60	16.98	15.98	17.31	17.67	16.69	18.07	17.07	18.40	18.76
	4H	15.96	17.25	16.36	17.60	17.98	17.21	18.51	17.61	18.86	19.24
	6H	16.17	17.37	16.59	17.74	18.13	17.57	18.77	17.98	19.13	19.53
	8H	16.23	17.37	16.66	17.76	18.16	17.67	18.81	18.10	19.20	19.60
	12H	16.27	17.36	16.70	17.74	18.17	17.73	18.82	18.16	19.20	19.63
4H	2H	16.04	17.33	16.44	17.68	18.06	16.09	17.38	16.49	17.73	18.11
	3H	17.08	18.16	17.49	18.56	18.96	17.75	18.82	18.16	19.22	19.62
	4H	17.44	18.41	17.88	18.83	19.26	18.34	19.31	18.78	19.73	20.16
	6H	17.69	18.53	18.14	18.97	19.43	18.78	19.62	19.24	20.06	20.52
	8H	17.75	18.53	18.21	18.98	19.45	18.90	19.69	19.37	20.13	20.60
	12H	17.80	18.50	18.28	18.98	19.45	18.99	19.69	19.47	20.17	20.64
8H	4H	17.80	18.59	18.27	19.03	19.50	18.50	19.28	18.96	19.73	20.19
	6H	18.10	18.75	18.59	19.24	19.71	19.02	19.67	19.52	20.16	20.64
	8H	18.19	18.77	18.71	19.28	19.77	19.20	19.78	19.71	20.29	20.78
	12H	18.28	18.79	18.79	19.28	19.85	19.34	19.85	19.85	20.34	20.91
12H	4H	17.83	18.53	18.31	19.01	19.48	18.49	19.19	18.97	19.67	20.14
	6H	18.13	18.71	18.64	19.22	19.71	19.01	19.60	19.53	20.10	20.59
	8H	18.26	18.78	18.77	19.27	19.83	19.23	19.75	19.74	20.24	20.80