

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: NEO-RAY

Report Number: P832397

Luminaire Tested: S123RDIP-S775D585U850-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P832397  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S775D585U850-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 585 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

**Summary**

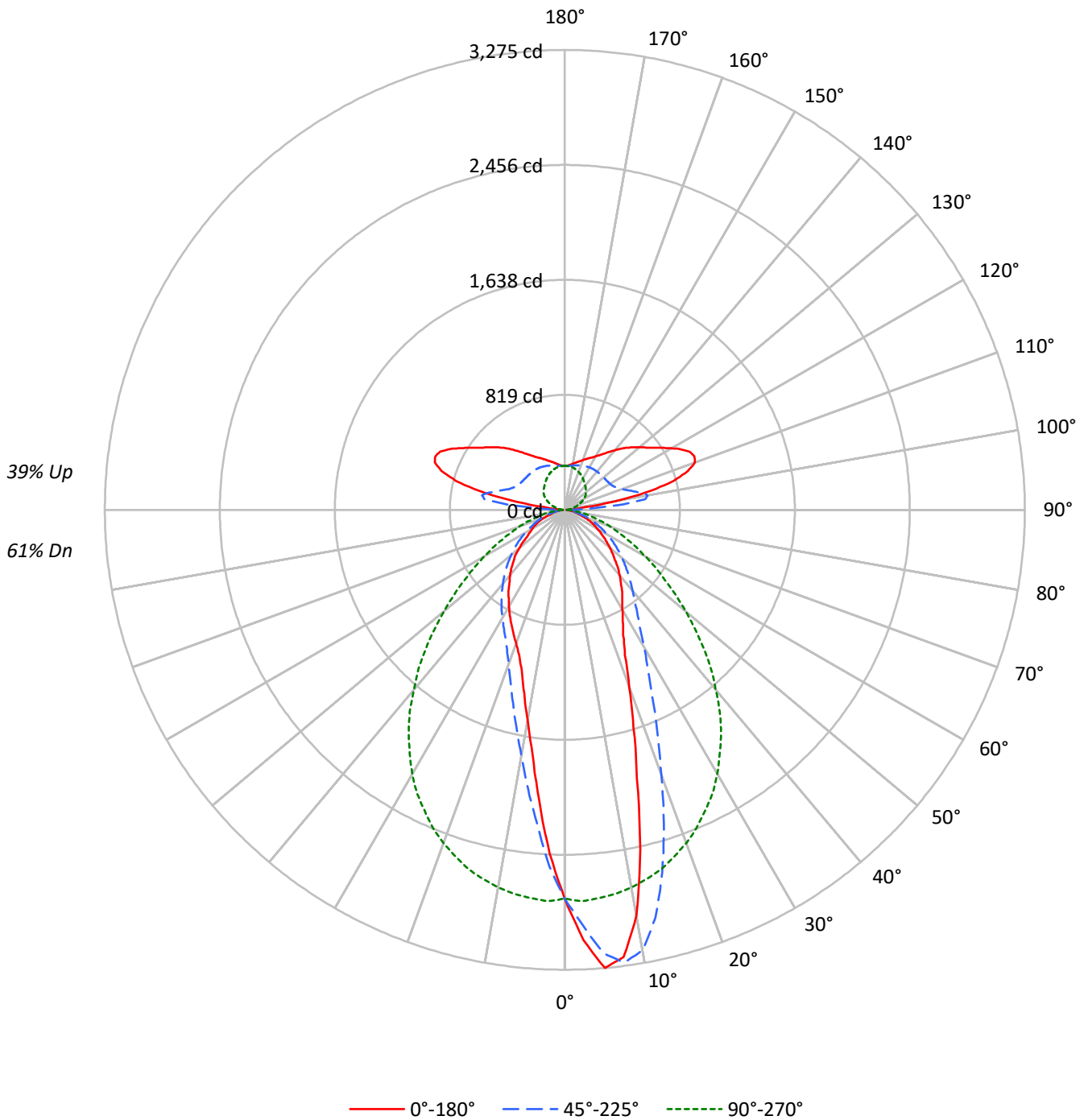
Lumens per Lamp: N/A  
Luminaire Lumens: 6023.0 lumens  
Efficiency: N/A  
Efficacy: 146.5 lumens/watt  
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: Semi-Direct

Input Watts (W): 41.1  
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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	66	66	66	61	
1	101	97	94	90	95	91	88	85	80	78	75	70	68	66	60	59	58	58	58	58	53	
2	93	86	80	76	87	81	76	72	71	67	64	62	60	57	54	52	50	50	50	50	46	
3	86	77	70	64	80	72	66	61	64	59	55	56	53	50	49	46	44	44	44	44	41	
4	79	69	61	56	74	65	58	53	58	52	48	51	47	44	45	42	39	39	39	39	36	
5	73	62	54	49	68	59	52	47	52	47	43	46	42	39	41	38	35	35	35	35	32	
6	68	56	49	43	63	53	46	41	48	42	38	42	38	35	38	34	31	31	31	31	29	
7	63	51	44	38	59	49	42	37	44	38	34	39	35	31	35	31	29	29	29	29	26	
8	59	47	40	35	55	45	38	33	40	35	31	36	32	28	32	29	26	26	26	26	24	
9	55	43	36	31	52	41	35	30	37	32	28	34	29	26	30	27	24	24	24	24	22	
10	52	40	33	29	49	38	32	28	35	30	26	31	27	24	28	25	22	22	22	22	20	

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

	0°	45°	90°	135°	180°
0°	29801	29801	29801	29801	29801
5°	35385	34256	29988	24242	22507
10°	32060	34796	29839	19423	16663
15°	22073	29834	29524	15875	13181
20°	15356	22969	28931	13386	11585
25°	11702	17506	28068	11898	10677
30°	10187	13996	26990	11047	9890
35°	9352	11807	25462	10330	9173
40°	8533	10543	23463	9627	8518
45°	7707	9642	21305	8960	7862
50°	6995	8895	18762	8308	7052
55°	6326	8169	16317	7668	6050
60°	5670	7429	14174	6964	5718
65°	5234	6592	12200	6260	5407
70°	4252	5700	10647	5662	4393
75°	3730	4533	9016	4695	3872
80°	3378	3837	7389	3942	3657
85°	3088	3359	5607	3569	3359

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 22481 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	252.4	4.2
10°-20°	583.9	9.7
20°-30°	670.0	11.1
30°-40°	660.4	11.0
40°-50°	582.4	9.7
50°-60°	448.0	7.4
60°-70°	294.6	4.9
70°-80°	143.1	2.4
80°-90°	37.8	0.6
90°-100°	169.6	2.8
100°-110°	496.4	8.2
110°-120°	484.8	8.0
120°-130°	386.1	6.4
130°-140°	304.6	5.1
140°-150°	227.2	3.8
150°-160°	158.4	2.6
160°-170°	93.1	1.5
170°-180°	30.3	0.5
0°-30°	1506.3	25.0
0°-40°	2166.7	36.0
0°-60°	3197.1	53.1
0°-90°	3672.5	61.0
90°-120°	1150.8	19.1
90°-150°	2068.7	34.3
90°-180°	2350.0	39.0
0°-180°	6023.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2769	2769	2769	2769	2769	
5°	3275	3170	2775	2244	2083	299
15°	1981	2677	2649	1425	1183	559
25°	985	1474	2363	1002	899	465
35°	712	898	1938	786	698	444
45°	506	633	1400	589	516	393
55°	337	435	870	409	322	302
65°	206	259	479	246	212	201
75°	90	109	217	113	93	97
85°	25	27	45	29	27	27
90°	18	16	1	16	18	11
95°	73	375	22	375	73	119
105°	805	509	73	509	805	803
115°	978	389	130	389	978	954
125°	772	363	180	363	772	698
135°	626	358	211	358	626	485
145°	489	354	241	354	489	311
155°	406	342	274	342	406	189
165°	354	328	299	328	354	101
175°	318	314	312	314	318	31
180°	312	312	312	312	312	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	3068.3	3058.6	3049.0	3046.1	3043.3	3034.2	3025.1	3004.7	2984.3	2963.3	2942.3
5°	3274.9	3276.0	3277.1	3274.3	3271.5	3259.5	3247.6	3222.6	3197.7	3170.4	3143.2
7.5°	3211.3	3229.5	3247.6	3251.0	3254.4	3263.5	3272.6	3266.9	3261.2	3251.0	3240.8
10°	2933.2	2932.0	2930.9	2951.3	2971.8	3032.5	3093.2	3124.5	3155.7	3183.5	3211.3
12.5°	2479.1	2480.8	2482.5	2549.5	2616.5	2673.8	2731.1	2810.6	2890.0	2975.7	3061.5
15°	1980.8	2008.6	2036.4	2096.0	2155.6	2241.9	2328.2	2434.9	2541.6	2677.2	2812.9
17.5°	1626.6	1638.6	1650.5	1707.8	1765.1	1846.9	1928.6	2049.5	2170.4	2345.2	2520.0
20°	1340.6	1351.4	1362.2	1403.6	1445.0	1523.3	1601.7	1716.9	1832.1	2005.2	2178.3
22.5°	1119.2	1140.2	1161.2	1189.1	1216.9	1273.6	1330.4	1447.9	1565.3	1723.1	1880.9
25°	985.3	994.9	1004.6	1028.4	1052.3	1106.8	1161.2	1239.0	1316.8	1474.0	1631.2
27.5°	894.5	897.3	900.2	917.8	935.3	970.5	1005.7	1077.8	1149.9	1279.3	1408.7
30°	819.6	824.7	829.8	843.4	857.0	882.6	908.1	959.2	1010.3	1126.1	1241.8
32.5°	761.7	764.5	767.3	778.7	790.1	808.8	827.5	867.8	908.1	996.6	1085.2
35°	711.7	712.3	712.9	721.4	729.9	748.1	766.2	799.7	833.2	898.5	963.7
37.5°	655.0	658.9	662.9	669.2	675.4	691.3	707.2	734.4	761.7	815.6	869.5
40°	607.3	610.7	614.1	621.5	628.9	641.3	653.8	678.8	703.8	750.3	796.9
42.5°	559.6	561.9	564.2	571.5	578.9	594.2	609.6	629.4	649.3	687.9	726.5
45°	506.3	511.9	517.6	525.6	533.5	546.6	559.6	580.1	600.5	633.4	666.3
47.5°	462.0	464.8	467.7	474.5	481.3	497.2	513.1	531.2	549.4	580.1	610.7
50°	417.7	418.9	420.0	426.2	432.5	446.7	460.9	481.9	502.9	531.2	559.6
52.5°	375.7	378.6	381.4	387.6	393.9	403.5	413.2	434.8	456.3	484.1	511.9
55°	337.1	338.8	340.5	345.1	349.6	361.0	372.3	391.1	409.8	435.3	460.9
57.5°	300.8	303.1	305.4	308.8	312.2	322.4	332.6	349.1	365.5	391.1	416.6
60°	263.4	266.2	269.0	273.0	277.0	284.9	292.9	307.6	322.4	345.1	367.8
62.5°	236.1	236.7	237.2	240.6	244.1	249.7	255.4	267.3	279.2	301.9	324.6
65°	205.5	207.2	208.9	210.6	212.3	216.8	221.4	231.6	241.8	258.8	275.8
67.5°	173.7	175.4	177.1	179.9	182.8	186.7	190.7	197.5	204.3	220.2	236.1
70°	135.1	135.1	135.1	139.6	144.2	151.0	157.8	162.9	168.0	181.1	194.1
72.5°	110.1	110.7	111.2	111.8	112.4	116.4	120.3	128.8	137.4	145.3	153.2
75°	89.7	90.2	90.8	91.4	91.9	93.1	94.2	97.1	99.9	109.0	118.1
77.5°	71.5	72.1	72.6	73.2	73.8	74.9	76.1	77.2	78.3	81.7	85.1
80°	54.5	55.1	55.6	56.2	56.8	57.3	57.9	59.0	60.2	61.9	63.6
82.5°	39.7	39.7	39.7	39.7	39.7	40.9	42.0	42.0	42.0	43.1	44.3
85°	25.0	25.0	25.0	25.5	26.1	26.1	26.1	26.7	27.2	27.2	27.2
87.5°	11.4	10.8	10.2	10.8	11.4	11.4	11.4	11.9	12.5	12.5	12.5
90°	18.3	19.0	18.3	17.7	18.3	17.1	16.4	15.8	15.2	15.8	13.9
92.5°	33.5	34.8	34.2	36.7	38.0	42.4	48.7	62.6	87.9	117.7	130.3
95°	73.4	75.9	80.3	86.0	98.0	120.8	154.3	227.7	304.3	375.1	334.0
97.5°	150.5	157.5	172.7	196.7	239.1	311.2	394.7	523.1	596.5	576.9	430.8
100°	396.6	396.0	420.6	466.8	530.7	620.5	694.5	745.8	723.6	599.0	404.8
102.5°	628.1	646.5	666.1	700.2	746.4	795.1	830.5	819.8	730.0	557.9	366.9
105°	804.6	807.8	828.0	852.0	881.1	897.6	885.6	822.3	690.1	508.6	337.1
107.5°	919.7	926.7	934.9	946.3	950.1	933.0	883.7	784.4	633.2	464.9	315.6
110°	985.5	986.8	988.0	983.0	965.3	921.0	841.3	724.9	580.0	428.9	304.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	998.8	998.2	991.8	973.5	937.4	877.3	785.6	666.1	533.9	404.8	297.9
115°	978.5	975.4	962.7	934.9	887.5	818.5	725.5	615.5	498.4	389.0	297.3
117.5°	934.3	929.8	910.9	879.9	830.5	759.1	673.7	576.2	475.0	378.3	297.9
120°	876.1	872.3	857.1	821.7	771.7	707.8	631.9	546.5	457.3	371.3	300.5
122.5°	821.7	816.6	799.5	768.5	725.5	667.3	598.4	523.1	442.8	366.9	304.9
125°	771.7	767.3	751.5	723.6	683.1	632.5	571.8	502.9	430.8	363.1	309.3
127.5°	728.7	724.9	710.3	686.3	649.6	602.8	547.2	484.5	419.4	361.2	314.4
130°	693.3	688.2	674.9	652.2	618.6	575.6	524.4	467.5	410.5	359.3	319.4
132.5°	658.5	655.3	643.9	621.2	590.2	549.7	502.9	451.6	402.3	358.7	323.2
135°	625.6	621.2	609.8	590.8	559.8	523.7	482.6	437.7	395.3	358.0	327.0
137.5°	590.8	587.0	577.5	557.9	531.3	499.1	462.4	424.4	389.0	356.8	329.6
140°	554.1	554.7	544.6	526.9	502.9	475.7	445.3	413.1	383.3	356.1	332.1
142.5°	520.0	520.6	511.7	496.5	476.9	454.2	428.9	402.3	378.3	354.9	334.0
145°	489.0	487.7	482.6	469.3	453.5	435.2	414.9	394.1	373.8	353.6	334.6
147.5°	462.4	461.8	456.7	447.2	434.6	421.3	404.2	387.1	369.4	351.7	334.6
150°	439.6	439.6	435.8	428.9	419.4	407.4	394.1	379.5	365.0	349.2	334.6
152.5°	420.6	420.6	418.7	412.4	405.5	396.0	384.6	372.6	359.9	346.0	332.7
155°	405.5	404.8	403.6	398.5	392.8	385.2	375.7	365.6	354.9	342.2	331.5
157.5°	390.9	390.9	389.6	385.9	380.8	374.5	366.9	358.0	349.2	339.0	329.6
160°	377.0	377.6	377.6	373.8	369.4	365.0	358.7	351.7	343.5	335.2	328.3
162.5°	364.3	365.0	365.0	361.8	359.3	355.5	349.8	344.1	337.8	331.5	325.8
165°	353.6	353.6	354.2	351.7	349.2	346.0	341.6	337.8	332.7	327.7	323.2
167.5°	342.8	342.8	343.5	341.6	340.3	337.8	335.2	332.1	327.7	323.9	320.7
170°	333.4	333.4	334.0	332.7	332.1	330.8	328.3	326.4	323.2	320.1	318.2
172.5°	324.5	325.1	326.4	325.1	325.1	324.5	322.6	321.3	318.8	316.9	316.3
175°	318.2	318.8	319.4	318.8	318.8	318.8	317.5	316.9	315.6	314.4	314.4
177.5°	313.7	313.7	315.0	314.4	315.0	315.0	314.4	313.7	313.1	312.5	313.1
180°	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	2939.4	2936.6	2909.3	2882.1	2855.4	2828.7	2808.9	2789.0	2755.5	2722.0	2701.0
5°	3121.6	3100.0	3056.9	3013.8	2949.1	2884.4	2829.9	2775.4	2706.2	2636.9	2579.0
7.5°	3223.2	3205.6	3153.4	3101.2	3015.5	2929.8	2844.6	2759.5	2657.3	2555.2	2467.8
10°	3226.0	3240.8	3197.7	3154.5	3058.0	2961.6	2845.8	2730.0	2592.6	2455.3	2342.3
12.5°	3125.0	3188.6	3179.5	3170.4	3072.2	2974.0	2833.3	2692.5	2524.0	2355.4	2214.1
15°	2936.0	3059.2	3095.5	3131.8	3050.7	2969.5	2809.5	2649.4	2451.3	2253.2	2090.9
17.5°	2692.5	2865.1	2961.0	3056.9	2997.9	2938.9	2763.5	2588.1	2365.0	2142.0	1965.5
20°	2404.2	2630.1	2780.5	2930.9	2909.3	2887.8	2706.7	2525.7	2285.0	2044.4	1853.1
22.5°	2119.3	2357.7	2565.4	2773.1	2795.3	2817.4	2634.6	2451.9	2188.5	1925.2	1730.5
25°	1873.5	2115.9	2363.3	2610.8	2660.8	2710.7	2537.0	2363.3	2090.3	1817.3	1623.8
27.5°	1639.1	1869.6	2142.0	2414.4	2505.2	2596.0	2437.1	2278.2	1993.9	1709.5	1516.5
30°	1447.9	1653.9	1932.0	2210.1	2336.7	2463.2	2317.4	2171.5	1889.4	1607.3	1418.3
32.5°	1269.6	1454.1	1733.3	2012.6	2159.6	2306.6	2180.6	2054.6	1783.3	1512.0	1325.3
35°	1128.9	1294.1	1554.6	1815.1	1979.7	2144.3	2041.0	1937.7	1672.6	1407.6	1231.1
37.5°	1008.0	1146.5	1391.1	1635.7	1810.5	1985.3	1899.1	1812.8	1563.6	1314.5	1147.6
40°	908.1	1019.3	1246.9	1474.5	1645.9	1817.3	1743.6	1669.8	1446.7	1223.7	1067.6
42.5°	822.4	918.3	1122.6	1327.0	1484.2	1641.4	1592.6	1543.8	1341.7	1139.7	994.9
45°	746.9	827.5	1007.4	1187.3	1332.1	1476.8	1438.2	1399.6	1225.4	1051.1	918.3
47.5°	679.9	749.2	909.8	1070.4	1200.4	1330.4	1294.6	1258.9	1114.7	970.5	849.6
50°	618.6	677.7	811.6	945.6	1062.5	1179.4	1149.9	1120.4	1001.2	882.0	777.6
52.5°	560.8	609.6	729.9	850.2	944.4	1038.6	1015.9	993.2	901.3	809.3	714.6
55°	505.7	550.5	652.1	753.7	834.3	914.9	892.2	869.5	798.0	726.5	643.1
57.5°	455.8	494.9	577.2	659.5	723.6	787.8	777.0	766.2	706.6	647.0	578.3
60°	403.0	438.2	509.1	580.1	631.7	683.3	670.9	658.4	615.8	573.2	514.2
62.5°	355.9	387.1	443.8	500.6	542.6	584.6	575.5	566.4	534.1	501.7	452.9
65°	306.5	337.1	383.1	429.1	462.0	494.9	487.0	479.0	454.6	430.2	391.1
67.5°	261.6	287.2	326.9	366.6	388.8	410.9	406.4	401.8	383.1	364.4	333.7
70°	216.2	238.4	271.3	304.2	319.5	334.9	336.6	338.3	321.2	304.2	281.5
72.5°	170.8	188.4	219.1	249.7	261.6	273.6	273.0	272.4	262.2	252.0	231.6
75°	131.1	144.2	168.0	191.8	202.1	212.3	214.5	216.8	207.2	197.5	186.2
77.5°	94.2	103.3	121.5	139.6	151.0	162.3	163.5	164.6	160.1	155.5	144.7
80°	66.4	69.2	80.6	91.9	103.9	115.8	117.5	119.2	114.6	110.1	103.3
82.5°	46.0	47.7	51.6	55.6	65.3	74.9	77.2	79.5	77.2	74.9	67.5
85°	27.8	28.4	30.1	31.8	36.3	40.9	43.1	45.4	44.3	43.1	39.2
87.5°	12.5	12.5	13.1	13.6	14.8	15.9	18.7	21.6	19.9	18.2	16.5
90°	12.0	10.1	8.2	7.0	5.7	3.8	2.5	1.3	2.5	3.8	5.7
92.5°	97.4	63.9	43.6	32.3	25.9	20.2	13.9	9.5	13.9	20.2	25.9
95°	230.2	136.0	82.2	57.6	41.1	30.4	23.4	21.5	23.4	30.4	41.1
97.5°	256.2	146.8	93.6	66.4	50.0	40.5	34.8	34.2	34.8	40.5	50.0
100°	238.5	144.9	100.6	75.9	60.7	51.9	47.4	46.8	47.4	51.9	60.7
102.5°	223.3	147.4	108.8	86.7	73.4	65.2	61.4	60.1	61.4	65.2	73.4
105°	217.6	152.4	118.3	98.7	86.7	79.1	75.3	73.4	75.3	79.1	86.7
107.5°	216.3	160.7	130.3	112.0	100.6	93.0	89.2	87.3	89.2	93.0	100.6
110°	219.5	171.4	143.0	125.2	114.5	107.5	104.4	102.5	104.4	107.5	114.5





TEST NUMBER: P832397

CATALOG NUMBER: S123RDIP-S775D585U850-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	225.8	182.2	156.2	139.2	128.4	121.4	118.3	116.4	118.3	121.4	128.4
115°	232.8	194.2	170.2	153.1	142.3	136.0	132.2	129.7	132.2	136.0	142.3
117.5°	241.6	206.8	182.8	167.0	155.0	149.3	146.1	143.0	146.1	149.3	155.0
120°	251.8	218.9	196.1	180.3	168.3	161.9	158.8	156.9	158.8	161.9	168.3
122.5°	261.2	231.5	209.4	192.3	180.9	173.9	170.8	168.9	170.8	173.9	180.9
125°	271.4	243.5	221.4	204.3	192.3	185.3	181.5	180.3	181.5	185.3	192.3
127.5°	279.6	254.3	232.8	215.7	202.4	195.5	191.0	189.1	191.0	195.5	202.4
130°	287.8	263.8	242.9	225.8	212.5	204.9	199.3	197.4	199.3	204.9	212.5
132.5°	295.4	272.0	251.8	235.3	222.0	212.5	206.2	203.7	206.2	212.5	222.0
135°	301.7	280.2	260.6	243.5	230.2	220.8	213.8	211.3	213.8	220.8	230.2
137.5°	306.8	285.9	266.9	251.1	237.8	227.7	220.8	218.2	220.8	227.7	237.8
140°	310.6	291.6	273.3	257.4	244.8	234.7	228.3	225.2	228.3	234.7	244.8
142.5°	314.4	296.0	278.3	263.8	251.1	242.3	235.3	232.8	235.3	242.3	251.1
145°	316.9	299.8	283.4	268.8	258.1	248.6	242.9	241.0	242.9	248.6	258.1
147.5°	318.8	303.0	287.8	275.2	264.4	256.2	250.5	249.2	250.5	256.2	264.4
150°	319.4	306.2	291.6	280.2	271.4	263.1	258.1	257.4	258.1	263.1	271.4
152.5°	320.7	308.0	296.0	285.3	277.7	270.7	265.7	265.7	265.7	270.7	277.7
155°	320.7	310.6	299.8	291.0	284.0	277.7	273.9	273.9	273.9	277.7	284.0
157.5°	321.3	311.8	303.0	296.0	289.7	284.0	280.8	280.2	280.8	284.0	289.7
160°	321.3	313.7	306.2	299.8	295.4	290.3	287.8	287.8	287.8	290.3	295.4
162.5°	320.7	314.4	308.0	303.0	299.2	295.4	293.5	293.5	293.5	295.4	299.2
165°	319.4	315.0	309.9	305.5	303.0	299.8	298.6	299.2	298.6	299.8	303.0
167.5°	318.8	315.0	311.2	308.0	306.2	303.6	303.0	303.6	303.0	303.6	306.2
170°	316.9	314.4	311.2	309.9	308.7	306.8	306.2	307.4	306.2	306.8	308.7
172.5°	316.3	314.4	311.8	311.2	310.6	309.3	309.3	309.9	309.3	309.3	310.6
175°	315.0	313.7	312.5	311.8	311.8	310.6	311.2	311.8	311.2	310.6	311.8
177.5°	314.4	313.1	312.5	312.5	312.5	311.8	312.5	313.1	312.5	311.8	312.5
180°	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5



TEST NUMBER: P832397

CATALOG NUMBER: S123RDIP-S775D585U850-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	2680.0	2647.7	2615.3	2592.1	2568.8	2539.9	2510.9	2509.8	2508.6	2487.1	2465.5
5°	2521.1	2464.9	2408.8	2353.7	2298.6	2243.6	2188.5	2176.0	2163.6	2144.8	2126.1
7.5°	2380.4	2290.7	2201.0	2130.6	2060.3	2005.2	1950.2	1912.7	1875.2	1846.3	1817.3
10°	2229.4	2118.2	2006.9	1921.8	1836.6	1777.0	1717.5	1674.3	1631.2	1610.8	1590.3
12.5°	2072.8	1951.9	1831.0	1747.5	1664.1	1592.6	1521.1	1481.9	1442.8	1414.4	1386.0
15°	1928.6	1798.6	1668.6	1580.1	1491.6	1424.6	1357.6	1318.5	1279.3	1250.9	1222.5
17.5°	1789.0	1657.9	1526.8	1437.1	1347.4	1286.7	1225.9	1187.9	1149.9	1132.3	1114.7
20°	1661.8	1529.6	1397.3	1312.8	1228.2	1168.6	1109.0	1088.6	1068.2	1051.7	1035.2
22.5°	1535.8	1408.7	1281.6	1200.4	1119.2	1076.1	1033.0	1016.5	1000.1	987.6	975.1
25°	1430.3	1303.7	1177.1	1106.2	1035.2	1001.8	968.3	957.5	946.7	934.2	921.7
27.5°	1323.6	1203.2	1082.9	1026.2	969.4	942.2	914.9	901.3	887.7	877.5	867.2
30°	1229.3	1118.1	1006.9	959.8	912.6	888.8	865.0	850.2	835.5	825.8	816.2
32.5°	1138.5	1039.8	941.0	900.7	860.4	837.2	813.9	799.7	785.5	774.2	762.8
35°	1054.5	968.8	883.1	846.2	809.3	786.1	762.8	748.6	734.4	723.1	711.7
37.5°	980.8	903.0	825.2	790.6	756.0	735.6	715.1	700.4	685.6	673.7	661.8
40°	911.5	842.8	774.2	740.7	707.2	685.1	662.9	649.9	636.8	626.0	615.2
42.5°	850.2	787.2	724.2	691.3	658.4	637.4	616.4	601.1	585.7	579.5	573.2
45°	785.5	729.9	674.3	642.5	610.7	588.6	566.4	553.4	540.3	534.6	529.0
47.5°	728.8	677.1	625.5	594.2	563.0	543.2	523.3	513.1	502.9	494.9	487.0
50°	673.1	623.2	573.2	543.2	513.1	496.1	479.0	466.5	454.1	448.4	442.7
52.5°	619.8	574.4	529.0	498.3	467.7	451.2	434.8	424.0	413.2	401.3	389.4
55°	559.6	519.9	480.2	452.9	425.7	408.6	391.6	379.1	366.6	354.2	341.7
57.5°	509.7	470.5	431.4	406.9	382.5	366.1	349.6	336.0	322.4	312.2	301.9
60°	455.2	421.1	387.1	363.2	339.4	323.5	307.6	294.6	281.5	276.4	271.3
62.5°	404.1	372.3	340.5	319.5	298.5	283.2	267.9	259.4	250.9	247.5	244.1
65°	351.9	324.6	297.4	278.1	258.8	245.8	232.7	228.7	224.8	221.9	219.1
67.5°	303.1	279.8	256.5	239.5	222.5	213.4	204.3	199.8	195.2	191.8	188.4
70°	258.8	238.4	217.9	203.2	188.4	179.9	171.4	167.4	163.5	157.2	151.0
72.5°	211.1	195.2	179.4	168.0	156.6	149.3	141.9	133.9	126.0	120.3	114.6
75°	174.8	158.9	143.0	132.2	121.5	112.9	104.4	101.6	98.8	97.1	95.4
77.5°	133.9	120.3	106.7	98.2	89.7	85.7	81.7	80.0	78.3	77.8	77.2
80°	96.5	85.1	73.8	69.2	64.7	63.6	62.4	61.3	60.2	59.6	59.0
82.5°	60.2	54.5	48.8	47.7	46.5	46.0	45.4	44.8	44.3	43.7	43.1
85°	35.2	32.9	30.6	30.1	29.5	28.9	28.4	28.4	28.4	28.4	28.4
87.5°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.2	13.6
90°	7.0	8.2	10.1	12.0	13.9	15.8	15.2	15.8	16.4	17.1	18.3
92.5°	32.3	43.6	63.9	97.4	130.3	117.7	87.9	62.6	48.7	42.4	38.0
95°	57.6	82.2	136.0	230.2	334.0	375.1	304.3	227.7	154.3	120.8	98.0
97.5°	66.4	93.6	146.8	256.2	430.8	576.9	596.5	523.1	394.7	311.2	239.1
100°	75.9	100.6	144.9	238.5	404.8	599.0	723.6	745.8	694.5	620.5	530.7
102.5°	86.7	108.8	147.4	223.3	366.9	557.9	730.0	819.8	830.5	795.1	746.4
105°	98.7	118.3	152.4	217.6	337.1	508.6	690.1	822.3	885.6	897.6	881.1
107.5°	112.0	130.3	160.7	216.3	315.6	464.9	633.2	784.4	883.7	933.0	950.1
110°	125.2	143.0	171.4	219.5	304.3	428.9	580.0	724.9	841.3	921.0	965.3



TEST NUMBER: P832397

CATALOG NUMBER: S123RDIP-S775D585U850-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	139.2	156.2	182.2	225.8	297.9	404.8	533.9	666.1	785.6	877.3	937.4
115°	153.1	170.2	194.2	232.8	297.3	389.0	498.4	615.5	725.5	818.5	887.5
117.5°	167.0	182.8	206.8	241.6	297.9	378.3	475.0	576.2	673.7	759.1	830.5
120°	180.3	196.1	218.9	251.8	300.5	371.3	457.3	546.5	631.9	707.8	771.7
122.5°	192.3	209.4	231.5	261.2	304.9	366.9	442.8	523.1	598.4	667.3	725.5
125°	204.3	221.4	243.5	271.4	309.3	363.1	430.8	502.9	571.8	632.5	683.1
127.5°	215.7	232.8	254.3	279.6	314.4	361.2	419.4	484.5	547.2	602.8	649.6
130°	225.8	242.9	263.8	287.8	319.4	359.3	410.5	467.5	524.4	575.6	618.6
132.5°	235.3	251.8	272.0	295.4	323.2	358.7	402.3	451.6	502.9	549.7	590.2
135°	243.5	260.6	280.2	301.7	327.0	358.0	395.3	437.7	482.6	523.7	559.8
137.5°	251.1	266.9	285.9	306.8	329.6	356.8	389.0	424.4	462.4	499.1	531.3
140°	257.4	273.3	291.6	310.6	332.1	356.1	383.3	413.1	445.3	475.7	502.9
142.5°	263.8	278.3	296.0	314.4	334.0	354.9	378.3	402.3	428.9	454.2	476.9
145°	268.8	283.4	299.8	316.9	334.6	353.6	373.8	394.1	414.9	435.2	453.5
147.5°	275.2	287.8	303.0	318.8	334.6	351.7	369.4	387.1	404.2	421.3	434.6
150°	280.2	291.6	306.2	319.4	334.6	349.2	365.0	379.5	394.1	407.4	419.4
152.5°	285.3	296.0	308.0	320.7	332.7	346.0	359.9	372.6	384.6	396.0	405.5
155°	291.0	299.8	310.6	320.7	331.5	342.2	354.9	365.6	375.7	385.2	392.8
157.5°	296.0	303.0	311.8	321.3	329.6	339.0	349.2	358.0	366.9	374.5	380.8
160°	299.8	306.2	313.7	321.3	328.3	335.2	343.5	351.7	358.7	365.0	369.4
162.5°	303.0	308.0	314.4	320.7	325.8	331.5	337.8	344.1	349.8	355.5	359.3
165°	305.5	309.9	315.0	319.4	323.2	327.7	332.7	337.8	341.6	346.0	349.2
167.5°	308.0	311.2	315.0	318.8	320.7	323.9	327.7	332.1	335.2	337.8	340.3
170°	309.9	311.2	314.4	316.9	318.2	320.1	323.2	326.4	328.3	330.8	332.1
172.5°	311.2	311.8	314.4	316.3	316.3	316.9	318.8	321.3	322.6	324.5	325.1
175°	311.8	312.5	313.7	315.0	314.4	314.4	315.6	316.9	317.5	318.8	318.8
177.5°	312.5	312.5	313.1	314.4	313.1	312.5	313.1	313.7	314.4	315.0	315.0
180°	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5	312.5



TEST NUMBER: P832397

CATALOG NUMBER: S123RDIP-S775D585U850-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2768.6	2768.6	2768.6	2768.6
2.5°	2459.8	2454.2	2451.9	2449.6
5°	2108.5	2090.9	2086.9	2083.0
7.5°	1810.0	1802.6	1778.2	1753.8
10°	1567.6	1544.9	1534.7	1524.5
12.5°	1365.0	1344.0	1340.6	1337.2
15°	1207.8	1193.0	1187.9	1182.8
17.5°	1104.5	1094.3	1088.0	1081.8
20°	1027.9	1020.5	1015.9	1011.4
22.5°	969.4	963.7	960.3	956.9
25°	913.2	904.7	901.9	899.0
27.5°	859.9	852.5	849.6	846.8
30°	809.9	803.7	799.7	795.7
32.5°	755.4	748.1	745.8	743.5
35°	707.2	702.6	700.4	698.1
37.5°	656.1	650.4	647.0	643.6
40°	612.4	609.6	607.9	606.2
42.5°	568.1	563.0	562.5	561.9
45°	523.9	518.8	517.6	516.5
47.5°	482.4	477.9	477.3	476.8
50°	436.5	430.2	425.7	421.1
52.5°	383.7	378.0	374.0	370.1
55°	335.4	329.2	325.8	322.4
57.5°	299.1	296.3	294.6	292.9
60°	269.6	267.9	266.8	265.6
62.5°	242.4	240.6	240.6	240.6
65°	217.4	215.7	214.0	212.3
67.5°	185.0	181.6	181.1	180.5
70°	145.9	140.8	140.2	139.6
72.5°	114.1	113.5	112.4	111.2
75°	94.2	93.1	93.1	93.1
77.5°	76.1	74.9	74.9	74.9
80°	58.5	57.9	58.5	59.0
82.5°	43.1	43.1	42.6	42.0
85°	27.8	27.2	27.2	27.2
87.5°	13.6	13.6	13.6	13.6
90°	17.7	18.3	19.0	18.3
92.5°	36.7	34.2	34.8	33.5
95°	86.0	80.3	75.9	73.4
97.5°	196.7	172.7	157.5	150.5
100°	466.8	420.6	396.0	396.6
102.5°	700.2	666.1	646.5	628.1
105°	852.0	828.0	807.8	804.6
107.5°	946.3	934.9	926.7	919.7
110°	983.0	988.0	986.8	985.5



TEST NUMBER: P832397

CATALOG NUMBER: S123RDIP-S775D585U850-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	973.5	991.8	998.2	998.8
115°	934.9	962.7	975.4	978.5
117.5°	879.9	910.9	929.8	934.3
120°	821.7	857.1	872.3	876.1
122.5°	768.5	799.5	816.6	821.7
125°	723.6	751.5	767.3	771.7
127.5°	686.3	710.3	724.9	728.7
130°	652.2	674.9	688.2	693.3
132.5°	621.2	643.9	655.3	658.5
135°	590.8	609.8	621.2	625.6
137.5°	557.9	577.5	587.0	590.8
140°	526.9	544.6	554.7	554.1
142.5°	496.5	511.7	520.6	520.0
145°	469.3	482.6	487.7	489.0
147.5°	447.2	456.7	461.8	462.4
150°	428.9	435.8	439.6	439.6
152.5°	412.4	418.7	420.6	420.6
155°	398.5	403.6	404.8	405.5
157.5°	385.9	389.6	390.9	390.9
160°	373.8	377.6	377.6	377.0
162.5°	361.8	365.0	365.0	364.3
165°	351.7	354.2	353.6	353.6
167.5°	341.6	343.5	342.8	342.8
170°	332.7	334.0	333.4	333.4
172.5°	325.1	326.4	325.1	324.5
175°	318.8	319.4	318.8	318.2
177.5°	314.4	315.0	313.7	313.7
180°	312.5	312.5	312.5	312.5



TEST NUMBER: P832397

CATALOG NUMBER: S123RDIP-S775D585U850-4F0-1E-UDD-G4

**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	13.52	14.41	14.39	15.30	16.41	18.18	19.08	19.05	19.96	21.07
	3H	14.74	15.54	15.62	16.44	17.57	19.68	20.49	20.57	21.38	22.52
	4H	15.13	15.88	16.03	16.78	17.93	20.18	20.93	21.07	21.83	22.98
	6H	15.41	16.11	16.32	17.01	18.17	20.49	21.19	21.40	22.09	23.25
	8H	15.50	16.16	16.42	17.08	18.24	20.57	21.24	21.49	22.16	23.31
	12H	15.55	16.19	16.48	17.10	18.28	20.61	21.24	21.53	22.15	23.33
4H	2H	14.25	15.00	15.15	15.90	17.05	18.18	18.94	19.09	19.84	20.98
	3H	15.62	16.25	16.53	17.18	18.34	19.85	20.48	20.76	21.40	22.57
	4H	16.08	16.65	17.00	17.58	18.76	20.46	21.03	21.38	21.95	23.14
	6H	16.45	16.94	17.39	17.89	19.08	20.90	21.39	21.83	22.34	23.53
	8H	16.58	17.04	17.52	17.98	19.18	21.03	21.49	21.97	22.43	23.63
	12H	16.66	17.07	17.61	18.03	19.24	21.09	21.51	22.05	22.47	23.67
8H	4H	16.40	16.86	17.34	17.80	19.00	20.43	20.89	21.37	21.83	23.03
	6H	16.87	17.24	17.83	18.23	19.43	20.93	21.30	21.89	22.29	23.49
	8H	17.06	17.39	18.03	18.37	19.58	21.11	21.45	22.09	22.42	23.64
	12H	17.20	17.49	18.18	18.46	19.73	21.23	21.52	22.21	22.49	23.76
12H	4H	16.41	16.83	17.37	17.79	18.99	20.38	20.79	21.34	21.75	22.96
	6H	16.92	17.26	17.90	18.23	19.45	20.90	21.24	21.88	22.21	23.43
	8H	17.15	17.44	18.12	18.41	19.67	21.10	21.39	22.07	22.36	23.62