

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: P832394

Luminaire Tested: S123RDIP-S775D585U840-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P832394  
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-S775D585U840-4F0-1E-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**

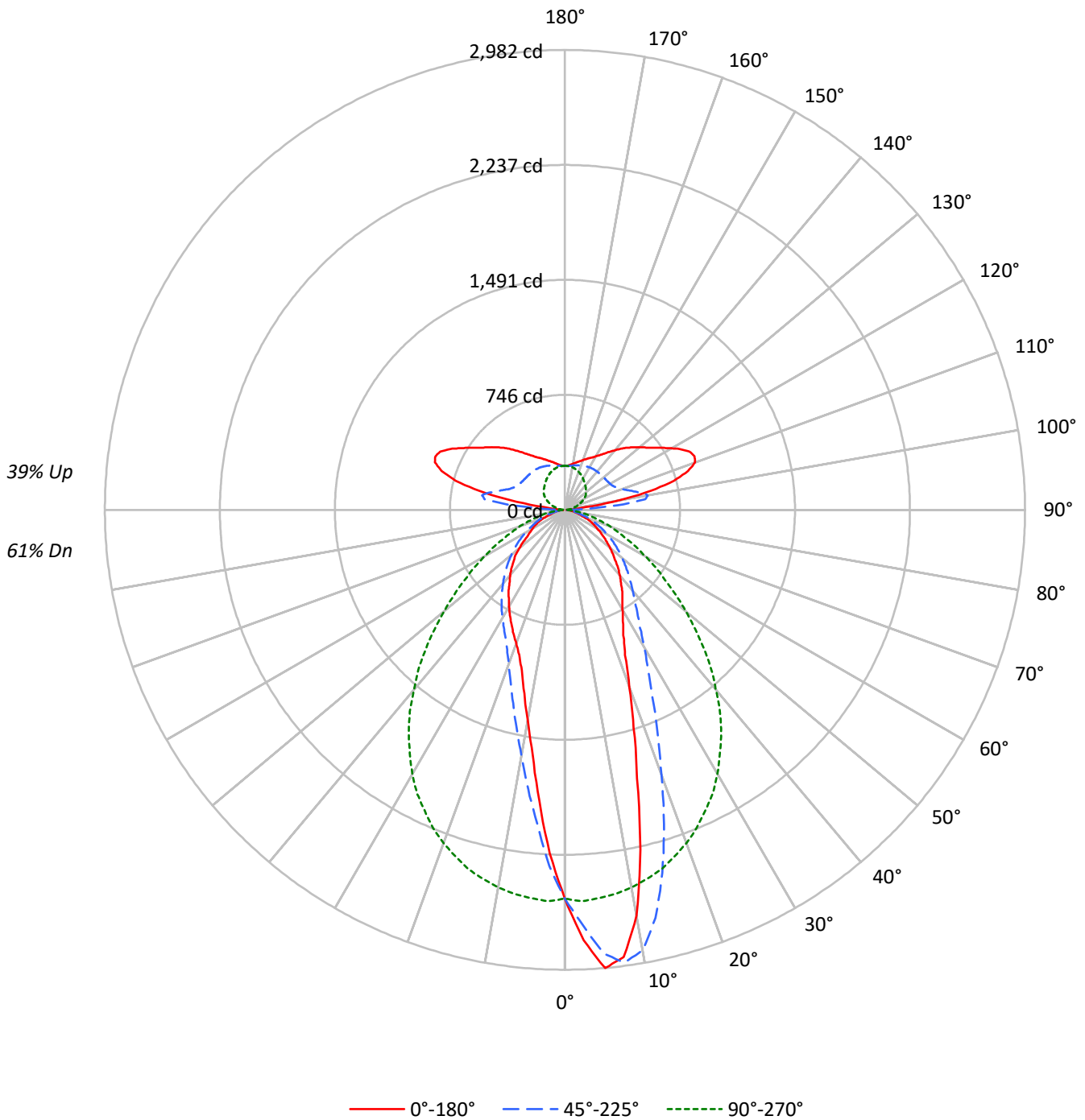
Lumens per Lamp: N/A  
Luminaire Lumens: 5484.6 lumens  
Efficiency: N/A  
Efficacy: 133.4 lumens/watt  
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: Semi-Direct

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

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

	0°	45°	90°	135°	180°
0°	27137	27137	27137	27137	27137
5°	32222	31194	27308	22075	20495
10°	29194	31685	27172	17687	15173
15°	20100	27167	26885	14456	12003
20°	13984	20916	26345	12190	10550
25°	10656	15941	25560	10834	9723
30°	9276	12745	24577	10060	9006
35°	8516	10750	23186	9406	8353
40°	7770	9601	21365	8765	7756
45°	7018	8780	19401	8159	7159
50°	6370	8102	17084	7564	6422
55°	5761	7439	14859	6983	5510
60°	5162	6764	12906	6342	5208
65°	4765	6003	11110	5700	4923
70°	3871	5190	9693	5155	4000
75°	3398	4126	8210	4275	3527
80°	3075	3490	6726	3589	3335
85°	2803	3063	5101	3260	3063

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 20471 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	229.8	4.2
10°-20°	531.7	9.7
20°-30°	610.1	11.1
30°-40°	601.4	11.0
40°-50°	530.3	9.7
50°-60°	408.0	7.4
60°-70°	268.2	4.9
70°-80°	130.3	2.4
80°-90°	34.4	0.6
90°-100°	154.4	2.8
100°-110°	452.1	8.2
110°-120°	441.4	8.0
120°-130°	351.6	6.4
130°-140°	277.4	5.1
140°-150°	206.9	3.8
150°-160°	144.3	2.6
160°-170°	84.8	1.5
170°-180°	27.6	0.5
0°-30°	1371.6	25.0
0°-40°	1973.0	36.0
0°-60°	2911.3	53.1
0°-90°	3344.2	61.0
90°-120°	1047.9	19.1
90°-150°	1883.8	34.3
90°-180°	2140.0	39.0
0°-180°	5484.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2521	2521	2521	2521	2521	
5°	2982	2887	2527	2043	1897	272
15°	1804	2438	2413	1297	1077	509
25°	897	1342	2152	912	819	424
35°	648	818	1764	716	636	404
45°	461	577	1274	536	470	358
55°	307	396	792	372	294	275
65°	187	236	436	224	193	183
75°	82	99	197	103	85	88
85°	23	25	41	26	25	24
90°	17	14	1	14	17	10
95°	67	342	20	342	67	109
105°	733	463	67	463	733	731
115°	891	354	118	354	891	869
125°	703	331	164	331	703	636
135°	570	326	192	326	570	442
145°	445	322	220	322	445	283
155°	369	312	249	312	369	172
165°	322	298	272	298	322	92
175°	290	286	284	286	290	28
180°	284	284	284	284	284	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1
2.5°	2794.0	2785.2	2776.4	2773.8	2771.2	2763.0	2754.7	2736.1	2717.5	2698.4	2679.3
5°	2982.1	2983.1	2984.2	2981.6	2979.0	2968.2	2957.3	2934.6	2911.8	2887.0	2862.2
7.5°	2924.2	2940.8	2957.3	2960.4	2963.5	2971.8	2980.0	2974.9	2969.7	2960.4	2951.1
10°	2671.0	2669.9	2668.9	2687.5	2706.1	2761.4	2816.7	2845.2	2873.6	2898.9	2924.2
12.5°	2257.5	2259.1	2260.6	2321.6	2382.6	2434.8	2487.0	2559.3	2631.7	2709.7	2787.8
15°	1803.7	1829.1	1854.4	1908.7	1962.9	2041.5	2120.0	2217.2	2314.4	2437.9	2561.4
17.5°	1481.2	1492.1	1502.9	1555.1	1607.3	1681.8	1756.2	1866.3	1976.4	2135.5	2294.7
20°	1220.8	1230.6	1240.4	1278.1	1315.9	1387.2	1458.5	1563.4	1668.3	1826.0	1983.6
22.5°	1019.2	1038.3	1057.4	1082.8	1108.1	1159.8	1211.5	1318.4	1425.4	1569.1	1712.8
25°	897.2	906.0	914.8	936.5	958.2	1007.8	1057.4	1128.2	1199.0	1342.2	1485.4
27.5°	814.5	817.1	819.7	835.7	851.7	883.8	915.8	981.5	1047.1	1164.9	1282.8
30°	746.3	751.0	755.6	768.0	780.4	803.7	826.9	873.4	920.0	1025.4	1130.8
32.5°	693.6	696.2	698.8	709.1	719.4	736.5	753.5	790.2	826.9	907.6	988.2
35°	648.1	648.6	649.1	656.9	664.6	681.2	697.7	728.2	758.7	818.1	877.6
37.5°	596.4	600.0	603.7	609.3	615.0	629.5	644.0	668.8	693.6	742.7	791.8
40°	553.0	556.1	559.2	565.9	572.6	584.0	595.4	618.1	640.9	683.3	725.6
42.5°	509.6	511.7	513.7	520.4	527.2	541.1	555.1	573.2	591.3	626.4	661.5
45°	461.0	466.2	471.3	478.6	485.8	497.7	509.6	528.2	546.8	576.8	606.8
47.5°	420.7	423.3	425.9	432.1	438.3	452.7	467.2	483.8	500.3	528.2	556.1
50°	380.4	381.4	382.5	388.1	393.8	406.7	419.7	438.8	457.9	483.8	509.6
52.5°	342.1	344.7	347.3	353.0	358.7	367.5	376.3	395.9	415.5	440.9	466.2
55°	307.0	308.5	310.1	314.2	318.4	328.7	339.0	356.1	373.2	396.4	419.7
57.5°	273.9	276.0	278.1	281.2	284.3	293.6	302.9	317.9	332.8	356.1	379.4
60°	239.8	242.4	245.0	248.6	252.2	259.4	266.7	280.1	293.6	314.2	334.9
62.5°	215.0	215.5	216.0	219.1	222.2	227.4	232.6	243.4	254.3	275.0	295.6
65°	187.1	188.6	190.2	191.7	193.3	197.4	201.6	210.9	220.2	235.7	251.2
67.5°	158.2	159.7	161.3	163.8	166.4	170.0	173.7	179.9	186.1	200.5	215.0
70°	123.0	123.0	123.0	127.1	131.3	137.5	143.7	148.3	153.0	164.9	176.8
72.5°	100.3	100.8	101.3	101.8	102.3	106.0	109.6	117.3	125.1	132.3	139.5
75°	81.7	82.2	82.7	83.2	83.7	84.8	85.8	88.4	91.0	99.2	107.5
77.5°	65.1	65.6	66.2	66.7	67.2	68.2	69.3	70.3	71.3	74.4	77.5
80°	49.6	50.1	50.6	51.2	51.7	52.2	52.7	53.8	54.8	56.3	57.9
82.5°	36.2	36.2	36.2	36.2	36.2	37.2	38.2	38.2	38.2	39.3	40.3
85°	22.7	22.7	22.7	23.3	23.8	23.8	23.8	24.3	24.8	24.8	24.8
87.5°	10.3	9.8	9.3	9.8	10.3	10.3	10.3	10.9	11.4	11.4	11.4
90°	16.7	17.3	16.7	16.1	16.7	15.6	15.0	14.4	13.8	14.4	12.7
92.5°	30.5	31.7	31.1	33.4	34.6	38.6	44.4	57.0	80.1	107.1	118.7
95°	66.8	69.1	73.2	78.3	89.3	110.0	140.5	207.4	277.1	341.6	304.1
97.5°	137.1	143.4	157.2	179.1	217.7	283.4	359.4	476.4	543.2	525.3	392.3
100°	361.2	360.6	383.0	425.1	483.3	565.1	632.4	679.1	658.9	545.5	368.6
102.5°	572.0	588.7	606.5	637.6	679.7	724.0	756.3	746.5	664.7	508.0	334.1
105°	732.7	735.6	754.0	775.9	802.4	817.3	806.4	748.8	628.4	463.1	307.0
107.5°	837.5	843.8	851.3	861.7	865.2	849.6	804.7	714.2	576.6	423.4	287.4
110°	897.4	898.6	899.7	895.1	879.0	838.7	766.1	660.1	528.2	390.5	277.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	909.5	908.9	903.2	886.5	853.6	798.9	715.4	606.5	486.1	368.6	271.3
115°	891.1	888.2	876.7	851.3	808.1	745.3	660.7	560.4	453.9	354.2	270.7
117.5°	850.8	846.7	829.4	801.2	756.3	691.2	613.4	524.7	432.6	344.4	271.3
120°	797.8	794.3	780.5	748.2	702.7	644.5	575.4	497.7	416.4	338.1	273.6
122.5°	748.2	743.6	728.1	699.8	660.7	607.7	544.9	476.4	403.2	334.1	277.6
125°	702.7	698.7	684.3	658.9	622.1	576.0	520.7	457.9	392.3	330.6	281.7
127.5°	663.6	660.1	646.8	625.0	591.6	548.9	498.2	441.2	381.9	328.9	286.3
130°	631.3	626.7	614.6	593.9	563.3	524.2	477.5	425.7	373.8	327.2	290.9
132.5°	599.6	596.7	586.4	565.6	537.4	500.5	457.9	411.3	366.3	326.6	294.3
135°	569.7	565.6	555.3	538.0	509.8	476.9	439.5	398.6	360.0	326.0	297.8
137.5°	538.0	534.5	525.9	508.0	483.8	454.5	421.1	386.5	354.2	324.9	300.1
140°	504.6	505.2	495.9	479.8	457.9	433.2	405.5	376.1	349.1	324.3	302.4
142.5°	473.5	474.0	466.0	452.2	434.3	413.6	390.5	366.3	344.4	323.1	304.1
145°	445.2	444.1	439.5	427.4	413.0	396.3	377.9	358.8	340.4	322.0	304.7
147.5°	421.1	420.5	415.9	407.2	395.7	383.6	368.1	352.5	336.4	320.3	304.7
150°	400.3	400.3	396.9	390.5	381.9	370.9	358.8	345.6	332.4	318.0	304.7
152.5°	383.0	383.0	381.3	375.6	369.2	360.6	350.2	339.3	327.7	315.1	303.0
155°	369.2	368.6	367.5	362.9	357.7	350.8	342.1	332.9	323.1	311.6	301.8
157.5°	356.0	356.0	354.8	351.4	346.8	341.0	334.1	326.0	318.0	308.7	300.1
160°	343.3	343.9	343.9	340.4	336.4	332.4	326.6	320.3	312.8	305.3	298.9
162.5°	331.8	332.4	332.4	329.5	327.2	323.7	318.5	313.3	307.6	301.8	296.6
165°	322.0	322.0	322.6	320.3	318.0	315.1	311.0	307.6	303.0	298.4	294.3
167.5°	312.2	312.2	312.8	311.0	309.9	307.6	305.3	302.4	298.4	294.9	292.0
170°	303.6	303.6	304.1	303.0	302.4	301.2	298.9	297.2	294.3	291.5	289.7
172.5°	295.5	296.1	297.2	296.1	296.1	295.5	293.8	292.6	290.3	288.6	288.0
175°	289.7	290.3	290.9	290.3	290.3	290.3	289.2	288.6	287.4	286.3	286.3
177.5°	285.7	285.7	286.8	286.3	286.8	286.8	286.3	285.7	285.1	284.5	285.1
180°	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1
2.5°	2676.7	2674.1	2649.3	2624.5	2600.2	2575.9	2557.8	2539.7	2509.2	2478.7	2459.6
5°	2842.6	2822.9	2783.7	2744.4	2685.5	2626.5	2576.9	2527.3	2464.3	2401.2	2348.5
7.5°	2935.1	2919.1	2871.5	2824.0	2745.9	2667.9	2590.4	2512.8	2419.8	2326.8	2247.2
10°	2937.7	2951.1	2911.8	2872.5	2784.7	2696.8	2591.4	2486.0	2360.9	2235.8	2133.0
12.5°	2845.7	2903.6	2895.3	2887.0	2797.6	2708.2	2580.0	2451.8	2298.3	2144.8	2016.2
15°	2673.6	2785.7	2818.8	2851.9	2778.0	2704.1	2558.3	2412.6	2232.2	2051.8	1904.0
17.5°	2451.8	2609.0	2696.3	2783.7	2729.9	2676.2	2516.4	2356.7	2153.6	1950.5	1789.8
20°	2189.3	2395.0	2532.0	2668.9	2649.3	2629.6	2464.8	2299.9	2080.8	1861.6	1687.5
22.5°	1929.8	2146.9	2336.1	2525.2	2545.4	2565.5	2399.1	2232.7	1992.9	1753.1	1575.8
25°	1706.1	1926.7	2152.1	2377.4	2422.9	2468.4	2310.2	2152.1	1903.5	1654.9	1478.7
27.5°	1492.6	1702.4	1950.5	2198.6	2281.3	2364.0	2219.3	2074.6	1815.6	1556.7	1381.0
30°	1318.4	1506.0	1759.3	2012.5	2127.8	2243.0	2110.2	1977.4	1720.5	1463.7	1291.6
32.5°	1156.2	1324.1	1578.4	1832.7	1966.5	2100.4	1985.7	1870.9	1623.9	1376.8	1206.8
35°	1028.0	1178.4	1415.6	1652.8	1802.7	1952.6	1858.5	1764.5	1523.1	1281.7	1121.0
37.5°	917.9	1044.0	1266.8	1489.5	1648.7	1807.9	1729.3	1650.8	1423.9	1197.0	1045.0
40°	826.9	928.2	1135.5	1342.7	1498.8	1654.9	1587.7	1520.5	1317.4	1114.3	972.2
42.5°	748.9	836.2	1022.3	1208.4	1351.5	1494.7	1450.2	1405.8	1221.8	1037.8	906.0
45°	680.1	753.5	917.4	1081.2	1213.0	1344.8	1309.6	1274.5	1115.8	957.2	836.2
47.5°	619.2	682.2	828.5	974.7	1093.1	1211.5	1178.9	1146.3	1015.1	883.8	773.7
50°	563.3	617.1	739.1	861.0	967.5	1074.0	1047.1	1020.2	911.7	803.2	708.1
52.5°	510.6	555.1	664.6	774.2	860.0	945.8	925.1	904.5	820.7	737.0	650.7
55°	460.5	501.3	593.8	686.4	759.7	833.1	812.5	791.8	726.7	661.5	585.6
57.5°	415.0	450.7	525.6	600.6	659.0	717.4	707.5	697.7	643.5	589.2	526.7
60°	366.9	399.0	463.6	528.2	575.2	622.3	610.9	599.5	560.8	522.0	468.2
62.5°	324.1	352.5	404.2	455.8	494.1	532.3	524.1	515.8	486.3	456.9	412.4
65°	279.1	307.0	348.9	390.7	420.7	450.7	443.4	436.2	414.0	391.8	356.1
67.5°	238.3	261.5	297.7	333.9	354.0	374.2	370.1	365.9	348.9	331.8	303.9
70°	196.9	217.1	247.0	277.0	291.0	304.9	306.5	308.0	292.5	277.0	256.3
72.5°	155.6	171.6	199.5	227.4	238.3	249.1	248.6	248.1	238.8	229.5	210.9
75°	119.4	131.3	153.0	174.7	184.0	193.3	195.4	197.4	188.6	179.9	169.5
77.5°	85.8	94.1	110.6	127.1	137.5	147.8	148.8	149.9	145.7	141.6	131.8
80°	60.5	63.1	73.4	83.7	94.6	105.4	107.0	108.5	104.4	100.3	94.1
82.5°	41.9	43.4	47.0	50.6	59.4	68.2	70.3	72.4	70.3	68.2	61.5
85°	25.3	25.8	27.4	28.9	33.1	37.2	39.3	41.3	40.3	39.3	35.7
87.5°	11.4	11.4	11.9	12.4	13.4	14.5	17.1	19.6	18.1	16.5	15.0
90°	10.9	9.2	7.5	6.3	5.2	3.5	2.3	1.2	2.3	3.5	5.2
92.5°	88.7	58.2	39.7	29.4	23.6	18.4	12.7	8.6	12.7	18.4	23.6
95°	209.7	123.8	74.9	52.4	37.4	27.6	21.3	19.6	21.3	27.6	37.4
97.5°	233.3	133.6	85.2	60.5	45.5	36.9	31.7	31.1	31.7	36.9	45.5
100°	217.2	131.9	91.6	69.1	55.3	47.2	43.2	42.6	43.2	47.2	55.3
102.5°	203.3	134.2	99.1	78.9	66.8	59.3	55.9	54.7	55.9	59.3	66.8
105°	198.1	138.8	107.7	89.9	78.9	72.0	68.5	66.8	68.5	72.0	78.9
107.5°	197.0	146.3	118.7	102.0	91.6	84.7	81.2	79.5	81.2	84.7	91.6
110°	199.9	156.1	130.2	114.0	104.3	97.9	95.0	93.3	95.0	97.9	104.3





TEST NUMBER: P832394

CATALOG NUMBER: S123RDIP-S775D585U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	205.6	165.9	142.3	126.7	116.9	110.6	107.7	106.0	107.7	110.6	116.9
115°	212.0	176.8	154.9	139.4	129.6	123.8	120.4	118.1	120.4	123.8	129.6
117.5°	220.0	188.4	166.5	152.1	141.1	135.9	133.1	130.2	133.1	135.9	141.1
120°	229.2	199.3	178.6	164.2	153.2	147.5	144.6	142.8	144.6	147.5	153.2
122.5°	237.9	210.8	190.7	175.1	164.7	158.4	155.5	153.8	155.5	158.4	164.7
125°	247.1	221.8	201.6	186.0	175.1	168.8	165.3	164.2	165.3	168.8	175.1
127.5°	254.6	231.6	212.0	196.4	184.3	178.0	174.0	172.2	174.0	178.0	184.3
130°	262.1	240.2	221.2	205.6	193.5	186.6	181.4	179.7	181.4	186.6	193.5
132.5°	269.0	247.7	229.2	214.3	202.2	193.5	187.8	185.5	187.8	193.5	202.2
135°	274.8	255.2	237.3	221.8	209.7	201.0	194.7	192.4	194.7	201.0	209.7
137.5°	279.4	260.4	243.1	228.7	216.6	207.4	201.0	198.7	201.0	207.4	216.6
140°	282.8	265.5	248.8	234.4	222.9	213.7	207.9	205.1	207.9	213.7	222.9
142.5°	286.3	269.6	253.4	240.2	228.7	220.6	214.3	212.0	214.3	220.6	228.7
145°	288.6	273.0	258.0	244.8	235.0	226.4	221.2	219.5	221.2	226.4	235.0
147.5°	290.3	275.9	262.1	250.6	240.8	233.3	228.1	226.9	228.1	233.3	240.8
150°	290.9	278.8	265.5	255.2	247.1	239.6	235.0	234.4	235.0	239.6	247.1
152.5°	292.0	280.5	269.6	259.8	252.9	246.5	241.9	241.9	241.9	246.5	252.9
155°	292.0	282.8	273.0	265.0	258.6	252.9	249.4	249.4	249.4	252.9	258.6
157.5°	292.6	284.0	275.9	269.6	263.8	258.6	255.7	255.2	255.7	258.6	263.8
160°	292.6	285.7	278.8	273.0	269.0	264.4	262.1	262.1	262.1	264.4	269.0
162.5°	292.0	286.3	280.5	275.9	272.4	269.0	267.3	267.3	267.3	269.0	272.4
165°	290.9	286.8	282.2	278.2	275.9	273.0	271.9	272.4	271.9	273.0	275.9
167.5°	290.3	286.8	283.4	280.5	278.8	276.5	275.9	276.5	275.9	276.5	278.8
170°	288.6	286.3	283.4	282.2	281.1	279.4	278.8	279.9	278.8	279.4	281.1
172.5°	288.0	286.3	284.0	283.4	282.8	281.7	281.7	282.2	281.7	281.7	282.8
175°	286.8	285.7	284.5	284.0	284.0	282.8	283.4	284.0	283.4	282.8	284.0
177.5°	286.3	285.1	284.5	284.5	284.5	284.0	284.5	285.1	284.5	284.0	284.5
180°	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5



TEST NUMBER: P832394

CATALOG NUMBER: S123RDIP-S775D585U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1	2521.1
2.5°	2440.5	2411.0	2381.6	2360.4	2339.2	2312.8	2286.5	2285.4	2284.4	2264.8	2245.1
5°	2295.8	2244.6	2193.4	2143.3	2093.2	2043.0	1992.9	1981.5	1970.2	1953.1	1936.0
7.5°	2167.6	2085.9	2004.3	1940.2	1876.1	1826.0	1775.8	1741.7	1707.6	1681.3	1654.9
10°	2030.1	1928.8	1827.5	1750.0	1672.5	1618.2	1563.9	1524.7	1485.4	1466.8	1448.2
12.5°	1887.5	1777.4	1667.3	1591.3	1515.3	1450.2	1385.1	1349.4	1313.8	1287.9	1262.1
15°	1756.2	1637.8	1519.5	1438.9	1358.2	1297.2	1236.3	1200.6	1164.9	1139.1	1113.3
17.5°	1629.1	1509.7	1390.3	1308.6	1227.0	1171.7	1116.4	1081.7	1047.1	1031.1	1015.1
20°	1513.3	1392.9	1272.4	1195.4	1118.4	1064.2	1009.9	991.3	972.7	957.7	942.7
22.5°	1398.5	1282.8	1167.0	1093.1	1019.2	979.9	940.6	925.6	910.7	899.3	887.9
25°	1302.4	1187.2	1071.9	1007.3	942.7	912.2	881.7	871.9	862.1	850.7	839.3
27.5°	1205.2	1095.7	986.1	934.4	882.7	857.9	833.1	820.7	808.3	799.0	789.7
30°	1119.5	1018.2	916.9	874.0	831.1	809.4	787.7	774.2	760.8	752.0	743.2
32.5°	1036.8	946.8	856.9	820.2	783.5	762.3	741.1	728.2	715.3	705.0	694.6
35°	960.3	882.2	804.2	770.6	737.0	715.8	694.6	681.7	668.8	658.4	648.1
37.5°	893.1	822.3	751.5	719.9	688.4	669.8	651.2	637.8	624.3	613.5	602.6
40°	830.0	767.5	705.0	674.5	644.0	623.8	603.7	591.8	579.9	570.1	560.2
42.5°	774.2	716.8	659.5	629.5	599.5	580.4	561.3	547.3	533.4	527.7	522.0
45°	715.3	664.6	614.0	585.1	556.1	536.0	515.8	503.9	492.0	486.9	481.7
47.5°	663.6	616.6	569.5	541.1	512.7	494.6	476.5	467.2	457.9	450.7	443.4
50°	613.0	567.5	522.0	494.6	467.2	451.7	436.2	424.8	413.5	408.3	403.1
52.5°	564.4	523.0	481.7	453.8	425.9	410.9	395.9	386.1	376.3	365.4	354.5
55°	509.6	473.4	437.2	412.4	387.6	372.1	356.6	345.2	333.9	322.5	311.1
57.5°	464.1	428.5	392.8	370.6	348.3	333.4	318.4	306.0	293.6	284.3	275.0
60°	414.5	383.5	352.5	330.8	309.1	294.6	280.1	268.2	256.3	251.7	247.0
62.5°	368.0	339.0	310.1	291.0	271.9	257.9	243.9	236.2	228.4	225.3	222.2
65°	320.4	295.6	270.8	253.2	235.7	223.8	211.9	208.3	204.7	202.1	199.5
67.5°	276.0	254.8	233.6	218.1	202.6	194.3	186.1	181.9	177.8	174.7	171.6
70°	235.7	217.1	198.5	185.0	171.6	163.8	156.1	152.5	148.8	143.2	137.5
72.5°	192.3	177.8	163.3	153.0	142.6	135.9	129.2	122.0	114.7	109.6	104.4
75°	159.2	144.7	130.2	120.4	110.6	102.8	95.1	92.5	89.9	88.4	86.8
77.5°	122.0	109.6	97.2	89.4	81.7	78.0	74.4	72.9	71.3	70.8	70.3
80°	87.9	77.5	67.2	63.1	58.9	57.9	56.9	55.8	54.8	54.3	53.8
82.5°	54.8	49.6	44.4	43.4	42.4	41.9	41.3	40.8	40.3	39.8	39.3
85°	32.0	30.0	27.9	27.4	26.9	26.4	25.8	25.8	25.8	25.8	25.8
87.5°	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	13.4	12.9	12.4
90°	6.3	7.5	9.2	10.9	12.7	14.4	13.8	14.4	15.0	15.6	16.7
92.5°	29.4	39.7	58.2	88.7	118.7	107.1	80.1	57.0	44.4	38.6	34.6
95°	52.4	74.9	123.8	209.7	304.1	341.6	277.1	207.4	140.5	110.0	89.3
97.5°	60.5	85.2	133.6	233.3	392.3	525.3	543.2	476.4	359.4	283.4	217.7
100°	69.1	91.6	131.9	217.2	368.6	545.5	658.9	679.1	632.4	565.1	483.3
102.5°	78.9	99.1	134.2	203.3	334.1	508.0	664.7	746.5	756.3	724.0	679.7
105°	89.9	107.7	138.8	198.1	307.0	463.1	628.4	748.8	806.4	817.3	802.4
107.5°	102.0	118.7	146.3	197.0	287.4	423.4	576.6	714.2	804.7	849.6	865.2
110°	114.0	130.2	156.1	199.9	277.1	390.5	528.2	660.1	766.1	838.7	879.0



TEST NUMBER: P832394

CATALOG NUMBER: S123RDIP-S775D585U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	126.7	142.3	165.9	205.6	271.3	368.6	486.1	606.5	715.4	798.9	853.6
115°	139.4	154.9	176.8	212.0	270.7	354.2	453.9	560.4	660.7	745.3	808.1
117.5°	152.1	166.5	188.4	220.0	271.3	344.4	432.6	524.7	613.4	691.2	756.3
120°	164.2	178.6	199.3	229.2	273.6	338.1	416.4	497.7	575.4	644.5	702.7
122.5°	175.1	190.7	210.8	237.9	277.6	334.1	403.2	476.4	544.9	607.7	660.7
125°	186.0	201.6	221.8	247.1	281.7	330.6	392.3	457.9	520.7	576.0	622.1
127.5°	196.4	212.0	231.6	254.6	286.3	328.9	381.9	441.2	498.2	548.9	591.6
130°	205.6	221.2	240.2	262.1	290.9	327.2	373.8	425.7	477.5	524.2	563.3
132.5°	214.3	229.2	247.7	269.0	294.3	326.6	366.3	411.3	457.9	500.5	537.4
135°	221.8	237.3	255.2	274.8	297.8	326.0	360.0	398.6	439.5	476.9	509.8
137.5°	228.7	243.1	260.4	279.4	300.1	324.9	354.2	386.5	421.1	454.5	483.8
140°	234.4	248.8	265.5	282.8	302.4	324.3	349.1	376.1	405.5	433.2	457.9
142.5°	240.2	253.4	269.6	286.3	304.1	323.1	344.4	366.3	390.5	413.6	434.3
145°	244.8	258.0	273.0	288.6	304.7	322.0	340.4	358.8	377.9	396.3	413.0
147.5°	250.6	262.1	275.9	290.3	304.7	320.3	336.4	352.5	368.1	383.6	395.7
150°	255.2	265.5	278.8	290.9	304.7	318.0	332.4	345.6	358.8	370.9	381.9
152.5°	259.8	269.6	280.5	292.0	303.0	315.1	327.7	339.3	350.2	360.6	369.2
155°	265.0	273.0	282.8	292.0	301.8	311.6	323.1	332.9	342.1	350.8	357.7
157.5°	269.6	275.9	284.0	292.6	300.1	308.7	318.0	326.0	334.1	341.0	346.8
160°	273.0	278.8	285.7	292.6	298.9	305.3	312.8	320.3	326.6	332.4	336.4
162.5°	275.9	280.5	286.3	292.0	296.6	301.8	307.6	313.3	318.5	323.7	327.2
165°	278.2	282.2	286.8	290.9	294.3	298.4	303.0	307.6	311.0	315.1	318.0
167.5°	280.5	283.4	286.8	290.3	292.0	294.9	298.4	302.4	305.3	307.6	309.9
170°	282.2	283.4	286.3	288.6	289.7	291.5	294.3	297.2	298.9	301.2	302.4
172.5°	283.4	284.0	286.3	288.0	288.0	288.6	290.3	292.6	293.8	295.5	296.1
175°	284.0	284.5	285.7	286.8	286.3	286.3	287.4	288.6	289.2	290.3	290.3
177.5°	284.5	284.5	285.1	286.3	285.1	284.5	285.1	285.7	286.3	286.8	286.8
180°	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5	284.5



TEST NUMBER: P832394

CATALOG NUMBER: S123RDIP-S775D585U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2521.1	2521.1	2521.1	2521.1
2.5°	2239.9	2234.8	2232.7	2230.6
5°	1920.0	1904.0	1900.4	1896.8
7.5°	1648.2	1641.5	1619.2	1597.0
10°	1427.5	1406.8	1397.5	1388.2
12.5°	1243.0	1223.9	1220.8	1217.7
15°	1099.8	1086.4	1081.7	1077.1
17.5°	1005.8	996.5	990.8	985.1
20°	936.0	929.3	925.1	921.0
22.5°	882.7	877.6	874.5	871.4
25°	831.6	823.8	821.2	818.7
27.5°	783.0	776.3	773.7	771.1
30°	737.5	731.8	728.2	724.6
32.5°	687.9	681.2	679.1	677.0
35°	644.0	639.8	637.8	635.7
37.5°	597.5	592.3	589.2	586.1
40°	557.7	555.1	553.5	552.0
42.5°	517.3	512.7	512.2	511.7
45°	477.0	472.4	471.3	470.3
47.5°	439.3	435.2	434.7	434.1
50°	397.4	391.8	387.6	383.5
52.5°	349.4	344.2	340.6	337.0
55°	305.4	299.8	296.7	293.6
57.5°	272.4	269.8	268.2	266.7
60°	245.5	243.9	242.9	241.9
62.5°	220.7	219.1	219.1	219.1
65°	197.9	196.4	194.8	193.3
67.5°	168.5	165.4	164.9	164.4
70°	132.8	128.2	127.7	127.1
72.5°	103.9	103.4	102.3	101.3
75°	85.8	84.8	84.8	84.8
77.5°	69.3	68.2	68.2	68.2
80°	53.2	52.7	53.2	53.8
82.5°	39.3	39.3	38.8	38.2
85°	25.3	24.8	24.8	24.8
87.5°	12.4	12.4	12.4	12.4
90°	16.1	16.7	17.3	16.7
92.5°	33.4	31.1	31.7	30.5
95°	78.3	73.2	69.1	66.8
97.5°	179.1	157.2	143.4	137.1
100°	425.1	383.0	360.6	361.2
102.5°	637.6	606.5	588.7	572.0
105°	775.9	754.0	735.6	732.7
107.5°	861.7	851.3	843.8	837.5
110°	895.1	899.7	898.6	897.4



TEST NUMBER: P832394

CATALOG NUMBER: S123RDIP-S775D585U840-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	886.5	903.2	908.9	909.5
115°	851.3	876.7	888.2	891.1
117.5°	801.2	829.4	846.7	850.8
120°	748.2	780.5	794.3	797.8
122.5°	699.8	728.1	743.6	748.2
125°	658.9	684.3	698.7	702.7
127.5°	625.0	646.8	660.1	663.6
130°	593.9	614.6	626.7	631.3
132.5°	565.6	586.4	596.7	599.6
135°	538.0	555.3	565.6	569.7
137.5°	508.0	525.9	534.5	538.0
140°	479.8	495.9	505.2	504.6
142.5°	452.2	466.0	474.0	473.5
145°	427.4	439.5	444.1	445.2
147.5°	407.2	415.9	420.5	421.1
150°	390.5	396.9	400.3	400.3
152.5°	375.6	381.3	383.0	383.0
155°	362.9	367.5	368.6	369.2
157.5°	351.4	354.8	356.0	356.0
160°	340.4	343.9	343.9	343.3
162.5°	329.5	332.4	332.4	331.8
165°	320.3	322.6	322.0	322.0
167.5°	311.0	312.8	312.2	312.2
170°	303.0	304.1	303.6	303.6
172.5°	296.1	297.2	296.1	295.5
175°	290.3	290.9	290.3	289.7
177.5°	286.3	286.8	285.7	285.7
180°	284.5	284.5	284.5	284.5



TEST NUMBER: P832394

CATALOG NUMBER: S123RDIP-S775D585U840-4F0-1E-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	13.19	14.09	14.06	14.97	16.08	17.85	18.75	18.72	19.63	20.74
	3H	14.42	15.22	15.30	16.11	17.25	19.36	20.16	20.24	21.05	22.19
	4H	14.80	15.56	15.70	16.46	17.60	19.85	20.61	20.75	21.51	22.65
	6H	15.09	15.78	15.99	16.69	17.85	20.17	20.86	21.07	21.77	22.93
	8H	15.17	15.84	16.09	16.76	17.92	20.25	20.91	21.16	21.83	22.99
	12H	15.23	15.86	16.15	16.77	17.96	20.28	20.91	21.20	21.83	23.01
4H	2H	13.92	14.68	14.82	15.58	16.72	17.86	18.61	18.76	19.51	20.66
	3H	15.30	15.92	16.21	16.85	18.01	19.52	20.15	20.43	21.08	22.24
	4H	15.75	16.33	16.68	17.25	18.44	20.13	20.70	21.05	21.63	22.81
	6H	16.13	16.62	17.06	17.57	18.75	20.57	21.06	21.51	22.01	23.20
	8H	16.25	16.71	17.19	17.65	18.85	20.70	21.16	21.64	22.10	23.31
	12H	16.33	16.74	17.29	17.70	18.91	20.77	21.18	21.73	22.14	23.35
8H	4H	16.07	16.53	17.01	17.47	18.68	20.10	20.56	21.04	21.50	22.70
	6H	16.54	16.92	17.50	17.90	19.10	20.60	20.98	21.57	21.96	23.16
	8H	16.73	17.07	17.71	18.04	19.26	20.79	21.12	21.76	22.09	23.31
	12H	16.88	17.17	17.85	18.14	19.40	20.91	21.20	21.88	22.17	23.43
12H	4H	16.09	16.50	17.04	17.46	18.67	20.06	20.47	21.01	21.43	22.63
	6H	16.60	16.93	17.57	17.91	19.12	20.58	20.91	21.55	21.88	23.10
	8H	16.82	17.11	17.80	18.08	19.35	20.77	21.06	21.75	22.03	23.30