

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: P832337

Luminaire Tested: S123RDIP-S775D1195U835-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832337
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-S775D1195U835-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1195 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

Summary

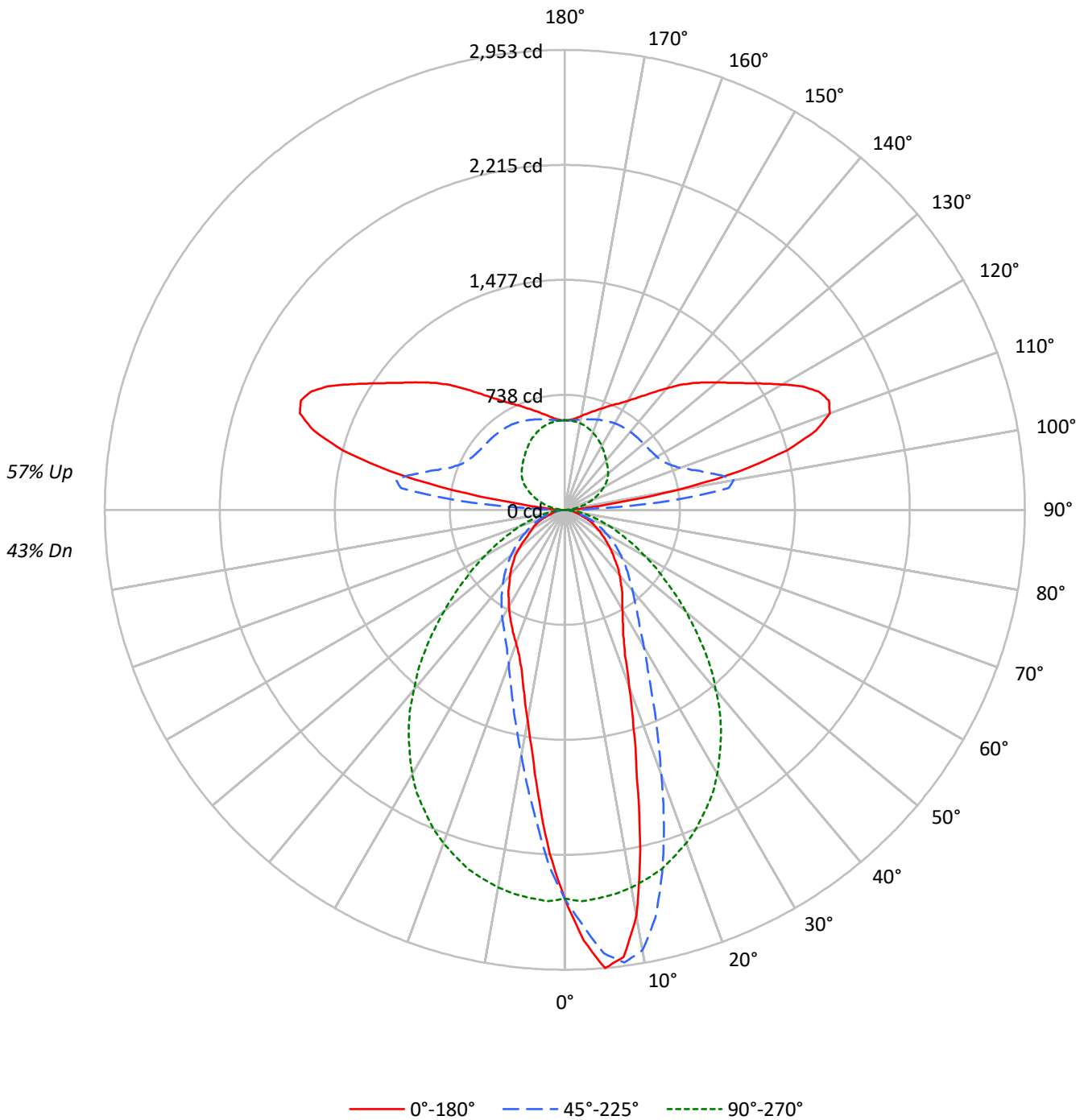
Lumens per Lamp: N/A
Luminaire Lumens: 7630.5 lumens
Efficiency: N/A
Efficacy: 134.1 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 56.9
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	106	106	106	106	97	97	97	97	80	80	80	64	64	64	50	50	50	43				
1	97	93	89	86	89	85	82	79	71	69	67	58	56	55	45	44	44	38				
2	89	82	76	72	81	75	71	66	63	59	56	51	49	47	41	39	38	33				
3	82	73	66	61	75	67	61	56	56	52	48	46	43	41	37	35	33	29				
4	75	65	58	52	69	60	54	49	50	46	42	42	38	36	33	31	29	26				
5	69	58	51	45	63	54	47	42	46	41	37	38	34	31	31	28	26	23				
6	64	53	45	40	59	49	42	37	41	36	33	35	31	28	28	26	23	21				
7	59	48	40	35	54	44	38	33	38	33	29	32	28	25	26	23	21	19				
8	55	44	36	31	51	41	34	30	35	30	26	29	26	23	24	21	19	17				
9	52	40	33	28	48	37	31	27	32	27	24	27	23	21	23	20	18	16				
10	48	37	30	26	45	35	28	24	30	25	22	25	22	19	21	18	16	15				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	26872	26872	26872	26872	26872
5°	31907	30889	27041	21860	20294
10°	28909	31376	26906	17514	15024
15°	19904	26902	26622	14315	11886
20°	13846	20711	26087	12071	10447
25°	10552	15785	25310	10728	9628
30°	9185	12621	24337	9962	8918
35°	8433	10646	22959	9314	8272
40°	7694	9507	21157	8679	7680
45°	6949	8694	19212	8079	7089
50°	6308	8021	16918	7490	6358
55°	5705	7366	14713	6915	5455
60°	5113	6699	12781	6280	5156
65°	4720	5945	11000	5644	4875
70°	3833	5139	9599	5105	3962
75°	3365	4088	8131	4234	3489
80°	3044	3459	6664	3552	3298
85°	2779	3038	5051	3223	3038

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 20272 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	227.6	3.0
10°-20°	526.5	6.9
20°-30°	604.1	7.9
30°-40°	595.5	7.8
40°-50°	525.1	6.9
50°-60°	404.0	5.3
60°-70°	265.6	3.5
70°-80°	129.0	1.7
80°-90°	35.7	0.5
90°-100°	311.5	4.1
100°-110°	911.8	11.9
110°-120°	890.4	11.7
120°-130°	709.1	9.3
130°-140°	559.5	7.3
140°-150°	417.4	5.5
150°-160°	291.0	3.8
160°-170°	171.0	2.2
170°-180°	55.6	0.7
0°-30°	1358.2	17.8
0°-40°	1953.7	25.6
0°-60°	2882.8	37.8
0°-90°	3313.1	43.4
90°-120°	2113.7	27.7
90°-150°	3799.8	49.8
90°-180°	4317.0	56.6
0°-180°	7630.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2496	2496	2496	2496	2496	
5°	2953	2859	2503	2023	1878	270
15°	1786	2414	2389	1285	1067	504
25°	888	1329	2131	903	811	420
35°	642	810	1747	709	630	400
45°	456	571	1262	531	466	354
55°	304	392	784	368	291	273
65°	185	233	432	222	191	182
75°	81	98	196	102	84	87
85°	22	25	41	26	25	24
90°	34	29	2	29	34	19
95°	135	689	40	689	135	219
105°	1478	934	135	934	1478	1474
115°	1797	714	238	714	1797	1753
125°	1418	667	331	667	1418	1283
135°	1149	658	388	658	1149	891
145°	898	650	443	650	898	570
155°	745	629	503	629	745	347
165°	650	602	550	602	650	185
175°	584	577	573	577	584	57
180°	574	574	574	574	574	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5
2.5°	2766.7	2758.0	2749.3	2746.7	2744.2	2736.0	2727.8	2709.4	2690.9	2672.0	2653.1
5°	2953.0	2954.0	2955.0	2952.5	2949.9	2939.2	2928.4	2905.9	2883.4	2858.8	2834.2
7.5°	2895.7	2912.0	2928.4	2931.5	2934.6	2942.7	2950.9	2945.8	2940.7	2931.5	2922.3
10°	2644.9	2643.9	2642.8	2661.3	2679.7	2734.5	2789.2	2817.4	2845.5	2870.6	2895.7
12.5°	2235.5	2237.0	2238.5	2298.9	2359.3	2411.0	2462.7	2534.3	2606.0	2683.3	2760.6
15°	1786.1	1811.2	1836.3	1890.0	1943.7	2021.5	2099.3	2195.5	2291.8	2414.1	2536.4
17.5°	1466.8	1477.5	1488.3	1540.0	1591.6	1665.3	1739.0	1848.0	1957.1	2114.7	2272.3
20°	1208.8	1218.6	1228.3	1265.6	1303.0	1373.6	1444.2	1548.1	1652.0	1808.1	1964.2
22.5°	1009.2	1028.2	1047.1	1072.2	1097.3	1148.4	1199.6	1305.6	1411.5	1553.8	1696.0
25°	888.5	897.2	905.9	927.3	948.8	998.0	1047.1	1117.2	1187.3	1329.1	1470.9
27.5°	806.6	809.1	811.7	827.6	843.4	875.1	906.9	971.9	1036.9	1153.6	1270.2
30°	739.0	743.6	748.2	760.5	772.8	795.8	818.9	864.9	911.0	1015.4	1119.8
32.5°	686.8	689.4	691.9	702.2	712.4	729.3	746.2	782.5	818.9	898.7	978.5
35°	641.8	642.3	642.8	650.5	658.2	674.5	690.9	721.1	751.3	810.2	869.0
37.5°	590.6	594.2	597.8	603.4	609.0	623.4	637.7	662.2	686.8	735.4	784.0
40°	547.6	550.7	553.7	560.4	567.1	578.3	589.6	612.1	634.6	676.6	718.5
42.5°	504.6	506.7	508.7	515.4	522.0	535.8	549.7	567.6	585.5	620.3	655.1
45°	456.5	461.6	466.7	473.9	481.1	492.8	504.6	523.0	541.5	571.1	600.8
47.5°	416.6	419.1	421.7	427.8	434.0	448.3	462.7	479.0	495.4	523.0	550.7
50°	376.7	377.7	378.7	384.3	390.0	402.8	415.6	434.5	453.4	479.0	504.6
52.5°	338.8	341.4	343.9	349.5	355.2	363.9	372.6	392.0	411.5	436.6	461.6
55°	304.0	305.5	307.1	311.2	315.3	325.5	335.7	352.6	369.5	392.5	415.6
57.5°	271.2	273.3	275.3	278.4	281.5	290.7	299.9	314.7	329.6	352.6	375.6
60°	237.5	240.0	242.6	246.2	249.7	256.9	264.1	277.4	290.7	311.2	331.6
62.5°	212.9	213.4	213.9	217.0	220.1	225.2	230.3	241.0	251.8	272.3	292.7
65°	185.3	186.8	188.3	189.9	191.4	195.5	199.6	208.8	218.0	233.4	248.7
67.5°	156.6	158.1	159.7	162.2	164.8	168.4	172.0	178.1	184.2	198.6	212.9
70°	121.8	121.8	121.8	125.9	130.0	136.1	142.3	146.9	151.5	163.3	175.0
72.5°	99.3	99.8	100.3	100.8	101.3	104.9	108.5	116.2	123.9	131.0	138.2
75°	80.9	81.4	81.9	82.4	82.9	83.9	85.0	87.5	90.1	98.3	106.5
77.5°	64.5	65.0	65.5	66.0	66.5	67.6	68.6	69.6	70.6	73.7	76.8
80°	49.1	49.6	50.2	50.7	51.2	51.7	52.2	53.2	54.2	55.8	57.3
82.5°	35.8	35.8	35.8	35.8	35.8	36.8	37.9	37.9	37.9	38.9	39.9
85°	22.5	22.5	22.5	23.0	23.5	23.5	23.5	24.1	24.6	24.6	24.6
87.5°	10.2	9.7	9.2	9.7	10.2	10.2	10.2	10.7	11.3	11.3	11.3
90°	33.7	34.9	33.7	32.5	33.7	31.4	30.2	29.0	27.9	29.0	25.6
92.5°	61.6	63.9	62.7	67.4	69.7	77.8	89.5	115.0	161.5	216.1	239.3
95°	134.8	139.4	147.6	158.0	180.1	221.9	283.5	418.3	558.8	689.0	613.5
97.5°	276.5	289.3	317.2	361.3	439.2	571.6	725.0	960.8	1095.6	1059.6	791.2
100°	728.5	727.3	772.6	857.4	974.8	1139.8	1275.7	1369.8	1329.2	1100.3	743.6
102.5°	1153.7	1187.4	1223.4	1286.2	1371.0	1460.4	1525.5	1505.8	1340.8	1024.7	673.9
105°	1477.9	1483.7	1520.9	1565.0	1618.5	1648.7	1626.6	1510.4	1267.6	934.1	619.3
107.5°	1689.3	1702.1	1717.2	1738.1	1745.1	1713.7	1623.1	1440.7	1163.0	854.0	579.8
110°	1810.2	1812.5	1814.8	1805.5	1773.0	1691.7	1545.3	1331.5	1065.4	787.7	558.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1834.6	1833.4	1821.8	1788.1	1721.9	1611.5	1443.0	1223.4	980.6	743.6	547.2
115°	1797.4	1791.6	1768.3	1717.2	1630.1	1503.4	1332.6	1130.5	915.5	714.5	546.1
117.5°	1716.0	1707.9	1673.1	1616.1	1525.5	1394.2	1237.4	1058.4	872.5	694.8	547.2
120°	1609.2	1602.2	1574.3	1509.2	1417.5	1300.1	1160.7	1003.8	840.0	682.0	551.9
122.5°	1509.2	1499.9	1468.6	1411.6	1332.6	1225.7	1099.1	960.8	813.3	673.9	560.0
125°	1417.5	1409.3	1380.3	1329.2	1254.8	1161.8	1050.3	923.7	791.2	666.9	568.1
127.5°	1338.4	1331.5	1304.8	1260.6	1193.2	1107.2	1005.0	890.0	770.3	663.4	577.4
130°	1273.4	1264.1	1239.7	1197.9	1136.3	1057.3	963.2	858.6	754.0	659.9	586.7
132.5°	1209.5	1203.7	1182.8	1140.9	1084.0	1009.6	923.7	829.6	738.9	658.8	593.7
135°	1149.1	1140.9	1120.0	1085.2	1028.2	962.0	886.5	804.0	726.2	657.6	600.7
137.5°	1085.2	1078.2	1060.8	1024.7	976.0	916.7	849.3	779.6	714.5	655.3	605.3
140°	1017.8	1018.9	1000.4	967.8	923.7	873.7	817.9	758.7	704.1	654.1	610.0
142.5°	955.0	956.2	939.9	912.1	876.0	834.2	787.7	738.9	694.8	651.8	613.5
145°	898.1	895.8	886.5	862.1	833.0	799.4	762.2	723.8	686.7	649.5	614.6
147.5°	849.3	848.1	838.9	821.4	798.2	773.8	742.4	711.1	678.5	646.0	614.6
150°	807.5	807.5	800.5	787.7	770.3	748.2	723.8	697.1	670.4	641.3	614.6
152.5°	772.6	772.6	769.1	757.5	744.7	727.3	706.4	684.3	661.1	635.5	611.1
155°	744.7	743.6	741.3	732.0	721.5	707.6	690.1	671.5	651.8	628.6	608.8
157.5°	718.0	718.0	715.7	708.7	699.4	687.8	673.9	657.6	641.3	622.8	605.3
160°	692.5	693.6	693.6	686.7	678.5	670.4	658.8	646.0	630.9	615.8	603.0
162.5°	669.2	670.4	670.4	664.6	659.9	653.0	642.5	632.0	620.4	608.8	598.4
165°	649.5	649.5	650.6	646.0	641.3	635.5	627.4	620.4	611.1	601.8	593.7
167.5°	629.7	629.7	630.9	627.4	625.1	620.4	615.8	610.0	601.8	594.9	589.1
170°	612.3	612.3	613.5	611.1	610.0	607.6	603.0	599.5	593.7	587.9	584.4
172.5°	596.0	597.2	599.5	597.2	597.2	596.0	592.5	590.2	585.6	582.1	580.9
175°	584.4	585.6	586.7	585.6	585.6	585.6	583.2	582.1	579.8	577.4	577.4
177.5°	576.3	576.3	578.6	577.4	578.6	578.6	577.4	576.3	575.1	574.0	575.1
180°	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5
2.5°	2650.5	2648.0	2623.4	2598.8	2574.8	2550.7	2532.8	2514.9	2484.7	2454.5	2435.6
5°	2814.8	2795.4	2756.5	2717.6	2659.2	2600.9	2551.7	2502.6	2440.2	2377.7	2325.5
7.5°	2906.4	2890.5	2843.5	2796.4	2719.1	2641.8	2565.1	2488.3	2396.2	2304.0	2225.2
10°	2909.0	2922.3	2883.4	2844.5	2757.5	2670.5	2566.1	2461.7	2337.8	2214.0	2112.1
12.5°	2817.9	2875.2	2867.0	2858.8	2770.3	2681.7	2554.8	2427.9	2275.9	2123.9	1996.5
15°	2647.4	2758.5	2791.3	2824.0	2750.8	2677.6	2533.3	2389.0	2210.4	2031.8	1885.4
17.5°	2427.9	2583.5	2670.0	2756.5	2703.2	2650.0	2491.9	2333.7	2132.6	1931.5	1772.3
20°	2167.9	2371.6	2507.2	2642.8	2623.4	2603.9	2440.7	2277.4	2060.4	1843.4	1671.0
22.5°	1911.0	2125.9	2313.3	2500.6	2520.5	2540.5	2375.7	2210.9	1973.4	1736.0	1560.4
25°	1689.4	1907.9	2131.1	2354.2	2399.2	2444.3	2287.7	2131.1	1884.9	1638.7	1464.2
27.5°	1478.0	1685.8	1931.5	2177.1	2259.0	2340.9	2197.6	2054.3	1797.9	1541.5	1367.5
30°	1305.6	1491.3	1742.1	1992.9	2107.0	2221.1	2089.6	1958.1	1703.7	1449.4	1278.9
32.5°	1144.9	1311.2	1563.0	1814.8	1947.3	2079.9	1966.3	1852.7	1608.0	1363.4	1195.0
35°	1017.9	1166.9	1401.8	1636.7	1785.1	1933.5	1840.4	1747.2	1508.2	1269.2	1110.1
37.5°	908.9	1033.8	1254.4	1475.0	1632.6	1790.2	1712.4	1634.6	1410.0	1185.3	1034.8
40°	818.9	919.2	1124.4	1329.6	1484.2	1638.7	1572.2	1505.7	1304.5	1103.4	962.7
42.5°	741.6	828.1	1012.3	1196.5	1338.3	1480.1	1436.1	1392.0	1209.9	1027.7	897.2
45°	673.5	746.2	908.4	1070.6	1201.2	1331.7	1296.9	1262.1	1104.9	947.8	828.1
47.5°	613.1	675.6	820.4	965.2	1082.4	1199.6	1167.4	1135.1	1005.1	875.1	766.1
50°	557.8	611.1	731.8	852.6	958.1	1063.5	1036.9	1010.3	902.8	795.3	701.1
52.5°	505.6	549.7	658.2	766.6	851.6	936.6	916.1	895.6	812.7	729.8	644.3
55°	456.0	496.4	588.0	679.6	752.3	825.0	804.5	784.0	719.6	655.1	579.8
57.5°	411.0	446.3	520.5	594.7	652.5	710.4	700.6	690.9	637.2	583.4	521.5
60°	363.4	395.1	459.1	523.0	569.6	616.2	604.9	593.7	555.3	516.9	463.7
62.5°	320.9	349.0	400.2	451.4	489.3	527.1	518.9	510.8	481.6	452.4	408.4
65°	276.4	304.0	345.5	386.9	416.6	446.3	439.1	431.9	409.9	387.9	352.6
67.5°	235.9	259.0	294.8	330.6	350.6	370.5	366.4	362.3	345.5	328.6	300.9
70°	195.0	214.9	244.6	274.3	288.1	302.0	303.5	305.0	289.7	274.3	253.8
72.5°	154.0	169.9	197.5	225.2	235.9	246.7	246.2	245.7	236.4	227.2	208.8
75°	118.2	130.0	151.5	173.0	182.2	191.4	193.5	195.5	186.8	178.1	167.9
77.5°	85.0	93.1	109.5	125.9	136.1	146.4	147.4	148.4	144.3	140.2	130.5
80°	59.9	62.4	72.7	82.9	93.7	104.4	105.9	107.5	103.4	99.3	93.1
82.5°	41.5	43.0	46.6	50.2	58.9	67.6	69.6	71.6	69.6	67.6	60.9
85°	25.1	25.6	27.1	28.7	32.8	36.8	38.9	40.9	39.9	38.9	35.3
87.5°	11.3	11.3	11.8	12.3	13.3	14.3	16.9	19.4	17.9	16.4	14.8
90°	22.1	18.6	15.1	12.8	10.5	7.0	4.6	2.3	4.6	7.0	10.5
92.5°	178.9	117.3	80.2	59.3	47.6	37.2	25.6	17.4	25.6	37.2	47.6
95°	422.9	249.8	151.0	105.7	75.5	55.8	43.0	39.5	43.0	55.8	75.5
97.5°	470.5	269.5	172.0	122.0	91.8	74.4	63.9	62.7	63.9	74.4	91.8
100°	438.0	266.1	184.7	139.4	111.5	95.3	87.1	86.0	87.1	95.3	111.5
102.5°	410.1	270.7	199.8	159.2	134.8	119.7	112.7	110.4	112.7	119.7	134.8
105°	399.7	280.0	217.3	181.2	159.2	145.2	138.3	134.8	138.3	145.2	159.2
107.5°	397.4	295.1	239.3	205.6	184.7	170.8	163.8	160.3	163.8	170.8	184.7
110°	403.2	314.9	262.6	230.0	210.3	197.5	191.7	188.2	191.7	197.5	210.3



TEST NUMBER: P832337

CATALOG NUMBER: S123RDIP-S775D1195U835-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	414.8	334.6	287.0	255.6	235.9	223.1	217.3	213.8	217.3	223.1	235.9
115°	427.6	356.7	312.5	281.2	261.4	249.8	242.8	238.2	242.8	249.8	261.4
117.5°	443.8	379.9	335.8	306.7	284.7	274.2	268.4	262.6	268.4	274.2	284.7
120°	462.4	402.0	360.2	331.1	309.1	297.4	291.6	288.1	291.6	297.4	309.1
122.5°	479.8	425.2	384.6	353.2	332.3	319.5	313.7	310.2	313.7	319.5	332.3
125°	498.4	447.3	406.6	375.3	353.2	340.4	333.5	331.1	333.5	340.4	353.2
127.5°	513.5	467.1	427.6	396.2	371.8	359.0	350.9	347.4	350.9	359.0	371.8
130°	528.6	484.5	446.1	414.8	390.4	376.4	366.0	362.5	366.0	376.4	390.4
132.5°	542.6	499.6	462.4	432.2	407.8	390.4	378.8	374.1	378.8	390.4	407.8
135°	554.2	514.7	478.7	447.3	422.9	405.5	392.7	388.1	392.7	405.5	422.9
137.5°	563.5	525.2	490.3	461.3	436.9	418.3	405.5	400.8	405.5	418.3	436.9
140°	570.5	535.6	501.9	472.9	449.6	431.0	419.4	413.6	419.4	431.0	449.6
142.5°	577.4	543.7	511.2	484.5	461.3	445.0	432.2	427.6	432.2	445.0	461.3
145°	582.1	550.7	520.5	493.8	474.0	456.6	446.1	442.7	446.1	456.6	474.0
147.5°	585.6	556.5	528.6	505.4	485.7	470.5	460.1	457.8	460.1	470.5	485.7
150°	586.7	562.3	535.6	514.7	498.4	483.3	474.0	472.9	474.0	483.3	498.4
152.5°	589.1	565.8	543.7	524.0	510.1	497.3	488.0	488.0	488.0	497.3	510.1
155°	589.1	570.5	550.7	534.4	521.7	510.1	503.1	503.1	503.1	510.1	521.7
157.5°	590.2	572.8	556.5	543.7	532.1	521.7	515.9	514.7	515.9	521.7	532.1
160°	590.2	576.3	562.3	550.7	542.6	533.3	528.6	528.6	528.6	533.3	542.6
162.5°	589.1	577.4	565.8	556.5	549.6	542.6	539.1	539.1	539.1	542.6	549.6
165°	586.7	578.6	569.3	561.2	556.5	550.7	548.4	549.6	548.4	550.7	556.5
167.5°	585.6	578.6	571.6	565.8	562.3	557.7	556.5	557.7	556.5	557.7	562.3
170°	582.1	577.4	571.6	569.3	567.0	563.5	562.3	564.7	562.3	563.5	567.0
172.5°	580.9	577.4	572.8	571.6	570.5	568.1	568.1	569.3	568.1	568.1	570.5
175°	578.6	576.3	574.0	572.8	572.8	570.5	571.6	572.8	571.6	570.5	572.8
177.5°	577.4	575.1	574.0	574.0	574.0	572.8	574.0	575.1	574.0	572.8	574.0
180°	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0



TEST NUMBER: P832337

CATALOG NUMBER: S123RDIP-S775D1195U835-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5	2496.5
2.5°	2416.6	2387.5	2358.3	2337.3	2316.3	2290.2	2264.1	2263.1	2262.1	2242.6	2223.2
5°	2273.3	2222.7	2172.0	2122.4	2072.7	2023.1	1973.4	1962.2	1950.9	1934.0	1917.1
7.5°	2146.4	2065.6	1984.7	1921.2	1857.8	1808.1	1758.5	1724.7	1690.9	1664.8	1638.7
10°	2010.3	1910.0	1809.7	1732.9	1656.1	1602.4	1548.7	1509.8	1470.9	1452.4	1434.0
12.5°	1869.0	1760.0	1651.0	1575.8	1500.5	1436.1	1371.6	1336.3	1300.9	1275.4	1249.8
15°	1739.0	1621.8	1504.6	1424.8	1345.0	1284.6	1224.2	1188.9	1153.6	1128.0	1102.4
17.5°	1613.1	1494.9	1376.7	1295.8	1215.0	1160.2	1105.4	1071.2	1036.9	1021.0	1005.1
20°	1498.5	1379.3	1260.0	1183.8	1107.5	1053.8	1000.0	981.6	963.2	948.3	933.5
22.5°	1384.9	1270.2	1155.6	1082.4	1009.2	970.3	931.4	916.6	901.8	890.5	879.2
25°	1289.7	1175.6	1061.4	997.5	933.5	903.3	873.1	863.4	853.7	842.4	831.1
27.5°	1193.5	1085.0	976.5	925.3	874.1	849.6	825.0	812.7	800.4	791.2	782.0
30°	1108.5	1008.2	907.9	865.4	822.9	801.5	780.0	766.6	753.3	744.6	735.9
32.5°	1026.6	937.6	848.5	812.2	775.9	754.9	733.9	721.1	708.3	698.1	687.8
35°	950.9	873.6	796.3	763.1	729.8	708.8	687.8	675.0	662.2	652.0	641.8
37.5°	884.4	814.2	744.1	712.9	681.7	663.3	644.8	631.5	618.2	607.5	596.7
40°	821.9	760.0	698.1	667.9	637.7	617.7	597.8	586.0	574.2	564.5	554.8
42.5°	766.6	709.8	653.0	623.4	593.7	574.7	555.8	542.0	528.2	522.5	516.9
45°	708.3	658.2	608.0	579.3	550.7	530.7	510.8	499.0	487.2	482.1	477.0
47.5°	657.1	610.6	564.0	535.8	507.7	489.8	471.9	462.7	453.4	446.3	439.1
50°	607.0	561.9	516.9	489.8	462.7	447.3	431.9	420.7	409.4	404.3	399.2
52.5°	558.9	517.9	477.0	449.3	421.7	406.9	392.0	382.3	372.6	361.8	351.1
55°	504.6	468.8	433.0	408.4	383.8	368.5	353.1	341.9	330.6	319.4	308.1
57.5°	459.6	424.3	389.0	366.9	344.9	330.1	315.3	303.0	290.7	281.5	272.3
60°	410.4	379.7	349.0	327.5	306.0	291.7	277.4	265.6	253.8	249.2	244.6
62.5°	364.4	335.7	307.1	288.1	269.2	255.4	241.6	233.9	226.2	223.1	220.1
65°	317.3	292.7	268.2	250.8	233.4	221.6	209.8	206.2	202.7	200.1	197.5
67.5°	273.3	252.3	231.3	216.0	200.6	192.4	184.2	180.1	176.1	173.0	169.9
70°	233.4	214.9	196.5	183.2	169.9	162.2	154.6	151.0	147.4	141.8	136.1
72.5°	190.4	176.1	161.7	151.5	141.3	134.6	127.9	120.8	113.6	108.5	103.4
75°	157.6	143.3	129.0	119.2	109.5	101.8	94.2	91.6	89.1	87.5	86.0
77.5°	120.8	108.5	96.2	88.5	80.9	77.3	73.7	72.2	70.6	70.1	69.6
80°	87.0	76.8	66.5	62.4	58.3	57.3	56.3	55.3	54.2	53.7	53.2
82.5°	54.2	49.1	44.0	43.0	42.0	41.5	40.9	40.4	39.9	39.4	38.9
85°	31.7	29.7	27.6	27.1	26.6	26.1	25.6	25.6	25.6	25.6	25.6
87.5°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	12.8	12.3
90°	12.8	15.1	18.6	22.1	25.6	29.0	27.9	29.0	30.2	31.4	33.7
92.5°	59.3	80.2	117.3	178.9	239.3	216.1	161.5	115.0	89.5	77.8	69.7
95°	105.7	151.0	249.8	422.9	613.5	689.0	558.8	418.3	283.5	221.9	180.1
97.5°	122.0	172.0	269.5	470.5	791.2	1059.6	1095.6	960.8	725.0	571.6	439.2
100°	139.4	184.7	266.1	438.0	743.6	1100.3	1329.2	1369.8	1275.7	1139.8	974.8
102.5°	159.2	199.8	270.7	410.1	673.9	1024.7	1340.8	1505.8	1525.5	1460.4	1371.0
105°	181.2	217.3	280.0	399.7	619.3	934.1	1267.6	1510.4	1626.6	1648.7	1618.5
107.5°	205.6	239.3	295.1	397.4	579.8	854.0	1163.0	1440.7	1623.1	1713.7	1745.1
110°	230.0	262.6	314.9	403.2	558.8	787.7	1065.4	1331.5	1545.3	1691.7	1773.0



TEST NUMBER: P832337

CATALOG NUMBER: S123RDIP-S775D1195U835-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	255.6	287.0	334.6	414.8	547.2	743.6	980.6	1223.4	1443.0	1611.5	1721.9
115°	281.2	312.5	356.7	427.6	546.1	714.5	915.5	1130.5	1332.6	1503.4	1630.1
117.5°	306.7	335.8	379.9	443.8	547.2	694.8	872.5	1058.4	1237.4	1394.2	1525.5
120°	331.1	360.2	402.0	462.4	551.9	682.0	840.0	1003.8	1160.7	1300.1	1417.5
122.5°	353.2	384.6	425.2	479.8	560.0	673.9	813.3	960.8	1099.1	1225.7	1332.6
125°	375.3	406.6	447.3	498.4	568.1	666.9	791.2	923.7	1050.3	1161.8	1254.8
127.5°	396.2	427.6	467.1	513.5	577.4	663.4	770.3	890.0	1005.0	1107.2	1193.2
130°	414.8	446.1	484.5	528.6	586.7	659.9	754.0	858.6	963.2	1057.3	1136.3
132.5°	432.2	462.4	499.6	542.6	593.7	658.8	738.9	829.6	923.7	1009.6	1084.0
135°	447.3	478.7	514.7	554.2	600.7	657.6	726.2	804.0	886.5	962.0	1028.2
137.5°	461.3	490.3	525.2	563.5	605.3	655.3	714.5	779.6	849.3	916.7	976.0
140°	472.9	501.9	535.6	570.5	610.0	654.1	704.1	758.7	817.9	873.7	923.7
142.5°	484.5	511.2	543.7	577.4	613.5	651.8	694.8	738.9	787.7	834.2	876.0
145°	493.8	520.5	550.7	582.1	614.6	649.5	686.7	723.8	762.2	799.4	833.0
147.5°	505.4	528.6	556.5	585.6	614.6	646.0	678.5	711.1	742.4	773.8	798.2
150°	514.7	535.6	562.3	586.7	614.6	641.3	670.4	697.1	723.8	748.2	770.3
152.5°	524.0	543.7	565.8	589.1	611.1	635.5	661.1	684.3	706.4	727.3	744.7
155°	534.4	550.7	570.5	589.1	608.8	628.6	651.8	671.5	690.1	707.6	721.5
157.5°	543.7	556.5	572.8	590.2	605.3	622.8	641.3	657.6	673.9	687.8	699.4
160°	550.7	562.3	576.3	590.2	603.0	615.8	630.9	646.0	658.8	670.4	678.5
162.5°	556.5	565.8	577.4	589.1	598.4	608.8	620.4	632.0	642.5	653.0	659.9
165°	561.2	569.3	578.6	586.7	593.7	601.8	611.1	620.4	627.4	635.5	641.3
167.5°	565.8	571.6	578.6	585.6	589.1	594.9	601.8	610.0	615.8	620.4	625.1
170°	569.3	571.6	577.4	582.1	584.4	587.9	593.7	599.5	603.0	607.6	610.0
172.5°	571.6	572.8	577.4	580.9	580.9	582.1	585.6	590.2	592.5	596.0	597.2
175°	572.8	574.0	576.3	578.6	577.4	577.4	579.8	582.1	583.2	585.6	585.6
177.5°	574.0	574.0	575.1	577.4	575.1	574.0	575.1	576.3	577.4	578.6	578.6
180°	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0	574.0



TEST NUMBER: P832337

CATALOG NUMBER: S123RDIP-S775D1195U835-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2496.5	2496.5	2496.5	2496.5
2.5°	2218.1	2212.9	2210.9	2208.9
5°	1901.3	1885.4	1881.8	1878.2
7.5°	1632.1	1625.4	1603.4	1581.4
10°	1413.5	1393.1	1383.9	1374.6
12.5°	1230.8	1211.9	1208.8	1205.8
15°	1089.1	1075.8	1071.2	1066.6
17.5°	995.9	986.7	981.1	975.5
20°	926.8	920.2	916.1	912.0
22.5°	874.1	869.0	865.9	862.9
25°	823.5	815.8	813.2	810.7
27.5°	775.3	768.7	766.1	763.6
30°	730.3	724.7	721.1	717.5
32.5°	681.2	674.5	672.5	670.4
35°	637.7	633.6	631.5	629.5
37.5°	591.6	586.5	583.4	580.4
40°	552.2	549.7	548.1	546.6
42.5°	512.3	507.7	507.2	506.7
45°	472.4	467.8	466.7	465.7
47.5°	435.0	430.9	430.4	429.9
50°	393.6	387.9	383.8	379.7
52.5°	346.0	340.8	337.3	333.7
55°	302.5	296.8	293.8	290.7
57.5°	269.7	267.2	265.6	264.1
60°	243.1	241.6	240.5	239.5
62.5°	218.5	217.0	217.0	217.0
65°	196.0	194.5	192.9	191.4
67.5°	166.8	163.8	163.3	162.7
70°	131.5	126.9	126.4	125.9
72.5°	102.9	102.4	101.3	100.3
75°	85.0	83.9	83.9	83.9
77.5°	68.6	67.6	67.6	67.6
80°	52.7	52.2	52.7	53.2
82.5°	38.9	38.9	38.4	37.9
85°	25.1	24.6	24.6	24.6
87.5°	12.3	12.3	12.3	12.3
90°	32.5	33.7	34.9	33.7
92.5°	67.4	62.7	63.9	61.6
95°	158.0	147.6	139.4	134.8
97.5°	361.3	317.2	289.3	276.5
100°	857.4	772.6	727.3	728.5
102.5°	1286.2	1223.4	1187.4	1153.7
105°	1565.0	1520.9	1483.7	1477.9
107.5°	1738.1	1717.2	1702.1	1689.3
110°	1805.5	1814.8	1812.5	1810.2



TEST NUMBER: P832337

CATALOG NUMBER: S123RDIP-S775D1195U835-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	1788.1	1821.8	1833.4	1834.6
115°	1717.2	1768.3	1791.6	1797.4
117.5°	1616.1	1673.1	1707.9	1716.0
120°	1509.2	1574.3	1602.2	1609.2
122.5°	1411.6	1468.6	1499.9	1509.2
125°	1329.2	1380.3	1409.3	1417.5
127.5°	1260.6	1304.8	1331.5	1338.4
130°	1197.9	1239.7	1264.1	1273.4
132.5°	1140.9	1182.8	1203.7	1209.5
135°	1085.2	1120.0	1140.9	1149.1
137.5°	1024.7	1060.8	1078.2	1085.2
140°	967.8	1000.4	1018.9	1017.8
142.5°	912.1	939.9	956.2	955.0
145°	862.1	886.5	895.8	898.1
147.5°	821.4	838.9	848.1	849.3
150°	787.7	800.5	807.5	807.5
152.5°	757.5	769.1	772.6	772.6
155°	732.0	741.3	743.6	744.7
157.5°	708.7	715.7	718.0	718.0
160°	686.7	693.6	693.6	692.5
162.5°	664.6	670.4	670.4	669.2
165°	646.0	650.6	649.5	649.5
167.5°	627.4	630.9	629.7	629.7
170°	611.1	613.5	612.3	612.3
172.5°	597.2	599.5	597.2	596.0
175°	585.6	586.7	585.6	584.4
177.5°	577.4	578.6	576.3	576.3
180°	574.0	574.0	574.0	574.0



TEST NUMBER: P832337

CATALOG NUMBER: S123RDIP-S775D1195U835-4F0-1E-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	11.53	12.29	12.55	13.31	14.68	16.19	16.95	17.21	17.98	19.34
	3H	12.74	13.42	13.78	14.46	15.84	17.69	18.37	18.72	19.40	20.78
	4H	13.12	13.77	14.17	14.80	16.20	18.17	18.82	19.22	19.85	21.24
	6H	13.40	13.99	14.46	15.03	16.44	18.48	19.07	19.53	20.11	21.52
	8H	13.49	14.05	14.55	15.10	16.50	18.56	19.12	19.62	20.17	21.58
	12H	13.54	14.07	14.60	15.12	16.54	18.59	19.12	19.65	20.17	21.59
4H	2H	12.24	12.89	13.29	13.92	15.32	16.18	16.82	17.23	17.86	19.25
	3H	13.61	14.14	14.66	15.20	16.61	17.83	18.36	18.89	19.43	20.83
	4H	14.06	14.55	15.12	15.60	17.03	18.43	18.92	19.50	19.98	21.41
	6H	14.42	14.84	15.50	15.92	17.34	18.87	19.29	19.94	20.37	21.79
	8H	14.55	14.94	15.62	16.01	17.45	19.00	19.39	20.07	20.46	21.90
	12H	14.62	14.97	15.71	16.06	17.50	19.06	19.41	20.15	20.49	21.94
8H	4H	14.37	14.76	15.44	15.83	17.27	18.40	18.79	19.47	19.86	21.30
	6H	14.83	15.15	15.93	16.26	17.70	18.89	19.21	19.99	20.33	21.76
	8H	15.02	15.31	16.13	16.40	17.86	19.08	19.36	20.18	20.45	21.91
	12H	15.16	15.41	16.27	16.50	17.99	19.19	19.44	20.30	20.53	22.02
12H	4H	14.38	14.73	15.47	15.81	17.26	18.34	18.70	19.43	19.78	21.22
	6H	14.89	15.17	15.99	16.27	17.72	18.87	19.15	19.97	20.24	21.70
	8H	15.10	15.35	16.21	16.44	17.94	19.06	19.30	20.16	20.39	21.89