

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: P831806

Luminaire Tested: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831806
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-S1000D1195U927-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1195 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

Summary

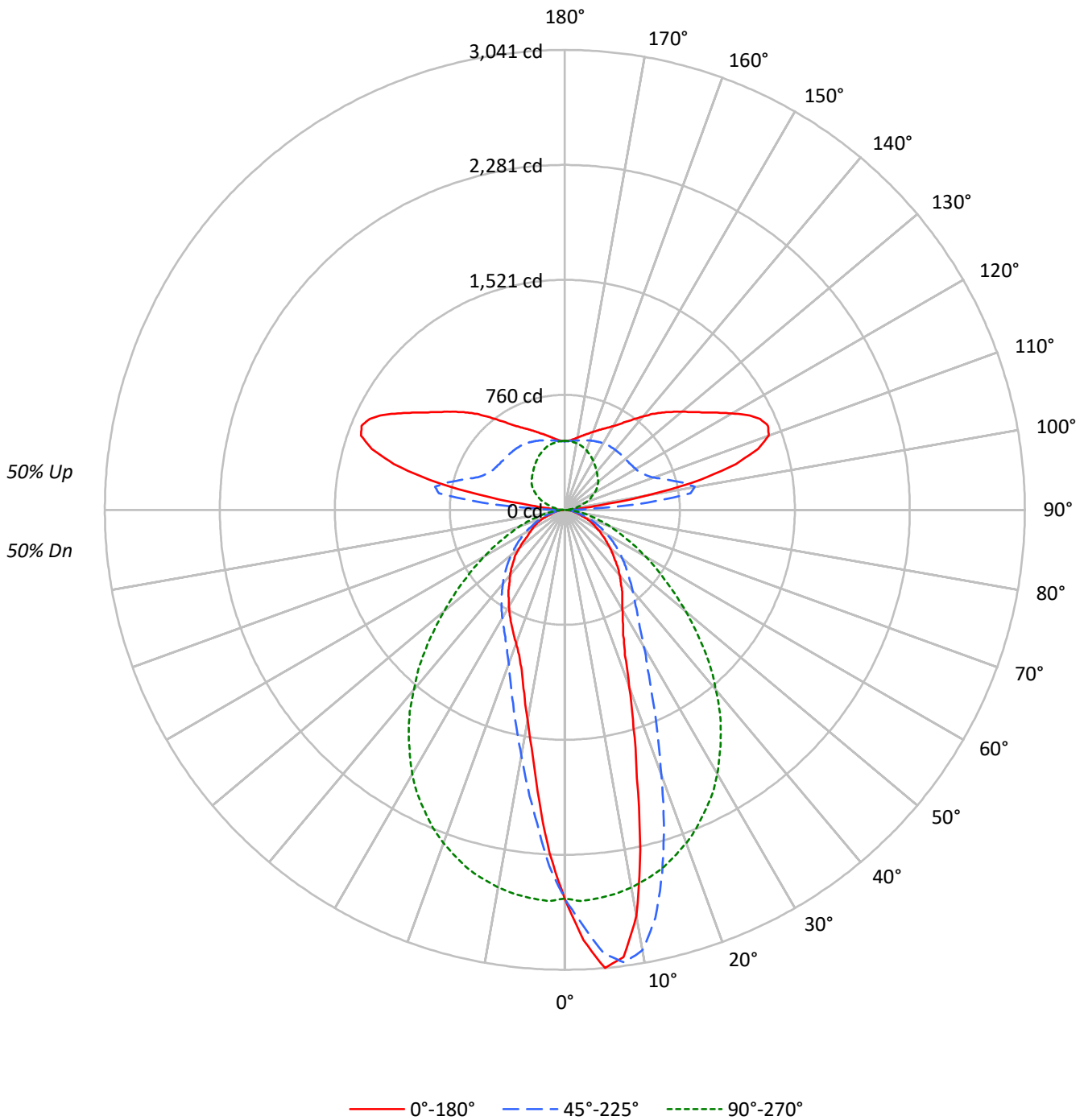
Lumens per Lamp: N/A
Luminaire Lumens: 6830.9 lumens
Efficiency: N/A
Efficacy: 103.3 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 66.1
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

TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

Luminous Intensity Polar Plot





TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

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	107	107	107	107	99	99	99	99	83	83	83	69	69	69	56	56	56	50				
1	99	95	91	88	91	87	84	82	74	72	70	62	60	59	51	50	49	44				
2	90	84	78	73	83	77	73	68	66	62	59	55	53	51	46	44	42	38				
3	83	74	67	62	77	69	63	58	59	55	51	50	47	44	41	39	37	33				
4	76	66	59	53	71	62	55	50	53	48	44	45	41	39	38	35	33	29				
5	71	60	52	46	65	56	49	44	48	43	39	41	37	34	34	32	29	26				
6	65	54	46	41	60	50	44	39	44	38	35	38	34	30	32	29	26	24				
7	61	49	42	36	56	46	39	34	40	35	31	35	30	27	29	26	24	21				
8	57	45	38	33	52	42	36	31	37	32	28	32	28	25	27	24	22	20				
9	53	41	34	29	49	39	32	28	34	29	25	30	26	23	25	22	20	18				
10	50	38	31	27	46	36	30	26	32	27	23	28	24	21	24	21	19	17				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	27670	27670	27670	27670	27670
5°	32855	31808	27845	22509	20897
10°	29768	32308	27705	18034	15471
15°	20495	27701	27413	14740	12238
20°	14258	21326	26862	12430	10757
25°	10866	16254	26062	11046	9913
30°	9459	12995	25061	10258	9183
35°	8683	10962	23641	9591	8518
40°	7924	9790	21785	8938	7908
45°	7156	8952	19783	8319	7301
50°	6496	8261	17421	7713	6548
55°	5874	7585	15150	7120	5617
60°	5264	6898	13160	6467	5309
65°	4860	6120	11329	5812	5020
70°	3947	5290	9885	5259	4079
75°	3464	4209	8372	4363	3593
80°	3137	3558	6862	3657	3397
85°	2865	3125	5212	3322	3125

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 20873 cd/sqm



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.3	3.4
10°-20°	542.2	7.9
20°-30°	622.1	9.1
30°-40°	613.2	9.0
40°-50°	540.7	7.9
50°-60°	416.0	6.1
60°-70°	273.5	4.0
70°-80°	132.8	1.9
80°-90°	36.0	0.5
90°-100°	246.7	3.6
100°-110°	722.3	10.6
110°-120°	705.4	10.3
120°-130°	561.8	8.2
130°-140°	443.2	6.5
140°-150°	330.6	4.8
150°-160°	230.5	3.4
160°-170°	135.4	2.0
170°-180°	44.1	0.6
0°-30°	1398.6	20.5
0°-40°	2011.7	29.5
0°-60°	2968.5	43.5
0°-90°	3410.8	49.9
90°-120°	1674.5	24.5
90°-150°	3010.1	44.1
90°-180°	3420.0	50.1
0°-180°	6830.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2571	2571	2571	2571	2571	
5°	3041	2944	2577	2083	1934	278
15°	1839	2486	2460	1323	1098	519
25°	915	1369	2194	930	835	432
35°	661	834	1799	730	648	412
45°	470	588	1300	546	480	365
55°	313	404	807	379	299	281
65°	191	240	445	228	197	187
75°	83	101	201	105	86	90
85°	23	25	42	27	25	25
90°	27	23	2	23	27	15
95°	107	546	31	546	107	174
105°	1171	740	107	740	1171	1168
115°	1424	566	189	566	1424	1388
125°	1123	528	262	528	1123	1016
135°	910	521	307	521	910	706
145°	712	514	351	514	712	452
155°	590	498	398	498	590	275
165°	514	477	435	477	514	147
175°	463	457	454	457	463	45
180°	455	455	455	455	455	



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6
2.5°	2848.9	2839.9	2831.0	2828.3	2825.7	2817.3	2808.8	2789.9	2770.9	2751.4	2731.9
5°	3040.7	3041.8	3042.8	3040.2	3037.6	3026.5	3015.4	2992.2	2969.0	2943.8	2918.5
7.5°	2981.7	2998.6	3015.4	3018.6	3021.7	3030.2	3038.6	3033.3	3028.1	3018.6	3009.1
10°	2723.5	2722.4	2721.4	2740.3	2759.3	2815.7	2872.1	2901.1	2930.0	2955.9	2981.7
12.5°	2301.9	2303.5	2305.0	2367.2	2429.4	2482.6	2535.9	2609.6	2683.4	2763.0	2842.6
15°	1839.2	1865.0	1890.8	1946.2	2001.5	2081.6	2161.7	2260.8	2359.8	2485.8	2611.7
17.5°	1510.3	1521.4	1532.5	1585.7	1638.9	1714.8	1790.7	1903.0	2015.2	2177.5	2339.8
20°	1244.7	1254.8	1264.8	1303.2	1341.7	1414.4	1487.2	1594.1	1701.1	1861.8	2022.6
22.5°	1039.2	1058.7	1078.2	1104.0	1129.9	1182.6	1235.3	1344.3	1453.4	1599.9	1746.4
25°	914.9	923.8	932.8	954.9	977.0	1027.6	1078.2	1150.4	1222.6	1368.6	1514.6
27.5°	830.5	833.2	835.8	852.1	868.5	901.1	933.8	1000.7	1067.7	1187.8	1308.0
30°	761.0	765.7	770.5	783.1	795.8	819.5	843.2	890.6	938.0	1045.5	1153.0
32.5°	707.2	709.9	712.5	723.0	733.6	751.0	768.3	805.8	843.2	925.4	1007.6
35°	660.8	661.4	661.9	669.8	677.7	694.6	711.4	742.5	773.6	834.2	894.8
37.5°	608.1	611.8	615.5	621.3	627.1	641.9	656.6	681.9	707.2	757.3	807.3
40°	563.9	567.0	570.2	577.1	583.9	595.5	607.1	630.3	653.5	696.7	739.9
42.5°	519.6	521.7	523.8	530.7	537.5	551.8	566.0	584.4	602.9	638.7	674.5
45°	470.1	475.3	480.6	488.0	495.4	507.5	519.6	538.6	557.6	588.1	618.7
47.5°	429.0	431.6	434.2	440.6	446.9	461.6	476.4	493.3	510.1	538.6	567.0
50°	387.9	388.9	390.0	395.8	401.6	414.7	427.9	447.4	466.9	493.3	519.6
52.5°	348.9	351.5	354.1	359.9	365.7	374.7	383.6	403.7	423.7	449.5	475.3
55°	313.0	314.6	316.2	320.4	324.6	335.2	345.7	363.1	380.5	404.2	427.9
57.5°	279.3	281.4	283.5	286.7	289.8	299.3	308.8	324.1	339.4	363.1	386.8
60°	244.5	247.2	249.8	253.5	257.2	264.5	271.9	285.6	299.3	320.4	341.5
62.5°	219.2	219.8	220.3	223.4	226.6	231.9	237.1	248.2	259.3	280.4	301.4
65°	190.8	192.4	193.9	195.5	197.1	201.3	205.5	215.0	224.5	240.3	256.1
67.5°	161.3	162.8	164.4	167.1	169.7	173.4	177.1	183.4	189.7	204.5	219.2
70°	125.4	125.4	125.4	129.6	133.9	140.2	146.5	151.2	156.0	168.1	180.2
72.5°	102.2	102.8	103.3	103.8	104.3	108.0	111.7	119.6	127.5	134.9	142.3
75°	83.3	83.8	84.3	84.8	85.4	86.4	87.5	90.1	92.7	101.2	109.6
77.5°	66.4	66.9	67.5	68.0	68.5	69.6	70.6	71.7	72.7	75.9	79.0
80°	50.6	51.1	51.6	52.2	52.7	53.2	53.8	54.8	55.9	57.4	59.0
82.5°	36.9	36.9	36.9	36.9	36.9	37.9	39.0	39.0	39.0	40.1	41.1
85°	23.2	23.2	23.2	23.7	24.2	24.2	24.2	24.8	25.3	25.3	25.3
87.5°	10.5	10.0	9.5	10.0	10.5	10.5	10.5	11.1	11.6	11.6	11.6
90°	26.7	27.6	26.7	25.8	26.7	24.9	23.9	23.0	22.1	23.0	20.2
92.5°	48.8	50.6	49.7	53.4	55.2	61.7	70.9	91.1	127.9	171.2	189.6
95°	106.8	110.4	116.9	125.2	142.7	175.8	224.6	331.3	442.7	545.8	486.0
97.5°	219.1	229.2	251.3	286.2	347.9	452.8	574.3	761.2	867.9	839.4	626.8
100°	577.1	576.2	612.1	679.3	772.2	902.9	1010.6	1085.1	1052.9	871.6	589.1
102.5°	914.0	940.6	969.2	1018.9	1086.1	1156.9	1208.5	1192.8	1062.1	811.8	533.8
105°	1170.7	1175.3	1204.8	1239.8	1282.1	1306.0	1288.6	1196.5	1004.1	740.0	490.6
107.5°	1338.3	1348.4	1360.3	1376.9	1382.4	1357.6	1285.8	1141.3	921.3	676.5	459.3
110°	1434.0	1435.8	1437.7	1430.3	1404.5	1340.1	1224.1	1054.8	844.0	624.0	442.7



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1453.3	1452.4	1443.2	1416.5	1364.0	1276.6	1143.1	969.2	776.8	589.1	433.5
115°	1423.8	1419.2	1400.8	1360.3	1291.3	1191.0	1055.7	895.5	725.3	566.0	432.6
117.5°	1359.4	1353.0	1325.4	1280.3	1208.5	1104.5	980.2	838.5	691.2	550.4	433.5
120°	1274.7	1269.2	1247.1	1195.6	1122.9	1029.9	919.5	795.2	665.4	540.3	437.2
122.5°	1195.6	1188.2	1163.4	1118.3	1055.7	971.0	870.7	761.2	644.3	533.8	443.6
125°	1122.9	1116.4	1093.4	1052.9	994.0	920.4	832.0	731.7	626.8	528.3	450.1
127.5°	1060.3	1054.8	1033.6	998.6	945.2	877.1	796.1	705.0	610.2	525.5	457.4
130°	1008.8	1001.4	982.1	948.9	900.1	837.6	763.0	680.2	597.3	522.8	464.8
132.5°	958.1	953.5	937.0	903.8	858.7	799.8	731.7	657.2	585.4	521.9	470.3
135°	910.3	903.8	887.3	859.6	814.5	762.1	702.3	636.9	575.2	520.9	475.8
137.5°	859.6	854.1	840.3	811.8	773.1	726.2	672.8	617.6	566.0	519.1	479.5
140°	806.3	807.2	792.5	766.7	731.7	692.1	648.0	601.0	557.8	518.2	483.2
142.5°	756.6	757.5	744.6	722.5	694.0	660.8	624.0	585.4	550.4	516.3	486.0
145°	711.5	709.6	702.3	682.9	659.9	633.2	603.8	573.4	544.0	514.5	486.9
147.5°	672.8	671.9	664.5	650.7	632.3	613.0	588.1	563.3	537.5	511.7	486.9
150°	639.7	639.7	634.2	624.0	610.2	592.7	573.4	552.2	531.1	508.1	486.9
152.5°	612.1	612.1	609.3	600.1	590.0	576.2	559.6	542.1	523.7	503.5	484.1
155°	590.0	589.1	587.2	579.8	571.6	560.5	546.7	532.0	516.3	497.9	482.3
157.5°	568.8	568.8	567.0	561.4	554.1	544.9	533.8	520.9	508.1	493.3	479.5
160°	548.6	549.5	549.5	544.0	537.5	531.1	521.9	511.7	499.8	487.8	477.7
162.5°	530.1	531.1	531.1	526.5	522.8	517.3	509.0	500.7	491.5	482.3	474.0
165°	514.5	514.5	515.4	511.7	508.1	503.5	497.0	491.5	484.1	476.8	470.3
167.5°	498.9	498.9	499.8	497.0	495.2	491.5	487.8	483.2	476.8	471.2	466.6
170°	485.0	485.0	486.0	484.1	483.2	481.4	477.7	474.9	470.3	465.7	463.0
172.5°	472.2	473.1	474.9	473.1	473.1	472.2	469.4	467.6	463.9	461.1	460.2
175°	463.0	463.9	464.8	463.9	463.9	463.9	462.0	461.1	459.3	457.4	457.4
177.5°	456.5	456.5	458.4	457.4	458.4	458.4	457.4	456.5	455.6	454.7	455.6
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6
2.5°	2729.3	2726.6	2701.3	2676.0	2651.3	2626.5	2608.1	2589.6	2558.5	2527.4	2507.9
5°	2898.4	2878.4	2838.4	2798.3	2738.2	2678.1	2627.6	2577.0	2512.7	2448.4	2394.6
7.5°	2992.8	2976.4	2927.9	2879.5	2799.9	2720.3	2641.3	2562.2	2467.4	2372.5	2291.3
10°	2995.4	3009.1	2969.0	2929.0	2839.4	2749.8	2642.3	2534.8	2407.3	2279.7	2174.9
12.5°	2901.6	2960.6	2952.2	2943.8	2852.6	2761.4	2630.7	2500.0	2343.5	2187.0	2055.8
15°	2726.1	2840.5	2874.2	2907.9	2832.6	2757.2	2608.6	2460.0	2276.1	2092.1	1941.4
17.5°	2500.0	2660.2	2749.3	2838.4	2783.5	2728.7	2565.9	2403.1	2196.0	1988.9	1825.0
20°	2232.3	2442.1	2581.7	2721.4	2701.3	2681.3	2513.2	2345.1	2121.7	1898.2	1720.6
22.5°	1967.8	2189.1	2382.0	2574.9	2595.4	2616.0	2446.3	2276.6	2032.1	1787.5	1606.8
25°	1739.6	1964.6	2194.4	2424.1	2470.5	2516.9	2355.6	2194.4	1940.9	1687.4	1507.7
27.5°	1521.9	1735.9	1988.9	2241.8	2326.1	2410.4	2262.9	2115.3	1851.3	1587.3	1408.1
30°	1344.3	1535.6	1793.9	2052.1	2169.6	2287.1	2151.7	2016.3	1754.3	1492.4	1316.9
32.5°	1178.9	1350.1	1609.4	1868.7	2005.2	2141.7	2024.7	1907.7	1655.8	1403.9	1230.5
35°	1048.2	1201.5	1443.4	1685.3	1838.1	1991.0	1895.0	1799.1	1553.0	1306.9	1143.0
37.5°	935.9	1064.5	1291.6	1518.8	1681.1	1843.4	1763.3	1683.2	1451.9	1220.5	1065.6
40°	843.2	946.5	1157.8	1369.1	1528.3	1687.4	1618.9	1550.4	1343.3	1136.2	991.3
42.5°	763.6	852.7	1042.4	1232.1	1378.1	1524.0	1478.7	1433.4	1245.8	1058.2	923.8
45°	693.5	768.3	935.4	1102.5	1236.8	1371.2	1335.4	1299.6	1137.8	976.0	852.7
47.5°	631.3	695.6	844.8	993.9	1114.6	1235.3	1202.1	1168.9	1035.0	901.1	788.9
50°	574.4	629.2	753.6	878.0	986.5	1095.1	1067.7	1040.3	929.6	818.9	722.0
52.5°	520.7	566.0	677.7	789.4	876.9	964.4	943.3	922.2	836.9	751.5	663.5
55°	469.5	511.2	605.5	699.8	774.7	849.5	828.4	807.3	740.9	674.5	597.1
57.5°	423.2	459.5	535.9	612.4	671.9	731.5	721.4	711.4	656.1	600.8	537.0
60°	374.2	406.8	472.7	538.6	586.5	634.5	622.9	611.3	571.8	532.3	477.5
62.5°	330.4	359.4	412.1	464.8	503.8	542.8	534.4	525.9	495.9	465.9	420.5
65°	284.6	313.0	355.7	398.4	429.0	459.5	452.2	444.8	422.1	399.5	363.1
67.5°	242.9	266.7	303.5	340.4	361.0	381.5	377.3	373.1	355.7	338.3	309.9
70°	200.8	221.3	251.9	282.5	296.7	310.9	312.5	314.1	298.3	282.5	261.4
72.5°	158.6	175.0	203.4	231.9	242.9	254.0	253.5	253.0	243.5	234.0	215.0
75°	121.7	133.9	156.0	178.1	187.6	197.1	199.2	201.3	192.4	183.4	172.9
77.5°	87.5	95.9	112.8	129.6	140.2	150.7	151.8	152.8	148.6	144.4	134.4
80°	61.7	64.3	74.8	85.4	96.4	107.5	109.1	110.7	106.5	102.2	95.9
82.5°	42.7	44.3	48.0	51.6	60.6	69.6	71.7	73.8	71.7	69.6	62.7
85°	25.8	26.3	27.9	29.5	33.7	37.9	40.1	42.2	41.1	40.1	36.4
87.5°	11.6	11.6	12.1	12.6	13.7	14.8	17.4	20.0	18.4	16.9	15.3
90°	17.5	14.7	12.0	10.1	8.3	5.5	3.7	1.8	3.7	5.5	8.3
92.5°	141.7	93.0	63.5	46.9	37.7	29.5	20.2	13.8	20.2	29.5	37.7
95°	335.0	197.9	119.7	83.8	59.8	44.2	34.1	31.3	34.1	44.2	59.8
97.5°	372.8	213.5	136.2	96.6	72.7	58.9	50.6	49.7	50.6	58.9	72.7
100°	347.0	210.8	146.3	110.4	88.4	75.5	69.0	68.1	69.0	75.5	88.4
102.5°	324.9	214.5	158.3	126.1	106.8	94.8	89.3	87.4	89.3	94.8	106.8
105°	316.6	221.8	172.1	143.6	126.1	115.0	109.5	106.8	109.5	115.0	126.1
107.5°	314.8	233.8	189.6	162.9	146.3	135.3	129.8	127.0	129.8	135.3	146.3
110°	319.4	249.4	208.0	182.2	166.6	156.5	151.9	149.1	151.9	156.5	166.6



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	328.6	265.1	227.3	202.5	186.8	176.7	172.1	169.4	172.1	176.7	186.8
115°	338.7	282.6	247.6	222.7	207.1	197.9	192.4	188.7	192.4	197.9	207.1
117.5°	351.6	301.0	266.0	243.0	225.5	217.2	212.6	208.0	212.6	217.2	225.5
120°	366.3	318.5	285.3	262.3	244.8	235.6	231.0	228.3	231.0	235.6	244.8
122.5°	380.1	336.9	304.7	279.8	263.2	253.1	248.5	245.7	248.5	253.1	263.2
125°	394.8	354.4	322.1	297.3	279.8	269.7	264.2	262.3	264.2	269.7	279.8
127.5°	406.8	370.0	338.7	313.9	294.5	284.4	278.0	275.2	278.0	284.4	294.5
130°	418.8	383.8	353.4	328.6	309.3	298.2	289.9	287.2	289.9	298.2	309.3
132.5°	429.8	395.8	366.3	342.4	323.1	309.3	300.0	296.4	300.0	309.3	323.1
135°	439.0	407.7	379.2	354.4	335.0	321.2	311.1	307.4	311.1	321.2	335.0
137.5°	446.4	416.0	388.4	365.4	346.1	331.3	321.2	317.5	321.2	331.3	346.1
140°	451.9	424.3	397.6	374.6	356.2	341.5	332.3	327.7	332.3	341.5	356.2
142.5°	457.4	430.7	405.0	383.8	365.4	352.5	342.4	338.7	342.4	352.5	365.4
145°	461.1	436.3	412.3	391.2	375.5	361.7	353.4	350.7	353.4	361.7	375.5
147.5°	463.9	440.9	418.8	400.4	384.7	372.8	364.5	362.6	364.5	372.8	384.7
150°	464.8	445.5	424.3	407.7	394.8	382.9	375.5	374.6	375.5	382.9	394.8
152.5°	466.6	448.2	430.7	415.1	404.1	393.9	386.6	386.6	386.6	393.9	404.1
155°	466.6	451.9	436.3	423.4	413.3	404.1	398.5	398.5	398.5	404.1	413.3
157.5°	467.6	453.8	440.9	430.7	421.5	413.3	408.7	407.7	408.7	413.3	421.5
160°	467.6	456.5	445.5	436.3	429.8	422.5	418.8	418.8	418.8	422.5	429.8
162.5°	466.6	457.4	448.2	440.9	435.3	429.8	427.1	427.1	427.1	429.8	435.3
165°	464.8	458.4	451.0	444.6	440.9	436.3	434.4	435.3	434.4	436.3	440.9
167.5°	463.9	458.4	452.8	448.2	445.5	441.8	440.9	441.8	440.9	441.8	445.5
170°	461.1	457.4	452.8	451.0	449.2	446.4	445.5	447.3	445.5	446.4	449.2
172.5°	460.2	457.4	453.8	452.8	451.9	450.1	450.1	451.0	450.1	450.1	451.9
175°	458.4	456.5	454.7	453.8	453.8	451.9	452.8	453.8	452.8	451.9	453.8
177.5°	457.4	455.6	454.7	454.7	454.7	453.8	454.7	455.6	454.7	453.8	454.7
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6	2570.6
2.5°	2488.4	2458.4	2428.4	2406.8	2385.1	2358.3	2331.4	2330.3	2329.3	2309.3	2289.2
5°	2340.9	2288.7	2236.5	2185.4	2134.3	2083.2	2032.1	2020.5	2008.9	1991.5	1974.1
7.5°	2210.2	2126.9	2043.7	1978.3	1913.0	1861.8	1810.7	1775.9	1741.2	1714.3	1687.4
10°	2070.0	1966.7	1863.4	1784.4	1705.3	1650.0	1594.7	1554.6	1514.6	1495.6	1476.6
12.5°	1924.6	1812.3	1700.1	1622.6	1545.1	1478.7	1412.3	1376.0	1339.6	1313.3	1286.9
15°	1790.7	1670.0	1549.3	1467.1	1384.9	1322.7	1260.6	1224.2	1187.8	1161.5	1135.1
17.5°	1661.1	1539.3	1417.6	1334.3	1251.1	1194.7	1138.3	1103.0	1067.7	1051.3	1035.0
20°	1543.0	1420.2	1297.4	1218.9	1140.4	1085.1	1029.7	1010.8	991.8	976.5	961.2
22.5°	1426.0	1308.0	1189.9	1114.6	1039.2	999.2	959.1	943.8	928.6	917.0	905.4
25°	1328.0	1210.5	1093.0	1027.1	961.2	930.1	899.0	889.0	879.0	867.4	855.8
27.5°	1228.9	1117.2	1005.5	952.8	900.1	874.8	849.5	836.9	824.2	814.7	805.2
30°	1141.5	1038.2	934.9	891.1	847.4	825.3	803.1	789.4	775.7	766.8	757.8
32.5°	1057.1	965.4	873.7	836.3	798.9	777.3	755.7	742.5	729.4	718.8	708.3
35°	979.1	899.6	820.0	785.7	751.5	729.9	708.3	695.1	681.9	671.4	660.8
37.5°	910.6	838.4	766.2	734.1	701.9	683.0	664.0	650.3	636.6	625.5	614.5
40°	846.3	782.6	718.8	687.7	656.6	636.1	615.5	603.4	591.3	581.3	571.3
42.5°	789.4	730.9	672.4	641.9	611.3	591.8	572.3	558.1	543.9	538.1	532.3
45°	729.4	677.7	626.1	596.5	567.0	546.5	525.9	513.8	501.7	496.4	491.2
47.5°	676.7	628.7	580.7	551.8	522.8	504.3	485.9	476.4	466.9	459.5	452.2
50°	625.0	578.6	532.3	504.3	476.4	460.6	444.8	433.2	421.6	416.3	411.1
52.5°	575.5	533.3	491.2	462.7	434.2	419.0	403.7	393.7	383.6	372.6	361.5
55°	519.6	482.7	445.8	420.5	395.2	379.4	363.6	352.0	340.4	328.8	317.2
57.5°	473.2	436.9	400.5	377.8	355.2	339.9	324.6	312.0	299.3	289.8	280.4
60°	422.6	391.0	359.4	337.3	315.1	300.4	285.6	273.5	261.4	256.6	251.9
62.5°	375.2	345.7	316.2	296.7	277.2	263.0	248.7	240.8	232.9	229.8	226.6
65°	326.7	301.4	276.1	258.2	240.3	228.2	216.1	212.4	208.7	206.1	203.4
67.5°	281.4	259.8	238.2	222.4	206.6	198.1	189.7	185.5	181.3	178.1	175.0
70°	240.3	221.3	202.4	188.7	175.0	167.1	159.2	155.5	151.8	146.0	140.2
72.5°	196.0	181.3	166.5	156.0	145.4	138.6	131.7	124.4	117.0	111.7	106.5
75°	162.3	147.6	132.8	122.8	112.8	104.9	97.0	94.3	91.7	90.1	88.5
77.5°	124.4	111.7	99.1	91.2	83.3	79.6	75.9	74.3	72.7	72.2	71.7
80°	89.6	79.0	68.5	64.3	60.1	59.0	58.0	56.9	55.9	55.3	54.8
82.5°	55.9	50.6	45.3	44.3	43.2	42.7	42.2	41.6	41.1	40.6	40.1
85°	32.7	30.6	28.5	27.9	27.4	26.9	26.3	26.3	26.3	26.3	26.3
87.5°	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.7	13.2	12.6
90°	10.1	12.0	14.7	17.5	20.2	23.0	22.1	23.0	23.9	24.9	26.7
92.5°	46.9	63.5	93.0	141.7	189.6	171.2	127.9	91.1	70.9	61.7	55.2
95°	83.8	119.7	197.9	335.0	486.0	545.8	442.7	331.3	224.6	175.8	142.7
97.5°	96.6	136.2	213.5	372.8	626.8	839.4	867.9	761.2	574.3	452.8	347.9
100°	110.4	146.3	210.8	347.0	589.1	871.6	1052.9	1085.1	1010.6	902.9	772.2
102.5°	126.1	158.3	214.5	324.9	533.8	811.8	1062.1	1192.8	1208.5	1156.9	1086.1
105°	143.6	172.1	221.8	316.6	490.6	740.0	1004.1	1196.5	1288.6	1306.0	1282.1
107.5°	162.9	189.6	233.8	314.8	459.3	676.5	921.3	1141.3	1285.8	1357.6	1382.4
110°	182.2	208.0	249.4	319.4	442.7	624.0	844.0	1054.8	1224.1	1340.1	1404.5



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	202.5	227.3	265.1	328.6	433.5	589.1	776.8	969.2	1143.1	1276.6	1364.0
115°	222.7	247.6	282.6	338.7	432.6	566.0	725.3	895.5	1055.7	1191.0	1291.3
117.5°	243.0	266.0	301.0	351.6	433.5	550.4	691.2	838.5	980.2	1104.5	1208.5
120°	262.3	285.3	318.5	366.3	437.2	540.3	665.4	795.2	919.5	1029.9	1122.9
122.5°	279.8	304.7	336.9	380.1	443.6	533.8	644.3	761.2	870.7	971.0	1055.7
125°	297.3	322.1	354.4	394.8	450.1	528.3	626.8	731.7	832.0	920.4	994.0
127.5°	313.9	338.7	370.0	406.8	457.4	525.5	610.2	705.0	796.1	877.1	945.2
130°	328.6	353.4	383.8	418.8	464.8	522.8	597.3	680.2	763.0	837.6	900.1
132.5°	342.4	366.3	395.8	429.8	470.3	521.9	585.4	657.2	731.7	799.8	858.7
135°	354.4	379.2	407.7	439.0	475.8	520.9	575.2	636.9	702.3	762.1	814.5
137.5°	365.4	388.4	416.0	446.4	479.5	519.1	566.0	617.6	672.8	726.2	773.1
140°	374.6	397.6	424.3	451.9	483.2	518.2	557.8	601.0	648.0	692.1	731.7
142.5°	383.8	405.0	430.7	457.4	486.0	516.3	550.4	585.4	624.0	660.8	694.0
145°	391.2	412.3	436.3	461.1	486.9	514.5	544.0	573.4	603.8	633.2	659.9
147.5°	400.4	418.8	440.9	463.9	486.9	511.7	537.5	563.3	588.1	613.0	632.3
150°	407.7	424.3	445.5	464.8	486.9	508.1	531.1	552.2	573.4	592.7	610.2
152.5°	415.1	430.7	448.2	466.6	484.1	503.5	523.7	542.1	559.6	576.2	590.0
155°	423.4	436.3	451.9	466.6	482.3	497.9	516.3	532.0	546.7	560.5	571.6
157.5°	430.7	440.9	453.8	467.6	479.5	493.3	508.1	520.9	533.8	544.9	554.1
160°	436.3	445.5	456.5	467.6	477.7	487.8	499.8	511.7	521.9	531.1	537.5
162.5°	440.9	448.2	457.4	466.6	474.0	482.3	491.5	500.7	509.0	517.3	522.8
165°	444.6	451.0	458.4	464.8	470.3	476.8	484.1	491.5	497.0	503.5	508.1
167.5°	448.2	452.8	458.4	463.9	466.6	471.2	476.8	483.2	487.8	491.5	495.2
170°	451.0	452.8	457.4	461.1	463.0	465.7	470.3	474.9	477.7	481.4	483.2
172.5°	452.8	453.8	457.4	460.2	460.2	461.1	463.9	467.6	469.4	472.2	473.1
175°	453.8	454.7	456.5	458.4	457.4	457.4	459.3	461.1	462.0	463.9	463.9
177.5°	454.7	454.7	455.6	457.4	455.6	454.7	455.6	456.5	457.4	458.4	458.4
180°	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7	454.7



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2570.6	2570.6	2570.6	2570.6
2.5°	2284.0	2278.7	2276.6	2274.5
5°	1957.8	1941.4	1937.7	1934.0
7.5°	1680.6	1673.7	1651.1	1628.4
10°	1455.5	1434.5	1425.0	1415.5
12.5°	1267.4	1247.9	1244.7	1241.6
15°	1121.4	1107.7	1103.0	1098.2
17.5°	1025.5	1016.0	1010.2	1004.4
20°	954.4	947.5	943.3	939.1
22.5°	900.1	894.8	891.7	888.5
25°	847.9	840.0	837.4	834.7
27.5°	798.4	791.5	788.9	786.3
30°	752.0	746.2	742.5	738.8
32.5°	701.4	694.6	692.5	690.4
35°	656.6	652.4	650.3	648.2
37.5°	609.2	603.9	600.8	597.6
40°	568.6	566.0	564.4	562.8
42.5°	527.5	522.8	522.2	521.7
45°	486.4	481.7	480.6	479.6
47.5°	447.9	443.7	443.2	442.7
50°	405.3	399.5	395.2	391.0
52.5°	356.2	351.0	347.3	343.6
55°	311.4	305.7	302.5	299.3
57.5°	277.7	275.1	273.5	271.9
60°	250.3	248.7	247.7	246.6
62.5°	225.0	223.4	223.4	223.4
65°	201.8	200.3	198.7	197.1
67.5°	171.8	168.6	168.1	167.6
70°	135.4	130.7	130.2	129.6
72.5°	105.9	105.4	104.3	103.3
75°	87.5	86.4	86.4	86.4
77.5°	70.6	69.6	69.6	69.6
80°	54.3	53.8	54.3	54.8
82.5°	40.1	40.1	39.5	39.0
85°	25.8	25.3	25.3	25.3
87.5°	12.6	12.6	12.6	12.6
90°	25.8	26.7	27.6	26.7
92.5°	53.4	49.7	50.6	48.8
95°	125.2	116.9	110.4	106.8
97.5°	286.2	251.3	229.2	219.1
100°	679.3	612.1	576.2	577.1
102.5°	1018.9	969.2	940.6	914.0
105°	1239.8	1204.8	1175.3	1170.7
107.5°	1376.9	1360.3	1348.4	1338.3
110°	1430.3	1437.7	1435.8	1434.0



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	1416.5	1443.2	1452.4	1453.3
115°	1360.3	1400.8	1419.2	1423.8
117.5°	1280.3	1325.4	1353.0	1359.4
120°	1195.6	1247.1	1269.2	1274.7
122.5°	1118.3	1163.4	1188.2	1195.6
125°	1052.9	1093.4	1116.4	1122.9
127.5°	998.6	1033.6	1054.8	1060.3
130°	948.9	982.1	1001.4	1008.8
132.5°	903.8	937.0	953.5	958.1
135°	859.6	887.3	903.8	910.3
137.5°	811.8	840.3	854.1	859.6
140°	766.7	792.5	807.2	806.3
142.5°	722.5	744.6	757.5	756.6
145°	682.9	702.3	709.6	711.5
147.5°	650.7	664.5	671.9	672.8
150°	624.0	634.2	639.7	639.7
152.5°	600.1	609.3	612.1	612.1
155°	579.8	587.2	589.1	590.0
157.5°	561.4	567.0	568.8	568.8
160°	544.0	549.5	549.5	548.6
162.5°	526.5	531.1	531.1	530.1
165°	511.7	515.4	514.5	514.5
167.5°	497.0	499.8	498.9	498.9
170°	484.1	486.0	485.0	485.0
172.5°	473.1	474.9	473.1	472.2
175°	463.9	464.8	463.9	463.0
177.5°	457.4	458.4	456.5	456.5
180°	454.7	454.7	454.7	454.7



TEST NUMBER: P831806

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-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	12.27	13.08	13.24	14.06	15.33	16.94	17.75	17.91	18.72	20.00
	3H	13.49	14.22	14.47	15.20	16.50	18.44	19.16	19.42	20.14	21.44
	4H	13.88	14.56	14.87	15.55	16.85	18.93	19.61	19.92	20.60	21.90
	6H	14.16	14.78	15.16	15.78	17.10	19.24	19.86	20.24	20.86	22.18
	8H	14.24	14.84	15.25	15.85	17.16	19.31	19.91	20.32	20.92	22.24
	12H	14.29	14.86	15.31	15.86	17.20	19.35	19.91	20.36	20.92	22.26
4H	2H	13.00	13.68	14.00	14.67	15.97	16.93	17.61	17.93	18.60	19.91
	3H	14.36	14.93	15.37	15.95	17.27	18.59	19.15	19.60	20.17	21.49
	4H	14.82	15.33	15.83	16.34	17.69	19.19	19.71	20.21	20.72	22.07
	6H	15.18	15.63	16.21	16.66	18.00	19.63	20.07	20.66	21.11	22.45
	8H	15.31	15.72	16.34	16.75	18.10	19.76	20.17	20.79	21.20	22.56
	12H	15.38	15.76	16.43	16.80	18.16	19.82	20.20	20.87	21.24	22.60
8H	4H	15.13	15.54	16.16	16.57	17.93	19.16	19.57	20.19	20.60	21.95
	6H	15.59	15.93	16.64	17.00	18.36	19.65	20.00	20.71	21.06	22.42
	8H	15.79	16.09	16.84	17.14	18.51	19.84	20.14	20.90	21.19	22.57
	12H	15.93	16.19	16.99	17.24	18.65	19.96	20.22	21.02	21.27	22.68
12H	4H	15.14	15.51	16.18	16.55	17.91	19.11	19.48	20.15	20.52	21.88
	6H	15.65	15.95	16.71	17.01	18.38	19.63	19.93	20.69	20.98	22.36
	8H	15.87	16.13	16.93	17.18	18.60	19.82	20.08	20.88	21.13	22.55