

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: P831777

Luminaire Tested: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831777
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-5)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123RDIP-S1000D1025U927-4F0-1E-UDD-G
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1025 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: -

Summary

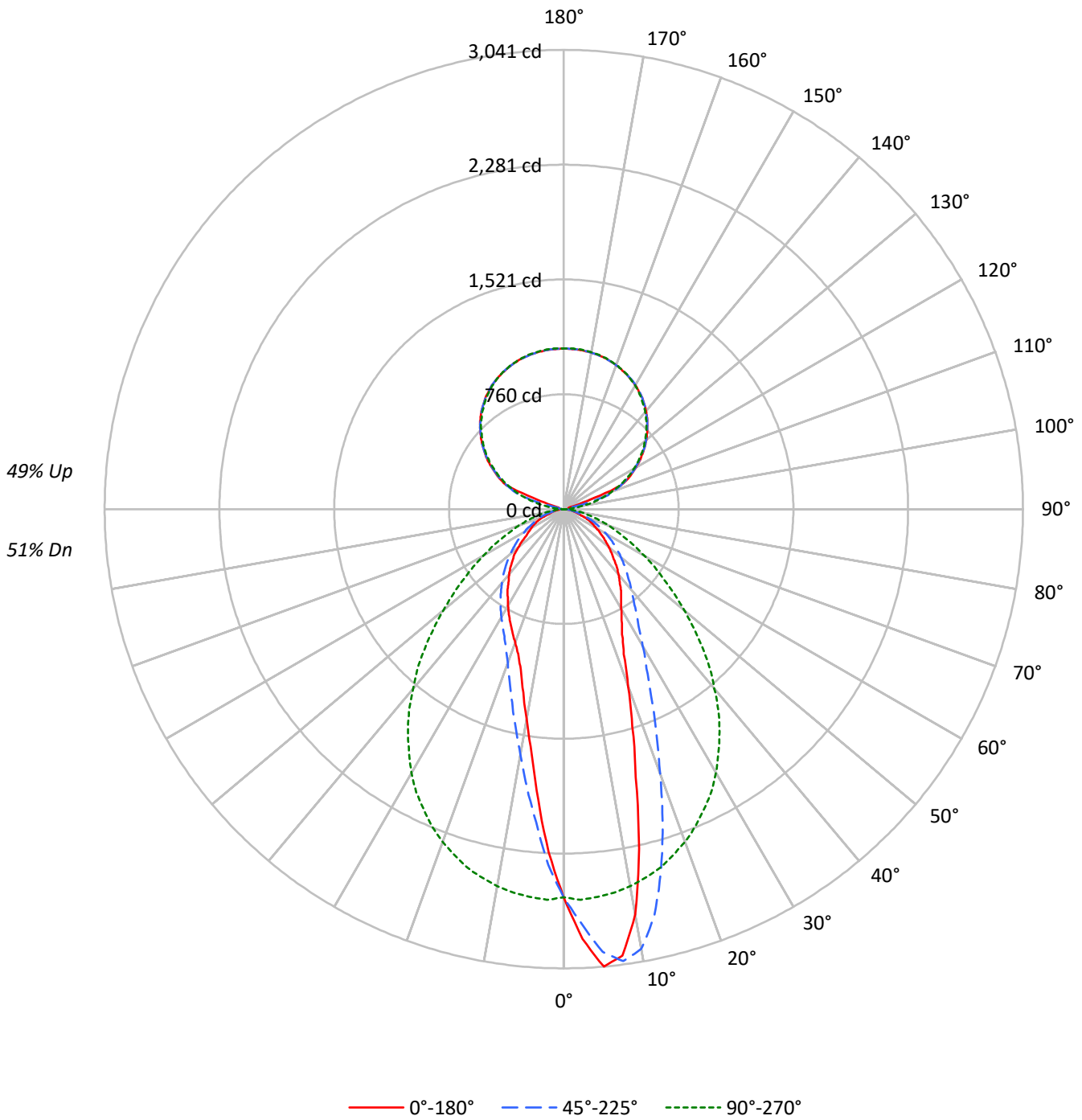
Lumens per Lamp: N/A
Luminaire Lumens: 6654.9 lumens
Efficiency: N/A
Efficacy: 109.1 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 61
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: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

Luminous Intensity Polar Plot





TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

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	84	84	84	70	70	70	57	57	57	51	51	51	51	
1	99	95	91	88	91	88	85	82	75	73	71	63	61	60	52	51	50	45	45	45	45	
2	91	84	78	73	84	78	73	69	67	63	60	56	54	51	47	45	43	39	39	39	39	
3	83	75	68	62	77	69	63	59	60	55	51	51	47	45	42	40	38	34	34	34	34	
4	77	67	59	54	71	62	56	51	54	49	45	46	42	39	38	36	34	30	30	30	30	
5	71	60	52	47	66	56	49	44	49	43	39	42	38	35	35	32	30	27	27	27	27	
6	66	54	47	41	61	51	44	39	44	39	35	38	34	31	32	29	27	24	24	24	24	
7	61	49	42	37	57	46	40	35	41	35	31	35	31	28	30	27	25	22	22	22	22	
8	57	45	38	33	53	42	36	31	37	32	28	32	28	25	28	25	22	20	20	20	20	
9	53	42	34	30	49	39	33	28	34	29	26	30	26	23	26	23	21	19	19	19	19	
10	50	38	32	27	46	36	30	26	32	27	24	28	24	21	24	21	19	17	17	17	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: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.3	3.5
10°-20°	542.2	8.1
20°-30°	622.1	9.3
30°-40°	613.2	9.2
40°-50°	540.7	8.1
50°-60°	416.0	6.3
60°-70°	273.5	4.1
70°-80°	132.8	2.0
80°-90°	35.6	0.5
90°-100°	37.5	0.6
100°-110°	181.4	2.7
110°-120°	444.6	6.7
120°-130°	564.5	8.5
130°-140°	603.0	9.1
140°-150°	563.9	8.5
150°-160°	454.8	6.8
160°-170°	293.5	4.4
170°-180°	101.2	1.5
0°-30°	1398.6	21.0
0°-40°	2011.7	30.2
0°-60°	2968.5	44.6
0°-90°	3410.4	51.2
90°-120°	663.5	10.0
90°-150°	2394.9	36.0
90°-180°	3244.0	48.7
0°-180°	6654.9	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°	24	19	1	19	24	12
95°	30	24	48	24	30	25
105°	35	173	236	173	35	72
115°	465	454	442	454	465	437
125°	636	633	623	633	636	568
135°	784	784	776	784	784	604
145°	904	902	895	902	904	564
155°	984	985	986	985	984	454
165°	1037	1037	1040	1037	1037	293
175°	1060	1061	1064	1061	1060	101
180°	1064	1064	1064	1064	1064	



TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

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°	23.7	23.4	23.0	22.7	22.3	21.8	21.1	20.4	19.7	19.0	16.7
92.5°	26.9	26.7	26.5	26.4	26.2	25.5	24.2	23.0	21.8	20.6	19.0
95°	30.0	30.0	30.0	30.0	30.0	29.4	28.2	27.0	25.7	24.5	22.6
97.5°	32.4	32.2	32.1	31.9	31.7	30.9	29.5	28.1	26.7	25.3	34.3
100°	33.2	33.0	32.9	32.7	32.5	31.7	30.3	28.9	27.5	26.1	53.5
102.5°	34.0	33.6	33.3	32.9	32.6	35.3	41.1	46.9	52.7	58.5	89.1
105°	34.8	34.4	34.1	33.7	33.4	48.8	79.9	111.0	142.1	173.2	189.0
107.5°	82.2	105.3	128.3	151.3	174.3	199.3	226.4	253.5	280.5	307.6	305.0
110°	217.4	242.6	267.7	292.8	318.0	333.4	339.2	345.0	350.8	356.6	354.7



TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	412.0	412.3	412.7	413.0	413.4	412.8	411.2	409.6	408.0	406.4	404.5
115°	464.9	464.2	463.5	462.8	462.1	460.9	459.1	457.4	455.6	453.9	452.3
117.5°	507.6	507.5	507.3	507.1	506.9	506.1	504.7	503.3	501.9	500.5	499.6
120°	551.9	551.9	551.9	551.9	551.9	551.2	549.8	548.4	547.0	545.6	545.1
122.5°	595.4	595.2	595.1	594.9	594.7	594.2	593.3	592.4	591.5	590.7	590.0
125°	635.7	635.4	635.0	634.7	634.3	634.0	633.6	633.3	632.9	632.6	631.9
127.5°	675.3	675.6	676.0	676.3	676.7	676.6	676.1	675.5	675.0	674.5	673.6
130°	713.2	713.6	713.9	714.3	714.6	714.5	713.8	713.0	712.3	711.6	710.9
132.5°	748.0	748.5	749.1	749.6	750.1	750.0	749.3	748.6	747.9	747.2	746.7
135°	783.6	784.1	784.7	785.2	785.7	785.7	785.2	784.7	784.1	783.6	782.9
137.5°	817.6	817.9	818.3	818.7	819.0	818.7	817.9	817.0	816.1	815.2	814.9
140°	847.6	848.0	848.3	848.7	849.1	848.9	848.2	847.5	846.8	846.1	845.5
142.5°	875.3	875.8	876.4	876.9	877.4	877.4	876.9	876.4	875.8	875.3	874.8
145°	903.8	903.8	903.8	903.8	903.8	903.6	903.3	902.9	902.6	902.2	901.9
147.5°	924.3	925.2	926.1	927.0	927.9	928.1	927.8	927.4	927.1	926.7	926.4
150°	948.1	948.6	949.1	949.6	950.2	950.3	949.9	949.6	949.2	948.9	948.5
152.5°	967.0	967.9	968.8	969.7	970.6	970.6	969.9	969.2	968.5	967.8	967.7
155°	984.4	985.5	986.5	987.6	988.7	988.7	987.9	987.0	986.1	985.2	985.1
157.5°	999.5	1000.9	1002.3	1003.7	1005.1	1005.3	1004.2	1003.2	1002.1	1001.0	1001.2
160°	1013.7	1014.9	1016.2	1017.4	1018.6	1018.7	1017.6	1016.6	1015.5	1014.5	1014.7
162.5°	1027.1	1028.2	1029.2	1030.3	1031.4	1031.3	1030.0	1028.8	1027.6	1026.3	1026.5
165°	1037.4	1038.6	1039.9	1041.1	1042.3	1042.2	1040.8	1039.4	1038.0	1036.6	1036.8
167.5°	1045.3	1046.7	1048.1	1049.5	1050.9	1050.9	1049.5	1048.1	1046.7	1045.3	1045.3
170°	1052.4	1053.8	1055.3	1056.7	1058.1	1058.1	1056.7	1055.3	1053.8	1052.4	1052.4
172.5°	1056.4	1058.0	1059.6	1061.1	1062.7	1062.8	1061.4	1060.0	1058.6	1057.2	1057.0
175°	1060.3	1061.8	1063.2	1064.6	1066.0	1066.1	1064.8	1063.6	1062.4	1061.1	1061.0
177.5°	1061.1	1062.9	1064.7	1066.4	1068.2	1068.3	1066.9	1065.5	1064.1	1062.7	1062.5
180°	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3



TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

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°	14.4	12.1	9.8	7.8	6.1	4.3	2.5	0.8	2.5	4.3	6.1
92.5°	17.4	15.8	14.2	14.0	15.0	16.1	17.1	18.2	17.1	16.1	15.0
95°	20.6	18.7	16.8	19.4	26.6	33.8	41.0	48.2	41.0	33.8	26.6
97.5°	43.2	52.2	61.1	68.1	73.0	77.9	82.8	87.8	82.8	77.9	73.0
100°	80.9	108.3	135.7	147.7	144.2	140.7	137.1	133.6	137.1	140.7	144.2
102.5°	119.7	150.2	180.8	195.0	192.7	190.4	188.1	185.8	188.1	190.4	192.7
105°	204.8	220.6	236.4	243.4	241.4	239.5	237.6	235.6	237.6	239.5	241.4
107.5°	302.3	299.7	297.0	294.9	293.4	291.8	290.2	288.6	290.2	291.8	293.4
110°	352.7	350.8	348.9	347.2	345.8	344.4	343.0	341.6	343.0	344.4	345.8



TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	402.6	400.6	398.7	397.1	395.9	394.7	393.4	392.2	393.4	394.7	395.9
115°	450.7	449.1	447.5	446.2	445.2	444.1	443.1	442.0	443.1	444.1	445.2
117.5°	498.8	497.9	497.0	496.0	494.7	493.5	492.3	491.0	492.3	493.5	494.7
120°	544.5	544.0	543.5	542.4	540.8	539.3	537.7	536.1	537.7	539.3	540.8
122.5°	589.3	588.6	587.9	586.9	585.7	584.4	583.2	582.0	583.2	584.4	585.7
125°	631.2	630.5	629.8	628.7	627.3	625.9	624.5	623.1	624.5	625.9	627.3
127.5°	672.7	671.8	671.0	669.8	668.4	667.0	665.6	664.2	665.6	667.0	668.4
130°	710.2	709.5	708.8	707.8	706.4	705.0	703.6	702.2	703.6	705.0	706.4
132.5°	746.2	745.6	745.1	744.1	742.7	741.3	739.9	738.5	739.9	741.3	742.7
135°	782.2	781.5	780.8	779.9	778.9	777.8	776.7	775.7	776.7	777.8	778.9
137.5°	814.5	814.2	813.8	812.9	811.5	810.1	808.7	807.3	808.7	810.1	811.5
140°	845.0	844.5	844.0	843.2	842.1	841.1	840.0	838.9	840.0	841.1	842.1
142.5°	874.3	873.7	873.2	872.4	871.4	870.3	869.3	868.2	869.3	870.3	871.4
145°	901.5	901.1	900.8	900.0	898.8	897.5	896.3	895.1	896.3	897.5	898.8
147.5°	926.0	925.7	925.3	924.7	923.8	922.9	922.1	921.2	922.1	922.9	923.8
150°	948.2	947.8	947.4	947.0	946.5	946.0	945.4	944.9	945.4	946.0	946.5
152.5°	967.5	967.3	967.1	967.0	966.8	966.6	966.4	966.3	966.4	966.6	966.8
155°	984.9	984.7	984.5	984.6	985.0	985.3	985.7	986.0	985.7	985.3	985.0
157.5°	1001.4	1001.6	1001.7	1001.8	1001.8	1001.8	1001.8	1001.8	1001.8	1001.8	1001.8
160°	1014.8	1015.0	1015.2	1015.4	1015.5	1015.7	1015.9	1016.1	1015.9	1015.7	1015.5
162.5°	1026.7	1026.9	1027.0	1027.4	1027.9	1028.5	1029.0	1029.5	1029.0	1028.5	1027.9
165°	1037.0	1037.2	1037.3	1037.7	1038.2	1038.7	1039.3	1039.8	1039.3	1038.7	1038.2
167.5°	1045.3	1045.3	1045.3	1045.7	1046.4	1047.1	1047.8	1048.5	1047.8	1047.1	1046.4
170°	1052.4	1052.4	1052.4	1052.8	1053.5	1054.2	1054.9	1055.6	1054.9	1054.2	1053.5
172.5°	1056.8	1056.7	1056.5	1056.8	1057.7	1058.6	1059.5	1060.3	1059.5	1058.6	1057.7
175°	1060.8	1060.6	1060.4	1060.8	1061.7	1062.5	1063.4	1064.3	1063.4	1062.5	1061.7
177.5°	1062.4	1062.2	1062.0	1062.4	1063.2	1064.1	1065.0	1065.9	1065.0	1064.1	1063.2
180°	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3



TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

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°	7.8	9.8	12.1	14.4	16.7	19.0	19.7	20.4	21.1	21.8	22.3
92.5°	14.0	14.2	15.8	17.4	19.0	20.6	21.8	23.0	24.2	25.5	26.2
95°	19.4	16.8	18.7	20.6	22.6	24.5	25.7	27.0	28.2	29.4	30.0
97.5°	68.1	61.1	52.2	43.2	34.3	25.3	26.7	28.1	29.5	30.9	31.7
100°	147.7	135.7	108.3	80.9	53.5	26.1	27.5	28.9	30.3	31.7	32.5
102.5°	195.0	180.8	150.2	119.7	89.1	58.5	52.7	46.9	41.1	35.3	32.6
105°	243.4	236.4	220.6	204.8	189.0	173.2	142.1	111.0	79.9	48.8	33.4
107.5°	294.9	297.0	299.7	302.3	305.0	307.6	280.5	253.5	226.4	199.3	174.3
110°	347.2	348.9	350.8	352.7	354.7	356.6	350.8	345.0	339.2	333.4	318.0



TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	397.1	398.7	400.6	402.6	404.5	406.4	408.0	409.6	411.2	412.8	413.4
115°	446.2	447.5	449.1	450.7	452.3	453.9	455.6	457.4	459.1	460.9	462.1
117.5°	496.0	497.0	497.9	498.8	499.6	500.5	501.9	503.3	504.7	506.1	506.9
120°	542.4	543.5	544.0	544.5	545.1	545.6	547.0	548.4	549.8	551.2	551.9
122.5°	586.9	587.9	588.6	589.3	590.0	590.7	591.5	592.4	593.3	594.2	594.7
125°	628.7	629.8	630.5	631.2	631.9	632.6	632.9	633.3	633.6	634.0	634.3
127.5°	669.8	671.0	671.8	672.7	673.6	674.5	675.0	675.5	676.1	676.6	676.7
130°	707.8	708.8	709.5	710.2	710.9	711.6	712.3	713.0	713.8	714.5	714.6
132.5°	744.1	745.1	745.6	746.2	746.7	747.2	747.9	748.6	749.3	750.0	750.1
135°	779.9	780.8	781.5	782.2	782.9	783.6	784.1	784.7	785.2	785.7	785.7
137.5°	812.9	813.8	814.2	814.5	814.9	815.2	816.1	817.0	817.9	818.7	819.0
140°	843.2	844.0	844.5	845.0	845.5	846.1	846.8	847.5	848.2	848.9	849.1
142.5°	872.4	873.2	873.7	874.3	874.8	875.3	875.8	876.4	876.9	877.4	877.4
145°	900.0	900.8	901.1	901.5	901.9	902.2	902.6	902.9	903.3	903.6	903.8
147.5°	924.7	925.3	925.7	926.0	926.4	926.7	927.1	927.4	927.8	928.1	927.9
150°	947.0	947.4	947.8	948.2	948.5	948.9	949.2	949.6	949.9	950.3	950.2
152.5°	967.0	967.1	967.3	967.5	967.7	967.8	968.5	969.2	969.9	970.6	970.6
155°	984.6	984.5	984.7	984.9	985.1	985.2	986.1	987.0	987.9	988.7	988.7
157.5°	1001.8	1001.7	1001.6	1001.4	1001.2	1001.0	1002.1	1003.2	1004.2	1005.3	1005.1
160°	1015.4	1015.2	1015.0	1014.8	1014.7	1014.5	1015.5	1016.6	1017.6	1018.7	1018.6
162.5°	1027.4	1027.0	1026.9	1026.7	1026.5	1026.3	1027.6	1028.8	1030.0	1031.3	1031.4
165°	1037.7	1037.3	1037.2	1037.0	1036.8	1036.6	1038.0	1039.4	1040.8	1042.2	1042.3
167.5°	1045.7	1045.3	1045.3	1045.3	1045.3	1045.3	1046.7	1048.1	1049.5	1050.9	1050.9
170°	1052.8	1052.4	1052.4	1052.4	1052.4	1052.4	1053.8	1055.3	1056.7	1058.1	1058.1
172.5°	1056.8	1056.5	1056.7	1056.8	1057.0	1057.2	1058.6	1060.0	1061.4	1062.8	1062.7
175°	1060.8	1060.4	1060.6	1060.8	1061.0	1061.1	1062.4	1063.6	1064.8	1066.1	1066.0
177.5°	1062.4	1062.0	1062.2	1062.4	1062.5	1062.7	1064.1	1065.5	1066.9	1068.3	1068.2
180°	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3	1064.3



TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

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°	22.7	23.0	23.4	23.7
92.5°	26.4	26.5	26.7	26.9
95°	30.0	30.0	30.0	30.0
97.5°	31.9	32.1	32.2	32.4
100°	32.7	32.9	33.0	33.2
102.5°	32.9	33.3	33.6	34.0
105°	33.7	34.1	34.4	34.8
107.5°	151.3	128.3	105.3	82.2
110°	292.8	267.7	242.6	217.4



TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	413.0	412.7	412.3	412.0
115°	462.8	463.5	464.2	464.9
117.5°	507.1	507.3	507.5	507.6
120°	551.9	551.9	551.9	551.9
122.5°	594.9	595.1	595.2	595.4
125°	634.7	635.0	635.4	635.7
127.5°	676.3	676.0	675.6	675.3
130°	714.3	713.9	713.6	713.2
132.5°	749.6	749.1	748.5	748.0
135°	785.2	784.7	784.1	783.6
137.5°	818.7	818.3	817.9	817.6
140°	848.7	848.3	848.0	847.6
142.5°	876.9	876.4	875.8	875.3
145°	903.8	903.8	903.8	903.8
147.5°	927.0	926.1	925.2	924.3
150°	949.6	949.1	948.6	948.1
152.5°	969.7	968.8	967.9	967.0
155°	987.6	986.5	985.5	984.4
157.5°	1003.7	1002.3	1000.9	999.5
160°	1017.4	1016.2	1014.9	1013.7
162.5°	1030.3	1029.2	1028.2	1027.1
165°	1041.1	1039.9	1038.6	1037.4
167.5°	1049.5	1048.1	1046.7	1045.3
170°	1056.7	1055.3	1053.8	1052.4
172.5°	1061.1	1059.6	1058.0	1056.4
175°	1064.6	1063.2	1061.8	1060.3
177.5°	1066.4	1064.7	1062.9	1061.1
180°	1064.3	1064.3	1064.3	1064.3



TEST NUMBER: P831777

CATALOG NUMBER: S123RDIP-S1000D1025U927-4F0-1E-UDD-G

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	12.40	13.22	13.36	14.18	15.44	17.06	17.88	18.02	18.85	20.10
	3H	13.62	14.35	14.59	15.32	16.60	18.56	19.29	19.53	20.27	21.55
	4H	14.00	14.69	14.98	15.67	16.96	19.05	19.74	20.03	20.72	22.01
	6H	14.28	14.92	15.27	15.90	17.20	19.36	20.00	20.36	20.98	22.28
	8H	14.37	14.97	15.37	15.97	17.27	19.44	20.04	20.44	21.04	22.34
	12H	14.42	14.99	15.42	15.99	17.31	19.47	20.05	20.48	21.04	22.36
4H	2H	13.12	13.81	14.11	14.79	16.08	17.06	17.75	18.05	18.72	20.01
	3H	14.49	15.06	15.49	16.07	17.37	18.71	19.29	19.71	20.29	21.60
	4H	14.94	15.47	15.95	16.47	17.79	19.32	19.84	20.33	20.84	22.17
	6H	15.31	15.76	16.33	16.78	18.11	19.76	20.21	20.77	21.23	22.55
	8H	15.44	15.85	16.45	16.87	18.21	19.89	20.31	20.91	21.32	22.66
	12H	15.51	15.89	16.55	16.92	18.26	19.95	20.33	20.98	21.36	22.70
8H	4H	15.26	15.68	16.27	16.69	18.03	19.29	19.70	20.30	20.72	22.06
	6H	15.72	16.07	16.76	17.12	18.46	19.78	20.13	20.82	21.19	22.52
	8H	15.91	16.22	16.96	17.26	18.62	19.97	20.27	21.02	21.32	22.67
	12H	16.05	16.32	17.10	17.36	18.76	20.08	20.35	21.14	21.39	22.79
12H	4H	15.27	15.64	16.30	16.68	18.02	19.24	19.61	20.27	20.65	21.99
	6H	15.78	16.08	16.83	17.13	18.48	19.76	20.06	20.81	21.11	22.46
	8H	16.00	16.26	17.05	17.30	18.70	19.95	20.22	21.00	21.25	22.65