

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: P831804

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

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831804
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-S1000D1195U927-4F0-1E-UDD-G
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1195 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: -

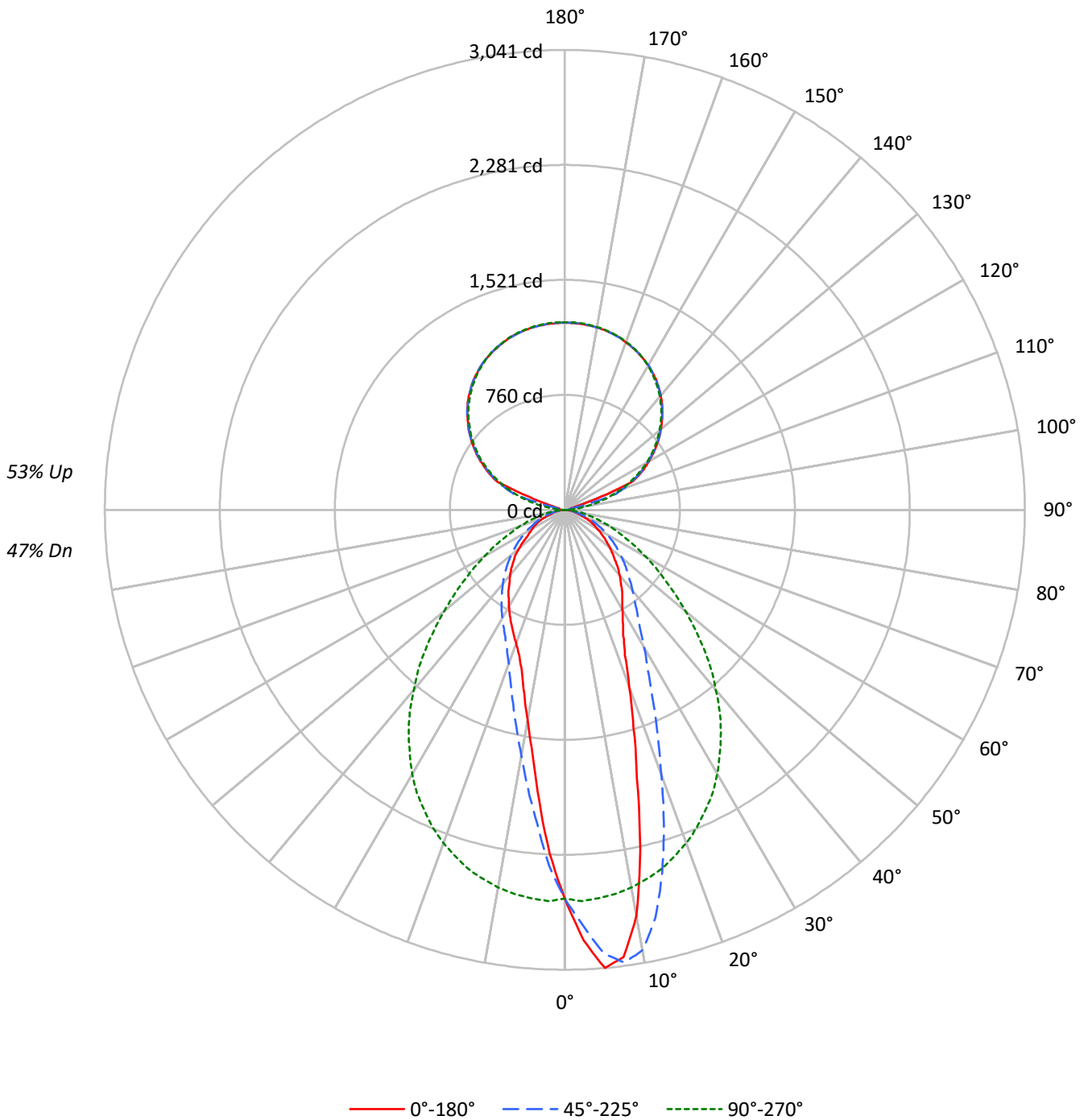
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7187.2 lumens
Efficiency: N/A
Efficacy: 108.7 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

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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	107	107	107	107	98	98	98	98	82	82	82	67	67	67	54	54	54	47				47
1	98	94	90	87	90	87	84	81	73	71	69	60	59	57	49	48	47	41				41
2	90	83	77	72	83	77	72	68	65	61	58	54	51	49	44	42	41	36				36
3	83	74	67	61	76	68	62	58	58	54	50	48	45	43	40	37	36	32				32
4	76	66	58	53	70	61	55	50	52	47	43	44	40	37	36	34	32	28				28
5	70	59	52	46	64	55	48	43	47	42	38	40	36	33	33	30	28	25				25
6	65	53	46	40	60	50	43	38	43	38	34	36	32	29	30	28	25	22				22
7	60	49	41	36	56	45	39	34	39	34	30	33	30	27	28	25	23	20				20
8	56	44	37	32	52	42	35	30	36	31	27	31	27	24	26	23	21	19				19
9	53	41	34	29	49	38	32	28	33	28	25	29	25	22	24	21	19	17				17
10	49	38	31	26	46	35	29	25	31	26	23	27	23	20	23	20	18	16				16

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



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.3	3.3
10°-20°	542.2	7.5
20°-30°	622.1	8.7
30°-40°	613.2	8.5
40°-50°	540.7	7.5
50°-60°	416.0	5.8
60°-70°	273.5	3.8
70°-80°	132.8	1.8
80°-90°	36.0	0.5
90°-100°	43.7	0.6
100°-110°	211.1	2.9
110°-120°	517.5	7.2
120°-130°	657.0	9.1
130°-140°	701.9	9.8
140°-150°	656.4	9.1
150°-160°	529.4	7.4
160°-170°	341.7	4.8
170°-180°	117.7	1.6
0°-30°	1398.6	19.5
0°-40°	2011.7	28.0
0°-60°	2968.5	41.3
0°-90°	3410.8	47.5
90°-120°	772.4	10.7
90°-150°	2787.7	38.8
90°-180°	3776.0	52.5
0°-180°	7187.2	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°	28	22	1	22	28	13
95°	35	28	56	28	35	29
105°	40	202	274	202	40	84
115°	541	528	514	528	541	509
125°	740	736	725	736	740	661
135°	912	912	903	912	912	704
145°	1052	1050	1042	1050	1052	657
155°	1146	1147	1148	1147	1146	529
165°	1208	1207	1210	1207	1208	341
175°	1234	1235	1239	1235	1234	117
180°	1239	1239	1239	1239	1239	



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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°	27.6	27.2	26.8	26.4	26.0	25.4	24.5	23.7	22.9	22.1	19.4
92.5°	31.3	31.1	30.9	30.7	30.5	29.7	28.2	26.8	25.4	23.9	22.1
95°	35.0	35.0	35.0	35.0	35.0	34.3	32.8	31.4	30.0	28.5	26.3
97.5°	37.7	37.5	37.3	37.1	36.9	36.0	34.4	32.7	31.1	29.5	39.9
100°	38.7	38.5	38.2	38.0	37.8	36.9	35.3	33.6	32.0	30.4	62.3
102.5°	39.6	39.2	38.8	38.3	37.9	41.1	47.9	54.6	61.4	68.1	103.7
105°	40.5	40.1	39.7	39.3	38.9	56.8	93.0	129.2	165.4	201.6	220.0
107.5°	95.7	122.5	149.3	176.1	202.9	232.0	263.5	295.0	326.5	358.0	355.0
110°	253.1	282.3	311.6	340.8	370.1	388.1	394.8	401.6	408.3	415.1	412.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	479.5	479.9	480.3	480.7	481.1	480.4	478.6	476.7	474.9	473.1	470.8
115°	541.2	540.4	539.5	538.7	537.9	536.5	534.4	532.4	530.3	528.3	526.4
117.5°	590.9	590.7	590.5	590.3	590.1	589.1	587.5	585.9	584.2	582.6	581.6
120°	642.4	642.4	642.4	642.4	642.4	641.6	640.0	638.3	636.7	635.1	634.4
122.5°	693.0	692.8	692.6	692.4	692.2	691.6	690.6	689.6	688.5	687.5	686.7
125°	740.0	739.6	739.2	738.7	738.3	737.9	737.5	737.1	736.7	736.3	735.5
127.5°	786.0	786.4	786.8	787.2	787.6	787.5	786.9	786.3	785.7	785.1	784.0
130°	830.2	830.6	831.0	831.4	831.8	831.6	830.8	830.0	829.1	828.3	827.5
132.5°	870.7	871.3	871.9	872.5	873.1	873.0	872.2	871.4	870.6	869.7	869.1
135°	912.1	912.7	913.3	913.9	914.5	914.5	913.9	913.3	912.7	912.1	911.3
137.5°	951.7	952.1	952.5	952.9	953.3	953.0	952.0	950.9	949.9	948.9	948.5
140°	986.6	987.0	987.4	987.9	988.3	988.1	987.2	986.4	985.6	984.8	984.2
142.5°	1018.8	1019.5	1020.1	1020.7	1021.3	1021.3	1020.7	1020.1	1019.5	1018.8	1018.2
145°	1052.0	1052.0	1052.0	1052.0	1052.0	1051.8	1051.4	1051.0	1050.5	1050.1	1049.7
147.5°	1075.9	1076.9	1078.0	1079.0	1080.0	1080.3	1079.9	1079.5	1079.1	1078.7	1078.3
150°	1103.5	1104.1	1104.7	1105.4	1106.0	1106.1	1105.7	1105.3	1104.8	1104.4	1104.0
152.5°	1125.6	1126.6	1127.7	1128.7	1129.7	1129.8	1129.0	1128.2	1127.3	1126.5	1126.3
155°	1145.9	1147.1	1148.3	1149.5	1150.8	1150.9	1149.8	1148.8	1147.8	1146.8	1146.6
157.5°	1163.3	1165.0	1166.6	1168.2	1169.9	1170.1	1168.9	1167.6	1166.4	1165.2	1165.4
160°	1179.9	1181.3	1182.8	1184.2	1185.6	1185.7	1184.5	1183.3	1182.1	1180.8	1181.0
162.5°	1195.6	1196.8	1198.0	1199.2	1200.5	1200.4	1198.9	1197.5	1196.1	1194.6	1194.8
165°	1207.5	1208.9	1210.4	1211.8	1213.2	1213.1	1211.5	1209.9	1208.2	1206.6	1206.8
167.5°	1216.7	1218.4	1220.0	1221.6	1223.3	1223.3	1221.6	1220.0	1218.4	1216.7	1216.7
170°	1225.0	1226.6	1228.3	1229.9	1231.5	1231.5	1229.9	1228.3	1226.6	1225.0	1225.0
172.5°	1229.6	1231.4	1233.3	1235.1	1237.0	1237.1	1235.4	1233.8	1232.2	1230.5	1230.3
175°	1234.2	1235.8	1237.5	1239.1	1240.8	1240.9	1239.4	1238.0	1236.6	1235.1	1234.9
177.5°	1235.1	1237.2	1239.2	1241.3	1243.3	1243.5	1241.9	1240.2	1238.6	1237.0	1236.8
180°	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8

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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°	16.8	14.1	11.5	9.1	7.1	5.0	3.0	0.9	3.0	5.0	7.1
92.5°	20.2	18.4	16.6	16.3	17.5	18.7	19.9	21.2	19.9	18.7	17.5
95°	24.0	21.8	19.5	22.6	31.0	39.4	47.8	56.1	47.8	39.4	31.0
97.5°	50.3	60.7	71.2	79.3	85.0	90.7	96.4	102.2	96.4	90.7	85.0
100°	94.2	126.1	158.0	171.9	167.8	163.7	159.6	155.5	159.6	163.7	167.8
102.5°	139.3	174.9	210.5	226.9	224.3	221.6	218.9	216.3	218.9	221.6	224.3
105°	238.4	256.8	275.2	283.3	281.0	278.8	276.5	274.3	276.5	278.8	281.0
107.5°	351.9	348.8	345.8	343.3	341.5	339.6	337.8	335.9	337.8	339.6	341.5
110°	410.6	408.3	406.1	404.1	402.5	400.9	399.2	397.6	399.2	400.9	402.5



TEST NUMBER: P831804

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

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	468.6	466.3	464.1	462.2	460.8	459.4	457.9	456.5	457.9	459.4	460.8
115°	524.6	522.8	520.9	519.4	518.2	516.9	515.7	514.5	515.7	516.9	518.2
117.5°	580.5	579.5	578.5	577.3	575.8	574.4	573.0	571.5	573.0	574.4	575.8
120°	633.8	633.2	632.6	631.4	629.5	627.7	625.8	624.0	625.8	627.7	629.5
122.5°	685.9	685.1	684.2	683.1	681.7	680.3	678.8	677.4	678.8	680.3	681.7
125°	734.7	733.8	733.0	731.8	730.2	728.5	726.9	725.2	726.9	728.5	730.2
127.5°	783.0	782.0	781.0	779.7	778.0	776.4	774.7	773.1	774.7	776.4	778.0
130°	826.7	825.9	825.1	823.8	822.2	820.6	818.9	817.3	818.9	820.6	822.2
132.5°	868.5	867.9	867.3	866.2	864.5	862.9	861.3	859.6	861.3	862.9	864.5
135°	910.4	909.6	908.8	907.8	906.6	905.3	904.1	902.9	904.1	905.3	906.6
137.5°	948.1	947.7	947.3	946.2	944.6	943.0	941.3	939.7	941.3	943.0	944.6
140°	983.6	982.9	982.3	981.4	980.2	979.0	977.7	976.5	977.7	979.0	980.2
142.5°	1017.6	1017.0	1016.4	1015.5	1014.2	1013.0	1011.8	1010.6	1011.8	1013.0	1014.2
145°	1049.3	1048.9	1048.5	1047.6	1046.1	1044.7	1043.3	1041.9	1043.3	1044.7	1046.1
147.5°	1077.8	1077.4	1077.0	1076.3	1075.3	1074.3	1073.2	1072.2	1073.2	1074.3	1075.3
150°	1103.6	1103.2	1102.8	1102.3	1101.7	1101.1	1100.4	1099.8	1100.4	1101.1	1101.7
152.5°	1126.1	1125.9	1125.7	1125.5	1125.3	1125.1	1124.9	1124.7	1124.9	1125.1	1125.3
155°	1146.4	1146.2	1146.0	1146.1	1146.5	1146.9	1147.3	1147.7	1147.3	1146.9	1146.5
157.5°	1165.6	1165.8	1166.0	1166.1	1166.1	1166.1	1166.1	1166.1	1166.1	1166.1	1166.1
160°	1181.2	1181.4	1181.6	1181.8	1182.1	1182.3	1182.5	1182.7	1182.5	1182.3	1182.1
162.5°	1195.0	1195.2	1195.5	1195.9	1196.5	1197.1	1197.7	1198.3	1197.7	1197.1	1196.5
165°	1207.0	1207.2	1207.4	1207.8	1208.4	1209.1	1209.7	1210.3	1209.7	1209.1	1208.4
167.5°	1216.7	1216.7	1216.7	1217.1	1217.9	1218.8	1219.6	1220.4	1219.6	1218.8	1217.9
170°	1225.0	1225.0	1225.0	1225.4	1226.2	1227.0	1227.9	1228.7	1227.9	1227.0	1226.2
172.5°	1230.1	1229.9	1229.7	1230.1	1231.1	1232.2	1233.2	1234.2	1233.2	1232.2	1231.1
175°	1234.7	1234.5	1234.3	1234.7	1235.7	1236.8	1237.8	1238.8	1237.8	1236.8	1235.7
177.5°	1236.6	1236.4	1236.2	1236.6	1237.6	1238.6	1239.6	1240.7	1239.6	1238.6	1237.6
180°	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8



TEST NUMBER: P831804

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-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°	9.1	11.5	14.1	16.8	19.4	22.1	22.9	23.7	24.5	25.4	26.0
92.5°	16.3	16.6	18.4	20.2	22.1	23.9	25.4	26.8	28.2	29.7	30.5
95°	22.6	19.5	21.8	24.0	26.3	28.5	30.0	31.4	32.8	34.3	35.0
97.5°	79.3	71.2	60.7	50.3	39.9	29.5	31.1	32.7	34.4	36.0	36.9
100°	171.9	158.0	126.1	94.2	62.3	30.4	32.0	33.6	35.3	36.9	37.8
102.5°	226.9	210.5	174.9	139.3	103.7	68.1	61.4	54.6	47.9	41.1	37.9
105°	283.3	275.2	256.8	238.4	220.0	201.6	165.4	129.2	93.0	56.8	38.9
107.5°	343.3	345.8	348.8	351.9	355.0	358.0	326.5	295.0	263.5	232.0	202.9
110°	404.1	406.1	408.3	410.6	412.8	415.1	408.3	401.6	394.8	388.1	370.1



TEST NUMBER: P831804

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

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	462.2	464.1	466.3	468.6	470.8	473.1	474.9	476.7	478.6	480.4	481.1
115°	519.4	520.9	522.8	524.6	526.4	528.3	530.3	532.4	534.4	536.5	537.9
117.5°	577.3	578.5	579.5	580.5	581.6	582.6	584.2	585.9	587.5	589.1	590.1
120°	631.4	632.6	633.2	633.8	634.4	635.1	636.7	638.3	640.0	641.6	642.4
122.5°	683.1	684.2	685.1	685.9	686.7	687.5	688.5	689.6	690.6	691.6	692.2
125°	731.8	733.0	733.8	734.7	735.5	736.3	736.7	737.1	737.5	737.9	738.3
127.5°	779.7	781.0	782.0	783.0	784.0	785.1	785.7	786.3	786.9	787.5	787.6
130°	823.8	825.1	825.9	826.7	827.5	828.3	829.1	830.0	830.8	831.6	831.8
132.5°	866.2	867.3	867.9	868.5	869.1	869.7	870.6	871.4	872.2	873.0	873.1
135°	907.8	908.8	909.6	910.4	911.3	912.1	912.7	913.3	913.9	914.5	914.5
137.5°	946.2	947.3	947.7	948.1	948.5	948.9	949.9	950.9	952.0	953.0	953.3
140°	981.4	982.3	982.9	983.6	984.2	984.8	985.6	986.4	987.2	988.1	988.3
142.5°	1015.5	1016.4	1017.0	1017.6	1018.2	1018.8	1019.5	1020.1	1020.7	1021.3	1021.3
145°	1047.6	1048.5	1048.9	1049.3	1049.7	1050.1	1050.5	1051.0	1051.4	1051.8	1052.0
147.5°	1076.3	1077.0	1077.4	1077.8	1078.3	1078.7	1079.1	1079.5	1079.9	1080.3	1080.0
150°	1102.3	1102.8	1103.2	1103.6	1104.0	1104.4	1104.8	1105.3	1105.7	1106.1	1106.0
152.5°	1125.5	1125.7	1125.9	1126.1	1126.3	1126.5	1127.3	1128.2	1129.0	1129.8	1129.7
155°	1146.1	1146.0	1146.2	1146.4	1146.6	1146.8	1147.8	1148.8	1149.8	1150.9	1150.8
157.5°	1166.1	1166.0	1165.8	1165.6	1165.4	1165.2	1166.4	1167.6	1168.9	1170.1	1169.9
160°	1181.8	1181.6	1181.4	1181.2	1181.0	1180.8	1182.1	1183.3	1184.5	1185.7	1185.6
162.5°	1195.9	1195.5	1195.2	1195.0	1194.8	1194.6	1196.1	1197.5	1198.9	1200.4	1200.5
165°	1207.8	1207.4	1207.2	1207.0	1206.8	1206.6	1208.2	1209.9	1211.5	1213.1	1213.2
167.5°	1217.1	1216.7	1216.7	1216.7	1216.7	1216.7	1218.4	1220.0	1221.6	1223.3	1223.3
170°	1225.4	1225.0	1225.0	1225.0	1225.0	1225.0	1226.6	1228.3	1229.9	1231.5	1231.5
172.5°	1230.1	1229.7	1229.9	1230.1	1230.3	1230.5	1232.2	1233.8	1235.4	1237.1	1237.0
175°	1234.7	1234.3	1234.5	1234.7	1234.9	1235.1	1236.6	1238.0	1239.4	1240.9	1240.8
177.5°	1236.6	1236.2	1236.4	1236.6	1236.8	1237.0	1238.6	1240.2	1241.9	1243.5	1243.3
180°	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8	1238.8



TEST NUMBER: P831804

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-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°	26.4	26.8	27.2	27.6
92.5°	30.7	30.9	31.1	31.3
95°	35.0	35.0	35.0	35.0
97.5°	37.1	37.3	37.5	37.7
100°	38.0	38.2	38.5	38.7
102.5°	38.3	38.8	39.2	39.6
105°	39.3	39.7	40.1	40.5
107.5°	176.1	149.3	122.5	95.7
110°	340.8	311.6	282.3	253.1



TEST NUMBER: P831804

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

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	480.7	480.3	479.9	479.5
115°	538.7	539.5	540.4	541.2
117.5°	590.3	590.5	590.7	590.9
120°	642.4	642.4	642.4	642.4
122.5°	692.4	692.6	692.8	693.0
125°	738.7	739.2	739.6	740.0
127.5°	787.2	786.8	786.4	786.0
130°	831.4	831.0	830.6	830.2
132.5°	872.5	871.9	871.3	870.7
135°	913.9	913.3	912.7	912.1
137.5°	952.9	952.5	952.1	951.7
140°	987.9	987.4	987.0	986.6
142.5°	1020.7	1020.1	1019.5	1018.8
145°	1052.0	1052.0	1052.0	1052.0
147.5°	1079.0	1078.0	1076.9	1075.9
150°	1105.4	1104.7	1104.1	1103.5
152.5°	1128.7	1127.7	1126.6	1125.6
155°	1149.5	1148.3	1147.1	1145.9
157.5°	1168.2	1166.6	1165.0	1163.3
160°	1184.2	1182.8	1181.3	1179.9
162.5°	1199.2	1198.0	1196.8	1195.6
165°	1211.8	1210.4	1208.9	1207.5
167.5°	1221.6	1220.0	1218.4	1216.7
170°	1229.9	1228.3	1226.6	1225.0
172.5°	1235.1	1233.3	1231.4	1229.6
175°	1239.1	1237.5	1235.8	1234.2
177.5°	1241.3	1239.2	1237.2	1235.1
180°	1238.8	1238.8	1238.8	1238.8



TEST NUMBER: P831804

CATALOG NUMBER: S123RDIP-S1000D1195U927-4F0-1E-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	12.04	12.83	13.03	13.82	15.13	16.70	17.49	17.69	18.48	19.80
	3H	13.25	13.96	14.26	14.96	16.30	18.20	18.90	19.20	19.91	21.24
	4H	13.64	14.30	14.65	15.31	16.65	18.69	19.35	19.70	20.36	21.70
	6H	13.91	14.53	14.94	15.54	16.89	19.00	19.61	20.02	20.62	21.97
	8H	14.00	14.58	15.03	15.61	16.96	19.07	19.66	20.10	20.68	22.03
	12H	14.05	14.60	15.08	15.63	17.00	19.10	19.66	20.14	20.68	22.05
4H	2H	12.76	13.42	13.78	14.43	15.77	16.69	17.36	17.71	18.36	19.71
	3H	14.12	14.67	15.15	15.71	17.06	18.35	18.90	19.37	19.94	21.29
	4H	14.57	15.08	15.61	16.11	17.49	18.95	19.46	19.99	20.48	21.86
	6H	14.94	15.37	15.99	16.43	17.80	19.39	19.82	20.43	20.87	22.25
	8H	15.07	15.47	16.11	16.51	17.90	19.52	19.92	20.56	20.97	22.35
	12H	15.14	15.50	16.20	16.56	17.96	19.58	19.94	20.64	21.00	22.39
8H	4H	14.89	15.29	15.93	16.33	17.72	18.92	19.32	19.96	20.36	21.75
	6H	15.35	15.68	16.42	16.77	18.15	19.41	19.74	20.48	20.83	22.21
	8H	15.54	15.83	16.62	16.90	18.31	19.60	19.89	20.67	20.96	22.36
	12H	15.68	15.94	16.76	17.00	18.45	19.71	19.97	20.79	21.03	22.48
12H	4H	14.90	15.26	15.96	16.32	17.71	18.86	19.23	19.93	20.29	21.68
	6H	15.41	15.70	16.48	16.77	18.17	19.39	19.68	20.46	20.75	22.15
	8H	15.62	15.88	16.70	16.95	18.39	19.58	19.83	20.65	20.90	22.34