

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: P831860

Luminaire Tested: S123RDIP-S1000D585U927-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

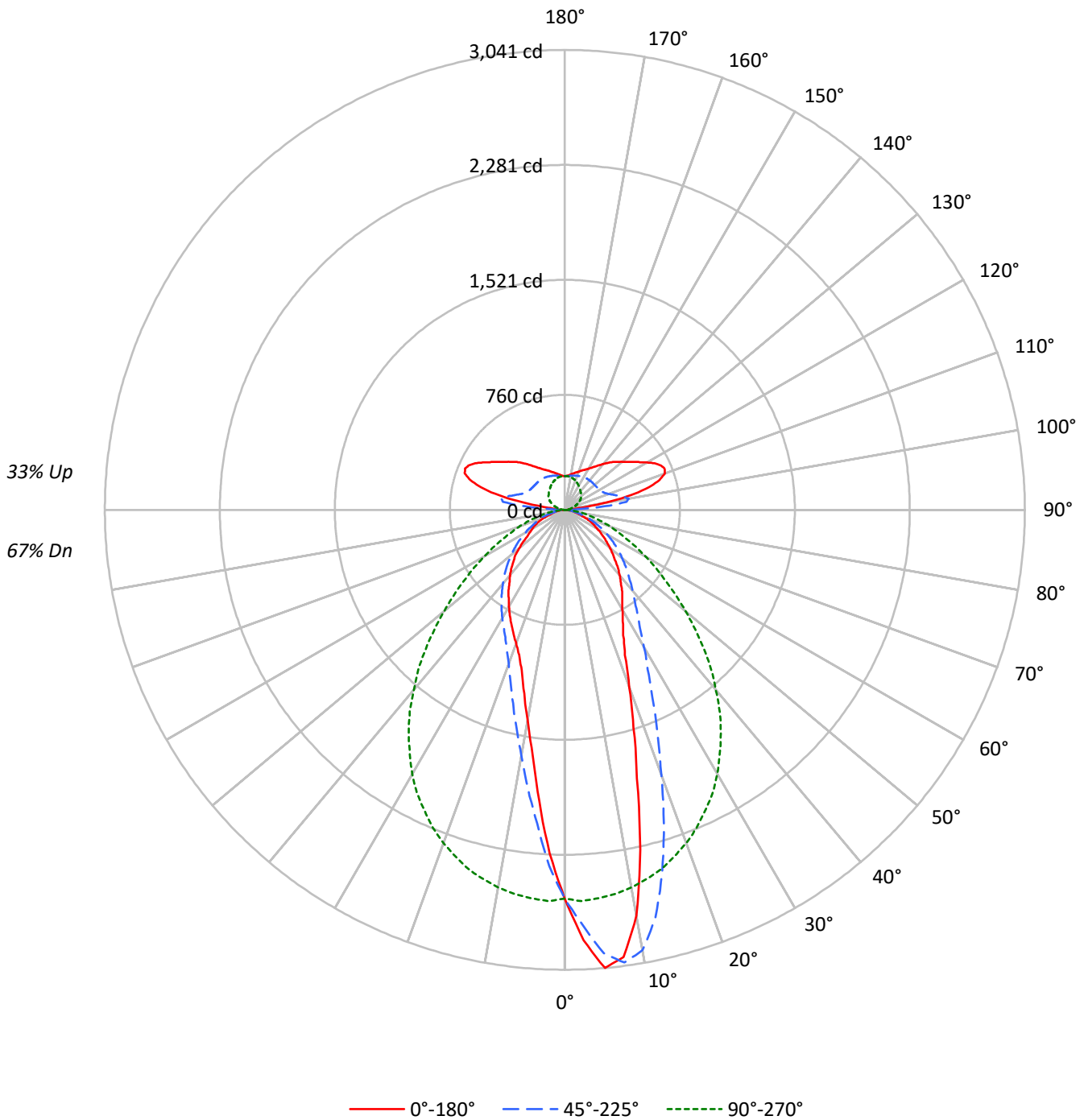
Test Method: LM-79-2019  
Report Number: P831860  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S1000D585U927-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 585 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5088.5 lumens  
Efficiency: N/A  
Efficacy: 101.2 lumens/watt  
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: Semi-Direct  
  
Input Watts (W): 50.3  
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





TEST NUMBER: P831860

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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	111	111	111	111	105	105	105	105	93	93	93	82	82	82	72	72	72	67				
1	103	99	95	92	97	93	90	87	83	81	79	74	72	70	65	64	63	59				
2	94	87	82	77	89	83	78	73	74	70	67	66	63	61	59	56	55	51				
3	87	78	71	66	82	74	68	63	67	62	58	60	56	53	53	50	48	45				
4	80	70	63	57	76	67	60	55	60	55	50	54	50	46	48	45	42	39				
5	74	63	56	50	70	60	53	48	55	49	45	49	45	41	44	41	38	35				
6	69	57	50	44	65	55	48	43	50	44	40	45	41	37	41	37	34	32				
7	64	53	45	40	61	50	43	38	46	40	36	42	37	33	38	34	31	29				
8	60	48	41	36	57	46	39	35	42	37	33	39	34	30	35	31	28	26				
9	56	45	37	32	53	43	36	32	39	34	30	36	31	28	33	29	26	24				
10	53	41	34	30	50	40	33	29	37	31	27	34	29	26	31	27	24	22				

**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	4.6
10°-20°	542.2	10.7
20°-30°	622.1	12.2
30°-40°	613.2	12.0
40°-50°	540.7	10.6
50°-60°	416.0	8.2
60°-70°	273.5	5.4
70°-80°	132.8	2.6
80°-90°	34.7	0.7
90°-100°	121.1	2.4
100°-110°	354.6	7.0
110°-120°	346.3	6.8
120°-130°	275.8	5.4
130°-140°	217.6	4.3
140°-150°	162.3	3.2
150°-160°	113.2	2.2
160°-170°	66.5	1.3
170°-180°	21.6	0.4
0°-30°	1398.6	27.5
0°-40°	2011.7	39.5
0°-60°	2968.5	58.3
0°-90°	3409.5	67.0
90°-120°	822.0	16.2
90°-150°	1477.7	29.0
90°-180°	1679.0	33.0
0°-180°	5088.5	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°	13	11	1	11	13	8
95°	52	268	15	268	52	85
105°	575	363	52	363	575	573
115°	699	278	93	278	699	682
125°	551	259	129	259	551	499
135°	447	256	151	256	447	347
145°	349	253	172	253	349	222
155°	290	244	196	244	290	135
165°	253	234	214	234	253	72
175°	227	225	223	225	227	22
180°	223	223	223	223	223	



TEST NUMBER: P831860

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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°	13.1	13.6	13.1	12.7	13.1	12.2	11.7	11.3	10.8	11.3	9.9
92.5°	23.9	24.9	24.4	26.2	27.1	30.3	34.8	44.7	62.8	84.0	93.1
95°	52.4	54.2	57.4	61.5	70.0	86.3	110.2	162.7	217.3	267.9	238.6
97.5°	107.5	112.5	123.4	140.5	170.8	222.3	281.9	373.7	426.1	412.1	307.7
100°	283.3	282.9	300.5	333.5	379.1	443.3	496.1	532.7	516.9	427.9	289.2
102.5°	448.7	461.8	475.8	500.2	533.2	568.0	593.3	585.6	521.4	398.5	262.1
105°	574.7	577.0	591.5	608.6	629.4	641.2	632.6	587.4	493.0	363.3	240.8
107.5°	657.0	661.9	667.8	676.0	678.7	666.5	631.2	560.3	452.3	332.1	225.5
110°	704.0	704.9	705.8	702.2	689.5	657.9	600.9	517.8	414.3	306.3	217.3



TEST NUMBER: P831860

CATALOG NUMBER: S123RDIP-S1000D585U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	713.5	713.0	708.5	695.4	669.6	626.7	561.2	475.8	381.4	289.2	212.8
115°	699.0	696.7	687.7	667.8	633.9	584.7	518.3	439.6	356.0	277.9	212.4
117.5°	667.4	664.2	650.6	628.5	593.3	542.2	481.2	411.6	339.3	270.2	212.8
120°	625.8	623.1	612.2	586.9	551.2	505.6	451.4	390.4	326.7	265.2	214.6
122.5°	586.9	583.3	571.1	549.0	518.3	476.7	427.4	373.7	316.3	262.1	217.8
125°	551.2	548.1	536.8	516.9	488.0	451.8	408.5	359.2	307.7	259.4	220.9
127.5°	520.5	517.8	507.4	490.2	464.0	430.6	390.8	346.1	299.6	258.0	224.6
130°	495.2	491.6	482.1	465.8	441.9	411.2	374.6	333.9	293.2	256.6	228.2
132.5°	470.4	468.1	460.0	443.7	421.6	392.6	359.2	322.6	287.4	256.2	230.9
135°	446.9	443.7	435.6	422.0	399.9	374.1	344.8	312.7	282.4	255.7	233.6
137.5°	422.0	419.3	412.5	398.5	379.5	356.5	330.3	303.2	277.9	254.8	235.4
140°	395.8	396.3	389.0	376.4	359.2	339.8	318.1	295.1	273.8	254.4	237.2
142.5°	371.4	371.9	365.5	354.7	340.7	324.4	306.3	287.4	270.2	253.5	238.6
145°	349.3	348.4	344.8	335.3	324.0	310.9	296.4	281.5	267.0	252.6	239.0
147.5°	330.3	329.8	326.2	319.5	310.4	300.9	288.7	276.5	263.9	251.2	239.0
150°	314.0	314.0	311.3	306.3	299.6	291.0	281.5	271.1	260.7	249.4	239.0
152.5°	300.5	300.5	299.1	294.6	289.6	282.9	274.7	266.1	257.1	247.2	237.7
155°	289.6	289.2	288.3	284.7	280.6	275.2	268.4	261.2	253.5	244.4	236.8
157.5°	279.2	279.2	278.3	275.6	272.0	267.5	262.1	255.7	249.4	242.2	235.4
160°	269.3	269.7	269.7	267.0	263.9	260.7	256.2	251.2	245.3	239.5	234.5
162.5°	260.3	260.7	260.7	258.5	256.6	253.9	249.9	245.8	241.3	236.8	232.7
165°	252.6	252.6	253.0	251.2	249.4	247.2	244.0	241.3	237.7	234.1	230.9
167.5°	244.9	244.9	245.3	244.0	243.1	241.3	239.5	237.2	234.1	231.3	229.1
170°	238.1	238.1	238.6	237.7	237.2	236.3	234.5	233.1	230.9	228.6	227.3
172.5°	231.8	232.2	233.1	232.2	232.2	231.8	230.4	229.5	227.7	226.4	225.9
175°	227.3	227.7	228.2	227.7	227.7	227.7	226.8	226.4	225.5	224.6	224.6
177.5°	224.1	224.1	225.0	224.6	225.0	225.0	224.6	224.1	223.7	223.2	223.7
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



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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°	8.6	7.2	5.9	5.0	4.1	2.7	1.8	0.9	1.8	2.7	4.1
92.5°	69.6	45.6	31.2	23.0	18.5	14.5	9.9	6.8	9.9	14.5	18.5
95°	164.5	97.1	58.7	41.1	29.4	21.7	16.7	15.4	16.7	21.7	29.4
97.5°	183.0	104.8	66.9	47.4	35.7	28.9	24.9	24.4	24.9	28.9	35.7
100°	170.3	103.5	71.8	54.2	43.4	37.1	33.9	33.4	33.9	37.1	43.4
102.5°	159.5	105.3	77.7	61.9	52.4	46.5	43.8	42.9	43.8	46.5	52.4
105°	155.4	108.9	84.5	70.5	61.9	56.5	53.8	52.4	53.8	56.5	61.9
107.5°	154.5	114.8	93.1	80.0	71.8	66.4	63.7	62.4	63.7	66.4	71.8
110°	156.8	122.4	102.1	89.5	81.8	76.8	74.6	73.2	74.6	76.8	81.8





TEST NUMBER: P831860

CATALOG NUMBER: S123RDIP-S1000D585U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	161.3	130.1	111.6	99.4	91.7	86.8	84.5	83.1	84.5	86.8	91.7
115°	166.3	138.7	121.5	109.3	101.7	97.1	94.4	92.6	94.4	97.1	101.7
117.5°	172.6	147.8	130.6	119.3	110.7	106.6	104.4	102.1	104.4	106.6	110.7
120°	179.8	156.3	140.1	128.8	120.2	115.7	113.4	112.1	113.4	115.7	120.2
122.5°	186.6	165.4	149.6	137.4	129.2	124.3	122.0	120.6	122.0	124.3	129.2
125°	193.8	174.0	158.1	145.9	137.4	132.4	129.7	128.8	129.7	132.4	137.4
127.5°	199.7	181.6	166.3	154.1	144.6	139.6	136.5	135.1	136.5	139.6	144.6
130°	205.6	188.4	173.5	161.3	151.8	146.4	142.3	141.0	142.3	146.4	151.8
132.5°	211.0	194.3	179.8	168.1	158.6	151.8	147.3	145.5	147.3	151.8	158.6
135°	215.5	200.2	186.2	174.0	164.5	157.7	152.7	150.9	152.7	157.7	164.5
137.5°	219.1	204.2	190.7	179.4	169.9	162.7	157.7	155.9	157.7	162.7	169.9
140°	221.9	208.3	195.2	183.9	174.9	167.6	163.1	160.9	163.1	167.6	174.9
142.5°	224.6	211.5	198.8	188.4	179.4	173.1	168.1	166.3	168.1	173.1	179.4
145°	226.4	214.2	202.4	192.0	184.4	177.6	173.5	172.2	173.5	177.6	184.4
147.5°	227.7	216.4	205.6	196.6	188.9	183.0	178.9	178.0	178.9	183.0	188.9
150°	228.2	218.7	208.3	200.2	193.8	188.0	184.4	183.9	184.4	188.0	193.8
152.5°	229.1	220.0	211.5	203.8	198.4	193.4	189.8	189.8	189.8	193.4	198.4
155°	229.1	221.9	214.2	207.8	202.9	198.4	195.6	195.6	195.6	198.4	202.9
157.5°	229.5	222.8	216.4	211.5	206.9	202.9	200.6	200.2	200.6	202.9	206.9
160°	229.5	224.1	218.7	214.2	211.0	207.4	205.6	205.6	205.6	207.4	211.0
162.5°	229.1	224.6	220.0	216.4	213.7	211.0	209.7	209.7	209.7	211.0	213.7
165°	228.2	225.0	221.4	218.2	216.4	214.2	213.3	213.7	213.3	214.2	216.4
167.5°	227.7	225.0	222.3	220.0	218.7	216.9	216.4	216.9	216.4	216.9	218.7
170°	226.4	224.6	222.3	221.4	220.5	219.1	218.7	219.6	218.7	219.1	220.5
172.5°	225.9	224.6	222.8	222.3	221.9	220.9	220.9	221.4	220.9	220.9	221.9
175°	225.0	224.1	223.2	222.8	222.8	221.9	222.3	222.8	222.3	221.9	222.8
177.5°	224.6	223.7	223.2	223.2	223.2	222.8	223.2	223.7	223.2	222.8	223.2
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



TEST NUMBER: P831860

CATALOG NUMBER: S123RDIP-S1000D585U927-4F0-1E-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°	5.0	5.9	7.2	8.6	9.9	11.3	10.8	11.3	11.7	12.2	13.1
92.5°	23.0	31.2	45.6	69.6	93.1	84.0	62.8	44.7	34.8	30.3	27.1
95°	41.1	58.7	97.1	164.5	238.6	267.9	217.3	162.7	110.2	86.3	70.0
97.5°	47.4	66.9	104.8	183.0	307.7	412.1	426.1	373.7	281.9	222.3	170.8
100°	54.2	71.8	103.5	170.3	289.2	427.9	516.9	532.7	496.1	443.3	379.1
102.5°	61.9	77.7	105.3	159.5	262.1	398.5	521.4	585.6	593.3	568.0	533.2
105°	70.5	84.5	108.9	155.4	240.8	363.3	493.0	587.4	632.6	641.2	629.4
107.5°	80.0	93.1	114.8	154.5	225.5	332.1	452.3	560.3	631.2	666.5	678.7
110°	89.5	102.1	122.4	156.8	217.3	306.3	414.3	517.8	600.9	657.9	689.5



TEST NUMBER: P831860

CATALOG NUMBER: S123RDIP-S1000D585U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	99.4	111.6	130.1	161.3	212.8	289.2	381.4	475.8	561.2	626.7	669.6
115°	109.3	121.5	138.7	166.3	212.4	277.9	356.0	439.6	518.3	584.7	633.9
117.5°	119.3	130.6	147.8	172.6	212.8	270.2	339.3	411.6	481.2	542.2	593.3
120°	128.8	140.1	156.3	179.8	214.6	265.2	326.7	390.4	451.4	505.6	551.2
122.5°	137.4	149.6	165.4	186.6	217.8	262.1	316.3	373.7	427.4	476.7	518.3
125°	145.9	158.1	174.0	193.8	220.9	259.4	307.7	359.2	408.5	451.8	488.0
127.5°	154.1	166.3	181.6	199.7	224.6	258.0	299.6	346.1	390.8	430.6	464.0
130°	161.3	173.5	188.4	205.6	228.2	256.6	293.2	333.9	374.6	411.2	441.9
132.5°	168.1	179.8	194.3	211.0	230.9	256.2	287.4	322.6	359.2	392.6	421.6
135°	174.0	186.2	200.2	215.5	233.6	255.7	282.4	312.7	344.8	374.1	399.9
137.5°	179.4	190.7	204.2	219.1	235.4	254.8	277.9	303.2	330.3	356.5	379.5
140°	183.9	195.2	208.3	221.9	237.2	254.4	273.8	295.1	318.1	339.8	359.2
142.5°	188.4	198.8	211.5	224.6	238.6	253.5	270.2	287.4	306.3	324.4	340.7
145°	192.0	202.4	214.2	226.4	239.0	252.6	267.0	281.5	296.4	310.9	324.0
147.5°	196.6	205.6	216.4	227.7	239.0	251.2	263.9	276.5	288.7	300.9	310.4
150°	200.2	208.3	218.7	228.2	239.0	249.4	260.7	271.1	281.5	291.0	299.6
152.5°	203.8	211.5	220.0	229.1	237.7	247.2	257.1	266.1	274.7	282.9	289.6
155°	207.8	214.2	221.9	229.1	236.8	244.4	253.5	261.2	268.4	275.2	280.6
157.5°	211.5	216.4	222.8	229.5	235.4	242.2	249.4	255.7	262.1	267.5	272.0
160°	214.2	218.7	224.1	229.5	234.5	239.5	245.3	251.2	256.2	260.7	263.9
162.5°	216.4	220.0	224.6	229.1	232.7	236.8	241.3	245.8	249.9	253.9	256.6
165°	218.2	221.4	225.0	228.2	230.9	234.1	237.7	241.3	244.0	247.2	249.4
167.5°	220.0	222.3	225.0	227.7	229.1	231.3	234.1	237.2	239.5	241.3	243.1
170°	221.4	222.3	224.6	226.4	227.3	228.6	230.9	233.1	234.5	236.3	237.2
172.5°	222.3	222.8	224.6	225.9	225.9	226.4	227.7	229.5	230.4	231.8	232.2
175°	222.8	223.2	224.1	225.0	224.6	224.6	225.5	226.4	226.8	227.7	227.7
177.5°	223.2	223.2	223.7	224.6	223.7	223.2	223.7	224.1	224.6	225.0	225.0
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



TEST NUMBER: P831860

CATALOG NUMBER: S123RDIP-S1000D585U927-4F0-1E-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°	12.7	13.1	13.6	13.1
92.5°	26.2	24.4	24.9	23.9
95°	61.5	57.4	54.2	52.4
97.5°	140.5	123.4	112.5	107.5
100°	333.5	300.5	282.9	283.3
102.5°	500.2	475.8	461.8	448.7
105°	608.6	591.5	577.0	574.7
107.5°	676.0	667.8	661.9	657.0
110°	702.2	705.8	704.9	704.0



TEST NUMBER: P831860

CATALOG NUMBER: S123RDIP-S1000D585U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	695.4	708.5	713.0	713.5
115°	667.8	687.7	696.7	699.0
117.5°	628.5	650.6	664.2	667.4
120°	586.9	612.2	623.1	625.8
122.5°	549.0	571.1	583.3	586.9
125°	516.9	536.8	548.1	551.2
127.5°	490.2	507.4	517.8	520.5
130°	465.8	482.1	491.6	495.2
132.5°	443.7	460.0	468.1	470.4
135°	422.0	435.6	443.7	446.9
137.5°	398.5	412.5	419.3	422.0
140°	376.4	389.0	396.3	395.8
142.5°	354.7	365.5	371.9	371.4
145°	335.3	344.8	348.4	349.3
147.5°	319.5	326.2	329.8	330.3
150°	306.3	311.3	314.0	314.0
152.5°	294.6	299.1	300.5	300.5
155°	284.7	288.3	289.2	289.6
157.5°	275.6	278.3	279.2	279.2
160°	267.0	269.7	269.7	269.3
162.5°	258.5	260.7	260.7	260.3
165°	251.2	253.0	252.6	252.6
167.5°	244.0	245.3	244.9	244.9
170°	237.7	238.6	238.1	238.1
172.5°	232.2	233.1	232.2	231.8
175°	227.7	228.2	227.7	227.3
177.5°	224.6	225.0	224.1	224.1
180°	223.2	223.2	223.2	223.2



TEST NUMBER: P831860

CATALOG NUMBER: S123RDIP-S1000D585U927-4F0-1E-UDD-G4

**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	13.75	14.71	14.56	15.53	16.54	18.42	19.37	19.23	20.20	21.21
	3H	14.98	15.84	15.81	16.67	17.71	19.93	20.78	20.75	21.61	22.65
	4H	15.37	16.18	16.21	17.02	18.07	20.42	21.23	21.26	22.07	23.12
	6H	15.66	16.40	16.51	17.25	18.31	20.74	21.48	21.59	22.33	23.39
	8H	15.75	16.45	16.61	17.32	18.38	20.82	21.53	21.68	22.39	23.46
	12H	15.80	16.48	16.67	17.33	18.42	20.86	21.53	21.72	22.39	23.48
4H	2H	14.49	15.30	15.33	16.14	17.19	18.43	19.23	19.27	20.07	21.12
	3H	15.87	16.54	16.72	17.41	18.48	20.10	20.76	20.95	21.64	22.70
	4H	16.33	16.94	17.20	17.81	18.90	20.71	21.31	21.57	22.18	23.28
	6H	16.71	17.23	17.59	18.12	19.22	21.15	21.67	22.03	22.57	23.67
	8H	16.83	17.32	17.72	18.21	19.32	21.29	21.77	22.17	22.66	23.77
	12H	16.91	17.35	17.82	18.26	19.37	21.35	21.79	22.26	22.70	23.81
8H	4H	16.65	17.14	17.54	18.03	19.14	20.68	21.17	21.57	22.06	23.17
	6H	17.12	17.52	18.03	18.46	19.56	21.18	21.59	22.10	22.52	23.63
	8H	17.32	17.67	18.24	18.60	19.72	21.37	21.73	22.29	22.65	23.78
	12H	17.46	17.77	18.38	18.69	19.87	21.49	21.80	22.41	22.72	23.90
12H	4H	16.67	17.11	17.57	18.02	19.13	20.64	21.08	21.54	21.99	23.10
	6H	17.18	17.54	18.10	18.46	19.59	21.16	21.51	22.08	22.44	23.57
	8H	17.41	17.72	18.33	18.63	19.81	21.36	21.67	22.28	22.59	23.76