

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: P831808

Luminaire Tested: S123RDIP-S1000D1195U930-4F0-1E-UDD-G1

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831808  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S1000D1195U930-4F0-1E-UDD-G1  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 1195 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: -

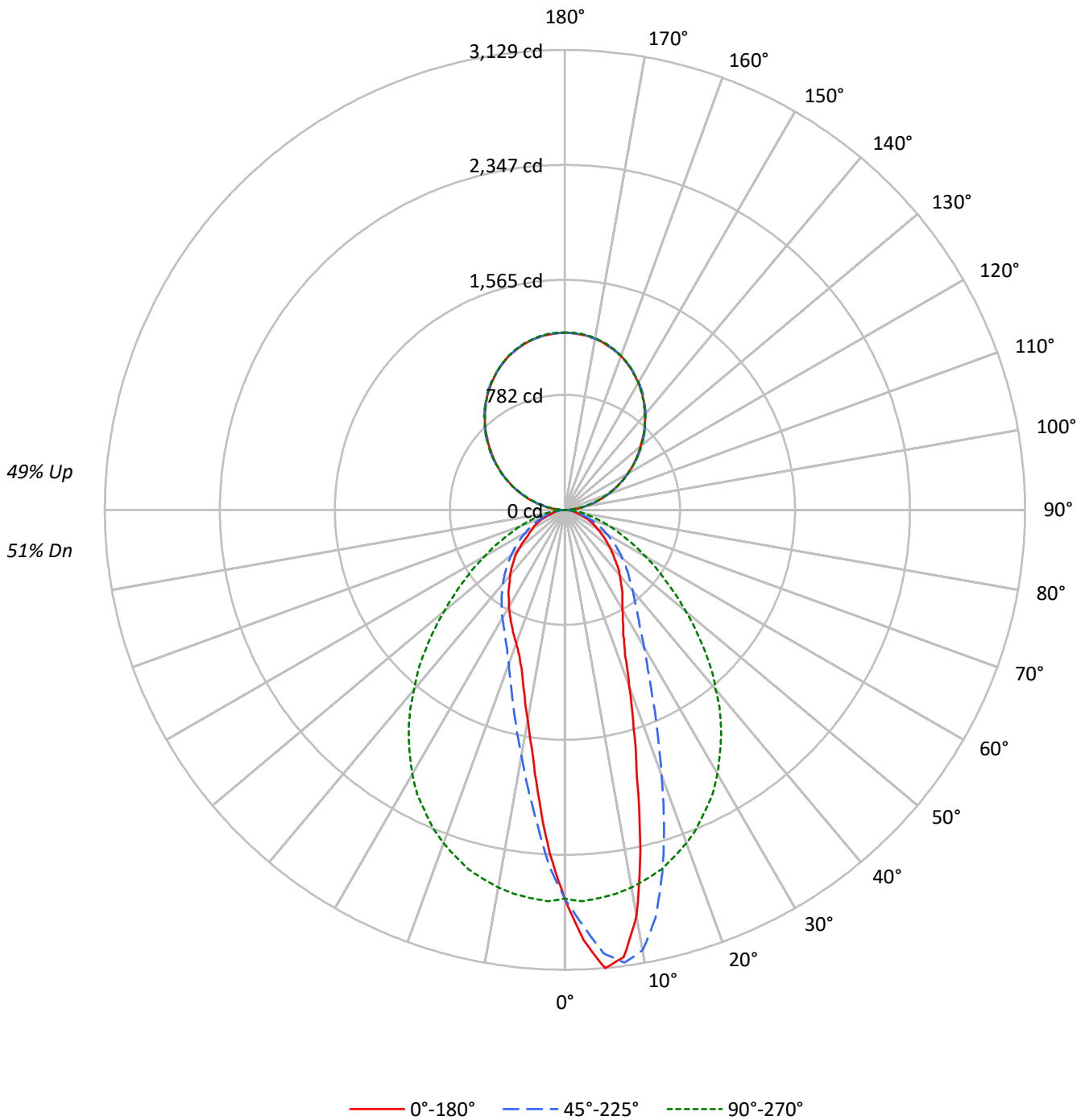
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6851.6 lumens  
Efficiency: N/A  
Efficacy: 103.7 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	99	99	99	99	84	84	84	70	70	70	57	57	57	51				
1	99	95	91	88	91	88	85	82	75	73	71	63	61	60	52	51	50	45				
2	91	84	78	73	84	78	73	69	67	63	60	56	54	51	47	45	43	39				
3	83	75	68	62	77	69	63	59	60	55	51	51	47	45	42	40	38	34				
4	77	67	59	54	71	62	56	51	54	49	45	46	42	39	38	36	34	30				
5	71	60	52	47	66	56	49	44	49	43	39	42	38	35	35	32	30	27				
6	66	54	47	41	61	51	44	39	44	39	35	38	34	31	32	29	27	24				
7	61	49	42	37	57	46	40	35	41	35	31	35	31	28	30	27	25	22				
8	57	45	38	33	53	42	36	31	37	32	28	32	28	25	28	25	22	20				
9	53	42	34	30	49	39	33	28	34	29	26	30	26	23	26	23	21	19				
10	50	38	32	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°	28478	28478	28478	28478	28478
5°	33813	32736	28657	23166	21507
10°	30636	33250	28514	18560	15923
15°	21094	28509	28213	15170	12596
20°	14675	21950	27646	12791	11071
25°	11182	16728	26822	11370	10203
30°	9734	13375	25792	10556	9451
35°	8937	11282	24331	9871	8766
40°	8154	10075	22420	9198	8139
45°	7365	9214	20360	8561	7514
50°	6685	8502	17928	7937	6738
55°	6047	7807	15593	7328	5782
60°	5419	7100	13543	6654	5464
65°	5000	6299	11660	5980	5165
70°	4063	5445	10172	5410	4198
75°	3564	4329	8617	4487	3697
80°	3230	3663	7060	3763	3496
85°	2952	3211	5360	3421	3211

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 21482 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	241.1	3.5
10°-20°	558.0	8.1
20°-30°	640.2	9.3
30°-40°	631.1	9.2
40°-50°	556.5	8.1
50°-60°	428.1	6.2
60°-70°	281.5	4.1
70°-80°	136.7	2.0
80°-90°	37.0	0.5
90°-100°	77.6	1.1
100°-110°	235.0	3.4
110°-120°	400.0	5.8
120°-130°	526.2	7.7
130°-140°	591.5	8.6
140°-150°	581.5	8.5
150°-160°	489.5	7.1
160°-170°	325.9	4.8
170°-180°	114.1	1.7
0°-30°	1439.4	21.0
0°-40°	2070.5	30.2
0°-60°	3055.1	44.6
0°-90°	3510.3	51.2
90°-120°	712.6	10.4
90°-150°	2411.7	35.2
90°-180°	3341.0	48.8
0°-180°	6851.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2646	2646	2646	2646	2646	
5°	3129	3030	2652	2144	1990	286
15°	1893	2558	2532	1361	1130	534
25°	942	1408	2258	957	859	445
35°	680	859	1852	751	667	424
45°	484	605	1338	562	494	376
55°	322	416	831	390	308	289
65°	196	247	458	235	203	192
75°	86	104	207	108	89	92
85°	24	26	43	28	26	25
90°	28	23	1	23	28	15
95°	74	70	56	70	74	74
105°	226	224	213	224	226	239
115°	404	404	403	404	404	400
125°	583	590	589	590	583	521
135°	764	769	764	769	764	587
145°	927	932	927	932	927	579
155°	1060	1063	1062	1063	1060	488
165°	1153	1154	1157	1154	1153	325
175°	1198	1199	1203	1199	1198	114
180°	1206	1206	1206	1206	1206	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7
2.5°	2932.0	2922.8	2913.6	2910.9	2908.2	2899.5	2890.8	2871.3	2851.8	2831.7	2811.6
5°	3129.4	3130.5	3131.6	3128.9	3126.2	3114.8	3103.4	3079.6	3055.7	3029.7	3003.6
7.5°	3068.7	3086.1	3103.4	3106.7	3109.9	3118.6	3127.3	3121.9	3116.4	3106.7	3096.9
10°	2802.9	2801.9	2800.8	2820.3	2839.8	2897.9	2955.9	2985.7	3015.6	3042.1	3068.7
12.5°	2369.1	2370.7	2372.3	2436.3	2500.3	2555.1	2609.9	2685.8	2761.7	2843.6	2925.5
15°	1892.9	1919.4	1946.0	2003.0	2059.9	2142.3	2224.8	2326.7	2428.7	2558.3	2688.0
17.5°	1554.4	1565.8	1577.2	1632.0	1686.8	1764.9	1843.0	1958.5	2074.0	2241.1	2408.1
20°	1281.1	1291.4	1301.7	1341.3	1380.9	1455.7	1530.6	1640.7	1750.8	1916.2	2081.6
22.5°	1069.5	1089.6	1109.7	1136.3	1162.8	1217.1	1271.3	1383.6	1495.8	1646.6	1797.4
25°	941.5	950.8	960.0	982.8	1005.5	1057.6	1109.7	1184.0	1258.3	1408.5	1558.8
27.5°	854.8	857.5	860.2	877.0	893.8	927.4	961.1	1030.0	1098.8	1222.5	1346.2
30°	783.2	788.1	792.9	806.0	819.0	843.4	867.8	916.6	965.4	1076.1	1186.7
32.5°	727.9	730.6	733.3	744.1	755.0	772.9	790.8	829.3	867.8	952.4	1037.0
35°	680.1	680.7	681.2	689.3	697.5	714.8	732.2	764.2	796.2	858.6	920.9
37.5°	625.9	629.7	633.5	639.4	645.4	660.6	675.8	701.8	727.9	779.4	830.9
40°	580.3	583.6	586.8	593.9	600.9	612.9	624.8	648.7	672.5	717.0	761.5
42.5°	534.8	536.9	539.1	546.2	553.2	567.9	582.5	601.5	620.5	657.3	694.2
45°	483.8	489.2	494.6	502.2	509.8	522.3	534.8	554.3	573.8	605.3	636.7
47.5°	441.5	444.2	446.9	453.4	459.9	475.1	490.3	507.7	525.0	554.3	583.6
50°	399.2	400.3	401.4	407.3	413.3	426.8	440.4	460.5	480.5	507.7	534.8
52.5°	359.0	361.8	364.5	370.4	376.4	385.6	394.8	415.5	436.1	462.6	489.2
55°	322.2	323.8	325.4	329.8	334.1	344.9	355.8	373.7	391.6	416.0	440.4
57.5°	287.5	289.6	291.8	295.0	298.3	308.1	317.8	333.6	349.3	373.7	398.1
60°	251.7	254.4	257.1	260.9	264.7	272.3	279.9	294.0	308.1	329.8	351.5
62.5°	225.6	226.2	226.7	230.0	233.2	238.6	244.1	255.5	266.8	288.5	310.2
65°	196.3	198.0	199.6	201.2	202.8	207.2	211.5	221.3	231.0	247.3	263.6
67.5°	166.0	167.6	169.2	171.9	174.6	178.4	182.2	188.7	195.3	210.4	225.6
70°	129.1	129.1	129.1	133.4	137.8	144.3	150.8	155.7	160.5	173.0	185.5
72.5°	105.2	105.8	106.3	106.8	107.4	111.2	115.0	123.1	131.3	138.8	146.4
75°	85.7	86.2	86.8	87.3	87.9	88.9	90.0	92.7	95.5	104.1	112.8
77.5°	68.3	68.9	69.4	70.0	70.5	71.6	72.7	73.8	74.8	78.1	81.4
80°	52.1	52.6	53.2	53.7	54.2	54.8	55.3	56.4	57.5	59.1	60.7
82.5°	38.0	38.0	38.0	38.0	38.0	39.1	40.1	40.1	40.1	41.2	42.3
85°	23.9	23.9	23.9	24.4	24.9	24.9	24.9	25.5	26.0	26.0	26.0
87.5°	10.8	10.3	9.8	10.3	10.8	10.8	10.8	11.4	11.9	11.9	11.9
90°	28.4	28.0	27.6	27.2	26.7	26.1	25.3	24.4	23.6	22.7	20.0
92.5°	40.7	41.2	41.6	42.0	42.4	42.3	41.7	41.0	40.4	39.8	38.5
95°	73.9	73.9	73.9	73.9	73.9	73.5	72.6	71.8	70.9	70.1	68.4
97.5°	106.1	106.3	106.5	106.7	106.9	106.5	105.5	104.4	103.4	102.3	101.0
100°	144.0	143.6	143.1	142.7	142.3	141.8	141.1	140.5	139.9	139.3	138.2
102.5°	182.8	183.0	183.2	183.5	183.7	183.5	182.8	182.2	181.6	180.9	179.5
105°	225.5	225.0	224.6	224.2	223.8	223.6	223.6	223.6	223.6	223.6	221.7
107.5°	269.0	269.2	269.4	269.7	269.9	269.7	269.0	268.4	267.8	267.1	266.3
110°	313.5	314.0	314.4	314.8	315.2	315.0	314.2	313.3	312.5	311.7	311.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	360.9	360.9	360.9	360.9	360.9	360.4	359.3	358.3	357.2	356.2	356.2
115°	403.5	403.8	404.0	404.2	404.4	404.4	404.2	404.0	403.8	403.5	404.0
117.5°	447.1	447.7	448.4	449.0	449.6	450.0	450.0	450.0	450.0	450.0	450.4
120°	493.5	494.0	494.4	494.8	495.2	495.5	495.7	496.0	496.2	496.4	497.4
122.5°	538.1	538.7	539.3	539.9	540.6	541.2	541.8	542.5	543.1	543.7	544.2
125°	582.6	583.4	584.3	585.1	585.9	586.8	587.6	588.5	589.3	590.2	590.6
127.5°	627.1	627.9	628.8	629.6	630.5	631.5	632.8	634.0	635.3	636.6	637.0
130°	670.7	672.1	673.6	675.1	676.6	677.7	678.6	679.4	680.3	681.1	681.7
132.5°	716.1	717.2	718.2	719.3	720.4	721.4	722.5	723.5	724.6	725.6	726.0
135°	763.5	763.9	764.3	764.8	765.2	765.8	766.7	767.5	768.3	769.2	769.4
137.5°	805.2	805.8	806.5	807.1	807.7	808.6	809.6	810.7	811.7	812.8	812.1
140°	845.9	847.4	848.9	850.3	851.8	852.7	852.9	853.1	853.3	853.5	853.3
142.5°	887.6	888.7	889.7	890.8	891.8	892.4	892.7	892.9	893.1	893.3	892.9
145°	927.4	928.2	929.1	929.9	930.8	931.3	931.5	931.7	931.9	932.1	931.5
147.5°	963.4	964.6	965.9	967.2	968.4	969.1	969.1	969.1	969.1	969.1	968.4
150°	997.5	998.7	1000.0	1001.3	1002.5	1003.2	1003.2	1003.2	1003.2	1003.2	1002.7
152.5°	1030.6	1031.7	1032.7	1033.8	1034.9	1035.2	1034.7	1034.3	1033.9	1033.5	1033.3
155°	1060.0	1061.5	1063.0	1064.4	1065.9	1066.2	1065.4	1064.5	1063.7	1062.8	1062.6
157.5°	1087.5	1088.7	1090.0	1091.3	1092.5	1092.7	1091.9	1091.1	1090.2	1089.4	1089.2
160°	1114.0	1114.8	1115.7	1116.5	1117.4	1117.3	1116.2	1115.2	1114.1	1113.1	1113.1
162.5°	1133.9	1135.4	1136.8	1138.3	1139.8	1140.0	1138.9	1137.9	1136.8	1135.8	1135.6
165°	1152.8	1154.3	1155.8	1157.3	1158.7	1158.8	1157.6	1156.3	1155.1	1153.8	1153.8
167.5°	1169.9	1171.2	1172.4	1173.7	1174.9	1174.9	1173.7	1172.4	1171.2	1169.9	1169.7
170°	1182.2	1183.7	1185.2	1186.6	1188.1	1188.1	1186.6	1185.2	1183.7	1182.2	1182.2
172.5°	1191.7	1193.2	1194.6	1196.1	1197.6	1197.7	1196.4	1195.2	1193.9	1192.6	1192.6
175°	1198.3	1199.8	1201.3	1202.7	1204.2	1204.3	1203.0	1201.8	1200.5	1199.3	1199.3
177.5°	1202.1	1203.6	1205.0	1206.5	1208.0	1208.1	1206.8	1205.6	1204.3	1203.0	1203.0
180°	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7
2.5°	2808.9	2806.2	2780.2	2754.1	2728.6	2703.2	2684.2	2665.2	2633.2	2601.2	2581.1
5°	2983.0	2962.4	2921.2	2880.0	2818.1	2756.3	2704.2	2652.2	2586.0	2519.8	2464.5
7.5°	3080.1	3063.3	3013.4	2963.5	2881.6	2799.7	2718.3	2637.0	2539.4	2441.7	2358.2
10°	3082.8	3096.9	3055.7	3014.5	2922.3	2830.1	2719.4	2608.8	2477.5	2346.3	2238.3
12.5°	2986.3	3047.0	3038.3	3029.7	2935.8	2842.0	2707.5	2573.0	2411.9	2250.8	2115.8
15°	2805.7	2923.4	2958.1	2992.8	2915.2	2837.7	2684.7	2531.8	2342.5	2153.2	1998.1
17.5°	2573.0	2737.9	2829.5	2921.2	2864.8	2808.4	2640.8	2473.2	2260.0	2046.9	1878.2
20°	2297.5	2513.3	2657.0	2800.8	2780.2	2759.6	2586.5	2413.5	2183.6	1953.6	1770.8
22.5°	2025.2	2253.0	2451.5	2650.0	2671.2	2692.3	2517.7	2343.0	2091.4	1839.7	1653.7
25°	1790.3	2021.9	2258.4	2494.9	2542.6	2590.3	2424.4	2258.4	1997.5	1736.7	1551.7
27.5°	1566.4	1786.6	2046.9	2307.2	2394.0	2480.8	2328.9	2177.1	1905.3	1633.6	1449.2
30°	1383.6	1580.5	1846.2	2112.0	2232.9	2353.9	2214.5	2075.1	1805.5	1536.0	1355.4
32.5°	1213.3	1389.5	1656.4	1923.2	2063.7	2204.2	2083.8	1963.4	1704.1	1444.9	1266.4
35°	1078.8	1236.6	1485.5	1734.5	1891.8	2049.1	1950.3	1851.6	1598.4	1345.1	1176.4
37.5°	963.2	1095.6	1329.3	1563.1	1730.1	1897.2	1814.8	1732.3	1494.2	1256.1	1096.7
40°	867.8	974.1	1191.6	1409.1	1572.9	1736.7	1666.1	1595.6	1382.5	1169.3	1020.2
42.5°	785.9	877.5	1072.8	1268.1	1418.3	1568.5	1521.9	1475.2	1282.2	1089.1	950.8
45°	713.8	790.8	962.7	1134.6	1272.9	1411.2	1374.4	1337.5	1171.0	1004.5	877.5
47.5°	649.8	715.9	869.4	1022.9	1147.1	1271.3	1237.1	1203.0	1065.2	927.4	811.9
50°	591.2	647.6	775.6	903.6	1015.3	1127.0	1098.8	1070.6	956.7	842.8	743.0
52.5°	535.9	582.5	697.5	812.5	902.5	992.5	970.8	949.1	861.3	773.4	682.8
55°	483.2	526.1	623.2	720.3	797.3	874.3	852.6	830.9	762.6	694.2	614.5
57.5°	435.5	472.9	551.6	630.2	691.5	752.8	742.5	732.2	675.2	618.3	552.7
60°	385.1	418.7	486.5	554.3	603.7	653.0	641.1	629.1	588.5	547.8	491.4
62.5°	340.1	369.9	424.1	478.4	518.5	558.6	550.0	541.3	510.4	479.5	432.8
65°	292.9	322.2	366.1	410.0	441.5	472.9	465.3	457.8	434.4	411.1	373.7
67.5°	250.0	274.4	312.4	350.4	371.5	392.7	388.3	384.0	366.1	348.2	318.9
70°	206.6	227.8	259.3	290.7	305.4	320.0	321.6	323.2	307.0	290.7	269.0
72.5°	163.3	180.1	209.4	238.6	250.0	261.4	260.9	260.3	250.6	240.8	221.3
75°	125.3	137.8	160.5	183.3	193.1	202.8	205.0	207.2	198.0	188.7	177.9
77.5°	90.0	98.7	116.1	133.4	144.3	155.1	156.2	157.3	152.9	148.6	138.3
80°	63.5	66.2	77.0	87.9	99.3	110.6	112.3	113.9	109.6	105.2	98.7
82.5°	43.9	45.6	49.4	53.2	62.4	71.6	73.8	75.9	73.8	71.6	64.5
85°	26.6	27.1	28.7	30.4	34.7	39.1	41.2	43.4	42.3	41.2	37.4
87.5°	11.9	11.9	12.5	13.0	14.1	15.2	17.9	20.6	19.0	17.4	15.7
90°	17.3	14.5	11.8	9.4	7.3	5.2	3.1	0.9	3.1	5.2	7.3
92.5°	37.3	36.0	34.7	33.5	32.2	30.9	29.7	28.4	29.7	30.9	32.2
95°	66.7	65.0	63.4	61.8	60.3	58.8	57.4	55.9	57.4	58.8	60.3
97.5°	99.8	98.5	97.3	96.1	95.0	94.0	92.9	91.9	92.9	94.0	95.0
100°	137.1	136.1	135.0	133.9	132.6	131.4	130.1	128.8	130.1	131.4	132.6
102.5°	178.0	176.5	175.0	174.0	173.4	172.7	172.1	171.5	172.1	172.7	173.4
105°	219.8	217.9	216.0	214.8	214.4	214.0	213.6	213.1	213.6	214.0	214.4
107.5°	265.4	264.6	263.8	263.2	263.0	262.8	262.6	262.4	262.6	262.8	263.0
110°	310.8	310.4	310.0	309.6	309.1	308.7	308.3	307.9	308.3	308.7	309.1





TEST NUMBER: P831808

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	356.2	356.2	356.2	356.1	355.9	355.7	355.4	355.2	355.4	355.7	355.9
115°	404.4	404.8	405.2	405.1	404.5	403.9	403.2	402.6	403.2	403.9	404.5
117.5°	450.8	451.2	451.6	451.7	451.5	451.3	451.1	450.9	451.1	451.3	451.5
120°	498.5	499.5	500.6	500.5	499.2	498.0	496.7	495.4	496.7	498.0	499.2
122.5°	544.6	545.0	545.4	545.2	544.4	543.5	542.7	541.8	542.7	543.5	544.4
125°	591.0	591.4	591.8	591.7	591.1	590.5	589.8	589.2	589.8	590.5	591.1
127.5°	637.4	637.8	638.3	637.8	636.6	635.3	634.0	632.8	634.0	635.3	636.6
130°	682.4	683.0	683.6	683.1	681.4	679.7	678.0	676.4	678.0	679.7	681.4
132.5°	726.5	726.9	727.3	726.7	725.0	723.3	721.6	719.9	721.6	723.3	725.0
135°	769.6	769.8	770.0	769.5	768.2	767.0	765.7	764.5	765.7	767.0	768.2
137.5°	811.5	810.9	810.2	809.4	808.3	807.3	806.2	805.2	806.2	807.3	808.3
140°	853.1	852.9	852.7	852.0	851.0	849.9	848.9	847.8	848.9	849.9	851.0
142.5°	892.4	892.0	891.6	890.9	889.8	888.8	887.7	886.7	887.7	888.8	889.8
145°	930.9	930.2	929.6	929.1	928.7	928.2	927.8	927.4	927.8	928.2	928.7
147.5°	967.8	967.2	966.5	965.8	965.0	964.1	963.3	962.4	963.3	964.1	965.0
150°	1002.3	1001.9	1001.5	1001.1	1000.6	1000.2	999.8	999.4	999.8	1000.2	1000.6
152.5°	1033.1	1032.9	1032.6	1032.2	1031.6	1031.0	1030.3	1029.7	1030.3	1031.0	1031.6
155°	1062.4	1062.2	1062.0	1061.9	1061.9	1061.9	1061.9	1061.9	1061.9	1061.9	1061.9
157.5°	1089.0	1088.7	1088.5	1088.5	1088.7	1089.0	1089.2	1089.4	1089.2	1089.0	1088.7
160°	1113.1	1113.1	1113.1	1113.3	1113.7	1114.1	1114.5	1114.9	1114.5	1114.1	1113.7
162.5°	1135.4	1135.2	1134.9	1135.2	1135.8	1136.4	1137.1	1137.7	1137.1	1136.4	1135.8
165°	1153.8	1153.8	1153.8	1154.1	1154.7	1155.4	1156.0	1156.6	1156.0	1155.4	1154.7
167.5°	1169.5	1169.3	1169.0	1169.4	1170.2	1171.0	1171.9	1172.7	1171.9	1171.0	1170.2
170°	1182.2	1182.2	1182.2	1182.6	1183.5	1184.3	1185.2	1186.0	1185.2	1184.3	1183.5
172.5°	1192.6	1192.6	1192.6	1193.0	1193.9	1194.7	1195.6	1196.4	1195.6	1194.7	1193.9
175°	1199.3	1199.3	1199.3	1199.7	1200.5	1201.4	1202.2	1203.0	1202.2	1201.4	1200.5
177.5°	1203.0	1203.0	1203.0	1203.5	1204.3	1205.2	1206.0	1206.8	1206.0	1205.2	1204.3
180°	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9



TEST NUMBER: P831808

CATALOG NUMBER: S123RDIP-S1000D1195U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7
2.5°	2561.1	2530.1	2499.2	2477.0	2454.7	2427.1	2399.4	2398.3	2397.3	2376.6	2356.0
5°	2409.2	2355.5	2301.8	2249.2	2196.6	2144.0	2091.4	2079.4	2067.5	2049.6	2031.7
7.5°	2274.7	2189.0	2103.3	2036.0	1968.8	1916.2	1863.6	1827.8	1792.0	1764.3	1736.7
10°	2130.4	2024.1	1917.8	1836.5	1755.1	1698.1	1641.2	1600.0	1558.8	1539.2	1519.7
12.5°	1980.7	1865.2	1749.7	1669.9	1590.2	1521.9	1453.5	1416.1	1378.7	1351.6	1324.5
15°	1843.0	1718.8	1594.6	1509.9	1425.3	1361.3	1297.3	1259.9	1222.5	1195.4	1168.3
17.5°	1709.5	1584.3	1459.0	1373.3	1287.6	1229.5	1171.5	1135.2	1098.8	1082.0	1065.2
20°	1588.0	1461.7	1335.3	1254.5	1173.7	1116.7	1059.8	1040.3	1020.7	1005.0	989.3
22.5°	1467.6	1346.2	1224.7	1147.1	1069.5	1028.3	987.1	971.4	955.6	943.7	931.8
25°	1366.8	1245.8	1124.9	1057.1	989.3	957.3	925.3	915.0	904.7	892.7	880.8
27.5°	1264.8	1149.8	1034.8	980.6	926.4	900.3	874.3	861.3	848.3	838.5	828.7
30°	1174.8	1068.5	962.2	917.1	872.1	849.3	826.6	812.5	798.4	789.1	779.9
32.5°	1088.0	993.6	899.2	860.7	822.2	800.0	777.8	764.2	750.6	739.8	728.9
35°	1007.7	925.8	843.9	808.7	773.4	751.2	728.9	715.4	701.8	691.0	680.1
37.5°	937.2	862.9	788.6	755.5	722.4	702.9	683.4	669.3	655.2	643.8	632.4
40°	871.0	805.4	739.8	707.8	675.8	654.6	633.5	621.0	608.5	598.2	587.9
42.5°	812.5	752.3	692.1	660.6	629.1	609.1	589.0	574.4	559.7	553.8	547.8
45°	750.6	697.5	644.3	614.0	583.6	562.4	541.3	528.8	516.3	510.9	505.5
47.5°	696.4	647.0	597.7	567.9	538.0	519.0	500.1	490.3	480.5	472.9	465.3
50°	643.2	595.5	547.8	519.0	490.3	474.0	457.8	445.8	433.9	428.5	423.0
52.5°	592.3	548.9	505.5	476.2	446.9	431.2	415.5	405.1	394.8	383.5	372.1
55°	534.8	496.8	458.8	432.8	406.8	390.5	374.2	362.3	350.4	338.4	326.5
57.5°	487.0	449.6	412.2	388.9	365.6	349.8	334.1	321.1	308.1	298.3	288.5
60°	435.0	402.4	369.9	347.1	324.3	309.1	294.0	281.5	269.0	264.1	259.3
62.5°	386.2	355.8	325.4	305.4	285.3	270.6	256.0	247.9	239.7	236.5	233.2
65°	336.3	310.2	284.2	265.8	247.3	234.8	222.4	218.6	214.8	212.1	209.4
67.5°	289.6	267.4	245.1	228.9	212.6	203.9	195.3	190.9	186.6	183.3	180.1
70°	247.3	227.8	208.3	194.2	180.1	171.9	163.8	160.0	156.2	150.2	144.3
72.5°	201.8	186.6	171.4	160.5	149.7	142.6	135.6	128.0	120.4	115.0	109.6
75°	167.0	151.9	136.7	126.4	116.1	107.9	99.8	97.1	94.4	92.7	91.1
77.5°	128.0	115.0	102.0	93.8	85.7	81.9	78.1	76.5	74.8	74.3	73.8
80°	92.2	81.4	70.5	66.2	61.8	60.7	59.7	58.6	57.5	56.9	56.4
82.5°	57.5	52.1	46.6	45.6	44.5	43.9	43.4	42.8	42.3	41.8	41.2
85°	33.6	31.5	29.3	28.7	28.2	27.7	27.1	27.1	27.1	27.1	27.1
87.5°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	13.6	13.0
90°	9.4	11.8	14.5	17.3	20.0	22.7	23.6	24.4	25.3	26.1	26.7
92.5°	33.5	34.7	36.0	37.3	38.5	39.8	40.4	41.0	41.7	42.3	42.4
95°	61.8	63.4	65.0	66.7	68.4	70.1	70.9	71.8	72.6	73.5	73.9
97.5°	96.1	97.3	98.5	99.8	101.0	102.3	103.4	104.4	105.5	106.5	106.9
100°	133.9	135.0	136.1	137.1	138.2	139.3	139.9	140.5	141.1	141.8	142.3
102.5°	174.0	175.0	176.5	178.0	179.5	180.9	181.6	182.2	182.8	183.5	183.7
105°	214.8	216.0	217.9	219.8	221.7	223.6	223.6	223.6	223.6	223.6	223.8
107.5°	263.2	263.8	264.6	265.4	266.3	267.1	267.8	268.4	269.0	269.7	269.9
110°	309.6	310.0	310.4	310.8	311.2	311.7	312.5	313.3	314.2	315.0	315.2



TEST NUMBER: P831808

CATALOG NUMBER: S123RDIP-S1000D1195U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	356.1	356.2	356.2	356.2	356.2	356.2	357.2	358.3	359.3	360.4	360.9
115°	405.1	405.2	404.8	404.4	404.0	403.5	403.8	404.0	404.2	404.4	404.4
117.5°	451.7	451.6	451.2	450.8	450.4	450.0	450.0	450.0	450.0	450.0	449.6
120°	500.5	500.6	499.5	498.5	497.4	496.4	496.2	496.0	495.7	495.5	495.2
122.5°	545.2	545.4	545.0	544.6	544.2	543.7	543.1	542.5	541.8	541.2	540.6
125°	591.7	591.8	591.4	591.0	590.6	590.2	589.3	588.5	587.6	586.8	585.9
127.5°	637.8	638.3	637.8	637.4	637.0	636.6	635.3	634.0	632.8	631.5	630.5
130°	683.1	683.6	683.0	682.4	681.7	681.1	680.3	679.4	678.6	677.7	676.6
132.5°	726.7	727.3	726.9	726.5	726.0	725.6	724.6	723.5	722.5	721.4	720.4
135°	769.5	770.0	769.8	769.6	769.4	769.2	768.3	767.5	766.7	765.8	765.2
137.5°	809.4	810.2	810.9	811.5	812.1	812.8	811.7	810.7	809.6	808.6	807.7
140°	852.0	852.7	852.9	853.1	853.3	853.5	853.3	853.1	852.9	852.7	851.8
142.5°	890.9	891.6	892.0	892.4	892.9	893.3	893.1	892.9	892.7	892.4	891.8
145°	929.1	929.6	930.2	930.9	931.5	932.1	931.9	931.7	931.5	931.3	930.8
147.5°	965.8	966.5	967.2	967.8	968.4	969.1	969.1	969.1	969.1	969.1	968.4
150°	1001.1	1001.5	1001.9	1002.3	1002.7	1003.2	1003.2	1003.2	1003.2	1003.2	1002.5
152.5°	1032.2	1032.6	1032.9	1033.1	1033.3	1033.5	1033.9	1034.3	1034.7	1035.2	1034.9
155°	1061.9	1062.0	1062.2	1062.4	1062.6	1062.8	1063.7	1064.5	1065.4	1066.2	1065.9
157.5°	1088.5	1088.5	1088.7	1089.0	1089.2	1089.4	1090.2	1091.1	1091.9	1092.7	1092.5
160°	1113.3	1113.1	1113.1	1113.1	1113.1	1113.1	1114.1	1115.2	1116.2	1117.3	1117.4
162.5°	1135.2	1134.9	1135.2	1135.4	1135.6	1135.8	1136.8	1137.9	1138.9	1140.0	1139.8
165°	1154.1	1153.8	1153.8	1153.8	1153.8	1153.8	1155.1	1156.3	1157.6	1158.8	1158.7
167.5°	1169.4	1169.0	1169.3	1169.5	1169.7	1169.9	1171.2	1172.4	1173.7	1174.9	1174.9
170°	1182.6	1182.2	1182.2	1182.2	1182.2	1182.2	1183.7	1185.2	1186.6	1188.1	1188.1
172.5°	1193.0	1192.6	1192.6	1192.6	1192.6	1192.6	1193.9	1195.2	1196.4	1197.7	1197.6
175°	1199.7	1199.3	1199.3	1199.3	1199.3	1199.3	1200.5	1201.8	1203.0	1204.3	1204.2
177.5°	1203.5	1203.0	1203.0	1203.0	1203.0	1203.0	1204.3	1205.6	1206.8	1208.1	1208.0
180°	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9



TEST NUMBER: P831808

CATALOG NUMBER: S123RDIP-S1000D1195U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2645.7	2645.7	2645.7	2645.7
2.5°	2350.6	2345.2	2343.0	2340.9
5°	2014.9	1998.1	1994.3	1990.5
7.5°	1729.6	1722.6	1699.2	1675.9
10°	1498.0	1476.3	1466.6	1456.8
12.5°	1304.4	1284.3	1281.1	1277.8
15°	1154.2	1140.1	1135.2	1130.3
17.5°	1055.4	1045.7	1039.7	1033.7
20°	982.2	975.2	970.8	966.5
22.5°	926.4	920.9	917.7	914.4
25°	872.7	864.5	861.8	859.1
27.5°	821.7	814.6	811.9	809.2
30°	774.0	768.0	764.2	760.4
32.5°	721.9	714.8	712.7	710.5
35°	675.8	671.4	669.3	667.1
37.5°	627.0	621.6	618.3	615.0
40°	585.2	582.5	580.9	579.2
42.5°	542.9	538.0	537.5	536.9
45°	500.6	495.7	494.6	493.6
47.5°	461.0	456.7	456.1	455.6
50°	417.1	411.1	406.8	402.4
52.5°	366.6	361.2	357.4	353.6
55°	320.5	314.6	311.3	308.1
57.5°	285.8	283.1	281.5	279.9
60°	257.6	256.0	254.9	253.8
62.5°	231.6	230.0	230.0	230.0
65°	207.7	206.1	204.5	202.8
67.5°	176.8	173.6	173.0	172.5
70°	139.4	134.5	134.0	133.4
72.5°	109.0	108.5	107.4	106.3
75°	90.0	88.9	88.9	88.9
77.5°	72.7	71.6	71.6	71.6
80°	55.9	55.3	55.9	56.4
82.5°	41.2	41.2	40.7	40.1
85°	26.6	26.0	26.0	26.0
87.5°	13.0	13.0	13.0	13.0
90°	27.2	27.6	28.0	28.4
92.5°	42.0	41.6	41.2	40.7
95°	73.9	73.9	73.9	73.9
97.5°	106.7	106.5	106.3	106.1
100°	142.7	143.1	143.6	144.0
102.5°	183.5	183.2	183.0	182.8
105°	224.2	224.6	225.0	225.5
107.5°	269.7	269.4	269.2	269.0
110°	314.8	314.4	314.0	313.5



TEST NUMBER: P831808

CATALOG NUMBER: S123RDIP-S1000D1195U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	360.9	360.9	360.9	360.9
115°	404.2	404.0	403.8	403.5
117.5°	449.0	448.4	447.7	447.1
120°	494.8	494.4	494.0	493.5
122.5°	539.9	539.3	538.7	538.1
125°	585.1	584.3	583.4	582.6
127.5°	629.6	628.8	627.9	627.1
130°	675.1	673.6	672.1	670.7
132.5°	719.3	718.2	717.2	716.1
135°	764.8	764.3	763.9	763.5
137.5°	807.1	806.5	805.8	805.2
140°	850.3	848.9	847.4	845.9
142.5°	890.8	889.7	888.7	887.6
145°	929.9	929.1	928.2	927.4
147.5°	967.2	965.9	964.6	963.4
150°	1001.3	1000.0	998.7	997.5
152.5°	1033.8	1032.7	1031.7	1030.6
155°	1064.4	1063.0	1061.5	1060.0
157.5°	1091.3	1090.0	1088.7	1087.5
160°	1116.5	1115.7	1114.8	1114.0
162.5°	1138.3	1136.8	1135.4	1133.9
165°	1157.3	1155.8	1154.3	1152.8
167.5°	1173.7	1172.4	1171.2	1169.9
170°	1186.6	1185.2	1183.7	1182.2
172.5°	1196.1	1194.6	1193.2	1191.7
175°	1202.7	1201.3	1199.8	1198.3
177.5°	1206.5	1205.0	1203.6	1202.1
180°	1205.9	1205.9	1205.9	1205.9



TEST NUMBER: P831808

CATALOG NUMBER: S123RDIP-S1000D1195U930-4F0-1E-UDD-G1

**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	12.50	13.31	13.46	14.28	15.54	17.16	17.98	18.12	18.94	20.20
	3H	13.72	14.45	14.69	15.42	16.70	18.66	19.39	19.63	20.36	21.65
	4H	14.10	14.79	15.08	15.77	17.06	19.15	19.84	20.13	20.82	22.11
	6H	14.38	15.01	15.37	16.00	17.30	19.46	20.09	20.45	21.08	22.38
	8H	14.47	15.07	15.47	16.07	17.37	19.54	20.14	20.54	21.14	22.44
	12H	14.52	15.09	15.52	16.08	17.41	19.57	20.14	20.57	21.14	22.46
4H	2H	13.22	13.91	14.21	14.89	16.18	17.15	17.84	18.14	18.82	20.11
	3H	14.59	15.16	15.58	16.17	17.47	18.81	19.38	19.81	20.39	21.70
	4H	15.04	15.56	16.05	16.57	17.89	19.42	19.94	20.42	20.94	22.27
	6H	15.41	15.86	16.43	16.88	18.21	19.86	20.30	20.87	21.33	22.65
	8H	15.53	15.95	16.55	16.97	18.31	19.99	20.41	21.00	21.42	22.76
	12H	15.61	15.99	16.64	17.02	18.36	20.05	20.42	21.08	21.46	22.80
8H	4H	15.35	15.77	16.37	16.79	18.13	19.38	19.80	20.40	20.82	22.16
	6H	15.82	16.16	16.86	17.22	18.56	19.88	20.23	20.92	21.28	22.62
	8H	16.01	16.31	17.06	17.36	18.72	20.07	20.37	21.12	21.41	22.77
	12H	16.15	16.42	17.20	17.46	18.86	20.18	20.45	21.23	21.49	22.89
12H	4H	15.37	15.74	16.40	16.78	18.12	19.33	19.71	20.37	20.74	22.09
	6H	15.88	16.18	16.93	17.23	18.58	19.85	20.16	20.90	21.20	22.56
	8H	16.09	16.36	17.15	17.40	18.80	20.05	20.31	21.10	21.35	22.75