

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: P831878

Luminaire Tested: S123RDIP-S1000D805U835-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831878  
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-S1000D805U835-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

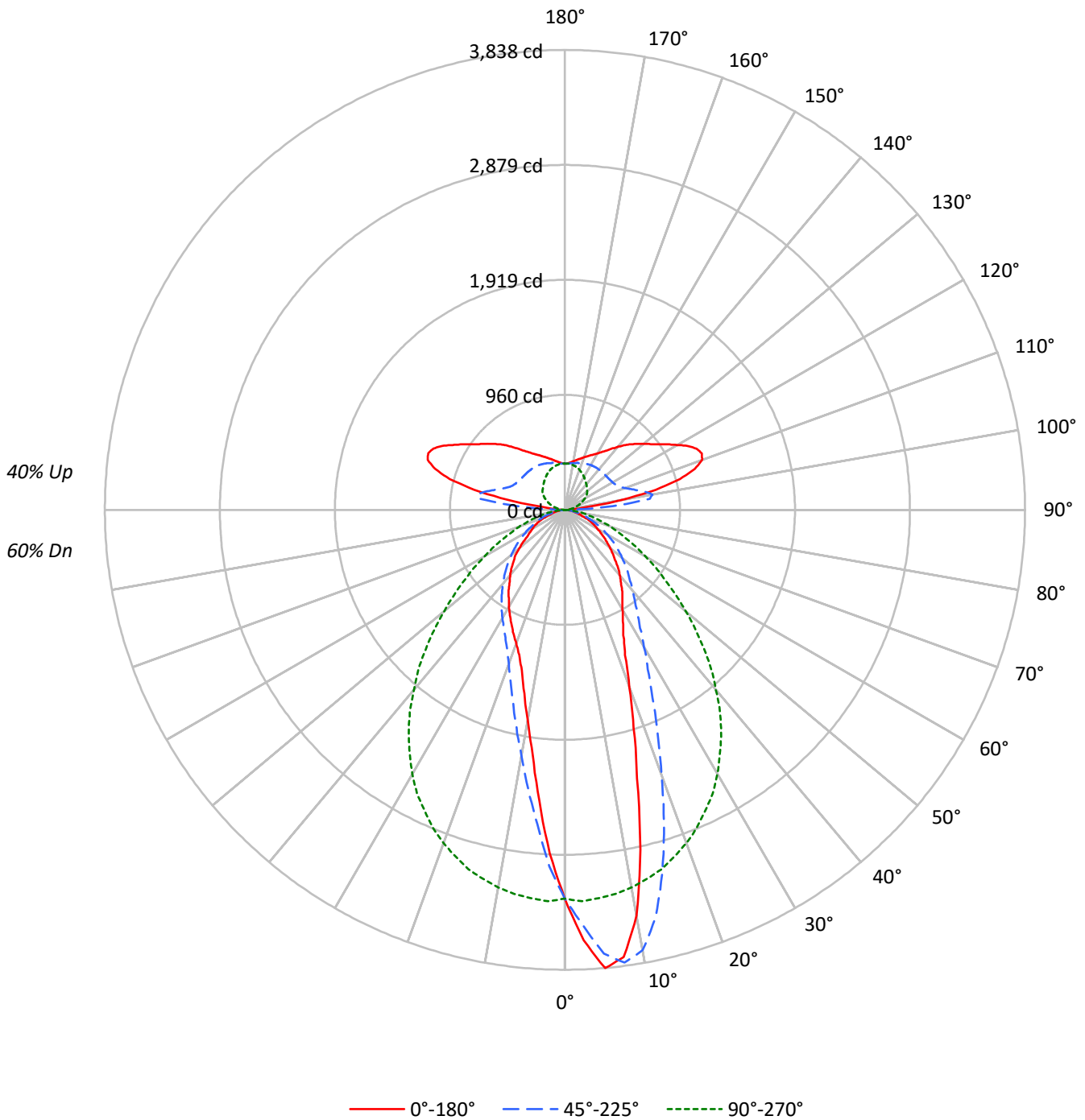
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7209.7 lumens  
Efficiency: N/A  
Efficacy: 129.4 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): 55.7  
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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CATALOG NUMBER: S123RDIP-S1000D805U835-4F0-1E-UDD-G4

### 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	109	109	109	109	102	102	102	102	89	89	89	76	76	76	65	65	65	60				
1	101	97	93	90	94	91	88	85	79	77	75	69	67	66	59	58	57	52				
2	93	86	80	75	87	81	76	71	71	67	64	62	59	56	53	51	49	45				
3	85	76	70	64	80	72	66	61	63	59	55	55	52	49	48	46	43	40				
4	79	68	61	55	73	65	58	53	57	52	48	50	46	43	44	41	38	35				
5	73	62	54	48	68	58	51	46	52	46	42	46	41	38	40	37	34	31				
6	68	56	48	43	63	53	46	41	47	42	38	42	38	34	37	34	31	28				
7	63	51	43	38	59	48	42	37	43	38	34	39	34	31	34	31	28	26				
8	59	47	39	34	55	44	38	33	40	34	31	36	31	28	32	28	26	23				
9	55	43	36	31	52	41	35	30	37	32	28	33	29	26	30	26	24	22				
10	52	40	33	28	49	38	32	27	34	29	26	31	27	24	28	24	22	20				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	34929	34929	34929	34929	34929
5°	41474	40151	35149	28414	26379
10°	37576	40783	34974	22766	19530
15°	25872	34968	34604	18607	15450
20°	17999	26922	33909	15690	13580
25°	13715	20518	32898	13944	12514
30°	11939	16404	31635	12949	11593
35°	10962	13838	29843	12107	10751
40°	10002	12357	27500	11282	9983
45°	9033	11301	24972	10500	9216
50°	8199	10428	21990	9736	8266
55°	7416	9575	19125	8989	7092
60°	6646	8708	16613	8163	6702
65°	6133	7725	14301	7335	6337
70°	4982	6678	12478	6637	5149
75°	4371	5311	10568	5506	4537
80°	3961	4494	8660	4618	4289
85°	3619	3940	6570	4187	3940

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 26349 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	295.8	4.1
10°-20°	684.4	9.5
20°-30°	785.3	10.9
30°-40°	774.0	10.7
40°-50°	682.6	9.5
50°-60°	525.1	7.3
60°-70°	345.2	4.8
70°-80°	167.7	2.3
80°-90°	44.4	0.6
90°-100°	209.6	2.9
100°-110°	613.6	8.5
110°-120°	599.2	8.3
120°-130°	477.2	6.6
130°-140°	376.5	5.2
140°-150°	280.9	3.9
150°-160°	195.8	2.7
160°-170°	115.0	1.6
170°-180°	37.4	0.5
0°-30°	1765.5	24.5
0°-40°	2539.5	35.2
0°-60°	3747.2	52.0
0°-90°	4304.6	59.7
90°-120°	1422.4	19.7
90°-150°	2556.9	35.5
90°-180°	2905.0	40.3
0°-180°	7209.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3245	3245	3245	3245	3245	
5°	3838	3716	3253	2630	2441	351
15°	2322	3138	3105	1670	1386	655
25°	1155	1728	2770	1174	1054	545
35°	834	1053	2271	921	818	520
45°	593	742	1640	690	605	461
55°	395	510	1019	479	378	354
65°	241	303	562	288	249	236
75°	105	128	254	132	109	113
85°	29	32	53	34	32	31
90°	23	20	2	20	23	14
95°	91	464	27	464	91	147
105°	994	629	91	629	994	992
115°	1210	481	160	481	1210	1179
125°	954	449	223	449	954	863
135°	773	442	261	442	773	600
145°	604	437	298	437	604	384
155°	501	423	338	423	501	233
165°	437	405	370	405	437	125
175°	393	389	385	389	393	38
180°	386	386	386	386	386	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0
2.5°	3596.3	3585.0	3573.6	3570.3	3567.0	3556.4	3545.7	3521.8	3497.8	3473.2	3448.6
5°	3838.4	3839.7	3841.1	3837.7	3834.4	3820.4	3806.5	3777.2	3747.9	3716.0	3684.1
7.5°	3763.9	3785.2	3806.5	3810.5	3814.5	3825.1	3835.8	3829.1	3822.4	3810.5	3798.5
10°	3437.9	3436.6	3435.3	3459.2	3483.2	3554.4	3625.5	3662.1	3698.7	3731.3	3763.9
12.5°	2905.8	2907.7	2909.7	2988.2	3066.7	3133.9	3201.1	3294.2	3387.4	3487.8	3588.3
15°	2321.7	2354.3	2386.9	2456.7	2526.6	2627.7	2728.8	2853.9	2978.9	3137.9	3296.9
17.5°	1906.6	1920.5	1934.5	2001.7	2068.9	2164.7	2260.5	2402.2	2543.9	2748.8	2953.6
20°	1571.3	1583.9	1596.6	1645.1	1693.7	1785.5	1877.3	2012.3	2147.4	2350.3	2553.2
22.5°	1311.8	1336.5	1361.1	1393.7	1426.3	1492.8	1559.3	1697.0	1834.7	2019.7	2204.6
25°	1154.8	1166.2	1177.5	1205.4	1233.3	1297.2	1361.1	1452.2	1543.3	1727.6	1911.9
27.5°	1048.4	1051.7	1055.1	1075.7	1096.3	1137.6	1178.8	1263.3	1347.8	1499.4	1651.1
30°	960.6	966.6	972.6	988.5	1004.5	1034.4	1064.4	1124.2	1184.1	1319.8	1455.5
32.5°	892.7	896.1	899.4	912.7	926.0	948.0	969.9	1017.1	1064.4	1168.2	1271.9
35°	834.2	834.9	835.5	845.5	855.5	876.8	898.1	937.3	976.6	1053.1	1129.6
37.5°	767.7	772.3	777.0	784.3	791.6	810.3	828.9	860.8	892.7	955.9	1019.1
40°	711.8	715.8	719.8	728.4	737.1	751.7	766.4	795.6	824.9	879.4	934.0
42.5°	655.9	658.6	661.2	669.9	678.5	696.5	714.5	737.7	761.0	806.3	851.5
45°	593.4	600.0	606.7	616.0	625.3	640.6	655.9	679.9	703.8	742.4	781.0
47.5°	541.5	544.8	548.2	556.1	564.1	582.7	601.4	622.7	643.9	679.9	715.8
50°	489.6	490.9	492.3	499.6	506.9	523.5	540.2	564.8	589.4	622.7	655.9
52.5°	440.4	443.7	447.0	454.4	461.7	473.0	484.3	509.6	534.8	567.4	600.0
55°	395.2	397.1	399.1	404.5	409.8	423.1	436.4	458.3	480.3	510.2	540.2
57.5°	352.6	355.2	357.9	361.9	365.9	377.9	389.8	409.1	428.4	458.3	488.3
60°	308.7	312.0	315.3	320.0	324.6	333.9	343.3	360.6	377.9	404.5	431.1
62.5°	276.7	277.4	278.1	282.1	286.1	292.7	299.4	313.3	327.3	353.9	380.5
65°	240.8	242.8	244.8	246.8	248.8	254.1	259.4	271.4	283.4	303.3	323.3
67.5°	203.6	205.6	207.6	210.9	214.2	218.9	223.5	231.5	239.5	258.1	276.7
70°	158.3	158.3	158.3	163.6	169.0	177.0	184.9	190.9	196.9	212.2	227.5
72.5°	129.1	129.7	130.4	131.1	131.7	136.4	141.0	151.0	161.0	170.3	179.6
75°	105.1	105.8	106.4	107.1	107.8	109.1	110.4	113.8	117.1	127.7	138.4
77.5°	83.8	84.5	85.2	85.8	86.5	87.8	89.1	90.5	91.8	95.8	99.8
80°	63.9	64.5	65.2	65.9	66.5	67.2	67.9	69.2	70.5	72.5	74.5
82.5°	46.6	46.6	46.6	46.6	46.6	47.9	49.2	49.2	49.2	50.6	51.9
85°	29.3	29.3	29.3	29.9	30.6	30.6	30.6	31.3	31.9	31.9	31.9
87.5°	13.3	12.6	12.0	12.6	13.3	13.3	13.3	14.0	14.6	14.6	14.6
90°	22.7	23.5	22.7	21.9	22.7	21.1	20.3	19.5	18.8	19.5	17.2
92.5°	41.4	43.0	42.2	45.3	46.9	52.4	60.2	77.4	108.7	145.4	161.1
95°	90.7	93.8	99.3	106.3	121.2	149.3	190.8	281.5	376.1	463.6	412.8
97.5°	186.1	194.7	213.4	243.1	295.5	384.7	487.9	646.6	737.3	713.0	532.4
100°	490.2	489.4	519.9	577.0	655.9	767.0	858.4	921.8	894.4	740.4	500.4
102.5°	776.3	799.0	823.3	865.5	922.5	982.7	1026.5	1013.2	902.2	689.6	453.5
105°	994.5	998.4	1023.4	1053.1	1089.1	1109.4	1094.5	1016.4	853.0	628.6	416.7
107.5°	1136.8	1145.4	1155.5	1169.6	1174.3	1153.2	1092.2	969.5	782.6	574.6	390.1
110°	1218.1	1219.6	1221.2	1214.9	1193.1	1138.3	1039.8	896.0	716.9	530.1	376.1



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1234.5	1233.7	1225.9	1203.2	1158.7	1084.4	971.0	823.3	659.9	500.4	368.2
115°	1209.5	1205.6	1189.9	1155.5	1096.9	1011.7	896.7	760.7	616.1	480.8	367.5
117.5°	1154.7	1149.3	1125.8	1087.5	1026.5	938.2	832.6	712.2	587.1	467.5	368.2
120°	1082.8	1078.1	1059.4	1015.6	953.8	874.9	781.0	675.5	565.3	458.9	371.4
122.5°	1015.6	1009.3	988.2	949.9	896.7	824.8	739.6	646.6	547.3	453.5	376.8
125°	953.8	948.3	928.8	894.4	844.4	781.8	706.8	621.5	532.4	448.8	382.3
127.5°	900.7	896.0	878.0	848.3	802.9	745.1	676.3	598.9	518.3	446.4	388.6
130°	856.9	850.6	834.2	806.1	764.6	711.5	648.1	577.8	507.4	444.1	394.8
132.5°	813.9	810.0	795.9	767.7	729.4	679.4	621.5	558.2	497.2	443.3	399.5
135°	773.2	767.7	753.7	730.2	691.9	647.3	596.5	541.0	488.6	442.5	404.2
137.5°	730.2	725.5	713.8	689.6	656.7	616.9	571.5	524.6	480.8	440.9	407.3
140°	684.9	685.7	673.1	651.3	621.5	587.9	550.4	510.5	473.8	440.2	410.5
142.5°	642.7	643.4	632.5	613.7	589.5	561.3	530.1	497.2	467.5	438.6	412.8
145°	604.3	602.8	596.5	580.1	560.6	537.9	512.9	487.1	462.1	437.0	413.6
147.5°	571.5	570.7	564.5	552.7	537.1	520.7	499.6	478.5	456.6	434.7	413.6
150°	543.4	543.4	538.7	530.1	518.3	503.5	487.1	469.1	451.1	431.6	413.6
152.5°	519.9	519.9	517.6	509.7	501.1	489.4	475.3	460.5	444.9	427.7	411.2
155°	501.1	500.4	498.8	492.5	485.5	476.1	464.4	451.9	438.6	423.0	409.7
157.5°	483.2	483.2	481.6	476.9	470.7	462.8	453.5	442.5	431.6	419.1	407.3
160°	466.0	466.7	466.7	462.1	456.6	451.1	443.3	434.7	424.5	414.4	405.8
162.5°	450.3	451.1	451.1	447.2	444.1	439.4	432.3	425.3	417.5	409.7	402.6
165°	437.0	437.0	437.8	434.7	431.6	427.7	422.2	417.5	411.2	405.0	399.5
167.5°	423.7	423.7	424.5	422.2	420.6	417.5	414.4	410.5	405.0	400.3	396.4
170°	412.0	412.0	412.8	411.2	410.5	408.9	405.8	403.4	399.5	395.6	393.3
172.5°	401.1	401.9	403.4	401.9	401.9	401.1	398.7	397.2	394.0	391.7	390.9
175°	393.3	394.0	394.8	394.0	394.0	394.0	392.5	391.7	390.1	388.6	388.6
177.5°	387.8	387.8	389.3	388.6	389.3	389.3	388.6	387.8	387.0	386.2	387.0
180°	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0
2.5°	3445.3	3441.9	3410.0	3378.1	3346.8	3315.5	3292.3	3269.0	3229.7	3190.5	3165.9
5°	3658.8	3633.5	3583.0	3532.4	3456.6	3380.7	3316.9	3253.0	3171.8	3090.7	3022.8
7.5°	3777.9	3757.3	3696.1	3634.8	3534.4	3433.9	3334.2	3234.4	3114.6	2994.9	2892.4
10°	3781.2	3798.5	3747.9	3697.4	3584.3	3471.2	3335.5	3199.8	3038.8	2877.8	2745.4
12.5°	3662.8	3737.3	3726.7	3716.0	3600.9	3485.8	3320.9	3155.9	2958.3	2760.7	2595.1
15°	3441.3	3585.6	3628.2	3670.8	3575.6	3480.5	3292.9	3105.3	2873.2	2641.0	2450.7
17.5°	3155.9	3358.1	3470.5	3583.0	3513.8	3444.6	3239.0	3033.5	2772.0	2510.6	2303.7
20°	2817.9	3082.7	3259.0	3435.3	3410.0	3384.7	3172.5	2960.3	2678.2	2396.2	2172.0
22.5°	2484.0	2763.4	3006.9	3250.3	3276.3	3302.2	3088.0	2873.8	2565.1	2256.5	2028.3
25°	2195.9	2480.0	2770.0	3060.1	3118.6	3177.2	2973.6	2770.0	2450.1	2130.1	1903.2
27.5°	1921.2	2191.3	2510.6	2829.9	2936.4	3042.8	2856.5	2670.3	2337.0	2003.7	1777.5
30°	1697.0	1938.5	2264.5	2590.4	2738.8	2887.1	2716.2	2545.2	2214.6	1883.9	1662.4
32.5°	1488.1	1704.3	2031.6	2358.9	2531.2	2703.5	2555.8	2408.2	2090.2	1772.2	1553.3
35°	1323.2	1516.7	1822.1	2127.4	2320.3	2513.3	2392.2	2271.1	1960.5	1649.8	1442.9
37.5°	1181.5	1343.8	1630.5	1917.2	2122.1	2327.0	2225.9	2124.8	1832.7	1540.7	1345.1
40°	1064.4	1194.8	1461.5	1728.3	1929.2	2130.1	2043.6	1957.1	1695.7	1434.2	1251.3
42.5°	963.9	1076.4	1315.8	1555.3	1739.6	1923.9	1866.7	1809.4	1572.6	1335.8	1166.2
45°	875.5	969.9	1180.8	1391.7	1561.3	1730.9	1685.7	1640.5	1436.2	1232.0	1076.4
47.5°	797.0	878.1	1066.4	1254.6	1407.0	1559.3	1517.4	1475.5	1306.5	1137.6	995.9
50°	725.1	794.3	951.3	1108.3	1245.3	1382.4	1347.8	1313.2	1173.5	1033.8	911.4
52.5°	657.3	714.5	855.5	996.5	1107.0	1217.4	1190.8	1164.2	1056.4	948.6	837.5
55°	592.7	645.3	764.4	883.4	977.9	1072.4	1045.8	1019.1	935.3	851.5	753.7
57.5°	534.2	580.1	676.5	773.0	848.2	923.3	910.7	898.1	828.2	758.4	677.9
60°	472.3	513.6	596.7	679.9	740.4	800.9	786.3	771.7	721.8	671.9	602.7
62.5°	417.1	453.7	520.2	586.7	636.0	685.2	674.5	663.9	626.0	588.1	530.9
65°	359.2	395.2	449.0	502.9	541.5	580.1	570.8	561.5	532.9	504.2	458.3
67.5°	306.7	336.6	383.2	429.7	455.7	481.6	476.3	471.0	449.0	427.1	391.2
70°	253.5	279.4	318.0	356.6	374.5	392.5	394.5	396.5	376.5	356.6	330.0
72.5°	200.2	220.9	256.8	292.7	306.7	320.6	320.0	319.3	307.3	295.4	271.4
75°	153.7	169.0	196.9	224.8	236.8	248.8	251.5	254.1	242.8	231.5	218.2
77.5°	110.4	121.1	142.4	163.6	177.0	190.3	191.6	192.9	187.6	182.3	169.6
80°	77.8	81.2	94.5	107.8	121.7	135.7	137.7	139.7	134.4	129.1	121.1
82.5°	53.9	55.9	60.5	65.2	76.5	87.8	90.5	93.1	90.5	87.8	79.2
85°	32.6	33.3	35.3	37.3	42.6	47.9	50.6	53.2	51.9	50.6	45.9
87.5°	14.6	14.6	15.3	16.0	17.3	18.6	22.0	25.3	23.3	21.3	19.3
90°	14.9	12.5	10.2	8.6	7.0	4.7	3.1	1.6	3.1	4.7	7.0
92.5°	120.4	79.0	53.9	39.9	32.1	25.0	17.2	11.7	17.2	25.0	32.1
95°	284.6	168.1	101.6	71.1	50.8	37.5	28.9	26.6	28.9	37.5	50.8
97.5°	316.6	181.4	115.7	82.1	61.8	50.0	43.0	42.2	43.0	50.0	61.8
100°	294.7	179.0	124.3	93.8	75.1	64.1	58.6	57.9	58.6	64.1	75.1
102.5°	276.0	182.2	134.5	107.1	90.7	80.5	75.8	74.3	75.8	80.5	90.7
105°	268.9	188.4	146.2	122.0	107.1	97.7	93.0	90.7	93.0	97.7	107.1
107.5°	267.4	198.6	161.1	138.4	124.3	114.9	110.2	107.9	110.2	114.9	124.3
110°	271.3	211.9	176.7	154.8	141.5	132.9	129.0	126.7	129.0	132.9	141.5





TEST NUMBER: P831878

CATALOG NUMBER: S123RDIP-S1000D805U835-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	279.1	225.2	193.1	172.0	158.7	150.1	146.2	143.9	146.2	150.1	158.7
115°	287.7	240.0	210.3	189.2	175.9	168.1	163.4	160.3	163.4	168.1	175.9
117.5°	298.7	255.7	225.9	206.4	191.5	184.5	180.6	176.7	180.6	184.5	191.5
120°	311.2	270.5	242.4	222.8	208.0	200.1	196.2	193.9	196.2	200.1	208.0
122.5°	322.9	286.1	258.8	237.7	223.6	215.0	211.1	208.7	211.1	215.0	223.6
125°	335.4	301.0	273.6	252.5	237.7	229.1	224.4	222.8	224.4	229.1	237.7
127.5°	345.6	314.3	287.7	266.6	250.2	241.6	236.1	233.8	236.1	241.6	250.2
130°	355.7	326.0	300.2	279.1	262.7	253.3	246.3	243.9	246.3	253.3	262.7
132.5°	365.1	336.2	311.2	290.8	274.4	262.7	254.9	251.7	254.9	262.7	274.4
135°	372.9	346.3	322.1	301.0	284.6	272.9	264.3	261.1	264.3	272.9	284.6
137.5°	379.2	353.4	329.9	310.4	294.0	281.5	272.9	269.7	272.9	281.5	294.0
140°	383.9	360.4	337.7	318.2	302.6	290.1	282.2	278.3	282.2	290.1	302.6
142.5°	388.6	365.9	344.0	326.0	310.4	299.4	290.8	287.7	290.8	299.4	310.4
145°	391.7	370.6	350.3	332.3	319.0	307.3	300.2	297.9	300.2	307.3	319.0
147.5°	394.0	374.5	355.7	340.1	326.8	316.6	309.6	308.0	309.6	316.6	326.8
150°	394.8	378.4	360.4	346.3	335.4	325.2	319.0	318.2	319.0	325.2	335.4
152.5°	396.4	380.7	365.9	352.6	343.2	334.6	328.4	328.4	328.4	334.6	343.2
155°	396.4	383.9	370.6	359.6	351.0	343.2	338.5	338.5	338.5	343.2	351.0
157.5°	397.2	385.4	374.5	365.9	358.1	351.0	347.1	346.3	347.1	351.0	358.1
160°	397.2	387.8	378.4	370.6	365.1	358.9	355.7	355.7	355.7	358.9	365.1
162.5°	396.4	388.6	380.7	374.5	369.8	365.1	362.8	362.8	362.8	365.1	369.8
165°	394.8	389.3	383.1	377.6	374.5	370.6	369.0	369.8	369.0	370.6	374.5
167.5°	394.0	389.3	384.7	380.7	378.4	375.3	374.5	375.3	374.5	375.3	378.4
170°	391.7	388.6	384.7	383.1	381.5	379.2	378.4	380.0	378.4	379.2	381.5
172.5°	390.9	388.6	385.4	384.7	383.9	382.3	382.3	383.1	382.3	382.3	383.9
175°	389.3	387.8	386.2	385.4	385.4	383.9	384.7	385.4	384.7	383.9	385.4
177.5°	388.6	387.0	386.2	386.2	386.2	385.4	386.2	387.0	386.2	385.4	386.2
180°	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2



TEST NUMBER: P831878

CATALOG NUMBER: S123RDIP-S1000D805U835-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0	3245.0
2.5°	3141.2	3103.3	3065.4	3038.1	3010.9	2976.9	2943.0	2941.7	2940.3	2915.1	2889.8
5°	2955.0	2889.1	2823.3	2758.7	2694.2	2629.7	2565.1	2550.5	2535.9	2513.9	2492.0
7.5°	2790.0	2684.9	2579.8	2497.3	2414.8	2350.3	2285.8	2241.8	2197.9	2164.0	2130.1
10°	2613.0	2482.7	2352.3	2252.5	2152.7	2082.9	2013.0	1962.4	1911.9	1887.9	1864.0
12.5°	2429.4	2287.7	2146.1	2048.3	1950.5	1866.7	1782.8	1736.9	1691.0	1657.8	1624.5
15°	2260.5	2108.1	1955.8	1852.0	1748.2	1669.7	1591.2	1545.3	1499.4	1466.2	1432.9
17.5°	2096.8	1943.2	1789.5	1684.4	1579.3	1508.1	1436.9	1392.3	1347.8	1327.1	1306.5
20°	1947.8	1792.8	1637.8	1538.7	1439.6	1369.7	1299.9	1275.9	1252.0	1232.7	1213.4
22.5°	1800.1	1651.1	1502.1	1407.0	1311.8	1261.3	1210.7	1191.4	1172.1	1157.5	1142.9
25°	1676.4	1528.0	1379.7	1296.5	1213.4	1174.1	1134.9	1122.3	1109.6	1095.0	1080.3
27.5°	1551.3	1410.3	1269.3	1202.7	1136.2	1104.3	1072.4	1056.4	1040.4	1028.5	1016.5
30°	1440.9	1310.5	1180.1	1124.9	1069.7	1041.8	1013.8	996.5	979.2	967.9	956.6
32.5°	1334.5	1218.7	1103.0	1055.7	1008.5	981.2	953.9	937.3	920.7	907.4	894.1
35°	1236.0	1135.6	1035.1	991.9	948.6	921.4	894.1	877.4	860.8	847.5	834.2
37.5°	1149.5	1058.4	967.3	926.7	886.1	862.1	838.2	820.9	803.6	789.6	775.7
40°	1068.4	987.9	907.4	868.1	828.9	802.9	777.0	761.7	746.4	733.8	721.1
42.5°	996.5	922.7	848.8	810.3	771.7	747.1	722.4	704.5	686.5	679.2	671.9
45°	920.7	855.5	790.3	753.0	715.8	689.8	663.9	648.6	633.3	626.7	620.0
47.5°	854.2	793.6	733.1	696.5	659.9	636.6	613.3	601.4	589.4	580.1	570.8
50°	789.0	730.4	671.9	636.6	601.4	581.4	561.5	546.8	532.2	525.5	518.9
52.5°	726.4	673.2	620.0	584.1	548.2	528.9	509.6	496.9	484.3	470.3	456.4
55°	655.9	609.4	562.8	530.9	498.9	479.0	459.0	444.4	429.7	415.1	400.5
57.5°	597.4	551.5	505.6	477.0	448.4	429.1	409.8	393.8	377.9	365.9	353.9
60°	533.5	493.6	453.7	425.8	397.8	379.2	360.6	345.3	330.0	324.0	318.0
62.5°	473.6	436.4	399.1	374.5	349.9	332.0	314.0	304.0	294.0	290.0	286.1
65°	412.4	380.5	348.6	326.0	303.3	288.0	272.7	268.1	263.4	260.1	256.8
67.5°	355.2	328.0	300.7	280.7	260.8	250.1	239.5	234.2	228.8	224.8	220.9
70°	303.3	279.4	255.5	238.2	220.9	210.9	200.9	196.2	191.6	184.3	177.0
72.5°	247.5	228.8	210.2	196.9	183.6	175.0	166.3	157.0	147.7	141.0	134.4
75°	204.9	186.3	167.6	155.0	142.4	132.4	122.4	119.1	115.8	113.8	111.8
77.5°	157.0	141.0	125.1	115.1	105.1	100.5	95.8	93.8	91.8	91.1	90.5
80°	113.1	99.8	86.5	81.2	75.8	74.5	73.2	71.8	70.5	69.8	69.2
82.5°	70.5	63.9	57.2	55.9	54.5	53.9	53.2	52.6	51.9	51.2	50.6
85°	41.2	38.6	35.9	35.3	34.6	33.9	33.3	33.3	33.3	33.3	33.3
87.5°	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	17.3	16.6	16.0
90°	8.6	10.2	12.5	14.9	17.2	19.5	18.8	19.5	20.3	21.1	22.7
92.5°	39.9	53.9	79.0	120.4	161.1	145.4	108.7	77.4	60.2	52.4	46.9
95°	71.1	101.6	168.1	284.6	412.8	463.6	376.1	281.5	190.8	149.3	121.2
97.5°	82.1	115.7	181.4	316.6	532.4	713.0	737.3	646.6	487.9	384.7	295.5
100°	93.8	124.3	179.0	294.7	500.4	740.4	894.4	921.8	858.4	767.0	655.9
102.5°	107.1	134.5	182.2	276.0	453.5	689.6	902.2	1013.2	1026.5	982.7	922.5
105°	122.0	146.2	188.4	268.9	416.7	628.6	853.0	1016.4	1094.5	1109.4	1089.1
107.5°	138.4	161.1	198.6	267.4	390.1	574.6	782.6	969.5	1092.2	1153.2	1174.3
110°	154.8	176.7	211.9	271.3	376.1	530.1	716.9	896.0	1039.8	1138.3	1193.1

TEST NUMBER: P831878

CATALOG NUMBER: S123RDIP-S1000D805U835-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	172.0	193.1	225.2	279.1	368.2	500.4	659.9	823.3	971.0	1084.4	1158.7
115°	189.2	210.3	240.0	287.7	367.5	480.8	616.1	760.7	896.7	1011.7	1096.9
117.5°	206.4	225.9	255.7	298.7	368.2	467.5	587.1	712.2	832.6	938.2	1026.5
120°	222.8	242.4	270.5	311.2	371.4	458.9	565.3	675.5	781.0	874.9	953.8
122.5°	237.7	258.8	286.1	322.9	376.8	453.5	547.3	646.6	739.6	824.8	896.7
125°	252.5	273.6	301.0	335.4	382.3	448.8	532.4	621.5	706.8	781.8	844.4
127.5°	266.6	287.7	314.3	345.6	388.6	446.4	518.3	598.9	676.3	745.1	802.9
130°	279.1	300.2	326.0	355.7	394.8	444.1	507.4	577.8	648.1	711.5	764.6
132.5°	290.8	311.2	336.2	365.1	399.5	443.3	497.2	558.2	621.5	679.4	729.4
135°	301.0	322.1	346.3	372.9	404.2	442.5	488.6	541.0	596.5	647.3	691.9
137.5°	310.4	329.9	353.4	379.2	407.3	440.9	480.8	524.6	571.5	616.9	656.7
140°	318.2	337.7	360.4	383.9	410.5	440.2	473.8	510.5	550.4	587.9	621.5
142.5°	326.0	344.0	365.9	388.6	412.8	438.6	467.5	497.2	530.1	561.3	589.5
145°	332.3	350.3	370.6	391.7	413.6	437.0	462.1	487.1	512.9	537.9	560.6
147.5°	340.1	355.7	374.5	394.0	413.6	434.7	456.6	478.5	499.6	520.7	537.1
150°	346.3	360.4	378.4	394.8	413.6	431.6	451.1	469.1	487.1	503.5	518.3
152.5°	352.6	365.9	380.7	396.4	411.2	427.7	444.9	460.5	475.3	489.4	501.1
155°	359.6	370.6	383.9	396.4	409.7	423.0	438.6	451.9	464.4	476.1	485.5
157.5°	365.9	374.5	385.4	397.2	407.3	419.1	431.6	442.5	453.5	462.8	470.7
160°	370.6	378.4	387.8	397.2	405.8	414.4	424.5	434.7	443.3	451.1	456.6
162.5°	374.5	380.7	388.6	396.4	402.6	409.7	417.5	425.3	432.3	439.4	444.1
165°	377.6	383.1	389.3	394.8	399.5	405.0	411.2	417.5	422.2	427.7	431.6
167.5°	380.7	384.7	389.3	394.0	396.4	400.3	405.0	410.5	414.4	417.5	420.6
170°	383.1	384.7	388.6	391.7	393.3	395.6	399.5	403.4	405.8	408.9	410.5
172.5°	384.7	385.4	388.6	390.9	390.9	391.7	394.0	397.2	398.7	401.1	401.9
175°	385.4	386.2	387.8	389.3	388.6	388.6	390.1	391.7	392.5	394.0	394.0
177.5°	386.2	386.2	387.0	388.6	387.0	386.2	387.0	387.8	388.6	389.3	389.3
180°	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2	386.2



TEST NUMBER: P831878

CATALOG NUMBER: S123RDIP-S1000D805U835-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3245.0	3245.0	3245.0	3245.0
2.5°	2883.1	2876.5	2873.8	2871.2
5°	2471.4	2450.7	2446.1	2441.4
7.5°	2121.4	2112.8	2084.2	2055.6
10°	1837.4	1810.8	1798.8	1786.8
12.5°	1599.9	1575.3	1571.3	1567.3
15°	1415.6	1398.3	1392.3	1386.4
17.5°	1294.5	1282.6	1275.3	1267.9
20°	1204.7	1196.1	1190.8	1185.5
22.5°	1136.2	1129.6	1125.6	1121.6
25°	1070.4	1060.4	1057.1	1053.7
27.5°	1007.8	999.2	995.9	992.5
30°	949.3	942.0	937.3	932.7
32.5°	885.4	876.8	874.1	871.5
35°	828.9	823.6	820.9	818.2
37.5°	769.0	762.4	758.4	754.4
40°	717.8	714.5	712.5	710.5
42.5°	665.9	659.9	659.2	658.6
45°	614.0	608.0	606.7	605.4
47.5°	565.5	560.1	559.5	558.8
50°	511.6	504.2	498.9	493.6
52.5°	449.7	443.0	438.4	433.7
55°	393.2	385.8	381.8	377.9
57.5°	350.6	347.3	345.3	343.3
60°	316.0	314.0	312.7	311.3
62.5°	284.1	282.1	282.1	282.1
65°	254.8	252.8	250.8	248.8
67.5°	216.9	212.9	212.2	211.5
70°	171.0	165.0	164.3	163.6
72.5°	133.7	133.0	131.7	130.4
75°	110.4	109.1	109.1	109.1
77.5°	89.1	87.8	87.8	87.8
80°	68.5	67.9	68.5	69.2
82.5°	50.6	50.6	49.9	49.2
85°	32.6	31.9	31.9	31.9
87.5°	16.0	16.0	16.0	16.0
90°	21.9	22.7	23.5	22.7
92.5°	45.3	42.2	43.0	41.4
95°	106.3	99.3	93.8	90.7
97.5°	243.1	213.4	194.7	186.1
100°	577.0	519.9	489.4	490.2
102.5°	865.5	823.3	799.0	776.3
105°	1053.1	1023.4	998.4	994.5
107.5°	1169.6	1155.5	1145.4	1136.8
110°	1214.9	1221.2	1219.6	1218.1



TEST NUMBER: P831878

CATALOG NUMBER: S123RDIP-S1000D805U835-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	1203.2	1225.9	1233.7	1234.5
115°	1155.5	1189.9	1205.6	1209.5
117.5°	1087.5	1125.8	1149.3	1154.7
120°	1015.6	1059.4	1078.1	1082.8
122.5°	949.9	988.2	1009.3	1015.6
125°	894.4	928.8	948.3	953.8
127.5°	848.3	878.0	896.0	900.7
130°	806.1	834.2	850.6	856.9
132.5°	767.7	795.9	810.0	813.9
135°	730.2	753.7	767.7	773.2
137.5°	689.6	713.8	725.5	730.2
140°	651.3	673.1	685.7	684.9
142.5°	613.7	632.5	643.4	642.7
145°	580.1	596.5	602.8	604.3
147.5°	552.7	564.5	570.7	571.5
150°	530.1	538.7	543.4	543.4
152.5°	509.7	517.6	519.9	519.9
155°	492.5	498.8	500.4	501.1
157.5°	476.9	481.6	483.2	483.2
160°	462.1	466.7	466.7	466.0
162.5°	447.2	451.1	451.1	450.3
165°	434.7	437.8	437.0	437.0
167.5°	422.2	424.5	423.7	423.7
170°	411.2	412.8	412.0	412.0
172.5°	401.9	403.4	401.9	401.1
175°	394.0	394.8	394.0	393.3
177.5°	388.6	389.3	387.8	387.8
180°	386.2	386.2	386.2	386.2



TEST NUMBER: P831878

CATALOG NUMBER: S123RDIP-S1000D805U835-4F0-1E-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	13.96	14.85	14.84	15.74	16.87	18.62	19.51	19.51	20.40	21.53
	3H	15.18	15.98	16.08	16.88	18.04	20.13	20.92	21.02	21.82	22.98
	4H	15.57	16.32	16.48	17.23	18.39	20.62	21.37	21.53	22.28	23.44
	6H	15.85	16.54	16.77	17.46	18.64	20.93	21.62	21.85	22.54	23.72
	8H	15.94	16.60	16.87	17.53	18.71	21.01	21.67	21.94	22.60	23.78
	12H	16.00	16.62	16.93	17.54	18.75	21.05	21.67	21.98	22.60	23.80
4H	2H	14.69	15.44	15.60	16.35	17.51	18.63	19.37	19.54	20.28	21.45
	3H	16.06	16.68	16.99	17.62	18.80	20.29	20.91	21.21	21.85	23.03
	4H	16.52	17.09	17.46	18.02	19.23	20.90	21.46	21.83	22.40	23.60
	6H	16.89	17.38	17.84	18.34	19.54	21.34	21.82	22.29	22.78	23.99
	8H	17.02	17.47	17.97	18.42	19.64	21.47	21.92	22.42	22.88	24.10
	12H	17.10	17.50	18.06	18.47	19.70	21.53	21.94	22.50	22.91	24.14
8H	4H	16.84	17.29	17.79	18.24	19.46	20.87	21.32	21.82	22.27	23.49
	6H	17.30	17.68	18.28	18.67	19.89	21.37	21.74	22.34	22.73	23.95
	8H	17.50	17.83	18.48	18.81	20.05	21.55	21.88	22.54	22.87	24.10
	12H	17.64	17.93	18.63	18.91	20.19	21.67	21.96	22.66	22.94	24.22
12H	4H	16.85	17.26	17.82	18.23	19.46	20.82	21.23	21.79	22.20	23.42
	6H	17.36	17.69	18.35	18.68	19.91	21.34	21.67	22.33	22.66	23.89
	8H	17.58	17.87	18.57	18.85	20.14	21.54	21.83	22.52	22.80	24.09