

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: P831875

Luminaire Tested: S123RDIP-S1000D805U830-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831875  
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-S1000D805U830-4F0-1E-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: -

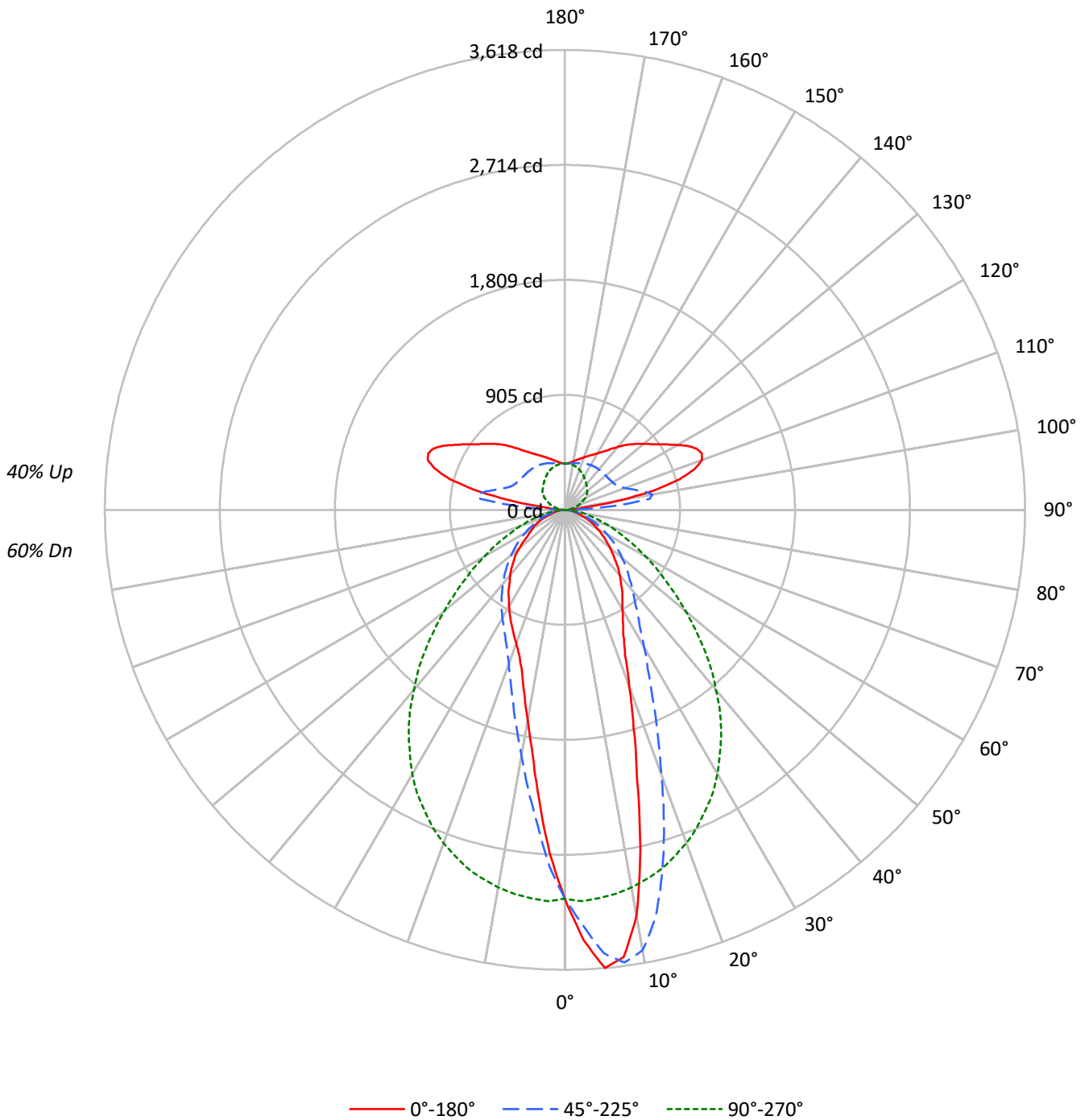
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6795.5 lumens  
Efficiency: N/A  
Efficacy: 122.0 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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### 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°	32923	32923	32923	32923	32923
5°	39092	37845	33129	26781	24863
10°	35417	38440	32964	21458	18408
15°	24386	32958	32616	17538	14561
20°	16964	25374	31961	14788	12798
25°	12928	19340	31009	13144	11796
30°	11253	15462	29817	12204	10926
35°	10332	13043	28128	11411	10134
40°	9427	11647	25920	10634	9409
45°	8514	10651	23537	9898	8686
50°	7728	9828	20726	9177	7790
55°	6989	9025	18027	8471	6683
60°	6262	8206	15657	7694	6316
65°	5782	7282	13479	6915	5973
70°	4696	6294	11761	6257	4853
75°	4121	5007	9960	5190	4275
80°	3732	4234	8164	4351	4042
85°	3409	3717	6200	3952	3717

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 24835 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	278.8	4.1
10°-20°	645.1	9.5
20°-30°	740.2	10.9
30°-40°	729.6	10.7
40°-50°	643.4	9.5
50°-60°	495.0	7.3
60°-70°	325.4	4.8
70°-80°	158.0	2.3
80°-90°	41.9	0.6
90°-100°	197.5	2.9
100°-110°	578.3	8.5
110°-120°	564.8	8.3
120°-130°	449.8	6.6
130°-140°	354.9	5.2
140°-150°	264.7	3.9
150°-160°	184.6	2.7
160°-170°	108.4	1.6
170°-180°	35.3	0.5
0°-30°	1664.0	24.5
0°-40°	2393.6	35.2
0°-60°	3531.9	52.0
0°-90°	4057.2	59.7
90°-120°	1340.6	19.7
90°-150°	2410.0	35.5
90°-180°	2738.0	40.3
0°-180°	6795.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3059	3059	3059	3059	3059	
5°	3618	3502	3066	2479	2301	331
15°	2188	2958	2927	1574	1307	618
25°	1088	1628	2611	1107	993	514
35°	786	993	2141	868	771	490
45°	559	700	1546	650	571	434
55°	372	481	961	451	356	334
65°	227	286	529	272	234	222
75°	99	120	240	125	103	107
85°	28	30	50	32	30	29
90°	21	18	2	18	21	13
95°	86	437	25	437	86	139
105°	937	592	86	592	937	935
115°	1140	453	151	453	1140	1112
125°	899	423	210	423	899	814
135°	729	417	246	417	729	565
145°	570	412	281	412	570	362
155°	472	399	319	399	472	220
165°	412	382	349	382	412	118
175°	371	366	363	366	371	36
180°	364	364	364	364	364	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6
2.5°	3389.6	3379.0	3368.3	3365.2	3362.0	3352.0	3342.0	3319.4	3296.8	3273.6	3250.4
5°	3617.9	3619.1	3620.4	3617.2	3614.1	3600.9	3587.8	3560.2	3532.6	3502.5	3472.4
7.5°	3547.6	3567.7	3587.8	3591.5	3595.3	3605.3	3615.4	3609.1	3602.8	3591.5	3580.2
10°	3240.4	3239.1	3237.9	3260.5	3283.0	3350.1	3417.2	3451.7	3486.2	3516.9	3547.6
12.5°	2738.8	2740.7	2742.6	2816.5	2890.5	2953.9	3017.2	3105.0	3192.7	3287.4	3382.1
15°	2188.3	2219.0	2249.7	2315.6	2381.4	2476.7	2572.0	2689.9	2807.8	2957.6	3107.5
17.5°	1797.0	1810.2	1823.4	1886.7	1950.0	2040.3	2130.6	2264.1	2397.7	2590.8	2783.9
20°	1481.0	1492.9	1504.8	1550.6	1596.4	1682.9	1769.4	1896.7	2024.0	2215.2	2406.5
22.5°	1236.5	1259.7	1282.9	1313.6	1344.3	1407.0	1469.7	1599.5	1729.3	1903.6	2077.9
25°	1088.5	1099.2	1109.8	1136.1	1162.5	1222.7	1282.9	1368.8	1454.7	1628.4	1802.0
27.5°	988.2	991.3	994.4	1013.9	1033.3	1072.2	1111.1	1190.7	1270.3	1413.3	1556.2
30°	905.4	911.0	916.7	931.7	946.8	975.0	1003.2	1059.7	1116.1	1244.0	1371.9
32.5°	841.5	844.6	847.7	860.3	872.8	893.5	914.2	958.7	1003.2	1101.0	1198.8
35°	786.3	786.9	787.5	796.9	806.3	826.4	846.5	883.5	920.5	992.6	1064.7
37.5°	723.6	728.0	732.4	739.2	746.1	763.7	781.3	811.4	841.5	901.0	960.6
40°	670.9	674.7	678.4	686.6	694.7	708.5	722.3	749.9	777.5	828.9	880.3
42.5°	618.2	620.7	623.3	631.4	639.6	656.5	673.4	695.4	717.3	759.9	802.6
45°	559.3	565.6	571.8	580.6	589.4	603.8	618.2	640.8	663.4	699.7	736.1
47.5°	510.4	513.5	516.7	524.2	531.7	549.3	566.8	586.9	606.9	640.8	674.7
50°	461.5	462.7	464.0	470.9	477.8	493.5	509.1	532.3	555.5	586.9	618.2
52.5°	415.1	418.2	421.4	428.2	435.1	445.8	456.5	480.3	504.1	534.8	565.6
55°	372.4	374.3	376.2	381.2	386.2	398.8	411.3	432.0	452.7	480.9	509.1
57.5°	332.3	334.8	337.3	341.1	344.9	356.1	367.4	385.6	403.8	432.0	460.2
60°	290.9	294.1	297.2	301.6	306.0	314.8	323.5	339.8	356.1	381.2	406.3
62.5°	260.8	261.5	262.1	265.9	269.6	275.9	282.2	295.3	308.5	333.6	358.7
65°	227.0	228.9	230.7	232.6	234.5	239.5	244.5	255.8	267.1	285.9	304.7
67.5°	191.9	193.7	195.6	198.8	201.9	206.3	210.7	218.2	225.7	243.3	260.8
70°	149.2	149.2	149.2	154.2	159.3	166.8	174.3	180.0	185.6	200.0	214.4
72.5°	121.6	122.3	122.9	123.5	124.1	128.5	132.9	142.3	151.7	160.5	169.3
75°	99.1	99.7	100.3	100.9	101.6	102.8	104.1	107.2	110.4	120.4	130.4
77.5°	79.0	79.6	80.3	80.9	81.5	82.8	84.0	85.3	86.5	90.3	94.1
80°	60.2	60.8	61.4	62.1	62.7	63.3	64.0	65.2	66.5	68.3	70.2
82.5°	43.9	43.9	43.9	43.9	43.9	45.1	46.4	46.4	46.4	47.7	48.9
85°	27.6	27.6	27.6	28.2	28.8	28.8	28.8	29.5	30.1	30.1	30.1
87.5°	12.5	11.9	11.3	11.9	12.5	12.5	12.5	13.2	13.8	13.8	13.8
90°	21.4	22.1	21.4	20.6	21.4	19.9	19.2	18.4	17.7	18.4	16.2
92.5°	39.1	40.5	39.8	42.7	44.2	49.4	56.7	73.0	102.4	137.1	151.8
95°	85.5	88.4	93.6	100.2	114.2	140.7	179.8	265.3	354.4	437.0	389.1
97.5°	175.4	183.5	201.2	229.2	278.5	362.6	459.8	609.4	694.9	672.1	501.8
100°	462.0	461.3	490.0	543.8	618.3	722.9	809.1	868.8	843.0	697.8	471.6
102.5°	731.7	753.1	776.0	815.7	869.5	926.3	967.5	955.0	850.4	649.9	427.4
105°	937.3	941.0	964.6	992.6	1026.5	1045.7	1031.7	958.0	804.0	592.5	392.8
107.5°	1071.5	1079.6	1089.1	1102.4	1106.8	1086.9	1029.4	913.8	737.6	541.6	367.7
110°	1148.1	1149.6	1151.0	1145.1	1124.5	1072.9	980.1	844.5	675.7	499.6	354.4



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1163.6	1162.8	1155.5	1134.1	1092.1	1022.1	915.2	776.0	621.9	471.6	347.1
115°	1140.0	1136.3	1121.6	1089.1	1033.9	953.5	845.2	717.0	580.7	453.2	346.3
117.5°	1088.4	1083.2	1061.1	1025.0	967.5	884.3	784.8	671.3	553.4	440.7	347.1
120°	1020.6	1016.2	998.5	957.2	899.0	824.6	736.2	636.7	532.8	432.6	350.0
122.5°	957.2	951.3	931.4	895.3	845.2	777.4	697.1	609.4	515.8	427.4	355.2
125°	899.0	893.9	875.4	843.0	795.9	736.9	666.2	585.8	501.8	423.0	360.3
127.5°	848.9	844.5	827.5	799.5	756.8	702.3	637.4	564.5	488.6	420.8	366.2
130°	807.6	801.7	786.3	759.7	720.7	670.6	610.9	544.6	478.2	418.6	372.1
132.5°	767.1	763.4	750.2	723.6	687.5	640.4	585.8	526.1	468.7	417.8	376.6
135°	728.8	723.6	710.4	688.3	652.2	610.2	562.3	509.9	460.6	417.1	381.0
137.5°	688.3	683.8	672.8	649.9	619.0	581.4	538.7	494.5	453.2	415.6	383.9
140°	645.5	646.3	634.5	613.8	585.8	554.1	518.8	481.2	446.6	414.9	386.9
142.5°	605.7	606.5	596.2	578.5	555.6	529.1	499.6	468.7	440.7	413.4	389.1
145°	569.6	568.1	562.3	546.8	528.4	507.0	483.4	459.1	435.5	411.9	389.8
147.5°	538.7	537.9	532.0	521.0	506.2	490.8	470.9	451.0	430.3	409.7	389.8
150°	512.1	512.1	507.7	499.6	488.6	474.6	459.1	442.1	425.2	406.8	389.8
152.5°	490.0	490.0	487.8	480.5	472.4	461.3	448.0	434.0	419.3	403.1	387.6
155°	472.4	471.6	470.1	464.2	457.6	448.8	437.7	425.9	413.4	398.7	386.1
157.5°	455.4	455.4	453.9	449.5	443.6	436.2	427.4	417.1	406.8	395.0	383.9
160°	439.2	439.9	439.9	435.5	430.3	425.2	417.8	409.7	400.1	390.6	382.5
162.5°	424.5	425.2	425.2	421.5	418.6	414.1	407.5	400.9	393.5	386.1	379.5
165°	411.9	411.9	412.7	409.7	406.8	403.1	397.9	393.5	387.6	381.7	376.6
167.5°	399.4	399.4	400.1	397.9	396.5	393.5	390.6	386.9	381.7	377.3	373.6
170°	388.3	388.3	389.1	387.6	386.9	385.4	382.5	380.2	376.6	372.9	370.7
172.5°	378.0	378.8	380.2	378.8	378.8	378.0	375.8	374.3	371.4	369.2	368.4
175°	370.7	371.4	372.1	371.4	371.4	371.4	369.9	369.2	367.7	366.2	366.2
177.5°	365.5	365.5	367.0	366.2	367.0	367.0	366.2	365.5	364.8	364.0	364.8
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6
2.5°	3247.3	3244.2	3214.1	3184.0	3154.5	3125.0	3103.1	3081.1	3044.1	3007.2	2984.0
5°	3448.6	3424.7	3377.1	3329.4	3258.0	3186.5	3126.3	3066.1	2989.6	2913.1	2849.1
7.5°	3560.8	3541.4	3483.7	3426.0	3331.3	3236.6	3142.6	3048.5	2935.7	2822.8	2726.3
10°	3563.9	3580.2	3532.6	3484.9	3378.3	3271.8	3143.8	3015.9	2864.2	2712.5	2587.7
12.5°	3452.3	3522.6	3512.5	3502.5	3394.0	3285.5	3130.0	2974.5	2788.3	2602.1	2446.0
15°	3243.5	3379.6	3419.7	3459.9	3370.2	3280.5	3103.7	2926.9	2708.1	2489.2	2309.9
17.5°	2974.5	3165.2	3271.1	3377.1	3311.9	3246.7	3052.9	2859.2	2612.8	2366.3	2171.3
20°	2656.0	2905.6	3071.7	3237.9	3214.1	3190.2	2990.2	2790.2	2524.4	2258.5	2047.2
22.5°	2341.3	2604.6	2834.1	3063.6	3088.0	3112.5	2910.6	2708.7	2417.8	2126.8	1911.8
25°	2069.8	2337.5	2610.9	2884.3	2939.4	2994.6	2802.7	2610.9	2309.3	2007.7	1793.9
27.5°	1810.8	2065.4	2366.3	2667.3	2767.6	2868.0	2692.4	2516.8	2202.7	1888.6	1675.4
30°	1599.5	1827.1	2134.4	2441.6	2581.4	2721.2	2560.1	2399.0	2087.3	1775.7	1566.9
32.5°	1402.6	1606.4	1914.9	2223.4	2385.8	2548.2	2409.0	2269.8	1970.1	1670.4	1464.1
35°	1247.1	1429.6	1717.4	2005.2	2187.0	2368.9	2254.7	2140.6	1847.8	1555.0	1360.0
37.5°	1113.6	1266.6	1536.8	1807.1	2000.2	2193.3	2098.0	2002.7	1727.4	1452.2	1267.8
40°	1003.2	1126.1	1377.5	1629.0	1818.3	2007.7	1926.2	1844.7	1598.3	1351.8	1179.4
42.5°	908.5	1014.5	1240.2	1466.0	1639.6	1813.3	1759.4	1705.5	1482.3	1259.0	1099.2
45°	825.1	914.2	1112.9	1311.7	1471.6	1631.5	1588.9	1546.2	1353.7	1161.2	1014.5
47.5°	751.2	827.7	1005.1	1182.5	1326.1	1469.7	1430.2	1390.7	1231.5	1072.2	938.6
50°	683.4	748.7	896.6	1044.6	1173.8	1302.9	1270.3	1237.7	1106.1	974.4	859.0
52.5°	619.5	673.4	806.3	939.3	1043.3	1147.4	1122.4	1097.3	995.7	894.1	789.4
55°	558.7	608.2	720.4	832.7	921.7	1010.7	985.7	960.6	881.6	802.6	710.4
57.5°	503.5	546.8	637.7	728.6	799.4	870.3	858.4	846.5	780.6	714.8	638.9
60°	445.2	484.1	562.4	640.8	697.9	754.9	741.1	727.3	680.3	633.3	568.1
62.5°	393.1	427.6	490.3	553.0	599.4	645.8	635.8	625.8	590.0	554.3	500.4
65°	338.6	372.4	423.2	474.0	510.4	546.8	538.0	529.2	502.2	475.3	432.0
67.5°	289.1	317.3	361.2	405.1	429.5	454.0	448.9	443.9	423.2	402.5	368.7
70°	238.9	263.3	299.7	336.1	353.0	369.9	371.8	373.7	354.9	336.1	311.0
72.5°	188.7	208.2	242.0	275.9	289.1	302.2	301.6	301.0	289.7	278.4	255.8
75°	144.8	159.3	185.6	211.9	223.2	234.5	237.0	239.5	228.9	218.2	205.7
77.5°	104.1	114.1	134.2	154.2	166.8	179.3	180.6	181.8	176.8	171.8	159.9
80°	73.4	76.5	89.0	101.6	114.7	127.9	129.8	131.7	126.7	121.6	114.1
82.5°	50.8	52.7	57.1	61.4	72.1	82.8	85.3	87.8	85.3	82.8	74.6
85°	30.7	31.4	33.2	35.1	40.1	45.1	47.7	50.2	48.9	47.7	43.3
87.5°	13.8	13.8	14.4	15.0	16.3	17.6	20.7	23.8	21.9	20.1	18.2
90°	14.0	11.8	9.6	8.1	6.6	4.4	2.9	1.5	2.9	4.4	6.6
92.5°	113.5	74.4	50.8	37.6	30.2	23.6	16.2	11.1	16.2	23.6	30.2
95°	268.2	158.4	95.8	67.1	47.9	35.4	27.3	25.1	27.3	35.4	47.9
97.5°	298.4	171.0	109.1	77.4	58.2	47.2	40.5	39.8	40.5	47.2	58.2
100°	277.8	168.7	117.2	88.4	70.7	60.4	55.3	54.5	55.3	60.4	70.7
102.5°	260.1	171.7	126.7	101.0	85.5	75.9	71.5	70.0	71.5	75.9	85.5
105°	253.5	177.6	137.8	115.0	101.0	92.1	87.7	85.5	87.7	92.1	101.0
107.5°	252.0	187.2	151.8	130.4	117.2	108.3	103.9	101.7	103.9	108.3	117.2
110°	255.7	199.7	166.5	145.9	133.4	125.3	121.6	119.4	121.6	125.3	133.4





TEST NUMBER: P831875

CATALOG NUMBER: S123RDIP-S1000D805U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	263.1	212.2	182.0	162.1	149.6	141.5	137.8	135.6	137.8	141.5	149.6
115°	271.2	226.2	198.2	178.3	165.8	158.4	154.0	151.1	154.0	158.4	165.8
117.5°	281.5	241.0	213.0	194.5	180.5	173.9	170.2	166.5	170.2	173.9	180.5
120°	293.3	255.0	228.4	210.0	196.0	188.6	185.0	182.8	185.0	188.6	196.0
122.5°	304.3	269.7	243.9	224.0	210.8	202.6	199.0	196.8	199.0	202.6	210.8
125°	316.1	283.7	257.9	238.0	224.0	215.9	211.5	210.0	211.5	215.9	224.0
127.5°	325.7	296.2	271.2	251.3	235.8	227.7	222.5	220.3	222.5	227.7	235.8
130°	335.3	307.3	283.0	263.1	247.6	238.8	232.1	229.9	232.1	238.8	247.6
132.5°	344.1	316.9	293.3	274.1	258.7	247.6	240.2	237.3	240.2	247.6	258.7
135°	351.5	326.4	303.6	283.7	268.2	257.2	249.1	246.1	249.1	257.2	268.2
137.5°	357.4	333.1	311.0	292.5	277.1	265.3	257.2	254.2	257.2	265.3	277.1
140°	361.8	339.7	318.3	299.9	285.2	273.4	266.0	262.3	266.0	273.4	285.2
142.5°	366.2	344.9	324.2	307.3	292.5	282.2	274.1	271.2	274.1	282.2	292.5
145°	369.2	349.3	330.1	313.2	300.7	289.6	283.0	280.8	283.0	289.6	300.7
147.5°	371.4	353.0	335.3	320.6	308.0	298.4	291.8	290.3	291.8	298.4	308.0
150°	372.1	356.7	339.7	326.4	316.1	306.5	300.7	299.9	300.7	306.5	316.1
152.5°	373.6	358.9	344.9	332.3	323.5	315.4	309.5	309.5	309.5	315.4	323.5
155°	373.6	361.8	349.3	339.0	330.9	323.5	319.1	319.1	319.1	323.5	330.9
157.5°	374.3	363.3	353.0	344.9	337.5	330.9	327.2	326.4	327.2	330.9	337.5
160°	374.3	365.5	356.7	349.3	344.1	338.2	335.3	335.3	335.3	338.2	344.1
162.5°	373.6	366.2	358.9	353.0	348.6	344.1	341.9	341.9	341.9	344.1	348.6
165°	372.1	367.0	361.1	355.9	353.0	349.3	347.8	348.6	347.8	349.3	353.0
167.5°	371.4	367.0	362.6	358.9	356.7	353.7	353.0	353.7	353.0	353.7	356.7
170°	369.2	366.2	362.6	361.1	359.6	357.4	356.7	358.1	356.7	357.4	359.6
172.5°	368.4	366.2	363.3	362.6	361.8	360.3	360.3	361.1	360.3	360.3	361.8
175°	367.0	365.5	364.0	363.3	363.3	361.8	362.6	363.3	362.6	361.8	363.3
177.5°	366.2	364.8	364.0	364.0	364.0	363.3	364.0	364.8	364.0	363.3	364.0
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0



TEST NUMBER: P831875

CATALOG NUMBER: S123RDIP-S1000D805U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6	3058.6
2.5°	2960.8	2925.0	2889.3	2863.6	2837.9	2805.9	2773.9	2772.7	2771.4	2747.6	2723.7
5°	2785.2	2723.1	2661.0	2600.2	2539.4	2478.6	2417.8	2404.0	2390.2	2369.5	2348.8
7.5°	2629.7	2530.6	2431.6	2353.8	2276.1	2215.2	2154.4	2113.0	2071.7	2039.7	2007.7
10°	2462.9	2340.0	2217.1	2123.1	2029.0	1963.2	1897.3	1849.7	1802.0	1779.5	1756.9
12.5°	2289.9	2156.3	2022.7	1930.6	1838.4	1759.4	1680.4	1637.1	1593.9	1562.5	1531.2
15°	2130.6	1987.0	1843.4	1745.6	1647.8	1573.8	1499.8	1456.6	1413.3	1381.9	1350.6
17.5°	1976.3	1831.5	1686.7	1587.6	1488.5	1421.4	1354.3	1312.3	1270.3	1250.9	1231.5
20°	1835.9	1689.8	1543.7	1450.3	1356.9	1291.0	1225.2	1202.6	1180.0	1161.9	1143.7
22.5°	1696.7	1556.2	1415.8	1326.1	1236.5	1188.8	1141.2	1123.0	1104.8	1091.0	1077.2
25°	1580.1	1440.2	1300.4	1222.0	1143.7	1106.7	1069.7	1057.8	1045.9	1032.1	1018.3
27.5°	1462.2	1329.3	1196.3	1133.6	1070.9	1040.8	1010.7	995.7	980.6	969.4	958.1
30°	1358.1	1235.2	1112.3	1060.3	1008.2	981.9	955.6	939.3	923.0	912.3	901.6
32.5°	1257.8	1148.7	1039.6	995.1	950.6	924.8	899.1	883.5	867.8	855.2	842.7
35°	1165.0	1070.3	975.6	934.9	894.1	868.4	842.7	827.0	811.4	798.8	786.3
37.5°	1083.5	997.6	911.7	873.4	835.2	812.6	790.0	773.7	757.4	744.3	731.1
40°	1007.0	931.1	855.2	818.3	781.3	756.8	732.4	717.9	703.5	691.6	679.7
42.5°	939.3	869.7	800.1	763.7	727.3	704.1	680.9	664.0	647.1	640.2	633.3
45°	867.8	806.3	744.9	709.8	674.7	650.2	625.8	611.3	596.9	590.6	584.4
47.5°	805.1	748.0	691.0	656.5	622.0	600.1	578.1	566.8	555.5	546.8	538.0
50°	743.6	688.5	633.3	600.1	566.8	548.0	529.2	515.4	501.6	495.3	489.1
52.5°	684.7	634.5	584.4	550.5	516.7	498.5	480.3	468.4	456.5	443.3	430.1
55°	618.2	574.3	530.5	500.4	470.3	451.4	432.6	418.8	405.1	391.3	377.5
57.5°	563.1	519.8	476.5	449.6	422.6	404.4	386.2	371.2	356.1	344.9	333.6
60°	502.9	465.2	427.6	401.3	375.0	357.4	339.8	325.4	311.0	305.4	299.7
62.5°	446.4	411.3	376.2	353.0	329.8	312.9	296.0	286.5	277.1	273.4	269.6
65°	388.7	358.7	328.6	307.2	285.9	271.5	257.1	252.7	248.3	245.2	242.0
67.5°	334.8	309.1	283.4	264.6	245.8	235.8	225.7	220.7	215.7	211.9	208.2
70°	285.9	263.3	240.8	224.5	208.2	198.8	189.4	185.0	180.6	173.7	166.8
72.5°	233.2	215.7	198.1	185.6	173.1	164.9	156.8	148.0	139.2	132.9	126.7
75°	193.1	175.6	158.0	146.1	134.2	124.8	115.4	112.2	109.1	107.2	105.3
77.5°	148.0	132.9	117.9	108.5	99.1	94.7	90.3	88.4	86.5	85.9	85.3
80°	106.6	94.1	81.5	76.5	71.5	70.2	69.0	67.7	66.5	65.8	65.2
82.5°	66.5	60.2	53.9	52.7	51.4	50.8	50.2	49.5	48.9	48.3	47.7
85°	38.9	36.4	33.9	33.2	32.6	32.0	31.4	31.4	31.4	31.4	31.4
87.5°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	16.3	15.7	15.0
90°	8.1	9.6	11.8	14.0	16.2	18.4	17.7	18.4	19.2	19.9	21.4
92.5°	37.6	50.8	74.4	113.5	151.8	137.1	102.4	73.0	56.7	49.4	44.2
95°	67.1	95.8	158.4	268.2	389.1	437.0	354.4	265.3	179.8	140.7	114.2
97.5°	77.4	109.1	171.0	298.4	501.8	672.1	694.9	609.4	459.8	362.6	278.5
100°	88.4	117.2	168.7	277.8	471.6	697.8	843.0	868.8	809.1	722.9	618.3
102.5°	101.0	126.7	171.7	260.1	427.4	649.9	850.4	955.0	967.5	926.3	869.5
105°	115.0	137.8	177.6	253.5	392.8	592.5	804.0	958.0	1031.7	1045.7	1026.5
107.5°	130.4	151.8	187.2	252.0	367.7	541.6	737.6	913.8	1029.4	1086.9	1106.8
110°	145.9	166.5	199.7	255.7	354.4	499.6	675.7	844.5	980.1	1072.9	1124.5



TEST NUMBER: P831875

CATALOG NUMBER: S123RDIP-S1000D805U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	162.1	182.0	212.2	263.1	347.1	471.6	621.9	776.0	915.2	1022.1	1092.1
115°	178.3	198.2	226.2	271.2	346.3	453.2	580.7	717.0	845.2	953.5	1033.9
117.5°	194.5	213.0	241.0	281.5	347.1	440.7	553.4	671.3	784.8	884.3	967.5
120°	210.0	228.4	255.0	293.3	350.0	432.6	532.8	636.7	736.2	824.6	899.0
122.5°	224.0	243.9	269.7	304.3	355.2	427.4	515.8	609.4	697.1	777.4	845.2
125°	238.0	257.9	283.7	316.1	360.3	423.0	501.8	585.8	666.2	736.9	795.9
127.5°	251.3	271.2	296.2	325.7	366.2	420.8	488.6	564.5	637.4	702.3	756.8
130°	263.1	283.0	307.3	335.3	372.1	418.6	478.2	544.6	610.9	670.6	720.7
132.5°	274.1	293.3	316.9	344.1	376.6	417.8	468.7	526.1	585.8	640.4	687.5
135°	283.7	303.6	326.4	351.5	381.0	417.1	460.6	509.9	562.3	610.2	652.2
137.5°	292.5	311.0	333.1	357.4	383.9	415.6	453.2	494.5	538.7	581.4	619.0
140°	299.9	318.3	339.7	361.8	386.9	414.9	446.6	481.2	518.8	554.1	585.8
142.5°	307.3	324.2	344.9	366.2	389.1	413.4	440.7	468.7	499.6	529.1	555.6
145°	313.2	330.1	349.3	369.2	389.8	411.9	435.5	459.1	483.4	507.0	528.4
147.5°	320.6	335.3	353.0	371.4	389.8	409.7	430.3	451.0	470.9	490.8	506.2
150°	326.4	339.7	356.7	372.1	389.8	406.8	425.2	442.1	459.1	474.6	488.6
152.5°	332.3	344.9	358.9	373.6	387.6	403.1	419.3	434.0	448.0	461.3	472.4
155°	339.0	349.3	361.8	373.6	386.1	398.7	413.4	425.9	437.7	448.8	457.6
157.5°	344.9	353.0	363.3	374.3	383.9	395.0	406.8	417.1	427.4	436.2	443.6
160°	349.3	356.7	365.5	374.3	382.5	390.6	400.1	409.7	417.8	425.2	430.3
162.5°	353.0	358.9	366.2	373.6	379.5	386.1	393.5	400.9	407.5	414.1	418.6
165°	355.9	361.1	367.0	372.1	376.6	381.7	387.6	393.5	397.9	403.1	406.8
167.5°	358.9	362.6	367.0	371.4	373.6	377.3	381.7	386.9	390.6	393.5	396.5
170°	361.1	362.6	366.2	369.2	370.7	372.9	376.6	380.2	382.5	385.4	386.9
172.5°	362.6	363.3	366.2	368.4	368.4	369.2	371.4	374.3	375.8	378.0	378.8
175°	363.3	364.0	365.5	367.0	366.2	366.2	367.7	369.2	369.9	371.4	371.4
177.5°	364.0	364.0	364.8	366.2	364.8	364.0	364.8	365.5	366.2	367.0	367.0
180°	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0	364.0



TEST NUMBER: P831875

CATALOG NUMBER: S123RDIP-S1000D805U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	3058.6	3058.6	3058.6	3058.6
2.5°	2717.5	2711.2	2708.7	2706.2
5°	2329.4	2309.9	2305.5	2301.1
7.5°	1999.5	1991.4	1964.4	1937.5
10°	1731.8	1706.7	1695.4	1684.2
12.5°	1508.0	1484.8	1481.0	1477.2
15°	1334.3	1318.0	1312.3	1306.7
17.5°	1220.2	1208.9	1202.0	1195.1
20°	1135.5	1127.4	1122.4	1117.3
22.5°	1070.9	1064.7	1060.9	1057.1
25°	1008.9	999.5	996.3	993.2
27.5°	949.9	941.8	938.6	935.5
30°	894.7	887.9	883.5	879.1
32.5°	834.6	826.4	823.9	821.4
35°	781.3	776.2	773.7	771.2
37.5°	724.8	718.6	714.8	711.0
40°	676.5	673.4	671.5	669.6
42.5°	627.6	622.0	621.4	620.7
45°	578.7	573.1	571.8	570.6
47.5°	533.0	527.9	527.3	526.7
50°	482.2	475.3	470.3	465.2
52.5°	423.9	417.6	413.2	408.8
55°	370.6	363.7	359.9	356.1
57.5°	330.4	327.3	325.4	323.5
60°	297.8	296.0	294.7	293.4
62.5°	267.7	265.9	265.9	265.9
65°	240.1	238.3	236.4	234.5
67.5°	204.4	200.6	200.0	199.4
70°	161.1	155.5	154.9	154.2
72.5°	126.0	125.4	124.1	122.9
75°	104.1	102.8	102.8	102.8
77.5°	84.0	82.8	82.8	82.8
80°	64.6	64.0	64.6	65.2
82.5°	47.7	47.7	47.0	46.4
85°	30.7	30.1	30.1	30.1
87.5°	15.0	15.0	15.0	15.0
90°	20.6	21.4	22.1	21.4
92.5°	42.7	39.8	40.5	39.1
95°	100.2	93.6	88.4	85.5
97.5°	229.2	201.2	183.5	175.4
100°	543.8	490.0	461.3	462.0
102.5°	815.7	776.0	753.1	731.7
105°	992.6	964.6	941.0	937.3
107.5°	1102.4	1089.1	1079.6	1071.5
110°	1145.1	1151.0	1149.6	1148.1



TEST NUMBER: P831875

CATALOG NUMBER: S123RDIP-S1000D805U830-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	1134.1	1155.5	1162.8	1163.6
115°	1089.1	1121.6	1136.3	1140.0
117.5°	1025.0	1061.1	1083.2	1088.4
120°	957.2	998.5	1016.2	1020.6
122.5°	895.3	931.4	951.3	957.2
125°	843.0	875.4	893.9	899.0
127.5°	799.5	827.5	844.5	848.9
130°	759.7	786.3	801.7	807.6
132.5°	723.6	750.2	763.4	767.1
135°	688.3	710.4	723.6	728.8
137.5°	649.9	672.8	683.8	688.3
140°	613.8	634.5	646.3	645.5
142.5°	578.5	596.2	606.5	605.7
145°	546.8	562.3	568.1	569.6
147.5°	521.0	532.0	537.9	538.7
150°	499.6	507.7	512.1	512.1
152.5°	480.5	487.8	490.0	490.0
155°	464.2	470.1	471.6	472.4
157.5°	449.5	453.9	455.4	455.4
160°	435.5	439.9	439.9	439.2
162.5°	421.5	425.2	425.2	424.5
165°	409.7	412.7	411.9	411.9
167.5°	397.9	400.1	399.4	399.4
170°	387.6	389.1	388.3	388.3
172.5°	378.8	380.2	378.8	378.0
175°	371.4	372.1	371.4	370.7
177.5°	366.2	367.0	365.5	365.5
180°	364.0	364.0	364.0	364.0



TEST NUMBER: P831875

CATALOG NUMBER: S123RDIP-S1000D805U830-4F0-1E-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	14.64	14.64	15.53	16.66	18.42	19.31	19.30	20.20	21.33
	3H	14.98	15.77	15.87	16.67	17.83	19.92	20.71	20.82	21.62	22.77
	4H	15.36	16.11	16.27	17.02	18.19	20.41	21.16	21.32	22.07	23.24
	6H	15.65	16.34	16.57	17.25	18.43	20.73	21.42	21.65	22.33	23.51
	8H	15.74	16.39	16.66	17.32	18.50	20.81	21.46	21.74	22.40	23.57
	12H	15.79	16.41	16.72	17.34	18.54	20.84	21.47	21.78	22.39	23.59
4H	2H	14.48	15.23	15.40	16.14	17.31	18.42	19.17	19.33	20.08	21.24
	3H	15.86	16.48	16.78	17.42	18.60	20.08	20.70	21.01	21.64	22.82
	4H	16.31	16.88	17.25	17.82	19.02	20.69	21.26	21.63	22.19	23.40
	6H	16.69	17.17	17.63	18.13	19.34	21.13	21.62	22.08	22.58	23.78
	8H	16.81	17.27	17.76	18.22	19.44	21.26	21.72	22.21	22.67	23.89
	12H	16.89	17.30	17.86	18.27	19.49	21.33	21.74	22.30	22.71	23.93
8H	4H	16.63	17.09	17.58	18.04	19.26	20.66	21.12	21.61	22.07	23.29
	6H	17.10	17.47	18.07	18.47	19.69	21.16	21.53	22.14	22.53	23.75
	8H	17.29	17.62	18.28	18.61	19.84	21.35	21.68	22.33	22.66	23.90
	12H	17.43	17.72	18.42	18.70	19.99	21.47	21.76	22.45	22.73	24.02
12H	4H	16.65	17.05	17.61	18.02	19.25	20.62	21.02	21.58	21.99	23.22
	6H	17.16	17.49	18.14	18.47	19.71	21.14	21.47	22.12	22.45	23.69
	8H	17.38	17.67	18.37	18.65	19.93	21.33	21.62	22.32	22.60	23.88