

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: P831873

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

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831873  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-5)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S1000D805U830-4F0-1E-UDD-G  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 805 LUMENS PER FOOT, NO LENS  
Light Source: -  
Ballast/Driver: -

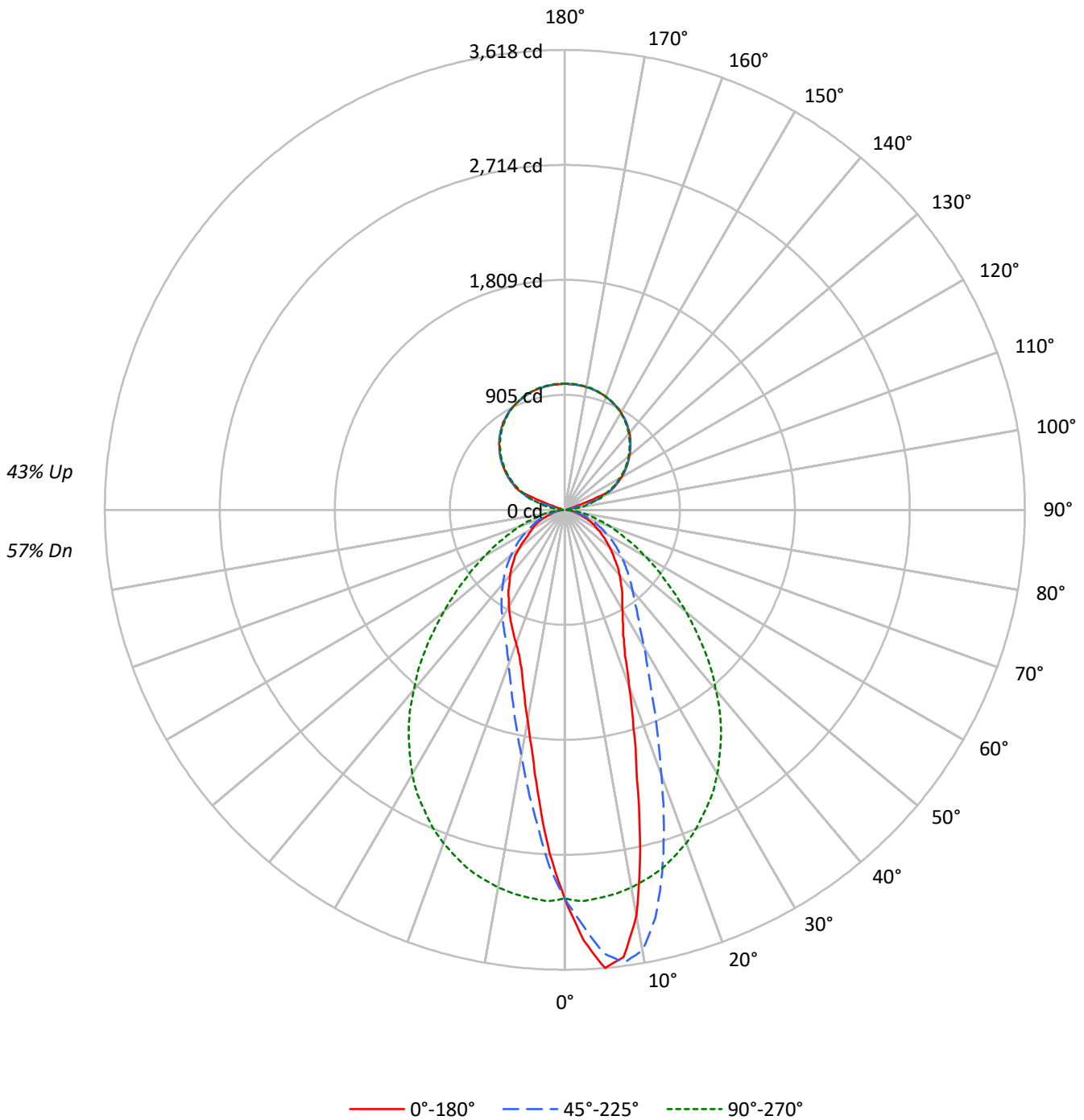
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7080.7 lumens  
Efficiency: N/A  
Efficacy: 127.1 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				
RC	80					70					50					30				
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0		
RCR	0	109	109	109	109	101	101	101	101	87	87	87	75	75	75	63	63	63	57	
	1	100	96	93	89	93	90	87	84	78	76	74	67	65	64	57	56	55	50	
	2	92	85	79	75	86	80	75	71	70	66	63	60	57	55	51	49	48	44	
	3	85	76	69	64	79	71	65	60	62	58	54	54	51	48	46	44	42	38	
	4	78	68	60	55	73	64	57	52	56	51	47	49	45	42	42	39	37	34	
	5	72	61	54	48	67	58	51	46	51	45	41	45	40	37	39	36	33	30	
	6	67	56	48	42	62	52	45	40	46	41	37	41	37	33	36	32	30	27	
	7	62	51	43	38	58	48	41	36	43	37	33	38	33	30	33	30	27	25	
	8	58	46	39	34	54	44	37	33	39	34	30	35	30	27	31	27	25	22	
	9	54	43	36	31	51	41	34	30	36	31	27	32	28	25	29	25	23	21	
	10	51	40	33	28	48	38	31	27	34	29	25	30	26	23	27	23	21	19	

**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	3.9
10°-20°	645.1	9.1
20°-30°	740.2	10.5
30°-40°	729.6	10.3
40°-50°	643.4	9.1
50°-60°	495.0	7.0
60°-70°	325.4	4.6
70°-80°	158.0	2.2
80°-90°	41.8	0.6
90°-100°	35.0	0.5
100°-110°	169.0	2.4
110°-120°	414.4	5.9
120°-130°	526.0	7.4
130°-140°	562.0	7.9
140°-150°	525.5	7.4
150°-160°	423.9	6.0
160°-170°	273.5	3.9
170°-180°	94.3	1.3
0°-30°	1664.0	23.5
0°-40°	2393.6	33.8
0°-60°	3531.9	49.9
0°-90°	4057.2	57.3
90°-120°	618.4	8.7
90°-150°	2231.9	31.5
90°-180°	3024.0	42.7
0°-180°	7080.7	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°	22	18	1	18	22	11
95°	28	23	45	23	28	23
105°	32	161	220	161	32	68
115°	433	423	412	423	433	408
125°	592	590	581	590	592	529
135°	730	730	723	730	730	563
145°	842	841	834	841	842	526
155°	917	918	919	918	917	423
165°	967	966	969	966	967	273
175°	988	989	992	989	988	94
180°	992	992	992	992	992	



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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°	22.1	21.8	21.5	21.1	20.8	20.3	19.6	19.0	18.3	17.7	15.6
92.5°	25.1	24.9	24.7	24.6	24.4	23.7	22.6	21.5	20.3	19.2	17.7
95°	28.0	28.0	28.0	28.0	28.0	27.4	26.3	25.1	24.0	22.8	21.0
97.5°	30.2	30.0	29.9	29.7	29.6	28.8	27.5	26.2	24.9	23.6	31.9
100°	30.9	30.8	30.6	30.5	30.3	29.6	28.2	26.9	25.6	24.3	49.9
102.5°	31.7	31.4	31.0	30.7	30.4	32.9	38.3	43.7	49.1	54.5	83.0
105°	32.4	32.1	31.8	31.4	31.1	45.4	74.4	103.4	132.4	161.4	176.1
107.5°	76.6	98.1	119.5	141.0	162.4	185.8	211.0	236.2	261.4	286.6	284.2
110°	202.6	226.1	249.5	272.9	296.3	310.7	316.1	321.5	326.9	332.3	330.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	383.9	384.2	384.6	384.9	385.2	384.6	383.2	381.7	380.2	378.8	377.0
115°	433.3	432.6	432.0	431.3	430.7	429.5	427.9	426.2	424.6	423.0	421.5
117.5°	473.1	472.9	472.7	472.6	472.4	471.7	470.4	469.1	467.8	466.4	465.6
120°	514.3	514.3	514.3	514.3	514.3	513.7	512.4	511.1	509.8	508.4	508.0
122.5°	554.9	554.7	554.5	554.4	554.2	553.7	552.9	552.1	551.3	550.4	549.8
125°	592.4	592.1	591.8	591.5	591.1	590.8	590.5	590.2	589.8	589.5	588.8
127.5°	629.3	629.6	629.9	630.3	630.6	630.5	630.0	629.5	629.0	628.6	627.7
130°	664.7	665.0	665.3	665.6	666.0	665.8	665.2	664.5	663.8	663.2	662.5
132.5°	697.1	697.6	698.1	698.6	699.0	699.0	698.3	697.7	697.0	696.3	695.9
135°	730.2	730.7	731.2	731.7	732.2	732.2	731.7	731.2	730.7	730.2	729.6
137.5°	761.9	762.3	762.6	762.9	763.2	763.0	762.2	761.4	760.5	759.7	759.4
140°	789.9	790.3	790.6	790.9	791.2	791.1	790.4	789.8	789.1	788.5	788.0
142.5°	815.7	816.2	816.7	817.2	817.7	817.7	817.2	816.7	816.2	815.7	815.2
145°	842.2	842.2	842.2	842.2	842.2	842.1	841.8	841.4	841.1	840.8	840.4
147.5°	861.4	862.2	863.0	863.9	864.7	864.9	864.6	864.3	863.9	863.6	863.3
150°	883.5	884.0	884.5	885.0	885.5	885.6	885.2	884.9	884.6	884.2	883.9
152.5°	901.2	902.0	902.8	903.7	904.5	904.6	903.9	903.2	902.6	901.9	901.8
155°	917.4	918.4	919.4	920.4	921.3	921.4	920.6	919.8	919.0	918.1	918.0
157.5°	931.4	932.7	934.0	935.3	936.6	936.8	935.8	934.8	933.9	932.9	933.0
160°	944.7	945.8	947.0	948.1	949.3	949.3	948.4	947.4	946.4	945.4	945.6
162.5°	957.2	958.2	959.2	960.1	961.1	961.0	959.9	958.8	957.6	956.5	956.6
165°	966.8	967.9	969.1	970.2	971.4	971.3	970.0	968.7	967.4	966.0	966.2
167.5°	974.1	975.5	976.8	978.1	979.4	979.4	978.1	976.8	975.5	974.1	974.1
170°	980.8	982.1	983.4	984.7	986.0	986.0	984.7	983.4	982.1	980.8	980.8
172.5°	984.5	985.9	987.4	988.9	990.4	990.4	989.1	987.8	986.5	985.2	985.0
175°	988.1	989.5	990.8	992.1	993.4	993.5	992.3	991.2	990.0	988.9	988.7
177.5°	988.9	990.5	992.2	993.8	995.4	995.6	994.3	993.0	991.7	990.4	990.2
180°	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8



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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°	13.4	11.3	9.2	7.3	5.6	4.0	2.4	0.7	2.4	4.0	5.6
92.5°	16.2	14.7	13.3	13.0	14.0	15.0	16.0	16.9	16.0	15.0	14.0
95°	19.2	17.4	15.6	18.1	24.8	31.5	38.2	44.9	38.2	31.5	24.8
97.5°	40.3	48.6	57.0	63.5	68.0	72.6	77.2	81.8	77.2	72.6	68.0
100°	75.4	101.0	126.5	137.6	134.4	131.1	127.8	124.5	127.8	131.1	134.4
102.5°	111.5	140.0	168.5	181.7	179.6	177.4	175.3	173.2	175.3	177.4	179.6
105°	190.9	205.6	220.3	226.8	225.0	223.2	221.4	219.6	221.4	223.2	225.0
107.5°	281.7	279.3	276.8	274.9	273.4	271.9	270.4	269.0	270.4	271.9	273.4
110°	328.7	326.9	325.1	323.6	322.3	320.9	319.6	318.3	319.6	320.9	322.3





TEST NUMBER: P831873

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

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	375.2	373.3	371.5	370.1	368.9	367.8	366.6	365.5	366.6	367.8	368.9
115°	420.0	418.5	417.1	415.8	414.9	413.9	412.9	411.9	412.9	413.9	414.9
117.5°	464.8	464.0	463.2	462.2	461.0	459.9	458.7	457.6	458.7	459.9	461.0
120°	507.5	507.0	506.5	505.5	504.0	502.5	501.1	499.6	501.1	502.5	504.0
122.5°	549.1	548.5	547.8	546.9	545.8	544.6	543.5	542.3	543.5	544.6	545.8
125°	588.2	587.5	586.9	585.9	584.6	583.3	582.0	580.7	582.0	583.3	584.6
127.5°	626.9	626.1	625.3	624.2	622.9	621.6	620.3	619.0	620.3	621.6	622.9
130°	661.9	661.2	660.6	659.6	658.3	657.0	655.7	654.3	655.7	657.0	658.3
132.5°	695.4	694.9	694.4	693.5	692.2	690.9	689.6	688.2	689.6	690.9	692.2
135°	728.9	728.3	727.6	726.8	725.8	724.8	723.9	722.9	723.9	724.8	725.8
137.5°	759.1	758.7	758.4	757.6	756.3	755.0	753.7	752.3	753.7	755.0	756.3
140°	787.5	787.0	786.5	785.8	784.8	783.8	782.8	781.8	782.8	783.8	784.8
142.5°	814.7	814.2	813.8	813.0	812.0	811.1	810.1	809.1	810.1	811.1	812.0
145°	840.1	839.8	839.5	838.7	837.6	836.4	835.3	834.1	835.3	836.4	837.6
147.5°	863.0	862.6	862.3	861.7	860.9	860.1	859.3	858.5	859.3	860.1	860.9
150°	883.6	883.3	882.9	882.5	882.0	881.5	881.1	880.6	881.1	881.5	882.0
152.5°	901.6	901.4	901.3	901.1	901.0	900.8	900.6	900.5	900.6	900.8	901.0
155°	917.8	917.7	917.5	917.6	917.9	918.2	918.6	918.9	918.6	918.2	917.9
157.5°	933.2	933.4	933.5	933.6	933.6	933.6	933.6	933.6	933.6	933.6	933.6
160°	945.7	945.9	946.1	946.2	946.4	946.6	946.7	946.9	946.7	946.6	946.4
162.5°	956.8	957.0	957.1	957.4	957.9	958.4	958.9	959.4	958.9	958.4	957.9
165°	966.4	966.5	966.7	967.0	967.5	968.0	968.5	969.0	968.5	968.0	967.5
167.5°	974.1	974.1	974.1	974.5	975.1	975.8	976.4	977.1	976.4	975.8	975.1
170°	980.8	980.8	980.8	981.1	981.8	982.4	983.1	983.7	983.1	982.4	981.8
172.5°	984.9	984.7	984.5	984.9	985.7	986.5	987.3	988.1	987.3	986.5	985.7
175°	988.6	988.4	988.2	988.6	989.4	990.2	991.0	991.8	991.0	990.2	989.4
177.5°	990.0	989.9	989.7	990.0	990.9	991.7	992.5	993.3	992.5	991.7	990.9
180°	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8



TEST NUMBER: P831873

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

**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°	7.3	9.2	11.3	13.4	15.6	17.7	18.3	19.0	19.6	20.3	20.8
92.5°	13.0	13.3	14.7	16.2	17.7	19.2	20.3	21.5	22.6	23.7	24.4
95°	18.1	15.6	17.4	19.2	21.0	22.8	24.0	25.1	26.3	27.4	28.0
97.5°	63.5	57.0	48.6	40.3	31.9	23.6	24.9	26.2	27.5	28.8	29.6
100°	137.6	126.5	101.0	75.4	49.9	24.3	25.6	26.9	28.2	29.6	30.3
102.5°	181.7	168.5	140.0	111.5	83.0	54.5	49.1	43.7	38.3	32.9	30.4
105°	226.8	220.3	205.6	190.9	176.1	161.4	132.4	103.4	74.4	45.4	31.1
107.5°	274.9	276.8	279.3	281.7	284.2	286.6	261.4	236.2	211.0	185.8	162.4
110°	323.6	325.1	326.9	328.7	330.5	332.3	326.9	321.5	316.1	310.7	296.3



TEST NUMBER: P831873

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

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	370.1	371.5	373.3	375.2	377.0	378.8	380.2	381.7	383.2	384.6	385.2
115°	415.8	417.1	418.5	420.0	421.5	423.0	424.6	426.2	427.9	429.5	430.7
117.5°	462.2	463.2	464.0	464.8	465.6	466.4	467.8	469.1	470.4	471.7	472.4
120°	505.5	506.5	507.0	507.5	508.0	508.4	509.8	511.1	512.4	513.7	514.3
122.5°	546.9	547.8	548.5	549.1	549.8	550.4	551.3	552.1	552.9	553.7	554.2
125°	585.9	586.9	587.5	588.2	588.8	589.5	589.8	590.2	590.5	590.8	591.1
127.5°	624.2	625.3	626.1	626.9	627.7	628.6	629.0	629.5	630.0	630.5	630.6
130°	659.6	660.6	661.2	661.9	662.5	663.2	663.8	664.5	665.2	665.8	666.0
132.5°	693.5	694.4	694.9	695.4	695.9	696.3	697.0	697.7	698.3	699.0	699.0
135°	726.8	727.6	728.3	728.9	729.6	730.2	730.7	731.2	731.7	732.2	732.2
137.5°	757.6	758.4	758.7	759.1	759.4	759.7	760.5	761.4	762.2	763.0	763.2
140°	785.8	786.5	787.0	787.5	788.0	788.5	789.1	789.8	790.4	791.1	791.2
142.5°	813.0	813.8	814.2	814.7	815.2	815.7	816.2	816.7	817.2	817.7	817.7
145°	838.7	839.5	839.8	840.1	840.4	840.8	841.1	841.4	841.8	842.1	842.2
147.5°	861.7	862.3	862.6	863.0	863.3	863.6	863.9	864.3	864.6	864.9	864.7
150°	882.5	882.9	883.3	883.6	883.9	884.2	884.6	884.9	885.2	885.6	885.5
152.5°	901.1	901.3	901.4	901.6	901.8	901.9	902.6	903.2	903.9	904.6	904.5
155°	917.6	917.5	917.7	917.8	918.0	918.1	919.0	919.8	920.6	921.4	921.3
157.5°	933.6	933.5	933.4	933.2	933.0	932.9	933.9	934.8	935.8	936.8	936.6
160°	946.2	946.1	945.9	945.7	945.6	945.4	946.4	947.4	948.4	949.3	949.3
162.5°	957.4	957.1	957.0	956.8	956.6	956.5	957.6	958.8	959.9	961.0	961.1
165°	967.0	966.7	966.5	966.4	966.2	966.0	967.4	968.7	970.0	971.3	971.4
167.5°	974.5	974.1	974.1	974.1	974.1	974.1	975.5	976.8	978.1	979.4	979.4
170°	981.1	980.8	980.8	980.8	980.8	980.8	982.1	983.4	984.7	986.0	986.0
172.5°	984.9	984.5	984.7	984.9	985.0	985.2	986.5	987.8	989.1	990.4	990.4
175°	988.6	988.2	988.4	988.6	988.7	988.9	990.0	991.2	992.3	993.5	993.4
177.5°	990.0	989.7	989.9	990.0	990.2	990.4	991.7	993.0	994.3	995.6	995.4
180°	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8	991.8



TEST NUMBER: P831873

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

**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°	21.1	21.5	21.8	22.1
92.5°	24.6	24.7	24.9	25.1
95°	28.0	28.0	28.0	28.0
97.5°	29.7	29.9	30.0	30.2
100°	30.5	30.6	30.8	30.9
102.5°	30.7	31.0	31.4	31.7
105°	31.4	31.8	32.1	32.4
107.5°	141.0	119.5	98.1	76.6
110°	272.9	249.5	226.1	202.6



TEST NUMBER: P831873

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

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	384.9	384.6	384.2	383.9
115°	431.3	432.0	432.6	433.3
117.5°	472.6	472.7	472.9	473.1
120°	514.3	514.3	514.3	514.3
122.5°	554.4	554.5	554.7	554.9
125°	591.5	591.8	592.1	592.4
127.5°	630.3	629.9	629.6	629.3
130°	665.6	665.3	665.0	664.7
132.5°	698.6	698.1	697.6	697.1
135°	731.7	731.2	730.7	730.2
137.5°	762.9	762.6	762.3	761.9
140°	790.9	790.6	790.3	789.9
142.5°	817.2	816.7	816.2	815.7
145°	842.2	842.2	842.2	842.2
147.5°	863.9	863.0	862.2	861.4
150°	885.0	884.5	884.0	883.5
152.5°	903.7	902.8	902.0	901.2
155°	920.4	919.4	918.4	917.4
157.5°	935.3	934.0	932.7	931.4
160°	948.1	947.0	945.8	944.7
162.5°	960.1	959.2	958.2	957.2
165°	970.2	969.1	967.9	966.8
167.5°	978.1	976.8	975.5	974.1
170°	984.7	983.4	982.1	980.8
172.5°	988.9	987.4	985.9	984.5
175°	992.1	990.8	989.5	988.1
177.5°	993.8	992.2	990.5	988.9
180°	991.8	991.8	991.8	991.8



TEST NUMBER: P831873

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

**CIE UGR TABLE:**

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	13.55	14.41	14.45	15.33	16.50	18.21	19.08	19.12	19.99	21.16
	3H	14.77	15.54	15.69	16.47	17.66	19.71	20.49	20.63	21.41	22.60
	4H	15.15	15.88	16.09	16.81	18.02	20.20	20.94	21.14	21.86	23.07
	6H	15.44	16.11	16.38	17.04	18.26	20.52	21.19	21.46	22.13	23.34
	8H	15.53	16.16	16.47	17.12	18.33	20.60	21.24	21.55	22.19	23.40
	12H	15.58	16.19	16.53	17.13	18.37	20.63	21.24	21.59	22.18	23.42
4H	2H	14.27	15.00	15.21	15.93	17.14	18.21	18.94	19.15	19.87	21.07
	3H	15.65	16.25	16.59	17.21	18.43	19.87	20.48	20.82	21.44	22.65
	4H	16.10	16.66	17.06	17.61	18.85	20.48	21.03	21.44	21.99	23.23
	6H	16.47	16.95	17.44	17.93	19.17	20.92	21.39	21.89	22.37	23.61
	8H	16.60	17.04	17.57	18.01	19.27	21.05	21.49	22.02	22.47	23.72
	12H	16.68	17.07	17.66	18.06	19.32	21.11	21.51	22.10	22.50	23.76
8H	4H	16.42	16.86	17.39	17.83	19.09	20.45	20.89	21.42	21.86	23.12
	6H	16.89	17.25	17.88	18.26	19.52	20.95	21.31	21.94	22.33	23.58
	8H	17.08	17.40	18.08	18.40	19.67	21.13	21.45	22.14	22.46	23.73
	12H	17.22	17.50	18.23	18.50	19.82	21.25	21.53	22.26	22.53	23.85
12H	4H	16.43	16.83	17.42	17.82	19.08	20.40	20.80	21.39	21.79	23.05
	6H	16.94	17.27	17.95	18.27	19.54	20.92	21.24	21.93	22.25	23.52
	8H	17.16	17.45	18.17	18.44	19.76	21.12	21.40	22.12	22.39	23.71