

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: P831766

Luminaire Tested: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831766  
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-S1000D1025U830-4F0-1E-UDD-G1  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: -

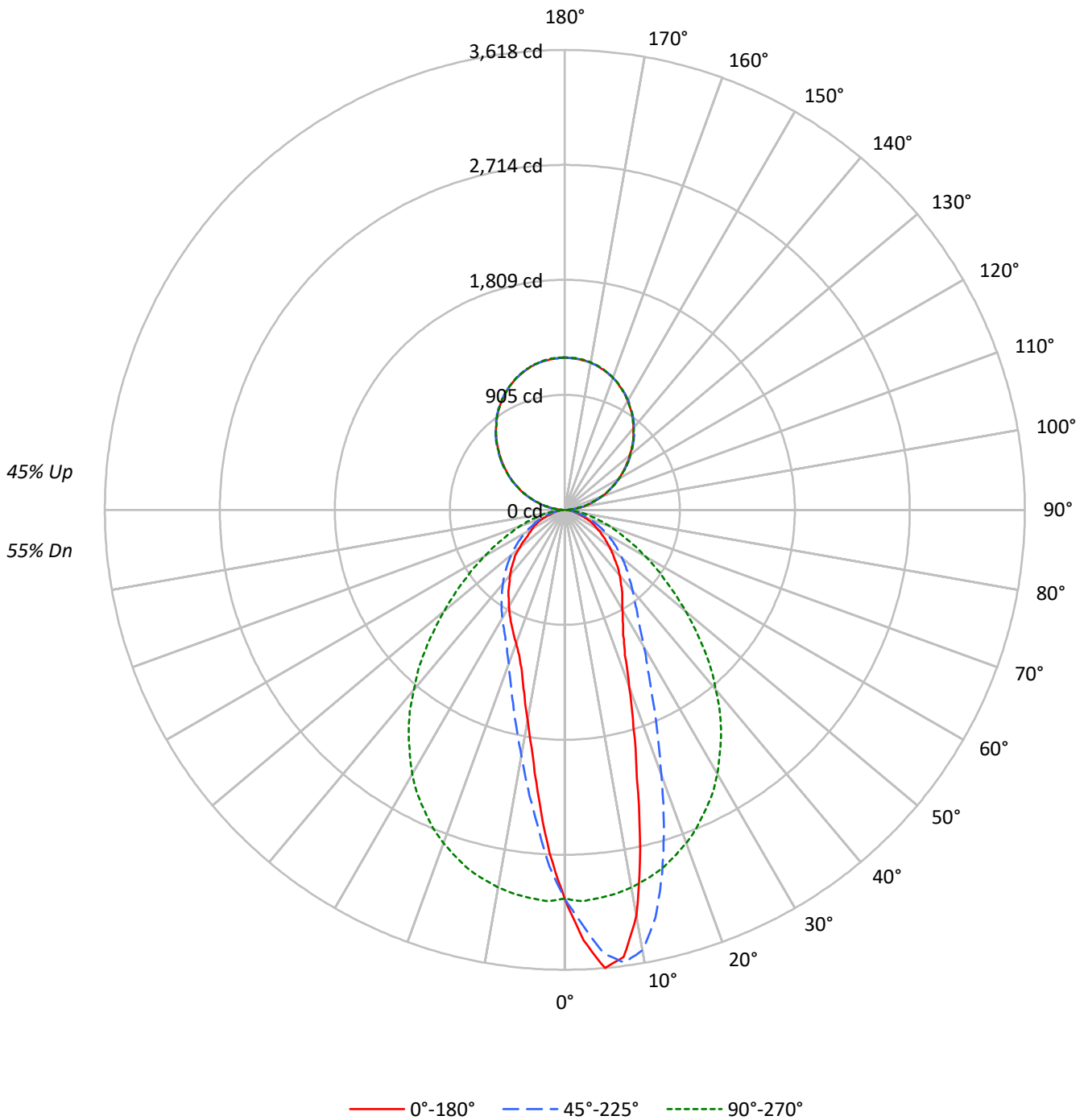
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7376.3 lumens  
Efficiency: N/A  
Efficacy: 120.9 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): 61  
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

TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

### 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	108	108	108	108	101	101	101	101	86	86	86	73	73	73	61	61	61	55				55
1	100	96	92	89	93	89	86	83	77	75	73	65	64	62	55	54	53				48	
2	92	85	79	74	85	79	74	70	68	65	62	59	56	54	50	48	46				42	
3	84	75	68	63	78	70	64	60	61	57	53	53	49	47	45	42	40				37	
4	78	67	60	54	72	63	57	52	55	50	46	48	44	41	41	38	36				32	
5	72	61	53	47	67	57	50	45	50	45	41	43	39	36	37	34	32				29	
6	67	55	47	42	62	52	45	40	46	40	36	40	36	32	34	31	29				26	
7	62	50	43	37	58	47	40	36	42	36	32	37	32	29	32	29	26				24	
8	58	46	39	33	54	43	37	32	38	33	29	34	30	27	30	26	24				22	
9	54	42	35	30	50	40	34	29	36	30	27	31	27	24	28	24	22				20	
10	51	39	32	28	47	37	31	27	33	28	24	29	25	22	26	23	20				18	

**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



TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	278.8	3.8
10°-20°	645.1	8.7
20°-30°	740.2	10.0
30°-40°	729.6	9.9
40°-50°	643.4	8.7
50°-60°	495.0	6.7
60°-70°	325.4	4.4
70°-80°	158.0	2.1
80°-90°	42.4	0.6
90°-100°	77.1	1.0
100°-110°	233.4	3.2
110°-120°	397.3	5.4
120°-130°	522.6	7.1
130°-140°	587.5	8.0
140°-150°	577.5	7.8
150°-160°	486.2	6.6
160°-170°	323.7	4.4
170°-180°	113.3	1.5
0°-30°	1664.0	22.6
0°-40°	2393.6	32.4
0°-60°	3531.9	47.9
0°-90°	4057.7	55.0
90°-120°	707.7	9.6
90°-150°	2395.3	32.5
90°-180°	3319.0	45.0
0°-180°	7376.3	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°	28	23	1	23	28	15
95°	73	70	56	70	73	74
105°	224	222	212	222	224	237
115°	401	401	400	401	401	397
125°	579	586	585	586	579	517
135°	758	764	759	764	758	583
145°	921	926	921	926	921	575
155°	1053	1056	1055	1056	1053	485
165°	1145	1146	1149	1146	1145	323
175°	1190	1191	1195	1191	1190	113
180°	1198	1198	1198	1198	1198	



TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

**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°	28.2	27.8	27.4	27.0	26.6	25.9	25.1	24.3	23.4	22.6	19.9
92.5°	40.5	40.9	41.3	41.7	42.1	42.0	41.4	40.8	40.1	39.5	38.3
95°	73.4	73.4	73.4	73.4	73.4	73.0	72.1	71.3	70.5	69.6	68.0
97.5°	105.4	105.6	105.8	106.0	106.2	105.8	104.7	103.7	102.7	101.6	100.4
100°	143.0	142.6	142.2	141.8	141.3	140.8	140.2	139.6	138.9	138.3	137.3
102.5°	181.6	181.8	182.0	182.2	182.4	182.2	181.6	181.0	180.3	179.7	178.2
105°	223.9	223.5	223.1	222.7	222.3	222.0	222.0	222.0	222.0	222.0	220.2
107.5°	267.2	267.4	267.6	267.8	268.0	267.8	267.2	266.6	265.9	265.3	264.5
110°	311.4	311.8	312.3	312.7	313.1	312.9	312.0	311.2	310.4	309.5	309.1



TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	358.5	358.5	358.5	358.5	358.5	357.9	356.9	355.9	354.8	353.8	353.8
115°	400.8	401.0	401.2	401.4	401.6	401.6	401.4	401.2	401.0	400.8	401.2
117.5°	444.1	444.7	445.3	446.0	446.6	446.9	446.9	446.9	446.9	446.9	447.3
120°	490.2	490.6	491.0	491.4	491.9	492.2	492.4	492.6	492.8	493.0	494.1
122.5°	534.4	535.0	535.7	536.3	536.9	537.5	538.2	538.8	539.4	540.0	540.5
125°	578.6	579.5	580.3	581.1	582.0	582.8	583.6	584.5	585.3	586.2	586.6
127.5°	622.8	623.7	624.5	625.4	626.2	627.2	628.5	629.7	631.0	632.3	632.7
130°	666.1	667.6	669.1	670.5	672.0	673.1	674.0	674.8	675.6	676.5	677.1
132.5°	711.3	712.3	713.4	714.4	715.5	716.5	717.6	718.6	719.6	720.7	721.1
135°	758.3	758.7	759.2	759.6	760.0	760.6	761.5	762.3	763.1	764.0	764.2
137.5°	799.7	800.4	801.0	801.6	802.2	803.1	804.1	805.2	806.2	807.3	806.6
140°	840.2	841.6	843.1	844.6	846.0	846.9	847.1	847.3	847.5	847.7	847.5
142.5°	881.6	882.6	883.7	884.7	885.8	886.4	886.6	886.8	887.0	887.2	886.8
145°	921.1	921.9	922.8	923.6	924.4	925.0	925.2	925.4	925.6	925.8	925.2
147.5°	956.8	958.1	959.4	960.6	961.9	962.5	962.5	962.5	962.5	962.5	961.9
150°	990.7	992.0	993.2	994.5	995.7	996.4	996.4	996.4	996.4	996.4	995.9
152.5°	1023.6	1024.7	1025.7	1026.8	1027.8	1028.1	1027.7	1027.3	1026.9	1026.5	1026.3
155°	1052.8	1054.3	1055.7	1057.2	1058.7	1059.0	1058.1	1057.3	1056.5	1055.6	1055.4
157.5°	1080.1	1081.4	1082.6	1083.9	1085.1	1085.3	1084.5	1083.7	1082.8	1082.0	1081.8
160°	1106.4	1107.3	1108.1	1109.0	1109.8	1109.7	1108.6	1107.6	1106.5	1105.5	1105.5
162.5°	1126.2	1127.7	1129.1	1130.6	1132.1	1132.3	1131.2	1130.2	1129.1	1128.1	1127.9
165°	1145.0	1146.5	1147.9	1149.4	1150.9	1151.0	1149.7	1148.5	1147.2	1146.0	1146.0
167.5°	1162.0	1163.2	1164.5	1165.7	1167.0	1167.0	1165.7	1164.5	1163.2	1162.0	1161.7
170°	1174.2	1175.6	1177.1	1178.6	1180.0	1180.0	1178.6	1177.1	1175.6	1174.2	1174.2
172.5°	1183.6	1185.1	1186.5	1188.0	1189.4	1189.6	1188.3	1187.0	1185.8	1184.5	1184.5
175°	1190.2	1191.6	1193.1	1194.6	1196.0	1196.1	1194.9	1193.6	1192.4	1191.1	1191.1
177.5°	1193.9	1195.4	1196.9	1198.3	1199.8	1199.9	1198.6	1197.4	1196.1	1194.9	1194.9
180°	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7

TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

**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°	17.1	14.4	11.7	9.3	7.2	5.1	3.0	0.9	3.0	5.1	7.2
92.5°	37.0	35.8	34.5	33.2	32.0	30.7	29.5	28.2	29.5	30.7	32.0
95°	66.3	64.6	62.9	61.4	59.9	58.4	57.0	55.5	57.0	58.4	59.9
97.5°	99.1	97.8	96.6	95.4	94.4	93.4	92.3	91.3	92.3	93.4	94.4
100°	136.2	135.2	134.1	133.0	131.7	130.5	129.2	128.0	129.2	130.5	131.7
102.5°	176.8	175.3	173.8	172.8	172.2	171.5	170.9	170.3	170.9	171.5	172.2
105°	218.3	216.4	214.5	213.4	212.9	212.5	212.1	211.7	212.1	212.5	212.9
107.5°	263.6	262.8	262.0	261.5	261.2	261.0	260.8	260.6	260.8	261.0	261.2
110°	308.7	308.3	307.9	307.5	307.0	306.6	306.2	305.8	306.2	306.6	307.0





TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	353.8	353.8	353.8	353.7	353.4	353.2	353.0	352.8	353.0	353.2	353.4
115°	401.6	402.1	402.5	402.4	401.7	401.1	400.5	399.9	400.5	401.1	401.7
117.5°	447.7	448.2	448.6	448.7	448.5	448.3	448.1	447.8	448.1	448.3	448.5
120°	495.1	496.1	497.2	497.1	495.8	494.6	493.3	492.1	493.3	494.6	495.8
122.5°	540.9	541.3	541.7	541.5	540.7	539.8	539.0	538.2	539.0	539.8	540.7
125°	587.0	587.4	587.8	587.7	587.1	586.5	585.8	585.2	585.8	586.5	587.1
127.5°	633.1	633.5	633.9	633.5	632.3	631.0	629.7	628.5	629.7	631.0	632.3
130°	677.7	678.4	679.0	678.5	676.8	675.1	673.4	671.8	673.4	675.1	676.8
132.5°	721.5	721.9	722.4	721.7	720.1	718.4	716.7	715.0	716.7	718.4	720.1
135°	764.4	764.6	764.8	764.3	763.0	761.8	760.5	759.3	760.5	761.8	763.0
137.5°	806.0	805.4	804.7	803.9	802.9	801.8	800.8	799.7	800.8	801.8	802.9
140°	847.3	847.1	846.9	846.2	845.2	844.2	843.1	842.1	843.1	844.2	845.2
142.5°	886.4	886.0	885.6	884.8	883.8	882.7	881.7	880.6	881.7	882.7	883.8
145°	924.5	923.9	923.3	922.8	922.4	921.9	921.5	921.1	921.5	921.9	922.4
147.5°	961.2	960.6	960.0	959.3	958.4	957.6	956.7	955.9	956.7	957.6	958.4
150°	995.5	995.1	994.7	994.3	993.9	993.4	993.0	992.6	993.0	993.4	993.9
152.5°	1026.1	1025.8	1025.6	1025.2	1024.6	1024.0	1023.3	1022.7	1023.3	1024.0	1024.6
155°	1055.2	1055.0	1054.8	1054.7	1054.7	1054.7	1054.7	1054.7	1054.7	1054.7	1054.7
157.5°	1081.6	1081.4	1081.1	1081.1	1081.4	1081.6	1081.8	1082.0	1081.8	1081.6	1081.4
160°	1105.5	1105.5	1105.5	1105.7	1106.1	1106.5	1107.0	1107.4	1107.0	1106.5	1106.1
162.5°	1127.7	1127.5	1127.2	1127.5	1128.1	1128.7	1129.3	1130.0	1129.3	1128.7	1128.1
165°	1146.0	1146.0	1146.0	1146.3	1146.9	1147.5	1148.2	1148.8	1148.2	1147.5	1146.9
167.5°	1161.5	1161.3	1161.1	1161.4	1162.3	1163.1	1163.9	1164.8	1163.9	1163.1	1162.3
170°	1174.2	1174.2	1174.2	1174.6	1175.4	1176.3	1177.1	1177.9	1177.1	1176.3	1175.4
172.5°	1184.5	1184.5	1184.5	1185.0	1185.8	1186.6	1187.5	1188.3	1187.5	1186.6	1185.8
175°	1191.1	1191.1	1191.1	1191.5	1192.4	1193.2	1194.0	1194.9	1194.0	1193.2	1192.4
177.5°	1194.9	1194.9	1194.9	1195.3	1196.1	1197.0	1197.8	1198.6	1197.8	1197.0	1196.1
180°	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7



TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

**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°	9.3	11.7	14.4	17.1	19.9	22.6	23.4	24.3	25.1	25.9	26.6
92.5°	33.2	34.5	35.8	37.0	38.3	39.5	40.1	40.8	41.4	42.0	42.1
95°	61.4	62.9	64.6	66.3	68.0	69.6	70.5	71.3	72.1	73.0	73.4
97.5°	95.4	96.6	97.8	99.1	100.4	101.6	102.7	103.7	104.7	105.8	106.2
100°	133.0	134.1	135.2	136.2	137.3	138.3	138.9	139.6	140.2	140.8	141.3
102.5°	172.8	173.8	175.3	176.8	178.2	179.7	180.3	181.0	181.6	182.2	182.4
105°	213.4	214.5	216.4	218.3	220.2	222.0	222.0	222.0	222.0	222.0	222.3
107.5°	261.5	262.0	262.8	263.6	264.5	265.3	265.9	266.6	267.2	267.8	268.0
110°	307.5	307.9	308.3	308.7	309.1	309.5	310.4	311.2	312.0	312.9	313.1



TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	353.7	353.8	353.8	353.8	353.8	353.8	354.8	355.9	356.9	357.9	358.5
115°	402.4	402.5	402.1	401.6	401.2	400.8	401.0	401.2	401.4	401.6	401.6
117.5°	448.7	448.6	448.2	447.7	447.3	446.9	446.9	446.9	446.9	446.9	446.6
120°	497.1	497.2	496.1	495.1	494.1	493.0	492.8	492.6	492.4	492.2	491.9
122.5°	541.5	541.7	541.3	540.9	540.5	540.0	539.4	538.8	538.2	537.5	536.9
125°	587.7	587.8	587.4	587.0	586.6	586.2	585.3	584.5	583.6	582.8	582.0
127.5°	633.5	633.9	633.5	633.1	632.7	632.3	631.0	629.7	628.5	627.2	626.2
130°	678.5	679.0	678.4	677.7	677.1	676.5	675.6	674.8	674.0	673.1	672.0
132.5°	721.7	722.4	721.9	721.5	721.1	720.7	719.6	718.6	717.6	716.5	715.5
135°	764.3	764.8	764.6	764.4	764.2	764.0	763.1	762.3	761.5	760.6	760.0
137.5°	803.9	804.7	805.4	806.0	806.6	807.3	806.2	805.2	804.1	803.1	802.2
140°	846.2	846.9	847.1	847.3	847.5	847.7	847.5	847.3	847.1	846.9	846.0
142.5°	884.8	885.6	886.0	886.4	886.8	887.2	887.0	886.8	886.6	886.4	885.8
145°	922.8	923.3	923.9	924.5	925.2	925.8	925.6	925.4	925.2	925.0	924.4
147.5°	959.3	960.0	960.6	961.2	961.9	962.5	962.5	962.5	962.5	962.5	961.9
150°	994.3	994.7	995.1	995.5	995.9	996.4	996.4	996.4	996.4	996.4	995.7
152.5°	1025.2	1025.6	1025.8	1026.1	1026.3	1026.5	1026.9	1027.3	1027.7	1028.1	1027.8
155°	1054.7	1054.8	1055.0	1055.2	1055.4	1055.6	1056.5	1057.3	1058.1	1059.0	1058.7
157.5°	1081.1	1081.1	1081.4	1081.6	1081.8	1082.0	1082.8	1083.7	1084.5	1085.3	1085.1
160°	1105.7	1105.5	1105.5	1105.5	1105.5	1105.5	1106.5	1107.6	1108.6	1109.7	1109.8
162.5°	1127.5	1127.2	1127.5	1127.7	1127.9	1128.1	1129.1	1130.2	1131.2	1132.3	1132.1
165°	1146.3	1146.0	1146.0	1146.0	1146.0	1146.0	1147.2	1148.5	1149.7	1151.0	1150.9
167.5°	1161.4	1161.1	1161.3	1161.5	1161.7	1162.0	1163.2	1164.5	1165.7	1167.0	1167.0
170°	1174.6	1174.2	1174.2	1174.2	1174.2	1174.2	1175.6	1177.1	1178.6	1180.0	1180.0
172.5°	1185.0	1184.5	1184.5	1184.5	1184.5	1184.5	1185.8	1187.0	1188.3	1189.6	1189.4
175°	1191.5	1191.1	1191.1	1191.1	1191.1	1191.1	1192.4	1193.6	1194.9	1196.1	1196.0
177.5°	1195.3	1194.9	1194.9	1194.9	1194.9	1194.9	1196.1	1197.4	1198.6	1199.9	1199.8
180°	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7	1197.7



TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

**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°	27.0	27.4	27.8	28.2
92.5°	41.7	41.3	40.9	40.5
95°	73.4	73.4	73.4	73.4
97.5°	106.0	105.8	105.6	105.4
100°	141.8	142.2	142.6	143.0
102.5°	182.2	182.0	181.8	181.6
105°	222.7	223.1	223.5	223.9
107.5°	267.8	267.6	267.4	267.2
110°	312.7	312.3	311.8	311.4



TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	358.5	358.5	358.5	358.5
115°	401.4	401.2	401.0	400.8
117.5°	446.0	445.3	444.7	444.1
120°	491.4	491.0	490.6	490.2
122.5°	536.3	535.7	535.0	534.4
125°	581.1	580.3	579.5	578.6
127.5°	625.4	624.5	623.7	622.8
130°	670.5	669.1	667.6	666.1
132.5°	714.4	713.4	712.3	711.3
135°	759.6	759.2	758.7	758.3
137.5°	801.6	801.0	800.4	799.7
140°	844.6	843.1	841.6	840.2
142.5°	884.7	883.7	882.6	881.6
145°	923.6	922.8	921.9	921.1
147.5°	960.6	959.4	958.1	956.8
150°	994.5	993.2	992.0	990.7
152.5°	1026.8	1025.7	1024.7	1023.6
155°	1057.2	1055.7	1054.3	1052.8
157.5°	1083.9	1082.6	1081.4	1080.1
160°	1109.0	1108.1	1107.3	1106.4
162.5°	1130.6	1129.1	1127.7	1126.2
165°	1149.4	1147.9	1146.5	1145.0
167.5°	1165.7	1164.5	1163.2	1162.0
170°	1178.6	1177.1	1175.6	1174.2
172.5°	1188.0	1186.5	1185.1	1183.6
175°	1194.6	1193.1	1191.6	1190.2
177.5°	1198.3	1196.9	1195.4	1193.9
180°	1197.7	1197.7	1197.7	1197.7



TEST NUMBER: P831766

CATALOG NUMBER: S123RDIP-S1000D1025U830-4F0-1E-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	13.34	14.19	14.27	15.13	16.33	18.01	18.86	18.93	19.79	20.99
	3H	14.57	15.32	15.50	16.27	17.49	19.51	20.27	20.45	21.21	22.44
	4H	14.95	15.66	15.90	16.61	17.85	20.00	20.71	20.95	21.66	22.90
	6H	15.23	15.89	16.19	16.84	18.09	20.31	20.97	21.27	21.92	23.17
	8H	15.32	15.94	16.29	16.92	18.16	20.39	21.02	21.36	21.99	23.23
	12H	15.37	15.97	16.35	16.93	18.20	20.42	21.02	21.40	21.98	23.25
4H	2H	14.07	14.78	15.03	15.73	16.97	18.01	18.72	18.96	19.67	20.91
	3H	15.44	16.03	16.41	17.01	18.26	19.67	20.26	20.63	21.24	22.49
	4H	15.90	16.44	16.87	17.41	18.68	20.27	20.81	21.25	21.79	23.06
	6H	16.27	16.73	17.25	17.73	19.00	20.71	21.18	21.70	22.17	23.45
	8H	16.39	16.82	17.38	17.81	19.10	20.84	21.28	21.83	22.27	23.55
	12H	16.47	16.86	17.47	17.86	19.16	20.91	21.30	21.91	22.30	23.59
8H	4H	16.21	16.65	17.20	17.63	18.92	20.24	20.68	21.23	21.66	22.95
	6H	16.68	17.03	17.69	18.07	19.35	20.74	21.10	21.75	22.13	23.41
	8H	16.87	17.18	17.89	18.20	19.51	20.92	21.24	21.95	22.26	23.56
	12H	17.01	17.29	18.03	18.30	19.65	21.04	21.32	22.06	22.33	23.68
12H	4H	16.22	16.61	17.23	17.62	18.91	20.19	20.58	21.20	21.59	22.88
	6H	16.74	17.05	17.76	18.07	19.37	20.71	21.03	21.73	22.05	23.35
	8H	16.95	17.23	17.98	18.24	19.59	20.91	21.18	21.93	22.20	23.55