

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: P831835

Luminaire Tested: S123RDIP-S1000D365U930-4F0-1E-UDD-G1

Issue Date: 05/03/2024

**Test Information**

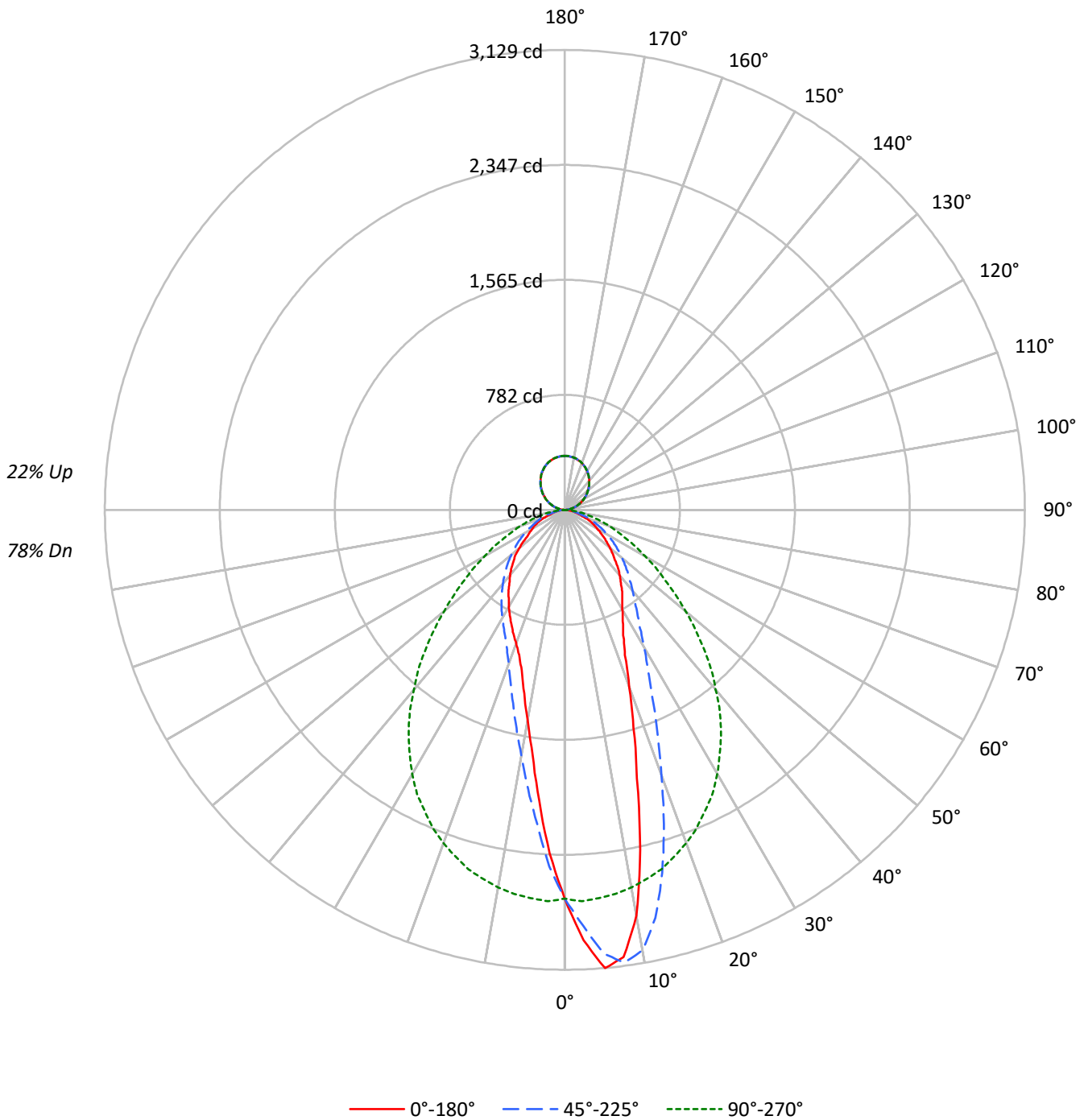
Test Method: LM-79-2019  
Report Number: P831835  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S1000D365U930-4F0-1E-UDD-G1  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1000 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 365 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4524.8 lumens  
Efficiency: N/A  
Efficacy: 100.3 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: Semi-Direct  
  
Input Watts (W): 45.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20					20					20					20				
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	114	114	114	114	108	108	108	108	99	99	99	90	90	90	81	81	81	78		
1	105	101	98	94	100	97	94	91	88	86	84	81	79	77	74	73	71	68		
2	97	90	84	79	92	86	81	77	79	75	72	73	69	67	67	64	62	59		
3	89	80	73	68	85	77	71	66	71	66	62	66	62	58	60	57	54	52		
4	83	72	65	59	79	70	63	57	64	59	54	60	55	51	55	51	48	46		
5	77	65	58	52	73	63	56	51	59	53	48	54	49	46	50	46	43	41		
6	71	60	52	46	68	58	50	45	54	48	43	50	45	41	46	42	39	37		
7	67	55	47	42	64	53	46	41	49	43	39	46	41	37	43	39	35	33		
8	62	50	43	38	60	49	42	37	46	40	35	43	38	34	40	36	32	30		
9	59	47	39	34	56	45	38	34	42	37	32	40	35	31	37	33	30	28		
10	55	43	36	32	53	42	35	31	40	34	30	37	32	29	35	31	28	26		

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

	0°	45°	90°	135°	180°
0°	28478	28478	28478	28478	28478
5°	33813	32736	28657	23166	21507
10°	30636	33250	28514	18560	15923
15°	21094	28509	28213	15170	12596
20°	14675	21950	27646	12791	11071
25°	11182	16728	26822	11370	10203
30°	9734	13375	25792	10556	9451
35°	8937	11282	24331	9871	8766
40°	8154	10075	22420	9198	8139
45°	7365	9214	20360	8561	7514
50°	6685	8502	17928	7937	6738
55°	6047	7807	15593	7328	5782
60°	5419	7100	13543	6654	5464
65°	5000	6299	11660	5980	5165
70°	4063	5445	10172	5410	4198
75°	3564	4329	8617	4487	3697
80°	3230	3663	7060	3763	3496
85°	2952	3211	5360	3421	3211

**MAXIMUM LUMINANCE 45°-90°:**

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



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	241.1	5.3
10°-20°	558.0	12.3
20°-30°	640.2	14.1
30°-40°	631.1	13.9
40°-50°	556.5	12.3
50°-60°	428.1	9.5
60°-70°	281.5	6.2
70°-80°	136.7	3.0
80°-90°	35.2	0.8
90°-100°	23.6	0.5
100°-110°	71.5	1.6
110°-120°	121.7	2.7
120°-130°	160.0	3.5
130°-140°	179.9	4.0
140°-150°	176.9	3.9
150°-160°	148.9	3.3
160°-170°	99.1	2.2
170°-180°	34.7	0.8
0°-30°	1439.4	31.8
0°-40°	2070.5	45.8
0°-60°	3055.1	67.5
0°-90°	3508.5	77.5
90°-120°	216.7	4.8
90°-150°	733.5	16.2
90°-180°	1016.0	22.5
0°-180°	4524.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2646	2646	2646	2646	2646	
5°	3129	3030	2652	2144	1990	286
15°	1893	2558	2532	1361	1130	534
25°	942	1408	2258	957	859	445
35°	680	859	1852	751	667	424
45°	484	605	1338	562	494	376
55°	322	416	831	390	308	289
65°	196	247	458	235	203	192
75°	86	104	207	108	89	92
85°	24	26	43	28	26	25
90°	9	7	0	7	9	6
95°	22	21	17	21	22	23
105°	69	68	65	68	69	73
115°	123	123	122	123	123	122
125°	177	180	179	180	177	158
135°	232	234	232	234	232	179
145°	282	284	282	284	282	176
155°	322	323	323	323	322	149
165°	351	351	352	351	351	99
175°	364	365	366	365	364	35
180°	367	367	367	367	367	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7
2.5°	2932.0	2922.8	2913.6	2910.9	2908.2	2899.5	2890.8	2871.3	2851.8	2831.7	2811.6
5°	3129.4	3130.5	3131.6	3128.9	3126.2	3114.8	3103.4	3079.6	3055.7	3029.7	3003.6
7.5°	3068.7	3086.1	3103.4	3106.7	3109.9	3118.6	3127.3	3121.9	3116.4	3106.7	3096.9
10°	2802.9	2801.9	2800.8	2820.3	2839.8	2897.9	2955.9	2985.7	3015.6	3042.1	3068.7
12.5°	2369.1	2370.7	2372.3	2436.3	2500.3	2555.1	2609.9	2685.8	2761.7	2843.6	2925.5
15°	1892.9	1919.4	1946.0	2003.0	2059.9	2142.3	2224.8	2326.7	2428.7	2558.3	2688.0
17.5°	1554.4	1565.8	1577.2	1632.0	1686.8	1764.9	1843.0	1958.5	2074.0	2241.1	2408.1
20°	1281.1	1291.4	1301.7	1341.3	1380.9	1455.7	1530.6	1640.7	1750.8	1916.2	2081.6
22.5°	1069.5	1089.6	1109.7	1136.3	1162.8	1217.1	1271.3	1383.6	1495.8	1646.6	1797.4
25°	941.5	950.8	960.0	982.8	1005.5	1057.6	1109.7	1184.0	1258.3	1408.5	1558.8
27.5°	854.8	857.5	860.2	877.0	893.8	927.4	961.1	1030.0	1098.8	1222.5	1346.2
30°	783.2	788.1	792.9	806.0	819.0	843.4	867.8	916.6	965.4	1076.1	1186.7
32.5°	727.9	730.6	733.3	744.1	755.0	772.9	790.8	829.3	867.8	952.4	1037.0
35°	680.1	680.7	681.2	689.3	697.5	714.8	732.2	764.2	796.2	858.6	920.9
37.5°	625.9	629.7	633.5	639.4	645.4	660.6	675.8	701.8	727.9	779.4	830.9
40°	580.3	583.6	586.8	593.9	600.9	612.9	624.8	648.7	672.5	717.0	761.5
42.5°	534.8	536.9	539.1	546.2	553.2	567.9	582.5	601.5	620.5	657.3	694.2
45°	483.8	489.2	494.6	502.2	509.8	522.3	534.8	554.3	573.8	605.3	636.7
47.5°	441.5	444.2	446.9	453.4	459.9	475.1	490.3	507.7	525.0	554.3	583.6
50°	399.2	400.3	401.4	407.3	413.3	426.8	440.4	460.5	480.5	507.7	534.8
52.5°	359.0	361.8	364.5	370.4	376.4	385.6	394.8	415.5	436.1	462.6	489.2
55°	322.2	323.8	325.4	329.8	334.1	344.9	355.8	373.7	391.6	416.0	440.4
57.5°	287.5	289.6	291.8	295.0	298.3	308.1	317.8	333.6	349.3	373.7	398.1
60°	251.7	254.4	257.1	260.9	264.7	272.3	279.9	294.0	308.1	329.8	351.5
62.5°	225.6	226.2	226.7	230.0	233.2	238.6	244.1	255.5	266.8	288.5	310.2
65°	196.3	198.0	199.6	201.2	202.8	207.2	211.5	221.3	231.0	247.3	263.6
67.5°	166.0	167.6	169.2	171.9	174.6	178.4	182.2	188.7	195.3	210.4	225.6
70°	129.1	129.1	129.1	133.4	137.8	144.3	150.8	155.7	160.5	173.0	185.5
72.5°	105.2	105.8	106.3	106.8	107.4	111.2	115.0	123.1	131.3	138.8	146.4
75°	85.7	86.2	86.8	87.3	87.9	88.9	90.0	92.7	95.5	104.1	112.8
77.5°	68.3	68.9	69.4	70.0	70.5	71.6	72.7	73.8	74.8	78.1	81.4
80°	52.1	52.6	53.2	53.7	54.2	54.8	55.3	56.4	57.5	59.1	60.7
82.5°	38.0	38.0	38.0	38.0	38.0	39.1	40.1	40.1	40.1	41.2	42.3
85°	23.9	23.9	23.9	24.4	24.9	24.9	24.9	25.5	26.0	26.0	26.0
87.5°	10.8	10.3	9.8	10.3	10.8	10.8	10.8	11.4	11.9	11.9	11.9
90°	8.6	8.5	8.4	8.3	8.1	7.9	7.7	7.4	7.2	6.9	6.1
92.5°	12.4	12.5	12.6	12.8	12.9	12.9	12.7	12.5	12.3	12.1	11.7
95°	22.5	22.5	22.5	22.5	22.5	22.3	22.1	21.8	21.6	21.3	20.8
97.5°	32.3	32.3	32.4	32.5	32.5	32.4	32.1	31.8	31.4	31.1	30.7
100°	43.8	43.7	43.5	43.4	43.3	43.1	42.9	42.7	42.5	42.4	42.0
102.5°	55.6	55.7	55.7	55.8	55.9	55.8	55.6	55.4	55.2	55.0	54.6
105°	68.6	68.4	68.3	68.2	68.1	68.0	68.0	68.0	68.0	68.0	67.4
107.5°	81.8	81.9	82.0	82.0	82.1	82.0	81.8	81.6	81.4	81.2	81.0
110°	95.4	95.5	95.6	95.8	95.9	95.8	95.6	95.3	95.0	94.8	94.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	109.8	109.8	109.8	109.8	109.8	109.6	109.3	109.0	108.7	108.3	108.3
115°	122.7	122.8	122.9	122.9	123.0	123.0	122.9	122.9	122.8	122.7	122.9
117.5°	136.0	136.2	136.4	136.6	136.8	136.9	136.9	136.9	136.9	136.9	137.0
120°	150.1	150.2	150.4	150.5	150.6	150.7	150.8	150.8	150.9	151.0	151.3
122.5°	163.7	163.8	164.0	164.2	164.4	164.6	164.8	165.0	165.2	165.4	165.5
125°	177.2	177.4	177.7	178.0	178.2	178.5	178.7	179.0	179.2	179.5	179.6
127.5°	190.7	191.0	191.2	191.5	191.8	192.1	192.5	192.8	193.2	193.6	193.7
130°	204.0	204.4	204.9	205.3	205.8	206.1	206.4	206.6	206.9	207.2	207.3
132.5°	217.8	218.1	218.5	218.8	219.1	219.4	219.7	220.1	220.4	220.7	220.8
135°	232.2	232.4	232.5	232.6	232.7	232.9	233.2	233.4	233.7	234.0	234.0
137.5°	244.9	245.1	245.3	245.5	245.7	245.9	246.2	246.6	246.9	247.2	247.0
140°	257.3	257.7	258.2	258.6	259.1	259.3	259.4	259.5	259.5	259.6	259.5
142.5°	270.0	270.3	270.6	270.9	271.2	271.4	271.5	271.6	271.6	271.7	271.6
145°	282.1	282.3	282.6	282.8	283.1	283.3	283.3	283.4	283.4	283.5	283.3
147.5°	293.0	293.4	293.8	294.2	294.6	294.7	294.7	294.7	294.7	294.7	294.6
150°	303.4	303.8	304.2	304.5	304.9	305.1	305.1	305.1	305.1	305.1	305.0
152.5°	313.5	313.8	314.1	314.4	314.8	314.9	314.7	314.6	314.5	314.3	314.3
155°	322.4	322.9	323.3	323.7	324.2	324.3	324.0	323.8	323.5	323.3	323.2
157.5°	330.8	331.1	331.5	331.9	332.3	332.4	332.1	331.8	331.6	331.3	331.3
160°	338.8	339.1	339.3	339.6	339.9	339.8	339.5	339.2	338.9	338.5	338.5
162.5°	344.9	345.3	345.8	346.2	346.7	346.7	346.4	346.1	345.8	345.5	345.4
165°	350.6	351.1	351.5	352.0	352.4	352.5	352.1	351.7	351.3	350.9	350.9
167.5°	355.8	356.2	356.6	357.0	357.4	357.4	357.0	356.6	356.2	355.8	355.8
170°	359.6	360.0	360.5	360.9	361.4	361.4	360.9	360.5	360.0	359.6	359.6
172.5°	362.5	362.9	363.4	363.8	364.2	364.3	363.9	363.5	363.1	362.7	362.7
175°	364.5	364.9	365.4	365.8	366.3	366.3	365.9	365.5	365.1	364.8	364.8
177.5°	365.6	366.1	366.5	367.0	367.4	367.4	367.1	366.7	366.3	365.9	365.9
180°	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7
2.5°	2808.9	2806.2	2780.2	2754.1	2728.6	2703.2	2684.2	2665.2	2633.2	2601.2	2581.1
5°	2983.0	2962.4	2921.2	2880.0	2818.1	2756.3	2704.2	2652.2	2586.0	2519.8	2464.5
7.5°	3080.1	3063.3	3013.4	2963.5	2881.6	2799.7	2718.3	2637.0	2539.4	2441.7	2358.2
10°	3082.8	3096.9	3055.7	3014.5	2922.3	2830.1	2719.4	2608.8	2477.5	2346.3	2238.3
12.5°	2986.3	3047.0	3038.3	3029.7	2935.8	2842.0	2707.5	2573.0	2411.9	2250.8	2115.8
15°	2805.7	2923.4	2958.1	2992.8	2915.2	2837.7	2684.7	2531.8	2342.5	2153.2	1998.1
17.5°	2573.0	2737.9	2829.5	2921.2	2864.8	2808.4	2640.8	2473.2	2260.0	2046.9	1878.2
20°	2297.5	2513.3	2657.0	2800.8	2780.2	2759.6	2586.5	2413.5	2183.6	1953.6	1770.8
22.5°	2025.2	2253.0	2451.5	2650.0	2671.2	2692.3	2517.7	2343.0	2091.4	1839.7	1653.7
25°	1790.3	2021.9	2258.4	2494.9	2542.6	2590.3	2424.4	2258.4	1997.5	1736.7	1551.7
27.5°	1566.4	1786.6	2046.9	2307.2	2394.0	2480.8	2328.9	2177.1	1905.3	1633.6	1449.2
30°	1383.6	1580.5	1846.2	2112.0	2232.9	2353.9	2214.5	2075.1	1805.5	1536.0	1355.4
32.5°	1213.3	1389.5	1656.4	1923.2	2063.7	2204.2	2083.8	1963.4	1704.1	1444.9	1266.4
35°	1078.8	1236.6	1485.5	1734.5	1891.8	2049.1	1950.3	1851.6	1598.4	1345.1	1176.4
37.5°	963.2	1095.6	1329.3	1563.1	1730.1	1897.2	1814.8	1732.3	1494.2	1256.1	1096.7
40°	867.8	974.1	1191.6	1409.1	1572.9	1736.7	1666.1	1595.6	1382.5	1169.3	1020.2
42.5°	785.9	877.5	1072.8	1268.1	1418.3	1568.5	1521.9	1475.2	1282.2	1089.1	950.8
45°	713.8	790.8	962.7	1134.6	1272.9	1411.2	1374.4	1337.5	1171.0	1004.5	877.5
47.5°	649.8	715.9	869.4	1022.9	1147.1	1271.3	1237.1	1203.0	1065.2	927.4	811.9
50°	591.2	647.6	775.6	903.6	1015.3	1127.0	1098.8	1070.6	956.7	842.8	743.0
52.5°	535.9	582.5	697.5	812.5	902.5	992.5	970.8	949.1	861.3	773.4	682.8
55°	483.2	526.1	623.2	720.3	797.3	874.3	852.6	830.9	762.6	694.2	614.5
57.5°	435.5	472.9	551.6	630.2	691.5	752.8	742.5	732.2	675.2	618.3	552.7
60°	385.1	418.7	486.5	554.3	603.7	653.0	641.1	629.1	588.5	547.8	491.4
62.5°	340.1	369.9	424.1	478.4	518.5	558.6	550.0	541.3	510.4	479.5	432.8
65°	292.9	322.2	366.1	410.0	441.5	472.9	465.3	457.8	434.4	411.1	373.7
67.5°	250.0	274.4	312.4	350.4	371.5	392.7	388.3	384.0	366.1	348.2	318.9
70°	206.6	227.8	259.3	290.7	305.4	320.0	321.6	323.2	307.0	290.7	269.0
72.5°	163.3	180.1	209.4	238.6	250.0	261.4	260.9	260.3	250.6	240.8	221.3
75°	125.3	137.8	160.5	183.3	193.1	202.8	205.0	207.2	198.0	188.7	177.9
77.5°	90.0	98.7	116.1	133.4	144.3	155.1	156.2	157.3	152.9	148.6	138.3
80°	63.5	66.2	77.0	87.9	99.3	110.6	112.3	113.9	109.6	105.2	98.7
82.5°	43.9	45.6	49.4	53.2	62.4	71.6	73.8	75.9	73.8	71.6	64.5
85°	26.6	27.1	28.7	30.4	34.7	39.1	41.2	43.4	42.3	41.2	37.4
87.5°	11.9	11.9	12.5	13.0	14.1	15.2	17.9	20.6	19.0	17.4	15.7
90°	5.3	4.4	3.6	2.8	2.2	1.6	0.9	0.3	0.9	1.6	2.2
92.5°	11.3	10.9	10.6	10.2	9.8	9.4	9.0	8.6	9.0	9.4	9.8
95°	20.3	19.8	19.3	18.8	18.3	17.9	17.4	17.0	17.4	17.9	18.3
97.5°	30.3	30.0	29.6	29.2	28.9	28.6	28.3	27.9	28.3	28.6	28.9
100°	41.7	41.4	41.1	40.7	40.3	40.0	39.6	39.2	39.6	40.0	40.3
102.5°	54.1	53.7	53.2	52.9	52.7	52.5	52.3	52.1	52.3	52.5	52.7
105°	66.8	66.3	65.7	65.3	65.2	65.1	65.0	64.8	65.0	65.1	65.2
107.5°	80.7	80.5	80.2	80.1	80.0	79.9	79.9	79.8	79.9	79.9	80.0
110°	94.5	94.4	94.3	94.2	94.0	93.9	93.8	93.6	93.8	93.9	94.0





TEST NUMBER: P831835

CATALOG NUMBER: S123RDIP-S1000D365U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	108.3	108.3	108.3	108.3	108.2	108.2	108.1	108.0	108.1	108.2	108.2
115°	123.0	123.1	123.3	123.2	123.0	122.8	122.6	122.5	122.6	122.8	123.0
117.5°	137.1	137.2	137.4	137.4	137.3	137.3	137.2	137.1	137.2	137.3	137.3
120°	151.6	151.9	152.3	152.2	151.8	151.5	151.1	150.7	151.1	151.5	151.8
122.5°	165.6	165.8	165.9	165.8	165.6	165.3	165.1	164.8	165.1	165.3	165.6
125°	179.8	179.9	180.0	180.0	179.8	179.6	179.4	179.2	179.4	179.6	179.8
127.5°	193.9	194.0	194.1	194.0	193.6	193.2	192.8	192.5	192.8	193.2	193.6
130°	207.5	207.7	207.9	207.8	207.3	206.7	206.2	205.7	206.2	206.7	207.3
132.5°	221.0	221.1	221.2	221.0	220.5	220.0	219.5	219.0	219.5	220.0	220.5
135°	234.1	234.1	234.2	234.0	233.7	233.3	232.9	232.5	232.9	233.3	233.7
137.5°	246.8	246.6	246.4	246.2	245.9	245.5	245.2	244.9	245.2	245.5	245.9
140°	259.5	259.4	259.3	259.1	258.8	258.5	258.2	257.9	258.2	258.5	258.8
142.5°	271.4	271.3	271.2	271.0	270.6	270.3	270.0	269.7	270.0	270.3	270.6
145°	283.1	282.9	282.7	282.6	282.5	282.3	282.2	282.1	282.2	282.3	282.5
147.5°	294.4	294.2	294.0	293.8	293.5	293.2	293.0	292.7	293.0	293.2	293.5
150°	304.9	304.7	304.6	304.5	304.3	304.2	304.1	304.0	304.1	304.2	304.3
152.5°	314.2	314.1	314.1	314.0	313.8	313.6	313.4	313.2	313.4	313.6	313.8
155°	323.1	323.1	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0	323.0
157.5°	331.2	331.1	331.1	331.1	331.1	331.2	331.3	331.3	331.3	331.2	331.1
160°	338.5	338.5	338.5	338.6	338.7	338.9	339.0	339.1	339.0	338.9	338.7
162.5°	345.3	345.3	345.2	345.3	345.5	345.6	345.8	346.0	345.8	345.6	345.5
165°	350.9	350.9	350.9	351.0	351.2	351.4	351.6	351.8	351.6	351.4	351.2
167.5°	355.7	355.6	355.6	355.7	355.9	356.2	356.4	356.7	356.4	356.2	355.9
170°	359.6	359.6	359.6	359.7	360.0	360.2	360.5	360.7	360.5	360.2	360.0
172.5°	362.7	362.7	362.7	362.9	363.1	363.4	363.6	363.9	363.6	363.4	363.1
175°	364.8	364.8	364.8	364.9	365.1	365.4	365.7	365.9	365.7	365.4	365.1
177.5°	365.9	365.9	365.9	366.0	366.3	366.6	366.8	367.1	366.8	366.6	366.3
180°	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8



TEST NUMBER: P831835

CATALOG NUMBER: S123RDIP-S1000D365U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7	2645.7
2.5°	2561.1	2530.1	2499.2	2477.0	2454.7	2427.1	2399.4	2398.3	2397.3	2376.6	2356.0
5°	2409.2	2355.5	2301.8	2249.2	2196.6	2144.0	2091.4	2079.4	2067.5	2049.6	2031.7
7.5°	2274.7	2189.0	2103.3	2036.0	1968.8	1916.2	1863.6	1827.8	1792.0	1764.3	1736.7
10°	2130.4	2024.1	1917.8	1836.5	1755.1	1698.1	1641.2	1600.0	1558.8	1539.2	1519.7
12.5°	1980.7	1865.2	1749.7	1669.9	1590.2	1521.9	1453.5	1416.1	1378.7	1351.6	1324.5
15°	1843.0	1718.8	1594.6	1509.9	1425.3	1361.3	1297.3	1259.9	1222.5	1195.4	1168.3
17.5°	1709.5	1584.3	1459.0	1373.3	1287.6	1229.5	1171.5	1135.2	1098.8	1082.0	1065.2
20°	1588.0	1461.7	1335.3	1254.5	1173.7	1116.7	1059.8	1040.3	1020.7	1005.0	989.3
22.5°	1467.6	1346.2	1224.7	1147.1	1069.5	1028.3	987.1	971.4	955.6	943.7	931.8
25°	1366.8	1245.8	1124.9	1057.1	989.3	957.3	925.3	915.0	904.7	892.7	880.8
27.5°	1264.8	1149.8	1034.8	980.6	926.4	900.3	874.3	861.3	848.3	838.5	828.7
30°	1174.8	1068.5	962.2	917.1	872.1	849.3	826.6	812.5	798.4	789.1	779.9
32.5°	1088.0	993.6	899.2	860.7	822.2	800.0	777.8	764.2	750.6	739.8	728.9
35°	1007.7	925.8	843.9	808.7	773.4	751.2	728.9	715.4	701.8	691.0	680.1
37.5°	937.2	862.9	788.6	755.5	722.4	702.9	683.4	669.3	655.2	643.8	632.4
40°	871.0	805.4	739.8	707.8	675.8	654.6	633.5	621.0	608.5	598.2	587.9
42.5°	812.5	752.3	692.1	660.6	629.1	609.1	589.0	574.4	559.7	553.8	547.8
45°	750.6	697.5	644.3	614.0	583.6	562.4	541.3	528.8	516.3	510.9	505.5
47.5°	696.4	647.0	597.7	567.9	538.0	519.0	500.1	490.3	480.5	472.9	465.3
50°	643.2	595.5	547.8	519.0	490.3	474.0	457.8	445.8	433.9	428.5	423.0
52.5°	592.3	548.9	505.5	476.2	446.9	431.2	415.5	405.1	394.8	383.5	372.1
55°	534.8	496.8	458.8	432.8	406.8	390.5	374.2	362.3	350.4	338.4	326.5
57.5°	487.0	449.6	412.2	388.9	365.6	349.8	334.1	321.1	308.1	298.3	288.5
60°	435.0	402.4	369.9	347.1	324.3	309.1	294.0	281.5	269.0	264.1	259.3
62.5°	386.2	355.8	325.4	305.4	285.3	270.6	256.0	247.9	239.7	236.5	233.2
65°	336.3	310.2	284.2	265.8	247.3	234.8	222.4	218.6	214.8	212.1	209.4
67.5°	289.6	267.4	245.1	228.9	212.6	203.9	195.3	190.9	186.6	183.3	180.1
70°	247.3	227.8	208.3	194.2	180.1	171.9	163.8	160.0	156.2	150.2	144.3
72.5°	201.8	186.6	171.4	160.5	149.7	142.6	135.6	128.0	120.4	115.0	109.6
75°	167.0	151.9	136.7	126.4	116.1	107.9	99.8	97.1	94.4	92.7	91.1
77.5°	128.0	115.0	102.0	93.8	85.7	81.9	78.1	76.5	74.8	74.3	73.8
80°	92.2	81.4	70.5	66.2	61.8	60.7	59.7	58.6	57.5	56.9	56.4
82.5°	57.5	52.1	46.6	45.6	44.5	43.9	43.4	42.8	42.3	41.8	41.2
85°	33.6	31.5	29.3	28.7	28.2	27.7	27.1	27.1	27.1	27.1	27.1
87.5°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	14.1	13.6	13.0
90°	2.8	3.6	4.4	5.3	6.1	6.9	7.2	7.4	7.7	7.9	8.1
92.5°	10.2	10.6	10.9	11.3	11.7	12.1	12.3	12.5	12.7	12.9	12.9
95°	18.8	19.3	19.8	20.3	20.8	21.3	21.6	21.8	22.1	22.3	22.5
97.5°	29.2	29.6	30.0	30.3	30.7	31.1	31.4	31.8	32.1	32.4	32.5
100°	40.7	41.1	41.4	41.7	42.0	42.4	42.5	42.7	42.9	43.1	43.3
102.5°	52.9	53.2	53.7	54.1	54.6	55.0	55.2	55.4	55.6	55.8	55.9
105°	65.3	65.7	66.3	66.8	67.4	68.0	68.0	68.0	68.0	68.0	68.1
107.5°	80.1	80.2	80.5	80.7	81.0	81.2	81.4	81.6	81.8	82.0	82.1
110°	94.2	94.3	94.4	94.5	94.7	94.8	95.0	95.3	95.6	95.8	95.9



TEST NUMBER: P831835

CATALOG NUMBER: S123RDIP-S1000D365U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	108.3	108.3	108.3	108.3	108.3	108.3	108.7	109.0	109.3	109.6	109.8
115°	123.2	123.3	123.1	123.0	122.9	122.7	122.8	122.9	122.9	123.0	123.0
117.5°	137.4	137.4	137.2	137.1	137.0	136.9	136.9	136.9	136.9	136.9	136.8
120°	152.2	152.3	151.9	151.6	151.3	151.0	150.9	150.8	150.8	150.7	150.6
122.5°	165.8	165.9	165.8	165.6	165.5	165.4	165.2	165.0	164.8	164.6	164.4
125°	180.0	180.0	179.9	179.8	179.6	179.5	179.2	179.0	178.7	178.5	178.2
127.5°	194.0	194.1	194.0	193.9	193.7	193.6	193.2	192.8	192.5	192.1	191.8
130°	207.8	207.9	207.7	207.5	207.3	207.2	206.9	206.6	206.4	206.1	205.8
132.5°	221.0	221.2	221.1	221.0	220.8	220.7	220.4	220.1	219.7	219.4	219.1
135°	234.0	234.2	234.1	234.1	234.0	234.0	233.7	233.4	233.2	232.9	232.7
137.5°	246.2	246.4	246.6	246.8	247.0	247.2	246.9	246.6	246.2	245.9	245.7
140°	259.1	259.3	259.4	259.5	259.5	259.6	259.5	259.5	259.4	259.3	259.1
142.5°	271.0	271.2	271.3	271.4	271.6	271.7	271.6	271.6	271.5	271.4	271.2
145°	282.6	282.7	282.9	283.1	283.3	283.5	283.4	283.4	283.3	283.3	283.1
147.5°	293.8	294.0	294.2	294.4	294.6	294.7	294.7	294.7	294.7	294.7	294.6
150°	304.5	304.6	304.7	304.9	305.0	305.1	305.1	305.1	305.1	305.1	304.9
152.5°	314.0	314.1	314.1	314.2	314.3	314.3	314.5	314.6	314.7	314.9	314.8
155°	323.0	323.0	323.1	323.1	323.2	323.3	323.5	323.8	324.0	324.3	324.2
157.5°	331.1	331.1	331.1	331.2	331.3	331.3	331.6	331.8	332.1	332.4	332.3
160°	338.6	338.5	338.5	338.5	338.5	338.5	338.9	339.2	339.5	339.8	339.9
162.5°	345.3	345.2	345.3	345.3	345.4	345.5	345.8	346.1	346.4	346.7	346.7
165°	351.0	350.9	350.9	350.9	350.9	350.9	351.3	351.7	352.1	352.5	352.4
167.5°	355.7	355.6	355.6	355.7	355.8	355.8	356.2	356.6	357.0	357.4	357.4
170°	359.7	359.6	359.6	359.6	359.6	359.6	360.0	360.5	360.9	361.4	361.4
172.5°	362.9	362.7	362.7	362.7	362.7	362.7	363.1	363.5	363.9	364.3	364.2
175°	364.9	364.8	364.8	364.8	364.8	364.8	365.1	365.5	365.9	366.3	366.3
177.5°	366.0	365.9	365.9	365.9	365.9	365.9	366.3	366.7	367.1	367.4	367.4
180°	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8	366.8



TEST NUMBER: P831835

CATALOG NUMBER: S123RDIP-S1000D365U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2645.7	2645.7	2645.7	2645.7
2.5°	2350.6	2345.2	2343.0	2340.9
5°	2014.9	1998.1	1994.3	1990.5
7.5°	1729.6	1722.6	1699.2	1675.9
10°	1498.0	1476.3	1466.6	1456.8
12.5°	1304.4	1284.3	1281.1	1277.8
15°	1154.2	1140.1	1135.2	1130.3
17.5°	1055.4	1045.7	1039.7	1033.7
20°	982.2	975.2	970.8	966.5
22.5°	926.4	920.9	917.7	914.4
25°	872.7	864.5	861.8	859.1
27.5°	821.7	814.6	811.9	809.2
30°	774.0	768.0	764.2	760.4
32.5°	721.9	714.8	712.7	710.5
35°	675.8	671.4	669.3	667.1
37.5°	627.0	621.6	618.3	615.0
40°	585.2	582.5	580.9	579.2
42.5°	542.9	538.0	537.5	536.9
45°	500.6	495.7	494.6	493.6
47.5°	461.0	456.7	456.1	455.6
50°	417.1	411.1	406.8	402.4
52.5°	366.6	361.2	357.4	353.6
55°	320.5	314.6	311.3	308.1
57.5°	285.8	283.1	281.5	279.9
60°	257.6	256.0	254.9	253.8
62.5°	231.6	230.0	230.0	230.0
65°	207.7	206.1	204.5	202.8
67.5°	176.8	173.6	173.0	172.5
70°	139.4	134.5	134.0	133.4
72.5°	109.0	108.5	107.4	106.3
75°	90.0	88.9	88.9	88.9
77.5°	72.7	71.6	71.6	71.6
80°	55.9	55.3	55.9	56.4
82.5°	41.2	41.2	40.7	40.1
85°	26.6	26.0	26.0	26.0
87.5°	13.0	13.0	13.0	13.0
90°	8.3	8.4	8.5	8.6
92.5°	12.8	12.6	12.5	12.4
95°	22.5	22.5	22.5	22.5
97.5°	32.5	32.4	32.3	32.3
100°	43.4	43.5	43.7	43.8
102.5°	55.8	55.7	55.7	55.6
105°	68.2	68.3	68.4	68.6
107.5°	82.0	82.0	81.9	81.8
110°	95.8	95.6	95.5	95.4



TEST NUMBER: P831835

CATALOG NUMBER: S123RDIP-S1000D365U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	109.8	109.8	109.8	109.8
115°	122.9	122.9	122.8	122.7
117.5°	136.6	136.4	136.2	136.0
120°	150.5	150.4	150.2	150.1
122.5°	164.2	164.0	163.8	163.7
125°	178.0	177.7	177.4	177.2
127.5°	191.5	191.2	191.0	190.7
130°	205.3	204.9	204.4	204.0
132.5°	218.8	218.5	218.1	217.8
135°	232.6	232.5	232.4	232.2
137.5°	245.5	245.3	245.1	244.9
140°	258.6	258.2	257.7	257.3
142.5°	270.9	270.6	270.3	270.0
145°	282.8	282.6	282.3	282.1
147.5°	294.2	293.8	293.4	293.0
150°	304.5	304.2	303.8	303.4
152.5°	314.4	314.1	313.8	313.5
155°	323.7	323.3	322.9	322.4
157.5°	331.9	331.5	331.1	330.8
160°	339.6	339.3	339.1	338.8
162.5°	346.2	345.8	345.3	344.9
165°	352.0	351.5	351.1	350.6
167.5°	357.0	356.6	356.2	355.8
170°	360.9	360.5	360.0	359.6
172.5°	363.8	363.4	362.9	362.5
175°	365.8	365.4	364.9	364.5
177.5°	367.0	366.5	366.1	365.6
180°	366.8	366.8	366.8	366.8



TEST NUMBER: P831835

CATALOG NUMBER: S123RDIP-S1000D365U930-4F0-1E-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	14.68	15.75	15.37	16.45	17.27	19.34	20.42	20.03	21.12	21.93
	3H	15.91	16.88	16.62	17.59	18.44	20.86	21.82	21.56	22.53	23.38
	4H	16.31	17.21	17.03	17.93	18.80	21.36	22.26	22.08	22.98	23.85
	6H	16.60	17.43	17.34	18.16	19.04	21.68	22.51	22.42	23.25	24.12
	8H	16.69	17.49	17.44	18.24	19.12	21.77	22.56	22.51	23.31	24.19
	12H	16.75	17.51	17.50	18.25	19.16	21.81	22.56	22.56	23.30	24.21
4H	2H	15.43	16.33	16.15	17.05	17.92	19.36	20.27	20.09	20.99	21.86
	3H	16.82	17.57	17.55	18.32	19.21	21.04	21.79	21.78	22.55	23.43
	4H	17.28	17.96	18.03	18.72	19.63	21.66	22.34	22.41	23.10	24.01
	6H	17.66	18.25	18.43	19.03	19.95	22.11	22.69	22.88	23.48	24.40
	8H	17.79	18.34	18.57	19.12	20.05	22.24	22.79	23.02	23.57	24.50
	12H	17.88	18.37	18.67	19.17	20.11	22.32	22.81	23.11	23.61	24.55
8H	4H	17.61	18.16	18.39	18.94	19.87	21.64	22.19	22.42	22.97	23.90
	6H	18.08	18.53	18.89	19.36	20.29	22.15	22.60	22.95	23.42	24.35
	8H	18.28	18.68	19.09	19.50	20.45	22.33	22.73	23.15	23.55	24.50
	12H	18.43	18.78	19.24	19.59	20.60	22.46	22.81	23.28	23.62	24.63
12H	4H	17.63	18.12	18.43	18.93	19.86	21.60	22.09	22.40	22.90	23.83
	6H	18.14	18.54	18.96	19.37	20.32	22.12	22.52	22.94	23.34	24.29
	8H	18.37	18.72	19.19	19.53	20.54	22.32	22.68	23.14	23.49	24.50