

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: P831995

Luminaire Tested: S123RDIP-S1165D585U927-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

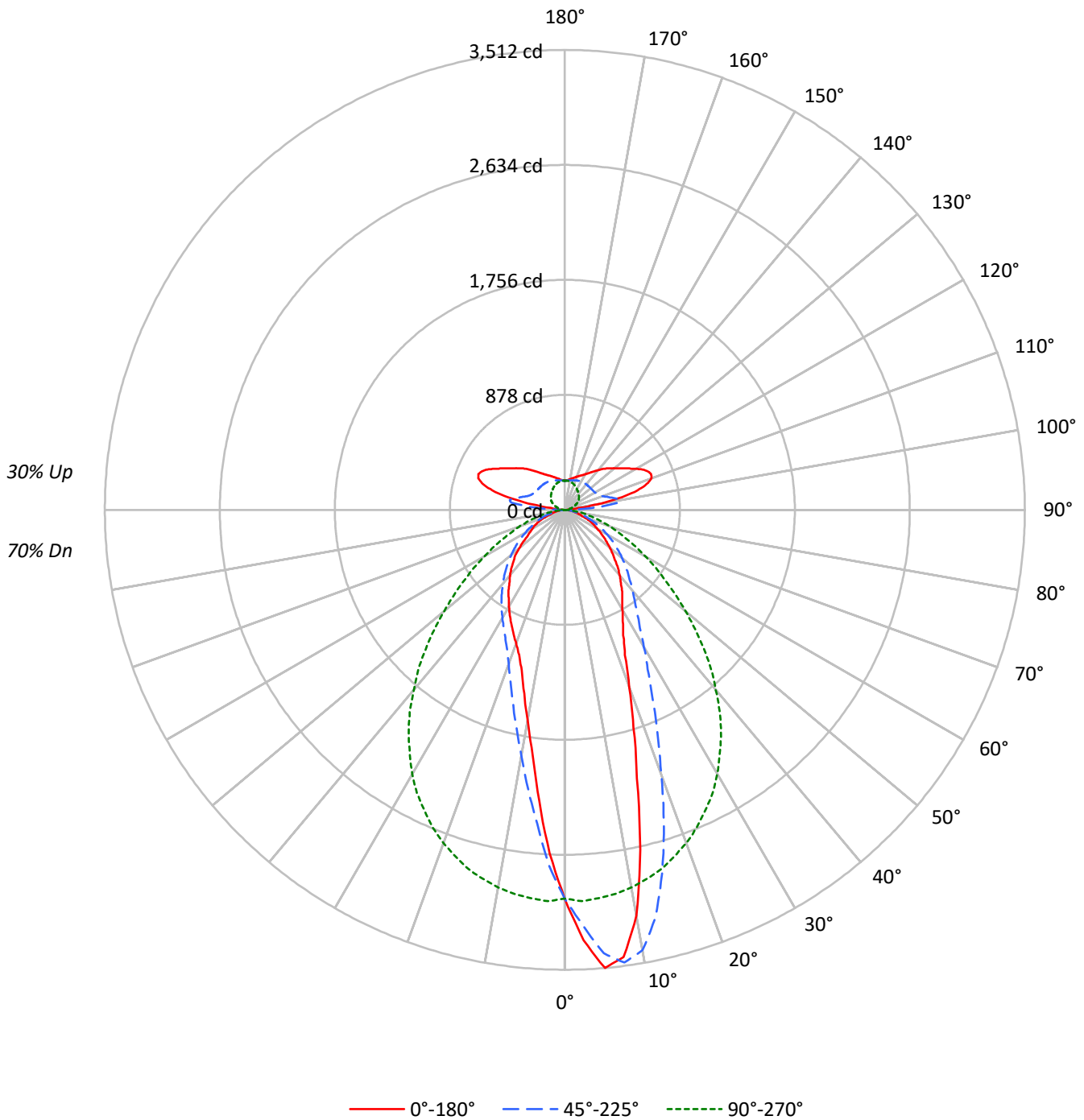
Test Method: LM-79-2019  
Report Number: P831995  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-2, G3-1807-864-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123RDIP-S1165D585U927-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 1165 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 585 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5616.6 lumens  
Efficiency: N/A  
Efficacy: 97.8 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): 57.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

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CATALOG NUMBER: S123RDIP-S1165D585U927-4F0-1E-UDD-G4

### Luminous Intensity Polar Plot





TEST NUMBER: P831995

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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	50	30	10	50	30	10	50	30	10	0				
RCR																																		
0	112	112	112	112	106	106	106	106	95	95	95	84	84	84	75	75	75	70																
1	103	99	96	93	98	94	91	88	85	82	80	76	74	72	68	66	65	61																
2	95	88	82	78	90	84	79	74	76	72	68	68	65	62	61	59	57	53																
3	88	79	72	66	83	75	69	64	68	63	59	61	58	54	55	52	50	47																
4	81	71	63	57	77	67	61	55	61	56	52	56	51	48	50	47	44	41																
5	75	64	56	50	71	61	54	49	56	50	46	51	46	43	46	42	39	37																
6	70	58	50	45	66	56	49	43	51	45	41	47	42	38	42	39	36	33																
7	65	53	46	40	62	51	44	39	47	41	37	43	38	35	39	35	32	30																
8	61	49	41	36	58	47	40	35	43	37	33	40	35	31	37	33	30	28																
9	57	45	38	33	54	43	37	32	40	34	31	37	32	29	34	30	27	25																
10	54	42	35	30	51	40	34	30	37	32	28	35	30	27	32	28	25	23																

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

	0°	45°	90°	135°	180°
0°	31957	31957	31957	31957	31957
5°	37945	36735	32158	25996	24135
10°	34379	37313	31997	20828	17868
15°	23670	31992	31660	17024	14135
20°	16467	24631	31024	14355	12424
25°	12549	18772	30100	12758	11450
30°	10924	15008	28942	11846	10606
35°	10029	12661	27304	11077	9837
40°	9150	11306	25160	10322	9133
45°	8264	10339	22847	9608	8432
50°	7502	9540	20118	8907	7562
55°	6784	8760	17498	8223	6488
60°	6079	7965	15199	7468	6131
65°	5611	7068	13084	6711	5797
70°	4560	6112	11415	6071	4711
75°	4001	4862	9669	5036	4151
80°	3620	4110	7922	4228	3924
85°	3310	3606	6015	3829	3606

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 24108 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	270.6	4.8
10°-20°	626.2	11.1
20°-30°	718.5	12.8
30°-40°	708.2	12.6
40°-50°	624.5	11.1
50°-60°	480.5	8.6
60°-70°	315.9	5.6
70°-80°	153.4	2.7
80°-90°	39.9	0.7
90°-100°	121.1	2.2
100°-110°	354.6	6.3
110°-120°	346.3	6.2
120°-130°	275.8	4.9
130°-140°	217.6	3.9
140°-150°	162.3	2.9
150°-160°	113.2	2.0
160°-170°	66.5	1.2
170°-180°	21.6	0.4
0°-30°	1615.3	28.8
0°-40°	2323.4	41.4
0°-60°	3428.4	61.0
0°-90°	3937.6	70.1
90°-120°	822.0	14.6
90°-150°	1477.7	26.3
90°-180°	1679.0	29.9
0°-180°	5616.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2969	2969	2969	2969	2969	
5°	3512	3400	2976	2406	2234	321
15°	2124	2871	2841	1528	1268	600
25°	1057	1581	2534	1074	964	499
35°	763	964	2078	843	749	476
45°	543	679	1501	631	554	421
55°	362	467	932	438	346	324
65°	220	278	514	264	228	216
75°	96	117	232	121	100	104
85°	27	29	49	31	29	28
90°	13	11	1	11	13	9
95°	52	268	15	268	52	85
105°	575	363	52	363	575	573
115°	699	278	93	278	699	682
125°	551	259	129	259	551	499
135°	447	256	151	256	447	347
145°	349	253	172	253	349	222
155°	290	244	196	244	290	135
165°	253	234	214	234	253	72
175°	227	225	223	225	227	22
180°	223	223	223	223	223	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9
2.5°	3290.3	3279.9	3269.6	3266.5	3263.5	3253.8	3244.0	3222.1	3200.2	3177.7	3155.2
5°	3511.8	3513.0	3514.3	3511.2	3508.2	3495.4	3482.6	3455.8	3429.0	3399.8	3370.6
7.5°	3443.7	3463.1	3482.6	3486.3	3489.9	3499.6	3509.4	3503.3	3497.2	3486.3	3475.3
10°	3145.4	3144.2	3143.0	3164.9	3186.8	3251.9	3317.1	3350.5	3384.0	3413.8	3443.7
12.5°	2658.5	2660.3	2662.2	2734.0	2805.8	2867.3	2928.7	3014.0	3099.2	3191.1	3283.0
15°	2124.1	2154.0	2183.8	2247.7	2311.6	2404.1	2496.6	2611.0	2725.5	2870.9	3016.4
17.5°	1744.3	1757.1	1769.9	1831.4	1892.9	1980.5	2068.1	2197.8	2327.4	2514.9	2702.3
20°	1437.6	1449.2	1460.7	1505.2	1549.6	1633.6	1717.6	1841.1	1964.7	2150.3	2335.9
22.5°	1200.2	1222.7	1245.3	1275.1	1304.9	1365.8	1426.6	1552.6	1678.6	1847.8	2017.0
25°	1056.6	1066.9	1077.3	1102.8	1128.4	1186.8	1245.3	1328.6	1412.0	1580.6	1749.2
27.5°	959.2	962.3	965.3	984.2	1003.0	1040.8	1078.5	1155.8	1233.1	1371.9	1510.6
30°	878.9	884.3	889.8	904.4	919.0	946.4	973.8	1028.6	1083.4	1207.5	1331.7
32.5°	816.8	819.8	822.9	835.0	847.2	867.3	887.4	930.6	973.8	1068.8	1163.7
35°	763.2	763.8	764.4	773.6	782.7	802.2	821.7	857.6	893.5	963.5	1033.5
37.5°	702.4	706.6	710.9	717.6	724.3	741.3	758.4	787.6	816.8	874.6	932.4
40°	651.2	654.9	658.5	666.5	674.4	687.8	701.1	727.9	754.7	804.6	854.5
42.5°	600.1	602.5	605.0	612.9	620.8	637.2	653.7	675.0	696.3	737.7	779.1
45°	542.9	549.0	555.1	563.6	572.1	586.1	600.1	622.0	643.9	679.2	714.5
47.5°	495.4	498.5	501.5	508.8	516.1	533.2	550.2	569.7	589.2	622.0	654.9
50°	448.0	449.2	450.4	457.1	463.8	479.0	494.2	516.7	539.3	569.7	600.1
52.5°	402.9	406.0	409.0	415.7	422.4	432.7	443.1	466.2	489.3	519.2	549.0
55°	361.5	363.4	365.2	370.0	374.9	387.1	399.3	419.3	439.4	466.8	494.2
57.5°	322.6	325.0	327.4	331.1	334.7	345.7	356.7	374.3	392.0	419.3	446.7
60°	282.4	285.4	288.5	292.8	297.0	305.5	314.1	329.9	345.7	370.0	394.4
62.5°	253.2	253.8	254.4	258.1	261.7	267.8	273.9	286.7	299.4	323.8	348.1
65°	220.3	222.2	224.0	225.8	227.6	232.5	237.4	248.3	259.3	277.5	295.8
67.5°	186.2	188.1	189.9	192.9	196.0	200.2	204.5	211.8	219.1	236.2	253.2
70°	144.9	144.9	144.9	149.7	154.6	161.9	169.2	174.7	180.2	194.2	208.2
72.5°	118.1	118.7	119.3	119.9	120.5	124.8	129.0	138.2	147.3	155.8	164.3
75°	96.2	96.8	97.4	98.0	98.6	99.8	101.0	104.1	107.1	116.9	126.6
77.5°	76.7	77.3	77.9	78.5	79.1	80.3	81.6	82.8	84.0	87.6	91.3
80°	58.4	59.0	59.6	60.3	60.9	61.5	62.1	63.3	64.5	66.3	68.2
82.5°	42.6	42.6	42.6	42.6	42.6	43.8	45.0	45.0	45.0	46.3	47.5
85°	26.8	26.8	26.8	27.4	28.0	28.0	28.0	28.6	29.2	29.2	29.2
87.5°	12.2	11.6	11.0	11.6	12.2	12.2	12.2	12.8	13.4	13.4	13.4
90°	13.1	13.6	13.1	12.7	13.1	12.2	11.7	11.3	10.8	11.3	9.9
92.5°	23.9	24.9	24.4	26.2	27.1	30.3	34.8	44.7	62.8	84.0	93.1
95°	52.4	54.2	57.4	61.5	70.0	86.3	110.2	162.7	217.3	267.9	238.6
97.5°	107.5	112.5	123.4	140.5	170.8	222.3	281.9	373.7	426.1	412.1	307.7
100°	283.3	282.9	300.5	333.5	379.1	443.3	496.1	532.7	516.9	427.9	289.2
102.5°	448.7	461.8	475.8	500.2	533.2	568.0	593.3	585.6	521.4	398.5	262.1
105°	574.7	577.0	591.5	608.6	629.4	641.2	632.6	587.4	493.0	363.3	240.8
107.5°	657.0	661.9	667.8	676.0	678.7	666.5	631.2	560.3	452.3	332.1	225.5
110°	704.0	704.9	705.8	702.2	689.5	657.9	600.9	517.8	414.3	306.3	217.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	713.5	713.0	708.5	695.4	669.6	626.7	561.2	475.8	381.4	289.2	212.8
115°	699.0	696.7	687.7	667.8	633.9	584.7	518.3	439.6	356.0	277.9	212.4
117.5°	667.4	664.2	650.6	628.5	593.3	542.2	481.2	411.6	339.3	270.2	212.8
120°	625.8	623.1	612.2	586.9	551.2	505.6	451.4	390.4	326.7	265.2	214.6
122.5°	586.9	583.3	571.1	549.0	518.3	476.7	427.4	373.7	316.3	262.1	217.8
125°	551.2	548.1	536.8	516.9	488.0	451.8	408.5	359.2	307.7	259.4	220.9
127.5°	520.5	517.8	507.4	490.2	464.0	430.6	390.8	346.1	299.6	258.0	224.6
130°	495.2	491.6	482.1	465.8	441.9	411.2	374.6	333.9	293.2	256.6	228.2
132.5°	470.4	468.1	460.0	443.7	421.6	392.6	359.2	322.6	287.4	256.2	230.9
135°	446.9	443.7	435.6	422.0	399.9	374.1	344.8	312.7	282.4	255.7	233.6
137.5°	422.0	419.3	412.5	398.5	379.5	356.5	330.3	303.2	277.9	254.8	235.4
140°	395.8	396.3	389.0	376.4	359.2	339.8	318.1	295.1	273.8	254.4	237.2
142.5°	371.4	371.9	365.5	354.7	340.7	324.4	306.3	287.4	270.2	253.5	238.6
145°	349.3	348.4	344.8	335.3	324.0	310.9	296.4	281.5	267.0	252.6	239.0
147.5°	330.3	329.8	326.2	319.5	310.4	300.9	288.7	276.5	263.9	251.2	239.0
150°	314.0	314.0	311.3	306.3	299.6	291.0	281.5	271.1	260.7	249.4	239.0
152.5°	300.5	300.5	299.1	294.6	289.6	282.9	274.7	266.1	257.1	247.2	237.7
155°	289.6	289.2	288.3	284.7	280.6	275.2	268.4	261.2	253.5	244.4	236.8
157.5°	279.2	279.2	278.3	275.6	272.0	267.5	262.1	255.7	249.4	242.2	235.4
160°	269.3	269.7	269.7	267.0	263.9	260.7	256.2	251.2	245.3	239.5	234.5
162.5°	260.3	260.7	260.7	258.5	256.6	253.9	249.9	245.8	241.3	236.8	232.7
165°	252.6	252.6	253.0	251.2	249.4	247.2	244.0	241.3	237.7	234.1	230.9
167.5°	244.9	244.9	245.3	244.0	243.1	241.3	239.5	237.2	234.1	231.3	229.1
170°	238.1	238.1	238.6	237.7	237.2	236.3	234.5	233.1	230.9	228.6	227.3
172.5°	231.8	232.2	233.1	232.2	232.2	231.8	230.4	229.5	227.7	226.4	225.9
175°	227.3	227.7	228.2	227.7	227.7	227.7	226.8	226.4	225.5	224.6	224.6
177.5°	224.1	224.1	225.0	224.6	225.0	225.0	224.6	224.1	223.7	223.2	223.7
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9
2.5°	3152.1	3149.1	3119.9	3090.6	3062.0	3033.4	3012.1	2990.8	2954.9	2919.0	2896.5
5°	3347.5	3324.4	3278.1	3231.8	3162.5	3093.1	3034.7	2976.2	2902.0	2827.7	2765.6
7.5°	3456.4	3437.6	3381.6	3325.6	3233.7	3141.8	3050.5	2959.2	2849.6	2740.1	2646.3
10°	3459.5	3475.3	3429.0	3382.8	3279.3	3175.9	3051.7	2927.5	2780.2	2633.0	2511.8
12.5°	3351.1	3419.3	3409.6	3399.8	3294.5	3189.2	3038.3	2887.4	2706.6	2525.8	2374.3
15°	3148.5	3280.5	3319.5	3358.4	3271.4	3184.4	3012.7	2841.1	2628.7	2416.3	2242.2
17.5°	2887.4	3072.4	3175.2	3278.1	3214.8	3151.5	2963.4	2775.4	2536.2	2297.0	2107.7
20°	2578.2	2820.4	2981.7	3143.0	3119.9	3096.7	2902.6	2708.4	2450.4	2192.3	1987.2
22.5°	2272.6	2528.3	2751.0	2973.8	2997.5	3021.3	2825.3	2629.3	2346.9	2064.5	1855.7
25°	2009.1	2269.0	2534.4	2799.7	2853.3	2906.8	2720.6	2534.4	2241.6	1948.8	1741.3
27.5°	1757.7	2004.8	2297.0	2589.1	2686.5	2783.9	2613.5	2443.1	2138.1	1833.2	1626.3
30°	1552.6	1773.6	2071.8	2370.0	2505.7	2641.5	2485.1	2328.6	2026.1	1723.7	1521.0
32.5°	1361.5	1559.3	1858.8	2158.2	2315.9	2473.5	2338.4	2203.3	1912.3	1621.4	1421.2
35°	1210.6	1387.7	1667.1	1946.4	2122.9	2299.4	2188.6	2077.9	1793.6	1509.4	1320.1
37.5°	1080.9	1229.4	1491.8	1754.1	1941.5	2129.0	2036.5	1944.0	1676.8	1409.6	1230.7
40°	973.8	1093.1	1337.2	1581.2	1765.0	1948.8	1869.7	1790.6	1551.4	1312.2	1144.8
42.5°	881.9	984.8	1203.9	1423.0	1591.6	1760.2	1707.8	1655.5	1438.8	1222.1	1066.9
45°	801.0	887.4	1080.3	1273.3	1428.5	1583.7	1542.3	1500.9	1314.0	1127.2	984.8
47.5°	729.1	803.4	975.6	1147.9	1287.3	1426.6	1388.3	1350.0	1195.4	1040.8	911.1
50°	663.4	726.7	870.3	1014.0	1139.4	1264.7	1233.1	1201.4	1073.6	945.8	833.8
52.5°	601.3	653.7	782.7	911.7	1012.8	1113.8	1089.5	1065.1	966.5	867.9	766.3
55°	542.3	590.4	699.3	808.3	894.7	981.1	956.8	932.4	855.7	779.1	689.6
57.5°	488.7	530.7	619.0	707.2	776.0	844.8	833.2	821.7	757.8	693.8	620.2
60°	432.1	469.9	545.9	622.0	677.4	732.8	719.4	706.0	660.4	614.7	551.4
62.5°	381.6	415.1	476.0	536.8	581.9	626.9	617.2	607.4	572.7	538.0	485.7
65°	328.7	361.5	410.8	460.1	495.4	530.7	522.2	513.7	487.5	461.3	419.3
67.5°	280.6	308.0	350.6	393.2	416.9	440.7	435.8	430.9	410.8	390.7	357.9
70°	231.9	255.6	290.9	326.2	342.7	359.1	360.9	362.7	344.5	326.2	301.9
72.5°	183.2	202.1	234.9	267.8	280.6	293.4	292.8	292.1	281.2	270.2	248.3
75°	140.6	154.6	180.2	205.7	216.7	227.6	230.1	232.5	222.2	211.8	199.6
77.5°	101.0	110.8	130.2	149.7	161.9	174.1	175.3	176.5	171.6	166.8	155.2
80°	71.2	74.3	86.4	98.6	111.4	124.2	126.0	127.8	122.9	118.1	110.8
82.5°	49.3	51.1	55.4	59.6	70.0	80.3	82.8	85.2	82.8	80.3	72.4
85°	29.8	30.4	32.3	34.1	39.0	43.8	46.3	48.7	47.5	46.3	42.0
87.5°	13.4	13.4	14.0	14.6	15.8	17.0	20.1	23.1	21.3	19.5	17.7
90°	8.6	7.2	5.9	5.0	4.1	2.7	1.8	0.9	1.8	2.7	4.1
92.5°	69.6	45.6	31.2	23.0	18.5	14.5	9.9	6.8	9.9	14.5	18.5
95°	164.5	97.1	58.7	41.1	29.4	21.7	16.7	15.4	16.7	21.7	29.4
97.5°	183.0	104.8	66.9	47.4	35.7	28.9	24.9	24.4	24.9	28.9	35.7
100°	170.3	103.5	71.8	54.2	43.4	37.1	33.9	33.4	33.9	37.1	43.4
102.5°	159.5	105.3	77.7	61.9	52.4	46.5	43.8	42.9	43.8	46.5	52.4
105°	155.4	108.9	84.5	70.5	61.9	56.5	53.8	52.4	53.8	56.5	61.9
107.5°	154.5	114.8	93.1	80.0	71.8	66.4	63.7	62.4	63.7	66.4	71.8
110°	156.8	122.4	102.1	89.5	81.8	76.8	74.6	73.2	74.6	76.8	81.8





TEST NUMBER: P831995

CATALOG NUMBER: S123RDIP-S1165D585U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	161.3	130.1	111.6	99.4	91.7	86.8	84.5	83.1	84.5	86.8	91.7
115°	166.3	138.7	121.5	109.3	101.7	97.1	94.4	92.6	94.4	97.1	101.7
117.5°	172.6	147.8	130.6	119.3	110.7	106.6	104.4	102.1	104.4	106.6	110.7
120°	179.8	156.3	140.1	128.8	120.2	115.7	113.4	112.1	113.4	115.7	120.2
122.5°	186.6	165.4	149.6	137.4	129.2	124.3	122.0	120.6	122.0	124.3	129.2
125°	193.8	174.0	158.1	145.9	137.4	132.4	129.7	128.8	129.7	132.4	137.4
127.5°	199.7	181.6	166.3	154.1	144.6	139.6	136.5	135.1	136.5	139.6	144.6
130°	205.6	188.4	173.5	161.3	151.8	146.4	142.3	141.0	142.3	146.4	151.8
132.5°	211.0	194.3	179.8	168.1	158.6	151.8	147.3	145.5	147.3	151.8	158.6
135°	215.5	200.2	186.2	174.0	164.5	157.7	152.7	150.9	152.7	157.7	164.5
137.5°	219.1	204.2	190.7	179.4	169.9	162.7	157.7	155.9	157.7	162.7	169.9
140°	221.9	208.3	195.2	183.9	174.9	167.6	163.1	160.9	163.1	167.6	174.9
142.5°	224.6	211.5	198.8	188.4	179.4	173.1	168.1	166.3	168.1	173.1	179.4
145°	226.4	214.2	202.4	192.0	184.4	177.6	173.5	172.2	173.5	177.6	184.4
147.5°	227.7	216.4	205.6	196.6	188.9	183.0	178.9	178.0	178.9	183.0	188.9
150°	228.2	218.7	208.3	200.2	193.8	188.0	184.4	183.9	184.4	188.0	193.8
152.5°	229.1	220.0	211.5	203.8	198.4	193.4	189.8	189.8	189.8	193.4	198.4
155°	229.1	221.9	214.2	207.8	202.9	198.4	195.6	195.6	195.6	198.4	202.9
157.5°	229.5	222.8	216.4	211.5	206.9	202.9	200.6	200.2	200.6	202.9	206.9
160°	229.5	224.1	218.7	214.2	211.0	207.4	205.6	205.6	205.6	207.4	211.0
162.5°	229.1	224.6	220.0	216.4	213.7	211.0	209.7	209.7	209.7	211.0	213.7
165°	228.2	225.0	221.4	218.2	216.4	214.2	213.3	213.7	213.3	214.2	216.4
167.5°	227.7	225.0	222.3	220.0	218.7	216.9	216.4	216.9	216.4	216.9	218.7
170°	226.4	224.6	222.3	221.4	220.5	219.1	218.7	219.6	218.7	219.1	220.5
172.5°	225.9	224.6	222.8	222.3	221.9	220.9	220.9	221.4	220.9	220.9	221.9
175°	225.0	224.1	223.2	222.8	222.8	221.9	222.3	222.8	222.3	221.9	222.8
177.5°	224.6	223.7	223.2	223.2	223.2	222.8	223.2	223.7	223.2	222.8	223.2
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



TEST NUMBER: P831995

CATALOG NUMBER: S123RDIP-S1165D585U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9	2968.9
2.5°	2874.0	2839.3	2804.6	2779.6	2754.7	2723.6	2692.6	2691.4	2690.2	2667.0	2643.9
5°	2703.6	2643.3	2583.0	2524.0	2465.0	2405.9	2346.9	2333.5	2320.1	2300.0	2279.9
7.5°	2552.6	2456.4	2360.3	2284.8	2209.3	2150.3	2091.3	2051.1	2010.9	1979.9	1948.8
10°	2390.7	2271.4	2152.1	2060.8	1969.5	1905.6	1841.7	1795.5	1749.2	1727.3	1705.4
12.5°	2222.7	2093.1	1963.5	1874.0	1784.5	1707.8	1631.1	1589.1	1547.1	1516.7	1486.3
15°	2068.1	1928.8	1789.4	1694.4	1599.5	1527.7	1455.9	1413.9	1371.9	1341.4	1311.0
17.5°	1918.4	1777.8	1637.2	1541.1	1444.9	1379.8	1314.7	1273.9	1233.1	1214.2	1195.4
20°	1782.1	1640.3	1498.5	1407.8	1317.1	1253.2	1189.3	1167.4	1145.5	1127.8	1110.1
22.5°	1647.0	1510.6	1374.3	1287.3	1200.2	1154.0	1107.7	1090.1	1072.4	1059.0	1045.6
25°	1533.8	1398.0	1262.3	1186.2	1110.1	1074.2	1038.3	1026.8	1015.2	1001.8	988.4
27.5°	1419.3	1290.3	1161.3	1100.4	1039.5	1010.3	981.1	966.5	951.9	940.9	930.0
30°	1318.3	1199.0	1079.7	1029.2	978.7	953.1	927.6	911.7	895.9	885.6	875.2
32.5°	1220.9	1115.0	1009.1	965.9	922.7	897.7	872.8	857.6	842.4	830.2	818.0
35°	1130.8	1038.9	947.0	907.5	867.9	843.0	818.0	802.8	787.6	775.4	763.2
37.5°	1051.7	968.3	885.0	847.8	810.7	788.8	766.9	751.1	735.2	722.4	709.7
40°	977.5	903.8	830.2	794.3	758.4	734.6	710.9	696.9	682.9	671.3	659.8
42.5°	911.7	844.2	776.6	741.3	706.0	683.5	661.0	644.5	628.1	621.4	614.7
45°	842.4	782.7	723.1	689.0	654.9	631.2	607.4	593.4	579.4	573.3	567.2
47.5°	781.5	726.1	670.7	637.2	603.8	582.5	561.2	550.2	539.3	530.7	522.2
50°	721.8	668.3	614.7	582.5	550.2	531.9	513.7	500.3	486.9	480.8	474.7
52.5°	664.6	615.9	567.2	534.4	501.5	483.9	466.2	454.7	443.1	430.3	417.5
55°	600.1	557.5	514.9	485.7	456.5	438.2	420.0	406.6	393.2	379.8	366.4
57.5°	546.6	504.6	462.6	436.4	410.2	392.6	374.9	360.3	345.7	334.7	323.8
60°	488.1	451.6	415.1	389.5	364.0	346.9	329.9	315.9	301.9	296.4	290.9
62.5°	433.3	399.3	365.2	342.7	320.1	303.7	287.3	278.1	269.0	265.4	261.7
65°	377.4	348.1	318.9	298.2	277.5	263.5	249.5	245.3	241.0	238.0	234.9
67.5°	325.0	300.1	275.1	256.8	238.6	228.8	219.1	214.2	209.4	205.7	202.1
70°	277.5	255.6	233.7	217.9	202.1	192.9	183.8	179.5	175.3	168.6	161.9
72.5°	226.4	209.4	192.3	180.2	168.0	160.1	152.2	143.6	135.1	129.0	122.9
75°	187.5	170.4	153.4	141.8	130.2	121.1	112.0	108.9	105.9	104.1	102.3
77.5°	143.6	129.0	114.4	105.3	96.2	91.9	87.6	85.8	84.0	83.4	82.8
80°	103.5	91.3	79.1	74.3	69.4	68.2	66.9	65.7	64.5	63.9	63.3
82.5°	64.5	58.4	52.3	51.1	49.9	49.3	48.7	48.1	47.5	46.9	46.3
85°	37.7	35.3	32.9	32.3	31.6	31.0	30.4	30.4	30.4	30.4	30.4
87.5°	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.8	15.2	14.6
90°	5.0	5.9	7.2	8.6	9.9	11.3	10.8	11.3	11.7	12.2	13.1
92.5°	23.0	31.2	45.6	69.6	93.1	84.0	62.8	44.7	34.8	30.3	27.1
95°	41.1	58.7	97.1	164.5	238.6	267.9	217.3	162.7	110.2	86.3	70.0
97.5°	47.4	66.9	104.8	183.0	307.7	412.1	426.1	373.7	281.9	222.3	170.8
100°	54.2	71.8	103.5	170.3	289.2	427.9	516.9	532.7	496.1	443.3	379.1
102.5°	61.9	77.7	105.3	159.5	262.1	398.5	521.4	585.6	593.3	568.0	533.2
105°	70.5	84.5	108.9	155.4	240.8	363.3	493.0	587.4	632.6	641.2	629.4
107.5°	80.0	93.1	114.8	154.5	225.5	332.1	452.3	560.3	631.2	666.5	678.7
110°	89.5	102.1	122.4	156.8	217.3	306.3	414.3	517.8	600.9	657.9	689.5



TEST NUMBER: P831995

CATALOG NUMBER: S123RDIP-S1165D585U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	99.4	111.6	130.1	161.3	212.8	289.2	381.4	475.8	561.2	626.7	669.6
115°	109.3	121.5	138.7	166.3	212.4	277.9	356.0	439.6	518.3	584.7	633.9
117.5°	119.3	130.6	147.8	172.6	212.8	270.2	339.3	411.6	481.2	542.2	593.3
120°	128.8	140.1	156.3	179.8	214.6	265.2	326.7	390.4	451.4	505.6	551.2
122.5°	137.4	149.6	165.4	186.6	217.8	262.1	316.3	373.7	427.4	476.7	518.3
125°	145.9	158.1	174.0	193.8	220.9	259.4	307.7	359.2	408.5	451.8	488.0
127.5°	154.1	166.3	181.6	199.7	224.6	258.0	299.6	346.1	390.8	430.6	464.0
130°	161.3	173.5	188.4	205.6	228.2	256.6	293.2	333.9	374.6	411.2	441.9
132.5°	168.1	179.8	194.3	211.0	230.9	256.2	287.4	322.6	359.2	392.6	421.6
135°	174.0	186.2	200.2	215.5	233.6	255.7	282.4	312.7	344.8	374.1	399.9
137.5°	179.4	190.7	204.2	219.1	235.4	254.8	277.9	303.2	330.3	356.5	379.5
140°	183.9	195.2	208.3	221.9	237.2	254.4	273.8	295.1	318.1	339.8	359.2
142.5°	188.4	198.8	211.5	224.6	238.6	253.5	270.2	287.4	306.3	324.4	340.7
145°	192.0	202.4	214.2	226.4	239.0	252.6	267.0	281.5	296.4	310.9	324.0
147.5°	196.6	205.6	216.4	227.7	239.0	251.2	263.9	276.5	288.7	300.9	310.4
150°	200.2	208.3	218.7	228.2	239.0	249.4	260.7	271.1	281.5	291.0	299.6
152.5°	203.8	211.5	220.0	229.1	237.7	247.2	257.1	266.1	274.7	282.9	289.6
155°	207.8	214.2	221.9	229.1	236.8	244.4	253.5	261.2	268.4	275.2	280.6
157.5°	211.5	216.4	222.8	229.5	235.4	242.2	249.4	255.7	262.1	267.5	272.0
160°	214.2	218.7	224.1	229.5	234.5	239.5	245.3	251.2	256.2	260.7	263.9
162.5°	216.4	220.0	224.6	229.1	232.7	236.8	241.3	245.8	249.9	253.9	256.6
165°	218.2	221.4	225.0	228.2	230.9	234.1	237.7	241.3	244.0	247.2	249.4
167.5°	220.0	222.3	225.0	227.7	229.1	231.3	234.1	237.2	239.5	241.3	243.1
170°	221.4	222.3	224.6	226.4	227.3	228.6	230.9	233.1	234.5	236.3	237.2
172.5°	222.3	222.8	224.6	225.9	225.9	226.4	227.7	229.5	230.4	231.8	232.2
175°	222.8	223.2	224.1	225.0	224.6	224.6	225.5	226.4	226.8	227.7	227.7
177.5°	223.2	223.2	223.7	224.6	223.7	223.2	223.7	224.1	224.6	225.0	225.0
180°	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2



TEST NUMBER: P831995

CATALOG NUMBER: S123RDIP-S1165D585U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2968.9	2968.9	2968.9	2968.9
2.5°	2637.8	2631.7	2629.3	2626.9
5°	2261.1	2242.2	2237.9	2233.7
7.5°	1940.9	1933.0	1906.9	1880.7
10°	1681.0	1656.7	1645.7	1634.8
12.5°	1463.8	1441.2	1437.6	1433.9
15°	1295.2	1279.3	1273.9	1268.4
17.5°	1184.4	1173.4	1166.8	1160.1
20°	1102.2	1094.3	1089.5	1084.6
22.5°	1039.5	1033.5	1029.8	1026.2
25°	979.3	970.2	967.1	964.1
27.5°	922.1	914.2	911.1	908.1
30°	868.5	861.8	857.6	853.3
32.5°	810.1	802.2	799.7	797.3
35°	758.4	753.5	751.1	748.6
37.5°	703.6	697.5	693.8	690.2
40°	656.7	653.7	651.8	650.0
42.5°	609.2	603.8	603.2	602.5
45°	561.8	556.3	555.1	553.9
47.5°	517.3	512.5	511.9	511.3
50°	468.0	461.3	456.5	451.6
52.5°	411.4	405.4	401.1	396.8
55°	359.7	353.0	349.4	345.7
57.5°	320.8	317.7	315.9	314.1
60°	289.1	287.3	286.1	284.8
62.5°	259.9	258.1	258.1	258.1
65°	233.1	231.3	229.5	227.6
67.5°	198.4	194.8	194.2	193.5
70°	156.4	150.9	150.3	149.7
72.5°	122.3	121.7	120.5	119.3
75°	101.0	99.8	99.8	99.8
77.5°	81.6	80.3	80.3	80.3
80°	62.7	62.1	62.7	63.3
82.5°	46.3	46.3	45.6	45.0
85°	29.8	29.2	29.2	29.2
87.5°	14.6	14.6	14.6	14.6
90°	12.7	13.1	13.6	13.1
92.5°	26.2	24.4	24.9	23.9
95°	61.5	57.4	54.2	52.4
97.5°	140.5	123.4	112.5	107.5
100°	333.5	300.5	282.9	283.3
102.5°	500.2	475.8	461.8	448.7
105°	608.6	591.5	577.0	574.7
107.5°	676.0	667.8	661.9	657.0
110°	702.2	705.8	704.9	704.0



TEST NUMBER: P831995

CATALOG NUMBER: S123RDIP-S1165D585U927-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	695.4	708.5	713.0	713.5
115°	667.8	687.7	696.7	699.0
117.5°	628.5	650.6	664.2	667.4
120°	586.9	612.2	623.1	625.8
122.5°	549.0	571.1	583.3	586.9
125°	516.9	536.8	548.1	551.2
127.5°	490.2	507.4	517.8	520.5
130°	465.8	482.1	491.6	495.2
132.5°	443.7	460.0	468.1	470.4
135°	422.0	435.6	443.7	446.9
137.5°	398.5	412.5	419.3	422.0
140°	376.4	389.0	396.3	395.8
142.5°	354.7	365.5	371.9	371.4
145°	335.3	344.8	348.4	349.3
147.5°	319.5	326.2	329.8	330.3
150°	306.3	311.3	314.0	314.0
152.5°	294.6	299.1	300.5	300.5
155°	284.7	288.3	289.2	289.6
157.5°	275.6	278.3	279.2	279.2
160°	267.0	269.7	269.7	269.3
162.5°	258.5	260.7	260.7	260.3
165°	251.2	253.0	252.6	252.6
167.5°	244.0	245.3	244.9	244.9
170°	237.7	238.6	238.1	238.1
172.5°	232.2	233.1	232.2	231.8
175°	227.7	228.2	227.7	227.3
177.5°	224.6	225.0	224.1	224.1
180°	223.2	223.2	223.2	223.2



TEST NUMBER: P831995

CATALOG NUMBER: S123RDIP-S1165D585U927-4F0-1E-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	14.50	15.49	15.28	16.28	17.24	19.16	20.15	19.94	20.94	21.90
	3H	15.73	16.62	16.52	17.42	18.40	20.68	21.56	21.46	22.36	23.35
	4H	16.12	16.96	16.93	17.76	18.76	21.17	22.01	21.98	22.81	23.81
	6H	16.41	17.18	17.23	17.99	19.01	21.49	22.26	22.31	23.07	24.09
	8H	16.50	17.23	17.33	18.07	19.08	21.58	22.30	22.40	23.14	24.15
	12H	16.56	17.25	17.39	18.08	19.12	21.61	22.31	22.44	23.13	24.17
4H	2H	15.24	16.08	16.05	16.88	17.88	19.18	20.01	19.99	20.82	21.82
	3H	16.62	17.32	17.45	18.16	19.17	20.85	21.54	21.67	22.38	23.40
	4H	17.09	17.71	17.92	18.55	19.60	21.46	22.09	22.30	22.93	23.97
	6H	17.46	18.00	18.31	18.87	19.91	21.91	22.45	22.76	23.31	24.36
	8H	17.59	18.09	18.44	18.95	20.01	22.04	22.55	22.90	23.40	24.46
	12H	17.67	18.13	18.55	19.00	20.07	22.11	22.56	22.98	23.44	24.51
8H	4H	17.41	17.92	18.27	18.77	19.83	21.44	21.94	22.29	22.80	23.86
	6H	17.88	18.30	18.76	19.20	20.26	21.94	22.36	22.82	23.26	24.32
	8H	18.07	18.44	18.97	19.34	20.41	22.13	22.50	23.02	23.39	24.47
	12H	18.22	18.54	19.11	19.43	20.56	22.25	22.57	23.15	23.46	24.59
12H	4H	17.43	17.88	18.30	18.76	19.83	21.40	21.85	22.27	22.73	23.79
	6H	17.94	18.31	18.83	19.20	20.28	21.92	22.28	22.81	23.18	24.26
	8H	18.17	18.49	19.06	19.37	20.51	22.12	22.44	23.01	23.33	24.46