

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: P832368

Luminaire Tested: S123RDIP-S775D365U850-4F0-1E-UDD-G

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832368
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-S775D365U850-4F0-1E-UDD-G
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: -

Summary

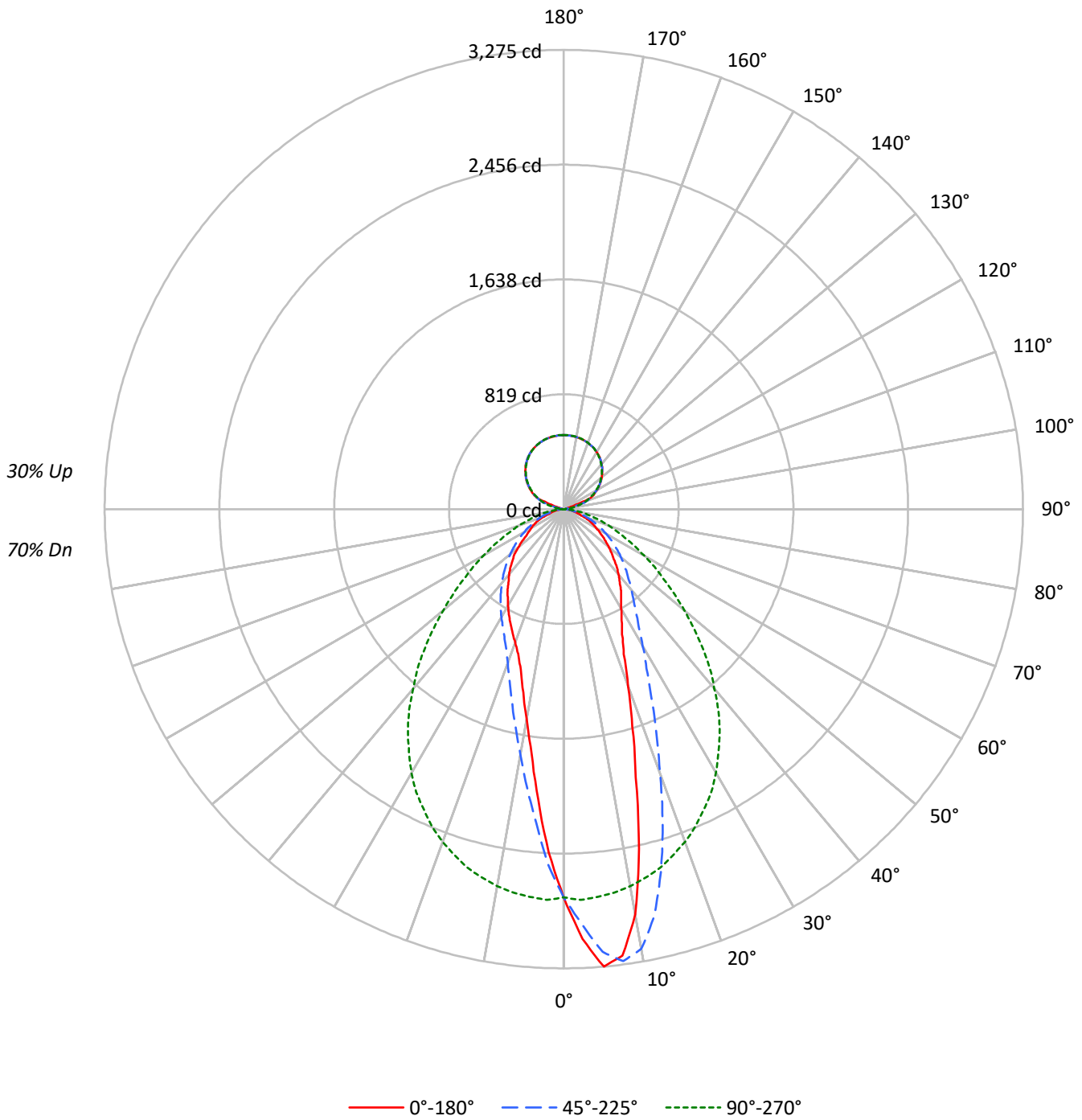
Lumens per Lamp: N/A
Luminaire Lumens: 5279.8 lumens
Efficiency: N/A
Efficacy: 147.1 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 35.9
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					20	
RC	80					70					50					30					10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0	
RCR																						
0	112	112	112	112	106	106	106	106	94	94	94	84	84	84	74	74	74	74	74	74	70	
1	103	99	96	92	98	94	91	88	84	82	80	75	74	72	67	66	65	65	65	65	61	
2	95	88	82	77	90	84	79	74	75	71	68	68	65	62	61	58	56	56	56	56	53	
3	88	79	72	66	83	75	69	64	68	63	59	61	57	54	55	52	49	49	49	49	46	
4	81	71	63	57	76	67	61	55	61	56	51	55	51	48	50	47	44	44	44	44	41	
5	75	64	56	50	71	61	54	49	56	50	45	50	46	42	46	42	39	39	39	39	37	
6	70	58	50	45	66	56	48	43	51	45	41	46	42	38	42	38	35	35	35	35	33	
7	65	53	45	40	61	51	44	39	47	41	37	43	38	34	39	35	32	32	32	32	30	
8	61	49	41	36	58	47	40	35	43	37	33	40	35	31	36	32	29	29	29	29	27	
9	57	45	38	33	54	43	37	32	40	34	30	37	32	29	34	30	27	27	27	27	25	
10	54	42	35	30	51	40	34	29	37	32	28	34	30	26	32	28	25	25	25	25	23	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	29801	29801	29801	29801	29801
5°	35385	34256	29988	24242	22507
10°	32060	34796	29839	19423	16663
15°	22073	29834	29524	15875	13181
20°	15356	22969	28931	13386	11585
25°	11702	17506	28068	11898	10677
30°	10187	13996	26990	11047	9890
35°	9352	11807	25462	10330	9173
40°	8533	10543	23463	9627	8518
45°	7707	9642	21305	8960	7862
50°	6995	8895	18762	8308	7052
55°	6326	8169	16317	7668	6050
60°	5670	7429	14174	6964	5718
65°	5234	6592	12200	6260	5407
70°	4252	5700	10647	5662	4393
75°	3730	4533	9016	4695	3872
80°	3378	3837	7389	3942	3657
85°	3088	3359	5607	3569	3359

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 22481 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	252.4	4.8
10°-20°	583.9	11.1
20°-30°	670.0	12.7
30°-40°	660.4	12.5
40°-50°	582.4	11.0
50°-60°	448.0	8.5
60°-70°	294.6	5.6
70°-80°	143.1	2.7
80°-90°	37.1	0.7
90°-100°	18.6	0.4
100°-110°	89.9	1.7
110°-120°	220.4	4.2
120°-130°	279.8	5.3
130°-140°	298.9	5.7
140°-150°	279.5	5.3
150°-160°	225.4	4.3
160°-170°	145.5	2.8
170°-180°	50.1	0.9
0°-30°	1506.3	28.5
0°-40°	2166.7	41.0
0°-60°	3197.1	60.6
0°-90°	3671.8	69.5
90°-120°	328.9	6.2
90°-150°	1187.0	22.5
90°-180°	1608.0	30.5
0°-180°	5279.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2769	2769	2769	2769	2769	
5°	3275	3170	2775	2244	2083	299
15°	1981	2677	2649	1425	1183	559
25°	985	1474	2363	1002	899	465
35°	712	898	1938	786	698	444
45°	506	633	1400	589	516	393
55°	337	435	870	409	322	302
65°	206	259	479	246	212	201
75°	90	109	217	113	93	97
85°	25	27	45	29	27	27
90°	12	9	0	9	12	7
95°	15	12	24	12	15	12
105°	17	86	117	86	17	36
115°	230	225	219	225	230	217
125°	315	314	309	314	315	282
135°	388	388	384	388	388	300
145°	448	447	444	447	448	280
155°	488	488	489	488	488	225
165°	514	514	515	514	514	145
175°	526	526	528	526	526	50
180°	528	528	528	528	528	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	3068.3	3058.6	3049.0	3046.1	3043.3	3034.2	3025.1	3004.7	2984.3	2963.3	2942.3
5°	3274.9	3276.0	3277.1	3274.3	3271.5	3259.5	3247.6	3222.6	3197.7	3170.4	3143.2
7.5°	3211.3	3229.5	3247.6	3251.0	3254.4	3263.5	3272.6	3266.9	3261.2	3251.0	3240.8
10°	2933.2	2932.0	2930.9	2951.3	2971.8	3032.5	3093.2	3124.5	3155.7	3183.5	3211.3
12.5°	2479.1	2480.8	2482.5	2549.5	2616.5	2673.8	2731.1	2810.6	2890.0	2975.7	3061.5
15°	1980.8	2008.6	2036.4	2096.0	2155.6	2241.9	2328.2	2434.9	2541.6	2677.2	2812.9
17.5°	1626.6	1638.6	1650.5	1707.8	1765.1	1846.9	1928.6	2049.5	2170.4	2345.2	2520.0
20°	1340.6	1351.4	1362.2	1403.6	1445.0	1523.3	1601.7	1716.9	1832.1	2005.2	2178.3
22.5°	1119.2	1140.2	1161.2	1189.1	1216.9	1273.6	1330.4	1447.9	1565.3	1723.1	1880.9
25°	985.3	994.9	1004.6	1028.4	1052.3	1106.8	1161.2	1239.0	1316.8	1474.0	1631.2
27.5°	894.5	897.3	900.2	917.8	935.3	970.5	1005.7	1077.8	1149.9	1279.3	1408.7
30°	819.6	824.7	829.8	843.4	857.0	882.6	908.1	959.2	1010.3	1126.1	1241.8
32.5°	761.7	764.5	767.3	778.7	790.1	808.8	827.5	867.8	908.1	996.6	1085.2
35°	711.7	712.3	712.9	721.4	729.9	748.1	766.2	799.7	833.2	898.5	963.7
37.5°	655.0	658.9	662.9	669.2	675.4	691.3	707.2	734.4	761.7	815.6	869.5
40°	607.3	610.7	614.1	621.5	628.9	641.3	653.8	678.8	703.8	750.3	796.9
42.5°	559.6	561.9	564.2	571.5	578.9	594.2	609.6	629.4	649.3	687.9	726.5
45°	506.3	511.9	517.6	525.6	533.5	546.6	559.6	580.1	600.5	633.4	666.3
47.5°	462.0	464.8	467.7	474.5	481.3	497.2	513.1	531.2	549.4	580.1	610.7
50°	417.7	418.9	420.0	426.2	432.5	446.7	460.9	481.9	502.9	531.2	559.6
52.5°	375.7	378.6	381.4	387.6	393.9	403.5	413.2	434.8	456.3	484.1	511.9
55°	337.1	338.8	340.5	345.1	349.6	361.0	372.3	391.1	409.8	435.3	460.9
57.5°	300.8	303.1	305.4	308.8	312.2	322.4	332.6	349.1	365.5	391.1	416.6
60°	263.4	266.2	269.0	273.0	277.0	284.9	292.9	307.6	322.4	345.1	367.8
62.5°	236.1	236.7	237.2	240.6	244.1	249.7	255.4	267.3	279.2	301.9	324.6
65°	205.5	207.2	208.9	210.6	212.3	216.8	221.4	231.6	241.8	258.8	275.8
67.5°	173.7	175.4	177.1	179.9	182.8	186.7	190.7	197.5	204.3	220.2	236.1
70°	135.1	135.1	135.1	139.6	144.2	151.0	157.8	162.9	168.0	181.1	194.1
72.5°	110.1	110.7	111.2	111.8	112.4	116.4	120.3	128.8	137.4	145.3	153.2
75°	89.7	90.2	90.8	91.4	91.9	93.1	94.2	97.1	99.9	109.0	118.1
77.5°	71.5	72.1	72.6	73.2	73.8	74.9	76.1	77.2	78.3	81.7	85.1
80°	54.5	55.1	55.6	56.2	56.8	57.3	57.9	59.0	60.2	61.9	63.6
82.5°	39.7	39.7	39.7	39.7	39.7	40.9	42.0	42.0	42.0	43.1	44.3
85°	25.0	25.0	25.0	25.5	26.1	26.1	26.1	26.7	27.2	27.2	27.2
87.5°	11.4	10.8	10.2	10.8	11.4	11.4	11.4	11.9	12.5	12.5	12.5
90°	11.8	11.6	11.4	11.2	11.1	10.8	10.5	10.1	9.8	9.4	8.3
92.5°	13.3	13.2	13.1	13.1	13.0	12.6	12.0	11.4	10.8	10.2	9.4
95°	14.9	14.9	14.9	14.9	14.9	14.6	14.0	13.4	12.8	12.1	11.2
97.5°	16.1	16.0	15.9	15.8	15.7	15.3	14.6	13.9	13.2	12.5	17.0
100°	16.5	16.4	16.3	16.2	16.1	15.7	15.0	14.3	13.6	12.9	26.5
102.5°	16.9	16.7	16.5	16.3	16.2	17.5	20.4	23.3	26.1	29.0	44.2
105°	17.2	17.1	16.9	16.7	16.5	24.2	39.6	55.0	70.4	85.8	93.7
107.5°	40.8	52.2	63.6	75.0	86.4	98.8	112.2	125.6	139.0	152.4	151.1
110°	107.8	120.2	132.7	145.1	157.6	165.2	168.1	171.0	173.9	176.7	175.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	204.2	204.3	204.5	204.7	204.9	204.6	203.8	203.0	202.2	201.4	200.5
115°	230.4	230.1	229.7	229.4	229.0	228.4	227.6	226.7	225.8	224.9	224.2
117.5°	251.6	251.5	251.4	251.3	251.2	250.9	250.2	249.5	248.8	248.1	247.6
120°	273.5	273.5	273.5	273.5	273.5	273.2	272.5	271.8	271.1	270.4	270.1
122.5°	295.1	295.0	294.9	294.8	294.7	294.5	294.0	293.6	293.2	292.7	292.4
125°	315.1	314.9	314.7	314.6	314.4	314.2	314.0	313.9	313.7	313.5	313.2
127.5°	334.7	334.8	335.0	335.2	335.4	335.3	335.1	334.8	334.5	334.3	333.8
130°	353.5	353.7	353.8	354.0	354.2	354.1	353.7	353.4	353.0	352.7	352.3
132.5°	370.7	371.0	371.2	371.5	371.8	371.7	371.4	371.0	370.7	370.3	370.1
135°	388.4	388.6	388.9	389.1	389.4	389.4	389.1	388.9	388.6	388.4	388.0
137.5°	405.2	405.4	405.6	405.7	405.9	405.8	405.3	404.9	404.5	404.0	403.9
140°	420.1	420.3	420.5	420.6	420.8	420.7	420.4	420.0	419.7	419.3	419.1
142.5°	433.8	434.1	434.3	434.6	434.9	434.9	434.6	434.3	434.1	433.8	433.6
145°	447.9	447.9	447.9	447.9	447.9	447.8	447.7	447.5	447.3	447.1	447.0
147.5°	458.1	458.6	459.0	459.4	459.9	460.0	459.8	459.6	459.5	459.3	459.1
150°	469.9	470.1	470.4	470.7	470.9	471.0	470.8	470.6	470.4	470.3	470.1
152.5°	479.3	479.7	480.1	480.6	481.0	481.1	480.7	480.4	480.0	479.7	479.6
155°	487.9	488.4	488.9	489.5	490.0	490.0	489.6	489.2	488.7	488.3	488.2
157.5°	495.3	496.0	496.7	497.4	498.1	498.2	497.7	497.2	496.7	496.1	496.2
160°	502.4	503.0	503.6	504.2	504.8	504.9	504.4	503.8	503.3	502.8	502.9
162.5°	509.1	509.6	510.1	510.6	511.2	511.1	510.5	509.9	509.3	508.7	508.8
165°	514.2	514.8	515.4	516.0	516.6	516.6	515.9	515.2	514.5	513.8	513.9
167.5°	518.1	518.8	519.5	520.2	520.9	520.9	520.2	519.5	518.8	518.1	518.1
170°	521.6	522.3	523.0	523.7	524.4	524.4	523.7	523.0	522.3	521.6	521.6
172.5°	523.6	524.3	525.1	525.9	526.7	526.7	526.0	525.3	524.6	524.0	523.9
175°	525.5	526.2	526.9	527.6	528.3	528.4	527.7	527.1	526.5	525.9	525.8
177.5°	525.9	526.8	527.7	528.5	529.4	529.5	528.8	528.1	527.4	526.7	526.6
180°	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	2939.4	2936.6	2909.3	2882.1	2855.4	2828.7	2808.9	2789.0	2755.5	2722.0	2701.0
5°	3121.6	3100.0	3056.9	3013.8	2949.1	2884.4	2829.9	2775.4	2706.2	2636.9	2579.0
7.5°	3223.2	3205.6	3153.4	3101.2	3015.5	2929.8	2844.6	2759.5	2657.3	2555.2	2467.8
10°	3226.0	3240.8	3197.7	3154.5	3058.0	2961.6	2845.8	2730.0	2592.6	2455.3	2342.3
12.5°	3125.0	3188.6	3179.5	3170.4	3072.2	2974.0	2833.3	2692.5	2524.0	2355.4	2214.1
15°	2936.0	3059.2	3095.5	3131.8	3050.7	2969.5	2809.5	2649.4	2451.3	2253.2	2090.9
17.5°	2692.5	2865.1	2961.0	3056.9	2997.9	2938.9	2763.5	2588.1	2365.0	2142.0	1965.5
20°	2404.2	2630.1	2780.5	2930.9	2909.3	2887.8	2706.7	2525.7	2285.0	2044.4	1853.1
22.5°	2119.3	2357.7	2565.4	2773.1	2795.3	2817.4	2634.6	2451.9	2188.5	1925.2	1730.5
25°	1873.5	2115.9	2363.3	2610.8	2660.8	2710.7	2537.0	2363.3	2090.3	1817.3	1623.8
27.5°	1639.1	1869.6	2142.0	2414.4	2505.2	2596.0	2437.1	2278.2	1993.9	1709.5	1516.5
30°	1447.9	1653.9	1932.0	2210.1	2336.7	2463.2	2317.4	2171.5	1889.4	1607.3	1418.3
32.5°	1269.6	1454.1	1733.3	2012.6	2159.6	2306.6	2180.6	2054.6	1783.3	1512.0	1325.3
35°	1128.9	1294.1	1554.6	1815.1	1979.7	2144.3	2041.0	1937.7	1672.6	1407.6	1231.1
37.5°	1008.0	1146.5	1391.1	1635.7	1810.5	1985.3	1899.1	1812.8	1563.6	1314.5	1147.6
40°	908.1	1019.3	1246.9	1474.5	1645.9	1817.3	1743.6	1669.8	1446.7	1223.7	1067.6
42.5°	822.4	918.3	1122.6	1327.0	1484.2	1641.4	1592.6	1543.8	1341.7	1139.7	994.9
45°	746.9	827.5	1007.4	1187.3	1332.1	1476.8	1438.2	1399.6	1225.4	1051.1	918.3
47.5°	679.9	749.2	909.8	1070.4	1200.4	1330.4	1294.6	1258.9	1114.7	970.5	849.6
50°	618.6	677.7	811.6	945.6	1062.5	1179.4	1149.9	1120.4	1001.2	882.0	777.6
52.5°	560.8	609.6	729.9	850.2	944.4	1038.6	1015.9	993.2	901.3	809.3	714.6
55°	505.7	550.5	652.1	753.7	834.3	914.9	892.2	869.5	798.0	726.5	643.1
57.5°	455.8	494.9	577.2	659.5	723.6	787.8	777.0	766.2	706.6	647.0	578.3
60°	403.0	438.2	509.1	580.1	631.7	683.3	670.9	658.4	615.8	573.2	514.2
62.5°	355.9	387.1	443.8	500.6	542.6	584.6	575.5	566.4	534.1	501.7	452.9
65°	306.5	337.1	383.1	429.1	462.0	494.9	487.0	479.0	454.6	430.2	391.1
67.5°	261.6	287.2	326.9	366.6	388.8	410.9	406.4	401.8	383.1	364.4	333.7
70°	216.2	238.4	271.3	304.2	319.5	334.9	336.6	338.3	321.2	304.2	281.5
72.5°	170.8	188.4	219.1	249.7	261.6	273.6	273.0	272.4	262.2	252.0	231.6
75°	131.1	144.2	168.0	191.8	202.1	212.3	214.5	216.8	207.2	197.5	186.2
77.5°	94.2	103.3	121.5	139.6	151.0	162.3	163.5	164.6	160.1	155.5	144.7
80°	66.4	69.2	80.6	91.9	103.9	115.8	117.5	119.2	114.6	110.1	103.3
82.5°	46.0	47.7	51.6	55.6	65.3	74.9	77.2	79.5	77.2	74.9	67.5
85°	27.8	28.4	30.1	31.8	36.3	40.9	43.1	45.4	44.3	43.1	39.2
87.5°	12.5	12.5	13.1	13.6	14.8	15.9	18.7	21.6	19.9	18.2	16.5
90°	7.1	6.0	4.9	3.9	3.0	2.1	1.3	0.4	1.3	2.1	3.0
92.5°	8.6	7.8	7.1	6.9	7.4	8.0	8.5	9.0	8.5	8.0	7.4
95°	10.2	9.3	8.3	9.6	13.2	16.8	20.3	23.9	20.3	16.8	13.2
97.5°	21.4	25.9	30.3	33.7	36.2	38.6	41.1	43.5	41.1	38.6	36.2
100°	40.1	53.7	67.3	73.2	71.5	69.7	68.0	66.2	68.0	69.7	71.5
102.5°	59.3	74.5	89.6	96.6	95.5	94.4	93.2	92.1	93.2	94.4	95.5
105°	101.5	109.3	117.2	120.6	119.7	118.7	117.7	116.8	117.7	118.7	119.7
107.5°	149.8	148.5	147.2	146.2	145.4	144.6	143.8	143.0	143.8	144.6	145.4
110°	174.8	173.9	172.9	172.1	171.4	170.7	170.0	169.3	170.0	170.7	171.4



TEST NUMBER: P832368

CATALOG NUMBER: S123RDIP-S775D365U850-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	199.5	198.6	197.6	196.8	196.2	195.6	195.0	194.4	195.0	195.6	196.2
115°	223.4	222.6	221.8	221.2	220.6	220.1	219.6	219.1	219.6	220.1	220.6
117.5°	247.2	246.8	246.3	245.8	245.2	244.6	244.0	243.4	244.0	244.6	245.2
120°	269.9	269.6	269.4	268.8	268.1	267.3	266.5	265.7	266.5	267.3	268.1
122.5°	292.0	291.7	291.3	290.9	290.3	289.6	289.0	288.4	289.0	289.6	290.3
125°	312.8	312.5	312.1	311.6	310.9	310.2	309.5	308.8	309.5	310.2	310.9
127.5°	333.4	333.0	332.5	332.0	331.3	330.6	329.9	329.2	329.9	330.6	331.3
130°	352.0	351.7	351.3	350.8	350.1	349.4	348.7	348.0	348.7	349.4	350.1
132.5°	369.8	369.5	369.3	368.8	368.1	367.4	366.7	366.0	366.7	367.4	368.1
135°	387.7	387.3	387.0	386.5	386.0	385.5	385.0	384.4	385.0	385.5	386.0
137.5°	403.7	403.5	403.3	402.9	402.2	401.5	400.8	400.1	400.8	401.5	402.2
140°	418.8	418.5	418.3	417.9	417.4	416.8	416.3	415.8	416.3	416.8	417.4
142.5°	433.3	433.0	432.8	432.4	431.9	431.3	430.8	430.3	430.8	431.3	431.9
145°	446.8	446.6	446.4	446.1	445.4	444.8	444.2	443.6	444.2	444.8	445.4
147.5°	458.9	458.8	458.6	458.3	457.9	457.4	457.0	456.5	457.0	457.4	457.9
150°	469.9	469.7	469.6	469.3	469.1	468.8	468.6	468.3	468.6	468.8	469.1
152.5°	479.5	479.4	479.3	479.2	479.1	479.1	479.0	478.9	479.0	479.1	479.1
155°	488.1	488.0	487.9	488.0	488.2	488.3	488.5	488.7	488.5	488.3	488.2
157.5°	496.3	496.4	496.5	496.5	496.5	496.5	496.5	496.5	496.5	496.5	496.5
160°	503.0	503.1	503.1	503.2	503.3	503.4	503.5	503.6	503.5	503.4	503.3
162.5°	508.8	508.9	509.0	509.2	509.5	509.7	510.0	510.2	510.0	509.7	509.5
165°	513.9	514.0	514.1	514.3	514.5	514.8	515.1	515.3	515.1	514.8	514.5
167.5°	518.1	518.1	518.1	518.2	518.6	518.9	519.3	519.6	519.3	518.9	518.6
170°	521.6	521.6	521.6	521.8	522.1	522.5	522.8	523.2	522.8	522.5	522.1
172.5°	523.8	523.7	523.6	523.8	524.2	524.6	525.1	525.5	525.1	524.6	524.2
175°	525.7	525.7	525.6	525.7	526.2	526.6	527.0	527.5	527.0	526.6	526.2
177.5°	526.5	526.4	526.3	526.5	527.0	527.4	527.8	528.3	527.8	527.4	527.0
180°	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5



TEST NUMBER: P832368

CATALOG NUMBER: S123RDIP-S775D365U850-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6	2768.6
2.5°	2680.0	2647.7	2615.3	2592.1	2568.8	2539.9	2510.9	2509.8	2508.6	2487.1	2465.5
5°	2521.1	2464.9	2408.8	2353.7	2298.6	2243.6	2188.5	2176.0	2163.6	2144.8	2126.1
7.5°	2380.4	2290.7	2201.0	2130.6	2060.3	2005.2	1950.2	1912.7	1875.2	1846.3	1817.3
10°	2229.4	2118.2	2006.9	1921.8	1836.6	1777.0	1717.5	1674.3	1631.2	1610.8	1590.3
12.5°	2072.8	1951.9	1831.0	1747.5	1664.1	1592.6	1521.1	1481.9	1442.8	1414.4	1386.0
15°	1928.6	1798.6	1668.6	1580.1	1491.6	1424.6	1357.6	1318.5	1279.3	1250.9	1222.5
17.5°	1789.0	1657.9	1526.8	1437.1	1347.4	1286.7	1225.9	1187.9	1149.9	1132.3	1114.7
20°	1661.8	1529.6	1397.3	1312.8	1228.2	1168.6	1109.0	1088.6	1068.2	1051.7	1035.2
22.5°	1535.8	1408.7	1281.6	1200.4	1119.2	1076.1	1033.0	1016.5	1000.1	987.6	975.1
25°	1430.3	1303.7	1177.1	1106.2	1035.2	1001.8	968.3	957.5	946.7	934.2	921.7
27.5°	1323.6	1203.2	1082.9	1026.2	969.4	942.2	914.9	901.3	887.7	877.5	867.2
30°	1229.3	1118.1	1006.9	959.8	912.6	888.8	865.0	850.2	835.5	825.8	816.2
32.5°	1138.5	1039.8	941.0	900.7	860.4	837.2	813.9	799.7	785.5	774.2	762.8
35°	1054.5	968.8	883.1	846.2	809.3	786.1	762.8	748.6	734.4	723.1	711.7
37.5°	980.8	903.0	825.2	790.6	756.0	735.6	715.1	700.4	685.6	673.7	661.8
40°	911.5	842.8	774.2	740.7	707.2	685.1	662.9	649.9	636.8	626.0	615.2
42.5°	850.2	787.2	724.2	691.3	658.4	637.4	616.4	601.1	585.7	579.5	573.2
45°	785.5	729.9	674.3	642.5	610.7	588.6	566.4	553.4	540.3	534.6	529.0
47.5°	728.8	677.1	625.5	594.2	563.0	543.2	523.3	513.1	502.9	494.9	487.0
50°	673.1	623.2	573.2	543.2	513.1	496.1	479.0	466.5	454.1	448.4	442.7
52.5°	619.8	574.4	529.0	498.3	467.7	451.2	434.8	424.0	413.2	401.3	389.4
55°	559.6	519.9	480.2	452.9	425.7	408.6	391.6	379.1	366.6	354.2	341.7
57.5°	509.7	470.5	431.4	406.9	382.5	366.1	349.6	336.0	322.4	312.2	301.9
60°	455.2	421.1	387.1	363.2	339.4	323.5	307.6	294.6	281.5	276.4	271.3
62.5°	404.1	372.3	340.5	319.5	298.5	283.2	267.9	259.4	250.9	247.5	244.1
65°	351.9	324.6	297.4	278.1	258.8	245.8	232.7	228.7	224.8	221.9	219.1
67.5°	303.1	279.8	256.5	239.5	222.5	213.4	204.3	199.8	195.2	191.8	188.4
70°	258.8	238.4	217.9	203.2	188.4	179.9	171.4	167.4	163.5	157.2	151.0
72.5°	211.1	195.2	179.4	168.0	156.6	149.3	141.9	133.9	126.0	120.3	114.6
75°	174.8	158.9	143.0	132.2	121.5	112.9	104.4	101.6	98.8	97.1	95.4
77.5°	133.9	120.3	106.7	98.2	89.7	85.7	81.7	80.0	78.3	77.8	77.2
80°	96.5	85.1	73.8	69.2	64.7	63.6	62.4	61.3	60.2	59.6	59.0
82.5°	60.2	54.5	48.8	47.7	46.5	46.0	45.4	44.8	44.3	43.7	43.1
85°	35.2	32.9	30.6	30.1	29.5	28.9	28.4	28.4	28.4	28.4	28.4
87.5°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.2	13.6
90°	3.9	4.9	6.0	7.1	8.3	9.4	9.8	10.1	10.5	10.8	11.1
92.5°	6.9	7.1	7.8	8.6	9.4	10.2	10.8	11.4	12.0	12.6	13.0
95°	9.6	8.3	9.3	10.2	11.2	12.1	12.8	13.4	14.0	14.6	14.9
97.5°	33.7	30.3	25.9	21.4	17.0	12.5	13.2	13.9	14.6	15.3	15.7
100°	73.2	67.3	53.7	40.1	26.5	12.9	13.6	14.3	15.0	15.7	16.1
102.5°	96.6	89.6	74.5	59.3	44.2	29.0	26.1	23.3	20.4	17.5	16.2
105°	120.6	117.2	109.3	101.5	93.7	85.8	70.4	55.0	39.6	24.2	16.5
107.5°	146.2	147.2	148.5	149.8	151.1	152.4	139.0	125.6	112.2	98.8	86.4
110°	172.1	172.9	173.9	174.8	175.8	176.7	173.9	171.0	168.1	165.2	157.6



TEST NUMBER: P832368

CATALOG NUMBER: S123RDIP-S775D365U850-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	196.8	197.6	198.6	199.5	200.5	201.4	202.2	203.0	203.8	204.6	204.9
115°	221.2	221.8	222.6	223.4	224.2	224.9	225.8	226.7	227.6	228.4	229.0
117.5°	245.8	246.3	246.8	247.2	247.6	248.1	248.8	249.5	250.2	250.9	251.2
120°	268.8	269.4	269.6	269.9	270.1	270.4	271.1	271.8	272.5	273.2	273.5
122.5°	290.9	291.3	291.7	292.0	292.4	292.7	293.2	293.6	294.0	294.5	294.7
125°	311.6	312.1	312.5	312.8	313.2	313.5	313.7	313.9	314.0	314.2	314.4
127.5°	332.0	332.5	333.0	333.4	333.8	334.3	334.5	334.8	335.1	335.3	335.4
130°	350.8	351.3	351.7	352.0	352.3	352.7	353.0	353.4	353.7	354.1	354.2
132.5°	368.8	369.3	369.5	369.8	370.1	370.3	370.7	371.0	371.4	371.7	371.8
135°	386.5	387.0	387.3	387.7	388.0	388.4	388.6	388.9	389.1	389.4	389.4
137.5°	402.9	403.3	403.5	403.7	403.9	404.0	404.5	404.9	405.3	405.8	405.9
140°	417.9	418.3	418.5	418.8	419.1	419.3	419.7	420.0	420.4	420.7	420.8
142.5°	432.4	432.8	433.0	433.3	433.6	433.8	434.1	434.3	434.6	434.9	434.9
145°	446.1	446.4	446.6	446.8	447.0	447.1	447.3	447.5	447.7	447.8	447.9
147.5°	458.3	458.6	458.8	458.9	459.1	459.3	459.5	459.6	459.8	460.0	459.9
150°	469.3	469.6	469.7	469.9	470.1	470.3	470.4	470.6	470.8	471.0	470.9
152.5°	479.2	479.3	479.4	479.5	479.6	479.7	480.0	480.4	480.7	481.1	481.0
155°	488.0	487.9	488.0	488.1	488.2	488.3	488.7	489.2	489.6	490.0	490.0
157.5°	496.5	496.5	496.4	496.3	496.2	496.1	496.7	497.2	497.7	498.2	498.1
160°	503.2	503.1	503.1	503.0	502.9	502.8	503.3	503.8	504.4	504.9	504.8
162.5°	509.2	509.0	508.9	508.8	508.8	508.7	509.3	509.9	510.5	511.1	511.2
165°	514.3	514.1	514.0	513.9	513.9	513.8	514.5	515.2	515.9	516.6	516.6
167.5°	518.2	518.1	518.1	518.1	518.1	518.1	518.8	519.5	520.2	520.9	520.9
170°	521.8	521.6	521.6	521.6	521.6	521.6	522.3	523.0	523.7	524.4	524.4
172.5°	523.8	523.6	523.7	523.8	523.9	524.0	524.6	525.3	526.0	526.7	526.7
175°	525.7	525.6	525.7	525.7	525.8	525.9	526.5	527.1	527.7	528.4	528.3
177.5°	526.5	526.3	526.4	526.5	526.6	526.7	527.4	528.1	528.8	529.5	529.4
180°	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5	527.5



TEST NUMBER: P832368

CATALOG NUMBER: S123RDIP-S775D365U850-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2768.6	2768.6	2768.6	2768.6
2.5°	2459.8	2454.2	2451.9	2449.6
5°	2108.5	2090.9	2086.9	2083.0
7.5°	1810.0	1802.6	1778.2	1753.8
10°	1567.6	1544.9	1534.7	1524.5
12.5°	1365.0	1344.0	1340.6	1337.2
15°	1207.8	1193.0	1187.9	1182.8
17.5°	1104.5	1094.3	1088.0	1081.8
20°	1027.9	1020.5	1015.9	1011.4
22.5°	969.4	963.7	960.3	956.9
25°	913.2	904.7	901.9	899.0
27.5°	859.9	852.5	849.6	846.8
30°	809.9	803.7	799.7	795.7
32.5°	755.4	748.1	745.8	743.5
35°	707.2	702.6	700.4	698.1
37.5°	656.1	650.4	647.0	643.6
40°	612.4	609.6	607.9	606.2
42.5°	568.1	563.0	562.5	561.9
45°	523.9	518.8	517.6	516.5
47.5°	482.4	477.9	477.3	476.8
50°	436.5	430.2	425.7	421.1
52.5°	383.7	378.0	374.0	370.1
55°	335.4	329.2	325.8	322.4
57.5°	299.1	296.3	294.6	292.9
60°	269.6	267.9	266.8	265.6
62.5°	242.4	240.6	240.6	240.6
65°	217.4	215.7	214.0	212.3
67.5°	185.0	181.6	181.1	180.5
70°	145.9	140.8	140.2	139.6
72.5°	114.1	113.5	112.4	111.2
75°	94.2	93.1	93.1	93.1
77.5°	76.1	74.9	74.9	74.9
80°	58.5	57.9	58.5	59.0
82.5°	43.1	43.1	42.6	42.0
85°	27.8	27.2	27.2	27.2
87.5°	13.6	13.6	13.6	13.6
90°	11.2	11.4	11.6	11.8
92.5°	13.1	13.1	13.2	13.3
95°	14.9	14.9	14.9	14.9
97.5°	15.8	15.9	16.0	16.1
100°	16.2	16.3	16.4	16.5
102.5°	16.3	16.5	16.7	16.9
105°	16.7	16.9	17.1	17.2
107.5°	75.0	63.6	52.2	40.8
110°	145.1	132.7	120.2	107.8



TEST NUMBER: P832368

CATALOG NUMBER: S123RDIP-S775D365U850-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	204.7	204.5	204.3	204.2
115°	229.4	229.7	230.1	230.4
117.5°	251.3	251.4	251.5	251.6
120°	273.5	273.5	273.5	273.5
122.5°	294.8	294.9	295.0	295.1
125°	314.6	314.7	314.9	315.1
127.5°	335.2	335.0	334.8	334.7
130°	354.0	353.8	353.7	353.5
132.5°	371.5	371.2	371.0	370.7
135°	389.1	388.9	388.6	388.4
137.5°	405.7	405.6	405.4	405.2
140°	420.6	420.5	420.3	420.1
142.5°	434.6	434.3	434.1	433.8
145°	447.9	447.9	447.9	447.9
147.5°	459.4	459.0	458.6	458.1
150°	470.7	470.4	470.1	469.9
152.5°	480.6	480.1	479.7	479.3
155°	489.5	488.9	488.4	487.9
157.5°	497.4	496.7	496.0	495.3
160°	504.2	503.6	503.0	502.4
162.5°	510.6	510.1	509.6	509.1
165°	516.0	515.4	514.8	514.2
167.5°	520.2	519.5	518.8	518.1
170°	523.7	523.0	522.3	521.6
172.5°	525.9	525.1	524.3	523.6
175°	527.6	526.9	526.2	525.5
177.5°	528.5	527.7	526.8	525.9
180°	527.5	527.5	527.5	527.5



TEST NUMBER: P832368

CATALOG NUMBER: S123RDIP-S775D365U850-4F0-1E-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	14.21	15.20	15.00	15.99	16.96	18.88	19.86	19.66	20.66	21.62
	3H	15.45	16.33	16.24	17.13	18.13	20.39	21.27	21.18	22.07	23.07
	4H	15.84	16.66	16.65	17.48	18.49	20.88	21.71	21.70	22.53	23.53
	6H	16.12	16.89	16.95	17.71	18.73	21.20	21.97	22.03	22.79	23.81
	8H	16.22	16.94	17.05	17.78	18.80	21.29	22.01	22.12	22.85	23.87
	12H	16.27	16.96	17.11	17.79	18.84	21.32	22.01	22.16	22.85	23.89
4H	2H	14.95	15.78	15.77	16.60	17.60	18.89	19.72	19.71	20.53	21.54
	3H	16.34	17.02	17.16	17.87	18.89	20.56	21.25	21.39	22.10	23.12
	4H	16.80	17.42	17.64	18.27	19.32	21.17	21.80	22.01	22.64	23.69
	6H	17.17	17.71	18.03	18.58	19.64	21.62	22.16	22.48	23.03	24.08
	8H	17.30	17.80	18.16	18.67	19.74	21.75	22.25	22.61	23.12	24.19
	12H	17.38	17.83	18.26	18.72	19.79	21.82	22.27	22.70	23.16	24.23
8H	4H	17.12	17.62	17.98	18.49	19.56	21.15	21.65	22.01	22.52	23.59
	6H	17.59	18.00	18.48	18.91	19.98	21.65	22.07	22.54	22.97	24.04
	8H	17.79	18.15	18.68	19.05	20.14	21.84	22.20	22.74	23.11	24.19
	12H	17.93	18.25	18.83	19.14	20.28	21.96	22.28	22.86	23.18	24.32
12H	4H	17.14	17.59	18.02	18.48	19.55	21.11	21.56	21.99	22.44	23.52
	6H	17.65	18.02	18.55	18.92	20.00	21.63	21.99	22.53	22.90	23.98
	8H	17.88	18.20	18.78	19.09	20.23	21.83	22.15	22.73	23.04	24.18