

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: P832411

Luminaire Tested: S123RDIP-S775D585U950-4F0-1E-UDD-G1

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832411
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-S775D585U950-4F0-1E-UDD-G1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 585 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: -

Summary

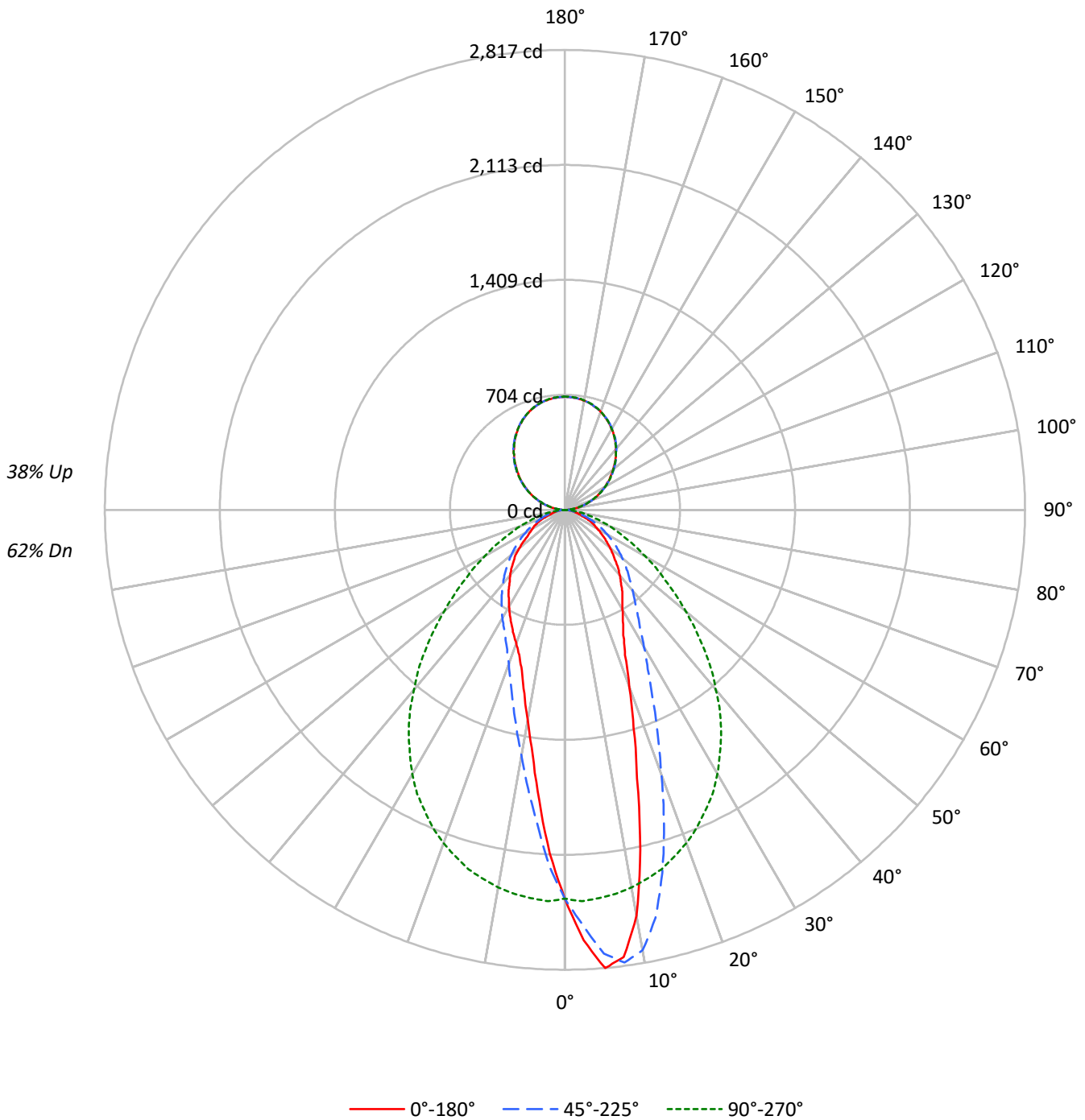
Lumens per Lamp: N/A
Luminaire Lumens: 5078.5 lumens
Efficiency: N/A
Efficacy: 123.6 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 41.1
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	110	110	110	110	103	103	103	103	90	90	90	78	78	78	67	67	67	62		
1	101	97	94	91	95	92	88	86	81	78	76	70	69	67	61	60	59	54		
2	93	86	81	76	87	81	76	72	72	68	65	63	60	58	55	53	51	47		
3	86	77	70	65	80	73	67	62	64	60	56	57	53	50	50	47	45	41		
4	79	69	62	56	74	65	59	53	58	53	49	51	47	44	45	42	40	37		
5	73	62	55	49	69	59	52	47	53	47	43	47	43	39	42	38	36	33		
6	68	57	49	43	64	54	47	42	48	43	38	43	39	35	38	35	32	29		
7	63	52	44	39	60	49	42	37	44	39	34	40	35	32	35	32	29	27		
8	59	47	40	35	56	45	38	34	41	35	31	37	32	29	33	29	27	24		
9	55	44	36	32	52	42	35	31	38	32	28	34	30	26	31	27	24	22		
10	52	40	33	29	49	39	32	28	35	30	26	32	27	24	29	25	23	21		

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	25635	25635	25635	25635	25635
5°	30439	29469	25797	20854	19360
10°	27578	29932	25668	16709	14334
15°	18989	25664	25397	13657	11339
20°	13210	19759	24888	11515	9966
25°	10067	15060	24145	10234	9185
30°	8763	12040	23218	9503	8508
35°	8046	10156	21904	8885	7891
40°	7340	9070	20183	8280	7326
45°	6629	8295	18328	7707	6763
50°	6017	7653	16139	7145	6067
55°	5442	7028	14037	6596	5204
60°	4876	6389	12193	5991	4919
65°	4500	5670	10496	5384	4651
70°	3657	4900	9158	4872	3780
75°	3206	3897	7756	4042	3331
80°	2907	3298	6354	3391	3149
85°	2655	2890	4829	3075	2890

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 19339 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	217.1	4.3
10°-20°	502.3	9.9
20°-30°	576.3	11.3
30°-40°	568.1	11.2
40°-50°	501.0	9.9
50°-60°	385.4	7.6
60°-70°	253.4	5.0
70°-80°	123.1	2.4
80°-90°	32.5	0.6
90°-100°	44.6	0.9
100°-110°	135.0	2.7
110°-120°	229.8	4.5
120°-130°	302.3	6.0
130°-140°	339.8	6.7
140°-150°	334.0	6.6
150°-160°	281.2	5.5
160°-170°	187.2	3.7
170°-180°	65.6	1.3
0°-30°	1295.8	25.5
0°-40°	1863.8	36.7
0°-60°	2750.2	54.2
0°-90°	3159.2	62.2
90°-120°	409.3	8.1
90°-150°	1385.4	27.3
90°-180°	1919.0	37.8
0°-180°	5078.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2382	2382	2382	2382	2382	
5°	2817	2727	2388	1930	1792	257
15°	1704	2303	2279	1226	1018	481
25°	848	1268	2033	862	773	400
35°	612	773	1667	676	600	382
45°	436	545	1204	506	444	338
55°	290	374	748	352	277	260
65°	177	223	412	211	183	173
75°	77	94	186	97	80	83
85°	22	23	39	25	23	23
90°	16	13	0	13	16	9
95°	42	40	32	40	42	43
105°	130	128	122	128	130	137
115°	232	232	231	232	232	230
125°	335	339	338	339	335	299
135°	439	442	439	442	439	337
145°	533	535	533	535	533	333
155°	609	610	610	610	609	281
165°	662	663	664	663	662	187
175°	688	689	691	689	688	65
180°	693	693	693	693	693	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6
2.5°	2639.4	2631.1	2622.8	2620.4	2617.9	2610.1	2602.3	2584.7	2567.2	2549.1	2531.0
5°	2817.1	2818.1	2819.1	2816.7	2814.2	2804.0	2793.7	2772.2	2750.7	2727.3	2703.9
7.5°	2762.5	2778.1	2793.7	2796.6	2799.6	2807.4	2815.2	2810.3	2805.4	2796.6	2787.9
10°	2523.2	2522.2	2521.3	2538.8	2556.4	2608.7	2660.9	2687.8	2714.6	2738.5	2762.5
12.5°	2132.6	2134.1	2135.6	2193.2	2250.8	2300.1	2349.4	2417.8	2486.1	2559.8	2633.6
15°	1704.0	1727.9	1751.8	1803.1	1854.3	1928.5	2002.8	2094.5	2186.3	2303.0	2419.7
17.5°	1399.3	1409.5	1419.8	1469.1	1518.4	1588.7	1659.0	1763.0	1867.0	2017.4	2167.8
20°	1153.2	1162.5	1171.8	1207.4	1243.1	1310.4	1377.8	1476.9	1576.0	1725.0	1873.9
22.5°	962.8	980.9	998.9	1022.9	1046.8	1095.6	1144.4	1245.5	1346.6	1482.3	1618.0
25°	847.6	855.9	864.2	884.7	905.2	952.1	998.9	1065.8	1132.7	1268.0	1403.2
27.5°	769.5	771.9	774.3	789.5	804.6	834.9	865.2	927.2	989.2	1100.5	1211.8
30°	705.0	709.4	713.8	725.5	737.2	759.2	781.2	825.1	869.1	968.7	1068.3
32.5°	655.2	657.7	660.1	669.9	679.6	695.7	711.9	746.5	781.2	857.3	933.5
35°	612.3	612.7	613.2	620.6	627.9	643.5	659.1	687.9	716.7	772.9	829.0
37.5°	563.4	566.8	570.3	575.6	581.0	594.7	608.3	631.8	655.2	701.6	748.0
40°	522.4	525.3	528.3	534.6	541.0	551.7	562.5	583.9	605.4	645.5	685.5
42.5°	481.4	483.4	485.3	491.7	498.0	511.2	524.4	541.5	558.5	591.7	624.9
45°	435.5	440.4	445.3	452.1	458.9	470.2	481.4	499.0	516.6	544.9	573.2
47.5°	397.4	399.9	402.3	408.2	414.0	427.7	441.4	457.0	472.6	499.0	525.3
50°	359.3	360.3	361.3	366.7	372.0	384.2	396.5	414.5	432.6	457.0	481.4
52.5°	323.2	325.7	328.1	333.5	338.8	347.1	355.4	374.0	392.5	416.5	440.4
55°	290.0	291.5	292.9	296.8	300.8	310.5	320.3	336.4	352.5	374.5	396.5
57.5°	258.8	260.7	262.7	265.6	268.5	277.3	286.1	300.3	314.4	336.4	358.4
60°	226.5	229.0	231.4	234.8	238.3	245.1	251.9	264.6	277.3	296.8	316.4
62.5°	203.1	203.6	204.1	207.0	209.9	214.8	219.7	230.0	240.2	259.7	279.3
65°	176.7	178.2	179.7	181.1	182.6	186.5	190.4	199.2	208.0	222.6	237.3
67.5°	149.4	150.9	152.3	154.8	157.2	160.6	164.0	169.9	175.8	189.4	203.1
70°	116.2	116.2	116.2	120.1	124.0	129.9	135.7	140.1	144.5	155.7	167.0
72.5°	94.7	95.2	95.7	96.2	96.7	100.1	103.5	110.8	118.2	125.0	131.8
75°	77.1	77.6	78.1	78.6	79.1	80.1	81.0	83.5	85.9	93.7	101.6
77.5°	61.5	62.0	62.5	63.0	63.5	64.4	65.4	66.4	67.4	70.3	73.2
80°	46.9	47.4	47.8	48.3	48.8	49.3	49.8	50.8	51.8	53.2	54.7
82.5°	34.2	34.2	34.2	34.2	34.2	35.2	36.1	36.1	36.1	37.1	38.1
85°	21.5	21.5	21.5	22.0	22.5	22.5	22.5	22.9	23.4	23.4	23.4
87.5°	9.8	9.3	8.8	9.3	9.8	9.8	9.8	10.3	10.7	10.7	10.7
90°	16.3	16.1	15.8	15.6	15.4	15.0	14.5	14.0	13.5	13.1	11.5
92.5°	23.4	23.6	23.9	24.1	24.4	24.3	23.9	23.6	23.2	22.9	22.1
95°	42.4	42.4	42.4	42.4	42.4	42.2	41.7	41.2	40.8	40.3	39.3
97.5°	60.9	61.1	61.2	61.3	61.4	61.2	60.6	60.0	59.4	58.8	58.0
100°	82.7	82.5	82.2	82.0	81.7	81.4	81.1	80.7	80.4	80.0	79.4
102.5°	105.0	105.1	105.3	105.4	105.5	105.4	105.0	104.7	104.3	103.9	103.1
105°	129.5	129.3	129.0	128.8	128.5	128.4	128.4	128.4	128.4	128.4	127.3
107.5°	154.5	154.7	154.8	154.9	155.0	154.9	154.5	154.2	153.8	153.5	153.0
110°	180.1	180.4	180.6	180.8	181.1	181.0	180.5	180.0	179.5	179.0	178.8



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	207.3	207.3	207.3	207.3	207.3	207.0	206.4	205.8	205.2	204.6	204.6
115°	231.8	231.9	232.1	232.2	232.3	232.3	232.2	232.1	231.9	231.8	232.1
117.5°	256.8	257.2	257.6	257.9	258.3	258.5	258.5	258.5	258.5	258.5	258.7
120°	283.5	283.7	284.0	284.2	284.5	284.7	284.8	284.9	285.0	285.1	285.7
122.5°	309.1	309.4	309.8	310.2	310.5	310.9	311.3	311.6	312.0	312.3	312.6
125°	334.7	335.1	335.6	336.1	336.6	337.1	337.6	338.0	338.5	339.0	339.2
127.5°	360.2	360.7	361.2	361.7	362.2	362.8	363.5	364.2	364.9	365.7	365.9
130°	385.3	386.1	387.0	387.8	388.6	389.3	389.8	390.3	390.8	391.2	391.6
132.5°	411.4	412.0	412.6	413.2	413.8	414.4	415.0	415.6	416.2	416.8	417.1
135°	438.6	438.8	439.1	439.3	439.6	439.9	440.4	440.9	441.4	441.9	442.0
137.5°	462.5	462.9	463.3	463.6	464.0	464.5	465.1	465.7	466.3	466.9	466.5
140°	485.9	486.8	487.6	488.5	489.3	489.8	489.9	490.0	490.2	490.3	490.2
142.5°	509.9	510.5	511.1	511.7	512.3	512.7	512.8	512.9	513.0	513.1	512.9
145°	532.7	533.2	533.7	534.2	534.7	535.0	535.1	535.2	535.3	535.4	535.1
147.5°	553.4	554.1	554.9	555.6	556.3	556.7	556.7	556.7	556.7	556.7	556.3
150°	573.0	573.7	574.4	575.2	575.9	576.3	576.3	576.3	576.3	576.3	576.0
152.5°	592.0	592.6	593.2	593.9	594.5	594.6	594.4	594.2	593.9	593.7	593.5
155°	608.9	609.8	610.6	611.4	612.3	612.5	612.0	611.5	611.0	610.5	610.4
157.5°	624.7	625.4	626.1	626.9	627.6	627.7	627.2	626.7	626.3	625.8	625.7
160°	639.9	640.4	640.9	641.4	641.9	641.8	641.2	640.6	640.0	639.4	639.4
162.5°	651.4	652.2	653.0	653.9	654.7	654.9	654.3	653.6	653.0	652.4	652.3
165°	662.2	663.1	663.9	664.8	665.6	665.7	665.0	664.2	663.5	662.8	662.8
167.5°	672.0	672.8	673.5	674.2	674.9	674.9	674.2	673.5	672.8	672.0	671.9
170°	679.1	679.9	680.8	681.6	682.5	682.5	681.6	680.8	679.9	679.1	679.1
172.5°	684.5	685.4	686.2	687.1	687.9	688.0	687.3	686.5	685.8	685.1	685.1
175°	688.4	689.2	690.0	690.9	691.7	691.8	691.1	690.3	689.6	688.9	688.9
177.5°	690.5	691.4	692.2	693.1	693.9	694.0	693.3	692.5	691.8	691.1	691.1
180°	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6
2.5°	2528.6	2526.2	2502.7	2479.3	2456.3	2433.4	2416.3	2399.2	2370.4	2341.6	2323.5
5°	2685.3	2666.8	2629.7	2592.6	2536.9	2481.2	2434.4	2387.5	2327.9	2268.4	2218.6
7.5°	2772.7	2757.6	2712.7	2667.7	2594.0	2520.3	2447.1	2373.8	2285.9	2198.1	2122.9
10°	2775.2	2787.9	2750.7	2713.6	2630.6	2547.6	2448.0	2348.4	2230.3	2112.1	2015.0
12.5°	2688.2	2742.9	2735.1	2727.3	2642.8	2558.4	2437.3	2316.2	2171.2	2026.2	1904.6
15°	2525.7	2631.6	2662.9	2694.1	2624.3	2554.5	2416.8	2279.1	2108.7	1938.3	1798.7
17.5°	2316.2	2464.6	2547.1	2629.7	2578.9	2528.1	2377.2	2226.4	2034.5	1842.6	1690.8
20°	2068.2	2262.5	2391.9	2521.3	2502.7	2484.2	2328.4	2172.7	1965.7	1758.6	1594.1
22.5°	1823.1	2028.1	2206.8	2385.5	2404.6	2423.6	2266.4	2109.2	1882.7	1656.1	1488.6
25°	1611.7	1820.2	2033.0	2245.9	2288.9	2331.8	2182.4	2033.0	1798.2	1563.3	1396.9
27.5°	1410.0	1608.3	1842.6	2077.0	2155.1	2233.2	2096.5	1959.8	1715.2	1470.6	1304.6
30°	1245.5	1422.7	1662.0	1901.2	2010.1	2119.0	1993.5	1868.0	1625.4	1382.7	1220.1
32.5°	1092.2	1250.9	1491.1	1731.3	1857.8	1984.2	1875.8	1767.4	1534.1	1300.7	1140.0
35°	971.1	1113.2	1337.3	1561.4	1703.0	1844.6	1755.7	1666.9	1438.8	1210.8	1059.0
37.5°	867.1	986.2	1196.7	1407.1	1557.5	1707.9	1633.7	1559.4	1345.1	1130.8	987.2
40°	781.2	876.9	1072.7	1268.4	1415.9	1563.3	1499.9	1436.4	1244.5	1052.6	918.4
42.5°	707.5	790.0	965.7	1141.5	1276.7	1412.0	1370.0	1328.0	1154.2	980.4	855.9
45°	642.5	711.9	866.6	1021.4	1145.9	1270.4	1237.2	1204.0	1054.1	904.2	790.0
47.5°	584.9	644.5	782.6	920.8	1032.6	1144.4	1113.7	1082.9	958.9	834.9	730.9
50°	532.2	583.0	698.2	813.4	914.0	1014.6	989.2	963.8	861.3	758.7	668.9
52.5°	482.4	524.4	627.9	731.4	812.4	893.5	873.9	854.4	775.3	696.2	614.7
55°	435.0	473.6	561.0	648.4	717.7	787.0	767.5	748.0	686.5	624.9	553.2
57.5°	392.1	425.7	496.5	567.3	622.5	677.7	668.4	659.1	607.9	556.6	497.5
60°	346.7	376.9	438.0	499.0	543.4	587.8	577.1	566.4	529.7	493.1	442.3
62.5°	306.1	333.0	381.8	430.6	466.8	502.9	495.1	487.3	459.4	431.6	389.6
65°	263.6	290.0	329.6	369.1	397.4	425.7	418.9	412.1	391.1	370.1	336.4
67.5°	225.1	247.0	281.2	315.4	334.4	353.5	349.6	345.7	329.6	313.5	287.1
70°	186.0	205.1	233.4	261.7	274.9	288.1	289.5	291.0	276.3	261.7	242.2
72.5°	147.0	162.1	188.5	214.8	225.1	235.3	234.8	234.4	225.6	216.8	199.2
75°	112.8	124.0	144.5	165.0	173.8	182.6	184.6	186.5	178.2	169.9	160.1
77.5°	81.0	88.9	104.5	120.1	129.9	139.6	140.6	141.6	137.7	133.8	124.5
80°	57.1	59.6	69.3	79.1	89.3	99.6	101.1	102.5	98.6	94.7	88.9
82.5°	39.5	41.0	44.4	47.8	56.1	64.4	66.4	68.4	66.4	64.4	58.1
85°	23.9	24.4	25.9	27.3	31.2	35.2	37.1	39.1	38.1	37.1	33.7
87.5°	10.7	10.7	11.2	11.7	12.7	13.7	16.1	18.6	17.1	15.6	14.2
90°	9.9	8.3	6.8	5.4	4.2	3.0	1.8	0.5	1.8	3.0	4.2
92.5°	21.4	20.7	20.0	19.2	18.5	17.8	17.1	16.3	17.1	17.8	18.5
95°	38.3	37.4	36.4	35.5	34.6	33.8	33.0	32.1	33.0	33.8	34.6
97.5°	57.3	56.6	55.9	55.2	54.6	54.0	53.4	52.8	53.4	54.0	54.6
100°	78.8	78.2	77.6	76.9	76.2	75.5	74.7	74.0	74.7	75.5	76.2
102.5°	102.2	101.4	100.5	99.9	99.6	99.2	98.9	98.5	98.9	99.2	99.6
105°	126.2	125.2	124.1	123.4	123.2	122.9	122.7	122.4	122.7	122.9	123.2
107.5°	152.5	152.0	151.5	151.2	151.1	151.0	150.9	150.7	150.9	151.0	151.1
110°	178.5	178.3	178.1	177.8	177.6	177.3	177.1	176.8	177.1	177.3	177.6



TEST NUMBER: P832411

CATALOG NUMBER: S123RDIP-S775D585U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	204.6	204.6	204.6	204.5	204.4	204.3	204.2	204.1	204.2	204.3	204.4
115°	232.3	232.5	232.8	232.7	232.4	232.0	231.6	231.3	231.6	232.0	232.4
117.5°	259.0	259.2	259.4	259.5	259.4	259.3	259.1	259.0	259.1	259.3	259.4
120°	286.3	286.9	287.6	287.5	286.8	286.0	285.3	284.6	285.3	286.0	286.8
122.5°	312.8	313.1	313.3	313.2	312.7	312.2	311.7	311.3	311.7	312.2	312.7
125°	339.5	339.7	340.0	339.9	339.6	339.2	338.8	338.5	338.8	339.2	339.6
127.5°	366.2	366.4	366.6	366.4	365.7	364.9	364.2	363.5	364.2	364.9	365.7
130°	392.0	392.3	392.7	392.4	391.4	390.5	389.5	388.5	389.5	390.5	391.4
132.5°	417.3	417.5	417.8	417.4	416.5	415.5	414.5	413.6	414.5	415.5	416.5
135°	442.1	442.2	442.3	442.0	441.3	440.6	439.9	439.1	439.9	440.6	441.3
137.5°	466.2	465.8	465.4	464.9	464.3	463.7	463.1	462.5	463.1	463.7	464.3
140°	490.0	489.9	489.8	489.4	488.8	488.2	487.6	487.0	487.6	488.2	488.8
142.5°	512.7	512.4	512.2	511.7	511.1	510.5	509.9	509.3	509.9	510.5	511.1
145°	534.7	534.4	534.0	533.7	533.5	533.2	533.0	532.7	533.0	533.2	533.5
147.5°	555.9	555.6	555.2	554.8	554.3	553.8	553.3	552.9	553.3	553.8	554.3
150°	575.8	575.5	575.3	575.0	574.8	574.6	574.3	574.1	574.3	574.6	574.8
152.5°	593.4	593.3	593.2	592.9	592.6	592.2	591.9	591.5	591.9	592.2	592.6
155°	610.3	610.2	610.1	610.0	610.0	610.0	610.0	610.0	610.0	610.0	610.0
157.5°	625.5	625.4	625.3	625.3	625.4	625.5	625.7	625.8	625.7	625.5	625.4
160°	639.4	639.4	639.4	639.5	639.7	640.0	640.2	640.5	640.2	640.0	639.7
162.5°	652.2	652.1	652.0	652.1	652.4	652.8	653.2	653.5	653.2	652.8	652.4
165°	662.8	662.8	662.8	663.0	663.3	663.7	664.0	664.4	664.0	663.7	663.3
167.5°	671.8	671.7	671.5	671.7	672.2	672.7	673.2	673.7	673.2	672.7	672.2
170°	679.1	679.1	679.1	679.3	679.8	680.3	680.8	681.3	680.8	680.3	679.8
172.5°	685.1	685.1	685.1	685.3	685.8	686.3	686.8	687.3	686.8	686.3	685.8
175°	688.9	688.9	688.9	689.1	689.6	690.1	690.6	691.1	690.6	690.1	689.6
177.5°	691.1	691.1	691.1	691.3	691.8	692.3	692.8	693.3	692.8	692.3	691.8
180°	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7



TEST NUMBER: P832411

CATALOG NUMBER: S123RDIP-S775D585U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6	2381.6
2.5°	2305.5	2277.6	2249.8	2229.8	2209.8	2184.9	2160.0	2159.0	2158.0	2139.5	2120.9
5°	2168.8	2120.4	2072.1	2024.7	1977.4	1930.0	1882.7	1871.9	1861.2	1845.1	1828.9
7.5°	2047.7	1970.5	1893.4	1832.9	1772.3	1725.0	1677.6	1645.4	1613.1	1588.2	1563.3
10°	1917.8	1822.1	1726.4	1653.2	1579.9	1528.7	1477.4	1440.3	1403.2	1385.6	1368.0
12.5°	1783.1	1679.1	1575.1	1503.3	1431.5	1370.0	1308.5	1274.8	1241.1	1216.7	1192.3
15°	1659.0	1547.2	1435.4	1359.3	1283.1	1225.5	1167.9	1134.2	1100.5	1076.1	1051.7
17.5°	1538.9	1426.1	1313.4	1236.2	1159.1	1106.8	1054.6	1021.9	989.2	974.0	958.9
20°	1429.6	1315.8	1202.0	1129.3	1056.6	1005.3	954.0	936.4	918.9	904.7	890.5
22.5°	1321.2	1211.8	1102.4	1032.6	962.8	925.7	888.6	874.4	860.3	849.5	838.8
25°	1230.4	1121.5	1012.6	951.6	890.5	861.7	832.9	823.7	814.4	803.6	792.9
27.5°	1138.6	1035.1	931.6	882.7	833.9	810.5	787.0	775.3	763.6	754.8	746.0
30°	1057.5	961.8	866.1	825.6	785.1	764.6	744.1	731.4	718.7	710.4	702.1
32.5°	979.4	894.5	809.5	774.8	740.2	720.2	700.1	687.9	675.7	666.0	656.2
35°	907.1	833.4	759.7	728.0	696.2	676.2	656.2	644.0	631.8	622.0	612.3
37.5°	843.7	776.8	709.9	680.1	650.3	632.8	615.2	602.5	589.8	579.5	569.3
40°	784.1	725.0	666.0	637.2	608.3	589.3	570.3	559.0	547.8	538.5	529.3
42.5°	731.4	677.2	623.0	594.7	566.4	548.3	530.2	517.0	503.9	498.5	493.1
45°	675.7	627.9	580.0	552.7	525.3	506.3	487.3	476.0	464.8	459.9	455.0
47.5°	626.9	582.5	538.0	511.2	484.3	467.2	450.2	441.4	432.6	425.7	418.9
50°	579.1	536.1	493.1	467.2	441.4	426.7	412.1	401.3	390.6	385.7	380.8
52.5°	533.2	494.1	455.0	428.7	402.3	388.2	374.0	364.7	355.4	345.2	334.9
55°	481.4	447.2	413.1	389.6	366.2	351.5	336.9	326.1	315.4	304.7	293.9
57.5°	438.4	404.8	371.1	350.1	329.1	314.9	300.8	289.0	277.3	268.5	259.7
60°	391.6	362.3	333.0	312.5	292.0	278.3	264.6	253.4	242.2	237.8	233.4
62.5°	347.6	320.3	292.9	274.9	256.8	243.6	230.4	223.1	215.8	212.9	209.9
65°	302.7	279.3	255.8	239.2	222.6	211.4	200.2	196.8	193.3	190.9	188.5
67.5°	260.7	240.7	220.7	206.0	191.4	183.6	175.8	171.9	168.0	165.0	162.1
70°	222.6	205.1	187.5	174.8	162.1	154.8	147.4	144.0	140.6	135.2	129.9
72.5°	181.6	168.0	154.3	144.5	134.8	128.4	122.1	115.2	108.4	103.5	98.6
75°	150.4	136.7	123.0	113.8	104.5	97.2	89.8	87.4	85.0	83.5	82.0
77.5°	115.2	103.5	91.8	84.5	77.1	73.7	70.3	68.8	67.4	66.9	66.4
80°	83.0	73.2	63.5	59.6	55.7	54.7	53.7	52.7	51.8	51.3	50.8
82.5°	51.8	46.9	42.0	41.0	40.0	39.5	39.1	38.6	38.1	37.6	37.1
85°	30.3	28.3	26.4	25.9	25.4	24.9	24.4	24.4	24.4	24.4	24.4
87.5°	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.7	12.2	11.7
90°	5.4	6.8	8.3	9.9	11.5	13.1	13.5	14.0	14.5	15.0	15.4
92.5°	19.2	20.0	20.7	21.4	22.1	22.9	23.2	23.6	23.9	24.3	24.4
95°	35.5	36.4	37.4	38.3	39.3	40.3	40.8	41.2	41.7	42.2	42.4
97.5°	55.2	55.9	56.6	57.3	58.0	58.8	59.4	60.0	60.6	61.2	61.4
100°	76.9	77.6	78.2	78.8	79.4	80.0	80.4	80.7	81.1	81.4	81.7
102.5°	99.9	100.5	101.4	102.2	103.1	103.9	104.3	104.7	105.0	105.4	105.5
105°	123.4	124.1	125.2	126.2	127.3	128.4	128.4	128.4	128.4	128.4	128.5
107.5°	151.2	151.5	152.0	152.5	153.0	153.5	153.8	154.2	154.5	154.9	155.0
110°	177.8	178.1	178.3	178.5	178.8	179.0	179.5	180.0	180.5	181.0	181.1



TEST NUMBER: P832411

CATALOG NUMBER: S123RDIP-S775D585U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	204.5	204.6	204.6	204.6	204.6	204.6	205.2	205.8	206.4	207.0	207.3
115°	232.7	232.8	232.5	232.3	232.1	231.8	231.9	232.1	232.2	232.3	232.3
117.5°	259.5	259.4	259.2	259.0	258.7	258.5	258.5	258.5	258.5	258.5	258.3
120°	287.5	287.6	286.9	286.3	285.7	285.1	285.0	284.9	284.8	284.7	284.5
122.5°	313.2	313.3	313.1	312.8	312.6	312.3	312.0	311.6	311.3	310.9	310.5
125°	339.9	340.0	339.7	339.5	339.2	339.0	338.5	338.0	337.6	337.1	336.6
127.5°	366.4	366.6	366.4	366.2	365.9	365.7	364.9	364.2	363.5	362.8	362.2
130°	392.4	392.7	392.3	392.0	391.6	391.2	390.8	390.3	389.8	389.3	388.6
132.5°	417.4	417.8	417.5	417.3	417.1	416.8	416.2	415.6	415.0	414.4	413.8
135°	442.0	442.3	442.2	442.1	442.0	441.9	441.4	440.9	440.4	439.9	439.6
137.5°	464.9	465.4	465.8	466.2	466.5	466.9	466.3	465.7	465.1	464.5	464.0
140°	489.4	489.8	489.9	490.0	490.2	490.3	490.2	490.0	489.9	489.8	489.3
142.5°	511.7	512.2	512.4	512.7	512.9	513.1	513.0	512.9	512.8	512.7	512.3
145°	533.7	534.0	534.4	534.7	535.1	535.4	535.3	535.2	535.1	535.0	534.7
147.5°	554.8	555.2	555.6	555.9	556.3	556.7	556.7	556.7	556.7	556.7	556.3
150°	575.0	575.3	575.5	575.8	576.0	576.3	576.3	576.3	576.3	576.3	575.9
152.5°	592.9	593.2	593.3	593.4	593.5	593.7	593.9	594.2	594.4	594.6	594.5
155°	610.0	610.1	610.2	610.3	610.4	610.5	611.0	611.5	612.0	612.5	612.3
157.5°	625.3	625.3	625.4	625.5	625.7	625.8	626.3	626.7	627.2	627.7	627.6
160°	639.5	639.4	639.4	639.4	639.4	639.4	640.0	640.6	641.2	641.8	641.9
162.5°	652.1	652.0	652.1	652.2	652.3	652.4	653.0	653.6	654.3	654.9	654.7
165°	663.0	662.8	662.8	662.8	662.8	662.8	663.5	664.2	665.0	665.7	665.6
167.5°	671.7	671.5	671.7	671.8	671.9	672.0	672.8	673.5	674.2	674.9	674.9
170°	679.3	679.1	679.1	679.1	679.1	679.1	679.9	680.8	681.6	682.5	682.5
172.5°	685.3	685.1	685.1	685.1	685.1	685.1	685.8	686.5	687.3	688.0	687.9
175°	689.1	688.9	688.9	688.9	688.9	688.9	689.6	690.3	691.1	691.8	691.7
177.5°	691.3	691.1	691.1	691.1	691.1	691.1	691.8	692.5	693.3	694.0	693.9
180°	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7	692.7



TEST NUMBER: P832411

CATALOG NUMBER: S123RDIP-S775D585U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2381.6	2381.6	2381.6	2381.6
2.5°	2116.0	2111.1	2109.2	2107.2
5°	1813.8	1798.7	1795.3	1791.8
7.5°	1557.0	1550.7	1529.7	1508.7
10°	1348.5	1329.0	1320.2	1311.4
12.5°	1174.2	1156.2	1153.2	1150.3
15°	1039.0	1026.3	1021.9	1017.5
17.5°	950.1	941.3	936.0	930.6
20°	884.2	877.9	873.9	870.0
22.5°	833.9	829.0	826.1	823.2
25°	785.6	778.3	775.8	773.4
27.5°	739.7	733.3	730.9	728.5
30°	696.7	691.3	687.9	684.5
32.5°	649.8	643.5	641.5	639.6
35°	608.3	604.4	602.5	600.5
37.5°	564.4	559.5	556.6	553.7
40°	526.8	524.4	522.9	521.4
42.5°	488.7	484.3	483.8	483.4
45°	450.6	446.3	445.3	444.3
47.5°	415.0	411.1	410.6	410.1
50°	375.5	370.1	366.2	362.3
52.5°	330.1	325.2	321.8	318.3
55°	288.5	283.2	280.2	277.3
57.5°	257.3	254.9	253.4	251.9
60°	231.9	230.4	229.5	228.5
62.5°	208.5	207.0	207.0	207.0
65°	187.0	185.5	184.1	182.6
67.5°	159.2	156.2	155.7	155.3
70°	125.5	121.1	120.6	120.1
72.5°	98.1	97.6	96.7	95.7
75°	81.0	80.1	80.1	80.1
77.5°	65.4	64.4	64.4	64.4
80°	50.3	49.8	50.3	50.8
82.5°	37.1	37.1	36.6	36.1
85°	23.9	23.4	23.4	23.4
87.5°	11.7	11.7	11.7	11.7
90°	15.6	15.8	16.1	16.3
92.5°	24.1	23.9	23.6	23.4
95°	42.4	42.4	42.4	42.4
97.5°	61.3	61.2	61.1	60.9
100°	82.0	82.2	82.5	82.7
102.5°	105.4	105.3	105.1	105.0
105°	128.8	129.0	129.3	129.5
107.5°	154.9	154.8	154.7	154.5
110°	180.8	180.6	180.4	180.1



TEST NUMBER: P832411

CATALOG NUMBER: S123RDIP-S775D585U950-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	207.3	207.3	207.3	207.3
115°	232.2	232.1	231.9	231.8
117.5°	257.9	257.6	257.2	256.8
120°	284.2	284.0	283.7	283.5
122.5°	310.2	309.8	309.4	309.1
125°	336.1	335.6	335.1	334.7
127.5°	361.7	361.2	360.7	360.2
130°	387.8	387.0	386.1	385.3
132.5°	413.2	412.6	412.0	411.4
135°	439.3	439.1	438.8	438.6
137.5°	463.6	463.3	462.9	462.5
140°	488.5	487.6	486.8	485.9
142.5°	511.7	511.1	510.5	509.9
145°	534.2	533.7	533.2	532.7
147.5°	555.6	554.9	554.1	553.4
150°	575.2	574.4	573.7	573.0
152.5°	593.9	593.2	592.6	592.0
155°	611.4	610.6	609.8	608.9
157.5°	626.9	626.1	625.4	624.7
160°	641.4	640.9	640.4	639.9
162.5°	653.9	653.0	652.2	651.4
165°	664.8	663.9	663.1	662.2
167.5°	674.2	673.5	672.8	672.0
170°	681.6	680.8	679.9	679.1
172.5°	687.1	686.2	685.4	684.5
175°	690.9	690.0	689.2	688.4
177.5°	693.1	692.2	691.4	690.5
180°	692.7	692.7	692.7	692.7



TEST NUMBER: P832411

CATALOG NUMBER: S123RDIP-S775D585U950-4F0-1E-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	13.09	14.00	13.95	14.87	15.97	17.76	18.67	18.62	19.54	20.63
	3H	14.32	15.13	15.19	16.01	17.13	19.26	20.08	20.14	20.96	22.08
	4H	14.71	15.47	15.59	16.36	17.49	19.76	20.52	20.64	21.41	22.54
	6H	14.99	15.70	15.89	16.59	17.73	20.07	20.78	20.97	21.67	22.81
	8H	15.08	15.75	15.99	16.66	17.80	20.15	20.83	21.06	21.74	22.88
	12H	15.14	15.77	16.05	16.68	17.84	20.19	20.83	21.10	21.73	22.89
4H	2H	13.83	14.59	14.72	15.48	16.61	17.76	18.53	18.65	19.42	20.54
	3H	15.20	15.84	16.10	16.76	17.90	19.43	20.07	20.33	20.98	22.13
	4H	15.66	16.24	16.57	17.15	18.32	20.04	20.62	20.95	21.53	22.70
	6H	16.03	16.53	16.96	17.47	18.64	20.48	20.98	21.41	21.92	23.09
	8H	16.16	16.62	17.09	17.56	18.74	20.61	21.08	21.54	22.01	23.19
	12H	16.24	16.66	17.19	17.61	18.79	20.68	21.10	21.62	22.05	23.23
8H	4H	15.98	16.45	16.91	17.38	18.56	20.01	20.48	20.94	21.41	22.59
	6H	16.45	16.83	17.40	17.80	18.99	20.51	20.89	21.46	21.87	23.05
	8H	16.64	16.98	17.60	17.94	19.14	20.70	21.03	21.66	22.00	23.20
	12H	16.78	17.08	17.75	18.04	19.29	20.82	21.11	21.78	22.07	23.32
12H	4H	16.00	16.41	16.94	17.36	18.55	19.96	20.38	20.91	21.33	22.52
	6H	16.51	16.84	17.47	17.81	19.01	20.48	20.82	21.45	21.79	22.99
	8H	16.73	17.03	17.69	17.98	19.23	20.68	20.98	21.65	21.93	23.19