

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: P832406

Luminaire Tested: S123RDIP-S775D585U935-4F0-1E-UDD-G4

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832406
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-S775D585U935-4F0-1E-UDD-G4
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 585 LUMENS PER FOOT, BATWING OPTIC
Light Source: -
Ballast/Driver: -

Summary

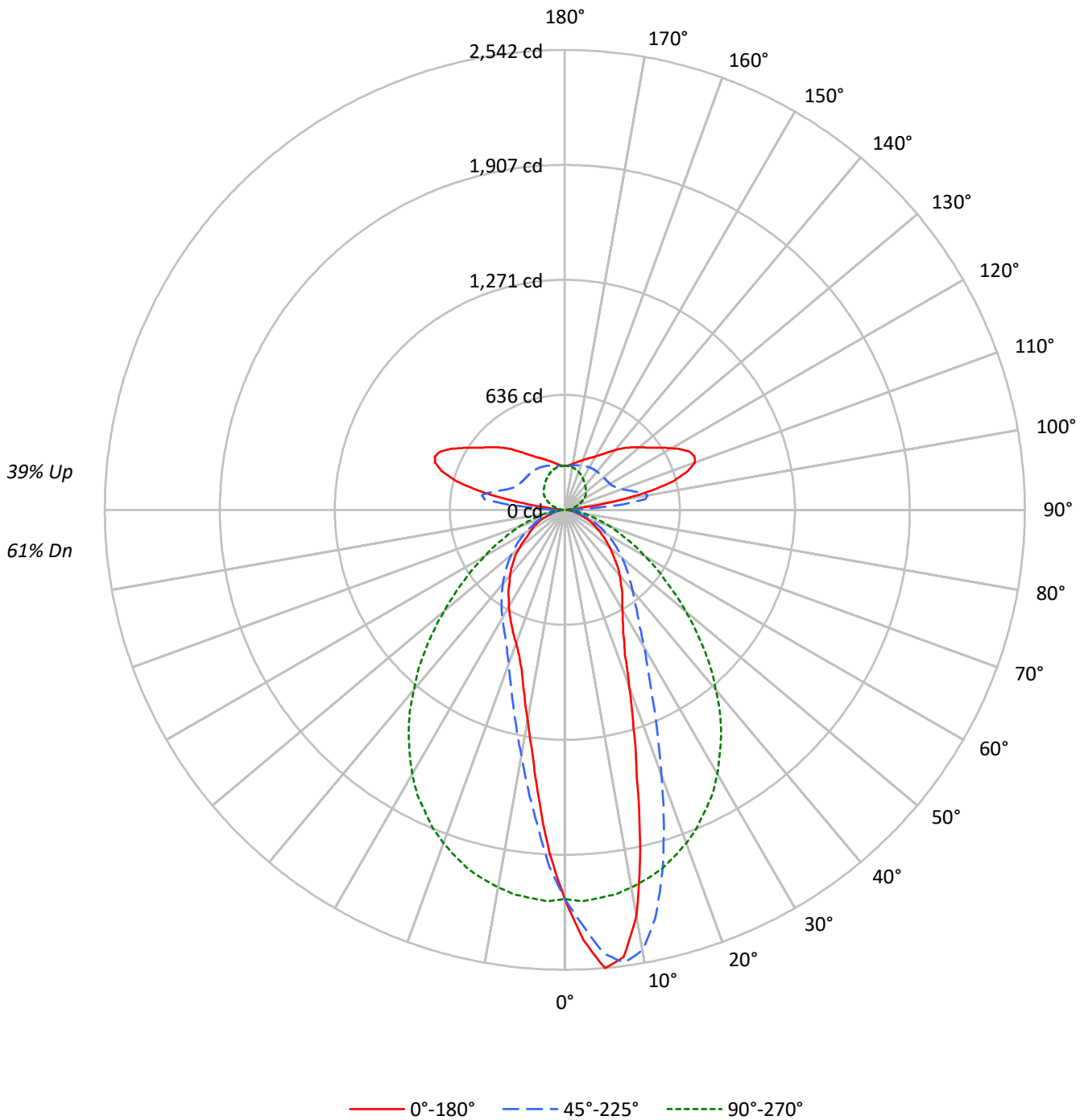
Lumens per Lamp: N/A
Luminaire Lumens: 4676.1 lumens
Efficiency: N/A
Efficacy: 113.8 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 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					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	110	110	110	110	103	103	103	103	89	89	89	77	77	77	66	66	66	66	66	66	61	
1	101	97	94	90	95	91	88	85	80	78	75	70	68	66	60	59	58	60	59	58	53	
2	93	86	80	76	87	81	76	72	71	67	64	62	60	57	54	52	50	54	52	50	46	
3	86	77	70	64	80	72	66	61	64	59	55	56	53	50	49	46	44	49	46	44	41	
4	79	69	61	56	74	65	58	53	58	52	48	51	47	44	45	42	39	45	42	39	36	
5	73	62	54	49	68	59	52	47	52	47	43	46	42	39	41	38	35	41	38	35	32	
6	68	56	49	43	63	53	46	41	48	42	38	42	38	35	38	34	31	38	34	31	29	
7	63	51	44	38	59	49	42	37	44	38	34	39	35	31	35	31	29	35	31	29	26	
8	59	47	40	35	55	45	38	33	40	35	31	36	32	28	32	29	26	32	29	26	24	
9	55	43	36	31	52	41	35	30	37	32	28	34	29	26	30	27	24	30	27	24	22	
10	52	40	33	29	49	38	32	28	35	30	26	31	27	24	28	25	22	28	25	22	20	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	23137	23137	23137	23137	23137
5°	27472	26596	23282	18821	17474
10°	24890	27015	23166	15080	12937
15°	17137	23162	22921	12325	10233
20°	11922	17833	22462	10393	8994
25°	9086	13592	21791	9236	8290
30°	7909	10866	20954	8576	7679
35°	7261	9165	19768	8020	7122
40°	6625	8185	18216	7474	6613
45°	5984	7486	16541	6955	6104
50°	5431	6906	14565	6449	5476
55°	4911	6343	12669	5955	4697
60°	4402	5767	11003	5408	4439
65°	4062	5117	9472	4860	4197
70°	3301	4425	8264	4397	3412
75°	2895	3518	6999	3647	3007
80°	2622	2975	5734	3062	2839
85°	2396	2618	4360	2779	2618

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 17454 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.9	4.2
10°-20°	453.4	9.7
20°-30°	520.2	11.1
30°-40°	512.7	11.0
40°-50°	452.1	9.7
50°-60°	347.8	7.4
60°-70°	228.7	4.9
70°-80°	111.1	2.4
80°-90°	29.3	0.6
90°-100°	131.6	2.8
100°-110°	385.4	8.2
110°-120°	376.4	8.0
120°-130°	299.7	6.4
130°-140°	236.5	5.1
140°-150°	176.4	3.8
150°-160°	123.0	2.6
160°-170°	72.3	1.5
170°-180°	23.5	0.5
0°-30°	1169.4	25.0
0°-40°	1682.1	36.0
0°-60°	2482.1	53.1
0°-90°	2851.2	61.0
90°-120°	893.4	19.1
90°-150°	1606.1	34.3
90°-180°	1825.0	39.0
0°-180°	4676.1	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2150	2150	2150	2150	2150	
5°	2542	2461	2155	1742	1617	232
15°	1538	2078	2057	1106	918	434
25°	765	1144	1835	778	698	361
35°	553	698	1504	610	542	344
45°	393	492	1087	457	401	305
55°	262	338	675	317	250	235
65°	160	201	372	191	165	156
75°	70	85	168	88	72	75
85°	19	21	35	22	21	21
90°	14	12	1	12	14	9
95°	57	291	17	291	57	93
105°	625	395	57	395	625	623
115°	760	302	101	302	760	741
125°	599	282	140	282	599	542
135°	486	278	164	278	486	377
145°	380	274	187	274	380	241
155°	315	266	213	266	315	147
165°	274	254	232	254	274	78
175°	247	244	242	244	247	24
180°	243	243	243	243	243	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5
2.5°	2382.1	2374.6	2367.1	2364.9	2362.7	2355.7	2348.6	2332.8	2316.9	2300.6	2284.3
5°	2542.5	2543.4	2544.3	2542.1	2539.9	2530.6	2521.4	2502.0	2482.6	2461.4	2440.3
7.5°	2493.2	2507.3	2521.4	2524.0	2526.6	2533.7	2540.7	2536.3	2531.9	2524.0	2516.1
10°	2277.2	2276.4	2275.5	2291.3	2307.2	2354.4	2401.5	2425.7	2450.0	2471.6	2493.2
12.5°	1924.7	1926.1	1927.4	1979.4	2031.4	2075.9	2120.4	2182.1	2243.8	2310.3	2376.8
15°	1537.8	1559.4	1581.0	1627.3	1673.6	1740.5	1807.5	1890.4	1973.2	2078.5	2183.8
17.5°	1262.9	1272.1	1281.4	1325.9	1370.4	1433.9	1497.3	1591.2	1685.0	1820.7	1956.5
20°	1040.8	1049.2	1057.5	1089.7	1121.9	1182.7	1243.5	1332.9	1422.4	1556.8	1691.2
22.5°	868.9	885.3	901.6	923.1	944.7	988.8	1032.9	1124.1	1215.3	1337.8	1460.3
25°	765.0	772.4	779.9	798.4	817.0	859.3	901.6	961.9	1022.3	1144.4	1266.4
27.5°	694.5	696.7	698.9	712.5	726.2	753.5	780.8	836.8	892.7	993.2	1093.7
30°	636.3	640.3	644.2	654.8	665.4	685.2	705.0	744.7	784.3	874.2	964.1
32.5°	591.3	593.5	595.7	604.6	613.4	627.9	642.5	673.7	705.0	773.8	842.5
35°	552.6	553.0	553.4	560.1	566.7	580.8	594.9	620.9	646.9	697.5	748.2
37.5°	508.5	511.6	514.7	519.5	524.4	536.7	549.0	570.2	591.3	633.2	675.1
40°	471.5	474.1	476.8	482.5	488.2	497.9	507.6	527.0	546.4	582.5	618.7
42.5°	434.5	436.2	438.0	443.7	449.5	461.4	473.3	488.7	504.1	534.1	564.0
45°	393.1	397.5	401.9	408.0	414.2	424.3	434.5	450.3	466.2	491.8	517.3
47.5°	358.7	360.9	363.1	368.4	373.7	386.0	398.3	412.4	426.5	450.3	474.1
50°	324.3	325.2	326.1	330.9	335.8	346.8	357.8	374.1	390.4	412.4	434.5
52.5°	291.7	293.9	296.1	301.0	305.8	313.3	320.8	337.5	354.3	375.9	397.5
55°	261.7	263.1	264.4	267.9	271.4	280.2	289.1	303.6	318.1	338.0	357.8
57.5°	233.5	235.3	237.1	239.7	242.4	250.3	258.2	271.0	283.8	303.6	323.4
60°	204.5	206.7	208.9	211.9	215.0	221.2	227.4	238.8	250.3	267.9	285.5
62.5°	183.3	183.7	184.2	186.8	189.5	193.9	198.3	207.5	216.8	234.4	252.0
65°	159.5	160.8	162.2	163.5	164.8	168.3	171.9	179.8	187.7	200.9	214.2
67.5°	134.8	136.2	137.5	139.7	141.9	145.0	148.1	153.3	158.6	171.0	183.3
70°	104.9	104.9	104.9	108.4	111.9	117.2	122.5	126.5	130.4	140.6	150.7
72.5°	85.5	85.9	86.4	86.8	87.2	90.3	93.4	100.0	106.6	112.8	119.0
75°	69.6	70.1	70.5	70.9	71.4	72.3	73.1	75.3	77.6	84.6	91.7
77.5°	55.5	56.0	56.4	56.8	57.3	58.2	59.0	59.9	60.8	63.5	66.1
80°	42.3	42.7	43.2	43.6	44.1	44.5	44.9	45.8	46.7	48.0	49.4
82.5°	30.8	30.8	30.8	30.8	30.8	31.7	32.6	32.6	32.6	33.5	34.4
85°	19.4	19.4	19.4	19.8	20.3	20.3	20.3	20.7	21.2	21.2	21.2
87.5°	8.8	8.4	7.9	8.4	8.8	8.8	8.8	9.3	9.7	9.7	9.7
90°	14.2	14.7	14.2	13.8	14.2	13.3	12.8	12.3	11.8	12.3	10.8
92.5°	26.0	27.0	26.5	28.5	29.5	32.9	37.8	48.6	68.3	91.3	101.2
95°	57.0	58.9	62.4	66.8	76.1	93.8	119.8	176.8	236.2	291.2	259.3
97.5°	116.9	122.3	134.1	152.7	185.6	241.6	306.4	406.1	463.1	447.9	334.4
100°	307.9	307.4	326.6	362.4	412.0	481.8	539.2	579.0	561.8	465.1	314.3
102.5°	487.7	501.9	517.1	543.6	579.5	617.3	644.8	636.5	566.7	433.1	284.8
105°	624.7	627.1	642.8	661.5	684.1	696.9	687.5	638.4	535.8	394.8	261.8
107.5°	714.0	719.4	725.8	734.7	737.6	724.4	686.1	609.0	491.6	361.0	245.1
110°	765.1	766.1	767.1	763.2	749.4	715.0	653.2	562.8	450.3	333.0	236.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	775.4	774.9	770.0	755.8	727.8	681.1	609.9	517.1	414.5	314.3	231.3
115°	759.7	757.3	747.4	725.8	689.0	635.5	563.3	477.8	387.0	302.0	230.8
117.5°	725.3	721.9	707.2	683.1	644.8	589.3	523.0	447.4	368.8	293.7	231.3
120°	680.2	677.2	665.4	637.9	599.1	549.5	490.6	424.3	355.1	288.3	233.3
122.5°	637.9	634.0	620.7	596.7	563.3	518.1	464.6	406.1	343.8	284.8	236.7
125°	599.1	595.7	583.4	561.8	530.4	491.1	443.9	390.4	334.4	281.9	240.1
127.5°	565.7	562.8	551.5	532.8	504.4	468.0	424.8	376.2	325.6	280.4	244.1
130°	538.2	534.3	524.0	506.3	480.3	446.9	407.1	362.9	318.7	278.9	248.0
132.5°	511.2	508.8	499.9	482.3	458.2	426.8	390.4	350.6	312.3	278.4	250.9
135°	485.7	482.3	473.4	458.7	434.6	406.6	374.7	339.8	306.9	278.0	253.9
137.5°	458.7	455.7	448.4	433.1	412.5	387.5	359.0	329.5	302.0	277.0	255.9
140°	430.2	430.7	422.8	409.1	390.4	369.3	345.7	320.7	297.6	276.5	257.8
142.5°	403.7	404.2	397.3	385.5	370.3	352.6	333.0	312.3	293.7	275.5	259.3
145°	379.6	378.6	374.7	364.4	352.1	337.9	322.2	305.9	290.2	274.5	259.8
147.5°	359.0	358.5	354.6	347.2	337.4	327.1	313.8	300.5	286.8	273.0	259.8
150°	341.3	341.3	338.4	333.0	325.6	316.3	305.9	294.7	283.4	271.1	259.8
152.5°	326.6	326.6	325.1	320.2	314.8	307.4	298.6	289.3	279.4	268.6	258.3
155°	314.8	314.3	313.3	309.4	305.0	299.1	291.7	283.9	275.5	265.7	257.3
157.5°	303.5	303.5	302.5	299.6	295.6	290.7	284.8	278.0	271.1	263.2	255.9
160°	292.7	293.2	293.2	290.2	286.8	283.4	278.4	273.0	266.7	260.3	254.9
162.5°	282.9	283.4	283.4	280.9	278.9	276.0	271.6	267.2	262.2	257.3	252.9
165°	274.5	274.5	275.0	273.0	271.1	268.6	265.2	262.2	258.3	254.4	250.9
167.5°	266.2	266.2	266.7	265.2	264.2	262.2	260.3	257.8	254.4	251.4	249.0
170°	258.8	258.8	259.3	258.3	257.8	256.8	254.9	253.4	250.9	248.5	247.0
172.5°	251.9	252.4	253.4	252.4	252.4	251.9	250.5	249.5	247.5	246.0	245.5
175°	247.0	247.5	248.0	247.5	247.5	247.5	246.5	246.0	245.1	244.1	244.1
177.5°	243.6	243.6	244.6	244.1	244.6	244.6	244.1	243.6	243.1	242.6	243.1
180°	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5
2.5°	2282.1	2279.9	2258.7	2237.6	2216.9	2196.2	2180.7	2165.3	2139.3	2113.3	2097.0
5°	2423.5	2406.8	2373.3	2339.8	2289.6	2239.3	2197.0	2154.7	2101.0	2047.2	2002.3
7.5°	2502.4	2488.8	2448.2	2407.7	2341.1	2274.6	2208.5	2142.4	2063.1	1983.8	1915.9
10°	2504.6	2516.1	2482.6	2449.1	2374.2	2299.3	2209.4	2119.5	2012.9	1906.2	1818.5
12.5°	2426.2	2475.5	2468.5	2461.4	2385.2	2309.0	2199.7	2090.4	1959.5	1828.7	1718.9
15°	2279.4	2375.1	2403.3	2431.5	2368.5	2305.4	2181.2	2056.9	1903.1	1749.4	1623.3
17.5°	2090.4	2224.4	2298.8	2373.3	2327.5	2281.7	2145.5	2009.3	1836.2	1663.0	1525.9
20°	1866.6	2041.9	2158.7	2275.5	2258.7	2242.0	2101.4	1960.9	1774.0	1587.2	1438.7
22.5°	1645.4	1830.4	1991.7	2153.0	2170.2	2187.4	2045.5	1903.6	1699.1	1494.7	1343.5
25°	1454.6	1642.7	1834.8	2027.0	2065.7	2104.5	1969.7	1834.8	1622.9	1410.9	1260.7
27.5°	1272.6	1451.5	1663.0	1874.5	1945.0	2015.5	1892.1	1768.7	1548.0	1327.2	1177.4
30°	1124.1	1284.0	1499.9	1715.9	1814.1	1912.4	1799.1	1685.9	1466.9	1247.9	1101.2
32.5°	985.7	1128.9	1345.7	1562.5	1676.6	1790.8	1693.0	1595.1	1384.5	1173.9	1028.9
35°	876.4	1004.7	1206.9	1409.2	1537.0	1664.7	1584.6	1504.4	1298.6	1092.8	955.8
37.5°	782.6	890.1	1080.0	1269.9	1405.7	1541.4	1474.4	1407.4	1214.0	1020.5	891.0
40°	705.0	791.4	968.1	1144.8	1277.9	1410.9	1353.7	1296.4	1123.2	950.0	828.8
42.5°	638.5	713.0	871.6	1030.2	1152.3	1274.3	1236.4	1198.5	1041.7	884.8	772.4
45°	579.9	642.5	782.1	921.8	1034.2	1146.6	1116.6	1086.6	951.3	816.1	713.0
47.5°	527.9	581.6	706.4	831.1	932.0	1032.9	1005.1	977.3	865.4	753.5	659.6
50°	480.3	526.1	630.1	734.1	824.9	915.7	892.7	869.8	777.3	684.8	603.7
52.5°	435.4	473.3	566.7	660.1	733.2	806.4	788.8	771.1	699.7	628.4	554.8
55°	392.6	427.4	506.3	585.2	647.7	710.3	692.7	675.1	619.5	564.0	499.2
57.5°	353.8	384.2	448.1	512.0	561.8	611.6	603.2	594.9	548.6	502.3	449.0
60°	312.9	340.2	395.3	450.3	490.4	530.5	520.8	511.1	478.1	445.0	399.2
62.5°	276.3	300.5	344.6	388.6	421.3	453.9	446.8	439.8	414.6	389.5	351.6
65°	237.9	261.7	297.4	333.1	358.7	384.2	378.1	371.9	353.0	334.0	303.6
67.5°	203.1	223.0	253.8	284.7	301.8	319.0	315.5	312.0	297.4	282.9	259.1
70°	167.9	185.1	210.6	236.2	248.1	260.0	261.3	262.6	249.4	236.2	218.6
72.5°	132.6	146.3	170.1	193.9	203.1	212.4	211.9	211.5	203.6	195.6	179.8
75°	101.8	111.9	130.4	148.9	156.9	164.8	166.6	168.3	160.8	153.3	144.5
77.5°	73.1	80.2	94.3	108.4	117.2	126.0	126.9	127.8	124.3	120.7	112.4
80°	51.6	53.8	62.6	71.4	80.6	89.9	91.2	92.5	89.0	85.5	80.2
82.5°	35.7	37.0	40.1	43.2	50.7	58.2	59.9	61.7	59.9	58.2	52.4
85°	21.6	22.0	23.4	24.7	28.2	31.7	33.5	35.3	34.4	33.5	30.4
87.5°	9.7	9.7	10.1	10.6	11.5	12.3	14.5	16.7	15.4	14.1	12.8
90°	9.3	7.9	6.4	5.4	4.4	2.9	2.0	1.0	2.0	2.9	4.4
92.5°	75.6	49.6	33.9	25.0	20.1	15.7	10.8	7.4	10.8	15.7	20.1
95°	178.8	105.6	63.8	44.7	31.9	23.6	18.2	16.7	18.2	23.6	31.9
97.5°	198.9	113.9	72.7	51.6	38.8	31.4	27.0	26.5	27.0	31.4	38.8
100°	185.1	112.5	78.1	58.9	47.1	40.3	36.8	36.3	36.8	40.3	47.1
102.5°	173.4	114.4	84.5	67.3	57.0	50.6	47.6	46.7	47.6	50.6	57.0
105°	168.9	118.4	91.8	76.6	67.3	61.4	58.4	57.0	58.4	61.4	67.3
107.5°	168.0	124.7	101.2	86.9	78.1	72.2	69.2	67.8	69.2	72.2	78.1
110°	170.4	133.1	111.0	97.2	88.9	83.5	81.0	79.6	81.0	83.5	88.9



TEST NUMBER: P832406

CATALOG NUMBER: S123RDIP-S775D585U935-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	175.3	141.4	121.3	108.0	99.7	94.3	91.8	90.4	91.8	94.3	99.7
115°	180.7	150.8	132.1	118.8	110.5	105.6	102.6	100.7	102.6	105.6	110.5
117.5°	187.6	160.6	141.9	129.6	120.3	115.9	113.4	111.0	113.4	115.9	120.3
120°	195.5	169.9	152.2	140.0	130.6	125.7	123.3	121.8	123.3	125.7	130.6
122.5°	202.8	179.7	162.6	149.3	140.5	135.0	132.6	131.1	132.6	135.0	140.5
125°	210.7	189.1	171.9	158.6	149.3	143.9	140.9	140.0	140.9	143.9	149.3
127.5°	217.1	197.4	180.7	167.5	157.1	151.7	148.3	146.8	148.3	151.7	157.1
130°	223.4	204.8	188.6	175.3	165.0	159.1	154.7	153.2	154.7	159.1	165.0
132.5°	229.3	211.2	195.5	182.7	172.4	165.0	160.1	158.1	160.1	165.0	172.4
135°	234.3	217.6	202.3	189.1	178.8	171.4	166.0	164.0	166.0	171.4	178.8
137.5°	238.2	222.0	207.2	195.0	184.7	176.8	171.4	169.4	171.4	176.8	184.7
140°	241.1	226.4	212.2	199.9	190.1	182.2	177.3	174.8	177.3	182.2	190.1
142.5°	244.1	229.8	216.1	204.8	195.0	188.1	182.7	180.7	182.7	188.1	195.0
145°	246.0	232.8	220.0	208.7	200.4	193.0	188.6	187.1	188.6	193.0	200.4
147.5°	247.5	235.2	223.4	213.6	205.3	198.9	194.5	193.5	194.5	198.9	205.3
150°	248.0	237.7	226.4	217.6	210.7	204.3	200.4	199.9	200.4	204.3	210.7
152.5°	249.0	239.2	229.8	221.5	215.6	210.2	206.3	206.3	206.3	210.2	215.6
155°	249.0	241.1	232.8	225.9	220.5	215.6	212.6	212.6	212.6	215.6	220.5
157.5°	249.5	242.1	235.2	229.8	224.9	220.5	218.0	217.6	218.0	220.5	224.9
160°	249.5	243.6	237.7	232.8	229.3	225.4	223.4	223.4	223.4	225.4	229.3
162.5°	249.0	244.1	239.2	235.2	232.3	229.3	227.9	227.9	227.9	229.3	232.3
165°	248.0	244.6	240.6	237.2	235.2	232.8	231.8	232.3	231.8	232.8	235.2
167.5°	247.5	244.6	241.6	239.2	237.7	235.7	235.2	235.7	235.2	235.7	237.7
170°	246.0	244.1	241.6	240.6	239.7	238.2	237.7	238.7	237.7	238.2	239.7
172.5°	245.5	244.1	242.1	241.6	241.1	240.1	240.1	240.6	240.1	240.1	241.1
175°	244.6	243.6	242.6	242.1	242.1	241.1	241.6	242.1	241.6	241.1	242.1
177.5°	244.1	243.1	242.6	242.6	242.6	242.1	242.6	243.1	242.6	242.1	242.6
180°	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6



TEST NUMBER: P832406

CATALOG NUMBER: S123RDIP-S775D585U935-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5	2149.5
2.5°	2080.7	2055.6	2030.5	2012.4	1994.4	1971.9	1949.4	1948.5	1947.6	1930.9	1914.2
5°	1957.3	1913.7	1870.1	1827.3	1784.6	1741.9	1699.1	1689.4	1679.7	1665.2	1650.6
7.5°	1848.1	1778.4	1708.8	1654.2	1599.5	1556.8	1514.0	1485.0	1455.9	1433.4	1410.9
10°	1730.8	1644.5	1558.1	1492.0	1425.9	1379.7	1333.4	1299.9	1266.4	1250.5	1234.7
12.5°	1609.2	1515.4	1421.5	1356.7	1292.0	1236.4	1180.9	1150.5	1120.1	1098.1	1076.1
15°	1497.3	1396.4	1295.5	1226.8	1158.0	1106.0	1054.0	1023.6	993.2	971.2	949.1
17.5°	1388.9	1287.1	1185.3	1115.7	1046.1	998.9	951.8	922.3	892.7	879.1	865.4
20°	1290.2	1187.5	1084.9	1019.2	953.6	907.3	861.0	845.2	829.3	816.5	803.7
22.5°	1192.4	1093.7	995.0	932.0	868.9	835.5	802.0	789.2	776.4	766.7	757.0
25°	1110.4	1012.2	913.9	858.8	803.7	777.7	751.7	743.4	735.0	725.3	715.6
27.5°	1027.6	934.2	840.7	796.7	752.6	731.5	710.3	699.7	689.2	681.2	673.3
30°	954.4	868.1	781.7	745.1	708.6	690.0	671.5	660.1	648.6	641.1	633.6
32.5°	883.9	807.3	730.6	699.3	668.0	649.9	631.9	620.9	609.9	601.0	592.2
35°	818.7	752.2	685.6	657.0	628.4	610.3	592.2	581.2	570.2	561.4	552.6
37.5°	761.4	701.1	640.7	613.8	586.9	571.1	555.2	543.8	532.3	523.0	513.8
40°	707.7	654.4	601.0	575.0	549.0	531.9	514.7	504.5	494.4	486.0	477.7
42.5°	660.1	611.2	562.3	536.7	511.1	494.8	478.5	466.6	454.7	449.9	445.0
45°	609.9	566.7	523.5	498.8	474.1	456.9	439.8	429.6	419.5	415.1	410.7
47.5°	565.8	525.7	485.6	461.4	437.1	421.7	406.3	398.3	390.4	384.2	378.1
50°	522.6	483.8	445.0	421.7	398.3	385.1	371.9	362.2	352.5	348.1	343.7
52.5°	481.2	445.9	410.7	386.9	363.1	350.3	337.5	329.2	320.8	311.5	302.3
55°	434.5	403.6	372.8	351.6	330.5	317.3	304.0	294.3	284.7	275.0	265.3
57.5°	395.7	365.3	334.9	315.9	297.0	284.2	271.4	260.9	250.3	242.4	234.4
60°	353.4	327.0	300.5	282.0	263.5	251.2	238.8	228.7	218.6	214.6	210.6
62.5°	313.7	289.1	264.4	248.1	231.8	219.9	208.0	201.4	194.8	192.1	189.5
65°	273.2	252.0	230.9	215.9	200.9	190.8	180.7	177.6	174.5	172.3	170.1
67.5°	235.3	217.2	199.2	186.0	172.7	165.7	158.6	155.1	151.6	148.9	146.3
70°	200.9	185.1	169.2	157.8	146.3	139.7	133.1	130.0	126.9	122.1	117.2
72.5°	163.9	151.6	139.2	130.4	121.6	115.9	110.2	104.0	97.8	93.4	89.0
75°	135.7	123.4	111.0	102.7	94.3	87.7	81.1	78.9	76.7	75.3	74.0
77.5°	104.0	93.4	82.8	76.2	69.6	66.5	63.5	62.1	60.8	60.4	59.9
80°	74.9	66.1	57.3	53.8	50.2	49.4	48.5	47.6	46.7	46.3	45.8
82.5°	46.7	42.3	37.9	37.0	36.1	35.7	35.3	34.8	34.4	33.9	33.5
85°	27.3	25.6	23.8	23.4	22.9	22.5	22.0	22.0	22.0	22.0	22.0
87.5°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.0	10.6
90°	5.4	6.4	7.9	9.3	10.8	12.3	11.8	12.3	12.8	13.3	14.2
92.5°	25.0	33.9	49.6	75.6	101.2	91.3	68.3	48.6	37.8	32.9	29.5
95°	44.7	63.8	105.6	178.8	259.3	291.2	236.2	176.8	119.8	93.8	76.1
97.5°	51.6	72.7	113.9	198.9	334.4	447.9	463.1	406.1	306.4	241.6	185.6
100°	58.9	78.1	112.5	185.1	314.3	465.1	561.8	579.0	539.2	481.8	412.0
102.5°	67.3	84.5	114.4	173.4	284.8	433.1	566.7	636.5	644.8	617.3	579.5
105°	76.6	91.8	118.4	168.9	261.8	394.8	535.8	638.4	687.5	696.9	684.1
107.5°	86.9	101.2	124.7	168.0	245.1	361.0	491.6	609.0	686.1	724.4	737.6
110°	97.2	111.0	133.1	170.4	236.2	333.0	450.3	562.8	653.2	715.0	749.4



TEST NUMBER: P832406

CATALOG NUMBER: S123RDIP-S775D585U935-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	108.0	121.3	141.4	175.3	231.3	314.3	414.5	517.1	609.9	681.1	727.8
115°	118.8	132.1	150.8	180.7	230.8	302.0	387.0	477.8	563.3	635.5	689.0
117.5°	129.6	141.9	160.6	187.6	231.3	293.7	368.8	447.4	523.0	589.3	644.8
120°	140.0	152.2	169.9	195.5	233.3	288.3	355.1	424.3	490.6	549.5	599.1
122.5°	149.3	162.6	179.7	202.8	236.7	284.8	343.8	406.1	464.6	518.1	563.3
125°	158.6	171.9	189.1	210.7	240.1	281.9	334.4	390.4	443.9	491.1	530.4
127.5°	167.5	180.7	197.4	217.1	244.1	280.4	325.6	376.2	424.8	468.0	504.4
130°	175.3	188.6	204.8	223.4	248.0	278.9	318.7	362.9	407.1	446.9	480.3
132.5°	182.7	195.5	211.2	229.3	250.9	278.4	312.3	350.6	390.4	426.8	458.2
135°	189.1	202.3	217.6	234.3	253.9	278.0	306.9	339.8	374.7	406.6	434.6
137.5°	195.0	207.2	222.0	238.2	255.9	277.0	302.0	329.5	359.0	387.5	412.5
140°	199.9	212.2	226.4	241.1	257.8	276.5	297.6	320.7	345.7	369.3	390.4
142.5°	204.8	216.1	229.8	244.1	259.3	275.5	293.7	312.3	333.0	352.6	370.3
145°	208.7	220.0	232.8	246.0	259.8	274.5	290.2	305.9	322.2	337.9	352.1
147.5°	213.6	223.4	235.2	247.5	259.8	273.0	286.8	300.5	313.8	327.1	337.4
150°	217.6	226.4	237.7	248.0	259.8	271.1	283.4	294.7	305.9	316.3	325.6
152.5°	221.5	229.8	239.2	249.0	258.3	268.6	279.4	289.3	298.6	307.4	314.8
155°	225.9	232.8	241.1	249.0	257.3	265.7	275.5	283.9	291.7	299.1	305.0
157.5°	229.8	235.2	242.1	249.5	255.9	263.2	271.1	278.0	284.8	290.7	295.6
160°	232.8	237.7	243.6	249.5	254.9	260.3	266.7	273.0	278.4	283.4	286.8
162.5°	235.2	239.2	244.1	249.0	252.9	257.3	262.2	267.2	271.6	276.0	278.9
165°	237.2	240.6	244.6	248.0	250.9	254.4	258.3	262.2	265.2	268.6	271.1
167.5°	239.2	241.6	244.6	247.5	249.0	251.4	254.4	257.8	260.3	262.2	264.2
170°	240.6	241.6	244.1	246.0	247.0	248.5	250.9	253.4	254.9	256.8	257.8
172.5°	241.6	242.1	244.1	245.5	245.5	246.0	247.5	249.5	250.5	251.9	252.4
175°	242.1	242.6	243.6	244.6	244.1	244.1	245.1	246.0	246.5	247.5	247.5
177.5°	242.6	242.6	243.1	244.1	243.1	242.6	243.1	243.6	244.1	244.6	244.6
180°	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6	242.6

TEST NUMBER: P832406

CATALOG NUMBER: S123RDIP-S775D585U935-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2149.5	2149.5	2149.5	2149.5
2.5°	1909.7	1905.3	1903.6	1901.8
5°	1637.0	1623.3	1620.2	1617.2
7.5°	1405.2	1399.5	1380.5	1361.6
10°	1217.1	1199.4	1191.5	1183.6
12.5°	1059.7	1043.4	1040.8	1038.2
15°	937.7	926.2	922.3	918.3
17.5°	857.5	849.6	844.7	839.9
20°	798.0	792.3	788.8	785.2
22.5°	752.6	748.2	745.6	742.9
25°	709.0	702.4	700.2	698.0
27.5°	667.6	661.8	659.6	657.4
30°	628.8	624.0	620.9	617.8
32.5°	586.5	580.8	579.0	577.2
35°	549.0	545.5	543.8	542.0
37.5°	509.4	505.0	502.3	499.7
40°	475.5	473.3	471.9	470.6
42.5°	441.1	437.1	436.7	436.2
45°	406.7	402.7	401.9	401.0
47.5°	374.5	371.0	370.6	370.1
50°	338.9	334.0	330.5	327.0
52.5°	297.9	293.5	290.4	287.3
55°	260.4	255.6	252.9	250.3
57.5°	232.2	230.0	228.7	227.4
60°	209.3	208.0	207.1	206.2
62.5°	188.2	186.8	186.8	186.8
65°	168.8	167.4	166.1	164.8
67.5°	143.6	141.0	140.6	140.1
70°	113.2	109.3	108.8	108.4
72.5°	88.6	88.1	87.2	86.4
75°	73.1	72.3	72.3	72.3
77.5°	59.0	58.2	58.2	58.2
80°	45.4	44.9	45.4	45.8
82.5°	33.5	33.5	33.0	32.6
85°	21.6	21.2	21.2	21.2
87.5°	10.6	10.6	10.6	10.6
90°	13.8	14.2	14.7	14.2
92.5°	28.5	26.5	27.0	26.0
95°	66.8	62.4	58.9	57.0
97.5°	152.7	134.1	122.3	116.9
100°	362.4	326.6	307.4	307.9
102.5°	543.6	517.1	501.9	487.7
105°	661.5	642.8	627.1	624.7
107.5°	734.7	725.8	719.4	714.0
110°	763.2	767.1	766.1	765.1



TEST NUMBER: P832406

CATALOG NUMBER: S123RDIP-S775D585U935-4F0-1E-UDD-G4

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	755.8	770.0	774.9	775.4
115°	725.8	747.4	757.3	759.7
117.5°	683.1	707.2	721.9	725.3
120°	637.9	665.4	677.2	680.2
122.5°	596.7	620.7	634.0	637.9
125°	561.8	583.4	595.7	599.1
127.5°	532.8	551.5	562.8	565.7
130°	506.3	524.0	534.3	538.2
132.5°	482.3	499.9	508.8	511.2
135°	458.7	473.4	482.3	485.7
137.5°	433.1	448.4	455.7	458.7
140°	409.1	422.8	430.7	430.2
142.5°	385.5	397.3	404.2	403.7
145°	364.4	374.7	378.6	379.6
147.5°	347.2	354.6	358.5	359.0
150°	333.0	338.4	341.3	341.3
152.5°	320.2	325.1	326.6	326.6
155°	309.4	313.3	314.3	314.8
157.5°	299.6	302.5	303.5	303.5
160°	290.2	293.2	293.2	292.7
162.5°	280.9	283.4	283.4	282.9
165°	273.0	275.0	274.5	274.5
167.5°	265.2	266.7	266.2	266.2
170°	258.3	259.3	258.8	258.8
172.5°	252.4	253.4	252.4	251.9
175°	247.5	248.0	247.5	247.0
177.5°	244.1	244.6	243.6	243.6
180°	242.6	242.6	242.6	242.6



TEST NUMBER: P832406

CATALOG NUMBER: S123RDIP-S775D585U935-4F0-1E-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	12.64	13.53	13.51	14.42	15.53	17.30	18.20	18.17	19.08	20.19
	3H	13.86	14.67	14.74	15.56	16.69	18.80	19.61	19.69	20.50	21.64
	4H	14.25	15.00	15.14	15.90	17.05	19.30	20.05	20.19	20.95	22.10
	6H	14.53	15.23	15.44	16.13	17.29	19.61	20.31	20.52	21.21	22.37
	8H	14.62	15.28	15.54	16.20	17.36	19.69	20.36	20.61	21.28	22.43
	12H	14.67	15.30	15.60	16.22	17.40	19.73	20.36	20.65	21.27	22.45
4H	2H	13.37	14.12	14.27	15.02	16.17	17.30	18.06	18.21	18.96	20.10
	3H	14.74	15.37	15.65	16.30	17.46	18.97	19.60	19.88	20.52	21.69
	4H	15.20	15.77	16.12	16.70	17.88	19.58	20.15	20.50	21.07	22.26
	6H	15.57	16.06	16.51	17.01	18.20	20.02	20.51	20.95	21.46	22.65
	8H	15.70	16.16	16.64	17.10	18.30	20.15	20.61	21.09	21.55	22.75
	12H	15.78	16.19	16.73	17.15	18.35	20.21	20.63	21.17	21.59	22.79
8H	4H	15.52	15.98	16.46	16.92	18.12	19.55	20.01	20.49	20.95	22.15
	6H	15.98	16.36	16.95	17.35	18.55	20.05	20.42	21.01	21.41	22.61
	8H	16.18	16.51	17.15	17.49	18.70	20.23	20.57	21.21	21.54	22.76
	12H	16.32	16.61	17.30	17.58	18.85	20.35	20.65	21.33	21.61	22.88
12H	4H	15.53	15.95	16.49	16.91	18.11	19.50	19.91	20.46	20.87	22.08
	6H	16.04	16.38	17.02	17.35	18.57	20.02	20.36	21.00	21.33	22.55
	8H	16.26	16.56	17.24	17.52	18.79	20.22	20.51	21.19	21.48	22.74