

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: P832407

Luminaire Tested: S123RDIP-S775D585U940-4F0-1E-UDD-G

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832407
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-S775D585U940-4F0-1E-UDD-G
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 585 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: -

Summary

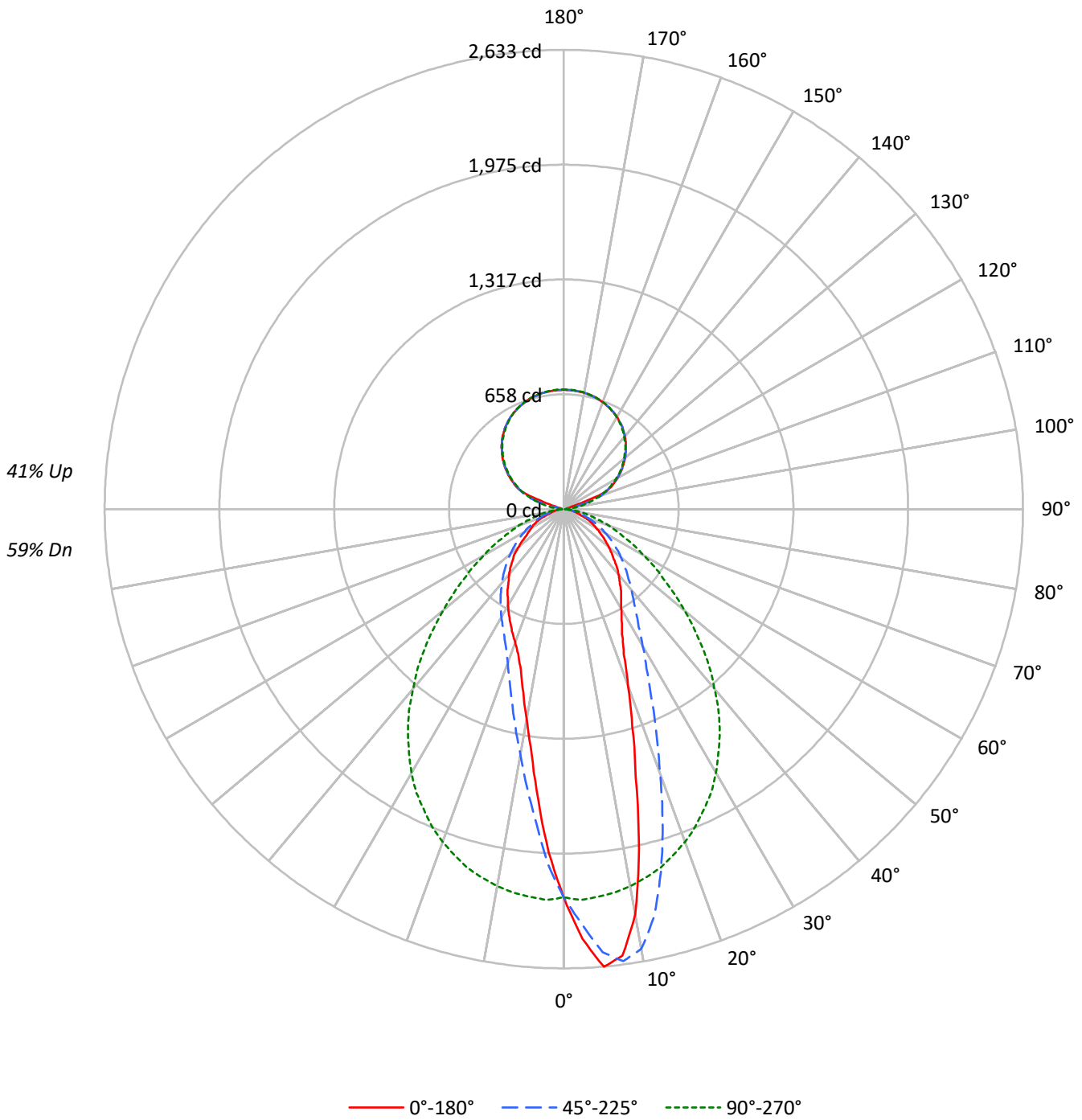
Lumens per Lamp: N/A
Luminaire Lumens: 5039.7 lumens
Efficiency: N/A
Efficacy: 122.6 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

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	109	109	109	109	102	102	102	102	88	88	88	76	76	76	64	64	64	59				
1	101	97	93	90	94	90	87	84	79	76	74	68	66	65	58	57	56	51				
2	92	86	80	75	86	80	75	71	70	66	63	61	58	56	52	50	49	44				
3	85	76	69	64	79	72	65	61	63	58	54	55	51	48	47	45	43	39				
4	78	68	61	55	73	64	58	52	57	51	47	50	46	42	43	40	38	34				
5	73	61	54	48	68	58	51	46	51	46	42	45	41	38	39	36	34	31				
6	67	56	48	43	63	53	46	41	47	41	37	41	37	34	36	33	30	28				
7	63	51	43	38	59	48	41	36	43	37	33	38	34	30	34	30	28	25				
8	58	47	39	34	55	44	38	33	40	34	30	35	31	28	31	28	25	23				
9	55	43	36	31	51	41	34	30	37	31	28	33	28	25	29	26	23	21				
10	51	40	33	28	48	38	32	27	34	29	25	31	26	23	27	24	21	20				

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	23962	23962	23962	23962	23962
5°	28452	27544	24113	19492	18096
10°	25778	27977	23992	15618	13398
15°	17748	23989	23739	12765	10599
20°	12347	18468	23262	10763	9315
25°	9409	14076	22569	9567	8586
30°	8191	11253	21701	8883	7952
35°	7520	9493	20473	8306	7376
40°	6861	8477	18865	7739	6849
45°	6197	7753	17131	7203	6322
50°	5625	7154	15086	6680	5670
55°	5088	6568	13120	6167	4864
60°	4560	5974	11397	5599	4598
65°	4208	5300	9811	5033	4348
70°	3418	4582	8560	4554	3534
75°	2999	3643	7249	3776	3111
80°	2715	3081	5938	3168	2944
85°	2482	2705	4508	2878	2705

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 18077 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	202.9	4.0
10°-20°	469.5	9.3
20°-30°	538.7	10.7
30°-40°	531.0	10.5
40°-50°	468.3	9.3
50°-60°	360.2	7.1
60°-70°	236.8	4.7
70°-80°	115.0	2.3
80°-90°	30.4	0.6
90°-100°	24.1	0.5
100°-110°	116.7	2.3
110°-120°	286.0	5.7
120°-130°	363.1	7.2
130°-140°	387.9	7.7
140°-150°	362.7	7.2
150°-160°	292.6	5.8
160°-170°	188.8	3.7
170°-180°	65.1	1.3
0°-30°	1211.1	24.0
0°-40°	1742.1	34.6
0°-60°	2570.6	51.0
0°-90°	2952.9	58.6
90°-120°	426.8	8.5
90°-150°	1540.4	30.6
90°-180°	2087.0	41.4
0°-180°	5039.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2226	2226	2226	2226	2226	
5°	2633	2549	2232	1804	1675	241
15°	1593	2153	2130	1146	951	450
25°	792	1185	1900	806	723	374
35°	572	722	1558	632	561	357
45°	407	509	1125	473	415	316
55°	271	350	699	329	259	243
65°	165	208	385	198	171	162
75°	72	88	174	91	75	78
85°	20	22	36	23	22	21
90°	15	12	0	12	15	8
95°	19	16	31	16	19	16
105°	22	111	152	111	22	47
115°	299	292	284	292	299	281
125°	409	407	401	407	409	365
135°	504	504	499	504	504	389
145°	581	580	576	580	581	363
155°	633	634	634	634	633	292
165°	667	667	669	667	667	188
175°	682	682	685	682	682	65
180°	685	685	685	685	685	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1
2.5°	2467.1	2459.3	2451.6	2449.3	2447.0	2439.7	2432.4	2416.0	2399.5	2382.7	2365.8
5°	2633.2	2634.1	2635.0	2632.7	2630.5	2620.9	2611.3	2591.2	2571.1	2549.2	2527.3
7.5°	2582.1	2596.7	2611.3	2614.0	2616.8	2624.1	2631.4	2626.8	2622.3	2614.0	2605.8
10°	2358.5	2357.6	2356.6	2373.1	2389.5	2438.3	2487.2	2512.3	2537.4	2559.7	2582.1
12.5°	1993.4	1994.8	1996.1	2050.0	2103.8	2149.9	2196.0	2259.9	2323.8	2392.7	2461.6
15°	1592.7	1615.1	1637.4	1685.3	1733.3	1802.6	1872.0	1957.8	2043.6	2152.7	2261.7
17.5°	1307.9	1317.5	1327.1	1373.2	1419.3	1485.0	1550.7	1647.9	1745.1	1885.7	2026.2
20°	1077.9	1086.6	1095.3	1128.6	1161.9	1224.9	1287.9	1380.5	1473.1	1612.3	1751.5
22.5°	899.9	916.8	933.7	956.1	978.4	1024.1	1069.7	1164.2	1258.6	1385.5	1512.4
25°	792.2	800.0	807.8	826.9	846.1	889.9	933.7	996.2	1058.8	1185.2	1311.6
27.5°	719.2	721.5	723.8	737.9	752.1	780.4	808.7	866.6	924.6	1028.6	1132.7
30°	659.0	663.1	667.2	678.2	689.1	709.6	730.2	771.3	812.3	905.4	998.5
32.5°	612.4	614.7	617.0	626.1	635.3	650.3	665.4	697.8	730.2	801.4	872.6
35°	572.3	572.7	573.2	580.0	586.9	601.5	616.1	643.0	669.9	722.4	774.9
37.5°	526.6	529.8	533.0	538.0	543.1	555.8	568.6	590.5	612.4	655.8	699.1
40°	488.3	491.0	493.8	499.7	505.6	515.7	525.7	545.8	565.9	603.3	640.7
42.5°	450.0	451.8	453.6	459.6	465.5	477.8	490.1	506.1	522.1	553.1	584.1
45°	407.1	411.6	416.2	422.6	429.0	439.5	450.0	466.4	482.8	509.3	535.8
47.5°	371.5	373.8	376.0	381.5	387.0	399.8	412.6	427.2	441.8	466.4	491.0
50°	335.9	336.8	337.7	342.7	347.7	359.2	370.6	387.5	404.3	427.2	450.0
52.5°	302.1	304.4	306.7	311.7	316.7	324.5	332.2	349.6	366.9	389.3	411.6
55°	271.1	272.4	273.8	277.5	281.1	290.2	299.4	314.4	329.5	350.0	370.6
57.5°	241.9	243.7	245.5	248.3	251.0	259.2	267.4	280.7	293.9	314.4	335.0
60°	211.8	214.0	216.3	219.5	222.7	229.1	235.5	247.3	259.2	277.5	295.7
62.5°	189.8	190.3	190.8	193.5	196.2	200.8	205.4	214.9	224.5	242.8	261.0
65°	165.2	166.6	167.9	169.3	170.7	174.3	178.0	186.2	194.4	208.1	221.8
67.5°	139.6	141.0	142.4	144.7	146.9	150.1	153.3	158.8	164.3	177.1	189.8
70°	108.6	108.6	108.6	112.3	115.9	121.4	126.9	131.0	135.1	145.6	156.1
72.5°	88.5	89.0	89.4	89.9	90.4	93.6	96.7	103.6	110.4	116.8	123.2
75°	72.1	72.6	73.0	73.5	73.9	74.8	75.8	78.0	80.3	87.6	94.9
77.5°	57.5	58.0	58.4	58.9	59.3	60.2	61.2	62.1	63.0	65.7	68.5
80°	43.8	44.3	44.7	45.2	45.6	46.1	46.5	47.5	48.4	49.7	51.1
82.5°	31.9	31.9	31.9	31.9	31.9	32.9	33.8	33.8	33.8	34.7	35.6
85°	20.1	20.1	20.1	20.5	21.0	21.0	21.0	21.4	21.9	21.9	21.9
87.5°	9.1	8.7	8.2	8.7	9.1	9.1	9.1	9.6	10.0	10.0	10.0
90°	15.3	15.0	14.8	14.6	14.4	14.0	13.6	13.1	12.7	12.2	10.7
92.5°	17.3	17.2	17.1	17.0	16.8	16.4	15.6	14.8	14.0	13.2	12.2
95°	19.3	19.3	19.3	19.3	19.3	18.9	18.1	17.3	16.6	15.8	14.5
97.5°	20.9	20.7	20.6	20.5	20.4	19.9	19.0	18.1	17.2	16.3	22.0
100°	21.4	21.2	21.1	21.0	20.9	20.4	19.5	18.6	17.7	16.8	34.4
102.5°	21.9	21.6	21.4	21.2	21.0	22.7	26.4	30.2	33.9	37.6	57.3
105°	22.4	22.2	21.9	21.7	21.5	31.4	51.4	71.4	91.4	111.4	121.6
107.5°	52.9	67.7	82.5	97.3	112.1	128.2	145.6	163.0	180.4	197.8	196.1
110°	139.9	156.0	172.2	188.3	204.5	214.5	218.2	221.9	225.6	229.4	228.1

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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	265.0	265.2	265.4	265.7	265.9	265.5	264.5	263.5	262.4	261.4	260.2
115°	299.1	298.6	298.1	297.7	297.2	296.5	295.3	294.2	293.1	291.9	290.9
117.5°	326.5	326.4	326.3	326.2	326.1	325.6	324.7	323.7	322.8	321.9	321.4
120°	355.0	355.0	355.0	355.0	355.0	354.5	353.6	352.7	351.8	350.9	350.6
122.5°	383.0	382.9	382.7	382.6	382.5	382.2	381.6	381.0	380.5	379.9	379.5
125°	408.9	408.7	408.5	408.2	408.0	407.8	407.6	407.3	407.1	406.9	406.4
127.5°	434.3	434.6	434.8	435.0	435.2	435.2	434.8	434.5	434.2	433.8	433.3
130°	458.7	459.0	459.2	459.4	459.7	459.5	459.1	458.6	458.2	457.7	457.3
132.5°	481.1	481.5	481.8	482.1	482.5	482.4	482.0	481.5	481.1	480.6	480.3
135°	504.0	504.4	504.7	505.0	505.4	505.4	505.0	504.7	504.4	504.0	503.6
137.5°	525.9	526.1	526.3	526.6	526.8	526.6	526.1	525.5	524.9	524.4	524.1
140°	545.2	545.4	545.7	545.9	546.1	546.0	545.5	545.1	544.6	544.2	543.9
142.5°	563.0	563.4	563.7	564.0	564.4	564.4	564.0	563.7	563.4	563.0	562.7
145°	581.3	581.3	581.3	581.3	581.3	581.2	581.0	580.8	580.5	580.3	580.1
147.5°	594.5	595.1	595.7	596.2	596.8	597.0	596.7	596.5	596.3	596.1	595.8
150°	609.8	610.1	610.5	610.8	611.2	611.2	611.0	610.8	610.5	610.3	610.1
152.5°	622.0	622.6	623.1	623.7	624.3	624.3	623.9	623.4	623.0	622.5	622.4
155°	633.2	633.9	634.6	635.2	635.9	636.0	635.4	634.8	634.3	633.7	633.6
157.5°	642.9	643.8	644.7	645.6	646.5	646.6	645.9	645.2	644.6	643.9	644.0
160°	652.0	652.8	653.6	654.4	655.2	655.2	654.6	653.9	653.2	652.5	652.6
162.5°	660.7	661.3	662.0	662.7	663.4	663.3	662.5	661.7	660.9	660.2	660.3
165°	667.3	668.1	668.9	669.6	670.4	670.4	669.5	668.6	667.7	666.8	666.9
167.5°	672.4	673.3	674.2	675.1	676.0	676.0	675.1	674.2	673.3	672.4	672.4
170°	676.9	677.8	678.7	679.6	680.6	680.6	679.6	678.7	677.8	676.9	676.9
172.5°	679.5	680.5	681.5	682.5	683.5	683.6	682.7	681.8	680.9	680.0	679.9
175°	682.0	682.9	683.8	684.7	685.6	685.7	684.9	684.1	683.3	682.5	682.4
177.5°	682.5	683.7	684.8	685.9	687.1	687.2	686.3	685.4	684.5	683.5	683.4
180°	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6

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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1
2.5°	2363.5	2361.2	2339.3	2317.4	2296.0	2274.5	2258.5	2242.6	2215.6	2188.7	2171.8
5°	2510.0	2492.6	2458.0	2423.3	2371.3	2319.2	2275.4	2231.6	2175.9	2120.3	2073.7
7.5°	2591.7	2577.5	2535.5	2493.6	2424.6	2355.7	2287.3	2218.8	2136.7	2054.5	1984.3
10°	2594.0	2605.8	2571.1	2536.5	2458.9	2381.3	2288.2	2195.1	2084.7	1974.2	1883.4
12.5°	2512.7	2563.8	2556.5	2549.2	2470.3	2391.3	2278.2	2165.0	2029.4	1893.9	1780.3
15°	2360.8	2459.8	2489.0	2518.2	2452.9	2387.7	2259.0	2130.3	1971.0	1811.8	1681.2
17.5°	2165.0	2303.7	2380.8	2458.0	2410.5	2363.0	2222.0	2081.0	1901.7	1722.3	1580.4
20°	1933.1	2114.8	2235.7	2356.6	2339.3	2322.0	2176.4	2030.8	1837.3	1643.8	1490.0
22.5°	1704.1	1895.7	2062.8	2229.8	2247.6	2265.4	2118.4	1971.5	1759.7	1548.0	1391.4
25°	1506.4	1701.3	1900.3	2099.3	2139.4	2179.6	2039.9	1900.3	1680.8	1461.3	1305.6
27.5°	1318.0	1503.3	1722.3	1941.4	2014.4	2087.4	1959.6	1831.8	1603.2	1374.6	1219.4
30°	1164.2	1329.8	1553.5	1777.1	1878.8	1980.6	1863.3	1746.0	1519.2	1292.4	1140.4
32.5°	1020.9	1169.2	1393.7	1618.3	1736.5	1854.7	1753.3	1652.0	1433.9	1215.7	1065.6
35°	907.7	1040.5	1250.0	1459.4	1591.8	1724.1	1641.1	1558.0	1344.9	1131.8	989.8
37.5°	810.5	921.8	1118.5	1315.2	1455.8	1596.4	1527.0	1457.6	1257.3	1056.9	922.8
40°	730.2	819.6	1002.6	1185.6	1323.4	1461.3	1401.9	1342.6	1163.3	983.9	858.4
42.5°	661.3	738.4	902.7	1067.0	1193.4	1319.8	1280.5	1241.3	1078.8	916.4	800.0
45°	600.6	665.4	810.0	954.7	1071.1	1187.5	1156.4	1125.4	985.3	845.2	738.4
47.5°	546.7	602.4	731.5	860.7	965.2	1069.7	1041.0	1012.2	896.3	780.4	683.2
50°	497.4	544.9	652.6	760.3	854.3	948.3	924.6	900.9	805.0	709.2	625.2
52.5°	450.9	490.1	586.9	683.6	759.4	835.1	816.9	798.6	724.7	650.8	574.6
55°	406.6	442.7	524.4	606.0	670.9	735.7	717.4	699.1	641.6	584.1	517.1
57.5°	366.5	397.9	464.1	530.3	581.9	633.4	624.8	616.1	568.2	520.3	465.0
60°	324.0	352.3	409.4	466.4	507.9	549.5	539.4	529.4	495.2	460.9	413.5
62.5°	286.1	311.2	356.9	402.5	436.3	470.1	462.8	455.4	429.4	403.4	364.2
65°	246.4	271.1	308.0	345.0	371.5	397.9	391.6	385.2	365.5	345.9	314.4
67.5°	210.4	230.9	262.9	294.8	312.6	330.4	326.8	323.1	308.0	293.0	268.3
70°	173.9	191.7	218.1	244.6	256.9	269.3	270.6	272.0	258.3	244.6	226.4
72.5°	137.4	151.5	176.2	200.8	210.4	220.0	219.5	219.1	210.8	202.6	186.2
75°	105.4	115.9	135.1	154.3	162.5	170.7	172.5	174.3	166.6	158.8	149.7
77.5°	75.8	83.1	97.7	112.3	121.4	130.5	131.4	132.3	128.7	125.0	116.4
80°	53.4	55.7	64.8	73.9	83.5	93.1	94.5	95.8	92.2	88.5	83.1
82.5°	37.0	38.3	41.5	44.7	52.5	60.2	62.1	63.9	62.1	60.2	54.3
85°	22.4	22.8	24.2	25.6	29.2	32.9	34.7	36.5	35.6	34.7	31.5
87.5°	10.0	10.0	10.5	11.0	11.9	12.8	15.1	17.3	16.0	14.6	13.2
90°	9.3	7.8	6.3	5.0	3.9	2.8	1.6	0.5	1.6	2.8	3.9
92.5°	11.2	10.2	9.2	9.0	9.7	10.3	11.0	11.7	11.0	10.3	9.7
95°	13.3	12.0	10.8	12.5	17.1	21.8	26.4	31.0	26.4	21.8	17.1
97.5°	27.8	33.6	39.3	43.8	47.0	50.1	53.3	56.5	53.3	50.1	47.0
100°	52.0	69.7	87.3	95.0	92.7	90.5	88.2	86.0	88.2	90.5	92.7
102.5°	77.0	96.6	116.3	125.4	123.9	122.5	121.0	119.5	121.0	122.5	123.9
105°	131.7	141.9	152.1	156.5	155.3	154.0	152.8	151.6	152.8	154.0	155.3
107.5°	194.5	192.8	191.1	189.7	188.7	187.7	186.7	185.6	186.7	187.7	188.7
110°	226.9	225.6	224.4	223.3	222.4	221.5	220.6	219.7	220.6	221.5	222.4



TEST NUMBER: P832407

CATALOG NUMBER: S123RDIP-S775D585U940-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	258.9	257.7	256.4	255.4	254.6	253.8	253.1	252.3	253.1	253.8	254.6
115°	289.9	288.9	287.9	287.0	286.3	285.7	285.0	284.3	285.0	285.7	286.3
117.5°	320.8	320.2	319.7	319.0	318.2	317.4	316.6	315.8	316.6	317.4	318.2
120°	350.3	349.9	349.6	348.9	347.9	346.9	345.8	344.8	345.8	346.9	347.9
122.5°	379.0	378.6	378.1	377.5	376.7	375.9	375.1	374.3	375.1	375.9	376.7
125°	406.0	405.5	405.1	404.4	403.5	402.6	401.7	400.8	401.7	402.6	403.5
127.5°	432.7	432.1	431.6	430.8	429.9	429.0	428.1	427.2	428.1	429.0	429.9
130°	456.8	456.4	455.9	455.2	454.3	453.4	452.5	451.6	452.5	453.4	454.3
132.5°	479.9	479.6	479.3	478.6	477.7	476.8	475.9	475.0	475.9	476.8	477.7
135°	503.1	502.7	502.2	501.6	501.0	500.3	499.6	498.9	499.6	500.3	501.0
137.5°	523.9	523.7	523.5	522.9	522.0	521.1	520.2	519.3	520.2	521.1	522.0
140°	543.5	543.2	542.8	542.3	541.7	541.0	540.3	539.6	540.3	541.0	541.7
142.5°	562.3	562.0	561.7	561.1	560.5	559.8	559.1	558.4	559.1	559.8	560.5
145°	579.9	579.6	579.4	578.9	578.1	577.3	576.5	575.7	576.5	577.3	578.1
147.5°	595.6	595.4	595.2	594.8	594.2	593.6	593.1	592.5	593.1	593.6	594.2
150°	609.9	609.6	609.4	609.1	608.8	608.4	608.1	607.8	608.1	608.4	608.8
152.5°	622.3	622.2	622.1	622.0	621.8	621.7	621.6	621.5	621.6	621.7	621.8
155°	633.5	633.4	633.3	633.3	633.5	633.8	634.0	634.2	634.0	633.8	633.5
157.5°	644.1	644.2	644.3	644.4	644.4	644.4	644.4	644.4	644.4	644.4	644.4
160°	652.7	652.9	653.0	653.1	653.2	653.3	653.4	653.5	653.4	653.3	653.2
162.5°	660.4	660.5	660.6	660.8	661.2	661.5	661.8	662.2	661.8	661.5	661.2
165°	667.0	667.1	667.2	667.4	667.8	668.1	668.5	668.8	668.5	668.1	667.8
167.5°	672.4	672.4	672.4	672.6	673.0	673.5	673.9	674.4	673.9	673.5	673.0
170°	676.9	676.9	676.9	677.2	677.6	678.1	678.5	679.0	678.5	678.1	677.6
172.5°	679.8	679.6	679.5	679.8	680.3	680.9	681.5	682.0	681.5	680.9	680.3
175°	682.3	682.2	682.1	682.3	682.9	683.4	684.0	684.6	684.0	683.4	682.9
177.5°	683.3	683.2	683.1	683.3	683.9	684.5	685.0	685.6	685.0	684.5	683.9
180°	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6



TEST NUMBER: P832407

CATALOG NUMBER: S123RDIP-S775D585U940-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1	2226.1
2.5°	2154.9	2128.9	2102.9	2084.2	2065.5	2042.2	2018.9	2018.0	2017.1	1999.8	1982.4
5°	2027.2	1982.0	1936.8	1892.5	1848.3	1804.0	1759.7	1749.7	1739.6	1724.6	1709.5
7.5°	1914.0	1841.9	1769.8	1713.2	1656.6	1612.3	1568.1	1537.9	1507.8	1484.5	1461.3
10°	1792.6	1703.1	1613.7	1545.2	1476.8	1428.9	1380.9	1346.3	1311.6	1295.2	1278.7
12.5°	1666.6	1569.4	1472.2	1405.1	1338.1	1280.5	1223.0	1191.6	1160.1	1137.3	1114.4
15°	1550.7	1446.2	1341.7	1270.5	1199.3	1145.5	1091.6	1060.1	1028.6	1005.8	983.0
17.5°	1438.5	1333.0	1227.6	1155.5	1083.4	1034.6	985.7	955.2	924.6	910.4	896.3
20°	1336.2	1229.9	1123.6	1055.6	987.6	939.6	891.7	875.3	858.9	845.6	832.4
22.5°	1234.9	1132.7	1030.5	965.2	899.9	865.3	830.6	817.3	804.1	794.1	784.0
25°	1150.0	1048.3	946.5	889.4	832.4	805.5	778.6	769.9	761.2	751.2	741.1
27.5°	1064.2	967.5	870.7	825.1	779.5	757.6	735.7	724.7	713.7	705.5	697.3
30°	988.5	899.0	809.6	771.7	733.8	714.7	695.5	683.6	671.8	664.0	656.2
32.5°	915.5	836.1	756.6	724.2	691.8	673.1	654.4	643.0	631.6	622.5	613.3
35°	847.9	779.0	710.1	680.4	650.8	632.1	613.3	601.9	590.5	581.4	572.3
37.5°	788.6	726.1	663.5	635.7	607.9	591.4	575.0	563.1	551.3	541.7	532.1
40°	732.9	677.7	622.5	595.6	568.6	550.8	533.0	522.5	512.0	503.4	494.7
42.5°	683.6	633.0	582.3	555.8	529.4	512.5	495.6	483.3	471.0	465.9	460.9
45°	631.6	586.9	542.2	516.6	491.0	473.2	455.4	445.0	434.5	429.9	425.3
47.5°	586.0	544.4	502.9	477.8	452.7	436.7	420.8	412.6	404.3	397.9	391.6
50°	541.2	501.1	460.9	436.7	412.6	398.9	385.2	375.1	365.1	360.5	356.0
52.5°	498.3	461.8	425.3	400.7	376.0	362.8	349.6	340.9	332.2	322.6	313.1
55°	450.0	418.0	386.1	364.2	342.3	328.6	314.9	304.8	294.8	284.8	274.7
57.5°	409.8	378.3	346.8	327.2	307.6	294.4	281.1	270.2	259.2	251.0	242.8
60°	366.0	338.6	311.2	292.1	272.9	260.1	247.3	236.9	226.4	222.2	218.1
62.5°	324.9	299.4	273.8	256.9	240.0	227.7	215.4	208.6	201.7	199.0	196.2
65°	282.9	261.0	239.1	223.6	208.1	197.6	187.1	183.9	180.7	178.4	176.2
67.5°	243.7	225.0	206.3	192.6	178.9	171.6	164.3	160.6	157.0	154.3	151.5
70°	208.1	191.7	175.2	163.4	151.5	144.7	137.8	134.6	131.4	126.4	121.4
72.5°	169.8	157.0	144.2	135.1	126.0	120.0	114.1	107.7	101.3	96.7	92.2
75°	140.6	127.8	115.0	106.3	97.7	90.8	84.0	81.7	79.4	78.0	76.7
77.5°	107.7	96.7	85.8	79.0	72.1	68.9	65.7	64.3	63.0	62.5	62.1
80°	77.6	68.5	59.3	55.7	52.0	51.1	50.2	49.3	48.4	47.9	47.5
82.5°	48.4	43.8	39.2	38.3	37.4	37.0	36.5	36.1	35.6	35.1	34.7
85°	28.3	26.5	24.6	24.2	23.7	23.3	22.8	22.8	22.8	22.8	22.8
87.5°	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.9	11.4	11.0
90°	5.0	6.3	7.8	9.3	10.7	12.2	12.7	13.1	13.6	14.0	14.4
92.5°	9.0	9.2	10.2	11.2	12.2	13.2	14.0	14.8	15.6	16.4	16.8
95°	12.5	10.8	12.0	13.3	14.5	15.8	16.6	17.3	18.1	18.9	19.3
97.5°	43.8	39.3	33.6	27.8	22.0	16.3	17.2	18.1	19.0	19.9	20.4
100°	95.0	87.3	69.7	52.0	34.4	16.8	17.7	18.6	19.5	20.4	20.9
102.5°	125.4	116.3	96.6	77.0	57.3	37.6	33.9	30.2	26.4	22.7	21.0
105°	156.5	152.1	141.9	131.7	121.6	111.4	91.4	71.4	51.4	31.4	21.5
107.5°	189.7	191.1	192.8	194.5	196.1	197.8	180.4	163.0	145.6	128.2	112.1
110°	223.3	224.4	225.6	226.9	228.1	229.4	225.6	221.9	218.2	214.5	204.5



TEST NUMBER: P832407

CATALOG NUMBER: S123RDIP-S775D585U940-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	255.4	256.4	257.7	258.9	260.2	261.4	262.4	263.5	264.5	265.5	265.9
115°	287.0	287.9	288.9	289.9	290.9	291.9	293.1	294.2	295.3	296.5	297.2
117.5°	319.0	319.7	320.2	320.8	321.4	321.9	322.8	323.7	324.7	325.6	326.1
120°	348.9	349.6	349.9	350.3	350.6	350.9	351.8	352.7	353.6	354.5	355.0
122.5°	377.5	378.1	378.6	379.0	379.5	379.9	380.5	381.0	381.6	382.2	382.5
125°	404.4	405.1	405.5	406.0	406.4	406.9	407.1	407.3	407.6	407.8	408.0
127.5°	430.8	431.6	432.1	432.7	433.3	433.8	434.2	434.5	434.8	435.2	435.2
130°	455.2	455.9	456.4	456.8	457.3	457.7	458.2	458.6	459.1	459.5	459.7
132.5°	478.6	479.3	479.6	479.9	480.3	480.6	481.1	481.5	482.0	482.4	482.5
135°	501.6	502.2	502.7	503.1	503.6	504.0	504.4	504.7	505.0	505.4	505.4
137.5°	522.9	523.5	523.7	523.9	524.1	524.4	524.9	525.5	526.1	526.6	526.8
140°	542.3	542.8	543.2	543.5	543.9	544.2	544.6	545.1	545.5	546.0	546.1
142.5°	561.1	561.7	562.0	562.3	562.7	563.0	563.4	563.7	564.0	564.4	564.4
145°	578.9	579.4	579.6	579.9	580.1	580.3	580.5	580.8	581.0	581.2	581.3
147.5°	594.8	595.2	595.4	595.6	595.8	596.1	596.3	596.5	596.7	597.0	596.8
150°	609.1	609.4	609.6	609.9	610.1	610.3	610.5	610.8	611.0	611.2	611.2
152.5°	622.0	622.1	622.2	622.3	622.4	622.5	623.0	623.4	623.9	624.3	624.3
155°	633.3	633.3	633.4	633.5	633.6	633.7	634.3	634.8	635.4	636.0	635.9
157.5°	644.4	644.3	644.2	644.1	644.0	643.9	644.6	645.2	645.9	646.6	646.5
160°	653.1	653.0	652.9	652.7	652.6	652.5	653.2	653.9	654.6	655.2	655.2
162.5°	660.8	660.6	660.5	660.4	660.3	660.2	660.9	661.7	662.5	663.3	663.4
165°	667.4	667.2	667.1	667.0	666.9	666.8	667.7	668.6	669.5	670.4	670.4
167.5°	672.6	672.4	672.4	672.4	672.4	672.4	673.3	674.2	675.1	676.0	676.0
170°	677.2	676.9	676.9	676.9	676.9	676.9	677.8	678.7	679.6	680.6	680.6
172.5°	679.8	679.5	679.6	679.8	679.9	680.0	680.9	681.8	682.7	683.6	683.5
175°	682.3	682.1	682.2	682.3	682.4	682.5	683.3	684.1	684.9	685.7	685.6
177.5°	683.3	683.1	683.2	683.3	683.4	683.5	684.5	685.4	686.3	687.2	687.1
180°	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6	684.6



TEST NUMBER: P832407

CATALOG NUMBER: S123RDIP-S775D585U940-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2226.1	2226.1	2226.1	2226.1
2.5°	1977.9	1973.3	1971.5	1969.7
5°	1695.4	1681.2	1678.0	1674.8
7.5°	1455.3	1449.4	1429.8	1410.2
10°	1260.5	1242.2	1234.0	1225.8
12.5°	1097.5	1080.7	1077.9	1075.2
15°	971.1	959.3	955.2	951.1
17.5°	888.1	879.9	874.8	869.8
20°	826.5	820.5	816.9	813.2
22.5°	779.5	774.9	772.2	769.4
25°	734.3	727.4	725.2	722.9
27.5°	691.4	685.5	683.2	680.9
30°	651.2	646.2	643.0	639.8
32.5°	607.4	601.5	599.7	597.8
35°	568.6	565.0	563.1	561.3
37.5°	527.6	523.0	520.3	517.5
40°	492.4	490.1	488.8	487.4
42.5°	456.8	452.7	452.3	451.8
45°	421.2	417.1	416.2	415.3
47.5°	387.9	384.3	383.8	383.3
50°	350.9	345.9	342.3	338.6
52.5°	308.5	303.9	300.7	297.5
55°	269.7	264.7	262.0	259.2
57.5°	240.5	238.2	236.9	235.5
60°	216.8	215.4	214.5	213.6
62.5°	194.9	193.5	193.5	193.5
65°	174.8	173.4	172.0	170.7
67.5°	148.8	146.0	145.6	145.1
70°	117.3	113.2	112.7	112.3
72.5°	91.7	91.3	90.4	89.4
75°	75.8	74.8	74.8	74.8
77.5°	61.2	60.2	60.2	60.2
80°	47.0	46.5	47.0	47.5
82.5°	34.7	34.7	34.2	33.8
85°	22.4	21.9	21.9	21.9
87.5°	11.0	11.0	11.0	11.0
90°	14.6	14.8	15.0	15.3
92.5°	17.0	17.1	17.2	17.3
95°	19.3	19.3	19.3	19.3
97.5°	20.5	20.6	20.7	20.9
100°	21.0	21.1	21.2	21.4
102.5°	21.2	21.4	21.6	21.9
105°	21.7	21.9	22.2	22.4
107.5°	97.3	82.5	67.7	52.9
110°	188.3	172.2	156.0	139.9



TEST NUMBER: P832407

CATALOG NUMBER: S123RDIP-S775D585U940-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	265.7	265.4	265.2	265.0
115°	297.7	298.1	298.6	299.1
117.5°	326.2	326.3	326.4	326.5
120°	355.0	355.0	355.0	355.0
122.5°	382.6	382.7	382.9	383.0
125°	408.2	408.5	408.7	408.9
127.5°	435.0	434.8	434.6	434.3
130°	459.4	459.2	459.0	458.7
132.5°	482.1	481.8	481.5	481.1
135°	505.0	504.7	504.4	504.0
137.5°	526.6	526.3	526.1	525.9
140°	545.9	545.7	545.4	545.2
142.5°	564.0	563.7	563.4	563.0
145°	581.3	581.3	581.3	581.3
147.5°	596.2	595.7	595.1	594.5
150°	610.8	610.5	610.1	609.8
152.5°	623.7	623.1	622.6	622.0
155°	635.2	634.6	633.9	633.2
157.5°	645.6	644.7	643.8	642.9
160°	654.4	653.6	652.8	652.0
162.5°	662.7	662.0	661.3	660.7
165°	669.6	668.9	668.1	667.3
167.5°	675.1	674.2	673.3	672.4
170°	679.6	678.7	677.8	676.9
172.5°	682.5	681.5	680.5	679.5
175°	684.7	683.8	682.9	682.0
177.5°	685.9	684.8	683.7	682.5
180°	684.6	684.6	684.6	684.6



TEST NUMBER: P832407

CATALOG NUMBER: S123RDIP-S775D585U940-4F0-1E-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	12.56	13.43	13.45	14.34	15.48	17.22	18.10	18.11	19.00	20.15
	3H	13.78	14.56	14.68	15.48	16.65	18.72	19.51	19.63	20.42	21.59
	4H	14.16	14.90	15.08	15.82	17.01	19.21	19.95	20.13	20.87	22.06
	6H	14.45	15.13	15.38	16.05	17.25	19.53	20.21	20.46	21.13	22.33
	8H	14.54	15.18	15.47	16.13	17.32	19.61	20.26	20.55	21.20	22.39
	12H	14.59	15.21	15.53	16.14	17.36	19.64	20.26	20.58	21.19	22.41
4H	2H	13.28	14.02	14.21	14.94	16.13	17.22	17.96	18.15	18.88	20.06
	3H	14.66	15.27	15.59	16.22	17.42	18.88	19.50	19.82	20.45	21.64
	4H	15.12	15.67	16.06	16.62	17.84	19.49	20.05	20.43	20.99	22.22
	6H	15.49	15.97	16.44	16.93	18.16	19.93	20.41	20.89	21.38	22.60
	8H	15.61	16.06	16.57	17.02	18.26	20.06	20.51	21.02	21.47	22.71
	12H	15.69	16.09	16.67	17.07	18.31	20.13	20.53	21.10	21.51	22.75
8H	4H	15.43	15.88	16.39	16.84	18.08	19.46	19.91	20.42	20.87	22.11
	6H	15.90	16.27	16.88	17.27	18.51	19.96	20.33	20.94	21.33	22.57
	8H	16.09	16.42	17.08	17.41	18.66	20.14	20.47	21.14	21.46	22.72
	12H	16.23	16.52	17.23	17.50	18.81	20.26	20.55	21.26	21.53	22.84
12H	4H	15.45	15.85	16.42	16.83	18.07	19.41	19.82	20.39	20.80	22.04
	6H	15.96	16.28	16.95	17.28	18.53	19.93	20.26	20.93	21.25	22.51
	8H	16.18	16.46	17.17	17.45	18.75	20.13	20.41	21.12	21.40	22.70