

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: P832321

Luminaire Tested: S123RDIP-S775D1025U930-4F0-1E-UDD-G1

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P832321
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-S775D1025U930-4F0-1E-UDD-G1
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 1025 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER
Light Source: -
Ballast/Driver: -

Summary

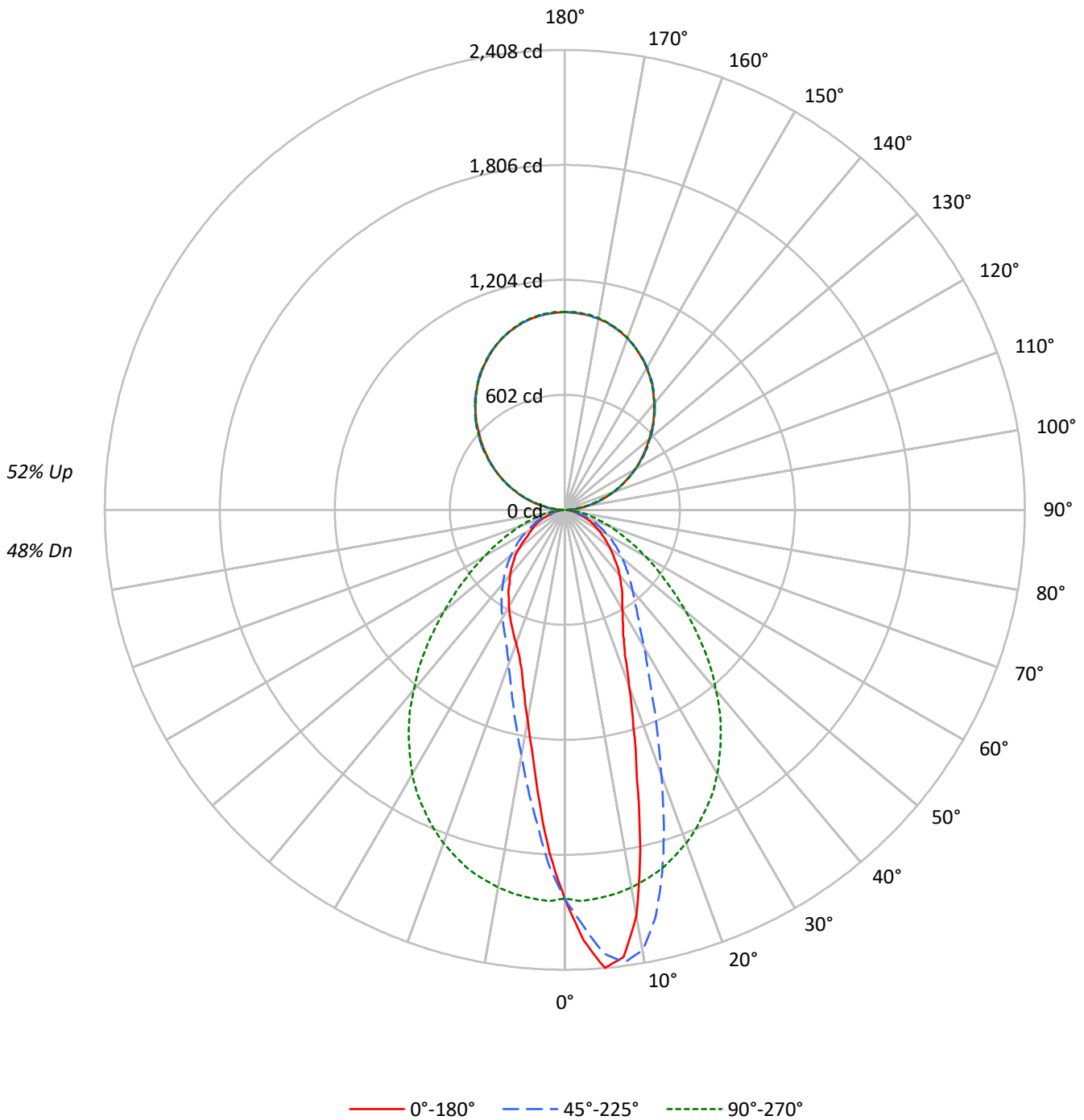
Lumens per Lamp: N/A
Luminaire Lumens: 5571.4 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: General Diffuse

Input Watts (W): 51.8
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	107	107	107	107	98	98	98	98	82	82	82	68	68	68	55	55	55	48				48
1	98	94	91	87	90	87	84	81	73	71	69	61	60	58	50	49	48				42	
2	90	83	77	73	83	77	72	68	65	62	59	55	52	50	45	43	41				37	
3	83	74	67	62	76	69	63	58	58	54	50	49	46	43	40	38	36				32	
4	76	66	59	53	70	61	55	50	53	48	44	44	41	38	37	34	32				29	
5	70	59	52	46	65	55	49	43	48	42	38	40	36	33	34	31	29				25	
6	65	54	46	41	60	50	43	38	43	38	34	37	33	30	31	28	26				23	
7	60	49	41	36	56	46	39	34	40	34	31	34	30	27	29	26	23				21	
8	56	45	37	32	52	42	35	31	36	31	28	31	27	24	27	24	21				19	
9	53	41	34	29	49	39	32	28	34	29	25	29	25	22	25	22	20				18	
10	49	38	31	26	46	36	29	25	31	26	23	27	23	20	23	20	18				16	

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°	135°	180°
0°	21909	21909	21909	21909	21909
5°	26014	25184	22047	17822	16546
10°	23569	25580	21936	14279	12249
15°	16227	21933	21704	11671	9690
20°	11290	16887	21269	9841	8517
25°	8603	12870	20635	8747	7849
30°	7489	10289	19842	8121	7271
35°	6875	8679	18718	7594	6744
40°	6274	7751	17249	7076	6261
45°	5666	7089	15664	6587	5780
50°	5143	6541	13793	6107	5184
55°	4650	6005	11995	5637	4448
60°	4168	5462	10419	5119	4204
65°	3846	4847	8970	4602	3976
70°	3125	4189	7827	4164	3229
75°	2741	3331	6629	3452	2845
80°	2486	2820	5430	2895	2690
85°	2272	2470	4125	2631	2470

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 80°
 Vertical Angle: 45°
 Luminance: 16527 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	185.5	3.3
10°-20°	429.3	7.7
20°-30°	492.6	8.8
30°-40°	485.5	8.7
40°-50°	428.1	7.7
50°-60°	329.4	5.9
60°-70°	216.5	3.9
70°-80°	105.2	1.9
80°-90°	28.7	0.5
90°-100°	66.7	1.2
100°-110°	201.9	3.6
110°-120°	343.6	6.2
120°-130°	452.1	8.1
130°-140°	508.1	9.1
140°-150°	499.6	9.0
150°-160°	420.6	7.5
160°-170°	280.0	5.0
170°-180°	98.0	1.8
0°-30°	1107.4	19.9
0°-40°	1592.9	28.6
0°-60°	2350.4	42.2
0°-90°	2700.8	48.5
90°-120°	612.2	11.0
90°-150°	2072.0	37.2
90°-180°	2871.0	51.5
0°-180°	5571.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2035	2035	2035	2035	2035	
5°	2408	2331	2040	1649	1531	220
15°	1456	1968	1948	1047	870	411
25°	724	1084	1737	736	661	342
35°	523	660	1424	578	513	326
45°	372	466	1029	433	380	289
55°	248	320	639	300	237	222
65°	151	190	352	181	156	148
75°	66	80	159	83	68	71
85°	18	20	33	21	20	20
90°	24	20	1	20	24	13
95°	64	60	48	60	64	64
105°	194	192	183	192	194	205
115°	347	347	346	347	347	343
125°	500	507	506	507	500	448
135°	656	661	657	661	656	505
145°	797	801	797	801	797	498
155°	911	913	912	913	911	420
165°	990	991	994	991	990	279
175°	1030	1030	1034	1030	1030	98
180°	1036	1036	1036	1036	1036	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4
2.5°	2255.7	2248.6	2241.5	2239.4	2237.3	2230.6	2224.0	2208.9	2193.9	2178.5	2163.0
5°	2407.6	2408.4	2409.2	2407.1	2405.1	2396.3	2387.5	2369.2	2350.8	2330.8	2310.8
7.5°	2360.8	2374.2	2387.5	2390.0	2392.5	2399.2	2405.9	2401.7	2397.5	2390.0	2382.5
10°	2156.4	2155.5	2154.7	2169.7	2184.7	2229.4	2274.0	2297.0	2319.9	2340.4	2360.8
12.5°	1822.6	1823.8	1825.1	1874.3	1923.5	1965.7	2007.8	2066.2	2124.7	2187.7	2250.7
15°	1456.2	1476.7	1497.1	1540.9	1584.7	1648.2	1711.6	1790.0	1868.5	1968.2	2067.9
17.5°	1195.9	1204.6	1213.4	1255.5	1297.7	1357.7	1417.8	1506.7	1595.6	1724.1	1852.6
20°	985.6	993.5	1001.4	1031.9	1062.3	1119.9	1177.5	1262.2	1346.9	1474.2	1601.4
22.5°	822.8	838.3	853.7	874.1	894.6	936.3	978.0	1064.4	1150.8	1266.8	1382.8
25°	724.4	731.4	738.5	756.1	773.6	813.6	853.7	910.9	968.0	1083.6	1199.2
27.5°	657.6	659.7	661.8	674.7	687.6	713.5	739.4	792.4	845.4	940.5	1035.6
30°	602.5	606.3	610.0	620.0	630.1	648.8	667.6	705.2	742.7	827.8	913.0
32.5°	560.0	562.0	564.1	572.5	580.8	594.6	608.4	638.0	667.6	732.7	797.8
35°	523.2	523.7	524.1	530.3	536.6	549.9	563.3	587.9	612.5	660.5	708.5
37.5°	481.5	484.4	487.4	491.9	496.5	508.2	519.9	539.9	560.0	599.6	639.2
40°	446.5	449.0	451.5	456.9	462.3	471.5	480.7	499.0	517.4	551.6	585.8
42.5°	411.4	413.1	414.8	420.2	425.6	436.9	448.1	462.7	477.3	505.7	534.1
45°	372.2	376.4	380.5	386.4	392.2	401.8	411.4	426.4	441.5	465.7	489.9
47.5°	339.6	341.7	343.8	348.8	353.8	365.5	377.2	390.6	403.9	426.4	449.0
50°	307.1	307.9	308.8	313.4	317.9	328.4	338.8	354.2	369.7	390.6	411.4
52.5°	276.2	278.3	280.4	285.0	289.6	296.7	303.8	319.6	335.5	355.9	376.4
55°	247.8	249.1	250.4	253.7	257.0	265.4	273.7	287.5	301.3	320.0	338.8
57.5°	221.1	222.8	224.5	227.0	229.5	237.0	244.5	256.6	268.7	287.5	306.3
60°	193.6	195.7	197.8	200.7	203.6	209.5	215.3	226.2	237.0	253.7	270.4
62.5°	173.6	174.0	174.4	176.9	179.4	183.6	187.8	196.5	205.3	222.0	238.7
65°	151.0	152.3	153.5	154.8	156.1	159.4	162.7	170.2	177.8	190.3	202.8
67.5°	127.7	128.9	130.2	132.3	134.4	137.3	140.2	145.2	150.2	161.9	173.6
70°	99.3	99.3	99.3	102.6	106.0	111.0	116.0	119.8	123.5	133.1	142.7
72.5°	80.9	81.4	81.8	82.2	82.6	85.5	88.5	94.7	101.0	106.8	112.7
75°	65.9	66.3	66.8	67.2	67.6	68.4	69.3	71.4	73.4	80.1	86.8
77.5°	52.6	53.0	53.4	53.8	54.2	55.1	55.9	56.7	57.6	60.1	62.6
80°	40.1	40.5	40.9	41.3	41.7	42.1	42.6	43.4	44.2	45.5	46.7
82.5°	29.2	29.2	29.2	29.2	29.2	30.0	30.9	30.9	30.9	31.7	32.5
85°	18.4	18.4	18.4	18.8	19.2	19.2	19.2	19.6	20.0	20.0	20.0
87.5°	8.3	7.9	7.5	7.9	8.3	8.3	8.3	8.8	9.2	9.2	9.2
90°	24.4	24.1	23.7	23.3	23.0	22.4	21.7	21.0	20.3	19.5	17.2
92.5°	35.0	35.4	35.7	36.1	36.4	36.4	35.8	35.3	34.7	34.2	33.1
95°	63.5	63.5	63.5	63.5	63.5	63.1	62.4	61.7	60.9	60.2	58.8
97.5°	91.1	91.3	91.5	91.7	91.9	91.5	90.6	89.7	88.8	87.9	86.8
100°	123.7	123.3	123.0	122.6	122.3	121.8	121.3	120.7	120.2	119.6	118.7
102.5°	157.1	157.3	157.4	157.6	157.8	157.6	157.1	156.5	156.0	155.4	154.2
105°	193.7	193.3	193.0	192.6	192.2	192.1	192.1	192.1	192.1	192.1	190.4
107.5°	231.1	231.3	231.5	231.7	231.9	231.7	231.1	230.6	230.0	229.5	228.8
110°	269.4	269.7	270.1	270.5	270.8	270.6	269.9	269.2	268.5	267.8	267.4



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	310.1	310.1	310.1	310.1	310.1	309.6	308.7	307.8	306.9	306.0	306.0
115°	346.7	346.9	347.1	347.2	347.4	347.4	347.2	347.1	346.9	346.7	347.1
117.5°	384.1	384.7	385.2	385.8	386.3	386.6	386.6	386.6	386.6	386.6	386.9
120°	424.0	424.4	424.7	425.1	425.5	425.7	425.9	426.1	426.3	426.5	427.4
122.5°	462.3	462.8	463.3	463.9	464.4	465.0	465.5	466.1	466.6	467.1	467.5
125°	500.5	501.2	502.0	502.7	503.4	504.1	504.9	505.6	506.3	507.0	507.4
127.5°	538.8	539.5	540.2	540.9	541.7	542.6	543.6	544.7	545.8	546.9	547.3
130°	576.2	577.5	578.7	580.0	581.3	582.3	583.0	583.7	584.4	585.1	585.7
132.5°	615.3	616.2	617.1	618.0	618.9	619.8	620.7	621.6	622.5	623.4	623.8
135°	656.0	656.3	656.7	657.0	657.4	657.9	658.7	659.4	660.1	660.8	661.0
137.5°	691.8	692.3	692.8	693.4	693.9	694.7	695.6	696.5	697.4	698.3	697.7
140°	726.8	728.0	729.3	730.6	731.8	732.5	732.7	732.9	733.1	733.3	733.1
142.5°	762.6	763.5	764.4	765.3	766.2	766.7	766.9	767.1	767.3	767.4	767.1
145°	796.7	797.5	798.2	798.9	799.6	800.1	800.3	800.5	800.6	800.8	800.3
147.5°	827.7	828.8	829.8	830.9	832.0	832.6	832.6	832.6	832.6	832.6	832.0
150°	857.0	858.1	859.1	860.2	861.3	861.9	861.9	861.9	861.9	861.9	861.5
152.5°	885.5	886.4	887.3	888.2	889.1	889.3	889.0	888.6	888.3	887.9	887.7
155°	910.7	912.0	913.2	914.5	915.7	916.0	915.3	914.6	913.8	913.1	912.9
157.5°	934.3	935.4	936.5	937.5	938.6	938.8	938.1	937.4	936.6	935.9	935.7
160°	957.1	957.8	958.5	959.2	960.0	959.9	959.0	958.1	957.2	956.3	956.3
162.5°	974.2	975.4	976.7	978.0	979.2	979.4	978.5	977.6	976.7	975.8	975.6
165°	990.4	991.7	993.0	994.2	995.5	995.6	994.5	993.4	992.3	991.3	991.3
167.5°	1005.1	1006.2	1007.3	1008.3	1009.4	1009.4	1008.3	1007.3	1006.2	1005.1	1004.9
170°	1015.7	1016.9	1018.2	1019.5	1020.7	1020.7	1019.5	1018.2	1016.9	1015.7	1015.7
172.5°	1023.8	1025.1	1026.3	1027.6	1028.9	1029.0	1027.9	1026.8	1025.7	1024.6	1024.6
175°	1029.5	1030.8	1032.0	1033.3	1034.6	1034.7	1033.6	1032.5	1031.4	1030.3	1030.3
177.5°	1032.8	1034.0	1035.3	1036.6	1037.8	1037.9	1036.8	1035.7	1034.7	1033.6	1033.6
180°	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4
2.5°	2161.0	2158.9	2138.8	2118.8	2099.2	2079.6	2065.0	2050.4	2025.8	2001.2	1985.7
5°	2294.9	2279.0	2247.3	2215.6	2168.1	2120.5	2080.4	2040.4	1989.5	1938.6	1896.0
7.5°	2369.6	2356.7	2318.3	2279.9	2216.9	2153.9	2091.3	2028.7	1953.6	1878.5	1814.2
10°	2371.7	2382.5	2350.8	2319.1	2248.2	2177.2	2092.1	2007.0	1906.0	1805.0	1722.0
12.5°	2297.4	2344.1	2337.5	2330.8	2258.6	2186.4	2082.9	1979.5	1855.5	1731.6	1627.7
15°	2158.5	2249.0	2275.7	2302.4	2242.7	2183.1	2065.4	1947.7	1802.1	1656.5	1537.2
17.5°	1979.5	2106.3	2176.8	2247.3	2203.9	2160.5	2031.6	1902.7	1738.7	1574.7	1445.0
20°	1767.5	1933.6	2044.1	2154.7	2138.8	2123.0	1989.9	1856.8	1679.9	1503.0	1362.3
22.5°	1558.0	1733.3	1886.0	2038.7	2055.0	2071.3	1936.9	1802.5	1608.9	1415.3	1272.2
25°	1377.4	1555.5	1737.4	1919.4	1956.1	1992.8	1865.1	1737.4	1536.7	1336.1	1193.8
27.5°	1205.0	1374.4	1574.7	1775.0	1841.8	1908.5	1791.7	1674.9	1465.8	1256.8	1114.9
30°	1064.4	1215.9	1420.3	1624.8	1717.8	1810.9	1703.7	1596.4	1389.0	1181.7	1042.7
32.5°	933.4	1069.0	1274.3	1479.6	1587.7	1695.7	1603.1	1510.5	1311.0	1111.6	974.3
35°	829.9	951.3	1142.9	1334.4	1455.4	1576.4	1500.4	1424.5	1229.7	1034.8	905.0
37.5°	741.0	842.9	1022.7	1202.5	1331.0	1459.6	1396.1	1332.7	1149.5	966.4	843.7
40°	667.6	749.4	916.7	1084.0	1210.0	1336.1	1281.8	1227.6	1063.6	899.6	784.9
42.5°	604.6	675.1	825.3	975.5	1091.1	1206.7	1170.8	1134.9	986.4	837.8	731.4
45°	549.1	608.4	740.6	872.9	979.3	1085.7	1057.3	1029.0	900.9	772.8	675.1
47.5°	499.9	550.8	668.9	786.9	882.5	978.0	951.8	925.5	819.5	713.5	624.6
50°	454.8	498.2	596.7	695.1	781.1	867.1	845.4	823.7	736.0	648.4	571.6
52.5°	412.2	448.1	536.6	625.0	694.3	763.6	746.9	730.2	662.6	595.0	525.3
55°	371.8	404.7	479.4	554.1	613.4	672.6	655.9	639.2	586.7	534.1	472.7
57.5°	335.1	363.8	424.3	484.9	532.0	579.1	571.2	563.3	519.5	475.7	425.2
60°	296.3	322.1	374.3	426.4	464.4	502.4	493.2	484.0	452.7	421.4	378.0
62.5°	261.6	284.6	326.3	368.0	398.9	429.8	423.1	416.4	392.6	368.9	333.0
65°	225.3	247.8	281.6	315.4	339.6	363.8	358.0	352.2	334.2	316.3	287.5
67.5°	192.4	211.1	240.3	269.5	285.8	302.1	298.8	295.4	281.6	267.9	245.3
70°	159.0	175.2	199.4	223.6	234.9	246.2	247.4	248.7	236.2	223.6	207.0
72.5°	125.6	138.5	161.1	183.6	192.4	201.1	200.7	200.3	192.8	185.3	170.2
75°	96.4	106.0	123.5	141.0	148.5	156.1	157.7	159.4	152.3	145.2	136.9
77.5°	69.3	75.9	89.3	102.6	111.0	119.3	120.2	121.0	117.7	114.3	106.4
80°	48.8	50.9	59.3	67.6	76.4	85.1	86.4	87.6	84.3	80.9	75.9
82.5°	33.8	35.0	38.0	40.9	48.0	55.1	56.7	58.4	56.7	55.1	49.7
85°	20.4	20.9	22.1	23.4	26.7	30.0	31.7	33.4	32.5	31.7	28.8
87.5°	9.2	9.2	9.6	10.0	10.8	11.7	13.8	15.9	14.6	13.4	12.1
90°	14.8	12.5	10.1	8.0	6.2	4.4	2.6	0.8	2.6	4.4	6.2
92.5°	32.0	30.9	29.8	28.8	27.7	26.6	25.5	24.4	25.5	26.6	27.7
95°	57.3	55.9	54.4	53.1	51.8	50.5	49.3	48.0	49.3	50.5	51.8
97.5°	85.7	84.6	83.6	82.6	81.7	80.8	79.8	78.9	79.8	80.8	81.7
100°	117.8	116.9	116.0	115.0	113.9	112.9	111.8	110.7	111.8	112.9	113.9
102.5°	152.9	151.6	150.4	149.5	148.9	148.4	147.8	147.3	147.8	148.4	148.9
105°	188.8	187.2	185.6	184.6	184.2	183.8	183.5	183.1	183.5	183.8	184.2
107.5°	228.1	227.3	226.6	226.2	226.0	225.8	225.6	225.4	225.6	225.8	226.0
110°	267.0	266.7	266.3	265.9	265.6	265.2	264.9	264.5	264.9	265.2	265.6



TEST NUMBER: P832321

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	306.0	306.0	306.0	305.9	305.7	305.6	305.4	305.2	305.4	305.6	305.7
115°	347.4	347.8	348.1	348.1	347.5	347.0	346.4	345.9	346.4	347.0	347.5
117.5°	387.3	387.7	388.0	388.1	387.9	387.7	387.6	387.4	387.6	387.7	387.9
120°	428.3	429.2	430.1	430.0	428.9	427.8	426.7	425.6	426.7	427.8	428.9
122.5°	467.9	468.2	468.6	468.4	467.7	467.0	466.2	465.5	466.2	467.0	467.7
125°	507.7	508.1	508.5	508.4	507.8	507.3	506.7	506.2	506.7	507.3	507.8
127.5°	547.6	548.0	548.3	548.0	546.9	545.8	544.7	543.6	544.7	545.8	546.9
130°	586.2	586.8	587.3	586.9	585.4	584.0	582.5	581.1	582.5	584.0	585.4
132.5°	624.1	624.5	624.8	624.3	622.9	621.4	620.0	618.5	620.0	621.4	622.9
135°	661.2	661.4	661.6	661.1	660.0	658.9	657.9	656.8	657.9	658.9	660.0
137.5°	697.2	696.6	696.1	695.4	694.5	693.6	692.7	691.8	692.7	693.6	694.5
140°	732.9	732.7	732.5	732.0	731.1	730.2	729.3	728.4	729.3	730.2	731.1
142.5°	766.7	766.4	766.0	765.4	764.5	763.6	762.7	761.8	762.7	763.6	764.5
145°	799.7	799.2	798.6	798.2	797.8	797.5	797.1	796.7	797.1	797.5	797.8
147.5°	831.5	830.9	830.4	829.8	829.0	828.3	827.6	826.9	827.6	828.3	829.0
150°	861.1	860.8	860.4	860.0	859.7	859.3	859.0	858.6	859.0	859.3	859.7
152.5°	887.5	887.4	887.2	886.8	886.3	885.7	885.2	884.6	885.2	885.7	886.3
155°	912.8	912.6	912.4	912.3	912.3	912.3	912.3	912.3	912.3	912.3	912.3
157.5°	935.6	935.4	935.2	935.2	935.4	935.6	935.7	935.9	935.7	935.6	935.4
160°	956.3	956.3	956.3	956.4	956.8	957.2	957.5	957.9	957.5	957.2	956.8
162.5°	975.4	975.2	975.1	975.2	975.8	976.3	976.9	977.4	976.9	976.3	975.8
165°	991.3	991.3	991.3	991.5	992.1	992.6	993.2	993.7	993.2	992.6	992.1
167.5°	1004.7	1004.5	1004.4	1004.6	1005.4	1006.1	1006.8	1007.5	1006.8	1006.1	1005.4
170°	1015.7	1015.7	1015.7	1016.0	1016.8	1017.5	1018.2	1018.9	1018.2	1017.5	1016.8
172.5°	1024.6	1024.6	1024.6	1025.0	1025.7	1026.4	1027.2	1027.9	1027.2	1026.4	1025.7
175°	1030.3	1030.3	1030.3	1030.7	1031.4	1032.1	1032.9	1033.6	1032.9	1032.1	1031.4
177.5°	1033.6	1033.6	1033.6	1033.9	1034.7	1035.4	1036.1	1036.8	1036.1	1035.4	1034.7
180°	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0



TEST NUMBER: P832321

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CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4	2035.4
2.5°	1970.3	1946.5	1922.7	1905.6	1888.5	1867.2	1845.9	1845.1	1844.3	1828.4	1812.6
5°	1853.4	1812.1	1770.8	1730.4	1689.9	1649.4	1608.9	1599.8	1590.6	1576.8	1563.0
7.5°	1750.0	1684.0	1618.1	1566.4	1514.6	1474.2	1433.7	1406.1	1378.6	1357.3	1336.1
10°	1639.0	1557.2	1475.4	1412.8	1350.2	1306.4	1262.6	1230.9	1199.2	1184.2	1169.1
12.5°	1523.8	1434.9	1346.1	1284.7	1223.4	1170.8	1118.2	1089.5	1060.7	1039.8	1018.9
15°	1417.8	1322.3	1226.7	1161.6	1096.5	1047.3	998.1	969.3	940.5	919.6	898.8
17.5°	1315.2	1218.8	1122.4	1056.5	990.6	945.9	901.3	873.3	845.4	832.4	819.5
20°	1221.7	1124.5	1027.3	965.1	902.9	859.1	815.3	800.3	785.3	773.2	761.1
22.5°	1129.1	1035.6	942.2	882.5	822.8	791.1	759.4	747.3	735.2	726.0	716.8
25°	1051.5	958.4	865.4	813.2	761.1	736.5	711.8	703.9	696.0	686.8	677.6
27.5°	973.0	884.6	796.1	754.4	712.7	692.6	672.6	662.6	652.6	645.1	637.6
30°	903.8	822.0	740.2	705.6	670.9	653.4	635.9	625.0	614.2	607.1	600.0
32.5°	837.0	764.4	691.8	662.2	632.6	615.5	598.3	587.9	577.5	569.1	560.8
35°	775.3	712.3	649.2	622.1	595.0	577.9	560.8	550.4	539.9	531.6	523.2
37.5°	721.0	663.9	606.7	581.2	555.8	540.8	525.7	514.9	504.0	495.3	486.5
40°	670.1	619.6	569.1	544.5	519.9	503.6	487.4	477.8	468.2	460.2	452.3
42.5°	625.0	578.7	532.4	508.2	484.0	468.6	453.1	441.9	430.6	426.0	421.4
45°	577.5	536.6	495.7	472.3	449.0	432.7	416.4	406.8	397.2	393.1	388.9
47.5°	535.8	497.8	459.8	436.9	413.9	399.3	384.7	377.2	369.7	363.8	358.0
50°	494.9	458.1	421.4	399.3	377.2	364.7	352.2	343.0	333.8	329.6	325.5
52.5°	455.6	422.3	388.9	366.3	343.8	331.7	319.6	311.7	303.8	295.0	286.2
55°	411.4	382.2	353.0	333.0	312.9	300.4	287.9	278.7	269.5	260.4	251.2
57.5°	374.7	345.9	317.1	299.2	281.2	269.1	257.0	247.0	237.0	229.5	222.0
60°	334.6	309.6	284.6	267.0	249.5	237.8	226.2	216.6	207.0	203.2	199.4
62.5°	297.1	273.7	250.4	234.9	219.5	208.2	196.9	190.7	184.4	181.9	179.4
65°	258.7	238.7	218.6	204.5	190.3	180.7	171.1	168.2	165.2	163.1	161.1
67.5°	222.8	205.7	188.6	176.1	163.6	156.9	150.2	146.9	143.5	141.0	138.5
70°	190.3	175.2	160.2	149.4	138.5	132.3	126.0	123.1	120.2	115.6	111.0
72.5°	155.2	143.5	131.9	123.5	115.2	109.7	104.3	98.5	92.6	88.5	84.3
75°	128.5	116.8	105.1	97.2	89.3	83.0	76.8	74.7	72.6	71.4	70.1
77.5°	98.5	88.5	78.4	72.2	65.9	63.0	60.1	58.8	57.6	57.2	56.7
80°	70.9	62.6	54.2	50.9	47.6	46.7	45.9	45.1	44.2	43.8	43.4
82.5°	44.2	40.1	35.9	35.0	34.2	33.8	33.4	33.0	32.5	32.1	31.7
85°	25.9	24.2	22.5	22.1	21.7	21.3	20.9	20.9	20.9	20.9	20.9
87.5°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.8	10.4	10.0
90°	8.0	10.1	12.5	14.8	17.2	19.5	20.3	21.0	21.7	22.4	23.0
92.5°	28.8	29.8	30.9	32.0	33.1	34.2	34.7	35.3	35.8	36.4	36.4
95°	53.1	54.4	55.9	57.3	58.8	60.2	60.9	61.7	62.4	63.1	63.5
97.5°	82.6	83.6	84.6	85.7	86.8	87.9	88.8	89.7	90.6	91.5	91.9
100°	115.0	116.0	116.9	117.8	118.7	119.6	120.2	120.7	121.3	121.8	122.3
102.5°	149.5	150.4	151.6	152.9	154.2	155.4	156.0	156.5	157.1	157.6	157.8
105°	184.6	185.6	187.2	188.8	190.4	192.1	192.1	192.1	192.1	192.1	192.2
107.5°	226.2	226.6	227.3	228.1	228.8	229.5	230.0	230.6	231.1	231.7	231.9
110°	265.9	266.3	266.7	267.0	267.4	267.8	268.5	269.2	269.9	270.6	270.8



TEST NUMBER: P832321

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	305.9	306.0	306.0	306.0	306.0	306.0	306.9	307.8	308.7	309.6	310.1
115°	348.1	348.1	347.8	347.4	347.1	346.7	346.9	347.1	347.2	347.4	347.4
117.5°	388.1	388.0	387.7	387.3	386.9	386.6	386.6	386.6	386.6	386.6	386.3
120°	430.0	430.1	429.2	428.3	427.4	426.5	426.3	426.1	425.9	425.7	425.5
122.5°	468.4	468.6	468.2	467.9	467.5	467.1	466.6	466.1	465.5	465.0	464.4
125°	508.4	508.5	508.1	507.7	507.4	507.0	506.3	505.6	504.9	504.1	503.4
127.5°	548.0	548.3	548.0	547.6	547.3	546.9	545.8	544.7	543.6	542.6	541.7
130°	586.9	587.3	586.8	586.2	585.7	585.1	584.4	583.7	583.0	582.3	581.3
132.5°	624.3	624.8	624.5	624.1	623.8	623.4	622.5	621.6	620.7	619.8	618.9
135°	661.1	661.6	661.4	661.2	661.0	660.8	660.1	659.4	658.7	657.9	657.4
137.5°	695.4	696.1	696.6	697.2	697.7	698.3	697.4	696.5	695.6	694.7	693.9
140°	732.0	732.5	732.7	732.9	733.1	733.3	733.1	732.9	732.7	732.5	731.8
142.5°	765.4	766.0	766.4	766.7	767.1	767.4	767.3	767.1	766.9	766.7	766.2
145°	798.2	798.6	799.2	799.7	800.3	800.8	800.6	800.5	800.3	800.1	799.6
147.5°	829.8	830.4	830.9	831.5	832.0	832.6	832.6	832.6	832.6	832.6	832.0
150°	860.0	860.4	860.8	861.1	861.5	861.9	861.9	861.9	861.9	861.9	861.3
152.5°	886.8	887.2	887.4	887.5	887.7	887.9	888.3	888.6	889.0	889.3	889.1
155°	912.3	912.4	912.6	912.8	912.9	913.1	913.8	914.6	915.3	916.0	915.7
157.5°	935.2	935.2	935.4	935.6	935.7	935.9	936.6	937.4	938.1	938.8	938.6
160°	956.4	956.3	956.3	956.3	956.3	956.3	957.2	958.1	959.0	959.9	960.0
162.5°	975.2	975.1	975.2	975.4	975.6	975.8	976.7	977.6	978.5	979.4	979.2
165°	991.5	991.3	991.3	991.3	991.3	991.3	992.3	993.4	994.5	995.6	995.5
167.5°	1004.6	1004.4	1004.5	1004.7	1004.9	1005.1	1006.2	1007.3	1008.3	1009.4	1009.4
170°	1016.0	1015.7	1015.7	1015.7	1015.7	1015.7	1016.9	1018.2	1019.5	1020.7	1020.7
172.5°	1025.0	1024.6	1024.6	1024.6	1024.6	1024.6	1025.7	1026.8	1027.9	1029.0	1028.9
175°	1030.7	1030.3	1030.3	1030.3	1030.3	1030.3	1031.4	1032.5	1033.6	1034.7	1034.6
177.5°	1033.9	1033.6	1033.6	1033.6	1033.6	1033.6	1034.7	1035.7	1036.8	1037.9	1037.8
180°	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0	1036.0



TEST NUMBER: P832321

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	2035.4	2035.4	2035.4	2035.4
2.5°	1808.4	1804.2	1802.5	1800.9
5°	1550.1	1537.2	1534.2	1531.3
7.5°	1330.6	1325.2	1307.3	1289.3
10°	1152.5	1135.8	1128.3	1120.7
12.5°	1003.5	988.1	985.6	983.1
15°	887.9	877.1	873.3	869.6
17.5°	812.0	804.5	799.9	795.3
20°	755.6	750.2	746.9	743.5
22.5°	712.7	708.5	706.0	703.5
25°	671.4	665.1	663.0	660.9
27.5°	632.1	626.7	624.6	622.5
30°	595.4	590.8	587.9	585.0
32.5°	555.4	549.9	548.3	546.6
35°	519.9	516.6	514.9	513.2
37.5°	482.3	478.2	475.7	473.2
40°	450.2	448.1	446.9	445.6
42.5°	417.7	413.9	413.5	413.1
45°	385.1	381.4	380.5	379.7
47.5°	354.7	351.3	350.9	350.5
50°	320.9	316.3	312.9	309.6
52.5°	282.1	277.9	275.0	272.1
55°	246.6	242.0	239.5	237.0
57.5°	219.9	217.8	216.6	215.3
60°	198.2	196.9	196.1	195.3
62.5°	178.2	176.9	176.9	176.9
65°	159.8	158.6	157.3	156.1
67.5°	136.0	133.5	133.1	132.7
70°	107.2	103.5	103.1	102.6
72.5°	83.9	83.5	82.6	81.8
75°	69.3	68.4	68.4	68.4
77.5°	55.9	55.1	55.1	55.1
80°	43.0	42.6	43.0	43.4
82.5°	31.7	31.7	31.3	30.9
85°	20.4	20.0	20.0	20.0
87.5°	10.0	10.0	10.0	10.0
90°	23.3	23.7	24.1	24.4
92.5°	36.1	35.7	35.4	35.0
95°	63.5	63.5	63.5	63.5
97.5°	91.7	91.5	91.3	91.1
100°	122.6	123.0	123.3	123.7
102.5°	157.6	157.4	157.3	157.1
105°	192.6	193.0	193.3	193.7
107.5°	231.7	231.5	231.3	231.1
110°	270.5	270.1	269.7	269.4



TEST NUMBER: P832321

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-UDD-G1

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	310.1	310.1	310.1	310.1
115°	347.2	347.1	346.9	346.7
117.5°	385.8	385.2	384.7	384.1
120°	425.1	424.7	424.4	424.0
122.5°	463.9	463.3	462.8	462.3
125°	502.7	502.0	501.2	500.5
127.5°	540.9	540.2	539.5	538.8
130°	580.0	578.7	577.5	576.2
132.5°	618.0	617.1	616.2	615.3
135°	657.0	656.7	656.3	656.0
137.5°	693.4	692.8	692.3	691.8
140°	730.6	729.3	728.0	726.8
142.5°	765.3	764.4	763.5	762.6
145°	798.9	798.2	797.5	796.7
147.5°	830.9	829.8	828.8	827.7
150°	860.2	859.1	858.1	857.0
152.5°	888.2	887.3	886.4	885.5
155°	914.5	913.2	912.0	910.7
157.5°	937.5	936.5	935.4	934.3
160°	959.2	958.5	957.8	957.1
162.5°	978.0	976.7	975.4	974.2
165°	994.2	993.0	991.7	990.4
167.5°	1008.3	1007.3	1006.2	1005.1
170°	1019.5	1018.2	1016.9	1015.7
172.5°	1027.6	1026.3	1025.1	1023.8
175°	1033.3	1032.0	1030.8	1029.5
177.5°	1036.6	1035.3	1034.0	1032.8
180°	1036.0	1036.0	1036.0	1036.0



TEST NUMBER: P832321

CATALOG NUMBER: S123RDIP-S775D1025U930-4F0-1E-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	11.32	12.12	12.31	13.11	14.40	15.99	16.78	16.97	17.77	19.07
	3H	12.54	13.25	13.54	14.25	15.57	17.49	18.20	18.48	19.19	20.51
	4H	12.92	13.60	13.93	14.60	15.92	17.97	18.65	18.98	19.65	20.97
	6H	13.20	13.82	14.22	14.83	16.17	18.28	18.90	19.30	19.91	21.25
	8H	13.29	13.88	14.31	14.90	16.23	18.36	18.95	19.38	19.97	21.31
	12H	13.34	13.90	14.37	14.91	16.27	18.39	18.95	19.42	19.97	21.32
4H	2H	12.04	12.72	13.06	13.72	15.04	15.98	16.65	16.99	17.65	18.98
	3H	13.41	13.97	14.43	15.00	16.34	17.63	18.19	18.65	19.22	20.56
	4H	13.86	14.37	14.89	15.40	16.76	18.24	18.75	19.27	19.77	21.14
	6H	14.23	14.67	15.27	15.71	17.07	18.68	19.11	19.71	20.16	21.52
	8H	14.36	14.76	15.39	15.80	17.17	18.81	19.22	19.84	20.25	21.63
	12H	14.43	14.80	15.49	15.85	17.23	18.87	19.24	19.92	20.29	21.67
8H	4H	14.18	14.58	15.21	15.62	17.00	18.20	18.61	19.24	19.65	21.02
	6H	14.64	14.98	15.70	16.05	17.43	18.70	19.04	19.76	20.12	21.49
	8H	14.83	15.13	15.90	16.19	17.58	18.89	19.18	19.95	20.24	21.64
	12H	14.97	15.23	16.04	16.29	17.72	19.00	19.26	20.07	20.32	21.75
12H	4H	14.19	14.55	15.24	15.61	16.99	18.15	18.52	19.21	19.57	20.95
	6H	14.70	14.99	15.77	16.06	17.45	18.67	18.97	19.74	20.03	21.43
	8H	14.92	15.17	15.99	16.23	17.67	18.87	19.13	19.94	20.18	21.62