

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: P832433

Luminaire Tested: S123RDIP-S775D805U935-4F0-1E-UDD-G4

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P832433  
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-S775D805U935-4F0-1E-UDD-G4  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 805 LUMENS PER FOOT, BATWING OPTIC  
Light Source: -  
Ballast/Driver: -

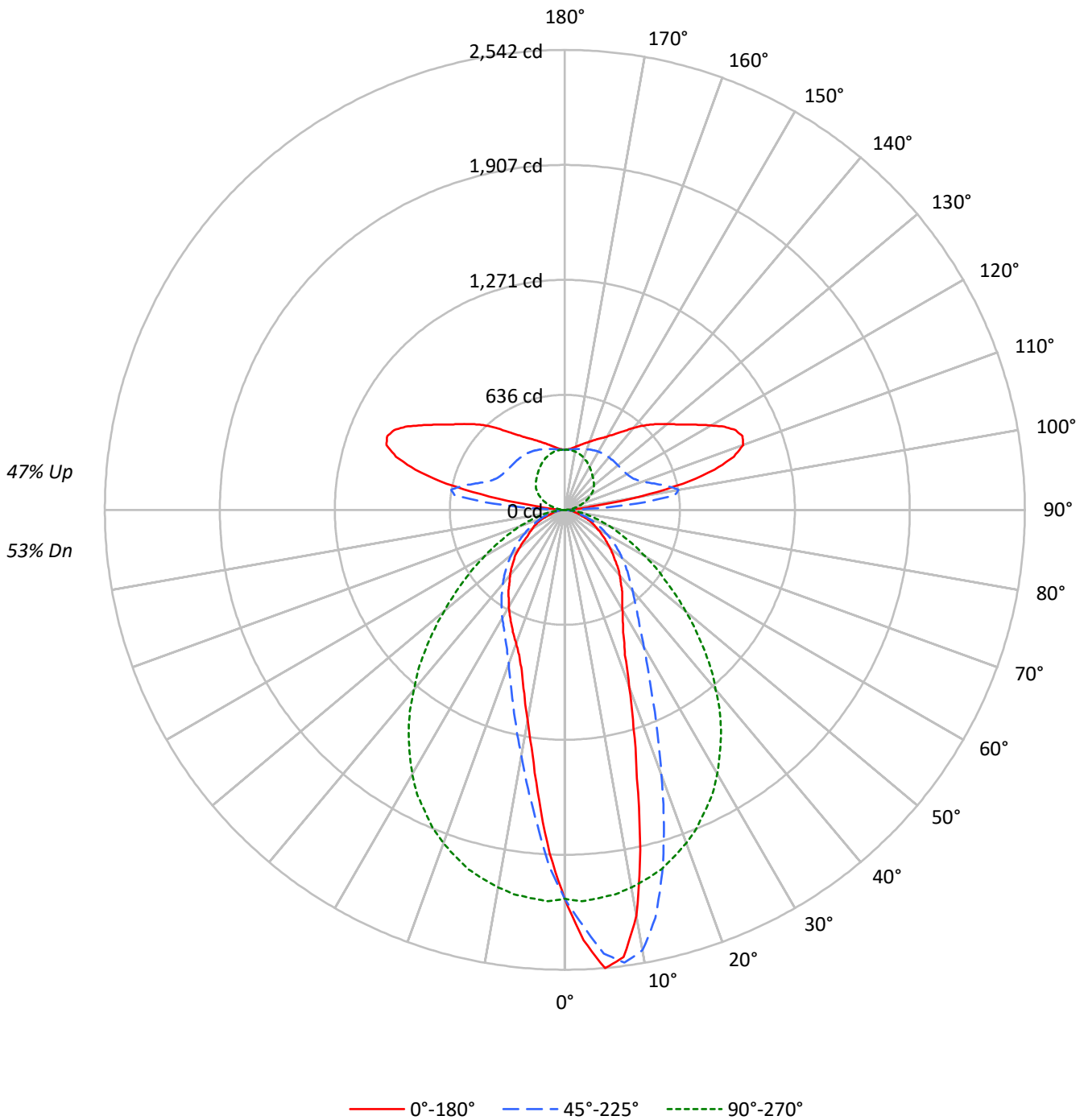
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5353.0 lumens  
Efficiency: N/A  
Efficacy: 115.1 lumens/watt  
Spacing Criteria (0/90/45): 0.55 / 1.17 / 0.8  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 46.5  
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	108	108	108	108	100	100	100	100	85	85	85	72	72	72	59	59	59	53		
1	99	95	92	88	92	89	85	83	76	74	72	64	63	61	54	53	52	47		
2	91	84	79	74	84	78	74	69	68	64	61	58	55	53	48	46	45	40		
3	84	75	68	63	78	70	64	59	60	56	52	52	48	46	44	41	39	35		
4	77	67	60	54	72	63	56	51	54	49	45	47	43	40	40	37	35	31		
5	71	60	53	47	66	57	50	45	49	44	40	43	39	35	36	33	31	28		
6	66	55	47	41	61	51	44	39	45	40	36	39	35	32	33	30	28	25		
7	61	50	42	37	57	47	40	35	41	36	32	36	32	29	31	28	25	23		
8	57	46	38	33	53	43	36	32	38	33	29	33	29	26	29	26	23	21		
9	54	42	35	30	50	40	33	29	35	30	26	31	27	24	27	24	21	19		
10	50	39	32	27	47	37	30	26	33	28	24	29	25	22	25	22	20	18		

**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	3.7
10°-20°	453.4	8.5
20°-30°	520.2	9.7
30°-40°	512.7	9.6
40°-50°	452.1	8.4
50°-60°	347.8	6.5
60°-70°	228.7	4.3
70°-80°	111.1	2.1
80°-90°	29.8	0.6
90°-100°	180.4	3.4
100°-110°	528.3	9.9
110°-120°	515.9	9.6
120°-130°	410.9	7.7
130°-140°	324.2	6.1
140°-150°	241.8	4.5
150°-160°	168.6	3.1
160°-170°	99.0	1.9
170°-180°	32.2	0.6
0°-30°	1169.4	21.8
0°-40°	1682.1	31.4
0°-60°	2482.1	46.4
0°-90°	2851.7	53.3
90°-120°	1224.6	22.9
90°-150°	2201.5	41.1
90°-180°	2501.0	46.7
0°-180°	5353.0	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°	20	17	1	17	20	11
95°	78	399	23	399	78	127
105°	856	541	78	541	856	854
115°	1041	414	138	414	1041	1016
125°	821	386	192	386	821	743
135°	666	381	225	381	666	516
145°	520	376	256	376	520	330
155°	432	364	292	364	432	201
165°	376	349	318	349	376	107
175°	339	335	332	335	339	33
180°	332	332	332	332	332	



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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°	19.5	20.2	19.5	18.8	19.5	18.2	17.5	16.8	16.2	16.8	14.8
92.5°	35.7	37.0	36.3	39.0	40.4	45.1	51.8	66.6	93.6	125.2	138.7
95°	78.1	80.8	85.5	91.5	104.3	128.6	164.2	242.3	323.8	399.2	355.4
97.5°	160.2	167.6	183.8	209.3	254.4	331.2	420.0	556.7	634.8	613.9	458.4
100°	422.1	421.4	447.6	496.8	564.8	660.4	739.1	793.6	770.1	637.5	430.8
102.5°	668.4	688.0	708.8	745.2	794.3	846.1	883.8	872.4	776.8	593.7	390.4
105°	856.2	859.6	881.1	906.7	937.7	955.2	942.4	875.1	734.4	541.2	358.8
107.5°	978.8	986.2	994.9	1007.0	1011.1	992.9	940.4	834.7	673.8	494.8	335.9
110°	1048.8	1050.1	1051.5	1046.1	1027.2	980.1	895.3	771.4	617.3	456.4	323.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1062.9	1062.2	1055.5	1036.0	997.6	933.7	836.0	708.8	568.1	430.8	317.1
115°	1041.4	1038.0	1024.5	994.9	944.4	871.0	772.1	655.0	530.4	414.0	316.4
117.5°	994.2	989.5	969.3	936.3	883.8	807.8	716.9	613.2	505.5	402.5	317.1
120°	932.3	928.3	912.1	874.4	821.2	753.2	672.5	581.6	486.7	395.1	319.7
122.5°	874.4	869.0	850.9	817.9	772.1	710.2	636.8	556.7	471.2	390.4	324.5
125°	821.2	816.5	799.7	770.1	727.0	673.1	608.5	535.2	458.4	386.4	329.2
127.5°	775.5	771.4	755.9	730.4	691.3	641.5	582.3	515.6	446.3	384.4	334.6
130°	737.8	732.4	718.2	694.0	658.3	612.6	558.0	497.5	436.9	382.3	339.9
132.5°	700.7	697.4	685.3	661.0	628.0	585.0	535.2	480.6	428.1	381.7	344.0
135°	665.7	661.0	648.9	628.7	595.7	557.4	513.6	465.8	420.7	381.0	348.0
137.5°	628.7	624.7	614.6	593.7	565.4	531.1	492.1	451.7	414.0	379.7	350.7
140°	589.7	590.3	579.6	560.7	535.2	506.2	473.9	439.6	407.9	379.0	353.4
142.5°	553.3	554.0	544.6	528.4	507.6	483.3	456.4	428.1	402.5	377.6	355.4
145°	520.3	519.0	513.6	499.5	482.6	463.1	441.6	419.4	397.8	376.3	356.1
147.5°	492.1	491.4	486.0	475.9	462.5	448.3	430.1	412.0	393.1	374.3	356.1
150°	467.8	467.8	463.8	456.4	446.3	433.5	419.4	403.9	388.4	371.6	356.1
152.5°	447.6	447.6	445.6	438.9	431.5	421.4	409.3	396.5	383.0	368.2	354.1
155°	431.5	430.8	429.5	424.1	418.0	409.9	399.8	389.1	377.6	364.2	352.7
157.5°	416.0	416.0	414.7	410.6	405.2	398.5	390.4	381.0	371.6	360.8	350.7
160°	401.2	401.9	401.9	397.8	393.1	388.4	381.7	374.3	365.5	356.8	349.4
162.5°	387.7	388.4	388.4	385.0	382.3	378.3	372.2	366.2	359.5	352.7	346.7
165°	376.3	376.3	377.0	374.3	371.6	368.2	363.5	359.5	354.1	348.7	344.0
167.5°	364.8	364.8	365.5	363.5	362.2	359.5	356.8	353.4	348.7	344.7	341.3
170°	354.7	354.7	355.4	354.1	353.4	352.1	349.4	347.3	344.0	340.6	338.6
172.5°	345.3	346.0	347.3	346.0	346.0	345.3	343.3	342.0	339.3	337.2	336.6
175°	338.6	339.3	339.9	339.3	339.3	339.3	337.9	337.2	335.9	334.6	334.6
177.5°	333.9	333.9	335.2	334.6	335.2	335.2	334.6	333.9	333.2	332.5	333.2
180°	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5



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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°	12.8	10.8	8.8	7.4	6.1	4.0	2.7	1.3	2.7	4.0	6.1
92.5°	103.7	68.0	46.4	34.3	27.6	21.5	14.8	10.1	14.8	21.5	27.6
95°	245.0	144.7	87.5	61.3	43.8	32.3	24.9	22.9	24.9	32.3	43.8
97.5°	272.6	156.2	99.6	70.7	53.2	43.1	37.0	36.3	37.0	43.1	53.2
100°	253.8	154.2	107.0	80.8	64.6	55.2	50.5	49.8	50.5	55.2	64.6
102.5°	237.6	156.8	115.8	92.2	78.1	69.3	65.3	63.9	65.3	69.3	78.1
105°	231.6	162.2	125.9	105.0	92.2	84.1	80.1	78.1	80.1	84.1	92.2
107.5°	230.2	171.0	138.7	119.1	107.0	99.0	94.9	92.9	94.9	99.0	107.0
110°	233.6	182.4	152.1	133.3	121.8	114.4	111.1	109.0	111.1	114.4	121.8





TEST NUMBER: P832433

CATALOG NUMBER: S123RDIP-S775D805U935-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	240.3	193.9	166.3	148.1	136.6	129.2	125.9	123.9	125.9	129.2	136.6
115°	247.7	206.7	181.1	162.9	151.5	144.7	140.7	138.0	140.7	144.7	151.5
117.5°	257.1	220.1	194.5	177.7	164.9	158.9	155.5	152.1	155.5	158.9	164.9
120°	267.9	232.9	208.7	191.8	179.1	172.3	169.0	166.9	169.0	172.3	179.1
122.5°	278.0	246.4	222.8	204.6	192.5	185.1	181.7	179.7	181.7	185.1	192.5
125°	288.8	259.2	235.6	217.4	204.6	197.2	193.2	191.8	193.2	197.2	204.6
127.5°	297.5	270.6	247.7	229.5	215.4	208.0	203.3	201.3	203.3	208.0	215.4
130°	306.3	280.7	258.5	240.3	226.2	218.1	212.0	210.0	212.0	218.1	226.2
132.5°	314.4	289.5	267.9	250.4	236.3	226.2	219.4	216.8	219.4	226.2	236.3
135°	321.1	298.2	277.3	259.2	245.0	234.9	227.5	224.8	227.5	234.9	245.0
137.5°	326.5	304.3	284.1	267.2	253.1	242.3	234.9	232.2	234.9	242.3	253.1
140°	330.5	310.3	290.8	274.0	260.5	249.7	243.0	239.6	243.0	249.7	260.5
142.5°	334.6	315.0	296.2	280.7	267.2	257.8	250.4	247.7	250.4	257.8	267.2
145°	337.2	319.1	301.6	286.1	274.6	264.5	258.5	256.5	258.5	264.5	274.6
147.5°	339.3	322.4	306.3	292.8	281.4	272.6	266.6	265.2	266.6	272.6	281.4
150°	339.9	325.8	310.3	298.2	288.8	280.0	274.6	274.0	274.6	280.0	288.8
152.5°	341.3	327.8	315.0	303.6	295.5	288.1	282.7	282.7	282.7	288.1	295.5
155°	341.3	330.5	319.1	309.6	302.2	295.5	291.5	291.5	291.5	295.5	302.2
157.5°	342.0	331.9	322.4	315.0	308.3	302.2	298.9	298.2	298.9	302.2	308.3
160°	342.0	333.9	325.8	319.1	314.4	309.0	306.3	306.3	306.3	309.0	314.4
162.5°	341.3	334.6	327.8	322.4	318.4	314.4	312.3	312.3	312.3	314.4	318.4
165°	339.9	335.2	329.8	325.1	322.4	319.1	317.7	318.4	317.7	319.1	322.4
167.5°	339.3	335.2	331.2	327.8	325.8	323.1	322.4	323.1	322.4	323.1	325.8
170°	337.2	334.6	331.2	329.8	328.5	326.5	325.8	327.1	325.8	326.5	328.5
172.5°	336.6	334.6	331.9	331.2	330.5	329.2	329.2	329.8	329.2	329.2	330.5
175°	335.2	333.9	332.5	331.9	331.9	330.5	331.2	331.9	331.2	330.5	331.9
177.5°	334.6	333.2	332.5	332.5	332.5	331.9	332.5	333.2	332.5	331.9	332.5
180°	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5



TEST NUMBER: P832433

CATALOG NUMBER: S123RDIP-S775D805U935-4F0-1E-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°	7.4	8.8	10.8	12.8	14.8	16.8	16.2	16.8	17.5	18.2	19.5
92.5°	34.3	46.4	68.0	103.7	138.7	125.2	93.6	66.6	51.8	45.1	40.4
95°	61.3	87.5	144.7	245.0	355.4	399.2	323.8	242.3	164.2	128.6	104.3
97.5°	70.7	99.6	156.2	272.6	458.4	613.9	634.8	556.7	420.0	331.2	254.4
100°	80.8	107.0	154.2	253.8	430.8	637.5	770.1	793.6	739.1	660.4	564.8
102.5°	92.2	115.8	156.8	237.6	390.4	593.7	776.8	872.4	883.8	846.1	794.3
105°	105.0	125.9	162.2	231.6	358.8	541.2	734.4	875.1	942.4	955.2	937.7
107.5°	119.1	138.7	171.0	230.2	335.9	494.8	673.8	834.7	940.4	992.9	1011.1
110°	133.3	152.1	182.4	233.6	323.8	456.4	617.3	771.4	895.3	980.1	1027.2



TEST NUMBER: P832433

CATALOG NUMBER: S123RDIP-S775D805U935-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	148.1	166.3	193.9	240.3	317.1	430.8	568.1	708.8	836.0	933.7	997.6
115°	162.9	181.1	206.7	247.7	316.4	414.0	530.4	655.0	772.1	871.0	944.4
117.5°	177.7	194.5	220.1	257.1	317.1	402.5	505.5	613.2	716.9	807.8	883.8
120°	191.8	208.7	232.9	267.9	319.7	395.1	486.7	581.6	672.5	753.2	821.2
122.5°	204.6	222.8	246.4	278.0	324.5	390.4	471.2	556.7	636.8	710.2	772.1
125°	217.4	235.6	259.2	288.8	329.2	386.4	458.4	535.2	608.5	673.1	727.0
127.5°	229.5	247.7	270.6	297.5	334.6	384.4	446.3	515.6	582.3	641.5	691.3
130°	240.3	258.5	280.7	306.3	339.9	382.3	436.9	497.5	558.0	612.6	658.3
132.5°	250.4	267.9	289.5	314.4	344.0	381.7	428.1	480.6	535.2	585.0	628.0
135°	259.2	277.3	298.2	321.1	348.0	381.0	420.7	465.8	513.6	557.4	595.7
137.5°	267.2	284.1	304.3	326.5	350.7	379.7	414.0	451.7	492.1	531.1	565.4
140°	274.0	290.8	310.3	330.5	353.4	379.0	407.9	439.6	473.9	506.2	535.2
142.5°	280.7	296.2	315.0	334.6	355.4	377.6	402.5	428.1	456.4	483.3	507.6
145°	286.1	301.6	319.1	337.2	356.1	376.3	397.8	419.4	441.6	463.1	482.6
147.5°	292.8	306.3	322.4	339.3	356.1	374.3	393.1	412.0	430.1	448.3	462.5
150°	298.2	310.3	325.8	339.9	356.1	371.6	388.4	403.9	419.4	433.5	446.3
152.5°	303.6	315.0	327.8	341.3	354.1	368.2	383.0	396.5	409.3	421.4	431.5
155°	309.6	319.1	330.5	341.3	352.7	364.2	377.6	389.1	399.8	409.9	418.0
157.5°	315.0	322.4	331.9	342.0	350.7	360.8	371.6	381.0	390.4	398.5	405.2
160°	319.1	325.8	333.9	342.0	349.4	356.8	365.5	374.3	381.7	388.4	393.1
162.5°	322.4	327.8	334.6	341.3	346.7	352.7	359.5	366.2	372.2	378.3	382.3
165°	325.1	329.8	335.2	339.9	344.0	348.7	354.1	359.5	363.5	368.2	371.6
167.5°	327.8	331.2	335.2	339.3	341.3	344.7	348.7	353.4	356.8	359.5	362.2
170°	329.8	331.2	334.6	337.2	338.6	340.6	344.0	347.3	349.4	352.1	353.4
172.5°	331.2	331.9	334.6	336.6	336.6	337.2	339.3	342.0	343.3	345.3	346.0
175°	331.9	332.5	333.9	335.2	334.6	334.6	335.9	337.2	337.9	339.3	339.3
177.5°	332.5	332.5	333.2	334.6	333.2	332.5	333.2	333.9	334.6	335.2	335.2
180°	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5	332.5



TEST NUMBER: P832433

CATALOG NUMBER: S123RDIP-S775D805U935-4F0-1E-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°	18.8	19.5	20.2	19.5
92.5°	39.0	36.3	37.0	35.7
95°	91.5	85.5	80.8	78.1
97.5°	209.3	183.8	167.6	160.2
100°	496.8	447.6	421.4	422.1
102.5°	745.2	708.8	688.0	668.4
105°	906.7	881.1	859.6	856.2
107.5°	1007.0	994.9	986.2	978.8
110°	1046.1	1051.5	1050.1	1048.8



TEST NUMBER: P832433

CATALOG NUMBER: S123RDIP-S775D805U935-4F0-1E-UDD-G4

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	1036.0	1055.5	1062.2	1062.9
115°	994.9	1024.5	1038.0	1041.4
117.5°	936.3	969.3	989.5	994.2
120°	874.4	912.1	928.3	932.3
122.5°	817.9	850.9	869.0	874.4
125°	770.1	799.7	816.5	821.2
127.5°	730.4	755.9	771.4	775.5
130°	694.0	718.2	732.4	737.8
132.5°	661.0	685.3	697.4	700.7
135°	628.7	648.9	661.0	665.7
137.5°	593.7	614.6	624.7	628.7
140°	560.7	579.6	590.3	589.7
142.5°	528.4	544.6	554.0	553.3
145°	499.5	513.6	519.0	520.3
147.5°	475.9	486.0	491.4	492.1
150°	456.4	463.8	467.8	467.8
152.5°	438.9	445.6	447.6	447.6
155°	424.1	429.5	430.8	431.5
157.5°	410.6	414.7	416.0	416.0
160°	397.8	401.9	401.9	401.2
162.5°	385.0	388.4	388.4	387.7
165°	374.3	377.0	376.3	376.3
167.5°	363.5	365.5	364.8	364.8
170°	354.1	355.4	354.7	354.7
172.5°	346.0	347.3	346.0	345.3
175°	339.3	339.9	339.3	338.6
177.5°	334.6	335.2	333.9	333.9
180°	332.5	332.5	332.5	332.5



TEST NUMBER: P832433

CATALOG NUMBER: S123RDIP-S775D805U935-4F0-1E-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	11.96	12.80	12.90	13.74	14.97	16.63	17.46	17.57	18.41	19.64
	3H	13.18	13.93	14.14	14.89	16.14	18.13	18.87	19.08	19.83	21.08
	4H	13.57	14.27	14.53	15.23	16.49	18.62	19.32	19.58	20.28	21.54
	6H	13.85	14.49	14.82	15.46	16.74	18.93	19.57	19.90	20.54	21.82
	8H	13.93	14.55	14.92	15.53	16.80	19.01	19.62	19.99	20.61	21.88
	12H	13.99	14.57	14.97	15.55	16.84	19.04	19.62	20.03	20.60	21.90
4H	2H	12.69	13.39	13.66	14.35	15.61	16.62	17.33	17.59	18.29	19.55
	3H	14.06	14.64	15.04	15.63	16.91	18.28	18.86	19.26	19.86	21.13
	4H	14.51	15.04	15.50	16.03	17.33	18.89	19.42	19.88	20.41	21.70
	6H	14.88	15.34	15.88	16.35	17.64	19.33	19.78	20.33	20.79	22.09
	8H	15.00	15.43	16.01	16.43	17.74	19.46	19.88	20.46	20.89	22.20
	12H	15.08	15.46	16.10	16.48	17.80	19.52	19.90	20.54	20.92	22.24
8H	4H	14.83	15.25	15.83	16.25	17.57	18.85	19.28	19.86	20.28	21.59
	6H	15.29	15.64	16.31	16.68	17.99	19.35	19.70	20.38	20.75	22.06
	8H	15.48	15.79	16.52	16.82	18.15	19.54	19.85	20.57	20.88	22.21
	12H	15.62	15.89	16.66	16.92	18.29	19.65	19.93	20.69	20.95	22.32
12H	4H	14.84	15.22	15.86	16.24	17.56	18.81	19.19	19.82	20.21	21.52
	6H	15.35	15.66	16.38	16.69	18.02	19.33	19.64	20.36	20.67	21.99
	8H	15.57	15.84	16.60	16.86	18.24	19.52	19.79	20.56	20.82	22.19