

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: P831613

Luminaire Tested: S123DIP-S775D1195U830-4F0-1E-UDD-G1

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831613  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-9)  
Test Lab: INNOVATION CENTER  
Issue Date: 05/03/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: NEO-RAY  
Catalog Number: S123DIP-S775D1195U830-4F0-1E-UDD-G1  
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE  
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC  
UPLIGHT 1195 LUMENS PER FOOT, FLUSH SATIN WHITE DIFFUSER  
Light Source: -  
Ballast/Driver: -

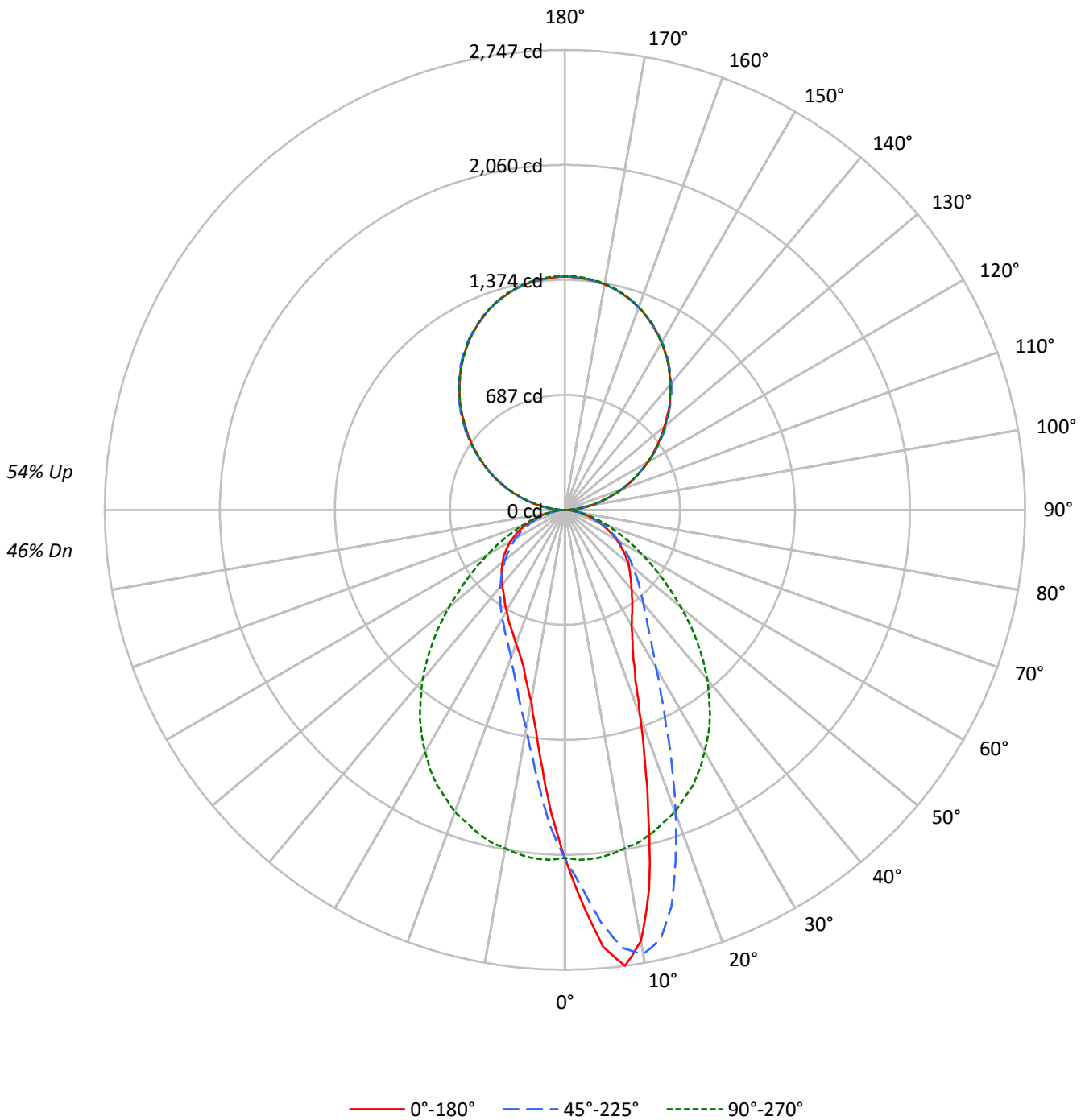
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7208.7 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89  
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')  
CIE Type: General Diffuse  
  
Input Watts (W): 56.9  
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	106	106	106	106	98	98	98	98	81	81	81	66	66	66	53	53	53	46				
1	97	93	90	86	89	86	83	80	72	70	68	59	58	56	47	46	46	40				
2	89	82	76	71	82	76	71	66	64	60	57	53	50	48	42	41	39	34				
3	82	73	66	60	75	67	61	56	57	52	48	47	44	41	38	36	34	30				
4	75	65	57	51	69	60	53	48	51	46	42	42	39	36	34	32	30	26				
5	69	58	50	44	63	54	47	42	46	41	37	38	34	31	31	29	26	23				
6	64	52	45	39	59	49	42	37	42	36	32	35	31	28	29	26	24	21				
7	59	47	40	34	54	44	37	33	38	33	29	32	28	25	27	24	21	19				
8	55	43	36	31	51	40	34	29	35	30	26	30	26	23	25	22	19	17				
9	52	40	33	28	47	37	31	26	32	27	23	27	23	21	23	20	18	16				
10	48	37	30	25	45	34	28	24	30	25	21	25	22	19	21	18	16	14				

**AVERAGE LUMINANCE (cd/sqm):**

	0°	45°	90°	135°	180°
0°	22385	22385	22385	22385	22385
5°	28309	26719	22585	18200	16725
10°	28584	29449	22435	14508	12678
15°	21528	27341	22282	12286	10721
20°	15000	22125	21998	10745	9739
25°	11438	17013	21512	9885	9134
30°	9895	13518	20738	9277	8648
35°	9181	11412	19845	8838	8306
40°	8692	10238	18590	8421	8190
45°	8403	9474	16996	8094	8138
50°	8257	8872	15110	7797	8097
55°	7949	8430	13257	7516	8131
60°	7666	7957	11427	7251	7998
65°	7200	7508	9857	6968	7840
70°	6650	6939	8381	6499	7380
75°	6022	6222	7182	6039	6742
80°	4965	5442	5684	5263	5684
85°	3927	4409	4174	4471	4533

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 19406 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	196.6	2.7
10°-20°	489.1	6.8
20°-30°	579.1	8.0
30°-40°	582.3	8.1
40°-50°	534.2	7.4
50°-60°	440.9	6.1
60°-70°	311.9	4.3
70°-80°	166.5	2.3
80°-90°	45.2	0.6
90°-100°	89.7	1.2
100°-110°	271.6	3.8
110°-120°	462.4	6.4
120°-130°	608.3	8.4
130°-140°	683.8	9.5
140°-150°	672.2	9.3
150°-160°	565.9	7.9
160°-170°	376.8	5.2
170°-180°	131.9	1.8
0°-30°	1264.8	17.5
0°-40°	1847.1	25.6
0°-60°	2822.3	39.2
0°-90°	3345.9	46.4
90°-120°	823.8	11.4
90°-150°	2788.1	38.7
90°-180°	3863.0	53.6
0°-180°	7208.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2080	2080	2080	2080	2080	
5°	2620	2473	2090	1684	1548	250
15°	1932	2454	2000	1102	962	534
25°	963	1432	1811	832	769	455
35°	699	868	1510	673	632	439
45°	552	622	1116	532	535	427
55°	424	449	706	400	433	379
65°	283	295	387	274	308	281
75°	145	150	173	145	162	152
85°	32	36	34	36	37	36
90°	33	26	1	26	33	18
95°	85	81	65	81	85	86
105°	261	258	246	258	261	276
115°	466	466	465	466	466	462
125°	674	682	681	682	674	602
135°	883	889	884	889	883	679
145°	1072	1078	1072	1078	1072	670
155°	1225	1229	1228	1229	1225	565
165°	1333	1334	1337	1334	1333	376
175°	1385	1386	1391	1386	1385	132
180°	1394	1394	1394	1394	1394	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6
2.5°	2344.0	2341.6	2339.2	2327.1	2315.0	2309.3	2303.5	2286.1	2268.7	2249.4	2230.1
5°	2620.0	2626.7	2633.5	2625.8	2618.1	2594.4	2570.8	2539.4	2508.0	2472.8	2437.6
7.5°	2747.4	2751.2	2755.1	2750.3	2745.4	2739.2	2732.9	2704.9	2676.9	2640.7	2604.5
10°	2615.2	2623.8	2632.5	2651.3	2670.2	2691.4	2712.6	2708.8	2704.9	2694.3	2683.7
12.5°	2324.7	2335.3	2345.9	2383.6	2421.2	2469.4	2517.7	2559.2	2600.7	2629.6	2658.6
15°	1931.9	1961.4	1990.8	2025.1	2059.3	2130.2	2201.2	2288.5	2375.8	2453.5	2531.2
17.5°	1591.3	1602.4	1613.5	1650.2	1686.8	1776.1	1865.4	1966.2	2067.0	2195.9	2324.7
20°	1309.5	1319.6	1329.8	1378.0	1426.3	1496.2	1566.2	1679.6	1793.0	1931.5	2069.9
22.5°	1100.1	1116.0	1131.9	1159.0	1186.0	1253.1	1320.1	1421.0	1521.8	1674.8	1827.7
25°	963.1	974.7	986.2	1002.6	1019.0	1072.6	1126.2	1209.1	1292.1	1432.5	1573.0
27.5°	869.5	874.3	879.1	895.5	911.9	946.7	981.4	1052.8	1124.2	1243.4	1362.6
30°	796.1	799.5	802.9	817.4	831.8	855.5	879.1	930.7	982.4	1087.6	1192.7
32.5°	745.0	747.4	749.8	760.9	772.0	788.9	805.8	843.4	881.0	967.9	1054.7
35°	698.7	700.1	701.6	709.8	718.0	730.5	743.1	771.5	800.0	868.5	937.0
37.5°	658.1	660.1	662.0	666.8	671.6	682.7	693.8	716.5	739.2	791.8	844.4
40°	618.6	621.9	625.3	628.7	632.1	641.2	650.4	667.8	685.2	728.6	772.0
42.5°	584.8	588.2	591.5	593.0	594.4	599.7	605.1	621.0	636.9	669.2	701.6
45°	552.0	553.4	554.9	556.3	557.8	562.1	566.5	580.4	594.4	622.4	650.4
47.5°	522.1	522.1	522.1	523.0	524.0	527.9	531.7	541.8	552.0	573.7	595.4
50°	493.1	493.1	493.1	491.7	490.2	492.6	495.0	502.8	510.5	529.8	549.1
52.5°	458.4	458.4	458.4	458.9	459.3	459.3	459.3	466.1	472.9	490.2	507.6
55°	423.6	425.6	427.5	426.0	424.6	425.6	426.5	430.9	435.2	449.2	463.2
57.5°	388.9	389.9	390.8	390.3	389.9	390.3	390.8	394.7	398.5	409.2	419.8
60°	356.1	356.1	356.1	355.1	354.2	355.1	356.1	358.0	359.9	369.6	379.2
62.5°	319.4	319.9	320.4	320.9	321.3	320.4	319.4	321.8	324.2	331.5	338.7
65°	282.7	283.2	283.7	285.2	286.6	285.6	284.7	287.1	289.5	294.8	300.1
67.5°	249.9	249.0	248.0	248.5	249.0	250.4	251.9	252.3	252.8	258.6	264.4
70°	211.3	212.3	213.3	212.8	212.3	212.8	213.3	214.7	216.2	220.5	224.8
72.5°	176.6	177.1	177.6	177.6	177.6	178.5	179.5	180.9	182.4	184.8	187.2
75°	144.8	144.8	144.8	145.7	146.7	147.2	147.6	147.6	147.6	149.6	151.5
77.5°	110.0	112.4	114.8	114.4	113.9	114.8	115.8	117.2	118.7	119.7	120.6
80°	80.1	80.1	80.1	80.6	81.1	82.5	84.0	84.9	85.9	87.8	89.7
82.5°	51.1	51.6	52.1	53.6	55.0	56.0	56.9	58.4	59.8	59.8	59.8
85°	31.8	30.9	29.9	30.9	31.8	32.8	33.8	34.3	34.7	35.7	36.7
87.5°	15.4	15.4	15.4	15.4	15.4	15.9	16.4	16.4	16.4	16.4	16.4
90°	32.9	32.4	31.9	31.4	30.9	30.2	29.2	28.2	27.3	26.3	23.1
92.5°	47.1	47.6	48.1	48.6	49.0	48.9	48.2	47.5	46.7	46.0	44.5
95°	85.4	85.4	85.4	85.4	85.4	84.9	84.0	83.0	82.0	81.0	79.1
97.5°	122.7	122.9	123.1	123.4	123.6	123.1	121.9	120.7	119.5	118.3	116.8
100°	166.5	166.0	165.5	165.0	164.5	163.9	163.2	162.4	161.7	161.0	159.8
102.5°	211.4	211.6	211.8	212.1	212.3	212.1	211.4	210.6	209.9	209.2	207.5
105°	260.6	260.2	259.7	259.2	258.7	258.4	258.4	258.4	258.4	258.4	256.3
107.5°	311.0	311.3	311.5	311.7	312.0	311.7	311.0	310.3	309.6	308.8	307.9
110°	362.5	363.0	363.5	363.9	364.4	364.2	363.2	362.2	361.3	360.3	359.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	417.2	417.2	417.2	417.2	417.2	416.6	415.4	414.2	413.0	411.8	411.8
115°	466.5	466.8	467.0	467.3	467.5	467.5	467.3	467.0	466.8	466.5	467.0
117.5°	516.9	517.6	518.4	519.1	519.8	520.2	520.2	520.2	520.2	520.2	520.7
120°	570.6	571.0	571.5	572.0	572.5	572.9	573.1	573.4	573.6	573.8	575.1
122.5°	622.0	622.8	623.5	624.2	624.9	625.7	626.4	627.1	627.9	628.6	629.1
125°	673.5	674.5	675.4	676.4	677.4	678.4	679.3	680.3	681.3	682.3	682.7
127.5°	725.0	725.9	726.9	727.9	728.9	730.1	731.5	733.0	734.5	735.9	736.4
130°	775.3	777.1	778.8	780.5	782.2	783.5	784.5	785.4	786.4	787.4	788.1
132.5°	827.9	829.1	830.3	831.6	832.8	834.0	835.2	836.4	837.6	838.9	839.4
135°	882.7	883.2	883.6	884.1	884.6	885.3	886.3	887.3	888.3	889.2	889.5
137.5°	930.9	931.6	932.3	933.0	933.8	934.7	936.0	937.2	938.4	939.6	938.9
140°	977.9	979.6	981.4	983.1	984.8	985.7	986.0	986.2	986.5	986.7	986.5
142.5°	1026.1	1027.3	1028.6	1029.8	1031.0	1031.7	1032.0	1032.2	1032.5	1032.7	1032.2
145°	1072.1	1073.1	1074.1	1075.0	1076.0	1076.6	1076.9	1077.1	1077.4	1077.6	1076.9
147.5°	1113.7	1115.2	1116.7	1118.1	1119.6	1120.3	1120.3	1120.3	1120.3	1120.3	1119.6
150°	1153.2	1154.6	1156.1	1157.5	1159.0	1159.7	1159.7	1159.7	1159.7	1159.7	1159.2
152.5°	1191.5	1192.7	1193.9	1195.1	1196.4	1196.7	1196.2	1195.8	1195.3	1194.8	1194.5
155°	1225.4	1227.1	1228.8	1230.6	1232.3	1232.6	1231.6	1230.7	1229.7	1228.7	1228.5
157.5°	1257.2	1258.7	1260.1	1261.6	1263.0	1263.3	1262.3	1261.3	1260.4	1259.4	1259.1
160°	1287.9	1288.8	1289.8	1290.8	1291.8	1291.6	1290.4	1289.2	1288.0	1286.8	1286.8
162.5°	1310.9	1312.6	1314.3	1316.0	1317.7	1317.9	1316.7	1315.5	1314.3	1313.1	1312.8
165°	1332.8	1334.5	1336.2	1337.9	1339.6	1339.7	1338.2	1336.8	1335.3	1333.9	1333.9
167.5°	1352.5	1353.9	1355.4	1356.9	1358.3	1358.3	1356.9	1355.4	1353.9	1352.5	1352.2
170°	1366.7	1368.4	1370.1	1371.8	1373.5	1373.5	1371.8	1370.1	1368.4	1366.7	1366.7
172.5°	1377.7	1379.4	1381.1	1382.8	1384.5	1384.6	1383.1	1381.7	1380.2	1378.8	1378.8
175°	1385.3	1387.0	1388.7	1390.4	1392.1	1392.3	1390.8	1389.3	1387.9	1386.4	1386.4
177.5°	1389.7	1391.4	1393.1	1394.8	1396.5	1396.6	1395.2	1393.7	1392.3	1390.8	1390.8
180°	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6
2.5°	2224.3	2218.5	2197.3	2176.1	2152.0	2127.8	2110.0	2092.1	2065.6	2039.1	2017.3
5°	2410.6	2383.6	2338.7	2293.8	2233.0	2172.2	2131.2	2090.2	2035.2	1980.2	1936.3
7.5°	2558.2	2511.9	2449.2	2386.5	2306.8	2227.2	2152.0	2076.7	1992.7	1908.8	1840.3
10°	2652.3	2620.9	2548.6	2476.2	2369.6	2262.9	2157.7	2052.6	1944.5	1836.4	1745.7
12.5°	2661.5	2664.4	2597.8	2531.2	2410.6	2290.0	2162.1	2034.2	1898.2	1762.1	1656.4
15°	2580.9	2630.6	2593.9	2557.3	2435.7	2314.1	2156.8	1999.5	1842.7	1685.9	1563.8
17.5°	2431.3	2538.0	2543.3	2548.6	2427.0	2305.4	2131.2	1957.0	1779.5	1601.9	1473.6
20°	2227.2	2384.5	2438.6	2492.6	2393.7	2294.8	2107.6	1920.4	1721.6	1522.8	1388.2
22.5°	2018.8	2209.9	2308.8	2407.7	2334.3	2261.0	2061.7	1862.5	1652.6	1442.7	1306.1
25°	1781.4	1989.8	2141.8	2293.8	2248.9	2204.1	2007.7	1811.3	1587.9	1364.5	1225.1
27.5°	1574.4	1786.2	1969.6	2152.9	2143.3	2133.6	1938.7	1743.8	1515.1	1286.3	1151.7
30°	1390.1	1587.4	1792.5	1997.6	2021.2	2044.8	1856.7	1668.5	1439.3	1210.1	1080.3
32.5°	1227.0	1399.3	1619.3	1839.3	1885.6	1931.9	1762.1	1592.3	1365.5	1138.7	1013.7
35°	1093.3	1249.7	1469.7	1689.7	1747.6	1805.5	1657.9	1510.2	1289.2	1068.3	949.1
37.5°	975.1	1105.9	1320.6	1535.3	1606.2	1677.2	1545.0	1412.8	1205.8	998.8	889.3
40°	877.2	982.4	1179.7	1377.1	1459.1	1541.1	1432.1	1323.0	1126.6	930.3	829.4
42.5°	795.2	888.8	1067.8	1246.8	1325.4	1404.1	1311.9	1219.8	1045.1	870.4	778.3
45°	725.2	800.0	962.6	1125.2	1200.0	1274.8	1195.6	1116.5	962.6	808.7	722.8
47.5°	659.6	723.8	862.7	1001.7	1068.3	1134.8	1073.1	1011.3	881.0	750.8	673.1
50°	600.7	652.3	773.9	895.5	953.4	1011.3	956.8	902.3	795.2	688.0	620.5
52.5°	549.6	591.5	693.4	795.2	844.9	894.6	847.8	801.0	716.0	631.1	572.2
55°	498.9	534.6	622.9	711.2	745.0	778.8	742.6	706.4	637.9	569.4	519.7
57.5°	451.6	483.5	555.8	628.2	654.3	680.3	647.5	614.7	563.1	511.5	470.0
60°	405.3	431.4	491.7	552.0	567.9	583.8	557.3	530.8	494.6	458.4	421.2
62.5°	362.4	386.0	430.9	475.7	486.4	497.0	476.7	456.4	428.9	401.4	372.5
65°	318.0	335.8	372.5	409.2	415.9	422.7	404.8	387.0	366.2	345.5	324.2
67.5°	277.0	289.5	319.4	349.3	349.8	350.3	335.8	321.3	309.8	298.2	281.3
70°	236.9	249.0	268.8	288.5	289.0	289.5	277.9	266.3	257.7	249.0	236.4
72.5°	195.9	204.6	219.5	234.5	233.5	232.6	225.3	218.1	211.3	204.6	195.4
75°	158.7	166.0	176.1	186.2	183.4	180.5	176.6	172.7	166.9	161.2	155.4
77.5°	125.0	129.3	135.1	140.9	139.0	137.0	133.7	130.3	125.9	121.6	119.2
80°	91.7	93.6	97.5	101.3	100.4	99.4	95.5	91.7	90.7	89.7	86.4
82.5°	62.2	64.7	65.6	66.6	66.1	65.6	62.7	59.8	58.9	57.9	57.4
85°	37.2	37.6	38.1	38.6	37.2	35.7	34.7	33.8	33.8	33.8	33.3
87.5°	16.9	17.4	17.4	17.4	16.9	16.4	15.4	14.5	15.0	15.4	15.4
90°	20.0	16.8	13.6	10.8	8.4	6.0	3.5	1.1	3.5	6.0	8.4
92.5°	43.1	41.6	40.2	38.7	37.2	35.8	34.3	32.9	34.3	35.8	37.2
95°	77.1	75.2	73.3	71.4	69.7	68.0	66.3	64.6	66.3	68.0	69.7
97.5°	115.4	113.9	112.4	111.1	109.9	108.7	107.4	106.2	107.4	108.7	109.9
100°	158.5	157.3	156.1	154.8	153.3	151.9	150.4	148.9	150.4	151.9	153.3
102.5°	205.8	204.1	202.4	201.1	200.4	199.7	198.9	198.2	198.9	199.7	200.4
105°	254.1	251.9	249.7	248.3	247.9	247.4	246.9	246.4	246.9	247.4	247.9
107.5°	306.9	305.9	304.9	304.3	304.1	303.8	303.6	303.3	303.6	303.8	304.1
110°	359.3	358.8	358.3	357.9	357.4	356.9	356.4	355.9	356.4	356.9	357.4





TEST NUMBER: P831613

CATALOG NUMBER: S123DIP-S775D1195U830-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	411.8	411.8	411.8	411.6	411.4	411.2	410.9	410.7	410.9	411.2	411.4
115°	467.5	468.0	468.5	468.3	467.6	466.9	466.2	465.4	466.2	466.9	467.6
117.5°	521.2	521.6	522.1	522.3	522.0	521.8	521.5	521.3	521.5	521.8	522.0
120°	576.3	577.5	578.7	578.6	577.1	575.7	574.2	572.7	574.2	575.7	577.1
122.5°	629.6	630.1	630.5	630.3	629.3	628.4	627.4	626.4	627.4	628.4	629.3
125°	683.2	683.7	684.2	684.1	683.4	682.6	681.9	681.2	681.9	682.6	683.4
127.5°	736.9	737.4	737.9	737.4	735.9	734.5	733.0	731.5	733.0	734.5	735.9
130°	788.9	789.6	790.3	789.7	787.8	785.8	783.9	781.9	783.9	785.8	787.8
132.5°	839.8	840.3	840.8	840.1	838.1	836.2	834.2	832.3	834.2	836.2	838.1
135°	889.7	890.0	890.2	889.6	888.1	886.7	885.2	883.8	885.2	886.7	888.1
137.5°	938.2	937.4	936.7	935.7	934.5	933.3	932.1	930.9	932.1	933.3	934.5
140°	986.2	986.0	985.7	985.0	983.8	982.6	981.4	980.1	981.4	982.6	983.8
142.5°	1031.7	1031.2	1030.8	1029.9	1028.7	1027.5	1026.3	1025.0	1026.3	1027.5	1028.7
145°	1076.1	1075.4	1074.7	1074.1	1073.6	1073.1	1072.6	1072.1	1072.6	1073.1	1073.6
147.5°	1118.9	1118.1	1117.4	1116.5	1115.6	1114.6	1113.6	1112.6	1113.6	1114.6	1115.6
150°	1158.8	1158.3	1157.8	1157.3	1156.8	1156.3	1155.8	1155.4	1155.8	1156.3	1156.8
152.5°	1194.3	1194.0	1193.8	1193.3	1192.6	1191.9	1191.1	1190.4	1191.1	1191.9	1192.6
155°	1228.2	1228.0	1227.8	1227.6	1227.6	1227.6	1227.6	1227.6	1227.6	1227.6	1227.6
157.5°	1258.9	1258.7	1258.4	1258.4	1258.7	1258.9	1259.1	1259.4	1259.1	1258.9	1258.7
160°	1286.8	1286.8	1286.8	1287.0	1287.5	1288.0	1288.5	1289.0	1288.5	1288.0	1287.5
162.5°	1312.6	1312.3	1312.1	1312.3	1313.1	1313.8	1314.5	1315.2	1314.5	1313.8	1313.1
165°	1333.9	1333.9	1333.9	1334.2	1335.0	1335.7	1336.4	1337.1	1336.4	1335.7	1335.0
167.5°	1352.0	1351.7	1351.5	1351.9	1352.8	1353.8	1354.8	1355.8	1354.8	1353.8	1352.8
170°	1366.7	1366.7	1366.7	1367.2	1368.2	1369.1	1370.1	1371.1	1370.1	1369.1	1368.2
172.5°	1378.8	1378.8	1378.8	1379.2	1380.2	1381.2	1382.2	1383.1	1382.2	1381.2	1380.2
175°	1386.4	1386.4	1386.4	1386.9	1387.9	1388.9	1389.8	1390.8	1389.8	1388.9	1387.9
177.5°	1390.8	1390.8	1390.8	1391.3	1392.3	1393.2	1394.2	1395.2	1394.2	1393.2	1392.3
180°	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1



TEST NUMBER: P831613

CATALOG NUMBER: S123DIP-S775D1195U830-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6	2079.6
2.5°	1995.6	1976.8	1958.0	1943.5	1929.0	1904.4	1879.8	1874.0	1868.2	1860.0	1851.8
5°	1892.4	1846.1	1799.7	1758.2	1716.7	1684.4	1652.1	1630.9	1609.6	1594.2	1578.7
7.5°	1771.7	1702.3	1632.8	1583.6	1534.4	1487.6	1440.7	1425.8	1410.8	1390.6	1370.3
10°	1655.0	1578.3	1501.5	1437.4	1373.2	1327.4	1281.5	1263.2	1244.9	1219.3	1193.7
12.5°	1550.8	1466.8	1382.8	1318.2	1253.5	1209.1	1164.8	1138.2	1111.7	1097.2	1082.7
15°	1441.7	1352.0	1262.2	1202.4	1142.6	1102.5	1062.5	1039.3	1016.1	1002.2	988.2
17.5°	1345.2	1256.4	1167.7	1110.2	1052.8	1016.1	979.5	959.2	938.9	928.3	917.7
20°	1253.5	1166.7	1079.8	1023.9	967.9	938.0	908.1	895.0	882.0	873.3	864.6
22.5°	1169.6	1084.2	998.8	951.0	903.2	879.1	855.0	845.8	836.7	829.4	822.2
25°	1085.6	1009.4	933.2	892.6	852.1	832.3	812.5	803.4	794.2	787.0	779.7
27.5°	1017.1	944.3	871.4	836.7	801.9	786.5	771.0	763.8	756.6	749.8	743.1
30°	950.5	885.4	820.3	790.3	760.4	746.4	732.4	725.2	718.0	711.7	705.4
32.5°	888.8	832.8	776.8	749.3	721.8	710.2	698.7	690.0	681.3	676.5	671.6
35°	829.9	779.7	729.5	706.9	684.2	672.6	661.0	653.8	646.6	642.7	638.8
37.5°	779.7	734.8	690.0	668.3	646.6	635.5	624.4	618.1	611.8	610.4	608.9
40°	728.6	690.0	651.4	630.1	608.9	599.3	589.6	585.8	581.9	580.9	580.0
42.5°	686.1	648.5	610.8	591.5	572.2	564.0	555.8	553.9	552.0	553.4	554.9
45°	636.9	605.5	574.2	556.3	538.5	531.7	525.0	523.5	522.1	525.0	527.9
47.5°	595.4	566.5	537.5	520.6	503.7	498.9	494.1	493.6	493.1	497.0	500.8
50°	552.9	525.0	497.0	483.5	470.0	465.6	461.3	462.7	464.2	470.4	476.7
52.5°	513.4	487.3	461.3	448.7	436.2	433.3	430.4	433.8	437.1	443.9	450.7
55°	470.0	446.3	422.7	413.0	403.4	400.5	397.6	404.3	411.1	417.4	423.6
57.5°	428.5	407.7	387.0	378.3	369.6	369.1	368.6	374.9	381.2	387.9	394.7
60°	384.1	366.7	349.3	342.6	335.8	336.8	337.8	345.0	352.2	357.5	362.8
62.5°	343.5	329.1	314.6	308.3	302.0	304.5	306.9	314.1	321.3	327.6	333.9
65°	303.0	290.9	278.9	274.5	270.2	273.6	277.0	283.2	289.5	293.8	298.2
67.5°	264.4	254.3	244.1	240.8	237.4	240.8	244.1	250.4	256.7	261.0	265.4
70°	223.9	215.7	207.5	205.1	202.7	206.5	210.4	215.7	221.0	225.3	229.7
72.5°	186.2	180.0	173.7	173.2	172.7	176.1	179.5	184.8	190.1	193.0	195.9
75°	149.6	146.2	142.8	142.3	141.9	145.2	148.6	151.5	154.4	156.8	159.2
77.5°	116.8	113.9	111.0	111.5	111.9	114.4	116.8	119.7	122.6	124.0	125.5
80°	83.0	82.0	81.1	82.0	83.0	84.9	86.9	88.8	90.7	91.7	92.6
82.5°	56.9	56.0	55.0	56.5	57.9	59.3	60.8	62.2	63.7	64.2	64.7
85°	32.8	34.3	35.7	35.7	35.7	36.2	36.7	37.2	37.6	37.2	36.7
87.5°	15.4	15.9	16.4	16.4	16.4	16.9	17.4	17.4	17.4	16.9	16.4
90°	10.8	13.6	16.8	20.0	23.1	26.3	27.3	28.2	29.2	30.2	30.9
92.5°	38.7	40.2	41.6	43.1	44.5	46.0	46.7	47.5	48.2	48.9	49.0
95°	71.4	73.3	75.2	77.1	79.1	81.0	82.0	83.0	84.0	84.9	85.4
97.5°	111.1	112.4	113.9	115.4	116.8	118.3	119.5	120.7	121.9	123.1	123.6
100°	154.8	156.1	157.3	158.5	159.8	161.0	161.7	162.4	163.2	163.9	164.5
102.5°	201.1	202.4	204.1	205.8	207.5	209.2	209.9	210.6	211.4	212.1	212.3
105°	248.3	249.7	251.9	254.1	256.3	258.4	258.4	258.4	258.4	258.4	258.7
107.5°	304.3	304.9	305.9	306.9	307.9	308.8	309.6	310.3	311.0	311.7	312.0
110°	357.9	358.3	358.8	359.3	359.8	360.3	361.3	362.2	363.2	364.2	364.4



TEST NUMBER: P831613

CATALOG NUMBER: S123DIP-S775D1195U830-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	411.6	411.8	411.8	411.8	411.8	411.8	413.0	414.2	415.4	416.6	417.2
115°	468.3	468.5	468.0	467.5	467.0	466.5	466.8	467.0	467.3	467.5	467.5
117.5°	522.3	522.1	521.6	521.2	520.7	520.2	520.2	520.2	520.2	520.2	519.8
120°	578.6	578.7	577.5	576.3	575.1	573.8	573.6	573.4	573.1	572.9	572.5
122.5°	630.3	630.5	630.1	629.6	629.1	628.6	627.9	627.1	626.4	625.7	624.9
125°	684.1	684.2	683.7	683.2	682.7	682.3	681.3	680.3	679.3	678.4	677.4
127.5°	737.4	737.9	737.4	736.9	736.4	735.9	734.5	733.0	731.5	730.1	728.9
130°	789.7	790.3	789.6	788.9	788.1	787.4	786.4	785.4	784.5	783.5	782.2
132.5°	840.1	840.8	840.3	839.8	839.4	838.9	837.6	836.4	835.2	834.0	832.8
135°	889.6	890.2	890.0	889.7	889.5	889.2	888.3	887.3	886.3	885.3	884.6
137.5°	935.7	936.7	937.4	938.2	938.9	939.6	938.4	937.2	936.0	934.7	933.8
140°	985.0	985.7	986.0	986.2	986.5	986.7	986.5	986.2	986.0	985.7	984.8
142.5°	1029.9	1030.8	1031.2	1031.7	1032.2	1032.7	1032.5	1032.2	1032.0	1031.7	1031.0
145°	1074.1	1074.7	1075.4	1076.1	1076.9	1077.6	1077.4	1077.1	1076.9	1076.6	1076.0
147.5°	1116.5	1117.4	1118.1	1118.9	1119.6	1120.3	1120.3	1120.3	1120.3	1120.3	1119.6
150°	1157.3	1157.8	1158.3	1158.8	1159.2	1159.7	1159.7	1159.7	1159.7	1159.7	1159.0
152.5°	1193.3	1193.8	1194.0	1194.3	1194.5	1194.8	1195.3	1195.8	1196.2	1196.7	1196.4
155°	1227.6	1227.8	1228.0	1228.2	1228.5	1228.7	1229.7	1230.7	1231.6	1232.6	1232.3
157.5°	1258.4	1258.4	1258.7	1258.9	1259.1	1259.4	1260.4	1261.3	1262.3	1263.3	1263.0
160°	1287.0	1286.8	1286.8	1286.8	1286.8	1286.8	1288.0	1289.2	1290.4	1291.6	1291.8
162.5°	1312.3	1312.1	1312.3	1312.6	1312.8	1313.1	1314.3	1315.5	1316.7	1317.9	1317.7
165°	1334.2	1333.9	1333.9	1333.9	1333.9	1333.9	1335.3	1336.8	1338.2	1339.7	1339.6
167.5°	1351.9	1351.5	1351.7	1352.0	1352.2	1352.5	1353.9	1355.4	1356.9	1358.3	1358.3
170°	1367.2	1366.7	1366.7	1366.7	1366.7	1366.7	1368.4	1370.1	1371.8	1373.5	1373.5
172.5°	1379.2	1378.8	1378.8	1378.8	1378.8	1378.8	1380.2	1381.7	1383.1	1384.6	1384.5
175°	1386.9	1386.4	1386.4	1386.4	1386.4	1386.4	1387.9	1389.3	1390.8	1392.3	1392.1
177.5°	1391.3	1390.8	1390.8	1390.8	1390.8	1390.8	1392.3	1393.7	1395.2	1396.6	1396.5
180°	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1	1394.1



TEST NUMBER: P831613

CATALOG NUMBER: S123DIP-S775D1195U830-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	2079.6	2079.6	2079.6	2079.6
2.5°	1848.5	1845.1	1831.6	1818.1
5°	1567.2	1555.6	1551.7	1547.9
7.5°	1369.3	1368.4	1348.1	1327.8
10°	1195.2	1196.6	1178.3	1159.9
12.5°	1070.7	1058.6	1057.2	1055.7
15°	977.1	966.0	964.0	962.1
17.5°	911.0	904.2	902.3	900.3
20°	860.8	856.9	853.5	850.2
22.5°	817.4	812.5	809.6	806.7
25°	775.4	771.0	770.1	769.1
27.5°	737.7	732.4	732.4	732.4
30°	702.0	698.7	697.2	695.8
32.5°	668.7	665.9	665.9	665.9
35°	637.4	635.9	634.0	632.1
37.5°	608.9	608.9	608.0	607.0
40°	581.4	582.9	582.9	582.9
42.5°	556.3	557.8	557.8	557.8
45°	530.3	532.7	533.6	534.6
47.5°	504.7	508.6	509.5	510.5
50°	479.6	482.5	483.0	483.5
52.5°	454.0	457.4	459.8	462.2
55°	427.0	430.4	431.8	433.3
57.5°	398.1	401.4	401.9	402.4
60°	366.2	369.6	370.6	371.5
62.5°	335.8	337.8	338.7	339.7
65°	301.1	304.0	305.9	307.8
67.5°	267.8	270.2	270.2	270.2
70°	230.6	231.6	233.0	234.5
72.5°	196.4	196.9	196.9	196.9
75°	160.2	161.2	161.6	162.1
77.5°	125.9	126.4	126.4	126.4
80°	92.2	91.7	91.7	91.7
82.5°	63.2	61.8	61.8	61.8
85°	36.2	35.7	36.2	36.7
87.5°	16.4	16.4	16.4	16.4
90°	31.4	31.9	32.4	32.9
92.5°	48.6	48.1	47.6	47.1
95°	85.4	85.4	85.4	85.4
97.5°	123.4	123.1	122.9	122.7
100°	165.0	165.5	166.0	166.5
102.5°	212.1	211.8	211.6	211.4
105°	259.2	259.7	260.2	260.6
107.5°	311.7	311.5	311.3	311.0
110°	363.9	363.5	363.0	362.5



TEST NUMBER: P831613

CATALOG NUMBER: S123DIP-S775D1195U830-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	417.2	417.2	417.2	417.2
115°	467.3	467.0	466.8	466.5
117.5°	519.1	518.4	517.6	516.9
120°	572.0	571.5	571.0	570.6
122.5°	624.2	623.5	622.8	622.0
125°	676.4	675.4	674.5	673.5
127.5°	727.9	726.9	725.9	725.0
130°	780.5	778.8	777.1	775.3
132.5°	831.6	830.3	829.1	827.9
135°	884.1	883.6	883.2	882.7
137.5°	933.0	932.3	931.6	930.9
140°	983.1	981.4	979.6	977.9
142.5°	1029.8	1028.6	1027.3	1026.1
145°	1075.0	1074.1	1073.1	1072.1
147.5°	1118.1	1116.7	1115.2	1113.7
150°	1157.5	1156.1	1154.6	1153.2
152.5°	1195.1	1193.9	1192.7	1191.5
155°	1230.6	1228.8	1227.1	1225.4
157.5°	1261.6	1260.1	1258.7	1257.2
160°	1290.8	1289.8	1288.8	1287.9
162.5°	1316.0	1314.3	1312.6	1310.9
165°	1337.9	1336.2	1334.5	1332.8
167.5°	1356.9	1355.4	1353.9	1352.5
170°	1371.8	1370.1	1368.4	1366.7
172.5°	1382.8	1381.1	1379.4	1377.7
175°	1390.4	1388.7	1387.0	1385.3
177.5°	1394.8	1393.1	1391.4	1389.7
180°	1394.1	1394.1	1394.1	1394.1



TEST NUMBER: P831613

CATALOG NUMBER: S123DIP-S775D1195U830-4F0-1E-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	14.02	14.82	15.02	15.82	17.14	16.26	17.06	17.25	18.06	19.38
	3H	15.66	16.38	16.67	17.39	18.73	17.68	18.39	18.68	19.40	20.75
	4H	16.24	16.91	17.26	17.93	19.28	18.13	18.80	19.14	19.81	21.17
	6H	16.61	17.23	17.63	18.25	19.61	18.40	19.02	19.43	20.04	21.40
	8H	16.70	17.29	17.73	18.33	19.69	18.46	19.05	19.49	20.08	21.45
	12H	16.74	17.31	17.78	18.33	19.72	18.48	19.04	19.51	20.07	21.45
4H	2H	14.59	15.26	15.61	16.28	17.63	16.41	17.09	17.44	18.10	19.46
	3H	16.41	16.97	17.44	18.02	19.38	18.03	18.59	19.06	19.63	21.00
	4H	17.11	17.62	18.15	18.66	20.05	18.61	19.12	19.65	20.16	21.55
	6H	17.58	18.02	18.63	19.08	20.46	19.01	19.45	20.06	20.51	21.90
	8H	17.72	18.13	18.77	19.18	20.58	19.12	19.53	20.17	20.58	21.98
	12H	17.78	18.15	18.85	19.22	20.62	19.16	19.54	20.23	20.60	22.00
8H	4H	17.37	17.78	18.42	18.83	20.23	18.71	19.12	19.76	20.17	21.57
	6H	17.96	18.30	19.03	19.39	20.79	19.21	19.55	20.28	20.64	22.04
	8H	18.16	18.46	19.24	19.54	20.95	19.39	19.69	20.47	20.76	22.18
	12H	18.28	18.55	19.37	19.62	21.08	19.49	19.75	20.57	20.82	22.28
12H	4H	17.37	17.74	18.43	18.80	20.21	18.68	19.05	19.75	20.12	21.52
	6H	18.01	18.31	19.09	19.38	20.80	19.22	19.52	20.30	20.60	22.02
	8H	18.24	18.50	19.32	19.57	21.03	19.42	19.68	20.50	20.75	22.21