

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: P831628

Luminaire Tested: S123DIP-S775D1195U930-4F0-1E-UDD-G1

Issue Date: 05/03/2024

**Test Information**

Test Method: LM-79-2019  
Report Number: P831628  
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-S775D1195U930-4F0-1E-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: -

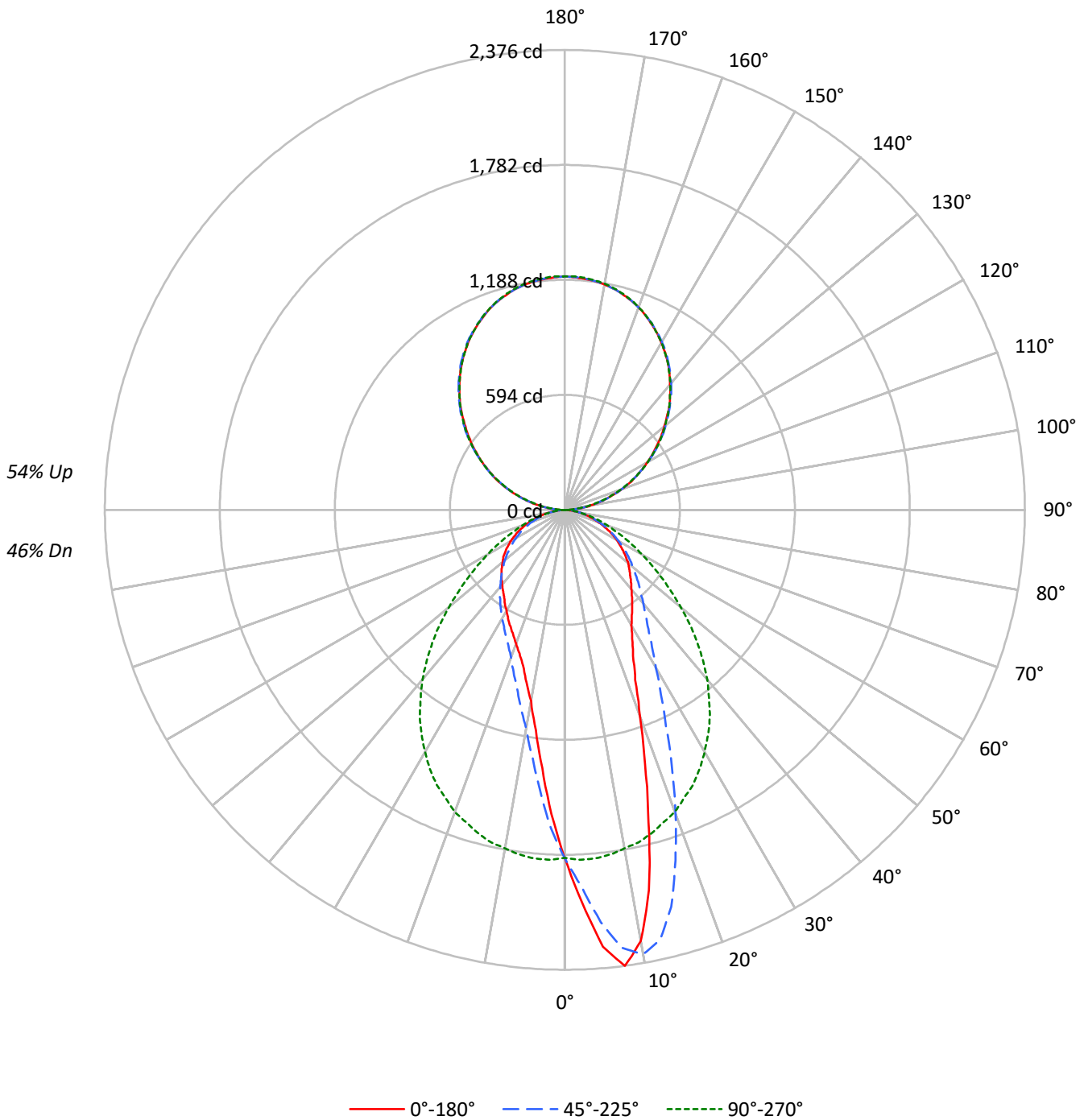
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6235.5 lumens  
Efficiency: N/A  
Efficacy: 109.6 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				46
1	97	93	90	86	89	86	83	80	72	70	68	59	58	56	47	46	46	40				40
2	89	82	76	71	82	76	71	66	64	60	57	53	50	48	42	41	39	34				34
3	82	73	66	60	75	67	61	56	57	52	48	47	44	41	38	36	34	30				30
4	75	65	57	51	69	60	53	48	51	46	42	42	39	36	34	32	30	26				26
5	69	58	50	44	63	54	47	42	46	41	37	38	34	31	31	29	26	23				23
6	64	52	45	39	59	49	42	37	42	36	32	35	31	28	29	26	24	21				21
7	59	47	40	34	54	44	37	33	38	33	29	32	28	25	27	24	21	19				19
8	55	43	36	31	51	40	34	29	35	30	26	30	26	23	25	22	19	17				17
9	52	40	33	28	47	37	31	26	32	27	23	27	23	21	23	20	18	16				16
10	48	37	30	25	45	34	28	24	30	25	21	25	22	19	21	18	16	14				14

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

	0°	45°	90°	135°	180°
0°	19362	19362	19362	19362	19362
5°	24487	23112	19535	15743	14467
10°	24725	25473	19406	12550	10966
15°	18622	23650	19274	10628	9274
20°	12975	19137	19027	9294	8424
25°	9894	14718	18608	8551	7902
30°	8559	11692	17938	8025	7480
35°	7941	9872	17165	7645	7184
40°	7519	8855	16080	7284	7085
45°	7269	8196	14702	7001	7039
50°	7142	7675	13070	6745	7003
55°	6876	7293	11466	6501	7034
60°	6631	6882	9883	6271	6919
65°	6230	6495	8525	6026	6783
70°	5753	6002	7251	5621	6382
75°	5207	5382	6213	5224	5831
80°	4296	4711	4916	4556	4916
85°	3396	3816	3606	3866	3915

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 80°  
 Vertical Angle: 45°  
 Luminance: 16786 cd/sqm



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	170.1	2.7
10°-20°	423.1	6.8
20°-30°	500.9	8.0
30°-40°	503.7	8.1
40°-50°	462.1	7.4
50°-60°	381.4	6.1
60°-70°	269.8	4.3
70°-80°	144.0	2.3
80°-90°	39.1	0.6
90°-100°	77.6	1.2
100°-110°	235.0	3.8
110°-120°	400.0	6.4
120°-130°	526.2	8.4
130°-140°	591.5	9.5
140°-150°	581.5	9.3
150°-160°	489.5	7.9
160°-170°	325.9	5.2
170°-180°	114.1	1.8
0°-30°	1094.1	17.5
0°-40°	1597.8	25.6
0°-60°	2441.3	39.2
0°-90°	2894.2	46.4
90°-120°	712.6	11.4
90°-150°	2411.7	38.7
90°-180°	3341.0	53.6
0°-180°	6235.5	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1799	1799	1799	1799	1799	
5°	2266	2139	1808	1457	1339	216
15°	1671	2122	1730	954	832	462
25°	833	1239	1567	720	665	393
35°	604	751	1306	582	547	380
45°	478	538	966	460	462	370
55°	366	389	611	346	375	328
65°	245	255	335	237	266	243
75°	125	129	149	126	140	132
85°	28	31	29	31	32	31
90°	28	23	1	23	28	15
95°	74	70	56	70	74	74
105°	226	224	213	224	226	239
115°	404	404	403	404	404	400
125°	583	590	589	590	583	521
135°	764	769	764	769	764	587
145°	927	932	927	932	927	579
155°	1060	1063	1062	1063	1060	488
165°	1153	1154	1157	1154	1153	325
175°	1198	1199	1203	1199	1198	114
180°	1206	1206	1206	1206	1206	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8
2.5°	2027.6	2025.5	2023.4	2012.9	2002.5	1997.5	1992.5	1977.5	1962.4	1945.7	1929.1
5°	2266.3	2272.1	2278.0	2271.3	2264.6	2244.2	2223.7	2196.6	2169.5	2139.0	2108.5
7.5°	2376.5	2379.8	2383.1	2379.0	2374.8	2369.4	2363.9	2339.7	2315.5	2284.2	2252.9
10°	2262.1	2269.6	2277.1	2293.4	2309.7	2328.1	2346.4	2343.1	2339.7	2330.6	2321.4
12.5°	2010.9	2020.0	2029.2	2061.8	2094.3	2136.1	2177.8	2213.7	2249.6	2274.6	2299.7
15°	1671.1	1696.6	1722.0	1751.7	1781.3	1842.7	1904.0	1979.6	2055.1	2122.3	2189.5
17.5°	1376.5	1386.1	1395.7	1427.4	1459.1	1536.3	1613.5	1700.8	1788.0	1899.4	2010.9
20°	1132.7	1141.5	1150.3	1192.0	1233.7	1294.2	1354.8	1452.8	1550.9	1670.7	1790.5
22.5°	951.6	965.4	979.1	1002.5	1025.9	1083.9	1141.9	1229.1	1316.4	1448.7	1581.0
25°	833.1	843.1	853.1	867.3	881.5	927.8	974.1	1045.9	1117.7	1239.2	1360.6
27.5°	752.1	756.3	760.4	774.6	788.8	818.9	848.9	910.7	972.5	1075.5	1178.6
30°	688.6	691.6	694.5	707.0	719.5	740.0	760.4	805.1	849.8	940.7	1031.7
32.5°	644.4	646.5	648.6	658.2	667.8	682.4	697.0	729.6	762.1	837.2	912.4
35°	604.3	605.6	606.8	613.9	621.0	631.9	642.7	667.4	692.0	751.3	810.5
37.5°	569.3	571.0	572.6	576.8	581.0	590.6	600.2	619.8	639.4	684.9	730.4
40°	535.1	538.0	540.9	543.8	546.7	554.7	562.6	577.6	592.7	630.2	667.8
42.5°	505.8	508.8	511.7	512.9	514.2	518.8	523.4	537.1	550.9	578.9	606.8
45°	477.5	478.7	480.0	481.2	482.5	486.2	490.0	502.1	514.2	538.4	562.6
47.5°	451.6	451.6	451.6	452.4	453.3	456.6	459.9	468.7	477.5	496.2	515.0
50°	426.5	426.5	426.5	425.3	424.0	426.1	428.2	434.9	441.6	458.3	475.0
52.5°	396.5	396.5	396.5	396.9	397.3	397.3	397.3	403.2	409.0	424.0	439.1
55°	366.4	368.1	369.8	368.5	367.3	368.1	368.9	372.7	376.5	388.6	400.7
57.5°	336.4	337.2	338.1	337.6	337.2	337.6	338.1	341.4	344.7	353.9	363.1
60°	308.0	308.0	308.0	307.2	306.3	307.2	308.0	309.7	311.4	319.7	328.0
62.5°	276.3	276.7	277.1	277.5	278.0	277.1	276.3	278.4	280.5	286.7	293.0
65°	244.6	245.0	245.4	246.7	247.9	247.1	246.2	248.3	250.4	255.0	259.6
67.5°	216.2	215.4	214.5	214.9	215.4	216.6	217.9	218.3	218.7	223.7	228.7
70°	182.8	183.6	184.5	184.1	183.6	184.1	184.5	185.7	187.0	190.7	194.5
72.5°	152.8	153.2	153.6	153.6	153.6	154.4	155.3	156.5	157.8	159.9	161.9
75°	125.2	125.2	125.2	126.0	126.9	127.3	127.7	127.7	127.7	129.4	131.1
77.5°	95.2	97.2	99.3	98.9	98.5	99.3	100.2	101.4	102.7	103.5	104.3
80°	69.3	69.3	69.3	69.7	70.1	71.4	72.6	73.5	74.3	76.0	77.6
82.5°	44.2	44.7	45.1	46.3	47.6	48.4	49.2	50.5	51.8	51.8	51.8
85°	27.5	26.7	25.9	26.7	27.5	28.4	29.2	29.6	30.1	30.9	31.7
87.5°	13.4	13.4	13.4	13.4	13.4	13.8	14.2	14.2	14.2	14.2	14.2
90°	28.4	28.0	27.6	27.2	26.7	26.1	25.3	24.4	23.6	22.7	20.0
92.5°	40.7	41.2	41.6	42.0	42.4	42.3	41.7	41.0	40.4	39.8	38.5
95°	73.9	73.9	73.9	73.9	73.9	73.5	72.6	71.8	70.9	70.1	68.4
97.5°	106.1	106.3	106.5	106.7	106.9	106.5	105.5	104.4	103.4	102.3	101.0
100°	144.0	143.6	143.1	142.7	142.3	141.8	141.1	140.5	139.9	139.3	138.2
102.5°	182.8	183.0	183.2	183.5	183.7	183.5	182.8	182.2	181.6	180.9	179.5
105°	225.5	225.0	224.6	224.2	223.8	223.6	223.6	223.6	223.6	223.6	221.7
107.5°	269.0	269.2	269.4	269.7	269.9	269.7	269.0	268.4	267.8	267.1	266.3
110°	313.5	314.0	314.4	314.8	315.2	315.0	314.2	313.3	312.5	311.7	311.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	360.9	360.9	360.9	360.9	360.9	360.4	359.3	358.3	357.2	356.2	356.2
115°	403.5	403.8	404.0	404.2	404.4	404.4	404.2	404.0	403.8	403.5	404.0
117.5°	447.1	447.7	448.4	449.0	449.6	450.0	450.0	450.0	450.0	450.0	450.4
120°	493.5	494.0	494.4	494.8	495.2	495.5	495.7	496.0	496.2	496.4	497.4
122.5°	538.1	538.7	539.3	539.9	540.6	541.2	541.8	542.5	543.1	543.7	544.2
125°	582.6	583.4	584.3	585.1	585.9	586.8	587.6	588.5	589.3	590.2	590.6
127.5°	627.1	627.9	628.8	629.6	630.5	631.5	632.8	634.0	635.3	636.6	637.0
130°	670.7	672.1	673.6	675.1	676.6	677.7	678.6	679.4	680.3	681.1	681.7
132.5°	716.1	717.2	718.2	719.3	720.4	721.4	722.5	723.5	724.6	725.6	726.0
135°	763.5	763.9	764.3	764.8	765.2	765.8	766.7	767.5	768.3	769.2	769.4
137.5°	805.2	805.8	806.5	807.1	807.7	808.6	809.6	810.7	811.7	812.8	812.1
140°	845.9	847.4	848.9	850.3	851.8	852.7	852.9	853.1	853.3	853.5	853.3
142.5°	887.6	888.7	889.7	890.8	891.8	892.4	892.7	892.9	893.1	893.3	892.9
145°	927.4	928.2	929.1	929.9	930.8	931.3	931.5	931.7	931.9	932.1	931.5
147.5°	963.4	964.6	965.9	967.2	968.4	969.1	969.1	969.1	969.1	969.1	968.4
150°	997.5	998.7	1000.0	1001.3	1002.5	1003.2	1003.2	1003.2	1003.2	1003.2	1002.7
152.5°	1030.6	1031.7	1032.7	1033.8	1034.9	1035.2	1034.7	1034.3	1033.9	1033.5	1033.3
155°	1060.0	1061.5	1063.0	1064.4	1065.9	1066.2	1065.4	1064.5	1063.7	1062.8	1062.6
157.5°	1087.5	1088.7	1090.0	1091.3	1092.5	1092.7	1091.9	1091.1	1090.2	1089.4	1089.2
160°	1114.0	1114.8	1115.7	1116.5	1117.4	1117.3	1116.2	1115.2	1114.1	1113.1	1113.1
162.5°	1133.9	1135.4	1136.8	1138.3	1139.8	1140.0	1138.9	1137.9	1136.8	1135.8	1135.6
165°	1152.8	1154.3	1155.8	1157.3	1158.7	1158.8	1157.6	1156.3	1155.1	1153.8	1153.8
167.5°	1169.9	1171.2	1172.4	1173.7	1174.9	1174.9	1173.7	1172.4	1171.2	1169.9	1169.7
170°	1182.2	1183.7	1185.2	1186.6	1188.1	1188.1	1186.6	1185.2	1183.7	1182.2	1182.2
172.5°	1191.7	1193.2	1194.6	1196.1	1197.6	1197.7	1196.4	1195.2	1193.9	1192.6	1192.6
175°	1198.3	1199.8	1201.3	1202.7	1204.2	1204.3	1203.0	1201.8	1200.5	1199.3	1199.3
177.5°	1202.1	1203.6	1205.0	1206.5	1208.0	1208.1	1206.8	1205.6	1204.3	1203.0	1203.0
180°	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8
2.5°	1924.0	1919.0	1900.7	1882.3	1861.4	1840.6	1825.1	1809.7	1786.7	1763.8	1745.0
5°	2085.1	2061.8	2023.0	1984.1	1931.6	1879.0	1843.5	1808.0	1760.4	1712.9	1674.9
7.5°	2212.9	2172.8	2118.5	2064.3	1995.4	1926.5	1861.4	1796.3	1723.7	1651.1	1591.8
10°	2294.2	2267.1	2204.5	2141.9	2049.7	1957.4	1866.4	1775.5	1682.0	1588.5	1510.0
12.5°	2302.2	2304.7	2247.1	2189.5	2085.1	1980.8	1870.2	1759.6	1641.9	1524.2	1432.8
15°	2232.5	2275.5	2243.7	2212.0	2106.8	2001.7	1865.6	1729.6	1593.9	1458.3	1352.7
17.5°	2103.1	2195.3	2199.9	2204.5	2099.3	1994.2	1843.5	1692.8	1539.2	1385.6	1274.6
20°	1926.5	2062.6	2109.4	2156.1	2070.5	1985.0	1823.0	1661.1	1489.2	1317.2	1200.8
22.5°	1746.2	1911.5	1997.1	2082.6	2019.2	1955.8	1783.4	1611.0	1429.5	1247.9	1129.8
25°	1540.9	1721.2	1852.7	1984.1	1945.3	1906.5	1736.6	1566.8	1373.5	1180.3	1059.7
27.5°	1361.9	1545.1	1703.7	1862.3	1853.9	1845.6	1677.0	1508.4	1310.5	1112.7	996.2
30°	1202.4	1373.1	1550.5	1727.9	1748.3	1768.8	1606.0	1443.2	1245.0	1046.7	934.5
32.5°	1061.4	1210.4	1400.7	1591.0	1631.1	1671.1	1524.2	1377.3	1181.1	985.0	876.9
35°	945.7	1081.0	1271.3	1461.6	1511.7	1561.8	1434.1	1306.3	1115.2	924.0	821.0
37.5°	843.5	956.6	1142.3	1328.1	1389.4	1450.8	1336.4	1222.0	1043.0	863.9	769.2
40°	758.8	849.8	1020.5	1191.2	1262.1	1333.1	1238.7	1144.4	974.5	804.7	717.4
42.5°	687.8	768.8	923.6	1078.5	1146.5	1214.5	1134.8	1055.1	904.0	752.9	673.2
45°	627.3	692.0	832.6	973.3	1038.0	1102.7	1034.2	965.8	832.6	699.5	625.2
47.5°	570.5	626.0	746.2	866.4	924.0	981.6	928.2	874.8	762.1	649.4	582.2
50°	519.6	564.3	669.5	774.6	824.7	874.8	827.6	780.5	687.8	595.2	536.7
52.5°	475.4	511.7	599.8	687.8	730.8	773.8	733.3	692.8	619.4	545.9	495.0
55°	431.6	462.4	538.8	615.2	644.4	673.6	642.3	611.0	551.8	492.5	449.5
57.5°	390.7	418.2	480.8	543.4	565.9	588.5	560.1	531.7	487.1	442.4	406.5
60°	350.6	373.1	425.3	477.5	491.2	505.0	482.1	459.1	427.8	396.5	364.4
62.5°	313.4	333.9	372.7	411.5	420.7	429.9	412.4	394.8	371.0	347.2	322.2
65°	275.0	290.5	322.2	353.9	359.8	365.6	350.2	334.7	316.8	298.8	280.5
67.5°	239.6	250.4	276.3	302.2	302.6	303.0	290.5	278.0	267.9	257.9	243.3
70°	204.9	215.4	232.5	249.6	250.0	250.4	240.4	230.4	222.9	215.4	204.5
72.5°	169.4	177.0	189.9	202.8	202.0	201.2	194.9	188.6	182.8	177.0	169.0
75°	137.3	143.6	152.3	161.1	158.6	156.1	152.8	149.4	144.4	139.4	134.4
77.5°	108.1	111.9	116.9	121.9	120.2	118.5	115.6	112.7	108.9	105.2	103.1
80°	79.3	81.0	84.3	87.6	86.8	86.0	82.6	79.3	78.5	77.6	74.7
82.5°	53.8	55.9	56.8	57.6	57.2	56.8	54.3	51.8	50.9	50.1	49.7
85°	32.1	32.6	33.0	33.4	32.1	30.9	30.1	29.2	29.2	29.2	28.8
87.5°	14.6	15.0	15.0	15.0	14.6	14.2	13.4	12.5	12.9	13.4	13.4
90°	17.3	14.5	11.8	9.4	7.3	5.2	3.1	0.9	3.1	5.2	7.3
92.5°	37.3	36.0	34.7	33.5	32.2	30.9	29.7	28.4	29.7	30.9	32.2
95°	66.7	65.0	63.4	61.8	60.3	58.8	57.4	55.9	57.4	58.8	60.3
97.5°	99.8	98.5	97.3	96.1	95.0	94.0	92.9	91.9	92.9	94.0	95.0
100°	137.1	136.1	135.0	133.9	132.6	131.4	130.1	128.8	130.1	131.4	132.6
102.5°	178.0	176.5	175.0	174.0	173.4	172.7	172.1	171.5	172.1	172.7	173.4
105°	219.8	217.9	216.0	214.8	214.4	214.0	213.6	213.1	213.6	214.0	214.4
107.5°	265.4	264.6	263.8	263.2	263.0	262.8	262.6	262.4	262.6	262.8	263.0
110°	310.8	310.4	310.0	309.6	309.1	308.7	308.3	307.9	308.3	308.7	309.1





TEST NUMBER: P831628

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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	356.2	356.2	356.2	356.1	355.9	355.7	355.4	355.2	355.4	355.7	355.9
115°	404.4	404.8	405.2	405.1	404.5	403.9	403.2	402.6	403.2	403.9	404.5
117.5°	450.8	451.2	451.6	451.7	451.5	451.3	451.1	450.9	451.1	451.3	451.5
120°	498.5	499.5	500.6	500.5	499.2	498.0	496.7	495.4	496.7	498.0	499.2
122.5°	544.6	545.0	545.4	545.2	544.4	543.5	542.7	541.8	542.7	543.5	544.4
125°	591.0	591.4	591.8	591.7	591.1	590.5	589.8	589.2	589.8	590.5	591.1
127.5°	637.4	637.8	638.3	637.8	636.6	635.3	634.0	632.8	634.0	635.3	636.6
130°	682.4	683.0	683.6	683.1	681.4	679.7	678.0	676.4	678.0	679.7	681.4
132.5°	726.5	726.9	727.3	726.7	725.0	723.3	721.6	719.9	721.6	723.3	725.0
135°	769.6	769.8	770.0	769.5	768.2	767.0	765.7	764.5	765.7	767.0	768.2
137.5°	811.5	810.9	810.2	809.4	808.3	807.3	806.2	805.2	806.2	807.3	808.3
140°	853.1	852.9	852.7	852.0	851.0	849.9	848.9	847.8	848.9	849.9	851.0
142.5°	892.4	892.0	891.6	890.9	889.8	888.8	887.7	886.7	887.7	888.8	889.8
145°	930.9	930.2	929.6	929.1	928.7	928.2	927.8	927.4	927.8	928.2	928.7
147.5°	967.8	967.2	966.5	965.8	965.0	964.1	963.3	962.4	963.3	964.1	965.0
150°	1002.3	1001.9	1001.5	1001.1	1000.6	1000.2	999.8	999.4	999.8	1000.2	1000.6
152.5°	1033.1	1032.9	1032.6	1032.2	1031.6	1031.0	1030.3	1029.7	1030.3	1031.0	1031.6
155°	1062.4	1062.2	1062.0	1061.9	1061.9	1061.9	1061.9	1061.9	1061.9	1061.9	1061.9
157.5°	1089.0	1088.7	1088.5	1088.5	1088.7	1089.0	1089.2	1089.4	1089.2	1089.0	1088.7
160°	1113.1	1113.1	1113.1	1113.3	1113.7	1114.1	1114.5	1114.9	1114.5	1114.1	1113.7
162.5°	1135.4	1135.2	1134.9	1135.2	1135.8	1136.4	1137.1	1137.7	1137.1	1136.4	1135.8
165°	1153.8	1153.8	1153.8	1154.1	1154.7	1155.4	1156.0	1156.6	1156.0	1155.4	1154.7
167.5°	1169.5	1169.3	1169.0	1169.4	1170.2	1171.0	1171.9	1172.7	1171.9	1171.0	1170.2
170°	1182.2	1182.2	1182.2	1182.6	1183.5	1184.3	1185.2	1186.0	1185.2	1184.3	1183.5
172.5°	1192.6	1192.6	1192.6	1193.0	1193.9	1194.7	1195.6	1196.4	1195.6	1194.7	1193.9
175°	1199.3	1199.3	1199.3	1199.7	1200.5	1201.4	1202.2	1203.0	1202.2	1201.4	1200.5
177.5°	1203.0	1203.0	1203.0	1203.5	1204.3	1205.2	1206.0	1206.8	1206.0	1205.2	1204.3
180°	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9



TEST NUMBER: P831628

CATALOG NUMBER: S123DIP-S775D1195U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8	1798.8
2.5°	1726.2	1709.9	1693.7	1681.1	1668.6	1647.3	1626.0	1621.0	1616.0	1608.9	1601.8
5°	1636.9	1596.8	1556.8	1520.9	1485.0	1457.0	1429.1	1410.7	1392.3	1379.0	1365.6
7.5°	1532.6	1472.5	1412.4	1369.8	1327.2	1286.7	1246.2	1233.3	1220.4	1202.8	1185.3
10°	1431.6	1365.2	1298.8	1243.3	1187.8	1148.2	1108.5	1092.7	1076.8	1054.7	1032.6
12.5°	1341.4	1268.8	1196.2	1140.2	1084.3	1045.9	1007.5	984.6	961.6	949.1	936.6
15°	1247.1	1169.5	1091.8	1040.1	988.3	953.7	919.0	899.0	879.0	866.9	854.8
17.5°	1163.6	1086.8	1010.0	960.4	910.7	879.0	847.2	829.7	812.2	803.0	793.8
20°	1084.3	1009.2	934.1	885.6	837.2	811.4	785.5	774.2	762.9	755.4	747.9
22.5°	1011.7	937.8	863.9	822.6	781.3	760.4	739.6	731.6	723.7	717.4	711.2
25°	939.1	873.1	807.2	772.1	737.1	720.0	702.8	694.9	687.0	680.7	674.5
27.5°	879.8	816.8	753.8	723.7	693.7	680.3	666.9	660.7	654.4	648.6	642.7
30°	822.2	765.9	709.5	683.6	657.8	645.7	633.6	627.3	621.0	615.6	610.2
32.5°	768.8	720.4	672.0	648.2	624.4	614.4	604.3	596.8	589.3	585.1	581.0
35°	717.9	674.5	631.1	611.4	591.8	581.8	571.8	565.5	559.3	555.9	552.6
37.5°	674.5	635.6	596.8	578.0	559.3	549.7	540.1	534.6	529.2	528.0	526.7
40°	630.2	596.8	563.4	545.1	526.7	518.4	510.0	506.7	503.3	502.5	501.7
42.5°	593.5	560.9	528.4	511.7	495.0	487.9	480.8	479.1	477.5	478.7	480.0
45°	550.9	523.8	496.7	481.2	465.8	459.9	454.1	452.8	451.6	454.1	456.6
47.5°	515.0	490.0	464.9	450.3	435.7	431.6	427.4	427.0	426.5	429.9	433.2
50°	478.3	454.1	429.9	418.2	406.5	402.8	399.0	400.3	401.5	406.9	412.4
52.5°	444.1	421.5	399.0	388.1	377.3	374.8	372.3	375.2	378.1	384.0	389.8
55°	406.5	386.1	365.6	357.3	348.9	346.4	343.9	349.8	355.6	361.0	366.4
57.5°	370.6	352.7	334.7	327.2	319.7	319.3	318.9	324.3	329.7	335.6	341.4
60°	332.2	317.2	302.2	296.3	290.5	291.3	292.2	298.4	304.7	309.3	313.9
62.5°	297.2	284.6	272.1	266.7	261.3	263.4	265.4	271.7	278.0	283.4	288.8
65°	262.1	251.7	241.2	237.5	233.7	236.6	239.6	245.0	250.4	254.2	257.9
67.5°	228.7	220.0	211.2	208.3	205.3	208.3	211.2	216.6	222.0	225.8	229.5
70°	193.7	186.6	179.5	177.4	175.3	178.6	182.0	186.6	191.2	194.9	198.7
72.5°	161.1	155.7	150.3	149.8	149.4	152.3	155.3	159.9	164.4	166.9	169.4
75°	129.4	126.5	123.5	123.1	122.7	125.6	128.5	131.1	133.6	135.6	137.7
77.5°	101.0	98.5	96.0	96.4	96.8	98.9	101.0	103.5	106.0	107.3	108.5
80°	71.8	71.0	70.1	71.0	71.8	73.5	75.1	76.8	78.5	79.3	80.1
82.5°	49.2	48.4	47.6	48.8	50.1	51.3	52.6	53.8	55.1	55.5	55.9
85°	28.4	29.6	30.9	30.9	30.9	31.3	31.7	32.1	32.6	32.1	31.7
87.5°	13.4	13.8	14.2	14.2	14.2	14.6	15.0	15.0	15.0	14.6	14.2
90°	9.4	11.8	14.5	17.3	20.0	22.7	23.6	24.4	25.3	26.1	26.7
92.5°	33.5	34.7	36.0	37.3	38.5	39.8	40.4	41.0	41.7	42.3	42.4
95°	61.8	63.4	65.0	66.7	68.4	70.1	70.9	71.8	72.6	73.5	73.9
97.5°	96.1	97.3	98.5	99.8	101.0	102.3	103.4	104.4	105.5	106.5	106.9
100°	133.9	135.0	136.1	137.1	138.2	139.3	139.9	140.5	141.1	141.8	142.3
102.5°	174.0	175.0	176.5	178.0	179.5	180.9	181.6	182.2	182.8	183.5	183.7
105°	214.8	216.0	217.9	219.8	221.7	223.6	223.6	223.6	223.6	223.6	223.8
107.5°	263.2	263.8	264.6	265.4	266.3	267.1	267.8	268.4	269.0	269.7	269.9
110°	309.6	310.0	310.4	310.8	311.2	311.7	312.5	313.3	314.2	315.0	315.2



TEST NUMBER: P831628

CATALOG NUMBER: S123DIP-S775D1195U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	356.1	356.2	356.2	356.2	356.2	356.2	357.2	358.3	359.3	360.4	360.9
115°	405.1	405.2	404.8	404.4	404.0	403.5	403.8	404.0	404.2	404.4	404.4
117.5°	451.7	451.6	451.2	450.8	450.4	450.0	450.0	450.0	450.0	450.0	449.6
120°	500.5	500.6	499.5	498.5	497.4	496.4	496.2	496.0	495.7	495.5	495.2
122.5°	545.2	545.4	545.0	544.6	544.2	543.7	543.1	542.5	541.8	541.2	540.6
125°	591.7	591.8	591.4	591.0	590.6	590.2	589.3	588.5	587.6	586.8	585.9
127.5°	637.8	638.3	637.8	637.4	637.0	636.6	635.3	634.0	632.8	631.5	630.5
130°	683.1	683.6	683.0	682.4	681.7	681.1	680.3	679.4	678.6	677.7	676.6
132.5°	726.7	727.3	726.9	726.5	726.0	725.6	724.6	723.5	722.5	721.4	720.4
135°	769.5	770.0	769.8	769.6	769.4	769.2	768.3	767.5	766.7	765.8	765.2
137.5°	809.4	810.2	810.9	811.5	812.1	812.8	811.7	810.7	809.6	808.6	807.7
140°	852.0	852.7	852.9	853.1	853.3	853.5	853.3	853.1	852.9	852.7	851.8
142.5°	890.9	891.6	892.0	892.4	892.9	893.3	893.1	892.9	892.7	892.4	891.8
145°	929.1	929.6	930.2	930.9	931.5	932.1	931.9	931.7	931.5	931.3	930.8
147.5°	965.8	966.5	967.2	967.8	968.4	969.1	969.1	969.1	969.1	969.1	968.4
150°	1001.1	1001.5	1001.9	1002.3	1002.7	1003.2	1003.2	1003.2	1003.2	1003.2	1002.5
152.5°	1032.2	1032.6	1032.9	1033.1	1033.3	1033.5	1033.9	1034.3	1034.7	1035.2	1034.9
155°	1061.9	1062.0	1062.2	1062.4	1062.6	1062.8	1063.7	1064.5	1065.4	1066.2	1065.9
157.5°	1088.5	1088.5	1088.7	1089.0	1089.2	1089.4	1090.2	1091.1	1091.9	1092.7	1092.5
160°	1113.3	1113.1	1113.1	1113.1	1113.1	1113.1	1114.1	1115.2	1116.2	1117.3	1117.4
162.5°	1135.2	1134.9	1135.2	1135.4	1135.6	1135.8	1136.8	1137.9	1138.9	1140.0	1139.8
165°	1154.1	1153.8	1153.8	1153.8	1153.8	1153.8	1155.1	1156.3	1157.6	1158.8	1158.7
167.5°	1169.4	1169.0	1169.3	1169.5	1169.7	1169.9	1171.2	1172.4	1173.7	1174.9	1174.9
170°	1182.6	1182.2	1182.2	1182.2	1182.2	1182.2	1183.7	1185.2	1186.6	1188.1	1188.1
172.5°	1193.0	1192.6	1192.6	1192.6	1192.6	1192.6	1193.9	1195.2	1196.4	1197.7	1197.6
175°	1199.7	1199.3	1199.3	1199.3	1199.3	1199.3	1200.5	1201.8	1203.0	1204.3	1204.2
177.5°	1203.5	1203.0	1203.0	1203.0	1203.0	1203.0	1204.3	1205.6	1206.8	1208.1	1208.0
180°	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9	1205.9



TEST NUMBER: P831628

CATALOG NUMBER: S123DIP-S775D1195U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1798.8	1798.8	1798.8	1798.8
2.5°	1598.9	1596.0	1584.3	1572.6
5°	1355.6	1345.6	1342.2	1338.9
7.5°	1184.5	1183.6	1166.1	1148.6
10°	1033.8	1035.1	1019.2	1003.3
12.5°	926.1	915.7	914.4	913.2
15°	845.2	835.6	833.9	832.2
17.5°	788.0	782.1	780.5	778.8
20°	744.6	741.2	738.3	735.4
22.5°	707.0	702.8	700.3	697.8
25°	670.7	666.9	666.1	665.3
27.5°	638.1	633.6	633.6	633.6
30°	607.3	604.3	603.1	601.8
32.5°	578.5	576.0	576.0	576.0
35°	551.3	550.1	548.4	546.7
37.5°	526.7	526.7	525.9	525.0
40°	502.9	504.2	504.2	504.2
42.5°	481.2	482.5	482.5	482.5
45°	458.7	460.8	461.6	462.4
47.5°	436.6	439.9	440.7	441.6
50°	414.9	417.4	417.8	418.2
52.5°	392.7	395.7	397.7	399.8
55°	369.4	372.3	373.5	374.8
57.5°	344.3	347.2	347.7	348.1
60°	316.8	319.7	320.5	321.4
62.5°	290.5	292.2	293.0	293.8
65°	260.4	262.9	264.6	266.3
67.5°	231.6	233.7	233.7	233.7
70°	199.5	200.3	201.6	202.8
72.5°	169.9	170.3	170.3	170.3
75°	138.6	139.4	139.8	140.2
77.5°	108.9	109.3	109.3	109.3
80°	79.7	79.3	79.3	79.3
82.5°	54.7	53.4	53.4	53.4
85°	31.3	30.9	31.3	31.7
87.5°	14.2	14.2	14.2	14.2
90°	27.2	27.6	28.0	28.4
92.5°	42.0	41.6	41.2	40.7
95°	73.9	73.9	73.9	73.9
97.5°	106.7	106.5	106.3	106.1
100°	142.7	143.1	143.6	144.0
102.5°	183.5	183.2	183.0	182.8
105°	224.2	224.6	225.0	225.5
107.5°	269.7	269.4	269.2	269.0
110°	314.8	314.4	314.0	313.5



TEST NUMBER: P831628

CATALOG NUMBER: S123DIP-S775D1195U930-4F0-1E-UDD-G1

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	360.9	360.9	360.9	360.9
115°	404.2	404.0	403.8	403.5
117.5°	449.0	448.4	447.7	447.1
120°	494.8	494.4	494.0	493.5
122.5°	539.9	539.3	538.7	538.1
125°	585.1	584.3	583.4	582.6
127.5°	629.6	628.8	627.9	627.1
130°	675.1	673.6	672.1	670.7
132.5°	719.3	718.2	717.2	716.1
135°	764.8	764.3	763.9	763.5
137.5°	807.1	806.5	805.8	805.2
140°	850.3	848.9	847.4	845.9
142.5°	890.8	889.7	888.7	887.6
145°	929.9	929.1	928.2	927.4
147.5°	967.2	965.9	964.6	963.4
150°	1001.3	1000.0	998.7	997.5
152.5°	1033.8	1032.7	1031.7	1030.6
155°	1064.4	1063.0	1061.5	1060.0
157.5°	1091.3	1090.0	1088.7	1087.5
160°	1116.5	1115.7	1114.8	1114.0
162.5°	1138.3	1136.8	1135.4	1133.9
165°	1157.3	1155.8	1154.3	1152.8
167.5°	1173.7	1172.4	1171.2	1169.9
170°	1186.6	1185.2	1183.7	1182.2
172.5°	1196.1	1194.6	1193.2	1191.7
175°	1202.7	1201.3	1199.8	1198.3
177.5°	1206.5	1205.0	1203.6	1202.1
180°	1205.9	1205.9	1205.9	1205.9



TEST NUMBER: P831628

CATALOG NUMBER: S123DIP-S775D1195U930-4F0-1E-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	13.52	14.31	14.51	15.32	16.64	15.75	16.55	16.75	17.55	18.88
	3H	15.16	15.87	16.17	16.88	18.23	17.17	17.89	18.18	18.90	20.24
	4H	15.73	16.41	16.75	17.42	18.78	17.62	18.30	18.64	19.31	20.66
	6H	16.10	16.72	17.13	17.74	19.11	17.89	18.52	18.92	19.53	20.90
	8H	16.20	16.79	17.23	17.82	19.18	17.96	18.55	18.99	19.58	20.94
	12H	16.24	16.80	17.28	17.83	19.21	17.97	18.53	19.01	19.56	20.95
4H	2H	14.08	14.76	15.11	15.77	17.13	15.91	16.59	16.93	17.60	18.95
	3H	15.91	16.47	16.94	17.51	18.88	17.52	18.09	18.56	19.13	20.49
	4H	16.60	17.12	17.64	18.15	19.54	18.11	18.62	19.14	19.65	21.04
	6H	17.08	17.52	18.13	18.58	19.96	18.51	18.95	19.56	20.01	21.39
	8H	17.21	17.62	18.26	18.67	20.07	18.62	19.03	19.67	20.08	21.48
	12H	17.28	17.65	18.34	18.71	20.12	18.66	19.03	19.73	20.10	21.50
8H	4H	16.87	17.28	17.92	18.33	19.73	18.21	18.62	19.26	19.67	21.07
	6H	17.45	17.79	18.53	18.88	20.28	18.71	19.05	19.78	20.14	21.54
	8H	17.66	17.96	18.74	19.03	20.45	18.89	19.18	19.97	20.26	21.68
	12H	17.78	18.04	18.86	19.11	20.57	18.98	19.25	20.07	20.32	21.78
12H	4H	16.86	17.24	17.93	18.30	19.71	18.18	18.55	19.25	19.61	21.02
	6H	17.50	17.80	18.58	18.88	20.29	18.72	19.02	19.80	20.09	21.51
	8H	17.73	18.00	18.82	19.07	20.53	18.92	19.18	20.00	20.25	21.71