

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: P831654

Luminaire Tested: S123DIP-S775D365U930-4F0-1E-UDD-G

Issue Date: 05/03/2024

Test Information

Test Method: LM-79-2019
Report Number: P831654
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2301-905-1, G3-1807-864-5)
Test Lab: INNOVATION CENTER
Issue Date: 05/03/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: NEO-RAY
Catalog Number: S123DIP-S775D365U930-4F0-1E-UDD-G
Description: DEFINE 3 DIRECT-INDIRECT PENDANT LED LUMINAIRE
DOWNLIGHT 775 LUMENS PER FOOT, GRAZE OPTIC
UPLIGHT 365 LUMENS PER FOOT, NO LENS
Light Source: -
Ballast/Driver: -

Summary

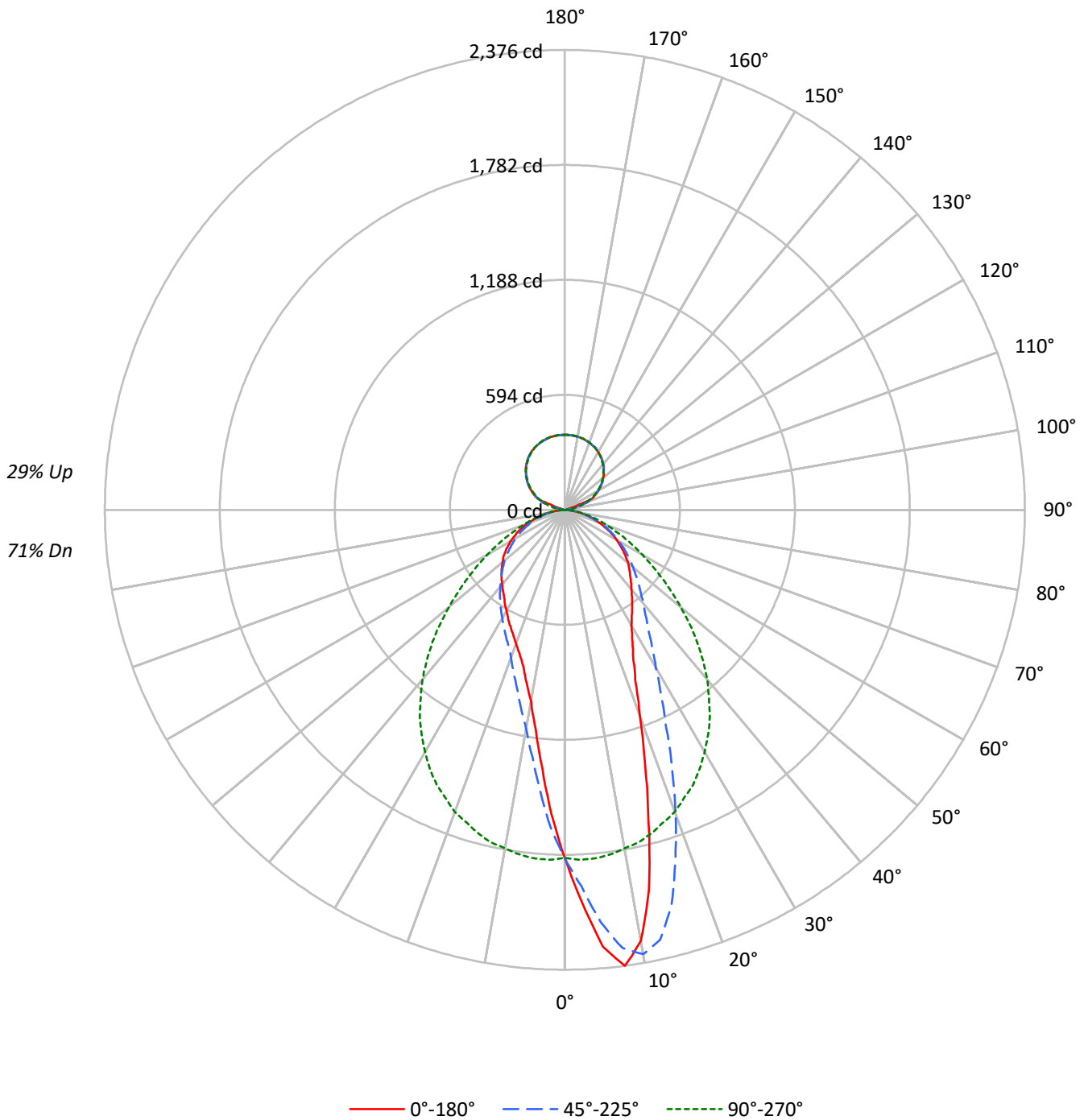
Lumens per Lamp: N/A
Luminaire Lumens: 4074.6 lumens
Efficiency: N/A
Efficacy: 113.5 lumens/watt
Spacing Criteria (0/90/45): 0.65 / 1.19 / 0.89
Luminous Opening: Rectangular (W 4' x L: 0.25' x H: 0')
CIE Type: Semi-Direct

Input Watts (W): 35.9
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	112	112	112	112	106	106	106	106	95	95	95	85	85	85	75	75	75	75	75	75	71	
1	103	99	95	92	98	94	91	88	84	82	80	76	74	72	68	66	65	65	65	65	61	
2	95	87	81	76	89	83	78	73	75	71	67	68	64	62	61	58	56	56	56	56	53	
3	87	78	71	65	82	74	68	62	67	62	58	61	57	53	55	51	49	49	49	49	46	
4	80	70	62	56	76	66	59	54	60	55	50	55	50	46	49	46	43	43	43	43	40	
5	74	63	55	49	70	60	53	47	55	49	44	50	45	41	45	41	38	38	38	38	35	
6	69	57	49	43	65	54	47	42	50	44	39	45	40	37	41	37	34	34	34	34	32	
7	64	52	44	39	61	50	43	37	46	40	35	42	37	33	38	34	31	31	31	31	29	
8	60	48	40	35	57	46	39	34	42	36	32	39	34	30	35	31	28	28	28	28	26	
9	56	44	36	31	53	42	35	31	39	33	29	36	31	27	33	29	26	26	26	26	24	
10	53	41	34	29	50	39	33	28	36	31	27	34	29	25	31	27	24	24	24	24	22	

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	4.2
10°-20°	423.1	10.4
20°-30°	500.9	12.3
30°-40°	503.7	12.4
40°-50°	462.1	11.3
50°-60°	381.4	9.4
60°-70°	269.8	6.6
70°-80°	144.0	3.5
80°-90°	37.3	0.9
90°-100°	13.7	0.3
100°-110°	66.1	1.6
110°-120°	162.0	4.0
120°-130°	205.7	5.0
130°-140°	219.7	5.4
140°-150°	205.5	5.0
150°-160°	165.7	4.1
160°-170°	106.9	2.6
170°-180°	36.9	0.9
0°-30°	1094.1	26.9
0°-40°	1597.8	39.2
0°-60°	2441.3	59.9
0°-90°	2892.5	71.0
90°-120°	241.8	5.9
90°-150°	872.6	21.4
90°-180°	1182.0	29.0
0°-180°	4074.6	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°	9	7	0	7	9	6
95°	11	9	18	9	11	9
105°	13	63	86	63	13	26
115°	169	165	161	165	169	159
125°	232	230	227	230	232	207
135°	286	286	283	286	286	220
145°	329	329	326	329	329	206
155°	359	359	359	359	359	165
165°	378	378	379	378	378	107
175°	386	387	388	387	386	37
180°	388	388	388	388	388	



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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°	8.6	8.5	8.4	8.3	8.1	7.9	7.7	7.4	7.2	6.9	6.1
92.5°	9.8	9.7	9.7	9.6	9.5	9.3	8.8	8.4	7.9	7.5	6.9
95°	10.9	10.9	10.9	10.9	10.9	10.7	10.3	9.8	9.4	8.9	8.2
97.5°	11.8	11.7	11.7	11.6	11.6	11.3	10.8	10.2	9.7	9.2	12.5
100°	12.1	12.0	12.0	11.9	11.8	11.6	11.0	10.5	10.0	9.5	19.5
102.5°	12.4	12.3	12.1	12.0	11.9	12.9	15.0	17.1	19.2	21.3	32.5
105°	12.7	12.5	12.4	12.3	12.2	17.8	29.1	40.4	51.8	63.1	68.9
107.5°	30.0	38.3	46.7	55.1	63.5	72.6	82.5	92.4	102.2	112.1	111.1
110°	79.2	88.4	97.5	106.7	115.8	121.5	123.6	125.7	127.8	129.9	129.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	150.1	150.2	150.4	150.5	150.6	150.4	149.8	149.2	148.7	148.1	147.4
115°	169.4	169.1	168.9	168.6	168.4	167.9	167.3	166.7	166.0	165.4	164.8
117.5°	185.0	184.9	184.8	184.8	184.7	184.4	183.9	183.4	182.9	182.4	182.0
120°	201.1	201.1	201.1	201.1	201.1	200.8	200.3	199.8	199.3	198.8	198.6
122.5°	216.9	216.9	216.8	216.7	216.7	216.5	216.2	215.9	215.5	215.2	215.0
125°	231.6	231.5	231.4	231.2	231.1	231.0	230.9	230.7	230.6	230.5	230.2
127.5°	246.0	246.2	246.3	246.4	246.6	246.5	246.3	246.1	245.9	245.8	245.4
130°	259.9	260.0	260.1	260.3	260.4	260.3	260.1	259.8	259.5	259.3	259.0
132.5°	272.5	272.7	272.9	273.1	273.3	273.3	273.0	272.8	272.5	272.3	272.1
135°	285.5	285.7	285.9	286.1	286.3	286.3	286.1	285.9	285.7	285.5	285.3
137.5°	297.9	298.0	298.2	298.3	298.4	298.3	298.0	297.7	297.4	297.0	296.9
140°	308.8	309.0	309.1	309.2	309.4	309.3	309.0	308.8	308.5	308.3	308.1
142.5°	318.9	319.1	319.3	319.5	319.7	319.7	319.5	319.3	319.1	318.9	318.7
145°	329.3	329.3	329.3	329.3	329.3	329.2	329.1	329.0	328.9	328.7	328.6
147.5°	336.8	337.1	337.4	337.8	338.1	338.2	338.0	337.9	337.8	337.7	337.5
150°	345.4	345.6	345.8	346.0	346.2	346.2	346.1	346.0	345.8	345.7	345.6
152.5°	352.3	352.7	353.0	353.3	353.6	353.7	353.4	353.1	352.9	352.6	352.6
155°	358.7	359.1	359.5	359.8	360.2	360.3	359.9	359.6	359.3	359.0	358.9
157.5°	364.2	364.7	365.2	365.7	366.2	366.3	365.9	365.5	365.1	364.7	364.8
160°	369.3	369.8	370.2	370.7	371.1	371.2	370.8	370.4	370.0	369.6	369.7
162.5°	374.2	374.6	375.0	375.4	375.8	375.7	375.3	374.9	374.4	374.0	374.0
165°	378.0	378.4	378.9	379.3	379.8	379.7	379.2	378.7	378.2	377.7	377.8
167.5°	380.9	381.4	381.9	382.4	382.9	382.9	382.4	381.9	381.4	380.9	380.9
170°	383.5	384.0	384.5	385.0	385.5	385.5	385.0	384.5	384.0	383.5	383.5
172.5°	384.9	385.5	386.1	386.6	387.2	387.2	386.7	386.2	385.7	385.2	385.1
175°	386.3	386.9	387.4	387.9	388.4	388.4	388.0	387.5	387.1	386.6	386.6
177.5°	386.6	387.3	387.9	388.6	389.2	389.3	388.7	388.2	387.7	387.2	387.1
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8



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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°	5.2	4.4	3.6	2.8	2.2	1.6	0.9	0.3	0.9	1.6	2.2
92.5°	6.3	5.8	5.2	5.1	5.5	5.9	6.2	6.6	6.2	5.9	5.5
95°	7.5	6.8	6.1	7.1	9.7	12.3	14.9	17.6	14.9	12.3	9.7
97.5°	15.7	19.0	22.3	24.8	26.6	28.4	30.2	32.0	30.2	28.4	26.6
100°	29.5	39.5	49.5	53.8	52.5	51.3	50.0	48.7	50.0	51.3	52.5
102.5°	43.6	54.7	65.9	71.0	70.2	69.4	68.5	67.7	68.5	69.4	70.2
105°	74.6	80.4	86.1	88.7	88.0	87.3	86.6	85.9	86.6	87.3	88.0
107.5°	110.2	109.2	108.2	107.5	106.9	106.3	105.7	105.2	105.7	106.3	106.9
110°	128.5	127.8	127.1	126.5	126.0	125.5	125.0	124.5	125.0	125.5	126.0



TEST NUMBER: P831654

CATALOG NUMBER: S123DIP-S775D365U930-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	146.7	146.0	145.3	144.7	144.2	143.8	143.3	142.9	143.3	143.8	144.2
115°	164.2	163.6	163.1	162.6	162.2	161.8	161.4	161.0	161.4	161.8	162.2
117.5°	181.7	181.4	181.1	180.7	180.3	179.8	179.4	178.9	179.4	179.8	180.3
120°	198.4	198.2	198.0	197.6	197.1	196.5	195.9	195.3	195.9	196.5	197.1
122.5°	214.7	214.4	214.2	213.8	213.4	212.9	212.5	212.0	212.5	212.9	213.4
125°	230.0	229.7	229.5	229.1	228.6	228.0	227.5	227.0	227.5	228.0	228.6
127.5°	245.1	244.8	244.5	244.1	243.5	243.0	242.5	242.0	242.5	243.0	243.5
130°	258.8	258.5	258.3	257.9	257.4	256.9	256.3	255.8	256.3	256.9	257.4
132.5°	271.9	271.7	271.5	271.1	270.6	270.1	269.6	269.1	269.6	270.1	270.6
135°	285.0	284.7	284.5	284.2	283.8	283.4	283.0	282.6	283.0	283.4	283.8
137.5°	296.8	296.6	296.5	296.2	295.7	295.2	294.7	294.2	294.7	295.2	295.7
140°	307.9	307.7	307.5	307.2	306.8	306.4	306.1	305.7	306.1	306.4	306.8
142.5°	318.5	318.4	318.2	317.9	317.5	317.1	316.7	316.3	316.7	317.1	317.5
145°	328.5	328.3	328.2	327.9	327.5	327.0	326.6	326.1	326.6	327.0	327.5
147.5°	337.4	337.3	337.1	336.9	336.6	336.3	336.0	335.6	336.0	336.3	336.6
150°	345.5	345.3	345.2	345.0	344.9	344.7	344.5	344.3	344.5	344.7	344.9
152.5°	352.5	352.4	352.4	352.3	352.3	352.2	352.1	352.1	352.1	352.2	352.3
155°	358.8	358.8	358.7	358.8	358.9	359.0	359.1	359.3	359.1	359.0	358.9
157.5°	364.9	364.9	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0	365.0
160°	369.8	369.8	369.9	370.0	370.0	370.1	370.1	370.2	370.1	370.1	370.0
162.5°	374.1	374.1	374.2	374.3	374.5	374.7	374.9	375.1	374.9	374.7	374.5
165°	377.8	377.9	378.0	378.1	378.3	378.5	378.7	378.9	378.7	378.5	378.3
167.5°	380.9	380.9	380.9	381.0	381.3	381.5	381.8	382.0	381.8	381.5	381.3
170°	383.5	383.5	383.5	383.6	383.8	384.1	384.4	384.6	384.4	384.1	383.8
172.5°	385.1	385.0	384.9	385.1	385.4	385.7	386.0	386.3	386.0	385.7	385.4
175°	386.5	386.4	386.4	386.5	386.8	387.1	387.5	387.8	387.5	387.1	386.8
177.5°	387.1	387.0	387.0	387.1	387.4	387.7	388.0	388.4	388.0	387.7	387.4
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8



TEST NUMBER: P831654

CATALOG NUMBER: S123DIP-S775D365U930-4F0-1E-UDD-G

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°	2.8	3.6	4.4	5.2	6.1	6.9	7.2	7.4	7.7	7.9	8.1
92.5°	5.1	5.2	5.8	6.3	6.9	7.5	7.9	8.4	8.8	9.3	9.5
95°	7.1	6.1	6.8	7.5	8.2	8.9	9.4	9.8	10.3	10.7	10.9
97.5°	24.8	22.3	19.0	15.7	12.5	9.2	9.7	10.2	10.8	11.3	11.6
100°	53.8	49.5	39.5	29.5	19.5	9.5	10.0	10.5	11.0	11.6	11.8
102.5°	71.0	65.9	54.7	43.6	32.5	21.3	19.2	17.1	15.0	12.9	11.9
105°	88.7	86.1	80.4	74.6	68.9	63.1	51.8	40.4	29.1	17.8	12.2
107.5°	107.5	108.2	109.2	110.2	111.1	112.1	102.2	92.4	82.5	72.6	63.5
110°	126.5	127.1	127.8	128.5	129.2	129.9	127.8	125.7	123.6	121.5	115.8



TEST NUMBER: P831654

CATALOG NUMBER: S123DIP-S775D365U930-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	144.7	145.3	146.0	146.7	147.4	148.1	148.7	149.2	149.8	150.4	150.6
115°	162.6	163.1	163.6	164.2	164.8	165.4	166.0	166.7	167.3	167.9	168.4
117.5°	180.7	181.1	181.4	181.7	182.0	182.4	182.9	183.4	183.9	184.4	184.7
120°	197.6	198.0	198.2	198.4	198.6	198.8	199.3	199.8	200.3	200.8	201.1
122.5°	213.8	214.2	214.4	214.7	215.0	215.2	215.5	215.9	216.2	216.5	216.7
125°	229.1	229.5	229.7	230.0	230.2	230.5	230.6	230.7	230.9	231.0	231.1
127.5°	244.1	244.5	244.8	245.1	245.4	245.8	245.9	246.1	246.3	246.5	246.6
130°	257.9	258.3	258.5	258.8	259.0	259.3	259.5	259.8	260.1	260.3	260.4
132.5°	271.1	271.5	271.7	271.9	272.1	272.3	272.5	272.8	273.0	273.3	273.3
135°	284.2	284.5	284.7	285.0	285.3	285.5	285.7	285.9	286.1	286.3	286.3
137.5°	296.2	296.5	296.6	296.8	296.9	297.0	297.4	297.7	298.0	298.3	298.4
140°	307.2	307.5	307.7	307.9	308.1	308.3	308.5	308.8	309.0	309.3	309.4
142.5°	317.9	318.2	318.4	318.5	318.7	318.9	319.1	319.3	319.5	319.7	319.7
145°	327.9	328.2	328.3	328.5	328.6	328.7	328.9	329.0	329.1	329.2	329.3
147.5°	336.9	337.1	337.3	337.4	337.5	337.7	337.8	337.9	338.0	338.2	338.1
150°	345.0	345.2	345.3	345.5	345.6	345.7	345.8	346.0	346.1	346.2	346.2
152.5°	352.3	352.4	352.4	352.5	352.6	352.6	352.9	353.1	353.4	353.7	353.6
155°	358.8	358.7	358.8	358.8	358.9	359.0	359.3	359.6	359.9	360.3	360.2
157.5°	365.0	365.0	364.9	364.9	364.8	364.7	365.1	365.5	365.9	366.3	366.2
160°	370.0	369.9	369.8	369.8	369.7	369.6	370.0	370.4	370.8	371.2	371.1
162.5°	374.3	374.2	374.1	374.1	374.0	374.0	374.4	374.9	375.3	375.7	375.8
165°	378.1	378.0	377.9	377.8	377.8	377.7	378.2	378.7	379.2	379.7	379.8
167.5°	381.0	380.9	380.9	380.9	380.9	380.9	381.4	381.9	382.4	382.9	382.9
170°	383.6	383.5	383.5	383.5	383.5	383.5	384.0	384.5	385.0	385.5	385.5
172.5°	385.1	384.9	385.0	385.1	385.1	385.2	385.7	386.2	386.7	387.2	387.2
175°	386.5	386.4	386.4	386.5	386.6	386.6	387.1	387.5	388.0	388.4	388.4
177.5°	387.1	387.0	387.0	387.1	387.1	387.2	387.7	388.2	388.7	389.3	389.2
180°	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8	387.8



TEST NUMBER: P831654

CATALOG NUMBER: S123DIP-S775D365U930-4F0-1E-UDD-G

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°	8.3	8.4	8.5	8.6
92.5°	9.6	9.7	9.7	9.8
95°	10.9	10.9	10.9	10.9
97.5°	11.6	11.7	11.7	11.8
100°	11.9	12.0	12.0	12.1
102.5°	12.0	12.1	12.3	12.4
105°	12.3	12.4	12.5	12.7
107.5°	55.1	46.7	38.3	30.0
110°	106.7	97.5	88.4	79.2



TEST NUMBER: P831654

CATALOG NUMBER: S123DIP-S775D365U930-4F0-1E-UDD-G

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
112.5°	150.5	150.4	150.2	150.1
115°	168.6	168.9	169.1	169.4
117.5°	184.8	184.8	184.9	185.0
120°	201.1	201.1	201.1	201.1
122.5°	216.7	216.8	216.9	216.9
125°	231.2	231.4	231.5	231.6
127.5°	246.4	246.3	246.2	246.0
130°	260.3	260.1	260.0	259.9
132.5°	273.1	272.9	272.7	272.5
135°	286.1	285.9	285.7	285.5
137.5°	298.3	298.2	298.0	297.9
140°	309.2	309.1	309.0	308.8
142.5°	319.5	319.3	319.1	318.9
145°	329.3	329.3	329.3	329.3
147.5°	337.8	337.4	337.1	336.8
150°	346.0	345.8	345.6	345.4
152.5°	353.3	353.0	352.7	352.3
155°	359.8	359.5	359.1	358.7
157.5°	365.7	365.2	364.7	364.2
160°	370.7	370.2	369.8	369.3
162.5°	375.4	375.0	374.6	374.2
165°	379.3	378.9	378.4	378.0
167.5°	382.4	381.9	381.4	380.9
170°	385.0	384.5	384.0	383.5
172.5°	386.6	386.1	385.5	384.9
175°	387.9	387.4	386.9	386.3
177.5°	388.6	387.9	387.3	386.6
180°	387.8	387.8	387.8	387.8



TEST NUMBER: P831654

CATALOG NUMBER: S123DIP-S775D365U930-4F0-1E-UDD-G

CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	15.64	16.67	16.40	17.44	18.38	17.87	18.90	18.63	19.68	20.62
	3H	17.30	18.22	18.07	19.01	19.98	19.31	20.23	20.08	21.02	21.99
	4H	17.88	18.75	18.67	19.55	20.53	19.77	20.64	20.56	21.43	22.41
	6H	18.26	19.06	19.06	19.87	20.86	20.05	20.85	20.86	21.66	22.65
	8H	18.36	19.12	19.18	19.95	20.94	20.12	20.88	20.93	21.70	22.70
	12H	18.41	19.14	19.23	19.95	20.98	20.14	20.87	20.96	21.69	22.71
4H	2H	16.23	17.10	17.03	17.90	18.88	18.06	18.93	18.85	19.72	20.70
	3H	18.07	18.80	18.88	19.63	20.63	19.69	20.41	20.50	21.24	22.24
	4H	18.78	19.44	19.60	20.27	21.29	20.28	20.94	21.10	21.77	22.79
	6H	19.26	19.83	20.10	20.68	21.72	20.69	21.26	21.53	22.11	23.15
	8H	19.40	19.93	20.24	20.78	21.82	20.81	21.34	21.65	22.19	23.23
	12H	19.48	19.95	20.34	20.82	21.87	20.86	21.34	21.72	22.21	23.25
8H	4H	19.06	19.59	19.90	20.44	21.48	20.40	20.93	21.24	21.78	22.82
	6H	19.65	20.09	20.52	20.98	22.02	20.91	21.34	21.78	22.23	23.28
	8H	19.86	20.25	20.74	21.13	22.20	21.09	21.47	21.97	22.36	23.42
	12H	19.99	20.33	20.87	21.21	22.33	21.20	21.54	22.08	22.41	23.53
12H	4H	19.07	19.54	19.93	20.41	21.46	20.38	20.86	21.24	21.73	22.77
	6H	19.70	20.09	20.58	20.98	22.04	20.92	21.31	21.80	22.20	23.26
	8H	19.95	20.29	20.83	21.16	22.28	21.13	21.47	22.01	22.35	23.46