

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: PORTFOLIO

Report Number: P879430

Luminaire Tested: **LD4C45D010 EU4459030 4LBDWWH**

Issue Date: 10/1/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



**Test Information**

Test Method: LM-79-08  
Report Number: P879430  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-6)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/1/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C45D010 EU4459030 4LBLDWWH  
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS  
AND 4LBLDWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

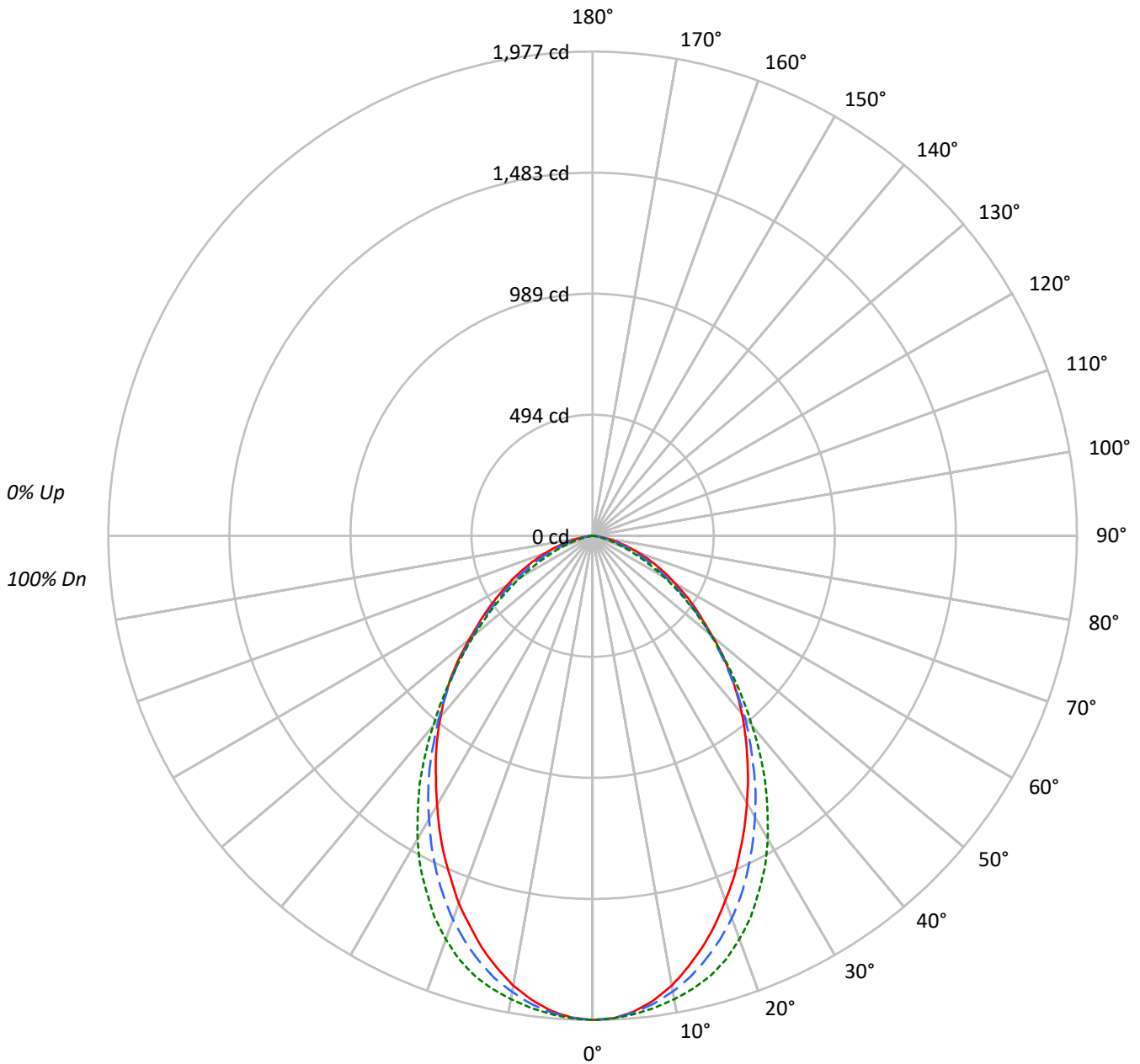
Lumens per Lamp: N/A  
Luminaire Lumens: 3536.0 lumens  
Efficiency: N/A  
Efficacy: 71.3 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 49.6  
Input Voltage (V): NR  
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: 25 FT

TEST NUMBER: P879430

CATALOG NUMBER: LD4C45D010 EU4459030 4LBLDWWH

### Luminous Intensity Polar Plot





TEST NUMBER: P879430

CATALOG NUMBER: LD4C45D010 EU4459030 4LBLDWWH

**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	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100								
1	111	107	104	100	108	105	102	99	101	98	96	97	95	93	93	92	90	88								
2	103	96	90	85	100	94	89	84	90	86	82	87	84	80	84	81	79	77								
3	95	86	79	73	92	84	78	73	81	76	71	79	74	70	76	72	69	67								
4	88	77	70	64	86	76	69	63	74	68	63	71	66	62	69	65	61	59								
5	81	70	62	56	80	69	62	56	67	61	56	65	59	55	63	58	54	52								
6	76	64	56	50	74	63	56	50	61	55	50	60	54	49	58	53	49	47								
7	71	59	51	45	69	58	50	45	56	50	45	55	49	44	54	48	44	42								
8	66	54	46	41	65	53	46	41	52	45	41	51	45	40	50	44	40	38								
9	62	50	42	37	61	49	42	37	48	42	37	47	41	37	46	41	37	35								
10	59	46	39	34	57	46	39	34	45	39	34	44	38	34	43	38	34	32								

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

	0°	90°	180°
0°	242869	242869	242869
5°	240393	241737	240122
10°	232581	239642	232669
15°	220962	236568	221700
20°	207102	229131	208815
25°	192893	217388	194655
30°	178686	202787	180033
35°	164854	184336	167359
40°	152066	162427	154857
45°	137742	140765	141912
50°	122110	120581	125168
55°	108851	101547	111335
60°	95261	82410	98823
65°	83372	63750	86308
70°	70152	46696	73816
75°	54777	30331	57910
80°	35940	15918	39548
85°	12263	7189	16351



TEST NUMBER: P879430

CATALOG NUMBER: LD4C45D010 EU4459030 4LBLDWWH

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	184.5	5.2
10°-20°	504.2	14.3
20°-30°	693.5	19.6
30°-40°	723.5	20.5
40°-50°	619.0	17.5
50°-60°	442.7	12.5
60°-70°	256.9	7.3
70°-80°	99.0	2.8
80°-90°	12.6	0.4
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1382.3	39.1
0°-40°	2105.8	59.6
0°-60°	3167.5	89.6
0°-90°	3536.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3536.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1977	1977	1977	1977	1977	
5°	1949	1953	1960	1953	1947	183
15°	1737	1790	1860	1796	1743	487
25°	1423	1501	1604	1511	1436	655
35°	1099	1143	1229	1161	1116	688
45°	793	786	810	806	817	611
55°	508	483	474	496	520	454
65°	287	253	219	262	297	286
75°	115	86	64	92	122	124
85°	9	6	5	7	12	17
90°	0	0	0	0	0	



TEST NUMBER: P879430

CATALOG NUMBER: LD4C45D010 EU4459030 4LBDWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9
2.5°	1971.8	1970.4	1971.1	1971.1	1971.1	1970.4	1971.8	1971.8	1971.1	1971.1	1971.1
5°	1949.3	1947.9	1948.6	1949.3	1949.3	1949.3	1950.1	1950.8	1951.5	1952.2	1953.0
7.5°	1913.0	1910.8	1913.0	1915.9	1915.9	1916.7	1917.4	1918.1	1920.3	1923.9	1926.1
10°	1864.4	1864.4	1865.1	1867.3	1870.9	1870.2	1872.4	1876.0	1880.4	1885.4	1889.1
12.5°	1802.7	1804.1	1806.3	1808.5	1812.1	1814.3	1817.9	1822.3	1829.5	1836.8	1844.8
15°	1737.3	1738.1	1738.8	1743.9	1747.5	1752.6	1755.5	1764.2	1770.7	1780.9	1789.6
17.5°	1664.0	1663.3	1665.5	1669.8	1678.5	1680.7	1684.3	1693.8	1703.2	1717.0	1728.6
20°	1584.1	1588.5	1591.4	1597.2	1602.3	1608.1	1611.0	1622.6	1633.5	1646.6	1661.8
22.5°	1508.6	1505.0	1510.1	1516.6	1521.0	1525.3	1530.4	1542.8	1554.4	1570.4	1585.6
25°	1423.0	1425.2	1428.8	1433.9	1439.7	1445.5	1451.3	1464.4	1470.9	1487.6	1501.4
27.5°	1341.7	1345.3	1346.7	1353.3	1358.4	1362.7	1365.6	1380.9	1386.7	1401.2	1415.0
30°	1259.6	1263.3	1263.3	1270.5	1274.1	1278.5	1285.8	1295.9	1304.6	1314.8	1325.0
32.5°	1180.5	1180.5	1183.4	1189.9	1193.6	1198.6	1200.8	1208.1	1216.8	1227.0	1237.8
35°	1099.2	1101.4	1104.3	1104.3	1110.8	1113.7	1116.6	1123.9	1129.7	1134.0	1142.7
37.5°	1024.4	1024.4	1022.2	1025.8	1030.2	1029.5	1033.8	1037.5	1041.1	1046.2	1053.4
40°	948.2	948.2	945.3	947.4	950.3	949.6	948.2	951.8	954.7	958.3	965.6
42.5°	870.5	869.0	868.3	868.3	869.8	868.3	869.8	870.5	870.5	870.5	874.8
45°	792.8	796.4	792.1	790.6	788.4	786.3	785.5	786.3	789.2	785.5	786.3
47.5°	716.6	718.0	715.1	712.9	710.8	709.3	710.8	706.4	707.9	708.6	705.7
50°	638.9	636.0	636.0	633.8	634.5	633.8	632.4	630.9	630.9	627.3	625.1
52.5°	567.0	568.5	569.9	564.8	565.6	561.9	562.7	559.0	559.0	554.7	556.1
55°	508.2	506.0	506.0	503.8	503.1	499.5	498.8	496.6	491.5	488.6	482.8
57.5°	447.2	446.5	443.6	444.3	440.0	439.2	437.8	434.2	430.5	426.9	420.4
60°	387.7	388.4	388.4	387.0	384.8	381.2	381.9	376.8	371.7	365.2	359.4
62.5°	338.3	336.1	335.4	334.0	329.6	329.6	326.0	322.3	317.3	310.7	305.6
65°	286.8	287.5	285.3	283.1	278.8	278.1	275.2	272.3	267.2	260.6	253.4
67.5°	240.3	238.9	238.1	236.0	231.6	230.9	228.7	222.2	217.8	211.3	205.5
70°	195.3	193.8	194.6	190.9	186.6	184.4	183.7	178.6	172.1	167.0	161.2
72.5°	153.2	153.2	152.5	148.8	146.7	145.2	142.3	136.5	132.9	127.1	122.7
75°	115.4	114.7	113.3	111.1	108.2	106.7	105.3	101.6	96.6	90.0	86.4
77.5°	79.9	80.6	79.1	78.4	74.8	72.6	71.9	69.7	65.3	61.0	57.4
80°	50.8	50.1	49.4	47.9	47.2	46.5	44.3	42.8	38.5	36.3	34.1
82.5°	27.6	26.1	26.1	25.4	24.0	23.2	22.5	21.1	20.3	18.9	17.4
85°	8.7	9.4	8.7	8.7	8.7	8.0	8.0	8.0	7.3	7.3	6.5
87.5°	0.7	1.5	0.7	0.7	1.5	0.7	0.7	1.5	0.7	0.7	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P879430

CATALOG NUMBER: LD4C45D010 EU4459030 4LBDWVWH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9
2.5°	1971.1	1971.8	1971.8	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6	1972.6
5°	1955.1	1955.1	1956.6	1958.0	1958.0	1958.0	1958.8	1960.2	1960.2	1960.2	1959.5
7.5°	1929.0	1931.9	1934.8	1937.7	1938.4	1939.2	1940.6	1943.5	1943.5	1943.5	1943.5
10°	1894.9	1901.4	1905.0	1909.4	1911.6	1913.0	1917.4	1918.1	1920.3	1921.0	1920.3
12.5°	1851.3	1860.0	1868.0	1875.3	1878.2	1881.1	1885.4	1889.8	1892.0	1894.2	1893.4
15°	1802.7	1812.1	1824.5	1832.4	1838.2	1842.6	1849.1	1854.9	1858.6	1860.0	1860.0
17.5°	1743.9	1755.5	1768.6	1781.6	1785.2	1792.5	1799.8	1807.8	1812.1	1812.8	1812.1
20°	1678.5	1691.6	1702.5	1715.6	1723.5	1727.2	1737.3	1747.5	1751.9	1752.6	1751.9
22.5°	1600.8	1613.2	1627.7	1641.5	1648.0	1654.6	1665.5	1675.6	1681.4	1685.8	1681.4
25°	1514.4	1531.9	1545.7	1557.3	1566.7	1573.3	1587.0	1595.0	1604.5	1603.7	1604.5
27.5°	1429.5	1444.0	1459.3	1473.1	1478.9	1486.1	1497.0	1510.1	1518.1	1523.2	1522.4
30°	1342.4	1354.0	1367.1	1379.4	1388.8	1394.7	1410.6	1416.4	1426.6	1429.5	1427.3
32.5°	1250.2	1258.2	1271.2	1287.9	1291.6	1297.4	1307.5	1322.1	1325.7	1327.1	1327.9
35°	1152.2	1167.4	1178.3	1188.5	1191.4	1196.5	1208.1	1219.0	1222.6	1229.1	1226.2
37.5°	1061.4	1070.1	1075.2	1085.4	1094.1	1098.4	1104.3	1111.5	1118.8	1121.7	1121.0
40°	970.7	975.0	979.4	990.3	991.0	991.0	999.7	1009.9	1009.9	1012.8	1012.8
42.5°	877.7	878.5	884.3	890.1	891.5	893.0	901.7	903.2	907.5	909.7	912.6
45°	787.7	792.1	795.7	796.4	800.1	800.8	803.0	805.1	811.7	810.2	811.7
47.5°	705.7	707.9	710.0	710.0	712.2	711.5	715.1	712.9	717.3	718.7	720.9
50°	625.1	628.7	626.5	628.0	627.3	629.4	628.0	628.0	628.0	630.9	633.1
52.5°	551.0	551.8	549.6	550.3	550.3	548.9	550.3	549.6	548.9	548.9	549.6
55°	482.8	479.9	478.4	475.5	471.9	476.3	474.1	472.6	475.5	474.1	475.5
57.5°	416.7	413.1	410.2	408.7	403.7	406.6	403.7	402.2	402.2	402.2	405.8
60°	354.3	350.7	347.0	342.7	341.9	340.5	339.0	335.4	336.1	335.4	336.9
62.5°	299.8	292.6	287.5	283.9	283.1	281.0	278.8	275.2	275.9	275.9	276.6
65°	249.7	241.8	234.5	229.4	229.4	225.8	222.2	222.2	217.8	219.3	220.0
67.5°	199.7	193.1	185.9	182.2	180.0	177.1	175.0	173.5	171.3	171.3	172.8
70°	154.6	148.1	144.5	138.7	137.9	135.8	132.9	130.7	130.0	130.0	129.2
72.5°	116.9	111.1	106.7	103.1	100.9	98.7	95.8	95.1	93.7	93.7	95.1
75°	81.3	77.7	74.1	70.4	69.0	68.2	66.1	64.6	64.6	63.9	64.6
77.5°	54.5	50.8	47.2	45.7	44.3	42.8	42.1	41.4	39.2	39.2	39.2
80°	31.2	29.8	28.3	26.1	26.1	25.4	24.0	23.2	22.5	22.5	22.5
82.5°	16.0	15.2	13.8	13.1	13.1	13.1	12.3	12.3	11.6	11.6	11.6
85°	6.5	5.8	5.1	5.1	5.1	5.1	5.1	5.1	5.8	5.1	5.8
87.5°	0.7	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P879430

CATALOG NUMBER: LD4C45D010 EU4459030 4LBLDWWH

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9
2.5°	1972.6	1971.8	1971.8	1971.8	1971.8	1971.8	1971.1	1971.1	1970.4	1970.4	1970.4
5°	1960.2	1959.5	1958.8	1958.0	1957.3	1956.6	1955.9	1955.1	1953.0	1952.2	1950.8
7.5°	1942.8	1941.3	1939.2	1938.4	1937.0	1934.8	1931.9	1930.5	1927.5	1923.9	1922.5
10°	1919.6	1916.7	1914.5	1910.8	1910.1	1907.2	1900.0	1896.3	1891.2	1886.9	1881.8
12.5°	1891.2	1888.3	1883.3	1878.2	1875.3	1868.7	1862.2	1856.4	1849.9	1840.4	1833.2
15°	1856.4	1852.0	1841.9	1840.4	1836.1	1825.9	1817.2	1806.3	1796.1	1786.0	1777.3
17.5°	1809.9	1800.5	1795.4	1788.9	1783.8	1770.7	1761.3	1748.9	1735.2	1723.5	1711.2
20°	1748.9	1738.8	1730.1	1726.4	1719.9	1708.3	1696.7	1681.4	1667.6	1653.1	1642.2
22.5°	1676.3	1669.8	1656.7	1652.4	1644.4	1632.8	1619.0	1604.5	1591.4	1575.4	1560.9
25°	1598.7	1589.2	1579.1	1570.4	1564.5	1553.7	1536.2	1525.3	1510.8	1493.4	1482.5
27.5°	1515.9	1505.0	1490.5	1484.7	1479.6	1465.1	1450.6	1436.8	1425.2	1409.9	1400.5
30°	1420.1	1412.1	1402.6	1395.4	1388.1	1376.5	1363.4	1347.5	1335.1	1327.9	1314.8
32.5°	1322.8	1316.2	1303.9	1300.3	1292.3	1282.9	1273.4	1261.8	1248.7	1237.8	1227.7
35°	1219.0	1212.4	1203.7	1197.2	1194.3	1187.7	1177.6	1167.4	1160.9	1148.5	1143.5
37.5°	1115.1	1113.0	1104.3	1097.7	1095.5	1087.6	1082.5	1075.2	1065.8	1062.9	1057.1
40°	1008.4	1007.0	1001.9	1001.2	996.8	994.6	987.4	981.6	977.2	975.0	971.4
42.5°	910.4	909.0	904.6	905.3	901.0	899.5	898.8	893.7	890.1	885.7	886.5
45°	813.9	812.4	809.5	808.0	810.2	809.5	808.0	805.9	805.9	806.6	804.4
47.5°	720.9	722.4	719.5	720.9	720.9	718.7	718.7	721.7	722.4	723.8	725.3
50°	633.1	637.4	636.0	638.2	638.9	639.6	637.4	641.1	640.3	646.9	645.4
52.5°	553.2	553.9	556.8	557.6	558.3	559.0	562.7	565.6	566.3	569.2	574.3
55°	476.3	477.0	482.8	482.8	486.4	487.2	492.2	493.7	495.9	503.8	505.3
57.5°	403.7	408.0	410.9	412.4	414.5	418.2	421.1	427.6	431.2	436.3	441.4
60°	338.3	343.4	347.0	348.5	351.4	355.7	359.4	366.6	373.2	379.0	382.6
62.5°	278.1	282.4	285.3	290.4	290.4	294.0	302.7	307.1	314.4	319.4	326.0
65°	224.3	227.2	232.3	232.3	235.2	241.0	248.3	254.8	262.1	269.3	275.9
67.5°	175.7	177.9	180.8	183.7	185.1	192.4	198.2	207.6	214.2	219.3	227.2
70°	132.9	134.3	137.9	140.8	143.0	148.1	154.6	161.2	167.7	173.5	181.5
72.5°	95.1	98.0	101.6	103.8	105.3	108.9	115.4	122.0	127.8	133.6	137.9
75°	65.3	67.5	69.0	71.1	73.3	76.2	80.6	84.9	91.5	97.3	102.4
77.5°	40.7	42.8	45.0	45.7	46.5	49.4	52.3	56.6	61.0	65.3	69.0
80°	24.0	24.7	25.4	26.1	27.6	29.8	31.2	34.1	37.0	39.9	43.6
82.5°	12.3	13.1	13.8	13.8	13.8	14.5	16.7	18.2	18.9	20.3	22.5
85°	5.1	5.1	5.1	5.8	5.8	6.5	6.5	7.3	7.3	8.0	8.7
87.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0





TEST NUMBER: P879430

CATALOG NUMBER: LD4C45D010 EU4459030 4LBLDWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9	1976.9
2.5°	1969.7	1969.7	1969.7	1968.9	1969.7	1969.7	1969.7	1968.9
5°	1950.8	1949.3	1949.3	1948.6	1947.9	1947.9	1948.6	1947.1
7.5°	1919.6	1917.4	1915.9	1915.9	1915.2	1914.5	1914.5	1910.8
10°	1878.9	1874.5	1874.5	1873.1	1867.3	1866.6	1865.1	1865.1
12.5°	1828.1	1823.0	1820.1	1816.5	1812.8	1809.9	1809.2	1806.3
15°	1767.8	1761.3	1756.2	1754.8	1748.9	1744.6	1744.6	1743.1
17.5°	1702.5	1692.3	1688.7	1685.1	1677.1	1676.3	1674.9	1668.4
20°	1628.4	1619.0	1613.9	1610.3	1605.2	1597.9	1596.5	1597.2
22.5°	1550.7	1537.7	1533.3	1529.7	1524.6	1518.1	1518.1	1513.0
25°	1470.2	1458.5	1454.2	1449.8	1441.8	1438.9	1435.3	1436.0
27.5°	1388.1	1377.2	1373.6	1365.6	1360.5	1356.9	1353.3	1353.3
30°	1302.5	1296.6	1290.8	1290.1	1279.9	1275.6	1272.0	1269.1
32.5°	1219.7	1212.4	1209.5	1206.6	1201.5	1195.7	1195.0	1189.9
35°	1138.4	1131.1	1127.5	1124.6	1118.8	1116.6	1114.4	1115.9
37.5°	1052.7	1051.3	1049.1	1045.4	1041.8	1041.1	1038.2	1041.8
40°	968.5	967.8	964.9	965.6	965.6	964.1	965.6	965.6
42.5°	887.2	887.2	884.3	885.7	886.5	887.9	890.1	891.5
45°	808.0	807.3	808.0	809.5	808.0	811.7	814.6	816.8
47.5°	726.7	727.5	730.4	731.1	732.5	737.6	737.6	737.6
50°	649.0	652.7	651.2	655.6	654.9	657.8	654.9	654.9
52.5°	575.0	578.6	579.4	580.1	584.4	585.2	585.2	584.4
55°	508.9	514.0	511.8	515.5	517.6	519.1	521.3	519.8
57.5°	447.9	450.1	452.3	453.0	455.9	457.4	458.8	457.4
60°	387.7	392.0	395.7	396.4	397.9	399.3	400.0	402.2
62.5°	331.1	338.3	339.8	340.5	344.1	346.3	347.8	349.2
65°	281.0	286.0	289.7	291.9	294.8	294.8	296.9	296.9
67.5°	232.3	237.4	239.6	241.0	245.4	246.1	249.7	249.7
70°	188.0	191.7	193.1	195.3	199.7	202.6	204.0	205.5
72.5°	145.2	149.6	151.7	154.6	157.5	159.7	160.4	162.6
75°	106.0	112.5	113.3	116.2	118.3	121.2	122.7	122.0
77.5°	74.1	76.2	79.1	80.6	82.8	84.9	87.1	87.1
80°	45.7	48.6	49.4	50.1	53.0	54.5	55.9	55.9
82.5°	24.0	25.4	26.9	27.6	29.0	29.0	29.8	30.5
85°	9.4	10.2	10.2	10.2	10.9	11.6	11.6	11.6
87.5°	1.5	2.2	1.5	1.5	2.2	2.2	2.2	2.2
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)