

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: P879438

Luminaire Tested: **LD4C50D010 EU4509027 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: P879438  
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: LD4C50D010 EU4509027 4LBLDWWH  
Description: 4 INCH 5000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS  
AND 4LBLDWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

Luminaire Equipment: Sample No.   Condition   Description

**Summary**

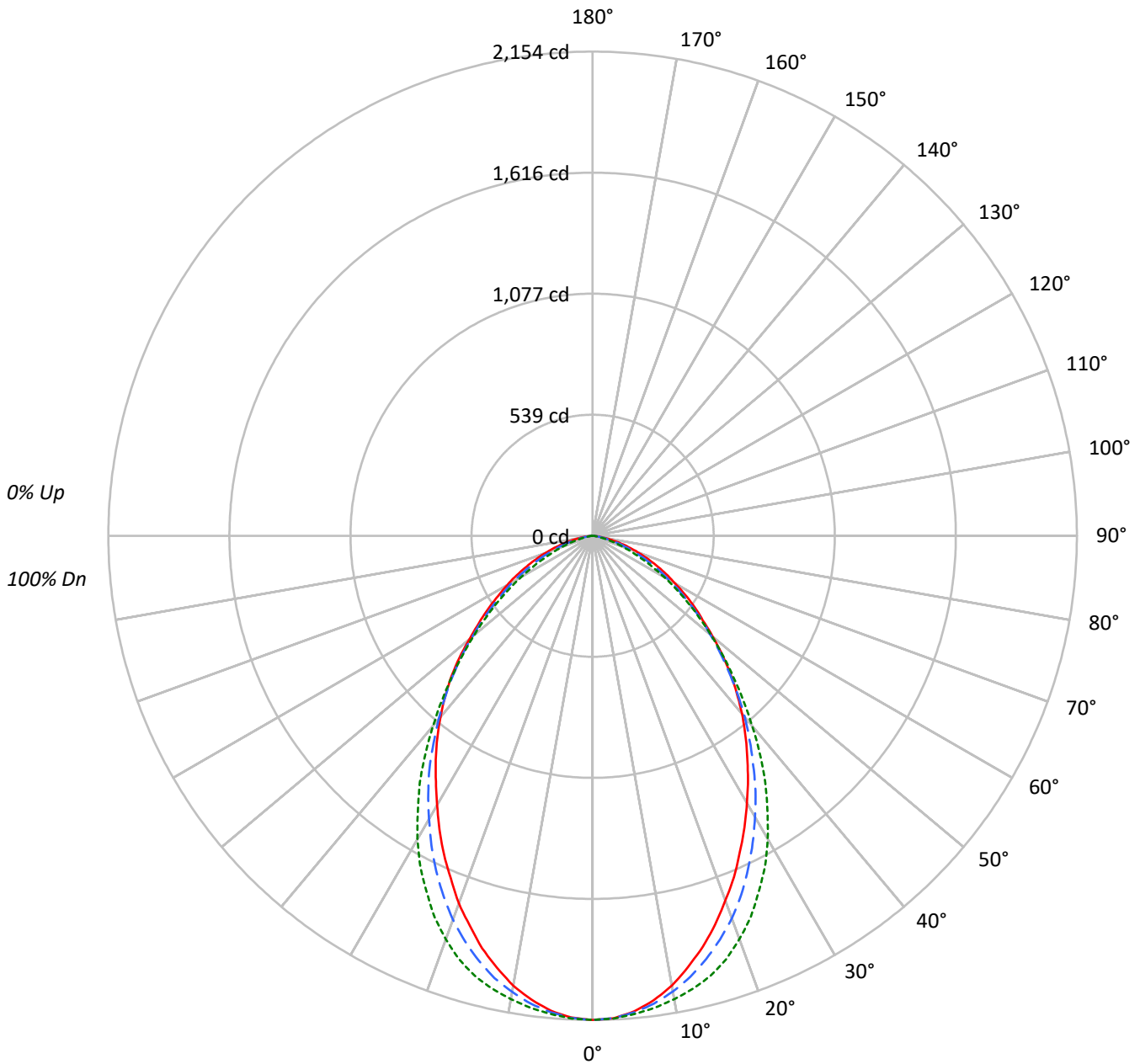
Lumens per Lamp: N/A  
Luminaire Lumens: 3853.0 lumens  
Efficiency: N/A  
Efficacy: 66.0 lumens/watt  
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 58.4  
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

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CATALOG NUMBER: LD4C50D010 EU4509027 4LBLDWWH

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

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

	0°	90°	180°
0°	264639	264639	264639
5°	261950	263405	261654
10°	253427	261124	253527
15°	240778	257783	241580
20°	225680	249670	227536
25°	210176	236880	212115
30°	194701	220974	196163
35°	179627	200863	182356
40°	165698	176989	168745
45°	150095	153396	154630
50°	133062	131399	136388
55°	118618	110650	121316
60°	103787	89806	107693
65°	90843	69447	94069
70°	76438	50863	80425
75°	59713	33037	63084
80°	39195	17333	43086
85°	13391	7753	17902



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	201.1	5.2
10°-20°	549.4	14.3
20°-30°	755.7	19.6
30°-40°	788.3	20.5
40°-50°	674.5	17.5
50°-60°	482.4	12.5
60°-70°	279.9	7.3
70°-80°	107.9	2.8
80°-90°	13.7	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°	1506.2	39.1
0°-40°	2294.5	59.6
0°-60°	3451.4	89.6
0°-90°	3853.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3853.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2154	2154	2154	2154	2154	
5°	2124	2128	2136	2128	2122	200
15°	1893	1950	2027	1957	1899	531
25°	1550	1636	1748	1646	1565	713
35°	1198	1245	1339	1265	1216	750
45°	864	857	883	878	890	666
55°	554	526	517	540	566	495
65°	312	276	239	286	324	311
75°	126	94	70	100	133	135
85°	10	7	6	8	13	18
90°	0	0	0	0	0	



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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1
2.5°	2148.6	2147.0	2147.8	2147.8	2147.8	2147.0	2148.6	2148.6	2147.8	2147.8	2147.8
5°	2124.1	2122.5	2123.3	2124.1	2124.1	2124.1	2124.9	2125.7	2126.5	2127.2	2128.0
7.5°	2084.5	2082.2	2084.5	2087.7	2087.7	2088.5	2089.3	2090.1	2092.4	2096.4	2098.8
10°	2031.5	2031.5	2032.3	2034.7	2038.6	2037.9	2040.2	2044.2	2048.9	2054.5	2058.4
12.5°	1964.3	1965.9	1968.2	1970.6	1974.6	1976.9	1980.9	1985.6	1993.6	2001.5	2010.2
15°	1893.1	1893.9	1894.7	1900.2	1904.2	1909.7	1912.9	1922.4	1929.5	1940.5	1950.0
17.5°	1813.2	1812.4	1814.8	1819.5	1829.0	1831.4	1835.3	1845.6	1855.9	1870.9	1883.6
20°	1726.2	1730.9	1734.1	1740.4	1745.9	1752.3	1755.4	1768.1	1780.0	1794.2	1810.8
22.5°	1643.9	1639.9	1645.5	1652.6	1657.3	1662.1	1667.6	1681.1	1693.7	1711.1	1727.7
25°	1550.5	1552.9	1556.9	1562.4	1568.7	1575.1	1581.4	1595.6	1602.8	1620.9	1636.0
27.5°	1461.9	1465.9	1467.5	1474.6	1480.1	1484.9	1488.0	1504.7	1511.0	1526.8	1541.8
30°	1372.5	1376.5	1376.5	1384.4	1388.4	1393.1	1401.0	1412.1	1421.6	1432.7	1443.7
32.5°	1286.3	1286.3	1289.5	1296.6	1300.6	1306.1	1308.5	1316.4	1325.9	1336.9	1348.8
35°	1197.7	1200.1	1203.3	1203.3	1210.4	1213.5	1216.7	1224.6	1230.9	1235.7	1245.2
37.5°	1116.2	1116.2	1113.9	1117.8	1122.6	1121.8	1126.5	1130.5	1134.4	1140.0	1147.9
40°	1033.2	1033.2	1030.0	1032.4	1035.5	1034.7	1033.2	1037.1	1040.3	1044.2	1052.2
42.5°	948.5	946.9	946.1	946.1	947.7	946.1	947.7	948.5	948.5	948.5	953.3
45°	863.9	867.8	863.1	861.5	859.1	856.8	856.0	856.8	859.9	856.0	856.8
47.5°	780.8	782.4	779.2	776.9	774.5	772.9	774.5	769.7	771.3	772.1	768.9
50°	696.2	693.0	693.0	690.6	691.4	690.6	689.0	687.5	687.5	683.5	681.1
52.5°	617.8	619.4	621.0	615.5	616.3	612.3	613.1	609.1	609.1	604.4	606.0
55°	553.8	551.4	551.4	549.0	548.2	544.3	543.5	541.1	535.6	532.4	526.1
57.5°	487.3	486.5	483.4	484.1	479.4	478.6	477.0	473.1	469.1	465.2	458.0
60°	422.4	423.2	423.2	421.7	419.3	415.3	416.1	410.6	405.0	397.9	391.6
62.5°	368.6	366.3	365.5	363.9	359.2	359.2	355.2	351.2	345.7	338.6	333.0
65°	312.5	313.3	310.9	308.5	303.8	303.0	299.8	296.7	291.1	284.0	276.1
67.5°	261.9	260.3	259.5	257.1	252.4	251.6	249.2	242.1	237.3	230.2	223.9
70°	212.8	211.2	212.0	208.1	203.3	200.9	200.1	194.6	187.5	182.0	175.6
72.5°	166.9	166.9	166.1	162.2	159.8	158.2	155.1	148.7	144.8	138.4	133.7
75°	125.8	125.0	123.4	121.0	117.9	116.3	114.7	110.8	105.2	98.1	94.1
77.5°	87.0	87.8	86.2	85.4	81.5	79.1	78.3	75.9	71.2	66.5	62.5
80°	55.4	54.6	53.8	52.2	51.4	50.6	48.3	46.7	41.9	39.6	37.2
82.5°	30.1	28.5	28.5	27.7	26.1	25.3	24.5	22.9	22.2	20.6	19.0
85°	9.5	10.3	9.5	9.5	9.5	8.7	8.7	8.7	7.9	7.9	7.1
87.5°	0.8	1.6	0.8	0.8	1.6	0.8	0.8	1.6	0.8	0.8	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1
2.5°	2147.8	2148.6	2148.6	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4	2149.4
5°	2130.4	2130.4	2132.0	2133.6	2133.6	2133.6	2134.4	2135.9	2135.9	2135.9	2135.2
7.5°	2101.9	2105.1	2108.3	2111.4	2112.2	2113.0	2114.6	2117.8	2117.8	2117.8	2117.8
10°	2064.8	2071.9	2075.8	2080.6	2082.9	2084.5	2089.3	2090.1	2092.4	2093.2	2092.4
12.5°	2017.3	2026.8	2035.5	2043.4	2046.6	2049.7	2054.5	2059.2	2061.6	2064.0	2063.2
15°	1964.3	1974.6	1988.0	1996.7	2003.0	2007.8	2014.9	2021.2	2025.2	2026.8	2026.8
17.5°	1900.2	1912.9	1927.1	1941.3	1945.3	1953.2	1961.1	1969.8	1974.6	1975.4	1974.6
20°	1829.0	1843.2	1855.1	1869.4	1878.1	1882.0	1893.1	1904.2	1908.9	1909.7	1908.9
22.5°	1744.4	1757.8	1773.6	1788.7	1795.8	1802.9	1814.8	1825.8	1832.2	1836.9	1832.2
25°	1650.2	1669.2	1684.2	1696.9	1707.2	1714.3	1729.3	1738.0	1748.3	1747.5	1748.3
27.5°	1557.7	1573.5	1590.1	1605.1	1611.5	1619.4	1631.2	1645.5	1654.2	1659.7	1658.9
30°	1462.7	1475.4	1489.6	1503.1	1513.4	1519.7	1537.1	1543.4	1554.5	1557.7	1555.3
32.5°	1362.3	1371.0	1385.2	1403.4	1407.4	1413.7	1424.8	1440.6	1444.5	1446.1	1446.9
35°	1255.5	1272.1	1283.9	1295.0	1298.2	1303.7	1316.4	1328.2	1332.2	1339.3	1336.2
37.5°	1156.6	1166.1	1171.6	1182.7	1192.2	1196.9	1203.3	1211.2	1219.1	1222.2	1221.4
40°	1057.7	1062.4	1067.2	1079.0	1079.8	1079.8	1089.3	1100.4	1100.4	1103.6	1103.6
42.5°	956.4	957.2	963.6	969.9	971.5	973.0	982.5	984.1	988.9	991.2	994.4
45°	858.3	863.1	867.0	867.8	871.8	872.6	874.9	877.3	884.4	882.9	884.4
47.5°	768.9	771.3	773.7	773.7	776.1	775.3	779.2	776.9	781.6	783.2	785.6
50°	681.1	685.1	682.7	684.3	683.5	685.9	684.3	684.3	684.3	687.5	689.8
52.5°	600.4	601.2	598.9	599.6	599.6	598.1	599.6	598.9	598.1	598.1	598.9
55°	526.1	522.9	521.3	518.2	514.2	519.0	516.6	515.0	518.2	516.6	518.2
57.5°	454.1	450.1	447.0	445.4	439.8	443.0	439.8	438.3	438.3	438.3	442.2
60°	386.1	382.1	378.1	373.4	372.6	371.0	369.4	365.5	366.3	365.5	367.1
62.5°	326.7	318.8	313.3	309.3	308.5	306.2	303.8	299.8	300.6	300.6	301.4
65°	272.1	263.4	255.5	250.0	250.0	246.0	242.1	242.1	237.3	238.9	239.7
67.5°	217.6	210.4	202.5	198.6	196.2	193.0	190.7	189.1	186.7	186.7	188.3
70°	168.5	161.4	157.4	151.1	150.3	147.9	144.8	142.4	141.6	141.6	140.8
72.5°	127.4	121.0	116.3	112.3	110.0	107.6	104.4	103.6	102.1	102.1	103.6
75°	88.6	84.6	80.7	76.7	75.2	74.4	72.0	70.4	70.4	69.6	70.4
77.5°	59.3	55.4	51.4	49.8	48.3	46.7	45.9	45.1	42.7	42.7	42.7
80°	34.0	32.4	30.9	28.5	28.5	27.7	26.1	25.3	24.5	24.5	24.5
82.5°	17.4	16.6	15.0	14.2	14.2	14.2	13.4	13.4	12.7	12.7	12.7
85°	7.1	6.3	5.5	5.5	5.5	5.5	5.5	5.5	6.3	5.5	6.3
87.5°	0.8	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1
2.5°	2149.4	2148.6	2148.6	2148.6	2148.6	2148.6	2147.8	2147.8	2147.0	2147.0	2147.0
5°	2135.9	2135.2	2134.4	2133.6	2132.8	2132.0	2131.2	2130.4	2128.0	2127.2	2125.7
7.5°	2117.0	2115.4	2113.0	2112.2	2110.6	2108.3	2105.1	2103.5	2100.3	2096.4	2094.8
10°	2091.6	2088.5	2086.1	2082.2	2081.4	2078.2	2070.3	2066.3	2060.8	2056.0	2050.5
12.5°	2060.8	2057.6	2052.1	2046.6	2043.4	2036.3	2029.2	2022.8	2015.7	2005.4	1997.5
15°	2022.8	2018.1	2007.0	2005.4	2000.7	1989.6	1980.1	1968.2	1957.2	1946.1	1936.6
17.5°	1972.2	1961.9	1956.4	1949.3	1943.7	1929.5	1919.2	1905.7	1890.7	1878.1	1864.6
20°	1905.7	1894.7	1885.2	1881.2	1874.1	1861.4	1848.8	1832.2	1817.1	1801.3	1789.5
22.5°	1826.6	1819.5	1805.3	1800.5	1791.8	1779.2	1764.1	1748.3	1734.1	1716.7	1700.8
25°	1742.0	1731.7	1720.6	1711.1	1704.8	1692.9	1674.0	1662.1	1646.3	1627.3	1615.4
27.5°	1651.8	1639.9	1624.1	1617.8	1612.2	1596.4	1580.6	1565.6	1552.9	1536.3	1526.0
30°	1547.4	1538.7	1528.4	1520.5	1512.6	1499.9	1485.7	1468.3	1454.8	1446.9	1432.7
32.5°	1441.4	1434.3	1420.8	1416.8	1408.1	1397.9	1387.6	1374.9	1360.7	1348.8	1337.7
35°	1328.2	1321.1	1311.6	1304.5	1301.3	1294.2	1283.2	1272.1	1265.0	1251.5	1246.0
37.5°	1215.1	1212.7	1203.3	1196.1	1193.8	1185.1	1179.5	1171.6	1161.3	1158.2	1151.8
40°	1098.8	1097.2	1091.7	1090.9	1086.2	1083.8	1075.9	1069.6	1064.8	1062.4	1058.5
42.5°	992.0	990.4	985.7	986.5	981.7	980.2	979.4	973.8	969.9	965.1	965.9
45°	886.8	885.2	882.1	880.5	882.9	882.1	880.5	878.1	878.1	878.9	876.5
47.5°	785.6	787.1	784.0	785.6	785.6	783.2	783.2	786.3	787.1	788.7	790.3
50°	689.8	694.6	693.0	695.4	696.2	697.0	694.6	698.5	697.7	704.9	703.3
52.5°	602.8	603.6	606.8	607.6	608.3	609.1	613.1	616.3	617.1	620.2	625.8
55°	519.0	519.7	526.1	526.1	530.0	530.8	536.4	537.9	540.3	549.0	550.6
57.5°	439.8	444.6	447.8	449.3	451.7	455.7	458.8	466.0	469.9	475.4	481.0
60°	368.6	374.2	378.1	379.7	382.9	387.6	391.6	399.5	406.6	413.0	416.9
62.5°	303.0	307.7	310.9	316.4	316.4	320.4	329.9	334.6	342.5	348.1	355.2
65°	244.4	247.6	253.1	253.1	256.3	262.6	270.6	277.7	285.6	293.5	300.6
67.5°	191.4	193.8	197.0	200.1	201.7	209.6	216.0	226.3	233.4	238.9	247.6
70°	144.8	146.4	150.3	153.5	155.8	161.4	168.5	175.6	182.7	189.1	197.8
72.5°	103.6	106.8	110.8	113.1	114.7	118.7	125.8	132.9	139.2	145.6	150.3
75°	71.2	73.6	75.2	77.5	79.9	83.1	87.8	92.6	99.7	106.0	111.5
77.5°	44.3	46.7	49.0	49.8	50.6	53.8	57.0	61.7	66.5	71.2	75.2
80°	26.1	26.9	27.7	28.5	30.1	32.4	34.0	37.2	40.3	43.5	47.5
82.5°	13.4	14.2	15.0	15.0	15.0	15.8	18.2	19.8	20.6	22.2	24.5
85°	5.5	5.5	5.5	6.3	6.3	7.1	7.1	7.9	7.9	8.7	9.5
87.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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: P879438

CATALOG NUMBER: LD4C50D010 EU4509027 4LBLDWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1	2154.1
2.5°	2146.2	2146.2	2146.2	2145.4	2146.2	2146.2	2146.2	2145.4
5°	2125.7	2124.1	2124.1	2123.3	2122.5	2122.5	2123.3	2121.7
7.5°	2091.6	2089.3	2087.7	2087.7	2086.9	2086.1	2086.1	2082.2
10°	2047.3	2042.6	2042.6	2041.0	2034.7	2033.9	2032.3	2032.3
12.5°	1992.0	1986.4	1983.3	1979.3	1975.4	1972.2	1971.4	1968.2
15°	1926.3	1919.2	1913.7	1912.1	1905.7	1901.0	1901.0	1899.4
17.5°	1855.1	1844.0	1840.1	1836.1	1827.4	1826.6	1825.0	1817.9
20°	1774.4	1764.1	1758.6	1754.6	1749.1	1741.2	1739.6	1740.4
22.5°	1689.8	1675.5	1670.8	1666.8	1661.3	1654.2	1654.2	1648.6
25°	1602.0	1589.3	1584.6	1579.8	1571.1	1567.9	1564.0	1564.8
27.5°	1512.6	1500.7	1496.7	1488.0	1482.5	1478.6	1474.6	1474.6
30°	1419.2	1412.9	1406.6	1405.8	1394.7	1389.9	1386.0	1382.8
32.5°	1329.0	1321.1	1318.0	1314.8	1309.3	1302.9	1302.1	1296.6
35°	1240.4	1232.5	1228.6	1225.4	1219.1	1216.7	1214.3	1215.9
37.5°	1147.1	1145.5	1143.1	1139.2	1135.2	1134.4	1131.3	1135.2
40°	1055.3	1054.5	1051.4	1052.2	1052.2	1050.6	1052.2	1052.2
42.5°	966.7	966.7	963.6	965.1	965.9	967.5	969.9	971.5
45°	880.5	879.7	880.5	882.1	880.5	884.4	887.6	890.0
47.5°	791.9	792.7	795.8	796.6	798.2	803.7	803.7	803.7
50°	707.2	711.2	709.6	714.4	713.6	716.7	713.6	713.6
52.5°	626.5	630.5	631.3	632.1	636.8	637.6	637.6	636.8
55°	554.6	560.1	557.7	561.7	564.0	565.6	568.0	566.4
57.5°	488.1	490.5	492.9	493.6	496.8	498.4	500.0	498.4
60°	422.4	427.2	431.1	431.9	433.5	435.1	435.9	438.3
62.5°	360.7	368.6	370.2	371.0	375.0	377.4	378.9	380.5
65°	306.2	311.7	315.6	318.0	321.2	321.2	323.6	323.6
67.5°	253.1	258.7	261.1	262.6	267.4	268.2	272.1	272.1
70°	204.9	208.8	210.4	212.8	217.6	220.7	222.3	223.9
72.5°	158.2	163.0	165.3	168.5	171.7	174.0	174.8	177.2
75°	115.5	122.6	123.4	126.6	128.9	132.1	133.7	132.9
77.5°	80.7	83.1	86.2	87.8	90.2	92.6	94.9	94.9
80°	49.8	53.0	53.8	54.6	57.7	59.3	60.9	60.9
82.5°	26.1	27.7	29.3	30.1	31.6	31.6	32.4	33.2
85°	10.3	11.1	11.1	11.1	11.9	12.7	12.7	12.7
87.5°	1.6	2.4	1.6	1.6	2.4	2.4	2.4	2.4
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)