

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: P858081

Luminaire Tested: **LD4C40D010 EU4409030 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P858081
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C40D010 EU4409030 4LBSWNH
Description: 4 INCH 4000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

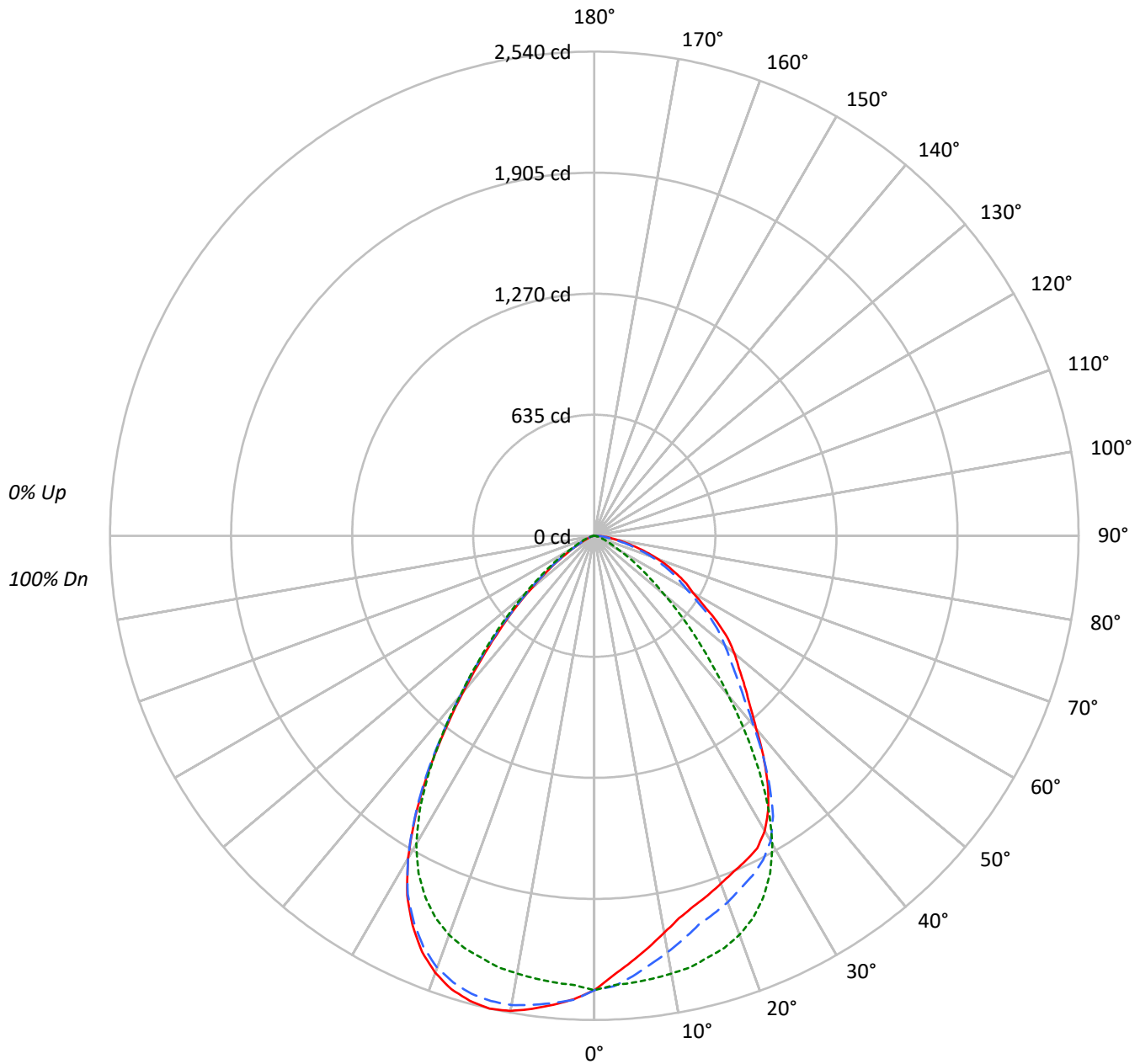
Lumens per Lamp: N/A
Luminaire Lumens: 4178.5 lumens
Efficiency: N/A
Efficacy: 64.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 65
Input Voltage (V):
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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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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10
RCR																				
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100		
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89		
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79		
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70		
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62		
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56		
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50		
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46		
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42		
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38		
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	292858	292858	292858
5°	276527	290178	304583
10°	263644	290852	315764
15°	255901	291450	321148
20°	253802	291180	318870
25°	254841	283972	305620
30°	253601	264950	277136
35°	237713	226209	228519
40°	211822	175385	171456
45°	193739	130758	122731
50°	183175	91607	82777
55°	168438	61836	51962
60°	147154	36217	28674
65°	139331	23168	16046
70°	126905	16559	9986
75°	104997	11677	7357
80°	82563	6580	4316
85°	73721	4511	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	225.2	5.4
10°-20°	646.1	15.5
20°-30°	957.8	22.9
30°-40°	959.1	23.0
40°-50°	670.3	16.0
50°-60°	398.9	9.5
60°-70°	208.2	5.0
70°-80°	92.6	2.2
80°-90°	20.2	0.5
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°	1829.2	43.8
0°-40°	2788.3	66.7
0°-60°	3857.5	92.3
0°-90°	4178.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4178.5	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2384	2384	2384	2384	2384	
5°	2242	2319	2353	2460	2470	210
15°	2012	2113	2292	2488	2525	570
25°	1880	1966	2095	2239	2255	866
35°	1585	1603	1508	1536	1524	983
45°	1115	1060	753	728	706	866
55°	786	737	289	252	243	698
65°	479	439	80	58	55	474
75°	221	194	25	16	16	239
85°	52	40	3	3	0	58
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°	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8
2.5°	2306.9	2334.7	2306.9	2316.2	2353.0	2319.2	2337.5	2337.5	2328.5	2349.8	2365.3
5°	2242.3	2270.1	2242.3	2254.6	2294.6	2260.8	2282.4	2276.2	2279.3	2297.8	2319.2
7.5°	2178.0	2199.4	2174.9	2190.3	2227.2	2199.4	2217.8	2217.8	2221.0	2248.5	2267.0
10°	2113.4	2131.8	2113.4	2125.7	2165.7	2141.2	2153.4	2156.4	2165.7	2190.3	2217.8
12.5°	2055.0	2070.4	2052.0	2070.4	2104.1	2079.7	2094.9	2098.0	2107.2	2135.0	2165.7
15°	2012.0	2027.5	2009.0	2024.3	2055.0	2036.6	2048.8	2055.0	2061.2	2085.7	2113.4
17.5°	1978.4	1990.7	1975.2	1993.6	2018.2	1996.7	2015.2	2015.2	2024.3	2048.8	2079.7
20°	1941.3	1953.6	1941.3	1956.8	1984.5	1966.0	1981.4	1981.4	1990.7	2018.2	2045.8
22.5°	1907.7	1913.8	1907.7	1920.0	1947.4	1932.3	1941.3	1944.5	1953.6	1978.4	2002.9
25°	1880.0	1892.2	1886.0	1898.3	1916.8	1901.5	1910.6	1913.8	1922.9	1944.5	1966.0
27.5°	1849.2	1855.4	1849.2	1864.6	1880.0	1867.7	1876.9	1873.8	1880.0	1898.3	1916.8
30°	1787.7	1793.9	1793.9	1803.1	1815.5	1809.4	1818.6	1809.4	1815.5	1830.9	1849.2
32.5°	1698.7	1701.8	1704.8	1714.1	1723.3	1714.1	1720.3	1720.3	1720.3	1732.6	1744.8
35°	1585.0	1591.1	1588.3	1594.3	1603.4	1600.5	1600.5	1597.3	1591.1	1597.3	1603.4
37.5°	1456.0	1446.8	1446.8	1456.0	1462.2	1449.9	1456.0	1449.9	1449.9	1453.0	1453.0
40°	1320.8	1311.7	1320.8	1324.0	1327.0	1320.8	1317.9	1311.7	1302.4	1305.6	1299.4
42.5°	1207.3	1201.0	1204.2	1204.2	1207.3	1201.0	1204.2	1191.9	1182.6	1176.5	1167.3
45°	1115.1	1105.9	1115.1	1109.0	1109.0	1105.9	1102.7	1096.6	1084.3	1075.2	1059.8
47.5°	1029.1	1029.1	1032.1	1032.1	1032.1	1025.9	1025.9	1013.6	1001.3	989.0	967.7
50°	958.4	952.2	964.5	964.5	955.4	952.2	955.4	939.9	930.8	915.4	893.8
52.5°	881.5	881.5	884.7	884.7	881.5	875.5	878.5	866.2	857.0	841.6	820.2
55°	786.4	780.2	789.4	789.4	786.4	783.2	786.4	777.2	768.0	755.7	737.2
57.5°	679.0	675.8	681.8	685.0	679.0	679.0	681.8	672.8	669.6	657.3	638.9
60°	598.9	595.9	602.1	605.2	598.9	598.9	598.9	586.6	580.5	568.3	556.0
62.5°	543.7	540.6	546.7	543.7	540.6	537.5	540.6	528.4	522.2	509.9	497.6
65°	479.3	482.3	485.3	485.3	482.3	479.3	479.3	473.1	467.0	454.7	439.2
67.5°	417.8	417.8	420.9	423.8	420.9	420.9	420.9	411.6	405.5	396.3	377.8
70°	353.3	350.1	359.5	359.5	353.3	356.3	353.3	350.1	344.0	331.7	316.5
72.5°	285.6	285.6	288.7	288.7	285.6	285.6	285.6	282.6	273.4	267.2	251.9
75°	221.2	221.2	224.3	227.2	221.2	221.2	224.3	218.1	212.0	202.7	193.5
77.5°	165.9	162.9	165.9	165.9	162.9	162.9	162.9	159.8	156.6	147.4	138.2
80°	116.7	113.7	116.7	116.7	116.7	113.7	113.7	110.6	110.6	104.4	95.2
82.5°	79.7	76.9	79.7	79.7	79.7	76.9	76.9	76.9	73.6	70.7	64.6
85°	52.3	49.1	49.1	52.3	49.1	49.1	49.1	49.1	46.1	42.9	40.0
87.5°	24.6	24.6	24.6	24.6	24.6	24.6	24.6	21.6	21.6	21.6	18.4
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°	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8
2.5°	2353.0	2346.9	2365.3	2359.2	2362.1	2346.9	2371.5	2359.2	2374.4	2359.2	2389.8
5°	2313.0	2306.9	2334.7	2331.5	2334.7	2322.4	2349.8	2346.9	2365.3	2353.0	2386.7
7.5°	2270.1	2263.9	2294.6	2297.8	2303.9	2291.5	2328.5	2328.5	2346.9	2343.7	2380.7
10°	2221.0	2224.0	2254.6	2260.8	2273.2	2267.0	2300.7	2310.1	2334.7	2331.5	2377.6
12.5°	2174.9	2174.9	2214.9	2227.2	2236.3	2233.3	2273.2	2285.5	2313.0	2319.2	2362.1
15°	2128.9	2131.8	2168.7	2187.2	2199.4	2196.3	2239.3	2254.6	2288.4	2291.5	2343.7
17.5°	2091.9	2088.9	2128.9	2144.1	2162.6	2159.5	2205.5	2224.0	2257.8	2267.0	2316.2
20°	2061.2	2058.1	2094.9	2113.4	2125.7	2122.7	2168.7	2190.3	2221.0	2227.2	2276.2
22.5°	2024.3	2018.2	2055.0	2070.4	2082.7	2079.7	2119.5	2135.0	2165.7	2171.8	2217.8
25°	1981.4	1975.2	2009.0	2018.2	2027.5	2021.3	2055.0	2064.3	2088.9	2094.9	2141.2
27.5°	1932.3	1916.8	1944.5	1944.5	1950.6	1941.3	1966.0	1975.2	1996.7	1996.7	2039.8
30°	1855.4	1834.0	1849.2	1846.2	1849.2	1836.9	1852.3	1855.4	1870.8	1867.7	1898.3
32.5°	1747.9	1717.1	1726.4	1717.1	1708.0	1689.5	1708.0	1701.8	1714.1	1701.8	1729.4
35°	1600.5	1569.7	1566.6	1554.3	1545.1	1529.8	1529.8	1514.5	1517.5	1508.3	1526.8
37.5°	1440.7	1400.8	1394.6	1370.1	1354.7	1336.2	1336.2	1324.0	1308.5	1302.4	1317.9
40°	1283.9	1241.0	1225.7	1185.6	1170.4	1151.9	1139.6	1124.3	1118.2	1093.6	1105.9
42.5°	1148.8	1102.7	1069.1	1025.9	1010.7	982.9	964.5	946.1	937.0	909.3	921.6
45°	1035.2	980.0	943.0	887.7	866.2	835.5	807.9	786.4	764.9	752.6	746.4
47.5°	939.9	881.5	832.4	771.0	737.2	709.6	672.8	651.2	623.6	608.2	598.9
50°	860.1	795.6	740.3	669.6	635.9	605.2	562.1	528.4	503.8	479.3	473.1
52.5°	789.4	721.9	660.5	580.5	540.6	503.8	457.7	420.9	399.3	371.8	368.6
55°	706.4	648.2	580.5	497.6	457.7	420.9	371.8	334.9	307.2	288.7	282.6
57.5°	617.5	562.1	497.6	414.7	374.6	334.9	288.7	254.9	230.3	215.0	212.0
60°	534.4	482.3	420.9	337.8	297.9	264.2	215.0	181.2	159.8	147.4	141.2
62.5°	473.1	423.8	365.6	288.7	251.9	218.1	172.1	141.2	122.8	110.6	104.4
65°	414.7	365.6	313.3	242.6	212.0	181.2	138.2	110.6	92.1	79.7	73.6
67.5°	353.3	310.3	261.1	202.7	172.1	147.4	110.6	86.0	70.7	61.4	55.2
70°	291.7	251.9	212.0	162.9	141.2	116.7	86.0	67.5	52.3	46.1	40.0
72.5°	230.3	199.7	165.9	126.0	107.5	92.1	67.5	49.1	40.0	33.8	27.8
75°	172.1	150.5	122.8	95.2	79.7	67.5	49.1	36.8	30.6	24.6	21.6
77.5°	122.8	104.4	86.0	64.6	58.4	49.1	33.8	27.8	21.6	15.5	12.3
80°	82.9	73.6	58.4	46.1	36.8	33.8	24.6	18.4	12.3	9.3	9.3
82.5°	55.2	46.1	36.8	27.8	24.6	21.6	15.5	12.3	9.3	6.1	6.1
85°	33.8	27.8	21.6	15.5	15.5	12.3	9.3	6.1	3.2	3.2	3.2
87.5°	15.5	12.3	9.3	6.1	6.1	3.2	3.2	3.2	0.0	0.0	0.0
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°	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8
2.5°	2414.4	2396.0	2383.8	2399.0	2405.2	2396.0	2405.2	2420.6	2436.0	2439.0	2396.0
5°	2417.6	2399.0	2392.9	2411.3	2414.4	2411.3	2420.6	2442.2	2460.5	2466.7	2423.7
7.5°	2417.6	2405.2	2402.1	2423.7	2426.7	2423.7	2439.0	2463.6	2482.1	2494.3	2451.2
10°	2411.3	2405.2	2408.3	2426.7	2432.9	2432.9	2454.4	2482.1	2500.4	2512.7	2469.8
12.5°	2402.1	2402.1	2402.1	2423.7	2429.9	2432.9	2451.2	2488.1	2500.4	2518.9	2475.9
15°	2386.7	2386.7	2386.7	2408.3	2417.6	2417.6	2439.0	2472.8	2488.1	2506.6	2463.6
17.5°	2359.2	2359.2	2362.1	2380.7	2389.8	2389.8	2411.3	2448.2	2457.5	2479.0	2436.0
20°	2319.2	2319.2	2322.4	2340.7	2349.8	2343.7	2371.5	2402.1	2411.3	2429.9	2386.7
22.5°	2260.8	2260.8	2260.8	2279.3	2285.5	2282.4	2310.1	2337.5	2337.5	2362.1	2316.2
25°	2174.9	2181.0	2174.9	2193.2	2199.4	2196.3	2221.0	2245.5	2239.3	2267.0	2221.0
27.5°	2070.4	2067.4	2067.4	2082.7	2082.7	2079.7	2098.0	2125.7	2119.5	2138.1	2094.9
30°	1926.1	1935.1	1920.0	1941.3	1932.3	1926.1	1938.4	1962.9	1953.6	1969.1	1935.1
32.5°	1760.2	1747.9	1747.9	1747.9	1754.0	1738.6	1750.9	1763.2	1754.0	1769.4	1732.6
35°	1542.0	1545.1	1535.9	1539.1	1542.0	1523.7	1535.9	1548.2	1535.9	1545.1	1511.4
37.5°	1324.0	1327.0	1305.6	1317.9	1305.6	1299.4	1311.7	1317.9	1305.6	1314.7	1277.9
40°	1105.9	1099.7	1096.6	1096.6	1099.7	1084.3	1093.6	1102.7	1093.6	1099.7	1065.9
42.5°	915.4	912.4	906.2	909.3	900.0	897.0	900.0	909.3	900.0	906.2	881.5
45°	749.5	743.3	734.1	737.2	737.2	721.9	731.0	737.2	728.1	731.0	709.6
47.5°	595.9	586.6	586.6	583.6	583.6	577.6	586.6	583.6	574.3	580.5	559.1
50°	463.8	457.7	457.7	457.7	457.7	448.4	451.5	457.7	448.4	448.4	436.1
52.5°	362.4	353.3	347.2	347.2	347.2	344.0	344.0	347.2	337.8	337.8	334.9
55°	273.4	270.4	261.1	261.1	261.1	251.9	254.9	254.9	251.9	251.9	242.6
57.5°	202.7	193.5	187.4	187.4	181.2	181.2	178.1	181.2	175.2	175.2	169.0
60°	135.1	128.9	126.0	122.8	122.8	119.8	122.8	119.8	119.8	116.7	113.7
62.5°	98.3	92.1	86.0	86.0	86.0	82.9	82.9	82.9	82.9	82.9	79.7
65°	70.7	64.6	64.6	61.4	61.4	58.4	58.4	58.4	58.4	58.4	55.2
67.5°	49.1	46.1	42.9	42.9	42.9	42.9	42.9	42.9	40.0	40.0	40.0
70°	36.8	33.8	30.6	30.6	30.6	30.6	30.6	27.8	30.6	30.6	27.8
72.5°	24.6	24.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
75°	18.4	18.4	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
77.5°	12.3	12.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
80°	9.3	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
82.5°	6.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
85°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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: P858081

CATALOG NUMBER: LD4C40D010 EU4409030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8	2383.8
2.5°	2442.2	2439.0	2432.9	2442.2	2417.6	2408.3	2405.2	2432.9
5°	2475.9	2469.8	2469.8	2479.0	2451.2	2445.1	2439.0	2469.8
7.5°	2506.6	2500.4	2500.4	2509.6	2485.1	2479.0	2472.8	2503.5
10°	2525.0	2525.0	2525.0	2531.2	2509.6	2503.5	2500.4	2531.2
12.5°	2534.3	2534.3	2531.2	2543.4	2515.8	2515.8	2509.6	2540.5
15°	2521.9	2521.9	2521.9	2531.2	2506.6	2500.4	2500.4	2525.0
17.5°	2491.3	2491.3	2488.1	2497.3	2469.8	2469.8	2466.7	2494.3
20°	2445.1	2445.1	2439.0	2451.2	2423.7	2414.4	2411.3	2439.0
22.5°	2371.5	2368.3	2365.3	2371.5	2346.9	2340.7	2337.5	2362.1
25°	2276.2	2273.2	2267.0	2273.2	2245.5	2236.3	2236.3	2254.6
27.5°	2141.2	2141.2	2131.8	2141.2	2110.3	2107.2	2104.1	2125.7
30°	1975.2	1962.9	1956.8	1969.1	1938.4	1938.4	1932.3	1953.6
32.5°	1769.4	1757.1	1754.0	1760.2	1732.6	1723.3	1735.6	1747.9
35°	1532.9	1535.9	1523.7	1523.7	1499.0	1502.1	1505.2	1523.7
37.5°	1305.6	1299.4	1296.2	1299.4	1281.1	1274.9	1268.8	1287.1
40°	1093.6	1078.2	1075.2	1075.2	1059.8	1056.8	1059.8	1069.1
42.5°	893.8	890.8	878.5	884.7	869.3	875.5	872.5	872.5
45°	721.9	725.0	712.7	721.9	709.6	700.3	700.3	706.4
47.5°	571.4	571.4	568.3	568.3	559.1	562.1	556.0	565.3
50°	442.3	442.3	436.1	439.2	433.1	433.1	430.0	433.1
52.5°	337.8	334.9	334.9	331.7	325.5	328.8	331.7	325.5
55°	245.8	248.8	242.6	245.8	239.6	242.6	239.6	242.6
57.5°	169.0	172.1	165.9	172.1	165.9	169.0	165.9	165.9
60°	116.7	116.7	113.7	116.7	113.7	113.7	110.6	116.7
62.5°	79.7	79.7	79.7	79.7	79.7	76.9	79.7	79.7
65°	58.4	55.2	55.2	55.2	55.2	55.2	55.2	55.2
67.5°	40.0	40.0	40.0	40.0	40.0	40.0	40.0	40.0
70°	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
72.5°	21.6	21.6	21.6	21.6	21.6	21.6	21.6	21.6
75°	15.5	15.5	15.5	15.5	15.5	15.5	15.5	15.5
77.5°	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
80°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
82.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
85°	3.2	3.2	3.2	0.0	3.2	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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)