

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: P858061

Luminaire Tested: **LD4C40D010 EU4409030 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P858061
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

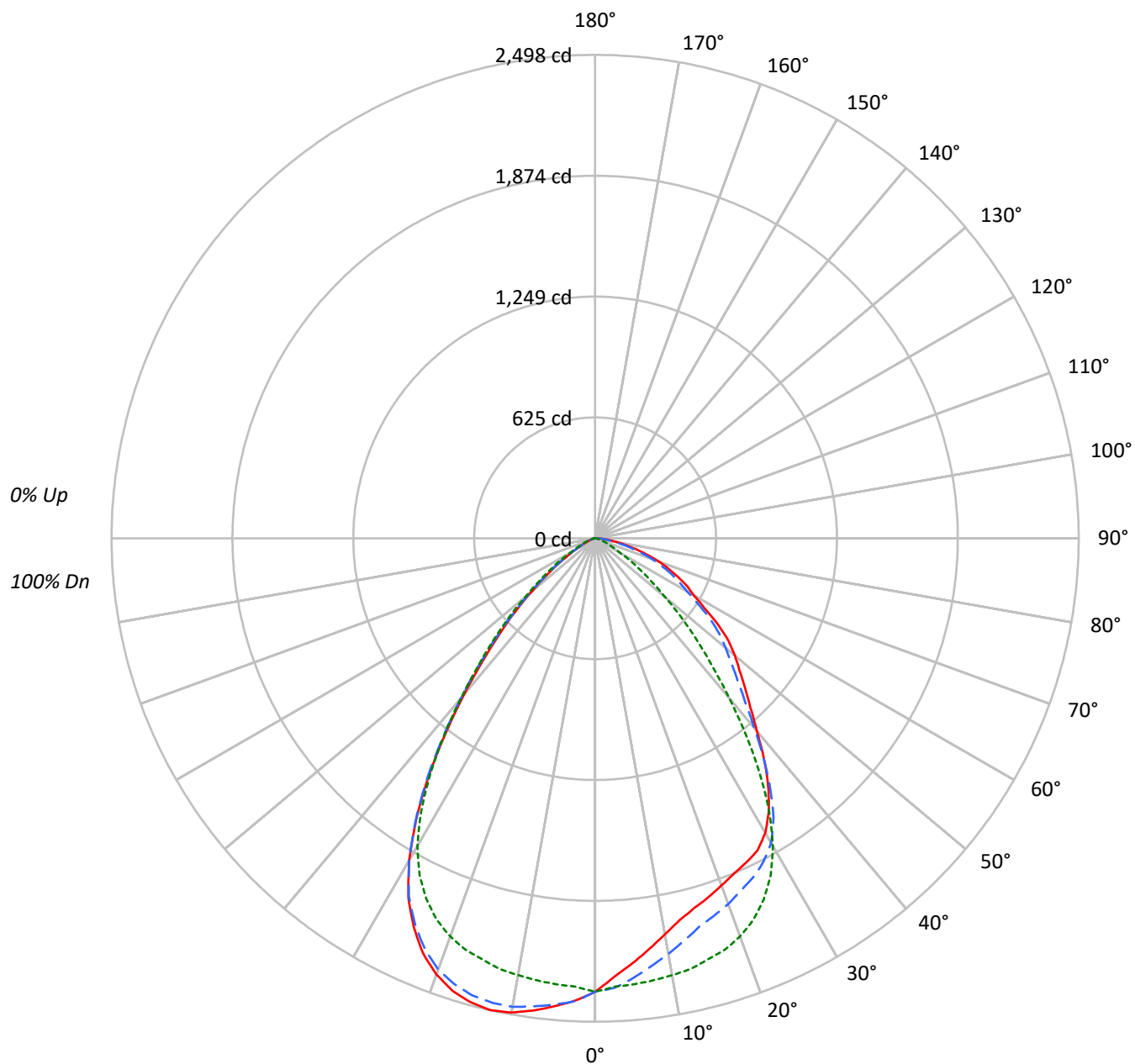
Lumens per Lamp: N/A
Luminaire Lumens: 4107.8 lumens
Efficiency: N/A
Efficacy: 63.2 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P858061

CATALOG NUMBER: LD4C40D010 EU4409030 4LBSWNH

Luminous Intensity Polar Plot





TEST NUMBER: P858061

CATALOG NUMBER: LD4C40D010 EU4409030 4LBSWNH

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°	287907	287907	287907
5°	271853	285270	299428
10°	259190	285936	310425
15°	251576	286527	315717
20°	249513	286251	313483
25°	250531	279173	300455
30°	249317	260467	272454
35°	233693	222385	224650
40°	208245	172418	168553
45°	190455	128551	120663
50°	180079	90059	81381
55°	165589	60787	51084
60°	144672	35603	28183
65°	136976	22791	15785
70°	124750	16272	9806
75°	103241	11487	7215
80°	81149	6438	4245
85°	72453	4370	0



TEST NUMBER: P858061

CATALOG NUMBER: LD4C40D010 EU4409030 4LBSWNH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.4	5.4
10°-20°	635.2	15.5
20°-30°	941.6	22.9
30°-40°	942.9	23.0
40°-50°	659.0	16.0
50°-60°	392.1	9.5
60°-70°	204.6	5.0
70°-80°	91.0	2.2
80°-90°	19.9	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°	1798.2	43.8
0°-40°	2741.2	66.7
0°-60°	3792.3	92.3
0°-90°	4107.8	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4107.8	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2344	2344	2344	2344	2344	
5°	2204	2280	2313	2419	2428	207
15°	1978	2078	2253	2446	2482	560
25°	1848	1933	2060	2201	2216	852
35°	1558	1576	1483	1510	1498	966
45°	1096	1042	740	716	694	851
55°	773	725	284	248	238	686
65°	471	432	78	57	54	466
75°	218	190	24	15	15	235
85°	51	39	3	3	0	58
90°	0	0	0	0	0	



TEST NUMBER: P858061

CATALOG NUMBER: LD4C40D010 EU4409030 4LBSWNH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5
2.5°	2267.9	2295.2	2267.9	2277.0	2313.2	2280.0	2298.0	2298.0	2289.1	2310.1	2325.3
5°	2204.4	2231.7	2204.4	2216.5	2255.8	2222.6	2243.8	2237.7	2240.8	2258.9	2280.0
7.5°	2141.2	2162.2	2138.1	2153.3	2189.5	2162.2	2180.3	2180.3	2183.4	2210.5	2228.7
10°	2077.7	2095.8	2077.7	2089.8	2129.1	2105.0	2117.0	2119.9	2129.1	2153.3	2180.3
12.5°	2020.3	2035.4	2017.3	2035.4	2068.5	2044.5	2059.5	2062.5	2071.6	2098.9	2129.1
15°	1978.0	1993.2	1975.0	1990.1	2020.3	2002.2	2014.2	2020.3	2026.3	2050.4	2077.7
17.5°	1944.9	1957.0	1941.8	1959.9	1984.1	1962.9	1981.1	1981.1	1990.1	2014.2	2044.5
20°	1908.5	1920.6	1908.5	1923.7	1950.9	1932.8	1947.9	1947.9	1957.0	1984.1	2011.2
22.5°	1875.4	1881.4	1875.4	1887.5	1914.5	1899.6	1908.5	1911.6	1920.6	1944.9	1969.0
25°	1848.2	1860.2	1854.1	1866.2	1884.4	1869.3	1878.3	1881.4	1890.4	1911.6	1932.8
27.5°	1817.9	1824.0	1817.9	1833.1	1848.2	1836.1	1845.2	1842.1	1848.2	1866.2	1884.4
30°	1757.5	1763.6	1763.6	1772.6	1784.8	1778.8	1787.8	1778.8	1784.8	1799.9	1817.9
32.5°	1670.0	1673.0	1676.0	1685.1	1694.2	1685.1	1691.2	1691.2	1691.2	1703.3	1715.3
35°	1558.2	1564.2	1561.4	1567.3	1576.3	1573.4	1573.4	1570.3	1564.2	1570.3	1576.3
37.5°	1431.4	1422.3	1422.3	1431.4	1437.5	1425.4	1431.4	1425.4	1425.4	1428.4	1428.4
40°	1298.5	1289.5	1298.5	1301.6	1304.6	1298.5	1295.6	1289.5	1280.4	1283.5	1277.4
42.5°	1186.9	1180.7	1183.8	1183.8	1186.9	1180.7	1183.8	1171.7	1162.6	1156.6	1147.6
45°	1096.2	1087.2	1096.2	1090.2	1090.2	1087.2	1084.1	1078.1	1066.0	1057.0	1041.9
47.5°	1011.7	1011.7	1014.6	1014.6	1014.6	1008.6	1008.6	996.5	984.4	972.3	951.3
50°	942.2	936.1	948.2	948.2	939.2	936.1	939.2	924.0	915.1	899.9	878.7
52.5°	866.6	866.6	869.7	869.7	866.6	860.7	863.6	851.6	842.5	827.4	806.3
55°	773.1	767.0	776.1	776.1	773.1	770.0	773.1	764.1	755.0	742.9	724.7
57.5°	667.5	664.4	670.3	673.4	667.5	667.5	670.3	661.4	658.3	646.2	628.1
60°	588.8	585.8	591.9	595.0	588.8	588.8	588.8	576.7	570.7	558.7	546.6
62.5°	534.5	531.5	537.5	534.5	531.5	528.4	531.5	519.5	513.4	501.3	489.2
65°	471.2	474.1	477.1	477.1	474.1	471.2	471.2	465.1	459.1	447.0	431.8
67.5°	410.7	410.7	413.8	416.6	413.8	413.8	413.8	404.6	398.6	389.6	371.4
70°	347.3	344.2	353.4	353.4	347.3	350.3	347.3	344.2	338.2	326.1	311.1
72.5°	280.8	280.8	283.8	283.8	280.8	280.8	280.8	277.8	268.8	262.7	247.6
75°	217.5	217.5	220.5	223.4	217.5	217.5	220.5	214.4	208.4	199.3	190.2
77.5°	163.1	160.1	163.1	163.1	160.1	160.1	160.1	157.1	154.0	144.9	135.9
80°	114.7	111.8	114.7	114.7	114.7	111.8	111.8	108.7	108.7	102.6	93.6
82.5°	78.4	75.6	78.4	78.4	78.4	75.6	75.6	75.6	72.4	69.5	63.5
85°	51.4	48.3	48.3	51.4	48.3	48.3	48.3	48.3	45.3	42.2	39.3
87.5°	24.2	24.2	24.2	24.2	24.2	24.2	24.2	21.2	21.2	21.2	18.1
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: P858061

CATALOG NUMBER: LD4C40D010 EU4409030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5
2.5°	2313.2	2307.2	2325.3	2319.3	2322.2	2307.2	2331.4	2319.3	2334.3	2319.3	2349.4
5°	2273.9	2267.9	2295.2	2292.1	2295.2	2283.1	2310.1	2307.2	2325.3	2313.2	2346.3
7.5°	2231.7	2225.6	2255.8	2258.9	2264.9	2252.8	2289.1	2289.1	2307.2	2304.1	2340.4
10°	2183.4	2186.4	2216.5	2222.6	2234.8	2228.7	2261.8	2271.0	2295.2	2292.1	2337.4
12.5°	2138.1	2138.1	2177.4	2189.5	2198.5	2195.5	2234.8	2246.9	2273.9	2280.0	2322.2
15°	2092.9	2095.8	2132.0	2150.2	2162.2	2159.2	2201.4	2216.5	2249.7	2252.8	2304.1
17.5°	2056.5	2053.6	2092.9	2107.8	2126.0	2123.0	2168.2	2186.4	2219.6	2228.7	2277.0
20°	2026.3	2023.3	2059.5	2077.7	2089.8	2086.8	2132.0	2153.3	2183.4	2189.5	2237.7
22.5°	1990.1	1984.1	2020.3	2035.4	2047.5	2044.5	2083.7	2098.9	2129.1	2135.1	2180.3
25°	1947.9	1941.8	1975.0	1984.1	1993.2	1987.1	2020.3	2029.4	2053.6	2059.5	2105.0
27.5°	1899.6	1884.4	1911.6	1911.6	1917.6	1908.5	1932.8	1941.8	1962.9	1962.9	2005.3
30°	1824.0	1803.0	1817.9	1815.0	1817.9	1805.8	1821.0	1824.0	1839.2	1836.1	1866.2
32.5°	1718.3	1688.1	1697.2	1688.1	1679.1	1660.9	1679.1	1673.0	1685.1	1673.0	1700.2
35°	1573.4	1543.2	1540.1	1528.0	1519.0	1503.9	1503.9	1488.9	1491.8	1482.8	1501.0
37.5°	1416.3	1377.1	1371.0	1346.9	1331.8	1313.6	1313.6	1301.6	1286.4	1280.4	1295.6
40°	1262.2	1220.0	1205.0	1165.6	1150.6	1132.4	1120.3	1105.3	1099.3	1075.1	1087.2
42.5°	1129.4	1084.1	1051.0	1008.6	993.6	966.3	948.2	930.1	921.2	893.9	906.0
45°	1017.7	963.4	927.1	872.7	851.6	821.4	794.2	773.1	752.0	739.9	733.8
47.5°	924.0	866.6	818.3	758.0	724.7	697.6	661.4	640.2	613.1	597.9	588.8
50°	845.6	782.1	727.8	658.3	625.1	595.0	552.6	519.5	495.3	471.2	465.1
52.5°	776.1	709.7	649.3	570.7	531.5	495.3	450.0	413.8	392.5	365.5	362.4
55°	694.5	637.2	570.7	489.2	450.0	413.8	365.5	329.2	302.0	283.8	277.8
57.5°	607.1	552.6	489.2	407.7	368.3	329.2	283.8	250.6	226.4	211.4	208.4
60°	525.4	474.1	413.8	332.1	292.9	259.7	211.4	178.1	157.1	144.9	138.8
62.5°	465.1	416.6	359.4	283.8	247.6	214.4	169.2	138.8	120.7	108.7	102.6
65°	407.7	359.4	308.0	238.5	208.4	178.1	135.9	108.7	90.5	78.4	72.4
67.5°	347.3	305.1	256.7	199.3	169.2	144.9	108.7	84.5	69.5	60.4	54.3
70°	286.8	247.6	208.4	160.1	138.8	114.7	84.5	66.4	51.4	45.3	39.3
72.5°	226.4	196.3	163.1	123.9	105.7	90.5	66.4	48.3	39.3	33.2	27.3
75°	169.2	148.0	120.7	93.6	78.4	66.4	48.3	36.2	30.1	24.2	21.2
77.5°	120.7	102.6	84.5	63.5	57.4	48.3	33.2	27.3	21.2	15.2	12.1
80°	81.5	72.4	57.4	45.3	36.2	33.2	24.2	18.1	12.1	9.1	9.1
82.5°	54.3	45.3	36.2	27.3	24.2	21.2	15.2	12.1	9.1	6.0	6.0
85°	33.2	27.3	21.2	15.2	15.2	12.1	9.1	6.0	3.1	3.1	3.1
87.5°	15.2	12.1	9.1	6.0	6.0	3.1	3.1	3.1	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: P858061

CATALOG NUMBER: LD4C40D010 EU4409030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5
2.5°	2373.6	2355.5	2343.5	2358.4	2364.5	2355.5	2364.5	2379.7	2394.8	2397.8	2355.5
5°	2376.7	2358.4	2352.4	2370.5	2373.6	2370.5	2379.7	2400.9	2418.9	2425.0	2382.7
7.5°	2376.7	2364.5	2361.5	2382.7	2385.7	2382.7	2397.8	2421.9	2440.1	2452.1	2409.8
10°	2370.5	2364.5	2367.6	2385.7	2391.8	2391.8	2412.9	2440.1	2458.1	2470.2	2428.0
12.5°	2361.5	2361.5	2361.5	2382.7	2388.8	2391.8	2409.8	2446.0	2458.1	2476.3	2434.0
15°	2346.3	2346.3	2346.3	2367.6	2376.7	2376.7	2397.8	2431.0	2446.0	2464.2	2421.9
17.5°	2319.3	2319.3	2322.2	2340.4	2349.4	2349.4	2370.5	2406.8	2415.9	2437.1	2394.8
20°	2280.0	2280.0	2283.1	2301.1	2310.1	2304.1	2331.4	2361.5	2370.5	2388.8	2346.3
22.5°	2222.6	2222.6	2222.6	2240.8	2246.9	2243.8	2271.0	2298.0	2298.0	2322.2	2277.0
25°	2138.1	2144.1	2138.1	2156.1	2162.2	2159.2	2183.4	2207.5	2201.4	2228.7	2183.4
27.5°	2035.4	2032.4	2032.4	2047.5	2047.5	2044.5	2062.5	2089.8	2083.7	2101.9	2059.5
30°	1893.5	1902.4	1887.5	1908.5	1899.6	1893.5	1905.6	1929.7	1920.6	1935.8	1902.4
32.5°	1730.4	1718.3	1718.3	1718.3	1724.3	1709.2	1721.3	1733.4	1724.3	1739.5	1703.3
35°	1515.9	1519.0	1509.9	1513.1	1515.9	1497.9	1509.9	1522.0	1509.9	1519.0	1485.8
37.5°	1301.6	1304.6	1283.5	1295.6	1283.5	1277.4	1289.5	1295.6	1283.5	1292.5	1256.3
40°	1087.2	1081.1	1078.1	1078.1	1081.1	1066.0	1075.1	1084.1	1075.1	1081.1	1047.9
42.5°	899.9	897.0	890.9	893.9	884.8	881.8	884.8	893.9	884.8	890.9	866.6
45°	736.8	730.7	721.7	724.7	724.7	709.7	718.6	724.7	715.8	718.6	697.6
47.5°	585.8	576.7	576.7	573.7	573.7	567.8	576.7	573.7	564.6	570.7	549.6
50°	456.0	450.0	450.0	450.0	450.0	440.8	443.9	450.0	440.8	440.8	428.7
52.5°	356.3	347.3	341.3	341.3	341.3	338.2	338.2	341.3	332.1	332.1	329.2
55°	268.8	265.8	256.7	256.7	256.7	247.6	250.6	250.6	247.6	247.6	238.5
57.5°	199.3	190.2	184.2	184.2	178.1	178.1	175.1	178.1	172.2	172.2	166.1
60°	132.8	126.7	123.9	120.7	120.7	117.8	120.7	117.8	117.8	114.7	111.8
62.5°	96.6	90.5	84.5	84.5	84.5	81.5	81.5	81.5	81.5	81.5	78.4
65°	69.5	63.5	63.5	60.4	60.4	57.4	57.4	57.4	57.4	57.4	54.3
67.5°	48.3	45.3	42.2	42.2	42.2	42.2	42.2	42.2	39.3	39.3	39.3
70°	36.2	33.2	30.1	30.1	30.1	30.1	30.1	27.3	30.1	30.1	27.3
72.5°	24.2	24.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
75°	18.1	18.1	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
77.5°	12.1	12.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
80°	9.1	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
82.5°	6.0	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
85°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	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: P858061

CATALOG NUMBER: LD4C40D010 EU4409030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5	2343.5
2.5°	2400.9	2397.8	2391.8	2400.9	2376.7	2367.6	2364.5	2391.8
5°	2434.0	2428.0	2428.0	2437.1	2409.8	2403.8	2397.8	2428.0
7.5°	2464.2	2458.1	2458.1	2467.2	2443.1	2437.1	2431.0	2461.2
10°	2482.3	2482.3	2482.3	2488.4	2467.2	2461.2	2458.1	2488.4
12.5°	2491.4	2491.4	2488.4	2500.4	2473.3	2473.3	2467.2	2497.5
15°	2479.3	2479.3	2479.3	2488.4	2464.2	2458.1	2458.1	2482.3
17.5°	2449.2	2449.2	2446.0	2455.1	2428.0	2428.0	2425.0	2452.1
20°	2403.8	2403.8	2397.8	2409.8	2382.7	2373.6	2370.5	2397.8
22.5°	2331.4	2328.3	2325.3	2331.4	2307.2	2301.1	2298.0	2322.2
25°	2237.7	2234.8	2228.7	2234.8	2207.5	2198.5	2198.5	2216.5
27.5°	2105.0	2105.0	2095.8	2105.0	2074.6	2071.6	2068.5	2089.8
30°	1941.8	1929.7	1923.7	1935.8	1905.6	1905.6	1899.6	1920.6
32.5°	1739.5	1727.4	1724.3	1730.4	1703.3	1694.2	1706.3	1718.3
35°	1507.0	1509.9	1497.9	1497.9	1473.7	1476.7	1479.7	1497.9
37.5°	1283.5	1277.4	1274.3	1277.4	1259.4	1253.3	1247.3	1265.3
40°	1075.1	1060.0	1057.0	1057.0	1041.9	1038.9	1041.9	1051.0
42.5°	878.7	875.7	863.6	869.7	854.6	860.7	857.7	857.7
45°	709.7	712.7	700.6	709.7	697.6	688.5	688.5	694.5
47.5°	561.7	561.7	558.7	558.7	549.6	552.6	546.6	555.7
50°	434.8	434.8	428.7	431.8	425.8	425.8	422.7	425.8
52.5°	332.1	329.2	329.2	326.1	320.0	323.2	326.1	320.0
55°	241.6	244.6	238.5	241.6	235.5	238.5	235.5	238.5
57.5°	166.1	169.2	163.1	169.2	163.1	166.1	163.1	163.1
60°	114.7	114.7	111.8	114.7	111.8	111.8	108.7	114.7
62.5°	78.4	78.4	78.4	78.4	78.4	75.6	78.4	78.4
65°	57.4	54.3	54.3	54.3	54.3	54.3	54.3	54.3
67.5°	39.3	39.3	39.3	39.3	39.3	39.3	39.3	39.3
70°	27.3	27.3	27.3	27.3	27.3	27.3	27.3	27.3
72.5°	21.2	21.2	21.2	21.2	21.2	21.2	21.2	21.2
75°	15.2	15.2	15.2	15.2	15.2	15.2	15.2	15.2
77.5°	9.1	9.1	9.1	9.1	9.1	9.1	9.1	9.1
80°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
82.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
85°	3.1	3.1	3.1	0.0	3.1	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)