

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: P879458

Luminaire Tested: **LD4C60D010 EU4609027 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: P879458
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: LD4C60D010 EU4609027 4LBLDWWH
Description: 4 INCH 6000 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

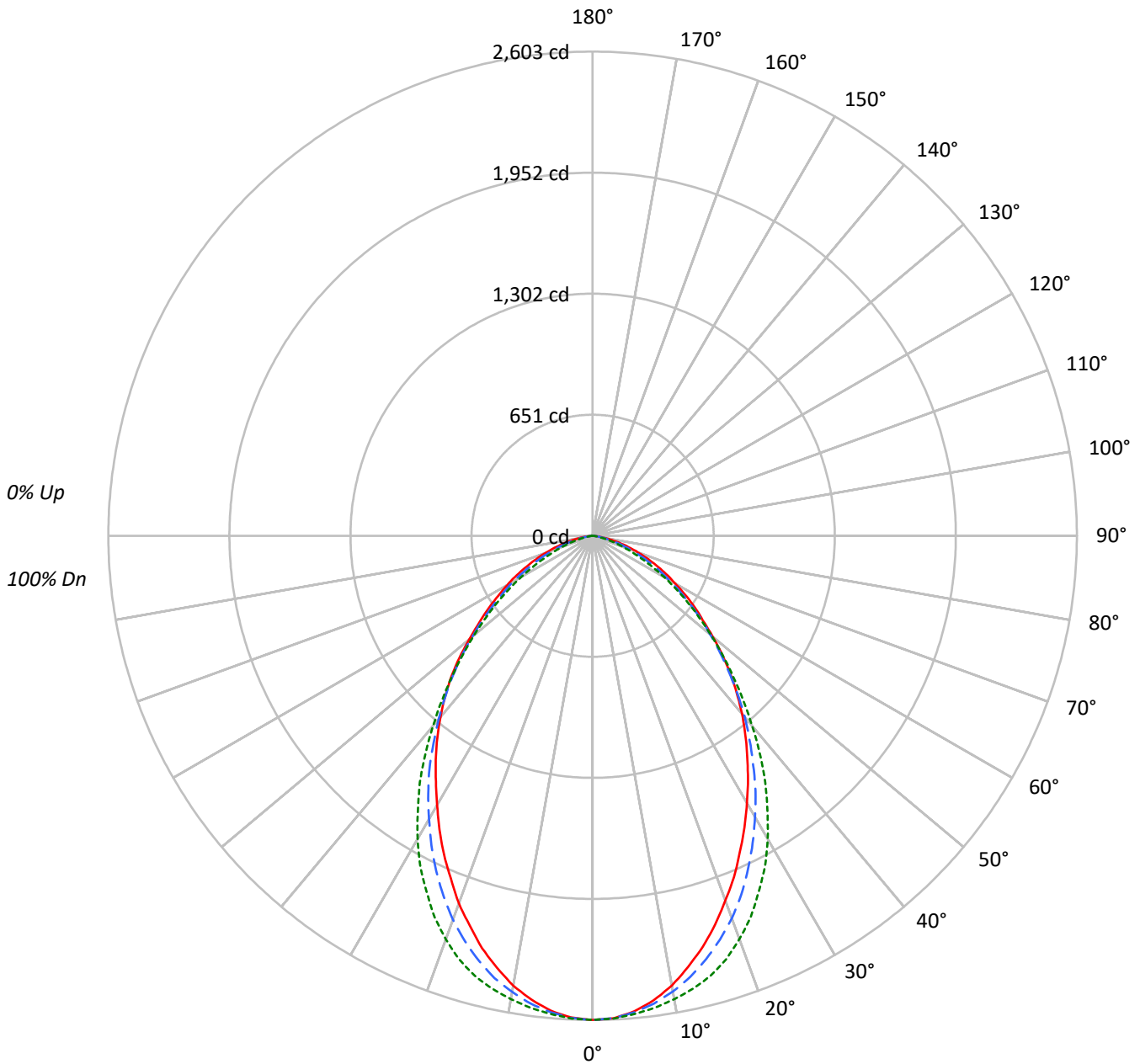
Lumens per Lamp: N/A
Luminaire Lumens: 4656.0 lumens
Efficiency: N/A
Efficacy: 64.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72
Input Voltage (V): NR
Input Current (A_{in}): 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			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°	319800	319800	319800
5°	316545	318308	316187
10°	306246	315552	306370
15°	290954	311507	291933
20°	272706	301704	274955
25°	253987	286249	256319
30°	235287	267021	237046
35°	217061	242722	220360
40°	200227	213875	203899
45°	181368	185364	186859
50°	160775	158768	164808
55°	143335	133696	146612
60°	125433	108529	130126
65°	109767	83924	113662
70°	92386	61459	97163
75°	72150	39920	76232
80°	47331	20942	52071
85°	16210	9444	21567



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.0	5.2
10°-20°	664.0	14.3
20°-30°	913.2	19.6
30°-40°	952.6	20.5
40°-50°	815.0	17.5
50°-60°	583.0	12.5
60°-70°	338.3	7.3
70°-80°	130.4	2.8
80°-90°	16.6	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°	1820.1	39.1
0°-40°	2772.7	59.6
0°-60°	4170.7	89.6
0°-90°	4656.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4656.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2603	2603	2603	2603	2603	
5°	2567	2572	2581	2572	2564	241
15°	2288	2356	2449	2365	2295	641
25°	1874	1977	2112	1989	1891	862
35°	1447	1505	1618	1529	1469	907
45°	1044	1035	1067	1061	1076	805
55°	669	636	624	653	684	598
65°	378	334	289	345	391	376
75°	152	114	84	120	161	163
85°	12	9	7	10	15	22
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°	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1
2.5°	2596.4	2594.5	2595.4	2595.4	2595.4	2594.5	2596.4	2596.4	2595.4	2595.4	2595.4
5°	2566.8	2564.8	2565.8	2566.8	2566.8	2566.8	2567.7	2568.7	2569.6	2570.6	2571.5
7.5°	2519.0	2516.1	2519.0	2522.8	2522.8	2523.7	2524.7	2525.7	2528.5	2533.3	2536.2
10°	2454.9	2454.9	2455.9	2458.7	2463.5	2462.6	2465.4	2470.2	2475.9	2482.6	2487.4
12.5°	2373.7	2375.6	2378.4	2381.3	2386.1	2389.0	2393.7	2399.5	2409.0	2418.6	2429.1
15°	2287.6	2288.6	2289.5	2296.2	2301.0	2307.7	2311.5	2323.0	2331.6	2345.0	2356.4
17.5°	2191.1	2190.1	2193.0	2198.7	2210.2	2213.1	2217.8	2230.3	2242.7	2260.9	2276.1
20°	2085.9	2091.6	2095.5	2103.1	2109.8	2117.5	2121.3	2136.6	2150.9	2168.1	2188.2
22.5°	1986.5	1981.7	1988.4	1997.0	2002.7	2008.5	2015.2	2031.4	2046.7	2067.7	2087.8
25°	1873.7	1876.6	1881.3	1888.0	1895.7	1903.3	1911.0	1928.2	1936.8	1958.8	1976.9
27.5°	1766.6	1771.4	1773.3	1781.9	1788.6	1794.3	1798.2	1818.2	1825.9	1845.0	1863.2
30°	1658.6	1663.4	1663.4	1672.9	1677.7	1683.5	1693.0	1706.4	1717.9	1731.2	1744.6
32.5°	1554.4	1554.4	1558.2	1566.8	1571.6	1578.3	1581.2	1590.7	1602.2	1615.6	1629.9
35°	1447.3	1450.2	1454.0	1454.0	1462.6	1466.4	1470.3	1479.8	1487.5	1493.2	1504.7
37.5°	1348.9	1348.9	1346.0	1350.8	1356.5	1355.6	1361.3	1366.1	1370.9	1377.5	1387.1
40°	1248.5	1248.5	1244.7	1247.5	1251.4	1250.4	1248.5	1253.3	1257.1	1261.9	1271.4
42.5°	1146.2	1144.3	1143.3	1143.3	1145.2	1143.3	1145.2	1146.2	1146.2	1146.2	1151.9
45°	1043.9	1048.7	1043.0	1041.0	1038.2	1035.3	1034.4	1035.3	1039.1	1034.4	1035.3
47.5°	943.5	945.4	941.6	938.8	935.9	934.0	935.9	930.2	932.1	933.0	929.2
50°	841.2	837.4	837.4	834.6	835.5	834.6	832.6	830.7	830.7	826.0	823.1
52.5°	746.6	748.5	750.4	743.7	744.7	739.9	740.9	736.1	736.1	730.4	732.3
55°	669.2	666.3	666.3	663.4	662.5	657.7	656.7	653.9	647.2	643.4	635.7
57.5°	588.9	587.9	584.1	585.0	579.3	578.4	576.4	571.7	566.9	562.1	553.5
60°	510.5	511.4	511.4	509.5	506.7	501.9	502.8	496.1	489.5	480.8	473.2
62.5°	445.5	442.6	441.7	439.7	434.0	434.0	429.2	424.4	417.8	409.2	402.5
65°	377.6	378.6	375.7	372.8	367.1	366.1	362.3	358.5	351.8	343.2	333.6
67.5°	316.4	314.5	313.6	310.7	305.0	304.0	301.1	292.5	286.8	278.2	270.5
70°	257.2	255.2	256.2	251.4	245.7	242.8	241.9	235.2	226.6	219.9	212.2
72.5°	201.7	201.7	200.8	196.0	193.1	191.2	187.4	179.7	174.9	167.3	161.6
75°	152.0	151.0	149.1	146.3	142.4	140.5	138.6	133.8	127.1	118.5	113.8
77.5°	105.2	106.1	104.2	103.2	98.5	95.6	94.6	91.8	86.0	80.3	75.5
80°	66.9	66.0	65.0	63.1	62.1	61.2	58.3	56.4	50.7	47.8	44.9
82.5°	36.3	34.4	34.4	33.5	31.5	30.6	29.6	27.7	26.8	24.9	22.9
85°	11.5	12.4	11.5	11.5	11.5	10.5	10.5	10.5	9.6	9.6	8.6
87.5°	1.0	1.9	1.0	1.0	1.9	1.0	1.0	1.9	1.0	1.0	1.9
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°	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1
2.5°	2595.4	2596.4	2596.4	2597.4	2597.4	2597.4	2597.4	2597.4	2597.4	2597.4	2597.4
5°	2574.4	2574.4	2576.3	2578.2	2578.2	2578.2	2579.2	2581.1	2581.1	2581.1	2580.1
7.5°	2540.0	2543.8	2547.6	2551.5	2552.4	2553.4	2555.3	2559.1	2559.1	2559.1	2559.1
10°	2495.1	2503.7	2508.4	2514.2	2517.1	2519.0	2524.7	2525.7	2528.5	2529.5	2528.5
12.5°	2437.7	2449.2	2459.7	2469.3	2473.1	2476.9	2482.6	2488.4	2491.2	2494.1	2493.2
15°	2373.7	2386.1	2402.3	2412.9	2420.5	2426.2	2434.8	2442.5	2447.3	2449.2	2449.2
17.5°	2296.2	2311.5	2328.7	2345.9	2350.7	2360.3	2369.8	2380.3	2386.1	2387.0	2386.1
20°	2210.2	2227.4	2241.7	2258.9	2269.5	2274.2	2287.6	2301.0	2306.7	2307.7	2306.7
22.5°	2107.9	2124.1	2143.3	2161.4	2170.0	2178.6	2193.0	2206.4	2214.0	2219.7	2214.0
25°	1994.1	2017.1	2035.2	2050.5	2063.0	2071.6	2089.7	2100.3	2112.7	2111.7	2112.7
27.5°	1882.3	1901.4	1921.5	1939.6	1947.3	1956.9	1971.2	1988.4	1998.9	2005.6	2004.7
30°	1767.6	1782.9	1800.1	1816.3	1828.8	1836.4	1857.4	1865.1	1878.5	1882.3	1879.4
32.5°	1646.2	1656.7	1673.9	1695.9	1700.7	1708.3	1721.7	1740.8	1745.6	1747.5	1748.5
35°	1517.1	1537.2	1551.5	1564.9	1568.7	1575.4	1590.7	1605.1	1609.8	1618.4	1614.6
37.5°	1397.6	1409.1	1415.8	1429.2	1440.6	1446.4	1454.0	1463.6	1473.1	1477.0	1476.0
40°	1278.1	1283.9	1289.6	1303.9	1304.9	1304.9	1316.4	1329.7	1329.7	1333.6	1333.6
42.5°	1155.8	1156.7	1164.4	1172.0	1173.9	1175.8	1187.3	1189.2	1195.0	1197.8	1201.6
45°	1037.2	1043.0	1047.7	1048.7	1053.5	1054.4	1057.3	1060.2	1068.8	1066.9	1068.8
47.5°	929.2	932.1	934.9	934.9	937.8	936.8	941.6	938.8	944.5	946.4	949.3
50°	823.1	827.9	825.0	826.9	826.0	828.8	826.9	826.9	826.9	830.7	833.6
52.5°	725.6	726.5	723.7	724.6	724.6	722.7	724.6	723.7	722.7	722.7	723.7
55°	635.7	631.9	630.0	626.2	621.4	627.1	624.2	622.3	626.2	624.2	626.2
57.5°	548.7	543.9	540.1	538.2	531.5	535.3	531.5	529.6	529.6	529.6	534.4
60°	466.5	461.7	457.0	451.2	450.3	448.3	446.4	441.7	442.6	441.7	443.6
62.5°	394.8	385.3	378.6	373.8	372.8	370.0	367.1	362.3	363.3	363.3	364.2
65°	328.9	318.3	308.8	302.1	302.1	297.3	292.5	292.5	286.8	288.7	289.7
67.5°	262.9	254.3	244.7	239.9	237.1	233.3	230.4	228.5	225.6	225.6	227.5
70°	203.6	195.0	190.2	182.6	181.6	178.8	174.9	172.1	171.1	171.1	170.2
72.5°	153.9	146.3	140.5	135.7	132.9	130.0	126.2	125.2	123.3	123.3	125.2
75°	107.1	102.3	97.5	92.7	90.8	89.9	87.0	85.1	85.1	84.1	85.1
77.5°	71.7	66.9	62.1	60.2	58.3	56.4	55.4	54.5	51.6	51.6	51.6
80°	41.1	39.2	37.3	34.4	34.4	33.5	31.5	30.6	29.6	29.6	29.6
82.5°	21.0	20.1	18.2	17.2	17.2	17.2	16.3	16.3	15.3	15.3	15.3
85°	8.6	7.6	6.7	6.7	6.7	6.7	6.7	6.7	7.6	6.7	7.6
87.5°	1.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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°	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1
2.5°	2597.4	2596.4	2596.4	2596.4	2596.4	2596.4	2595.4	2595.4	2594.5	2594.5	2594.5
5°	2581.1	2580.1	2579.2	2578.2	2577.3	2576.3	2575.4	2574.4	2571.5	2570.6	2568.7
7.5°	2558.2	2556.2	2553.4	2552.4	2550.5	2547.6	2543.8	2541.9	2538.1	2533.3	2531.4
10°	2527.6	2523.7	2520.9	2516.1	2515.1	2511.3	2501.8	2497.0	2490.3	2484.5	2477.9
12.5°	2490.3	2486.5	2479.8	2473.1	2469.3	2460.6	2452.0	2444.4	2435.8	2423.4	2413.8
15°	2444.4	2438.7	2425.3	2423.4	2417.6	2404.2	2392.8	2378.4	2365.1	2351.7	2340.2
17.5°	2383.2	2370.8	2364.1	2355.5	2348.8	2331.6	2319.2	2302.9	2284.8	2269.5	2253.2
20°	2302.9	2289.5	2278.1	2273.3	2264.7	2249.4	2234.1	2214.0	2195.8	2176.7	2162.4
22.5°	2207.3	2198.7	2181.5	2175.8	2165.3	2150.0	2131.8	2112.7	2095.5	2074.4	2055.3
25°	2105.0	2092.6	2079.2	2067.7	2060.1	2045.8	2022.8	2008.5	1989.4	1966.4	1952.1
27.5°	1996.1	1981.7	1962.6	1954.9	1948.3	1929.1	1910.0	1891.9	1876.6	1856.5	1844.1
30°	1869.9	1859.3	1846.9	1837.4	1827.8	1812.5	1795.3	1774.3	1758.0	1748.5	1731.2
32.5°	1741.8	1733.2	1716.9	1712.1	1701.6	1689.2	1676.8	1661.5	1644.3	1629.9	1616.5
35°	1605.1	1596.5	1585.0	1576.4	1572.6	1564.0	1550.6	1537.2	1528.6	1512.3	1505.6
37.5°	1468.4	1465.5	1454.0	1445.4	1442.5	1432.0	1425.3	1415.8	1403.4	1399.5	1391.9
40°	1327.8	1325.9	1319.2	1318.3	1312.5	1309.7	1300.1	1292.5	1286.7	1283.9	1279.1
42.5°	1198.8	1196.9	1191.1	1192.1	1186.4	1184.4	1183.5	1176.8	1172.0	1166.3	1167.2
45°	1071.6	1069.7	1065.9	1064.0	1066.9	1065.9	1064.0	1061.1	1061.1	1062.1	1059.2
47.5°	949.3	951.2	947.4	949.3	949.3	946.4	946.4	950.2	951.2	953.1	955.0
50°	833.6	839.3	837.4	840.3	841.2	842.2	839.3	844.1	843.2	851.8	849.9
52.5°	728.4	729.4	733.2	734.2	735.1	736.1	740.9	744.7	745.7	749.5	756.2
55°	627.1	628.1	635.7	635.7	640.5	641.5	648.1	650.1	652.9	663.4	665.4
57.5°	531.5	537.3	541.1	543.0	545.9	550.6	554.5	563.1	567.8	574.5	581.2
60°	445.5	452.2	457.0	458.9	462.7	468.4	473.2	482.8	491.4	499.0	503.8
62.5°	366.1	371.9	375.7	382.4	382.4	387.2	398.6	404.4	413.9	420.6	429.2
65°	295.4	299.2	305.9	305.9	309.7	317.4	326.9	335.5	345.1	354.7	363.3
67.5°	231.3	234.2	238.0	241.9	243.8	253.3	261.0	273.4	282.0	288.7	299.2
70°	174.9	176.9	181.6	185.5	188.3	195.0	203.6	212.2	220.8	228.5	239.0
72.5°	125.2	129.1	133.8	136.7	138.6	143.4	152.0	160.6	168.2	175.9	181.6
75°	86.0	88.9	90.8	93.7	96.6	100.4	106.1	111.8	120.5	128.1	134.8
77.5°	53.5	56.4	59.3	60.2	61.2	65.0	68.8	74.6	80.3	86.0	90.8
80°	31.5	32.5	33.5	34.4	36.3	39.2	41.1	44.9	48.8	52.6	57.4
82.5°	16.3	17.2	18.2	18.2	18.2	19.1	22.0	23.9	24.9	26.8	29.6
85°	6.7	6.7	6.7	7.6	7.6	8.6	8.6	9.6	9.6	10.5	11.5
87.5°	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
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: P879458

CATALOG NUMBER: LD4C60D010 EU4609027 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1	2603.1
2.5°	2593.5	2593.5	2593.5	2592.6	2593.5	2593.5	2593.5	2592.6
5°	2568.7	2566.8	2566.8	2565.8	2564.8	2564.8	2565.8	2563.9
7.5°	2527.6	2524.7	2522.8	2522.8	2521.8	2520.9	2520.9	2516.1
10°	2474.0	2468.3	2468.3	2466.4	2458.7	2457.8	2455.9	2455.9
12.5°	2407.1	2400.4	2396.6	2391.8	2387.0	2383.2	2382.3	2378.4
15°	2327.8	2319.2	2312.5	2310.6	2302.9	2297.2	2297.2	2295.3
17.5°	2241.7	2228.3	2223.6	2218.8	2208.3	2207.3	2205.4	2196.8
20°	2144.2	2131.8	2125.1	2120.3	2113.6	2104.1	2102.2	2103.1
22.5°	2041.9	2024.7	2019.0	2014.2	2007.5	1998.9	1998.9	1992.2
25°	1935.8	1920.5	1914.8	1909.1	1898.5	1894.7	1889.9	1890.9
27.5°	1827.8	1813.5	1808.7	1798.2	1791.5	1786.7	1781.9	1781.9
30°	1715.0	1707.3	1699.7	1698.7	1685.4	1679.6	1674.8	1671.0
32.5°	1606.0	1596.5	1592.6	1588.8	1582.1	1574.5	1573.5	1566.8
35°	1498.9	1489.4	1484.6	1480.8	1473.1	1470.3	1467.4	1469.3
37.5°	1386.1	1384.2	1381.4	1376.6	1371.8	1370.9	1367.0	1371.8
40°	1275.3	1274.3	1270.5	1271.4	1271.4	1269.5	1271.4	1271.4
42.5°	1168.2	1168.2	1164.4	1166.3	1167.2	1169.1	1172.0	1173.9
45°	1064.0	1063.0	1064.0	1065.9	1064.0	1068.8	1072.6	1075.5
47.5°	956.9	957.9	961.7	962.7	964.6	971.3	971.3	971.3
50°	854.6	859.4	857.5	863.2	862.3	866.1	862.3	862.3
52.5°	757.1	761.9	762.9	763.8	769.6	770.5	770.5	769.6
55°	670.1	676.8	674.0	678.7	681.6	683.5	686.4	684.5
57.5°	589.8	592.7	595.6	596.5	600.3	602.3	604.2	602.3
60°	510.5	516.2	521.0	522.0	523.9	525.8	526.7	529.6
62.5°	435.9	445.5	447.4	448.3	453.1	456.0	457.9	459.8
65°	370.0	376.6	381.4	384.3	388.1	388.1	391.0	391.0
67.5°	305.9	312.6	315.5	317.4	323.1	324.1	328.9	328.9
70°	247.6	252.4	254.3	257.2	262.9	266.7	268.6	270.5
72.5°	191.2	196.9	199.8	203.6	207.4	210.3	211.3	214.1
75°	139.6	148.2	149.1	153.0	155.8	159.6	161.6	160.6
77.5°	97.5	100.4	104.2	106.1	109.0	111.8	114.7	114.7
80°	60.2	64.0	65.0	66.0	69.8	71.7	73.6	73.6
82.5°	31.5	33.5	35.4	36.3	38.2	38.2	39.2	40.2
85°	12.4	13.4	13.4	13.4	14.3	15.3	15.3	15.3
87.5°	1.9	2.9	1.9	1.9	2.9	2.9	2.9	2.9
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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













(END OF REPORT)