

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: P879478

Luminaire Tested: **LD4C70D010 EU4709027 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: P879478
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: LD4C70D010 EU4709027 4LBLDWWH
Description: 4 INCH 7000 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

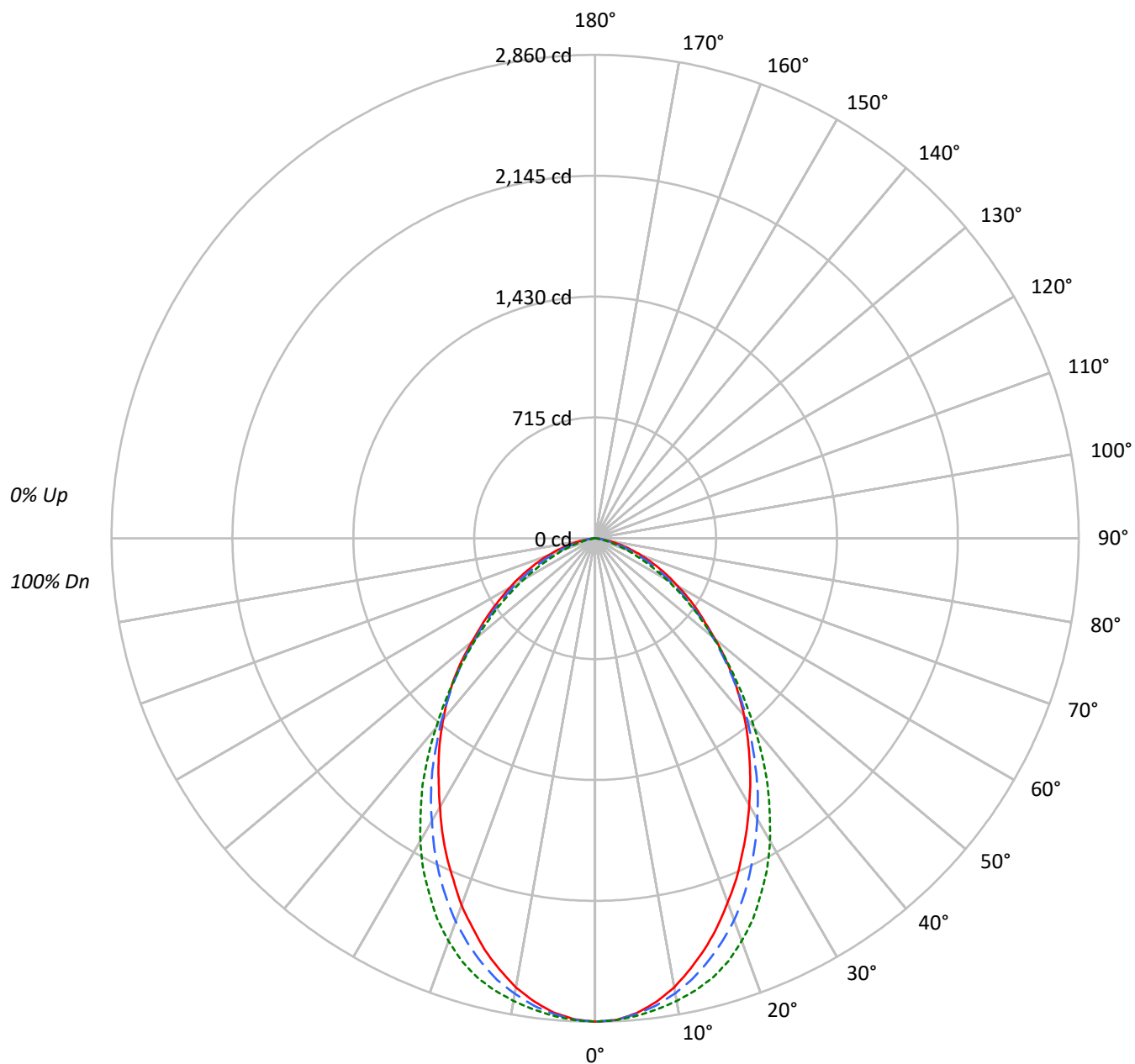
Lumens per Lamp: N/A
Luminaire Lumens: 5115.0 lumens
Efficiency: N/A
Efficacy: 65.6 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.1 / 1.12
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 78
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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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
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	111	107	104	100	108	105	102	99		101	98	96		97	95	93		93	92	90
2	103	96	90	85	100	94	89	84		90	86	82		87	84	80		84	81	79
3	95	86	79	73	92	84	78	73		81	76	71		79	74	70		76	72	69
4	88	77	70	64	86	76	69	63		74	68	63		71	66	62		69	65	61
5	81	70	62	56	80	69	62	56		67	61	56		65	59	55		63	58	54
6	76	64	56	50	74	63	56	50		61	55	50		60	54	49		58	53	49
7	71	59	51	45	69	58	50	45		56	50	45		55	49	44		54	48	44
8	66	54	46	41	65	53	46	41		52	45	41		51	45	40		50	44	40
9	62	50	42	37	61	49	42	37		48	42	37		47	41	37		46	41	37
10	59	46	39	34	57	46	39	34		45	39	34		44	38	34		43	38	34

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	351324	351324	351324
5°	347746	349694	347351
10°	336435	346652	336572
15°	319634	342210	320703
20°	299586	331447	302057
25°	279024	314471	281586
30°	258481	293350	260425
35°	238462	266658	242092
40°	219969	234948	224010
45°	199246	203625	205275
50°	176639	174422	181054
55°	157450	146890	161048
60°	137792	119217	142952
65°	120581	92209	124854
70°	101474	67530	106754
75°	79270	43859	83732
80°	52000	23064	57236
85°	17761	10431	23681



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	267.0	5.2
10°-20°	729.4	14.3
20°-30°	1003.2	19.6
30°-40°	1046.5	20.5
40°-50°	895.4	17.5
50°-60°	640.4	12.5
60°-70°	371.6	7.3
70°-80°	143.3	2.8
80°-90°	18.3	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°	1999.5	39.1
0°-40°	3046.1	59.6
0°-60°	4581.9	89.6
0°-90°	5115.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5115.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2860	2860	2860	2860	2860	
5°	2820	2825	2836	2825	2817	265
15°	2513	2589	2691	2598	2522	704
25°	2058	2172	2320	2186	2077	947
35°	1590	1653	1778	1679	1614	996
45°	1147	1137	1172	1166	1182	884
55°	735	698	686	717	752	657
65°	415	366	317	379	430	414
75°	167	125	92	132	176	180
85°	13	10	7	10	17	25
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°	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7
2.5°	2852.4	2850.3	2851.3	2851.3	2851.3	2850.3	2852.4	2852.4	2851.3	2851.3	2851.3
5°	2819.8	2817.7	2818.7	2819.8	2819.8	2819.8	2820.8	2821.9	2822.9	2824.0	2825.0
7.5°	2767.3	2764.1	2767.3	2771.5	2771.5	2772.5	2773.6	2774.6	2777.8	2783.0	2786.2
10°	2696.9	2696.9	2698.0	2701.1	2706.4	2705.3	2708.5	2713.7	2720.0	2727.4	2732.6
12.5°	2607.7	2609.8	2612.9	2616.1	2621.3	2624.5	2629.7	2636.0	2646.5	2657.0	2668.6
15°	2513.1	2514.2	2515.2	2522.6	2527.8	2535.2	2539.4	2552.0	2561.4	2576.2	2588.8
17.5°	2407.1	2406.0	2409.2	2415.5	2428.1	2431.2	2436.5	2450.1	2463.8	2483.7	2500.5
20°	2291.5	2297.8	2302.0	2310.4	2317.8	2326.2	2330.4	2347.2	2363.0	2381.9	2403.9
22.5°	2182.3	2177.1	2184.4	2193.9	2200.2	2206.5	2213.8	2231.7	2248.5	2271.6	2293.6
25°	2058.4	2061.6	2066.8	2074.2	2082.6	2091.0	2099.4	2118.3	2127.7	2151.9	2171.8
27.5°	1940.8	1946.0	1948.1	1957.6	1964.9	1971.2	1975.4	1997.5	2005.9	2026.9	2046.8
30°	1822.1	1827.4	1827.4	1837.9	1843.1	1849.4	1859.9	1874.6	1887.2	1901.9	1916.6
32.5°	1707.6	1707.6	1711.8	1721.3	1726.5	1733.9	1737.0	1747.5	1760.1	1774.8	1790.6
35°	1590.0	1593.2	1597.4	1597.4	1606.8	1611.0	1615.2	1625.7	1634.1	1640.4	1653.0
37.5°	1481.8	1481.8	1478.7	1483.9	1490.2	1489.2	1495.5	1500.7	1506.0	1513.3	1523.8
40°	1371.6	1371.6	1367.4	1370.5	1374.7	1373.7	1371.6	1376.8	1381.0	1386.3	1396.8
42.5°	1259.2	1257.1	1256.0	1256.0	1258.1	1256.0	1258.1	1259.2	1259.2	1259.2	1265.5
45°	1146.8	1152.1	1145.8	1143.7	1140.5	1137.4	1136.3	1137.4	1141.6	1136.3	1137.4
47.5°	1036.6	1038.7	1034.5	1031.3	1028.1	1026.0	1028.1	1021.8	1023.9	1025.0	1020.8
50°	924.2	920.0	920.0	916.8	917.9	916.8	914.7	912.6	912.6	907.4	904.2
52.5°	820.2	822.3	824.4	817.1	818.1	812.9	813.9	808.7	808.7	802.4	804.5
55°	735.1	732.0	732.0	728.8	727.8	722.5	721.5	718.3	711.0	706.8	698.4
57.5°	646.9	645.9	641.7	642.7	636.4	635.4	633.3	628.0	622.8	617.5	608.1
60°	560.8	561.9	561.9	559.8	556.6	551.4	552.4	545.1	537.7	528.3	519.9
62.5°	489.4	486.2	485.2	483.1	476.8	476.8	471.5	466.3	458.9	449.5	442.1
65°	414.8	415.9	412.7	409.6	403.3	402.2	398.0	393.8	386.5	377.0	366.5
67.5°	347.6	345.5	344.5	341.3	335.0	334.0	330.8	321.4	315.1	305.6	297.2
70°	282.5	280.4	281.5	276.2	269.9	266.8	265.7	258.4	248.9	241.5	233.1
72.5°	221.6	221.6	220.5	215.3	212.1	210.0	205.8	197.4	192.2	183.8	177.5
75°	167.0	165.9	163.8	160.7	156.5	154.4	152.3	147.0	139.7	130.2	125.0
77.5°	115.5	116.6	114.5	113.4	108.2	105.0	104.0	100.8	94.5	88.2	83.0
80°	73.5	72.5	71.4	69.3	68.3	67.2	64.1	62.0	55.7	52.5	49.4
82.5°	39.9	37.8	37.8	36.8	34.7	33.6	32.6	30.5	29.4	27.3	25.2
85°	12.6	13.7	12.6	12.6	12.6	11.6	11.6	11.6	10.5	10.5	9.5
87.5°	1.1	2.1	1.1	1.1	2.1	1.1	1.1	2.1	1.1	1.1	2.1
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°	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7
2.5°	2851.3	2852.4	2852.4	2853.4	2853.4	2853.4	2853.4	2853.4	2853.4	2853.4	2853.4
5°	2828.2	2828.2	2830.3	2832.4	2832.4	2832.4	2833.5	2835.6	2835.6	2835.6	2834.5
7.5°	2790.4	2794.6	2798.8	2803.0	2804.0	2805.1	2807.2	2811.4	2811.4	2811.4	2811.4
10°	2741.0	2750.5	2755.7	2762.0	2765.2	2767.3	2773.6	2774.6	2777.8	2778.8	2777.8
12.5°	2678.0	2690.6	2702.2	2712.7	2716.9	2721.1	2727.4	2733.7	2736.8	2740.0	2738.9
15°	2607.7	2621.3	2639.2	2650.7	2659.1	2665.4	2674.9	2683.3	2688.5	2690.6	2690.6
17.5°	2522.6	2539.4	2558.3	2577.2	2582.5	2593.0	2603.5	2615.0	2621.3	2622.4	2621.3
20°	2428.1	2447.0	2462.7	2481.6	2493.2	2498.4	2513.1	2527.8	2534.1	2535.2	2534.1
22.5°	2315.7	2333.6	2354.6	2374.5	2384.0	2393.4	2409.2	2423.9	2432.3	2438.6	2432.3
25°	2190.7	2215.9	2235.9	2252.7	2266.3	2275.8	2295.7	2307.3	2321.0	2319.9	2321.0
27.5°	2067.9	2088.9	2110.9	2130.9	2139.3	2149.8	2165.5	2184.4	2196.0	2203.3	2202.3
30°	1941.8	1958.6	1977.5	1995.4	2009.0	2017.4	2040.5	2048.9	2063.7	2067.9	2064.7
32.5°	1808.5	1820.0	1838.9	1863.1	1868.3	1876.7	1891.4	1912.4	1917.7	1919.8	1920.8
35°	1666.7	1688.7	1704.5	1719.2	1723.4	1730.7	1747.5	1763.3	1768.5	1778.0	1773.8
37.5°	1535.4	1548.0	1555.4	1570.1	1582.7	1589.0	1597.4	1607.9	1618.4	1622.6	1621.5
40°	1404.1	1410.4	1416.7	1432.5	1433.5	1433.5	1446.1	1460.8	1460.8	1465.0	1465.0
42.5°	1269.7	1270.7	1279.1	1287.6	1289.7	1291.8	1304.4	1306.5	1312.8	1315.9	1320.1
45°	1139.5	1145.8	1151.0	1152.1	1157.3	1158.4	1161.5	1164.7	1174.1	1172.0	1174.1
47.5°	1020.8	1023.9	1027.1	1027.1	1030.3	1029.2	1034.5	1031.3	1037.6	1039.7	1042.9
50°	904.2	909.5	906.3	908.4	907.4	910.5	908.4	908.4	908.4	912.6	915.8
52.5°	797.1	798.2	795.0	796.1	796.1	794.0	796.1	795.0	794.0	794.0	795.0
55°	698.4	694.2	692.1	687.9	682.6	688.9	685.8	683.7	687.9	685.8	687.9
57.5°	602.8	597.6	593.4	591.3	583.9	588.1	583.9	581.8	581.8	581.8	587.1
60°	512.5	507.2	502.0	495.7	494.6	492.5	490.4	485.2	486.2	485.2	487.3
62.5°	433.7	423.2	415.9	410.6	409.6	406.4	403.3	398.0	399.1	399.1	400.1
65°	361.3	349.7	339.2	331.9	331.9	326.6	321.4	321.4	315.1	317.2	318.2
67.5°	288.8	279.4	268.9	263.6	260.5	256.2	253.1	251.0	247.8	247.8	249.9
70°	223.7	214.2	209.0	200.6	199.5	196.4	192.2	189.0	188.0	188.0	186.9
72.5°	169.1	160.7	154.4	149.1	146.0	142.8	138.6	137.6	135.5	135.5	137.6
75°	117.6	112.4	107.1	101.9	99.8	98.7	95.6	93.5	93.5	92.4	93.5
77.5°	78.8	73.5	68.3	66.2	64.1	62.0	60.9	59.9	56.7	56.7	56.7
80°	45.2	43.1	41.0	37.8	37.8	36.8	34.7	33.6	32.6	32.6	32.6
82.5°	23.1	22.1	20.0	18.9	18.9	18.9	17.9	17.9	16.8	16.8	16.8
85°	9.5	8.4	7.4	7.4	7.4	7.4	7.4	7.4	8.4	7.4	8.4
87.5°	1.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
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°	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7
2.5°	2853.4	2852.4	2852.4	2852.4	2852.4	2852.4	2851.3	2851.3	2850.3	2850.3	2850.3
5°	2835.6	2834.5	2833.5	2832.4	2831.4	2830.3	2829.3	2828.2	2825.0	2824.0	2821.9
7.5°	2810.3	2808.2	2805.1	2804.0	2801.9	2798.8	2794.6	2792.5	2788.3	2783.0	2780.9
10°	2776.7	2772.5	2769.4	2764.1	2763.1	2758.9	2748.4	2743.1	2735.8	2729.5	2722.1
12.5°	2735.8	2731.6	2724.2	2716.9	2712.7	2703.2	2693.8	2685.4	2675.9	2662.3	2651.8
15°	2685.4	2679.1	2664.4	2662.3	2656.0	2641.3	2628.7	2612.9	2598.2	2583.5	2570.9
17.5°	2618.2	2604.5	2597.2	2587.7	2580.4	2561.4	2547.8	2529.9	2510.0	2493.2	2475.3
20°	2529.9	2515.2	2502.6	2497.4	2487.9	2471.1	2454.3	2432.3	2412.3	2391.3	2375.6
22.5°	2424.9	2415.5	2396.6	2390.3	2378.7	2361.9	2342.0	2321.0	2302.0	2278.9	2257.9
25°	2312.5	2298.9	2284.2	2271.6	2263.2	2247.4	2222.2	2206.5	2185.5	2160.3	2144.5
27.5°	2192.8	2177.1	2156.1	2147.7	2140.3	2119.3	2098.3	2078.4	2061.6	2039.5	2025.8
30°	2054.2	2042.6	2029.0	2018.5	2008.0	1991.2	1972.3	1949.2	1931.3	1920.8	1901.9
32.5°	1913.5	1904.0	1886.2	1880.9	1869.4	1855.7	1842.1	1825.3	1806.4	1790.6	1775.9
35°	1763.3	1753.8	1741.2	1731.8	1727.6	1718.1	1703.4	1688.7	1679.3	1661.4	1654.1
37.5°	1613.1	1610.0	1597.4	1587.9	1584.8	1573.2	1565.9	1555.4	1541.7	1537.5	1529.1
40°	1458.7	1456.6	1449.3	1448.2	1441.9	1438.8	1428.3	1419.9	1413.6	1410.4	1405.2
42.5°	1317.0	1314.9	1308.6	1309.6	1303.3	1301.2	1300.2	1292.8	1287.6	1281.2	1282.3
45°	1177.3	1175.2	1171.0	1168.9	1172.0	1171.0	1168.9	1165.7	1165.7	1166.8	1163.6
47.5°	1042.9	1045.0	1040.8	1042.9	1042.9	1039.7	1039.7	1043.9	1045.0	1047.1	1049.2
50°	915.8	922.1	920.0	923.1	924.2	925.2	922.1	927.3	926.3	935.7	933.6
52.5°	800.3	801.3	805.5	806.6	807.6	808.7	813.9	818.1	819.2	823.4	830.7
55°	688.9	690.0	698.4	698.4	703.6	704.7	712.0	714.1	717.3	728.8	730.9
57.5°	583.9	590.2	594.4	596.5	599.7	604.9	609.1	618.6	623.8	631.2	638.5
60°	489.4	496.7	502.0	504.1	508.3	514.6	519.9	530.4	539.8	548.2	553.5
62.5°	402.2	408.5	412.7	420.1	420.1	425.3	437.9	444.2	454.7	462.1	471.5
65°	324.5	328.7	336.1	336.1	340.3	348.7	359.2	368.6	379.1	389.6	399.1
67.5°	254.1	257.3	261.5	265.7	267.8	278.3	286.7	300.4	309.8	317.2	328.7
70°	192.2	194.3	199.5	203.7	206.9	214.2	223.7	233.1	242.6	251.0	262.6
72.5°	137.6	141.8	147.0	150.2	152.3	157.5	167.0	176.4	184.8	193.2	199.5
75°	94.5	97.7	99.8	102.9	106.1	110.3	116.6	122.9	132.3	140.7	148.1
77.5°	58.8	62.0	65.1	66.2	67.2	71.4	75.6	81.9	88.2	94.5	99.8
80°	34.7	35.7	36.8	37.8	39.9	43.1	45.2	49.4	53.6	57.8	63.0
82.5°	17.9	18.9	20.0	20.0	20.0	21.0	24.2	26.3	27.3	29.4	32.6
85°	7.4	7.4	7.4	8.4	8.4	9.5	9.5	10.5	10.5	11.6	12.6
87.5°	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
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: P879478

CATALOG NUMBER: LD4C70D010 EU4709027 4LBLDWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7	2859.7
2.5°	2849.2	2849.2	2849.2	2848.2	2849.2	2849.2	2849.2	2848.2
5°	2821.9	2819.8	2819.8	2818.7	2817.7	2817.7	2818.7	2816.6
7.5°	2776.7	2773.6	2771.5	2771.5	2770.4	2769.4	2769.4	2764.1
10°	2717.9	2711.6	2711.6	2709.5	2701.1	2700.1	2698.0	2698.0
12.5°	2644.4	2637.1	2632.9	2627.6	2622.4	2618.2	2617.1	2612.9
15°	2557.2	2547.8	2540.4	2538.3	2529.9	2523.6	2523.6	2521.5
17.5°	2462.7	2448.0	2442.8	2437.5	2426.0	2424.9	2422.8	2413.4
20°	2355.6	2342.0	2334.6	2329.4	2322.0	2311.5	2309.4	2310.4
22.5°	2243.2	2224.3	2218.0	2212.8	2205.4	2196.0	2196.0	2188.6
25°	2126.7	2109.9	2103.6	2097.3	2085.7	2081.5	2076.3	2077.3
27.5°	2008.0	1992.2	1987.0	1975.4	1968.1	1962.8	1957.6	1957.6
30°	1884.1	1875.7	1867.3	1866.2	1851.5	1845.2	1840.0	1835.8
32.5°	1764.3	1753.8	1749.6	1745.4	1738.1	1729.7	1728.6	1721.3
35°	1646.7	1636.2	1631.0	1626.8	1618.4	1615.2	1612.1	1614.2
37.5°	1522.8	1520.7	1517.5	1512.3	1507.0	1506.0	1501.8	1507.0
40°	1401.0	1399.9	1395.7	1396.8	1396.8	1394.7	1396.8	1396.8
42.5°	1283.3	1283.3	1279.1	1281.2	1282.3	1284.4	1287.6	1289.7
45°	1168.9	1167.8	1168.9	1171.0	1168.9	1174.1	1178.3	1181.5
47.5°	1051.3	1052.3	1056.5	1057.6	1059.7	1067.0	1067.0	1067.0
50°	938.9	944.1	942.0	948.3	947.3	951.5	947.3	947.3
52.5°	831.8	837.0	838.1	839.1	845.4	846.5	846.5	845.4
55°	736.2	743.5	740.4	745.6	748.8	750.9	754.0	751.9
57.5°	648.0	651.1	654.3	655.3	659.5	661.6	663.7	661.6
60°	560.8	567.1	572.4	573.4	575.5	577.6	578.7	581.8
62.5°	478.9	489.4	491.5	492.5	497.8	500.9	503.0	505.1
65°	406.4	413.8	419.0	422.2	426.4	426.4	429.5	429.5
67.5°	336.1	343.4	346.6	348.7	355.0	356.0	361.3	361.3
70°	272.0	277.3	279.4	282.5	288.8	293.0	295.1	297.2
72.5°	210.0	216.3	219.5	223.7	227.9	231.0	232.1	235.2
75°	153.3	162.8	163.8	168.0	171.2	175.4	177.5	176.4
77.5°	107.1	110.3	114.5	116.6	119.7	122.9	126.0	126.0
80°	66.2	70.4	71.4	72.5	76.7	78.8	80.9	80.9
82.5°	34.7	36.8	38.9	39.9	42.0	42.0	43.1	44.1
85°	13.7	14.7	14.7	14.7	15.8	16.8	16.8	16.8
87.5°	2.1	3.2	2.1	2.1	3.2	3.2	3.2	3.2
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)