

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: P880589

Luminaire Tested: **LD4C55D010 EU4559035 4LBDWNH**

Issue Date: 10/4/2024

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: P880589
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251940)
Test Lab: INNOVATION CENTER
Issue Date: 10/4/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C55D010 EU4559035 4LBDWNH
Description: 4 INCH 5500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

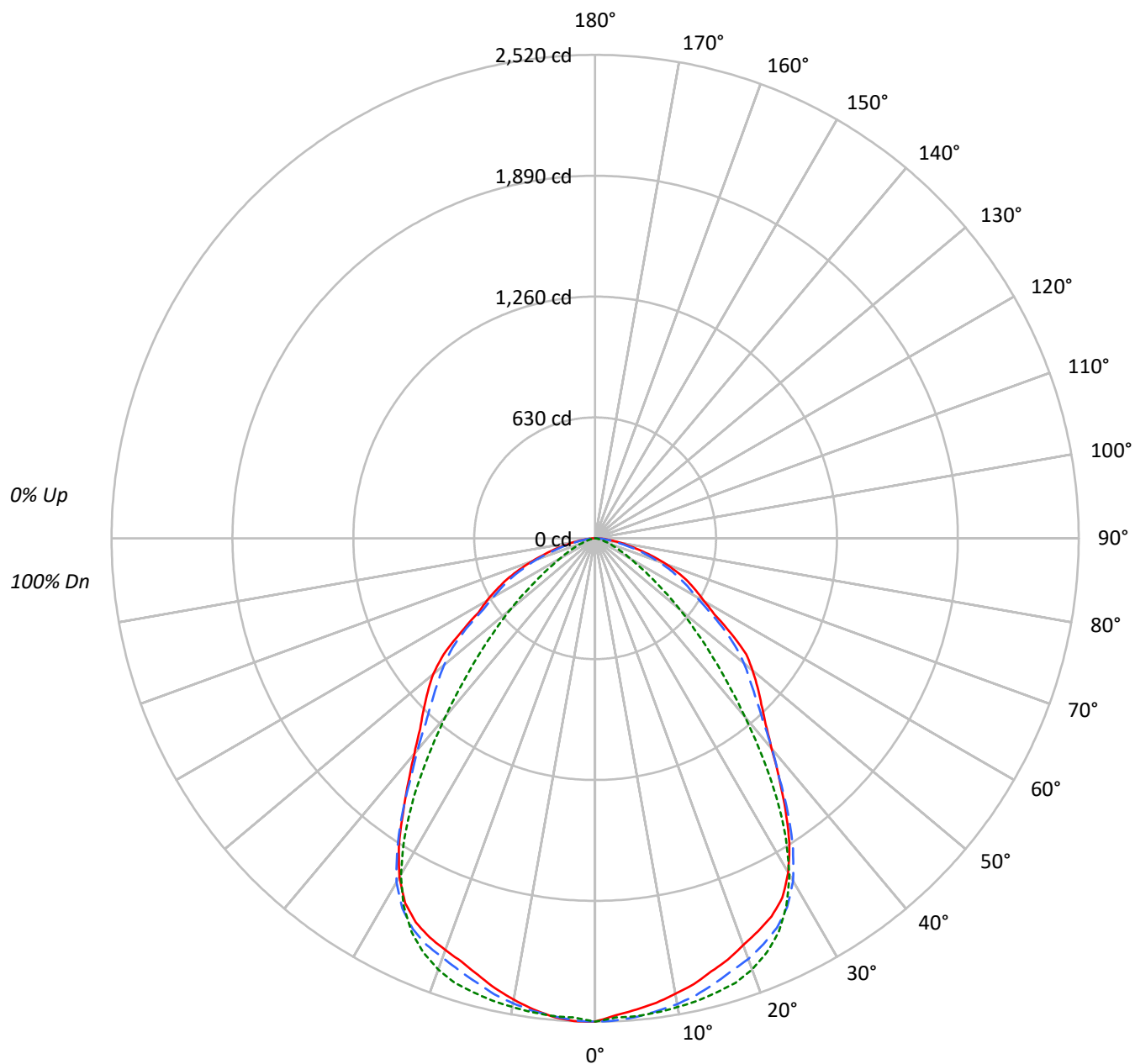
Lumens per Lamp: N/A
Luminaire Lumens: 5128.0 lumens
Efficiency: N/A
Efficacy: 80.3 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 63.9
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	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	107	103	100	108	104	101	98	100	98	95	96	94	92	93	91	89	88		
2	102	95	89	84	100	93	88	83	90	85	81	87	83	80	84	81	78	76		
3	94	85	78	72	92	84	77	72	81	75	70	78	73	69	76	72	68	66		
4	87	77	69	63	85	75	68	62	73	67	62	71	65	61	69	64	60	58		
5	81	69	61	55	79	68	61	55	66	60	54	64	58	54	63	57	53	51		
6	75	63	55	49	73	62	55	49	60	54	49	59	53	48	57	52	48	46		
7	70	58	50	44	68	57	49	44	56	49	44	54	48	43	53	47	43	41		
8	66	53	45	40	64	52	45	40	51	44	40	50	44	39	49	43	39	37		
9	62	49	41	36	60	49	41	36	47	41	36	46	40	36	45	40	36	34		
10	58	46	38	33	57	45	38	33	44	38	33	43	37	33	42	37	33	31		

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	309554	309554	309554
5°	304052	308344	308825
10°	300794	309501	304661
15°	297300	311583	299755
20°	294945	312712	298501
25°	294789	306880	299506
30°	285406	287052	289250
35°	259294	247101	261619
40°	229399	194566	234980
45°	212815	148166	219574
50°	204486	109668	210411
55°	185145	75566	182660
60°	160963	51426	160029
65°	155522	37209	147615
70°	140627	25108	125289
75°	115867	16518	99348
80°	93247	10966	74074
85°	76681	5356	49054



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	237.9	4.6
10°-20°	680.1	13.3
20°-30°	1027.5	20.0
30°-40°	1075.3	21.0
40°-50°	870.9	17.0
50°-60°	633.4	12.4
60°-70°	390.7	7.6
70°-80°	176.5	3.4
80°-90°	35.9	0.7
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°	1945.4	37.9
0°-40°	3020.7	58.9
0°-60°	4525.0	88.2
0°-90°	5128.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5128.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2520	2520	2520	2520	2520	
5°	2466	2504	2500	2500	2504	234
15°	2338	2403	2450	2396	2357	661
25°	2175	2240	2264	2248	2210	997
35°	1729	1752	1648	1752	1744	1078
45°	1225	1186	853	1202	1264	952
55°	864	810	353	818	853	771
65°	535	481	128	473	508	524
75°	244	209	35	182	209	265
85°	54	43	4	31	35	62
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°	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7
2.5°	2488.7	2488.7	2512.0	2539.0	2515.8	2492.5	2508.0	2500.3	2527.5	2527.5	2515.8
5°	2465.5	2473.2	2492.5	2515.8	2496.5	2473.2	2492.5	2484.9	2512.0	2512.0	2504.2
7.5°	2442.2	2446.0	2469.4	2496.5	2477.0	2453.9	2469.4	2465.5	2488.7	2492.5	2484.9
10°	2411.2	2415.0	2438.4	2465.5	2446.0	2426.7	2442.2	2438.4	2469.4	2469.4	2465.5
12.5°	2380.2	2384.0	2407.4	2430.5	2411.2	2391.9	2407.4	2407.4	2438.4	2442.2	2438.4
15°	2337.5	2345.1	2364.7	2387.8	2376.4	2353.0	2368.5	2368.5	2395.7	2403.3	2403.3
17.5°	2302.7	2306.5	2325.8	2349.2	2333.7	2314.2	2329.7	2329.7	2356.8	2364.7	2364.7
20°	2256.0	2263.9	2283.2	2306.5	2294.8	2279.3	2291.0	2291.0	2322.0	2329.7	2333.7
22.5°	2217.4	2225.0	2240.5	2271.7	2252.2	2240.5	2256.0	2252.2	2287.2	2291.0	2291.0
25°	2174.7	2182.6	2201.9	2221.2	2209.5	2198.1	2209.5	2209.5	2236.7	2240.5	2240.5
27.5°	2112.7	2116.5	2135.8	2155.4	2143.7	2128.2	2143.7	2139.9	2166.8	2170.9	2166.8
30°	2011.9	2019.7	2027.4	2054.5	2042.9	2031.2	2046.7	2039.0	2066.2	2066.2	2062.2
32.5°	1883.8	1883.8	1899.6	1918.9	1903.4	1895.5	1907.2	1911.0	1930.6	1930.6	1918.9
35°	1728.9	1736.7	1748.2	1759.9	1748.2	1740.6	1752.2	1748.2	1771.6	1763.7	1752.2
37.5°	1573.9	1577.7	1589.4	1604.9	1589.4	1577.7	1581.6	1577.7	1597.0	1597.0	1577.7
40°	1430.4	1438.3	1445.9	1461.4	1445.9	1438.3	1442.1	1430.4	1453.8	1445.9	1434.2
42.5°	1314.1	1317.9	1329.6	1337.4	1321.9	1317.9	1321.9	1314.1	1325.7	1317.9	1294.8
45°	1224.9	1224.9	1229.0	1240.4	1224.9	1221.1	1221.1	1213.2	1224.9	1209.4	1186.3
47.5°	1147.4	1151.2	1155.3	1162.9	1151.2	1139.8	1143.6	1128.1	1135.7	1124.1	1093.1
50°	1069.9	1077.6	1081.6	1089.3	1077.6	1069.9	1073.8	1058.3	1058.3	1039.0	1011.8
52.5°	992.5	996.3	992.5	1000.1	992.5	980.8	984.6	969.1	969.1	946.0	918.8
55°	864.4	868.3	872.3	879.9	872.3	860.6	868.3	856.8	856.8	841.1	810.1
57.5°	736.4	740.5	744.3	748.1	748.1	740.5	744.3	736.4	732.6	720.9	697.8
60°	655.1	655.1	655.1	658.9	655.1	651.3	651.3	643.4	643.4	627.9	604.8
62.5°	593.1	597.0	597.0	600.8	597.0	593.1	589.3	581.5	577.6	562.1	542.6
65°	535.0	535.0	531.2	538.8	535.0	531.2	531.2	523.3	515.7	500.2	480.6
67.5°	465.1	468.9	465.1	468.9	468.9	465.1	461.3	453.4	449.6	437.9	414.8
70°	391.5	391.5	391.5	395.5	391.5	391.5	395.5	383.8	380.0	364.3	345.0
72.5°	317.8	321.8	321.8	317.8	321.8	314.0	314.0	314.0	310.2	294.7	275.1
75°	244.1	248.2	248.2	252.0	248.2	244.1	244.1	240.3	236.5	224.8	209.3
77.5°	182.1	182.1	186.0	186.0	186.0	182.1	182.1	174.5	174.5	166.6	151.1
80°	131.8	131.8	128.0	131.8	131.8	128.0	128.0	124.0	124.0	116.3	104.7
82.5°	85.3	89.2	89.2	89.2	89.2	85.3	85.3	85.3	81.3	77.5	69.9
85°	54.4	54.4	54.4	54.4	58.2	54.4	58.2	54.4	54.4	46.5	42.7
87.5°	23.4	23.4	23.4	27.2	27.2	23.4	23.4	23.4	23.4	23.4	19.3
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°	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7
2.5°	2515.8	2519.7	2508.0	2523.5	2512.0	2515.8	2519.7	2515.8	2500.3	2500.3	2543.0
5°	2500.3	2508.0	2496.5	2515.8	2508.0	2508.0	2515.8	2512.0	2496.5	2500.3	2539.0
7.5°	2484.9	2496.5	2488.7	2508.0	2496.5	2496.5	2504.2	2504.2	2488.7	2492.5	2527.5
10°	2461.5	2477.0	2473.2	2492.5	2481.0	2481.0	2492.5	2492.5	2477.0	2481.0	2515.8
12.5°	2442.2	2457.7	2453.9	2473.2	2465.5	2469.4	2473.2	2481.0	2461.5	2469.4	2500.3
15°	2411.2	2426.7	2426.7	2446.0	2438.4	2446.0	2453.9	2465.5	2449.8	2449.8	2481.0
17.5°	2376.4	2395.7	2395.7	2411.2	2411.2	2415.0	2430.5	2442.2	2426.7	2430.5	2457.7
20°	2337.5	2360.9	2360.9	2380.2	2376.4	2384.0	2395.7	2407.4	2391.9	2391.9	2422.9
22.5°	2298.7	2318.2	2322.0	2333.7	2333.7	2337.5	2349.2	2356.8	2337.5	2337.5	2368.5
25°	2244.5	2263.9	2267.7	2275.5	2267.7	2267.7	2275.5	2283.2	2263.9	2263.9	2291.0
27.5°	2170.9	2190.2	2190.2	2186.4	2178.5	2182.6	2178.5	2182.6	2163.0	2159.2	2186.4
30°	2062.2	2073.8	2073.8	2070.0	2058.4	2058.4	2046.7	2050.7	2023.5	2023.5	2046.7
32.5°	1915.1	1926.5	1918.9	1911.0	1895.5	1887.9	1880.0	1876.2	1849.0	1849.0	1876.2
35°	1740.6	1748.2	1736.7	1721.3	1701.7	1690.0	1678.6	1663.1	1643.5	1647.6	1663.1
37.5°	1562.2	1562.2	1546.7	1515.8	1500.3	1480.7	1461.4	1461.4	1430.4	1426.6	1438.3
40°	1411.1	1395.6	1368.4	1325.7	1298.6	1279.3	1252.1	1236.6	1213.2	1213.2	1232.8
42.5°	1275.4	1244.5	1209.4	1151.2	1124.1	1100.9	1066.1	1050.6	1023.5	1019.4	1031.1
45°	1155.3	1124.1	1073.8	1011.8	977.0	949.8	899.2	879.9	856.8	852.8	860.6
47.5°	1058.3	1023.5	961.5	879.9	845.1	810.1	759.8	732.6	713.3	701.6	713.3
50°	972.9	926.4	860.6	775.3	728.8	697.8	635.8	608.6	581.5	573.8	577.6
52.5°	879.9	833.4	763.6	674.4	631.8	585.3	527.1	488.5	465.1	453.4	465.1
55°	779.1	732.6	663.0	573.8	527.1	484.7	422.4	391.5	364.3	352.8	364.3
57.5°	670.6	627.9	566.0	476.8	434.1	395.5	337.3	306.3	279.2	271.3	279.2
60°	577.6	542.6	480.6	395.5	360.5	317.8	267.5	236.5	213.1	209.3	213.1
62.5°	515.7	476.8	418.6	337.3	302.3	267.5	221.0	190.0	170.5	166.6	170.5
65°	453.4	411.0	356.6	286.8	252.0	224.8	178.3	151.1	131.8	128.0	131.8
67.5°	383.8	345.0	298.5	236.5	209.3	182.1	143.5	116.3	100.8	97.0	100.8
70°	317.8	283.0	236.5	190.0	162.8	143.5	108.5	89.2	73.7	69.9	73.7
72.5°	252.0	221.0	182.1	143.5	128.0	108.5	85.3	65.8	54.4	50.3	54.4
75°	193.8	170.5	139.5	104.7	93.0	81.3	58.2	46.5	38.9	34.8	38.9
77.5°	135.6	120.2	97.0	77.5	65.8	58.2	42.7	31.0	27.2	23.4	27.2
80°	93.0	81.3	65.8	50.3	42.7	34.8	27.2	19.3	15.5	15.5	15.5
82.5°	62.0	50.3	38.9	31.0	27.2	23.4	15.5	11.7	11.7	7.9	7.9
85°	34.8	31.0	23.4	19.3	15.5	11.7	7.9	7.9	3.8	3.8	3.8
87.5°	15.5	11.7	7.9	7.9	3.8	3.8	3.8	3.8	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°	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7
2.5°	2531.3	2519.7	2535.2	2519.7	2512.0	2519.7	2512.0	2535.2	2515.8	2500.3	2515.8
5°	2527.5	2512.0	2527.5	2515.8	2504.2	2508.0	2500.3	2523.5	2500.3	2488.7	2496.5
7.5°	2519.7	2508.0	2515.8	2504.2	2492.5	2496.5	2488.7	2508.0	2484.9	2473.2	2481.0
10°	2508.0	2496.5	2500.3	2492.5	2481.0	2481.0	2473.2	2488.7	2461.5	2446.0	2453.9
12.5°	2492.5	2477.0	2484.9	2473.2	2457.7	2457.7	2449.8	2461.5	2434.3	2418.8	2422.9
15°	2473.2	2457.7	2457.7	2446.0	2430.5	2430.5	2415.0	2426.7	2395.7	2380.2	2380.2
17.5°	2449.8	2430.5	2430.5	2418.8	2399.5	2395.7	2384.0	2395.7	2360.9	2345.1	2345.1
20°	2415.0	2399.5	2395.7	2387.8	2368.5	2364.7	2349.2	2353.0	2325.8	2314.2	2310.3
22.5°	2368.5	2353.0	2356.8	2345.1	2329.7	2325.8	2310.3	2322.0	2294.8	2283.2	2287.2
25°	2287.2	2279.3	2287.2	2283.2	2271.7	2271.7	2263.9	2271.7	2248.4	2240.5	2244.5
27.5°	2194.0	2190.2	2194.0	2194.0	2186.4	2186.4	2186.4	2198.1	2174.7	2170.9	2170.9
30°	2058.4	2058.4	2062.2	2066.2	2066.2	2073.8	2070.0	2085.5	2070.0	2062.2	2070.0
32.5°	1880.0	1895.5	1907.2	1907.2	1907.2	1915.1	1922.7	1934.4	1918.9	1922.7	1922.7
35°	1678.6	1690.0	1697.9	1717.2	1705.8	1732.7	1740.6	1756.1	1752.2	1759.9	1756.1
37.5°	1453.8	1469.3	1484.8	1511.9	1507.9	1538.9	1554.4	1585.4	1577.7	1593.2	1600.9
40°	1244.5	1267.6	1290.9	1310.3	1325.7	1356.7	1387.7	1426.6	1438.3	1449.7	1453.8
42.5°	1042.8	1066.1	1104.7	1131.9	1155.3	1205.6	1248.3	1294.8	1306.4	1329.6	1337.4
45°	879.9	899.2	946.0	980.8	1000.1	1073.8	1124.1	1182.2	1201.8	1229.0	1240.4
47.5°	728.8	763.6	810.1	852.8	879.9	957.4	1023.5	1085.4	1112.6	1143.6	1159.1
50°	597.0	635.8	697.8	736.4	775.3	860.6	934.3	1000.1	1027.3	1062.1	1077.6
52.5°	488.5	531.2	589.3	631.8	674.4	763.6	841.1	903.3	938.1	961.5	984.6
55°	383.8	430.3	488.5	535.0	569.8	666.8	732.6	794.6	818.0	837.3	848.9
57.5°	298.5	333.3	391.5	430.3	473.0	558.1	624.1	670.6	689.9	713.3	720.9
60°	232.7	267.5	321.8	360.5	399.3	480.6	546.7	593.1	612.5	631.8	643.4
62.5°	186.0	221.0	271.3	306.3	341.2	414.8	473.0	519.5	542.6	562.1	573.8
65°	147.3	178.3	221.0	255.8	283.0	348.8	406.9	449.6	473.0	492.3	504.0
67.5°	116.3	143.5	182.1	205.5	232.7	286.8	337.3	376.0	395.5	418.6	430.3
70°	89.2	108.5	143.5	162.8	182.1	228.6	267.5	306.3	325.7	341.2	348.8
72.5°	65.8	81.3	108.5	124.0	135.6	174.5	205.5	232.7	248.2	263.7	271.3
75°	46.5	58.2	77.5	89.2	97.0	124.0	151.1	170.5	182.1	193.8	205.5
77.5°	31.0	38.9	50.3	58.2	65.8	85.3	100.8	116.3	128.0	139.5	143.5
80°	19.3	27.2	34.8	38.9	42.7	54.4	69.9	77.5	85.3	93.0	97.0
82.5°	11.7	15.5	19.3	23.4	27.2	34.8	42.7	50.3	54.4	62.0	65.8
85°	3.8	7.9	7.9	11.7	11.7	19.3	23.4	27.2	31.0	34.8	38.9
87.5°	0.0	0.0	3.8	3.8	3.8	3.8	7.9	7.9	7.9	7.9	7.9
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: P880589

CATALOG NUMBER: LD4C55D010 EU4559035 4LBDWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7	2519.7
2.5°	2531.3	2519.7	2512.0	2508.0	2535.2	2500.3	2515.8	2519.7
5°	2515.8	2504.2	2496.5	2492.5	2515.8	2484.9	2496.5	2504.2
7.5°	2492.5	2484.9	2473.2	2469.4	2492.5	2457.7	2473.2	2477.0
10°	2465.5	2453.9	2446.0	2442.2	2461.5	2426.7	2442.2	2442.2
12.5°	2430.5	2422.9	2407.4	2407.4	2422.9	2391.9	2403.3	2403.3
15°	2384.0	2376.4	2360.9	2360.9	2376.4	2345.1	2356.8	2356.8
17.5°	2345.1	2337.5	2325.8	2322.0	2337.5	2306.5	2318.2	2314.2
20°	2314.2	2306.5	2291.0	2291.0	2302.7	2271.7	2283.2	2283.2
22.5°	2287.2	2283.2	2267.7	2267.7	2283.2	2252.2	2260.0	2252.2
25°	2244.5	2240.5	2225.0	2229.0	2236.7	2205.7	2217.4	2209.5
27.5°	2174.7	2174.7	2159.2	2155.4	2166.8	2139.9	2147.5	2143.7
30°	2066.2	2070.0	2050.7	2050.7	2054.5	2031.2	2042.9	2039.0
32.5°	1918.9	1922.7	1907.2	1903.4	1915.1	1895.5	1903.4	1903.4
35°	1756.1	1759.9	1748.2	1748.2	1759.9	1748.2	1748.2	1744.4
37.5°	1593.2	1600.9	1593.2	1597.0	1604.9	1593.2	1600.9	1597.0
40°	1461.4	1469.3	1457.6	1465.2	1473.1	1461.4	1473.1	1465.2
42.5°	1341.2	1352.9	1345.1	1352.9	1360.6	1352.9	1360.6	1349.1
45°	1252.1	1259.9	1255.9	1259.9	1267.6	1263.8	1267.6	1263.8
47.5°	1166.7	1182.2	1174.6	1182.2	1193.9	1186.3	1193.9	1182.2
50°	1089.3	1100.9	1097.1	1104.7	1108.6	1104.7	1112.6	1100.9
52.5°	988.4	1000.1	996.3	996.3	1003.9	996.3	1003.9	996.3
55°	856.8	860.6	860.6	864.4	860.6	856.8	860.6	852.8
57.5°	728.8	736.4	725.0	736.4	732.6	728.8	728.8	720.9
60°	647.3	658.9	651.3	658.9	655.1	655.1	655.1	651.3
62.5°	581.5	589.3	581.5	585.3	585.3	585.3	581.5	577.6
65°	507.8	519.5	511.6	515.7	511.6	507.8	511.6	507.8
67.5°	434.1	437.9	437.9	434.1	434.1	434.1	434.1	426.5
70°	352.8	356.6	352.8	360.5	356.6	352.8	356.6	348.8
72.5°	275.1	279.2	275.1	279.2	275.1	275.1	275.1	275.1
75°	205.5	209.3	209.3	209.3	209.3	209.3	201.7	209.3
77.5°	147.3	147.3	147.3	151.1	147.3	147.3	147.3	147.3
80°	100.8	100.8	100.8	104.7	100.8	104.7	100.8	104.7
82.5°	65.8	65.8	65.8	65.8	65.8	65.8	65.8	65.8
85°	34.8	38.9	38.9	34.8	34.8	34.8	34.8	34.8
87.5°	7.9	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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)