

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: P880591

Luminaire Tested: **LD4C55D010 EU4559050 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: P880591
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 EU4559050 4LBDWNH
Description: 4 INCH 5500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

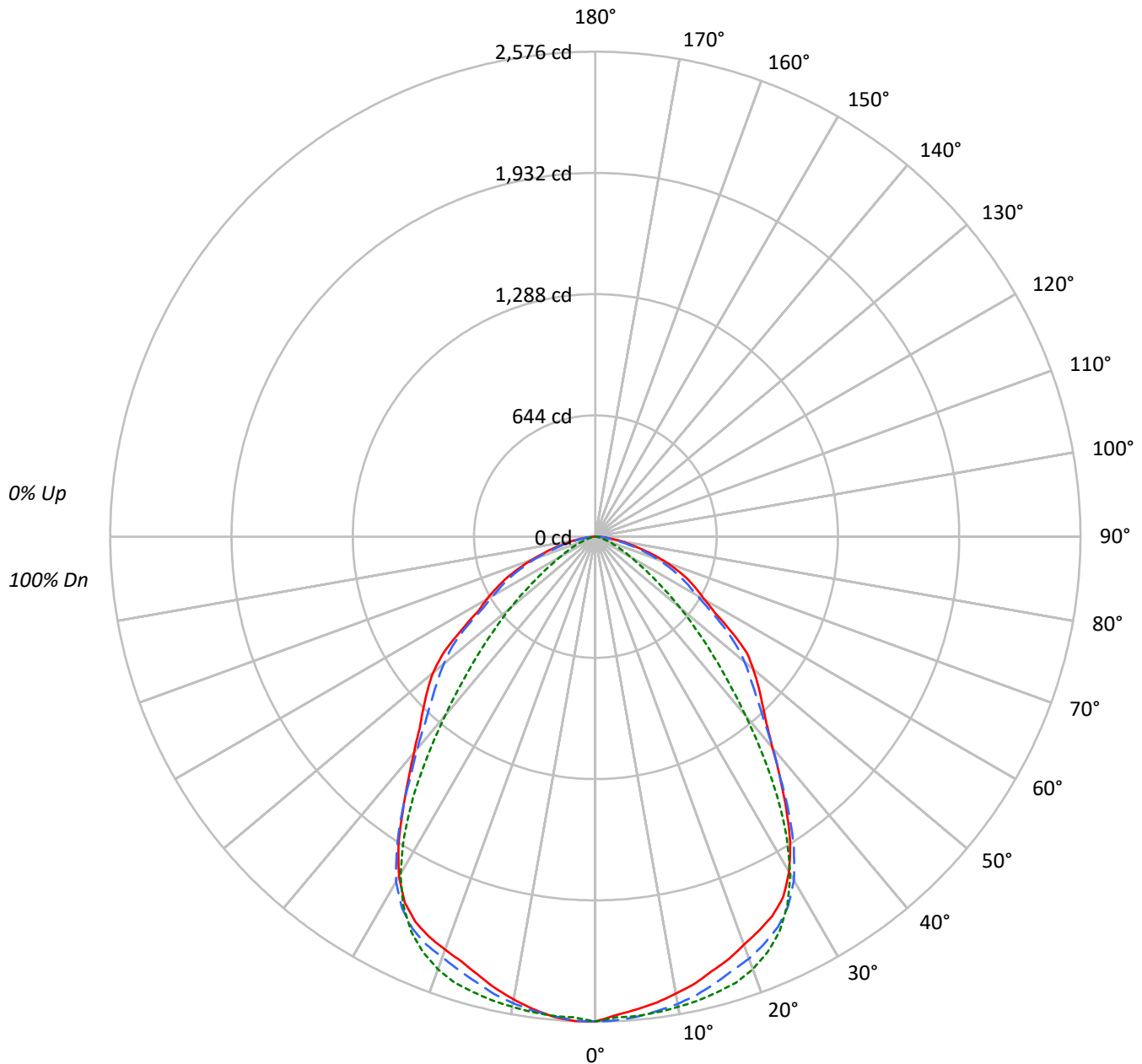
Lumens per Lamp: N/A
Luminaire Lumens: 5242.0 lumens
Efficiency: N/A
Efficacy: 82.0 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	316434	316434	316434
5°	310823	315201	315682
10°	307481	316388	311435
15°	303914	318515	306420
20°	301495	319654	305129
25°	301336	313699	306162
30°	291747	293435	295691
35°	265053	252590	267438
40°	234499	198896	240208
45°	217541	151450	224456
50°	209035	112115	215093
55°	189278	77258	186708
60°	164550	52581	163592
65°	158982	38052	150900
70°	143752	25647	128055
75°	118430	16898	101579
80°	95369	11178	75701
85°	78373	5497	50181



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	243.1	4.6
10°-20°	695.2	13.3
20°-30°	1050.3	20.0
30°-40°	1099.2	21.0
40°-50°	890.2	17.0
50°-60°	647.5	12.4
60°-70°	399.4	7.6
70°-80°	180.4	3.4
80°-90°	36.7	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°	1988.6	37.9
0°-40°	3087.8	58.9
0°-60°	4625.5	88.2
0°-90°	5242.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5242.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2576	2576	2576	2576	2576	
5°	2520	2560	2556	2556	2560	239
15°	2390	2457	2504	2449	2409	675
25°	2223	2290	2314	2298	2259	1019
35°	1767	1791	1684	1791	1783	1102
45°	1252	1213	872	1228	1292	973
55°	884	828	361	836	872	788
65°	547	491	131	484	519	535
75°	250	214	36	186	214	271
85°	56	44	4	32	36	64
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°	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7
2.5°	2544.0	2544.0	2567.9	2595.4	2571.8	2547.9	2563.7	2555.9	2583.7	2583.7	2571.8
5°	2520.4	2528.1	2547.9	2571.8	2552.0	2528.1	2547.9	2540.1	2567.9	2567.9	2559.8
7.5°	2496.5	2500.4	2524.3	2552.0	2532.0	2508.4	2524.3	2520.4	2544.0	2547.9	2540.1
10°	2464.8	2468.7	2492.6	2520.4	2500.4	2480.6	2496.5	2492.6	2524.3	2524.3	2520.4
12.5°	2433.1	2437.0	2460.9	2484.5	2464.8	2445.0	2460.9	2460.9	2492.6	2496.5	2492.6
15°	2389.5	2397.3	2417.3	2440.9	2429.2	2405.3	2421.2	2421.2	2448.9	2456.7	2456.7
17.5°	2353.9	2357.8	2377.5	2401.4	2385.6	2365.6	2381.4	2381.4	2409.2	2417.3	2417.3
20°	2306.1	2314.2	2333.9	2357.8	2345.9	2330.0	2342.0	2342.0	2373.6	2381.4	2385.6
22.5°	2266.7	2274.5	2290.3	2322.2	2302.2	2290.3	2306.1	2302.2	2338.1	2342.0	2342.0
25°	2223.0	2231.1	2250.8	2270.6	2258.6	2246.9	2258.6	2258.6	2286.4	2290.3	2290.3
27.5°	2159.7	2163.6	2183.3	2203.3	2191.4	2175.5	2191.4	2187.5	2215.0	2219.1	2215.0
30°	2056.6	2064.6	2072.4	2100.2	2088.3	2076.3	2092.2	2084.4	2112.2	2112.2	2108.0
32.5°	1925.7	1925.7	1941.8	1961.5	1945.7	1937.7	1949.6	1953.5	1973.5	1973.5	1961.5
35°	1767.3	1775.4	1787.1	1799.0	1787.1	1779.3	1791.2	1787.1	1810.9	1802.9	1791.2
37.5°	1608.9	1612.8	1624.8	1640.6	1624.8	1612.8	1616.7	1612.8	1632.5	1632.5	1612.8
40°	1462.2	1470.2	1478.0	1493.9	1478.0	1470.2	1474.1	1462.2	1486.1	1478.0	1466.1
42.5°	1343.3	1347.2	1359.1	1367.2	1351.3	1347.2	1351.3	1343.3	1355.2	1347.2	1323.5
45°	1252.1	1252.1	1256.3	1268.0	1252.1	1248.2	1248.2	1240.2	1252.1	1236.3	1212.7
47.5°	1172.9	1176.8	1181.0	1188.8	1176.8	1165.1	1169.0	1153.2	1161.0	1149.0	1117.4
50°	1093.7	1101.5	1105.7	1113.5	1101.5	1093.7	1097.6	1081.8	1081.8	1062.0	1034.3
52.5°	1014.5	1018.4	1014.5	1022.3	1014.5	1002.6	1006.5	990.6	990.6	967.0	939.2
55°	883.7	887.6	891.7	899.5	891.7	879.8	887.6	875.9	875.9	859.8	828.1
57.5°	752.8	756.9	760.8	764.7	764.7	756.9	760.8	752.8	748.9	737.0	713.3
60°	669.7	669.7	669.7	673.6	669.7	665.8	665.8	657.7	657.7	641.9	618.3
62.5°	606.3	610.2	610.2	614.1	610.2	606.3	602.4	594.4	590.5	574.6	554.7
65°	546.9	546.9	543.0	550.8	546.9	543.0	543.0	534.9	527.1	511.3	491.3
67.5°	475.5	479.4	475.5	479.4	479.4	475.5	471.6	463.5	459.6	447.7	424.0
70°	400.2	400.2	400.2	404.3	400.2	400.2	404.3	392.4	388.5	372.4	352.6
72.5°	324.9	329.0	329.0	324.9	329.0	321.0	321.0	321.0	317.1	301.2	281.2
75°	249.5	253.7	253.7	257.6	253.7	249.5	249.5	245.7	241.8	229.8	214.0
77.5°	186.2	186.2	190.1	190.1	190.1	186.2	186.2	178.4	178.4	170.3	154.5
80°	134.8	134.8	130.9	134.8	134.8	130.9	130.9	126.7	126.7	118.9	107.0
82.5°	87.2	91.1	91.1	91.1	91.1	87.2	87.2	87.2	83.1	79.2	71.4
85°	55.6	55.6	55.6	55.6	59.5	55.6	59.5	55.6	55.6	47.5	43.6
87.5°	23.9	23.9	23.9	27.8	27.8	23.9	23.9	23.9	23.9	23.9	19.7
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°	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7
2.5°	2571.8	2575.7	2563.7	2579.6	2567.9	2571.8	2575.7	2571.8	2555.9	2555.9	2599.6
5°	2555.9	2563.7	2552.0	2571.8	2563.7	2563.7	2571.8	2567.9	2552.0	2555.9	2595.4
7.5°	2540.1	2552.0	2544.0	2563.7	2552.0	2552.0	2559.8	2559.8	2544.0	2547.9	2583.7
10°	2516.2	2532.0	2528.1	2547.9	2536.2	2536.2	2547.9	2547.9	2532.0	2536.2	2571.8
12.5°	2496.5	2512.3	2508.4	2528.1	2520.4	2524.3	2528.1	2536.2	2516.2	2524.3	2555.9
15°	2464.8	2480.6	2480.6	2500.4	2492.6	2500.4	2508.4	2520.4	2504.3	2504.3	2536.2
17.5°	2429.2	2448.9	2448.9	2464.8	2464.8	2468.7	2484.5	2496.5	2480.6	2484.5	2512.3
20°	2389.5	2413.4	2413.4	2433.1	2429.2	2437.0	2448.9	2460.9	2445.0	2445.0	2476.7
22.5°	2349.8	2369.7	2373.6	2385.6	2385.6	2389.5	2401.4	2409.2	2389.5	2389.5	2421.2
25°	2294.4	2314.2	2318.1	2326.1	2318.1	2318.1	2326.1	2333.9	2314.2	2314.2	2342.0
27.5°	2219.1	2238.9	2238.9	2235.0	2226.9	2231.1	2226.9	2231.1	2211.1	2207.2	2235.0
30°	2108.0	2120.0	2120.0	2116.1	2104.1	2104.1	2092.2	2096.3	2068.5	2068.5	2092.2
32.5°	1957.6	1969.3	1961.5	1953.5	1937.7	1929.9	1921.8	1917.9	1890.1	1890.1	1917.9
35°	1779.3	1787.1	1775.4	1759.5	1739.5	1727.6	1715.9	1700.1	1680.1	1684.2	1700.1
37.5°	1597.0	1597.0	1581.1	1549.4	1533.6	1513.6	1493.9	1493.9	1462.2	1458.3	1470.2
40°	1442.5	1426.6	1398.8	1355.2	1327.4	1307.7	1279.9	1264.1	1240.2	1240.2	1260.2
42.5°	1303.8	1272.1	1236.3	1176.8	1149.0	1125.4	1089.8	1074.0	1046.2	1042.1	1054.0
45°	1181.0	1149.0	1097.6	1034.3	998.7	970.9	919.2	899.5	875.9	871.7	879.8
47.5°	1081.8	1046.2	982.8	899.5	863.9	828.1	776.7	748.9	729.2	717.2	729.2
50°	994.5	947.0	879.8	792.5	745.0	713.3	649.9	622.2	594.4	586.6	590.5
52.5°	899.5	852.0	780.6	689.4	645.8	598.3	538.8	499.3	475.5	463.5	475.5
55°	796.4	748.9	677.7	586.6	538.8	495.4	431.8	400.2	372.4	360.7	372.4
57.5°	685.5	641.9	578.5	487.4	443.8	404.3	344.8	313.2	285.4	277.3	285.4
60°	590.5	554.7	491.3	404.3	368.5	324.9	273.4	241.8	217.9	214.0	217.9
62.5°	527.1	487.4	427.9	344.8	309.0	273.4	225.9	194.2	174.2	170.3	174.2
65°	463.5	420.1	364.6	293.2	257.6	229.8	182.3	154.5	134.8	130.9	134.8
67.5°	392.4	352.6	305.1	241.8	214.0	186.2	146.7	118.9	103.1	99.2	103.1
70°	324.9	289.3	241.8	194.2	166.4	146.7	110.9	91.1	75.3	71.4	75.3
72.5°	257.6	225.9	186.2	146.7	130.9	110.9	87.2	67.3	55.6	51.4	55.6
75°	198.1	174.2	142.6	107.0	95.0	83.1	59.5	47.5	39.7	35.6	39.7
77.5°	138.7	122.8	99.2	79.2	67.3	59.5	43.6	31.7	27.8	23.9	27.8
80°	95.0	83.1	67.3	51.4	43.6	35.6	27.8	19.7	15.8	15.8	15.8
82.5°	63.4	51.4	39.7	31.7	27.8	23.9	15.8	11.9	11.9	8.0	8.0
85°	35.6	31.7	23.9	19.7	15.8	11.9	8.0	8.0	3.9	3.9	3.9
87.5°	15.8	11.9	8.0	8.0	3.9	3.9	3.9	3.9	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°	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7
2.5°	2587.6	2575.7	2591.5	2575.7	2567.9	2575.7	2567.9	2591.5	2571.8	2555.9	2571.8
5°	2583.7	2567.9	2583.7	2571.8	2559.8	2563.7	2555.9	2579.6	2555.9	2544.0	2552.0
7.5°	2575.7	2563.7	2571.8	2559.8	2547.9	2552.0	2544.0	2563.7	2540.1	2528.1	2536.2
10°	2563.7	2552.0	2555.9	2547.9	2536.2	2536.2	2528.1	2544.0	2516.2	2500.4	2508.4
12.5°	2547.9	2532.0	2540.1	2528.1	2512.3	2512.3	2504.3	2516.2	2488.4	2472.6	2476.7
15°	2528.1	2512.3	2512.3	2500.4	2484.5	2484.5	2468.7	2480.6	2448.9	2433.1	2433.1
17.5°	2504.3	2484.5	2484.5	2472.6	2452.8	2448.9	2437.0	2448.9	2413.4	2397.3	2397.3
20°	2468.7	2452.8	2448.9	2440.9	2421.2	2417.3	2401.4	2405.3	2377.5	2365.6	2361.7
22.5°	2421.2	2405.3	2409.2	2397.3	2381.4	2377.5	2361.7	2373.6	2345.9	2333.9	2338.1
25°	2338.1	2330.0	2338.1	2333.9	2322.2	2322.2	2314.2	2322.2	2298.3	2290.3	2294.4
27.5°	2242.8	2238.9	2242.8	2242.8	2235.0	2235.0	2235.0	2246.9	2223.0	2219.1	2219.1
30°	2104.1	2104.1	2108.0	2112.2	2112.2	2120.0	2116.1	2131.9	2116.1	2108.0	2116.1
32.5°	1921.8	1937.7	1949.6	1949.6	1949.6	1957.6	1965.4	1977.4	1961.5	1965.4	1965.4
35°	1715.9	1727.6	1735.6	1755.4	1743.7	1771.2	1779.3	1795.1	1791.2	1799.0	1795.1
37.5°	1486.1	1501.9	1517.8	1545.5	1541.4	1573.1	1588.9	1620.6	1612.8	1628.7	1636.4
40°	1272.1	1295.8	1319.6	1339.4	1355.2	1386.9	1418.6	1458.3	1470.2	1481.9	1486.1
42.5°	1065.9	1089.8	1129.3	1157.1	1181.0	1232.4	1276.0	1323.5	1335.5	1359.1	1367.2
45°	899.5	919.2	967.0	1002.6	1022.3	1097.6	1149.0	1208.5	1228.5	1256.3	1268.0
47.5°	745.0	780.6	828.1	871.7	899.5	978.7	1046.2	1109.6	1137.4	1169.0	1184.9
50°	610.2	649.9	713.3	752.8	792.5	879.8	955.1	1022.3	1050.1	1085.7	1101.5
52.5°	499.3	543.0	602.4	645.8	689.4	780.6	859.8	923.4	959.0	982.8	1006.5
55°	392.4	439.9	499.3	546.9	582.4	681.6	748.9	812.3	836.1	855.9	867.8
57.5°	305.1	340.7	400.2	439.9	483.5	570.5	638.0	685.5	705.3	729.2	737.0
60°	237.9	273.4	329.0	368.5	408.2	491.3	558.8	606.3	626.1	645.8	657.7
62.5°	190.1	225.9	277.3	313.2	348.7	424.0	483.5	531.0	554.7	574.6	586.6
65°	150.6	182.3	225.9	261.5	289.3	356.5	416.0	459.6	483.5	503.2	515.2
67.5°	118.9	146.7	186.2	210.1	237.9	293.2	344.8	384.3	404.3	427.9	439.9
70°	91.1	110.9	146.7	166.4	186.2	233.7	273.4	313.2	332.9	348.7	356.5
72.5°	67.3	83.1	110.9	126.7	138.7	178.4	210.1	237.9	253.7	269.5	277.3
75°	47.5	59.5	79.2	91.1	99.2	126.7	154.5	174.2	186.2	198.1	210.1
77.5°	31.7	39.7	51.4	59.5	67.3	87.2	103.1	118.9	130.9	142.6	146.7
80°	19.7	27.8	35.6	39.7	43.6	55.6	71.4	79.2	87.2	95.0	99.2
82.5°	11.9	15.8	19.7	23.9	27.8	35.6	43.6	51.4	55.6	63.4	67.3
85°	3.9	8.0	8.0	11.9	11.9	19.7	23.9	27.8	31.7	35.6	39.7
87.5°	0.0	0.0	3.9	3.9	3.9	3.9	8.0	8.0	8.0	8.0	8.0
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: P880591

CATALOG NUMBER: LD4C55D010 EU4559050 4LBDWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7	2575.7
2.5°	2587.6	2575.7	2567.9	2563.7	2591.5	2555.9	2571.8	2575.7
5°	2571.8	2559.8	2552.0	2547.9	2571.8	2540.1	2552.0	2559.8
7.5°	2547.9	2540.1	2528.1	2524.3	2547.9	2512.3	2528.1	2532.0
10°	2520.4	2508.4	2500.4	2496.5	2516.2	2480.6	2496.5	2496.5
12.5°	2484.5	2476.7	2460.9	2460.9	2476.7	2445.0	2456.7	2456.7
15°	2437.0	2429.2	2413.4	2413.4	2429.2	2397.3	2409.2	2409.2
17.5°	2397.3	2389.5	2377.5	2373.6	2389.5	2357.8	2369.7	2365.6
20°	2365.6	2357.8	2342.0	2342.0	2353.9	2322.2	2333.9	2333.9
22.5°	2338.1	2333.9	2318.1	2318.1	2333.9	2302.2	2310.3	2302.2
25°	2294.4	2290.3	2274.5	2278.6	2286.4	2254.7	2266.7	2258.6
27.5°	2223.0	2223.0	2207.2	2203.3	2215.0	2187.5	2195.3	2191.4
30°	2112.2	2116.1	2096.3	2096.3	2100.2	2076.3	2088.3	2084.4
32.5°	1961.5	1965.4	1949.6	1945.7	1957.6	1937.7	1945.7	1945.7
35°	1795.1	1799.0	1787.1	1787.1	1799.0	1787.1	1787.1	1783.2
37.5°	1628.7	1636.4	1628.7	1632.5	1640.6	1628.7	1636.4	1632.5
40°	1493.9	1501.9	1490.0	1497.8	1505.8	1493.9	1505.8	1497.8
42.5°	1371.1	1383.0	1375.0	1383.0	1390.8	1383.0	1390.8	1379.1
45°	1279.9	1288.0	1283.8	1288.0	1295.8	1291.9	1295.8	1291.9
47.5°	1192.7	1208.5	1200.7	1208.5	1220.5	1212.7	1220.5	1208.5
50°	1113.5	1125.4	1121.5	1129.3	1133.2	1129.3	1137.4	1125.4
52.5°	1010.4	1022.3	1018.4	1018.4	1026.2	1018.4	1026.2	1018.4
55°	875.9	879.8	879.8	883.7	879.8	875.9	879.8	871.7
57.5°	745.0	752.8	741.1	752.8	748.9	745.0	745.0	737.0
60°	661.6	673.6	665.8	673.6	669.7	669.7	669.7	665.8
62.5°	594.4	602.4	594.4	598.3	598.3	598.3	594.4	590.5
65°	519.1	531.0	523.0	527.1	523.0	519.1	523.0	519.1
67.5°	443.8	447.7	447.7	443.8	443.8	443.8	443.8	436.0
70°	360.7	364.6	360.7	368.5	364.6	360.7	364.6	356.5
72.5°	281.2	285.4	281.2	285.4	281.2	281.2	281.2	281.2
75°	210.1	214.0	214.0	214.0	214.0	214.0	206.2	214.0
77.5°	150.6	150.6	150.6	154.5	150.6	150.6	150.6	150.6
80°	103.1	103.1	103.1	107.0	103.1	107.0	103.1	107.0
82.5°	67.3	67.3	67.3	67.3	67.3	67.3	67.3	67.3
85°	35.6	39.7	39.7	35.6	35.6	35.6	35.6	35.6
87.5°	8.0	3.9	3.9	3.9	3.9	3.9	3.9	3.9
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)