

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: P880590

Luminaire Tested: **LD4C55D010 EU4559040 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: P880590
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 EU4559040 4LBDWNH
Description: 4 INCH 5500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

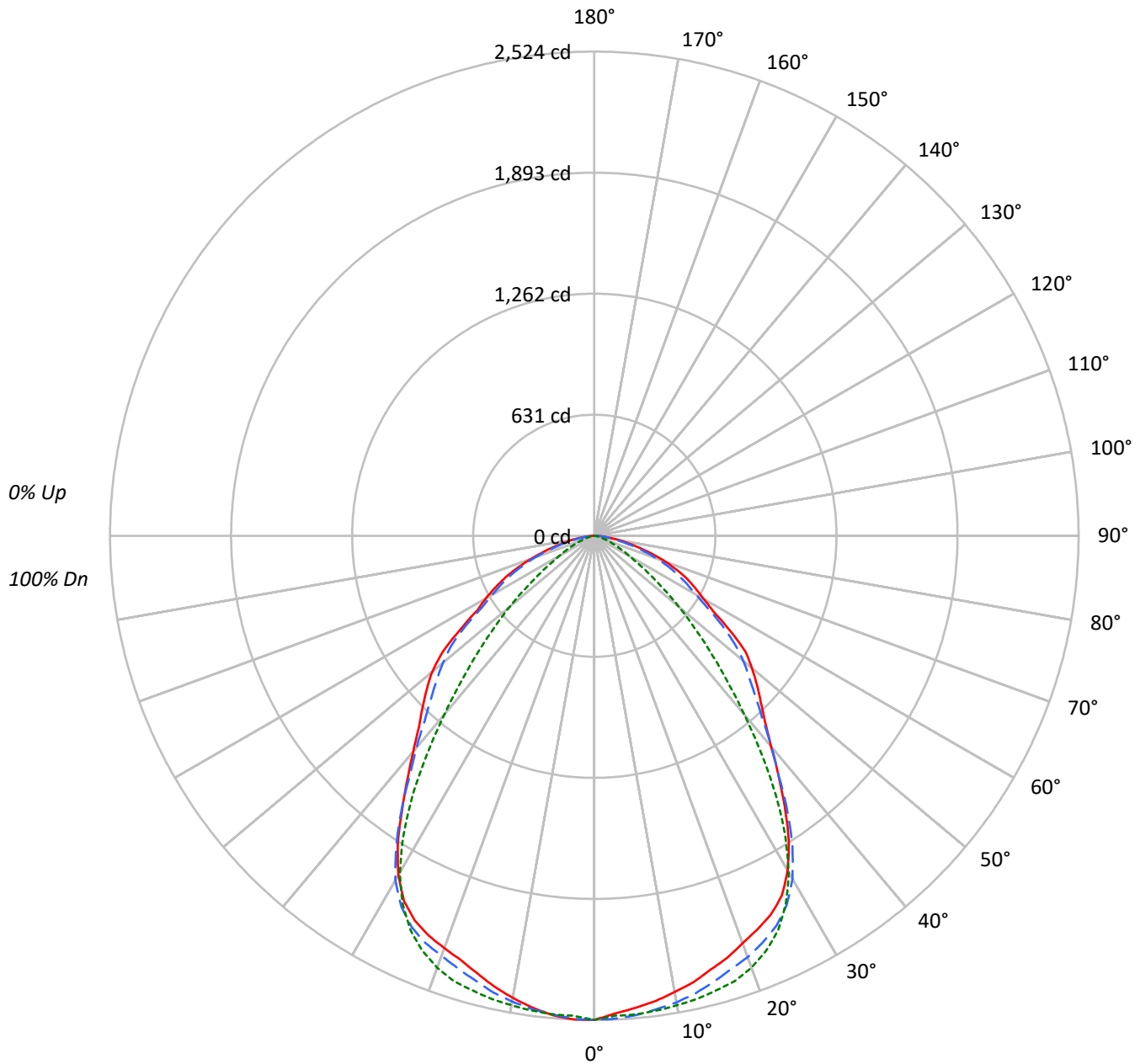
Lumens per Lamp: N/A
Luminaire Lumens: 5136.0 lumens
Efficiency: N/A
Efficacy: 80.4 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	310033	310033	310033
5°	304533	308825	309306
10°	301256	309988	305135
15°	297771	312067	300226
20°	295402	313196	298958
25°	295250	307355	299967
30°	285846	287506	289704
35°	259699	247491	262024
40°	229752	194870	235349
45°	213146	148392	219904
50°	204811	109840	210755
55°	185444	75694	182938
60°	161208	51500	160275
65°	155755	37267	147848
70°	140842	25144	125468
75°	116057	16566	99491
80°	93388	10966	74144
85°	76681	5356	49195



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	238.2	4.6
10°-20°	681.1	13.3
20°-30°	1029.1	20.0
30°-40°	1076.9	21.0
40°-50°	872.2	17.0
50°-60°	634.4	12.4
60°-70°	391.3	7.6
70°-80°	176.8	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°	1948.4	37.9
0°-40°	3025.4	58.9
0°-60°	4532.0	88.2
0°-90°	5136.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5136.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2524	2524	2524	2524	2524	
5°	2469	2508	2504	2504	2508	234
15°	2341	2407	2454	2399	2360	662
25°	2178	2244	2267	2252	2213	998
35°	1732	1755	1650	1755	1747	1079
45°	1227	1188	854	1204	1266	954
55°	866	811	353	819	854	772
65°	536	481	128	474	509	524
75°	244	210	35	182	210	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°	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6
2.5°	2492.5	2492.5	2515.9	2542.9	2519.8	2496.4	2511.9	2504.2	2531.5	2531.5	2519.8
5°	2469.4	2477.0	2496.4	2519.8	2500.4	2477.0	2496.4	2488.7	2515.9	2515.9	2508.1
7.5°	2446.0	2449.8	2473.2	2500.4	2480.8	2457.7	2473.2	2469.4	2492.5	2496.4	2488.7
10°	2414.9	2418.8	2442.2	2469.4	2449.8	2430.5	2446.0	2442.2	2473.2	2473.2	2469.4
12.5°	2383.9	2387.7	2411.1	2434.3	2414.9	2395.6	2411.1	2411.1	2442.2	2446.0	2442.2
15°	2341.2	2348.8	2368.4	2391.5	2380.1	2356.7	2372.2	2372.2	2399.4	2407.1	2407.1
17.5°	2306.3	2310.1	2329.5	2352.9	2337.3	2317.8	2333.3	2333.3	2360.5	2368.4	2368.4
20°	2259.5	2267.4	2286.7	2310.1	2298.4	2282.9	2294.6	2294.6	2325.6	2333.3	2337.3
22.5°	2220.8	2228.5	2244.0	2275.3	2255.7	2244.0	2259.5	2255.7	2290.8	2294.6	2294.6
25°	2178.1	2186.0	2205.3	2224.6	2212.9	2201.5	2212.9	2212.9	2240.2	2244.0	2244.0
27.5°	2116.0	2119.8	2139.2	2158.7	2147.0	2131.5	2147.0	2143.2	2170.2	2174.3	2170.2
30°	2015.0	2022.9	2030.5	2057.7	2046.0	2034.3	2049.9	2042.2	2069.4	2069.4	2065.4
32.5°	1886.8	1886.8	1902.5	1921.9	1906.4	1898.5	1910.2	1914.0	1933.6	1933.6	1921.9
35°	1731.6	1739.5	1750.9	1762.6	1750.9	1743.3	1755.0	1750.9	1774.3	1766.4	1755.0
37.5°	1576.4	1580.2	1591.9	1607.4	1591.9	1580.2	1584.0	1580.2	1599.5	1599.5	1580.2
40°	1432.6	1440.5	1448.2	1463.7	1448.2	1440.5	1444.3	1432.6	1456.0	1448.2	1436.5
42.5°	1316.1	1319.9	1331.6	1339.5	1324.0	1319.9	1324.0	1316.1	1327.8	1319.9	1296.8
45°	1226.8	1226.8	1230.9	1242.3	1226.8	1223.0	1223.0	1215.1	1226.8	1211.3	1188.1
47.5°	1149.2	1153.0	1157.1	1164.7	1153.0	1141.6	1145.4	1129.9	1137.5	1125.8	1094.8
50°	1071.6	1079.3	1083.3	1091.0	1079.3	1071.6	1075.4	1059.9	1059.9	1040.6	1013.4
52.5°	994.0	997.8	994.0	1001.7	994.0	982.3	986.1	970.6	970.6	947.4	920.2
55°	865.8	869.6	873.7	881.3	873.7	862.0	869.6	858.1	858.1	842.4	811.3
57.5°	737.6	741.6	745.4	749.3	749.3	741.6	745.4	737.6	733.7	722.0	698.9
60°	656.1	656.1	656.1	660.0	656.1	652.3	652.3	644.4	644.4	628.9	605.8
62.5°	594.1	597.9	597.9	601.7	597.9	594.1	590.2	582.4	578.5	563.0	543.4
65°	535.8	535.8	532.0	539.6	535.8	532.0	532.0	524.1	516.5	500.9	481.4
67.5°	465.8	469.7	465.8	469.7	469.7	465.8	462.0	454.1	450.3	438.6	415.5
70°	392.1	392.1	392.1	396.1	392.1	392.1	396.1	384.4	380.6	364.8	345.5
72.5°	318.3	322.3	322.3	318.3	322.3	314.5	314.5	314.5	310.6	295.1	275.5
75°	244.5	248.6	248.6	252.4	248.6	244.5	244.5	240.7	236.9	225.2	209.6
77.5°	182.4	182.4	186.2	186.2	186.2	182.4	182.4	174.8	174.8	166.9	151.4
80°	132.0	132.0	128.2	132.0	132.0	128.2	128.2	124.2	124.2	116.5	104.8
82.5°	85.5	89.3	89.3	89.3	89.3	85.5	85.5	85.5	81.4	77.6	70.0
85°	54.4	54.4	54.4	54.4	58.3	54.4	58.3	54.4	54.4	46.6	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°	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6
2.5°	2519.8	2523.6	2511.9	2527.4	2515.9	2519.8	2523.6	2519.8	2504.2	2504.2	2547.0
5°	2504.2	2511.9	2500.4	2519.8	2511.9	2511.9	2519.8	2515.9	2500.4	2504.2	2542.9
7.5°	2488.7	2500.4	2492.5	2511.9	2500.4	2500.4	2508.1	2508.1	2492.5	2496.4	2531.5
10°	2465.3	2480.8	2477.0	2496.4	2484.9	2484.9	2496.4	2496.4	2480.8	2484.9	2519.8
12.5°	2446.0	2461.5	2457.7	2477.0	2469.4	2473.2	2477.0	2484.9	2465.3	2473.2	2504.2
15°	2414.9	2430.5	2430.5	2449.8	2442.2	2449.8	2457.7	2469.4	2453.6	2453.6	2484.9
17.5°	2380.1	2399.4	2399.4	2414.9	2414.9	2418.8	2434.3	2446.0	2430.5	2434.3	2461.5
20°	2341.2	2364.6	2364.6	2383.9	2380.1	2387.7	2399.4	2411.1	2395.6	2395.6	2426.6
22.5°	2302.2	2321.8	2325.6	2337.3	2337.3	2341.2	2352.9	2360.5	2341.2	2341.2	2372.2
25°	2248.0	2267.4	2271.2	2279.1	2271.2	2271.2	2279.1	2286.7	2267.4	2267.4	2294.6
27.5°	2174.3	2193.6	2193.6	2189.8	2181.9	2186.0	2181.9	2186.0	2166.4	2162.6	2189.8
30°	2065.4	2077.1	2077.1	2073.3	2061.6	2061.6	2049.9	2053.9	2026.7	2026.7	2049.9
32.5°	1918.1	1929.5	1921.9	1914.0	1898.5	1890.8	1883.0	1879.1	1851.9	1851.9	1879.1
35°	1743.3	1750.9	1739.5	1723.9	1704.4	1692.7	1681.2	1665.7	1646.1	1650.2	1665.7
37.5°	1564.7	1564.7	1549.2	1518.1	1502.6	1483.0	1463.7	1463.7	1432.6	1428.8	1440.5
40°	1413.3	1397.8	1370.6	1327.8	1300.6	1281.3	1254.0	1238.5	1215.1	1215.1	1234.7
42.5°	1277.4	1246.4	1211.3	1153.0	1125.8	1102.7	1067.8	1052.3	1025.1	1021.0	1032.7
45°	1157.1	1125.8	1075.4	1013.4	978.5	951.3	900.7	881.3	858.1	854.1	862.0
47.5°	1059.9	1025.1	963.0	881.3	846.4	811.3	761.0	733.7	714.4	702.7	714.4
50°	974.4	927.9	862.0	776.5	729.9	698.9	636.8	609.6	582.4	574.7	578.5
52.5°	881.3	834.7	764.8	675.5	632.7	586.2	527.9	489.2	465.8	454.1	465.8
55°	780.3	733.7	664.0	574.7	527.9	485.4	423.1	392.1	364.8	353.4	364.8
57.5°	671.7	628.9	566.8	477.5	434.8	396.1	337.9	306.8	279.6	271.7	279.6
60°	578.5	543.4	481.4	396.1	361.0	318.3	267.9	236.9	213.5	209.6	213.5
62.5°	516.5	477.5	419.3	337.9	302.8	267.9	221.3	190.3	170.7	166.9	170.7
65°	454.1	411.6	357.2	287.2	252.4	225.2	178.6	151.4	132.0	128.2	132.0
67.5°	384.4	345.5	298.9	236.9	209.6	182.4	143.7	116.5	101.0	97.2	101.0
70°	318.3	283.4	236.9	190.3	163.1	143.7	108.6	89.3	73.8	70.0	73.8
72.5°	252.4	221.3	182.4	143.7	128.2	108.6	85.5	65.9	54.4	50.4	54.4
75°	194.1	170.7	139.7	104.8	93.1	81.4	58.3	46.6	38.9	34.9	38.9
77.5°	135.9	120.3	97.2	77.6	65.9	58.3	42.7	31.0	27.2	23.4	27.2
80°	93.1	81.4	65.9	50.4	42.7	34.9	27.2	19.3	15.5	15.5	15.5
82.5°	62.1	50.4	38.9	31.0	27.2	23.4	15.5	11.7	11.7	7.9	7.9
85°	34.9	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°	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6
2.5°	2535.3	2523.6	2539.1	2523.6	2515.9	2523.6	2515.9	2539.1	2519.8	2504.2	2519.8
5°	2531.5	2515.9	2531.5	2519.8	2508.1	2511.9	2504.2	2527.4	2504.2	2492.5	2500.4
7.5°	2523.6	2511.9	2519.8	2508.1	2496.4	2500.4	2492.5	2511.9	2488.7	2477.0	2484.9
10°	2511.9	2500.4	2504.2	2496.4	2484.9	2484.9	2477.0	2492.5	2465.3	2449.8	2457.7
12.5°	2496.4	2480.8	2488.7	2477.0	2461.5	2461.5	2453.6	2465.3	2438.1	2422.6	2426.6
15°	2477.0	2461.5	2461.5	2449.8	2434.3	2434.3	2418.8	2430.5	2399.4	2383.9	2383.9
17.5°	2453.6	2434.3	2434.3	2422.6	2403.2	2399.4	2387.7	2399.4	2364.6	2348.8	2348.8
20°	2418.8	2403.2	2399.4	2391.5	2372.2	2368.4	2352.9	2356.7	2329.5	2317.8	2313.9
22.5°	2372.2	2356.7	2360.5	2348.8	2333.3	2329.5	2313.9	2325.6	2298.4	2286.7	2290.8
25°	2290.8	2282.9	2290.8	2286.7	2275.3	2275.3	2267.4	2275.3	2251.9	2244.0	2248.0
27.5°	2197.4	2193.6	2197.4	2197.4	2189.8	2189.8	2189.8	2201.5	2178.1	2174.3	2174.3
30°	2061.6	2061.6	2065.4	2069.4	2069.4	2077.1	2073.3	2088.8	2073.3	2065.4	2073.3
32.5°	1883.0	1898.5	1910.2	1910.2	1910.2	1918.1	1925.7	1937.4	1921.9	1925.7	1925.7
35°	1681.2	1692.7	1700.5	1719.9	1708.4	1735.4	1743.3	1758.8	1755.0	1762.6	1758.8
37.5°	1456.0	1471.6	1487.1	1514.3	1510.2	1541.3	1556.8	1587.8	1580.2	1595.7	1603.4
40°	1246.4	1269.6	1293.0	1312.3	1327.8	1358.9	1389.9	1428.8	1440.5	1452.0	1456.0
42.5°	1044.4	1067.8	1106.5	1133.7	1157.1	1207.5	1250.2	1296.8	1308.5	1331.6	1339.5
45°	881.3	900.7	947.4	982.3	1001.7	1075.4	1125.8	1184.1	1203.7	1230.9	1242.3
47.5°	729.9	764.8	811.3	854.1	881.3	958.9	1025.1	1087.1	1114.4	1145.4	1160.9
50°	597.9	636.8	698.9	737.6	776.5	862.0	935.7	1001.7	1028.9	1063.7	1079.3
52.5°	489.2	532.0	590.2	632.7	675.5	764.8	842.4	904.7	939.6	963.0	986.1
55°	384.4	431.0	489.2	535.8	570.7	667.8	733.7	795.8	819.2	838.6	850.3
57.5°	298.9	333.8	392.1	431.0	473.7	559.0	625.1	671.7	691.0	714.4	722.0
60°	233.0	267.9	322.3	361.0	399.9	481.4	547.5	594.1	613.4	632.7	644.4
62.5°	186.2	221.3	271.7	306.8	341.7	415.5	473.7	520.3	543.4	563.0	574.7
65°	147.6	178.6	221.3	256.2	283.4	349.3	407.6	450.3	473.7	493.1	504.8
67.5°	116.5	143.7	182.4	205.8	233.0	287.2	337.9	376.5	396.1	419.3	431.0
70°	89.3	108.6	143.7	163.1	182.4	229.0	267.9	306.8	326.2	341.7	349.3
72.5°	65.9	81.4	108.6	124.2	135.9	174.8	205.8	233.0	248.6	264.1	271.7
75°	46.6	58.3	77.6	89.3	97.2	124.2	151.4	170.7	182.4	194.1	205.8
77.5°	31.0	38.9	50.4	58.3	65.9	85.5	101.0	116.5	128.2	139.7	143.7
80°	19.3	27.2	34.9	38.9	42.7	54.4	70.0	77.6	85.5	93.1	97.2
82.5°	11.7	15.5	19.3	23.4	27.2	34.9	42.7	50.4	54.4	62.1	65.9
85°	3.8	7.9	7.9	11.7	11.7	19.3	23.4	27.2	31.0	34.9	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: P880590

CATALOG NUMBER: LD4C55D010 EU4559040 4LBDWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6	2523.6
2.5°	2535.3	2523.6	2515.9	2511.9	2539.1	2504.2	2519.8	2523.6
5°	2519.8	2508.1	2500.4	2496.4	2519.8	2488.7	2500.4	2508.1
7.5°	2496.4	2488.7	2477.0	2473.2	2496.4	2461.5	2477.0	2480.8
10°	2469.4	2457.7	2449.8	2446.0	2465.3	2430.5	2446.0	2446.0
12.5°	2434.3	2426.6	2411.1	2411.1	2426.6	2395.6	2407.1	2407.1
15°	2387.7	2380.1	2364.6	2364.6	2380.1	2348.8	2360.5	2360.5
17.5°	2348.8	2341.2	2329.5	2325.6	2341.2	2310.1	2321.8	2317.8
20°	2317.8	2310.1	2294.6	2294.6	2306.3	2275.3	2286.7	2286.7
22.5°	2290.8	2286.7	2271.2	2271.2	2286.7	2255.7	2263.6	2255.7
25°	2248.0	2244.0	2228.5	2232.5	2240.2	2209.1	2220.8	2212.9
27.5°	2178.1	2178.1	2162.6	2158.7	2170.2	2143.2	2150.9	2147.0
30°	2069.4	2073.3	2053.9	2053.9	2057.7	2034.3	2046.0	2042.2
32.5°	1921.9	1925.7	1910.2	1906.4	1918.1	1898.5	1906.4	1906.4
35°	1758.8	1762.6	1750.9	1750.9	1762.6	1750.9	1750.9	1747.1
37.5°	1595.7	1603.4	1595.7	1599.5	1607.4	1595.7	1603.4	1599.5
40°	1463.7	1471.6	1459.9	1467.5	1475.4	1463.7	1475.4	1467.5
42.5°	1343.3	1355.0	1347.2	1355.0	1362.7	1355.0	1362.7	1351.2
45°	1254.0	1261.9	1257.9	1261.9	1269.6	1265.7	1269.6	1265.7
47.5°	1168.6	1184.1	1176.4	1184.1	1195.8	1188.1	1195.8	1184.1
50°	1091.0	1102.7	1098.8	1106.5	1110.3	1106.5	1114.4	1102.7
52.5°	990.0	1001.7	997.8	997.8	1005.5	997.8	1005.5	997.8
55°	858.1	862.0	862.0	865.8	862.0	858.1	862.0	854.1
57.5°	729.9	737.6	726.1	737.6	733.7	729.9	729.9	722.0
60°	648.3	660.0	652.3	660.0	656.1	656.1	656.1	652.3
62.5°	582.4	590.2	582.4	586.2	586.2	586.2	582.4	578.5
65°	508.6	520.3	512.4	516.5	512.4	508.6	512.4	508.6
67.5°	434.8	438.6	438.6	434.8	434.8	434.8	434.8	427.2
70°	353.4	357.2	353.4	361.0	357.2	353.4	357.2	349.3
72.5°	275.5	279.6	275.5	279.6	275.5	275.5	275.5	275.5
75°	205.8	209.6	209.6	209.6	209.6	209.6	202.0	209.6
77.5°	147.6	147.6	147.6	151.4	147.6	147.6	147.6	147.6
80°	101.0	101.0	101.0	104.8	101.0	104.8	101.0	104.8
82.5°	65.9	65.9	65.9	65.9	65.9	65.9	65.9	65.9
85°	34.9	38.9	38.9	34.9	34.9	34.9	34.9	34.9
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)