

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: P880588

Luminaire Tested: **LD4C55D010 EU4559030 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: P880588
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 EU4559030 4LBDWNH
Description: 4 INCH 5500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

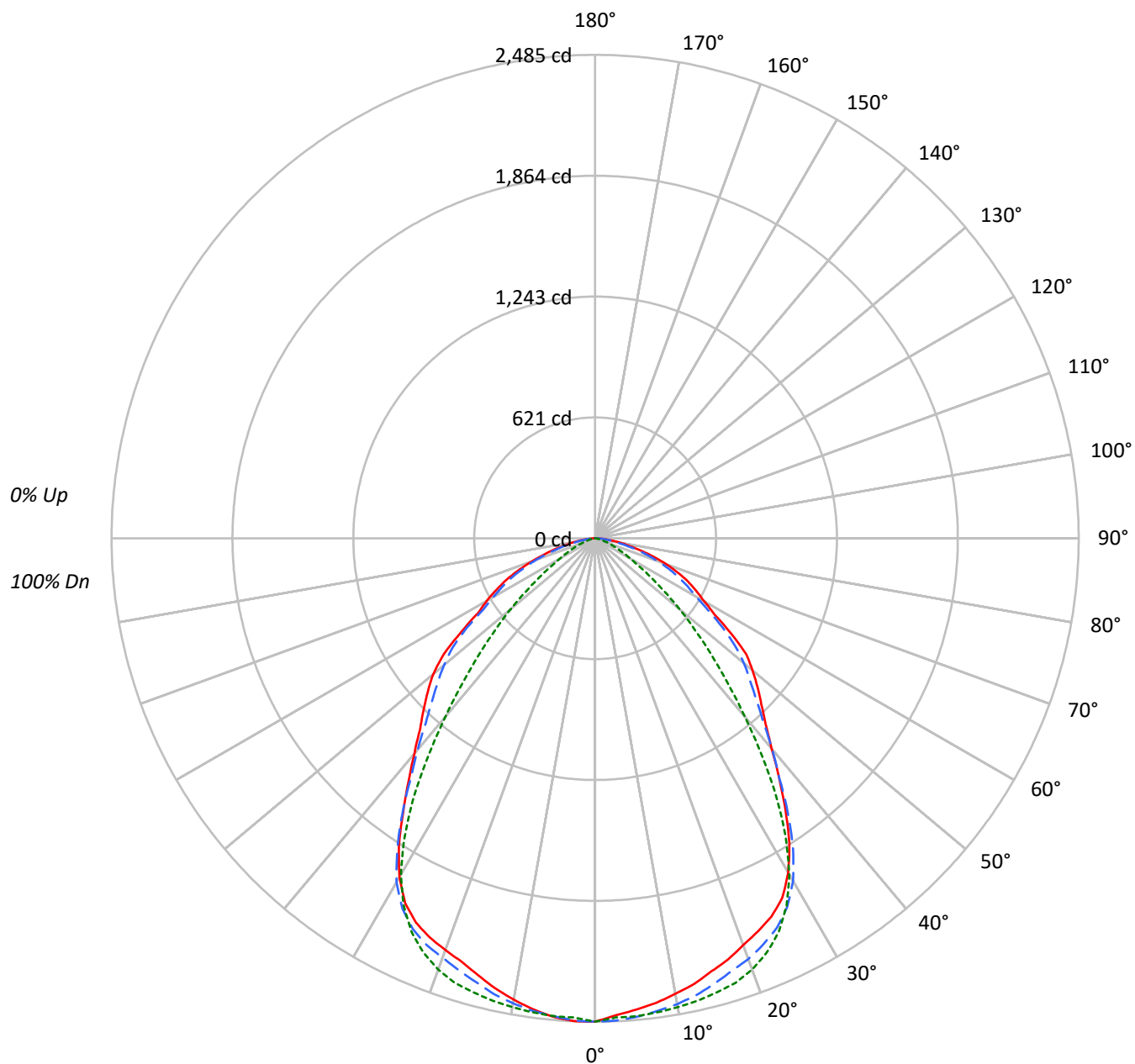
Lumens per Lamp: N/A
Luminaire Lumens: 5057.0 lumens
Efficiency: N/A
Efficacy: 79.1 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	305266	305266	305266
5°	299847	304077	304546
10°	296627	305223	300445
15°	293192	307272	295609
20°	290866	308385	294370
25°	290709	302624	295358
30°	281448	283080	285250
35°	255695	243682	257989
40°	226223	191871	231724
45°	209862	146116	216533
50°	201657	108158	207506
55°	182596	74516	180133
60°	158751	50714	157818
65°	153371	36686	145581
70°	138651	24749	123565
75°	114253	16281	97972
80°	91973	10825	73012
85°	75554	5356	48349



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	234.6	4.6
10°-20°	670.7	13.3
20°-30°	1013.2	20.0
30°-40°	1060.4	21.0
40°-50°	858.8	17.0
50°-60°	624.7	12.4
60°-70°	385.3	7.6
70°-80°	174.1	3.4
80°-90°	35.4	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°	1918.5	37.9
0°-40°	2978.8	58.9
0°-60°	4462.3	88.2
0°-90°	5057.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5057.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2485	2485	2485	2485	2485	
5°	2431	2470	2466	2466	2470	231
15°	2305	2370	2416	2362	2324	652
25°	2145	2210	2232	2217	2179	983
35°	1705	1728	1625	1728	1720	1063
45°	1208	1170	841	1185	1246	939
55°	852	799	348	807	841	761
65°	528	474	126	466	501	516
75°	241	206	34	180	206	261
85°	54	42	4	31	34	61
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°	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8
2.5°	2454.2	2454.2	2477.2	2503.8	2481.0	2458.0	2473.3	2465.7	2492.5	2492.5	2481.0
5°	2431.4	2438.9	2458.0	2481.0	2462.0	2438.9	2458.0	2450.4	2477.2	2477.2	2469.5
7.5°	2408.4	2412.1	2435.2	2462.0	2442.7	2419.9	2435.2	2431.4	2454.2	2458.0	2450.4
10°	2377.8	2381.6	2404.6	2431.4	2412.1	2393.1	2408.4	2404.6	2435.2	2435.2	2431.4
12.5°	2347.2	2351.0	2374.0	2396.8	2377.8	2358.8	2374.0	2374.0	2404.6	2408.4	2404.6
15°	2305.2	2312.7	2332.0	2354.8	2343.5	2320.4	2335.7	2335.7	2362.5	2370.0	2370.0
17.5°	2270.8	2274.6	2293.6	2316.7	2301.4	2282.1	2297.4	2297.4	2324.2	2332.0	2332.0
20°	2224.8	2232.5	2251.6	2274.6	2263.1	2247.8	2259.3	2259.3	2289.9	2297.4	2301.4
22.5°	2186.7	2194.2	2209.5	2240.3	2221.0	2209.5	2224.8	2221.0	2255.5	2259.3	2259.3
25°	2144.6	2152.3	2171.4	2190.4	2178.9	2167.6	2178.9	2178.9	2205.7	2209.5	2209.5
27.5°	2083.5	2087.2	2106.3	2125.5	2114.0	2098.7	2114.0	2110.3	2136.8	2140.8	2136.8
30°	1984.0	1991.8	1999.3	2026.1	2014.6	2003.1	2018.3	2010.8	2037.6	2037.6	2033.6
32.5°	1857.8	1857.8	1873.3	1892.3	1877.0	1869.3	1880.8	1884.6	1903.8	1903.8	1892.3
35°	1704.9	1712.7	1724.0	1735.5	1724.0	1716.5	1728.0	1724.0	1747.0	1739.3	1728.0
37.5°	1552.1	1555.9	1567.4	1582.7	1567.4	1555.9	1559.7	1555.9	1574.9	1574.9	1555.9
40°	1410.6	1418.4	1425.9	1441.2	1425.9	1418.4	1422.1	1410.6	1433.6	1425.9	1414.4
42.5°	1295.9	1299.6	1311.2	1318.9	1303.6	1299.6	1303.6	1295.9	1307.4	1299.6	1276.8
45°	1207.9	1207.9	1211.9	1223.2	1207.9	1204.2	1204.2	1196.4	1207.9	1192.7	1169.9
47.5°	1131.5	1135.3	1139.3	1146.8	1135.3	1124.0	1127.8	1112.5	1120.0	1108.5	1077.9
50°	1055.1	1062.7	1066.6	1074.2	1062.7	1055.1	1058.9	1043.6	1043.6	1024.6	997.8
52.5°	978.7	982.5	978.7	986.2	978.7	967.2	971.0	955.7	955.7	932.9	906.1
55°	852.5	856.2	860.2	867.8	860.2	848.7	856.2	844.9	844.9	829.4	798.9
57.5°	726.2	730.2	734.0	737.7	737.7	730.2	734.0	726.2	722.5	710.9	688.1
60°	646.1	646.1	646.1	649.8	646.1	642.3	642.3	634.5	634.5	619.3	596.4
62.5°	584.9	588.7	588.7	592.5	588.7	584.9	581.2	573.4	569.6	554.4	535.1
65°	527.6	527.6	523.8	531.3	527.6	523.8	523.8	516.0	508.5	493.2	474.0
67.5°	458.7	462.4	458.7	462.4	462.4	458.7	454.9	447.2	443.4	431.9	409.1
70°	386.0	386.0	386.0	390.0	386.0	386.0	390.0	378.5	374.7	359.2	340.2
72.5°	313.4	317.4	317.4	313.4	317.4	309.6	309.6	309.6	305.9	290.6	271.3
75°	240.7	244.7	244.7	248.5	244.7	240.7	240.7	237.0	233.2	221.7	206.4
77.5°	179.6	179.6	183.4	183.4	183.4	179.6	179.6	172.1	172.1	164.3	149.1
80°	130.0	130.0	126.2	130.0	130.0	126.2	126.2	122.3	122.3	114.7	103.2
82.5°	84.2	87.9	87.9	87.9	87.9	84.2	84.2	84.2	80.2	76.4	68.9
85°	53.6	53.6	53.6	53.6	57.4	53.6	57.4	53.6	53.6	45.8	42.1
87.5°	23.0	23.0	23.0	26.8	26.8	23.0	23.0	23.0	23.0	23.0	19.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8
2.5°	2481.0	2484.8	2473.3	2488.5	2477.2	2481.0	2484.8	2481.0	2465.7	2465.7	2507.8
5°	2465.7	2473.3	2462.0	2481.0	2473.3	2473.3	2481.0	2477.2	2462.0	2465.7	2503.8
7.5°	2450.4	2462.0	2454.2	2473.3	2462.0	2462.0	2469.5	2469.5	2454.2	2458.0	2492.5
10°	2427.4	2442.7	2438.9	2458.0	2446.7	2446.7	2458.0	2458.0	2442.7	2446.7	2481.0
12.5°	2408.4	2423.6	2419.9	2438.9	2431.4	2435.2	2438.9	2446.7	2427.4	2435.2	2465.7
15°	2377.8	2393.1	2393.1	2412.1	2404.6	2412.1	2419.9	2431.4	2415.9	2415.9	2446.7
17.5°	2343.5	2362.5	2362.5	2377.8	2377.8	2381.6	2396.8	2408.4	2393.1	2396.8	2423.6
20°	2305.2	2328.2	2328.2	2347.2	2343.5	2351.0	2362.5	2374.0	2358.8	2358.8	2389.3
22.5°	2266.8	2286.1	2289.9	2301.4	2301.4	2305.2	2316.7	2324.2	2305.2	2305.2	2335.7
25°	2213.5	2232.5	2236.3	2244.0	2236.3	2236.3	2244.0	2251.6	2232.5	2232.5	2259.3
27.5°	2140.8	2159.9	2159.9	2156.1	2148.3	2152.3	2148.3	2152.3	2133.1	2129.3	2156.1
30°	2033.6	2045.1	2045.1	2041.4	2029.9	2029.9	2018.3	2022.3	1995.5	1995.5	2018.3
32.5°	1888.6	1899.8	1892.3	1884.6	1869.3	1861.8	1854.0	1850.2	1823.4	1823.4	1850.2
35°	1716.5	1724.0	1712.7	1697.4	1678.1	1666.6	1655.3	1640.1	1620.8	1624.8	1640.1
37.5°	1540.6	1540.6	1525.3	1494.8	1479.5	1460.2	1441.2	1441.2	1410.6	1406.8	1418.4
40°	1391.6	1376.3	1349.5	1307.4	1280.6	1261.5	1234.7	1219.5	1196.4	1196.4	1215.7
42.5°	1257.8	1227.2	1192.7	1135.3	1108.5	1085.7	1051.4	1036.1	1009.3	1005.3	1016.8
45°	1139.3	1108.5	1058.9	997.8	963.4	936.6	886.8	867.8	844.9	841.0	848.7
47.5°	1043.6	1009.3	948.2	867.8	833.4	798.9	749.3	722.5	703.4	691.9	703.4
50°	959.4	913.6	848.7	764.5	718.7	688.1	627.0	600.2	573.4	565.9	569.6
52.5°	867.8	821.9	753.0	665.1	623.0	577.2	519.8	481.7	458.7	447.2	458.7
55°	768.3	722.5	653.8	565.9	519.8	478.0	416.6	386.0	359.2	347.9	359.2
57.5°	661.3	619.3	558.1	470.2	428.1	390.0	332.7	302.1	275.3	267.5	275.3
60°	569.6	535.1	474.0	390.0	355.5	313.4	263.8	233.2	210.2	206.4	210.2
62.5°	508.5	470.2	412.8	332.7	298.1	263.8	217.9	187.4	168.1	164.3	168.1
65°	447.2	405.3	351.7	282.8	248.5	221.7	175.9	149.1	130.0	126.2	130.0
67.5°	378.5	340.2	294.3	233.2	206.4	179.6	141.5	114.7	99.4	95.7	99.4
70°	313.4	279.1	233.2	187.4	160.6	141.5	107.0	87.9	72.6	68.9	72.6
72.5°	248.5	217.9	179.6	141.5	126.2	107.0	84.2	64.9	53.6	49.6	53.6
75°	191.1	168.1	137.5	103.2	91.7	80.2	57.4	45.8	38.3	34.3	38.3
77.5°	133.8	118.5	95.7	76.4	64.9	57.4	42.1	30.6	26.8	23.0	26.8
80°	91.7	80.2	64.9	49.6	42.1	34.3	26.8	19.0	15.3	15.3	15.3
82.5°	61.1	49.6	38.3	30.6	26.8	23.0	15.3	11.5	11.5	7.8	7.8
85°	34.3	30.6	23.0	19.0	15.3	11.5	7.8	7.8	3.8	3.8	3.8
87.5°	15.3	11.5	7.8	7.8	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°	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8
2.5°	2496.3	2484.8	2500.1	2484.8	2477.2	2484.8	2477.2	2500.1	2481.0	2465.7	2481.0
5°	2492.5	2477.2	2492.5	2481.0	2469.5	2473.3	2465.7	2488.5	2465.7	2454.2	2462.0
7.5°	2484.8	2473.3	2481.0	2469.5	2458.0	2462.0	2454.2	2473.3	2450.4	2438.9	2446.7
10°	2473.3	2462.0	2465.7	2458.0	2446.7	2446.7	2438.9	2454.2	2427.4	2412.1	2419.9
12.5°	2458.0	2442.7	2450.4	2438.9	2423.6	2423.6	2415.9	2427.4	2400.6	2385.3	2389.3
15°	2438.9	2423.6	2423.6	2412.1	2396.8	2396.8	2381.6	2393.1	2362.5	2347.2	2347.2
17.5°	2415.9	2396.8	2396.8	2385.3	2366.3	2362.5	2351.0	2362.5	2328.2	2312.7	2312.7
20°	2381.6	2366.3	2362.5	2354.8	2335.7	2332.0	2316.7	2320.4	2293.6	2282.1	2278.4
22.5°	2335.7	2320.4	2324.2	2312.7	2297.4	2293.6	2278.4	2289.9	2263.1	2251.6	2255.5
25°	2255.5	2247.8	2255.5	2251.6	2240.3	2240.3	2232.5	2240.3	2217.2	2209.5	2213.5
27.5°	2163.6	2159.9	2163.6	2163.6	2156.1	2156.1	2156.1	2167.6	2144.6	2140.8	2140.8
30°	2029.9	2029.9	2033.6	2037.6	2037.6	2045.1	2041.4	2056.7	2041.4	2033.6	2041.4
32.5°	1854.0	1869.3	1880.8	1880.8	1880.8	1888.6	1896.1	1907.6	1892.3	1896.1	1896.1
35°	1655.3	1666.6	1674.4	1693.4	1682.1	1708.7	1716.5	1731.7	1728.0	1735.5	1731.7
37.5°	1433.6	1448.9	1464.2	1491.0	1487.0	1517.6	1532.9	1563.4	1555.9	1571.2	1578.7
40°	1227.2	1250.0	1273.1	1292.1	1307.4	1338.0	1368.5	1406.8	1418.4	1429.6	1433.6
42.5°	1028.3	1051.4	1089.5	1116.3	1139.3	1188.9	1231.0	1276.8	1288.3	1311.2	1318.9
45°	867.8	886.8	932.9	967.2	986.2	1058.9	1108.5	1165.9	1185.1	1211.9	1223.2
47.5°	718.7	753.0	798.9	841.0	867.8	944.2	1009.3	1070.4	1097.2	1127.8	1143.1
50°	588.7	627.0	688.1	726.2	764.5	848.7	921.4	986.2	1013.0	1047.4	1062.7
52.5°	481.7	523.8	581.2	623.0	665.1	753.0	829.4	890.8	925.1	948.2	971.0
55°	378.5	424.4	481.7	527.6	561.9	657.6	722.5	783.6	806.6	825.7	837.2
57.5°	294.3	328.7	386.0	424.4	466.4	550.4	615.5	661.3	680.4	703.4	710.9
60°	229.5	263.8	317.4	355.5	393.8	474.0	539.1	584.9	604.0	623.0	634.5
62.5°	183.4	217.9	267.5	302.1	336.4	409.1	466.4	512.3	535.1	554.4	565.9
65°	145.3	175.9	217.9	252.3	279.1	344.0	401.3	443.4	466.4	485.5	497.0
67.5°	114.7	141.5	179.6	202.7	229.5	282.8	332.7	370.8	390.0	412.8	424.4
70°	87.9	107.0	141.5	160.6	179.6	225.5	263.8	302.1	321.1	336.4	344.0
72.5°	64.9	80.2	107.0	122.3	133.8	172.1	202.7	229.5	244.7	260.0	267.5
75°	45.8	57.4	76.4	87.9	95.7	122.3	149.1	168.1	179.6	191.1	202.7
77.5°	30.6	38.3	49.6	57.4	64.9	84.2	99.4	114.7	126.2	137.5	141.5
80°	19.0	26.8	34.3	38.3	42.1	53.6	68.9	76.4	84.2	91.7	95.7
82.5°	11.5	15.3	19.0	23.0	26.8	34.3	42.1	49.6	53.6	61.1	64.9
85°	3.8	7.8	7.8	11.5	11.5	19.0	23.0	26.8	30.6	34.3	38.3
87.5°	0.0	0.0	3.8	3.8	3.8	3.8	7.8	7.8	7.8	7.8	7.8
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: P880588

CATALOG NUMBER: LD4C55D010 EU4559030 4LBDWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8	2484.8
2.5°	2496.3	2484.8	2477.2	2473.3	2500.1	2465.7	2481.0	2484.8
5°	2481.0	2469.5	2462.0	2458.0	2481.0	2450.4	2462.0	2469.5
7.5°	2458.0	2450.4	2438.9	2435.2	2458.0	2423.6	2438.9	2442.7
10°	2431.4	2419.9	2412.1	2408.4	2427.4	2393.1	2408.4	2408.4
12.5°	2396.8	2389.3	2374.0	2374.0	2389.3	2358.8	2370.0	2370.0
15°	2351.0	2343.5	2328.2	2328.2	2343.5	2312.7	2324.2	2324.2
17.5°	2312.7	2305.2	2293.6	2289.9	2305.2	2274.6	2286.1	2282.1
20°	2282.1	2274.6	2259.3	2259.3	2270.8	2240.3	2251.6	2251.6
22.5°	2255.5	2251.6	2236.3	2236.3	2251.6	2221.0	2228.7	2221.0
25°	2213.5	2209.5	2194.2	2198.2	2205.7	2175.1	2186.7	2178.9
27.5°	2144.6	2144.6	2129.3	2125.5	2136.8	2110.3	2117.8	2114.0
30°	2037.6	2041.4	2022.3	2022.3	2026.1	2003.1	2014.6	2010.8
32.5°	1892.3	1896.1	1880.8	1877.0	1888.6	1869.3	1877.0	1877.0
35°	1731.7	1735.5	1724.0	1724.0	1735.5	1724.0	1724.0	1720.2
37.5°	1571.2	1578.7	1571.2	1574.9	1582.7	1571.2	1578.7	1574.9
40°	1441.2	1448.9	1437.4	1444.9	1452.7	1441.2	1452.7	1444.9
42.5°	1322.7	1334.2	1326.4	1334.2	1341.7	1334.2	1341.7	1330.4
45°	1234.7	1242.5	1238.5	1242.5	1250.0	1246.3	1250.0	1246.3
47.5°	1150.6	1165.9	1158.3	1165.9	1177.4	1169.9	1177.4	1165.9
50°	1074.2	1085.7	1081.9	1089.5	1093.2	1089.5	1097.2	1085.7
52.5°	974.7	986.2	982.5	982.5	990.0	982.5	990.0	982.5
55°	844.9	848.7	848.7	852.5	848.7	844.9	848.7	841.0
57.5°	718.7	726.2	714.9	726.2	722.5	718.7	718.7	710.9
60°	638.3	649.8	642.3	649.8	646.1	646.1	646.1	642.3
62.5°	573.4	581.2	573.4	577.2	577.2	577.2	573.4	569.6
65°	500.8	512.3	504.5	508.5	504.5	500.8	504.5	500.8
67.5°	428.1	431.9	431.9	428.1	428.1	428.1	428.1	420.6
70°	347.9	351.7	347.9	355.5	351.7	347.9	351.7	344.0
72.5°	271.3	275.3	271.3	275.3	271.3	271.3	271.3	271.3
75°	202.7	206.4	206.4	206.4	206.4	206.4	198.9	206.4
77.5°	145.3	145.3	145.3	149.1	145.3	145.3	145.3	145.3
80°	99.4	99.4	99.4	103.2	99.4	103.2	99.4	103.2
82.5°	64.9	64.9	64.9	64.9	64.9	64.9	64.9	64.9
85°	34.3	38.3	38.3	34.3	34.3	34.3	34.3	34.3
87.5°	7.8	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)