

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: P563881

Luminaire Tested: **LD4C60D010 EX4C609030 4LBSQLWWH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P563881
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C60D010 EX4C609030 4LBSQLWWH
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

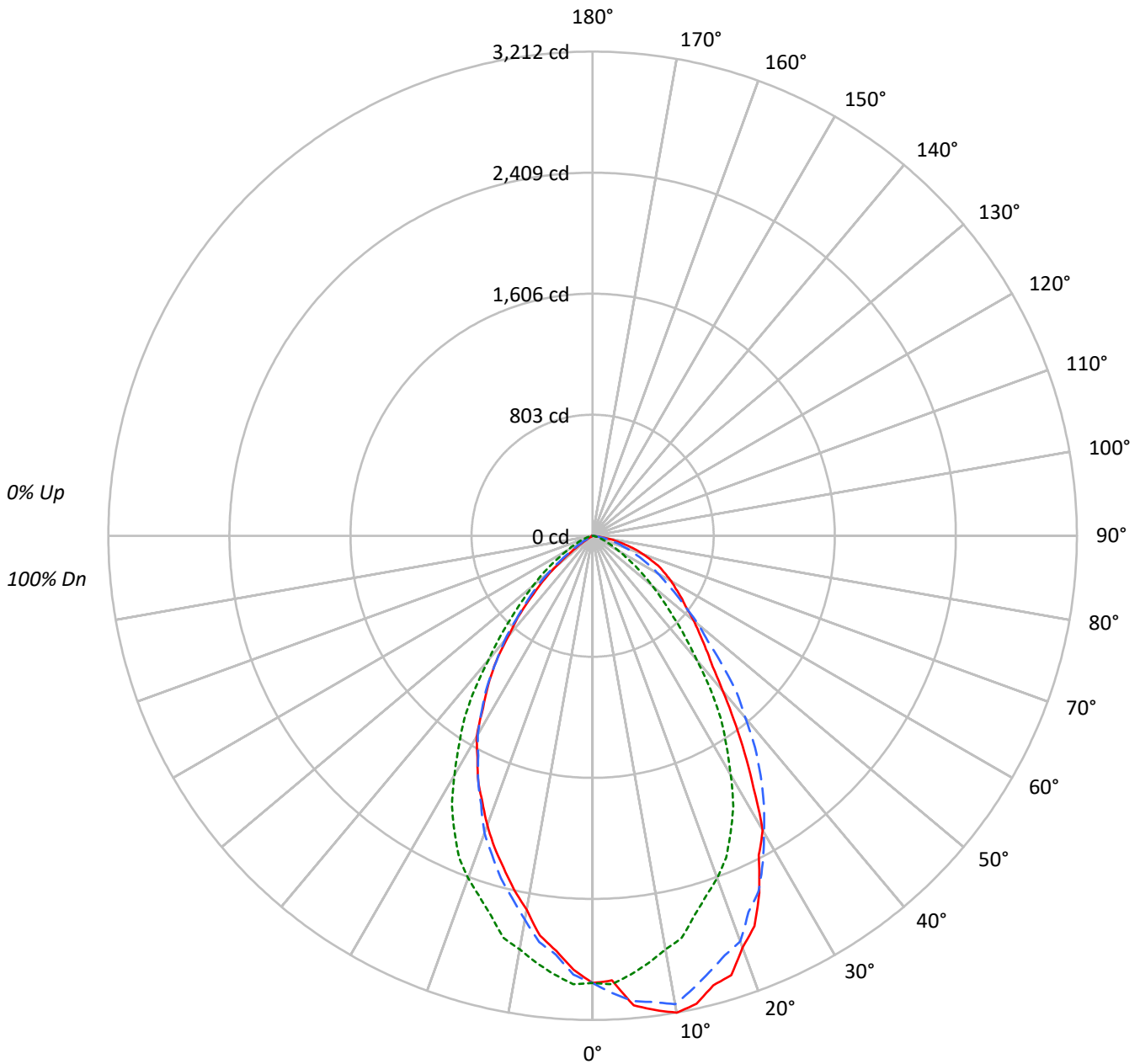
Lumens per Lamp: N/A
Luminaire Lumens: 4252.9 lumens
Efficiency: N/A
Efficacy: 59.1 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 72
Input Voltage (V):
Input Current (A_{in}): 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			0	
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100			100
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90			90
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80			80
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72			72
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64			64
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58			58
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53			53
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48			48
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44			44
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41			41
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38			38

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	286283	286283	286283
5°	302883	282901	267733
10°	314752	272926	246776
15°	308459	260480	227795
20°	298443	248027	209675
25°	278381	230654	191273
30°	251298	204125	171235
35°	207006	174743	142056
40°	168947	134875	109344
45°	145148	102437	78640
50°	131376	77982	49671
55°	120902	56254	17966
60°	116038	38441	2740
65°	112078	25982	845
70°	100348	18055	1044
75°	82241	9283	0
80°	51454	3945	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	278.0	6.5
10°-20°	748.9	17.6
20°-30°	1000.1	23.5
30°-40°	949.4	22.3
40°-50°	656.2	15.4
50°-60°	362.6	8.5
60°-70°	180.1	4.2
70°-80°	70.9	1.7
80°-90°	6.8	0.2
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°	2027.0	47.7
0°-40°	2976.3	70.0
0°-60°	3995.2	93.9
0°-90°	4252.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4252.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2967	2967	2967	2967	2967	
5°	3127	3099	2921	2789	2764	299
15°	3088	2996	2608	2352	2280	874
25°	2615	2604	2166	1797	1797	1192
35°	1757	1942	1484	1220	1206	1101
45°	1064	1220	751	616	576	830
55°	719	676	334	171	107	647
65°	491	356	114	4	4	476
75°	221	135	25	0	0	235
85°	0	4	0	0	0	20
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°	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0
2.5°	2952.7	3034.5	3041.6	3034.5	3045.3	3041.6	3059.4	3041.6	3063.1	3031.1	3038.2
5°	3127.1	3095.0	3162.6	3127.1	3127.1	3123.6	3112.8	3109.3	3123.6	3077.3	3098.6
7.5°	3173.4	3219.6	3280.1	3205.4	3208.9	3208.9	3187.6	3180.5	3180.5	3095.0	3120.0
10°	3212.5	3183.9	3216.0	3187.6	3212.5	3208.9	3223.1	3176.8	3208.9	3159.1	3155.6
12.5°	3180.5	3169.7	3212.5	3166.2	3152.0	3155.6	3137.8	3127.1	3137.8	3080.8	3077.3
15°	3087.9	3098.6	3162.6	3112.8	3105.7	3098.6	3077.3	3041.6	3070.2	2991.9	2995.6
17.5°	3056.0	3038.2	3048.9	3006.1	3016.8	3009.7	3006.1	2974.2	2967.0	2917.1	2917.1
20°	2906.5	2945.6	2945.6	2917.1	2917.1	2913.7	2867.4	2895.9	2863.8	2849.6	2863.8
22.5°	2803.3	2807.0	2807.0	2781.9	2785.6	2771.4	2746.4	2728.6	2746.4	2728.6	2700.2
25°	2614.8	2621.9	2664.7	2618.4	2611.3	2625.5	2604.1	2593.4	2589.9	2547.3	2604.1
27.5°	2387.2	2458.2	2454.7	2436.9	2458.2	2429.8	2419.2	2422.7	2433.3	2429.8	2444.0
30°	2255.5	2266.1	2276.9	2262.7	2266.1	2255.5	2255.5	2259.0	2287.5	2276.9	2273.2
32.5°	1988.6	2024.2	2052.7	2052.7	2056.3	2067.0	2063.4	2138.1	2155.9	2120.4	2113.2
35°	1757.4	1782.3	1807.2	1810.8	1857.1	1860.6	1864.2	1885.5	1935.2	1946.0	1942.3
37.5°	1536.9	1561.7	1568.8	1600.9	1625.8	1650.6	1679.2	1707.7	1750.3	1785.8	1768.1
40°	1341.3	1351.9	1369.7	1383.9	1433.6	1433.6	1447.9	1504.8	1551.1	1579.6	1575.9
42.5°	1177.6	1181.1	1195.3	1220.2	1266.5	1255.8	1266.5	1305.7	1373.1	1376.8	1415.9
45°	1063.7	1060.1	1070.8	1074.4	1102.8	1117.1	1124.2	1152.7	1209.6	1216.7	1220.2
47.5°	960.5	957.0	974.8	981.9	992.5	1006.7	1006.7	1010.4	1031.6	1049.5	1035.3
50°	875.2	875.2	875.2	882.2	900.1	896.5	900.1	914.4	924.9	917.8	914.4
52.5°	782.6	796.8	807.6	811.2	814.7	814.7	818.2	811.2	807.6	796.8	775.5
55°	718.7	732.9	732.9	732.9	732.9	747.0	729.3	732.9	732.9	704.4	676.0
57.5°	654.7	668.9	679.5	665.2	679.5	665.2	658.1	654.7	647.4	619.0	576.3
60°	601.3	608.4	604.7	601.3	608.4	597.6	590.6	576.3	569.2	530.1	501.6
62.5°	540.7	544.3	547.9	540.7	533.7	530.1	515.8	494.5	480.3	448.3	423.3
65°	490.9	480.3	476.7	473.2	466.1	455.3	444.7	419.8	409.1	380.6	355.7
67.5°	416.1	412.7	419.8	409.1	391.4	391.4	380.6	359.3	334.4	316.7	291.7
70°	355.7	352.3	345.1	334.4	330.9	316.7	316.7	291.7	284.6	252.6	231.2
72.5°	291.7	291.7	281.0	270.4	259.7	252.6	249.1	231.2	220.6	202.8	184.9
75°	220.6	220.6	217.0	206.3	199.2	192.0	188.6	174.3	163.7	146.0	135.2
77.5°	156.5	156.5	142.3	135.2	138.6	131.5	124.5	120.9	117.4	106.8	92.6
80°	92.6	88.9	78.3	81.8	78.3	78.3	74.7	71.1	64.0	56.9	49.7
82.5°	24.9	28.5	28.5	28.5	32.0	24.9	24.9	24.9	28.5	28.5	17.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	3.7	3.7
87.5°	3.7	7.1	14.2	14.2	14.2	14.2	14.2	10.8	10.8	10.8	7.1
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°	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0
2.5°	3002.6	2999.0	3002.6	2977.6	3034.5	2991.9	2984.8	2977.6	3002.6	2977.6	2942.1
5°	3066.6	3031.1	3020.3	3009.7	3041.6	2991.9	2981.3	2984.8	2967.0	2920.8	2924.2
7.5°	3087.9	3056.0	3023.9	2956.3	2984.8	2974.2	2945.6	2924.2	2895.9	2856.7	2849.6
10°	3095.0	3059.4	3013.3	2991.9	2949.3	2935.0	2924.2	2888.7	2853.2	2785.6	2767.8
12.5°	3073.7	3031.1	2974.2	2956.3	2924.2	2878.0	2853.2	2817.5	2785.6	2732.2	2693.0
15°	2981.3	2945.6	2927.9	2867.4	2853.2	2824.7	2774.8	2725.1	2678.8	2607.6	2586.3
17.5°	2874.5	2860.3	2842.5	2796.2	2792.7	2764.2	2718.0	2675.2	2614.8	2504.4	2468.9
20°	2764.2	2764.2	2707.3	2689.6	2725.1	2668.1	2632.5	2593.4	2468.9	2415.5	2351.6
22.5°	2682.5	2643.3	2611.3	2582.8	2586.3	2550.7	2501.0	2422.7	2376.4	2312.4	2237.7
25°	2522.4	2536.5	2465.5	2454.7	2465.5	2383.5	2358.7	2294.6	2227.0	2166.5	2109.6
27.5°	2422.7	2383.5	2337.3	2298.2	2298.2	2266.1	2195.0	2180.9	2077.5	2020.7	1949.5
30°	2273.2	2244.9	2205.7	2148.7	2141.7	2116.7	2059.8	2024.2	1917.5	1832.1	1792.9
32.5°	2084.6	2074.1	2042.0	1978.0	1956.7	1928.1	1857.1	1796.6	1746.8	1650.6	1604.5
35°	1949.5	1910.4	1842.9	1789.5	1771.7	1721.9	1664.9	1622.2	1568.8	1483.5	1423.1
37.5°	1746.8	1707.7	1643.5	1579.6	1579.6	1529.8	1451.4	1408.8	1334.2	1284.2	1234.5
40°	1568.8	1519.1	1455.1	1380.4	1369.7	1298.5	1266.5	1195.3	1149.0	1070.8	1063.7
42.5°	1369.7	1323.4	1266.5	1209.6	1166.8	1131.3	1049.5	996.1	946.4	907.2	896.5
45°	1188.2	1127.7	1077.9	1006.7	964.1	921.4	868.1	832.5	793.3	750.7	725.8
47.5°	1031.6	981.9	910.7	846.7	804.1	782.6	722.1	683.0	651.0	622.6	604.7
50°	871.6	811.2	772.1	700.7	693.7	643.9	594.1	562.1	544.3	519.5	494.5
52.5°	750.7	693.7	640.3	587.0	558.4	540.7	494.5	462.4	437.6	419.8	405.6
55°	633.2	583.5	540.7	487.4	469.5	444.7	391.4	384.3	359.3	334.4	316.7
57.5°	544.3	498.0	448.3	412.7	380.6	362.9	320.1	291.7	277.5	256.1	238.3
60°	462.4	412.7	373.5	330.9	316.7	291.7	259.7	234.9	217.0	199.2	181.5
62.5°	387.8	345.1	302.4	266.8	245.5	231.2	206.3	184.9	167.2	153.0	138.6
65°	320.1	281.0	245.5	210.0	199.2	181.5	163.7	146.0	131.5	113.8	99.7
67.5°	263.3	227.8	192.0	167.2	156.5	149.4	128.1	110.3	99.7	88.9	74.7
70°	206.3	181.5	153.0	131.5	120.9	110.3	96.0	85.4	71.1	64.0	53.4
72.5°	160.1	138.6	113.8	96.0	88.9	81.8	67.6	56.9	49.7	42.6	35.5
75°	113.8	96.0	81.8	64.0	60.5	56.9	46.3	39.2	32.0	24.9	21.4
77.5°	78.3	64.0	49.7	42.6	39.2	32.0	28.5	21.4	17.8	14.2	10.8
80°	42.6	32.0	24.9	21.4	17.8	14.2	14.2	10.8	7.1	7.1	3.7
82.5°	14.2	10.8	7.1	3.7	3.7	3.7	3.7	3.7	3.7	0.0	3.7
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	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°	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0
2.5°	2963.4	2924.2	2935.0	2935.0	2927.9	2927.9	2920.8	2910.1	2913.7	2892.2	2846.1
5°	2931.4	2881.6	2874.5	2881.6	2853.2	2846.1	2831.9	2853.2	2789.1	2814.0	2785.6
7.5°	2839.0	2792.7	2781.9	2807.0	2771.4	2749.9	2746.4	2774.8	2718.0	2689.6	2657.5
10°	2735.7	2718.0	2685.9	2668.1	2657.5	2661.0	2632.5	2597.0	2586.3	2579.2	2550.7
12.5°	2643.3	2604.1	2575.7	2554.4	2547.3	2547.3	2501.0	2493.9	2461.8	2454.7	2412.1
15°	2532.9	2486.7	2468.9	2440.5	2415.5	2429.8	2376.4	2362.1	2351.6	2305.3	2312.4
17.5°	2436.9	2387.2	2344.4	2326.6	2305.3	2284.0	2234.1	2244.9	2219.8	2219.8	2155.9
20°	2312.4	2259.0	2227.0	2191.5	2191.5	2163.0	2127.5	2130.9	2098.9	2067.0	2010.0
22.5°	2180.9	2123.8	2084.6	2070.4	2034.9	2027.8	1985.2	1974.4	1931.8	1935.2	1885.5
25°	2042.0	1985.2	1931.8	1935.2	1903.4	1889.1	1864.2	1814.4	1796.6	1775.2	1761.1
27.5°	1878.4	1839.2	1792.9	1789.5	1728.9	1732.5	1700.6	1686.3	1643.5	1654.3	1622.2
30°	1728.9	1672.1	1629.4	1618.8	1593.7	1586.6	1536.9	1515.4	1522.7	1494.2	1476.5
32.5°	1575.9	1490.6	1472.8	1451.4	1437.3	1419.4	1383.9	1398.1	1366.0	1373.1	1344.7
35°	1373.1	1337.6	1291.3	1291.3	1277.1	1262.9	1238.1	1252.3	1220.2	1206.0	1177.6
37.5°	1202.4	1170.5	1124.2	1138.5	1113.5	1092.2	1070.8	1074.4	1045.9	1042.4	1013.8
40°	1017.5	999.6	967.7	967.7	949.9	949.9	939.1	928.5	910.7	889.3	857.3
42.5°	843.1	828.9	814.7	818.2	793.3	814.7	786.2	804.1	747.0	743.6	722.1
45°	715.0	683.0	686.6	672.4	658.1	665.2	640.3	647.4	615.5	608.4	587.0
47.5°	579.9	569.2	547.9	540.7	540.7	530.1	519.5	515.8	501.6	483.8	455.3
50°	476.7	437.6	430.4	419.8	412.7	412.7	398.4	377.2	380.6	362.9	334.4
52.5°	373.5	341.5	327.2	323.8	309.5	302.4	284.6	270.4	259.7	252.6	234.9
55°	288.1	259.7	242.0	242.0	220.6	220.6	195.7	184.9	170.8	156.5	146.0
57.5°	217.0	202.8	184.9	170.8	163.7	146.0	131.5	113.8	103.1	81.8	67.6
60°	163.7	149.4	131.5	120.9	113.8	96.0	78.3	64.0	39.2	32.0	28.5
62.5°	120.9	106.8	88.9	81.8	74.7	60.5	42.6	21.4	10.8	10.8	10.8
65°	88.9	71.1	56.9	49.7	42.6	32.0	14.2	7.1	3.7	3.7	3.7
67.5°	60.5	46.3	32.0	28.5	21.4	10.8	3.7	3.7	3.7	3.7	3.7
70°	39.2	28.5	14.2	10.8	7.1	3.7	3.7	3.7	3.7	3.7	3.7
72.5°	24.9	14.2	7.1	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	14.2	7.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	7.1	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.7	3.7	3.7
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: P563881

CATALOG NUMBER: LD4C60D010 EX4C609030 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0	2967.0
2.5°	2895.9	2870.9	2885.1	2853.2	2867.4	2892.2	2874.5	2881.6
5°	2796.2	2781.9	2764.2	2718.0	2753.6	2781.9	2767.8	2764.2
7.5°	2689.6	2639.6	2664.7	2650.4	2643.3	2671.8	2639.6	2675.2
10°	2579.2	2543.6	2540.2	2515.2	2515.2	2536.5	2540.2	2518.7
12.5°	2415.5	2397.8	2397.8	2394.2	2390.6	2412.1	2415.5	2405.0
15°	2298.2	2291.0	2273.2	2269.8	2248.4	2280.4	2284.0	2280.4
17.5°	2155.9	2159.4	2141.7	2141.7	2155.9	2166.5	2138.1	2166.5
20°	2059.8	2042.0	2034.9	2002.9	2020.7	2038.6	2038.6	2042.0
22.5°	1921.1	1892.6	1903.4	1885.5	1874.8	1899.7	1899.7	1910.4
25°	1764.5	1764.5	1771.7	1761.1	1768.1	1782.3	1771.7	1796.6
27.5°	1615.1	1629.4	1629.4	1615.1	1622.2	1664.9	1682.8	1654.3
30°	1476.5	1479.9	1490.6	1483.5	1504.8	1519.1	1515.4	1536.9
32.5°	1319.9	1337.6	1344.7	1334.2	1341.3	1373.1	1355.4	1351.9
35°	1199.0	1166.8	1163.4	1166.8	1181.1	1188.2	1181.1	1206.0
37.5°	1024.5	1013.8	999.6	1003.3	1013.8	1028.2	1035.3	1053.0
40°	857.3	843.1	843.1	839.6	828.9	868.1	868.1	868.1
42.5°	711.5	707.9	690.2	690.2	704.4	715.0	707.9	732.9
45°	583.5	569.2	558.4	558.4	569.2	569.2	579.9	576.3
47.5°	459.0	444.7	448.3	437.6	448.3	462.4	444.7	448.3
50°	345.1	345.1	338.0	345.1	341.5	345.1	338.0	330.9
52.5°	234.9	266.8	270.4	256.1	224.1	195.7	177.8	192.0
55°	135.2	120.9	120.9	117.4	110.3	106.8	96.0	106.8
57.5°	67.6	60.5	60.5	60.5	56.9	53.4	46.3	46.3
60°	28.5	24.9	24.9	21.4	17.8	14.2	10.8	14.2
62.5°	10.8	7.1	7.1	7.1	7.1	7.1	7.1	7.1
65°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
67.5°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
70°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
72.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)