

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: P#

Luminaire Tested: **LD4C60D010 EX4C609040 4LBSQLWWH**

Issue Date: 2/18/2022

**Test Information**

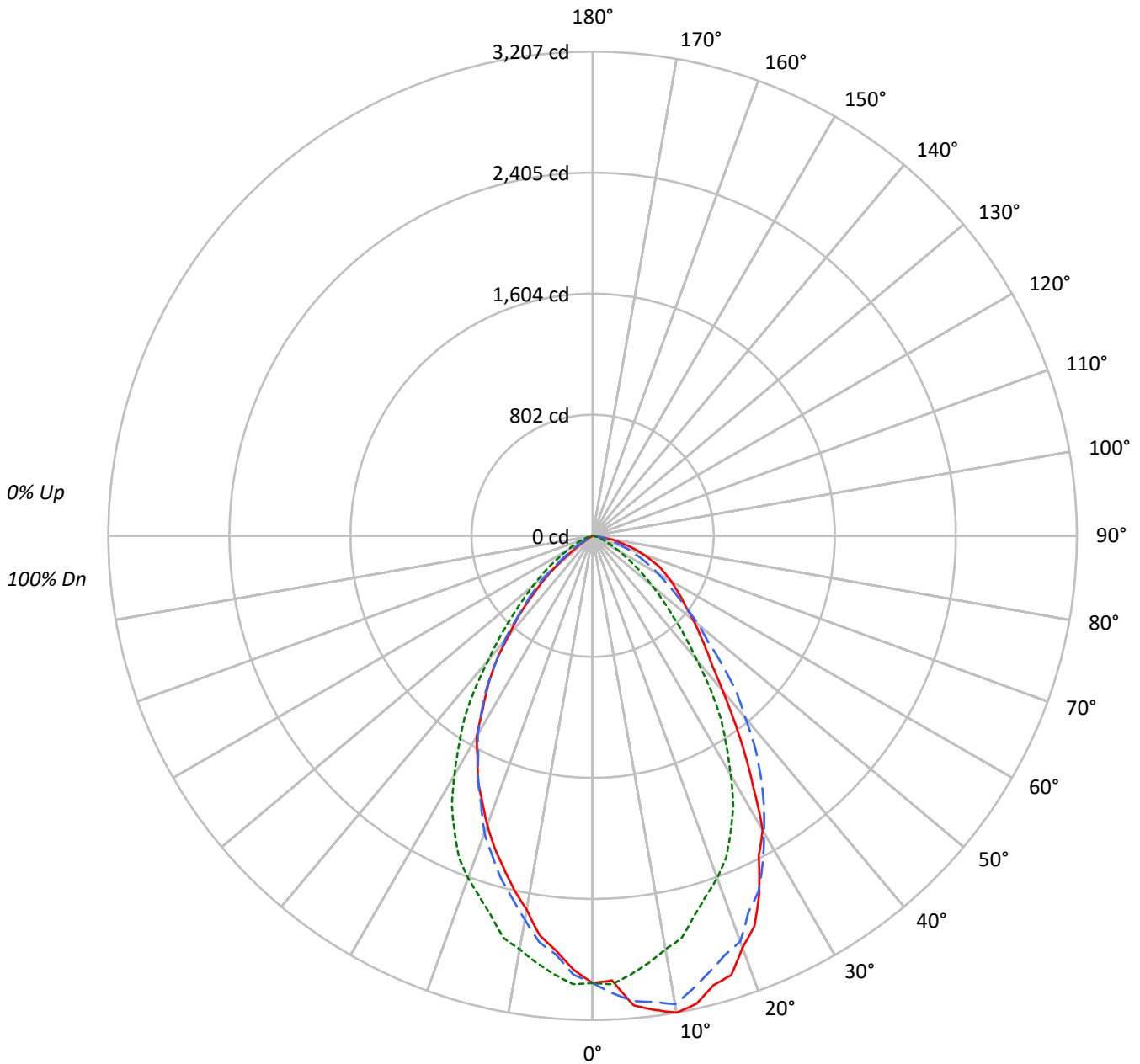
Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C60D010 EX4C609040 4LBSQLWWH  
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS  
AND 4LBSQLWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4246.0 lumens  
Efficiency: N/A  
Efficacy: 59.0 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<sub>in</sub>): 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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CATALOG NUMBER: LD4C60D010 EX4C609040 4LBSQLWWH

### Luminous Intensity Polar Plot





TEST NUMBER: P#

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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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																			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64																			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58																			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53																			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48																			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44																			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41																			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	285810	285810	285810
5°	302389	282436	267307
10°	314243	272485	246374
15°	307959	260061	227416
20°	297971	247626	209336
25°	277934	230281	190964
30°	250897	203791	170956
35°	206676	174461	141832
40°	168657	134661	109155
45°	144916	102274	78517
50°	131151	77847	49581
55°	120700	56153	17933
60°	115845	38364	2740
65°	111896	25959	822
70°	100179	18027	1016
75°	82129	9283	0
80°	51343	3945	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	277.5	6.5
10°-20°	747.7	17.6
20°-30°	998.4	23.5
30°-40°	947.8	22.3
40°-50°	655.2	15.4
50°-60°	362.0	8.5
60°-70°	179.8	4.2
70°-80°	70.8	1.7
80°-90°	6.7	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°	2023.7	47.7
0°-40°	2971.5	70.0
0°-60°	3988.7	93.9
0°-90°	4246.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4246.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	2962	2962	2962	2962	2962	
5°	3122	3094	2916	2785	2760	299
15°	3083	2991	2603	2348	2277	872
25°	2611	2600	2163	1794	1794	1190
35°	1755	1939	1481	1218	1204	1099
45°	1062	1218	750	614	575	828
55°	718	675	334	170	107	646
65°	490	355	114	4	4	476
75°	220	135	25	0	0	235
85°	0	4	0	0	0	20
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C60D010 EX4C609040 4LBSQLWWH

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1
2.5°	2947.9	3029.6	3036.7	3029.6	3040.3	3036.7	3054.5	3036.7	3058.1	3026.1	3033.2
5°	3122.0	3090.0	3157.5	3122.0	3122.0	3118.5	3107.8	3104.2	3118.5	3072.3	3093.6
7.5°	3168.2	3214.4	3274.8	3200.2	3203.7	3203.7	3182.4	3175.3	3175.3	3090.0	3114.9
10°	3207.3	3178.8	3210.8	3182.4	3207.3	3203.7	3217.9	3171.7	3203.7	3154.0	3150.4
12.5°	3175.3	3164.6	3207.3	3161.1	3146.9	3150.4	3132.7	3122.0	3132.7	3075.8	3072.3
15°	3082.9	3093.6	3157.5	3107.8	3100.7	3093.6	3072.3	3036.7	3065.2	2987.0	2990.6
17.5°	3051.0	3033.2	3043.9	3001.2	3011.9	3004.8	3001.2	2969.3	2962.1	2912.4	2912.4
20°	2901.9	2940.8	2940.8	2912.4	2912.4	2909.0	2862.8	2891.1	2859.1	2844.9	2859.1
22.5°	2798.7	2802.4	2802.4	2777.5	2781.1	2766.9	2742.0	2724.2	2742.0	2724.2	2695.8
25°	2610.6	2617.7	2660.3	2614.1	2607.0	2621.2	2599.9	2589.2	2585.7	2543.1	2599.9
27.5°	2383.2	2454.2	2450.7	2432.9	2454.2	2425.8	2415.2	2418.7	2429.4	2425.8	2440.0
30°	2251.9	2262.5	2273.2	2259.0	2262.5	2251.9	2251.9	2255.4	2283.7	2273.2	2269.6
32.5°	1985.4	2020.9	2049.4	2049.4	2052.9	2063.6	2060.0	2134.6	2152.4	2116.9	2109.8
35°	1754.6	1779.5	1804.2	1807.8	1854.0	1857.5	1861.1	1882.4	1932.1	1942.8	1939.2
37.5°	1534.4	1559.2	1566.3	1598.3	1623.2	1648.0	1676.5	1704.9	1747.5	1782.9	1765.3
40°	1339.0	1349.6	1367.4	1381.6	1431.3	1431.3	1445.5	1502.4	1548.6	1577.0	1573.4
42.5°	1175.7	1179.2	1193.4	1218.3	1264.5	1253.8	1264.5	1303.6	1370.9	1374.5	1413.6
45°	1062.0	1058.4	1069.1	1072.6	1101.1	1115.3	1122.4	1150.8	1207.6	1214.6	1218.3
47.5°	959.0	955.4	973.2	980.3	990.9	1005.1	1005.1	1008.7	1030.0	1047.8	1033.6
50°	873.7	873.7	873.7	880.8	898.6	895.0	898.6	912.8	923.4	916.3	912.8
52.5°	781.3	795.5	806.2	809.9	813.3	813.3	817.0	809.9	806.2	795.5	774.2
55°	717.5	731.7	731.7	731.7	731.7	745.8	728.2	731.7	731.7	703.3	674.9
57.5°	653.6	667.8	678.4	664.2	678.4	664.2	657.1	653.6	646.4	618.0	575.4
60°	600.3	607.4	603.8	600.3	607.4	596.7	589.6	575.4	568.3	529.2	500.8
62.5°	539.9	543.4	547.0	539.9	532.8	529.2	515.0	493.7	479.5	447.5	422.6
65°	490.1	479.5	475.9	472.4	465.3	454.6	444.0	419.1	408.4	380.0	355.1
67.5°	415.5	412.0	419.1	408.4	390.7	390.7	380.0	358.7	333.8	316.2	291.2
70°	355.1	351.6	344.5	333.8	330.3	316.2	316.2	291.2	284.1	252.1	230.9
72.5°	291.2	291.2	280.5	270.0	259.2	252.1	248.7	230.9	220.3	202.5	184.7
75°	220.3	220.3	216.7	205.9	198.8	191.8	188.3	174.1	163.4	145.7	135.0
77.5°	156.3	156.3	142.1	135.0	138.5	131.4	124.3	120.8	117.2	106.6	92.4
80°	92.4	88.8	78.2	81.7	78.2	78.2	74.6	71.0	63.9	56.8	49.7
82.5°	24.9	28.4	28.4	28.4	32.0	24.9	24.9	24.9	28.4	28.4	17.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.6	3.6	3.6
87.5°	3.6	7.1	14.2	14.2	14.2	14.2	14.2	10.7	10.7	10.7	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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CATALOG NUMBER: LD4C60D010 EX4C609040 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1
2.5°	2997.7	2994.1	2997.7	2972.8	3029.6	2987.0	2979.9	2972.8	2997.7	2972.8	2937.3
5°	3061.6	3026.1	3015.4	3004.8	3036.7	2987.0	2976.4	2979.9	2962.1	2916.0	2919.5
7.5°	3082.9	3051.0	3019.0	2951.5	2979.9	2969.3	2940.8	2919.5	2891.1	2852.0	2844.9
10°	3090.0	3054.5	3008.3	2987.0	2944.4	2930.2	2919.5	2884.0	2848.6	2781.1	2763.3
12.5°	3068.7	3026.1	2969.3	2951.5	2919.5	2873.3	2848.6	2812.9	2781.1	2727.8	2688.7
15°	2976.4	2940.8	2923.1	2862.8	2848.6	2820.0	2770.4	2720.7	2674.5	2603.4	2582.1
17.5°	2869.8	2855.7	2837.8	2791.6	2788.2	2759.8	2713.6	2670.9	2610.6	2500.4	2464.9
20°	2759.8	2759.8	2702.9	2685.2	2720.7	2663.8	2628.3	2589.2	2464.9	2411.6	2347.8
22.5°	2678.1	2639.0	2607.0	2578.6	2582.1	2546.6	2496.9	2418.7	2372.5	2308.7	2234.1
25°	2518.2	2532.4	2461.4	2450.7	2461.4	2379.6	2354.9	2290.8	2223.4	2163.0	2106.2
27.5°	2418.7	2379.6	2333.6	2294.5	2294.5	2262.5	2191.5	2177.3	2074.2	2017.4	1946.3
30°	2269.6	2241.2	2202.1	2145.3	2138.2	2113.3	2056.5	2020.9	1914.4	1829.1	1790.0
32.5°	2081.3	2070.7	2038.7	1974.8	1953.5	1925.0	1854.0	1793.7	1744.0	1648.0	1601.9
35°	1946.3	1907.3	1839.9	1786.6	1768.7	1719.1	1662.2	1619.6	1566.3	1481.1	1420.7
37.5°	1744.0	1704.9	1640.9	1577.0	1577.0	1527.3	1449.1	1406.5	1332.0	1282.1	1232.5
40°	1566.3	1516.6	1452.7	1378.2	1367.4	1296.3	1264.5	1193.4	1147.2	1069.1	1062.0
42.5°	1367.4	1321.2	1264.5	1207.6	1165.0	1129.5	1047.8	994.5	944.8	905.7	895.0
45°	1186.3	1125.9	1076.2	1005.1	962.5	919.9	866.6	831.1	792.0	749.5	724.6
47.5°	1030.0	980.3	909.2	845.3	802.8	781.3	720.9	682.0	650.0	621.6	603.8
50°	870.3	809.9	770.8	699.7	692.6	642.9	593.2	561.2	543.4	518.6	493.7
52.5°	749.5	692.6	639.3	586.1	557.6	539.9	493.7	461.7	436.9	419.1	404.9
55°	632.2	582.5	539.9	486.6	468.8	444.0	390.7	383.6	358.7	333.8	316.2
57.5°	543.4	497.2	447.5	412.0	380.0	362.3	319.6	291.2	277.0	255.8	237.9
60°	461.7	412.0	372.9	330.3	316.2	291.2	259.2	234.5	216.7	198.8	181.2
62.5°	387.1	344.5	302.0	266.3	245.0	230.9	205.9	184.7	167.0	152.8	138.5
65°	319.6	280.5	245.0	209.6	198.8	181.2	163.4	145.7	131.4	113.7	99.5
67.5°	262.9	227.4	191.8	167.0	156.3	149.2	127.9	110.1	99.5	88.8	74.6
70°	205.9	181.2	152.8	131.4	120.8	110.1	95.9	85.3	71.0	63.9	53.3
72.5°	159.9	138.5	113.7	95.9	88.8	81.7	67.5	56.8	49.7	42.6	35.5
75°	113.7	95.9	81.7	63.9	60.4	56.8	46.2	39.1	32.0	24.9	21.3
77.5°	78.2	63.9	49.7	42.6	39.1	32.0	28.4	21.3	17.8	14.2	10.7
80°	42.6	32.0	24.9	21.3	17.8	14.2	14.2	10.7	7.1	7.1	3.6
82.5°	14.2	10.7	7.1	3.6	3.6	3.6	3.6	3.6	3.6	0.0	3.6
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°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	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



TEST NUMBER: P#

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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1
2.5°	2958.6	2919.5	2930.2	2930.2	2923.1	2923.1	2916.0	2905.3	2909.0	2887.5	2841.5
5°	2926.6	2876.9	2869.8	2876.9	2848.6	2841.5	2827.3	2848.6	2784.6	2809.5	2781.1
7.5°	2834.4	2788.2	2777.5	2802.4	2766.9	2745.4	2742.0	2770.4	2713.6	2685.2	2653.2
10°	2731.3	2713.6	2681.6	2663.8	2653.2	2656.7	2628.3	2592.8	2582.1	2575.0	2546.6
12.5°	2639.0	2599.9	2571.5	2550.2	2543.1	2543.1	2496.9	2489.8	2457.8	2450.7	2408.1
15°	2528.8	2482.7	2464.9	2436.5	2411.6	2425.8	2372.5	2358.3	2347.8	2301.6	2308.7
17.5°	2432.9	2383.2	2340.7	2322.8	2301.6	2280.3	2230.5	2241.2	2216.3	2216.3	2152.4
20°	2308.7	2255.4	2223.4	2187.9	2187.9	2159.5	2124.0	2127.5	2095.5	2063.6	2006.7
22.5°	2177.3	2120.4	2081.3	2067.1	2031.6	2024.5	1981.9	1971.2	1928.6	1932.1	1882.4
25°	2038.7	1981.9	1928.6	1932.1	1900.2	1886.1	1861.1	1811.5	1793.7	1772.4	1758.2
27.5°	1875.3	1836.2	1790.0	1786.6	1726.2	1729.6	1697.8	1683.6	1640.9	1651.6	1619.6
30°	1726.2	1669.4	1626.7	1616.1	1591.2	1584.1	1534.4	1513.0	1520.2	1491.7	1474.0
32.5°	1573.4	1488.2	1470.4	1449.1	1434.9	1417.1	1381.6	1395.8	1363.8	1370.9	1342.5
35°	1370.9	1335.4	1289.2	1289.2	1275.0	1260.8	1236.1	1250.3	1218.3	1204.1	1175.7
37.5°	1200.5	1168.6	1122.4	1136.6	1111.7	1090.4	1069.1	1072.6	1044.2	1040.7	1012.2
40°	1015.8	998.0	966.1	966.1	948.3	948.3	937.6	927.0	909.2	887.9	855.9
42.5°	841.7	827.5	813.3	817.0	792.0	813.3	785.0	802.8	745.8	742.4	720.9
45°	713.8	682.0	685.5	671.3	657.1	664.2	639.3	646.4	614.5	607.4	586.1
47.5°	579.0	568.3	547.0	539.9	539.9	529.2	518.6	515.0	500.8	483.0	454.6
50°	475.9	436.9	429.7	419.1	412.0	412.0	397.8	376.5	380.0	362.3	333.8
52.5°	372.9	340.9	326.7	323.2	309.1	302.0	284.1	270.0	259.2	252.1	234.5
55°	287.6	259.2	241.6	241.6	220.3	220.3	195.4	184.7	170.5	156.3	145.7
57.5°	216.7	202.5	184.7	170.5	163.4	145.7	131.4	113.7	103.0	81.7	67.5
60°	163.4	149.2	131.4	120.8	113.7	95.9	78.2	63.9	39.1	32.0	28.4
62.5°	120.8	106.6	88.8	81.7	74.6	60.4	42.6	21.3	10.7	10.7	10.7
65°	88.8	71.0	56.8	49.7	42.6	32.0	14.2	7.1	3.6	3.6	3.6
67.5°	60.4	46.2	32.0	28.4	21.3	10.7	3.6	3.6	3.6	3.6	3.6
70°	39.1	28.4	14.2	10.7	7.1	3.6	3.6	3.6	3.6	3.6	3.6
72.5°	24.9	14.2	7.1	3.6	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	3.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	3.6	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	3.6	3.6	3.6
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: P#

CATALOG NUMBER: LD4C60D010 EX4C609040 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1	2962.1
2.5°	2891.1	2866.2	2880.4	2848.6	2862.8	2887.5	2869.8	2876.9
5°	2791.6	2777.5	2759.8	2713.6	2749.1	2777.5	2763.3	2759.8
7.5°	2685.2	2635.4	2660.3	2646.1	2639.0	2667.4	2635.4	2670.9
10°	2575.0	2539.5	2536.0	2511.1	2511.1	2532.4	2536.0	2514.6
12.5°	2411.6	2394.0	2394.0	2390.3	2386.7	2408.1	2411.6	2401.1
15°	2294.5	2287.4	2269.6	2266.1	2244.8	2276.6	2280.3	2276.6
17.5°	2152.4	2155.9	2138.2	2138.2	2152.4	2163.0	2134.6	2163.0
20°	2056.5	2038.7	2031.6	1999.6	2017.4	2035.2	2035.2	2038.7
22.5°	1917.9	1889.5	1900.2	1882.4	1871.7	1896.6	1896.6	1907.3
25°	1761.7	1761.7	1768.7	1758.2	1765.3	1779.5	1768.7	1793.7
27.5°	1612.5	1626.7	1626.7	1612.5	1619.6	1662.2	1680.0	1651.6
30°	1474.0	1477.5	1488.2	1481.1	1502.4	1516.6	1513.0	1534.4
32.5°	1317.8	1335.4	1342.5	1332.0	1339.0	1370.9	1353.2	1349.6
35°	1197.0	1165.0	1161.5	1165.0	1179.2	1186.3	1179.2	1204.1
37.5°	1022.9	1012.2	998.0	1001.6	1012.2	1026.5	1033.6	1051.3
40°	855.9	841.7	841.7	838.2	827.5	866.6	866.6	866.6
42.5°	710.4	706.7	689.1	689.1	703.3	713.8	706.7	731.7
45°	582.5	568.3	557.6	557.6	568.3	568.3	579.0	575.4
47.5°	458.2	444.0	447.5	436.9	447.5	461.7	444.0	447.5
50°	344.5	344.5	337.4	344.5	340.9	344.5	337.4	330.3
52.5°	234.5	266.3	270.0	255.8	223.8	195.4	177.6	191.8
55°	135.0	120.8	120.8	117.2	110.1	106.6	95.9	106.6
57.5°	67.5	60.4	60.4	60.4	56.8	53.3	46.2	46.2
60°	28.4	24.9	24.9	21.3	17.8	14.2	10.7	14.2
62.5°	10.7	7.1	7.1	7.1	7.1	7.1	7.1	7.1
65°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
67.5°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
70°	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
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)