

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

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: 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: -

Luminaire Equipment: Sample No.   Condition   Description

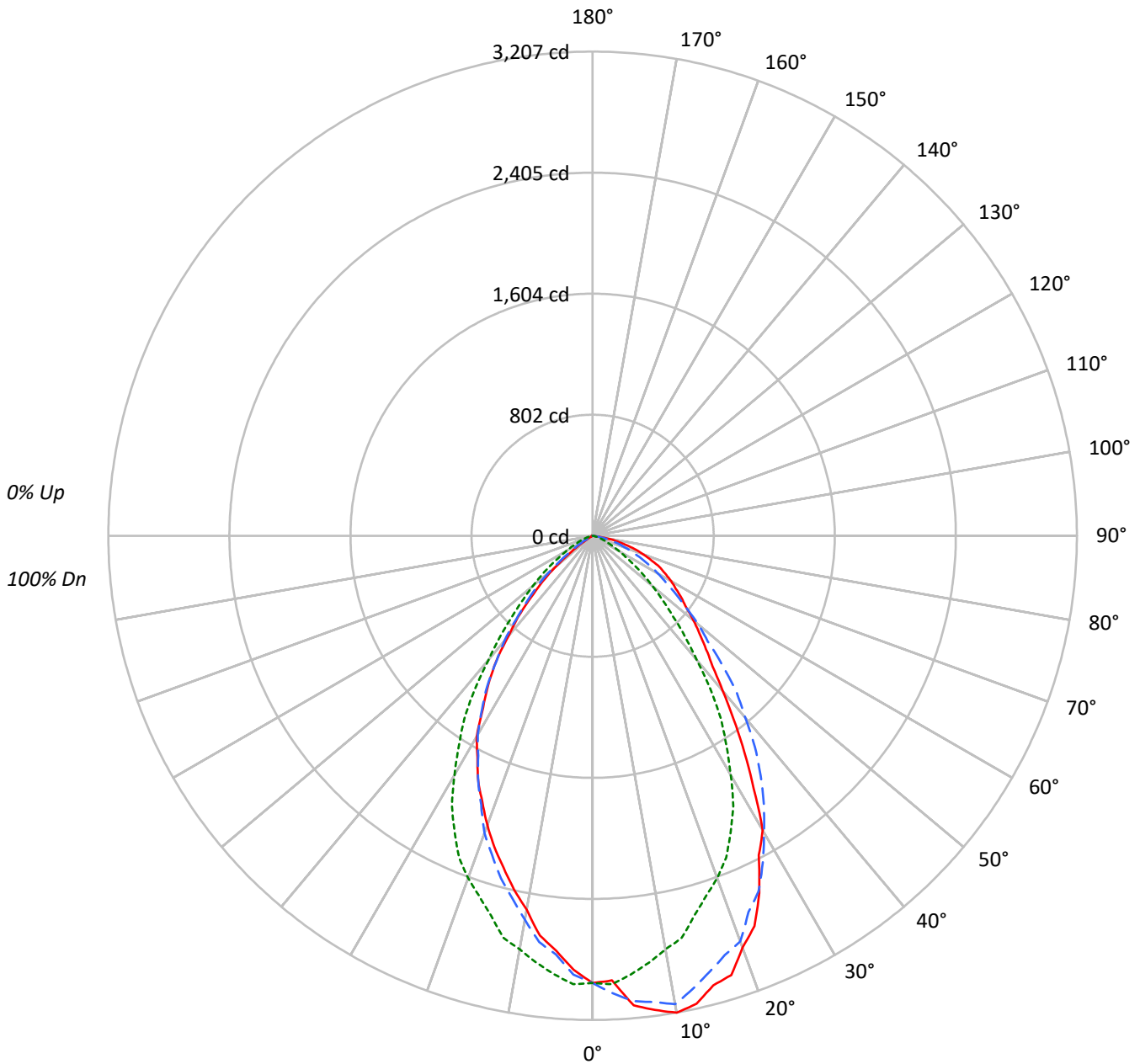
**Summary**

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 (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

TEST NUMBER: P#  
CATALOG NUMBER: LD4C60D010 EX4C609040 4LBSQLWWH

### Luminous Intensity Polar Plot





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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#

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**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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**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



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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)