

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 EX4C609050 4LBSQLWWH**

Issue Date: 2/18/2022



**Test Information**

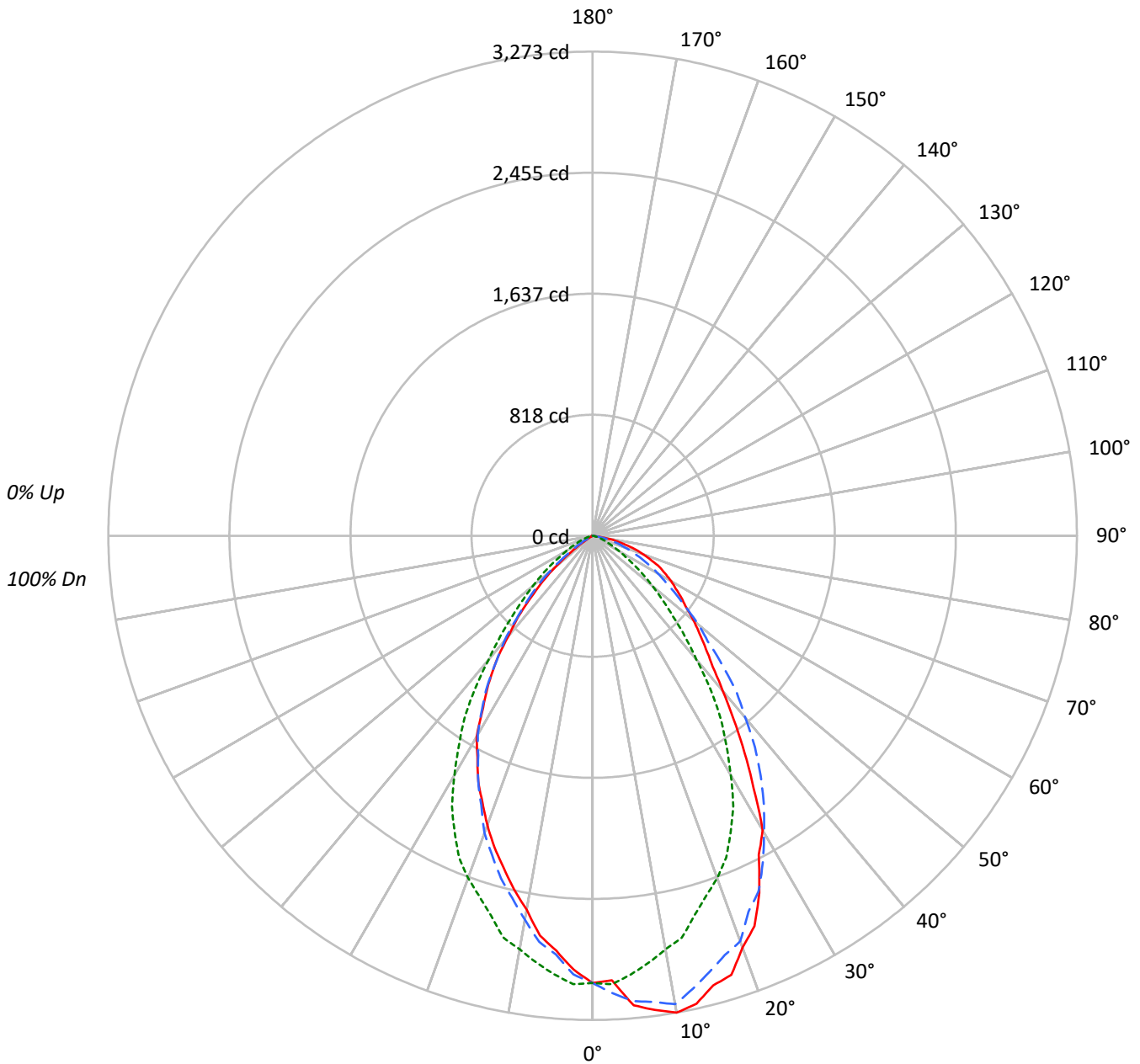
Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P219529)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/18/2022  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C60D010 EX4C609050 4LBSQLWWH  
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS  
AND 4LBSQLWW TRIM WITH H FINISH  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4333.0 lumens  
Efficiency: N/A  
Efficacy: 60.2 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 EX4C609050 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°	291667	291667	291667
5°	308588	288228	272780
10°	320680	278070	251420
15°	314272	265385	232081
20°	304070	252699	213629
25°	283630	234997	194871
30°	256033	207969	174466
35°	210905	178041	144730
40°	172121	137419	111397
45°	147891	104361	80127
50°	133838	79438	50602
55°	123173	57314	18303
60°	118218	39155	2798
65°	114179	26484	845
70°	102238	18394	1044
75°	83806	9469	0
80°	52398	4001	0
85°	0	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	283.2	6.5
10°-20°	763.0	17.6
20°-30°	1018.9	23.5
30°-40°	967.2	22.3
40°-50°	668.6	15.4
50°-60°	369.4	8.5
60°-70°	183.4	4.2
70°-80°	72.3	1.7
80°-90°	6.9	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°	2065.2	47.7
0°-40°	3032.4	70.0
0°-60°	4070.4	93.9
0°-90°	4333.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4333.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	3023	3023	3023	3023	3023	
5°	3186	3157	2976	2842	2816	305
15°	3146	3052	2657	2396	2323	890
25°	2664	2653	2207	1830	1830	1215
35°	1790	1979	1512	1243	1229	1122
45°	1084	1243	765	627	587	845
55°	732	689	341	174	109	659
65°	500	362	116	4	4	485
75°	225	138	25	0	0	240
85°	0	4	0	0	0	21
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°	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8
2.5°	3008.3	3091.7	3098.9	3091.7	3102.6	3098.9	3117.1	3098.9	3120.8	3088.1	3095.4
5°	3186.0	3153.3	3222.2	3186.0	3186.0	3182.4	3171.5	3167.8	3182.4	3135.3	3157.0
7.5°	3233.1	3280.2	3341.9	3265.8	3269.3	3269.3	3247.6	3240.3	3240.3	3153.3	3178.7
10°	3273.0	3243.9	3276.6	3247.6	3273.0	3269.3	3283.8	3236.7	3269.3	3218.6	3214.9
12.5°	3240.3	3229.4	3273.0	3225.9	3211.4	3214.9	3196.9	3186.0	3196.9	3138.8	3135.3
15°	3146.1	3157.0	3222.2	3171.5	3164.2	3157.0	3135.3	3098.9	3128.0	3048.2	3051.9
17.5°	3113.5	3095.4	3106.3	3062.7	3073.6	3066.4	3062.7	3030.2	3022.8	2972.1	2972.1
20°	2961.3	3001.1	3001.1	2972.1	2972.1	2968.6	2921.4	2950.4	2917.7	2903.2	2917.7
22.5°	2856.1	2859.8	2859.8	2834.4	2838.1	2823.6	2798.2	2780.0	2798.2	2780.0	2751.0
25°	2664.1	2671.3	2714.8	2667.7	2660.4	2674.9	2653.2	2642.2	2638.7	2595.2	2653.2
27.5°	2432.1	2504.5	2500.9	2482.8	2504.5	2475.5	2464.7	2468.3	2479.2	2475.5	2490.0
30°	2298.0	2308.8	2319.7	2305.3	2308.8	2298.0	2298.0	2301.6	2330.5	2319.7	2316.1
32.5°	2026.1	2062.3	2091.4	2091.4	2095.0	2105.9	2102.2	2178.3	2196.5	2160.3	2153.0
35°	1790.5	1815.9	1841.2	1844.9	1892.0	1895.6	1899.3	1921.0	1971.7	1982.6	1978.9
37.5°	1565.9	1591.1	1598.4	1631.0	1656.5	1681.7	1710.8	1739.8	1783.3	1819.5	1801.4
40°	1366.5	1377.3	1395.5	1409.9	1460.6	1460.6	1475.1	1533.2	1580.3	1609.3	1605.6
42.5°	1199.8	1203.3	1217.8	1243.2	1290.4	1279.4	1290.4	1330.3	1399.0	1402.7	1442.6
45°	1083.8	1080.1	1091.0	1094.6	1123.7	1138.1	1145.4	1174.4	1232.3	1239.5	1243.2
47.5°	978.7	975.0	993.2	1000.4	1011.2	1025.7	1025.7	1029.4	1051.1	1069.3	1054.8
50°	891.6	891.6	891.6	898.9	917.0	913.4	917.0	931.5	942.3	935.1	931.5
52.5°	797.3	811.8	822.8	826.5	830.0	830.0	833.7	826.5	822.8	811.8	790.1
55°	732.2	746.6	746.6	746.6	746.6	761.1	743.1	746.6	746.6	717.7	688.7
57.5°	667.0	681.5	692.3	677.8	692.3	677.8	670.5	667.0	659.6	630.6	587.2
60°	612.6	619.8	616.1	612.6	619.8	608.9	601.7	587.2	579.9	540.0	511.1
62.5°	551.0	554.5	558.2	551.0	543.7	540.0	525.5	503.8	489.3	456.7	431.3
65°	500.1	489.3	485.6	482.1	474.9	463.9	453.1	427.7	416.8	387.8	362.4
67.5°	424.0	420.5	427.7	416.8	398.7	398.7	387.8	366.1	340.7	322.6	297.2
70°	362.4	358.8	351.6	340.7	337.1	322.6	322.6	297.2	290.0	257.3	235.6
72.5°	297.2	297.2	286.3	275.5	264.6	257.3	253.8	235.6	224.8	206.6	188.4
75°	224.8	224.8	221.1	210.2	202.9	195.7	192.1	177.6	166.7	148.7	137.7
77.5°	159.5	159.5	145.0	137.7	141.3	134.1	126.8	123.3	119.6	108.8	94.3
80°	94.3	90.6	79.8	83.4	79.8	79.8	76.1	72.4	65.2	57.9	50.7
82.5°	25.4	29.0	29.0	29.0	32.7	25.4	25.4	25.4	29.0	29.0	18.2
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	7.2	14.5	14.5	14.5	14.5	14.5	10.9	10.9	10.9	7.2
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 EX4C609050 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8
2.5°	3059.2	3055.5	3059.2	3033.7	3091.7	3048.2	3041.0	3033.7	3059.2	3033.7	2997.5
5°	3124.3	3088.1	3077.2	3066.4	3098.9	3048.2	3037.4	3041.0	3022.8	2975.8	2979.3
7.5°	3146.1	3113.5	3080.9	3012.0	3041.0	3030.2	3001.1	2979.3	2950.4	2910.5	2903.2
10°	3153.3	3117.1	3069.9	3048.2	3004.8	2990.3	2979.3	2943.1	2906.9	2838.1	2819.9
12.5°	3131.6	3088.1	3030.2	3012.0	2979.3	2932.2	2906.9	2870.6	2838.1	2783.7	2743.8
15°	3037.4	3001.1	2983.0	2921.4	2906.9	2877.8	2827.1	2776.4	2729.3	2656.7	2635.0
17.5°	2928.7	2914.2	2896.0	2848.8	2845.3	2816.3	2769.2	2725.6	2664.1	2551.6	2515.4
20°	2816.3	2816.3	2758.2	2740.2	2776.4	2718.3	2682.1	2642.2	2515.4	2461.0	2395.9
22.5°	2733.0	2693.1	2660.4	2631.4	2635.0	2598.8	2548.1	2468.3	2421.1	2356.0	2279.8
25°	2569.8	2584.3	2511.9	2500.9	2511.9	2428.4	2403.1	2337.8	2268.9	2207.3	2149.3
27.5°	2468.3	2428.4	2381.4	2341.5	2341.5	2308.8	2236.4	2221.9	2116.7	2058.7	1986.2
30°	2316.1	2287.1	2247.2	2189.2	2182.0	2156.6	2098.6	2062.3	1953.7	1866.6	1826.7
32.5°	2123.9	2113.1	2080.5	2015.3	1993.6	1964.5	1892.0	1830.4	1779.7	1681.7	1634.7
35°	1986.2	1946.4	1877.6	1823.2	1805.0	1754.3	1696.2	1652.8	1598.4	1511.5	1449.8
37.5°	1779.7	1739.8	1674.5	1609.3	1609.3	1558.6	1478.8	1435.4	1359.2	1308.4	1257.7
40°	1598.4	1547.7	1482.5	1406.4	1395.5	1322.9	1290.4	1217.8	1170.7	1091.0	1083.8
42.5°	1395.5	1348.3	1290.4	1232.3	1188.8	1152.6	1069.3	1014.9	964.2	924.3	913.4
45°	1210.6	1148.9	1098.2	1025.7	982.2	938.8	884.4	848.2	808.3	764.8	739.4
47.5°	1051.1	1000.4	927.8	862.7	819.2	797.3	735.7	696.0	663.3	634.3	616.1
50°	888.1	826.5	786.5	714.0	706.7	656.0	605.4	572.7	554.5	529.2	503.8
52.5°	764.8	706.7	652.4	598.1	569.0	551.0	503.8	471.2	445.9	427.7	413.2
55°	645.1	594.4	551.0	496.6	478.4	453.1	398.7	391.5	366.1	340.7	322.6
57.5°	554.5	507.4	456.7	420.5	387.8	369.8	326.2	297.2	282.7	261.0	242.8
60°	471.2	420.5	380.6	337.1	322.6	297.2	264.6	239.3	221.1	202.9	184.9
62.5°	395.1	351.6	308.1	271.8	250.1	235.6	210.2	188.4	170.4	155.9	141.3
65°	326.2	286.3	250.1	213.9	202.9	184.9	166.7	148.7	134.1	116.0	101.5
67.5°	268.2	232.0	195.7	170.4	159.5	152.2	130.5	112.3	101.5	90.6	76.1
70°	210.2	184.9	155.9	134.1	123.3	112.3	97.8	87.0	72.4	65.2	54.4
72.5°	163.2	141.3	116.0	97.8	90.6	83.4	68.9	57.9	50.7	43.5	36.2
75°	116.0	97.8	83.4	65.2	61.6	57.9	47.1	39.9	32.7	25.4	21.7
77.5°	79.8	65.2	50.7	43.5	39.9	32.7	29.0	21.7	18.2	14.5	10.9
80°	43.5	32.7	25.4	21.7	18.2	14.5	14.5	10.9	7.2	7.2	3.7
82.5°	14.5	10.9	7.2	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



TEST NUMBER: P#

CATALOG NUMBER: LD4C60D010 EX4C609050 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8
2.5°	3019.2	2979.3	2990.3	2990.3	2983.0	2983.0	2975.8	2964.9	2968.6	2946.7	2899.7
5°	2986.6	2935.9	2928.7	2935.9	2906.9	2899.7	2885.2	2906.9	2841.6	2867.0	2838.1
7.5°	2892.4	2845.3	2834.4	2859.8	2823.6	2801.7	2798.2	2827.1	2769.2	2740.2	2707.6
10°	2787.2	2769.2	2736.5	2718.3	2707.6	2711.1	2682.1	2645.9	2635.0	2627.7	2598.8
12.5°	2693.1	2653.2	2624.2	2602.5	2595.2	2595.2	2548.1	2540.8	2508.2	2500.9	2457.5
15°	2580.6	2533.6	2515.4	2486.5	2461.0	2475.5	2421.1	2406.7	2395.9	2348.7	2356.0
17.5°	2482.8	2432.1	2388.6	2370.4	2348.7	2327.0	2276.2	2287.1	2261.7	2261.7	2196.5
20°	2356.0	2301.6	2268.9	2232.7	2232.7	2203.7	2167.5	2171.1	2138.4	2105.9	2047.8
22.5°	2221.9	2163.8	2123.9	2109.4	2073.2	2066.0	2022.5	2011.6	1968.1	1971.7	1921.0
25°	2080.5	2022.5	1968.1	1971.7	1939.2	1924.7	1899.3	1848.6	1830.4	1808.7	1794.2
27.5°	1913.8	1873.9	1826.7	1823.2	1761.5	1765.1	1732.6	1718.1	1674.5	1685.4	1652.8
30°	1761.5	1703.6	1660.0	1649.2	1623.8	1616.6	1565.9	1544.0	1551.4	1522.3	1504.2
32.5°	1605.6	1518.7	1500.5	1478.8	1464.3	1446.1	1409.9	1424.4	1391.8	1399.0	1370.0
35°	1399.0	1362.8	1315.6	1315.6	1301.2	1286.7	1261.4	1275.9	1243.2	1228.7	1199.8
37.5°	1225.1	1192.5	1145.4	1159.9	1134.5	1112.7	1091.0	1094.6	1065.6	1062.0	1032.9
40°	1036.6	1018.4	985.9	985.9	967.7	967.7	956.8	946.0	927.8	906.1	873.5
42.5°	859.0	844.5	830.0	833.7	808.3	830.0	801.0	819.2	761.1	757.6	735.7
45°	728.5	696.0	699.5	685.0	670.5	677.8	652.4	659.6	627.1	619.8	598.1
47.5°	590.9	579.9	558.2	551.0	551.0	540.0	529.2	525.5	511.1	492.9	463.9
50°	485.6	445.9	438.5	427.7	420.5	420.5	406.0	384.3	387.8	369.8	340.7
52.5°	380.6	347.9	333.4	329.9	315.4	308.1	290.0	275.5	264.6	257.3	239.3
55°	293.5	264.6	246.5	246.5	224.8	224.8	199.4	188.4	174.0	159.5	148.7
57.5°	221.1	206.6	188.4	174.0	166.7	148.7	134.1	116.0	105.1	83.4	68.9
60°	166.7	152.2	134.1	123.3	116.0	97.8	79.8	65.2	39.9	32.7	29.0
62.5°	123.3	108.8	90.6	83.4	76.1	61.6	43.5	21.7	10.9	10.9	10.9
65°	90.6	72.4	57.9	50.7	43.5	32.7	14.5	7.2	3.7	3.7	3.7
67.5°	61.6	47.1	32.7	29.0	21.7	10.9	3.7	3.7	3.7	3.7	3.7
70°	39.9	29.0	14.5	10.9	7.2	3.7	3.7	3.7	3.7	3.7	3.7
72.5°	25.4	14.5	7.2	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	14.5	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	7.2	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: P#

CATALOG NUMBER: LD4C60D010 EX4C609050 4LBSQLWWH

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8	3022.8
2.5°	2950.4	2925.0	2939.4	2906.9	2921.4	2946.7	2928.7	2935.9
5°	2848.8	2834.4	2816.3	2769.2	2805.4	2834.4	2819.9	2816.3
7.5°	2740.2	2689.4	2714.8	2700.3	2693.1	2722.0	2689.4	2725.6
10°	2627.7	2591.5	2588.0	2562.6	2562.6	2584.3	2588.0	2566.1
12.5°	2461.0	2443.0	2443.0	2439.3	2435.6	2457.5	2461.0	2450.2
15°	2341.5	2334.2	2316.1	2312.5	2290.8	2323.3	2327.0	2323.3
17.5°	2196.5	2200.0	2182.0	2182.0	2196.5	2207.3	2178.3	2207.3
20°	2098.6	2080.5	2073.2	2040.6	2058.7	2076.9	2076.9	2080.5
22.5°	1957.2	1928.2	1939.2	1921.0	1910.1	1935.5	1935.5	1946.4
25°	1797.7	1797.7	1805.0	1794.2	1801.4	1815.9	1805.0	1830.4
27.5°	1645.5	1660.0	1660.0	1645.5	1652.8	1696.2	1714.4	1685.4
30°	1504.2	1507.8	1518.7	1511.5	1533.2	1547.7	1544.0	1565.9
32.5°	1344.8	1362.8	1370.0	1359.2	1366.5	1399.0	1381.0	1377.3
35°	1221.5	1188.8	1185.3	1188.8	1203.3	1210.6	1203.3	1228.7
37.5°	1043.9	1032.9	1018.4	1022.1	1032.9	1047.5	1054.8	1072.8
40°	873.5	859.0	859.0	855.4	844.5	884.4	884.4	884.4
42.5°	724.9	721.2	703.2	703.2	717.7	728.5	721.2	746.6
45°	594.4	579.9	569.0	569.0	579.9	579.9	590.9	587.2
47.5°	467.6	453.1	456.7	445.9	456.7	471.2	453.1	456.7
50°	351.6	351.6	344.4	351.6	347.9	351.6	344.4	337.1
52.5°	239.3	271.8	275.5	261.0	228.3	199.4	181.2	195.7
55°	137.7	123.3	123.3	119.6	112.3	108.8	97.8	108.8
57.5°	68.9	61.6	61.6	61.6	57.9	54.4	47.1	47.1
60°	29.0	25.4	25.4	21.7	18.2	14.5	10.9	14.5
62.5°	10.9	7.2	7.2	7.2	7.2	7.2	7.2	7.2
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)