

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 EX4C609035 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 EX4C609035 4LBSQLWWH
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

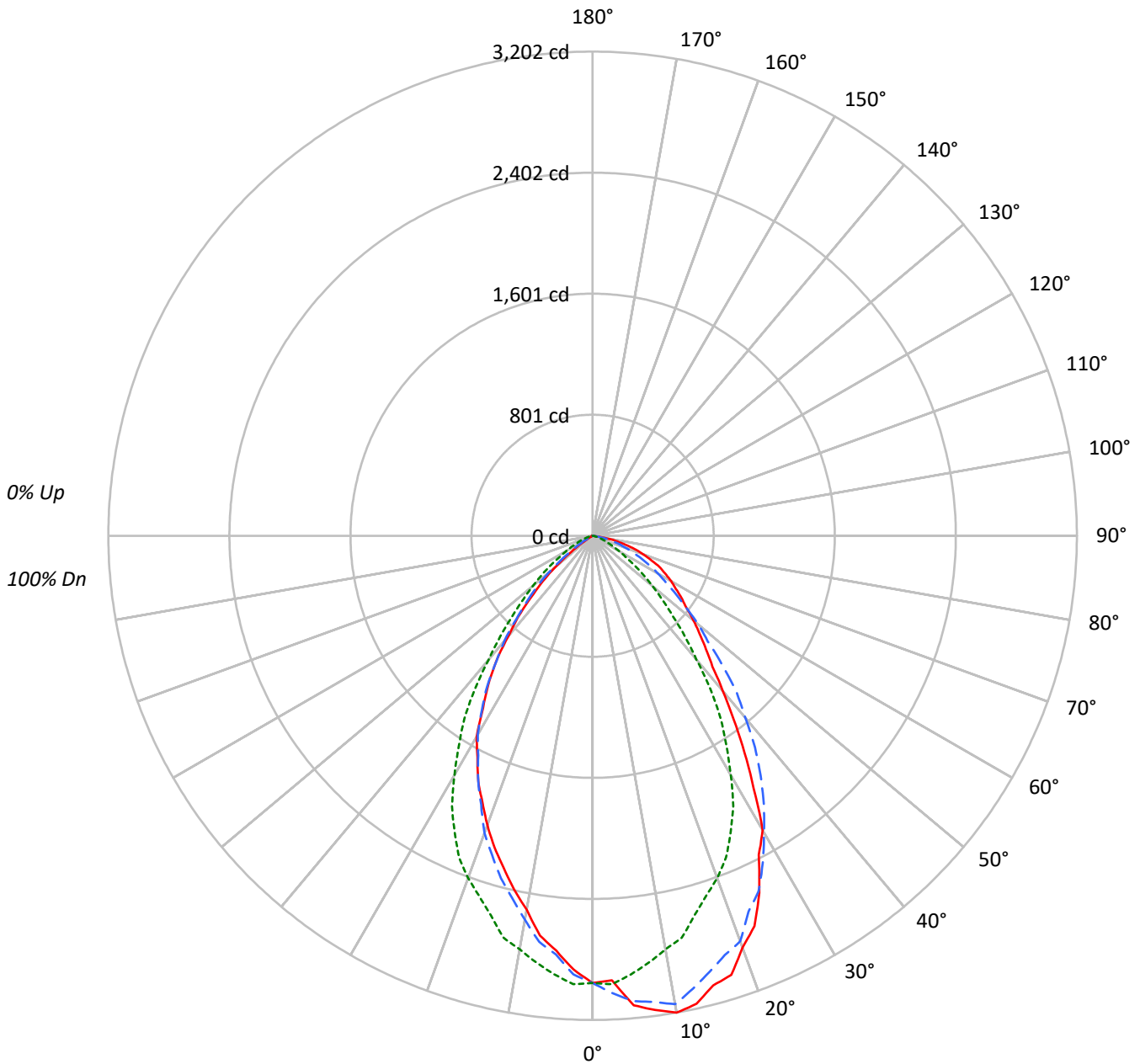
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4239.0 lumens
Efficiency: N/A
Efficacy: 58.9 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									
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°	285337	285337	285337
5°	301885	281971	266862
10°	313724	272034	245972
15°	307450	259631	227046
20°	297478	247216	208987
25°	277476	229898	190645
30°	250485	203456	170678
35°	206335	174178	141597
40°	168380	134434	108978
45°	144671	102096	78380
50°	130941	77727	49506
55°	120498	56069	17899
60°	115652	38306	2740
65°	111713	25913	822
70°	100010	17999	1016
75°	81980	9283	0
80°	51232	3945	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	277.1	6.5
10°-20°	746.5	17.6
20°-30°	996.8	23.5
30°-40°	946.3	22.3
40°-50°	654.1	15.4
50°-60°	361.4	8.5
60°-70°	179.5	4.2
70°-80°	70.7	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°	2020.4	47.7
0°-40°	2966.6	70.0
0°-60°	3982.1	93.9
0°-90°	4239.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4239.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2957	2957	2957	2957	2957	
5°	3117	3088	2911	2780	2755	298
15°	3078	2986	2599	2344	2273	871
25°	2606	2596	2159	1791	1791	1188
35°	1752	1936	1479	1216	1202	1097
45°	1060	1216	748	614	574	827
55°	716	674	333	170	106	645
65°	489	354	114	4	4	475
75°	220	135	25	0	0	234
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°	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2
2.5°	2943.1	3024.6	3031.7	3024.6	3035.3	3031.7	3049.5	3031.7	3053.1	3021.1	3028.2
5°	3116.8	3084.9	3152.3	3116.8	3116.8	3113.4	3102.7	3099.1	3113.4	3067.2	3088.5
7.5°	3163.0	3209.1	3269.4	3194.9	3198.4	3198.4	3177.1	3170.1	3170.1	3084.9	3109.8
10°	3202.0	3173.5	3205.5	3177.1	3202.0	3198.4	3212.6	3166.4	3198.4	3148.8	3145.2
12.5°	3170.1	3159.4	3202.0	3155.9	3141.7	3145.2	3127.5	3116.8	3127.5	3070.7	3067.2
15°	3077.8	3088.5	3152.3	3102.7	3095.6	3088.5	3067.2	3031.7	3060.2	2982.1	2985.7
17.5°	3046.0	3028.2	3038.9	2996.3	3007.0	2999.9	2996.3	2964.4	2957.2	2907.6	2907.6
20°	2897.1	2936.0	2936.0	2907.6	2907.6	2904.2	2858.0	2886.4	2854.4	2840.3	2854.4
22.5°	2794.1	2797.7	2797.7	2772.9	2776.5	2762.3	2737.4	2719.7	2737.4	2719.7	2691.3
25°	2606.3	2613.4	2655.9	2609.8	2602.7	2616.9	2595.6	2584.9	2581.4	2538.9	2595.6
27.5°	2379.3	2450.2	2446.7	2428.9	2450.2	2421.8	2411.3	2414.7	2425.4	2421.8	2436.0
30°	2248.2	2258.7	2269.4	2255.3	2258.7	2248.2	2248.2	2251.6	2280.0	2269.4	2265.8
32.5°	1982.1	2017.6	2046.0	2046.0	2049.5	2060.2	2056.6	2131.1	2148.8	2113.4	2106.3
35°	1751.7	1776.5	1801.3	1804.9	1851.0	1854.5	1858.1	1879.3	1928.9	1939.6	1936.0
37.5°	1531.9	1556.6	1563.7	1595.7	1620.5	1645.2	1673.7	1702.1	1744.6	1780.0	1762.4
40°	1336.8	1347.4	1365.2	1379.4	1428.9	1428.9	1443.1	1499.9	1546.1	1574.4	1570.8
42.5°	1173.7	1177.2	1191.4	1216.3	1262.4	1251.7	1262.4	1301.4	1368.7	1372.3	1411.3
45°	1060.2	1056.6	1067.3	1070.8	1099.3	1113.5	1120.5	1148.9	1205.6	1212.6	1216.3
47.5°	957.4	953.8	971.6	978.7	989.3	1003.4	1003.4	1007.0	1028.3	1046.1	1031.9
50°	872.3	872.3	872.3	879.4	897.2	893.5	897.2	911.3	921.9	914.8	911.3
52.5°	780.0	794.2	804.9	808.5	812.0	812.0	815.6	808.5	804.9	794.2	773.0
55°	716.3	730.4	730.4	730.4	730.4	744.6	727.0	730.4	730.4	702.1	673.8
57.5°	652.5	666.7	677.2	663.1	677.2	663.1	656.0	652.5	645.3	617.0	574.4
60°	599.3	606.4	602.8	599.3	606.4	595.7	588.6	574.4	567.4	528.3	500.0
62.5°	539.0	542.5	546.1	539.0	531.9	528.3	514.1	492.9	478.7	446.8	421.9
65°	489.3	478.7	475.1	471.6	464.6	453.9	443.3	418.4	407.7	379.4	354.5
67.5°	414.8	411.3	418.4	407.7	390.1	390.1	379.4	358.1	333.3	315.6	290.8
70°	354.5	351.1	344.0	333.3	329.8	315.6	315.6	290.8	283.7	251.7	230.5
72.5°	290.8	290.8	280.1	269.5	258.8	251.7	248.3	230.5	219.9	202.1	184.3
75°	219.9	219.9	216.3	205.6	198.5	191.4	188.0	173.8	163.1	145.5	134.8
77.5°	156.0	156.0	141.8	134.8	138.2	131.1	124.1	120.6	117.0	106.4	92.2
80°	92.2	88.6	78.1	81.5	78.1	78.1	74.5	70.8	63.8	56.7	49.6
82.5°	24.9	28.3	28.3	28.3	32.0	24.9	24.9	24.9	28.3	28.3	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°	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2
2.5°	2992.8	2989.2	2992.8	2967.9	3024.6	2982.1	2975.0	2967.9	2992.8	2967.9	2932.5
5°	3056.6	3021.1	3010.4	2999.9	3031.7	2982.1	2971.5	2975.0	2957.2	2911.2	2914.7
7.5°	3077.8	3046.0	3014.0	2946.7	2975.0	2964.4	2936.0	2914.7	2886.4	2847.3	2840.3
10°	3084.9	3049.5	3003.3	2982.1	2939.6	2925.4	2914.7	2879.3	2843.9	2776.5	2758.7
12.5°	3063.6	3021.1	2964.4	2946.7	2914.7	2868.6	2843.9	2808.3	2776.5	2723.3	2684.2
15°	2971.5	2936.0	2918.3	2858.0	2843.9	2815.4	2765.8	2716.2	2670.1	2599.1	2577.8
17.5°	2865.1	2850.9	2833.2	2787.0	2783.6	2755.2	2709.1	2666.5	2606.3	2496.3	2460.9
20°	2755.2	2755.2	2698.4	2680.8	2716.2	2659.4	2624.0	2584.9	2460.9	2407.6	2343.9
22.5°	2673.7	2634.6	2602.7	2574.4	2577.8	2542.4	2492.8	2414.7	2368.6	2304.8	2230.4
25°	2514.1	2528.2	2457.4	2446.7	2457.4	2375.7	2351.0	2287.1	2219.7	2159.4	2102.7
27.5°	2414.7	2375.7	2329.7	2290.7	2290.7	2258.7	2187.9	2173.7	2070.8	2014.1	1943.1
30°	2265.8	2237.5	2198.4	2141.8	2134.7	2109.8	2053.1	2017.6	1911.3	1826.1	1787.1
32.5°	2077.8	2067.3	2035.3	1971.6	1950.3	1921.8	1851.0	1790.7	1741.1	1645.2	1599.3
35°	1943.1	1904.2	1836.8	1783.6	1765.8	1716.2	1659.4	1616.9	1563.7	1478.7	1418.4
37.5°	1741.1	1702.1	1638.2	1574.4	1574.4	1524.8	1446.7	1404.2	1329.8	1280.0	1230.4
40°	1563.7	1514.1	1450.3	1375.9	1365.2	1294.2	1262.4	1191.4	1145.3	1067.3	1060.2
42.5°	1365.2	1319.1	1262.4	1205.6	1163.1	1127.6	1046.1	992.9	943.3	904.2	893.5
45°	1184.3	1124.0	1074.4	1003.4	960.9	918.4	865.2	829.8	790.7	748.2	723.4
47.5°	1028.3	978.7	907.7	843.9	801.4	780.0	719.8	680.9	648.9	620.6	602.8
50°	868.8	808.5	769.5	698.5	691.4	641.8	592.2	560.3	542.5	517.8	492.9
52.5°	748.2	691.4	638.2	585.1	556.7	539.0	492.9	460.9	436.2	418.4	404.3
55°	631.1	581.5	539.0	485.8	468.0	443.3	390.1	383.0	358.1	333.3	315.6
57.5°	542.5	496.4	446.8	411.3	379.4	361.8	319.1	290.8	276.6	255.3	237.6
60°	460.9	411.3	372.3	329.8	315.6	290.8	258.8	234.1	216.3	198.5	180.9
62.5°	386.5	344.0	301.5	265.9	244.6	230.5	205.6	184.3	166.7	152.5	138.2
65°	319.1	280.1	244.6	209.2	198.5	180.9	163.1	145.5	131.1	113.5	99.3
67.5°	262.4	227.0	191.4	166.7	156.0	148.9	127.7	109.9	99.3	88.6	74.5
70°	205.6	180.9	152.5	131.1	120.6	109.9	95.7	85.2	70.8	63.8	53.2
72.5°	159.6	138.2	113.5	95.7	88.6	81.5	67.4	56.7	49.6	42.5	35.4
75°	113.5	95.7	81.5	63.8	60.3	56.7	46.1	39.0	32.0	24.9	21.3
77.5°	78.1	63.8	49.6	42.5	39.0	32.0	28.3	21.3	17.8	14.2	10.7
80°	42.5	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°	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2
2.5°	2953.8	2914.7	2925.4	2925.4	2918.3	2918.3	2911.2	2900.5	2904.2	2882.8	2836.8
5°	2921.8	2872.2	2865.1	2872.2	2843.9	2836.8	2822.6	2843.9	2780.0	2804.8	2776.5
7.5°	2829.7	2783.6	2772.9	2797.7	2762.3	2740.9	2737.4	2765.8	2709.1	2680.8	2648.8
10°	2726.8	2709.1	2677.2	2659.4	2648.8	2652.3	2624.0	2588.5	2577.8	2570.7	2542.4
12.5°	2634.6	2595.6	2567.3	2546.0	2538.9	2538.9	2492.8	2485.7	2453.8	2446.7	2404.2
15°	2524.6	2478.6	2460.9	2432.5	2407.6	2421.8	2368.6	2354.4	2343.9	2297.8	2304.8
17.5°	2428.9	2379.3	2336.8	2319.0	2297.8	2276.5	2226.8	2237.5	2212.6	2212.6	2148.8
20°	2304.8	2251.6	2219.7	2184.3	2184.3	2155.9	2120.5	2124.0	2092.0	2060.2	2003.4
22.5°	2173.7	2116.9	2077.8	2063.7	2028.3	2021.2	1978.7	1968.0	1925.5	1928.9	1879.3
25°	2035.3	1978.7	1925.5	1928.9	1897.1	1882.9	1858.1	1808.5	1790.7	1769.4	1755.3
27.5°	1872.2	1833.2	1787.1	1783.6	1723.3	1726.8	1695.0	1680.8	1638.2	1648.9	1616.9
30°	1723.3	1666.6	1624.0	1613.4	1588.6	1581.5	1531.9	1510.5	1517.7	1489.2	1471.6
32.5°	1570.8	1485.8	1468.0	1446.7	1432.6	1414.8	1379.4	1393.5	1361.6	1368.7	1340.3
35°	1368.7	1333.2	1287.1	1287.1	1272.9	1258.8	1234.0	1248.2	1216.3	1202.1	1173.7
37.5°	1198.5	1166.7	1120.5	1134.7	1109.8	1088.6	1067.3	1070.8	1042.5	1039.0	1010.5
40°	1014.1	996.3	964.5	964.5	946.8	946.8	936.1	925.5	907.7	886.5	854.5
42.5°	840.3	826.2	812.0	815.6	790.7	812.0	783.7	801.4	744.6	741.1	719.8
45°	712.7	680.9	684.3	670.2	656.0	663.1	638.2	645.3	613.5	606.4	585.1
47.5°	578.1	567.4	546.1	539.0	539.0	528.3	517.8	514.1	500.0	482.2	453.9
50°	475.1	436.2	429.0	418.4	411.3	411.3	397.2	375.9	379.4	361.8	333.3
52.5°	372.3	340.4	326.2	322.7	308.5	301.5	283.7	269.5	258.8	251.7	234.1
55°	287.2	258.8	241.2	241.2	219.9	219.9	195.0	184.3	170.2	156.0	145.5
57.5°	216.3	202.1	184.3	170.2	163.1	145.5	131.1	113.5	102.8	81.5	67.4
60°	163.1	148.9	131.1	120.6	113.5	95.7	78.1	63.8	39.0	32.0	28.3
62.5°	120.6	106.4	88.6	81.5	74.5	60.3	42.5	21.3	10.7	10.7	10.7
65°	88.6	70.8	56.7	49.6	42.5	32.0	14.2	7.1	3.6	3.6	3.6
67.5°	60.3	46.1	32.0	28.3	21.3	10.7	3.6	3.6	3.6	3.6	3.6
70°	39.0	28.3	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 EX4C609035 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2	2957.2
2.5°	2886.4	2861.5	2875.7	2843.9	2858.0	2882.8	2865.1	2872.2
5°	2787.0	2772.9	2755.2	2709.1	2744.5	2772.9	2758.7	2755.2
7.5°	2680.8	2631.0	2655.9	2641.7	2634.6	2663.0	2631.0	2666.5
10°	2570.7	2535.3	2531.8	2507.0	2507.0	2528.2	2531.8	2510.5
12.5°	2407.6	2390.0	2390.0	2386.4	2382.8	2404.2	2407.6	2397.1
15°	2290.7	2283.6	2265.8	2262.3	2241.1	2272.9	2276.5	2272.9
17.5°	2148.8	2152.3	2134.7	2134.7	2148.8	2159.4	2131.1	2159.4
20°	2053.1	2035.3	2028.3	1996.3	2014.1	2031.9	2031.9	2035.3
22.5°	1914.8	1886.4	1897.1	1879.3	1868.6	1893.5	1893.5	1904.2
25°	1758.7	1758.7	1765.8	1755.3	1762.4	1776.5	1765.8	1790.7
27.5°	1609.8	1624.0	1624.0	1609.8	1616.9	1659.4	1677.2	1648.9
30°	1471.6	1475.1	1485.8	1478.7	1499.9	1514.1	1510.5	1531.9
32.5°	1315.6	1333.2	1340.3	1329.8	1336.8	1368.7	1351.0	1347.4
35°	1195.0	1163.1	1159.6	1163.1	1177.2	1184.3	1177.2	1202.1
37.5°	1021.2	1010.5	996.3	1000.0	1010.5	1024.8	1031.9	1049.6
40°	854.5	840.3	840.3	836.9	826.2	865.2	865.2	865.2
42.5°	709.2	705.6	687.9	687.9	702.1	712.7	705.6	730.4
45°	581.5	567.4	556.7	556.7	567.4	567.4	578.1	574.4
47.5°	457.5	443.3	446.8	436.2	446.8	460.9	443.3	446.8
50°	344.0	344.0	336.9	344.0	340.4	344.0	336.9	329.8
52.5°	234.1	265.9	269.5	255.3	223.4	195.0	177.3	191.4
55°	134.8	120.6	120.6	117.0	109.9	106.4	95.7	106.4
57.5°	67.4	60.3	60.3	60.3	56.7	53.2	46.1	46.1
60°	28.3	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)