

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

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

Luminaire Equipment: Sample No. Condition Description

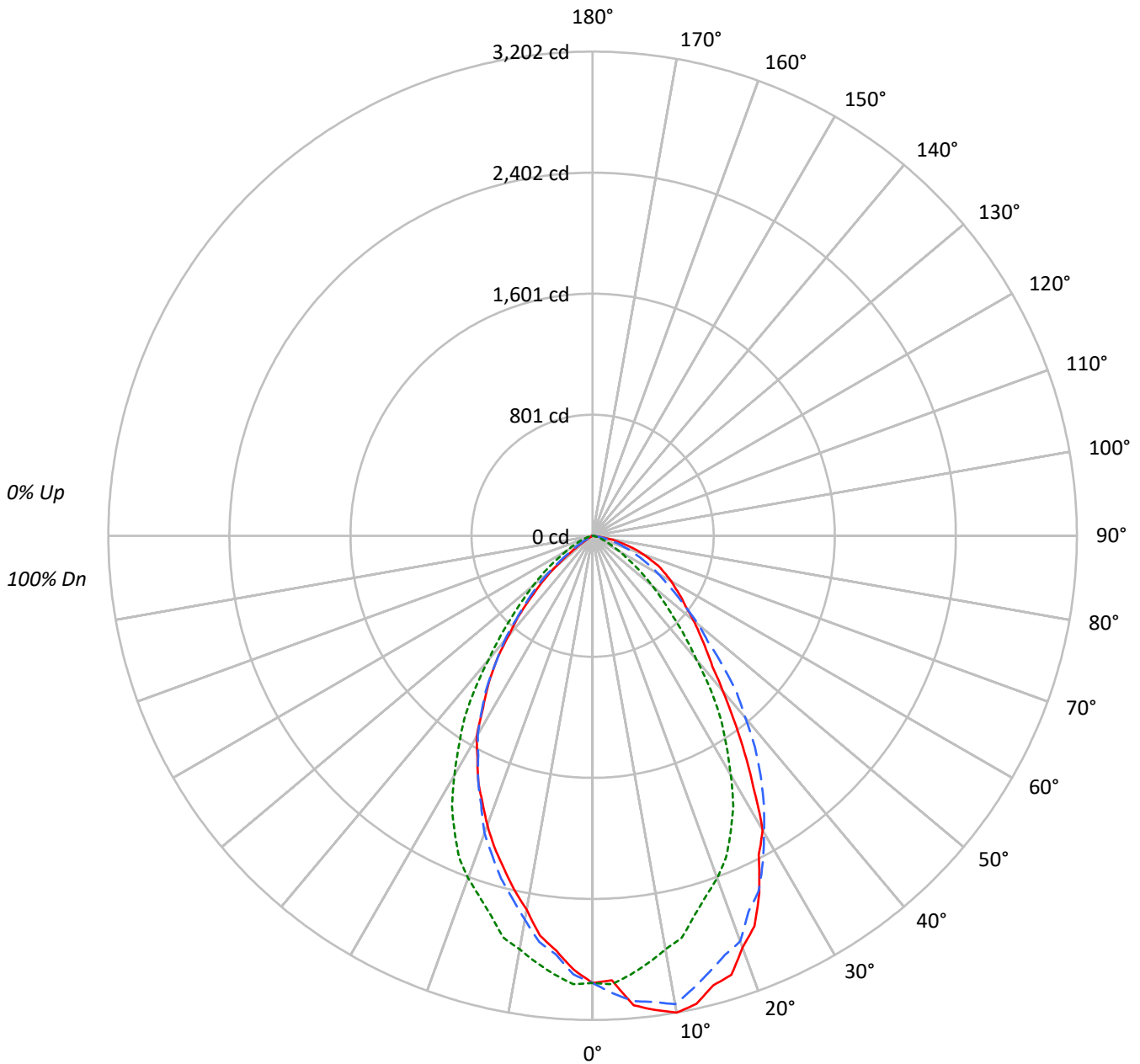
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 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 (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

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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	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	



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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)