

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 EX4C609027 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 EX4C609027 4LBSQLWWH
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

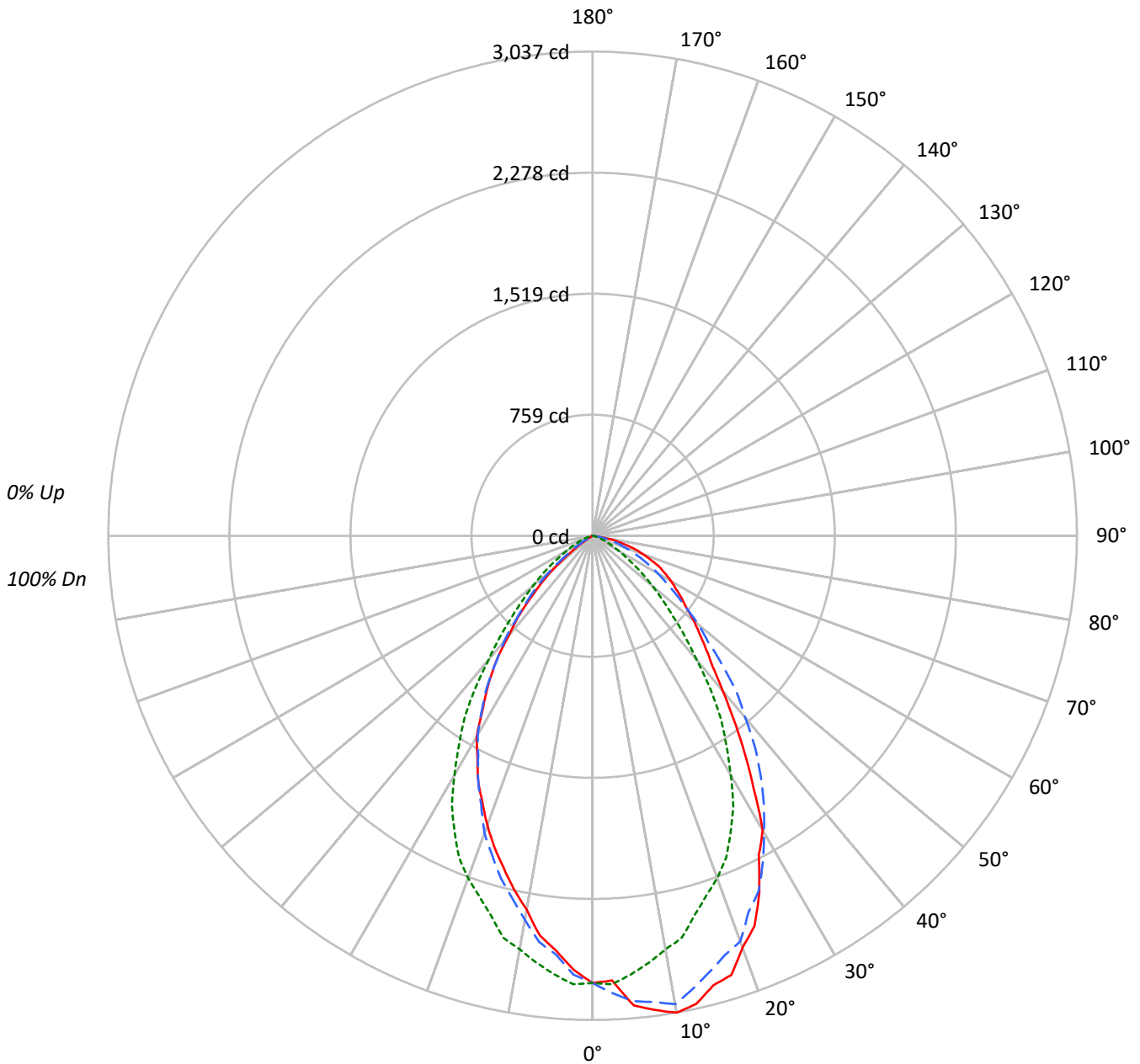
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4021.0 lumens
Efficiency: N/A
Efficacy: 55.8 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				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°	270661	270661	270661
5°	286369	267472	253137
10°	297587	258043	233314
15°	291637	246275	215369
20°	282179	234504	198247
25°	263210	218070	180839
30°	237605	192994	161898
35°	195722	165214	134317
40°	159726	127519	103373
45°	137234	96856	74355
50°	124201	73719	46954
55°	114291	53175	16974
60°	109708	36338	2586
65°	105960	24589	776
70°	94875	17068	959
75°	77767	8798	0
80°	48620	3723	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	262.8	6.5
10°-20°	708.1	17.6
20°-30°	945.5	23.5
30°-40°	897.6	22.3
40°-50°	620.4	15.4
50°-60°	342.8	8.5
60°-70°	170.2	4.2
70°-80°	67.1	1.7
80°-90°	6.4	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°	1916.5	47.7
0°-40°	2814.0	70.0
0°-60°	3777.3	93.9
0°-90°	4021.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4021.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	2805	2805	2805	2805	2805	
5°	2957	2930	2762	2637	2614	283
15°	2920	2832	2465	2223	2156	826
25°	2472	2462	2048	1699	1699	1127
35°	1662	1836	1403	1154	1140	1041
45°	1006	1154	710	582	545	784
55°	679	639	316	161	101	612
65°	464	336	108	3	3	450
75°	209	128	24	0	0	222
85°	0	3	0	0	0	19
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°	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1
2.5°	2791.7	2869.1	2875.8	2869.1	2879.2	2875.8	2892.6	2875.8	2896.1	2865.8	2872.5
5°	2956.6	2926.2	2990.2	2956.6	2956.6	2953.3	2943.1	2939.7	2953.3	2909.5	2929.7
7.5°	3000.3	3044.1	3101.2	3030.6	3033.9	3033.9	3013.7	3007.0	3007.0	2926.2	2949.8
10°	3037.3	3010.3	3040.6	3013.7	3037.3	3033.9	3047.3	3003.6	3033.9	2986.9	2983.4
12.5°	3007.0	2996.9	3037.3	2993.6	2980.1	2983.4	2966.7	2956.6	2966.7	2912.8	2909.5
15°	2919.5	2929.7	2990.2	2943.1	2936.4	2929.7	2909.5	2875.8	2902.8	2828.7	2832.2
17.5°	2889.3	2872.5	2882.6	2842.2	2852.3	2845.6	2842.2	2812.0	2805.1	2758.1	2758.1
20°	2748.1	2785.0	2785.0	2758.1	2758.1	2754.8	2711.1	2737.9	2707.6	2694.2	2707.6
22.5°	2650.4	2653.9	2653.9	2630.3	2633.7	2620.3	2596.7	2579.8	2596.7	2579.8	2552.9
25°	2472.3	2479.0	2519.3	2475.6	2468.8	2482.3	2462.1	2452.0	2448.7	2408.4	2462.1
27.5°	2256.9	2324.2	2320.9	2304.0	2324.2	2297.3	2287.3	2290.6	2300.7	2297.3	2310.7
30°	2132.6	2142.6	2152.7	2139.3	2142.6	2132.6	2132.6	2135.8	2162.7	2152.7	2149.3
32.5°	1880.2	1913.8	1940.8	1940.8	1944.1	1954.3	1950.8	2021.5	2038.3	2004.7	1998.0
35°	1661.6	1685.2	1708.6	1712.0	1755.8	1759.1	1762.5	1782.7	1829.7	1839.9	1836.4
37.5°	1453.1	1476.6	1483.3	1513.6	1537.2	1560.6	1587.7	1614.5	1654.9	1688.5	1671.7
40°	1268.1	1278.1	1295.0	1308.4	1355.5	1355.5	1368.9	1422.8	1466.5	1493.4	1490.0
42.5°	1113.4	1116.7	1130.1	1153.7	1197.5	1187.3	1197.5	1234.5	1298.3	1301.7	1338.7
45°	1005.7	1002.3	1012.4	1015.7	1042.8	1056.2	1062.9	1089.8	1143.6	1150.3	1153.7
47.5°	908.2	904.8	921.6	928.4	938.4	951.8	951.8	955.3	975.4	992.3	978.8
50°	827.4	827.4	827.4	834.1	851.0	847.6	851.0	864.5	874.5	867.8	864.5
52.5°	739.9	753.4	763.5	766.9	770.2	770.2	773.7	766.9	763.5	753.4	733.2
55°	679.4	692.9	692.9	692.9	692.9	706.3	689.6	692.9	692.9	666.0	639.1
57.5°	619.0	632.4	642.4	629.0	642.4	629.0	622.3	619.0	612.1	585.2	544.9
60°	568.5	575.2	571.8	568.5	575.2	565.1	558.3	544.9	538.2	501.1	474.3
62.5°	511.3	514.6	518.0	511.3	504.6	501.1	487.7	467.5	454.1	423.8	400.2
65°	464.1	454.1	450.7	447.4	440.7	430.5	420.5	396.9	386.8	359.9	336.3
67.5°	393.5	390.2	396.9	386.8	370.0	370.0	359.9	339.7	316.1	299.4	275.8
70°	336.3	333.0	326.3	316.1	312.8	299.4	299.4	275.8	269.1	238.8	218.6
72.5°	275.8	275.8	265.7	255.6	245.5	238.8	235.5	218.6	208.6	191.7	174.9
75°	208.6	208.6	205.2	195.0	188.3	181.6	178.3	164.9	154.7	138.0	127.8
77.5°	148.0	148.0	134.5	127.8	131.1	124.4	117.7	114.4	111.0	100.9	87.5
80°	87.5	84.1	74.1	77.4	74.1	74.1	70.6	67.2	60.5	53.8	47.0
82.5°	23.6	26.9	26.9	26.9	30.3	23.6	23.6	23.6	26.9	26.9	16.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.4	3.4	3.4
87.5°	3.4	6.7	13.4	13.4	13.4	13.4	13.4	10.1	10.1	10.1	6.7
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°	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1
2.5°	2838.9	2835.5	2838.9	2815.3	2869.1	2828.7	2822.0	2815.3	2838.9	2815.3	2781.7
5°	2899.4	2865.8	2855.6	2845.6	2875.8	2828.7	2818.7	2822.0	2805.1	2761.5	2764.8
7.5°	2919.5	2889.3	2859.0	2795.1	2822.0	2812.0	2785.0	2764.8	2737.9	2700.9	2694.2
10°	2926.2	2892.6	2848.9	2828.7	2788.4	2775.0	2764.8	2731.2	2697.6	2633.7	2616.8
12.5°	2906.1	2865.8	2812.0	2795.1	2764.8	2721.1	2697.6	2663.9	2633.7	2583.2	2546.2
15°	2818.7	2785.0	2768.2	2711.1	2697.6	2670.6	2623.6	2576.5	2532.8	2465.4	2445.3
17.5°	2717.8	2704.3	2687.5	2643.7	2640.4	2613.5	2569.8	2529.3	2472.3	2367.9	2334.3
20°	2613.5	2613.5	2559.6	2542.9	2576.5	2522.6	2489.0	2452.0	2334.3	2283.8	2223.3
22.5°	2536.2	2499.2	2468.8	2442.0	2445.3	2411.7	2364.6	2290.6	2246.8	2186.3	2115.7
25°	2384.8	2398.2	2331.0	2320.9	2331.0	2253.5	2230.1	2169.4	2105.5	2048.3	1994.6
27.5°	2290.6	2253.5	2209.9	2172.9	2172.9	2142.6	2075.4	2061.9	1964.3	1910.5	1843.2
30°	2149.3	2122.4	2085.4	2031.6	2024.9	2001.3	1947.5	1913.8	1813.0	1732.2	1695.2
32.5°	1971.0	1961.0	1930.7	1870.2	1850.0	1823.0	1755.8	1698.6	1651.6	1560.6	1517.0
35°	1843.2	1806.3	1742.4	1691.9	1675.0	1628.0	1574.1	1533.8	1483.3	1402.6	1345.4
37.5°	1651.6	1614.5	1553.9	1493.4	1493.4	1446.4	1372.3	1332.0	1261.4	1214.2	1167.2
40°	1483.3	1436.2	1375.8	1305.1	1295.0	1227.6	1197.5	1130.1	1086.4	1012.4	1005.7
42.5°	1295.0	1251.2	1197.5	1143.6	1103.2	1069.6	992.3	941.8	894.8	857.7	847.6
45°	1123.4	1066.2	1019.2	951.8	911.5	871.2	820.7	787.1	750.1	709.8	686.2
47.5°	975.4	928.4	861.0	800.5	760.2	739.9	682.7	645.8	615.5	588.6	571.8
50°	824.1	766.9	729.9	662.6	655.9	608.8	561.8	531.5	514.6	491.1	467.5
52.5°	709.8	655.9	605.4	555.0	528.0	511.3	467.5	437.2	413.8	396.9	383.5
55°	598.7	551.6	511.3	460.8	444.0	420.5	370.0	363.3	339.7	316.1	299.4
57.5°	514.6	470.8	423.8	390.2	359.9	343.1	302.7	275.8	262.4	242.2	225.3
60°	437.2	390.2	353.2	312.8	299.4	275.8	245.5	222.0	205.2	188.3	171.6
62.5°	366.6	326.3	286.0	252.2	232.1	218.6	195.0	174.9	158.1	144.7	131.1
65°	302.7	265.7	232.1	198.5	188.3	171.6	154.7	138.0	124.4	107.7	94.2
67.5°	248.9	215.3	181.6	158.1	148.0	141.3	121.1	104.2	94.2	84.1	70.6
70°	195.0	171.6	144.7	124.4	114.4	104.2	90.8	80.8	67.2	60.5	50.5
72.5°	151.4	131.1	107.7	90.8	84.1	77.4	63.9	53.8	47.0	40.3	33.6
75°	107.7	90.8	77.4	60.5	57.2	53.8	43.8	37.0	30.3	23.6	20.2
77.5°	74.1	60.5	47.0	40.3	37.0	30.3	26.9	20.2	16.9	13.4	10.1
80°	40.3	30.3	23.6	20.2	16.9	13.4	13.4	10.1	6.7	6.7	3.4
82.5°	13.4	10.1	6.7	3.4	3.4	3.4	3.4	3.4	3.4	0.0	3.4
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°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	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°	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1
2.5°	2801.8	2764.8	2775.0	2775.0	2768.2	2768.2	2761.5	2751.4	2754.8	2734.5	2690.9
5°	2771.5	2724.5	2717.8	2724.5	2697.6	2690.9	2677.4	2697.6	2637.0	2660.6	2633.7
7.5°	2684.2	2640.4	2630.3	2653.9	2620.3	2600.0	2596.7	2623.6	2569.8	2542.9	2512.6
10°	2586.5	2569.8	2539.5	2522.6	2512.6	2515.9	2489.0	2455.4	2445.3	2438.5	2411.7
12.5°	2499.2	2462.1	2435.2	2415.1	2408.4	2408.4	2364.6	2357.9	2327.6	2320.9	2280.5
15°	2394.8	2351.2	2334.3	2307.4	2283.8	2297.3	2246.8	2233.4	2223.3	2179.6	2186.3
17.5°	2304.0	2256.9	2216.6	2199.8	2179.6	2159.4	2112.3	2122.4	2098.8	2098.8	2038.3
20°	2186.3	2135.8	2105.5	2071.9	2071.9	2045.1	2011.4	2014.7	1984.4	1954.3	1900.4
22.5°	2061.9	2008.0	1971.0	1957.6	1923.9	1917.2	1876.9	1866.8	1826.4	1829.7	1782.7
25°	1930.7	1876.9	1826.4	1829.7	1799.5	1786.1	1762.5	1715.5	1698.6	1678.4	1665.0
27.5°	1776.0	1738.9	1695.2	1691.9	1634.7	1638.0	1607.8	1594.4	1553.9	1564.1	1533.8
30°	1634.7	1580.9	1540.5	1530.5	1506.9	1500.2	1453.1	1432.8	1439.7	1412.7	1395.9
32.5°	1490.0	1409.4	1392.5	1372.3	1358.9	1342.0	1308.4	1321.9	1291.5	1298.3	1271.4
35°	1298.3	1264.7	1220.9	1220.9	1207.5	1194.0	1170.6	1184.0	1153.7	1140.3	1113.4
37.5°	1136.8	1106.7	1062.9	1076.4	1052.8	1032.6	1012.4	1015.7	988.9	985.6	958.5
40°	962.0	945.1	914.9	914.9	898.1	898.1	887.9	877.9	861.0	840.9	810.6
42.5°	797.1	783.7	770.2	773.7	750.1	770.2	743.4	760.2	706.3	703.0	682.7
45°	676.0	645.8	649.1	635.7	622.3	629.0	605.4	612.1	581.9	575.2	555.0
47.5°	548.3	538.2	518.0	511.3	511.3	501.1	491.1	487.7	474.3	457.4	430.5
50°	450.7	413.8	406.9	396.9	390.2	390.2	376.8	356.6	359.9	343.1	316.1
52.5°	353.2	322.9	309.4	306.1	292.7	286.0	269.1	255.6	245.5	238.8	222.0
55°	272.4	245.5	228.8	228.8	208.6	208.6	185.0	174.9	161.4	148.0	138.0
57.5°	205.2	191.7	174.9	161.4	154.7	138.0	124.4	107.7	97.5	77.4	63.9
60°	154.7	141.3	124.4	114.4	107.7	90.8	74.1	60.5	37.0	30.3	26.9
62.5°	114.4	100.9	84.1	77.4	70.6	57.2	40.3	20.2	10.1	10.1	10.1
65°	84.1	67.2	53.8	47.0	40.3	30.3	13.4	6.7	3.4	3.4	3.4
67.5°	57.2	43.8	30.3	26.9	20.2	10.1	3.4	3.4	3.4	3.4	3.4
70°	37.0	26.9	13.4	10.1	6.7	3.4	3.4	3.4	3.4	3.4	3.4
72.5°	23.6	13.4	6.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	13.4	6.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	6.7	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	3.4	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	3.4	3.4	3.4
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 EX4C609027 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1	2805.1
2.5°	2737.9	2714.3	2727.8	2697.6	2711.1	2734.5	2717.8	2724.5
5°	2643.7	2630.3	2613.5	2569.8	2603.4	2630.3	2616.8	2613.5
7.5°	2542.9	2495.7	2519.3	2505.9	2499.2	2526.0	2495.7	2529.3
10°	2438.5	2404.9	2401.6	2378.1	2378.1	2398.2	2401.6	2381.3
12.5°	2283.8	2267.1	2267.1	2263.7	2260.2	2280.5	2283.8	2273.8
15°	2172.9	2166.2	2149.3	2146.0	2125.8	2156.0	2159.4	2156.0
17.5°	2038.3	2041.6	2024.9	2024.9	2038.3	2048.3	2021.5	2048.3
20°	1947.5	1930.7	1923.9	1893.6	1910.5	1927.4	1927.4	1930.7
22.5°	1816.3	1789.4	1799.5	1782.7	1772.5	1796.1	1796.1	1806.3
25°	1668.3	1668.3	1675.0	1665.0	1671.7	1685.2	1675.0	1698.6
27.5°	1527.0	1540.5	1540.5	1527.0	1533.8	1574.1	1590.9	1564.1
30°	1395.9	1399.2	1409.4	1402.6	1422.8	1436.2	1432.8	1453.1
32.5°	1247.9	1264.7	1271.4	1261.4	1268.1	1298.3	1281.5	1278.1
35°	1133.5	1103.2	1099.9	1103.2	1116.7	1123.4	1116.7	1140.3
37.5°	968.7	958.5	945.1	948.5	958.5	972.1	978.8	995.6
40°	810.6	797.1	797.1	793.8	783.7	820.7	820.7	820.7
42.5°	672.7	669.3	652.6	652.6	666.0	676.0	669.3	692.9
45°	551.6	538.2	528.0	528.0	538.2	538.2	548.3	544.9
47.5°	433.9	420.5	423.8	413.8	423.8	437.2	420.5	423.8
50°	326.3	326.3	319.6	326.3	322.9	326.3	319.6	312.8
52.5°	222.0	252.2	255.6	242.2	211.9	185.0	168.1	181.6
55°	127.8	114.4	114.4	111.0	104.2	100.9	90.8	100.9
57.5°	63.9	57.2	57.2	57.2	53.8	50.5	43.8	43.8
60°	26.9	23.6	23.6	20.2	16.9	13.4	10.1	13.4
62.5°	10.1	6.7	6.7	6.7	6.7	6.7	6.7	6.7
65°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
67.5°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
70°	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
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)