

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



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: -

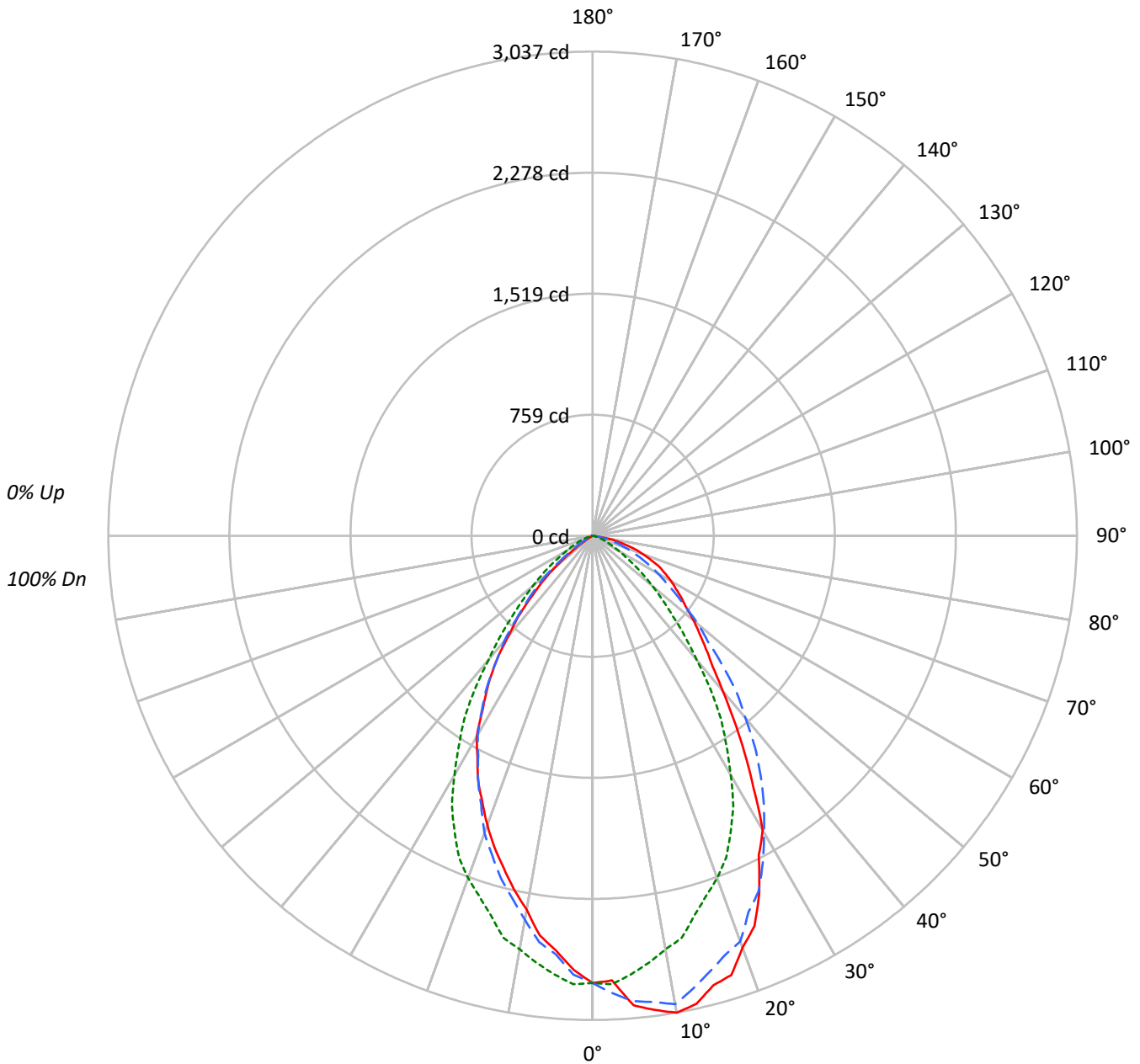
Summary

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	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					100			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53					53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41					41			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					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)