

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: **LD4C100D010 EX4C1009035 4LBSQLWWLI**

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: LD4C100D010 EX4C1009035 4LBSQLWWLI
Description: 4 INCH 10000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Summary

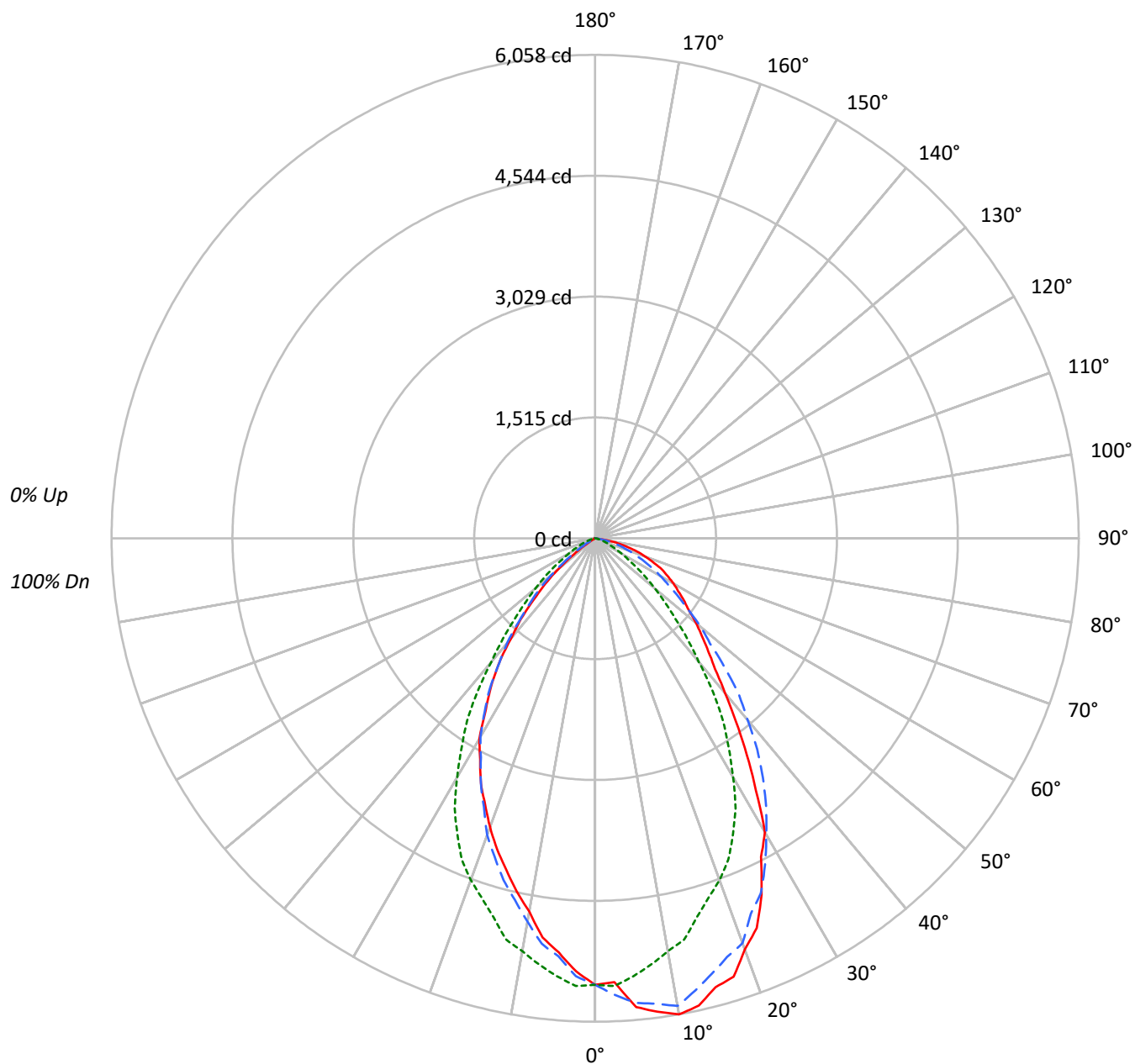
Lumens per Lamp: N/A
Luminaire Lumens: 8020.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 114.4
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
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	539846	539846	539846
5°	571159	533481	504899
10°	593547	514675	465363
15°	581685	491212	429558
20°	562807	467734	395405
25°	524973	434958	360688
30°	473896	384930	322916
35°	390372	329533	267893
40°	318571	254346	206180
45°	273717	193167	148300
50°	247727	147048	93669
55°	227976	106065	33863
60°	218818	72482	5172
65°	211349	49019	1553
70°	189243	34023	1918
75°	155124	17522	0
80°	96962	7446	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	524.2	6.5
10°-20°	1412.3	17.6
20°-30°	1885.9	23.5
30°-40°	1790.3	22.3
40°-50°	1237.5	15.4
50°-60°	683.8	8.5
60°-70°	339.5	4.2
70°-80°	133.8	1.7
80°-90°	12.7	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°	3822.4	47.7
0°-40°	5612.7	70.0
0°-60°	7533.9	93.9
0°-90°	8020.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8020.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5595	5595	5595	5595	5595	
5°	5897	5843	5508	5260	5213	565
15°	5823	5649	4917	4434	4300	1647
25°	4931	4911	4086	3388	3388	2248
35°	3314	3663	2798	2301	2274	2076
45°	2006	2301	1416	1161	1087	1565
55°	1355	1275	630	322	201	1220
65°	926	671	215	7	7	899
75°	416	255	47	0	0	443
85°	0	7	0	0	0	38
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°	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9
2.5°	5568.1	5722.4	5735.8	5722.4	5742.6	5735.8	5769.5	5735.8	5776.3	5715.8	5729.2
5°	5896.9	5836.5	5964.0	5896.9	5896.9	5890.4	5870.1	5863.3	5890.4	5803.1	5843.3
7.5°	5984.2	6071.5	6185.5	6044.6	6051.2	6051.2	6011.0	5997.6	5997.6	5836.5	5883.5
10°	6058.0	6004.2	6064.6	6011.0	6058.0	6051.2	6078.0	5990.8	6051.2	5957.4	5950.5
12.5°	5997.6	5977.4	6058.0	5970.8	5944.0	5950.5	5917.2	5896.9	5917.2	5809.7	5803.1
15°	5823.1	5843.3	5964.0	5870.1	5856.7	5843.3	5803.1	5735.8	5789.7	5642.0	5648.8
17.5°	5762.9	5729.2	5749.5	5668.8	5689.0	5675.6	5668.8	5608.6	5594.9	5501.1	5501.1
20°	5481.1	5554.7	5554.7	5501.1	5501.1	5494.5	5407.3	5460.9	5400.4	5373.6	5400.4
22.5°	5286.4	5293.2	5293.2	5246.2	5253.0	5226.2	5179.1	5145.5	5179.1	5145.5	5091.9
25°	4931.0	4944.4	5024.8	4937.6	4924.2	4951.0	4910.8	4890.5	4884.0	4803.5	4910.8
27.5°	4501.5	4635.6	4629.0	4595.4	4635.6	4582.0	4562.0	4568.6	4588.8	4582.0	4608.8
30°	4253.4	4273.4	4293.6	4266.8	4273.4	4253.4	4253.4	4260.0	4313.6	4293.6	4286.8
32.5°	3750.1	3817.1	3871.0	3871.0	3877.6	3897.8	3891.0	4031.9	4065.5	3998.5	3985.1
35°	3314.1	3361.1	3407.9	3414.7	3502.0	3508.6	3515.4	3555.6	3649.4	3669.7	3662.8
37.5°	2898.3	2945.0	2958.5	3018.9	3066.0	3112.7	3166.6	3220.2	3300.7	3367.7	3334.3
40°	2529.2	2549.2	2582.9	2609.7	2703.5	2703.5	2730.3	2837.8	2925.1	2978.7	2971.9
42.5°	2220.7	2227.3	2254.1	2301.1	2388.4	2368.1	2388.4	2462.2	2589.4	2596.3	2670.1
45°	2005.9	1999.1	2019.3	2025.9	2079.8	2106.6	2120.0	2173.6	2280.9	2294.3	2301.1
47.5°	1811.4	1804.6	1838.3	1851.7	1871.6	1898.4	1898.4	1905.3	1945.5	1979.1	1952.3
50°	1650.3	1650.3	1650.3	1663.7	1697.4	1690.5	1697.4	1724.2	1744.2	1730.8	1724.2
52.5°	1475.8	1502.6	1522.9	1529.7	1536.3	1536.3	1543.1	1529.7	1522.9	1502.6	1462.4
55°	1355.2	1382.0	1382.0	1382.0	1382.0	1408.8	1375.4	1382.0	1382.0	1328.4	1274.7
57.5°	1234.5	1261.3	1281.3	1254.5	1281.3	1254.5	1241.1	1234.5	1220.9	1167.2	1086.8
60°	1133.9	1147.3	1140.4	1133.9	1147.3	1127.0	1113.6	1086.8	1073.4	999.6	945.9
62.5°	1019.8	1026.4	1033.2	1019.8	1006.4	999.6	972.7	932.5	905.7	845.3	798.2
65°	925.7	905.7	898.9	892.3	878.9	858.7	838.7	791.7	771.4	717.8	670.8
67.5°	784.8	778.2	791.7	771.4	738.0	738.0	717.8	677.6	630.5	597.2	550.1
70°	670.8	664.2	650.8	630.5	624.0	597.2	597.2	550.1	536.7	476.3	436.0
72.5°	550.1	550.1	529.9	509.9	489.7	476.3	469.7	436.0	416.1	382.4	348.8
75°	416.1	416.1	409.2	389.0	375.6	362.2	355.6	328.8	308.6	275.2	254.9
77.5°	295.2	295.2	268.4	254.9	261.5	248.1	234.7	228.1	221.3	201.3	174.5
80°	174.5	167.7	147.7	154.3	147.7	147.7	140.9	134.0	120.6	107.2	93.8
82.5°	47.0	53.6	53.6	53.6	60.5	47.0	47.0	47.0	53.6	53.6	33.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	6.8	6.8
87.5°	6.8	13.4	26.8	26.8	26.8	26.8	26.8	20.2	20.2	20.2	13.4
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°	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9
2.5°	5662.2	5655.4	5662.2	5615.2	5722.4	5642.0	5628.6	5615.2	5662.2	5615.2	5548.2
5°	5782.9	5715.8	5695.6	5675.6	5735.8	5642.0	5622.0	5628.6	5594.9	5507.9	5514.5
7.5°	5823.1	5762.9	5702.4	5575.0	5628.6	5608.6	5554.7	5514.5	5460.9	5387.0	5373.6
10°	5836.5	5769.5	5682.2	5642.0	5561.6	5534.7	5514.5	5447.5	5380.5	5253.0	5219.3
12.5°	5796.3	5715.8	5608.6	5575.0	5514.5	5427.2	5380.5	5313.2	5253.0	5152.3	5078.5
15°	5622.0	5554.7	5521.3	5407.3	5380.5	5326.6	5232.8	5138.9	5051.7	4917.4	4877.1
17.5°	5420.7	5393.9	5360.2	5273.0	5266.4	5212.8	5125.5	5044.8	4931.0	4722.9	4655.8
20°	5212.8	5212.8	5105.3	5071.9	5138.9	5031.4	4964.4	4890.5	4655.8	4555.2	4434.5
22.5°	5058.5	4984.6	4924.2	4870.6	4877.1	4810.1	4716.3	4568.6	4481.3	4360.7	4219.8
25°	4756.5	4783.3	4649.3	4629.0	4649.3	4494.7	4447.9	4327.0	4199.6	4085.5	3978.2
27.5°	4568.6	4494.7	4407.7	4333.9	4333.9	4273.4	4139.4	4112.6	3917.8	3810.6	3676.3
30°	4286.8	4233.2	4159.3	4052.1	4038.7	3991.7	3884.4	3817.1	3616.1	3454.9	3381.1
32.5°	3931.2	3911.2	3850.8	3730.1	3689.9	3636.0	3502.0	3387.9	3294.1	3112.7	3025.7
35°	3676.3	3602.7	3475.2	3374.5	3340.9	3247.0	3139.5	3059.1	2958.5	2797.6	2683.5
37.5°	3294.1	3220.2	3099.3	2978.7	2978.7	2884.9	2737.1	2656.7	2515.8	2421.7	2327.9
40°	2958.5	2864.6	2744.0	2603.1	2582.9	2448.6	2388.4	2254.1	2166.8	2019.3	2005.9
42.5°	2582.9	2495.6	2388.4	2280.9	2200.4	2133.4	1979.1	1878.5	1784.6	1710.8	1690.5
45°	2240.7	2126.6	2032.8	1898.4	1818.0	1737.6	1636.9	1569.9	1496.0	1415.6	1368.6
47.5°	1945.5	1851.7	1717.4	1596.7	1516.3	1475.8	1361.7	1288.1	1227.7	1174.1	1140.4
50°	1643.8	1529.7	1455.8	1321.5	1308.1	1214.3	1120.5	1060.0	1026.4	979.6	932.5
52.5°	1415.6	1308.1	1207.5	1107.1	1053.2	1019.8	932.5	872.1	825.3	791.7	764.8
55°	1194.1	1100.2	1019.8	919.1	885.5	838.7	738.0	724.6	677.6	630.5	597.2
57.5°	1026.4	939.1	845.3	778.2	717.8	684.4	603.7	550.1	523.3	483.1	449.4
60°	872.1	778.2	704.4	624.0	597.2	550.1	489.7	442.9	409.2	375.6	342.2
62.5°	731.2	650.8	570.3	503.1	462.8	436.0	389.0	348.8	315.4	288.6	261.5
65°	603.7	529.9	462.8	395.8	375.6	342.2	308.6	275.2	248.1	214.7	187.9
67.5°	496.5	429.5	362.2	315.4	295.2	281.8	241.5	207.9	187.9	167.7	140.9
70°	389.0	342.2	288.6	248.1	228.1	207.9	181.1	161.1	134.0	120.6	100.7
72.5°	302.0	261.5	214.7	181.1	167.7	154.3	127.5	107.2	93.8	80.4	67.0
75°	214.7	181.1	154.3	120.6	114.1	107.2	87.3	73.9	60.5	47.0	40.2
77.5°	147.7	120.6	93.8	80.4	73.9	60.5	53.6	40.2	33.6	26.8	20.2
80°	80.4	60.5	47.0	40.2	33.6	26.8	26.8	20.2	13.4	13.4	6.8
82.5°	26.8	20.2	13.4	6.8	6.8	6.8	6.8	6.8	6.8	0.0	6.8
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°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	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°	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9
2.5°	5588.4	5514.5	5534.7	5534.7	5521.3	5521.3	5507.9	5487.7	5494.5	5454.1	5367.1
5°	5527.9	5434.1	5420.7	5434.1	5380.5	5367.1	5340.2	5380.5	5259.6	5306.6	5253.0
7.5°	5353.7	5266.4	5246.2	5293.2	5226.2	5185.7	5179.1	5232.8	5125.5	5071.9	5011.4
10°	5158.9	5125.5	5065.1	5031.4	5011.4	5018.0	4964.4	4897.4	4877.1	4863.7	4810.1
12.5°	4984.6	4910.8	4857.2	4816.9	4803.5	4803.5	4716.3	4702.9	4642.4	4629.0	4548.6
15°	4776.5	4689.5	4655.8	4602.2	4555.2	4582.0	4481.3	4454.5	4434.5	4347.3	4360.7
17.5°	4595.4	4501.5	4421.1	4387.5	4347.3	4307.1	4213.0	4233.2	4186.1	4186.1	4065.5
20°	4360.7	4260.0	4199.6	4132.5	4132.5	4078.9	4011.9	4018.5	3958.0	3897.8	3790.3
22.5°	4112.6	4005.1	3931.2	3904.4	3837.4	3824.0	3743.5	3723.3	3642.9	3649.4	3555.6
25°	3850.8	3743.5	3642.9	3649.4	3589.3	3562.4	3515.4	3421.6	3387.9	3347.7	3320.9
27.5°	3542.2	3468.4	3381.1	3374.5	3260.4	3267.0	3206.8	3180.0	3099.3	3119.6	3059.1
30°	3260.4	3153.2	3072.5	3052.5	3005.5	2992.1	2898.3	2857.8	2871.5	2817.6	2784.2
32.5°	2971.9	2811.0	2777.4	2737.1	2710.3	2676.7	2609.7	2636.5	2576.0	2589.4	2535.8
35°	2589.4	2522.4	2435.2	2435.2	2408.3	2381.5	2334.7	2361.6	2301.1	2274.3	2220.7
37.5°	2267.5	2207.3	2120.0	2146.8	2099.8	2059.6	2019.3	2025.9	1972.3	1965.7	1911.9
40°	1918.7	1885.0	1824.9	1824.9	1791.2	1791.2	1771.0	1751.0	1717.4	1677.1	1616.7
42.5°	1589.9	1563.1	1536.3	1543.1	1496.0	1536.3	1482.6	1516.3	1408.8	1402.2	1361.7
45°	1348.3	1288.1	1294.7	1267.9	1241.1	1254.5	1207.5	1220.9	1160.7	1147.3	1107.1
47.5°	1093.6	1073.4	1033.2	1019.8	1019.8	999.6	979.6	972.7	945.9	912.3	858.7
50°	898.9	825.3	811.6	791.7	778.2	778.2	751.4	711.2	717.8	684.4	630.5
52.5°	704.4	643.9	617.1	610.6	583.8	570.3	536.7	509.9	489.7	476.3	442.9
55°	543.3	489.7	456.3	456.3	416.1	416.1	369.0	348.8	322.0	295.2	275.2
57.5°	409.2	382.4	348.8	322.0	308.6	275.2	248.1	214.7	194.5	154.3	127.5
60°	308.6	281.8	248.1	228.1	214.7	181.1	147.7	120.6	73.9	60.5	53.6
62.5°	228.1	201.3	167.7	154.3	140.9	114.1	80.4	40.2	20.2	20.2	20.2
65°	167.7	134.0	107.2	93.8	80.4	60.5	26.8	13.4	6.8	6.8	6.8
67.5°	114.1	87.3	60.5	53.6	40.2	20.2	6.8	6.8	6.8	6.8	6.8
70°	73.9	53.6	26.8	20.2	13.4	6.8	6.8	6.8	6.8	6.8	6.8
72.5°	47.0	26.8	13.4	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	26.8	13.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	13.4	6.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	6.8	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	6.8	6.8	6.8
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: LD4C100D010 EX4C1009035 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9	5594.9
2.5°	5460.9	5413.8	5440.7	5380.5	5407.3	5454.1	5420.7	5434.1
5°	5273.0	5246.2	5212.8	5125.5	5192.5	5246.2	5219.3	5212.8
7.5°	5071.9	4977.8	5024.8	4998.0	4984.6	5038.3	4977.8	5044.8
10°	4863.7	4796.7	4790.1	4743.1	4743.1	4783.3	4790.1	4749.7
12.5°	4555.2	4521.8	4521.8	4515.0	4508.1	4548.6	4555.2	4535.2
15°	4333.9	4320.5	4286.8	4280.2	4240.0	4300.2	4307.1	4300.2
17.5°	4065.5	4072.1	4038.7	4038.7	4065.5	4085.5	4031.9	4085.5
20°	3884.4	3850.8	3837.4	3776.9	3810.6	3844.2	3844.2	3850.8
22.5°	3622.6	3569.0	3589.3	3555.6	3535.4	3582.4	3582.4	3602.7
25°	3327.5	3327.5	3340.9	3320.9	3334.3	3361.1	3340.9	3387.9
27.5°	3045.7	3072.5	3072.5	3045.7	3059.1	3139.5	3173.2	3119.6
30°	2784.2	2790.8	2811.0	2797.6	2837.8	2864.6	2857.8	2898.3
32.5°	2489.0	2522.4	2535.8	2515.8	2529.2	2589.4	2556.1	2549.2
35°	2260.9	2200.4	2193.9	2200.4	2227.3	2240.7	2227.3	2274.3
37.5°	1932.1	1911.9	1885.0	1891.9	1911.9	1938.9	1952.3	1985.7
40°	1616.7	1589.9	1589.9	1583.3	1563.1	1636.9	1636.9	1636.9
42.5°	1341.8	1334.9	1301.6	1301.6	1328.4	1348.3	1334.9	1382.0
45°	1100.2	1073.4	1053.2	1053.2	1073.4	1073.4	1093.6	1086.8
47.5°	865.5	838.7	845.3	825.3	845.3	872.1	838.7	845.3
50°	650.8	650.8	637.4	650.8	643.9	650.8	637.4	624.0
52.5°	442.9	503.1	509.9	483.1	422.6	369.0	335.4	362.2
55°	254.9	228.1	228.1	221.3	207.9	201.3	181.1	201.3
57.5°	127.5	114.1	114.1	114.1	107.2	100.7	87.3	87.3
60°	53.6	47.0	47.0	40.2	33.6	26.8	20.2	26.8
62.5°	20.2	13.4	13.4	13.4	13.4	13.4	13.4	13.4
65°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
67.5°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
70°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
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)