

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 EX4C1009027 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 EX4C1009027 4LBSQLWWLI
Description: 4 INCH 10000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Summary

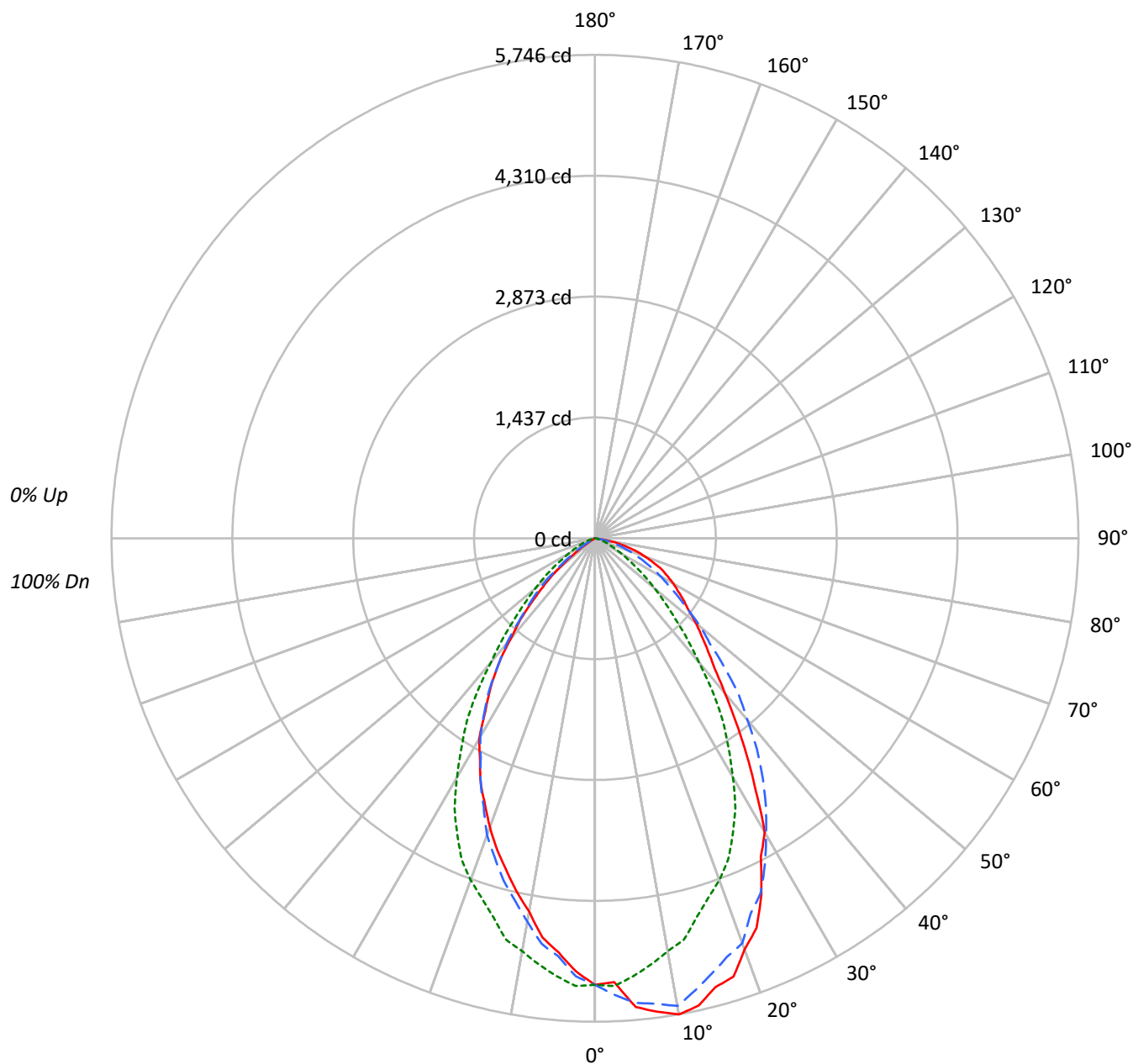
Lumens per Lamp: N/A
Luminaire Lumens: 7607.0 lumens
Efficiency: N/A
Efficacy: 66.5 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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°	512047	512047	512047
5°	541753	506012	478892
10°	562988	488172	441398
15°	551727	465909	407442
20°	533830	443645	375044
25°	497941	412558	342121
30°	449496	365110	306282
35°	370265	312559	254099
40°	302172	241259	195561
45°	259621	183219	140659
50°	234967	139467	88835
55°	216234	100614	32131
60°	207548	68739	4902
65°	200458	46507	1484
70°	179481	32274	1834
75°	147109	16627	0
80°	91961	7057	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	497.2	6.5
10°-20°	1339.6	17.6
20°-30°	1788.8	23.5
30°-40°	1698.1	22.3
40°-50°	1173.8	15.4
50°-60°	648.5	8.5
60°-70°	322.1	4.2
70°-80°	126.9	1.7
80°-90°	12.1	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°	3625.6	47.7
0°-40°	5323.7	70.0
0°-60°	7146.0	93.9
0°-90°	7607.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7607.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5307	5307	5307	5307	5307	
5°	5593	5542	5224	4989	4944	535
15°	5523	5358	4664	4206	4079	1562
25°	4677	4658	3875	3214	3214	2132
35°	3143	3474	2654	2183	2157	1969
45°	1903	2183	1343	1101	1031	1484
55°	1285	1209	598	305	191	1157
65°	878	636	204	6	6	852
75°	395	242	45	0	0	421
85°	0	6	0	0	0	36
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°	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8
2.5°	5281.4	5427.7	5440.4	5427.7	5446.9	5440.4	5472.4	5440.4	5478.8	5421.5	5434.2
5°	5593.3	5535.9	5656.8	5593.3	5593.3	5587.0	5567.8	5561.4	5587.0	5504.3	5542.4
7.5°	5676.0	5758.8	5867.0	5733.4	5739.6	5739.6	5701.5	5688.7	5688.7	5535.9	5580.5
10°	5746.1	5695.0	5752.3	5701.5	5746.1	5739.6	5765.0	5682.3	5739.6	5650.6	5644.1
12.5°	5688.7	5669.5	5746.1	5663.3	5637.9	5644.1	5612.5	5593.3	5612.5	5510.5	5504.3
15°	5523.2	5542.4	5656.8	5567.8	5555.1	5542.4	5504.3	5440.4	5491.5	5351.4	5357.9
17.5°	5466.1	5434.2	5453.4	5376.9	5396.1	5383.4	5376.9	5319.8	5306.8	5217.8	5217.8
20°	5198.9	5268.7	5268.7	5217.8	5217.8	5211.6	5128.8	5179.7	5122.3	5096.9	5122.3
22.5°	5014.1	5020.6	5020.6	4976.0	4982.5	4957.1	4912.4	4880.5	4912.4	4880.5	4829.7
25°	4677.1	4689.8	4766.1	4683.3	4670.6	4696.0	4657.9	4638.7	4632.5	4556.2	4657.9
27.5°	4269.7	4396.9	4390.6	4358.7	4396.9	4346.0	4327.1	4333.3	4352.5	4346.0	4371.4
30°	4034.4	4053.3	4072.5	4047.1	4053.3	4034.4	4034.4	4040.6	4091.5	4072.5	4066.1
32.5°	3557.0	3620.6	3671.7	3671.7	3677.9	3697.1	3690.6	3824.2	3856.1	3792.6	3779.9
35°	3143.4	3188.0	3232.4	3238.9	3321.7	3327.9	3334.4	3372.5	3461.5	3480.7	3474.2
37.5°	2749.0	2793.4	2806.1	2863.4	2908.1	2952.4	3003.5	3054.4	3130.7	3194.3	3162.6
40°	2399.0	2417.9	2449.9	2475.3	2564.3	2564.3	2589.7	2691.7	2774.4	2825.3	2818.8
42.5°	2106.3	2112.6	2138.0	2182.6	2265.4	2246.2	2265.4	2335.4	2456.1	2462.6	2532.6
45°	1902.6	1896.2	1915.4	1921.6	1972.7	1998.1	2010.8	2061.7	2163.4	2176.1	2182.6
47.5°	1718.2	1711.7	1743.6	1756.3	1775.3	1800.7	1800.7	1807.2	1845.3	1877.2	1851.8
50°	1565.3	1565.3	1565.3	1578.1	1610.0	1603.5	1610.0	1635.4	1654.3	1641.6	1635.4
52.5°	1399.8	1425.2	1444.4	1450.9	1457.1	1457.1	1463.6	1450.9	1444.4	1425.2	1387.1
55°	1285.4	1310.8	1310.8	1310.8	1310.8	1336.2	1304.6	1310.8	1310.8	1260.0	1209.1
57.5°	1171.0	1196.4	1215.3	1189.9	1215.3	1189.9	1177.2	1171.0	1158.0	1107.1	1030.8
60°	1075.5	1088.2	1081.7	1075.5	1088.2	1069.0	1056.3	1030.8	1018.1	948.1	897.2
62.5°	967.3	973.5	980.0	967.3	954.6	948.1	922.7	884.5	859.1	801.7	757.1
65°	878.0	859.1	852.6	846.4	833.7	814.5	795.5	750.9	731.7	680.8	636.2
67.5°	744.4	738.2	750.9	731.7	700.0	700.0	680.8	642.7	598.1	566.4	521.8
70°	636.2	630.0	617.3	598.1	591.8	566.4	566.4	521.8	509.1	451.7	413.6
72.5°	521.8	521.8	502.6	483.6	464.4	451.7	445.5	413.6	394.6	362.7	330.8
75°	394.6	394.6	388.2	369.0	356.2	343.5	337.3	311.9	292.7	261.0	241.8
77.5°	280.0	280.0	254.5	241.8	248.1	235.3	222.6	216.4	209.9	191.0	165.5
80°	165.5	159.1	140.1	146.3	140.1	140.1	133.6	127.1	114.4	101.7	89.0
82.5°	44.6	50.9	50.9	50.9	57.3	44.6	44.6	44.6	50.9	50.9	31.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.5	6.5	6.5
87.5°	6.5	12.7	25.4	25.4	25.4	25.4	25.4	19.2	19.2	19.2	12.7
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°	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8
2.5°	5370.6	5364.2	5370.6	5326.0	5427.7	5351.4	5338.7	5326.0	5370.6	5326.0	5262.4
5°	5485.1	5421.5	5402.3	5383.4	5440.4	5351.4	5332.5	5338.7	5306.8	5224.3	5230.5
7.5°	5523.2	5466.1	5408.8	5287.9	5338.7	5319.8	5268.7	5230.5	5179.7	5109.6	5096.9
10°	5535.9	5472.4	5389.6	5351.4	5275.2	5249.7	5230.5	5167.0	5103.4	4982.5	4950.6
12.5°	5497.8	5421.5	5319.8	5287.9	5230.5	5147.8	5103.4	5039.6	4982.5	4887.0	4816.9
15°	5332.5	5268.7	5237.0	5128.8	5103.4	5052.3	4963.3	4874.3	4791.5	4664.1	4626.0
17.5°	5141.5	5116.1	5084.2	5001.4	4995.2	4944.3	4861.6	4785.0	4677.1	4479.6	4416.1
20°	4944.3	4944.3	4842.4	4810.7	4874.3	4772.3	4708.8	4638.7	4416.1	4320.6	4206.2
22.5°	4798.0	4727.9	4670.6	4619.8	4626.0	4562.4	4473.4	4333.3	4250.5	4136.1	4002.5
25°	4511.6	4537.0	4409.8	4390.6	4409.8	4263.3	4218.9	4104.2	3983.3	3875.1	3773.4
27.5°	4333.3	4263.3	4180.7	4110.7	4110.7	4053.3	3926.2	3900.8	3716.0	3614.3	3486.9
30°	4066.1	4015.2	3945.1	3843.4	3830.7	3786.1	3684.4	3620.6	3429.8	3277.0	3207.0
32.5°	3728.8	3709.8	3652.5	3538.0	3499.9	3448.8	3321.7	3213.5	3124.5	2952.4	2869.9
35°	3486.9	3417.1	3296.2	3200.7	3168.8	3079.8	2977.9	2901.6	2806.1	2653.5	2545.3
37.5°	3124.5	3054.4	2939.7	2825.3	2825.3	2736.3	2596.2	2519.9	2386.3	2297.0	2208.0
40°	2806.1	2717.1	2602.7	2469.1	2449.9	2322.5	2265.4	2138.0	2055.2	1915.4	1902.6
42.5°	2449.9	2367.1	2265.4	2163.4	2087.1	2023.6	1877.2	1781.7	1692.7	1622.7	1603.5
45°	2125.3	2017.1	1928.1	1800.7	1724.4	1648.1	1552.6	1489.1	1419.0	1342.7	1298.1
47.5°	1845.3	1756.3	1628.9	1514.5	1438.2	1399.8	1291.6	1221.8	1164.5	1113.6	1081.7
50°	1559.1	1450.9	1380.9	1253.5	1240.8	1151.8	1062.8	1005.4	973.5	929.1	884.5
52.5°	1342.7	1240.8	1145.3	1050.0	998.9	967.3	884.5	827.2	782.8	750.9	725.5
55°	1132.6	1043.6	967.3	871.8	839.9	795.5	700.0	687.3	642.7	598.1	566.4
57.5°	973.5	890.7	801.7	738.2	680.8	649.2	572.6	521.8	496.4	458.2	426.3
60°	827.2	738.2	668.1	591.8	566.4	521.8	464.4	420.1	388.2	356.2	324.6
62.5°	693.5	617.3	541.0	477.2	439.0	413.6	369.0	330.8	299.2	273.7	248.1
65°	572.6	502.6	439.0	375.4	356.2	324.6	292.7	261.0	235.3	203.7	178.2
67.5°	470.9	407.4	343.5	299.2	280.0	267.2	229.1	197.2	178.2	159.1	133.6
70°	369.0	324.6	273.7	235.3	216.4	197.2	171.8	152.8	127.1	114.4	95.5
72.5°	286.4	248.1	203.7	171.8	159.1	146.3	120.9	101.7	89.0	76.3	63.6
75°	203.7	171.8	146.3	114.4	108.2	101.7	82.8	70.1	57.3	44.6	38.1
77.5°	140.1	114.4	89.0	76.3	70.1	57.3	50.9	38.1	31.9	25.4	19.2
80°	76.3	57.3	44.6	38.1	31.9	25.4	25.4	19.2	12.7	12.7	6.5
82.5°	25.4	19.2	12.7	6.5	6.5	6.5	6.5	6.5	6.5	0.0	6.5
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°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	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



TEST NUMBER: P#

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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8
2.5°	5300.6	5230.5	5249.7	5249.7	5237.0	5237.0	5224.3	5205.1	5211.6	5173.2	5090.7
5°	5243.2	5154.2	5141.5	5154.2	5103.4	5090.7	5065.2	5103.4	4988.7	5033.3	4982.5
7.5°	5078.0	4995.2	4976.0	5020.6	4957.1	4918.7	4912.4	4963.3	4861.6	4810.7	4753.4
10°	4893.2	4861.6	4804.2	4772.3	4753.4	4759.6	4708.8	4645.2	4626.0	4613.3	4562.4
12.5°	4727.9	4657.9	4607.0	4568.9	4556.2	4556.2	4473.4	4460.7	4403.4	4390.6	4314.4
15°	4530.5	4448.0	4416.1	4365.2	4320.6	4346.0	4250.5	4225.1	4206.2	4123.4	4136.1
17.5°	4358.7	4269.7	4193.5	4161.5	4123.4	4085.3	3996.0	4015.2	3970.6	3970.6	3856.1
20°	4136.1	4040.6	3983.3	3919.7	3919.7	3868.9	3805.3	3811.5	3754.2	3697.1	3595.1
22.5°	3900.8	3798.8	3728.8	3703.3	3639.8	3627.0	3550.8	3531.6	3455.3	3461.5	3372.5
25°	3652.5	3550.8	3455.3	3461.5	3404.4	3379.0	3334.4	3245.4	3213.5	3175.3	3149.9
27.5°	3359.8	3289.7	3207.0	3200.7	3092.5	3098.8	3041.7	3016.3	2939.7	2958.9	2901.6
30°	3092.5	2990.8	2914.3	2895.4	2850.7	2838.0	2749.0	2710.6	2723.6	2672.5	2640.8
32.5°	2818.8	2666.2	2634.3	2596.2	2570.8	2538.9	2475.3	2500.7	2443.4	2456.1	2405.2
35°	2456.1	2392.5	2309.8	2309.8	2284.3	2258.9	2214.5	2239.9	2182.6	2157.2	2106.3
37.5°	2150.7	2093.6	2010.8	2036.3	1991.6	1953.5	1915.4	1921.6	1870.7	1864.5	1813.4
40°	1819.9	1788.0	1730.9	1730.9	1699.0	1699.0	1679.8	1660.8	1628.9	1590.8	1533.4
42.5°	1508.0	1482.6	1457.1	1463.6	1419.0	1457.1	1406.3	1438.2	1336.2	1330.0	1291.6
45°	1278.9	1221.8	1228.0	1202.6	1177.2	1189.9	1145.3	1158.0	1100.9	1088.2	1050.0
47.5°	1037.3	1018.1	980.0	967.3	967.3	948.1	929.1	922.7	897.2	865.3	814.5
50°	852.6	782.8	769.8	750.9	738.2	738.2	712.7	674.6	680.8	649.2	598.1
52.5°	668.1	610.8	585.4	579.1	553.7	541.0	509.1	483.6	464.4	451.7	420.1
55°	515.3	464.4	432.8	432.8	394.6	394.6	350.0	330.8	305.4	280.0	261.0
57.5°	388.2	362.7	330.8	305.4	292.7	261.0	235.3	203.7	184.5	146.3	120.9
60°	292.7	267.2	235.3	216.4	203.7	171.8	140.1	114.4	70.1	57.3	50.9
62.5°	216.4	191.0	159.1	146.3	133.6	108.2	76.3	38.1	19.2	19.2	19.2
65°	159.1	127.1	101.7	89.0	76.3	57.3	25.4	12.7	6.5	6.5	6.5
67.5°	108.2	82.8	57.3	50.9	38.1	19.2	6.5	6.5	6.5	6.5	6.5
70°	70.1	50.9	25.4	19.2	12.7	6.5	6.5	6.5	6.5	6.5	6.5
72.5°	44.6	25.4	12.7	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	25.4	12.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	12.7	6.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	6.5	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	6.5	6.5	6.5
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 EX4C1009027 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8	5306.8
2.5°	5179.7	5135.1	5160.5	5103.4	5128.8	5173.2	5141.5	5154.2
5°	5001.4	4976.0	4944.3	4861.6	4925.1	4976.0	4950.6	4944.3
7.5°	4810.7	4721.5	4766.1	4740.7	4727.9	4778.8	4721.5	4785.0
10°	4613.3	4549.7	4543.5	4498.8	4498.8	4537.0	4543.5	4505.1
12.5°	4320.6	4288.9	4288.9	4282.4	4276.0	4314.4	4320.6	4301.6
15°	4110.7	4098.0	4066.1	4059.8	4021.7	4078.8	4085.3	4078.8
17.5°	3856.1	3862.4	3830.7	3830.7	3856.1	3875.1	3824.2	3875.1
20°	3684.4	3652.5	3639.8	3582.4	3614.3	3646.2	3646.2	3652.5
22.5°	3436.1	3385.2	3404.4	3372.5	3353.3	3397.9	3397.9	3417.1
25°	3156.1	3156.1	3168.8	3149.9	3162.6	3188.0	3168.8	3213.5
27.5°	2888.9	2914.3	2914.3	2888.9	2901.6	2977.9	3009.8	2958.9
30°	2640.8	2647.1	2666.2	2653.5	2691.7	2717.1	2710.6	2749.0
32.5°	2360.9	2392.5	2405.2	2386.3	2399.0	2456.1	2424.4	2417.9
35°	2144.5	2087.1	2080.9	2087.1	2112.6	2125.3	2112.6	2157.2
37.5°	1832.6	1813.4	1788.0	1794.5	1813.4	1839.1	1851.8	1883.5
40°	1533.4	1508.0	1508.0	1501.8	1482.6	1552.6	1552.6	1552.6
42.5°	1272.7	1266.2	1234.5	1234.5	1260.0	1278.9	1266.2	1310.8
45°	1043.6	1018.1	998.9	998.9	1018.1	1018.1	1037.3	1030.8
47.5°	820.9	795.5	801.7	782.8	801.7	827.2	795.5	801.7
50°	617.3	617.3	604.5	617.3	610.8	617.3	604.5	591.8
52.5°	420.1	477.2	483.6	458.2	400.9	350.0	318.1	343.5
55°	241.8	216.4	216.4	209.9	197.2	191.0	171.8	191.0
57.5°	120.9	108.2	108.2	108.2	101.7	95.5	82.8	82.8
60°	50.9	44.6	44.6	38.1	31.9	25.4	19.2	25.4
62.5°	19.2	12.7	12.7	12.7	12.7	12.7	12.7	12.7
65°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
67.5°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
70°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
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)