

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: **LD4C80D010 EX4C809035 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: LD4C80D010 EX4C809035 4LBSQLWWLI
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

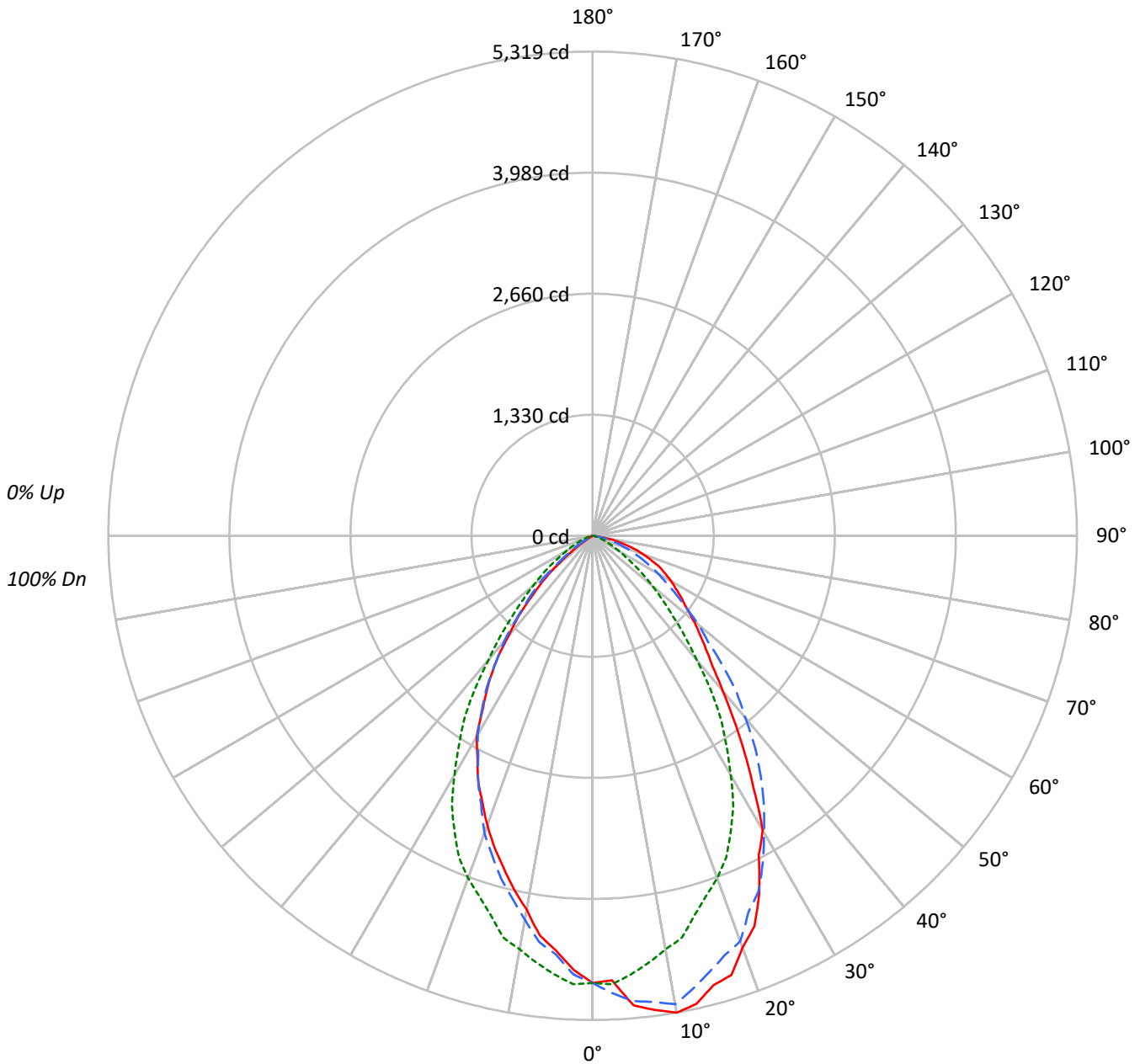
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7042.0 lumens
Efficiency: N/A
Efficacy: 78.7 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): 89.5
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	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°	474021	474021	474021
5°	501509	468432	443326
10°	521171	451911	408615
15°	510751	431307	377175
20°	494174	410695	347186
25°	460956	381917	316708
30°	416105	337991	283531
35°	342761	289342	235229
40°	279726	223335	181038
45°	240340	169615	130220
50°	217525	129110	82245
55°	200169	93128	29742
60°	192129	63644	4535
65°	185572	43037	1370
70°	166166	29876	1693
75°	136185	15397	0
80°	85127	6557	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	460.3	6.5
10°-20°	1240.1	17.6
20°-30°	1655.9	23.5
30°-40°	1572.0	22.3
40°-50°	1086.6	15.4
50°-60°	600.4	8.5
60°-70°	298.1	4.2
70°-80°	117.5	1.7
80°-90°	11.2	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°	3356.3	47.7
0°-40°	4928.3	70.0
0°-60°	6615.2	93.9
0°-90°	7042.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7042.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4913	4913	4913	4913	4913	
5°	5178	5131	4836	4618	4577	496
15°	5113	4960	4318	3894	3776	1446
25°	4330	4312	3587	2975	2975	1974
35°	2910	3216	2456	2020	1997	1823
45°	1761	2020	1243	1019	954	1374
55°	1190	1119	554	283	177	1071
65°	813	589	188	6	6	789
75°	365	224	41	0	0	389
85°	0	6	0	0	0	34
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°	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7
2.5°	4889.1	5024.6	5036.4	5024.6	5042.4	5036.4	5065.9	5036.4	5071.9	5018.8	5030.6
5°	5177.8	5124.7	5236.7	5177.8	5177.8	5172.1	5154.3	5148.3	5172.1	5095.4	5130.7
7.5°	5254.4	5331.1	5431.2	5307.5	5313.3	5313.3	5278.0	5266.2	5266.2	5124.7	5166.1
10°	5319.3	5272.0	5325.1	5278.0	5319.3	5313.3	5336.8	5260.2	5313.3	5230.9	5224.9
12.5°	5266.2	5248.4	5319.3	5242.7	5219.1	5224.9	5195.6	5177.8	5195.6	5101.2	5095.4
15°	5113.0	5130.7	5236.7	5154.3	5142.5	5130.7	5095.4	5036.4	5083.7	4954.0	4960.0
17.5°	5060.1	5030.6	5048.4	4977.5	4995.3	4983.5	4977.5	4924.7	4912.7	4830.3	4830.3
20°	4812.7	4877.4	4877.4	4830.3	4830.3	4824.5	4747.9	4795.0	4741.9	4718.3	4741.9
22.5°	4641.7	4647.7	4647.7	4606.4	4612.4	4588.9	4547.6	4518.0	4547.6	4518.0	4470.9
25°	4329.7	4341.5	4412.1	4335.5	4323.7	4347.2	4311.9	4294.2	4288.4	4217.8	4311.9
27.5°	3952.6	4070.3	4064.5	4035.0	4070.3	4023.2	4005.7	4011.5	4029.2	4023.2	4046.8
30°	3734.7	3752.3	3770.1	3746.5	3752.3	3734.7	3734.7	3740.5	3787.6	3770.1	3764.1
32.5°	3292.8	3351.6	3399.0	3399.0	3404.7	3422.5	3416.5	3540.2	3569.7	3510.9	3499.1
35°	2909.9	2951.2	2992.3	2998.3	3074.9	3080.7	3086.7	3122.0	3204.4	3222.2	3216.2
37.5°	2544.8	2585.9	2597.7	2650.8	2692.1	2733.2	2780.5	2827.5	2898.2	2957.0	2927.7
40°	2220.8	2238.4	2267.9	2291.4	2373.8	2373.8	2397.4	2491.8	2568.4	2615.5	2609.5
42.5°	1949.9	1955.6	1979.2	2020.5	2097.1	2079.3	2097.1	2162.0	2273.7	2279.7	2344.5
45°	1761.3	1755.3	1773.1	1778.9	1826.2	1849.7	1861.5	1908.6	2002.7	2014.5	2020.5
47.5°	1590.6	1584.6	1614.1	1625.9	1643.4	1666.9	1666.9	1672.9	1708.2	1737.8	1714.3
50°	1449.1	1449.1	1449.1	1460.9	1490.4	1484.4	1490.4	1513.9	1531.5	1519.7	1513.9
52.5°	1295.8	1319.4	1337.2	1343.2	1348.9	1348.9	1354.9	1343.2	1337.2	1319.4	1284.1
55°	1189.9	1213.5	1213.5	1213.5	1213.5	1237.0	1207.7	1213.5	1213.5	1166.4	1119.3
57.5°	1084.0	1107.5	1125.1	1101.5	1125.1	1101.5	1089.8	1084.0	1072.0	1024.9	954.3
60°	995.6	1007.4	1001.4	995.6	1007.4	989.6	977.8	954.3	942.5	877.7	830.6
62.5°	895.4	901.2	907.2	895.4	883.7	877.7	854.1	818.8	795.3	742.2	700.9
65°	812.8	795.3	789.3	783.5	771.7	754.0	736.4	695.1	677.3	630.3	589.0
67.5°	689.1	683.3	695.1	677.3	648.0	648.0	630.3	595.0	553.6	524.3	483.0
70°	589.0	583.2	571.4	553.6	547.9	524.3	524.3	483.0	471.3	418.2	382.9
72.5°	483.0	483.0	465.3	447.7	429.9	418.2	412.4	382.9	365.3	335.8	306.2
75°	365.3	365.3	359.3	341.6	329.8	318.0	312.2	288.7	270.9	241.6	223.9
77.5°	259.2	259.2	235.6	223.9	229.6	217.9	206.1	200.3	194.3	176.8	153.2
80°	153.2	147.2	129.7	135.5	129.7	129.7	123.7	117.7	105.9	94.2	82.4
82.5°	41.3	47.1	47.1	47.1	53.1	41.3	41.3	41.3	47.1	47.1	29.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	6.0	6.0
87.5°	6.0	11.8	23.5	23.5	23.5	23.5	23.5	17.8	17.8	17.8	11.8
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°	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7
2.5°	4971.7	4965.7	4971.7	4930.4	5024.6	4954.0	4942.2	4930.4	4971.7	4930.4	4871.6
5°	5077.7	5018.8	5001.0	4983.5	5036.4	4954.0	4936.4	4942.2	4912.7	4836.3	4842.0
7.5°	5113.0	5060.1	5007.1	4895.1	4942.2	4924.7	4877.4	4842.0	4795.0	4730.1	4718.3
10°	5124.7	5065.9	4989.3	4954.0	4883.4	4859.8	4842.0	4783.2	4724.3	4612.4	4582.9
12.5°	5089.4	5018.8	4924.7	4895.1	4842.0	4765.4	4724.3	4665.3	4612.4	4524.0	4459.2
15°	4936.4	4877.4	4848.0	4747.9	4724.3	4677.0	4594.6	4512.3	4435.6	4317.7	4282.4
17.5°	4759.7	4736.1	4706.6	4630.0	4624.2	4577.1	4500.5	4429.6	4329.7	4146.9	4088.1
20°	4577.1	4577.1	4482.7	4453.4	4512.3	4417.9	4359.0	4294.2	4088.1	3999.7	3893.8
22.5°	4441.6	4376.8	4323.7	4276.6	4282.4	4223.5	4141.2	4011.5	3934.8	3828.9	3705.2
25°	4176.5	4200.0	4082.3	4064.5	4082.3	3946.6	3905.5	3799.4	3687.4	3587.3	3493.1
27.5°	4011.5	3946.6	3870.2	3805.4	3805.4	3752.3	3634.6	3611.0	3440.0	3345.9	3228.0
30°	3764.1	3717.0	3652.1	3558.0	3546.2	3504.9	3410.7	3351.6	3175.1	3033.6	2968.8
32.5°	3451.8	3434.3	3381.2	3275.3	3240.0	3192.6	3074.9	2974.8	2892.4	2733.2	2656.8
35°	3228.0	3163.3	3051.4	2963.0	2933.5	2851.1	2756.7	2686.1	2597.7	2456.4	2356.3
37.5°	2892.4	2827.5	2721.4	2615.5	2615.5	2533.1	2403.4	2332.7	2209.0	2126.4	2044.0
40°	2597.7	2515.3	2409.4	2285.7	2267.9	2150.0	2097.1	1979.2	1902.6	1773.1	1761.3
42.5°	2267.9	2191.3	2097.1	2002.7	1932.1	1873.3	1737.8	1649.4	1567.0	1502.2	1484.4
45°	1967.4	1867.3	1784.9	1666.9	1596.3	1525.7	1437.3	1378.5	1313.6	1243.0	1201.7
47.5°	1708.2	1625.9	1507.9	1402.0	1331.4	1295.8	1195.7	1131.1	1078.0	1030.9	1001.4
50°	1443.3	1343.2	1278.3	1160.4	1148.6	1066.2	983.8	930.7	901.2	860.1	818.8
52.5°	1243.0	1148.6	1060.2	972.1	924.7	895.4	818.8	765.7	724.7	695.1	671.6
55°	1048.4	966.1	895.4	807.0	777.5	736.4	648.0	636.3	595.0	553.6	524.3
57.5°	901.2	824.6	742.2	683.3	630.3	601.0	530.1	483.0	459.5	424.2	394.6
60°	765.7	683.3	618.5	547.9	524.3	483.0	429.9	388.9	359.3	329.8	300.5
62.5°	642.0	571.4	500.8	441.7	406.4	382.9	341.6	306.2	276.9	253.4	229.6
65°	530.1	465.3	406.4	347.6	329.8	300.5	270.9	241.6	217.9	188.5	165.0
67.5°	435.9	377.1	318.0	276.9	259.2	247.4	212.1	182.5	165.0	147.2	123.7
70°	341.6	300.5	253.4	217.9	200.3	182.5	159.0	141.5	117.7	105.9	88.4
72.5°	265.2	229.6	188.5	159.0	147.2	135.5	111.9	94.2	82.4	70.6	58.8
75°	188.5	159.0	135.5	105.9	100.2	94.2	76.6	64.8	53.1	41.3	35.3
77.5°	129.7	105.9	82.4	70.6	64.8	53.1	47.1	35.3	29.5	23.5	17.8
80°	70.6	53.1	41.3	35.3	29.5	23.5	23.5	17.8	11.8	11.8	6.0
82.5°	23.5	17.8	11.8	6.0	6.0	6.0	6.0	6.0	6.0	0.0	6.0
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°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	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°	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7
2.5°	4906.9	4842.0	4859.8	4859.8	4848.0	4848.0	4836.3	4818.5	4824.5	4789.0	4712.6
5°	4853.8	4771.4	4759.7	4771.4	4724.3	4712.6	4689.0	4724.3	4618.2	4659.5	4612.4
7.5°	4700.8	4624.2	4606.4	4647.7	4588.9	4553.3	4547.6	4594.6	4500.5	4453.4	4400.3
10°	4529.8	4500.5	4447.4	4417.9	4400.3	4406.1	4359.0	4300.2	4282.4	4270.6	4223.5
12.5°	4376.8	4311.9	4264.9	4229.5	4217.8	4217.8	4141.2	4129.4	4076.3	4064.5	3993.9
15°	4194.0	4117.6	4088.1	4041.0	3999.7	4023.2	3934.8	3911.3	3893.8	3817.1	3828.9
17.5°	4035.0	3952.6	3882.0	3852.4	3817.1	3781.8	3699.2	3717.0	3675.7	3675.7	3569.7
20°	3828.9	3740.5	3687.4	3628.6	3628.6	3581.5	3522.7	3528.4	3475.3	3422.5	3328.1
22.5°	3611.0	3516.7	3451.8	3428.3	3369.4	3357.6	3287.0	3269.3	3198.6	3204.4	3122.0
25°	3381.2	3287.0	3198.6	3204.4	3151.6	3128.0	3086.7	3004.3	2974.8	2939.5	2915.9
27.5°	3110.3	3045.4	2968.8	2963.0	2862.9	2868.6	2815.8	2792.2	2721.4	2739.2	2686.1
30°	2862.9	2768.7	2697.8	2680.3	2639.0	2627.2	2544.8	2509.3	2521.3	2474.0	2444.7
32.5°	2609.5	2468.2	2438.7	2403.4	2379.8	2350.3	2291.4	2315.0	2261.9	2273.7	2226.6
35°	2273.7	2214.8	2138.2	2138.2	2114.7	2091.1	2050.0	2073.6	2020.5	1997.0	1949.9
37.5°	1991.0	1938.1	1861.5	1885.0	1843.7	1808.4	1773.1	1778.9	1731.8	1726.0	1678.7
40°	1684.7	1655.2	1602.3	1602.3	1572.8	1572.8	1555.0	1537.5	1507.9	1472.6	1419.5
42.5°	1396.0	1372.5	1348.9	1354.9	1313.6	1348.9	1301.8	1331.4	1237.0	1231.2	1195.7
45°	1183.9	1131.1	1136.8	1113.3	1089.8	1101.5	1060.2	1072.0	1019.1	1007.4	972.1
47.5°	960.3	942.5	907.2	895.4	895.4	877.7	860.1	854.1	830.6	801.0	754.0
50°	789.3	724.7	712.7	695.1	683.3	683.3	659.8	624.5	630.3	601.0	553.6
52.5°	618.5	565.4	541.9	536.1	512.6	500.8	471.3	447.7	429.9	418.2	388.9
55°	477.0	429.9	400.6	400.6	365.3	365.3	324.0	306.2	282.7	259.2	241.6
57.5°	359.3	335.8	306.2	282.7	270.9	241.6	217.9	188.5	170.8	135.5	111.9
60°	270.9	247.4	217.9	200.3	188.5	159.0	129.7	105.9	64.8	53.1	47.1
62.5°	200.3	176.8	147.2	135.5	123.7	100.2	70.6	35.3	17.8	17.8	17.8
65°	147.2	117.7	94.2	82.4	70.6	53.1	23.5	11.8	6.0	6.0	6.0
67.5°	100.2	76.6	53.1	47.1	35.3	17.8	6.0	6.0	6.0	6.0	6.0
70°	64.8	47.1	23.5	17.8	11.8	6.0	6.0	6.0	6.0	6.0	6.0
72.5°	41.3	23.5	11.8	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	23.5	11.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	11.8	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	6.0	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	6.0	6.0	6.0
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#

CATALOG NUMBER: LD4C80D010 EX4C809035 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7	4912.7
2.5°	4795.0	4753.7	4777.2	4724.3	4747.9	4789.0	4759.7	4771.4
5°	4630.0	4606.4	4577.1	4500.5	4559.3	4606.4	4582.9	4577.1
7.5°	4453.4	4370.8	4412.1	4388.6	4376.8	4423.9	4370.8	4429.6
10°	4270.6	4211.8	4206.0	4164.7	4164.7	4200.0	4206.0	4170.5
12.5°	3999.7	3970.4	3970.4	3964.4	3958.4	3993.9	3999.7	3982.1
15°	3805.4	3793.6	3764.1	3758.3	3723.0	3775.8	3781.8	3775.8
17.5°	3569.7	3575.5	3546.2	3546.2	3569.7	3587.3	3540.2	3587.3
20°	3410.7	3381.2	3369.4	3316.3	3345.9	3375.4	3375.4	3381.2
22.5°	3180.9	3133.8	3151.6	3122.0	3104.3	3145.6	3145.6	3163.3
25°	2921.7	2921.7	2933.5	2915.9	2927.7	2951.2	2933.5	2974.8
27.5°	2674.3	2697.8	2697.8	2674.3	2686.1	2756.7	2786.2	2739.2
30°	2444.7	2450.4	2468.2	2456.4	2491.8	2515.3	2509.3	2544.8
32.5°	2185.5	2214.8	2226.6	2209.0	2220.8	2273.7	2244.4	2238.4
35°	1985.2	1932.1	1926.3	1932.1	1955.6	1967.4	1955.6	1997.0
37.5°	1696.5	1678.7	1655.2	1661.2	1678.7	1702.5	1714.3	1743.6
40°	1419.5	1396.0	1396.0	1390.2	1372.5	1437.3	1437.3	1437.3
42.5°	1178.1	1172.1	1142.8	1142.8	1166.4	1183.9	1172.1	1213.5
45°	966.1	942.5	924.7	924.7	942.5	942.5	960.3	954.3
47.5°	760.0	736.4	742.2	724.7	742.2	765.7	736.4	742.2
50°	571.4	571.4	559.6	571.4	565.4	571.4	559.6	547.9
52.5°	388.9	441.7	447.7	424.2	371.1	324.0	294.5	318.0
55°	223.9	200.3	200.3	194.3	182.5	176.8	159.0	176.8
57.5°	111.9	100.2	100.2	100.2	94.2	88.4	76.6	76.6
60°	47.1	41.3	41.3	35.3	29.5	23.5	17.8	23.5
62.5°	17.8	11.8	11.8	11.8	11.8	11.8	11.8	11.8
65°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
67.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
70°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
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)