

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 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: LD4C100D010 EX4C1009027 4LBSQLWWH
Description: 4 INCH 10000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

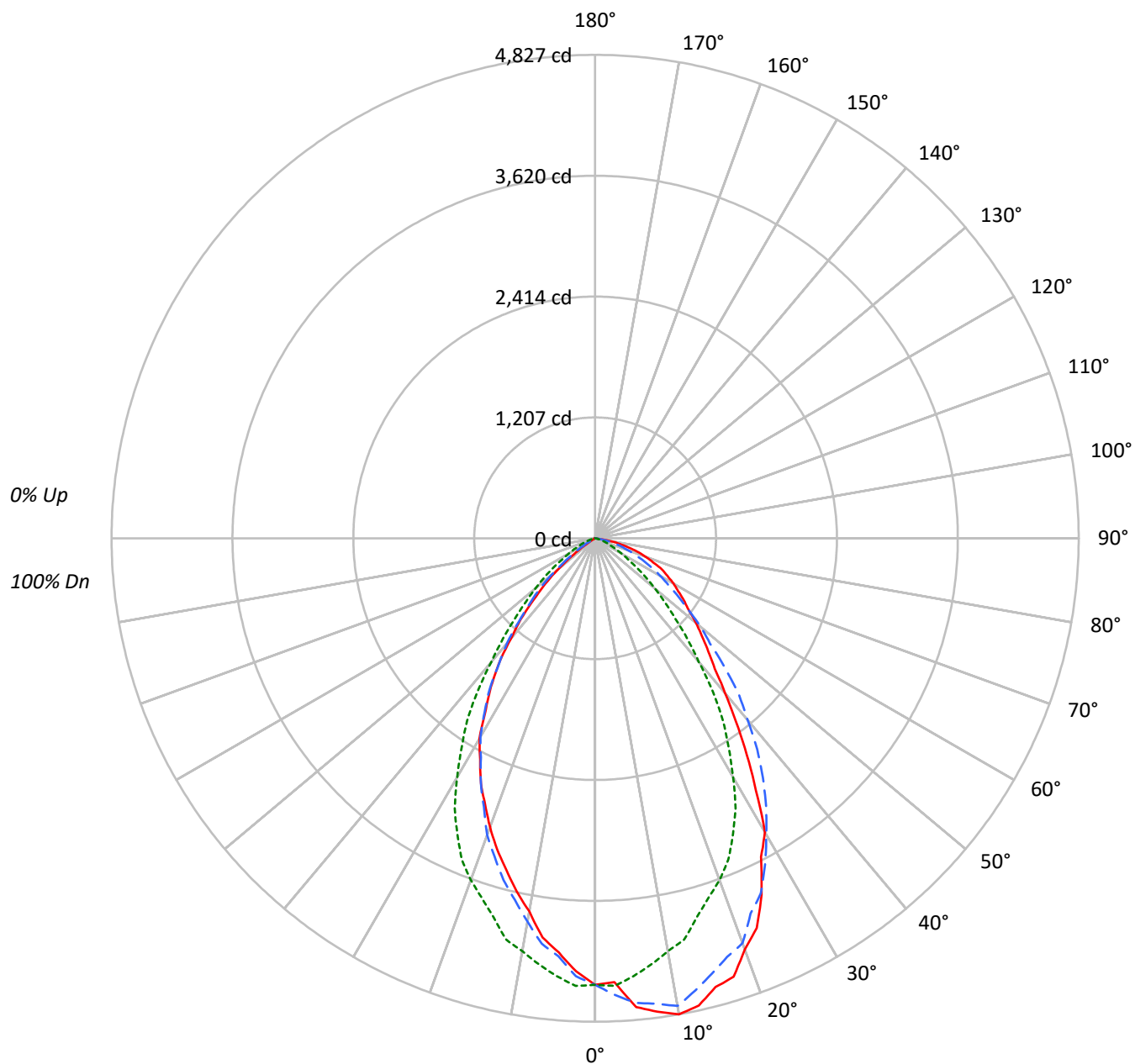
Lumens per Lamp: N/A
Luminaire Lumens: 6390.0 lumens
Efficiency: N/A
Efficacy: 55.9 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P#

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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	430128	430128	430128
5°	455075	425059	402278
10°	472917	410075	370776
15°	463462	391369	342252
20°	448420	372672	315037
25°	418275	346550	287388
30°	377588	306705	257281
35°	311028	262557	213449
40°	253829	202653	164274
45°	218097	153909	118157
50°	197380	117161	74635
55°	181631	84515	26983
60°	174336	57758	4130
65°	168403	39064	1233
70°	150762	27111	1523
75°	123585	13980	0
80°	77292	5946	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	417.7	6.5
10°-20°	1125.3	17.6
20°-30°	1502.6	23.5
30°-40°	1426.4	22.3
40°-50°	986.0	15.4
50°-60°	544.8	8.5
60°-70°	270.5	4.2
70°-80°	106.6	1.7
80°-90°	10.1	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°	3045.5	47.7
0°-40°	4472.0	70.0
0°-60°	6002.7	93.9
0°-90°	6390.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6390.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4458	4458	4458	4458	4458	
5°	4698	4656	4388	4191	4153	450
15°	4640	4501	3918	3533	3426	1312
25°	3929	3913	3255	2699	2699	1791
35°	2640	2918	2229	1833	1812	1654
45°	1598	1833	1128	925	866	1247
55°	1080	1016	502	256	160	972
65°	738	534	171	5	5	716
75°	332	203	38	0	0	353
85°	0	5	0	0	0	31
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°	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8
2.5°	4436.4	4559.4	4570.1	4559.4	4575.5	4570.1	4596.9	4570.1	4602.3	4554.1	4564.8
5°	4698.4	4650.3	4751.8	4698.4	4698.4	4693.2	4677.1	4671.6	4693.2	4623.7	4655.7
7.5°	4768.0	4837.5	4928.4	4816.1	4821.4	4821.4	4789.3	4778.6	4778.6	4650.3	4687.7
10°	4826.8	4783.9	4832.0	4789.3	4826.8	4821.4	4842.7	4773.2	4821.4	4746.6	4741.1
12.5°	4778.6	4762.5	4826.8	4757.3	4735.9	4741.1	4714.6	4698.4	4714.6	4628.9	4623.7
15°	4639.6	4655.7	4751.8	4677.1	4666.4	4655.7	4623.7	4570.1	4613.0	4495.3	4500.7
17.5°	4591.6	4564.8	4580.9	4516.7	4532.8	4522.1	4516.7	4468.7	4457.8	4383.0	4383.0
20°	4367.1	4425.8	4425.8	4383.0	4383.0	4377.8	4308.3	4351.0	4302.8	4281.5	4302.8
22.5°	4212.0	4217.4	4217.4	4179.9	4185.4	4164.0	4126.5	4099.7	4126.5	4099.7	4057.0
25°	3928.8	3939.5	4003.6	3934.1	3923.4	3944.7	3912.7	3896.6	3891.3	3827.3	3912.7
27.5°	3586.6	3693.4	3688.2	3661.4	3693.4	3650.7	3634.8	3640.0	3656.2	3650.7	3672.1
30°	3389.0	3404.9	3421.0	3399.6	3404.9	3389.0	3389.0	3394.2	3436.9	3421.0	3415.6
32.5°	2987.9	3041.3	3084.3	3084.3	3089.5	3105.6	3100.2	3212.4	3239.2	3185.8	3175.1
35°	2640.5	2678.0	2715.3	2720.7	2790.2	2795.5	2800.9	2833.0	2907.7	2923.8	2918.4
37.5°	2309.2	2346.5	2357.2	2405.3	2442.8	2480.1	2523.0	2565.7	2629.8	2683.2	2656.6
40°	2015.2	2031.1	2057.9	2079.3	2154.0	2154.0	2175.4	2261.1	2330.6	2373.3	2367.9
42.5°	1769.3	1774.6	1795.9	1833.4	1903.0	1886.8	1903.0	1961.8	2063.2	2068.6	2127.4
45°	1598.3	1592.8	1608.9	1614.2	1657.1	1678.5	1689.1	1731.9	1817.3	1828.0	1833.4
47.5°	1443.3	1437.8	1464.6	1475.3	1491.2	1512.6	1512.6	1518.0	1550.1	1576.9	1555.5
50°	1314.9	1314.9	1314.9	1325.6	1352.4	1347.0	1352.4	1373.8	1389.7	1379.0	1373.8
52.5°	1175.9	1197.2	1213.3	1218.8	1224.0	1224.0	1229.5	1218.8	1213.3	1197.2	1165.2
55°	1079.7	1101.1	1101.1	1101.1	1101.1	1122.5	1095.9	1101.1	1101.1	1058.4	1015.7
57.5°	983.6	1005.0	1020.9	999.5	1020.9	999.5	988.9	983.6	972.7	930.0	865.9
60°	903.4	914.1	908.7	903.4	914.1	898.0	887.3	865.9	855.2	796.4	753.7
62.5°	812.5	817.8	823.2	812.5	801.8	796.4	775.0	743.0	721.6	673.5	636.0
65°	737.6	721.6	716.2	711.0	700.3	684.2	668.2	630.8	614.6	571.9	534.4
67.5°	625.3	620.1	630.8	614.6	588.0	588.0	571.9	539.9	502.4	475.8	438.3
70°	534.4	529.2	518.5	502.4	497.2	475.8	475.8	438.3	427.6	379.5	347.4
72.5°	438.3	438.3	422.2	406.3	390.1	379.5	374.2	347.4	331.5	304.7	277.9
75°	331.5	331.5	326.1	309.9	299.3	288.6	283.3	262.0	245.9	219.3	203.1
77.5°	235.2	235.2	213.8	203.1	208.4	197.7	187.0	181.8	176.3	160.4	139.1
80°	139.1	133.6	117.7	122.9	117.7	117.7	112.2	106.8	96.1	85.4	74.8
82.5°	37.5	42.7	42.7	42.7	48.2	37.5	37.5	37.5	42.7	42.7	26.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.4	5.4	5.4
87.5°	5.4	10.7	21.4	21.4	21.4	21.4	21.4	16.1	16.1	16.1	10.7
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°	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8
2.5°	4511.4	4506.0	4511.4	4473.9	4559.4	4495.3	4484.6	4473.9	4511.4	4473.9	4420.5
5°	4607.5	4554.1	4538.0	4522.1	4570.1	4495.3	4479.4	4484.6	4457.8	4388.5	4393.7
7.5°	4639.6	4591.6	4543.5	4441.9	4484.6	4468.7	4425.8	4393.7	4351.0	4292.2	4281.5
10°	4650.3	4596.9	4527.3	4495.3	4431.2	4409.9	4393.7	4340.3	4286.9	4185.4	4158.6
12.5°	4618.2	4554.1	4468.7	4441.9	4393.7	4324.2	4286.9	4233.3	4185.4	4105.2	4046.3
15°	4479.4	4425.8	4399.2	4308.3	4286.9	4244.0	4169.2	4094.5	4025.0	3917.9	3885.9
17.5°	4319.0	4297.6	4270.8	4201.3	4196.0	4153.3	4083.8	4019.5	3928.8	3763.0	3709.6
20°	4153.3	4153.3	4067.7	4041.1	4094.5	4008.8	3955.4	3896.6	3709.6	3629.4	3533.2
22.5°	4030.4	3971.5	3923.4	3880.7	3885.9	3832.5	3757.7	3640.0	3570.5	3474.4	3362.2
25°	3789.8	3811.1	3704.3	3688.2	3704.3	3581.2	3543.9	3447.6	3346.0	3255.1	3169.7
27.5°	3640.0	3581.2	3511.9	3453.0	3453.0	3404.9	3298.1	3276.7	3121.5	3036.1	2929.1
30°	3415.6	3372.8	3314.0	3228.5	3217.9	3180.4	3094.9	3041.3	2881.1	2752.8	2693.9
32.5°	3132.2	3116.3	3068.1	2972.0	2940.0	2897.0	2790.2	2699.4	2624.6	2480.1	2410.8
35°	2929.1	2870.4	2768.9	2688.7	2661.9	2587.1	2501.5	2437.4	2357.2	2229.0	2138.1
37.5°	2624.6	2565.7	2469.4	2373.3	2373.3	2298.5	2180.8	2116.8	2004.5	1929.5	1854.8
40°	2357.2	2282.4	2186.3	2074.0	2057.9	1950.9	1903.0	1795.9	1726.4	1608.9	1598.3
42.5°	2057.9	1988.4	1903.0	1817.3	1753.2	1699.8	1576.9	1496.7	1421.9	1363.1	1347.0
45°	1785.3	1694.4	1619.6	1512.6	1448.5	1384.4	1304.2	1250.8	1192.0	1127.9	1090.4
47.5°	1550.1	1475.3	1368.3	1272.2	1208.1	1175.9	1085.0	1026.3	978.2	935.5	908.7
50°	1309.7	1218.8	1159.9	1052.9	1042.3	967.5	892.7	844.6	817.8	780.5	743.0
52.5°	1127.9	1042.3	962.1	882.1	839.1	812.5	743.0	694.8	657.6	630.8	609.4
55°	951.4	876.6	812.5	732.3	705.5	668.2	588.0	577.4	539.9	502.4	475.8
57.5°	817.8	748.2	673.5	620.1	571.9	545.3	481.0	438.3	416.9	384.9	358.1
60°	694.8	620.1	561.2	497.2	475.8	438.3	390.1	352.9	326.1	299.3	272.7
62.5°	582.6	518.5	454.4	400.8	368.8	347.4	309.9	277.9	251.3	229.9	208.4
65°	481.0	422.2	368.8	315.4	299.3	272.7	245.9	219.3	197.7	171.1	149.7
67.5°	395.6	342.2	288.6	251.3	235.2	224.5	192.5	165.6	149.7	133.6	112.2
70°	309.9	272.7	229.9	197.7	181.8	165.6	144.3	128.4	106.8	96.1	80.2
72.5°	240.6	208.4	171.1	144.3	133.6	122.9	101.6	85.4	74.8	64.1	53.4
75°	171.1	144.3	122.9	96.1	90.9	85.4	69.5	58.8	48.2	37.5	32.0
77.5°	117.7	96.1	74.8	64.1	58.8	48.2	42.7	32.0	26.8	21.4	16.1
80°	64.1	48.2	37.5	32.0	26.8	21.4	21.4	16.1	10.7	10.7	5.4
82.5°	21.4	16.1	10.7	5.4	5.4	5.4	5.4	5.4	5.4	0.0	5.4
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°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	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



TEST NUMBER: P#

CATALOG NUMBER: LD4C100D010 EX4C1009027 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8
2.5°	4452.6	4393.7	4409.9	4409.9	4399.2	4399.2	4388.5	4372.4	4377.8	4345.6	4276.2
5°	4404.4	4329.6	4319.0	4329.6	4286.9	4276.2	4254.9	4286.9	4190.6	4228.1	4185.4
7.5°	4265.6	4196.0	4179.9	4217.4	4164.0	4131.8	4126.5	4169.2	4083.8	4041.1	3992.9
10°	4110.4	4083.8	4035.6	4008.8	3992.9	3998.1	3955.4	3902.0	3885.9	3875.2	3832.5
12.5°	3971.5	3912.7	3870.0	3837.9	3827.3	3827.3	3757.7	3747.1	3698.9	3688.2	3624.1
15°	3805.7	3736.4	3709.6	3666.9	3629.4	3650.7	3570.5	3549.2	3533.2	3463.7	3474.4
17.5°	3661.4	3586.6	3522.6	3495.8	3463.7	3431.7	3356.7	3372.8	3335.3	3335.3	3239.2
20°	3474.4	3394.2	3346.0	3292.6	3292.6	3249.9	3196.5	3201.7	3153.6	3105.6	3020.0
22.5°	3276.7	3191.1	3132.2	3110.9	3057.5	3046.8	2982.7	2966.6	2902.5	2907.7	2833.0
25°	3068.1	2982.7	2902.5	2907.7	2859.8	2838.4	2800.9	2726.2	2699.4	2667.3	2646.0
27.5°	2822.3	2763.4	2693.9	2688.7	2597.8	2603.0	2555.1	2533.7	2469.4	2485.5	2437.4
30°	2597.8	2512.3	2448.1	2432.1	2394.7	2384.0	2309.2	2277.0	2287.9	2244.9	2218.3
32.5°	2367.9	2239.7	2212.9	2180.8	2159.5	2132.7	2079.3	2100.6	2052.5	2063.2	2020.4
35°	2063.2	2009.8	1940.2	1940.2	1918.9	1897.5	1860.2	1881.6	1833.4	1812.1	1769.3
37.5°	1806.6	1758.7	1689.1	1710.5	1673.0	1641.0	1608.9	1614.2	1571.4	1566.2	1523.3
40°	1528.7	1501.9	1454.0	1454.0	1427.2	1427.2	1411.0	1395.1	1368.3	1336.3	1288.1
42.5°	1266.7	1245.4	1224.0	1229.5	1192.0	1224.0	1181.3	1208.1	1122.5	1117.2	1085.0
45°	1074.3	1026.3	1031.6	1010.2	988.9	999.5	962.1	972.7	924.8	914.1	882.1
47.5°	871.4	855.2	823.2	812.5	812.5	796.4	780.5	775.0	753.7	726.9	684.2
50°	716.2	657.6	646.7	630.8	620.1	620.1	598.7	566.7	571.9	545.3	502.4
52.5°	561.2	513.1	491.7	486.5	465.1	454.4	427.6	406.3	390.1	379.5	352.9
55°	432.9	390.1	363.5	363.5	331.5	331.5	294.0	277.9	256.5	235.2	219.3
57.5°	326.1	304.7	277.9	256.5	245.9	219.3	197.7	171.1	155.0	122.9	101.6
60°	245.9	224.5	197.7	181.8	171.1	144.3	117.7	96.1	58.8	48.2	42.7
62.5°	181.8	160.4	133.6	122.9	112.2	90.9	64.1	32.0	16.1	16.1	16.1
65°	133.6	106.8	85.4	74.8	64.1	48.2	21.4	10.7	5.4	5.4	5.4
67.5°	90.9	69.5	48.2	42.7	32.0	16.1	5.4	5.4	5.4	5.4	5.4
70°	58.8	42.7	21.4	16.1	10.7	5.4	5.4	5.4	5.4	5.4	5.4
72.5°	37.5	21.4	10.7	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	21.4	10.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	10.7	5.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	5.4	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	5.4	5.4	5.4
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: LD4C100D010 EX4C1009027 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8	4457.8
2.5°	4351.0	4313.5	4334.9	4286.9	4308.3	4345.6	4319.0	4329.6
5°	4201.3	4179.9	4153.3	4083.8	4137.2	4179.9	4158.6	4153.3
7.5°	4041.1	3966.1	4003.6	3982.2	3971.5	4014.3	3966.1	4019.5
10°	3875.2	3821.8	3816.6	3779.1	3779.1	3811.1	3816.6	3784.3
12.5°	3629.4	3602.8	3602.8	3597.3	3591.9	3624.1	3629.4	3613.5
15°	3453.0	3442.4	3415.6	3410.3	3378.3	3426.2	3431.7	3426.2
17.5°	3239.2	3244.5	3217.9	3217.9	3239.2	3255.1	3212.4	3255.1
20°	3094.9	3068.1	3057.5	3009.3	3036.1	3062.9	3062.9	3068.1
22.5°	2886.4	2843.6	2859.8	2833.0	2816.8	2854.3	2854.3	2870.4
25°	2651.2	2651.2	2661.9	2646.0	2656.6	2678.0	2661.9	2699.4
27.5°	2426.7	2448.1	2448.1	2426.7	2437.4	2501.5	2528.3	2485.5
30°	2218.3	2223.6	2239.7	2229.0	2261.1	2282.4	2277.0	2309.2
32.5°	1983.2	2009.8	2020.4	2004.5	2015.2	2063.2	2036.6	2031.1
35°	1801.4	1753.2	1748.0	1753.2	1774.6	1785.3	1774.6	1812.1
37.5°	1539.4	1523.3	1501.9	1507.4	1523.3	1544.9	1555.5	1582.1
40°	1288.1	1266.7	1266.7	1261.5	1245.4	1304.2	1304.2	1304.2
42.5°	1069.1	1063.6	1037.0	1037.0	1058.4	1074.3	1063.6	1101.1
45°	876.6	855.2	839.1	839.1	855.2	855.2	871.4	865.9
47.5°	689.6	668.2	673.5	657.6	673.5	694.8	668.2	673.5
50°	518.5	518.5	507.8	518.5	513.1	518.5	507.8	497.2
52.5°	352.9	400.8	406.3	384.9	336.7	294.0	267.2	288.6
55°	203.1	181.8	181.8	176.3	165.6	160.4	144.3	160.4
57.5°	101.6	90.9	90.9	90.9	85.4	80.2	69.5	69.5
60°	42.7	37.5	37.5	32.0	26.8	21.4	16.1	21.4
62.5°	16.1	10.7	10.7	10.7	10.7	10.7	10.7	10.7
65°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
67.5°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
70°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
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)