

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: **LD4C70D010 EX4C709050 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: LD4C70D010 EX4C709050 4LBSQLWWLI
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Summary

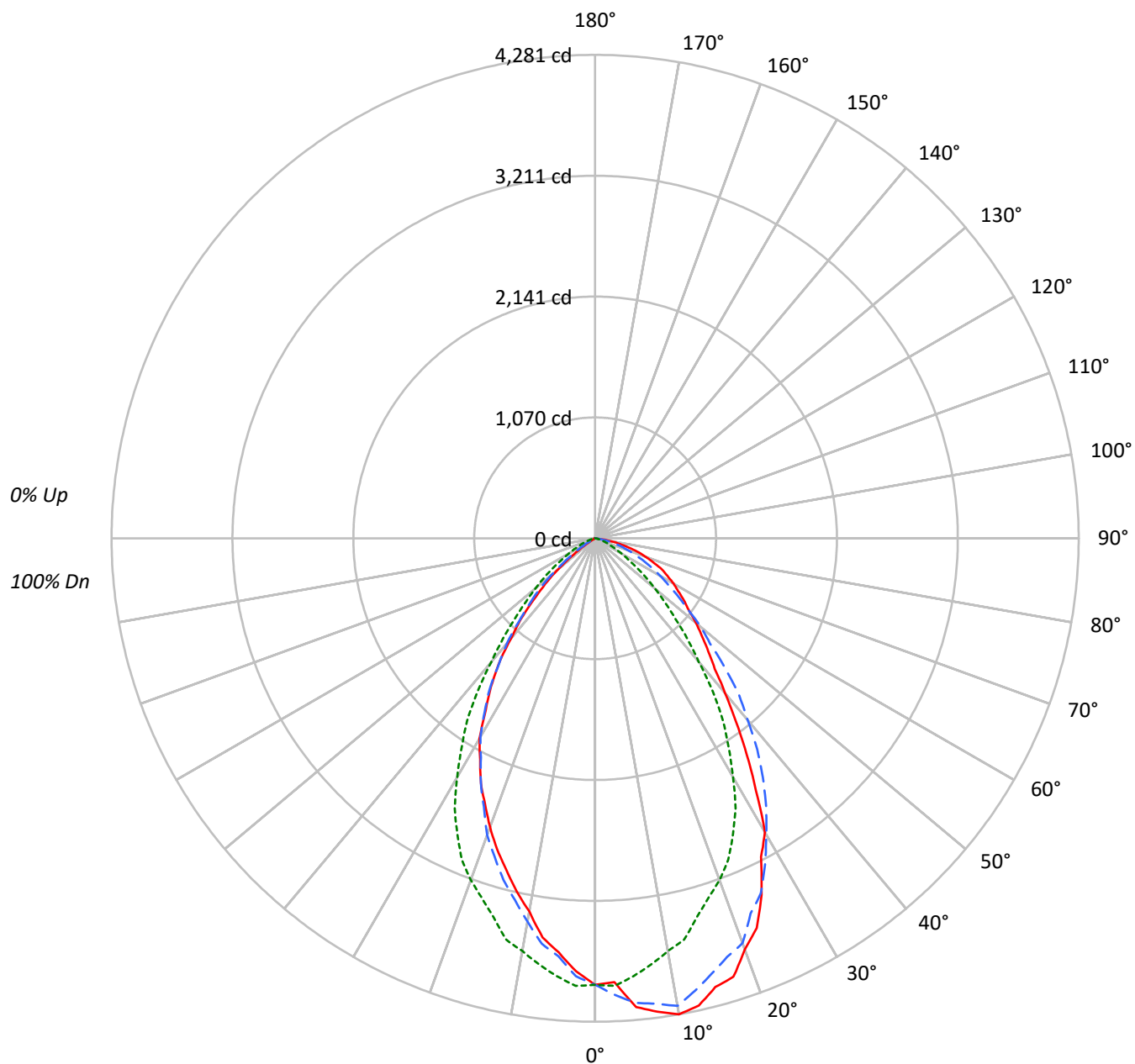
Lumens per Lamp: N/A
Luminaire Lumens: 5667.0 lumens
Efficiency: N/A
Efficacy: 72.7 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 78
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°	381459	381459	381459
5°	403586	376969	356765
10°	419412	363672	328832
15°	411018	347087	303534
20°	397685	330500	279396
25°	370952	307339	254863
30°	334860	271999	228168
35°	275832	232850	189290
40°	225111	179728	145695
45°	193413	136497	104798
50°	175043	103906	66184
55°	161091	74943	23938
60°	154614	51216	3647
65°	149339	34635	1096
70°	133722	24036	1354
75°	109605	12377	0
80°	68513	5279	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	370.4	6.5
10°-20°	998.0	17.6
20°-30°	1332.6	23.5
30°-40°	1265.0	22.3
40°-50°	874.4	15.4
50°-60°	483.1	8.5
60°-70°	239.9	4.2
70°-80°	94.5	1.7
80°-90°	9.0	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°	2701.0	47.7
0°-40°	3966.0	70.0
0°-60°	5323.5	93.9
0°-90°	5667.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5667.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3953	3953	3953	3953	3953	
5°	4167	4129	3892	3716	3683	399
15°	4115	3992	3475	3134	3039	1164
25°	3484	3470	2887	2394	2394	1588
35°	2342	2588	1977	1626	1607	1467
45°	1417	1626	1000	820	768	1106
55°	958	901	446	228	142	862
65°	654	474	152	5	5	635
75°	294	180	33	0	0	313
85°	0	5	0	0	0	27
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°	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4
2.5°	3934.5	4043.5	4053.0	4043.5	4057.8	4053.0	4076.7	4053.0	4081.6	4038.9	4048.3
5°	4166.8	4124.1	4214.2	4166.8	4166.8	4162.2	4147.9	4143.0	4162.2	4100.5	4128.9
7.5°	4228.5	4290.1	4370.7	4271.2	4275.8	4275.8	4247.4	4238.0	4238.0	4124.1	4157.3
10°	4280.7	4242.6	4285.3	4247.4	4280.7	4275.8	4294.8	4233.1	4275.8	4209.5	4204.7
12.5°	4238.0	4223.7	4280.7	4219.0	4200.1	4204.7	4181.1	4166.8	4181.1	4105.2	4100.5
15°	4114.6	4128.9	4214.2	4147.9	4138.4	4128.9	4100.5	4053.0	4091.0	3986.7	3991.5
17.5°	4072.1	4048.3	4062.6	4005.6	4019.9	4010.4	4005.6	3963.1	3953.4	3887.1	3887.1
20°	3873.0	3925.0	3925.0	3887.1	3887.1	3882.5	3820.8	3858.7	3816.0	3797.1	3816.0
22.5°	3735.4	3740.2	3740.2	3707.0	3711.8	3692.9	3659.6	3635.8	3659.6	3635.8	3598.0
25°	3484.3	3493.8	3550.6	3488.9	3479.5	3498.4	3470.0	3455.7	3451.1	3394.2	3470.0
27.5°	3180.8	3275.5	3270.9	3247.1	3275.5	3237.7	3223.5	3228.2	3242.5	3237.7	3256.6
30°	3005.5	3019.6	3033.9	3015.0	3019.6	3005.5	3005.5	3010.2	3048.0	3033.9	3029.1
32.5°	2649.9	2697.2	2735.3	2735.3	2739.9	2754.2	2749.4	2848.9	2872.7	2825.4	2815.9
35°	2341.7	2375.0	2408.0	2412.9	2474.5	2479.2	2484.0	2512.4	2578.7	2593.0	2588.2
37.5°	2047.9	2081.0	2090.5	2133.2	2166.4	2199.5	2237.6	2275.4	2332.3	2379.6	2356.0
40°	1787.2	1801.3	1825.1	1844.0	1910.3	1910.3	1929.3	2005.2	2066.9	2104.8	2099.9
42.5°	1569.2	1573.8	1592.7	1626.0	1687.6	1673.3	1687.6	1739.8	1829.7	1834.5	1886.7
45°	1417.4	1412.6	1426.9	1431.5	1469.6	1488.5	1498.0	1535.9	1611.7	1621.2	1626.0
47.5°	1280.0	1275.2	1298.9	1308.4	1322.5	1341.5	1341.5	1346.3	1374.7	1398.5	1379.5
50°	1166.1	1166.1	1166.1	1175.6	1199.4	1194.6	1199.4	1218.3	1232.4	1223.0	1218.3
52.5°	1042.8	1061.8	1076.1	1080.9	1085.5	1085.5	1090.4	1080.9	1076.1	1061.8	1033.3
55°	957.6	976.5	976.5	976.5	976.5	995.5	971.9	976.5	976.5	938.6	900.7
57.5°	872.3	891.3	905.4	886.4	905.4	886.4	877.0	872.3	862.7	824.8	768.0
60°	801.2	810.7	805.8	801.2	810.7	796.4	786.9	768.0	758.5	706.3	668.4
62.5°	720.6	725.2	730.1	720.6	711.1	706.3	687.4	658.9	640.0	597.3	564.0
65°	654.1	640.0	635.2	630.5	621.0	606.7	592.6	559.4	545.1	507.2	474.0
67.5°	554.6	549.9	559.4	545.1	521.5	521.5	507.2	478.8	445.5	422.0	388.7
70°	474.0	469.3	459.8	445.5	440.9	422.0	422.0	388.7	379.2	336.5	308.1
72.5°	388.7	388.7	374.4	360.3	346.0	336.5	331.9	308.1	294.0	270.2	246.5
75°	294.0	294.0	289.2	274.9	265.4	255.9	251.3	232.3	218.0	194.4	180.1
77.5°	208.6	208.6	189.6	180.1	184.8	175.3	165.8	161.2	156.4	142.3	123.3
80°	123.3	118.5	104.4	109.0	104.4	104.4	99.5	94.7	85.2	75.8	66.3
82.5°	33.2	37.9	37.9	37.9	42.7	33.2	33.2	33.2	37.9	37.9	23.8
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.8	4.8	4.8
87.5°	4.8	9.5	18.9	18.9	18.9	18.9	18.9	14.3	14.3	14.3	9.5
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°	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4
2.5°	4001.0	3996.1	4001.0	3967.7	4043.5	3986.7	3977.2	3967.7	4001.0	3967.7	3920.4
5°	4086.2	4038.9	4024.6	4010.4	4053.0	3986.7	3972.6	3977.2	3953.4	3892.0	3896.6
7.5°	4114.6	4072.1	4029.4	3939.3	3977.2	3963.1	3925.0	3896.6	3858.7	3806.5	3797.1
10°	4124.1	4076.7	4015.1	3986.7	3929.8	3910.9	3896.6	3849.2	3801.9	3711.8	3688.0
12.5°	4095.7	4038.9	3963.1	3939.3	3896.6	3834.9	3801.9	3754.3	3711.8	3640.7	3588.5
15°	3972.6	3925.0	3901.4	3820.8	3801.9	3763.8	3697.5	3631.2	3569.5	3474.6	3446.2
17.5°	3830.3	3811.4	3787.6	3725.9	3721.3	3683.4	3621.7	3564.7	3484.3	3337.2	3289.9
20°	3683.4	3683.4	3607.4	3583.8	3631.2	3555.2	3507.9	3455.7	3289.9	3218.7	3133.5
22.5°	3574.4	3522.2	3479.5	3441.6	3446.2	3398.9	3332.6	3228.2	3166.5	3081.3	2981.7
25°	3361.0	3379.9	3285.2	3270.9	3285.2	3176.0	3142.9	3057.5	2967.4	2886.8	2811.1
27.5°	3228.2	3176.0	3114.5	3062.3	3062.3	3019.6	2924.9	2906.0	2768.3	2692.6	2597.7
30°	3029.1	2991.2	2939.0	2863.3	2853.8	2820.5	2744.8	2697.2	2555.1	2441.3	2389.1
32.5°	2777.8	2763.7	2721.0	2635.7	2607.3	2569.3	2474.5	2393.9	2327.6	2199.5	2138.0
35°	2597.7	2545.7	2455.6	2384.5	2360.7	2294.4	2218.4	2161.6	2090.5	1976.8	1896.2
37.5°	2327.6	2275.4	2190.0	2104.8	2104.8	2038.5	1934.1	1877.3	1777.7	1711.2	1644.9
40°	2090.5	2024.2	1938.9	1839.4	1825.1	1730.2	1687.6	1592.7	1531.1	1426.9	1417.4
42.5°	1825.1	1763.4	1687.6	1611.7	1554.9	1507.5	1398.5	1327.3	1261.0	1208.9	1194.6
45°	1583.3	1502.7	1436.4	1341.5	1284.6	1227.8	1156.7	1109.3	1057.1	1000.3	967.0
47.5°	1374.7	1308.4	1213.5	1128.3	1071.4	1042.8	962.2	910.2	867.5	829.6	805.8
50°	1161.5	1080.9	1028.7	933.8	924.3	858.0	791.7	749.0	725.2	692.2	658.9
52.5°	1000.3	924.3	853.2	782.3	744.2	720.6	658.9	616.2	583.2	559.4	540.4
55°	843.7	777.4	720.6	649.5	625.7	592.6	521.5	512.0	478.8	445.5	422.0
57.5°	725.2	663.6	597.3	549.9	507.2	483.6	426.6	388.7	369.8	341.4	317.6
60°	616.2	549.9	497.7	440.9	422.0	388.7	346.0	312.9	289.2	265.4	241.8
62.5°	516.7	459.8	403.0	355.5	327.1	308.1	274.9	246.5	222.9	203.9	184.8
65°	426.6	374.4	327.1	279.7	265.4	241.8	218.0	194.4	175.3	151.7	132.8
67.5°	350.8	303.5	255.9	222.9	208.6	199.1	170.7	146.9	132.8	118.5	99.5
70°	274.9	241.8	203.9	175.3	161.2	146.9	128.0	113.8	94.7	85.2	71.1
72.5°	213.4	184.8	151.7	128.0	118.5	109.0	90.1	75.8	66.3	56.8	47.4
75°	151.7	128.0	109.0	85.2	80.6	75.8	61.7	52.2	42.7	33.2	28.4
77.5°	104.4	85.2	66.3	56.8	52.2	42.7	37.9	28.4	23.8	18.9	14.3
80°	56.8	42.7	33.2	28.4	23.8	18.9	18.9	14.3	9.5	9.5	4.8
82.5°	18.9	14.3	9.5	4.8	4.8	4.8	4.8	4.8	4.8	0.0	4.8
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°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	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°	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4
2.5°	3948.8	3896.6	3910.9	3910.9	3901.4	3901.4	3892.0	3877.7	3882.5	3853.9	3792.4
5°	3906.1	3839.8	3830.3	3839.8	3801.9	3792.4	3773.5	3801.9	3716.4	3749.7	3711.8
7.5°	3782.9	3721.3	3707.0	3740.2	3692.9	3664.3	3659.6	3697.5	3621.7	3583.8	3541.1
10°	3645.3	3621.7	3579.0	3555.2	3541.1	3545.8	3507.9	3460.5	3446.2	3436.8	3398.9
12.5°	3522.2	3470.0	3432.1	3403.7	3394.2	3394.2	3332.6	3323.1	3280.4	3270.9	3214.1
15°	3375.1	3313.6	3289.9	3252.0	3218.7	3237.7	3166.5	3147.6	3133.5	3071.8	3081.3
17.5°	3247.1	3180.8	3124.0	3100.2	3071.8	3043.4	2976.9	2991.2	2958.0	2958.0	2872.7
20°	3081.3	3010.2	2967.4	2920.1	2920.1	2882.2	2834.8	2839.5	2796.8	2754.2	2678.3
22.5°	2906.0	2830.0	2777.8	2758.9	2711.5	2702.0	2645.2	2630.9	2574.1	2578.7	2512.4
25°	2721.0	2645.2	2574.1	2578.7	2536.2	2517.3	2484.0	2417.7	2393.9	2365.5	2346.6
27.5°	2503.0	2450.8	2389.1	2384.5	2303.9	2308.5	2266.0	2247.0	2190.0	2204.3	2161.6
30°	2303.9	2228.1	2171.1	2157.0	2123.7	2114.2	2047.9	2019.3	2029.0	1990.9	1967.3
32.5°	2099.9	1986.3	1962.5	1934.1	1915.1	1891.4	1844.0	1863.0	1820.2	1829.7	1791.8
35°	1829.7	1782.4	1720.7	1720.7	1701.8	1682.8	1649.8	1668.7	1626.0	1607.0	1569.2
37.5°	1602.2	1559.7	1498.0	1517.0	1483.7	1455.3	1426.9	1431.5	1393.6	1389.0	1350.9
40°	1355.8	1332.0	1289.5	1289.5	1265.7	1265.7	1251.4	1237.3	1213.5	1185.1	1142.4
42.5°	1123.4	1104.5	1085.5	1090.4	1057.1	1085.5	1047.6	1071.4	995.5	990.8	962.2
45°	952.7	910.2	914.9	895.9	877.0	886.4	853.2	862.7	820.1	810.7	782.3
47.5°	772.8	758.5	730.1	720.6	720.6	706.3	692.2	687.4	668.4	644.6	606.7
50°	635.2	583.2	573.5	559.4	549.9	549.9	531.0	502.6	507.2	483.6	445.5
52.5°	497.7	455.0	436.1	431.4	412.5	403.0	379.2	360.3	346.0	336.5	312.9
55°	383.9	346.0	322.4	322.4	294.0	294.0	260.8	246.5	227.5	208.6	194.4
57.5°	289.2	270.2	246.5	227.5	218.0	194.4	175.3	151.7	137.4	109.0	90.1
60°	218.0	199.1	175.3	161.2	151.7	128.0	104.4	85.2	52.2	42.7	37.9
62.5°	161.2	142.3	118.5	109.0	99.5	80.6	56.8	28.4	14.3	14.3	14.3
65°	118.5	94.7	75.8	66.3	56.8	42.7	18.9	9.5	4.8	4.8	4.8
67.5°	80.6	61.7	42.7	37.9	28.4	14.3	4.8	4.8	4.8	4.8	4.8
70°	52.2	37.9	18.9	14.3	9.5	4.8	4.8	4.8	4.8	4.8	4.8
72.5°	33.2	18.9	9.5	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	18.9	9.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	9.5	4.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.8	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	4.8	4.8	4.8
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: LD4C70D010 EX4C709050 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4	3953.4
2.5°	3858.7	3825.5	3844.4	3801.9	3820.8	3853.9	3830.3	3839.8
5°	3725.9	3707.0	3683.4	3621.7	3669.1	3707.0	3688.0	3683.4
7.5°	3583.8	3517.4	3550.6	3531.7	3522.2	3560.1	3517.4	3564.7
10°	3436.8	3389.4	3384.8	3351.5	3351.5	3379.9	3384.8	3356.2
12.5°	3218.7	3195.1	3195.1	3190.3	3185.5	3214.1	3218.7	3204.6
15°	3062.3	3052.9	3029.1	3024.5	2996.0	3038.6	3043.4	3038.6
17.5°	2872.7	2877.4	2853.8	2853.8	2872.7	2886.8	2848.9	2886.8
20°	2744.8	2721.0	2711.5	2668.8	2692.6	2716.3	2716.3	2721.0
22.5°	2559.8	2521.9	2536.2	2512.4	2498.1	2531.4	2531.4	2545.7
25°	2351.2	2351.2	2360.7	2346.6	2356.0	2375.0	2360.7	2393.9
27.5°	2152.1	2171.1	2171.1	2152.1	2161.6	2218.4	2242.2	2204.3
30°	1967.3	1972.0	1986.3	1976.8	2005.2	2024.2	2019.3	2047.9
32.5°	1758.8	1782.4	1791.8	1777.7	1787.2	1829.7	1806.1	1801.3
35°	1597.6	1554.9	1550.2	1554.9	1573.8	1583.3	1573.8	1607.0
37.5°	1365.2	1350.9	1332.0	1336.8	1350.9	1370.1	1379.5	1403.1
40°	1142.4	1123.4	1123.4	1118.8	1104.5	1156.7	1156.7	1156.7
42.5°	948.1	943.3	919.7	919.7	938.6	952.7	943.3	976.5
45°	777.4	758.5	744.2	744.2	758.5	758.5	772.8	768.0
47.5°	611.6	592.6	597.3	583.2	597.3	616.2	592.6	597.3
50°	459.8	459.8	450.4	459.8	455.0	459.8	450.4	440.9
52.5°	312.9	355.5	360.3	341.4	298.6	260.8	237.0	255.9
55°	180.1	161.2	161.2	156.4	146.9	142.3	128.0	142.3
57.5°	90.1	80.6	80.6	80.6	75.8	71.1	61.7	61.7
60°	37.9	33.2	33.2	28.4	23.8	18.9	14.3	18.9
62.5°	14.3	9.5	9.5	9.5	9.5	9.5	9.5	9.5
65°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
67.5°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
70°	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
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)