

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 EX4C709027 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 EX4C709027 4LBSQLWWLI
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Summary

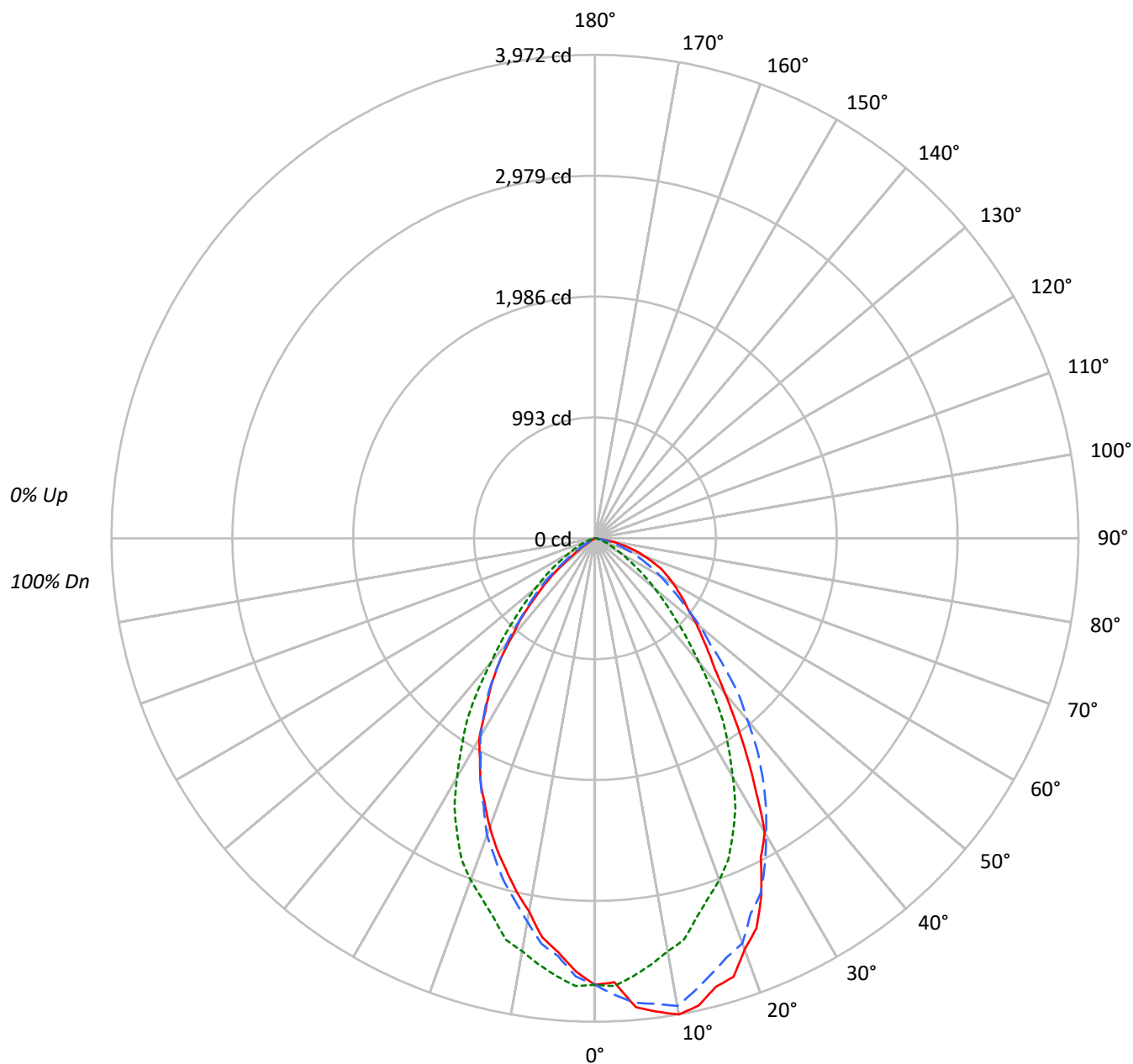
Lumens per Lamp: N/A
Luminaire Lumens: 5259.0 lumens
Efficiency: N/A
Efficacy: 67.4 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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

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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°	353998	353998	353998
5°	374528	349830	331078
10°	389215	337493	305151
15°	381430	322104	281677
20°	369057	306709	259281
25°	344240	285216	236520
30°	310750	252412	211746
35°	255984	216088	175662
40°	208900	166793	135203
45°	179494	126672	97252
50°	162449	96416	61425
55°	149483	69560	22205
60°	143479	47530	3396
65°	138585	32146	1027
70°	124074	22315	1270
75°	101701	11520	0
80°	63567	4890	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	343.7	6.5
10°-20°	926.1	17.6
20°-30°	1236.6	23.5
30°-40°	1173.9	22.3
40°-50°	811.5	15.4
50°-60°	448.4	8.5
60°-70°	222.7	4.2
70°-80°	87.7	1.7
80°-90°	8.4	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°	2506.5	47.7
0°-40°	3680.4	70.0
0°-60°	4940.3	93.9
0°-90°	5259.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5259.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3669	3669	3669	3669	3669	
5°	3867	3832	3612	3449	3418	370
15°	3818	3704	3224	2908	2820	1080
25°	3233	3220	2679	2222	2222	1474
35°	2173	2402	1834	1509	1491	1361
45°	1315	1509	928	761	713	1026
55°	889	836	414	211	132	800
65°	607	440	141	4	4	589
75°	273	167	31	0	0	291
85°	0	4	0	0	0	25
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°	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8
2.5°	3651.2	3752.4	3761.2	3752.4	3765.7	3761.2	3783.2	3761.2	3787.7	3748.1	3756.9
5°	3866.8	3827.2	3910.8	3866.8	3866.8	3862.5	3849.2	3844.8	3862.5	3805.3	3831.7
7.5°	3924.0	3981.3	4056.1	3963.7	3968.0	3968.0	3941.6	3932.8	3932.8	3827.2	3858.0
10°	3972.5	3937.1	3976.8	3941.6	3972.5	3968.0	3985.6	3928.4	3968.0	3906.5	3902.0
12.5°	3932.8	3919.6	3972.5	3915.3	3897.7	3902.0	3880.1	3866.8	3880.1	3809.6	3805.3
15°	3818.4	3831.7	3910.8	3849.2	3840.5	3831.7	3805.3	3761.2	3796.5	3699.6	3704.1
17.5°	3778.9	3756.9	3770.1	3717.2	3730.5	3721.7	3717.2	3677.8	3668.8	3607.3	3607.3
20°	3594.2	3642.4	3642.4	3607.3	3607.3	3603.0	3545.7	3580.9	3541.3	3523.7	3541.3
22.5°	3466.5	3470.9	3470.9	3440.1	3444.6	3427.0	3396.1	3374.1	3396.1	3374.1	3338.9
25°	3233.4	3242.2	3295.0	3237.8	3229.0	3246.5	3220.2	3206.9	3202.6	3149.9	3220.2
27.5°	2951.8	3039.7	3035.4	3013.4	3039.7	3004.6	2991.5	2995.8	3009.0	3004.6	3022.1
30°	2789.1	2802.2	2815.5	2797.9	2802.2	2789.1	2789.1	2793.4	2828.6	2815.5	2811.0
32.5°	2459.1	2503.0	2538.4	2538.4	2542.7	2555.9	2551.5	2643.8	2665.9	2621.9	2613.2
35°	2173.2	2204.0	2234.7	2239.2	2296.4	2300.7	2305.2	2331.5	2393.1	2406.3	2401.9
37.5°	1900.5	1931.2	1940.0	1979.6	2010.5	2041.1	2076.5	2111.6	2164.4	2208.3	2186.4
40°	1658.5	1671.6	1693.7	1711.3	1772.8	1772.8	1790.4	1860.9	1918.1	1953.2	1948.8
42.5°	1456.2	1460.5	1478.1	1508.9	1566.1	1552.9	1566.1	1614.6	1698.0	1702.5	1750.9
45°	1315.4	1310.9	1324.2	1328.5	1363.8	1381.4	1390.2	1425.3	1495.6	1504.4	1508.9
47.5°	1187.8	1183.4	1205.4	1214.2	1227.3	1244.9	1244.9	1249.4	1275.7	1297.8	1280.2
50°	1082.2	1082.2	1082.2	1091.0	1113.0	1108.6	1113.0	1130.6	1143.7	1134.9	1130.6
52.5°	967.7	985.3	998.6	1003.1	1007.4	1007.4	1011.9	1003.1	998.6	985.3	959.0
55°	888.6	906.2	906.2	906.2	906.2	923.8	901.9	906.2	906.2	871.1	835.9
57.5°	809.5	827.1	840.2	822.6	840.2	822.6	813.8	809.5	800.6	765.4	712.7
60°	743.5	752.3	747.8	743.5	752.3	739.0	730.2	712.7	703.9	655.4	620.3
62.5°	668.7	673.0	677.5	668.7	659.9	655.4	637.9	611.5	593.9	554.3	523.4
65°	607.0	593.9	589.4	585.1	576.3	563.1	550.0	519.1	505.8	470.7	439.8
67.5°	514.6	510.3	519.1	505.8	484.0	484.0	470.7	444.3	413.5	391.6	360.7
70°	439.8	435.5	426.7	413.5	409.2	391.6	391.6	360.7	351.9	312.3	285.9
72.5°	360.7	360.7	347.5	334.4	321.1	312.3	308.0	285.9	272.8	250.8	228.7
75°	272.8	272.8	268.3	255.1	246.3	237.5	233.2	215.6	202.3	180.4	167.2
77.5°	193.5	193.5	176.0	167.2	171.5	162.7	153.9	149.6	145.1	132.0	114.4
80°	114.4	110.0	96.9	101.2	96.9	96.9	92.4	87.9	79.1	70.3	61.5
82.5°	30.9	35.2	35.2	35.2	39.6	30.9	30.9	30.9	35.2	35.2	22.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.5	4.5
87.5°	4.5	8.8	17.6	17.6	17.6	17.6	17.6	13.3	13.3	13.3	8.8
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°	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8
2.5°	3712.9	3708.4	3712.9	3682.1	3752.4	3699.6	3690.9	3682.1	3712.9	3682.1	3638.1
5°	3792.0	3748.1	3734.8	3721.7	3761.2	3699.6	3686.6	3690.9	3668.8	3611.8	3616.1
7.5°	3818.4	3778.9	3739.3	3655.7	3690.9	3677.8	3642.4	3616.1	3580.9	3532.5	3523.7
10°	3827.2	3783.2	3726.0	3699.6	3646.9	3629.3	3616.1	3572.1	3528.2	3444.6	3422.5
12.5°	3800.8	3748.1	3677.8	3655.7	3616.1	3558.8	3528.2	3484.0	3444.6	3378.6	3330.1
15°	3686.6	3642.4	3620.5	3545.7	3528.2	3492.8	3431.3	3369.8	3312.6	3224.5	3198.1
17.5°	3554.5	3537.0	3514.9	3457.7	3453.4	3418.2	3361.0	3308.1	3233.4	3096.9	3053.0
20°	3418.2	3418.2	3347.7	3325.8	3369.8	3299.3	3255.3	3206.9	3053.0	2987.0	2907.9
22.5°	3317.0	3268.6	3229.0	3193.8	3198.1	3154.2	3092.6	2995.8	2938.6	2859.4	2767.1
25°	3119.0	3136.6	3048.7	3035.4	3048.7	2947.3	2916.7	2837.4	2753.8	2679.0	2608.7
27.5°	2995.8	2947.3	2890.3	2841.9	2841.9	2802.2	2714.3	2696.7	2569.0	2498.7	2410.6
30°	2811.0	2775.9	2727.4	2657.1	2648.3	2617.5	2547.1	2503.0	2371.2	2265.5	2217.1
32.5°	2577.8	2564.7	2525.1	2446.0	2419.6	2384.3	2296.4	2221.6	2160.1	2041.1	1984.1
35°	2410.6	2362.4	2278.8	2212.8	2190.7	2129.2	2058.7	2006.0	1940.0	1834.5	1759.7
37.5°	2160.1	2111.6	2032.3	1953.2	1953.2	1891.7	1794.8	1742.1	1649.7	1588.0	1526.5
40°	1940.0	1878.4	1799.3	1706.9	1693.7	1605.6	1566.1	1478.1	1420.8	1324.2	1315.4
42.5°	1693.7	1636.5	1566.1	1495.6	1442.9	1399.0	1297.8	1231.8	1170.3	1121.8	1108.6
45°	1469.3	1394.5	1332.9	1244.9	1192.1	1139.4	1073.4	1029.4	981.0	928.3	897.4
47.5°	1275.7	1214.2	1126.1	1047.0	994.3	967.7	892.9	844.7	805.0	769.9	747.8
50°	1077.9	1003.1	954.6	866.6	857.8	796.3	734.7	695.1	673.0	642.3	611.5
52.5°	928.3	857.8	791.8	725.9	690.6	668.7	611.5	571.9	541.2	519.1	501.5
55°	783.0	721.5	668.7	602.7	580.6	550.0	484.0	475.2	444.3	413.5	391.6
57.5°	673.0	615.8	554.3	510.3	470.7	448.8	395.9	360.7	343.1	316.8	294.7
60°	571.9	510.3	461.9	409.2	391.6	360.7	321.1	290.4	268.3	246.3	224.4
62.5°	479.5	426.7	374.0	329.9	303.5	285.9	255.1	228.7	206.8	189.2	171.5
65°	395.9	347.5	303.5	259.6	246.3	224.4	202.3	180.4	162.7	140.8	123.2
67.5°	325.6	281.6	237.5	206.8	193.5	184.8	158.4	136.3	123.2	110.0	92.4
70°	255.1	224.4	189.2	162.7	149.6	136.3	118.7	105.7	87.9	79.1	66.0
72.5°	198.0	171.5	140.8	118.7	110.0	101.2	83.6	70.3	61.5	52.7	43.9
75°	140.8	118.7	101.2	79.1	74.8	70.3	57.2	48.4	39.6	30.9	26.4
77.5°	96.9	79.1	61.5	52.7	48.4	39.6	35.2	26.4	22.1	17.6	13.3
80°	52.7	39.6	30.9	26.4	22.1	17.6	17.6	13.3	8.8	8.8	4.5
82.5°	17.6	13.3	8.8	4.5	4.5	4.5	4.5	4.5	4.5	0.0	4.5
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°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8
2.5°	3664.5	3616.1	3629.3	3629.3	3620.5	3620.5	3611.8	3598.5	3603.0	3576.4	3519.4
5°	3624.8	3563.3	3554.5	3563.3	3528.2	3519.4	3501.8	3528.2	3448.9	3479.7	3444.6
7.5°	3510.6	3453.4	3440.1	3470.9	3427.0	3400.5	3396.1	3431.3	3361.0	3325.8	3286.2
10°	3382.9	3361.0	3321.3	3299.3	3286.2	3290.5	3255.3	3211.4	3198.1	3189.3	3154.2
12.5°	3268.6	3220.2	3185.0	3158.6	3149.9	3149.9	3092.6	3083.8	3044.2	3035.4	2982.7
15°	3132.1	3075.1	3053.0	3017.8	2987.0	3004.6	2938.6	2921.0	2907.9	2850.7	2859.4
17.5°	3013.4	2951.8	2899.1	2877.0	2850.7	2824.3	2762.6	2775.9	2745.0	2745.0	2665.9
20°	2859.4	2793.4	2753.8	2709.8	2709.8	2674.7	2630.7	2635.0	2595.4	2555.9	2485.4
22.5°	2696.7	2626.3	2577.8	2560.2	2516.3	2507.5	2454.8	2441.5	2388.8	2393.1	2331.5
25°	2525.1	2454.8	2388.8	2393.1	2353.6	2336.0	2305.2	2243.6	2221.6	2195.2	2177.6
27.5°	2322.8	2274.3	2217.1	2212.8	2138.0	2142.3	2102.8	2085.3	2032.3	2045.6	2006.0
30°	2138.0	2067.7	2014.8	2001.7	1970.8	1962.0	1900.5	1874.0	1882.9	1847.6	1825.7
32.5°	1948.8	1843.3	1821.2	1794.8	1777.3	1755.2	1711.3	1728.8	1689.2	1698.0	1662.8
35°	1698.0	1654.0	1596.8	1596.8	1579.2	1561.7	1531.0	1548.6	1508.9	1491.3	1456.2
37.5°	1486.9	1447.4	1390.2	1407.7	1376.9	1350.5	1324.2	1328.5	1293.3	1289.0	1253.7
40°	1258.1	1236.1	1196.6	1196.6	1174.6	1174.6	1161.3	1148.2	1126.1	1099.8	1060.1
42.5°	1042.5	1025.0	1007.4	1011.9	981.0	1007.4	972.2	994.3	923.8	919.5	892.9
45°	884.2	844.7	849.0	831.4	813.8	822.6	791.8	800.6	761.1	752.3	725.9
47.5°	717.1	703.9	677.5	668.7	668.7	655.4	642.3	637.9	620.3	598.2	563.1
50°	589.4	541.2	532.2	519.1	510.3	510.3	492.7	466.4	470.7	448.8	413.5
52.5°	461.9	422.3	404.7	400.4	382.8	374.0	351.9	334.4	321.1	312.3	290.4
55°	356.2	321.1	299.2	299.2	272.8	272.8	242.0	228.7	211.1	193.5	180.4
57.5°	268.3	250.8	228.7	211.1	202.3	180.4	162.7	140.8	127.5	101.2	83.6
60°	202.3	184.8	162.7	149.6	140.8	118.7	96.9	79.1	48.4	39.6	35.2
62.5°	149.6	132.0	110.0	101.2	92.4	74.8	52.7	26.4	13.3	13.3	13.3
65°	110.0	87.9	70.3	61.5	52.7	39.6	17.6	8.8	4.5	4.5	4.5
67.5°	74.8	57.2	39.6	35.2	26.4	13.3	4.5	4.5	4.5	4.5	4.5
70°	48.4	35.2	17.6	13.3	8.8	4.5	4.5	4.5	4.5	4.5	4.5
72.5°	30.9	17.6	8.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	17.6	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	8.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.5	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	4.5	4.5	4.5
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: LD4C70D010 EX4C709027 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8	3668.8
2.5°	3580.9	3550.1	3567.6	3528.2	3545.7	3576.4	3554.5	3563.3
5°	3457.7	3440.1	3418.2	3361.0	3404.9	3440.1	3422.5	3418.2
7.5°	3325.8	3264.1	3295.0	3277.4	3268.6	3303.8	3264.1	3308.1
10°	3189.3	3145.4	3141.1	3110.2	3110.2	3136.6	3141.1	3114.5
12.5°	2987.0	2965.1	2965.1	2960.6	2956.1	2982.7	2987.0	2973.9
15°	2841.9	2833.1	2811.0	2806.7	2780.3	2819.8	2824.3	2819.8
17.5°	2665.9	2670.2	2648.3	2648.3	2665.9	2679.0	2643.8	2679.0
20°	2547.1	2525.1	2516.3	2476.7	2498.7	2520.8	2520.8	2525.1
22.5°	2375.5	2340.3	2353.6	2331.5	2318.3	2349.1	2349.1	2362.4
25°	2181.9	2181.9	2190.7	2177.6	2186.4	2204.0	2190.7	2221.6
27.5°	1997.2	2014.8	2014.8	1997.2	2006.0	2058.7	2080.8	2045.6
30°	1825.7	1830.0	1843.3	1834.5	1860.9	1878.4	1874.0	1900.5
32.5°	1632.1	1654.0	1662.8	1649.7	1658.5	1698.0	1676.1	1671.6
35°	1482.5	1442.9	1438.6	1442.9	1460.5	1469.3	1460.5	1491.3
37.5°	1266.9	1253.7	1236.1	1240.6	1253.7	1271.4	1280.2	1302.1
40°	1060.1	1042.5	1042.5	1038.2	1025.0	1073.4	1073.4	1073.4
42.5°	879.8	875.4	853.5	853.5	871.1	884.2	875.4	906.2
45°	721.5	703.9	690.6	690.6	703.9	703.9	717.1	712.7
47.5°	567.5	550.0	554.3	541.2	554.3	571.9	550.0	554.3
50°	426.7	426.7	417.9	426.7	422.3	426.7	417.9	409.2
52.5°	290.4	329.9	334.4	316.8	277.1	242.0	219.9	237.5
55°	167.2	149.6	149.6	145.1	136.3	132.0	118.7	132.0
57.5°	83.6	74.8	74.8	74.8	70.3	66.0	57.2	57.2
60°	35.2	30.9	30.9	26.4	22.1	17.6	13.3	17.6
62.5°	13.3	8.8	8.8	8.8	8.8	8.8	8.8	8.8
65°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
67.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
70°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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)