

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 EX4C709030 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 EX4C709030 4LBSQLWWLI
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Summary

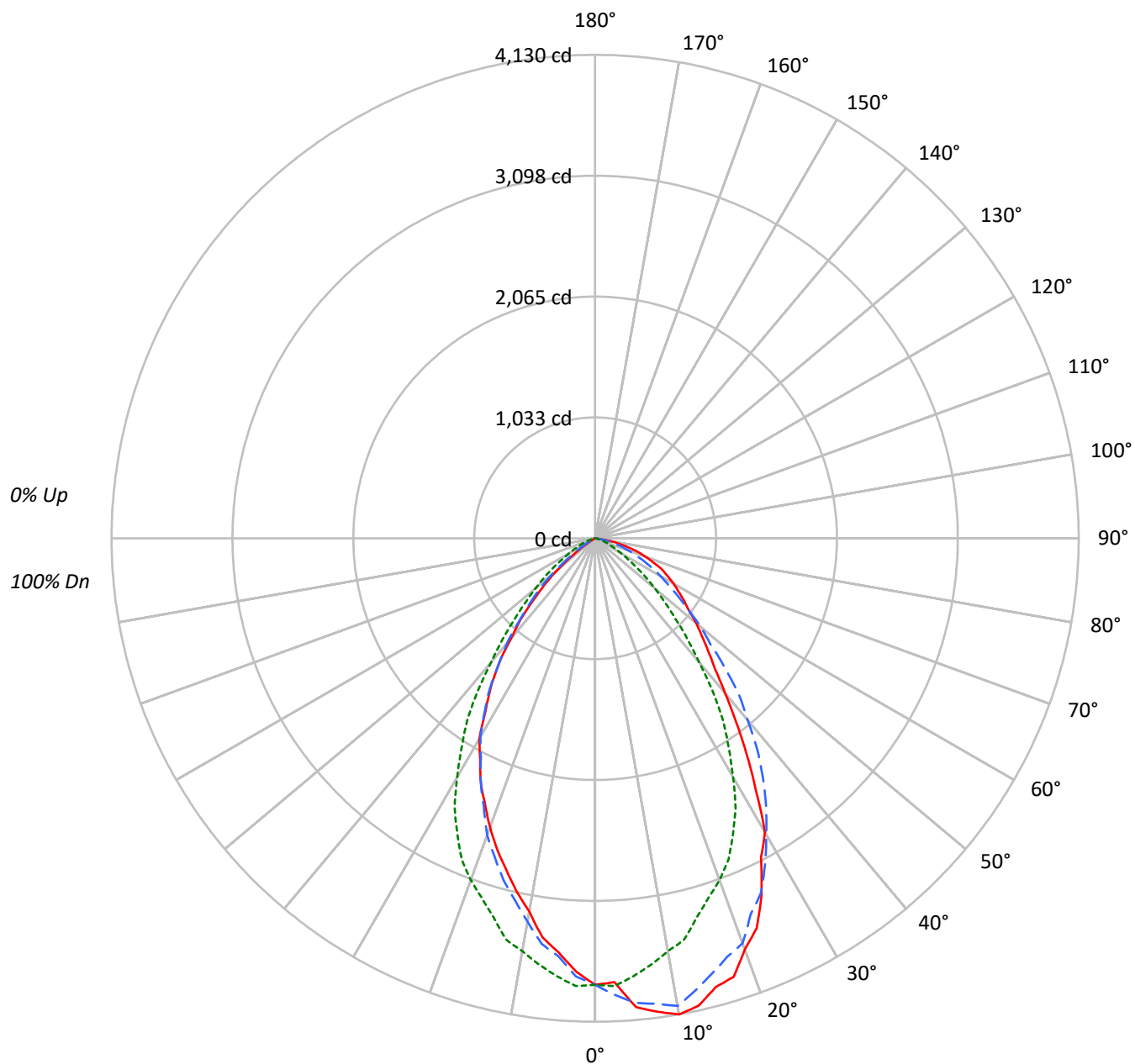
Lumens per Lamp: N/A
Luminaire Lumens: 5468.0 lumens
Efficiency: N/A
Efficacy: 70.1 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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	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°	368067	368067	368067
5°	389415	363729	344231
10°	404676	350906	317280
15°	396584	334900	292875
20°	383720	318897	269580
25°	357920	296555	245921
30°	323106	262451	220158
35°	266149	224675	182647
40°	217201	173418	140568
45°	186617	131707	101114
50°	168904	100259	63857
55°	155421	72319	23097
60°	149191	49422	3531
65°	144088	33425	1073
70°	129011	23218	1326
75°	105765	11967	0
80°	66123	5056	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	357.4	6.5
10°-20°	962.9	17.6
20°-30°	1285.8	23.5
30°-40°	1220.6	22.3
40°-50°	843.7	15.4
50°-60°	466.2	8.5
60°-70°	231.5	4.2
70°-80°	91.2	1.7
80°-90°	8.7	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°	2606.1	47.7
0°-40°	3826.7	70.0
0°-60°	5136.6	93.9
0°-90°	5468.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5468.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3815	3815	3815	3815	3815	
5°	4020	3984	3755	3586	3554	385
15°	3970	3851	3353	3023	2932	1123
25°	3362	3348	2786	2310	2310	1533
35°	2260	2497	1907	1569	1551	1416
45°	1368	1569	965	791	741	1067
55°	924	869	430	220	137	832
65°	631	457	146	5	5	613
75°	284	174	32	0	0	302
85°	0	5	0	0	0	26
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°	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6
2.5°	3796.3	3901.5	3910.7	3901.5	3915.3	3910.7	3933.6	3910.7	3938.2	3897.0	3906.2
5°	4020.5	3979.3	4066.2	4020.5	4020.5	4016.0	4002.2	3997.6	4016.0	3956.5	3983.9
7.5°	4080.0	4139.5	4217.3	4121.2	4125.7	4125.7	4098.3	4089.1	4089.1	3979.3	4011.4
10°	4130.3	4093.6	4134.8	4098.3	4130.3	4125.7	4144.0	4084.5	4125.7	4061.7	4057.1
12.5°	4089.1	4075.3	4130.3	4070.9	4052.6	4057.1	4034.3	4020.5	4034.3	3961.0	3956.5
15°	3970.1	3983.9	4066.2	4002.2	3993.1	3983.9	3956.5	3910.7	3947.4	3846.7	3851.3
17.5°	3929.1	3906.2	3920.0	3865.0	3878.8	3869.6	3865.0	3823.9	3814.6	3750.6	3750.6
20°	3737.0	3787.2	3787.2	3750.6	3750.6	3746.1	3686.7	3723.2	3682.0	3663.7	3682.0
22.5°	3604.2	3608.9	3608.9	3576.8	3581.5	3563.2	3531.1	3508.2	3531.1	3508.2	3471.6
25°	3361.9	3371.1	3425.9	3366.4	3357.3	3375.6	3348.1	3334.3	3329.9	3275.0	3348.1
27.5°	3069.1	3160.5	3156.0	3133.1	3160.5	3124.0	3110.4	3114.8	3128.6	3124.0	3142.2
30°	2900.0	2913.6	2927.4	2909.1	2913.6	2900.0	2900.0	2904.5	2941.0	2927.4	2922.7
32.5°	2556.8	2602.5	2639.2	2639.2	2643.7	2657.5	2652.9	2748.9	2771.8	2726.1	2717.0
35°	2259.5	2291.6	2323.5	2328.1	2387.6	2392.1	2396.8	2424.2	2488.2	2502.0	2497.3
37.5°	1976.0	2007.9	2017.1	2058.3	2090.4	2122.2	2159.0	2195.5	2250.4	2296.1	2273.3
40°	1724.4	1738.0	1761.0	1779.3	1843.2	1843.2	1861.5	1934.8	1994.3	2030.9	2026.2
42.5°	1514.0	1518.5	1536.8	1568.9	1628.4	1614.6	1628.4	1678.7	1765.5	1770.1	1820.5
45°	1367.6	1363.0	1376.8	1381.3	1418.0	1436.3	1445.4	1482.0	1555.1	1564.2	1568.9
47.5°	1235.0	1230.4	1253.3	1262.5	1276.1	1294.4	1294.4	1299.0	1326.4	1349.4	1331.1
50°	1125.2	1125.2	1125.2	1134.3	1157.3	1152.6	1157.3	1175.5	1189.2	1180.0	1175.5
52.5°	1006.2	1024.5	1038.3	1042.9	1047.4	1047.4	1052.1	1042.9	1038.3	1024.5	997.1
55°	923.9	942.2	942.2	942.2	942.2	960.5	937.7	942.2	942.2	905.7	869.1
57.5°	841.7	860.0	873.6	855.3	873.6	855.3	846.2	841.7	832.4	795.8	741.0
60°	773.1	782.2	777.5	773.1	782.2	768.4	759.3	741.0	731.8	681.5	644.9
62.5°	695.3	699.8	704.4	695.3	686.2	681.5	663.2	635.8	617.5	576.3	544.2
65°	631.1	617.5	612.9	608.4	599.2	585.4	571.8	539.7	525.9	489.4	457.3
67.5°	535.1	530.6	539.7	525.9	503.2	503.2	489.4	462.0	429.9	407.1	375.1
70°	457.3	452.8	443.7	429.9	425.4	407.1	407.1	375.1	365.9	324.7	297.3
72.5°	375.1	375.1	361.3	347.6	333.8	324.7	320.2	297.3	283.7	260.7	237.8
75°	283.7	283.7	279.0	265.2	256.1	246.9	242.5	224.2	210.4	187.6	173.8
77.5°	201.2	201.2	183.0	173.8	178.3	169.2	160.0	155.5	150.9	137.3	119.0
80°	119.0	114.3	100.7	105.2	100.7	100.7	96.1	91.4	82.3	73.1	64.0
82.5°	32.1	36.6	36.6	36.6	41.2	32.1	32.1	32.1	36.6	36.6	22.9
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	4.7	4.7
87.5°	4.7	9.1	18.3	18.3	18.3	18.3	18.3	13.8	13.8	13.8	9.1
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°	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6
2.5°	3860.5	3855.8	3860.5	3828.4	3901.5	3846.7	3837.5	3828.4	3860.5	3828.4	3782.7
5°	3942.7	3897.0	3883.2	3869.6	3910.7	3846.7	3833.1	3837.5	3814.6	3755.3	3759.8
7.5°	3970.1	3929.1	3887.9	3801.0	3837.5	3823.9	3787.2	3759.8	3723.2	3672.9	3663.7
10°	3979.3	3933.6	3874.1	3846.7	3791.8	3773.6	3759.8	3714.1	3668.4	3581.5	3558.5
12.5°	3951.9	3897.0	3823.9	3801.0	3759.8	3700.3	3668.4	3622.5	3581.5	3512.8	3462.5
15°	3833.1	3787.2	3764.4	3686.7	3668.4	3631.6	3567.7	3503.7	3444.2	3352.6	3325.2
17.5°	3695.8	3677.5	3654.6	3595.1	3590.6	3554.0	3494.6	3439.5	3361.9	3220.0	3174.3
20°	3554.0	3554.0	3480.8	3458.0	3503.7	3430.4	3384.7	3334.3	3174.3	3105.7	3023.4
22.5°	3448.9	3398.5	3357.3	3320.7	3325.2	3279.5	3215.5	3114.8	3055.3	2973.1	2877.0
25°	3243.0	3261.2	3169.8	3156.0	3169.8	3064.5	3032.6	2950.1	2863.2	2785.5	2712.4
27.5°	3114.8	3064.5	3005.2	2954.8	2954.8	2913.6	2822.2	2803.9	2671.1	2598.0	2506.5
30°	2922.7	2886.2	2835.8	2762.7	2753.6	2721.5	2648.4	2602.5	2465.4	2355.6	2305.2
32.5°	2680.3	2666.7	2625.4	2543.2	2515.8	2479.0	2387.6	2309.9	2245.9	2122.2	2062.9
35°	2506.5	2456.3	2369.4	2300.7	2277.8	2213.8	2140.5	2085.7	2017.1	1907.4	1829.6
37.5°	2245.9	2195.5	2113.1	2030.9	2030.9	1966.9	1866.2	1811.3	1715.3	1651.1	1587.2
40°	2017.1	1953.1	1870.8	1774.8	1761.0	1669.4	1628.4	1536.8	1477.3	1376.8	1367.6
42.5°	1761.0	1701.5	1628.4	1555.1	1500.3	1454.6	1349.4	1280.7	1216.8	1166.4	1152.6
45°	1527.7	1449.9	1385.9	1294.4	1239.5	1184.7	1116.0	1070.4	1020.0	965.2	933.1
47.5°	1326.4	1262.5	1170.9	1088.6	1033.8	1006.2	928.4	878.3	837.0	800.5	777.5
50°	1120.7	1042.9	992.6	901.0	891.9	827.9	763.9	722.7	699.8	667.9	635.8
52.5°	965.2	891.9	823.2	754.8	718.0	695.3	635.8	594.6	562.7	539.7	521.5
55°	814.1	750.1	695.3	626.7	603.7	571.8	503.2	494.1	462.0	429.9	407.1
57.5°	699.8	640.3	576.3	530.6	489.4	466.6	411.6	375.1	356.8	329.4	306.4
60°	594.6	530.6	480.3	425.4	407.1	375.1	333.8	301.9	279.0	256.1	233.3
62.5°	498.5	443.7	388.9	343.0	315.6	297.3	265.2	237.8	215.0	196.8	178.3
65°	411.6	361.3	315.6	269.9	256.1	233.3	210.4	187.6	169.2	146.4	128.1
67.5°	338.5	292.8	246.9	215.0	201.2	192.1	164.7	141.7	128.1	114.3	96.1
70°	265.2	233.3	196.8	169.2	155.5	141.7	123.5	109.8	91.4	82.3	68.6
72.5°	205.9	178.3	146.4	123.5	114.3	105.2	86.9	73.1	64.0	54.8	45.7
75°	146.4	123.5	105.2	82.3	77.8	73.1	59.5	50.4	41.2	32.1	27.4
77.5°	100.7	82.3	64.0	54.8	50.4	41.2	36.6	27.4	22.9	18.3	13.8
80°	54.8	41.2	32.1	27.4	22.9	18.3	18.3	13.8	9.1	9.1	4.7
82.5°	18.3	13.8	9.1	4.7	4.7	4.7	4.7	4.7	4.7	0.0	4.7
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°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	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°	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6
2.5°	3810.1	3759.8	3773.6	3773.6	3764.4	3764.4	3755.3	3741.5	3746.1	3718.6	3659.2
5°	3768.9	3704.9	3695.8	3704.9	3668.4	3659.2	3641.0	3668.4	3585.9	3618.0	3581.5
7.5°	3650.1	3590.6	3576.8	3608.9	3563.2	3535.6	3531.1	3567.7	3494.6	3458.0	3416.8
10°	3517.3	3494.6	3453.3	3430.4	3416.8	3421.3	3384.7	3339.0	3325.2	3316.1	3279.5
12.5°	3398.5	3348.1	3311.6	3284.2	3275.0	3275.0	3215.5	3206.4	3165.2	3156.0	3101.2
15°	3256.6	3197.3	3174.3	3137.8	3105.7	3124.0	3055.3	3037.1	3023.4	2963.9	2973.1
17.5°	3133.1	3069.1	3014.3	2991.4	2963.9	2936.5	2872.4	2886.2	2854.1	2854.1	2771.8
20°	2973.1	2904.5	2863.2	2817.5	2817.5	2781.0	2735.3	2739.8	2698.6	2657.5	2584.2
22.5°	2803.9	2730.6	2680.3	2662.0	2616.3	2607.2	2552.3	2538.5	2483.7	2488.2	2424.2
25°	2625.4	2552.3	2483.7	2488.2	2447.1	2428.9	2396.8	2332.8	2309.9	2282.5	2264.2
27.5°	2415.1	2364.7	2305.2	2300.7	2223.0	2227.4	2186.4	2168.1	2113.1	2126.9	2085.7
30°	2223.0	2149.8	2094.8	2081.2	2049.1	2040.0	1976.0	1948.4	1957.7	1921.0	1898.3
32.5°	2026.2	1916.5	1893.6	1866.2	1847.9	1825.0	1779.3	1797.5	1756.3	1765.5	1728.9
35°	1765.5	1719.8	1660.3	1660.3	1642.0	1623.7	1591.8	1610.1	1568.9	1550.6	1514.0
37.5°	1545.9	1504.9	1445.4	1463.7	1431.6	1404.2	1376.8	1381.3	1344.7	1340.2	1303.5
40°	1308.2	1285.2	1244.2	1244.2	1221.2	1221.2	1207.4	1193.8	1170.9	1143.5	1102.3
42.5°	1084.0	1065.7	1047.4	1052.1	1020.0	1047.4	1010.9	1033.8	960.5	956.0	928.4
45°	919.3	878.3	882.7	864.5	846.2	855.3	823.2	832.4	791.3	782.2	754.8
47.5°	745.6	731.8	704.4	695.3	695.3	681.5	667.9	663.2	644.9	622.0	585.4
50°	612.9	562.7	553.4	539.7	530.6	530.6	512.3	484.9	489.4	466.6	429.9
52.5°	480.3	439.0	420.8	416.3	398.0	388.9	365.9	347.6	333.8	324.7	301.9
55°	370.4	333.8	311.1	311.1	283.7	283.7	251.6	237.8	219.5	201.2	187.6
57.5°	279.0	260.7	237.8	219.5	210.4	187.6	169.2	146.4	132.6	105.2	86.9
60°	210.4	192.1	169.2	155.5	146.4	123.5	100.7	82.3	50.4	41.2	36.6
62.5°	155.5	137.3	114.3	105.2	96.1	77.8	54.8	27.4	13.8	13.8	13.8
65°	114.3	91.4	73.1	64.0	54.8	41.2	18.3	9.1	4.7	4.7	4.7
67.5°	77.8	59.5	41.2	36.6	27.4	13.8	4.7	4.7	4.7	4.7	4.7
70°	50.4	36.6	18.3	13.8	9.1	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	32.1	18.3	9.1	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	18.3	9.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	9.1	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.7	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	4.7	4.7	4.7
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 EX4C709030 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6	3814.6
2.5°	3723.2	3691.1	3709.4	3668.4	3686.7	3718.6	3695.8	3704.9
5°	3595.1	3576.8	3554.0	3494.6	3540.2	3576.8	3558.5	3554.0
7.5°	3458.0	3393.8	3425.9	3407.6	3398.5	3435.1	3393.8	3439.5
10°	3316.1	3270.4	3265.9	3233.8	3233.8	3261.2	3265.9	3238.3
12.5°	3105.7	3082.9	3082.9	3078.3	3073.6	3101.2	3105.7	3092.1
15°	2954.8	2945.7	2922.7	2918.3	2890.8	2931.9	2936.5	2931.9
17.5°	2771.8	2776.3	2753.6	2753.6	2771.8	2785.5	2748.9	2785.5
20°	2648.4	2625.4	2616.3	2575.1	2598.0	2621.0	2621.0	2625.4
22.5°	2469.9	2433.3	2447.1	2424.2	2410.4	2442.5	2442.5	2456.3
25°	2268.7	2268.7	2277.8	2264.2	2273.3	2291.6	2277.8	2309.9
27.5°	2076.6	2094.8	2094.8	2076.6	2085.7	2140.5	2163.5	2126.9
30°	1898.3	1902.7	1916.5	1907.4	1934.8	1953.1	1948.4	1976.0
32.5°	1697.0	1719.8	1728.9	1715.3	1724.4	1765.5	1742.7	1738.0
35°	1541.5	1500.3	1495.8	1500.3	1518.5	1527.7	1518.5	1550.6
37.5°	1317.3	1303.5	1285.2	1289.9	1303.5	1321.9	1331.1	1353.8
40°	1102.3	1084.0	1084.0	1079.5	1065.7	1116.0	1116.0	1116.0
42.5°	914.8	910.1	887.4	887.4	905.7	919.3	910.1	942.2
45°	750.1	731.8	718.0	718.0	731.8	731.8	745.6	741.0
47.5°	590.1	571.8	576.3	562.7	576.3	594.6	571.8	576.3
50°	443.7	443.7	434.6	443.7	439.0	443.7	434.6	425.4
52.5°	301.9	343.0	347.6	329.4	288.2	251.6	228.7	246.9
55°	173.8	155.5	155.5	150.9	141.7	137.3	123.5	137.3
57.5°	86.9	77.8	77.8	77.8	73.1	68.6	59.5	59.5
60°	36.6	32.1	32.1	27.4	22.9	18.3	13.8	18.3
62.5°	13.8	9.1	9.1	9.1	9.1	9.1	9.1	9.1
65°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
67.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
70°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
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)