

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 EX4C709035 4LBSQLWWLI**

Issue Date: 2/18/2022

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



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 EX4C709035 4LBSQLWWLI
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

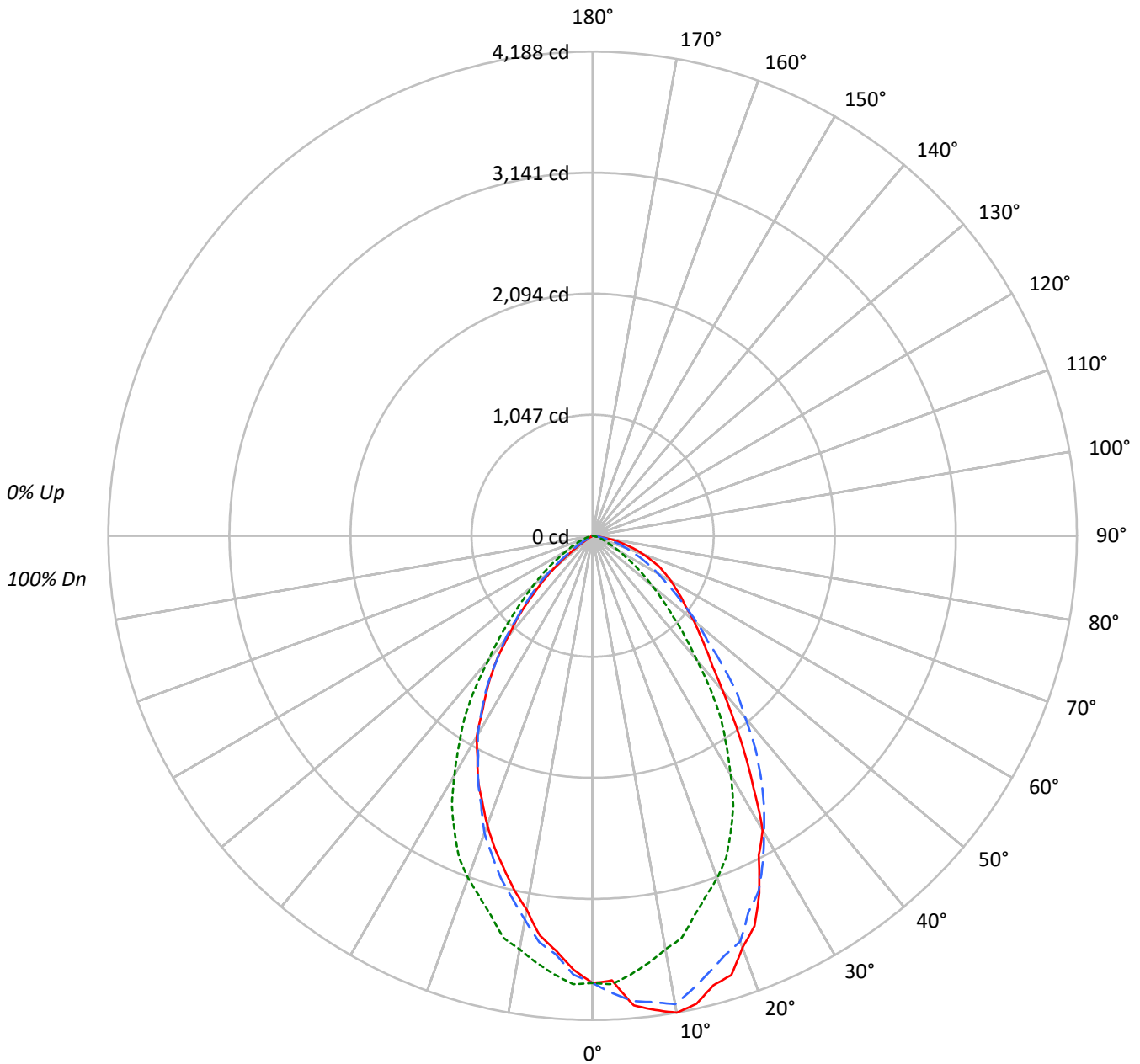
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5545.0 lumens
Efficiency: N/A
Efficacy: 71.1 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	0
RW	70	50	30	10	70	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°	373248	373248	373248
5°	394898	368853	349084
10°	410378	355844	321748
15°	402178	339615	297001
20°	389121	323385	273379
25°	362967	300728	249381
30°	327652	266139	223255
35°	269895	227843	185215
40°	220262	175862	142558
45°	189251	133563	102533
50°	171276	101670	64757
55°	157625	73345	23417
60°	151275	50116	3570
65°	146120	33904	1073
70°	130845	23528	1326
75°	107256	12116	0
80°	67068	5168	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	362.4	6.5
10°-20°	976.5	17.6
20°-30°	1303.9	23.5
30°-40°	1237.8	22.3
40°-50°	855.6	15.4
50°-60°	472.7	8.5
60°-70°	234.8	4.2
70°-80°	92.5	1.7
80°-90°	8.8	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°	2642.8	47.7
0°-40°	3880.6	70.0
0°-60°	5208.9	93.9
0°-90°	5545.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5545.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3868	3868	3868	3868	3868	
5°	4077	4040	3808	3636	3604	390
15°	4026	3906	3400	3066	2973	1139
25°	3409	3395	2825	2342	2342	1554
35°	2291	2532	1934	1591	1572	1435
45°	1387	1591	979	802	751	1082
55°	937	881	436	223	139	843
65°	640	464	148	5	5	621
75°	288	176	32	0	0	307
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°	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3
2.5°	3849.8	3956.5	3965.7	3956.5	3970.4	3965.7	3989.0	3965.7	3993.7	3951.9	3961.2
5°	4077.1	4035.3	4123.5	4077.1	4077.1	4072.6	4058.6	4053.9	4072.6	4012.2	4040.0
7.5°	4137.4	4197.8	4276.6	4179.2	4183.8	4183.8	4156.0	4146.7	4146.7	4035.3	4067.8
10°	4188.5	4151.3	4193.1	4156.0	4188.5	4183.8	4202.3	4142.0	4183.8	4118.9	4114.2
12.5°	4146.7	4132.7	4188.5	4128.2	4109.6	4114.2	4091.1	4077.1	4091.1	4016.8	4012.2
15°	4026.1	4040.0	4123.5	4058.6	4049.3	4040.0	4012.2	3965.7	4003.0	3900.8	3905.6
17.5°	3984.4	3961.2	3975.2	3919.4	3933.4	3924.1	3919.4	3877.8	3868.3	3803.4	3803.4
20°	3789.6	3840.5	3840.5	3803.4	3803.4	3798.9	3738.6	3775.6	3733.8	3715.3	3733.8
22.5°	3655.0	3659.7	3659.7	3627.2	3631.9	3613.4	3580.8	3557.6	3580.8	3557.6	3520.5
25°	3409.3	3418.6	3474.2	3413.8	3404.6	3423.1	3395.3	3381.3	3376.8	3321.2	3395.3
27.5°	3112.4	3205.0	3200.5	3177.2	3205.0	3168.0	3154.2	3158.7	3172.7	3168.0	3186.5
30°	2940.8	2954.6	2968.6	2950.1	2954.6	2940.8	2940.8	2945.4	2982.4	2968.6	2963.9
32.5°	2592.8	2639.2	2676.4	2676.4	2680.9	2694.9	2690.2	2787.6	2810.9	2764.5	2755.3
35°	2291.3	2323.9	2356.2	2360.9	2421.3	2425.8	2430.5	2458.3	2523.2	2537.2	2532.5
37.5°	2003.8	2036.2	2045.5	2087.3	2119.8	2152.1	2189.4	2226.5	2282.1	2328.4	2305.3
40°	1748.7	1762.5	1785.8	1804.3	1869.2	1869.2	1887.7	1962.1	2022.4	2059.5	2054.7
42.5°	1535.4	1539.9	1558.4	1591.0	1651.3	1637.3	1651.3	1702.4	1790.3	1795.1	1846.1
45°	1386.9	1382.2	1396.2	1400.7	1438.0	1456.5	1465.8	1502.8	1577.0	1586.3	1591.0
47.5°	1252.4	1247.7	1271.0	1280.2	1294.0	1312.6	1312.6	1317.3	1345.1	1368.4	1349.8
50°	1141.0	1141.0	1141.0	1150.3	1173.6	1168.8	1173.6	1192.1	1205.9	1196.6	1192.1
52.5°	1020.4	1038.9	1052.9	1057.6	1062.2	1062.2	1066.9	1057.6	1052.9	1038.9	1011.1
55°	937.0	955.5	955.5	955.5	955.5	974.0	951.0	955.5	955.5	918.4	881.4
57.5°	853.5	872.1	885.9	867.4	885.9	867.4	858.1	853.5	844.1	807.0	751.4
60°	783.9	793.2	788.5	783.9	793.2	779.2	770.0	751.4	742.2	691.1	654.0
62.5°	705.1	709.6	714.3	705.1	695.8	691.1	672.6	644.8	626.2	584.4	551.9
65°	640.0	626.2	621.5	616.9	607.7	593.7	579.9	547.3	533.4	496.3	463.8
67.5°	542.6	538.1	547.3	533.4	510.3	510.3	496.3	468.5	436.0	412.9	380.3
70°	463.8	459.2	449.9	436.0	431.4	412.9	412.9	380.3	371.1	329.3	301.5
72.5°	380.3	380.3	366.4	352.5	338.5	329.3	324.7	301.5	287.7	264.4	241.1
75°	287.7	287.7	282.9	268.9	259.7	250.4	245.9	227.3	213.3	190.3	176.3
77.5°	204.1	204.1	185.5	176.3	180.8	171.5	162.3	157.7	153.0	139.2	120.7
80°	120.7	115.9	102.1	106.7	102.1	102.1	97.4	92.7	83.4	74.1	64.9
82.5°	32.5	37.1	37.1	37.1	41.8	32.5	32.5	32.5	37.1	37.1	23.3
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	9.3	18.5	18.5	18.5	18.5	18.5	14.0	14.0	14.0	9.3
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°	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3
2.5°	3914.8	3910.1	3914.8	3882.3	3956.5	3900.8	3891.6	3882.3	3914.8	3882.3	3836.0
5°	3998.3	3951.9	3937.9	3924.1	3965.7	3900.8	3887.0	3891.6	3868.3	3808.2	3812.7
7.5°	4026.1	3984.4	3942.6	3854.5	3891.6	3877.8	3840.5	3812.7	3775.6	3724.6	3715.3
10°	4035.3	3989.0	3928.7	3900.8	3845.2	3826.7	3812.7	3766.4	3720.0	3631.9	3608.6
12.5°	4007.5	3951.9	3877.8	3854.5	3812.7	3752.4	3720.0	3673.5	3631.9	3562.3	3511.2
15°	3887.0	3840.5	3817.4	3738.6	3720.0	3682.8	3617.9	3553.0	3492.7	3399.8	3372.0
17.5°	3747.8	3729.3	3706.0	3645.7	3641.2	3604.1	3543.8	3488.0	3409.3	3265.4	3219.0
20°	3604.1	3604.1	3529.8	3506.7	3553.0	3478.7	3432.4	3381.3	3219.0	3149.4	3066.0
22.5°	3497.4	3446.4	3404.6	3367.5	3372.0	3325.7	3260.8	3158.7	3098.4	3015.0	2917.5
25°	3288.6	3307.2	3214.5	3200.5	3214.5	3107.6	3075.3	2991.7	2903.6	2824.7	2750.5
27.5°	3158.7	3107.6	3047.5	2996.4	2996.4	2954.6	2861.9	2843.4	2708.7	2634.6	2541.7
30°	2963.9	2926.8	2875.8	2801.6	2792.3	2759.8	2685.7	2639.2	2500.1	2388.7	2337.7
32.5°	2718.0	2704.2	2662.4	2579.0	2551.2	2513.9	2421.3	2342.4	2277.5	2152.1	2092.0
35°	2541.7	2490.9	2402.7	2333.1	2309.9	2245.0	2170.7	2115.1	2045.5	1934.3	1855.4
37.5°	2277.5	2226.5	2142.9	2059.5	2059.5	1994.6	1892.5	1836.8	1739.4	1674.4	1609.5
40°	2045.5	1980.6	1897.2	1799.8	1785.8	1692.9	1651.3	1558.4	1498.1	1396.2	1386.9
42.5°	1785.8	1725.5	1651.3	1577.0	1521.4	1475.0	1368.4	1298.8	1233.9	1182.8	1168.8
45°	1549.2	1470.3	1405.4	1312.6	1257.0	1201.4	1131.8	1085.4	1034.4	978.8	946.2
47.5°	1345.1	1280.2	1187.4	1104.0	1048.4	1020.4	941.5	890.6	848.8	811.8	788.5
50°	1136.5	1057.6	1006.6	913.7	904.4	839.6	774.7	732.9	709.6	677.3	644.8
52.5°	978.8	904.4	834.8	765.4	728.2	705.1	644.8	603.0	570.6	547.3	528.8
55°	825.6	760.7	705.1	635.5	612.2	579.9	510.3	501.0	468.5	436.0	412.9
57.5°	709.6	649.3	584.4	538.1	496.3	473.2	417.4	380.3	361.8	334.0	310.7
60°	603.0	538.1	487.0	431.4	412.9	380.3	338.5	306.2	282.9	259.7	236.6
62.5°	505.6	449.9	394.3	347.8	320.0	301.5	268.9	241.1	218.1	199.5	180.8
65°	417.4	366.4	320.0	273.7	259.7	236.6	213.3	190.3	171.5	148.5	129.9
67.5°	343.3	296.9	250.4	218.1	204.1	194.8	167.0	143.7	129.9	115.9	97.4
70°	268.9	236.6	199.5	171.5	157.7	143.7	125.2	111.4	92.7	83.4	69.6
72.5°	208.8	180.8	148.5	125.2	115.9	106.7	88.1	74.1	64.9	55.6	46.3
75°	148.5	125.2	106.7	83.4	78.9	74.1	60.3	51.1	41.8	32.5	27.8
77.5°	102.1	83.4	64.9	55.6	51.1	41.8	37.1	27.8	23.3	18.5	14.0
80°	55.6	41.8	32.5	27.8	23.3	18.5	18.5	14.0	9.3	9.3	4.7
82.5°	18.5	14.0	9.3	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°	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3
2.5°	3863.8	3812.7	3826.7	3826.7	3817.4	3817.4	3808.2	3794.2	3798.9	3770.9	3710.8
5°	3822.0	3757.1	3747.8	3757.1	3720.0	3710.8	3692.2	3720.0	3636.4	3669.0	3631.9
7.5°	3701.5	3641.2	3627.2	3659.7	3613.4	3585.4	3580.8	3617.9	3543.8	3506.7	3464.9
10°	3566.8	3543.8	3502.0	3478.7	3464.9	3469.4	3432.4	3386.0	3372.0	3362.8	3325.7
12.5°	3446.4	3395.3	3358.2	3330.4	3321.2	3321.2	3260.8	3251.6	3209.8	3200.5	3144.9
15°	3302.4	3242.3	3219.0	3182.0	3149.4	3168.0	3098.4	3079.8	3066.0	3005.7	3015.0
17.5°	3177.2	3112.4	3056.7	3033.5	3005.7	2977.9	2912.8	2926.8	2894.3	2894.3	2810.9
20°	3015.0	2945.4	2903.6	2857.2	2857.2	2820.1	2773.8	2778.3	2736.6	2694.9	2620.6
22.5°	2843.4	2769.1	2718.0	2699.5	2653.1	2643.9	2588.3	2574.3	2518.7	2523.2	2458.3
25°	2662.4	2588.3	2518.7	2523.2	2481.6	2463.1	2430.5	2365.7	2342.4	2314.6	2296.1
27.5°	2449.1	2398.0	2337.7	2333.1	2254.3	2258.8	2217.2	2198.7	2142.9	2156.9	2115.1
30°	2254.3	2180.1	2124.3	2110.5	2078.0	2068.7	2003.8	1975.9	1985.3	1948.1	1925.0
32.5°	2054.7	1943.5	1920.3	1892.5	1873.9	1850.7	1804.3	1822.9	1781.1	1790.3	1753.3
35°	1790.3	1744.0	1683.7	1683.7	1665.1	1646.6	1614.2	1632.8	1591.0	1572.4	1535.4
37.5°	1567.7	1526.1	1465.8	1484.3	1451.8	1424.0	1396.2	1400.7	1363.6	1359.1	1321.8
40°	1326.6	1303.3	1261.7	1261.7	1238.4	1238.4	1224.4	1210.6	1187.4	1159.6	1117.8
42.5°	1099.2	1080.7	1062.2	1066.9	1034.4	1062.2	1025.1	1048.4	974.0	969.5	941.5
45°	932.2	890.6	895.2	876.6	858.1	867.4	834.8	844.1	802.5	793.2	765.4
47.5°	756.1	742.2	714.3	705.1	705.1	691.1	677.3	672.6	654.0	630.8	593.7
50°	621.5	570.6	561.2	547.3	538.1	538.1	519.5	491.7	496.3	473.2	436.0
52.5°	487.0	445.2	426.7	422.1	403.6	394.3	371.1	352.5	338.5	329.3	306.2
55°	375.6	338.5	315.5	315.5	287.7	287.7	255.1	241.1	222.6	204.1	190.3
57.5°	282.9	264.4	241.1	222.6	213.3	190.3	171.5	148.5	134.5	106.7	88.1
60°	213.3	194.8	171.5	157.7	148.5	125.2	102.1	83.4	51.1	41.8	37.1
62.5°	157.7	139.2	115.9	106.7	97.4	78.9	55.6	27.8	14.0	14.0	14.0
65°	115.9	92.7	74.1	64.9	55.6	41.8	18.5	9.3	4.7	4.7	4.7
67.5°	78.9	60.3	41.8	37.1	27.8	14.0	4.7	4.7	4.7	4.7	4.7
70°	51.1	37.1	18.5	14.0	9.3	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	32.5	18.5	9.3	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	18.5	9.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	9.3	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 EX4C709035 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3	3868.3
2.5°	3775.6	3743.1	3761.6	3720.0	3738.6	3770.9	3747.8	3757.1
5°	3645.7	3627.2	3604.1	3543.8	3590.1	3627.2	3608.6	3604.1
7.5°	3506.7	3441.6	3474.2	3455.6	3446.4	3483.4	3441.6	3488.0
10°	3362.8	3316.4	3311.9	3279.4	3279.4	3307.2	3311.9	3283.9
12.5°	3149.4	3126.3	3126.3	3121.6	3116.9	3144.9	3149.4	3135.6
15°	2996.4	2987.1	2963.9	2959.3	2931.5	2973.2	2977.9	2973.2
17.5°	2810.9	2815.4	2792.3	2792.3	2810.9	2824.7	2787.6	2824.7
20°	2685.7	2662.4	2653.1	2611.3	2634.6	2657.9	2657.9	2662.4
22.5°	2504.7	2467.6	2481.6	2458.3	2444.3	2476.9	2476.9	2490.9
25°	2300.6	2300.6	2309.9	2296.1	2305.3	2323.9	2309.9	2342.4
27.5°	2105.8	2124.3	2124.3	2105.8	2115.1	2170.7	2193.9	2156.9
30°	1925.0	1929.5	1943.5	1934.3	1962.1	1980.6	1975.9	2003.8
32.5°	1720.9	1744.0	1753.3	1739.4	1748.7	1790.3	1767.2	1762.5
35°	1563.2	1521.4	1516.8	1521.4	1539.9	1549.2	1539.9	1572.4
37.5°	1335.8	1321.8	1303.3	1308.0	1321.8	1340.6	1349.8	1372.9
40°	1117.8	1099.2	1099.2	1094.7	1080.7	1131.8	1131.8	1131.8
42.5°	927.7	923.0	899.9	899.9	918.4	932.2	923.0	955.5
45°	760.7	742.2	728.2	728.2	742.2	742.2	756.1	751.4
47.5°	598.4	579.9	584.4	570.6	584.4	603.0	579.9	584.4
50°	449.9	449.9	440.7	449.9	445.2	449.9	440.7	431.4
52.5°	306.2	347.8	352.5	334.0	292.2	255.1	231.9	250.4
55°	176.3	157.7	157.7	153.0	143.7	139.2	125.2	139.2
57.5°	88.1	78.9	78.9	78.9	74.1	69.6	60.3	60.3
60°	37.1	32.5	32.5	27.8	23.3	18.5	14.0	18.5
62.5°	14.0	9.3	9.3	9.3	9.3	9.3	9.3	9.3
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)