

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 EX4C709040 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 EX4C709040 4LBSQLWWLI
Description: 4 INCH 7000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Summary

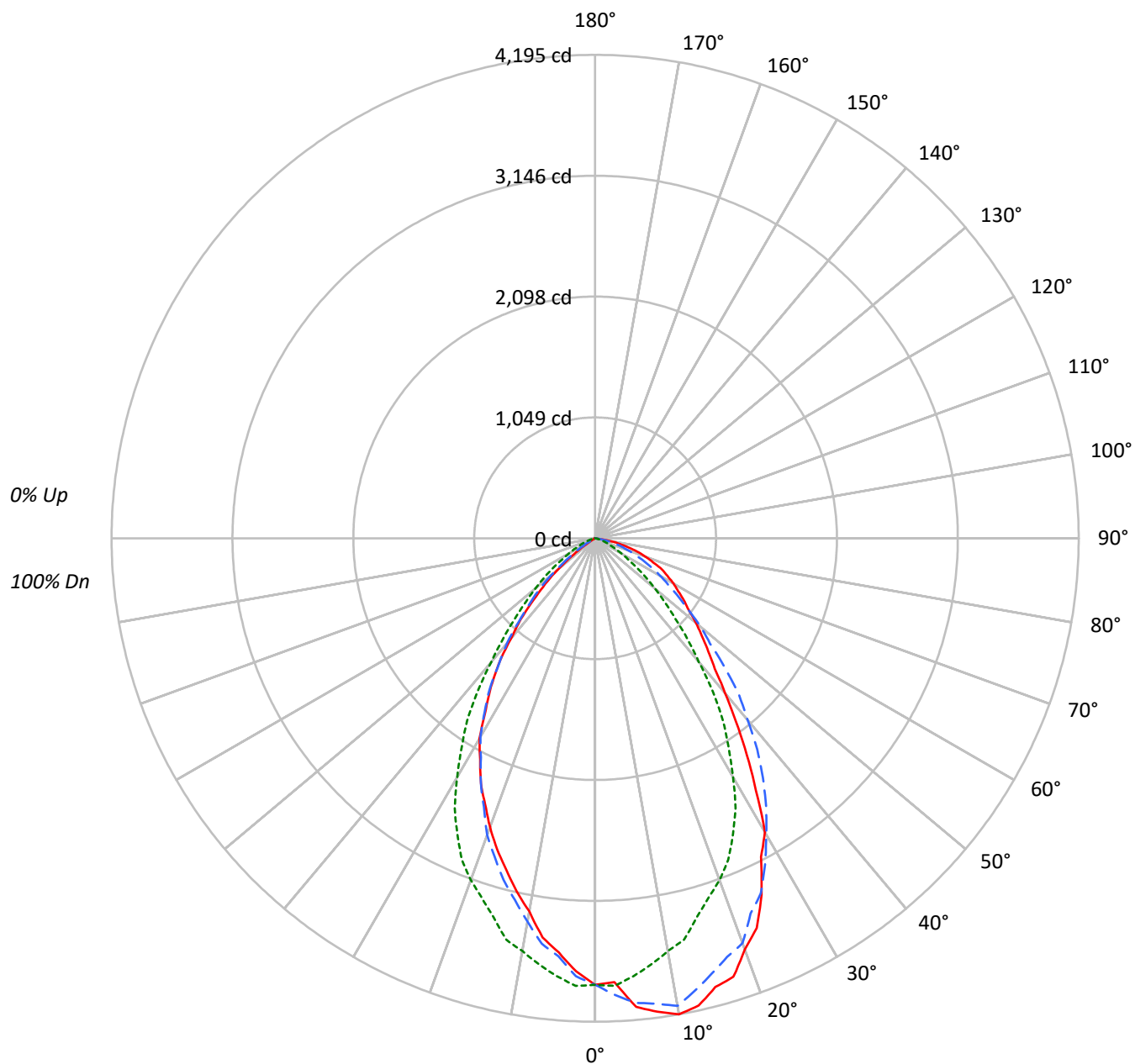
Lumens per Lamp: N/A
Luminaire Lumens: 5553.0 lumens
Efficiency: N/A
Efficacy: 71.2 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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°	373788	373788	373788
5°	395469	369385	349588
10°	410976	356354	322208
15°	402757	340105	297420
20°	389686	323857	273779
25°	363488	301165	249743
30°	328131	266529	223578
35°	270284	228162	185486
40°	220576	176114	142760
45°	189524	133754	102683
50°	171531	101820	64848
55°	157844	73446	23450
60°	151507	50194	3589
65°	146325	33950	1073
70°	131014	23557	1326
75°	107405	12153	0
80°	67123	5168	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	363.0	6.5
10°-20°	977.9	17.6
20°-30°	1305.8	23.5
30°-40°	1239.6	22.3
40°-50°	856.8	15.4
50°-60°	473.4	8.5
60°-70°	235.1	4.2
70°-80°	92.6	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°	2646.6	47.7
0°-40°	3886.2	70.0
0°-60°	5216.5	93.9
0°-90°	5553.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5553.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3874	3874	3874	3874	3874	
5°	4083	4046	3814	3642	3609	391
15°	4032	3911	3405	3070	2977	1141
25°	3414	3400	2829	2346	2346	1556
35°	2295	2536	1937	1593	1575	1438
45°	1389	1593	980	804	752	1083
55°	938	883	437	223	139	845
65°	641	464	149	5	5	622
75°	288	176	33	0	0	307
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°	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9
2.5°	3855.3	3962.2	3971.4	3962.2	3976.2	3971.4	3994.7	3971.4	3999.5	3957.6	3966.9
5°	4083.0	4041.1	4129.4	4083.0	4083.0	4078.5	4064.4	4059.7	4078.5	4018.0	4045.9
7.5°	4143.4	4203.8	4282.8	4185.3	4189.8	4189.8	4162.0	4152.7	4152.7	4041.1	4073.7
10°	4194.6	4157.2	4199.1	4162.0	4194.6	4189.8	4208.4	4148.0	4189.8	4124.9	4120.1
12.5°	4152.7	4138.7	4194.6	4134.1	4115.6	4120.1	4097.0	4083.0	4097.0	4022.6	4018.0
15°	4031.9	4045.9	4129.4	4064.4	4055.2	4045.9	4018.0	3971.4	4008.8	3906.5	3911.2
17.5°	3990.2	3966.9	3980.9	3925.0	3939.1	3929.8	3925.0	3883.4	3873.9	3808.9	3808.9
20°	3795.1	3846.1	3846.1	3808.9	3808.9	3804.4	3744.0	3781.1	3739.2	3720.7	3739.2
22.5°	3660.3	3665.0	3665.0	3632.4	3637.1	3618.6	3586.0	3562.7	3586.0	3562.7	3525.6
25°	3414.2	3423.5	3479.2	3418.8	3409.5	3428.0	3400.2	3386.2	3381.6	3325.9	3400.2
27.5°	3116.8	3209.7	3205.1	3181.8	3209.7	3172.5	3158.7	3163.3	3177.3	3172.5	3191.1
30°	2945.1	2958.9	2972.9	2954.3	2958.9	2945.1	2945.1	2949.6	2986.7	2972.9	2968.2
32.5°	2596.6	2643.0	2680.3	2680.3	2684.8	2698.8	2694.1	2791.6	2814.9	2768.5	2759.2
35°	2294.6	2327.2	2359.6	2364.3	2424.8	2429.3	2434.0	2461.9	2526.9	2540.9	2536.1
37.5°	2006.7	2039.1	2048.4	2090.3	2122.8	2155.2	2192.5	2229.7	2285.4	2331.8	2308.7
40°	1751.2	1765.1	1788.4	1806.9	1871.9	1871.9	1890.5	1964.9	2025.3	2062.4	2057.7
42.5°	1537.6	1542.1	1560.7	1593.3	1653.7	1639.7	1653.7	1704.8	1792.9	1797.6	1848.8
45°	1388.9	1384.2	1398.2	1402.7	1440.0	1458.6	1467.9	1505.0	1579.3	1588.5	1593.3
47.5°	1254.2	1249.5	1272.8	1282.1	1295.9	1314.5	1314.5	1319.2	1347.0	1370.3	1351.8
50°	1142.7	1142.7	1142.7	1152.0	1175.3	1170.5	1175.3	1193.8	1207.6	1198.4	1193.8
52.5°	1021.8	1040.4	1054.4	1059.1	1063.7	1063.7	1068.4	1059.1	1054.4	1040.4	1012.6
55°	938.3	956.9	956.9	956.9	956.9	975.4	952.3	956.9	956.9	919.7	882.6
57.5°	854.8	873.3	887.2	868.6	887.2	868.6	859.3	854.8	845.3	808.2	752.5
60°	785.1	794.4	789.6	785.1	794.4	780.3	771.1	752.5	743.2	692.1	655.0
62.5°	706.1	710.6	715.4	706.1	696.8	692.1	673.5	645.7	627.1	585.3	552.7
65°	640.9	627.1	622.4	617.8	608.6	594.5	580.7	548.1	534.1	497.0	464.4
67.5°	543.4	538.9	548.1	534.1	511.0	511.0	497.0	469.2	436.6	413.5	380.9
70°	464.4	459.9	450.6	436.6	432.0	413.5	413.5	380.9	371.6	329.8	301.9
72.5°	380.9	380.9	366.9	353.0	339.0	329.8	325.2	301.9	288.1	264.8	241.5
75°	288.1	288.1	283.3	269.3	260.1	250.8	246.2	227.7	213.6	190.5	176.5
77.5°	204.4	204.4	185.8	176.5	181.1	171.8	162.5	158.0	153.2	139.4	120.8
80°	120.8	116.1	102.3	106.8	102.3	102.3	97.5	92.8	83.5	74.2	65.0
82.5°	32.6	37.1	37.1	37.1	41.9	32.6	32.6	32.6	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	18.6	18.6	18.6	18.6	18.6	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°	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9
2.5°	3920.5	3915.8	3920.5	3887.9	3962.2	3906.5	3897.2	3887.9	3920.5	3887.9	3841.5
5°	4004.0	3957.6	3943.6	3929.8	3971.4	3906.5	3892.6	3897.2	3873.9	3813.7	3818.2
7.5°	4031.9	3990.2	3948.3	3860.1	3897.2	3883.4	3846.1	3818.2	3781.1	3730.0	3720.7
10°	4041.1	3994.7	3934.3	3906.5	3850.8	3832.2	3818.2	3771.8	3725.4	3637.1	3613.8
12.5°	4013.3	3957.6	3883.4	3860.1	3818.2	3757.8	3725.4	3678.8	3637.1	3567.4	3516.3
15°	3892.6	3846.1	3822.9	3744.0	3725.4	3688.1	3623.1	3558.2	3497.7	3404.7	3376.9
17.5°	3753.2	3734.7	3711.4	3651.0	3646.4	3609.3	3548.9	3493.0	3414.2	3270.1	3223.7
20°	3609.3	3609.3	3534.9	3511.8	3558.2	3483.7	3437.3	3386.2	3223.7	3154.0	3070.4
22.5°	3502.5	3451.3	3409.5	3372.4	3376.9	3330.5	3265.5	3163.3	3102.8	3019.3	2921.8
25°	3293.4	3311.9	3219.1	3205.1	3219.1	3112.1	3079.7	2996.0	2907.7	2828.8	2754.5
27.5°	3163.3	3112.1	3051.9	3000.7	3000.7	2958.9	2866.1	2847.5	2712.7	2638.4	2545.4
30°	2968.2	2931.0	2879.9	2805.7	2796.4	2763.8	2689.5	2643.0	2503.7	2392.2	2341.0
32.5°	2721.9	2708.1	2666.3	2582.7	2554.9	2517.6	2424.8	2345.8	2280.8	2155.2	2095.0
35°	2545.4	2494.5	2406.2	2336.5	2313.2	2248.2	2173.8	2118.1	2048.4	1937.0	1858.1
37.5°	2280.8	2229.7	2146.0	2062.4	2062.4	1997.5	1895.2	1839.5	1742.0	1676.8	1611.8
40°	2048.4	1983.4	1899.9	1802.4	1788.4	1695.4	1653.7	1560.7	1500.3	1398.2	1388.9
42.5°	1788.4	1727.9	1653.7	1579.3	1523.6	1477.2	1370.3	1300.6	1235.7	1184.5	1170.5
45°	1551.4	1472.4	1407.5	1314.5	1258.8	1203.1	1133.4	1087.0	1035.9	980.2	947.6
47.5°	1347.0	1282.1	1189.1	1105.6	1049.9	1021.8	942.9	891.9	850.0	812.9	789.6
50°	1138.1	1059.1	1008.0	915.0	905.7	840.8	775.8	733.9	710.6	678.3	645.7
52.5°	980.2	905.7	836.0	766.5	729.2	706.1	645.7	603.8	571.4	548.1	529.6
55°	826.8	761.8	706.1	636.4	613.1	580.7	511.0	501.7	469.2	436.6	413.5
57.5°	710.6	650.2	585.3	538.9	497.0	473.9	418.0	380.9	362.3	334.5	311.2
60°	603.8	538.9	487.7	432.0	413.5	380.9	339.0	306.6	283.3	260.1	236.9
62.5°	506.3	450.6	394.9	348.3	320.5	301.9	269.3	241.5	218.4	199.8	181.1
65°	418.0	366.9	320.5	274.1	260.1	236.9	213.6	190.5	171.8	148.7	130.1
67.5°	343.8	297.4	250.8	218.4	204.4	195.1	167.2	143.9	130.1	116.1	97.5
70°	269.3	236.9	199.8	171.8	158.0	143.9	125.4	111.6	92.8	83.5	69.7
72.5°	209.1	181.1	148.7	125.4	116.1	106.8	88.3	74.2	65.0	55.7	46.4
75°	148.7	125.4	106.8	83.5	79.0	74.2	60.4	51.1	41.9	32.6	27.8
77.5°	102.3	83.5	65.0	55.7	51.1	41.9	37.1	27.8	23.3	18.6	14.0
80°	55.7	41.9	32.6	27.8	23.3	18.6	18.6	14.0	9.3	9.3	4.7
82.5°	18.6	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



TEST NUMBER: P#

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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9
2.5°	3869.4	3818.2	3832.2	3832.2	3822.9	3822.9	3813.7	3799.7	3804.4	3776.4	3716.1
5°	3827.5	3762.5	3753.2	3762.5	3725.4	3716.1	3697.6	3725.4	3641.7	3674.3	3637.1
7.5°	3706.8	3646.4	3632.4	3665.0	3618.6	3590.6	3586.0	3623.1	3548.9	3511.8	3469.9
10°	3572.0	3548.9	3507.0	3483.7	3469.9	3474.4	3437.3	3390.9	3376.9	3367.6	3330.5
12.5°	3451.3	3400.2	3363.1	3335.2	3325.9	3325.9	3265.5	3256.2	3214.4	3205.1	3149.4
15°	3307.2	3247.0	3223.7	3186.5	3154.0	3172.5	3102.8	3084.3	3070.4	3010.0	3019.3
17.5°	3181.8	3116.8	3061.2	3037.9	3010.0	2982.2	2917.0	2931.0	2898.5	2898.5	2814.9
20°	3019.3	2949.6	2907.7	2861.3	2861.3	2824.2	2777.8	2782.4	2740.5	2698.8	2624.4
22.5°	2847.5	2773.1	2721.9	2703.4	2657.0	2647.7	2592.0	2578.0	2522.3	2526.9	2461.9
25°	2666.3	2592.0	2522.3	2526.9	2485.2	2466.6	2434.0	2369.1	2345.8	2317.9	2299.4
27.5°	2452.6	2401.5	2341.0	2336.5	2257.5	2262.1	2220.4	2201.8	2146.0	2160.0	2118.1
30°	2257.5	2183.3	2127.4	2113.6	2081.0	2071.7	2006.7	1978.7	1988.2	1950.9	1927.8
32.5°	2057.7	1946.3	1923.0	1895.2	1876.6	1853.3	1806.9	1825.5	1783.6	1792.9	1755.8
35°	1792.9	1746.5	1686.1	1686.1	1667.5	1649.0	1616.6	1635.1	1593.3	1574.7	1537.6
37.5°	1570.0	1528.3	1467.9	1486.4	1453.9	1426.0	1398.2	1402.7	1365.6	1361.1	1323.8
40°	1328.5	1305.2	1263.5	1263.5	1240.2	1240.2	1226.2	1212.4	1189.1	1161.2	1119.4
42.5°	1100.8	1082.3	1063.7	1068.4	1035.9	1063.7	1026.6	1049.9	975.4	970.9	942.9
45°	933.6	891.9	896.5	877.9	859.3	868.6	836.0	845.3	803.6	794.4	766.5
47.5°	757.2	743.2	715.4	706.1	706.1	692.1	678.3	673.5	655.0	631.7	594.5
50°	622.4	571.4	562.0	548.1	538.9	538.9	520.3	492.4	497.0	473.9	436.6
52.5°	487.7	445.9	427.3	422.7	404.2	394.9	371.6	353.0	339.0	329.8	306.6
55°	376.2	339.0	315.9	315.9	288.1	288.1	255.5	241.5	222.9	204.4	190.5
57.5°	283.3	264.8	241.5	222.9	213.6	190.5	171.8	148.7	134.7	106.8	88.3
60°	213.6	195.1	171.8	158.0	148.7	125.4	102.3	83.5	51.1	41.9	37.1
62.5°	158.0	139.4	116.1	106.8	97.5	79.0	55.7	27.8	14.0	14.0	14.0
65°	116.1	92.8	74.2	65.0	55.7	41.9	18.6	9.3	4.7	4.7	4.7
67.5°	79.0	60.4	41.9	37.1	27.8	14.0	4.7	4.7	4.7	4.7	4.7
70°	51.1	37.1	18.6	14.0	9.3	4.7	4.7	4.7	4.7	4.7	4.7
72.5°	32.6	18.6	9.3	4.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	18.6	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 EX4C709040 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9	3873.9
2.5°	3781.1	3748.5	3767.1	3725.4	3744.0	3776.4	3753.2	3762.5
5°	3651.0	3632.4	3609.3	3548.9	3595.3	3632.4	3613.8	3609.3
7.5°	3511.8	3446.6	3479.2	3460.6	3451.3	3488.5	3446.6	3493.0
10°	3367.6	3321.2	3316.7	3284.1	3284.1	3311.9	3316.7	3288.6
12.5°	3154.0	3130.9	3130.9	3126.1	3121.4	3149.4	3154.0	3140.1
15°	3000.7	2991.5	2968.2	2963.6	2935.8	2977.4	2982.2	2977.4
17.5°	2814.9	2819.5	2796.4	2796.4	2814.9	2828.8	2791.6	2828.8
20°	2689.5	2666.3	2657.0	2615.1	2638.4	2661.7	2661.7	2666.3
22.5°	2508.3	2471.2	2485.2	2461.9	2447.9	2480.4	2480.4	2494.5
25°	2303.9	2303.9	2313.2	2299.4	2308.7	2327.2	2313.2	2345.8
27.5°	2108.8	2127.4	2127.4	2108.8	2118.1	2173.8	2197.1	2160.0
30°	1927.8	1932.3	1946.3	1937.0	1964.9	1983.4	1978.7	2006.7
32.5°	1723.4	1746.5	1755.8	1742.0	1751.2	1792.9	1769.8	1765.1
35°	1565.4	1523.6	1519.0	1523.6	1542.1	1551.4	1542.1	1574.7
37.5°	1337.8	1323.8	1305.2	1309.9	1323.8	1342.5	1351.8	1374.9
40°	1119.4	1100.8	1100.8	1096.3	1082.3	1133.4	1133.4	1133.4
42.5°	929.0	924.3	901.2	901.2	919.7	933.6	924.3	956.9
45°	761.8	743.2	729.2	729.2	743.2	743.2	757.2	752.5
47.5°	599.3	580.7	585.3	571.4	585.3	603.8	580.7	585.3
50°	450.6	450.6	441.3	450.6	445.9	450.6	441.3	432.0
52.5°	306.6	348.3	353.0	334.5	292.6	255.5	232.2	250.8
55°	176.5	158.0	158.0	153.2	143.9	139.4	125.4	139.4
57.5°	88.3	79.0	79.0	79.0	74.2	69.7	60.4	60.4
60°	37.1	32.6	32.6	27.8	23.3	18.6	14.0	18.6
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)