

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: **LD4C80D010 EX4C809030 4LBSQLWWH**

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: LD4C80D010 EX4C809030 4LBSQLWWH
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

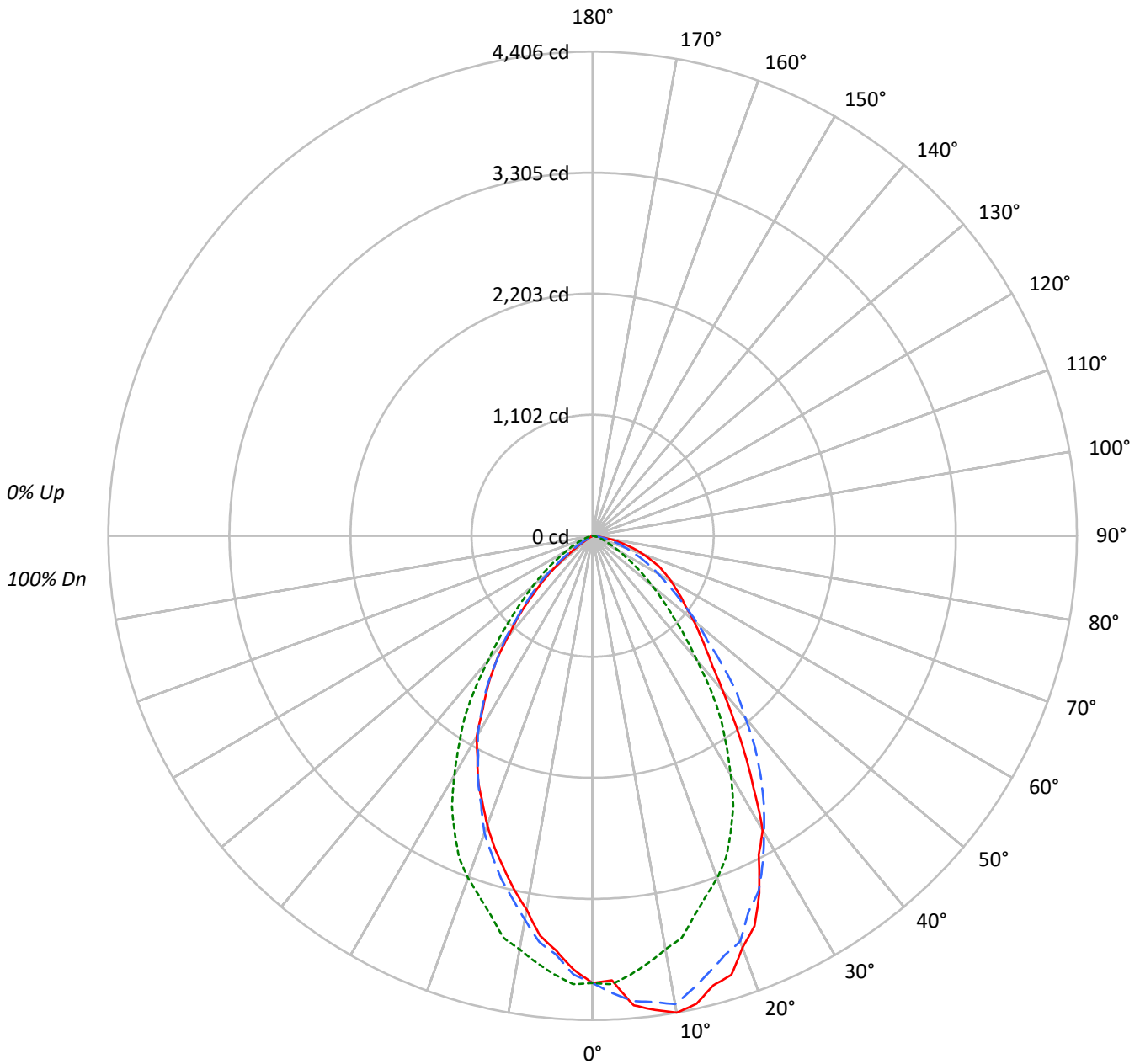
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5833.0 lumens
Efficiency: N/A
Efficacy: 65.2 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): 89.5
Input Voltage (V):
Input Current (A_{in}): 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	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°	392633	392633	392633
5°	415412	388011	367216
10°	431698	374323	338463
15°	423065	357256	312424
20°	409339	340183	287580
25°	381821	316346	262337
30°	344676	279966	234853
35°	283912	239670	194838
40°	231698	184993	149952
45°	199076	140495	107855
50°	180177	106953	68120
55°	165801	77147	24628
60°	159149	52722	3763
65°	153723	35662	1142
70°	137616	24741	1411
75°	112811	12750	0
80°	70513	5390	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	381.3	6.5
10°-20°	1027.2	17.6
20°-30°	1371.6	23.5
30°-40°	1302.1	22.3
40°-50°	900.0	15.4
50°-60°	497.3	8.5
60°-70°	247.0	4.2
70°-80°	97.3	1.7
80°-90°	9.3	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°	2780.1	47.7
0°-40°	4082.1	70.0
0°-60°	5479.5	93.9
0°-90°	5833.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5833.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	4069	4069	4069	4069	4069	
5°	4289	4250	4006	3825	3791	411
15°	4235	4108	3576	3225	3128	1198
25°	3586	3572	2971	2464	2464	1635
35°	2410	2664	2035	1674	1654	1510
45°	1459	1674	1030	844	790	1138
55°	986	927	459	234	146	887
65°	673	488	156	5	5	653
75°	303	185	34	0	0	323
85°	0	5	0	0	0	28
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°	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2
2.5°	4049.7	4161.9	4171.7	4161.9	4176.7	4171.7	4196.2	4171.7	4201.1	4157.2	4166.9
5°	4288.9	4244.9	4337.6	4288.9	4288.9	4284.1	4269.4	4264.4	4284.1	4220.6	4249.9
7.5°	4352.3	4415.8	4498.8	4396.3	4401.1	4401.1	4371.8	4362.1	4362.1	4244.9	4279.1
10°	4406.1	4366.9	4410.8	4371.8	4406.1	4401.1	4420.6	4357.1	4401.1	4332.8	4327.9
12.5°	4362.1	4347.4	4406.1	4342.6	4323.1	4327.9	4303.6	4288.9	4303.6	4225.4	4220.6
15°	4235.2	4249.9	4337.6	4269.4	4259.6	4249.9	4220.6	4171.7	4210.9	4103.5	4108.4
17.5°	4191.4	4166.9	4181.6	4123.0	4137.7	4127.9	4123.0	4079.2	4069.2	4001.0	4001.0
20°	3986.5	4040.0	4040.0	4001.0	4001.0	3996.2	3932.7	3971.7	3927.8	3908.3	3927.8
22.5°	3844.8	3849.8	3849.8	3815.6	3820.5	3801.0	3766.8	3742.3	3766.8	3742.3	3703.4
25°	3586.4	3596.1	3654.6	3591.1	3581.4	3600.9	3571.6	3556.9	3552.1	3493.6	3571.6
27.5°	3274.0	3371.5	3366.7	3342.3	3371.5	3332.5	3318.0	3322.8	3337.5	3332.5	3352.0
30°	3093.6	3108.1	3122.8	3103.3	3108.1	3093.6	3093.6	3098.3	3137.3	3122.8	3117.8
32.5°	2727.5	2776.2	2815.4	2815.4	2820.2	2834.9	2829.9	2932.4	2956.9	2908.1	2898.4
35°	2410.3	2444.6	2478.6	2483.6	2547.0	2551.8	2556.8	2586.0	2654.3	2669.0	2664.0
37.5°	2107.9	2142.0	2151.7	2195.7	2229.9	2263.9	2303.1	2342.1	2400.6	2449.3	2425.1
40°	1839.5	1854.1	1878.5	1898.0	1966.3	1966.3	1985.8	2064.0	2127.4	2166.4	2161.5
42.5°	1615.1	1619.9	1639.4	1673.6	1737.1	1722.4	1737.1	1790.8	1883.3	1888.3	1942.0
45°	1458.9	1454.0	1468.7	1473.5	1512.7	1532.2	1541.9	1580.9	1658.9	1668.6	1673.6
47.5°	1317.5	1312.5	1337.0	1346.7	1361.3	1380.8	1380.8	1385.7	1415.0	1439.4	1419.9
50°	1200.3	1200.3	1200.3	1210.0	1234.5	1229.5	1234.5	1254.0	1268.5	1258.8	1254.0
52.5°	1073.4	1092.9	1107.6	1112.6	1117.3	1117.3	1122.3	1112.6	1107.6	1092.9	1063.6
55°	985.6	1005.1	1005.1	1005.1	1005.1	1024.6	1000.3	1005.1	1005.1	966.1	927.1
57.5°	897.9	917.4	931.9	912.4	931.9	912.4	902.7	897.9	887.9	848.9	790.4
60°	824.7	834.4	829.4	824.7	834.4	819.7	809.9	790.4	780.7	727.0	688.0
62.5°	741.7	746.5	751.5	741.7	732.0	727.0	707.5	678.2	658.7	614.8	580.6
65°	673.3	658.7	653.8	649.0	639.2	624.5	610.0	575.8	561.1	522.1	487.8
67.5°	570.8	566.0	575.8	561.1	536.8	536.8	522.1	492.8	458.6	434.3	400.1
70°	487.8	483.1	473.3	458.6	453.8	434.3	434.3	400.1	390.3	346.4	317.1
72.5°	400.1	400.1	385.4	370.9	356.1	346.4	341.6	317.1	302.6	278.1	253.7
75°	302.6	302.6	297.6	282.9	273.2	263.4	258.6	239.1	224.4	200.1	185.4
77.5°	214.7	214.7	195.2	185.4	190.2	180.5	170.7	165.9	161.0	146.4	126.9
80°	126.9	122.0	107.4	112.2	107.4	107.4	102.5	97.5	87.7	78.0	68.2
82.5°	34.2	39.0	39.0	39.0	44.0	34.2	34.2	34.2	39.0	39.0	24.5
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	5.0	5.0
87.5°	5.0	9.7	19.5	19.5	19.5	19.5	19.5	14.7	14.7	14.7	9.7
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°	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2
2.5°	4118.2	4113.2	4118.2	4084.0	4161.9	4103.5	4093.7	4084.0	4118.2	4084.0	4035.2
5°	4205.9	4157.2	4142.4	4127.9	4171.7	4103.5	4088.9	4093.7	4069.2	4006.0	4010.7
7.5°	4235.2	4191.4	4147.4	4054.7	4093.7	4079.2	4040.0	4010.7	3971.7	3918.0	3908.3
10°	4244.9	4196.2	4132.7	4103.5	4045.0	4025.5	4010.7	3962.0	3913.2	3820.5	3796.1
12.5°	4215.7	4157.2	4079.2	4054.7	4010.7	3947.3	3913.2	3864.3	3820.5	3747.3	3693.6
15°	4088.9	4040.0	4015.7	3932.7	3913.2	3874.1	3805.8	3737.6	3674.1	3576.4	3547.2
17.5°	3942.5	3923.0	3898.5	3835.1	3830.3	3791.3	3727.8	3669.1	3586.4	3435.0	3386.2
20°	3791.3	3791.3	3713.1	3688.8	3737.6	3659.4	3610.6	3556.9	3386.2	3313.0	3225.3
22.5°	3679.1	3625.4	3581.4	3542.4	3547.2	3498.4	3430.2	3322.8	3259.3	3171.5	3069.1
25°	3459.4	3478.9	3381.4	3366.7	3381.4	3269.0	3235.0	3147.1	3054.4	2971.4	2893.4
27.5°	3322.8	3269.0	3205.8	3152.0	3152.0	3108.1	3010.6	2991.1	2849.4	2771.4	2673.8
30°	3117.8	3078.8	3025.1	2947.1	2937.4	2903.2	2825.2	2776.2	2630.0	2512.8	2459.1
32.5°	2859.2	2844.7	2800.7	2713.0	2683.7	2644.5	2547.0	2464.1	2395.8	2263.9	2200.6
35°	2673.8	2620.2	2527.5	2454.3	2429.8	2361.6	2283.4	2224.9	2151.7	2034.7	1951.7
37.5°	2395.8	2342.1	2254.2	2166.4	2166.4	2098.2	1990.7	1932.3	1829.8	1761.4	1693.1
40°	2151.7	2083.5	1995.7	1893.3	1878.5	1780.9	1737.1	1639.4	1575.9	1468.7	1458.9
42.5°	1878.5	1815.1	1737.1	1658.9	1600.4	1551.7	1439.4	1366.2	1298.0	1244.3	1229.5
45°	1629.6	1546.7	1478.4	1380.8	1322.3	1263.8	1190.5	1141.8	1088.1	1029.6	995.4
47.5°	1415.0	1346.7	1249.0	1161.3	1102.8	1073.4	990.4	936.9	892.9	853.9	829.4
50°	1195.5	1112.6	1058.8	961.2	951.4	883.2	814.9	771.0	746.5	712.5	678.2
52.5°	1029.6	951.4	878.2	805.2	766.0	741.7	678.2	634.3	600.2	575.8	556.3
55°	868.4	800.2	741.7	668.5	644.0	610.0	536.8	527.0	492.8	458.6	434.3
57.5°	746.5	683.0	614.8	566.0	522.1	497.8	439.1	400.1	380.6	351.4	326.9
60°	634.3	566.0	512.3	453.8	434.3	400.1	356.1	322.1	297.6	273.2	248.9
62.5°	531.8	473.3	414.8	365.9	336.6	317.1	282.9	253.7	229.4	209.9	190.2
65°	439.1	385.4	336.6	287.9	273.2	248.9	224.4	200.1	180.5	156.2	136.7
67.5°	361.1	312.4	263.4	229.4	214.7	204.9	175.7	151.2	136.7	122.0	102.5
70°	282.9	248.9	209.9	180.5	165.9	151.2	131.7	117.2	97.5	87.7	73.2
72.5°	219.6	190.2	156.2	131.7	122.0	112.2	92.7	78.0	68.2	58.5	48.7
75°	156.2	131.7	112.2	87.7	83.0	78.0	63.5	53.7	44.0	34.2	29.2
77.5°	107.4	87.7	68.2	58.5	53.7	44.0	39.0	29.2	24.5	19.5	14.7
80°	58.5	44.0	34.2	29.2	24.5	19.5	19.5	14.7	9.7	9.7	5.0
82.5°	19.5	14.7	9.7	5.0	5.0	5.0	5.0	5.0	5.0	0.0	5.0
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°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	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°	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2
2.5°	4064.5	4010.7	4025.5	4025.5	4015.7	4015.7	4006.0	3991.2	3996.2	3966.8	3903.5
5°	4020.5	3952.2	3942.5	3952.2	3913.2	3903.5	3884.0	3913.2	3825.3	3859.5	3820.5
7.5°	3893.7	3830.3	3815.6	3849.8	3801.0	3771.6	3766.8	3805.8	3727.8	3688.8	3644.9
10°	3752.1	3727.8	3683.9	3659.4	3644.9	3649.6	3610.6	3561.9	3547.2	3537.4	3498.4
12.5°	3625.4	3571.6	3532.6	3503.4	3493.6	3493.6	3430.2	3420.4	3376.5	3366.7	3308.2
15°	3474.0	3410.7	3386.2	3347.2	3313.0	3332.5	3259.3	3239.8	3225.3	3161.8	3171.5
17.5°	3342.3	3274.0	3215.5	3191.0	3161.8	3132.5	3064.1	3078.8	3044.6	3044.6	2956.9
20°	3171.5	3098.3	3054.4	3005.6	3005.6	2966.6	2917.9	2922.7	2878.7	2834.9	2756.7
22.5°	2991.1	2912.9	2859.2	2839.7	2790.9	2781.2	2722.7	2708.0	2649.5	2654.3	2586.0
25°	2800.7	2722.7	2649.5	2654.3	2610.5	2591.0	2556.8	2488.5	2464.1	2434.8	2415.3
27.5°	2576.3	2522.6	2459.1	2454.3	2371.3	2376.1	2332.3	2312.9	2254.2	2268.9	2224.9
30°	2371.3	2293.4	2234.7	2220.1	2185.9	2176.2	2107.9	2078.5	2088.4	2049.2	2025.0
32.5°	2161.5	2044.5	2020.0	1990.7	1971.2	1946.8	1898.0	1917.5	1873.6	1883.3	1844.3
35°	1883.3	1834.6	1771.1	1771.1	1751.6	1732.1	1698.1	1717.6	1673.6	1654.1	1615.1
37.5°	1649.1	1605.4	1541.9	1561.4	1527.2	1497.9	1468.7	1473.5	1434.5	1429.7	1390.5
40°	1395.5	1371.0	1327.2	1327.2	1302.8	1302.8	1288.0	1273.5	1249.0	1219.8	1175.8
42.5°	1156.3	1136.8	1117.3	1122.3	1088.1	1117.3	1078.3	1102.8	1024.6	1019.8	990.4
45°	980.7	936.9	941.7	922.2	902.7	912.4	878.2	887.9	844.2	834.4	805.2
47.5°	795.4	780.7	751.5	741.7	741.7	727.0	712.5	707.5	688.0	663.5	624.5
50°	653.8	600.2	590.3	575.8	566.0	566.0	546.5	517.3	522.1	497.8	458.6
52.5°	512.3	468.3	448.8	444.1	424.6	414.8	390.3	370.9	356.1	346.4	322.1
55°	395.1	356.1	331.9	331.9	302.6	302.6	268.4	253.7	234.2	214.7	200.1
57.5°	297.6	278.1	253.7	234.2	224.4	200.1	180.5	156.2	141.5	112.2	92.7
60°	224.4	204.9	180.5	165.9	156.2	131.7	107.4	87.7	53.7	44.0	39.0
62.5°	165.9	146.4	122.0	112.2	102.5	83.0	58.5	29.2	14.7	14.7	14.7
65°	122.0	97.5	78.0	68.2	58.5	44.0	19.5	9.7	5.0	5.0	5.0
67.5°	83.0	63.5	44.0	39.0	29.2	14.7	5.0	5.0	5.0	5.0	5.0
70°	53.7	39.0	19.5	14.7	9.7	5.0	5.0	5.0	5.0	5.0	5.0
72.5°	34.2	19.5	9.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	19.5	9.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	9.7	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	5.0	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	5.0	5.0	5.0
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#

CATALOG NUMBER: LD4C80D010 EX4C809030 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2	4069.2
2.5°	3971.7	3937.5	3957.0	3913.2	3932.7	3966.8	3942.5	3952.2
5°	3835.1	3815.6	3791.3	3727.8	3776.6	3815.6	3796.1	3791.3
7.5°	3688.8	3620.4	3654.6	3635.1	3625.4	3664.4	3620.4	3669.1
10°	3537.4	3488.7	3483.9	3449.7	3449.7	3478.9	3483.9	3454.5
12.5°	3313.0	3288.7	3288.7	3283.8	3278.8	3308.2	3313.0	3298.5
15°	3152.0	3142.3	3117.8	3113.0	3083.8	3127.6	3132.5	3127.6
17.5°	2956.9	2961.7	2937.4	2937.4	2956.9	2971.4	2932.4	2971.4
20°	2825.2	2800.7	2790.9	2747.0	2771.4	2795.9	2795.9	2800.7
22.5°	2634.8	2595.8	2610.5	2586.0	2571.3	2605.5	2605.5	2620.2
25°	2420.1	2420.1	2429.8	2415.3	2425.1	2444.6	2429.8	2464.1
27.5°	2215.2	2234.7	2234.7	2215.2	2224.9	2283.4	2307.9	2268.9
30°	2025.0	2029.7	2044.5	2034.7	2064.0	2083.5	2078.5	2107.9
32.5°	1810.3	1834.6	1844.3	1829.8	1839.5	1883.3	1859.0	1854.1
35°	1644.4	1600.4	1595.6	1600.4	1619.9	1629.6	1619.9	1654.1
37.5°	1405.2	1390.5	1371.0	1376.0	1390.5	1410.2	1419.9	1444.2
40°	1175.8	1156.3	1156.3	1151.6	1136.8	1190.5	1190.5	1190.5
42.5°	975.9	970.9	946.6	946.6	966.1	980.7	970.9	1005.1
45°	800.2	780.7	766.0	766.0	780.7	780.7	795.4	790.4
47.5°	629.5	610.0	614.8	600.2	614.8	634.3	610.0	614.8
50°	473.3	473.3	463.6	473.3	468.3	473.3	463.6	453.8
52.5°	322.1	365.9	370.9	351.4	307.4	268.4	243.9	263.4
55°	185.4	165.9	165.9	161.0	151.2	146.4	131.7	146.4
57.5°	92.7	83.0	83.0	83.0	78.0	73.2	63.5	63.5
60°	39.0	34.2	34.2	29.2	24.5	19.5	14.7	19.5
62.5°	14.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
65°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
67.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
70°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
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)