

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 4LBSQLWWH**

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

Summary

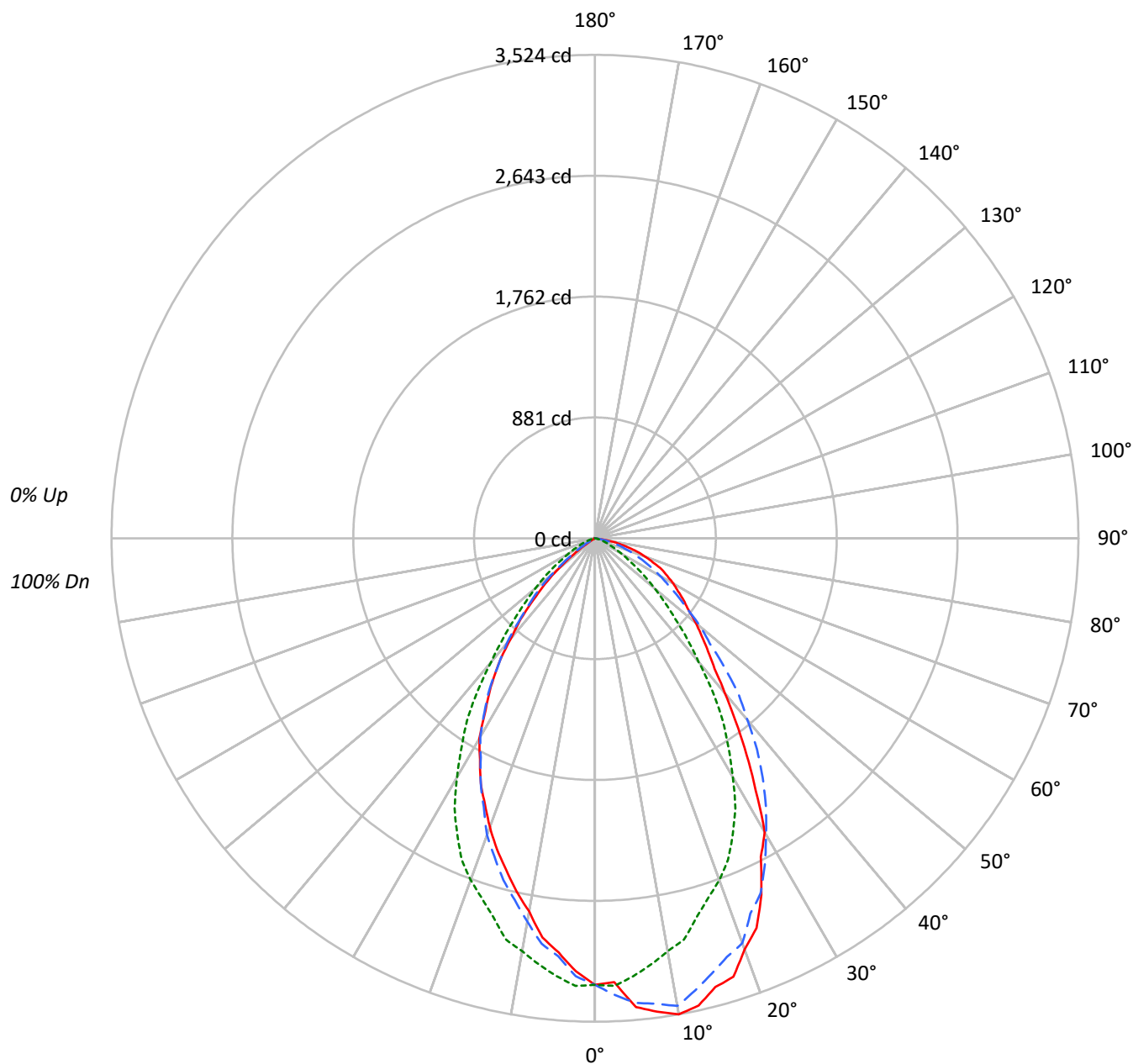
Lumens per Lamp: N/A
Luminaire Lumens: 4665.0 lumens
Efficiency: N/A
Efficacy: 59.8 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

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	50	30	10
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°	314013	314013	314013
5°	332231	310312	293682
10°	345253	299370	270682
15°	338346	285723	249861
20°	327369	272064	229996
25°	305359	253000	209808
30°	275654	223901	187825
35°	227066	191682	155826
40°	185308	147949	119937
45°	159217	112358	86267
50°	144091	85533	54475
55°	132610	61704	19699
60°	127269	42166	3010
65°	122946	28516	913
70°	110081	19804	1128
75°	90219	10215	0
80°	56399	4334	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.9	6.5
10°-20°	821.5	17.6
20°-30°	1097.0	23.5
30°-40°	1041.3	22.3
40°-50°	719.8	15.4
50°-60°	397.7	8.5
60°-70°	197.5	4.2
70°-80°	77.8	1.7
80°-90°	7.4	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°	2223.4	47.7
0°-40°	3264.7	70.0
0°-60°	4382.3	93.9
0°-90°	4665.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4665.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3254	3254	3254	3254	3254	
5°	3430	3399	3204	3059	3032	328
15°	3387	3286	2860	2579	2501	958
25°	2868	2856	2376	1971	1971	1308
35°	1928	2131	1627	1338	1323	1208
45°	1167	1338	823	675	632	910
55°	788	742	367	187	117	709
65°	538	390	125	4	4	523
75°	242	148	27	0	0	258
85°	0	4	0	0	0	22
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°	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4
2.5°	3238.8	3328.6	3336.4	3328.6	3340.3	3336.4	3355.9	3336.4	3359.9	3324.7	3332.5
5°	3430.1	3394.9	3469.1	3430.1	3430.1	3426.3	3414.5	3410.5	3426.3	3375.5	3398.9
7.5°	3480.8	3531.6	3597.9	3516.0	3519.8	3519.8	3496.4	3488.6	3488.6	3394.9	3422.3
10°	3523.8	3492.4	3527.6	3496.4	3523.8	3519.8	3535.4	3484.7	3519.8	3465.2	3461.3
12.5°	3488.6	3476.9	3523.8	3473.0	3457.4	3461.3	3441.8	3430.1	3441.8	3379.3	3375.5
15°	3387.1	3398.9	3469.1	3414.5	3406.7	3398.9	3375.5	3336.4	3367.7	3281.8	3285.8
17.5°	3352.1	3332.5	3344.3	3297.4	3309.1	3301.3	3297.4	3262.4	3254.4	3199.8	3199.8
20°	3188.2	3231.0	3231.0	3199.8	3199.8	3196.0	3145.3	3176.4	3141.3	3125.7	3141.3
22.5°	3074.9	3078.9	3078.9	3051.5	3055.5	3039.9	3012.6	2993.0	3012.6	2993.0	2961.8
25°	2868.2	2876.0	2922.8	2872.1	2864.3	2879.8	2856.5	2844.7	2840.9	2794.1	2856.5
27.5°	2618.4	2696.4	2692.6	2673.0	2696.4	2665.2	2653.6	2657.4	2669.2	2665.2	2680.8
30°	2474.1	2485.7	2497.5	2481.9	2485.7	2474.1	2474.1	2477.9	2509.1	2497.5	2493.5
32.5°	2181.3	2220.3	2251.7	2251.7	2255.5	2267.2	2263.3	2345.2	2364.8	2325.8	2318.0
35°	1927.7	1955.1	1982.3	1986.3	2037.0	2040.8	2044.8	2068.2	2122.8	2134.5	2130.6
37.5°	1685.8	1713.0	1720.8	1756.0	1783.4	1810.6	1841.9	1873.1	1919.9	1958.9	1939.5
40°	1471.2	1482.8	1502.4	1518.0	1572.5	1572.5	1588.1	1650.7	1701.4	1732.6	1728.6
42.5°	1291.7	1295.5	1311.1	1338.5	1389.2	1377.5	1389.2	1432.2	1506.2	1510.2	1553.1
45°	1166.8	1162.8	1174.6	1178.4	1209.8	1225.4	1233.2	1264.3	1326.7	1334.5	1338.5
47.5°	1053.7	1049.7	1069.3	1077.1	1088.7	1104.3	1104.3	1108.2	1131.6	1151.2	1135.6
50°	959.9	959.9	959.9	967.7	987.3	983.3	987.3	1002.9	1014.5	1006.7	1002.9
52.5°	858.4	874.0	885.8	889.8	893.6	893.6	897.6	889.8	885.8	874.0	850.6
55°	788.3	803.9	803.9	803.9	803.9	819.5	800.0	803.9	803.9	772.7	741.5
57.5°	718.1	733.7	745.3	729.7	745.3	729.7	721.9	718.1	710.1	679.0	632.2
60°	659.5	667.3	663.4	659.5	667.3	655.6	647.8	632.2	624.4	581.4	550.2
62.5°	593.2	597.0	601.0	593.2	585.4	581.4	565.8	542.4	526.8	491.7	464.3
65°	538.5	526.8	522.9	519.0	511.2	499.5	487.8	460.5	448.7	417.5	390.2
67.5°	456.5	452.7	460.5	448.7	429.3	429.3	417.5	394.1	366.8	347.3	320.0
70°	390.2	386.3	378.5	366.8	362.9	347.3	347.3	320.0	312.2	277.0	253.6
72.5°	320.0	320.0	308.2	296.6	284.8	277.0	273.2	253.6	242.0	222.4	202.9
75°	242.0	242.0	238.0	226.3	218.5	210.7	206.9	191.3	179.5	160.1	148.3
77.5°	171.7	171.7	156.1	148.3	152.1	144.3	136.5	132.7	128.7	117.1	101.5
80°	101.5	97.5	85.9	89.7	85.9	85.9	81.9	78.0	70.2	62.4	54.6
82.5°	27.4	31.2	31.2	31.2	35.2	27.4	27.4	27.4	31.2	31.2	19.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.0	4.0	4.0
87.5°	4.0	7.8	15.6	15.6	15.6	15.6	15.6	11.8	11.8	11.8	7.8
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°	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4
2.5°	3293.5	3289.6	3293.5	3266.2	3328.6	3281.8	3274.0	3266.2	3293.5	3266.2	3227.2
5°	3363.7	3324.7	3313.0	3301.3	3336.4	3281.8	3270.2	3274.0	3254.4	3203.8	3207.6
7.5°	3387.1	3352.1	3316.9	3242.8	3274.0	3262.4	3231.0	3207.6	3176.4	3133.5	3125.7
10°	3394.9	3355.9	3305.2	3281.8	3235.0	3219.4	3207.6	3168.6	3129.7	3055.5	3035.9
12.5°	3371.5	3324.7	3262.4	3242.8	3207.6	3156.9	3129.7	3090.5	3055.5	2997.0	2954.0
15°	3270.2	3231.0	3211.6	3145.3	3129.7	3098.3	3043.7	2989.2	2938.4	2860.3	2836.9
17.5°	3153.0	3137.5	3117.9	3067.1	3063.3	3032.1	2981.4	2934.4	2868.2	2747.1	2708.2
20°	3032.1	3032.1	2969.6	2950.2	2989.2	2926.6	2887.6	2844.7	2708.2	2649.6	2579.4
22.5°	2942.4	2899.4	2864.3	2833.1	2836.9	2797.9	2743.3	2657.4	2606.6	2536.5	2454.5
25°	2766.7	2782.3	2704.3	2692.6	2704.3	2614.4	2587.2	2516.9	2442.8	2376.4	2314.0
27.5°	2657.4	2614.4	2563.8	2520.9	2520.9	2485.7	2407.7	2392.2	2278.9	2216.5	2138.4
30°	2493.5	2462.3	2419.4	2357.0	2349.2	2321.8	2259.5	2220.3	2103.4	2009.6	1966.7
32.5°	2286.7	2275.0	2239.9	2169.7	2146.3	2115.0	2037.0	1970.7	1916.1	1810.6	1760.0
35°	2138.4	2095.6	2021.4	1962.9	1943.3	1888.7	1826.2	1779.4	1720.8	1627.3	1560.9
37.5°	1916.1	1873.1	1802.8	1732.6	1732.6	1678.0	1592.1	1545.3	1463.4	1408.7	1354.1
40°	1720.8	1666.3	1596.1	1514.1	1502.4	1424.3	1389.2	1311.1	1260.4	1174.6	1166.8
42.5°	1502.4	1451.6	1389.2	1326.7	1279.9	1240.9	1151.2	1092.7	1038.1	995.1	983.3
45°	1303.3	1237.0	1182.4	1104.3	1057.5	1010.7	952.2	913.2	870.2	823.4	796.1
47.5°	1131.6	1077.1	998.9	928.8	882.0	858.4	792.1	749.3	714.1	682.9	663.4
50°	956.1	889.8	846.8	768.7	760.9	706.3	651.7	616.6	597.0	569.8	542.4
52.5°	823.4	760.9	702.3	643.9	612.6	593.2	542.4	507.3	480.1	460.5	444.9
55°	694.5	640.0	593.2	534.6	515.1	487.8	429.3	421.5	394.1	366.8	347.3
57.5°	597.0	546.2	491.7	452.7	417.5	398.1	351.2	320.0	304.4	281.0	261.4
60°	507.3	452.7	409.7	362.9	347.3	320.0	284.8	257.6	238.0	218.5	199.1
62.5°	425.3	378.5	331.8	292.6	269.2	253.6	226.3	202.9	183.5	167.9	152.1
65°	351.2	308.2	269.2	230.2	218.5	199.1	179.5	160.1	144.3	124.9	109.3
67.5°	288.8	249.8	210.7	183.5	171.7	163.9	140.5	120.9	109.3	97.5	81.9
70°	226.3	199.1	167.9	144.3	132.7	120.9	105.3	93.7	78.0	70.2	58.6
72.5°	175.7	152.1	124.9	105.3	97.5	89.7	74.1	62.4	54.6	46.8	39.0
75°	124.9	105.3	89.7	70.2	66.4	62.4	50.8	43.0	35.2	27.4	23.4
77.5°	85.9	70.2	54.6	46.8	43.0	35.2	31.2	23.4	19.6	15.6	11.8
80°	46.8	35.2	27.4	23.4	19.6	15.6	15.6	11.8	7.8	7.8	4.0
82.5°	15.6	11.8	7.8	4.0	4.0	4.0	4.0	4.0	4.0	0.0	4.0
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°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	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



TEST NUMBER: P#

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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4
2.5°	3250.6	3207.6	3219.4	3219.4	3211.6	3211.6	3203.8	3192.0	3196.0	3172.5	3121.9
5°	3215.4	3160.8	3153.0	3160.8	3129.7	3121.9	3106.3	3129.7	3059.3	3086.7	3055.5
7.5°	3114.1	3063.3	3051.5	3078.9	3039.9	3016.4	3012.6	3043.7	2981.4	2950.2	2915.0
10°	3000.8	2981.4	2946.2	2926.6	2915.0	2918.8	2887.6	2848.7	2836.9	2829.1	2797.9
12.5°	2899.4	2856.5	2825.3	2801.9	2794.1	2794.1	2743.3	2735.5	2700.4	2692.6	2645.8
15°	2778.3	2727.7	2708.2	2677.0	2649.6	2665.2	2606.6	2591.1	2579.4	2528.7	2536.5
17.5°	2673.0	2618.4	2571.6	2552.1	2528.7	2505.3	2450.6	2462.3	2435.0	2435.0	2364.8
20°	2536.5	2477.9	2442.8	2403.8	2403.8	2372.6	2333.6	2337.4	2302.3	2267.2	2204.7
22.5°	2392.2	2329.6	2286.7	2271.1	2232.1	2224.3	2177.5	2165.7	2119.0	2122.8	2068.2
25°	2239.9	2177.5	2119.0	2122.8	2087.8	2072.2	2044.8	1990.2	1970.7	1947.3	1931.7
27.5°	2060.4	2017.4	1966.7	1962.9	1896.5	1900.3	1865.3	1849.7	1802.8	1814.6	1779.4
30°	1896.5	1834.1	1787.2	1775.6	1748.2	1740.4	1685.8	1662.3	1670.2	1638.9	1619.5
32.5°	1728.6	1635.1	1615.5	1592.1	1576.5	1557.0	1518.0	1533.6	1498.4	1506.2	1475.0
35°	1506.2	1467.2	1416.5	1416.5	1400.9	1385.3	1358.1	1373.6	1338.5	1322.9	1291.7
37.5°	1318.9	1283.9	1233.2	1248.7	1221.4	1198.0	1174.6	1178.4	1147.2	1143.4	1112.1
40°	1116.0	1096.5	1061.5	1061.5	1041.9	1041.9	1030.1	1018.5	998.9	975.5	940.4
42.5°	924.8	909.2	893.6	897.6	870.2	893.6	862.4	882.0	819.5	815.6	792.1
45°	784.3	749.3	753.1	737.5	721.9	729.7	702.3	710.1	675.1	667.3	643.9
47.5°	636.1	624.4	601.0	593.2	593.2	581.4	569.8	565.8	550.2	530.7	499.5
50°	522.9	480.1	472.1	460.5	452.7	452.7	437.1	413.7	417.5	398.1	366.8
52.5°	409.7	374.6	359.0	355.1	339.6	331.8	312.2	296.6	284.8	277.0	257.6
55°	316.0	284.8	265.4	265.4	242.0	242.0	214.6	202.9	187.3	171.7	160.1
57.5°	238.0	222.4	202.9	187.3	179.5	160.1	144.3	124.9	113.1	89.7	74.1
60°	179.5	163.9	144.3	132.7	124.9	105.3	85.9	70.2	43.0	35.2	31.2
62.5°	132.7	117.1	97.5	89.7	81.9	66.4	46.8	23.4	11.8	11.8	11.8
65°	97.5	78.0	62.4	54.6	46.8	35.2	15.6	7.8	4.0	4.0	4.0
67.5°	66.4	50.8	35.2	31.2	23.4	11.8	4.0	4.0	4.0	4.0	4.0
70°	43.0	31.2	15.6	11.8	7.8	4.0	4.0	4.0	4.0	4.0	4.0
72.5°	27.4	15.6	7.8	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	15.6	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	7.8	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.0	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	4.0	4.0	4.0
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: LD4C70D010 EX4C709040 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4	3254.4
2.5°	3176.4	3149.1	3164.7	3129.7	3145.3	3172.5	3153.0	3160.8
5°	3067.1	3051.5	3032.1	2981.4	3020.3	3051.5	3035.9	3032.1
7.5°	2950.2	2895.4	2922.8	2907.2	2899.4	2930.6	2895.4	2934.4
10°	2829.1	2790.1	2786.3	2758.9	2758.9	2782.3	2786.3	2762.7
12.5°	2649.6	2630.2	2630.2	2626.2	2622.2	2645.8	2649.6	2638.0
15°	2520.9	2513.1	2493.5	2489.7	2466.3	2501.3	2505.3	2501.3
17.5°	2364.8	2368.6	2349.2	2349.2	2364.8	2376.4	2345.2	2376.4
20°	2259.5	2239.9	2232.1	2196.9	2216.5	2236.1	2236.1	2239.9
22.5°	2107.2	2076.0	2087.8	2068.2	2056.4	2083.8	2083.8	2095.6
25°	1935.5	1935.5	1943.3	1931.7	1939.5	1955.1	1943.3	1970.7
27.5°	1771.6	1787.2	1787.2	1771.6	1779.4	1826.2	1845.8	1814.6
30°	1619.5	1623.3	1635.1	1627.3	1650.7	1666.3	1662.3	1685.8
32.5°	1447.8	1467.2	1475.0	1463.4	1471.2	1506.2	1486.8	1482.8
35°	1315.1	1279.9	1276.1	1279.9	1295.5	1303.3	1295.5	1322.9
37.5°	1123.8	1112.1	1096.5	1100.4	1112.1	1127.8	1135.6	1155.0
40°	940.4	924.8	924.8	921.0	909.2	952.2	952.2	952.2
42.5°	780.5	776.5	757.1	757.1	772.7	784.3	776.5	803.9
45°	640.0	624.4	612.6	612.6	624.4	624.4	636.1	632.2
47.5°	503.4	487.8	491.7	480.1	491.7	507.3	487.8	491.7
50°	378.5	378.5	370.7	378.5	374.6	378.5	370.7	362.9
52.5°	257.6	292.6	296.6	281.0	245.8	214.6	195.1	210.7
55°	148.3	132.7	132.7	128.7	120.9	117.1	105.3	117.1
57.5°	74.1	66.4	66.4	66.4	62.4	58.6	50.8	50.8
60°	31.2	27.4	27.4	23.4	19.6	15.6	11.8	15.6
62.5°	11.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
65°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
67.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
70°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
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)