

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: **LD4C65D010 EX4C659040 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: LD4C65D010 EX4C659040 4LBSQLWWH
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

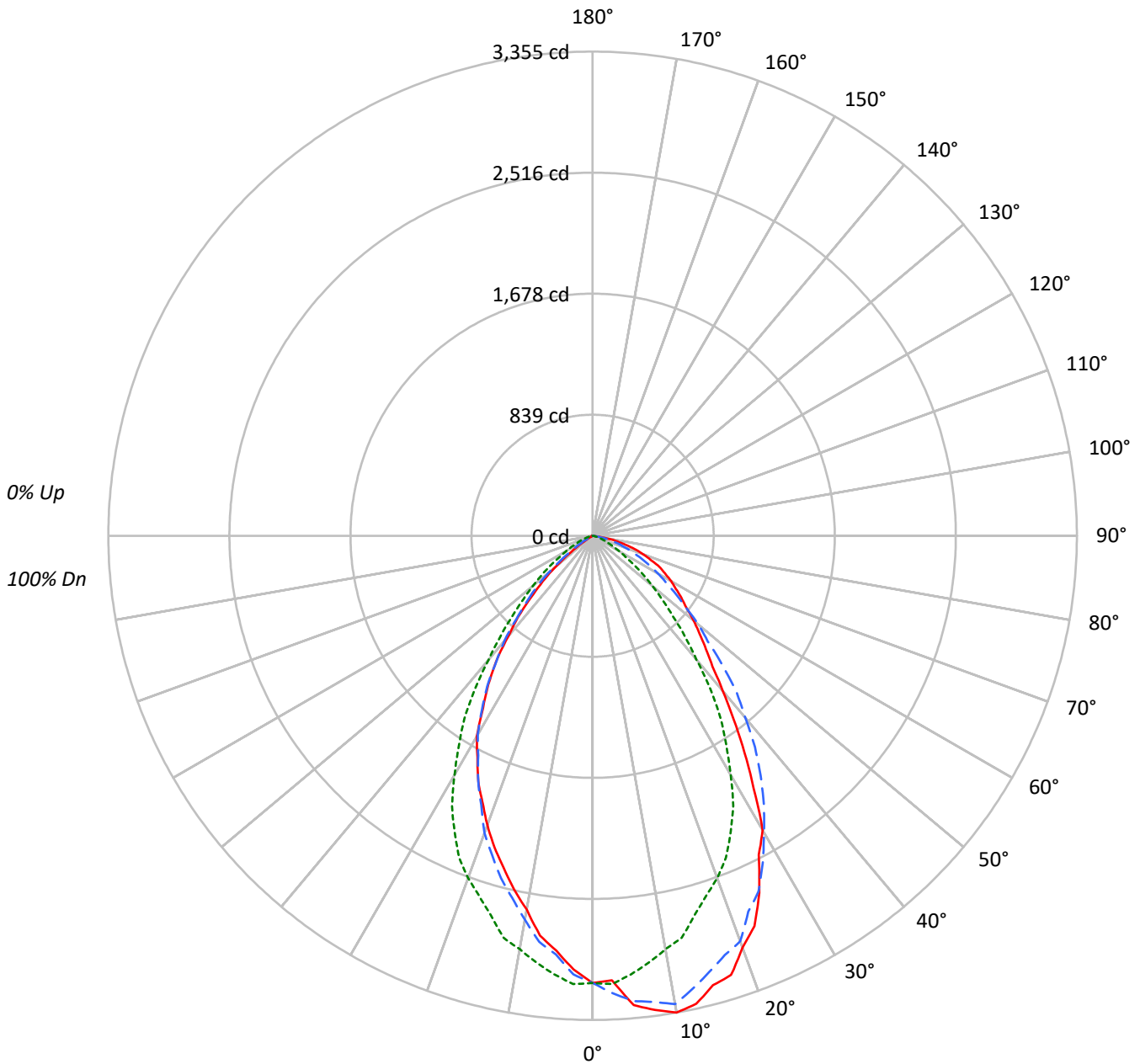
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4441.0 lumens
Efficiency: N/A
Efficacy: 61.3 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): 72.4
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°	298932	298932	298932
5°	316278	295415	279579
10°	328675	284997	257690
15°	322104	271998	237864
20°	311648	259003	218947
25°	290699	240853	199726
30°	262418	213150	178811
35°	216159	182470	148346
40°	176403	140845	114168
45°	151575	106968	82119
50°	137186	81420	51863
55°	126235	58744	18757
60°	121171	40139	2856
65°	117033	27146	868
70°	104777	18845	1072
75°	85894	9730	0
80°	53677	4112	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	290.3	6.5
10°-20°	782.1	17.6
20°-30°	1044.3	23.5
30°-40°	991.3	22.3
40°-50°	685.3	15.4
50°-60°	378.6	8.5
60°-70°	188.0	4.2
70°-80°	74.1	1.7
80°-90°	7.1	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°	2116.6	47.7
0°-40°	3108.0	70.0
0°-60°	4171.9	93.9
0°-90°	4441.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4441.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3098	3098	3098	3098	3098	
5°	3265	3236	3050	2912	2886	313
15°	3224	3128	2723	2456	2381	912
25°	2730	2719	2262	1876	1876	1245
35°	1835	2028	1549	1274	1259	1150
45°	1111	1274	784	643	602	866
55°	750	706	349	178	112	675
65°	513	371	119	4	4	498
75°	230	141	26	0	0	246
85°	0	4	0	0	0	21
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°	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1
2.5°	3083.3	3168.7	3176.2	3168.7	3179.9	3176.2	3194.8	3176.2	3198.6	3165.1	3172.5
5°	3265.4	3231.9	3302.5	3265.4	3265.4	3261.7	3250.5	3246.7	3261.7	3213.4	3235.7
7.5°	3313.7	3362.0	3425.2	3347.2	3350.8	3350.8	3328.5	3321.1	3321.1	3231.9	3257.9
10°	3354.6	3324.8	3358.2	3328.5	3354.6	3350.8	3365.6	3317.3	3350.8	3298.8	3295.1
12.5°	3321.1	3309.9	3354.6	3306.3	3291.4	3295.1	3276.6	3265.4	3276.6	3217.1	3213.4
15°	3224.5	3235.7	3302.5	3250.5	3243.1	3235.7	3213.4	3176.2	3206.0	3124.2	3128.0
17.5°	3191.1	3172.5	3183.7	3139.0	3150.2	3142.8	3139.0	3105.7	3098.1	3046.2	3046.2
20°	3035.1	3075.9	3075.9	3046.2	3046.2	3042.5	2994.2	3023.9	2990.4	2975.6	2990.4
22.5°	2927.3	2931.1	2931.1	2905.0	2908.8	2893.9	2867.9	2849.3	2867.9	2849.3	2819.6
25°	2730.5	2737.9	2782.5	2734.1	2726.7	2741.6	2719.3	2708.1	2704.5	2659.9	2719.3
27.5°	2492.7	2566.9	2563.3	2544.6	2566.9	2537.2	2526.2	2529.8	2541.0	2537.2	2552.1
30°	2355.3	2366.4	2377.6	2362.7	2366.4	2355.3	2355.3	2358.9	2388.6	2377.6	2373.8
32.5°	2076.6	2113.7	2143.5	2143.5	2147.2	2158.4	2154.6	2232.6	2251.2	2214.1	2206.7
35°	1835.1	1861.2	1887.1	1890.9	1939.2	1942.8	1946.6	1968.9	2020.8	2032.1	2028.3
37.5°	1604.9	1630.8	1638.2	1671.7	1697.7	1723.6	1753.5	1783.2	1827.7	1864.8	1846.3
40°	1400.5	1411.6	1430.2	1445.1	1497.0	1497.0	1511.9	1571.4	1619.7	1649.4	1645.6
42.5°	1229.7	1233.3	1248.2	1274.2	1322.5	1311.3	1322.5	1363.4	1433.9	1437.7	1478.6
45°	1110.8	1107.0	1118.2	1121.8	1151.7	1166.5	1173.9	1203.6	1263.0	1270.4	1274.2
47.5°	1003.1	999.3	1017.9	1025.3	1036.4	1051.2	1051.2	1055.0	1077.3	1095.9	1081.1
50°	913.9	913.9	913.9	921.3	939.9	936.1	939.9	954.8	965.8	958.4	954.8
52.5°	817.2	832.1	843.3	847.1	850.7	850.7	854.5	847.1	843.3	832.1	809.8
55°	750.4	765.3	765.3	765.3	765.3	780.1	761.6	765.3	765.3	735.6	705.9
57.5°	683.6	698.5	709.5	694.7	709.5	694.7	687.2	683.6	676.0	646.4	601.8
60°	627.9	635.3	631.5	627.9	635.3	624.1	616.7	601.8	594.4	553.5	523.8
62.5°	564.7	568.3	572.1	564.7	557.3	553.5	538.6	516.4	501.5	468.1	442.0
65°	512.6	501.5	497.8	494.1	486.7	475.5	464.4	438.4	427.2	397.5	371.4
67.5°	434.6	430.9	438.4	427.2	408.7	408.7	397.5	375.2	349.2	330.7	304.6
70°	371.4	367.8	360.4	349.2	345.5	330.7	330.7	304.6	297.2	263.7	241.5
72.5°	304.6	304.6	293.4	282.4	271.1	263.7	260.1	241.5	230.4	211.8	193.1
75°	230.4	230.4	226.6	215.4	208.0	200.6	196.9	182.1	170.9	152.4	141.2
77.5°	163.4	163.4	148.6	141.2	144.8	137.4	130.0	126.3	122.5	111.5	96.6
80°	96.6	92.9	81.8	85.4	81.8	81.8	78.0	74.2	66.8	59.4	52.0
82.5°	26.1	29.7	29.7	29.7	33.5	26.1	26.1	26.1	29.7	29.7	18.6
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.8	3.8	3.8
87.5°	3.8	7.4	14.8	14.8	14.8	14.8	14.8	11.2	11.2	11.2	7.4
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°	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1
2.5°	3135.4	3131.6	3135.4	3109.3	3168.7	3124.2	3116.8	3109.3	3135.4	3109.3	3072.2
5°	3202.2	3165.1	3153.9	3142.8	3176.2	3124.2	3113.1	3116.8	3098.1	3050.0	3053.6
7.5°	3224.5	3191.1	3157.7	3087.1	3116.8	3105.7	3075.9	3053.6	3023.9	2983.0	2975.6
10°	3231.9	3194.8	3146.5	3124.2	3079.7	3064.8	3053.6	3016.5	2979.4	2908.8	2890.2
12.5°	3209.6	3165.1	3105.7	3087.1	3053.6	3005.3	2979.4	2942.1	2908.8	2853.1	2812.2
15°	3113.1	3075.9	3057.4	2994.2	2979.4	2949.5	2897.6	2845.6	2797.3	2722.9	2700.7
17.5°	3001.6	2986.8	2968.2	2919.9	2916.2	2886.5	2838.2	2793.5	2730.5	2615.2	2578.1
20°	2886.5	2886.5	2827.0	2808.5	2845.6	2786.1	2749.0	2708.1	2578.1	2522.4	2455.6
22.5°	2801.1	2760.2	2726.7	2697.0	2700.7	2663.6	2611.6	2529.8	2481.5	2414.7	2336.7
25°	2633.9	2648.7	2574.5	2563.3	2574.5	2488.9	2463.0	2396.1	2325.5	2262.3	2202.9
27.5°	2529.8	2488.9	2440.7	2399.8	2399.8	2366.4	2292.1	2277.3	2169.4	2110.1	2035.7
30°	2373.8	2344.1	2303.2	2243.8	2236.4	2210.3	2151.0	2113.7	2002.4	1913.1	1872.2
32.5°	2176.9	2165.8	2132.3	2065.5	2043.3	2013.4	1939.2	1876.0	1824.1	1723.6	1675.5
35°	2035.7	1994.9	1924.4	1868.6	1850.0	1798.0	1738.5	1694.0	1638.2	1549.1	1486.0
37.5°	1824.1	1783.2	1716.2	1649.4	1649.4	1597.5	1515.7	1471.1	1393.1	1341.0	1289.1
40°	1638.2	1586.3	1519.5	1441.4	1430.2	1355.9	1322.5	1248.2	1199.8	1118.2	1110.8
42.5°	1430.2	1381.9	1322.5	1263.0	1218.5	1181.4	1095.9	1040.2	988.2	947.3	936.1
45°	1240.7	1177.6	1125.6	1051.2	1006.7	962.2	906.4	869.3	828.4	783.9	757.8
47.5°	1077.3	1025.3	951.0	884.2	839.6	817.2	754.1	713.3	679.8	650.1	631.5
50°	910.2	847.1	806.2	731.8	724.4	672.4	620.4	587.0	568.3	542.4	516.4
52.5°	783.9	724.4	668.6	613.0	583.2	564.7	516.4	482.9	457.0	438.4	423.5
55°	661.2	609.2	564.7	509.0	490.3	464.4	408.7	401.3	375.2	349.2	330.7
57.5°	568.3	520.0	468.1	430.9	397.5	379.0	334.3	304.6	289.8	267.5	248.9
60°	482.9	430.9	390.1	345.5	330.7	304.6	271.1	245.2	226.6	208.0	189.5
62.5°	404.9	360.4	315.8	278.6	256.3	241.5	215.4	193.1	174.6	159.8	144.8
65°	334.3	293.4	256.3	219.2	208.0	189.5	170.9	152.4	137.4	118.9	104.1
67.5°	274.9	237.8	200.6	174.6	163.4	156.0	133.8	115.1	104.1	92.9	78.0
70°	215.4	189.5	159.8	137.4	126.3	115.1	100.3	89.2	74.2	66.8	55.7
72.5°	167.2	144.8	118.9	100.3	92.9	85.4	70.6	59.4	52.0	44.5	37.1
75°	118.9	100.3	85.4	66.8	63.2	59.4	48.3	40.9	33.5	26.1	22.3
77.5°	81.8	66.8	52.0	44.5	40.9	33.5	29.7	22.3	18.6	14.8	11.2
80°	44.5	33.5	26.1	22.3	18.6	14.8	14.8	11.2	7.4	7.4	3.8
82.5°	14.8	11.2	7.4	3.8	3.8	3.8	3.8	3.8	3.8	0.0	3.8
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°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8	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°	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1
2.5°	3094.5	3053.6	3064.8	3064.8	3057.4	3057.4	3050.0	3038.8	3042.5	3020.1	2972.0
5°	3061.0	3009.1	3001.6	3009.1	2979.4	2972.0	2957.1	2979.4	2912.4	2938.5	2908.8
7.5°	2964.5	2916.2	2905.0	2931.1	2893.9	2871.5	2867.9	2897.6	2838.2	2808.5	2775.0
10°	2856.7	2838.2	2804.7	2786.1	2775.0	2778.7	2749.0	2711.9	2700.7	2693.2	2663.6
12.5°	2760.2	2719.3	2689.6	2667.3	2659.9	2659.9	2611.6	2604.2	2570.7	2563.3	2518.7
15°	2644.9	2596.8	2578.1	2548.4	2522.4	2537.2	2481.5	2466.6	2455.6	2407.3	2414.7
17.5°	2544.6	2492.7	2448.2	2429.5	2407.3	2385.0	2332.9	2344.1	2318.0	2318.0	2251.2
20°	2414.7	2358.9	2325.5	2288.3	2288.3	2258.7	2221.5	2225.2	2191.7	2158.4	2098.9
22.5°	2277.3	2217.8	2176.9	2162.0	2124.9	2117.5	2072.9	2061.7	2017.2	2020.8	1968.9
25°	2132.3	2072.9	2017.2	2020.8	1987.5	1972.7	1946.6	1894.7	1876.0	1853.8	1838.9
27.5°	1961.5	1920.6	1872.2	1868.6	1805.4	1809.1	1775.8	1760.9	1716.2	1727.4	1694.0
30°	1805.4	1746.1	1701.4	1690.3	1664.3	1656.8	1604.9	1582.5	1590.0	1560.2	1541.7
32.5°	1645.6	1556.6	1537.9	1515.7	1500.8	1482.2	1445.1	1459.9	1426.5	1433.9	1404.2
35°	1433.9	1396.8	1348.4	1348.4	1333.6	1318.8	1292.8	1307.7	1274.2	1259.4	1229.7
37.5°	1255.6	1222.3	1173.9	1188.8	1162.7	1140.5	1118.2	1121.8	1092.1	1088.5	1058.7
40°	1062.5	1043.8	1010.5	1010.5	991.9	991.9	980.7	969.6	951.0	928.7	895.2
42.5°	880.4	865.5	850.7	854.5	828.4	850.7	821.0	839.6	780.1	776.5	754.1
45°	746.6	713.3	716.9	702.1	687.2	694.7	668.6	676.0	642.7	635.3	613.0
47.5°	605.6	594.4	572.1	564.7	564.7	553.5	542.4	538.6	523.8	505.2	475.5
50°	497.8	457.0	449.4	438.4	430.9	430.9	416.1	393.8	397.5	379.0	349.2
52.5°	390.1	356.6	341.7	338.1	323.2	315.8	297.2	282.4	271.1	263.7	245.2
55°	300.8	271.1	252.7	252.7	230.4	230.4	204.3	193.1	178.3	163.4	152.4
57.5°	226.6	211.8	193.1	178.3	170.9	152.4	137.4	118.9	107.7	85.4	70.6
60°	170.9	156.0	137.4	126.3	118.9	100.3	81.8	66.8	40.9	33.5	29.7
62.5°	126.3	111.5	92.9	85.4	78.0	63.2	44.5	22.3	11.2	11.2	11.2
65°	92.9	74.2	59.4	52.0	44.5	33.5	14.8	7.4	3.8	3.8	3.8
67.5°	63.2	48.3	33.5	29.7	22.3	11.2	3.8	3.8	3.8	3.8	3.8
70°	40.9	29.7	14.8	11.2	7.4	3.8	3.8	3.8	3.8	3.8	3.8
72.5°	26.1	14.8	7.4	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	14.8	7.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	7.4	3.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	3.8	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	3.8	3.8	3.8
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: LD4C65D010 EX4C659040 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1	3098.1
2.5°	3023.9	2997.9	3012.7	2979.4	2994.2	3020.1	3001.6	3009.1
5°	2919.9	2905.0	2886.5	2838.2	2875.3	2905.0	2890.2	2886.5
7.5°	2808.5	2756.4	2782.5	2767.6	2760.2	2789.9	2756.4	2793.5
10°	2693.2	2656.1	2652.5	2626.4	2626.4	2648.7	2652.5	2630.1
12.5°	2522.4	2503.9	2503.9	2500.1	2496.3	2518.7	2522.4	2511.3
15°	2399.8	2392.4	2373.8	2370.1	2347.9	2381.2	2385.0	2381.2
17.5°	2251.2	2254.9	2236.4	2236.4	2251.2	2262.3	2232.6	2262.3
20°	2151.0	2132.3	2124.9	2091.4	2110.1	2128.7	2128.7	2132.3
22.5°	2006.0	1976.3	1987.5	1968.9	1957.7	1983.7	1983.7	1994.9
25°	1842.6	1842.6	1850.0	1838.9	1846.3	1861.2	1850.0	1876.0
27.5°	1686.5	1701.4	1701.4	1686.5	1694.0	1738.5	1757.1	1727.4
30°	1541.7	1545.4	1556.6	1549.1	1571.4	1586.3	1582.5	1604.9
32.5°	1378.3	1396.8	1404.2	1393.1	1400.5	1433.9	1415.4	1411.6
35°	1251.9	1218.5	1214.8	1218.5	1233.3	1240.7	1233.3	1259.4
37.5°	1069.9	1058.7	1043.8	1047.6	1058.7	1073.7	1081.1	1099.6
40°	895.2	880.4	880.4	876.7	865.5	906.4	906.4	906.4
42.5°	743.0	739.2	720.7	720.7	735.6	746.6	739.2	765.3
45°	609.2	594.4	583.2	583.2	594.4	594.4	605.6	601.8
47.5°	479.3	464.4	468.1	457.0	468.1	482.9	464.4	468.1
50°	360.4	360.4	352.9	360.4	356.6	360.4	352.9	345.5
52.5°	245.2	278.6	282.4	267.5	234.0	204.3	185.7	200.6
55°	141.2	126.3	126.3	122.5	115.1	111.5	100.3	111.5
57.5°	70.6	63.2	63.2	63.2	59.4	55.7	48.3	48.3
60°	29.7	26.1	26.1	22.3	18.6	14.8	11.2	14.8
62.5°	11.2	7.4	7.4	7.4	7.4	7.4	7.4	7.4
65°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
67.5°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
70°	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
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)