

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 EX4C659035 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 EX4C659035 4LBSQLWWH
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

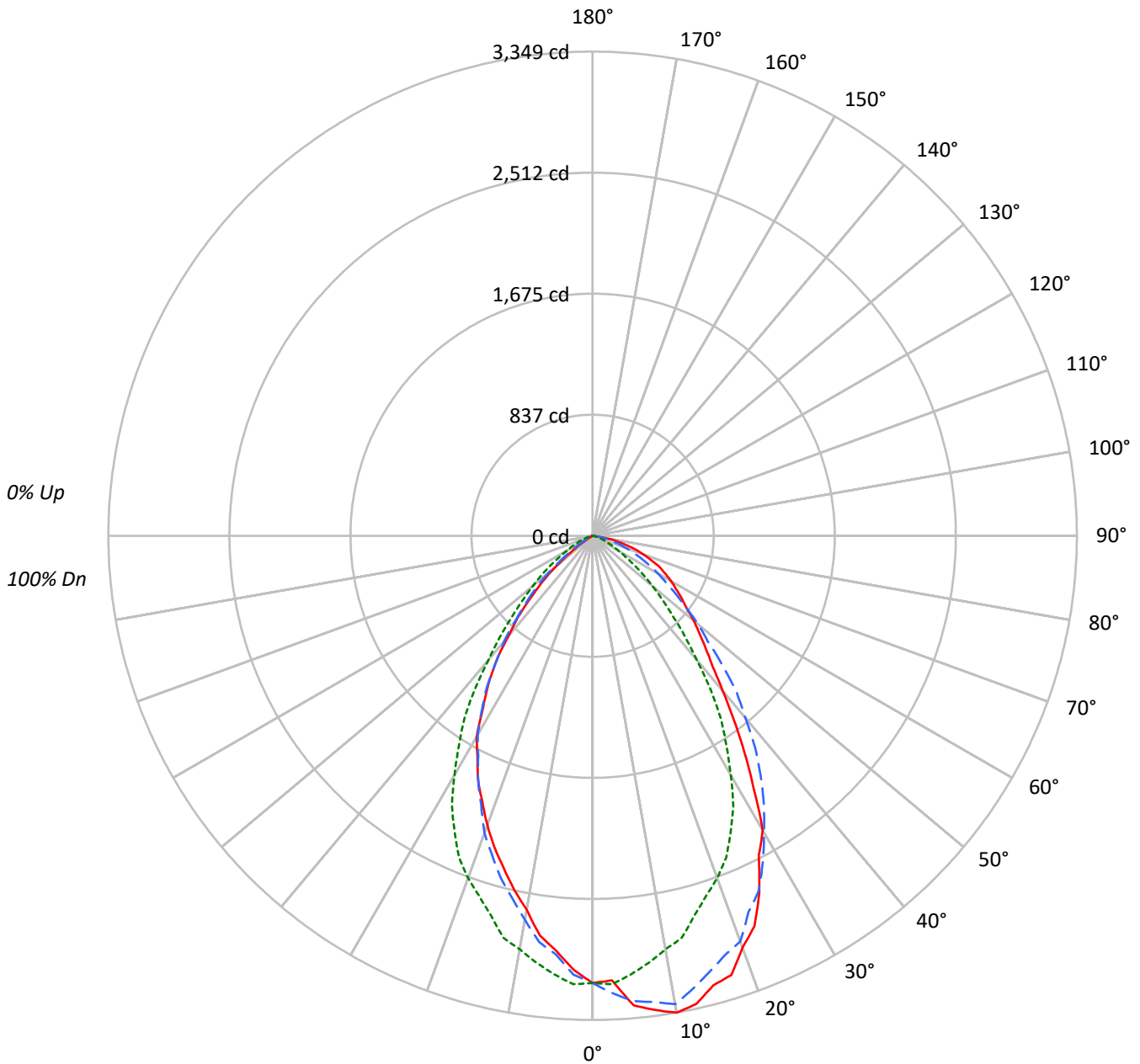
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4434.0 lumens
Efficiency: N/A
Efficacy: 61.2 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): 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									
RC	80									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°	298469	298469	298469
5°	315775	294950	279143
10°	328156	284546	257279
15°	321594	271568	237495
20°	311155	258593	218609
25°	290241	240470	199417
30°	262005	212815	178533
35°	215817	182188	148111
40°	176126	140619	113991
45°	151330	106804	81996
50°	136960	81300	51788
55°	126033	58643	18723
60°	120978	40081	2856
65°	116850	27101	868
70°	104608	18817	1072
75°	85745	9693	0
80°	53621	4112	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	289.8	6.5
10°-20°	780.8	17.6
20°-30°	1042.7	23.5
30°-40°	989.8	22.3
40°-50°	684.2	15.4
50°-60°	378.0	8.5
60°-70°	187.7	4.2
70°-80°	74.0	1.7
80°-90°	7.0	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°	2113.3	47.7
0°-40°	3103.1	70.0
0°-60°	4165.3	93.9
0°-90°	4434.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4434.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3093	3093	3093	3093	3093	
5°	3260	3231	3045	2908	2882	312
15°	3219	3123	2719	2452	2378	911
25°	2726	2715	2259	1873	1873	1243
35°	1832	2025	1547	1272	1257	1148
45°	1109	1272	783	642	601	865
55°	749	705	349	178	111	674
65°	512	371	119	4	4	497
75°	230	141	26	0	0	245
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°	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3
2.5°	3078.4	3163.7	3171.1	3163.7	3174.9	3171.1	3189.7	3171.1	3193.5	3160.1	3167.5
5°	3260.2	3226.8	3297.3	3260.2	3260.2	3256.6	3245.4	3241.6	3256.6	3208.3	3230.6
7.5°	3308.5	3356.7	3419.8	3341.9	3345.5	3345.5	3323.3	3315.9	3315.9	3226.8	3252.8
10°	3349.3	3319.5	3352.9	3323.3	3349.3	3345.5	3360.3	3312.1	3345.5	3293.6	3289.9
12.5°	3315.9	3304.7	3349.3	3301.1	3286.2	3289.9	3271.4	3260.2	3271.4	3212.0	3208.3
15°	3219.4	3230.6	3297.3	3245.4	3238.0	3230.6	3208.3	3171.1	3200.9	3119.3	3123.0
17.5°	3186.1	3167.5	3178.7	3134.1	3145.3	3137.9	3134.1	3100.8	3093.3	3041.4	3041.4
20°	3030.3	3071.0	3071.0	3041.4	3041.4	3037.8	2989.5	3019.2	2985.7	2970.9	2985.7
22.5°	2922.7	2926.4	2926.4	2900.4	2904.2	2889.4	2863.4	2844.8	2863.4	2844.8	2815.1
25°	2726.2	2733.6	2778.1	2729.8	2722.4	2737.2	2715.0	2703.8	2700.2	2655.7	2715.0
27.5°	2488.8	2562.9	2559.2	2540.6	2562.9	2533.2	2522.2	2525.8	2537.0	2533.2	2548.0
30°	2351.6	2362.6	2373.8	2359.0	2362.6	2351.6	2351.6	2355.2	2384.9	2373.8	2370.0
32.5°	2073.3	2110.4	2140.2	2140.2	2143.8	2155.0	2151.2	2229.1	2247.7	2210.6	2203.2
35°	1832.2	1858.3	1884.1	1887.9	1936.1	1939.8	1943.6	1965.8	2017.7	2028.8	2025.1
37.5°	1602.4	1628.2	1635.6	1669.1	1695.1	1720.9	1750.7	1780.4	1824.8	1861.9	1843.4
40°	1398.3	1409.4	1428.0	1442.8	1494.7	1494.7	1509.5	1568.9	1617.2	1646.8	1643.0
42.5°	1227.7	1231.4	1246.2	1272.2	1320.5	1309.3	1320.5	1361.3	1431.6	1435.4	1476.2
45°	1109.0	1105.2	1116.4	1120.1	1149.9	1164.7	1172.1	1201.7	1261.0	1268.4	1272.2
47.5°	1001.5	997.7	1016.3	1023.7	1034.8	1049.6	1049.6	1053.4	1075.6	1094.2	1079.4
50°	912.4	912.4	912.4	919.8	938.4	934.6	938.4	953.2	964.3	956.9	953.2
52.5°	815.9	830.7	841.9	845.7	849.3	849.3	853.1	845.7	841.9	830.7	808.5
55°	749.2	764.1	764.1	764.1	764.1	778.9	760.4	764.1	764.1	734.4	704.8
57.5°	682.5	697.4	708.4	693.6	708.4	693.6	686.2	682.5	675.0	645.3	600.9
60°	626.9	634.3	630.5	626.9	634.3	623.1	615.7	600.9	593.5	552.6	523.0
62.5°	563.8	567.4	571.2	563.8	556.4	552.6	537.8	515.6	500.7	467.3	441.3
65°	511.8	500.7	497.0	493.3	485.9	474.7	463.7	437.7	426.5	396.8	370.8
67.5°	433.9	430.3	437.7	426.5	408.0	408.0	396.8	374.6	348.6	330.1	304.1
70°	370.8	367.2	359.8	348.6	345.0	330.1	330.1	304.1	296.7	263.3	241.1
72.5°	304.1	304.1	292.9	281.9	270.7	263.3	259.7	241.1	230.0	211.4	192.8
75°	230.0	230.0	226.3	215.1	207.7	200.2	196.6	181.8	170.6	152.1	141.0
77.5°	163.2	163.2	148.4	141.0	144.6	137.2	129.8	126.1	122.4	111.3	96.5
80°	96.5	92.7	81.7	85.3	81.7	81.7	77.9	74.1	66.7	59.3	51.9
82.5°	26.0	29.6	29.6	29.6	33.4	26.0	26.0	26.0	29.6	29.6	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°	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3
2.5°	3130.5	3126.7	3130.5	3104.4	3163.7	3119.3	3111.9	3104.4	3130.5	3104.4	3067.4
5°	3197.2	3160.1	3148.9	3137.9	3171.1	3119.3	3108.2	3111.9	3093.3	3045.2	3048.8
7.5°	3219.4	3186.1	3152.7	3082.2	3111.9	3100.8	3071.0	3048.8	3019.2	2978.3	2970.9
10°	3226.8	3189.7	3141.5	3119.3	3074.8	3060.0	3048.8	3011.7	2974.7	2904.2	2885.6
12.5°	3204.6	3160.1	3100.8	3082.2	3048.8	3000.6	2974.7	2937.5	2904.2	2848.6	2807.7
15°	3108.2	3071.0	3052.6	2989.5	2974.7	2944.9	2893.0	2841.1	2792.9	2718.6	2696.4
17.5°	2996.9	2982.1	2963.5	2915.3	2911.6	2882.0	2833.7	2789.1	2726.2	2611.1	2574.1
20°	2882.0	2882.0	2822.5	2804.1	2841.1	2781.7	2744.7	2703.8	2574.1	2518.4	2451.7
22.5°	2796.7	2755.8	2722.4	2692.8	2696.4	2659.4	2607.5	2525.8	2477.6	2410.9	2333.0
25°	2629.7	2644.5	2570.4	2559.2	2570.4	2485.0	2459.1	2392.3	2321.8	2258.7	2199.4
27.5°	2525.8	2485.0	2436.9	2396.1	2396.1	2362.6	2288.5	2273.7	2166.0	2106.7	2032.5
30°	2370.0	2340.4	2299.6	2240.3	2232.9	2206.9	2147.6	2110.4	1999.2	1910.1	1869.3
32.5°	2173.4	2162.4	2129.0	2062.3	2040.0	2010.2	1936.1	1873.1	1821.2	1720.9	1672.8
35°	2032.5	1991.8	1921.3	1865.7	1847.1	1795.2	1735.8	1691.3	1635.6	1546.7	1483.6
37.5°	1821.2	1780.4	1713.5	1646.8	1646.8	1594.9	1513.3	1468.8	1390.9	1338.9	1287.0
40°	1635.6	1583.8	1517.1	1439.2	1428.0	1353.7	1320.5	1246.2	1198.0	1116.4	1109.0
42.5°	1428.0	1379.7	1320.5	1261.0	1216.6	1179.5	1094.2	1038.5	986.7	945.8	934.6
45°	1238.8	1175.7	1123.8	1049.6	1005.1	960.7	905.0	867.9	827.1	782.7	756.6
47.5°	1075.6	1023.7	949.5	882.8	838.3	815.9	752.9	712.2	678.8	649.1	630.5
50°	908.8	845.7	804.9	730.6	723.2	671.3	619.5	586.0	567.4	541.6	515.6
52.5°	782.7	723.2	667.6	612.1	582.3	563.8	515.6	482.1	456.3	437.7	422.9
55°	660.2	608.3	563.8	508.2	489.6	463.7	408.0	400.6	374.6	348.6	330.1
57.5°	567.4	519.2	467.3	430.3	396.8	378.4	333.8	304.1	289.3	267.1	248.5
60°	482.1	430.3	389.4	345.0	330.1	304.1	270.7	244.9	226.3	207.7	189.2
62.5°	404.3	359.8	315.3	278.1	255.9	241.1	215.1	192.8	174.4	159.6	144.6
65°	333.8	292.9	255.9	218.8	207.7	189.2	170.6	152.1	137.2	118.7	103.9
67.5°	274.5	237.4	200.2	174.4	163.2	155.8	133.5	114.9	103.9	92.7	77.9
70°	215.1	189.2	159.6	137.2	126.1	114.9	100.1	89.1	74.1	66.7	55.7
72.5°	167.0	144.6	118.7	100.1	92.7	85.3	70.5	59.3	51.9	44.5	37.1
75°	118.7	100.1	85.3	66.7	63.1	59.3	48.2	40.8	33.4	26.0	22.2
77.5°	81.7	66.7	51.9	44.5	40.8	33.4	29.6	22.2	18.6	14.8	11.2
80°	44.5	33.4	26.0	22.2	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3
2.5°	3089.6	3048.8	3060.0	3060.0	3052.6	3052.6	3045.2	3034.0	3037.8	3015.4	2967.3
5°	3056.2	3004.3	2996.9	3004.3	2974.7	2967.3	2952.5	2974.7	2907.8	2933.9	2904.2
7.5°	2959.9	2911.6	2900.4	2926.4	2889.4	2867.0	2863.4	2893.0	2833.7	2804.1	2770.7
10°	2852.2	2833.7	2800.3	2781.7	2770.7	2774.3	2744.7	2707.6	2696.4	2689.0	2659.4
12.5°	2755.8	2715.0	2685.4	2663.1	2655.7	2655.7	2607.5	2600.1	2566.6	2559.2	2514.8
15°	2640.8	2592.7	2574.1	2544.4	2518.4	2533.2	2477.6	2462.8	2451.7	2403.5	2410.9
17.5°	2540.6	2488.8	2444.3	2425.7	2403.5	2381.2	2329.2	2340.4	2314.4	2314.4	2247.7
20°	2410.9	2355.2	2321.8	2284.7	2284.7	2255.1	2218.0	2221.7	2188.3	2155.0	2095.5
22.5°	2273.7	2214.3	2173.4	2158.6	2121.6	2114.1	2069.7	2058.5	2014.0	2017.7	1965.8
25°	2129.0	2069.7	2014.0	2017.7	1984.4	1969.6	1943.6	1891.7	1873.1	1850.8	1836.0
27.5°	1958.4	1917.5	1869.3	1865.7	1802.6	1806.2	1773.0	1758.1	1713.5	1724.7	1691.3
30°	1802.6	1743.3	1698.7	1687.7	1661.6	1654.2	1602.4	1580.0	1587.5	1557.7	1539.3
32.5°	1643.0	1554.1	1535.5	1513.3	1498.5	1479.9	1442.8	1457.6	1424.2	1431.6	1402.0
35°	1431.6	1394.6	1346.3	1346.3	1331.5	1316.7	1290.8	1305.6	1272.2	1257.4	1227.7
37.5°	1253.6	1220.3	1172.1	1186.9	1160.9	1138.7	1116.4	1120.1	1090.4	1086.8	1057.0
40°	1060.8	1042.2	1008.9	1008.9	990.3	990.3	979.1	968.1	949.5	927.2	893.8
42.5°	879.0	864.2	849.3	853.1	827.1	849.3	819.7	838.3	778.9	775.2	752.9
45°	745.5	712.2	715.8	701.0	686.2	693.6	667.6	675.0	641.7	634.3	612.1
47.5°	604.6	593.5	571.2	563.8	563.8	552.6	541.6	537.8	523.0	504.4	474.7
50°	497.0	456.3	448.7	437.7	430.3	430.3	415.4	393.2	396.8	378.4	348.6
52.5°	389.4	356.0	341.2	337.6	322.7	315.3	296.7	281.9	270.7	263.3	244.9
55°	300.4	270.7	252.3	252.3	230.0	230.0	204.0	192.8	178.0	163.2	152.1
57.5°	226.3	211.4	192.8	178.0	170.6	152.1	137.2	118.7	107.5	85.3	70.5
60°	170.6	155.8	137.2	126.1	118.7	100.1	81.7	66.7	40.8	33.4	29.6
62.5°	126.1	111.3	92.7	85.3	77.9	63.1	44.5	22.2	11.2	11.2	11.2
65°	92.7	74.1	59.3	51.9	44.5	33.4	14.8	7.4	3.8	3.8	3.8
67.5°	63.1	48.2	33.4	29.6	22.2	11.2	3.8	3.8	3.8	3.8	3.8
70°	40.8	29.6	14.8	11.2	7.4	3.8	3.8	3.8	3.8	3.8	3.8
72.5°	26.0	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 EX4C659035 4LBSQLWWH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3	3093.3
2.5°	3019.2	2993.1	3008.0	2974.7	2989.5	3015.4	2996.9	3004.3
5°	2915.3	2900.4	2882.0	2833.7	2870.8	2900.4	2885.6	2882.0
7.5°	2804.1	2752.1	2778.1	2763.3	2755.8	2785.5	2752.1	2789.1
10°	2689.0	2651.9	2648.3	2622.3	2622.3	2644.5	2648.3	2625.9
12.5°	2518.4	2500.0	2500.0	2496.2	2492.4	2514.8	2518.4	2507.4
15°	2396.1	2388.6	2370.0	2366.4	2344.2	2377.5	2381.2	2377.5
17.5°	2247.7	2251.3	2232.9	2232.9	2247.7	2258.7	2229.1	2258.7
20°	2147.6	2129.0	2121.6	2088.1	2106.7	2125.3	2125.3	2129.0
22.5°	2002.8	1973.2	1984.4	1965.8	1954.6	1980.6	1980.6	1991.8
25°	1839.7	1839.7	1847.1	1836.0	1843.4	1858.3	1847.1	1873.1
27.5°	1683.9	1698.7	1698.7	1683.9	1691.3	1735.8	1754.4	1724.7
30°	1539.3	1542.9	1554.1	1546.7	1568.9	1583.8	1580.0	1602.4
32.5°	1376.1	1394.6	1402.0	1390.9	1398.3	1431.6	1413.2	1409.4
35°	1250.0	1216.6	1212.9	1216.6	1231.4	1238.8	1231.4	1257.4
37.5°	1068.2	1057.0	1042.2	1046.0	1057.0	1072.0	1079.4	1097.8
40°	893.8	879.0	879.0	875.4	864.2	905.0	905.0	905.0
42.5°	741.8	738.0	719.6	719.6	734.4	745.5	738.0	764.1
45°	608.3	593.5	582.3	582.3	593.5	593.5	604.6	600.9
47.5°	478.5	463.7	467.3	456.3	467.3	482.1	463.7	467.3
50°	359.8	359.8	352.4	359.8	356.0	359.8	352.4	345.0
52.5°	244.9	278.1	281.9	267.1	233.7	204.0	185.4	200.2
55°	141.0	126.1	126.1	122.4	114.9	111.3	100.1	111.3
57.5°	70.5	63.1	63.1	63.1	59.3	55.7	48.2	48.2
60°	29.6	26.0	26.0	22.2	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)