

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 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: LD4C65D010 EX4C659035 4LBSQLWWLI
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3500K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

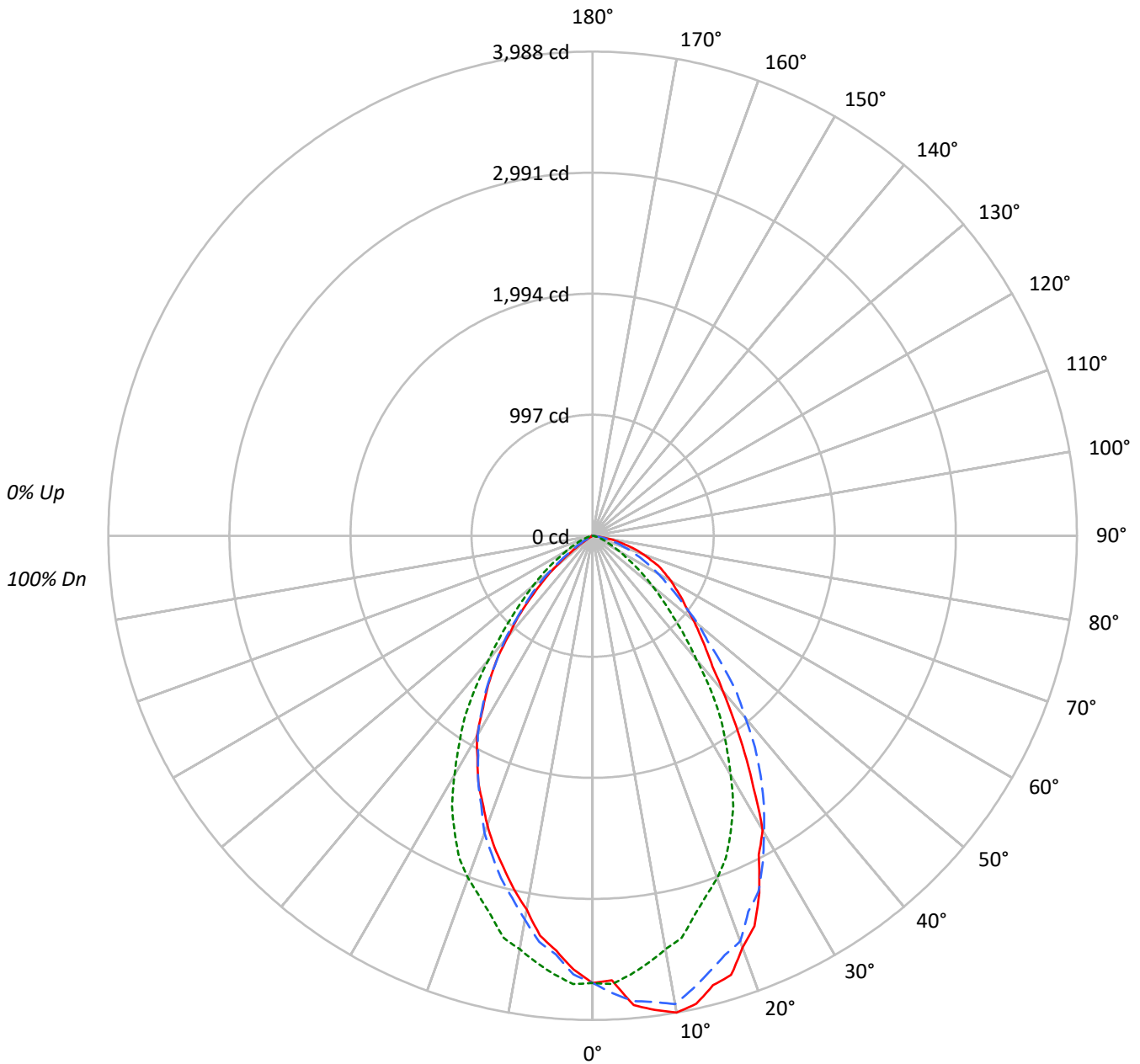
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5279.0 lumens
Efficiency: N/A
Efficacy: 72.9 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 (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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	112	108	105	102	109	106	103	101	102	100	98	98	96	95	95	93	92	90					90			
2	104	98	93	89	102	96	92	88	93	89	86	90	87	84	87	84	82	80					80			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72					72			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	64	60	58					58			
6	80	69	61	56	78	68	61	56	66	60	55	65	59	55	63	58	54	53					53			
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48					48			
8	70	59	52	47	69	58	51	46	57	51	46	56	50	46	55	50	46	44					44			
9	66	55	48	43	65	54	47	43	53	47	43	52	46	42	51	46	42	41					41			
10	62	51	44	40	61	51	44	40	50	44	39	49	43	39	48	43	39	38					38			

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	355349	355349	355349
5°	375952	351157	332337
10°	390695	338776	306317
15°	382879	323323	282746
20°	370454	307869	260266
25°	345549	286302	237414
30°	311931	253371	212548
35°	256950	216912	176333
40°	209694	167422	135719
45°	180176	127150	97621
50°	163065	96791	61650
55°	150055	69813	22290
60°	144019	47704	3396
65°	139111	32261	1027
70°	124554	22400	1270
75°	102111	11557	0
80°	63845	4890	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	345.1	6.5
10°-20°	929.6	17.6
20°-30°	1241.4	23.5
30°-40°	1178.4	22.3
40°-50°	814.6	15.4
50°-60°	450.1	8.5
60°-70°	223.5	4.2
70°-80°	88.0	1.7
80°-90°	8.4	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°	2516.0	47.7
0°-40°	3694.4	70.0
0°-60°	4959.1	93.9
0°-90°	5279.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5279.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3683	3683	3683	3683	3683	
5°	3882	3846	3626	3462	3431	372
15°	3833	3718	3237	2919	2830	1084
25°	3246	3232	2689	2230	2230	1480
35°	2181	2411	1842	1515	1497	1367
45°	1320	1515	932	764	715	1030
55°	892	839	415	212	132	803
65°	609	442	141	4	4	591
75°	274	168	31	0	0	292
85°	0	4	0	0	0	25
90°	0	0	0	0	0	



TEST NUMBER: P#

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8
2.5°	3665.1	3766.7	3775.5	3766.7	3780.0	3775.5	3797.6	3775.5	3802.1	3762.3	3771.2
5°	3881.5	3841.7	3925.6	3881.5	3881.5	3877.2	3863.9	3859.4	3877.2	3819.8	3846.2
7.5°	3939.0	3996.4	4071.5	3978.8	3983.1	3983.1	3956.6	3947.8	3947.8	3841.7	3872.7
10°	3987.6	3952.1	3991.9	3956.6	3987.6	3983.1	4000.7	3943.3	3983.1	3921.3	3916.8
12.5°	3947.8	3934.5	3987.6	3930.1	3912.5	3916.8	3894.9	3881.5	3894.9	3824.1	3819.8
15°	3832.9	3846.2	3925.6	3863.9	3855.1	3846.2	3819.8	3775.5	3810.9	3713.7	3718.2
17.5°	3793.3	3771.2	3784.5	3731.4	3744.7	3735.9	3731.4	3691.7	3682.8	3621.0	3621.0
20°	3607.8	3656.3	3656.3	3621.0	3621.0	3616.7	3559.2	3594.5	3554.7	3537.1	3554.7
22.5°	3479.6	3484.1	3484.1	3453.2	3457.7	3440.0	3409.1	3386.9	3409.1	3386.9	3351.6
25°	3245.7	3254.6	3307.5	3250.1	3241.2	3258.9	3232.4	3219.1	3214.8	3161.8	3232.4
27.5°	2963.1	3051.3	3047.0	3024.8	3051.3	3016.0	3002.8	3007.2	3020.5	3016.0	3033.6
30°	2799.7	2812.9	2826.2	2808.6	2812.9	2799.7	2799.7	2804.1	2839.4	2826.2	2821.7
32.5°	2468.4	2512.5	2548.0	2548.0	2552.3	2565.7	2561.2	2653.9	2676.0	2631.9	2623.1
35°	2181.4	2212.4	2243.2	2247.7	2305.1	2309.4	2313.9	2340.4	2402.2	2415.5	2411.0
37.5°	1907.7	1938.5	1947.3	1987.1	2018.1	2048.9	2084.4	2119.7	2172.6	2216.7	2194.7
40°	1664.8	1678.0	1700.1	1717.8	1779.5	1779.5	1797.2	1867.9	1925.4	1960.7	1956.2
42.5°	1461.7	1466.0	1483.7	1514.7	1572.1	1558.8	1572.1	1620.7	1704.4	1708.9	1757.6
45°	1320.4	1315.9	1329.2	1333.5	1369.0	1386.6	1395.5	1430.7	1501.3	1510.2	1514.7
47.5°	1192.3	1187.9	1210.0	1218.8	1232.0	1249.6	1249.6	1254.1	1280.6	1302.7	1285.1
50°	1086.3	1086.3	1086.3	1095.1	1117.3	1112.8	1117.3	1134.9	1148.1	1139.2	1134.9
52.5°	971.4	989.1	1002.4	1006.9	1011.2	1011.2	1015.7	1006.9	1002.4	989.1	962.6
55°	892.0	909.7	909.7	909.7	909.7	927.3	905.3	909.7	909.7	874.4	839.1
57.5°	812.6	830.2	843.4	825.8	843.4	825.8	816.9	812.6	803.6	768.3	715.4
60°	746.3	755.2	750.7	746.3	755.2	741.8	733.0	715.4	706.6	657.9	622.6
62.5°	671.3	675.6	680.1	671.3	662.4	657.9	640.3	613.8	596.2	556.4	525.4
65°	609.3	596.2	591.7	587.4	578.5	565.2	552.1	521.1	507.8	472.5	441.5
67.5°	516.6	512.3	521.1	507.8	485.8	485.8	472.5	446.0	415.0	393.1	362.1
70°	441.5	437.2	428.4	415.0	410.7	393.1	393.1	362.1	353.3	313.5	287.0
72.5°	362.1	362.1	348.8	335.6	322.3	313.5	309.2	287.0	273.9	251.7	229.6
75°	273.9	273.9	269.4	256.0	247.2	238.4	234.1	216.4	203.1	181.1	167.8
77.5°	194.3	194.3	176.6	167.8	172.1	163.3	154.5	150.2	145.7	132.5	114.9
80°	114.9	110.4	97.2	101.6	97.2	97.2	92.7	88.2	79.4	70.6	61.8
82.5°	31.0	35.3	35.3	35.3	39.8	31.0	31.0	31.0	35.3	35.3	22.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5	4.5	4.5
87.5°	4.5	8.8	17.6	17.6	17.6	17.6	17.6	13.3	13.3	13.3	8.8
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°	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8
2.5°	3727.0	3722.5	3727.0	3696.1	3766.7	3713.7	3704.9	3696.1	3727.0	3696.1	3652.0
5°	3806.4	3762.3	3749.0	3735.9	3775.5	3713.7	3700.6	3704.9	3682.8	3625.5	3629.8
7.5°	3832.9	3793.3	3753.5	3669.6	3704.9	3691.7	3656.3	3629.8	3594.5	3545.9	3537.1
10°	3841.7	3797.6	3740.2	3713.7	3660.8	3643.1	3629.8	3585.7	3541.6	3457.7	3435.5
12.5°	3815.3	3762.3	3691.7	3669.6	3629.8	3572.4	3541.6	3497.3	3457.7	3391.4	3342.8
15°	3700.6	3656.3	3634.3	3559.2	3541.6	3506.1	3444.4	3382.6	3325.2	3236.7	3210.3
17.5°	3568.0	3550.4	3528.3	3470.8	3466.5	3431.2	3373.8	3320.7	3245.7	3108.7	3064.6
20°	3431.2	3431.2	3360.4	3338.5	3382.6	3311.8	3267.7	3219.1	3064.6	2998.3	2918.9
22.5°	3329.6	3281.0	3241.2	3206.0	3210.3	3166.2	3104.4	3007.2	2949.7	2870.3	2777.6
25°	3130.9	3148.5	3060.3	3047.0	3060.3	2958.6	2927.8	2848.2	2764.3	2689.2	2618.6
27.5°	3007.2	2958.6	2901.3	2852.7	2852.7	2812.9	2724.7	2707.0	2578.8	2508.2	2419.8
30°	2821.7	2786.4	2737.8	2667.2	2658.4	2627.4	2556.8	2512.5	2380.2	2274.1	2225.5
32.5°	2587.6	2574.5	2534.7	2455.3	2428.8	2393.3	2305.1	2230.0	2168.3	2048.9	1991.6
35°	2419.8	2371.4	2287.5	2221.2	2199.1	2137.3	2066.5	2013.6	1947.3	1841.5	1766.4
37.5°	2168.3	2119.7	2040.1	1960.7	1960.7	1898.9	1801.7	1748.7	1656.0	1594.1	1532.3
40°	1947.3	1885.6	1806.2	1713.4	1700.1	1611.7	1572.1	1483.7	1426.3	1329.2	1320.4
42.5°	1700.1	1642.7	1572.1	1501.3	1448.4	1404.3	1302.7	1236.5	1174.7	1126.1	1112.8
45°	1474.9	1399.8	1338.0	1249.6	1196.7	1143.7	1077.5	1033.4	984.7	931.8	900.8
47.5°	1280.6	1218.8	1130.4	1051.0	998.1	971.4	896.3	847.9	808.1	772.8	750.7
50°	1082.0	1006.9	958.3	869.9	861.0	799.3	737.5	697.7	675.6	644.8	613.8
52.5°	931.8	861.0	794.8	728.7	693.2	671.3	613.8	574.0	543.2	521.1	503.4
55°	786.0	724.2	671.3	605.0	582.9	552.1	485.8	477.0	446.0	415.0	393.1
57.5°	675.6	618.1	556.4	512.3	472.5	450.5	397.4	362.1	344.5	318.0	295.8
60°	574.0	512.3	463.7	410.7	393.1	362.1	322.3	291.5	269.4	247.2	225.3
62.5°	481.3	428.4	375.4	331.1	304.7	287.0	256.0	229.6	207.6	190.0	172.1
65°	397.4	348.8	304.7	260.5	247.2	225.3	203.1	181.1	163.3	141.3	123.7
67.5°	326.8	282.7	238.4	207.6	194.3	185.5	159.0	136.8	123.7	110.4	92.7
70°	256.0	225.3	190.0	163.3	150.2	136.8	119.2	106.1	88.2	79.4	66.3
72.5°	198.8	172.1	141.3	119.2	110.4	101.6	83.9	70.6	61.8	52.9	44.1
75°	141.3	119.2	101.6	79.4	75.1	70.6	57.4	48.6	39.8	31.0	26.5
77.5°	97.2	79.4	61.8	52.9	48.6	39.8	35.3	26.5	22.1	17.6	13.3
80°	52.9	39.8	31.0	26.5	22.1	17.6	17.6	13.3	8.8	8.8	4.5
82.5°	17.6	13.3	8.8	4.5	4.5	4.5	4.5	4.5	4.5	0.0	4.5
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°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	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°	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8
2.5°	3678.4	3629.8	3643.1	3643.1	3634.3	3634.3	3625.5	3612.2	3616.7	3590.0	3532.8
5°	3638.6	3576.9	3568.0	3576.9	3541.6	3532.8	3515.1	3541.6	3462.0	3493.0	3457.7
7.5°	3523.9	3466.5	3453.2	3484.1	3440.0	3413.4	3409.1	3444.4	3373.8	3338.5	3298.7
10°	3395.7	3373.8	3334.0	3311.8	3298.7	3303.0	3267.7	3223.6	3210.3	3201.5	3166.2
12.5°	3281.0	3232.4	3197.1	3170.7	3161.8	3161.8	3104.4	3095.6	3055.8	3047.0	2994.0
15°	3144.0	3086.7	3064.6	3029.3	2998.3	3016.0	2949.7	2932.1	2918.9	2861.5	2870.3
17.5°	3024.8	2963.1	2910.1	2888.0	2861.5	2835.0	2773.1	2786.4	2755.4	2755.4	2676.0
20°	2870.3	2804.1	2764.3	2720.2	2720.2	2684.9	2640.7	2645.1	2605.3	2565.7	2494.9
22.5°	2707.0	2636.2	2587.6	2570.0	2525.9	2517.0	2464.1	2450.8	2397.8	2402.2	2340.4
25°	2534.7	2464.1	2397.8	2402.2	2362.6	2344.9	2313.9	2252.2	2230.0	2203.6	2185.9
27.5°	2331.6	2283.0	2225.5	2221.2	2146.1	2150.4	2110.8	2093.2	2040.1	2053.4	2013.6
30°	2146.1	2075.5	2022.4	2009.3	1978.3	1969.5	1907.7	1881.1	1890.1	1854.6	1832.6
32.5°	1956.2	1850.3	1828.1	1801.7	1784.0	1761.9	1717.8	1735.4	1695.6	1704.4	1669.1
35°	1704.4	1660.3	1602.9	1602.9	1585.2	1567.6	1536.8	1554.4	1514.7	1497.0	1461.7
37.5°	1492.5	1452.9	1395.5	1413.1	1382.1	1355.7	1329.2	1333.5	1298.2	1293.9	1258.4
40°	1262.9	1240.8	1201.2	1201.2	1179.0	1179.0	1165.7	1152.6	1130.4	1103.9	1064.2
42.5°	1046.5	1028.9	1011.2	1015.7	984.7	1011.2	975.9	998.1	927.3	923.0	896.3
45°	887.5	847.9	852.2	834.6	816.9	825.8	794.8	803.6	764.0	755.2	728.7
47.5°	719.9	706.6	680.1	671.3	671.3	657.9	644.8	640.3	622.6	600.5	565.2
50°	591.7	543.2	534.2	521.1	512.3	512.3	494.6	468.2	472.5	450.5	415.0
52.5°	463.7	423.9	406.2	401.9	384.2	375.4	353.3	335.6	322.3	313.5	291.5
55°	357.6	322.3	300.3	300.3	273.9	273.9	242.9	229.6	211.9	194.3	181.1
57.5°	269.4	251.7	229.6	211.9	203.1	181.1	163.3	141.3	128.0	101.6	83.9
60°	203.1	185.5	163.3	150.2	141.3	119.2	97.2	79.4	48.6	39.8	35.3
62.5°	150.2	132.5	110.4	101.6	92.7	75.1	52.9	26.5	13.3	13.3	13.3
65°	110.4	88.2	70.6	61.8	52.9	39.8	17.6	8.8	4.5	4.5	4.5
67.5°	75.1	57.4	39.8	35.3	26.5	13.3	4.5	4.5	4.5	4.5	4.5
70°	48.6	35.3	17.6	13.3	8.8	4.5	4.5	4.5	4.5	4.5	4.5
72.5°	31.0	17.6	8.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	17.6	8.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	8.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.5	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	4.5	4.5	4.5
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 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8	3682.8
2.5°	3594.5	3563.6	3581.2	3541.6	3559.2	3590.0	3568.0	3576.9
5°	3470.8	3453.2	3431.2	3373.8	3417.9	3453.2	3435.5	3431.2
7.5°	3338.5	3276.5	3307.5	3289.9	3281.0	3316.3	3276.5	3320.7
10°	3201.5	3157.3	3153.0	3122.0	3122.0	3148.5	3153.0	3126.4
12.5°	2998.3	2976.4	2976.4	2971.9	2967.4	2994.0	2998.3	2985.2
15°	2852.7	2843.9	2821.7	2817.4	2790.9	2830.5	2835.0	2830.5
17.5°	2676.0	2680.4	2658.4	2658.4	2676.0	2689.2	2653.9	2689.2
20°	2556.8	2534.7	2525.9	2486.1	2508.2	2530.4	2530.4	2534.7
22.5°	2384.5	2349.2	2362.6	2340.4	2327.1	2358.1	2358.1	2371.4
25°	2190.2	2190.2	2199.1	2185.9	2194.7	2212.4	2199.1	2230.0
27.5°	2004.8	2022.4	2022.4	2004.8	2013.6	2066.5	2088.7	2053.4
30°	1832.6	1837.0	1850.3	1841.5	1867.9	1885.6	1881.1	1907.7
32.5°	1638.4	1660.3	1669.1	1656.0	1664.8	1704.4	1682.5	1678.0
35°	1488.2	1448.4	1444.1	1448.4	1466.0	1474.9	1466.0	1497.0
37.5°	1271.8	1258.4	1240.8	1245.3	1258.4	1276.3	1285.1	1307.1
40°	1064.2	1046.5	1046.5	1042.2	1028.9	1077.5	1077.5	1077.5
42.5°	883.2	878.7	856.7	856.7	874.4	887.5	878.7	909.7
45°	724.2	706.6	693.2	693.2	706.6	706.6	719.9	715.4
47.5°	569.7	552.1	556.4	543.2	556.4	574.0	552.1	556.4
50°	428.4	428.4	419.5	428.4	423.9	428.4	419.5	410.7
52.5°	291.5	331.1	335.6	318.0	278.2	242.9	220.8	238.4
55°	167.8	150.2	150.2	145.7	136.8	132.5	119.2	132.5
57.5°	83.9	75.1	75.1	75.1	70.6	66.3	57.4	57.4
60°	35.3	31.0	31.0	26.5	22.1	17.6	13.3	17.6
62.5°	13.3	8.8	8.8	8.8	8.8	8.8	8.8	8.8
65°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
67.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
70°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
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)