

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 EX4C659027 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 EX4C659027 4LBSQLWWLI
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

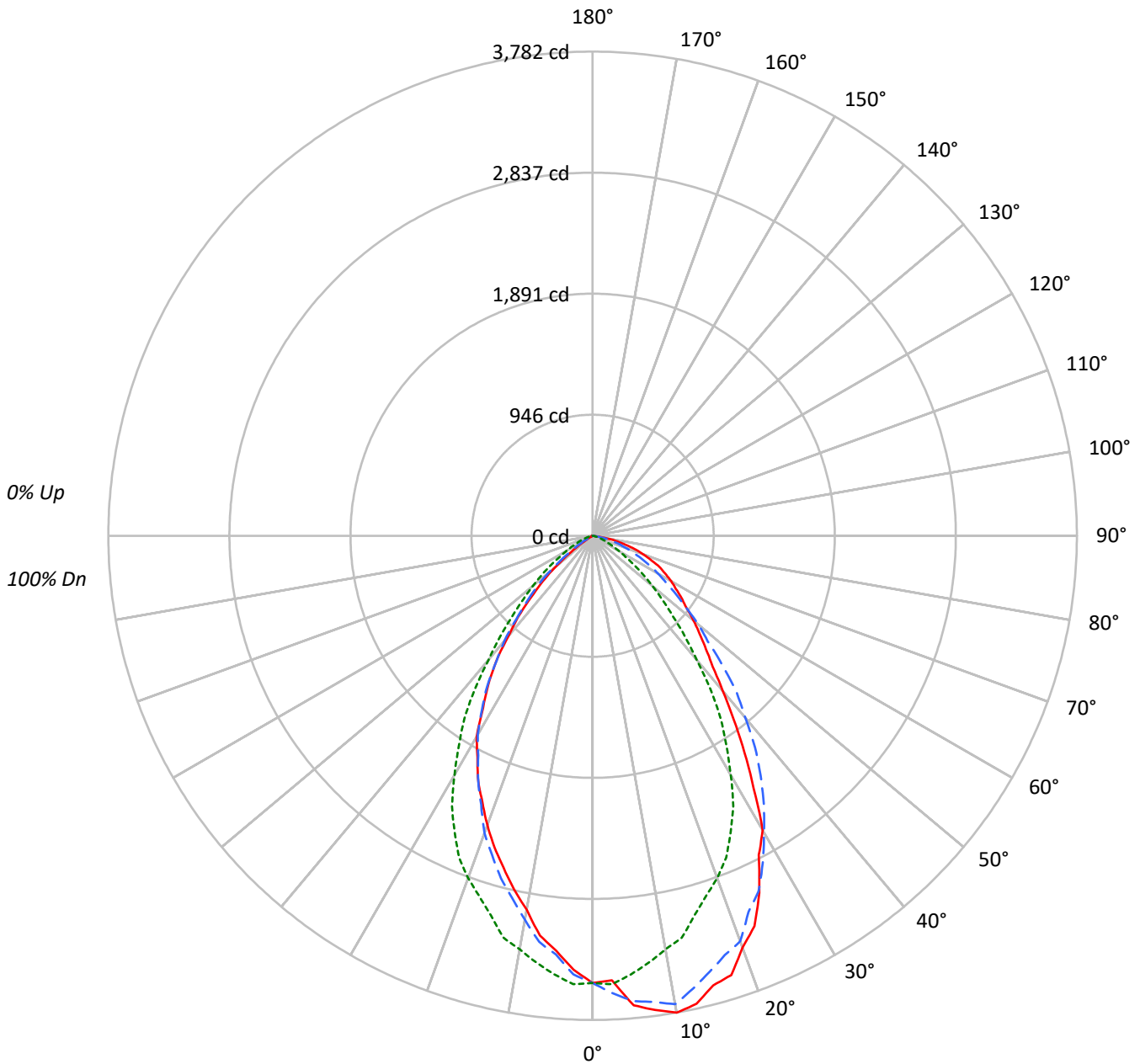
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5007.0 lumens
Efficiency: N/A
Efficacy: 69.2 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 (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									
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°	337036	337036	337036
5°	356581	333064	315213
10°	370560	321317	290532
15°	363150	306670	268182
20°	351365	292015	246856
25°	327749	271546	225181
30°	295865	240324	201596
35°	243710	205734	167252
40°	198887	158794	128728
45°	170884	120600	92585
50°	154658	91807	58483
55°	142334	66229	21146
60°	136609	45253	3223
65°	131942	30617	982
70°	118150	21243	1213
75°	96855	10960	0
80°	60567	4668	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	327.3	6.5
10°-20°	881.7	17.6
20°-30°	1177.4	23.5
30°-40°	1117.7	22.3
40°-50°	772.6	15.4
50°-60°	426.9	8.5
60°-70°	212.0	4.2
70°-80°	83.5	1.7
80°-90°	8.0	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°	2386.4	47.7
0°-40°	3504.1	70.0
0°-60°	4703.5	93.9
0°-90°	5007.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5007.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3493	3493	3493	3493	3493	
5°	3682	3648	3439	3284	3254	352
15°	3635	3527	3070	2768	2685	1028
25°	3078	3066	2551	2115	2115	1403
35°	2069	2287	1747	1437	1420	1296
45°	1252	1437	884	725	678	977
55°	846	796	394	201	126	762
65°	578	419	134	4	4	561
75°	260	159	29	0	0	277
85°	0	4	0	0	0	24
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°	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0
2.5°	3476.3	3572.6	3581.0	3572.6	3585.2	3581.0	3602.0	3581.0	3606.2	3568.5	3576.8
5°	3681.5	3643.8	3723.4	3681.5	3681.5	3677.4	3664.8	3660.5	3677.4	3623.0	3648.1
7.5°	3736.0	3790.5	3861.7	3773.8	3777.9	3777.9	3752.8	3744.4	3744.4	3643.8	3673.2
10°	3782.1	3748.5	3786.2	3752.8	3782.1	3777.9	3794.6	3740.1	3777.9	3719.3	3715.0
12.5°	3744.4	3731.7	3782.1	3727.6	3710.9	3715.0	3694.2	3681.5	3694.2	3627.1	3623.0
15°	3635.4	3648.1	3723.4	3664.8	3656.4	3648.1	3623.0	3581.0	3614.6	3522.4	3526.6
17.5°	3597.9	3576.8	3589.5	3539.1	3551.7	3543.4	3539.1	3501.5	3493.0	3434.4	3434.4
20°	3421.9	3467.9	3467.9	3434.4	3434.4	3430.3	3375.8	3409.3	3371.6	3354.8	3371.6
22.5°	3300.4	3304.6	3304.6	3275.2	3279.5	3262.8	3233.4	3212.4	3233.4	3212.4	3178.9
25°	3078.5	3086.9	3137.1	3082.6	3074.2	3091.0	3065.9	3053.2	3049.1	2998.9	3065.9
27.5°	2810.4	2894.1	2890.0	2869.0	2894.1	2860.6	2848.1	2852.2	2864.9	2860.6	2877.3
30°	2655.5	2667.9	2680.6	2663.8	2667.9	2655.5	2655.5	2659.6	2693.1	2680.6	2676.3
32.5°	2341.2	2383.1	2416.7	2416.7	2420.8	2433.5	2429.2	2517.2	2538.2	2496.3	2487.9
35°	2069.0	2098.4	2127.6	2131.9	2186.3	2190.4	2194.7	2219.8	2278.4	2291.0	2286.8
37.5°	1809.4	1838.6	1847.0	1884.7	1914.1	1943.3	1977.0	2010.4	2060.7	2102.5	2081.7
40°	1579.0	1591.5	1612.5	1629.3	1687.8	1687.8	1704.6	1771.7	1826.2	1859.6	1855.4
42.5°	1386.4	1390.5	1407.2	1436.6	1491.1	1478.5	1491.1	1537.2	1616.6	1620.9	1667.0
45°	1252.3	1248.1	1260.7	1264.8	1298.4	1315.2	1323.6	1357.0	1424.0	1432.3	1436.6
47.5°	1130.9	1126.6	1147.7	1156.0	1168.5	1185.2	1185.2	1189.5	1214.6	1235.6	1218.9
50°	1030.3	1030.3	1030.3	1038.7	1059.7	1055.4	1059.7	1076.4	1088.9	1080.5	1076.4
52.5°	921.4	938.1	950.7	955.0	959.1	959.1	963.4	955.0	950.7	938.1	913.0
55°	846.1	862.8	862.8	862.8	862.8	879.5	858.7	862.8	862.8	829.3	795.8
57.5°	770.7	787.5	799.9	783.2	799.9	783.2	774.8	770.7	762.2	728.7	678.5
60°	707.9	716.3	712.0	707.9	716.3	703.6	695.3	678.5	670.1	624.0	590.6
62.5°	636.7	640.8	645.0	636.7	628.3	624.0	607.3	582.2	565.5	527.7	498.3
65°	577.9	565.5	561.2	557.1	548.7	536.1	523.6	494.2	481.6	448.1	418.8
67.5°	490.0	485.9	494.2	481.6	460.8	460.8	448.1	423.0	393.7	372.8	343.4
70°	418.8	414.7	406.3	393.7	389.6	372.8	372.8	343.4	335.1	297.3	272.2
72.5°	343.4	343.4	330.8	318.3	305.7	297.3	293.2	272.2	259.8	238.8	217.7
75°	259.8	259.8	255.5	242.9	234.5	226.1	222.0	205.3	192.6	171.8	159.2
77.5°	184.3	184.3	167.5	159.2	163.3	154.9	146.5	142.4	138.2	125.7	109.0
80°	109.0	104.7	92.2	96.3	92.2	92.2	88.0	83.7	75.3	66.9	58.6
82.5°	29.4	33.5	33.5	33.5	37.7	29.4	29.4	29.4	33.5	33.5	21.0
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.3	4.3	4.3
87.5°	4.3	8.4	16.7	16.7	16.7	16.7	16.7	12.6	12.6	12.6	8.4
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°	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0
2.5°	3535.0	3530.7	3535.0	3505.6	3572.6	3522.4	3514.0	3505.6	3535.0	3505.6	3463.8
5°	3610.3	3568.5	3555.8	3543.4	3581.0	3522.4	3509.9	3514.0	3493.0	3438.7	3442.8
7.5°	3635.4	3597.9	3560.1	3480.5	3514.0	3501.5	3467.9	3442.8	3409.3	3363.2	3354.8
10°	3643.8	3602.0	3547.5	3522.4	3472.2	3455.4	3442.8	3400.9	3359.1	3279.5	3258.5
12.5°	3618.7	3568.5	3501.5	3480.5	3442.8	3388.3	3359.1	3317.1	3279.5	3216.7	3170.6
15°	3509.9	3467.9	3447.1	3375.8	3359.1	3325.5	3266.9	3208.3	3153.8	3070.0	3044.9
17.5°	3384.2	3367.5	3346.5	3292.0	3287.9	3254.4	3199.9	3149.6	3078.5	2948.5	2906.7
20°	3254.4	3254.4	3187.3	3166.5	3208.3	3141.2	3099.3	3053.2	2906.7	2843.9	2768.5
22.5°	3158.1	3112.0	3074.2	3040.8	3044.9	3003.0	2944.4	2852.2	2797.7	2722.4	2634.5
25°	2969.5	2986.3	2902.6	2890.0	2902.6	2806.1	2776.9	2701.4	2621.8	2550.6	2483.7
27.5°	2852.2	2806.1	2751.8	2705.7	2705.7	2667.9	2584.3	2567.5	2445.9	2379.0	2295.1
30°	2676.3	2642.8	2596.7	2529.8	2521.4	2492.0	2425.1	2383.1	2257.6	2157.0	2110.9
32.5°	2454.3	2441.8	2404.1	2328.8	2303.7	2270.0	2186.3	2115.1	2056.5	1943.3	1889.0
35°	2295.1	2249.2	2169.6	2106.8	2085.8	2027.2	1960.1	1909.9	1847.0	1746.6	1675.4
37.5°	2056.5	2010.4	1935.0	1859.6	1859.6	1801.1	1708.8	1658.6	1570.7	1511.9	1453.4
40°	1847.0	1788.4	1713.1	1625.2	1612.5	1528.7	1491.1	1407.2	1352.8	1260.7	1252.3
42.5°	1612.5	1558.0	1491.1	1424.0	1373.8	1331.9	1235.6	1172.8	1114.2	1068.1	1055.4
45°	1398.9	1327.7	1269.1	1185.2	1135.0	1084.8	1022.0	980.1	934.0	883.8	854.4
47.5°	1214.6	1156.0	1072.2	996.9	946.6	921.4	850.2	804.2	766.5	733.0	712.0
50°	1026.2	955.0	908.9	825.0	816.7	758.1	699.5	661.8	640.8	611.6	582.2
52.5°	883.8	816.7	753.8	691.1	657.5	636.7	582.2	544.5	515.2	494.2	477.5
55°	745.5	686.9	636.7	573.8	552.8	523.6	460.8	452.4	423.0	393.7	372.8
57.5°	640.8	586.3	527.7	485.9	448.1	427.3	376.9	343.4	326.7	301.6	280.6
60°	544.5	485.9	439.8	389.6	372.8	343.4	305.7	276.5	255.5	234.5	213.6
62.5°	456.5	406.3	356.1	314.1	289.0	272.2	242.9	217.7	196.9	180.2	163.3
65°	376.9	330.8	289.0	247.1	234.5	213.6	192.6	171.8	154.9	134.1	117.3
67.5°	310.0	268.1	226.1	196.9	184.3	175.9	150.8	129.8	117.3	104.7	88.0
70°	242.9	213.6	180.2	154.9	142.4	129.8	113.1	100.6	83.7	75.3	62.8
72.5°	188.5	163.3	134.1	113.1	104.7	96.3	79.6	66.9	58.6	50.2	41.8
75°	134.1	113.1	96.3	75.3	71.2	66.9	54.5	46.1	37.7	29.4	25.1
77.5°	92.2	75.3	58.6	50.2	46.1	37.7	33.5	25.1	21.0	16.7	12.6
80°	50.2	37.7	29.4	25.1	21.0	16.7	16.7	12.6	8.4	8.4	4.3
82.5°	16.7	12.6	8.4	4.3	4.3	4.3	4.3	4.3	4.3	0.0	4.3
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°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	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°	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0
2.5°	3488.9	3442.8	3455.4	3455.4	3447.1	3447.1	3438.7	3426.0	3430.3	3405.0	3350.7
5°	3451.2	3392.6	3384.2	3392.6	3359.1	3350.7	3334.0	3359.1	3283.6	3313.0	3279.5
7.5°	3342.4	3287.9	3275.2	3304.6	3262.8	3237.5	3233.4	3266.9	3199.9	3166.5	3128.7
10°	3220.8	3199.9	3162.2	3141.2	3128.7	3132.8	3099.3	3057.5	3044.9	3036.5	3003.0
12.5°	3112.0	3065.9	3032.4	3007.3	2998.9	2998.9	2944.4	2936.1	2898.3	2890.0	2839.8
15°	2982.0	2927.7	2906.7	2873.2	2843.9	2860.6	2797.7	2781.0	2768.5	2714.1	2722.4
17.5°	2869.0	2810.4	2760.2	2739.2	2714.1	2689.0	2630.2	2642.8	2613.5	2613.5	2538.2
20°	2722.4	2659.6	2621.8	2580.0	2580.0	2546.5	2504.7	2508.8	2471.0	2433.5	2366.4
22.5°	2567.5	2500.4	2454.3	2437.6	2395.7	2387.4	2337.1	2324.5	2274.3	2278.4	2219.8
25°	2404.1	2337.1	2274.3	2278.4	2240.8	2224.1	2194.7	2136.1	2115.1	2090.0	2073.3
27.5°	2211.4	2165.3	2110.9	2106.8	2035.5	2039.6	2002.1	1985.3	1935.0	1947.6	1909.9
30°	2035.5	1968.6	1918.2	1905.7	1876.4	1868.0	1809.4	1784.2	1792.7	1759.1	1738.2
32.5°	1855.4	1754.9	1733.9	1708.8	1692.1	1671.1	1629.3	1646.0	1608.3	1616.6	1583.1
35°	1616.6	1574.8	1520.3	1520.3	1503.6	1486.8	1457.6	1474.4	1436.6	1419.9	1386.4
37.5°	1415.6	1378.0	1323.6	1340.3	1310.9	1285.8	1260.7	1264.8	1231.3	1227.2	1193.6
40°	1197.9	1176.9	1139.3	1139.3	1118.3	1118.3	1105.6	1093.2	1072.2	1047.1	1009.3
42.5°	992.6	975.8	959.1	963.4	934.0	959.1	925.6	946.6	879.5	875.4	850.2
45°	841.8	804.2	808.3	791.6	774.8	783.2	753.8	762.2	724.6	716.3	691.1
47.5°	682.8	670.1	645.0	636.7	636.7	624.0	611.6	607.3	590.6	569.6	536.1
50°	561.2	515.2	506.7	494.2	485.9	485.9	469.1	444.0	448.1	427.3	393.7
52.5°	439.8	402.0	385.3	381.2	364.4	356.1	335.1	318.3	305.7	297.3	276.5
55°	339.2	305.7	284.9	284.9	259.8	259.8	230.4	217.7	201.0	184.3	171.8
57.5°	255.5	238.8	217.7	201.0	192.6	171.8	154.9	134.1	121.4	96.3	79.6
60°	192.6	175.9	154.9	142.4	134.1	113.1	92.2	75.3	46.1	37.7	33.5
62.5°	142.4	125.7	104.7	96.3	88.0	71.2	50.2	25.1	12.6	12.6	12.6
65°	104.7	83.7	66.9	58.6	50.2	37.7	16.7	8.4	4.3	4.3	4.3
67.5°	71.2	54.5	37.7	33.5	25.1	12.6	4.3	4.3	4.3	4.3	4.3
70°	46.1	33.5	16.7	12.6	8.4	4.3	4.3	4.3	4.3	4.3	4.3
72.5°	29.4	16.7	8.4	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	16.7	8.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	8.4	4.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.3	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	4.3	4.3	4.3
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 EX4C659027 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0	3493.0
2.5°	3409.3	3379.9	3396.7	3359.1	3375.8	3405.0	3384.2	3392.6
5°	3292.0	3275.2	3254.4	3199.9	3241.8	3275.2	3258.5	3254.4
7.5°	3166.5	3107.7	3137.1	3120.3	3112.0	3145.5	3107.7	3149.6
10°	3036.5	2994.7	2990.6	2961.2	2961.2	2986.3	2990.6	2965.3
12.5°	2843.9	2823.0	2823.0	2818.7	2814.5	2839.8	2843.9	2831.4
15°	2705.7	2697.3	2676.3	2672.2	2647.1	2684.7	2689.0	2684.7
17.5°	2538.2	2542.3	2521.4	2521.4	2538.2	2550.6	2517.2	2550.6
20°	2425.1	2404.1	2395.7	2358.0	2379.0	2400.0	2400.0	2404.1
22.5°	2261.7	2228.2	2240.8	2219.8	2207.2	2236.6	2236.6	2249.2
25°	2077.4	2077.4	2085.8	2073.3	2081.7	2098.4	2085.8	2115.1
27.5°	1901.5	1918.2	1918.2	1901.5	1909.9	1960.1	1981.1	1947.6
30°	1738.2	1742.3	1754.9	1746.6	1771.7	1788.4	1784.2	1809.4
32.5°	1553.9	1574.8	1583.1	1570.7	1579.0	1616.6	1595.8	1591.5
35°	1411.5	1373.8	1369.7	1373.8	1390.5	1398.9	1390.5	1419.9
37.5°	1206.2	1193.6	1176.9	1181.1	1193.6	1210.5	1218.9	1239.7
40°	1009.3	992.6	992.6	988.5	975.8	1022.0	1022.0	1022.0
42.5°	837.7	833.4	812.6	812.6	829.3	841.8	833.4	862.8
45°	686.9	670.1	657.5	657.5	670.1	670.1	682.8	678.5
47.5°	540.4	523.6	527.7	515.2	527.7	544.5	523.6	527.7
50°	406.3	406.3	397.9	406.3	402.0	406.3	397.9	389.6
52.5°	276.5	314.1	318.3	301.6	263.9	230.4	209.4	226.1
55°	159.2	142.4	142.4	138.2	129.8	125.7	113.1	125.7
57.5°	79.6	71.2	71.2	71.2	66.9	62.8	54.5	54.5
60°	33.5	29.4	29.4	25.1	21.0	16.7	12.6	16.7
62.5°	12.6	8.4	8.4	8.4	8.4	8.4	8.4	8.4
65°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
67.5°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
70°	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
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)