

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 4LBSQLWWLI**

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 4LBSQLWWLI
Description: 4 INCH 6500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

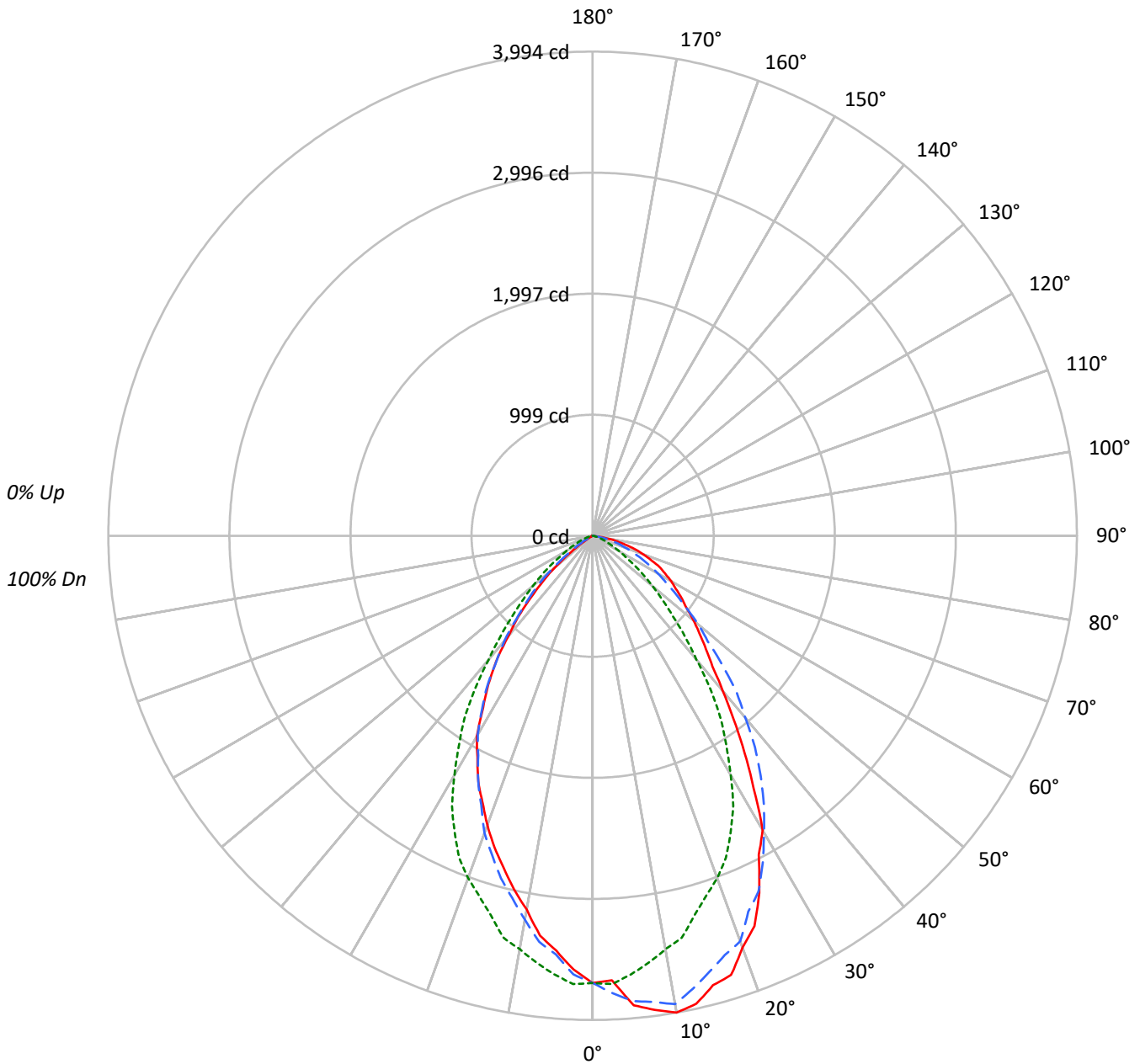
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5287.0 lumens
Efficiency: N/A
Efficacy: 73.0 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

TEST NUMBER: P#
CATALOG NUMBER: LD4C65D010 EX4C659040 4LBSQLWWLI

Luminous Intensity Polar Plot





TEST NUMBER: P#

CATALOG NUMBER: LD4C65D010 EX4C659040 4LBSQLWWLI

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°	355880	355880	355880
5°	376524	351689	332841
10°	391283	339286	306777
15°	383458	323822	283176
20°	371018	308342	260657
25°	346082	286739	237776
30°	312410	253761	212871
35°	257338	217242	176604
40°	210009	167674	135921
45°	180449	127341	97771
50°	163305	96941	61740
55°	150291	69930	22323
60°	144251	47781	3416
65°	139316	32329	1027
70°	124751	22428	1270
75°	102260	11557	0
80°	63901	4890	0
85°	0	0	0



TEST NUMBER: P#

CATALOG NUMBER: LD4C65D010 EX4C659040 4LBSQLWWLI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	345.6	6.5
10°-20°	931.0	17.6
20°-30°	1243.2	23.5
30°-40°	1180.2	22.3
40°-50°	815.8	15.4
50°-60°	450.8	8.5
60°-70°	223.8	4.2
70°-80°	88.2	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°	2519.8	47.7
0°-40°	3700.0	70.0
0°-60°	4966.6	93.9
0°-90°	5287.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5287.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3688	3688	3688	3688	3688	
5°	3887	3852	3631	3467	3436	372
15°	3839	3724	3242	2923	2835	1086
25°	3251	3237	2693	2233	2233	1482
35°	2185	2415	1844	1517	1499	1369
45°	1322	1517	933	765	716	1031
55°	893	840	416	212	133	804
65°	610	442	142	4	4	592
75°	274	168	31	0	0	292
85°	0	4	0	0	0	25
90°	0	0	0	0	0	



TEST NUMBER: P#

CATALOG NUMBER: LD4C65D010 EX4C659040 4LBSQLWWLI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3
2.5°	3670.7	3772.4	3781.2	3772.4	3785.7	3781.2	3803.4	3781.2	3807.9	3768.0	3776.9
5°	3887.4	3847.6	3931.6	3887.4	3887.4	3883.1	3869.7	3865.2	3883.1	3825.6	3852.1
7.5°	3944.9	4002.5	4077.7	3984.8	3989.1	3989.1	3962.6	3953.8	3953.8	3847.6	3878.6
10°	3993.6	3958.1	3998.0	3962.6	3993.6	3989.1	4006.8	3949.3	3989.1	3927.3	3922.8
12.5°	3953.8	3940.4	3993.6	3936.1	3918.4	3922.8	3900.8	3887.4	3900.8	3829.9	3825.6
15°	3838.7	3852.1	3931.6	3869.7	3860.9	3852.1	3825.6	3781.2	3816.7	3719.3	3723.9
17.5°	3799.0	3776.9	3790.2	3737.0	3750.4	3741.5	3737.0	3697.3	3688.3	3626.5	3626.5
20°	3613.3	3661.8	3661.8	3626.5	3626.5	3622.1	3564.6	3600.0	3560.1	3542.4	3560.1
22.5°	3484.9	3489.4	3489.4	3458.4	3462.9	3445.2	3414.2	3392.0	3414.2	3392.0	3356.7
25°	3250.7	3259.5	3312.5	3255.0	3246.2	3263.8	3237.3	3224.0	3219.6	3166.6	3237.3
27.5°	2967.5	3055.9	3051.6	3029.4	3055.9	3020.6	3007.4	3011.7	3025.1	3020.6	3038.2
30°	2804.0	2817.1	2830.5	2812.8	2817.1	2804.0	2804.0	2808.3	2843.7	2830.5	2826.0
32.5°	2472.2	2516.4	2551.9	2551.9	2556.2	2569.5	2565.0	2657.9	2680.1	2635.9	2627.1
35°	2184.7	2215.7	2246.6	2251.1	2308.6	2312.9	2317.4	2344.0	2405.8	2419.2	2414.6
37.5°	1910.6	1941.5	1950.3	1990.1	2021.2	2052.0	2087.5	2122.9	2175.9	2220.1	2198.1
40°	1667.3	1680.5	1702.7	1720.4	1782.2	1782.2	1799.9	1870.8	1928.3	1963.6	1959.1
42.5°	1463.9	1468.3	1485.9	1517.0	1574.5	1561.1	1574.5	1623.2	1707.0	1711.5	1760.2
45°	1322.4	1317.9	1331.2	1335.5	1371.1	1388.7	1397.6	1432.9	1503.6	1512.4	1517.0
47.5°	1194.2	1189.7	1211.8	1220.7	1233.8	1251.5	1251.5	1256.0	1282.5	1304.7	1287.0
50°	1087.9	1087.9	1087.9	1096.8	1119.0	1114.5	1119.0	1136.6	1149.8	1141.0	1136.6
52.5°	972.9	990.6	1003.9	1008.4	1012.7	1012.7	1017.2	1008.4	1003.9	990.6	964.1
55°	893.4	911.0	911.0	911.0	911.0	928.7	906.7	911.0	911.0	875.7	840.3
57.5°	813.8	831.5	844.7	827.0	844.7	827.0	818.2	813.8	804.8	769.5	716.5
60°	747.5	756.3	751.8	747.5	756.3	743.0	734.1	716.5	707.6	658.9	623.6
62.5°	672.3	676.6	681.1	672.3	663.4	658.9	641.3	614.8	597.1	557.2	526.2
65°	610.2	597.1	592.6	588.2	579.4	566.1	552.9	521.9	508.5	473.2	442.2
67.5°	517.4	513.0	521.9	508.5	486.5	486.5	473.2	446.7	415.7	393.7	362.6
70°	442.2	437.8	429.0	415.7	411.3	393.7	393.7	362.6	353.8	314.0	287.4
72.5°	362.6	362.6	349.3	336.1	322.8	314.0	309.6	287.4	274.3	252.1	229.9
75°	274.3	274.3	269.8	256.4	247.6	238.8	234.4	216.8	203.4	181.4	168.1
77.5°	194.6	194.6	176.9	168.1	172.4	163.6	154.7	150.4	145.9	132.7	115.0
80°	115.0	110.5	97.4	101.7	97.4	97.4	92.9	88.4	79.5	70.7	61.9
82.5°	31.0	35.3	35.3	35.3	39.9	31.0	31.0	31.0	35.3	35.3	22.2
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	17.7	17.7	17.7	17.7	17.7	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



TEST NUMBER: P#

CATALOG NUMBER: LD4C65D010 EX4C659040 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3
2.5°	3732.7	3728.2	3732.7	3701.7	3772.4	3719.3	3710.5	3701.7	3732.7	3701.7	3657.5
5°	3812.2	3768.0	3754.7	3741.5	3781.2	3719.3	3706.2	3710.5	3688.3	3631.0	3635.3
7.5°	3838.7	3799.0	3759.2	3675.2	3710.5	3697.3	3661.8	3635.3	3600.0	3551.3	3542.4
10°	3847.6	3803.4	3745.9	3719.3	3666.3	3648.7	3635.3	3591.1	3546.9	3462.9	3440.7
12.5°	3821.1	3768.0	3697.3	3675.2	3635.3	3577.8	3546.9	3502.6	3462.9	3396.6	3347.9
15°	3706.2	3661.8	3639.8	3564.6	3546.9	3511.4	3449.6	3387.7	3330.2	3241.7	3215.1
17.5°	3573.5	3555.8	3533.6	3476.1	3471.7	3436.4	3378.9	3325.7	3250.7	3113.4	3069.2
20°	3436.4	3436.4	3365.5	3343.5	3387.7	3316.8	3272.7	3224.0	3069.2	3002.9	2923.4
22.5°	3334.7	3286.0	3246.2	3210.8	3215.1	3171.0	3109.1	3011.7	2954.2	2874.7	2781.8
25°	3135.6	3153.3	3064.9	3051.6	3064.9	2963.0	2932.2	2852.5	2768.5	2693.3	2622.6
27.5°	3011.7	2963.0	2905.7	2857.0	2857.0	2817.1	2728.8	2711.1	2582.7	2512.0	2423.5
30°	2826.0	2790.6	2741.9	2671.3	2662.4	2631.4	2560.7	2516.4	2383.8	2277.6	2228.9
32.5°	2591.6	2578.4	2538.5	2459.0	2432.5	2397.0	2308.6	2233.4	2171.6	2052.0	1994.6
35°	2423.5	2375.0	2290.9	2224.6	2202.4	2140.5	2069.7	2016.7	1950.3	1844.3	1769.1
37.5°	2171.6	2122.9	2043.2	1963.6	1963.6	1901.8	1804.4	1751.4	1658.5	1596.5	1534.6
40°	1950.3	1888.4	1808.9	1716.0	1702.7	1614.2	1574.5	1485.9	1428.4	1331.2	1322.4
42.5°	1702.7	1645.2	1574.5	1503.6	1450.6	1406.4	1304.7	1238.3	1176.5	1127.8	1114.5
45°	1477.1	1401.9	1340.0	1251.5	1198.5	1145.5	1079.1	1034.9	986.2	933.2	902.2
47.5°	1282.5	1220.7	1132.1	1052.6	999.6	972.9	897.7	849.2	809.3	774.0	751.8
50°	1083.6	1008.4	959.7	871.2	862.3	800.5	738.6	698.8	676.6	645.8	614.8
52.5°	933.2	862.3	796.0	729.8	694.3	672.3	614.8	574.9	544.1	521.9	504.2
55°	787.2	725.3	672.3	605.9	583.7	552.9	486.5	477.7	446.7	415.7	393.7
57.5°	676.6	619.1	557.2	513.0	473.2	451.2	398.0	362.6	345.0	318.5	296.3
60°	574.9	513.0	464.4	411.3	393.7	362.6	322.8	292.0	269.8	247.6	225.6
62.5°	482.0	429.0	376.0	331.6	305.1	287.4	256.4	229.9	207.9	190.2	172.4
65°	398.0	349.3	305.1	260.9	247.6	225.6	203.4	181.4	163.6	141.6	123.9
67.5°	327.3	283.1	238.8	207.9	194.6	185.7	159.2	137.1	123.9	110.5	92.9
70°	256.4	225.6	190.2	163.6	150.4	137.1	119.4	106.2	88.4	79.5	66.4
72.5°	199.1	172.4	141.6	119.4	110.5	101.7	84.0	70.7	61.9	53.0	44.2
75°	141.6	119.4	101.7	79.5	75.2	70.7	57.5	48.7	39.9	31.0	26.5
77.5°	97.4	79.5	61.9	53.0	48.7	39.9	35.3	26.5	22.2	17.7	13.3
80°	53.0	39.9	31.0	26.5	22.2	17.7	17.7	13.3	8.8	8.8	4.5
82.5°	17.7	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



TEST NUMBER: P#

CATALOG NUMBER: LD4C65D010 EX4C659040 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3
2.5°	3684.0	3635.3	3648.7	3648.7	3639.8	3639.8	3631.0	3617.6	3622.1	3595.5	3538.1
5°	3644.1	3582.3	3573.5	3582.3	3546.9	3538.1	3520.4	3546.9	3467.2	3498.3	3462.9
7.5°	3529.3	3471.7	3458.4	3489.4	3445.2	3418.6	3414.2	3449.6	3378.9	3343.5	3303.7
10°	3400.9	3378.9	3339.0	3316.8	3303.7	3308.0	3272.7	3228.5	3215.1	3206.3	3171.0
12.5°	3286.0	3237.3	3202.0	3175.5	3166.6	3166.6	3109.1	3100.3	3060.4	3051.6	2998.6
15°	3148.8	3091.4	3069.2	3033.9	3002.9	3020.6	2954.2	2936.5	2923.4	2865.8	2874.7
17.5°	3029.4	2967.5	2914.5	2892.3	2865.8	2839.3	2777.3	2790.6	2759.6	2759.6	2680.1
20°	2874.7	2808.3	2768.5	2724.3	2724.3	2688.9	2644.7	2649.1	2609.2	2569.5	2498.7
22.5°	2711.1	2640.2	2591.6	2573.9	2529.7	2520.9	2467.8	2454.5	2401.5	2405.8	2344.0
25°	2538.5	2467.8	2401.5	2405.8	2366.1	2348.5	2317.4	2255.6	2233.4	2206.9	2189.2
27.5°	2335.1	2286.4	2228.9	2224.6	2149.4	2153.7	2114.0	2096.4	2043.2	2056.5	2016.7
30°	2149.4	2078.7	2025.5	2012.3	1981.3	1972.5	1910.6	1883.9	1892.9	1857.4	1835.4
32.5°	1959.1	1853.1	1830.9	1804.4	1786.7	1764.5	1720.4	1738.0	1698.2	1707.0	1671.7
35°	1707.0	1662.8	1605.3	1605.3	1587.6	1570.0	1539.1	1556.8	1517.0	1499.3	1463.9
37.5°	1494.8	1455.1	1397.6	1415.2	1384.2	1357.7	1331.2	1335.5	1300.2	1295.9	1260.3
40°	1264.8	1242.7	1203.0	1203.0	1180.8	1180.8	1167.5	1154.3	1132.1	1105.6	1065.8
42.5°	1048.1	1030.4	1012.7	1017.2	986.2	1012.7	977.4	999.6	928.7	924.4	897.7
45°	888.9	849.2	853.5	835.8	818.2	827.0	796.0	804.8	765.1	756.3	729.8
47.5°	721.0	707.6	681.1	672.3	672.3	658.9	645.8	641.3	623.6	601.4	566.1
50°	592.6	544.1	535.0	521.9	513.0	513.0	495.4	468.9	473.2	451.2	415.7
52.5°	464.4	424.5	406.8	402.5	384.8	376.0	353.8	336.1	322.8	314.0	292.0
55°	358.1	322.8	300.8	300.8	274.3	274.3	243.3	229.9	212.3	194.6	181.4
57.5°	269.8	252.1	229.9	212.3	203.4	181.4	163.6	141.6	128.2	101.7	84.0
60°	203.4	185.7	163.6	150.4	141.6	119.4	97.4	79.5	48.7	39.9	35.3
62.5°	150.4	132.7	110.5	101.7	92.9	75.2	53.0	26.5	13.3	13.3	13.3
65°	110.5	88.4	70.7	61.9	53.0	39.9	17.7	8.8	4.5	4.5	4.5
67.5°	75.2	57.5	39.9	35.3	26.5	13.3	4.5	4.5	4.5	4.5	4.5
70°	48.7	35.3	17.7	13.3	8.8	4.5	4.5	4.5	4.5	4.5	4.5
72.5°	31.0	17.7	8.8	4.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	17.7	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 EX4C659040 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3	3688.3
2.5°	3600.0	3569.0	3586.6	3546.9	3564.6	3595.5	3573.5	3582.3
5°	3476.1	3458.4	3436.4	3378.9	3423.1	3458.4	3440.7	3436.4
7.5°	3343.5	3281.5	3312.5	3294.8	3286.0	3321.4	3281.5	3325.7
10°	3206.3	3162.1	3157.8	3126.8	3126.8	3153.3	3157.8	3131.1
12.5°	3002.9	2980.9	2980.9	2976.4	2971.9	2998.6	3002.9	2989.7
15°	2857.0	2848.2	2826.0	2821.7	2795.1	2834.8	2839.3	2834.8
17.5°	2680.1	2684.4	2662.4	2662.4	2680.1	2693.3	2657.9	2693.3
20°	2560.7	2538.5	2529.7	2489.8	2512.0	2534.2	2534.2	2538.5
22.5°	2388.1	2352.8	2366.1	2344.0	2330.6	2361.6	2361.6	2375.0
25°	2193.6	2193.6	2202.4	2189.2	2198.1	2215.7	2202.4	2233.4
27.5°	2007.8	2025.5	2025.5	2007.8	2016.7	2069.7	2091.9	2056.5
30°	1835.4	1839.7	1853.1	1844.3	1870.8	1888.4	1883.9	1910.6
32.5°	1640.8	1662.8	1671.7	1658.5	1667.3	1707.0	1685.0	1680.5
35°	1490.4	1450.6	1446.3	1450.6	1468.3	1477.1	1468.3	1499.3
37.5°	1273.7	1260.3	1242.7	1247.2	1260.3	1278.2	1287.0	1309.0
40°	1065.8	1048.1	1048.1	1043.8	1030.4	1079.1	1079.1	1079.1
42.5°	884.5	880.0	858.0	858.0	875.7	888.9	880.0	911.0
45°	725.3	707.6	694.3	694.3	707.6	707.6	721.0	716.5
47.5°	570.6	552.9	557.2	544.1	557.2	574.9	552.9	557.2
50°	429.0	429.0	420.2	429.0	424.5	429.0	420.2	411.3
52.5°	292.0	331.6	336.1	318.5	278.6	243.3	221.1	238.8
55°	168.1	150.4	150.4	145.9	137.1	132.7	119.4	132.7
57.5°	84.0	75.2	75.2	75.2	70.7	66.4	57.5	57.5
60°	35.3	31.0	31.0	26.5	22.2	17.7	13.3	17.7
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)