

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: **LD4C60D010 EX4C609027 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: LD4C60D010 EX4C609027 4LBSQLWWLI
Description: 4 INCH 6000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 2700K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

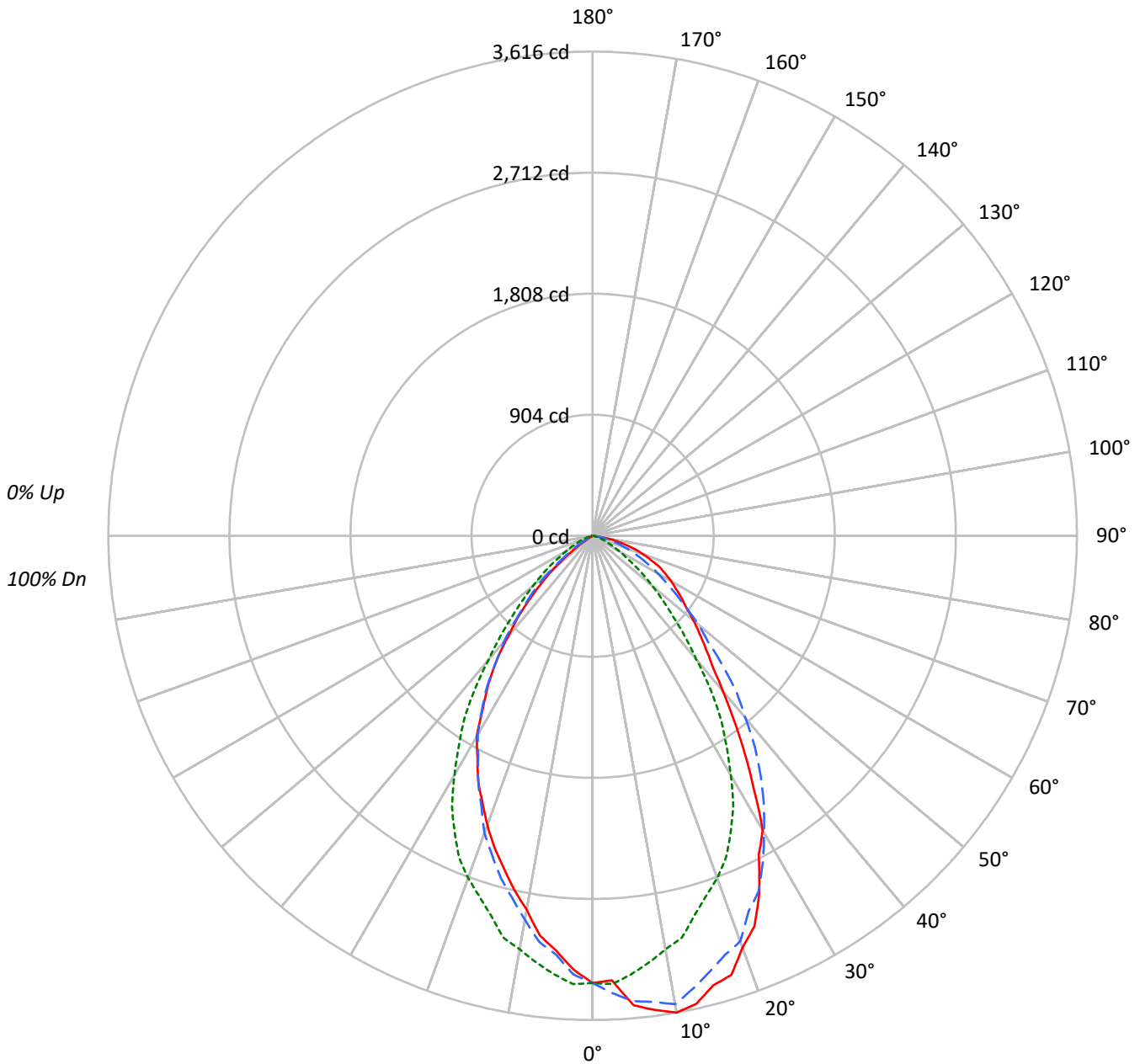
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4787.0 lumens
Efficiency: N/A
Efficacy: 66.5 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
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°	322225	322225	322225
5°	340919	318429	301362
10°	354276	307198	277766
15°	347197	293195	256394
20°	335932	279180	236013
25°	313344	259622	215291
30°	282862	229762	192738
35°	233003	196688	159902
40°	190158	151816	123073
45°	163379	115305	88519
50°	147873	87769	55901
55°	136076	63319	20220
60°	130607	43266	3088
65°	126142	29270	936
70°	112959	20312	1157
75°	92567	10476	0
80°	57900	4445	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	312.9	6.5
10°-20°	843.0	17.6
20°-30°	1125.7	23.5
30°-40°	1068.6	22.3
40°-50°	738.6	15.4
50°-60°	408.1	8.5
60°-70°	202.7	4.2
70°-80°	79.9	1.7
80°-90°	7.6	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°	2281.5	47.7
0°-40°	3350.1	70.0
0°-60°	4496.9	93.9
0°-90°	4787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4787.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	3340	3340	3340	3340	3340	
5°	3520	3488	3288	3139	3111	337
15°	3476	3372	2935	2647	2567	983
25°	2943	2931	2439	2022	2022	1342
35°	1978	2186	1670	1374	1358	1239
45°	1197	1374	845	693	649	934
55°	809	761	376	192	120	728
65°	552	400	128	4	4	536
75°	248	152	28	0	0	265
85°	0	4	0	0	0	23
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°	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5
2.5°	3323.5	3415.6	3423.6	3415.6	3427.7	3423.6	3443.7	3423.6	3447.8	3411.7	3419.7
5°	3519.8	3483.7	3559.8	3519.8	3519.8	3515.9	3503.8	3499.7	3515.9	3463.8	3487.8
7.5°	3571.9	3623.9	3692.0	3607.9	3611.9	3611.9	3587.9	3579.9	3579.9	3483.7	3511.8
10°	3615.9	3583.8	3619.9	3587.9	3615.9	3611.9	3627.9	3575.8	3611.9	3555.9	3551.8
12.5°	3579.9	3567.8	3615.9	3563.9	3547.9	3551.8	3531.9	3519.8	3531.9	3467.7	3463.8
15°	3475.7	3487.8	3559.8	3503.8	3495.8	3487.8	3463.8	3423.6	3455.8	3367.6	3371.7
17.5°	3439.8	3419.7	3431.8	3383.6	3395.7	3387.7	3383.6	3347.7	3339.5	3283.5	3283.5
20°	3271.6	3315.5	3315.5	3283.5	3283.5	3279.6	3227.5	3259.5	3223.4	3207.4	3223.4
22.5°	3155.3	3159.4	3159.4	3131.3	3135.4	3119.4	3091.3	3071.3	3091.3	3071.3	3039.3
25°	2943.2	2951.2	2999.2	2947.2	2939.2	2955.2	2931.2	2919.1	2915.2	2867.2	2931.2
27.5°	2686.9	2766.9	2763.0	2742.9	2766.9	2734.9	2723.0	2726.9	2739.0	2734.9	2750.9
30°	2538.8	2550.7	2562.8	2546.8	2550.7	2538.8	2538.8	2542.7	2574.7	2562.8	2558.7
32.5°	2238.4	2278.4	2310.5	2310.5	2314.5	2326.5	2322.5	2406.6	2426.6	2386.6	2378.6
35°	1978.1	2006.2	2034.1	2038.2	2090.3	2094.2	2098.3	2122.3	2178.3	2190.4	2186.3
37.5°	1729.9	1757.8	1765.8	1801.9	1830.0	1857.9	1890.1	1922.1	1970.1	2010.1	1990.2
40°	1509.7	1521.6	1541.7	1557.7	1613.7	1613.7	1629.7	1693.8	1745.9	1777.9	1773.9
42.5°	1325.5	1329.4	1345.4	1373.5	1425.6	1413.5	1425.6	1469.7	1545.6	1549.7	1593.8
45°	1197.3	1193.2	1205.3	1209.2	1241.4	1257.4	1265.4	1297.4	1361.4	1369.4	1373.5
47.5°	1081.2	1077.1	1097.2	1105.2	1117.1	1133.1	1133.1	1137.2	1161.2	1181.3	1165.3
50°	985.1	985.1	985.1	993.1	1013.1	1009.1	1013.1	1029.1	1041.1	1033.1	1029.1
52.5°	880.9	896.9	909.0	913.0	917.0	917.0	921.0	913.0	909.0	896.9	872.9
55°	808.9	824.9	824.9	824.9	824.9	840.9	821.0	824.9	824.9	792.9	760.9
57.5°	736.9	752.9	764.8	748.8	764.8	748.8	740.8	736.9	728.7	696.7	648.7
60°	676.8	684.8	680.7	676.8	684.8	672.7	664.7	648.7	640.7	596.6	564.6
62.5°	608.7	612.6	616.7	608.7	600.7	596.6	580.6	556.6	540.6	504.5	476.4
65°	552.5	540.6	536.5	532.6	524.6	512.5	500.6	472.5	460.4	428.4	400.4
67.5°	468.4	464.5	472.5	460.4	440.5	440.5	428.4	404.4	376.4	356.4	328.4
70°	400.4	396.4	388.4	376.4	372.4	356.4	356.4	328.4	320.4	284.3	260.3
72.5°	328.4	328.4	316.3	304.3	292.3	284.3	280.3	260.3	248.3	228.3	208.2
75°	248.3	248.3	244.3	232.2	224.2	216.2	212.3	196.3	184.2	164.3	152.2
77.5°	176.2	176.2	160.2	152.2	156.1	148.1	140.1	136.2	132.1	120.2	104.2
80°	104.2	100.1	88.2	92.1	88.2	88.2	84.1	80.0	72.0	64.0	56.0
82.5°	28.1	32.0	32.0	32.0	36.1	28.1	28.1	28.1	32.0	32.0	20.1
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	4.1	4.1
87.5°	4.1	8.0	16.0	16.0	16.0	16.0	16.0	12.1	12.1	12.1	8.0
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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5
2.5°	3379.7	3375.6	3379.7	3351.6	3415.6	3367.6	3359.6	3351.6	3379.7	3351.6	3311.6
5°	3451.7	3411.7	3399.6	3387.7	3423.6	3367.6	3355.7	3359.6	3339.5	3287.6	3291.5
7.5°	3475.7	3439.8	3403.7	3327.6	3359.6	3347.7	3315.5	3291.5	3259.5	3215.4	3207.4
10°	3483.7	3443.7	3391.6	3367.6	3319.6	3303.6	3291.5	3251.5	3211.5	3135.4	3115.3
12.5°	3459.7	3411.7	3347.7	3327.6	3291.5	3239.4	3211.5	3171.3	3135.4	3075.3	3031.3
15°	3355.7	3315.5	3295.6	3227.5	3211.5	3179.3	3123.3	3067.3	3015.2	2935.1	2911.1
17.5°	3235.5	3219.5	3199.4	3147.3	3143.4	3111.4	3059.3	3011.2	2943.2	2819.0	2779.0
20°	3111.4	3111.4	3047.3	3027.3	3067.3	3003.2	2963.2	2919.1	2779.0	2718.9	2646.9
22.5°	3019.3	2975.2	2939.2	2907.2	2911.1	2871.1	2815.1	2726.9	2674.8	2602.8	2518.7
25°	2839.1	2855.1	2775.1	2763.0	2775.1	2682.8	2654.9	2582.7	2506.6	2438.6	2374.5
27.5°	2726.9	2682.8	2630.9	2586.8	2586.8	2550.7	2470.7	2454.7	2338.5	2274.5	2194.3
30°	2558.7	2526.7	2482.6	2418.6	2410.6	2382.5	2318.5	2278.4	2158.4	2062.2	2018.1
32.5°	2346.5	2334.5	2298.5	2226.5	2202.4	2170.3	2090.3	2022.2	1966.2	1857.9	1806.0
35°	2194.3	2150.4	2074.3	2014.2	1994.1	1938.1	1873.9	1825.9	1765.8	1669.8	1601.8
37.5°	1966.2	1922.1	1849.9	1777.9	1777.9	1721.9	1633.8	1585.8	1501.7	1445.5	1389.5
40°	1765.8	1709.8	1637.8	1553.7	1541.7	1461.5	1425.6	1345.4	1293.3	1205.3	1197.3
42.5°	1541.7	1489.6	1425.6	1361.4	1313.4	1273.4	1181.3	1121.2	1065.2	1021.1	1009.1
45°	1337.4	1269.3	1213.3	1133.1	1085.1	1037.1	977.1	937.0	893.0	845.0	816.9
47.5°	1161.2	1105.2	1025.1	953.1	905.0	880.9	812.8	768.9	732.8	700.8	680.7
50°	981.1	913.0	869.0	788.8	780.8	724.8	668.8	632.7	612.6	584.7	556.6
52.5°	845.0	780.8	720.7	660.8	628.6	608.7	556.6	520.5	492.6	472.5	456.5
55°	712.7	656.7	608.7	548.6	528.5	500.6	440.5	432.5	404.4	376.4	356.4
57.5°	612.6	560.5	504.5	464.5	428.4	408.5	360.4	328.4	312.3	288.3	268.3
60°	520.5	464.5	420.4	372.4	356.4	328.4	292.3	264.3	244.3	224.2	204.3
62.5°	436.4	388.4	340.4	300.3	276.3	260.3	232.2	208.2	188.3	172.3	156.1
65°	360.4	316.3	276.3	236.3	224.2	204.3	184.2	164.3	148.1	128.2	112.2
67.5°	296.3	256.3	216.2	188.3	176.2	168.2	144.2	124.1	112.2	100.1	84.1
70°	232.2	204.3	172.3	148.1	136.2	124.1	108.1	96.2	80.0	72.0	60.1
72.5°	180.3	156.1	128.2	108.1	100.1	92.1	76.1	64.0	56.0	48.0	40.0
75°	128.2	108.1	92.1	72.0	68.1	64.0	52.1	44.1	36.1	28.1	24.0
77.5°	88.2	72.0	56.0	48.0	44.1	36.1	32.0	24.0	20.1	16.0	12.1
80°	48.0	36.1	28.1	24.0	20.1	16.0	16.0	12.1	8.0	8.0	4.1
82.5°	16.0	12.1	8.0	4.1	4.1	4.1	4.1	4.1	4.1	0.0	4.1
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°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	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°	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5
2.5°	3335.6	3291.5	3303.6	3303.6	3295.6	3295.6	3287.6	3275.5	3279.6	3255.4	3203.5
5°	3299.5	3243.5	3235.5	3243.5	3211.5	3203.5	3187.5	3211.5	3139.3	3167.4	3135.4
7.5°	3195.5	3143.4	3131.3	3159.4	3119.4	3095.3	3091.3	3123.3	3059.3	3027.3	2991.2
10°	3079.3	3059.3	3023.2	3003.2	2991.2	2995.2	2963.2	2923.2	2911.1	2903.1	2871.1
12.5°	2975.2	2931.2	2899.2	2875.2	2867.2	2867.2	2815.1	2807.1	2771.0	2763.0	2715.0
15°	2851.0	2799.1	2779.0	2747.0	2718.9	2734.9	2674.8	2658.8	2646.9	2594.8	2602.8
17.5°	2742.9	2686.9	2638.9	2618.8	2594.8	2570.8	2514.6	2526.7	2498.6	2498.6	2426.6
20°	2602.8	2542.7	2506.6	2466.6	2466.6	2434.6	2394.6	2398.5	2362.5	2326.5	2262.4
22.5°	2454.7	2390.5	2346.5	2330.5	2290.5	2282.5	2234.5	2222.4	2174.4	2178.3	2122.3
25°	2298.5	2234.5	2174.4	2178.3	2142.4	2126.4	2098.3	2042.3	2022.2	1998.2	1982.2
27.5°	2114.3	2070.2	2018.1	2014.2	1946.1	1950.0	1914.1	1898.1	1849.9	1862.0	1825.9
30°	1946.1	1882.1	1833.9	1822.0	1793.9	1785.9	1729.9	1705.8	1713.9	1681.8	1661.8
32.5°	1773.9	1677.8	1657.8	1633.8	1617.8	1597.7	1557.7	1573.7	1537.6	1545.6	1513.6
35°	1545.6	1505.6	1453.5	1453.5	1437.5	1421.5	1393.6	1409.6	1373.5	1357.5	1325.5
37.5°	1353.4	1317.5	1265.4	1281.4	1253.3	1229.3	1205.3	1209.2	1177.2	1173.3	1141.2
40°	1145.2	1125.1	1089.2	1089.2	1069.1	1069.1	1057.1	1045.1	1025.1	1001.1	965.0
42.5°	949.0	933.0	917.0	921.0	893.0	917.0	885.0	905.0	840.9	837.0	812.8
45°	804.8	768.9	772.8	756.8	740.8	748.8	720.7	728.7	692.8	684.8	660.8
47.5°	652.8	640.7	616.7	608.7	608.7	596.6	584.7	580.6	564.6	544.5	512.5
50°	536.5	492.6	484.4	472.5	464.5	464.5	448.5	424.5	428.4	408.5	376.4
52.5°	420.4	384.4	368.4	364.4	348.4	340.4	320.4	304.3	292.3	284.3	264.3
55°	324.3	292.3	272.3	272.3	248.3	248.3	220.3	208.2	192.2	176.2	164.3
57.5°	244.3	228.3	208.2	192.2	184.2	164.3	148.1	128.2	116.1	92.1	76.1
60°	184.2	168.2	148.1	136.2	128.2	108.1	88.2	72.0	44.1	36.1	32.0
62.5°	136.2	120.2	100.1	92.1	84.1	68.1	48.0	24.0	12.1	12.1	12.1
65°	100.1	80.0	64.0	56.0	48.0	36.1	16.0	8.0	4.1	4.1	4.1
67.5°	68.1	52.1	36.1	32.0	24.0	12.1	4.1	4.1	4.1	4.1	4.1
70°	44.1	32.0	16.0	12.1	8.0	4.1	4.1	4.1	4.1	4.1	4.1
72.5°	28.1	16.0	8.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	16.0	8.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	8.0	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	4.1	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	4.1	4.1	4.1
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: LD4C60D010 EX4C609027 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5	3339.5
2.5°	3259.5	3231.4	3247.4	3211.5	3227.5	3255.4	3235.5	3243.5
5°	3147.3	3131.3	3111.4	3059.3	3099.3	3131.3	3115.3	3111.4
7.5°	3027.3	2971.2	2999.2	2983.2	2975.2	3007.2	2971.2	3011.2
10°	2903.1	2863.1	2859.2	2831.1	2831.1	2855.1	2859.2	2835.0
12.5°	2718.9	2699.0	2699.0	2694.9	2690.8	2715.0	2718.9	2707.0
15°	2586.8	2578.8	2558.7	2554.8	2530.8	2566.7	2570.8	2566.7
17.5°	2426.6	2430.6	2410.6	2410.6	2426.6	2438.6	2406.6	2438.6
20°	2318.5	2298.5	2290.5	2254.4	2274.5	2294.5	2294.5	2298.5
22.5°	2162.3	2130.3	2142.4	2122.3	2110.2	2138.3	2138.3	2150.4
25°	1986.1	1986.1	1994.1	1982.2	1990.2	2006.2	1994.1	2022.2
27.5°	1817.9	1833.9	1833.9	1817.9	1825.9	1873.9	1894.0	1862.0
30°	1661.8	1665.8	1677.8	1669.8	1693.8	1709.8	1705.8	1729.9
32.5°	1485.7	1505.6	1513.6	1501.7	1509.7	1545.6	1525.7	1521.6
35°	1349.5	1313.4	1309.5	1313.4	1329.4	1337.4	1329.4	1357.5
37.5°	1153.2	1141.2	1125.1	1129.2	1141.2	1157.3	1165.3	1185.2
40°	965.0	949.0	949.0	945.0	933.0	977.1	977.1	977.1
42.5°	800.9	796.8	776.9	776.9	792.9	804.8	796.8	824.9
45°	656.7	640.7	628.6	628.6	640.7	640.7	652.8	648.7
47.5°	516.6	500.6	504.5	492.6	504.5	520.5	500.6	504.5
50°	388.4	388.4	380.4	388.4	384.4	388.4	380.4	372.4
52.5°	264.3	300.3	304.3	288.3	252.3	220.3	200.2	216.2
55°	152.2	136.2	136.2	132.1	124.1	120.2	108.1	120.2
57.5°	76.1	68.1	68.1	68.1	64.0	60.1	52.1	52.1
60°	32.0	28.1	28.1	24.0	20.1	16.0	12.1	16.0
62.5°	12.1	8.0	8.0	8.0	8.0	8.0	8.0	8.0
65°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
67.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
70°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
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)