

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: **LD4C80D010 EX4C809050 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: LD4C80D010 EX4C809050 4LBSQLWWLI
Description: 4 INCH 8000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LBSQLWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

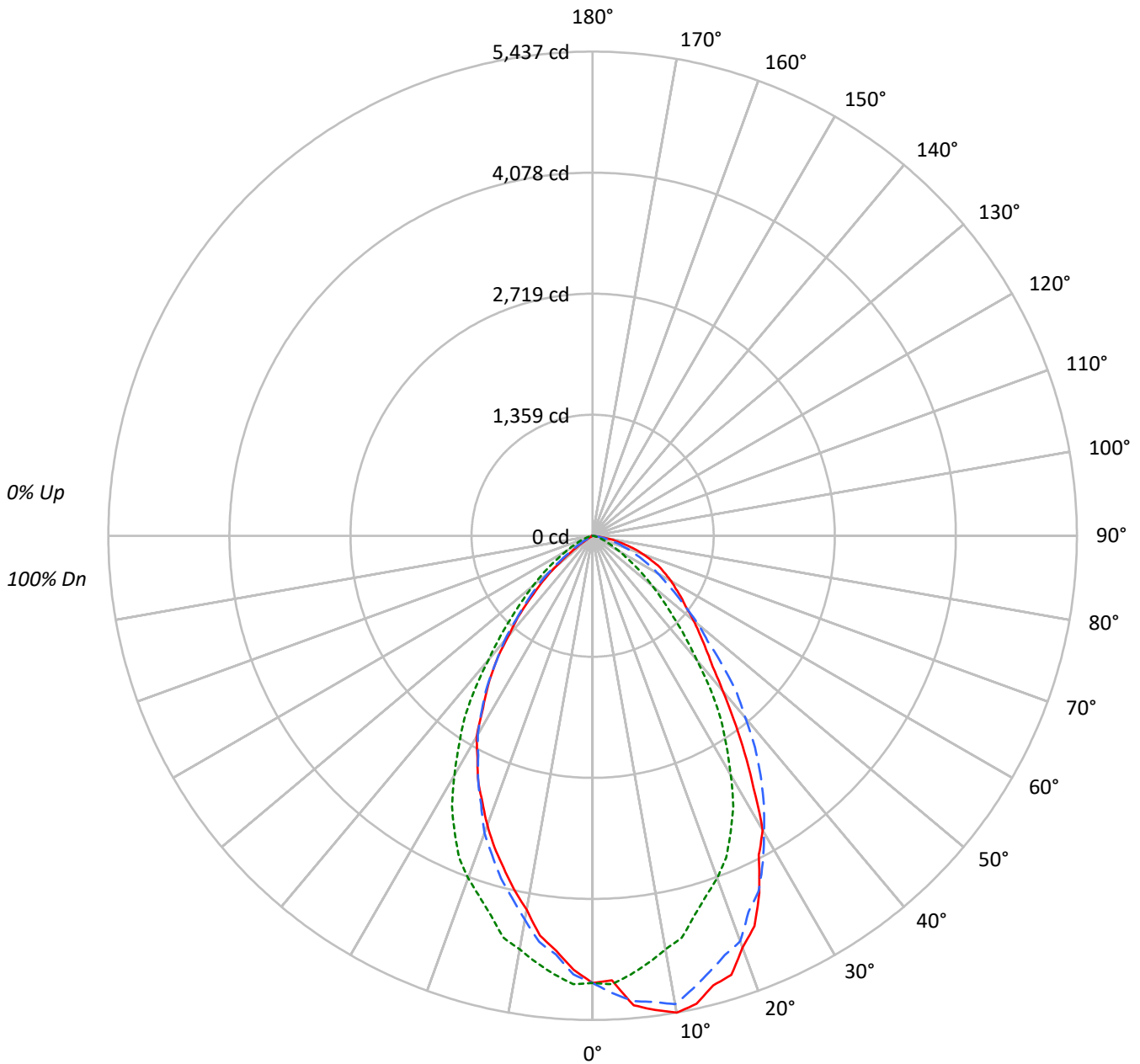
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7198.0 lumens
Efficiency: N/A
Efficacy: 80.4 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): 89.5
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	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°	484519	484519	484519
5°	512618	478805	453148
10°	532713	461924	417668
15°	522059	440866	385536
20°	505120	419792	354877
25°	471166	390371	323724
30°	425330	345478	289815
35°	350358	295762	240435
40°	285923	228285	185056
45°	245662	173367	133099
50°	222343	131977	84062
55°	204610	95198	30398
60°	196374	65053	4651
65°	189682	43996	1393
70°	169833	30553	1721
75°	139205	15732	0
80°	87016	6668	0
85°	0	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	470.5	6.5
10°-20°	1267.6	17.6
20°-30°	1692.6	23.5
30°-40°	1606.8	22.3
40°-50°	1110.7	15.4
50°-60°	613.7	8.5
60°-70°	304.7	4.2
70°-80°	120.1	1.7
80°-90°	11.4	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°	3430.6	47.7
0°-40°	5037.4	70.0
0°-60°	6761.8	93.9
0°-90°	7198.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7198.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	5022	5022	5022	5022	5022	
5°	5292	5244	4943	4720	4678	507
15°	5226	5070	4413	3980	3860	1478
25°	4426	4408	3667	3041	3041	2018
35°	2974	3287	2511	2065	2041	1863
45°	1800	2065	1270	1042	975	1404
55°	1216	1144	566	289	181	1095
65°	831	602	193	6	6	806
75°	373	229	42	0	0	398
85°	0	6	0	0	0	34
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°	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5
2.5°	4997.4	5135.9	5147.9	5135.9	5154.1	5147.9	5178.1	5147.9	5184.3	5130.0	5142.0
5°	5292.5	5238.3	5352.7	5292.5	5292.5	5286.6	5268.5	5262.3	5286.6	5208.3	5244.4
7.5°	5370.8	5449.2	5551.5	5425.1	5431.0	5431.0	5394.9	5382.9	5382.9	5238.3	5280.5
10°	5437.1	5388.8	5443.0	5394.9	5437.1	5431.0	5455.1	5376.7	5431.0	5346.8	5340.7
12.5°	5382.9	5364.7	5437.1	5358.8	5334.8	5340.7	5310.7	5292.5	5310.7	5214.2	5208.3
15°	5226.2	5244.4	5352.7	5268.5	5256.4	5244.4	5208.3	5147.9	5196.3	5063.7	5069.8
17.5°	5172.2	5142.0	5160.2	5087.8	5105.9	5093.9	5087.8	5033.8	5021.5	4937.3	4937.3
20°	4919.3	4985.4	4985.4	4937.3	4937.3	4931.4	4853.1	4901.2	4846.9	4822.9	4846.9
22.5°	4744.5	4750.7	4750.7	4708.5	4714.6	4690.5	4648.3	4618.1	4648.3	4618.1	4570.0
25°	4425.6	4437.7	4509.8	4431.5	4419.5	4443.5	4407.5	4389.3	4383.4	4311.2	4407.5
27.5°	4040.2	4160.5	4154.6	4124.4	4160.5	4112.4	4094.4	4100.3	4118.5	4112.4	4136.4
30°	3817.5	3835.4	3853.6	3829.5	3835.4	3817.5	3817.5	3823.4	3871.5	3853.6	3847.4
32.5°	3365.7	3425.9	3474.3	3474.3	3480.2	3498.3	3492.2	3618.6	3648.8	3588.7	3576.6
35°	2974.4	3016.6	3058.6	3064.7	3143.1	3149.0	3155.1	3191.2	3275.4	3293.6	3287.4
37.5°	2601.2	2643.2	2655.2	2709.5	2751.7	2793.7	2842.1	2890.2	2962.4	3022.5	2992.6
40°	2270.0	2287.9	2318.1	2342.2	2426.4	2426.4	2450.5	2547.0	2625.3	2673.4	2667.3
42.5°	1993.1	1999.0	2023.0	2065.3	2143.6	2125.4	2143.6	2209.9	2324.0	2330.2	2396.5
45°	1800.3	1794.2	1812.4	1818.3	1866.6	1890.7	1902.7	1950.8	2047.1	2059.1	2065.3
47.5°	1625.8	1619.7	1649.8	1661.9	1679.8	1703.9	1703.9	1710.0	1746.1	1776.3	1752.2
50°	1481.2	1481.2	1481.2	1493.2	1523.4	1517.3	1523.4	1547.5	1565.4	1553.4	1547.5
52.5°	1324.5	1348.6	1366.8	1372.9	1378.8	1378.8	1384.9	1372.9	1366.8	1348.6	1312.5
55°	1216.3	1240.3	1240.3	1240.3	1240.3	1264.4	1234.4	1240.3	1240.3	1192.2	1144.1
57.5°	1108.0	1132.1	1150.0	1125.9	1150.0	1125.9	1113.9	1108.0	1095.7	1047.6	975.4
60°	1017.6	1029.7	1023.5	1017.6	1029.7	1011.5	999.5	975.4	963.4	897.1	849.0
62.5°	915.3	921.2	927.3	915.3	903.2	897.1	873.0	837.0	812.9	758.6	716.4
65°	830.8	812.9	806.8	800.9	788.8	770.7	752.7	710.5	692.4	644.2	602.0
67.5°	704.4	698.5	710.5	692.4	662.4	662.4	644.2	608.1	565.9	536.0	493.7
70°	602.0	596.1	584.1	565.9	560.0	536.0	536.0	493.7	481.7	427.4	391.3
72.5°	493.7	493.7	475.6	457.6	439.5	427.4	421.5	391.3	373.4	343.2	313.0
75°	373.4	373.4	367.3	349.1	337.1	325.1	319.2	295.1	276.9	247.0	228.8
77.5°	264.9	264.9	240.8	228.8	234.7	222.7	210.7	204.8	198.6	180.7	156.6
80°	156.6	150.5	132.6	138.5	132.6	132.6	126.4	120.3	108.3	96.2	84.2
82.5°	42.2	48.1	48.1	48.1	54.3	42.2	42.2	42.2	48.1	48.1	30.2
85°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	6.1	6.1
87.5°	6.1	12.0	24.1	24.1	24.1	24.1	24.1	18.2	18.2	18.2	12.0
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°	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5
2.5°	5081.9	5075.7	5081.9	5039.7	5135.9	5063.7	5051.7	5039.7	5081.9	5039.7	4979.5
5°	5190.2	5130.0	5111.8	5093.9	5147.9	5063.7	5045.8	5051.7	5021.5	4943.4	4949.3
7.5°	5226.2	5172.2	5118.0	5003.6	5051.7	5033.8	4985.4	4949.3	4901.2	4834.9	4822.9
10°	5238.3	5178.1	5099.8	5063.7	4991.5	4967.5	4949.3	4889.2	4829.0	4714.6	4684.4
12.5°	5202.2	5130.0	5033.8	5003.6	4949.3	4871.0	4829.0	4768.6	4714.6	4624.2	4558.0
15°	5045.8	4985.4	4955.4	4853.1	4829.0	4780.6	4696.4	4612.2	4533.9	4413.4	4377.3
17.5°	4865.1	4841.0	4810.8	4732.5	4726.6	4678.5	4600.2	4527.8	4425.6	4238.8	4178.6
20°	4678.5	4678.5	4582.0	4552.1	4612.2	4515.7	4455.6	4389.3	4178.6	4088.3	3980.0
22.5°	4540.0	4473.7	4419.5	4371.4	4377.3	4317.1	4232.9	4100.3	4022.0	3913.7	3787.3
25°	4269.0	4293.0	4172.7	4154.6	4172.7	4034.0	3992.0	3883.5	3769.1	3666.7	3570.5
27.5°	4100.3	4034.0	3956.0	3889.7	3889.7	3835.4	3715.1	3691.0	3516.2	3420.0	3299.5
30°	3847.4	3799.3	3733.0	3636.8	3624.8	3582.5	3486.3	3425.9	3245.4	3100.8	3034.5
32.5°	3528.3	3510.3	3456.1	3347.8	3311.7	3263.4	3143.1	3040.7	2956.5	2793.7	2715.6
35°	3299.5	3233.4	3119.0	3028.7	2998.5	2914.2	2817.8	2745.6	2655.2	2510.9	2408.5
37.5°	2956.5	2890.2	2781.7	2673.4	2673.4	2589.2	2456.6	2384.4	2258.0	2173.5	2089.3
40°	2655.2	2571.0	2462.7	2336.3	2318.1	2197.6	2143.6	2023.0	1944.7	1812.4	1800.3
42.5°	2318.1	2239.8	2143.6	2047.1	1974.9	1914.8	1776.3	1685.9	1601.7	1535.4	1517.3
45°	2011.0	1908.6	1824.4	1703.9	1631.7	1559.5	1469.2	1409.0	1342.7	1270.5	1228.3
47.5°	1746.1	1661.9	1541.3	1433.1	1360.9	1324.5	1222.2	1156.1	1101.9	1053.7	1023.5
50°	1475.3	1372.9	1306.6	1186.1	1174.0	1089.8	1005.6	951.4	921.2	879.2	837.0
52.5°	1270.5	1174.0	1083.7	993.6	945.2	915.3	837.0	782.7	740.7	710.5	686.5
55°	1071.7	987.5	915.3	824.9	794.7	752.7	662.4	650.4	608.1	565.9	536.0
57.5°	921.2	842.9	758.6	698.5	644.2	614.3	541.9	493.7	469.7	433.6	403.4
60°	782.7	698.5	632.2	560.0	536.0	493.7	439.5	397.5	367.3	337.1	307.1
62.5°	656.3	584.1	511.9	451.5	415.4	391.3	349.1	313.0	283.1	259.0	234.7
65°	541.9	475.6	415.4	355.3	337.1	307.1	276.9	247.0	222.7	192.7	168.7
67.5°	445.6	385.5	325.1	283.1	264.9	252.9	216.8	186.6	168.7	150.5	126.4
70°	349.1	307.1	259.0	222.7	204.8	186.6	162.5	144.6	120.3	108.3	90.3
72.5°	271.0	234.7	192.7	162.5	150.5	138.5	114.4	96.2	84.2	72.2	60.2
75°	192.7	162.5	138.5	108.3	102.4	96.2	78.3	66.3	54.3	42.2	36.1
77.5°	132.6	108.3	84.2	72.2	66.3	54.3	48.1	36.1	30.2	24.1	18.2
80°	72.2	54.3	42.2	36.1	30.2	24.1	24.1	18.2	12.0	12.0	6.1
82.5°	24.1	18.2	12.0	6.1	6.1	6.1	6.1	6.1	6.1	0.0	6.1
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°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	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°	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5
2.5°	5015.6	4949.3	4967.5	4967.5	4955.4	4955.4	4943.4	4925.2	4931.4	4895.0	4817.0
5°	4961.3	4877.1	4865.1	4877.1	4829.0	4817.0	4792.9	4829.0	4720.5	4762.7	4714.6
7.5°	4804.9	4726.6	4708.5	4750.7	4690.5	4654.2	4648.3	4696.4	4600.2	4552.1	4497.8
10°	4630.1	4600.2	4545.9	4515.7	4497.8	4503.7	4455.6	4395.4	4377.3	4365.2	4317.1
12.5°	4473.7	4407.5	4359.3	4323.2	4311.2	4311.2	4232.9	4220.9	4166.6	4154.6	4082.4
15°	4286.9	4208.8	4178.6	4130.5	4088.3	4112.4	4022.0	3997.9	3980.0	3901.7	3913.7
17.5°	4124.4	4040.2	3968.0	3937.8	3901.7	3865.6	3781.2	3799.3	3757.1	3757.1	3648.8
20°	3913.7	3823.4	3769.1	3709.0	3709.0	3660.8	3600.7	3606.6	3552.3	3498.3	3401.8
22.5°	3691.0	3594.6	3528.3	3504.2	3444.1	3432.0	3359.8	3341.7	3269.5	3275.4	3191.2
25°	3456.1	3359.8	3269.5	3275.4	3221.4	3197.3	3155.1	3070.9	3040.7	3004.6	2980.5
27.5°	3179.2	3112.9	3034.5	3028.7	2926.3	2932.2	2878.2	2854.1	2781.7	2799.8	2745.6
30°	2926.3	2830.0	2757.6	2739.7	2697.5	2685.4	2601.2	2564.9	2577.1	2528.8	2498.8
32.5°	2667.3	2522.9	2492.7	2456.6	2432.5	2402.4	2342.2	2366.3	2312.0	2324.0	2275.9
35°	2324.0	2263.9	2185.6	2185.6	2161.5	2137.4	2095.5	2119.5	2065.3	2041.2	1993.1
37.5°	2035.1	1981.0	1902.7	1926.8	1884.6	1848.5	1812.4	1818.3	1770.2	1764.3	1715.9
40°	1722.0	1691.8	1637.8	1637.8	1607.6	1607.6	1589.5	1571.5	1541.3	1505.2	1451.0
42.5°	1426.9	1402.9	1378.8	1384.9	1342.7	1378.8	1330.7	1360.9	1264.4	1258.5	1222.2
45°	1210.1	1156.1	1162.0	1138.0	1113.9	1125.9	1083.7	1095.7	1041.7	1029.7	993.6
47.5°	981.6	963.4	927.3	915.3	915.3	897.1	879.2	873.0	849.0	818.8	770.7
50°	806.8	740.7	728.4	710.5	698.5	698.5	674.4	638.3	644.2	614.3	565.9
52.5°	632.2	577.9	553.9	548.0	523.9	511.9	481.7	457.6	439.5	427.4	397.5
55°	487.6	439.5	409.5	409.5	373.4	373.4	331.2	313.0	289.0	264.9	247.0
57.5°	367.3	343.2	313.0	289.0	276.9	247.0	222.7	192.7	174.6	138.5	114.4
60°	276.9	252.9	222.7	204.8	192.7	162.5	132.6	108.3	66.3	54.3	48.1
62.5°	204.8	180.7	150.5	138.5	126.4	102.4	72.2	36.1	18.2	18.2	18.2
65°	150.5	120.3	96.2	84.2	72.2	54.3	24.1	12.0	6.1	6.1	6.1
67.5°	102.4	78.3	54.3	48.1	36.1	18.2	6.1	6.1	6.1	6.1	6.1
70°	66.3	48.1	24.1	18.2	12.0	6.1	6.1	6.1	6.1	6.1	6.1
72.5°	42.2	24.1	12.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	24.1	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	12.0	6.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	6.1	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	6.1	6.1	6.1
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: LD4C80D010 EX4C809050 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5	5021.5
2.5°	4901.2	4859.0	4883.0	4829.0	4853.1	4895.0	4865.1	4877.1
5°	4732.5	4708.5	4678.5	4600.2	4660.3	4708.5	4684.4	4678.5
7.5°	4552.1	4467.6	4509.8	4485.8	4473.7	4521.9	4467.6	4527.8
10°	4365.2	4305.1	4299.2	4257.0	4257.0	4293.0	4299.2	4262.9
12.5°	4088.3	4058.3	4058.3	4052.2	4046.1	4082.4	4088.3	4070.4
15°	3889.7	3877.6	3847.4	3841.5	3805.5	3859.5	3865.6	3859.5
17.5°	3648.8	3654.7	3624.8	3624.8	3648.8	3666.7	3618.6	3666.7
20°	3486.3	3456.1	3444.1	3389.8	3420.0	3450.2	3450.2	3456.1
22.5°	3251.3	3203.2	3221.4	3191.2	3173.0	3215.2	3215.2	3233.4
25°	2986.4	2986.4	2998.5	2980.5	2992.6	3016.6	2998.5	3040.7
27.5°	2733.5	2757.6	2757.6	2733.5	2745.6	2817.8	2848.0	2799.8
30°	2498.8	2504.7	2522.9	2510.9	2547.0	2571.0	2564.9	2601.2
32.5°	2233.9	2263.9	2275.9	2258.0	2270.0	2324.0	2294.1	2287.9
35°	2029.2	1974.9	1969.0	1974.9	1999.0	2011.0	1999.0	2041.2
37.5°	1734.1	1715.9	1691.8	1698.0	1715.9	1740.2	1752.2	1782.2
40°	1451.0	1426.9	1426.9	1421.0	1402.9	1469.2	1469.2	1469.2
42.5°	1204.2	1198.1	1168.2	1168.2	1192.2	1210.1	1198.1	1240.3
45°	987.5	963.4	945.2	945.2	963.4	963.4	981.6	975.4
47.5°	776.8	752.7	758.6	740.7	758.6	782.7	752.7	758.6
50°	584.1	584.1	572.0	584.1	577.9	584.1	572.0	560.0
52.5°	397.5	451.5	457.6	433.6	379.3	331.2	301.0	325.1
55°	228.8	204.8	204.8	198.6	186.6	180.7	162.5	180.7
57.5°	114.4	102.4	102.4	102.4	96.2	90.3	78.3	78.3
60°	48.1	42.2	42.2	36.1	30.2	24.1	18.2	24.1
62.5°	18.2	12.0	12.0	12.0	12.0	12.0	12.0	12.0
65°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
67.5°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
70°	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
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)