

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: P857217

Luminaire Tested: **LX4C20D010 EX4C209050 4LBSWNH**

Issue Date: 2/18/2022

Test Information

Test Method: LM-79-08
Report Number: P857217
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251634)
Test Lab: INNOVATION CENTER
Issue Date: 2/18/2022
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LX4C20D010 EX4C209050 4LBSWNH
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 5000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Summary

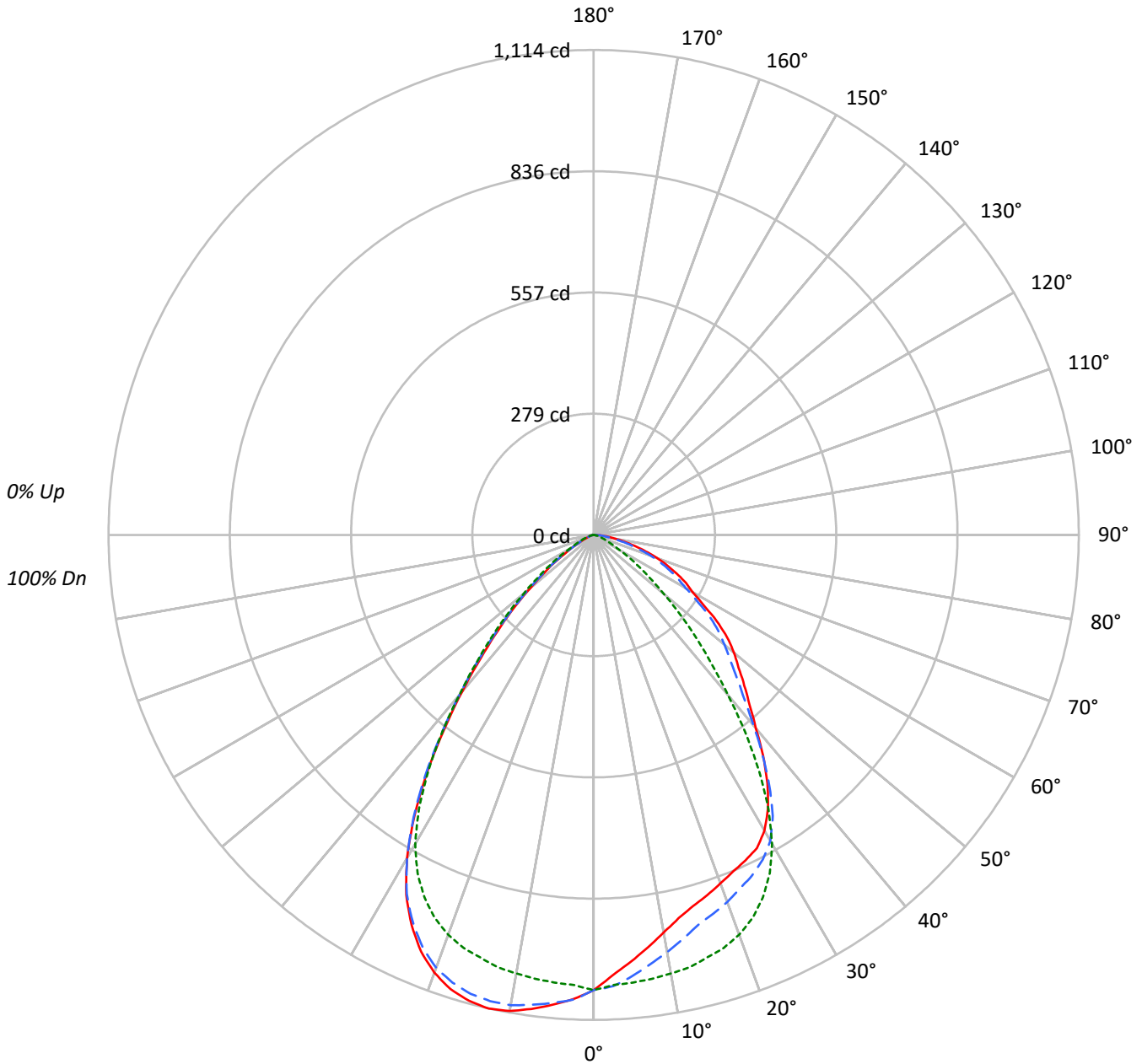
Lumens per Lamp: N/A
Luminaire Lumens: 1833.0 lumens
Efficiency: N/A
Efficacy: 84.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 21.8
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	100	100	100
1	111	108	104	101	109	106	103	100	101	99	97	98	96	94	94	93	91	89	89	89	89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79	79	79	79
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	72	70	70	70	70
4	90	80	72	67	88	78	72	66	76	70	66	74	69	65	72	68	64	62	62	62	62
5	83	73	65	60	82	72	65	59	70	63	59	68	62	58	66	61	58	56	56	56	56
6	78	67	59	53	76	66	59	53	64	58	53	62	57	52	61	56	52	50	50	50	50
7	73	61	54	48	71	61	53	48	59	53	48	58	52	48	56	51	47	46	46	46	46
8	68	57	49	44	67	56	49	44	55	48	44	54	48	43	52	47	43	42	42	42	42
9	64	52	45	40	63	52	45	40	51	44	40	50	44	40	49	44	40	38	38	38	38
10	61	49	42	37	59	48	42	37	47	41	37	47	41	37	46	40	37	35	35	35	35

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	128468	128468	128468
5°	121313	127294	133608
10°	115655	127593	138521
15°	112255	127861	140885
20°	111336	127731	139877
25°	111791	124574	134076
30°	111260	116225	121573
35°	104279	99239	100244
40°	92921	76931	75215
45°	84977	57352	53842
50°	80349	40175	36314
55°	73895	27138	22790
60°	64547	15897	12580
65°	61104	10174	7035
70°	55676	7256	4346
75°	46043	5126	3228
80°	36223	2901	1910
85°	32280	1973	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	98.8	5.4
10°-20°	283.4	15.5
20°-30°	420.2	22.9
30°-40°	420.8	23.0
40°-50°	294.1	16.0
50°-60°	175.0	9.5
60°-70°	91.3	5.0
70°-80°	40.6	2.2
80°-90°	8.9	0.5
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°	802.4	43.8
0°-40°	1223.2	66.7
0°-60°	1692.2	92.3
0°-90°	1833.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1833.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1046	1046	1046	1046	1046	
5°	984	1017	1032	1079	1083	92
15°	883	927	1005	1092	1108	250
25°	825	862	919	982	989	380
35°	695	703	662	674	668	431
45°	489	465	330	319	310	380
55°	345	323	127	110	106	306
65°	210	193	35	26	24	208
75°	97	85	11	7	7	105
85°	23	18	1	1	0	26
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°	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7
2.5°	1012.0	1024.1	1012.0	1016.1	1032.2	1017.4	1025.5	1025.5	1021.5	1030.9	1037.6
5°	983.7	995.8	983.7	989.1	1006.6	991.8	1001.2	998.5	999.9	1008.0	1017.4
7.5°	955.4	964.8	954.1	960.8	977.0	964.8	972.9	972.9	974.3	986.4	994.5
10°	927.1	935.2	927.1	932.5	950.0	939.3	944.6	946.0	950.0	960.8	972.9
12.5°	901.5	908.3	900.2	908.3	923.0	912.3	919.0	920.3	924.4	936.6	950.0
15°	882.6	889.4	881.3	888.0	901.5	893.4	898.8	901.5	904.2	915.0	927.1
17.5°	867.8	873.2	866.5	874.6	885.3	875.9	884.0	884.0	888.0	898.8	912.3
20°	851.6	857.0	851.6	858.4	870.5	862.5	869.2	869.2	873.2	885.3	897.5
22.5°	836.8	839.5	836.8	842.2	854.3	847.6	851.6	853.0	857.0	867.8	878.6
25°	824.7	830.1	827.4	832.8	840.8	834.1	838.2	839.5	843.5	853.0	862.5
27.5°	811.2	813.9	811.2	818.0	824.7	819.3	823.4	822.0	824.7	832.8	840.8
30°	784.3	787.0	787.0	791.0	796.4	793.7	797.7	793.7	796.4	803.1	811.2
32.5°	745.2	746.6	747.9	751.9	756.0	751.9	754.6	754.6	754.6	760.0	765.4
35°	695.3	698.0	696.7	699.4	703.4	702.1	702.1	700.7	698.0	700.7	703.4
37.5°	638.7	634.7	634.7	638.7	641.4	636.1	638.7	636.1	636.1	637.4	637.4
40°	579.4	575.4	579.4	580.8	582.1	579.4	578.1	575.4	571.3	572.7	570.0
42.5°	529.6	526.9	528.2	528.2	529.6	526.9	528.2	522.8	518.8	516.1	512.1
45°	489.1	485.1	489.1	486.5	486.5	485.1	483.8	481.1	475.7	471.7	464.9
47.5°	451.4	451.4	452.8	452.8	452.8	450.1	450.1	444.7	439.3	433.9	424.5
50°	420.4	417.7	423.1	423.1	419.1	417.7	419.1	412.3	408.3	401.6	392.1
52.5°	386.7	386.7	388.1	388.1	386.7	384.0	385.4	380.0	375.9	369.2	359.8
55°	345.0	342.3	346.3	346.3	345.0	343.6	345.0	340.9	336.9	331.5	323.4
57.5°	297.8	296.4	299.1	300.5	297.8	297.8	299.1	295.1	293.8	288.4	280.3
60°	262.7	261.4	264.1	265.5	262.7	262.7	262.7	257.4	254.7	249.3	243.9
62.5°	238.5	237.2	239.9	238.5	237.2	235.8	237.2	231.8	229.1	223.7	218.3
65°	210.2	211.6	212.9	212.9	211.6	210.2	210.2	207.5	204.9	199.5	192.7
67.5°	183.2	183.2	184.6	185.9	184.6	184.6	184.6	180.6	177.9	173.8	165.8
70°	155.0	153.6	157.7	157.7	155.0	156.3	155.0	153.6	150.9	145.5	138.8
72.5°	125.3	125.3	126.7	126.7	125.3	125.3	125.3	124.0	119.9	117.2	110.5
75°	97.0	97.0	98.4	99.7	97.0	97.0	98.4	95.7	93.0	89.0	84.9
77.5°	72.8	71.4	72.8	72.8	71.4	71.4	71.4	70.1	68.7	64.7	60.6
80°	51.2	49.9	51.2	51.2	51.2	49.9	49.9	48.5	48.5	45.8	41.8
82.5°	35.0	33.7	35.0	35.0	35.0	33.7	33.7	33.7	32.3	31.0	28.3
85°	22.9	21.6	21.6	22.9	21.6	21.6	21.6	21.6	20.2	18.9	17.5
87.5°	10.8	10.8	10.8	10.8	10.8	10.8	10.8	9.5	9.5	9.5	8.1
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°	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7
2.5°	1032.2	1029.5	1037.6	1034.9	1036.2	1029.5	1040.3	1034.9	1041.6	1034.9	1048.4
5°	1014.7	1012.0	1024.1	1022.8	1024.1	1018.8	1030.9	1029.5	1037.6	1032.2	1047.0
7.5°	995.8	993.1	1006.6	1008.0	1010.7	1005.3	1021.5	1021.5	1029.5	1028.2	1044.3
10°	974.3	975.6	989.1	991.8	997.2	994.5	1009.3	1013.4	1024.1	1022.8	1043.0
12.5°	954.1	954.1	971.6	977.0	981.0	979.7	997.2	1002.6	1014.7	1017.4	1036.2
15°	933.9	935.2	951.4	959.4	964.8	963.5	982.4	989.1	1003.9	1005.3	1028.2
17.5°	917.7	916.3	933.9	940.6	948.7	947.3	967.5	975.6	990.4	994.5	1016.1
20°	904.2	902.9	919.0	927.1	932.5	931.2	951.4	960.8	974.3	977.0	998.5
22.5°	888.0	885.3	901.5	908.3	913.6	912.3	929.8	936.6	950.0	952.7	972.9
25°	869.2	866.5	881.3	885.3	889.4	886.7	901.5	905.6	916.3	919.0	939.3
27.5°	847.6	840.8	853.0	853.0	855.7	851.6	862.5	866.5	875.9	875.9	894.8
30°	813.9	804.5	811.2	809.9	811.2	805.8	812.6	813.9	820.7	819.3	832.8
32.5°	766.7	753.3	757.3	753.3	749.3	741.2	749.3	746.6	751.9	746.6	758.7
35°	702.1	688.6	687.2	681.8	677.8	671.1	671.1	664.4	665.7	661.7	669.8
37.5°	632.0	614.5	611.8	601.0	594.3	586.2	586.2	580.8	574.0	571.3	578.1
40°	563.3	544.4	537.7	520.2	513.4	505.3	499.9	493.2	490.5	479.7	485.1
42.5°	504.0	483.8	469.0	450.1	443.3	431.2	423.1	415.0	411.0	398.9	404.3
45°	454.1	429.9	413.7	389.4	380.0	366.5	354.4	345.0	335.5	330.1	327.5
47.5°	412.3	386.7	365.2	338.2	323.4	311.3	295.1	285.7	273.6	266.8	262.7
50°	377.3	349.0	324.8	293.8	279.0	265.5	246.6	231.8	221.0	210.2	207.5
52.5°	346.3	316.7	289.7	254.7	237.2	221.0	200.8	184.6	175.2	163.1	161.7
55°	309.9	284.4	254.7	218.3	200.8	184.6	163.1	146.9	134.8	126.7	124.0
57.5°	270.9	246.6	218.3	181.9	164.4	146.9	126.7	111.8	101.1	94.3	93.0
60°	234.5	211.6	184.6	148.2	130.7	115.9	94.3	79.5	70.1	64.7	62.0
62.5°	207.5	185.9	160.4	126.7	110.5	95.7	75.5	62.0	53.9	48.5	45.8
65°	181.9	160.4	137.4	106.4	93.0	79.5	60.6	48.5	40.4	35.0	32.3
67.5°	155.0	136.1	114.5	89.0	75.5	64.7	48.5	37.7	31.0	26.9	24.2
70°	128.0	110.5	93.0	71.4	62.0	51.2	37.7	29.6	22.9	20.2	17.5
72.5°	101.1	87.6	72.8	55.3	47.2	40.4	29.6	21.6	17.5	14.8	12.1
75°	75.5	66.0	53.9	41.8	35.0	29.6	21.6	16.2	13.5	10.8	9.5
77.5°	53.9	45.8	37.7	28.3	25.6	21.6	14.8	12.1	9.5	6.8	5.4
80°	36.4	32.3	25.6	20.2	16.2	14.8	10.8	8.1	5.4	4.1	4.1
82.5°	24.2	20.2	16.2	12.1	10.8	9.5	6.8	5.4	4.1	2.7	2.7
85°	14.8	12.1	9.5	6.8	6.8	5.4	4.1	2.7	1.4	1.4	1.4
87.5°	6.8	5.4	4.1	2.7	2.7	1.4	1.4	1.4	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°	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7
2.5°	1059.2	1051.1	1045.7	1052.4	1055.1	1051.1	1055.1	1061.9	1068.6	1069.9	1051.1
5°	1060.5	1052.4	1049.7	1057.8	1059.2	1057.8	1061.9	1071.3	1079.4	1082.1	1063.2
7.5°	1060.5	1055.1	1053.8	1063.2	1064.6	1063.2	1069.9	1080.7	1088.8	1094.2	1075.3
10°	1057.8	1055.1	1056.5	1064.6	1067.3	1067.3	1076.7	1088.8	1096.9	1102.3	1083.4
12.5°	1053.8	1053.8	1053.8	1063.2	1065.9	1067.3	1075.3	1091.5	1096.9	1105.0	1086.1
15°	1047.0	1047.0	1047.0	1056.5	1060.5	1060.5	1069.9	1084.8	1091.5	1099.6	1080.7
17.5°	1034.9	1034.9	1036.2	1044.3	1048.4	1048.4	1057.8	1074.0	1078.0	1087.5	1068.6
20°	1017.4	1017.4	1018.8	1026.8	1030.9	1028.2	1040.3	1053.8	1057.8	1065.9	1047.0
22.5°	991.8	991.8	991.8	999.9	1002.6	1001.2	1013.4	1025.5	1025.5	1036.2	1016.1
25°	954.1	956.7	954.1	962.1	964.8	963.5	974.3	985.1	982.4	994.5	974.3
27.5°	908.3	906.9	906.9	913.6	913.6	912.3	920.3	932.5	929.8	937.9	919.0
30°	844.9	848.9	842.2	851.6	847.6	844.9	850.3	861.1	857.0	863.8	848.9
32.5°	772.1	766.7	766.7	766.7	769.4	762.7	768.1	773.5	769.4	776.2	760.0
35°	676.5	677.8	673.8	675.1	676.5	668.4	673.8	679.2	673.8	677.8	663.0
37.5°	580.8	582.1	572.7	578.1	572.7	570.0	575.4	578.1	572.7	576.7	560.6
40°	485.1	482.4	481.1	481.1	482.4	475.7	479.7	483.8	479.7	482.4	467.6
42.5°	401.6	400.2	397.6	398.9	394.8	393.5	394.8	398.9	394.8	397.6	386.7
45°	328.8	326.1	322.1	323.4	323.4	316.7	320.7	323.4	319.4	320.7	311.3
47.5°	261.4	257.4	257.4	256.0	256.0	253.3	257.4	256.0	252.0	254.7	245.3
50°	203.5	200.8	200.8	200.8	200.8	196.7	198.1	200.8	196.7	196.7	191.3
52.5°	159.0	155.0	152.3	152.3	152.3	150.9	150.9	152.3	148.2	148.2	146.9
55°	119.9	118.6	114.5	114.5	114.5	110.5	111.8	111.8	110.5	110.5	106.4
57.5°	89.0	84.9	82.2	82.2	79.5	79.5	78.2	79.5	76.8	76.8	74.1
60°	59.3	56.6	55.3	53.9	53.9	52.6	53.9	52.6	52.6	51.2	49.9
62.5°	43.1	40.4	37.7	37.7	37.7	36.4	36.4	36.4	36.4	36.4	35.0
65°	31.0	28.3	28.3	26.9	26.9	25.6	25.6	25.6	25.6	25.6	24.2
67.5°	21.6	20.2	18.9	18.9	18.9	18.9	18.9	18.9	17.5	17.5	17.5
70°	16.2	14.8	13.5	13.5	13.5	13.5	13.5	12.1	13.5	13.5	12.1
72.5°	10.8	10.8	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
75°	8.1	8.1	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
77.5°	5.4	5.4	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
80°	4.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	2.7	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
85°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	0.0
87.5°	0.0	0.0	0.0	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	0.0	0.0	0.0



TEST NUMBER: P857217

CATALOG NUMBER: LX4C20D010 EX4C209050 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7	1045.7
2.5°	1071.3	1069.9	1067.3	1071.3	1060.5	1056.5	1055.1	1067.3
5°	1086.1	1083.4	1083.4	1087.5	1075.3	1072.6	1069.9	1083.4
7.5°	1099.6	1096.9	1096.9	1101.0	1090.2	1087.5	1084.8	1098.3
10°	1107.7	1107.7	1107.7	1110.4	1101.0	1098.3	1096.9	1110.4
12.5°	1111.7	1111.7	1110.4	1115.7	1103.6	1103.6	1101.0	1114.4
15°	1106.3	1106.3	1106.3	1110.4	1099.6	1096.9	1096.9	1107.7
17.5°	1092.9	1092.9	1091.5	1095.6	1083.4	1083.4	1082.1	1094.2
20°	1072.6	1072.6	1069.9	1075.3	1063.2	1059.2	1057.8	1069.9
22.5°	1040.3	1038.9	1037.6	1040.3	1029.5	1026.8	1025.5	1036.2
25°	998.5	997.2	994.5	997.2	985.1	981.0	981.0	989.1
27.5°	939.3	939.3	935.2	939.3	925.7	924.4	923.0	932.5
30°	866.5	861.1	858.4	863.8	850.3	850.3	847.6	857.0
32.5°	776.2	770.8	769.4	772.1	760.0	756.0	761.3	766.7
35°	672.4	673.8	668.4	668.4	657.6	658.9	660.3	668.4
37.5°	572.7	570.0	568.6	570.0	561.9	559.2	556.6	564.6
40°	479.7	473.0	471.7	471.7	464.9	463.6	464.9	469.0
42.5°	392.1	390.8	385.4	388.1	381.3	384.0	382.7	382.7
45°	316.7	318.0	312.6	316.7	311.3	307.2	307.2	309.9
47.5°	250.6	250.6	249.3	249.3	245.3	246.6	243.9	248.0
50°	194.0	194.0	191.3	192.7	190.0	190.0	188.6	190.0
52.5°	148.2	146.9	146.9	145.5	142.8	144.2	145.5	142.8
55°	107.8	109.1	106.4	107.8	105.1	106.4	105.1	106.4
57.5°	74.1	75.5	72.8	75.5	72.8	74.1	72.8	72.8
60°	51.2	51.2	49.9	51.2	49.9	49.9	48.5	51.2
62.5°	35.0	35.0	35.0	35.0	35.0	33.7	35.0	35.0
65°	25.6	24.2	24.2	24.2	24.2	24.2	24.2	24.2
67.5°	17.5	17.5	17.5	17.5	17.5	17.5	17.5	17.5
70°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1
72.5°	9.5	9.5	9.5	9.5	9.5	9.5	9.5	9.5
75°	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
77.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
80°	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
82.5°	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
85°	1.4	1.4	1.4	0.0	1.4	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)