

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: P857301

Luminaire Tested: **LX4C20D010 EX4C209030 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P857301
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 EX4C209030 4LBSWNH
Description: 4 INCH 2000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

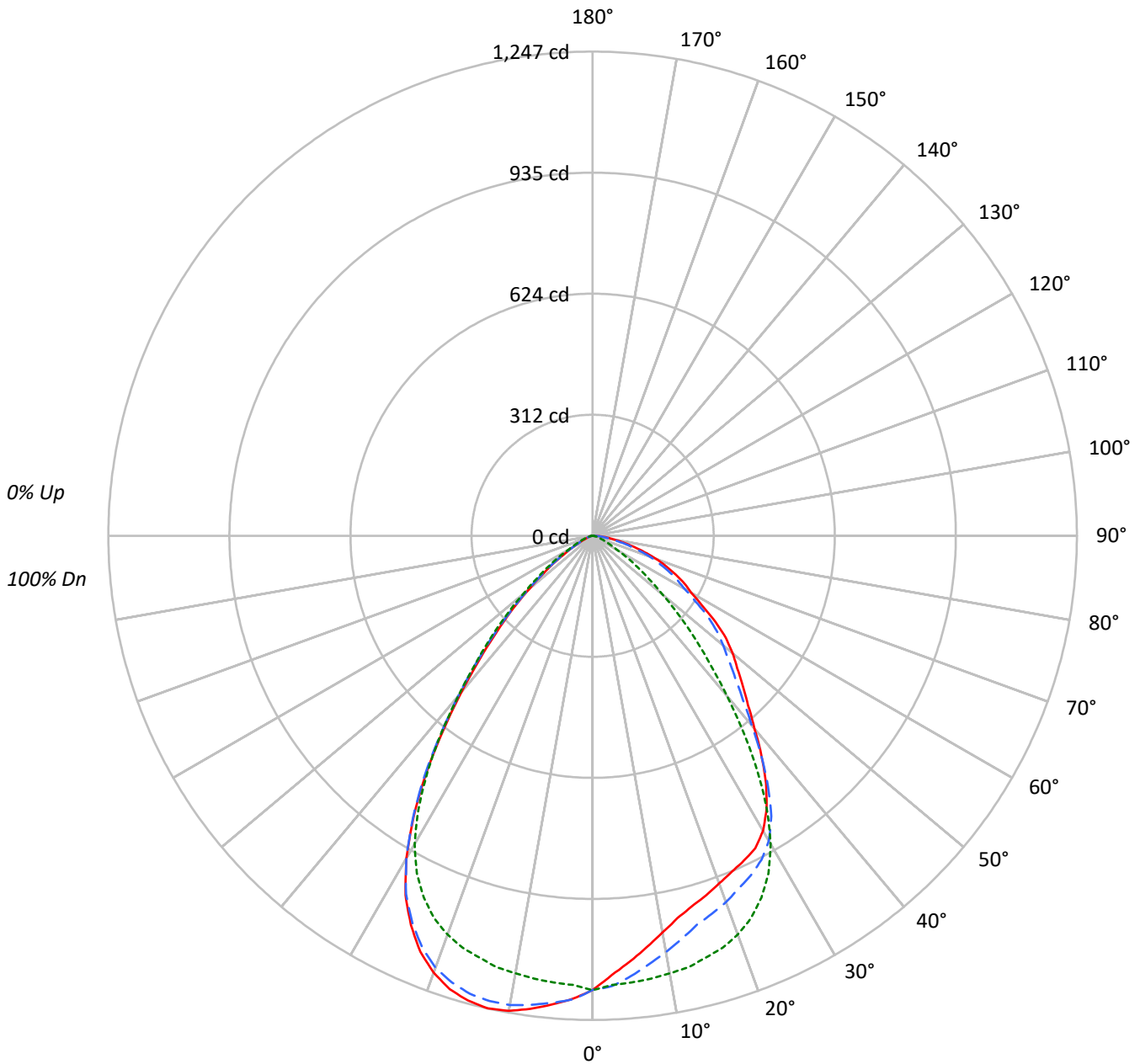
Lumens per Lamp: N/A
Luminaire Lumens: 2050.9 lumens
Efficiency: N/A
Efficacy: 62.9 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 32.6
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

TEST NUMBER: P857301

CATALOG NUMBER: LX4C20D010 EX4C209030 4LBSWNH

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°	143739	143739	143739
5°	135729	142425	149492
10°	129402	142750	154988
15°	125597	143048	157623
20°	124567	142910	156506
25°	125076	139376	150004
30°	124481	130028	136029
35°	116682	111028	112167
40°	103970	86073	84148
45°	95088	64163	60236
50°	89906	44953	40633
55°	82677	30372	25510
60°	72213	17789	14079
65°	68372	11395	7878
70°	62285	8118	4885
75°	51549	5743	3560
80°	40539	3184	2122
85°	36085	2114	0



TEST NUMBER: P857301

CATALOG NUMBER: LX4C20D010 EX4C209030 4LBSWNH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	110.5	5.4
10°-20°	317.1	15.5
20°-30°	470.1	22.9
30°-40°	470.8	23.0
40°-50°	329.0	16.0
50°-60°	195.8	9.5
60°-70°	102.2	5.0
70°-80°	45.4	2.2
80°-90°	9.9	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°	897.8	43.8
0°-40°	1368.6	66.7
0°-60°	1893.4	92.3
0°-90°	2050.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2050.9	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1170	1170	1170	1170	1170	
5°	1101	1138	1155	1208	1212	103
15°	988	1037	1125	1221	1239	280
25°	923	965	1028	1099	1107	425
35°	778	787	740	754	748	482
45°	547	520	369	357	347	425
55°	386	362	142	124	119	343
65°	235	216	39	29	27	233
75°	109	95	12	8	8	117
85°	26	20	2	2	0	29
90°	0	0	0	0	0	



TEST NUMBER: P857301

CATALOG NUMBER: LX4C20D010 EX4C209030 4LBSWNH

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0
2.5°	1132.3	1145.8	1132.3	1136.8	1154.9	1138.3	1147.4	1147.4	1142.8	1153.4	1160.9
5°	1100.6	1114.2	1100.6	1106.6	1126.2	1109.7	1120.2	1117.2	1118.7	1127.8	1138.3
7.5°	1068.9	1079.5	1067.4	1075.0	1093.1	1079.5	1088.5	1088.5	1090.1	1103.6	1112.7
10°	1037.3	1046.3	1037.3	1043.3	1062.9	1051.0	1056.9	1058.4	1062.9	1075.0	1088.5
12.5°	1008.6	1016.2	1007.1	1016.2	1032.7	1020.7	1028.2	1029.7	1034.3	1047.9	1062.9
15°	987.5	995.2	986.1	993.5	1008.6	999.6	1005.6	1008.6	1011.6	1023.7	1037.3
17.5°	971.0	977.1	969.4	978.5	990.5	980.1	989.1	989.1	993.5	1005.6	1020.7
20°	952.8	958.9	952.8	960.4	974.1	965.0	972.4	972.4	977.1	990.5	1004.2
22.5°	936.4	939.4	936.4	942.4	955.8	948.4	952.8	954.4	958.9	971.0	983.1
25°	922.7	928.7	925.7	931.7	940.8	933.3	937.7	939.4	943.8	954.4	965.0
27.5°	907.6	910.6	907.6	915.2	922.7	916.6	921.3	919.6	922.7	931.7	940.8
30°	877.5	880.6	880.6	885.0	891.1	888.1	892.6	888.1	891.1	898.7	907.6
32.5°	833.8	835.3	836.8	841.3	845.9	841.3	844.4	844.4	844.4	850.4	856.4
35°	778.0	781.0	779.5	782.5	787.1	785.6	785.6	784.0	781.0	784.0	787.1
37.5°	714.7	710.2	710.2	714.7	717.7	711.7	714.7	711.7	711.7	713.2	713.2
40°	648.3	643.8	648.3	649.8	651.3	648.3	646.8	643.8	639.3	640.8	637.8
42.5°	592.5	589.5	591.0	591.0	592.5	589.5	591.0	585.0	580.5	577.4	572.9
45°	547.3	542.8	547.3	544.3	544.3	542.8	541.3	538.2	532.2	527.7	520.1
47.5°	505.1	505.1	506.6	506.6	506.6	503.6	503.6	497.5	491.5	485.5	474.9
50°	470.4	467.4	473.4	473.4	468.9	467.4	468.9	461.3	456.8	449.3	438.7
52.5°	432.7	432.7	434.2	434.2	432.7	429.7	431.2	425.1	420.6	413.1	402.5
55°	386.0	383.0	387.4	387.4	386.0	384.4	386.0	381.4	377.0	371.0	361.8
57.5°	333.3	331.6	334.7	336.3	333.3	333.3	334.7	330.3	328.6	322.6	313.5
60°	293.9	292.6	295.6	297.1	293.9	293.9	293.9	287.9	284.9	278.9	272.8
62.5°	266.8	265.4	268.4	266.8	265.4	263.8	265.4	259.4	256.4	250.3	244.3
65°	235.2	236.8	238.3	238.3	236.8	235.2	235.2	232.2	229.2	223.2	215.6
67.5°	205.0	205.0	206.6	208.0	206.6	206.6	206.6	202.0	199.1	194.5	185.5
70°	173.4	171.9	176.4	176.4	173.4	174.9	173.4	171.9	168.9	162.9	155.3
72.5°	140.2	140.2	141.8	141.8	140.2	140.2	140.2	138.7	134.2	131.2	123.7
75°	108.6	108.6	110.1	111.6	108.6	108.6	110.1	107.1	104.1	99.5	95.0
77.5°	81.4	79.9	81.4	81.4	79.9	79.9	79.9	78.4	76.9	72.4	67.9
80°	57.3	55.8	57.3	57.3	57.3	55.8	55.8	54.3	54.3	51.3	46.7
82.5°	39.2	37.7	39.2	39.2	39.2	37.7	37.7	37.7	36.2	34.7	31.7
85°	25.6	24.1	24.1	25.6	24.1	24.1	24.1	24.1	22.6	21.1	19.6
87.5°	12.1	12.1	12.1	12.1	12.1	12.1	12.1	10.6	10.6	10.6	9.0
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: P857301

CATALOG NUMBER: LX4C20D010 EX4C209030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0
2.5°	1154.9	1151.9	1160.9	1157.9	1159.4	1151.9	1163.9	1157.9	1165.5	1157.9	1173.0
5°	1135.3	1132.3	1145.8	1144.3	1145.8	1139.8	1153.4	1151.9	1160.9	1154.9	1171.5
7.5°	1114.2	1111.2	1126.2	1127.8	1130.8	1124.7	1142.8	1142.8	1151.9	1150.4	1168.5
10°	1090.1	1091.6	1106.6	1109.7	1115.7	1112.7	1129.3	1133.8	1145.8	1144.3	1167.0
12.5°	1067.4	1067.4	1087.0	1093.1	1097.6	1096.1	1115.7	1121.7	1135.3	1138.3	1159.4
15°	1044.9	1046.3	1064.4	1073.5	1079.5	1078.0	1099.1	1106.6	1123.2	1124.7	1150.4
17.5°	1026.7	1025.2	1044.9	1052.4	1061.4	1059.9	1082.5	1091.6	1108.1	1112.7	1136.8
20°	1011.6	1010.1	1028.2	1037.3	1043.3	1041.9	1064.4	1075.0	1090.1	1093.1	1117.2
22.5°	993.5	990.5	1008.6	1016.2	1022.2	1020.7	1040.3	1047.9	1062.9	1065.9	1088.5
25°	972.4	969.4	986.1	990.5	995.2	992.1	1008.6	1013.1	1025.2	1028.2	1051.0
27.5°	948.4	940.8	954.4	954.4	957.3	952.8	965.0	969.4	980.1	980.1	1001.2
30°	910.6	900.2	907.6	906.2	907.6	901.7	909.2	910.6	918.3	916.6	931.7
32.5°	857.8	842.9	847.4	842.9	838.3	829.3	838.3	835.3	841.3	835.3	848.9
35°	785.6	770.5	769.0	762.9	758.4	750.9	750.9	743.3	744.8	740.3	749.4
37.5°	707.1	687.5	684.5	672.5	664.9	655.9	655.9	649.8	642.3	639.3	646.8
40°	630.2	609.1	601.6	582.0	574.4	565.4	559.4	551.8	548.8	536.7	542.8
42.5°	563.9	541.3	524.7	503.6	496.0	482.4	473.4	464.3	459.8	446.3	452.3
45°	508.1	480.9	462.8	435.7	425.1	410.1	396.5	386.0	375.4	369.3	366.3
47.5°	461.3	432.7	408.6	378.4	361.8	348.3	330.3	319.6	306.1	298.6	293.9
50°	422.1	390.5	363.3	328.6	312.2	297.1	275.8	259.4	247.3	235.2	232.2
52.5°	387.4	354.3	324.2	284.9	265.4	247.3	224.7	206.6	196.0	182.5	181.0
55°	346.7	318.2	284.9	244.3	224.7	206.6	182.5	164.4	150.8	141.8	138.7
57.5°	303.1	275.8	244.3	203.6	184.0	164.4	141.8	125.2	113.1	105.6	104.1
60°	262.4	236.8	206.6	165.9	146.3	129.7	105.6	89.0	78.4	72.4	69.4
62.5°	232.2	208.0	179.5	141.8	123.7	107.1	84.4	69.4	60.3	54.3	51.3
65°	203.6	179.5	153.8	119.1	104.1	89.0	67.9	54.3	45.2	39.2	36.2
67.5°	173.4	152.3	128.2	99.5	84.4	72.4	54.3	42.2	34.7	30.2	27.1
70°	143.3	123.7	104.1	79.9	69.4	57.3	42.2	33.2	25.6	22.6	19.6
72.5°	113.1	98.0	81.4	61.8	52.8	45.2	33.2	24.1	19.6	16.6	13.6
75°	84.4	73.9	60.3	46.7	39.2	33.2	24.1	18.1	15.1	12.1	10.6
77.5°	60.3	51.3	42.2	31.7	28.7	24.1	16.6	13.6	10.6	7.5	6.0
80°	40.7	36.2	28.7	22.6	18.1	16.6	12.1	9.0	6.0	4.5	4.5
82.5°	27.1	22.6	18.1	13.6	12.1	10.6	7.5	6.0	4.5	3.0	3.0
85°	16.6	13.6	10.6	7.5	7.5	6.0	4.5	3.0	1.5	1.5	1.5
87.5°	7.5	6.0	4.5	3.0	3.0	1.5	1.5	1.5	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: P857301

CATALOG NUMBER: LX4C20D010 EX4C209030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0
2.5°	1185.1	1176.0	1170.0	1177.5	1180.5	1176.0	1180.5	1188.1	1195.6	1197.1	1176.0
5°	1186.6	1177.5	1174.5	1183.5	1185.1	1183.5	1188.1	1198.6	1207.7	1210.7	1189.6
7.5°	1186.6	1180.5	1179.0	1189.6	1191.1	1189.6	1197.1	1209.2	1218.2	1224.3	1203.2
10°	1183.5	1180.5	1182.0	1191.1	1194.1	1194.1	1204.7	1218.2	1227.3	1233.3	1212.2
12.5°	1179.0	1179.0	1179.0	1189.6	1192.6	1194.1	1203.2	1221.2	1227.3	1236.3	1215.2
15°	1171.5	1171.5	1171.5	1182.0	1186.6	1186.6	1197.1	1213.7	1221.2	1230.3	1209.2
17.5°	1157.9	1157.9	1159.4	1168.5	1173.0	1173.0	1183.5	1201.6	1206.2	1216.7	1195.6
20°	1138.3	1138.3	1139.8	1148.9	1153.4	1150.4	1163.9	1179.0	1183.5	1192.6	1171.5
22.5°	1109.7	1109.7	1109.7	1118.7	1121.7	1120.2	1133.8	1147.4	1147.4	1159.4	1136.8
25°	1067.4	1070.4	1067.4	1076.5	1079.5	1078.0	1090.1	1102.1	1099.1	1112.7	1090.1
27.5°	1016.2	1014.7	1014.7	1022.2	1022.2	1020.7	1029.7	1043.3	1040.3	1049.3	1028.2
30°	945.4	949.8	942.4	952.8	948.4	945.4	951.4	963.4	958.9	966.4	949.8
32.5°	863.9	857.8	857.8	857.8	860.8	853.4	859.4	865.5	860.8	868.5	850.4
35°	756.9	758.4	753.9	755.4	756.9	747.9	753.9	759.9	753.9	758.4	741.8
37.5°	649.8	651.3	640.8	646.8	640.8	637.8	643.8	646.8	640.8	645.3	627.2
40°	542.8	539.7	538.2	538.2	539.7	532.2	536.7	541.3	536.7	539.7	523.2
42.5°	449.3	447.9	444.9	446.3	441.7	440.2	441.7	446.3	441.7	444.9	432.7
45°	367.8	364.8	360.3	361.8	361.8	354.3	358.8	361.8	357.3	358.8	348.3
47.5°	292.6	287.9	287.9	286.5	286.5	283.5	287.9	286.5	281.9	284.9	274.5
50°	227.7	224.7	224.7	224.7	224.7	220.1	221.7	224.7	220.1	220.1	214.0
52.5°	177.9	173.4	170.4	170.4	170.4	168.9	168.9	170.4	165.9	165.9	164.4
55°	134.2	132.7	128.2	128.2	128.2	123.7	125.2	125.2	123.7	123.7	119.1
57.5°	99.5	95.0	92.0	92.0	89.0	89.0	87.5	89.0	86.0	86.0	82.9
60°	66.4	63.3	61.8	60.3	60.3	58.8	60.3	58.8	58.8	57.3	55.8
62.5°	48.3	45.2	42.2	42.2	42.2	40.7	40.7	40.7	40.7	40.7	39.2
65°	34.7	31.7	31.7	30.2	30.2	28.7	28.7	28.7	28.7	28.7	27.1
67.5°	24.1	22.6	21.1	21.1	21.1	21.1	21.1	21.1	19.6	19.6	19.6
70°	18.1	16.6	15.1	15.1	15.1	15.1	15.1	13.6	15.1	15.1	13.6
72.5°	12.1	12.1	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
75°	9.0	9.0	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
77.5°	6.0	6.0	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
80°	4.5	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	3.0	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	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: P857301

CATALOG NUMBER: LX4C20D010 EX4C209030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0	1170.0
2.5°	1198.6	1197.1	1194.1	1198.6	1186.6	1182.0	1180.5	1194.1
5°	1215.2	1212.2	1212.2	1216.7	1203.2	1200.1	1197.1	1212.2
7.5°	1230.3	1227.3	1227.3	1231.8	1219.7	1216.7	1213.7	1228.8
10°	1239.3	1239.3	1239.3	1242.4	1231.8	1228.8	1227.3	1242.4
12.5°	1243.9	1243.9	1242.4	1248.4	1234.8	1234.8	1231.8	1246.9
15°	1237.8	1237.8	1237.8	1242.4	1230.3	1227.3	1227.3	1239.3
17.5°	1222.8	1222.8	1221.2	1225.8	1212.2	1212.2	1210.7	1224.3
20°	1200.1	1200.1	1197.1	1203.2	1189.6	1185.1	1183.5	1197.1
22.5°	1163.9	1162.4	1160.9	1163.9	1151.9	1148.9	1147.4	1159.4
25°	1117.2	1115.7	1112.7	1115.7	1102.1	1097.6	1097.6	1106.6
27.5°	1051.0	1051.0	1046.3	1051.0	1035.8	1034.3	1032.7	1043.3
30°	969.4	963.4	960.4	966.4	951.4	951.4	948.4	958.9
32.5°	868.5	862.5	860.8	863.9	850.4	845.9	851.9	857.8
35°	752.4	753.9	747.9	747.9	735.8	737.3	738.8	747.9
37.5°	640.8	637.8	636.3	637.8	628.7	625.7	622.7	631.7
40°	536.7	529.2	527.7	527.7	520.1	518.6	520.1	524.7
42.5°	438.7	437.2	431.2	434.2	426.6	429.7	428.2	428.2
45°	354.3	355.8	349.7	354.3	348.3	343.7	343.7	346.7
47.5°	280.5	280.5	278.9	278.9	274.5	275.8	272.8	277.5
50°	217.0	217.0	214.0	215.6	212.6	212.6	211.0	212.6
52.5°	165.9	164.4	164.4	162.9	159.8	161.4	162.9	159.8
55°	120.6	122.1	119.1	120.6	117.6	119.1	117.6	119.1
57.5°	82.9	84.4	81.4	84.4	81.4	82.9	81.4	81.4
60°	57.3	57.3	55.8	57.3	55.8	55.8	54.3	57.3
62.5°	39.2	39.2	39.2	39.2	39.2	37.7	39.2	39.2
65°	28.7	27.1	27.1	27.1	27.1	27.1	27.1	27.1
67.5°	19.6	19.6	19.6	19.6	19.6	19.6	19.6	19.6
70°	13.6	13.6	13.6	13.6	13.6	13.6	13.6	13.6
72.5°	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
75°	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
77.5°	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
80°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
82.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
85°	1.5	1.5	1.5	0.0	1.5	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)