

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: P857689

Luminaire Tested: **LX4C30D010 EX4C309030 4LBSWNH**

Issue Date: 2/18/2022



Test Information

Test Method: LM-79-08
Report Number: P857689
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: LX4C30D010 EX4C309030 4LBSWNH
Description: 4 INCH 3000 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LCSW TRIM WITH H FINISH, DIM TO WARM
Light Source: -
Ballast/Driver: -

Summary

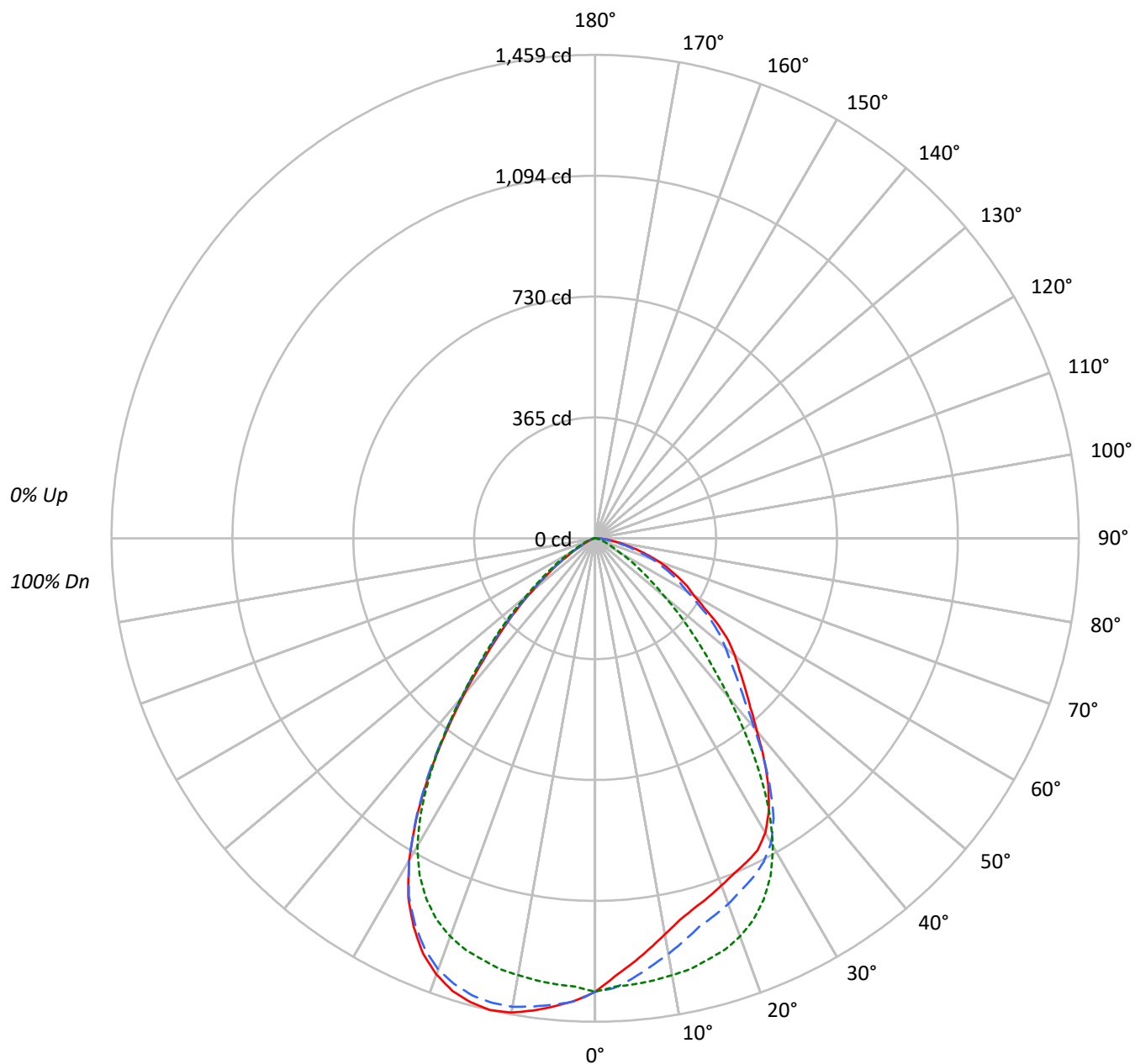
Lumens per Lamp: N/A
Luminaire Lumens: 2399.4 lumens
Efficiency: N/A
Efficacy: 68.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.17 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 35
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: P857689

CATALOG NUMBER: LX4C30D010 EX4C309030 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
RW	70	50	30	10	70	50	30	10		50	30	10		50	30	10		50	30	10
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111		106	106	106		102	102	102
1	111	108	104	101	109	106	103	100		101	99	97		98	96	94		94	93	91
2	104	97	92	87	101	95	90	86		92	88	84		89	85	82		86	83	81
3	96	88	81	76	94	86	80	75		83	78	74		81	76	73		78	75	72
4	90	80	72	67	88	78	72	66		76	70	66		74	69	65		72	68	64
5	83	73	65	60	82	72	65	59		70	63	59		68	62	58		66	61	58
6	78	67	59	53	76	66	59	53		64	58	53		62	57	52		61	56	52
7	73	61	54	48	71	61	53	48		59	53	48		58	52	48		56	51	47
8	68	57	49	44	67	56	49	44		55	48	44		54	48	43		52	47	43
9	64	52	45	40	63	52	45	40		51	44	40		50	44	40		49	44	40
10	61	49	42	37	59	48	42	37		47	41	37		47	41	37		46	40	37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	168162	168162	168162
5°	158790	166634	174896
10°	151395	167014	181310
15°	146939	167366	184409
20°	145747	167188	183098
25°	146330	163071	175502
30°	145632	152130	159137
35°	136509	129895	131214
40°	121628	100715	98453
45°	111246	75074	70487
50°	105177	52598	47533
55°	96728	35512	29836
60°	84499	20787	16462
65°	80000	13314	9215
70°	72882	9519	5711
75°	60330	6693	4177
80°	47401	3750	2476
85°	42288	2537	0



TEST NUMBER: P857689

CATALOG NUMBER: LX4C30D010 EX4C309030 4LBSWNH

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	129.3	5.4
10°-20°	371.0	15.5
20°-30°	550.0	22.9
30°-40°	550.8	23.0
40°-50°	384.9	16.0
50°-60°	229.0	9.5
60°-70°	119.5	5.0
70°-80°	53.2	2.2
80°-90°	11.6	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°	1050.4	43.8
0°-40°	1601.1	66.7
0°-60°	2215.1	92.3
0°-90°	2399.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2399.4	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1369	1369	1369	1369	1369	
5°	1288	1332	1351	1413	1418	121
15°	1155	1214	1316	1429	1450	327
25°	1080	1129	1203	1286	1295	497
35°	910	921	866	882	875	564
45°	640	609	432	418	406	497
55°	452	423	166	145	139	401
65°	275	252	46	34	32	272
75°	127	111	14	9	9	137
85°	30	23	2	2	0	34
90°	0	0	0	0	0	



TEST NUMBER: P857689

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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8
2.5°	1324.7	1340.6	1324.7	1330.0	1351.2	1331.7	1342.3	1342.3	1337.0	1349.4	1358.2
5°	1287.6	1303.5	1287.6	1294.7	1317.6	1298.2	1310.5	1307.0	1308.9	1319.5	1331.7
7.5°	1250.6	1263.0	1248.8	1257.6	1278.8	1263.0	1273.6	1273.6	1275.3	1291.1	1301.8
10°	1213.6	1224.2	1213.6	1220.7	1243.6	1229.5	1236.5	1238.2	1243.6	1257.6	1273.6
12.5°	1180.0	1188.9	1178.3	1188.9	1208.2	1194.2	1203.0	1204.7	1210.1	1225.9	1243.6
15°	1155.3	1164.2	1153.6	1162.4	1180.0	1169.4	1176.5	1180.0	1183.6	1197.7	1213.6
17.5°	1136.0	1143.0	1134.2	1144.8	1158.8	1146.6	1157.2	1157.2	1162.4	1176.5	1194.2
20°	1114.8	1121.8	1114.8	1123.6	1139.5	1128.9	1137.7	1137.7	1143.0	1158.8	1174.7
22.5°	1095.4	1098.9	1095.4	1102.4	1118.3	1109.5	1114.8	1116.5	1121.8	1136.0	1150.1
25°	1079.5	1086.5	1083.0	1090.1	1100.7	1091.9	1097.1	1098.9	1104.2	1116.5	1128.9
27.5°	1061.9	1065.4	1061.9	1070.7	1079.5	1072.4	1077.8	1075.9	1079.5	1090.1	1100.7
30°	1026.6	1030.1	1030.1	1035.4	1042.5	1039.0	1044.2	1039.0	1042.5	1051.3	1061.9
32.5°	975.5	977.2	979.0	984.3	989.6	984.3	987.8	987.8	987.8	994.9	1001.9
35°	910.2	913.7	912.0	915.5	920.7	919.0	919.0	917.2	913.7	917.2	920.7
37.5°	836.1	830.8	830.8	836.1	839.6	832.6	836.1	832.6	832.6	834.3	834.3
40°	758.4	753.2	758.4	760.3	761.9	758.4	756.7	753.2	747.9	749.7	746.1
42.5°	693.2	689.6	691.5	691.5	693.2	689.6	691.5	684.4	679.1	675.6	670.3
45°	640.3	635.1	640.3	636.7	636.7	635.1	633.2	629.7	622.7	617.4	608.6
47.5°	590.9	590.9	592.7	592.7	592.7	589.1	589.1	582.1	575.0	567.9	555.7
50°	550.3	546.8	553.8	553.8	548.6	546.8	548.6	539.8	534.5	525.7	513.3
52.5°	506.2	506.2	508.0	508.0	506.2	502.7	504.5	497.4	492.1	483.4	470.9
55°	451.6	448.0	453.3	453.3	451.6	449.8	451.6	446.3	441.0	434.0	423.3
57.5°	389.8	388.1	391.6	393.4	389.8	389.8	391.6	386.3	384.6	377.5	366.9
60°	343.9	342.2	345.7	347.5	343.9	343.9	343.9	336.9	333.3	326.3	319.2
62.5°	312.2	310.5	314.0	312.2	310.5	308.7	310.5	303.4	299.9	292.8	285.8
65°	275.2	276.9	278.8	278.8	276.9	275.2	275.2	271.7	268.2	261.1	252.3
67.5°	239.8	239.8	241.7	243.4	241.7	241.7	241.7	236.3	232.9	227.5	216.9
70°	202.9	201.1	206.4	206.4	202.9	204.6	202.9	201.1	197.5	190.5	181.7
72.5°	164.0	164.0	165.8	165.8	164.0	164.0	164.0	162.3	157.0	153.5	144.6
75°	127.1	127.1	128.7	130.5	127.1	127.1	128.7	125.2	121.7	116.5	111.1
77.5°	95.3	93.5	95.3	95.3	93.5	93.5	93.5	91.7	90.0	84.6	79.4
80°	67.0	65.2	67.0	67.0	67.0	65.2	65.2	63.5	63.5	60.0	54.6
82.5°	45.8	44.2	45.8	45.8	45.8	44.2	44.2	44.2	42.3	40.6	37.1
85°	30.0	28.2	28.2	30.0	28.2	28.2	28.2	28.2	26.5	24.7	23.0
87.5°	14.1	14.1	14.1	14.1	14.1	14.1	14.1	12.4	12.4	12.4	10.6
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: P857689

CATALOG NUMBER: LX4C30D010 EX4C309030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8
2.5°	1351.2	1347.6	1358.2	1354.7	1356.4	1347.6	1361.8	1354.7	1363.4	1354.7	1372.4
5°	1328.2	1324.7	1340.6	1338.8	1340.6	1333.5	1349.4	1347.6	1358.2	1351.2	1370.5
7.5°	1303.5	1300.0	1317.6	1319.5	1323.0	1315.9	1337.0	1337.0	1347.6	1345.9	1367.0
10°	1275.3	1277.1	1294.7	1298.2	1305.3	1301.8	1321.1	1326.5	1340.6	1338.8	1365.3
12.5°	1248.8	1248.8	1271.8	1278.8	1284.1	1282.4	1305.3	1312.4	1328.2	1331.7	1356.4
15°	1222.4	1224.2	1245.3	1255.9	1263.0	1261.2	1285.9	1294.7	1314.1	1315.9	1345.9
17.5°	1201.2	1199.5	1222.4	1231.2	1241.8	1240.1	1266.5	1277.1	1296.5	1301.8	1330.0
20°	1183.6	1181.8	1203.0	1213.6	1220.7	1218.9	1245.3	1257.6	1275.3	1278.8	1307.0
22.5°	1162.4	1158.8	1180.0	1188.9	1195.9	1194.2	1217.1	1225.9	1243.6	1247.1	1273.6
25°	1137.7	1134.2	1153.6	1158.8	1164.2	1160.7	1180.0	1185.3	1199.5	1203.0	1229.5
27.5°	1109.5	1100.7	1116.5	1116.5	1120.1	1114.8	1128.9	1134.2	1146.6	1146.6	1171.3
30°	1065.4	1053.1	1061.9	1060.1	1061.9	1054.8	1063.7	1065.4	1074.3	1072.4	1090.1
32.5°	1003.6	986.1	991.3	986.1	980.7	970.1	980.7	977.2	984.3	977.2	993.0
35°	919.0	901.4	899.6	892.5	887.2	878.4	878.4	869.7	871.3	866.1	876.7
37.5°	827.3	804.4	800.9	786.7	777.9	767.3	767.3	760.3	751.4	747.9	756.7
40°	737.3	712.6	703.8	680.9	672.1	661.5	654.4	645.6	642.1	628.0	635.1
42.5°	659.7	633.2	613.9	589.1	580.3	564.4	553.8	543.3	538.0	522.1	529.2
45°	594.4	562.7	541.5	509.8	497.4	479.8	463.9	451.6	439.2	432.1	428.6
47.5°	539.8	506.2	478.0	442.7	423.3	407.5	386.3	374.0	358.1	349.2	343.9
50°	493.9	456.9	425.1	384.6	365.1	347.5	322.7	303.4	289.3	275.2	271.7
52.5°	453.3	414.6	379.2	333.3	310.5	289.3	262.8	241.7	229.3	213.4	211.7
55°	405.7	372.2	333.3	285.8	262.8	241.7	213.4	192.3	176.4	165.8	162.3
57.5°	354.6	322.7	285.8	238.1	215.2	192.3	165.8	146.4	132.3	123.5	121.7
60°	306.9	276.9	241.7	194.0	171.0	151.7	123.5	104.1	91.7	84.6	81.1
62.5°	271.7	243.4	209.9	165.8	144.6	125.2	98.8	81.1	70.6	63.5	60.0
65°	238.1	209.9	180.0	139.3	121.7	104.1	79.4	63.5	52.9	45.8	42.3
67.5°	202.9	178.2	149.9	116.5	98.8	84.6	63.5	49.4	40.6	35.2	31.7
70°	167.5	144.6	121.7	93.5	81.1	67.0	49.4	38.8	30.0	26.5	23.0
72.5°	132.3	114.6	95.3	72.3	61.7	52.9	38.8	28.2	23.0	19.4	15.9
75°	98.8	86.4	70.6	54.6	45.8	38.8	28.2	21.2	17.7	14.1	12.4
77.5°	70.6	60.0	49.4	37.1	33.6	28.2	19.4	15.9	12.4	8.8	7.1
80°	47.7	42.3	33.6	26.5	21.2	19.4	14.1	10.6	7.1	5.3	5.3
82.5°	31.7	26.5	21.2	15.9	14.1	12.4	8.8	7.1	5.3	3.5	3.5
85°	19.4	15.9	12.4	8.8	8.8	7.1	5.3	3.5	1.8	1.8	1.8
87.5°	8.8	7.1	5.3	3.5	3.5	1.8	1.8	1.8	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: P857689

CATALOG NUMBER: LX4C30D010 EX4C309030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8
2.5°	1386.4	1375.9	1368.8	1377.6	1381.1	1375.9	1381.1	1389.9	1398.8	1400.5	1375.9
5°	1388.2	1377.6	1374.0	1384.6	1386.4	1384.6	1389.9	1402.4	1412.9	1416.4	1391.8
7.5°	1388.2	1381.1	1379.4	1391.8	1393.5	1391.8	1400.5	1414.7	1425.3	1432.3	1407.6
10°	1384.6	1381.1	1382.9	1393.5	1397.0	1397.0	1409.3	1425.3	1435.8	1442.8	1418.2
12.5°	1379.4	1379.4	1379.4	1391.8	1395.3	1397.0	1407.6	1428.8	1435.8	1446.4	1421.7
15°	1370.5	1370.5	1370.5	1382.9	1388.2	1388.2	1400.5	1419.9	1428.8	1439.3	1414.7
17.5°	1354.7	1354.7	1356.4	1367.0	1372.4	1372.4	1384.6	1405.9	1411.1	1423.5	1398.8
20°	1331.7	1331.7	1333.5	1344.1	1349.4	1345.9	1361.8	1379.4	1384.6	1395.3	1370.5
22.5°	1298.2	1298.2	1298.2	1308.9	1312.4	1310.5	1326.5	1342.3	1342.3	1356.4	1330.0
25°	1248.8	1252.4	1248.8	1259.4	1263.0	1261.2	1275.3	1289.4	1285.9	1301.8	1275.3
27.5°	1188.9	1187.1	1187.1	1195.9	1195.9	1194.2	1204.7	1220.7	1217.1	1227.6	1203.0
30°	1106.0	1111.3	1102.4	1114.8	1109.5	1106.0	1113.0	1127.1	1121.8	1130.7	1111.3
32.5°	1010.7	1003.6	1003.6	1003.6	1007.1	998.4	1005.5	1012.5	1007.1	1016.0	994.9
35°	885.5	887.2	881.9	883.8	885.5	874.9	881.9	889.0	881.9	887.2	867.8
37.5°	760.3	761.9	749.7	756.7	749.7	746.1	753.2	756.7	749.7	755.0	733.8
40°	635.1	631.5	629.7	629.7	631.5	622.7	628.0	633.2	628.0	631.5	612.1
42.5°	525.7	523.9	520.4	522.1	516.8	515.1	516.8	522.1	516.8	520.4	506.2
45°	430.4	426.8	421.5	423.3	423.3	414.6	419.8	423.3	418.0	419.8	407.5
47.5°	342.2	336.9	336.9	335.2	335.2	331.7	336.9	335.2	329.8	333.3	321.1
50°	266.3	262.8	262.8	262.8	262.8	257.5	259.3	262.8	257.5	257.5	250.4
52.5°	208.1	202.9	199.4	199.4	199.4	197.5	197.5	199.4	194.0	194.0	192.3
55°	157.0	155.2	149.9	149.9	149.9	144.6	146.4	146.4	144.6	144.6	139.3
57.5°	116.5	111.1	107.5	107.5	104.1	104.1	102.3	104.1	100.6	100.6	97.0
60°	77.6	74.1	72.3	70.6	70.6	68.8	70.6	68.8	68.8	67.0	65.2
62.5°	56.4	52.9	49.4	49.4	49.4	47.7	47.7	47.7	47.7	47.7	45.8
65°	40.6	37.1	37.1	35.2	35.2	33.6	33.6	33.6	33.6	33.6	31.7
67.5°	28.2	26.5	24.7	24.7	24.7	24.7	24.7	24.7	23.0	23.0	23.0
70°	21.2	19.4	17.7	17.7	17.7	17.7	17.7	15.9	17.7	17.7	15.9
72.5°	14.1	14.1	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
75°	10.6	10.6	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
77.5°	7.1	7.1	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
80°	5.3	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	3.5	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	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: P857689

CATALOG NUMBER: LX4C30D010 EX4C309030 4LBSWNH

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8	1368.8
2.5°	1402.4	1400.5	1397.0	1402.4	1388.2	1382.9	1381.1	1397.0
5°	1421.7	1418.2	1418.2	1423.5	1407.6	1404.1	1400.5	1418.2
7.5°	1439.3	1435.8	1435.8	1441.1	1427.0	1423.5	1419.9	1437.6
10°	1449.9	1449.9	1449.9	1453.4	1441.1	1437.6	1435.8	1453.4
12.5°	1455.3	1455.3	1453.4	1460.5	1444.7	1444.7	1441.1	1458.8
15°	1448.2	1448.2	1448.2	1453.4	1439.3	1435.8	1435.8	1449.9
17.5°	1430.5	1430.5	1428.8	1434.1	1418.2	1418.2	1416.4	1432.3
20°	1404.1	1404.1	1400.5	1407.6	1391.8	1386.4	1384.6	1400.5
22.5°	1361.8	1359.9	1358.2	1361.8	1347.6	1344.1	1342.3	1356.4
25°	1307.0	1305.3	1301.8	1305.3	1289.4	1284.1	1284.1	1294.7
27.5°	1229.5	1229.5	1224.2	1229.5	1211.7	1210.1	1208.2	1220.7
30°	1134.2	1127.1	1123.6	1130.7	1113.0	1113.0	1109.5	1121.8
32.5°	1016.0	1009.0	1007.1	1010.7	994.9	989.6	996.6	1003.6
35°	880.3	881.9	874.9	874.9	860.8	862.5	864.3	874.9
37.5°	749.7	746.1	744.4	746.1	735.5	732.0	728.5	739.1
40°	628.0	619.2	617.4	617.4	608.6	606.8	608.6	613.9
42.5°	513.3	511.5	504.5	508.0	499.2	502.7	500.9	500.9
45°	414.6	416.3	409.2	414.6	407.5	402.1	402.1	405.7
47.5°	328.1	328.1	326.3	326.3	321.1	322.7	319.2	324.6
50°	254.0	254.0	250.4	252.3	248.7	248.7	246.9	248.7
52.5°	194.0	192.3	192.3	190.5	186.9	188.8	190.5	186.9
55°	141.1	142.9	139.3	141.1	137.6	139.3	137.6	139.3
57.5°	97.0	98.8	95.3	98.8	95.3	97.0	95.3	95.3
60°	67.0	67.0	65.2	67.0	65.2	65.2	63.5	67.0
62.5°	45.8	45.8	45.8	45.8	45.8	44.2	45.8	45.8
65°	33.6	31.7	31.7	31.7	31.7	31.7	31.7	31.7
67.5°	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
70°	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9
72.5°	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
75°	8.8	8.8	8.8	8.8	8.8	8.8	8.8	8.8
77.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
80°	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
82.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
85°	1.8	1.8	1.8	0.0	1.8	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)