

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: P843517

Luminaire Tested: **LD4C25DE010B2750 EU4C25B30 4LBSWLI**

Issue Date: 5/7/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P843517  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251556)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: PORTFOLIO  
Catalog Number: LD4C25DE010B2750 EU4C25B30 4LBSWLI  
Description: 4in Downlight with BioUp LEDs  
Light Source: -  
Ballast/Driver:

**Summary**

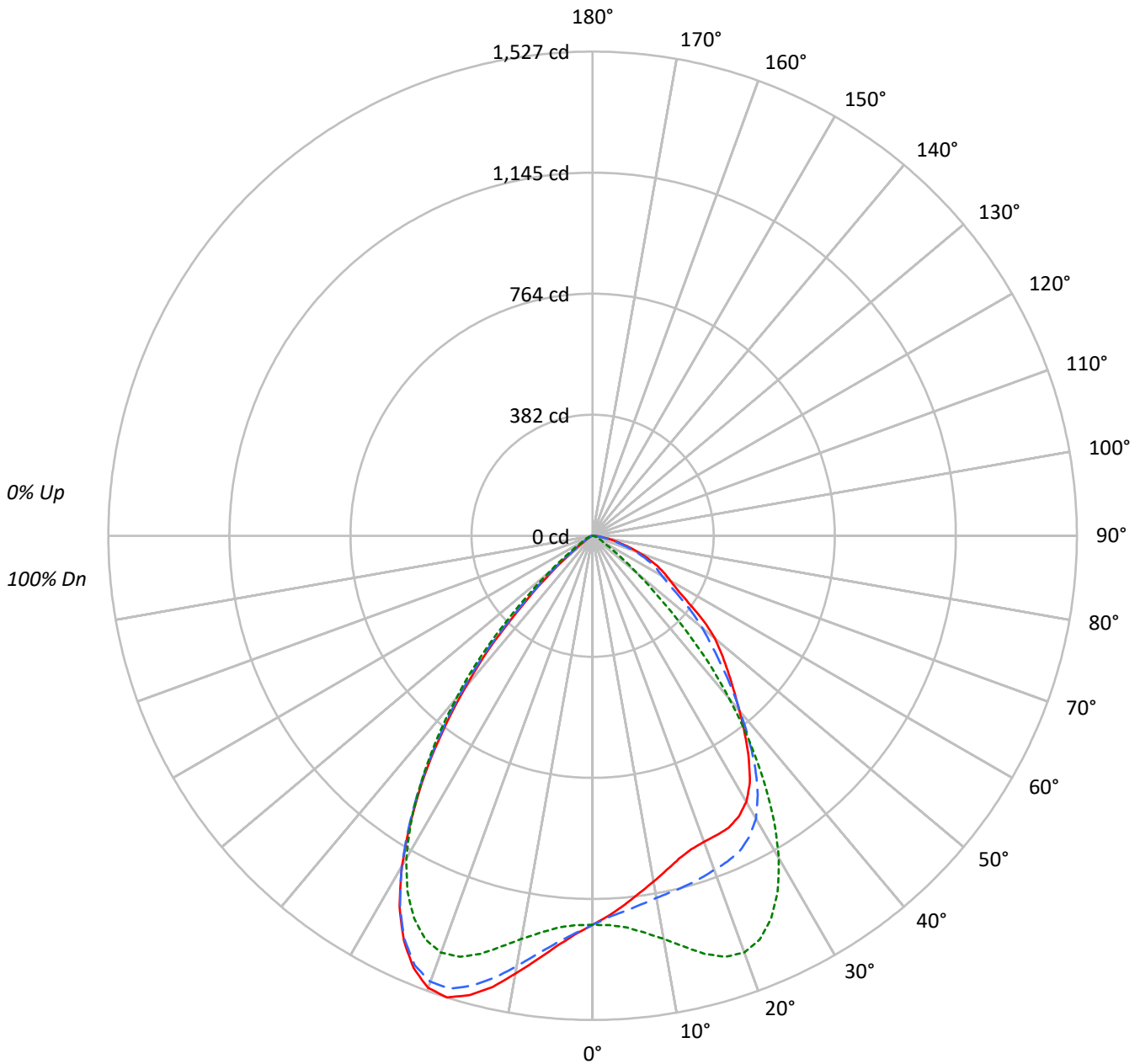
Lumens per Lamp: N/A  
Luminaire Lumens: 2264.4 lumens  
Efficiency: N/A  
Efficacy: 76.0 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

Input Watts (W): 29.8  
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

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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20									20									20									20									
RC	80									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	85	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	77	74	72																			
4	91	81	75	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	79	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53																			
7	75	63	56	51	73	62	55	51	61	55	50	60	54	50	58	53	50	48																			
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44																			
9	66	54	47	42	65	54	47	42	53	46	42	52	46	42	51	46	42	40																			
10	62	51	44	39	61	50	43	39	49	43	39	48	43	39	47	42	39	37																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	150753	150753	150753
5°	144004	152908	160209
10°	138084	161076	174860
15°	134055	173598	190705
20°	134255	182837	198343
25°	137655	180449	190873
30°	137476	166571	170444
35°	128770	140798	138863
40°	115341	107386	100186
45°	104644	68193	55927
50°	96136	34594	23872
55°	78928	15443	7882
60°	69289	8649	4349
65°	65174	6512	3256
70°	55820	5172	2874
75°	42578	3797	2326
80°	30634	2264	1132
85°	22553	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	119.2	5.3
10°-20°	371.5	16.4
20°-30°	574.7	25.4
30°-40°	566.3	25.0
40°-50°	347.7	15.4
50°-60°	154.6	6.8
60°-70°	86.3	3.8
70°-80°	37.4	1.7
80°-90°	6.7	0.3
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°	1065.4	47.0
0°-40°	1631.7	72.1
0°-60°	2134.0	94.2
0°-90°	2264.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2264.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1227	1227	1227	1227	1227	
5°	1168	1187	1240	1288	1299	110
15°	1054	1142	1365	1469	1499	299
25°	1016	1097	1331	1403	1408	466
35°	859	894	939	936	926	533
45°	602	572	392	343	322	467
55°	368	333	72	42	37	339
65°	224	202	22	13	11	220
75°	90	77	8	5	5	99
85°	16	13	0	0	0	20
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°	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1
2.5°	1198.2	1198.2	1198.2	1198.2	1201.5	1196.6	1201.5	1201.5	1206.2	1207.8	1203.1
5°	1167.7	1166.3	1167.7	1167.7	1171.0	1169.4	1174.2	1177.4	1183.8	1187.1	1187.1
7.5°	1135.8	1135.8	1135.8	1139.0	1143.7	1142.1	1146.9	1151.8	1161.4	1167.7	1172.6
10°	1106.9	1105.3	1110.1	1111.8	1116.5	1116.5	1124.6	1129.3	1140.6	1153.5	1159.8
12.5°	1079.6	1078.0	1081.3	1086.1	1094.1	1094.1	1100.5	1108.5	1124.6	1139.0	1150.2
15°	1054.0	1055.7	1060.5	1063.7	1073.3	1073.3	1081.3	1090.9	1108.5	1126.2	1142.1
17.5°	1036.4	1038.1	1041.2	1046.0	1055.7	1055.7	1063.7	1074.9	1094.1	1113.3	1132.6
20°	1026.9	1028.4	1031.6	1036.4	1044.4	1046.0	1052.5	1065.2	1082.9	1103.7	1121.3
22.5°	1022.1	1025.3	1028.4	1031.6	1039.7	1039.7	1047.7	1057.2	1074.9	1095.7	1111.8
25°	1015.5	1018.8	1020.4	1025.3	1031.6	1031.6	1036.4	1047.7	1063.7	1081.3	1097.3
27.5°	998.0	1001.3	1002.7	1007.6	1014.1	1012.4	1018.8	1026.9	1041.2	1057.2	1070.1
30°	969.1	970.8	974.0	975.6	980.4	980.4	985.2	993.2	1002.7	1017.2	1030.0
32.5°	922.7	925.9	927.5	929.1	933.9	932.3	933.9	938.8	948.3	961.2	969.1
35°	858.6	865.0	865.0	868.2	869.9	868.2	868.2	874.7	879.4	889.0	893.9
37.5°	788.1	793.0	791.3	794.5	796.2	791.3	794.5	796.2	802.5	807.4	809.0
40°	719.2	720.9	720.9	720.9	720.9	719.2	720.9	722.5	727.2	727.2	722.5
42.5°	656.8	658.4	658.4	655.2	658.4	656.8	656.8	656.8	656.8	650.3	645.6
45°	602.3	603.9	603.9	602.3	602.3	599.1	597.6	595.9	591.1	583.1	571.9
47.5°	551.0	554.2	555.9	552.7	551.0	547.9	547.9	538.2	531.8	522.3	506.2
50°	503.0	506.2	506.2	503.0	503.0	498.1	493.4	490.1	480.6	469.4	450.1
52.5°	442.2	447.0	447.0	445.4	445.4	438.9	437.3	430.9	422.8	410.0	394.1
55°	368.5	374.8	373.2	371.7	368.5	368.5	368.5	363.6	358.7	349.2	333.2
57.5°	315.6	317.2	317.2	315.6	315.6	312.3	312.3	307.6	306.0	296.3	283.6
60°	282.0	282.0	283.6	282.0	280.4	278.7	277.1	273.9	269.2	262.7	253.1
62.5°	254.7	256.3	256.3	254.7	253.1	251.5	249.9	246.7	243.5	238.7	229.1
65°	224.2	227.4	225.9	224.2	222.6	221.0	221.0	217.9	214.6	211.4	201.8
67.5°	190.6	192.3	193.8	190.6	190.6	189.0	189.0	185.8	184.2	177.8	171.4
70°	155.4	157.0	157.0	155.4	155.4	153.8	153.8	152.2	150.6	145.7	139.4
72.5°	121.7	123.3	121.7	120.1	120.1	120.1	118.6	117.0	115.4	112.1	107.3
75°	89.7	89.7	91.3	89.7	88.1	88.1	86.5	86.5	83.2	81.8	76.9
77.5°	64.1	65.7	64.1	64.1	62.4	60.9	60.9	59.2	59.2	57.6	54.5
80°	43.3	43.3	44.8	43.3	41.7	43.3	41.7	40.1	40.1	38.5	35.2
82.5°	27.3	28.8	27.3	27.3	27.3	27.3	27.3	25.6	25.6	24.0	22.4
85°	16.0	16.0	16.0	16.0	16.0	16.0	16.0	14.4	14.4	14.4	12.8
87.5°	8.0	8.0	6.5	6.5	8.0	8.0	8.0	6.5	6.5	6.5	6.5
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°	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1
2.5°	1209.4	1211.0	1214.3	1219.0	1219.0	1215.9	1223.9	1223.9	1227.1	1228.7	1235.1
5°	1196.6	1199.9	1206.2	1214.3	1215.9	1214.3	1225.5	1230.2	1235.1	1239.9	1249.5
7.5°	1185.4	1191.8	1203.1	1214.3	1219.0	1219.0	1236.7	1243.1	1252.7	1262.3	1273.5
10°	1179.1	1188.6	1204.6	1222.3	1227.1	1231.8	1252.7	1265.5	1278.3	1291.2	1307.1
12.5°	1171.0	1188.6	1209.4	1231.8	1241.5	1247.9	1276.8	1292.7	1310.4	1326.4	1347.2
15°	1169.4	1190.3	1217.4	1246.3	1259.1	1268.7	1300.8	1323.2	1344.0	1364.9	1385.7
17.5°	1163.0	1188.6	1222.3	1254.4	1270.3	1283.1	1319.9	1347.2	1371.2	1392.1	1416.2
20°	1154.9	1183.8	1220.7	1255.9	1273.5	1286.3	1326.4	1352.1	1379.3	1398.5	1420.9
22.5°	1143.7	1172.6	1209.4	1244.6	1260.7	1271.9	1311.9	1334.4	1358.4	1377.7	1398.5
25°	1124.6	1151.8	1183.8	1212.7	1228.7	1238.3	1273.5	1294.3	1311.9	1331.2	1350.4
27.5°	1097.3	1118.1	1145.4	1166.3	1175.8	1185.4	1214.3	1231.8	1247.9	1264.0	1276.8
30°	1049.3	1065.2	1084.5	1102.2	1111.8	1113.3	1140.6	1150.2	1163.0	1174.2	1183.8
32.5°	985.2	998.0	1009.2	1018.8	1025.3	1026.9	1047.7	1050.9	1063.7	1063.7	1078.0
35°	903.5	909.9	917.9	917.9	922.7	917.9	932.3	935.5	937.2	938.8	950.0
37.5°	810.6	813.7	818.6	809.0	809.0	804.1	809.0	812.2	805.8	805.8	813.7
40°	722.5	716.0	709.7	700.0	695.3	685.6	685.6	677.6	672.8	669.6	671.2
42.5°	637.5	623.2	608.7	587.8	578.3	568.7	559.1	547.9	544.7	536.6	531.8
45°	555.9	535.1	515.8	482.2	463.0	453.3	432.6	410.0	395.7	392.5	379.6
47.5°	486.9	456.5	424.5	384.4	365.3	347.6	317.2	297.9	278.7	269.2	261.1
50°	426.1	398.9	357.3	314.0	290.0	272.3	238.7	216.3	195.5	181.0	171.4
52.5°	373.2	342.8	304.4	254.7	230.7	211.4	174.6	149.0	131.4	117.0	105.8
55°	314.0	290.0	251.5	205.1	181.0	158.6	126.5	99.3	81.8	72.1	64.1
57.5°	270.8	249.9	213.1	168.2	145.7	124.9	92.9	70.4	56.1	46.4	41.7
60°	241.9	222.6	190.6	147.3	126.5	107.3	76.9	56.1	43.3	35.2	32.0
62.5°	217.9	198.6	169.9	129.8	112.1	92.9	65.7	46.4	35.2	28.8	24.0
65°	190.6	173.0	147.3	112.1	96.0	80.1	56.1	38.5	28.8	22.4	19.2
67.5°	161.8	145.7	123.3	92.9	80.1	67.3	44.8	32.0	24.0	19.2	16.0
70°	131.4	118.6	97.7	75.3	64.1	52.9	36.8	25.6	17.7	14.4	12.8
72.5°	100.9	89.7	75.3	57.6	48.1	40.1	27.3	19.2	14.4	11.2	9.6
75°	72.1	64.1	52.9	41.7	35.2	28.8	20.8	14.4	9.6	8.0	6.5
77.5°	49.6	44.8	36.8	28.8	24.0	20.8	14.4	9.6	8.0	6.5	4.9
80°	32.0	28.8	24.0	17.7	14.4	12.8	8.0	6.5	4.9	3.2	3.2
82.5°	19.2	17.7	14.4	9.6	8.0	6.5	4.9	3.2	3.2	1.6	1.6
85°	11.2	9.6	6.5	4.9	4.9	3.2	3.2	1.6	1.6	0.0	0.0
87.5°	4.9	3.2	3.2	1.6	1.6	1.6	1.6	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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1
2.5°	1231.8	1239.9	1238.3	1243.1	1241.5	1241.5	1249.5	1246.3	1254.4	1254.4	1255.9
5°	1249.5	1260.7	1260.7	1268.7	1267.2	1270.3	1278.3	1278.3	1288.0	1291.2	1291.2
7.5°	1275.1	1289.6	1292.7	1300.8	1302.4	1308.7	1315.2	1316.8	1329.6	1332.7	1334.4
10°	1310.4	1328.0	1332.7	1340.8	1344.0	1350.4	1358.4	1361.6	1377.7	1379.3	1385.7
12.5°	1353.7	1372.8	1377.7	1387.3	1388.9	1396.8	1408.1	1411.3	1427.3	1432.1	1436.9
15°	1395.3	1412.9	1420.9	1430.4	1432.1	1441.8	1451.3	1454.6	1468.9	1475.4	1480.2
17.5°	1424.1	1444.9	1449.8	1462.6	1462.6	1470.5	1480.2	1483.4	1497.8	1502.6	1505.9
20°	1430.4	1449.8	1456.2	1465.8	1467.4	1472.1	1480.2	1483.4	1496.2	1497.8	1502.6
22.5°	1406.4	1425.7	1429.0	1438.5	1440.1	1444.9	1451.3	1449.8	1465.8	1464.1	1465.8
25°	1355.3	1372.8	1372.8	1384.0	1382.4	1387.3	1390.5	1388.9	1403.3	1403.3	1403.3
27.5°	1281.5	1297.6	1299.1	1307.1	1302.4	1304.0	1307.1	1305.5	1315.2	1315.2	1315.2
30°	1190.3	1203.1	1198.2	1204.6	1201.5	1204.6	1201.5	1199.9	1203.1	1206.2	1204.6
32.5°	1076.5	1086.1	1086.1	1087.7	1087.7	1078.0	1074.9	1074.9	1073.3	1071.7	1071.7
35°	945.1	953.1	950.0	950.0	948.3	938.8	933.9	930.7	935.5	925.9	932.3
37.5°	810.6	812.2	807.4	805.8	797.8	797.8	789.7	783.3	786.6	785.0	778.5
40°	663.1	669.6	660.0	656.8	661.7	655.2	647.2	639.1	645.6	637.5	640.8
42.5°	519.0	517.4	514.2	514.2	514.2	504.6	503.0	501.4	503.0	496.7	491.8
45°	374.8	370.1	365.3	365.3	358.7	355.6	355.6	350.8	342.8	342.8	333.2
47.5°	253.1	241.9	238.7	237.1	233.9	233.9	230.7	227.4	225.9	217.9	217.9
50°	165.0	153.8	150.6	149.0	150.6	147.3	144.2	141.0	137.8	136.2	132.9
52.5°	99.3	94.6	91.3	89.7	86.5	84.9	83.2	80.1	78.5	78.5	76.9
55°	59.2	54.5	48.1	48.1	48.1	46.4	44.8	43.3	41.7	41.7	40.1
57.5°	36.8	33.6	30.5	28.8	28.8	28.8	27.3	27.3	27.3	27.3	25.6
60°	27.3	24.0	22.4	22.4	22.4	20.8	20.8	20.8	20.8	19.2	19.2
62.5°	20.8	19.2	17.7	17.7	16.0	16.0	16.0	16.0	16.0	16.0	14.4
65°	17.7	14.4	14.4	12.8	12.8	12.8	12.8	12.8	12.8	12.8	12.8
67.5°	12.8	11.2	11.2	11.2	11.2	9.6	9.6	9.6	9.6	9.6	9.6
70°	9.6	9.6	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
72.5°	8.0	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
75°	6.5	6.5	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
77.5°	4.9	4.9	4.9	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
80°	3.2	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	1.6	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	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: P843517

CATALOG NUMBER: LD4C25DE010B2750 EU4C25B30 4LBSWLI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1	1227.1
2.5°	1255.9	1264.0	1255.9	1255.9	1260.7	1259.1	1262.3	1257.5
5°	1292.7	1304.0	1295.9	1294.3	1302.4	1300.8	1302.4	1299.1
7.5°	1337.6	1348.8	1340.8	1340.8	1348.8	1347.2	1352.1	1348.8
10°	1388.9	1401.7	1390.5	1392.1	1403.3	1401.7	1401.7	1401.7
12.5°	1441.8	1454.6	1448.1	1448.1	1456.2	1457.7	1459.3	1457.7
15°	1484.9	1497.8	1489.8	1489.8	1501.0	1499.4	1501.0	1499.4
17.5°	1510.6	1523.4	1513.8	1513.8	1523.4	1523.4	1525.0	1526.7
20°	1504.2	1518.7	1510.6	1507.3	1518.7	1518.7	1517.1	1517.1
22.5°	1467.4	1480.2	1473.7	1470.5	1478.6	1475.4	1473.7	1475.4
25°	1403.3	1416.2	1403.3	1403.3	1409.6	1408.1	1409.6	1408.1
27.5°	1316.8	1326.4	1313.6	1311.9	1318.4	1315.2	1313.6	1318.4
30°	1201.5	1211.0	1204.6	1199.9	1207.8	1203.1	1199.9	1201.5
32.5°	1070.1	1076.5	1073.3	1065.2	1070.1	1066.8	1065.2	1066.8
35°	925.9	933.9	921.1	919.5	927.5	921.1	917.9	925.9
37.5°	776.9	786.6	775.4	776.9	772.2	773.7	770.5	775.4
40°	636.0	634.4	631.2	629.5	631.2	626.3	629.5	624.7
42.5°	483.8	486.9	485.3	483.8	485.3	479.0	475.8	482.2
45°	336.4	334.8	331.7	328.4	328.4	326.8	326.8	321.9
47.5°	216.3	214.6	208.2	209.8	213.1	209.8	205.1	211.4
50°	131.4	129.8	129.8	128.2	131.4	128.2	124.9	124.9
52.5°	73.7	73.7	72.1	72.1	72.1	72.1	70.4	69.0
55°	40.1	38.5	38.5	38.5	36.8	36.8	36.8	36.8
57.5°	25.6	25.6	25.6	25.6	25.6	25.6	24.0	24.0
60°	19.2	19.2	19.2	19.2	17.7	19.2	17.7	17.7
62.5°	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
65°	11.2	11.2	11.2	11.2	11.2	11.2	11.2	11.2
67.5°	9.6	9.6	9.6	9.6	9.6	9.6	9.6	9.6
70°	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0
72.5°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
75°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
77.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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)