

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: P843531

Luminaire Tested: **LD4C25DE010B2750 EU4C25B35 4LBSWLI**

Issue Date: 5/7/2024

Test Information

Test Method: LM-79-08
Report Number: P843531
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 EU4C25B35 4LBSWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

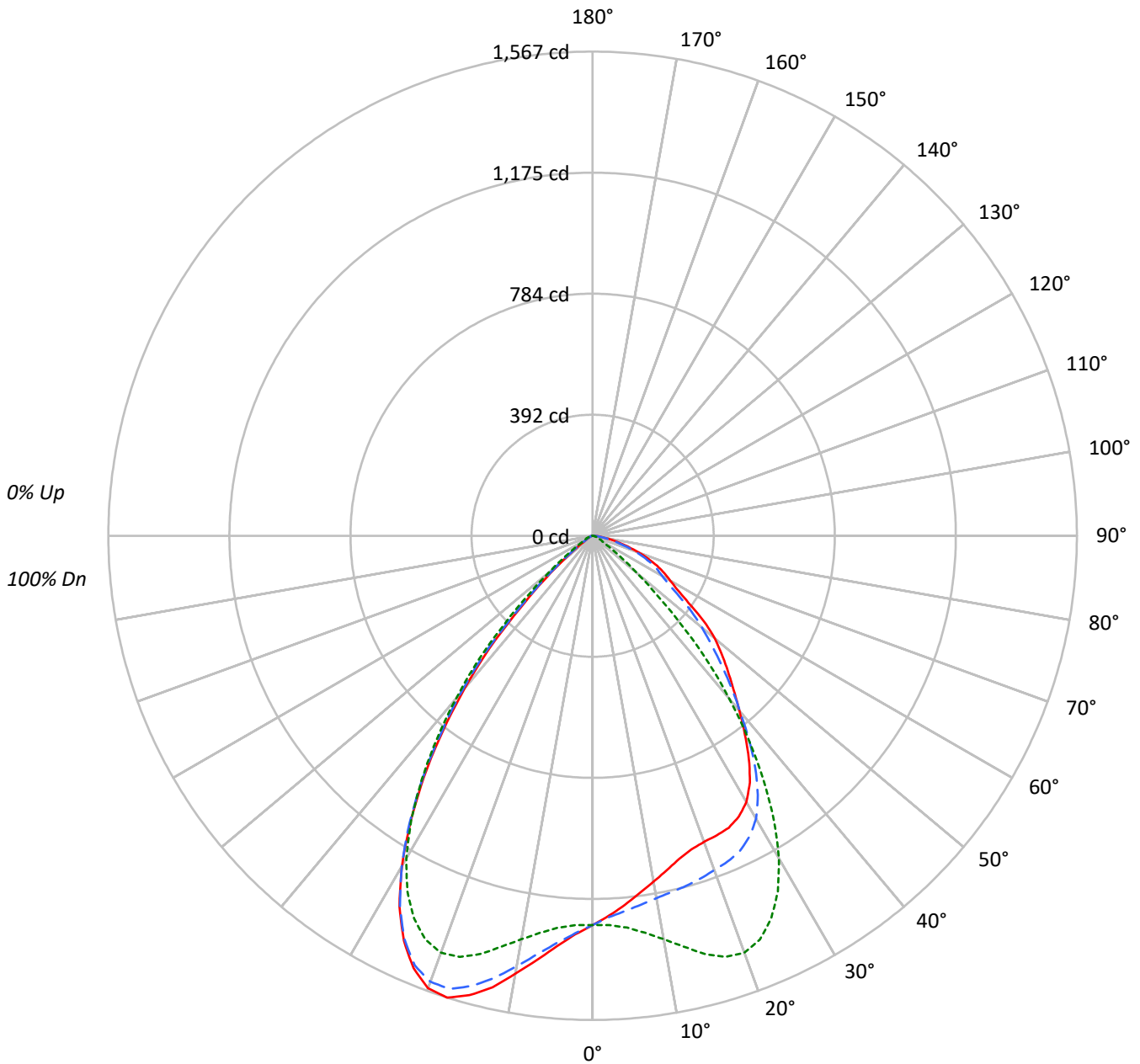
Lumens per Lamp: N/A
Luminaire Lumens: 2324.7 lumens
Efficiency: N/A
Efficacy: 78.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	154759	154759	154759
5°	147839	156978	164476
10°	141752	165354	179513
15°	137642	178215	195779
20°	137811	187700	203624
25°	141328	185261	195957
30°	141135	171011	174969
35°	132189	144532	142568
40°	118404	110257	102880
45°	107424	70000	57421
50°	98698	35511	24521
55°	81028	15850	8118
60°	71132	8895	4447
65°	66918	6686	3343
70°	57292	5316	2945
75°	43717	3892	2373
80°	31412	2335	1203
85°	23117	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.4	5.3
10°-20°	381.4	16.4
20°-30°	590.0	25.4
30°-40°	581.3	25.0
40°-50°	357.0	15.4
50°-60°	158.7	6.8
60°-70°	88.6	3.8
70°-80°	38.4	1.7
80°-90°	6.9	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°	1093.8	47.0
0°-40°	1675.1	72.1
0°-60°	2190.8	94.2
0°-90°	2324.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2324.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1260	1260	1260	1260	1260	
5°	1199	1219	1273	1322	1334	113
15°	1082	1173	1401	1508	1539	307
25°	1043	1126	1367	1441	1446	478
35°	881	918	964	960	951	547
45°	618	587	403	352	330	479
55°	378	342	74	43	38	348
65°	230	207	23	13	12	225
75°	92	79	8	5	5	101
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°	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7
2.5°	1230.1	1230.1	1230.1	1230.1	1233.4	1228.5	1233.4	1233.4	1238.4	1240.0	1235.1
5°	1198.8	1197.2	1198.8	1198.8	1202.1	1200.5	1205.5	1208.8	1215.3	1218.6	1218.6
7.5°	1166.0	1166.0	1166.0	1169.3	1174.2	1172.6	1177.5	1182.4	1192.3	1198.8	1203.8
10°	1136.3	1134.7	1139.7	1141.3	1146.3	1146.3	1154.5	1159.5	1170.9	1184.1	1190.7
12.5°	1108.4	1106.8	1110.1	1115.1	1123.2	1123.2	1129.8	1138.0	1154.5	1169.3	1180.7
15°	1082.2	1083.8	1088.7	1092.0	1101.8	1101.8	1110.1	1119.9	1138.0	1156.1	1172.6
17.5°	1064.0	1065.7	1069.0	1073.9	1083.8	1083.8	1092.0	1103.5	1123.2	1143.0	1162.8
20°	1054.1	1055.8	1059.1	1064.0	1072.2	1073.9	1080.5	1093.7	1111.7	1133.0	1151.2
22.5°	1049.3	1052.6	1055.8	1059.1	1067.3	1067.3	1075.5	1085.4	1103.5	1124.9	1141.3
25°	1042.6	1045.9	1047.6	1052.6	1059.1	1059.1	1064.0	1075.5	1092.0	1110.1	1126.5
27.5°	1024.6	1027.9	1029.5	1034.5	1041.0	1039.3	1045.9	1054.1	1069.0	1085.4	1098.6
30°	994.9	996.6	999.9	1001.5	1006.4	1006.4	1011.4	1019.7	1029.5	1044.3	1057.4
32.5°	947.2	950.6	952.2	953.9	958.9	957.2	958.9	963.7	973.6	986.8	994.9
35°	881.4	888.1	888.1	891.4	893.1	891.4	891.4	897.9	902.9	912.7	917.7
37.5°	809.1	814.1	812.4	815.6	817.3	812.4	815.6	817.3	823.9	828.9	830.6
40°	738.3	740.0	740.0	740.0	740.0	738.3	740.0	741.7	746.6	746.6	741.7
42.5°	674.2	675.9	675.9	672.5	675.9	674.2	674.2	674.2	674.2	667.7	662.7
45°	618.3	620.0	620.0	618.3	618.3	615.0	613.4	611.7	606.8	598.6	587.1
47.5°	565.7	569.0	570.7	567.4	565.7	562.4	562.4	552.6	546.0	536.1	519.7
50°	516.4	519.7	519.7	516.4	516.4	511.5	506.6	503.2	493.4	481.9	462.1
52.5°	453.9	458.8	458.8	457.2	457.2	450.7	449.0	442.4	434.2	421.0	404.5
55°	378.3	384.9	383.2	381.6	378.3	378.3	378.3	373.3	368.4	358.5	342.0
57.5°	324.0	325.6	325.6	324.0	324.0	320.7	320.7	315.8	314.1	304.3	291.1
60°	289.5	289.5	291.1	289.5	287.8	286.1	284.5	281.2	276.3	269.7	259.9
62.5°	261.4	263.1	263.1	261.4	259.9	258.2	256.6	253.3	250.0	245.1	235.2
65°	230.2	233.5	231.9	230.2	228.6	227.0	227.0	223.7	220.3	217.0	207.2
67.5°	195.7	197.4	198.9	195.7	195.7	194.1	194.1	190.8	189.1	182.5	176.0
70°	159.5	161.2	161.2	159.5	159.5	157.9	157.9	156.2	154.5	149.7	143.1
72.5°	125.0	126.6	125.0	123.3	123.3	123.3	121.7	120.0	118.5	115.2	110.2
75°	92.1	92.1	93.7	92.1	90.4	90.4	88.7	88.7	85.5	83.9	78.9
77.5°	65.8	67.4	65.8	65.8	64.1	62.5	62.5	60.8	60.8	59.2	55.9
80°	44.4	44.4	46.1	44.4	42.8	44.4	42.8	41.1	41.1	39.4	36.2
82.5°	27.9	29.6	27.9	27.9	27.9	27.9	27.9	26.3	26.3	24.6	23.0
85°	16.4	16.4	16.4	16.4	16.4	16.4	16.4	14.8	14.8	14.8	13.1
87.5°	8.2	8.2	6.6	6.6	8.2	8.2	8.2	6.6	6.6	6.6	6.6
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°	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7
2.5°	1241.7	1243.2	1246.5	1251.5	1251.5	1248.2	1256.5	1256.5	1259.7	1261.3	1267.9
5°	1228.5	1231.8	1238.4	1246.5	1248.2	1246.5	1258.1	1263.0	1267.9	1272.9	1282.8
7.5°	1217.0	1223.6	1235.1	1246.5	1251.5	1251.5	1269.6	1276.1	1286.1	1295.9	1307.4
10°	1210.4	1220.3	1236.7	1254.8	1259.7	1264.6	1286.1	1299.2	1312.3	1325.5	1341.9
12.5°	1202.1	1220.3	1241.7	1264.6	1274.6	1281.1	1310.7	1327.1	1345.2	1361.7	1383.1
15°	1200.5	1221.9	1249.9	1279.5	1292.6	1302.5	1335.4	1358.4	1379.8	1401.2	1422.6
17.5°	1194.0	1220.3	1254.8	1287.7	1304.2	1317.3	1355.1	1383.1	1407.7	1429.2	1453.8
20°	1185.7	1215.3	1253.2	1289.4	1307.4	1320.6	1361.7	1388.0	1416.0	1435.7	1458.7
22.5°	1174.2	1203.8	1241.7	1277.8	1294.3	1305.8	1346.9	1370.0	1394.6	1414.4	1435.7
25°	1154.5	1182.4	1215.3	1244.9	1261.3	1271.3	1307.4	1328.8	1346.9	1366.7	1386.3
27.5°	1126.5	1148.0	1175.9	1197.2	1207.1	1217.0	1246.5	1264.6	1281.1	1297.6	1310.7
30°	1077.2	1093.7	1113.4	1131.5	1141.3	1143.0	1170.9	1180.7	1194.0	1205.5	1215.3
32.5°	1011.4	1024.6	1036.1	1045.9	1052.6	1054.1	1075.5	1078.8	1092.0	1092.0	1106.8
35°	927.5	934.1	942.4	942.4	947.2	942.4	957.2	960.4	962.1	963.7	975.2
37.5°	832.1	835.4	840.4	830.6	830.6	825.6	830.6	833.8	827.3	827.3	835.4
40°	741.7	735.1	728.5	718.7	713.8	703.9	703.9	695.7	690.7	687.5	689.0
42.5°	654.6	639.8	625.0	603.5	593.6	583.8	574.0	562.4	559.2	550.9	546.0
45°	570.7	549.2	529.6	495.0	475.3	465.4	444.1	421.0	406.2	402.9	389.7
47.5°	499.9	468.6	435.9	394.7	375.0	356.8	325.6	305.9	286.1	276.3	268.0
50°	437.4	409.5	366.8	322.4	297.7	279.5	245.1	222.0	200.6	185.8	176.0
52.5°	383.2	351.9	312.5	261.4	236.8	217.0	179.3	152.9	134.8	120.0	108.6
55°	322.4	297.7	258.2	210.5	185.8	162.8	129.9	102.0	83.9	74.0	65.8
57.5°	277.9	256.6	218.7	172.7	149.7	128.3	95.4	72.3	57.5	47.7	42.8
60°	248.3	228.6	195.7	151.2	129.9	110.2	78.9	57.5	44.4	36.2	32.9
62.5°	223.7	203.9	174.3	133.2	115.2	95.4	67.4	47.7	36.2	29.6	24.6
65°	195.7	177.7	151.2	115.2	98.7	82.2	57.5	39.4	29.6	23.0	19.7
67.5°	166.2	149.7	126.6	95.4	82.2	69.1	46.1	32.9	24.6	19.7	16.4
70°	134.8	121.7	100.4	77.3	65.8	54.3	37.9	26.3	18.1	14.8	13.1
72.5°	103.6	92.1	77.3	59.2	49.4	41.1	27.9	19.7	14.8	11.5	9.8
75°	74.0	65.8	54.3	42.8	36.2	29.6	21.4	14.8	9.8	8.2	6.6
77.5°	51.0	46.1	37.9	29.6	24.6	21.4	14.8	9.8	8.2	6.6	5.0
80°	32.9	29.6	24.6	18.1	14.8	13.1	8.2	6.6	5.0	3.3	3.3
82.5°	19.7	18.1	14.8	9.8	8.2	6.6	5.0	3.3	3.3	1.7	1.7
85°	11.5	9.8	6.6	5.0	5.0	3.3	3.3	1.7	1.7	0.0	0.0
87.5°	5.0	3.3	3.3	1.7	1.7	1.7	1.7	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°	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7
2.5°	1264.6	1272.9	1271.3	1276.1	1274.6	1274.6	1282.8	1279.5	1287.7	1287.7	1289.4
5°	1282.8	1294.3	1294.3	1302.5	1300.9	1304.2	1312.3	1312.3	1322.3	1325.5	1325.5
7.5°	1309.0	1323.8	1327.1	1335.4	1337.1	1343.6	1350.2	1351.9	1365.0	1368.3	1370.0
10°	1345.2	1363.4	1368.3	1376.5	1379.8	1386.3	1394.6	1397.9	1414.4	1416.0	1422.6
12.5°	1389.6	1409.4	1414.4	1424.2	1425.9	1434.0	1445.6	1448.9	1465.2	1470.2	1475.2
15°	1432.5	1450.4	1458.7	1468.6	1470.2	1480.2	1490.0	1493.3	1508.1	1514.6	1519.6
17.5°	1462.0	1483.4	1488.4	1501.5	1501.5	1509.7	1519.6	1522.9	1537.7	1542.6	1545.9
20°	1468.6	1488.4	1495.0	1504.8	1506.4	1511.4	1519.6	1522.9	1536.0	1537.7	1542.6
22.5°	1443.9	1463.7	1466.9	1476.8	1478.5	1483.4	1490.0	1488.4	1504.8	1503.1	1504.8
25°	1391.3	1409.4	1409.4	1420.9	1419.2	1424.2	1427.5	1425.9	1440.6	1440.6	1440.6
27.5°	1315.6	1332.1	1333.7	1341.9	1337.1	1338.6	1341.9	1340.3	1350.2	1350.2	1350.2
30°	1221.9	1235.1	1230.1	1236.7	1233.4	1236.7	1233.4	1231.8	1235.1	1238.4	1236.7
32.5°	1105.1	1115.1	1115.1	1116.6	1116.6	1106.8	1103.5	1103.5	1101.8	1100.3	1100.3
35°	970.3	978.5	975.2	975.2	973.6	963.7	958.9	955.5	960.4	950.6	957.2
37.5°	832.1	833.8	828.9	827.3	819.0	819.0	810.8	804.1	807.5	805.8	799.3
40°	680.8	687.5	677.5	674.2	679.2	672.5	664.4	656.2	662.7	654.6	657.8
42.5°	532.8	531.1	527.9	527.9	527.9	518.0	516.4	514.8	516.4	509.9	504.9
45°	384.9	379.9	375.0	375.0	368.4	365.1	365.1	360.1	351.9	351.9	342.0
47.5°	259.9	248.3	245.1	243.5	240.1	240.1	236.8	233.5	231.9	223.7	223.7
50°	169.4	157.9	154.5	152.9	154.5	151.2	148.0	144.7	141.4	139.8	136.5
52.5°	102.0	97.0	93.7	92.1	88.7	87.1	85.5	82.2	80.6	80.6	78.9
55°	60.8	55.9	49.4	49.4	49.4	47.7	46.1	44.4	42.8	42.8	41.1
57.5°	37.9	34.6	31.2	29.6	29.6	29.6	27.9	27.9	27.9	27.9	26.3
60°	27.9	24.6	23.0	23.0	23.0	21.4	21.4	21.4	21.4	19.7	19.7
62.5°	21.4	19.7	18.1	18.1	16.4	16.4	16.4	16.4	16.4	16.4	14.8
65°	18.1	14.8	14.8	13.1	13.1	13.1	13.1	13.1	13.1	13.1	13.1
67.5°	13.1	11.5	11.5	11.5	11.5	9.8	9.8	9.8	9.8	9.8	9.8
70°	9.8	9.8	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
72.5°	8.2	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
75°	6.6	6.6	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
77.5°	5.0	5.0	5.0	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
80°	3.3	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
82.5°	1.7	1.7	1.7	1.7	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: P843531

CATALOG NUMBER: LD4C25DE010B2750 EU4C25B35 4LBSWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7	1259.7
2.5°	1289.4	1297.6	1289.4	1289.4	1294.3	1292.6	1295.9	1291.1
5°	1327.1	1338.6	1330.4	1328.8	1337.1	1335.4	1337.1	1333.7
7.5°	1373.2	1384.8	1376.5	1376.5	1384.8	1383.1	1388.0	1384.8
10°	1425.9	1439.0	1427.5	1429.2	1440.6	1439.0	1439.0	1439.0
12.5°	1480.2	1493.3	1486.7	1486.7	1495.0	1496.6	1498.2	1496.6
15°	1524.5	1537.7	1529.4	1529.4	1541.0	1539.3	1541.0	1539.3
17.5°	1550.8	1564.0	1554.2	1554.2	1564.0	1564.0	1565.6	1567.3
20°	1544.3	1559.1	1550.8	1547.5	1559.1	1559.1	1557.5	1557.5
22.5°	1506.4	1519.6	1512.9	1509.7	1517.9	1514.6	1512.9	1514.6
25°	1440.6	1453.8	1440.6	1440.6	1447.2	1445.6	1447.2	1445.6
27.5°	1351.9	1361.7	1348.6	1346.9	1353.5	1350.2	1348.6	1353.5
30°	1233.4	1243.2	1236.7	1231.8	1240.0	1235.1	1231.8	1233.4
32.5°	1098.6	1105.1	1101.8	1093.7	1098.6	1095.3	1093.7	1095.3
35°	950.6	958.9	945.6	943.9	952.2	945.6	942.4	950.6
37.5°	797.6	807.5	796.0	797.6	792.7	794.3	791.0	796.0
40°	652.9	651.3	648.0	646.3	648.0	643.0	646.3	641.5
42.5°	496.7	499.9	498.4	496.7	498.4	491.7	488.4	495.0
45°	345.3	343.7	340.5	337.1	337.1	335.5	335.5	330.5
47.5°	222.0	220.3	213.7	215.4	218.7	215.4	210.5	217.0
50°	134.8	133.2	133.2	131.6	134.8	131.6	128.3	128.3
52.5°	75.6	75.6	74.0	74.0	74.0	74.0	72.3	70.8
55°	41.1	39.4	39.4	39.4	37.9	37.9	37.9	37.9
57.5°	26.3	26.3	26.3	26.3	26.3	26.3	24.6	24.6
60°	19.7	19.7	19.7	19.7	18.1	19.7	18.1	18.1
62.5°	14.8	14.8	14.8	14.8	14.8	14.8	14.8	14.8
65°	11.5	11.5	11.5	11.5	11.5	11.5	11.5	11.5
67.5°	9.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
70°	8.2	8.2	8.2	8.2	8.2	8.2	8.2	8.2
72.5°	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
75°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
77.5°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
80°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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)