

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: P843503

Luminaire Tested: **LD4C25DE010B2750 EU4C25B27 4LBSWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843503
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 EU4C25B27 4LBSWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

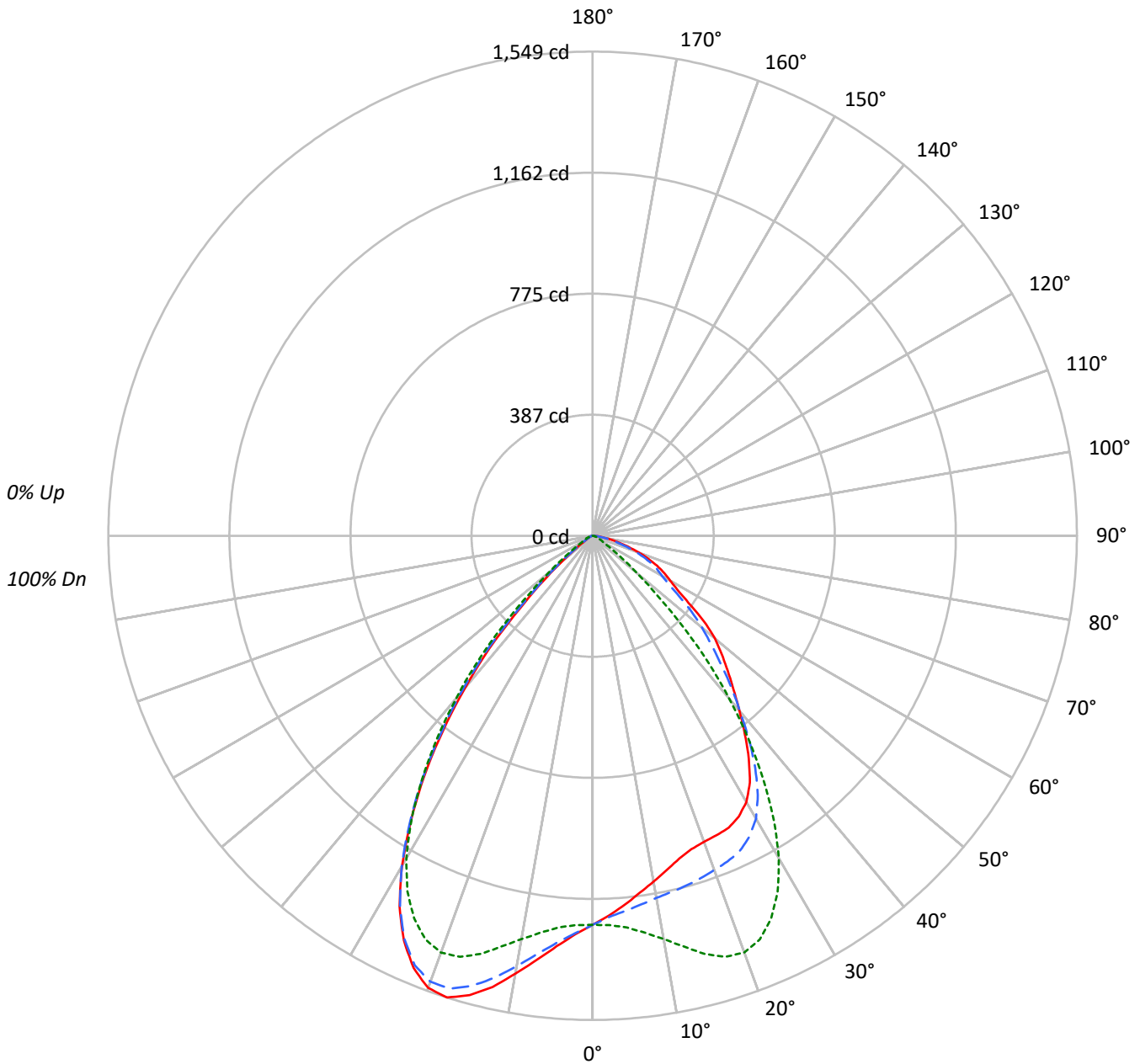
Lumens per Lamp: N/A
Luminaire Lumens: 2297.2 lumens
Efficiency: N/A
Efficacy: 77.1 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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°	152928	152928	152928
5°	146100	155115	162527
10°	140080	163408	177393
15°	136001	176116	193465
20°	136190	185478	201206
25°	139648	183065	193625
30°	139476	168982	172898
35°	130644	142823	140873
40°	117025	108942	101645
45°	106156	69166	56744
50°	97532	35091	24235
55°	80064	15679	7989
60°	70272	8772	4398
65°	66133	6599	3314
70°	56646	5244	2910
75°	43195	3845	2326
80°	31059	2335	1203
85°	22976	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	120.9	5.3
10°-20°	376.9	16.4
20°-30°	583.0	25.4
30°-40°	574.5	25.0
40°-50°	352.8	15.4
50°-60°	156.8	6.8
60°-70°	87.6	3.8
70°-80°	37.9	1.7
80°-90°	6.8	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°	1080.8	47.0
0°-40°	1655.3	72.1
0°-60°	2164.9	94.2
0°-90°	2297.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2297.2	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1245	1245	1245	1245	1245	
5°	1185	1204	1258	1307	1318	111
15°	1069	1159	1385	1490	1521	303
25°	1030	1113	1350	1424	1428	473
35°	871	907	952	949	939	541
45°	611	580	398	348	327	473
55°	374	338	73	42	37	343
65°	228	205	23	13	11	223
75°	91	78	8	5	5	100
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°	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8
2.5°	1215.5	1215.5	1215.5	1215.5	1218.8	1214.0	1218.8	1218.8	1223.7	1225.3	1220.5
5°	1184.7	1183.1	1184.7	1184.7	1187.9	1186.3	1191.2	1194.4	1200.9	1204.2	1204.2
7.5°	1152.2	1152.2	1152.2	1155.5	1160.3	1158.7	1163.5	1168.5	1178.2	1184.7	1189.6
10°	1122.9	1121.3	1126.2	1127.9	1132.6	1132.6	1140.9	1145.7	1157.1	1170.1	1176.6
12.5°	1095.3	1093.7	1097.0	1101.8	1110.0	1110.0	1116.4	1124.6	1140.9	1155.5	1166.8
15°	1069.3	1071.0	1075.8	1079.1	1088.8	1088.8	1097.0	1106.7	1124.6	1142.5	1158.7
17.5°	1051.4	1053.1	1056.4	1061.1	1071.0	1071.0	1079.1	1090.4	1110.0	1129.4	1149.0
20°	1041.7	1043.4	1046.6	1051.4	1059.5	1061.1	1067.7	1080.7	1098.6	1119.7	1137.6
22.5°	1036.8	1040.1	1043.4	1046.6	1054.7	1054.7	1062.8	1072.5	1090.4	1111.6	1127.9
25°	1030.2	1033.5	1035.2	1040.1	1046.6	1046.6	1051.4	1062.8	1079.1	1097.0	1113.2
27.5°	1012.5	1015.8	1017.3	1022.2	1028.7	1027.1	1033.5	1041.7	1056.4	1072.5	1085.6
30°	983.2	984.9	988.0	989.6	994.6	994.6	999.5	1007.6	1017.3	1031.9	1044.9
32.5°	936.1	939.3	941.0	942.6	947.4	945.8	947.4	952.3	962.0	975.1	983.2
35°	871.1	877.5	877.5	880.8	882.5	880.8	880.8	887.2	892.2	902.0	906.8
37.5°	799.6	804.4	802.8	806.0	807.7	802.8	806.0	807.7	814.2	819.0	820.7
40°	729.7	731.4	731.4	731.4	731.4	729.7	731.4	732.9	737.8	737.8	732.9
42.5°	666.3	668.0	668.0	664.6	668.0	666.3	666.3	666.3	666.3	659.8	654.9
45°	611.0	612.7	612.7	611.0	611.0	607.8	606.2	604.5	599.7	591.5	580.1
47.5°	559.1	562.2	563.9	560.7	559.1	555.8	555.8	546.1	539.5	529.8	513.6
50°	510.3	513.6	513.6	510.3	510.3	505.4	500.6	497.3	487.5	476.1	456.7
52.5°	448.5	453.4	453.4	451.8	451.8	445.3	443.7	437.1	429.0	416.0	399.8
55°	373.8	380.3	378.6	377.0	373.8	373.8	373.8	368.9	364.0	354.2	338.0
57.5°	320.1	321.7	321.7	320.1	320.1	316.9	316.9	312.0	310.4	300.7	287.7
60°	286.0	286.0	287.7	286.0	284.4	282.7	281.1	277.9	273.0	266.5	256.8
62.5°	258.4	260.1	260.1	258.4	256.8	255.1	253.5	250.2	247.1	242.1	232.4
65°	227.5	230.8	229.2	227.5	225.9	224.2	224.2	221.0	217.8	214.5	204.8
67.5°	193.3	195.0	196.6	193.3	193.3	191.7	191.7	188.6	186.9	180.3	173.9
70°	157.7	159.3	159.3	157.7	157.7	156.0	156.0	154.4	152.7	147.9	141.4
72.5°	123.5	125.1	123.5	121.8	121.8	121.8	120.3	118.7	117.0	113.8	108.8
75°	91.0	91.0	92.6	91.0	89.4	89.4	87.8	87.8	84.5	82.9	77.9
77.5°	65.0	66.6	65.0	65.0	63.4	61.8	61.8	60.1	60.1	58.5	55.3
80°	43.9	43.9	45.5	43.9	42.3	43.9	42.3	40.6	40.6	39.0	35.7
82.5°	27.6	29.2	27.6	27.6	27.6	27.6	27.6	26.0	26.0	24.4	22.7
85°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	14.6	14.6	14.6	13.0
87.5°	8.1	8.1	6.5	6.5	8.1	8.1	8.1	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°	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8
2.5°	1227.0	1228.5	1231.8	1236.7	1236.7	1233.4	1241.6	1241.6	1244.8	1246.4	1253.0
5°	1214.0	1217.2	1223.7	1231.8	1233.4	1231.8	1243.2	1248.1	1253.0	1257.8	1267.6
7.5°	1202.5	1209.1	1220.5	1231.8	1236.7	1236.7	1254.6	1261.1	1270.9	1280.6	1292.0
10°	1196.1	1205.8	1222.1	1240.0	1244.8	1249.7	1270.9	1283.9	1296.8	1309.9	1326.1
12.5°	1187.9	1205.8	1227.0	1249.7	1259.4	1265.9	1295.2	1311.5	1329.3	1345.6	1366.7
15°	1186.3	1207.5	1235.1	1264.3	1277.3	1287.0	1319.6	1342.3	1363.5	1384.7	1405.7
17.5°	1179.9	1205.8	1240.0	1272.4	1288.7	1301.7	1339.1	1366.7	1391.1	1412.3	1436.6
20°	1171.8	1200.9	1238.4	1274.1	1292.0	1304.9	1345.6	1371.6	1399.1	1418.7	1441.4
22.5°	1160.3	1189.6	1227.0	1262.7	1279.0	1290.3	1330.9	1353.8	1378.1	1397.6	1418.7
25°	1140.9	1168.5	1200.9	1230.2	1246.4	1256.2	1292.0	1313.2	1330.9	1350.5	1370.0
27.5°	1113.2	1134.3	1161.9	1183.1	1192.8	1202.5	1231.8	1249.7	1265.9	1282.3	1295.2
30°	1064.4	1080.7	1100.2	1118.1	1127.9	1129.4	1157.1	1166.8	1179.9	1191.2	1200.9
32.5°	999.5	1012.5	1023.8	1033.5	1040.1	1041.7	1062.8	1066.1	1079.1	1079.1	1093.7
35°	916.5	923.1	931.1	931.1	936.1	931.1	945.8	949.0	950.7	952.3	963.7
37.5°	822.3	825.5	830.5	820.7	820.7	815.8	820.7	823.9	817.4	817.4	825.5
40°	732.9	726.4	719.9	710.2	705.3	695.5	695.5	687.5	682.5	679.3	680.9
42.5°	646.8	632.1	617.6	596.4	586.7	576.9	567.2	555.8	552.5	544.5	539.5
45°	563.9	542.8	523.3	489.2	469.7	459.9	438.8	416.0	401.5	398.1	385.1
47.5°	494.0	463.1	430.7	390.1	370.6	352.6	321.7	302.3	282.7	273.0	264.8
50°	432.3	404.7	362.5	318.6	294.1	276.3	242.1	219.4	198.3	183.6	173.9
52.5°	378.6	347.7	308.8	258.4	234.1	214.5	177.2	151.1	133.3	118.7	107.2
55°	318.6	294.1	255.1	208.0	183.6	160.9	128.4	100.8	82.9	73.2	65.0
57.5°	274.7	253.5	216.2	170.6	147.9	126.8	94.2	71.5	56.9	47.1	42.3
60°	245.4	225.9	193.3	149.4	128.4	108.8	77.9	56.9	43.9	35.7	32.5
62.5°	221.0	201.5	172.3	131.6	113.8	94.2	66.6	47.1	35.7	29.2	24.4
65°	193.3	175.6	149.4	113.8	97.5	81.2	56.9	39.0	29.2	22.7	19.5
67.5°	164.1	147.9	125.1	94.2	81.2	68.2	45.5	32.5	24.4	19.5	16.3
70°	133.3	120.3	99.1	76.4	65.0	53.6	37.3	26.0	17.9	14.6	13.0
72.5°	102.4	91.0	76.4	58.5	48.8	40.6	27.6	19.5	14.6	11.4	9.7
75°	73.2	65.0	53.6	42.3	35.7	29.2	21.2	14.6	9.7	8.1	6.5
77.5°	50.3	45.5	37.3	29.2	24.4	21.2	14.6	9.7	8.1	6.5	4.9
80°	32.5	29.2	24.4	17.9	14.6	13.0	8.1	6.5	4.9	3.3	3.3
82.5°	19.5	17.9	14.6	9.7	8.1	6.5	4.9	3.3	3.3	1.7	1.7
85°	11.4	9.7	6.5	4.9	4.9	3.3	3.3	1.7	1.7	0.0	0.0
87.5°	4.9	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°	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8
2.5°	1249.7	1257.8	1256.2	1261.1	1259.4	1259.4	1267.6	1264.3	1272.4	1272.4	1274.1
5°	1267.6	1279.0	1279.0	1287.0	1285.4	1288.7	1296.8	1296.8	1306.6	1309.9	1309.9
7.5°	1293.6	1308.2	1311.5	1319.6	1321.2	1327.6	1334.2	1335.8	1348.8	1352.1	1353.8
10°	1329.3	1347.2	1352.1	1360.2	1363.5	1370.0	1378.1	1381.4	1397.6	1399.1	1405.7
12.5°	1373.2	1392.7	1397.6	1407.3	1409.0	1417.1	1428.4	1431.7	1448.0	1452.9	1457.7
15°	1415.5	1433.3	1441.4	1451.2	1452.9	1462.6	1472.3	1475.6	1490.2	1496.8	1501.6
17.5°	1444.7	1465.9	1470.7	1483.8	1483.8	1491.8	1501.6	1504.9	1519.5	1524.4	1527.6
20°	1451.2	1470.7	1477.2	1487.0	1488.6	1493.5	1501.6	1504.9	1517.9	1519.5	1524.4
22.5°	1426.9	1446.4	1449.6	1459.3	1460.9	1465.9	1472.3	1470.7	1487.0	1485.3	1487.0
25°	1374.8	1392.7	1392.7	1404.1	1402.5	1407.3	1410.6	1409.0	1423.6	1423.6	1423.6
27.5°	1300.0	1316.3	1317.9	1326.1	1321.2	1322.9	1326.1	1324.5	1334.2	1334.2	1334.2
30°	1207.5	1220.5	1215.5	1222.1	1218.8	1222.1	1218.8	1217.2	1220.5	1223.7	1222.1
32.5°	1092.0	1101.8	1101.8	1103.4	1103.4	1093.7	1090.4	1090.4	1088.8	1087.2	1087.2
35°	958.7	966.9	963.7	963.7	962.0	952.3	947.4	944.3	949.0	939.3	945.8
37.5°	822.3	823.9	819.0	817.4	809.3	809.3	801.2	794.6	797.9	796.3	789.8
40°	672.8	679.3	669.6	666.3	671.2	664.6	656.6	648.4	654.9	646.8	650.0
42.5°	526.5	524.9	521.6	521.6	521.6	511.9	510.3	508.6	510.3	503.9	498.9
45°	380.3	375.4	370.6	370.6	364.0	360.8	360.8	355.9	347.7	347.7	338.0
47.5°	256.8	245.4	242.1	240.5	237.3	237.3	234.1	230.8	229.2	221.0	221.0
50°	167.4	156.0	152.7	151.1	152.7	149.4	146.3	143.0	139.7	138.1	135.0
52.5°	100.8	95.9	92.6	91.0	87.8	86.1	84.5	81.2	79.6	79.6	77.9
55°	60.1	55.3	48.8	48.8	48.8	47.1	45.5	43.9	42.3	42.3	40.6
57.5°	37.3	34.2	30.9	29.2	29.2	29.2	27.6	27.6	27.6	27.6	26.0
60°	27.6	24.4	22.7	22.7	22.7	21.2	21.2	21.2	21.2	19.5	19.5
62.5°	21.2	19.5	17.9	17.9	16.3	16.3	16.3	16.3	16.3	16.3	14.6
65°	17.9	14.6	14.6	13.0	13.0	13.0	13.0	13.0	13.0	13.0	13.0
67.5°	13.0	11.4	11.4	11.4	11.4	9.7	9.7	9.7	9.7	9.7	9.7
70°	9.7	9.7	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
72.5°	8.1	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	3.3	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: P843503

CATALOG NUMBER: LD4C25DE010B2750 EU4C25B27 4LBSWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8	1244.8
2.5°	1274.1	1282.3	1274.1	1274.1	1279.0	1277.3	1280.6	1275.7
5°	1311.5	1322.9	1314.7	1313.2	1321.2	1319.6	1321.2	1317.9
7.5°	1356.9	1368.4	1360.2	1360.2	1368.4	1366.7	1371.6	1368.4
10°	1409.0	1422.0	1410.6	1412.3	1423.6	1422.0	1422.0	1422.0
12.5°	1462.6	1475.6	1469.1	1469.1	1477.2	1478.9	1480.5	1478.9
15°	1506.5	1519.5	1511.4	1511.4	1522.7	1521.1	1522.7	1521.1
17.5°	1532.4	1545.5	1535.8	1535.8	1545.5	1545.5	1547.1	1548.8
20°	1526.0	1540.5	1532.4	1529.2	1540.5	1540.5	1539.0	1539.0
22.5°	1488.6	1501.6	1495.1	1491.8	1499.9	1496.8	1495.1	1496.8
25°	1423.6	1436.6	1423.6	1423.6	1430.0	1428.4	1430.0	1428.4
27.5°	1335.8	1345.6	1332.6	1330.9	1337.5	1334.2	1332.6	1337.5
30°	1218.8	1228.5	1222.1	1217.2	1225.3	1220.5	1217.2	1218.8
32.5°	1085.6	1092.0	1088.8	1080.7	1085.6	1082.3	1080.7	1082.3
35°	939.3	947.4	934.4	932.8	941.0	934.4	931.1	939.3
37.5°	788.1	797.9	786.6	788.1	783.3	784.9	781.7	786.6
40°	645.2	643.6	640.3	638.7	640.3	635.4	638.7	633.8
42.5°	490.7	494.0	492.4	490.7	492.4	485.9	482.7	489.2
45°	341.3	339.7	336.4	333.2	333.2	331.6	331.6	326.6
47.5°	219.4	217.8	211.2	212.9	216.2	212.9	208.0	214.5
50°	133.3	131.6	131.6	130.0	133.3	130.0	126.8	126.8
52.5°	74.8	74.8	73.2	73.2	73.2	73.2	71.5	69.9
55°	40.6	39.0	39.0	39.0	37.3	37.3	37.3	37.3
57.5°	26.0	26.0	26.0	26.0	26.0	26.0	24.4	24.4
60°	19.5	19.5	19.5	19.5	17.9	19.5	17.9	17.9
62.5°	14.6	14.6	14.6	14.6	14.6	14.6	14.6	14.6
65°	11.4	11.4	11.4	11.4	11.4	11.4	11.4	11.4
67.5°	9.7	9.7	9.7	9.7	9.7	9.7	9.7	9.7
70°	8.1	8.1	8.1	8.1	8.1	8.1	8.1	8.1
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°	3.3	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)