

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: P843545

Luminaire Tested: **LD4C25DE010B40 EU4C25B40 4LBSWLI**

Issue Date: 5/7/2024



Test Information

Test Method: LM-79-08
Report Number: P843545
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: LD4C25DE010B40 EU4C25B40 4LBSWLI
Description: 4in Downlight with BioUp LEDs
Light Source: -
Ballast/Driver:

Summary

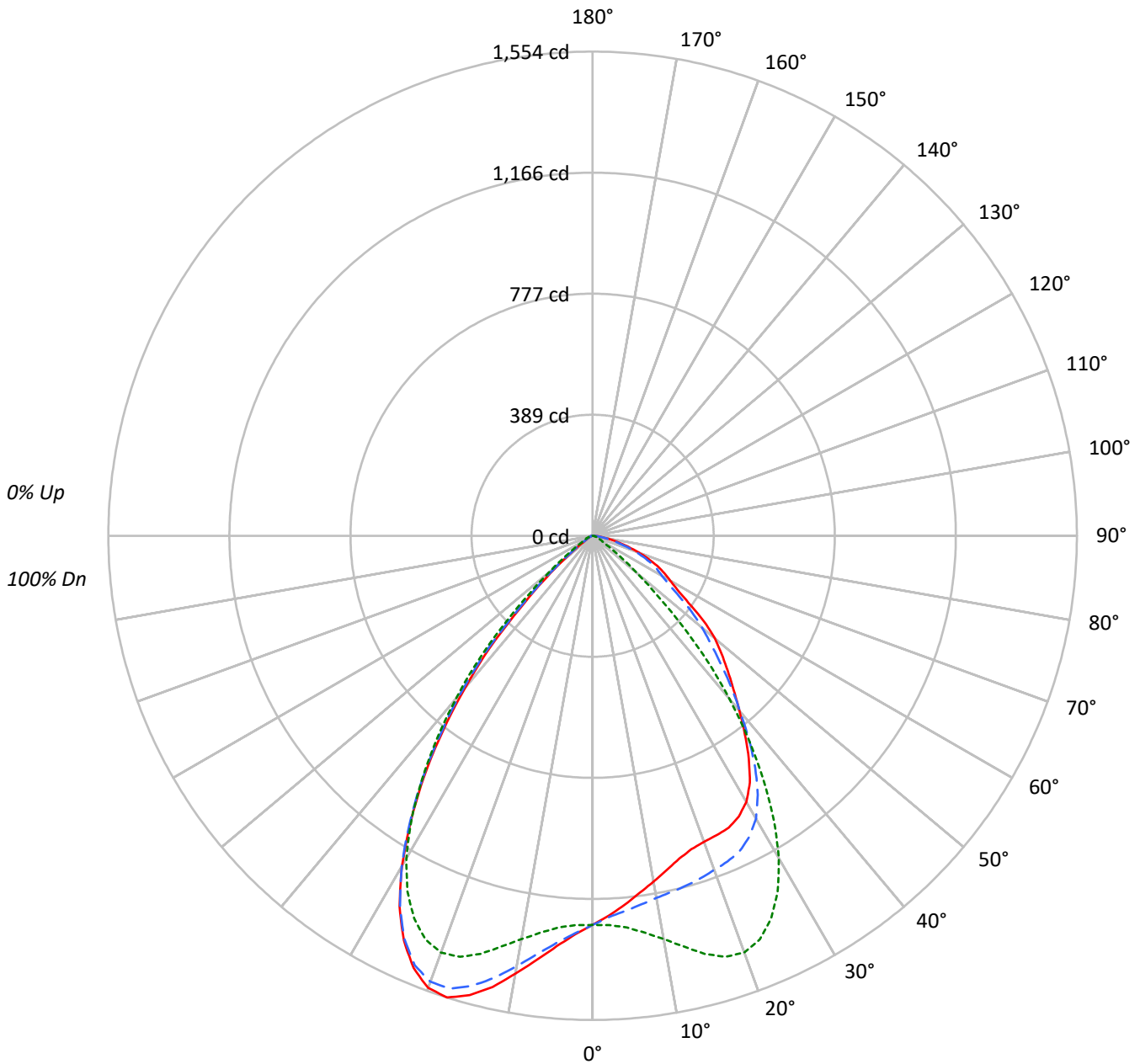
Lumens per Lamp: N/A
Luminaire Lumens: 2304.6 lumens
Efficiency: N/A
Efficacy: 77.3 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.3 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

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				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			
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°	153432	153432	153432
5°	146569	155621	163045
10°	140542	163932	177954
15°	136447	176676	194101
20°	136621	186079	201846
25°	140108	183648	194262
30°	139916	169521	173451
35°	131049	143287	141338
40°	117394	109279	101966
45°	106503	69392	56935
50°	97857	35205	24292
55°	80321	15721	8032
60°	70493	8821	4423
65°	66337	6628	3314
70°	56789	5280	2910
75°	43337	3845	2373
80°	31129	2335	1203
85°	22976	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	121.3	5.3
10°-20°	378.1	16.4
20°-30°	584.9	25.4
30°-40°	576.3	25.0
40°-50°	353.9	15.4
50°-60°	157.4	6.8
60°-70°	87.9	3.8
70°-80°	38.1	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°	1084.3	47.0
0°-40°	1660.6	72.1
0°-60°	2171.9	94.2
0°-90°	2304.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2304.6	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1249	1249	1249	1249	1249	
5°	1188	1208	1262	1311	1322	112
15°	1073	1162	1389	1495	1526	304
25°	1034	1117	1355	1428	1433	474
35°	874	910	955	952	942	542
45°	613	582	399	349	328	475
55°	375	339	73	42	38	345
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°	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9
2.5°	1219.5	1219.5	1219.5	1219.5	1222.7	1217.9	1222.7	1222.7	1227.7	1229.3	1224.4
5°	1188.5	1186.9	1188.5	1188.5	1191.7	1190.2	1195.0	1198.3	1204.9	1208.1	1208.1
7.5°	1155.9	1155.9	1155.9	1159.2	1164.0	1162.4	1167.3	1172.2	1182.0	1188.5	1193.4
10°	1126.6	1124.9	1129.8	1131.5	1136.3	1136.3	1144.5	1149.4	1160.8	1173.9	1180.4
12.5°	1098.8	1097.2	1100.5	1105.4	1113.5	1113.5	1120.0	1128.2	1144.5	1159.2	1170.6
15°	1072.8	1074.5	1079.3	1082.5	1092.3	1092.3	1100.5	1110.3	1128.2	1146.2	1162.4
17.5°	1054.8	1056.5	1059.7	1064.6	1074.5	1074.5	1082.5	1094.0	1113.5	1133.0	1152.7
20°	1045.0	1046.7	1049.9	1054.8	1063.0	1064.6	1071.2	1084.2	1102.1	1123.3	1141.2
22.5°	1040.2	1043.5	1046.7	1049.9	1058.1	1058.1	1066.2	1076.0	1094.0	1115.2	1131.5
25°	1033.6	1036.9	1038.5	1043.5	1049.9	1049.9	1054.8	1066.2	1082.5	1100.5	1116.8
27.5°	1015.8	1019.0	1020.6	1025.5	1032.0	1030.3	1036.9	1045.0	1059.7	1076.0	1089.0
30°	986.3	988.0	991.2	992.9	997.8	997.8	1002.6	1010.8	1020.6	1035.3	1048.3
32.5°	939.1	942.4	944.0	945.6	950.5	948.8	950.5	955.4	965.1	978.2	986.3
35°	873.8	880.4	880.4	883.7	885.3	883.7	883.7	890.1	895.1	904.8	909.8
37.5°	802.1	807.1	805.4	808.7	810.4	805.4	808.7	810.4	816.8	821.7	823.4
40°	732.0	733.7	733.7	733.7	733.7	732.0	733.7	735.3	740.1	740.1	735.3
42.5°	668.4	670.1	670.1	666.7	670.1	668.4	668.4	668.4	668.4	662.0	657.0
45°	613.0	614.7	614.7	613.0	613.0	609.7	608.1	606.4	601.6	593.4	582.0
47.5°	560.9	564.0	565.7	562.4	560.9	557.6	557.6	547.7	541.3	531.5	515.2
50°	512.0	515.2	515.2	512.0	512.0	507.0	502.2	498.9	489.0	477.7	458.1
52.5°	450.0	454.9	454.9	453.3	453.3	446.7	445.1	438.6	430.4	417.3	401.1
55°	375.0	381.5	379.9	378.2	375.0	375.0	375.0	370.1	365.2	355.4	339.1
57.5°	321.2	322.8	322.8	321.2	321.2	317.9	317.9	313.1	311.4	301.6	288.6
60°	286.9	286.9	288.6	286.9	285.3	283.7	282.1	278.8	273.9	267.4	257.6
62.5°	259.2	260.8	260.8	259.2	257.6	255.9	254.4	251.1	247.8	242.9	233.1
65°	228.2	231.5	229.9	228.2	226.7	225.0	225.0	221.7	218.4	215.2	205.4
67.5°	194.0	195.7	197.2	194.0	194.0	192.4	192.4	189.1	187.5	181.0	174.4
70°	158.1	159.7	159.7	158.1	158.1	156.5	156.5	154.9	153.3	148.4	141.8
72.5°	124.0	125.5	124.0	122.3	122.3	122.3	120.7	119.0	117.4	114.1	109.3
75°	91.3	91.3	93.0	91.3	89.7	89.7	88.0	88.0	84.7	83.1	78.3
77.5°	65.3	66.8	65.3	65.3	63.6	62.0	62.0	60.3	60.3	58.7	55.4
80°	44.0	44.0	45.7	44.0	42.4	44.0	42.4	40.7	40.7	39.1	35.9
82.5°	27.7	29.3	27.7	27.7	27.7	27.7	27.7	26.0	26.0	24.4	22.8
85°	16.3	16.3	16.3	16.3	16.3	16.3	16.3	14.7	14.7	14.7	13.0
87.5°	8.1	8.1	6.6	6.6	8.1	8.1	8.1	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°	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9
2.5°	1230.9	1232.6	1235.7	1240.7	1240.7	1237.4	1245.6	1245.6	1248.9	1250.4	1257.0
5°	1217.9	1221.1	1227.7	1235.7	1237.4	1235.7	1247.2	1252.1	1257.0	1261.9	1271.7
7.5°	1206.4	1213.0	1224.4	1235.7	1240.7	1240.7	1258.7	1265.1	1275.0	1284.7	1296.1
10°	1200.0	1209.7	1226.0	1244.0	1248.9	1253.7	1275.0	1288.0	1301.0	1314.1	1330.4
12.5°	1191.7	1209.7	1230.9	1253.7	1263.4	1270.0	1299.4	1315.7	1333.7	1350.0	1371.1
15°	1190.2	1211.4	1239.1	1268.4	1281.4	1291.3	1323.8	1346.7	1367.8	1389.1	1410.2
17.5°	1183.7	1209.7	1244.0	1276.6	1292.9	1305.9	1343.4	1371.1	1395.5	1416.8	1441.2
20°	1175.5	1204.9	1242.4	1278.2	1296.1	1309.1	1350.0	1376.1	1403.7	1423.3	1446.1
22.5°	1164.0	1193.4	1230.9	1266.7	1283.1	1294.4	1335.3	1358.1	1382.5	1402.1	1423.3
25°	1144.5	1172.2	1204.9	1234.2	1250.4	1260.3	1296.1	1317.4	1335.3	1354.8	1374.4
27.5°	1116.8	1138.0	1165.7	1186.9	1196.7	1206.4	1235.7	1253.7	1270.0	1286.4	1299.4
30°	1067.9	1084.2	1103.7	1121.7	1131.5	1133.0	1160.8	1170.6	1183.7	1195.0	1204.9
32.5°	1002.6	1015.8	1027.1	1036.9	1043.5	1045.0	1066.2	1069.5	1082.5	1082.5	1097.2
35°	919.5	926.1	934.2	934.2	939.1	934.2	948.8	952.1	953.8	955.4	966.8
37.5°	825.0	828.2	833.1	823.4	823.4	818.4	823.4	826.6	820.1	820.1	828.2
40°	735.3	728.7	722.3	712.4	707.6	697.7	697.7	689.7	684.7	681.4	683.1
42.5°	648.9	634.2	619.6	598.3	588.6	578.7	569.0	557.6	554.3	546.2	541.3
45°	565.7	544.6	525.0	490.7	471.2	461.3	440.2	417.3	402.7	399.4	386.4
47.5°	495.6	464.6	432.0	391.3	371.8	353.8	322.8	303.2	283.7	273.9	265.7
50°	433.6	406.0	363.6	319.5	295.1	277.1	242.9	220.1	198.9	184.2	174.4
52.5°	379.9	348.9	309.8	259.2	234.8	215.2	177.7	151.7	133.7	119.0	107.7
55°	319.5	295.1	255.9	208.7	184.2	161.4	128.8	101.1	83.1	73.4	65.3
57.5°	275.5	254.4	216.8	171.2	148.4	127.1	94.6	71.7	57.0	47.3	42.4
60°	246.2	226.7	194.0	150.0	128.8	109.3	78.3	57.0	44.0	35.9	32.6
62.5°	221.7	202.1	172.8	132.0	114.1	94.6	66.8	47.3	35.9	29.3	24.4
65°	194.0	176.1	150.0	114.1	97.8	81.5	57.0	39.1	29.3	22.8	19.6
67.5°	164.7	148.4	125.5	94.6	81.5	68.4	45.7	32.6	24.4	19.6	16.3
70°	133.7	120.7	99.4	76.7	65.3	53.8	37.5	26.0	18.0	14.7	13.0
72.5°	102.7	91.3	76.7	58.7	49.0	40.7	27.7	19.6	14.7	11.4	9.7
75°	73.4	65.3	53.8	42.4	35.9	29.3	21.3	14.7	9.7	8.1	6.6
77.5°	50.6	45.7	37.5	29.3	24.4	21.3	14.7	9.7	8.1	6.6	5.0
80°	32.6	29.3	24.4	18.0	14.7	13.0	8.1	6.6	5.0	3.3	3.3
82.5°	19.6	18.0	14.7	9.7	8.1	6.6	5.0	3.3	3.3	1.7	1.7
85°	11.4	9.7	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°	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9
2.5°	1253.7	1261.9	1260.3	1265.1	1263.4	1263.4	1271.7	1268.4	1276.6	1276.6	1278.2
5°	1271.7	1283.1	1283.1	1291.3	1289.6	1292.9	1301.0	1301.0	1310.8	1314.1	1314.1
7.5°	1297.7	1312.4	1315.7	1323.8	1325.4	1332.0	1338.5	1340.1	1353.1	1356.4	1358.1
10°	1333.7	1351.6	1356.4	1364.6	1367.8	1374.4	1382.5	1385.8	1402.1	1403.7	1410.2
12.5°	1377.7	1397.1	1402.1	1411.8	1413.5	1421.7	1433.1	1436.4	1452.7	1457.5	1462.4
15°	1420.1	1438.0	1446.1	1455.8	1457.5	1467.4	1477.1	1480.4	1495.1	1501.5	1506.5
17.5°	1449.4	1470.5	1475.5	1488.5	1488.5	1496.7	1506.5	1509.8	1524.4	1529.2	1532.5
20°	1455.8	1475.5	1482.0	1491.8	1493.4	1498.2	1506.5	1509.8	1522.8	1524.4	1529.2
22.5°	1431.4	1451.1	1454.2	1464.1	1465.7	1470.5	1477.1	1475.5	1491.8	1490.1	1491.8
25°	1379.3	1397.1	1397.1	1408.7	1407.0	1411.8	1415.1	1413.5	1428.1	1428.1	1428.1
27.5°	1304.3	1320.6	1322.1	1330.4	1325.4	1327.1	1330.4	1328.7	1338.5	1338.5	1338.5
30°	1211.4	1224.4	1219.5	1226.0	1222.7	1226.0	1222.7	1221.1	1224.4	1227.7	1226.0
32.5°	1095.6	1105.4	1105.4	1107.0	1107.0	1097.2	1094.0	1094.0	1092.3	1090.7	1090.7
35°	961.9	970.1	966.8	966.8	965.1	955.4	950.5	947.2	952.1	942.4	948.8
37.5°	825.0	826.6	821.7	820.1	811.9	811.9	803.8	797.2	800.5	798.8	792.4
40°	675.0	681.4	671.7	668.4	673.4	666.7	658.7	650.4	657.0	648.9	652.1
42.5°	528.3	526.6	523.3	523.3	523.3	513.6	512.0	510.3	512.0	505.4	500.5
45°	381.5	376.6	371.8	371.8	365.2	361.9	361.9	357.1	348.9	348.9	339.1
47.5°	257.6	246.2	242.9	241.4	238.1	238.1	234.8	231.5	229.9	221.7	221.7
50°	168.0	156.5	153.3	151.7	153.3	150.0	146.7	143.4	140.2	138.7	135.4
52.5°	101.1	96.2	93.0	91.3	88.0	86.4	84.7	81.5	80.0	80.0	78.3
55°	60.3	55.4	49.0	49.0	49.0	47.3	45.7	44.0	42.4	42.4	40.7
57.5°	37.5	34.3	31.0	29.3	29.3	29.3	27.7	27.7	27.7	27.7	26.0
60°	27.7	24.4	22.8	22.8	22.8	21.3	21.3	21.3	21.3	19.6	19.6
62.5°	21.3	19.6	18.0	18.0	16.3	16.3	16.3	16.3	16.3	16.3	14.7
65°	18.0	14.7	14.7	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	6.6	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: P843545

CATALOG NUMBER: LD4C25DE010B40 EU4C25B40 4LBSWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9	1248.9
2.5°	1278.2	1286.4	1278.2	1278.2	1283.1	1281.4	1284.7	1279.8
5°	1315.7	1327.1	1319.0	1317.4	1325.4	1323.8	1325.4	1322.1
7.5°	1361.4	1372.8	1364.6	1364.6	1372.8	1371.1	1376.1	1372.8
10°	1413.5	1426.5	1415.1	1416.8	1428.1	1426.5	1426.5	1426.5
12.5°	1467.4	1480.4	1473.8	1473.8	1482.0	1483.6	1485.2	1483.6
15°	1511.4	1524.4	1516.2	1516.2	1527.6	1526.1	1527.6	1526.1
17.5°	1537.4	1550.5	1540.8	1540.8	1550.5	1550.5	1552.1	1553.8
20°	1530.8	1545.5	1537.4	1534.1	1545.5	1545.5	1543.9	1543.9
22.5°	1493.4	1506.5	1499.9	1496.7	1504.8	1501.5	1499.9	1501.5
25°	1428.1	1441.2	1428.1	1428.1	1434.7	1433.1	1434.7	1433.1
27.5°	1340.1	1350.0	1336.8	1335.3	1341.8	1338.5	1336.8	1341.8
30°	1222.7	1232.6	1226.0	1221.1	1229.3	1224.4	1221.1	1222.7
32.5°	1089.0	1095.6	1092.3	1084.2	1089.0	1085.8	1084.2	1085.8
35°	942.4	950.5	937.5	935.8	944.0	937.5	934.2	942.4
37.5°	790.7	800.5	789.1	790.7	785.8	787.4	784.2	789.1
40°	647.3	645.7	642.4	640.7	642.4	637.4	640.7	635.8
42.5°	492.3	495.6	494.0	492.3	494.0	487.5	484.2	490.7
45°	342.4	340.8	337.5	334.2	334.2	332.6	332.6	327.7
47.5°	220.1	218.4	211.9	213.6	216.8	213.6	208.7	215.2
50°	133.7	132.0	132.0	130.4	133.7	130.4	127.1	127.1
52.5°	75.0	75.0	73.4	73.4	73.4	73.4	71.7	70.1
55°	40.7	39.1	39.1	39.1	37.5	37.5	37.5	37.5
57.5°	26.0	26.0	26.0	26.0	26.0	26.0	24.4	24.4
60°	19.6	19.6	19.6	19.6	18.0	19.6	18.0	18.0
62.5°	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7
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°	6.6	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)