

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: P879415

Luminaire Tested: **LD4C35D010 EU4359040 4LBDWWLI**

Issue Date: 10/1/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P879415
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2107-320-5)
Test Lab: INNOVATION CENTER
Issue Date: 10/1/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C35D010 EU4359040 4LBLDWWLI
Description: 4 INCH 3500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 4000K, 90CRI LEDS
AND 4LBLDWW TRIM WITH LI FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

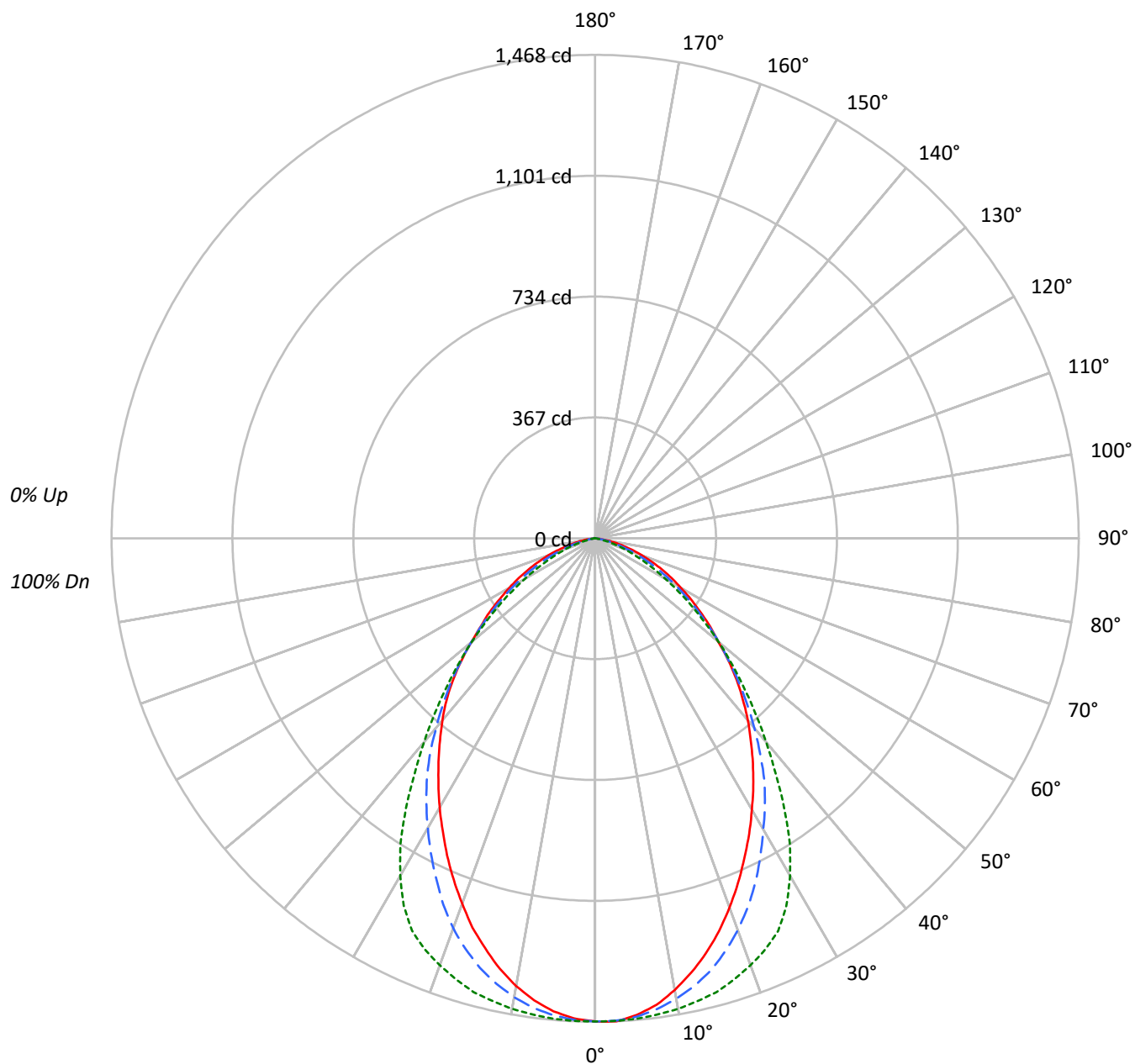
Lumens per Lamp: N/A
Luminaire Lumens: 2695.0 lumens
Efficiency: N/A
Efficacy: 66.7 lumens/watt
Spacing Criteria (0/90/45): 1 / 1.19 / 1.15
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 40.4
Input Voltage (V): NR
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
RW	70	50	30	10	70	50	30	10		50	30	10			50	30	10			50
RCR																				
0	119	119	119	119	116	116	116	116		111	111	111			106	106	106			102
1	111	107	104	101	108	105	102	99		101	98	96			97	95	93			93
2	103	96	90	85	100	94	89	84		91	86	83			87	84	81			85
3	95	86	79	74	93	84	78	73		82	76	72			79	74	70			77
4	88	78	70	64	86	76	69	64		74	68	63			72	66	62			70
5	82	70	62	57	80	69	62	56		67	61	56			65	60	55			64
6	76	64	56	50	74	63	56	50		61	55	50			60	54	49			58
7	71	59	51	45	69	58	50	45		56	50	45			55	49	45			54
8	66	54	46	41	65	53	46	41		52	45	41			51	45	40			50
9	62	50	42	37	61	49	42	37		48	42	37			47	41	37			46
10	59	46	39	34	57	46	39	34		45	39	34			44	38	34			43

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	180275	180275	180275
5°	179200	180557	177856
10°	173750	180998	172241
15°	165763	181407	163957
20°	155970	180366	154258
25°	145273	178240	144094
30°	134993	167833	133901
35°	125185	150126	124270
40°	115726	129454	115646
45°	105443	110499	106312
50°	93136	93461	93671
55°	83448	76401	83812
60°	73761	60665	73884
65°	64912	46250	64302
70°	53808	33118	53808
75°	41961	19034	40394
80°	27167	4669	26035
85°	10008	1551	7753



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.7	5.1
10°-20°	381.1	14.1
20°-30°	532.7	19.8
30°-40°	562.0	20.9
40°-50°	478.1	17.7
50°-60°	337.3	12.5
60°-70°	191.2	7.1
70°-80°	68.2	2.5
80°-90°	6.5	0.2
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°	1051.6	39.0
0°-40°	1613.6	59.9
0°-60°	2429.0	90.1
0°-90°	2695.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2695.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1467	1467	1467	1467	1467	
5°	1453	1458	1464	1454	1442	137
15°	1303	1358	1426	1350	1289	365
25°	1072	1152	1315	1141	1063	493
35°	835	895	1001	890	829	522
45°	607	616	636	618	612	467
55°	390	376	357	378	391	350
65°	223	192	159	192	221	221
75°	88	60	40	59	85	96
85°	7	3	1	3	6	13
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°	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4
2.5°	1468.5	1465.8	1465.8	1465.8	1465.8	1465.8	1465.8	1465.8	1465.8	1466.3	1466.3
5°	1453.1	1452.0	1451.5	1451.5	1451.5	1451.5	1452.0	1454.2	1455.3	1457.0	1458.1
7.5°	1429.0	1426.8	1427.9	1427.9	1429.0	1430.1	1431.7	1433.9	1437.2	1439.4	1442.2
10°	1392.8	1390.6	1393.3	1394.4	1397.7	1399.4	1402.1	1405.4	1412.0	1415.3	1419.7
12.5°	1350.5	1349.4	1350.5	1354.9	1358.2	1360.4	1363.7	1370.8	1377.4	1384.5	1392.2
15°	1303.3	1300.6	1302.2	1307.7	1313.2	1317.0	1319.8	1329.1	1337.9	1348.9	1358.2
17.5°	1250.6	1246.8	1251.2	1255.6	1262.7	1266.0	1269.9	1280.3	1292.4	1304.4	1314.9
20°	1193.0	1191.9	1194.7	1200.7	1207.8	1212.2	1215.5	1227.1	1237.5	1253.9	1266.0
22.5°	1133.2	1134.3	1136.5	1143.1	1148.0	1154.1	1159.0	1169.4	1181.5	1196.9	1212.2
25°	1071.7	1073.4	1077.2	1081.6	1089.9	1093.2	1099.2	1110.2	1120.6	1134.9	1151.9
27.5°	1012.5	1013.0	1017.4	1019.6	1027.3	1034.4	1037.2	1048.7	1060.8	1071.7	1086.6
30°	951.6	953.2	956.0	962.0	969.7	972.4	975.7	986.1	995.5	1009.2	1020.7
32.5°	893.4	892.3	895.6	898.9	907.7	912.6	914.3	926.3	934.6	948.3	959.3
35°	834.7	831.9	836.9	840.2	847.8	852.2	854.4	863.8	871.4	883.0	895.0
37.5°	776.0	778.2	780.4	783.1	786.9	788.0	794.6	796.8	806.7	815.5	822.1
40°	721.6	720.5	719.4	722.2	727.1	729.3	729.9	735.9	738.1	746.9	751.8
42.5°	663.5	664.0	663.5	664.0	666.8	666.8	668.4	672.2	673.9	676.6	682.7
45°	606.9	606.9	605.3	605.8	606.4	605.8	606.4	608.0	611.3	611.3	615.7
47.5°	548.2	547.1	549.3	547.7	546.6	546.0	547.7	546.0	549.3	549.3	550.4
50°	487.3	487.3	490.1	489.5	490.6	488.4	489.0	489.0	489.5	489.0	491.1
52.5°	440.1	439.0	437.9	435.2	436.3	434.1	434.1	434.6	433.0	432.4	429.7
55°	389.6	390.7	389.1	388.0	388.0	385.8	385.2	381.9	379.7	378.1	376.5
57.5°	344.1	345.2	344.6	341.9	338.6	339.1	338.0	334.7	329.8	326.5	323.8
60°	300.2	301.3	300.2	297.4	296.3	294.1	293.6	289.2	285.4	281.0	277.7
62.5°	260.7	260.7	260.1	256.3	253.5	254.1	251.3	248.0	243.1	237.1	232.1
65°	223.3	222.8	220.1	218.4	216.2	213.5	211.8	206.9	203.0	198.1	191.5
67.5°	186.0	184.4	183.3	181.6	176.7	176.2	174.0	169.6	164.1	160.2	154.8
70°	149.8	149.3	147.1	147.1	143.2	141.6	138.3	134.4	129.5	124.0	119.6
72.5°	118.5	117.4	115.2	113.0	109.8	108.7	105.9	102.1	97.7	92.2	86.7
75°	88.4	87.3	86.7	84.0	81.2	78.5	77.4	73.5	69.1	65.3	60.4
77.5°	62.0	60.9	59.3	57.6	56.0	54.3	52.7	49.4	45.5	42.3	37.9
80°	38.4	37.3	36.2	35.7	34.0	33.5	31.3	29.6	26.3	24.1	21.4
82.5°	19.8	19.8	18.7	18.1	17.0	16.5	15.9	14.3	12.6	11.0	9.3
85°	7.1	7.1	6.6	6.0	6.0	5.5	5.5	4.9	3.8	3.8	2.7
87.5°	0.5	0.5	1.1	0.5	0.5	0.5	0.5	0.5	0.5	0.5	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):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4
2.5°	1466.9	1466.3	1466.9	1466.9	1467.4	1467.4	1467.4	1466.9	1467.4	1466.9	1466.9
5°	1458.1	1459.7	1460.8	1461.9	1462.5	1463.0	1463.0	1463.6	1464.1	1464.1	1463.6
7.5°	1444.4	1447.7	1450.9	1453.1	1454.2	1455.3	1457.0	1458.1	1459.2	1458.6	1458.1
10°	1426.3	1431.7	1436.1	1440.5	1442.7	1444.4	1447.1	1449.3	1450.4	1450.9	1449.3
12.5°	1400.5	1408.1	1415.3	1422.4	1425.7	1427.9	1433.4	1437.2	1439.4	1439.4	1437.8
15°	1368.1	1379.1	1389.5	1398.8	1404.3	1407.6	1415.8	1421.3	1424.6	1426.3	1423.5
17.5°	1329.1	1341.7	1354.4	1366.4	1371.9	1376.9	1388.4	1396.1	1403.2	1404.3	1401.0
20°	1279.2	1295.1	1309.4	1324.2	1330.2	1337.9	1351.1	1363.7	1374.7	1379.6	1370.3
22.5°	1223.2	1240.8	1253.9	1272.0	1280.3	1288.5	1305.5	1321.4	1340.6	1351.1	1334.6
25°	1165.0	1179.9	1195.8	1213.3	1224.9	1233.6	1253.4	1273.7	1299.5	1314.9	1291.8
27.5°	1102.5	1115.6	1134.9	1154.1	1162.8	1173.8	1197.4	1219.4	1244.1	1257.8	1240.8
30°	1037.7	1054.2	1072.3	1089.9	1102.5	1112.9	1132.1	1150.8	1171.6	1183.1	1170.5
32.5°	973.5	989.4	1004.8	1024.0	1031.1	1040.5	1057.5	1073.4	1089.3	1099.7	1084.9
35°	906.0	920.3	934.6	947.7	951.0	962.0	975.7	985.0	992.7	1001.0	991.1
37.5°	832.5	843.5	850.6	864.9	870.3	872.0	883.0	889.6	897.8	899.4	898.9
40°	757.9	767.7	773.8	782.5	786.9	786.9	794.6	800.7	806.7	807.2	806.7
42.5°	688.2	693.1	698.0	703.5	702.4	709.0	712.3	715.0	719.4	719.4	720.5
45°	617.9	621.8	626.1	627.2	631.6	631.6	634.4	635.5	637.7	636.0	633.8
47.5°	552.6	554.3	554.8	559.7	560.8	557.0	560.3	560.8	560.3	560.3	559.2
50°	490.6	491.7	491.1	489.5	490.1	491.7	490.1	487.9	489.0	489.0	490.1
52.5°	430.2	428.0	426.9	426.9	424.7	424.7	422.0	420.9	420.4	418.2	420.9
55°	374.8	371.5	366.6	365.5	363.8	363.3	360.0	357.2	356.2	356.7	356.2
57.5°	321.6	316.6	313.3	312.3	310.6	307.3	303.5	300.7	300.2	299.1	299.1
60°	273.3	267.8	262.9	257.9	258.5	256.3	252.4	250.8	249.1	246.9	248.6
62.5°	229.4	223.3	217.9	212.9	209.6	208.0	205.2	202.5	200.8	199.2	201.4
65°	186.0	181.1	175.1	170.1	168.5	166.8	164.1	159.7	159.1	159.1	160.2
67.5°	147.1	141.6	136.1	132.8	130.6	128.4	127.3	125.1	123.5	122.4	122.9
70°	113.0	107.6	103.2	99.9	98.2	97.7	93.8	93.3	92.7	92.2	91.6
72.5°	82.3	77.9	74.1	71.9	69.7	68.0	66.9	65.3	64.8	64.8	64.8
75°	56.5	53.2	48.8	46.1	45.0	43.4	41.7	40.6	39.5	40.1	40.1
77.5°	34.0	30.7	28.0	25.8	25.2	23.6	22.0	20.9	19.2	19.2	19.8
80°	18.7	15.9	13.7	12.1	11.0	10.4	8.8	8.2	7.1	6.6	6.6
82.5°	8.2	6.6	5.5	4.9	4.4	3.8	3.3	2.7	2.7	2.2	2.7
85°	2.7	2.2	1.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
87.5°	0.5	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



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CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4
2.5°	1466.3	1466.3	1465.8	1465.8	1465.8	1464.7	1464.7	1464.1	1463.6	1463.0	1461.9
5°	1462.5	1461.9	1460.8	1460.3	1459.7	1458.1	1456.4	1455.3	1453.7	1451.5	1450.4
7.5°	1457.0	1455.3	1453.1	1452.0	1450.4	1446.6	1443.8	1441.1	1438.3	1434.5	1430.1
10°	1447.7	1444.4	1441.1	1438.9	1436.1	1431.2	1425.7	1421.3	1415.3	1409.8	1403.8
12.5°	1434.5	1430.6	1424.1	1420.8	1417.5	1410.3	1403.2	1393.9	1385.6	1378.0	1370.8
15°	1418.0	1410.9	1403.2	1398.8	1393.9	1382.4	1371.4	1361.5	1350.5	1341.2	1329.7
17.5°	1393.9	1383.4	1372.5	1367.5	1361.0	1347.8	1334.6	1320.9	1308.3	1296.7	1282.5
20°	1357.7	1346.1	1331.9	1324.2	1318.7	1301.1	1288.5	1273.1	1260.0	1245.7	1229.8
22.5°	1315.4	1299.5	1283.6	1272.6	1266.6	1249.0	1232.0	1218.3	1204.0	1187.5	1176.0
25°	1267.7	1247.9	1228.7	1217.7	1208.4	1189.7	1173.3	1159.0	1141.4	1127.2	1115.6
27.5°	1213.9	1191.4	1168.9	1157.9	1149.1	1128.8	1111.3	1096.4	1079.4	1066.8	1054.7
30°	1149.7	1129.4	1108.0	1099.2	1088.8	1067.9	1047.6	1034.4	1015.8	1002.6	989.4
32.5°	1069.6	1056.4	1039.4	1027.3	1021.8	1002.6	985.6	969.7	953.8	943.3	930.2
35°	981.7	970.2	956.0	949.4	942.2	930.2	916.4	902.7	890.1	880.2	868.2
37.5°	892.8	881.3	872.5	865.4	861.0	850.0	841.8	831.4	822.6	813.3	806.7
40°	800.7	797.4	788.0	784.7	783.6	771.6	764.4	756.2	750.7	745.2	741.4
42.5°	718.9	713.4	706.3	706.8	703.5	696.9	692.0	686.5	682.7	679.9	676.1
45°	638.2	633.8	630.5	633.3	627.8	625.6	621.8	621.2	618.5	613.5	611.9
47.5°	561.4	560.8	561.4	559.7	558.6	557.6	558.1	555.4	552.6	551.0	548.8
50°	491.1	491.7	492.8	494.4	490.6	492.2	491.7	491.1	491.1	489.5	490.6
52.5°	423.1	423.7	424.7	426.4	426.9	426.9	428.6	429.7	431.9	434.6	434.6
55°	358.9	362.7	364.9	367.7	366.0	369.3	371.0	375.9	377.6	377.6	379.7
57.5°	301.8	305.7	307.3	310.6	311.7	314.4	318.8	321.6	325.4	328.7	332.0
60°	249.7	251.3	255.7	260.7	259.6	266.2	269.4	273.8	278.8	281.0	285.4
62.5°	203.0	205.2	208.5	210.2	214.0	217.3	225.0	229.4	233.8	239.3	243.7
65°	161.3	163.5	166.8	170.1	171.8	176.7	180.5	188.2	192.1	198.1	203.0
67.5°	123.5	126.8	129.5	131.7	132.8	137.7	143.8	147.1	154.2	160.2	164.1
70°	92.2	94.9	98.2	97.7	99.9	103.7	108.1	113.0	118.5	124.0	128.4
72.5°	64.2	66.9	69.1	69.7	71.9	74.6	77.9	81.8	86.2	91.6	97.7
75°	40.6	41.2	43.4	44.5	45.5	48.8	51.6	55.4	59.3	63.7	67.5
77.5°	20.3	22.0	23.0	24.1	24.7	27.4	30.2	33.5	36.8	41.2	45.0
80°	7.7	8.2	9.9	10.4	11.5	13.2	15.4	17.0	19.8	23.0	25.2
82.5°	2.7	3.3	3.8	3.8	4.4	5.5	6.0	7.7	9.3	10.4	11.5
85°	1.1	1.1	1.1	1.1	1.1	1.6	1.6	2.2	2.7	3.3	3.3
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: P879415

CATALOG NUMBER: LD4C35D010 EU4359040 4LBLDWWLI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4	1467.4
2.5°	1461.4	1461.4	1460.8	1460.3	1460.3	1460.3	1459.7	1459.7
5°	1448.2	1446.6	1446.0	1444.9	1444.4	1443.8	1442.2	1442.2
7.5°	1426.8	1424.6	1423.0	1421.3	1419.1	1417.5	1417.5	1415.3
10°	1398.3	1393.9	1391.7	1389.5	1386.7	1383.4	1382.4	1380.7
12.5°	1363.7	1354.9	1352.7	1348.9	1344.5	1342.3	1338.5	1338.5
15°	1320.9	1311.6	1306.6	1304.4	1298.9	1295.1	1293.5	1289.1
17.5°	1271.0	1263.8	1256.1	1252.8	1246.8	1241.9	1239.7	1239.1
20°	1220.5	1208.9	1204.0	1199.1	1191.9	1187.5	1184.2	1179.9
22.5°	1162.3	1151.9	1144.7	1141.4	1135.4	1127.7	1122.2	1122.2
25°	1100.8	1091.5	1087.7	1080.5	1073.4	1070.7	1064.1	1063.0
27.5°	1042.1	1032.8	1025.1	1021.3	1013.0	1009.2	1003.7	1001.5
30°	981.2	970.2	964.7	964.2	954.3	950.5	946.1	943.9
32.5°	920.3	911.0	905.5	902.2	897.8	891.2	887.4	885.2
35°	859.9	853.9	848.9	845.1	838.0	834.7	831.4	828.6
37.5°	796.8	791.3	789.1	785.8	782.5	776.5	775.4	773.2
40°	735.9	728.8	728.8	726.6	723.3	722.7	721.1	721.1
42.5°	672.2	669.0	668.4	669.0	666.8	665.7	664.0	667.9
45°	609.1	610.8	608.0	608.6	607.5	609.7	609.7	611.9
47.5°	551.0	548.8	549.9	551.0	552.6	552.6	552.1	551.5
50°	489.0	491.1	493.3	490.6	491.7	492.2	489.5	490.1
52.5°	435.7	436.3	437.9	436.3	437.9	437.4	438.5	436.3
55°	384.1	384.1	386.3	386.9	387.4	389.1	389.6	391.3
57.5°	334.2	336.9	339.7	339.1	341.3	343.5	341.9	343.5
60°	290.8	293.0	295.8	296.9	298.5	299.6	299.6	300.7
62.5°	246.9	251.3	253.5	255.7	255.7	257.9	260.1	260.7
65°	207.4	212.4	214.0	215.7	216.8	219.0	221.7	221.2
67.5°	170.1	173.4	175.6	176.7	180.0	181.1	183.3	185.5
70°	133.4	137.7	139.4	141.6	144.3	146.5	148.7	149.8
72.5°	102.1	105.4	106.5	108.7	111.4	113.6	114.7	116.3
75°	71.3	76.8	77.4	79.0	81.2	84.0	85.6	85.1
77.5°	47.2	51.0	51.6	53.8	56.0	58.2	58.7	59.3
80°	28.0	30.2	30.7	31.8	33.5	34.6	35.7	36.8
82.5°	13.2	14.3	15.4	15.4	16.5	17.6	17.6	18.1
85°	4.4	4.4	4.9	4.9	5.5	5.5	6.0	5.5
87.5°	0.5	0.5	0.0	0.5	0.5	0.5	0.5	0.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)