

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P212739

Luminaire Tested: **LD4B30D010 EU4B30509035 4LBSWLI1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P212739  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29201)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD4B30D010 EU4B30509035 4LBSWLI1  
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2294.5 lumens  
Efficiency: N/A  
Efficacy: 81.9 lumens/watt  
Spacing Criteria (0/90/45): 1.29 / 1.3 / 1.21  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct

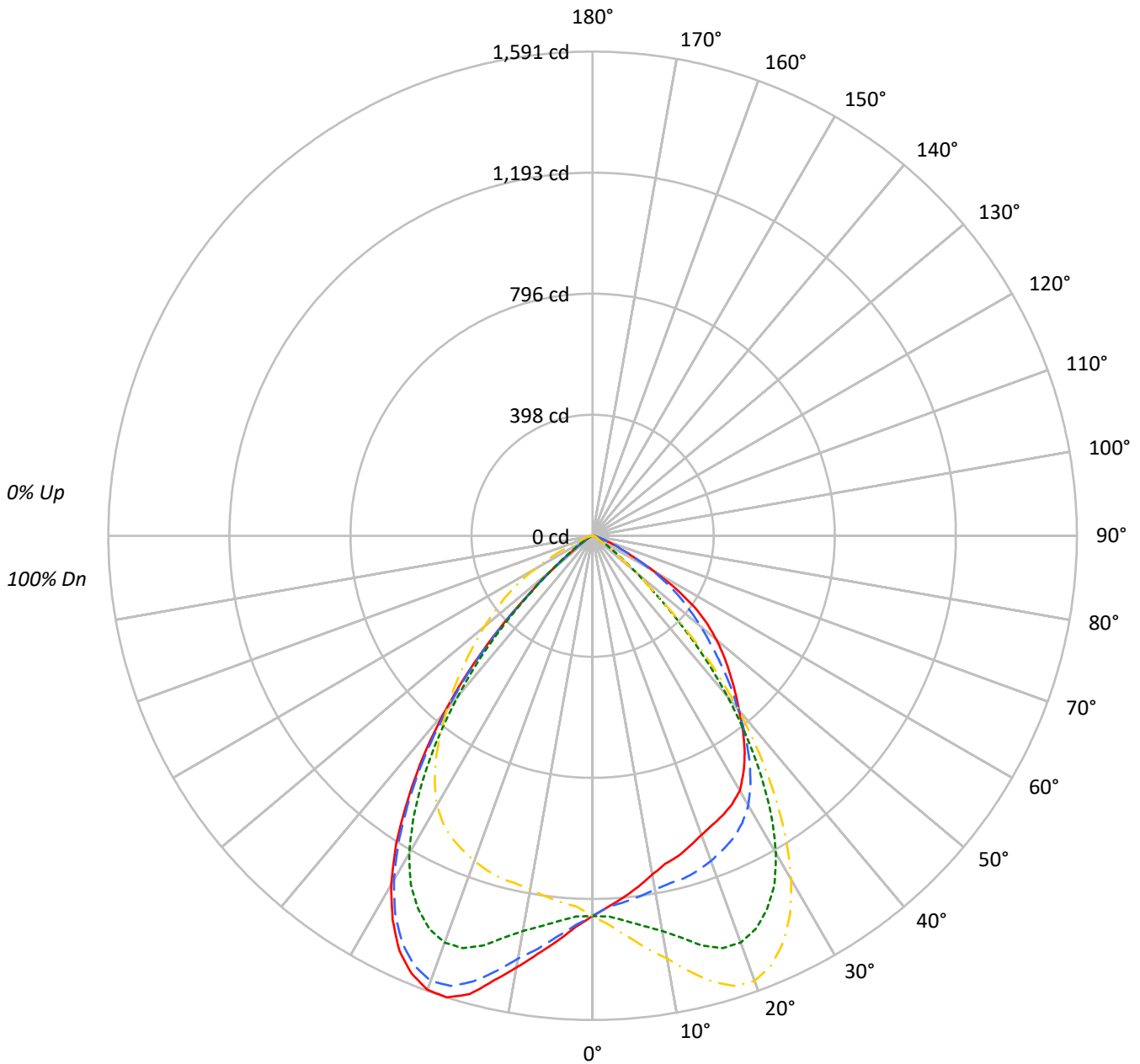
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

RF	20									20									20									20									
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	109	106	103	110	107	104	102	103	100	99	99	97	96	95	94	93	91																			
2	105	99	94	90	103	97	93	89	94	90	87	91	88	85	88	86	83	82																			
3	98	90	84	80	96	89	83	79	86	81	78	84	80	76	81	78	75	73																			
4	92	83	76	71	90	81	75	70	79	74	69	77	72	69	75	71	68	66																			
5	86	76	69	63	84	75	68	63	73	67	62	71	66	62	69	65	61	60																			
6	80	70	62	57	79	69	62	57	67	61	56	66	60	56	64	59	56	54																			
7	75	64	57	52	74	63	57	52	62	56	51	61	55	51	59	55	51	49																			
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45																			
9	66	55	48	43	65	54	48	43	53	47	43	52	47	43	52	46	43	41																			
10	63	51	44	40	62	51	44	40	50	44	40	49	43	39	48	43	39	38																			

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

	0°	90°	180°	270°
0°	154071	154071	154071	154071
5°	147503	157309	165481	157309
10°	141568	165128	180420	165128
15°	139062	178048	199118	178048
20°	137313	186693	208352	186693
25°	137880	184370	204581	184370
30°	137713	171554	188474	171554
35°	131183	145593	159266	145593
40°	120360	110795	122211	110795
45°	111099	70525	75985	70525
50°	101645	34195	33255	34195
55°	87997	14903	10645	14903
60°	56986	7327	4884	7327
65°	29857	4816	3853	4816
70°	16084	3570	2993	3570
75°	8674	3145	2383	3145
80°	5896	2344	1208	2344
85°	4670	2406	0	2406



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	121.8	5.3
10°-20°	380.9	16.6
20°-30°	592.2	25.8
30°-40°	598.2	26.1
40°-50°	378.8	16.5
50°-60°	159.0	6.9
60°-70°	50.4	2.2
70°-80°	11.6	0.5
80°-90°	1.7	0.1
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°	1094.9	47.7
0°-40°	1693.1	73.8
0°-60°	2230.9	97.2
0°-90°	2294.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2294.5	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1249	1249	1249	1249	1249	
5°	1191	1270	1336	1270	1191	112
15°	1089	1394	1559	1394	1089	307
25°	1013	1355	1503	1355	1013	467
35°	871	967	1058	967	871	541
45°	637	404	436	404	637	492
55°	409	69	50	69	409	353
65°	102	16	13	16	102	113
75°	18	7	5	7	18	22
85°	3	2	0	2	3	3
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°	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1
2.5°	1219.4	1207.8	1217.7	1221.0	1221.0	1219.4	1222.7	1219.4	1214.4	1234.2	1219.4
5°	1191.3	1183.1	1191.3	1194.6	1196.3	1197.9	1201.2	1201.2	1199.6	1217.7	1207.8
7.5°	1161.6	1156.7	1163.3	1168.2	1174.8	1173.2	1178.1	1179.8	1183.1	1204.5	1194.6
10°	1130.3	1125.3	1133.6	1136.9	1145.1	1146.8	1150.1	1155.0	1161.6	1183.1	1179.8
12.5°	1103.9	1102.2	1107.2	1113.8	1122.0	1123.7	1127.0	1135.2	1145.1	1168.2	1169.9
15°	1089.0	1087.4	1092.3	1098.9	1105.5	1108.8	1112.1	1123.7	1133.6	1158.3	1164.9
17.5°	1067.6	1067.6	1072.5	1079.1	1087.4	1090.7	1095.6	1107.2	1120.4	1145.1	1153.4
20°	1046.1	1047.8	1051.1	1057.7	1065.9	1069.2	1074.2	1085.7	1100.6	1125.3	1136.9
22.5°	1028.0	1032.9	1034.6	1039.5	1047.8	1052.7	1054.4	1067.6	1080.8	1102.2	1117.1
25°	1013.1	1019.7	1019.7	1023.0	1032.9	1034.6	1036.2	1049.4	1061.0	1080.8	1095.6
27.5°	993.3	999.9	999.9	1004.9	1011.5	1014.8	1014.8	1026.3	1037.9	1052.7	1064.3
30°	966.9	971.9	971.9	973.5	980.1	983.4	981.8	993.3	1001.6	1011.5	1023.0
32.5°	922.4	930.6	927.3	932.3	935.6	938.9	935.6	945.5	952.1	962.0	965.3
35°	871.2	877.8	872.9	876.2	882.8	882.8	881.1	887.7	891.0	896.0	897.6
37.5°	811.8	816.8	813.5	815.1	818.4	820.1	816.8	823.4	823.4	825.0	821.7
40°	747.5	755.7	750.8	750.8	754.1	755.7	750.8	754.1	757.4	749.1	742.5
42.5°	691.4	699.6	694.7	694.7	694.7	696.3	689.7	691.4	691.4	679.8	669.9
45°	636.9	643.5	638.6	633.6	635.3	636.9	630.3	628.7	623.7	610.5	595.7
47.5°	584.1	590.7	584.1	580.8	580.8	580.8	572.6	567.6	561.0	542.9	524.7
50°	529.7	536.3	531.3	528.0	524.7	524.7	518.1	511.5	501.6	483.5	463.7
52.5°	473.6	478.5	473.6	470.3	467.0	467.0	458.7	453.8	442.2	424.1	402.6
55°	409.2	412.5	407.6	404.3	402.6	402.6	396.0	391.1	381.2	366.3	346.5
57.5°	323.4	330.0	321.8	325.1	325.1	323.4	318.5	316.8	313.5	300.3	285.5
60°	231.0	231.0	229.4	236.0	234.3	237.6	234.3	236.0	237.6	227.7	217.8
62.5°	151.8	156.8	153.5	156.8	160.1	160.1	158.4	161.7	165.0	160.1	155.1
65°	102.3	102.3	102.3	104.0	104.0	105.6	104.0	105.6	107.3	105.6	102.3
67.5°	67.7	69.3	67.7	69.3	67.7	69.3	69.3	69.3	71.0	69.3	67.7
70°	44.6	44.6	44.6	44.6	44.6	44.6	44.6	44.6	46.2	44.6	42.9
72.5°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
75°	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
77.5°	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6	11.6
80°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	6.6	8.3	6.6	6.6
82.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
85°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	1.7	3.3	1.7	1.7
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



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1
2.5°	1227.6	1222.7	1247.4	1226.0	1237.5	1235.9	1237.5	1247.4	1247.4	1252.4	1250.7
5°	1221.0	1216.1	1244.1	1227.6	1240.8	1240.8	1245.8	1260.6	1260.6	1270.5	1272.2
7.5°	1211.1	1212.8	1242.5	1232.6	1247.4	1249.1	1257.3	1275.5	1280.4	1293.6	1300.2
10°	1199.6	1206.2	1237.5	1234.2	1254.0	1255.7	1272.2	1293.6	1300.2	1318.4	1329.9
12.5°	1194.6	1206.2	1242.5	1245.8	1265.6	1273.8	1292.0	1320.0	1331.6	1353.0	1369.5
15°	1193.0	1209.5	1249.1	1260.6	1283.7	1295.3	1320.0	1353.0	1366.2	1394.3	1414.1
17.5°	1184.7	1206.2	1249.1	1267.2	1292.0	1303.5	1334.9	1372.8	1389.3	1420.7	1443.8
20°	1169.9	1193.0	1235.9	1259.0	1285.4	1301.9	1333.2	1372.8	1389.3	1422.3	1448.7
22.5°	1150.1	1173.2	1214.4	1240.8	1263.9	1282.1	1315.1	1353.0	1367.9	1399.2	1425.6
25°	1125.3	1148.4	1183.1	1209.5	1230.9	1247.4	1275.5	1315.1	1325.0	1354.7	1382.7
27.5°	1090.7	1112.1	1138.5	1163.3	1183.1	1196.3	1221.0	1255.7	1263.9	1293.6	1316.7
30°	1044.5	1057.7	1080.8	1097.3	1112.1	1125.3	1143.5	1174.8	1178.1	1204.5	1226.0
32.5°	981.8	988.4	1004.9	1013.1	1026.3	1031.3	1046.1	1072.5	1069.2	1094.0	1112.1
35°	905.9	909.2	909.2	919.1	922.4	924.0	935.6	950.4	945.5	966.9	980.1
37.5°	823.4	821.7	811.8	811.8	813.5	808.5	813.5	820.1	813.5	830.0	841.5
40°	739.2	729.3	711.2	701.3	696.3	694.7	684.8	693.0	676.5	688.1	696.3
42.5°	658.4	641.9	613.8	594.0	585.8	577.5	561.0	561.0	539.6	547.8	549.5
45°	575.9	547.8	509.9	491.7	470.3	457.1	435.6	414.2	399.3	404.3	399.3
47.5°	500.0	467.0	422.4	391.1	366.3	348.2	318.5	293.7	278.9	272.3	265.7
50°	434.0	401.0	349.8	310.2	285.5	264.0	234.3	206.3	188.1	178.2	173.3
52.5°	374.6	339.9	290.4	249.2	222.8	203.0	170.0	141.9	122.1	110.6	104.0
55°	318.5	287.1	240.9	203.0	178.2	158.4	125.4	99.0	80.9	69.3	61.1
57.5°	262.4	234.3	196.4	160.1	138.6	120.5	92.4	69.3	54.5	44.6	38.0
60°	201.3	179.9	148.5	120.5	102.3	87.5	66.0	47.9	38.0	29.7	26.4
62.5°	141.9	128.7	105.6	85.8	74.3	62.7	46.2	34.7	26.4	21.5	19.8
65°	95.7	85.8	72.6	57.8	49.5	42.9	33.0	24.8	19.8	16.5	14.9
67.5°	62.7	57.8	47.9	39.6	34.7	29.7	23.1	18.2	14.9	13.2	11.6
70°	41.3	38.0	31.4	26.4	24.8	21.5	16.5	13.2	11.6	9.9	9.9
72.5°	26.4	23.1	21.5	18.2	16.5	14.9	11.6	9.9	8.3	8.3	8.3
75°	16.5	14.9	13.2	11.6	11.6	9.9	8.3	8.3	6.6	6.6	6.6
77.5°	9.9	9.9	8.3	8.3	6.6	6.6	6.6	5.0	5.0	5.0	5.0
80°	6.6	6.6	5.0	5.0	5.0	5.0	3.3	3.3	3.3	3.3	3.3
82.5°	3.3	3.3	3.3	3.3	3.3	3.3	1.7	1.7	1.7	1.7	1.7
85°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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



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**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1
2.5°	1259.0	1262.3	1259.0	1268.9	1252.4	1270.5	1263.9	1267.2	1280.4	1275.5	1280.4
5°	1283.7	1290.3	1290.3	1301.9	1287.0	1308.5	1301.9	1308.5	1321.7	1321.7	1328.3
7.5°	1315.1	1323.3	1326.6	1338.2	1323.3	1349.7	1343.1	1351.4	1367.9	1367.9	1372.8
10°	1348.1	1358.0	1364.6	1377.8	1361.3	1391.0	1384.4	1395.9	1410.8	1412.4	1420.7
12.5°	1389.3	1402.5	1410.8	1422.3	1410.8	1440.5	1433.9	1445.4	1465.2	1466.9	1476.8
15°	1435.5	1452.0	1461.9	1475.1	1461.9	1494.9	1488.3	1501.5	1516.4	1523.0	1532.9
17.5°	1465.2	1485.0	1493.3	1508.1	1494.9	1527.9	1519.7	1537.8	1551.0	1554.3	1565.9
20°	1470.2	1488.3	1499.9	1511.4	1499.9	1532.9	1524.6	1539.5	1556.0	1559.3	1567.5
22.5°	1448.7	1463.6	1476.8	1486.7	1476.8	1509.8	1498.2	1514.7	1529.6	1532.9	1539.5
25°	1399.2	1417.4	1430.6	1438.8	1428.9	1460.3	1450.4	1465.2	1478.4	1485.0	1486.7
27.5°	1329.9	1346.4	1359.6	1364.6	1358.0	1387.7	1374.5	1392.6	1404.2	1407.5	1412.4
30°	1235.9	1250.7	1263.9	1267.2	1262.3	1283.7	1277.1	1293.6	1305.2	1308.5	1311.8
32.5°	1120.4	1135.2	1143.5	1146.8	1141.8	1163.3	1156.7	1169.9	1183.1	1183.1	1183.1
35°	990.0	1003.2	1008.2	1018.1	1006.5	1028.0	1021.4	1032.9	1044.5	1044.5	1046.1
37.5°	849.8	859.7	863.0	872.9	861.3	881.1	876.2	886.1	896.0	894.3	897.6
40°	699.6	709.5	712.8	721.1	711.2	727.7	724.4	734.3	742.5	742.5	742.5
42.5°	554.4	561.0	561.0	569.3	559.4	574.2	574.2	580.8	589.1	587.4	587.4
45°	402.6	401.0	404.3	402.6	402.6	415.8	415.8	419.1	425.7	422.4	424.1
47.5°	267.3	269.0	262.4	267.3	260.7	272.3	272.3	272.3	277.2	273.9	277.2
50°	170.0	165.0	161.7	161.7	160.1	168.3	165.0	166.7	170.0	166.7	170.0
52.5°	95.7	94.1	90.8	92.4	89.1	90.8	90.8	90.8	92.4	90.8	94.1
55°	56.1	51.2	49.5	49.5	47.9	49.5	47.9	47.9	47.9	46.2	47.9
57.5°	33.0	31.4	29.7	29.7	28.1	28.1	28.1	28.1	28.1	28.1	28.1
60°	23.1	21.5	21.5	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
62.5°	18.2	16.5	16.5	16.5	14.9	14.9	14.9	14.9	14.9	16.5	14.9
65°	13.2	13.2	13.2	13.2	13.2	13.2	11.6	13.2	13.2	13.2	13.2
67.5°	11.6	11.6	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
70°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
72.5°	6.6	6.6	6.6	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	5.0	5.0	5.0
77.5°	3.3	3.3	3.3	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	1.7	1.7	1.7	1.7	1.7	1.7	1.7
85°	0.0	1.7	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: P212739

CATALOG NUMBER: LD4B30D010 EU4B30509035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1
2.5°	1285.4	1278.8	1263.9	1273.8	1275.5	1268.9	1277.1	1287.0	1277.1	1268.9	1275.5
5°	1333.2	1328.3	1315.1	1323.3	1325.0	1323.3	1328.3	1336.5	1328.3	1323.3	1325.0
7.5°	1381.1	1377.8	1362.9	1372.8	1376.1	1372.8	1377.8	1386.0	1377.8	1372.8	1376.1
10°	1427.3	1425.6	1410.8	1424.0	1425.6	1422.3	1427.3	1440.5	1427.3	1422.3	1425.6
12.5°	1480.1	1483.4	1466.9	1481.7	1483.4	1480.1	1486.7	1496.6	1486.7	1480.1	1483.4
15°	1541.1	1539.5	1526.3	1537.8	1541.1	1537.8	1546.1	1559.3	1546.1	1537.8	1541.1
17.5°	1570.8	1570.8	1560.9	1572.5	1574.1	1574.1	1580.7	1590.6	1580.7	1574.1	1574.1
20°	1572.5	1574.1	1562.6	1575.8	1575.8	1575.8	1582.4	1587.3	1582.4	1575.8	1575.8
22.5°	1546.1	1547.7	1536.2	1547.7	1547.7	1549.4	1552.7	1556.0	1552.7	1549.4	1547.7
25°	1494.9	1496.6	1486.7	1496.6	1494.9	1494.9	1498.2	1503.2	1498.2	1494.9	1494.9
27.5°	1419.0	1420.7	1407.5	1419.0	1417.4	1415.7	1420.7	1422.3	1420.7	1415.7	1417.4
30°	1318.4	1320.0	1308.5	1318.4	1316.7	1315.1	1321.7	1323.3	1321.7	1315.1	1316.7
32.5°	1197.9	1194.6	1186.4	1194.6	1193.0	1193.0	1196.3	1201.2	1196.3	1193.0	1193.0
35°	1052.7	1052.7	1047.8	1054.4	1049.4	1056.0	1056.0	1057.7	1056.0	1056.0	1049.4
37.5°	904.2	904.2	900.9	904.2	902.6	909.2	909.2	914.1	909.2	909.2	902.6
40°	749.1	749.1	745.8	749.1	754.1	754.1	752.4	759.0	752.4	754.1	754.1
42.5°	592.4	592.4	590.7	599.0	599.0	599.0	594.0	600.6	594.0	599.0	599.0
45°	430.7	427.4	425.7	425.7	427.4	434.0	427.4	435.6	427.4	434.0	427.4
47.5°	273.9	275.6	277.2	282.2	278.9	277.2	277.2	282.2	277.2	277.2	278.9
50°	168.3	170.0	170.0	173.3	168.3	171.6	170.0	173.3	170.0	171.6	168.3
52.5°	92.4	92.4	92.4	95.7	92.4	94.1	92.4	95.7	92.4	94.1	92.4
55°	47.9	47.9	47.9	49.5	47.9	47.9	47.9	49.5	47.9	47.9	47.9
57.5°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
60°	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
62.5°	16.5	14.9	14.9	16.5	16.5	16.5	16.5	16.5	16.5	16.5	16.5
65°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2
67.5°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
70°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
72.5°	6.6	6.6	6.6	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	5.0	5.0	5.0
77.5°	3.3	3.3	3.3	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	1.7	1.7	1.7
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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: P212739

CATALOG NUMBER: LD4B30D010 EU4B30509035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1
2.5°	1273.8	1263.9	1278.8	1285.4	1280.4	1275.5	1280.4	1267.2	1263.9	1270.5	1252.4
5°	1323.3	1315.1	1328.3	1333.2	1328.3	1321.7	1321.7	1308.5	1301.9	1308.5	1287.0
7.5°	1372.8	1362.9	1377.8	1381.1	1372.8	1367.9	1367.9	1351.4	1343.1	1349.7	1323.3
10°	1424.0	1410.8	1425.6	1427.3	1420.7	1412.4	1410.8	1395.9	1384.4	1391.0	1361.3
12.5°	1481.7	1466.9	1483.4	1480.1	1476.8	1466.9	1465.2	1445.4	1433.9	1440.5	1410.8
15°	1537.8	1526.3	1539.5	1541.1	1532.9	1523.0	1516.4	1501.5	1488.3	1494.9	1461.9
17.5°	1572.5	1560.9	1570.8	1570.8	1565.9	1554.3	1551.0	1537.8	1519.7	1527.9	1494.9
20°	1575.8	1562.6	1574.1	1572.5	1567.5	1559.3	1556.0	1539.5	1524.6	1532.9	1499.9
22.5°	1547.7	1536.2	1547.7	1546.1	1539.5	1532.9	1529.6	1514.7	1498.2	1509.8	1476.8
25°	1496.6	1486.7	1496.6	1494.9	1486.7	1485.0	1478.4	1465.2	1450.4	1460.3	1428.9
27.5°	1419.0	1407.5	1420.7	1419.0	1412.4	1407.5	1404.2	1392.6	1374.5	1387.7	1358.0
30°	1318.4	1308.5	1320.0	1318.4	1311.8	1308.5	1305.2	1293.6	1277.1	1283.7	1262.3
32.5°	1194.6	1186.4	1194.6	1197.9	1183.1	1183.1	1183.1	1169.9	1156.7	1163.3	1141.8
35°	1054.4	1047.8	1052.7	1052.7	1046.1	1044.5	1044.5	1032.9	1021.4	1028.0	1006.5
37.5°	904.2	900.9	904.2	904.2	897.6	894.3	896.0	886.1	876.2	881.1	861.3
40°	749.1	745.8	749.1	749.1	742.5	742.5	742.5	734.3	724.4	727.7	711.2
42.5°	599.0	590.7	592.4	592.4	587.4	587.4	589.1	580.8	574.2	574.2	559.4
45°	425.7	425.7	427.4	430.7	424.1	422.4	425.7	419.1	415.8	415.8	402.6
47.5°	282.2	277.2	275.6	273.9	277.2	273.9	277.2	272.3	272.3	272.3	260.7
50°	173.3	170.0	170.0	168.3	170.0	166.7	170.0	166.7	165.0	168.3	160.1
52.5°	95.7	92.4	92.4	92.4	94.1	90.8	92.4	90.8	90.8	90.8	89.1
55°	49.5	47.9	47.9	47.9	47.9	46.2	47.9	47.9	47.9	49.5	47.9
57.5°	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1	28.1
60°	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
62.5°	16.5	14.9	14.9	16.5	14.9	16.5	14.9	14.9	14.9	14.9	14.9
65°	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	11.6	13.2	13.2
67.5°	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9	9.9
70°	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3	8.3
72.5°	6.6	6.6	6.6	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	5.0	5.0	5.0
77.5°	3.3	3.3	3.3	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	1.7	1.7	1.7
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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: P212739

CATALOG NUMBER: LD4B30D010 EU4B30509035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1
2.5°	1268.9	1259.0	1262.3	1259.0	1250.7	1252.4	1247.4	1247.4	1237.5	1235.9	1237.5
5°	1301.9	1290.3	1290.3	1283.7	1272.2	1270.5	1260.6	1260.6	1245.8	1240.8	1240.8
7.5°	1338.2	1326.6	1323.3	1315.1	1300.2	1293.6	1280.4	1275.5	1257.3	1249.1	1247.4
10°	1377.8	1364.6	1358.0	1348.1	1329.9	1318.4	1300.2	1293.6	1272.2	1255.7	1254.0
12.5°	1422.3	1410.8	1402.5	1389.3	1369.5	1353.0	1331.6	1320.0	1292.0	1273.8	1265.6
15°	1475.1	1461.9	1452.0	1435.5	1414.1	1394.3	1366.2	1353.0	1320.0	1295.3	1283.7
17.5°	1508.1	1493.3	1485.0	1465.2	1443.8	1420.7	1389.3	1372.8	1334.9	1303.5	1292.0
20°	1511.4	1499.9	1488.3	1470.2	1448.7	1422.3	1389.3	1372.8	1333.2	1301.9	1285.4
22.5°	1486.7	1476.8	1463.6	1448.7	1425.6	1399.2	1367.9	1353.0	1315.1	1282.1	1263.9
25°	1438.8	1430.6	1417.4	1399.2	1382.7	1354.7	1325.0	1315.1	1275.5	1247.4	1230.9
27.5°	1364.6	1359.6	1346.4	1329.9	1316.7	1293.6	1263.9	1255.7	1221.0	1196.3	1183.1
30°	1267.2	1263.9	1250.7	1235.9	1226.0	1204.5	1178.1	1174.8	1143.5	1125.3	1112.1
32.5°	1146.8	1143.5	1135.2	1120.4	1112.1	1094.0	1069.2	1072.5	1046.1	1031.3	1026.3
35°	1018.1	1008.2	1003.2	990.0	980.1	966.9	945.5	950.4	935.6	924.0	922.4
37.5°	872.9	863.0	859.7	849.8	841.5	830.0	813.5	820.1	813.5	808.5	813.5
40°	721.1	712.8	709.5	699.6	696.3	688.1	676.5	693.0	684.8	694.7	696.3
42.5°	569.3	561.0	561.0	554.4	549.5	547.8	539.6	561.0	561.0	577.5	585.8
45°	402.6	404.3	401.0	402.6	399.3	404.3	399.3	414.2	435.6	457.1	470.3
47.5°	267.3	262.4	269.0	267.3	265.7	272.3	278.9	293.7	318.5	348.2	366.3
50°	161.7	161.7	165.0	170.0	173.3	178.2	188.1	206.3	234.3	264.0	285.5
52.5°	92.4	90.8	94.1	95.7	104.0	110.6	122.1	141.9	170.0	203.0	222.8
55°	49.5	49.5	51.2	56.1	61.1	69.3	80.9	99.0	125.4	158.4	178.2
57.5°	29.7	29.7	31.4	33.0	38.0	44.6	54.5	69.3	92.4	120.5	138.6
60°	19.8	21.5	21.5	23.1	26.4	29.7	38.0	47.9	66.0	87.5	102.3
62.5°	16.5	16.5	16.5	18.2	19.8	21.5	26.4	34.7	46.2	62.7	74.3
65°	13.2	13.2	13.2	13.2	14.9	16.5	19.8	24.8	33.0	42.9	49.5
67.5°	9.9	9.9	11.6	11.6	11.6	13.2	14.9	18.2	23.1	29.7	34.7
70°	8.3	8.3	8.3	8.3	9.9	9.9	11.6	13.2	16.5	21.5	24.8
72.5°	6.6	6.6	6.6	6.6	8.3	8.3	8.3	9.9	11.6	14.9	16.5
75°	5.0	5.0	5.0	5.0	6.6	6.6	6.6	8.3	8.3	9.9	11.6
77.5°	3.3	3.3	3.3	3.3	5.0	5.0	5.0	5.0	6.6	6.6	6.6
80°	1.7	1.7	1.7	3.3	3.3	3.3	3.3	3.3	3.3	5.0	5.0
82.5°	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	3.3	3.3
85°	0.0	0.0	1.7	0.0	1.7	1.7	1.7	1.7	1.7	1.7	1.7
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: P212739

CATALOG NUMBER: LD4B30D010 EU4B30509035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1	1249.1
2.5°	1226.0	1247.4	1222.7	1227.6	1219.4	1234.2	1214.4	1219.4	1222.7	1219.4	1221.0
5°	1227.6	1244.1	1216.1	1221.0	1207.8	1217.7	1199.6	1201.2	1201.2	1197.9	1196.3
7.5°	1232.6	1242.5	1212.8	1211.1	1194.6	1204.5	1183.1	1179.8	1178.1	1173.2	1174.8
10°	1234.2	1237.5	1206.2	1199.6	1179.8	1183.1	1161.6	1155.0	1150.1	1146.8	1145.1
12.5°	1245.8	1242.5	1206.2	1194.6	1169.9	1168.2	1145.1	1135.2	1127.0	1123.7	1122.0
15°	1260.6	1249.1	1209.5	1193.0	1164.9	1158.3	1133.6	1123.7	1112.1	1108.8	1105.5
17.5°	1267.2	1249.1	1206.2	1184.7	1153.4	1145.1	1120.4	1107.2	1095.6	1090.7	1087.4
20°	1259.0	1235.9	1193.0	1169.9	1136.9	1125.3	1100.6	1085.7	1074.2	1069.2	1065.9
22.5°	1240.8	1214.4	1173.2	1150.1	1117.1	1102.2	1080.8	1067.6	1054.4	1052.7	1047.8
25°	1209.5	1183.1	1148.4	1125.3	1095.6	1080.8	1061.0	1049.4	1036.2	1034.6	1032.9
27.5°	1163.3	1138.5	1112.1	1090.7	1064.3	1052.7	1037.9	1026.3	1014.8	1014.8	1011.5
30°	1097.3	1080.8	1057.7	1044.5	1023.0	1011.5	1001.6	993.3	981.8	983.4	980.1
32.5°	1013.1	1004.9	988.4	981.8	965.3	962.0	952.1	945.5	935.6	938.9	935.6
35°	919.1	909.2	909.2	905.9	897.6	896.0	891.0	887.7	881.1	882.8	882.8
37.5°	811.8	811.8	821.7	823.4	821.7	825.0	823.4	823.4	816.8	820.1	818.4
40°	701.3	711.2	729.3	739.2	742.5	749.1	757.4	754.1	750.8	755.7	754.1
42.5°	594.0	613.8	641.9	658.4	669.9	679.8	691.4	691.4	689.7	696.3	694.7
45°	491.7	509.9	547.8	575.9	595.7	610.5	623.7	628.7	630.3	636.9	635.3
47.5°	391.1	422.4	467.0	500.0	524.7	542.9	561.0	567.6	572.6	580.8	580.8
50°	310.2	349.8	401.0	434.0	463.7	483.5	501.6	511.5	518.1	524.7	524.7
52.5°	249.2	290.4	339.9	374.6	402.6	424.1	442.2	453.8	458.7	467.0	467.0
55°	203.0	240.9	287.1	318.5	346.5	366.3	381.2	391.1	396.0	402.6	402.6
57.5°	160.1	196.4	234.3	262.4	285.5	300.3	313.5	316.8	318.5	323.4	325.1
60°	120.5	148.5	179.9	201.3	217.8	227.7	237.6	236.0	234.3	237.6	234.3
62.5°	85.8	105.6	128.7	141.9	155.1	160.1	165.0	161.7	158.4	160.1	160.1
65°	57.8	72.6	85.8	95.7	102.3	105.6	107.3	105.6	104.0	105.6	104.0
67.5°	39.6	47.9	57.8	62.7	67.7	69.3	71.0	69.3	69.3	69.3	67.7
70°	26.4	31.4	38.0	41.3	42.9	44.6	46.2	44.6	44.6	44.6	44.6
72.5°	18.2	21.5	23.1	26.4	28.1	28.1	28.1	28.1	28.1	28.1	28.1
75°	11.6	13.2	14.9	16.5	18.2	18.2	18.2	18.2	18.2	18.2	18.2
77.5°	8.3	8.3	9.9	9.9	11.6	11.6	11.6	11.6	11.6	11.6	11.6
80°	5.0	5.0	6.6	6.6	6.6	6.6	8.3	6.6	8.3	8.3	8.3
82.5°	3.3	3.3	3.3	3.3	5.0	5.0	5.0	5.0	5.0	5.0	5.0
85°	1.7	1.7	1.7	1.7	1.7	1.7	3.3	1.7	3.3	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: P212739

CATALOG NUMBER: LD4B30D010 EU4B30509035 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	345°	350°	355°	360°
0°	1249.1	1249.1	1249.1	1249.1
2.5°	1221.0	1217.7	1207.8	1219.4
5°	1194.6	1191.3	1183.1	1191.3
7.5°	1168.2	1163.3	1156.7	1161.6
10°	1136.9	1133.6	1125.3	1130.3
12.5°	1113.8	1107.2	1102.2	1103.9
15°	1098.9	1092.3	1087.4	1089.0
17.5°	1079.1	1072.5	1067.6	1067.6
20°	1057.7	1051.1	1047.8	1046.1
22.5°	1039.5	1034.6	1032.9	1028.0
25°	1023.0	1019.7	1019.7	1013.1
27.5°	1004.9	999.9	999.9	993.3
30°	973.5	971.9	971.9	966.9
32.5°	932.3	927.3	930.6	922.4
35°	876.2	872.9	877.8	871.2
37.5°	815.1	813.5	816.8	811.8
40°	750.8	750.8	755.7	747.5
42.5°	694.7	694.7	699.6	691.4
45°	633.6	638.6	643.5	636.9
47.5°	580.8	584.1	590.7	584.1
50°	528.0	531.3	536.3	529.7
52.5°	470.3	473.6	478.5	473.6
55°	404.3	407.6	412.5	409.2
57.5°	325.1	321.8	330.0	323.4
60°	236.0	229.4	231.0	231.0
62.5°	156.8	153.5	156.8	151.8
65°	104.0	102.3	102.3	102.3
67.5°	69.3	67.7	69.3	67.7
70°	44.6	44.6	44.6	44.6
72.5°	28.1	28.1	28.1	28.1
75°	18.2	18.2	18.2	18.2
77.5°	11.6	11.6	11.6	11.6
80°	8.3	8.3	8.3	8.3
82.5°	5.0	5.0	5.0	5.0
85°	3.3	3.3	3.3	3.3
87.5°	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°    - · - · 135°-315°

























(END OF REPORT)