

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: P212737

Luminaire Tested: **LD4B30D010 EU4B30509027 4LBSWLI1**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P212737  
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 EU4B30509027 4LBSWLI1  
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2175.6 lumens  
Efficiency: N/A  
Efficacy: 77.7 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

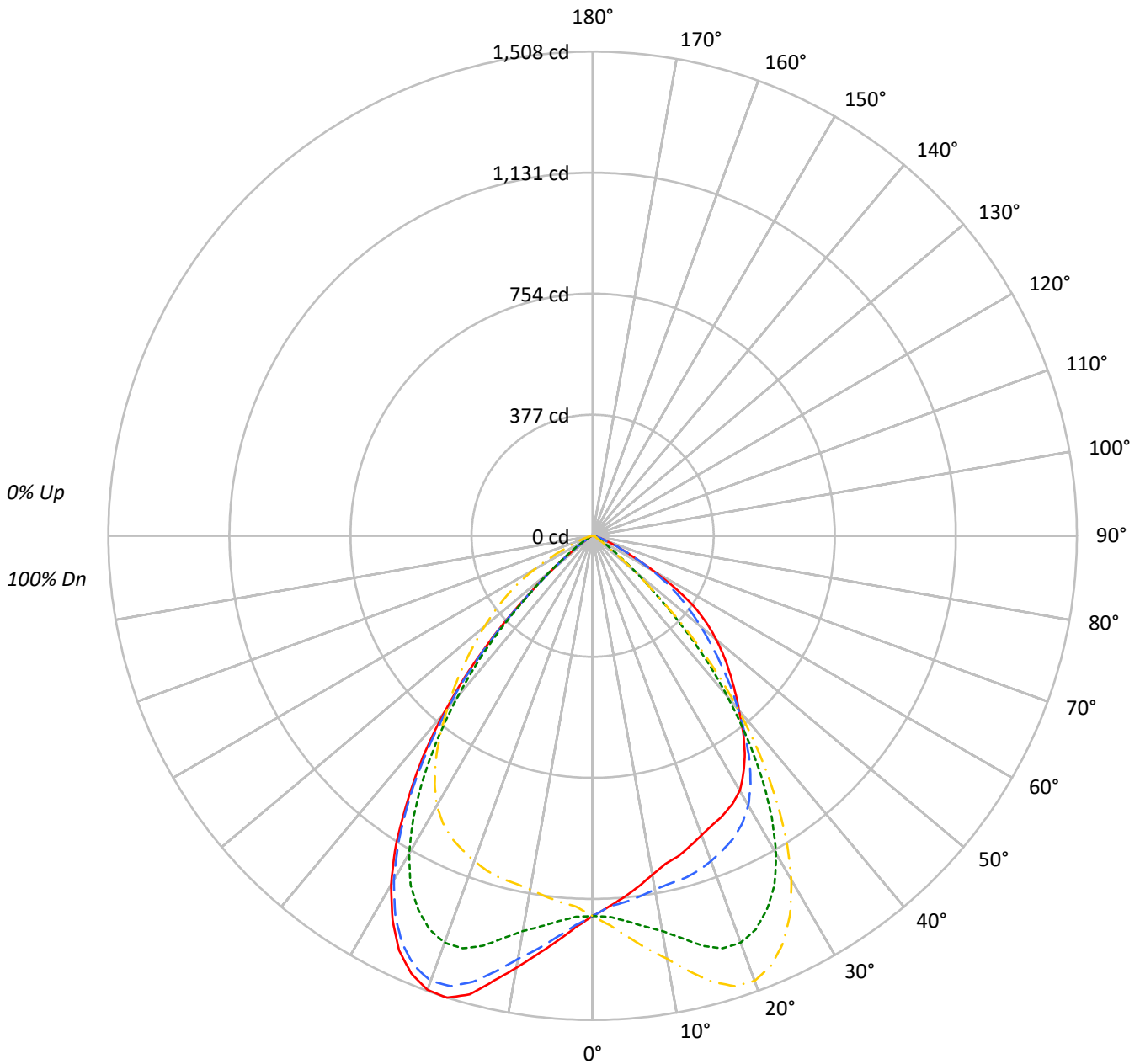
Input Watts (W): 28  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	146091	146091	146091	146091
5°	139863	149162	156913	149162
10°	134229	156573	171077	156573
15°	131860	168828	188800	168828
20°	130198	177019	197562	177019
25°	130735	174816	193979	174816
30°	130577	162666	178718	162666
35°	124392	138049	151014	138049
40°	114112	105047	115883	105047
45°	105343	66862	72043	66862
50°	96368	32430	31528	32430
55°	83438	14129	10086	14129
60°	54025	6957	4638	6957
65°	28310	4553	3648	4553
70°	15219	3390	2813	3390
75°	8197	3002	2240	3002
80°	5540	2202	1137	2202
85°	4387	2264	0	2264



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	115.5	5.3
10°-20°	361.2	16.6
20°-30°	561.6	25.8
30°-40°	567.2	26.1
40°-50°	359.1	16.5
50°-60°	150.7	6.9
60°-70°	47.8	2.2
70°-80°	10.9	0.5
80°-90°	1.6	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°	1038.2	47.7
0°-40°	1605.4	73.8
0°-60°	2115.3	97.2
0°-90°	2175.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2175.6	100.0

**CANDELA DISTRIBUTION:**

	0°	90°	180°	270°	360°	Flux
0°	1184	1184	1184	1184	1184	
5°	1130	1205	1267	1205	1130	106
15°	1033	1322	1478	1322	1033	291
25°	961	1284	1425	1284	961	442
35°	826	917	1003	917	826	513
45°	604	383	413	383	604	466
55°	388	66	47	66	388	335
65°	97	16	12	16	97	107
75°	17	6	5	6	17	21
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°	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4
2.5°	1156.2	1145.3	1154.6	1157.8	1157.8	1156.2	1159.3	1156.2	1151.5	1170.3	1156.2
5°	1129.6	1121.8	1129.6	1132.7	1134.3	1135.9	1139.0	1139.0	1137.4	1154.6	1145.3
7.5°	1101.4	1096.8	1103.0	1107.7	1114.0	1112.4	1117.1	1118.7	1121.8	1142.1	1132.7
10°	1071.7	1067.0	1074.9	1078.0	1085.8	1087.4	1090.5	1095.2	1101.4	1121.8	1118.7
12.5°	1046.7	1045.1	1049.8	1056.1	1063.9	1065.5	1068.6	1076.4	1085.8	1107.7	1109.3
15°	1032.6	1031.0	1035.7	1042.0	1048.3	1051.4	1054.5	1065.5	1074.9	1098.3	1104.6
17.5°	1012.3	1012.3	1017.0	1023.2	1031.0	1034.2	1038.9	1049.8	1062.3	1085.8	1093.6
20°	991.9	993.5	996.6	1002.9	1010.7	1013.8	1018.5	1029.5	1043.6	1067.0	1078.0
22.5°	974.7	979.4	981.0	985.7	993.5	998.2	999.8	1012.3	1024.8	1045.1	1059.2
25°	960.6	966.9	966.9	970.0	979.4	981.0	982.5	995.1	1006.0	1024.8	1038.9
27.5°	941.9	948.1	948.1	952.8	959.1	962.2	962.2	973.2	984.1	998.2	1009.1
30°	916.8	921.5	921.5	923.1	929.3	932.5	930.9	941.9	949.7	959.1	970.0
32.5°	874.6	882.4	879.3	884.0	887.1	890.2	887.1	896.5	902.8	912.1	915.3
35°	826.1	832.3	827.7	830.8	837.0	837.0	835.5	841.7	844.9	849.6	851.1
37.5°	769.8	774.5	771.3	772.9	776.0	777.6	774.5	780.7	780.7	782.3	779.2
40°	708.7	716.6	711.9	711.9	715.0	716.6	711.9	715.0	718.1	710.3	704.1
42.5°	655.5	663.4	658.7	658.7	658.7	660.2	654.0	655.5	655.5	644.6	635.2
45°	603.9	610.2	605.5	600.8	602.4	603.9	597.7	596.1	591.4	578.9	564.8
47.5°	553.9	560.1	553.9	550.7	550.7	550.7	542.9	538.2	531.9	514.7	497.5
50°	502.2	508.5	503.8	500.7	497.5	497.5	491.3	485.0	475.6	458.4	439.6
52.5°	449.0	453.7	449.0	445.9	442.8	442.8	434.9	430.3	419.3	402.1	381.8
55°	388.0	391.1	386.4	383.3	381.8	381.8	375.5	370.8	361.4	347.3	328.6
57.5°	306.7	312.9	305.1	308.2	308.2	306.7	302.0	300.4	297.3	284.7	270.7
60°	219.0	219.0	217.5	223.7	222.2	225.3	222.2	223.7	225.3	215.9	206.5
62.5°	143.9	148.6	145.5	148.6	151.8	151.8	150.2	153.3	156.5	151.8	147.1
65°	97.0	97.0	97.0	98.6	98.6	100.1	98.6	100.1	101.7	100.1	97.0
67.5°	64.1	65.7	64.1	65.7	64.1	65.7	65.7	65.7	67.3	65.7	64.1
70°	42.2	42.2	42.2	42.2	42.2	42.2	42.2	42.2	43.8	42.2	40.7
72.5°	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
75°	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2	17.2
77.5°	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
80°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	6.3	7.8	6.3	6.3
82.5°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
85°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	1.6	3.1	1.6	1.6
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°	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4
2.5°	1164.0	1159.3	1182.8	1162.5	1173.4	1171.9	1173.4	1182.8	1182.8	1187.5	1185.9
5°	1157.8	1153.1	1179.7	1164.0	1176.5	1176.5	1181.2	1195.3	1195.3	1204.7	1206.3
7.5°	1148.4	1150.0	1178.1	1168.7	1182.8	1184.4	1192.2	1209.4	1214.1	1226.6	1232.9
10°	1137.4	1143.7	1173.4	1170.3	1189.1	1190.6	1206.3	1226.6	1232.9	1250.1	1261.0
12.5°	1132.7	1143.7	1178.1	1181.2	1200.0	1207.8	1225.0	1251.6	1262.6	1282.9	1298.6
15°	1131.2	1146.8	1184.4	1195.3	1217.2	1228.2	1251.6	1282.9	1295.5	1322.1	1340.8
17.5°	1123.4	1143.7	1184.4	1201.6	1225.0	1236.0	1265.7	1301.7	1317.4	1347.1	1369.0
20°	1109.3	1131.2	1171.9	1193.8	1218.8	1234.4	1264.2	1301.7	1317.4	1348.6	1373.7
22.5°	1090.5	1112.4	1151.5	1176.5	1198.5	1215.7	1247.0	1282.9	1297.0	1326.7	1351.8
25°	1067.0	1088.9	1121.8	1146.8	1167.2	1182.8	1209.4	1247.0	1256.3	1284.5	1311.1
27.5°	1034.2	1054.5	1079.5	1103.0	1121.8	1134.3	1157.8	1190.6	1198.5	1226.6	1248.5
30°	990.4	1002.9	1024.8	1040.4	1054.5	1067.0	1084.2	1114.0	1117.1	1142.1	1162.5
32.5°	930.9	937.2	952.8	960.6	973.2	977.8	991.9	1017.0	1013.8	1037.3	1054.5
35°	858.9	862.1	862.1	871.5	874.6	876.2	887.1	901.2	896.5	916.8	929.3
37.5°	780.7	779.2	769.8	769.8	771.3	766.6	771.3	777.6	771.3	787.0	797.9
40°	700.9	691.5	674.3	664.9	660.2	658.7	649.3	657.1	641.5	652.4	660.2
42.5°	624.3	608.6	582.0	563.2	555.4	547.6	531.9	531.9	511.6	519.4	521.0
45°	546.0	519.4	483.4	466.2	445.9	433.4	413.0	392.7	378.6	383.3	378.6
47.5°	474.1	442.8	400.5	370.8	347.3	330.1	302.0	278.5	264.4	258.2	251.9
50°	411.5	380.2	331.7	294.1	270.7	250.3	222.2	195.6	178.4	169.0	164.3
52.5°	355.2	322.3	275.4	236.2	211.2	192.4	161.1	134.6	115.8	104.8	98.6
55°	302.0	272.2	228.4	192.4	169.0	150.2	118.9	93.9	76.7	65.7	57.9
57.5°	248.8	222.2	186.2	151.8	131.4	114.2	87.6	65.7	51.6	42.2	36.0
60°	190.9	170.5	140.8	114.2	97.0	82.9	62.6	45.4	36.0	28.2	25.0
62.5°	134.6	122.0	100.1	81.4	70.4	59.5	43.8	32.9	25.0	20.3	18.8
65°	90.7	81.4	68.8	54.8	46.9	40.7	31.3	23.5	18.8	15.6	14.1
67.5°	59.5	54.8	45.4	37.5	32.9	28.2	21.9	17.2	14.1	12.5	11.0
70°	39.1	36.0	29.7	25.0	23.5	20.3	15.6	12.5	11.0	9.4	9.4
72.5°	25.0	21.9	20.3	17.2	15.6	14.1	11.0	9.4	7.8	7.8	7.8
75°	15.6	14.1	12.5	11.0	11.0	9.4	7.8	7.8	6.3	6.3	6.3
77.5°	9.4	9.4	7.8	7.8	6.3	6.3	6.3	4.7	4.7	4.7	4.7
80°	6.3	6.3	4.7	4.7	4.7	4.7	3.1	3.1	3.1	3.1	3.1
82.5°	3.1	3.1	3.1	3.1	3.1	3.1	1.6	1.6	1.6	1.6	1.6
85°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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°	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4
2.5°	1193.8	1196.9	1193.8	1203.1	1187.5	1204.7	1198.5	1201.6	1214.1	1209.4	1214.1
5°	1217.2	1223.5	1223.5	1234.4	1220.4	1240.7	1234.4	1240.7	1253.2	1253.2	1259.5
7.5°	1247.0	1254.8	1257.9	1268.9	1254.8	1279.8	1273.6	1281.4	1297.0	1297.0	1301.7
10°	1278.2	1287.6	1293.9	1306.4	1290.8	1318.9	1312.7	1323.6	1337.7	1339.3	1347.1
12.5°	1317.4	1329.9	1337.7	1348.6	1337.7	1365.9	1359.6	1370.6	1389.3	1390.9	1400.3
15°	1361.2	1376.8	1386.2	1398.7	1386.2	1417.5	1411.2	1423.7	1437.8	1444.1	1453.5
17.5°	1389.3	1408.1	1415.9	1430.0	1417.5	1448.8	1441.0	1458.2	1470.7	1473.8	1484.8
20°	1394.0	1411.2	1422.2	1433.1	1422.2	1453.5	1445.7	1459.7	1475.4	1478.5	1486.3
22.5°	1373.7	1387.8	1400.3	1409.7	1400.3	1431.6	1420.6	1436.3	1450.3	1453.5	1459.7
25°	1326.7	1344.0	1356.5	1364.3	1354.9	1384.6	1375.2	1389.3	1401.8	1408.1	1409.7
27.5°	1261.0	1276.7	1289.2	1293.9	1287.6	1315.8	1303.3	1320.5	1331.4	1334.6	1339.3
30°	1171.9	1185.9	1198.5	1201.6	1196.9	1217.2	1211.0	1226.6	1237.6	1240.7	1243.8
32.5°	1062.3	1076.4	1084.2	1087.4	1082.7	1103.0	1096.8	1109.3	1121.8	1121.8	1121.8
35°	938.7	951.3	955.9	965.3	954.4	974.7	968.5	979.4	990.4	990.4	991.9
37.5°	805.7	815.1	818.3	827.7	816.7	835.5	830.8	840.2	849.6	848.0	851.1
40°	663.4	672.8	675.9	683.7	674.3	690.0	686.8	696.2	704.1	704.1	704.1
42.5°	525.7	531.9	531.9	539.8	530.4	544.5	544.5	550.7	558.5	557.0	557.0
45°	381.8	380.2	383.3	381.8	381.8	394.3	394.3	397.4	403.7	400.5	402.1
47.5°	253.5	255.0	248.8	253.5	247.2	258.2	258.2	258.2	262.8	259.7	262.8
50°	161.1	156.5	153.3	153.3	151.8	159.6	156.5	158.0	161.1	158.0	161.1
52.5°	90.7	89.2	86.1	87.6	84.5	86.1	86.1	86.1	87.6	86.1	89.2
55°	53.2	48.5	46.9	46.9	45.4	46.9	45.4	45.4	45.4	43.8	45.4
57.5°	31.3	29.7	28.2	28.2	26.6	26.6	26.6	26.6	26.6	26.6	26.6
60°	21.9	20.3	20.3	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
62.5°	17.2	15.6	15.6	15.6	14.1	14.1	14.1	14.1	14.1	15.6	14.1
65°	12.5	12.5	12.5	12.5	12.5	12.5	11.0	12.5	12.5	12.5	12.5
67.5°	11.0	11.0	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
70°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
72.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
75°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	3.1	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
85°	0.0	1.6	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: P212737

CATALOG NUMBER: LD4B30D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4
2.5°	1218.8	1212.5	1198.5	1207.8	1209.4	1203.1	1211.0	1220.4	1211.0	1203.1	1209.4
5°	1264.2	1259.5	1247.0	1254.8	1256.3	1254.8	1259.5	1267.3	1259.5	1254.8	1256.3
7.5°	1309.5	1306.4	1292.3	1301.7	1304.8	1301.7	1306.4	1314.2	1306.4	1301.7	1304.8
10°	1353.3	1351.8	1337.7	1350.2	1351.8	1348.6	1353.3	1365.9	1353.3	1348.6	1351.8
12.5°	1403.4	1406.5	1390.9	1405.0	1406.5	1403.4	1409.7	1419.1	1409.7	1403.4	1406.5
15°	1461.3	1459.7	1447.2	1458.2	1461.3	1458.2	1466.0	1478.5	1466.0	1458.2	1461.3
17.5°	1489.5	1489.5	1480.1	1491.0	1492.6	1492.6	1498.8	1508.2	1498.8	1492.6	1492.6
20°	1491.0	1492.6	1481.6	1494.2	1494.2	1494.2	1500.4	1505.1	1500.4	1494.2	1494.2
22.5°	1466.0	1467.6	1456.6	1467.6	1467.6	1469.1	1472.2	1475.4	1472.2	1469.1	1467.6
25°	1417.5	1419.1	1409.7	1419.1	1417.5	1417.5	1420.6	1425.3	1420.6	1417.5	1417.5
27.5°	1345.5	1347.1	1334.6	1345.5	1344.0	1342.4	1347.1	1348.6	1347.1	1342.4	1344.0
30°	1250.1	1251.6	1240.7	1250.1	1248.5	1247.0	1253.2	1254.8	1253.2	1247.0	1248.5
32.5°	1135.9	1132.7	1124.9	1132.7	1131.2	1131.2	1134.3	1139.0	1134.3	1131.2	1131.2
35°	998.2	998.2	993.5	999.8	995.1	1001.3	1001.3	1002.9	1001.3	1001.3	995.1
37.5°	857.4	857.4	854.2	857.4	855.8	862.1	862.1	866.8	862.1	862.1	855.8
40°	710.3	710.3	707.2	710.3	715.0	715.0	713.4	719.7	713.4	715.0	715.0
42.5°	561.7	561.7	560.1	567.9	567.9	567.9	563.2	569.5	563.2	567.9	567.9
45°	408.3	405.2	403.7	403.7	405.2	411.5	405.2	413.0	405.2	411.5	405.2
47.5°	259.7	261.3	262.8	267.5	264.4	262.8	262.8	267.5	262.8	262.8	264.4
50°	159.6	161.1	161.1	164.3	159.6	162.7	161.1	164.3	161.1	162.7	159.6
52.5°	87.6	87.6	87.6	90.7	87.6	89.2	87.6	90.7	87.6	89.2	87.6
55°	45.4	45.4	45.4	46.9	45.4	45.4	45.4	46.9	45.4	45.4	45.4
57.5°	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
60°	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
62.5°	15.6	14.1	14.1	15.6	15.6	15.6	15.6	15.6	15.6	15.6	15.6
65°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5
67.5°	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
70°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
72.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
75°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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: P212737

CATALOG NUMBER: LD4B30D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4
2.5°	1207.8	1198.5	1212.5	1218.8	1214.1	1209.4	1214.1	1201.6	1198.5	1204.7	1187.5
5°	1254.8	1247.0	1259.5	1264.2	1259.5	1253.2	1253.2	1240.7	1234.4	1240.7	1220.4
7.5°	1301.7	1292.3	1306.4	1309.5	1301.7	1297.0	1297.0	1281.4	1273.6	1279.8	1254.8
10°	1350.2	1337.7	1351.8	1353.3	1347.1	1339.3	1337.7	1323.6	1312.7	1318.9	1290.8
12.5°	1405.0	1390.9	1406.5	1403.4	1400.3	1390.9	1389.3	1370.6	1359.6	1365.9	1337.7
15°	1458.2	1447.2	1459.7	1461.3	1453.5	1444.1	1437.8	1423.7	1411.2	1417.5	1386.2
17.5°	1491.0	1480.1	1489.5	1489.5	1484.8	1473.8	1470.7	1458.2	1441.0	1448.8	1417.5
20°	1494.2	1481.6	1492.6	1491.0	1486.3	1478.5	1475.4	1459.7	1445.7	1453.5	1422.2
22.5°	1467.6	1456.6	1467.6	1466.0	1459.7	1453.5	1450.3	1436.3	1420.6	1431.6	1400.3
25°	1419.1	1409.7	1419.1	1417.5	1409.7	1408.1	1401.8	1389.3	1375.2	1384.6	1354.9
27.5°	1345.5	1334.6	1347.1	1345.5	1339.3	1334.6	1331.4	1320.5	1303.3	1315.8	1287.6
30°	1250.1	1240.7	1251.6	1250.1	1243.8	1240.7	1237.6	1226.6	1211.0	1217.2	1196.9
32.5°	1132.7	1124.9	1132.7	1135.9	1121.8	1121.8	1121.8	1109.3	1096.8	1103.0	1082.7
35°	999.8	993.5	998.2	998.2	991.9	990.4	990.4	979.4	968.5	974.7	954.4
37.5°	857.4	854.2	857.4	857.4	851.1	848.0	849.6	840.2	830.8	835.5	816.7
40°	710.3	707.2	710.3	710.3	704.1	704.1	704.1	696.2	686.8	690.0	674.3
42.5°	567.9	560.1	561.7	561.7	557.0	557.0	558.5	550.7	544.5	544.5	530.4
45°	403.7	403.7	405.2	408.3	402.1	400.5	403.7	397.4	394.3	394.3	381.8
47.5°	267.5	262.8	261.3	259.7	262.8	259.7	262.8	258.2	258.2	258.2	247.2
50°	164.3	161.1	161.1	159.6	161.1	158.0	161.1	158.0	156.5	159.6	151.8
52.5°	90.7	87.6	87.6	87.6	89.2	86.1	87.6	86.1	86.1	86.1	84.5
55°	46.9	45.4	45.4	45.4	45.4	43.8	45.4	45.4	45.4	46.9	45.4
57.5°	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6	26.6
60°	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8	18.8
62.5°	15.6	14.1	14.1	15.6	14.1	15.6	14.1	14.1	14.1	14.1	14.1
65°	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	11.0	12.5	12.5
67.5°	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4	9.4
70°	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8	7.8
72.5°	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
75°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
77.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
80°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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: P212737

CATALOG NUMBER: LD4B30D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4
2.5°	1203.1	1193.8	1196.9	1193.8	1185.9	1187.5	1182.8	1182.8	1173.4	1171.9	1173.4
5°	1234.4	1223.5	1223.5	1217.2	1206.3	1204.7	1195.3	1195.3	1181.2	1176.5	1176.5
7.5°	1268.9	1257.9	1254.8	1247.0	1232.9	1226.6	1214.1	1209.4	1192.2	1184.4	1182.8
10°	1306.4	1293.9	1287.6	1278.2	1261.0	1250.1	1232.9	1226.6	1206.3	1190.6	1189.1
12.5°	1348.6	1337.7	1329.9	1317.4	1298.6	1282.9	1262.6	1251.6	1225.0	1207.8	1200.0
15°	1398.7	1386.2	1376.8	1361.2	1340.8	1322.1	1295.5	1282.9	1251.6	1228.2	1217.2
17.5°	1430.0	1415.9	1408.1	1389.3	1369.0	1347.1	1317.4	1301.7	1265.7	1236.0	1225.0
20°	1433.1	1422.2	1411.2	1394.0	1373.7	1348.6	1317.4	1301.7	1264.2	1234.4	1218.8
22.5°	1409.7	1400.3	1387.8	1373.7	1351.8	1326.7	1297.0	1282.9	1247.0	1215.7	1198.5
25°	1364.3	1356.5	1344.0	1326.7	1311.1	1284.5	1256.3	1247.0	1209.4	1182.8	1167.2
27.5°	1293.9	1289.2	1276.7	1261.0	1248.5	1226.6	1198.5	1190.6	1157.8	1134.3	1121.8
30°	1201.6	1198.5	1185.9	1171.9	1162.5	1142.1	1117.1	1114.0	1084.2	1067.0	1054.5
32.5°	1087.4	1084.2	1076.4	1062.3	1054.5	1037.3	1013.8	1017.0	991.9	977.8	973.2
35°	965.3	955.9	951.3	938.7	929.3	916.8	896.5	901.2	887.1	876.2	874.6
37.5°	827.7	818.3	815.1	805.7	797.9	787.0	771.3	777.6	771.3	766.6	771.3
40°	683.7	675.9	672.8	663.4	660.2	652.4	641.5	657.1	649.3	658.7	660.2
42.5°	539.8	531.9	531.9	525.7	521.0	519.4	511.6	531.9	531.9	547.6	555.4
45°	381.8	383.3	380.2	381.8	378.6	383.3	378.6	392.7	413.0	433.4	445.9
47.5°	253.5	248.8	255.0	253.5	251.9	258.2	264.4	278.5	302.0	330.1	347.3
50°	153.3	153.3	156.5	161.1	164.3	169.0	178.4	195.6	222.2	250.3	270.7
52.5°	87.6	86.1	89.2	90.7	98.6	104.8	115.8	134.6	161.1	192.4	211.2
55°	46.9	46.9	48.5	53.2	57.9	65.7	76.7	93.9	118.9	150.2	169.0
57.5°	28.2	28.2	29.7	31.3	36.0	42.2	51.6	65.7	87.6	114.2	131.4
60°	18.8	20.3	20.3	21.9	25.0	28.2	36.0	45.4	62.6	82.9	97.0
62.5°	15.6	15.6	15.6	17.2	18.8	20.3	25.0	32.9	43.8	59.5	70.4
65°	12.5	12.5	12.5	12.5	14.1	15.6	18.8	23.5	31.3	40.7	46.9
67.5°	9.4	9.4	11.0	11.0	11.0	12.5	14.1	17.2	21.9	28.2	32.9
70°	7.8	7.8	7.8	7.8	9.4	9.4	11.0	12.5	15.6	20.3	23.5
72.5°	6.3	6.3	6.3	6.3	7.8	7.8	7.8	9.4	11.0	14.1	15.6
75°	4.7	4.7	4.7	4.7	6.3	6.3	6.3	7.8	7.8	9.4	11.0
77.5°	3.1	3.1	3.1	3.1	4.7	4.7	4.7	4.7	6.3	6.3	6.3
80°	1.6	1.6	1.6	3.1	3.1	3.1	3.1	3.1	3.1	4.7	4.7
82.5°	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6	3.1	3.1
85°	0.0	0.0	1.6	0.0	1.6	1.6	1.6	1.6	1.6	1.6	1.6
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: P212737

CATALOG NUMBER: LD4B30D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4	1184.4
2.5°	1162.5	1182.8	1159.3	1164.0	1156.2	1170.3	1151.5	1156.2	1159.3	1156.2	1157.8
5°	1164.0	1179.7	1153.1	1157.8	1145.3	1154.6	1137.4	1139.0	1139.0	1135.9	1134.3
7.5°	1168.7	1178.1	1150.0	1148.4	1132.7	1142.1	1121.8	1118.7	1117.1	1112.4	1114.0
10°	1170.3	1173.4	1143.7	1137.4	1118.7	1121.8	1101.4	1095.2	1090.5	1087.4	1085.8
12.5°	1181.2	1178.1	1143.7	1132.7	1109.3	1107.7	1085.8	1076.4	1068.6	1065.5	1063.9
15°	1195.3	1184.4	1146.8	1131.2	1104.6	1098.3	1074.9	1065.5	1054.5	1051.4	1048.3
17.5°	1201.6	1184.4	1143.7	1123.4	1093.6	1085.8	1062.3	1049.8	1038.9	1034.2	1031.0
20°	1193.8	1171.9	1131.2	1109.3	1078.0	1067.0	1043.6	1029.5	1018.5	1013.8	1010.7
22.5°	1176.5	1151.5	1112.4	1090.5	1059.2	1045.1	1024.8	1012.3	999.8	998.2	993.5
25°	1146.8	1121.8	1088.9	1067.0	1038.9	1024.8	1006.0	995.1	982.5	981.0	979.4
27.5°	1103.0	1079.5	1054.5	1034.2	1009.1	998.2	984.1	973.2	962.2	962.2	959.1
30°	1040.4	1024.8	1002.9	990.4	970.0	959.1	949.7	941.9	930.9	932.5	929.3
32.5°	960.6	952.8	937.2	930.9	915.3	912.1	902.8	896.5	887.1	890.2	887.1
35°	871.5	862.1	862.1	858.9	851.1	849.6	844.9	841.7	835.5	837.0	837.0
37.5°	769.8	769.8	779.2	780.7	779.2	782.3	780.7	780.7	774.5	777.6	776.0
40°	664.9	674.3	691.5	700.9	704.1	710.3	718.1	715.0	711.9	716.6	715.0
42.5°	563.2	582.0	608.6	624.3	635.2	644.6	655.5	655.5	654.0	660.2	658.7
45°	466.2	483.4	519.4	546.0	564.8	578.9	591.4	596.1	597.7	603.9	602.4
47.5°	370.8	400.5	442.8	474.1	497.5	514.7	531.9	538.2	542.9	550.7	550.7
50°	294.1	331.7	380.2	411.5	439.6	458.4	475.6	485.0	491.3	497.5	497.5
52.5°	236.2	275.4	322.3	355.2	381.8	402.1	419.3	430.3	434.9	442.8	442.8
55°	192.4	228.4	272.2	302.0	328.6	347.3	361.4	370.8	375.5	381.8	381.8
57.5°	151.8	186.2	222.2	248.8	270.7	284.7	297.3	300.4	302.0	306.7	308.2
60°	114.2	140.8	170.5	190.9	206.5	215.9	225.3	223.7	222.2	225.3	222.2
62.5°	81.4	100.1	122.0	134.6	147.1	151.8	156.5	153.3	150.2	151.8	151.8
65°	54.8	68.8	81.4	90.7	97.0	100.1	101.7	100.1	98.6	100.1	98.6
67.5°	37.5	45.4	54.8	59.5	64.1	65.7	67.3	65.7	65.7	65.7	64.1
70°	25.0	29.7	36.0	39.1	40.7	42.2	43.8	42.2	42.2	42.2	42.2
72.5°	17.2	20.3	21.9	25.0	26.6	26.6	26.6	26.6	26.6	26.6	26.6
75°	11.0	12.5	14.1	15.6	17.2	17.2	17.2	17.2	17.2	17.2	17.2
77.5°	7.8	7.8	9.4	9.4	11.0	11.0	11.0	11.0	11.0	11.0	11.0
80°	4.7	4.7	6.3	6.3	6.3	6.3	7.8	6.3	7.8	7.8	7.8
82.5°	3.1	3.1	3.1	3.1	4.7	4.7	4.7	4.7	4.7	4.7	4.7
85°	1.6	1.6	1.6	1.6	1.6	1.6	3.1	1.6	3.1	3.1	3.1
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: P212737

CATALOG NUMBER: LD4B30D010 EU4B30509027 4LBSWLI1

**CANDELA DISTRIBUTION (continued):**

	345°	350°	355°	360°
0°	1184.4	1184.4	1184.4	1184.4
2.5°	1157.8	1154.6	1145.3	1156.2
5°	1132.7	1129.6	1121.8	1129.6
7.5°	1107.7	1103.0	1096.8	1101.4
10°	1078.0	1074.9	1067.0	1071.7
12.5°	1056.1	1049.8	1045.1	1046.7
15°	1042.0	1035.7	1031.0	1032.6
17.5°	1023.2	1017.0	1012.3	1012.3
20°	1002.9	996.6	993.5	991.9
22.5°	985.7	981.0	979.4	974.7
25°	970.0	966.9	966.9	960.6
27.5°	952.8	948.1	948.1	941.9
30°	923.1	921.5	921.5	916.8
32.5°	884.0	879.3	882.4	874.6
35°	830.8	827.7	832.3	826.1
37.5°	772.9	771.3	774.5	769.8
40°	711.9	711.9	716.6	708.7
42.5°	658.7	658.7	663.4	655.5
45°	600.8	605.5	610.2	603.9
47.5°	550.7	553.9	560.1	553.9
50°	500.7	503.8	508.5	502.2
52.5°	445.9	449.0	453.7	449.0
55°	383.3	386.4	391.1	388.0
57.5°	308.2	305.1	312.9	306.7
60°	223.7	217.5	219.0	219.0
62.5°	148.6	145.5	148.6	143.9
65°	98.6	97.0	97.0	97.0
67.5°	65.7	64.1	65.7	64.1
70°	42.2	42.2	42.2	42.2
72.5°	26.6	26.6	26.6	26.6
75°	17.2	17.2	17.2	17.2
77.5°	11.0	11.0	11.0	11.0
80°	7.8	7.8	7.8	7.8
82.5°	4.7	4.7	4.7	4.7
85°	3.1	3.1	3.1	3.1
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)