

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: P212741

Luminaire Tested: **LD4B30D010 EU4B30509050 4LBSWLI1**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P212741
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 EU4B30509050 4LBSWLI1
Description: PORTFOLIO 4 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2308.3 lumens
Efficiency: N/A
Efficacy: 82.4 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

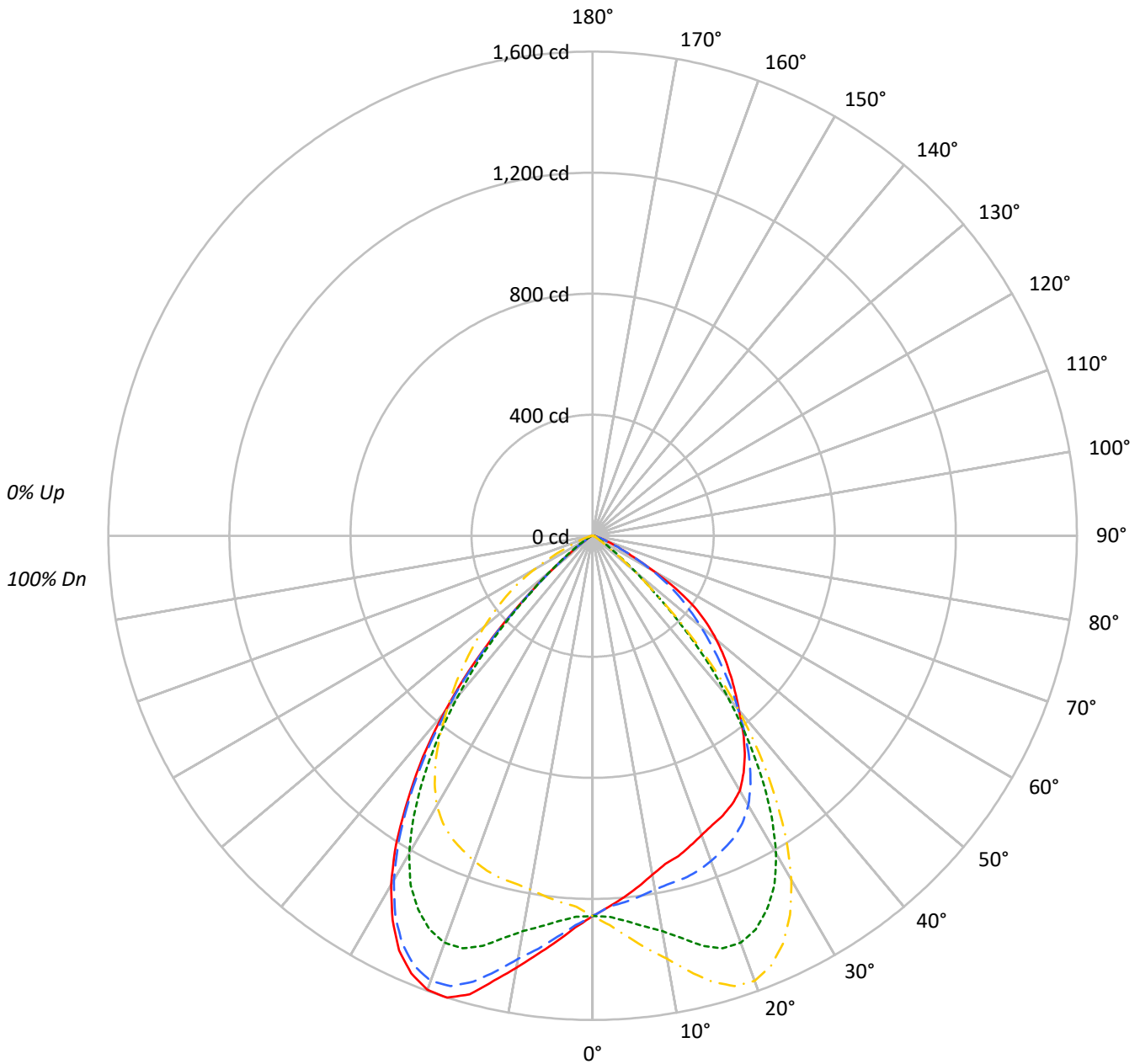
Input Watts (W): 28
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	154996	154996	154996	154996
5°	148394	158263	166484	158263
10°	142420	166130	181510	166130
15°	139905	179120	200318	179120
20°	138153	187822	209612	187822
25°	138724	185486	205819	185486
30°	138553	172593	189613	172593
35°	131981	146482	160229	146482
40°	121084	111455	122952	111455
45°	111779	70944	76438	70944
50°	102259	34406	33447	34406
55°	88535	14989	10709	14989
60°	57331	7376	4909	7376
65°	30032	4845	3882	4845
70°	16157	3606	2993	3606
75°	8721	3145	2383	3145
80°	5896	2344	1208	2344
85°	4670	2406	0	2406



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.5	5.3
10°-20°	383.2	16.6
20°-30°	595.8	25.8
30°-40°	601.8	26.1
40°-50°	381.0	16.5
50°-60°	159.9	6.9
60°-70°	50.7	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°	1101.6	47.7
0°-40°	1703.4	73.8
0°-60°	2244.4	97.2
0°-90°	2308.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2308.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1257	1257	1257	1257	1257	
5°	1198	1278	1345	1278	1198	113
15°	1096	1403	1569	1403	1096	309
25°	1019	1363	1512	1363	1019	469
35°	876	973	1064	973	876	544
45°	641	407	438	407	641	495
55°	412	70	50	70	412	355
65°	103	17	13	17	103	114
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°	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6
2.5°	1226.8	1215.1	1225.1	1228.4	1228.4	1226.8	1230.1	1226.8	1221.8	1241.7	1226.8
5°	1198.5	1190.2	1198.5	1201.9	1203.5	1205.2	1208.5	1208.5	1206.8	1225.1	1215.1
7.5°	1168.7	1163.7	1170.3	1175.3	1181.9	1180.3	1185.3	1186.9	1190.2	1211.8	1201.9
10°	1137.1	1132.1	1140.4	1143.8	1152.1	1153.7	1157.0	1162.0	1168.7	1190.2	1186.9
12.5°	1110.6	1108.9	1113.9	1120.5	1128.8	1130.5	1133.8	1142.1	1152.1	1175.3	1177.0
15°	1095.6	1094.0	1098.9	1105.6	1112.2	1115.5	1118.9	1130.5	1140.4	1165.3	1172.0
17.5°	1074.0	1074.0	1079.0	1085.7	1094.0	1097.3	1102.3	1113.9	1127.2	1152.1	1160.4
20°	1052.5	1054.1	1057.4	1064.1	1072.4	1075.7	1080.7	1092.3	1107.2	1132.1	1143.8
22.5°	1034.2	1039.2	1040.8	1045.8	1054.1	1059.1	1060.8	1074.0	1087.3	1108.9	1123.8
25°	1019.3	1025.9	1025.9	1029.2	1039.2	1040.8	1042.5	1055.8	1067.4	1087.3	1102.3
27.5°	999.3	1006.0	1006.0	1011.0	1017.6	1020.9	1020.9	1032.5	1044.2	1059.1	1070.7
30°	972.8	977.8	977.8	979.4	986.1	989.4	987.7	999.3	1007.6	1017.6	1029.2
32.5°	928.0	936.3	932.9	937.9	941.2	944.6	941.2	951.2	957.8	967.8	971.1
35°	876.5	883.1	878.2	881.5	888.1	888.1	886.5	893.1	896.4	901.4	903.1
37.5°	816.7	821.7	818.4	820.0	823.4	825.0	821.7	828.3	828.3	830.0	826.7
40°	752.0	760.3	755.3	755.3	758.6	760.3	755.3	758.6	761.9	753.6	747.0
42.5°	695.5	703.8	698.9	698.9	698.9	700.5	693.9	695.5	695.5	683.9	674.0
45°	640.8	647.4	642.4	637.4	639.1	640.8	634.1	632.5	627.5	614.2	599.3
47.5°	587.6	594.3	587.6	584.3	584.3	584.3	576.0	571.0	564.4	546.1	527.9
50°	532.9	539.5	534.5	531.2	527.9	527.9	521.2	514.6	504.6	486.4	466.5
52.5°	476.4	481.4	476.4	473.1	469.8	469.8	461.5	456.5	444.9	426.6	405.0
55°	411.7	415.0	410.0	406.7	405.0	405.0	398.4	393.4	383.5	368.5	348.6
57.5°	325.4	332.0	323.7	327.0	327.0	325.4	320.4	318.7	315.4	302.1	287.2
60°	232.4	232.4	230.7	237.4	235.7	239.0	235.7	237.4	239.0	229.1	219.1
62.5°	152.7	157.7	154.4	157.7	161.0	161.0	159.4	162.7	166.0	161.0	156.0
65°	102.9	102.9	102.9	104.6	104.6	106.2	104.6	106.2	107.9	106.2	102.9
67.5°	68.1	69.7	68.1	69.7	68.1	69.7	69.7	69.7	71.4	69.7	68.1
70°	44.8	44.8	44.8	44.8	44.8	44.8	44.8	44.8	46.5	44.8	43.2
72.5°	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2
75°	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
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°	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6
2.5°	1235.1	1230.1	1255.0	1233.4	1245.0	1243.4	1245.0	1255.0	1255.0	1260.0	1258.3
5°	1228.4	1223.4	1251.7	1235.1	1248.3	1248.3	1253.3	1268.3	1268.3	1278.2	1279.9
7.5°	1218.5	1220.1	1250.0	1240.0	1255.0	1256.6	1264.9	1283.2	1288.2	1301.5	1308.1
10°	1206.8	1213.5	1245.0	1241.7	1261.6	1263.3	1279.9	1301.5	1308.1	1326.4	1338.0
12.5°	1201.9	1213.5	1250.0	1253.3	1273.2	1281.5	1299.8	1328.0	1339.6	1361.2	1377.8
15°	1200.2	1216.8	1256.6	1268.3	1291.5	1303.1	1328.0	1361.2	1374.5	1402.7	1422.6
17.5°	1191.9	1213.5	1256.6	1274.9	1299.8	1311.4	1343.0	1381.1	1397.7	1429.3	1452.5
20°	1177.0	1200.2	1243.4	1266.6	1293.2	1309.8	1341.3	1381.1	1397.7	1430.9	1457.5
22.5°	1157.0	1180.3	1221.8	1248.3	1271.6	1289.8	1323.0	1361.2	1376.2	1407.7	1434.3
25°	1132.1	1155.4	1190.2	1216.8	1238.4	1255.0	1283.2	1323.0	1333.0	1362.9	1391.1
27.5°	1097.3	1118.9	1145.4	1170.3	1190.2	1203.5	1228.4	1263.3	1271.6	1301.5	1324.7
30°	1050.8	1064.1	1087.3	1103.9	1118.9	1132.1	1150.4	1181.9	1185.3	1211.8	1233.4
32.5°	987.7	994.4	1011.0	1019.3	1032.5	1037.5	1052.5	1079.0	1075.7	1100.6	1118.9
35°	911.4	914.7	914.7	924.6	928.0	929.6	941.2	956.2	951.2	972.8	986.1
37.5°	828.3	826.7	816.7	816.7	818.4	813.4	818.4	825.0	818.4	835.0	846.6
40°	743.7	733.7	715.5	705.5	700.5	698.9	688.9	697.2	680.6	692.2	700.5
42.5°	662.3	645.7	617.5	597.6	589.3	581.0	564.4	564.4	542.8	551.1	552.8
45°	579.3	551.1	512.9	494.7	473.1	459.8	438.2	416.7	401.7	406.7	401.7
47.5°	503.0	469.8	425.0	393.4	368.5	350.3	320.4	295.5	280.5	273.9	267.3
50°	436.6	403.4	351.9	312.1	287.2	265.6	235.7	207.5	189.2	179.3	174.3
52.5°	376.8	342.0	292.2	250.7	224.1	204.2	171.0	142.8	122.8	111.2	104.6
55°	320.4	288.8	242.4	204.2	179.3	159.4	126.2	99.6	81.3	69.7	61.4
57.5°	263.9	235.7	197.5	161.0	139.4	121.2	93.0	69.7	54.8	44.8	38.2
60°	202.5	180.9	149.4	121.2	102.9	88.0	66.4	48.1	38.2	29.9	26.6
62.5°	142.8	129.5	106.2	86.3	74.7	63.1	46.5	34.9	26.6	21.6	19.9
65°	96.3	86.3	73.0	58.1	49.8	43.2	33.2	24.9	19.9	16.6	14.9
67.5°	63.1	58.1	48.1	39.8	34.9	29.9	23.2	18.3	14.9	13.3	11.6
70°	41.5	38.2	31.5	26.6	24.9	21.6	16.6	13.3	11.6	10.0	10.0
72.5°	26.6	23.2	21.6	18.3	16.6	14.9	11.6	10.0	8.3	8.3	8.3
75°	16.6	14.9	13.3	11.6	11.6	10.0	8.3	8.3	6.6	6.6	6.6
77.5°	10.0	10.0	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°	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6
2.5°	1266.6	1269.9	1266.6	1276.6	1260.0	1278.2	1271.6	1274.9	1288.2	1283.2	1288.2
5°	1291.5	1298.1	1298.1	1309.8	1294.8	1316.4	1309.8	1316.4	1329.7	1329.7	1336.3
7.5°	1323.0	1331.3	1334.7	1346.3	1331.3	1357.9	1351.3	1359.6	1376.2	1376.2	1381.1
10°	1356.2	1366.2	1372.8	1386.1	1369.5	1399.4	1392.8	1404.4	1419.3	1421.0	1429.3
12.5°	1397.7	1411.0	1419.3	1430.9	1419.3	1449.2	1442.6	1454.2	1474.1	1475.8	1485.7
15°	1444.2	1460.8	1470.8	1484.1	1470.8	1504.0	1497.3	1510.6	1525.6	1532.2	1542.2
17.5°	1474.1	1494.0	1502.3	1517.3	1504.0	1537.2	1528.9	1547.1	1560.4	1563.7	1575.4
20°	1479.1	1497.3	1509.0	1520.6	1509.0	1542.2	1533.9	1548.8	1565.4	1568.7	1577.0
22.5°	1457.5	1472.4	1485.7	1495.7	1485.7	1518.9	1507.3	1523.9	1538.8	1542.2	1548.8
25°	1407.7	1426.0	1439.2	1447.5	1437.6	1469.1	1459.2	1474.1	1487.4	1494.0	1495.7
27.5°	1338.0	1354.6	1367.9	1372.8	1366.2	1396.1	1382.8	1401.1	1412.7	1416.0	1421.0
30°	1243.4	1258.3	1271.6	1274.9	1269.9	1291.5	1284.9	1301.5	1313.1	1316.4	1319.7
32.5°	1127.2	1142.1	1150.4	1153.7	1148.7	1170.3	1163.7	1177.0	1190.2	1190.2	1190.2
35°	996.0	1009.3	1014.3	1024.2	1012.6	1034.2	1027.6	1039.2	1050.8	1050.8	1052.5
37.5°	854.9	864.9	868.2	878.2	866.5	886.5	881.5	891.4	901.4	899.7	903.1
40°	703.8	713.8	717.1	725.4	715.5	732.1	728.7	738.7	747.0	747.0	747.0
42.5°	557.8	564.4	564.4	572.7	562.7	577.7	577.7	584.3	592.6	591.0	591.0
45°	405.0	403.4	406.7	405.0	405.0	418.3	418.3	421.6	428.3	425.0	426.6
47.5°	268.9	270.6	263.9	268.9	262.3	273.9	273.9	273.9	278.9	275.6	278.9
50°	171.0	166.0	162.7	162.7	161.0	169.3	166.0	167.7	171.0	167.7	171.0
52.5°	96.3	94.6	91.3	93.0	89.6	91.3	91.3	91.3	93.0	91.3	94.6
55°	56.4	51.5	49.8	49.8	48.1	49.8	48.1	48.1	48.1	46.5	48.1
57.5°	33.2	31.5	29.9	29.9	28.2	28.2	28.2	28.2	28.2	28.2	28.2
60°	23.2	21.6	21.6	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
62.5°	18.3	16.6	16.6	16.6	14.9	14.9	14.9	14.9	14.9	16.6	14.9
65°	13.3	13.3	13.3	13.3	13.3	13.3	11.6	13.3	13.3	13.3	13.3
67.5°	11.6	11.6	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
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: P212741

CATALOG NUMBER: LD4B30D010 EU4B30509050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°	185°	190°	195°
0°	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6
2.5°	1293.2	1286.5	1271.6	1281.5	1283.2	1276.6	1284.9	1294.8	1284.9	1276.6	1283.2
5°	1341.3	1336.3	1323.0	1331.3	1333.0	1331.3	1336.3	1344.6	1336.3	1331.3	1333.0
7.5°	1389.4	1386.1	1371.2	1381.1	1384.5	1381.1	1386.1	1394.4	1386.1	1381.1	1384.5
10°	1435.9	1434.3	1419.3	1432.6	1434.3	1430.9	1435.9	1449.2	1435.9	1430.9	1434.3
12.5°	1489.0	1492.4	1475.8	1490.7	1492.4	1489.0	1495.7	1505.6	1495.7	1489.0	1492.4
15°	1550.5	1548.8	1535.5	1547.1	1550.5	1547.1	1555.4	1568.7	1555.4	1547.1	1550.5
17.5°	1580.3	1580.3	1570.4	1582.0	1583.7	1583.7	1590.3	1600.3	1590.3	1583.7	1583.7
20°	1582.0	1583.7	1572.0	1585.3	1585.3	1585.3	1592.0	1596.9	1592.0	1585.3	1585.3
22.5°	1555.4	1557.1	1545.5	1557.1	1557.1	1558.8	1562.1	1565.4	1562.1	1558.8	1557.1
25°	1504.0	1505.6	1495.7	1505.6	1504.0	1504.0	1507.3	1512.3	1507.3	1504.0	1504.0
27.5°	1427.6	1429.3	1416.0	1427.6	1426.0	1424.3	1429.3	1430.9	1429.3	1424.3	1426.0
30°	1326.4	1328.0	1316.4	1326.4	1324.7	1323.0	1329.7	1331.3	1329.7	1323.0	1324.7
32.5°	1205.2	1201.9	1193.6	1201.9	1200.2	1200.2	1203.5	1208.5	1203.5	1200.2	1200.2
35°	1059.1	1059.1	1054.1	1060.8	1055.8	1062.4	1062.4	1064.1	1062.4	1062.4	1055.8
37.5°	909.7	909.7	906.4	909.7	908.0	914.7	914.7	919.7	914.7	914.7	908.0
40°	753.6	753.6	750.3	753.6	758.6	758.6	757.0	763.6	757.0	758.6	758.6
42.5°	595.9	595.9	594.3	602.6	602.6	602.6	597.6	604.2	597.6	602.6	602.6
45°	433.3	429.9	428.3	428.3	429.9	436.6	429.9	438.2	429.9	436.6	429.9
47.5°	275.6	277.2	278.9	283.9	280.5	278.9	278.9	283.9	278.9	278.9	280.5
50°	169.3	171.0	171.0	174.3	169.3	172.6	171.0	174.3	171.0	172.6	169.3
52.5°	93.0	93.0	93.0	96.3	93.0	94.6	93.0	96.3	93.0	94.6	93.0
55°	48.1	48.1	48.1	49.8	48.1	48.1	48.1	49.8	48.1	48.1	48.1
57.5°	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2
60°	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
62.5°	16.6	14.9	14.9	16.6	16.6	16.6	16.6	16.6	16.6	16.6	16.6
65°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3
67.5°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
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: P212741

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CANDELA DISTRIBUTION (continued):

	200°	202.5°	205°	210°	215°	220°	225°	230°	235°	240°	245°
0°	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6
2.5°	1281.5	1271.6	1286.5	1293.2	1288.2	1283.2	1288.2	1274.9	1271.6	1278.2	1260.0
5°	1331.3	1323.0	1336.3	1341.3	1336.3	1329.7	1329.7	1316.4	1309.8	1316.4	1294.8
7.5°	1381.1	1371.2	1386.1	1389.4	1381.1	1376.2	1376.2	1359.6	1351.3	1357.9	1331.3
10°	1432.6	1419.3	1434.3	1435.9	1429.3	1421.0	1419.3	1404.4	1392.8	1399.4	1369.5
12.5°	1490.7	1475.8	1492.4	1489.0	1485.7	1475.8	1474.1	1454.2	1442.6	1449.2	1419.3
15°	1547.1	1535.5	1548.8	1550.5	1542.2	1532.2	1525.6	1510.6	1497.3	1504.0	1470.8
17.5°	1582.0	1570.4	1580.3	1580.3	1575.4	1563.7	1560.4	1547.1	1528.9	1537.2	1504.0
20°	1585.3	1572.0	1583.7	1582.0	1577.0	1568.7	1565.4	1548.8	1533.9	1542.2	1509.0
22.5°	1557.1	1545.5	1557.1	1555.4	1548.8	1542.2	1538.8	1523.9	1507.3	1518.9	1485.7
25°	1505.6	1495.7	1505.6	1504.0	1495.7	1494.0	1487.4	1474.1	1459.2	1469.1	1437.6
27.5°	1427.6	1416.0	1429.3	1427.6	1421.0	1416.0	1412.7	1401.1	1382.8	1396.1	1366.2
30°	1326.4	1316.4	1328.0	1326.4	1319.7	1316.4	1313.1	1301.5	1284.9	1291.5	1269.9
32.5°	1201.9	1193.6	1201.9	1205.2	1190.2	1190.2	1190.2	1177.0	1163.7	1170.3	1148.7
35°	1060.8	1054.1	1059.1	1059.1	1052.5	1050.8	1050.8	1039.2	1027.6	1034.2	1012.6
37.5°	909.7	906.4	909.7	909.7	903.1	899.7	901.4	891.4	881.5	886.5	866.5
40°	753.6	750.3	753.6	753.6	747.0	747.0	747.0	738.7	728.7	732.1	715.5
42.5°	602.6	594.3	595.9	595.9	591.0	591.0	592.6	584.3	577.7	577.7	562.7
45°	428.3	428.3	429.9	433.3	426.6	425.0	428.3	421.6	418.3	418.3	405.0
47.5°	283.9	278.9	277.2	275.6	278.9	275.6	278.9	273.9	273.9	273.9	262.3
50°	174.3	171.0	171.0	169.3	171.0	167.7	171.0	167.7	166.0	169.3	161.0
52.5°	96.3	93.0	93.0	93.0	94.6	91.3	93.0	91.3	91.3	91.3	89.6
55°	49.8	48.1	48.1	48.1	48.1	46.5	48.1	48.1	48.1	49.8	48.1
57.5°	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2	28.2
60°	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9	19.9
62.5°	16.6	14.9	14.9	16.6	14.9	16.6	14.9	14.9	14.9	14.9	14.9
65°	13.3	13.3	13.3	13.3	13.3	13.3	13.3	13.3	11.6	13.3	13.3
67.5°	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0
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



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CANDELA DISTRIBUTION (continued):

	247.5°	250°	255°	260°	265°	270°	275°	280°	285°	290°	292.5°
0°	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6
2.5°	1276.6	1266.6	1269.9	1266.6	1258.3	1260.0	1255.0	1255.0	1245.0	1243.4	1245.0
5°	1309.8	1298.1	1298.1	1291.5	1279.9	1278.2	1268.3	1268.3	1253.3	1248.3	1248.3
7.5°	1346.3	1334.7	1331.3	1323.0	1308.1	1301.5	1288.2	1283.2	1264.9	1256.6	1255.0
10°	1386.1	1372.8	1366.2	1356.2	1338.0	1326.4	1308.1	1301.5	1279.9	1263.3	1261.6
12.5°	1430.9	1419.3	1411.0	1397.7	1377.8	1361.2	1339.6	1328.0	1299.8	1281.5	1273.2
15°	1484.1	1470.8	1460.8	1444.2	1422.6	1402.7	1374.5	1361.2	1328.0	1303.1	1291.5
17.5°	1517.3	1502.3	1494.0	1474.1	1452.5	1429.3	1397.7	1381.1	1343.0	1311.4	1299.8
20°	1520.6	1509.0	1497.3	1479.1	1457.5	1430.9	1397.7	1381.1	1341.3	1309.8	1293.2
22.5°	1495.7	1485.7	1472.4	1457.5	1434.3	1407.7	1376.2	1361.2	1323.0	1289.8	1271.6
25°	1447.5	1439.2	1426.0	1407.7	1391.1	1362.9	1333.0	1323.0	1283.2	1255.0	1238.4
27.5°	1372.8	1367.9	1354.6	1338.0	1324.7	1301.5	1271.6	1263.3	1228.4	1203.5	1190.2
30°	1274.9	1271.6	1258.3	1243.4	1233.4	1211.8	1185.3	1181.9	1150.4	1132.1	1118.9
32.5°	1153.7	1150.4	1142.1	1127.2	1118.9	1100.6	1075.7	1079.0	1052.5	1037.5	1032.5
35°	1024.2	1014.3	1009.3	996.0	986.1	972.8	951.2	956.2	941.2	929.6	928.0
37.5°	878.2	868.2	864.9	854.9	846.6	835.0	818.4	825.0	818.4	813.4	818.4
40°	725.4	717.1	713.8	703.8	700.5	692.2	680.6	697.2	688.9	698.9	700.5
42.5°	572.7	564.4	564.4	557.8	552.8	551.1	542.8	564.4	564.4	581.0	589.3
45°	405.0	406.7	403.4	405.0	401.7	406.7	401.7	416.7	438.2	459.8	473.1
47.5°	268.9	263.9	270.6	268.9	267.3	273.9	280.5	295.5	320.4	350.3	368.5
50°	162.7	162.7	166.0	171.0	174.3	179.3	189.2	207.5	235.7	265.6	287.2
52.5°	93.0	91.3	94.6	96.3	104.6	111.2	122.8	142.8	171.0	204.2	224.1
55°	49.8	49.8	51.5	56.4	61.4	69.7	81.3	99.6	126.2	159.4	179.3
57.5°	29.9	29.9	31.5	33.2	38.2	44.8	54.8	69.7	93.0	121.2	139.4
60°	19.9	21.6	21.6	23.2	26.6	29.9	38.2	48.1	66.4	88.0	102.9
62.5°	16.6	16.6	16.6	18.3	19.9	21.6	26.6	34.9	46.5	63.1	74.7
65°	13.3	13.3	13.3	13.3	14.9	16.6	19.9	24.9	33.2	43.2	49.8
67.5°	10.0	10.0	11.6	11.6	11.6	13.3	14.9	18.3	23.2	29.9	34.9
70°	8.3	8.3	8.3	8.3	10.0	10.0	11.6	13.3	16.6	21.6	24.9
72.5°	6.6	6.6	6.6	6.6	8.3	8.3	8.3	10.0	11.6	14.9	16.6
75°	5.0	5.0	5.0	5.0	6.6	6.6	6.6	8.3	8.3	10.0	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: P212741

CATALOG NUMBER: LD4B30D010 EU4B30509050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	295°	300°	305°	310°	315°	320°	325°	330°	335°	337.5°	340°
0°	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6	1256.6
2.5°	1233.4	1255.0	1230.1	1235.1	1226.8	1241.7	1221.8	1226.8	1230.1	1226.8	1228.4
5°	1235.1	1251.7	1223.4	1228.4	1215.1	1225.1	1206.8	1208.5	1208.5	1205.2	1203.5
7.5°	1240.0	1250.0	1220.1	1218.5	1201.9	1211.8	1190.2	1186.9	1185.3	1180.3	1181.9
10°	1241.7	1245.0	1213.5	1206.8	1186.9	1190.2	1168.7	1162.0	1157.0	1153.7	1152.1
12.5°	1253.3	1250.0	1213.5	1201.9	1177.0	1175.3	1152.1	1142.1	1133.8	1130.5	1128.8
15°	1268.3	1256.6	1216.8	1200.2	1172.0	1165.3	1140.4	1130.5	1118.9	1115.5	1112.2
17.5°	1274.9	1256.6	1213.5	1191.9	1160.4	1152.1	1127.2	1113.9	1102.3	1097.3	1094.0
20°	1266.6	1243.4	1200.2	1177.0	1143.8	1132.1	1107.2	1092.3	1080.7	1075.7	1072.4
22.5°	1248.3	1221.8	1180.3	1157.0	1123.8	1108.9	1087.3	1074.0	1060.8	1059.1	1054.1
25°	1216.8	1190.2	1155.4	1132.1	1102.3	1087.3	1067.4	1055.8	1042.5	1040.8	1039.2
27.5°	1170.3	1145.4	1118.9	1097.3	1070.7	1059.1	1044.2	1032.5	1020.9	1020.9	1017.6
30°	1103.9	1087.3	1064.1	1050.8	1029.2	1017.6	1007.6	999.3	987.7	989.4	986.1
32.5°	1019.3	1011.0	994.4	987.7	971.1	967.8	957.8	951.2	941.2	944.6	941.2
35°	924.6	914.7	914.7	911.4	903.1	901.4	896.4	893.1	886.5	888.1	888.1
37.5°	816.7	816.7	826.7	828.3	826.7	830.0	828.3	828.3	821.7	825.0	823.4
40°	705.5	715.5	733.7	743.7	747.0	753.6	761.9	758.6	755.3	760.3	758.6
42.5°	597.6	617.5	645.7	662.3	674.0	683.9	695.5	695.5	693.9	700.5	698.9
45°	494.7	512.9	551.1	579.3	599.3	614.2	627.5	632.5	634.1	640.8	639.1
47.5°	393.4	425.0	469.8	503.0	527.9	546.1	564.4	571.0	576.0	584.3	584.3
50°	312.1	351.9	403.4	436.6	466.5	486.4	504.6	514.6	521.2	527.9	527.9
52.5°	250.7	292.2	342.0	376.8	405.0	426.6	444.9	456.5	461.5	469.8	469.8
55°	204.2	242.4	288.8	320.4	348.6	368.5	383.5	393.4	398.4	405.0	405.0
57.5°	161.0	197.5	235.7	263.9	287.2	302.1	315.4	318.7	320.4	325.4	327.0
60°	121.2	149.4	180.9	202.5	219.1	229.1	239.0	237.4	235.7	239.0	235.7
62.5°	86.3	106.2	129.5	142.8	156.0	161.0	166.0	162.7	159.4	161.0	161.0
65°	58.1	73.0	86.3	96.3	102.9	106.2	107.9	106.2	104.6	106.2	104.6
67.5°	39.8	48.1	58.1	63.1	68.1	69.7	71.4	69.7	69.7	69.7	68.1
70°	26.6	31.5	38.2	41.5	43.2	44.8	46.5	44.8	44.8	44.8	44.8
72.5°	18.3	21.6	23.2	26.6	28.2	28.2	28.2	28.2	28.2	28.2	28.2
75°	11.6	13.3	14.9	16.6	18.3	18.3	18.3	18.3	18.3	18.3	18.3
77.5°	8.3	8.3	10.0	10.0	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: P212741

CATALOG NUMBER: LD4B30D010 EU4B30509050 4LBSWLI1

CANDELA DISTRIBUTION (continued):

	345°	350°	355°	360°
0°	1256.6	1256.6	1256.6	1256.6
2.5°	1228.4	1225.1	1215.1	1226.8
5°	1201.9	1198.5	1190.2	1198.5
7.5°	1175.3	1170.3	1163.7	1168.7
10°	1143.8	1140.4	1132.1	1137.1
12.5°	1120.5	1113.9	1108.9	1110.6
15°	1105.6	1098.9	1094.0	1095.6
17.5°	1085.7	1079.0	1074.0	1074.0
20°	1064.1	1057.4	1054.1	1052.5
22.5°	1045.8	1040.8	1039.2	1034.2
25°	1029.2	1025.9	1025.9	1019.3
27.5°	1011.0	1006.0	1006.0	999.3
30°	979.4	977.8	977.8	972.8
32.5°	937.9	932.9	936.3	928.0
35°	881.5	878.2	883.1	876.5
37.5°	820.0	818.4	821.7	816.7
40°	755.3	755.3	760.3	752.0
42.5°	698.9	698.9	703.8	695.5
45°	637.4	642.4	647.4	640.8
47.5°	584.3	587.6	594.3	587.6
50°	531.2	534.5	539.5	532.9
52.5°	473.1	476.4	481.4	476.4
55°	406.7	410.0	415.0	411.7
57.5°	327.0	323.7	332.0	325.4
60°	237.4	230.7	232.4	232.4
62.5°	157.7	154.4	157.7	152.7
65°	104.6	102.9	102.9	102.9
67.5°	69.7	68.1	69.7	68.1
70°	44.8	44.8	44.8	44.8
72.5°	28.2	28.2	28.2	28.2
75°	18.3	18.3	18.3	18.3
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)