

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: P252154

Luminaire Tested: **LD6B20D010 EU6B10208027 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252154
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-1)
Test Lab: INNOVATION CENTER(G1)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6B20D010 EU6B10208027 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2482.0 lumens
Efficiency: N/A
Efficacy: 119.3 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.29 / 1.21
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

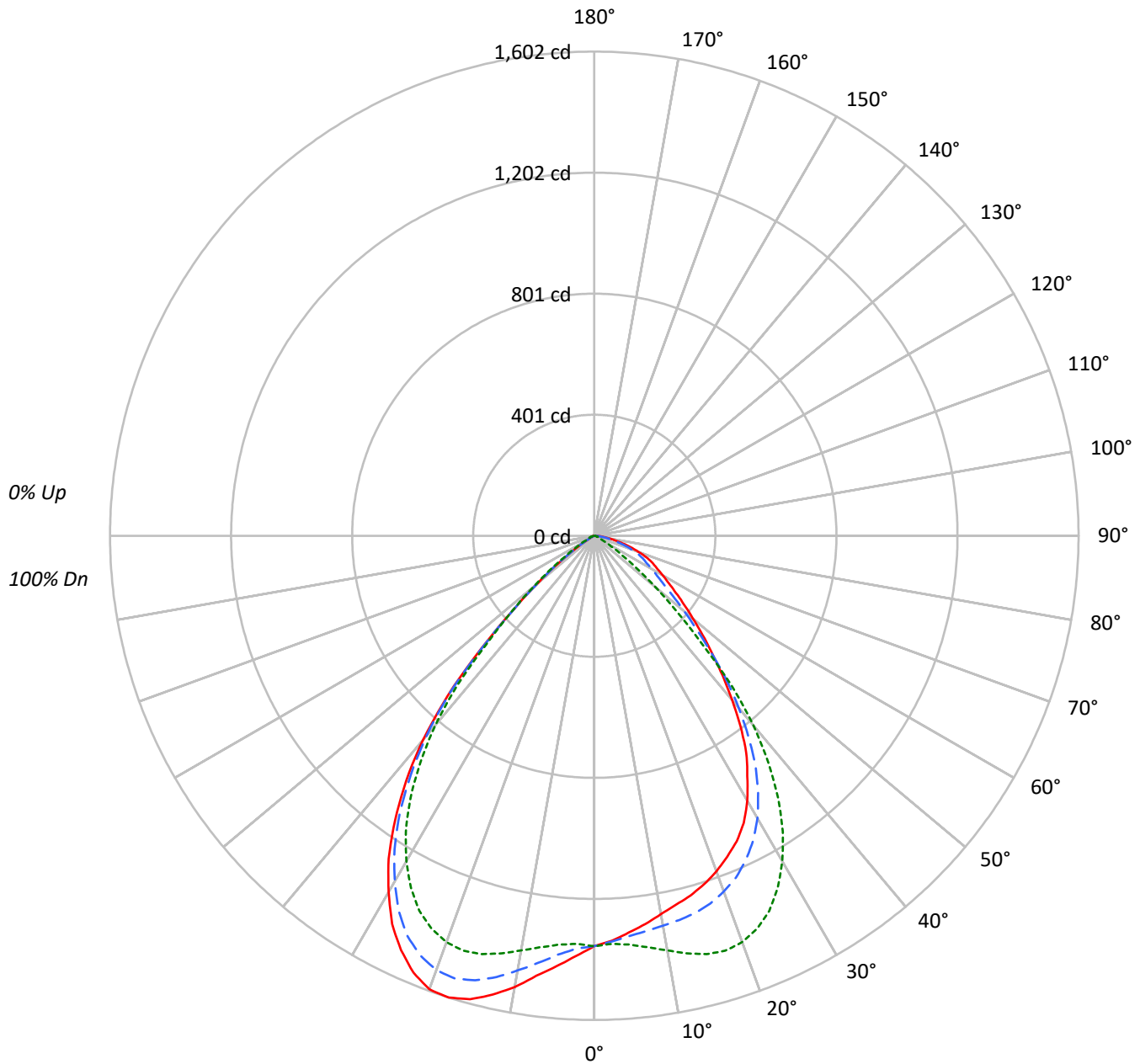
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P252154

CATALOG NUMBER: LD6B20D010 EU6B10208027 6LBSW1LI

Luminous Intensity Polar Plot





TEST NUMBER: P252154

CATALOG NUMBER: LD6B20D010 EU6B10208027 6LBSW1LI

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	112	108	105	103	109	106	103	101	102	100	98		98	96	95		95
2	105	98	93	89	102	97	92	88	93	89	86		90	87	84		87
3	98	89	83	78	95	88	82	78	85	80	76		83	78	75		80
4	91	82	75	69	89	80	74	69	78	72	68		76	71	67		74
5	85	75	67	62	83	74	67	62	72	66	61		70	65	61		68
6	80	69	61	56	78	68	61	56	66	60	55		64	59	55		63
7	74	63	56	51	73	62	55	50	61	55	50		60	54	50		58
8	70	58	51	46	69	58	51	46	57	50	46		55	50	46		54
9	66	54	47	42	64	54	47	42	53	46	42		52	46	42		51
10	62	50	43	39	61	50	43	39	49	43	39		48	43	39		47

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	88584	88584	88584
5°	86289	88922	93598
10°	84193	92276	100444
15°	83205	96795	107230
20°	82015	99316	110855
25°	80271	98584	108863
30°	76275	93685	102484
35°	69784	84471	91503
40°	60365	69759	75065
45°	50902	45754	49103
50°	43217	26480	24897
55°	37501	12694	9600
60°	33873	5924	2375
65°	32866	3412	803
70°	29471	2728	744
75°	24224	1966	328
80°	18034	977	0
85°	15570	0	0



TEST NUMBER: P252154

CATALOG NUMBER: LD6B20D010 EU6B10208027 6LBSW1LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.2	5.3
10°-20°	399.7	16.1
20°-30°	610.7	24.6
30°-40°	638.8	25.7
40°-50°	414.4	16.7
50°-60°	164.5	6.6
60°-70°	78.1	3.1
70°-80°	37.1	1.5
80°-90°	7.6	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°	1141.6	46.0
0°-40°	1780.4	71.7
0°-60°	2359.3	95.1
0°-90°	2482.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2482.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1358	1358	1358	1358	1358	
5°	1318	1329	1358	1392	1429	124
15°	1232	1292	1433	1523	1588	347
25°	1115	1185	1370	1462	1512	511
35°	876	930	1061	1123	1149	542
45°	552	546	496	526	532	429
55°	330	280	112	87	84	299
65°	213	176	22	5	5	208
75°	96	78	8	3	1	104
85°	21	13	0	0	0	24
90°	0	0	0	0	0	



TEST NUMBER: P252154

CATALOG NUMBER: LD6B20D010 EU6B10208027 6LBSW1LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8
2.5°	1341.0	1343.6	1329.3	1325.4	1335.8	1339.7	1341.0	1337.1	1338.4	1343.6	1343.6
5°	1317.6	1320.2	1307.2	1303.3	1313.7	1316.3	1320.2	1318.9	1322.8	1330.6	1329.3
7.5°	1295.5	1299.4	1285.2	1280.0	1292.9	1299.4	1302.0	1302.0	1307.2	1317.6	1318.9
10°	1270.9	1276.1	1263.1	1260.5	1274.8	1281.3	1282.6	1285.2	1292.9	1307.2	1309.8
12.5°	1250.1	1255.3	1246.2	1242.3	1257.9	1264.4	1267.0	1272.2	1281.3	1299.4	1302.0
15°	1231.9	1235.8	1225.4	1222.8	1238.4	1246.2	1247.5	1255.3	1267.0	1287.8	1291.6
17.5°	1208.6	1211.2	1203.4	1200.8	1216.4	1224.1	1225.4	1234.5	1248.8	1269.6	1276.1
20°	1181.3	1183.9	1176.1	1173.5	1189.1	1198.2	1199.5	1207.3	1224.1	1246.2	1252.7
22.5°	1148.9	1154.0	1145.0	1142.4	1157.9	1165.7	1169.6	1176.1	1193.0	1215.1	1224.1
25°	1115.1	1115.1	1108.6	1107.3	1121.6	1130.7	1129.4	1138.5	1155.3	1177.4	1185.2
27.5°	1071.0	1069.7	1063.2	1061.9	1077.5	1085.2	1082.6	1091.7	1107.3	1129.4	1137.2
30°	1012.5	1015.1	1006.1	1003.5	1016.4	1029.4	1028.1	1037.2	1052.8	1073.6	1078.8
32.5°	942.4	945.0	943.7	939.9	951.5	958.0	961.9	968.4	981.4	1003.5	1008.7
35°	876.2	872.3	867.2	867.2	878.8	889.2	885.3	893.1	906.1	928.2	929.5
37.5°	794.5	793.2	790.6	788.0	800.9	803.5	804.8	810.0	821.7	839.9	837.3
40°	708.8	710.1	708.8	703.6	711.4	721.8	720.5	723.1	733.4	746.4	742.5
42.5°	628.3	628.3	628.3	623.1	632.2	637.4	640.0	638.7	641.3	653.0	647.8
45°	551.7	553.0	551.7	550.4	551.7	554.3	551.7	550.4	550.4	554.3	546.5
47.5°	485.5	485.5	481.6	477.7	481.6	482.9	479.0	475.1	473.8	472.5	459.5
50°	425.8	424.5	423.2	416.7	420.6	421.9	416.7	414.1	408.9	402.4	386.8
52.5°	373.9	372.6	371.3	364.8	367.4	368.7	363.5	358.3	351.8	346.6	327.1
55°	329.7	328.4	328.4	324.5	321.9	324.5	319.3	315.4	306.4	299.9	280.4
57.5°	292.1	292.1	289.5	285.6	286.9	286.9	281.7	276.5	268.7	260.9	245.3
60°	259.6	259.6	259.6	255.7	255.7	255.7	253.1	247.9	241.5	233.7	218.1
62.5°	233.7	233.7	232.4	228.5	229.8	229.8	227.2	222.0	215.5	210.3	194.7
65°	212.9	212.9	212.9	209.0	209.0	210.3	207.7	202.5	197.3	190.8	176.5
67.5°	186.9	185.6	185.6	183.0	184.3	185.6	183.0	179.1	172.7	168.8	155.8
70°	154.5	155.8	157.1	153.2	154.5	154.5	153.2	149.3	145.4	141.5	129.8
72.5°	125.9	125.9	124.6	123.3	123.3	124.6	122.0	118.1	115.5	112.9	103.9
75°	96.1	94.8	96.1	93.5	93.5	93.5	90.9	89.6	88.3	84.4	77.9
77.5°	70.1	68.8	68.8	66.2	67.5	67.5	66.2	63.6	61.0	59.7	54.5
80°	48.0	48.0	48.0	46.7	46.7	45.4	45.4	44.1	41.5	40.2	37.6
82.5°	32.5	32.5	32.5	31.2	31.2	31.2	29.9	28.6	27.3	26.0	23.4
85°	20.8	20.8	20.8	19.5	19.5	19.5	18.2	18.2	16.9	15.6	13.0
87.5°	11.7	11.7	11.7	10.4	10.4	10.4	10.4	10.4	9.1	7.8	6.5
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: P252154

CATALOG NUMBER: LD6B20D010 EU6B10208027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8
2.5°	1352.7	1334.5	1346.2	1346.2	1342.3	1352.7	1359.1	1364.3	1363.0	1351.4	1350.1
5°	1342.3	1326.7	1339.7	1341.0	1337.1	1351.4	1360.4	1366.9	1368.2	1357.8	1359.1
7.5°	1334.5	1321.5	1338.4	1343.6	1342.3	1355.3	1365.6	1376.0	1381.2	1373.4	1374.7
10°	1330.6	1320.2	1338.4	1346.2	1347.5	1361.7	1377.3	1391.6	1398.1	1392.9	1396.8
12.5°	1325.4	1318.9	1339.7	1351.4	1356.6	1370.8	1390.3	1407.2	1417.6	1415.0	1422.8
15°	1320.2	1315.0	1339.7	1356.6	1363.0	1376.0	1398.1	1422.8	1434.4	1433.1	1443.5
17.5°	1307.2	1305.9	1331.9	1350.1	1359.1	1374.7	1395.5	1425.4	1437.0	1439.6	1452.6
20°	1286.5	1286.5	1315.0	1334.5	1344.9	1359.1	1385.1	1413.7	1427.9	1430.5	1444.8
22.5°	1257.9	1260.5	1287.8	1307.2	1322.8	1333.2	1360.4	1390.3	1403.3	1407.2	1422.8
25°	1220.2	1222.8	1248.8	1268.3	1285.2	1296.8	1322.8	1350.1	1365.6	1369.5	1381.2
27.5°	1170.9	1176.1	1200.8	1220.2	1234.5	1242.3	1269.6	1298.1	1309.8	1313.7	1325.4
30°	1113.8	1115.1	1139.8	1156.6	1170.9	1177.4	1200.8	1230.6	1239.7	1243.6	1260.5
32.5°	1043.7	1042.4	1065.8	1081.3	1093.0	1100.8	1125.5	1145.0	1154.0	1160.5	1169.6
35°	959.3	958.0	974.9	993.1	1002.2	1004.8	1029.4	1050.2	1055.4	1060.6	1072.3
37.5°	864.6	864.6	878.8	887.9	898.3	902.2	913.9	937.3	946.3	945.0	954.1
40°	764.6	759.4	769.8	778.9	781.5	782.8	794.5	812.6	819.1	819.1	825.6
42.5°	659.5	651.7	653.0	658.2	660.8	651.7	659.5	671.1	667.2	672.4	673.7
45°	547.8	536.1	530.9	519.3	521.9	512.8	507.6	510.2	508.9	495.9	498.5
47.5°	456.9	436.2	427.1	410.2	406.3	395.9	389.4	377.8	367.4	367.4	360.9
50°	380.4	359.6	341.4	321.9	315.4	306.4	292.1	276.5	268.7	260.9	254.4
52.5°	319.3	297.3	275.2	254.4	245.3	233.7	214.2	198.6	184.3	176.5	168.8
55°	270.0	245.3	222.0	199.9	188.2	176.5	157.1	138.9	122.0	111.6	105.1
57.5°	232.4	209.0	184.3	161.0	150.6	137.6	116.8	97.4	81.8	70.1	63.6
60°	205.1	181.7	159.7	135.0	124.6	111.6	89.6	71.4	55.8	45.4	37.6
62.5°	181.7	161.0	137.6	115.5	105.1	92.2	71.4	53.2	38.9	28.6	22.1
65°	164.9	144.1	124.6	102.6	93.5	80.5	61.0	44.1	31.2	22.1	15.6
67.5°	145.4	127.2	107.7	89.6	80.5	70.1	51.9	37.6	26.0	18.2	13.0
70°	122.0	107.7	90.9	74.0	67.5	58.4	42.8	31.2	20.8	14.3	10.4
72.5°	97.4	85.7	72.7	59.7	54.5	45.4	35.0	24.7	15.6	10.4	7.8
75°	74.0	64.9	54.5	45.4	40.2	35.0	26.0	18.2	11.7	7.8	5.2
77.5°	50.6	46.7	38.9	31.2	28.6	24.7	16.9	11.7	7.8	5.2	2.6
80°	35.0	31.2	26.0	20.8	18.2	15.6	10.4	7.8	3.9	2.6	1.3
82.5°	22.1	18.2	15.6	13.0	11.7	9.1	6.5	3.9	2.6	1.3	1.3
85°	11.7	10.4	9.1	6.5	6.5	5.2	3.9	2.6	1.3	0.0	0.0
87.5°	6.5	5.2	3.9	2.6	2.6	1.3	1.3	1.3	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: P252154

CATALOG NUMBER: LD6B20D010 EU6B10208027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8
2.5°	1365.6	1365.6	1364.3	1379.9	1361.7	1379.9	1370.8	1379.9	1366.9	1365.6	1366.9
5°	1376.0	1379.9	1381.2	1395.5	1378.6	1400.7	1392.9	1400.7	1391.6	1394.2	1398.1
7.5°	1396.8	1403.3	1402.0	1420.2	1403.3	1427.9	1422.8	1434.4	1425.4	1427.9	1433.1
10°	1420.2	1427.9	1429.2	1447.4	1431.8	1461.7	1455.2	1468.2	1460.4	1464.3	1470.8
12.5°	1447.4	1456.5	1457.8	1478.6	1461.7	1492.9	1489.0	1501.9	1495.5	1499.3	1507.1
15°	1468.2	1481.2	1483.8	1504.5	1486.4	1518.8	1516.2	1533.1	1522.7	1529.2	1535.7
17.5°	1478.6	1490.3	1495.5	1514.9	1499.3	1531.8	1529.2	1543.5	1535.7	1542.2	1550.0
20°	1472.1	1486.4	1490.3	1509.7	1494.2	1526.6	1522.7	1537.0	1529.2	1534.4	1542.2
22.5°	1448.7	1463.0	1468.2	1486.4	1472.1	1501.9	1500.6	1513.6	1503.2	1509.7	1516.2
25°	1407.2	1422.8	1425.4	1442.2	1426.7	1457.8	1455.2	1469.5	1461.7	1465.6	1474.7
27.5°	1347.5	1365.6	1369.5	1383.8	1372.1	1398.1	1398.1	1409.8	1400.7	1400.7	1409.8
30°	1276.1	1294.2	1296.8	1308.5	1298.1	1321.5	1322.8	1334.5	1320.2	1328.0	1329.3
32.5°	1189.1	1200.8	1208.6	1218.9	1203.4	1233.2	1229.3	1238.4	1230.6	1230.6	1237.1
35°	1083.9	1098.2	1102.1	1115.1	1102.1	1125.5	1125.5	1130.7	1122.9	1122.9	1133.3
37.5°	969.7	980.1	981.4	994.4	984.0	1003.5	1002.2	1006.1	998.3	1003.5	1003.5
40°	836.0	843.8	846.4	852.9	851.6	865.9	864.6	867.2	863.3	864.6	867.2
42.5°	680.2	690.6	695.8	701.0	693.2	712.7	708.8	712.7	711.4	712.7	716.6
45°	501.1	508.9	512.8	514.1	511.5	523.1	532.2	524.4	525.7	523.1	528.3
47.5°	362.2	363.5	360.9	368.7	362.2	367.4	370.0	371.3	363.5	362.2	367.4
50°	247.9	254.4	245.3	249.2	247.9	253.1	250.5	251.8	244.0	247.9	245.3
52.5°	164.9	163.6	161.0	162.3	159.7	159.7	159.7	162.3	157.1	154.5	151.9
55°	100.0	97.4	92.2	90.9	90.9	92.2	89.6	87.0	87.0	85.7	85.7
57.5°	58.4	54.5	51.9	50.6	48.0	46.7	45.4	45.4	42.8	42.8	42.8
60°	32.5	28.6	26.0	23.4	23.4	22.1	20.8	19.5	19.5	19.5	18.2
62.5°	16.9	14.3	11.7	10.4	10.4	9.1	7.8	7.8	7.8	7.8	6.5
65°	11.7	9.1	7.8	6.5	6.5	5.2	5.2	5.2	5.2	5.2	5.2
67.5°	9.1	7.8	6.5	5.2	5.2	5.2	3.9	3.9	3.9	3.9	3.9
70°	7.8	5.2	5.2	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
72.5°	5.2	5.2	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
75°	3.9	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
77.5°	1.3	1.3	1.3	1.3	1.3	1.3	0.0	0.0	0.0	0.0	0.0
80°	1.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	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	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: P252154

CATALOG NUMBER: LD6B20D010 EU6B10208027 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8	1357.8
2.5°	1378.6	1377.3	1378.6	1381.2	1376.0	1391.6	1383.8	1391.6
5°	1408.5	1409.8	1411.1	1415.0	1408.5	1427.9	1417.6	1429.2
7.5°	1447.4	1448.7	1450.0	1453.9	1450.0	1469.5	1457.8	1468.2
10°	1487.7	1490.3	1490.3	1496.8	1492.9	1511.0	1503.2	1516.2
12.5°	1525.3	1527.9	1530.5	1534.4	1531.8	1551.3	1544.8	1555.2
15°	1555.2	1560.4	1561.7	1566.8	1564.3	1585.0	1577.2	1587.6
17.5°	1569.4	1574.6	1574.6	1581.1	1578.5	1600.6	1590.2	1601.9
20°	1561.7	1565.6	1566.8	1573.3	1570.7	1592.8	1582.4	1596.7
22.5°	1537.0	1538.3	1539.6	1546.1	1544.8	1564.3	1555.2	1564.3
25°	1491.6	1495.5	1494.2	1499.3	1499.3	1514.9	1504.5	1512.3
27.5°	1426.7	1430.5	1430.5	1437.0	1431.8	1447.4	1437.0	1448.7
30°	1347.5	1351.4	1348.8	1354.0	1348.8	1364.3	1356.6	1360.4
32.5°	1252.7	1252.7	1254.0	1255.3	1252.7	1267.0	1259.2	1267.0
35°	1139.8	1142.4	1143.7	1145.0	1142.4	1152.7	1143.7	1148.9
37.5°	1012.5	1019.0	1017.7	1019.0	1015.1	1028.1	1020.3	1022.9
40°	876.2	876.2	874.9	877.5	873.6	884.0	878.8	881.4
42.5°	717.9	721.8	716.6	723.1	712.7	727.0	721.8	717.9
45°	538.7	533.5	532.2	533.5	529.6	530.9	534.8	532.2
47.5°	367.4	367.4	364.8	360.9	366.1	367.4	362.2	362.2
50°	246.6	246.6	244.0	242.8	245.3	244.0	241.5	245.3
52.5°	157.1	151.9	151.9	154.5	151.9	149.3	153.2	150.6
55°	85.7	83.1	83.1	85.7	83.1	83.1	81.8	84.4
57.5°	41.5	42.8	41.5	41.5	41.5	41.5	40.2	41.5
60°	18.2	18.2	18.2	18.2	18.2	18.2	18.2	18.2
62.5°	7.8	7.8	6.5	6.5	6.5	6.5	6.5	6.5
65°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
67.5°	3.9	3.9	3.9	3.9	3.9	5.2	3.9	3.9
70°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
72.5°	3.9	3.9	5.2	5.2	5.2	5.2	5.2	5.2
75°	2.6	2.6	2.6	1.3	1.3	1.3	1.3	1.3
77.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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 E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)