

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: P252155

Luminaire Tested: **LD6B20D010 EU6B10208030 6LBSW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P252155  
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 EU6B10208030 6LBSW1LI  
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 80CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2594.0 lumens  
Efficiency: N/A  
Efficacy: 124.7 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

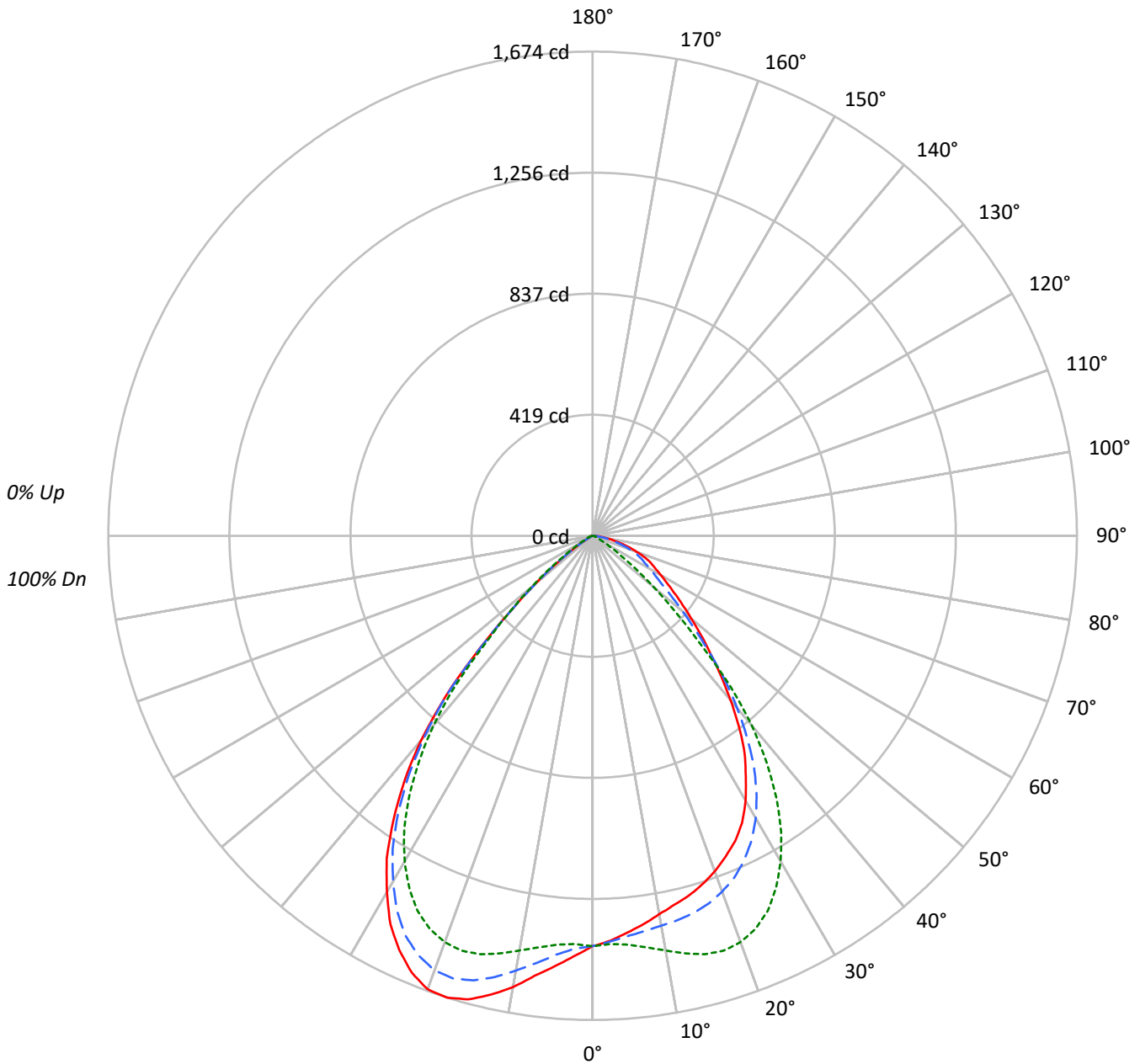
Input Watts (W): 20.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	108	105	103	109	106	103	101	102	100	98	98	96	95	95	93	92	90								
2	105	98	93	89	102	97	92	88	93	89	86	90	87	84	87	85	82	80								
3	98	89	83	78	95	88	82	78	85	80	76	83	78	75	80	77	74	72								
4	91	82	75	69	89	80	74	69	78	72	68	76	71	67	74	70	66	65								
5	85	75	67	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58								
6	80	69	61	56	78	68	61	56	66	60	55	64	59	55	63	58	54	53								
7	74	63	56	51	73	62	55	50	61	55	50	60	54	50	58	53	50	48								
8	70	58	51	46	69	58	51	46	57	50	46	55	50	46	54	49	45	44								
9	66	54	47	42	64	54	47	42	53	46	42	52	46	42	51	45	42	40								
10	62	50	43	39	61	50	43	39	49	43	39	48	43	39	47	42	38	37								

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

	0°	90°	180°
0°	92583	92583	92583
5°	90186	92937	97822
10°	87989	96442	104975
15°	86960	101165	112073
20°	85715	103801	115861
25°	83891	103032	113780
30°	79718	97911	107109
35°	72938	88278	95629
40°	63091	72910	78455
45°	53200	47821	51327
50°	45166	27678	26024
55°	39196	13274	10032
60°	35400	6198	2479
65°	34348	3566	834
70°	30787	2842	782
75°	25308	2042	353
80°	18860	1014	0
85°	16244	0	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	137.1	5.3
10°-20°	417.8	16.1
20°-30°	638.3	24.6
30°-40°	667.6	25.7
40°-50°	433.1	16.7
50°-60°	172.0	6.6
60°-70°	81.6	3.1
70°-80°	38.8	1.5
80°-90°	7.9	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°	1193.1	46.0
0°-40°	1860.7	71.7
0°-60°	2465.7	95.1
0°-90°	2594.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2594.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1419	1419	1419	1419	1419	
5°	1377	1389	1419	1454	1494	130
15°	1288	1350	1498	1591	1659	363
25°	1165	1239	1431	1528	1581	534
35°	916	971	1108	1174	1201	566
45°	577	571	518	550	556	449
55°	345	293	117	91	88	312
65°	222	184	23	5	5	217
75°	100	81	8	3	1	108
85°	22	14	0	0	0	25
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°	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1
2.5°	1401.5	1404.2	1389.3	1385.2	1396.1	1400.1	1401.5	1397.4	1398.8	1404.2	1404.2
5°	1377.1	1379.8	1366.2	1362.1	1373.0	1375.7	1379.8	1378.4	1382.5	1390.6	1389.3
7.5°	1354.0	1358.1	1343.1	1337.7	1351.3	1358.1	1360.8	1360.8	1366.2	1377.1	1378.4
10°	1328.2	1333.6	1320.1	1317.4	1332.3	1339.1	1340.4	1343.1	1351.3	1366.2	1368.9
12.5°	1306.5	1311.9	1302.4	1298.4	1314.7	1321.4	1324.2	1329.6	1339.1	1358.1	1360.8
15°	1287.5	1291.6	1280.7	1278.0	1294.3	1302.4	1303.8	1311.9	1324.2	1345.9	1349.9
17.5°	1263.1	1265.8	1257.7	1255.0	1271.2	1279.4	1280.7	1290.2	1305.2	1326.9	1333.6
20°	1234.6	1237.3	1229.2	1226.5	1242.7	1252.2	1253.6	1261.7	1279.4	1302.4	1309.2
22.5°	1200.7	1206.1	1196.6	1193.9	1210.2	1218.3	1222.4	1229.2	1246.8	1269.9	1279.4
25°	1165.4	1165.4	1158.6	1157.3	1172.2	1181.7	1180.3	1189.8	1207.5	1230.5	1238.7
27.5°	1119.3	1117.9	1111.1	1109.8	1126.1	1134.2	1131.5	1141.0	1157.3	1180.3	1188.5
30°	1058.2	1061.0	1051.5	1048.7	1062.3	1075.9	1074.5	1084.0	1100.3	1122.0	1127.4
32.5°	985.0	987.7	986.3	982.3	994.5	1001.3	1005.3	1012.1	1025.7	1048.7	1054.2
35°	915.8	911.7	906.3	906.3	918.5	929.3	925.3	933.4	947.0	970.1	971.4
37.5°	830.3	829.0	826.2	823.5	837.1	839.8	841.2	846.6	858.8	877.8	875.1
40°	740.8	742.1	740.8	735.3	743.5	754.3	753.0	755.7	766.5	780.1	776.0
42.5°	656.6	656.6	656.6	651.2	660.7	666.1	668.9	667.5	670.2	682.4	677.0
45°	576.6	578.0	576.6	575.2	576.6	579.3	576.6	575.2	575.2	579.3	571.2
47.5°	507.4	507.4	503.3	499.3	503.3	504.7	500.6	496.6	495.2	493.8	480.3
50°	445.0	443.6	442.3	435.5	439.6	440.9	435.5	432.8	427.4	420.6	404.3
52.5°	390.7	389.4	388.0	381.2	384.0	385.3	379.9	374.5	367.7	362.2	341.9
55°	344.6	343.2	343.2	339.2	336.5	339.2	333.8	329.7	320.2	313.4	293.1
57.5°	305.3	305.3	302.5	298.5	299.8	299.8	294.4	289.0	280.8	272.7	256.4
60°	271.3	271.3	271.3	267.3	267.3	267.3	264.6	259.1	252.3	244.2	227.9
62.5°	244.2	244.2	242.9	238.8	240.1	240.1	237.4	232.0	225.2	219.8	203.5
65°	222.5	222.5	222.5	218.4	218.4	219.8	217.1	211.6	206.2	199.4	184.5
67.5°	195.4	194.0	194.0	191.3	192.7	194.0	191.3	187.2	180.4	176.4	162.8
70°	161.4	162.8	164.2	160.1	161.4	161.4	160.1	156.0	152.0	147.9	135.7
72.5°	131.6	131.6	130.2	128.9	128.9	130.2	127.5	123.5	120.7	118.0	108.5
75°	100.4	99.0	100.4	97.7	97.7	97.7	95.0	93.6	92.3	88.2	81.4
77.5°	73.3	71.9	71.9	69.2	70.5	70.5	69.2	66.5	63.8	62.4	57.0
80°	50.2	50.2	50.2	48.8	48.8	47.5	47.5	46.1	43.4	42.1	39.3
82.5°	33.9	33.9	33.9	32.6	32.6	32.6	31.2	29.8	28.5	27.1	24.4
85°	21.7	21.7	21.7	20.4	20.4	20.4	19.0	19.0	17.6	16.3	13.6
87.5°	12.2	12.2	12.2	10.9	10.9	10.9	10.9	10.9	9.5	8.1	6.8
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°	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1
2.5°	1413.7	1394.7	1406.9	1406.9	1402.8	1413.7	1420.5	1425.9	1424.5	1412.3	1411.0
5°	1402.8	1386.6	1400.1	1401.5	1397.4	1412.3	1421.8	1428.6	1430.0	1419.1	1420.5
7.5°	1394.7	1381.1	1398.8	1404.2	1402.8	1416.4	1427.3	1438.1	1443.5	1435.4	1436.8
10°	1390.6	1379.8	1398.8	1406.9	1408.3	1423.2	1439.5	1454.4	1461.2	1455.8	1459.8
12.5°	1385.2	1378.4	1400.1	1412.3	1417.8	1432.7	1453.0	1470.7	1481.5	1478.8	1487.0
15°	1379.8	1374.4	1400.1	1417.8	1424.5	1438.1	1461.2	1487.0	1499.2	1497.8	1508.7
17.5°	1366.2	1364.9	1392.0	1411.0	1420.5	1436.8	1458.5	1489.7	1501.9	1504.6	1518.2
20°	1344.5	1344.5	1374.4	1394.7	1405.6	1420.5	1447.6	1477.5	1492.4	1495.1	1510.0
22.5°	1314.7	1317.4	1345.9	1366.2	1382.5	1393.3	1421.8	1453.0	1466.6	1470.7	1487.0
25°	1275.3	1278.0	1305.2	1325.5	1343.1	1355.4	1382.5	1411.0	1427.3	1431.3	1443.5
27.5°	1223.8	1229.2	1255.0	1275.3	1290.2	1298.4	1326.9	1356.7	1368.9	1373.0	1385.2
30°	1164.1	1165.4	1191.2	1208.8	1223.8	1230.5	1255.0	1286.2	1295.7	1299.7	1317.4
32.5°	1090.8	1089.4	1113.9	1130.1	1142.4	1150.5	1176.3	1196.6	1206.1	1212.9	1222.4
35°	1002.6	1001.3	1018.9	1037.9	1047.4	1050.1	1075.9	1097.6	1103.0	1108.4	1120.6
37.5°	903.6	903.6	918.5	928.0	938.8	942.9	955.1	979.5	989.0	987.7	997.2
40°	799.1	793.7	804.5	814.0	816.7	818.1	830.3	849.3	856.1	856.1	862.9
42.5°	689.2	681.1	682.4	687.9	690.6	681.1	689.2	701.4	697.4	702.8	704.1
45°	572.5	560.3	554.9	542.7	545.4	535.9	530.5	533.2	531.8	518.3	521.0
47.5°	477.6	455.9	446.4	428.7	424.7	413.8	407.0	394.8	384.0	384.0	377.2
50°	397.5	375.8	356.8	336.5	329.7	320.2	305.3	289.0	280.8	272.7	265.9
52.5°	333.8	310.7	287.6	265.9	256.4	244.2	223.9	207.6	192.7	184.5	176.4
55°	282.2	256.4	232.0	208.9	196.7	184.5	164.2	145.2	127.5	116.7	109.9
57.5°	242.9	218.4	192.7	168.2	157.4	143.8	122.1	101.8	85.5	73.3	66.5
60°	214.4	189.9	166.9	141.1	130.2	116.7	93.6	74.6	58.3	47.5	39.3
62.5°	189.9	168.2	143.8	120.7	109.9	96.3	74.6	55.6	40.7	29.8	23.1
65°	172.3	150.6	130.2	107.2	97.7	84.1	63.8	46.1	32.6	23.1	16.3
67.5°	152.0	133.0	112.6	93.6	84.1	73.3	54.3	39.3	27.1	19.0	13.6
70°	127.5	112.6	95.0	77.3	70.5	61.1	44.8	32.6	21.7	14.9	10.9
72.5°	101.8	89.5	76.0	62.4	57.0	47.5	36.6	25.8	16.3	10.9	8.1
75°	77.3	67.8	57.0	47.5	42.1	36.6	27.1	19.0	12.2	8.1	5.4
77.5°	52.9	48.8	40.7	32.6	29.8	25.8	17.6	12.2	8.1	5.4	2.7
80°	36.6	32.6	27.1	21.7	19.0	16.3	10.9	8.1	4.1	2.7	1.4
82.5°	23.1	19.0	16.3	13.6	12.2	9.5	6.8	4.1	2.7	1.4	1.4
85°	12.2	10.9	9.5	6.8	6.8	5.4	4.1	2.7	1.4	0.0	0.0
87.5°	6.8	5.4	4.1	2.7	2.7	1.4	1.4	1.4	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°	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1
2.5°	1427.3	1427.3	1425.9	1442.2	1423.2	1442.2	1432.7	1442.2	1428.6	1427.3	1428.6
5°	1438.1	1442.2	1443.5	1458.5	1440.8	1463.9	1455.8	1463.9	1454.4	1457.1	1461.2
7.5°	1459.8	1466.6	1465.3	1484.2	1466.6	1492.4	1487.0	1499.2	1489.7	1492.4	1497.8
10°	1484.2	1492.4	1493.7	1512.7	1496.5	1527.7	1520.9	1534.4	1526.3	1530.4	1537.2
12.5°	1512.7	1522.2	1523.6	1545.3	1527.7	1560.2	1556.2	1569.7	1562.9	1567.0	1575.1
15°	1534.4	1548.0	1550.7	1572.4	1553.4	1587.4	1584.6	1602.3	1591.4	1598.2	1605.0
17.5°	1545.3	1557.5	1562.9	1583.3	1567.0	1600.9	1598.2	1613.1	1605.0	1611.8	1619.9
20°	1538.5	1553.4	1557.5	1577.9	1561.6	1595.5	1591.4	1606.3	1598.2	1603.6	1611.8
22.5°	1514.1	1529.0	1534.4	1553.4	1538.5	1569.7	1568.4	1581.9	1571.1	1577.9	1584.6
25°	1470.7	1487.0	1489.7	1507.3	1491.0	1523.6	1520.9	1535.8	1527.7	1531.7	1541.2
27.5°	1408.3	1427.3	1431.3	1446.3	1434.0	1461.2	1461.2	1473.4	1463.9	1463.9	1473.4
30°	1333.6	1352.6	1355.4	1367.6	1356.7	1381.1	1382.5	1394.7	1379.8	1387.9	1389.3
32.5°	1242.7	1255.0	1263.1	1274.0	1257.7	1288.9	1284.8	1294.3	1286.2	1286.2	1292.9
35°	1132.9	1147.8	1151.9	1165.4	1151.9	1176.3	1176.3	1181.7	1173.6	1173.6	1184.4
37.5°	1013.5	1024.3	1025.7	1039.2	1028.4	1048.7	1047.4	1051.5	1043.3	1048.7	1048.7
40°	873.7	881.9	884.6	891.4	890.0	904.9	903.6	906.3	902.2	903.6	906.3
42.5°	710.9	721.8	727.2	732.6	724.5	744.8	740.8	744.8	743.5	744.8	748.9
45°	523.7	531.8	535.9	537.3	534.5	546.8	556.3	548.1	549.5	546.8	552.2
47.5°	378.5	379.9	377.2	385.3	378.5	384.0	386.7	388.0	379.9	378.5	384.0
50°	259.1	265.9	256.4	260.5	259.1	264.6	261.8	263.2	255.1	259.1	256.4
52.5°	172.3	170.9	168.2	169.6	166.9	166.9	166.9	169.6	164.2	161.4	158.7
55°	104.5	101.8	96.3	95.0	95.0	96.3	93.6	90.9	90.9	89.5	89.5
57.5°	61.1	57.0	54.3	52.9	50.2	48.8	47.5	47.5	44.8	44.8	44.8
60°	33.9	29.8	27.1	24.4	24.4	23.1	21.7	20.4	20.4	20.4	19.0
62.5°	17.6	14.9	12.2	10.9	10.9	9.5	8.1	8.1	8.1	8.1	6.8
65°	12.2	9.5	8.1	6.8	6.8	5.4	5.4	5.4	5.4	5.4	5.4
67.5°	9.5	8.1	6.8	5.4	5.4	5.4	4.1	4.1	4.1	4.1	4.1
70°	8.1	5.4	5.4	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
72.5°	5.4	5.4	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
75°	4.1	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
77.5°	1.4	1.4	1.4	1.4	1.4	1.4	0.0	0.0	0.0	0.0	0.0
80°	1.4	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: P252155

CATALOG NUMBER: LD6B20D010 EU6B10208030 6LBSW1LI

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1	1419.1
2.5°	1440.8	1439.5	1440.8	1443.5	1438.1	1454.4	1446.3	1454.4
5°	1472.0	1473.4	1474.7	1478.8	1472.0	1492.4	1481.5	1493.7
7.5°	1512.7	1514.1	1515.4	1519.5	1515.4	1535.8	1523.6	1534.4
10°	1554.8	1557.5	1557.5	1564.3	1560.2	1579.2	1571.1	1584.6
12.5°	1594.1	1596.9	1599.6	1603.6	1600.9	1621.3	1614.5	1625.3
15°	1625.3	1630.8	1632.1	1637.6	1634.8	1656.5	1648.4	1659.3
17.5°	1640.3	1645.7	1645.7	1652.5	1649.8	1672.8	1662.0	1674.2
20°	1632.1	1636.2	1637.6	1644.3	1641.6	1664.7	1653.8	1668.8
22.5°	1606.3	1607.7	1609.1	1615.8	1614.5	1634.8	1625.3	1634.8
25°	1558.9	1562.9	1561.6	1567.0	1567.0	1583.3	1572.4	1580.6
27.5°	1491.0	1495.1	1495.1	1501.9	1496.5	1512.7	1501.9	1514.1
30°	1408.3	1412.3	1409.6	1415.1	1409.6	1425.9	1417.8	1421.8
32.5°	1309.2	1309.2	1310.6	1311.9	1309.2	1324.2	1316.0	1324.2
35°	1191.2	1193.9	1195.3	1196.6	1193.9	1204.8	1195.3	1200.7
37.5°	1058.2	1065.0	1063.7	1065.0	1061.0	1074.5	1066.4	1069.1
40°	915.8	915.8	914.4	917.1	913.1	923.9	918.5	921.2
42.5°	750.3	754.3	748.9	755.7	744.8	759.8	754.3	750.3
45°	563.0	557.6	556.3	557.6	553.5	554.9	559.0	556.3
47.5°	384.0	384.0	381.2	377.2	382.6	384.0	378.5	378.5
50°	257.8	257.8	255.1	253.7	256.4	255.1	252.3	256.4
52.5°	164.2	158.7	158.7	161.4	158.7	156.0	160.1	157.4
55°	89.5	86.8	86.8	89.5	86.8	86.8	85.5	88.2
57.5°	43.4	44.8	43.4	43.4	43.4	43.4	42.1	43.4
60°	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
62.5°	8.1	8.1	6.8	6.8	6.8	6.8	6.8	6.8
65°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
67.5°	4.1	4.1	4.1	4.1	4.1	5.4	4.1	4.1
70°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
72.5°	4.1	4.1	5.4	5.4	5.4	5.4	5.4	5.4
75°	2.7	2.7	2.7	1.4	1.4	1.4	1.4	1.4
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)