

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: P252158

Luminaire Tested: **LD6B20D010 EU6B10208050 6LBSW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P252158
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 EU6B10208050 6LBSW1LI
Description: PORTFOLIO 6 INCH SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 5000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2686.0 lumens
Efficiency: N/A
Efficacy: 129.1 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

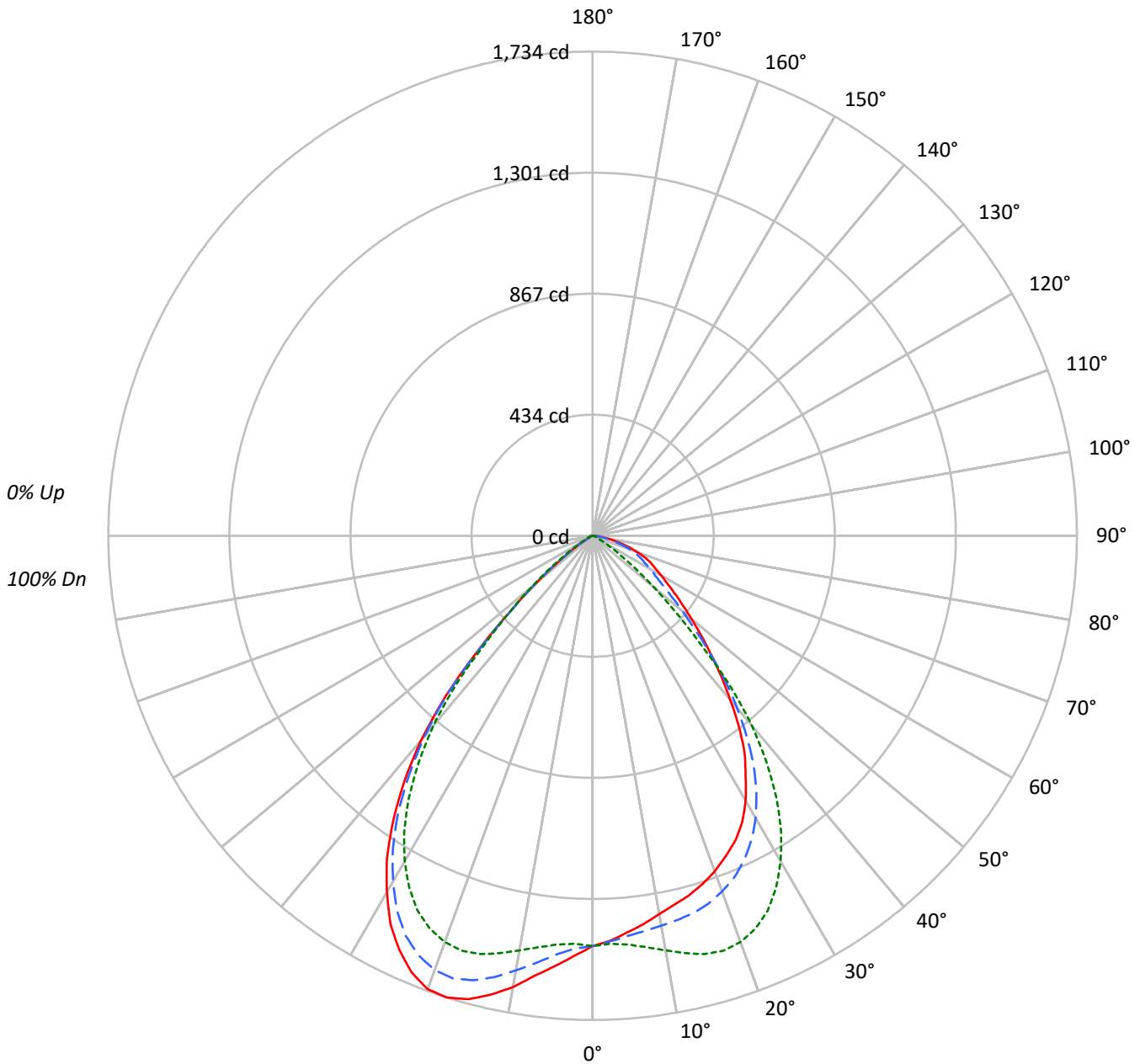
Input Watts (W): 20.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20									20									20									20									
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	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°	95871	95871	95871
5°	93382	96237	101293
10°	91110	99861	108698
15°	90047	104751	116044
20°	88756	107481	119964
25°	86872	106689	117811
30°	82550	101384	110913
35°	75526	91408	99022
40°	65322	75491	81239
45°	55091	49509	53144
50°	46770	28663	26947
55°	40584	13740	10385
60°	36665	6420	2570
65°	35567	3690	864
70°	31894	2957	801
75°	26215	2117	353
80°	19537	1052	0
85°	16842	0	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.9	5.3
10°-20°	432.6	16.1
20°-30°	660.9	24.6
30°-40°	691.3	25.7
40°-50°	448.4	16.7
50°-60°	178.1	6.6
60°-70°	84.5	3.1
70°-80°	40.2	1.5
80°-90°	8.2	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°	1235.4	46.0
0°-40°	1926.7	71.7
0°-60°	2553.2	95.1
0°-90°	2686.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2686.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1470	1470	1470	1470	1470	
5°	1426	1438	1470	1506	1547	135
15°	1333	1398	1551	1648	1718	376
25°	1207	1283	1482	1582	1637	553
35°	948	1006	1148	1215	1243	586
45°	597	591	537	569	576	465
55°	357	303	121	94	91	323
65°	230	191	24	6	6	225
75°	104	84	8	3	1	112
85°	22	14	0	0	0	26
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°	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5
2.5°	1451.2	1454.0	1438.5	1434.3	1445.6	1449.8	1451.2	1447.0	1448.4	1454.0	1454.0
5°	1425.9	1428.7	1414.7	1410.5	1421.7	1424.5	1428.7	1427.3	1431.5	1440.0	1438.5
7.5°	1402.0	1406.2	1390.8	1385.2	1399.2	1406.2	1409.0	1409.0	1414.7	1425.9	1427.3
10°	1375.3	1380.9	1366.9	1364.1	1379.5	1386.6	1388.0	1390.8	1399.2	1414.7	1417.5
12.5°	1352.9	1358.5	1348.6	1344.4	1361.3	1368.3	1371.1	1376.7	1386.6	1406.2	1409.0
15°	1333.2	1337.4	1326.2	1323.4	1340.2	1348.6	1350.0	1358.5	1371.1	1393.6	1397.8
17.5°	1307.9	1310.7	1302.3	1299.5	1316.3	1324.8	1326.2	1336.0	1351.4	1373.9	1380.9
20°	1278.4	1281.2	1272.8	1270.0	1286.8	1296.7	1298.1	1306.5	1324.8	1348.6	1355.7
22.5°	1243.3	1248.9	1239.1	1236.3	1253.1	1261.5	1265.8	1272.8	1291.0	1314.9	1324.8
25°	1206.8	1206.8	1199.7	1198.3	1213.8	1223.6	1222.2	1232.0	1250.3	1274.2	1282.6
27.5°	1159.0	1157.6	1150.6	1149.2	1166.0	1174.4	1171.6	1181.5	1198.3	1222.2	1230.6
30°	1095.8	1098.6	1088.7	1085.9	1100.0	1114.0	1112.6	1122.5	1139.3	1161.8	1167.4
32.5°	1019.9	1022.7	1021.3	1017.1	1029.7	1036.8	1041.0	1048.0	1062.1	1085.9	1091.6
35°	948.3	944.0	938.4	938.4	951.1	962.3	958.1	966.5	980.6	1004.5	1005.9
37.5°	859.8	858.4	855.5	852.7	866.8	869.6	871.0	876.6	889.3	908.9	906.1
40°	767.0	768.4	767.0	761.4	769.8	781.1	779.7	782.5	793.7	807.8	803.6
42.5°	679.9	679.9	679.9	674.3	684.2	689.8	692.6	691.2	694.0	706.6	701.0
45°	597.1	598.5	597.1	595.6	597.1	599.9	597.1	595.6	595.6	599.9	591.4
47.5°	525.4	525.4	521.2	517.0	521.2	522.6	518.4	514.2	512.8	511.4	497.3
50°	460.8	459.4	458.0	451.0	455.2	456.6	451.0	448.1	442.5	435.5	418.6
52.5°	404.6	403.2	401.8	394.8	397.6	399.0	393.4	387.7	380.7	375.1	354.0
55°	356.8	355.4	355.4	351.2	348.4	351.2	345.6	341.4	331.5	324.5	303.4
57.5°	316.1	316.1	313.3	309.1	310.5	310.5	304.8	299.2	290.8	282.4	265.5
60°	281.0	281.0	281.0	276.8	276.8	276.8	273.9	268.3	261.3	252.9	236.0
62.5°	252.9	252.9	251.5	247.3	248.7	248.7	245.8	240.2	233.2	227.6	210.7
65°	230.4	230.4	230.4	226.2	226.2	227.6	224.8	219.2	213.5	206.5	191.1
67.5°	202.3	200.9	200.9	198.1	199.5	200.9	198.1	193.9	186.8	182.6	168.6
70°	167.2	168.6	170.0	165.8	167.2	167.2	165.8	161.6	157.3	153.1	140.5
72.5°	136.3	136.3	134.9	133.5	133.5	134.9	132.1	127.8	125.0	122.2	112.4
75°	104.0	102.6	104.0	101.1	101.1	101.1	98.3	96.9	95.5	91.3	84.3
77.5°	75.9	74.5	74.5	71.6	73.1	73.1	71.6	68.8	66.0	64.6	59.0
80°	52.0	52.0	52.0	50.6	50.6	49.2	49.2	47.8	45.0	43.5	40.7
82.5°	35.1	35.1	35.1	33.7	33.7	33.7	32.3	30.9	29.5	28.1	25.3
85°	22.5	22.5	22.5	21.1	21.1	21.1	19.7	19.7	18.3	16.9	14.0
87.5°	12.6	12.6	12.6	11.2	11.2	11.2	11.2	11.2	9.8	8.4	7.0
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°	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5
2.5°	1463.8	1444.2	1456.8	1456.8	1452.6	1463.8	1470.9	1476.5	1475.1	1462.4	1461.0
5°	1452.6	1435.7	1449.8	1451.2	1447.0	1462.4	1472.3	1479.3	1480.7	1469.5	1470.9
7.5°	1444.2	1430.1	1448.4	1454.0	1452.6	1466.6	1477.9	1489.1	1494.7	1486.3	1487.7
10°	1440.0	1428.7	1448.4	1456.8	1458.2	1473.7	1490.5	1506.0	1513.0	1507.4	1511.6
12.5°	1434.3	1427.3	1449.8	1462.4	1468.0	1483.5	1504.6	1522.8	1534.1	1531.3	1539.7
15°	1428.7	1423.1	1449.8	1468.0	1475.1	1489.1	1513.0	1539.7	1552.3	1550.9	1562.2
17.5°	1414.7	1413.3	1441.4	1461.0	1470.9	1487.7	1510.2	1542.5	1555.1	1558.0	1572.0
20°	1392.2	1392.2	1423.1	1444.2	1455.4	1470.9	1499.0	1529.9	1545.3	1548.1	1563.6
22.5°	1361.3	1364.1	1393.6	1414.7	1431.5	1442.8	1472.3	1504.6	1518.6	1522.8	1539.7
25°	1320.5	1323.4	1351.4	1372.5	1390.8	1403.4	1431.5	1461.0	1477.9	1482.1	1494.7
27.5°	1267.2	1272.8	1299.5	1320.5	1336.0	1344.4	1373.9	1404.8	1417.5	1421.7	1434.3
30°	1205.3	1206.8	1233.4	1251.7	1267.2	1274.2	1299.5	1331.8	1341.6	1345.8	1364.1
32.5°	1129.5	1128.1	1153.4	1170.2	1182.9	1191.3	1218.0	1239.1	1248.9	1255.9	1265.8
35°	1038.2	1036.8	1055.0	1074.7	1084.5	1087.3	1114.0	1136.5	1142.1	1147.7	1160.4
37.5°	935.6	935.6	951.1	960.9	972.1	976.4	989.0	1014.3	1024.1	1022.7	1032.6
40°	827.4	821.8	833.1	842.9	845.7	847.1	859.8	879.4	886.4	886.4	893.5
42.5°	713.7	705.2	706.6	712.2	715.1	705.2	713.7	726.3	722.1	727.7	729.1
45°	592.8	580.2	574.6	561.9	564.7	554.9	549.3	552.1	550.7	536.6	539.5
47.5°	494.5	472.0	462.2	443.9	439.7	428.5	421.4	408.8	397.6	397.6	390.5
50°	411.6	389.1	369.5	348.4	341.4	331.5	316.1	299.2	290.8	282.4	275.3
52.5°	345.6	321.7	297.8	275.3	265.5	252.9	231.8	214.9	199.5	191.1	182.6
55°	292.2	265.5	240.2	216.3	203.7	191.1	170.0	150.3	132.1	120.8	113.8
57.5°	251.5	226.2	199.5	174.2	163.0	148.9	126.4	105.4	88.5	75.9	68.8
60°	222.0	196.7	172.8	146.1	134.9	120.8	96.9	77.3	60.4	49.2	40.7
62.5°	196.7	174.2	148.9	125.0	113.8	99.7	77.3	57.6	42.1	30.9	23.9
65°	178.4	155.9	134.9	111.0	101.1	87.1	66.0	47.8	33.7	23.9	16.9
67.5°	157.3	137.7	116.6	96.9	87.1	75.9	56.2	40.7	28.1	19.7	14.0
70°	132.1	116.6	98.3	80.1	73.1	63.2	46.4	33.7	22.5	15.5	11.2
72.5°	105.4	92.7	78.7	64.6	59.0	49.2	37.9	26.7	16.9	11.2	8.4
75°	80.1	70.2	59.0	49.2	43.5	37.9	28.1	19.7	12.6	8.4	5.6
77.5°	54.8	50.6	42.1	33.7	30.9	26.7	18.3	12.6	8.4	5.6	2.8
80°	37.9	33.7	28.1	22.5	19.7	16.9	11.2	8.4	4.2	2.8	1.4
82.5°	23.9	19.7	16.9	14.0	12.6	9.8	7.0	4.2	2.8	1.4	1.4
85°	12.6	11.2	9.8	7.0	7.0	5.6	4.2	2.8	1.4	0.0	0.0
87.5°	7.0	5.6	4.2	2.8	2.8	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°	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5
2.5°	1477.9	1477.9	1476.5	1493.3	1473.7	1493.3	1483.5	1493.3	1479.3	1477.9	1479.3
5°	1489.1	1493.3	1494.7	1510.2	1491.9	1515.8	1507.4	1515.8	1506.0	1508.8	1513.0
7.5°	1511.6	1518.6	1517.2	1536.9	1518.6	1545.3	1539.7	1552.3	1542.5	1545.3	1550.9
10°	1536.9	1545.3	1546.7	1566.4	1549.5	1581.8	1574.8	1588.9	1580.4	1584.7	1591.7
12.5°	1566.4	1576.2	1577.6	1600.1	1581.8	1615.6	1611.3	1625.4	1618.4	1622.6	1631.0
15°	1588.9	1602.9	1605.7	1628.2	1608.5	1643.7	1640.8	1659.1	1647.9	1654.9	1661.9
17.5°	1600.1	1612.7	1618.4	1639.4	1622.6	1657.7	1654.9	1670.3	1661.9	1668.9	1677.4
20°	1593.1	1608.5	1612.7	1633.8	1617.0	1652.1	1647.9	1663.3	1654.9	1660.5	1668.9
22.5°	1567.8	1583.2	1588.9	1608.5	1593.1	1625.4	1624.0	1638.0	1626.8	1633.8	1640.8
25°	1522.8	1539.7	1542.5	1560.8	1543.9	1577.6	1574.8	1590.3	1581.8	1586.1	1595.9
27.5°	1458.2	1477.9	1482.1	1497.6	1484.9	1513.0	1513.0	1525.6	1515.8	1515.8	1525.6
30°	1380.9	1400.6	1403.4	1416.1	1404.8	1430.1	1431.5	1444.2	1428.7	1437.1	1438.5
32.5°	1286.8	1299.5	1307.9	1319.1	1302.3	1334.6	1330.4	1340.2	1331.8	1331.8	1338.8
35°	1173.0	1188.5	1192.7	1206.8	1192.7	1218.0	1218.0	1223.6	1215.2	1215.2	1226.4
37.5°	1049.4	1060.6	1062.1	1076.1	1064.9	1085.9	1084.5	1088.7	1080.3	1085.9	1085.9
40°	904.7	913.1	916.0	923.0	921.6	937.0	935.6	938.4	934.2	935.6	938.4
42.5°	736.1	747.4	753.0	758.6	750.2	771.3	767.0	771.3	769.8	771.3	775.5
45°	542.3	550.7	554.9	556.3	553.5	566.1	576.0	567.6	569.0	566.1	571.8
47.5°	391.9	393.4	390.5	399.0	391.9	397.6	400.4	401.8	393.4	391.9	397.6
50°	268.3	275.3	265.5	269.7	268.3	273.9	271.1	272.5	264.1	268.3	265.5
52.5°	178.4	177.0	174.2	175.6	172.8	172.8	172.8	175.6	170.0	167.2	164.4
55°	108.2	105.4	99.7	98.3	98.3	99.7	96.9	94.1	94.1	92.7	92.7
57.5°	63.2	59.0	56.2	54.8	52.0	50.6	49.2	49.2	46.4	46.4	46.4
60°	35.1	30.9	28.1	25.3	25.3	23.9	22.5	21.1	21.1	21.1	19.7
62.5°	18.3	15.5	12.6	11.2	11.2	9.8	8.4	8.4	8.4	8.4	7.0
65°	12.6	9.8	8.4	7.0	7.0	5.6	5.6	5.6	5.6	5.6	5.6
67.5°	9.8	8.4	7.0	5.6	5.6	5.6	4.2	4.2	4.2	4.2	4.2
70°	8.4	5.6	5.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
72.5°	5.6	5.6	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
75°	4.2	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8	2.8
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: P252158

CATALOG NUMBER: LD6B20D010 EU6B10208050 6LBSW1LI

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5	1469.5
2.5°	1491.9	1490.5	1491.9	1494.7	1489.1	1506.0	1497.6	1506.0
5°	1524.2	1525.6	1527.1	1531.3	1524.2	1545.3	1534.1	1546.7
7.5°	1566.4	1567.8	1569.2	1573.4	1569.2	1590.3	1577.6	1588.9
10°	1609.9	1612.7	1612.7	1619.8	1615.6	1635.2	1626.8	1640.8
12.5°	1650.7	1653.5	1656.3	1660.5	1657.7	1678.8	1671.7	1683.0
15°	1683.0	1688.6	1690.0	1695.6	1692.8	1715.3	1706.9	1718.1
17.5°	1698.4	1704.1	1704.1	1711.1	1708.3	1732.2	1720.9	1733.6
20°	1690.0	1694.2	1695.6	1702.7	1699.8	1723.7	1712.5	1727.9
22.5°	1663.3	1664.7	1666.1	1673.2	1671.7	1692.8	1683.0	1692.8
25°	1614.2	1618.4	1617.0	1622.6	1622.6	1639.4	1628.2	1636.6
27.5°	1543.9	1548.1	1548.1	1555.1	1549.5	1566.4	1555.1	1567.8
30°	1458.2	1462.4	1459.6	1465.2	1459.6	1476.5	1468.0	1472.3
32.5°	1355.7	1355.7	1357.1	1358.5	1355.7	1371.1	1362.7	1371.1
35°	1233.4	1236.3	1237.7	1239.1	1236.3	1247.5	1237.7	1243.3
37.5°	1095.8	1102.8	1101.4	1102.8	1098.6	1112.6	1104.2	1107.0
40°	948.3	948.3	946.9	949.7	945.5	956.7	951.1	953.9
42.5°	776.9	781.1	775.5	782.5	771.3	786.7	781.1	776.9
45°	583.0	577.4	576.0	577.4	573.2	574.6	578.8	576.0
47.5°	397.6	397.6	394.8	390.5	396.2	397.6	391.9	391.9
50°	266.9	266.9	264.1	262.7	265.5	264.1	261.3	265.5
52.5°	170.0	164.4	164.4	167.2	164.4	161.6	165.8	163.0
55°	92.7	89.9	89.9	92.7	89.9	89.9	88.5	91.3
57.5°	45.0	46.4	45.0	45.0	45.0	45.0	43.5	45.0
60°	19.7	19.7	19.7	19.7	19.7	19.7	19.7	19.7
62.5°	8.4	8.4	7.0	7.0	7.0	7.0	7.0	7.0
65°	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
67.5°	4.2	4.2	4.2	4.2	4.2	5.6	4.2	4.2
70°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2
72.5°	4.2	4.2	5.6	5.6	5.6	5.6	5.6	5.6
75°	2.8	2.8	2.8	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)