

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: P136547

Luminaire Tested: **LD6A20D010TE ERW6A20840 6LW121LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P136547
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23360)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A20D010TE ERW6A20840 6LW121LI
Description: PORTFOLIO 6 INCH 60 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 4000K
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2505.0 lumens
Efficiency: N/A
Efficacy: 76.4 lumens/watt
Spacing Criteria (0/90/45): 1.13 / 1.24 / 1.14
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

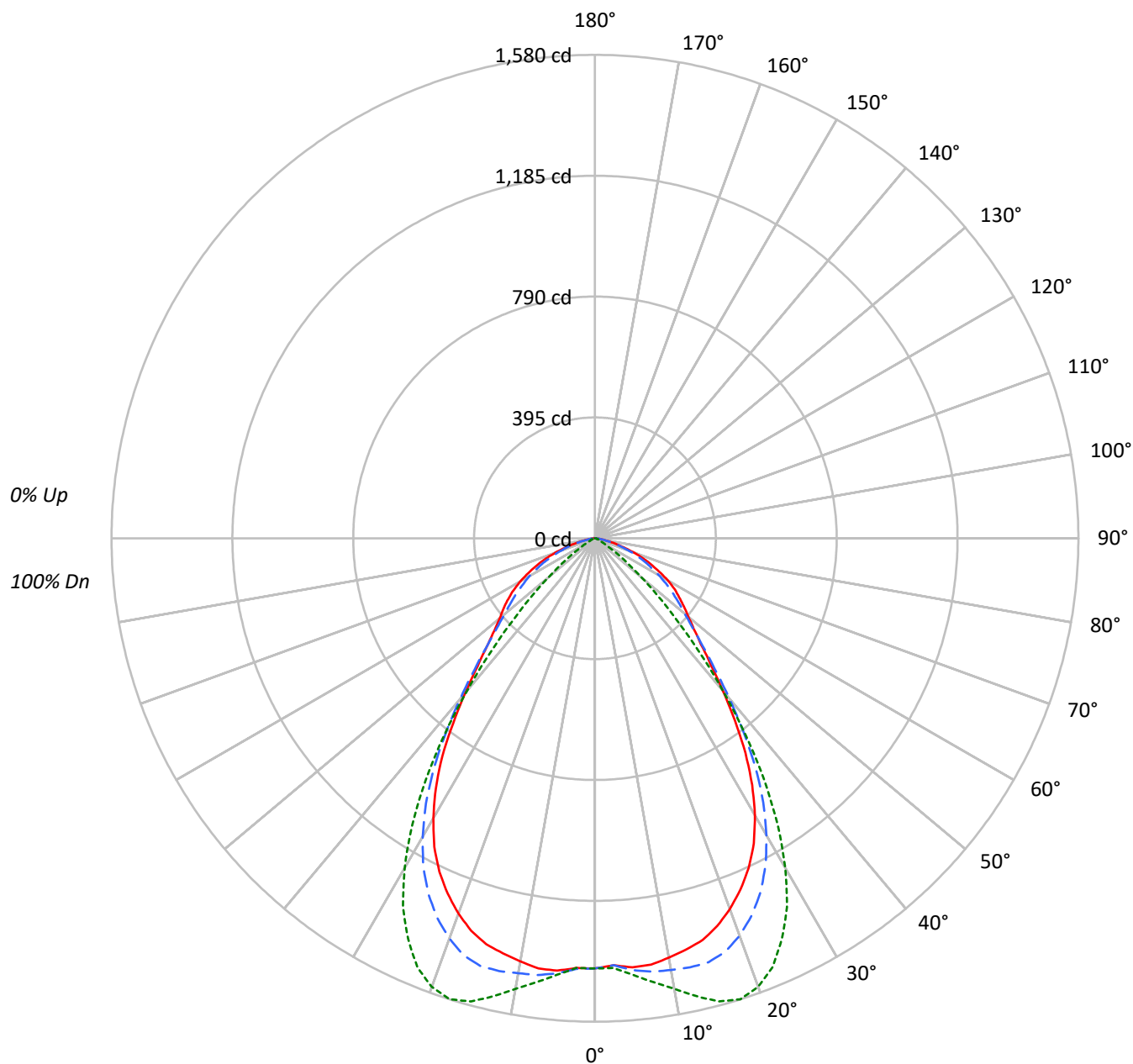
Input Watts (W): 32.8
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P136547

CATALOG NUMBER: LD6A20D010TE ERW6A20840 6LW121LI

Luminous Intensity Polar Plot





TEST NUMBER: P136547

CATALOG NUMBER: LD6A20D010TE ERW6A20840 6LW121LI

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	111	108	105	102	109	106	103	100	102	99	97		98	96	94		94
2	104	97	92	88	101	96	91	87	92	88	85		89	86	83		86
3	97	88	82	76	94	87	81	76	84	79	74		81	77	73		79
4	90	80	73	67	88	79	72	67	77	71	66		74	69	65		72
5	84	73	66	60	82	72	65	60	70	64	59		68	63	59		67
6	78	67	60	54	77	66	59	54	65	58	54		63	57	53		62
7	73	62	54	49	72	61	54	49	60	53	49		58	53	48		57
8	69	57	50	45	68	57	50	45	55	49	44		54	48	44		53
9	65	53	46	41	64	53	46	41	52	45	41		51	45	41		50
10	61	49	42	38	60	49	42	38	48	42	38		47	42	37		46

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	91709	91709	91709
5°	92177	93821	92884
10°	92176	99066	93004
15°	91796	105845	92762
20°	89506	108300	90624
25°	85576	104033	86605
30°	78746	93737	79560
35°	68263	76825	69259
40°	55281	55281	56039
45°	45163	35070	45994
50°	40396	20015	41126
55°	38138	10191	39355
60°	35791	4449	36730
65°	31276	2485	32387
70°	25313	2060	26343
75°	17620	1361	18073
80°	10783	676	10783
85°	5390	1347	5390



TEST NUMBER: P136547

CATALOG NUMBER: LD6A20D010TE ERW6A20840 6LW121LI

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	136.7	5.5
10°-20°	409.8	16.4
20°-30°	596.1	23.8
30°-40°	566.5	22.6
40°-50°	367.0	14.7
50°-60°	230.2	9.2
60°-70°	137.7	5.5
70°-80°	53.7	2.1
80°-90°	7.3	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°	1142.5	45.6
0°-40°	1709.0	68.2
0°-60°	2306.3	92.1
0°-90°	2505.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2505.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1406	1406	1406	1406	1406	
5°	1408	1416	1433	1427	1418	134
15°	1359	1434	1567	1447	1373	382
25°	1189	1278	1445	1286	1203	543
35°	857	914	965	918	870	531
45°	490	497	380	498	498	387
55°	335	308	90	312	346	301
65°	203	178	16	181	210	200
75°	70	61	5	63	72	78
85°	7	7	2	7	7	11
90°	0	0	0	0	0	



TEST NUMBER: P136547

CATALOG NUMBER: LD6A20D010TE ERW6A20840 6LW121LI

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7
2.5°	1396.7	1387.8	1412.9	1398.5	1400.3	1418.3	1403.9	1398.5	1416.5	1396.7	1405.7
5°	1407.5	1400.3	1425.4	1412.9	1414.7	1432.6	1420.1	1414.7	1434.4	1416.5	1425.4
7.5°	1405.7	1400.3	1423.6	1412.9	1414.7	1436.2	1423.6	1421.8	1445.2	1429.0	1441.6
10°	1391.4	1384.2	1409.3	1400.3	1403.9	1427.2	1416.5	1416.5	1443.4	1432.6	1450.5
12.5°	1377.0	1369.8	1394.9	1387.8	1391.4	1416.5	1409.3	1412.9	1443.4	1436.2	1459.5
15°	1359.1	1351.9	1378.8	1371.6	1375.2	1402.1	1398.5	1402.1	1436.2	1434.4	1461.3
17.5°	1328.6	1325.0	1348.3	1344.7	1348.3	1375.2	1373.4	1378.8	1416.5	1416.5	1450.5
20°	1289.2	1283.8	1308.9	1305.3	1307.1	1334.0	1334.0	1339.4	1378.8	1382.4	1416.5
22.5°	1242.5	1239.0	1264.1	1258.7	1262.3	1287.4	1287.4	1292.7	1330.4	1335.8	1371.6
25°	1188.8	1185.2	1208.5	1206.7	1208.5	1233.6	1231.8	1239.0	1274.8	1278.4	1312.5
27.5°	1124.2	1118.8	1142.1	1142.1	1143.9	1167.2	1167.2	1170.8	1203.1	1206.7	1239.0
30°	1045.3	1039.9	1061.5	1063.2	1063.2	1086.6	1086.6	1088.3	1118.8	1120.6	1149.3
32.5°	955.7	955.7	971.8	973.6	973.6	995.1	996.9	996.9	1023.8	1023.8	1047.1
35°	857.1	858.8	871.4	873.2	875.0	894.7	894.7	892.9	916.2	914.4	934.2
37.5°	751.3	751.3	763.8	765.6	765.6	783.5	783.5	781.7	801.5	796.1	810.4
40°	649.1	649.1	659.8	663.4	661.6	676.0	676.0	674.2	688.5	681.3	688.5
42.5°	559.4	563.0	570.2	572.0	570.2	582.7	580.9	579.1	589.9	579.1	580.9
45°	489.5	493.1	498.5	500.2	498.5	507.4	505.6	502.0	507.4	496.7	491.3
47.5°	437.5	439.3	448.2	446.5	444.7	451.8	451.8	444.7	446.5	432.1	421.4
50°	398.0	399.8	407.0	407.0	403.4	410.6	407.0	399.8	398.0	381.9	365.8
52.5°	365.8	367.6	374.7	374.7	371.1	376.5	372.9	362.2	360.4	344.3	324.5
55°	335.3	337.1	344.3	344.3	340.7	344.3	338.9	329.9	326.3	308.4	286.9
57.5°	308.4	306.6	312.0	312.0	308.4	310.2	306.6	297.6	290.5	274.3	252.8
60°	274.3	272.5	276.1	276.1	272.5	274.3	270.7	260.0	256.4	240.3	218.7
62.5°	236.7	236.7	240.3	240.3	236.7	236.7	234.9	224.1	220.5	206.2	188.3
65°	202.6	202.6	206.2	206.2	202.6	204.4	200.8	193.6	190.1	177.5	161.4
67.5°	168.5	168.5	170.3	170.3	168.5	168.5	166.7	161.4	156.0	147.0	132.7
70°	132.7	132.7	134.5	134.5	132.7	132.7	132.7	127.3	125.5	116.5	105.8
72.5°	98.6	98.6	100.4	100.4	100.4	102.2	100.4	96.8	93.2	87.9	78.9
75°	69.9	69.9	69.9	71.7	69.9	69.9	71.7	68.1	66.3	61.0	55.6
77.5°	46.6	46.6	46.6	46.6	46.6	48.4	46.6	46.6	44.8	41.2	37.7
80°	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	26.9	26.9	23.3
82.5°	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	16.1	14.3	12.6
85°	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	7.2	5.4
87.5°	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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: P136547

CATALOG NUMBER: LD6A20D010TE ERW6A20840 6LW121LI

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7
2.5°	1403.9	1405.7	1405.7	1411.1	1416.5	1402.1	1409.3	1405.7	1402.1	1416.5	1407.5
5°	1427.2	1429.0	1429.0	1436.2	1443.4	1427.2	1434.4	1432.6	1429.0	1441.6	1432.6
7.5°	1445.2	1450.5	1454.1	1463.1	1472.0	1457.7	1466.7	1463.1	1461.3	1473.8	1461.3
10°	1457.7	1468.5	1473.8	1488.2	1500.7	1486.4	1498.9	1495.4	1493.6	1504.3	1490.0
12.5°	1472.0	1486.4	1500.7	1516.9	1534.8	1522.3	1538.4	1533.0	1533.0	1542.0	1524.0
15°	1481.0	1498.9	1518.7	1542.0	1563.5	1554.5	1572.5	1567.1	1567.1	1574.2	1554.5
17.5°	1472.0	1495.4	1518.7	1545.6	1570.7	1565.3	1585.0	1579.6	1577.8	1585.0	1561.7
20°	1441.6	1468.5	1495.4	1522.3	1550.9	1547.4	1568.9	1559.9	1561.7	1565.3	1542.0
22.5°	1393.2	1421.8	1448.7	1477.4	1504.3	1502.5	1522.3	1516.9	1515.1	1520.5	1495.4
25°	1335.8	1360.9	1386.0	1411.1	1438.0	1434.4	1454.1	1445.2	1446.9	1448.7	1427.2
27.5°	1258.7	1282.0	1301.7	1323.2	1348.3	1343.0	1362.7	1359.1	1353.7	1355.5	1337.6
30°	1163.7	1183.4	1197.7	1215.7	1235.4	1230.0	1247.9	1244.3	1240.8	1240.8	1230.0
32.5°	1056.1	1070.4	1079.4	1091.9	1106.3	1100.9	1115.2	1111.7	1108.1	1108.1	1100.9
35°	935.9	944.9	944.9	952.1	962.8	953.9	966.4	964.6	959.3	961.0	959.3
37.5°	805.1	808.6	801.5	801.5	808.6	796.1	806.8	806.8	801.5	803.3	803.3
40°	677.8	676.0	661.6	654.4	654.4	641.9	650.9	649.1	645.5	647.3	650.9
42.5°	564.8	554.0	534.3	520.0	516.4	502.0	507.4	505.6	502.0	505.6	511.0
45°	469.8	450.0	423.1	403.4	394.5	380.1	381.9	380.1	378.3	381.9	390.9
47.5°	394.5	367.6	333.5	308.4	295.8	279.7	279.7	277.9	277.9	286.9	292.3
50°	335.3	303.0	263.6	234.9	217.0	202.6	199.0	197.2	199.0	206.2	217.0
52.5°	290.5	251.0	208.0	177.5	157.8	141.6	138.1	136.3	138.1	145.2	156.0
55°	251.0	209.8	165.0	130.9	109.4	95.0	89.6	89.6	89.6	98.6	109.4
57.5°	215.2	173.9	129.1	95.0	75.3	61.0	55.6	53.8	57.4	62.8	73.5
60°	184.7	145.2	102.2	71.7	52.0	39.4	34.1	34.1	34.1	41.2	52.0
62.5°	157.8	121.9	82.5	53.8	37.7	26.9	21.5	21.5	23.3	26.9	37.7
65°	134.5	104.0	69.9	46.6	30.5	21.5	17.9	16.1	17.9	21.5	30.5
67.5°	111.2	86.1	59.2	39.4	26.9	17.9	16.1	14.3	14.3	19.7	25.1
70°	87.9	68.1	48.4	32.3	21.5	14.3	12.6	10.8	12.6	16.1	21.5
72.5°	66.3	52.0	35.9	25.1	16.1	12.6	9.0	9.0	9.0	12.6	16.1
75°	46.6	37.7	26.9	17.9	10.8	7.2	7.2	5.4	7.2	9.0	10.8
77.5°	30.5	25.1	17.9	10.8	7.2	5.4	3.6	3.6	3.6	5.4	7.2
80°	19.7	16.1	10.8	7.2	5.4	3.6	1.8	1.8	1.8	3.6	3.6
82.5°	10.8	9.0	5.4	3.6	3.6	1.8	1.8	1.8	1.8	1.8	1.8
85°	5.4	3.6	3.6	1.8	1.8	1.8	0.0	1.8	1.8	1.8	1.8
87.5°	1.8	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: P136547

CATALOG NUMBER: LD6A20D010TE ERW6A20840 6LW121LI

CANDELA DISTRIBUTION (continued):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7	1405.7
2.5°	1409.3	1403.9	1411.1	1416.5	1414.7	1409.3	1418.3	1403.9	1409.3	1403.9	1394.9
5°	1434.4	1429.0	1434.4	1438.0	1436.2	1427.2	1434.4	1421.8	1425.4	1418.3	1409.3
7.5°	1461.3	1454.1	1455.9	1457.7	1452.3	1439.8	1445.2	1429.0	1430.8	1421.8	1411.1
10°	1486.4	1475.6	1473.8	1470.3	1459.5	1443.4	1445.2	1425.4	1423.6	1411.1	1398.5
12.5°	1518.7	1500.7	1493.6	1486.4	1470.3	1448.7	1445.2	1421.8	1418.3	1403.9	1389.6
15°	1542.0	1522.3	1509.7	1495.4	1473.8	1446.9	1439.8	1412.9	1405.7	1389.6	1375.2
17.5°	1547.4	1522.3	1504.3	1486.4	1461.3	1429.0	1418.3	1389.6	1380.6	1362.7	1348.3
20°	1524.0	1497.2	1477.4	1454.1	1429.0	1391.4	1380.6	1350.1	1339.4	1323.2	1308.9
22.5°	1479.2	1448.7	1429.0	1405.7	1380.6	1344.7	1332.2	1303.5	1292.7	1276.6	1262.3
25°	1414.7	1386.0	1366.3	1344.7	1321.4	1285.6	1274.8	1247.9	1239.0	1222.8	1208.5
27.5°	1325.0	1298.1	1287.4	1265.9	1244.3	1213.9	1203.1	1179.8	1170.8	1160.1	1143.9
30°	1217.4	1194.1	1188.8	1169.0	1152.9	1126.0	1117.0	1097.3	1088.3	1079.4	1065.0
32.5°	1093.7	1075.8	1075.8	1059.7	1048.9	1027.4	1020.2	1004.1	996.9	989.7	977.2
35°	953.9	941.3	948.5	937.7	932.4	918.0	912.6	900.1	894.7	889.3	876.8
37.5°	805.1	796.1	810.4	812.2	812.2	799.7	796.1	788.9	785.3	780.0	769.2
40°	658.0	656.2	677.8	681.3	692.1	684.9	686.7	681.3	677.8	674.2	667.0
42.5°	521.8	528.9	555.8	572.0	582.7	582.7	588.1	586.3	584.5	580.9	575.6
45°	405.2	419.6	451.8	471.6	493.1	498.5	507.4	507.4	509.2	507.4	502.0
47.5°	310.2	331.7	369.4	399.8	423.1	433.9	446.5	450.0	451.8	451.8	448.2
50°	234.9	261.8	304.8	338.9	371.1	385.5	399.8	405.2	412.4	410.6	407.0
52.5°	177.5	208.0	254.6	295.8	329.9	346.0	362.2	369.4	376.5	376.5	374.7
55°	130.9	163.2	213.4	256.4	292.3	312.0	328.1	335.3	344.3	346.0	344.3
57.5°	95.0	127.3	175.7	222.3	256.4	277.9	294.1	301.2	310.2	312.0	312.0
60°	69.9	102.2	148.8	191.9	224.1	245.6	258.2	267.2	274.3	277.9	277.9
62.5°	53.8	82.5	125.5	165.0	193.6	211.6	224.1	231.3	238.5	240.3	242.1
65°	44.8	69.9	105.8	139.9	165.0	181.1	191.9	199.0	204.4	206.2	206.2
67.5°	37.7	59.2	87.9	114.8	136.3	148.8	157.8	163.2	168.5	170.3	170.3
70°	30.5	46.6	69.9	91.4	107.6	118.3	125.5	130.9	134.5	134.5	134.5
72.5°	23.3	35.9	52.0	68.1	80.7	89.6	95.0	96.8	100.4	100.4	100.4
75°	16.1	25.1	37.7	48.4	55.6	62.8	66.3	68.1	69.9	71.7	69.9
77.5°	10.8	16.1	23.3	30.5	37.7	41.2	43.0	44.8	46.6	46.6	46.6
80°	7.2	10.8	14.3	19.7	23.3	25.1	26.9	26.9	28.7	28.7	28.7
82.5°	3.6	5.4	9.0	10.8	12.6	14.3	14.3	14.3	16.1	16.1	14.3
85°	1.8	1.8	3.6	5.4	5.4	7.2	7.2	7.2	7.2	7.2	7.2
87.5°	0.0	0.0	0.0	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
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: P136547

CATALOG NUMBER: LD6A20D010TE ERW6A20840 6LW121LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1405.7	1405.7	1405.7	1405.7
2.5°	1398.5	1402.1	1387.8	1405.7
5°	1411.1	1414.7	1400.3	1418.3
7.5°	1412.9	1414.7	1400.3	1418.3
10°	1400.3	1400.3	1386.0	1403.9
12.5°	1389.6	1387.8	1371.6	1389.6
15°	1373.4	1371.6	1355.5	1373.4
17.5°	1346.5	1344.7	1328.6	1344.7
20°	1305.3	1303.5	1289.2	1305.3
22.5°	1260.5	1256.9	1242.5	1256.9
25°	1208.5	1204.9	1190.5	1203.1
27.5°	1142.1	1138.6	1124.2	1136.8
30°	1063.2	1057.9	1047.1	1056.1
32.5°	973.6	970.0	957.5	968.2
35°	875.0	869.6	860.6	869.6
37.5°	767.4	763.8	754.9	760.2
40°	663.4	661.6	654.4	658.0
42.5°	573.8	570.2	564.8	568.4
45°	502.0	500.2	494.9	498.5
47.5°	448.2	446.5	441.1	444.7
50°	408.8	407.0	403.4	405.2
52.5°	376.5	374.7	371.1	376.5
55°	347.8	346.0	340.7	346.0
57.5°	315.6	313.8	308.4	315.6
60°	279.7	279.7	274.3	281.5
62.5°	243.8	243.8	240.3	245.6
65°	209.8	208.0	206.2	209.8
67.5°	172.1	170.3	170.3	173.9
70°	136.3	134.5	134.5	138.1
72.5°	102.2	100.4	100.4	102.2
75°	71.7	69.9	69.9	71.7
77.5°	46.6	46.6	46.6	46.6
80°	28.7	28.7	28.7	28.7
82.5°	16.1	16.1	14.3	16.1
85°	7.2	7.2	7.2	7.2
87.5°	1.8	1.8	1.8	1.8
90°	0.0	0.0	0.0	0.0



Report Generated By E9808895 / USPTCWHP6082093





— 0°-180° - - 45°-225° - - - 90°-270°













(END OF REPORT)