

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: P135552

Luminaire Tested: **LD6A15D010TE ERM6A15827 6LM111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135552
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23399)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LD6A15D010TE ERM6A15827 6LM111LI
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED SINGLE WALL WASH LUMINAIRE
SPECULAR CLEAR TRIM AND SPECULAR CLEAR KICKER
Light Source: (1) HIGH LUMEN LED 2700K
Ballast/Driver: ELECTRONIC DRIVER

Summary

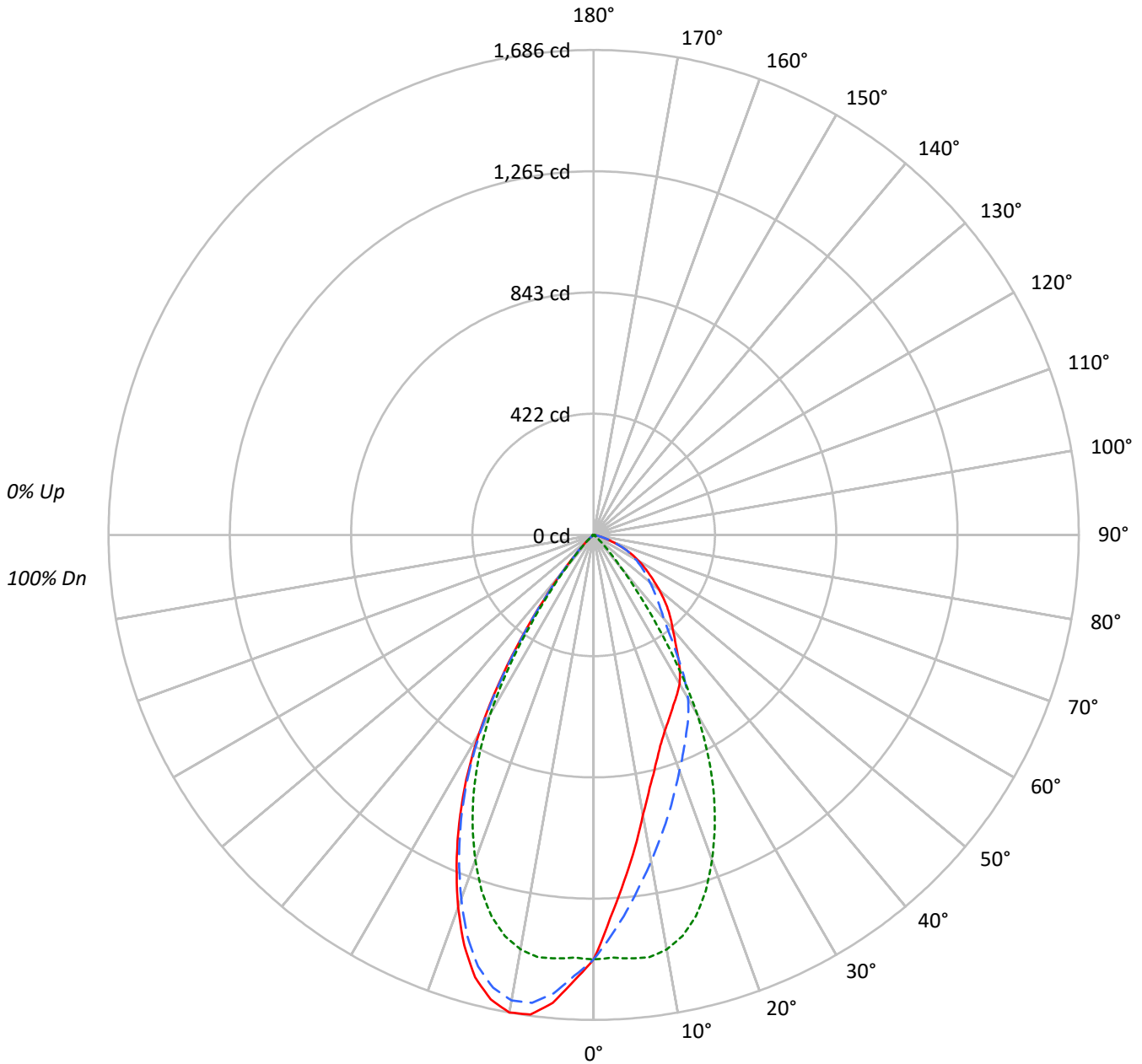
Lumens per Lamp: N/A
Luminaire Lumens: 1453.0 lumens
Efficiency: N/A
Efficacy: 64.3 lumens/watt
Spacing Criteria (0/90/45): 0.85 / 0.93 / 0.89
Luminous Opening: Circular (Dia: 0.46' x H: 0')
CIE Type: Direct

Input Watts (W): 22.6
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				100															
1	113	110	107	104	110	107	105	103	103	101	100	100	98	97	96	95	94	92				92															
2	106	101	96	93	104	99	95	91	96	92	89	93	90	87	90	88	86	84				84															
3	100	93	87	83	98	92	86	82	89	85	81	86	83	80	84	81	78	77				77															
4	95	86	80	75	93	85	79	75	83	78	74	81	76	73	79	75	72	71				71															
5	89	80	74	69	88	79	73	69	77	72	68	75	71	67	74	70	67	65				65															
6	84	75	68	63	83	74	68	63	72	67	63	71	66	62	69	65	62	60				60															
7	80	70	63	59	78	69	63	59	68	62	58	67	62	58	65	61	58	56				56															
8	76	65	59	55	74	65	59	54	64	58	54	63	58	54	62	57	54	52				52															
9	72	62	55	51	71	61	55	51	60	55	51	59	54	50	58	54	50	49				49															
10	68	58	52	48	67	58	52	48	57	51	48	56	51	47	55	51	47	46				46															

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	96295	96295	96295
5°	79125	96794	106938
10°	65406	96919	111679
15°	56019	92668	107520
20°	50231	83466	95602
25°	47114	71071	79702
30°	45019	54202	59996
35°	40587	30719	34781
40°	36425	12511	14725
45°	33649	4336	4982
50°	30226	1522	1624
55°	26707	910	796
60°	23604	783	652
65°	19435	617	463
70°	12971	572	382
75°	7058	504	252
80°	3757	1127	0
85°	1497	1497	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	137.4	9.5
10°-20°	357.5	24.6
20°-30°	422.3	29.1
30°-40°	281.4	19.4
40°-50°	122.1	8.4
50°-60°	73.2	5.0
60°-70°	43.9	3.0
70°-80°	13.5	0.9
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°	917.2	63.1
0°-40°	1198.6	82.5
0°-60°	1393.9	95.9
0°-90°	1453.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1453.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1476	1476	1476	1476	1476	
5°	1208	1313	1478	1600	1633	109
15°	829	1005	1372	1553	1592	234
25°	654	762	987	1090	1107	303
35°	510	502	386	429	437	319
45°	365	309	47	54	54	281
55°	235	209	8	7	7	211
65°	126	125	4	3	3	124
75°	28	31	2	1	1	34
85°	2	3	2	0	0	3
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0
2.5°	1332.1	1355.1	1365.0	1372.0	1346.1	1374.0	1365.0	1378.0	1382.0	1395.0	1407.0
5°	1208.2	1230.1	1241.1	1249.1	1229.1	1261.1	1260.1	1277.1	1291.1	1313.1	1328.1
7.5°	1097.2	1107.2	1118.2	1129.2	1120.2	1149.2	1154.2	1178.2	1199.2	1229.1	1257.1
10°	987.3	997.3	1008.3	1020.3	1016.3	1045.3	1056.3	1083.2	1111.2	1151.2	1181.2
12.5°	899.4	909.4	919.4	931.4	929.4	958.3	972.3	1001.3	1035.3	1075.3	1109.2
15°	829.4	838.4	848.4	856.4	858.4	885.4	900.4	928.4	964.3	1005.3	1040.3
17.5°	768.5	778.5	787.5	794.4	796.4	821.4	836.4	861.4	896.4	935.3	969.3
20°	723.5	732.5	740.5	747.5	747.5	769.5	782.5	805.4	836.4	872.4	901.4
22.5°	687.5	695.5	702.5	708.5	708.5	727.5	738.5	757.5	784.5	814.4	838.4
25°	654.5	662.5	668.5	673.5	672.5	690.5	699.5	713.5	736.5	761.5	779.5
27.5°	626.6	634.6	639.6	646.5	642.6	657.5	664.5	676.5	694.5	712.5	722.5
30°	597.6	605.6	610.6	616.6	612.6	625.6	629.6	635.6	647.5	656.5	657.5
32.5°	557.6	564.6	569.6	572.6	567.6	577.6	577.6	578.6	582.6	583.6	575.6
35°	509.6	514.6	518.6	519.6	513.6	519.6	518.6	511.6	509.6	501.7	485.7
37.5°	464.7	470.7	472.7	472.7	464.7	467.7	463.7	452.7	444.7	430.7	408.7
40°	427.7	432.7	433.7	432.7	424.7	425.7	419.7	406.7	395.7	378.7	350.8
42.5°	396.7	400.7	401.7	400.7	392.7	392.7	386.7	372.7	359.7	340.8	311.8
45°	364.7	368.7	370.7	368.7	361.7	361.7	354.8	341.8	328.8	308.8	279.8
47.5°	331.8	334.8	336.8	335.8	328.8	328.8	322.8	309.8	298.8	280.8	252.8
50°	297.8	301.8	303.8	302.8	296.8	296.8	291.8	279.8	270.8	254.8	229.8
52.5°	264.8	269.8	270.8	268.8	264.8	263.8	260.8	249.8	242.8	231.8	207.9
55°	234.8	238.8	238.8	238.8	233.8	232.8	230.8	221.8	217.8	208.9	188.9
57.5°	207.9	210.9	209.9	208.9	206.9	204.9	202.9	195.9	193.9	187.9	170.9
60°	180.9	183.9	182.9	181.9	179.9	177.9	175.9	170.9	170.9	166.9	152.9
62.5°	154.9	156.9	155.9	154.9	154.9	152.9	151.9	147.9	148.9	146.9	134.9
65°	125.9	128.9	127.9	127.9	128.9	128.9	127.9	125.9	125.9	124.9	114.9
67.5°	95.9	98.9	97.9	98.9	101.9	102.9	102.9	101.9	101.9	99.9	90.9
70°	68.0	70.0	70.0	71.0	73.9	74.9	77.9	74.9	74.9	72.9	66.0
72.5°	45.0	46.0	47.0	49.0	50.0	51.0	53.0	53.0	52.0	49.0	44.0
75°	28.0	29.0	29.0	30.0	31.0	32.0	34.0	33.0	32.0	31.0	27.0
77.5°	17.0	17.0	18.0	18.0	19.0	20.0	20.0	20.0	19.0	18.0	16.0
80°	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0	10.0	9.0
82.5°	5.0	5.0	5.0	6.0	6.0	6.0	6.0	6.0	6.0	5.0	5.0
85°	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0
87.5°	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0
2.5°	1419.0	1419.0	1416.0	1434.0	1457.0	1453.0	1454.0	1471.0	1478.0	1490.0	1501.0
5°	1354.1	1365.0	1373.0	1402.0	1435.0	1441.0	1452.0	1478.0	1494.0	1513.9	1532.9
7.5°	1289.1	1312.1	1331.1	1369.0	1412.0	1428.0	1448.0	1481.0	1502.0	1528.9	1554.9
10°	1222.1	1254.1	1282.1	1328.1	1378.0	1401.0	1426.0	1463.0	1491.0	1519.9	1548.9
12.5°	1155.2	1194.2	1229.1	1280.1	1333.1	1361.1	1389.0	1428.0	1458.0	1488.0	1517.9
15°	1089.2	1131.2	1168.2	1222.1	1276.1	1305.1	1333.1	1372.0	1404.0	1432.0	1462.0
17.5°	1016.3	1063.3	1097.2	1148.2	1200.2	1229.1	1260.1	1296.1	1324.1	1348.1	1377.0
20°	945.3	989.3	1020.3	1067.3	1114.2	1141.2	1170.2	1202.2	1227.1	1248.1	1275.1
22.5°	876.4	915.4	944.3	987.3	1023.3	1046.3	1071.3	1099.2	1121.2	1138.2	1162.2
25°	809.4	840.4	862.4	896.4	925.4	943.3	964.3	987.3	1006.3	1020.3	1042.3
27.5°	742.5	763.5	771.5	792.4	810.4	830.4	841.4	859.4	876.4	887.4	906.4
30°	665.5	672.5	665.5	671.5	676.5	685.5	698.5	719.5	727.5	734.5	753.5
32.5°	569.6	564.6	541.6	532.6	526.6	535.6	537.6	553.6	558.6	564.6	579.6
35°	468.7	450.7	413.7	390.7	376.7	377.7	368.7	385.7	388.7	394.7	405.7
37.5°	382.7	353.8	305.8	273.8	252.8	247.8	236.8	246.8	247.8	251.8	259.8
40°	319.8	278.8	224.8	186.9	163.9	153.9	142.9	146.9	146.9	149.9	154.9
42.5°	275.8	231.8	170.9	129.9	104.9	92.9	83.9	83.9	83.9	84.9	87.9
45°	242.8	193.9	132.9	90.9	68.0	56.0	47.0	47.0	46.0	46.0	48.0
47.5°	215.8	166.9	104.9	67.0	44.0	33.0	27.0	25.0	24.0	25.0	26.0
50°	193.9	145.9	86.9	51.0	31.0	22.0	17.0	15.0	14.0	14.0	14.0
52.5°	174.9	128.9	72.9	41.0	24.0	16.0	12.0	10.0	9.0	9.0	9.0
55°	158.9	113.9	63.0	34.0	20.0	14.0	10.0	8.0	7.0	7.0	7.0
57.5°	142.9	100.9	54.0	29.0	17.0	12.0	9.0	7.0	6.0	6.0	6.0
60°	126.9	87.9	47.0	24.0	14.0	10.0	8.0	6.0	5.0	5.0	5.0
62.5°	110.9	74.9	39.0	20.0	12.0	9.0	6.0	5.0	5.0	4.0	4.0
65°	91.9	61.0	32.0	17.0	10.0	7.0	6.0	4.0	4.0	4.0	4.0
67.5°	71.9	47.0	24.0	13.0	8.0	6.0	5.0	4.0	3.0	3.0	3.0
70°	51.0	33.0	18.0	10.0	7.0	5.0	4.0	3.0	3.0	3.0	2.0
72.5°	34.0	22.0	13.0	8.0	6.0	4.0	3.0	3.0	2.0	2.0	2.0
75°	22.0	14.0	9.0	6.0	4.0	4.0	3.0	2.0	2.0	2.0	1.0
77.5°	13.0	9.0	6.0	4.0	3.0	3.0	3.0	3.0	3.0	2.0	1.0
80°	7.0	5.0	4.0	3.0	2.0	3.0	3.0	3.0	3.0	2.0	1.0
82.5°	4.0	3.0	2.0	2.0	2.0	2.0	2.0	3.0	3.0	2.0	1.0
85°	2.0	2.0	1.0	1.0	1.0	2.0	2.0	2.0	2.0	1.0	1.0
87.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.0	2.0	1.0	1.0
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0	1476.0
2.5°	1509.9	1515.9	1517.9	1520.9	1537.9	1533.9	1548.9	1548.9	1560.9	1553.9	1560.9
5°	1548.9	1561.9	1567.9	1575.9	1599.9	1599.9	1617.9	1620.9	1636.9	1631.9	1638.9
7.5°	1573.9	1589.9	1597.9	1610.9	1636.9	1640.9	1657.8	1662.8	1681.8	1678.8	1682.8
10°	1568.9	1585.9	1595.9	1609.9	1636.9	1642.9	1657.8	1666.8	1684.8	1680.8	1682.8
12.5°	1537.9	1553.9	1564.9	1577.9	1605.9	1612.9	1625.9	1635.9	1652.8	1649.9	1649.9
15°	1480.0	1498.0	1507.0	1517.9	1544.9	1552.9	1562.9	1570.9	1589.9	1587.9	1584.9
17.5°	1393.0	1410.0	1417.0	1426.0	1452.0	1461.0	1469.0	1475.0	1493.0	1492.0	1487.0
20°	1287.1	1302.1	1308.1	1314.1	1337.1	1346.1	1352.1	1358.1	1373.0	1373.0	1366.0
22.5°	1171.2	1184.2	1188.2	1193.2	1213.2	1222.1	1225.1	1230.1	1244.1	1244.1	1235.1
25°	1048.3	1059.3	1061.3	1065.3	1082.2	1090.2	1091.2	1094.2	1108.2	1108.2	1099.2
27.5°	910.4	919.4	921.4	923.4	938.3	946.3	945.3	956.3	960.3	962.3	951.3
30°	755.5	770.5	762.5	771.5	776.5	784.5	781.5	792.4	795.4	798.4	784.5
32.5°	581.6	595.6	586.6	595.6	597.6	605.6	601.6	611.6	613.6	616.6	603.6
35°	407.7	418.7	410.7	413.7	420.7	428.7	423.7	432.7	434.7	435.7	425.7
37.5°	261.8	269.8	271.8	274.8	274.8	280.8	282.8	282.8	283.8	284.8	276.8
40°	156.9	162.9	163.9	162.9	165.9	170.9	171.9	170.9	171.9	172.9	167.9
42.5°	88.9	92.9	93.9	93.9	95.9	98.9	98.9	97.9	98.9	98.9	95.9
45°	49.0	51.0	52.0	51.0	52.0	54.0	54.0	54.0	54.0	54.0	53.0
47.5°	26.0	27.0	27.0	28.0	27.0	28.0	28.0	28.0	29.0	29.0	28.0
50°	14.0	15.0	15.0	15.0	15.0	16.0	16.0	16.0	16.0	16.0	15.0
52.5°	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0	9.0
55°	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
57.5°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
60°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
62.5°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
65°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
67.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
70°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
72.5°	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
75°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
77.5°	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
80°	1.0	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	1.0	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: P135552

CATALOG NUMBER: LD6A15D010TE ERM6A15827 6LM111LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1476.0	1476.0	1476.0	1476.0
2.5°	1563.9	1568.9	1561.9	1550.9
5°	1643.9	1649.9	1642.9	1632.9
7.5°	1687.8	1696.8	1688.8	1681.8
10°	1689.8	1698.8	1689.8	1685.8
12.5°	1656.8	1665.8	1655.8	1653.8
15°	1593.9	1600.9	1590.9	1591.9
17.5°	1497.0	1503.0	1493.0	1496.0
20°	1375.0	1381.0	1371.0	1377.0
22.5°	1244.1	1248.1	1246.1	1245.1
25°	1107.2	1110.2	1101.2	1107.2
27.5°	957.3	959.3	960.3	959.3
30°	791.4	792.4	786.5	796.4
32.5°	609.6	608.6	606.6	615.6
35°	428.7	428.7	428.7	436.7
37.5°	278.8	277.8	278.8	284.8
40°	168.9	167.9	168.9	172.9
42.5°	95.9	95.9	96.9	98.9
45°	54.0	53.0	53.0	54.0
47.5°	29.0	29.0	28.0	29.0
50°	16.0	16.0	15.0	16.0
52.5°	9.0	9.0	9.0	9.0
55°	7.0	7.0	7.0	7.0
57.5°	6.0	6.0	6.0	6.0
60°	5.0	5.0	5.0	5.0
62.5°	4.0	4.0	4.0	4.0
65°	3.0	4.0	3.0	3.0
67.5°	3.0	3.0	3.0	3.0
70°	2.0	2.0	2.0	2.0
72.5°	2.0	2.0	2.0	2.0
75°	1.0	1.0	1.0	1.0
77.5°	1.0	1.0	1.0	1.0
80°	0.0	0.0	0.0	0.0
82.5°	0.0	0.0	0.0	0.0
85°	0.0	0.0	0.0	0.0
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°













(END OF REPORT)