

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: P135525

Luminaire Tested: **LD6A10D010TE ERM6A10930 6LM111LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135525  
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: LD6A10D010TE ERM6A10930 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 3000K  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1077.7 lumens  
Efficiency: N/A  
Efficacy: 77.0 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

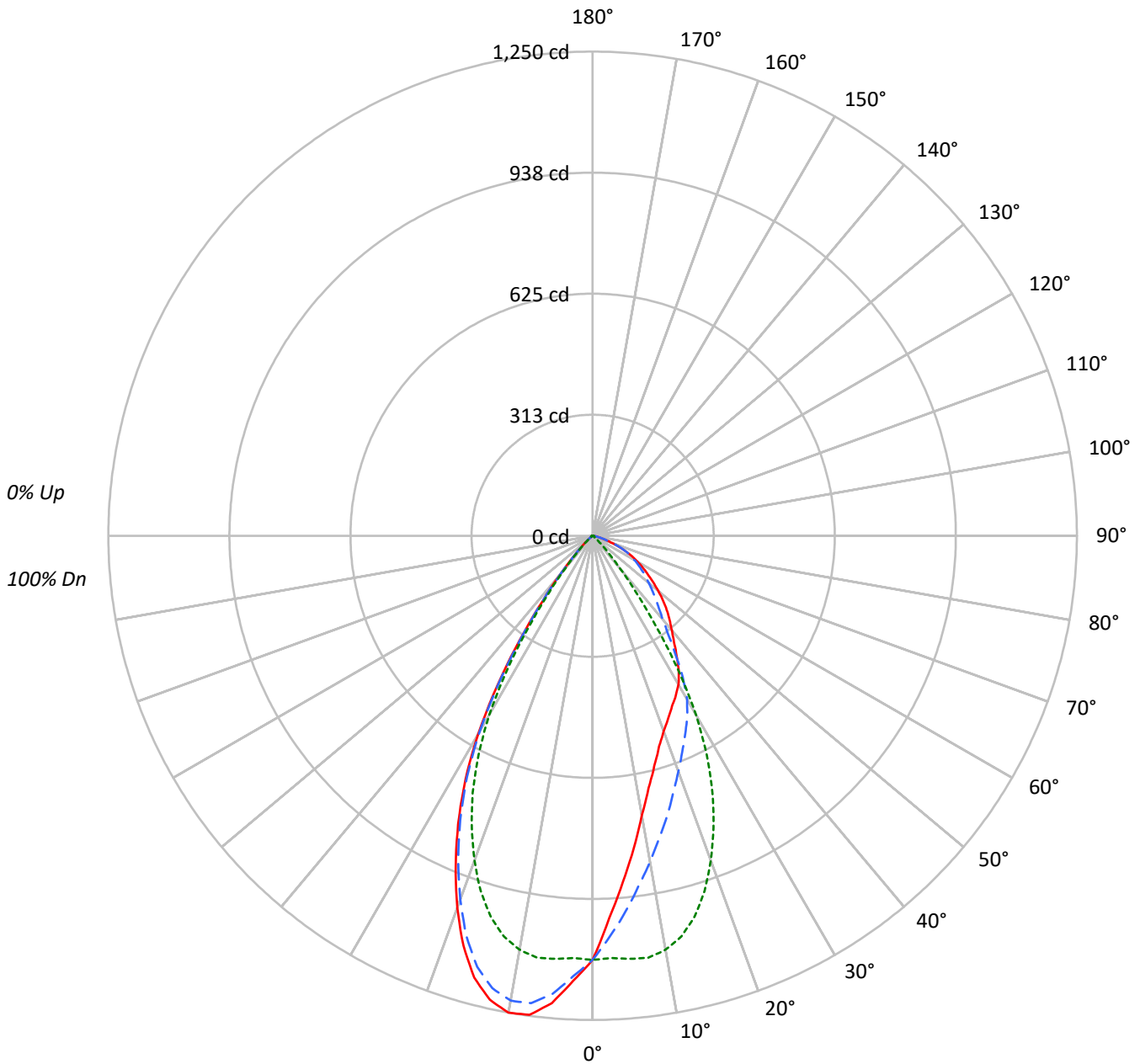
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	88	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°	71425	71425	71425
5°	58692	71797	79315
10°	48513	71891	82835
15°	41552	68738	79747
20°	37262	61909	70913
25°	34949	52715	59114
30°	33388	40198	44499
35°	30105	22786	25797
40°	27023	9283	10918
45°	24957	3211	3691
50°	22421	1127	1198
55°	19803	682	591
60°	17498	574	483
65°	14418	448	340
70°	9614	420	286
75°	5218	378	176
80°	2780	827	0
85°	1123	1123	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	101.9	9.5
10°-20°	265.1	24.6
20°-30°	313.2	29.1
30°-40°	208.7	19.4
40°-50°	90.5	8.4
50°-60°	54.3	5.0
60°-70°	32.6	3.0
70°-80°	10.0	0.9
80°-90°	1.2	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°	680.3	63.1
0°-40°	889.0	82.5
0°-60°	1033.9	95.9
0°-90°	1077.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1077.7	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	1095	1095	1095	1095	1095	
5°	896	974	1096	1187	1211	81
15°	615	746	1018	1152	1181	173
25°	486	565	732	809	821	224
35°	378	372	286	318	324	237
45°	270	229	35	40	40	208
55°	174	155	6	5	5	157
65°	93	93	3	2	2	92
75°	21	23	2	1	1	25
85°	2	2	2	0	0	2
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°	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8
2.5°	988.0	1005.1	1012.5	1017.7	998.4	1019.2	1012.5	1022.1	1025.1	1034.8	1043.6
5°	896.2	912.4	920.6	926.5	911.7	935.4	934.7	947.3	957.7	974.0	985.1
7.5°	813.8	821.2	829.4	837.6	830.9	852.4	856.1	873.8	889.5	911.7	932.4
10°	732.3	739.7	747.9	756.8	753.8	775.3	783.4	803.4	824.3	853.8	876.1
12.5°	667.1	674.5	681.9	690.8	689.3	710.8	721.2	742.7	767.9	797.6	822.7
15°	615.2	621.9	629.3	635.3	636.7	656.7	667.8	688.6	715.3	745.7	771.6
17.5°	570.0	577.4	584.0	589.3	590.7	609.3	620.4	638.9	664.9	693.7	719.0
20°	536.7	543.3	549.2	554.5	554.5	570.7	580.4	597.4	620.4	647.1	668.6
22.5°	509.9	515.9	521.1	525.6	525.6	539.6	547.8	561.8	581.8	604.0	621.9
25°	485.5	491.4	495.9	499.6	498.8	512.2	518.9	529.2	546.3	564.8	578.2
27.5°	464.8	470.7	474.3	479.6	476.6	487.7	492.9	501.8	515.2	528.5	535.9
30°	443.2	449.2	452.8	457.3	454.3	464.0	467.0	471.4	480.3	487.0	487.7
32.5°	413.6	418.8	422.5	424.8	421.0	428.4	428.4	429.2	432.1	432.8	427.0
35°	378.0	381.7	384.7	385.5	381.0	385.5	384.7	379.5	378.0	372.1	360.2
37.5°	344.7	349.1	350.6	350.6	344.7	346.9	343.9	335.8	329.8	319.5	303.1
40°	317.3	320.9	321.7	320.9	315.1	315.8	311.3	301.7	293.5	280.9	260.2
42.5°	294.2	297.2	298.0	297.2	291.3	291.3	286.9	276.5	266.9	252.7	231.2
45°	270.5	273.5	275.0	273.5	268.3	268.3	263.1	253.5	243.8	229.0	207.6
47.5°	246.1	248.3	249.8	249.1	243.8	243.8	239.4	229.8	221.6	208.3	187.5
50°	220.9	223.8	225.4	224.5	220.1	220.1	216.5	207.6	200.9	189.0	170.5
52.5°	196.5	200.1	200.9	199.4	196.5	195.7	193.4	185.3	180.1	171.9	154.1
55°	174.1	177.2	177.2	177.2	173.4	172.7	171.2	164.5	161.6	155.0	140.1
57.5°	154.1	156.4	155.7	155.0	153.4	151.9	150.5	145.3	143.8	139.4	126.8
60°	134.1	136.4	135.7	134.9	133.4	131.9	130.4	126.8	126.8	123.7	113.4
62.5°	114.9	116.4	115.7	114.9	114.9	113.4	112.6	109.7	110.4	109.0	100.1
65°	93.4	95.7	94.8	94.8	95.7	95.7	94.8	93.4	93.4	92.6	85.3
67.5°	71.1	73.3	72.6	73.3	75.6	76.4	76.4	75.6	75.6	74.1	67.5
70°	50.4	51.9	51.9	52.6	54.8	55.6	57.8	55.6	55.6	54.1	48.9
72.5°	33.3	34.1	34.8	36.4	37.1	37.8	39.3	39.3	38.6	36.4	32.6
75°	20.7	21.5	21.5	22.2	23.0	23.7	25.2	24.4	23.7	23.0	20.0
77.5°	12.6	12.6	13.3	13.3	14.0	14.8	14.8	14.8	14.0	13.3	11.8
80°	7.4	7.4	7.4	8.2	8.2	8.2	8.2	8.2	8.2	7.4	6.7
82.5°	3.7	3.7	3.7	4.4	4.4	4.4	4.4	4.4	4.4	3.7	3.7
85°	1.5	1.5	1.5	2.2	2.2	2.2	2.2	2.2	2.2	2.2	1.5
87.5°	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.7	0.7	0.7
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°	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8
2.5°	1052.5	1052.5	1050.3	1063.6	1080.7	1077.7	1078.5	1091.0	1096.3	1105.2	1113.3
5°	1004.4	1012.5	1018.4	1039.9	1064.4	1068.8	1077.0	1096.3	1108.1	1122.9	1137.0
7.5°	956.2	973.2	987.3	1015.5	1047.3	1059.2	1074.1	1098.5	1114.1	1134.1	1153.3
10°	906.5	930.2	951.0	985.1	1022.1	1039.2	1057.7	1085.2	1105.9	1127.4	1148.9
12.5°	856.9	885.8	911.7	949.5	988.8	1009.5	1030.3	1059.2	1081.4	1103.7	1125.9
15°	807.9	839.1	866.5	906.5	946.5	968.0	988.8	1017.7	1041.4	1062.1	1084.4
17.5°	753.8	788.7	813.8	851.6	890.2	911.7	934.7	961.3	982.1	999.9	1021.4
20°	701.2	733.8	756.8	791.6	826.5	846.5	868.0	891.7	910.2	925.8	945.8
22.5°	650.0	679.0	700.4	732.3	759.0	776.1	794.6	815.4	831.6	844.3	862.0
25°	600.4	623.3	639.7	664.9	686.4	699.7	715.3	732.3	746.4	756.8	773.0
27.5°	550.7	566.3	572.2	587.8	601.1	616.0	624.1	637.5	650.0	658.2	672.3
30°	493.6	498.8	493.6	498.1	501.8	508.5	518.1	533.6	539.6	544.8	558.9
32.5°	422.5	418.8	401.7	395.1	390.6	397.3	398.8	410.6	414.3	418.8	429.9
35°	347.6	334.2	306.9	289.8	279.4	280.2	273.5	286.1	288.3	292.8	300.9
37.5°	283.8	262.4	226.8	203.1	187.5	183.8	175.7	183.0	183.8	186.8	192.7
40°	237.2	206.8	166.8	138.6	121.5	114.1	106.0	109.0	109.0	111.2	114.9
42.5°	204.5	171.9	126.8	96.4	77.8	68.9	62.2	62.2	62.2	63.0	65.3
45°	180.1	143.8	98.6	67.5	50.4	41.5	34.8	34.8	34.1	34.1	35.6
47.5°	160.1	123.7	77.8	49.7	32.6	24.4	20.0	18.5	17.8	18.5	19.3
50°	143.8	108.2	64.4	37.8	23.0	16.3	12.6	11.1	10.4	10.4	10.4
52.5°	129.7	95.7	54.1	30.4	17.8	11.8	8.9	7.4	6.7	6.7	6.7
55°	117.9	84.5	46.7	25.2	14.8	10.4	7.4	6.0	5.2	5.2	5.2
57.5°	106.0	74.8	40.0	21.5	12.6	8.9	6.7	5.2	4.4	4.4	4.4
60°	94.1	65.3	34.8	17.8	10.4	7.4	6.0	4.4	3.7	3.7	3.7
62.5°	82.3	55.6	28.9	14.8	8.9	6.7	4.4	3.7	3.7	2.9	2.9
65°	68.2	45.3	23.7	12.6	7.4	5.2	4.4	2.9	2.9	2.9	2.9
67.5°	53.3	34.8	17.8	9.6	6.0	4.4	3.7	2.9	2.2	2.2	2.2
70°	37.8	24.4	13.3	7.4	5.2	3.7	2.9	2.2	2.2	2.2	1.5
72.5°	25.2	16.3	9.6	6.0	4.4	2.9	2.2	2.2	1.5	1.5	1.5
75°	16.3	10.4	6.7	4.4	2.9	2.9	2.2	1.5	1.5	1.5	0.7
77.5°	9.6	6.7	4.4	2.9	2.2	2.2	2.2	2.2	2.2	1.5	0.7
80°	5.2	3.7	2.9	2.2	1.5	2.2	2.2	2.2	2.2	1.5	0.7
82.5°	2.9	2.2	1.5	1.5	1.5	1.5	1.5	2.2	2.2	1.5	0.7
85°	1.5	1.5	0.7	0.7	0.7	1.5	1.5	1.5	1.5	0.7	0.7
87.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	1.5	1.5	0.7	0.7
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°	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8	1094.8
2.5°	1120.0	1124.5	1125.9	1128.1	1140.7	1137.8	1148.9	1148.9	1157.8	1152.5	1157.8
5°	1148.9	1158.5	1162.9	1168.9	1186.7	1186.7	1200.0	1202.2	1214.1	1210.4	1215.6
7.5°	1167.4	1179.3	1185.2	1194.9	1214.1	1217.1	1229.7	1233.3	1247.5	1245.3	1248.2
10°	1163.7	1176.3	1183.8	1194.1	1214.1	1218.6	1229.7	1236.4	1249.7	1246.7	1248.2
12.5°	1140.7	1152.5	1160.7	1170.4	1191.1	1196.3	1206.0	1213.3	1226.0	1223.8	1223.8
15°	1097.7	1111.1	1117.8	1125.9	1145.9	1151.8	1159.3	1165.2	1179.3	1177.8	1175.6
17.5°	1033.2	1045.9	1051.0	1057.7	1077.0	1083.6	1089.6	1094.1	1107.4	1106.6	1102.9
20°	954.7	965.8	970.2	974.7	991.7	998.4	1002.8	1007.3	1018.4	1018.4	1013.2
22.5°	868.7	878.3	881.3	885.0	899.8	906.5	908.7	912.4	922.8	922.8	916.2
25°	777.5	785.7	787.2	790.1	802.7	808.7	809.4	811.6	822.0	822.0	815.4
27.5°	675.3	681.9	683.4	684.9	696.0	701.9	701.2	709.3	712.3	713.7	705.7
30°	560.3	571.5	565.6	572.2	576.0	581.8	579.6	587.8	590.0	592.2	581.8
32.5°	431.4	441.7	435.1	441.7	443.2	449.2	446.2	453.6	455.1	457.3	447.7
35°	302.4	310.6	304.7	306.9	312.0	318.0	314.2	320.9	322.4	323.1	315.8
37.5°	194.2	200.1	201.6	203.8	203.8	208.3	209.8	209.8	210.5	211.2	205.4
40°	116.4	120.8	121.5	120.8	123.0	126.8	127.5	126.8	127.5	128.2	124.5
42.5°	66.0	68.9	69.7	69.7	71.1	73.3	73.3	72.6	73.3	73.3	71.1
45°	36.4	37.8	38.6	37.8	38.6	40.0	40.0	40.0	40.0	40.0	39.3
47.5°	19.3	20.0	20.0	20.7	20.0	20.7	20.7	20.7	21.5	21.5	20.7
50°	10.4	11.1	11.1	11.1	11.1	11.8	11.8	11.8	11.8	11.8	11.1
52.5°	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
55°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2	5.2
57.5°	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
60°	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
62.5°	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
65°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
67.5°	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
70°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
72.5°	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
75°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
77.5°	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
80°	0.7	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.7	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: P135525

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM111LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	1094.8	1094.8	1094.8	1094.8
2.5°	1160.0	1163.7	1158.5	1150.3
5°	1219.3	1223.8	1218.6	1211.1
7.5°	1251.9	1258.6	1252.6	1247.5
10°	1253.3	1260.0	1253.3	1250.4
12.5°	1228.9	1235.6	1228.2	1226.7
15°	1182.2	1187.4	1180.0	1180.7
17.5°	1110.3	1114.8	1107.4	1109.6
20°	1019.9	1024.4	1017.0	1021.4
22.5°	922.8	925.8	924.3	923.5
25°	821.2	823.4	816.8	821.2
27.5°	710.1	711.5	712.3	711.5
30°	587.1	587.8	583.3	590.7
32.5°	452.1	451.4	449.9	456.6
35°	318.0	318.0	318.0	323.9
37.5°	206.8	206.1	206.8	211.2
40°	125.3	124.5	125.3	128.2
42.5°	71.1	71.1	71.9	73.3
45°	40.0	39.3	39.3	40.0
47.5°	21.5	21.5	20.7	21.5
50°	11.8	11.8	11.1	11.8
52.5°	6.7	6.7	6.7	6.7
55°	5.2	5.2	5.2	5.2
57.5°	4.4	4.4	4.4	4.4
60°	3.7	3.7	3.7	3.7
62.5°	2.9	2.9	2.9	2.9
65°	2.2	2.9	2.2	2.2
67.5°	2.2	2.2	2.2	2.2
70°	1.5	1.5	1.5	1.5
72.5°	1.5	1.5	1.5	1.5
75°	0.7	0.7	0.7	0.7
77.5°	0.7	0.7	0.7	0.7
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)