

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: P135520

Luminaire Tested: **LD6A10D010TE ERM6A10827 6LM111LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P135520
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 ERM6A10827 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: 1121.0 lumens
Efficiency: N/A
Efficacy: 80.1 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

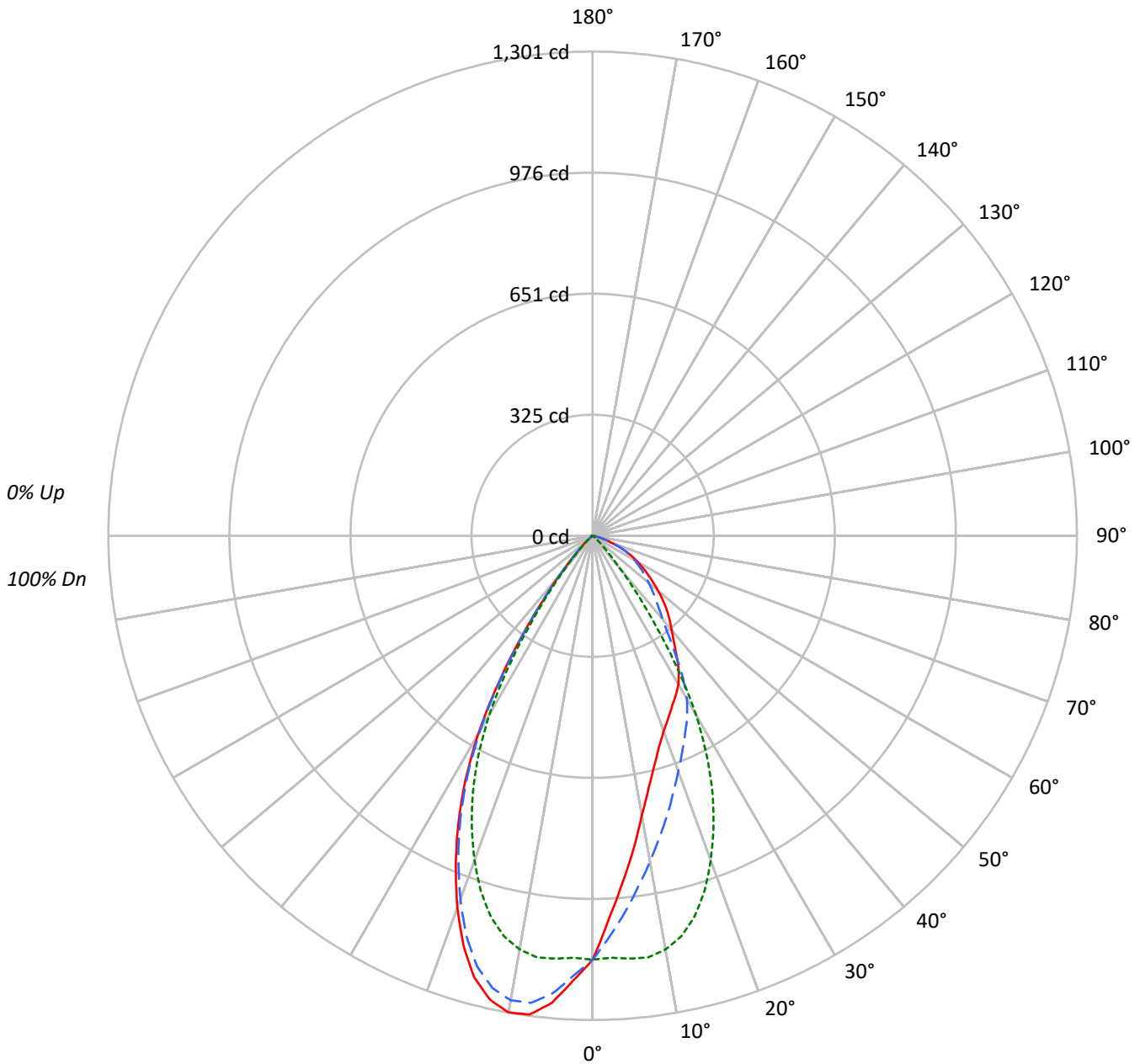
Input Watts (W): 14
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°
0°	74290	74290	74290
5°	61043	74678	82504
10°	50460	74773	86161
15°	43220	71493	82955
20°	38755	64394	73760
25°	36352	54831	61490
30°	34729	41818	46292
35°	31316	23702	26832
40°	28105	9649	11361
45°	25963	3340	3838
50°	23314	1177	1248
55°	20610	705	614
60°	18202	600	509
65°	14990	479	355
70°	9995	439	286
75°	5445	378	202
80°	2893	864	0
85°	1123	1123	0



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	106.0	9.5
10°-20°	275.8	24.6
20°-30°	325.8	29.1
30°-40°	217.1	19.4
40°-50°	94.2	8.4
50°-60°	56.5	5.0
60°-70°	33.9	3.0
70°-80°	10.4	0.9
80°-90°	1.3	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°	707.6	63.1
0°-40°	924.7	82.5
0°-60°	1075.4	95.9
0°-90°	1121.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1121.0	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	1139	1139	1139	1139	1139	
5°	932	1013	1140	1234	1260	84
15°	640	776	1058	1198	1228	180
25°	505	588	762	841	854	233
35°	393	387	298	331	337	246
45°	281	238	36	42	42	216
55°	181	161	6	5	5	163
65°	97	96	3	2	2	95
75°	22	24	2	1	1	26
85°	2	2	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°	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7
2.5°	1027.7	1045.4	1053.1	1058.5	1038.5	1060.1	1053.1	1063.2	1066.3	1076.3	1085.5
5°	932.1	949.1	957.5	963.7	948.3	973.0	972.2	985.3	996.1	1013.1	1024.6
7.5°	846.5	854.2	862.7	871.2	864.3	886.6	890.5	909.0	925.2	948.3	969.9
10°	761.7	769.4	777.9	787.2	784.1	806.4	814.9	835.7	857.3	888.2	911.3
12.5°	693.9	701.6	709.3	718.5	717.0	739.4	750.2	772.5	798.7	829.6	855.8
15°	639.9	646.8	654.6	660.7	662.3	683.1	694.6	716.2	744.0	775.6	802.6
17.5°	592.9	600.6	607.5	612.9	614.5	633.7	645.3	664.6	691.6	721.6	747.8
20°	558.2	565.1	571.3	576.7	576.7	593.6	603.7	621.4	645.3	673.1	695.4
22.5°	530.4	536.6	542.0	546.6	546.6	561.3	569.7	584.4	605.2	628.3	646.8
25°	505.0	511.2	515.8	519.6	518.9	532.7	539.7	550.5	568.2	587.5	601.4
27.5°	483.4	489.6	493.4	498.8	495.7	507.3	512.7	521.9	535.8	549.7	557.4
30°	461.0	467.2	471.1	475.7	472.6	482.6	485.7	490.3	499.6	506.5	507.3
32.5°	430.2	435.6	439.5	441.8	437.9	445.6	445.6	446.4	449.5	450.2	444.1
35°	393.2	397.0	400.1	400.9	396.3	400.9	400.1	394.7	393.2	387.0	374.7
37.5°	358.5	363.1	364.7	364.7	358.5	360.8	357.7	349.2	343.1	332.3	315.3
40°	330.0	333.8	334.6	333.8	327.7	328.4	323.8	313.8	305.3	292.2	270.6
42.5°	306.1	309.2	309.9	309.2	303.0	303.0	298.4	287.6	277.5	262.9	240.5
45°	281.4	284.5	286.0	284.5	279.1	279.1	273.7	263.7	253.6	238.2	215.9
47.5°	256.0	258.3	259.8	259.0	253.6	253.6	249.0	239.0	230.5	216.6	195.1
50°	229.7	232.8	234.4	233.6	229.0	229.0	225.1	215.9	208.9	196.6	177.3
52.5°	204.3	208.2	208.9	207.4	204.3	203.5	201.2	192.7	187.3	178.9	160.4
55°	181.2	184.3	184.3	184.3	180.4	179.6	178.1	171.2	168.1	161.1	145.7
57.5°	160.4	162.7	161.9	161.1	159.6	158.0	156.5	151.1	149.6	144.9	131.8
60°	139.5	141.9	141.1	140.3	138.8	137.2	135.7	131.8	131.8	128.8	118.0
62.5°	119.5	121.0	120.3	119.5	119.5	118.0	117.2	114.1	114.9	113.3	104.1
65°	97.1	99.5	98.7	98.7	99.5	99.5	98.7	97.1	97.1	96.4	88.7
67.5°	74.0	76.3	75.6	76.3	78.6	79.4	79.4	78.6	78.6	77.1	70.2
70°	52.4	54.0	54.0	54.7	57.1	57.8	60.1	57.8	57.8	56.3	50.9
72.5°	34.7	35.5	36.2	37.8	38.5	39.3	40.9	40.9	40.1	37.8	33.9
75°	21.6	22.4	22.4	23.1	23.9	24.7	26.2	25.4	24.7	23.9	20.8
77.5°	13.1	13.1	13.9	13.9	14.6	15.4	15.4	15.4	14.6	13.9	12.3
80°	7.7	7.7	7.7	8.5	8.5	8.5	8.5	8.5	8.5	7.7	6.9
82.5°	3.9	3.9	3.9	4.6	4.6	4.6	4.6	4.6	4.6	3.9	3.9
85°	1.5	1.5	1.5	2.3	2.3	2.3	2.3	2.3	2.3	2.3	1.5
87.5°	0.0	0.0	0.0	0.8	0.0	0.0	0.0	0.0	0.8	0.8	0.8
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):

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7
2.5°	1094.8	1094.8	1092.5	1106.3	1124.1	1121.0	1121.8	1134.9	1140.3	1149.5	1158.0
5°	1044.7	1053.1	1059.3	1081.7	1107.1	1111.7	1120.2	1140.3	1152.6	1168.0	1182.7
7.5°	994.6	1012.3	1026.9	1056.2	1089.4	1101.7	1117.1	1142.6	1158.8	1179.6	1199.6
10°	942.9	967.6	989.2	1024.6	1063.2	1080.9	1100.2	1128.7	1150.3	1172.6	1195.0
12.5°	891.2	921.3	948.3	987.6	1028.5	1050.1	1071.6	1101.7	1124.8	1148.0	1171.1
15°	840.4	872.7	901.3	942.9	984.5	1006.9	1028.5	1058.5	1083.2	1104.8	1127.9
17.5°	784.1	820.3	846.5	885.8	925.9	948.3	972.2	999.9	1021.5	1040.0	1062.4
20°	729.3	763.3	787.2	823.4	859.6	880.4	902.8	927.5	946.8	962.9	983.8
22.5°	676.1	706.2	728.6	761.7	789.5	807.2	826.5	848.1	865.0	878.1	896.6
25°	624.5	648.4	665.3	691.6	713.9	727.8	744.0	761.7	776.4	787.2	804.1
27.5°	572.8	589.0	595.2	611.4	625.3	640.7	649.2	663.0	676.1	684.6	699.3
30°	513.5	518.9	513.5	518.1	521.9	528.9	538.9	555.1	561.3	566.7	581.3
32.5°	439.5	435.6	417.9	410.9	406.3	413.2	414.8	427.1	431.0	435.6	447.2
35°	361.6	347.7	319.2	301.4	290.7	291.4	284.5	297.6	299.9	304.5	313.0
37.5°	295.3	272.9	235.9	211.2	195.1	191.2	182.7	190.4	191.2	194.3	200.5
40°	246.7	215.1	173.5	144.2	126.4	118.7	110.2	113.3	113.3	115.6	119.5
42.5°	212.8	178.9	131.8	100.2	81.0	71.7	64.8	64.8	64.8	65.5	67.8
45°	187.3	149.6	102.5	70.2	52.4	43.2	36.2	36.2	35.5	35.5	37.0
47.5°	166.5	128.8	81.0	51.7	33.9	25.4	20.8	19.3	18.5	19.3	20.0
50°	149.6	112.6	67.1	39.3	23.9	17.0	13.1	11.6	10.8	10.8	10.8
52.5°	134.9	99.5	56.3	31.6	18.5	12.3	9.3	7.7	6.9	6.9	6.9
55°	122.6	87.9	48.6	26.2	15.4	10.8	7.7	6.2	5.4	5.4	5.4
57.5°	110.2	77.9	41.6	22.4	13.1	9.3	6.9	5.4	4.6	4.6	4.6
60°	97.9	67.8	36.2	18.5	10.8	7.7	6.2	4.6	3.9	3.9	3.9
62.5°	85.6	57.8	30.1	15.4	9.3	6.9	4.6	3.9	3.9	3.1	3.1
65°	70.9	47.0	24.7	13.1	7.7	5.4	4.6	3.1	3.1	3.1	3.1
67.5°	55.5	36.2	18.5	10.0	6.2	4.6	3.9	3.1	2.3	2.3	2.3
70°	39.3	25.4	13.9	7.7	5.4	3.9	3.1	2.3	2.3	2.3	1.5
72.5°	26.2	17.0	10.0	6.2	4.6	3.1	2.3	2.3	1.5	1.5	1.5
75°	17.0	10.8	6.9	4.6	3.1	3.1	2.3	1.5	1.5	1.5	0.8
77.5°	10.0	6.9	4.6	3.1	2.3	2.3	2.3	2.3	2.3	1.5	0.8
80°	5.4	3.9	3.1	2.3	1.5	2.3	2.3	2.3	2.3	1.5	0.8
82.5°	3.1	2.3	1.5	1.5	1.5	1.5	1.5	2.3	2.3	1.5	0.8
85°	1.5	1.5	0.8	0.8	0.8	1.5	1.5	1.5	1.5	0.8	0.8
87.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.5	1.5	0.8	0.8
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):

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7	1138.7
2.5°	1164.9	1169.6	1171.1	1173.4	1186.5	1183.4	1195.0	1195.0	1204.3	1198.9	1204.3
5°	1195.0	1205.0	1209.7	1215.8	1234.3	1234.3	1248.2	1250.5	1262.8	1259.0	1264.4
7.5°	1214.3	1226.6	1232.8	1242.8	1262.8	1265.9	1279.0	1282.9	1297.5	1295.2	1298.3
10°	1210.4	1223.5	1231.2	1242.0	1262.8	1267.5	1279.0	1286.0	1299.9	1296.8	1298.3
12.5°	1186.5	1198.9	1207.3	1217.4	1238.9	1244.3	1254.4	1262.1	1275.2	1272.9	1272.9
15°	1141.8	1155.7	1162.6	1171.1	1191.9	1198.1	1205.8	1212.0	1226.6	1225.1	1222.8
17.5°	1074.7	1087.8	1093.2	1100.2	1120.2	1127.2	1133.3	1138.0	1151.8	1151.1	1147.2
20°	993.0	1004.6	1009.2	1013.8	1031.6	1038.5	1043.1	1047.7	1059.3	1059.3	1053.9
22.5°	903.6	913.6	916.7	920.5	936.0	942.9	945.2	949.1	959.9	959.9	952.9
25°	808.7	817.2	818.8	821.9	835.0	841.1	841.9	844.2	855.0	855.0	848.1
27.5°	702.4	709.3	710.8	712.4	723.9	730.1	729.3	737.8	740.9	742.4	734.0
30°	582.9	594.4	588.3	595.2	599.0	605.2	602.9	611.4	613.7	616.0	605.2
32.5°	448.7	459.5	452.6	459.5	461.0	467.2	464.1	471.8	473.4	475.7	465.7
35°	314.6	323.0	316.9	319.2	324.6	330.7	326.9	333.8	335.4	336.1	328.4
37.5°	202.0	208.2	209.7	212.0	212.0	216.6	218.2	218.2	219.0	219.7	213.6
40°	121.0	125.7	126.4	125.7	128.0	131.8	132.6	131.8	132.6	133.4	129.5
42.5°	68.6	71.7	72.5	72.5	74.0	76.3	76.3	75.6	76.3	76.3	74.0
45°	37.8	39.3	40.1	39.3	40.1	41.6	41.6	41.6	41.6	41.6	40.9
47.5°	20.0	20.8	20.8	21.6	20.8	21.6	21.6	21.6	22.4	22.4	21.6
50°	10.8	11.6	11.6	11.6	11.6	12.3	12.3	12.3	12.3	12.3	11.6
52.5°	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9	6.9
55°	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4	5.4
57.5°	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6
60°	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9
62.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
65°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
67.5°	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
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°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
77.5°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
80°	0.8	0.8	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.8	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



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CATALOG NUMBER: LD6A10D010TE ERM6A10827 6LM111LI

CANDELA DISTRIBUTION (continued):

	165°	170°	175°	180°
0°	1138.7	1138.7	1138.7	1138.7
2.5°	1206.6	1210.4	1205.0	1196.5
5°	1268.2	1272.9	1267.5	1259.8
7.5°	1302.2	1309.1	1302.9	1297.5
10°	1303.7	1310.6	1303.7	1300.6
12.5°	1278.3	1285.2	1277.5	1276.0
15°	1229.7	1235.1	1227.4	1228.2
17.5°	1154.9	1159.5	1151.8	1154.1
20°	1060.9	1065.5	1057.8	1062.4
22.5°	959.9	962.9	961.4	960.6
25°	854.2	856.5	849.6	854.2
27.5°	738.6	740.1	740.9	740.1
30°	610.6	611.4	606.8	614.5
32.5°	470.3	469.5	468.0	474.9
35°	330.7	330.7	330.7	336.9
37.5°	215.1	214.3	215.1	219.7
40°	130.3	129.5	130.3	133.4
42.5°	74.0	74.0	74.8	76.3
45°	41.6	40.9	40.9	41.6
47.5°	22.4	22.4	21.6	22.4
50°	12.3	12.3	11.6	12.3
52.5°	6.9	6.9	6.9	6.9
55°	5.4	5.4	5.4	5.4
57.5°	4.6	4.6	4.6	4.6
60°	3.9	3.9	3.9	3.9
62.5°	3.1	3.1	3.1	3.1
65°	2.3	3.1	2.3	2.3
67.5°	2.3	2.3	2.3	2.3
70°	1.5	1.5	1.5	1.5
72.5°	1.5	1.5	1.5	1.5
75°	0.8	0.8	0.8	0.8
77.5°	0.8	0.8	0.8	0.8
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)