

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: P135761

Luminaire Tested: **LD6A10D010TE ERM6A10830 6LM121LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135761  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23357-R2)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6A10D010TE ERM6A10830 6LM121LI  
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE 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: 1179.0 lumens  
Efficiency: N/A  
Efficacy: 84.2 lumens/watt  
Spacing Criteria (0/90/45): 0.86 / 1.02 / 0.97  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

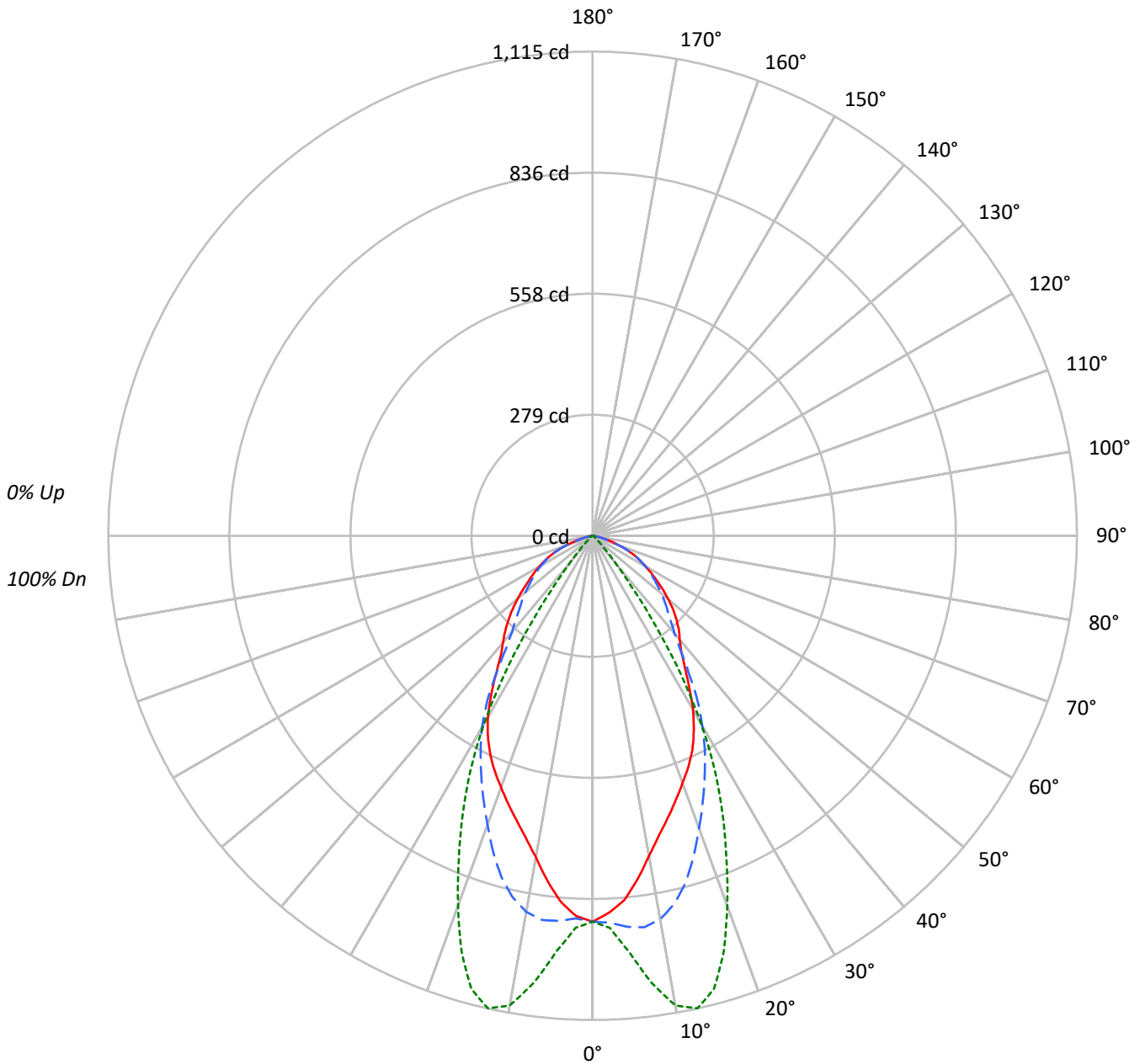
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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																			
1	112	108	105	102	109	106	103	101	102	100	97	98	96	95	95	93	92	90																			
2	104	98	93	89	102	96	91	87	93	89	86	90	87	84	87	84	82	80																			
3	97	89	83	78	95	88	82	77	85	80	76	82	78	75	80	76	73	72																			
4	91	81	74	69	89	80	74	69	78	72	68	76	71	67	74	70	66	64																			
5	85	75	68	62	83	74	67	62	72	66	61	70	65	61	68	64	60	58																			
6	80	69	62	56	78	68	61	56	66	60	56	65	59	55	63	59	55	53																			
7	75	64	57	52	74	63	56	51	62	56	51	60	55	51	59	54	50	49																			
8	71	59	52	47	69	59	52	47	58	51	47	57	51	47	55	50	47	45																			
9	67	56	49	44	66	55	48	44	54	48	44	53	47	43	52	47	43	42																			
10	63	52	45	41	62	52	45	41	51	45	41	50	44	40	49	44	40	39																			

**AVERAGE LUMINANCE (cd/sqm):**

	0°	90°	180°
0°	57960	57960	57960
5°	55116	62942	55378
10°	49546	72766	49811
15°	45334	72939	45767
20°	42059	62915	42788
25°	39131	50987	40117
30°	34804	37727	36326
35°	29397	19943	30814
40°	26555	6668	27304
45°	25188	2307	25262
50°	23040	985	22786
55°	20576	739	20394
60°	18333	744	18554
65°	16209	741	16333
70°	12475	610	12323
75°	7739	403	7335
80°	3945	301	3644
85°	1797	0	1797



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	86.2	7.3
10°-20°	235.3	20.0
20°-30°	283.2	24.0
30°-40°	220.1	18.7
40°-50°	147.3	12.5
50°-60°	110.8	9.4
60°-70°	71.1	6.0
70°-80°	22.8	1.9
80°-90°	2.1	0.2
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°	604.7	51.3
0°-40°	824.8	70.0
0°-60°	1082.9	91.9
0°-90°	1179.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1179.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	888	888	888	888	888	
5°	842	904	961	890	846	77
15°	671	827	1080	812	678	189
25°	544	611	708	607	557	248
35°	369	386	250	386	387	235
45°	273	244	25	238	274	210
55°	181	171	6	167	179	163
65°	105	106	5	103	106	103
75°	31	29	2	28	29	35
85°	2	2	0	2	2	4
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°	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
2.5°	869.1	876.3	873.9	885.2	877.1	876.3	882.0	885.2	886.0	891.7	891.7
5°	841.6	849.7	847.3	861.8	858.6	861.8	873.9	882.8	890.9	903.8	911.9
7.5°	796.4	806.1	807.7	822.2	823.8	832.7	852.1	869.9	886.8	909.4	928.8
10°	747.9	757.6	760.0	776.2	781.0	793.1	818.2	840.8	865.0	896.5	925.6
12.5°	705.9	715.6	718.8	735.0	740.6	754.4	781.0	806.1	833.5	868.3	903.0
15°	671.2	680.1	683.3	697.8	703.5	716.4	741.4	765.7	792.3	827.1	861.0
17.5°	637.3	646.1	648.6	661.5	665.5	676.8	699.5	720.4	743.1	773.8	804.4
20°	605.8	613.8	615.5	626.8	629.2	638.1	656.6	673.6	692.2	716.4	741.4
22.5°	575.9	584.0	584.8	594.5	595.3	602.5	617.9	630.8	643.7	663.1	680.9
25°	543.6	551.6	552.5	560.5	561.3	566.2	578.3	588.0	596.9	610.6	622.7
27.5°	504.8	512.9	515.3	521.0	521.8	525.0	535.5	542.0	550.8	559.7	564.6
30°	462.0	469.3	472.5	477.3	478.1	483.0	492.7	497.5	503.2	504.8	506.4
32.5°	414.3	422.4	425.6	429.7	432.1	437.0	445.8	448.3	449.9	449.1	440.2
35°	369.1	376.4	379.6	384.5	386.1	389.3	396.6	395.8	393.3	386.1	369.9
37.5°	335.2	340.8	344.1	347.3	348.1	349.7	353.8	350.5	344.1	332.0	311.0
40°	311.8	317.4	318.2	321.5	320.6	320.6	321.5	315.8	307.7	293.2	269.0
42.5°	294.0	298.8	298.8	302.1	299.6	298.0	298.0	291.6	281.1	265.7	241.5
45°	273.0	277.0	277.8	279.5	277.0	275.4	275.4	269.0	259.3	243.9	219.7
47.5°	251.2	255.2	255.2	257.6	255.2	253.6	253.6	248.0	239.1	225.3	202.7
50°	227.0	231.0	231.8	233.4	231.8	231.0	231.8	226.2	218.9	206.8	186.6
52.5°	203.5	207.6	207.6	209.2	207.6	207.6	208.4	204.3	197.9	188.2	170.4
55°	180.9	184.2	185.8	187.4	185.0	185.0	185.8	183.3	178.5	171.2	155.9
57.5°	159.9	163.2	164.0	165.6	164.0	164.8	165.6	163.2	160.7	155.1	143.0
60°	140.5	143.8	144.6	145.4	144.6	144.6	145.4	144.6	143.0	138.9	128.4
62.5°	122.8	125.2	126.0	127.6	126.0	125.2	126.8	126.0	125.2	122.8	115.5
65°	105.0	106.6	107.4	108.2	106.6	105.0	106.6	106.6	107.4	105.8	100.2
67.5°	85.6	87.2	87.2	87.2	84.8	84.0	85.6	85.6	87.2	86.4	82.4
70°	65.4	66.2	66.2	66.2	63.0	63.0	63.8	63.8	65.4	65.4	63.0
72.5°	46.8	46.0	46.0	45.2	44.4	42.8	42.8	43.6	45.2	45.2	43.6
75°	30.7	29.9	29.1	29.1	28.3	26.7	26.7	27.5	28.3	29.1	28.3
77.5°	18.6	17.8	17.8	17.0	17.0	16.2	16.2	16.2	17.0	17.0	17.0
80°	10.5	9.7	9.7	9.7	8.9	8.9	8.9	8.9	8.9	9.7	8.9
82.5°	5.7	4.8	4.8	4.8	4.8	4.8	4.0	4.8	4.8	4.8	4.8
85°	2.4	2.4	2.4	2.4	1.6	1.6	1.6	1.6	1.6	2.4	2.4
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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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
2.5°	889.3	897.3	891.7	909.4	897.3	903.8	912.7	903.8	906.2	911.9	900.6
5°	916.7	931.3	932.9	957.1	947.4	958.7	970.8	961.1	962.8	966.8	952.3
7.5°	945.0	970.8	982.9	1016.9	1014.4	1033.0	1047.6	1037.9	1037.9	1038.7	1016.9
10°	953.1	991.0	1013.6	1055.6	1062.1	1088.8	1104.9	1098.4	1096.8	1094.4	1064.5
12.5°	935.3	982.1	1011.2	1058.1	1071.0	1102.5	1117.0	1114.6	1112.2	1107.3	1072.6
15°	894.1	942.6	973.3	1019.3	1035.4	1067.8	1079.9	1079.9	1077.4	1072.6	1035.4
17.5°	833.5	878.8	907.0	947.4	963.6	993.4	1001.5	1003.9	1001.5	996.7	962.8
20°	764.9	802.8	825.4	858.6	871.5	897.3	902.2	906.2	904.6	900.6	870.7
22.5°	697.8	727.7	744.7	773.8	778.6	800.4	802.0	805.3	804.4	802.8	778.6
25°	636.5	656.6	666.3	688.1	689.8	705.9	705.1	708.3	707.5	707.5	689.0
27.5°	571.8	584.0	586.4	600.1	596.9	609.0	610.6	609.0	609.8	610.6	596.9
30°	507.2	509.6	502.4	504.0	495.1	502.4	495.1	500.8	500.8	503.2	495.1
32.5°	433.7	426.5	407.1	397.4	382.0	382.0	378.0	378.0	378.0	382.0	380.4
35°	355.4	337.6	307.7	286.7	264.9	259.3	258.5	250.4	252.0	257.6	261.7
37.5°	288.3	261.7	222.1	192.2	166.4	155.1	151.0	144.6	147.0	153.5	163.2
40°	240.7	208.4	162.3	127.6	101.8	88.8	82.4	78.3	80.8	88.8	101.0
42.5°	210.8	175.3	126.0	89.7	65.4	53.3	46.8	43.6	46.0	53.3	67.8
45°	189.0	151.8	101.8	66.2	44.4	33.1	27.5	25.0	26.7	33.1	45.2
47.5°	172.0	134.1	84.8	50.9	31.5	21.8	17.0	14.5	16.2	21.8	31.5
50°	156.7	119.5	71.9	40.4	24.2	16.2	11.3	9.7	11.3	15.3	23.4
52.5°	143.0	106.6	61.4	33.1	18.6	12.9	8.9	7.3	8.1	12.1	18.6
55°	130.8	96.9	54.1	28.3	16.2	11.3	8.1	6.5	8.1	10.5	16.2
57.5°	119.5	87.2	47.7	24.2	13.7	9.7	7.3	6.5	7.3	9.7	13.7
60°	108.2	77.5	42.0	21.0	12.1	8.9	6.5	5.7	6.5	8.1	12.1
62.5°	96.9	68.7	36.3	17.8	10.5	7.3	5.7	4.8	5.7	7.3	10.5
65°	84.0	58.2	30.7	15.3	8.9	6.5	4.8	4.8	4.8	6.5	8.9
67.5°	69.5	47.7	24.2	12.1	7.3	5.7	4.0	4.0	4.0	5.7	7.3
70°	53.3	35.5	18.6	9.7	5.7	4.0	3.2	3.2	3.2	4.0	5.7
72.5°	37.2	25.0	12.9	7.3	4.0	3.2	2.4	2.4	2.4	3.2	4.0
75°	23.4	16.2	8.9	4.8	3.2	2.4	1.6	1.6	1.6	2.4	3.2
77.5°	13.7	9.7	5.7	3.2	1.6	1.6	0.8	0.8	0.8	1.6	1.6
80°	7.3	5.7	3.2	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8
82.5°	4.0	2.4	1.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
85°	1.6	0.8	0.8	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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**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4	888.4
2.5°	897.3	900.6	899.8	882.8	881.2	882.0	870.7	874.7	878.8	874.7	875.5
5°	940.9	940.1	930.4	906.2	896.5	890.1	871.5	868.3	865.8	856.9	853.7
7.5°	998.3	987.0	966.8	930.4	910.3	892.5	865.0	851.3	841.6	826.3	817.4
10°	1037.9	1015.3	985.4	937.7	907.0	879.6	844.0	823.0	806.9	786.7	773.8
12.5°	1043.5	1012.0	977.3	921.6	886.0	852.1	813.3	789.9	771.3	749.5	737.4
15°	1007.2	974.9	938.5	882.8	847.3	812.5	775.4	751.9	733.4	712.4	701.9
17.5°	938.5	908.6	876.3	824.6	793.9	762.4	729.3	709.1	693.0	676.8	666.3
20°	851.3	827.9	801.2	757.6	733.4	707.5	681.7	665.5	653.4	639.7	631.6
22.5°	764.9	747.1	727.7	693.0	675.2	656.6	636.5	625.1	616.3	605.8	600.1
25°	681.7	669.6	657.5	630.8	620.3	607.4	592.8	584.8	579.1	571.8	567.8
27.5°	595.3	591.2	588.0	571.0	567.0	558.1	548.4	543.6	539.5	534.7	531.5
30°	501.6	504.0	516.9	508.0	512.1	509.6	505.6	502.4	500.8	496.7	492.7
32.5°	395.8	412.7	431.3	433.7	445.8	451.5	450.7	451.5	452.3	449.1	445.8
35°	283.5	311.0	340.0	353.0	373.1	386.1	390.9	395.8	399.0	398.2	395.8
37.5°	189.0	226.2	260.9	283.5	310.1	327.9	338.4	346.5	351.3	353.0	353.0
40°	126.0	161.5	207.6	236.6	266.5	288.3	300.5	311.0	318.2	321.5	323.1
42.5°	88.8	126.8	173.7	206.8	237.5	260.9	274.6	285.9	293.2	297.2	298.8
45°	65.4	101.8	150.2	184.2	215.7	238.3	252.0	262.5	269.8	273.8	276.2
47.5°	50.1	85.6	132.5	167.2	198.7	219.7	232.6	242.3	248.8	252.0	253.6
50°	39.6	71.9	117.9	152.7	181.7	201.1	212.4	220.5	226.2	228.6	230.2
52.5°	32.3	62.2	105.8	138.9	166.4	183.3	192.2	198.7	203.5	205.2	206.8
55°	27.5	54.1	95.3	127.6	152.7	167.2	173.7	179.3	181.7	183.3	184.2
57.5°	24.2	47.7	86.4	117.1	139.7	151.8	156.7	160.7	161.5	163.2	164.0
60°	21.0	41.2	76.7	105.8	126.0	136.5	138.9	142.2	142.2	143.0	143.8
62.5°	17.8	35.5	67.0	94.5	112.3	121.2	122.8	123.6	123.6	123.6	124.4
65°	14.5	29.9	56.5	81.6	97.7	103.4	104.2	105.0	103.4	103.4	104.2
67.5°	12.1	23.4	45.2	67.0	80.0	84.8	84.0	84.0	81.6	81.6	82.4
70°	8.9	17.8	33.9	50.9	60.6	63.8	62.2	62.2	59.8	59.8	60.6
72.5°	6.5	12.9	23.4	34.7	42.0	43.6	42.0	42.0	40.4	40.4	41.2
75°	4.8	8.1	15.3	22.6	26.7	27.5	26.7	25.8	25.0	25.0	25.8
77.5°	3.2	5.7	8.9	12.9	15.3	16.2	15.3	15.3	14.5	15.3	15.3
80°	1.6	3.2	4.8	7.3	8.1	8.9	8.9	8.9	8.1	8.1	8.9
82.5°	0.8	1.6	2.4	3.2	4.0	4.8	4.0	4.0	4.0	4.0	4.0
85°	0.0	0.8	0.8	1.6	1.6	2.4	1.6	1.6	1.6	1.6	1.6
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: P135761

CATALOG NUMBER: LD6A10D010TE ERM6A10830 6LM121LI

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	888.4	888.4	888.4	888.4
2.5°	873.9	869.9	864.2	876.3
5°	848.9	840.8	834.3	845.6
7.5°	809.3	798.0	789.1	800.4
10°	764.1	751.1	741.4	751.9
12.5°	724.5	711.6	703.5	711.6
15°	689.8	677.6	670.4	677.6
17.5°	655.8	645.3	638.9	647.0
20°	623.5	614.6	609.0	616.3
22.5°	593.6	585.6	580.7	588.0
25°	562.1	556.5	550.8	557.3
27.5°	527.4	521.0	517.7	521.8
30°	487.8	481.4	479.0	482.2
32.5°	441.0	434.5	432.1	434.5
35°	392.5	386.9	383.6	386.9
37.5°	351.3	346.5	344.1	346.5
40°	322.3	319.8	317.4	320.6
42.5°	299.6	297.2	295.6	298.0
45°	276.2	273.0	271.4	273.8
47.5°	252.8	249.6	248.0	249.6
50°	228.6	224.5	223.7	224.5
52.5°	204.3	201.1	199.5	200.3
55°	182.5	180.1	178.5	179.3
57.5°	163.2	159.9	159.1	159.9
60°	143.8	142.2	141.3	142.2
62.5°	124.4	123.6	124.4	124.4
65°	105.0	105.0	105.8	105.8
67.5°	84.0	85.6	86.4	86.4
70°	62.2	63.8	64.6	64.6
72.5°	42.0	43.6	44.4	45.2
75°	26.7	28.3	29.1	29.1
77.5°	16.2	17.0	17.0	17.8
80°	8.9	9.7	9.7	9.7
82.5°	4.8	4.8	4.8	5.7
85°	2.4	2.4	2.4	2.4
87.5°	0.0	0.8	0.8	0.8
90°	0.0	0.0	0.0	0.0



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— 0°-180°    - - 45°-225°    - - - - 90°-270°















(END OF REPORT)