

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: P135885

Luminaire Tested: **LD6A10D010TE ERM6A10930 6LM121H**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P135885  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23373)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD6A10D010TE ERM6A10930 6LM121H  
Description: PORTFOLIO 6 INCH 50 DEGREE CUTOFF RECESSED DOUBLE WALL WASH LUMINAIRE  
SEMI-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: 1041.0 lumens  
Efficiency: N/A  
Efficacy: 74.4 lumens/watt  
Spacing Criteria (0/90/45): 0.96 / 1.06 / 1.01  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
CIE Type: Direct

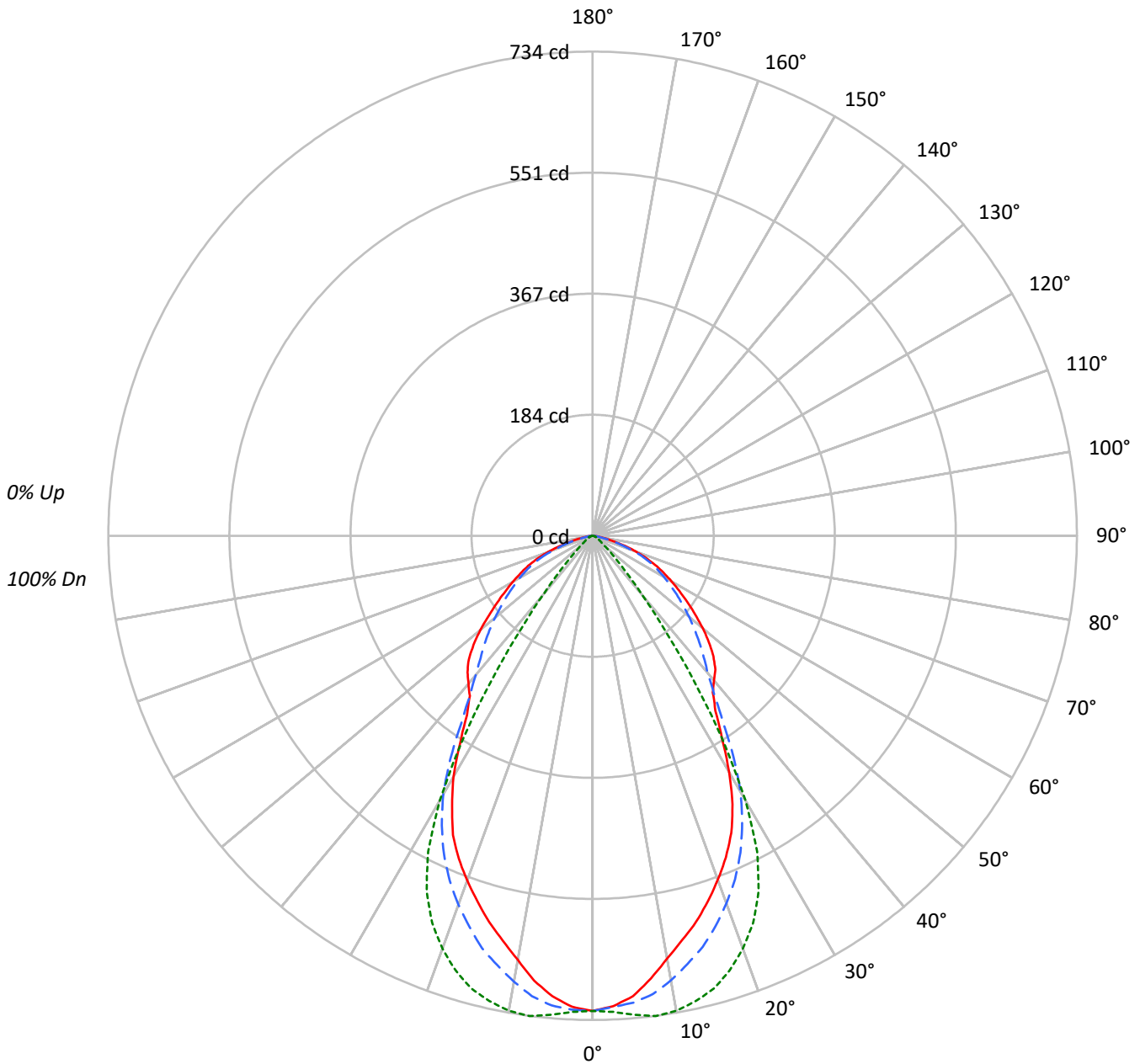
Input Watts (W): 14  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P135885

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121H

### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

RF	20				20				20				20				20				
RC	80				70				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	111	108	104	102	109	106	103	100	101	99	97	98	96	94	94	93	91	89			89
2	104	97	92	87	101	95	90	86	92	88	84	89	85	82	86	83	81	79			79
3	96	88	81	76	94	86	80	75	84	78	74	81	77	73	79	75	72	70			70
4	90	80	73	67	88	79	72	67	76	71	66	74	69	65	72	68	64	62			62
5	84	73	66	60	82	72	65	60	70	64	59	68	63	59	67	62	58	56			56
6	78	67	60	54	77	66	59	54	65	58	54	63	57	53	62	57	53	51			51
7	74	62	55	49	72	61	54	49	60	53	49	59	53	49	57	52	48	47			47
8	69	58	50	45	68	57	50	45	56	49	45	55	49	45	53	48	44	43			43
9	65	54	46	42	64	53	46	41	52	46	41	51	45	41	50	45	41	39			39
10	62	50	43	38	61	50	43	38	49	43	38	48	42	38	47	42	38	36			36

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

	0°	90°	180°
0°	46993	46993	46993
5°	45889	47742	45889
10°	43100	48433	43246
15°	40930	47982	40930
20°	38518	46225	38595
25°	35791	42838	36029
30°	31150	34834	31798
35°	25821	21058	26434
40°	24366	9820	24928
45°	23896	4613	24496
50°	22086	2436	22532
55°	19928	1604	20053
60°	18033	1279	18176
65°	16132	1003	16626
70°	13295	820	13696
75°	8772	555	8772
80°	4884	413	4884
85°	3219	0	2470



TEST NUMBER: P135885

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121H

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	67.2	6.5
10°-20°	182.3	17.5
20°-30°	243.6	23.4
30°-40°	201.4	19.4
40°-50°	144.5	13.9
50°-60°	106.2	10.2
60°-70°	68.6	6.6
70°-80°	24.3	2.3
80°-90°	2.8	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°	493.1	47.4
0°-40°	694.5	66.7
0°-60°	945.3	90.8
0°-90°	1041.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	1041.0	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	720	720	720	720	720	
5°	701	710	729	715	701	65
15°	606	645	710	647	606	170
25°	497	530	595	533	500	226
35°	324	344	264	347	332	209
45°	259	228	50	232	266	198
55°	175	156	14	158	176	157
65°	104	97	6	98	108	103
75°	35	28	2	28	35	39
85°	4	2	0	2	3	5
90°	0	0	0	0	0	



TEST NUMBER: P135885

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121H

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3
2.5°	713.7	708.2	712.6	708.2	709.3	713.7	714.8	717.0	718.1	714.8	714.8
5°	700.7	695.2	700.7	696.3	698.5	703.9	705.0	709.3	711.5	710.4	712.6
7.5°	676.7	672.3	677.9	674.5	677.9	685.5	688.7	694.1	698.5	700.7	703.9
10°	650.6	646.3	651.7	648.5	653.9	662.6	665.8	672.3	678.9	684.4	689.8
12.5°	627.7	623.4	626.7	625.6	631.0	638.7	644.1	651.7	659.3	664.7	672.3
15°	606.0	601.7	606.0	603.9	608.2	616.9	622.3	629.9	638.7	645.2	653.9
17.5°	581.0	576.6	579.9	578.8	583.2	590.7	596.2	603.9	612.6	620.1	628.8
20°	554.8	550.5	553.8	551.6	555.9	564.7	569.0	577.7	585.3	592.9	600.6
22.5°	527.7	523.4	527.7	524.5	531.0	536.4	540.7	549.4	555.9	563.6	570.1
25°	497.2	492.9	496.1	494.0	498.3	504.8	508.1	516.8	522.3	529.9	536.4
27.5°	459.1	453.7	460.2	455.9	461.3	466.7	470.0	477.6	484.2	490.7	496.1
30°	413.5	409.1	415.6	412.4	418.9	423.2	427.6	435.2	440.6	448.3	449.4
32.5°	365.5	363.3	368.9	366.6	373.2	377.6	380.8	388.4	392.7	397.1	393.8
35°	324.2	322.0	327.5	326.4	331.9	335.1	338.4	342.7	342.7	343.8	335.1
37.5°	299.2	298.1	302.5	301.4	305.7	309.0	309.0	310.1	307.9	302.5	289.4
40°	286.1	285.0	288.3	287.2	290.5	291.6	290.5	288.3	281.8	270.9	253.5
42.5°	275.2	273.1	275.2	274.2	276.3	277.4	274.2	270.9	262.2	249.1	228.5
45°	259.0	256.8	260.1	257.9	260.1	260.1	256.8	252.4	242.6	228.5	206.7
47.5°	239.3	237.2	240.4	238.3	240.4	240.4	237.2	232.8	223.1	208.9	187.1
50°	217.6	215.5	217.6	216.5	218.7	219.8	215.5	212.1	203.4	190.4	168.6
52.5°	195.8	193.7	195.8	195.8	196.9	196.9	193.7	191.5	183.9	171.9	152.3
55°	175.2	173.0	176.3	175.2	176.3	176.3	173.0	170.8	165.3	155.6	137.1
57.5°	155.6	154.5	156.7	155.6	155.6	155.6	153.4	152.3	148.0	139.3	124.0
60°	138.2	136.0	137.1	137.1	137.1	138.2	136.0	134.9	131.6	125.1	111.0
62.5°	120.8	119.7	120.8	119.7	119.7	120.8	119.7	118.6	116.4	111.0	99.1
65°	104.5	102.3	104.5	103.4	103.4	103.4	102.3	102.3	100.1	96.8	85.9
67.5°	87.0	85.9	87.0	85.9	84.8	84.8	83.8	83.8	82.7	80.5	70.7
70°	69.7	67.5	68.6	66.4	67.5	65.3	65.3	64.2	63.1	62.1	54.4
72.5°	51.1	50.0	50.0	47.8	47.8	46.8	45.7	45.7	44.6	44.6	39.2
75°	34.8	34.8	33.7	31.6	32.7	30.5	30.5	30.5	29.4	28.3	25.1
77.5°	22.9	21.8	21.8	20.7	20.7	18.5	19.6	18.5	18.5	17.4	15.2
80°	13.0	13.0	13.0	11.9	11.9	10.9	10.9	10.9	9.8	9.8	8.7
82.5°	7.6	7.6	7.6	6.5	6.5	6.5	6.5	5.4	5.4	5.4	4.3
85°	4.3	3.3	3.3	3.3	3.3	3.3	3.3	2.2	2.2	2.2	2.2
87.5°	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	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: P135885

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121H

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3
2.5°	719.2	718.1	717.0	721.4	722.5	719.2	719.2	722.5	724.6	719.2	718.1
5°	718.1	719.2	719.2	724.6	727.9	725.7	725.7	729.0	731.1	724.6	722.5
7.5°	712.6	715.9	718.1	725.7	731.1	730.1	731.1	734.4	735.5	729.0	725.7
10°	700.7	705.0	709.3	719.2	725.7	726.8	727.9	731.1	733.3	724.6	720.3
12.5°	684.4	690.9	697.4	708.2	715.9	717.0	720.3	722.5	723.5	715.9	710.4
15°	665.8	674.5	681.1	693.1	701.7	703.9	707.2	710.4	710.4	701.7	696.3
17.5°	643.0	650.6	659.3	671.3	681.1	683.3	687.6	690.9	690.9	682.2	674.5
20°	614.7	623.4	631.0	644.1	655.0	658.2	662.6	665.8	665.8	658.2	648.5
22.5°	585.3	594.0	601.7	613.6	624.5	627.7	631.0	635.3	634.3	627.7	619.1
25°	550.5	558.1	563.6	575.6	584.2	587.5	591.8	595.1	594.0	587.5	579.9
27.5°	508.1	513.5	514.6	522.3	529.9	533.1	536.4	539.6	538.6	533.1	526.6
30°	459.1	458.1	452.6	452.6	455.9	458.1	460.2	462.4	461.3	458.1	453.7
32.5°	397.1	389.5	375.4	367.8	364.4	364.4	364.4	366.6	365.5	364.4	364.4
35°	330.8	314.4	292.7	276.3	267.7	264.4	262.2	264.4	263.3	264.4	268.7
37.5°	276.3	252.4	223.1	201.3	187.1	180.6	176.3	177.4	177.4	180.6	188.2
40°	236.1	205.6	173.0	145.8	129.4	120.8	115.3	115.3	116.4	120.8	130.5
42.5°	205.6	171.9	136.0	109.9	90.3	81.6	76.2	75.1	76.2	81.6	91.4
45°	181.7	145.8	109.9	81.6	65.3	55.4	51.1	50.0	51.1	56.5	65.3
47.5°	161.0	125.1	91.4	63.1	46.8	39.2	34.8	33.7	35.9	40.3	47.8
50°	143.6	108.8	75.1	50.0	35.9	28.3	25.1	24.0	25.1	29.4	35.9
52.5°	127.3	94.6	63.1	39.2	27.2	21.8	18.5	17.4	18.5	21.8	28.3
55°	114.2	83.8	54.4	32.7	21.8	17.4	15.2	14.1	15.2	17.4	22.9
57.5°	102.3	74.0	46.8	27.2	18.5	14.1	11.9	11.9	11.9	14.1	18.5
60°	91.4	65.3	40.3	22.9	15.2	11.9	9.8	9.8	9.8	11.9	15.2
62.5°	81.6	57.7	34.8	19.6	13.0	9.8	8.7	8.7	8.7	9.8	13.0
65°	69.7	48.9	29.4	16.3	10.9	8.7	7.6	6.5	7.6	8.7	10.9
67.5°	57.7	40.3	24.0	13.0	8.7	6.5	5.4	5.4	5.4	6.5	8.7
70°	44.6	31.6	18.5	9.8	6.5	5.4	4.3	4.3	4.3	5.4	6.5
72.5°	30.5	21.8	13.0	7.6	5.4	4.3	3.3	3.3	3.3	4.3	5.4
75°	19.6	14.1	8.7	5.4	3.3	3.3	2.2	2.2	2.2	3.3	3.3
77.5°	11.9	8.7	5.4	3.3	2.2	2.2	2.2	2.2	2.2	2.2	2.2
80°	6.5	5.4	3.3	2.2	2.2	1.1	1.1	1.1	1.1	1.1	1.1
82.5°	3.3	3.3	2.2	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
85°	1.1	1.1	1.1	1.1	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: P135885

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121H

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3	720.3
2.5°	718.1	720.3	721.4	717.0	718.1	719.2	712.6	713.7	710.4	717.0	713.7
5°	721.4	722.5	723.5	717.0	715.9	714.8	707.2	706.1	701.7	707.2	703.9
7.5°	722.5	720.3	720.3	710.4	707.2	703.9	694.1	690.9	685.5	687.6	683.3
10°	717.0	712.6	709.3	697.4	692.0	686.5	674.5	670.2	662.6	663.7	658.2
12.5°	705.0	699.6	694.1	681.1	674.5	666.9	655.0	648.5	640.9	640.9	634.3
15°	689.8	683.3	676.7	663.7	655.0	647.4	633.2	626.7	619.1	618.0	612.6
17.5°	668.0	660.4	653.9	638.7	629.9	621.2	608.2	600.6	592.9	592.9	586.4
20°	642.0	633.2	625.6	611.5	602.8	595.1	579.9	573.4	566.9	565.8	560.3
22.5°	611.5	602.8	596.2	583.2	573.4	565.8	552.7	547.2	540.7	539.6	533.1
25°	573.4	565.8	559.2	548.3	539.6	533.1	521.1	514.6	510.2	510.2	504.8
27.5°	522.3	515.7	514.6	505.9	499.4	495.1	485.3	480.8	475.4	475.4	468.9
30°	453.7	454.8	459.1	457.0	454.8	452.6	443.9	442.8	436.3	435.2	427.6
32.5°	370.0	377.6	389.5	396.0	399.3	401.4	399.3	397.1	391.7	390.6	381.9
35°	280.7	296.0	315.5	328.6	339.5	347.1	350.3	350.3	348.2	347.1	339.5
37.5°	203.4	226.3	252.4	274.2	291.6	305.7	312.2	316.6	316.6	316.6	313.3
40°	149.1	176.3	206.7	235.0	256.8	275.2	285.0	292.7	294.9	298.1	296.0
42.5°	111.0	140.4	173.0	205.6	230.7	251.3	264.4	273.1	278.5	281.8	281.8
45°	84.8	114.2	148.0	182.8	208.9	231.7	244.8	254.6	260.1	264.4	264.4
47.5°	65.3	93.5	127.3	162.1	189.3	212.1	225.2	233.9	239.3	243.7	243.7
50°	51.1	77.2	109.9	143.6	170.8	192.6	204.5	213.3	217.6	220.9	222.0
52.5°	41.3	65.3	96.8	129.4	154.5	174.1	183.9	191.5	195.8	198.0	199.1
55°	33.7	56.5	85.9	115.3	139.3	157.8	166.4	171.9	175.2	177.4	177.4
57.5°	28.3	48.9	76.2	104.5	127.3	141.5	149.1	153.4	155.6	157.8	157.8
60°	24.0	42.4	67.5	93.5	114.2	127.3	132.7	136.0	138.2	139.3	139.3
62.5°	20.7	35.9	58.8	82.7	101.2	113.2	117.5	119.7	120.8	120.8	121.8
65°	17.4	30.5	50.0	71.8	87.0	98.0	101.2	102.3	102.3	103.4	104.5
67.5°	13.0	24.0	40.3	58.8	71.8	80.5	83.8	83.8	83.8	83.8	84.8
70°	10.9	18.5	30.5	44.6	55.4	62.1	64.2	64.2	64.2	64.2	65.3
72.5°	7.6	13.0	21.8	31.6	40.3	44.6	44.6	45.7	44.6	44.6	46.8
75°	5.4	8.7	14.1	20.7	25.1	28.3	29.4	29.4	29.4	29.4	30.5
77.5°	3.3	5.4	8.7	11.9	16.3	17.4	18.5	18.5	18.5	18.5	19.6
80°	2.2	3.3	5.4	7.6	8.7	9.8	10.9	10.9	10.9	10.9	10.9
82.5°	1.1	2.2	3.3	3.3	4.3	5.4	5.4	5.4	5.4	5.4	6.5
85°	0.0	1.1	1.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	3.3
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: P135885

CATALOG NUMBER: LD6A10D010TE ERM6A10930 6LM121H

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	720.3	720.3	720.3	720.3
2.5°	707.2	714.8	709.3	714.8
5°	696.3	702.8	696.3	700.7
7.5°	674.5	680.0	673.4	680.0
10°	648.5	653.9	647.4	652.8
12.5°	624.5	628.8	622.3	628.8
15°	602.8	607.1	600.6	606.0
17.5°	577.7	581.0	575.6	581.0
20°	551.6	554.8	550.5	555.9
22.5°	525.5	529.9	524.5	529.9
25°	496.1	499.4	494.0	500.5
27.5°	461.3	463.5	458.1	461.3
30°	418.9	420.0	415.6	422.1
32.5°	374.3	374.3	367.8	374.3
35°	333.0	331.9	327.5	331.9
37.5°	306.8	306.8	303.6	305.7
40°	291.6	292.7	288.3	292.7
42.5°	278.5	280.7	277.4	280.7
45°	262.2	264.4	261.1	265.5
47.5°	241.5	243.7	241.5	244.8
50°	218.7	220.9	218.7	222.0
52.5°	195.8	198.0	195.8	198.0
55°	175.2	176.3	174.1	176.3
57.5°	155.6	156.7	154.5	156.7
60°	137.1	139.3	137.1	139.3
62.5°	120.8	121.8	121.8	122.9
65°	103.4	107.7	106.6	107.7
67.5°	85.9	89.2	89.2	90.3
70°	66.4	68.6	70.7	71.8
72.5°	46.8	50.0	51.1	52.2
75°	30.5	33.7	33.7	34.8
77.5°	19.6	21.8	21.8	21.8
80°	11.9	13.0	11.9	13.0
82.5°	6.5	6.5	6.5	7.6
85°	3.3	3.3	3.3	3.3
87.5°	1.1	1.1	1.1	1.1
90°	0.0	0.0	0.0	0.0



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















(END OF REPORT)