

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: io LED

Report Number: P273447

Luminaire Tested: **0.05-09W-830-60-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273447
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL89169-GONIOPHOTOMETRY)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.05-09W-830-60-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 60 DEGREE OPTIC.
VERY HIGH OUTPUT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1527.4 lumens
Efficiency: N/A
Efficacy: 52.1 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 2.92' x L: 0.16' x H: 0.03')
CIE Type: Direct

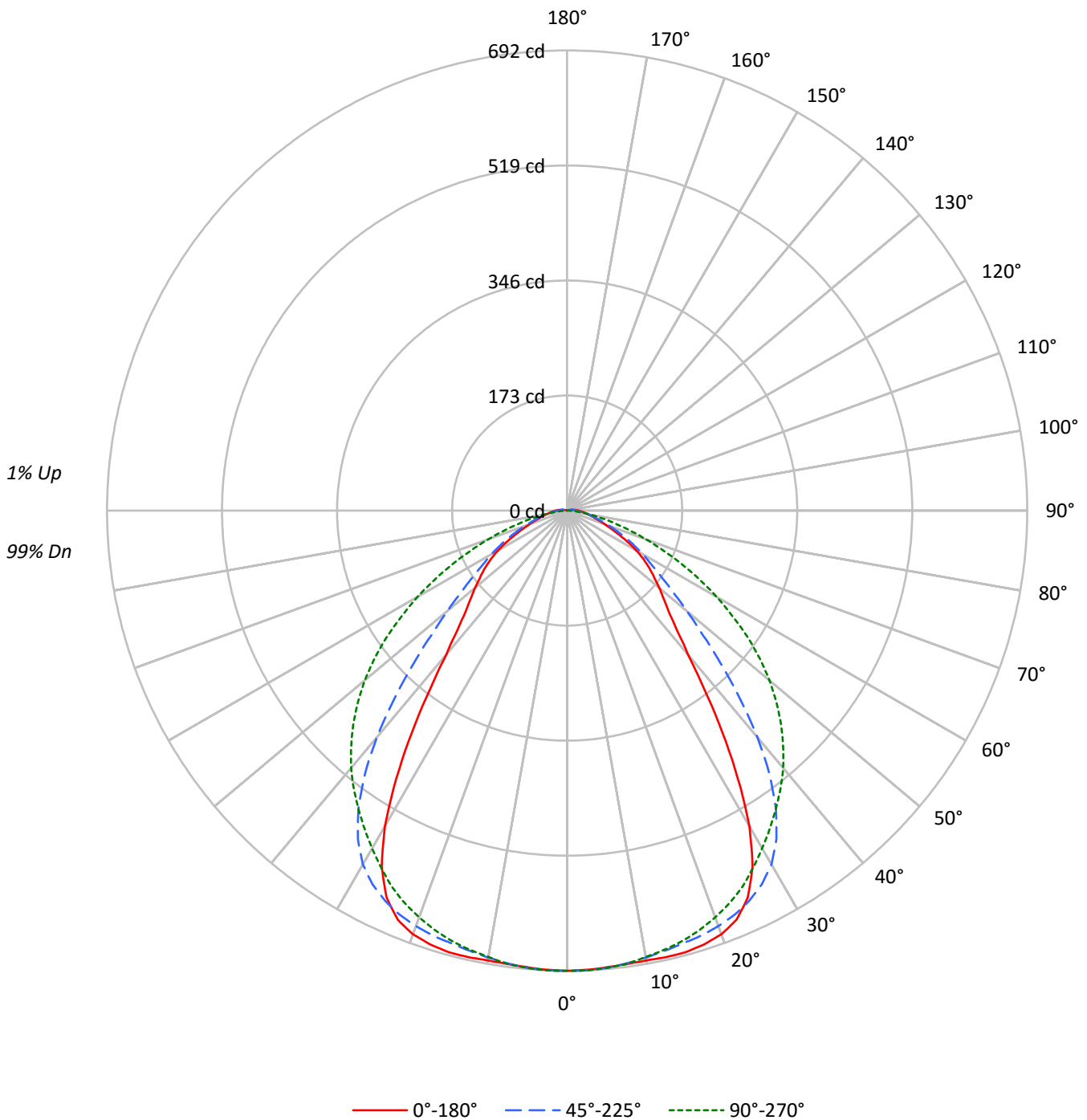
Input Watts (W): 29.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20					20					20					20					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	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99								
1	110	106	102	99	107	104	100	97	99	96	94	95	93	91	92	90	88	86								
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74								
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	64								
4	86	75	68	62	84	74	67	61	72	65	60	69	64	59	67	62	59	56								
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50								
6	74	62	54	48	72	61	53	48	59	52	47	58	51	47	56	51	46	44								
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40								
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36								
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	33								
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30								

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	15819	15819	15819
5°	15598	15674	15826
10°	15500	15512	15795
15°	15599	15444	15821
20°	15580	15497	15784
25°	15066	15465	15672
30°	13234	15162	15400
35°	10197	14082	15174
40°	7432	12063	14965
45°	6024	9466	14568
50°	5390	7302	13972
55°	4891	5845	13017
60°	4302	4952	11709
65°	3472	4166	10051
70°	2788	3420	8199
75°	2360	2821	6342
80°	2159	2456	4485
85°	2177	2307	2499



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	65.7	4.3
10°-20°	191.0	12.5
20°-30°	292.4	19.1
30°-40°	315.7	20.7
40°-50°	262.7	17.2
50°-60°	194.0	12.7
60°-70°	117.6	7.7
70°-80°	56.2	3.7
80°-90°	22.5	1.5
90°-100°	7.8	0.5
100°-110°	1.8	0.1
110°-120°	0.1	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°	549.1	35.9
0°-40°	864.8	56.6
0°-60°	1321.5	86.5
0°-90°	1517.7	99.4
90°-120°	9.7	0.6
90°-150°	9.7	0.6
90°-180°	10.0	0.7
0°-180°	1527.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	692	692	692	692	692	
5°	689	690	690	690	690	66
15°	688	682	674	668	670	194
25°	642	646	648	628	624	290
35°	407	454	547	556	547	254
45°	216	236	328	451	455	171
55°	151	152	172	296	331	135
65°	86	89	97	145	189	87
75°	43	44	46	59	74	46
85°	24	23	21	17	10	21
90°	18	16	14	8	0	10
95°	12	11	8	2	0	9
105°	4	3	1	0	0	5
115°	0	0	0	0	0	0
125°	0	0	0	0	0	0
135°	0	0	0	0	0	0
145°	0	0	0	0	0	0
155°	0	0	0	0	0	0
165°	0	0	0	0	0	0
175°	0	0	0	0	0	0
180°	0	0	0	0	0	0



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	692.1	692.1	692.1	692.1	692.1	692.1	692.1	692.1	692.1	692.1	692.1
2.5°	691.2	691.2	691.2	691.2	691.2	691.3	691.5	691.7	691.9	692.1	692.1
5°	689.4	689.6	689.8	690.1	690.2	690.3	690.3	690.3	690.3	690.3	690.3
7.5°	687.7	687.7	687.7	687.7	687.7	687.6	687.4	687.2	687.0	686.8	686.8
10°	686.8	686.5	686.0	685.7	685.3	684.8	684.2	683.6	683.1	682.5	682.3
12.5°	687.7	686.9	686.1	685.3	684.6	683.5	682.2	680.8	679.5	678.1	677.5
15°	687.7	686.6	685.3	684.2	683.1	681.5	679.6	677.6	675.7	673.7	672.3
17.5°	684.2	683.2	682.3	681.3	680.4	678.8	676.6	674.5	672.3	670.2	667.9
20°	678.1	677.1	676.2	675.2	674.3	672.8	670.9	668.8	666.9	665.0	661.7
22.5°	665.9	665.3	664.7	664.1	663.5	662.7	661.5	660.4	659.2	658.0	654.2
25°	642.3	643.3	644.2	645.2	646.2	646.8	646.9	647.2	647.4	647.6	643.1
27.5°	603.9	607.1	610.1	613.3	616.3	619.6	623.1	626.6	630.1	633.6	629.0
30°	548.1	554.1	560.1	566.1	572.2	579.5	588.2	596.9	605.7	614.4	610.1
32.5°	478.2	487.0	495.7	504.4	513.2	525.1	540.2	555.3	570.5	585.6	583.5
35°	406.7	416.5	426.5	436.4	446.2	461.8	483.2	504.5	525.9	547.2	549.3
37.5°	338.6	347.7	356.9	365.9	375.1	393.0	419.8	446.6	473.3	500.1	508.2
40°	282.8	290.7	298.6	306.6	314.5	332.6	360.7	388.9	417.0	445.1	460.4
42.5°	244.4	249.8	255.2	260.7	266.1	281.8	307.8	333.7	359.7	385.7	408.3
45°	216.4	219.7	223.1	226.3	229.6	242.0	263.6	285.1	306.6	328.1	357.0
47.5°	197.2	199.0	200.7	202.5	204.2	213.0	228.9	244.9	260.8	276.6	309.6
50°	180.7	181.4	182.2	183.0	183.8	189.7	201.0	212.2	223.5	234.8	268.7
52.5°	164.9	165.6	166.1	166.7	167.3	171.1	178.3	185.5	192.7	199.9	232.2
55°	151.0	151.0	151.0	151.0	151.0	153.3	158.0	162.6	167.3	171.9	200.8
57.5°	136.1	136.0	135.8	135.5	135.4	136.8	139.9	143.0	146.1	149.2	173.5
60°	120.4	120.3	120.1	119.8	119.6	120.8	123.3	125.8	128.4	130.9	149.9
62.5°	103.0	103.2	103.3	103.6	103.8	104.9	107.1	109.2	111.4	113.5	128.0
65°	86.4	87.0	87.5	88.1	88.8	89.9	91.6	93.4	95.1	96.9	107.7
67.5°	71.6	72.2	72.7	73.3	73.9	75.0	76.5	78.0	79.6	81.2	89.3
70°	60.2	60.6	61.0	61.4	61.8	62.7	64.0	65.4	66.7	68.1	73.9
72.5°	50.6	50.8	51.0	51.2	51.4	52.0	53.0	53.9	54.9	55.9	60.1
75°	42.8	42.9	43.1	43.4	43.5	43.9	44.5	45.1	45.6	46.3	49.0
77.5°	36.7	36.8	37.0	37.3	37.4	37.6	37.8	38.1	38.2	38.4	39.8
80°	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.4	31.8
82.5°	27.1	27.1	27.1	27.1	27.1	27.0	26.8	26.5	26.4	26.2	25.8
85°	23.6	23.6	23.6	23.6	23.6	23.3	22.7	22.1	21.6	20.9	20.2
87.5°	20.1	20.1	20.1	20.1	20.1	19.8	19.2	18.6	18.1	17.5	16.3
90°	17.5	17.3	17.1	16.8	16.7	16.3	15.7	15.1	14.6	14.0	12.6
92.5°	14.8	14.7	14.5	14.2	14.1	13.6	12.8	12.0	11.3	10.5	9.1
95°	12.2	12.0	11.9	11.6	11.4	11.0	10.2	9.4	8.6	7.9	6.5
97.5°	9.6	9.4	9.3	9.0	8.8	8.4	7.6	6.8	6.0	5.2	4.3
100°	7.9	7.7	7.5	7.2	7.1	6.6	5.8	5.1	4.3	3.5	2.7
102.5°	6.1	5.9	5.8	5.5	5.3	4.9	4.1	3.3	2.5	1.7	1.4
105°	4.4	4.2	4.0	3.8	3.6	3.2	2.6	2.0	1.5	0.9	0.7
107.5°	2.6	2.4	2.3	2.0	1.8	1.6	1.1	0.8	0.3	0.0	0.0
110°	1.7	1.6	1.4	1.1	1.0	0.8	0.6	0.3	0.2	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.9	0.7	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	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°
0°	692.1	692.1	692.1	692.1	692.1	692.1	692.1	692.1
2.5°	692.1	692.1	692.1	692.1	692.1	692.1	692.1	692.1
5°	690.3	690.3	690.3	690.3	690.3	690.3	690.3	690.3
7.5°	686.8	686.8	686.8	686.9	687.1	687.3	687.5	687.7
10°	682.1	681.9	681.7	681.6	681.6	681.6	681.6	681.6
12.5°	677.0	676.4	675.7	675.6	675.7	676.0	676.2	676.4
15°	671.0	669.6	668.3	667.9	668.5	669.1	669.6	670.2
17.5°	665.6	663.3	660.9	659.9	660.4	660.7	661.2	661.5
20°	658.4	655.1	651.8	650.3	650.4	650.7	650.9	651.0
22.5°	650.3	646.4	642.5	640.4	640.0	639.6	639.2	638.8
25°	638.7	634.2	629.7	627.1	626.3	625.6	624.8	624.0
27.5°	624.3	619.6	615.0	611.9	610.3	608.8	607.2	605.7
30°	605.8	601.6	597.3	594.2	592.3	590.3	588.4	586.5
32.5°	581.3	579.2	577.0	575.0	573.1	571.1	569.2	567.3
35°	551.5	553.6	555.7	555.7	553.6	551.5	549.3	547.2
37.5°	516.4	524.5	532.6	535.7	533.5	531.4	529.2	527.1
40°	475.7	491.1	506.3	513.1	511.1	509.1	507.2	505.3
42.5°	430.8	453.2	475.7	486.3	485.0	483.6	482.3	480.9
45°	385.9	414.8	443.7	457.8	457.0	456.3	455.5	454.7
47.5°	342.6	375.5	408.5	425.2	425.6	426.0	426.4	426.8
50°	302.7	336.6	370.6	388.5	390.7	392.8	395.0	397.1
52.5°	264.6	297.0	329.4	347.7	352.0	356.2	360.5	364.8
55°	229.7	258.6	287.5	305.2	311.6	317.9	324.4	330.8
57.5°	197.8	221.9	246.2	262.3	270.3	278.2	286.2	294.1
60°	169.0	187.9	206.9	221.3	231.0	240.7	250.4	260.1
62.5°	142.5	157.1	171.7	184.0	194.0	204.1	214.2	224.3
65°	118.6	129.4	140.3	150.6	160.3	170.0	179.7	189.4
67.5°	97.5	105.6	113.7	122.1	130.6	139.1	147.7	156.2
70°	79.7	85.5	91.4	97.7	104.7	111.7	118.7	125.7
72.5°	64.4	68.7	73.0	77.6	82.6	87.6	92.7	97.7
75°	51.7	54.4	57.1	60.2	63.7	67.2	70.7	74.2
77.5°	41.1	42.5	43.8	45.5	47.4	49.4	51.3	53.2
80°	32.2	32.6	33.0	33.4	34.0	34.6	35.2	35.8
82.5°	25.4	25.0	24.6	24.2	23.6	23.0	22.4	21.8
85°	19.4	18.6	17.8	16.7	15.1	13.6	12.0	10.5
87.5°	15.1	14.0	12.8	11.3	9.3	7.3	5.4	3.5
90°	11.3	9.9	8.6	7.0	5.2	3.5	1.7	0.0
92.5°	7.8	6.4	5.1	3.8	2.9	1.9	1.0	0.0
95°	5.1	3.8	2.4	1.6	1.1	0.8	0.3	0.0
97.5°	3.3	2.4	1.4	0.8	0.6	0.3	0.2	0.0
100°	1.9	1.1	0.3	0.0	0.0	0.0	0.0	0.0
102.5°	1.0	0.6	0.2	0.0	0.0	0.0	0.0	0.0
105°	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0
107.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



TEST NUMBER: P273447

CATALOG NUMBER: 0.05-09W-830-60-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
112.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)