

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: P273401

Luminaire Tested: **0.05-03W-830-90SYM-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273401
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-4)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.05-03W-830-90SYM-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 90 DEGREE SYMMETRIC OPTIC.
STANDARD OUTPUT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 829.4 lumens
Efficiency: N/A
Efficacy: 51.8 lumens/watt
Spacing Criteria (0/90/45): 1.34 / 1.29 / 1.43
Luminous Opening: Rectangular (W 2.92' x L: 0.17' x H: 0')
CIE Type: Direct

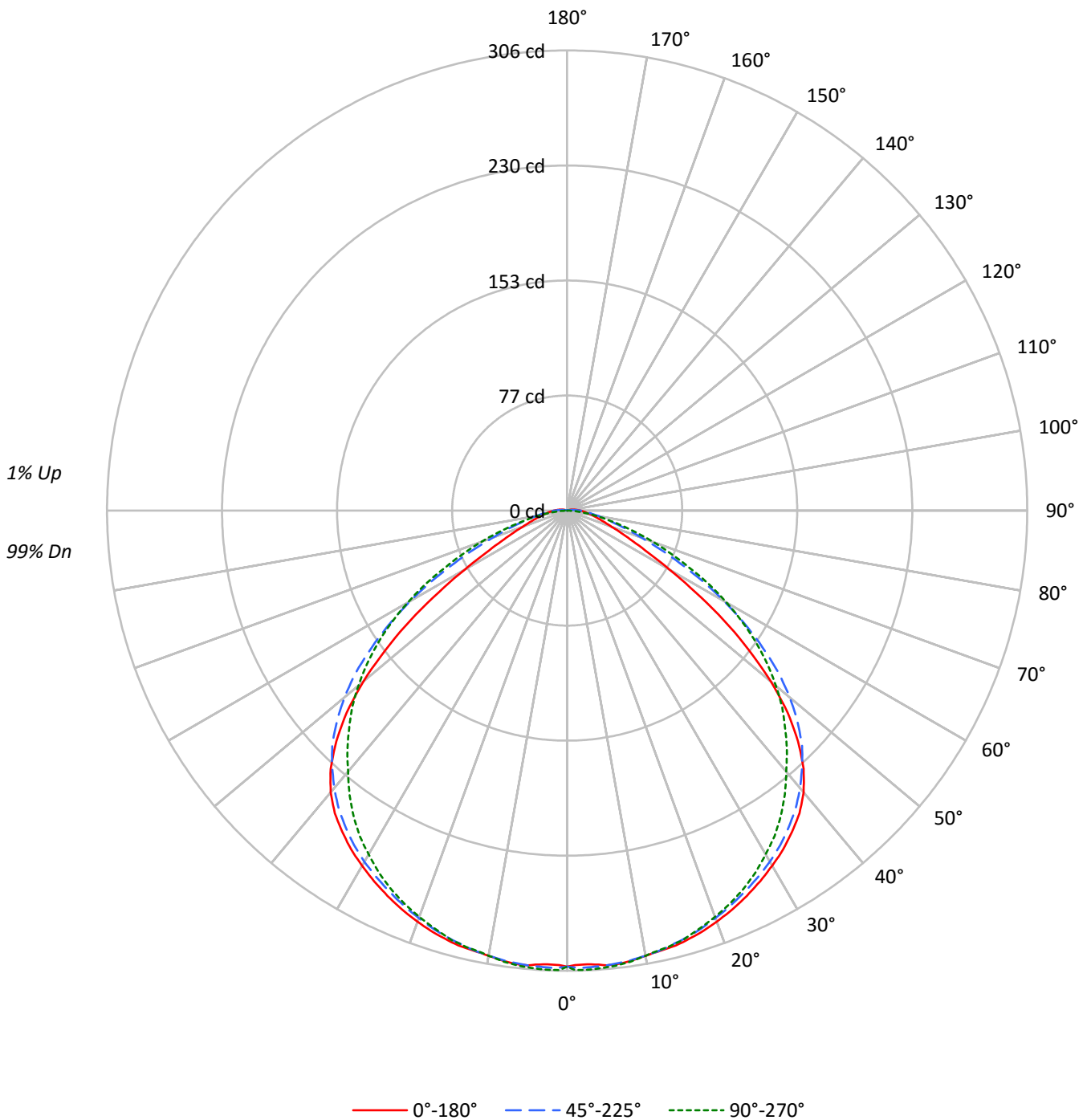
Input Watts (W): 16
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	101	101	101	99
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85
2	100	92	86	81	98	90	85	80	87	82	78	84	79	76	80	77	74	72
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63	61
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53
5	78	65	56	50	75	64	56	50	62	55	49	60	53	49	58	52	48	46
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	42	40
7	66	53	45	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	6716	6716	6716
5°	6746	6746	6775
10°	6759	6759	6759
15°	6811	6776	6783
20°	6855	6796	6775
25°	6907	6831	6780
30°	6972	6893	6750
35°	7047	6944	6698
40°	7070	6963	6553
45°	6798	6917	6423
50°	6097	6655	6245
55°	4918	6127	5930
60°	3485	5341	5421
65°	2520	4323	4679
70°	2033	3412	3910
75°	1908	2815	3097
80°	2104	2678	2359
85°	3074	3379	1575



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	28.8	3.5
10°-20°	83.5	10.1
20°-30°	128.9	15.5
30°-40°	159.5	19.2
40°-50°	165.4	19.9
50°-60°	132.9	16.0
60°-70°	76.6	9.2
70°-80°	35.0	4.2
80°-90°	13.5	1.6
90°-100°	4.2	0.5
100°-110°	1.0	0.1
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°	241.2	29.1
0°-40°	400.8	48.3
0°-60°	699.1	84.3
0°-90°	824.2	99.4
90°-120°	5.2	0.6
90°-150°	5.2	0.6
90°-180°	5.0	0.6
0°-180°	829.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	303	303	303	303	303	
5°	304	303	304	302	305	29
15°	297	297	296	294	296	84
25°	283	282	280	276	278	130
35°	261	259	257	250	248	163
45°	217	219	221	211	205	166
55°	127	139	159	160	154	113
65°	48	56	82	96	89	50
75°	22	24	33	42	36	24
85°	12	12	13	12	6	11
90°	9	8	8	5	0	5
95°	6	6	4	2	0	4
105°	2	2	1	0	0	2
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°	303.3	303.3	303.3	303.3	303.3	303.3	303.3	303.3	303.3	303.3	303.3
1°	302.3	302.1	301.5	301.7	303.1	304.2	304.6	304.4	304.6	304.0	303.8
2°	302.1	301.9	301.3	301.9	303.1	304.0	304.6	304.4	304.4	304.2	304.0
3°	302.1	302.1	301.3	302.1	303.1	303.8	304.2	304.2	304.2	304.0	303.8
4°	302.7	302.7	301.7	302.3	302.9	303.6	304.0	303.8	304.0	303.8	303.6
5°	303.5	302.9	301.9	302.3	303.1	303.5	303.8	303.5	303.6	303.5	303.5
6°	303.5	303.1	302.1	302.1	302.9	302.9	303.3	303.1	303.5	303.1	303.1
7°	303.1	302.7	301.7	301.9	302.3	302.7	303.1	302.9	302.9	302.7	302.5
8°	302.5	301.9	300.9	300.9	301.9	302.3	302.7	302.5	302.5	302.1	302.1
9°	301.5	300.9	299.8	300.0	300.9	301.5	301.9	301.9	301.7	301.3	301.3
10°	300.6	300.0	299.2	299.4	300.2	300.8	301.1	301.3	301.1	300.6	300.4
11°	299.8	299.4	298.4	298.6	299.8	300.2	300.4	300.6	300.4	299.8	299.8
12°	299.2	298.8	297.7	297.9	298.8	299.4	299.4	299.6	299.6	298.8	298.8
13°	298.6	298.1	297.1	297.3	297.9	298.8	298.8	298.8	298.8	297.9	298.1
14°	298.1	297.3	296.5	296.3	296.9	297.9	297.9	297.7	297.7	296.5	297.1
15°	297.1	296.7	295.9	295.9	296.5	296.9	296.9	296.9	296.5	295.6	296.3
17.5°	294.4	293.8	293.3	292.9	293.6	294.0	293.8	293.8	293.3	292.3	293.1
20°	290.9	290.4	289.8	289.4	289.8	290.0	290.0	289.8	289.2	288.4	288.8
22.5°	287.1	286.5	285.9	285.4	285.7	286.3	285.7	285.7	285.2	284.2	284.4
25°	282.7	282.3	281.7	281.1	281.7	281.9	281.3	281.3	280.7	279.6	279.6
27.5°	277.9	277.9	277.1	276.5	277.3	277.3	276.5	276.9	275.7	274.8	275.0
30°	272.7	272.7	271.9	271.3	271.7	271.9	271.1	271.1	270.4	269.6	269.2
32.5°	267.3	267.3	266.5	265.5	265.7	266.1	265.2	264.8	264.0	263.8	263.6
35°	260.7	260.7	260.0	259.0	259.2	259.2	258.4	257.8	257.3	256.9	256.3
37.5°	253.8	253.6	252.8	251.9	251.9	252.3	251.3	250.5	249.8	249.6	249.2
40°	244.6	244.6	243.8	243.2	243.2	243.4	242.8	242.3	241.5	240.9	240.3
42.5°	232.8	233.0	232.1	231.9	232.6	233.2	233.4	233.0	232.3	231.3	231.3
45°	217.1	217.8	217.2	217.4	218.8	220.1	220.7	221.3	221.3	220.9	220.1
47.5°	199.0	198.6	198.8	199.9	201.5	204.2	205.9	207.4	208.4	207.8	207.8
50°	177.0	177.2	177.4	179.5	181.5	185.3	188.4	190.5	192.2	193.2	193.0
52.5°	152.2	153.6	154.1	156.8	159.3	163.8	168.2	171.6	174.9	177.2	177.6
55°	127.4	127.2	129.3	132.4	136.2	141.2	146.6	150.9	155.5	158.7	161.1
57.5°	101.2	102.4	104.1	107.6	112.0	118.7	124.3	129.7	134.9	139.7	143.2
60°	78.7	79.3	81.2	84.1	88.3	94.5	102.2	108.5	114.1	120.6	124.7
62.5°	60.8	61.4	63.3	65.6	69.7	74.3	80.6	87.0	93.9	101.2	106.0
65°	48.1	48.1	49.3	51.2	54.1	58.3	63.3	69.1	75.6	82.5	87.9
67.5°	38.5	38.7	39.6	40.6	42.7	46.0	49.8	54.3	60.0	66.4	71.8
70°	31.4	31.7	32.3	32.9	34.3	36.6	39.3	42.7	47.1	52.7	57.9
72.5°	26.4	26.4	26.7	27.1	28.1	29.6	31.7	34.1	37.7	41.8	46.0
75°	22.3	22.5	22.5	22.9	23.7	24.6	26.0	27.5	29.8	32.9	36.4
77.5°	19.2	19.0	19.4	19.4	20.0	20.6	21.6	22.5	24.4	26.2	28.5
80°	16.5	16.4	16.5	16.5	16.9	17.3	17.7	18.5	19.8	21.0	22.3
82.5°	14.0	14.0	14.0	14.2	14.2	14.4	15.0	15.4	16.0	16.7	17.5
85°	12.1	12.1	12.1	12.1	12.3	12.3	12.3	12.7	12.9	13.3	13.7
87.5°	10.4	10.4	10.4	10.2	10.0	10.4	10.4	10.4	10.6	10.6	10.6



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
90°	8.7	8.9	8.5	8.5	8.5	8.5	8.5	8.3	8.3	8.3	7.9
92.5°	7.3	7.3	7.1	7.1	7.1	6.9	6.7	6.7	6.3	6.3	6.0
95°	6.0	6.0	6.0	5.8	5.6	5.6	5.4	5.2	4.8	4.4	4.0
97.5°	4.8	4.8	4.6	4.4	4.4	4.4	4.0	3.8	3.7	3.3	2.7
100°	3.7	3.7	3.7	3.7	3.5	3.3	3.1	2.9	2.5	2.1	1.7
102.5°	2.9	2.9	2.9	2.7	2.5	2.3	2.1	1.9	1.5	1.2	0.8
105°	2.1	2.1	2.1	1.9	1.7	1.5	1.3	1.2	1.0	0.6	0.2
107.5°	1.3	1.3	1.3	1.2	1.2	1.0	0.8	0.6	0.2	0.2	0.0
110°	0.8	0.8	0.8	0.6	0.6	0.6	0.2	0.2	0.0	0.0	0.0
112.5°	0.0	0.0	0.0	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	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°	303.3	303.3	303.3	303.3	303.3	303.3	303.3	303.3
1°	302.5	301.9	302.3	302.1	303.1	305.0	305.4	305.6
2°	302.5	301.9	302.5	302.3	303.1	304.8	305.4	305.6
3°	302.3	302.1	302.5	302.3	302.9	304.6	305.4	305.6
4°	302.3	301.9	302.3	302.1	302.5	304.2	305.0	305.2
5°	302.1	301.7	302.1	301.9	302.1	304.0	304.6	304.8
6°	301.7	301.1	301.9	301.5	301.7	303.5	304.2	304.4
7°	301.3	300.6	301.3	301.1	301.1	302.7	303.5	303.6
8°	300.9	300.0	300.8	300.6	300.6	301.9	302.5	302.9
9°	300.2	298.8	300.0	299.8	299.8	300.9	301.5	301.7
10°	299.4	298.1	299.0	299.2	298.8	300.0	300.6	300.6
11°	298.6	297.1	298.3	298.3	298.1	299.2	299.8	299.4
12°	297.7	296.1	297.3	297.3	297.3	298.1	298.6	298.6
13°	296.5	295.4	296.3	296.1	296.3	297.3	297.9	297.9
14°	295.6	294.2	295.2	295.2	295.2	296.3	296.7	296.7
15°	294.6	293.3	293.8	294.0	294.2	295.4	295.8	295.9
17.5°	290.9	290.2	290.0	290.6	290.8	291.3	291.5	291.7
20°	287.3	285.9	286.1	286.1	286.3	287.5	287.3	287.5
22.5°	283.2	281.3	281.3	281.9	281.7	283.1	282.5	282.9
25°	278.4	276.5	275.9	276.9	276.7	277.7	277.5	277.5
27.5°	273.2	271.7	270.4	271.5	270.9	271.5	271.1	271.3
30°	268.0	265.4	264.6	265.0	264.4	265.0	264.4	264.0
32.5°	262.1	259.0	257.5	258.2	257.3	257.8	256.9	256.7
35°	255.2	252.3	249.8	249.6	249.0	248.6	248.0	247.8
37.5°	247.8	244.8	242.1	240.7	239.4	239.0	238.0	237.8
40°	239.2	236.1	232.4	231.1	229.2	228.6	227.1	226.7
42.5°	229.2	226.5	222.8	220.7	219.2	217.8	216.3	216.3
45°	218.4	215.3	211.7	209.9	208.4	207.0	205.3	205.1
47.5°	206.3	203.4	200.3	198.0	196.8	195.5	194.2	194.0
50°	192.6	190.5	188.2	185.9	184.3	182.6	181.1	181.3
52.5°	178.2	176.6	174.9	172.8	171.1	169.1	167.8	167.8
55°	162.4	162.0	160.7	158.7	156.8	154.9	153.6	153.6
57.5°	145.7	146.2	145.9	143.7	142.2	139.7	138.7	138.5
60°	128.3	130.1	130.1	128.3	126.8	124.3	123.0	122.4
62.5°	110.3	112.6	113.3	112.2	110.8	108.5	106.8	106.6
65°	92.4	95.2	96.8	95.8	94.3	91.6	90.1	89.3
67.5°	76.6	79.5	79.9	80.2	78.7	76.8	75.0	74.3
70°	62.3	64.8	66.0	65.8	64.7	62.7	61.0	60.4
72.5°	49.8	52.3	53.5	52.7	51.8	50.2	48.7	47.7
75°	39.4	41.2	42.1	41.4	40.2	38.5	37.7	36.2
77.5°	30.6	31.9	32.5	31.7	30.4	29.1	27.7	26.6
80°	23.9	24.6	24.8	23.5	22.1	20.8	19.2	18.5
82.5°	18.3	18.7	18.3	16.7	15.2	13.7	12.3	11.5
85°	14.0	13.9	13.1	11.5	9.8	8.3	6.7	6.2
87.5°	10.4	10.0	9.0	7.5	5.8	4.2	2.9	2.3



TEST NUMBER: P273401

CATALOG NUMBER: 0.05-03W-830-90SYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
90°	7.5	7.1	6.0	4.6	3.1	1.7	0.8	0.0
92.5°	5.4	4.6	3.7	2.5	1.3	0.4	0.0	0.0
95°	3.7	2.9	2.1	1.2	0.4	0.0	0.0	0.0
97.5°	2.1	1.5	1.0	0.2	0.0	0.0	0.0	0.0
100°	1.2	0.6	0.2	0.0	0.0	0.0	0.0	0.0
102.5°	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.2	0.0	0.0	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
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)