

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: P273407

Luminaire Tested: **0.05-03W-835-90SYM-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273407
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-835-90SYM-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 90 DEGREE SYMMETRIC OPTIC.
STANDARD OUTPUT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 862.6 lumens
Efficiency: N/A
Efficacy: 53.9 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

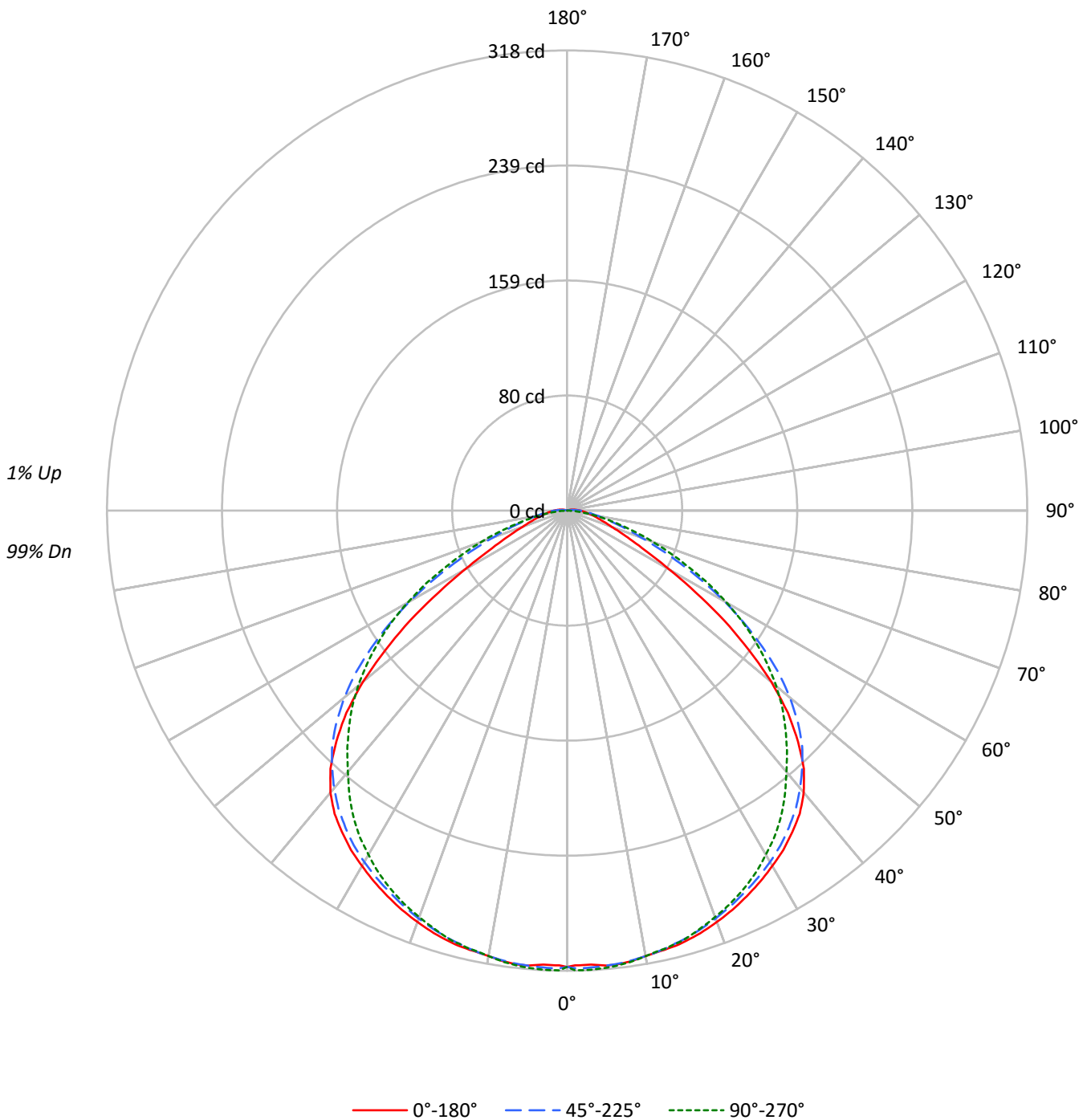
Input Watts (W): 16
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	6984	6984	6984
5°	7015	7015	7046
10°	7029	7029	7029
15°	7084	7047	7056
20°	7130	7069	7046
25°	7183	7105	7051
30°	7251	7169	7021
35°	7331	7223	6969
40°	7354	7241	6813
45°	7068	7193	6679
50°	6342	6921	6493
55°	5115	6374	6165
60°	3623	5558	5638
65°	2620	4501	4867
70°	2111	3548	4066
75°	1985	2926	3217
80°	2193	2780	2448
85°	3201	3506	1626



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.0	3.5
10°-20°	86.8	10.1
20°-30°	134.1	15.5
30°-40°	165.9	19.2
40°-50°	172.0	19.9
50°-60°	138.3	16.0
60°-70°	79.6	9.2
70°-80°	36.4	4.2
80°-90°	14.0	1.6
90°-100°	4.4	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°	250.9	29.1
0°-40°	416.8	48.3
0°-60°	727.1	84.3
0°-90°	857.1	99.4
90°-120°	5.4	0.6
90°-150°	5.4	0.6
90°-180°	5.0	0.6
0°-180°	862.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	315	315	315	315	315	
5°	316	315	316	314	317	30
15°	309	309	307	306	308	87
25°	294	293	291	288	289	136
35°	271	270	267	260	258	170
45°	226	228	230	219	213	172
55°	132	144	165	166	160	118
65°	50	58	86	100	93	52
75°	23	25	34	43	38	25
85°	13	13	14	13	6	11
90°	9	9	9	6	0	5
95°	6	6	5	2	0	5
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°	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4
1°	314.4	314.2	313.6	313.8	315.2	316.4	316.8	316.6	316.8	316.2	316.0
2°	314.2	314.0	313.4	314.0	315.2	316.2	316.8	316.6	316.6	316.4	316.2
3°	314.2	314.2	313.4	314.2	315.2	316.0	316.4	316.4	316.4	316.2	316.0
4°	314.8	314.8	313.8	314.4	315.0	315.8	316.2	316.0	316.2	316.0	315.8
5°	315.6	315.0	314.0	314.4	315.2	315.6	316.0	315.6	315.8	315.6	315.6
6°	315.6	315.2	314.2	314.2	315.0	315.0	315.4	315.2	315.6	315.2	315.2
7°	315.2	314.8	313.8	314.0	314.4	314.8	315.2	315.0	315.0	314.8	314.6
8°	314.6	314.0	313.0	313.0	314.0	314.4	314.8	314.6	314.6	314.2	314.2
9°	313.6	313.0	311.8	312.0	313.0	313.6	314.0	314.0	313.8	313.4	313.4
10°	312.6	312.0	311.2	311.4	312.2	312.8	313.2	313.4	313.2	312.6	312.4
11°	311.8	311.4	310.4	310.6	311.8	312.2	312.4	312.6	312.4	311.8	311.8
12°	311.2	310.8	309.6	309.8	310.8	311.4	311.4	311.6	311.6	310.8	310.8
13°	310.6	310.0	309.0	309.2	309.8	310.8	310.8	310.8	310.8	309.8	310.0
14°	310.0	309.2	308.4	308.2	308.8	309.8	309.8	309.6	309.6	308.4	309.0
15°	309.0	308.6	307.8	307.8	308.4	308.8	308.8	308.8	308.4	307.4	308.2
17.5°	306.2	305.6	305.0	304.6	305.4	305.8	305.6	305.6	305.0	304.0	304.8
20°	302.6	302.0	301.4	301.0	301.4	301.6	301.6	301.4	300.8	300.0	300.4
22.5°	298.6	298.0	297.4	296.8	297.2	297.8	297.2	297.2	296.6	295.6	295.8
25°	294.0	293.6	293.0	292.4	293.0	293.2	292.6	292.6	292.0	290.8	290.8
27.5°	289.0	289.0	288.2	287.6	288.4	288.4	287.6	288.0	286.8	285.8	286.0
30°	283.6	283.6	282.8	282.2	282.6	282.8	282.0	282.0	281.2	280.4	280.0
32.5°	278.0	278.0	277.2	276.2	276.4	276.8	275.8	275.4	274.6	274.4	274.2
35°	271.2	271.2	270.4	269.4	269.6	269.6	268.8	268.2	267.6	267.2	266.6
37.5°	264.0	263.8	263.0	262.0	262.0	262.4	261.4	260.6	259.8	259.6	259.2
40°	254.4	254.4	253.6	253.0	253.0	253.2	252.6	252.0	251.1	250.5	249.9
42.5°	242.1	242.3	241.3	241.1	241.9	242.5	242.7	242.3	241.5	240.5	240.5
45°	225.7	226.5	225.9	226.1	227.5	228.9	229.5	230.1	230.1	229.7	228.9
47.5°	206.9	206.5	206.7	207.9	209.5	212.3	214.1	215.7	216.7	216.1	216.1
50°	184.1	184.3	184.5	186.7	188.7	192.7	195.9	198.1	199.9	200.9	200.7
52.5°	158.3	159.7	160.3	163.1	165.7	170.3	174.9	178.5	181.9	184.3	184.7
55°	132.5	132.3	134.5	137.7	141.7	146.9	152.5	156.9	161.7	165.1	167.5
57.5°	105.3	106.5	108.3	111.9	116.5	123.5	129.3	134.9	140.3	145.3	148.9
60°	81.8	82.4	84.5	87.5	91.9	98.3	106.3	112.9	118.7	125.5	129.7
62.5°	63.2	63.8	65.8	68.2	72.4	77.2	83.8	90.5	97.7	105.3	110.3
65°	50.0	50.0	51.2	53.2	56.2	60.6	65.8	71.8	78.6	85.9	91.5
67.5°	40.0	40.2	41.2	42.2	44.4	47.8	51.8	56.4	62.4	69.0	74.6
70°	32.6	33.0	33.6	34.2	35.6	38.0	40.8	44.4	49.0	54.8	60.2
72.5°	27.4	27.4	27.8	28.2	29.2	30.8	33.0	35.4	39.2	43.4	47.8
75°	23.2	23.4	23.4	23.8	24.6	25.6	27.0	28.6	31.0	34.2	37.8
77.5°	20.0	19.8	20.2	20.2	20.8	21.4	22.4	23.4	25.4	27.2	29.6
80°	17.2	17.0	17.2	17.2	17.6	18.0	18.4	19.2	20.6	21.8	23.2
82.5°	14.6	14.6	14.6	14.8	14.8	15.0	15.6	16.0	16.6	17.4	18.2
85°	12.6	12.6	12.6	12.6	12.8	12.8	12.8	13.2	13.4	13.8	14.2
87.5°	10.8	10.8	10.8	10.6	10.4	10.8	10.8	10.8	11.0	11.0	11.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
90°	9.0	9.2	8.8	8.8	8.8	8.8	8.8	8.6	8.6	8.6	8.2
92.5°	7.6	7.6	7.4	7.4	7.4	7.2	7.0	7.0	6.6	6.6	6.2
95°	6.2	6.2	6.2	6.0	5.8	5.8	5.6	5.4	5.0	4.6	4.2
97.5°	5.0	5.0	4.8	4.6	4.6	4.6	4.2	4.0	3.8	3.4	2.8
100°	3.8	3.8	3.8	3.8	3.6	3.4	3.2	3.0	2.6	2.2	1.8
102.5°	3.0	3.0	3.0	2.8	2.6	2.4	2.2	2.0	1.6	1.2	0.8
105°	2.2	2.2	2.2	2.0	1.8	1.6	1.4	1.2	1.0	0.6	0.2
107.5°	1.4	1.4	1.4	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°	315.4	315.4	315.4	315.4	315.4	315.4	315.4	315.4
1°	314.6	314.0	314.4	314.2	315.2	317.2	317.6	317.8
2°	314.6	314.0	314.6	314.4	315.2	317.0	317.6	317.8
3°	314.4	314.2	314.6	314.4	315.0	316.8	317.6	317.8
4°	314.4	314.0	314.4	314.2	314.6	316.4	317.2	317.4
5°	314.2	313.8	314.2	314.0	314.2	316.2	316.8	317.0
6°	313.8	313.2	314.0	313.6	313.8	315.6	316.4	316.6
7°	313.4	312.6	313.4	313.2	313.2	314.8	315.6	315.8
8°	313.0	312.0	312.8	312.6	312.6	314.0	314.6	315.0
9°	312.2	310.8	312.0	311.8	311.8	313.0	313.6	313.8
10°	311.4	310.0	311.0	311.2	310.8	312.0	312.6	312.6
11°	310.6	309.0	310.2	310.2	310.0	311.2	311.8	311.4
12°	309.6	308.0	309.2	309.2	309.2	310.0	310.6	310.6
13°	308.4	307.2	308.2	308.0	308.2	309.2	309.8	309.8
14°	307.4	306.0	307.0	307.0	307.0	308.2	308.6	308.6
15°	306.4	305.0	305.6	305.8	306.0	307.2	307.6	307.8
17.5°	302.6	301.8	301.6	302.2	302.4	303.0	303.2	303.4
20°	298.8	297.4	297.6	297.6	297.8	299.0	298.8	299.0
22.5°	294.6	292.6	292.6	293.2	293.0	294.4	293.8	294.2
25°	289.6	287.6	287.0	288.0	287.8	288.8	288.6	288.6
27.5°	284.2	282.6	281.2	282.4	281.8	282.4	282.0	282.2
30°	278.8	276.0	275.2	275.6	275.0	275.6	275.0	274.6
32.5°	272.6	269.4	267.8	268.6	267.6	268.2	267.2	267.0
35°	265.4	262.4	259.8	259.6	259.0	258.6	258.0	257.8
37.5°	257.8	254.6	251.8	250.3	248.9	248.5	247.5	247.3
40°	248.7	245.5	241.7	240.3	238.3	237.7	236.1	235.7
42.5°	238.3	235.5	231.7	229.5	227.9	226.5	224.9	224.9
45°	227.1	223.9	220.1	218.3	216.7	215.3	213.5	213.3
47.5°	214.5	211.5	208.3	205.9	204.7	203.3	201.9	201.7
50°	200.3	198.1	195.7	193.3	191.7	189.9	188.3	188.5
52.5°	185.3	183.7	181.9	179.7	177.9	175.9	174.5	174.5
55°	168.9	168.5	167.1	165.1	163.1	161.1	159.7	159.7
57.5°	151.5	152.1	151.7	149.5	147.9	145.3	144.3	144.1
60°	133.5	135.3	135.3	133.5	131.9	129.3	127.9	127.3
62.5°	114.7	117.1	117.9	116.7	115.3	112.9	111.1	110.9
65°	96.1	99.1	100.7	99.7	98.1	95.3	93.7	92.9
67.5°	79.6	82.6	83.0	83.4	81.8	79.8	78.0	77.2
70°	64.8	67.4	68.6	68.4	67.2	65.2	63.4	62.8
72.5°	51.8	54.4	55.6	54.8	53.8	52.2	50.6	49.6
75°	41.0	42.8	43.8	43.0	41.8	40.0	39.2	37.6
77.5°	31.8	33.2	33.8	33.0	31.6	30.2	28.8	27.6
80°	24.8	25.6	25.8	24.4	23.0	21.6	20.0	19.2
82.5°	19.0	19.4	19.0	17.4	15.8	14.2	12.8	12.0
85°	14.6	14.4	13.6	12.0	10.2	8.6	7.0	6.4
87.5°	10.8	10.4	9.4	7.8	6.0	4.4	3.0	2.4



TEST NUMBER: P273407

CATALOG NUMBER: 0.05-03W-835-90SYM-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
90°	7.8	7.4	6.2	4.8	3.2	1.8	0.8	0.0
92.5°	5.6	4.8	3.8	2.6	1.4	0.4	0.0	0.0
95°	3.8	3.0	2.2	1.2	0.4	0.0	0.0	0.0
97.5°	2.2	1.6	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)