

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: P273348

Luminaire Tested: **0.03-1W-840-90-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273348  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 0.03-1W-840-90-ID-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 90 DEGREE SYMMETRIC OPTIC.  
STANDARD OUTPUT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 285.4 lumens  
Efficiency: N/A  
Efficacy: 38.0 lumens/watt  
Spacing Criteria (0/90/45): 1.39 / 1.2 / 1.52  
Luminous Opening: Rectangular (W 2.92' x L: 0.06' x H: 0')  
CIE Type: Direct

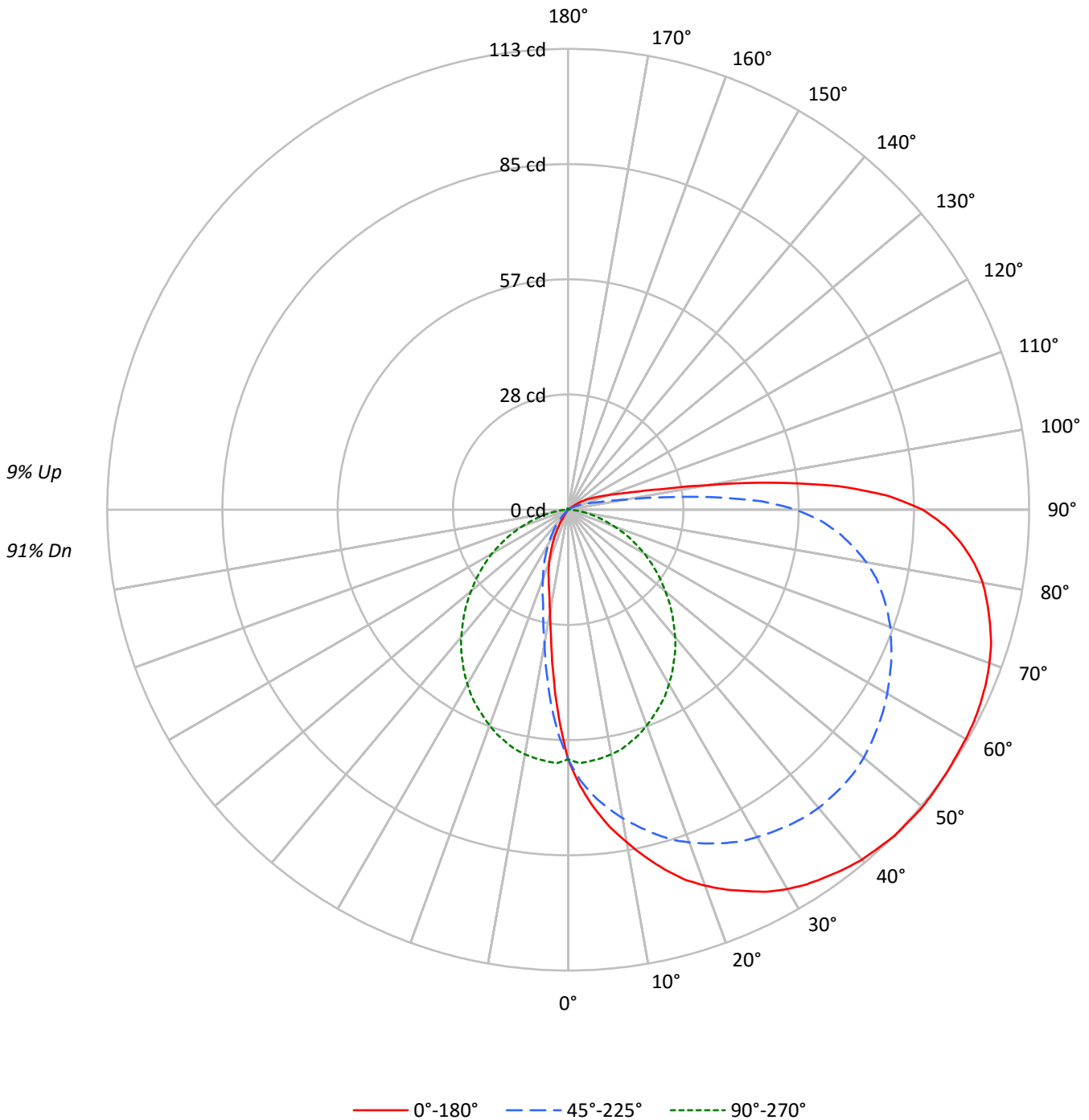
Input Watts (W): 7.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	117	117	117	117	113	113	113	113	106	106	106	100	100	100	94	94	94	91
1	102	95	88	83	98	91	86	81	85	81	76	80	76	72	75	72	69	66
2	90	80	71	64	87	77	69	62	72	65	59	67	61	56	63	58	54	51
3	81	68	59	51	78	66	57	50	62	54	47	58	51	45	54	48	44	41
4	74	60	49	42	71	58	48	41	54	46	39	50	43	38	47	41	36	33
5	67	53	43	35	65	51	42	34	48	40	33	45	38	32	42	36	31	28
6	62	47	37	30	59	46	36	30	43	35	29	40	33	28	38	31	27	24
7	57	42	33	26	55	41	32	26	39	31	25	36	29	24	34	28	23	21
8	53	39	29	23	51	37	29	23	35	28	22	33	26	21	31	25	21	18
9	50	35	26	20	48	34	26	20	32	25	20	31	24	19	29	23	18	16
10	46	32	24	18	45	32	24	18	30	23	18	28	22	17	27	21	17	15

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

	0°	90°	180°
0°	3614	3614	3614
5°	4357	3669	2442
10°	4965	3651	1529
15°	5581	3607	1119
20°	6164	3538	848
25°	6724	3460	580
30°	7323	3368	300
35°	7929	3258	65
40°	8633	3145	8
45°	9445	3006	0
50°	10417	2857	0
55°	11633	2707	0
60°	13286	2551	0
65°	15593	2347	14
70°	18974	2089	0
75°	24411	1802	0
80°	35092	1462	34
85°	65649	1084	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	5.6	1.9
10°-20°	15.5	5.4
20°-30°	24.2	8.5
30°-40°	31.1	10.9
40°-50°	36.2	12.7
50°-60°	39.0	13.7
60°-70°	39.4	13.8
70°-80°	37.2	13.0
80°-90°	32.0	11.2
90°-100°	18.6	6.5
100°-110°	4.6	1.6
110°-120°	1.5	0.5
120°-130°	0.4	0.1
130°-140°	0.2	0.1
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°	45.3	15.9
0°-40°	76.3	26.8
0°-60°	151.6	53.1
0°-90°	260.2	91.2
90°-120°	24.6	8.6
90°-150°	25.2	8.8
90°-180°	25.0	8.8
0°-180°	285.4	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	61	61	61	61	61	
5°	74	70	62	48	41	7
15°	91	82	59	24	18	26
25°	103	90	53	14	9	48
35°	110	94	45	6	1	69
45°	113	96	36	1	0	87
55°	113	93	26	0	0	101
65°	112	87	17	0	0	111
75°	107	80	8	0	0	113
85°	97	67	2	0	0	80
90°	87	56	0	0	0	47
95°	66	35	0	0	0	47
105°	17	7	0	0	0	20
115°	7	2	0	0	0	7
125°	2	0	0	0	0	2
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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CATALOG NUMBER: 0.03-1W-840-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
2.5°	67.8	67.4	67.5	67.5	67.0	67.0	66.8	66.4	66.3	66.3	65.6
5°	73.5	73.2	73.1	72.9	72.3	72.0	71.6	71.1	70.7	70.3	69.3
7.5°	78.5	78.1	77.9	77.6	77.0	76.5	75.8	75.1	74.4	73.7	72.3
10°	82.8	82.4	82.1	81.8	81.0	80.4	79.6	78.7	77.9	76.8	75.2
12.5°	87.2	86.8	86.5	85.9	85.3	84.4	83.4	82.1	81.1	79.6	77.8
15°	91.3	90.9	90.5	89.8	89.1	88.0	86.7	85.3	84.2	82.3	80.0
17.5°	95.1	94.7	94.3	93.6	92.6	91.3	89.9	88.3	86.7	84.9	82.3
20°	98.1	97.6	97.2	96.6	95.5	94.1	92.6	90.8	89.1	86.8	84.1
22.5°	100.8	100.3	99.8	99.2	98.0	96.6	94.9	93.0	91.1	88.6	85.6
25°	103.2	102.8	102.3	101.6	100.4	98.8	97.1	95.0	92.9	90.2	87.0
27.5°	105.6	105.1	104.7	103.8	102.6	101.0	99.1	96.9	94.5	91.7	88.2
30°	107.4	107.0	106.5	105.7	104.4	102.8	100.8	98.3	95.8	92.7	89.1
32.5°	108.9	108.5	108.1	107.2	105.9	104.2	102.0	99.6	96.8	93.6	89.9
35°	110.0	110.0	109.5	108.4	107.2	105.4	103.2	100.7	97.7	94.4	90.4
37.5°	111.1	111.0	110.6	109.5	108.2	106.5	104.1	101.6	98.5	95.1	90.9
40°	112.0	111.9	111.4	110.3	109.2	107.3	104.9	102.3	99.1	95.5	91.1
42.5°	112.5	112.5	112.0	110.9	109.6	107.8	105.4	102.6	99.4	95.5	91.1
45°	113.1	113.0	112.4	111.3	110.0	108.1	105.8	102.8	99.6	95.5	91.0
47.5°	113.2	113.2	112.5	111.4	110.1	108.2	105.8	102.7	99.3	95.2	90.5
50°	113.4	113.2	112.5	111.5	110.0	108.2	105.6	102.5	99.0	94.6	89.6
52.5°	113.2	113.0	112.4	111.2	109.7	107.8	105.1	102.1	98.2	93.7	88.6
55°	113.0	112.8	112.1	110.9	109.5	107.4	104.7	101.5	97.5	92.7	87.3
57.5°	112.7	112.4	111.7	110.6	109.0	106.9	104.2	100.7	96.5	91.6	85.9
60°	112.5	112.3	111.4	110.2	108.6	106.3	103.5	99.8	95.5	90.3	84.4
62.5°	112.2	111.8	111.0	109.8	108.0	105.8	102.7	98.9	94.4	88.8	82.5
65°	111.6	111.3	110.4	109.3	107.4	105.1	101.9	98.1	93.2	87.4	80.6
67.5°	110.9	110.6	109.6	108.3	106.3	104.0	100.8	96.8	92.0	85.7	78.4
70°	109.9	109.6	108.6	107.4	105.4	102.8	99.7	95.5	90.4	84.0	76.3
72.5°	108.7	108.4	107.4	106.0	104.2	101.4	98.3	94.1	88.7	82.0	73.9
75°	107.0	106.8	105.8	104.4	102.5	99.8	96.5	92.3	86.8	79.7	71.2
77.5°	105.2	105.0	104.0	102.5	100.4	97.9	94.4	90.0	84.5	77.3	68.5
80°	103.2	102.9	101.9	100.4	98.2	95.4	92.0	87.3	81.6	74.2	65.5
82.5°	100.4	100.1	99.3	97.7	95.5	92.6	89.1	84.3	78.4	70.6	62.2
85°	96.9	96.8	95.9	94.4	92.1	89.2	85.6	81.0	74.4	66.7	58.8
87.5°	92.6	92.5	91.6	89.9	87.7	84.8	81.0	76.1	69.6	62.0	54.2
90°	86.9	86.7	85.5	83.9	81.7	78.5	74.9	69.9	63.0	55.8	48.5
92.5°	78.5	78.5	77.1	75.6	73.2	69.8	66.2	61.5	54.0	47.4	40.3
95°	66.3	66.5	65.4	63.3	60.8	57.6	53.5	48.8	41.5	35.1	29.2
97.5°	50.6	50.4	49.3	46.7	44.9	41.0	37.7	33.2	27.9	23.0	18.7
100°	34.6	34.7	33.8	32.1	30.0	27.0	24.5	21.1	17.6	14.3	11.5
102.5°	23.0	23.2	22.3	21.4	19.9	18.1	16.1	14.2	11.6	9.5	7.6
105°	16.7	16.7	16.2	15.1	14.1	13.0	11.5	10.0	8.3	6.8	5.4
107.5°	12.9	12.9	12.5	11.7	11.0	10.0	8.9	7.6	6.2	5.0	3.8
110°	10.4	10.4	10.0	9.5	8.7	7.9	7.0	5.9	4.8	3.8	2.8



TEST NUMBER: P273348

CATALOG NUMBER: 0.03-1W-840-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	8.5	8.4	8.2	7.6	7.0	6.4	5.5	4.7	3.7	2.8	2.0
115°	7.0	6.9	6.7	6.2	5.7	5.1	4.4	3.6	2.8	1.9	0.9
117.5°	5.7	5.7	5.4	5.1	4.6	4.1	3.4	2.7	1.8	0.6	0.3
120°	4.6	4.6	4.4	4.0	3.6	3.1	2.4	1.5	0.4	0.3	0.2
122.5°	3.6	3.6	3.4	3.0	2.4	1.7	0.9	0.3	0.2	0.3	0.2
125°	2.0	1.9	1.6	1.2	0.6	0.3	0.2	0.2	0.2	0.2	0.2
127.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
130°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2
132.5°	0.1	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
135°	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
137.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2
140°	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
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



TEST NUMBER: P273348

CATALOG NUMBER: 0.03-1W-840-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
0°	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
2.5°	65.4	64.9	64.7	64.1	63.7	63.2	62.7	62.2	61.3	60.3	59.6
5°	68.7	67.8	67.0	66.1	65.2	64.3	63.1	61.9	60.3	58.7	57.2
7.5°	71.4	70.3	69.2	67.7	66.5	65.0	63.4	61.5	59.3	56.9	54.5
10°	73.9	72.5	70.9	69.1	67.4	65.5	63.4	60.9	58.1	54.9	51.6
12.5°	76.2	74.4	72.4	70.3	68.0	65.8	63.1	60.2	56.6	52.5	48.4
15°	78.0	75.8	73.6	71.0	68.3	65.6	62.6	59.0	54.8	49.9	44.7
17.5°	79.9	77.3	74.6	71.6	68.5	65.5	61.9	57.8	52.9	47.2	41.2
20°	81.2	78.4	75.4	72.0	68.4	65.1	61.1	56.3	50.7	44.4	37.6
22.5°	82.4	79.3	75.8	72.2	68.3	64.4	60.1	54.7	48.6	41.4	34.2
25°	83.6	79.9	76.3	72.2	67.7	63.6	58.9	53.1	46.3	38.4	30.9
27.5°	84.6	80.4	76.4	71.9	67.2	62.7	57.6	51.4	43.9	35.6	27.7
30°	85.3	80.8	76.4	71.5	66.4	61.5	56.1	49.4	41.4	32.6	24.8
32.5°	85.6	81.0	76.2	71.0	65.4	60.1	54.3	47.4	38.9	29.7	22.1
35°	86.0	81.1	76.0	70.3	64.4	58.7	52.4	45.2	36.3	27.0	19.7
37.5°	86.1	80.9	75.6	69.6	63.3	57.1	50.6	43.1	33.8	24.3	17.7
40°	86.2	80.6	74.9	68.7	62.0	55.5	48.6	40.8	31.3	22.0	15.7
42.5°	85.9	80.0	74.2	67.5	60.3	53.5	46.4	38.3	28.6	19.6	13.9
45°	85.5	79.5	73.1	66.2	58.7	51.4	44.0	36.0	26.4	17.5	12.3
47.5°	84.8	78.5	71.8	64.5	56.6	49.0	41.6	33.6	23.9	15.6	10.8
50°	84.0	77.4	70.3	62.5	54.3	46.7	39.3	31.1	21.7	13.9	9.4
52.5°	82.7	75.8	68.4	60.3	52.0	44.3	36.8	28.7	19.6	12.2	8.0
55°	81.3	74.1	66.3	58.0	49.7	41.8	34.2	26.3	17.5	10.5	6.8
57.5°	79.5	72.0	63.9	55.6	47.2	39.3	31.7	23.9	15.4	9.1	5.5
60°	77.5	69.7	61.4	53.2	44.6	36.6	29.1	21.6	13.6	7.7	4.4
62.5°	75.2	67.1	58.9	50.6	41.9	33.8	26.4	19.1	11.7	6.5	3.4
65°	72.8	64.4	56.3	47.9	39.1	31.0	23.7	16.8	10.0	5.1	2.4
67.5°	70.0	61.6	53.3	44.8	36.1	28.1	20.9	14.4	8.2	3.8	1.5
70°	67.5	58.8	50.4	41.8	33.0	25.0	18.1	12.1	6.5	2.7	0.7
72.5°	65.0	56.2	47.4	38.6	29.9	21.9	15.5	9.9	5.0	1.7	0.4
75°	62.4	53.5	44.5	35.4	26.5	19.0	12.9	7.9	3.5	0.9	0.3
77.5°	59.8	50.8	41.5	32.2	23.4	16.1	10.4	5.9	2.3	0.5	0.3
80°	57.0	47.9	38.6	29.2	20.5	13.5	8.1	4.3	1.4	0.3	0.2
82.5°	54.0	44.9	35.5	26.2	17.7	11.0	6.1	2.9	0.6	0.2	0.2
85°	50.6	41.7	32.4	23.4	15.2	8.8	4.5	1.6	0.3	0.2	0.2
87.5°	46.4	37.8	28.9	20.3	12.7	7.0	3.0	0.9	0.3	0.3	0.3
90°	40.8	32.7	24.3	16.5	9.8	5.0	1.9	0.3	0.3	0.3	0.2
92.5°	33.3	25.8	18.5	12.1	6.7	2.9	0.8	0.3	0.3	0.3	0.2
95°	23.5	17.4	11.9	7.4	3.7	1.2	0.3	0.3	0.3	0.2	0.2
97.5°	14.4	10.4	6.9	3.9	1.7	0.3	0.2	0.3	0.3	0.2	0.2
100°	8.8	6.2	4.0	2.0	0.8	0.3	0.2	0.3	0.3	0.2	0.3
102.5°	5.7	3.9	2.3	1.1	0.2	0.2	0.2	0.3	0.3	0.2	0.3
105°	3.8	2.5	1.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3
107.5°	2.7	1.6	0.5	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
110°	1.8	0.7	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2





TEST NUMBER: P273348

CATALOG NUMBER: 0.03-1W-840-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	0.9	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.2	0.2
115°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
117.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
120°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
122.5°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
125°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
127.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
130°	0.2	0.3	0.3	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3
132.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
135°	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.3	0.3	0.3
137.5°	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
140°	0.2	0.3	0.2	0.2	0.3	0.2	0.3	0.3	0.3	0.3	0.3
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



TEST NUMBER: P273348

CATALOG NUMBER: 0.03-1W-840-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2	61.2
2.5°	58.9	58.1	57.4	56.5	55.6	55.0	54.3	53.5	53.2	52.5	52.1
5°	55.7	54.1	52.6	51.0	49.2	47.9	46.8	45.4	44.4	43.4	43.0
7.5°	52.1	49.7	47.3	44.7	42.3	40.4	38.8	37.0	35.7	34.9	33.9
10°	48.2	45.0	41.5	38.5	35.7	33.4	31.7	30.0	28.7	27.5	27.0
12.5°	44.1	40.1	36.2	32.9	30.2	28.1	26.3	25.0	24.1	23.2	22.5
15°	39.7	35.1	31.2	27.9	25.5	23.8	22.3	21.3	20.6	19.9	19.3
17.5°	35.7	31.0	26.9	24.2	22.3	20.8	19.6	18.6	17.9	17.2	16.8
20°	31.7	27.1	23.7	21.3	19.6	18.1	17.0	16.1	15.4	14.8	14.3
22.5°	28.1	23.8	20.8	18.6	17.1	15.8	14.6	13.6	13.0	12.4	11.8
25°	25.0	21.1	18.2	16.3	15.0	13.6	12.5	11.5	10.8	10.1	9.6
27.5°	22.2	18.6	16.1	14.3	12.9	11.6	10.4	9.6	8.7	8.0	7.5
30°	19.7	16.5	14.3	12.4	11.0	9.6	8.5	7.5	6.8	6.0	5.4
32.5°	17.5	14.6	12.5	10.7	9.2	7.8	6.7	5.8	4.9	4.1	3.4
35°	15.6	12.8	10.7	9.0	7.6	6.2	5.2	4.1	3.1	2.4	1.8
37.5°	13.7	11.2	9.2	7.5	6.1	4.8	3.6	2.5	1.7	1.1	0.8
40°	12.1	9.8	7.7	6.2	4.7	3.4	2.3	1.3	0.7	0.3	0.2
42.5°	10.6	8.2	6.3	4.8	3.4	2.0	1.2	0.5	0.2	0.1	0.1
45°	9.2	7.0	5.2	3.6	2.2	1.0	0.4	0.3	0.2	0.1	0.1
47.5°	7.8	5.8	4.0	2.4	1.2	0.4	0.2	0.2	0.1	0.1	0.1
50°	6.6	4.6	2.9	1.4	0.5	0.2	0.2	0.2	0.1	0.1	0.1
52.5°	5.4	3.5	1.7	0.6	0.2	0.2	0.1	0.1	0.1	0.1	0.1
55°	4.3	2.4	0.9	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1
57.5°	3.4	1.5	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
60°	2.4	0.8	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
62.5°	1.5	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
65°	0.8	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
67.5°	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
70°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
72.5°	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1
75°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
77.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
80°	0.2	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1
82.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
85°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
87.5°	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.1
90°	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1
92.5°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
95°	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
97.5°	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
100°	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2
102.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
105°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
107.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.1	0.1
110°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1



TEST NUMBER: P273348

CATALOG NUMBER: 0.03-1W-840-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
115°	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
117.5°	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1
120°	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
122.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.1	0.1
125°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
127.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1
130°	0.2	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.1	0.2	0.1
132.5°	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1
135°	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
137.5°	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2
140°	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1
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



TEST NUMBER: P273348

CATALOG NUMBER: 0.03-1W-840-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	61.2	61.2	61.2	61.2
2.5°	51.8	52.0	51.7	51.3
5°	42.2	42.2	41.8	41.2
7.5°	33.0	32.9	32.4	31.9
10°	26.4	26.2	25.8	25.5
12.5°	22.0	21.7	21.7	21.3
15°	18.8	18.6	18.5	18.3
17.5°	16.4	16.2	16.1	16.0
20°	13.9	13.7	13.6	13.5
22.5°	11.5	11.3	11.1	11.0
25°	9.2	9.0	8.7	8.9
27.5°	7.1	6.8	6.5	6.6
30°	4.9	4.7	4.4	4.4
32.5°	2.9	2.6	2.3	2.3
35°	1.3	1.1	0.9	0.9
37.5°	0.5	0.3	0.2	0.2
40°	0.2	0.1	0.1	0.1
42.5°	0.1	0.1	0.0	0.0
45°	0.1	0.1	0.1	0.0
47.5°	0.1	0.1	0.0	0.0
50°	0.1	0.1	0.0	0.0
52.5°	0.0	0.0	0.0	0.0
55°	0.1	0.0	0.0	0.0
57.5°	0.0	0.0	0.0	0.0
60°	0.1	0.0	0.0	0.0
62.5°	0.1	0.0	0.0	0.0
65°	0.1	0.1	0.0	0.1
67.5°	0.1	0.1	0.0	0.0
70°	0.1	0.0	0.0	0.0
72.5°	0.1	0.1	0.0	0.0
75°	0.1	0.1	0.0	0.0
77.5°	0.1	0.1	0.1	0.0
80°	0.1	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.0
85°	0.1	0.1	0.1	0.0
87.5°	0.2	0.1	0.1	0.1
90°	0.1	0.1	0.1	0.0
92.5°	0.1	0.1	0.1	0.1
95°	0.1	0.1	0.1	0.1
97.5°	0.1	0.1	0.1	0.1
100°	0.1	0.1	0.1	0.1
102.5°	0.1	0.1	0.1	0.1
105°	0.1	0.1	0.1	0.1
107.5°	0.1	0.1	0.1	0.1
110°	0.1	0.1	0.1	0.1



TEST NUMBER: P273348

CATALOG NUMBER: 0.03-1W-840-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
112.5°	0.1	0.1	0.1	0.0
115°	0.1	0.1	0.0	0.1
117.5°	0.1	0.1	0.0	0.0
120°	0.1	0.1	0.1	0.0
122.5°	0.1	0.1	0.1	0.0
125°	0.1	0.1	0.0	0.1
127.5°	0.1	0.1	0.1	0.1
130°	0.1	0.1	0.1	0.1
132.5°	0.1	0.1	0.1	0.0
135°	0.1	0.1	0.1	0.1
137.5°	0.2	0.2	0.1	0.1
140°	0.1	0.1	0.1	0.1
142.5°	0.0	0.0	0.0	0.0
145°	0.0	0.0	0.0	0.0
147.5°	0.0	0.0	0.0	0.0
150°	0.0	0.0	0.0	0.0
152.5°	0.0	0.0	0.0	0.0
155°	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.0	0.0
160°	0.0	0.0	0.0	0.0
162.5°	0.0	0.0	0.0	0.0
165°	0.0	0.0	0.0	0.0
167.5°	0.0	0.0	0.0	0.0
170°	0.0	0.0	0.0	0.0
172.5°	0.0	0.0	0.0	0.0
175°	0.0	0.0	0.0	0.0
177.5°	0.0	0.0	0.0	0.0
180°	0.0	0.0	0.0	0.0

(END OF REPORT)