

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: P273349

Luminaire Tested: **0.03-1W-840-91-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273349  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-20)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 0.03-1W-840-91-ID-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 90 DEGREE ASYMMETRIC OPTIC.  
STANDARD OUTPUT  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 134.8 lumens  
Efficiency: N/A  
Efficacy: 18.0 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.22 / 1.4  
Luminous Opening: Rectangular w/ Sides (W: 2.92' x L: 0.04' x H: 0.04')  
CIE Type: Semi-Direct

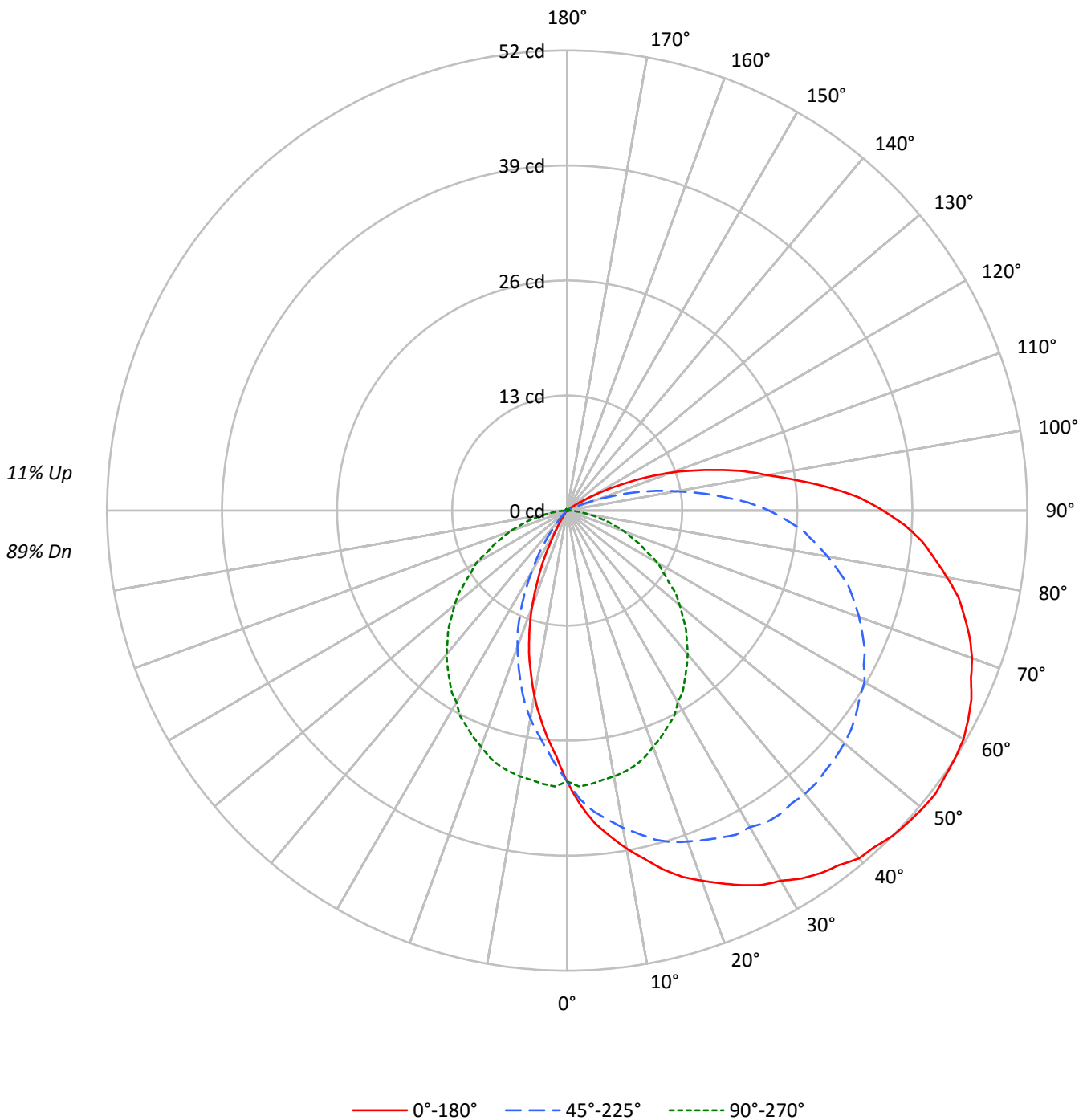
Input Watts (W): 7.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	116	116	116	116	112	112	112	112	105	105	105	98	98	98	92	92	92	89
1	102	95	89	84	98	92	86	82	85	81	77	79	76	73	74	71	68	65
2	91	81	72	65	87	78	70	63	72	66	60	67	62	57	62	58	54	51
3	82	70	60	52	78	67	58	51	62	55	49	58	52	47	54	49	44	41
4	75	61	51	43	71	59	50	42	55	47	41	51	44	39	48	42	37	34
5	68	54	44	37	65	52	43	36	49	41	35	45	39	33	42	37	32	29
6	63	48	39	32	60	47	38	31	44	36	30	41	34	29	38	32	28	25
7	58	44	34	28	56	42	33	27	40	32	26	37	30	25	35	29	24	22
8	54	40	31	24	52	38	30	24	36	29	23	34	27	22	32	26	22	19
9	50	36	28	22	48	35	27	21	33	26	21	31	25	20	30	24	19	17
10	47	33	25	20	45	32	25	19	31	24	19	29	23	18	27	22	18	16

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

	0°	90°	180°
0°	2710	2710	2710
5°	2894	2753	2101
10°	2966	2736	1629
15°	3037	2722	1200
20°	3075	2663	802
25°	3112	2611	440
30°	3132	2536	149
35°	3180	2484	32
40°	3225	2422	6
45°	3257	2346	0
50°	3294	2249	0
55°	3320	2119	0
60°	3352	2040	0
65°	3359	1850	0
70°	3365	1694	0
75°	3363	1494	0
80°	3333	1180	0
85°	3295	874	8



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	2.9	2.2
10°-20°	8.3	6.1
20°-30°	12.3	9.1
30°-40°	14.9	11.0
40°-50°	16.8	12.4
50°-60°	17.8	13.2
60°-70°	17.6	13.0
70°-80°	16.1	11.9
80°-90°	13.3	9.9
90°-100°	8.9	6.6
100°-110°	4.4	3.2
110°-120°	1.3	1.0
120°-130°	0.2	0.1
130°-140°	0.1	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°	23.4	17.4
0°-40°	38.3	28.4
0°-60°	72.9	54.1
0°-90°	119.9	88.9
90°-120°	14.6	10.9
90°-150°	14.9	11.1
90°-180°	15.0	11.1
0°-180°	134.8	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	31	31	31	31	31	
5°	35	34	31	27	26	3
15°	42	38	30	20	17	12
25°	47	41	27	12	7	22
35°	50	42	23	4	0	31
45°	52	41	19	0	0	40
55°	52	40	14	0	0	47
65°	50	37	9	0	0	50
75°	46	33	5	0	0	49
85°	40	27	1	0	0	34
90°	36	23	0	0	0	20
95°	30	18	0	0	0	23
105°	18	8	0	0	0	19
115°	8	1	0	0	0	8
125°	1	0	0	0	0	1
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°	22.5°	25°	30°	35°	40°	45°
0°	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
2.5°	33.2	33.0	33.1	33.0	33.0	32.9	32.8	32.8	32.6	32.5	32.6
5°	35.4	35.2	35.3	35.1	34.9	34.8	34.7	34.6	34.3	34.2	34.1
7.5°	37.1	37.0	36.9	36.8	36.6	36.5	36.3	36.0	35.8	35.6	35.2
10°	38.8	38.5	38.5	38.4	38.2	37.9	37.7	37.6	37.1	36.9	36.4
12.5°	40.3	40.2	40.2	39.8	39.5	39.4	39.1	38.9	38.4	37.9	37.4
15°	42.0	41.9	41.8	41.6	41.2	40.9	40.6	40.1	39.6	39.0	38.5
17.5°	43.4	43.2	43.1	42.7	42.5	42.2	41.9	41.2	40.6	40.0	39.3
20°	44.5	44.4	44.2	43.9	43.4	43.1	42.7	42.2	41.4	40.7	39.8
22.5°	45.6	45.5	45.3	44.8	44.4	44.1	43.7	42.9	42.2	41.3	40.3
25°	46.7	46.6	46.3	45.9	45.3	44.9	44.6	43.9	42.9	42.0	40.8
27.5°	47.7	47.6	47.3	46.9	46.2	45.9	45.5	44.5	43.6	42.5	41.3
30°	48.3	48.3	48.0	47.5	46.9	46.4	46.0	45.1	43.9	42.7	41.3
32.5°	49.3	49.3	49.0	48.4	47.7	47.3	46.7	45.7	44.4	43.1	41.8
35°	50.0	49.8	49.5	49.0	48.2	47.8	47.3	46.0	44.7	43.2	41.9
37.5°	50.5	50.4	50.0	49.5	48.7	48.1	47.5	46.2	44.9	43.2	41.7
40°	51.3	51.0	50.7	50.1	49.3	48.7	48.0	46.7	45.2	43.6	41.8
42.5°	51.5	51.5	51.0	50.4	49.5	48.9	48.3	46.7	45.3	43.4	41.7
45°	52.0	51.8	51.4	50.7	49.7	49.1	48.5	47.0	45.3	43.5	41.4
47.5°	52.2	52.0	51.5	50.8	49.8	49.3	48.5	47.0	45.3	43.2	41.2
50°	52.4	52.3	51.7	50.9	49.8	49.4	48.7	47.0	45.1	43.1	40.9
52.5°	52.5	52.3	51.8	51.0	49.9	49.3	48.5	46.9	44.8	42.7	40.5
55°	52.2	52.0	51.5	50.7	49.5	48.9	48.1	46.4	44.4	42.2	39.9
57.5°	52.0	51.8	51.2	50.4	49.2	48.5	47.8	46.1	44.0	41.7	39.2
60°	51.7	51.5	51.0	50.0	48.9	48.2	47.4	45.6	43.6	41.2	38.8
62.5°	51.1	50.8	50.2	49.3	48.1	47.4	46.6	44.8	42.7	40.5	37.8
65°	50.4	50.2	49.7	48.8	47.5	46.7	46.0	44.1	42.0	39.6	37.1
67.5°	49.4	49.3	48.8	47.8	46.5	45.8	44.9	43.1	41.1	38.7	36.1
70°	48.7	48.5	47.9	47.0	45.7	44.8	44.1	42.3	40.2	37.7	35.1
72.5°	47.7	47.4	47.0	46.0	44.7	43.9	43.0	41.1	39.1	36.7	34.0
75°	46.5	46.2	45.7	44.8	43.6	42.7	41.9	40.0	37.8	35.5	32.9
77.5°	45.3	44.9	44.4	43.5	42.2	41.3	40.5	38.7	36.5	34.0	31.4
80°	43.6	43.4	42.8	42.0	40.7	40.0	39.1	37.2	35.0	32.5	29.9
82.5°	41.9	41.9	41.2	40.4	39.1	38.3	37.4	35.5	33.5	31.2	28.3
85°	40.3	40.0	39.5	38.6	37.4	36.6	35.6	33.9	31.8	29.4	26.8
87.5°	38.2	37.8	37.4	36.6	35.4	34.7	33.6	31.9	29.7	27.5	24.8
90°	35.7	35.6	35.1	34.1	33.0	32.2	31.5	29.8	27.7	25.3	22.8
92.5°	33.1	32.9	32.5	31.6	30.5	29.8	28.9	27.2	25.1	22.9	20.5
95°	29.8	29.6	29.2	28.3	27.2	26.6	25.7	24.1	22.0	20.0	17.7
97.5°	26.2	26.1	25.5	24.9	23.9	23.2	22.5	21.0	19.2	17.3	15.1
100°	23.0	22.9	22.6	21.9	21.0	20.4	19.6	18.3	16.6	14.7	12.5
102.5°	20.5	20.4	19.9	19.3	18.4	17.8	17.2	15.8	14.2	12.2	10.3
105°	17.7	17.6	17.2	16.6	15.8	15.2	14.6	13.3	11.6	9.8	8.0
107.5°	15.1	14.8	14.5	14.0	13.1	12.7	12.0	10.7	9.2	7.5	5.6
110°	12.6	12.3	12.0	11.4	10.6	10.2	9.5	8.3	6.9	5.3	3.6



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	9.9	9.9	9.4	8.9	8.2	7.6	7.1	5.8	4.6	3.2	1.8
115°	7.5	7.3	7.0	6.5	5.8	5.4	4.8	3.8	2.5	1.6	0.8
117.5°	5.2	5.0	4.8	4.3	3.7	3.3	2.9	2.0	1.4	0.7	0.1
120°	3.3	3.0	2.9	2.4	2.0	1.8	1.6	1.1	0.6	0.1	0.1
122.5°	1.9	1.8	1.7	1.5	1.2	1.0	0.6	0.3	0.1	0.1	0.1
125°	0.8	0.7	0.6	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.0
127.5°	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
130°	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.2	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
135°	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1
137.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.2
140°	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.1
142.5°	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
145°	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1
147.5°	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.2
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
152.5°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1
155°	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.1
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.0
160°	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
162.5°	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
167.5°	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
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	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
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	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0
180°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1



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**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
2.5°	32.2	32.2	32.0	32.0	31.9	31.8	31.7	31.6	31.4	31.2	30.7
5°	33.6	33.3	33.1	32.9	32.8	32.6	32.1	31.7	31.5	31.0	30.3
7.5°	34.8	34.3	33.9	33.5	33.3	33.0	32.4	32.0	31.4	30.7	29.9
10°	35.8	35.3	34.8	34.1	33.8	33.6	32.9	32.1	31.4	30.5	29.6
12.5°	36.8	36.1	35.4	34.7	34.3	33.9	33.1	32.1	31.2	30.2	28.9
15°	37.6	36.8	35.9	35.1	34.6	34.1	33.1	32.1	31.0	29.8	28.3
17.5°	38.3	37.2	36.4	35.4	34.8	34.2	33.1	31.9	30.6	29.2	27.6
20°	38.8	37.5	36.5	35.4	34.8	34.1	32.9	31.6	30.1	28.4	26.8
22.5°	39.2	37.9	36.6	35.4	34.7	34.0	32.5	31.2	29.5	27.7	25.8
25°	39.6	38.2	36.6	35.4	34.6	33.8	32.2	30.6	28.9	26.9	24.8
27.5°	40.0	38.4	36.8	35.2	34.3	33.5	31.8	30.2	28.3	26.2	23.9
30°	40.0	38.3	36.6	34.9	33.9	33.1	31.2	29.4	27.2	25.0	22.7
32.5°	40.2	38.4	36.7	34.8	33.8	32.9	30.8	28.8	26.7	24.3	21.8
35°	40.1	38.3	36.5	34.3	33.3	32.2	30.2	28.1	25.9	23.2	20.7
37.5°	39.9	37.9	35.9	33.9	32.8	31.6	29.4	27.0	24.7	22.2	19.4
40°	40.0	37.8	35.7	33.6	32.4	31.2	28.9	26.5	24.0	21.2	18.4
42.5°	39.6	37.4	35.1	32.9	31.7	30.4	28.0	25.5	22.9	20.0	17.1
45°	39.4	37.1	34.8	32.4	31.2	29.9	27.3	24.7	21.9	19.0	16.0
47.5°	39.0	36.7	34.2	31.7	30.3	28.9	26.3	23.6	20.8	17.7	14.6
50°	38.6	36.1	33.6	30.8	29.6	28.2	25.3	22.6	19.7	16.6	13.4
52.5°	38.2	35.6	33.0	30.2	28.8	27.5	24.5	21.5	18.7	15.5	12.3
55°	37.4	34.8	32.0	29.3	27.9	26.3	23.2	20.4	17.3	14.0	10.8
57.5°	36.8	34.1	31.2	28.3	26.8	25.2	22.2	19.2	16.0	12.8	9.5
60°	36.1	33.4	30.4	27.6	25.9	24.4	21.2	18.1	14.9	11.8	8.6
62.5°	35.2	32.2	29.5	26.3	24.6	23.1	19.8	16.6	13.6	10.2	7.1
65°	34.3	31.5	28.4	25.2	23.5	22.0	18.8	15.6	12.3	9.1	6.0
67.5°	33.3	30.3	27.3	24.2	22.4	20.8	17.4	14.2	11.0	7.8	4.8
70°	32.3	29.3	26.2	22.9	21.2	19.5	16.2	12.9	9.8	6.8	3.8
72.5°	31.2	28.2	25.0	21.8	19.9	18.3	14.9	11.7	8.6	5.6	2.9
75°	30.0	26.9	23.7	20.6	18.8	17.1	13.7	10.4	7.4	4.6	2.1
77.5°	28.6	25.7	22.5	19.2	17.4	15.7	12.4	9.2	6.1	3.5	1.2
80°	27.0	24.1	20.9	17.8	16.1	14.3	11.1	7.8	5.0	2.5	0.6
82.5°	25.4	22.6	19.5	16.3	14.6	13.0	9.9	6.7	3.8	1.6	0.2
85°	24.0	21.0	17.9	14.8	13.1	11.7	8.6	5.6	2.9	1.0	0.2
87.5°	22.0	19.1	16.1	13.0	11.6	10.0	7.1	4.2	1.8	0.3	0.1
90°	19.8	17.1	14.2	11.2	9.6	8.4	5.5	3.1	1.1	0.1	0.1
92.5°	17.6	14.9	12.1	9.3	8.0	6.6	4.0	1.8	0.3	0.2	0.3
95°	15.1	12.5	9.8	7.2	6.0	4.8	2.4	0.7	0.3	0.1	0.2
97.5°	12.6	10.2	7.6	5.2	4.0	2.9	1.0	0.2	0.1	0.1	0.1
100°	10.1	8.0	5.6	3.3	2.2	1.4	0.1	0.0	0.0	0.0	0.1
102.5°	8.0	5.8	3.7	1.7	1.0	0.4	0.1	0.1	0.1	0.1	0.2
105°	5.7	3.8	1.8	0.6	0.2	0.0	0.0	0.0	0.1	0.1	0.1
107.5°	3.8	1.9	0.7	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
110°	1.9	0.8	0.2	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1





TEST NUMBER: P273349

CATALOG NUMBER: 0.03-1W-840-91-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	0.8	0.2	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1	0.1
115°	0.2	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.1
117.5°	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.1
120°	0.1	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1
122.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
125°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
127.5°	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0
130°	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1
132.5°	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.2	0.1	0.1	0.1
135°	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
137.5°	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.3	0.1
140°	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1
142.5°	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
145°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
147.5°	0.1	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.2	0.2	0.1
150°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
152.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
155°	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
157.5°	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
160°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2
162.5°	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
165°	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.1
167.5°	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	0.1
170°	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1
172.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
175°	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.0
177.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1
180°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1



TEST NUMBER: P273349

CATALOG NUMBER: 0.03-1W-840-91-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
2.5°	30.5	30.2	30.1	30.0	29.8	29.5	29.4	29.0	28.8	28.7	28.4
5°	29.9	29.5	29.2	28.8	28.6	28.2	27.8	27.6	27.0	26.9	26.6
7.5°	29.3	28.6	28.1	27.8	27.5	26.8	26.3	25.9	25.4	25.0	24.7
10°	28.6	27.8	27.1	26.7	26.3	25.5	24.9	24.3	23.9	23.2	22.7
12.5°	27.9	26.8	26.1	25.5	25.1	24.2	23.4	22.8	22.2	21.4	20.8
15°	27.0	26.0	24.9	24.4	23.7	22.8	22.0	21.1	20.2	19.4	18.8
17.5°	26.1	24.8	23.7	23.0	22.6	21.3	20.2	19.2	18.3	17.6	16.6
20°	25.1	23.7	22.4	21.7	21.1	19.8	18.6	17.3	16.4	15.4	14.5
22.5°	24.1	22.6	21.0	20.2	19.6	18.0	16.9	15.5	14.5	13.3	12.2
25°	22.9	21.3	19.7	18.9	18.0	16.4	14.9	13.5	12.3	11.0	10.0
27.5°	21.9	20.0	18.2	17.4	16.5	14.7	13.3	11.8	10.2	9.0	7.7
30°	20.6	18.7	16.7	15.7	14.8	12.8	11.2	9.5	8.0	6.7	5.5
32.5°	19.6	17.5	15.5	14.4	13.5	11.3	9.6	7.8	6.3	4.8	3.7
35°	18.2	16.1	13.8	12.7	11.7	9.5	7.6	6.0	4.5	3.1	2.3
37.5°	16.9	14.5	12.2	11.1	10.0	7.8	5.8	4.1	2.8	1.8	1.4
40°	15.8	13.3	10.8	9.8	8.6	6.3	4.3	2.7	1.7	1.2	0.7
42.5°	14.4	11.8	9.3	8.1	6.9	4.7	2.8	1.7	1.1	0.5	0.2
45°	13.0	10.5	8.0	6.7	5.4	3.2	1.8	1.1	0.5	0.2	0.1
47.5°	11.8	9.0	6.5	5.2	4.0	2.0	1.2	0.5	0.1	0.1	0.0
50°	10.4	7.7	5.2	3.9	2.8	1.4	0.7	0.3	0.1	0.0	0.1
52.5°	9.3	6.7	3.9	2.8	1.9	1.0	0.4	0.3	0.2	0.1	0.2
55°	8.0	5.2	2.5	1.6	1.2	0.4	0.1	0.0	0.1	0.1	0.0
57.5°	6.8	4.0	1.7	1.2	0.7	0.2	0.1	0.0	0.0	0.1	0.0
60°	5.6	3.0	1.2	0.7	0.5	0.3	0.2	0.2	0.1	0.2	0.2
62.5°	4.2	1.9	0.5	0.3	0.1	0.1	0.0	0.1	0.1	0.0	0.0
65°	3.3	1.2	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
67.5°	2.2	0.6	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0
70°	1.5	0.3	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0
72.5°	0.8	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
75°	0.4	0.2	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.1
77.5°	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.1	0.0
80°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0
82.5°	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.1	0.0
85°	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.2	0.1	0.2
87.5°	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1
90°	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1
92.5°	0.2	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.1
95°	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
97.5°	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
100°	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
102.5°	0.1	0.1	0.2	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.1
105°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
107.5°	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0	0.1
110°	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.0



TEST NUMBER: P273349

CATALOG NUMBER: 0.03-1W-840-91-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
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°	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
120°	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0
122.5°	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.2	0.1
125°	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
127.5°	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0
130°	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0
132.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
135°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
137.5°	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1
140°	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0
142.5°	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.0
145°	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0
147.5°	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1
150°	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1
155°	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.0
157.5°	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0
160°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
162.5°	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
165°	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.0
167.5°	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.1	0.0
170°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
172.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1
175°	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
177.5°	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0
180°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1



TEST NUMBER: P273349

CATALOG NUMBER: 0.03-1W-840-91-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	30.6	30.6	30.6	30.6	30.6	30.6	30.6	30.6
2.5°	28.3	28.1	28.0	27.9	27.8	27.8	27.9	27.8
5°	26.4	26.1	26.0	25.9	25.8	25.7	25.8	25.7
7.5°	24.3	24.1	24.0	23.7	23.5	23.5	23.5	23.5
10°	22.4	22.0	21.8	21.6	21.4	21.3	21.3	21.3
12.5°	20.4	19.8	19.6	19.5	19.1	19.1	19.0	18.9
15°	18.2	17.7	17.5	17.2	17.0	16.6	16.7	16.6
17.5°	16.1	15.5	15.2	14.8	14.6	14.3	14.3	14.1
20°	13.8	13.1	12.8	12.5	12.1	11.8	11.8	11.6
22.5°	11.4	10.6	10.4	10.0	9.6	9.2	9.1	8.9
25°	9.0	8.3	7.8	7.5	7.1	6.7	6.5	6.6
27.5°	6.8	5.9	5.6	5.3	4.8	4.3	4.1	4.1
30°	4.5	3.6	3.3	3.1	2.7	2.4	2.2	2.3
32.5°	2.9	2.4	2.2	1.9	1.7	1.5	1.5	1.4
35°	1.7	1.4	1.2	1.1	0.7	0.6	0.5	0.5
37.5°	0.8	0.5	0.3	0.2	0.1	0.1	0.1	0.0
40°	0.4	0.2	0.1	0.1	0.0	0.1	0.1	0.1
42.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.0
52.5°	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.0
55°	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.1	0.1	0.2	0.0	0.1	0.2	0.1	0.0
62.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
67.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0
80°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0
85°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
87.5°	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1
90°	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1
92.5°	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.3
95°	0.1	0.1	0.1	0.2	0.2	0.1	0.1	0.2
97.5°	0.0	0.1	0.0	0.0	0.1	0.1	0.1	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.1	0.1	0.0	0.1	0.2	0.1	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
107.5°	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
110°	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.0



TEST NUMBER: P273349

CATALOG NUMBER: 0.03-1W-840-91-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	150°	155°	157.5°	160°	165°	170°	175°	180°
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	0.1	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.1
125°	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
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°	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0
135°	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
137.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	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	0.1	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0
155°	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
160°	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.0
162.5°	0.0	0.0	0.1	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	0.1	0.0	0.0	0.0	0.0	0.1	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

(END OF REPORT)