

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: P273358

Luminaire Tested: **0.03-3W-830-90-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273358  
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: 0.03-3W-830-90-ID-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 90 DEGREE SYMMETRIC OPTIC.  
HIGH OUTPUT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

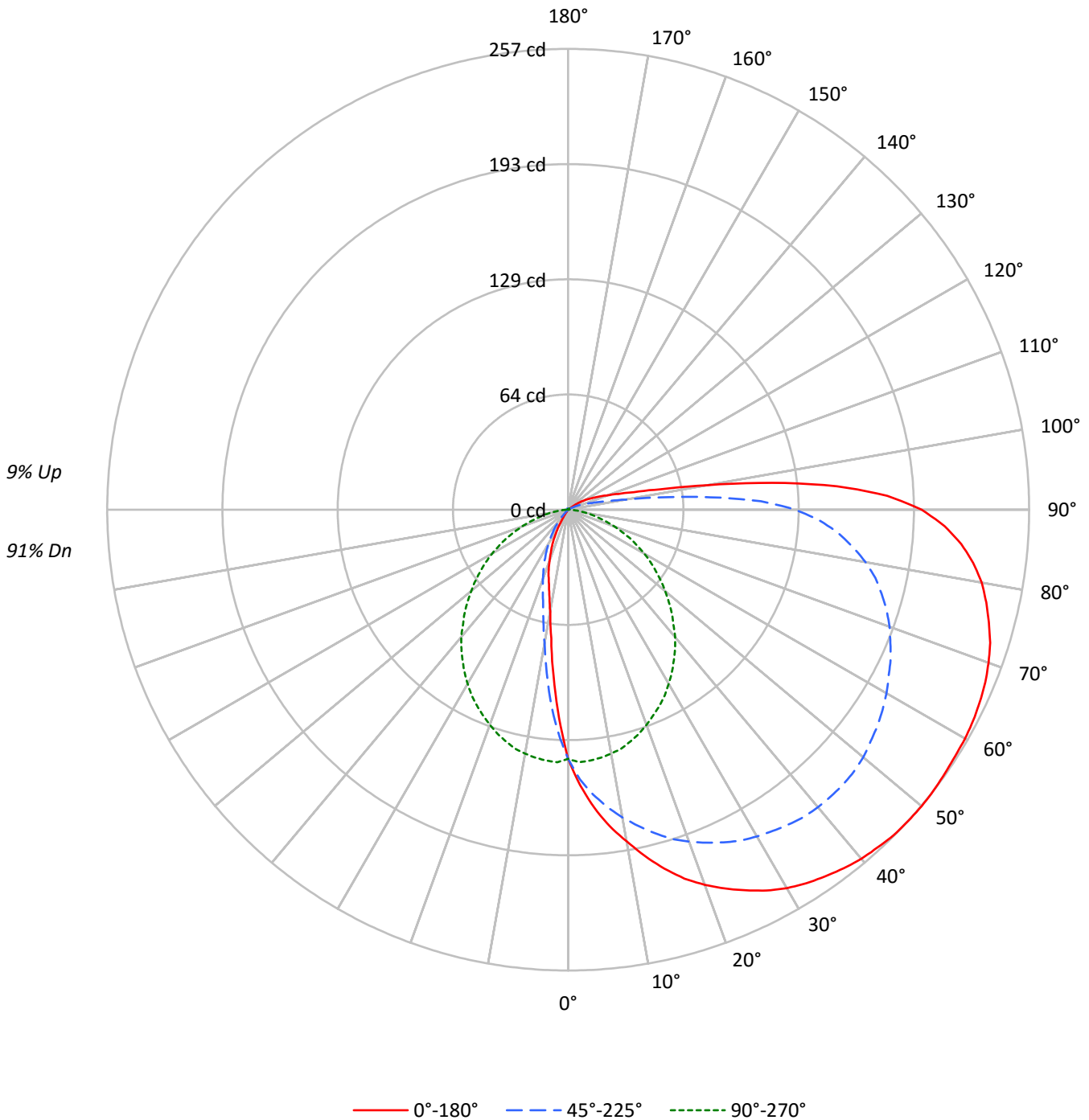
Lumens per Lamp: N/A  
Luminaire Lumens: 647.6 lumens  
Efficiency: N/A  
Efficacy: 51.8 lumens/watt  
Spacing Criteria (0/90/45): 1.39 / 1.2 / 1.52  
Luminous Opening: Rectangular (W 2.92' x L: 0.06' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 12.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): 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	71	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°	8202	8202	8202
5°	9887	8322	5542
10°	11260	8280	3466
15°	12672	8179	2543
20°	13988	8024	1917
25°	15259	7851	1316
30°	16616	7643	675
35°	17999	7396	144
40°	19594	7145	8
45°	21436	6822	0
50°	23627	6485	0
55°	26396	6146	0
60°	30162	5787	0
65°	35391	5337	14
70°	43057	4730	0
75°	55393	4061	0
80°	79604	3332	34
85°	149049	2507	0



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	12.6	1.9
10°-20°	35.2	5.4
20°-30°	54.9	8.5
30°-40°	70.5	10.9
40°-50°	82.1	12.7
50°-60°	88.6	13.7
60°-70°	89.4	13.8
70°-80°	84.4	13.0
80°-90°	72.6	11.2
90°-100°	42.1	6.5
100°-110°	10.4	1.6
110°-120°	3.4	0.5
120°-130°	0.9	0.1
130°-140°	0.4	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°	102.7	15.9
0°-40°	173.2	26.7
0°-60°	343.9	53.1
0°-90°	590.3	91.2
90°-120°	55.9	8.6
90°-150°	57.2	8.8
90°-180°	57.0	8.8
0°-180°	647.6	100.0

**CANDELA DISTRIBUTION:**

	0°	45°	90°	135°	180°	Flux
0°	139	139	139	139	139	
5°	167	159	140	109	94	17
15°	207	187	134	54	42	59
25°	234	205	120	31	20	109
35°	250	214	103	14	2	157
45°	257	217	82	2	0	198
55°	256	210	60	0	0	230
65°	253	198	38	0	0	251
75°	243	181	18	0	0	256
85°	220	151	4	0	0	182
90°	197	127	1	0	0	107
95°	150	80	1	0	0	107
105°	38	15	0	0	0	45
115°	16	4	0	0	0	16
125°	4	0	0	0	0	4
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°	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9
2.5°	153.9	152.9	153.1	153.1	152.1	152.0	151.6	150.7	150.6	150.6	148.8
5°	166.8	166.0	165.9	165.5	164.0	163.4	162.6	161.3	160.3	159.4	157.2
7.5°	178.2	177.3	176.9	176.2	174.6	173.6	172.1	170.4	168.8	167.2	164.2
10°	187.8	187.0	186.4	185.6	183.9	182.4	180.7	178.6	176.9	174.2	170.6
12.5°	197.9	197.0	196.3	195.0	193.5	191.5	189.3	186.4	184.1	180.7	176.5
15°	207.3	206.3	205.4	203.8	202.1	199.6	196.8	193.6	191.0	186.8	181.6
17.5°	215.7	214.8	213.9	212.3	210.2	207.3	204.1	200.3	196.8	192.6	186.8
20°	222.6	221.5	220.6	219.3	216.6	213.6	210.2	205.9	202.1	197.0	190.9
22.5°	228.7	227.5	226.6	225.1	222.3	219.3	215.3	211.0	206.7	201.0	194.3
25°	234.2	233.2	232.1	230.7	227.7	224.2	220.3	215.6	210.8	204.7	197.5
27.5°	239.5	238.5	237.5	235.5	232.8	229.1	225.0	219.8	214.4	208.1	200.1
30°	243.7	242.8	241.8	239.9	236.9	233.2	228.7	223.1	217.3	210.4	202.2
32.5°	247.0	246.3	245.3	243.2	240.3	236.3	231.5	225.9	219.7	212.4	204.0
35°	249.7	249.6	248.4	246.0	243.3	239.1	234.1	228.5	221.8	214.3	205.1
37.5°	252.1	251.9	250.9	248.5	245.6	241.6	236.2	230.7	223.5	215.9	206.2
40°	254.2	253.9	252.9	250.4	247.7	243.5	238.1	232.2	224.8	216.6	206.7
42.5°	255.4	255.2	254.2	251.5	248.8	244.5	239.1	232.8	225.6	216.8	206.7
45°	256.7	256.4	255.1	252.5	249.7	245.3	240.0	233.3	225.9	216.8	206.5
47.5°	257.0	256.8	255.4	252.9	249.8	245.5	240.2	233.0	225.2	216.1	205.3
50°	257.2	257.0	255.4	253.0	249.6	245.5	239.5	232.6	224.6	214.7	203.4
52.5°	257.0	256.4	255.0	252.3	249.0	244.7	238.6	231.7	222.9	212.5	201.0
55°	256.4	255.9	254.3	251.7	248.5	243.6	237.7	230.3	221.1	210.4	198.1
57.5°	255.8	255.1	253.4	250.9	247.3	242.6	236.5	228.4	219.0	207.8	195.0
60°	255.4	254.7	252.7	250.1	246.4	241.2	234.9	226.6	216.8	204.9	191.5
62.5°	254.6	253.8	251.9	249.2	245.1	240.0	233.0	224.4	214.1	201.4	187.3
65°	253.3	252.5	250.6	248.0	243.6	238.5	231.2	222.6	211.5	198.3	182.8
67.5°	251.7	250.9	248.6	245.9	241.2	236.1	228.7	219.6	208.7	194.4	177.9
70°	249.4	248.8	246.5	243.6	239.1	233.3	226.2	216.8	205.1	190.6	173.0
72.5°	246.7	246.0	243.7	240.6	236.3	230.1	223.0	213.6	201.2	186.1	167.7
75°	242.8	242.4	240.2	237.0	232.5	226.6	218.9	209.4	197.0	180.8	161.5
77.5°	238.7	238.2	236.1	232.6	227.9	222.1	214.3	204.2	191.7	175.4	155.4
80°	234.1	233.4	231.3	227.7	222.7	216.5	208.7	198.1	185.1	168.3	148.7
82.5°	227.7	227.2	225.4	221.7	216.6	210.2	202.2	191.4	177.9	160.2	141.2
85°	220.0	219.6	217.7	214.1	209.0	202.5	194.2	183.7	168.9	151.3	133.5
87.5°	210.0	209.9	207.8	204.1	199.1	192.5	183.9	172.6	157.8	140.6	122.9
90°	197.1	196.7	193.9	190.5	185.3	178.2	169.9	158.6	143.0	126.6	110.1
92.5°	178.0	178.2	175.0	171.6	166.0	158.4	150.3	139.5	122.5	107.5	91.5
95°	150.4	151.0	148.3	143.5	137.9	130.7	121.3	110.6	94.2	79.6	66.4
97.5°	114.7	114.5	112.0	105.9	101.8	93.1	85.7	75.3	63.3	52.2	42.4
100°	78.5	78.8	76.7	72.8	68.1	61.2	55.6	47.8	39.9	32.5	26.0
102.5°	52.2	52.7	50.5	48.5	45.1	41.1	36.5	32.1	26.3	21.5	17.3
105°	37.8	37.9	36.7	34.4	32.0	29.6	26.2	22.7	18.9	15.3	12.2
107.5°	29.3	29.3	28.4	26.6	25.0	22.6	20.1	17.3	14.1	11.4	8.6
110°	23.5	23.5	22.7	21.5	19.8	18.0	15.9	13.5	10.8	8.6	6.3



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	19.3	19.2	18.6	17.3	16.0	14.5	12.6	10.6	8.3	6.3	4.6
115°	15.9	15.7	15.2	14.1	13.0	11.6	9.9	8.2	6.3	4.4	2.0
117.5°	13.0	13.0	12.3	11.6	10.4	9.3	7.7	6.2	4.1	1.5	0.7
120°	10.4	10.4	10.0	9.1	8.2	7.0	5.4	3.4	0.9	0.7	0.5
122.5°	8.1	8.1	7.7	6.7	5.4	3.8	2.0	0.7	0.5	0.7	0.5
125°	4.5	4.4	3.7	2.8	1.5	0.7	0.5	0.5	0.4	0.5	0.5
127.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5
130°	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.7	0.5
132.5°	0.3	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
135°	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.5
137.5°	0.4	0.4	0.5	0.4	0.4	0.5	0.5	0.5	0.7	0.5	0.5
140°	0.4	0.3	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5
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°	95°	100°	105°
0°	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9
2.5°	148.4	147.3	146.7	145.5	144.5	143.4	142.4	141.0	139.2	136.9	135.4
5°	155.8	153.9	152.1	150.0	147.9	145.8	143.2	140.4	136.8	133.2	129.8
7.5°	162.1	159.5	157.0	153.7	150.8	147.5	143.8	139.5	134.6	129.1	123.7
10°	167.7	164.4	160.9	156.8	152.9	148.7	143.8	138.1	131.8	124.5	117.1
12.5°	172.9	168.8	164.3	159.4	154.4	149.4	143.3	136.5	128.3	119.2	109.8
15°	177.0	172.1	166.9	161.0	154.9	149.0	142.0	133.8	124.3	113.3	101.5
17.5°	181.2	175.4	169.3	162.5	155.4	148.6	140.5	131.1	120.0	107.1	93.6
20°	184.3	177.9	171.0	163.4	155.3	147.6	138.7	127.7	115.1	100.7	85.4
22.5°	187.0	179.9	172.1	163.9	154.9	146.1	136.3	124.1	110.2	94.0	77.6
25°	189.7	181.4	173.0	163.8	153.7	144.2	133.6	120.5	105.0	87.2	70.1
27.5°	192.1	182.5	173.3	163.2	152.5	142.2	130.7	116.7	99.7	80.8	62.9
30°	193.5	183.3	173.3	162.2	150.7	139.5	127.3	112.1	94.0	73.9	56.3
32.5°	194.3	183.9	172.9	161.0	148.4	136.4	123.3	107.6	88.3	67.4	50.1
35°	195.1	184.0	172.4	159.4	146.2	133.1	119.0	102.6	82.5	61.2	44.8
37.5°	195.4	183.5	171.4	158.0	143.5	129.7	114.9	97.8	76.8	55.3	40.1
40°	195.5	182.8	169.9	155.8	140.6	126.0	110.4	92.7	71.1	49.8	35.7
42.5°	195.0	181.6	168.3	153.2	136.9	121.5	105.2	86.8	64.9	44.4	31.5
45°	194.0	180.3	165.9	150.2	133.2	116.6	99.9	81.7	59.9	39.7	28.0
47.5°	192.5	178.0	162.8	146.5	128.5	111.3	94.4	76.1	54.3	35.4	24.5
50°	190.6	175.5	159.5	141.8	123.2	106.0	89.2	70.6	49.3	31.6	21.3
52.5°	187.7	172.1	155.2	136.9	118.0	100.6	83.5	65.2	44.4	27.6	18.2
55°	184.5	168.1	150.6	131.5	112.8	94.8	77.6	59.7	39.8	23.9	15.3
57.5°	180.4	163.4	145.0	126.1	107.1	89.1	72.0	54.3	35.0	20.8	12.4
60°	175.9	158.2	139.3	120.7	101.3	83.1	66.1	49.0	30.8	17.6	9.9
62.5°	170.6	152.3	133.6	114.7	95.2	76.8	60.0	43.4	26.6	14.7	7.7
65°	165.2	146.2	127.7	108.7	88.7	70.5	53.8	38.2	22.6	11.6	5.4
67.5°	158.9	139.8	120.9	101.6	82.0	63.7	47.3	32.6	18.6	8.7	3.3
70°	153.2	133.5	114.3	94.8	74.9	56.7	41.1	27.4	14.7	6.1	1.6
72.5°	147.5	127.4	107.6	87.5	67.8	49.7	35.2	22.5	11.2	4.0	0.9
75°	141.7	121.3	101.0	80.2	60.1	43.2	29.2	17.8	7.9	2.1	0.7
77.5°	135.6	115.3	94.2	73.1	53.0	36.6	23.7	13.5	5.3	1.1	0.7
80°	129.3	108.8	87.5	66.2	46.5	30.7	18.4	9.8	3.2	0.8	0.5
82.5°	122.5	101.9	80.5	59.5	40.2	25.0	13.9	6.5	1.3	0.5	0.5
85°	114.7	94.6	73.6	53.1	34.5	20.0	10.2	3.7	0.8	0.5	0.5
87.5°	105.3	85.8	65.6	46.1	28.8	16.0	6.9	2.0	0.8	0.8	0.7
90°	92.7	74.3	55.3	37.5	22.3	11.4	4.2	0.7	0.7	0.7	0.5
92.5°	75.6	58.6	41.9	27.4	15.2	6.6	1.9	0.7	0.8	0.7	0.5
95°	53.3	39.4	27.1	16.8	8.3	2.6	0.8	0.7	0.8	0.5	0.5
97.5°	32.6	23.7	15.7	8.9	3.8	0.8	0.5	0.7	0.7	0.5	0.5
100°	20.0	14.1	9.0	4.6	1.9	0.7	0.5	0.7	0.8	0.5	0.7
102.5°	13.0	8.9	5.3	2.5	0.5	0.5	0.5	0.7	0.7	0.5	0.7
105°	8.7	5.7	3.2	0.8	0.5	0.4	0.5	0.5	0.5	0.5	0.7
107.5°	6.1	3.7	1.1	0.7	0.4	0.4	0.5	0.5	0.5	0.5	0.5
110°	4.1	1.6	0.7	0.7	0.5	0.5	0.4	0.5	0.5	0.5	0.5





TEST NUMBER: P273358

CATALOG NUMBER: 0.03-3W-830-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°	95°	100°	105°
112.5°	2.0	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.7	0.5	0.5
115°	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.5
117.5°	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	0.4	0.4
120°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
122.5°	0.7	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
125°	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
127.5°	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
130°	0.5	0.7	0.7	0.5	0.7	0.5	0.7	0.7	0.7	0.7	0.7
132.5°	0.4	0.4	0.5	0.5	0.4	0.5	0.5	0.4	0.5	0.5	0.5
135°	0.5	0.5	0.5	0.5	0.7	0.7	0.5	0.5	0.7	0.7	0.7
137.5°	0.5	0.7	0.7	0.7	0.7	0.8	0.8	0.7	0.8	0.8	0.8
140°	0.5	0.7	0.5	0.5	0.7	0.5	0.7	0.7	0.7	0.7	0.7
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: P273358

CATALOG NUMBER: 0.03-3W-830-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
0°	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9	138.9
2.5°	133.6	131.8	130.2	128.2	126.1	124.8	123.3	121.5	120.8	119.2	118.2
5°	126.5	122.8	119.4	115.7	111.7	108.8	106.1	103.1	100.9	98.5	97.7
7.5°	118.3	112.9	107.3	101.5	96.1	91.7	88.0	84.1	81.0	79.2	76.9
10°	109.4	102.0	94.1	87.4	81.0	75.9	72.0	68.1	65.0	62.4	61.2
12.5°	100.1	91.1	82.1	74.6	68.6	63.8	59.7	56.8	54.6	52.7	51.2
15°	90.1	79.6	70.7	63.3	57.8	53.9	50.6	48.4	46.8	45.1	43.9
17.5°	80.9	70.3	60.9	55.0	50.6	47.2	44.4	42.2	40.6	39.1	38.1
20°	72.0	61.5	53.7	48.2	44.4	41.1	38.6	36.5	34.9	33.6	32.4
22.5°	63.8	54.1	47.2	42.3	38.7	35.8	33.2	30.9	29.6	28.2	26.8
25°	56.7	48.0	41.4	37.0	34.0	30.9	28.4	26.0	24.5	22.9	21.7
27.5°	50.4	42.3	36.6	32.5	29.3	26.3	23.7	21.7	19.7	18.1	16.9
30°	44.8	37.5	32.4	28.2	25.0	21.7	19.3	16.9	15.3	13.6	12.3
32.5°	39.8	33.0	28.3	24.2	20.9	17.7	15.2	13.1	11.1	9.4	7.8
35°	35.4	29.1	24.2	20.4	17.2	14.1	11.8	9.4	7.1	5.4	4.1
37.5°	31.2	25.4	20.9	16.9	13.7	10.8	8.2	5.7	3.8	2.5	1.9
40°	27.5	22.2	17.4	14.0	10.7	7.7	5.2	3.0	1.6	0.8	0.4
42.5°	24.1	18.6	14.4	10.8	7.7	4.6	2.6	1.1	0.4	0.3	0.1
45°	20.9	15.9	11.8	8.2	5.0	2.4	0.9	0.7	0.4	0.3	0.1
47.5°	17.7	13.1	9.1	5.4	2.6	0.9	0.5	0.4	0.3	0.3	0.1
50°	14.9	10.4	6.6	3.2	1.2	0.5	0.4	0.4	0.3	0.3	0.1
52.5°	12.2	7.9	3.8	1.3	0.5	0.4	0.3	0.3	0.1	0.3	0.1
55°	9.8	5.4	2.1	0.7	0.4	0.3	0.3	0.3	0.3	0.1	0.1
57.5°	7.7	3.3	0.9	0.5	0.4	0.4	0.3	0.3	0.3	0.1	0.1
60°	5.4	1.9	0.8	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.1
62.5°	3.3	0.9	0.5	0.4	0.3	0.3	0.3	0.3	0.1	0.1	0.1
65°	1.9	0.8	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3
67.5°	0.8	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.1	0.1	0.1
70°	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.1	0.3
72.5°	0.7	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.3
75°	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
77.5°	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.1
80°	0.5	0.7	0.7	0.5	0.4	0.4	0.3	0.3	0.4	0.3	0.3
82.5°	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
85°	0.7	0.7	0.7	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3
87.5°	0.7	0.8	0.8	0.7	0.5	0.5	0.4	0.4	0.3	0.4	0.3
90°	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.1
92.5°	0.7	0.5	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3
95°	0.7	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3
97.5°	0.7	0.7	0.5	0.5	0.5	0.4	0.4	0.3	0.3	0.3	0.3
100°	0.5	0.7	0.7	0.7	0.5	0.5	0.5	0.4	0.4	0.4	0.4
102.5°	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3
105°	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3
107.5°	0.4	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.4	0.3	0.3
110°	0.4	0.4	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3



TEST NUMBER: P273358

CATALOG NUMBER: 0.03-3W-830-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	110°	115°	120°	125°	130°	135°	140°	145°	150°	155°	160°
112.5°	0.4	0.4	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3
115°	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.1
117.5°	0.5	0.5	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.1
120°	0.5	0.5	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.1
122.5°	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.3	0.1
125°	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.1
127.5°	0.5	0.5	0.4	0.5	0.4	0.4	0.3	0.4	0.3	0.3	0.3
130°	0.5	0.5	0.5	0.7	0.5	0.4	0.4	0.4	0.3	0.4	0.3
132.5°	0.4	0.4	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3
135°	0.7	0.7	0.7	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.3
137.5°	0.7	0.7	0.7	0.7	0.5	0.7	0.5	0.5	0.5	0.4	0.4
140°	0.7	0.7	0.5	0.7	0.5	0.5	0.5	0.4	0.4	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: P273358

CATALOG NUMBER: 0.03-3W-830-90-ID-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	165°	170°	175°	180°
0°	138.9	138.9	138.9	138.9
2.5°	117.5	118.0	117.4	116.3
5°	95.7	95.8	94.8	93.5
7.5°	74.9	74.7	73.6	72.4
10°	59.9	59.3	58.6	57.8
12.5°	49.8	49.3	49.2	48.4
15°	42.7	42.2	42.0	41.6
17.5°	37.3	36.7	36.5	36.4
20°	31.6	31.2	30.8	30.5
22.5°	26.2	25.6	25.2	24.9
25°	20.9	20.4	19.8	20.2
27.5°	16.1	15.5	14.7	14.9
30°	11.1	10.6	9.9	9.9
32.5°	6.6	5.8	5.3	5.2
35°	3.0	2.5	2.1	2.0
37.5°	1.1	0.7	0.4	0.5
40°	0.4	0.3	0.1	0.1
42.5°	0.1	0.1	0.0	0.0
45°	0.3	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°	0.3	0.1	0.1	0.1
82.5°	0.1	0.1	0.1	0.0
85°	0.3	0.1	0.1	0.0
87.5°	0.4	0.3	0.3	0.3
90°	0.1	0.1	0.1	0.0
92.5°	0.3	0.1	0.1	0.1
95°	0.3	0.1	0.3	0.3
97.5°	0.3	0.1	0.1	0.1
100°	0.3	0.1	0.3	0.3
102.5°	0.3	0.3	0.1	0.3
105°	0.3	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: P273358

CATALOG NUMBER: 0.03-3W-830-90-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	0.3	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°	0.4	0.4	0.3	0.3
140°	0.3	0.3	0.3	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)