

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: P273384

Luminaire Tested: **0.03-5W-835-91-ID-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273384
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: 0.03-5W-835-91-ID-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES .75 LINEAR LED LUMINAIRE, 90 DEGREE ASYMMETRIC OPTIC.
VERY HIGH OUTPUT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 481.7 lumens
Efficiency: N/A
Efficacy: 26.3 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

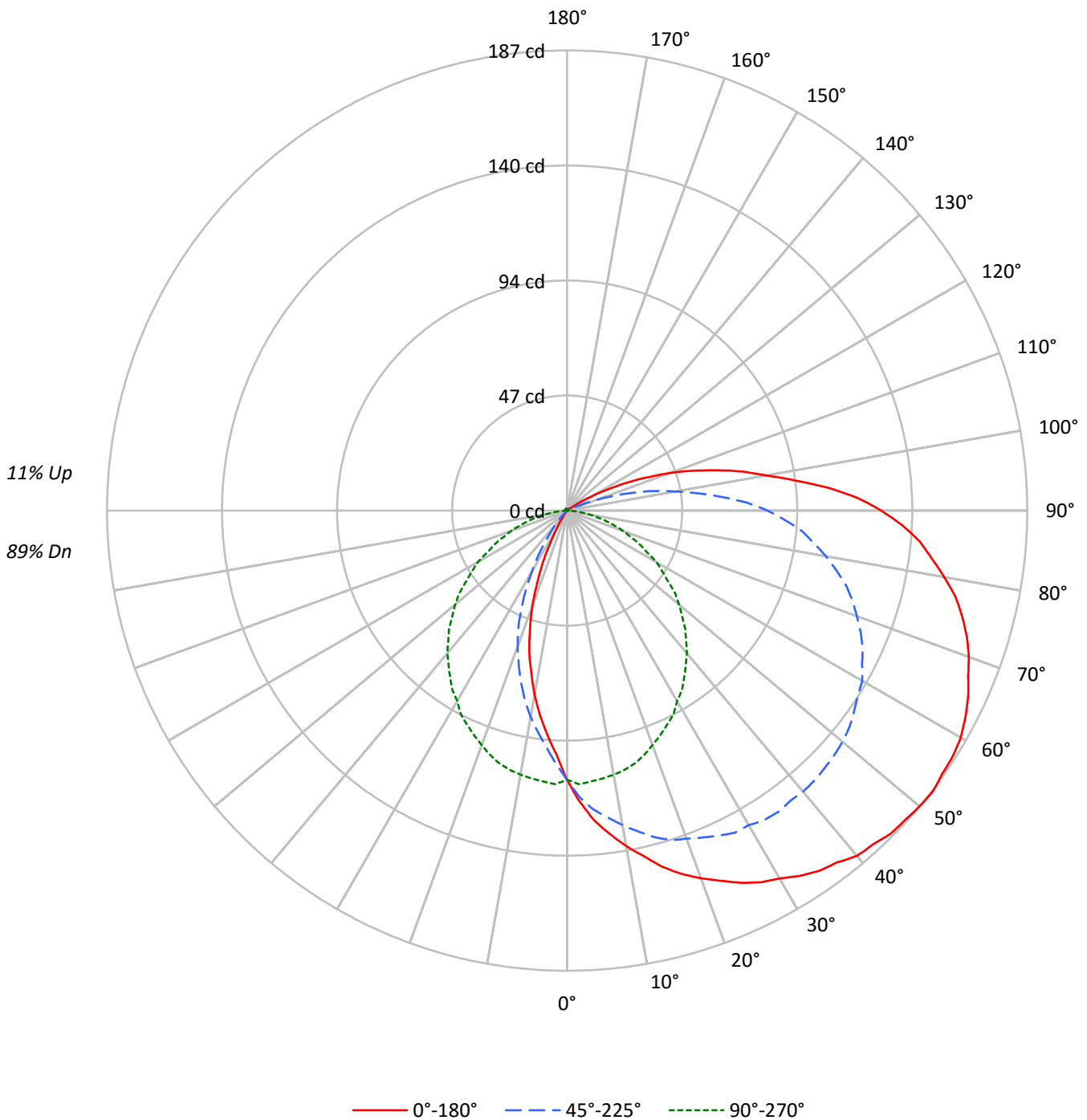
Input Watts (W): 18.3
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-ID-STD-UNV-AN-3F0

Luminous Intensity Polar Plot





TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-ID-STD-UNV-AN-3F0

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°	9690	9690	9690
5°	10334	9812	7489
10°	10589	9779	5818
15°	10840	9719	4296
20°	10987	9508	2854
25°	11124	9329	1566
30°	11191	9058	538
35°	11364	8875	121
40°	11517	8649	25
45°	11636	8373	0
50°	11756	8048	0
55°	11841	7567	0
60°	11976	7260	0
65°	11983	6629	0
70°	12003	6030	0
75°	12019	5296	0
80°	11897	4294	0
85°	11757	2970	33



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-ID-STD-UNV-AN-3F0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	10.4	2.2
10°-20°	29.5	6.1
20°-30°	43.8	9.1
30°-40°	53.1	11.0
40°-50°	59.9	12.4
50°-60°	63.6	13.2
60°-70°	62.7	13.0
70°-80°	57.5	11.9
80°-90°	47.6	9.9
90°-100°	31.9	6.6
100°-110°	15.6	3.2
110°-120°	4.8	1.0
120°-130°	0.6	0.1
130°-140°	0.3	0.1
140°-150°	0.2	0.0
150°-160°	0.1	0.0
160°-170°	0.1	0.0
170°-180°	0.0	0.0
0°-30°	83.6	17.4
0°-40°	136.7	28.4
0°-60°	260.3	54.0
0°-90°	428.1	88.9
90°-120°	52.3	10.9
90°-150°	53.4	11.1
90°-180°	54.0	11.2
0°-180°	481.7	100.0

CANDELA DISTRIBUTION:

	0°	45°	90°	135°	180°	Flux
0°	109	109	109	109	109	
5°	126	122	110	96	92	12
15°	150	137	106	72	59	43
25°	167	146	96	44	24	77
35°	179	150	83	16	2	112
45°	186	148	68	2	0	144
55°	186	142	50	0	0	167
65°	180	132	33	0	0	178
75°	166	117	16	0	0	175
85°	144	96	3	1	0	120
90°	128	81	0	0	0	70
95°	106	63	0	0	1	82
105°	63	28	0	0	0	67
115°	27	3	0	0	0	27
125°	3	0	1	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



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
0°	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4
2.5°	118.5	117.7	118.1	117.7	117.7	117.3	117.0	117.0	116.6	116.2	116.6
5°	126.4	125.7	126.0	125.3	124.5	124.1	123.8	123.4	122.6	122.3	121.9
7.5°	132.5	132.1	131.7	131.3	130.6	130.2	129.4	128.7	127.9	127.2	125.7
10°	138.5	137.4	137.4	137.0	136.3	135.5	134.7	134.4	132.5	131.7	129.8
12.5°	143.8	143.5	143.5	141.9	141.2	140.8	139.7	138.9	137.0	135.5	133.6
15°	149.9	149.5	149.1	148.4	147.2	146.1	145.0	143.1	141.6	139.3	137.4
17.5°	154.8	154.4	154.1	152.5	151.8	150.6	149.5	147.2	145.0	142.7	140.4
20°	159.0	158.6	157.8	156.7	154.8	154.1	152.5	150.6	148.0	145.3	141.9
22.5°	162.8	162.4	161.6	160.1	158.6	157.5	155.9	153.3	150.6	147.6	143.8
25°	166.9	166.5	165.4	163.9	161.6	160.5	159.3	156.7	153.3	149.9	145.7
27.5°	170.3	169.9	168.8	167.3	165.0	163.9	162.4	159.0	155.6	151.8	147.6
30°	172.6	172.6	171.5	169.6	167.3	165.8	164.3	160.9	156.7	152.5	147.6
32.5°	176.0	176.0	174.9	173.0	170.3	168.8	166.9	163.1	158.6	154.1	149.1
35°	178.7	177.9	176.8	174.9	172.2	170.7	168.8	164.3	159.7	154.4	149.5
37.5°	180.2	179.8	178.7	176.8	173.7	171.8	169.6	165.0	160.5	154.4	148.8
40°	183.2	182.1	180.9	179.0	176.0	173.7	171.5	166.9	161.2	155.6	149.1
42.5°	184.0	184.0	182.1	179.8	176.8	174.5	172.6	166.9	161.6	154.8	148.8
45°	185.8	185.1	183.6	180.9	177.5	175.2	173.4	167.7	161.6	155.2	148.0
47.5°	186.2	185.8	184.0	181.3	177.9	176.0	173.4	167.7	161.6	154.4	147.2
50°	187.0	186.6	184.7	181.7	177.9	176.4	173.7	167.7	160.9	154.1	146.1
52.5°	187.4	186.6	185.1	182.1	178.3	176.0	173.4	167.3	160.1	152.5	144.6
55°	186.2	185.8	184.0	180.9	176.8	174.5	171.8	165.8	158.6	150.6	142.3
57.5°	185.8	185.1	182.8	179.8	175.6	173.4	170.7	164.6	157.1	148.8	140.0
60°	184.7	184.0	182.1	178.7	174.5	172.2	169.2	162.8	155.6	147.2	138.5
62.5°	182.4	181.3	179.4	176.0	171.8	169.2	166.5	160.1	152.5	144.6	135.1
65°	179.8	179.4	177.5	174.1	169.6	166.9	164.3	157.5	149.9	141.6	132.5
67.5°	176.4	176.0	174.1	170.7	166.2	163.5	160.5	154.1	146.9	138.2	129.1
70°	173.7	173.4	171.1	167.7	163.1	160.1	157.5	151.0	143.5	134.7	125.3
72.5°	170.3	169.2	167.7	164.3	159.7	156.7	153.7	146.9	139.7	131.0	121.5
75°	166.2	165.0	163.1	160.1	155.6	152.5	149.5	142.7	135.1	126.8	117.3
77.5°	161.6	160.5	158.6	155.2	150.6	147.6	144.6	138.2	130.2	121.5	112.0
80°	155.6	154.8	152.9	149.9	145.3	142.7	139.7	132.9	124.9	116.2	106.7
82.5°	149.5	149.5	147.2	144.2	139.7	136.6	133.6	126.8	119.6	111.3	101.1
85°	143.8	142.7	141.2	137.8	133.6	130.6	127.2	121.1	113.6	104.8	95.8
87.5°	136.3	135.1	133.6	130.6	126.4	123.8	120.0	113.9	106.0	98.0	88.6
90°	127.6	127.2	125.3	121.9	117.7	115.1	112.4	106.4	98.8	90.5	81.4
92.5°	118.1	117.3	116.2	112.8	109.0	106.4	103.3	97.3	89.7	81.8	73.1
95°	106.4	105.6	104.1	101.1	97.3	95.0	91.6	85.9	78.7	71.5	63.2
97.5°	93.5	93.1	91.2	88.9	85.2	82.9	80.2	74.9	68.5	61.7	53.7
100°	82.1	81.8	80.6	78.3	74.9	72.7	70.0	65.5	59.4	52.6	44.7
102.5°	73.1	72.7	71.2	68.9	65.9	63.6	61.3	56.4	50.7	43.5	36.7
105°	63.2	62.8	61.3	59.4	56.4	54.1	52.2	47.3	41.3	34.8	28.4
107.5°	53.7	53.0	51.9	50.0	46.9	45.4	42.8	38.2	32.9	26.9	20.1
110°	45.0	43.9	42.8	40.9	37.9	36.3	34.1	29.5	24.6	18.9	12.9



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	22.5°	25°	30°	35°	40°	45°
112.5°	35.2	35.2	33.7	31.8	29.1	27.3	25.4	20.8	16.3	11.4	6.4
115°	26.9	26.1	25.0	23.1	20.8	19.3	17.0	13.6	9.1	5.7	3.0
117.5°	18.5	17.8	17.0	15.5	13.2	11.7	10.2	7.2	4.9	2.6	0.4
120°	11.7	10.6	10.2	8.7	7.2	6.4	5.7	3.8	2.3	0.4	0.4
122.5°	6.8	6.4	6.1	5.3	4.2	3.4	2.3	1.1	0.4	0.4	0.4
125°	3.0	2.6	2.3	1.1	0.8	0.4	0.4	0.4	0.4	0.4	0.0
127.5°	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.4	0.0	0.0	0.0
130°	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.8	0.0	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4
135°	0.0	0.0	0.0	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4
137.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.4	0.4	0.8
140°	0.0	0.0	0.4	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.4
142.5°	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
145°	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4
147.5°	0.0	0.4	0.4	0.4	0.4	0.4	0.8	0.4	0.4	0.4	0.8
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
152.5°	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.4
155°	0.4	0.0	0.0	0.4	0.0	0.0	0.4	0.0	0.0	0.4	0.4
157.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.4	0.0
160°	0.0	0.0	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4
162.5°	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.4	0.4	0.4
165°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
167.5°	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4
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	0.4	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4
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	0.4	0.4	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.0
180°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
0°	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4
2.5°	115.1	115.1	114.3	114.3	113.9	113.6	113.2	112.8	112.0	111.3	109.8
5°	120.0	118.8	118.1	117.3	117.0	116.6	114.7	113.2	112.4	110.5	108.3
7.5°	124.1	122.6	121.1	119.6	118.8	117.7	115.8	114.3	112.0	109.8	106.7
10°	127.9	126.0	124.1	121.9	120.7	120.0	117.3	114.7	112.0	109.0	105.6
12.5°	131.3	129.1	126.4	123.8	122.6	121.1	118.1	114.7	111.3	107.9	103.3
15°	134.4	131.3	128.3	125.3	123.4	121.9	118.1	114.7	110.5	106.4	101.1
17.5°	136.6	132.9	129.8	126.4	124.1	122.3	118.1	113.9	109.4	104.1	98.4
20°	138.5	134.0	130.2	126.4	124.1	121.9	117.3	112.8	107.5	101.4	95.8
22.5°	140.0	135.5	130.6	126.4	123.8	121.5	116.2	111.3	105.2	98.8	92.0
25°	141.6	136.3	130.6	126.4	123.4	120.7	115.1	109.4	103.3	96.1	88.6
27.5°	142.7	137.0	131.3	125.7	122.6	119.6	113.6	107.9	101.1	93.5	85.2
30°	142.7	136.6	130.6	124.5	121.1	118.1	111.3	104.8	97.3	89.3	81.0
32.5°	143.5	137.0	131.0	124.1	120.7	117.3	110.1	103.0	95.4	86.7	78.0
35°	143.1	136.6	130.2	122.6	118.8	115.1	107.9	100.3	92.4	82.9	73.8
37.5°	142.3	135.5	128.3	121.1	117.0	112.8	104.8	96.5	88.2	79.1	69.3
40°	142.7	135.1	127.6	120.0	115.8	111.3	103.3	94.6	85.5	75.7	65.9
42.5°	141.6	133.6	125.3	117.3	113.2	108.6	99.9	91.2	81.8	71.5	60.9
45°	140.8	132.5	124.1	115.8	111.3	106.7	97.7	88.2	78.3	67.8	57.2
47.5°	139.3	131.0	122.3	113.2	108.3	103.3	93.9	84.4	74.2	63.2	52.2
50°	137.8	129.1	120.0	110.1	105.6	100.7	90.5	80.6	70.4	59.4	47.7
52.5°	136.3	127.2	117.7	107.9	103.0	98.0	87.4	76.8	66.6	55.3	43.9
55°	133.6	124.1	114.3	104.5	99.5	93.9	82.9	72.7	61.7	50.0	38.6
57.5°	131.3	121.9	111.3	101.1	95.8	90.1	79.1	68.5	57.2	45.8	34.1
60°	129.1	119.2	108.6	98.4	92.4	87.1	75.7	64.7	53.4	42.0	30.7
62.5°	125.7	115.1	105.2	93.9	87.8	82.5	70.8	59.4	48.4	36.3	25.4
65°	122.6	112.4	101.4	90.1	84.0	78.7	67.0	55.6	43.9	32.6	21.6
67.5°	118.8	108.3	97.7	86.3	79.9	74.2	62.1	50.7	39.4	28.0	17.0
70°	115.4	104.5	93.5	81.8	75.7	69.6	57.9	46.2	34.8	24.2	13.6
72.5°	111.3	100.7	89.3	78.0	71.2	65.5	53.4	41.6	30.7	20.1	10.2
75°	107.1	96.1	84.8	73.4	67.0	60.9	48.8	37.1	26.5	16.3	7.6
77.5°	102.2	91.6	80.2	68.5	62.1	56.0	44.3	32.9	22.0	12.5	4.2
80°	96.5	85.9	74.6	63.6	57.5	51.1	39.7	28.0	17.8	9.1	2.3
82.5°	90.8	80.6	69.6	58.3	52.2	46.6	35.2	23.8	13.6	5.7	0.8
85°	85.5	74.9	64.0	53.0	46.9	41.6	30.7	20.1	10.2	3.4	0.8
87.5°	78.7	68.1	57.5	46.6	41.3	35.6	25.4	15.1	6.4	1.1	0.4
90°	70.8	60.9	50.7	40.1	34.4	29.9	19.7	11.0	3.8	0.4	0.4
92.5°	62.8	53.4	43.1	33.3	28.4	23.5	14.4	6.4	1.1	0.8	1.1
95°	53.7	44.7	34.8	25.7	21.6	17.0	8.7	2.6	1.1	0.4	0.8
97.5°	45.0	36.3	27.3	18.5	14.4	10.2	3.4	0.8	0.4	0.4	0.4
100°	36.0	28.4	20.1	11.7	7.9	4.9	0.4	0.0	0.0	0.0	0.4
102.5°	28.4	20.8	13.2	6.1	3.4	1.5	0.4	0.4	0.4	0.4	0.8
105°	20.4	13.6	6.4	2.3	0.8	0.0	0.0	0.0	0.4	0.4	0.4
107.5°	13.6	6.8	2.6	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
110°	6.8	3.0	0.8	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	50°	55°	60°	65°	67.5°	70°	75°	80°	85°	90°	95°
112.5°	3.0	0.8	0.0	0.0	0.4	0.4	0.0	0.0	0.4	0.4	0.4
115°	0.8	0.0	0.4	0.0	0.0	0.4	0.4	0.0	0.0	0.4	0.4
117.5°	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.4	0.4	0.4	0.4
120°	0.4	0.4	0.0	0.4	0.0	0.4	0.4	0.4	0.4	0.0	0.4
122.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
125°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8	0.8
127.5°	0.0	0.4	0.0	0.0	0.0	0.4	0.0	0.4	0.4	0.4	0.0
130°	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.0	0.4
132.5°	0.4	0.4	0.8	0.4	0.4	0.0	0.4	0.8	0.4	0.4	0.4
135°	0.0	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.8	0.4	0.4
137.5°	0.4	0.8	0.8	0.8	0.4	0.4	0.4	0.8	0.8	1.1	0.4
140°	0.0	0.0	0.0	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4
142.5°	0.0	0.0	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4
145°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
147.5°	0.4	0.4	0.4	0.8	0.4	0.4	0.8	0.8	0.8	0.8	0.4
150°	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.4	0.4	0.0
152.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
155°	0.4	0.0	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4
157.5°	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
160°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.8	0.4	0.8
162.5°	0.0	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.4
165°	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.0	0.0	0.4	0.4
167.5°	0.4	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.4	0.0	0.4
170°	0.4	0.0	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4
172.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
175°	0.4	0.0	0.0	0.0	0.4	0.0	0.4	0.0	0.4	0.4	0.0
177.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.4	0.4
180°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	100°	105°	110°	112.5°	115°	120°	125°	130°	135°	140°	145°
0°	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4
2.5°	109.0	107.9	107.5	107.1	106.4	105.2	104.8	103.7	103.0	102.6	101.4
5°	106.7	105.2	104.1	103.0	102.2	100.7	99.2	98.4	96.5	96.1	95.0
7.5°	104.5	102.2	100.3	99.2	98.0	95.8	93.9	92.4	90.8	89.3	88.2
10°	102.2	99.2	96.9	95.4	93.9	91.2	88.9	86.7	85.2	82.9	81.0
12.5°	99.5	95.8	93.1	91.2	89.7	86.3	83.6	81.4	79.1	76.5	74.2
15°	96.5	92.7	88.9	87.1	84.8	81.4	78.7	75.3	72.3	69.3	67.0
17.5°	93.1	88.6	84.8	82.1	80.6	76.1	72.3	68.5	65.5	62.8	59.4
20°	89.7	84.8	79.9	77.6	75.3	70.8	66.2	61.7	58.7	54.9	51.9
22.5°	85.9	80.6	74.9	72.3	70.0	64.3	60.2	55.3	51.9	47.3	43.5
25°	81.8	76.1	70.4	67.4	64.3	58.7	53.4	48.1	43.9	39.4	35.6
27.5°	78.3	71.5	65.1	62.1	59.0	52.6	47.3	42.0	36.3	32.2	27.6
30°	73.4	66.6	59.8	56.0	53.0	45.8	40.1	34.1	28.4	23.8	19.7
32.5°	70.0	62.5	55.3	51.5	48.1	40.5	34.4	28.0	22.3	17.0	13.2
35°	65.1	57.5	49.2	45.4	41.6	34.1	27.3	21.6	15.9	11.0	8.3
37.5°	60.2	51.9	43.5	39.7	35.6	28.0	20.8	14.8	9.8	6.4	4.9
40°	56.4	47.3	38.6	34.8	30.7	22.3	15.5	9.5	6.1	4.2	2.6
42.5°	51.5	42.0	33.3	28.8	24.6	16.7	9.8	6.1	3.8	1.9	0.8
45°	46.6	37.5	28.4	23.8	19.3	11.4	6.4	3.8	1.9	0.8	0.4
47.5°	42.0	32.2	23.1	18.5	14.4	7.2	4.2	1.9	0.4	0.4	0.0
50°	37.1	27.6	18.5	14.0	9.8	4.9	2.6	1.1	0.4	0.0	0.4
52.5°	33.3	23.8	14.0	9.8	6.8	3.4	1.5	1.1	0.8	0.4	0.8
55°	28.4	18.5	9.1	5.7	4.2	1.5	0.4	0.0	0.4	0.4	0.0
57.5°	24.2	14.4	6.1	4.2	2.6	0.8	0.4	0.0	0.0	0.4	0.0
60°	20.1	10.6	4.2	2.6	1.9	1.1	0.8	0.8	0.4	0.8	0.8
62.5°	15.1	6.8	1.9	1.1	0.4	0.4	0.0	0.4	0.4	0.0	0.0
65°	11.7	4.2	1.1	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4
67.5°	7.9	2.3	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.0	0.0
70°	5.3	1.1	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.0	0.0
72.5°	3.0	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
75°	1.5	0.8	0.4	0.4	0.8	0.0	0.4	0.4	0.4	0.0	0.4
77.5°	0.4	0.4	0.0	0.4	0.4	0.4	0.0	0.4	0.0	0.4	0.0
80°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.0	0.0
82.5°	0.4	0.4	0.4	0.4	0.4	0.8	0.4	0.4	0.0	0.4	0.0
85°	0.8	0.8	0.8	0.8	0.4	0.8	0.4	0.8	0.8	0.4	0.8
87.5°	0.4	0.8	0.8	0.4	0.4	0.8	0.4	0.4	0.4	0.4	0.4
90°	0.4	0.8	0.8	0.4	0.4	0.4	0.4	0.8	0.4	0.4	0.4
92.5°	0.8	1.1	1.1	0.8	0.8	0.8	0.8	0.8	1.1	0.8	0.4
95°	1.1	0.8	1.1	0.8	0.8	0.8	0.8	0.8	0.4	0.4	0.4
97.5°	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4
100°	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.4	0.0
102.5°	0.4	0.4	0.8	0.4	0.4	0.8	0.8	0.4	0.4	0.4	0.4
105°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
107.5°	0.0	0.4	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.0	0.4
110°	0.4	0.4	0.4	0.0	0.0	0.4	0.0	0.4	0.4	0.4	0.0



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-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°	0.4	0.4	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4
120°	0.0	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.0	0.4	0.0
122.5°	0.4	0.4	0.4	0.4	0.8	0.4	0.0	0.4	0.4	0.8	0.4
125°	0.4	0.8	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
127.5°	0.0	0.4	0.4	0.4	0.4	0.0	0.4	0.0	0.0	0.0	0.0
130°	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.0	0.0
132.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.8	0.4	0.4	0.4	0.4
135°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4
137.5°	0.4	0.8	0.8	0.8	0.8	0.8	0.4	0.8	0.4	0.8	0.4
140°	0.4	0.0	0.0	0.4	0.4	0.4	0.4	0.0	0.4	0.0	0.0
142.5°	0.4	0.4	0.0	0.0	0.0	0.4	0.0	0.4	0.4	0.0	0.0
145°	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.0
147.5°	0.4	0.4	0.8	0.8	0.4	0.4	0.8	0.4	0.4	0.4	0.4
150°	0.0	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.4	0.4	0.8	0.4	0.8	0.4	0.4	0.4	0.4	0.4	0.4
155°	0.4	0.4	0.4	0.0	0.4	0.4	0.4	0.4	0.4	0.4	0.0
157.5°	0.0	0.0	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.0	0.0
160°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0
162.5°	0.4	0.4	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0	0.0
165°	0.4	0.0	0.4	0.4	0.4	0.0	0.4	0.4	0.0	0.4	0.0
167.5°	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.4	0.0	0.4	0.0
170°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0
172.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.4	0.4
175°	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
177.5°	0.4	0.4	0.4	0.8	0.0	0.4	0.4	0.4	0.0	0.4	0.0
180°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-ID-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	150°	155°	157.5°	160°	165°	170°	175°	180°
0°	109.4	109.4	109.4	109.4	109.4	109.4	109.4	109.4
2.5°	101.1	100.3	99.9	99.5	99.2	99.2	99.5	99.2
5°	94.2	93.1	92.7	92.4	92.0	91.6	92.0	91.6
7.5°	86.7	85.9	85.5	84.8	84.0	84.0	84.0	84.0
10°	79.9	78.7	78.0	77.2	76.5	76.1	76.1	76.1
12.5°	72.7	70.8	70.0	69.6	68.1	68.1	67.8	67.4
15°	65.1	63.2	62.5	61.3	60.6	59.4	59.8	59.4
17.5°	57.5	55.3	54.1	53.0	52.2	51.1	51.1	50.3
20°	49.2	46.9	45.8	44.7	43.1	42.0	42.0	41.3
22.5°	40.9	37.9	37.1	35.6	34.4	32.9	32.6	31.8
25°	32.2	29.5	28.0	26.9	25.4	23.8	23.1	23.5
27.5°	24.2	21.2	20.1	18.9	17.0	15.5	14.8	14.8
30°	15.9	12.9	11.7	11.0	9.5	8.7	7.9	8.3
32.5°	10.2	8.7	7.9	6.8	6.1	5.3	5.3	4.9
35°	6.1	4.9	4.2	3.8	2.6	2.3	1.9	1.9
37.5°	3.0	1.9	1.1	0.8	0.4	0.4	0.4	0.0
40°	1.5	0.8	0.4	0.4	0.0	0.4	0.4	0.4
42.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.4	0.0	0.0	0.0	0.0	0.4	0.0	0.0
47.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.4	0.4	0.0	0.0	0.4	0.0	0.0	0.0
52.5°	0.4	0.8	0.4	0.8	0.4	0.4	0.4	0.0
55°	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.4	0.4	0.8	0.0	0.4	0.8	0.4	0.0
62.5°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.0	0.0	0.4	0.4	0.4	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°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.0	0.4	0.4	0.4	0.4	0.0	0.0	0.0
77.5°	0.0	0.0	0.0	0.4	0.4	0.0	0.0	0.0
80°	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.0	0.4	0.0	0.0	0.4	0.0	0.4	0.0
85°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
87.5°	0.4	0.4	0.4	0.0	0.4	0.4	0.0	0.4
90°	0.4	0.4	0.4	0.4	0.4	0.0	0.0	0.4
92.5°	0.8	0.4	0.4	0.8	0.4	0.4	0.4	1.1
95°	0.4	0.4	0.4	0.8	0.8	0.4	0.4	0.8
97.5°	0.0	0.4	0.0	0.0	0.4	0.4	0.4	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.4	0.4	0.0	0.4	0.8	0.4	0.0	0.0
105°	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0
107.5°	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.4
110°	0.4	0.4	0.4	0.0	0.0	0.4	0.4	0.0



TEST NUMBER: P273384

CATALOG NUMBER: 0.03-5W-835-91-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	0.4	0.0	0.0	0.0	0.0	0.0
122.5°	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.4
125°	0.4	0.4	0.4	0.4	0.0	0.4	0.4	0.4
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°	0.4	0.0	0.0	0.0	0.4	0.4	0.0	0.0
135°	0.0	0.4	0.4	0.4	0.0	0.0	0.0	0.0
137.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	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	0.4	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.4	0.4	0.4	0.4	0.4	0.4	0.0	0.0
150°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.4	0.4	0.4	0.4	0.0	0.0	0.4	0.0
155°	0.0	0.4	0.0	0.4	0.0	0.0	0.0	0.0
157.5°	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0
160°	0.4	0.0	0.4	0.4	0.4	0.4	0.0	0.0
162.5°	0.0	0.0	0.4	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	0.4	0.0	0.0	0.0	0.0	0.4	0.0
175°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4

(END OF REPORT)