

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: P273411

Luminaire Tested: **0.05-03W-840-60-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273411
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL89169-GONIOPHOTOMETRY)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.05-03W-840-60-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 60 DEGREE OPTIC.
STANDARD OUTPUT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

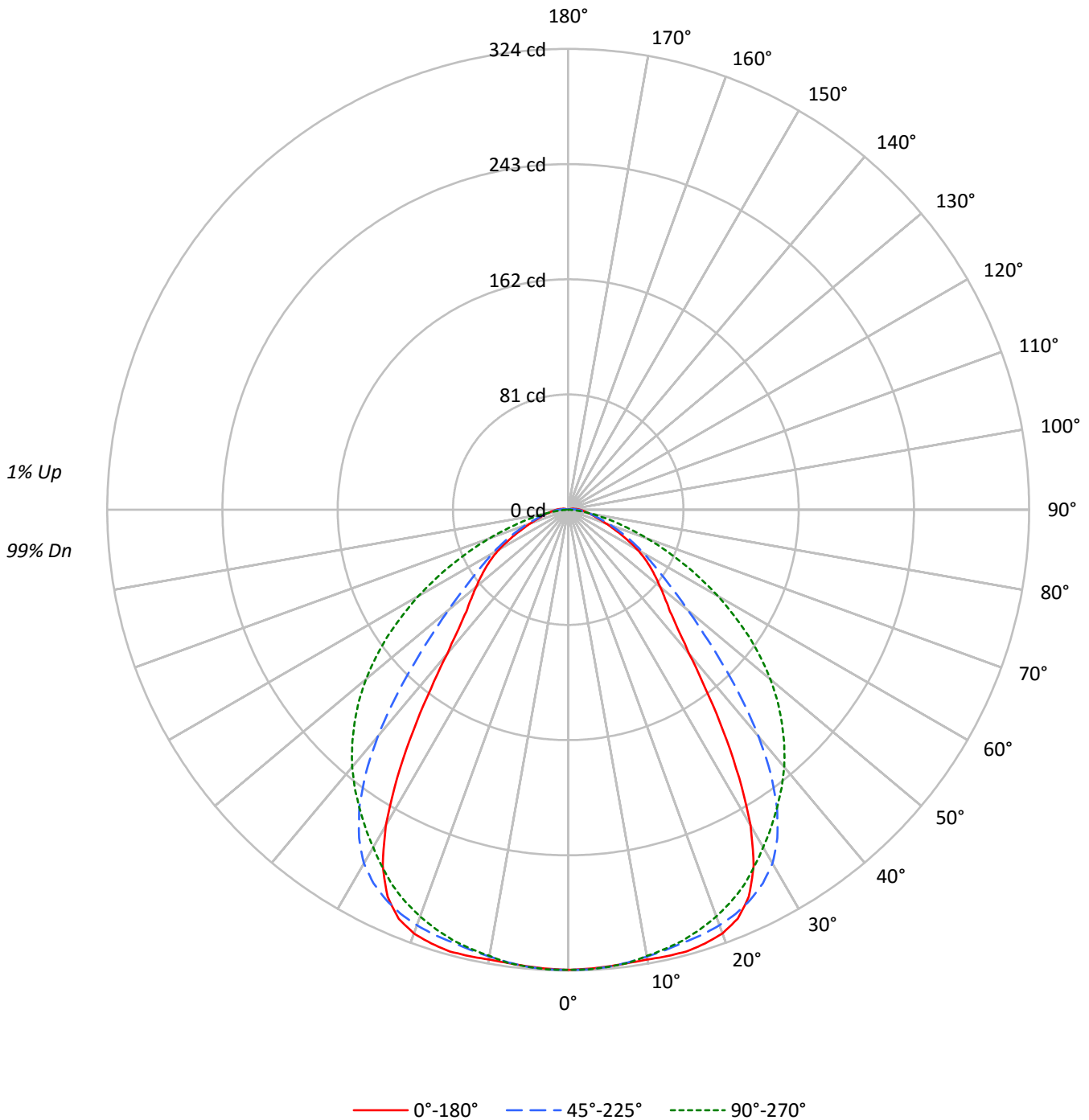
Lumens per Lamp: N/A
Luminaire Lumens: 714.0 lumens
Efficiency: N/A
Efficacy: 44.6 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 2.92' x L: 0.16' x H: 0.03')
CIE Type: Direct

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	110	106	102	99	107	104	100	97	99	96	94	95	93	91	92	90	88	86
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	64
4	86	75	68	62	84	74	67	61	72	65	60	69	64	59	67	62	59	56
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50
6	74	62	54	48	72	61	53	48	59	52	47	58	51	47	56	51	46	44
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	33
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7394	7394	7394
5°	7292	7327	7398
10°	7247	7250	7383
15°	7293	7219	7396
20°	7283	7245	7378
25°	7044	7228	7326
30°	6186	7088	7197
35°	4766	6583	7093
40°	3474	5640	6995
45°	2817	4426	6808
50°	2517	3412	6530
55°	2287	2734	6083
60°	2012	2315	5474
65°	1623	1947	4697
70°	1301	1597	3829
75°	1103	1316	2966
80°	1011	1150	2092
85°	1015	1082	1166



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	30.7	4.3
10°-20°	89.3	12.5
20°-30°	136.7	19.1
30°-40°	147.6	20.7
40°-50°	122.8	17.2
50°-60°	90.7	12.7
60°-70°	54.9	7.7
70°-80°	26.3	3.7
80°-90°	10.5	1.5
90°-100°	3.6	0.5
100°-110°	0.9	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°	256.7	35.9
0°-40°	404.3	56.6
0°-60°	617.7	86.5
0°-90°	709.5	99.4
90°-120°	4.5	0.6
90°-150°	4.5	0.6
90°-180°	5.0	0.7
0°-180°	714.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	324	324	324	324	324	
5°	322	323	323	323	323	31
15°	322	319	315	312	313	91
25°	300	302	303	294	292	136
35°	190	212	256	260	256	119
45°	101	110	153	211	212	80
55°	71	71	80	139	155	63
65°	40	42	45	68	88	41
75°	20	20	22	27	35	22
85°	11	11	10	8	5	10
90°	8	8	6	4	0	4
95°	6	5	4	1	0	4
105°	2	2	0	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°	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5
2.5°	323.1	323.1	323.1	323.1	323.1	323.1	323.2	323.3	323.4	323.5	323.5
5°	322.3	322.4	322.4	322.6	322.7	322.7	322.7	322.7	322.7	322.7	322.7
7.5°	321.5	321.5	321.5	321.5	321.5	321.4	321.3	321.2	321.1	321.1	321.1
10°	321.1	320.9	320.7	320.5	320.3	320.1	319.8	319.6	319.3	319.0	318.9
12.5°	321.5	321.1	320.7	320.4	320.0	319.5	318.9	318.2	317.6	317.0	316.7
15°	321.5	320.9	320.4	319.8	319.3	318.6	317.7	316.7	315.8	314.9	314.3
17.5°	319.8	319.4	318.9	318.5	318.0	317.3	316.3	315.3	314.3	313.3	312.2
20°	317.0	316.5	316.1	315.6	315.2	314.5	313.6	312.7	311.8	310.9	309.3
22.5°	311.3	311.0	310.7	310.5	310.2	309.8	309.2	308.7	308.1	307.6	305.8
25°	300.3	300.7	301.2	301.6	302.0	302.3	302.4	302.5	302.6	302.7	300.6
27.5°	282.3	283.8	285.2	286.7	288.1	289.6	291.3	292.9	294.5	296.2	294.0
30°	256.2	259.0	261.8	264.6	267.5	270.9	275.0	279.0	283.1	287.2	285.2
32.5°	223.6	227.6	231.7	235.8	239.9	245.5	252.5	259.6	266.7	273.7	272.8
35°	190.1	194.7	199.4	204.0	208.6	215.9	225.9	235.8	245.8	255.8	256.8
37.5°	158.3	162.5	166.8	171.1	175.3	183.7	196.2	208.8	221.2	233.8	237.6
40°	132.2	135.9	139.6	143.3	147.0	155.5	168.6	181.8	194.9	208.1	215.2
42.5°	114.2	116.8	119.3	121.9	124.4	131.7	143.9	156.0	168.2	180.3	190.8
45°	101.2	102.7	104.3	105.8	107.3	113.1	123.2	133.3	143.3	153.4	166.9
47.5°	92.2	93.0	93.8	94.6	95.5	99.6	107.0	114.5	121.9	129.3	144.7
50°	84.4	84.8	85.2	85.5	85.9	88.7	94.0	99.2	104.5	109.7	125.6
52.5°	77.1	77.4	77.6	77.9	78.2	80.0	83.3	86.7	90.1	93.4	108.6
55°	70.6	70.6	70.6	70.6	70.6	71.7	73.8	76.0	78.2	80.4	93.9
57.5°	63.6	63.6	63.5	63.4	63.3	64.0	65.4	66.9	68.3	69.8	81.1
60°	56.3	56.2	56.1	56.0	55.9	56.5	57.6	58.8	60.0	61.2	70.1
62.5°	48.1	48.2	48.3	48.4	48.5	49.0	50.1	51.0	52.1	53.0	59.8
65°	40.4	40.7	40.9	41.2	41.5	42.0	42.8	43.7	44.5	45.3	50.3
67.5°	33.5	33.7	34.0	34.3	34.6	35.0	35.8	36.5	37.2	37.9	41.7
70°	28.1	28.3	28.5	28.7	28.9	29.3	29.9	30.6	31.2	31.8	34.6
72.5°	23.7	23.7	23.8	23.9	24.0	24.3	24.8	25.2	25.7	26.1	28.1
75°	20.0	20.1	20.2	20.3	20.4	20.5	20.8	21.1	21.3	21.6	22.9
77.5°	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	18.0	18.6
80°	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.7	14.8
82.5°	12.6	12.6	12.6	12.6	12.6	12.6	12.5	12.4	12.3	12.2	12.1
85°	11.0	11.0	11.0	11.0	11.0	10.9	10.6	10.3	10.1	9.8	9.4
87.5°	9.4	9.4	9.4	9.4	9.4	9.3	9.0	8.7	8.4	8.2	7.6
90°	8.2	8.1	8.0	7.9	7.8	7.6	7.3	7.1	6.8	6.5	5.9
92.5°	6.9	6.9	6.8	6.6	6.6	6.4	6.0	5.6	5.3	4.9	4.2
95°	5.7	5.6	5.5	5.4	5.3	5.1	4.8	4.4	4.0	3.7	3.0
97.5°	4.5	4.4	4.3	4.2	4.1	3.9	3.5	3.2	2.8	2.4	2.0
100°	3.7	3.6	3.5	3.4	3.3	3.1	2.7	2.4	2.0	1.6	1.3
102.5°	2.9	2.8	2.7	2.6	2.5	2.3	1.9	1.6	1.2	0.8	0.7
105°	2.0	2.0	1.9	1.8	1.7	1.5	1.2	0.9	0.7	0.4	0.3
107.5°	1.2	1.1	1.1	0.9	0.9	0.7	0.5	0.4	0.2	0.0	0.0
110°	0.8	0.7	0.7	0.5	0.4	0.4	0.3	0.2	0.1	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	0.4	0.3	0.2	0.1	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°	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5
2.5°	323.5	323.5	323.5	323.5	323.5	323.5	323.5	323.5
5°	322.7	322.7	322.7	322.7	322.7	322.7	322.7	322.7
7.5°	321.1	321.1	321.1	321.1	321.2	321.3	321.4	321.5
10°	318.9	318.7	318.7	318.6	318.6	318.6	318.6	318.6
12.5°	316.5	316.2	315.9	315.8	315.9	316.0	316.1	316.2
15°	313.7	313.0	312.4	312.2	312.5	312.8	313.0	313.3
17.5°	311.1	310.0	308.9	308.5	308.7	308.9	309.1	309.2
20°	307.8	306.3	304.7	304.0	304.0	304.2	304.3	304.3
22.5°	304.0	302.2	300.3	299.4	299.2	299.0	298.8	298.6
25°	298.5	296.5	294.4	293.2	292.8	292.4	292.1	291.7
27.5°	291.8	289.6	287.5	286.0	285.3	284.6	283.9	283.1
30°	283.2	281.2	279.2	277.8	276.9	275.9	275.0	274.1
32.5°	271.7	270.8	269.7	268.8	267.9	267.0	266.1	265.2
35°	257.8	258.8	259.8	259.8	258.8	257.8	256.8	255.8
37.5°	241.4	245.2	249.0	250.4	249.4	248.4	247.4	246.4
40°	222.4	229.6	236.7	239.8	238.9	238.0	237.1	236.2
42.5°	201.4	211.9	222.4	227.3	226.7	226.0	225.4	224.8
45°	180.4	193.9	207.4	214.0	213.6	213.3	212.9	212.5
47.5°	160.2	175.5	191.0	198.8	199.0	199.1	199.3	199.5
50°	141.5	157.3	173.2	181.6	182.6	183.6	184.6	185.6
52.5°	123.7	138.8	154.0	162.5	164.5	166.5	168.5	170.5
55°	107.4	120.9	134.4	142.7	145.6	148.6	151.6	154.6
57.5°	92.4	103.7	115.1	122.6	126.3	130.1	133.8	137.5
60°	79.0	87.8	96.7	103.5	108.0	112.5	117.0	121.6
62.5°	66.6	73.4	80.2	86.0	90.7	95.4	100.1	104.8
65°	55.4	60.5	65.6	70.4	74.9	79.5	84.0	88.5
67.5°	45.6	49.4	53.2	57.1	61.1	65.0	69.0	73.0
70°	37.2	40.0	42.7	45.7	49.0	52.2	55.5	58.7
72.5°	30.1	32.1	34.1	36.3	38.6	41.0	43.3	45.7
75°	24.2	25.4	26.7	28.1	29.8	31.4	33.0	34.7
77.5°	19.2	19.9	20.5	21.3	22.2	23.1	24.0	24.9
80°	15.1	15.2	15.4	15.6	15.9	16.2	16.4	16.7
82.5°	11.9	11.7	11.5	11.3	11.0	10.7	10.5	10.2
85°	9.1	8.7	8.3	7.8	7.1	6.4	5.6	4.9
87.5°	7.1	6.5	6.0	5.3	4.4	3.4	2.5	1.6
90°	5.3	4.6	4.0	3.3	2.4	1.6	0.8	0.0
92.5°	3.6	3.0	2.4	1.8	1.3	0.9	0.4	0.0
95°	2.4	1.8	1.1	0.7	0.5	0.4	0.2	0.0
97.5°	1.6	1.1	0.7	0.4	0.3	0.2	0.1	0.0
100°	0.9	0.5	0.2	0.0	0.0	0.0	0.0	0.0
102.5°	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0
105°	0.2	0.1	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



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CATALOG NUMBER: 0.05-03W-840-60-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
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)