

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: P273462

Luminaire Tested: **0.05-12W-827-5-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273462  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 0.05-12W-827-5-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 5 DEGREE OPTIC.  
V2 HIGH OUTPUT  
Light Source: 2700K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

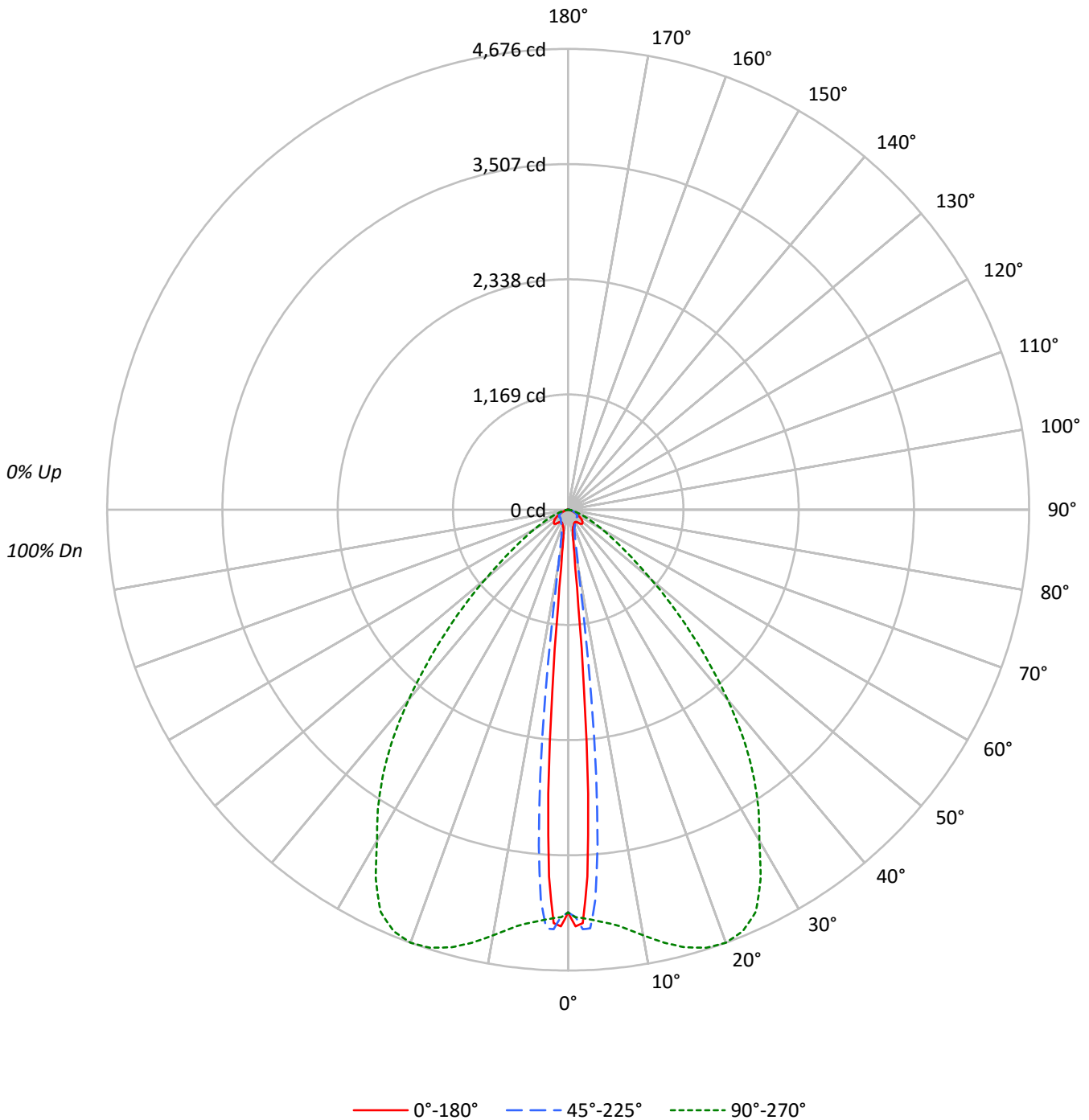
Lumens per Lamp: N/A  
Luminaire Lumens: 1660.2 lumens  
Efficiency: N/A  
Efficacy: 46.8 lumens/watt  
Spacing Criteria (0/90/45): 0.17 / 1.31 / 0.22  
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')  
CIE Type: Direct

Input Watts (W): 35.5  
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	50	30	10	50	30	10	0		
RCR																										
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100					100			
1	111	108	104	101	109	105	102	100	101	99	96	97	95	93	94	92	91	89					89			
2	104	97	92	87	101	95	91	86	92	88	84	89	85	82	86	83	81	79					79			
3	97	88	82	77	94	87	81	76	84	79	75	81	77	74	79	75	72	70					70			
4	91	81	74	69	88	80	73	68	77	72	67	75	70	66	73	69	66	64					64			
5	85	75	67	62	83	74	67	62	72	66	61	70	65	60	68	63	60	58					58			
6	80	69	62	57	78	68	61	56	67	61	56	65	60	56	64	59	55	53					53			
7	76	64	57	52	74	64	57	52	62	56	52	61	56	51	60	55	51	49					49			
8	72	60	53	49	70	60	53	48	59	53	48	57	52	48	56	51	48	46					46			
9	68	57	50	45	67	56	50	45	55	49	45	54	49	45	53	48	45	43					43			
10	65	54	47	43	64	53	47	43	52	47	43	52	46	42	51	46	42	41					41			

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

	0°	45°	90°
0°	72397	72397	72397
5°	32763	60799	74750
10°	5126	10154	78860
15°	3444	4662	84309
20°	3056	3576	88143
25°	2904	3188	88010
30°	2943	2993	79295
35°	3294	2820	70676
40°	4213	2756	58156
45°	5058	2868	43736
50°	5189	3169	30185
55°	4979	3536	20146
60°	4205	3610	14104
65°	3269	3563	9599
70°	2543	3315	6485
75°	2176	2881	4223
80°	2142	2571	2673
85°	2663	2845	1707



TEST NUMBER: P273462

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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	244.6	14.7
10°-20°	294.6	17.7
20°-30°	279.9	16.9
30°-40°	251.4	15.1
40°-50°	228.3	13.8
50°-60°	181.7	10.9
60°-70°	109.6	6.6
70°-80°	48.9	2.9
80°-90°	15.6	0.9
90°-100°	4.2	0.3
100°-110°	1.2	0.1
110°-120°	0.1	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°	819.1	49.3
0°-40°	1070.5	64.5
0°-60°	1480.5	89.2
0°-90°	1654.6	99.7
90°-120°	5.5	0.3
90°-150°	5.5	0.3
90°-180°	6.0	0.4
0°-180°	1660.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4087	4087	4087	4087	4087	
5°	1842	2315	3419	4272	4204	122
15°	188	196	254	1031	4597	55
25°	149	150	163	314	4503	69
35°	152	139	130	246	3268	99
45°	202	177	114	231	1746	151
55°	161	156	114	189	652	141
65°	78	86	85	113	229	79
75°	32	35	42	54	62	35
85°	13	13	14	15	8	12
90°	8	8	8	6	0	5
95°	6	6	5	1	0	4
105°	2	3	1	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°	4086.9	4086.9	4086.9	4086.9	4086.9	4086.9	4086.9	4086.9	4086.9	4086.9	4086.9
1°	4228.5	4158.4	4154.2	4155.6	4168.2	4175.7	4189.2	4210.7	4159.3	4131.3	4126.6
2°	4197.6	4215.4	4221.5	4232.2	4263.1	4269.6	4281.3	4288.8	4281.7	4259.3	4243.9
3°	3728.9	3805.1	3842.5	3874.7	3959.8	4000.4	4055.1	4109.3	4200.4	4252.8	4273.8
4°	2886.9	2983.2	3027.6	3082.7	3226.1	3312.6	3446.7	3589.7	3794.4	3965.9	4078.9
5°	1842.5	1936.9	1988.3	2069.1	2243.0	2386.4	2591.1	2811.2	3132.2	3419.1	3657.0
6°	993.0	1064.0	1102.3	1162.1	1297.2	1432.2	1658.4	1926.6	2299.1	2706.5	3085.5
7°	596.7	626.6	646.3	676.6	746.3	826.6	968.7	1136.9	1489.2	1916.3	2393.0
8°	433.6	442.1	453.3	469.2	500.5	540.7	616.4	709.8	916.8	1230.4	1679.4
9°	340.7	347.2	354.7	365.9	386.0	410.7	446.7	504.7	611.7	795.8	1112.6
10°	285.0	289.3	294.9	302.8	316.8	334.6	360.7	399.5	462.1	564.5	733.6
12.5°	214.0	214.5	215.9	220.1	227.1	236.0	252.3	269.6	300.0	343.0	405.1
15°	187.8	188.8	189.3	191.1	194.4	198.1	204.7	213.6	228.0	254.2	287.8
17.5°	174.8	175.2	175.2	177.1	179.4	181.8	184.1	189.7	197.2	210.7	230.8
20°	162.1	161.7	162.1	162.6	165.9	168.2	171.5	176.2	181.3	189.7	201.4
22.5°	154.7	154.2	154.2	154.2	155.1	156.1	158.4	162.1	168.7	176.6	186.4
25°	148.6	148.1	147.7	147.7	148.6	150.5	151.4	152.3	156.1	163.1	173.8
27.5°	143.5	143.9	143.0	142.1	142.5	143.5	144.9	147.7	149.1	152.3	161.2
30°	143.9	143.5	142.1	140.7	138.8	137.8	138.3	139.3	142.5	146.3	150.9
32.5°	145.8	144.9	143.0	141.1	139.7	137.4	134.1	133.2	134.1	138.8	143.9
35°	152.3	151.4	148.1	144.4	141.1	137.4	133.6	130.4	128.0	130.4	136.4
37.5°	166.4	164.5	160.3	154.2	147.2	140.7	134.1	128.0	124.8	123.4	127.1
40°	182.2	180.8	175.7	168.7	159.8	149.1	137.4	128.5	122.0	119.2	120.6
42.5°	195.8	194.9	190.2	182.7	172.9	161.2	146.3	132.7	122.4	115.9	115.4
45°	201.9	200.0	196.7	191.1	182.7	171.0	156.1	139.3	123.8	114.5	110.7
47.5°	197.2	196.3	193.9	190.2	184.1	175.7	162.1	145.8	128.0	114.5	107.0
50°	188.3	187.8	186.0	182.2	178.0	172.0	162.6	149.1	132.2	115.0	104.7
52.5°	176.6	176.2	175.7	172.4	168.7	164.0	156.5	146.3	132.2	116.4	102.8
55°	161.2	161.2	160.7	160.7	157.9	153.7	147.2	138.8	128.0	114.5	100.9
57.5°	141.6	142.5	142.1	143.0	143.9	141.6	136.4	129.9	121.0	108.9	97.2
60°	118.7	119.6	120.1	121.5	124.3	126.2	123.8	119.2	111.7	101.9	91.1
62.5°	97.7	98.6	99.1	100.9	102.8	106.5	108.4	107.0	101.9	93.9	84.1
65°	78.0	79.4	79.9	81.3	84.1	87.4	90.7	93.0	90.2	85.0	77.1
67.5°	62.1	62.1	63.6	65.4	67.8	71.0	74.3	77.6	78.0	75.2	69.2
70°	49.1	50.0	50.5	51.9	54.2	56.5	58.9	62.6	65.0	64.0	61.2
72.5°	39.3	40.2	40.7	41.6	43.0	45.3	47.2	49.5	52.3	53.3	51.9
75°	31.8	32.2	32.2	33.2	34.6	36.0	37.4	38.8	40.7	42.1	42.5
77.5°	26.2	26.2	26.2	26.2	27.6	28.0	29.4	30.4	31.3	33.2	34.6
80°	21.0	21.0	21.0	20.6	21.5	22.0	22.4	22.9	23.8	25.2	27.1
82.5°	16.4	16.4	16.4	16.4	16.8	17.3	17.3	17.3	18.2	18.7	20.6
85°	13.1	13.1	13.1	13.1	13.1	13.6	13.6	13.6	13.6	14.0	15.0
87.5°	10.3	10.3	10.3	10.3	10.7	10.7	10.7	10.7	10.7	10.7	10.7
90°	8.4	7.9	7.9	7.9	8.4	8.4	8.4	7.9	7.9	7.9	7.9
92.5°	6.5	6.5	6.5	6.5	6.5	7.5	6.5	6.5	6.5	6.5	5.6
95°	5.6	5.6	5.6	5.6	5.6	6.1	5.6	5.6	4.7	4.7	4.7



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	4.7	4.7	4.7	4.7	4.7	5.1	4.7	4.7	3.7	3.7	2.8
100°	3.7	3.7	3.7	3.7	3.7	4.2	3.7	3.7	2.8	2.8	1.9
102.5°	2.8	2.8	2.8	2.8	2.8	3.7	2.8	2.8	1.9	1.9	0.9
105°	1.9	1.9	1.9	1.9	2.8	2.8	2.8	1.9	0.9	0.9	0.0
107.5°	1.4	1.9	1.9	1.9	1.9	1.9	1.9	0.9	0.9	0.0	0.0
110°	0.9	0.9	0.9	0.9	1.4	1.9	1.4	0.9	0.5	0.0	0.0
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°	0.0	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°	4086.9	4086.9	4086.9	4086.9	4086.9	4086.9	4086.9	4086.9
1°	4124.7	4105.6	4097.2	4100.9	4100.4	4108.9	4123.3	4135.5
2°	4223.8	4187.4	4164.5	4147.6	4130.3	4124.7	4136.9	4145.8
3°	4278.9	4267.7	4248.1	4216.3	4180.8	4156.5	4157.9	4162.6
4°	4176.1	4257.0	4293.4	4278.5	4238.3	4197.2	4184.6	4181.3
5°	3887.4	4104.2	4240.2	4302.8	4288.8	4244.4	4211.7	4203.7
6°	3431.8	3808.9	4074.3	4254.6	4316.3	4289.2	4242.0	4227.1
7°	2861.7	3386.9	3807.0	4134.1	4309.3	4328.5	4277.5	4257.0
8°	2226.6	2886.4	3445.3	3943.0	4258.4	4362.6	4321.0	4298.1
9°	1594.4	2328.5	3019.6	3678.9	4160.3	4383.1	4370.1	4341.1
10°	1094.4	1762.1	2543.9	3358.9	4012.6	4377.1	4419.6	4384.1
12.5°	514.0	762.6	1344.4	2380.8	3458.9	4227.5	4514.0	4500.0
15°	344.9	447.2	680.8	1380.8	2695.8	3892.5	4550.0	4597.2
17.5°	268.2	327.6	447.2	772.0	1863.1	3424.3	4480.8	4660.7
20°	223.4	267.8	347.2	528.0	1165.9	2848.1	4304.6	4675.7
22.5°	200.5	230.4	291.6	426.2	798.6	2262.1	4039.2	4628.0
25°	186.9	207.9	257.5	369.6	639.7	1713.5	3705.1	4502.8
27.5°	174.3	193.9	235.5	334.1	566.8	1284.6	3255.1	4226.1
30°	162.6	180.8	218.7	313.5	528.5	1024.3	2767.3	3876.6
32.5°	151.9	169.6	207.0	301.4	509.3	897.7	2356.5	3592.5
35°	143.9	159.8	197.2	295.3	498.6	814.9	1964.0	3268.2
37.5°	137.4	151.9	189.3	290.7	488.3	746.7	1664.5	2915.9
40°	128.5	145.3	184.1	288.3	474.3	677.6	1410.7	2514.9
42.5°	121.0	137.4	179.4	287.8	454.7	612.1	1239.7	2120.5
45°	114.5	129.9	176.2	286.0	427.6	550.9	1093.5	1745.8
47.5°	108.4	123.4	171.5	278.5	392.5	492.1	970.1	1403.7
50°	102.8	117.3	166.4	265.9	354.2	436.0	854.7	1095.3
52.5°	98.6	110.7	159.8	248.1	312.1	385.5	739.7	843.0
55°	94.9	106.1	152.8	225.7	272.9	339.3	644.9	652.3
57.5°	90.2	100.5	144.4	200.0	237.4	294.4	548.1	508.4
60°	85.0	94.4	133.2	172.4	203.3	251.4	449.1	398.1
62.5°	78.5	87.8	120.1	144.9	170.6	209.3	347.2	302.8
65°	71.5	79.4	104.7	121.0	141.1	178.0	265.9	229.0
67.5°	64.5	71.5	89.7	102.3	116.8	148.6	197.7	172.0
70°	57.5	61.7	75.2	86.0	96.3	119.2	141.6	125.2
72.5°	50.0	52.3	61.2	71.0	76.6	92.1	100.0	88.8
75°	41.6	43.0	49.5	57.5	59.8	69.6	68.7	61.7
77.5°	34.6	34.6	38.3	44.4	46.3	49.5	45.3	41.1
80°	27.6	27.1	28.0	31.8	33.6	32.2	29.0	26.2
82.5°	21.5	21.5	21.0	22.0	22.0	20.1	17.3	15.9
85°	15.9	15.9	15.4	14.0	13.1	10.7	8.4	8.4
87.5°	11.7	11.7	10.3	8.4	7.0	4.7	2.8	2.8
90°	7.9	7.5	6.5	4.7	2.8	1.4	0.0	0.0
92.5°	5.6	4.7	3.7	2.8	0.9	0.0	0.0	0.0
95°	3.7	2.8	1.9	0.9	0.0	0.0	0.0	0.0





TEST NUMBER: P273462

CATALOG NUMBER: 0.05-12W-827-5-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	2.8	1.9	0.9	0.0	0.0	0.0	0.0	0.0
100°	0.9	0.9	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	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
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)