

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: P273468

Luminaire Tested: **0.05-12W-830-5-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273468  
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-830-5-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 5 DEGREE OPTIC.  
V2 HIGH OUTPUT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1775.6 lumens  
Efficiency: N/A  
Efficacy: 50.0 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

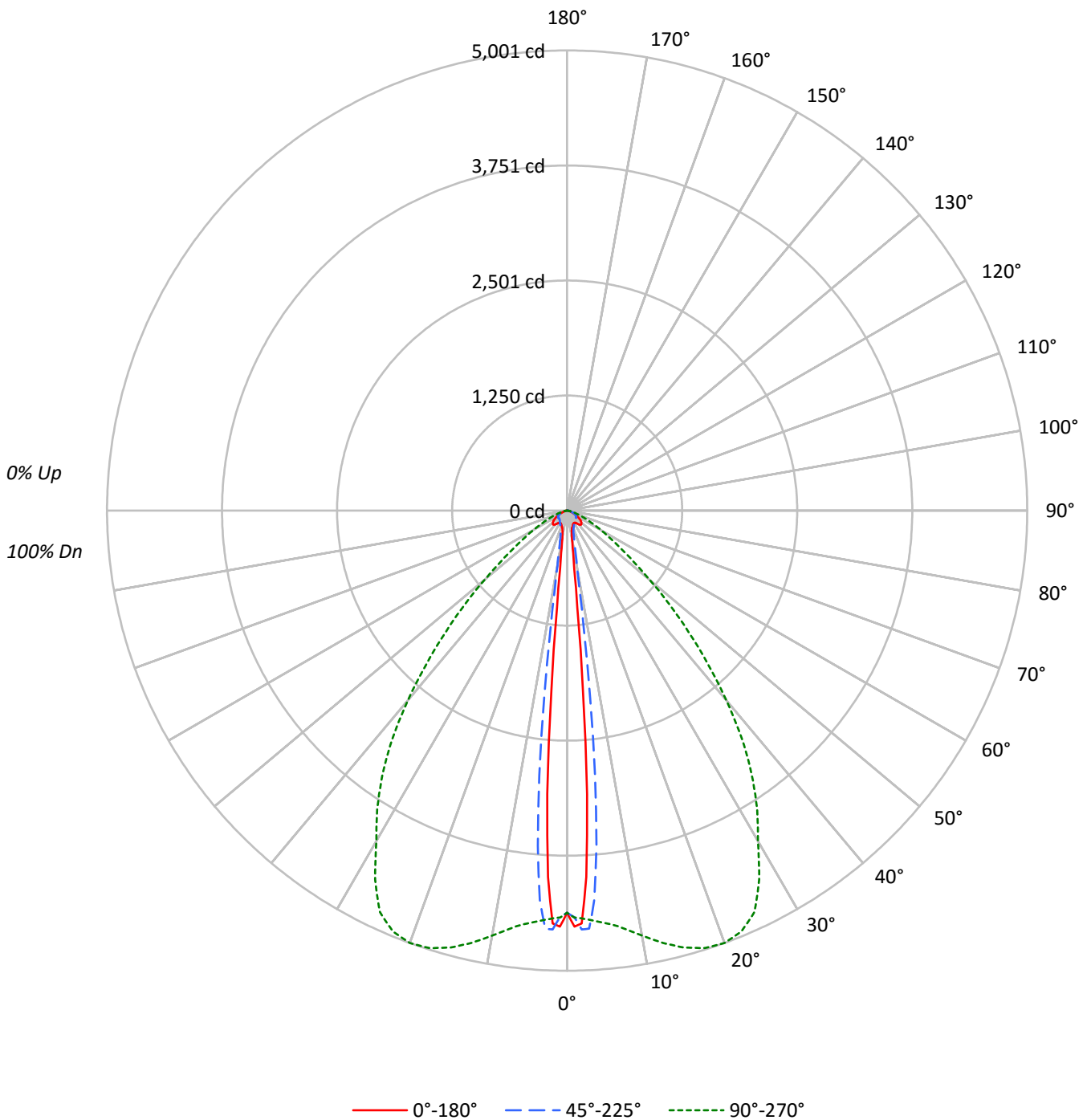
Input Watts (W): 35.5  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	77429	77429	77429
5°	35041	65025	79946
10°	5484	10859	84342
15°	3684	4986	90170
20°	3269	3825	94269
25°	3106	3409	94128
30°	3148	3199	84808
35°	3523	3015	75589
40°	4507	2946	62200
45°	5409	3066	46774
50°	5550	3387	32285
55°	5324	3780	21548
60°	4496	3862	15086
65°	3500	3814	10265
70°	2719	3548	6935
75°	2327	3080	4517
80°	2295	2754	2856
85°	2845	3049	1829



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	261.6	14.7
10°-20°	315.1	17.7
20°-30°	299.3	16.9
30°-40°	268.8	15.1
40°-50°	244.2	13.8
50°-60°	194.3	10.9
60°-70°	117.3	6.6
70°-80°	52.3	2.9
80°-90°	16.7	0.9
90°-100°	4.6	0.3
100°-110°	1.3	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°	876.0	49.3
0°-40°	1144.9	64.5
0°-60°	1583.4	89.2
0°-90°	1769.6	99.7
90°-120°	5.9	0.3
90°-150°	5.9	0.3
90°-180°	6.0	0.3
0°-180°	1775.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	4371	4371	4371	4371	4371	
5°	1971	2476	3657	4568	4496	130
15°	201	210	272	1102	4917	59
25°	159	160	174	335	4816	74
35°	163	149	139	263	3495	106
45°	216	189	122	247	1867	162
55°	172	167	122	202	698	151
65°	84	92	91	121	245	85
75°	34	38	45	57	66	37
85°	14	14	15	16	9	13
90°	9	9	8	6	0	5
95°	6	6	5	2	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°	4371.0	4371.0	4371.0	4371.0	4371.0	4371.0	4371.0	4371.0	4371.0	4371.0	4371.0
1°	4522.4	4447.5	4443.0	4444.5	4458.0	4466.0	4480.5	4503.4	4448.5	4418.5	4413.5
2°	4489.5	4508.4	4514.9	4526.4	4559.4	4566.4	4578.9	4586.9	4579.4	4555.4	4538.9
3°	3988.2	4069.6	4109.6	4144.1	4235.1	4278.5	4337.0	4395.0	4492.5	4548.4	4570.9
4°	3087.6	3190.5	3238.0	3297.0	3450.4	3542.9	3686.3	3839.2	4058.1	4241.6	4362.5
5°	1970.6	2071.6	2126.5	2213.0	2398.9	2552.3	2771.2	3006.6	3350.0	3656.8	3911.2
6°	1062.0	1138.0	1179.0	1242.9	1387.4	1531.8	1773.7	2060.6	2458.9	2894.7	3300.0
7°	638.2	670.2	691.2	723.7	798.1	884.1	1036.0	1215.9	1592.8	2049.6	2559.3
8°	463.8	472.8	484.8	501.8	535.3	578.2	659.2	759.2	980.6	1315.9	1796.2
9°	364.3	371.3	379.3	391.3	412.8	439.3	477.8	539.8	654.2	851.1	1190.0
10°	304.9	309.4	315.4	323.9	338.8	357.8	385.8	427.3	494.3	603.7	784.6
12.5°	228.9	229.4	230.9	235.4	242.9	252.4	269.9	288.4	320.9	366.8	433.3
15°	200.9	201.9	202.4	204.4	207.9	211.9	218.9	228.4	243.9	271.9	307.9
17.5°	186.9	187.4	187.4	189.4	191.9	194.4	196.9	202.9	210.9	225.4	246.9
20°	173.4	172.9	173.4	173.9	177.4	179.9	183.4	188.4	193.9	202.9	215.4
22.5°	165.4	164.9	164.9	164.9	165.9	166.9	169.4	173.4	180.4	188.9	199.4
25°	158.9	158.4	157.9	157.9	158.9	160.9	161.9	162.9	166.9	174.4	185.9
27.5°	153.4	153.9	152.9	151.9	152.4	153.4	154.9	157.9	159.4	162.9	172.4
30°	153.9	153.4	151.9	150.4	148.4	147.4	147.9	148.9	152.4	156.4	161.4
32.5°	155.9	154.9	152.9	150.9	149.4	146.9	143.4	142.4	143.4	148.4	153.9
35°	162.9	161.9	158.4	154.4	150.9	146.9	142.9	139.4	136.9	139.4	145.9
37.5°	177.9	175.9	171.4	164.9	157.4	150.4	143.4	136.9	133.4	131.9	135.9
40°	194.9	193.4	187.9	180.4	170.9	159.4	146.9	137.4	130.4	127.4	128.9
42.5°	209.4	208.4	203.4	195.4	184.9	172.4	156.4	141.9	130.9	123.9	123.4
45°	215.9	213.9	210.4	204.4	195.4	182.9	166.9	148.9	132.4	122.4	118.4
47.5°	210.9	209.9	207.4	203.4	196.9	187.9	173.4	155.9	136.9	122.4	114.4
50°	201.4	200.9	198.9	194.9	190.4	183.9	173.9	159.4	141.4	122.9	111.9
52.5°	188.9	188.4	187.9	184.4	180.4	175.4	167.4	156.4	141.4	124.4	109.9
55°	172.4	172.4	171.9	171.9	168.9	164.4	157.4	148.4	136.9	122.4	108.0
57.5°	151.4	152.4	151.9	152.9	153.9	151.4	145.9	138.9	129.4	116.4	104.0
60°	126.9	127.9	128.4	129.9	132.9	134.9	132.4	127.4	119.4	109.0	97.5
62.5°	104.5	105.5	106.0	108.0	109.9	113.9	115.9	114.4	109.0	100.5	90.0
65°	83.5	85.0	85.5	87.0	90.0	93.5	97.0	99.5	96.5	91.0	82.5
67.5°	66.5	66.5	68.0	70.0	72.5	76.0	79.5	83.0	83.5	80.5	74.0
70°	52.5	53.5	54.0	55.5	58.0	60.5	63.0	67.0	69.5	68.5	65.5
72.5°	42.0	43.0	43.5	44.5	46.0	48.5	50.5	53.0	56.0	57.0	55.5
75°	34.0	34.5	34.5	35.5	37.0	38.5	40.0	41.5	43.5	45.0	45.5
77.5°	28.0	28.0	28.0	28.0	29.5	30.0	31.5	32.5	33.5	35.5	37.0
80°	22.5	22.5	22.5	22.0	23.0	23.5	24.0	24.5	25.5	27.0	29.0
82.5°	17.5	17.5	17.5	17.5	18.0	18.5	18.5	18.5	19.5	20.0	22.0
85°	14.0	14.0	14.0	14.0	14.0	14.5	14.5	14.5	14.5	15.0	16.0
87.5°	11.0	11.0	11.0	11.0	11.5	11.5	11.5	11.5	11.5	11.5	11.5
90°	9.0	8.5	8.5	8.5	9.0	9.0	9.0	8.5	8.5	8.5	8.5
92.5°	7.0	7.0	7.0	7.0	7.0	8.0	7.0	7.0	7.0	7.0	6.0
95°	6.0	6.0	6.0	6.0	6.0	6.5	6.0	6.0	5.0	5.0	5.0



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	5.0	5.0	5.0	5.0	5.0	5.5	5.0	5.0	4.0	4.0	3.0
100°	4.0	4.0	4.0	4.0	4.0	4.5	4.0	4.0	3.0	3.0	2.0
102.5°	3.0	3.0	3.0	3.0	3.0	4.0	3.0	3.0	2.0	2.0	1.0
105°	2.0	2.0	2.0	2.0	3.0	3.0	3.0	2.0	1.0	1.0	0.0
107.5°	1.5	2.0	2.0	2.0	2.0	2.0	2.0	1.0	1.0	0.0	0.0
110°	1.0	1.0	1.0	1.0	1.5	2.0	1.5	1.0	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°	4371.0	4371.0	4371.0	4371.0	4371.0	4371.0	4371.0	4371.0
1°	4411.5	4391.0	4382.0	4386.0	4385.5	4394.5	4410.0	4423.0
2°	4517.4	4478.5	4454.0	4436.0	4417.5	4411.5	4424.5	4434.0
3°	4576.4	4564.4	4543.4	4509.4	4471.5	4445.5	4447.0	4452.0
4°	4466.5	4552.9	4591.9	4575.9	4532.9	4489.0	4475.5	4472.0
5°	4157.6	4389.5	4534.9	4601.9	4586.9	4539.4	4504.4	4495.9
6°	3670.3	4073.6	4357.5	4550.4	4616.4	4587.4	4536.9	4520.9
7°	3060.6	3622.3	4071.6	4421.5	4608.9	4629.4	4574.9	4552.9
8°	2381.4	3087.1	3684.8	4217.1	4554.4	4665.9	4621.4	4596.9
9°	1705.2	2490.4	3229.5	3934.7	4449.5	4687.9	4673.9	4642.9
10°	1170.5	1884.6	2720.8	3592.4	4291.5	4681.4	4726.8	4688.9
12.5°	549.7	815.6	1437.8	2546.3	3699.3	4521.4	4827.8	4812.8
15°	368.8	478.3	728.2	1476.8	2883.2	4163.1	4866.3	4916.8
17.5°	286.9	350.3	478.3	825.6	1992.6	3662.3	4792.3	4984.7
20°	238.9	286.4	371.3	564.7	1246.9	3046.1	4603.9	5000.7
22.5°	214.4	246.4	311.9	455.8	854.1	2419.4	4320.0	4949.7
25°	199.9	222.4	275.4	395.3	684.2	1832.7	3962.7	4815.8
27.5°	186.4	207.4	251.9	357.3	606.2	1373.9	3481.4	4519.9
30°	173.9	193.4	233.9	335.3	565.2	1095.5	2959.6	4146.1
32.5°	162.4	181.4	221.4	322.4	544.8	960.1	2520.3	3842.2
35°	153.9	170.9	210.9	315.9	533.3	871.6	2100.5	3495.4
37.5°	146.9	162.4	202.4	310.9	522.3	798.6	1780.2	3118.6
40°	137.4	155.4	196.9	308.4	507.3	724.7	1508.8	2689.8
42.5°	129.4	146.9	191.9	307.9	486.3	654.7	1325.9	2268.0
45°	122.4	138.9	188.4	305.9	457.3	589.2	1169.5	1867.1
47.5°	115.9	131.9	183.4	297.9	419.8	526.3	1037.5	1501.3
50°	109.9	125.4	177.9	284.4	378.8	466.3	914.1	1171.5
52.5°	105.5	118.4	170.9	265.4	333.8	412.3	791.1	901.6
55°	101.5	113.4	163.4	241.4	291.9	362.8	689.7	697.7
57.5°	96.5	107.5	154.4	213.9	253.9	314.9	586.2	543.8
60°	91.0	101.0	142.4	184.4	217.4	268.9	480.3	425.8
62.5°	84.0	94.0	128.4	154.9	182.4	223.9	371.3	323.9
65°	76.5	85.0	111.9	129.4	150.9	190.4	284.4	244.9
67.5°	69.0	76.5	96.0	109.5	124.9	158.9	211.4	183.9
70°	61.5	66.0	80.5	92.0	103.0	127.4	151.4	133.9
72.5°	53.5	56.0	65.5	76.0	82.0	98.5	107.0	95.0
75°	44.5	46.0	53.0	61.5	64.0	74.5	73.5	66.0
77.5°	37.0	37.0	41.0	47.5	49.5	53.0	48.5	44.0
80°	29.5	29.0	30.0	34.0	36.0	34.5	31.0	28.0
82.5°	23.0	23.0	22.5	23.5	23.5	21.5	18.5	17.0
85°	17.0	17.0	16.5	15.0	14.0	11.5	9.0	9.0
87.5°	12.5	12.5	11.0	9.0	7.5	5.0	3.0	3.0
90°	8.5	8.0	7.0	5.0	3.0	1.5	0.0	0.0
92.5°	6.0	5.0	4.0	3.0	1.0	0.0	0.0	0.0
95°	4.0	3.0	2.0	1.0	0.0	0.0	0.0	0.0





TEST NUMBER: P273468

CATALOG NUMBER: 0.05-12W-830-5-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	3.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0
100°	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.0	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)