

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: P273473

Luminaire Tested: **0.05-12W-830-90SYM-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273473  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 0.05-12W-830-90SYM-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 90 DEGREE SYMMETRIC OPTIC.  
V2 HIGH OUTPUT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2155.2 lumens  
Efficiency: N/A  
Efficacy: 61.1 lumens/watt  
Spacing Criteria (0/90/45): 1.34 / 1.29 / 1.43  
Luminous Opening: Rectangular (W 2.92' x L: 0.17' x H: 0')  
CIE Type: Direct

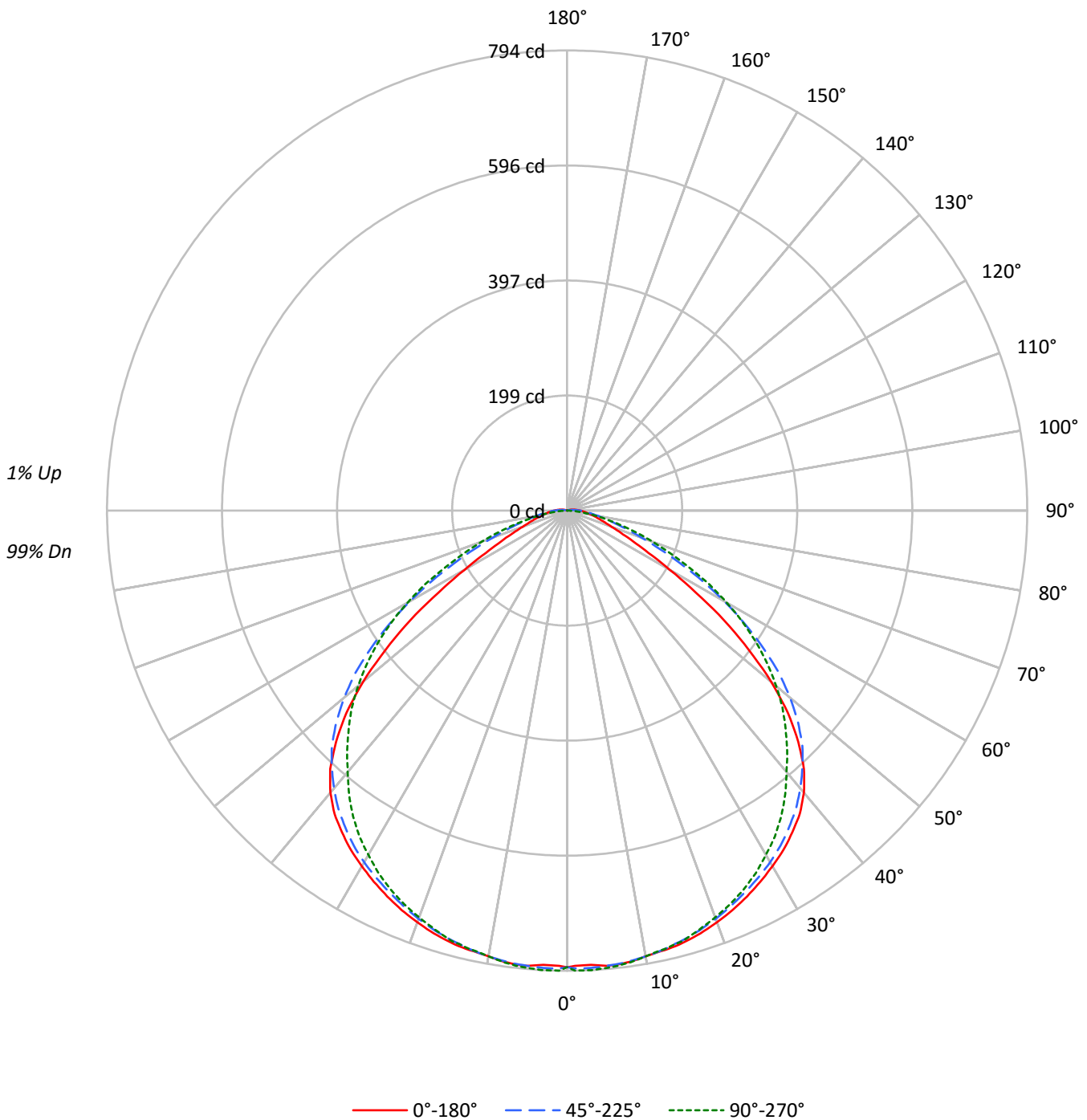
Input Watts (W): 35.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	101	101	101	99								
1	109	105	101	97	107	103	99	96	98	95	93	94	92	90	91	89	87	85								
2	100	92	86	81	98	90	85	80	87	82	78	84	79	76	80	77	74	72								
3	92	82	74	68	89	80	73	67	77	71	66	74	69	65	72	67	63	61								
4	84	73	64	58	82	71	63	57	69	62	57	66	61	56	64	59	55	53								
5	78	65	56	50	75	64	56	50	62	55	49	60	53	49	58	52	48	46								
6	72	59	50	44	70	58	50	44	56	49	43	54	48	43	53	47	42	40								
7	66	53	45	39	65	52	44	39	51	44	38	49	43	38	48	42	38	36								
8	62	49	40	35	60	48	40	34	47	39	34	45	39	34	44	38	34	32								
9	58	45	37	31	56	44	36	31	43	36	31	42	35	31	41	35	30	29								
10	54	41	33	28	53	41	33	28	40	33	28	39	32	28	38	32	28	26								

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

	0°	45°	90°
0°	17449	17449	17449
5°	17526	17526	17604
10°	17560	17560	17560
15°	17697	17606	17629
20°	17814	17661	17602
25°	17945	17750	17615
30°	18115	17911	17540
35°	18314	18043	17408
40°	18369	18095	17025
45°	17662	17975	16691
50°	15846	17293	16225
55°	12778	15925	15403
60°	9056	13884	14083
65°	6549	11239	12156
70°	5276	8870	10164
75°	4962	7315	8042
80°	5483	6950	6121
85°	8003	8765	4065



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	74.9	3.5
10°-20°	216.9	10.1
20°-30°	335.1	15.5
30°-40°	414.5	19.2
40°-50°	429.8	19.9
50°-60°	345.4	16.0
60°-70°	199.0	9.2
70°-80°	91.0	4.2
80°-90°	35.0	1.6
90°-100°	11.0	0.5
100°-110°	2.5	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°	626.9	29.1
0°-40°	1041.4	48.3
0°-60°	1816.6	84.3
0°-90°	2141.6	99.4
90°-120°	13.6	0.6
90°-150°	13.6	0.6
90°-180°	14.0	0.6
0°-180°	2155.2	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	788	788	788	788	788	
5°	788	788	788	785	792	75
15°	772	771	768	764	769	218
25°	734	732	726	718	721	339
35°	678	674	668	649	644	424
45°	564	570	574	548	533	431
55°	331	360	412	415	399	294
65°	125	146	214	250	232	130
75°	58	63	86	108	94	63
85°	32	32	34	32	16	28
90°	22	22	22	14	0	12
95°	16	14	12	4	0	12
105°	6	4	2	0	0	6
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°	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0
1°	785.5	785.0	783.5	784.0	787.5	790.5	791.5	791.0	791.5	790.0	789.5
2°	785.0	784.5	783.0	784.5	787.5	790.0	791.5	791.0	791.0	790.5	790.0
3°	785.0	785.0	783.0	785.0	787.5	789.5	790.5	790.5	790.5	790.0	789.5
4°	786.5	786.5	784.0	785.5	787.0	789.0	790.0	789.5	790.0	789.5	789.0
5°	788.5	787.0	784.5	785.5	787.5	788.5	789.5	788.5	789.0	788.5	788.5
6°	788.5	787.5	785.0	785.0	787.0	787.0	788.0	787.5	788.5	787.5	787.5
7°	787.5	786.5	784.0	784.5	785.5	786.5	787.5	787.0	787.0	786.5	786.0
8°	786.0	784.5	782.0	782.0	784.5	785.5	786.5	786.0	786.0	785.0	785.0
9°	783.5	782.0	779.0	779.5	782.0	783.5	784.5	784.5	784.0	783.0	783.0
10°	781.0	779.5	777.5	778.0	780.0	781.5	782.5	783.0	782.5	781.0	780.5
11°	779.0	778.0	775.5	776.0	779.0	780.0	780.5	781.0	780.5	779.0	779.0
12°	777.5	776.5	773.5	774.0	776.5	778.0	778.0	778.5	778.5	776.5	776.5
13°	776.0	774.5	772.0	772.5	774.0	776.5	776.5	776.5	776.5	774.0	774.5
14°	774.5	772.5	770.5	770.0	771.5	774.0	774.0	773.5	773.5	770.5	772.0
15°	772.0	771.0	769.0	769.0	770.5	771.5	771.5	771.5	770.5	768.0	770.0
17.5°	765.0	763.5	762.0	761.0	763.0	764.0	763.5	763.5	762.0	759.5	761.5
20°	756.0	754.5	753.0	752.0	753.0	753.5	753.5	753.0	751.5	749.5	750.5
22.5°	746.0	744.5	743.0	741.5	742.5	744.0	742.5	742.5	741.0	738.5	739.0
25°	734.5	733.5	732.0	730.5	732.0	732.5	731.0	731.0	729.5	726.5	726.5
27.5°	722.0	722.0	720.0	718.5	720.5	720.5	718.5	719.5	716.5	714.0	714.5
30°	708.5	708.5	706.5	705.0	706.0	706.5	704.5	704.5	702.5	700.5	699.5
32.5°	694.5	694.5	692.5	690.0	690.5	691.5	689.0	688.0	686.0	685.5	685.0
35°	677.5	677.5	675.5	673.0	673.5	673.5	671.5	670.0	668.5	667.5	666.0
37.5°	659.5	659.0	657.0	654.5	654.5	655.5	653.0	651.0	649.0	648.5	647.5
40°	635.5	635.5	633.5	632.0	632.0	632.5	631.0	629.5	627.5	626.0	624.5
42.5°	605.0	605.5	603.0	602.5	604.5	606.0	606.5	605.5	603.5	601.0	601.0
45°	564.0	566.0	564.5	565.0	568.5	572.0	573.5	575.0	575.0	574.0	572.0
47.5°	517.0	516.0	516.5	519.5	523.5	530.5	535.0	539.0	541.5	540.0	540.0
50°	460.0	460.5	461.0	466.5	471.5	481.5	489.5	495.0	499.5	502.0	501.5
52.5°	395.5	399.0	400.5	407.5	414.0	425.5	437.0	446.0	454.5	460.5	461.5
55°	331.0	330.5	336.0	344.0	354.0	367.0	381.0	392.0	404.0	412.5	418.5
57.5°	263.0	266.0	270.5	279.5	291.0	308.5	323.0	337.0	350.5	363.0	372.0
60°	204.5	206.0	211.0	218.5	229.5	245.5	265.5	282.0	296.5	313.5	324.0
62.5°	158.0	159.5	164.5	170.5	181.0	193.0	209.5	226.0	244.0	263.0	275.5
65°	125.0	125.0	128.0	133.0	140.5	151.5	164.5	179.5	196.5	214.5	228.5
67.5°	100.0	100.5	103.0	105.5	111.0	119.5	129.5	141.0	156.0	172.5	186.5
70°	81.5	82.5	84.0	85.5	89.0	95.0	102.0	111.0	122.5	137.0	150.5
72.5°	68.5	68.5	69.5	70.5	73.0	77.0	82.5	88.5	98.0	108.5	119.5
75°	58.0	58.5	58.5	59.5	61.5	64.0	67.5	71.5	77.5	85.5	94.5
77.5°	50.0	49.5	50.5	50.5	52.0	53.5	56.0	58.5	63.5	68.0	74.0
80°	43.0	42.5	43.0	43.0	44.0	45.0	46.0	48.0	51.5	54.5	58.0
82.5°	36.5	36.5	36.5	37.0	37.0	37.5	39.0	40.0	41.5	43.5	45.5
85°	31.5	31.5	31.5	31.5	32.0	32.0	32.0	33.0	33.5	34.5	35.5
87.5°	27.0	27.0	27.0	26.5	26.0	27.0	27.0	27.0	27.5	27.5	27.5



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
90°	22.5	23.0	22.0	22.0	22.0	22.0	22.0	21.5	21.5	21.5	20.5
92.5°	19.0	19.0	18.5	18.5	18.5	18.0	17.5	17.5	16.5	16.5	15.5
95°	15.5	15.5	15.5	15.0	14.5	14.5	14.0	13.5	12.5	11.5	10.5
97.5°	12.5	12.5	12.0	11.5	11.5	11.5	10.5	10.0	9.5	8.5	7.0
100°	9.5	9.5	9.5	9.5	9.0	8.5	8.0	7.5	6.5	5.5	4.5
102.5°	7.5	7.5	7.5	7.0	6.5	6.0	5.5	5.0	4.0	3.0	2.0
105°	5.5	5.5	5.5	5.0	4.5	4.0	3.5	3.0	2.5	1.5	0.5
107.5°	3.5	3.5	3.5	3.0	3.0	2.5	2.0	1.5	0.5	0.5	0.0
110°	2.0	2.0	2.0	1.5	1.5	1.5	0.5	0.5	0.0	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°	788.0	788.0	788.0	788.0	788.0	788.0	788.0	788.0
1°	786.0	784.5	785.5	785.0	787.5	792.5	793.5	794.0
2°	786.0	784.5	786.0	785.5	787.5	792.0	793.5	794.0
3°	785.5	785.0	786.0	785.5	787.0	791.5	793.5	794.0
4°	785.5	784.5	785.5	785.0	786.0	790.5	792.5	793.0
5°	785.0	784.0	785.0	784.5	785.0	790.0	791.5	792.0
6°	784.0	782.5	784.5	783.5	784.0	788.5	790.5	791.0
7°	783.0	781.0	783.0	782.5	782.5	786.5	788.5	789.0
8°	782.0	779.5	781.5	781.0	781.0	784.5	786.0	787.0
9°	780.0	776.5	779.5	779.0	779.0	782.0	783.5	784.0
10°	778.0	774.5	777.0	777.5	776.5	779.5	781.0	781.0
11°	776.0	772.0	775.0	775.0	774.5	777.5	779.0	778.0
12°	773.5	769.5	772.5	772.5	772.5	774.5	776.0	776.0
13°	770.5	767.5	770.0	769.5	770.0	772.5	774.0	774.0
14°	768.0	764.5	767.0	767.0	767.0	770.0	771.0	771.0
15°	765.5	762.0	763.5	764.0	764.5	767.5	768.5	769.0
17.5°	756.0	754.0	753.5	755.0	755.5	757.0	757.5	758.0
20°	746.5	743.0	743.5	743.5	744.0	747.0	746.5	747.0
22.5°	736.0	731.0	731.0	732.5	732.0	735.5	734.0	735.0
25°	723.5	718.5	717.0	719.5	719.0	721.5	721.0	721.0
27.5°	710.0	706.0	702.5	705.5	704.0	705.5	704.5	705.0
30°	696.5	689.5	687.5	688.5	687.0	688.5	687.0	686.0
32.5°	681.0	673.0	669.0	671.0	668.5	670.0	667.5	667.0
35°	663.0	655.5	649.0	648.5	647.0	646.0	644.5	644.0
37.5°	644.0	636.0	629.0	625.5	622.0	621.0	618.5	618.0
40°	621.5	613.5	604.0	600.5	595.5	594.0	590.0	589.0
42.5°	595.5	588.5	579.0	573.5	569.5	566.0	562.0	562.0
45°	567.5	559.5	550.0	545.5	541.5	538.0	533.5	533.0
47.5°	536.0	528.5	520.5	514.5	511.5	508.0	504.5	504.0
50°	500.5	495.0	489.0	483.0	479.0	474.5	470.5	471.0
52.5°	463.0	459.0	454.5	449.0	444.5	439.5	436.0	436.0
55°	422.0	421.0	417.5	412.5	407.5	402.5	399.0	399.0
57.5°	378.5	380.0	379.0	373.5	369.5	363.0	360.5	360.0
60°	333.5	338.0	338.0	333.5	329.5	323.0	319.5	318.0
62.5°	286.5	292.5	294.5	291.5	288.0	282.0	277.5	277.0
65°	240.0	247.5	251.5	249.0	245.0	238.0	234.0	232.0
67.5°	199.0	206.5	207.5	208.5	204.5	199.5	195.0	193.0
70°	162.0	168.5	171.5	171.0	168.0	163.0	158.5	157.0
72.5°	129.5	136.0	139.0	137.0	134.5	130.5	126.5	124.0
75°	102.5	107.0	109.5	107.5	104.5	100.0	98.0	94.0
77.5°	79.5	83.0	84.5	82.5	79.0	75.5	72.0	69.0
80°	62.0	64.0	64.5	61.0	57.5	54.0	50.0	48.0
82.5°	47.5	48.5	47.5	43.5	39.5	35.5	32.0	30.0
85°	36.5	36.0	34.0	30.0	25.5	21.5	17.5	16.0
87.5°	27.0	26.0	23.5	19.5	15.0	11.0	7.5	6.0





TEST NUMBER: P273473

CATALOG NUMBER: 0.05-12W-830-90SYM-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
90°	19.5	18.5	15.5	12.0	8.0	4.5	2.0	0.0
92.5°	14.0	12.0	9.5	6.5	3.5	1.0	0.0	0.0
95°	9.5	7.5	5.5	3.0	1.0	0.0	0.0	0.0
97.5°	5.5	4.0	2.5	0.5	0.0	0.0	0.0	0.0
100°	3.0	1.5	0.5	0.0	0.0	0.0	0.0	0.0
102.5°	1.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.5	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)