

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: P273469

Luminaire Tested: **0.05-12W-830-10-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273469  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1708-246-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: 0.05-12W-830-10-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 10 DEGREE OPTIC.  
V2 HIGH OUTPUT  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1858.6 lumens  
Efficiency: N/A  
Efficacy: 52.7 lumens/watt  
Spacing Criteria (0/90/45): 0.12 / 0.93 / 0.2  
Luminous Opening: Rectangular (W 2.92' x L: 0.21' x H: 0')  
CIE Type: Direct

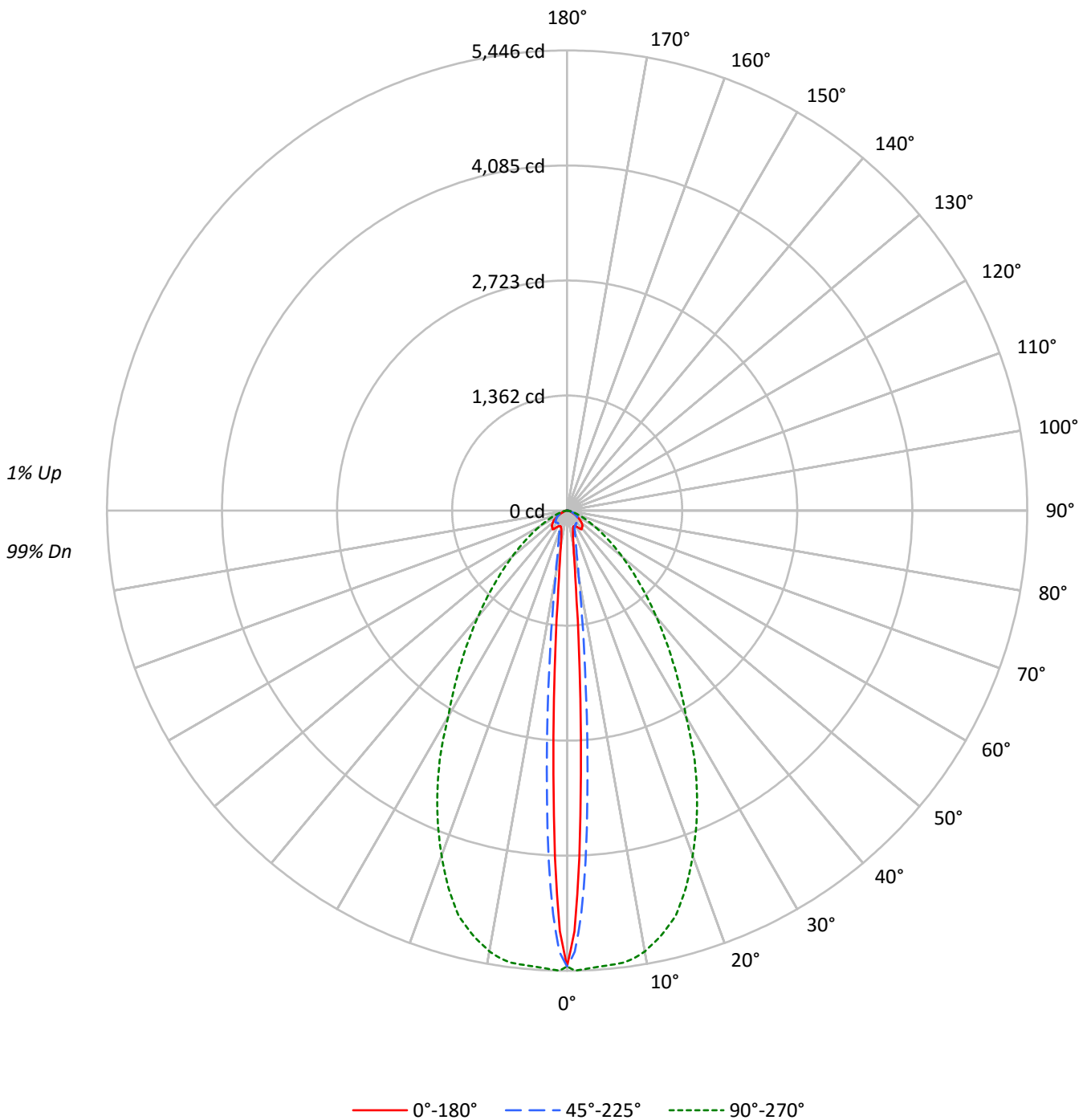
Input Watts (W): 35.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	102	102	102	99								
1	111	107	104	101	108	105	102	99	101	98	96	97	95	93	93	92	90	88								
2	103	97	91	87	101	95	90	86	91	87	84	88	85	82	85	82	80	78								
3	96	88	81	76	94	86	80	75	83	78	74	81	76	73	78	75	71	70								
4	90	80	73	68	88	79	72	67	76	71	66	74	69	65	72	68	64	63								
5	84	74	66	61	82	73	66	61	71	65	60	69	63	59	67	62	59	57								
6	79	68	61	55	77	67	60	55	66	59	55	64	58	54	62	58	54	52								
7	75	63	56	51	73	63	56	51	61	55	50	60	54	50	59	54	50	48								
8	71	59	52	47	69	59	52	47	57	51	47	56	51	47	55	50	46	45								
9	67	56	49	44	66	55	48	44	54	48	44	53	47	44	52	47	43	42								
10	64	52	46	41	63	52	46	41	51	45	41	50	45	41	49	44	41	39								

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

	0°	45°	90°
0°	95576	95576	95576
5°	27331	48602	96117
10°	7747	14075	95288
15°	4820	7156	91065
20°	3957	5048	81929
25°	3966	4191	70999
30°	4467	4007	57521
35°	5661	4020	47111
40°	6262	4299	37968
45°	6458	4908	30117
50°	6101	4806	23381
55°	5494	4784	17870
60°	4372	4549	13275
65°	3433	4229	9506
70°	2849	3807	6676
75°	2532	3388	4586
80°	2652	3213	3264
85°	3760	4065	2032



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CATALOG NUMBER: 0.05-12W-830-10-STD-UNV-AN-3F0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	250.8	13.5
10°-20°	317.3	17.1
20°-30°	307.9	16.6
30°-40°	293.4	15.8
40°-50°	270.4	14.6
50°-60°	208.5	11.2
60°-70°	123.1	6.6
70°-80°	56.5	3.0
80°-90°	21.0	1.1
90°-100°	7.2	0.4
100°-110°	2.2	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°	876.0	47.1
0°-40°	1169.4	62.9
0°-60°	1648.4	88.7
0°-90°	1848.9	99.5
90°-120°	9.6	0.5
90°-150°	9.6	0.5
90°-180°	10.0	0.5
0°-180°	1858.6	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5395	5395	5395	5395	5395	
5°	1537	1843	2733	4324	5405	122
15°	263	284	390	1262	4966	77
25°	203	201	214	505	3632	96
35°	262	226	186	346	2178	161
45°	258	235	196	325	1202	194
55°	178	179	155	275	579	157
65°	82	90	101	160	227	84
75°	37	39	50	65	67	41
85°	18	18	20	20	10	17
90°	14	13	13	9	0	7
95°	10	9	8	3	0	7
105°	4	4	2	0	0	4
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



TEST NUMBER: P273469

CATALOG NUMBER: 0.05-12W-830-10-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	5395.4	5395.4	5395.4	5395.4	5395.4	5395.4	5395.4	5395.4	5395.4	5395.4	5395.4
1°	4979.1	5021.1	4955.1	5081.1	5032.6	5071.1	5137.0	5180.5	5218.0	5222.0	5262.9
2°	4108.7	4221.6	4128.7	4311.1	4294.6	4374.5	4493.0	4590.4	4686.8	4781.8	4861.2
3°	3125.9	3252.3	3228.3	3354.7	3381.2	3496.1	3659.0	3809.9	3970.8	4159.7	4299.6
4°	2233.0	2328.4	2358.4	2424.4	2522.8	2616.7	2791.1	2978.0	3187.8	3415.7	3656.0
5°	1537.0	1615.9	1638.4	1694.4	1791.8	1893.7	2054.1	2245.5	2471.8	2733.2	3008.5
6°	1068.8	1125.7	1145.2	1188.7	1261.1	1348.6	1481.5	1646.9	1856.7	2124.1	2408.4
7°	789.5	826.9	841.4	873.4	924.9	989.8	1090.8	1222.2	1394.6	1633.9	1939.7
8°	624.6	637.1	647.6	671.5	709.0	755.0	829.4	928.4	1062.3	1260.6	1520.5
9°	504.7	516.2	524.1	542.1	569.6	603.6	659.6	735.0	837.4	973.8	1176.2
10°	430.7	437.2	443.2	456.7	476.7	502.2	543.6	599.6	679.5	782.5	965.8
12.5°	321.8	320.8	325.8	334.3	347.3	361.8	383.7	414.7	457.2	513.7	616.6
15°	262.8	263.3	266.8	272.3	279.3	287.8	301.3	321.8	348.8	390.2	447.7
17.5°	226.8	227.3	229.3	232.8	237.8	245.3	255.3	267.8	286.8	315.3	354.8
20°	209.9	209.4	210.4	212.4	215.4	219.4	224.8	231.8	245.8	267.8	298.3
22.5°	203.4	203.4	203.4	202.9	203.4	204.4	207.9	213.4	220.9	233.8	255.8
25°	202.9	203.4	202.9	201.4	201.4	200.9	200.4	201.9	205.4	214.4	228.3
27.5°	207.4	206.9	205.4	202.9	200.9	199.4	198.4	197.9	198.4	201.9	211.4
30°	218.4	217.4	214.4	209.9	205.4	200.9	196.9	194.9	194.4	195.9	199.9
32.5°	234.8	233.3	229.8	222.3	216.4	208.4	201.4	193.9	189.9	189.9	192.4
35°	261.8	258.8	253.3	244.3	231.8	220.4	209.9	198.9	190.4	185.9	186.4
37.5°	281.3	280.3	277.8	269.3	257.3	241.3	222.8	205.9	194.4	184.4	180.4
40°	270.8	269.3	265.8	261.3	257.8	254.3	239.8	218.4	200.9	185.9	177.4
42.5°	262.3	261.3	257.8	250.3	245.3	239.8	234.8	228.3	209.4	190.4	177.4
45°	257.8	256.8	253.8	247.3	239.3	230.3	221.4	214.9	209.4	195.9	178.9
47.5°	237.8	237.3	236.3	234.8	231.8	226.8	214.4	202.9	193.4	190.9	181.4
50°	221.4	221.4	220.9	217.9	214.9	210.9	207.4	196.4	182.4	174.4	173.4
52.5°	202.9	202.9	202.9	201.9	199.9	195.4	190.9	185.4	175.9	162.4	156.9
55°	177.9	178.4	179.4	179.9	180.4	177.9	175.4	168.9	163.4	154.9	143.9
57.5°	150.4	150.9	152.9	154.4	156.4	157.4	157.9	154.9	148.9	142.4	134.9
60°	123.4	123.9	125.9	128.4	131.9	134.9	137.4	138.4	134.4	128.4	123.4
62.5°	100.4	100.4	102.9	104.9	108.4	111.9	116.4	118.9	118.4	115.4	110.4
65°	81.9	82.4	83.9	85.4	87.9	91.4	96.4	100.4	102.4	100.9	97.4
67.5°	67.0	67.5	68.5	70.0	71.5	74.4	78.4	83.4	86.4	86.9	85.4
70°	55.0	55.5	56.0	57.0	58.5	60.5	63.5	68.0	71.5	73.5	73.5
72.5°	45.5	45.5	46.0	47.0	48.0	49.5	52.0	54.5	58.0	61.0	62.0
75°	37.0	37.5	38.0	38.0	39.0	39.5	41.5	43.5	46.0	49.5	51.0
77.5°	31.0	31.0	31.0	31.0	32.0	32.5	33.5	35.0	37.0	39.5	41.5
80°	26.0	26.0	26.0	26.0	26.0	26.5	27.5	28.0	29.0	31.5	33.5
82.5°	22.0	22.0	22.0	22.0	22.0	22.5	22.5	23.0	24.0	25.0	26.5
85°	18.5	18.5	18.5	18.5	18.5	18.5	19.0	19.0	19.5	20.0	20.5
87.5°	15.5	15.5	15.5	15.5	15.5	15.5	16.0	16.0	16.0	16.0	16.5
90°	13.5	13.5	13.5	13.5	13.5	13.0	13.0	13.0	13.0	13.0	13.0
92.5°	11.5	11.5	11.5	11.5	11.5	11.0	11.0	10.5	10.5	10.5	10.5
95°	9.5	9.5	9.5	9.0	9.0	9.0	9.0	8.5	8.5	8.5	7.5



TEST NUMBER: P273469

CATALOG NUMBER: 0.05-12W-830-10-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	7.5	7.5	7.5	7.5	7.5	7.5	7.0	7.0	6.5	6.5	5.5
100°	6.0	6.0	6.0	6.0	6.0	6.0	6.0	5.5	5.0	4.5	4.5
102.5°	5.0	5.0	5.0	5.0	5.0	5.0	5.0	4.0	4.0	3.5	2.5
105°	4.0	4.0	4.0	4.0	4.0	4.0	4.0	3.0	3.0	2.0	1.5
107.5°	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.0	1.5	1.0	0.0
110°	3.0	3.0	3.0	2.5	3.0	2.5	2.0	1.5	1.0	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



TEST NUMBER: P273469

CATALOG NUMBER: 0.05-12W-830-10-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5395.4	5395.4	5395.4	5395.4	5395.4	5395.4	5395.4	5395.4
1°	5247.0	5281.9	5305.4	5339.4	5345.9	5390.4	5427.3	5446.3
2°	4933.7	5046.1	5125.0	5219.0	5266.9	5347.4	5406.8	5433.3
3°	4485.0	4694.8	4854.7	5036.6	5153.0	5289.9	5381.4	5420.3
4°	3943.3	4256.1	4516.4	4800.3	5004.6	5218.5	5358.4	5411.3
5°	3373.7	3767.5	4127.7	4519.9	4827.2	5133.5	5333.4	5405.3
6°	2810.1	3265.8	3706.5	4201.2	4640.9	5031.6	5305.9	5399.3
7°	2306.4	2783.6	3278.8	3860.4	4388.5	4907.7	5265.9	5391.4
8°	1864.2	2335.4	2862.1	3507.6	4137.2	4763.8	5206.0	5371.4
9°	1504.5	1944.2	2479.3	3163.9	3870.4	4603.4	5140.0	5339.4
10°	1213.2	1605.9	2127.6	2835.1	3607.1	4435.0	5059.1	5297.4
12.5°	763.0	1020.3	1437.0	2104.6	2983.5	3986.3	4822.7	5149.5
15°	537.1	699.0	994.3	1529.0	2398.4	3530.6	4550.4	4965.6
17.5°	415.7	523.6	720.0	1137.2	1936.7	3108.9	4239.1	4676.8
20°	341.3	419.7	565.1	887.4	1580.4	2731.2	3889.9	4346.1
22.5°	290.3	350.3	465.2	724.5	1318.1	2396.4	3545.1	4001.3
25°	252.3	301.3	394.2	616.1	1143.2	2111.6	3175.9	3632.5
27.5°	228.8	264.8	345.8	541.1	1025.8	1850.2	2806.6	3244.8
30°	212.4	241.8	306.3	487.2	936.9	1597.9	2394.9	2812.1
32.5°	200.4	221.9	279.8	452.7	883.4	1400.6	2078.6	2486.3
35°	191.9	208.9	260.8	432.2	844.4	1232.2	1814.8	2178.5
37.5°	184.9	199.4	246.8	422.7	805.5	1075.3	1579.9	1897.7
40°	177.9	191.4	238.3	418.7	752.5	926.4	1378.1	1641.9
42.5°	173.4	184.4	233.3	421.7	691.5	803.5	1193.2	1411.0
45°	171.4	177.9	228.3	421.2	622.1	691.5	1025.3	1202.2
47.5°	170.4	172.4	224.3	414.7	546.1	600.6	887.9	1016.3
50°	168.9	169.4	223.3	394.7	472.2	518.1	758.0	848.4
52.5°	159.9	165.9	222.3	369.3	399.7	449.2	647.6	705.5
55°	143.4	159.4	220.9	329.3	337.3	387.7	544.6	578.6
57.5°	129.9	145.4	215.4	286.3	285.3	333.8	451.7	468.7
60°	119.9	131.9	200.4	243.8	238.8	284.3	365.8	374.7
62.5°	109.4	120.9	178.4	203.9	200.9	235.8	289.3	289.8
65°	96.9	110.4	153.4	166.4	168.9	196.4	227.8	226.8
67.5°	85.4	97.4	128.4	134.4	141.4	159.9	176.9	172.9
70°	74.0	82.9	103.9	108.4	115.9	128.4	133.4	128.9
72.5°	63.0	69.5	81.9	86.4	92.4	98.9	98.9	93.9
75°	53.0	56.5	63.0	67.0	72.0	74.0	71.0	67.0
77.5°	43.5	45.5	48.0	50.5	53.5	52.0	49.5	47.0
80°	35.5	36.5	36.5	37.5	37.5	36.0	32.5	32.0
82.5°	28.5	29.5	28.0	26.5	25.0	22.5	20.5	19.0
85°	22.5	22.5	21.0	18.5	15.5	13.0	11.0	10.0
87.5°	17.0	17.0	15.0	12.5	9.0	6.5	4.5	4.0
90°	13.0	13.0	10.5	8.0	5.0	2.5	1.0	0.0
92.5°	10.0	9.0	7.0	4.5	2.0	1.0	0.0	0.0
95°	7.5	6.5	4.0	2.0	1.0	0.0	0.0	0.0





TEST NUMBER: P273469

CATALOG NUMBER: 0.05-12W-830-10-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	5.0	4.0	2.0	1.0	0.0	0.0	0.0	0.0
100°	3.0	2.0	1.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.5	1.0	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)