

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: P273475

Luminaire Tested: **0.05-12W-835-10-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P273475  
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-835-10-STD-UNV-AN-3F0  
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 10 DEGREE OPTIC.  
V2 HIGH OUTPUT  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1932.8 lumens  
Efficiency: N/A  
Efficacy: 54.8 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

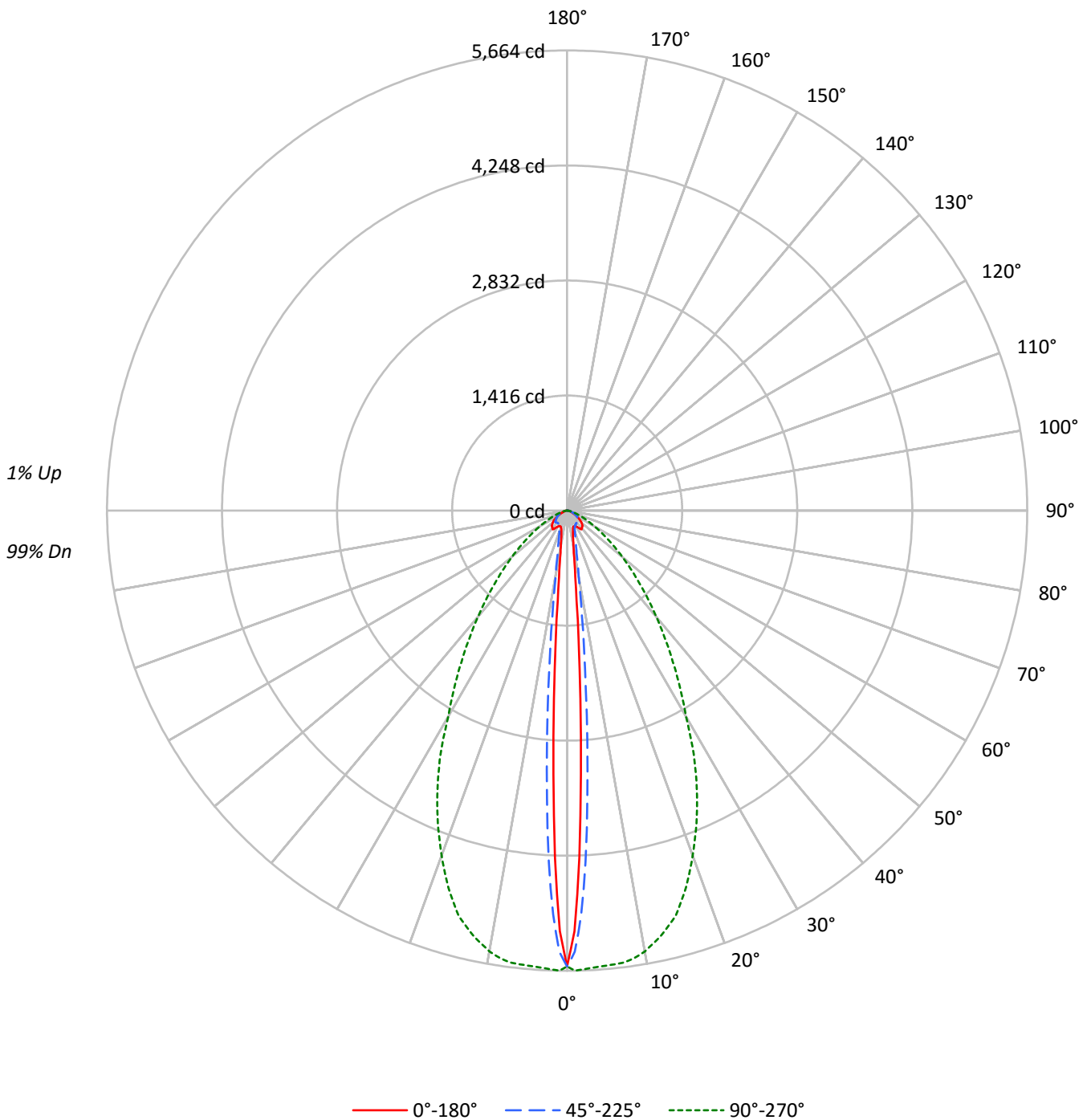
Input Watts (W): 35.3  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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	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°	99399	99399	99399
5°	28423	50545	99963
10°	8057	14638	99099
15°	5012	7442	94709
20°	4115	5250	85206
25°	4124	4357	73839
30°	4645	4167	59822
35°	5889	4180	48996
40°	6512	4470	39487
45°	6716	5103	31322
50°	6344	4999	24318
55°	5714	4975	18586
60°	4549	4730	13807
65°	3571	4401	9888
70°	2963	3957	6945
75°	2635	3518	4764
80°	2754	3336	3397
85°	3902	4228	2114



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**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	260.8	13.5
10°-20°	330.0	17.1
20°-30°	320.2	16.6
30°-40°	305.2	15.8
40°-50°	281.3	14.6
50°-60°	216.8	11.2
60°-70°	128.0	6.6
70°-80°	58.8	3.0
80°-90°	21.8	1.1
90°-100°	7.5	0.4
100°-110°	2.3	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°	911.0	47.1
0°-40°	1216.2	62.9
0°-60°	1714.3	88.7
0°-90°	1922.8	99.5
90°-120°	10.0	0.5
90°-150°	10.0	0.5
90°-180°	10.0	0.5
0°-180°	1932.8	100.0

**CANDELA DISTRIBUTION:**

	0°	22.5°	45°	67.5°	90°	Flux
0°	5611	5611	5611	5611	5611	
5°	1598	1916	2842	4497	5622	127
15°	273	295	406	1312	5164	80
25°	211	209	223	525	3778	100
35°	272	235	193	360	2266	168
45°	268	244	204	338	1250	202
55°	185	186	161	286	602	163
65°	85	93	105	166	236	87
75°	38	41	51	68	70	42
85°	19	19	21	20	10	17
90°	14	14	14	10	0	8
95°	10	9	9	3	0	7
105°	4	4	2	0	0	5
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°	5611.2	5611.2	5611.2	5611.2	5611.2	5611.2	5611.2	5611.2	5611.2	5611.2	5611.2
1°	5178.3	5221.9	5153.4	5284.3	5233.9	5273.9	5342.5	5387.7	5426.7	5430.8	5473.5
2°	4273.1	4390.5	4293.9	4483.5	4466.4	4549.5	4672.7	4774.0	4874.3	4973.0	5055.7
3°	3250.9	3382.4	3357.5	3488.9	3516.5	3636.0	3805.4	3962.3	4129.6	4326.1	4471.6
4°	2322.3	2421.6	2452.7	2521.3	2623.7	2721.4	2902.8	3097.1	3315.4	3552.3	3802.3
5°	1598.4	1680.5	1703.9	1762.1	1863.5	1969.5	2136.3	2335.3	2570.7	2842.5	3128.8
6°	1111.5	1170.8	1191.0	1236.2	1311.6	1402.5	1540.8	1712.8	1931.0	2209.0	2504.7
7°	821.0	860.0	875.1	908.3	961.9	1029.4	1134.4	1271.1	1450.3	1699.3	2017.3
8°	649.6	662.6	673.5	698.4	737.4	785.2	862.6	965.5	1104.8	1311.1	1581.3
9°	524.8	536.8	545.1	563.8	592.4	627.7	685.9	764.4	870.9	1012.8	1223.3
10°	447.9	454.7	460.9	475.0	495.7	522.2	565.4	623.6	706.7	813.8	1004.5
12.5°	334.7	333.6	338.8	347.6	361.2	376.2	399.1	431.3	475.5	534.2	641.2
15°	273.3	273.9	277.5	283.2	290.5	299.3	313.3	334.7	362.7	405.8	465.6
17.5°	235.9	236.4	238.5	242.2	247.4	255.1	265.5	278.5	298.3	327.9	369.0
20°	218.3	217.7	218.8	220.9	224.0	228.1	233.8	241.1	255.7	278.5	310.2
22.5°	211.5	211.5	211.5	211.0	211.5	212.5	216.2	221.9	229.7	243.2	266.1
25°	211.0	211.5	211.0	209.4	209.4	208.9	208.4	209.9	213.6	222.9	237.5
27.5°	215.7	215.1	213.6	211.0	208.9	207.3	206.3	205.8	206.3	209.9	219.8
30°	227.1	226.0	222.9	218.3	213.6	208.9	204.7	202.7	202.1	203.7	207.9
32.5°	244.2	242.7	239.0	231.2	225.0	216.7	209.4	201.6	197.5	197.5	200.1
35°	272.3	269.2	263.5	254.1	241.1	229.2	218.3	206.8	198.0	193.3	193.8
37.5°	292.6	291.5	288.9	280.1	267.6	251.0	231.8	214.1	202.1	191.8	187.6
40°	281.6	280.1	276.5	271.8	268.1	264.5	249.4	227.1	208.9	193.3	184.5
42.5°	272.8	271.8	268.1	260.3	255.1	249.4	244.2	237.5	217.7	198.0	184.5
45°	268.1	267.1	264.0	257.2	248.9	239.6	230.2	223.4	217.7	203.7	186.0
47.5°	247.4	246.8	245.8	244.2	241.1	235.9	222.9	211.0	201.1	198.5	188.6
50°	230.2	230.2	229.7	226.6	223.4	219.3	215.7	204.2	189.7	181.4	180.3
52.5°	211.0	211.0	211.0	209.9	207.9	203.2	198.5	192.8	182.9	168.9	163.2
55°	185.0	185.5	186.6	187.1	187.6	185.0	182.4	175.6	169.9	161.1	149.7
57.5°	156.4	156.9	159.0	160.6	162.7	163.7	164.2	161.1	154.9	148.1	140.3
60°	128.4	128.9	131.0	133.5	137.2	140.3	142.9	143.9	139.8	133.5	128.4
62.5°	104.4	104.4	107.0	109.1	112.8	116.4	121.1	123.7	123.2	120.0	114.8
65°	85.2	85.7	87.3	88.9	91.5	95.1	100.3	104.4	106.5	105.0	101.3
67.5°	69.6	70.2	71.2	72.8	74.3	77.4	81.6	86.8	89.9	90.4	88.9
70°	57.2	57.7	58.2	59.2	60.8	62.9	66.0	70.7	74.3	76.4	76.4
72.5°	47.3	47.3	47.8	48.8	49.9	51.4	54.0	56.6	60.3	63.4	64.4
75°	38.5	39.0	39.5	39.5	40.5	41.1	43.1	45.2	47.8	51.4	53.0
77.5°	32.2	32.2	32.2	32.2	33.3	33.8	34.8	36.4	38.5	41.1	43.1
80°	27.0	27.0	27.0	27.0	27.0	27.5	28.6	29.1	30.1	32.7	34.8
82.5°	22.9	22.9	22.9	22.9	22.9	23.4	23.4	23.9	24.9	26.0	27.5
85°	19.2	19.2	19.2	19.2	19.2	19.2	19.7	19.7	20.3	20.8	21.3
87.5°	16.1	16.1	16.1	16.1	16.1	16.1	16.6	16.6	16.6	16.6	17.1
90°	14.0	14.0	14.0	14.0	14.0	13.5	13.5	13.5	13.5	13.5	13.5
92.5°	12.0	12.0	12.0	12.0	12.0	11.4	11.4	10.9	10.9	10.9	10.9
95°	9.9	9.9	9.9	9.4	9.4	9.4	9.4	8.8	8.8	8.8	7.8



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	7.8	7.8	7.8	7.8	7.8	7.8	7.3	7.3	6.8	6.8	5.7
100°	6.2	6.2	6.2	6.2	6.2	6.2	6.2	5.7	5.2	4.7	4.7
102.5°	5.2	5.2	5.2	5.2	5.2	5.2	5.2	4.2	4.2	3.6	2.6
105°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.1	3.1	2.1	1.6
107.5°	3.1	3.1	3.1	3.1	3.1	3.1	3.1	2.1	1.6	1.0	0.0
110°	3.1	3.1	3.1	2.6	3.1	2.6	2.1	1.6	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



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**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
0°	5611.2	5611.2	5611.2	5611.2	5611.2	5611.2	5611.2	5611.2
1°	5456.8	5493.2	5517.6	5553.0	5559.7	5606.0	5644.4	5664.2
2°	5131.0	5247.9	5330.0	5427.7	5477.6	5561.3	5623.1	5650.7
3°	4664.4	4882.6	5048.9	5238.1	5359.1	5501.5	5596.6	5637.1
4°	4101.1	4426.4	4697.1	4992.3	5204.8	5427.2	5572.7	5627.8
5°	3508.7	3918.2	4292.8	4700.7	5020.3	5338.9	5546.7	5621.6
6°	2922.5	3396.4	3854.8	4369.2	4826.5	5232.9	5518.1	5615.3
7°	2398.7	2895.0	3409.9	4014.8	4564.1	5104.0	5476.6	5607.0
8°	1938.8	2428.8	2976.5	3647.9	4302.7	4954.3	5414.2	5586.2
9°	1564.7	2022.0	2578.5	3290.4	4025.2	4787.5	5345.6	5553.0
10°	1261.7	1670.2	2212.7	2948.5	3751.3	4612.4	5261.4	5509.3
12.5°	793.5	1061.1	1494.5	2188.8	3102.8	4145.8	5015.6	5355.5
15°	558.6	727.0	1034.1	1590.1	2494.3	3671.8	4732.4	5164.3
17.5°	432.3	544.6	748.8	1182.7	2014.2	3233.3	4408.7	4863.9
20°	354.9	436.5	587.7	922.9	1643.6	2840.4	4045.5	4519.9
22.5°	301.9	364.3	483.8	753.5	1370.8	2492.2	3686.9	4161.3
25°	262.4	313.3	410.0	640.7	1189.0	2196.0	3302.9	3777.8
27.5°	238.0	275.4	359.6	562.8	1066.8	1924.3	2918.9	3374.6
30°	220.9	251.5	318.5	506.7	974.3	1661.8	2490.7	2924.6
32.5°	208.4	230.7	291.0	470.8	918.7	1456.6	2161.7	2585.8
35°	199.5	217.2	271.3	449.5	878.2	1281.5	1887.4	2265.7
37.5°	192.3	207.3	256.7	439.6	837.7	1118.3	1643.1	1973.6
40°	185.0	199.0	247.9	435.5	782.6	963.4	1433.2	1707.6
42.5°	180.3	191.8	242.7	438.6	719.2	835.6	1240.9	1467.5
45°	178.2	185.0	237.5	438.1	647.0	719.2	1066.3	1250.3
47.5°	177.2	179.3	233.3	431.3	568.0	624.6	923.4	1057.0
50°	175.6	176.2	232.3	410.5	491.1	538.9	788.3	882.4
52.5°	166.3	172.5	231.2	384.0	415.7	467.2	673.5	733.7
55°	149.1	165.8	229.7	342.4	350.8	403.2	566.4	601.8
57.5°	135.1	151.2	224.0	297.8	296.7	347.1	469.8	487.4
60°	124.7	137.2	208.4	253.6	248.4	295.7	380.4	389.7
62.5°	113.8	125.8	185.5	212.0	208.9	245.3	300.9	301.4
65°	100.8	114.8	159.5	173.0	175.6	204.2	237.0	235.9
67.5°	88.9	101.3	133.5	139.8	147.1	166.3	184.0	179.8
70°	76.9	86.3	108.1	112.8	120.6	133.5	138.7	134.1
72.5°	65.5	72.2	85.2	89.9	96.1	102.9	102.9	97.7
75°	55.1	58.7	65.5	69.6	74.8	76.9	73.8	69.6
77.5°	45.2	47.3	49.9	52.5	55.6	54.0	51.4	48.8
80°	36.9	37.9	37.9	39.0	39.0	37.4	33.8	33.3
82.5°	29.6	30.7	29.1	27.5	26.0	23.4	21.3	19.7
85°	23.4	23.4	21.8	19.2	16.1	13.5	11.4	10.4
87.5°	17.7	17.7	15.6	13.0	9.4	6.8	4.7	4.2
90°	13.5	13.5	10.9	8.3	5.2	2.6	1.0	0.0
92.5°	10.4	9.4	7.3	4.7	2.1	1.0	0.0	0.0
95°	7.8	6.8	4.2	2.1	1.0	0.0	0.0	0.0





TEST NUMBER: P273475

CATALOG NUMBER: 0.05-12W-835-10-STD-UNV-AN-3F0

**CANDELA DISTRIBUTION (continued):**

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	5.2	4.2	2.1	1.0	0.0	0.0	0.0	0.0
100°	3.1	2.1	1.0	0.0	0.0	0.0	0.0	0.0
102.5°	1.6	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)