

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: P273481

Luminaire Tested: **0.05-12W-840-10-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273481
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-840-10-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 10 DEGREE OPTIC.
V2 HIGH OUTPUT
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1970.0 lumens
Efficiency: N/A
Efficacy: 55.8 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

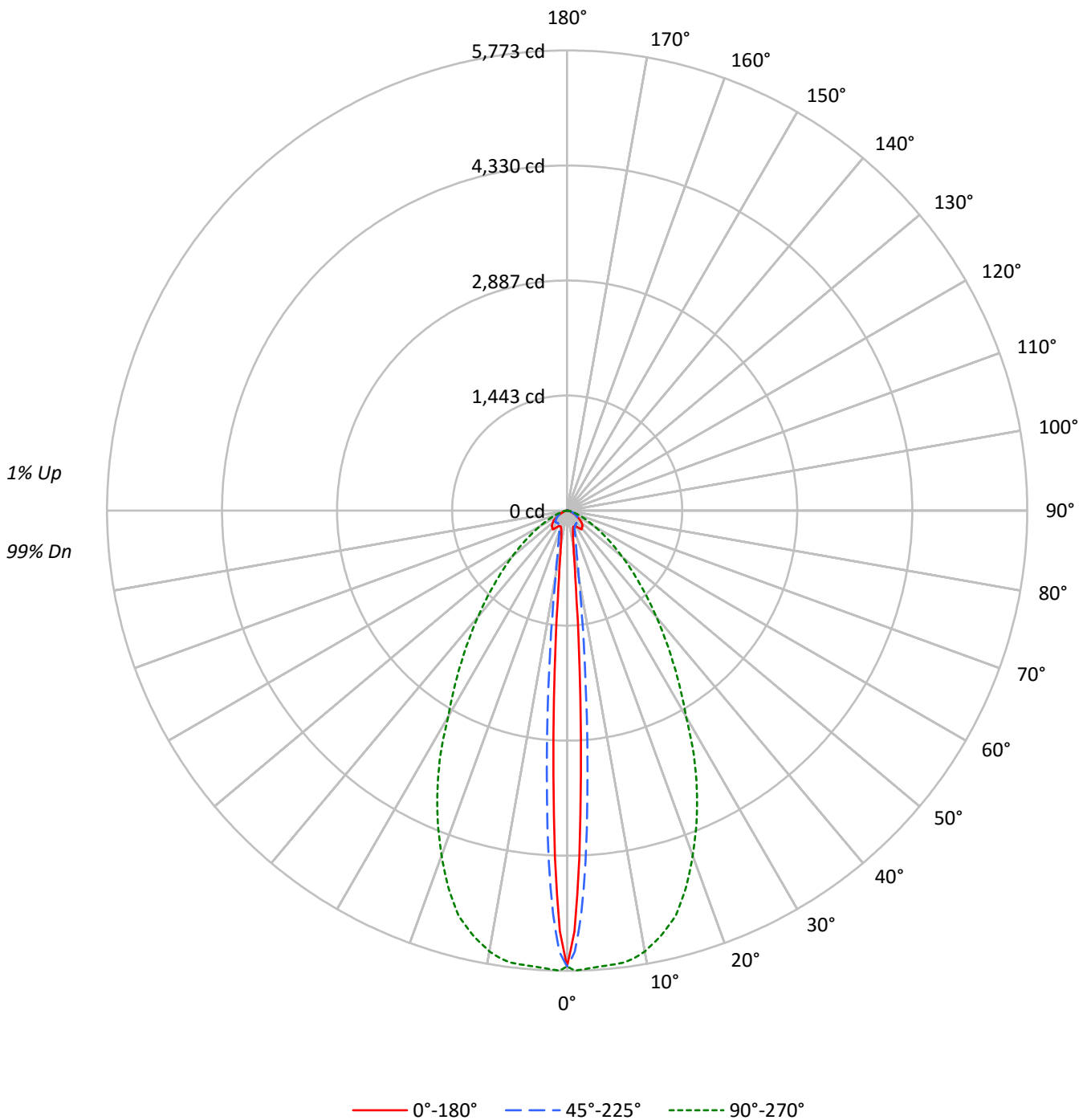
Input Watts (W): 35.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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°	101310	101310	101310
5°	28970	51516	101886
10°	8213	14919	101006
15°	5109	7587	96530
20°	4193	5352	86844
25°	4202	4441	75260
30°	4735	4246	60972
35°	6001	4260	49937
40°	6639	4556	40246
45°	6847	5201	31924
50°	6465	5093	24783
55°	5825	5071	18941
60°	4634	4822	14072
65°	3642	4485	10081
70°	3020	4035	7075
75°	2683	3586	4859
80°	2805	3407	3458
85°	3984	4309	2154



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	265.9	13.5
10°-20°	336.3	17.1
20°-30°	326.4	16.6
30°-40°	311.0	15.8
40°-50°	286.7	14.6
50°-60°	221.0	11.2
60°-70°	130.5	6.6
70°-80°	59.9	3.0
80°-90°	22.2	1.1
90°-100°	7.7	0.4
100°-110°	2.4	0.1
110°-120°	0.2	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°	928.5	47.1
0°-40°	1239.6	62.9
0°-60°	1747.2	88.7
0°-90°	1959.8	99.5
90°-120°	10.2	0.5
90°-150°	10.2	0.5
90°-180°	10.0	0.5
0°-180°	1970.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	5719	5719	5719	5719	5719	
5°	1629	1953	2897	4583	5730	130
15°	279	301	414	1337	5264	82
25°	215	213	227	535	3850	102
35°	278	240	197	367	2309	171
45°	273	249	208	344	1274	206
55°	189	190	164	292	613	166
65°	87	95	107	170	240	89
75°	39	42	52	69	71	43
85°	20	20	21	21	11	18
90°	14	14	14	10	0	8
95°	10	10	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°	5719.1	5719.1	5719.1	5719.1	5719.1	5719.1	5719.1	5719.1	5719.1	5719.1	5719.1
1°	5277.9	5322.4	5252.5	5385.9	5334.6	5375.3	5445.2	5491.3	5531.1	5535.3	5578.7
2°	4355.2	4474.9	4376.4	4569.8	4552.3	4637.0	4762.5	4865.8	4968.0	5068.7	5152.9
3°	3313.4	3447.4	3422.0	3556.0	3584.1	3705.9	3878.6	4038.5	4209.1	4409.3	4557.6
4°	2367.0	2468.1	2499.9	2569.8	2674.2	2773.7	2958.6	3156.7	3379.1	3620.6	3875.4
5°	1629.2	1712.9	1736.7	1796.0	1899.3	2007.3	2177.4	2380.2	2620.1	2897.1	3189.0
6°	1132.9	1193.3	1213.9	1260.0	1336.8	1429.5	1570.4	1745.7	1968.1	2251.5	2552.9
7°	836.8	876.6	891.9	925.8	980.4	1049.2	1156.2	1295.5	1478.2	1731.9	2056.1
8°	662.1	675.3	686.4	711.8	751.6	800.3	879.2	984.1	1126.0	1336.3	1611.7
9°	534.9	547.1	555.6	574.7	603.8	639.8	699.1	779.1	887.7	1032.3	1246.8
10°	456.6	463.4	469.8	484.1	505.3	532.3	576.3	635.6	720.3	829.4	1023.8
12.5°	341.1	340.0	345.3	354.3	368.1	383.5	406.8	439.6	484.6	544.5	653.6
15°	278.6	279.1	282.8	288.7	296.1	305.1	319.4	341.1	369.7	413.7	474.6
17.5°	240.5	241.0	243.1	246.8	252.1	260.1	270.6	283.9	304.0	334.2	376.0
20°	222.4	221.9	223.0	225.1	228.3	232.5	238.3	245.8	260.6	283.9	316.2
22.5°	215.6	215.6	215.6	215.0	215.6	216.6	220.3	226.2	234.1	247.9	271.2
25°	215.0	215.6	215.0	213.4	213.4	212.9	212.4	214.0	217.7	227.2	242.0
27.5°	219.8	219.3	217.7	215.0	212.9	211.3	210.3	209.7	210.3	214.0	224.0
30°	231.5	230.4	227.2	222.4	217.7	212.9	208.7	206.6	206.0	207.6	211.9
32.5°	248.9	247.3	243.6	235.7	229.3	220.9	213.4	205.5	201.3	201.3	203.9
35°	277.5	274.4	268.5	259.0	245.8	233.6	222.4	210.8	201.8	197.0	197.6
37.5°	298.2	297.1	294.5	285.5	272.8	255.8	236.2	218.2	206.0	195.4	191.2
40°	287.1	285.5	281.8	277.0	273.3	269.6	254.2	231.5	212.9	197.0	188.0
42.5°	278.1	277.0	273.3	265.4	260.1	254.2	248.9	242.0	221.9	201.8	188.0
45°	273.3	272.2	269.1	262.2	253.7	244.2	234.6	227.7	221.9	207.6	189.6
47.5°	252.1	251.6	250.5	248.9	245.8	240.5	227.2	215.0	205.0	202.3	192.3
50°	234.6	234.6	234.1	230.9	227.7	223.5	219.8	208.1	193.3	184.8	183.8
52.5°	215.0	215.0	215.0	214.0	211.9	207.1	202.3	196.5	186.4	172.1	166.3
55°	188.6	189.1	190.1	190.7	191.2	188.6	185.9	179.0	173.2	164.2	152.5
57.5°	159.4	160.0	162.1	163.7	165.8	166.8	167.4	164.2	157.8	150.9	143.0
60°	130.8	131.4	133.5	136.1	139.8	143.0	145.7	146.7	142.5	136.1	130.8
62.5°	106.5	106.5	109.1	111.2	114.9	118.6	123.4	126.1	125.5	122.3	117.1
65°	86.9	87.4	89.0	90.6	93.2	96.9	102.2	106.5	108.6	107.0	103.3
67.5°	71.0	71.5	72.6	74.1	75.7	78.9	83.2	88.5	91.6	92.2	90.6
70°	58.3	58.8	59.3	60.4	62.0	64.1	67.3	72.0	75.7	77.9	77.9
72.5°	48.2	48.2	48.7	49.8	50.8	52.4	55.1	57.7	61.4	64.6	65.7
75°	39.2	39.7	40.3	40.3	41.3	41.8	44.0	46.1	48.7	52.4	54.0
77.5°	32.8	32.8	32.8	32.8	33.9	34.4	35.5	37.1	39.2	41.8	44.0
80°	27.5	27.5	27.5	27.5	27.5	28.1	29.1	29.7	30.7	33.4	35.5
82.5°	23.3	23.3	23.3	23.3	23.3	23.8	23.8	24.4	25.4	26.5	28.1
85°	19.6	19.6	19.6	19.6	19.6	19.6	20.1	20.1	20.7	21.2	21.7
87.5°	16.4	16.4	16.4	16.4	16.4	16.4	16.9	16.9	16.9	16.9	17.5
90°	14.3	14.3	14.3	14.3	14.3	13.8	13.8	13.8	13.8	13.8	13.8
92.5°	12.2	12.2	12.2	12.2	12.2	11.7	11.7	11.1	11.1	11.1	11.1
95°	10.1	10.1	10.1	9.5	9.5	9.5	9.5	9.0	9.0	9.0	7.9



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CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	7.9	7.9	7.9	7.9	7.9	7.9	7.4	7.4	6.9	6.9	5.8
100°	6.4	6.4	6.4	6.4	6.4	6.4	6.4	5.8	5.3	4.8	4.8
102.5°	5.3	5.3	5.3	5.3	5.3	5.3	5.3	4.2	4.2	3.7	2.6
105°	4.2	4.2	4.2	4.2	4.2	4.2	4.2	3.2	3.2	2.1	1.6
107.5°	3.2	3.2	3.2	3.2	3.2	3.2	3.2	2.1	1.6	1.1	0.0
110°	3.2	3.2	3.2	2.6	3.2	2.6	2.1	1.6	1.1	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°	5719.1	5719.1	5719.1	5719.1	5719.1	5719.1	5719.1	5719.1
1°	5561.8	5598.8	5623.7	5659.8	5666.6	5713.8	5753.0	5773.1
2°	5229.7	5348.9	5432.5	5532.1	5583.0	5668.2	5731.3	5759.3
3°	4754.1	4976.5	5146.0	5338.8	5462.2	5607.3	5704.2	5745.6
4°	4179.9	4511.5	4787.4	5088.3	5304.9	5531.6	5679.9	5736.0
5°	3576.1	3993.5	4375.4	4791.1	5116.9	5441.5	5653.4	5729.7
6°	2978.7	3461.7	3928.9	4453.2	4919.3	5333.5	5624.3	5723.3
7°	2444.8	2950.6	3475.5	4092.0	4651.8	5202.1	5581.9	5714.8
8°	1976.1	2475.5	3033.8	3718.1	4385.4	5049.6	5518.3	5693.7
9°	1594.8	2060.8	2628.1	3353.7	4102.6	4879.6	5448.4	5659.8
10°	1286.0	1702.3	2255.2	3005.2	3823.5	4701.1	5362.6	5615.3
12.5°	808.8	1081.5	1523.3	2230.9	3162.5	4225.5	5112.1	5458.5
15°	569.4	741.0	1054.0	1620.7	2542.3	3742.4	4823.4	5263.6
17.5°	440.7	555.1	763.2	1205.5	2052.9	3295.4	4493.5	4957.4
20°	361.7	444.9	599.0	940.6	1675.3	2895.0	4123.3	4606.8
22.5°	307.7	371.3	493.1	768.0	1397.2	2540.2	3757.8	4241.4
25°	267.5	319.4	417.9	653.0	1211.8	2238.3	3366.4	3850.5
27.5°	242.6	280.7	366.5	573.6	1087.4	1961.3	2975.0	3439.5
30°	225.1	256.3	324.7	516.4	993.1	1693.8	2538.6	2980.8
32.5°	212.4	235.2	296.6	479.9	936.4	1484.6	2203.3	2635.5
35°	203.4	221.4	276.5	458.1	895.1	1306.1	1923.7	2309.2
37.5°	196.0	211.3	261.6	448.1	853.8	1139.8	1674.7	2011.6
40°	188.6	202.9	252.6	443.8	797.6	982.0	1460.8	1740.4
42.5°	183.8	195.4	247.3	447.0	733.0	851.7	1264.8	1495.7
45°	181.7	188.6	242.0	446.5	659.4	733.0	1086.8	1274.3
47.5°	180.6	182.7	237.8	439.6	578.9	636.6	941.2	1077.3
50°	179.0	179.5	236.7	418.4	500.5	549.2	803.5	899.3
52.5°	169.5	175.8	235.7	391.4	423.7	476.1	686.4	747.9
55°	152.0	169.0	234.1	349.0	357.5	411.0	577.3	613.3
57.5°	137.7	154.1	228.3	303.5	302.4	353.8	478.8	496.8
60°	127.1	139.8	212.4	258.5	253.2	301.4	387.7	397.2
62.5°	116.0	128.2	189.1	216.1	212.9	250.0	306.7	307.2
65°	102.8	117.1	162.6	176.4	179.0	208.1	241.5	240.5
67.5°	90.6	103.3	136.1	142.5	149.9	169.5	187.5	183.3
70°	78.4	87.9	110.2	114.9	122.9	136.1	141.4	136.6
72.5°	66.7	73.6	86.9	91.6	98.0	104.9	104.9	99.6
75°	56.1	59.8	66.7	71.0	76.3	78.4	75.2	71.0
77.5°	46.1	48.2	50.8	53.5	56.7	55.1	52.4	49.8
80°	37.6	38.7	38.7	39.7	39.7	38.1	34.4	33.9
82.5°	30.2	31.2	29.7	28.1	26.5	23.8	21.7	20.1
85°	23.8	23.8	22.2	19.6	16.4	13.8	11.7	10.6
87.5°	18.0	18.0	15.9	13.2	9.5	6.9	4.8	4.2
90°	13.8	13.8	11.1	8.5	5.3	2.6	1.1	0.0
92.5°	10.6	9.5	7.4	4.8	2.1	1.1	0.0	0.0
95°	7.9	6.9	4.2	2.1	1.1	0.0	0.0	0.0



TEST NUMBER: P273481

CATALOG NUMBER: 0.05-12W-840-10-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	5.3	4.2	2.1	1.1	0.0	0.0	0.0	0.0
100°	3.2	2.1	1.1	0.0	0.0	0.0	0.0	0.0
102.5°	1.6	1.1	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)