

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: P273439

Luminaire Tested: **0.05-09W-827-10-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273439
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: 0.05-09W-827-10-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 10 DEGREE OPTIC.
VERY HIGH OUTPUT
Light Source: 2700K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1516.4 lumens
Efficiency: N/A
Efficacy: 51.8 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

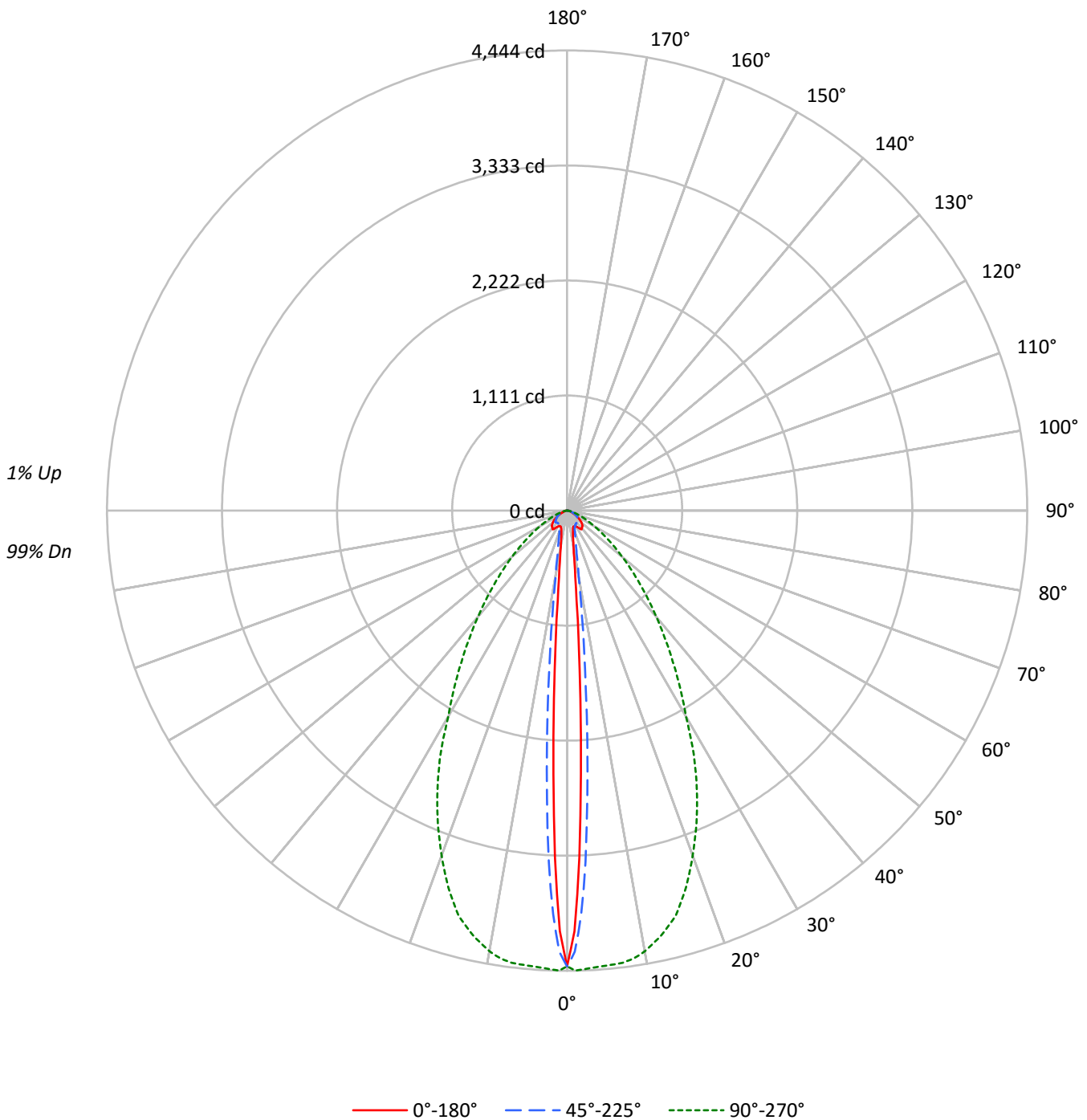
Input Watts (W): 29.3
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P273439

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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°	77982	77982	77982
5°	22299	39654	78424
10°	6321	11483	77748
15°	3932	5839	74303
20°	3227	4119	66846
25°	3235	3419	57931
30°	3645	3269	46933
35°	4619	3281	38439
40°	5111	3508	30980
45°	5271	4003	24573
50°	4977	3922	19076
55°	4481	3904	14580
60°	3568	3713	10834
65°	2804	3454	7759
70°	2320	3102	5449
75°	2067	2765	3737
80°	2163	2622	2663
85°	3069	3313	1667



TEST NUMBER: P273439

CATALOG NUMBER: 0.05-09W-827-10-STD-UNV-AN-3F0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	204.6	13.5
10°-20°	258.9	17.1
20°-30°	251.2	16.6
30°-40°	239.4	15.8
40°-50°	220.7	14.6
50°-60°	170.1	11.2
60°-70°	100.4	6.6
70°-80°	46.1	3.0
80°-90°	17.1	1.1
90°-100°	5.9	0.4
100°-110°	1.8	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°	714.7	47.1
0°-40°	954.1	62.9
0°-60°	1344.9	88.7
0°-90°	1508.6	99.5
90°-120°	7.8	0.5
90°-150°	7.8	0.5
90°-180°	8.0	0.5
0°-180°	1516.4	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	4402	4402	4402	4402	4402	
5°	1254	1504	2230	3528	4410	100
15°	214	231	318	1029	4052	63
25°	166	164	175	412	2964	78
35°	214	184	152	283	1778	132
45°	210	192	160	265	981	158
55°	145	146	126	224	472	128
65°	67	73	82	130	185	68
75°	30	32	40	53	55	33
85°	15	15	16	16	8	14
90°	11	11	11	8	0	6
95°	8	7	7	2	0	6
105°	3	3	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: P273439

CATALOG NUMBER: 0.05-09W-827-10-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	4402.2	4402.2	4402.2	4402.2	4402.2	4402.2	4402.2	4402.2	4402.2	4402.2	4402.2
1°	4062.6	4096.8	4043.0	4145.8	4106.2	4137.6	4191.4	4226.9	4257.5	4260.7	4294.2
2°	3352.4	3444.5	3368.7	3517.5	3504.1	3569.3	3665.9	3745.4	3824.1	3901.5	3966.4
3°	2550.5	2653.6	2634.1	2737.2	2758.8	2852.6	2985.5	3108.6	3239.9	3394.0	3508.1
4°	1821.9	1899.8	1924.3	1978.1	2058.4	2135.0	2277.3	2429.8	2601.0	2786.9	2983.0
5°	1254.0	1318.5	1336.8	1382.5	1462.0	1545.1	1676.0	1832.1	2016.8	2230.0	2454.7
6°	872.0	918.5	934.4	969.9	1029.0	1100.3	1208.8	1343.7	1515.0	1733.1	1965.0
7°	644.1	674.7	686.5	712.6	754.6	807.6	890.0	997.2	1137.8	1333.1	1582.6
8°	509.6	519.8	528.4	547.9	578.5	616.0	676.8	757.5	866.7	1028.6	1240.6
9°	411.8	421.1	427.7	442.3	464.8	492.5	538.1	599.7	683.3	794.6	959.7
10°	351.4	356.7	361.6	372.6	388.9	409.7	443.6	489.2	554.5	638.4	788.1
12.5°	262.5	261.7	265.8	272.7	283.3	295.2	313.1	338.4	373.0	419.1	503.1
15°	214.4	214.9	217.7	222.2	227.9	234.8	245.8	262.5	284.6	318.4	365.3
17.5°	185.1	185.5	187.1	190.0	194.1	200.2	208.3	218.5	234.0	257.2	289.5
20°	171.2	170.8	171.6	173.3	175.7	179.0	183.5	189.2	200.6	218.5	243.4
22.5°	165.9	165.9	165.9	165.5	165.9	166.7	169.6	174.1	180.2	190.8	208.7
25°	165.5	165.9	165.5	164.3	164.3	163.9	163.5	164.7	167.6	174.9	186.3
27.5°	169.2	168.8	167.6	165.5	163.9	162.7	161.9	161.4	161.9	164.7	172.5
30°	178.2	177.3	174.9	171.2	167.6	163.9	160.6	159.0	158.6	159.8	163.1
32.5°	191.6	190.4	187.5	181.4	176.5	170.0	164.3	158.2	154.9	154.9	157.0
35°	213.6	211.2	206.7	199.4	189.2	179.8	171.2	162.3	155.3	151.7	152.1
37.5°	229.5	228.7	226.7	219.7	210.0	196.9	181.8	168.0	158.6	150.4	147.2
40°	221.0	219.7	216.9	213.2	210.4	207.5	195.7	178.2	163.9	151.7	144.7
42.5°	214.0	213.2	210.4	204.3	200.2	195.7	191.6	186.3	170.8	155.3	144.7
45°	210.4	209.6	207.1	201.8	195.3	187.9	180.6	175.3	170.8	159.8	146.0
47.5°	194.1	193.7	192.8	191.6	189.2	185.1	174.9	165.5	157.8	155.7	148.0
50°	180.6	180.6	180.2	177.8	175.3	172.0	169.2	160.2	148.8	142.3	141.5
52.5°	165.5	165.5	165.5	164.7	163.1	159.4	155.7	151.3	143.5	132.5	128.0
55°	145.1	145.5	146.4	146.8	147.2	145.1	143.1	137.8	133.3	126.4	117.4
57.5°	122.7	123.1	124.8	126.0	127.6	128.4	128.8	126.4	121.5	116.2	110.1
60°	100.7	101.1	102.7	104.8	107.6	110.1	112.1	112.9	109.7	104.8	100.7
62.5°	81.9	81.9	84.0	85.6	88.5	91.3	95.0	97.0	96.6	94.2	90.1
65°	66.9	67.3	68.5	69.7	71.8	74.6	78.7	81.9	83.6	82.4	79.5
67.5°	54.6	55.0	55.9	57.1	58.3	60.7	64.0	68.1	70.5	70.9	69.7
70°	44.8	45.3	45.7	46.5	47.7	49.3	51.8	55.4	58.3	59.9	59.9
72.5°	37.1	37.1	37.5	38.3	39.1	40.4	42.4	44.4	47.3	49.7	50.6
75°	30.2	30.6	31.0	31.0	31.8	32.2	33.8	35.5	37.5	40.4	41.6
77.5°	25.3	25.3	25.3	25.3	26.1	26.5	27.3	28.5	30.2	32.2	33.8
80°	21.2	21.2	21.2	21.2	21.2	21.6	22.4	22.8	23.6	25.7	27.3
82.5°	17.9	17.9	17.9	17.9	17.9	18.3	18.3	18.8	19.6	20.4	21.6
85°	15.1	15.1	15.1	15.1	15.1	15.1	15.5	15.5	15.9	16.3	16.7
87.5°	12.6	12.6	12.6	12.6	12.6	12.6	13.0	13.0	13.0	13.0	13.5
90°	11.0	11.0	11.0	11.0	11.0	10.6	10.6	10.6	10.6	10.6	10.6
92.5°	9.4	9.4	9.4	9.4	9.4	9.0	9.0	8.6	8.6	8.6	8.6
95°	7.7	7.7	7.7	7.3	7.3	7.3	7.3	6.9	6.9	6.9	6.1



TEST NUMBER: P273439

CATALOG NUMBER: 0.05-09W-827-10-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
97.5°	6.1	6.1	6.1	6.1	6.1	6.1	5.7	5.7	5.3	5.3	4.5
100°	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.5	4.1	3.7	3.7
102.5°	4.1	4.1	4.1	4.1	4.1	4.1	4.1	3.3	3.3	2.9	2.0
105°	3.3	3.3	3.3	3.3	3.3	3.3	3.3	2.4	2.4	1.6	1.2
107.5°	2.4	2.4	2.4	2.4	2.4	2.4	2.4	1.6	1.2	0.8	0.0
110°	2.4	2.4	2.4	2.0	2.4	2.0	1.6	1.2	0.8	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: P273439

CATALOG NUMBER: 0.05-09W-827-10-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	4402.2	4402.2	4402.2	4402.2	4402.2	4402.2	4402.2	4402.2
1°	4281.1	4309.6	4328.8	4356.5	4361.8	4398.1	4428.3	4443.8
2°	4025.5	4117.2	4181.6	4258.3	4297.4	4363.0	4411.6	4433.2
3°	3659.4	3830.6	3961.1	4109.5	4204.5	4316.2	4390.8	4422.6
4°	3217.5	3472.7	3685.1	3916.6	4083.4	4257.9	4372.0	4415.2
5°	2752.7	3073.9	3367.9	3687.9	3938.6	4188.6	4351.6	4410.3
6°	2292.8	2664.6	3024.2	3427.8	3786.6	4105.4	4329.2	4405.4
7°	1881.9	2271.2	2675.2	3149.8	3580.7	4004.3	4296.6	4398.9
8°	1521.1	1905.5	2335.2	2862.0	3375.6	3886.9	4247.7	4382.6
9°	1227.5	1586.3	2022.9	2581.5	3157.9	3756.0	4193.9	4356.5
10°	989.9	1310.3	1735.9	2313.2	2943.1	3618.6	4127.8	4322.3
12.5°	622.5	832.5	1172.5	1717.2	2434.3	3252.5	3935.0	4201.6
15°	438.3	570.4	811.3	1247.5	1956.9	2880.7	3712.8	4051.6
17.5°	339.2	427.3	587.5	927.9	1580.2	2536.6	3458.8	3815.9
20°	278.4	342.5	461.1	724.0	1289.5	2228.4	3173.8	3546.0
22.5°	236.9	285.8	379.6	591.1	1075.5	1955.3	2892.5	3264.7
25°	205.9	245.8	321.7	502.7	932.8	1722.9	2591.2	2963.9
27.5°	186.7	216.1	282.1	441.5	837.0	1509.7	2290.0	2647.5
30°	173.3	197.3	249.9	397.5	764.4	1303.8	1954.0	2294.5
32.5°	163.5	181.0	228.3	369.4	720.8	1142.7	1696.0	2028.6
35°	156.6	170.4	212.8	352.6	689.0	1005.4	1480.7	1777.5
37.5°	150.8	162.7	201.4	344.9	657.2	877.3	1289.1	1548.4
40°	145.1	156.1	194.5	341.6	614.0	755.8	1124.4	1339.7
42.5°	141.5	150.4	190.4	344.1	564.2	655.6	973.6	1151.3
45°	139.8	145.1	186.3	343.7	507.6	564.2	836.6	980.9
47.5°	139.0	140.7	183.1	338.4	445.6	490.0	724.5	829.2
50°	137.8	138.2	182.2	322.1	385.3	422.8	618.5	692.2
52.5°	130.5	135.4	181.4	301.3	326.1	366.5	528.4	575.7
55°	117.0	130.1	180.2	268.7	275.2	316.4	444.4	472.1
57.5°	106.0	118.6	175.7	233.6	232.8	272.3	368.5	382.4
60°	97.8	107.6	163.5	199.0	194.9	232.0	298.4	305.8
62.5°	89.3	98.7	145.5	166.3	163.9	192.4	236.0	236.5
65°	79.1	90.1	125.2	135.8	137.8	160.2	185.9	185.1
67.5°	69.7	79.5	104.8	109.7	115.4	130.5	144.3	141.1
70°	60.3	67.7	84.8	88.5	94.6	104.8	108.9	105.2
72.5°	51.4	56.7	66.9	70.5	75.4	80.7	80.7	76.6
75°	43.2	46.1	51.4	54.6	58.7	60.3	57.9	54.6
77.5°	35.5	37.1	39.1	41.2	43.6	42.4	40.4	38.3
80°	28.9	29.8	29.8	30.6	30.6	29.4	26.5	26.1
82.5°	23.2	24.1	22.8	21.6	20.4	18.3	16.7	15.5
85°	18.3	18.3	17.1	15.1	12.6	10.6	9.0	8.2
87.5°	13.9	13.9	12.2	10.2	7.3	5.3	3.7	3.3
90°	10.6	10.6	8.6	6.5	4.1	2.0	0.8	0.0
92.5°	8.2	7.3	5.7	3.7	1.6	0.8	0.0	0.0
95°	6.1	5.3	3.3	1.6	0.8	0.0	0.0	0.0



TEST NUMBER: P273439

CATALOG NUMBER: 0.05-09W-827-10-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
97.5°	4.1	3.3	1.6	0.8	0.0	0.0	0.0	0.0
100°	2.4	1.6	0.8	0.0	0.0	0.0	0.0	0.0
102.5°	1.2	0.8	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.4	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)