

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: P273477

Luminaire Tested: **0.05-12W-835-60-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273477
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (ITL89169-GONIOPHOTOMETRY)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: 0.05-12W-835-60-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 60 DEGREE OPTIC.
V2 HIGH OUTPUT
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1820.3 lumens
Efficiency: N/A
Efficacy: 51.3 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.26 / 1.26
Luminous Opening: Rectangular w/ Sides (W: 2.92' x L: 0.16' x H: 0.03')
CIE Type: Direct

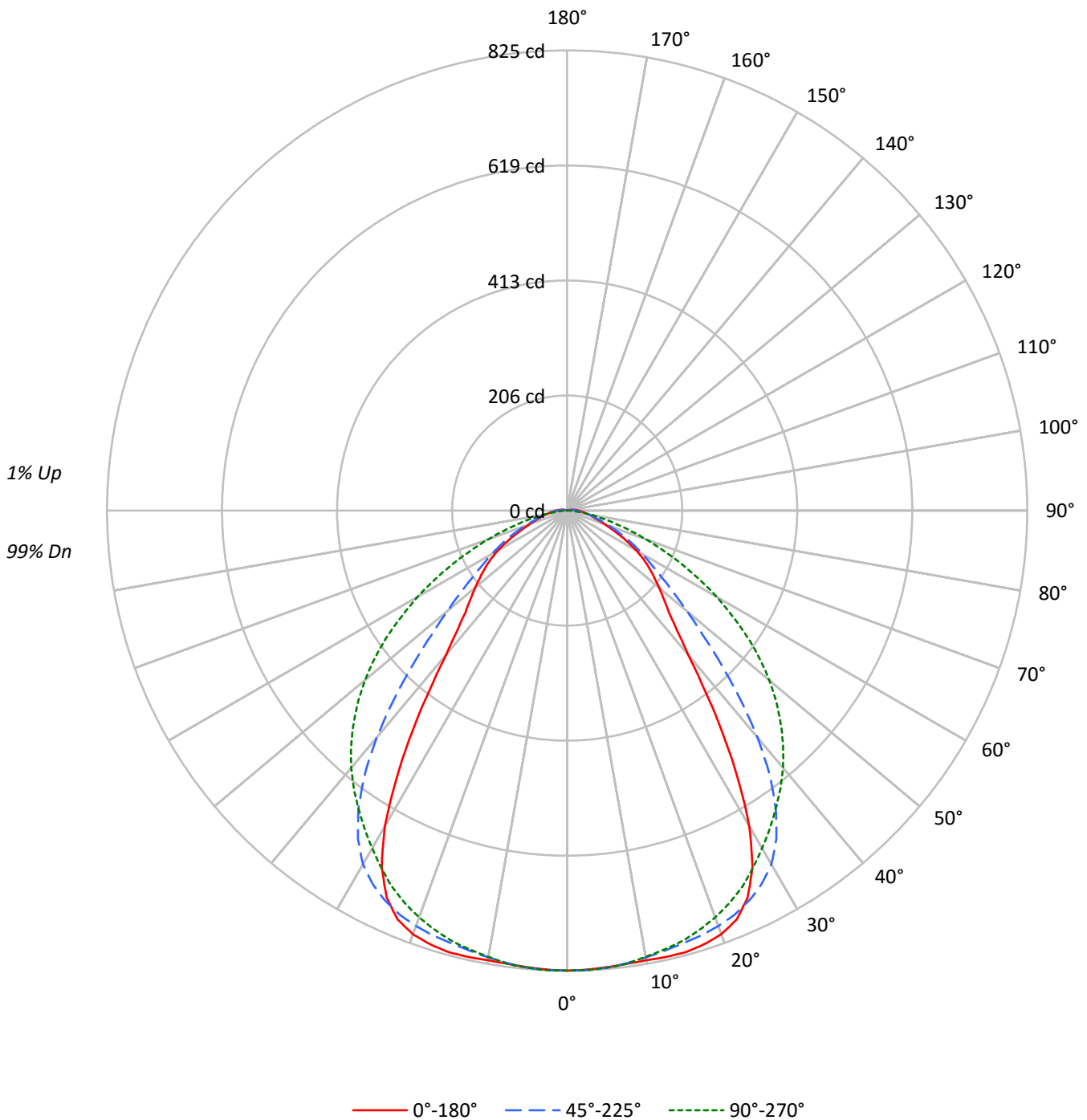
Input Watts (W): 35.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P273477

CATALOG NUMBER: 0.05-12W-835-60-STD-UNV-AN-3F0

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					99			
1	110	106	102	99	107	104	100	97	99	96	94	95	93	91	92	90	88	86					86			
2	101	94	88	83	99	92	87	82	89	84	80	85	82	78	82	79	76	74					74			
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67	64					64			
4	86	75	68	62	84	74	67	61	72	65	60	69	64	59	67	62	59	56					56			
5	80	68	60	54	78	67	59	54	65	58	53	63	57	52	61	56	52	50					50			
6	74	62	54	48	72	61	53	48	59	52	47	58	51	47	56	51	46	44					44			
7	69	57	49	43	68	56	48	43	54	47	42	53	47	42	52	46	42	40					40			
8	65	52	44	39	63	51	44	39	50	43	38	49	43	38	48	42	38	36					36			
9	61	48	40	35	59	47	40	35	46	40	35	45	39	35	44	39	34	33					33			
10	57	45	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32	30					30			

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18853	18853	18853
5°	18591	18680	18862
10°	18472	18484	18824
15°	18591	18406	18857
20°	18566	18468	18812
25°	17956	18428	18678
30°	15771	18069	18352
35°	12152	16782	18083
40°	8857	14374	17835
45°	7179	11284	17362
50°	6422	8701	16650
55°	5827	6968	15511
60°	5128	5901	13951
65°	4139	4961	11978
70°	3325	4073	9771
75°	2812	3358	7555
80°	2571	2926	5337
85°	2592	2760	2975



TEST NUMBER: P273477

CATALOG NUMBER: 0.05-12W-835-60-STD-UNV-AN-3F0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	78.3	4.3
10°-20°	227.7	12.5
20°-30°	348.4	19.1
30°-40°	376.3	20.7
40°-50°	313.1	17.2
50°-60°	231.2	12.7
60°-70°	140.1	7.7
70°-80°	66.9	3.7
80°-90°	26.9	1.5
90°-100°	9.3	0.5
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°	654.4	35.9
0°-40°	1030.7	56.6
0°-60°	1574.9	86.5
0°-90°	1808.8	99.4
90°-120°	11.6	0.6
90°-150°	11.6	0.6
90°-180°	12.0	0.7
0°-180°	1820.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	825	825	825	825	825	
5°	822	823	823	823	823	78
15°	820	813	803	796	799	231
25°	766	770	772	749	744	346
35°	485	541	652	662	652	303
45°	258	281	391	537	542	204
55°	180	181	205	353	394	160
65°	103	106	115	173	226	103
75°	51	52	55	70	88	55
85°	28	28	25	21	12	25
90°	21	20	17	9	0	11
95°	15	13	9	2	0	11
105°	5	4	1	0	0	6
115°	0	0	0	0	0	1
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: P273477

CATALOG NUMBER: 0.05-12W-835-60-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	824.8	824.8	824.8	824.8	824.8	824.8	824.8	824.8	824.8	824.8	824.8
2.5°	823.7	823.7	823.7	823.7	823.7	823.8	824.1	824.4	824.6	824.8	824.8
5°	821.7	821.9	822.1	822.4	822.6	822.7	822.7	822.7	822.7	822.7	822.7
7.5°	819.6	819.6	819.6	819.6	819.6	819.5	819.3	819.0	818.8	818.5	818.5
10°	818.5	818.1	817.6	817.2	816.7	816.2	815.4	814.7	814.1	813.3	813.1
12.5°	819.6	818.6	817.7	816.8	815.8	814.6	813.0	811.4	809.8	808.1	807.4
15°	819.6	818.2	816.8	815.4	814.1	812.2	809.9	807.5	805.2	802.9	801.3
17.5°	815.4	814.3	813.1	812.0	810.8	809.0	806.4	803.9	801.3	798.8	796.0
20°	808.1	807.0	805.9	804.7	803.6	801.8	799.5	797.1	794.8	792.5	788.6
22.5°	793.6	792.9	792.2	791.5	790.8	789.7	788.4	787.0	785.6	784.2	779.6
25°	765.5	766.6	767.8	768.9	770.1	770.8	771.0	771.3	771.5	771.7	766.4
27.5°	719.7	723.5	727.1	730.9	734.5	738.5	742.6	746.8	750.9	755.1	749.6
30°	653.2	660.3	667.5	674.7	681.9	690.6	701.0	711.4	721.8	732.2	727.1
32.5°	570.0	580.4	590.8	601.2	611.6	625.8	643.8	661.8	679.9	697.9	695.4
35°	484.7	496.4	508.3	520.0	531.8	550.4	575.9	601.3	626.8	652.1	654.6
37.5°	403.6	414.4	425.3	436.1	447.0	468.3	500.3	532.2	564.0	596.0	605.6
40°	337.0	346.5	355.9	365.4	374.8	396.4	429.9	463.5	497.0	530.4	548.7
42.5°	291.2	297.7	304.1	310.7	317.1	335.8	366.8	397.7	428.7	459.7	486.6
45°	257.9	261.9	265.8	269.7	273.6	288.4	314.1	339.8	365.4	391.1	425.5
47.5°	235.1	237.1	239.2	241.3	243.4	253.9	272.8	291.8	310.8	329.7	369.0
50°	215.3	216.2	217.2	218.1	219.0	226.1	239.5	252.9	266.4	279.8	320.2
52.5°	196.6	197.3	197.9	198.7	199.4	204.0	212.5	221.1	229.7	238.2	276.8
55°	179.9	179.9	179.9	179.9	179.9	182.7	188.3	193.8	199.4	204.9	239.3
57.5°	162.3	162.0	161.8	161.5	161.3	163.1	166.7	170.5	174.1	177.9	206.8
60°	143.5	143.3	143.1	142.8	142.6	143.9	147.0	150.0	153.0	156.0	178.7
62.5°	122.7	122.9	123.1	123.5	123.7	125.0	127.6	130.1	132.7	135.2	152.6
65°	103.0	103.7	104.3	105.0	105.8	107.1	109.2	111.3	113.4	115.4	128.3
67.5°	85.3	86.0	86.6	87.4	88.1	89.3	91.2	93.0	94.9	96.7	106.4
70°	71.8	72.2	72.7	73.1	73.6	74.7	76.2	77.9	79.5	81.1	88.1
72.5°	60.3	60.5	60.7	61.1	61.3	62.0	63.1	64.3	65.4	66.6	71.7
75°	51.0	51.2	51.4	51.7	51.9	52.3	53.0	53.8	54.4	55.1	58.3
77.5°	43.7	43.9	44.1	44.4	44.6	44.8	45.0	45.3	45.6	45.8	47.4
80°	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.4	37.9
82.5°	32.2	32.2	32.2	32.2	32.2	32.1	31.9	31.6	31.4	31.2	30.8
85°	28.1	28.1	28.1	28.1	28.1	27.8	27.0	26.3	25.7	25.0	24.0
87.5°	23.9	23.9	23.9	23.9	23.9	23.6	22.9	22.2	21.5	20.8	19.4
90°	20.8	20.6	20.4	20.1	19.9	19.4	18.7	18.0	17.4	16.6	15.0
92.5°	17.7	17.5	17.3	17.0	16.7	16.2	15.3	14.4	13.4	12.5	10.8
95°	14.6	14.4	14.1	13.8	13.6	13.1	12.2	11.2	10.3	9.4	7.7
97.5°	11.4	11.2	11.0	10.7	10.5	10.0	9.0	8.1	7.2	6.2	5.1
100°	9.4	9.2	8.9	8.6	8.4	7.9	7.0	6.0	5.1	4.2	3.2
102.5°	7.3	7.1	6.9	6.6	6.3	5.8	4.9	4.0	3.0	2.1	1.7
105°	5.2	5.0	4.8	4.5	4.3	3.8	3.1	2.4	1.8	1.0	0.8
107.5°	3.1	2.9	2.7	2.4	2.2	1.9	1.4	0.9	0.4	0.0	0.0
110°	2.1	1.9	1.7	1.4	1.1	0.9	0.7	0.4	0.2	0.0	0.0



TEST NUMBER: P273477

CATALOG NUMBER: 0.05-12W-835-60-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
112.5°	1.0	0.8	0.6	0.3	0.1	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: P273477

CATALOG NUMBER: 0.05-12W-835-60-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	824.8	824.8	824.8	824.8	824.8	824.8	824.8	824.8
2.5°	824.8	824.8	824.8	824.8	824.8	824.8	824.8	824.8
5°	822.7	822.7	822.7	822.7	822.7	822.7	822.7	822.7
7.5°	818.5	818.5	818.5	818.6	818.9	819.2	819.4	819.6
10°	812.9	812.6	812.4	812.3	812.3	812.3	812.3	812.3
12.5°	806.8	806.1	805.3	805.1	805.3	805.6	805.9	806.1
15°	799.7	798.1	796.5	796.0	796.7	797.4	798.1	798.8
17.5°	793.3	790.5	787.7	786.5	787.0	787.4	788.0	788.4
20°	784.6	780.8	776.8	775.0	775.2	775.5	775.7	775.9
22.5°	775.0	770.4	765.7	763.2	762.7	762.3	761.8	761.3
25°	761.1	755.8	750.5	747.4	746.5	745.5	744.6	743.7
27.5°	744.0	738.5	732.9	729.2	727.3	725.6	723.7	721.8
30°	722.0	716.9	711.8	708.2	705.9	703.5	701.2	698.9
32.5°	692.8	690.3	687.7	685.3	683.0	680.6	678.3	676.1
35°	657.2	659.7	662.3	662.3	659.7	657.2	654.6	652.1
37.5°	615.4	625.1	634.8	638.4	635.8	633.3	630.7	628.2
40°	566.9	585.3	603.5	611.5	609.2	606.8	604.5	602.2
42.5°	513.4	540.1	566.9	579.5	578.0	576.3	574.7	573.1
45°	459.9	494.4	528.8	545.6	544.7	543.8	542.8	541.9
47.5°	408.3	447.5	486.9	506.7	507.2	507.7	508.2	508.6
50°	360.7	401.2	441.6	463.0	465.6	468.1	470.7	473.2
52.5°	315.4	353.9	392.5	414.4	419.5	424.6	429.7	434.8
55°	273.7	308.2	342.6	363.7	371.3	378.9	386.6	394.2
57.5°	235.7	264.5	293.4	312.6	322.1	331.6	341.0	350.5
60°	201.4	223.9	246.6	263.8	275.3	286.9	298.4	309.9
62.5°	169.8	187.2	204.6	219.2	231.2	243.3	255.2	267.3
65°	141.3	154.2	167.2	179.5	191.1	202.6	214.2	225.7
67.5°	116.2	125.8	135.5	145.5	155.7	165.8	176.0	186.2
70°	95.0	101.9	108.9	116.5	124.8	133.1	141.5	149.8
72.5°	76.8	81.9	87.0	92.5	98.5	104.4	110.5	116.5
75°	61.6	64.8	68.0	71.8	75.9	80.1	84.2	88.4
77.5°	49.0	50.7	52.2	54.2	56.5	58.9	61.2	63.4
80°	38.4	38.8	39.3	39.8	40.6	41.3	41.9	42.6
82.5°	30.3	29.9	29.3	28.8	28.1	27.4	26.7	26.0
85°	23.1	22.2	21.2	19.9	18.0	16.2	14.4	12.5
87.5°	18.0	16.6	15.3	13.4	11.1	8.7	6.4	4.2
90°	13.4	11.8	10.2	8.3	6.2	4.2	2.1	0.0
92.5°	9.3	7.6	6.0	4.6	3.4	2.3	1.1	0.0
95°	6.1	4.5	2.9	1.9	1.4	0.9	0.4	0.0
97.5°	4.0	2.8	1.7	0.9	0.7	0.4	0.2	0.0
100°	2.3	1.4	0.4	0.0	0.0	0.0	0.0	0.0
102.5°	1.1	0.7	0.2	0.0	0.0	0.0	0.0	0.0
105°	0.6	0.3	0.1	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



TEST NUMBER: P273477

CATALOG NUMBER: 0.05-12W-835-60-STD-UNV-AN-3F0

CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
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)