

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: P273471

Luminaire Tested: **0.05-12W-830-60-STD-UNV-AN-3F0**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P273471
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-830-60-STD-UNV-AN-3F0
Description: iO LIGHTING SERIES 2.0 LINEAR LED LUMINAIRE. 60 DEGREE OPTIC.
V2 HIGH OUTPUT
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1750.3 lumens
Efficiency: N/A
Efficacy: 49.3 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

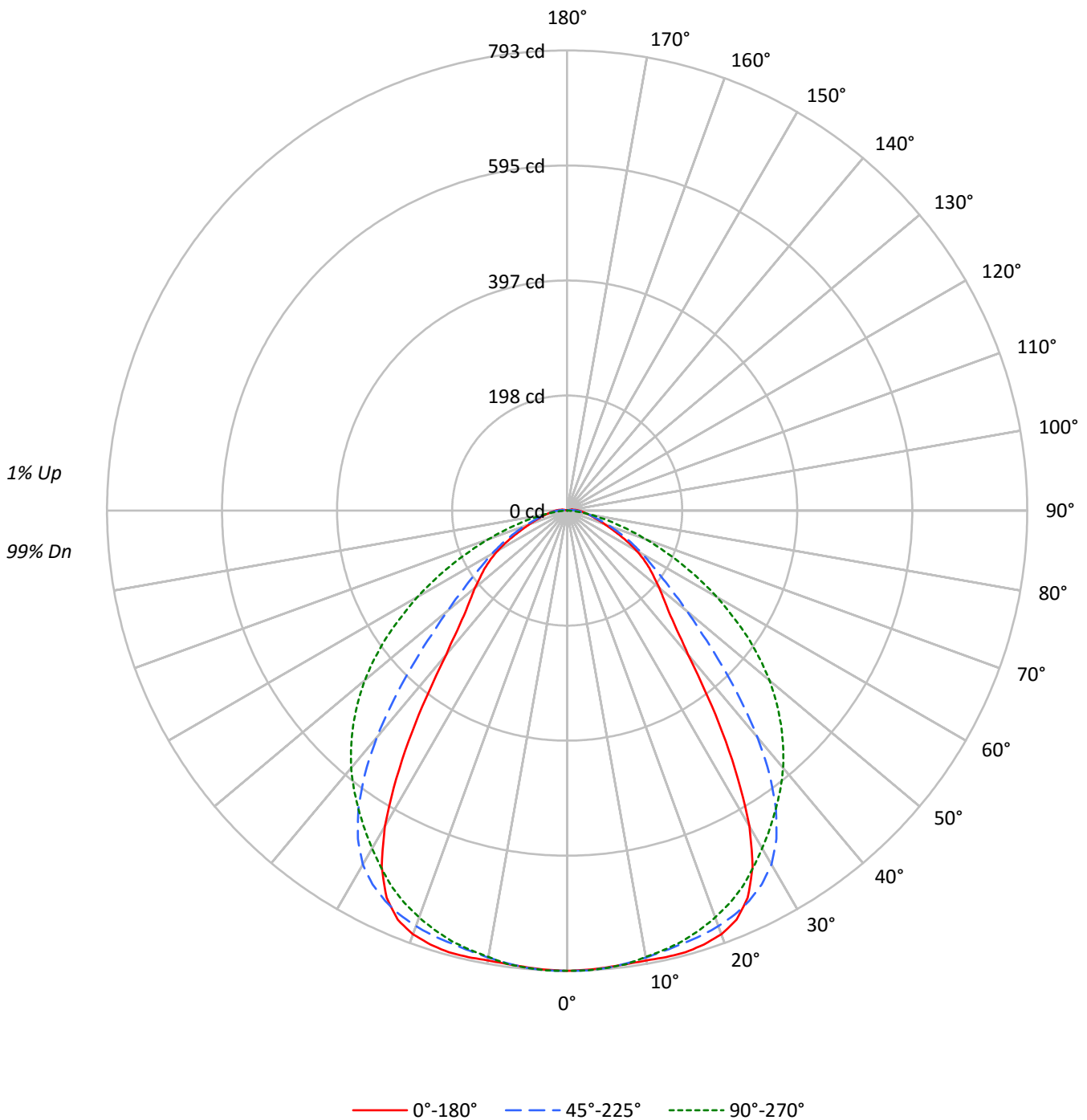
Input Watts (W): 35.5
Input Voltage (V): 120
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	18128	18128	18128
5°	17876	17962	18137
10°	17763	17775	18101
15°	17877	17700	18133
20°	17854	17759	18089
25°	17266	17721	17960
30°	15163	17376	17648
35°	11684	16136	17387
40°	8515	13821	17148
45°	6903	10848	16692
50°	6174	8366	16009
55°	5603	6699	14913
60°	4931	5674	13415
65°	3978	4772	11516
70°	3195	3917	9393
75°	2701	3230	7265
80°	2475	2816	5137
85°	2490	2649	2856



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	75.2	4.3
10°-20°	218.9	12.5
20°-30°	335.1	19.1
30°-40°	361.8	20.7
40°-50°	301.0	17.2
50°-60°	222.3	12.7
60°-70°	134.7	7.7
70°-80°	64.4	3.7
80°-90°	25.8	1.5
90°-100°	8.9	0.5
100°-110°	2.1	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°	629.2	36.0
0°-40°	991.1	56.6
0°-60°	1514.3	86.5
0°-90°	1739.2	99.4
90°-120°	11.1	0.6
90°-150°	11.1	0.6
90°-180°	11.0	0.6
0°-180°	1750.3	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	793	793	793	793	793	
5°	790	791	791	791	791	75
15°	788	782	772	766	768	223
25°	736	741	742	720	715	333
35°	466	520	627	637	627	291
45°	248	270	376	516	521	196
55°	173	174	197	340	379	154
65°	99	102	111	167	217	99
75°	49	50	53	67	85	53
85°	27	27	24	20	12	24
90°	20	19	16	9	0	11
95°	14	13	9	2	0	10
105°	5	4	1	0	0	5
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



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CANDELA DISTRIBUTION (FULL):

	0°	5°	10°	15°	20°	25°	30°	35°	40°	45°	50°
0°	793.1	793.1	793.1	793.1	793.1	793.1	793.1	793.1	793.1	793.1	793.1
2.5°	792.1	792.1	792.1	792.1	792.1	792.2	792.4	792.7	792.9	793.1	793.1
5°	790.1	790.3	790.5	790.8	791.0	791.1	791.1	791.1	791.1	791.1	791.1
7.5°	788.1	788.1	788.1	788.1	788.1	788.0	787.8	787.5	787.3	787.1	787.1
10°	787.1	786.7	786.2	785.8	785.3	784.8	784.1	783.4	782.8	782.1	781.9
12.5°	788.1	787.2	786.3	785.4	784.5	783.3	781.8	780.2	778.7	777.1	776.4
15°	788.1	786.8	785.4	784.1	782.8	781.0	778.8	776.5	774.3	772.1	770.5
17.5°	784.1	783.0	781.9	780.8	779.7	777.9	775.4	773.0	770.5	768.1	765.4
20°	777.1	776.0	774.9	773.8	772.7	771.0	768.8	766.5	764.3	762.1	758.3
22.5°	763.1	762.4	761.8	761.1	760.4	759.4	758.1	756.8	755.4	754.1	749.7
25°	736.1	737.2	738.3	739.4	740.5	741.2	741.4	741.7	741.9	742.1	737.0
27.5°	692.1	695.7	699.2	702.8	706.3	710.1	714.1	718.1	722.1	726.1	720.8
30°	628.0	634.9	641.9	648.8	655.7	664.1	674.1	684.1	694.1	704.1	699.2
32.5°	548.0	558.0	568.0	578.0	588.0	601.7	619.0	636.4	653.8	671.1	668.7
35°	466.0	477.3	488.7	500.0	511.3	529.2	553.7	578.1	602.6	627.0	629.4
37.5°	388.0	398.4	408.9	419.3	429.8	450.3	481.0	511.7	542.3	573.0	582.3
40°	324.0	333.1	342.2	351.3	360.4	381.1	413.3	445.6	477.8	510.0	527.6
42.5°	280.0	286.2	292.4	298.7	304.9	322.9	352.7	382.4	412.2	442.0	467.8
45°	248.0	251.8	255.6	259.3	263.1	277.3	302.0	326.7	351.3	376.0	409.1
47.5°	226.0	228.0	230.0	232.0	234.0	244.1	262.3	280.6	298.8	317.0	354.8
50°	207.0	207.9	208.8	209.7	210.6	217.4	230.3	243.2	256.1	269.0	307.9
52.5°	189.0	189.7	190.3	191.0	191.7	196.1	204.3	212.6	220.8	229.0	266.1
55°	173.0	173.0	173.0	173.0	173.0	175.7	181.0	186.3	191.7	197.0	230.1
57.5°	156.0	155.8	155.6	155.3	155.1	156.8	160.3	163.9	167.4	171.0	198.8
60°	138.0	137.8	137.6	137.3	137.1	138.4	141.3	144.2	147.1	150.0	171.8
62.5°	118.0	118.2	118.4	118.7	118.9	120.2	122.7	125.1	127.6	130.0	146.7
65°	99.0	99.7	100.3	101.0	101.7	103.0	105.0	107.0	109.0	111.0	123.4
67.5°	82.0	82.7	83.3	84.0	84.7	85.9	87.7	89.4	91.2	93.0	102.3
70°	69.0	69.4	69.9	70.3	70.8	71.8	73.3	74.9	76.4	78.0	84.7
72.5°	58.0	58.2	58.4	58.7	58.9	59.6	60.7	61.8	62.9	64.0	68.9
75°	49.0	49.2	49.4	49.7	49.9	50.3	51.0	51.7	52.3	53.0	56.1
77.5°	42.0	42.2	42.4	42.7	42.9	43.1	43.3	43.6	43.8	44.0	45.6
80°	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.0	36.4
82.5°	31.0	31.0	31.0	31.0	31.0	30.9	30.7	30.4	30.2	30.0	29.6
85°	27.0	27.0	27.0	27.0	27.0	26.7	26.0	25.3	24.7	24.0	23.1
87.5°	23.0	23.0	23.0	23.0	23.0	22.7	22.0	21.3	20.7	20.0	18.7
90°	20.0	19.8	19.6	19.3	19.1	18.7	18.0	17.3	16.7	16.0	14.4
92.5°	17.0	16.8	16.6	16.3	16.1	15.6	14.7	13.8	12.9	12.0	10.4
95°	14.0	13.8	13.6	13.3	13.1	12.6	11.7	10.8	9.9	9.0	7.4
97.5°	11.0	10.8	10.6	10.3	10.1	9.6	8.7	7.8	6.9	6.0	4.9
100°	9.0	8.8	8.6	8.3	8.1	7.6	6.7	5.8	4.9	4.0	3.1
102.5°	7.0	6.8	6.6	6.3	6.1	5.6	4.7	3.8	2.9	2.0	1.6
105°	5.0	4.8	4.6	4.3	4.1	3.7	3.0	2.3	1.7	1.0	0.8
107.5°	3.0	2.8	2.6	2.3	2.1	1.8	1.3	0.9	0.4	0.0	0.0
110°	2.0	1.8	1.6	1.3	1.1	0.9	0.7	0.4	0.2	0.0	0.0



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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



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CANDELA DISTRIBUTION (continued):

	55°	60°	65°	70°	75°	80°	85°	90°
0°	793.1	793.1	793.1	793.1	793.1	793.1	793.1	793.1
2.5°	793.1	793.1	793.1	793.1	793.1	793.1	793.1	793.1
5°	791.1	791.1	791.1	791.1	791.1	791.1	791.1	791.1
7.5°	787.1	787.1	787.1	787.2	787.4	787.7	787.9	788.1
10°	781.7	781.4	781.2	781.1	781.1	781.1	781.1	781.1
12.5°	775.8	775.1	774.4	774.2	774.4	774.7	774.9	775.1
15°	769.0	767.4	765.9	765.4	766.1	766.8	767.4	768.1
17.5°	762.8	760.1	757.4	756.3	756.8	757.2	757.7	758.1
20°	754.5	750.8	747.0	745.2	745.4	745.7	745.9	746.1
22.5°	745.2	740.8	736.3	733.9	733.4	733.0	732.5	732.1
25°	731.9	726.8	721.7	718.7	717.8	716.9	716.0	715.1
27.5°	715.4	710.1	704.8	701.2	699.4	697.7	695.9	694.1
30°	694.3	689.4	684.5	681.0	678.8	676.5	674.3	672.1
32.5°	666.2	663.8	661.3	659.0	656.8	654.5	652.3	650.1
35°	631.9	634.3	636.9	636.9	634.3	631.9	629.4	627.0
37.5°	591.7	601.0	610.3	613.8	611.3	608.9	606.4	604.0
40°	545.1	562.7	580.2	587.9	585.7	583.4	581.2	579.0
42.5°	493.6	519.3	545.1	557.2	555.7	554.1	552.6	551.0
45°	442.2	475.3	508.4	524.6	523.7	522.8	521.9	521.0
47.5°	392.6	430.3	468.1	487.2	487.7	488.1	488.6	489.0
50°	346.8	385.7	424.6	445.2	447.7	450.1	452.6	455.0
52.5°	303.2	340.3	377.4	398.4	403.3	408.2	413.1	418.0
55°	263.2	296.3	329.4	349.7	357.0	364.3	371.7	379.0
57.5°	226.6	254.3	282.1	300.6	309.7	318.8	327.9	337.0
60°	193.6	215.3	237.1	253.6	264.7	275.8	286.9	298.0
62.5°	163.3	180.0	196.7	210.8	222.3	233.9	245.4	257.0
65°	135.9	148.3	160.8	172.6	183.7	194.8	205.9	217.0
67.5°	111.7	121.0	130.3	139.9	149.7	159.4	169.2	179.0
70°	91.3	98.0	104.7	112.0	120.0	128.0	136.0	144.0
72.5°	73.8	78.7	83.6	88.9	94.7	100.4	106.2	112.0
75°	59.2	62.3	65.4	69.0	73.0	77.0	81.0	85.0
77.5°	47.1	48.7	50.2	52.1	54.3	56.6	58.8	61.0
80°	36.9	37.3	37.8	38.3	39.0	39.7	40.3	41.0
82.5°	29.1	28.7	28.2	27.7	27.0	26.3	25.7	25.0
85°	22.2	21.3	20.4	19.1	17.3	15.6	13.8	12.0
87.5°	17.3	16.0	14.7	12.9	10.7	8.4	6.2	4.0
90°	12.9	11.3	9.8	8.0	6.0	4.0	2.0	0.0
92.5°	8.9	7.3	5.8	4.4	3.3	2.2	1.1	0.0
95°	5.9	4.3	2.8	1.8	1.3	0.9	0.4	0.0
97.5°	3.8	2.7	1.6	0.9	0.7	0.4	0.2	0.0
100°	2.2	1.3	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: P273471

CATALOG NUMBER: 0.05-12W-830-60-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)