

Scaled data based on original data using  
LM-31-95 IESNA Approved Method for Photometric Testing of Roadway Luminaires  
Using Incandescent Filament and High Intensity Discharge Lamps

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: LUMIERE

Report Number: 246p111

Luminaire Tested: **1203-INC13-12-CS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-31-95  
Report Number: 246p111  
Test Lab: METALUX RESEARCH LABS  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMIERE  
Catalog Number: 1203-INC13-12-CS  
Description: ZUMA 1203 SERIES CAST ALUMINUM EYELID  
Light Source: ONE - T5 INCANDESCENT - 300 LUMENS - 13 WATTS  
Ballast/Driver: -

**Summary**

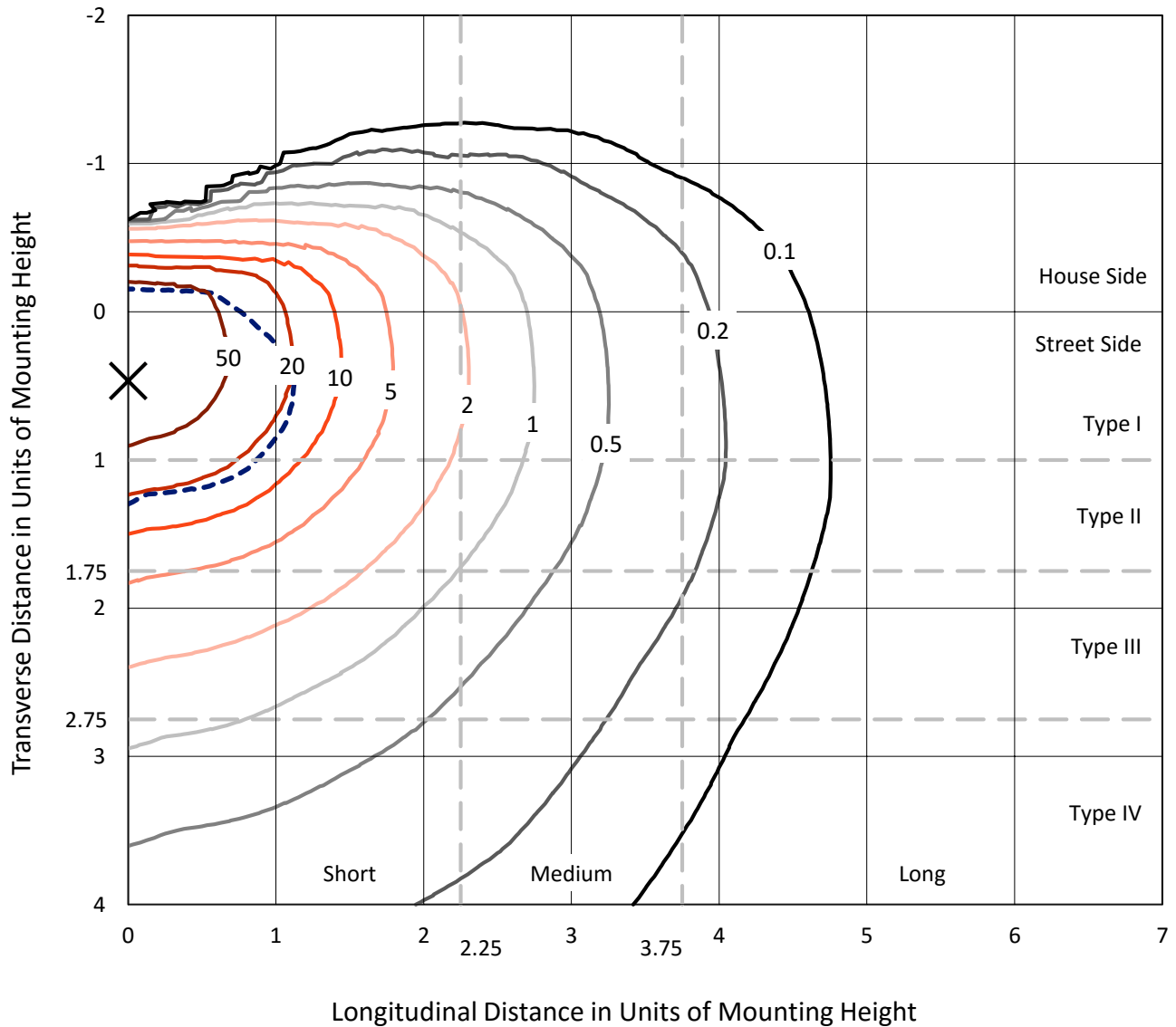
Lumens per Lamp: 300 (1 lamp)  
Luminaire Lumens: 56.3 lumens  
Efficiency: 18.8%  
Efficacy: 3.5 lumens/watt  
Luminous Opening: Rectangular (W 0.21' x L: 0.06' x H: 0')  
IES Classification: Type II - Short - Cutoff  
BUG Rating: B0 - U1 - G0

Input Watts (W): 16  
Input Voltage (V): NR  
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

REPORT NUMBER: 246p111  
 CATALOG NUMBER: 1203-INC13-12-CS

### Iso-Footcandle Lines of Horizontal Illumination

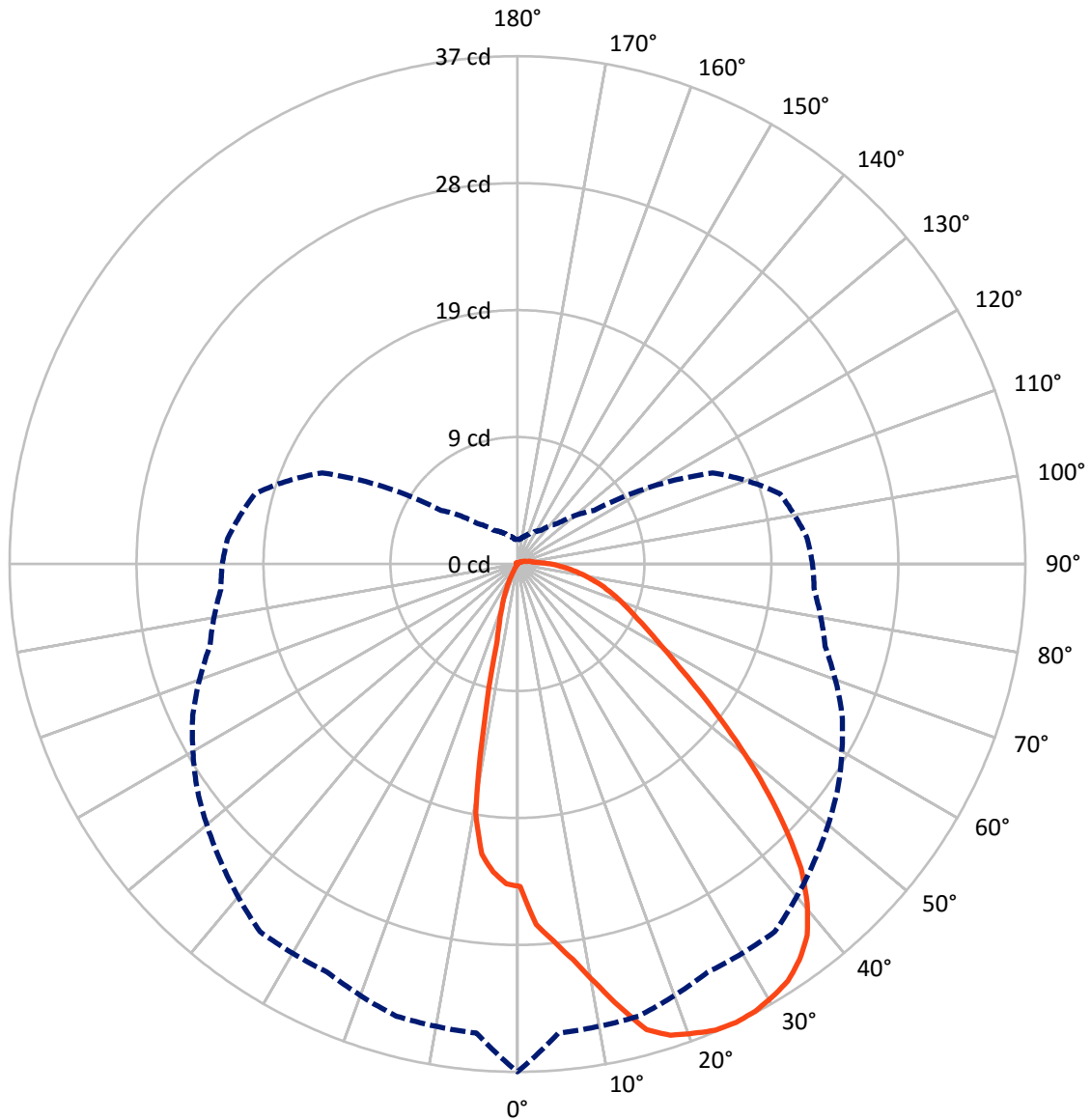
× Max cd  
 - - - 1/2 Max cd



Based on 0.5 foot mounting height. Maximum calculated value = 125.6 fc  
 Type II - Short - Cutoff

REPORT NUMBER: 246p111  
CATALOG NUMBER: 1203-INC13-12-CS

### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 25-Deg Vertical

REPORT NUMBER: 246p111

CATALOG NUMBER: 1203-INC13-12-CS

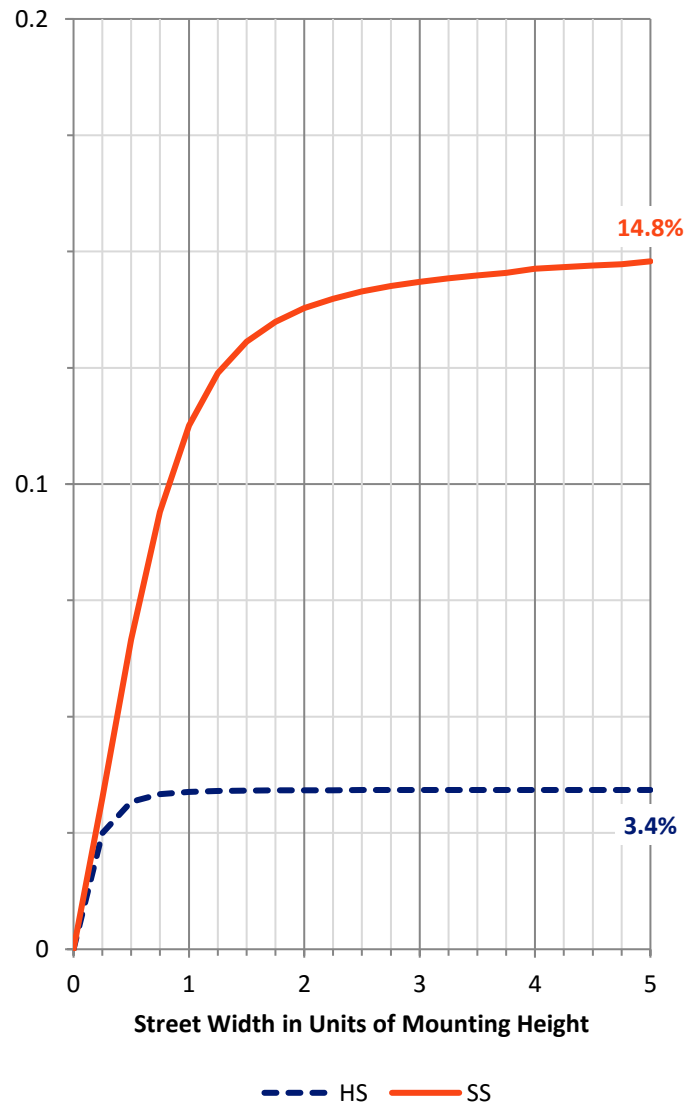
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	10.4	0.1	10.5
	% Lamp	3.5	0.0	3.5
<b>Street Side</b>	Lumens	45.1	0.8	45.8
	% Lamp	15.0	0.3	15.3
<b>Total</b>	Lumens	55.4	0.9	56.3
	% Lamp	18.5	0.3	18.8

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	2.2	4.0	0.7
10°-20°	6.1	10.8	2.0
20°-30°	8.7	15.5	2.9
30°-40°	10.4	18.4	3.5
40°-50°	10.2	18.2	3.4
50°-60°	8.1	14.4	2.7
60°-70°	5.4	9.6	1.8
70°-80°	3.0	5.3	1.0
80°-90°	1.3	2.3	0.4
90°-100°	0.4	0.7	0.1
100°-110°	0.2	0.4	0.1
110°-120°	0.1	0.2	0.0
120°-130°	0.1	0.1	0.0
130°-140°	0.0	0.0	0.0
140°-150°	0.0	0.0	0.0
150°-160°	0.0	0.0	0.0
160°-170°	0.0	0.0	0.0
170°-180°	0.0	0.0	0.0
0°-90°	55.4	98.5	18.5
0°-180°	56.3	100.0	18.8



REPORT NUMBER: 246p111

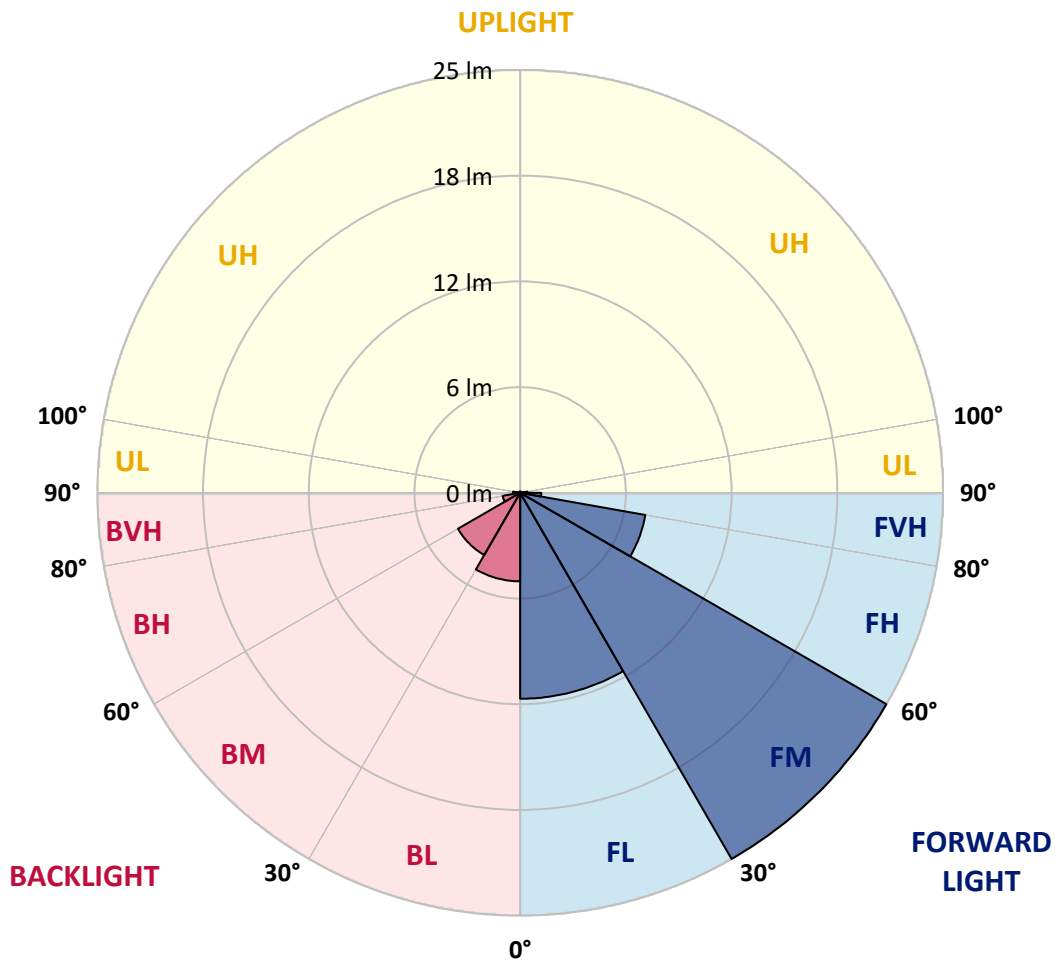
CATALOG NUMBER: 1203-INC13-12-CS

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	11.9	4.0			
FM (30°-60°)	24.5	8.2			
FH (60°-80°)	7.4	2.5			G0/660
FVH (80°-90°)	1.2	0.4			G0/10
BL (0°-30°)	5.1	1.7	B0/110		
BM (30°-60°)	4.2	1.4	B0/220		
BH (60°-80°)	1.0	0.3	B0/110		G0/110
BVH (80°-90°)	0.1	0.0			G0/10
UL (90°-100°)	0.4	0.1		U1/10	
UH (100°-180°)	0.1	0.0		U1/10	
Trapped Light	243.7	81.2			

**BUG Rating: B0-U1-G0**

Type II Short





REPORT NUMBER: 246p111

CATALOG NUMBER: 1203-INC13-12-CS

**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
2.5°	26.3	24.5	24.4	23.8	24.6	24.0	23.9	23.3	23.0	23.1	23.6
5°	27.6	25.5	25.5	24.8	25.5	24.7	24.4	23.6	23.2	23.2	23.6
7.5°	29.1	26.9	26.8	25.9	26.4	25.4	24.9	24.0	23.4	23.2	23.5
10°	31.0	28.7	28.5	27.3	27.6	26.2	25.4	24.2	23.5	23.1	23.3
12.5°	33.1	30.7	30.3	29.0	29.0	27.2	26.0	24.5	23.5	23.0	23.1
15°	35.2	32.5	32.1	30.6	30.6	28.5	26.7	24.8	23.6	22.8	22.9
17.5°	36.1	33.4	33.3	31.9	31.6	29.6	27.6	25.1	23.6	22.6	22.7
20°	36.5	33.9	33.7	32.3	32.2	30.1	28.3	25.4	23.5	22.3	22.3
22.5°	36.9	34.2	34.0	32.5	32.5	30.4	28.4	25.8	23.3	22.0	21.8
25°	37.0	34.3	34.1	32.8	32.7	30.6	28.5	26.1	23.2	21.7	21.5
27.5°	36.9	34.2	33.9	32.5	32.6	30.6	28.5	26.1	23.0	21.2	21.0
30°	36.6	33.9	33.6	32.1	32.2	30.3	28.4	25.7	22.8	20.7	20.4
32.5°	36.2	33.5	33.2	31.7	31.7	29.8	28.1	25.5	22.5	20.2	19.8
35°	35.4	32.8	32.4	30.9	31.0	29.0	27.5	25.0	22.0	19.6	19.1
37.5°	34.3	31.7	31.4	30.6	30.0	28.2	26.7	24.3	21.5	19.0	18.4
40°	32.5	30.1	29.8	29.4	28.8	27.1	25.7	23.5	20.9	18.3	17.6
42.5°	30.3	28.0	27.8	27.7	27.3	25.7	24.6	22.6	20.3	17.6	16.9
45°	27.3	25.3	25.3	25.6	25.4	24.2	23.3	21.5	19.4	16.8	16.0
47.5°	24.2	22.4	22.7	23.3	23.4	22.5	21.8	20.4	18.5	15.9	15.2
50°	21.1	19.5	19.9	20.8	21.2	20.6	20.2	19.1	17.4	15.1	14.3
52.5°	18.2	16.9	17.3	18.3	19.0	18.7	18.5	17.7	16.2	14.0	13.3
55°	15.7	14.6	15.1	15.9	16.8	16.8	16.8	16.3	15.1	13.1	12.4
57.5°	13.6	12.6	13.0	13.8	14.6	14.8	15.1	14.7	13.8	12.0	11.4
60°	12.0	11.1	11.3	12.0	12.7	13.0	13.3	13.3	12.5	10.9	10.3
62.5°	10.7	9.9	10.0	10.4	11.0	11.3	11.7	11.7	11.1	9.8	9.2
65°	9.6	8.9	8.9	9.1	9.3	9.6	10.0	10.1	9.7	8.6	8.1
67.5°	8.7	8.1	8.0	7.9	8.1	8.2	8.5	8.7	8.4	7.4	6.9
70°	7.9	7.3	7.2	6.9	7.0	6.9	7.1	7.4	7.1	6.2	5.8
72.5°	7.1	6.6	6.5	6.1	6.0	5.8	5.8	6.0	5.8	5.1	4.7
75°	6.4	5.8	5.7	5.4	5.3	4.8	4.6	4.8	4.6	3.9	3.6
77.5°	5.6	5.2	5.0	4.7	4.6	4.1	3.7	3.7	3.6	3.0	2.7
80°	4.9	4.5	4.4	4.1	3.9	3.4	2.9	2.7	2.5	2.1	1.9
82.5°	4.2	3.9	3.8	3.5	3.3	2.9	2.4	1.9	1.6	1.3	1.2
85°	3.5	3.3	3.2	2.9	2.8	2.3	1.9	1.4	1.0	0.7	0.5
87.5°	2.9	2.7	2.6	2.4	2.2	1.9	1.5	1.1	0.6	0.3	0.2
90°	2.3	2.1	2.0	1.9	1.7	1.4	1.1	0.7	0.4	0.1	0.1
92.5°	1.7	1.5	1.5	1.3	1.2	1.0	0.7	0.5	0.2	0.1	0.0
95°	1.3	1.2	1.1	1.0	0.9	0.8	0.6	0.4	0.2	0.0	0.0
97.5°	1.1	1.0	1.0	0.9	0.8	0.7	0.5	0.3	0.2	0.1	0.0
100°	1.0	0.9	0.8	0.7	0.7	0.5	0.4	0.2	0.1	0.0	0.0
102.5°	0.9	0.8	0.7	0.7	0.6	0.5	0.4	0.3	0.1	0.0	0.0
105°	0.7	0.7	0.6	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0
107.5°	0.6	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.1	0.0	0.0
110°	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.1	0.1	0.0	0.0



REPORT NUMBER: 246p111

CATALOG NUMBER: 1203-INC13-12-CS

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	0.5	0.4	0.4	0.3	0.3	0.2	0.1	0.1	0.0	0.0	0.0
115°	0.4	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.1	0.0	0.0
117.5°	0.4	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.1	0.0	0.1
120°	0.3	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0
122.5°	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0
125°	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
127.5°	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
130°	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
132.5°	0.1	0.1	0.1	0.1	0.1	0.1	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	0.1
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	0.1	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	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
162.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
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°	0.1	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1
170°	0.0	0.0	0.1	0.1	0.0	0.1	0.0	0.1	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°	0.1	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





REPORT NUMBER: 246p111

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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5	23.5
2.5°	24.1	24.0	23.4	23.3	22.8	21.9	23.0	23.0	22.3	23.3
5°	23.9	23.7	23.1	22.8	22.3	21.5	22.3	22.3	21.5	22.5
7.5°	23.8	23.5	22.7	22.4	21.7	20.8	21.4	21.2	20.4	21.3
10°	23.5	23.1	22.2	21.8	20.9	19.5	19.4	18.7	17.7	18.4
12.5°	23.2	22.7	21.6	20.9	19.3	16.7	15.0	12.6	10.9	11.3
15°	23.0	22.2	21.0	19.6	16.4	11.2	7.9	6.4	5.7	6.0
17.5°	22.6	21.8	20.2	17.6	11.3	6.2	5.2	4.7	4.3	4.5
20°	22.2	21.1	19.0	14.2	6.8	4.6	4.1	3.6	3.3	3.4
22.5°	21.7	20.4	17.5	9.9	5.1	3.7	3.2	2.8	2.5	2.6
25°	21.2	19.8	15.7	6.8	4.2	3.0	2.5	2.1	1.8	1.8
27.5°	20.6	18.9	13.3	5.3	3.5	2.4	1.8	1.3	1.0	1.0
30°	20.0	18.0	10.6	4.4	2.9	1.8	1.1	0.5	0.2	0.2
32.5°	19.4	17.1	8.4	3.9	2.4	1.4	0.6	0.1	0.0	0.0
35°	18.6	15.9	6.6	3.3	1.9	0.8	0.1	0.0	0.0	0.0
37.5°	17.8	14.9	5.5	2.8	1.6	0.4	0.1	0.0	0.0	0.0
40°	17.0	13.7	4.6	2.5	1.1	0.1	0.0	0.0	0.0	0.0
42.5°	16.2	12.6	4.1	2.1	0.8	0.0	0.0	0.0	0.0	0.0
45°	15.3	11.4	3.6	1.8	0.5	0.0	0.0	0.0	0.0	0.0
47.5°	14.4	10.3	3.2	1.5	0.3	0.0	0.0	0.0	0.0	0.0
50°	13.5	9.1	2.8	1.2	0.2	0.0	0.0	0.0	0.0	0.0
52.5°	12.5	8.0	2.4	0.9	0.1	0.0	0.0	0.0	0.0	0.0
55°	11.6	7.1	2.2	0.7	0.1	0.0	0.0	0.0	0.0	0.0
57.5°	10.5	6.2	1.8	0.5	0.1	0.0	0.0	0.0	0.0	0.0
60°	9.5	5.4	1.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	8.5	4.7	1.4	0.4	0.0	0.0	0.0	0.0	0.0	0.0
65°	7.4	3.9	1.1	0.3	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	6.3	3.2	0.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0
70°	5.2	2.7	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	4.2	2.0	0.6	0.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	3.2	1.4	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	2.3	1.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	1.6	0.7	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	1.0	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.5	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
90°	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
95°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.0	0.0	0.0	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	0.0	0.0
110°	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):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	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
117.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
120°	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.1
122.5°	0.0	0.0	0.1	0.0	0.0	0.1	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
127.5°	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
130°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
132.5°	0.1	0.0	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0
135°	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0
137.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
140°	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.1
142.5°	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1
145°	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
150°	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
152.5°	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1
155°	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1
157.5°	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1
160°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
162.5°	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.0	0.1
165°	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.0
167.5°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
170°	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1
172.5°	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	0.1	0.1	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
180°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)