

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: 246p113

Luminaire Tested: **1204-INC18-12-CS**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-31-95  
Report Number: 246p113  
Test Lab: METALUX RESEARCH LABS  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMIERE  
Catalog Number: 1204-INC18-12-CS  
Description: ZUMA 1204 SERIES ALUMINUM RECESS MOUNTED EYELID  
Light Source: ONE - GE- INC 1142 - 200 LUMENS -18 WATTS  
Ballast/Driver: -

**Summary**

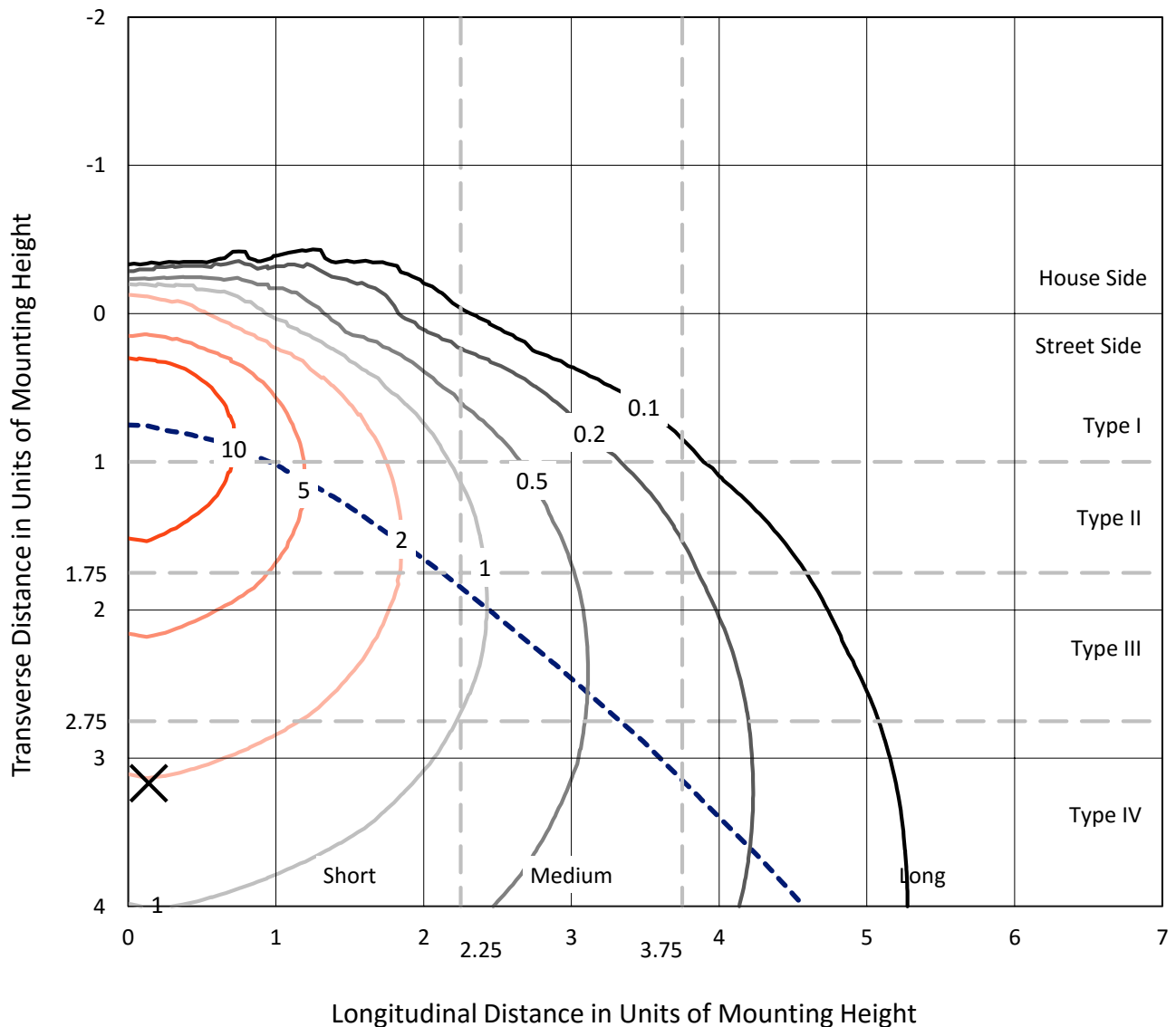
Lumens per Lamp: 200 (1 lamp)  
Luminaire Lumens: 27.4 lumens  
Efficiency: 13.7%  
Efficacy: 27.4 lumens/watt  
Luminous Opening: (L: 0 ' x W: 0.16 ' x H: 0.07 '  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B0 - U1 - G0

Input Watts (W): 1  
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

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### Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd  
 - - - 1/2 Max cd

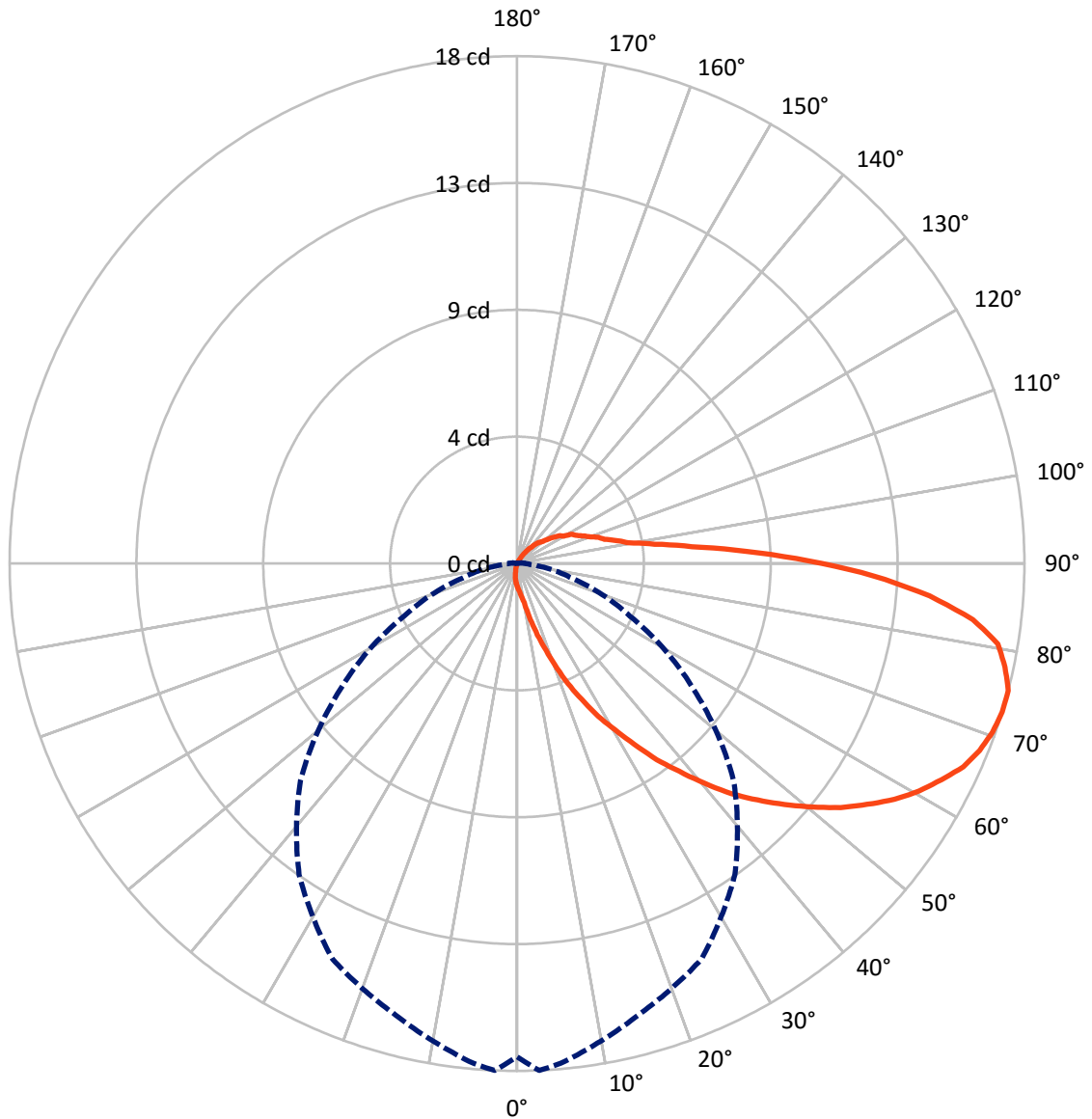


Based on 0.5 foot mounting height. Maximum calculated value = 18.2 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 2.5-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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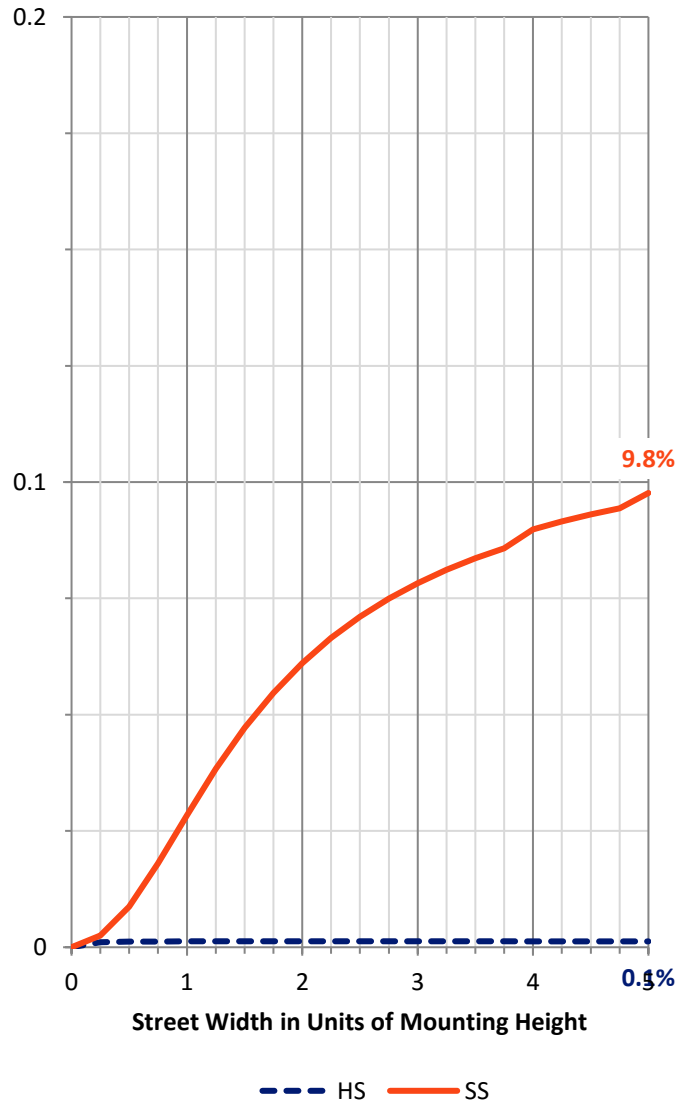
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	0.3	0.0	0.3
	% Lamp	0.1	0.0	0.1
<b>Street Side</b>	Lumens	22.7	4.4	27.1
	% Lamp	11.4	2.2	13.6
<b>Total</b>	Lumens	23.0	4.4	27.4
	% Lamp	11.5	2.2	13.7

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.1	0.3	0.0
10°-20°	0.3	1.1	0.1
20°-30°	0.8	2.8	0.4
30°-40°	1.5	5.6	0.8
40°-50°	2.6	9.4	1.3
50°-60°	3.7	13.5	1.8
60°-70°	4.7	17.1	2.3
70°-80°	5.1	18.8	2.6
80°-90°	4.2	15.5	2.1
90°-100°	2.1	7.6	1.0
100°-110°	1.1	3.8	0.5
110°-120°	0.7	2.4	0.3
120°-130°	0.4	1.4	0.2
130°-140°	0.2	0.6	0.1
140°-150°	0.1	0.2	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°	23.0	83.9	11.5
0°-180°	27.4	100.0	13.7



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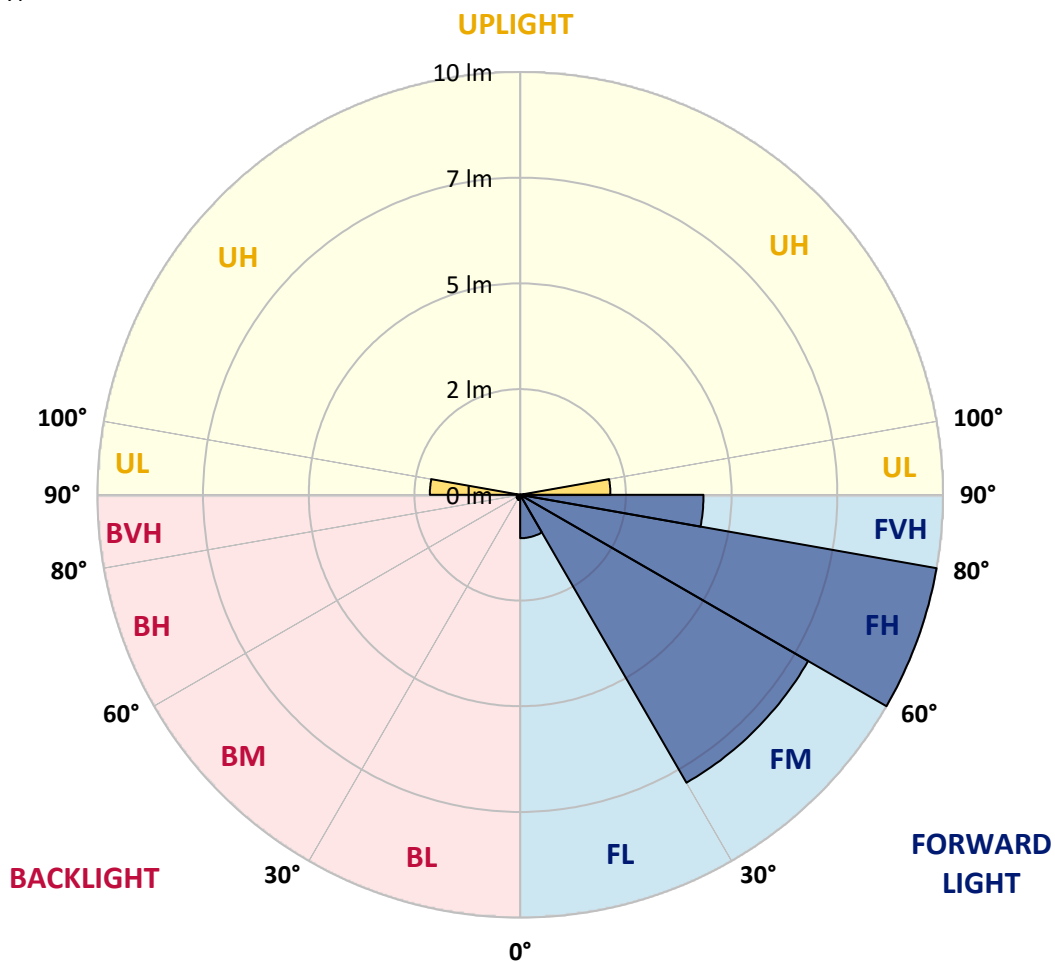
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	1.0	0.5			
FM (30°-60°)	7.7	3.8			
FH (60°-80°)	9.8	4.9			G0/660
FVH (80°-90°)	4.2	2.1			G0/10
BL (0°-30°)	0.1	0.1	B0/110		
BM (30°-60°)	0.1	0.0	B0/220		
BH (60°-80°)	0.0	0.0	B0/110		G0/110
BVH (80°-90°)	0.0	0.0			G0/10
UL (90°-100°)	2.1	1.0		U1/10	
UH (100°-180°)	0.0	0.0		U1/10	
Trapped Light	172.6	86.3			

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

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	2.5°	5°	15°	25°	35°	45°	55°	65°	75°	85°
0°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2.5°	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.9	0.9	0.8
5°	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8
7.5°	1.1	1.2	1.2	1.1	1.1	1.1	1.0	1.0	0.9	0.9	0.8
10°	1.4	1.4	1.4	1.4	1.3	1.2	1.2	1.1	1.0	0.9	0.9
12.5°	1.8	1.9	1.9	1.8	1.6	1.5	1.3	1.2	1.0	0.9	0.8
15°	2.4	2.5	2.5	2.3	2.1	1.9	1.6	1.3	1.1	1.0	0.8
17.5°	3.1	3.1	3.1	2.9	2.6	2.3	1.9	1.4	1.2	1.0	0.8
20°	3.8	3.8	3.8	3.5	3.2	2.8	2.3	1.7	1.3	1.0	0.8
22.5°	4.5	4.6	4.5	4.2	3.8	3.3	2.7	2.0	1.4	1.0	0.8
25°	5.2	5.3	5.2	4.9	4.5	3.9	3.2	2.3	1.5	1.1	0.8
27.5°	5.9	6.1	6.0	5.6	5.1	4.4	3.6	2.6	1.7	1.1	0.8
30°	6.7	6.8	6.8	6.3	5.8	5.0	4.1	3.0	1.9	1.2	0.8
32.5°	7.5	7.6	7.6	7.0	6.4	5.6	4.5	3.3	2.1	1.2	0.8
35°	8.3	8.5	8.4	7.7	7.1	6.1	5.0	3.7	2.3	1.3	0.8
37.5°	9.1	9.3	9.3	8.5	7.8	6.7	5.5	4.0	2.5	1.4	0.8
40°	9.9	10.2	10.1	9.3	8.5	7.3	6.0	4.4	2.8	1.4	0.8
42.5°	10.8	11.1	10.9	10.0	9.2	8.0	6.5	4.7	3.0	1.5	0.8
45°	11.6	11.9	11.8	10.8	9.9	8.6	7.0	5.0	3.2	1.6	0.8
47.5°	12.4	12.7	12.6	11.6	10.6	9.2	7.5	5.4	3.4	1.7	0.8
50°	13.1	13.5	13.4	12.3	11.3	9.8	7.9	5.7	3.5	1.8	0.8
52.5°	13.9	14.3	14.2	13.0	12.0	10.3	8.4	6.0	3.7	1.8	0.8
55°	14.6	15.0	14.9	13.7	12.6	10.9	8.8	6.3	3.9	1.9	0.7
57.5°	15.2	15.7	15.6	14.4	13.2	11.4	9.2	6.6	4.0	1.9	0.7
60°	15.9	16.3	16.2	15.0	13.8	11.9	9.6	6.8	4.2	2.0	0.7
62.5°	16.4	16.8	16.7	15.4	14.3	12.3	10.0	7.1	4.3	2.0	0.7
65°	16.8	17.3	17.2	15.8	14.7	12.7	10.3	7.2	4.4	2.0	0.6
67.5°	17.1	17.6	17.4	16.1	15.0	13.0	10.5	7.4	4.4	2.0	0.6
70°	17.3	17.8	17.7	16.4	15.2	13.2	10.7	7.5	4.5	2.0	0.6
72.5°	17.4	17.9	17.7	16.5	15.4	13.4	10.8	7.5	4.4	2.0	0.5
75°	17.4	17.9	17.7	16.5	15.4	13.4	10.8	7.5	4.4	1.9	0.5
77.5°	17.1	17.6	17.5	16.3	15.3	13.3	10.7	7.4	4.2	1.8	0.4
80°	16.7	17.2	17.0	15.9	14.8	12.9	10.3	7.1	4.0	1.7	0.4
82.5°	15.7	16.2	16.1	14.9	14.0	12.1	9.7	6.6	3.7	1.6	0.3
85°	14.2	14.6	14.5	13.5	12.6	11.0	8.8	6.0	3.4	1.4	0.3
87.5°	12.2	12.6	12.5	11.6	10.9	9.5	7.7	5.2	3.0	1.2	0.2
90°	10.0	10.3	10.3	9.6	9.1	8.0	6.5	4.5	2.6	1.1	0.2
92.5°	7.9	8.1	8.1	7.5	7.2	6.4	5.3	3.7	2.2	0.9	0.2
95°	6.0	6.2	6.2	5.9	5.6	5.1	4.3	3.0	1.8	0.8	0.1
97.5°	4.8	4.9	4.9	4.7	4.5	4.1	3.5	2.5	1.6	0.7	0.1
100°	4.0	4.0	4.0	3.8	3.8	3.5	3.0	2.2	1.3	0.6	0.1
102.5°	3.5	3.6	3.6	3.4	3.3	3.0	2.6	1.9	1.2	0.6	0.1
105°	3.2	3.2	3.2	3.1	3.0	2.7	2.3	1.7	1.1	0.5	0.1
107.5°	2.9	3.0	3.0	2.8	2.7	2.4	2.0	1.5	0.9	0.4	0.1
110°	2.7	2.7	2.7	2.6	2.5	2.2	1.9	1.4	0.8	0.4	0.1



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**CANDELA DISTRIBUTION (continued):**

	0°	2.5°	5°	15°	25°	35°	45°	55°	65°	75°	85°
112.5°	2.4	2.5	2.5	2.3	2.2	2.0	1.6	1.2	0.7	0.3	0.1
115°	2.3	2.3	2.3	2.2	2.0	1.8	1.5	1.1	0.6	0.3	0.1
117.5°	2.1	2.2	2.2	2.0	1.9	1.7	1.4	1.0	0.6	0.3	0.1
120°	1.9	1.9	1.9	1.8	1.7	1.5	1.2	0.8	0.5	0.2	0.0
122.5°	1.7	1.8	1.8	1.6	1.5	1.3	1.0	0.7	0.4	0.2	0.1
125°	1.6	1.6	1.6	1.5	1.3	1.2	0.9	0.6	0.3	0.1	0.0
127.5°	1.4	1.4	1.4	1.3	1.2	1.0	0.8	0.5	0.3	0.1	0.0
130°	1.2	1.2	1.2	1.1	1.0	0.9	0.6	0.4	0.2	0.1	0.0
132.5°	1.1	1.1	1.1	1.0	0.9	0.7	0.6	0.4	0.2	0.1	0.0
135°	0.9	1.0	0.9	0.8	0.8	0.6	0.4	0.2	0.1	0.1	0.0
137.5°	0.8	0.8	0.8	0.7	0.6	0.5	0.4	0.2	0.1	0.0	0.0
140°	0.6	0.7	0.7	0.6	0.5	0.4	0.3	0.2	0.1	0.0	0.0
142.5°	0.5	0.5	0.5	0.5	0.4	0.3	0.2	0.1	0.1	0.0	0.0
145°	0.4	0.4	0.4	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0
147.5°	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0
150°	0.1	0.1	0.1	0.1	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):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
2.5°	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.7	0.7
5°	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6
7.5°	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.5	0.5	0.5	0.5
10°	0.8	0.8	0.7	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.3
12.5°	0.8	0.7	0.6	0.6	0.5	0.4	0.3	0.2	0.2	0.2	0.2
15°	0.8	0.8	0.7	0.5	0.4	0.3	0.2	0.1	0.1	0.1	0.0
17.5°	0.8	0.7	0.6	0.4	0.3	0.2	0.1	0.0	0.0	0.0	0.0
20°	0.8	0.7	0.6	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0
22.5°	0.8	0.7	0.5	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.8	0.7	0.5	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.7	0.7	0.4	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.7	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.7	0.6	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.7	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.7	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.7	0.6	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.6	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.6	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.6	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.6	0.5	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.6	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.5	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.4	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.4	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.0	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	0.0
100°	0.0	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	0.0
105°	0.0	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	0.0
110°	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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CATALOG NUMBER: 1204-INC18-12-CS

**CANDELA DISTRIBUTION (continued):**

	90°	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	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°	0.1	0.0	0.0	0.1	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

(END OF REPORT)