

Scaled data based on original data using  
LM-66-11 Electrical and Photometric Measurements of Single-Ended Compact  
Fluorescent Lamps

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: LUMIERE

Report Number: P10068

Luminaire Tested: **1237E-SQ-x-CF13**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-66-11  
Report Number: P10068  
Test Lab: PEACHTREE CITY  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMIERE  
Catalog Number: 1237E-SQ-x-CF13  
Description: LUMIERE 7 INCH FLUORESCENT STEP LIGHT  
WITH EYELID FACEPLATE, SAND BLASTED LENS  
W/O REFLECTOR  
Light Source: 4 PIN TRIPLE TWIN TUBE COMPACT FLUORESCENT LAMP  
CFL13/DT/E/827 13 WATTS  
Ballast/Driver: B136

**Summary**

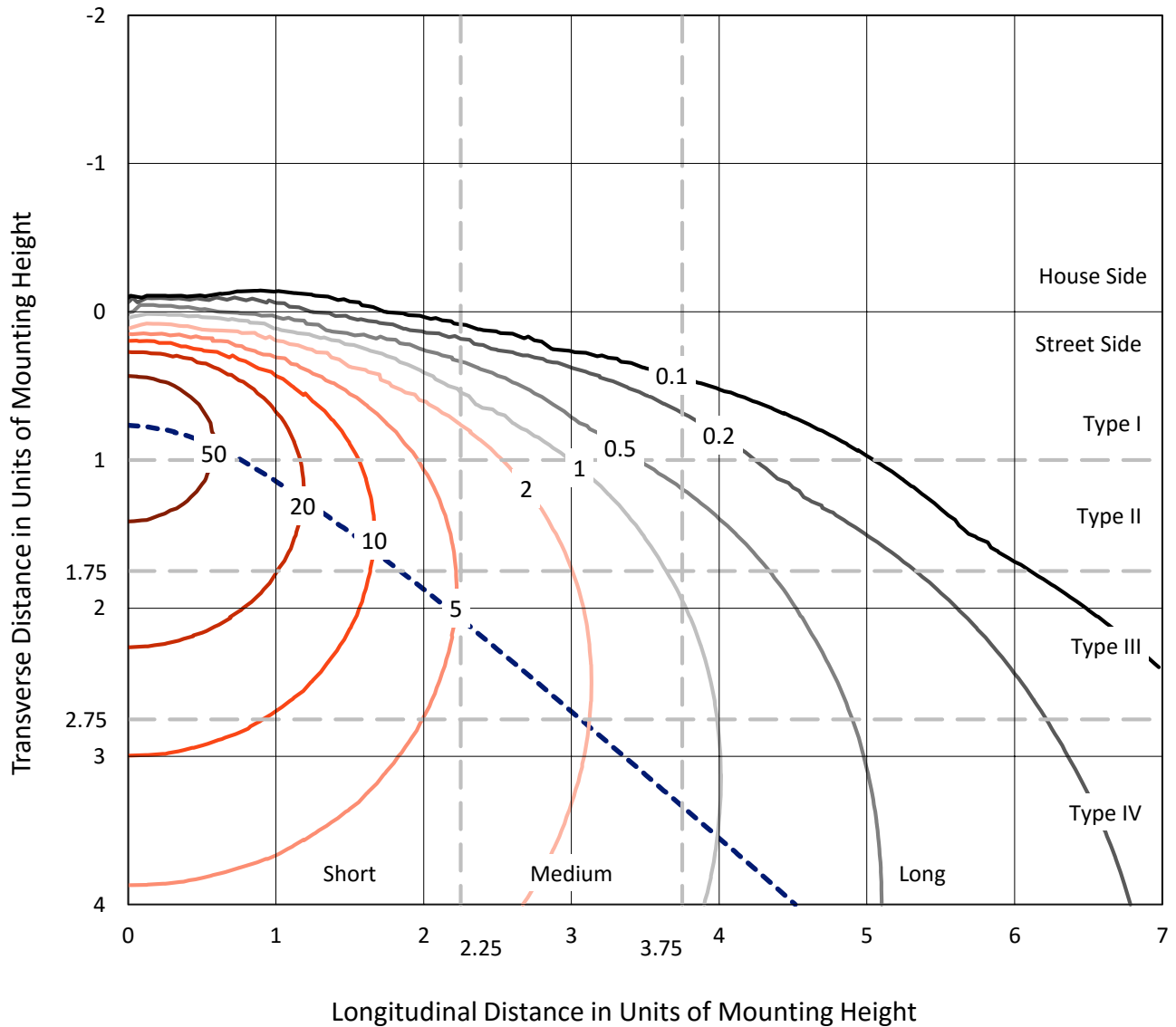
Lumens per Lamp: 900 (1 lamp)  
Luminaire Lumens: 166 lumens  
Efficiency: 18.4%  
Efficacy: 12.8 lumens/watt  
Luminous Opening: Circular (Dia: 0.46' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B0 - U2 - G1

Input Watts (W): 13  
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

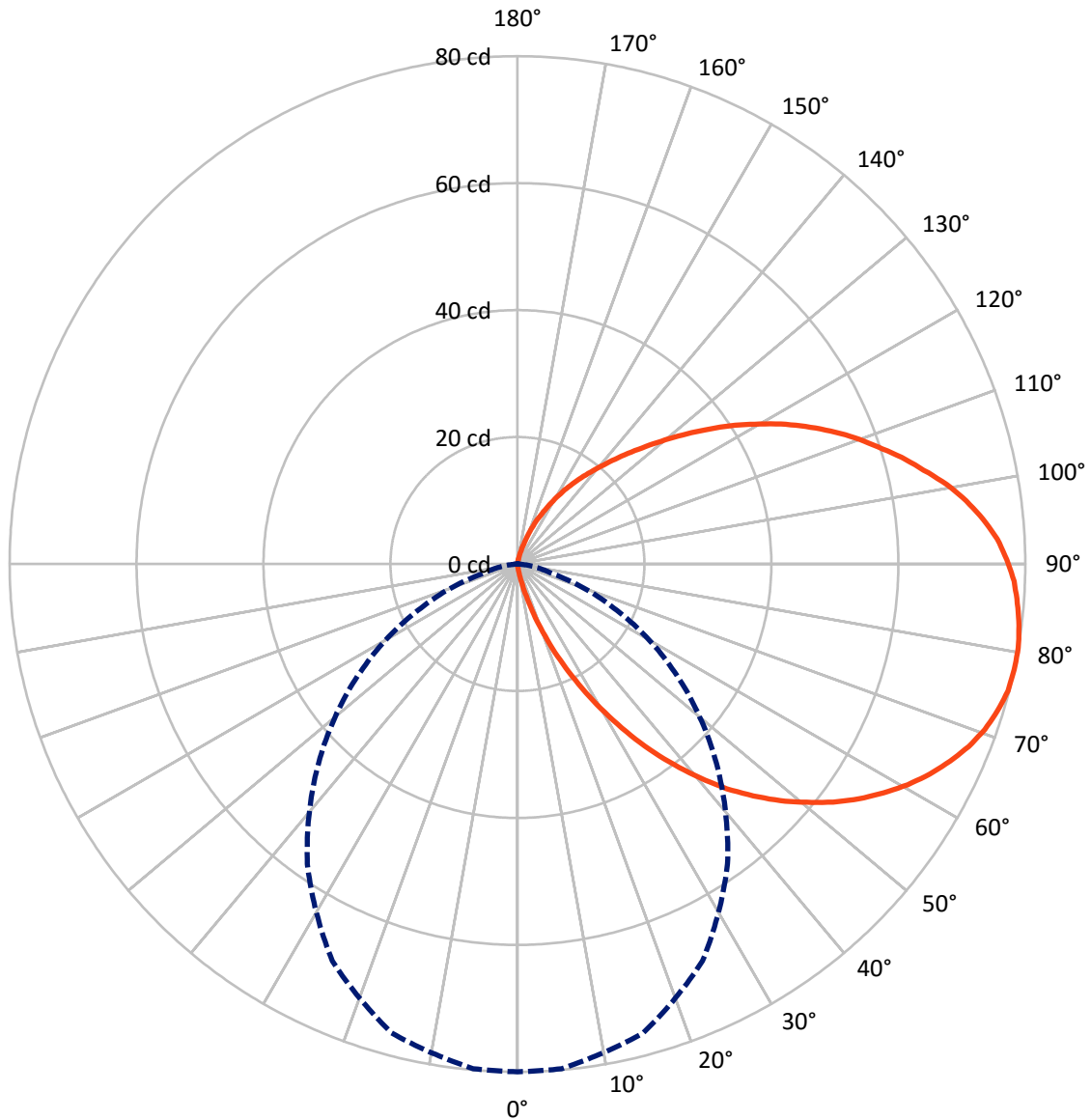
× Max cd  
 - - - 1/2 Max cd



Based on 0.5 foot mounting height. Maximum calculated value = 80 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral      - - - Horizontal Cone Through 77.5-Deg Vertical

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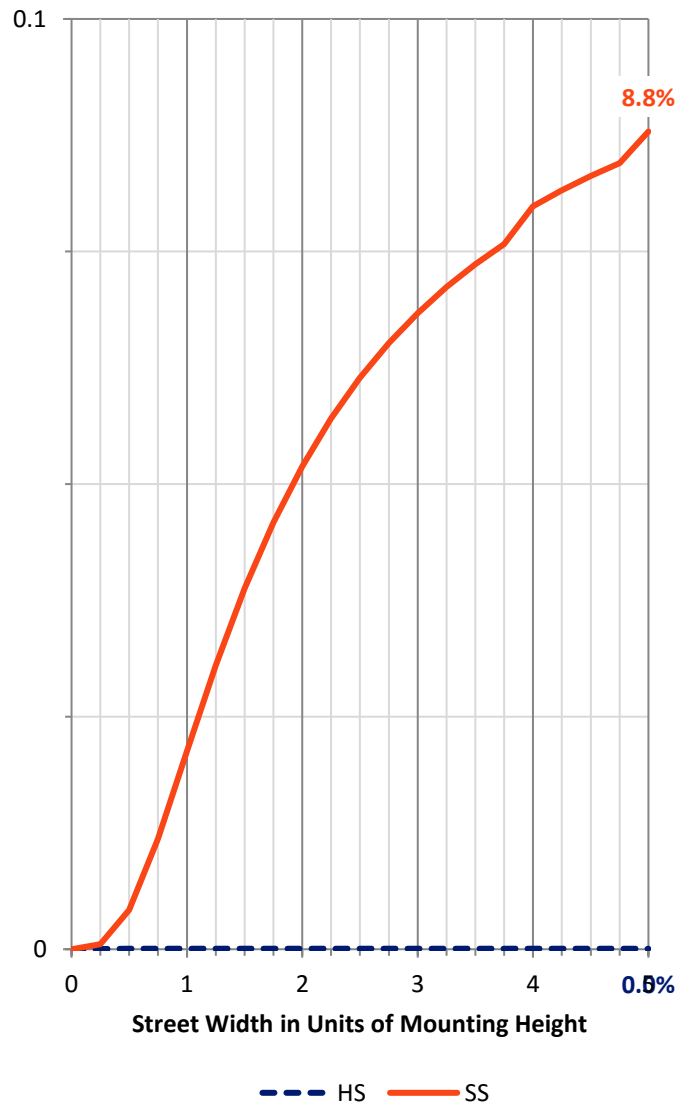
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	0.0	0.1	0.1
	% Lamp	0.0	0.0	0.0
<b>Street Side</b>	Lumens	97.4	68.4	165.8
	% Lamp	10.8	7.6	18.4
<b>Total</b>	Lumens	97.5	68.5	166.0
	% Lamp	10.8	7.6	18.4

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.0	0.0	0.0
10°-20°	0.4	0.2	0.0
20°-30°	2.1	1.3	0.2
30°-40°	5.5	3.3	0.6
40°-50°	10.1	6.1	1.1
50°-60°	15.0	9.0	1.7
60°-70°	19.2	11.6	2.1
70°-80°	22.2	13.3	2.5
80°-90°	23.0	13.9	2.6
90°-100°	21.4	12.9	2.4
100°-110°	17.6	10.6	2.0
110°-120°	12.9	7.8	1.4
120°-130°	8.3	5.0	0.9
130°-140°	4.8	2.9	0.5
140°-150°	2.4	1.5	0.3
150°-160°	0.9	0.5	0.1
160°-170°	0.1	0.1	0.0
170°-180°	0.0	0.0	0.0
0°-90°	97.5	58.7	10.8
0°-180°	166.0	100.0	18.4



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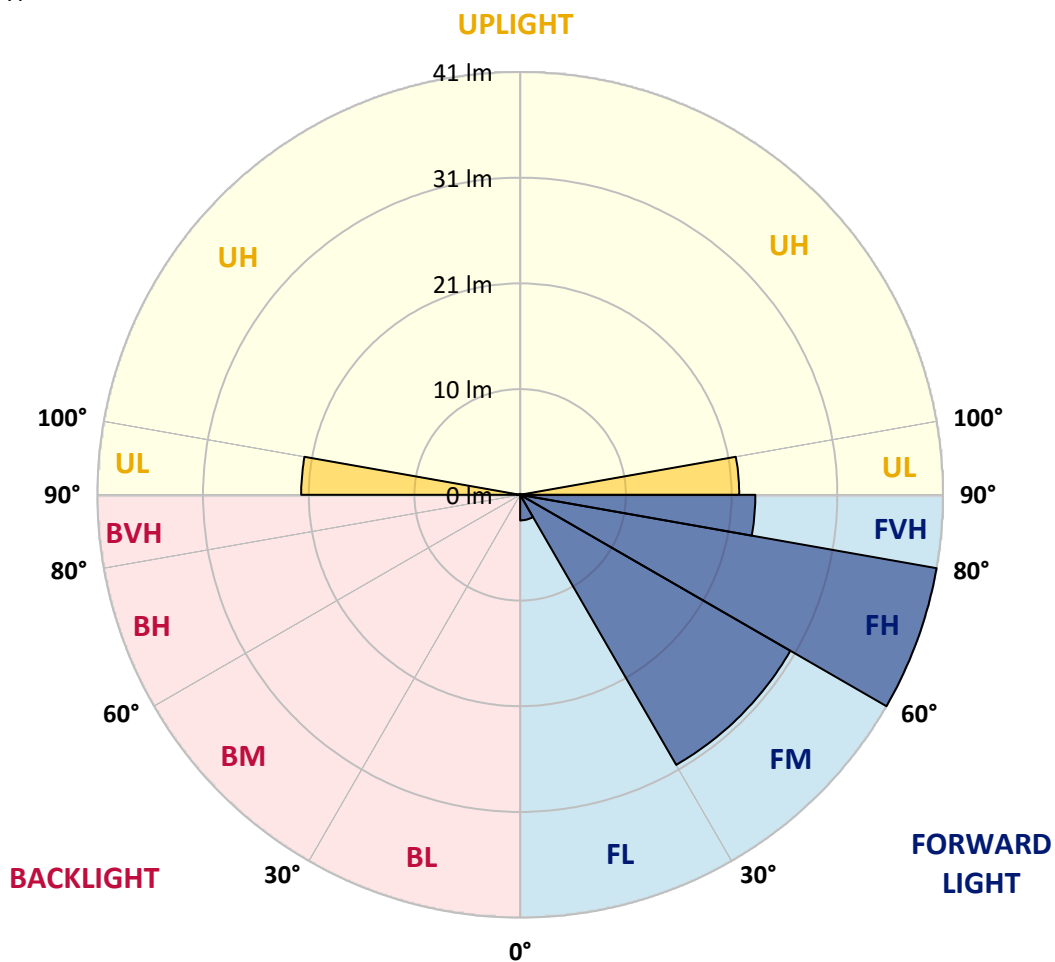
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2.5	0.3			
FM (30°-60°)	30.5	3.4			
FH (60°-80°)	41.4	4.6			G0/660
FVH (80°-90°)	23.0	2.6			G1/100
BL (0°-30°)	0.0	0.0	B0/110		
BM (30°-60°)	0.0	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°)	21.4	2.4		U2/50	
UH (100°-180°)	0.1	0.0		U1/10	
Trapped Light	734.0	81.6			

**BUG Rating: B0-U2-G1**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2.5°	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2
5°	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
7.5°	0.6	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.3	0.2	0.2
10°	1.5	1.5	1.4	1.2	0.9	0.7	0.5	0.4	0.3	0.2	0.2
12.5°	3.0	3.0	2.7	2.2	1.7	1.1	0.7	0.4	0.3	0.2	0.2
15°	5.2	5.1	4.7	3.9	2.8	1.9	1.1	0.6	0.3	0.2	0.2
17.5°	8.3	8.1	7.4	6.2	4.5	2.9	1.6	0.8	0.4	0.2	0.2
20°	11.4	11.4	10.6	8.9	6.7	4.3	2.3	1.1	0.4	0.2	0.2
22.5°	15.1	15.0	13.9	11.9	9.1	6.1	3.2	1.4	0.5	0.2	0.2
25°	18.8	18.8	17.5	15.2	11.9	8.0	4.3	1.8	0.7	0.2	0.2
27.5°	22.9	22.8	21.3	18.4	14.6	10.2	5.7	2.4	0.8	0.2	0.2
30°	27.1	27.2	25.3	22.1	17.6	12.5	7.1	3.0	0.9	0.3	0.2
32.5°	31.5	31.4	29.4	25.8	20.5	14.8	8.7	3.6	1.1	0.3	0.2
35°	35.9	35.7	33.5	29.3	23.7	17.1	10.4	4.4	1.3	0.3	0.2
37.5°	40.1	39.9	37.5	33.0	26.8	19.5	12.1	5.2	1.5	0.3	0.2
40°	44.3	44.1	41.5	36.6	29.8	21.9	13.8	6.1	1.7	0.4	0.2
42.5°	48.4	48.0	45.4	40.1	32.8	24.2	15.4	7.0	1.9	0.4	0.2
45°	52.1	51.8	49.0	43.4	35.6	26.6	17.1	8.0	2.1	0.4	0.2
47.5°	55.7	55.5	52.5	46.6	38.4	28.7	18.6	9.0	2.4	0.4	0.2
50°	59.0	58.8	55.7	49.5	41.0	30.8	20.1	9.9	2.7	0.5	0.2
52.5°	62.3	62.0	58.8	52.4	43.3	32.8	21.6	10.9	2.9	0.5	0.2
55°	65.3	65.0	61.6	54.9	45.5	34.5	23.0	11.8	3.2	0.5	0.2
57.5°	68.0	67.8	64.3	57.3	47.6	36.2	24.3	12.7	3.5	0.5	0.2
60°	70.6	70.4	66.7	59.6	49.5	37.7	25.4	13.5	3.8	0.6	0.2
62.5°	72.9	72.7	69.0	61.6	51.2	39.1	26.5	14.2	4.0	0.6	0.2
65°	74.9	74.7	71.0	63.5	52.7	40.4	27.5	14.9	4.3	0.6	0.2
67.5°	76.7	76.4	72.7	65.1	54.1	41.4	28.3	15.5	4.5	0.6	0.2
70°	78.1	77.9	74.1	66.4	55.3	42.5	29.1	16.1	4.8	0.7	0.2
72.5°	79.1	78.9	75.2	67.6	56.3	43.3	29.7	16.6	5.0	0.7	0.2
75°	79.8	79.5	76.0	68.4	57.1	43.9	30.3	17.0	5.1	0.7	0.2
77.5°	80.0	79.8	76.5	69.0	57.7	44.3	30.7	17.3	5.3	0.7	0.2
80°	80.0	79.8	76.5	69.3	58.0	44.7	30.9	17.5	5.4	0.7	0.2
82.5°	79.6	79.5	76.4	69.2	58.1	44.8	31.0	17.6	5.5	0.7	0.2
85°	79.0	78.9	75.9	68.9	57.9	44.6	30.9	17.7	5.6	0.7	0.2
87.5°	78.3	78.1	75.1	68.3	57.4	44.3	30.7	17.5	5.6	0.7	0.2
90°	77.1	77.0	74.1	67.4	56.6	43.6	30.3	17.3	5.5	0.7	0.2
92.5°	75.7	75.5	72.6	66.1	55.5	42.7	29.5	16.8	5.4	0.7	0.2
95°	73.7	73.6	70.8	64.3	54.0	41.5	28.6	16.3	5.2	0.7	0.2
97.5°	71.4	71.2	68.5	62.2	52.1	40.0	27.6	15.6	5.0	0.7	0.2
100°	68.8	68.6	65.8	59.7	50.0	38.4	26.4	14.9	4.8	0.7	0.2
102.5°	65.7	65.6	62.9	57.0	47.9	36.6	25.1	14.0	4.5	0.7	0.2
105°	62.8	62.6	60.0	54.4	45.5	34.9	23.8	13.2	4.2	0.6	0.2
107.5°	59.7	59.7	57.1	51.6	43.1	32.9	22.3	12.2	3.9	0.6	0.2
110°	56.8	56.6	54.0	48.7	40.6	31.0	20.9	11.2	3.6	0.6	0.2



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**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	53.6	53.4	50.9	45.8	38.1	28.9	19.3	10.3	3.3	0.5	0.2
115°	50.3	50.1	47.7	42.7	35.5	26.7	17.7	9.4	3.1	0.5	0.2
117.5°	47.0	46.7	44.4	39.6	32.7	24.5	16.2	8.6	2.8	0.5	0.2
120°	43.4	43.3	40.9	36.4	30.0	22.5	14.7	7.8	2.6	0.4	0.1
122.5°	40.0	39.7	37.5	33.2	27.3	20.4	13.4	7.1	2.4	0.4	0.1
125°	36.4	36.2	34.2	30.2	24.8	18.5	12.2	6.6	2.2	0.4	0.1
127.5°	33.0	32.8	30.9	27.4	22.4	16.8	11.2	6.0	1.9	0.3	0.1
130°	29.8	29.6	27.8	24.7	20.3	15.3	10.2	5.4	1.7	0.3	0.1
132.5°	26.8	26.6	25.2	22.2	18.4	13.9	9.2	4.9	1.5	0.3	0.1
135°	24.1	23.9	22.6	20.0	16.6	12.6	8.3	4.3	1.3	0.2	0.1
137.5°	21.6	21.4	20.3	18.0	14.9	11.3	7.5	3.8	1.1	0.2	0.1
140°	19.3	19.3	18.2	16.2	13.4	10.1	6.7	3.3	0.9	0.2	0.1
142.5°	17.3	17.3	16.2	14.5	11.9	8.9	5.8	2.8	0.7	0.2	0.1
145°	15.3	15.2	14.4	12.7	10.4	7.8	4.9	2.3	0.6	0.2	0.1
147.5°	13.4	13.3	12.5	11.0	9.0	6.7	4.1	1.8	0.5	0.2	0.1
150°	11.4	11.4	10.7	9.3	7.7	5.5	3.3	1.4	0.4	0.2	0.1
152.5°	9.5	9.5	8.9	7.9	6.3	4.4	2.6	1.0	0.3	0.1	0.1
155°	7.9	7.9	7.3	6.4	5.0	3.4	1.9	0.7	0.3	0.1	0.1
157.5°	6.2	6.1	5.7	4.9	3.8	2.5	1.3	0.5	0.2	0.1	0.1
160°	4.5	4.5	4.2	3.5	2.6	1.7	0.9	0.4	0.2	0.1	0.1
162.5°	3.0	3.0	2.8	2.3	1.6	1.0	0.6	0.3	0.2	0.1	0.1
165°	1.8	1.8	1.6	1.3	0.9	0.6	0.4	0.3	0.2	0.1	0.1
167.5°	0.9	0.9	0.8	0.7	0.5	0.4	0.3	0.2	0.2	0.1	0.1
170°	0.5	0.5	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.1	0.1
172.5°	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1
175°	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1
177.5°	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.1	0.1
180°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1





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**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
2.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.1	0.0	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
87.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.1	0.0	0.1	0.1	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°	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
122.5°	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
125°	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
127.5°	0.1	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0
130°	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
132.5°	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
135°	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
137.5°	0.1	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
140°	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
142.5°	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
145°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.1	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	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.1	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
177.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
180°	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1

(END OF REPORT)