

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: P10067

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: P10067
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 1237C-SQ-x-CF13
Description: LUMIERE 7 INCH FLUORESCENT STEP LIGHT
WITH CROSS FACEPLATE, SAND BLASTED LENS, AND W/O REFLECTOR
Light Source: 4 PIN TRIPLE TWIN TUBE COMPACT FLUORESCENT LAMP
CFL13/DT/E/827 13 WATTS
Ballast/Driver: B136

Summary

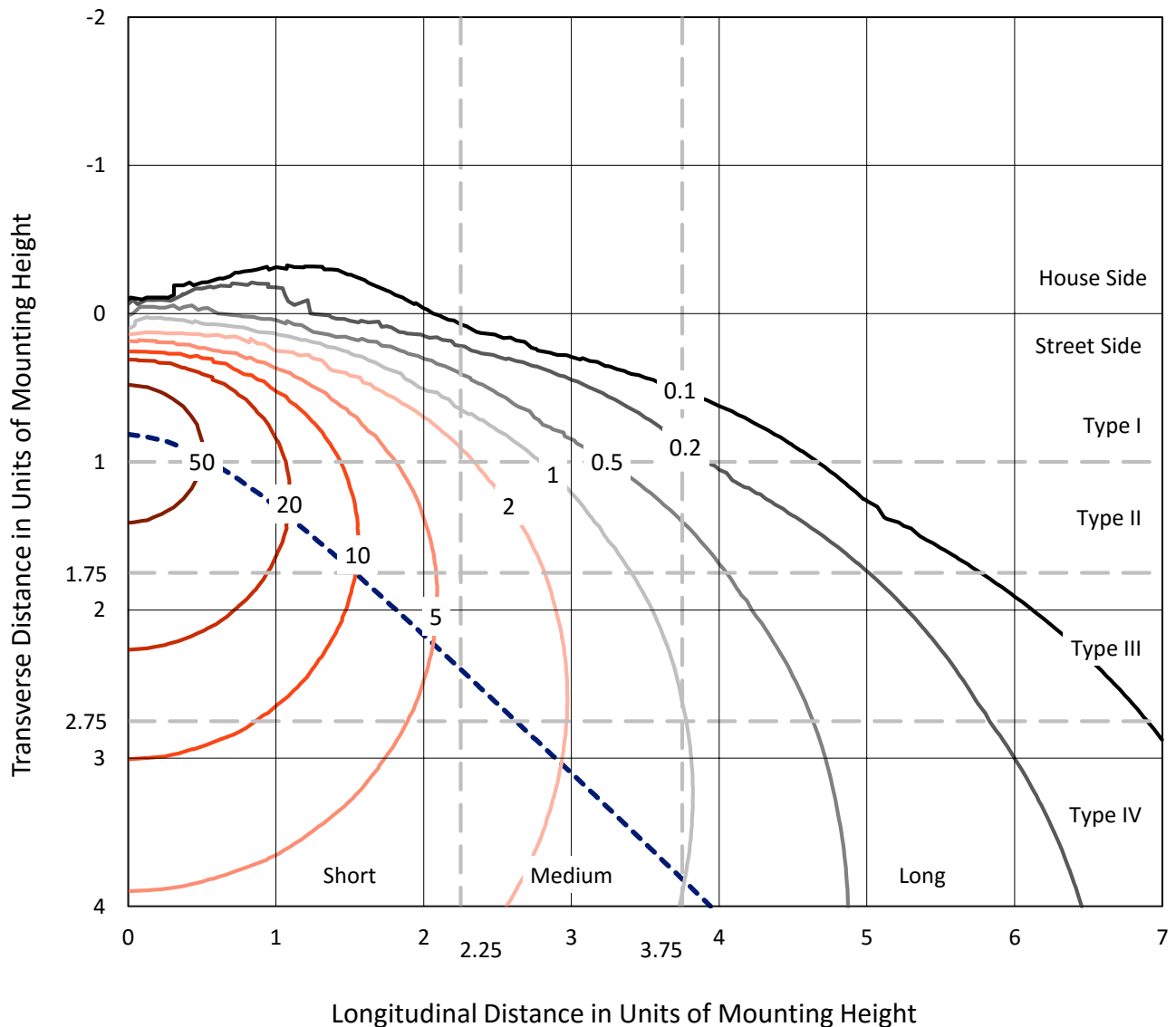
Lumens per Lamp: 900 (1 lamp)
Luminaire Lumens: 181.5 lumens
Efficiency: 20.2%
Efficacy: 14.0 lumens/watt
Luminous Opening: Circular (Dia: 0.46' x H: 0')
IES Classification: Type - Short - Non-Cutoff
BUG Rating: B0 - U3 - G1

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

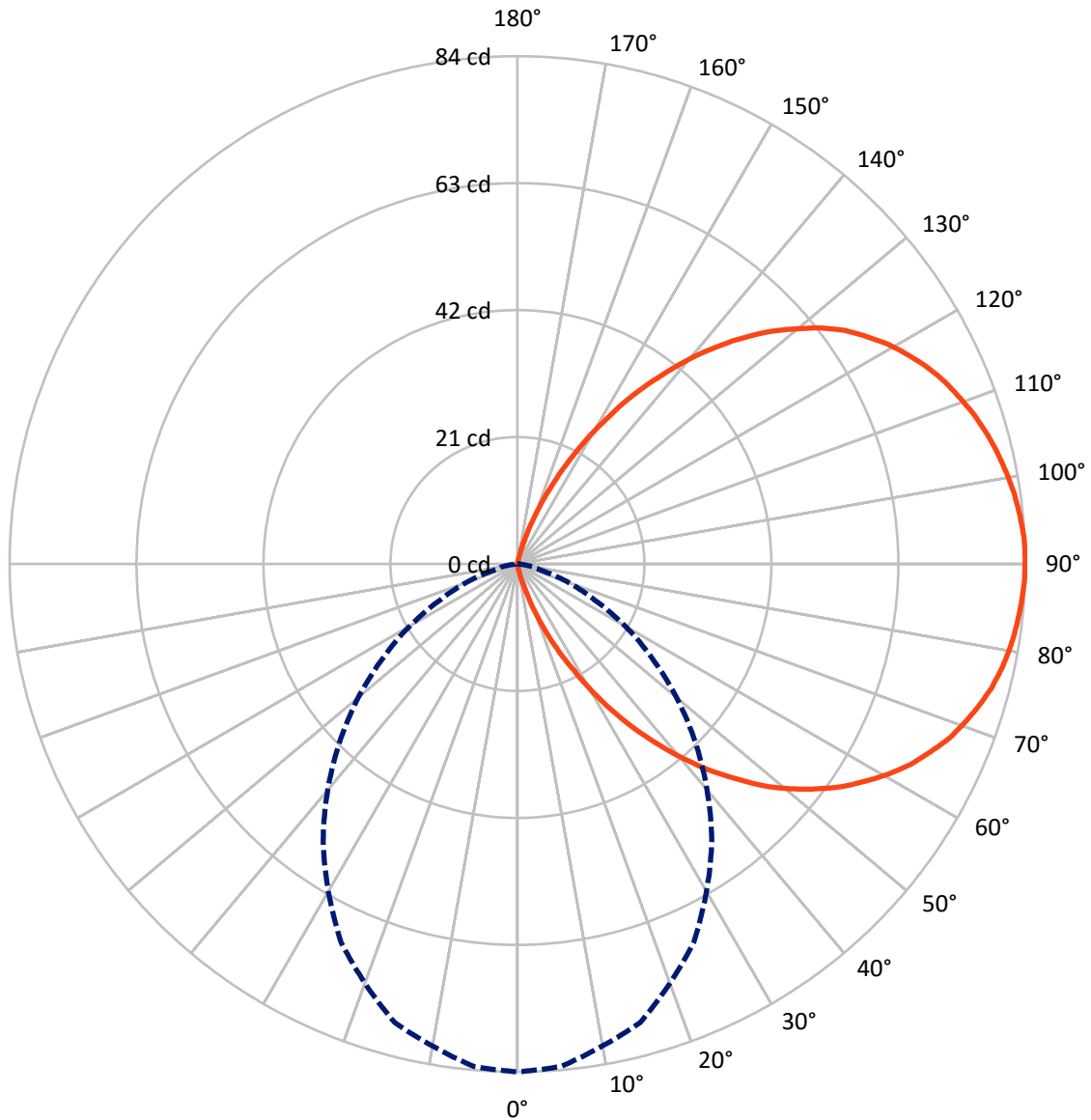
× Max cd
 - - - 1/2 Max cd



Based on 0.5 foot mounting height. Maximum calculated value = 75.8 fc
 Type - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 90-Deg Vertical

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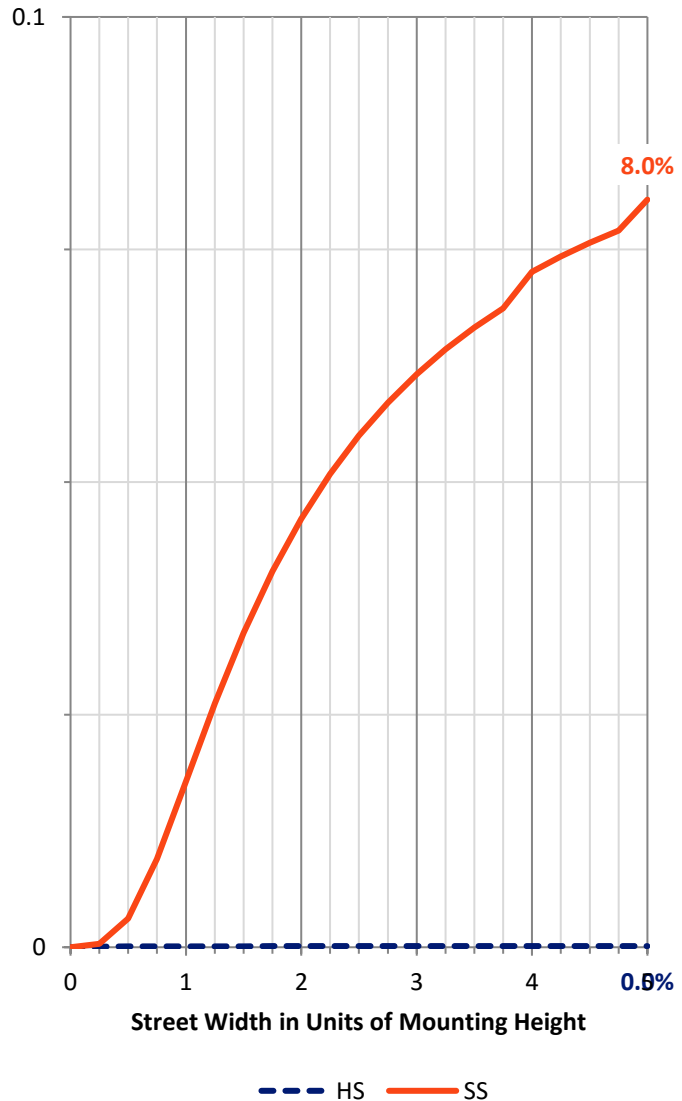
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	0.1	0.1	0.2
	% Lamp	0.0	0.0	0.0
Street Side	Lumens	90.6	90.6	181.3
	% Lamp	10.1	10.1	20.1
Total	Lumens	90.8	90.7	181.5
	% Lamp	10.1	10.1	20.2

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.0	0.0	0.0
10°-20°	0.3	0.1	0.0
20°-30°	1.7	0.9	0.2
30°-40°	4.7	2.6	0.5
40°-50°	9.1	5.0	1.0
50°-60°	13.7	7.6	1.5
60°-70°	17.8	9.8	2.0
70°-80°	20.9	11.5	2.3
80°-90°	22.6	12.4	2.5
90°-100°	22.5	12.4	2.5
100°-110°	20.8	11.4	2.3
110°-120°	17.9	9.9	2.0
120°-130°	13.9	7.7	1.5
130°-140°	9.2	5.1	1.0
140°-150°	4.7	2.6	0.5
150°-160°	1.5	0.8	0.2
160°-170°	0.2	0.1	0.0
170°-180°	0.0	0.0	0.0
0°-90°	90.8	50.0	10.1
0°-180°	181.5	100.0	20.2



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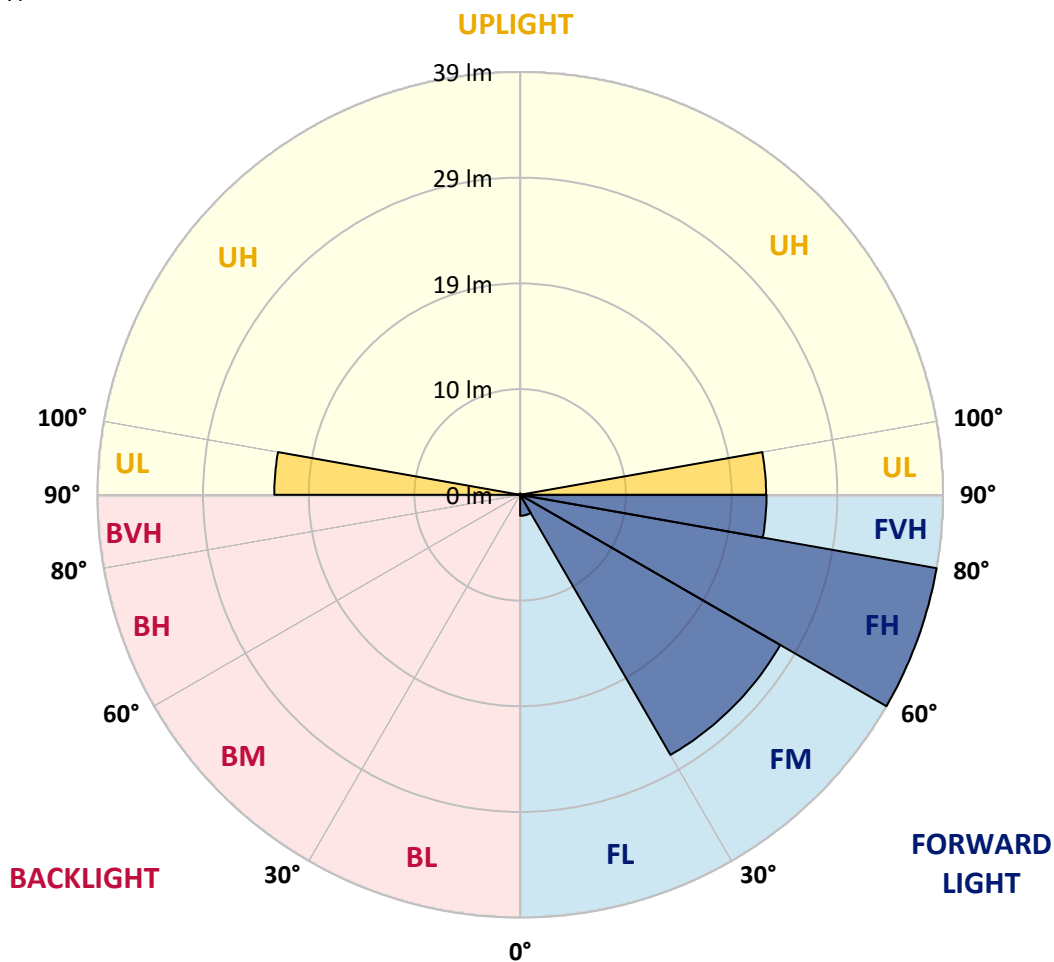
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone		Lumens	% Lamp	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1.9	0.2			
FM	(30°-60°)	27.5	3.1			
FH	(60°-80°)	38.7	4.3			G0/660
FVH	(80°-90°)	22.5	2.5			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°)	22.5	2.5		U2/50	
UH	(100°-180°)	0.1	0.0		U1/10	
Trapped Light		718.5	79.8			

BUG Rating: B0-U3-G1

Type 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°	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2
5°	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2
7.5°	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.2	0.2
10°	0.7	0.7	0.6	0.6	0.5	0.5	0.4	0.4	0.3	0.2	0.2
12.5°	1.5	1.5	1.4	1.1	0.8	0.6	0.5	0.4	0.3	0.2	0.2
15°	3.1	3.1	2.7	2.1	1.5	1.0	0.6	0.4	0.3	0.2	0.2
17.5°	5.7	5.7	5.0	3.9	2.6	1.5	0.9	0.5	0.4	0.3	0.2
20°	8.8	8.7	8.0	6.3	4.4	2.5	1.3	0.6	0.4	0.3	0.2
22.5°	12.3	12.3	11.0	9.0	6.5	3.9	1.8	0.8	0.4	0.3	0.2
25°	16.2	16.1	14.6	12.1	8.9	5.5	2.6	1.1	0.5	0.3	0.2
27.5°	20.0	19.9	18.2	15.3	11.4	7.3	3.6	1.4	0.5	0.3	0.2
30°	24.6	24.1	22.3	18.7	14.2	9.3	4.8	1.8	0.6	0.3	0.2
32.5°	29.1	28.7	26.4	22.1	16.9	11.3	6.0	2.3	0.7	0.3	0.2
35°	33.6	33.2	30.4	25.8	19.7	13.4	7.3	2.9	0.8	0.3	0.2
37.5°	37.9	37.5	34.5	29.3	22.7	15.5	8.6	3.5	1.0	0.3	0.2
40°	42.4	42.0	38.6	33.0	25.5	17.7	10.0	4.1	1.2	0.3	0.2
42.5°	46.7	46.3	42.6	36.4	28.5	19.8	11.5	4.8	1.3	0.3	0.2
45°	50.7	50.3	46.5	39.8	31.2	21.8	12.8	5.4	1.5	0.4	0.2
47.5°	54.9	54.3	50.1	42.8	33.9	23.9	14.2	6.1	1.7	0.4	0.2
50°	58.5	57.9	53.6	45.9	36.4	25.9	15.5	6.9	2.0	0.4	0.2
52.5°	61.9	61.3	56.8	48.8	38.8	27.6	16.8	7.6	2.2	0.4	0.2
55°	65.1	64.5	59.7	51.4	40.9	29.3	18.1	8.3	2.4	0.4	0.2
57.5°	67.9	67.4	62.5	53.8	43.0	31.0	19.3	9.0	2.6	0.5	0.2
60°	70.6	70.0	64.9	56.1	44.8	32.5	20.4	9.7	2.8	0.5	0.3
62.5°	73.1	72.4	67.2	58.1	46.5	33.8	21.4	10.3	3.0	0.5	0.3
65°	75.1	74.6	69.3	60.0	48.1	35.0	22.2	10.9	3.2	0.5	0.3
67.5°	77.1	76.4	71.1	61.6	49.5	36.1	23.1	11.5	3.3	0.5	0.3
70°	78.6	78.1	72.8	63.1	50.7	37.1	23.8	12.0	3.5	0.6	0.3
72.5°	80.0	79.4	74.2	64.5	51.9	38.0	24.5	12.3	3.6	0.6	0.3
75°	81.2	80.6	75.4	65.7	52.9	38.8	25.1	12.7	3.7	0.6	0.3
77.5°	82.1	81.5	76.3	66.7	53.8	39.6	25.7	13.1	3.8	0.6	0.3
80°	82.8	82.2	77.2	67.6	54.6	40.2	26.2	13.4	3.9	0.6	0.3
82.5°	83.3	82.8	77.8	68.3	55.3	40.7	26.6	13.7	4.0	0.6	0.3
85°	83.7	83.2	78.2	68.8	55.8	41.2	26.9	13.9	4.1	0.6	0.3
87.5°	84.0	83.4	78.5	69.1	56.1	41.5	27.2	14.1	4.1	0.6	0.3
90°	84.1	83.5	78.6	69.1	56.1	41.6	27.2	14.1	4.1	0.6	0.3
92.5°	84.0	83.4	78.4	69.0	56.1	41.5	27.1	14.0	4.0	0.6	0.3
95°	83.6	83.0	78.0	68.5	55.6	41.2	26.9	13.9	3.9	0.6	0.3
97.5°	83.1	82.5	77.3	67.8	55.1	40.7	26.6	13.6	3.8	0.6	0.3
100°	82.4	81.8	76.6	67.0	54.3	40.2	26.2	13.3	3.7	0.6	0.3
102.5°	81.6	81.0	75.7	66.1	53.5	39.5	25.7	13.0	3.6	0.5	0.3
105°	80.7	80.0	74.7	65.0	52.6	38.8	25.1	12.7	3.5	0.5	0.3
107.5°	79.6	78.9	73.5	64.0	51.7	38.1	24.6	12.3	3.3	0.5	0.3
110°	78.3	77.7	72.2	62.8	50.7	37.3	24.0	11.9	3.1	0.5	0.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	77.0	76.3	70.9	61.5	49.6	36.4	23.3	11.4	3.0	0.4	0.2
115°	75.4	74.7	69.4	60.1	48.4	35.4	22.5	10.9	2.8	0.4	0.2
117.5°	73.5	73.0	67.6	58.6	47.1	34.3	21.6	10.3	2.6	0.4	0.2
120°	71.5	70.8	65.7	56.8	45.6	33.1	20.7	9.6	2.4	0.4	0.2
122.5°	69.1	68.5	63.5	54.8	43.8	31.6	19.5	8.9	2.2	0.4	0.2
125°	66.6	65.9	61.0	52.5	41.9	30.1	18.3	8.1	1.9	0.3	0.2
127.5°	63.5	62.8	58.1	49.9	39.7	28.3	17.0	7.4	1.7	0.3	0.2
130°	59.9	59.5	54.9	47.1	37.3	26.4	15.6	6.6	1.5	0.3	0.2
132.5°	56.3	55.7	51.4	43.9	34.6	24.3	14.2	5.8	1.3	0.3	0.2
135°	52.2	51.7	47.7	40.6	31.9	22.1	12.6	5.0	1.1	0.3	0.2
137.5°	47.9	47.3	43.6	37.0	28.9	19.9	11.1	4.3	0.9	0.3	0.2
140°	43.4	42.9	39.4	33.4	25.9	17.6	9.7	3.5	0.7	0.2	0.2
142.5°	38.6	38.4	35.0	29.5	22.8	15.3	8.2	2.8	0.6	0.2	0.2
145°	34.1	33.6	30.7	25.8	19.7	13.0	6.7	2.2	0.5	0.2	0.2
147.5°	29.1	28.9	26.3	22.0	16.6	10.7	5.4	1.6	0.4	0.2	0.2
150°	24.5	24.2	22.1	18.3	13.6	8.6	4.1	1.2	0.4	0.2	0.2
152.5°	19.8	19.6	17.8	14.6	10.7	6.6	2.9	0.9	0.3	0.2	0.2
155°	15.5	15.3	13.8	11.3	8.1	4.8	2.0	0.6	0.3	0.2	0.2
157.5°	11.5	11.3	10.1	8.2	5.8	3.2	1.3	0.5	0.3	0.2	0.2
160°	7.9	7.8	7.0	5.5	3.6	1.9	0.8	0.4	0.3	0.2	0.2
162.5°	5.0	4.8	4.2	3.2	2.0	1.1	0.5	0.3	0.3	0.2	0.2
165°	2.4	2.5	2.1	1.6	1.0	0.6	0.4	0.3	0.2	0.2	0.2
167.5°	1.0	1.0	0.9	0.7	0.5	0.4	0.3	0.3	0.2	0.2	0.2
170°	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2
172.5°	0.0	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
175°	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
177.5°	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.2	0.2
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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CATALOG NUMBER: 1237C-SQ-x-CF13

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°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
47.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
57.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.2	0.1	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
80°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
87.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
90°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
110°	0.1	0.1	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°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
115°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
152.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
155°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
157.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
160°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
162.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
165°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
167.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
170°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
172.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
175°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
177.5°	0.1	0.1	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)