

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: P10058

Luminaire Tested: **1237-RD-x-CF13**

Issue Date: 3/3/2020

Test Information

Test Method: LM-66-11
Report Number: P10058
Test Lab: PEACHTREE CITY
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 1237-RD-x-CF13
Description: LUMIERE 7 INCH FLUORESCENT STEP LIGHT
WITH CIRCULAR OPEN 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

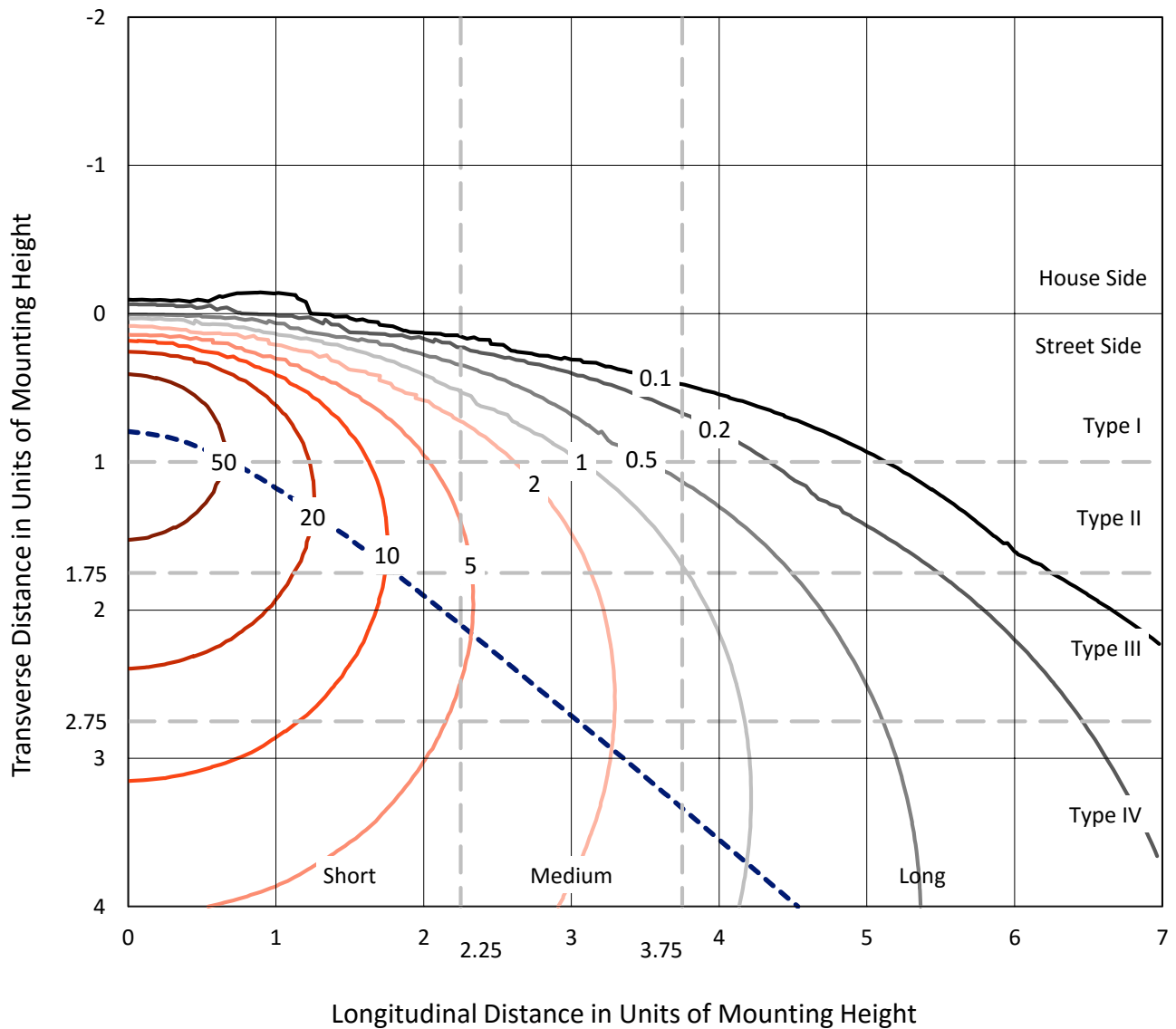
Lumens per Lamp: 900 (1 lamp)
Luminaire Lumens: 224.3 lumens
Efficiency: 24.9%
Efficacy: 18.7 lumens/watt
Luminous Opening: Circular (Dia: 0.46' x H: 0')
IES Classification: Type - Short - Non-Cutoff
BUG Rating: B0 - U3 - G1

Input Watts (W): 12
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

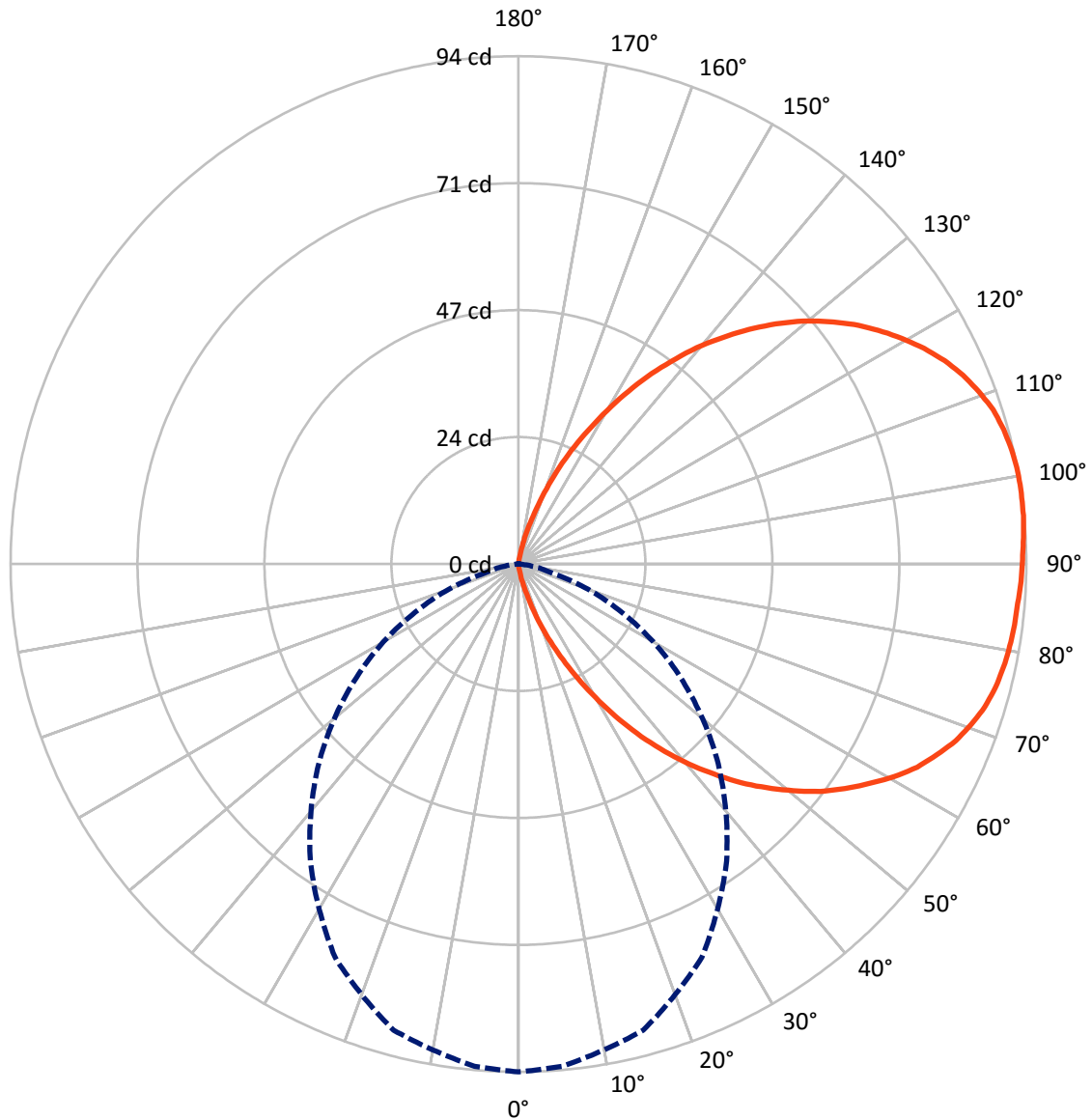
× Max cd
 - - - 1/2 Max cd



Based on 0.5 foot mounting height. Maximum calculated value = 87.8 fc
 Type - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 0-Deg Lateral - - - Horizontal Cone Through 97.5-Deg Vertical

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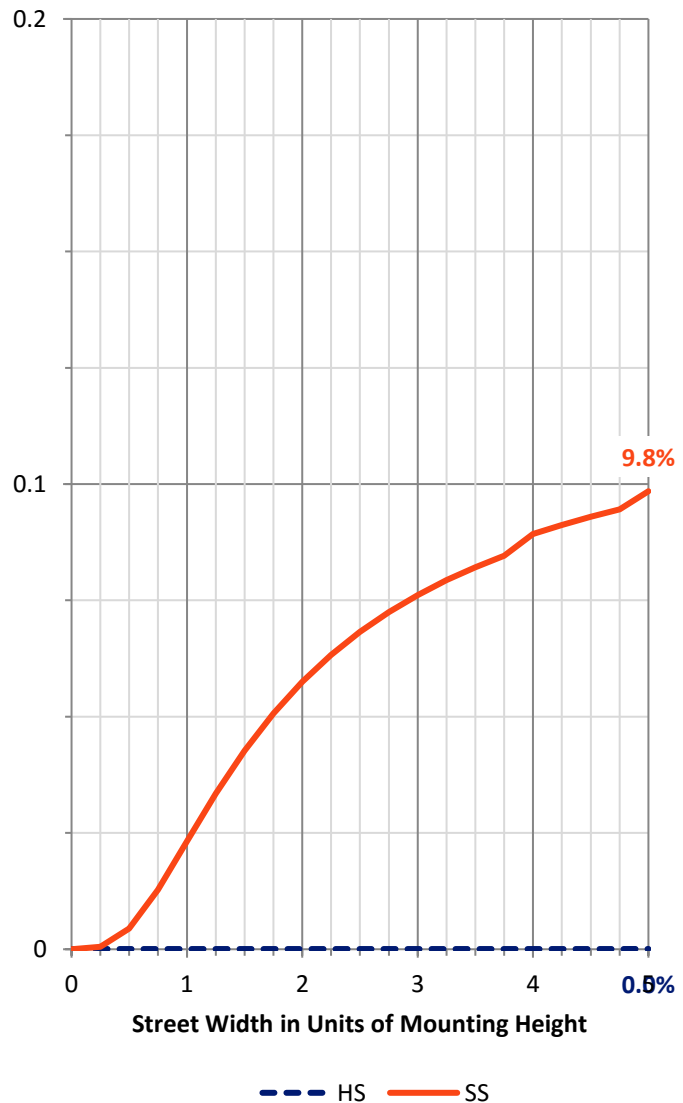
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	0.1	0.1	0.1
	% Lamp	0.0	0.0	0.0
Street Side	Lumens	110.1	114.0	224.2
	% Lamp	12.2	12.7	24.9
Total	Lumens	110.2	114.1	224.3
	% Lamp	12.2	12.7	24.9

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°	2.3	1.0	0.3
30°-40°	6.0	2.7	0.7
40°-50°	11.1	4.9	1.2
50°-60°	16.6	7.4	1.8
60°-70°	21.6	9.6	2.4
70°-80°	25.2	11.2	2.8
80°-90°	26.9	12.0	3.0
90°-100°	27.2	12.1	3.0
100°-110°	25.7	11.5	2.9
110°-120°	22.4	10.0	2.5
120°-130°	17.5	7.8	1.9
130°-140°	11.9	5.3	1.3
140°-150°	6.5	2.9	0.7
150°-160°	2.5	1.1	0.3
160°-170°	0.4	0.2	0.0
170°-180°	0.0	0.0	0.0
0°-90°	110.2	49.1	12.2
0°-180°	224.3	100.0	24.9



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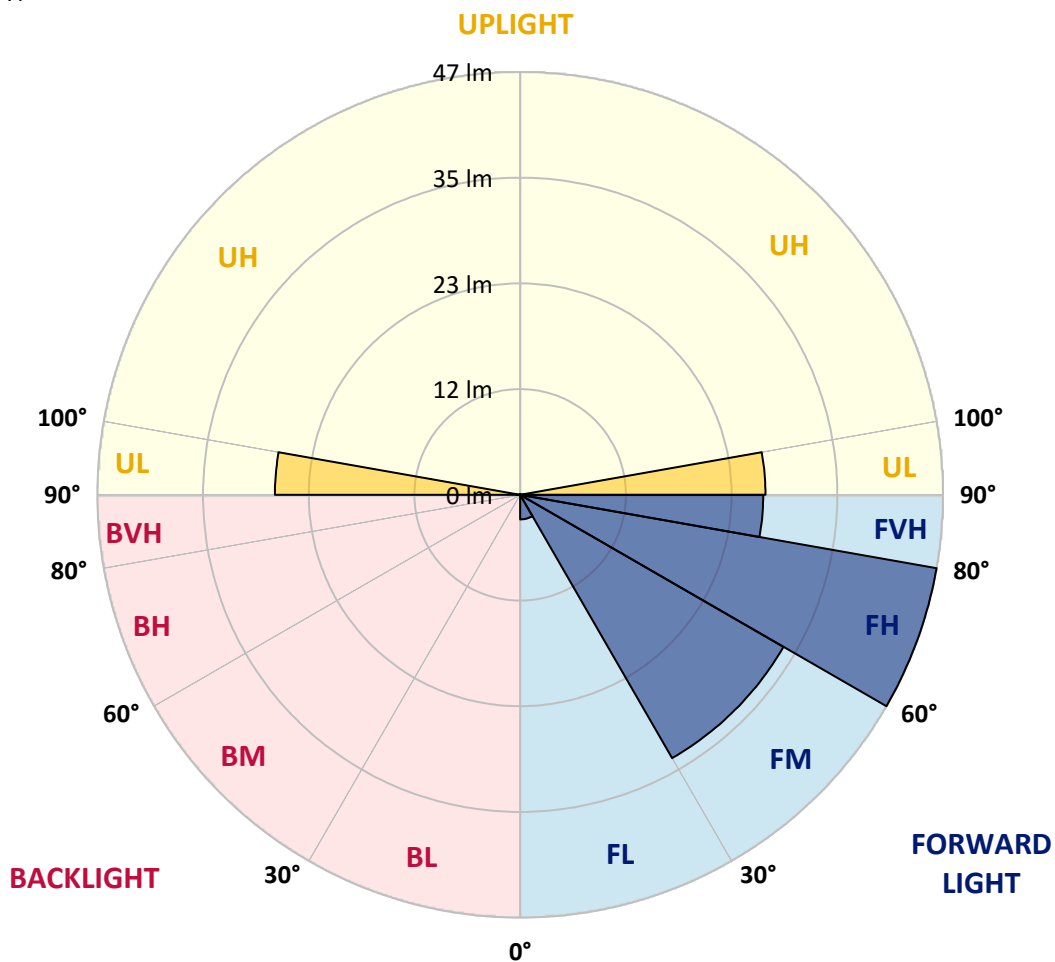
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2.7	0.3			
FM (30°-60°)	33.7	3.7			
FH (60°-80°)	46.8	5.2			G0/660
FVH (80°-90°)	26.9	3.0			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°)	27.2	3.0		U2/50	
UH (100°-180°)	0.1	0.0		U1/10	
Trapped Light	675.7	75.1			

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	0.2	0.2	0.3	0.3	0.3	0.3	0.2	0.2	0.1
5°	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1
7.5°	0.8	0.8	0.7	0.6	0.4	0.4	0.3	0.3	0.2	0.2	0.1
10°	2.0	2.0	1.8	1.5	1.1	0.7	0.4	0.3	0.3	0.2	0.1
12.5°	3.7	3.6	3.3	2.8	2.1	1.3	0.7	0.4	0.3	0.2	0.1
15°	5.9	5.9	5.4	4.5	3.4	2.3	1.2	0.5	0.3	0.2	0.1
17.5°	9.0	8.9	8.1	6.8	5.1	3.4	1.9	0.7	0.3	0.2	0.1
20°	12.6	12.4	11.5	9.7	7.4	4.9	2.7	1.1	0.3	0.2	0.1
22.5°	16.4	16.3	15.1	13.0	10.1	6.6	3.7	1.5	0.4	0.2	0.1
25°	20.4	20.3	18.8	16.4	12.9	8.8	4.8	2.0	0.5	0.2	0.1
27.5°	24.9	24.6	22.9	19.9	15.9	11.1	6.2	2.6	0.6	0.2	0.1
30°	29.5	29.3	27.5	23.6	18.9	13.5	7.8	3.2	0.7	0.2	0.1
32.5°	34.4	34.1	32.0	27.9	22.2	16.0	9.5	3.9	0.9	0.2	0.1
35°	39.3	38.8	36.3	31.9	25.7	18.6	11.3	4.7	1.0	0.2	0.1
37.5°	44.1	43.8	40.9	35.9	29.1	21.2	13.2	5.7	1.2	0.2	0.1
40°	48.8	48.4	45.5	39.9	32.6	23.9	15.1	6.7	1.5	0.2	0.1
42.5°	53.3	52.8	49.7	43.9	35.9	26.6	16.8	7.8	1.7	0.2	0.1
45°	57.9	57.5	53.9	47.7	39.1	29.1	18.7	8.8	2.0	0.2	0.1
47.5°	62.0	61.5	58.0	51.1	42.3	31.7	20.5	10.0	2.2	0.2	0.1
50°	66.1	65.4	61.7	54.6	45.2	34.1	22.3	11.1	2.5	0.3	0.1
52.5°	70.1	69.4	65.3	57.9	47.9	36.3	24.1	12.2	2.8	0.3	0.1
55°	73.5	72.8	68.6	60.9	50.5	38.4	25.7	13.3	3.1	0.3	0.1
57.5°	76.8	76.2	71.7	63.7	52.9	40.4	27.1	14.3	3.4	0.3	0.1
60°	80.1	79.2	74.8	66.4	55.1	42.2	28.6	15.2	3.8	0.3	0.1
62.5°	83.0	82.0	77.5	68.8	57.2	43.9	29.9	16.2	4.1	0.3	0.1
65°	85.3	84.6	79.9	71.0	59.0	45.4	31.1	17.0	4.4	0.3	0.1
67.5°	87.5	86.6	82.1	73.1	60.7	46.7	32.2	17.8	4.8	0.3	0.1
70°	89.1	88.4	83.9	74.8	62.3	47.9	33.1	18.5	5.1	0.3	0.2
72.5°	90.5	89.7	85.5	76.3	63.6	49.0	34.0	19.1	5.4	0.3	0.2
75°	91.4	90.8	86.5	77.6	64.7	49.8	34.7	19.7	5.6	0.3	0.2
77.5°	92.0	91.4	87.3	78.5	65.5	50.7	35.3	20.1	5.9	0.3	0.2
80°	92.4	91.7	88.0	79.2	66.1	51.2	35.8	20.4	6.1	0.3	0.2
82.5°	92.7	92.1	88.4	79.7	66.6	51.7	36.2	20.7	6.2	0.3	0.2
85°	92.9	92.3	88.7	80.1	67.0	52.1	36.5	21.0	6.4	0.3	0.2
87.5°	93.3	92.6	88.9	80.3	67.3	52.4	36.7	21.1	6.5	0.3	0.2
90°	93.5	92.9	89.1	80.5	67.5	52.6	36.9	21.3	6.5	0.3	0.2
92.5°	93.8	93.1	89.3	80.6	67.6	52.6	36.9	21.3	6.5	0.3	0.2
95°	94.1	93.3	89.4	80.7	67.5	52.6	36.8	21.2	6.5	0.3	0.2
97.5°	94.2	93.5	89.5	80.5	67.3	52.4	36.7	21.1	6.4	0.3	0.2
100°	94.2	93.5	89.3	80.2	67.0	52.1	36.4	20.9	6.3	0.3	0.2
102.5°	93.9	93.2	88.9	79.6	66.5	51.7	36.0	20.5	6.2	0.3	0.2
105°	93.4	92.6	88.1	78.9	65.8	51.1	35.6	20.2	6.0	0.3	0.2
107.5°	92.6	91.7	87.0	77.9	64.9	50.3	35.0	19.8	5.8	0.3	0.1
110°	91.2	90.4	85.7	76.6	63.8	49.5	34.4	19.3	5.6	0.3	0.2



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CATALOG NUMBER: 1237-RD-x-CF13

CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	89.6	88.8	84.1	75.0	62.6	48.4	33.5	18.7	5.3	0.3	0.2
115°	87.6	86.7	82.1	73.3	61.1	47.2	32.6	18.0	5.0	0.3	0.1
117.5°	85.2	84.4	79.9	71.3	59.4	45.9	31.6	17.3	4.7	0.2	0.1
120°	82.5	81.8	77.5	69.0	57.6	44.5	30.4	16.5	4.3	0.2	0.1
122.5°	79.6	78.9	74.6	66.6	55.5	42.7	29.1	15.6	4.0	0.2	0.1
125°	76.5	75.8	71.6	63.9	53.3	40.9	27.7	14.6	3.6	0.2	0.1
127.5°	73.0	72.3	68.4	61.0	50.8	38.9	26.2	13.6	3.3	0.2	0.1
130°	69.4	68.7	64.9	57.8	48.0	36.6	24.5	12.5	2.9	0.2	0.1
132.5°	65.3	64.7	61.1	54.5	45.2	34.3	22.7	11.3	2.5	0.2	0.1
135°	61.0	60.5	57.1	50.7	42.1	31.8	20.8	10.2	2.2	0.2	0.1
137.5°	56.5	56.1	53.0	46.9	38.7	29.2	18.9	9.1	1.9	0.2	0.1
140°	52.0	51.4	48.5	42.9	35.3	26.4	16.9	7.8	1.6	0.2	0.1
142.5°	47.0	46.5	43.8	38.8	31.7	23.7	14.9	6.8	1.4	0.2	0.1
145°	42.1	41.6	39.1	34.5	28.2	20.8	12.8	5.7	1.1	0.2	0.1
147.5°	37.0	36.7	34.5	30.3	24.7	17.9	10.8	4.6	0.9	0.2	0.1
150°	31.8	31.7	29.7	26.0	21.0	15.0	8.9	3.7	0.7	0.2	0.1
152.5°	26.9	26.8	25.0	21.8	17.4	12.2	7.1	2.8	0.5	0.2	0.1
155°	22.3	22.0	20.5	17.7	13.9	9.7	5.5	2.1	0.4	0.2	0.1
157.5°	17.6	17.4	16.1	13.9	10.7	7.4	4.0	1.5	0.3	0.2	0.1
160°	13.2	13.1	12.1	10.3	7.9	5.3	2.8	1.0	0.3	0.2	0.1
162.5°	9.3	9.2	8.5	7.2	5.3	3.5	1.8	0.6	0.2	0.1	0.1
165°	6.0	5.9	5.4	4.4	3.3	2.1	1.0	0.4	0.2	0.1	0.1
167.5°	3.4	3.3	3.0	2.3	1.6	0.9	0.5	0.3	0.2	0.1	0.1
170°	0.8	0.8	0.7	0.6	0.4	0.3	0.3	0.2	0.2	0.1	0.1
172.5°	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.2	0.2	0.1	0.1
175°	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1
177.5°	0.1	0.1	0.1	0.2	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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CATALOG NUMBER: 1237-RD-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°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10°	0.1	0.0	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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
60°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
65°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
70°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
72.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
77.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
80°	0.1	0.1	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
85°	0.1	0.1	0.0	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	0.0
90°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
92.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
95°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
97.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
100°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
105°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
107.5°	0.1	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



REPORT NUMBER: P10058

CATALOG NUMBER: 1237-RD-x-CF13

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	0.0	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.1	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	0.0	0.0	0.0	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)