

Signify Classified - Internal  
Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: LUMIERE

Report Number: P10060

Luminaire Tested: **1235-RD-x-20T3**

Issue Date: 05/12/06

Report Generated By 670245982

**Test Information**

Test Method: LM-79-08  
Report Number: P10060  
Test Lab: PEACHTREE CITY  
Issue Date: 05/12/06  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMIERE  
Catalog Number: 1235-RD-x-20T3  
Description: LUMIERE 5 INCH INCANDESCENT STEP LIGHT  
WITH CLEAR OPEN FACEPLATE, SAND BLASTED LENS, WITH REFLECTOR  
Light Source: BI PIN T3 CLEAR QUARTZ HALOGEN INCANDESCENT LAMP  
Q20T3/CL/CD 20WATTS  
Ballast/Driver: -

**Summary**

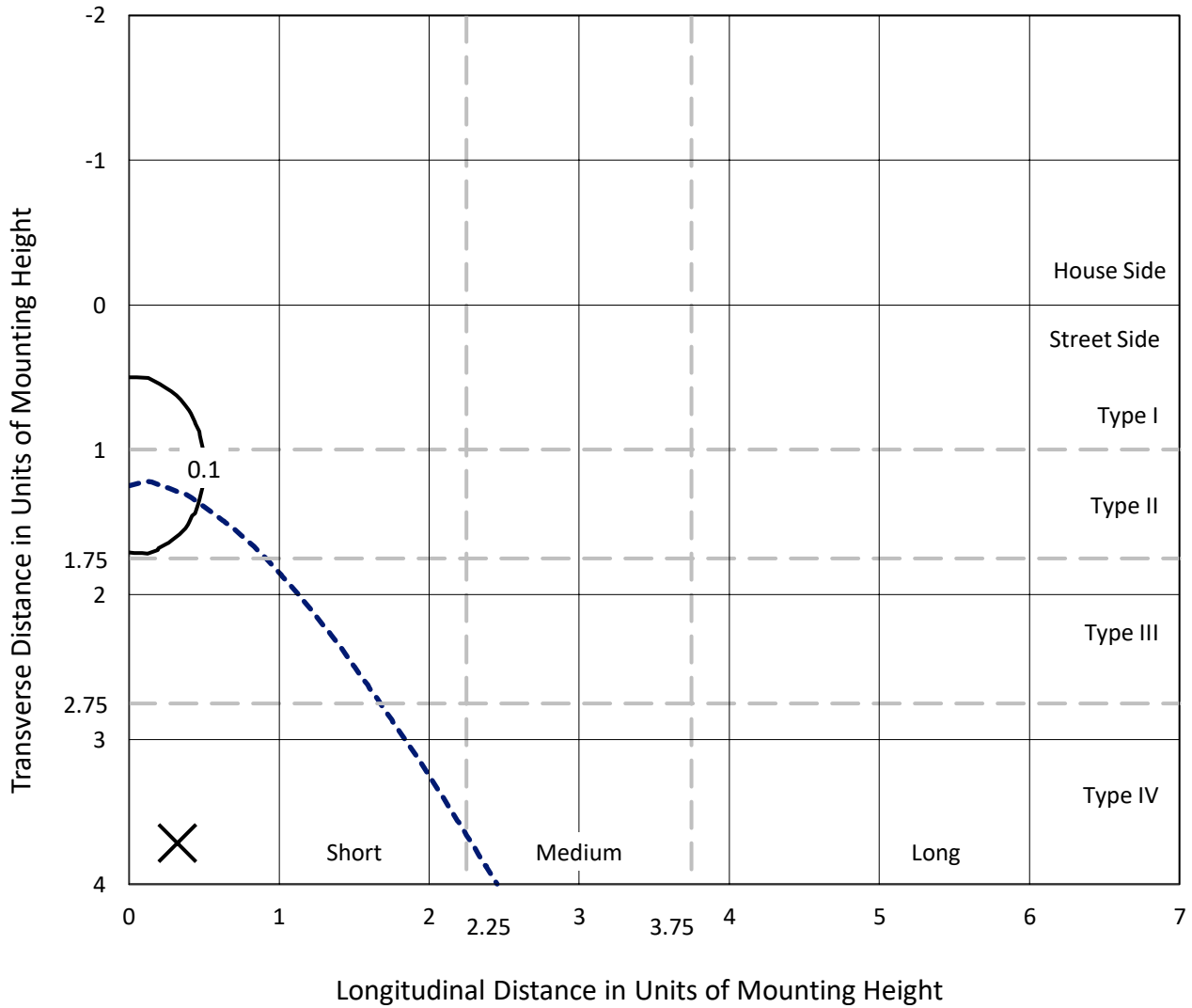
Lumens per Lamp: 350 (1 lamp)  
Luminaire Lumens: 147 lumens  
Efficiency: 42.0%  
Efficacy: 7.4 lumens/watt  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
IES Classification: Type IV - Short - Non-Cutoff  
BUG Rating: B0 - U2 - G1  
  
Input Watts (W): 20  
Input Voltage (V): NR  
Input Current (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: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

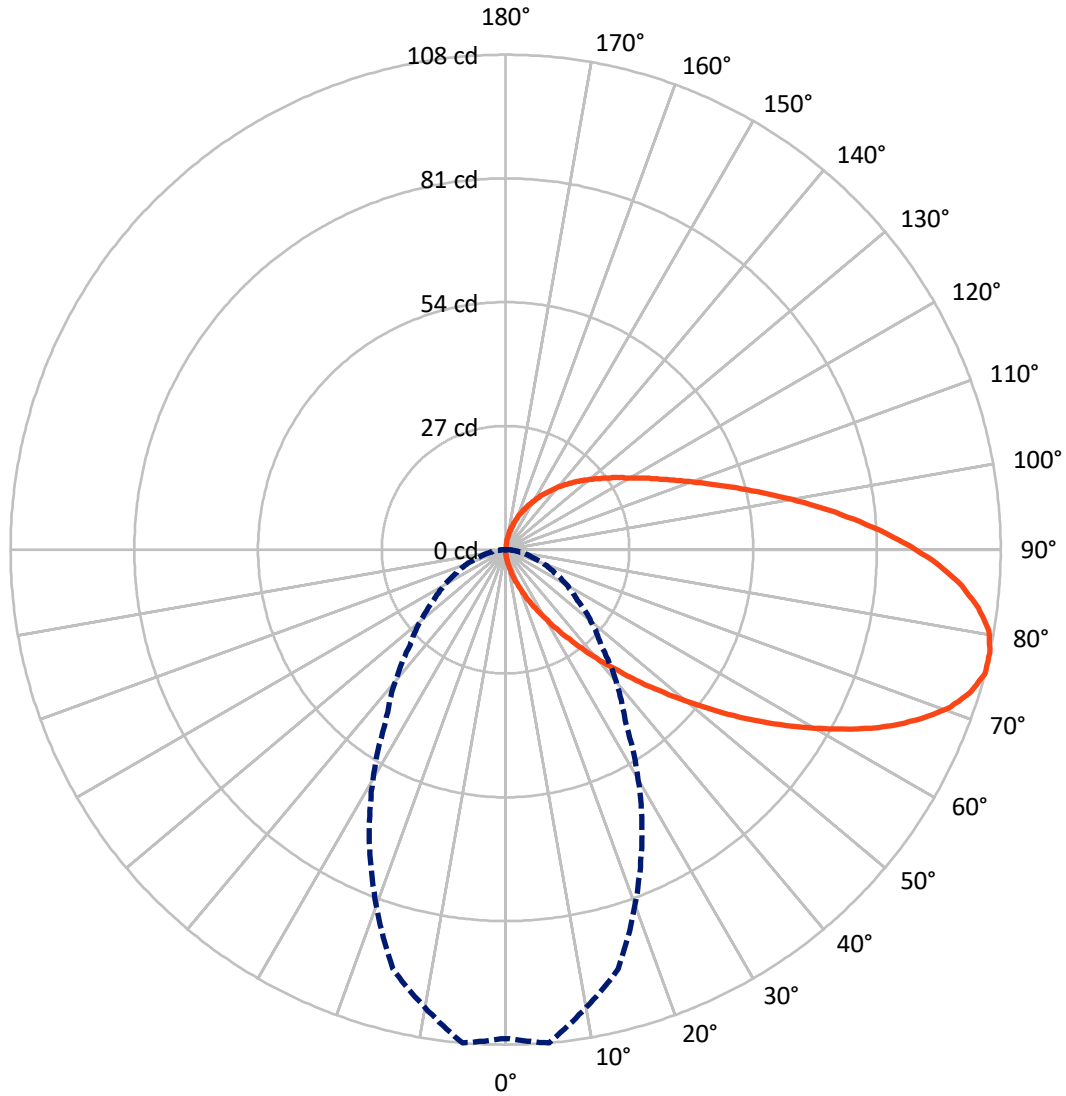
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 0.1 fc  
 Type IV - Short - Non-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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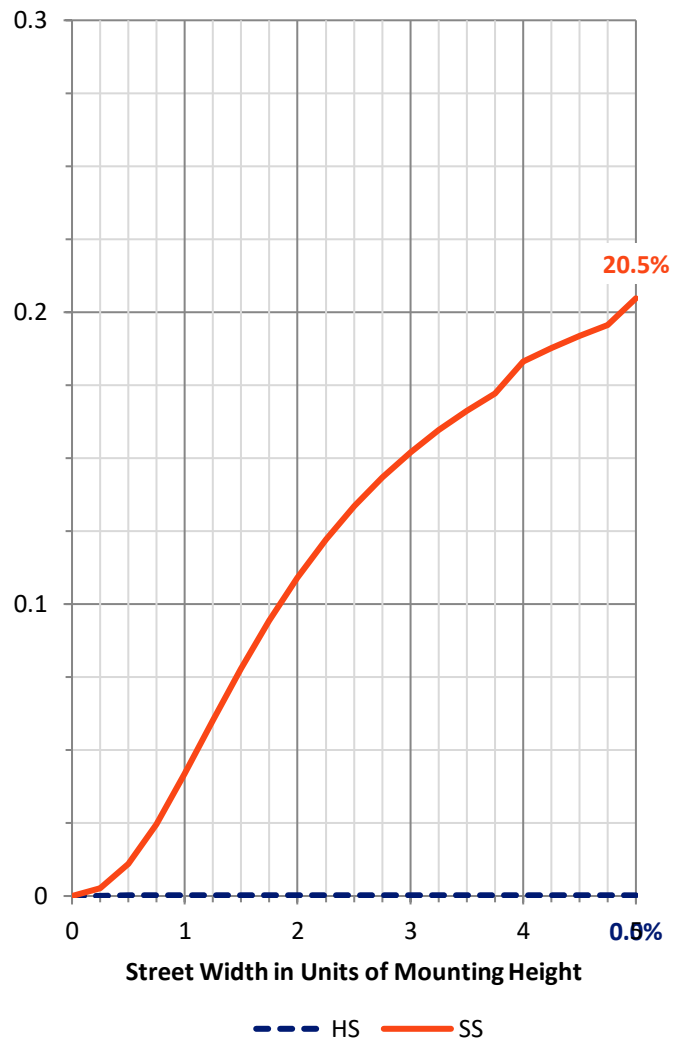
**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	0.1	0.1	0.2
	% Lamp	0.0	0.0	0.1
<b>Street Side</b>	Lumens	89.5	57.2	146.8
	% Lamp	25.6	16.4	41.9
<b>Total</b>	Lumens	89.6	57.4	147.0
	% Lamp	25.6	16.4	42.0

**ZONAL LUMENS:**

Zone	Lumens	% Fixture	% Lamp
0°-10°	0.1	0.0	0.0
10°-20°	0.5	0.3	0.1
20°-30°	1.7	1.1	0.5
30°-40°	3.9	2.7	1.1
40°-50°	7.5	5.1	2.2
50°-60°	12.8	8.7	3.6
60°-70°	18.7	12.7	5.3
70°-80°	22.5	15.3	6.4
80°-90°	22.0	14.9	6.3
90°-100°	17.9	12.2	5.1
100°-110°	13.4	9.1	3.8
110°-120°	9.8	6.7	2.8
120°-130°	7.0	4.8	2.0
130°-140°	4.7	3.2	1.3
140°-150°	2.8	1.9	0.8
150°-160°	1.4	0.9	0.4
160°-170°	0.4	0.3	0.1
170°-180°	0.0	0.0	0.0
0°-90°	89.6	61.0	25.6
0°-180°	147.0	100.0	42.0

**Coefficient of Utilization**

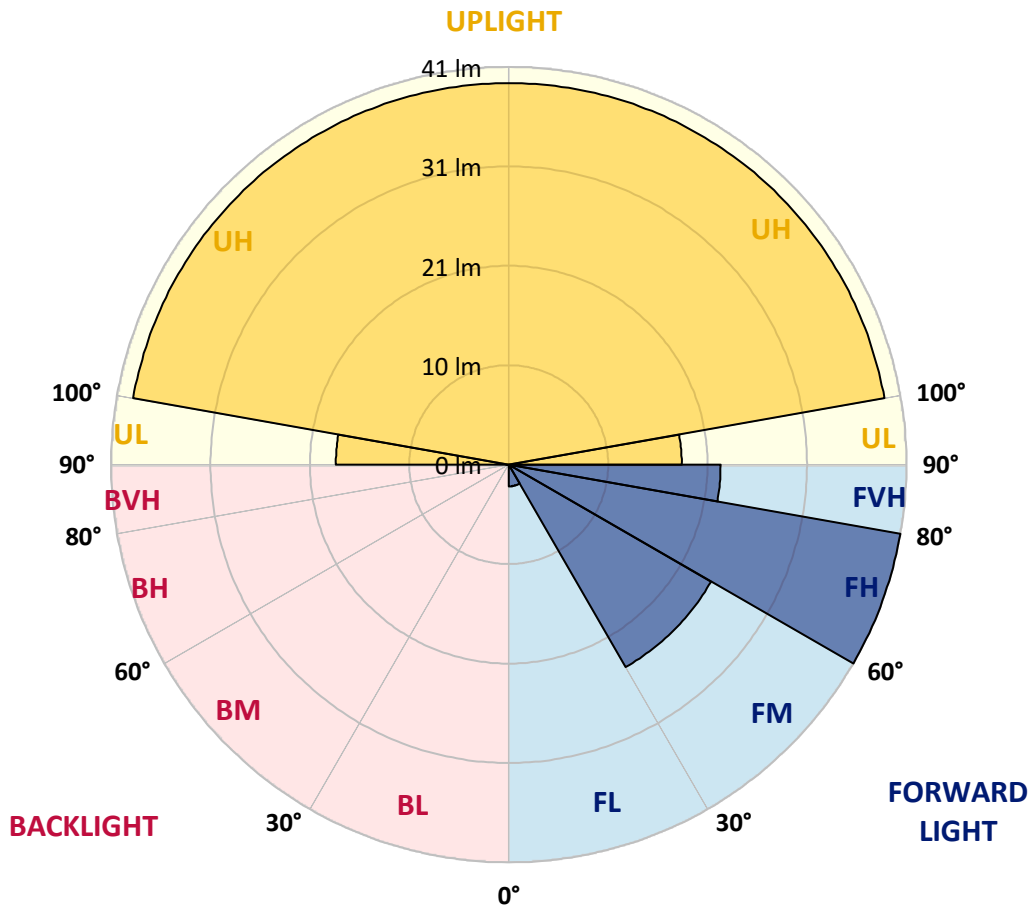


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone	Lumens	% Lamp	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	2.3	0.6			
FM (30°-60°)	24.2	6.9			
FH (60°-80°)	41.2	11.8			G0/660
FVH (80°-90°)	21.9	6.3			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°)	17.9	5.1		U2/50	
UH (100°-180°)	39.5	11.3		U2/50	
Trapped Light	203.0	58.0			

**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°	0.7	0.8	0.7	0.7	0.7	0.7	0.6	0.4	0.3	0.2	0.1
5°	1.5	1.5	1.5	1.4	1.3	1.2	1.0	0.7	0.5	0.2	0.1
7.5°	2.3	2.3	2.2	2.1	1.9	1.7	1.4	1.1	0.6	0.2	0.1
10°	3.1	3.2	3.1	2.9	2.6	2.3	1.9	1.4	0.8	0.3	0.1
12.5°	4.1	4.3	4.0	3.6	3.3	3.0	2.4	1.7	1.0	0.3	0.1
15°	5.5	5.8	5.4	4.8	4.1	3.5	2.9	2.0	1.2	0.4	0.1
17.5°	7.1	7.4	7.0	6.2	5.2	4.3	3.4	2.4	1.4	0.5	0.2
20°	8.8	9.0	8.5	7.6	6.5	5.3	3.9	2.8	1.6	0.5	0.2
22.5°	10.6	10.9	10.3	9.1	7.8	6.3	4.6	3.1	1.8	0.6	0.2
25°	12.5	13.0	12.2	10.8	9.1	7.4	5.3	3.5	2.0	0.7	0.2
27.5°	14.9	15.3	14.3	12.6	10.5	8.5	6.1	3.8	2.2	0.7	0.2
30°	17.3	17.8	16.7	14.4	12.1	9.7	6.9	4.3	2.4	0.8	0.2
32.5°	20.0	20.8	19.2	16.5	13.7	10.9	7.7	4.7	2.6	0.8	0.2
35°	23.4	24.0	22.1	18.7	15.5	12.1	8.6	5.2	2.8	0.9	0.2
37.5°	27.2	27.8	25.5	21.3	17.3	13.5	9.4	5.7	3.0	0.9	0.2
40°	30.9	31.8	28.9	24.1	19.2	14.8	10.3	6.2	3.2	1.0	0.2
42.5°	35.3	36.3	32.9	27.1	21.3	16.2	11.2	6.7	3.4	1.1	0.2
45°	40.2	41.4	37.3	30.3	23.5	17.5	12.0	7.2	3.6	1.1	0.2
47.5°	45.4	46.8	42.0	33.8	25.7	18.9	12.9	7.7	3.8	1.2	0.2
50°	50.8	52.6	47.1	37.4	28.0	20.2	13.8	8.2	4.0	1.2	0.2
52.5°	57.1	59.1	52.6	41.5	30.4	21.7	14.6	8.7	4.2	1.3	0.2
55°	64.3	65.8	58.4	45.4	32.8	23.0	15.4	9.2	4.4	1.3	0.2
57.5°	71.3	72.7	64.1	49.5	35.1	24.2	16.1	9.6	4.6	1.4	0.2
60°	78.7	79.5	70.3	53.8	37.4	25.4	16.8	10.0	4.8	1.4	0.2
62.5°	85.3	86.5	76.2	57.9	39.5	26.5	17.3	10.4	5.0	1.5	0.2
65°	91.5	92.9	81.6	61.4	41.4	27.4	17.7	10.8	5.2	1.5	0.2
67.5°	96.0	98.5	86.5	64.6	43.1	28.3	18.2	11.1	5.3	1.5	0.2
70°	101.3	103.3	90.6	67.4	44.4	28.9	18.6	11.4	5.5	1.6	0.2
72.5°	104.9	106.5	93.5	69.1	45.2	29.3	19.0	11.6	5.6	1.6	0.2
75°	107.0	108.4	95.1	70.6	45.6	29.6	19.2	11.8	5.8	1.6	0.2
77.5°	107.1	108.4	95.3	70.1	45.6	29.7	19.4	12.0	5.9	1.7	0.2
80°	104.8	107.3	94.0	69.6	45.2	29.7	19.5	12.1	6.0	1.7	0.2
82.5°	100.9	104.3	91.6	67.9	44.4	29.5	19.6	12.2	6.0	1.7	0.2
85°	97.1	100.2	87.8	65.3	43.3	29.2	19.6	12.2	6.1	1.7	0.2
87.5°	92.2	94.9	83.3	62.0	41.9	28.7	19.5	12.2	6.1	1.7	0.2
90°	86.2	88.5	77.9	58.4	40.3	28.3	19.3	12.2	6.1	1.7	0.2
92.5°	79.2	82.0	72.2	54.8	38.6	27.6	19.1	12.1	6.1	1.7	0.2
95°	72.5	75.2	66.4	51.2	37.0	27.1	18.8	12.0	6.1	1.7	0.2
97.5°	67.4	68.6	60.9	47.7	35.3	26.3	18.6	11.9	6.1	1.7	0.2
100°	60.5	62.3	55.6	44.3	33.7	25.6	18.2	11.7	6.0	1.7	0.2
102.5°	54.9	56.5	50.6	41.2	32.1	24.8	17.8	11.5	5.9	1.7	0.2
105°	49.9	51.3	46.5	38.4	30.6	24.0	17.4	11.3	5.8	1.7	0.2
107.5°	45.3	46.6	42.6	35.9	29.1	23.2	16.9	11.0	5.7	1.7	0.2
110°	41.3	42.7	39.2	33.5	27.8	22.3	16.4	10.7	5.6	1.6	0.2



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 CATALOG NUMBER: 1235-RD-x-20T3

**CANDELA DISTRIBUTION (continued):**

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	38.0	39.1	36.3	31.4	26.4	21.5	15.8	10.4	5.5	1.6	0.2
115°	35.2	36.1	33.6	29.4	25.1	20.6	15.2	10.1	5.3	1.6	0.2
117.5°	32.7	33.4	31.3	27.8	23.8	19.7	14.7	9.7	5.1	1.5	0.2
120°	30.4	31.0	29.3	26.1	22.6	18.8	14.0	9.4	5.0	1.5	0.1
122.5°	28.3	29.0	27.4	24.7	21.3	17.8	13.4	9.0	4.8	1.4	0.1
125°	26.5	27.0	25.7	23.1	20.2	16.9	12.7	8.6	4.6	1.4	0.1
127.5°	24.7	25.2	24.0	21.6	19.0	16.0	12.1	8.1	4.4	1.3	0.1
130°	23.0	23.6	22.5	20.4	17.8	15.0	11.4	7.7	4.2	1.3	0.1
132.5°	21.5	22.0	21.0	19.0	16.7	14.1	10.8	7.3	4.0	1.2	0.1
135°	19.9	20.5	19.6	17.7	15.6	13.2	10.0	6.9	3.8	1.1	0.1
137.5°	18.5	19.0	18.1	16.4	14.4	12.3	9.3	6.4	3.7	1.1	0.1
140°	17.0	17.6	16.7	15.2	13.4	11.4	8.7	6.0	3.5	1.0	0.1
142.5°	15.7	16.2	15.4	14.0	12.3	10.5	8.2	5.5	3.2	0.9	0.1
145°	14.3	14.8	14.0	12.8	11.3	9.6	7.5	5.1	3.0	0.9	0.1
147.5°	13.0	13.4	12.7	11.6	10.2	8.8	6.9	4.6	2.8	0.8	0.1
150°	11.7	12.0	11.5	10.4	9.2	8.1	6.2	4.2	2.5	0.7	0.1
152.5°	10.4	10.8	10.3	9.3	8.4	7.2	5.5	3.9	2.3	0.6	0.1
155°	9.2	9.5	9.0	8.4	7.4	6.3	4.9	3.6	2.1	0.6	0.1
157.5°	8.2	8.4	8.0	7.3	6.4	5.5	4.3	3.2	1.8	0.5	0.1
160°	6.9	7.1	6.8	6.1	5.5	4.7	3.8	2.8	1.6	0.4	0.1
162.5°	5.7	5.9	5.6	5.1	4.6	4.1	3.4	2.4	1.3	0.4	0.1
165°	4.6	4.8	4.6	4.2	3.8	3.5	2.8	1.9	1.1	0.3	0.1
167.5°	3.7	3.8	3.7	3.5	3.1	2.6	1.9	1.2	0.7	0.2	0.1
170°	2.5	2.6	2.3	1.9	1.4	1.2	0.9	0.6	0.4	0.2	0.1
172.5°	0.1	0.1	0.2	0.3	0.4	0.4	0.4	0.3	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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 CATALOG NUMBER: 1235-RD-x-20T3

**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	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
25°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
27.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
32.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
35°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
37.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
40°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
42.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
45°	0.1	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°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
52.5°	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
55°	0.1	0.1	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°	0.2	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	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
87.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
90°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
92.5°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
95°	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
97.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
100°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
102.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
105°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
107.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1
110°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1



REPORT NUMBER: P10060  
 CATALOG NUMBER: 1235-RD-x-20T3

**CANDELA DISTRIBUTION (continued):**

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
115°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
117.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
120°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
122.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
125°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
127.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
130°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
132.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
135°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
137.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
140°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
145°	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
147.5°	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
150°	0.1	0.1	0.1	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	0.0	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)