

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: P871398

Luminaire Tested: **650-1-8LED-27-10-12-X**

Test Date: 2024-07-12

Test Information

Test Method: LM-79-08
Report Number: P871398
SCALED FROM G1-1405-109-1
Test Lab: Cooper Lighting Solutions
Test Date: 2024-07-12
Issue Date: 7/12/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 650-1-8LED-27-10-12-X
Description: Boca with Single opening
Light Source: Soraa
SM16-04-10D-927-03
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 18.3 lumens
Efficiency: N/A
Efficacy: 3.0 lumens/watt
Luminous Opening: Circular (Dia: 0.18' x H: 0')
IES Classification: Type II - Short
BUG Rating: B0 - U1 - G0

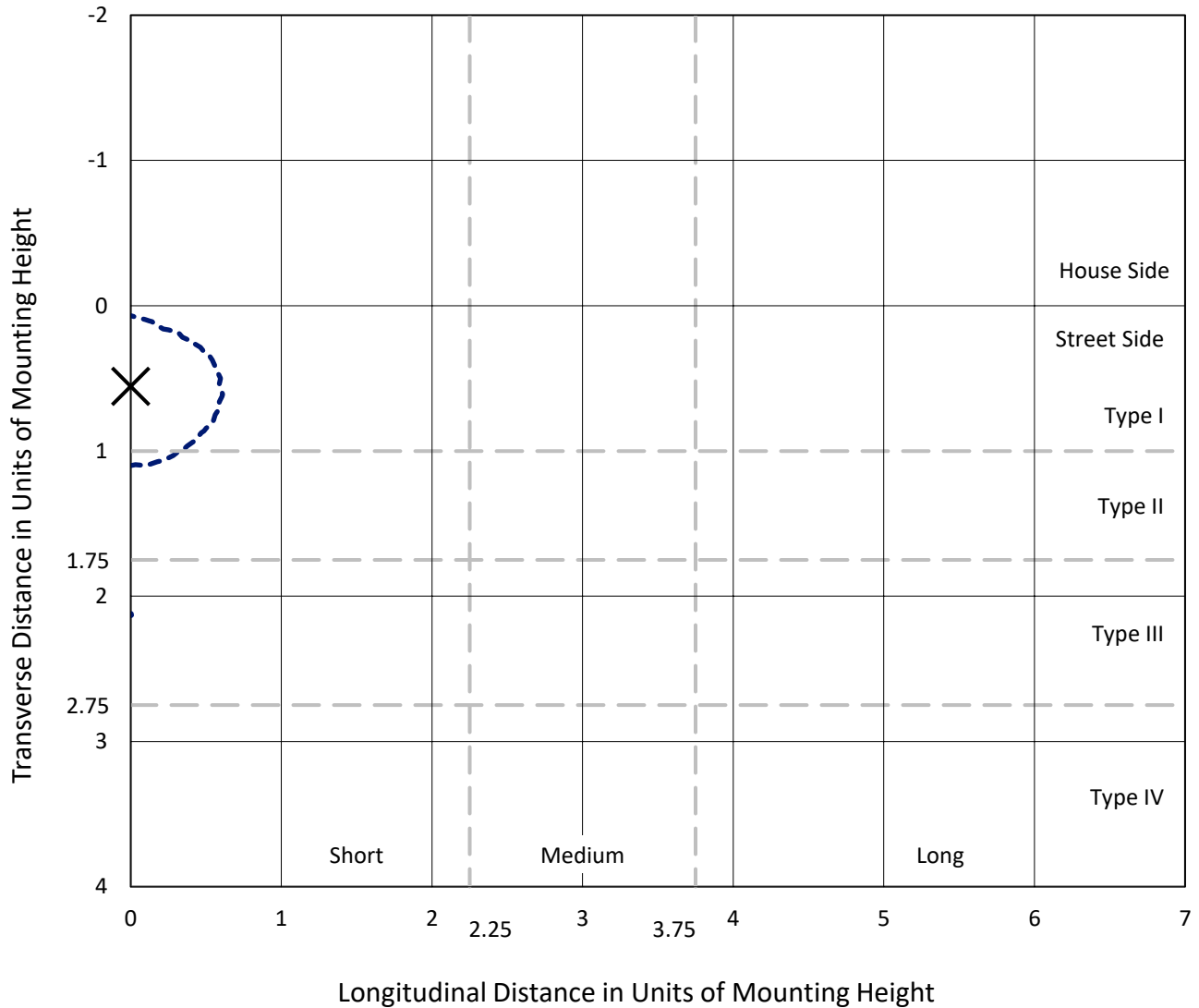
Input Watts (W): 6.13
Input Voltage (V): 12.0
Input Current (Ain): 0.511
Voltage Rise (V): NR
Power Factor: 1
Total Harmonic Distortion (THDi): 0.0%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

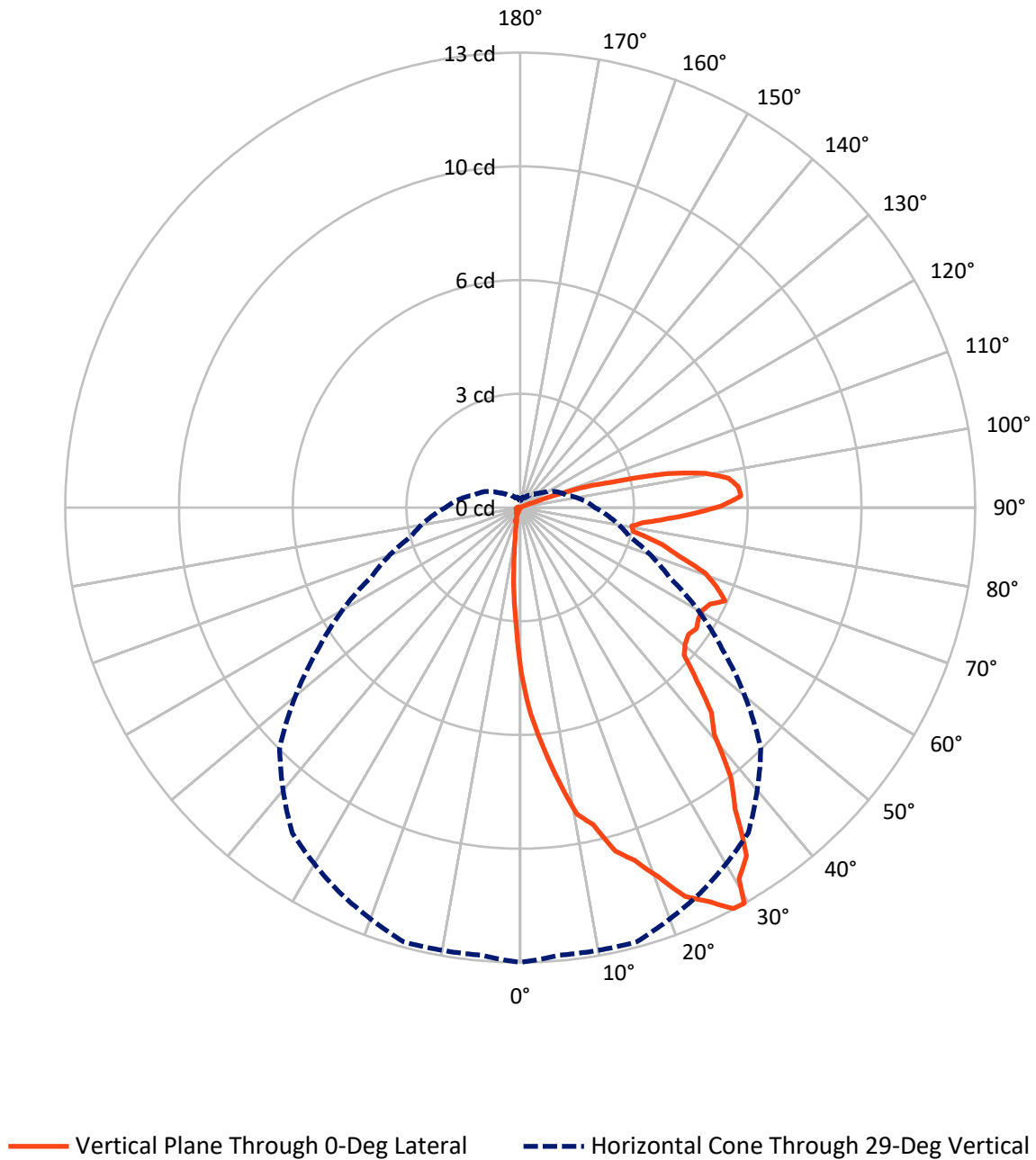
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



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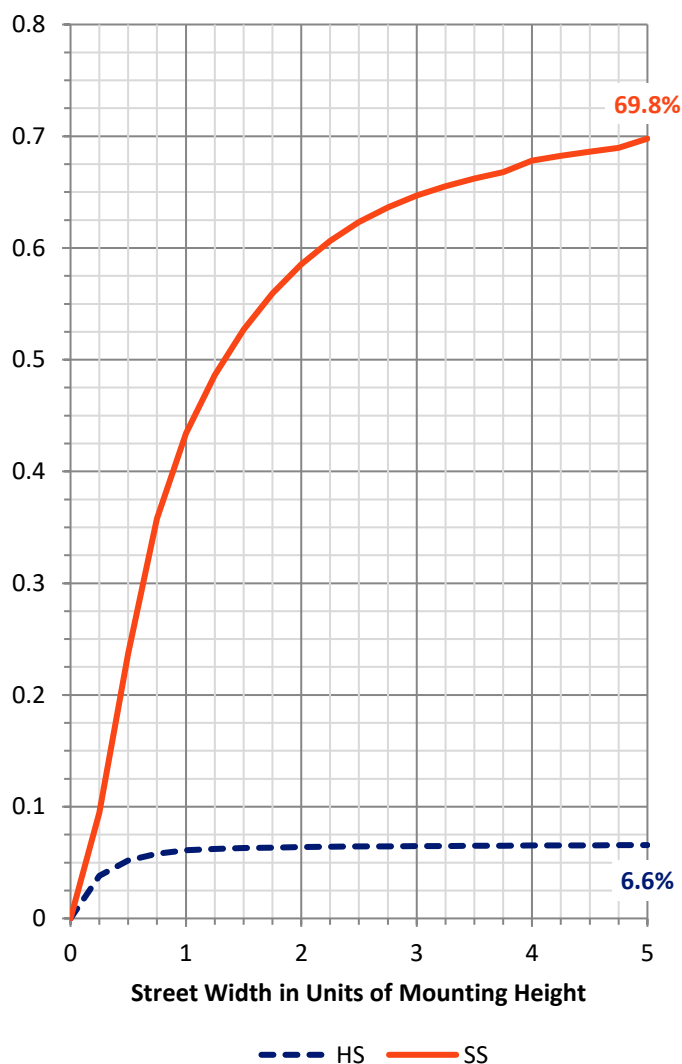
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	1.2	0.0	1.3
	% Fixture	6.7	0.2	6.9
Street Side	Lumens	14.0	3.1	17.1
	% Fixture	76.1	17.0	93.1
Total	Lumens	15.2	3.2	18.3
	% Fixture	82.8	17.2	100.0

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.4	2.2
10°-20°	1.2	6.4
20°-30°	2.1	11.2
30°-40°	2.3	12.7
40°-50°	2.0	11.2
50°-60°	2.0	10.7
60°-70°	2.1	11.7
70°-80°	1.5	8.3
80°-90°	1.5	8.4
90°-100°	2.1	11.4
100°-110°	1.0	5.6
110°-120°	0.0	0.2
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	15.2	82.8
0°-180°	18.3	100.0

Coefficient of Utilization



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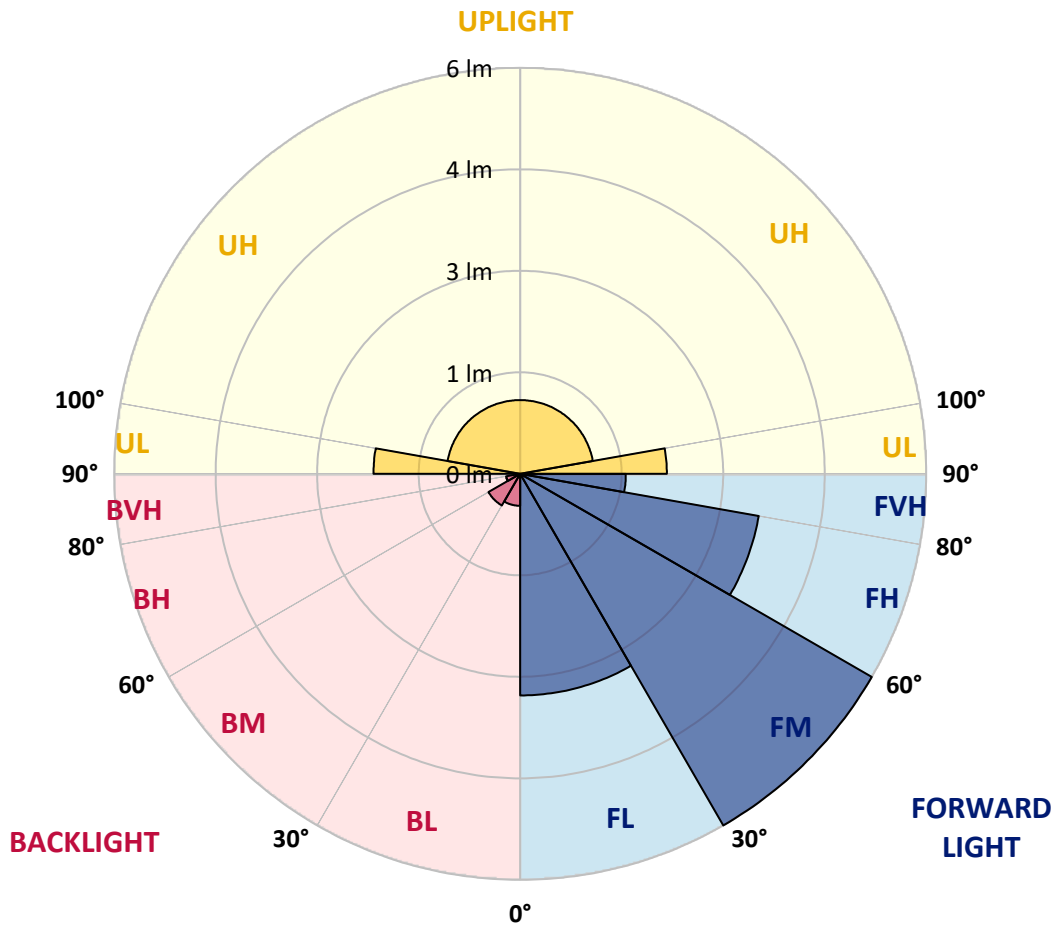
CATALOG NUMBER: 650-1-8LED-27-10-12-X

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3.2	17.3			
FM (30°-60°)	5.8	31.7			
FH (60°-80°)	3.5	18.9			G0/660
FVH (80°-90°)	1.5	8.2			G0/10
BL (0°-30°)	0.5	2.5	B0/110		
BM (30°-60°)	0.5	2.9	B0/220		
BH (60°-80°)	0.2	1.1	B0/110		G0/110
BVH (80°-90°)	0.0	0.2			G0/10
UL (90°-100°)	2.1	11.4		U1/10	
UH (100°-180°)	1.1	5.8		U1/10	

BUG Rating: B0-U1-G0

Type II Short





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 CATALOG NUMBER: 650-1-8LED-27-10-12-X

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
2.5°	5.8	5.7	5.6	5.5	5.4	5.2	5.0	4.8	4.6	4.4	4.3
5°	6.7	6.8	6.8	6.6	6.3	5.8	5.6	5.2	4.6	4.2	4.1
7.5°	7.7	7.6	7.4	7.2	6.9	6.4	5.7	5.2	4.6	3.9	3.7
10°	8.7	8.4	8.4	8.0	7.6	6.7	5.9	5.1	4.3	3.6	3.4
12.5°	9.1	9.1	9.2	8.8	8.1	7.3	6.1	5.0	4.0	3.4	3.1
15°	9.9	9.7	9.5	9.1	8.8	7.5	6.3	4.8	3.9	3.2	2.8
17.5°	10.4	10.3	10.2	9.8	9.4	8.2	6.5	4.8	3.7	2.9	2.5
20°	11.0	11.2	11.0	10.7	10.1	8.8	6.8	4.9	3.7	2.9	2.5
22.5°	11.8	11.7	11.7	11.2	10.6	9.2	6.9	4.9	3.4	2.7	2.3
25°	12.2	12.1	12.1	11.8	11.0	9.6	7.0	4.7	3.1	2.5	2.1
27.5°	12.7	12.5	12.4	11.8	11.2	9.5	7.0	4.5	3.2	2.3	2.1
29°	12.7	12.5	12.5	11.9	11.1	9.5	6.9	4.6	3.2	2.4	2.1
30°	12.0	12.2	12.1	11.6	10.8	9.3	6.8	4.3	3.0	2.3	2.1
32.5°	11.6	11.5	11.4	10.8	10.1	8.7	6.4	4.3	2.9	2.3	1.9
35°	10.3	10.2	10.1	9.7	8.9	7.8	5.9	3.9	2.8	2.1	1.9
37.5°	9.5	9.2	9.2	8.7	8.0	7.1	5.5	3.7	2.8	2.1	1.9
40°	8.3	8.4	8.0	7.7	7.3	6.3	4.9	3.4	2.6	2.0	1.7
42.5°	7.8	7.6	7.4	7.0	6.5	5.9	4.7	3.3	2.6	2.0	1.7
45°	6.9	6.8	6.6	6.3	6.0	5.1	4.3	3.3	2.5	1.9	1.8
47.5°	6.1	6.3	6.2	5.7	5.4	4.8	4.1	3.2	2.5	2.0	1.7
50°	6.0	5.8	5.6	5.3	4.8	4.4	3.8	3.1	2.4	1.8	1.7
52.5°	5.9	5.5	5.6	5.0	4.7	4.2	3.5	2.9	2.4	1.7	1.5
55°	6.0	5.9	5.6	5.4	4.8	4.4	3.7	2.9	2.4	1.8	1.6
57.5°	5.9	5.8	5.7	5.3	4.7	4.2	3.5	3.0	2.3	1.7	1.4
60°	5.8	5.8	5.6	5.2	4.7	4.2	3.6	2.8	2.4	1.7	1.4
62.5°	5.9	5.9	5.8	5.5	4.9	4.4	3.8	3.1	2.4	1.8	1.6
65°	6.3	5.8	5.8	5.4	4.8	4.2	3.7	3.0	2.3	1.6	1.4
67.5°	5.9	6.1	5.9	5.5	5.0	4.4	3.6	2.9	2.2	1.5	1.2
70°	5.5	5.3	5.2	5.0	4.5	3.9	3.4	2.6	2.0	1.4	1.0
72.5°	4.6	4.7	4.6	4.3	4.0	3.5	3.0	2.1	1.7	1.1	0.8
75°	4.1	3.9	3.7	3.5	3.4	3.0	2.5	1.7	1.1	0.9	0.6
77.5°	3.2	3.5	3.3	3.2	3.0	2.8	2.3	1.4	0.9	0.6	0.6
80°	3.2	3.0	3.1	3.1	2.9	2.5	2.0	1.2	0.6	0.4	0.3
82.5°	3.4	3.4	3.4	3.3	3.2	3.0	2.3	1.3	0.8	0.5	0.4
85°	4.1	4.1	3.9	4.1	3.8	3.2	2.6	1.6	0.9	0.6	0.4
87.5°	4.8	4.6	4.8	4.6	4.3	3.7	2.9	1.7	1.0	0.5	0.4
90°	5.6	5.4	5.5	5.1	4.9	4.1	3.3	2.2	1.2	0.7	0.4
92.5°	6.2	6.0	5.9	5.7	5.3	4.4	3.4	2.5	1.5	0.7	0.6
95°	6.1	6.0	5.9	5.6	5.3	4.3	3.4	2.4	1.3	0.6	0.4
97.5°	5.9	5.9	5.9	5.5	5.1	4.5	3.4	2.4	1.4	0.6	0.3
100°	5.3	5.2	5.1	4.9	4.6	4.1	3.2	2.3	1.4	0.5	0.3
102.5°	4.2	4.1	4.1	3.8	3.7	3.3	2.7	1.7	1.0	0.5	0.2
105°	2.6	2.9	2.9	2.7	2.6	2.1	1.8	1.1	0.6	0.2	0.1
107.5°	1.8	1.6	1.6	1.6	1.5	1.4	0.9	0.6	0.2	0.0	0.0



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
110°	0.5	0.4	0.6	0.5	0.6	0.3	0.3	0.1	0.0	0.0	0.0
112.5°	0.0	0.2	0.2	0.1	0.1	0.1	0.1	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°	0.0	0.0	0.0	0.0	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



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7	4.7
2.5°	4.3	4.0	3.9	3.7	3.6	3.3	3.3	3.4	3.2	3.3
5°	3.9	3.5	3.2	3.0	2.7	2.4	2.3	2.3	2.2	2.3
7.5°	3.4	3.0	2.7	2.3	2.1	1.8	1.5	1.5	1.4	1.4
10°	3.1	2.5	2.2	1.8	1.5	1.3	1.0	1.0	0.8	0.9
12.5°	2.9	2.3	1.8	1.4	1.2	0.9	0.8	0.7	0.7	0.6
15°	2.5	2.0	1.5	1.2	1.0	0.6	0.5	0.3	0.4	0.4
17.5°	2.3	1.8	1.3	1.1	0.8	0.5	0.4	0.3	0.4	0.3
20°	2.2	1.8	1.4	0.9	0.8	0.5	0.4	0.4	0.3	0.4
22.5°	2.0	1.5	1.2	0.8	0.6	0.4	0.2	0.2	0.2	0.1
25°	1.9	1.4	1.0	0.7	0.5	0.3	0.2	0.2	0.2	0.1
27.5°	1.7	1.4	1.0	0.6	0.4	0.2	0.2	0.2	0.1	0.0
29°	1.9	1.3	1.1	0.7	0.5	0.4	0.3	0.3	0.2	0.2
30°	1.7	1.3	0.8	0.6	0.3	0.3	0.1	0.1	0.2	0.1
32.5°	1.8	1.3	1.0	0.7	0.4	0.3	0.2	0.2	0.3	0.2
35°	1.6	1.1	0.8	0.5	0.2	0.1	0.1	0.0	0.1	0.0
37.5°	1.6	1.1	0.8	0.6	0.3	0.3	0.2	0.2	0.2	0.2
40°	1.5	1.0	0.7	0.4	0.2	0.1	0.0	0.0	0.1	0.0
42.5°	1.5	1.1	0.7	0.5	0.3	0.2	0.2	0.2	0.2	0.2
45°	1.5	1.0	0.6	0.5	0.2	0.1	0.1	0.1	0.1	0.0
47.5°	1.5	1.0	0.6	0.4	0.2	0.3	0.1	0.1	0.2	0.1
50°	1.4	0.9	0.6	0.3	0.2	0.2	0.1	0.1	0.2	0.1
52.5°	1.3	0.8	0.5	0.2	0.1	0.1	0.0	0.0	0.0	0.0
55°	1.3	0.9	0.6	0.2	0.1	0.1	0.1	0.1	0.1	0.0
57.5°	1.2	0.8	0.5	0.1	0.0	0.0	0.0	0.0	0.1	0.0
60°	1.1	0.7	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0
62.5°	1.3	0.8	0.4	0.2	0.1	0.2	0.1	0.0	0.2	0.0
65°	1.0	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
67.5°	1.0	0.5	0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.1
70°	0.8	0.5	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
72.5°	0.6	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
75°	0.5	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.0
77.5°	0.4	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1
80°	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
82.5°	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
85°	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
87.5°	0.2	0.0	0.0	0.1	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°	0.3	0.2	0.1	0.1	0.0	0.1	0.1	0.2	0.0	0.0
95°	0.1	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
100°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
102.5°	0.1	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.0
105°	0.0	0.0	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.1
107.5°	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):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
110°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
112.5°	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0
115°	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
120°	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
125°	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
130°	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
135°	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
140°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
142.5°	0.0	0.0	0.0	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
147.5°	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
152.5°	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
157.5°	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
162.5°	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
167.5°	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
172.5°	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
177.5°	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

(END OF REPORT)