

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: P871402

Luminaire Tested: **650-2-8LED-40-10-12-X**

Test Date: 2024-07-13

Test Information

Test Method: LM-79-08
Report Number: P871402
SCALED FROM G1-2405-109-2
Test Lab: Cooper Lighting Solutions
Test Date: 2024-07-13
Issue Date: 7/13/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 650-2-8LED-40-10-12-X
Description: Boca with Two openings
Light Source: Soraa
SM16-04-10D-940-03
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 30.2 lumens
Efficiency: N/A
Efficacy: 4.9 lumens/watt
Luminous Opening: Circular (Dia: 0.18' x H: 0')
IES Classification: Type I - Short
BUG Rating: B0 - U1 - G0

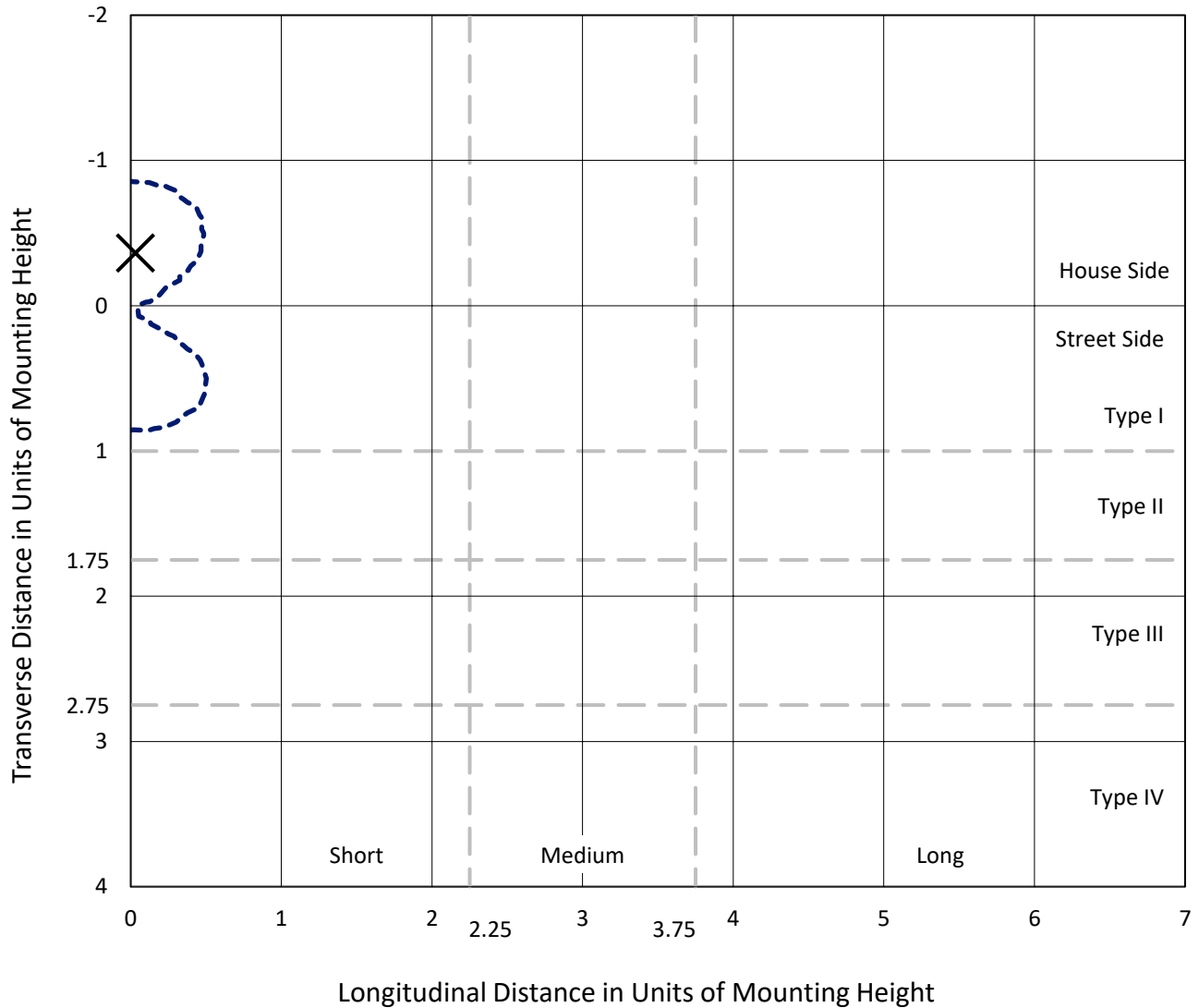
Input Watts (W): 6.19
Input Voltage (V): 12.0
Input Current (Ain): 0.516
Voltage Rise (V): NR
Power Factor: 1
Total Harmonic Distortion (THDi): 0.0%
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

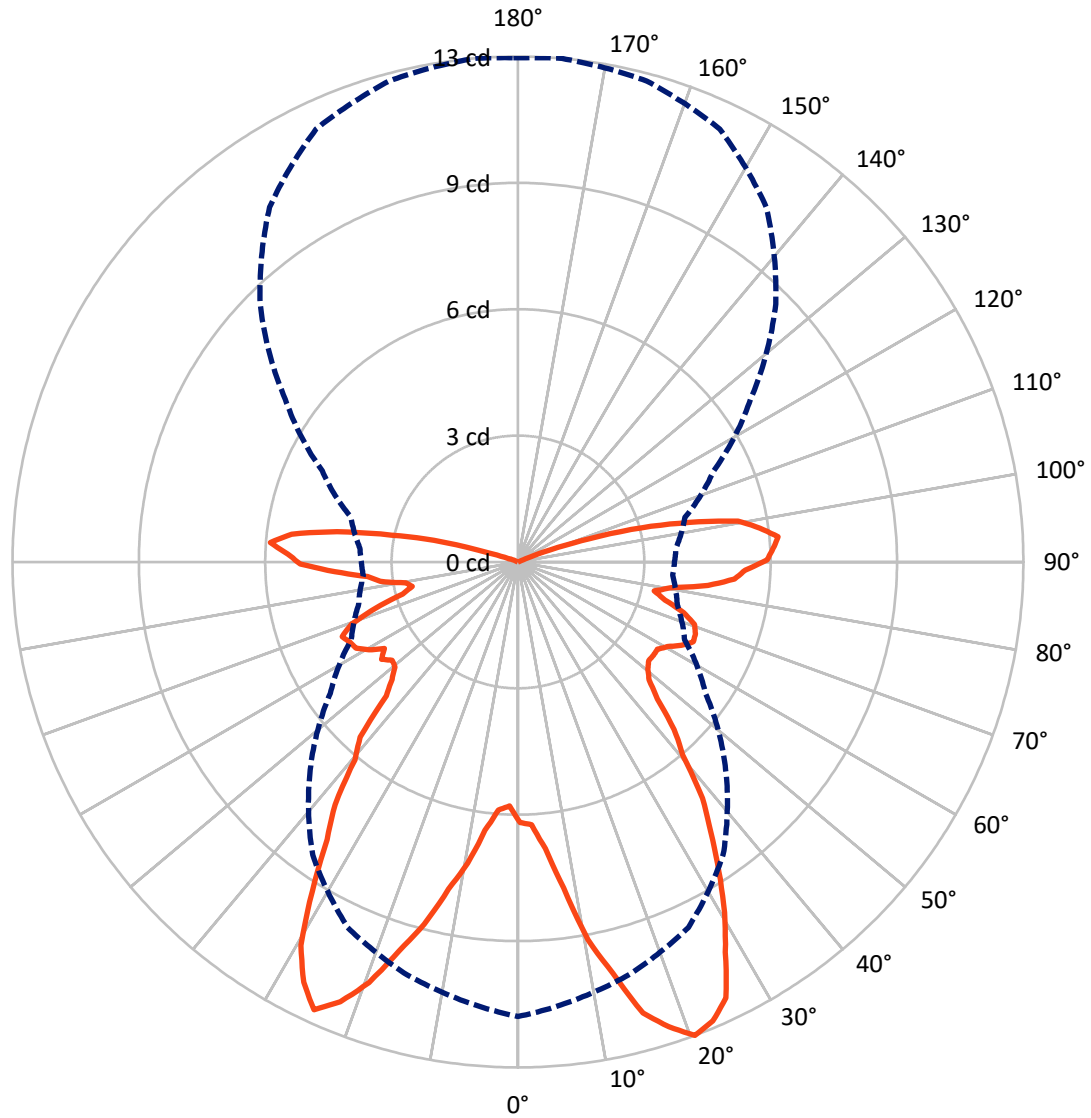
× Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 175-Deg Lateral - - - Horizontal Cone Through 20-Deg Vertical

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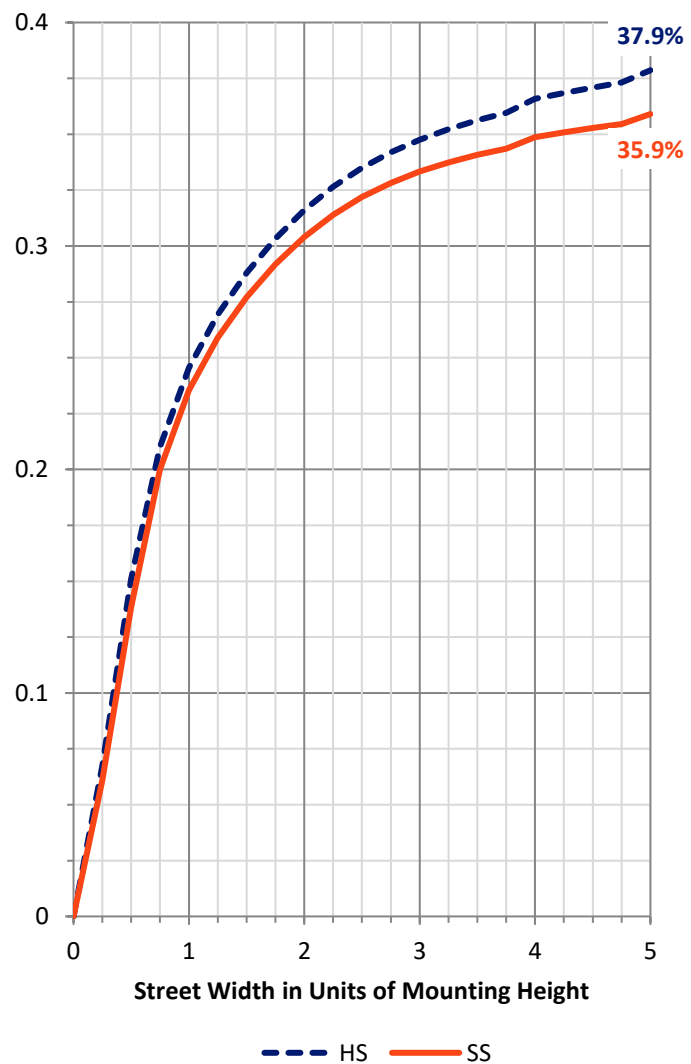
FLUX DISTRIBUTION:

		Downward	Upward	Total
House Side	Lumens	12.8	3.0	15.8
	% Fixture	42.5	9.8	52.2
Street Side	Lumens	11.9	2.5	14.4
	% Fixture	39.5	8.3	47.8
Total	Lumens	24.8	5.5	30.2
	% Fixture	81.9	18.1	100.0

Coefficient of Utilization

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	0.6	2.1
10°-20°	2.1	7.1
20°-30°	3.6	11.9
30°-40°	3.7	12.1
40°-50°	3.0	9.9
50°-60°	2.9	9.5
60°-70°	3.3	11.0
70°-80°	2.5	8.2
80°-90°	3.1	10.2
90°-100°	3.8	12.4
100°-110°	1.6	5.4
110°-120°	0.1	0.3
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°	24.8	81.9
0°-180°	30.2	100.0



REPORT NUMBER: P871402

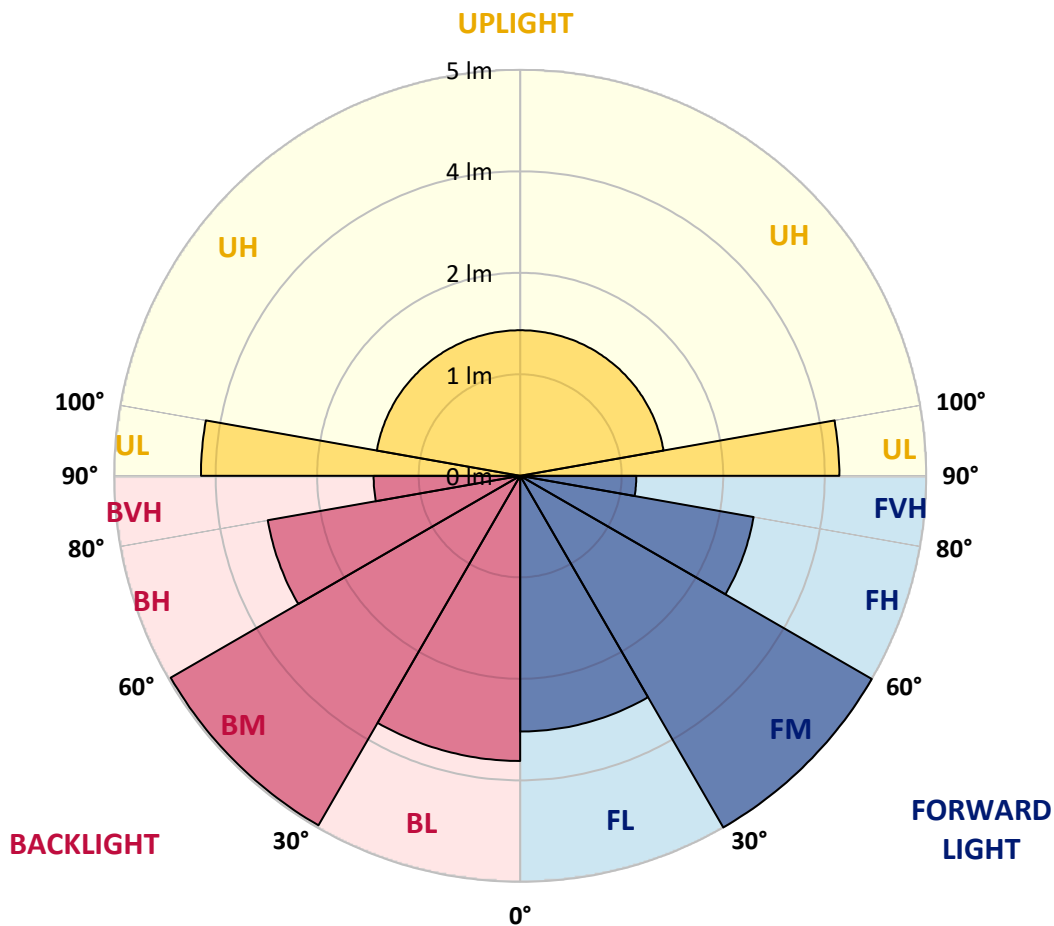
CATALOG NUMBER: 650-2-8LED-40-10-12-X

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

Zone	Lumens	% Fixture	Zone Rating/Lumen Limit		
			B	U	G
FL (0°-30°)	3.0	9.9			
FM (30°-60°)	4.8	15.8			
FH (60°-80°)	2.8	9.2			G0/660
FVH (80°-90°)	1.4	4.5			G0/10
BL (0°-30°)	3.4	11.1	B0/110		
BM (30°-60°)	4.7	15.7	B0/220		
BH (60°-80°)	3.0	10.0	B0/110		G0/110
BVH (80°-90°)	1.7	5.7			G0/10
UL (90°-100°)	3.8	12.4		U1/10	
UH (100°-180°)	1.7	5.7		U1/10	

BUG Rating: B0-U1-G0

Type I Short





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 CATALOG NUMBER: 650-2-8LED-40-10-12-X

CANDELA DISTRIBUTION (FULL):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
0°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
2.5°	5.9	6.1	5.9	6.1	6.1	6.1	6.1	6.2	6.2	6.3	6.3
5°	6.2	6.2	6.3	6.2	6.2	6.2	5.9	6.0	6.0	6.1	6.2
7.5°	6.6	6.7	6.6	6.6	6.5	6.1	6.0	5.7	5.7	5.9	5.8
10°	7.6	7.6	7.5	7.2	6.7	6.4	5.8	5.5	5.3	5.2	5.3
12.5°	8.4	8.3	8.1	7.7	7.0	6.4	5.8	5.1	4.8	4.7	4.8
15°	9.6	9.3	9.0	8.5	7.8	6.8	5.8	5.0	4.6	4.6	4.6
17.5°	10.4	10.1	9.8	9.3	8.3	6.9	5.7	4.9	4.1	4.1	4.2
20°	11.3	11.1	10.7	10.1	8.9	7.3	5.7	4.6	4.1	3.9	3.9
22.5°	11.6	11.8	11.3	10.5	9.2	7.6	5.6	4.5	3.8	3.5	3.7
25°	12.2	12.3	11.8	11.0	9.7	7.7	5.7	4.3	3.7	3.6	3.6
27.5°	11.8	11.8	11.4	10.8	9.5	7.6	5.7	4.0	3.4	3.2	3.2
30°	10.8	11.0	10.7	10.0	9.4	7.7	5.6	3.8	3.2	3.2	3.0
32.5°	9.6	9.7	9.5	9.2	8.4	7.2	5.2	3.6	3.1	3.1	3.0
35°	8.4	8.4	8.3	8.3	7.7	6.4	4.6	3.4	3.0	2.7	2.8
37.5°	7.5	7.6	7.5	7.4	7.0	5.7	4.3	3.5	3.0	2.8	2.8
40°	6.1	6.4	6.3	6.2	5.8	5.0	3.8	3.0	2.8	2.7	2.6
42.5°	5.9	5.9	5.7	5.6	5.3	4.5	3.8	3.3	2.9	2.9	2.8
45°	5.0	4.7	4.9	4.6	4.3	3.9	3.2	2.7	2.6	2.4	2.4
47.5°	4.1	4.3	4.3	4.0	4.0	3.6	3.0	2.6	2.4	2.3	2.5
50°	4.1	4.0	4.1	3.8	3.7	3.5	3.0	2.7	2.4	2.4	2.4
52.5°	4.1	4.0	3.9	3.8	3.8	3.2	2.9	2.6	2.4	2.4	2.2
55°	4.4	4.2	4.0	3.8	3.5	3.3	3.0	2.6	2.3	2.2	2.1
57.5°	4.3	4.0	4.1	3.7	3.5	3.2	2.8	2.3	2.1	1.9	1.9
60°	4.3	4.3	4.3	4.1	3.5	3.4	2.9	2.4	2.1	2.1	2.1
62.5°	4.7	4.6	4.4	4.1	3.8	3.4	3.0	2.5	2.3	2.1	2.1
65°	4.8	4.6	4.5	4.3	3.8	3.5	2.8	2.5	2.0	1.9	2.0
67.5°	4.7	4.8	4.7	4.2	4.0	3.5	2.8	2.2	1.8	1.7	1.6
70°	4.5	4.4	4.2	4.0	3.7	3.2	2.4	1.9	1.6	1.3	1.3
72.5°	3.8	3.7	3.7	3.4	3.2	2.7	2.0	1.5	1.1	0.9	0.8
75°	3.2	3.0	3.2	2.9	2.9	2.4	1.8	1.1	0.8	0.7	0.6
77.5°	2.7	2.7	2.7	2.7	2.6	2.1	1.4	0.9	0.6	0.3	0.5
80°	3.1	2.8	3.0	3.0	2.8	2.6	1.6	0.8	0.7	0.6	0.5
82.5°	3.3	3.5	3.6	3.5	3.2	2.7	1.5	0.9	0.6	0.5	0.5
85°	3.9	3.8	4.0	4.0	3.6	2.8	1.9	1.0	0.5	0.6	0.5
87.5°	4.4	4.6	4.5	4.4	4.1	3.2	2.0	1.1	0.5	0.3	0.4
90°	5.4	5.4	5.3	4.9	4.5	3.7	2.4	1.3	0.6	0.5	0.5
92.5°	5.9	5.7	5.6	5.2	4.4	3.6	2.7	1.5	0.7	0.4	0.3
95°	6.0	6.2	5.9	5.4	4.8	3.9	2.8	1.7	0.8	0.4	0.4
97.5°	5.6	5.7	5.6	5.1	4.6	3.8	2.6	1.4	0.6	0.1	0.1
100°	4.6	4.6	4.7	4.5	3.9	3.1	2.2	1.1	0.5	0.1	0.0
102.5°	3.3	3.2	3.4	3.2	2.9	2.2	1.5	0.8	0.3	0.1	0.0
105°	2.2	2.2	2.2	2.0	1.8	1.4	0.9	0.6	0.2	0.2	0.1
107.5°	0.9	0.7	0.8	0.8	0.7	0.6	0.3	0.2	0.2	0.1	0.0
110°	0.2	0.3	0.2	0.4	0.2	0.3	0.2	0.0	0.1	0.1	0.2



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CANDELA DISTRIBUTION (continued):

	0°	5°	15°	25°	35°	45°	55°	65°	75°	85°	90°
112.5°	0.0	0.2	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.1	0.1
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°	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
2.5°	6.3	6.4	6.4	6.4	6.5	6.5	6.6	6.5	6.6	6.4
5°	6.2	6.3	6.6	6.6	6.9	6.9	7.2	7.1	7.2	7.1
7.5°	5.8	6.1	6.5	6.9	7.4	7.6	8.0	8.1	8.2	8.1
10°	5.4	5.7	6.2	7.0	7.8	8.5	9.0	9.3	9.6	9.5
12.5°	4.8	5.3	6.0	7.0	8.0	9.0	9.8	10.2	10.5	10.5
15°	4.6	5.0	5.9	7.2	8.6	9.9	10.9	11.4	11.7	11.6
17.5°	4.1	4.7	5.5	7.1	8.9	10.4	11.5	11.9	12.2	12.2
20°	4.0	4.3	5.4	7.1	9.1	10.8	11.9	12.4	12.6	12.6
22.5°	3.6	4.0	4.9	6.9	9.1	10.8	12.0	12.3	12.4	12.5
25°	3.6	3.9	4.8	6.6	8.9	10.7	11.5	11.8	12.1	12.1
27.5°	3.2	3.4	4.3	6.1	8.3	9.9	10.7	11.0	11.0	11.1
30°	3.1	3.4	4.1	5.7	7.7	9.2	9.9	10.1	10.2	10.1
32.5°	2.9	3.1	3.7	5.2	6.8	8.2	8.7	9.0	9.2	9.2
35°	2.8	3.1	3.6	4.5	6.1	7.2	7.8	8.2	8.3	8.2
37.5°	2.9	3.0	3.5	4.4	5.6	6.6	7.1	7.4	7.5	7.4
40°	2.6	2.8	3.2	3.8	4.8	5.6	5.9	6.2	6.3	6.3
42.5°	2.8	3.0	3.1	3.7	4.5	5.1	5.6	5.6	5.7	5.7
45°	2.4	2.6	2.7	3.3	3.9	4.3	4.5	4.7	4.9	4.9
47.5°	2.4	2.6	2.7	3.1	3.5	4.0	4.1	4.2	4.4	4.3
50°	2.4	2.5	2.8	3.1	3.4	3.8	3.9	4.1	4.2	4.2
52.5°	2.2	2.4	2.7	3.0	3.3	3.6	3.9	4.1	4.1	4.1
55°	2.2	2.3	2.5	2.9	3.4	3.7	3.9	4.0	4.1	4.1
57.5°	2.1	2.2	2.4	2.8	3.3	3.5	3.8	3.8	4.1	3.9
60°	2.1	2.1	2.5	3.0	3.4	3.7	4.1	4.3	4.3	4.3
62.5°	2.1	2.3	2.6	3.1	3.7	4.0	4.4	4.5	4.6	4.7
65°	1.9	2.1	2.5	3.1	3.7	4.1	4.5	4.7	4.8	4.8
67.5°	1.6	1.9	2.3	3.0	3.8	4.2	4.6	4.8	4.8	4.9
70°	1.2	1.5	1.9	2.7	3.5	3.9	4.4	4.6	4.7	4.6
72.5°	0.8	1.1	1.5	2.2	3.1	3.7	4.0	4.2	4.3	4.3
75°	0.7	0.8	1.2	1.8	2.7	3.2	3.4	3.7	3.8	3.8
77.5°	0.4	0.6	0.8	1.5	2.5	3.0	3.2	3.4	3.5	3.5
80°	0.5	0.7	1.0	1.7	2.9	3.4	3.7	3.8	3.9	3.9
82.5°	0.5	0.7	1.3	2.1	3.3	4.0	4.5	4.7	4.8	4.7
85°	0.6	0.8	1.5	2.5	3.7	4.6	5.1	5.3	5.4	5.3
87.5°	0.3	0.8	1.4	2.6	4.0	4.7	5.4	5.6	5.7	5.7
90°	0.5	1.0	1.7	2.9	4.2	5.1	5.7	6.1	6.2	6.2
92.5°	0.5	0.9	1.9	2.9	4.1	5.1	5.8	6.1	6.4	6.4
95°	0.5	1.1	1.9	3.1	4.2	5.0	5.8	6.2	6.5	6.5
97.5°	0.2	0.8	1.7	2.7	3.8	4.7	5.3	5.7	6.1	6.0
100°	0.2	0.6	1.4	2.6	3.4	4.3	4.9	5.3	5.6	5.6
102.5°	0.1	0.4	1.1	1.9	2.7	3.4	3.8	4.2	4.4	4.5
105°	0.2	0.3	0.8	1.4	1.9	2.5	2.8	3.1	3.2	3.2
107.5°	0.1	0.2	0.3	0.8	1.1	1.4	1.7	1.7	1.9	1.9
110°	0.1	0.2	0.2	0.3	0.6	0.7	0.7	0.8	0.9	0.9



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CANDELA DISTRIBUTION (continued):

	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
112.5°	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
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)