

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: P358924

Luminaire Tested: **1900-OA-XX-12LED4025-UNV-BZ**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P358924
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1811-015-1)
Test Lab: INNOVATION CENTER
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMIERE
Catalog Number: 1900-OA-XX-12LED4025-UNV-BZ
Description: ASPEN BOLLARD OPEN APERTURE
Light Source: (1) 4000K CCT, 80 CRI COB LED
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 245.4 lumens
Efficiency: N/A
Efficacy: 17.7 lumens/watt
Luminous Opening: Vertical Cylinder (Dia: 0.29' x H: 0.08')
IES Classification: Type V - Short - Non-Cutoff
BUG Rating: B0 - U2 - G0

Input Watts (W): 13.9
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

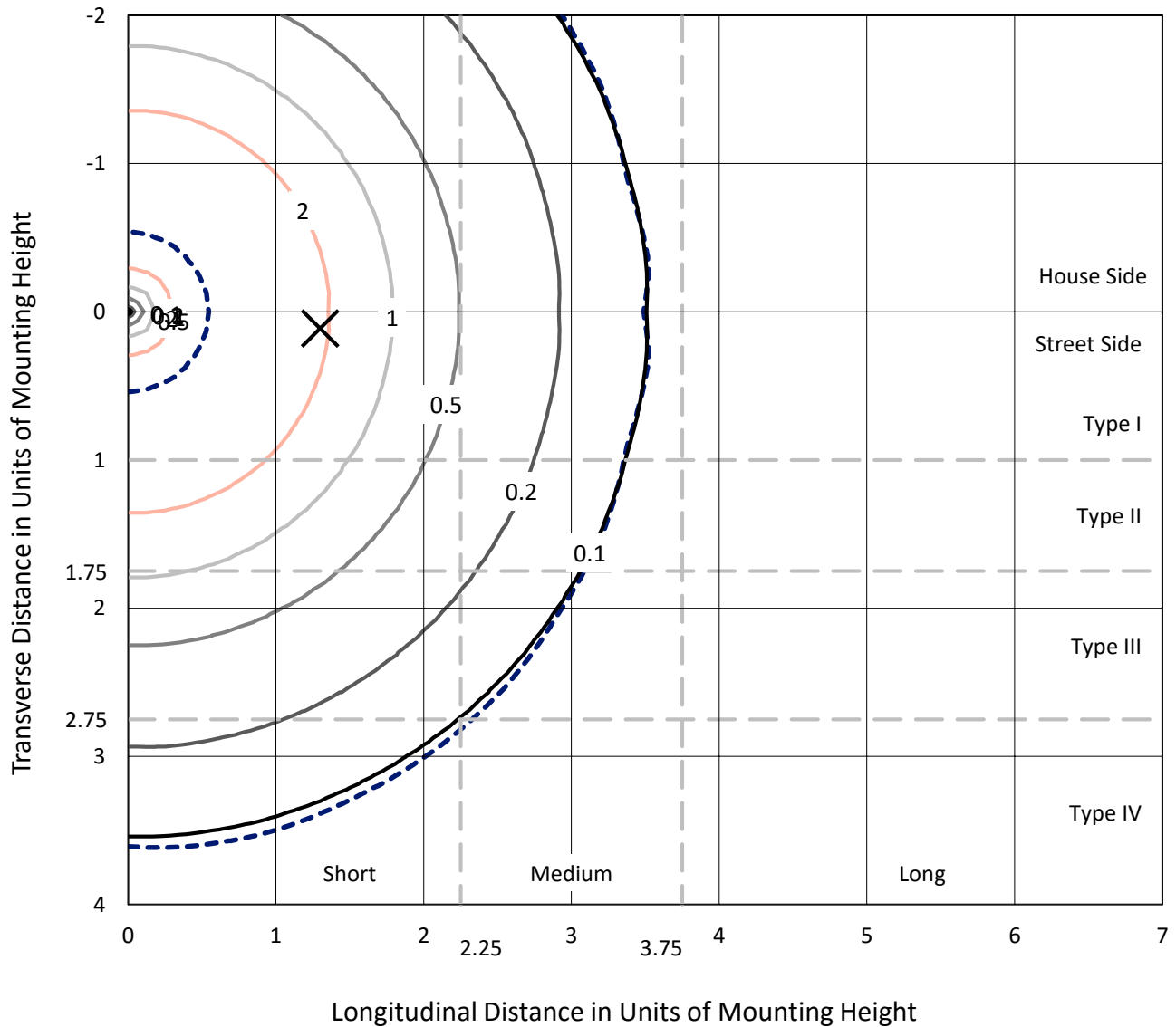


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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

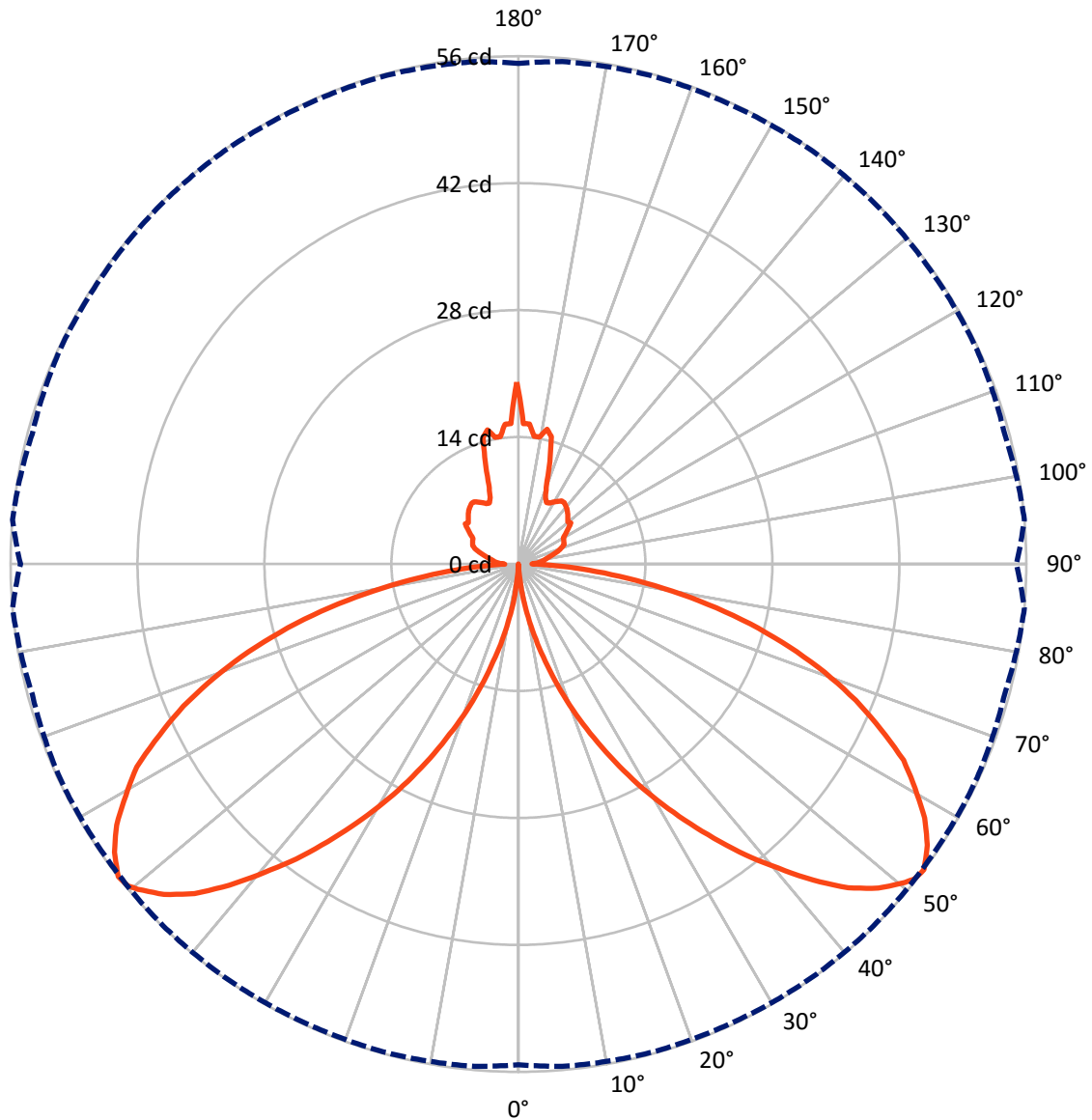


Based on 2.4 foot mounting height. Maximum calculated value = 3.6 fc
 Type V - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 85-Deg Lateral - - - Horizontal Cone Through 52.5-Deg Vertical

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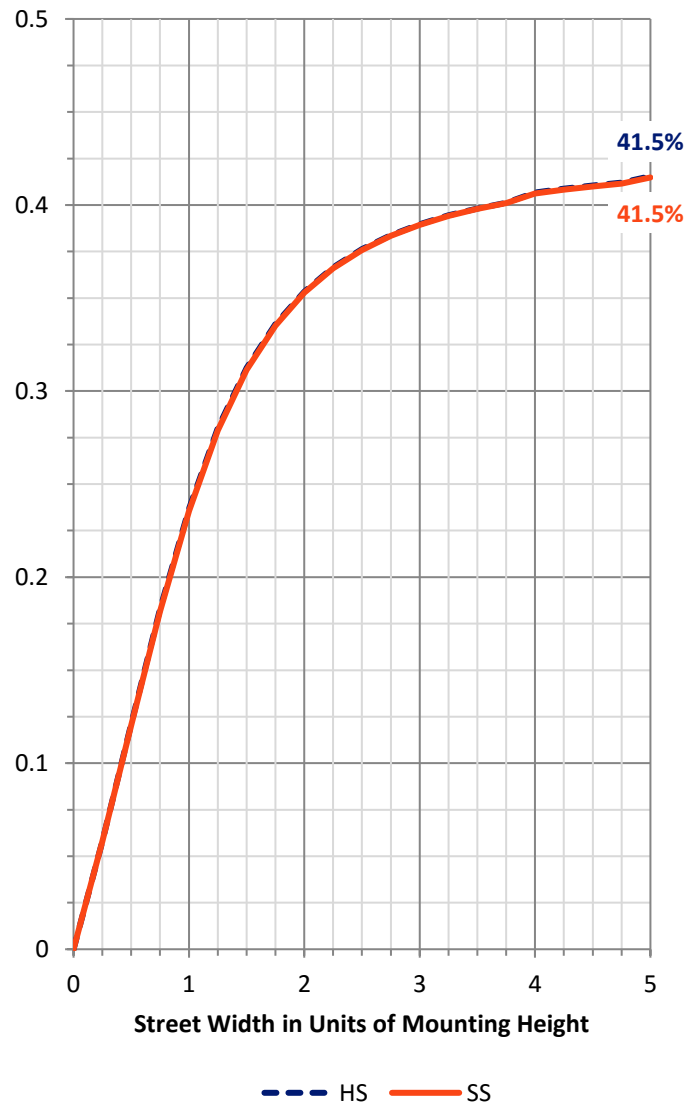
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|-------|
| House Side | Lumens | 103.5 | 19.2 | 122.7 |
| | % Fixture | 42.2 | 7.8 | 50.0 |
| Street Side | Lumens | 103.5 | 19.2 | 122.7 |
| | % Fixture | 42.2 | 7.8 | 50.0 |
| Total | Lumens | 207.0 | 38.4 | 245.4 |
| | % Fixture | 84.4 | 15.6 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 0.3 | 0.1 |
| 10°-20° | 3.4 | 1.4 |
| 20°-30° | 11.2 | 4.6 |
| 30°-40° | 23.6 | 9.6 |
| 40°-50° | 39.2 | 16.0 |
| 50°-60° | 48.7 | 19.8 |
| 60°-70° | 43.8 | 17.9 |
| 70°-80° | 28.2 | 11.5 |
| 80°-90° | 8.6 | 3.5 |
| 90°-100° | 2.6 | 1.1 |
| 100°-110° | 4.2 | 1.7 |
| 110°-120° | 5.5 | 2.2 |
| 120°-130° | 6.0 | 2.4 |
| 130°-140° | 6.0 | 2.5 |
| 140°-150° | 5.3 | 2.1 |
| 150°-160° | 3.7 | 1.5 |
| 160°-170° | 3.7 | 1.5 |
| 170°-180° | 1.4 | 0.6 |
| 0°-90° | 207.0 | 84.4 |
| 0°-180° | 245.4 | 100.0 |



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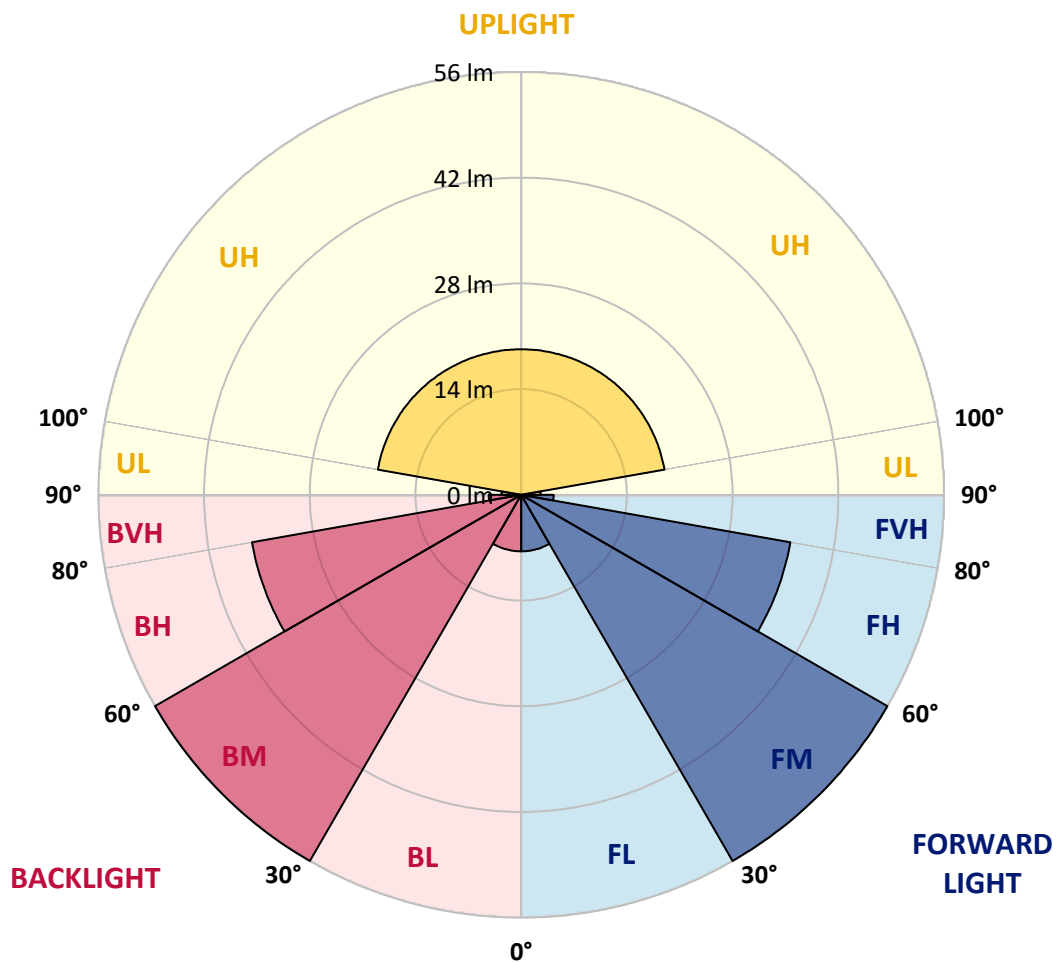
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|-------|--------|
| | | | | B | U | G |
| FL | (0°-30°) | 7.5 | 3.0 | | | |
| FM | (30°-60°) | 55.7 | 22.7 | | | |
| FH | (60°-80°) | 36.0 | 14.7 | | | G0/660 |
| FVH | (80°-90°) | 4.3 | 1.7 | | | G0/10 |
| BL | (0°-30°) | 7.5 | 3.0 | B0/110 | | |
| BM | (30°-60°) | 55.7 | 22.7 | B0/220 | | |
| BH | (60°-80°) | 36.0 | 14.7 | B0/110 | | G0/660 |
| BVH | (80°-90°) | 4.3 | 1.7 | | | G0/10 |
| UL | (90°-100°) | 2.6 | 1.1 | | U1/10 | |
| UH | (100°-180°) | 19.2 | 7.8 | | U2/50 | |

BUG Rating: B0-U2-G0

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| 0° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5° | 1.9 | 1.7 | 1.6 | 1.6 | 1.5 | 1.4 | 1.6 | 1.5 | 1.3 | 1.4 | 1.3 |
| 7.5° | 4.2 | 4.0 | 4.0 | 3.9 | 4.0 | 3.9 | 4.0 | 3.9 | 3.8 | 3.9 | 3.9 |
| 10° | 6.2 | 6.1 | 6.1 | 6.1 | 6.1 | 6.0 | 6.1 | 6.0 | 6.1 | 6.0 | 5.9 |
| 12.5° | 8.9 | 8.8 | 8.7 | 8.8 | 8.7 | 8.6 | 8.8 | 8.6 | 8.6 | 8.6 | 8.5 |
| 15° | 11.5 | 11.3 | 11.4 | 11.4 | 11.3 | 11.2 | 11.4 | 11.3 | 11.1 | 11.2 | 11.1 |
| 17.5° | 14.5 | 14.3 | 14.4 | 14.4 | 14.2 | 14.2 | 14.4 | 14.3 | 14.1 | 14.2 | 14.0 |
| 20° | 17.6 | 17.4 | 17.4 | 17.5 | 17.4 | 17.3 | 17.5 | 17.4 | 17.0 | 17.3 | 17.0 |
| 22.5° | 20.6 | 20.5 | 20.4 | 20.5 | 20.4 | 20.3 | 20.5 | 20.4 | 20.3 | 20.4 | 20.1 |
| 25° | 23.7 | 23.8 | 23.8 | 23.9 | 23.8 | 23.7 | 23.8 | 23.8 | 23.5 | 23.7 | 23.4 |
| 27.5° | 27.0 | 27.1 | 27.1 | 27.3 | 27.1 | 27.0 | 27.1 | 27.0 | 26.7 | 27.1 | 26.7 |
| 30° | 30.3 | 30.4 | 30.4 | 30.6 | 30.4 | 30.4 | 30.5 | 30.4 | 30.2 | 30.5 | 30.1 |
| 32.5° | 33.5 | 33.7 | 33.8 | 33.9 | 33.8 | 33.8 | 33.7 | 33.8 | 33.5 | 33.9 | 33.4 |
| 35° | 37.1 | 37.3 | 37.4 | 37.4 | 37.4 | 37.3 | 37.4 | 37.3 | 37.2 | 37.4 | 36.9 |
| 37.5° | 40.4 | 40.7 | 40.9 | 40.8 | 40.8 | 40.8 | 40.8 | 40.8 | 40.6 | 41.0 | 40.4 |
| 40° | 43.9 | 44.1 | 44.2 | 44.3 | 44.3 | 44.2 | 44.4 | 44.3 | 44.1 | 44.4 | 43.8 |
| 42.5° | 47.2 | 47.6 | 47.7 | 47.8 | 47.8 | 47.8 | 47.7 | 47.9 | 47.7 | 48.0 | 47.3 |
| 45° | 50.4 | 50.8 | 50.9 | 51.0 | 51.0 | 50.9 | 50.9 | 51.0 | 50.8 | 51.3 | 50.4 |
| 47.5° | 53.2 | 53.5 | 53.5 | 53.6 | 53.6 | 53.7 | 53.6 | 53.7 | 53.4 | 53.8 | 52.9 |
| 50° | 54.9 | 55.3 | 55.3 | 55.4 | 55.4 | 55.4 | 55.3 | 55.4 | 55.1 | 55.6 | 54.8 |
| 51° | 55.4 | 55.8 | 55.8 | 55.9 | 55.8 | 55.8 | 55.8 | 55.8 | 55.6 | 56.2 | 55.1 |
| 52.5° | 55.6 | 56.0 | 56.2 | 56.2 | 56.3 | 56.3 | 56.2 | 56.2 | 55.9 | 56.4 | 55.3 |
| 55° | 54.4 | 54.9 | 55.0 | 55.1 | 55.1 | 55.0 | 55.0 | 54.9 | 54.6 | 55.1 | 54.3 |
| 57.5° | 52.7 | 53.1 | 53.2 | 53.2 | 53.2 | 53.2 | 53.0 | 53.0 | 52.8 | 53.2 | 52.4 |
| 60° | 50.4 | 50.8 | 50.8 | 50.8 | 50.8 | 50.8 | 50.6 | 50.5 | 50.2 | 50.6 | 50.0 |
| 62.5° | 48.0 | 48.4 | 48.4 | 48.4 | 48.3 | 48.2 | 48.1 | 47.9 | 47.6 | 48.0 | 47.3 |
| 65° | 44.5 | 44.9 | 44.9 | 44.8 | 44.8 | 44.7 | 44.6 | 44.3 | 43.9 | 44.2 | 43.7 |
| 67.5° | 40.8 | 41.2 | 41.2 | 41.1 | 41.1 | 41.0 | 40.9 | 40.5 | 40.2 | 40.4 | 40.0 |
| 70° | 36.3 | 36.8 | 36.8 | 36.8 | 36.7 | 36.4 | 36.3 | 36.2 | 35.7 | 36.1 | 35.6 |
| 72.5° | 31.8 | 32.3 | 32.3 | 32.3 | 32.0 | 32.1 | 31.6 | 31.6 | 31.1 | 31.5 | 31.0 |
| 75° | 27.2 | 27.3 | 27.4 | 27.2 | 27.2 | 27.0 | 26.7 | 26.6 | 26.2 | 26.6 | 26.2 |
| 77.5° | 22.2 | 22.3 | 22.3 | 22.2 | 22.1 | 21.8 | 21.7 | 21.8 | 21.3 | 21.5 | 21.2 |
| 80° | 16.7 | 16.9 | 16.9 | 16.9 | 16.8 | 16.6 | 16.4 | 16.5 | 16.0 | 16.3 | 16.0 |
| 82.5° | 11.7 | 11.8 | 11.8 | 11.8 | 11.8 | 11.7 | 11.5 | 11.5 | 11.3 | 11.3 | 11.1 |
| 85° | 7.1 | 7.2 | 7.4 | 7.5 | 7.4 | 7.1 | 7.1 | 7.1 | 7.0 | 7.0 | 6.9 |
| 87.5° | 3.6 | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 | 3.6 | 3.7 | 3.6 | 3.5 | 3.6 |
| 90° | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 1.5 | 1.6 | 1.5 | 1.6 |
| 92.5° | 2.1 | 2.0 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 | 2.1 |
| 95° | 2.3 | 2.3 | 2.3 | 2.3 | 2.5 | 2.3 | 2.5 | 2.5 | 2.3 | 2.5 | 2.5 |
| 97.5° | 2.7 | 2.7 | 2.7 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.8 | 2.9 |
| 100° | 3.1 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 | 3.1 |
| 102.5° | 3.4 | 3.4 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 | 3.5 |
| 105° | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 3.9 | 4.0 | 4.0 |
| 107.5° | 4.5 | 4.5 | 4.5 | 4.5 | 4.6 | 4.6 | 4.6 | 4.6 | 4.5 | 4.6 | 4.6 |



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CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|--------|------|------|------|------|------|------|------|------|------|------|------|
| 110° | 5.0 | 5.1 | 5.0 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 | 5.1 |
| 112.5° | 5.4 | 5.4 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 |
| 115° | 5.4 | 5.5 | 5.5 | 5.5 | 5.5 | 5.6 | 5.5 | 5.5 | 5.5 | 5.6 | 5.5 |
| 117.5° | 5.6 | 5.6 | 5.6 | 5.6 | 5.6 | 5.7 | 5.6 | 5.7 | 5.6 | 5.7 | 5.6 |
| 120° | 5.7 | 5.7 | 5.7 | 5.8 | 5.7 | 5.8 | 5.8 | 5.8 | 5.7 | 5.8 | 5.8 |
| 122.5° | 6.2 | 6.3 | 6.3 | 6.3 | 6.2 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 | 6.3 |
| 125° | 6.6 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.7 | 6.8 | 6.7 |
| 127.5° | 7.2 | 7.4 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 | 7.2 | 7.4 | 7.4 | 7.2 |
| 130° | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.4 | 7.2 | 7.2 | 7.2 | 7.2 | 7.5 |
| 132.5° | 7.5 | 7.6 | 7.6 | 7.5 | 7.5 | 7.5 | 7.5 | 7.4 | 7.5 | 7.5 | 7.6 |
| 135° | 7.8 | 7.9 | 7.9 | 7.9 | 7.8 | 7.9 | 7.8 | 7.8 | 7.8 | 7.8 | 8.0 |
| 137.5° | 8.1 | 8.1 | 8.2 | 8.2 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.1 | 8.2 |
| 140° | 8.2 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.3 | 8.2 | 8.3 | 8.3 |
| 142.5° | 8.5 | 8.5 | 8.6 | 8.6 | 8.5 | 8.6 | 8.6 | 8.5 | 8.4 | 8.5 | 8.6 |
| 145° | 8.4 | 8.5 | 8.6 | 8.5 | 8.5 | 8.6 | 8.6 | 8.5 | 8.5 | 8.5 | 8.6 |
| 147.5° | 8.3 | 8.4 | 8.4 | 8.4 | 8.3 | 8.4 | 8.3 | 8.3 | 8.2 | 8.2 | 8.3 |
| 150° | 8.1 | 8.1 | 8.0 | 8.0 | 8.0 | 8.1 | 8.1 | 8.0 | 7.9 | 7.9 | 8.1 |
| 152.5° | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.7 | 7.6 | 7.5 | 7.6 | 7.7 |
| 155° | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 | 7.5 | 7.5 | 7.5 | 7.7 |
| 157.5° | 8.0 | 8.0 | 7.9 | 8.0 | 7.9 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.1 |
| 160° | 9.1 | 9.2 | 9.2 | 9.1 | 9.1 | 9.2 | 9.2 | 9.3 | 9.3 | 9.3 | 9.5 |
| 162.5° | 11.6 | 11.7 | 11.6 | 11.5 | 11.5 | 11.6 | 11.6 | 11.8 | 11.9 | 11.9 | 12.0 |
| 165° | 13.7 | 13.7 | 13.6 | 13.6 | 13.8 | 14.1 | 14.3 | 14.4 | 14.6 | 14.6 | 14.9 |
| 167.5° | 14.9 | 15.0 | 14.9 | 14.7 | 14.8 | 15.1 | 15.1 | 15.1 | 15.2 | 15.3 | 15.4 |
| 170° | 15.1 | 15.3 | 15.2 | 14.8 | 14.6 | 14.6 | 14.6 | 14.4 | 14.4 | 14.3 | 14.5 |
| 172.5° | 14.8 | 14.9 | 14.6 | 14.4 | 14.1 | 14.1 | 14.1 | 14.2 | 14.1 | 14.3 | 14.4 |
| 175° | 15.0 | 15.0 | 15.0 | 15.2 | 15.3 | 15.6 | 15.4 | 15.4 | 15.6 | 15.6 | 15.9 |
| 177.5° | 18.8 | 18.7 | 18.2 | 17.7 | 17.3 | 16.8 | 16.2 | 15.9 | 15.6 | 15.6 | 15.7 |
| 180° | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 | 20.2 |

(END OF REPORT)