

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: STREETWORKS

Report Number: P236710

Luminaire Tested: **ARCH-L-AF72-170-D-U-5WQ-7030**

Issue Date: 8/23/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P236710  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29597)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 8/23/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-170-D-U-5WQ-7030  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 3000K, 750mA LIGHT ENGINES WITH 24 LEDS AND TYPE V WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21918.5 lumens  
Efficiency: N/A  
Efficacy: 126.7 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B5 - U0 - G3

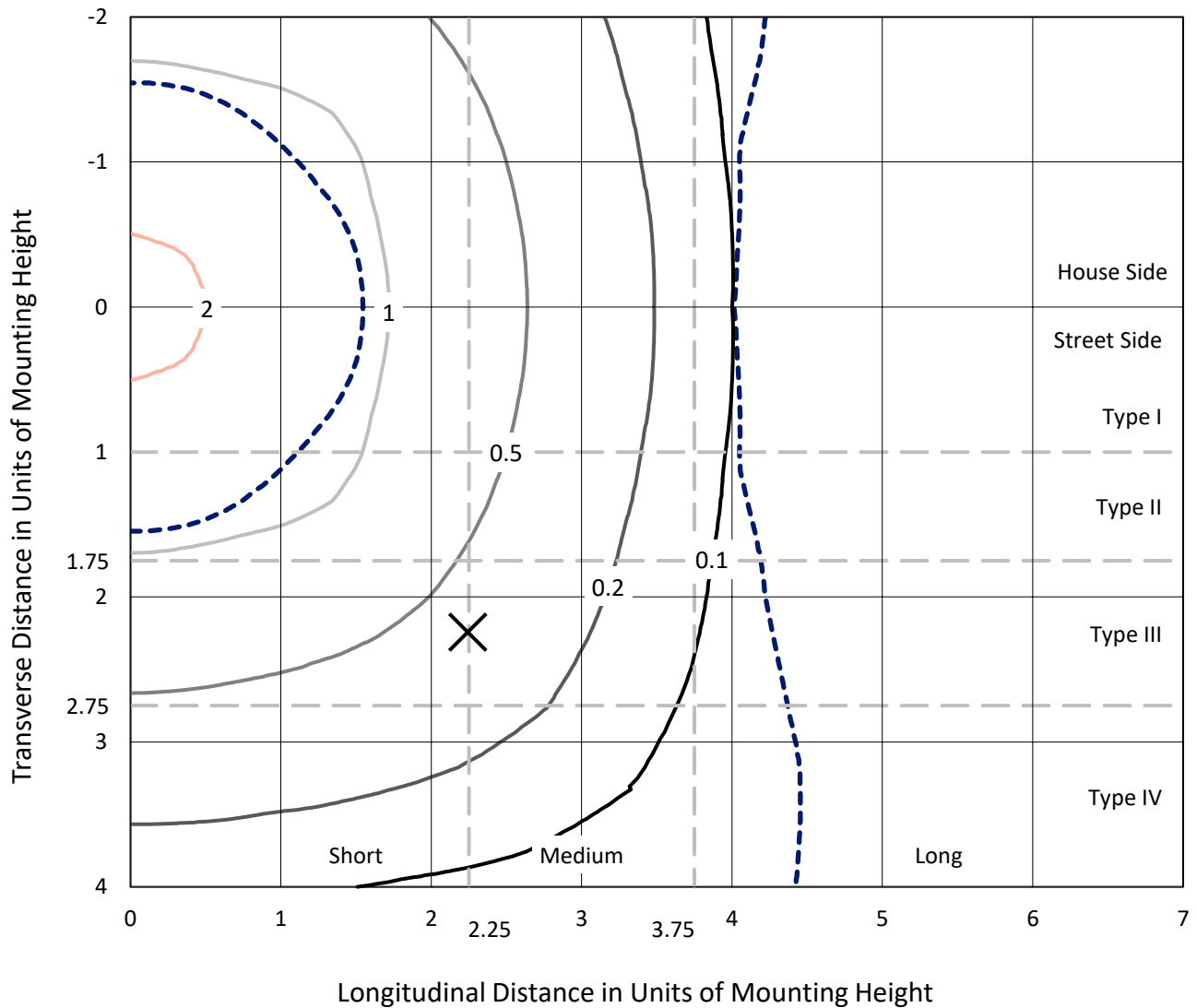
Input Watts (W): 173  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

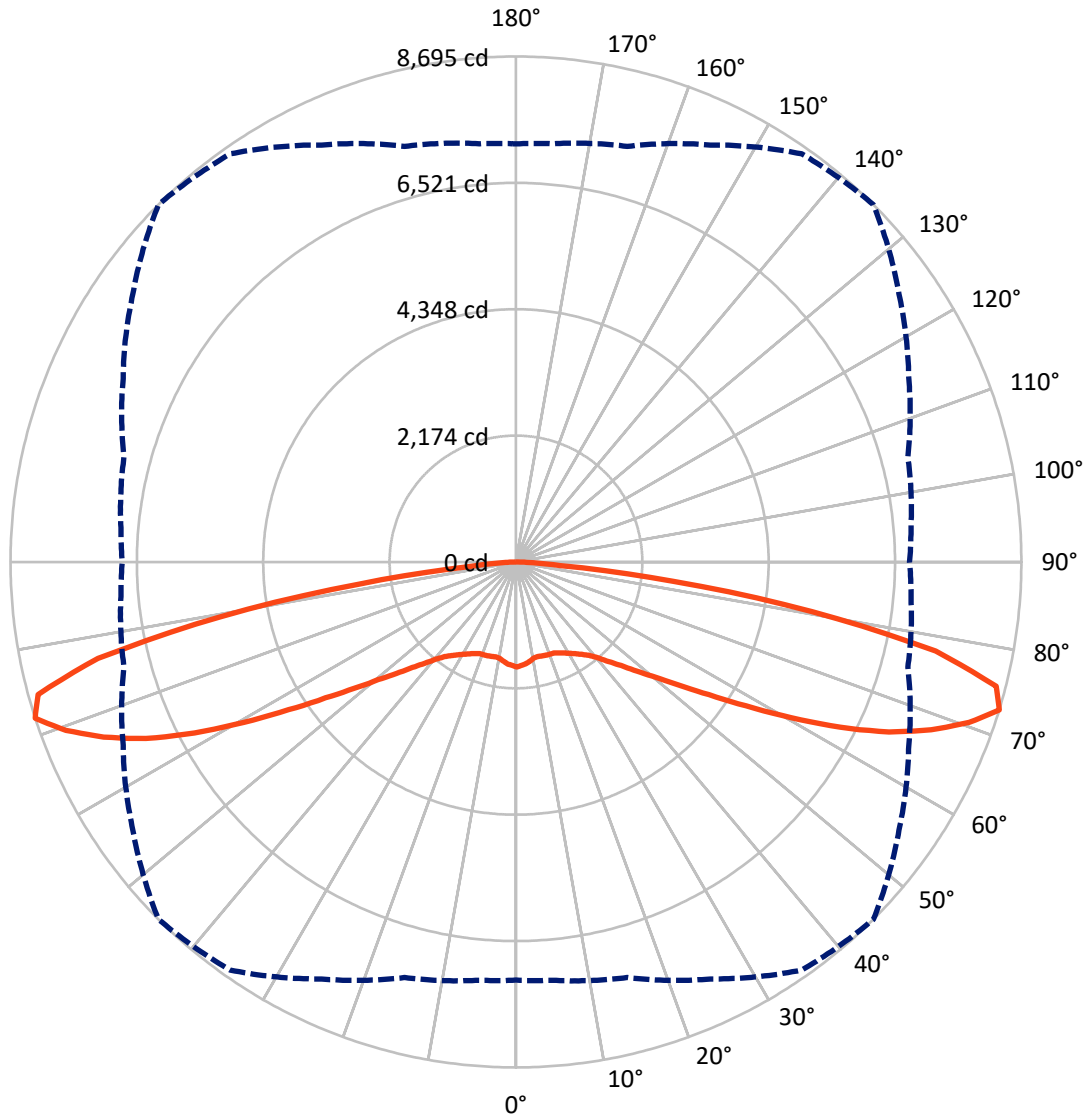
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.9 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral    - - - Horizontal Cone Through 72.5-Deg Vertical

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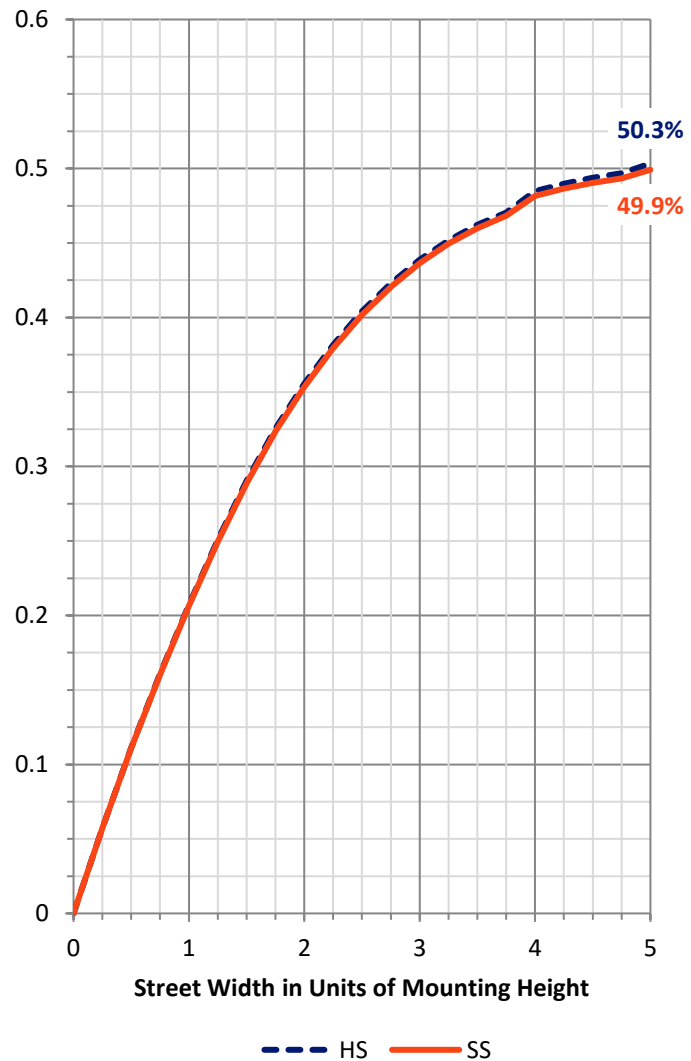
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 10959.3  | 0.0    | 10959.3 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 10959.3  | 0.0    | 10959.3 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 21918.5  | 0.0    | 21918.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 166.2   | 0.8       |
| 10°-20°   | 479.6   | 2.2       |
| 20°-30°   | 802.6   | 3.7       |
| 30°-40°   | 1233.2  | 5.6       |
| 40°-50°   | 2041.9  | 9.3       |
| 50°-60°   | 3630.1  | 16.6      |
| 60°-70°   | 6350.9  | 29.0      |
| 70°-80°   | 6461.5  | 29.5      |
| 80°-90°   | 752.4   | 3.4       |
| 90°-100°  | 0.0     | 0.0       |
| 100°-110° | 0.0     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 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°    | 21918.5 | 100.0     |
| 0°-180°   | 21918.5 | 100.0     |



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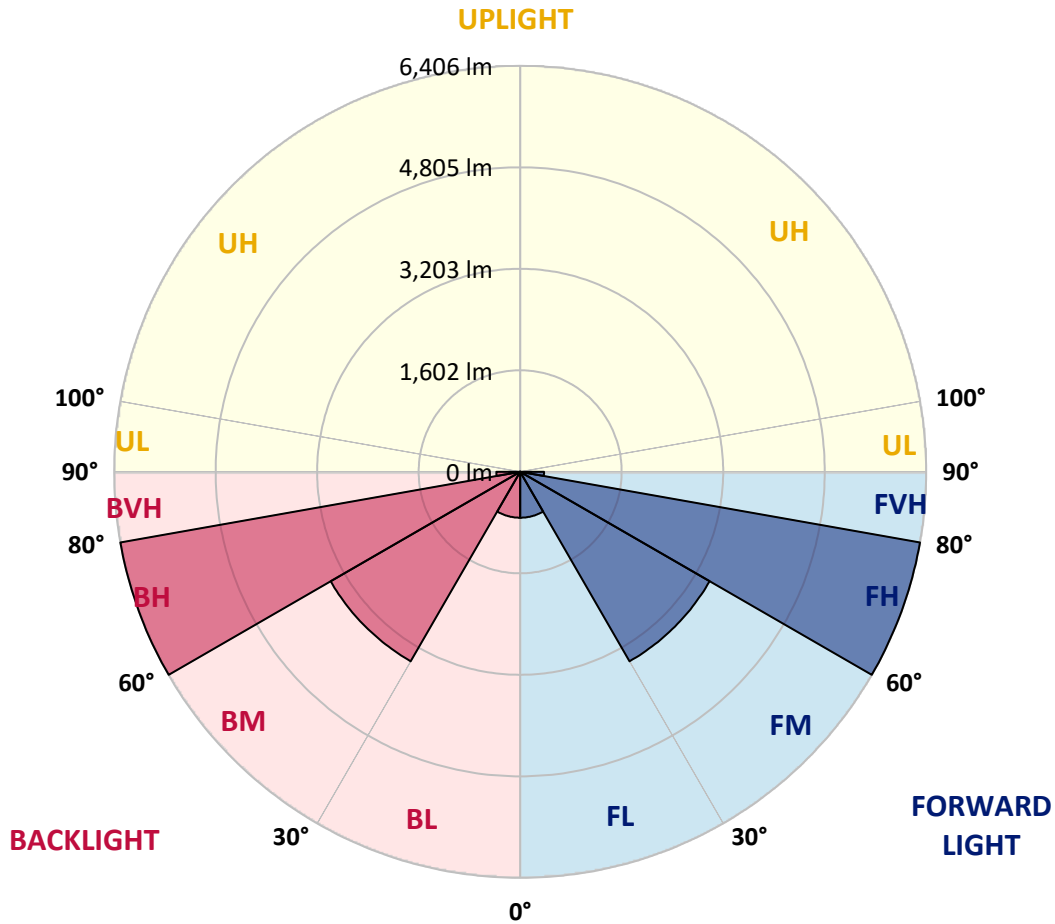
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 724.2  | 3.3       |                         |      |         |
| FM (30°-60°)   | 3452.7 | 15.8      |                         |      |         |
| FH (60°-80°)   | 6406.2 | 29.2      |                         |      | G3/7500 |
| FVH (80°-90°)  | 376.2  | 1.7       |                         |      | G3/500  |
| BL (0°-30°)    | 724.2  | 3.3       | B2/1000                 |      |         |
| BM (30°-60°)   | 3452.7 | 15.8      | B3/5000                 |      |         |
| BH (60°-80°)   | 6406.2 | 29.2      | B5                      |      | G3/7500 |
| BVH (80°-90°)  | 376.2  | 1.7       |                         |      | G3/500  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B5-U0-G3**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1806.6 | 1806.6 | 1806.6 | 1806.6 | 1806.6 | 1806.6 | 1806.6 | 1806.6 | 1806.6 | 1806.6 | 1806.6 |
| 2.5°  | 1789.8 | 1794.0 | 1785.8 | 1785.8 | 1785.8 | 1781.6 | 1785.8 | 1781.6 | 1785.8 | 1789.8 | 1789.8 |
| 5°    | 1773.2 | 1773.2 | 1764.9 | 1764.9 | 1764.9 | 1760.7 | 1764.9 | 1764.9 | 1769.0 | 1773.2 | 1773.2 |
| 7.5°  | 1735.7 | 1735.7 | 1731.5 | 1727.3 | 1723.1 | 1723.1 | 1727.3 | 1727.3 | 1731.5 | 1735.7 | 1735.7 |
| 10°   | 1714.9 | 1710.7 | 1702.3 | 1689.8 | 1685.7 | 1681.4 | 1689.8 | 1698.1 | 1710.7 | 1723.1 | 1718.9 |
| 12.5° | 1706.4 | 1702.3 | 1685.7 | 1673.1 | 1664.8 | 1668.9 | 1677.2 | 1685.7 | 1706.4 | 1718.9 | 1714.9 |
| 15°   | 1714.9 | 1706.4 | 1685.7 | 1664.8 | 1668.9 | 1677.2 | 1685.7 | 1685.7 | 1710.7 | 1723.1 | 1723.1 |
| 17.5° | 1714.9 | 1710.7 | 1685.7 | 1668.9 | 1673.1 | 1685.7 | 1689.8 | 1685.7 | 1706.4 | 1727.3 | 1727.3 |
| 20°   | 1718.9 | 1718.9 | 1685.7 | 1673.1 | 1677.2 | 1689.8 | 1693.9 | 1689.8 | 1706.4 | 1731.5 | 1731.5 |
| 22.5° | 1727.3 | 1723.1 | 1689.8 | 1681.4 | 1689.8 | 1698.1 | 1702.3 | 1698.1 | 1714.9 | 1735.7 | 1739.9 |
| 25°   | 1744.0 | 1735.7 | 1706.4 | 1702.3 | 1718.9 | 1731.5 | 1731.5 | 1723.1 | 1731.5 | 1752.3 | 1752.3 |
| 27.5° | 1764.9 | 1760.7 | 1727.3 | 1727.3 | 1748.1 | 1773.2 | 1760.7 | 1744.0 | 1752.3 | 1773.2 | 1773.2 |
| 30°   | 1802.4 | 1798.3 | 1764.9 | 1764.9 | 1794.0 | 1823.3 | 1794.0 | 1773.2 | 1785.8 | 1806.6 | 1810.8 |
| 32.5° | 1856.7 | 1856.7 | 1827.5 | 1819.0 | 1869.2 | 1881.7 | 1869.2 | 1827.5 | 1835.8 | 1865.0 | 1865.0 |
| 35°   | 1948.4 | 1940.1 | 1911.0 | 1906.7 | 1956.9 | 1952.6 | 1948.4 | 1911.0 | 1919.2 | 1952.6 | 1952.6 |
| 37.5° | 2069.5 | 2065.3 | 2040.2 | 2027.8 | 2052.8 | 2036.0 | 2044.5 | 2027.8 | 2048.6 | 2073.6 | 2077.8 |
| 40°   | 2223.9 | 2219.6 | 2198.8 | 2182.1 | 2190.4 | 2165.4 | 2173.7 | 2182.1 | 2203.0 | 2219.6 | 2223.9 |
| 42.5° | 2415.7 | 2415.7 | 2394.9 | 2365.7 | 2353.1 | 2340.7 | 2340.7 | 2357.4 | 2378.2 | 2399.0 | 2399.0 |
| 45°   | 2653.6 | 2653.6 | 2628.6 | 2599.3 | 2561.8 | 2541.0 | 2549.2 | 2566.0 | 2591.0 | 2616.0 | 2624.4 |
| 47.5° | 2933.1 | 2933.1 | 2899.7 | 2870.6 | 2833.0 | 2808.0 | 2808.0 | 2816.2 | 2853.9 | 2874.7 | 2887.1 |
| 50°   | 3246.0 | 3233.5 | 3200.1 | 3170.9 | 3150.1 | 3116.7 | 3120.9 | 3116.7 | 3150.1 | 3179.2 | 3187.6 |
| 52.5° | 3571.4 | 3567.4 | 3533.9 | 3525.6 | 3538.1 | 3521.4 | 3521.4 | 3479.7 | 3492.2 | 3508.9 | 3504.7 |
| 55°   | 3976.2 | 3963.7 | 3934.4 | 3951.2 | 4001.2 | 4026.2 | 4017.9 | 3951.2 | 3913.5 | 3922.0 | 3917.7 |
| 57.5° | 4418.5 | 4405.9 | 4397.5 | 4447.6 | 4560.3 | 4664.6 | 4643.7 | 4489.4 | 4418.5 | 4422.6 | 4426.7 |
| 60°   | 4869.0 | 4869.0 | 4894.0 | 5019.3 | 5261.3 | 5432.3 | 5369.8 | 5111.0 | 4985.8 | 4960.8 | 4952.5 |
| 62.5° | 5332.2 | 5344.6 | 5398.9 | 5607.5 | 5978.8 | 6262.6 | 6104.0 | 5736.8 | 5549.2 | 5499.0 | 5482.4 |
| 65°   | 5870.4 | 5882.9 | 5962.2 | 6220.9 | 6713.2 | 7051.1 | 6780.0 | 6433.6 | 6170.8 | 6066.5 | 6049.8 |
| 67.5° | 6650.6 | 6659.0 | 6721.5 | 6971.9 | 7435.0 | 7706.2 | 7426.7 | 7117.9 | 6834.1 | 6713.2 | 6704.8 |
| 70°   | 7351.5 | 7359.9 | 7414.2 | 7743.7 | 8169.4 | 8265.3 | 7956.5 | 7564.3 | 7268.2 | 7172.1 | 7155.5 |
| 72.5° | 7193.0 | 7222.2 | 7401.7 | 7914.8 | 8569.9 | 8695.0 | 8044.1 | 7455.9 | 6980.2 | 6821.7 | 6771.6 |
| 75°   | 6033.1 | 6078.9 | 6362.7 | 7134.6 | 8177.6 | 8532.3 | 7526.8 | 6446.2 | 5736.8 | 5432.3 | 5353.0 |
| 77.5° | 3521.4 | 3692.4 | 4180.6 | 5169.5 | 6659.0 | 7380.8 | 6200.0 | 4718.8 | 3525.6 | 3024.9 | 2858.0 |
| 80°   | 963.7  | 1055.6 | 1410.2 | 2378.2 | 4176.4 | 5169.5 | 3955.3 | 2165.4 | 1168.2 | 876.1  | 813.6  |
| 82.5° | 304.7  | 404.7  | 513.2  | 684.3  | 1639.7 | 2724.5 | 1468.7 | 638.4  | 500.6  | 413.1  | 367.1  |
| 85°   | 162.7  | 175.3  | 287.9  | 333.8  | 492.3  | 763.5  | 454.7  | 333.8  | 300.4  | 221.1  | 208.5  |
| 87.5° | 83.5   | 87.6   | 162.7  | 162.7  | 217.0  | 179.4  | 196.1  | 179.4  | 171.1  | 108.5  | 95.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)