

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: P157611

Luminaire Tested: **VST-E09-LED-E-U-5WQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P157611  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33709)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: VST-E09-LED-E-U-5WQ-7050  
Description: VENTUS LED SITE/ROADWAY LUMINAIRE  
(9) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE WIDE  
Light Source: (189) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 29159.3 lumens  
Efficiency: N/A  
Efficacy: 129.2 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type V - Short - Semi-Cutoff  
BUG Rating: B5 - U0 - G4

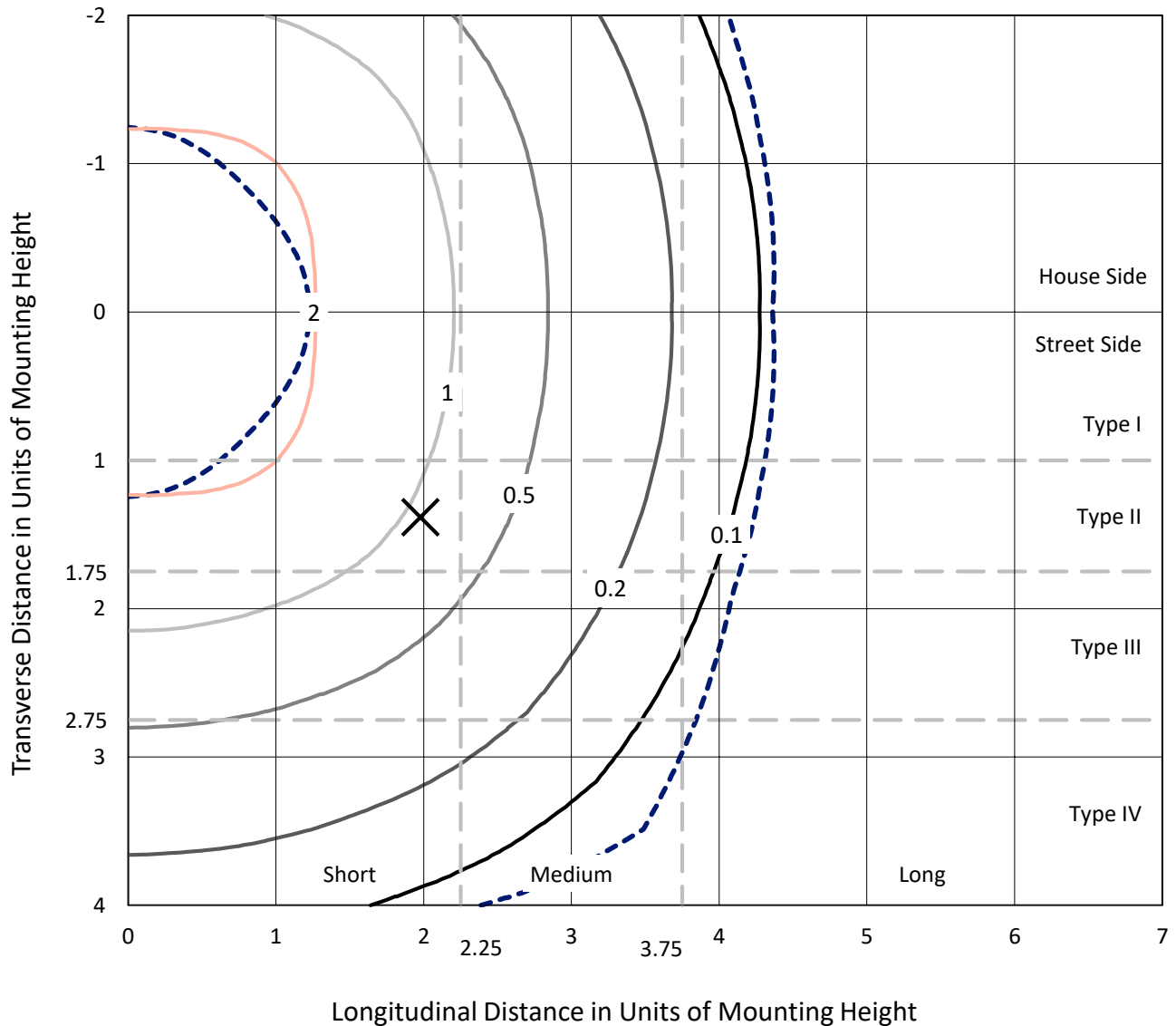
Input Watts (W): 225.7  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



REPORT NUMBER: P157611  
 CATALOG NUMBER: VST-E09-LED-E-U-5WQ-7050

### Iso-Footcandle Lines of Horizontal Illumination

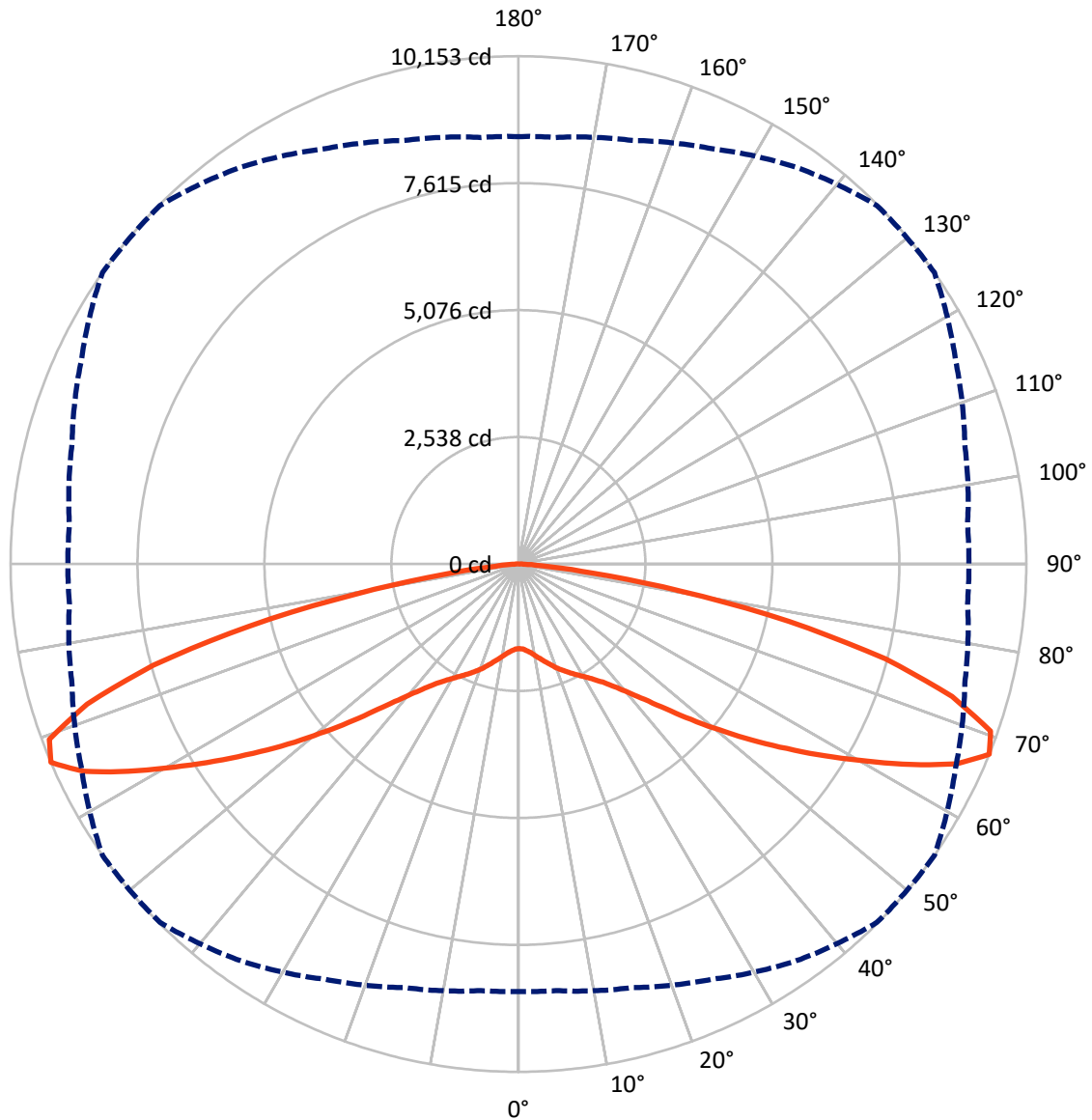
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc  
 Type V - Short - Semi-Cutoff

REPORT NUMBER: P157611  
CATALOG NUMBER: VST-E09-LED-E-U-5WQ-7050

### Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral    - - - Horizontal Cone Through 67.5-Deg Vertical

REPORT NUMBER: P157611

CATALOG NUMBER: VST-E09-LED-E-U-5WQ-7050

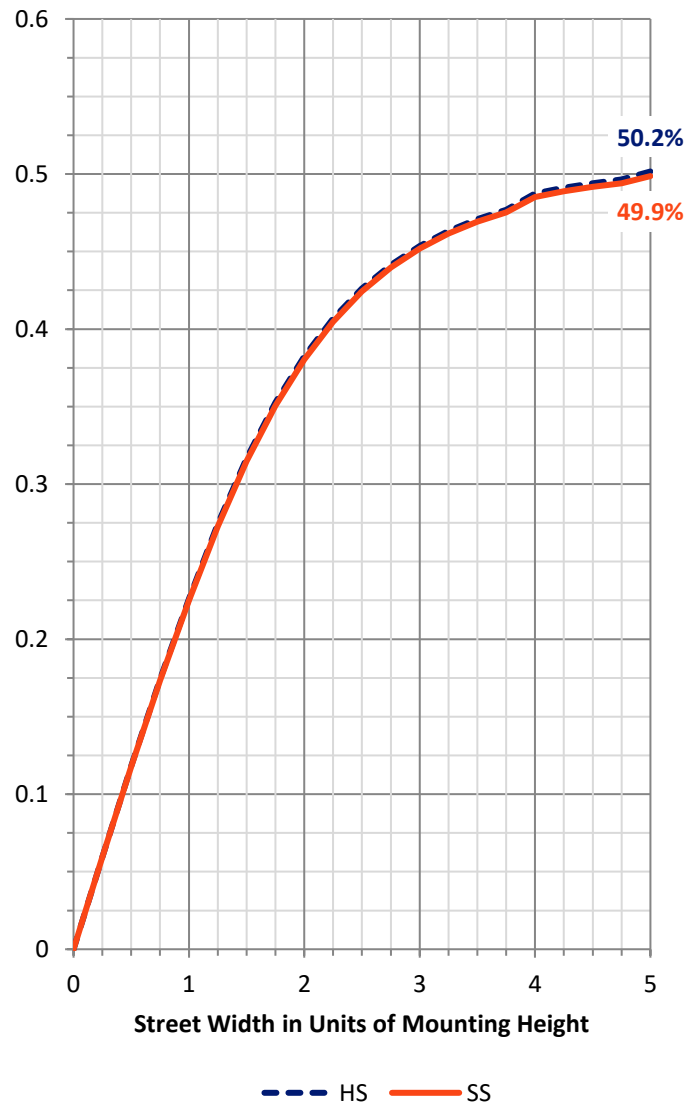
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 14579.6  | 0.0    | 14579.6 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Street Side</b> | Lumens    | 14579.6  | 0.0    | 14579.6 |
|                    | % Fixture | 50.0     | 0.0    | 50.0    |
| <b>Total</b>       | Lumens    | 29159.3  | 0.0    | 29159.3 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 169.8   | 0.6       |
| 10°-20°   | 580.2   | 2.0       |
| 20°-30°   | 1115.6  | 3.8       |
| 30°-40°   | 1827.5  | 6.3       |
| 40°-50°   | 3176.9  | 10.9      |
| 50°-60°   | 5670.6  | 19.4      |
| 60°-70°   | 8755.1  | 30.0      |
| 70°-80°   | 7087.3  | 24.3      |
| 80°-90°   | 776.3   | 2.7       |
| 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°    | 29159.3 | 100.0     |
| 0°-180°   | 29159.3 | 100.0     |



REPORT NUMBER: P157611

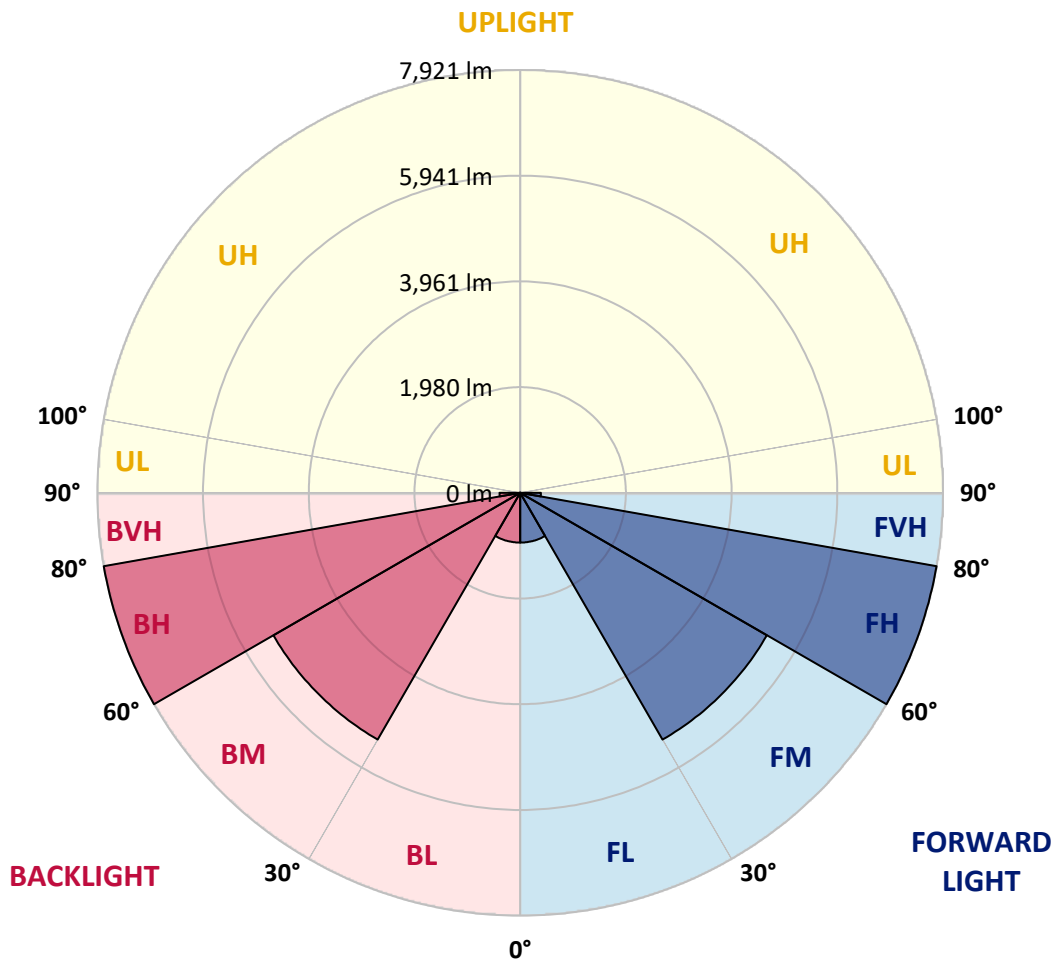
CATALOG NUMBER: VST-E09-LED-E-U-5WQ-7050

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|------|-------------|--------|-----------|-------------------------|------|----------|
|      |             |        |           | B                       | U    | G        |
| FL   | (0°-30°)    | 932.8  | 3.2       |                         |      |          |
| FM   | (30°-60°)   | 5337.5 | 18.3      |                         |      |          |
| FH   | (60°-80°)   | 7921.2 | 27.2      |                         |      | G4/12000 |
| FVH  | (80°-90°)   | 388.2  | 1.3       |                         |      | G3/500   |
| BL   | (0°-30°)    | 932.8  | 3.2       | B2/1000                 |      |          |
| BM   | (30°-60°)   | 5337.5 | 18.3      | B4/8500                 |      |          |
| BH   | (60°-80°)   | 7921.2 | 27.2      | B5                      |      | G4/12000 |
| BVH  | (80°-90°)   | 388.2  | 1.3       |                         |      | G3/500   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B5-U0-G4**

Type V Short





REPORT NUMBER: P157611  
 CATALOG NUMBER: VST-E09-LED-E-U-5WQ-7050

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 55°     | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 0°    | 1691.8 | 1691.8 | 1691.8 | 1691.8 | 1691.8 | 1691.8  | 1691.8  | 1691.8 | 1691.8 | 1691.8 | 1691.8 |
| 2.5°  | 1702.9 | 1704.8 | 1702.9 | 1702.9 | 1701.1 | 1701.1  | 1701.1  | 1702.9 | 1702.9 | 1706.6 | 1704.8 |
| 5°    | 1738.0 | 1739.9 | 1736.2 | 1739.9 | 1739.9 | 1741.7  | 1739.9  | 1738.0 | 1739.9 | 1741.7 | 1736.2 |
| 7.5°  | 1787.9 | 1791.6 | 1789.7 | 1791.6 | 1793.4 | 1791.6  | 1791.6  | 1789.7 | 1793.4 | 1791.6 | 1787.9 |
| 10°   | 1852.5 | 1856.2 | 1854.4 | 1858.1 | 1859.9 | 1861.8  | 1861.8  | 1858.1 | 1856.2 | 1856.2 | 1854.4 |
| 12.5° | 1930.1 | 1930.1 | 1930.1 | 1935.6 | 1939.3 | 1943.0  | 1941.2  | 1937.5 | 1932.0 | 1933.8 | 1926.4 |
| 15°   | 2015.1 | 2018.8 | 2018.8 | 2020.6 | 2029.8 | 2031.7  | 2029.8  | 2024.3 | 2022.5 | 2018.8 | 2015.1 |
| 17.5° | 2109.3 | 2111.1 | 2113.0 | 2114.8 | 2125.9 | 2131.4  | 2124.0  | 2114.8 | 2114.8 | 2113.0 | 2113.0 |
| 20°   | 2207.2 | 2205.3 | 2209.0 | 2212.7 | 2220.1 | 2225.6  | 2223.8  | 2214.5 | 2207.2 | 2212.7 | 2210.8 |
| 22.5° | 2297.7 | 2299.5 | 2301.3 | 2306.9 | 2319.8 | 2321.7  | 2316.1  | 2308.7 | 2299.5 | 2301.3 | 2301.3 |
| 25°   | 2382.6 | 2384.5 | 2388.2 | 2395.5 | 2410.3 | 2419.6  | 2412.2  | 2401.1 | 2388.2 | 2388.2 | 2390.0 |
| 27.5° | 2469.4 | 2471.3 | 2473.1 | 2486.0 | 2504.5 | 2515.6  | 2510.1  | 2491.6 | 2476.8 | 2473.1 | 2467.6 |
| 30°   | 2565.5 | 2565.5 | 2569.2 | 2585.8 | 2609.8 | 2622.7  | 2615.3  | 2593.2 | 2571.0 | 2567.3 | 2567.3 |
| 32.5° | 2687.4 | 2680.0 | 2685.5 | 2707.7 | 2733.5 | 2748.3  | 2742.8  | 2716.9 | 2689.2 | 2683.7 | 2683.7 |
| 35°   | 2833.3 | 2829.6 | 2833.3 | 2859.1 | 2890.5 | 2912.7  | 2899.8  | 2875.8 | 2846.2 | 2840.7 | 2837.0 |
| 37.5° | 3006.9 | 3008.7 | 3019.8 | 3049.4 | 3091.9 | 3119.6  | 3106.6  | 3067.9 | 3032.8 | 3032.8 | 3032.8 |
| 40°   | 3226.7 | 3230.4 | 3252.5 | 3296.9 | 3357.8 | 3381.8  | 3367.1  | 3319.0 | 3278.4 | 3263.6 | 3267.3 |
| 42.5° | 3525.9 | 3524.1 | 3559.1 | 3614.6 | 3686.6 | 3721.7  | 3697.7  | 3646.0 | 3586.9 | 3562.8 | 3564.7 |
| 45°   | 3878.7 | 3904.5 | 3941.5 | 4011.7 | 4102.2 | 4163.1  | 4120.6  | 4063.4 | 3974.7 | 3939.6 | 3937.8 |
| 47.5° | 4305.3 | 4333.0 | 4379.2 | 4495.6 | 4604.5 | 4678.4  | 4645.2  | 4551.0 | 4423.5 | 4373.7 | 4355.2 |
| 50°   | 4791.1 | 4826.2 | 4885.3 | 5034.9 | 5190.0 | 5273.2  | 5214.1  | 5090.3 | 4953.6 | 4877.9 | 4859.4 |
| 52.5° | 5337.8 | 5348.9 | 5437.5 | 5618.5 | 5810.6 | 5912.2  | 5845.7  | 5698.0 | 5522.5 | 5452.3 | 5400.6 |
| 55°   | 5943.6 | 5952.8 | 6054.4 | 6259.4 | 6477.4 | 6597.4  | 6512.5  | 6325.9 | 6163.4 | 6041.5 | 6052.6 |
| 57.5° | 6505.1 | 6532.8 | 6682.4 | 6922.5 | 7179.2 | 7325.2  | 7232.8  | 7035.2 | 6865.3 | 6726.7 | 6743.4 |
| 60°   | 7105.4 | 7134.9 | 7291.9 | 7578.2 | 7925.4 | 8119.4  | 7999.3  | 7786.9 | 7611.4 | 7480.3 | 7463.7 |
| 62.5° | 7742.6 | 7759.2 | 7931.0 | 8187.7 | 8631.0 | 8943.1  | 8828.6  | 8594.0 | 8389.0 | 8259.7 | 8246.8 |
| 65°   | 8331.8 | 8353.9 | 8499.8 | 8780.6 | 9236.8 | 9693.0  | 9628.4  | 9303.3 | 9026.2 | 8839.7 | 8813.8 |
| 67.5° | 8546.0 | 8560.8 | 8765.8 | 9159.2 | 9683.8 | 10134.4 | 10152.9 | 9641.3 | 9238.6 | 9011.5 | 9005.9 |
| 70°   | 8294.8 | 8305.9 | 8568.2 | 9035.5 | 9704.1 | 10079.0 | 10012.5 | 9499.1 | 9004.1 | 8725.2 | 8697.5 |
| 72.5° | 7731.5 | 7733.3 | 7973.5 | 8370.6 | 9041.0 | 9347.6  | 9065.0  | 8782.4 | 8270.8 | 8062.1 | 8006.7 |
| 75°   | 6706.4 | 6708.3 | 6874.5 | 7138.6 | 7617.0 | 7899.6  | 7578.2  | 7319.6 | 7018.6 | 6894.8 | 6830.2 |
| 77.5° | 4611.9 | 4639.6 | 4811.4 | 5116.2 | 5640.7 | 5952.8  | 5531.7  | 5062.6 | 4879.7 | 4774.5 | 4711.7 |
| 80°   | 2220.1 | 2262.6 | 2460.2 | 2761.2 | 3309.8 | 3808.5  | 3289.5  | 2711.4 | 2354.9 | 2064.9 | 2116.7 |
| 82.5° | 592.9  | 600.3  | 770.2  | 1106.3 | 1542.2 | 1810.0  | 1470.2  | 1028.8 | 648.3  | 435.9  | 398.9  |
| 85°   | 157.0  | 166.2  | 232.7  | 319.5  | 485.8  | 618.7   | 472.8   | 301.1  | 229.0  | 169.9  | 155.1  |
| 87.5° | 42.5   | 49.9   | 81.3   | 97.9   | 121.9  | 97.9    | 121.9   | 105.3  | 101.6  | 53.6   | 38.8   |
| 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)