

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

Brand: McGRAW-EDISON

Report Number: P638327

Luminaire Tested: GWS-SA4E-750-U-T2R-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P638327  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-12)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4E-750-U-T2R-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (64) 5000K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

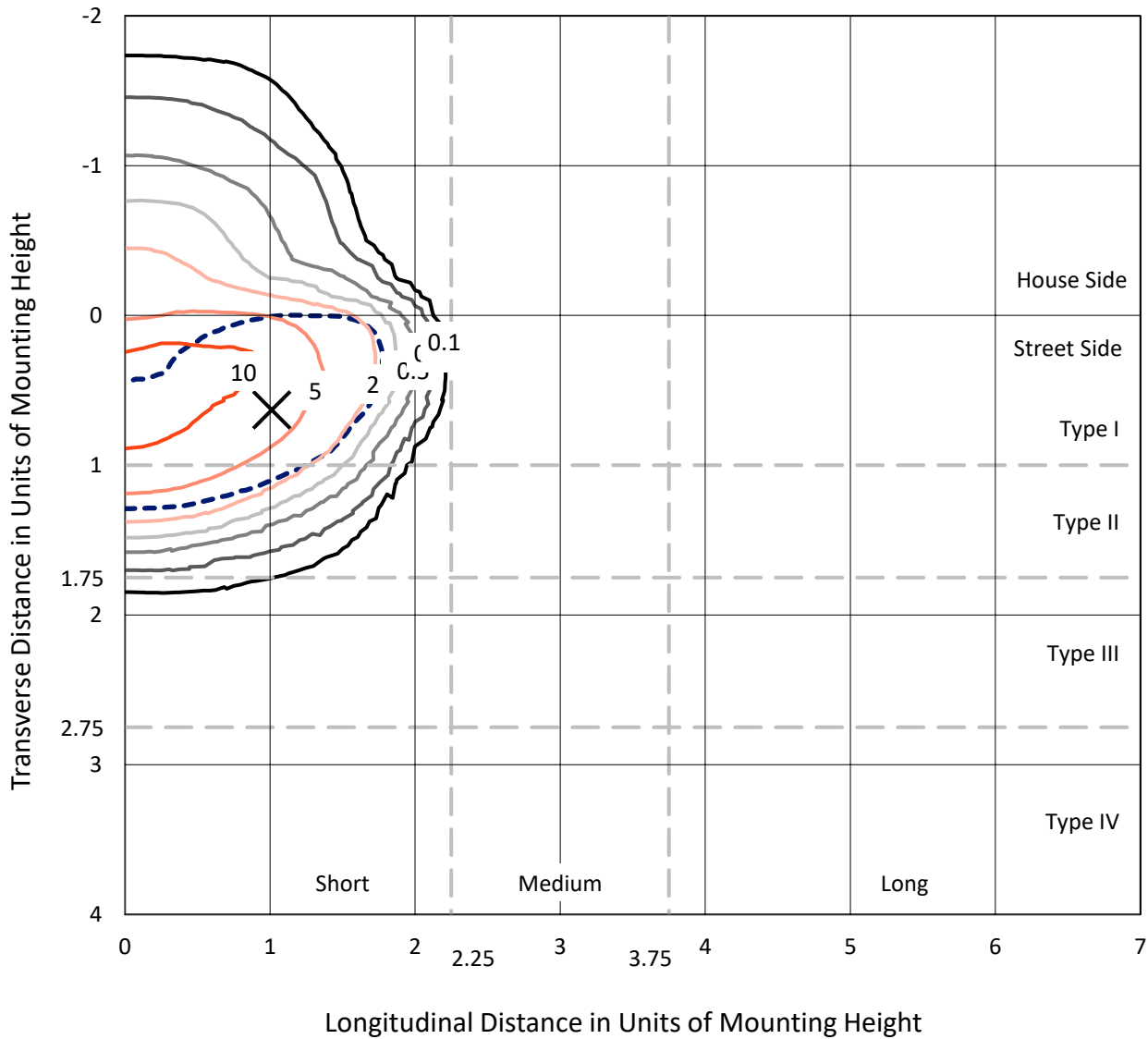
Lumens per Lamp: N/A  
Luminaire Lumens: 20984.5 lumens  
Efficiency: N/A  
Efficacy: 103.6 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G1  
  
Input Watts (W): 202.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 0  
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

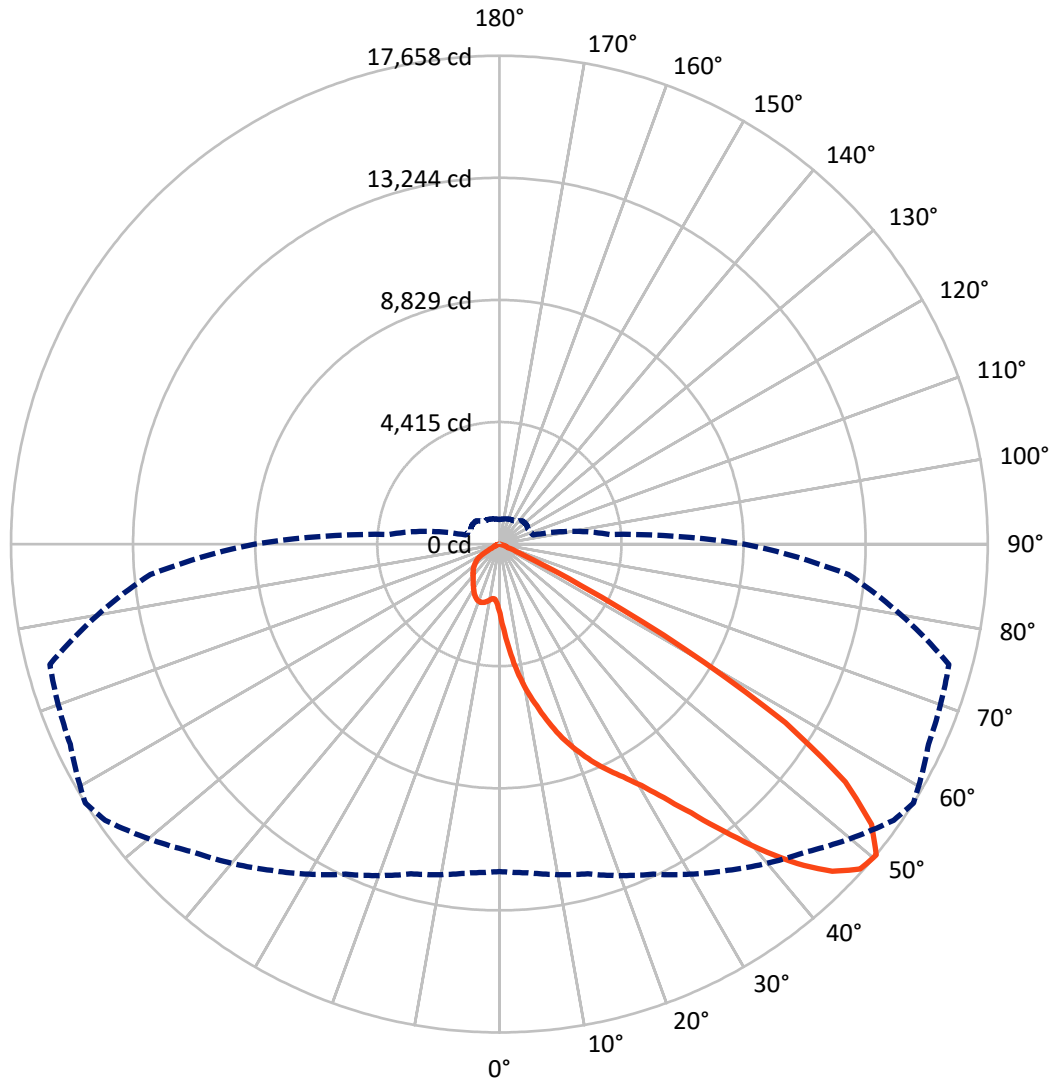
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.3 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral    - - - Horizontal Cone Through 50-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2939.2   | 0.0    | 2939.2  |
|                    | % Fixture | 14.0     | 0.0    | 14.0    |
| <b>Street Side</b> | Lumens    | 18045.3  | 0.0    | 18045.3 |
|                    | % Fixture | 86.0     | 0.0    | 86.0    |
| <b>Total</b>       | Lumens    | 20984.5  | 0.0    | 20984.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 310.5   | 1.5       |
| 10°-20°   | 1229.3  | 5.9       |
| 20°-30°   | 2487.5  | 11.9      |
| 30°-40°   | 4400.6  | 21.0      |
| 40°-50°   | 6415.2  | 30.6      |
| 50°-60°   | 5141.9  | 24.5      |
| 60°-70°   | 926.4   | 4.4       |
| 70°-80°   | 73.0    | 0.3       |
| 80°-90°   | 0.0     | 0.0       |
| 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°    | 20984.5 | 100.0     |
| 0°-180°   | 20984.5 | 100.0     |

**Coefficient of Utilization**



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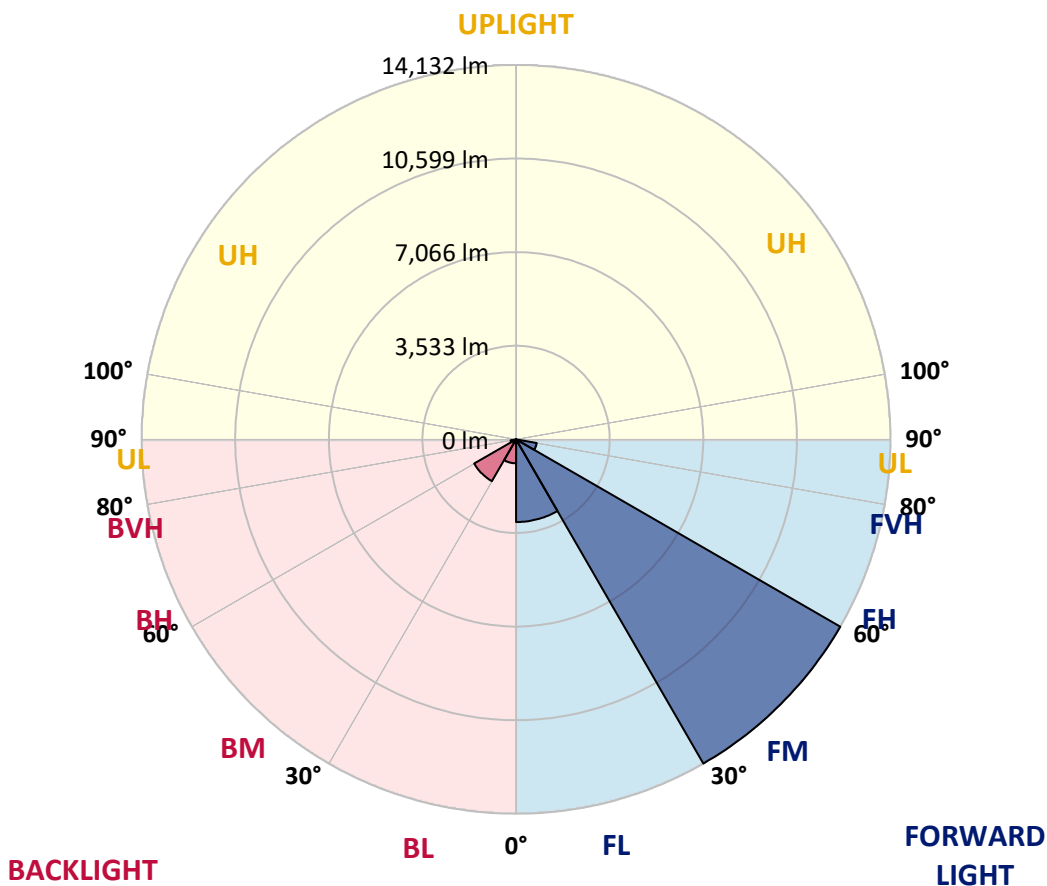
CATALOG NUMBER: GWS-SA4E-750-U-T2R-W-GRSBK

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

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 3122.4  | 14.9      |                         |      |         |
| FM (30°-60°)   | 14132.4 | 67.3      |                         |      |         |
| FH (60°-80°)   | 790.5   | 3.8       |                         |      | G1/1800 |
| FVH (80°-90°)  | 0.0     | 0.0       |                         |      | G0/10   |
| BL (0°-30°)    | 904.9   | 4.3       | B2/1000                 |      |         |
| BM (30°-60°)   | 1825.4  | 8.7       | B2/2500                 |      |         |
| BH (60°-80°)   | 208.9   | 1.0       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 0.0     | 0.0       |                         |      | G0/10   |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G1**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 55°     | 58°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2506.6  | 2506.6  | 2506.6  | 2506.6  | 2506.6  | 2506.6  | 2506.6  | 2506.6  | 2506.6  | 2506.6  | 2506.6  |
| 2.5°  | 3709.4  | 3651.0  | 3617.3  | 3590.4  | 3471.5  | 3283.0  | 3159.6  | 3094.5  | 2986.8  | 2805.0  | 2647.9  |
| 5°    | 4840.3  | 4797.7  | 4719.2  | 4665.3  | 4512.7  | 4245.7  | 3969.7  | 3859.7  | 3615.1  | 3204.5  | 2836.4  |
| 7.5°  | 5589.8  | 5558.4  | 5529.2  | 5457.4  | 5313.8  | 5071.5  | 4766.3  | 4651.8  | 4274.8  | 3691.4  | 3087.8  |
| 10°   | 6166.5  | 6141.9  | 6108.2  | 6106.0  | 5993.8  | 5776.1  | 5477.6  | 5358.7  | 4950.3  | 4221.0  | 3384.0  |
| 12.5° | 6673.7  | 6653.5  | 6646.8  | 6709.6  | 6637.8  | 6476.2  | 6153.1  | 6005.0  | 5571.9  | 4761.8  | 3711.6  |
| 15°   | 7021.5  | 7017.0  | 7046.2  | 7169.6  | 7210.0  | 7136.0  | 6864.4  | 6705.1  | 6206.9  | 5304.8  | 4072.9  |
| 17.5° | 7180.8  | 7194.3  | 7250.4  | 7463.6  | 7643.1  | 7705.9  | 7497.2  | 7362.6  | 6837.5  | 5854.6  | 4458.9  |
| 20°   | 7452.4  | 7447.9  | 7481.5  | 7683.5  | 7903.4  | 8127.8  | 8065.0  | 7950.5  | 7474.8  | 6435.8  | 4887.5  |
| 22.5° | 8217.6  | 8152.5  | 8080.7  | 8112.1  | 8190.6  | 8453.2  | 8569.9  | 8511.5  | 8132.3  | 7032.7  | 5329.5  |
| 25°   | 9393.4  | 9326.1  | 9095.0  | 8870.6  | 8722.5  | 8841.4  | 9000.7  | 9029.9  | 8785.3  | 7645.4  | 5791.8  |
| 27.5° | 10641.1 | 10580.5 | 10320.2 | 9983.6  | 9559.5  | 9353.0  | 9472.0  | 9530.3  | 9427.1  | 8374.7  | 6283.2  |
| 30°   | 11810.2 | 11729.5 | 11444.5 | 11027.1 | 10535.6 | 10219.2 | 10084.6 | 10125.0 | 10185.6 | 9238.6  | 6859.9  |
| 32.5° | 12824.5 | 12763.9 | 12422.9 | 11983.0 | 11509.5 | 11179.7 | 10865.5 | 10932.8 | 11080.9 | 10295.5 | 7598.2  |
| 35°   | 13684.0 | 13652.6 | 13291.3 | 12853.7 | 12353.3 | 12185.0 | 11915.7 | 11929.2 | 12077.3 | 11572.4 | 8498.1  |
| 37.5° | 14431.2 | 14377.4 | 14049.8 | 13643.6 | 13246.4 | 13219.5 | 13145.4 | 13152.2 | 13228.5 | 13060.2 | 9532.6  |
| 40°   | 14902.5 | 14853.1 | 14619.7 | 14368.4 | 14085.7 | 14090.2 | 14473.9 | 14503.1 | 14415.5 | 14521.0 | 10625.4 |
| 42.5° | 15079.8 | 15043.9 | 14918.2 | 14920.4 | 14891.3 | 15023.7 | 15744.0 | 15797.9 | 15483.7 | 15667.7 | 11558.9 |
| 45°   | 14772.3 | 14756.6 | 14765.6 | 15088.7 | 15438.8 | 15847.2 | 16783.0 | 16877.2 | 16432.9 | 16428.4 | 12288.2 |
| 47.5° | 13780.5 | 13749.1 | 14011.6 | 14561.4 | 15371.5 | 16165.9 | 17411.3 | 17557.2 | 17097.1 | 16863.8 | 12746.0 |
| 50°   | 11837.2 | 11926.9 | 12342.1 | 13167.9 | 14399.8 | 15728.3 | 17404.6 | 17658.1 | 17121.8 | 16825.6 | 12669.7 |
| 52.5° | 8574.4  | 8556.4  | 9465.2  | 10600.7 | 12099.7 | 14328.0 | 16480.0 | 16850.3 | 16522.7 | 16450.9 | 12499.2 |
| 55°   | 4665.3  | 4829.1  | 5441.7  | 6945.2  | 8816.7  | 11677.8 | 14368.4 | 15176.3 | 15555.5 | 16314.0 | 12806.6 |
| 57.5° | 1714.4  | 1786.2  | 2170.0  | 3233.6  | 4667.5  | 7261.6  | 10975.5 | 12194.0 | 13365.3 | 15932.5 | 12755.0 |
| 60°   | 691.2   | 704.6   | 857.2   | 1189.3  | 1961.3  | 3695.9  | 6583.9  | 7665.5  | 8769.6  | 12196.2 | 9788.4  |
| 62.5° | 502.7   | 520.6   | 581.2   | 695.6   | 991.9   | 1615.7  | 2838.7  | 3300.9  | 3608.4  | 6040.9  | 4822.4  |
| 65°   | 406.2   | 419.6   | 469.0   | 520.6   | 655.3   | 868.4   | 915.6   | 881.9   | 877.4   | 1561.8  | 1106.3  |
| 67.5° | 336.6   | 350.1   | 386.0   | 421.9   | 471.2   | 433.1   | 314.2   | 329.9   | 269.3   | 267.0   | 217.7   |
| 70°   | 246.8   | 262.5   | 298.5   | 336.6   | 282.7   | 116.7   | 181.8   | 269.3   | 204.2   | 170.5   | 166.1   |
| 72.5° | 186.3   | 197.5   | 231.1   | 219.9   | 83.0    | 44.9    | 121.2   | 195.2   | 157.1   | 125.7   | 123.4   |
| 75°   | 139.1   | 145.9   | 116.7   | 35.9    | 9.0     | 11.2    | 44.9    | 80.8    | 87.5    | 71.8    | 71.8    |
| 77.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 4.5     | 6.7     | 9.0     | 11.2    | 13.5    |
| 80°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 82.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 85°   | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 87.5° | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     | 0.0     |
| 90°   | 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):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2506.6 | 2506.6 | 2506.6 | 2506.6 | 2506.6 | 2506.6 | 2506.6 | 2506.6 | 2506.6 | 2506.6 | 2506.6 |
| 2.5°  | 2558.2 | 2463.9 | 2329.3 | 2217.1 | 2131.8 | 2048.8 | 1986.0 | 1923.1 | 1920.9 | 1889.5 | 1882.7 |
| 5°    | 2665.9 | 2495.3 | 2248.5 | 2071.2 | 1963.5 | 1898.4 | 1853.6 | 1831.1 | 1819.9 | 1808.7 | 1804.2 |
| 7.5°  | 2820.7 | 2576.1 | 2235.0 | 2046.5 | 1956.8 | 1914.1 | 1882.7 | 1869.3 | 1862.5 | 1853.6 | 1851.3 |
| 10°   | 3011.5 | 2692.8 | 2284.4 | 2093.7 | 2015.1 | 1974.7 | 1941.1 | 1920.9 | 1909.7 | 1893.9 | 1889.5 |
| 12.5° | 3240.4 | 2836.4 | 2362.9 | 2172.2 | 2089.2 | 2035.3 | 1990.4 | 1961.3 | 1945.6 | 1925.4 | 1920.9 |
| 15°   | 3487.2 | 2991.3 | 2450.5 | 2244.0 | 2145.3 | 2075.7 | 2019.6 | 1974.7 | 1945.6 | 1920.9 | 1914.1 |
| 17.5° | 3743.0 | 3148.4 | 2529.0 | 2293.4 | 2172.2 | 2089.2 | 2008.4 | 1947.8 | 1911.9 | 1880.5 | 1871.5 |
| 20°   | 4030.2 | 3309.9 | 2580.6 | 2302.4 | 2163.2 | 2053.3 | 1959.0 | 1882.7 | 1846.8 | 1804.2 | 1795.2 |
| 22.5° | 4330.9 | 3460.3 | 2603.1 | 2282.2 | 2113.9 | 1986.0 | 1885.0 | 1806.4 | 1754.8 | 1709.9 | 1696.5 |
| 25°   | 4622.7 | 3594.9 | 2591.8 | 2226.1 | 2039.8 | 1891.7 | 1788.5 | 1707.7 | 1651.6 | 1606.7 | 1595.5 |
| 27.5° | 4932.3 | 3707.1 | 2551.4 | 2143.0 | 1938.8 | 1788.5 | 1689.7 | 1620.2 | 1568.6 | 1519.2 | 1508.0 |
| 30°   | 5280.2 | 3810.3 | 2486.4 | 2042.1 | 1819.9 | 1683.0 | 1606.7 | 1559.6 | 1503.5 | 1451.9 | 1436.2 |
| 32.5° | 5699.8 | 3902.3 | 2392.1 | 1920.9 | 1714.4 | 1591.0 | 1548.4 | 1512.5 | 1447.4 | 1393.5 | 1382.3 |
| 35°   | 6180.0 | 3978.6 | 2273.2 | 1795.2 | 1611.2 | 1532.7 | 1523.7 | 1476.6 | 1391.3 | 1328.5 | 1315.0 |
| 37.5° | 6736.5 | 4052.7 | 2131.8 | 1671.8 | 1534.9 | 1505.7 | 1508.0 | 1427.2 | 1324.0 | 1247.7 | 1238.7 |
| 40°   | 7335.7 | 4126.7 | 1974.7 | 1564.1 | 1465.3 | 1490.0 | 1469.8 | 1355.4 | 1187.1 | 1113.0 | 1104.1 |
| 42.5° | 7959.5 | 4207.5 | 1815.4 | 1463.1 | 1407.0 | 1429.4 | 1400.3 | 1211.8 | 1090.6 | 1052.4 | 1048.0 |
| 45°   | 8522.8 | 4304.0 | 1642.6 | 1362.1 | 1348.7 | 1341.9 | 1292.6 | 1097.3 | 1045.7 | 1018.8 | 1016.5 |
| 47.5° | 8928.9 | 4288.3 | 1458.6 | 1265.6 | 1285.8 | 1263.4 | 1113.0 | 1043.5 | 1000.8 | 964.9  | 955.9  |
| 50°   | 8854.9 | 4014.5 | 1267.9 | 1157.9 | 1205.0 | 1184.8 | 1000.8 | 980.6  | 942.5  | 904.3  | 890.9  |
| 52.5° | 8666.4 | 3642.0 | 1101.8 | 1043.5 | 1117.5 | 1070.4 | 924.5  | 904.3  | 870.7  | 821.3  | 805.6  |
| 55°   | 8767.4 | 3292.0 | 971.7  | 951.5  | 1027.8 | 886.4  | 839.3  | 807.8  | 771.9  | 718.1  | 711.4  |
| 57.5° | 8442.0 | 2686.1 | 780.9  | 794.4  | 908.8  | 756.2  | 736.0  | 686.7  | 626.1  | 590.2  | 585.7  |
| 60°   | 5843.4 | 1442.9 | 489.2  | 504.9  | 657.5  | 635.1  | 659.7  | 614.9  | 540.8  | 507.1  | 500.4  |
| 62.5° | 2683.8 | 579.0  | 267.0  | 255.8  | 345.6  | 430.9  | 565.5  | 561.0  | 469.0  | 415.1  | 410.7  |
| 65°   | 650.8  | 264.8  | 190.7  | 179.5  | 195.2  | 258.1  | 368.0  | 442.1  | 379.2  | 316.4  | 309.7  |
| 67.5° | 210.9  | 215.4  | 175.0  | 163.8  | 172.8  | 193.0  | 219.9  | 244.6  | 242.4  | 222.2  | 217.7  |
| 70°   | 168.3  | 195.2  | 161.6  | 148.1  | 148.1  | 154.8  | 148.1  | 118.9  | 103.2  | 112.2  | 116.7  |
| 72.5° | 125.7  | 148.1  | 127.9  | 114.4  | 110.0  | 107.7  | 92.0   | 67.3   | 47.1   | 42.6   | 40.4   |
| 75°   | 74.1   | 83.0   | 78.5   | 67.3   | 62.8   | 56.1   | 44.9   | 29.2   | 15.7   | 11.2   | 6.7    |
| 77.5° | 13.5   | 15.7   | 18.0   | 13.5   | 11.2   | 9.0    | 6.7    | 2.2    | 0.0    | 0.0    | 0.0    |
| 80°   | 0.0    | 2.2    | 2.2    | 2.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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)