

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: P638518

Luminaire Tested: GWS-SA4F-722-U-AFL-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P638518  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-47)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4F-722-U-AFL-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (64) 2200K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

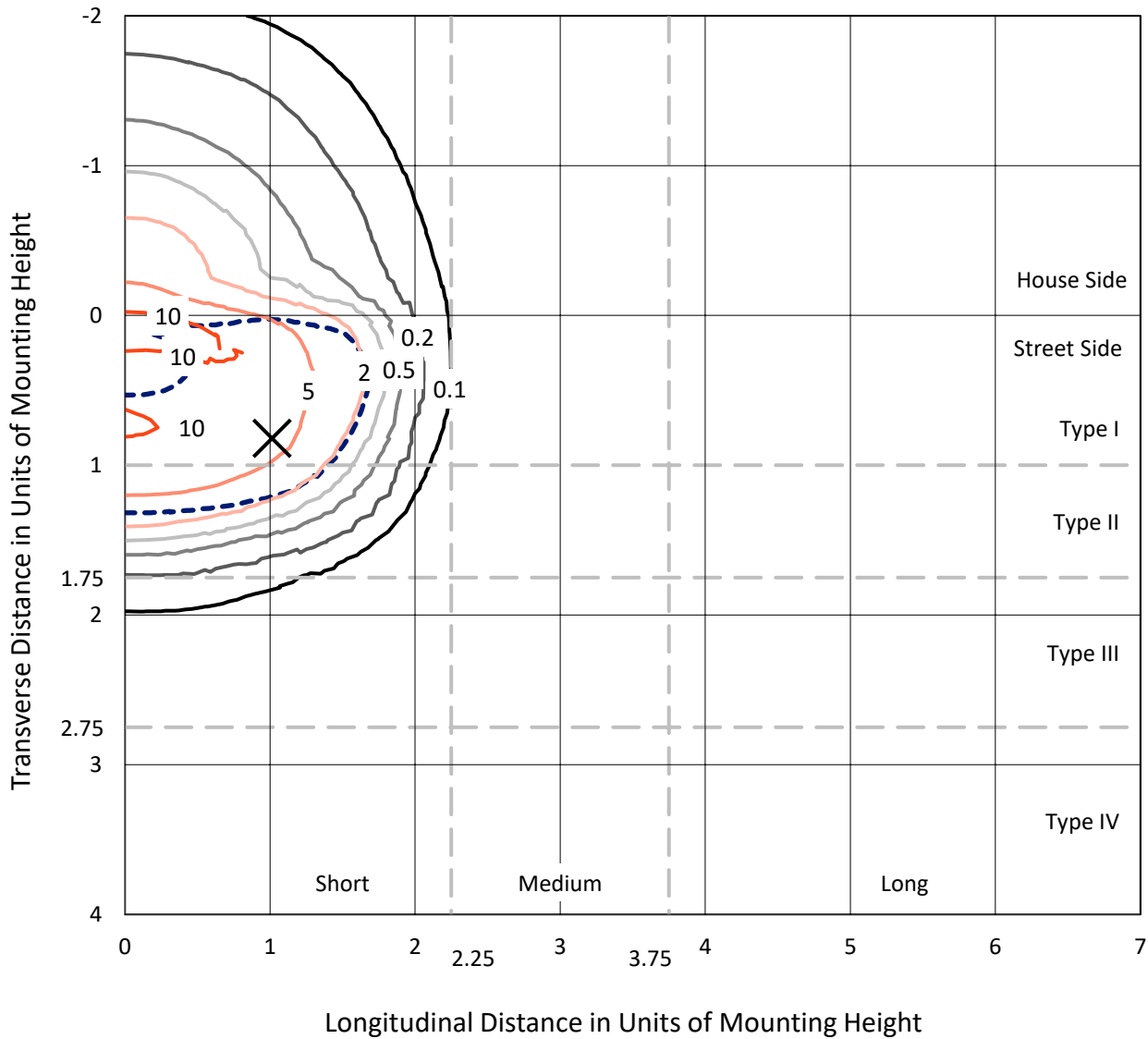
Lumens per Lamp: N/A  
Luminaire Lumens: 22736.6 lumens  
Efficiency: N/A  
Efficacy: 100.9 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B3 - U0 - G2  
  
Input Watts (W): 225.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

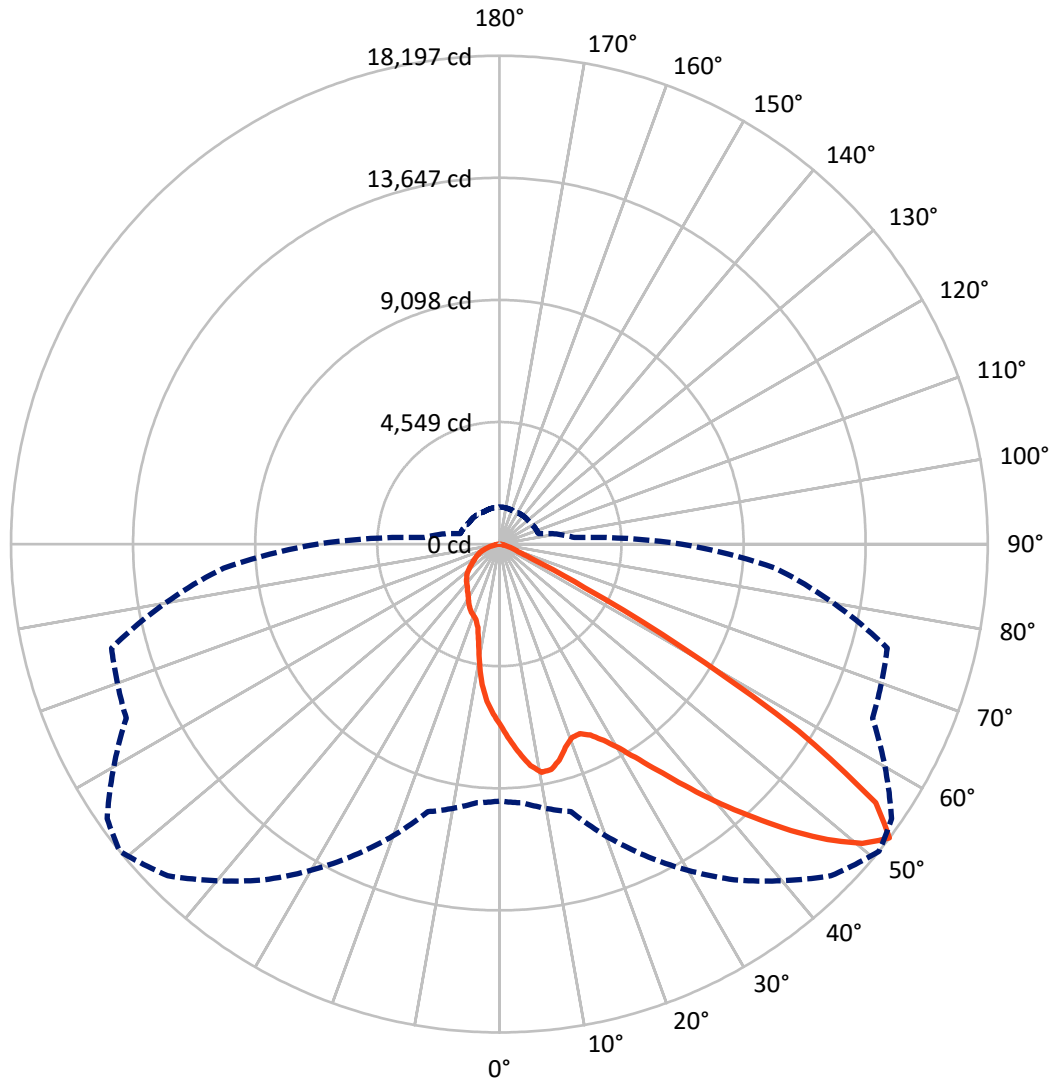
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 13.2 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 51-Deg Lateral    - - - Horizontal Cone Through 52.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4430.0   | 0.0    | 4430.0  |
|                    | % Fixture | 19.5     | 0.0    | 19.5    |
| <b>Street Side</b> | Lumens    | 18306.6  | 0.0    | 18306.6 |
|                    | % Fixture | 80.5     | 0.0    | 80.5    |
| <b>Total</b>       | Lumens    | 22736.6  | 0.0    | 22736.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 631.7   | 2.8       |
| 10°-20°   | 1641.5  | 7.2       |
| 20°-30°   | 2668.9  | 11.7      |
| 30°-40°   | 4229.6  | 18.6      |
| 40°-50°   | 6379.1  | 28.1      |
| 50°-60°   | 5518.4  | 24.3      |
| 60°-70°   | 1251.1  | 5.5       |
| 70°-80°   | 368.9   | 1.6       |
| 80°-90°   | 47.5    | 0.2       |
| 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°    | 22736.6 | 100.0     |
| 0°-180°   | 22736.6 | 100.0     |

**Coefficient of Utilization**



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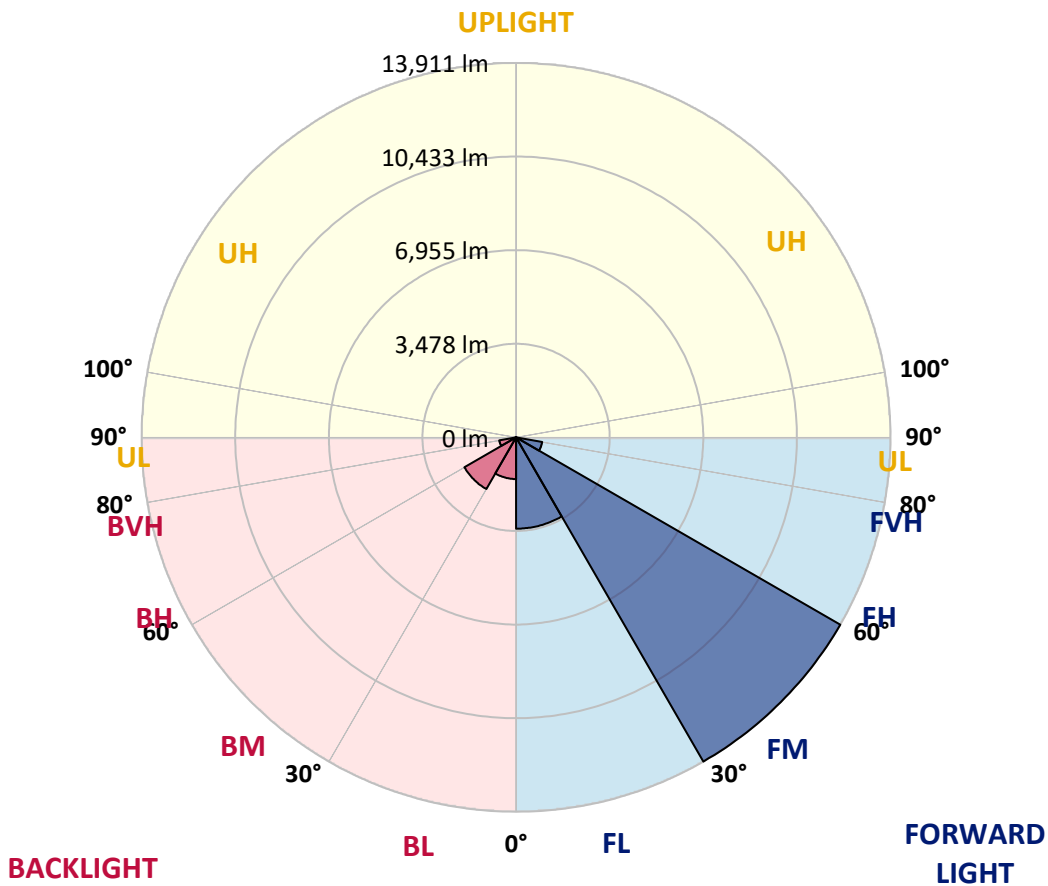
CATALOG NUMBER: GWS-SA4F-722-U-AFL-W-GRSWH

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

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 3393.5  | 14.9      |                         |      |         |
| FM (30°-60°)   | 13910.6 | 61.2      |                         |      |         |
| FH (60°-80°)   | 984.6   | 4.3       |                         |      | G1/1800 |
| FVH (80°-90°)  | 17.9    | 0.1       |                         |      | G1/100  |
| BL (0°-30°)    | 1548.6  | 6.8       | B3/2500                 |      |         |
| BM (30°-60°)   | 2216.5  | 9.7       | B2/2500                 |      |         |
| BH (60°-80°)   | 635.4   | 2.8       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 29.6    | 0.1       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G2**

Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 51°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 6769.8  | 6769.8  | 6769.8  | 6769.8  | 6769.8  | 6769.8  | 6769.8  | 6769.8  | 6769.8  | 6769.8  | 6769.8  |
| 2.5°  | 7544.2  | 7587.3  | 7520.8  | 7495.7  | 7454.3  | 7382.5  | 7299.8  | 7276.5  | 7098.6  | 6981.8  | 6850.7  |
| 5°    | 8302.4  | 8325.7  | 8271.8  | 8217.9  | 8115.5  | 7988.0  | 7828.1  | 7793.9  | 7470.5  | 7202.8  | 6924.3  |
| 7.5°  | 8471.3  | 8462.3  | 8509.0  | 8539.5  | 8527.0  | 8476.6  | 8334.7  | 8268.2  | 7882.0  | 7457.9  | 7046.5  |
| 10°   | 7802.9  | 7752.6  | 7925.1  | 8129.9  | 8376.0  | 8659.9  | 8643.7  | 8638.3  | 8302.4  | 7801.1  | 7202.8  |
| 12.5° | 6917.1  | 6892.0  | 7032.1  | 7289.1  | 7754.4  | 8383.2  | 8618.6  | 8801.8  | 8681.5  | 8128.1  | 7377.1  |
| 15°   | 6410.5  | 6401.5  | 6496.7  | 6681.8  | 7051.9  | 7846.0  | 8349.1  | 8712.0  | 9006.7  | 8478.4  | 7562.1  |
| 17.5° | 6318.9  | 6324.2  | 6356.6  | 6462.6  | 6728.5  | 7382.5  | 7964.6  | 8471.3  | 9260.0  | 8862.9  | 7793.9  |
| 20°   | 6586.6  | 6622.5  | 6566.8  | 6583.0  | 6726.7  | 7215.4  | 7702.3  | 8228.7  | 9421.7  | 9249.2  | 8043.7  |
| 22.5° | 7181.3  | 7168.7  | 7046.5  | 6974.6  | 6976.4  | 7317.8  | 7673.5  | 8115.5  | 9527.7  | 9624.7  | 8270.0  |
| 25°   | 7855.0  | 7840.6  | 7695.1  | 7535.2  | 7434.6  | 7596.3  | 7880.2  | 8235.9  | 9622.9  | 9967.9  | 8451.5  |
| 27.5° | 8650.9  | 8606.0  | 8444.3  | 8239.5  | 8016.7  | 8086.8  | 8279.0  | 8561.1  | 9770.2  | 10305.6 | 8571.9  |
| 30°   | 9421.7  | 9473.8  | 9242.0  | 8999.5  | 8764.1  | 8721.0  | 8832.4  | 9087.5  | 10070.3 | 10700.9 | 8715.6  |
| 32.5° | 10444.0 | 10426.0 | 10169.1 | 9852.9  | 9516.9  | 9484.6  | 9572.6  | 9806.2  | 10609.3 | 11247.1 | 8934.8  |
| 35°   | 11681.9 | 11685.5 | 11320.8 | 10893.2 | 10415.2 | 10329.0 | 10476.3 | 10702.7 | 11412.4 | 11987.3 | 9281.6  |
| 37.5° | 12968.3 | 12962.9 | 12644.9 | 12159.8 | 11507.6 | 11385.4 | 11554.3 | 11723.2 | 12416.7 | 12995.3 | 9820.6  |
| 40°   | 13870.2 | 13906.2 | 13757.0 | 13501.9 | 12883.9 | 12585.6 | 12734.7 | 12851.5 | 13509.1 | 14181.0 | 10530.2 |
| 42.5° | 14382.3 | 14436.2 | 14468.5 | 14621.2 | 14296.0 | 13978.0 | 13924.1 | 13985.2 | 14484.7 | 15282.4 | 11196.8 |
| 45°   | 14491.9 | 14563.7 | 14799.1 | 15365.0 | 15490.8 | 15401.0 | 15224.9 | 15077.6 | 15212.3 | 16063.9 | 11633.4 |
| 47.5° | 14008.6 | 14134.3 | 14637.4 | 15627.4 | 16362.2 | 16644.3 | 16448.4 | 16223.9 | 15632.8 | 16265.2 | 11588.5 |
| 50°   | 12093.3 | 12240.7 | 13374.3 | 15092.0 | 16486.2 | 17513.9 | 17531.8 | 17199.4 | 15582.4 | 15684.9 | 11024.3 |
| 52.5° | 9574.4  | 9675.0  | 10323.6 | 12794.0 | 15269.8 | 17477.9 | 18196.6 | 17840.8 | 15339.9 | 14959.0 | 10318.2 |
| 55°   | 5722.4  | 5884.1  | 6489.5  | 8440.7  | 11895.7 | 15490.8 | 17021.6 | 17194.0 | 15221.3 | 14349.9 | 9836.7  |
| 57.5° | 1931.4  | 2010.5  | 2589.0  | 3728.1  | 7010.6  | 11342.3 | 13151.6 | 13852.3 | 13818.1 | 13419.3 | 8897.1  |
| 60°   | 919.9   | 937.9   | 1054.6  | 1414.0  | 2806.4  | 5927.2  | 7784.9  | 8593.4  | 9330.1  | 9403.7  | 5535.5  |
| 62.5° | 700.7   | 711.5   | 770.8   | 848.0   | 1128.3  | 2497.4  | 3568.2  | 4186.2  | 4471.9  | 3837.7  | 2015.9  |
| 65°   | 585.7   | 594.7   | 639.6   | 688.1   | 767.2   | 1081.6  | 1369.1  | 1579.3  | 1423.0  | 1108.5  | 961.2   |
| 67.5° | 488.7   | 495.9   | 530.0   | 582.1   | 636.0   | 724.1   | 760.0   | 781.5   | 819.3   | 919.9   | 884.0   |
| 70°   | 382.7   | 389.9   | 425.8   | 470.7   | 522.8   | 544.4   | 578.5   | 600.1   | 675.5   | 804.9   | 801.3   |
| 72.5° | 294.7   | 303.6   | 323.4   | 352.1   | 395.3   | 416.8   | 454.6   | 479.7   | 522.8   | 627.0   | 670.2   |
| 75°   | 215.6   | 221.0   | 239.0   | 247.9   | 253.3   | 247.9   | 285.7   | 314.4   | 371.9   | 411.4   | 422.2   |
| 77.5° | 88.0    | 98.8    | 95.2    | 95.2    | 113.2   | 136.5   | 156.3   | 174.3   | 213.8   | 237.2   | 239.0   |
| 80°   | 35.9    | 39.5    | 46.7    | 52.1    | 62.9    | 80.8    | 93.4    | 100.6   | 118.6   | 133.0   | 143.7   |
| 82.5° | 21.6    | 23.4    | 26.9    | 28.7    | 35.9    | 46.7    | 53.9    | 59.3    | 73.7    | 88.0    | 93.4    |
| 85°   | 10.8    | 10.8    | 12.6    | 14.4    | 18.0    | 21.6    | 25.2    | 28.7    | 37.7    | 46.7    | 52.1    |
| 87.5° | 1.8     | 1.8     | 1.8     | 3.6     | 5.4     | 7.2     | 9.0     | 10.8    | 12.6    | 14.4    | 18.0    |
| 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°    | 6769.8 | 6769.8 | 6769.8 | 6769.8 | 6769.8 | 6769.8 | 6769.8 | 6769.8 | 6769.8 | 6769.8 | 6769.8 |
| 2.5°  | 6773.4 | 6676.4 | 6563.2 | 6473.4 | 6369.2 | 6291.9 | 6182.3 | 6114.0 | 6049.4 | 5995.5 | 5955.9 |
| 5°    | 6780.6 | 6617.1 | 6381.7 | 6173.3 | 5957.7 | 5752.9 | 5542.7 | 5372.0 | 5219.3 | 5091.7 | 5081.0 |
| 7.5°  | 6821.9 | 6586.6 | 6218.2 | 5853.5 | 5433.1 | 5027.1 | 4621.0 | 4290.4 | 4038.9 | 3907.7 | 3880.8 |
| 10°   | 6892.0 | 6583.0 | 6051.2 | 5469.0 | 4752.2 | 4098.2 | 3616.7 | 3365.1 | 3219.6 | 3167.5 | 3149.5 |
| 12.5° | 6965.7 | 6574.0 | 5837.4 | 4926.4 | 3931.1 | 3358.0 | 3093.9 | 3063.3 | 3090.3 | 3093.9 | 3092.1 |
| 15°   | 7055.5 | 6568.6 | 5567.9 | 4290.4 | 3331.0 | 3014.8 | 3032.8 | 3097.4 | 3160.3 | 3174.7 | 3174.7 |
| 17.5° | 7165.1 | 6556.0 | 5201.3 | 3668.8 | 2955.5 | 2948.3 | 3043.5 | 3129.8 | 3189.1 | 3199.9 | 3199.9 |
| 20°   | 7280.1 | 6523.7 | 4750.4 | 3162.1 | 2802.8 | 2907.0 | 3009.4 | 3075.9 | 3117.2 | 3131.6 | 3133.4 |
| 22.5° | 7359.1 | 6437.4 | 4231.1 | 2786.6 | 2707.6 | 2827.9 | 2901.6 | 2969.9 | 2969.9 | 2933.9 | 2923.2 |
| 25°   | 7375.3 | 6252.4 | 3668.8 | 2529.7 | 2594.4 | 2705.8 | 2781.2 | 2741.7 | 2668.0 | 2639.3 | 2637.5 |
| 27.5° | 7316.0 | 5982.9 | 3113.6 | 2346.4 | 2457.8 | 2569.2 | 2556.6 | 2499.2 | 2466.8 | 2438.1 | 2448.8 |
| 30°   | 7244.1 | 5659.5 | 2632.1 | 2195.5 | 2299.7 | 2409.3 | 2366.2 | 2346.4 | 2323.1 | 2290.7 | 2297.9 |
| 32.5° | 7195.6 | 5298.4 | 2262.0 | 2078.7 | 2193.7 | 2211.7 | 2242.2 | 2240.4 | 2218.9 | 2157.8 | 2154.2 |
| 35°   | 7210.0 | 4933.6 | 2014.1 | 1983.5 | 2105.7 | 2098.5 | 2156.0 | 2145.2 | 1996.1 | 1911.6 | 1906.3 |
| 37.5° | 7325.0 | 4583.3 | 1868.5 | 1908.1 | 1965.5 | 2010.5 | 2060.8 | 1931.4 | 1879.3 | 1825.4 | 1829.0 |
| 40°   | 7544.2 | 4258.1 | 1789.5 | 1866.7 | 1881.1 | 1947.6 | 1830.8 | 1829.0 | 1805.6 | 1757.1 | 1755.3 |
| 42.5° | 7792.1 | 3983.2 | 1735.6 | 1847.0 | 1827.2 | 1839.8 | 1715.8 | 1730.2 | 1728.4 | 1697.8 | 1688.9 |
| 45°   | 7943.0 | 3729.9 | 1692.5 | 1773.3 | 1778.7 | 1652.9 | 1615.2 | 1631.4 | 1640.4 | 1624.2 | 1622.4 |
| 47.5° | 7786.7 | 3438.8 | 1647.5 | 1660.1 | 1706.8 | 1568.5 | 1521.8 | 1523.6 | 1539.7 | 1541.5 | 1534.3 |
| 50°   | 7348.3 | 3113.6 | 1593.6 | 1563.1 | 1532.6 | 1480.4 | 1437.3 | 1428.3 | 1444.5 | 1460.7 | 1466.1 |
| 52.5° | 6782.4 | 2802.8 | 1503.8 | 1457.1 | 1385.2 | 1385.2 | 1365.5 | 1336.7 | 1358.3 | 1379.8 | 1387.0 |
| 55°   | 6367.4 | 2572.8 | 1376.2 | 1324.1 | 1245.1 | 1272.0 | 1268.4 | 1243.3 | 1272.0 | 1288.2 | 1293.6 |
| 57.5° | 5517.5 | 2068.0 | 1210.9 | 1194.8 | 1128.3 | 1160.6 | 1167.8 | 1135.5 | 1121.1 | 1124.7 | 1130.1 |
| 60°   | 3275.3 | 1334.9 | 1092.4 | 1090.6 | 1031.3 | 1069.0 | 1090.6 | 1058.2 | 1015.1 | 1020.5 | 1027.7 |
| 62.5° | 1469.7 | 1020.5 | 943.2  | 936.1  | 934.3  | 982.8  | 1006.1 | 975.6  | 914.5  | 919.9  | 927.1  |
| 65°   | 925.3  | 882.2  | 819.3  | 819.3  | 848.0  | 889.3  | 907.3  | 882.2  | 812.1  | 803.1  | 810.3  |
| 67.5° | 858.8  | 821.1  | 756.4  | 743.8  | 758.2  | 792.3  | 794.1  | 745.6  | 704.3  | 697.1  | 697.1  |
| 70°   | 770.8  | 742.0  | 679.1  | 654.0  | 648.6  | 646.8  | 641.4  | 628.8  | 601.9  | 594.7  | 598.3  |
| 72.5° | 637.8  | 618.1  | 578.5  | 551.6  | 537.2  | 535.4  | 513.8  | 503.1  | 479.7  | 476.1  | 474.3  |
| 75°   | 422.2  | 427.6  | 427.6  | 424.0  | 411.4  | 406.0  | 382.7  | 371.9  | 345.0  | 334.2  | 332.4  |
| 77.5° | 249.7  | 255.1  | 262.3  | 264.1  | 262.3  | 262.3  | 240.8  | 228.2  | 201.2  | 186.9  | 183.3  |
| 80°   | 152.7  | 156.3  | 159.9  | 165.3  | 158.1  | 152.7  | 133.0  | 120.4  | 107.8  | 98.8   | 97.0   |
| 82.5° | 98.8   | 102.4  | 104.2  | 107.8  | 104.2  | 97.0   | 80.8   | 73.7   | 64.7   | 57.5   | 55.7   |
| 85°   | 55.7   | 57.5   | 61.1   | 61.1   | 55.7   | 50.3   | 41.3   | 35.9   | 30.5   | 26.9   | 26.9   |
| 87.5° | 19.8   | 19.8   | 19.8   | 21.6   | 18.0   | 16.2   | 10.8   | 7.2    | 5.4    | 5.4    | 5.4    |
| 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)