

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: P638192

Luminaire Tested: GWS-SA4E-735-U-RW-W-GRSWH

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P638192  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-51)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4E-735-U-RW-W-GRSWH  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND RECTANGULAR WIDE OPTICS W/ FACTORY INSTALLED GLARE SHIELD, WH  
Light Source: (64) 3500K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

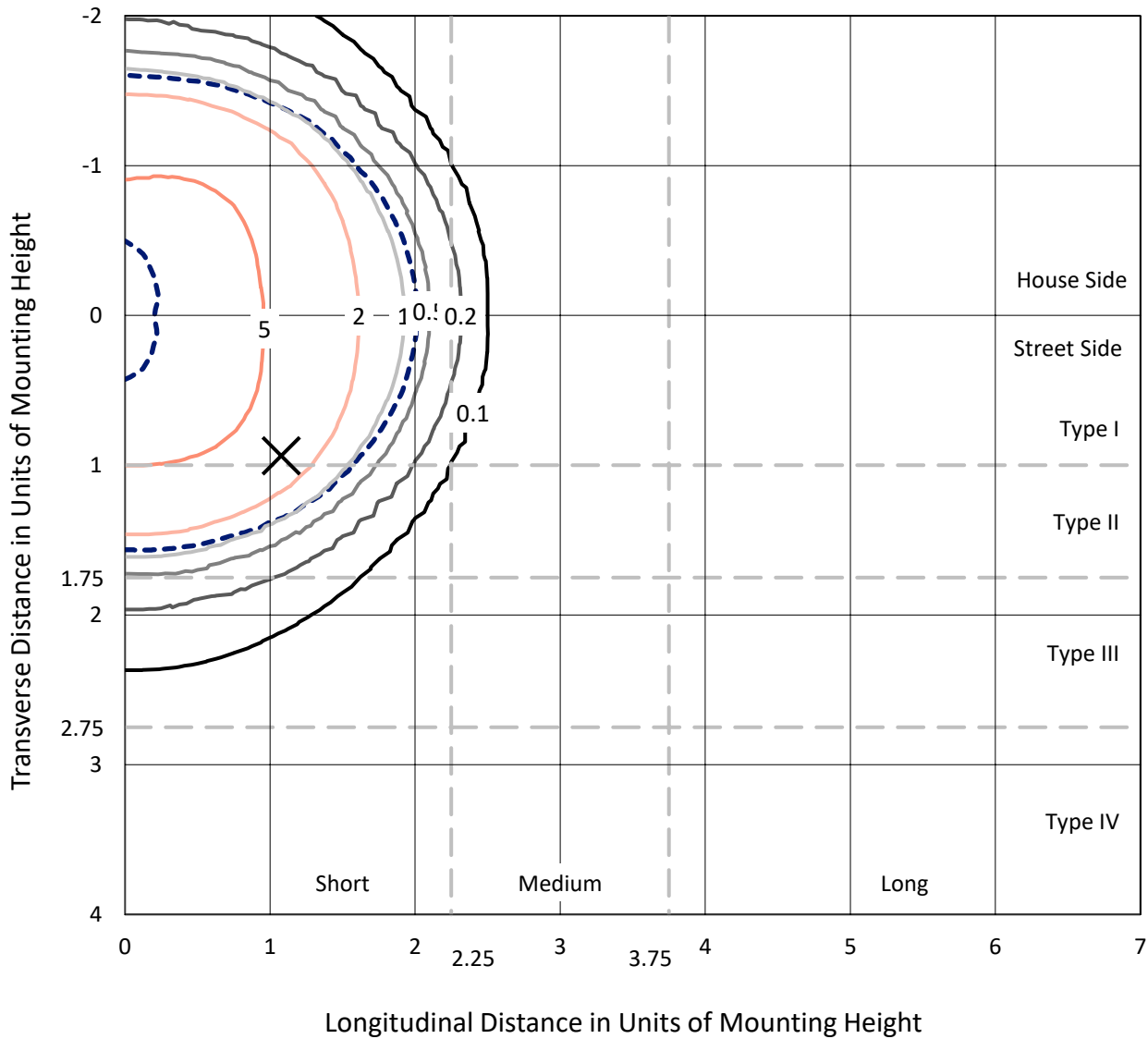
Lumens per Lamp: N/A  
Luminaire Lumens: 26607.6 lumens  
Efficiency: N/A  
Efficacy: 131.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type V - Short  
BUG Rating: B5 - U0 - G1  
  
Input Watts (W): 202.6  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

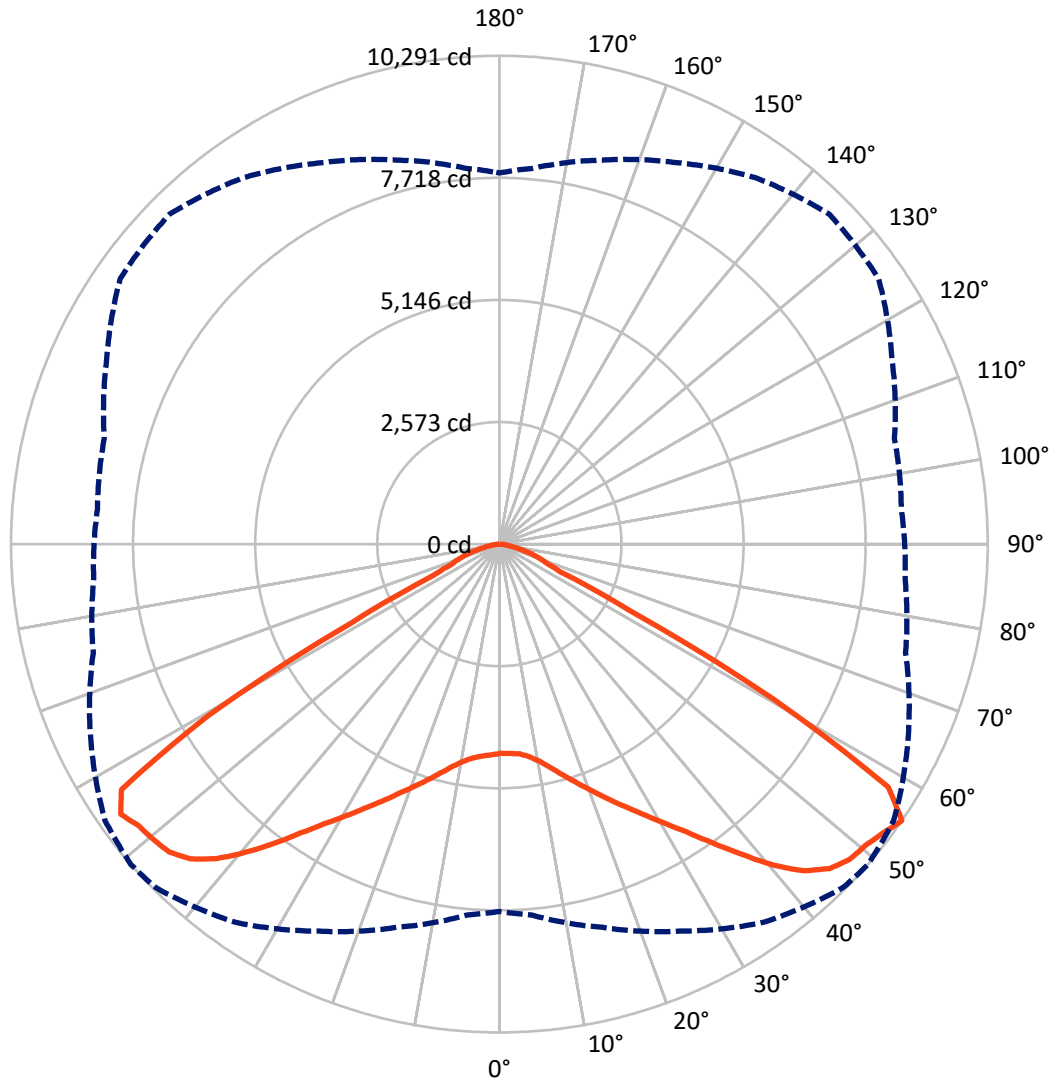
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.8 fc  
 Type V - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 49-Deg Lateral    - - - Horizontal Cone Through 55-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 13173.3  | 0.0    | 13173.3 |
|                    | % Fixture | 49.5     | 0.0    | 49.5    |
| <b>Street Side</b> | Lumens    | 13434.3  | 0.0    | 13434.3 |
|                    | % Fixture | 50.5     | 0.0    | 50.5    |
| <b>Total</b>       | Lumens    | 26607.6  | 0.0    | 26607.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 430.0   | 1.6       |
| 10°-20°   | 1418.2  | 5.3       |
| 20°-30°   | 2701.3  | 10.2      |
| 30°-40°   | 4579.3  | 17.2      |
| 40°-50°   | 6891.6  | 25.9      |
| 50°-60°   | 7543.5  | 28.4      |
| 60°-70°   | 2385.3  | 9.0       |
| 70°-80°   | 572.5   | 2.2       |
| 80°-90°   | 85.9    | 0.3       |
| 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°    | 26607.6 | 100.0     |
| 0°-180°   | 26607.6 | 100.0     |

**Coefficient of Utilization**



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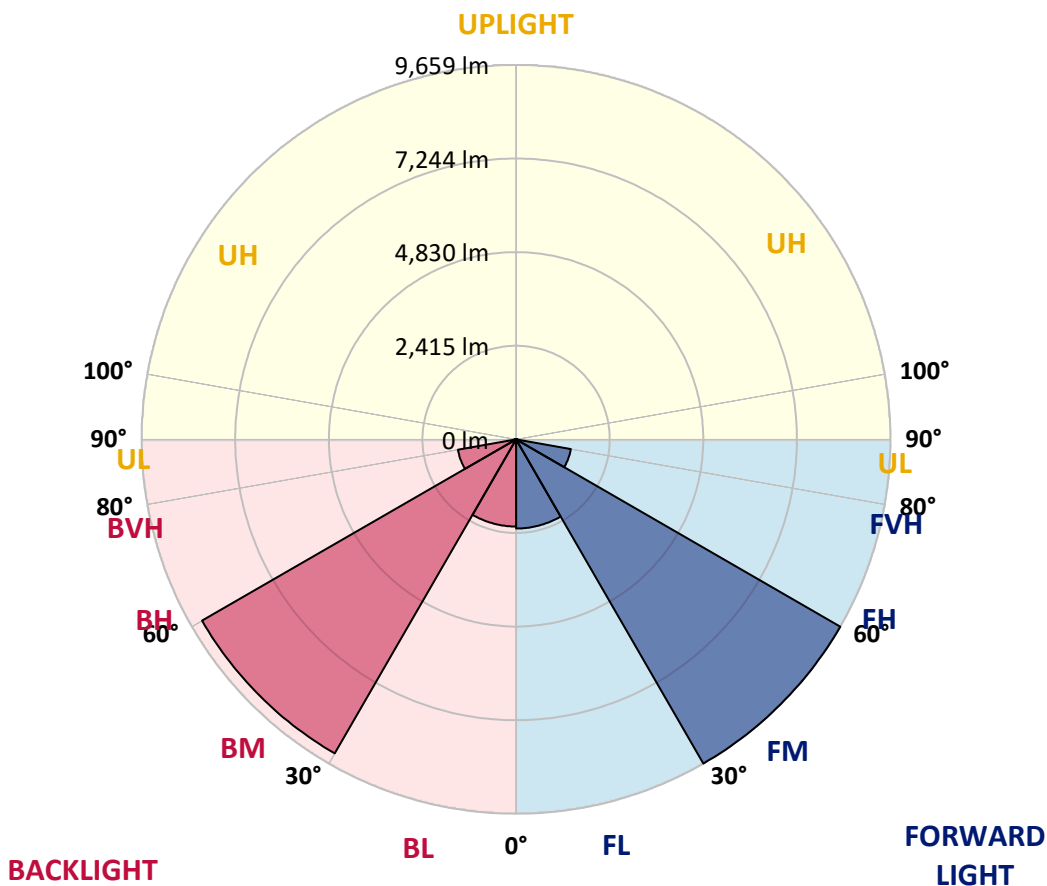
CATALOG NUMBER: GWS-SA4E-735-U-RW-W-GRSWH

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

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 2300.5 | 8.6       |                         |      |         |
| FM (30°-60°)   | 9659.3 | 36.3      |                         |      |         |
| FH (60°-80°)   | 1434.8 | 5.4       |                         |      | G1/1800 |
| FVH (80°-90°)  | 39.8   | 0.1       |                         |      | G1/100  |
| BL (0°-30°)    | 2249.1 | 8.5       | B3/2500                 |      |         |
| BM (30°-60°)   | 9355.1 | 35.2      | B5                      |      |         |
| BH (60°-80°)   | 1523.0 | 5.7       | B3/2500                 |      | G1/1800 |
| BVH (80°-90°)  | 46.1   | 0.2       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B5-U0-G1**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°     | 49°     | 55°     | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|
| 0°    | 4407.7 | 4407.7 | 4407.7 | 4407.7 | 4407.7 | 4407.7  | 4407.7  | 4407.7  | 4407.7 | 4407.7 | 4407.7 |
| 2.5°  | 4342.8 | 4347.1 | 4355.8 | 4370.9 | 4386.1 | 4407.7  | 4416.4  | 4427.2  | 4425.0 | 4438.0 | 4438.0 |
| 5°    | 4321.2 | 4327.6 | 4340.6 | 4362.3 | 4388.2 | 4429.3  | 4440.2  | 4466.1  | 4492.1 | 4524.6 | 4535.4 |
| 7.5°  | 4347.1 | 4355.8 | 4370.9 | 4405.5 | 4444.5 | 4498.6  | 4520.2  | 4563.5  | 4613.3 | 4671.7 | 4695.5 |
| 10°   | 4396.9 | 4407.7 | 4433.7 | 4489.9 | 4552.7 | 4634.9  | 4654.4  | 4708.5  | 4788.5 | 4868.6 | 4916.2 |
| 12.5° | 4453.2 | 4470.5 | 4518.1 | 4606.8 | 4699.8 | 4808.0  | 4838.3  | 4905.4  | 4991.9 | 5095.8 | 5160.7 |
| 15°   | 4518.1 | 4533.2 | 4606.8 | 4732.3 | 4877.3 | 5020.1  | 5054.7  | 5119.6  | 5217.0 | 5318.7 | 5409.6 |
| 17.5° | 4654.4 | 4680.4 | 4766.9 | 4911.9 | 5080.7 | 5249.4  | 5288.4  | 5362.0  | 5439.9 | 5519.9 | 5606.5 |
| 20°   | 4840.5 | 4862.1 | 4972.5 | 5152.1 | 5351.1 | 5504.8  | 5543.7  | 5608.6  | 5645.4 | 5686.5 | 5760.1 |
| 22.5° | 5026.6 | 5056.9 | 5182.4 | 5394.4 | 5628.1 | 5794.7  | 5825.0  | 5885.6  | 5859.6 | 5846.7 | 5894.3 |
| 25°   | 5258.1 | 5299.2 | 5422.5 | 5654.1 | 5892.1 | 6097.7  | 6121.5  | 6173.4  | 6130.1 | 6063.0 | 6060.9 |
| 27.5° | 5545.9 | 5582.7 | 5710.3 | 5948.4 | 6184.2 | 6398.4  | 6443.9  | 6513.1  | 6417.9 | 6335.7 | 6277.3 |
| 30°   | 5887.8 | 5911.6 | 6052.2 | 6305.4 | 6547.7 | 6751.1  | 6809.6  | 6878.8  | 6807.4 | 6671.1 | 6612.6 |
| 32.5° | 6285.9 | 6318.4 | 6480.7 | 6746.8 | 6963.2 | 7166.6  | 7225.0  | 7311.6  | 7233.7 | 7080.0 | 7006.5 |
| 35°   | 6764.1 | 6796.6 | 6967.5 | 7257.5 | 7478.2 | 7688.1  | 7729.2  | 7800.6  | 7703.2 | 7525.8 | 7467.4 |
| 37.5° | 7283.4 | 7324.5 | 7540.9 | 7815.7 | 8047.3 | 8291.8  | 8293.9  | 8315.6  | 8177.1 | 7956.4 | 7891.5 |
| 40°   | 7867.7 | 7921.8 | 8138.1 | 8423.8 | 8702.9 | 8902.0  | 8899.8  | 8839.2  | 8605.5 | 8263.6 | 8164.1 |
| 42.5° | 8445.4 | 8488.7 | 8707.2 | 9001.5 | 9280.6 | 9468.9  | 9412.6  | 9265.5  | 8927.9 | 8462.7 | 8330.7 |
| 45°   | 8863.0 | 8895.5 | 9124.8 | 9455.9 | 9739.4 | 9856.2  | 9754.5  | 9577.1  | 9120.5 | 8588.2 | 8393.5 |
| 47.5° | 9059.9 | 9103.2 | 9334.7 | 9663.6 | 9983.9 | 10051.0 | 9929.8  | 9763.2  | 9233.0 | 8705.1 | 8443.2 |
| 50°   | 8953.9 | 9010.2 | 9272.0 | 9577.1 | 9938.4 | 10076.9 | 9990.4  | 9823.8  | 9352.0 | 8819.7 | 8532.0 |
| 52.5° | 8679.1 | 8733.2 | 9064.3 | 9434.3 | 9843.2 | 10118.0 | 10115.9 | 9979.6  | 9488.4 | 8852.2 | 8536.3 |
| 55°   | 7740.0 | 7846.0 | 8361.0 | 8999.3 | 9726.4 | 10239.2 | 10291.1 | 10146.2 | 9510.0 | 8860.9 | 8581.7 |
| 57.5° | 5037.4 | 5223.5 | 5712.5 | 6543.4 | 8001.8 | 9313.1  | 9663.6  | 9698.3  | 9354.2 | 8824.1 | 8590.4 |
| 60°   | 2103.2 | 2252.5 | 2639.9 | 3191.6 | 4396.9 | 5957.0  | 6636.4  | 7318.1  | 8140.3 | 8438.9 | 8510.3 |
| 62.5° | 1306.9 | 1319.9 | 1358.9 | 1484.4 | 1886.9 | 2648.5  | 3085.6  | 3723.9  | 4946.5 | 5987.3 | 6467.7 |
| 65°   | 1179.3 | 1185.8 | 1194.4 | 1185.8 | 1205.3 | 1298.3  | 1415.1  | 1638.0  | 2135.7 | 2652.8 | 3267.4 |
| 67.5° | 1038.6 | 1047.3 | 1053.8 | 1047.3 | 1053.8 | 1058.1  | 1071.1  | 1090.6  | 1181.4 | 1255.0 | 1311.3 |
| 70°   | 839.6  | 852.5  | 863.4  | 859.0  | 885.0  | 885.0   | 898.0   | 913.1   | 958.6  | 1012.7 | 1051.6 |
| 72.5° | 640.5  | 629.7  | 642.7  | 647.0  | 670.8  | 683.8   | 703.2   | 720.6   | 772.5  | 804.9  | 854.7  |
| 75°   | 415.5  | 404.6  | 424.1  | 434.9  | 467.4  | 484.7   | 502.0   | 519.3   | 556.1  | 577.7  | 625.3  |
| 77.5° | 225.0  | 222.9  | 242.3  | 257.5  | 292.1  | 313.8   | 326.7   | 339.7   | 370.0  | 376.5  | 406.8  |
| 80°   | 129.8  | 129.8  | 142.8  | 153.6  | 175.3  | 199.1   | 212.1   | 222.9   | 244.5  | 251.0  | 264.0  |
| 82.5° | 71.4   | 71.4   | 77.9   | 84.4   | 101.7  | 114.7   | 125.5   | 134.2   | 153.6  | 160.1  | 166.6  |
| 85°   | 34.6   | 32.5   | 36.8   | 41.1   | 47.6   | 54.1    | 60.6    | 64.9    | 80.1   | 84.4   | 93.0   |
| 87.5° | 4.3    | 4.3    | 4.3    | 6.5    | 8.7    | 13.0    | 15.1    | 15.1    | 23.8   | 28.1   | 32.5   |
| 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°    | 4407.7 | 4407.7 | 4407.7 | 4407.7 | 4407.7 | 4407.7 | 4407.7 | 4407.7 | 4407.7 | 4407.7 | 4407.7 |
| 2.5°  | 4451.0 | 4422.9 | 4440.2 | 4446.7 | 4446.7 | 4440.2 | 4412.0 | 4403.4 | 4390.4 | 4370.9 | 4370.9 |
| 5°    | 4550.5 | 4528.9 | 4533.2 | 4522.4 | 4496.4 | 4464.0 | 4412.0 | 4386.1 | 4364.4 | 4340.6 | 4338.5 |
| 7.5°  | 4721.5 | 4693.3 | 4689.0 | 4647.9 | 4578.7 | 4509.4 | 4431.5 | 4383.9 | 4351.5 | 4321.2 | 4319.0 |
| 10°   | 4944.3 | 4918.4 | 4885.9 | 4803.7 | 4702.0 | 4600.3 | 4494.3 | 4429.3 | 4381.7 | 4338.5 | 4336.3 |
| 12.5° | 5193.2 | 5162.9 | 5102.3 | 4981.1 | 4853.5 | 4753.9 | 4632.7 | 4533.2 | 4461.8 | 4403.4 | 4392.6 |
| 15°   | 5463.7 | 5420.4 | 5316.5 | 5173.7 | 5048.2 | 4942.2 | 4812.3 | 4669.5 | 4561.3 | 4468.3 | 4457.5 |
| 17.5° | 5671.4 | 5615.1 | 5502.6 | 5368.4 | 5264.6 | 5158.6 | 4989.8 | 4810.2 | 4654.4 | 4537.5 | 4520.2 |
| 20°   | 5814.2 | 5768.8 | 5641.1 | 5541.6 | 5481.0 | 5387.9 | 5191.0 | 4987.6 | 4812.3 | 4665.2 | 4656.6 |
| 22.5° | 5946.2 | 5892.1 | 5766.6 | 5708.2 | 5708.2 | 5645.4 | 5457.2 | 5217.0 | 5011.4 | 4840.5 | 4818.8 |
| 25°   | 6095.5 | 6037.1 | 5941.9 | 5935.4 | 5965.7 | 5937.5 | 5710.3 | 5452.8 | 5212.7 | 5020.1 | 4985.5 |
| 27.5° | 6303.2 | 6238.3 | 6182.0 | 6221.0 | 6264.3 | 6234.0 | 5980.8 | 5682.2 | 5429.0 | 5234.3 | 5204.0 |
| 30°   | 6634.3 | 6554.2 | 6502.3 | 6549.9 | 6634.3 | 6545.6 | 6270.8 | 5954.8 | 5699.5 | 5485.3 | 5470.1 |
| 32.5° | 7019.4 | 6928.6 | 6874.5 | 6950.2 | 7025.9 | 6887.5 | 6614.8 | 6311.9 | 6043.6 | 5818.5 | 5792.6 |
| 35°   | 7482.5 | 7367.8 | 7287.8 | 7389.5 | 7467.4 | 7331.0 | 7060.6 | 6772.8 | 6474.2 | 6240.5 | 6205.8 |
| 37.5° | 7893.6 | 7755.1 | 7701.1 | 7843.9 | 7947.7 | 7859.0 | 7564.7 | 7294.3 | 6967.5 | 6712.2 | 6697.0 |
| 40°   | 8192.2 | 8055.9 | 8017.0 | 8252.8 | 8434.6 | 8412.9 | 8149.0 | 7839.5 | 7532.3 | 7238.0 | 7209.9 |
| 42.5° | 8322.1 | 8226.9 | 8235.5 | 8553.6 | 8834.9 | 8973.4 | 8737.5 | 8406.5 | 8110.0 | 7804.9 | 7785.4 |
| 45°   | 8350.2 | 8291.8 | 8361.0 | 8759.2 | 9129.2 | 9412.6 | 9211.4 | 8934.4 | 8599.0 | 8304.8 | 8296.1 |
| 47.5° | 8380.5 | 8348.0 | 8454.1 | 8876.0 | 9315.3 | 9644.2 | 9531.6 | 9246.0 | 8906.3 | 8618.5 | 8596.9 |
| 50°   | 8451.9 | 8438.9 | 8557.9 | 8958.2 | 9404.0 | 9706.9 | 9579.3 | 9295.8 | 8947.4 | 8664.0 | 8612.0 |
| 52.5° | 8473.5 | 8451.9 | 8622.8 | 9085.9 | 9551.1 | 9704.8 | 9429.9 | 9059.9 | 8709.4 | 8393.5 | 8339.4 |
| 55°   | 8540.6 | 8501.7 | 8618.5 | 9133.5 | 9754.5 | 9830.3 | 9421.3 | 8867.4 | 8378.3 | 7947.7 | 7820.1 |
| 57.5° | 8557.9 | 8514.6 | 8590.4 | 9055.6 | 9533.8 | 9466.7 | 8281.0 | 7155.8 | 6234.0 | 5755.8 | 5809.9 |
| 60°   | 8464.9 | 8477.9 | 8348.0 | 8296.1 | 7647.0 | 6751.1 | 5069.8 | 4052.8 | 3183.0 | 2815.1 | 2895.2 |
| 62.5° | 6443.9 | 6498.0 | 6054.4 | 5264.6 | 4048.5 | 3209.0 | 2122.7 | 1648.8 | 1395.7 | 1330.8 | 1341.6 |
| 65°   | 3252.2 | 3325.8 | 2864.9 | 2369.4 | 1761.4 | 1423.8 | 1231.2 | 1192.3 | 1179.3 | 1164.1 | 1164.1 |
| 67.5° | 1287.5 | 1309.1 | 1291.8 | 1209.6 | 1125.2 | 1094.9 | 1086.2 | 1081.9 | 1066.8 | 1058.1 | 1060.3 |
| 70°   | 1034.3 | 1051.6 | 1025.7 | 973.7  | 939.1  | 936.9  | 932.6  | 924.0  | 913.1  | 913.1  | 919.6  |
| 72.5° | 843.9  | 861.2  | 824.4  | 792.0  | 766.0  | 746.5  | 735.7  | 729.2  | 714.1  | 714.1  | 720.6  |
| 75°   | 621.0  | 631.8  | 601.5  | 597.2  | 569.1  | 549.6  | 532.3  | 523.6  | 504.2  | 495.5  | 502.0  |
| 77.5° | 413.3  | 411.1  | 396.0  | 396.0  | 385.2  | 361.4  | 341.9  | 322.4  | 296.4  | 279.1  | 283.5  |
| 80°   | 268.3  | 268.3  | 261.8  | 261.8  | 251.0  | 231.5  | 207.7  | 188.3  | 173.1  | 160.1  | 160.1  |
| 82.5° | 170.9  | 168.8  | 166.6  | 164.5  | 160.1  | 140.6  | 123.3  | 110.4  | 99.5   | 90.9   | 93.0   |
| 85°   | 95.2   | 95.2   | 90.9   | 90.9   | 82.2   | 71.4   | 62.8   | 54.1   | 47.6   | 45.4   | 45.4   |
| 87.5° | 32.5   | 32.5   | 30.3   | 30.3   | 26.0   | 19.5   | 15.1   | 13.0   | 10.8   | 8.7    | 10.8   |
| 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)