

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: P639977

Luminaire Tested: GWS-SA5C-830-U-T2R-W-GRSBK

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P639977  
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-SA5C-830-U-T2R-W-GRSBK  
Description: GALLEON WALL SLIM LUMINAIRE. (5) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II ROADWAY OPTICS W/ FACTORY INSTALLED GLARE SHIELD, BK  
Light Source: (80) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

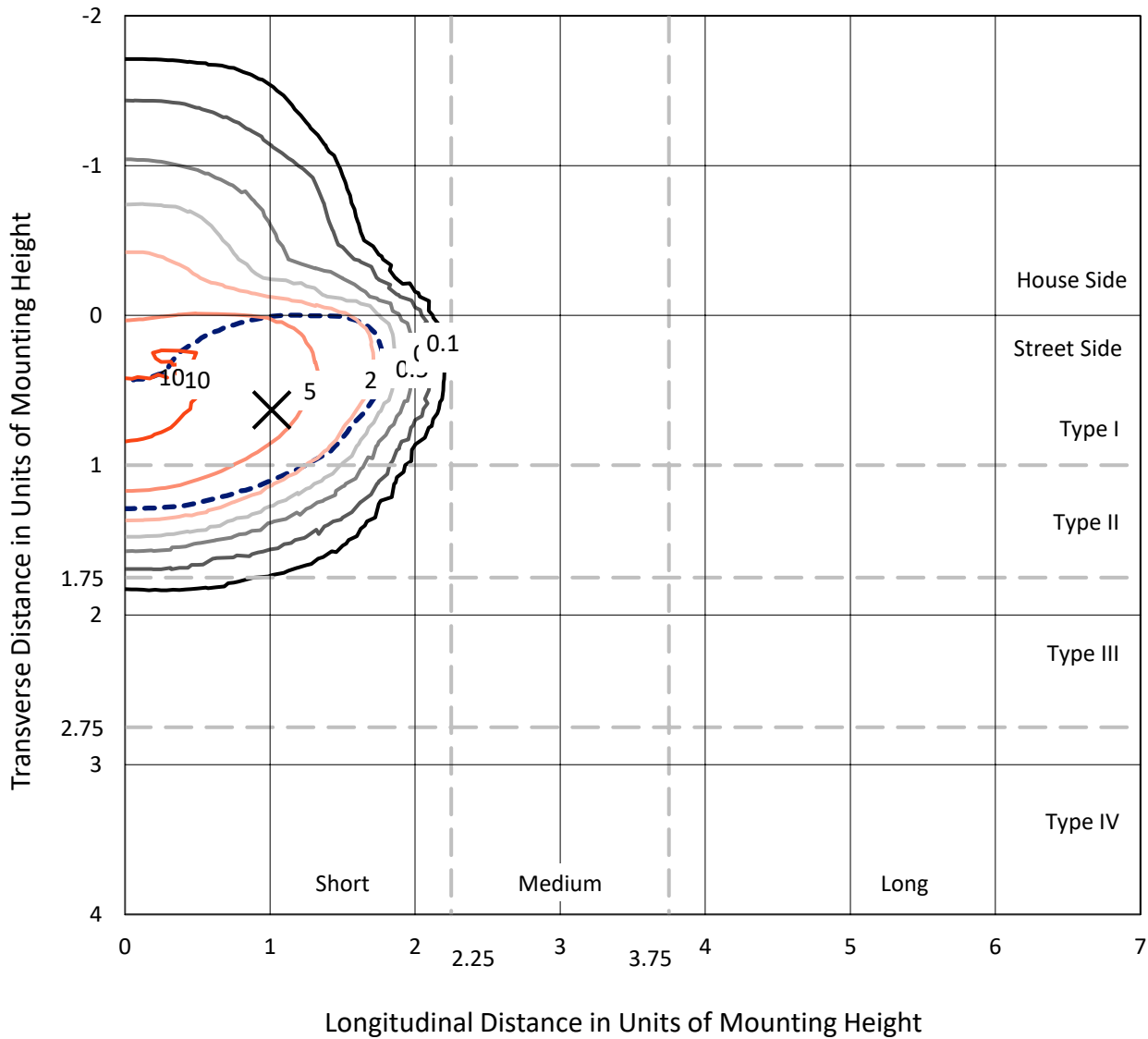
Lumens per Lamp: N/A  
Luminaire Lumens: 12680.5 lumens  
Efficiency: N/A  
Efficacy: 80.5 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G1  
  
Input Watts (W): 157.5  
Input Voltage (V): 120  
Input Current (Ain): 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

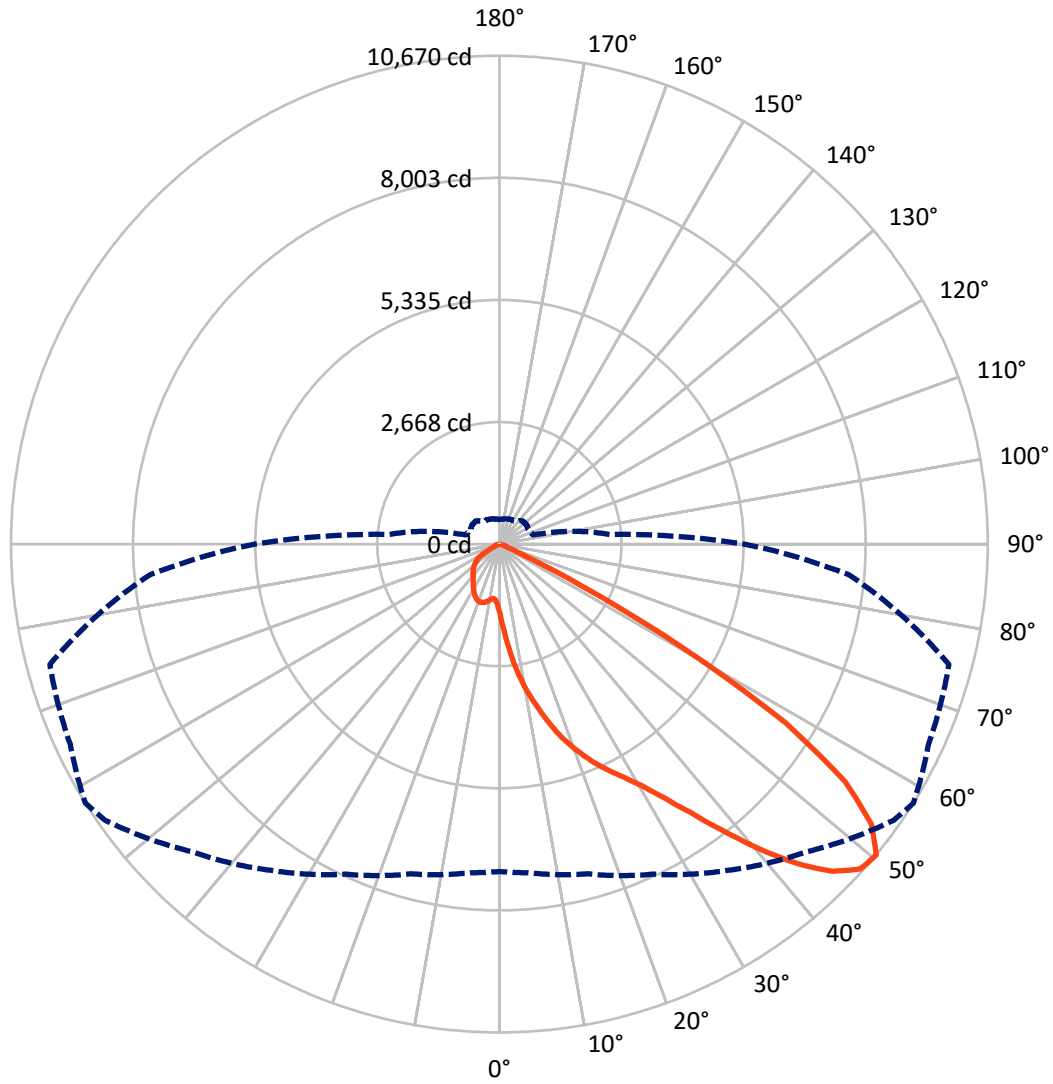
✕ Max cd  
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 11.6 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    | 1776.1   | 0.0    | 1776.1  |
|                    | % Fixture | 14.0     | 0.0    | 14.0    |
| <b>Street Side</b> | Lumens    | 10904.4  | 0.0    | 10904.4 |
|                    | % Fixture | 86.0     | 0.0    | 86.0    |
| <b>Total</b>       | Lumens    | 12680.5  | 0.0    | 12680.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 187.6   | 1.5       |
| 10°-20°   | 742.8   | 5.9       |
| 20°-30°   | 1503.1  | 11.9      |
| 30°-40°   | 2659.2  | 21.0      |
| 40°-50°   | 3876.6  | 30.6      |
| 50°-60°   | 3107.2  | 24.5      |
| 60°-70°   | 559.8   | 4.4       |
| 70°-80°   | 44.1    | 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°    | 12680.5 | 100.0     |
| 0°-180°   | 12680.5 | 100.0     |

**Coefficient of Utilization**



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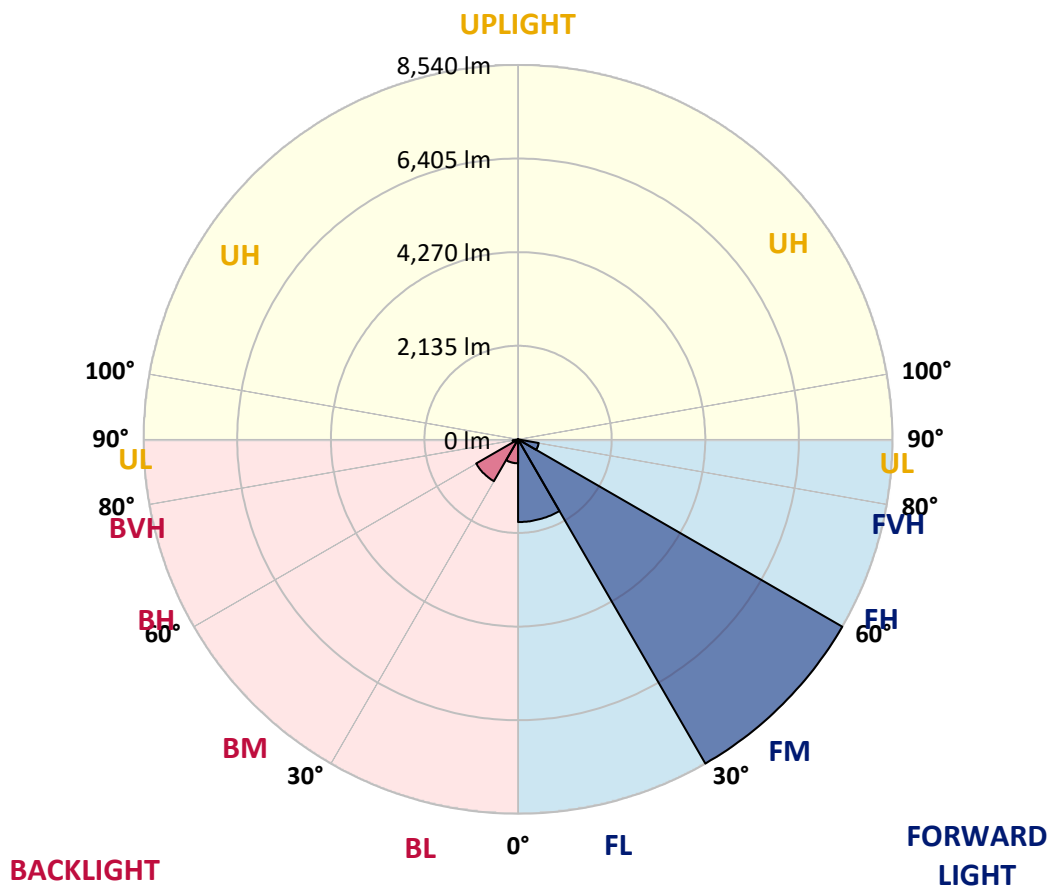
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |        |
|----------------|--------|-----------|-------------------------|------|--------|
|                |        |           | B                       | U    | G      |
| FL (0°-30°)    | 1886.8 | 14.9      |                         |      |        |
| FM (30°-60°)   | 8539.9 | 67.3      |                         |      |        |
| FH (60°-80°)   | 477.7  | 3.8       |                         |      | G0/660 |
| FVH (80°-90°)  | 0.0    | 0.0       |                         |      | G0/10  |
| BL (0°-30°)    | 546.8  | 4.3       | B2/1000                 |      |        |
| BM (30°-60°)   | 1103.0 | 8.7       | B2/2500                 |      |        |
| BH (60°-80°)   | 126.2  | 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°    | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7  | 1514.7  | 1514.7  | 1514.7  | 1514.7 |
| 2.5°  | 2241.5 | 2206.2 | 2185.9 | 2169.6 | 2097.7 | 1983.8 | 1909.3  | 1869.9  | 1804.9  | 1695.0  | 1600.1 |
| 5°    | 2924.9 | 2899.2 | 2851.7 | 2819.1 | 2726.9 | 2565.6 | 2398.8  | 2332.3  | 2184.5  | 1936.4  | 1714.0 |
| 7.5°  | 3377.8 | 3358.8 | 3341.2 | 3297.8 | 3211.0 | 3064.6 | 2880.2  | 2811.0  | 2583.2  | 2230.6  | 1865.9 |
| 10°   | 3726.3 | 3711.4 | 3691.1 | 3689.7 | 3621.9 | 3490.4 | 3310.0  | 3238.2  | 2991.4  | 2550.7  | 2044.9 |
| 12.5° | 4032.8 | 4020.6 | 4016.5 | 4054.5 | 4011.1 | 3913.4 | 3718.2  | 3628.7  | 3367.0  | 2877.5  | 2242.8 |
| 15°   | 4243.0 | 4240.2 | 4257.9 | 4332.5 | 4356.9 | 4312.1 | 4148.0  | 4051.8  | 3750.7  | 3205.6  | 2461.2 |
| 17.5° | 4339.2 | 4347.4 | 4381.3 | 4510.1 | 4618.6 | 4656.5 | 4530.4  | 4449.1  | 4131.8  | 3537.8  | 2694.4 |
| 20°   | 4503.3 | 4500.6 | 4520.9 | 4643.0 | 4775.9 | 4911.5 | 4873.5  | 4804.3  | 4516.9  | 3889.0  | 2953.4 |
| 22.5° | 4965.7 | 4926.4 | 4883.0 | 4902.0 | 4949.4 | 5108.1 | 5178.6  | 5143.3  | 4914.2  | 4249.7  | 3220.5 |
| 25°   | 5676.3 | 5635.6 | 5495.9 | 5360.3 | 5270.8 | 5342.7 | 5439.0  | 5456.6  | 5308.8  | 4619.9  | 3499.9 |
| 27.5° | 6430.2 | 6393.6 | 6236.3 | 6032.9 | 5776.6 | 5651.9 | 5723.7  | 5759.0  | 5696.6  | 5060.6  | 3796.8 |
| 30°   | 7136.7 | 7087.9 | 6915.7 | 6663.4 | 6366.5 | 6175.3 | 6093.9  | 6118.3  | 6154.9  | 5582.7  | 4145.3 |
| 32.5° | 7749.6 | 7713.0 | 7506.9 | 7241.1 | 6955.0 | 6755.6 | 6565.8  | 6606.5  | 6696.0  | 6221.4  | 4591.5 |
| 35°   | 8269.0 | 8250.0 | 8031.7 | 7767.2 | 7464.8 | 7363.1 | 7200.4  | 7208.6  | 7298.0  | 6992.9  | 5135.2 |
| 37.5° | 8720.5 | 8688.0 | 8490.0 | 8244.5 | 8004.5 | 7988.3 | 7943.5  | 7947.6  | 7993.7  | 7892.0  | 5760.3 |
| 40°   | 9005.3 | 8975.4 | 8834.4 | 8682.5 | 8511.7 | 8514.4 | 8746.3  | 8763.9  | 8711.0  | 8774.7  | 6420.7 |
| 42.5° | 9112.4 | 9090.7 | 9014.8 | 9016.1 | 8998.5 | 9078.5 | 9513.8  | 9546.3  | 9356.5  | 9467.7  | 6984.8 |
| 45°   | 8926.6 | 8917.1 | 8922.6 | 9117.8 | 9329.4 | 9576.1 | 10141.6 | 10198.6 | 9930.1  | 9927.4  | 7425.5 |
| 47.5° | 8327.3 | 8308.3 | 8466.9 | 8799.2 | 9288.7 | 9768.7 | 10521.3 | 10609.4 | 10331.4 | 10190.4 | 7702.1 |
| 50°   | 7153.0 | 7207.2 | 7458.1 | 7957.1 | 8701.5 | 9504.3 | 10517.2 | 10670.4 | 10346.4 | 10167.4 | 7656.0 |
| 52.5° | 5181.3 | 5170.5 | 5719.7 | 6405.8 | 7311.6 | 8658.1 | 9958.5  | 10182.3 | 9984.3  | 9940.9  | 7553.0 |
| 55°   | 2819.1 | 2918.1 | 3288.3 | 4196.9 | 5327.8 | 7056.7 | 8682.5  | 9170.7  | 9399.9  | 9858.2  | 7738.8 |
| 57.5° | 1036.0 | 1079.4 | 1311.3 | 1954.0 | 2820.5 | 4388.1 | 6632.2  | 7368.6  | 8076.4  | 9627.7  | 7707.6 |
| 60°   | 417.7  | 425.8  | 518.0  | 718.7  | 1185.2 | 2233.3 | 3978.5  | 4632.1  | 5299.3  | 7369.9  | 5914.9 |
| 62.5° | 303.7  | 314.6  | 351.2  | 420.4  | 599.4  | 976.3  | 1715.4  | 1994.7  | 2180.5  | 3650.4  | 2914.1 |
| 65°   | 245.4  | 253.6  | 283.4  | 314.6  | 396.0  | 524.8  | 553.3   | 532.9   | 530.2   | 943.8   | 668.5  |
| 67.5° | 203.4  | 211.5  | 233.2  | 254.9  | 284.8  | 261.7  | 189.8   | 199.3   | 162.7   | 161.4   | 131.5  |
| 70°   | 149.2  | 158.7  | 180.3  | 203.4  | 170.9  | 70.5   | 109.8   | 162.7   | 123.4   | 103.1   | 100.3  |
| 72.5° | 112.5  | 119.3  | 139.7  | 132.9  | 50.2   | 27.1   | 73.2    | 118.0   | 94.9    | 75.9    | 74.6   |
| 75°   | 84.1   | 88.1   | 70.5   | 21.7   | 5.4    | 6.8    | 27.1    | 48.8    | 52.9    | 43.4    | 43.4   |
| 77.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 2.7     | 4.1     | 5.4     | 6.8     | 8.1    |
| 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°    | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 | 1514.7 |
| 2.5°  | 1545.9 | 1488.9 | 1407.5 | 1339.7 | 1288.2 | 1238.0 | 1200.1 | 1162.1 | 1160.7 | 1141.8 | 1137.7 |
| 5°    | 1610.9 | 1507.9 | 1358.7 | 1251.6 | 1186.5 | 1147.2 | 1120.1 | 1106.5 | 1099.7 | 1092.9 | 1090.2 |
| 7.5°  | 1704.5 | 1556.7 | 1350.6 | 1236.7 | 1182.4 | 1156.7 | 1137.7 | 1129.6 | 1125.5 | 1120.1 | 1118.7 |
| 10°   | 1819.8 | 1627.2 | 1380.4 | 1265.2 | 1217.7 | 1193.3 | 1172.9 | 1160.7 | 1154.0 | 1144.5 | 1141.8 |
| 12.5° | 1958.1 | 1714.0 | 1427.9 | 1312.6 | 1262.4 | 1229.9 | 1202.8 | 1185.2 | 1175.7 | 1163.5 | 1160.7 |
| 15°   | 2107.2 | 1807.6 | 1480.8 | 1356.0 | 1296.3 | 1254.3 | 1220.4 | 1193.3 | 1175.7 | 1160.7 | 1156.7 |
| 17.5° | 2261.8 | 1902.5 | 1528.2 | 1385.8 | 1312.6 | 1262.4 | 1213.6 | 1177.0 | 1155.3 | 1136.3 | 1130.9 |
| 20°   | 2435.4 | 2000.1 | 1559.4 | 1391.3 | 1307.2 | 1240.7 | 1183.8 | 1137.7 | 1116.0 | 1090.2 | 1084.8 |
| 22.5° | 2617.1 | 2091.0 | 1573.0 | 1379.1 | 1277.4 | 1200.1 | 1139.0 | 1091.6 | 1060.4 | 1033.3 | 1025.1 |
| 25°   | 2793.4 | 2172.3 | 1566.2 | 1345.2 | 1232.6 | 1143.1 | 1080.7 | 1031.9 | 998.0  | 970.9  | 964.1  |
| 27.5° | 2980.5 | 2240.1 | 1541.8 | 1295.0 | 1171.6 | 1080.7 | 1021.1 | 979.0  | 947.9  | 918.0  | 911.2  |
| 30°   | 3190.7 | 2302.5 | 1502.5 | 1234.0 | 1099.7 | 1017.0 | 970.9  | 942.4  | 908.5  | 877.3  | 867.8  |
| 32.5° | 3444.3 | 2358.1 | 1445.5 | 1160.7 | 1036.0 | 961.4  | 935.6  | 914.0  | 874.6  | 842.1  | 835.3  |
| 35°   | 3734.5 | 2404.2 | 1373.6 | 1084.8 | 973.6  | 926.2  | 920.7  | 892.3  | 840.7  | 802.8  | 794.6  |
| 37.5° | 4070.7 | 2449.0 | 1288.2 | 1010.2 | 927.5  | 909.9  | 911.2  | 862.4  | 800.0  | 753.9  | 748.5  |
| 40°   | 4432.8 | 2493.7 | 1193.3 | 945.1  | 885.5  | 900.4  | 888.2  | 819.0  | 717.3  | 672.6  | 667.2  |
| 42.5° | 4809.8 | 2542.5 | 1097.0 | 884.1  | 850.2  | 863.8  | 846.2  | 732.2  | 659.0  | 636.0  | 633.3  |
| 45°   | 5150.1 | 2600.8 | 992.6  | 823.1  | 815.0  | 810.9  | 781.1  | 663.1  | 631.9  | 615.6  | 614.3  |
| 47.5° | 5395.6 | 2591.3 | 881.4  | 764.8  | 777.0  | 763.4  | 672.6  | 630.5  | 604.8  | 583.1  | 577.7  |
| 50°   | 5350.8 | 2425.9 | 766.1  | 699.7  | 728.2  | 716.0  | 604.8  | 592.6  | 569.5  | 546.5  | 538.3  |
| 52.5° | 5236.9 | 2200.8 | 665.8  | 630.5  | 675.3  | 646.8  | 558.7  | 546.5  | 526.1  | 496.3  | 486.8  |
| 55°   | 5297.9 | 1989.3 | 587.2  | 574.9  | 621.1  | 535.6  | 507.1  | 488.2  | 466.5  | 433.9  | 429.9  |
| 57.5° | 5101.3 | 1623.1 | 471.9  | 480.0  | 549.2  | 457.0  | 444.8  | 414.9  | 378.3  | 356.6  | 353.9  |
| 60°   | 3531.1 | 871.9  | 295.6  | 305.1  | 397.3  | 383.8  | 398.7  | 371.5  | 326.8  | 306.5  | 302.4  |
| 62.5° | 1621.8 | 349.9  | 161.4  | 154.6  | 208.8  | 260.4  | 341.7  | 339.0  | 283.4  | 250.9  | 248.1  |
| 65°   | 393.2  | 160.0  | 115.3  | 108.5  | 118.0  | 155.9  | 222.4  | 267.1  | 229.2  | 191.2  | 187.1  |
| 67.5° | 127.5  | 130.2  | 105.8  | 99.0   | 104.4  | 116.6  | 132.9  | 147.8  | 146.4  | 134.2  | 131.5  |
| 70°   | 101.7  | 118.0  | 97.6   | 89.5   | 89.5   | 93.6   | 89.5   | 71.9   | 62.4   | 67.8   | 70.5   |
| 72.5° | 75.9   | 89.5   | 77.3   | 69.2   | 66.4   | 65.1   | 55.6   | 40.7   | 28.5   | 25.8   | 24.4   |
| 75°   | 44.7   | 50.2   | 47.5   | 40.7   | 38.0   | 33.9   | 27.1   | 17.6   | 9.5    | 6.8    | 4.1    |
| 77.5° | 8.1    | 9.5    | 10.8   | 8.1    | 6.8    | 5.4    | 4.1    | 1.4    | 0.0    | 0.0    | 0.0    |
| 80°   | 0.0    | 1.4    | 1.4    | 1.4    | 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)