

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: P638698

Luminaire Tested: GWS-SA4F-735-U-SL4-W

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P638698  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-35)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4F-735-U-SL4-W  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND TYPE IV SPILL LIGHT ELIMINATOR OPTICS  
Light Source: (64) 3500K CCT, 70 CRI LEDS  
Ballast/Driver: -

**Summary**

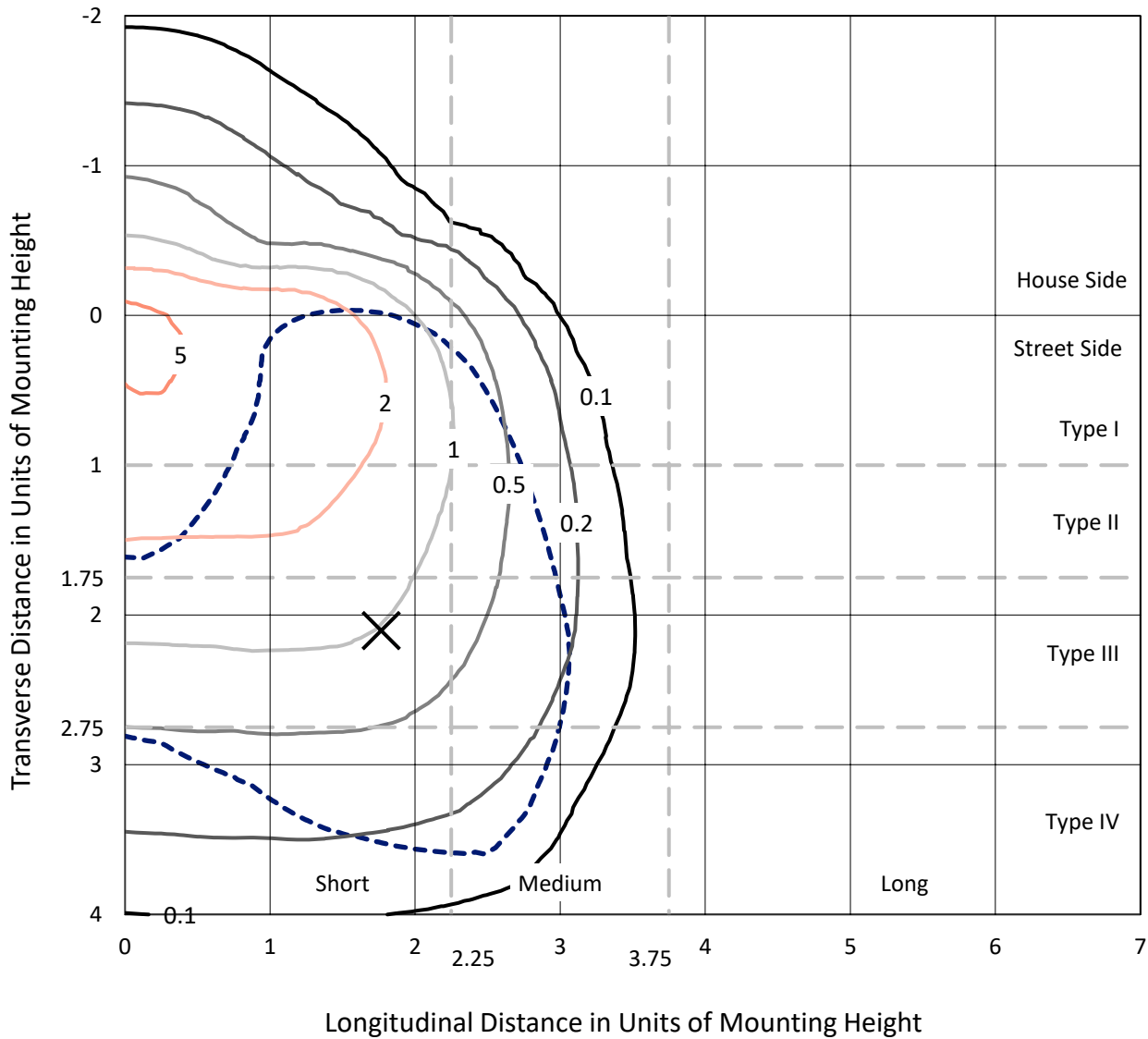
Lumens per Lamp: N/A  
Luminaire Lumens: 32229.1 lumens  
Efficiency: N/A  
Efficacy: 143.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5  
  
Input Watts (W): 225.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

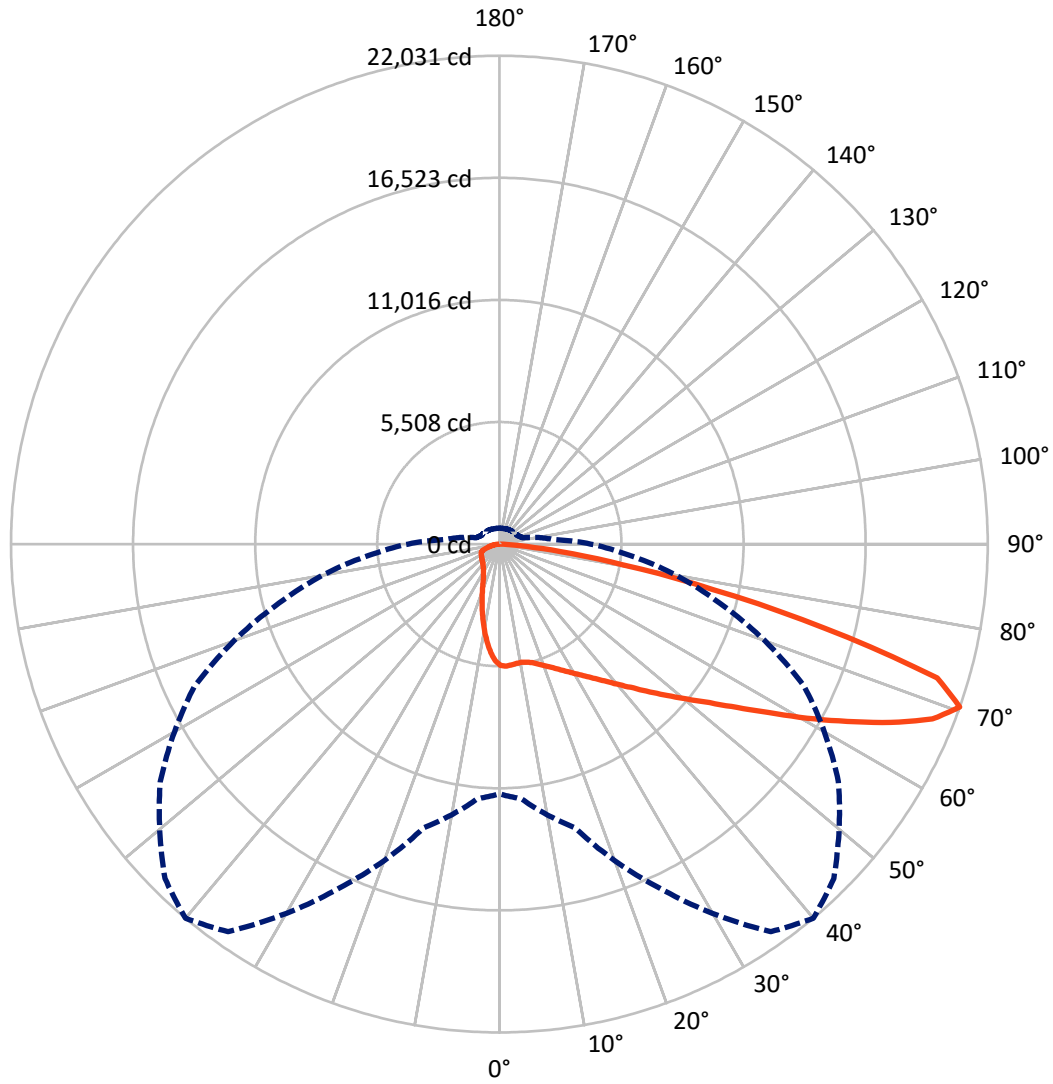
✕ Max cd  
 - - - 1/2 Max cd



Based on 30 foot mounting height. Maximum calculated value = 6.1 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 70-Deg Vertical



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4964.1   | 0.0    | 4964.1  |
|                    | % Fixture | 15.4     | 0.0    | 15.4    |
| <b>Street Side</b> | Lumens    | 27265.0  | 0.0    | 27265.0 |
|                    | % Fixture | 84.6     | 0.0    | 84.6    |
| <b>Total</b>       | Lumens    | 32229.1  | 0.0    | 32229.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 483.5   | 1.5       |
| 10°-20°   | 1260.2  | 3.9       |
| 20°-30°   | 1978.8  | 6.1       |
| 30°-40°   | 2975.2  | 9.2       |
| 40°-50°   | 4592.3  | 14.2      |
| 50°-60°   | 6819.9  | 21.2      |
| 60°-70°   | 8596.4  | 26.7      |
| 70°-80°   | 4971.2  | 15.4      |
| 80°-90°   | 551.7   | 1.7       |
| 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°    | 32229.1 | 100.0     |
| 0°-180°   | 32229.1 | 100.0     |

**Coefficient of Utilization**



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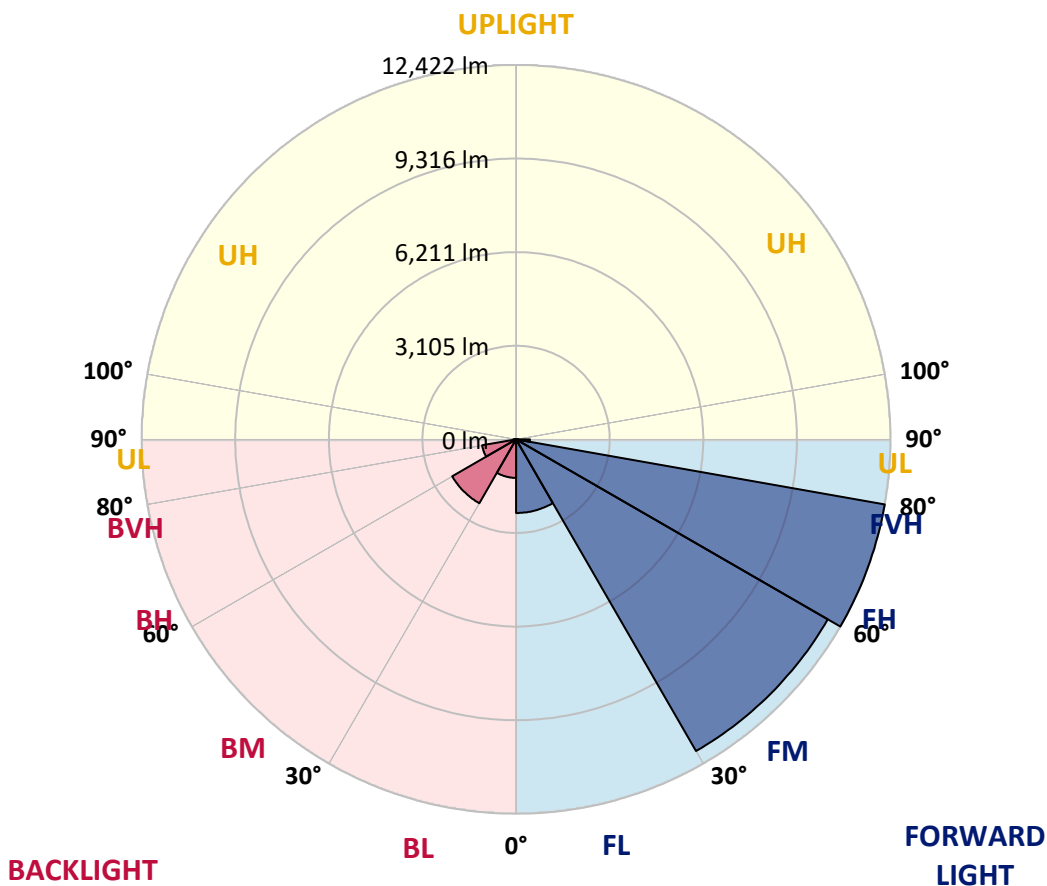
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|---------|-----------|-------------------------|------|---------|
|                |         |           | B                       | U    | G       |
| FL (0°-30°)    | 2443.2  | 7.6       |                         |      |         |
| FM (30°-60°)   | 11940.5 | 37.0      |                         |      |         |
| FH (60°-80°)   | 12421.8 | 38.5      |                         |      | G5      |
| FVH (80°-90°)  | 459.5   | 1.4       |                         |      | G3/500  |
| BL (0°-30°)    | 1279.3  | 4.0       | B3/2500                 |      |         |
| BM (30°-60°)   | 2446.9  | 7.6       | B2/2500                 |      |         |
| BH (60°-80°)   | 1145.7  | 3.6       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 92.2    | 0.3       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0     | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0     | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G5**

Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 40°     | 45°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 5472.9  | 5472.9  | 5472.9  | 5472.9  | 5472.9  | 5472.9  | 5472.9  | 5472.9  | 5472.9  | 5472.9  | 5472.9  |
| 2.5°  | 5506.5  | 5516.2  | 5523.4  | 5533.0  | 5528.2  | 5513.8  | 5525.8  | 5525.8  | 5499.3  | 5470.5  | 5444.0  |
| 5°    | 5513.8  | 5525.8  | 5523.4  | 5521.0  | 5501.7  | 5477.7  | 5477.7  | 5463.2  | 5417.5  | 5371.8  | 5328.5  |
| 7.5°  | 5499.3  | 5496.9  | 5494.5  | 5487.3  | 5465.7  | 5439.2  | 5434.4  | 5405.5  | 5345.4  | 5282.8  | 5220.3  |
| 10°   | 5434.4  | 5432.0  | 5439.2  | 5456.0  | 5451.2  | 5427.2  | 5427.2  | 5400.7  | 5330.9  | 5254.0  | 5172.2  |
| 12.5° | 5381.5  | 5381.5  | 5410.3  | 5456.0  | 5472.9  | 5463.2  | 5465.7  | 5446.4  | 5367.0  | 5275.6  | 5179.4  |
| 15°   | 5388.7  | 5391.1  | 5453.6  | 5528.2  | 5559.5  | 5552.3  | 5554.7  | 5533.0  | 5444.0  | 5352.6  | 5222.7  |
| 17.5° | 5436.8  | 5448.8  | 5557.1  | 5660.5  | 5701.4  | 5691.8  | 5674.9  | 5638.9  | 5537.8  | 5434.4  | 5275.6  |
| 20°   | 5537.8  | 5557.1  | 5696.6  | 5826.5  | 5874.6  | 5853.0  | 5824.1  | 5751.9  | 5641.3  | 5528.2  | 5333.3  |
| 22.5° | 5737.5  | 5749.5  | 5903.5  | 6031.0  | 6069.5  | 6043.0  | 5985.3  | 5881.8  | 5754.3  | 5636.5  | 5403.1  |
| 25°   | 6019.0  | 6033.4  | 6180.1  | 6298.0  | 6288.4  | 6257.1  | 6177.7  | 6050.2  | 5898.7  | 5773.6  | 5504.1  |
| 27.5° | 6353.3  | 6377.4  | 6521.7  | 6615.6  | 6553.0  | 6507.3  | 6418.3  | 6264.3  | 6093.5  | 5980.5  | 5658.1  |
| 30°   | 6719.0  | 6728.6  | 6851.3  | 6945.1  | 6848.9  | 6786.4  | 6678.1  | 6512.1  | 6358.2  | 6274.0  | 5889.0  |
| 32.5° | 7072.6  | 7082.3  | 7188.1  | 7241.0  | 7140.0  | 7094.3  | 7000.5  | 6824.9  | 6716.6  | 6670.9  | 6233.1  |
| 35°   | 7445.5  | 7443.1  | 7529.7  | 7575.4  | 7472.0  | 7452.7  | 7356.5  | 7221.8  | 7202.5  | 7262.7  | 6735.8  |
| 37.5° | 7818.4  | 7796.7  | 7842.4  | 7902.6  | 7844.8  | 7864.1  | 7801.5  | 7755.8  | 7830.4  | 7986.8  | 7404.6  |
| 40°   | 8116.7  | 8116.7  | 8164.8  | 8239.4  | 8258.6  | 8342.8  | 8306.7  | 8366.9  | 8607.4  | 8980.3  | 8232.2  |
| 42.5° | 8381.3  | 8383.7  | 8484.8  | 8600.2  | 8739.8  | 8869.7  | 8898.5  | 9054.9  | 9552.9  | 10137.4 | 9271.4  |
| 45°   | 8658.0  | 8660.4  | 8797.5  | 8965.9  | 9261.8  | 9509.6  | 9567.3  | 9918.5  | 10630.6 | 11342.7 | 10399.7 |
| 47.5° | 8977.9  | 8951.5  | 9141.5  | 9423.0  | 9844.0  | 10200.0 | 10349.1 | 10847.1 | 11746.8 | 12622.5 | 11463.0 |
| 50°   | 9338.8  | 9283.4  | 9495.1  | 9981.1  | 10500.7 | 10989.0 | 11239.2 | 11809.4 | 12944.8 | 13803.7 | 12463.7 |
| 52.5° | 9745.3  | 9714.0  | 9935.4  | 10527.2 | 11321.0 | 11883.9 | 12223.1 | 12971.3 | 14109.2 | 14980.0 | 13257.6 |
| 55°   | 10250.5 | 10175.9 | 10495.9 | 11248.9 | 12283.3 | 13000.2 | 13401.9 | 14121.2 | 15381.8 | 16048.1 | 13863.8 |
| 57.5° | 10803.8 | 10722.0 | 11150.2 | 12151.0 | 13534.2 | 14320.9 | 14823.7 | 15415.5 | 16579.8 | 16866.1 | 14219.8 |
| 60°   | 11400.4 | 11373.9 | 11881.5 | 13209.5 | 15025.7 | 15939.9 | 16303.1 | 16839.6 | 17621.4 | 17340.0 | 14130.8 |
| 62.5° | 11946.5 | 11936.9 | 12675.4 | 14357.0 | 16606.3 | 17611.8 | 17900.5 | 18042.4 | 18372.0 | 17308.7 | 13423.6 |
| 65°   | 12521.4 | 12603.2 | 13601.6 | 15687.3 | 18417.7 | 19404.0 | 19524.3 | 19163.5 | 18624.6 | 16488.4 | 11975.4 |
| 67.5° | 12593.6 | 12752.4 | 14183.8 | 16933.4 | 20135.4 | 21066.3 | 20970.1 | 19589.3 | 17878.8 | 14205.4 | 9386.9  |
| 70°   | 11263.3 | 11539.9 | 13255.2 | 17123.5 | 21345.4 | 22031.0 | 21335.8 | 18672.7 | 15172.5 | 10291.4 | 5903.5  |
| 72.5° | 9410.9  | 9649.1  | 11164.7 | 14602.3 | 19784.1 | 20657.4 | 19716.8 | 15805.2 | 10722.0 | 5903.5  | 3007.1  |
| 75°   | 7325.2  | 7601.9  | 8999.6  | 11607.3 | 14811.6 | 15160.5 | 14688.9 | 11022.7 | 5893.9  | 2434.5  | 1366.4  |
| 77.5° | 4469.7  | 4669.4  | 5756.7  | 7864.1  | 10363.6 | 9841.5  | 8340.4  | 6180.1  | 2586.1  | 1166.7  | 844.4   |
| 80°   | 1977.5  | 2100.1  | 2836.3  | 4224.3  | 5987.7  | 5660.5  | 4462.5  | 2639.0  | 1414.5  | 740.9   | 589.4   |
| 82.5° | 1060.9  | 1140.3  | 1397.7  | 1671.9  | 2629.4  | 2749.7  | 2230.0  | 1520.4  | 760.2   | 423.4   | 336.8   |
| 85°   | 466.7   | 512.4   | 635.1   | 606.2   | 863.6   | 849.2   | 856.4   | 1044.1  | 363.3   | 194.9   | 218.9   |
| 87.5° | 0.0     | 0.0     | 0.0     | 0.0     | 2.4     | 2.4     | 26.5    | 139.5   | 36.1    | 57.7    | 50.5    |
| 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°    | 5472.9  | 5472.9 | 5472.9 | 5472.9 | 5472.9 | 5472.9 | 5472.9 | 5472.9 | 5472.9 | 5472.9 | 5472.9 |
| 2.5°  | 5415.1  | 5371.8 | 5359.8 | 5345.4 | 5318.9 | 5273.2 | 5239.5 | 5201.0 | 5184.2 | 5164.9 | 5167.4 |
| 5°    | 5280.4  | 5227.5 | 5177.0 | 5112.0 | 5030.2 | 4938.8 | 4876.3 | 4804.1 | 4765.6 | 4729.5 | 4739.1 |
| 7.5°  | 5164.9  | 5083.2 | 4979.7 | 4842.6 | 4695.8 | 4532.3 | 4399.9 | 4296.5 | 4226.7 | 4178.6 | 4202.7 |
| 10°   | 5092.8  | 4996.6 | 4816.1 | 4592.4 | 4344.6 | 4094.4 | 3904.4 | 3726.4 | 3615.7 | 3529.1 | 3524.3 |
| 12.5° | 5078.3  | 4953.2 | 4691.0 | 4366.3 | 4007.8 | 3673.4 | 3394.4 | 3153.8 | 3007.1 | 2898.8 | 2939.7 |
| 15°   | 5092.8  | 4934.0 | 4582.8 | 4157.0 | 3704.7 | 3252.4 | 2906.0 | 2629.4 | 2453.8 | 2355.1 | 2347.9 |
| 17.5° | 5109.6  | 4914.8 | 4460.1 | 3930.8 | 3387.2 | 2869.9 | 2468.2 | 2174.7 | 1994.3 | 1895.7 | 1898.1 |
| 20°   | 5124.1  | 4885.9 | 4315.7 | 3683.1 | 3064.8 | 2513.9 | 2097.7 | 1818.7 | 1657.5 | 1585.3 | 1597.4 |
| 22.5° | 5148.1  | 4857.0 | 4161.8 | 3418.4 | 2735.2 | 2169.9 | 1804.2 | 1578.1 | 1481.9 | 1433.8 | 1436.2 |
| 25°   | 5193.8  | 4840.2 | 4003.0 | 3129.8 | 2410.5 | 1895.7 | 1602.2 | 1450.6 | 1390.5 | 1361.6 | 1359.2 |
| 27.5° | 5287.6  | 4854.6 | 3837.0 | 2850.7 | 2117.0 | 1686.4 | 1472.3 | 1373.6 | 1332.7 | 1313.5 | 1311.1 |
| 30°   | 5444.0  | 4912.4 | 3692.7 | 2566.8 | 1864.4 | 1522.8 | 1383.3 | 1323.1 | 1299.1 | 1282.2 | 1279.8 |
| 32.5° | 5682.2  | 5020.6 | 3536.3 | 2302.2 | 1659.9 | 1402.5 | 1313.5 | 1282.2 | 1265.4 | 1255.8 | 1255.8 |
| 35°   | 6043.0  | 5217.9 | 3382.4 | 2071.3 | 1501.1 | 1308.7 | 1258.2 | 1246.1 | 1231.7 | 1226.9 | 1231.7 |
| 37.5° | 6562.6  | 5533.0 | 3242.8 | 1869.2 | 1388.1 | 1236.5 | 1198.0 | 1202.8 | 1190.8 | 1198.0 | 1205.2 |
| 40°   | 7221.8  | 5954.0 | 3124.9 | 1703.2 | 1303.9 | 1183.6 | 1145.1 | 1161.9 | 1154.7 | 1161.9 | 1174.0 |
| 42.5° | 8056.5  | 6476.0 | 3035.9 | 1573.3 | 1243.7 | 1140.3 | 1104.2 | 1121.0 | 1116.2 | 1125.8 | 1137.9 |
| 45°   | 8987.5  | 7164.0 | 2995.0 | 1481.9 | 1200.4 | 1109.0 | 1070.5 | 1082.5 | 1077.7 | 1085.0 | 1097.0 |
| 47.5° | 9880.0  | 7789.5 | 3031.1 | 1429.0 | 1164.3 | 1082.5 | 1041.6 | 1046.5 | 1044.1 | 1041.6 | 1048.9 |
| 50°   | 10649.8 | 8287.5 | 3134.6 | 1412.1 | 1140.3 | 1056.1 | 1017.6 | 1020.0 | 1012.8 | 998.3  | 1003.2 |
| 52.5° | 11277.7 | 8686.8 | 3197.1 | 1412.1 | 1128.3 | 1027.2 | 991.1  | 993.5  | 979.1  | 959.9  | 962.3  |
| 55°   | 11691.5 | 8848.0 | 3146.6 | 1409.7 | 1123.4 | 1003.2 | 964.7  | 967.1  | 952.6  | 928.6  | 931.0  |
| 57.5° | 11809.4 | 8691.6 | 2934.9 | 1383.3 | 1118.6 | 983.9  | 938.2  | 943.0  | 933.4  | 906.9  | 906.9  |
| 60°   | 11479.8 | 8119.1 | 2547.6 | 1323.1 | 1106.6 | 971.9  | 919.0  | 926.2  | 921.4  | 894.9  | 894.9  |
| 62.5° | 10616.2 | 7101.5 | 2085.7 | 1231.7 | 1072.9 | 957.5  | 902.1  | 916.6  | 928.6  | 914.1  | 911.7  |
| 65°   | 8999.6  | 5689.4 | 1696.0 | 1130.7 | 1029.6 | 933.4  | 878.1  | 914.1  | 940.6  | 959.9  | 959.9  |
| 67.5° | 6752.7  | 4072.8 | 1383.3 | 1024.8 | 964.7  | 885.3  | 846.8  | 880.5  | 899.7  | 911.7  | 919.0  |
| 70°   | 4116.1  | 2396.0 | 1089.8 | 902.1  | 870.8  | 813.1  | 784.2  | 750.6  | 724.1  | 719.3  | 721.7  |
| 72.5° | 2013.5  | 1371.2 | 885.3  | 767.4  | 743.3  | 690.4  | 625.5  | 611.0  | 599.0  | 591.8  | 589.4  |
| 75°   | 1109.0  | 955.0  | 731.3  | 637.5  | 594.2  | 529.2  | 514.8  | 490.8  | 485.9  | 476.3  | 478.7  |
| 77.5° | 784.2   | 753.0  | 603.8  | 517.2  | 452.3  | 418.6  | 425.8  | 409.0  | 409.0  | 401.7  | 399.3  |
| 80°   | 589.4   | 591.8  | 464.3  | 377.7  | 334.4  | 322.4  | 329.6  | 329.6  | 324.8  | 322.4  | 320.0  |
| 82.5° | 372.9   | 421.0  | 312.7  | 243.0  | 238.2  | 240.6  | 238.2  | 235.8  | 240.6  | 233.3  | 230.9  |
| 85°   | 257.4   | 303.1  | 190.0  | 144.3  | 144.3  | 141.9  | 146.7  | 144.3  | 149.2  | 141.9  | 141.9  |
| 87.5° | 57.7    | 134.7  | 69.8   | 43.3   | 45.7   | 43.3   | 45.7   | 48.1   | 52.9   | 55.3   | 55.3   |
| 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)