

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: P637475

Luminaire Tested: GWS-SA4C-830-U-AFL-W

Issue Date: 1/10/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P637475  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2209-782-45)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 1/10/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: McGRAW-EDISON  
Catalog Number: GWS-SA4C-830-U-AFL-W  
Description: GALLEON WALL SLIM LUMINAIRE. (4) LIGHTSQUARES WITH 16 LEDS EACH AND  
AUTOMOTIVE FRONTLINE OPTICS  
Light Source: (64) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

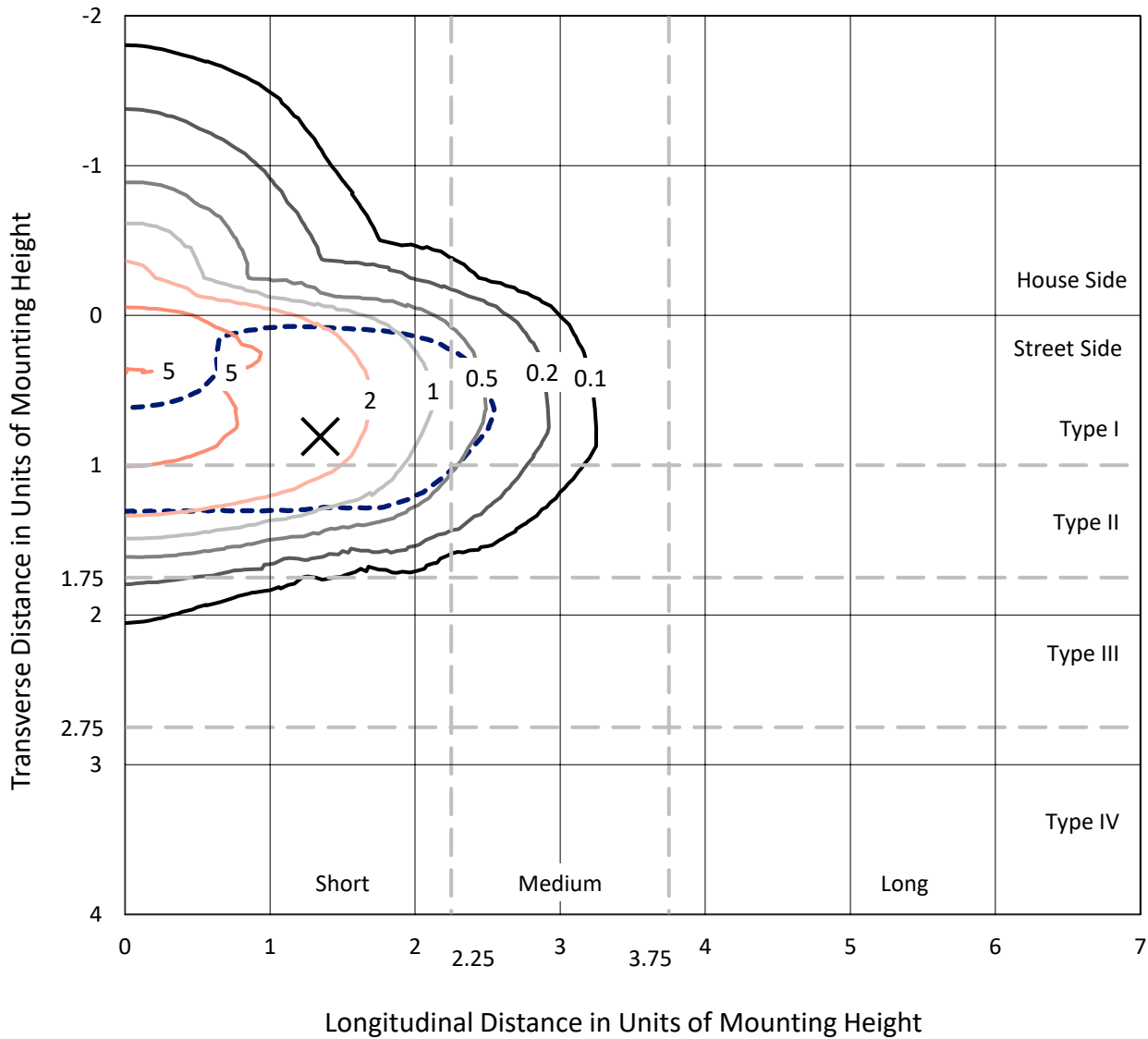
Lumens per Lamp: N/A  
Luminaire Lumens: 15702.8 lumens  
Efficiency: N/A  
Efficacy: 122.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B2 - U0 - G2  
  
Input Watts (W): 128.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
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

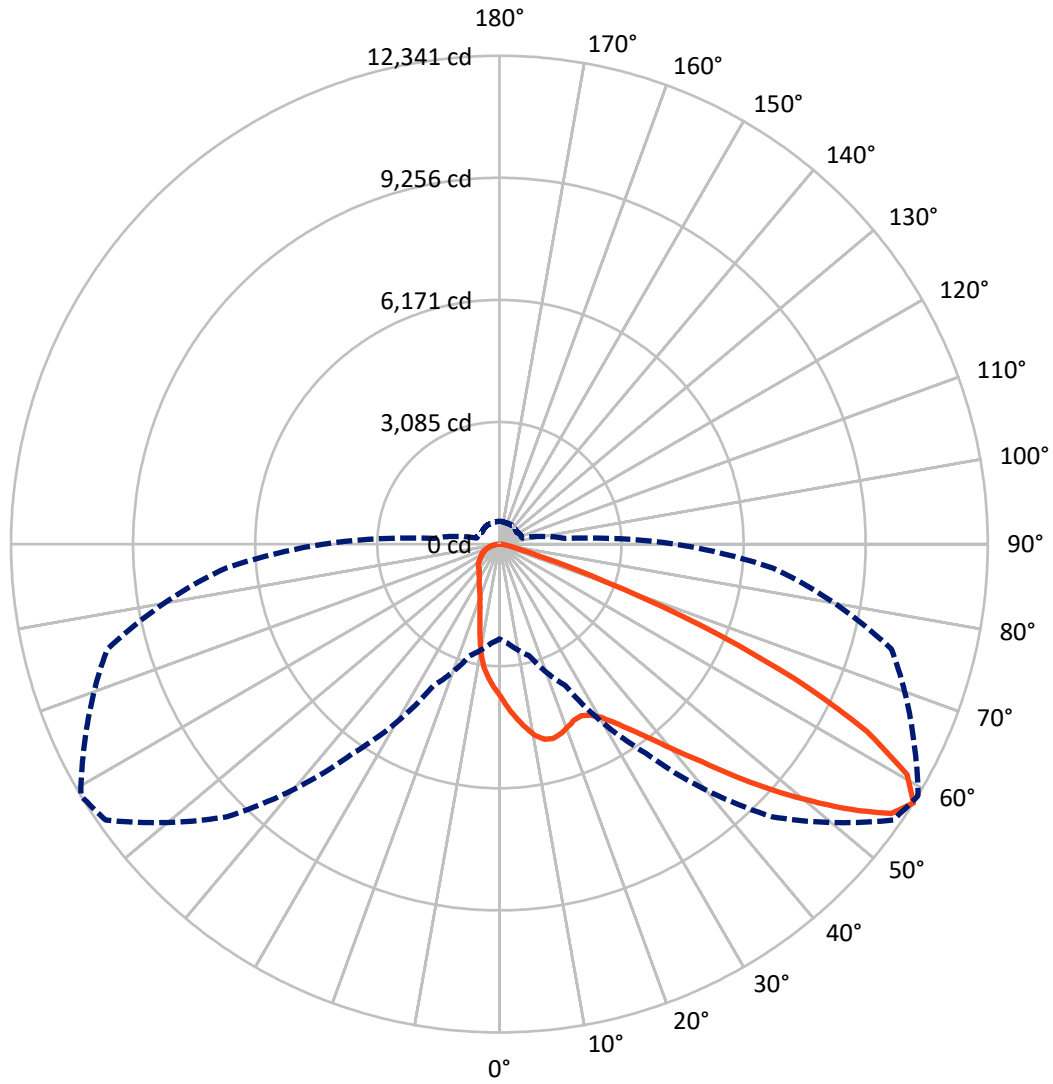
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.5 fc  
 Type II - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral    - - - Horizontal Cone Through 57.5-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2437.0   | 0.0    | 2437.0  |
|                    | % Fixture | 15.5     | 0.0    | 15.5    |
| <b>Street Side</b> | Lumens    | 13265.8  | 0.0    | 13265.8 |
|                    | % Fixture | 84.5     | 0.0    | 84.5    |
| <b>Total</b>       | Lumens    | 15702.8  | 0.0    | 15702.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 357.9   | 2.3       |
| 10°-20°   | 907.0   | 5.8       |
| 20°-30°   | 1470.2  | 9.4       |
| 30°-40°   | 2365.0  | 15.1      |
| 40°-50°   | 3672.6  | 23.4      |
| 50°-60°   | 3955.9  | 25.2      |
| 60°-70°   | 2295.9  | 14.6      |
| 70°-80°   | 599.4   | 3.8       |
| 80°-90°   | 79.0    | 0.5       |
| 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°    | 15702.8 | 100.0     |
| 0°-180°   | 15702.8 | 100.0     |

**Coefficient of Utilization**



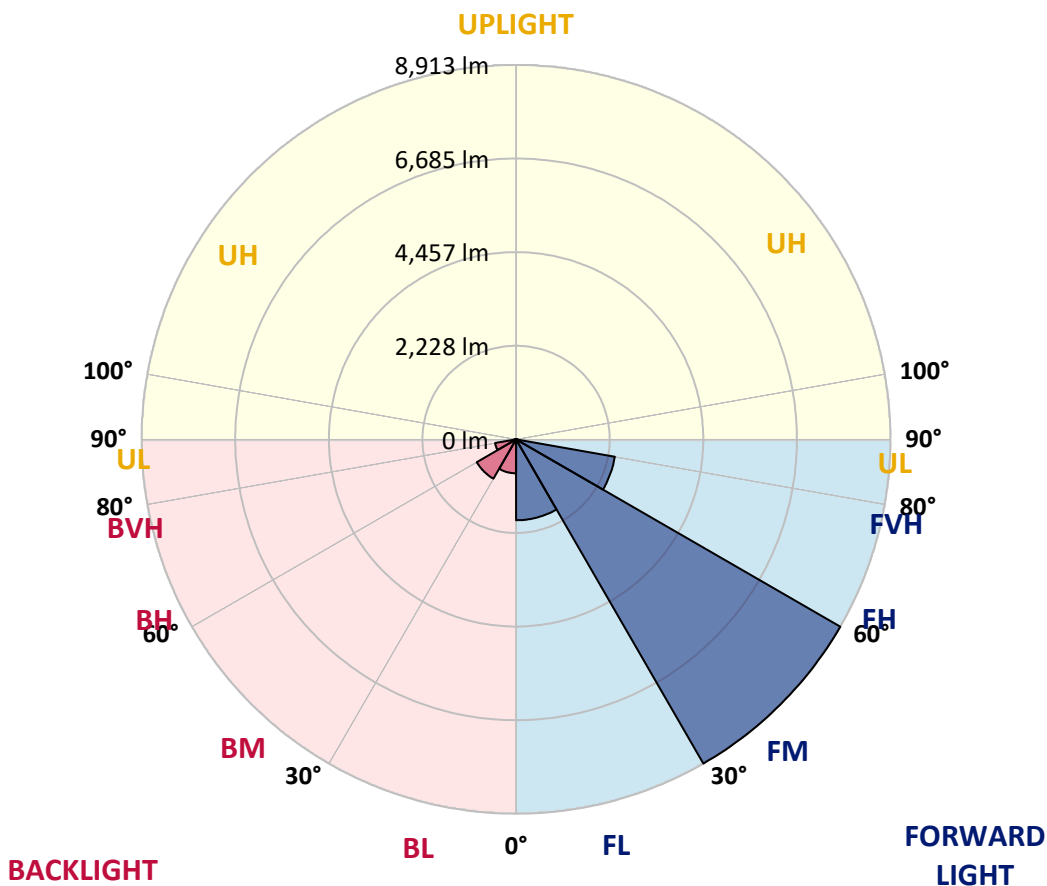
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1926.6 | 12.3      |                         |      |         |
| FM (30°-60°)   | 8913.1 | 56.8      |                         |      |         |
| FH (60°-80°)   | 2388.3 | 15.2      |                         |      | G2/5000 |
| FVH (80°-90°)  | 37.8   | 0.2       |                         |      | G1/100  |
| BL (0°-30°)    | 808.5  | 5.1       | B2/1000                 |      |         |
| BM (30°-60°)   | 1080.5 | 6.9       | B2/2500                 |      |         |
| BH (60°-80°)   | 506.9  | 3.2       | B2/1000                 |      | G2/1000 |
| BVH (80°-90°)  | 41.2   | 0.3       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**  
 Type II Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 45°     | 55°     | 59°     | 65°     | 75°     | 85°    |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|--------|
| 0°    | 3854.7 | 3854.7 | 3854.7 | 3854.7 | 3854.7  | 3854.7  | 3854.7  | 3854.7  | 3854.7  | 3854.7  | 3854.7 |
| 2.5°  | 4372.1 | 4335.6 | 4361.0 | 4315.7 | 4296.9  | 4247.2  | 4183.0  | 4139.9  | 4073.6  | 3987.4  | 3912.2 |
| 5°    | 4806.5 | 4781.1 | 4786.6 | 4738.0 | 4694.9  | 4612.0  | 4480.4  | 4407.5  | 4294.7  | 4121.1  | 3959.7 |
| 7.5°  | 4793.3 | 4823.1 | 4839.7 | 4881.7 | 4893.9  | 4886.1  | 4767.8  | 4666.1  | 4542.3  | 4281.4  | 4038.2 |
| 10°   | 4296.9 | 4353.3 | 4404.1 | 4547.8 | 4722.5  | 4943.6  | 4971.2  | 4910.4  | 4785.5  | 4485.9  | 4132.2 |
| 12.5° | 3756.3 | 3799.5 | 3844.8 | 4017.2 | 4284.7  | 4726.9  | 5026.5  | 5064.1  | 5014.3  | 4688.2  | 4238.3 |
| 15°   | 3491.0 | 3510.9 | 3554.0 | 3667.9 | 3881.3  | 4372.1  | 4930.3  | 5095.0  | 5184.6  | 4902.7  | 4357.7 |
| 17.5° | 3480.0 | 3488.8 | 3509.8 | 3570.6 | 3718.8  | 4097.9  | 4756.8  | 5033.1  | 5318.3  | 5129.3  | 4497.0 |
| 20°   | 3708.8 | 3685.6 | 3672.3 | 3671.2 | 3744.2  | 4006.2  | 4588.7  | 4933.6  | 5381.4  | 5361.5  | 4646.2 |
| 22.5° | 4026.1 | 4033.8 | 4005.1 | 3934.3 | 3925.5  | 4071.4  | 4504.7  | 4833.1  | 5400.2  | 5567.1  | 4784.4 |
| 25°   | 4476.0 | 4514.7 | 4429.6 | 4294.7 | 4228.4  | 4260.4  | 4556.7  | 4802.1  | 5397.9  | 5738.4  | 4870.6 |
| 27.5° | 5001.1 | 5030.9 | 4944.7 | 4767.8 | 4630.8  | 4553.4  | 4711.5  | 4893.9  | 5416.7  | 5886.6  | 4922.6 |
| 30°   | 5599.1 | 5609.1 | 5490.8 | 5305.1 | 5105.0  | 4939.2  | 4969.0  | 5082.9  | 5512.9  | 6081.1  | 4983.4 |
| 32.5° | 6329.8 | 6371.8 | 6192.8 | 5898.7 | 5619.0  | 5406.8  | 5315.0  | 5388.0  | 5720.7  | 6311.0  | 5077.4 |
| 35°   | 7257.3 | 7271.7 | 7044.0 | 6622.8 | 6227.0  | 5933.0  | 5740.6  | 5779.3  | 6036.9  | 6632.7  | 5218.9 |
| 37.5° | 8131.7 | 8146.1 | 7904.0 | 7512.7 | 6946.7  | 6544.3  | 6265.7  | 6248.0  | 6441.5  | 7087.1  | 5449.9 |
| 40°   | 8686.7 | 8727.6 | 8619.2 | 8373.8 | 7833.3  | 7290.5  | 6912.4  | 6851.6  | 6972.1  | 7643.1  | 5771.6 |
| 42.5° | 8985.1 | 9002.8 | 9000.6 | 9032.7 | 8711.0  | 8171.5  | 7642.0  | 7520.4  | 7601.1  | 8243.4  | 6096.6 |
| 45°   | 8987.4 | 9031.6 | 9149.9 | 9458.3 | 9472.6  | 9136.6  | 8564.0  | 8373.8  | 8299.8  | 8848.1  | 6436.0 |
| 47.5° | 8585.0 | 8632.5 | 8957.5 | 9564.4 | 10012.1 | 10088.4 | 9668.3  | 9286.9  | 8975.2  | 9368.7  | 6714.5 |
| 50°   | 7366.8 | 7486.1 | 8105.2 | 9178.6 | 10118.2 | 10851.2 | 10721.8 | 10204.5 | 9575.5  | 9771.1  | 6889.2 |
| 52.5° | 6308.8 | 6304.4 | 6685.8 | 8088.6 | 9674.9  | 11187.2 | 11741.0 | 11148.5 | 10169.1 | 10026.5 | 6933.4 |
| 55°   | 4619.7 | 4645.1 | 5035.3 | 6186.1 | 8492.1  | 10862.2 | 12301.5 | 12017.4 | 10850.0 | 10162.5 | 6915.7 |
| 57.5° | 2395.5 | 2521.5 | 2921.7 | 3947.6 | 6452.5  | 9743.5  | 12152.3 | 12341.3 | 11542.1 | 10258.6 | 6938.9 |
| 60°   | 1210.5 | 1186.2 | 1329.9 | 1884.8 | 3738.7  | 7610.0  | 11232.5 | 11835.0 | 11667.0 | 10333.8 | 6953.3 |
| 62.5° | 808.1  | 801.5  | 761.7  | 873.3  | 1527.7  | 4506.9  | 9575.5  | 10420.0 | 10799.2 | 10156.9 | 6769.8 |
| 65°   | 699.8  | 686.5  | 613.5  | 609.1  | 741.8   | 1869.3  | 7018.5  | 8191.4  | 8925.4  | 9370.9  | 6330.9 |
| 67.5° | 630.1  | 610.2  | 536.1  | 499.7  | 532.8   | 821.4   | 3955.3  | 5494.1  | 6590.7  | 7925.0  | 5369.2 |
| 70°   | 562.7  | 552.7  | 478.7  | 425.6  | 422.3   | 500.8   | 1457.0  | 2835.5  | 4032.7  | 5406.8  | 3925.5 |
| 72.5° | 504.1  | 486.4  | 423.4  | 372.5  | 347.1   | 354.9   | 632.3   | 1092.2  | 2087.1  | 3372.7  | 2348.0 |
| 75°   | 436.7  | 423.4  | 368.1  | 317.3  | 286.3   | 259.8   | 385.8   | 505.2   | 951.8   | 1602.9  | 1108.8 |
| 77.5° | 337.2  | 328.3  | 290.7  | 252.0  | 234.4   | 193.5   | 234.4   | 318.4   | 440.0   | 675.4   | 577.0  |
| 80°   | 195.7  | 201.2  | 216.7  | 196.8  | 172.5   | 138.2   | 152.6   | 183.5   | 264.2   | 365.9   | 327.2  |
| 82.5° | 98.4   | 105.0  | 140.4  | 113.9  | 102.8   | 80.7    | 90.6    | 108.3   | 138.2   | 202.3   | 128.2  |
| 85°   | 7.7    | 7.7    | 25.4   | 28.7   | 35.4    | 28.7    | 36.5    | 44.2    | 63.0    | 80.7    | 43.1   |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.0     | 0.0     | 3.3     | 5.5     | 9.9     | 18.8    | 12.2   |
| 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°    | 3854.7 | 3854.7 | 3854.7 | 3854.7 | 3854.7 | 3854.7 | 3854.7 | 3854.7 | 3854.7 | 3854.7 | 3854.7 |
| 2.5°  | 3861.4 | 3805.0 | 3737.5 | 3682.3 | 3597.2 | 3551.8 | 3494.3 | 3423.6 | 3394.9 | 3381.6 | 3373.9 |
| 5°    | 3869.1 | 3769.6 | 3625.9 | 3493.2 | 3346.2 | 3230.1 | 3100.8 | 2965.9 | 2888.6 | 2869.8 | 2856.5 |
| 7.5°  | 3897.8 | 3758.5 | 3529.7 | 3310.8 | 3037.8 | 2784.6 | 2538.1 | 2293.8 | 2168.9 | 2121.4 | 2116.9 |
| 10°   | 3937.6 | 3754.1 | 3432.4 | 3068.7 | 2607.8 | 2207.6 | 1919.1 | 1727.8 | 1647.1 | 1620.6 | 1611.8 |
| 12.5° | 3987.4 | 3750.8 | 3304.2 | 2732.7 | 2111.4 | 1733.4 | 1568.6 | 1537.7 | 1548.7 | 1546.5 | 1546.5 |
| 15°   | 4050.4 | 3755.2 | 3149.4 | 2352.4 | 1707.9 | 1504.5 | 1507.8 | 1544.3 | 1578.6 | 1584.1 | 1584.1 |
| 17.5° | 4118.9 | 3750.8 | 2925.0 | 1971.0 | 1465.8 | 1450.4 | 1501.2 | 1552.1 | 1583.0 | 1587.4 | 1587.4 |
| 20°   | 4193.0 | 3729.8 | 2642.0 | 1611.8 | 1359.7 | 1416.1 | 1471.4 | 1511.2 | 1530.0 | 1534.4 | 1534.4 |
| 22.5° | 4237.2 | 3670.1 | 2334.7 | 1364.1 | 1292.3 | 1361.9 | 1398.4 | 1439.3 | 1441.5 | 1406.1 | 1405.0 |
| 25°   | 4230.6 | 3558.5 | 1984.3 | 1204.9 | 1220.4 | 1281.2 | 1327.7 | 1298.9 | 1263.5 | 1243.6 | 1240.3 |
| 27.5° | 4188.6 | 3390.4 | 1627.2 | 1084.5 | 1135.3 | 1203.8 | 1189.5 | 1165.2 | 1156.3 | 1134.2 | 1132.0 |
| 30°   | 4135.5 | 3183.7 | 1306.6 | 990.5  | 1046.9 | 1109.9 | 1087.8 | 1085.6 | 1076.7 | 1052.4 | 1052.4 |
| 32.5° | 4084.7 | 2970.4 | 1064.6 | 920.8  | 990.5  | 994.9  | 1025.9 | 1028.1 | 1023.7 | 981.6  | 977.2  |
| 35°   | 4070.3 | 2757.0 | 900.9  | 865.6  | 935.2  | 933.0  | 977.2  | 976.1  | 899.8  | 841.3  | 840.1  |
| 37.5° | 4113.4 | 2540.3 | 803.7  | 820.2  | 858.9  | 887.7  | 923.1  | 858.9  | 833.5  | 798.1  | 795.9  |
| 40°   | 4205.2 | 2340.2 | 753.9  | 793.7  | 810.3  | 852.3  | 797.0  | 801.5  | 794.8  | 768.3  | 765.0  |
| 42.5° | 4326.8 | 2170.0 | 726.3  | 784.9  | 782.7  | 793.7  | 732.9  | 750.6  | 760.6  | 740.7  | 737.3  |
| 45°   | 4443.9 | 2021.9 | 711.9  | 751.7  | 762.8  | 698.6  | 686.5  | 703.1  | 718.5  | 710.8  | 707.5  |
| 47.5° | 4530.2 | 1893.6 | 704.2  | 706.4  | 737.3  | 666.6  | 646.7  | 654.4  | 673.2  | 676.5  | 675.4  |
| 50°   | 4556.7 | 1784.2 | 695.3  | 668.8  | 662.2  | 634.5  | 619.1  | 616.8  | 639.0  | 654.4  | 656.6  |
| 52.5° | 4505.8 | 1686.9 | 672.1  | 635.6  | 603.6  | 608.0  | 602.5  | 591.4  | 613.5  | 634.5  | 636.7  |
| 55°   | 4430.7 | 1631.7 | 635.6  | 603.6  | 566.0  | 583.7  | 585.9  | 575.9  | 590.3  | 604.7  | 604.7  |
| 57.5° | 4436.2 | 1663.7 | 600.3  | 573.7  | 532.8  | 556.0  | 568.2  | 563.8  | 563.8  | 574.8  | 575.9  |
| 60°   | 4472.7 | 1710.1 | 577.0  | 536.1  | 499.7  | 524.0  | 551.6  | 547.2  | 537.3  | 551.6  | 551.6  |
| 62.5° | 4367.7 | 1648.2 | 561.6  | 499.7  | 464.3  | 493.0  | 526.2  | 524.0  | 512.9  | 536.1  | 538.4  |
| 65°   | 4058.1 | 1482.4 | 543.9  | 454.3  | 428.9  | 462.1  | 490.8  | 498.6  | 488.6  | 519.6  | 525.1  |
| 67.5° | 3401.5 | 1247.0 | 509.6  | 411.2  | 393.5  | 424.5  | 452.1  | 463.2  | 455.4  | 491.9  | 496.3  |
| 70°   | 2535.9 | 1009.3 | 455.4  | 363.7  | 350.4  | 378.1  | 403.5  | 407.9  | 409.0  | 452.1  | 456.6  |
| 72.5° | 1617.3 | 784.9  | 383.6  | 310.6  | 300.7  | 321.7  | 340.5  | 358.2  | 365.9  | 406.8  | 405.7  |
| 75°   | 902.1  | 583.7  | 308.4  | 263.1  | 245.4  | 262.0  | 284.1  | 305.1  | 327.2  | 386.9  | 393.5  |
| 77.5° | 519.6  | 410.1  | 244.3  | 211.1  | 190.1  | 207.8  | 226.6  | 256.5  | 322.8  | 374.7  | 368.1  |
| 80°   | 292.9  | 266.4  | 184.6  | 154.8  | 141.5  | 154.8  | 169.1  | 225.5  | 254.3  | 276.4  | 279.7  |
| 82.5° | 137.1  | 149.2  | 126.0  | 95.1   | 95.1   | 103.9  | 117.2  | 174.7  | 192.3  | 157.0  | 137.1  |
| 85°   | 49.7   | 67.4   | 61.9   | 48.6   | 43.1   | 42.0   | 73.0   | 99.5   | 61.9   | 55.3   | 47.5   |
| 87.5° | 13.3   | 18.8   | 17.7   | 12.2   | 6.6    | 5.5    | 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)