

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions
(formerly Eaton)

Brand: LUMARK

Report Number: P884967

Luminaire Tested: **NAV-SB6A-740-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P884967
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB6A-740-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(6) 70 CRI, 4000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 29085 lumens
Efficiency: N/A
Efficacy: 170.2 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G4

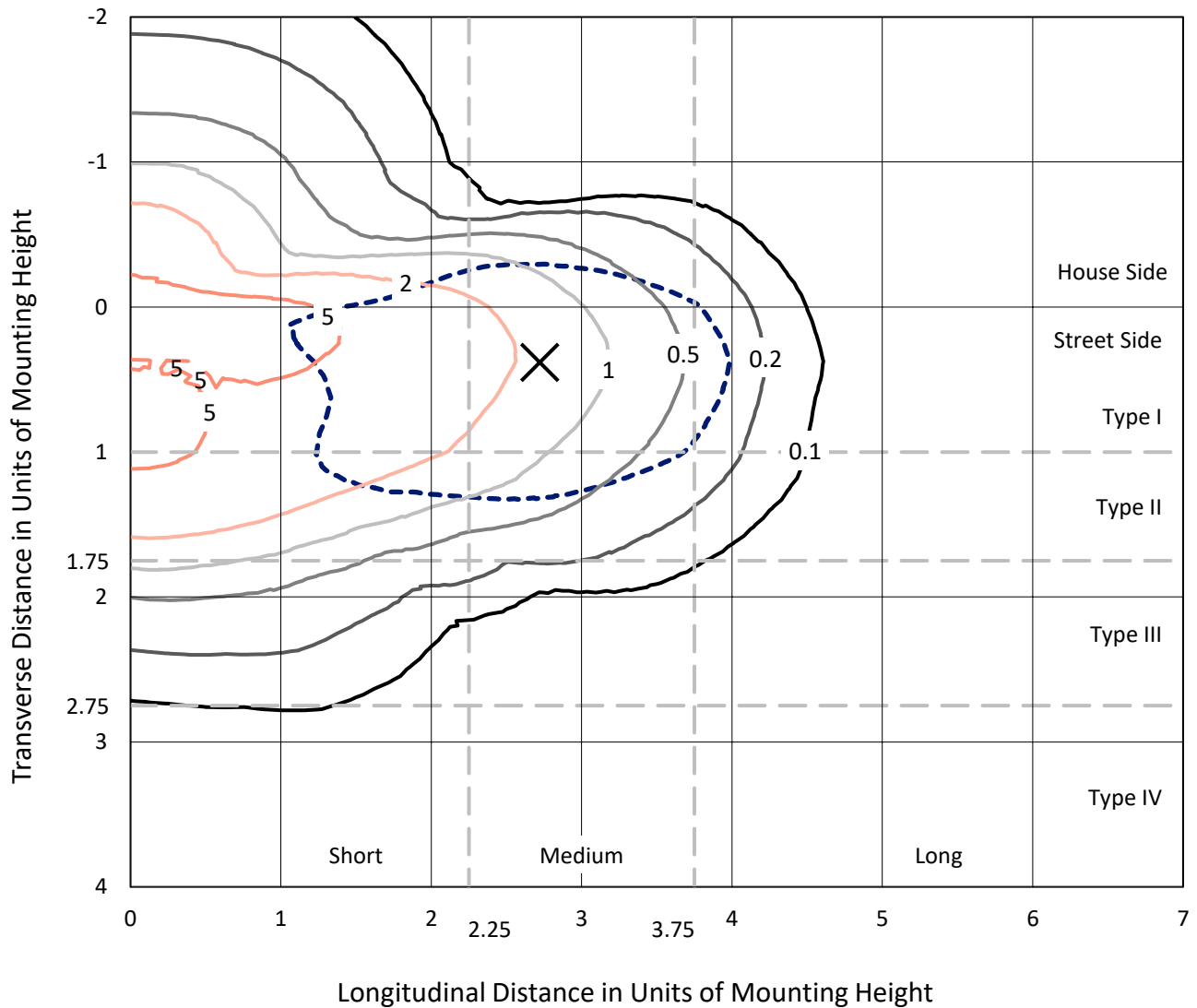
Input Watts (W): 170.9
Input Voltage (V): 120.0
Input Current (Ain): 1.434
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 11.969
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

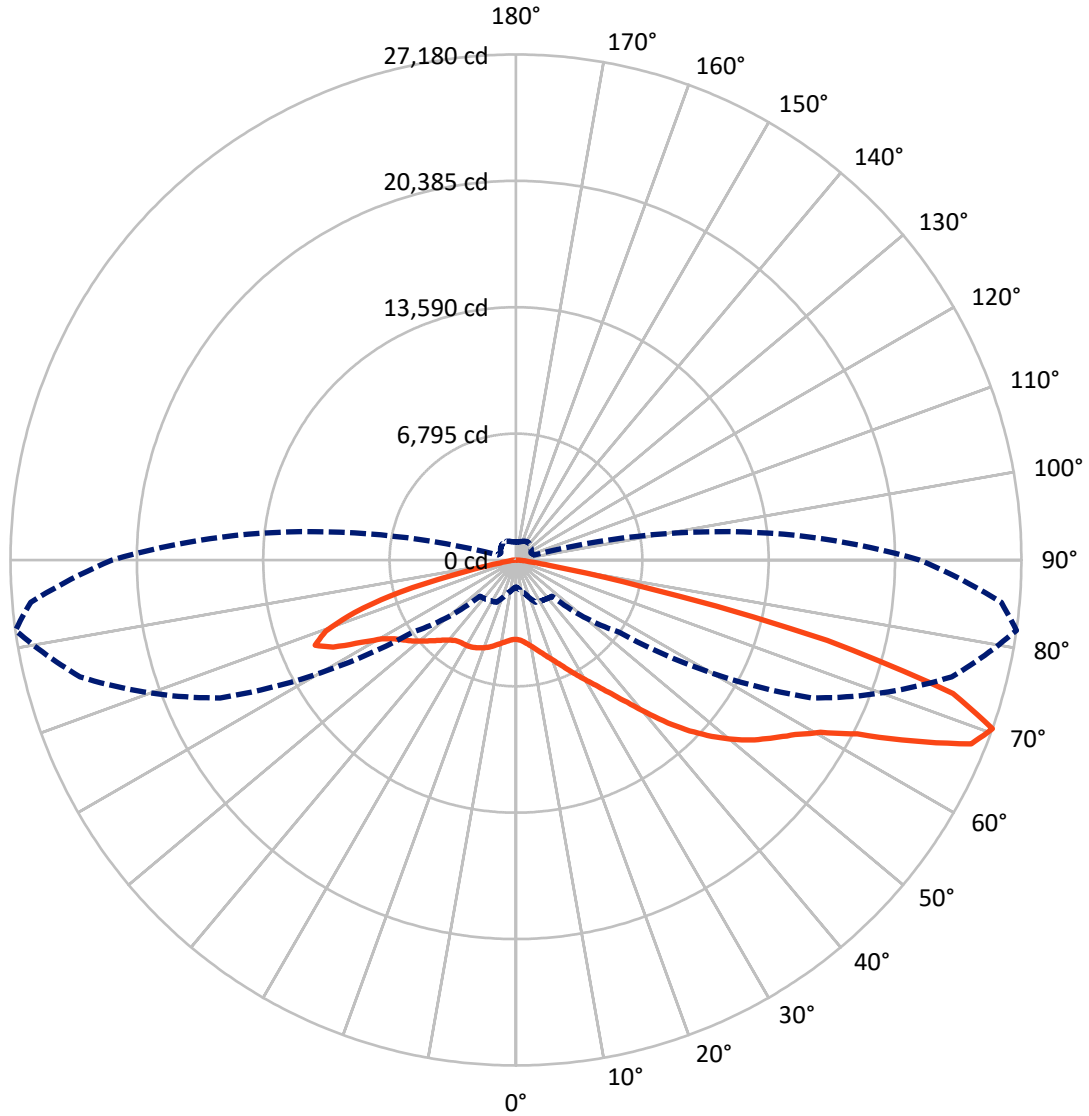
✕ Max cd
 - - - 1/2 Max cd



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

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 70-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 7170.2 | 0.0 | 7170.2 |
| | % Fixture | 24.7 | 0.0 | 24.7 |
| Street Side | Lumens | 21914.8 | 0.0 | 21914.8 |
| | % Fixture | 75.3 | 0.0 | 75.3 |
| Total | Lumens | 29085.0 | 0.0 | 29085.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 402.6 | 1.4 |
| 10°-20° | 1156.7 | 4.0 |
| 20°-30° | 1935.1 | 6.7 |
| 30°-40° | 3023.2 | 10.4 |
| 40°-50° | 4814.7 | 16.6 |
| 50°-60° | 6700.3 | 23.0 |
| 60°-70° | 7008.8 | 24.1 |
| 70°-80° | 3663.2 | 12.6 |
| 80°-90° | 380.4 | 1.3 |
| 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° | 29085.0 | 100.0 |
| 0°-180° | 29085.0 | 100.0 |

Coefficient of Utilization

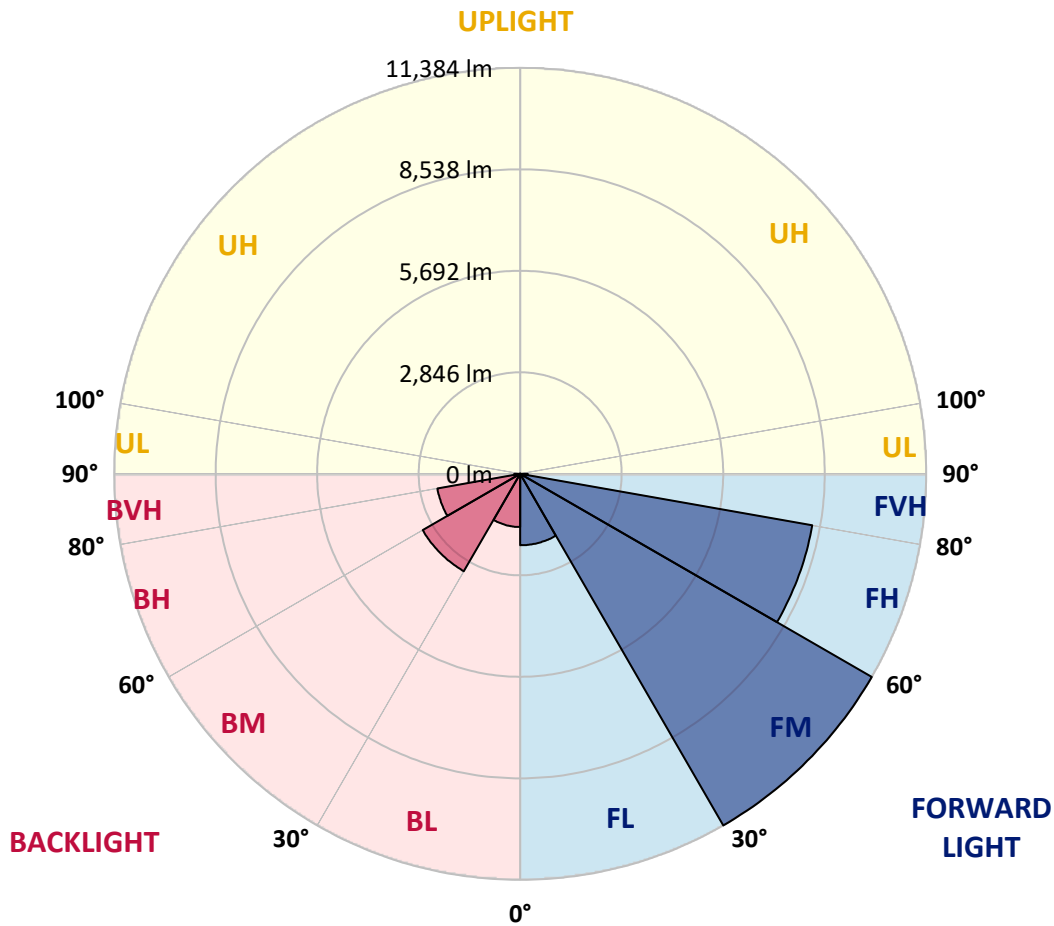


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2002.8 | 6.9 | | | |
| FM (30°-60°) | 11383.6 | 39.1 | | | |
| FH (60°-80°) | 8315.5 | 28.6 | | | G4/12000 |
| FVH (80°-90°) | 212.9 | 0.7 | | | G2/225 |
| BL (0°-30°) | 1491.7 | 5.1 | B3/2500 | | |
| BM (30°-60°) | 3154.6 | 10.8 | B3/5000 | | |
| BH (60°-80°) | 2356.5 | 8.1 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 167.4 | 0.6 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G4
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 |
| 2.5° | 4366.1 | 4390.8 | 4383.1 | 4375.3 | 4375.3 | 4364.5 | 4363.0 | 4347.6 | 4335.2 | 4315.2 | 4310.5 |
| 5° | 4421.6 | 4447.9 | 4444.8 | 4451.0 | 4471.0 | 4475.7 | 4480.3 | 4471.0 | 4446.3 | 4421.6 | 4410.8 |
| 7.5° | 4372.3 | 4401.6 | 4410.8 | 4447.9 | 4509.6 | 4565.2 | 4606.8 | 4623.8 | 4600.7 | 4565.2 | 4548.2 |
| 10° | 4205.6 | 4238.0 | 4270.4 | 4358.4 | 4467.9 | 4599.1 | 4710.2 | 4776.6 | 4772.0 | 4738.0 | 4708.7 |
| 12.5° | 3867.6 | 3901.5 | 3971.0 | 4142.3 | 4342.9 | 4574.4 | 4781.2 | 4920.1 | 4968.0 | 4943.3 | 4892.4 |
| 15° | 3597.5 | 3626.8 | 3679.3 | 3855.2 | 4116.1 | 4467.9 | 4807.5 | 5077.6 | 5199.5 | 5185.6 | 5123.9 |
| 17.5° | 3589.8 | 3602.1 | 3634.5 | 3717.9 | 3918.5 | 4301.3 | 4779.7 | 5231.9 | 5464.9 | 5463.4 | 5386.2 |
| 20° | 3725.6 | 3730.2 | 3748.8 | 3765.7 | 3879.9 | 4174.7 | 4708.7 | 5360.0 | 5762.8 | 5762.8 | 5679.5 |
| 22.5° | 3913.9 | 3910.8 | 3929.3 | 3913.9 | 3969.4 | 4163.9 | 4663.9 | 5472.7 | 6094.6 | 6119.3 | 6014.4 |
| 25° | 4196.3 | 4180.9 | 4176.3 | 4140.8 | 4151.6 | 4264.2 | 4713.3 | 5600.7 | 6488.2 | 6539.1 | 6407.9 |
| 27.5° | 4572.9 | 4548.2 | 4531.2 | 4449.4 | 4421.6 | 4471.0 | 4864.6 | 5755.1 | 6926.5 | 7014.4 | 6847.8 |
| 30° | 5063.7 | 5018.9 | 4994.2 | 4852.2 | 4751.9 | 4759.6 | 5093.0 | 5960.3 | 7384.8 | 7526.8 | 7315.4 |
| 32.5° | 5733.5 | 5664.0 | 5597.7 | 5364.6 | 5181.0 | 5120.8 | 5387.8 | 6244.3 | 7881.8 | 8108.7 | 7837.0 |
| 35° | 6483.5 | 6428.0 | 6357.0 | 5997.4 | 5715.0 | 5576.1 | 5785.9 | 6641.0 | 8463.6 | 8823.2 | 8469.8 |
| 37.5° | 7205.8 | 7158.0 | 7191.9 | 6707.3 | 6343.1 | 6140.9 | 6307.6 | 7173.4 | 9181.3 | 9712.2 | 9263.1 |
| 40° | 7952.8 | 7915.7 | 7920.4 | 7457.4 | 7033.0 | 6806.1 | 6940.4 | 7841.7 | 10003.9 | 10769.4 | 10216.9 |
| 42.5° | 8764.6 | 8736.8 | 8644.2 | 8233.7 | 7756.8 | 7545.3 | 7668.8 | 8613.3 | 10886.7 | 11973.2 | 11263.2 |
| 45° | 9673.6 | 9656.6 | 9570.2 | 9099.5 | 8553.1 | 8315.5 | 8482.1 | 9465.3 | 11774.1 | 13106.0 | 12314.2 |
| 47.5° | 10459.2 | 10473.0 | 10462.2 | 10065.6 | 9499.2 | 9150.4 | 9349.5 | 10354.2 | 12599.8 | 14170.9 | 13322.0 |
| 50° | 10837.3 | 10909.8 | 11016.3 | 10892.8 | 10541.0 | 10186.0 | 10224.6 | 11212.3 | 13386.9 | 15169.4 | 14288.2 |
| 52.5° | 10639.7 | 10777.1 | 11067.2 | 11264.8 | 11400.6 | 11326.5 | 11223.1 | 12064.2 | 14127.7 | 16070.7 | 15201.8 |
| 55° | 9903.6 | 10096.5 | 10578.0 | 11054.9 | 11747.8 | 12286.5 | 12422.3 | 13008.7 | 14849.9 | 16864.0 | 16066.1 |
| 57.5° | 8562.4 | 8875.7 | 9307.8 | 10272.4 | 11439.2 | 12751.0 | 13820.5 | 14319.0 | 15615.4 | 17711.3 | 16970.5 |
| 60° | 6262.8 | 6682.6 | 7219.7 | 8655.0 | 10358.8 | 12502.5 | 15010.4 | 16331.5 | 16703.5 | 18808.6 | 18148.0 |
| 62.5° | 4008.0 | 4267.3 | 4761.2 | 6113.1 | 8071.6 | 11229.3 | 15374.7 | 18847.2 | 18547.8 | 20608.1 | 19913.6 |
| 65° | 2744.0 | 2910.7 | 3362.9 | 4122.2 | 5218.0 | 8358.7 | 14399.3 | 20733.1 | 21477.0 | 23460.2 | 22932.4 |
| 67.5° | 1994.0 | 2120.5 | 2506.4 | 3171.5 | 3400.0 | 4946.4 | 11173.7 | 20646.7 | 24324.4 | 26398.7 | 25577.6 |
| 70° | 1453.8 | 1543.3 | 1867.4 | 2506.4 | 2615.9 | 2751.8 | 6769.1 | 17550.8 | 24262.7 | 27179.6 | 26196.5 |
| 72.5° | 1077.2 | 1139.0 | 1356.6 | 1944.6 | 2117.5 | 1858.2 | 3350.6 | 12755.6 | 20848.9 | 24583.7 | 23795.1 |
| 75° | 779.4 | 825.7 | 986.2 | 1487.8 | 1694.6 | 1415.2 | 1671.4 | 7454.3 | 14542.8 | 17293.0 | 17431.9 |
| 77.5° | 595.7 | 631.2 | 736.2 | 1089.6 | 1356.6 | 1061.8 | 1037.1 | 3429.3 | 6895.6 | 6929.6 | 7318.5 |
| 80° | 478.4 | 501.6 | 558.7 | 767.0 | 1040.2 | 794.8 | 676.0 | 1384.4 | 2179.2 | 1844.3 | 1935.3 |
| 82.5° | 351.9 | 390.5 | 472.3 | 538.6 | 743.9 | 547.9 | 412.1 | 699.1 | 828.8 | 713.0 | 719.2 |
| 85° | 200.6 | 226.9 | 285.5 | 385.8 | 475.3 | 334.9 | 236.1 | 310.2 | 385.8 | 316.4 | 282.4 |
| 87.5° | 71.0 | 92.6 | 100.3 | 151.2 | 206.8 | 138.9 | 91.1 | 89.5 | 126.6 | 94.1 | 78.7 |
| 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° | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 | 4264.2 |
| 2.5° | 4295.1 | 4287.4 | 4256.5 | 4214.8 | 4171.6 | 4130.0 | 4116.1 | 4086.7 | 4066.7 | 4055.9 | 4068.2 |
| 5° | 4381.5 | 4356.8 | 4284.3 | 4191.7 | 4094.5 | 3989.5 | 3915.4 | 3847.5 | 3798.1 | 3751.8 | 3770.4 |
| 7.5° | 4505.0 | 4461.8 | 4336.8 | 4174.7 | 4001.9 | 3827.5 | 3697.8 | 3599.0 | 3532.7 | 3489.5 | 3498.7 |
| 10° | 4648.5 | 4582.2 | 4390.8 | 4148.5 | 3881.5 | 3631.5 | 3478.7 | 3393.8 | 3352.1 | 3329.0 | 3335.1 |
| 12.5° | 4813.7 | 4719.5 | 4446.3 | 4088.3 | 3697.8 | 3412.3 | 3307.4 | 3282.7 | 3284.2 | 3285.8 | 3288.8 |
| 15° | 5017.4 | 4886.2 | 4491.1 | 3957.1 | 3458.6 | 3244.1 | 3225.6 | 3265.7 | 3307.4 | 3327.4 | 3325.9 |
| 17.5° | 5247.3 | 5062.1 | 4498.8 | 3741.0 | 3224.0 | 3136.0 | 3194.7 | 3281.1 | 3344.4 | 3372.2 | 3378.4 |
| 20° | 5494.3 | 5241.2 | 4443.3 | 3435.5 | 3031.1 | 3048.1 | 3153.0 | 3264.1 | 3333.6 | 3369.1 | 3378.4 |
| 22.5° | 5776.7 | 5432.5 | 4310.5 | 3114.4 | 2873.7 | 2952.4 | 3075.9 | 3183.9 | 3256.4 | 3291.9 | 3301.2 |
| 25° | 6099.2 | 5647.0 | 4102.2 | 2844.4 | 2737.9 | 2844.4 | 2967.8 | 3057.3 | 3116.0 | 3148.4 | 3157.7 |
| 27.5° | 6457.3 | 5870.8 | 3824.4 | 2629.8 | 2619.0 | 2733.2 | 2835.1 | 2904.5 | 2935.4 | 2960.1 | 2969.4 |
| 30° | 6816.9 | 6074.6 | 3487.9 | 2467.8 | 2515.6 | 2623.7 | 2696.2 | 2727.1 | 2736.3 | 2741.0 | 2751.8 |
| 32.5° | 7205.8 | 6250.5 | 3134.5 | 2333.5 | 2416.9 | 2517.2 | 2560.4 | 2574.3 | 2531.1 | 2501.7 | 2511.0 |
| 35° | 7676.5 | 6438.8 | 2788.8 | 2227.0 | 2319.6 | 2406.1 | 2419.9 | 2407.6 | 2356.7 | 2296.5 | 2299.6 |
| 37.5° | 8258.4 | 6673.4 | 2512.5 | 2151.4 | 2228.6 | 2285.7 | 2268.7 | 2265.6 | 2270.2 | 2199.2 | 2203.9 |
| 40° | 8971.4 | 6978.9 | 2310.4 | 2092.8 | 2154.5 | 2166.8 | 2119.0 | 2145.2 | 2168.4 | 2060.3 | 2063.4 |
| 42.5° | 9763.1 | 7347.8 | 2182.3 | 2052.6 | 2092.8 | 2063.4 | 1989.4 | 2018.7 | 2015.6 | 1873.6 | 1872.1 |
| 45° | 10570.3 | 7749.1 | 2137.5 | 2023.3 | 2035.7 | 1977.0 | 1895.2 | 1902.9 | 1838.1 | 1710.0 | 1714.6 |
| 47.5° | 11372.8 | 8179.7 | 2165.3 | 1998.6 | 1964.7 | 1898.3 | 1835.0 | 1801.1 | 1705.4 | 1609.7 | 1609.7 |
| 50° | 12159.9 | 8631.9 | 2267.2 | 1949.2 | 1867.4 | 1828.8 | 1782.5 | 1722.4 | 1620.5 | 1538.7 | 1532.5 |
| 52.5° | 12889.9 | 9087.1 | 2381.4 | 1867.4 | 1745.5 | 1768.7 | 1739.3 | 1669.9 | 1569.6 | 1486.2 | 1487.8 |
| 55° | 13581.3 | 9542.4 | 2426.1 | 1754.8 | 1631.3 | 1716.2 | 1699.2 | 1571.1 | 1450.7 | 1382.8 | 1376.7 |
| 57.5° | 14334.5 | 10090.3 | 2376.7 | 1611.2 | 1538.7 | 1656.0 | 1591.2 | 1449.2 | 1379.7 | 1328.8 | 1324.2 |
| 60° | 15377.8 | 10949.9 | 2270.2 | 1433.8 | 1450.7 | 1566.5 | 1455.4 | 1396.7 | 1321.1 | 1264.0 | 1260.9 |
| 62.5° | 17110.9 | 12553.5 | 2098.9 | 1257.8 | 1347.3 | 1433.8 | 1390.5 | 1331.9 | 1254.7 | 1199.2 | 1199.2 |
| 65° | 19672.8 | 14782.0 | 1776.4 | 1120.5 | 1231.6 | 1304.1 | 1321.1 | 1262.4 | 1182.2 | 1123.5 | 1126.6 |
| 67.5° | 21833.5 | 16180.3 | 1344.2 | 1006.3 | 1112.7 | 1199.2 | 1247.0 | 1189.9 | 1105.0 | 1047.9 | 1049.5 |
| 70° | 21714.7 | 15164.8 | 1026.3 | 893.6 | 1007.8 | 1095.8 | 1157.5 | 1112.7 | 1021.7 | 967.7 | 972.3 |
| 72.5° | 19287.0 | 12686.2 | 830.3 | 779.4 | 901.3 | 987.7 | 1061.8 | 1027.9 | 935.3 | 882.8 | 882.8 |
| 75° | 14169.3 | 9005.3 | 663.6 | 663.6 | 768.6 | 875.1 | 956.9 | 935.3 | 850.4 | 813.3 | 802.5 |
| 77.5° | 5972.7 | 3778.1 | 520.1 | 551.0 | 638.9 | 751.6 | 853.5 | 861.2 | 787.1 | 833.4 | 756.2 |
| 80° | 1588.1 | 1041.7 | 396.6 | 433.7 | 501.6 | 620.4 | 742.3 | 739.3 | 659.0 | 615.8 | 572.6 |
| 82.5° | 605.0 | 410.5 | 282.4 | 305.6 | 362.7 | 475.3 | 588.0 | 606.5 | 526.3 | 455.3 | 455.3 |
| 85° | 233.0 | 175.9 | 174.4 | 183.7 | 211.4 | 314.8 | 444.5 | 459.9 | 396.6 | 336.4 | 347.2 |
| 87.5° | 60.2 | 52.5 | 64.8 | 61.7 | 97.2 | 168.2 | 254.6 | 263.9 | 242.3 | 140.4 | 200.6 |
| 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)