

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: P882597

Luminaire Tested: **NAV-SB2C-750-U-T2**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882597
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-SB2C-750-U-T2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16305 lumens
Efficiency: N/A
Efficacy: 161.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B3 - U0 - G3

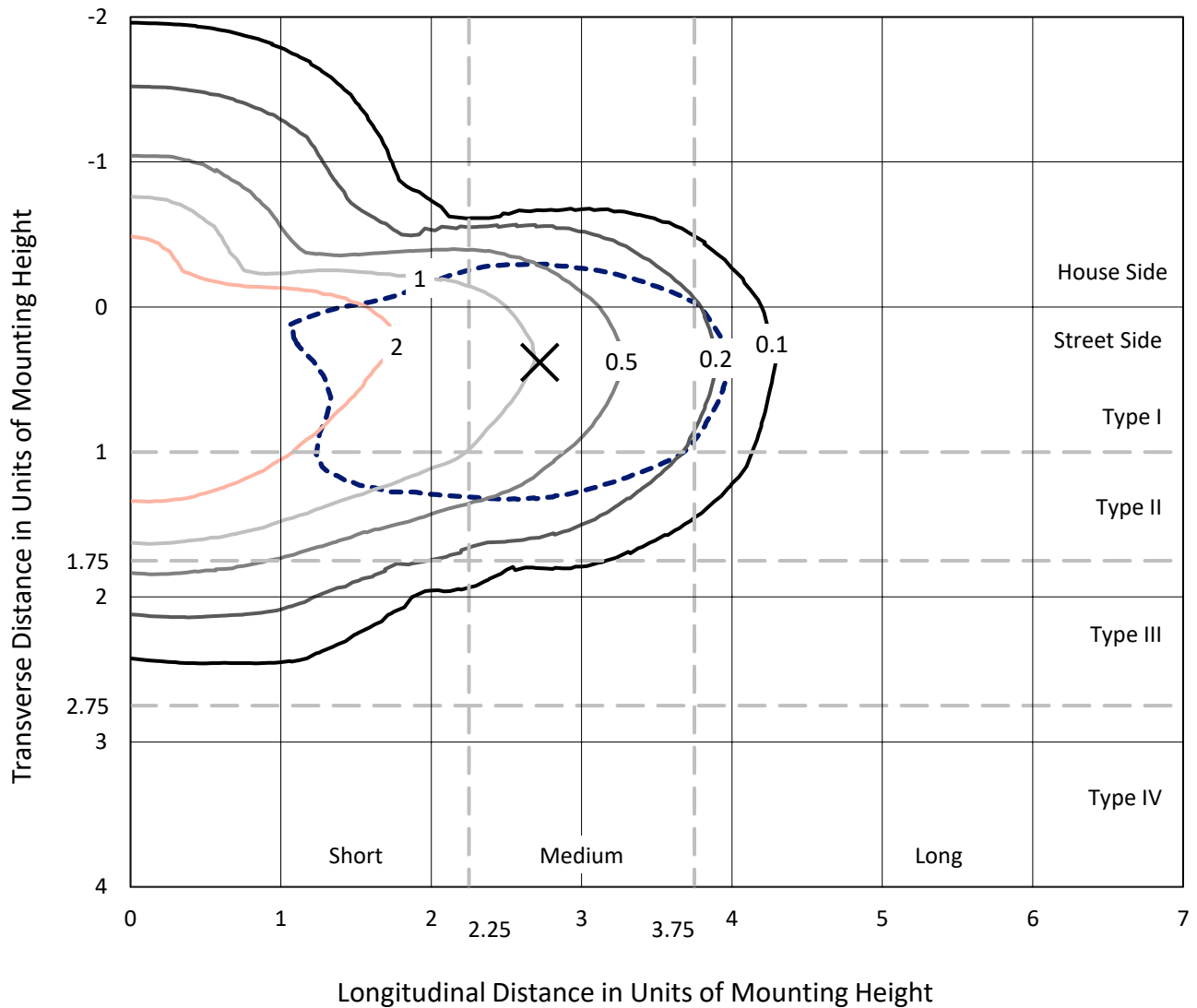
Input Watts (W): 100.9
Input Voltage (V): 120.0
Input Current (Ain): 0.857
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

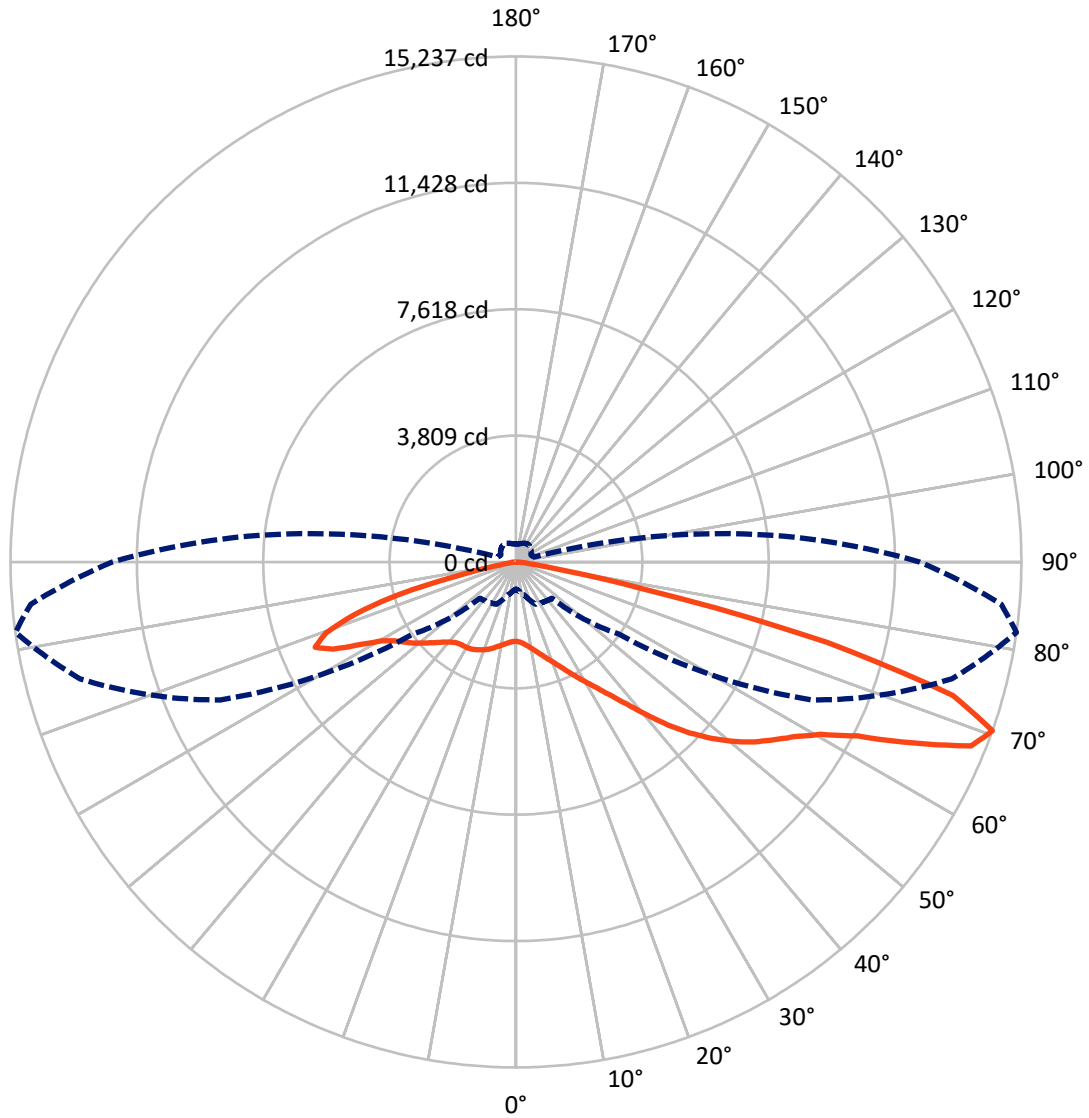
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 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 | 4019.6 | 0.0 | 4019.6 |
| | % Fixture | 24.7 | 0.0 | 24.7 |
| Street Side | Lumens | 12285.4 | 0.0 | 12285.4 |
| | % Fixture | 75.3 | 0.0 | 75.3 |
| Total | Lumens | 16305.0 | 0.0 | 16305.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 225.7 | 1.4 |
| 10°-20° | 648.5 | 4.0 |
| 20°-30° | 1084.8 | 6.7 |
| 30°-40° | 1694.8 | 10.4 |
| 40°-50° | 2699.1 | 16.6 |
| 50°-60° | 3756.2 | 23.0 |
| 60°-70° | 3929.1 | 24.1 |
| 70°-80° | 2053.6 | 12.6 |
| 80°-90° | 213.2 | 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° | 16305.0 | 100.0 |
| 0°-180° | 16305.0 | 100.0 |

Coefficient of Utilization



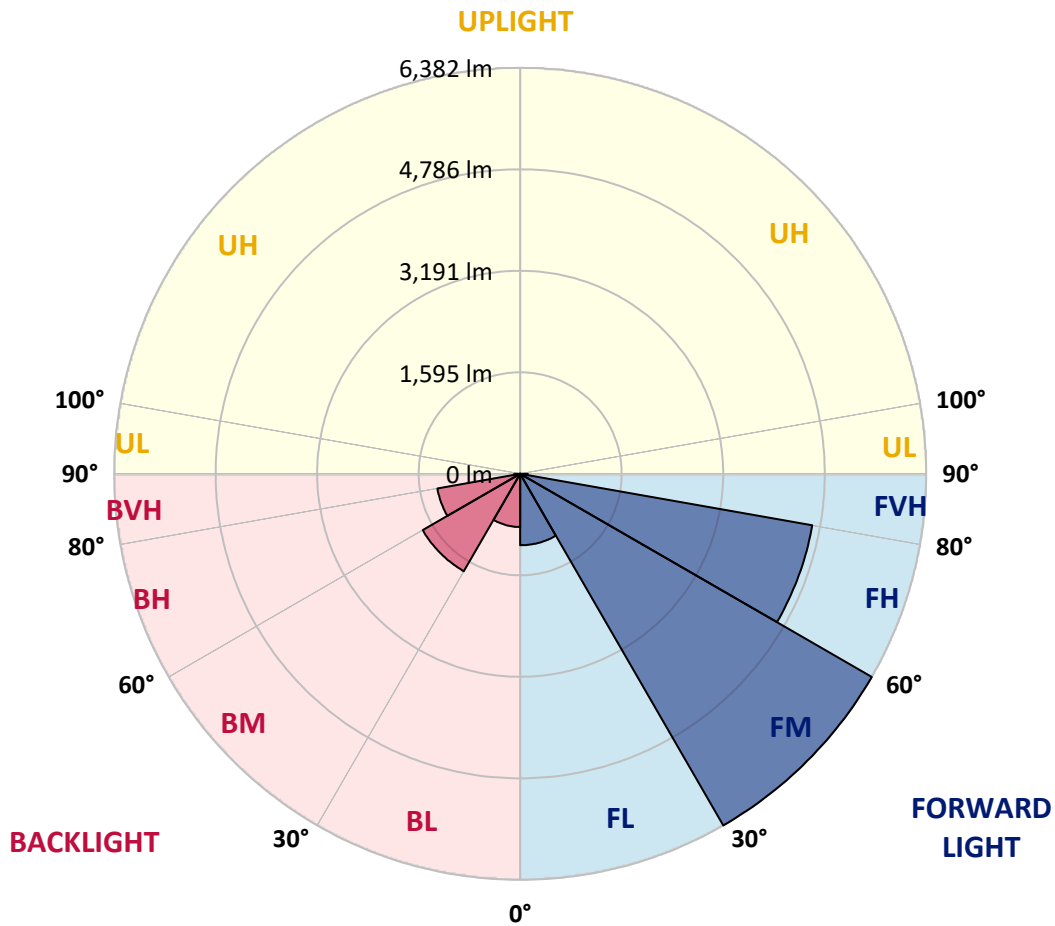
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1122.8 | 6.9 | | | |
| FM (30°-60°) | 6381.6 | 39.1 | | | |
| FH (60°-80°) | 4661.6 | 28.6 | | | G2/5000 |
| FVH (80°-90°) | 119.4 | 0.7 | | | G2/225 |
| BL (0°-30°) | 836.2 | 5.1 | B2/1000 | | |
| BM (30°-60°) | 1768.5 | 10.8 | B2/2500 | | |
| BH (60°-80°) | 1321.0 | 8.1 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 93.9 | 0.6 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 |
| 2.5° | 2447.6 | 2461.5 | 2457.1 | 2452.8 | 2452.8 | 2446.8 | 2445.9 | 2437.2 | 2430.3 | 2419.1 | 2416.5 |
| 5° | 2478.8 | 2493.5 | 2491.7 | 2495.2 | 2506.5 | 2509.0 | 2511.6 | 2506.5 | 2492.6 | 2478.8 | 2472.7 |
| 7.5° | 2451.1 | 2467.5 | 2472.7 | 2493.5 | 2528.1 | 2559.2 | 2582.6 | 2592.1 | 2579.1 | 2559.2 | 2549.7 |
| 10° | 2357.6 | 2375.8 | 2394.0 | 2443.3 | 2504.7 | 2578.3 | 2640.6 | 2677.8 | 2675.2 | 2656.1 | 2639.7 |
| 12.5° | 2168.2 | 2187.2 | 2226.1 | 2322.2 | 2434.6 | 2564.4 | 2680.4 | 2758.2 | 2785.0 | 2771.2 | 2742.6 |
| 15° | 2016.8 | 2033.2 | 2062.6 | 2161.2 | 2307.5 | 2504.7 | 2695.1 | 2846.5 | 2914.8 | 2907.0 | 2872.4 |
| 17.5° | 2012.4 | 2019.4 | 2037.5 | 2084.2 | 2196.7 | 2411.3 | 2679.5 | 2933.0 | 3063.6 | 3062.8 | 3019.5 |
| 20° | 2088.6 | 2091.2 | 2101.5 | 2111.1 | 2175.1 | 2340.3 | 2639.7 | 3004.8 | 3230.6 | 3230.6 | 3183.9 |
| 22.5° | 2194.1 | 2192.4 | 2202.8 | 2194.1 | 2225.3 | 2334.3 | 2614.6 | 3068.0 | 3416.6 | 3430.5 | 3371.6 |
| 25° | 2352.4 | 2343.8 | 2341.2 | 2321.3 | 2327.4 | 2390.5 | 2642.3 | 3139.8 | 3637.3 | 3665.8 | 3592.3 |
| 27.5° | 2563.6 | 2549.7 | 2540.2 | 2494.3 | 2478.8 | 2506.5 | 2727.1 | 3226.3 | 3883.0 | 3932.3 | 3838.8 |
| 30° | 2838.7 | 2813.6 | 2799.8 | 2720.2 | 2663.9 | 2668.2 | 2855.1 | 3341.4 | 4139.9 | 4219.5 | 4101.0 |
| 32.5° | 3214.2 | 3175.2 | 3138.0 | 3007.4 | 2904.4 | 2870.7 | 3020.4 | 3500.6 | 4418.5 | 4545.7 | 4393.4 |
| 35° | 3634.7 | 3603.5 | 3563.7 | 3362.1 | 3203.8 | 3125.9 | 3243.6 | 3722.9 | 4744.7 | 4946.3 | 4748.2 |
| 37.5° | 4039.6 | 4012.7 | 4031.8 | 3760.1 | 3555.9 | 3442.6 | 3536.0 | 4021.4 | 5147.0 | 5444.6 | 5192.9 |
| 40° | 4458.3 | 4437.6 | 4440.1 | 4180.6 | 3942.7 | 3815.5 | 3890.8 | 4396.0 | 5608.2 | 6037.3 | 5727.6 |
| 42.5° | 4913.4 | 4897.8 | 4845.9 | 4615.8 | 4348.4 | 4229.9 | 4299.1 | 4828.6 | 6103.0 | 6712.1 | 6314.1 |
| 45° | 5423.0 | 5413.5 | 5365.0 | 5101.2 | 4794.9 | 4661.6 | 4755.1 | 5306.2 | 6600.5 | 7347.2 | 6903.3 |
| 47.5° | 5863.4 | 5871.2 | 5865.1 | 5642.8 | 5325.2 | 5129.7 | 5241.3 | 5804.6 | 7063.4 | 7944.2 | 7468.3 |
| 50° | 6075.4 | 6116.0 | 6175.7 | 6106.5 | 5909.2 | 5710.2 | 5731.9 | 6285.6 | 7504.6 | 8503.9 | 8009.9 |
| 52.5° | 5964.6 | 6041.6 | 6204.3 | 6315.0 | 6391.2 | 6349.6 | 6291.7 | 6763.2 | 7919.9 | 9009.2 | 8522.1 |
| 55° | 5551.9 | 5660.1 | 5930.0 | 6197.3 | 6585.8 | 6887.8 | 6963.9 | 7292.7 | 8324.8 | 9453.9 | 9006.6 |
| 57.5° | 4800.1 | 4975.7 | 5218.0 | 5758.7 | 6412.8 | 7148.2 | 7747.8 | 8027.2 | 8754.0 | 9928.9 | 9513.6 |
| 60° | 3510.9 | 3746.3 | 4047.4 | 4852.0 | 5807.1 | 7008.9 | 8414.8 | 9155.4 | 9363.9 | 10544.1 | 10173.8 |
| 62.5° | 2246.9 | 2392.2 | 2669.1 | 3427.0 | 4524.9 | 6295.1 | 8619.0 | 10565.7 | 10397.8 | 11552.9 | 11163.5 |
| 65° | 1538.3 | 1631.7 | 1885.2 | 2310.9 | 2925.2 | 4685.9 | 8072.2 | 11622.9 | 12040.0 | 13151.7 | 12855.8 |
| 67.5° | 1117.8 | 1188.8 | 1405.1 | 1778.0 | 1906.0 | 2772.9 | 6264.0 | 11574.5 | 13636.2 | 14799.1 | 14338.8 |
| 70° | 815.0 | 865.2 | 1046.9 | 1405.1 | 1466.5 | 1542.6 | 3794.7 | 9838.9 | 13601.6 | 15236.8 | 14685.7 |
| 72.5° | 603.9 | 638.5 | 760.5 | 1090.1 | 1187.0 | 1041.7 | 1878.3 | 7150.8 | 11687.8 | 13781.6 | 13339.5 |
| 75° | 436.9 | 462.9 | 552.9 | 834.0 | 950.0 | 793.4 | 937.0 | 4178.9 | 8152.7 | 9694.4 | 9772.3 |
| 77.5° | 334.0 | 353.9 | 412.7 | 610.8 | 760.5 | 595.2 | 581.4 | 1922.4 | 3865.7 | 3884.7 | 4102.7 |
| 80° | 268.2 | 281.2 | 313.2 | 430.0 | 583.1 | 445.6 | 379.0 | 776.1 | 1221.6 | 1033.9 | 1084.9 |
| 82.5° | 197.3 | 218.9 | 264.7 | 302.0 | 417.0 | 307.1 | 231.0 | 391.9 | 464.6 | 399.7 | 403.2 |
| 85° | 112.5 | 127.2 | 160.1 | 216.3 | 266.5 | 187.7 | 132.4 | 173.9 | 216.3 | 177.4 | 158.3 |
| 87.5° | 39.8 | 51.9 | 56.2 | 84.8 | 115.9 | 77.9 | 51.0 | 50.2 | 70.9 | 52.8 | 44.1 |
| 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° | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 | 2390.5 |
| 2.5° | 2407.8 | 2403.5 | 2386.2 | 2362.8 | 2338.6 | 2315.2 | 2307.5 | 2291.0 | 2279.8 | 2273.7 | 2280.6 |
| 5° | 2456.3 | 2442.4 | 2401.8 | 2349.9 | 2295.3 | 2236.5 | 2195.0 | 2156.9 | 2129.2 | 2103.3 | 2113.7 |
| 7.5° | 2525.5 | 2501.3 | 2431.2 | 2340.3 | 2243.4 | 2145.7 | 2073.0 | 2017.6 | 1980.4 | 1956.2 | 1961.4 |
| 10° | 2605.9 | 2568.7 | 2461.5 | 2325.6 | 2176.0 | 2035.8 | 1950.1 | 1902.6 | 1879.2 | 1866.2 | 1869.7 |
| 12.5° | 2698.5 | 2645.7 | 2492.6 | 2291.9 | 2073.0 | 1912.9 | 1854.1 | 1840.3 | 1841.1 | 1842.0 | 1843.7 |
| 15° | 2812.7 | 2739.2 | 2517.7 | 2218.3 | 1938.9 | 1818.6 | 1808.2 | 1830.7 | 1854.1 | 1865.3 | 1864.5 |
| 17.5° | 2941.6 | 2837.8 | 2522.0 | 2097.2 | 1807.4 | 1758.1 | 1790.9 | 1839.4 | 1874.9 | 1890.4 | 1893.9 |
| 20° | 3080.1 | 2938.2 | 2490.9 | 1925.9 | 1699.2 | 1708.7 | 1767.6 | 1829.9 | 1868.8 | 1888.7 | 1893.9 |
| 22.5° | 3238.4 | 3045.5 | 2416.5 | 1746.0 | 1611.0 | 1655.1 | 1724.3 | 1784.9 | 1825.5 | 1845.4 | 1850.6 |
| 25° | 3419.2 | 3165.7 | 2299.7 | 1594.5 | 1534.8 | 1594.5 | 1663.8 | 1713.9 | 1746.8 | 1765.0 | 1770.2 |
| 27.5° | 3620.0 | 3291.2 | 2143.9 | 1474.3 | 1468.2 | 1532.2 | 1589.4 | 1628.3 | 1645.6 | 1659.4 | 1664.6 |
| 30° | 3821.5 | 3405.4 | 1955.3 | 1383.4 | 1410.3 | 1470.8 | 1511.5 | 1528.8 | 1534.0 | 1536.6 | 1542.6 |
| 32.5° | 4039.6 | 3504.0 | 1757.2 | 1308.2 | 1354.9 | 1411.1 | 1435.3 | 1443.1 | 1418.9 | 1402.5 | 1407.7 |
| 35° | 4303.4 | 3609.6 | 1563.4 | 1248.5 | 1300.4 | 1348.8 | 1356.6 | 1349.7 | 1321.1 | 1287.4 | 1289.1 |
| 37.5° | 4629.6 | 3741.1 | 1408.5 | 1206.1 | 1249.3 | 1281.3 | 1271.8 | 1270.1 | 1272.7 | 1232.9 | 1235.5 |
| 40° | 5029.3 | 3912.4 | 1295.2 | 1173.2 | 1207.8 | 1214.7 | 1187.9 | 1202.6 | 1215.6 | 1155.0 | 1156.8 |
| 42.5° | 5473.2 | 4119.2 | 1223.4 | 1150.7 | 1173.2 | 1156.8 | 1115.2 | 1131.7 | 1129.9 | 1050.3 | 1049.5 |
| 45° | 5925.7 | 4344.1 | 1198.3 | 1134.3 | 1141.2 | 1108.3 | 1062.5 | 1066.8 | 1030.4 | 958.6 | 961.2 |
| 47.5° | 6375.6 | 4585.5 | 1213.9 | 1120.4 | 1101.4 | 1064.2 | 1028.7 | 1009.7 | 956.0 | 902.4 | 902.4 |
| 50° | 6816.8 | 4839.0 | 1271.0 | 1092.7 | 1046.9 | 1025.2 | 999.3 | 965.6 | 908.4 | 862.6 | 859.1 |
| 52.5° | 7226.1 | 5094.2 | 1335.0 | 1046.9 | 978.5 | 991.5 | 975.1 | 936.1 | 879.9 | 833.2 | 834.0 |
| 55° | 7613.7 | 5349.5 | 1360.1 | 983.7 | 914.5 | 962.1 | 952.6 | 880.8 | 813.3 | 775.2 | 771.7 |
| 57.5° | 8035.9 | 5656.6 | 1332.4 | 903.3 | 862.6 | 928.3 | 892.0 | 812.4 | 773.5 | 744.9 | 742.3 |
| 60° | 8620.7 | 6138.5 | 1272.7 | 803.8 | 813.3 | 878.2 | 815.9 | 783.0 | 740.6 | 708.6 | 706.9 |
| 62.5° | 9592.3 | 7037.4 | 1176.7 | 705.1 | 755.3 | 803.8 | 779.5 | 746.7 | 703.4 | 672.3 | 672.3 |
| 65° | 11028.6 | 8286.8 | 995.8 | 628.1 | 690.4 | 731.1 | 740.6 | 707.7 | 662.7 | 629.9 | 631.6 |
| 67.5° | 12239.8 | 9070.6 | 753.6 | 564.1 | 623.8 | 672.3 | 699.1 | 667.1 | 619.5 | 587.5 | 588.3 |
| 70° | 12173.2 | 8501.3 | 575.4 | 500.9 | 565.0 | 614.3 | 648.9 | 623.8 | 572.8 | 542.5 | 545.1 |
| 72.5° | 10812.3 | 7111.9 | 465.5 | 436.9 | 505.3 | 553.7 | 595.2 | 576.2 | 524.3 | 494.9 | 494.9 |
| 75° | 7943.3 | 5048.4 | 372.0 | 372.0 | 430.9 | 490.6 | 536.4 | 524.3 | 476.7 | 456.0 | 449.9 |
| 77.5° | 3348.3 | 2118.0 | 291.6 | 308.9 | 358.2 | 421.3 | 478.4 | 482.8 | 441.2 | 467.2 | 423.9 |
| 80° | 890.3 | 584.0 | 222.4 | 243.1 | 281.2 | 347.8 | 416.2 | 414.4 | 369.4 | 345.2 | 321.0 |
| 82.5° | 339.2 | 230.1 | 158.3 | 171.3 | 203.3 | 266.5 | 329.6 | 340.0 | 295.0 | 255.2 | 255.2 |
| 85° | 130.6 | 98.6 | 97.8 | 103.0 | 118.5 | 176.5 | 249.2 | 257.8 | 222.4 | 188.6 | 194.7 |
| 87.5° | 33.7 | 29.4 | 36.3 | 34.6 | 54.5 | 94.3 | 142.8 | 147.9 | 135.8 | 78.7 | 112.5 |
| 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)