

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: STREETWORKS

Report Number: P883581

Luminaire Tested: **NVN-SB4A-727-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883581
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-24)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB4A-727-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 70 CRI, 2700K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV
FORWARD THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16283 lumens
Efficiency: N/A
Efficacy: 142.8 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

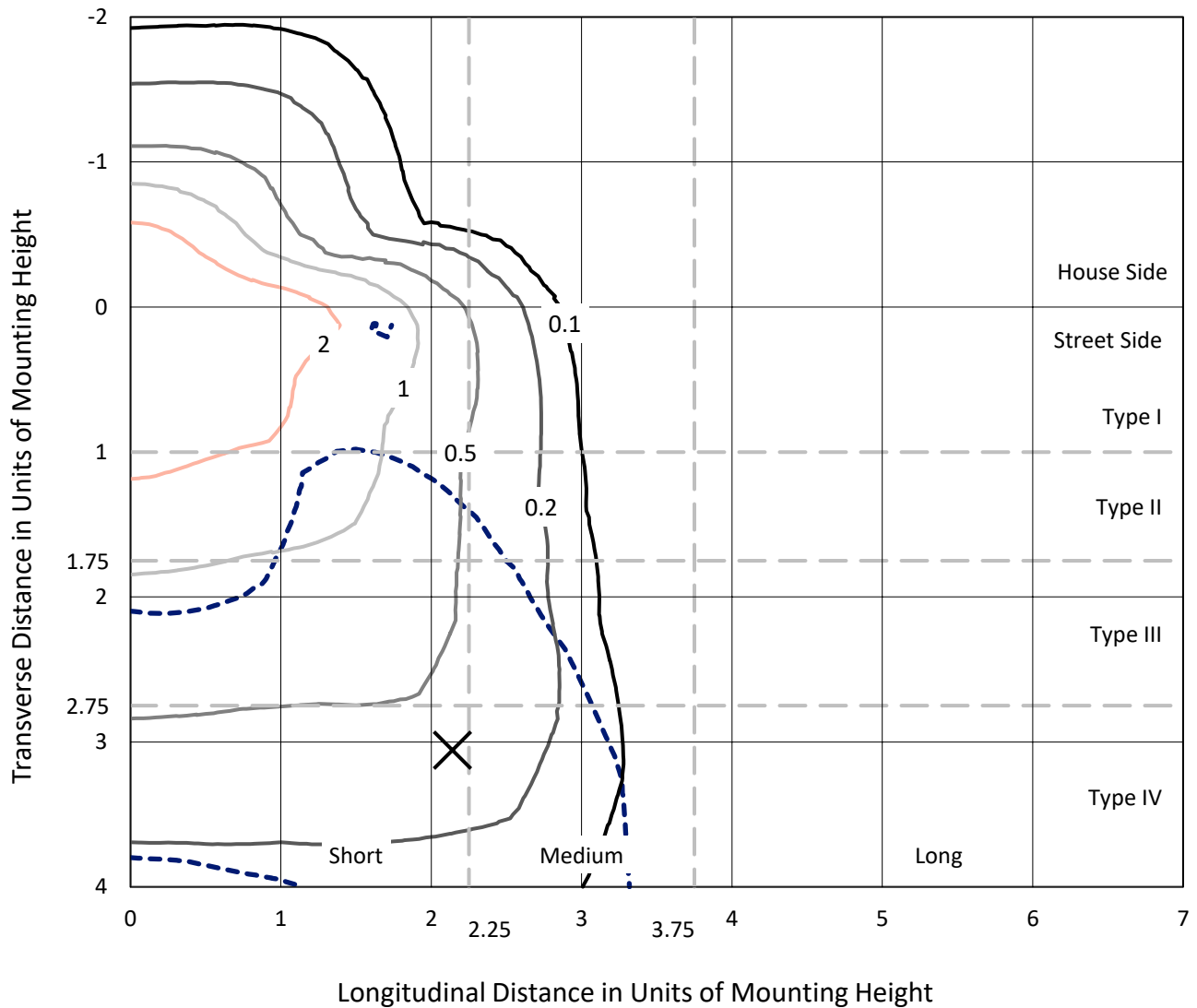
Input Watts (W): 114
Input Voltage (V): 120.0
Input Current (Ain): 0.952
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 8.206
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

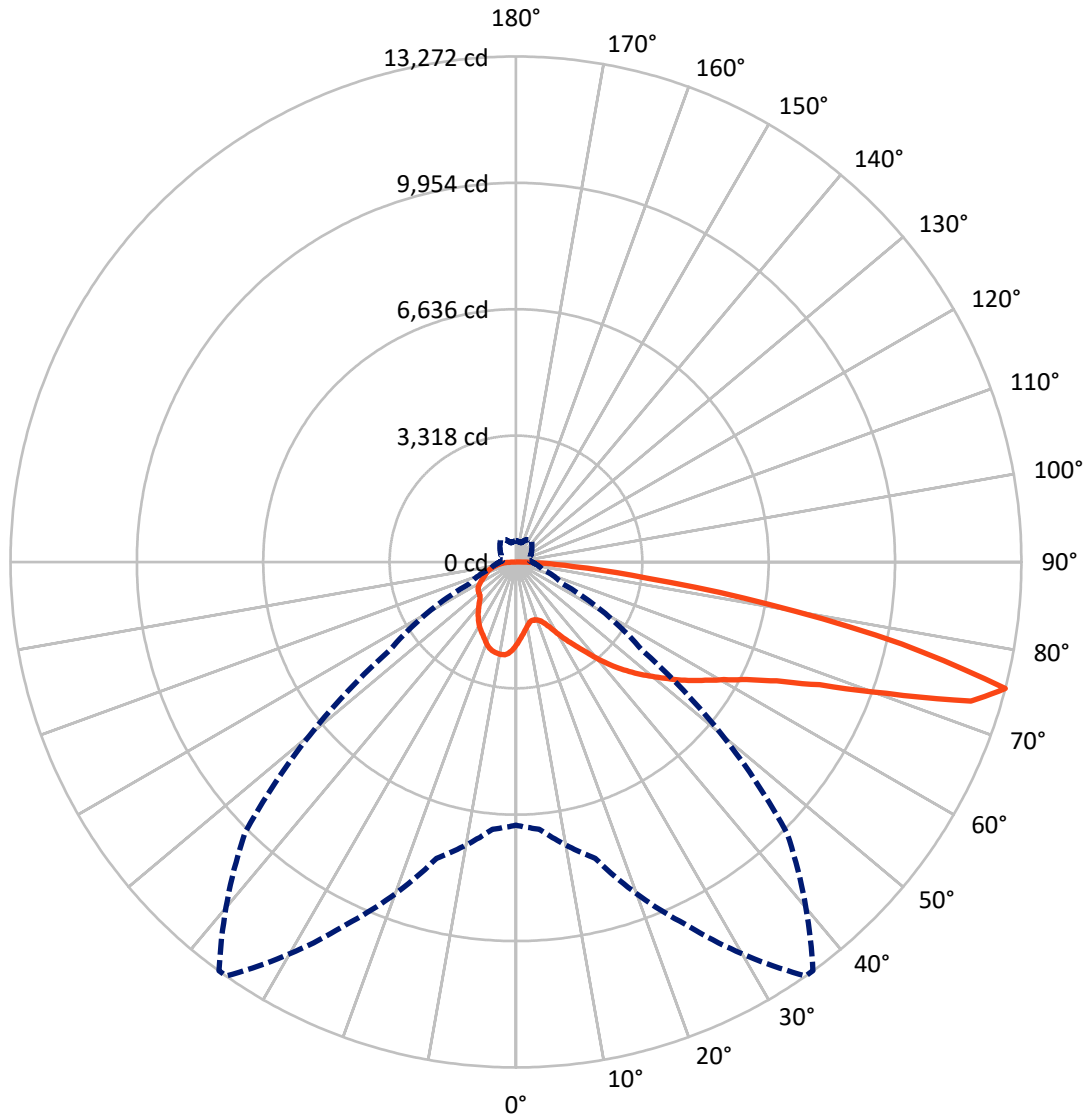
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.8 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3875.0 | 0.0 | 3875.0 |
| | % Fixture | 23.8 | 0.0 | 23.8 |
| Street Side | Lumens | 12408.1 | 0.0 | 12408.1 |
| | % Fixture | 76.2 | 0.0 | 76.2 |
| Total | Lumens | 16283.0 | 0.0 | 16283.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 205.4 | 1.3 |
| 10°-20° | 592.6 | 3.6 |
| 20°-30° | 995.1 | 6.1 |
| 30°-40° | 1546.5 | 9.5 |
| 40°-50° | 2295.4 | 14.1 |
| 50°-60° | 3169.0 | 19.5 |
| 60°-70° | 3844.7 | 23.6 |
| 70°-80° | 3177.3 | 19.5 |
| 80°-90° | 457.0 | 2.8 |
| 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° | 16283.0 | 100.0 |
| 0°-180° | 16283.0 | 100.0 |

Coefficient of Utilization



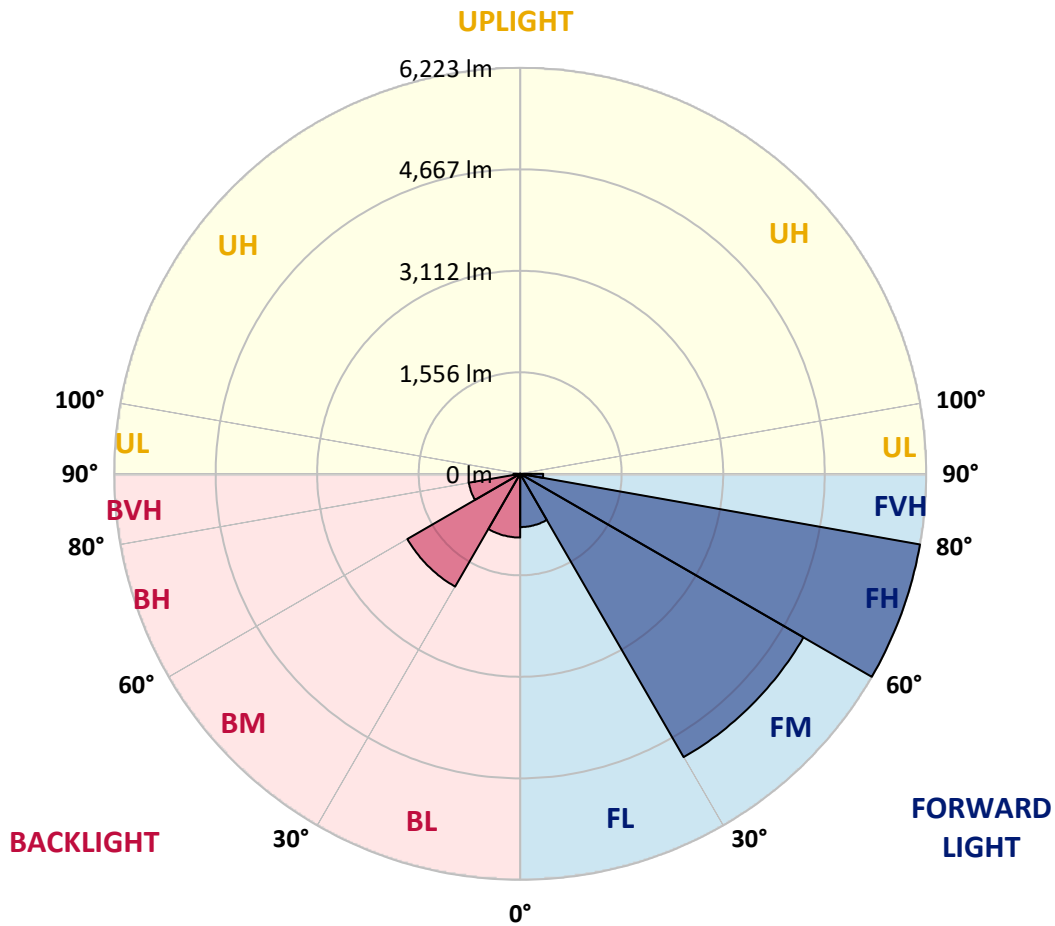
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 816.6 | 5.0 | | | |
| FM (30°-60°) | 5014.3 | 30.8 | | | |
| FH (60°-80°) | 6223.1 | 38.2 | | | G3/7500 |
| FVH (80°-90°) | 354.1 | 2.2 | | | G3/500 |
| BL (0°-30°) | 976.5 | 6.0 | B2/1000 | | |
| BM (30°-60°) | 1996.6 | 12.3 | B2/2500 | | |
| BH (60°-80°) | 798.9 | 4.9 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 102.9 | 0.6 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|---------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 |
| 2.5° | 2000.8 | 2013.1 | 2018.4 | 2015.8 | 2029.0 | 2027.2 | 2045.7 | 2068.6 | 2100.3 | 2131.1 | 2176.0 |
| 5° | 1846.8 | 1860.0 | 1871.4 | 1882.0 | 1907.5 | 1915.4 | 1944.5 | 1988.5 | 2046.6 | 2105.6 | 2179.5 |
| 7.5° | 1703.3 | 1714.7 | 1732.3 | 1751.7 | 1794.8 | 1802.8 | 1851.2 | 1919.8 | 2000.8 | 2087.1 | 2189.2 |
| 10° | 1586.2 | 1597.7 | 1616.1 | 1638.1 | 1691.8 | 1701.5 | 1763.1 | 1854.7 | 1960.3 | 2069.5 | 2199.7 |
| 12.5° | 1536.0 | 1539.6 | 1550.1 | 1572.1 | 1618.8 | 1624.9 | 1692.7 | 1797.5 | 1920.7 | 2056.3 | 2215.6 |
| 15° | 1533.4 | 1540.4 | 1541.3 | 1552.8 | 1591.5 | 1594.1 | 1656.6 | 1760.5 | 1896.1 | 2053.6 | 2239.4 |
| 17.5° | 1559.8 | 1565.1 | 1557.2 | 1564.2 | 1596.8 | 1601.2 | 1650.5 | 1742.9 | 1888.1 | 2065.1 | 2279.9 |
| 20° | 1630.2 | 1634.6 | 1610.9 | 1601.2 | 1624.9 | 1628.5 | 1676.9 | 1754.3 | 1896.1 | 2088.8 | 2335.3 |
| 22.5° | 1779.9 | 1782.5 | 1724.4 | 1684.8 | 1686.6 | 1688.3 | 1730.6 | 1801.0 | 1926.9 | 2132.0 | 2405.7 |
| 25° | 2013.1 | 2011.4 | 1918.9 | 1842.4 | 1798.4 | 1788.7 | 1816.8 | 1876.7 | 1978.8 | 2189.2 | 2496.4 |
| 27.5° | 2286.0 | 2272.8 | 2180.4 | 2066.0 | 1970.0 | 1955.9 | 1949.8 | 1975.3 | 2052.7 | 2264.9 | 2607.3 |
| 30° | 2594.1 | 2581.8 | 2482.3 | 2332.7 | 2199.7 | 2176.9 | 2118.8 | 2105.6 | 2162.8 | 2367.9 | 2761.3 |
| 32.5° | 2932.1 | 2924.2 | 2805.4 | 2624.0 | 2446.2 | 2419.8 | 2322.1 | 2286.9 | 2331.8 | 2523.7 | 2976.1 |
| 35° | 3215.6 | 3208.5 | 3109.9 | 2923.3 | 2705.9 | 2673.3 | 2573.9 | 2534.2 | 2557.1 | 2723.5 | 3256.9 |
| 37.5° | 3471.7 | 3468.2 | 3383.7 | 3236.7 | 3012.2 | 2972.6 | 2860.8 | 2847.6 | 2843.2 | 2986.7 | 3597.6 |
| 40° | 3709.4 | 3700.6 | 3612.6 | 3535.1 | 3368.7 | 3332.6 | 3234.0 | 3222.6 | 3189.2 | 3310.6 | 3983.1 |
| 42.5° | 3972.6 | 3949.7 | 3822.1 | 3786.0 | 3741.1 | 3711.1 | 3652.2 | 3653.9 | 3580.0 | 3675.9 | 4391.6 |
| 45° | 4187.4 | 4174.2 | 4043.0 | 4021.9 | 4070.3 | 4058.0 | 4109.0 | 4122.2 | 3978.7 | 4058.8 | 4815.9 |
| 47.5° | 4418.0 | 4405.7 | 4294.7 | 4279.8 | 4410.9 | 4414.5 | 4594.9 | 4599.3 | 4367.8 | 4456.7 | 5241.0 |
| 50° | 4702.3 | 4684.7 | 4574.7 | 4593.2 | 4740.2 | 4753.4 | 5083.5 | 5053.5 | 4726.1 | 4860.7 | 5662.7 |
| 52.5° | 4889.8 | 4900.4 | 4876.6 | 4906.5 | 5107.2 | 5119.5 | 5564.1 | 5487.5 | 5080.8 | 5259.5 | 6076.4 |
| 55° | 5028.0 | 5049.1 | 5123.1 | 5191.7 | 5494.5 | 5506.9 | 6017.4 | 5900.3 | 5374.8 | 5629.2 | 6465.4 |
| 57.5° | 5205.8 | 5175.9 | 5314.1 | 5447.9 | 5862.5 | 5895.0 | 6458.4 | 6298.2 | 5635.4 | 5947.9 | 6732.2 |
| 60° | 5461.1 | 5440.0 | 5547.3 | 5745.4 | 6274.4 | 6326.4 | 6924.9 | 6656.5 | 5826.4 | 6200.5 | 6784.1 |
| 62.5° | 5978.7 | 5925.9 | 5942.6 | 6117.7 | 6793.8 | 6862.4 | 7451.3 | 6969.0 | 5921.5 | 6299.1 | 6505.9 |
| 65° | 6752.4 | 6661.7 | 6577.2 | 6698.7 | 7525.3 | 7593.0 | 8045.5 | 7214.5 | 5886.2 | 6108.1 | 5767.4 |
| 67.5° | 7726.8 | 7637.1 | 7533.2 | 7647.6 | 8602.7 | 8656.4 | 8778.7 | 7352.7 | 5609.0 | 5372.2 | 4462.0 |
| 70° | 8530.5 | 8497.1 | 8621.2 | 9092.1 | 10323.6 | 10325.3 | 9718.9 | 7238.3 | 4849.3 | 3808.8 | 2581.8 |
| 72.5° | 8424.0 | 8403.8 | 9057.8 | 10513.7 | 12492.5 | 12445.9 | 10608.8 | 6372.1 | 3266.6 | 1718.3 | 967.4 |
| 75° | 6910.9 | 7042.0 | 8055.2 | 10488.2 | 13271.6 | 13265.4 | 10063.9 | 4050.9 | 1351.2 | 712.1 | 500.0 |
| 77.5° | 3705.9 | 3913.6 | 5229.6 | 7743.6 | 10360.6 | 10516.4 | 7075.5 | 1417.2 | 580.1 | 456.0 | 345.9 |
| 80° | 1208.6 | 1389.9 | 2084.4 | 3942.6 | 6732.2 | 6703.1 | 3032.5 | 556.3 | 397.0 | 323.1 | 239.4 |
| 82.5° | 513.2 | 534.3 | 931.3 | 1861.7 | 3455.0 | 3401.3 | 965.6 | 319.5 | 279.0 | 220.9 | 147.9 |
| 85° | 200.7 | 224.5 | 411.1 | 860.9 | 1496.4 | 1463.9 | 348.6 | 158.4 | 178.7 | 144.4 | 88.0 |
| 87.5° | 66.0 | 80.1 | 147.0 | 294.9 | 465.7 | 448.9 | 85.4 | 54.6 | 77.5 | 66.0 | 31.7 |
| 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° | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 | 2169.8 |
| 2.5° | 2188.3 | 2202.4 | 2219.1 | 2243.8 | 2264.9 | 2282.5 | 2301.0 | 2312.4 | 2316.8 | 2330.0 | 2329.1 |
| 5° | 2204.1 | 2235.0 | 2276.3 | 2316.8 | 2356.4 | 2380.2 | 2401.3 | 2411.9 | 2421.6 | 2428.6 | 2430.4 |
| 7.5° | 2230.6 | 2270.2 | 2335.3 | 2388.1 | 2421.6 | 2440.9 | 2455.0 | 2451.5 | 2455.0 | 2456.8 | 2459.4 |
| 10° | 2253.4 | 2308.9 | 2386.4 | 2436.5 | 2462.1 | 2462.9 | 2459.4 | 2447.1 | 2440.9 | 2441.8 | 2443.6 |
| 12.5° | 2280.7 | 2342.3 | 2426.0 | 2468.2 | 2475.3 | 2455.9 | 2440.9 | 2419.8 | 2411.9 | 2408.4 | 2406.6 |
| 15° | 2317.7 | 2388.1 | 2469.1 | 2484.9 | 2467.3 | 2442.7 | 2417.2 | 2382.8 | 2365.2 | 2351.2 | 2355.6 |
| 17.5° | 2362.6 | 2440.1 | 2502.6 | 2491.1 | 2453.3 | 2412.8 | 2371.4 | 2319.5 | 2283.4 | 2268.4 | 2269.3 |
| 20° | 2425.1 | 2494.6 | 2528.1 | 2477.9 | 2420.7 | 2359.1 | 2288.7 | 2225.3 | 2191.8 | 2176.9 | 2175.1 |
| 22.5° | 2500.8 | 2567.7 | 2552.7 | 2455.0 | 2374.0 | 2275.5 | 2187.4 | 2140.8 | 2124.0 | 2113.5 | 2115.2 |
| 25° | 2591.5 | 2648.7 | 2570.3 | 2421.6 | 2297.5 | 2164.5 | 2096.8 | 2081.8 | 2073.9 | 2066.0 | 2066.0 |
| 27.5° | 2709.4 | 2740.2 | 2583.5 | 2372.3 | 2177.7 | 2046.6 | 2021.9 | 2024.6 | 2021.9 | 2008.7 | 2011.4 |
| 30° | 2865.2 | 2859.1 | 2595.9 | 2292.2 | 2040.4 | 1940.1 | 1941.8 | 1953.3 | 1955.0 | 1946.2 | 1950.6 |
| 32.5° | 3070.3 | 3007.8 | 2602.0 | 2188.3 | 1909.3 | 1846.8 | 1848.5 | 1860.9 | 1869.7 | 1854.7 | 1861.7 |
| 35° | 3318.5 | 3181.2 | 2592.3 | 2058.0 | 1808.0 | 1757.9 | 1744.7 | 1748.2 | 1750.8 | 1736.7 | 1746.4 |
| 37.5° | 3608.2 | 3375.8 | 2549.2 | 1913.7 | 1724.4 | 1670.7 | 1642.5 | 1618.8 | 1604.7 | 1591.5 | 1600.3 |
| 40° | 3925.9 | 3587.9 | 2470.0 | 1772.8 | 1631.1 | 1578.3 | 1536.0 | 1491.1 | 1443.6 | 1426.0 | 1433.9 |
| 42.5° | 4258.7 | 3806.2 | 2374.0 | 1638.1 | 1523.7 | 1480.6 | 1435.7 | 1370.6 | 1299.3 | 1263.2 | 1267.6 |
| 45° | 4603.7 | 4029.8 | 2279.9 | 1505.2 | 1413.7 | 1395.2 | 1343.3 | 1264.9 | 1187.5 | 1141.7 | 1138.2 |
| 47.5° | 4941.7 | 4241.1 | 2141.7 | 1371.4 | 1310.7 | 1330.9 | 1290.4 | 1218.3 | 1132.0 | 1059.8 | 1051.9 |
| 50° | 5264.8 | 4439.1 | 1915.4 | 1235.9 | 1227.1 | 1311.6 | 1272.8 | 1169.0 | 1070.4 | 978.0 | 970.0 |
| 52.5° | 5585.2 | 4599.3 | 1625.8 | 1112.6 | 1182.2 | 1306.3 | 1250.0 | 1135.5 | 1014.9 | 918.1 | 907.5 |
| 55° | 5857.2 | 4682.1 | 1346.8 | 1007.0 | 1117.0 | 1261.4 | 1222.7 | 1095.9 | 936.6 | 833.6 | 824.8 |
| 57.5° | 6012.1 | 4615.2 | 1114.4 | 903.1 | 1027.3 | 1187.5 | 1176.0 | 1011.4 | 843.3 | 764.1 | 753.5 |
| 60° | 5945.2 | 4344.0 | 924.3 | 812.5 | 941.9 | 1107.4 | 1095.0 | 927.8 | 772.0 | 697.2 | 686.6 |
| 62.5° | 5576.4 | 3827.3 | 773.7 | 733.2 | 864.4 | 1025.5 | 1014.0 | 863.5 | 717.4 | 645.2 | 633.8 |
| 65° | 4833.5 | 3113.4 | 656.7 | 667.2 | 786.1 | 926.9 | 943.6 | 809.8 | 674.3 | 603.9 | 592.4 |
| 67.5° | 3686.5 | 2255.2 | 565.1 | 610.0 | 709.5 | 830.1 | 878.5 | 771.1 | 638.2 | 571.3 | 560.7 |
| 70° | 2101.2 | 1280.8 | 487.7 | 554.6 | 641.7 | 740.3 | 828.3 | 740.3 | 599.5 | 544.0 | 537.0 |
| 72.5° | 796.6 | 588.0 | 421.6 | 499.1 | 576.6 | 664.6 | 772.9 | 691.9 | 554.6 | 513.2 | 506.1 |
| 75° | 425.2 | 358.3 | 354.7 | 434.0 | 501.7 | 590.6 | 703.3 | 644.3 | 521.1 | 542.2 | 559.8 |
| 77.5° | 289.6 | 253.5 | 296.6 | 371.5 | 419.9 | 508.8 | 629.4 | 572.2 | 451.6 | 449.8 | 414.6 |
| 80° | 200.7 | 179.6 | 241.2 | 299.3 | 324.8 | 427.8 | 549.3 | 491.2 | 367.9 | 343.3 | 328.3 |
| 82.5° | 120.6 | 117.1 | 180.5 | 223.6 | 229.7 | 330.1 | 455.1 | 412.0 | 301.0 | 262.3 | 264.1 |
| 85° | 66.0 | 69.5 | 115.3 | 131.2 | 133.8 | 230.6 | 356.5 | 318.7 | 231.5 | 194.5 | 196.3 |
| 87.5° | 18.5 | 23.8 | 42.3 | 51.9 | 64.3 | 119.7 | 212.1 | 189.3 | 116.2 | 81.0 | 81.0 |
| 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)