

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: P881767

Luminaire Tested: **NVN-SB1B-827-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P881767  
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: STREETWORKS  
Catalog Number: NVN-SB1B-827-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 80 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

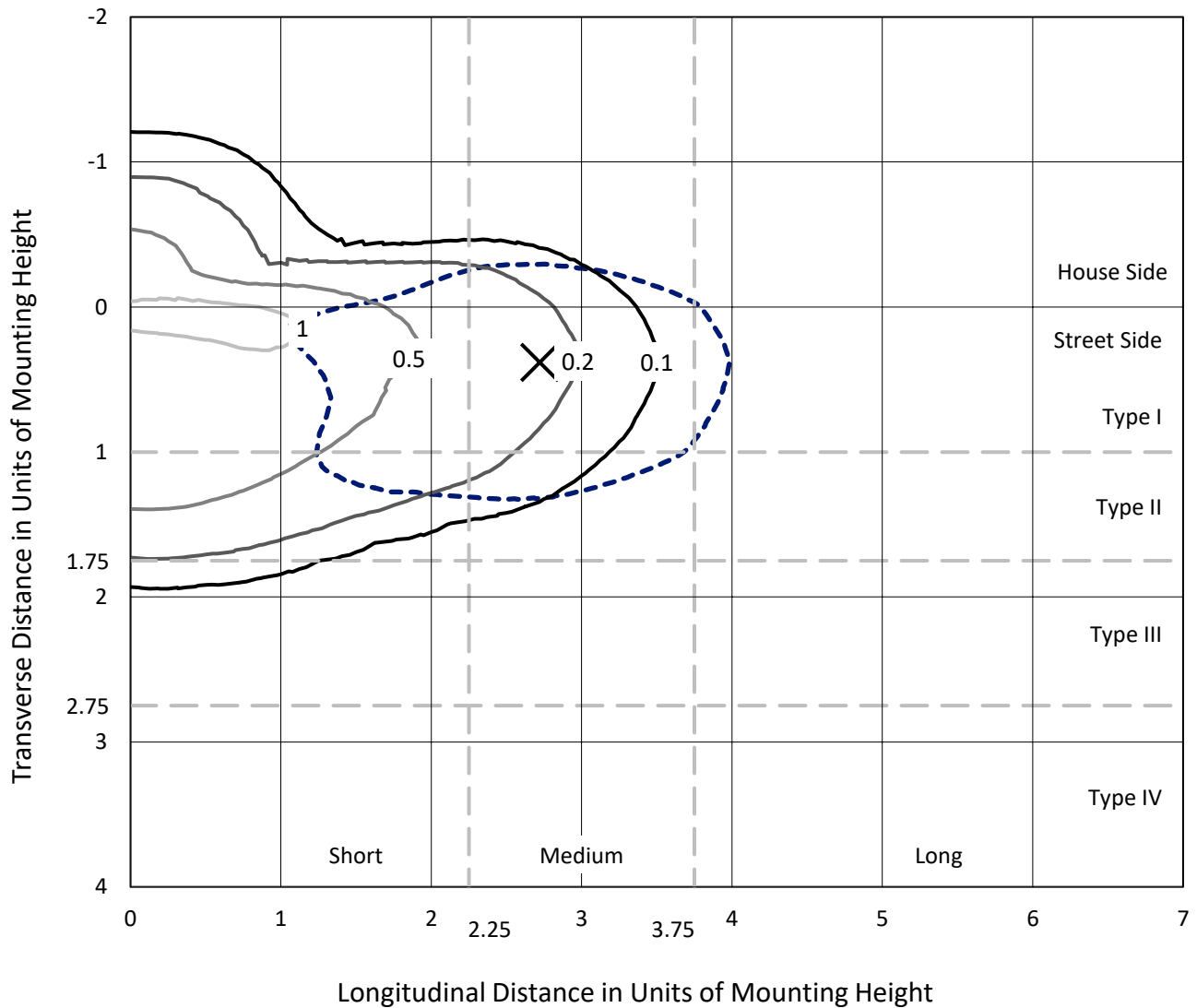
Lumens per Lamp: N/A  
Luminaire Lumens: 4537 lumens  
Efficiency: N/A  
Efficacy: 114.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B1 - U0 - G1  
  
Input Watts (W): 39.8  
Input Voltage (V): 120.0  
Input Current (Ain): 0.33  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 5.305  
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

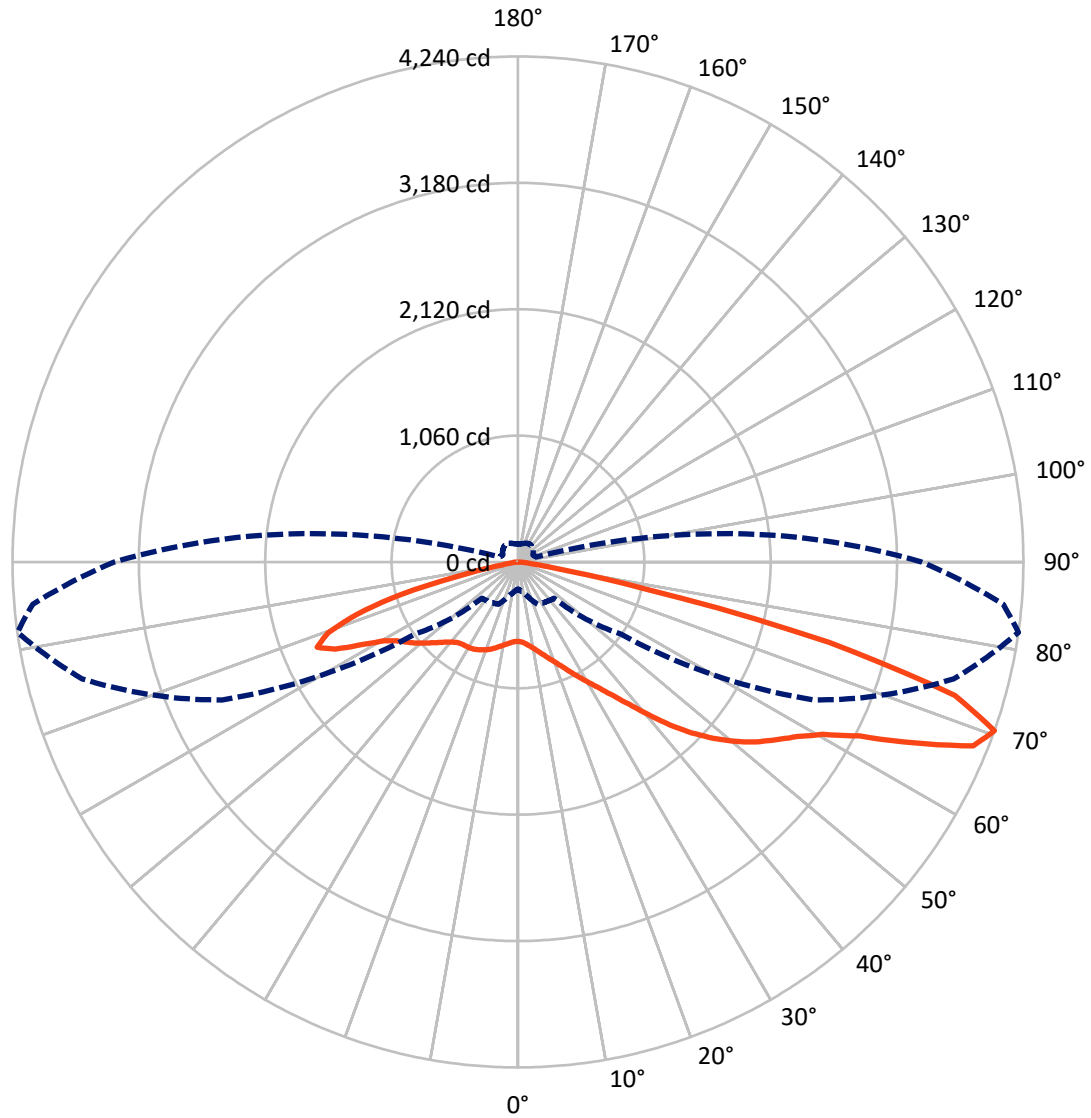
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.2 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  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1118.5   | 0.0    | 1118.5 |
|                    | % Fixture | 24.7     | 0.0    | 24.7   |
| <b>Street Side</b> | Lumens    | 3418.5   | 0.0    | 3418.5 |
|                    | % Fixture | 75.3     | 0.0    | 75.3   |
| <b>Total</b>       | Lumens    | 4537.0   | 0.0    | 4537.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 62.8   | 1.4       |
| 10°-20°   | 180.4  | 4.0       |
| 20°-30°   | 301.9  | 6.7       |
| 30°-40°   | 471.6  | 10.4      |
| 40°-50°   | 751.1  | 16.6      |
| 50°-60°   | 1045.2 | 23.0      |
| 60°-70°   | 1093.3 | 24.1      |
| 70°-80°   | 571.4  | 12.6      |
| 80°-90°   | 59.3   | 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°    | 4537.0 | 100.0     |
| 0°-180°   | 4537.0 | 100.0     |

**Coefficient of Utilization**



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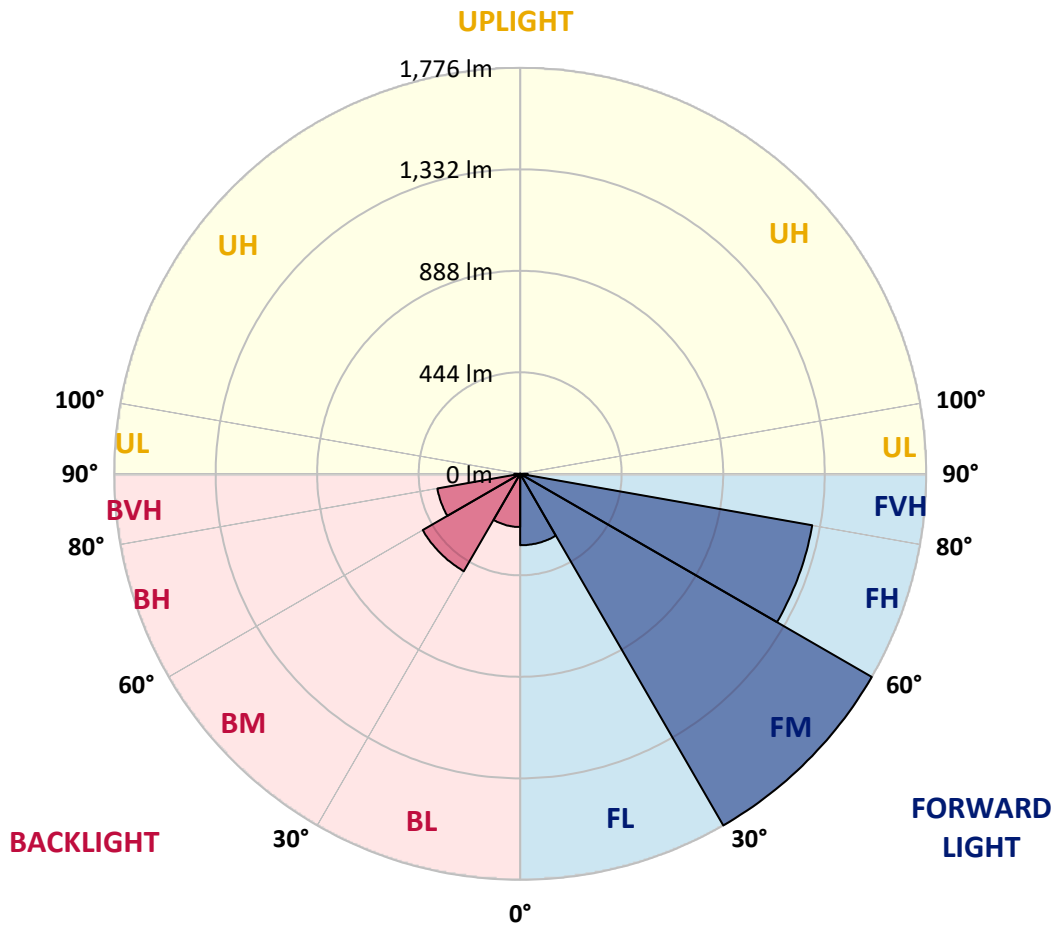
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 312.4  | 6.9       |                         |      |         |
| FM (30°-60°)   | 1775.7 | 39.1      |                         |      |         |
| FH (60°-80°)   | 1297.1 | 28.6      |                         |      | G1/1800 |
| FVH (80°-90°)  | 33.2   | 0.7       |                         |      | G1/100  |
| BL (0°-30°)    | 232.7  | 5.1       | B1/500                  |      |         |
| BM (30°-60°)   | 492.1  | 10.8      | B1/1000                 |      |         |
| BH (60°-80°)   | 367.6  | 8.1       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 26.1   | 0.6       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G1**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 82°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 665.2  | 665.2  | 665.2  | 665.2  | 665.2  | 665.2  | 665.2  | 665.2  | 665.2  | 665.2  | 665.2  |
| 2.5°  | 681.1  | 684.9  | 683.7  | 682.5  | 682.5  | 680.8  | 680.6  | 678.2  | 676.3  | 673.1  | 672.4  |
| 5°    | 689.7  | 693.8  | 693.3  | 694.3  | 697.4  | 698.2  | 698.9  | 697.4  | 693.6  | 689.7  | 688.1  |
| 7.5°  | 682.0  | 686.6  | 688.1  | 693.8  | 703.5  | 712.1  | 718.6  | 721.3  | 717.7  | 712.1  | 709.5  |
| 10°   | 656.0  | 661.1  | 666.1  | 679.9  | 697.0  | 717.4  | 734.8  | 745.1  | 744.4  | 739.1  | 734.5  |
| 12.5° | 603.3  | 608.6  | 619.4  | 646.2  | 677.5  | 713.6  | 745.8  | 767.5  | 775.0  | 771.1  | 763.2  |
| 15°   | 561.2  | 565.8  | 573.9  | 601.4  | 642.1  | 697.0  | 749.9  | 792.1  | 811.1  | 808.9  | 799.3  |
| 17.5° | 560.0  | 561.9  | 567.0  | 580.0  | 611.3  | 671.0  | 745.6  | 816.1  | 852.5  | 852.2  | 840.2  |
| 20°   | 581.2  | 581.9  | 584.8  | 587.4  | 605.2  | 651.2  | 734.5  | 836.1  | 898.9  | 898.9  | 885.9  |
| 22.5° | 610.5  | 610.1  | 612.9  | 610.5  | 619.2  | 649.5  | 727.5  | 853.7  | 950.7  | 954.6  | 938.2  |
| 25°   | 654.6  | 652.2  | 651.5  | 645.9  | 647.6  | 665.2  | 735.2  | 873.7  | 1012.1 | 1020.0 | 999.6  |
| 27.5° | 713.3  | 709.5  | 706.8  | 694.1  | 689.7  | 697.4  | 758.8  | 897.7  | 1080.5 | 1094.2 | 1068.2 |
| 30°   | 789.9  | 782.9  | 779.1  | 756.9  | 741.3  | 742.5  | 794.5  | 929.8  | 1152.0 | 1174.1 | 1141.1 |
| 32.5° | 894.4  | 883.5  | 873.2  | 836.8  | 808.2  | 798.8  | 840.4  | 974.1  | 1229.5 | 1264.9 | 1222.5 |
| 35°   | 1011.4 | 1002.7 | 991.6  | 935.5  | 891.5  | 869.8  | 902.6  | 1035.9 | 1320.3 | 1376.3 | 1321.2 |
| 37.5° | 1124.0 | 1116.6 | 1121.9 | 1046.3 | 989.5  | 957.9  | 983.9  | 1119.0 | 1432.2 | 1515.0 | 1445.0 |
| 40°   | 1240.6 | 1234.8 | 1235.5 | 1163.3 | 1097.1 | 1061.7 | 1082.6 | 1223.2 | 1560.5 | 1679.9 | 1593.7 |
| 42.5° | 1367.2 | 1362.9 | 1348.4 | 1284.4 | 1210.0 | 1177.0 | 1196.3 | 1343.6 | 1698.2 | 1867.7 | 1757.0 |
| 45°   | 1509.0 | 1506.3 | 1492.9 | 1419.4 | 1334.2 | 1297.1 | 1323.1 | 1476.5 | 1836.7 | 2044.4 | 1920.9 |
| 47.5° | 1631.5 | 1633.7 | 1632.0 | 1570.1 | 1481.8 | 1427.4 | 1458.4 | 1615.2 | 1965.4 | 2210.5 | 2078.1 |
| 50°   | 1690.5 | 1701.8 | 1718.4 | 1699.2 | 1644.3 | 1588.9 | 1594.9 | 1749.0 | 2088.2 | 2366.3 | 2228.8 |
| 52.5° | 1659.7 | 1681.1 | 1726.4 | 1757.2 | 1778.4 | 1766.8 | 1750.7 | 1881.9 | 2203.8 | 2506.9 | 2371.3 |
| 55°   | 1544.9 | 1575.0 | 1650.1 | 1724.5 | 1832.6 | 1916.6 | 1937.8 | 2029.2 | 2316.5 | 2630.6 | 2506.2 |
| 57.5° | 1335.7 | 1384.5 | 1451.9 | 1602.4 | 1784.4 | 1989.0 | 2155.9 | 2233.6 | 2435.9 | 2762.8 | 2647.2 |
| 60°   | 976.9  | 1042.4 | 1126.2 | 1350.1 | 1615.9 | 1950.3 | 2341.5 | 2547.6 | 2605.6 | 2934.0 | 2830.9 |
| 62.5° | 625.2  | 665.7  | 742.7  | 953.6  | 1259.1 | 1751.7 | 2398.3 | 2940.0 | 2893.3 | 3214.7 | 3106.3 |
| 65°   | 428.0  | 454.0  | 524.6  | 643.0  | 814.0  | 1303.9 | 2246.2 | 3234.2 | 3350.2 | 3659.6 | 3577.2 |
| 67.5° | 311.0  | 330.8  | 391.0  | 494.7  | 530.4  | 771.6  | 1743.0 | 3220.7 | 3794.4 | 4118.0 | 3989.9 |
| 70°   | 226.8  | 240.7  | 291.3  | 391.0  | 408.1  | 429.2  | 1055.9 | 2737.8 | 3784.8 | 4239.8 | 4086.4 |
| 72.5° | 168.0  | 177.7  | 211.6  | 303.3  | 330.3  | 289.9  | 522.7  | 1989.8 | 3252.2 | 3834.8 | 3711.8 |
| 75°   | 121.6  | 128.8  | 153.8  | 232.1  | 264.3  | 220.8  | 260.7  | 1162.8 | 2268.5 | 2697.6 | 2719.2 |
| 77.5° | 92.9   | 98.5   | 114.8  | 170.0  | 211.6  | 165.6  | 161.8  | 534.9  | 1075.7 | 1080.9 | 1141.6 |
| 80°   | 74.6   | 78.2   | 87.2   | 119.7  | 162.3  | 124.0  | 105.4  | 215.9  | 339.9  | 287.7  | 301.9  |
| 82.5° | 54.9   | 60.9   | 73.7   | 84.0   | 116.0  | 85.5   | 64.3   | 109.1  | 129.3  | 111.2  | 112.2  |
| 85°   | 31.3   | 35.4   | 44.5   | 60.2   | 74.1   | 52.2   | 36.8   | 48.4   | 60.2   | 49.4   | 44.1   |
| 87.5° | 11.1   | 14.4   | 15.6   | 23.6   | 32.3   | 21.7   | 14.2   | 14.0   | 19.7   | 14.7   | 12.3   |
| 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°    | 665.2  | 665.2  | 665.2 | 665.2 | 665.2 | 665.2 | 665.2 | 665.2 | 665.2 | 665.2 | 665.2 |
| 2.5°  | 670.0  | 668.8  | 664.0 | 657.5 | 650.7 | 644.2 | 642.1 | 637.5 | 634.4 | 632.7 | 634.6 |
| 5°    | 683.5  | 679.6  | 668.3 | 653.9 | 638.7 | 622.3 | 610.8 | 600.2 | 592.5 | 585.3 | 588.1 |
| 7.5°  | 702.7  | 696.0  | 676.5 | 651.2 | 624.3 | 597.0 | 576.8 | 561.4 | 551.1 | 544.3 | 545.8 |
| 10°   | 725.1  | 714.8  | 684.9 | 647.1 | 605.5 | 566.5 | 542.6 | 529.4 | 522.9 | 519.3 | 520.3 |
| 12.5° | 750.9  | 736.2  | 693.6 | 637.7 | 576.8 | 532.3 | 515.9 | 512.1 | 512.3 | 512.5 | 513.0 |
| 15°   | 782.7  | 762.2  | 700.6 | 617.3 | 539.5 | 506.0 | 503.2 | 509.4 | 515.9 | 519.0 | 518.8 |
| 17.5° | 818.5  | 789.6  | 701.8 | 583.6 | 502.9 | 489.2 | 498.3 | 511.8 | 521.7 | 526.0 | 527.0 |
| 20°   | 857.1  | 817.6  | 693.1 | 535.9 | 472.8 | 475.5 | 491.8 | 509.2 | 520.0 | 525.5 | 527.0 |
| 22.5° | 901.1  | 847.4  | 672.4 | 485.8 | 448.3 | 460.5 | 479.8 | 496.7 | 508.0 | 513.5 | 515.0 |
| 25°   | 951.4  | 880.9  | 639.9 | 443.7 | 427.1 | 443.7 | 463.0 | 476.9 | 486.1 | 491.1 | 492.6 |
| 27.5° | 1007.3 | 915.8  | 596.6 | 410.2 | 408.5 | 426.4 | 442.3 | 453.1 | 457.9 | 461.8 | 463.2 |
| 30°   | 1063.4 | 947.6  | 544.1 | 385.0 | 392.4 | 409.3 | 420.6 | 425.4 | 426.8 | 427.6 | 429.2 |
| 32.5° | 1124.0 | 975.0  | 489.0 | 364.0 | 377.0 | 392.7 | 399.4 | 401.6 | 394.8 | 390.2 | 391.7 |
| 35°   | 1197.5 | 1004.4 | 435.0 | 347.4 | 361.8 | 375.3 | 377.5 | 375.6 | 367.6 | 358.2 | 358.7 |
| 37.5° | 1288.2 | 1041.0 | 391.9 | 335.6 | 347.6 | 356.5 | 353.9 | 353.4 | 354.1 | 343.1 | 343.8 |
| 40°   | 1399.5 | 1088.7 | 360.4 | 326.5 | 336.1 | 338.0 | 330.5 | 334.6 | 338.2 | 321.4 | 321.9 |
| 42.5° | 1523.0 | 1146.2 | 340.4 | 320.2 | 326.5 | 321.9 | 310.3 | 314.9 | 314.4 | 292.3 | 292.0 |
| 45°   | 1648.9 | 1208.8 | 333.4 | 315.6 | 317.5 | 308.4 | 295.6 | 296.8 | 286.7 | 266.7 | 267.5 |
| 47.5° | 1774.1 | 1276.0 | 337.8 | 311.8 | 306.5 | 296.1 | 286.2 | 281.0 | 266.0 | 251.1 | 251.1 |
| 50°   | 1896.8 | 1346.5 | 353.7 | 304.1 | 291.3 | 285.3 | 278.1 | 268.7 | 252.8 | 240.0 | 239.1 |
| 52.5° | 2010.7 | 1417.5 | 371.5 | 291.3 | 272.3 | 275.9 | 271.3 | 260.5 | 244.8 | 231.8 | 232.1 |
| 55°   | 2118.6 | 1488.5 | 378.5 | 273.7 | 254.5 | 267.7 | 265.1 | 245.1 | 226.3 | 215.7 | 214.7 |
| 57.5° | 2236.0 | 1574.0 | 370.7 | 251.3 | 240.0 | 258.3 | 248.2 | 226.1 | 215.2 | 207.3 | 206.6 |
| 60°   | 2398.8 | 1708.1 | 354.1 | 223.7 | 226.3 | 244.4 | 227.0 | 217.9 | 206.1 | 197.2 | 196.7 |
| 62.5° | 2669.1 | 1958.2 | 327.4 | 196.2 | 210.2 | 223.7 | 216.9 | 207.8 | 195.7 | 187.1 | 187.1 |
| 65°   | 3068.8 | 2305.9 | 277.1 | 174.8 | 192.1 | 203.4 | 206.1 | 196.9 | 184.4 | 175.3 | 175.7 |
| 67.5° | 3405.8 | 2524.0 | 209.7 | 157.0 | 173.6 | 187.1 | 194.5 | 185.6 | 172.4 | 163.5 | 163.7 |
| 70°   | 3387.3 | 2365.6 | 160.1 | 139.4 | 157.2 | 170.9 | 180.6 | 173.6 | 159.4 | 150.9 | 151.7 |
| 72.5° | 3008.6 | 1978.9 | 129.5 | 121.6 | 140.6 | 154.1 | 165.6 | 160.3 | 145.9 | 137.7 | 137.7 |
| 75°   | 2210.3 | 1404.8 | 103.5 | 103.5 | 119.9 | 136.5 | 149.3 | 145.9 | 132.7 | 126.9 | 125.2 |
| 77.5° | 931.7  | 589.3  | 81.1  | 85.9  | 99.7  | 117.2 | 133.1 | 134.3 | 122.8 | 130.0 | 118.0 |
| 80°   | 247.7  | 162.5  | 61.9  | 67.6  | 78.2  | 96.8  | 115.8 | 115.3 | 102.8 | 96.1  | 89.3  |
| 82.5° | 94.4   | 64.0   | 44.1  | 47.7  | 56.6  | 74.1  | 91.7  | 94.6  | 82.1  | 71.0  | 71.0  |
| 85°   | 36.4   | 27.4   | 27.2  | 28.6  | 33.0  | 49.1  | 69.3  | 71.7  | 61.9  | 52.5  | 54.2  |
| 87.5° | 9.4    | 8.2    | 10.1  | 9.6   | 15.2  | 26.2  | 39.7  | 41.2  | 37.8  | 21.9  | 31.3  |
| 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)