

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: P883826

Luminaire Tested: **NVN-SB4B-835-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883826
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-4)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-SB4B-835-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(4) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14060 lumens
Efficiency: N/A
Efficacy: 95.6 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B2 - U0 - G2

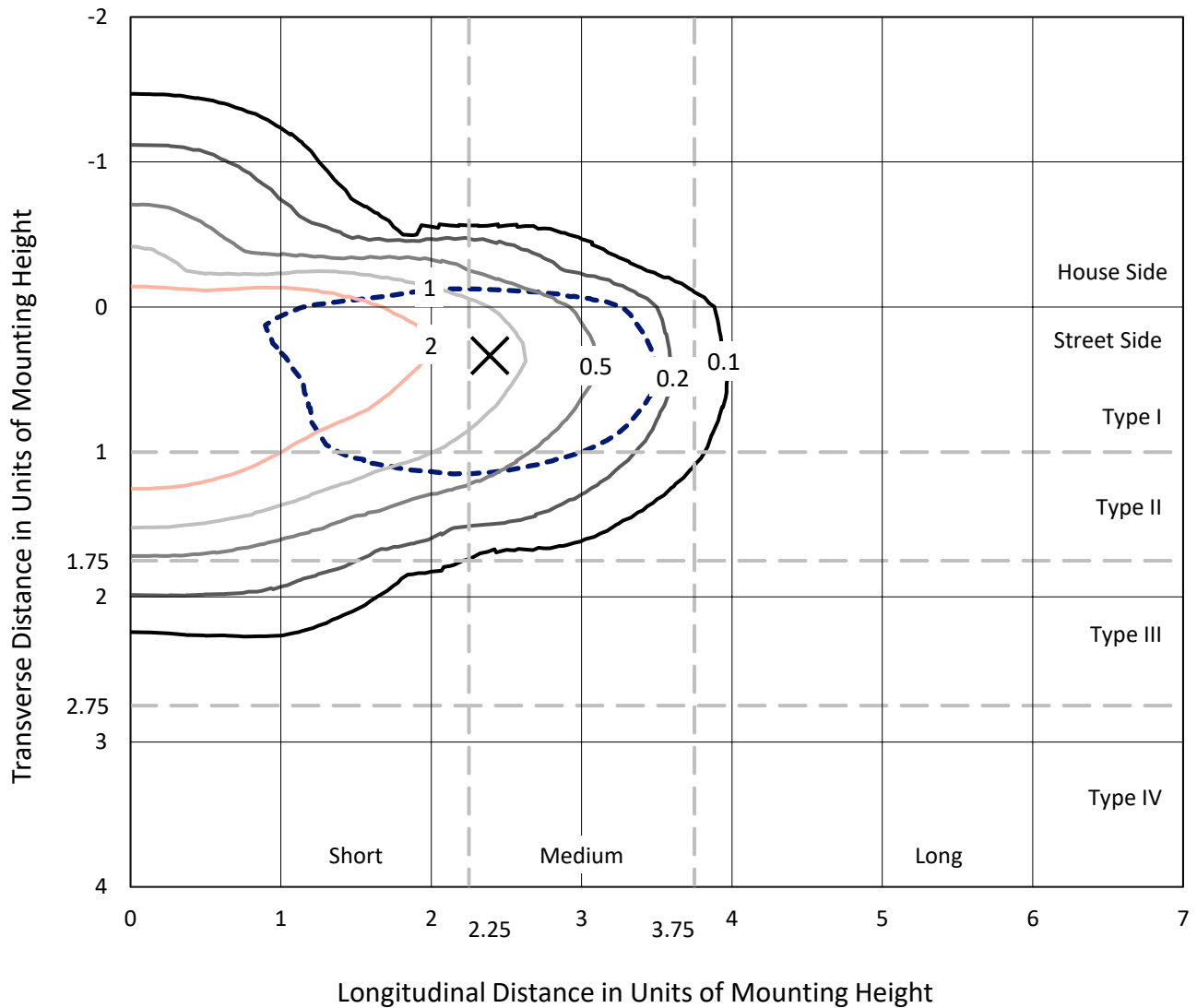
Input Watts (W): 147
Input Voltage (V): 120.0
Input Current (Ain): 1.255
Voltage Rise (V): NR
Power Factor: 0.988
Total Harmonic Distortion (THDi): 13.593
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

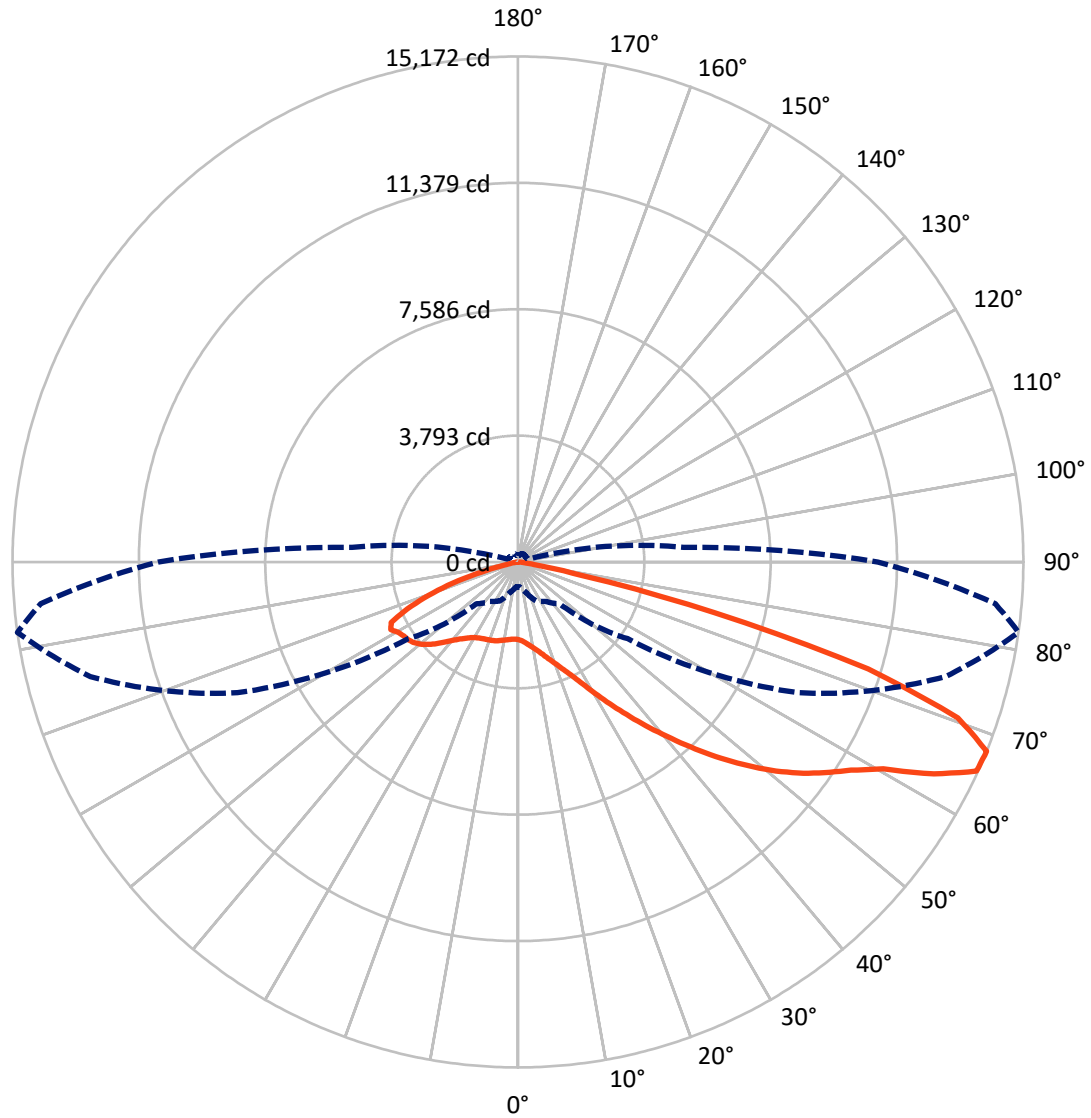
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.9 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral - - - Horizontal Cone Through 67.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2546.8 | 0.0 | 2546.8 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| Street Side | Lumens | 11513.2 | 0.0 | 11513.2 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| Total | Lumens | 14060.0 | 0.0 | 14060.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 207.5 | 1.5 |
| 10°-20° | 539.3 | 3.8 |
| 20°-30° | 863.7 | 6.1 |
| 30°-40° | 1527.3 | 10.9 |
| 40°-50° | 2676.0 | 19.0 |
| 50°-60° | 3569.1 | 25.4 |
| 60°-70° | 3322.6 | 23.6 |
| 70°-80° | 1275.2 | 9.1 |
| 80°-90° | 79.2 | 0.6 |
| 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° | 14060.0 | 100.0 |
| 0°-180° | 14060.0 | 100.0 |

Coefficient of Utilization



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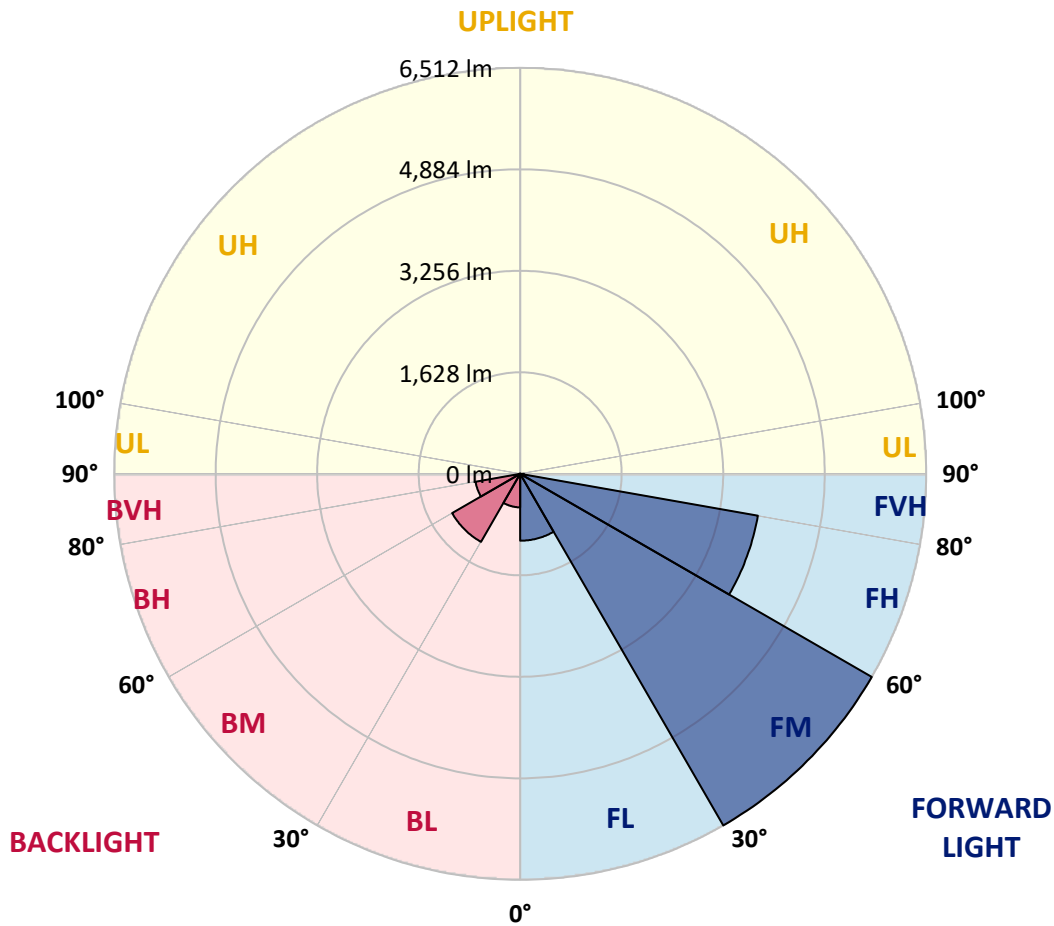
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1072.6 | 7.6 | | | |
| FM (30°-60°) | 6512.0 | 46.3 | | | |
| FH (60°-80°) | 3870.9 | 27.5 | | | G2/5000 |
| FVH (80°-90°) | 57.6 | 0.4 | | | G1/100 |
| BL (0°-30°) | 537.9 | 3.8 | B2/1000 | | |
| BM (30°-60°) | 1260.4 | 9.0 | B2/2500 | | |
| BH (60°-80°) | 726.9 | 5.2 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 21.6 | 0.2 | | | 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 Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 |
| 2.5° | 2461.9 | 2476.0 | 2467.9 | 2463.9 | 2456.8 | 2446.7 | 2438.6 | 2413.3 | 2387.0 | 2369.8 | 2363.7 |
| 5° | 2511.5 | 2525.6 | 2524.6 | 2528.7 | 2533.7 | 2536.8 | 2534.8 | 2506.4 | 2469.0 | 2439.6 | 2422.4 |
| 7.5° | 2469.0 | 2485.2 | 2498.3 | 2518.6 | 2554.0 | 2591.4 | 2609.7 | 2603.6 | 2565.1 | 2524.6 | 2503.4 |
| 10° | 2348.5 | 2365.7 | 2397.1 | 2444.7 | 2519.6 | 2600.6 | 2668.4 | 2699.8 | 2675.5 | 2630.9 | 2601.6 |
| 12.5° | 2127.8 | 2145.0 | 2206.8 | 2310.0 | 2435.6 | 2576.3 | 2705.8 | 2789.9 | 2795.9 | 2751.4 | 2717.0 |
| 15° | 1879.8 | 1897.0 | 1962.8 | 2092.4 | 2283.7 | 2509.5 | 2726.1 | 2885.0 | 2938.7 | 2900.2 | 2858.7 |
| 17.5° | 1725.9 | 1741.1 | 1790.7 | 1895.0 | 2094.4 | 2375.8 | 2719.0 | 2986.2 | 3108.7 | 3078.4 | 3028.8 |
| 20° | 1679.4 | 1692.5 | 1715.8 | 1788.7 | 1954.7 | 2237.1 | 2672.4 | 3081.4 | 3291.9 | 3274.7 | 3219.1 |
| 22.5° | 1729.0 | 1741.1 | 1748.2 | 1780.6 | 1884.9 | 2146.0 | 2613.7 | 3178.6 | 3504.5 | 3506.6 | 3438.7 |
| 25° | 1843.4 | 1855.5 | 1847.4 | 1867.7 | 1913.2 | 2117.7 | 2591.4 | 3293.0 | 3771.8 | 3794.0 | 3717.1 |
| 27.5° | 2031.7 | 2032.7 | 2013.4 | 2012.4 | 2019.5 | 2160.2 | 2614.7 | 3415.4 | 4108.9 | 4150.4 | 4055.2 |
| 30° | 2409.2 | 2394.1 | 2320.2 | 2240.2 | 2203.7 | 2287.8 | 2679.5 | 3560.2 | 4506.7 | 4580.6 | 4461.1 |
| 32.5° | 2991.3 | 2969.0 | 2833.4 | 2642.1 | 2449.7 | 2493.3 | 2795.9 | 3725.2 | 4939.9 | 5073.6 | 4927.8 |
| 35° | 3623.0 | 3616.9 | 3475.2 | 3190.7 | 2854.6 | 2785.8 | 2985.2 | 3941.8 | 5412.7 | 5625.3 | 5452.2 |
| 37.5° | 4210.1 | 4207.1 | 4126.1 | 3791.0 | 3382.0 | 3193.8 | 3288.9 | 4225.3 | 5918.8 | 6226.6 | 6022.1 |
| 40° | 4746.6 | 4755.7 | 4674.7 | 4375.1 | 3963.1 | 3717.1 | 3701.9 | 4575.5 | 6481.7 | 6881.5 | 6638.6 |
| 42.5° | 5210.2 | 5220.4 | 5138.4 | 4916.7 | 4537.1 | 4296.1 | 4209.1 | 5004.7 | 7031.3 | 7585.0 | 7297.6 |
| 45° | 5525.0 | 5587.8 | 5575.7 | 5398.5 | 5126.2 | 4876.2 | 4818.5 | 5543.3 | 7657.9 | 8331.1 | 7994.0 |
| 47.5° | 5614.1 | 5671.8 | 5762.9 | 5787.2 | 5621.2 | 5375.2 | 5444.1 | 6192.1 | 8291.6 | 9078.2 | 8694.5 |
| 50° | 5394.5 | 5448.1 | 5637.4 | 5889.5 | 6004.9 | 5928.9 | 6052.4 | 6887.6 | 8940.5 | 9823.2 | 9381.9 |
| 52.5° | 4961.2 | 5015.9 | 5254.8 | 5653.6 | 6124.3 | 6363.2 | 6662.9 | 7572.9 | 9569.1 | 10528.8 | 10032.7 |
| 55° | 4334.6 | 4392.3 | 4699.0 | 5150.5 | 5896.6 | 6542.4 | 7172.0 | 8257.2 | 10145.1 | 11163.5 | 10619.9 |
| 57.5° | 3482.3 | 3524.8 | 3843.6 | 4475.3 | 5323.6 | 6364.2 | 7547.6 | 9004.3 | 10687.7 | 11787.0 | 11201.9 |
| 60° | 2269.5 | 2307.0 | 2677.5 | 3382.0 | 4374.1 | 5769.0 | 7622.5 | 9837.4 | 11408.4 | 12597.9 | 11986.5 |
| 62.5° | 1509.3 | 1534.6 | 1754.3 | 2271.6 | 3080.4 | 4626.1 | 7184.2 | 10502.4 | 12465.3 | 14009.0 | 13331.8 |
| 65° | 1035.6 | 1060.9 | 1280.5 | 1640.9 | 1990.2 | 3060.1 | 5923.9 | 10414.4 | 13422.9 | 15129.6 | 14328.9 |
| 67.5° | 739.0 | 760.2 | 946.5 | 1286.6 | 1440.5 | 1777.6 | 4015.7 | 9288.7 | 13285.2 | 15172.1 | 14382.5 |
| 70° | 529.4 | 541.6 | 695.4 | 1002.2 | 1144.9 | 1068.0 | 2233.1 | 7104.2 | 11632.2 | 14010.0 | 13287.2 |
| 72.5° | 370.5 | 374.5 | 482.9 | 763.3 | 922.2 | 779.5 | 1062.9 | 4736.5 | 8797.8 | 10996.4 | 10301.0 |
| 75° | 251.0 | 256.1 | 324.9 | 559.8 | 740.0 | 595.2 | 562.8 | 2539.8 | 5164.7 | 6086.9 | 5456.2 |
| 77.5° | 153.9 | 155.9 | 209.5 | 382.6 | 553.7 | 453.5 | 362.4 | 1076.1 | 1998.2 | 1961.8 | 1672.3 |
| 80° | 87.1 | 87.1 | 133.6 | 237.9 | 377.6 | 292.6 | 254.1 | 457.6 | 632.7 | 555.7 | 489.9 |
| 82.5° | 48.6 | 49.6 | 97.2 | 147.8 | 250.0 | 173.1 | 139.7 | 211.6 | 273.3 | 241.9 | 210.6 |
| 85° | 20.2 | 22.3 | 59.7 | 69.8 | 119.4 | 86.0 | 56.7 | 89.1 | 101.2 | 90.1 | 65.8 |
| 87.5° | 2.0 | 3.0 | 18.2 | 13.2 | 14.2 | 17.2 | 8.1 | 17.2 | 14.2 | 14.2 | 10.1 |
| 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° | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 | 2329.3 |
| 2.5° | 2344.5 | 2329.3 | 2290.8 | 2246.3 | 2187.5 | 2159.2 | 2120.7 | 2094.4 | 2072.1 | 2074.2 | 2053.9 |
| 5° | 2390.0 | 2351.5 | 2265.5 | 2158.2 | 2024.6 | 1929.4 | 1828.2 | 1758.3 | 1701.6 | 1689.5 | 1662.2 |
| 7.5° | 2452.8 | 2392.0 | 2241.2 | 2047.9 | 1822.1 | 1651.0 | 1498.2 | 1400.0 | 1330.1 | 1307.9 | 1285.6 |
| 10° | 2533.7 | 2445.7 | 2209.8 | 1909.2 | 1584.2 | 1366.6 | 1202.6 | 1125.7 | 1078.1 | 1061.9 | 1049.7 |
| 12.5° | 2627.9 | 2507.4 | 2168.3 | 1740.1 | 1339.3 | 1129.7 | 1025.4 | 987.0 | 971.8 | 966.7 | 963.7 |
| 15° | 2746.3 | 2584.4 | 2105.6 | 1539.7 | 1131.7 | 985.0 | 940.4 | 935.4 | 937.4 | 935.4 | 934.3 |
| 17.5° | 2887.0 | 2668.4 | 2003.3 | 1333.2 | 992.0 | 911.1 | 894.9 | 898.9 | 904.0 | 903.0 | 900.9 |
| 20° | 3040.9 | 2751.4 | 1872.7 | 1150.0 | 896.9 | 858.4 | 849.3 | 853.4 | 857.4 | 855.4 | 854.4 |
| 22.5° | 3216.0 | 2840.5 | 1728.0 | 1007.2 | 833.1 | 809.8 | 799.7 | 800.7 | 800.7 | 796.7 | 794.6 |
| 25° | 3425.6 | 2938.7 | 1576.1 | 906.0 | 784.5 | 766.3 | 754.2 | 750.1 | 744.0 | 731.9 | 729.9 |
| 27.5° | 3675.6 | 3042.9 | 1430.4 | 835.1 | 746.1 | 728.8 | 714.7 | 704.5 | 689.4 | 669.1 | 667.1 |
| 30° | 3957.0 | 3169.5 | 1306.9 | 790.6 | 715.7 | 698.5 | 682.3 | 667.1 | 644.8 | 619.5 | 617.5 |
| 32.5° | 4288.0 | 3305.1 | 1216.8 | 761.2 | 688.4 | 670.1 | 650.9 | 632.7 | 608.4 | 583.1 | 584.1 |
| 35° | 4682.8 | 3469.1 | 1164.1 | 741.0 | 667.1 | 642.8 | 621.5 | 601.3 | 583.1 | 560.8 | 558.8 |
| 37.5° | 5111.0 | 3643.2 | 1147.9 | 730.9 | 652.9 | 615.5 | 591.2 | 577.0 | 575.0 | 561.8 | 560.8 |
| 40° | 5579.7 | 3849.7 | 1160.1 | 724.8 | 637.7 | 589.1 | 562.8 | 559.8 | 564.9 | 541.6 | 542.6 |
| 42.5° | 6075.7 | 4094.7 | 1180.3 | 717.7 | 616.5 | 562.8 | 537.5 | 537.5 | 533.5 | 501.1 | 501.1 |
| 45° | 6612.2 | 4377.1 | 1200.6 | 700.5 | 591.2 | 536.5 | 517.3 | 510.2 | 493.0 | 461.6 | 460.6 |
| 47.5° | 7152.8 | 4664.6 | 1215.8 | 669.1 | 560.8 | 514.2 | 497.0 | 480.8 | 455.5 | 427.2 | 426.2 |
| 50° | 7666.0 | 4922.7 | 1199.6 | 622.6 | 526.4 | 493.0 | 474.8 | 452.5 | 425.2 | 405.9 | 402.9 |
| 52.5° | 8124.6 | 5146.5 | 1130.7 | 567.9 | 489.9 | 470.7 | 454.5 | 431.2 | 409.0 | 388.7 | 386.7 |
| 55° | 8523.4 | 5327.7 | 1009.2 | 516.3 | 457.6 | 451.5 | 435.3 | 405.9 | 375.6 | 358.3 | 356.3 |
| 57.5° | 8906.1 | 5465.3 | 857.4 | 473.7 | 428.2 | 430.2 | 405.9 | 379.6 | 351.3 | 333.0 | 331.0 |
| 60° | 9415.3 | 5649.6 | 703.5 | 434.3 | 396.8 | 402.9 | 376.6 | 357.3 | 321.9 | 298.6 | 295.6 |
| 62.5° | 10229.1 | 5936.0 | 558.8 | 385.7 | 360.4 | 362.4 | 351.3 | 328.0 | 285.5 | 258.1 | 256.1 |
| 65° | 10875.0 | 5830.8 | 440.3 | 333.0 | 318.9 | 321.9 | 321.9 | 296.6 | 251.0 | 219.7 | 216.6 |
| 67.5° | 10802.1 | 4992.6 | 351.3 | 281.4 | 279.4 | 281.4 | 288.5 | 267.2 | 222.7 | 197.4 | 193.3 |
| 70° | 9950.8 | 3971.2 | 281.4 | 233.8 | 242.9 | 237.9 | 258.1 | 244.0 | 200.4 | 175.1 | 172.1 |
| 72.5° | 8119.5 | 2860.7 | 214.6 | 193.3 | 186.3 | 194.4 | 232.8 | 219.7 | 167.0 | 138.7 | 135.6 |
| 75° | 4744.6 | 1526.5 | 159.9 | 152.9 | 134.6 | 162.0 | 206.5 | 187.3 | 127.5 | 102.2 | 99.2 |
| 77.5° | 1544.7 | 532.5 | 117.4 | 112.4 | 100.2 | 130.6 | 176.1 | 157.9 | 104.3 | 81.0 | 77.9 |
| 80° | 414.0 | 161.0 | 80.0 | 73.9 | 64.8 | 97.2 | 139.7 | 125.5 | 74.9 | 52.6 | 51.6 |
| 82.5° | 166.0 | 67.8 | 46.6 | 41.5 | 35.4 | 66.8 | 110.3 | 101.2 | 55.7 | 33.4 | 33.4 |
| 85° | 53.7 | 22.3 | 17.2 | 13.2 | 16.2 | 41.5 | 65.8 | 68.8 | 39.5 | 17.2 | 13.2 |
| 87.5° | 7.1 | 3.0 | 3.0 | 4.0 | 3.0 | 7.1 | 20.2 | 19.2 | 11.1 | 2.0 | 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)