

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: P881776

Luminaire Tested: **NVN-SB1B-830-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881776
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-SB1B-830-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 3000K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3601 lumens
Efficiency: N/A
Efficacy: 90.5 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

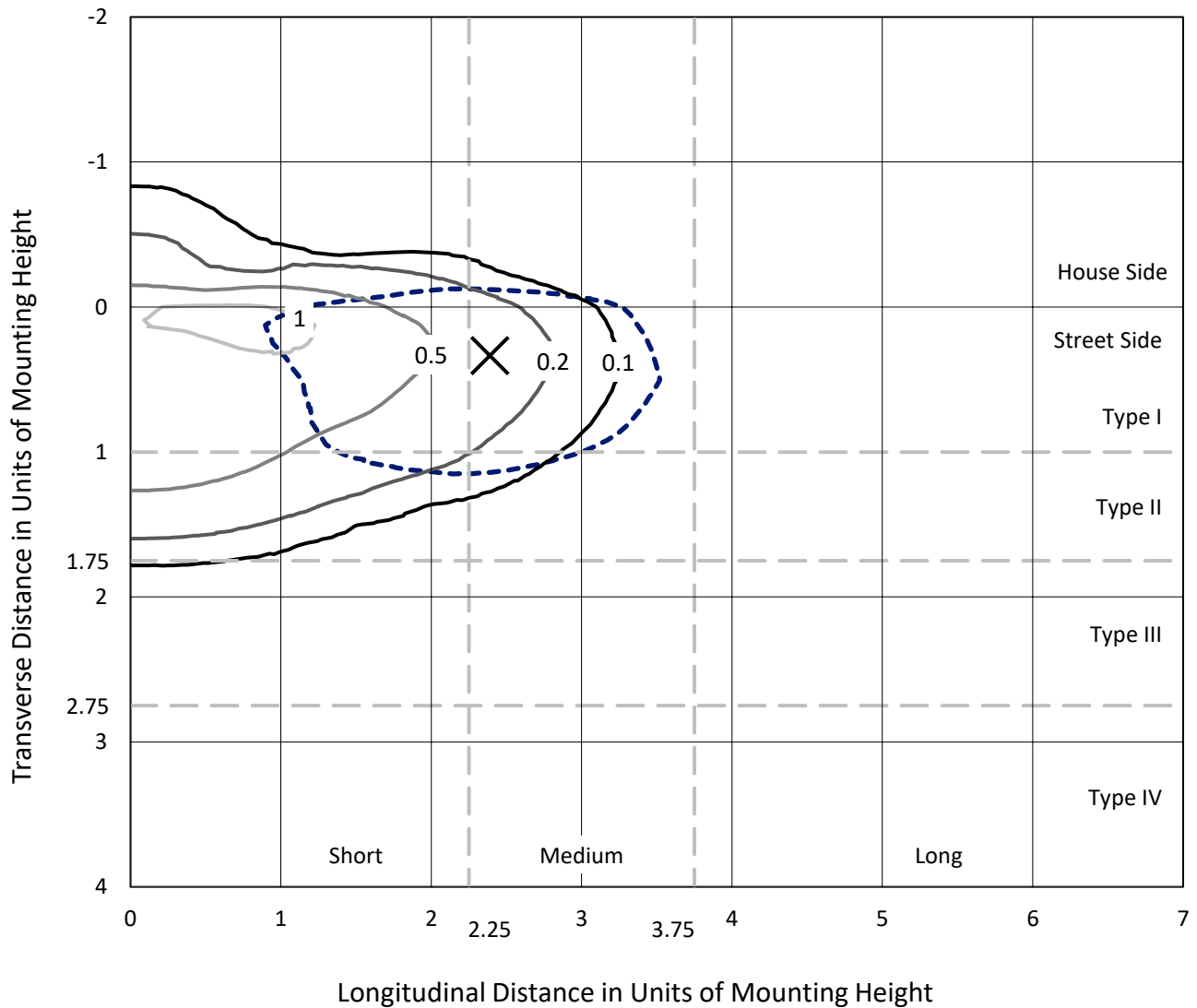
Input Watts (W): 39.8
Input Voltage (V): 120.0
Input Current (Ain): 0.33
Voltage Rise (V): NR
Power Factor: 0.996
Total Harmonic Distortion (THDi): 5.305
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

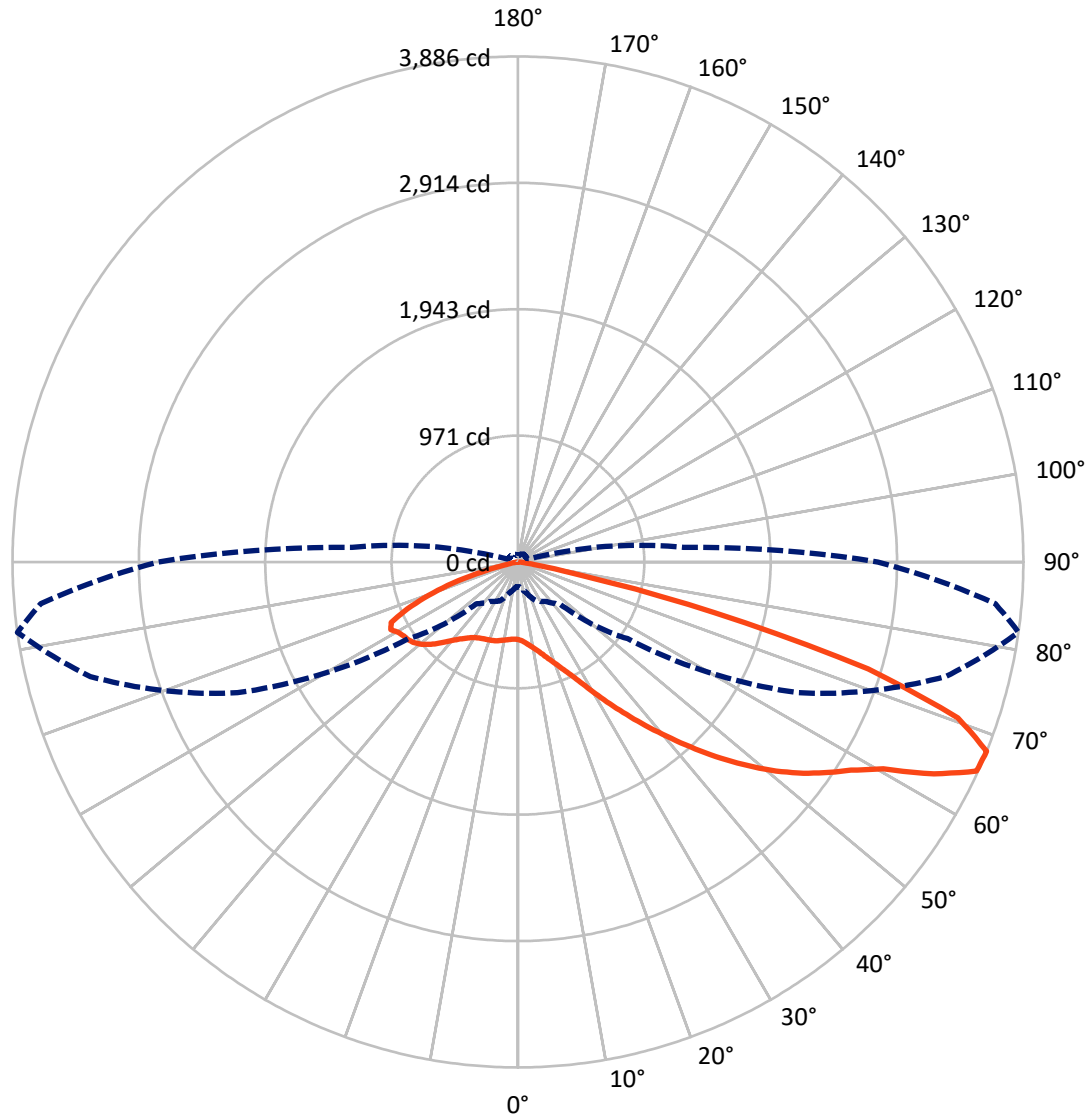
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.3 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 | 652.3 | 0.0 | 652.3 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| Street Side | Lumens | 2948.7 | 0.0 | 2948.7 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| Total | Lumens | 3601.0 | 0.0 | 3601.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 53.1 | 1.5 |
| 10°-20° | 138.1 | 3.8 |
| 20°-30° | 221.2 | 6.1 |
| 30°-40° | 391.2 | 10.9 |
| 40°-50° | 685.4 | 19.0 |
| 50°-60° | 914.1 | 25.4 |
| 60°-70° | 851.0 | 23.6 |
| 70°-80° | 326.6 | 9.1 |
| 80°-90° | 20.3 | 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° | 3601.0 | 100.0 |
| 0°-180° | 3601.0 | 100.0 |

Coefficient of Utilization



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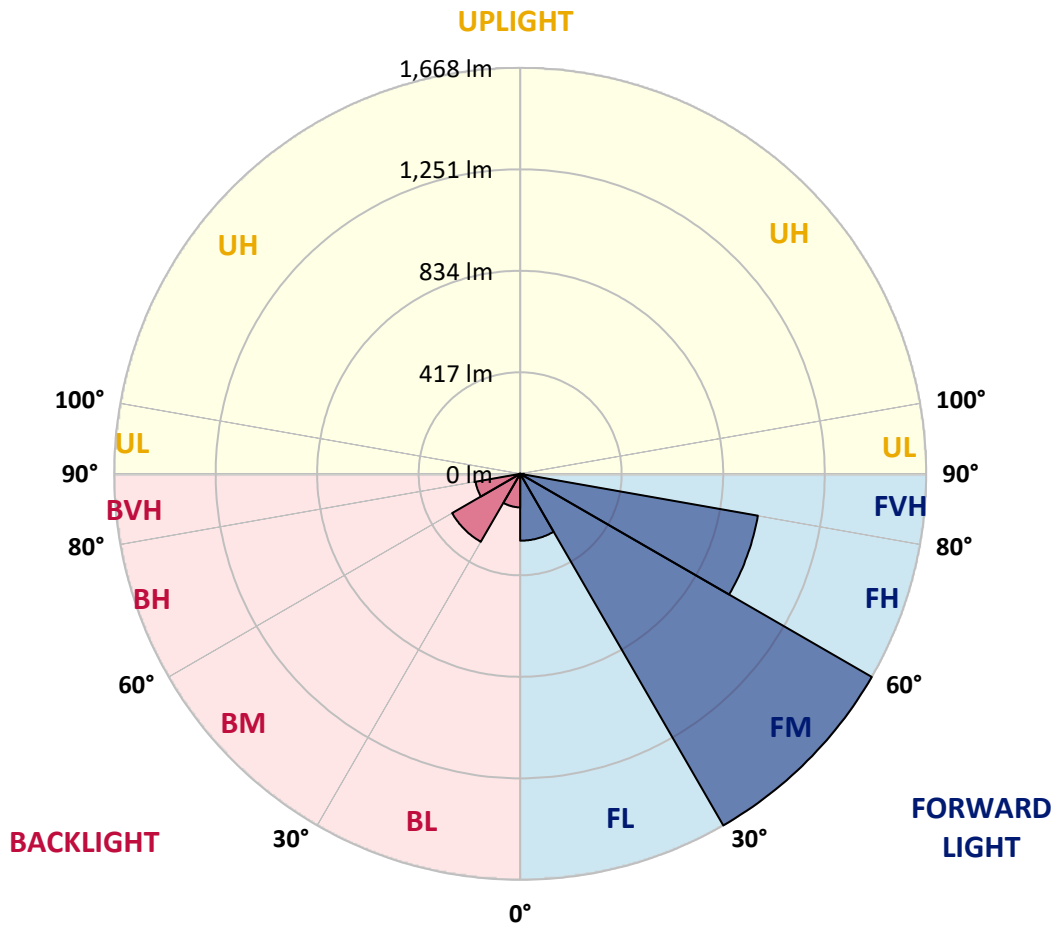
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 274.7 | 7.6 | | | |
| FM (30°-60°) | 1667.8 | 46.3 | | | |
| FH (60°-80°) | 991.4 | 27.5 | | | G1/1800 |
| FVH (80°-90°) | 14.7 | 0.4 | | | G1/100 |
| BL (0°-30°) | 137.8 | 3.8 | B1/500 | | |
| BM (30°-60°) | 322.8 | 9.0 | B1/1000 | | |
| BH (60°-80°) | 186.2 | 5.2 | B1/500 | | G1/500 |
| BVH (80°-90°) | 5.5 | 0.2 | | | G0/10 |
| 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° | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 |
| 2.5° | 630.5 | 634.2 | 632.1 | 631.0 | 629.2 | 626.6 | 624.6 | 618.1 | 611.3 | 606.9 | 605.4 |
| 5° | 643.2 | 646.9 | 646.6 | 647.6 | 648.9 | 649.7 | 649.2 | 641.9 | 632.3 | 624.8 | 620.4 |
| 7.5° | 632.3 | 636.5 | 639.9 | 645.0 | 654.1 | 663.7 | 668.4 | 666.8 | 657.0 | 646.6 | 641.2 |
| 10° | 601.5 | 605.9 | 613.9 | 626.1 | 645.3 | 666.0 | 683.4 | 691.5 | 685.2 | 673.8 | 666.3 |
| 12.5° | 545.0 | 549.4 | 565.2 | 591.6 | 623.8 | 659.8 | 693.0 | 714.5 | 716.1 | 704.7 | 695.9 |
| 15° | 481.5 | 485.9 | 502.7 | 535.9 | 584.9 | 642.7 | 698.2 | 738.9 | 752.6 | 742.8 | 732.2 |
| 17.5° | 442.0 | 445.9 | 458.6 | 485.3 | 536.4 | 608.5 | 696.4 | 764.8 | 796.2 | 788.4 | 775.7 |
| 20° | 430.1 | 433.5 | 439.5 | 458.1 | 500.6 | 573.0 | 684.5 | 789.2 | 843.1 | 838.7 | 824.5 |
| 22.5° | 442.8 | 445.9 | 447.7 | 456.0 | 482.7 | 549.6 | 669.4 | 814.1 | 897.6 | 898.1 | 880.7 |
| 25° | 472.1 | 475.2 | 473.2 | 478.3 | 490.0 | 542.4 | 663.7 | 843.4 | 966.0 | 971.7 | 952.0 |
| 27.5° | 520.3 | 520.6 | 515.7 | 515.4 | 517.2 | 553.3 | 669.7 | 874.8 | 1052.3 | 1063.0 | 1038.6 |
| 30° | 617.0 | 613.2 | 594.2 | 573.7 | 564.4 | 585.9 | 686.3 | 911.8 | 1154.2 | 1173.2 | 1142.6 |
| 32.5° | 766.1 | 760.4 | 725.7 | 676.7 | 627.4 | 638.6 | 716.1 | 954.1 | 1265.2 | 1299.4 | 1262.1 |
| 35° | 927.9 | 926.3 | 890.0 | 817.2 | 731.1 | 713.5 | 764.6 | 1009.6 | 1386.3 | 1440.7 | 1396.4 |
| 37.5° | 1078.3 | 1077.5 | 1056.8 | 970.9 | 866.2 | 818.0 | 842.3 | 1082.2 | 1515.9 | 1594.7 | 1542.4 |
| 40° | 1215.7 | 1218.0 | 1197.3 | 1120.5 | 1015.0 | 952.0 | 948.1 | 1171.9 | 1660.1 | 1762.5 | 1700.2 |
| 42.5° | 1334.4 | 1337.0 | 1316.0 | 1259.2 | 1162.0 | 1100.3 | 1078.0 | 1281.8 | 1800.8 | 1942.7 | 1869.0 |
| 45° | 1415.1 | 1431.1 | 1428.0 | 1382.6 | 1312.9 | 1248.9 | 1234.1 | 1419.7 | 1961.3 | 2133.7 | 2047.4 |
| 47.5° | 1437.9 | 1452.6 | 1476.0 | 1482.2 | 1439.7 | 1376.7 | 1394.3 | 1585.9 | 2123.6 | 2325.1 | 2226.8 |
| 50° | 1381.6 | 1395.4 | 1443.8 | 1508.4 | 1537.9 | 1518.5 | 1550.1 | 1764.0 | 2289.8 | 2515.9 | 2402.8 |
| 52.5° | 1270.6 | 1284.6 | 1345.8 | 1448.0 | 1568.5 | 1629.7 | 1706.5 | 1939.5 | 2450.8 | 2696.6 | 2569.6 |
| 55° | 1110.2 | 1124.9 | 1203.5 | 1319.1 | 1510.2 | 1675.6 | 1836.9 | 2114.8 | 2598.3 | 2859.2 | 2719.9 |
| 57.5° | 891.9 | 902.8 | 984.4 | 1146.2 | 1363.5 | 1630.0 | 1933.1 | 2306.1 | 2737.3 | 3018.9 | 2869.0 |
| 60° | 581.3 | 590.9 | 685.8 | 866.2 | 1120.3 | 1477.5 | 1952.2 | 2519.5 | 2921.9 | 3226.5 | 3069.9 |
| 62.5° | 386.6 | 393.0 | 449.3 | 581.8 | 788.9 | 1184.8 | 1840.0 | 2689.9 | 3192.6 | 3587.9 | 3414.5 |
| 65° | 265.2 | 271.7 | 328.0 | 420.3 | 509.7 | 783.8 | 1517.2 | 2667.3 | 3437.8 | 3874.9 | 3669.9 |
| 67.5° | 189.3 | 194.7 | 242.4 | 329.5 | 368.9 | 455.3 | 1028.5 | 2379.0 | 3402.6 | 3885.8 | 3683.6 |
| 70° | 135.6 | 138.7 | 178.1 | 256.7 | 293.2 | 273.5 | 571.9 | 1819.5 | 2979.2 | 3588.2 | 3403.1 |
| 72.5° | 94.9 | 95.9 | 123.7 | 195.5 | 236.2 | 199.6 | 272.2 | 1213.1 | 2253.3 | 2816.4 | 2638.3 |
| 75° | 64.3 | 65.6 | 83.2 | 143.4 | 189.5 | 152.4 | 144.2 | 650.5 | 1322.8 | 1558.9 | 1397.4 |
| 77.5° | 39.4 | 39.9 | 53.7 | 98.0 | 141.8 | 116.1 | 92.8 | 275.6 | 511.8 | 502.5 | 428.3 |
| 80° | 22.3 | 22.3 | 34.2 | 60.9 | 96.7 | 74.9 | 65.1 | 117.2 | 162.0 | 142.3 | 125.5 |
| 82.5° | 12.4 | 12.7 | 24.9 | 37.9 | 64.0 | 44.3 | 35.8 | 54.2 | 70.0 | 62.0 | 53.9 |
| 85° | 5.2 | 5.7 | 15.3 | 17.9 | 30.6 | 22.0 | 14.5 | 22.8 | 25.9 | 23.1 | 16.9 |
| 87.5° | 0.5 | 0.8 | 4.7 | 3.4 | 3.6 | 4.4 | 2.1 | 4.4 | 3.6 | 3.6 | 2.6 |
| 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° | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 | 596.6 |
| 2.5° | 600.5 | 596.6 | 586.7 | 575.3 | 560.3 | 553.0 | 543.2 | 536.4 | 530.7 | 531.2 | 526.0 |
| 5° | 612.1 | 602.3 | 580.2 | 552.7 | 518.5 | 494.2 | 468.2 | 450.3 | 435.8 | 432.7 | 425.7 |
| 7.5° | 628.2 | 612.6 | 574.0 | 524.5 | 466.7 | 422.9 | 383.7 | 358.6 | 340.7 | 335.0 | 329.3 |
| 10° | 648.9 | 626.4 | 566.0 | 489.0 | 405.7 | 350.0 | 308.0 | 288.3 | 276.1 | 272.0 | 268.9 |
| 12.5° | 673.0 | 642.2 | 555.3 | 445.7 | 343.0 | 289.3 | 262.6 | 252.8 | 248.9 | 247.6 | 246.8 |
| 15° | 703.4 | 661.9 | 539.3 | 394.3 | 289.9 | 252.3 | 240.9 | 239.6 | 240.1 | 239.6 | 239.3 |
| 17.5° | 739.4 | 683.4 | 513.1 | 341.4 | 254.1 | 233.3 | 229.2 | 230.2 | 231.5 | 231.3 | 230.7 |
| 20° | 778.8 | 704.7 | 479.6 | 294.5 | 229.7 | 219.9 | 217.5 | 218.6 | 219.6 | 219.1 | 218.8 |
| 22.5° | 823.7 | 727.5 | 442.6 | 258.0 | 213.4 | 207.4 | 204.8 | 205.1 | 205.1 | 204.0 | 203.5 |
| 25° | 877.3 | 752.6 | 403.7 | 232.0 | 200.9 | 196.3 | 193.2 | 192.1 | 190.6 | 187.4 | 186.9 |
| 27.5° | 941.4 | 779.3 | 366.3 | 213.9 | 191.1 | 186.7 | 183.0 | 180.4 | 176.6 | 171.4 | 170.9 |
| 30° | 1013.5 | 811.8 | 334.7 | 202.5 | 183.3 | 178.9 | 174.7 | 170.9 | 165.2 | 158.7 | 158.2 |
| 32.5° | 1098.2 | 846.5 | 311.6 | 195.0 | 176.3 | 171.6 | 166.7 | 162.0 | 155.8 | 149.3 | 149.6 |
| 35° | 1199.3 | 888.5 | 298.2 | 189.8 | 170.9 | 164.6 | 159.2 | 154.0 | 149.3 | 143.6 | 143.1 |
| 37.5° | 1309.0 | 933.1 | 294.0 | 187.2 | 167.2 | 157.6 | 151.4 | 147.8 | 147.3 | 143.9 | 143.6 |
| 40° | 1429.1 | 986.0 | 297.1 | 185.6 | 163.3 | 150.9 | 144.2 | 143.4 | 144.7 | 138.7 | 139.0 |
| 42.5° | 1556.1 | 1048.7 | 302.3 | 183.8 | 157.9 | 144.2 | 137.7 | 137.7 | 136.6 | 128.3 | 128.3 |
| 45° | 1693.5 | 1121.1 | 307.5 | 179.4 | 151.4 | 137.4 | 132.5 | 130.7 | 126.3 | 118.2 | 118.0 |
| 47.5° | 1832.0 | 1194.7 | 311.4 | 171.4 | 143.6 | 131.7 | 127.3 | 123.1 | 116.7 | 109.4 | 109.1 |
| 50° | 1963.4 | 1260.8 | 307.2 | 159.4 | 134.8 | 126.3 | 121.6 | 115.9 | 108.9 | 104.0 | 103.2 |
| 52.5° | 2080.8 | 1318.1 | 289.6 | 145.4 | 125.5 | 120.6 | 116.4 | 110.4 | 104.7 | 99.6 | 99.0 |
| 55° | 2183.0 | 1364.5 | 258.5 | 132.2 | 117.2 | 115.6 | 111.5 | 104.0 | 96.2 | 91.8 | 91.3 |
| 57.5° | 2281.0 | 1399.8 | 219.6 | 121.3 | 109.7 | 110.2 | 104.0 | 97.2 | 90.0 | 85.3 | 84.8 |
| 60° | 2411.4 | 1446.9 | 180.2 | 111.2 | 101.6 | 103.2 | 96.4 | 91.5 | 82.4 | 76.5 | 75.7 |
| 62.5° | 2619.9 | 1520.3 | 143.1 | 98.8 | 92.3 | 92.8 | 90.0 | 84.0 | 73.1 | 66.1 | 65.6 |
| 65° | 2785.3 | 1493.4 | 112.8 | 85.3 | 81.7 | 82.4 | 82.4 | 76.0 | 64.3 | 56.3 | 55.5 |
| 67.5° | 2766.6 | 1278.7 | 90.0 | 72.1 | 71.6 | 72.1 | 73.9 | 68.4 | 57.0 | 50.6 | 49.5 |
| 70° | 2548.6 | 1017.1 | 72.1 | 59.9 | 62.2 | 60.9 | 66.1 | 62.5 | 51.3 | 44.9 | 44.1 |
| 72.5° | 2079.5 | 732.7 | 55.0 | 49.5 | 47.7 | 49.8 | 59.6 | 56.3 | 42.8 | 35.5 | 34.7 |
| 75° | 1215.2 | 391.0 | 41.0 | 39.1 | 34.5 | 41.5 | 52.9 | 48.0 | 32.7 | 26.2 | 25.4 |
| 77.5° | 395.6 | 136.4 | 30.1 | 28.8 | 25.7 | 33.4 | 45.1 | 40.4 | 26.7 | 20.7 | 20.0 |
| 80° | 106.0 | 41.2 | 20.5 | 18.9 | 16.6 | 24.9 | 35.8 | 32.1 | 19.2 | 13.5 | 13.2 |
| 82.5° | 42.5 | 17.4 | 11.9 | 10.6 | 9.1 | 17.1 | 28.3 | 25.9 | 14.3 | 8.6 | 8.6 |
| 85° | 13.7 | 5.7 | 4.4 | 3.4 | 4.1 | 10.6 | 16.9 | 17.6 | 10.1 | 4.4 | 3.4 |
| 87.5° | 1.8 | 0.8 | 0.8 | 1.0 | 0.8 | 1.8 | 5.2 | 4.9 | 2.9 | 0.5 | 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)