

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: P881868

Luminaire Tested: **NAV-SB1C-722-U-T3-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881868
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-6)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1C-722-U-T3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 2200K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE III OPTICS
WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4684 lumens
Efficiency: N/A
Efficacy: 86.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short
BUG Rating: B1 - U0 - G1

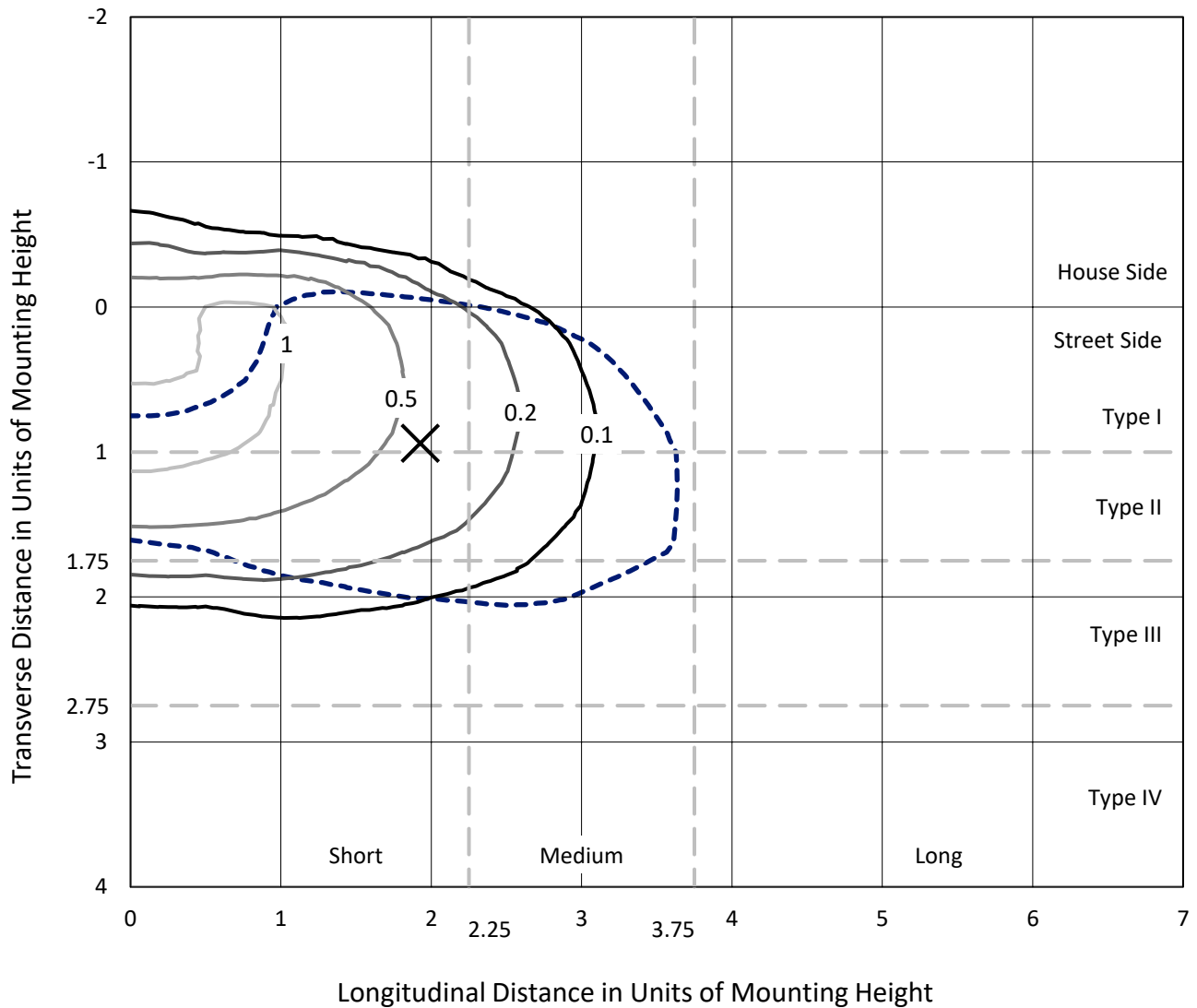
Input Watts (W): 54.4
Input Voltage (V): 120.0
Input Current (Ain): 0.437
Voltage Rise (V): NR
Power Factor: 0.993
Total Harmonic Distortion (THDi): 9.314
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

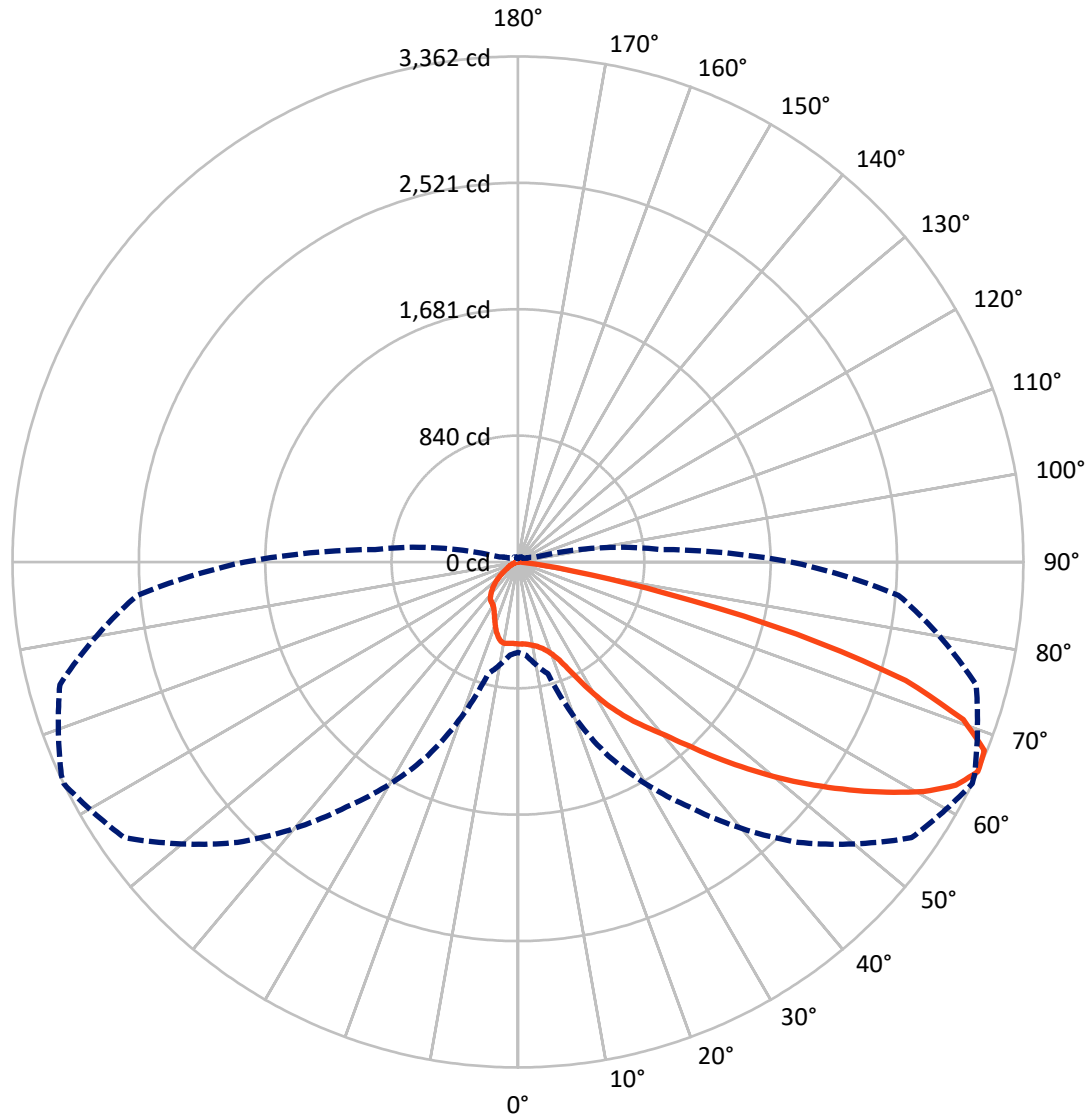
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.4 fc
 Type III - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 64-Deg Lateral - - - Horizontal Cone Through 65-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 626.4 | 0.0 | 626.4 |
| | % Fixture | 13.4 | 0.0 | 13.4 |
| Street Side | Lumens | 4057.6 | 0.0 | 4057.6 |
| | % Fixture | 86.6 | 0.0 | 86.6 |
| Total | Lumens | 4684.0 | 0.0 | 4684.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 50.3 | 1.1 |
| 10°-20° | 136.3 | 2.9 |
| 20°-30° | 258.3 | 5.5 |
| 30°-40° | 522.7 | 11.2 |
| 40°-50° | 890.5 | 19.0 |
| 50°-60° | 1211.0 | 25.9 |
| 60°-70° | 1137.2 | 24.3 |
| 70°-80° | 455.6 | 9.7 |
| 80°-90° | 22.1 | 0.5 |
| 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° | 4684.0 | 100.0 |
| 0°-180° | 4684.0 | 100.0 |

Coefficient of Utilization



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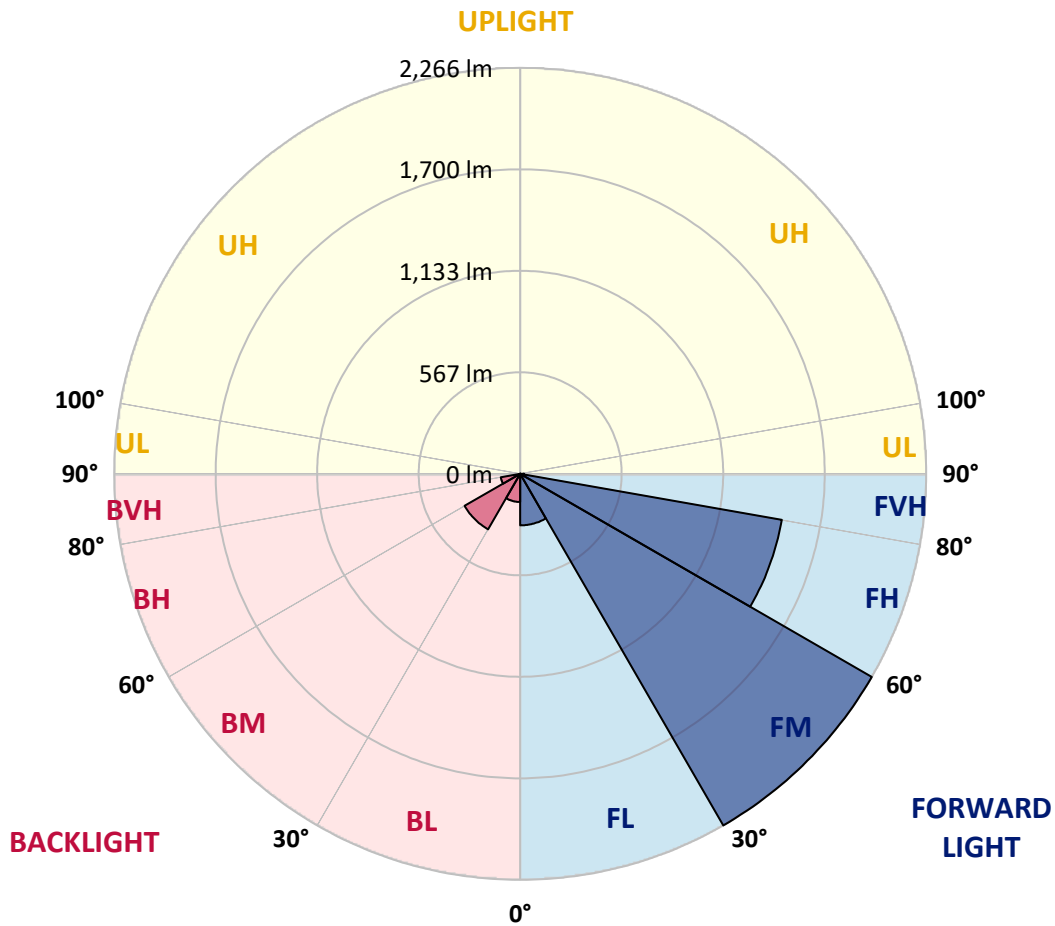
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 287.7 | 6.1 | | | |
| FM (30°-60°) | 2266.1 | 48.4 | | | |
| FH (60°-80°) | 1482.8 | 31.7 | | | G1/1800 |
| FVH (80°-90°) | 21.0 | 0.4 | | | G1/100 |
| BL (0°-30°) | 157.3 | 3.4 | B1/500 | | |
| BM (30°-60°) | 358.1 | 7.6 | B1/1000 | | |
| BH (60°-80°) | 109.9 | 2.3 | B0/110 | | G0/110 |
| BVH (80°-90°) | 1.1 | 0.0 | | | 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 III Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 64° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 |
| 2.5° | 542.9 | 546.7 | 545.7 | 544.8 | 544.5 | 545.1 | 545.4 | 545.1 | 545.1 | 545.1 | 545.4 |
| 5° | 532.6 | 535.7 | 535.7 | 537.9 | 541.0 | 544.8 | 547.6 | 548.3 | 548.9 | 549.8 | 549.5 |
| 7.5° | 512.8 | 515.3 | 517.2 | 524.4 | 532.2 | 542.3 | 550.8 | 555.2 | 555.8 | 559.2 | 560.5 |
| 10° | 499.3 | 502.4 | 505.5 | 513.1 | 524.4 | 539.5 | 553.9 | 564.6 | 566.2 | 574.3 | 578.1 |
| 12.5° | 498.6 | 501.8 | 505.9 | 514.0 | 527.2 | 543.2 | 560.8 | 576.2 | 579.0 | 591.0 | 598.8 |
| 15° | 505.2 | 509.0 | 512.8 | 522.8 | 536.9 | 556.4 | 575.3 | 594.4 | 597.2 | 614.2 | 622.7 |
| 17.5° | 518.7 | 523.8 | 526.6 | 536.6 | 551.7 | 573.4 | 598.2 | 620.2 | 622.7 | 642.5 | 653.1 |
| 20° | 545.4 | 551.4 | 552.3 | 560.5 | 575.3 | 598.5 | 628.0 | 655.3 | 658.5 | 681.1 | 693.0 |
| 22.5° | 600.7 | 609.2 | 601.6 | 605.7 | 618.9 | 642.1 | 674.2 | 708.7 | 713.1 | 738.9 | 749.5 |
| 25° | 698.0 | 710.0 | 690.5 | 683.6 | 689.2 | 713.4 | 753.6 | 797.3 | 802.3 | 823.0 | 828.3 |
| 27.5° | 889.3 | 873.9 | 844.4 | 815.5 | 798.5 | 812.3 | 857.5 | 911.6 | 917.8 | 937.9 | 931.7 |
| 30° | 1099.3 | 1085.8 | 1045.9 | 981.9 | 941.7 | 939.5 | 981.3 | 1041.6 | 1048.8 | 1067.9 | 1048.8 |
| 32.5° | 1309.7 | 1296.8 | 1253.5 | 1174.7 | 1105.0 | 1070.4 | 1099.3 | 1166.2 | 1170.0 | 1182.2 | 1154.0 |
| 35° | 1516.6 | 1503.5 | 1460.1 | 1379.4 | 1293.7 | 1215.2 | 1209.5 | 1284.9 | 1286.2 | 1299.0 | 1257.0 |
| 37.5° | 1724.8 | 1713.8 | 1667.7 | 1588.5 | 1504.1 | 1395.8 | 1343.3 | 1397.3 | 1398.9 | 1411.5 | 1367.8 |
| 40° | 1873.4 | 1878.1 | 1846.3 | 1785.1 | 1712.6 | 1594.2 | 1493.4 | 1517.0 | 1507.5 | 1528.6 | 1502.5 |
| 42.5° | 2000.8 | 2010.3 | 1982.6 | 1951.9 | 1909.8 | 1805.5 | 1679.3 | 1675.2 | 1660.1 | 1671.4 | 1644.4 |
| 45° | 2111.1 | 2118.9 | 2094.1 | 2086.9 | 2085.9 | 2012.8 | 1882.5 | 1858.0 | 1836.9 | 1834.7 | 1802.4 |
| 47.5° | 2151.6 | 2166.6 | 2177.3 | 2201.5 | 2248.6 | 2217.8 | 2092.5 | 2054.5 | 2031.0 | 2013.7 | 1962.5 |
| 50° | 2166.9 | 2183.0 | 2219.4 | 2289.7 | 2401.2 | 2414.4 | 2301.7 | 2258.9 | 2230.1 | 2198.7 | 2123.3 |
| 52.5° | 2146.2 | 2174.8 | 2223.8 | 2342.2 | 2503.9 | 2572.0 | 2502.3 | 2464.9 | 2432.0 | 2380.8 | 2269.0 |
| 55° | 2024.1 | 2052.6 | 2152.8 | 2341.5 | 2555.1 | 2682.5 | 2692.0 | 2675.3 | 2638.3 | 2557.6 | 2386.7 |
| 57.5° | 1766.6 | 1809.0 | 1967.6 | 2261.8 | 2554.1 | 2777.7 | 2877.9 | 2889.8 | 2848.3 | 2732.8 | 2479.4 |
| 60° | 1409.9 | 1467.3 | 1660.8 | 2085.0 | 2475.3 | 2829.2 | 3040.8 | 3100.5 | 3056.5 | 2905.5 | 2554.4 |
| 62.5° | 983.8 | 1050.3 | 1233.4 | 1808.0 | 2295.1 | 2792.1 | 3159.8 | 3270.0 | 3236.8 | 3060.0 | 2583.3 |
| 65° | 600.1 | 621.4 | 769.0 | 1422.8 | 1988.6 | 2637.0 | 3196.6 | 3361.7 | 3350.7 | 3154.5 | 2540.6 |
| 67.5° | 399.7 | 417.6 | 460.0 | 975.6 | 1543.6 | 2327.1 | 3108.6 | 3345.7 | 3348.9 | 3139.1 | 2384.2 |
| 70° | 240.8 | 256.2 | 283.9 | 567.4 | 1000.4 | 1842.0 | 2836.4 | 3141.6 | 3159.8 | 2933.4 | 2087.8 |
| 72.5° | 99.2 | 109.6 | 134.7 | 257.2 | 518.1 | 1169.0 | 2258.6 | 2697.3 | 2739.7 | 2466.5 | 1602.4 |
| 75° | 56.2 | 61.5 | 79.1 | 129.1 | 224.8 | 544.8 | 1368.1 | 1914.8 | 1977.3 | 1700.0 | 964.0 |
| 77.5° | 37.4 | 39.9 | 51.2 | 83.5 | 126.5 | 185.9 | 584.7 | 997.6 | 1116.9 | 928.5 | 417.3 |
| 80° | 25.1 | 27.3 | 35.2 | 55.9 | 82.3 | 79.8 | 186.2 | 369.6 | 454.7 | 319.0 | 101.7 |
| 82.5° | 17.0 | 17.3 | 25.1 | 36.7 | 52.1 | 38.6 | 55.0 | 114.9 | 144.4 | 92.3 | 38.6 |
| 85° | 9.7 | 9.4 | 18.5 | 21.4 | 23.2 | 16.0 | 16.6 | 34.5 | 45.2 | 38.9 | 22.0 |
| 87.5° | 1.3 | 1.9 | 7.2 | 5.7 | 3.1 | 3.5 | 3.5 | 6.0 | 8.8 | 9.4 | 4.7 |
| 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° | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 | 544.8 |
| 2.5° | 545.4 | 545.1 | 544.2 | 543.2 | 541.0 | 539.8 | 540.4 | 539.8 | 539.5 | 539.8 | 541.0 |
| 5° | 549.5 | 548.6 | 546.1 | 542.9 | 538.5 | 533.2 | 529.7 | 524.7 | 520.0 | 517.2 | 517.8 |
| 7.5° | 560.5 | 559.6 | 556.1 | 547.3 | 533.2 | 510.9 | 490.5 | 472.6 | 459.1 | 451.2 | 451.5 |
| 10° | 578.1 | 576.5 | 571.2 | 551.7 | 514.7 | 466.0 | 425.5 | 391.9 | 369.9 | 359.5 | 358.6 |
| 12.5° | 598.8 | 596.9 | 587.5 | 547.6 | 479.5 | 403.5 | 347.6 | 310.2 | 289.8 | 280.7 | 279.8 |
| 15° | 623.3 | 620.8 | 602.3 | 528.2 | 428.3 | 334.4 | 283.2 | 255.3 | 242.1 | 233.9 | 234.2 |
| 17.5° | 653.8 | 649.4 | 613.3 | 499.0 | 372.7 | 281.7 | 243.7 | 222.6 | 211.0 | 203.2 | 202.5 |
| 20° | 693.3 | 686.1 | 622.0 | 464.1 | 321.5 | 248.4 | 217.0 | 199.4 | 190.6 | 183.7 | 182.4 |
| 22.5° | 748.6 | 738.2 | 632.7 | 426.4 | 285.4 | 225.5 | 197.2 | 184.3 | 177.1 | 169.2 | 168.0 |
| 25° | 817.0 | 804.8 | 645.9 | 391.6 | 260.6 | 205.7 | 182.8 | 172.1 | 163.6 | 154.5 | 153.5 |
| 27.5° | 912.8 | 890.8 | 661.6 | 363.0 | 239.3 | 188.7 | 169.6 | 157.6 | 147.9 | 140.4 | 138.8 |
| 30° | 1019.6 | 983.5 | 675.4 | 345.7 | 219.8 | 173.0 | 152.3 | 140.4 | 131.3 | 125.9 | 125.0 |
| 32.5° | 1120.7 | 1071.7 | 684.5 | 338.2 | 202.2 | 155.1 | 133.5 | 120.6 | 113.7 | 112.1 | 113.0 |
| 35° | 1216.1 | 1151.5 | 683.6 | 331.0 | 186.5 | 137.2 | 114.9 | 101.7 | 96.4 | 97.3 | 97.3 |
| 37.5° | 1326.0 | 1236.5 | 677.0 | 319.7 | 173.6 | 120.9 | 98.9 | 87.3 | 82.6 | 82.9 | 84.2 |
| 40° | 1453.8 | 1334.8 | 672.9 | 298.3 | 159.5 | 105.8 | 85.7 | 76.3 | 72.8 | 71.6 | 71.3 |
| 42.5° | 1590.1 | 1430.0 | 673.5 | 274.1 | 141.9 | 92.3 | 76.6 | 68.8 | 65.6 | 64.7 | 64.4 |
| 45° | 1727.0 | 1520.7 | 674.5 | 249.0 | 123.4 | 82.0 | 70.0 | 63.4 | 61.5 | 60.3 | 60.3 |
| 47.5° | 1855.8 | 1598.0 | 656.9 | 222.0 | 105.2 | 74.1 | 64.7 | 60.3 | 58.7 | 57.1 | 57.1 |
| 50° | 1975.7 | 1649.5 | 614.5 | 190.6 | 90.7 | 67.8 | 60.6 | 57.5 | 55.9 | 54.3 | 54.3 |
| 52.5° | 2069.0 | 1657.6 | 544.5 | 158.3 | 80.7 | 63.1 | 58.1 | 55.3 | 53.4 | 51.8 | 51.5 |
| 55° | 2110.4 | 1606.4 | 444.9 | 128.1 | 72.8 | 59.0 | 55.6 | 52.8 | 50.6 | 49.0 | 48.7 |
| 57.5° | 2099.7 | 1498.7 | 347.0 | 103.0 | 65.3 | 55.0 | 52.4 | 50.6 | 48.0 | 45.5 | 45.2 |
| 60° | 2047.3 | 1354.6 | 261.6 | 85.7 | 58.4 | 50.6 | 49.0 | 47.4 | 44.0 | 40.2 | 39.6 |
| 62.5° | 1956.6 | 1173.4 | 186.5 | 71.0 | 50.9 | 45.5 | 44.9 | 43.6 | 38.6 | 31.7 | 31.1 |
| 65° | 1817.8 | 953.3 | 125.6 | 59.0 | 43.6 | 39.9 | 40.2 | 38.0 | 31.4 | 23.6 | 22.9 |
| 67.5° | 1614.9 | 697.1 | 80.4 | 48.4 | 36.4 | 33.3 | 33.6 | 32.3 | 26.7 | 20.1 | 19.2 |
| 70° | 1356.5 | 461.6 | 52.4 | 36.7 | 29.2 | 25.7 | 27.6 | 27.9 | 22.6 | 16.3 | 15.7 |
| 72.5° | 994.5 | 272.6 | 36.7 | 27.3 | 21.4 | 17.9 | 22.6 | 23.2 | 18.2 | 12.2 | 11.6 |
| 75° | 566.8 | 129.4 | 27.6 | 19.8 | 13.2 | 12.6 | 17.6 | 17.6 | 12.6 | 8.2 | 7.5 |
| 77.5° | 238.0 | 54.0 | 19.5 | 12.9 | 7.5 | 7.2 | 11.9 | 11.0 | 6.3 | 3.8 | 3.8 |
| 80° | 68.8 | 24.2 | 10.4 | 6.3 | 3.1 | 2.8 | 4.7 | 3.5 | 1.6 | 0.6 | 0.6 |
| 82.5° | 27.0 | 10.7 | 4.1 | 2.5 | 1.3 | 1.3 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 16.0 | 4.4 | 1.9 | 0.9 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 4.1 | 0.9 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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)