

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: P882111

Luminaire Tested: **NVN-SB1D-827-U-T4FT**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882111
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-SB1D-827-U-T4FT
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 80 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD
THROW OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8179 lumens
Efficiency: N/A
Efficacy: 102.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G2

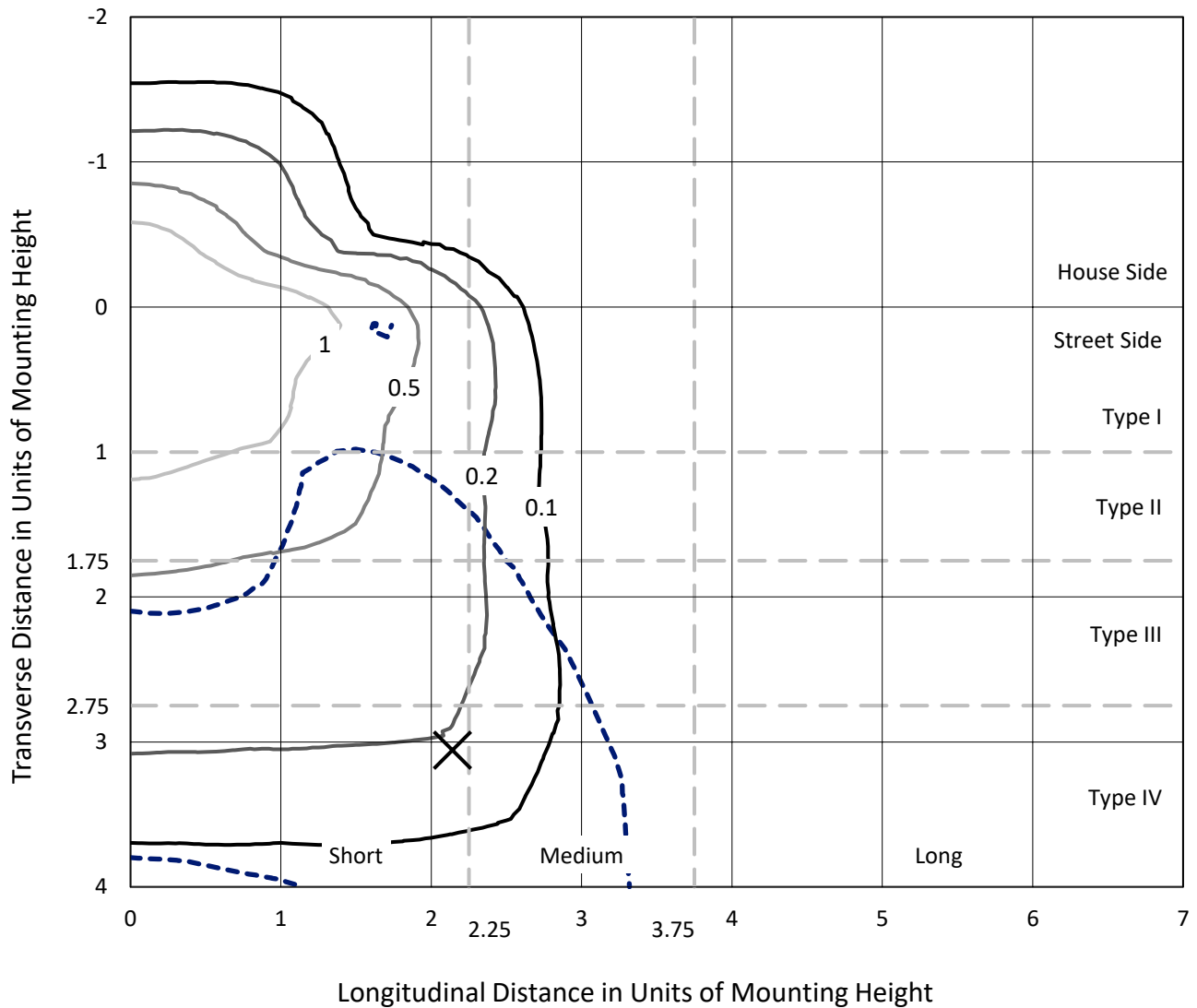
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

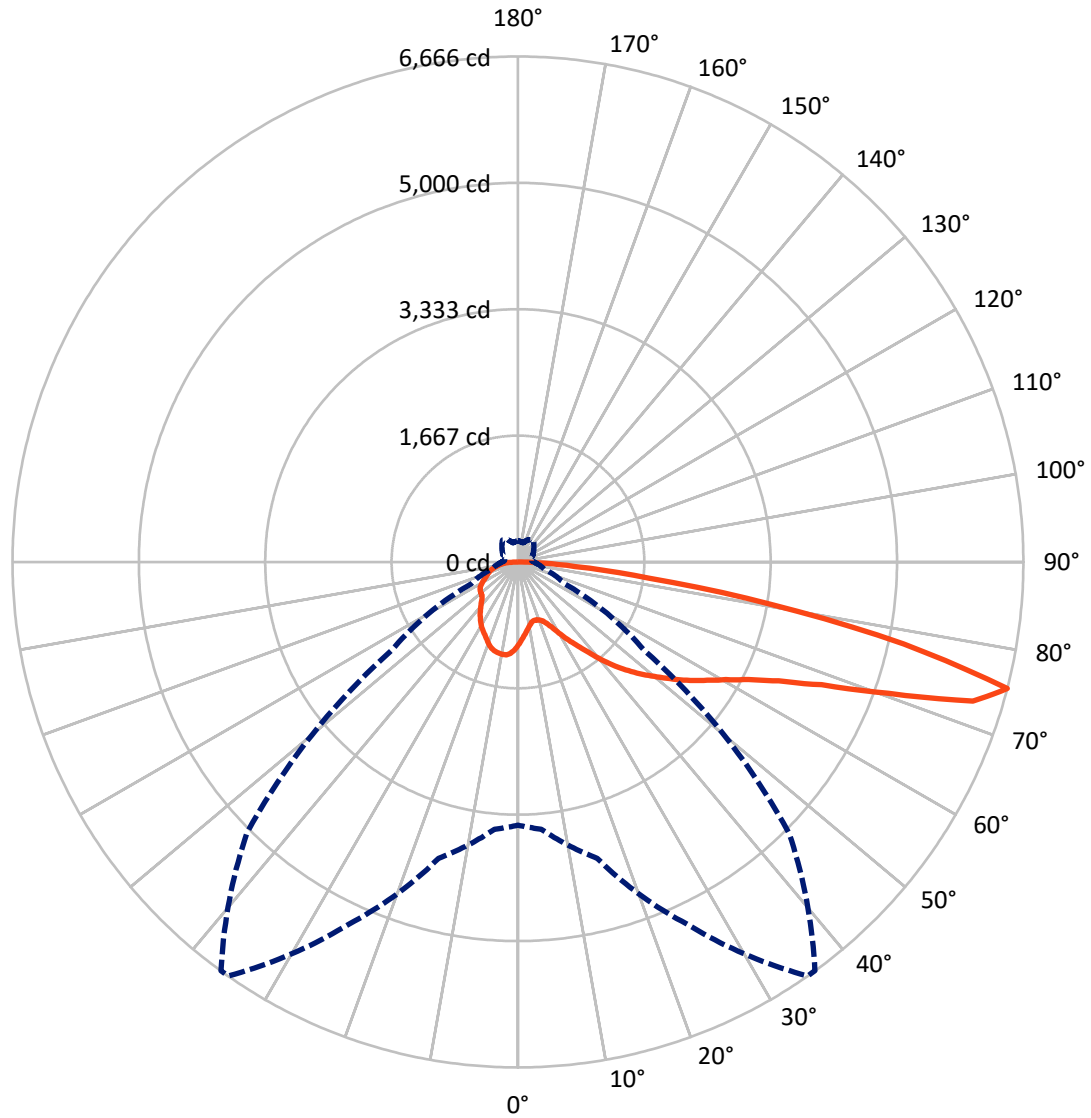
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.9 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 | 1946.4 | 0.0 | 1946.4 |
| | % Fixture | 23.8 | 0.0 | 23.8 |
| Street Side | Lumens | 6232.6 | 0.0 | 6232.6 |
| | % Fixture | 76.2 | 0.0 | 76.2 |
| Total | Lumens | 8179.0 | 0.0 | 8179.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 103.2 | 1.3 |
| 10°-20° | 297.7 | 3.6 |
| 20°-30° | 499.8 | 6.1 |
| 30°-40° | 776.8 | 9.5 |
| 40°-50° | 1153.0 | 14.1 |
| 50°-60° | 1591.8 | 19.5 |
| 60°-70° | 1931.2 | 23.6 |
| 70°-80° | 1596.0 | 19.5 |
| 80°-90° | 229.6 | 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° | 8179.0 | 100.0 |
| 0°-180° | 8179.0 | 100.0 |

Coefficient of Utilization



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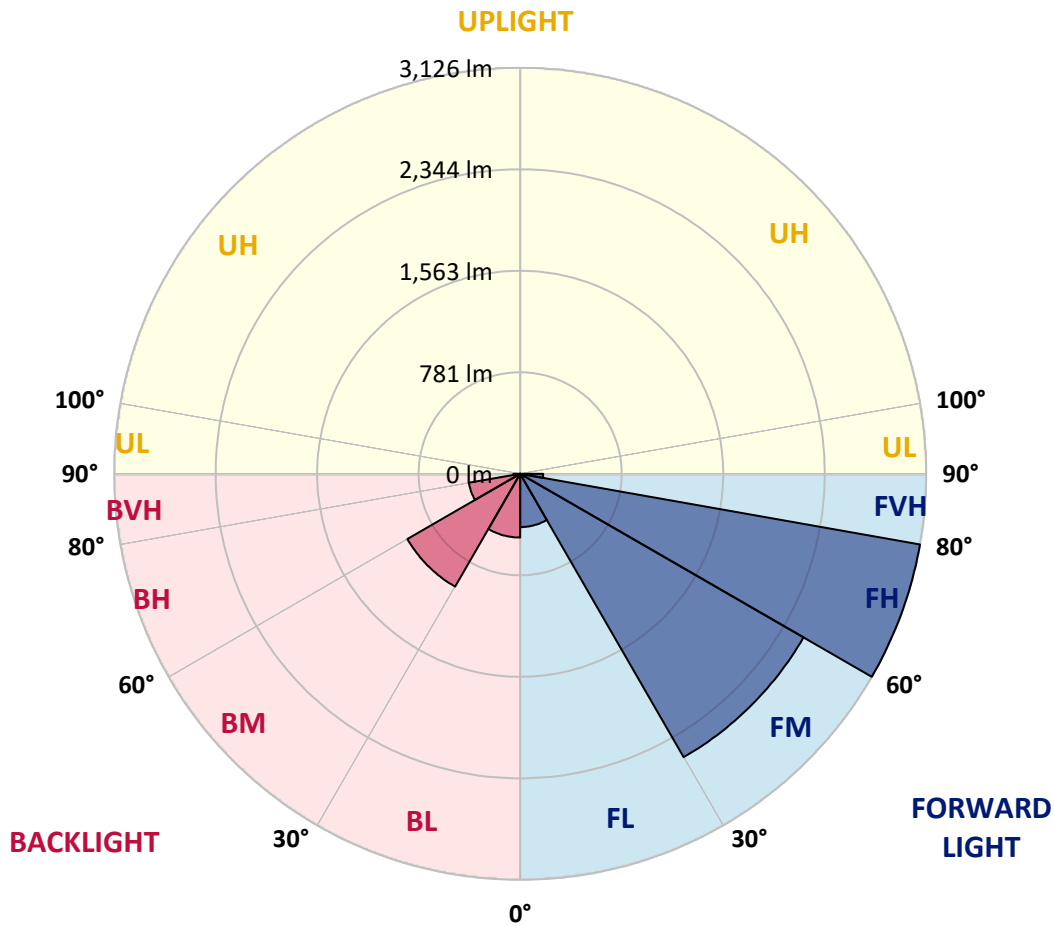
CATALOG NUMBER: NVN-SB1D-827-U-T4FT

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 410.2 | 5.0 | | | |
| FM (30°-60°) | 2518.7 | 30.8 | | | |
| FH (60°-80°) | 3125.9 | 38.2 | | | G2/5000 |
| FVH (80°-90°) | 177.9 | 2.2 | | | G2/225 |
| BL (0°-30°) | 490.5 | 6.0 | B1/500 | | |
| BM (30°-60°) | 1002.9 | 12.3 | B2/2500 | | |
| BH (60°-80°) | 401.3 | 4.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 51.7 | 0.6 | | | 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 IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 36° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 |
| 2.5° | 1005.0 | 1011.2 | 1013.9 | 1012.5 | 1019.2 | 1018.3 | 1027.6 | 1039.1 | 1055.0 | 1070.5 | 1093.0 |
| 5° | 927.6 | 934.3 | 940.0 | 945.3 | 958.1 | 962.1 | 976.7 | 998.8 | 1028.0 | 1057.6 | 1094.8 |
| 7.5° | 855.6 | 861.3 | 870.2 | 879.9 | 901.5 | 905.5 | 929.8 | 964.3 | 1005.0 | 1048.3 | 1099.6 |
| 10° | 796.8 | 802.5 | 811.8 | 822.8 | 849.8 | 854.7 | 885.6 | 931.6 | 984.7 | 1039.5 | 1104.9 |
| 12.5° | 771.6 | 773.3 | 778.6 | 789.7 | 813.1 | 816.2 | 850.3 | 902.9 | 964.8 | 1032.9 | 1112.9 |
| 15° | 770.2 | 773.8 | 774.2 | 780.0 | 799.4 | 800.7 | 832.1 | 884.3 | 952.4 | 1031.5 | 1124.8 |
| 17.5° | 783.5 | 786.1 | 782.2 | 785.7 | 802.1 | 804.3 | 829.0 | 875.5 | 948.4 | 1037.3 | 1145.2 |
| 20° | 818.9 | 821.1 | 809.1 | 804.3 | 816.2 | 818.0 | 842.3 | 881.2 | 952.4 | 1049.2 | 1173.0 |
| 22.5° | 894.0 | 895.4 | 866.2 | 846.3 | 847.2 | 848.0 | 869.3 | 904.6 | 967.9 | 1070.9 | 1208.4 |
| 25° | 1011.2 | 1010.3 | 963.9 | 925.4 | 903.3 | 898.5 | 912.6 | 942.7 | 994.0 | 1099.6 | 1253.9 |
| 27.5° | 1148.3 | 1141.6 | 1095.2 | 1037.7 | 989.5 | 982.5 | 979.4 | 992.2 | 1031.1 | 1137.7 | 1309.7 |
| 30° | 1303.0 | 1296.8 | 1246.9 | 1171.7 | 1104.9 | 1093.4 | 1064.3 | 1057.6 | 1086.4 | 1189.4 | 1387.0 |
| 32.5° | 1472.8 | 1468.8 | 1409.1 | 1318.1 | 1228.7 | 1215.5 | 1166.4 | 1148.7 | 1171.3 | 1267.7 | 1494.9 |
| 35° | 1615.2 | 1611.6 | 1562.1 | 1468.4 | 1359.2 | 1342.8 | 1292.9 | 1273.0 | 1284.5 | 1368.0 | 1636.0 |
| 37.5° | 1743.9 | 1742.1 | 1699.6 | 1625.8 | 1513.0 | 1493.2 | 1437.0 | 1430.4 | 1428.2 | 1500.2 | 1807.1 |
| 40° | 1863.2 | 1858.8 | 1814.6 | 1775.7 | 1692.1 | 1674.0 | 1624.5 | 1618.7 | 1601.9 | 1662.9 | 2000.7 |
| 42.5° | 1995.4 | 1983.9 | 1919.8 | 1901.7 | 1879.2 | 1864.1 | 1834.5 | 1835.4 | 1798.2 | 1846.4 | 2205.9 |
| 45° | 2103.3 | 2096.7 | 2030.8 | 2020.2 | 2044.5 | 2038.3 | 2064.0 | 2070.6 | 1998.5 | 2038.8 | 2419.0 |
| 47.5° | 2219.2 | 2213.0 | 2157.3 | 2149.7 | 2215.6 | 2217.4 | 2308.0 | 2310.2 | 2194.0 | 2238.6 | 2632.6 |
| 50° | 2362.0 | 2353.1 | 2297.9 | 2307.2 | 2381.0 | 2387.6 | 2553.4 | 2538.4 | 2373.9 | 2441.6 | 2844.4 |
| 52.5° | 2456.2 | 2461.5 | 2449.5 | 2464.6 | 2565.4 | 2571.6 | 2794.8 | 2756.4 | 2552.1 | 2641.9 | 3052.2 |
| 55° | 2525.6 | 2536.2 | 2573.3 | 2607.8 | 2759.9 | 2766.1 | 3022.6 | 2963.8 | 2699.8 | 2827.6 | 3247.6 |
| 57.5° | 2614.9 | 2599.9 | 2669.3 | 2736.5 | 2944.7 | 2961.1 | 3244.1 | 3163.6 | 2830.7 | 2987.6 | 3381.6 |
| 60° | 2743.1 | 2732.5 | 2786.4 | 2885.9 | 3151.7 | 3177.8 | 3478.4 | 3343.6 | 2926.6 | 3114.5 | 3407.7 |
| 62.5° | 3003.1 | 2976.6 | 2985.0 | 3073.0 | 3412.5 | 3447.0 | 3742.8 | 3500.5 | 2974.4 | 3164.0 | 3268.0 |
| 65° | 3391.8 | 3346.2 | 3303.8 | 3364.8 | 3780.0 | 3814.0 | 4041.3 | 3623.9 | 2956.7 | 3068.1 | 2897.0 |
| 67.5° | 3881.2 | 3836.1 | 3783.9 | 3841.4 | 4321.2 | 4348.1 | 4409.6 | 3693.3 | 2817.4 | 2698.5 | 2241.3 |
| 70° | 4284.9 | 4268.1 | 4330.4 | 4567.0 | 5185.6 | 5186.5 | 4881.8 | 3635.8 | 2435.8 | 1913.2 | 1296.8 |
| 72.5° | 4231.4 | 4221.2 | 4549.8 | 5281.1 | 6275.0 | 6251.6 | 5328.8 | 3200.7 | 1640.8 | 863.1 | 485.9 |
| 75° | 3471.3 | 3537.2 | 4046.1 | 5268.3 | 6666.3 | 6663.2 | 5055.1 | 2034.8 | 678.7 | 357.7 | 251.1 |
| 77.5° | 1861.5 | 1965.8 | 2626.8 | 3889.6 | 5204.1 | 5282.4 | 3554.0 | 711.9 | 291.4 | 229.0 | 173.8 |
| 80° | 607.1 | 698.2 | 1047.0 | 1980.4 | 3381.6 | 3367.0 | 1523.2 | 279.4 | 199.4 | 162.3 | 120.3 |
| 82.5° | 257.8 | 268.4 | 467.8 | 935.2 | 1735.5 | 1708.5 | 485.0 | 160.5 | 140.2 | 111.0 | 74.3 |
| 85° | 100.8 | 112.7 | 206.5 | 432.4 | 751.7 | 735.3 | 175.1 | 79.6 | 89.8 | 72.5 | 44.2 |
| 87.5° | 33.2 | 40.2 | 73.8 | 148.1 | 233.9 | 225.5 | 42.9 | 27.4 | 38.9 | 33.2 | 15.9 |
| 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° | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 | 1089.9 |
| 2.5° | 1099.2 | 1106.3 | 1114.7 | 1127.0 | 1137.7 | 1146.5 | 1155.8 | 1161.5 | 1163.7 | 1170.4 | 1169.9 |
| 5° | 1107.2 | 1122.6 | 1143.4 | 1163.7 | 1183.6 | 1195.6 | 1206.2 | 1211.5 | 1216.4 | 1219.9 | 1220.8 |
| 7.5° | 1120.4 | 1140.3 | 1173.0 | 1199.6 | 1216.4 | 1226.1 | 1233.2 | 1231.4 | 1233.2 | 1234.0 | 1235.4 |
| 10° | 1131.9 | 1159.8 | 1198.7 | 1223.9 | 1236.7 | 1237.1 | 1235.4 | 1229.2 | 1226.1 | 1226.5 | 1227.4 |
| 12.5° | 1145.6 | 1176.6 | 1218.6 | 1239.8 | 1243.3 | 1233.6 | 1226.1 | 1215.5 | 1211.5 | 1209.7 | 1208.8 |
| 15° | 1164.2 | 1199.6 | 1240.2 | 1248.2 | 1239.4 | 1227.0 | 1214.2 | 1196.9 | 1188.1 | 1181.0 | 1183.2 |
| 17.5° | 1186.7 | 1225.6 | 1257.0 | 1251.3 | 1232.3 | 1211.9 | 1191.2 | 1165.1 | 1146.9 | 1139.4 | 1139.9 |
| 20° | 1218.1 | 1253.1 | 1269.9 | 1244.7 | 1215.9 | 1185.0 | 1149.6 | 1117.8 | 1101.0 | 1093.4 | 1092.6 |
| 22.5° | 1256.2 | 1289.8 | 1282.2 | 1233.2 | 1192.5 | 1143.0 | 1098.8 | 1075.3 | 1066.9 | 1061.6 | 1062.5 |
| 25° | 1301.7 | 1330.4 | 1291.1 | 1216.4 | 1154.0 | 1087.3 | 1053.2 | 1045.7 | 1041.7 | 1037.7 | 1037.7 |
| 27.5° | 1360.9 | 1376.4 | 1297.7 | 1191.6 | 1093.9 | 1028.0 | 1015.6 | 1017.0 | 1015.6 | 1009.0 | 1010.3 |
| 30° | 1439.2 | 1436.1 | 1303.9 | 1151.4 | 1024.9 | 974.5 | 975.4 | 981.1 | 982.0 | 977.6 | 979.8 |
| 32.5° | 1542.2 | 1510.8 | 1307.0 | 1099.2 | 959.0 | 927.6 | 928.5 | 934.7 | 939.1 | 931.6 | 935.2 |
| 35° | 1666.9 | 1597.9 | 1302.1 | 1033.8 | 908.2 | 883.0 | 876.3 | 878.1 | 879.4 | 872.4 | 877.2 |
| 37.5° | 1812.4 | 1695.7 | 1280.5 | 961.2 | 866.2 | 839.2 | 825.1 | 813.1 | 806.0 | 799.4 | 803.8 |
| 40° | 1972.0 | 1802.2 | 1240.7 | 890.5 | 819.3 | 792.8 | 771.6 | 749.0 | 725.1 | 716.3 | 720.3 |
| 42.5° | 2139.1 | 1911.9 | 1192.5 | 822.8 | 765.4 | 743.7 | 721.2 | 688.4 | 652.6 | 634.5 | 636.7 |
| 45° | 2312.5 | 2024.2 | 1145.2 | 756.1 | 710.1 | 700.8 | 674.7 | 635.4 | 596.5 | 573.5 | 571.7 |
| 47.5° | 2482.2 | 2130.3 | 1075.8 | 688.9 | 658.4 | 668.5 | 648.2 | 611.9 | 568.6 | 532.4 | 528.4 |
| 50° | 2644.5 | 2229.8 | 962.1 | 620.8 | 616.4 | 658.8 | 639.4 | 587.2 | 537.7 | 491.2 | 487.3 |
| 52.5° | 2805.5 | 2310.2 | 816.7 | 558.9 | 593.8 | 656.2 | 627.9 | 570.4 | 509.8 | 461.2 | 455.9 |
| 55° | 2942.1 | 2351.8 | 676.5 | 505.8 | 561.1 | 633.6 | 614.2 | 550.5 | 470.5 | 418.7 | 414.3 |
| 57.5° | 3019.9 | 2318.2 | 559.8 | 453.6 | 516.0 | 596.5 | 590.7 | 508.0 | 423.6 | 383.8 | 378.5 |
| 60° | 2986.3 | 2182.0 | 464.3 | 408.1 | 473.1 | 556.2 | 550.0 | 466.0 | 387.8 | 350.2 | 344.9 |
| 62.5° | 2801.0 | 1922.5 | 388.7 | 368.3 | 434.2 | 515.1 | 509.4 | 433.8 | 360.4 | 324.1 | 318.4 |
| 65° | 2427.9 | 1563.9 | 329.8 | 335.2 | 394.8 | 465.6 | 474.0 | 406.8 | 338.7 | 303.3 | 297.6 |
| 67.5° | 1851.7 | 1132.8 | 283.9 | 306.4 | 356.4 | 417.0 | 441.3 | 387.3 | 320.6 | 287.0 | 281.7 |
| 70° | 1055.4 | 643.3 | 245.0 | 278.6 | 322.3 | 371.9 | 416.1 | 371.9 | 301.1 | 273.3 | 269.7 |
| 72.5° | 400.1 | 295.4 | 211.8 | 250.7 | 289.6 | 333.8 | 388.2 | 347.5 | 278.6 | 257.8 | 254.2 |
| 75° | 213.6 | 180.0 | 178.2 | 218.0 | 252.0 | 296.7 | 353.3 | 323.7 | 261.8 | 272.4 | 281.2 |
| 77.5° | 145.5 | 127.3 | 149.0 | 186.6 | 210.9 | 255.6 | 316.1 | 287.4 | 226.8 | 225.9 | 208.3 |
| 80° | 100.8 | 90.2 | 121.1 | 150.3 | 163.2 | 214.9 | 275.9 | 246.7 | 184.8 | 172.4 | 164.9 |
| 82.5° | 60.6 | 58.8 | 90.6 | 112.3 | 115.4 | 165.8 | 228.6 | 206.9 | 151.2 | 131.8 | 132.6 |
| 85° | 33.2 | 34.9 | 57.9 | 65.9 | 67.2 | 115.8 | 179.1 | 160.1 | 116.3 | 97.7 | 98.6 |
| 87.5° | 9.3 | 11.9 | 21.2 | 26.1 | 32.3 | 60.1 | 106.6 | 95.1 | 58.4 | 40.7 | 40.7 |
| 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)