

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: P881903

Luminaire Tested: **NAV-SB1C-740-U-SL4-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881903
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1C-740-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 4000K, 615mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5641 lumens
Efficiency: N/A
Efficacy: 103.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

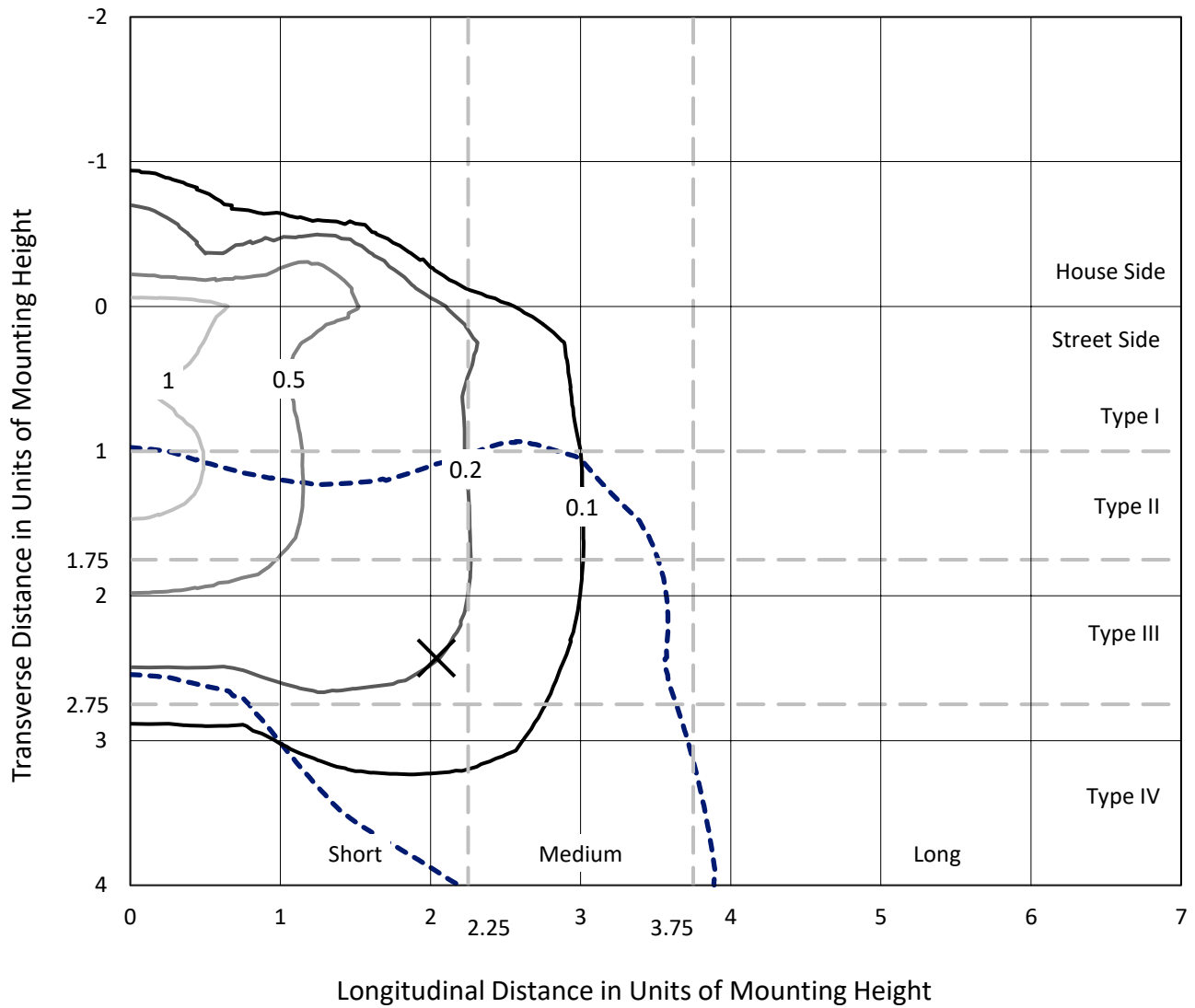
Input Watts (W): 54.4
Input Voltage (V): 120.0
Input Current (Ain): 0.437
Voltage Rise (V): NR
Power Factor: 0.993
Total Harmonic Distortion (THDi): 9.314
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P881903
 CATALOG NUMBER: NAV-SB1C-740-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

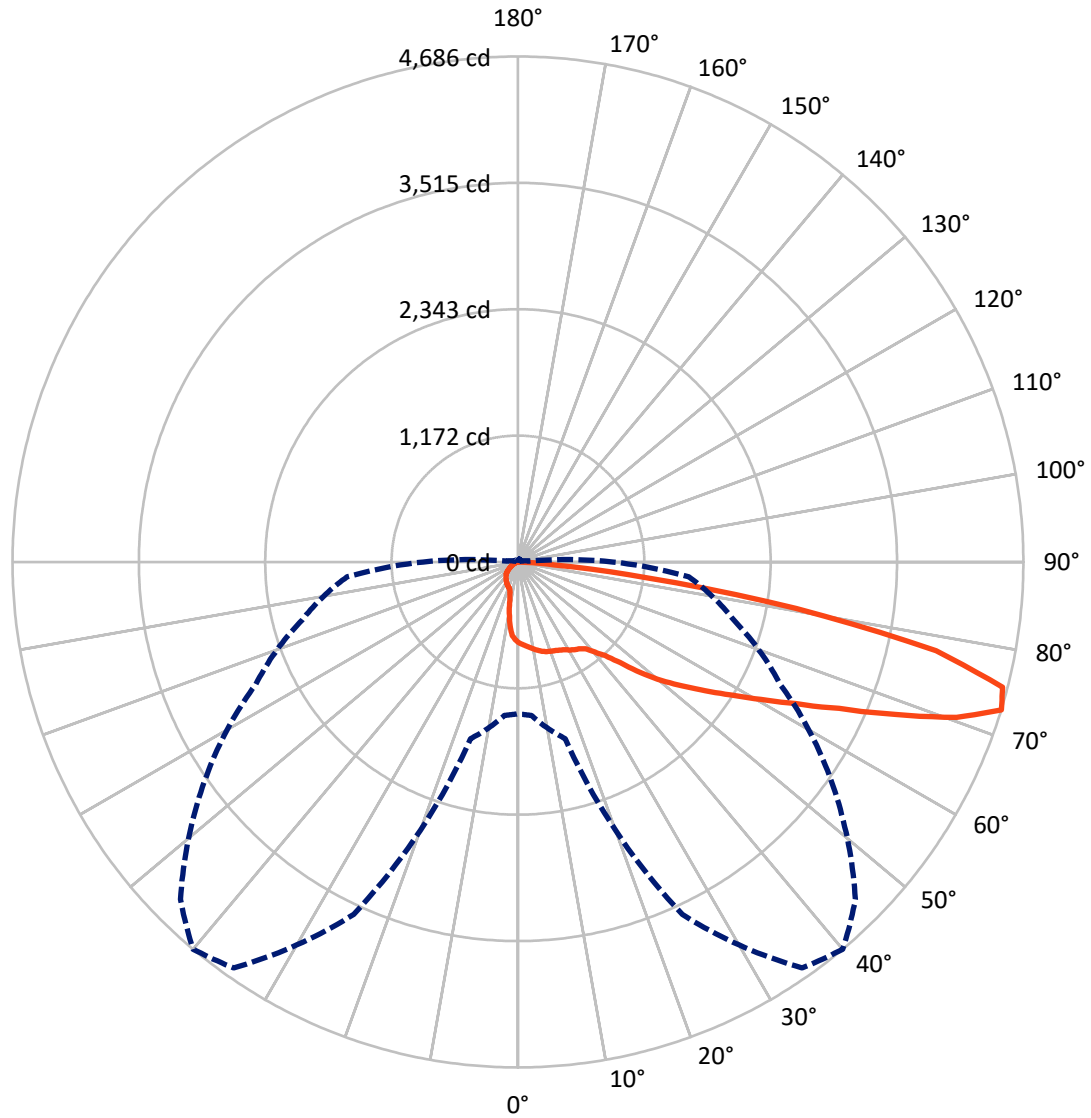
✕ Max cd
 - - - 1/2 Max cd



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

REPORT NUMBER: P881903
CATALOG NUMBER: NAV-SB1C-740-U-SL4-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P881903
 CATALOG NUMBER: NAV-SB1C-740-U-SL4-HSS

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 728.5 | 0.0 | 728.5 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| Street Side | Lumens | 4912.5 | 0.0 | 4912.5 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| Total | Lumens | 5641.0 | 0.0 | 5641.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 68.2 | 1.2 |
| 10°-20° | 185.2 | 3.3 |
| 20°-30° | 299.7 | 5.3 |
| 30°-40° | 442.5 | 7.8 |
| 40°-50° | 744.8 | 13.2 |
| 50°-60° | 1156.4 | 20.5 |
| 60°-70° | 1447.0 | 25.7 |
| 70°-80° | 1184.7 | 21.0 |
| 80°-90° | 112.3 | 2.0 |
| 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° | 5641.0 | 100.0 |
| 0°-180° | 5641.0 | 100.0 |

Coefficient of Utilization



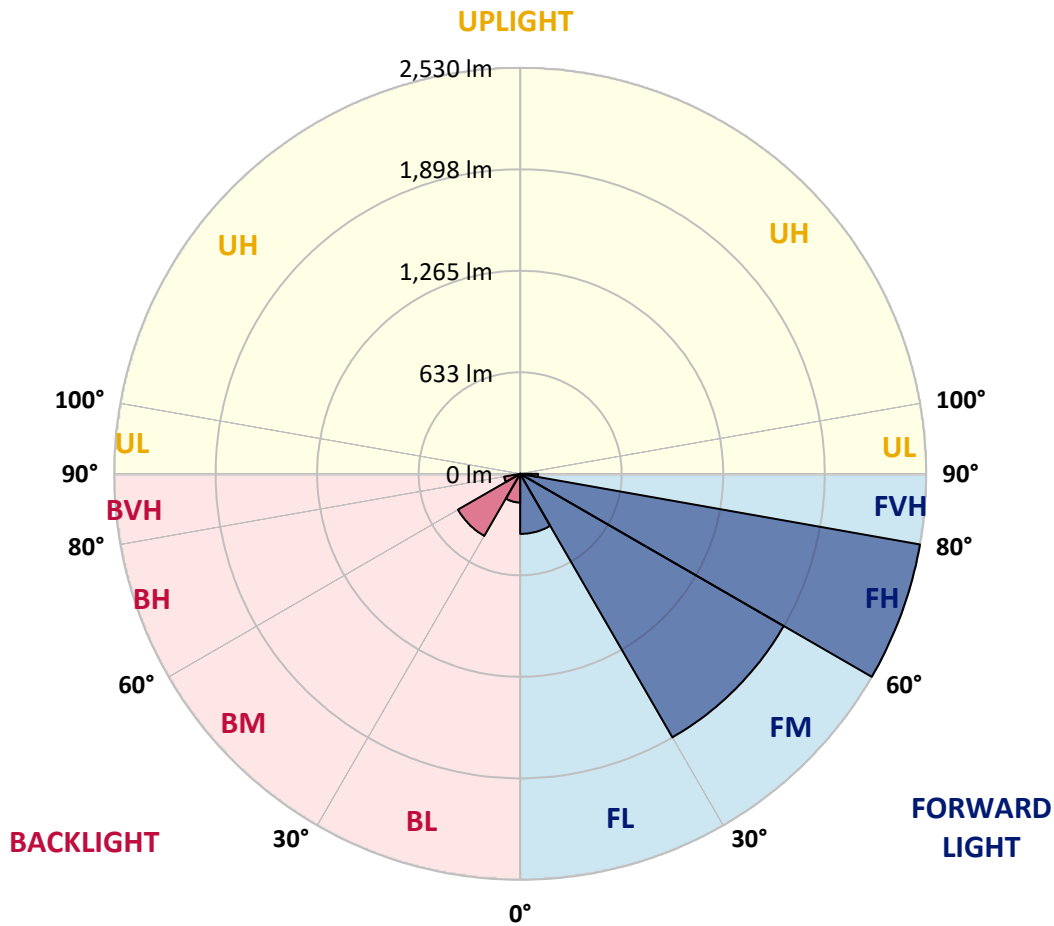
REPORT NUMBER: P881903
 CATALOG NUMBER: NAV-SB1C-740-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 374.4 | 6.6 | | | |
| FM (30°-60°) | 1896.4 | 33.6 | | | |
| FH (60°-80°) | 2530.2 | 44.9 | | | G2/5000 |
| FVH (80°-90°) | 111.5 | 2.0 | | | G2/225 |
| BL (0°-30°) | 178.8 | 3.2 | B1/500 | | |
| BM (30°-60°) | 447.3 | 7.9 | B1/1000 | | |
| BH (60°-80°) | 101.5 | 1.8 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.8 | 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-G2

Type IV Short



REPORT NUMBER: P881903
 CATALOG NUMBER: NAV-SB1C-740-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 |
| 2.5° | 769.4 | 772.4 | 770.7 | 767.3 | 766.5 | 764.8 | 762.6 | 761.8 | 758.8 | 756.3 | 753.3 |
| 5° | 791.1 | 794.1 | 791.9 | 787.3 | 785.2 | 783.0 | 780.1 | 777.5 | 771.6 | 766.0 | 759.2 |
| 7.5° | 814.9 | 817.4 | 814.9 | 808.1 | 804.7 | 802.1 | 797.9 | 794.1 | 787.3 | 779.2 | 770.7 |
| 10° | 841.2 | 843.4 | 839.5 | 830.6 | 825.1 | 821.3 | 817.4 | 813.2 | 806.8 | 797.9 | 787.7 |
| 12.5° | 865.9 | 868.4 | 862.5 | 851.9 | 845.5 | 841.7 | 837.4 | 834.0 | 827.6 | 819.1 | 808.5 |
| 15° | 888.4 | 892.2 | 882.0 | 870.6 | 863.3 | 860.4 | 856.1 | 854.0 | 849.7 | 843.8 | 834.0 |
| 17.5° | 905.4 | 907.9 | 897.3 | 883.7 | 875.6 | 873.5 | 870.6 | 871.8 | 871.0 | 868.0 | 861.6 |
| 20° | 919.8 | 921.5 | 907.5 | 890.9 | 882.0 | 882.4 | 881.6 | 885.8 | 887.5 | 887.5 | 887.1 |
| 22.5° | 937.7 | 938.1 | 920.3 | 899.4 | 888.8 | 891.8 | 893.1 | 897.7 | 901.1 | 904.5 | 912.2 |
| 25° | 961.0 | 960.2 | 939.0 | 910.5 | 901.1 | 905.4 | 908.4 | 910.1 | 913.9 | 919.4 | 936.8 |
| 27.5° | 995.9 | 993.3 | 966.1 | 928.3 | 917.3 | 921.1 | 926.6 | 925.8 | 924.1 | 928.3 | 957.6 |
| 30° | 1040.1 | 1036.7 | 1000.6 | 953.4 | 943.2 | 946.6 | 948.3 | 940.7 | 928.3 | 932.2 | 975.9 |
| 32.5° | 1110.2 | 1104.2 | 1054.1 | 981.4 | 965.7 | 969.5 | 967.4 | 951.7 | 933.4 | 937.3 | 994.2 |
| 35° | 1232.1 | 1217.7 | 1146.7 | 1040.1 | 991.2 | 987.0 | 981.9 | 966.6 | 944.1 | 940.2 | 1009.5 |
| 37.5° | 1491.3 | 1465.8 | 1344.7 | 1154.4 | 1049.0 | 1021.4 | 1005.7 | 990.4 | 955.5 | 940.2 | 1026.9 |
| 40° | 1783.6 | 1757.7 | 1617.9 | 1345.6 | 1145.0 | 1098.3 | 1060.9 | 1018.4 | 967.4 | 945.8 | 1054.1 |
| 42.5° | 2088.6 | 2060.2 | 1916.6 | 1582.6 | 1282.2 | 1186.2 | 1116.5 | 1040.9 | 987.0 | 962.7 | 1090.2 |
| 45° | 2429.4 | 2393.7 | 2205.9 | 1829.9 | 1481.5 | 1332.4 | 1206.2 | 1087.2 | 1021.0 | 992.9 | 1139.5 |
| 47.5° | 2788.8 | 2742.5 | 2494.4 | 2069.9 | 1696.1 | 1534.6 | 1370.2 | 1170.1 | 1071.1 | 1037.9 | 1206.2 |
| 50° | 3107.5 | 3061.6 | 2792.2 | 2321.0 | 1896.6 | 1727.1 | 1557.1 | 1284.8 | 1146.3 | 1101.7 | 1295.8 |
| 52.5° | 3336.5 | 3301.6 | 3063.3 | 2580.2 | 2105.2 | 1907.6 | 1726.7 | 1418.2 | 1241.5 | 1183.3 | 1401.6 |
| 55° | 3489.8 | 3458.0 | 3255.3 | 2825.8 | 2347.8 | 2106.5 | 1893.6 | 1563.1 | 1356.2 | 1281.0 | 1518.5 |
| 57.5° | 3582.9 | 3564.6 | 3394.3 | 3045.0 | 2588.3 | 2324.0 | 2084.8 | 1722.4 | 1491.3 | 1396.1 | 1648.9 |
| 60° | 3616.0 | 3601.2 | 3480.5 | 3254.0 | 2878.9 | 2585.3 | 2309.6 | 1902.1 | 1655.3 | 1527.0 | 1782.7 |
| 62.5° | 3527.7 | 3530.6 | 3542.5 | 3501.7 | 3185.2 | 2891.2 | 2578.9 | 2118.0 | 1837.1 | 1675.2 | 1908.5 |
| 65° | 3111.7 | 3136.4 | 3362.4 | 3776.2 | 3591.0 | 3274.4 | 2921.8 | 2381.4 | 2045.3 | 1843.9 | 2008.3 |
| 67.5° | 2576.4 | 2612.1 | 2893.3 | 3936.8 | 4023.5 | 3772.0 | 3399.4 | 2717.0 | 2293.4 | 2015.6 | 2046.2 |
| 70° | 1972.2 | 2010.5 | 2351.2 | 3903.2 | 4428.4 | 4315.8 | 3989.9 | 3144.0 | 2550.5 | 2134.5 | 1949.7 |
| 72.5° | 1407.6 | 1427.1 | 1695.6 | 3604.6 | 4594.5 | 4686.3 | 4425.0 | 3548.5 | 2681.8 | 2068.7 | 1590.3 |
| 75° | 989.1 | 985.7 | 1163.7 | 2902.7 | 4335.8 | 4641.2 | 4272.5 | 3329.7 | 2426.8 | 1643.4 | 980.6 |
| 77.5° | 430.8 | 431.7 | 581.2 | 1762.8 | 3460.5 | 3964.0 | 3551.5 | 2085.7 | 1691.8 | 871.0 | 413.8 |
| 80° | 111.7 | 115.1 | 213.3 | 701.9 | 2083.5 | 2616.3 | 2166.0 | 916.9 | 781.8 | 212.4 | 79.0 |
| 82.5° | 39.5 | 42.1 | 98.1 | 220.5 | 768.6 | 1199.8 | 964.4 | 293.2 | 203.9 | 60.8 | 21.2 |
| 85° | 11.5 | 13.6 | 52.7 | 67.6 | 158.9 | 339.0 | 234.1 | 56.9 | 50.1 | 31.4 | 5.5 |
| 87.5° | 0.0 | 1.7 | 10.6 | 9.3 | 9.3 | 6.4 | 11.9 | 6.4 | 8.1 | 3.8 | 1.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

REPORT NUMBER: P881903
 CATALOG NUMBER: NAV-SB1C-740-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 | 746.9 |
| 2.5° | 750.7 | 747.8 | 741.4 | 734.6 | 728.2 | 722.3 | 720.6 | 714.2 | 711.2 | 711.7 | 711.2 |
| 5° | 754.6 | 749.0 | 736.7 | 721.8 | 706.6 | 689.1 | 674.7 | 654.3 | 636.9 | 634.7 | 633.5 |
| 7.5° | 764.8 | 755.8 | 735.9 | 707.0 | 668.7 | 620.7 | 576.1 | 531.9 | 506.9 | 493.3 | 492.4 |
| 10° | 780.5 | 768.6 | 738.0 | 682.8 | 601.6 | 515.8 | 448.2 | 392.6 | 364.1 | 350.9 | 348.4 |
| 12.5° | 799.2 | 786.0 | 741.4 | 641.5 | 514.9 | 402.3 | 329.3 | 295.3 | 289.3 | 288.5 | 288.1 |
| 15° | 825.5 | 811.1 | 745.2 | 585.9 | 421.0 | 306.3 | 272.8 | 273.2 | 277.9 | 280.4 | 280.0 |
| 17.5° | 854.8 | 840.4 | 739.7 | 517.9 | 328.4 | 261.7 | 260.9 | 264.7 | 271.5 | 274.0 | 273.6 |
| 20° | 884.6 | 871.0 | 720.1 | 438.0 | 265.5 | 249.4 | 252.8 | 257.0 | 263.8 | 267.2 | 267.2 |
| 22.5° | 915.2 | 903.3 | 689.1 | 353.1 | 239.6 | 240.5 | 244.7 | 249.0 | 256.6 | 260.4 | 260.4 |
| 25° | 947.9 | 937.7 | 647.9 | 283.0 | 228.6 | 231.1 | 236.7 | 241.7 | 249.8 | 254.5 | 254.5 |
| 27.5° | 981.0 | 973.4 | 601.2 | 236.2 | 218.4 | 221.4 | 227.7 | 234.5 | 242.6 | 248.1 | 248.5 |
| 30° | 1017.1 | 1012.9 | 563.8 | 218.8 | 208.6 | 211.2 | 218.4 | 226.0 | 235.0 | 241.7 | 242.6 |
| 32.5° | 1054.1 | 1053.2 | 545.5 | 231.6 | 199.7 | 201.4 | 207.8 | 215.4 | 226.5 | 235.0 | 235.8 |
| 35° | 1090.6 | 1092.3 | 534.9 | 267.7 | 196.7 | 192.0 | 196.3 | 203.1 | 216.3 | 226.9 | 228.6 |
| 37.5° | 1137.4 | 1141.6 | 534.5 | 306.8 | 203.9 | 182.7 | 185.7 | 190.3 | 201.8 | 214.1 | 216.3 |
| 40° | 1207.0 | 1229.6 | 561.7 | 340.3 | 216.7 | 174.2 | 175.0 | 175.9 | 181.8 | 192.0 | 195.4 |
| 42.5° | 1299.7 | 1365.5 | 659.8 | 363.3 | 221.8 | 166.5 | 163.6 | 158.9 | 158.1 | 163.6 | 166.5 |
| 45° | 1414.8 | 1529.9 | 832.3 | 376.0 | 216.7 | 158.1 | 150.0 | 137.7 | 133.0 | 136.8 | 136.8 |
| 47.5° | 1550.3 | 1710.1 | 1036.7 | 379.0 | 208.2 | 147.4 | 133.0 | 116.8 | 113.0 | 114.3 | 113.9 |
| 50° | 1682.5 | 1845.2 | 1216.4 | 354.3 | 194.2 | 133.8 | 114.3 | 100.7 | 98.1 | 98.6 | 98.6 |
| 52.5° | 1799.3 | 1891.5 | 1267.4 | 296.1 | 175.5 | 117.3 | 98.1 | 88.8 | 87.1 | 87.1 | 86.7 |
| 55° | 1876.6 | 1841.4 | 1130.1 | 226.5 | 152.1 | 100.3 | 84.1 | 79.4 | 78.6 | 78.2 | 77.3 |
| 57.5° | 1892.8 | 1678.2 | 853.6 | 163.6 | 119.0 | 84.5 | 74.8 | 72.2 | 70.5 | 68.8 | 68.0 |
| 60° | 1835.0 | 1406.3 | 543.4 | 114.3 | 89.2 | 72.2 | 66.3 | 64.6 | 61.2 | 57.8 | 56.5 |
| 62.5° | 1710.1 | 1062.2 | 300.8 | 79.4 | 71.8 | 61.6 | 58.6 | 56.5 | 50.1 | 44.6 | 42.9 |
| 65° | 1542.3 | 706.1 | 133.0 | 62.0 | 58.6 | 51.8 | 50.1 | 47.2 | 39.5 | 33.1 | 31.9 |
| 67.5° | 1373.6 | 406.6 | 59.9 | 49.7 | 47.2 | 42.5 | 41.2 | 39.1 | 33.6 | 27.6 | 26.8 |
| 70° | 1181.1 | 206.1 | 41.2 | 39.5 | 36.5 | 32.3 | 33.6 | 33.1 | 27.6 | 22.5 | 21.7 |
| 72.5° | 879.5 | 102.4 | 31.0 | 29.7 | 26.3 | 22.9 | 27.6 | 27.2 | 21.7 | 17.0 | 16.1 |
| 75° | 497.9 | 50.6 | 22.5 | 20.8 | 15.7 | 17.0 | 22.1 | 20.8 | 14.9 | 11.0 | 10.2 |
| 77.5° | 197.6 | 25.9 | 14.9 | 12.7 | 9.3 | 11.5 | 16.1 | 14.0 | 7.6 | 4.7 | 4.2 |
| 80° | 45.5 | 12.7 | 7.6 | 5.5 | 4.2 | 6.8 | 8.5 | 5.1 | 2.1 | 0.4 | 0.0 |
| 82.5° | 12.7 | 5.5 | 2.5 | 2.1 | 2.1 | 2.5 | 2.1 | 0.8 | 0.0 | 0.0 | 0.0 |
| 85° | 4.2 | 2.5 | 0.8 | 0.4 | 0.4 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.7 | 0.8 | 0.0 | 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)