

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: P882056

Luminaire Tested: **NAV-SB1D-730-U-T2-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882056
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: LUMARK
Catalog Number: NAV-SB1D-730-U-T2-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3000K, 900mA 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: 7321 lumens
Efficiency: N/A
Efficacy: 92.0 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G2

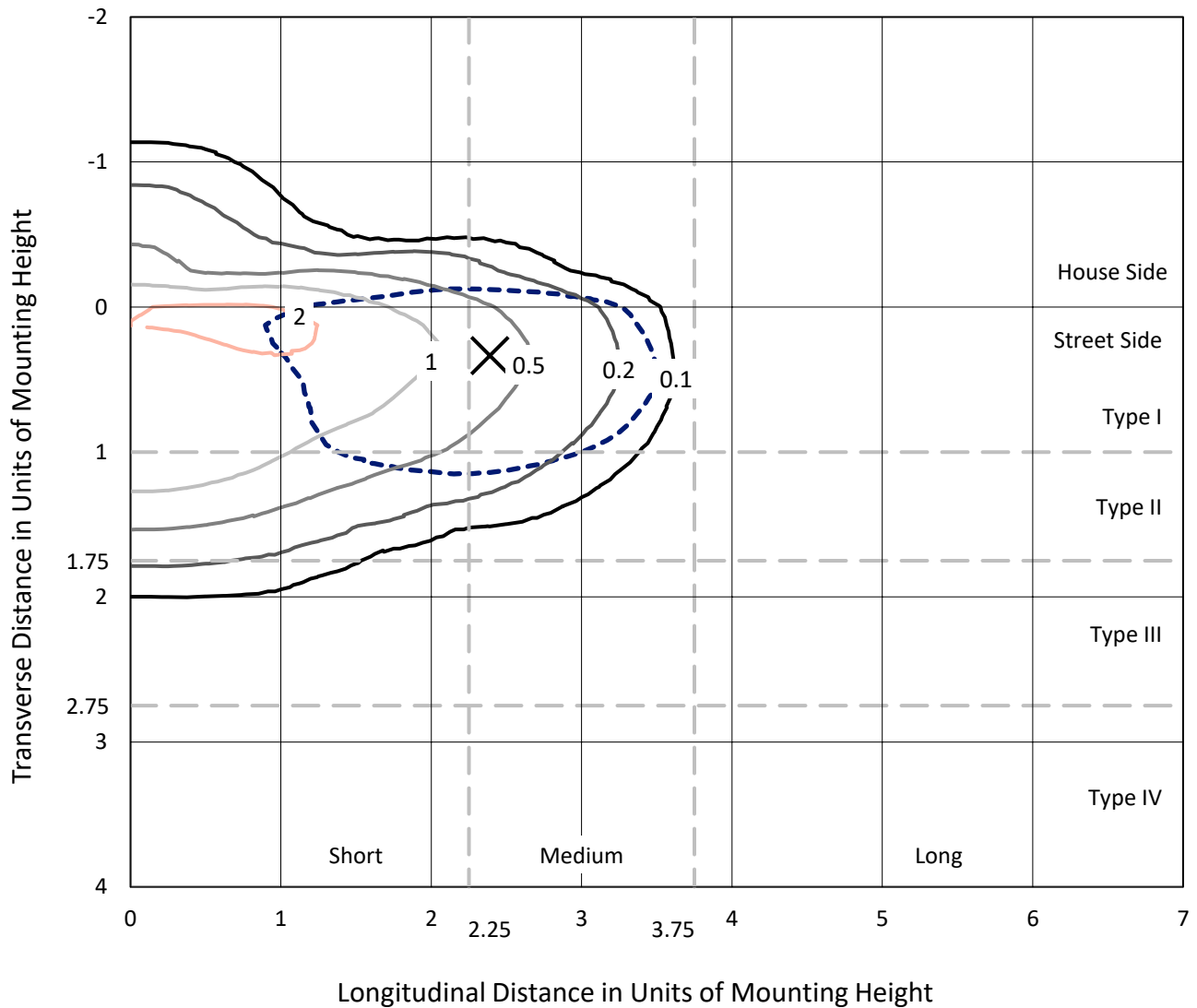
Input Watts (W): 79.6
Input Voltage (V): 120.0
Input Current (Ain): 0.638
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.673
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

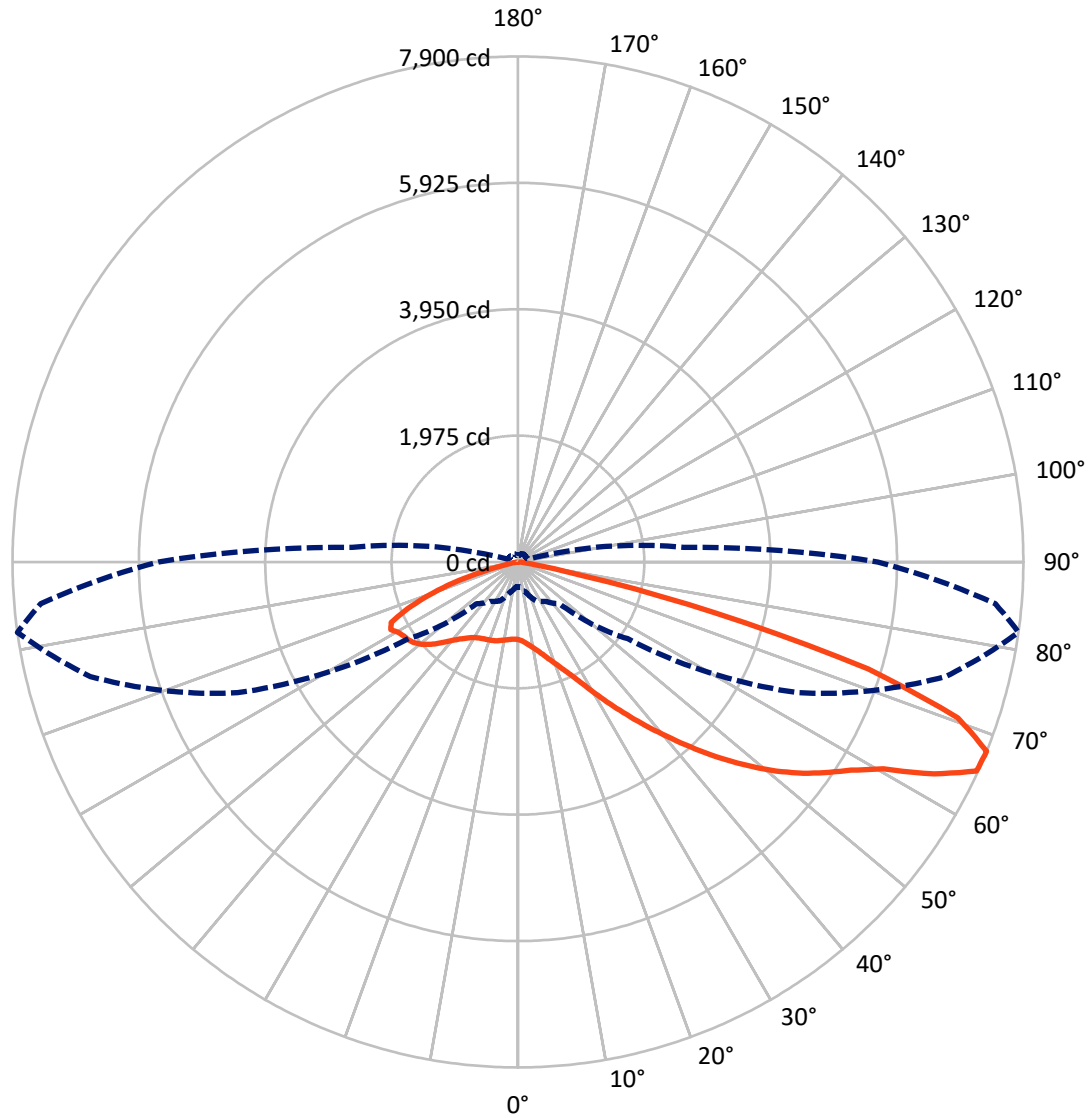
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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 | 1326.1 | 0.0 | 1326.1 |
| | % Fixture | 18.1 | 0.0 | 18.1 |
| Street Side | Lumens | 5994.9 | 0.0 | 5994.9 |
| | % Fixture | 81.9 | 0.0 | 81.9 |
| Total | Lumens | 7321.0 | 0.0 | 7321.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 108.1 | 1.5 |
| 10°-20° | 280.8 | 3.8 |
| 20°-30° | 449.7 | 6.1 |
| 30°-40° | 795.3 | 10.9 |
| 40°-50° | 1393.4 | 19.0 |
| 50°-60° | 1858.4 | 25.4 |
| 60°-70° | 1730.1 | 23.6 |
| 70°-80° | 664.0 | 9.1 |
| 80°-90° | 41.2 | 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° | 7321.0 | 100.0 |
| 0°-180° | 7321.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P882056

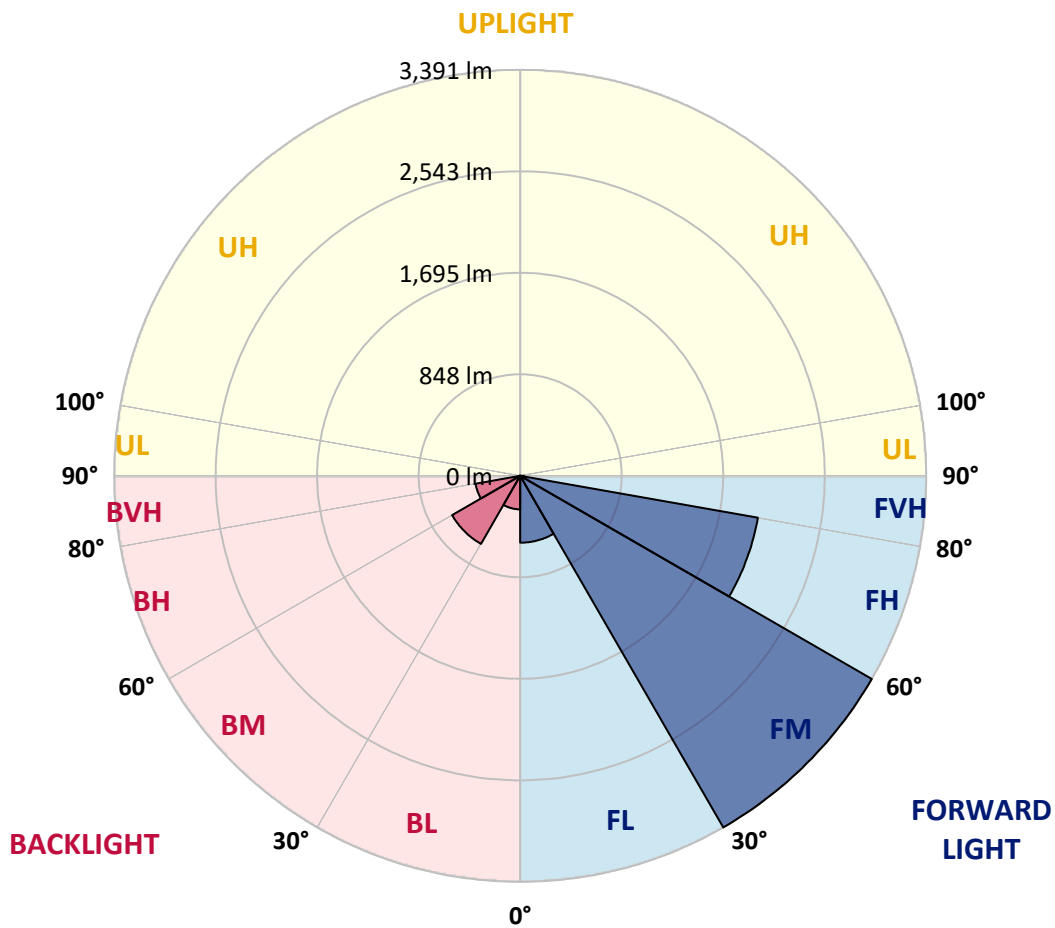
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 558.5 | 7.6 | | | |
| FM (30°-60°) | 3390.8 | 46.3 | | | |
| FH (60°-80°) | 2015.6 | 27.5 | | | G2/5000 |
| FVH (80°-90°) | 30.0 | 0.4 | | | G1/100 |
| BL (0°-30°) | 280.1 | 3.8 | B1/500 | | |
| BM (30°-60°) | 656.3 | 9.0 | B1/1000 | | |
| BH (60°-80°) | 378.5 | 5.2 | B1/500 | | G1/500 |
| BVH (80°-90°) | 11.3 | 0.2 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type II Medium



REPORT NUMBER: P882056
 CATALOG NUMBER: NAV-SB1D-730-U-T2-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 82° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 |
| 2.5° | 1281.9 | 1289.3 | 1285.1 | 1282.9 | 1279.3 | 1274.0 | 1269.8 | 1256.6 | 1242.9 | 1233.9 | 1230.8 |
| 5° | 1307.7 | 1315.1 | 1314.6 | 1316.7 | 1319.3 | 1320.9 | 1319.8 | 1305.1 | 1285.6 | 1270.3 | 1261.3 |
| 7.5° | 1285.6 | 1294.0 | 1300.9 | 1311.4 | 1329.9 | 1349.4 | 1358.8 | 1355.7 | 1335.7 | 1314.6 | 1303.5 |
| 10° | 1222.9 | 1231.8 | 1248.2 | 1272.9 | 1311.9 | 1354.1 | 1389.4 | 1405.8 | 1393.1 | 1369.9 | 1354.6 |
| 12.5° | 1108.0 | 1116.9 | 1149.1 | 1202.8 | 1268.2 | 1341.5 | 1408.9 | 1452.7 | 1455.8 | 1432.6 | 1414.7 |
| 15° | 978.8 | 987.8 | 1022.0 | 1089.5 | 1189.1 | 1306.7 | 1419.5 | 1502.2 | 1530.2 | 1510.1 | 1488.5 |
| 17.5° | 898.7 | 906.6 | 932.4 | 986.7 | 1090.6 | 1237.1 | 1415.8 | 1554.9 | 1618.7 | 1602.9 | 1577.1 |
| 20° | 874.4 | 881.3 | 893.4 | 931.4 | 1017.8 | 1164.9 | 1391.5 | 1604.5 | 1714.1 | 1705.1 | 1676.2 |
| 22.5° | 900.3 | 906.6 | 910.3 | 927.2 | 981.4 | 1117.4 | 1361.0 | 1655.1 | 1824.8 | 1825.9 | 1790.5 |
| 25° | 959.8 | 966.2 | 961.9 | 972.5 | 996.2 | 1102.7 | 1349.4 | 1714.6 | 1964.0 | 1975.5 | 1935.5 |
| 27.5° | 1057.9 | 1058.4 | 1048.4 | 1047.9 | 1051.6 | 1124.8 | 1361.5 | 1778.4 | 2139.5 | 2161.1 | 2111.5 |
| 30° | 1254.5 | 1246.6 | 1208.1 | 1166.5 | 1147.5 | 1191.2 | 1395.2 | 1853.8 | 2346.6 | 2385.1 | 2322.9 |
| 32.5° | 1557.6 | 1546.0 | 1475.3 | 1375.7 | 1275.6 | 1298.2 | 1455.8 | 1939.7 | 2572.2 | 2641.8 | 2565.9 |
| 35° | 1886.5 | 1883.3 | 1809.5 | 1661.4 | 1486.4 | 1450.6 | 1554.4 | 2052.5 | 2818.4 | 2929.1 | 2838.9 |
| 37.5° | 2192.2 | 2190.6 | 2148.4 | 1974.0 | 1761.0 | 1663.0 | 1712.5 | 2200.1 | 3081.9 | 3242.2 | 3135.7 |
| 40° | 2471.5 | 2476.3 | 2434.1 | 2278.1 | 2063.6 | 1935.5 | 1927.6 | 2382.5 | 3375.0 | 3583.2 | 3456.7 |
| 42.5° | 2712.9 | 2718.2 | 2675.5 | 2560.1 | 2362.4 | 2237.0 | 2191.7 | 2605.9 | 3661.2 | 3949.5 | 3799.8 |
| 45° | 2876.9 | 2909.6 | 2903.2 | 2811.0 | 2669.2 | 2539.0 | 2509.0 | 2886.4 | 3987.5 | 4338.0 | 4162.5 |
| 47.5° | 2923.3 | 2953.3 | 3000.7 | 3013.4 | 2926.9 | 2798.9 | 2834.7 | 3224.2 | 4317.4 | 4727.0 | 4527.2 |
| 50° | 2808.9 | 2836.8 | 2935.4 | 3066.6 | 3126.7 | 3087.2 | 3151.5 | 3586.3 | 4655.3 | 5114.9 | 4885.1 |
| 52.5° | 2583.3 | 2611.7 | 2736.1 | 2943.8 | 3188.9 | 3313.3 | 3469.3 | 3943.2 | 4982.6 | 5482.3 | 5224.0 |
| 55° | 2257.0 | 2287.1 | 2446.8 | 2681.9 | 3070.3 | 3406.6 | 3734.5 | 4299.5 | 5282.5 | 5812.8 | 5529.7 |
| 57.5° | 1813.2 | 1835.3 | 2001.4 | 2330.3 | 2772.0 | 3313.8 | 3930.0 | 4688.5 | 5565.1 | 6137.5 | 5832.8 |
| 60° | 1181.7 | 1201.2 | 1394.2 | 1761.0 | 2277.6 | 3003.9 | 3969.0 | 5122.3 | 5940.3 | 6559.7 | 6241.3 |
| 62.5° | 785.9 | 799.1 | 913.5 | 1182.8 | 1603.9 | 2408.8 | 3740.8 | 5468.6 | 6490.6 | 7294.4 | 6941.8 |
| 65° | 539.2 | 552.4 | 666.8 | 854.4 | 1036.3 | 1593.4 | 3084.6 | 5422.7 | 6989.3 | 7877.9 | 7461.0 |
| 67.5° | 384.8 | 395.8 | 492.8 | 669.9 | 750.1 | 925.6 | 2091.0 | 4836.6 | 6917.6 | 7900.1 | 7488.9 |
| 70° | 275.7 | 282.0 | 362.1 | 521.8 | 596.1 | 556.1 | 1162.8 | 3699.1 | 6056.8 | 7295.0 | 6918.6 |
| 72.5° | 192.9 | 195.0 | 251.4 | 397.4 | 480.2 | 405.9 | 553.4 | 2466.3 | 4581.0 | 5725.8 | 5363.7 |
| 75° | 130.7 | 133.4 | 169.2 | 291.5 | 385.3 | 309.9 | 293.1 | 1322.5 | 2689.2 | 3169.4 | 2841.0 |
| 77.5° | 80.1 | 81.2 | 109.1 | 199.2 | 288.3 | 236.1 | 188.7 | 560.3 | 1040.5 | 1021.5 | 870.8 |
| 80° | 45.3 | 45.3 | 69.6 | 123.9 | 196.6 | 152.3 | 132.3 | 238.2 | 329.4 | 289.4 | 255.1 |
| 82.5° | 25.3 | 25.8 | 50.6 | 77.0 | 130.2 | 90.1 | 72.7 | 110.2 | 142.3 | 126.0 | 109.6 |
| 85° | 10.5 | 11.6 | 31.1 | 36.4 | 62.2 | 44.8 | 29.5 | 46.4 | 52.7 | 46.9 | 34.3 |
| 87.5° | 1.1 | 1.6 | 9.5 | 6.9 | 7.4 | 9.0 | 4.2 | 9.0 | 7.4 | 7.4 | 5.3 |
| 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: P882056

CATALOG NUMBER: NAV-SB1D-730-U-T2-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 | 1212.8 |
| 2.5° | 1220.7 | 1212.8 | 1192.8 | 1169.6 | 1139.0 | 1124.3 | 1104.3 | 1090.6 | 1079.0 | 1080.0 | 1069.5 |
| 5° | 1244.5 | 1224.4 | 1179.6 | 1123.8 | 1054.2 | 1004.6 | 951.9 | 915.6 | 886.0 | 879.7 | 865.5 |
| 7.5° | 1277.1 | 1245.5 | 1167.0 | 1066.3 | 948.8 | 859.7 | 780.1 | 729.0 | 692.6 | 681.0 | 669.4 |
| 10° | 1319.3 | 1273.5 | 1150.6 | 994.1 | 824.9 | 711.6 | 626.2 | 586.1 | 561.4 | 552.9 | 546.6 |
| 12.5° | 1368.3 | 1305.6 | 1129.0 | 906.1 | 697.3 | 588.2 | 533.9 | 513.9 | 506.0 | 503.4 | 501.8 |
| 15° | 1430.0 | 1345.7 | 1096.4 | 801.7 | 589.3 | 512.9 | 489.7 | 487.0 | 488.1 | 487.0 | 486.5 |
| 17.5° | 1503.3 | 1389.4 | 1043.1 | 694.2 | 516.6 | 474.4 | 466.0 | 468.1 | 470.7 | 470.2 | 469.1 |
| 20° | 1583.4 | 1432.6 | 975.1 | 598.8 | 467.0 | 447.0 | 442.2 | 444.3 | 446.4 | 445.4 | 444.9 |
| 22.5° | 1674.6 | 1479.0 | 899.7 | 524.5 | 433.8 | 421.7 | 416.4 | 416.9 | 416.9 | 414.8 | 413.8 |
| 25° | 1783.7 | 1530.2 | 820.7 | 471.7 | 408.5 | 399.0 | 392.7 | 390.6 | 387.4 | 381.1 | 380.0 |
| 27.5° | 1913.9 | 1584.4 | 744.8 | 434.9 | 388.5 | 379.5 | 372.1 | 366.9 | 359.0 | 348.4 | 347.4 |
| 30° | 2060.4 | 1650.3 | 680.5 | 411.7 | 372.7 | 363.7 | 355.3 | 347.4 | 335.8 | 322.6 | 321.5 |
| 32.5° | 2232.8 | 1721.0 | 633.6 | 396.4 | 358.4 | 348.9 | 338.9 | 329.4 | 316.8 | 303.6 | 304.1 |
| 35° | 2438.3 | 1806.3 | 606.2 | 385.8 | 347.4 | 334.7 | 323.6 | 313.1 | 303.6 | 292.0 | 291.0 |
| 37.5° | 2661.3 | 1897.0 | 597.7 | 380.6 | 340.0 | 320.5 | 307.8 | 300.4 | 299.4 | 292.5 | 292.0 |
| 40° | 2905.3 | 2004.5 | 604.0 | 377.4 | 332.1 | 306.8 | 293.1 | 291.5 | 294.1 | 282.0 | 282.5 |
| 42.5° | 3163.6 | 2132.1 | 614.6 | 373.7 | 321.0 | 293.1 | 279.9 | 279.9 | 277.8 | 260.9 | 260.9 |
| 45° | 3443.0 | 2279.2 | 625.1 | 364.7 | 307.8 | 279.4 | 269.3 | 265.7 | 256.7 | 240.4 | 239.8 |
| 47.5° | 3724.4 | 2428.8 | 633.0 | 348.4 | 292.0 | 267.8 | 258.8 | 250.4 | 237.2 | 222.4 | 221.9 |
| 50° | 3991.7 | 2563.3 | 624.6 | 324.2 | 274.1 | 256.7 | 247.2 | 235.6 | 221.4 | 211.4 | 209.8 |
| 52.5° | 4230.5 | 2679.7 | 588.8 | 295.7 | 255.1 | 245.1 | 236.7 | 224.5 | 212.9 | 202.4 | 201.3 |
| 55° | 4438.1 | 2774.1 | 525.5 | 268.8 | 238.2 | 235.1 | 226.7 | 211.4 | 195.6 | 186.6 | 185.5 |
| 57.5° | 4637.4 | 2845.8 | 446.4 | 246.7 | 223.0 | 224.0 | 211.4 | 197.7 | 182.9 | 173.4 | 172.4 |
| 60° | 4902.5 | 2941.7 | 366.3 | 226.1 | 206.6 | 209.8 | 196.1 | 186.1 | 167.6 | 155.5 | 153.9 |
| 62.5° | 5326.3 | 3090.9 | 291.0 | 200.8 | 187.6 | 188.7 | 182.9 | 170.8 | 148.6 | 134.4 | 133.4 |
| 65° | 5662.6 | 3036.1 | 229.3 | 173.4 | 166.0 | 167.6 | 167.6 | 154.4 | 130.7 | 114.4 | 112.8 |
| 67.5° | 5624.6 | 2599.6 | 182.9 | 146.5 | 145.5 | 146.5 | 150.2 | 139.2 | 116.0 | 102.8 | 100.7 |
| 70° | 5181.3 | 2067.8 | 146.5 | 121.8 | 126.5 | 123.9 | 134.4 | 127.0 | 104.4 | 91.2 | 89.6 |
| 72.5° | 4227.8 | 1489.6 | 111.7 | 100.7 | 97.0 | 101.2 | 121.2 | 114.4 | 87.0 | 72.2 | 70.6 |
| 75° | 2470.5 | 794.9 | 83.3 | 79.6 | 70.1 | 84.3 | 107.5 | 97.5 | 66.4 | 53.2 | 51.7 |
| 77.5° | 804.3 | 277.3 | 61.1 | 58.5 | 52.2 | 68.0 | 91.7 | 82.2 | 54.3 | 42.2 | 40.6 |
| 80° | 215.6 | 83.8 | 41.6 | 38.5 | 33.7 | 50.6 | 72.7 | 65.4 | 39.0 | 27.4 | 26.9 |
| 82.5° | 86.4 | 35.3 | 24.2 | 21.6 | 18.4 | 34.8 | 57.5 | 52.7 | 29.0 | 17.4 | 17.4 |
| 85° | 27.9 | 11.6 | 9.0 | 6.9 | 8.4 | 21.6 | 34.3 | 35.8 | 20.6 | 9.0 | 6.9 |
| 87.5° | 3.7 | 1.6 | 1.6 | 2.1 | 1.6 | 3.7 | 10.5 | 10.0 | 5.8 | 1.1 | 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)