

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: P299939

Luminaire Tested: **GAA-AF-01-LED-U-5WQ-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P299939
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24143)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: GAA-AF-01-LED-U-5WQ-7050-600
Description: GALLEONNAIRE AREA AND ROADWAY LUMINAIRE
(1) 70 CRI, 5000K CCT 600mA LIGHTSQUARE WITH 16 LEDS EACH AND Type IV
w/Spill Control OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4309.4 lumens
Efficiency: N/A
Efficacy: 126.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type V - Short - Semi-Cutoff
BUG Rating: B3 - U0 - G1

Input Watts (W): 34
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT

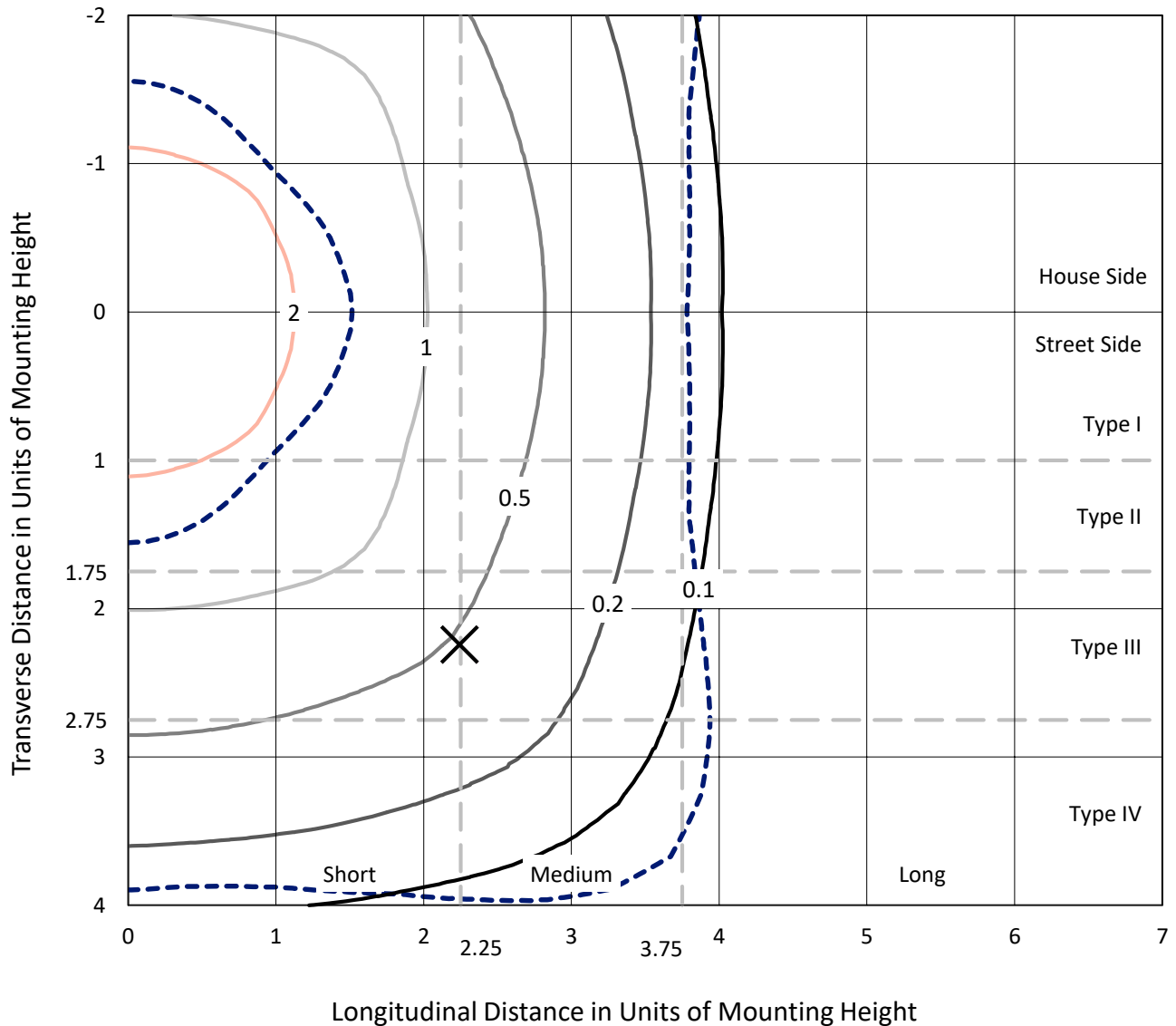


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

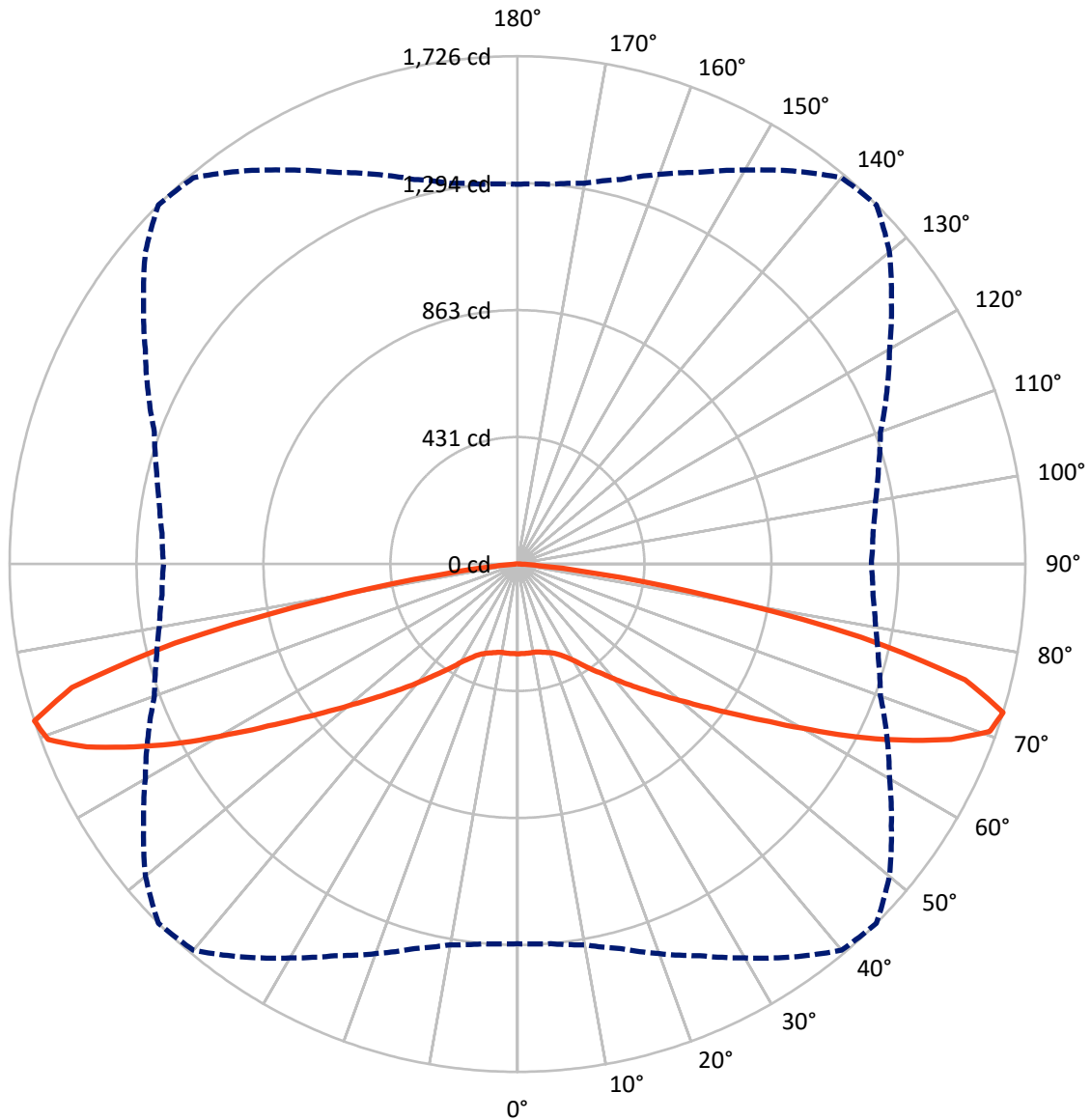


Based on 10 foot mounting height. Maximum calculated value = 3.1 fc
 Type V - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2154.7 | 0.0 | 2154.7 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Street Side | Lumens | 2154.7 | 0.0 | 2154.7 |
| | % Fixture | 50.0 | 0.0 | 50.0 |
| Total | Lumens | 4309.4 | 0.0 | 4309.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 29.1 | 0.7 |
| 10°-20° | 88.5 | 2.1 |
| 20°-30° | 161.7 | 3.8 |
| 30°-40° | 278.9 | 6.5 |
| 40°-50° | 476.7 | 11.1 |
| 50°-60° | 772.7 | 17.9 |
| 60°-70° | 1281.8 | 29.7 |
| 70°-80° | 1129.0 | 26.2 |
| 80°-90° | 91.0 | 2.1 |
| 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° | 4309.4 | 100.0 |
| 0°-180° | 4309.4 | 100.0 |



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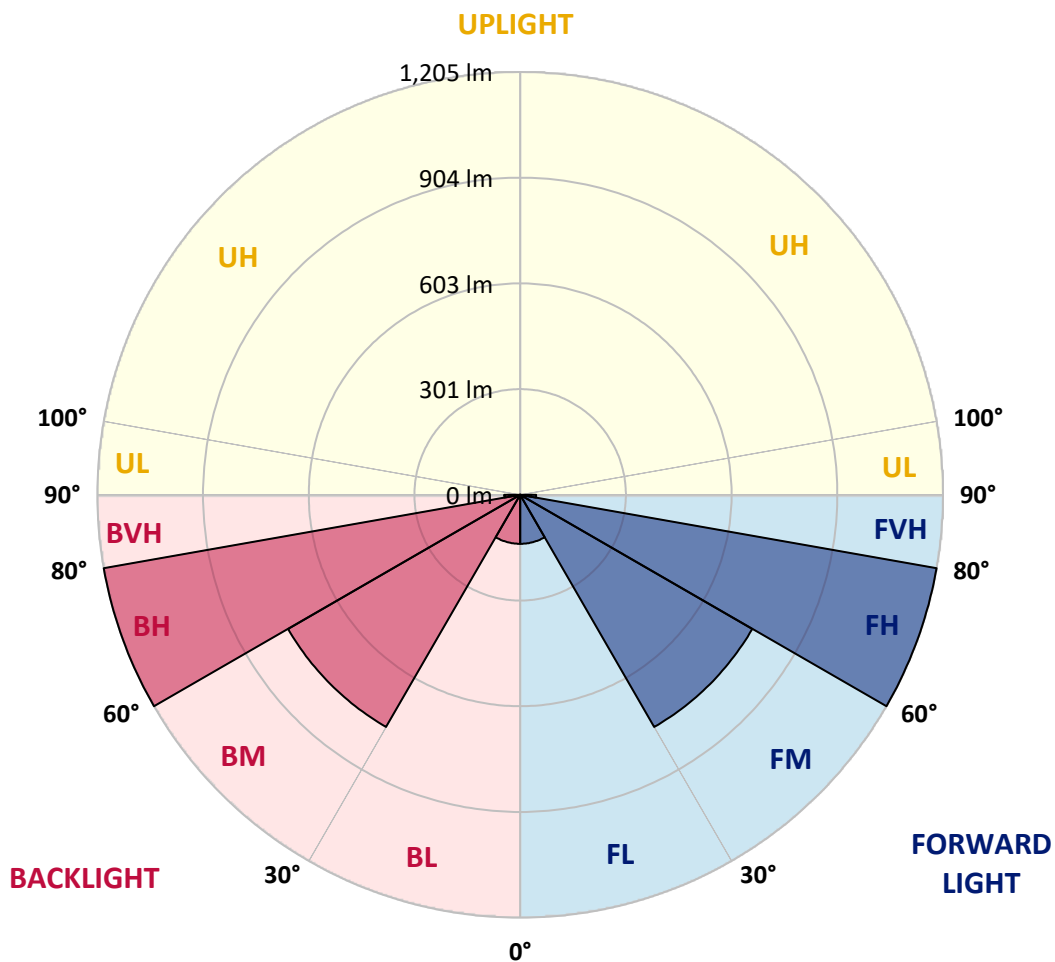
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 139.7 | 3.2 | | | |
| FM | (30°-60°) | 764.1 | 17.7 | | | |
| FH | (60°-80°) | 1205.4 | 28.0 | | | G1/1800 |
| FVH | (80°-90°) | 45.5 | 1.1 | | | G1/100 |
| BL | (0°-30°) | 139.7 | 3.2 | B1/500 | | |
| BM | (30°-60°) | 764.1 | 17.7 | B1/1000 | | |
| BH | (60°-80°) | 1205.4 | 28.0 | B3/2500 | | G1/1800 |
| BVH | (80°-90°) | 45.5 | 1.1 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G1

Type V Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 25° | 30° | 35° | 40° | 45° | 50° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 |
| 2.5° | 305.2 | 305.4 | 305.6 | 305.4 | 305.4 | 305.2 | 305.0 | 305.2 | 305.0 | 304.6 | 304.8 |
| 5° | 306.2 | 306.6 | 306.6 | 306.2 | 306.4 | 306.2 | 305.8 | 306.0 | 305.6 | 305.0 | 305.0 |
| 7.5° | 307.3 | 307.5 | 307.5 | 307.2 | 307.3 | 307.0 | 306.6 | 306.4 | 306.0 | 305.2 | 304.6 |
| 10° | 309.1 | 309.3 | 309.1 | 308.7 | 308.7 | 308.1 | 307.2 | 306.8 | 306.0 | 304.8 | 304.2 |
| 12.5° | 311.1 | 311.3 | 311.1 | 310.7 | 310.5 | 309.5 | 308.7 | 308.1 | 307.5 | 306.6 | 305.6 |
| 15° | 313.9 | 314.3 | 313.9 | 313.1 | 312.5 | 311.7 | 311.3 | 311.5 | 311.7 | 310.9 | 309.9 |
| 17.5° | 319.0 | 319.2 | 318.6 | 316.8 | 316.0 | 315.3 | 315.3 | 315.6 | 316.2 | 315.8 | 314.9 |
| 20° | 328.5 | 327.9 | 326.5 | 324.3 | 323.4 | 322.0 | 321.8 | 322.0 | 322.0 | 321.8 | 321.0 |
| 22.5° | 340.4 | 340.0 | 338.2 | 335.4 | 334.0 | 333.2 | 332.1 | 331.1 | 330.9 | 330.3 | 329.5 |
| 25° | 354.6 | 354.4 | 352.2 | 349.8 | 348.9 | 347.9 | 346.9 | 345.5 | 344.3 | 342.9 | 342.1 |
| 27.5° | 372.8 | 372.0 | 368.8 | 367.6 | 366.2 | 365.7 | 364.3 | 362.7 | 361.7 | 359.9 | 358.9 |
| 30° | 392.7 | 392.7 | 390.2 | 389.8 | 389.8 | 388.4 | 386.8 | 384.0 | 382.3 | 380.5 | 379.9 |
| 32.5° | 412.7 | 412.9 | 410.3 | 411.1 | 411.7 | 412.7 | 413.1 | 412.1 | 410.9 | 410.7 | 409.5 |
| 35° | 441.6 | 440.8 | 438.2 | 438.8 | 438.6 | 438.4 | 438.4 | 440.6 | 441.0 | 441.4 | 439.0 |
| 37.5° | 477.3 | 477.3 | 474.8 | 474.8 | 473.6 | 472.4 | 470.8 | 472.2 | 474.4 | 475.0 | 473.4 |
| 40° | 518.2 | 519.6 | 516.5 | 516.3 | 516.7 | 512.9 | 511.1 | 513.3 | 514.7 | 517.1 | 515.3 |
| 42.5° | 566.5 | 565.5 | 562.3 | 561.9 | 559.7 | 558.6 | 557.0 | 558.8 | 560.9 | 562.5 | 563.1 |
| 45° | 612.7 | 611.9 | 608.4 | 608.4 | 606.2 | 605.2 | 606.0 | 609.0 | 610.0 | 612.1 | 614.3 |
| 47.5° | 658.4 | 657.4 | 655.0 | 656.0 | 656.2 | 658.0 | 660.6 | 663.3 | 666.1 | 669.1 | 670.0 |
| 50° | 705.0 | 705.2 | 702.7 | 705.0 | 708.0 | 712.9 | 719.8 | 724.4 | 730.1 | 733.9 | 735.1 |
| 52.5° | 747.5 | 748.3 | 751.1 | 756.6 | 762.5 | 772.2 | 784.1 | 795.2 | 804.6 | 811.0 | 810.6 |
| 55° | 798.5 | 799.7 | 806.4 | 815.9 | 825.6 | 840.2 | 857.8 | 877.4 | 893.2 | 902.3 | 896.5 |
| 57.5° | 863.7 | 866.3 | 873.8 | 886.7 | 901.1 | 920.1 | 944.2 | 973.6 | 998.1 | 1010.4 | 1001.1 |
| 60° | 953.3 | 954.9 | 963.9 | 978.2 | 995.6 | 1019.1 | 1051.3 | 1090.8 | 1125.4 | 1141.6 | 1131.0 |
| 62.5° | 1071.3 | 1074.2 | 1081.6 | 1096.0 | 1113.8 | 1140.5 | 1179.8 | 1229.2 | 1272.3 | 1294.8 | 1270.7 |
| 65° | 1212.2 | 1221.7 | 1227.8 | 1242.4 | 1259.0 | 1287.3 | 1328.4 | 1381.4 | 1427.6 | 1442.5 | 1414.6 |
| 67.5° | 1351.7 | 1360.0 | 1370.7 | 1387.5 | 1404.3 | 1436.1 | 1474.3 | 1525.7 | 1576.5 | 1589.9 | 1546.6 |
| 70° | 1412.8 | 1417.6 | 1434.2 | 1457.1 | 1489.3 | 1526.9 | 1570.9 | 1628.7 | 1691.5 | 1702.6 | 1647.6 |
| 72.5° | 1290.5 | 1295.2 | 1313.8 | 1352.7 | 1408.9 | 1468.6 | 1545.4 | 1630.2 | 1713.2 | 1725.7 | 1650.0 |
| 75° | 976.0 | 968.3 | 995.8 | 1047.4 | 1123.1 | 1206.3 | 1313.8 | 1435.3 | 1555.3 | 1570.9 | 1480.6 |
| 77.5° | 504.4 | 503.4 | 524.2 | 588.2 | 678.5 | 773.2 | 891.6 | 1029.0 | 1146.4 | 1193.8 | 1120.3 |
| 80° | 142.1 | 143.7 | 153.6 | 185.4 | 238.2 | 306.6 | 399.1 | 527.7 | 623.8 | 672.8 | 631.7 |
| 82.5° | 55.7 | 60.1 | 63.8 | 69.8 | 76.7 | 86.8 | 115.8 | 172.4 | 231.3 | 276.3 | 226.3 |
| 85° | 20.0 | 21.3 | 30.2 | 35.8 | 36.4 | 38.3 | 43.7 | 51.0 | 61.5 | 73.3 | 60.3 |
| 87.5° | 7.5 | 8.3 | 9.7 | 16.0 | 15.8 | 14.4 | 17.6 | 18.4 | 13.8 | 12.6 | 15.6 |
| 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):

| | 55° | 60° | 65° | 70° | 75° | 80° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 | 305.2 |
| 2.5° | 304.4 | 304.6 | 304.6 | 304.8 | 305.0 | 305.0 | 305.4 | 305.4 |
| 5° | 304.6 | 304.6 | 304.2 | 304.4 | 304.2 | 304.2 | 304.4 | 304.4 |
| 7.5° | 304.2 | 304.0 | 303.6 | 303.4 | 303.0 | 303.0 | 303.0 | 303.0 |
| 10° | 303.6 | 303.4 | 303.0 | 302.8 | 302.6 | 302.6 | 302.6 | 302.6 |
| 12.5° | 305.2 | 304.6 | 304.2 | 304.0 | 304.0 | 304.0 | 304.0 | 304.0 |
| 15° | 309.3 | 307.9 | 307.0 | 307.0 | 307.2 | 307.5 | 307.5 | 307.9 |
| 17.5° | 314.5 | 312.9 | 311.9 | 311.1 | 311.5 | 312.1 | 312.5 | 312.9 |
| 20° | 320.6 | 319.8 | 318.4 | 317.6 | 317.6 | 318.4 | 318.8 | 319.0 |
| 22.5° | 329.1 | 328.5 | 327.9 | 326.9 | 326.9 | 327.3 | 328.1 | 328.1 |
| 25° | 341.7 | 341.3 | 340.9 | 340.2 | 340.0 | 340.0 | 340.4 | 340.8 |
| 27.5° | 357.6 | 357.7 | 357.4 | 357.2 | 356.6 | 356.4 | 357.0 | 356.8 |
| 30° | 378.7 | 379.7 | 380.7 | 379.9 | 378.9 | 378.3 | 377.7 | 376.9 |
| 32.5° | 407.4 | 406.2 | 405.4 | 404.0 | 402.2 | 400.6 | 399.5 | 398.1 |
| 35° | 434.4 | 432.5 | 431.7 | 432.9 | 432.7 | 431.7 | 430.3 | 429.1 |
| 37.5° | 467.6 | 467.2 | 467.6 | 469.8 | 469.4 | 470.4 | 467.6 | 467.4 |
| 40° | 509.5 | 509.9 | 512.7 | 515.3 | 516.7 | 518.0 | 516.5 | 514.9 |
| 42.5° | 558.2 | 558.0 | 559.0 | 562.5 | 564.9 | 566.5 | 563.1 | 562.7 |
| 45° | 609.6 | 608.2 | 609.0 | 611.9 | 614.3 | 616.1 | 612.3 | 612.3 |
| 47.5° | 666.1 | 663.7 | 661.1 | 664.5 | 665.9 | 667.1 | 664.1 | 663.1 |
| 50° | 729.1 | 724.2 | 718.7 | 720.0 | 720.0 | 719.6 | 715.9 | 715.7 |
| 52.5° | 801.5 | 792.4 | 782.3 | 778.6 | 776.4 | 774.0 | 767.5 | 764.3 |
| 55° | 884.7 | 871.1 | 855.2 | 845.6 | 840.4 | 833.9 | 823.0 | 820.1 |
| 57.5° | 981.9 | 960.6 | 933.3 | 921.5 | 910.0 | 899.3 | 887.3 | 883.9 |
| 60° | 1097.2 | 1065.7 | 1029.6 | 1007.6 | 995.2 | 984.9 | 972.4 | 971.9 |
| 62.5° | 1225.6 | 1176.0 | 1135.1 | 1115.3 | 1106.3 | 1097.2 | 1085.3 | 1086.9 |
| 65° | 1356.3 | 1304.5 | 1266.2 | 1250.1 | 1241.6 | 1234.1 | 1222.3 | 1224.1 |
| 67.5° | 1485.2 | 1437.5 | 1395.4 | 1379.0 | 1369.5 | 1360.0 | 1349.4 | 1351.1 |
| 70° | 1577.7 | 1518.6 | 1471.1 | 1434.8 | 1412.0 | 1386.3 | 1369.7 | 1365.6 |
| 72.5° | 1551.2 | 1460.1 | 1384.7 | 1312.6 | 1270.3 | 1235.9 | 1212.6 | 1202.5 |
| 75° | 1342.5 | 1217.9 | 1121.1 | 1032.5 | 982.7 | 942.2 | 912.8 | 894.4 |
| 77.5° | 997.0 | 857.0 | 742.6 | 640.6 | 559.9 | 505.8 | 467.6 | 442.9 |
| 80° | 545.7 | 415.1 | 303.4 | 213.3 | 156.7 | 130.3 | 115.0 | 107.7 |
| 82.5° | 170.0 | 109.7 | 80.8 | 69.8 | 64.8 | 62.1 | 57.5 | 50.2 |
| 85° | 54.2 | 47.4 | 44.1 | 42.1 | 40.1 | 35.0 | 24.1 | 21.9 |
| 87.5° | 21.0 | 21.5 | 21.3 | 20.2 | 20.6 | 14.8 | 11.9 | 10.5 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)