

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: INVUE

Report Number: P400922

Luminaire Tested: **ENC-SA1A-730-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400922
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2004-754-13)
Test Lab: INNOVATION CENTER
Issue Date: 5/20/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: ENC-SA1A-730-U-T3
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 3000K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2535 lumens
Efficiency: N/A
Efficacy: 126.1 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Short - Semi-Cutoff
BUG Rating: B1 - U0 - G1

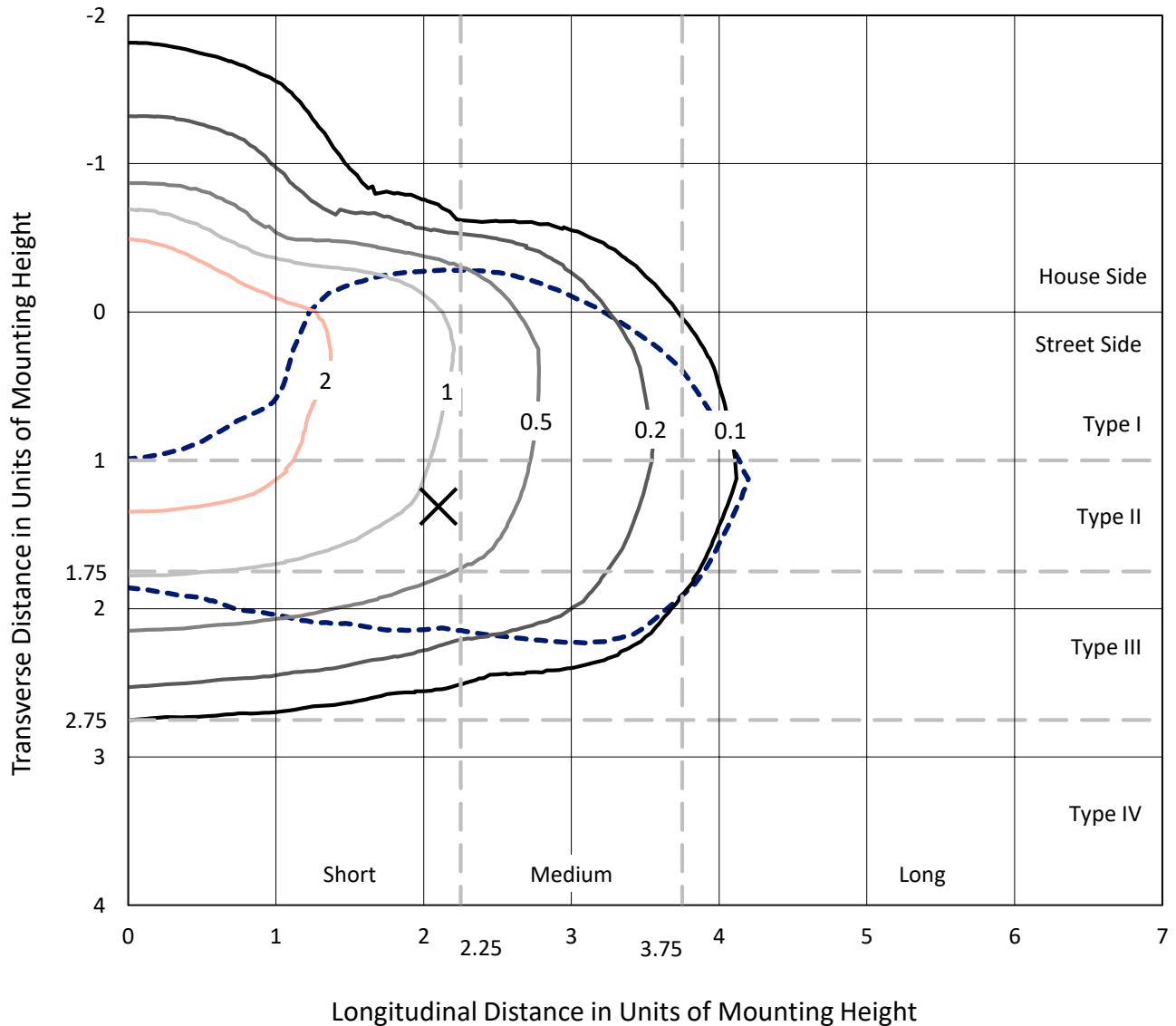
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

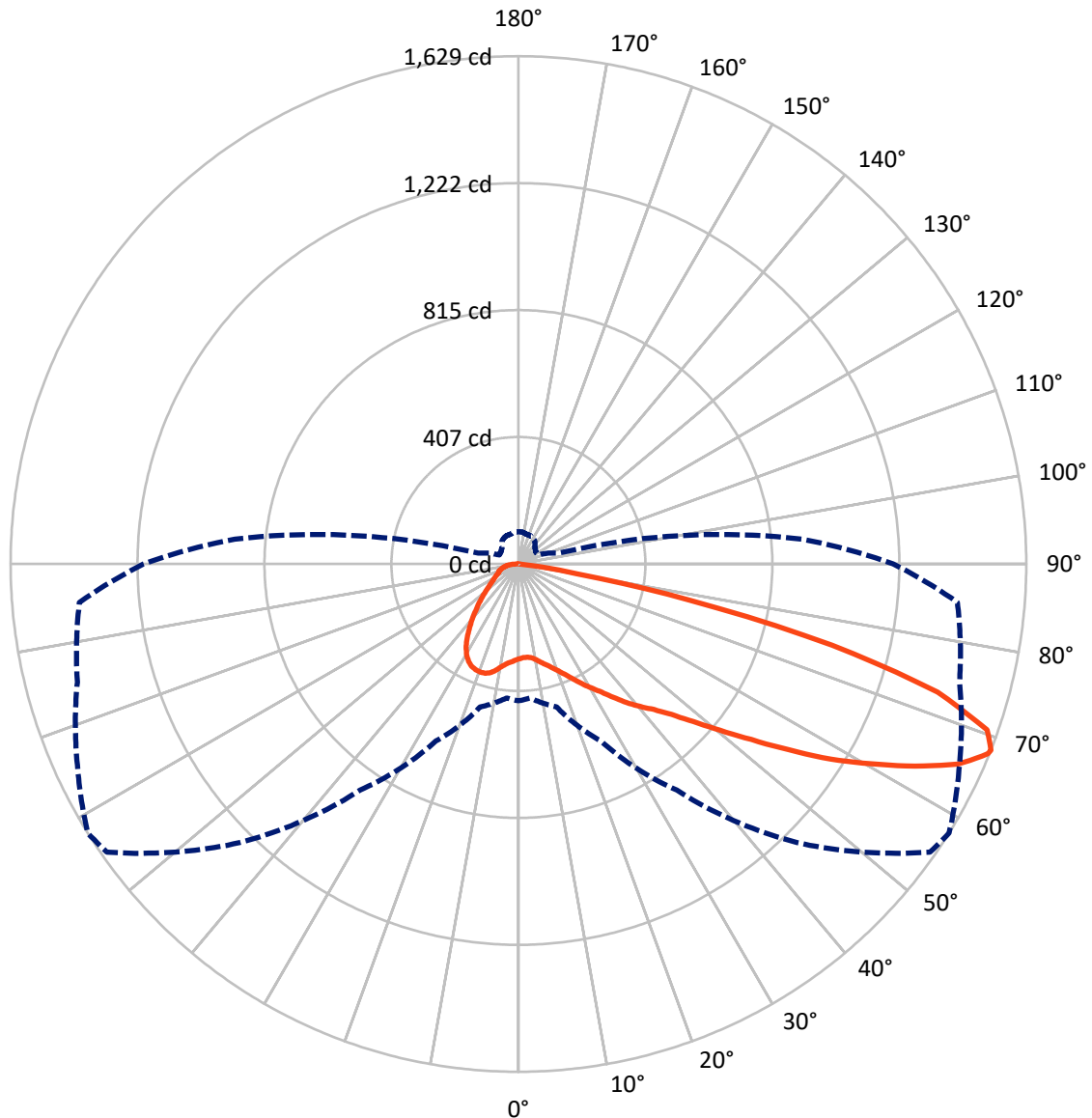
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 3.4 fc
 Type III - Short - Semi-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 58-Deg Lateral - - - Horizontal Cone Through 68-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 593.6 | 0.0 | 593.6 |
| | % Fixture | 23.4 | 0.0 | 23.4 |
| Street Side | Lumens | 1941.4 | 0.0 | 1941.4 |
| | % Fixture | 76.6 | 0.0 | 76.6 |
| Total | Lumens | 2535.0 | 0.0 | 2535.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 30.0 | 1.2 |
| 10°-20° | 98.1 | 3.9 |
| 20°-30° | 176.4 | 7.0 |
| 30°-40° | 259.1 | 10.2 |
| 40°-50° | 380.0 | 15.0 |
| 50°-60° | 568.0 | 22.4 |
| 60°-70° | 664.1 | 26.2 |
| 70°-80° | 327.4 | 12.9 |
| 80°-90° | 32.0 | 1.3 |
| 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° | 2535.0 | 100.0 |
| 0°-180° | 2535.0 | 100.0 |



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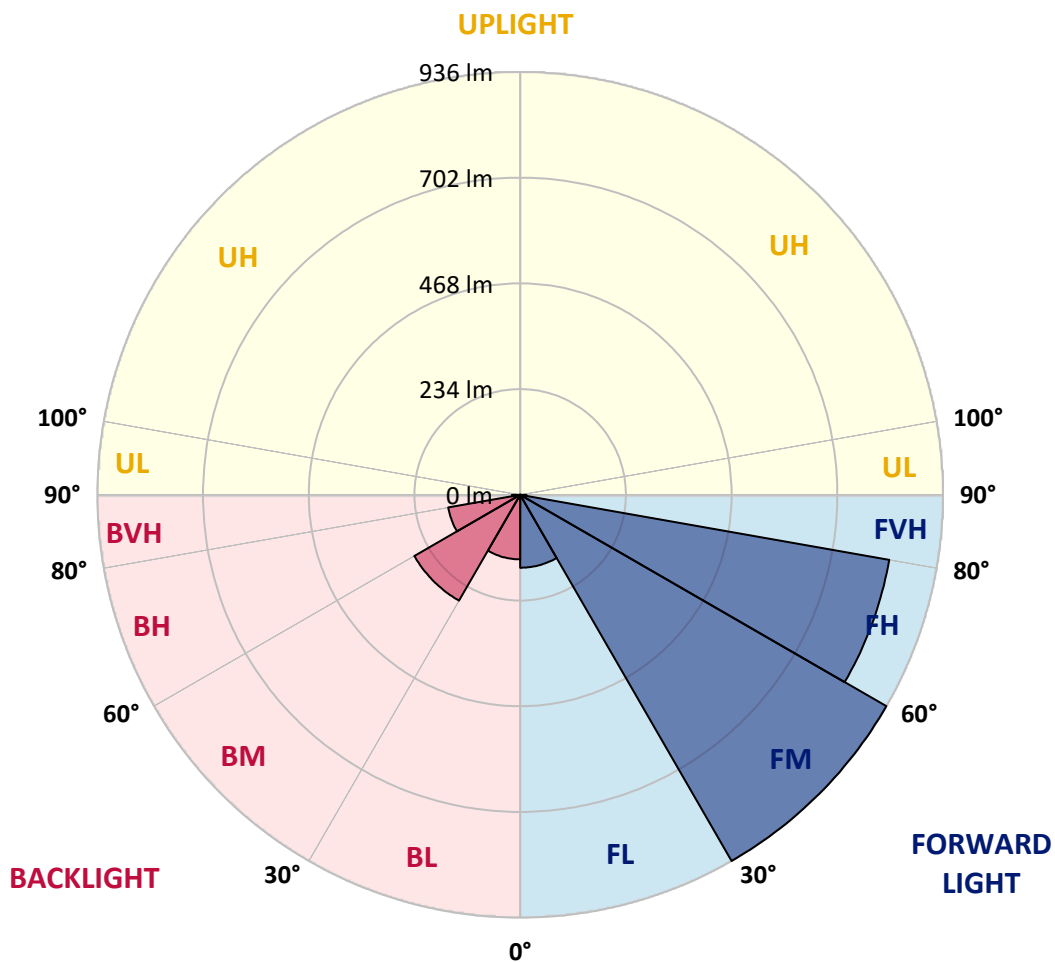
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 161.5 | 6.4 | | | |
| FM (30°-60°) | 936.3 | 36.9 | | | |
| FH (60°-80°) | 829.9 | 32.7 | | | G1/1800 |
| FVH (80°-90°) | 13.8 | 0.5 | | | G1/100 |
| BL (0°-30°) | 142.9 | 5.6 | B1/500 | | |
| BM (30°-60°) | 270.7 | 10.7 | B1/1000 | | |
| BH (60°-80°) | 161.7 | 6.4 | B1/500 | | G1/500 |
| BVH (80°-90°) | 18.2 | 0.7 | | | G1/100 |
| 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° | 58° | 65° | 75° | 85° |
|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 |
| 2.5° | 297.0 | 297.0 | 298.0 | 298.4 | 299.1 | 299.8 | 300.5 | 300.9 | 301.9 | 303.4 | 304.1 |
| 5° | 294.5 | 294.9 | 295.6 | 295.9 | 297.0 | 298.4 | 299.5 | 300.2 | 301.9 | 304.8 | 306.5 |
| 7.5° | 300.2 | 301.2 | 301.6 | 301.9 | 302.3 | 303.4 | 303.4 | 303.7 | 305.5 | 308.3 | 310.8 |
| 10° | 309.4 | 310.1 | 311.1 | 312.2 | 313.3 | 314.0 | 311.9 | 312.2 | 312.9 | 315.7 | 319.3 |
| 12.5° | 321.1 | 321.1 | 321.4 | 322.8 | 323.9 | 326.0 | 323.9 | 323.9 | 323.9 | 326.4 | 330.6 |
| 15° | 334.2 | 333.4 | 333.4 | 334.9 | 335.2 | 336.6 | 335.6 | 335.6 | 337.0 | 339.5 | 343.7 |
| 17.5° | 349.0 | 350.1 | 349.0 | 348.3 | 347.3 | 348.0 | 348.7 | 349.4 | 352.2 | 356.1 | 358.6 |
| 20° | 370.6 | 372.4 | 371.7 | 368.8 | 364.2 | 362.1 | 364.6 | 366.0 | 371.7 | 376.3 | 376.6 |
| 22.5° | 404.9 | 403.9 | 402.8 | 397.9 | 388.7 | 383.0 | 383.4 | 385.5 | 394.3 | 401.4 | 397.9 |
| 25° | 436.8 | 437.9 | 437.9 | 430.8 | 418.8 | 407.1 | 408.1 | 409.2 | 418.0 | 424.4 | 414.9 |
| 27.5° | 475.4 | 474.7 | 474.3 | 464.8 | 450.3 | 438.9 | 432.9 | 435.7 | 442.1 | 444.6 | 426.2 |
| 30° | 515.4 | 518.2 | 515.4 | 501.9 | 488.1 | 473.6 | 461.6 | 460.9 | 464.1 | 463.7 | 439.6 |
| 32.5° | 563.5 | 561.1 | 560.0 | 544.4 | 527.1 | 508.0 | 492.7 | 490.3 | 488.5 | 486.0 | 455.6 |
| 35° | 600.7 | 603.9 | 603.9 | 590.4 | 569.9 | 551.1 | 527.4 | 525.3 | 521.1 | 512.9 | 476.5 |
| 37.5° | 644.6 | 643.9 | 646.4 | 630.8 | 610.3 | 592.2 | 570.3 | 564.2 | 554.7 | 542.6 | 501.2 |
| 40° | 687.4 | 689.2 | 694.9 | 676.1 | 657.3 | 643.2 | 612.0 | 601.1 | 586.5 | 575.6 | 537.3 |
| 42.5° | 745.8 | 748.3 | 750.4 | 734.9 | 712.6 | 699.8 | 651.7 | 637.9 | 629.7 | 627.6 | 585.1 |
| 45° | 816.6 | 820.9 | 822.6 | 808.5 | 795.7 | 765.3 | 701.6 | 688.8 | 680.0 | 689.2 | 650.3 |
| 47.5° | 884.6 | 882.5 | 890.6 | 890.2 | 891.7 | 855.2 | 773.4 | 754.3 | 745.8 | 769.2 | 724.9 |
| 50° | 922.8 | 926.0 | 943.7 | 961.8 | 986.9 | 960.7 | 856.6 | 837.5 | 827.6 | 856.6 | 812.7 |
| 52.5° | 942.6 | 946.9 | 970.6 | 1021.2 | 1074.7 | 1062.3 | 956.8 | 935.6 | 927.1 | 955.4 | 906.9 |
| 55° | 944.4 | 946.9 | 978.7 | 1057.3 | 1141.6 | 1145.5 | 1071.1 | 1051.0 | 1039.3 | 1057.7 | 1009.5 |
| 57.5° | 915.0 | 907.6 | 962.5 | 1062.6 | 1184.4 | 1232.2 | 1196.8 | 1182.3 | 1149.4 | 1169.2 | 1137.0 |
| 60° | 862.6 | 870.1 | 923.9 | 1040.7 | 1202.5 | 1299.8 | 1322.8 | 1300.9 | 1262.6 | 1270.8 | 1274.3 |
| 62.5° | 783.3 | 792.9 | 848.8 | 989.7 | 1187.9 | 1357.1 | 1439.3 | 1428.3 | 1377.0 | 1372.7 | 1379.1 |
| 65° | 670.4 | 664.8 | 727.1 | 878.2 | 1119.3 | 1376.3 | 1553.6 | 1549.0 | 1487.8 | 1437.8 | 1440.3 |
| 67.5° | 483.5 | 478.2 | 521.8 | 677.9 | 933.4 | 1305.1 | 1614.5 | 1624.7 | 1554.7 | 1466.5 | 1428.3 |
| 68° | 438.9 | 431.5 | 475.0 | 626.5 | 885.6 | 1264.0 | 1611.3 | 1629.0 | 1559.6 | 1464.8 | 1413.4 |
| 70° | 252.7 | 240.7 | 282.8 | 408.8 | 652.0 | 1064.1 | 1546.2 | 1595.0 | 1547.9 | 1430.4 | 1316.1 |
| 72.5° | 79.3 | 79.3 | 109.4 | 165.3 | 320.0 | 673.3 | 1322.8 | 1406.0 | 1415.9 | 1300.2 | 1093.8 |
| 75° | 49.6 | 49.6 | 57.0 | 78.2 | 127.4 | 285.7 | 912.5 | 1039.3 | 1124.9 | 1094.5 | 797.5 |
| 77.5° | 33.6 | 32.9 | 37.9 | 48.5 | 71.1 | 91.7 | 458.0 | 562.8 | 688.1 | 747.2 | 466.5 |
| 80° | 18.4 | 18.8 | 23.4 | 29.0 | 40.4 | 42.5 | 134.5 | 190.1 | 303.0 | 355.0 | 177.0 |
| 82.5° | 10.6 | 10.3 | 11.3 | 12.7 | 17.7 | 18.4 | 38.6 | 47.4 | 79.3 | 73.6 | 47.4 |
| 85° | 0.0 | 0.4 | 0.4 | 0.4 | 0.7 | 1.8 | 5.0 | 7.4 | 12.0 | 16.6 | 11.7 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.4 | 0.7 | 0.7 | 0.7 | 0.7 | 1.1 |
| 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° | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 | 304.4 |
| 2.5° | 304.8 | 305.8 | 307.6 | 309.0 | 309.7 | 309.0 | 311.5 | 311.1 | 311.9 | 311.9 | 312.6 |
| 5° | 308.0 | 309.4 | 312.6 | 314.3 | 316.1 | 316.8 | 319.6 | 320.3 | 321.8 | 322.5 | 322.1 |
| 7.5° | 312.6 | 314.3 | 318.2 | 321.4 | 323.9 | 325.7 | 330.3 | 332.4 | 334.5 | 335.2 | 335.9 |
| 10° | 321.1 | 323.5 | 327.8 | 331.7 | 335.2 | 337.7 | 341.6 | 344.4 | 346.5 | 347.3 | 348.0 |
| 12.5° | 332.4 | 335.2 | 340.5 | 345.8 | 349.7 | 351.1 | 350.8 | 350.1 | 350.1 | 349.7 | 350.1 |
| 15° | 345.5 | 348.3 | 355.0 | 360.0 | 360.3 | 355.7 | 349.4 | 346.2 | 345.5 | 345.5 | 345.8 |
| 17.5° | 360.7 | 364.2 | 368.5 | 371.3 | 364.6 | 353.3 | 345.8 | 342.6 | 341.9 | 341.6 | 340.9 |
| 20° | 378.0 | 380.2 | 381.6 | 378.0 | 363.2 | 350.1 | 341.6 | 337.0 | 333.4 | 333.1 | 331.7 |
| 22.5° | 396.5 | 395.7 | 394.0 | 381.2 | 359.3 | 342.6 | 331.0 | 322.5 | 317.9 | 317.5 | 316.1 |
| 25° | 409.9 | 407.1 | 401.8 | 381.9 | 352.2 | 330.6 | 314.0 | 300.5 | 294.5 | 291.7 | 292.4 |
| 27.5° | 418.8 | 412.7 | 403.5 | 378.4 | 339.8 | 312.2 | 288.8 | 271.1 | 262.3 | 260.9 | 261.9 |
| 30° | 429.4 | 419.8 | 404.9 | 369.6 | 322.1 | 286.4 | 255.9 | 238.2 | 233.3 | 230.8 | 231.5 |
| 32.5° | 442.1 | 429.7 | 409.5 | 356.1 | 299.8 | 256.3 | 223.4 | 211.0 | 205.3 | 200.7 | 202.1 |
| 35° | 458.8 | 443.2 | 417.0 | 337.0 | 271.5 | 224.4 | 200.0 | 188.7 | 178.4 | 173.4 | 173.8 |
| 37.5° | 478.2 | 460.5 | 423.4 | 314.7 | 240.7 | 200.4 | 179.8 | 166.4 | 153.6 | 144.1 | 142.3 |
| 40° | 509.4 | 494.9 | 428.7 | 289.9 | 211.3 | 180.5 | 160.0 | 144.8 | 132.7 | 123.2 | 122.1 |
| 42.5° | 561.4 | 536.3 | 429.0 | 260.2 | 186.2 | 163.5 | 143.7 | 127.1 | 113.6 | 105.5 | 105.1 |
| 45° | 622.6 | 583.7 | 421.6 | 228.3 | 164.2 | 146.5 | 129.2 | 110.4 | 102.7 | 97.3 | 96.6 |
| 47.5° | 695.2 | 638.2 | 405.3 | 198.6 | 145.5 | 129.9 | 114.3 | 103.0 | 97.3 | 93.4 | 93.4 |
| 50° | 778.0 | 702.3 | 389.0 | 173.1 | 127.4 | 116.5 | 105.8 | 99.8 | 95.6 | 92.0 | 91.7 |
| 52.5° | 871.5 | 778.0 | 383.7 | 147.3 | 112.6 | 104.1 | 103.0 | 97.3 | 93.8 | 91.3 | 90.6 |
| 55° | 983.0 | 863.0 | 388.7 | 127.1 | 100.9 | 99.1 | 101.2 | 96.6 | 94.2 | 90.3 | 89.2 |
| 57.5° | 1111.8 | 945.8 | 383.4 | 110.1 | 92.7 | 94.5 | 99.1 | 96.6 | 94.5 | 89.6 | 88.1 |
| 60° | 1233.3 | 1019.8 | 347.3 | 95.9 | 85.0 | 88.8 | 96.3 | 93.4 | 90.3 | 89.2 | 88.5 |
| 62.5° | 1298.4 | 1043.9 | 276.8 | 85.0 | 78.9 | 83.2 | 91.7 | 88.1 | 86.0 | 88.5 | 88.8 |
| 65° | 1299.1 | 1016.6 | 203.5 | 76.8 | 74.0 | 78.2 | 87.1 | 86.0 | 87.4 | 93.1 | 94.2 |
| 67.5° | 1226.9 | 933.8 | 143.7 | 69.4 | 69.0 | 74.3 | 89.2 | 96.3 | 97.3 | 103.0 | 103.0 |
| 68° | 1202.1 | 913.3 | 133.4 | 68.3 | 68.0 | 74.3 | 91.0 | 98.1 | 98.8 | 104.1 | 103.7 |
| 70° | 1066.2 | 772.0 | 96.6 | 64.1 | 66.2 | 79.6 | 100.5 | 103.0 | 98.8 | 104.8 | 104.4 |
| 72.5° | 833.3 | 571.0 | 72.2 | 59.5 | 63.0 | 78.6 | 101.2 | 98.8 | 92.4 | 93.8 | 92.0 |
| 75° | 563.2 | 363.9 | 59.5 | 54.5 | 55.9 | 66.5 | 92.0 | 93.1 | 85.7 | 84.2 | 82.1 |
| 77.5° | 294.9 | 170.6 | 48.1 | 48.5 | 49.9 | 57.7 | 82.1 | 84.6 | 77.9 | 73.6 | 72.9 |
| 80° | 108.7 | 67.6 | 39.3 | 42.8 | 43.5 | 50.6 | 70.4 | 74.3 | 68.0 | 64.8 | 64.1 |
| 82.5° | 39.6 | 33.6 | 32.6 | 37.5 | 36.8 | 43.2 | 61.6 | 64.4 | 57.7 | 54.5 | 52.7 |
| 85° | 11.0 | 12.4 | 20.5 | 29.4 | 28.7 | 33.6 | 49.6 | 52.0 | 46.4 | 38.2 | 37.2 |
| 87.5° | 0.7 | 2.5 | 8.1 | 17.3 | 18.1 | 20.9 | 35.8 | 39.3 | 34.3 | 28.3 | 28.0 |
| 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)