

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: P400886

Luminaire Tested: **ENT-SA1A-722-U-T3**

Issue Date: 5/20/2020

Test Information

Test Method: LM-79-08
Report Number: P400886
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: ENT-SA1A-722-U-T3
Description: ENTRI LED LUMINAIRE
(1) 70 CRI, 2200K, 350mA LIGHTSQUARE WITH 16 LEDS AND TYPE III OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2046 lumens
Efficiency: N/A
Efficacy: 101.8 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

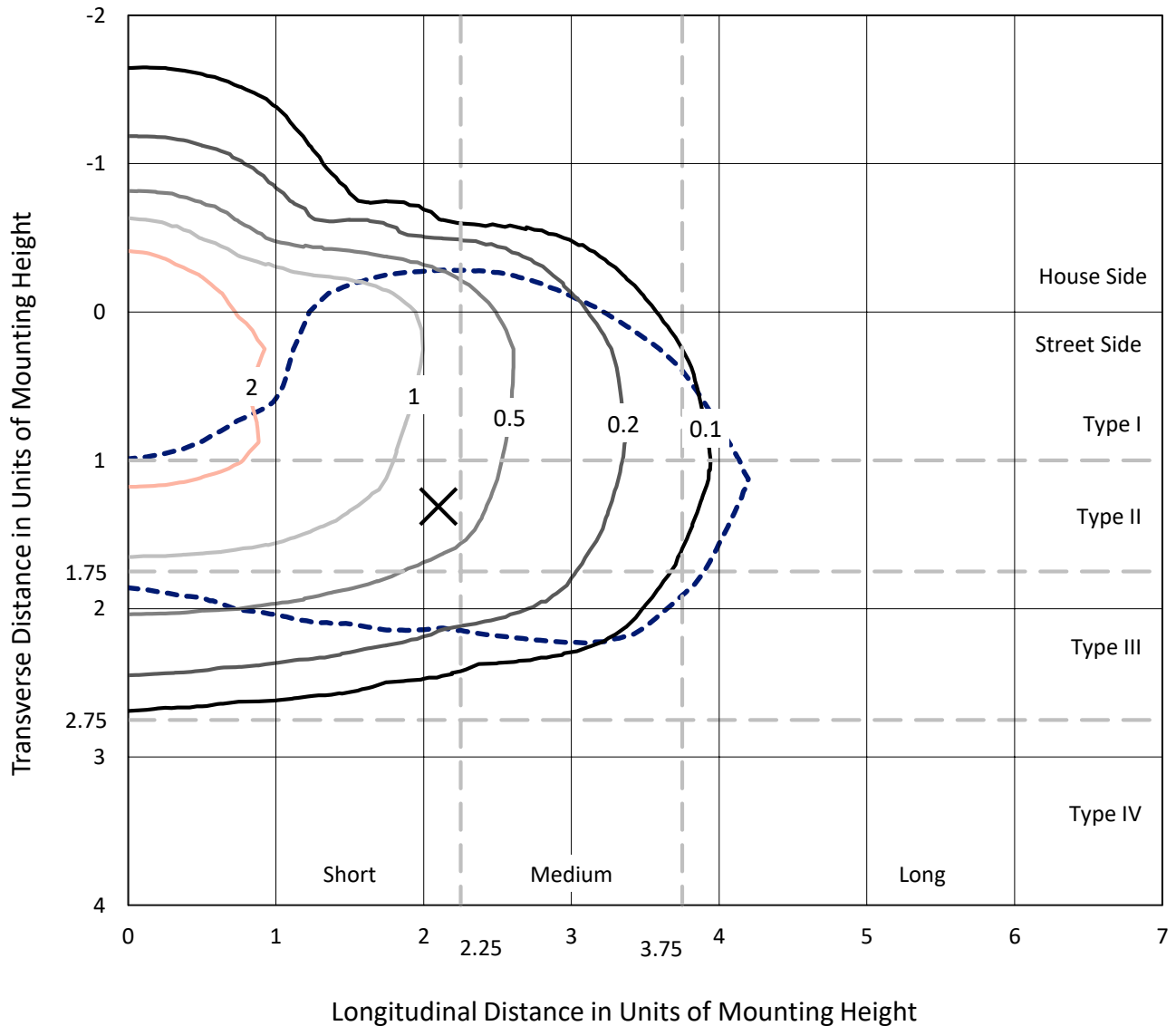
Input Watts (W): 20.1
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Iso-Footcandle Lines of Horizontal Illumination

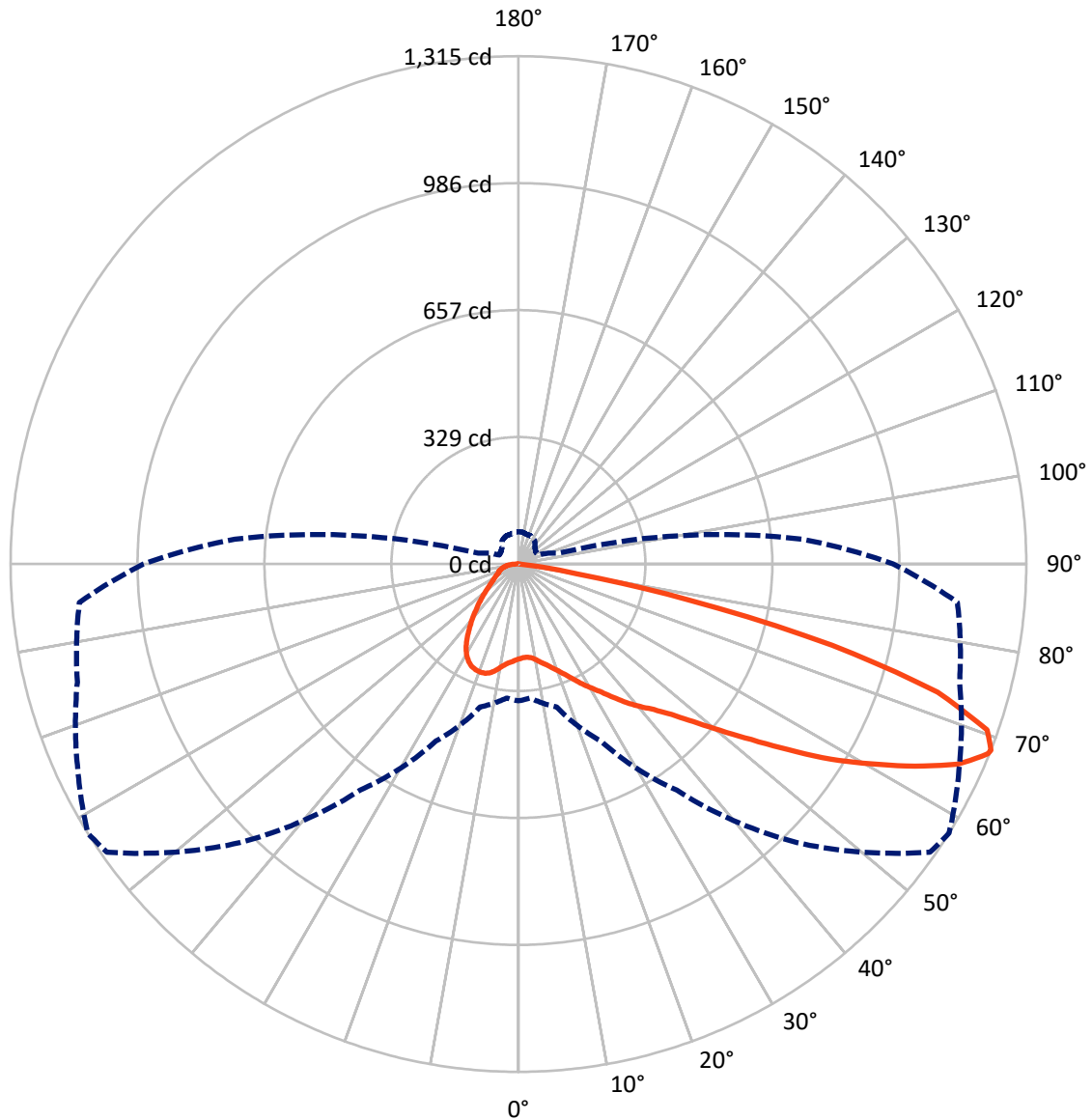
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 2.7 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 | 479.1 | 0.0 | 479.1 |
| | % Fixture | 23.4 | 0.0 | 23.4 |
| Street Side | Lumens | 1566.9 | 0.0 | 1566.9 |
| | % Fixture | 76.6 | 0.0 | 76.6 |
| Total | Lumens | 2046.0 | 0.0 | 2046.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 24.2 | 1.2 |
| 10°-20° | 79.2 | 3.9 |
| 20°-30° | 142.3 | 7.0 |
| 30°-40° | 209.1 | 10.2 |
| 40°-50° | 306.7 | 15.0 |
| 50°-60° | 458.4 | 22.4 |
| 60°-70° | 536.0 | 26.2 |
| 70°-80° | 264.3 | 12.9 |
| 80°-90° | 25.8 | 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° | 2046.0 | 100.0 |
| 0°-180° | 2046.0 | 100.0 |



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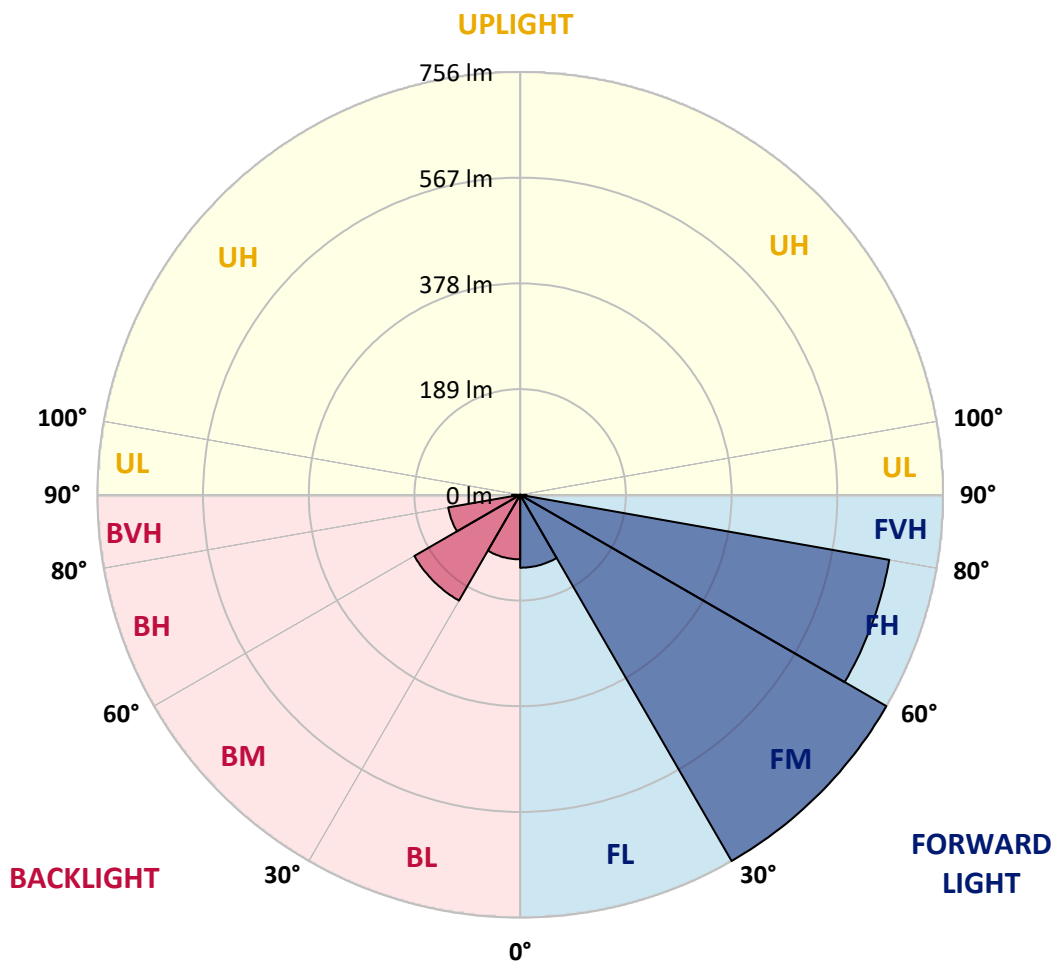
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 130.3 | 6.4 | | | |
| FM (30°-60°) | 755.7 | 36.9 | | | |
| FH (60°-80°) | 669.8 | 32.7 | | | G1/1800 |
| FVH (80°-90°) | 11.1 | 0.5 | | | G1/100 |
| BL (0°-30°) | 115.4 | 5.6 | B1/500 | | |
| BM (30°-60°) | 218.5 | 10.7 | B0/220 | | |
| BH (60°-80°) | 130.5 | 6.4 | B1/500 | | G1/500 |
| BVH (80°-90°) | 14.7 | 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° | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 |
| 2.5° | 239.7 | 239.7 | 240.6 | 240.8 | 241.4 | 242.0 | 242.6 | 242.8 | 243.7 | 244.8 | 245.4 |
| 5° | 237.7 | 238.0 | 238.6 | 238.8 | 239.7 | 240.8 | 241.7 | 242.3 | 243.7 | 246.0 | 247.4 |
| 7.5° | 242.3 | 243.1 | 243.4 | 243.7 | 244.0 | 244.8 | 244.8 | 245.1 | 246.6 | 248.8 | 250.8 |
| 10° | 249.7 | 250.3 | 251.1 | 252.0 | 252.8 | 253.4 | 251.7 | 252.0 | 252.6 | 254.8 | 257.7 |
| 12.5° | 259.1 | 259.1 | 259.4 | 260.6 | 261.4 | 263.1 | 261.4 | 261.4 | 261.4 | 263.4 | 266.8 |
| 15° | 269.7 | 269.1 | 269.1 | 270.3 | 270.6 | 271.7 | 270.8 | 270.8 | 272.0 | 274.0 | 277.4 |
| 17.5° | 281.7 | 282.6 | 281.7 | 281.1 | 280.3 | 280.8 | 281.4 | 282.0 | 284.3 | 287.4 | 289.4 |
| 20° | 299.1 | 300.6 | 300.0 | 297.7 | 294.0 | 292.3 | 294.3 | 295.4 | 300.0 | 303.7 | 304.0 |
| 22.5° | 326.8 | 326.0 | 325.1 | 321.1 | 313.7 | 309.1 | 309.4 | 311.1 | 318.3 | 324.0 | 321.1 |
| 25° | 352.5 | 353.4 | 353.4 | 347.7 | 338.0 | 328.5 | 329.4 | 330.3 | 337.4 | 342.5 | 334.8 |
| 27.5° | 383.7 | 383.1 | 382.8 | 375.1 | 363.4 | 354.3 | 349.4 | 351.7 | 356.8 | 358.8 | 344.0 |
| 30° | 416.0 | 418.3 | 416.0 | 405.1 | 394.0 | 382.3 | 372.5 | 372.0 | 374.5 | 374.3 | 354.8 |
| 32.5° | 454.8 | 452.8 | 452.0 | 439.4 | 425.4 | 410.0 | 397.7 | 395.7 | 394.3 | 392.3 | 367.7 |
| 35° | 484.8 | 487.4 | 487.4 | 476.5 | 460.0 | 444.8 | 425.7 | 424.0 | 420.5 | 414.0 | 384.5 |
| 37.5° | 520.2 | 519.7 | 521.7 | 509.1 | 492.5 | 478.0 | 460.3 | 455.4 | 447.7 | 438.0 | 404.5 |
| 40° | 554.8 | 556.2 | 560.8 | 545.7 | 530.5 | 519.1 | 494.0 | 485.1 | 473.4 | 464.5 | 433.7 |
| 42.5° | 602.0 | 604.0 | 605.7 | 593.1 | 575.1 | 564.8 | 526.0 | 514.8 | 508.2 | 506.5 | 472.3 |
| 45° | 659.1 | 662.5 | 664.0 | 652.5 | 642.2 | 617.7 | 566.2 | 556.0 | 548.8 | 556.2 | 524.8 |
| 47.5° | 713.9 | 712.2 | 718.8 | 718.5 | 719.7 | 690.2 | 624.2 | 608.8 | 602.0 | 620.8 | 585.1 |
| 50° | 744.8 | 747.4 | 761.7 | 776.2 | 796.5 | 775.4 | 691.4 | 676.0 | 668.0 | 691.4 | 656.0 |
| 52.5° | 760.8 | 764.2 | 783.4 | 824.2 | 867.4 | 857.4 | 772.2 | 755.1 | 748.2 | 771.1 | 731.9 |
| 55° | 762.2 | 764.2 | 789.9 | 853.4 | 921.4 | 924.5 | 864.5 | 848.2 | 838.8 | 853.7 | 814.8 |
| 57.5° | 738.5 | 732.5 | 776.8 | 857.7 | 955.9 | 994.5 | 965.9 | 954.2 | 927.6 | 943.6 | 917.6 |
| 60° | 696.2 | 702.2 | 745.7 | 839.9 | 970.5 | 1049.1 | 1067.6 | 1049.9 | 1019.1 | 1025.6 | 1028.5 |
| 62.5° | 632.2 | 640.0 | 685.1 | 798.8 | 958.8 | 1095.4 | 1161.6 | 1152.8 | 1111.3 | 1107.9 | 1113.1 |
| 65° | 541.1 | 536.5 | 586.8 | 708.8 | 903.4 | 1110.8 | 1253.9 | 1250.2 | 1200.8 | 1160.5 | 1162.5 |
| 67.5° | 390.3 | 386.0 | 421.1 | 547.1 | 753.4 | 1053.4 | 1303.1 | 1311.3 | 1254.8 | 1183.6 | 1152.8 |
| 68° | 354.3 | 348.3 | 383.4 | 505.7 | 714.8 | 1020.2 | 1300.5 | 1314.8 | 1258.8 | 1182.2 | 1140.8 |
| 70° | 204.0 | 194.3 | 228.3 | 330.0 | 526.2 | 858.8 | 1247.9 | 1287.3 | 1249.3 | 1154.5 | 1062.2 |
| 72.5° | 64.0 | 64.0 | 88.3 | 133.4 | 258.3 | 543.4 | 1067.6 | 1134.8 | 1142.8 | 1049.4 | 882.8 |
| 75° | 40.0 | 40.0 | 46.0 | 63.1 | 102.8 | 230.6 | 736.5 | 838.8 | 907.9 | 883.4 | 643.7 |
| 77.5° | 27.1 | 26.6 | 30.6 | 39.1 | 57.4 | 74.0 | 369.7 | 454.3 | 555.4 | 603.1 | 376.5 |
| 80° | 14.9 | 15.1 | 18.9 | 23.4 | 32.6 | 34.3 | 108.6 | 153.4 | 244.6 | 286.6 | 142.8 |
| 82.5° | 8.6 | 8.3 | 9.1 | 10.3 | 14.3 | 14.9 | 31.1 | 38.3 | 64.0 | 59.4 | 38.3 |
| 85° | 0.0 | 0.3 | 0.3 | 0.3 | 0.6 | 1.4 | 4.0 | 6.0 | 9.7 | 13.4 | 9.4 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.9 |
| 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° | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 | 245.7 |
| 2.5° | 246.0 | 246.8 | 248.3 | 249.4 | 250.0 | 249.4 | 251.4 | 251.1 | 251.7 | 251.7 | 252.3 |
| 5° | 248.6 | 249.7 | 252.3 | 253.7 | 255.1 | 255.7 | 258.0 | 258.6 | 259.7 | 260.3 | 260.0 |
| 7.5° | 252.3 | 253.7 | 256.8 | 259.4 | 261.4 | 262.8 | 266.6 | 268.3 | 270.0 | 270.6 | 271.1 |
| 10° | 259.1 | 261.1 | 264.6 | 267.7 | 270.6 | 272.6 | 275.7 | 278.0 | 279.7 | 280.3 | 280.8 |
| 12.5° | 268.3 | 270.6 | 274.8 | 279.1 | 282.3 | 283.4 | 283.1 | 282.6 | 282.6 | 282.3 | 282.6 |
| 15° | 278.8 | 281.1 | 286.6 | 290.6 | 290.8 | 287.1 | 282.0 | 279.4 | 278.8 | 278.8 | 279.1 |
| 17.5° | 291.1 | 294.0 | 297.4 | 299.7 | 294.3 | 285.1 | 279.1 | 276.6 | 276.0 | 275.7 | 275.1 |
| 20° | 305.1 | 306.8 | 308.0 | 305.1 | 293.1 | 282.6 | 275.7 | 272.0 | 269.1 | 268.8 | 267.7 |
| 22.5° | 320.0 | 319.4 | 318.0 | 307.7 | 290.0 | 276.6 | 267.1 | 260.3 | 256.6 | 256.3 | 255.1 |
| 25° | 330.8 | 328.5 | 324.3 | 308.3 | 284.3 | 266.8 | 253.4 | 242.6 | 237.7 | 235.4 | 236.0 |
| 27.5° | 338.0 | 333.1 | 325.7 | 305.4 | 274.3 | 252.0 | 233.1 | 218.8 | 211.7 | 210.6 | 211.4 |
| 30° | 346.5 | 338.8 | 326.8 | 298.3 | 260.0 | 231.1 | 206.6 | 192.3 | 188.3 | 186.3 | 186.8 |
| 32.5° | 356.8 | 346.8 | 330.5 | 287.4 | 242.0 | 206.8 | 180.3 | 170.3 | 165.7 | 162.0 | 163.1 |
| 35° | 370.3 | 357.7 | 336.5 | 272.0 | 219.1 | 181.1 | 161.4 | 152.3 | 144.0 | 140.0 | 140.3 |
| 37.5° | 386.0 | 371.7 | 341.7 | 254.0 | 194.3 | 161.7 | 145.1 | 134.3 | 124.0 | 116.3 | 114.8 |
| 40° | 411.1 | 399.4 | 346.0 | 234.0 | 170.6 | 145.7 | 129.1 | 116.8 | 107.1 | 99.4 | 98.6 |
| 42.5° | 453.1 | 432.8 | 346.3 | 210.0 | 150.3 | 132.0 | 116.0 | 102.6 | 91.7 | 85.1 | 84.9 |
| 45° | 502.5 | 471.1 | 340.3 | 184.3 | 132.6 | 118.3 | 104.3 | 89.1 | 82.9 | 78.6 | 78.0 |
| 47.5° | 561.1 | 515.1 | 327.1 | 160.3 | 117.4 | 104.8 | 92.3 | 83.1 | 78.6 | 75.4 | 75.4 |
| 50° | 628.0 | 566.8 | 314.0 | 139.7 | 102.8 | 94.0 | 85.4 | 80.6 | 77.1 | 74.3 | 74.0 |
| 52.5° | 703.4 | 628.0 | 309.7 | 118.8 | 90.9 | 84.0 | 83.1 | 78.6 | 75.7 | 73.7 | 73.1 |
| 55° | 793.4 | 696.5 | 313.7 | 102.6 | 81.4 | 80.0 | 81.7 | 78.0 | 76.0 | 72.9 | 72.0 |
| 57.5° | 897.4 | 763.4 | 309.4 | 88.9 | 74.9 | 76.3 | 80.0 | 78.0 | 76.3 | 72.3 | 71.1 |
| 60° | 995.4 | 823.1 | 280.3 | 77.4 | 68.6 | 71.7 | 77.7 | 75.4 | 72.9 | 72.0 | 71.4 |
| 62.5° | 1047.9 | 842.5 | 223.4 | 68.6 | 63.7 | 67.1 | 74.0 | 71.1 | 69.4 | 71.4 | 71.7 |
| 65° | 1048.5 | 820.5 | 164.3 | 62.0 | 59.7 | 63.1 | 70.3 | 69.4 | 70.6 | 75.1 | 76.0 |
| 67.5° | 990.2 | 753.7 | 116.0 | 56.0 | 55.7 | 60.0 | 72.0 | 77.7 | 78.6 | 83.1 | 83.1 |
| 68° | 970.2 | 737.1 | 107.7 | 55.1 | 54.9 | 60.0 | 73.4 | 79.1 | 79.7 | 84.0 | 83.7 |
| 70° | 860.5 | 623.1 | 78.0 | 51.7 | 53.4 | 64.3 | 81.1 | 83.1 | 79.7 | 84.6 | 84.3 |
| 72.5° | 672.5 | 460.8 | 58.3 | 48.0 | 50.9 | 63.4 | 81.7 | 79.7 | 74.6 | 75.7 | 74.3 |
| 75° | 454.5 | 293.7 | 48.0 | 44.0 | 45.1 | 53.7 | 74.3 | 75.1 | 69.1 | 68.0 | 66.3 |
| 77.5° | 238.0 | 137.7 | 38.9 | 39.1 | 40.3 | 46.6 | 66.3 | 68.3 | 62.9 | 59.4 | 58.9 |
| 80° | 87.7 | 54.6 | 31.7 | 34.6 | 35.1 | 40.9 | 56.9 | 60.0 | 54.9 | 52.3 | 51.7 |
| 82.5° | 32.0 | 27.1 | 26.3 | 30.3 | 29.7 | 34.9 | 49.7 | 52.0 | 46.6 | 44.0 | 42.6 |
| 85° | 8.9 | 10.0 | 16.6 | 23.7 | 23.1 | 27.1 | 40.0 | 42.0 | 37.4 | 30.9 | 30.0 |
| 87.5° | 0.6 | 2.0 | 6.6 | 14.0 | 14.6 | 16.9 | 28.9 | 31.7 | 27.7 | 22.9 | 22.6 |
| 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)