

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: P671003

Luminaire Tested: **CCP-SA-1B-830-U-T4FT**

Issue Date: 04/16/2023



**Test Information**

Test Method: LM-79-08  
Report Number: P671003  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 04/16/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: INVUE  
Catalog Number: CCP-SA-1B-830-U-T4FT  
Description: INVUE CLEAR CURVE POLE MOUNT LIGHT SQUARE LUMINAIRE @450mA w/ T4FT distribution lens  
Light Source: (16) 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

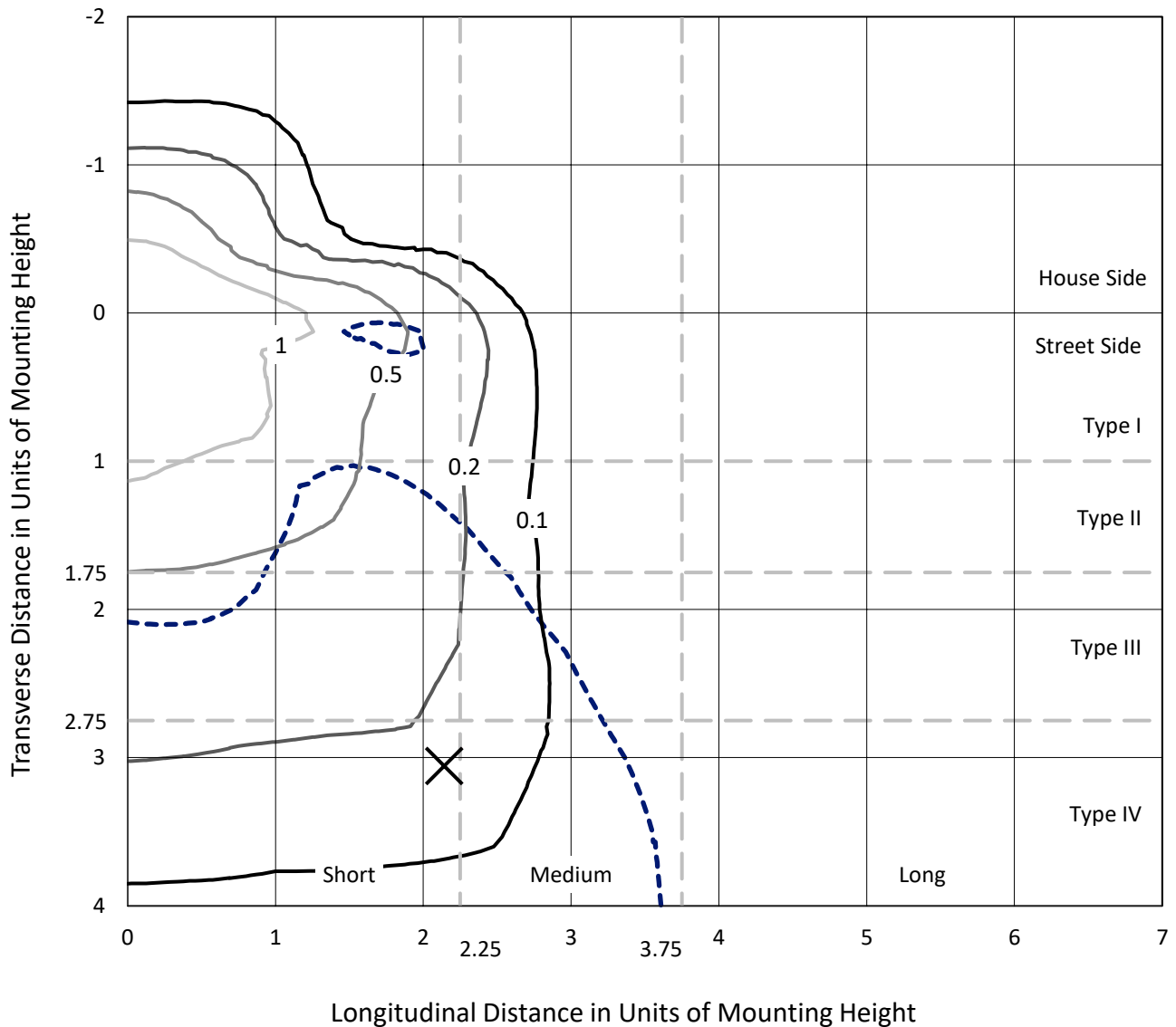
Lumens per Lamp: N/A  
Luminaire Lumens: 2742.5 lumens  
Efficiency: N/A  
Efficacy: 114.3 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G1

Input Watts (W): 24  
Input Voltage (V): 120  
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

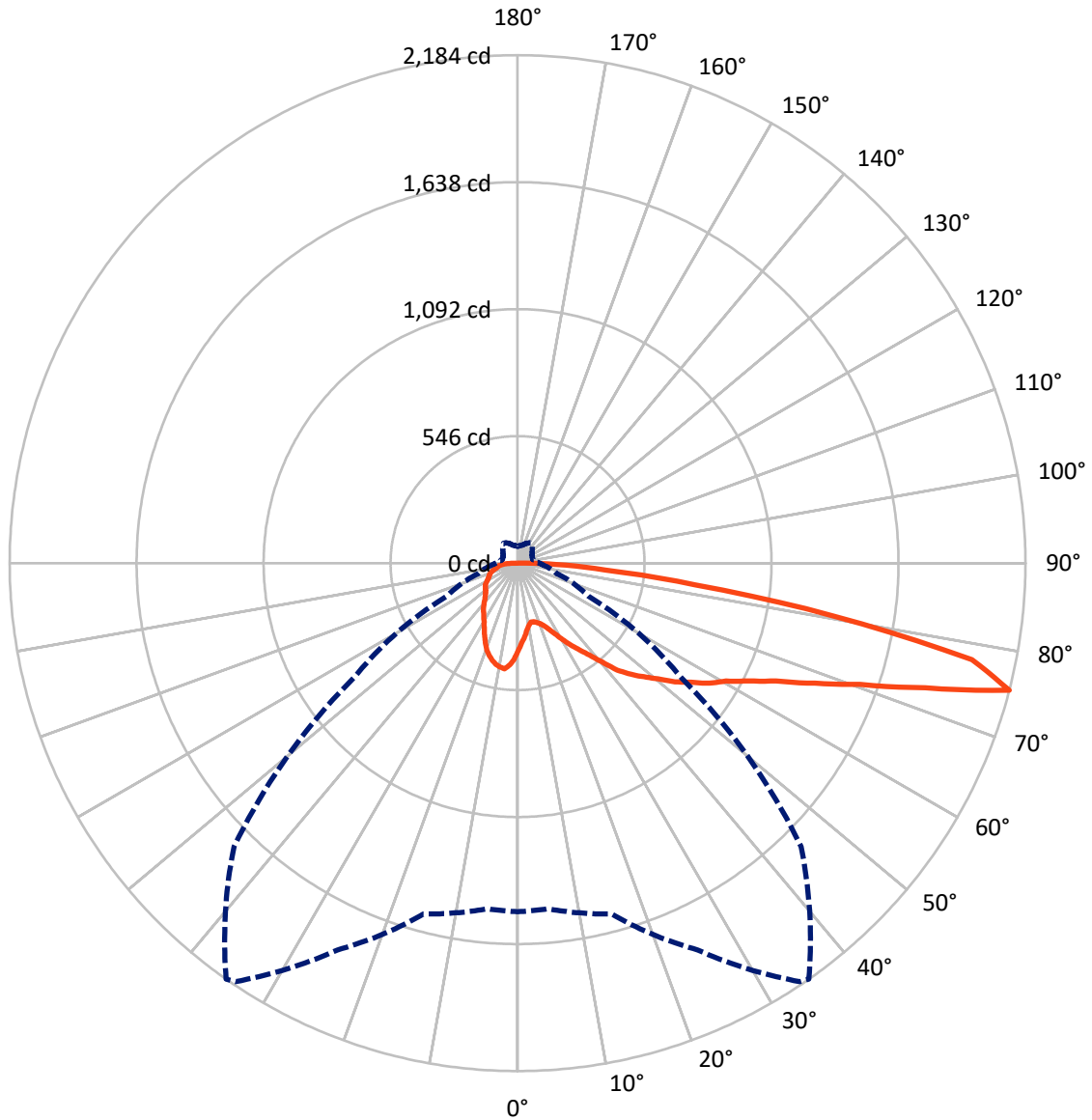
× Max cd  
- - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2 fc  
Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 35-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 630.3    | 0.0    | 630.3  |
|                    | % Fixture | 23.0     | 0.0    | 23.0   |
| <b>Street Side</b> | Lumens    | 2112.2   | 0.0    | 2112.2 |
|                    | % Fixture | 77.0     | 0.0    | 77.0   |
| <b>Total</b>       | Lumens    | 2742.5   | 0.0    | 2742.5 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 35.8   | 1.3       |
| 10°-20°   | 103.9  | 3.8       |
| 20°-30°   | 172.4  | 6.3       |
| 30°-40°   | 255.6  | 9.3       |
| 40°-50°   | 368.5  | 13.4      |
| 50°-60°   | 506.8  | 18.5      |
| 60°-70°   | 626.0  | 22.8      |
| 70°-80°   | 572.7  | 20.9      |
| 80°-90°   | 100.8  | 3.7       |
| 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°    | 2742.5 | 100.0     |
| 0°-180°   | 2742.5 | 100.0     |



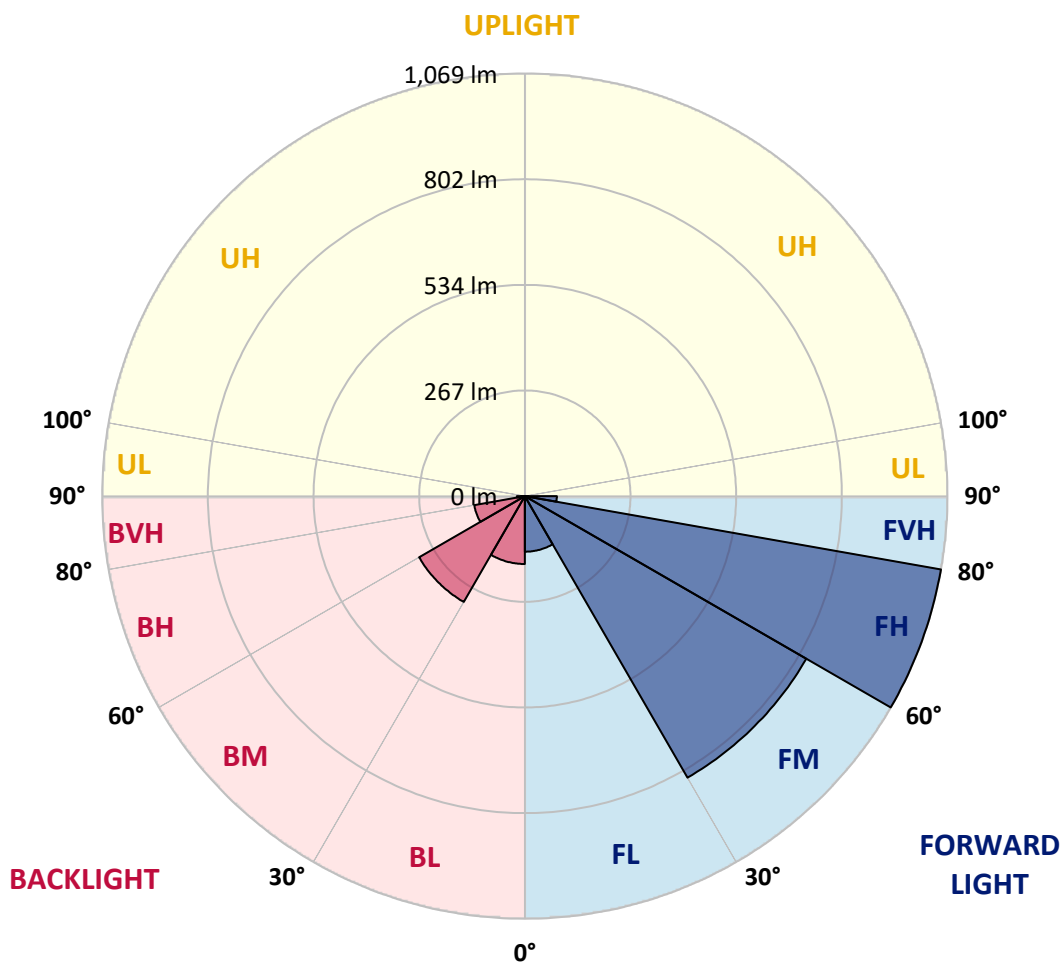
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 140.6  | 5.1       |                         |      |         |
| FM (30°-60°)   | 822.0  | 30.0      |                         |      |         |
| FH (60°-80°)   | 1068.7 | 39.0      |                         |      | G1/1800 |
| FVH (80°-90°)  | 80.9   | 3.0       |                         |      | G1/100  |
| BL (0°-30°)    | 171.6  | 6.3       | B1/500                  |      |         |
| BM (30°-60°)   | 308.9  | 11.3      | B1/1000                 |      |         |
| BH (60°-80°)   | 130.0  | 4.7       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 19.9   | 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 IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 34°    | 35°    | 45°    | 55°    | 65°   | 75°   | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|
| 0°    | 375.7  | 375.7  | 375.7  | 375.7  | 375.7  | 375.7  | 375.7  | 375.7  | 375.7 | 375.7 | 375.7  |
| 2.5°  | 340.4  | 337.4  | 340.4  | 342.4  | 342.4  | 342.4  | 345.4  | 354.5  | 360.6 | 364.6 | 371.7  |
| 5°    | 305.0  | 306.0  | 308.1  | 313.1  | 316.2  | 318.2  | 323.2  | 334.3  | 343.4 | 356.6 | 371.7  |
| 7.5°  | 273.7  | 275.7  | 278.8  | 283.8  | 290.9  | 289.9  | 301.0  | 316.2  | 333.3 | 350.5 | 372.7  |
| 10°   | 257.6  | 261.6  | 262.6  | 263.6  | 270.7  | 270.7  | 285.8  | 303.0  | 324.2 | 346.5 | 372.7  |
| 12.5° | 260.6  | 260.6  | 257.6  | 256.6  | 260.6  | 259.6  | 272.7  | 292.9  | 316.2 | 347.5 | 376.8  |
| 15°   | 269.7  | 269.7  | 263.6  | 257.6  | 263.6  | 261.6  | 272.7  | 288.9  | 316.2 | 348.5 | 384.8  |
| 17.5° | 281.8  | 282.8  | 275.7  | 265.6  | 267.7  | 268.7  | 276.8  | 291.9  | 316.2 | 350.5 | 395.9  |
| 20°   | 306.0  | 301.0  | 289.9  | 273.7  | 280.8  | 277.8  | 289.9  | 303.0  | 322.2 | 358.6 | 412.1  |
| 22.5° | 327.3  | 327.3  | 306.0  | 291.9  | 292.9  | 292.9  | 304.0  | 315.1  | 331.3 | 369.7 | 424.2  |
| 25°   | 361.6  | 359.6  | 333.3  | 312.1  | 314.1  | 315.1  | 321.2  | 334.3  | 346.5 | 375.7 | 439.4  |
| 27.5° | 405.0  | 400.0  | 373.7  | 349.5  | 341.4  | 344.4  | 347.5  | 357.6  | 360.6 | 385.8 | 457.6  |
| 30°   | 451.5  | 444.4  | 422.2  | 383.8  | 379.8  | 380.8  | 375.7  | 381.8  | 377.8 | 402.0 | 475.7  |
| 32.5° | 480.8  | 480.8  | 459.6  | 431.3  | 420.2  | 420.2  | 403.0  | 407.1  | 407.1 | 417.2 | 508.1  |
| 35°   | 506.0  | 504.0  | 489.9  | 468.7  | 461.6  | 457.6  | 440.4  | 446.4  | 436.3 | 446.4 | 553.5  |
| 37.5° | 544.4  | 538.4  | 532.3  | 518.2  | 504.0  | 501.0  | 491.9  | 495.9  | 481.8 | 476.8 | 605.0  |
| 40°   | 588.9  | 585.8  | 579.8  | 573.7  | 559.6  | 558.6  | 548.5  | 552.5  | 537.4 | 518.2 | 656.5  |
| 42.5° | 654.5  | 645.4  | 626.2  | 621.2  | 624.2  | 628.3  | 624.2  | 617.1  | 589.9 | 565.6 | 712.1  |
| 45°   | 720.2  | 706.0  | 669.7  | 661.6  | 684.8  | 681.8  | 699.0  | 695.9  | 651.5 | 613.1 | 770.7  |
| 47.5° | 762.6  | 750.5  | 721.2  | 716.1  | 726.2  | 730.3  | 781.8  | 772.7  | 702.0 | 656.5 | 827.2  |
| 50°   | 792.9  | 793.9  | 755.5  | 768.7  | 781.8  | 781.8  | 846.4  | 845.4  | 763.6 | 710.1 | 901.0  |
| 52.5° | 837.3  | 823.2  | 807.0  | 819.2  | 837.3  | 847.4  | 927.2  | 905.0  | 802.0 | 755.5 | 983.8  |
| 55°   | 860.6  | 854.5  | 840.4  | 861.6  | 900.0  | 905.0  | 989.9  | 972.7  | 845.4 | 809.1 | 1068.6 |
| 57.5° | 869.7  | 874.7  | 897.9  | 907.0  | 960.6  | 973.7  | 1046.4 | 1022.2 | 885.8 | 875.7 | 1134.3 |
| 60°   | 910.1  | 903.0  | 934.3  | 970.7  | 1022.2 | 1029.3 | 1117.1 | 1064.6 | 925.2 | 919.2 | 1155.5 |
| 62.5° | 991.9  | 973.7  | 990.9  | 1034.3 | 1106.0 | 1115.1 | 1191.9 | 1121.2 | 942.4 | 948.5 | 1154.5 |
| 65°   | 1111.1 | 1097.9 | 1072.7 | 1107.0 | 1208.0 | 1221.2 | 1279.8 | 1169.7 | 937.3 | 938.3 | 1072.7 |
| 67.5° | 1251.5 | 1230.3 | 1204.0 | 1225.2 | 1348.4 | 1378.7 | 1386.8 | 1190.9 | 902.0 | 881.8 | 872.7  |
| 70°   | 1374.7 | 1360.6 | 1343.4 | 1379.7 | 1551.5 | 1562.6 | 1520.1 | 1177.7 | 804.0 | 708.1 | 581.8  |
| 72.5° | 1489.8 | 1482.8 | 1492.9 | 1629.2 | 1826.2 | 1833.3 | 1645.4 | 1094.9 | 635.3 | 429.3 | 270.7  |
| 75°   | 1498.9 | 1491.9 | 1561.6 | 1835.3 | 2170.6 | 2183.8 | 1723.2 | 858.6  | 335.3 | 174.7 | 114.1  |
| 77.5° | 1015.1 | 1036.3 | 1166.6 | 1607.0 | 1993.9 | 1996.9 | 1409.0 | 399.0  | 138.4 | 103.0 | 79.8   |
| 80°   | 249.5  | 276.8  | 439.4  | 831.3  | 1344.4 | 1377.7 | 771.7  | 134.3  | 90.9  | 78.8  | 59.6   |
| 82.5° | 90.9   | 99.0   | 178.8  | 375.7  | 755.5  | 768.7  | 269.7  | 72.7   | 65.7  | 60.6  | 43.4   |
| 85°   | 43.4   | 44.4   | 84.8   | 184.8  | 381.8  | 377.8  | 97.0   | 43.4   | 47.5  | 41.4  | 26.3   |
| 87.5° | 18.2   | 18.2   | 37.4   | 85.9   | 168.7  | 163.6  | 31.3   | 20.2   | 27.3  | 24.2  | 13.1   |
| 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°    | 375.7  | 375.7 | 375.7 | 375.7 | 375.7 | 375.7 | 375.7 | 375.7 | 375.7 | 375.7 | 375.7 |
| 2.5°  | 376.8  | 378.8 | 386.9 | 392.9 | 399.0 | 404.0 | 412.1 | 412.1 | 417.2 | 417.2 | 417.2 |
| 5°    | 375.7  | 386.9 | 400.0 | 414.1 | 423.2 | 432.3 | 440.4 | 441.4 | 444.4 | 448.5 | 449.5 |
| 7.5°  | 379.8  | 390.9 | 412.1 | 432.3 | 443.4 | 447.5 | 457.6 | 454.5 | 454.5 | 454.5 | 457.6 |
| 10°   | 387.9  | 400.0 | 429.3 | 447.5 | 455.5 | 456.5 | 453.5 | 451.5 | 445.4 | 443.4 | 440.4 |
| 12.5° | 393.9  | 415.1 | 444.4 | 458.6 | 455.5 | 452.5 | 445.4 | 435.3 | 428.3 | 426.2 | 426.2 |
| 15°   | 409.1  | 430.3 | 457.6 | 462.6 | 457.6 | 441.4 | 432.3 | 421.2 | 415.1 | 406.0 | 410.1 |
| 17.5° | 422.2  | 446.4 | 470.7 | 464.6 | 454.5 | 429.3 | 416.1 | 400.0 | 391.9 | 381.8 | 381.8 |
| 20°   | 439.4  | 461.6 | 482.8 | 466.6 | 444.4 | 417.2 | 395.9 | 375.7 | 364.6 | 354.5 | 356.6 |
| 22.5° | 458.6  | 478.8 | 489.9 | 458.6 | 429.3 | 398.0 | 368.7 | 349.5 | 335.3 | 329.3 | 331.3 |
| 25°   | 473.7  | 495.9 | 493.9 | 445.4 | 411.1 | 373.7 | 341.4 | 323.2 | 320.2 | 314.1 | 314.1 |
| 27.5° | 492.9  | 516.1 | 490.9 | 429.3 | 380.8 | 335.3 | 315.1 | 308.1 | 308.1 | 305.0 | 307.1 |
| 30°   | 518.2  | 534.3 | 483.8 | 406.0 | 342.4 | 301.0 | 290.9 | 294.9 | 302.0 | 299.0 | 300.0 |
| 32.5° | 559.6  | 557.6 | 477.8 | 379.8 | 302.0 | 267.7 | 274.7 | 282.8 | 288.9 | 291.9 | 293.9 |
| 35°   | 600.0  | 586.8 | 470.7 | 344.4 | 264.6 | 251.5 | 257.6 | 266.7 | 277.8 | 280.8 | 281.8 |
| 37.5° | 640.4  | 617.1 | 458.6 | 301.0 | 241.4 | 237.4 | 243.4 | 248.5 | 257.6 | 259.6 | 261.6 |
| 40°   | 682.8  | 637.4 | 437.4 | 258.6 | 222.2 | 222.2 | 226.3 | 227.3 | 232.3 | 235.3 | 237.4 |
| 42.5° | 720.2  | 656.5 | 399.0 | 219.2 | 202.0 | 209.1 | 210.1 | 208.1 | 204.0 | 206.1 | 207.1 |
| 45°   | 765.6  | 677.8 | 354.5 | 190.9 | 186.9 | 196.0 | 198.0 | 189.9 | 182.8 | 178.8 | 176.8 |
| 47.5° | 810.1  | 700.0 | 316.2 | 167.7 | 172.7 | 186.9 | 186.9 | 177.8 | 165.7 | 155.5 | 151.5 |
| 50°   | 850.5  | 722.2 | 284.8 | 153.5 | 158.6 | 179.8 | 181.8 | 164.6 | 151.5 | 139.4 | 137.4 |
| 52.5° | 918.1  | 759.6 | 252.5 | 142.4 | 150.5 | 174.7 | 173.7 | 158.6 | 141.4 | 128.3 | 127.3 |
| 55°   | 977.7  | 796.9 | 210.1 | 131.3 | 142.4 | 167.7 | 170.7 | 152.5 | 129.3 | 117.2 | 115.1 |
| 57.5° | 1021.2 | 806.0 | 167.7 | 120.2 | 134.3 | 159.6 | 163.6 | 140.4 | 121.2 | 111.1 | 110.1 |
| 60°   | 1029.3 | 770.7 | 136.4 | 111.1 | 123.2 | 148.5 | 151.5 | 133.3 | 115.1 | 107.1 | 105.0 |
| 62.5° | 991.9  | 703.0 | 116.2 | 103.0 | 114.1 | 137.4 | 143.4 | 125.2 | 109.1 | 102.0 | 101.0 |
| 65°   | 907.0  | 604.0 | 102.0 | 96.0  | 108.1 | 129.3 | 136.4 | 119.2 | 104.0 | 98.0  | 97.0  |
| 67.5° | 718.2  | 463.6 | 90.9  | 90.9  | 100.0 | 121.2 | 131.3 | 115.1 | 99.0  | 94.9  | 93.9  |
| 70°   | 469.7  | 278.8 | 82.8  | 83.8  | 93.9  | 114.1 | 125.2 | 110.1 | 92.9  | 91.9  | 89.9  |
| 72.5° | 202.0  | 128.3 | 73.7  | 76.8  | 84.8  | 102.0 | 116.2 | 103.0 | 85.9  | 82.8  | 79.8  |
| 75°   | 92.9   | 77.8  | 66.7  | 68.7  | 75.8  | 89.9  | 105.0 | 94.9  | 79.8  | 74.7  | 71.7  |
| 77.5° | 65.7   | 56.6  | 55.6  | 59.6  | 64.6  | 77.8  | 92.9  | 88.9  | 73.7  | 69.7  | 67.7  |
| 80°   | 48.5   | 43.4  | 46.5  | 50.5  | 53.5  | 71.7  | 87.9  | 81.8  | 67.7  | 61.6  | 58.6  |
| 82.5° | 34.3   | 32.3  | 36.4  | 40.4  | 43.4  | 62.6  | 80.8  | 71.7  | 56.6  | 51.5  | 46.5  |
| 85°   | 20.2   | 21.2  | 25.3  | 27.3  | 30.3  | 46.5  | 67.7  | 57.6  | 43.4  | 33.3  | 32.3  |
| 87.5° | 9.1    | 9.1   | 12.1  | 13.1  | 15.2  | 27.3  | 45.5  | 36.4  | 27.3  | 21.2  | 20.2  |
| 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)