

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: P676761

Luminaire Tested: **CCW-SA-1A-835-U-T4W-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676761
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1A-835-U-T4W-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @350mA w/
T4W distribution lens and House Side Shield
Light Source: (16) 3500K CCT, 80 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

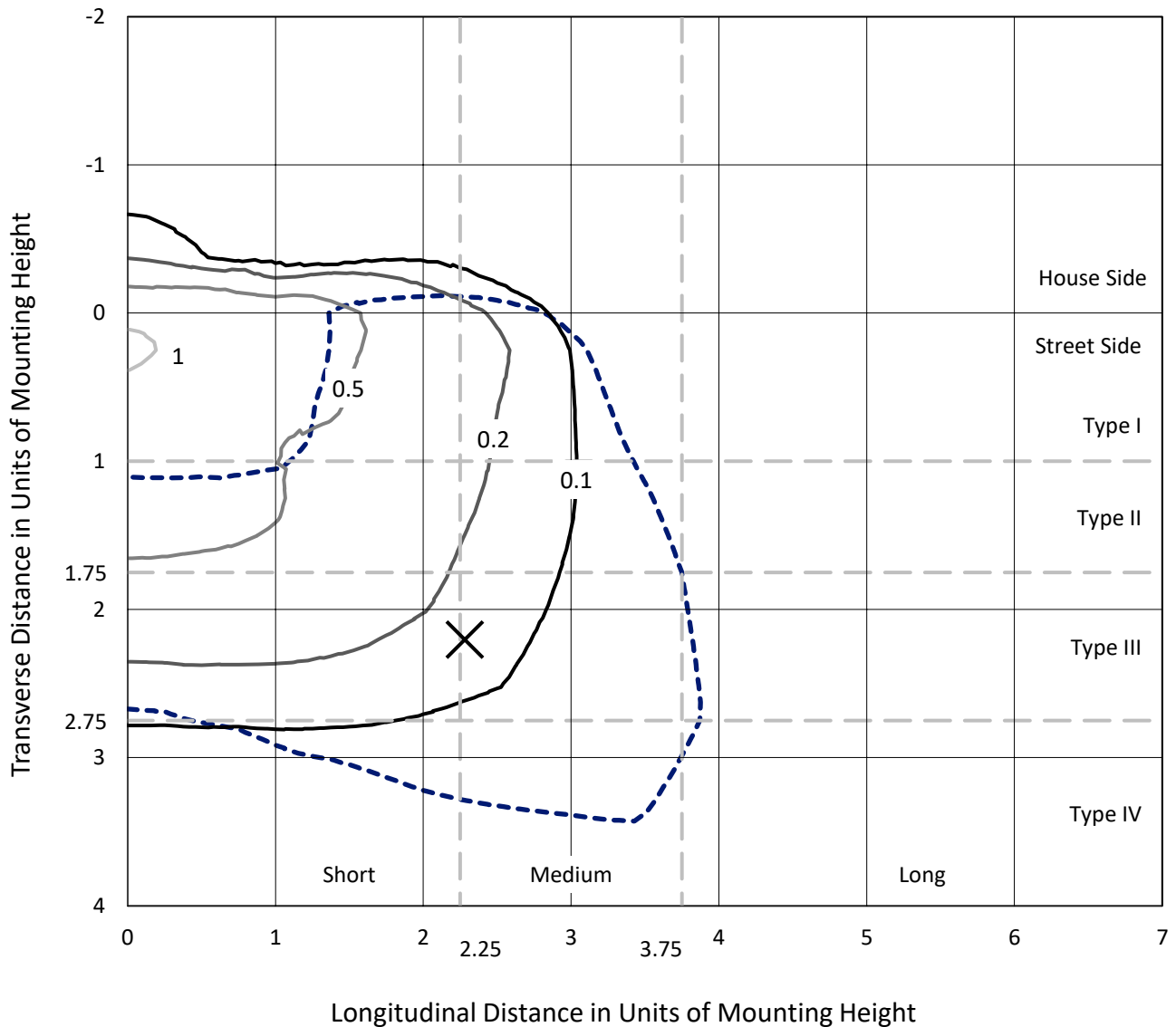
Lumens per Lamp: N/A
Luminaire Lumens: 1626.4 lumens
Efficiency: N/A
Efficacy: 90.4 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B0 - U0 - G1

Input Watts (W): 18
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

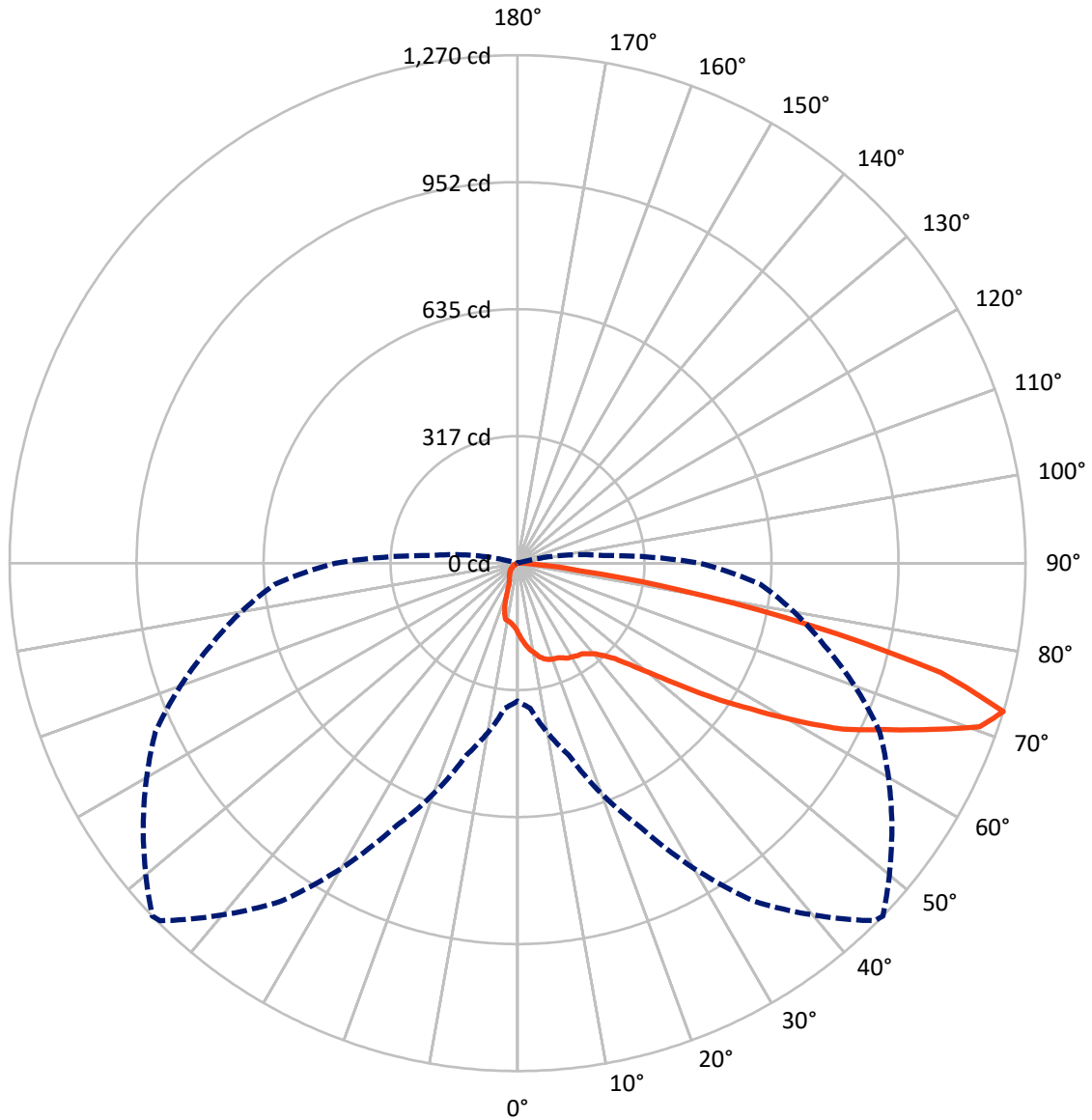
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 1.1 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 46-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 175.1 | 0.0 | 175.1 |
| | % Fixture | 10.8 | 0.0 | 10.8 |
| Street Side | Lumens | 1451.3 | 0.0 | 1451.3 |
| | % Fixture | 89.2 | 0.0 | 89.2 |
| Total | Lumens | 1626.4 | 0.0 | 1626.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 17.4 | 1.1 |
| 10°-20° | 52.5 | 3.2 |
| 20°-30° | 82.2 | 5.1 |
| 30°-40° | 115.2 | 7.1 |
| 40°-50° | 189.9 | 11.7 |
| 50°-60° | 341.3 | 21.0 |
| 60°-70° | 494.7 | 30.4 |
| 70°-80° | 308.7 | 19.0 |
| 80°-90° | 24.5 | 1.5 |
| 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° | 1626.4 | 100.0 |
| 0°-180° | 1626.4 | 100.0 |



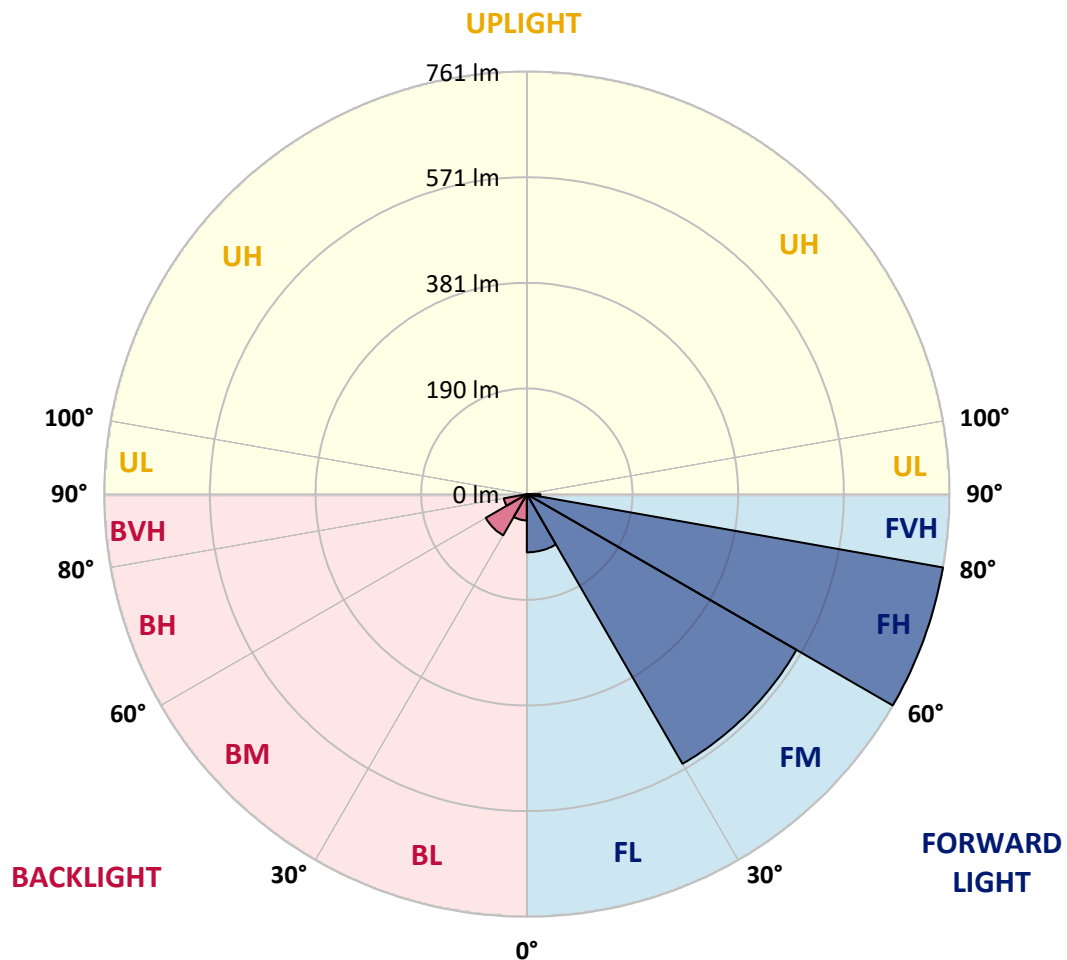
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 104.8 | 6.4 | | | |
| FM (30°-60°) | 560.8 | 34.5 | | | |
| FH (60°-80°) | 761.3 | 46.8 | | | G1/1800 |
| FVH (80°-90°) | 24.3 | 1.5 | | | G1/100 |
| BL (0°-30°) | 47.3 | 2.9 | B0/110 | | |
| BM (30°-60°) | 85.5 | 5.3 | B0/220 | | |
| BH (60°-80°) | 42.1 | 2.6 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.1 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------|--------|
| 0° | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 |
| 2.5° | 194.6 | 193.7 | 195.0 | 194.6 | 189.6 | 190.4 | 190.0 | 186.7 | 180.9 | 177.6 | 175.5 |
| 5° | 217.0 | 219.0 | 217.4 | 213.7 | 210.7 | 204.9 | 204.1 | 198.7 | 189.6 | 183.8 | 177.6 |
| 7.5° | 240.2 | 240.2 | 236.9 | 231.1 | 224.9 | 218.6 | 217.8 | 208.7 | 200.8 | 190.8 | 182.1 |
| 10° | 257.6 | 255.6 | 253.1 | 246.8 | 239.8 | 231.5 | 227.3 | 220.7 | 212.0 | 200.0 | 188.8 |
| 12.5° | 273.0 | 269.7 | 265.5 | 256.4 | 248.1 | 239.0 | 239.8 | 229.0 | 223.2 | 212.4 | 195.8 |
| 15° | 281.7 | 278.8 | 275.1 | 266.8 | 253.9 | 249.7 | 248.1 | 241.4 | 231.1 | 220.3 | 204.5 |
| 17.5° | 283.8 | 281.7 | 276.7 | 265.9 | 258.9 | 253.9 | 253.5 | 245.6 | 241.0 | 231.9 | 214.5 |
| 20° | 279.6 | 275.9 | 272.1 | 265.1 | 258.5 | 256.8 | 255.6 | 255.6 | 249.7 | 237.7 | 220.7 |
| 22.5° | 272.6 | 268.4 | 266.3 | 262.2 | 256.8 | 256.4 | 257.2 | 256.4 | 251.8 | 243.9 | 227.3 |
| 25° | 267.2 | 265.1 | 261.8 | 260.5 | 257.2 | 263.4 | 262.2 | 260.9 | 259.7 | 250.6 | 237.7 |
| 27.5° | 268.8 | 268.4 | 265.9 | 260.9 | 258.5 | 265.1 | 268.8 | 269.2 | 268.8 | 259.7 | 247.3 |
| 30° | 269.7 | 267.6 | 265.1 | 263.9 | 264.7 | 271.3 | 271.3 | 280.4 | 276.7 | 267.6 | 256.8 |
| 32.5° | 279.2 | 278.0 | 269.7 | 266.8 | 267.2 | 275.1 | 275.5 | 284.6 | 283.4 | 277.1 | 265.1 |
| 35° | 299.5 | 291.2 | 279.2 | 270.9 | 270.9 | 281.3 | 278.0 | 291.2 | 294.6 | 284.6 | 270.9 |
| 37.5° | 329.8 | 323.6 | 302.0 | 283.4 | 276.3 | 283.8 | 287.1 | 294.6 | 304.5 | 295.8 | 282.5 |
| 40° | 390.0 | 388.7 | 358.0 | 317.8 | 290.0 | 296.6 | 297.9 | 309.5 | 316.1 | 304.1 | 300.4 |
| 42.5° | 477.9 | 471.7 | 443.1 | 379.6 | 314.9 | 312.0 | 316.5 | 324.0 | 339.8 | 329.8 | 320.7 |
| 45° | 563.8 | 560.9 | 532.3 | 461.3 | 360.1 | 342.7 | 340.2 | 353.5 | 376.7 | 365.9 | 358.9 |
| 47.5° | 626.0 | 620.2 | 604.0 | 544.3 | 426.5 | 378.8 | 380.4 | 393.7 | 423.2 | 414.9 | 416.9 |
| 50° | 673.7 | 670.8 | 653.8 | 621.0 | 510.3 | 435.6 | 432.3 | 445.6 | 485.4 | 490.8 | 496.6 |
| 52.5° | 726.0 | 731.4 | 708.6 | 680.8 | 609.4 | 511.9 | 504.5 | 509.0 | 560.5 | 572.9 | 589.1 |
| 55° | 776.2 | 784.9 | 762.1 | 758.4 | 713.1 | 596.6 | 595.3 | 584.5 | 650.9 | 652.6 | 661.3 |
| 57.5° | 809.0 | 806.1 | 804.4 | 824.7 | 816.9 | 693.6 | 687.4 | 676.6 | 736.8 | 726.0 | 752.1 |
| 60° | 811.5 | 819.8 | 847.6 | 897.8 | 911.9 | 807.7 | 798.6 | 769.2 | 811.1 | 785.3 | 835.1 |
| 62.5° | 830.1 | 836.8 | 888.2 | 957.5 | 975.8 | 908.1 | 914.4 | 839.7 | 874.5 | 854.2 | 927.2 |
| 65° | 782.8 | 803.6 | 906.9 | 1004.0 | 1059.6 | 1009.8 | 1003.5 | 930.5 | 939.7 | 920.6 | 1018.1 |
| 67.5° | 740.1 | 748.0 | 855.9 | 1018.1 | 1125.9 | 1111.8 | 1109.3 | 1011.0 | 1006.9 | 971.6 | 1043.8 |
| 70° | 601.5 | 611.1 | 717.7 | 945.9 | 1148.3 | 1230.9 | 1225.1 | 1123.9 | 1052.5 | 943.8 | 911.9 |
| 72.5° | 344.7 | 363.8 | 497.4 | 728.5 | 1031.8 | 1264.1 | 1269.5 | 1142.1 | 998.6 | 793.6 | 609.0 |
| 75° | 112.8 | 118.2 | 206.6 | 412.8 | 771.6 | 1102.7 | 1093.2 | 981.6 | 805.7 | 524.0 | 275.1 |
| 77.5° | 38.2 | 39.0 | 61.0 | 149.4 | 427.7 | 745.1 | 750.5 | 701.5 | 494.9 | 217.8 | 75.9 |
| 80° | 19.5 | 20.7 | 29.9 | 56.0 | 175.9 | 405.7 | 414.4 | 399.9 | 207.4 | 64.3 | 18.3 |
| 82.5° | 9.1 | 9.5 | 17.4 | 31.1 | 80.5 | 159.3 | 159.3 | 175.1 | 73.4 | 36.1 | 7.5 |
| 85° | 3.3 | 3.3 | 9.1 | 17.8 | 34.0 | 53.1 | 53.5 | 53.9 | 38.6 | 27.0 | 3.3 |
| 87.5° | 1.2 | 1.2 | 4.6 | 7.5 | 12.4 | 16.2 | 16.2 | 12.9 | 19.5 | 17.8 | 1.2 |
| 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° | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 | 173.8 |
| 2.5° | 174.7 | 172.2 | 170.1 | 167.2 | 163.5 | 161.4 | 161.8 | 159.3 | 159.3 | 158.1 | 157.6 |
| 5° | 174.7 | 172.2 | 166.8 | 161.8 | 158.5 | 154.3 | 152.3 | 150.6 | 150.6 | 149.8 | 150.2 |
| 7.5° | 175.9 | 172.2 | 164.7 | 158.1 | 152.7 | 148.5 | 145.2 | 144.8 | 144.0 | 141.9 | 143.5 |
| 10° | 183.4 | 178.0 | 165.5 | 156.4 | 150.2 | 145.6 | 139.8 | 138.1 | 135.7 | 131.9 | 132.3 |
| 12.5° | 189.6 | 182.5 | 171.3 | 158.9 | 151.0 | 143.5 | 130.3 | 115.7 | 109.5 | 102.9 | 103.3 |
| 15° | 198.7 | 188.8 | 173.4 | 162.2 | 151.0 | 126.9 | 102.9 | 84.2 | 74.3 | 69.3 | 69.3 |
| 17.5° | 203.7 | 195.4 | 179.2 | 164.3 | 139.0 | 103.3 | 73.0 | 56.8 | 55.2 | 56.0 | 56.0 |
| 20° | 214.1 | 202.9 | 185.9 | 165.9 | 119.1 | 73.4 | 53.5 | 51.9 | 52.7 | 54.3 | 53.9 |
| 22.5° | 220.7 | 209.5 | 190.8 | 158.5 | 92.1 | 52.7 | 50.2 | 49.4 | 50.2 | 52.3 | 52.3 |
| 25° | 226.1 | 219.0 | 198.7 | 140.2 | 65.1 | 47.7 | 46.9 | 47.7 | 48.5 | 49.4 | 50.6 |
| 27.5° | 239.4 | 227.3 | 204.1 | 116.6 | 46.9 | 44.4 | 45.2 | 45.6 | 45.6 | 46.9 | 47.3 |
| 30° | 248.1 | 238.5 | 208.3 | 90.0 | 41.5 | 41.1 | 41.9 | 42.3 | 42.7 | 44.0 | 44.4 |
| 32.5° | 256.4 | 253.1 | 202.9 | 61.0 | 39.0 | 38.2 | 37.8 | 38.2 | 39.8 | 41.1 | 40.7 |
| 35° | 268.4 | 266.3 | 195.0 | 42.3 | 36.5 | 34.8 | 34.0 | 34.4 | 35.7 | 36.9 | 36.5 |
| 37.5° | 282.9 | 285.0 | 175.9 | 36.9 | 34.0 | 31.9 | 30.3 | 30.3 | 30.7 | 31.9 | 32.4 |
| 40° | 299.9 | 305.3 | 153.5 | 34.4 | 32.4 | 29.9 | 28.2 | 26.1 | 25.7 | 25.3 | 25.7 |
| 42.5° | 331.1 | 337.3 | 128.2 | 32.8 | 29.9 | 27.0 | 24.5 | 22.0 | 19.9 | 18.7 | 18.7 |
| 45° | 374.6 | 369.6 | 95.0 | 31.1 | 28.6 | 24.5 | 20.7 | 17.8 | 14.9 | 13.7 | 13.7 |
| 47.5° | 434.8 | 417.8 | 65.1 | 29.5 | 26.6 | 21.6 | 17.4 | 13.7 | 11.2 | 10.0 | 10.0 |
| 50° | 518.2 | 462.2 | 42.3 | 27.8 | 25.3 | 18.7 | 14.1 | 10.0 | 8.3 | 7.9 | 8.3 |
| 52.5° | 597.0 | 507.4 | 33.6 | 25.7 | 22.8 | 16.2 | 10.8 | 8.3 | 7.5 | 7.1 | 7.1 |
| 55° | 669.6 | 530.2 | 29.9 | 23.6 | 20.7 | 13.3 | 9.1 | 7.1 | 6.6 | 6.2 | 6.2 |
| 57.5° | 731.0 | 538.1 | 25.7 | 20.7 | 16.6 | 10.4 | 7.5 | 6.2 | 5.4 | 5.0 | 5.0 |
| 60° | 784.1 | 540.1 | 19.9 | 16.6 | 12.0 | 7.9 | 6.2 | 5.4 | 4.6 | 3.7 | 3.7 |
| 62.5° | 826.4 | 525.6 | 14.1 | 11.6 | 8.3 | 6.2 | 5.4 | 3.7 | 2.5 | 1.7 | 1.2 |
| 65° | 860.0 | 496.6 | 9.5 | 7.9 | 5.4 | 4.6 | 3.3 | 1.7 | 0.4 | 0.0 | 0.0 |
| 67.5° | 820.6 | 430.6 | 7.5 | 5.8 | 3.7 | 2.9 | 1.7 | 0.4 | 0.0 | 0.0 | 0.0 |
| 70° | 669.2 | 334.0 | 5.4 | 3.7 | 2.5 | 0.8 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 455.5 | 215.3 | 4.1 | 2.5 | 1.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 204.5 | 77.2 | 2.9 | 1.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 49.8 | 18.3 | 2.1 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 13.3 | 4.6 | 1.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 5.0 | 1.7 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 2.1 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.8 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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)