

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: P676688

Luminaire Tested: **CCW-SA-1E-730-U-T4W-HSS**

Issue Date: 04/25/2023



Test Information

Test Method: LM-79-08
Report Number: P676688
Test Lab: INNOVATION CENTER(G1)
Issue Date: 04/25/2023
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: INVUE
Catalog Number: CCW-SA-1E-730-U-T4W-HSS
Description: INVUE CLEAR CURVE Wall Pack MOUNT Light Square Luminaire @1050mA w/
T4W distribution lens and House Side Shield
Light Source: (16) 3000K CCT, 70 CRI LEDs
Ballast/Driver: ELECTRONIC DRIVER

Summary

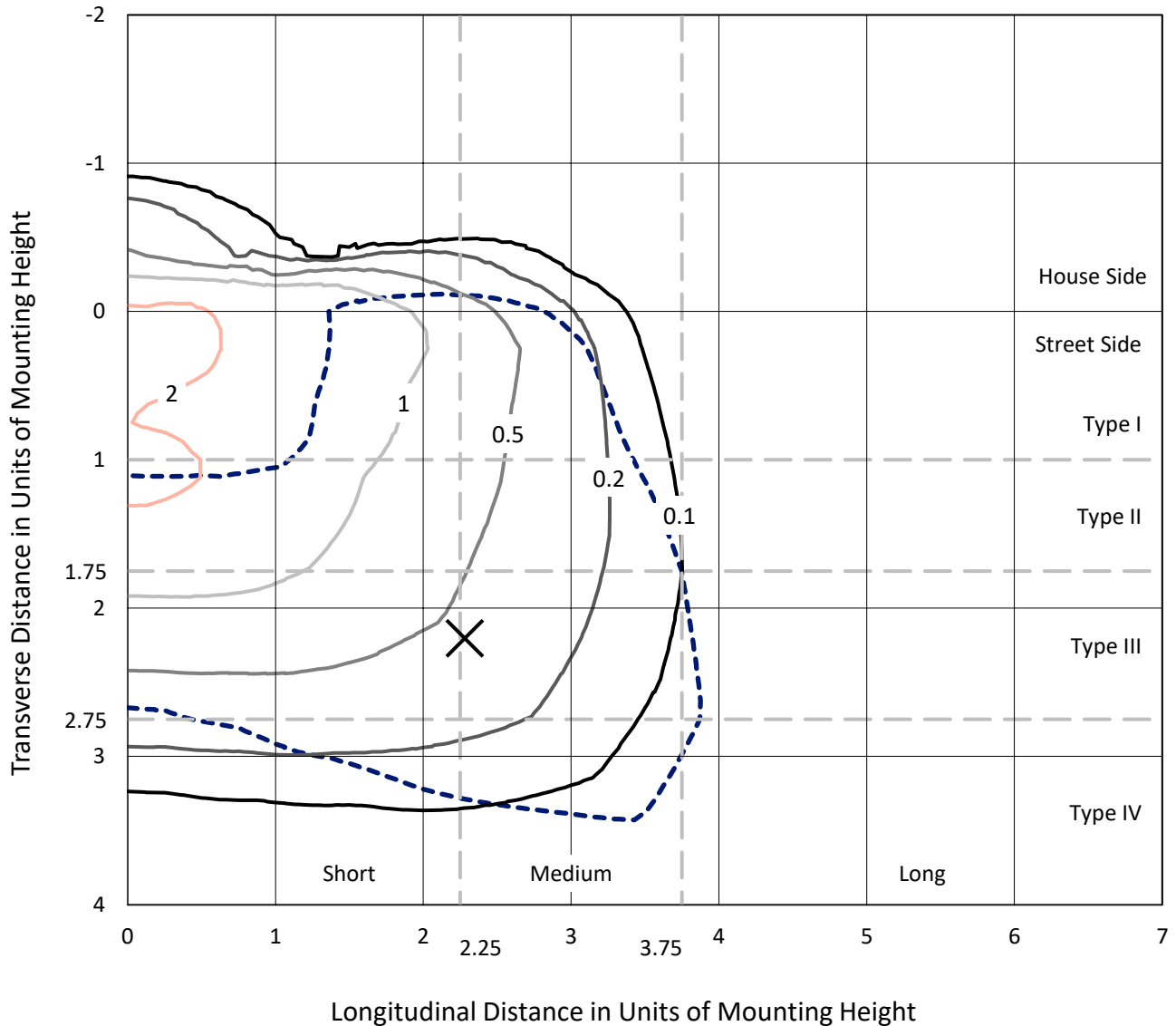
Lumens per Lamp: N/A
Luminaire Lumens: 4491.8 lumens
Efficiency: N/A
Efficacy: 80.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 0.5' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B1 - U0 - G2

Input Watts (W): 56.1
Input Voltage (V): 120
Input Current (A_{in}): 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

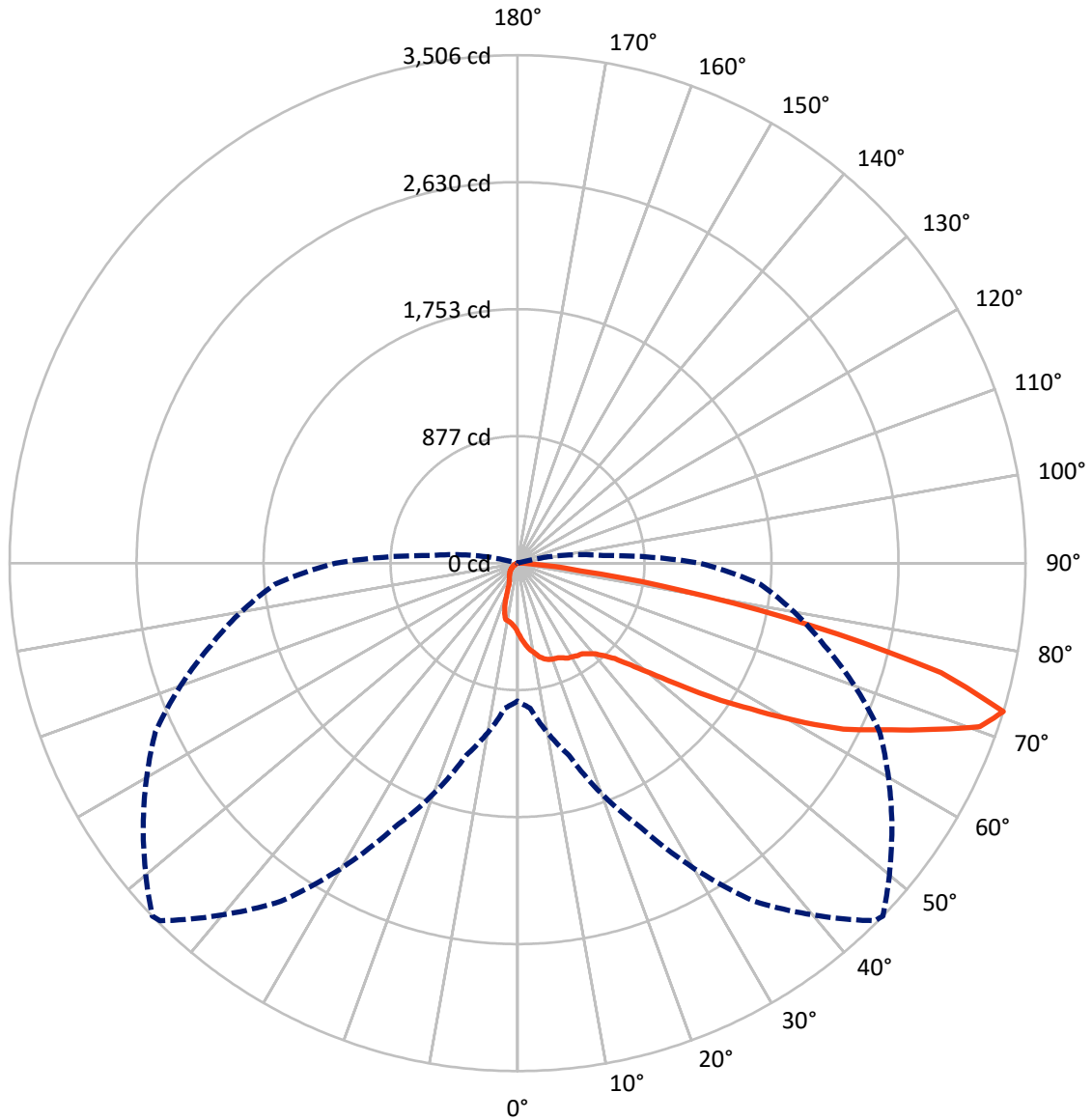
× Max cd
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 3.1 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 | 483.6 | 0.0 | 483.6 |
| | % Fixture | 10.8 | 0.0 | 10.8 |
| Street Side | Lumens | 4008.2 | 0.0 | 4008.2 |
| | % Fixture | 89.2 | 0.0 | 89.2 |
| Total | Lumens | 4491.8 | 0.0 | 4491.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 48.1 | 1.1 |
| 10°-20° | 145.1 | 3.2 |
| 20°-30° | 227.1 | 5.1 |
| 30°-40° | 318.0 | 7.1 |
| 40°-50° | 524.5 | 11.7 |
| 50°-60° | 942.6 | 21.0 |
| 60°-70° | 1366.2 | 30.4 |
| 70°-80° | 852.7 | 19.0 |
| 80°-90° | 67.6 | 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° | 4491.8 | 100.0 |
| 0°-180° | 4491.8 | 100.0 |



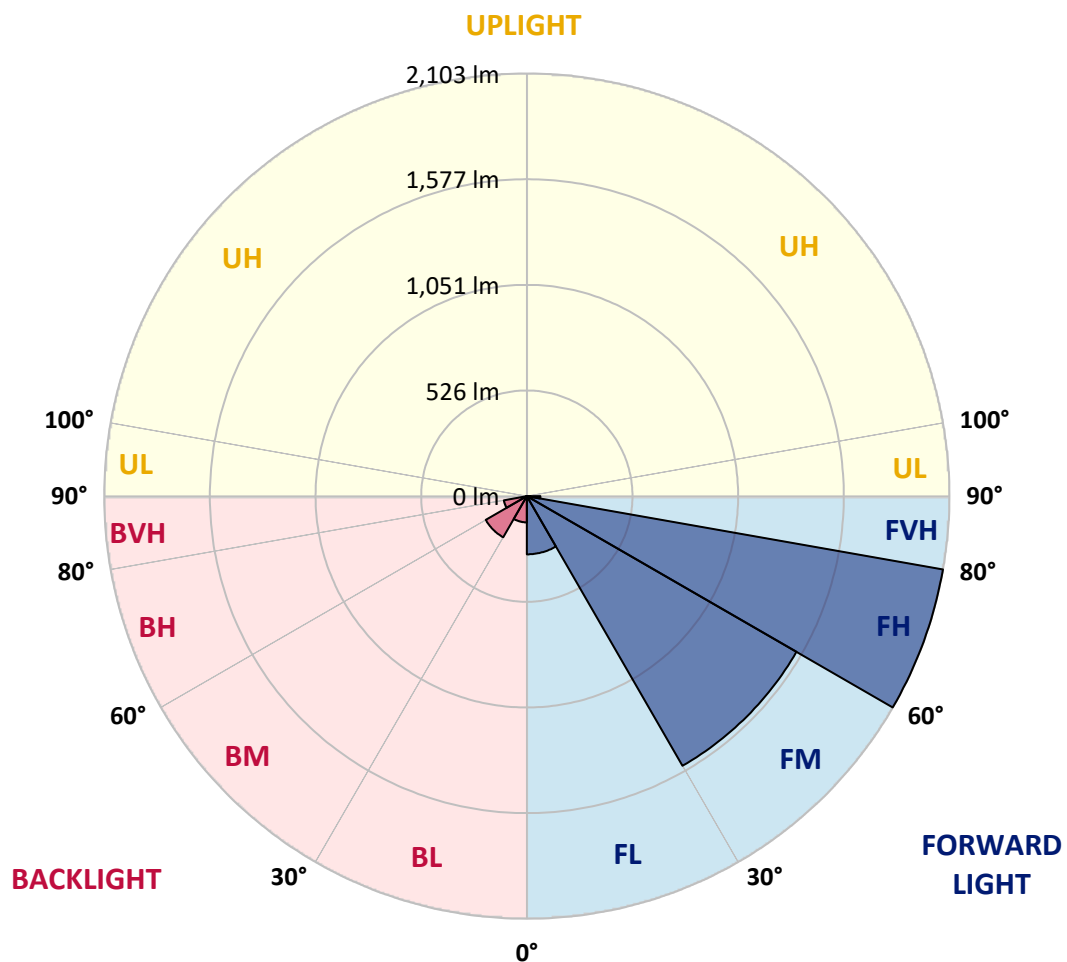
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 289.5 | 6.4 | | | |
| FM (30°-60°) | 1548.9 | 34.5 | | | |
| FH (60°-80°) | 2102.6 | 46.8 | | | G2/5000 |
| FVH (80°-90°) | 67.2 | 1.5 | | | G1/100 |
| BL (0°-30°) | 130.7 | 2.9 | B1/500 | | |
| BM (30°-60°) | 236.2 | 5.3 | B1/1000 | | |
| BH (60°-80°) | 116.3 | 2.6 | B1/500 | | G1/500 |
| BVH (80°-90°) | 0.4 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 |
| 2.5° | 537.3 | 535.1 | 538.5 | 537.3 | 523.6 | 525.9 | 524.7 | 515.6 | 499.5 | 490.4 | 484.6 |
| 5° | 599.2 | 604.9 | 600.4 | 590.1 | 582.0 | 566.0 | 563.7 | 548.8 | 523.6 | 507.6 | 490.4 |
| 7.5° | 663.4 | 663.4 | 654.2 | 638.2 | 621.0 | 603.8 | 601.5 | 576.3 | 554.5 | 527.0 | 503.0 |
| 10° | 711.5 | 705.8 | 698.9 | 681.7 | 662.2 | 639.3 | 627.9 | 609.5 | 585.5 | 552.2 | 521.3 |
| 12.5° | 753.9 | 744.7 | 733.3 | 708.1 | 685.1 | 659.9 | 662.2 | 632.4 | 616.4 | 586.6 | 540.8 |
| 15° | 778.0 | 769.9 | 759.6 | 736.7 | 701.2 | 689.7 | 685.1 | 666.8 | 638.2 | 608.4 | 564.8 |
| 17.5° | 783.7 | 778.0 | 764.2 | 734.4 | 714.9 | 701.2 | 700.0 | 678.3 | 665.7 | 640.5 | 592.3 |
| 20° | 772.2 | 761.9 | 751.6 | 732.1 | 713.8 | 709.2 | 705.8 | 705.8 | 689.7 | 656.5 | 609.5 |
| 22.5° | 752.7 | 741.3 | 735.6 | 724.1 | 709.2 | 708.1 | 710.4 | 708.1 | 695.5 | 673.7 | 627.9 |
| 25° | 737.9 | 732.1 | 723.0 | 719.5 | 710.4 | 727.5 | 724.1 | 720.7 | 717.2 | 692.0 | 656.5 |
| 27.5° | 742.4 | 741.3 | 734.4 | 720.7 | 713.8 | 732.1 | 742.4 | 743.6 | 742.4 | 717.2 | 682.9 |
| 30° | 744.7 | 739.0 | 732.1 | 728.7 | 731.0 | 749.3 | 749.3 | 774.5 | 764.2 | 739.0 | 709.2 |
| 32.5° | 771.1 | 767.6 | 744.7 | 736.7 | 737.9 | 759.6 | 760.8 | 786.0 | 782.5 | 765.4 | 732.1 |
| 35° | 827.2 | 804.3 | 771.1 | 748.2 | 748.2 | 776.8 | 767.6 | 804.3 | 813.5 | 786.0 | 748.2 |
| 37.5° | 910.9 | 893.7 | 834.1 | 782.5 | 763.1 | 783.7 | 792.8 | 813.5 | 841.0 | 816.9 | 780.2 |
| 40° | 1077.0 | 1073.6 | 988.8 | 877.6 | 800.9 | 819.2 | 822.6 | 854.7 | 873.1 | 839.8 | 829.5 |
| 42.5° | 1319.9 | 1302.7 | 1223.6 | 1048.3 | 869.6 | 861.6 | 874.2 | 894.8 | 938.4 | 910.9 | 885.7 |
| 45° | 1557.1 | 1549.0 | 1470.0 | 1274.1 | 994.5 | 946.4 | 939.5 | 976.2 | 1040.3 | 1010.5 | 991.1 |
| 47.5° | 1728.9 | 1712.9 | 1668.2 | 1503.2 | 1177.8 | 1046.1 | 1050.6 | 1087.3 | 1168.7 | 1145.7 | 1151.5 |
| 50° | 1860.7 | 1852.7 | 1805.7 | 1715.2 | 1409.3 | 1203.0 | 1193.9 | 1230.5 | 1340.5 | 1355.4 | 1371.4 |
| 52.5° | 2005.0 | 2019.9 | 1956.9 | 1880.2 | 1683.1 | 1413.8 | 1393.2 | 1405.8 | 1547.9 | 1582.3 | 1626.9 |
| 55° | 2143.7 | 2167.7 | 2104.7 | 2094.4 | 1969.5 | 1647.6 | 1644.1 | 1614.3 | 1797.7 | 1802.2 | 1826.3 |
| 57.5° | 2234.2 | 2226.2 | 2221.6 | 2277.7 | 2256.0 | 1915.7 | 1898.5 | 1868.7 | 2034.8 | 2005.0 | 2077.2 |
| 60° | 2241.1 | 2264.0 | 2340.7 | 2479.4 | 2518.3 | 2230.7 | 2205.5 | 2124.2 | 2239.9 | 2168.9 | 2306.4 |
| 62.5° | 2292.6 | 2310.9 | 2453.0 | 2644.4 | 2694.8 | 2508.0 | 2525.2 | 2319.0 | 2415.2 | 2359.1 | 2560.7 |
| 65° | 2162.0 | 2219.3 | 2504.6 | 2772.7 | 2926.2 | 2788.7 | 2771.5 | 2569.9 | 2595.1 | 2542.4 | 2811.6 |
| 67.5° | 2044.0 | 2065.8 | 2363.7 | 2811.6 | 3109.5 | 3070.6 | 3063.7 | 2792.2 | 2780.7 | 2683.3 | 2882.7 |
| 70° | 1661.3 | 1687.7 | 1982.1 | 2612.3 | 3171.4 | 3399.4 | 3383.4 | 3103.8 | 2906.7 | 2606.5 | 2518.3 |
| 72.5° | 952.1 | 1004.8 | 1373.7 | 2011.9 | 2849.4 | 3491.1 | 3506.0 | 3154.2 | 2757.8 | 2191.8 | 1681.9 |
| 75° | 311.6 | 326.5 | 570.6 | 1140.0 | 2131.1 | 3045.4 | 3019.0 | 2710.8 | 2225.0 | 1447.1 | 759.6 |
| 77.5° | 105.4 | 107.7 | 168.4 | 412.5 | 1181.3 | 2057.7 | 2072.6 | 1937.4 | 1366.9 | 601.5 | 209.7 |
| 80° | 53.8 | 57.3 | 82.5 | 154.7 | 485.8 | 1120.5 | 1144.6 | 1104.5 | 572.9 | 177.6 | 50.4 |
| 82.5° | 25.2 | 26.4 | 48.1 | 85.9 | 222.3 | 440.0 | 440.0 | 483.5 | 202.8 | 99.7 | 20.6 |
| 85° | 9.2 | 9.2 | 25.2 | 49.3 | 94.0 | 146.7 | 147.8 | 148.9 | 106.6 | 74.5 | 9.2 |
| 87.5° | 3.4 | 3.4 | 12.6 | 20.6 | 34.4 | 44.7 | 44.7 | 35.5 | 53.8 | 49.3 | 3.4 |
| 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° | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 | 480.1 |
| 2.5° | 482.4 | 475.5 | 469.8 | 461.7 | 451.4 | 445.7 | 446.8 | 440.0 | 440.0 | 436.5 | 435.4 |
| 5° | 482.4 | 475.5 | 460.6 | 446.8 | 437.7 | 426.2 | 420.5 | 415.9 | 415.9 | 413.6 | 414.8 |
| 7.5° | 485.8 | 475.5 | 454.9 | 436.5 | 421.6 | 410.2 | 401.0 | 399.9 | 397.6 | 391.8 | 396.4 |
| 10° | 506.4 | 491.5 | 457.1 | 431.9 | 414.8 | 402.2 | 386.1 | 381.5 | 374.7 | 364.3 | 365.5 |
| 12.5° | 523.6 | 504.1 | 473.2 | 438.8 | 417.0 | 396.4 | 359.8 | 319.7 | 302.5 | 284.1 | 285.3 |
| 15° | 548.8 | 521.3 | 478.9 | 448.0 | 417.0 | 350.6 | 284.1 | 232.6 | 205.1 | 191.3 | 191.3 |
| 17.5° | 562.6 | 539.6 | 495.0 | 453.7 | 383.8 | 285.3 | 201.6 | 157.0 | 152.4 | 154.7 | 154.7 |
| 20° | 591.2 | 560.3 | 513.3 | 458.3 | 328.8 | 202.8 | 147.8 | 143.2 | 145.5 | 150.1 | 148.9 |
| 22.5° | 609.5 | 578.6 | 527.0 | 437.7 | 254.4 | 145.5 | 138.6 | 136.3 | 138.6 | 144.4 | 144.4 |
| 25° | 624.4 | 604.9 | 548.8 | 387.3 | 179.9 | 131.8 | 129.5 | 131.8 | 134.1 | 136.3 | 139.8 |
| 27.5° | 661.1 | 627.9 | 563.7 | 322.0 | 129.5 | 122.6 | 124.9 | 126.0 | 126.0 | 129.5 | 130.6 |
| 30° | 685.1 | 658.8 | 575.2 | 248.6 | 114.6 | 113.4 | 115.7 | 116.9 | 118.0 | 121.4 | 122.6 |
| 32.5° | 708.1 | 698.9 | 560.3 | 168.4 | 107.7 | 105.4 | 104.3 | 105.4 | 110.0 | 113.4 | 112.3 |
| 35° | 741.3 | 735.6 | 538.5 | 116.9 | 100.8 | 96.2 | 94.0 | 95.1 | 98.5 | 102.0 | 100.8 |
| 37.5° | 781.4 | 787.1 | 485.8 | 102.0 | 94.0 | 88.2 | 83.6 | 83.6 | 84.8 | 88.2 | 89.4 |
| 40° | 828.4 | 843.3 | 423.9 | 95.1 | 89.4 | 82.5 | 77.9 | 72.2 | 71.0 | 69.9 | 71.0 |
| 42.5° | 914.3 | 931.5 | 354.0 | 90.5 | 82.5 | 74.5 | 67.6 | 60.7 | 55.0 | 51.6 | 51.6 |
| 45° | 1034.6 | 1020.9 | 262.4 | 85.9 | 79.1 | 67.6 | 57.3 | 49.3 | 41.2 | 37.8 | 37.8 |
| 47.5° | 1200.7 | 1153.8 | 179.9 | 81.3 | 73.3 | 59.6 | 48.1 | 37.8 | 30.9 | 27.5 | 27.5 |
| 50° | 1431.0 | 1276.3 | 116.9 | 76.8 | 69.9 | 51.6 | 39.0 | 27.5 | 22.9 | 21.8 | 22.9 |
| 52.5° | 1648.7 | 1401.2 | 92.8 | 71.0 | 63.0 | 44.7 | 29.8 | 22.9 | 20.6 | 19.5 | 19.5 |
| 55° | 1849.2 | 1464.2 | 82.5 | 65.3 | 57.3 | 36.7 | 25.2 | 19.5 | 18.3 | 17.2 | 17.2 |
| 57.5° | 2018.8 | 1486.0 | 71.0 | 57.3 | 45.8 | 28.6 | 20.6 | 17.2 | 14.9 | 13.7 | 13.7 |
| 60° | 2165.4 | 1491.7 | 55.0 | 45.8 | 33.2 | 21.8 | 17.2 | 14.9 | 12.6 | 10.3 | 10.3 |
| 62.5° | 2282.3 | 1451.6 | 39.0 | 32.1 | 22.9 | 17.2 | 14.9 | 10.3 | 6.9 | 4.6 | 3.4 |
| 65° | 2375.1 | 1371.4 | 26.4 | 21.8 | 14.9 | 12.6 | 9.2 | 4.6 | 1.1 | 0.0 | 0.0 |
| 67.5° | 2266.3 | 1189.3 | 20.6 | 16.0 | 10.3 | 8.0 | 4.6 | 1.1 | 0.0 | 0.0 | 0.0 |
| 70° | 1848.1 | 922.3 | 14.9 | 10.3 | 6.9 | 2.3 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 1258.0 | 594.6 | 11.5 | 6.9 | 3.4 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 564.8 | 213.1 | 8.0 | 4.6 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 137.5 | 50.4 | 5.7 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 36.7 | 12.6 | 3.4 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 13.7 | 4.6 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 5.7 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.3 | 1.1 | 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)