

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P148366

Luminaire Tested: **TLM-F01-LED-E1-5XQ-7050**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P148366  
REPORT IS SCALED FROM IESNA LM-79-08 TEST DATA (P33676)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TLM-F01-LED-E1-5XQ-7050  
Description: TALON MEDIUM LED SITE LUMINAIRE  
(1) LIGHTBARS WITH AccuLED OPTICS - TYPE 5 SQUARE EXTRA WIDE  
Light Source: (7) 5000K CCT, 70 CRI LEDs  
Ballast/Driver: -

**Summary**

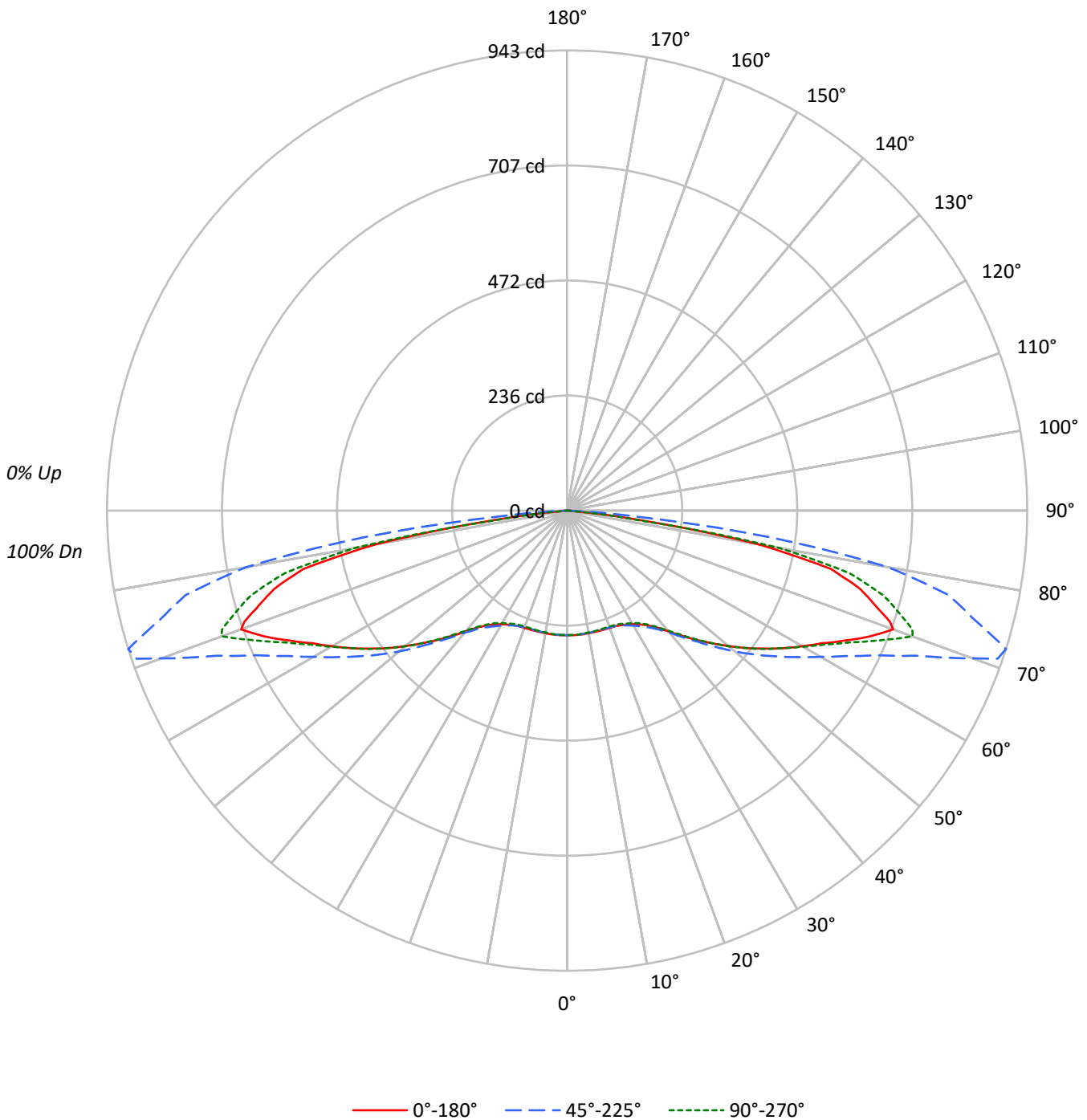
Lumens per Lamp: N/A  
Luminaire Lumens: 2694.0 lumens  
Efficiency: N/A  
Efficacy: 104.0 lumens/watt  
Spacing Criteria (0/90/45): 2.11 / 2.1 / 2.7  
Luminous Opening: Rectangular (W 0.17' x L: 1' x H: 0')  
CIE Type: Direct

Input Watts (W): 25.9  
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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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |     |     | 20  |     |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |     | 30  |     |     |     | 10  | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 102 | 95  | 88  | 82  | 99  | 92  | 86  | 80  | 88  | 82  | 78  | 83  | 79  | 75  | 79  | 76  | 73  | 70  |
| 2   | 88  | 76  | 66  | 57  | 85  | 74  | 64  | 56  | 70  | 62  | 55  | 66  | 59  | 53  | 63  | 57  | 52  | 49  |
| 3   | 77  | 62  | 51  | 42  | 74  | 60  | 50  | 41  | 57  | 48  | 40  | 54  | 46  | 39  | 51  | 44  | 38  | 36  |
| 4   | 69  | 53  | 41  | 32  | 66  | 51  | 40  | 31  | 48  | 38  | 31  | 46  | 37  | 30  | 43  | 36  | 30  | 27  |
| 5   | 62  | 45  | 34  | 25  | 60  | 44  | 33  | 25  | 42  | 32  | 24  | 39  | 31  | 24  | 37  | 30  | 24  | 21  |
| 6   | 57  | 40  | 29  | 20  | 54  | 39  | 28  | 20  | 37  | 27  | 20  | 35  | 26  | 20  | 33  | 25  | 19  | 17  |
| 7   | 52  | 35  | 25  | 17  | 50  | 34  | 24  | 17  | 33  | 24  | 17  | 31  | 23  | 17  | 30  | 22  | 16  | 14  |
| 8   | 48  | 32  | 22  | 15  | 46  | 31  | 21  | 15  | 30  | 21  | 14  | 28  | 20  | 14  | 27  | 20  | 14  | 12  |
| 9   | 45  | 29  | 19  | 13  | 43  | 28  | 19  | 13  | 27  | 18  | 12  | 26  | 18  | 12  | 25  | 17  | 12  | 10  |
| 10  | 42  | 26  | 17  | 11  | 40  | 26  | 17  | 11  | 25  | 17  | 11  | 24  | 16  | 11  | 23  | 16  | 11  | 9   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 45°    | 90°    |
|-----|--------|--------|--------|
| 0°  | 16165  | 16165  | 16165  |
| 5°  | 16246  | 16220  | 16214  |
| 10° | 16401  | 16344  | 16311  |
| 15° | 16729  | 16630  | 16584  |
| 20° | 17236  | 17162  | 17047  |
| 25° | 18094  | 18150  | 17885  |
| 30° | 19653  | 19901  | 19470  |
| 35° | 22153  | 22578  | 22014  |
| 40° | 26714  | 27020  | 26483  |
| 45° | 33507  | 34089  | 33373  |
| 50° | 42485  | 44228  | 42583  |
| 55° | 54466  | 57425  | 54577  |
| 60° | 70371  | 75905  | 70637  |
| 65° | 94357  | 105040 | 95736  |
| 70° | 131625 | 163985 | 139475 |
| 75° | 152263 | 211245 | 164104 |
| 80° | 144904 | 243317 | 160765 |
| 85° | 11769  | 98656  | 7701   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 24.3   | 0.9       |
| 10°-20°   | 72.0   | 2.7       |
| 20°-30°   | 120.5  | 4.5       |
| 30°-40°   | 183.7  | 6.8       |
| 40°-50°   | 293.3  | 10.9      |
| 50°-60°   | 451.0  | 16.7      |
| 60°-70°   | 656.7  | 24.4      |
| 70°-80°   | 739.8  | 27.5      |
| 80°-90°   | 152.7  | 5.7       |
| 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°-30°    | 216.8  | 8.0       |
| 0°-40°    | 400.5  | 14.9      |
| 0°-60°    | 1144.9 | 42.5      |
| 0°-90°    | 2694.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2694.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 255 | 255   | 255 | 255   | 255 |      |
| 5°  | 256 | 256   | 255 | 255   | 255 | 24   |
| 15° | 255 | 255   | 254 | 253   | 253 | 72   |
| 25° | 259 | 259   | 260 | 257   | 256 | 121  |
| 35° | 287 | 289   | 292 | 287   | 285 | 183  |
| 45° | 374 | 374   | 381 | 375   | 373 | 292  |
| 55° | 493 | 495   | 520 | 497   | 494 | 444  |
| 65° | 630 | 632   | 701 | 641   | 639 | 628  |
| 75° | 622 | 662   | 864 | 716   | 671 | 634  |
| 85° | 16  | 43    | 136 | 34    | 11  | 101  |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 40°   | 45°   | 50°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 |
| 2.5°  | 255.6 | 255.8 | 255.7 | 255.6 | 255.7 | 255.6 | 255.5 | 255.4 | 254.9 | 255.2 | 255.6 |
| 5°    | 255.6 | 255.5 | 255.4 | 255.4 | 255.4 | 255.6 | 255.4 | 255.2 | 255.1 | 255.2 | 255.0 |
| 7.5°  | 255.6 | 255.2 | 255.1 | 255.0 | 255.1 | 255.2 | 255.0 | 254.7 | 254.9 | 254.7 | 254.4 |
| 10°   | 255.1 | 254.9 | 255.0 | 254.7 | 254.8 | 254.7 | 254.4 | 254.2 | 254.3 | 254.2 | 253.8 |
| 12.5° | 255.2 | 254.9 | 254.8 | 254.7 | 254.6 | 254.6 | 254.2 | 253.8 | 253.9 | 253.8 | 253.4 |
| 15°   | 255.2 | 255.0 | 255.0 | 254.7 | 254.6 | 254.5 | 254.1 | 253.9 | 253.9 | 253.7 | 253.3 |
| 17.5° | 255.4 | 255.2 | 255.2 | 254.9 | 254.8 | 254.7 | 254.2 | 254.0 | 254.2 | 253.8 | 253.5 |
| 20°   | 255.8 | 255.7 | 255.8 | 255.6 | 255.2 | 255.2 | 254.9 | 254.8 | 254.8 | 254.7 | 254.0 |
| 22.5° | 256.6 | 256.6 | 256.8 | 256.7 | 256.6 | 256.7 | 256.4 | 256.4 | 256.5 | 256.5 | 255.9 |
| 25°   | 259.0 | 259.0 | 259.2 | 259.1 | 259.2 | 259.7 | 259.5 | 259.4 | 259.8 | 259.8 | 259.1 |
| 27.5° | 263.6 | 263.4 | 263.6 | 263.8 | 264.0 | 264.7 | 264.6 | 264.8 | 265.4 | 265.2 | 264.7 |
| 30°   | 268.8 | 268.7 | 269.0 | 269.4 | 269.7 | 270.7 | 270.3 | 271.3 | 271.8 | 272.2 | 271.8 |
| 32.5° | 276.5 | 276.4 | 277.1 | 277.4 | 278.0 | 279.0 | 279.1 | 280.0 | 280.6 | 281.3 | 280.8 |
| 35°   | 286.6 | 286.5 | 286.9 | 287.4 | 288.2 | 289.1 | 289.5 | 290.6 | 291.6 | 292.1 | 291.2 |
| 37.5° | 302.1 | 301.4 | 302.3 | 302.5 | 303.2 | 303.4 | 304.4 | 305.8 | 306.8 | 306.7 | 306.1 |
| 40°   | 323.2 | 323.0 | 322.7 | 322.2 | 323.2 | 323.6 | 323.6 | 325.5 | 327.2 | 326.9 | 326.8 |
| 42.5° | 347.7 | 347.1 | 346.7 | 346.6 | 347.2 | 347.4 | 349.6 | 351.0 | 352.2 | 352.5 | 352.2 |
| 45°   | 374.2 | 373.5 | 373.6 | 373.4 | 373.6 | 374.5 | 375.8 | 378.4 | 380.6 | 380.7 | 379.5 |
| 47.5° | 402.5 | 400.5 | 402.0 | 399.9 | 401.2 | 401.9 | 405.1 | 408.9 | 412.9 | 413.6 | 412.5 |
| 50°   | 431.3 | 431.1 | 431.0 | 430.5 | 431.2 | 432.7 | 436.6 | 442.6 | 446.4 | 449.0 | 447.2 |
| 52.5° | 462.8 | 461.8 | 461.2 | 460.5 | 461.1 | 464.2 | 469.6 | 474.8 | 481.7 | 484.6 | 482.3 |
| 55°   | 493.4 | 493.0 | 491.2 | 491.2 | 492.5 | 497.2 | 503.2 | 509.6 | 517.0 | 520.2 | 519.4 |
| 57.5° | 524.9 | 522.9 | 522.3 | 521.4 | 524.1 | 528.6 | 535.8 | 547.4 | 555.1 | 558.8 | 556.6 |
| 60°   | 555.7 | 554.1 | 552.9 | 552.6 | 554.5 | 560.7 | 571.2 | 585.1 | 594.6 | 599.4 | 596.0 |
| 62.5° | 588.7 | 587.7 | 586.3 | 584.7 | 588.6 | 596.6 | 609.6 | 625.0 | 639.0 | 644.9 | 639.8 |
| 65°   | 629.8 | 627.8 | 626.2 | 624.2 | 627.3 | 637.4 | 653.6 | 675.3 | 694.2 | 701.1 | 697.4 |
| 67.5° | 673.2 | 671.2 | 671.4 | 670.1 | 675.8 | 689.6 | 710.7 | 740.1 | 765.4 | 777.2 | 770.3 |
| 70°   | 711.0 | 712.0 | 712.3 | 717.5 | 727.2 | 748.4 | 783.4 | 829.5 | 867.8 | 885.8 | 878.4 |
| 71°   | 699.8 | 702.2 | 705.8 | 711.1 | 727.9 | 753.0 | 800.8 | 856.6 | 902.3 | 932.8 | 922.6 |
| 72.5° | 668.2 | 669.6 | 671.4 | 679.6 | 698.6 | 731.8 | 781.0 | 844.8 | 903.6 | 943.1 | 931.2 |
| 75°   | 622.4 | 623.8 | 624.4 | 630.2 | 647.4 | 676.4 | 721.4 | 778.0 | 829.9 | 863.5 | 860.2 |
| 77.5° | 553.4 | 553.7 | 558.6 | 567.4 | 586.8 | 619.9 | 667.4 | 726.1 | 774.9 | 801.0 | 784.4 |
| 80°   | 397.4 | 394.8 | 399.8 | 411.2 | 435.2 | 473.2 | 521.7 | 588.8 | 642.9 | 667.3 | 641.7 |
| 82.5° | 151.2 | 159.4 | 172.3 | 191.1 | 199.2 | 241.4 | 286.8 | 326.1 | 371.7 | 422.7 | 409.9 |
| 85°   | 16.2  | 18.3  | 22.9  | 28.4  | 35.9  | 49.7  | 68.7  | 93.7  | 115.6 | 135.8 | 120.6 |
| 87.5° | 6.1   | 6.2   | 6.9   | 8.0   | 8.2   | 8.5   | 9.0   | 10.5  | 9.8   | 8.5   | 6.8   |
| 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):**

|       | 55°   | 60°   | 65°   | 70°   | 75°   | 80°   | 85°   | 90°   |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 | 255.3 |
| 2.5°  | 255.3 | 255.3 | 255.2 | 255.3 | 255.3 | 255.0 | 255.1 | 255.0 |
| 5°    | 255.2 | 255.0 | 255.0 | 255.1 | 255.0 | 255.2 | 255.0 | 255.1 |
| 7.5°  | 254.8 | 254.4 | 254.6 | 254.6 | 254.4 | 254.6 | 254.5 | 254.4 |
| 10°   | 254.2 | 253.6 | 253.8 | 253.7 | 253.6 | 253.7 | 253.7 | 253.7 |
| 12.5° | 253.5 | 253.2 | 253.2 | 253.2 | 253.1 | 253.3 | 253.2 | 253.3 |
| 15°   | 253.3 | 252.8 | 252.7 | 252.6 | 252.6 | 252.8 | 252.8 | 253.0 |
| 17.5° | 253.2 | 252.5 | 252.4 | 252.3 | 252.4 | 252.6 | 252.7 | 252.6 |
| 20°   | 253.6 | 253.1 | 253.0 | 252.8 | 252.7 | 253.1 | 253.0 | 253.0 |
| 22.5° | 255.6 | 254.9 | 254.8 | 254.3 | 254.0 | 254.2 | 254.1 | 254.1 |
| 25°   | 258.8 | 257.9 | 257.7 | 256.8 | 256.3 | 256.3 | 256.1 | 256.0 |
| 27.5° | 264.5 | 263.2 | 262.9 | 262.3 | 261.5 | 261.7 | 261.2 | 261.2 |
| 30°   | 271.2 | 270.0 | 269.0 | 268.1 | 267.2 | 266.8 | 266.4 | 266.3 |
| 32.5° | 279.8 | 278.6 | 277.4 | 276.2 | 274.9 | 274.5 | 273.6 | 273.2 |
| 35°   | 290.5 | 288.8 | 287.4 | 286.6 | 285.3 | 284.7 | 284.1 | 284.8 |
| 37.5° | 305.3 | 303.4 | 302.6 | 301.7 | 300.8 | 299.9 | 300.1 | 299.8 |
| 40°   | 326.0 | 324.2 | 323.4 | 321.8 | 321.6 | 320.5 | 321.2 | 320.4 |
| 42.5° | 351.5 | 348.1 | 347.6 | 346.3 | 345.9 | 345.3 | 345.6 | 345.0 |
| 45°   | 379.2 | 376.2 | 375.6 | 373.5 | 373.6 | 372.2 | 372.7 | 372.7 |
| 47.5° | 410.4 | 407.2 | 404.6 | 403.1 | 402.6 | 401.6 | 402.2 | 402.1 |
| 50°   | 442.6 | 438.3 | 435.4 | 432.5 | 431.2 | 431.6 | 430.6 | 432.3 |
| 52.5° | 477.2 | 470.8 | 466.7 | 463.9 | 461.5 | 462.0 | 462.2 | 462.6 |
| 55°   | 513.0 | 504.8 | 498.8 | 495.2 | 493.0 | 493.2 | 493.9 | 494.4 |
| 57.5° | 549.0 | 538.7 | 530.7 | 525.3 | 524.0 | 524.6 | 524.6 | 524.5 |
| 60°   | 586.3 | 574.0 | 563.7 | 557.6 | 556.3 | 556.0 | 558.7 | 557.8 |
| 62.5° | 626.4 | 611.7 | 600.9 | 593.2 | 591.3 | 592.6 | 595.1 | 594.5 |
| 65°   | 679.6 | 659.2 | 645.3 | 637.6 | 634.6 | 635.8 | 639.1 | 639.0 |
| 67.5° | 748.1 | 719.6 | 701.3 | 691.4 | 689.2 | 690.7 | 692.6 | 694.3 |
| 70°   | 850.6 | 809.8 | 783.8 | 762.4 | 753.2 | 751.4 | 753.2 | 753.4 |
| 71°   | 886.7 | 839.9 | 798.3 | 772.2 | 757.1 | 750.8 | 751.3 | 748.1 |
| 72.5° | 885.2 | 827.6 | 778.9 | 751.6 | 730.7 | 725.6 | 723.1 | 719.3 |
| 75°   | 825.6 | 773.6 | 731.4 | 701.6 | 681.4 | 675.4 | 671.1 | 670.8 |
| 77.5° | 748.7 | 710.3 | 663.8 | 632.3 | 607.8 | 597.8 | 593.4 | 593.2 |
| 80°   | 601.8 | 544.4 | 510.4 | 491.4 | 461.9 | 453.3 | 444.3 | 440.9 |
| 82.5° | 364.0 | 284.4 | 231.2 | 205.5 | 191.2 | 157.5 | 141.3 | 133.7 |
| 85°   | 84.8  | 60.2  | 41.5  | 27.3  | 19.6  | 15.6  | 12.0  | 10.6  |
| 87.5° | 5.7   | 4.5   | 4.0   | 3.2   | 2.5   | 2.4   | 1.5   | 1.2   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)