

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: IRiS

Report Number: P1312165

Luminaire Tested: P3SQAS05R509727DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1312165  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-79)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS05R509727DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R50 optic, 2700K CCT AND, 97CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

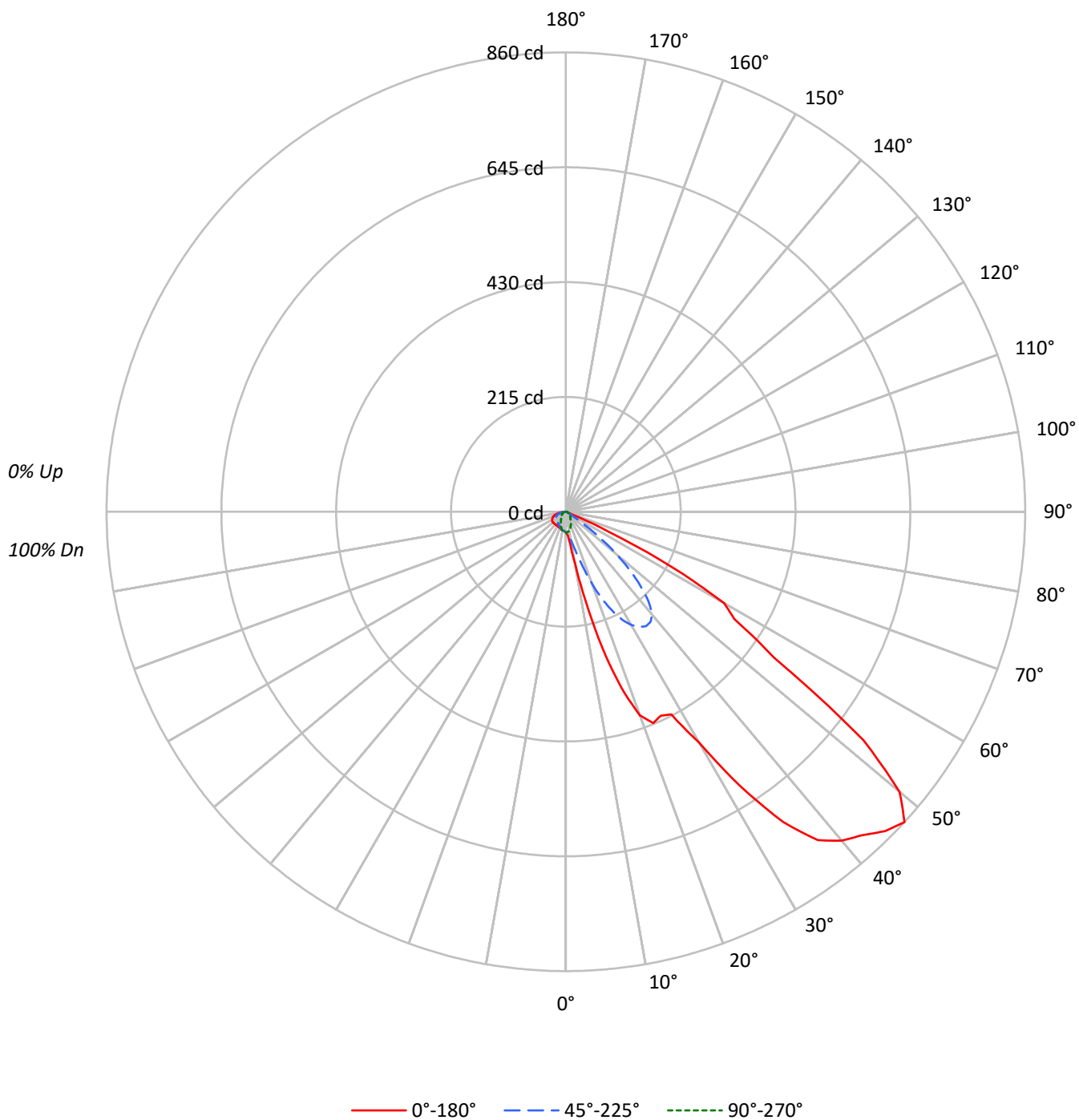
Lumens per Lamp: N/A  
Luminaire Lumens: 485.0 lumens  
Efficiency: N/A  
Efficacy: 67.4 lumens/watt  
Spacing Criteria (0/90/45): 3.58 / 0.83 / 1.91  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 7.2  
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: 24 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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 110 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  | 95  | 93  | 91  | 92  | 90  | 88  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 67  | 89  | 80  | 72  | 66  | 77  | 70  | 65  | 74  | 69  | 64  | 71  | 67  | 63  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 39  | 51  | 44  | 39  | 50  | 43  | 39  |
| 7   | 63  | 50  | 41  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34  | 44  | 38  | 33  |
| 8   | 58  | 44  | 36  | 30  | 57  | 44  | 35  | 29  | 42  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  |
| 9   | 54  | 40  | 31  | 26  | 53  | 39  | 31  | 26  | 38  | 31  | 25  | 37  | 30  | 25  | 36  | 30  | 25  |
| 10  | 50  | 36  | 28  | 23  | 49  | 36  | 28  | 22  | 35  | 27  | 22  | 34  | 27  | 22  | 33  | 27  | 22  |

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

|     | 0°     | 45°   | 90°  | 135° | 180°  |
|-----|--------|-------|------|------|-------|
| 0°  | 6631   | 6631  | 6631 | 6631 | 6631  |
| 5°  | 7901   | 7382  | 6587 | 6293 | 6224  |
| 10° | 16998  | 9164  | 6296 | 6086 | 6156  |
| 15° | 47053  | 15013 | 5670 | 5830 | 6044  |
| 20° | 74392  | 26337 | 4912 | 5608 | 5920  |
| 25° | 80001  | 38689 | 4219 | 5416 | 5967  |
| 30° | 99294  | 48563 | 3659 | 5330 | 6165  |
| 35° | 149022 | 54958 | 3175 | 5382 | 6518  |
| 40° | 180733 | 56497 | 2833 | 5553 | 6880  |
| 45° | 205905 | 48468 | 2752 | 5918 | 7550  |
| 50° | 218524 | 33438 | 2813 | 6404 | 8413  |
| 55° | 142774 | 13452 | 2762 | 6906 | 9308  |
| 60° | 117731 | 2308  | 2756 | 7509 | 10230 |
| 65° | 35494  | 1182  | 2567 | 8028 | 11247 |
| 70° | 1460   | 1259  | 2518 | 8208 | 12236 |
| 75° | 1397   | 1397  | 2529 | 8384 | 13375 |
| 80° | 1289   | 1289  | 2479 | 8331 | 13687 |
| 85° | 790    | 1581  | 3359 | 8299 | 13239 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47.5°

Luminance: 219233 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 4.0    | 0.8       |
| 10°-20°   | 23.0   | 4.7       |
| 20°-30°   | 59.0   | 12.2      |
| 30°-40°   | 106.0  | 21.9      |
| 40°-50°   | 141.7  | 29.2      |
| 50°-60°   | 107.9  | 22.2      |
| 60°-70°   | 32.7   | 6.8       |
| 70°-80°   | 7.8    | 1.6       |
| 80°-90°   | 2.8    | 0.6       |
| 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°    | 86.0   | 17.7      |
| 0°-40°    | 192.1  | 39.6      |
| 0°-60°    | 441.6  | 91.1      |
| 0°-90°    | 485.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 485.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 38  | 38  | 38  | 38   | 38   |      |
| 5°  | 46  | 43  | 38  | 36   | 36   | 6    |
| 15° | 264 | 84  | 32  | 33   | 34   | 78   |
| 25° | 421 | 204 | 22  | 28   | 31   | 201  |
| 35° | 709 | 261 | 15  | 26   | 31   | 435  |
| 45° | 845 | 199 | 11  | 24   | 31   | 646  |
| 55° | 476 | 45  | 9   | 23   | 31   | 473  |
| 65° | 87  | 3   | 6   | 20   | 28   | 121  |
| 75° | 2   | 2   | 4   | 13   | 20   | 2    |
| 85° | 0   | 1   | 2   | 4    | 7    | 1    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 45°   | 67.5° | 90°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 0°    | 38.5  | 38.5  | 38.5  | 38.5  | 38.5  | 38.5  | 38.5  | 38.5  | 38.5  | 38.5  | 38.5 |
| 2.5°  | 41.1  | 41.1  | 41.1  | 41.1  | 41.1  | 41.1  | 40.6  | 40.6  | 40.6  | 39.8  | 39.0 |
| 5°    | 45.7  | 46.1  | 45.7  | 45.7  | 44.8  | 44.8  | 44.0  | 44.0  | 42.7  | 40.2  | 38.1 |
| 7.5°  | 59.9  | 59.5  | 59.1  | 57.4  | 56.1  | 53.2  | 51.9  | 49.9  | 46.1  | 40.2  | 37.3 |
| 10°   | 97.2  | 94.7  | 93.0  | 89.2  | 81.3  | 76.2  | 69.5  | 62.8  | 52.4  | 40.2  | 36.0 |
| 12.5° | 168.8 | 168.4 | 163.4 | 150.8 | 139.5 | 124.0 | 107.7 | 91.3  | 64.5  | 39.4  | 34.4 |
| 15°   | 263.9 | 260.1 | 253.0 | 238.4 | 218.3 | 194.0 | 164.6 | 135.7 | 84.2  | 38.1  | 31.8 |
| 17.5° | 345.2 | 340.6 | 335.1 | 320.5 | 297.4 | 266.8 | 231.7 | 191.9 | 111.0 | 36.4  | 29.3 |
| 20°   | 405.9 | 403.0 | 398.4 | 386.7 | 364.9 | 337.2 | 297.8 | 249.7 | 143.7 | 34.4  | 26.8 |
| 22.5° | 428.1 | 427.7 | 428.5 | 424.4 | 413.5 | 391.7 | 354.0 | 303.7 | 175.9 | 31.8  | 24.3 |
| 25°   | 421.0 | 420.6 | 426.0 | 431.5 | 434.0 | 425.2 | 396.3 | 347.3 | 203.6 | 29.7  | 22.2 |
| 27.5° | 427.7 | 426.5 | 423.9 | 424.8 | 431.9 | 436.9 | 423.5 | 380.8 | 227.5 | 26.8  | 20.1 |
| 30°   | 499.3 | 492.2 | 480.9 | 461.6 | 447.4 | 446.1 | 440.3 | 407.2 | 244.2 | 23.9  | 18.4 |
| 32.5° | 611.2 | 602.4 | 581.9 | 546.3 | 512.3 | 486.4 | 467.9 | 429.4 | 256.0 | 20.9  | 16.3 |
| 35°   | 708.8 | 702.5 | 678.6 | 643.5 | 594.9 | 546.3 | 512.8 | 462.1 | 261.4 | 18.4  | 15.1 |
| 37.5° | 775.0 | 772.5 | 749.0 | 711.3 | 661.9 | 604.5 | 560.1 | 495.6 | 260.1 | 15.5  | 13.8 |
| 40°   | 803.9 | 796.4 | 776.7 | 744.8 | 695.0 | 643.5 | 596.5 | 516.9 | 251.3 | 12.6  | 12.6 |
| 42.5° | 821.1 | 812.7 | 791.3 | 761.2 | 712.2 | 657.3 | 600.7 | 507.7 | 230.4 | 10.1  | 12.1 |
| 45°   | 845.4 | 836.6 | 808.5 | 776.2 | 726.8 | 663.1 | 584.4 | 475.0 | 199.0 | 7.5   | 11.3 |
| 47.5° | 860.0 | 854.2 | 833.2 | 801.0 | 741.1 | 654.8 | 546.7 | 444.5 | 164.2 | 5.9   | 10.9 |
| 50°   | 815.6 | 809.8 | 794.3 | 772.1 | 731.8 | 626.7 | 513.6 | 395.0 | 124.8 | 4.6   | 10.5 |
| 52.5° | 702.1 | 707.1 | 710.1 | 716.3 | 687.0 | 563.9 | 464.2 | 355.7 | 84.2  | 3.8   | 9.6  |
| 55°   | 475.5 | 483.0 | 491.4 | 516.5 | 550.9 | 501.9 | 412.2 | 307.5 | 44.8  | 3.8   | 9.2  |
| 57.5° | 373.7 | 371.2 | 368.6 | 367.0 | 393.8 | 413.9 | 362.4 | 245.9 | 19.3  | 3.8   | 8.4  |
| 60°   | 341.8 | 334.3 | 329.3 | 330.5 | 343.9 | 336.0 | 287.0 | 160.4 | 6.7   | 3.8   | 8.0  |
| 62.5° | 224.1 | 230.0 | 241.3 | 260.6 | 251.3 | 215.7 | 166.7 | 63.7  | 3.4   | 3.8   | 7.1  |
| 65°   | 87.1  | 84.2  | 87.1  | 92.6  | 80.0  | 59.5  | 37.3  | 11.3  | 2.9   | 3.4   | 6.3  |
| 67.5° | 11.7  | 10.5  | 8.0   | 5.0   | 4.6   | 4.2   | 3.4   | 2.9   | 2.9   | 3.4   | 5.9  |
| 70°   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.9   | 2.5   | 2.5   | 2.9   | 5.0  |
| 72.5° | 2.5   | 2.5   | 2.5   | 2.5   | 2.5   | 2.5   | 2.5   | 2.5   | 2.5   | 2.9   | 4.2  |
| 75°   | 2.1   | 2.1   | 2.1   | 2.1   | 2.1   | 2.1   | 2.1   | 2.1   | 2.1   | 2.5   | 3.8  |
| 77.5° | 1.7   | 1.7   | 1.7   | 1.7   | 1.7   | 1.7   | 1.7   | 1.7   | 1.7   | 2.1   | 2.9  |
| 80°   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.7   | 2.5  |
| 82.5° | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 1.3   | 1.3   | 1.7   | 2.1  |
| 85°   | 0.4   | 0.8   | 0.4   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 0.8   | 1.3   | 1.7  |
| 87.5° | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.8   | 1.3   | 1.3  |
| 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):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 38.5   | 38.5 | 38.5   | 38.5 |
| 2.5°  | 38.1   | 37.3 | 37.3   | 37.3 |
| 5°    | 37.3   | 36.4 | 36.4   | 36.0 |
| 7.5°  | 36.0   | 35.6 | 35.6   | 35.6 |
| 10°   | 35.2   | 34.8 | 35.2   | 35.2 |
| 12.5° | 33.5   | 33.9 | 34.4   | 34.4 |
| 15°   | 31.8   | 32.7 | 33.5   | 33.9 |
| 17.5° | 30.2   | 31.8 | 32.7   | 33.1 |
| 20°   | 28.5   | 30.6 | 31.8   | 32.3 |
| 22.5° | 27.2   | 29.3 | 31.0   | 31.8 |
| 25°   | 25.6   | 28.5 | 30.6   | 31.4 |
| 27.5° | 23.9   | 27.2 | 29.7   | 31.0 |
| 30°   | 22.6   | 26.8 | 29.7   | 31.0 |
| 32.5° | 21.4   | 26.0 | 29.3   | 30.6 |
| 35°   | 20.5   | 25.6 | 29.3   | 31.0 |
| 37.5° | 19.7   | 25.1 | 29.3   | 30.6 |
| 40°   | 19.3   | 24.7 | 29.3   | 30.6 |
| 42.5° | 18.9   | 24.7 | 29.3   | 31.0 |
| 45°   | 18.0   | 24.3 | 29.3   | 31.0 |
| 47.5° | 17.6   | 24.3 | 29.3   | 31.0 |
| 50°   | 17.2   | 23.9 | 29.3   | 31.4 |
| 52.5° | 16.8   | 23.5 | 29.3   | 31.4 |
| 55°   | 15.9   | 23.0 | 28.9   | 31.0 |
| 57.5° | 15.5   | 22.6 | 28.5   | 30.2 |
| 60°   | 14.7   | 21.8 | 27.6   | 29.7 |
| 62.5° | 13.8   | 20.9 | 26.8   | 28.5 |
| 65°   | 12.6   | 19.7 | 25.6   | 27.6 |
| 67.5° | 11.3   | 18.0 | 24.3   | 26.4 |
| 70°   | 10.1   | 16.3 | 22.6   | 24.3 |
| 72.5° | 8.8    | 14.7 | 20.9   | 22.2 |
| 75°   | 7.5    | 12.6 | 18.4   | 20.1 |
| 77.5° | 6.3    | 10.9 | 15.5   | 16.8 |
| 80°   | 4.6    | 8.4  | 12.6   | 13.8 |
| 82.5° | 3.8    | 6.3  | 9.2    | 10.1 |
| 85°   | 2.5    | 4.2  | 5.9    | 6.7  |
| 87.5° | 1.3    | 2.1  | 2.9    | 3.4  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)