

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: P1317345

Luminaire Tested: P3SQAS17R709830DE010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1317345  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-83)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS17R709830DE010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R70 optic, 3000K CCT AND, 98CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

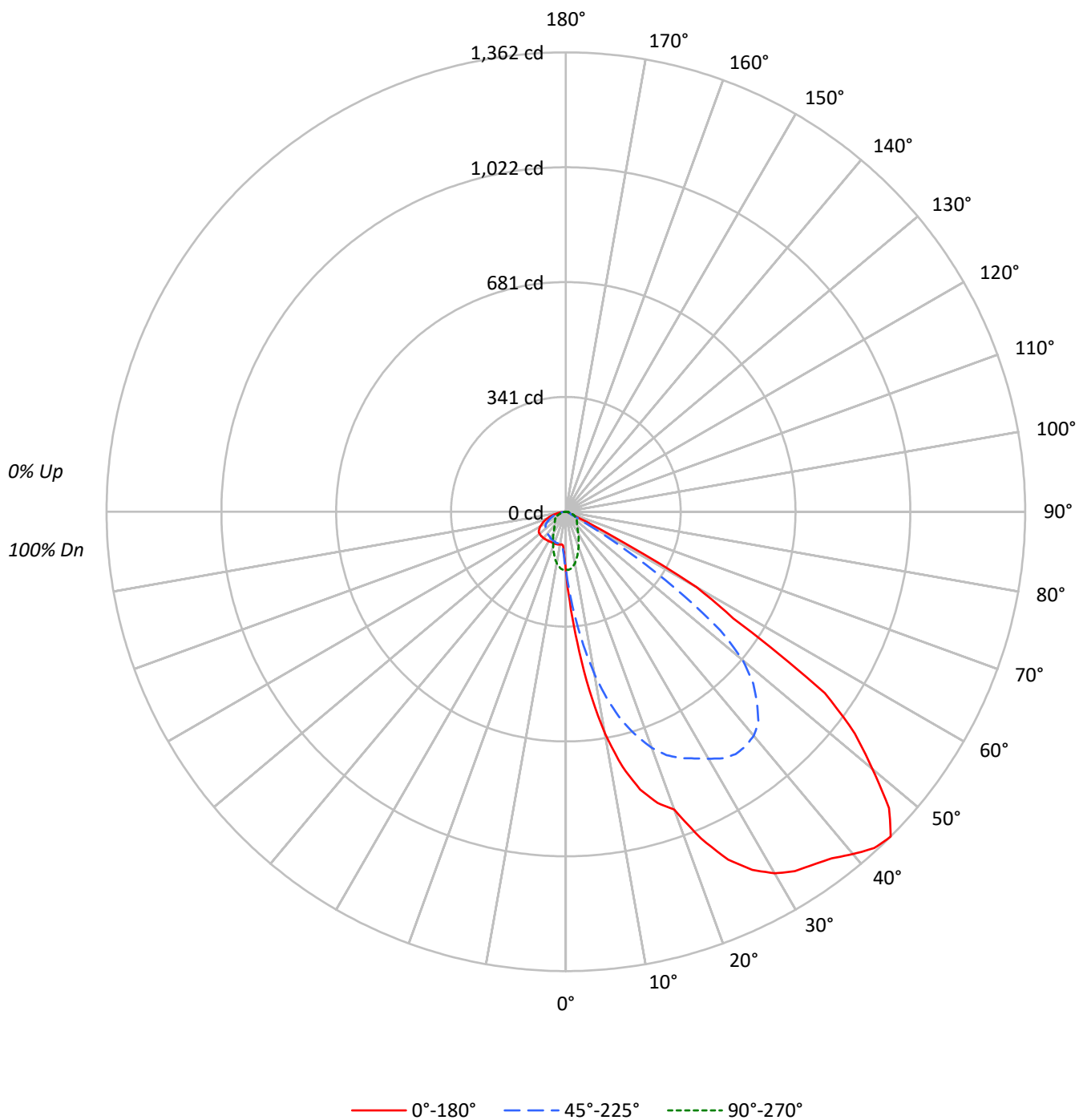
Lumens per Lamp: N/A  
Luminaire Lumens: 1177.0 lumens  
Efficiency: N/A  
Efficacy: 57.7 lumens/watt  
Spacing Criteria (0/90/45): 2.92 / 0.77 / 2.03  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 20.4  
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  |     |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 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 | 100 |    |    |
| 1   | 110 | 106 | 103 | 99  | 108 | 104 | 101 | 98  | 100 | 97  | 95  | 96  | 94  | 92  | 93  | 91  | 89  | 87  |    |    |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 87  | 82  | 89  | 84  | 80  | 86  | 82  | 78  | 83  | 79  | 77  | 75  |    |    |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  | 76  | 71  | 67  | 74  | 69  | 66  | 64  |    |    |
| 4   | 85  | 74  | 66  | 59  | 83  | 72  | 65  | 59  | 70  | 63  | 58  | 68  | 62  | 57  | 66  | 61  | 57  | 54  |    |    |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 51  | 63  | 55  | 50  | 61  | 54  | 49  | 59  | 53  | 49  | 47  |    |    |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 43  | 54  | 48  | 43  | 53  | 47  | 43  | 41  |    |    |
| 7   | 66  | 53  | 44  | 38  | 65  | 52  | 44  | 38  | 51  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 37  | 35  |    |    |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 31  |    |    |
| 9   | 57  | 44  | 35  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 29  | 28  |    |    |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 27  | 38  | 31  | 27  | 37  | 31  | 26  | 37  | 31  | 26  | 25  |    |    |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 29519  | 29519  | 29519 | 29519 | 29519 |
| 5°  | 67199  | 53800  | 29234 | 18481 | 17253 |
| 10° | 116435 | 85429  | 27106 | 16841 | 17243 |
| 15° | 151999 | 114111 | 23660 | 17170 | 17794 |
| 20° | 172169 | 136449 | 20234 | 17430 | 18511 |
| 25° | 216231 | 153085 | 16950 | 17634 | 18965 |
| 30° | 246136 | 168141 | 14477 | 17977 | 20085 |
| 35° | 268609 | 184427 | 12594 | 18270 | 21235 |
| 40° | 297797 | 194830 | 11623 | 18997 | 22977 |
| 45° | 331777 | 195067 | 11447 | 20021 | 24892 |
| 50° | 317766 | 183425 | 11333 | 21086 | 27061 |
| 55° | 281375 | 118813 | 11650 | 22219 | 29275 |
| 60° | 154105 | 25489  | 11746 | 22664 | 30346 |
| 65° | 11003  | 6235   | 11492 | 22495 | 30645 |
| 70° | 5338   | 5891   | 10625 | 21300 | 29558 |
| 75° | 4658   | 6255   | 10181 | 20295 | 27349 |
| 80° | 4661   | 5852   | 9323  | 18646 | 25588 |
| 85° | 4545   | 6916   | 9287  | 16203 | 23120 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 331777 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 22.4   | 1.9       |
| 10°-20°   | 95.7   | 8.1       |
| 20°-30°   | 183.5  | 15.6      |
| 30°-40°   | 259.5  | 22.1      |
| 40°-50°   | 293.6  | 24.9      |
| 50°-60°   | 232.5  | 19.8      |
| 60°-70°   | 62.7   | 5.3       |
| 70°-80°   | 20.8   | 1.8       |
| 80°-90°   | 6.4    | 0.5       |
| 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°-30°    | 301.5  | 25.6      |
| 0°-40°    | 561.1  | 47.7      |
| 0°-60°    | 1087.1 | 92.4      |
| 0°-90°    | 1177.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1177.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 171  | 171 | 171 | 171  | 171  |      |
| 5°  | 389  | 311 | 169 | 107  | 100  | 46   |
| 15° | 852  | 640 | 133 | 96   | 100  | 240  |
| 25° | 1138 | 806 | 89  | 93   | 100  | 521  |
| 35° | 1278 | 877 | 60  | 87   | 101  | 805  |
| 45° | 1362 | 801 | 47  | 82   | 102  | 1019 |
| 55° | 937  | 396 | 39  | 74   | 98   | 760  |
| 65° | 27   | 15  | 28  | 55   | 75   | 97   |
| 75° | 7    | 9   | 15  | 30   | 41   | 8    |
| 85° | 2    | 4   | 5   | 8    | 12   | 3    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°    | 45°   | 67.5° | 90°   | 112.5° |
|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|--------|
| 0°    | 171.4  | 171.4  | 171.4  | 171.4  | 171.4  | 171.4  | 171.4  | 171.4 | 171.4 | 171.4 | 171.4  |
| 2.5°  | 266.6  | 266.6  | 265.4  | 260.7  | 258.3  | 252.5  | 247.8  | 234.9 | 203.2 | 172.6 | 148.0  |
| 5°    | 388.7  | 394.6  | 386.3  | 385.2  | 378.1  | 367.6  | 360.5  | 311.2 | 234.9 | 169.1 | 126.8  |
| 7.5°  | 533.1  | 535.5  | 533.1  | 521.4  | 510.8  | 493.2  | 476.8  | 399.3 | 266.6 | 163.2 | 111.6  |
| 10°   | 665.8  | 662.3  | 655.3  | 647.0  | 631.8  | 613.0  | 584.8  | 488.5 | 297.1 | 155.0 | 102.2  |
| 12.5° | 773.9  | 772.7  | 764.5  | 756.2  | 737.5  | 712.8  | 684.6  | 569.5 | 322.9 | 144.4 | 97.5   |
| 15°   | 852.5  | 852.5  | 844.3  | 834.9  | 817.3  | 797.3  | 765.6  | 640.0 | 344.1 | 132.7 | 92.8   |
| 17.5° | 905.4  | 903.0  | 897.2  | 890.1  | 876.0  | 856.1  | 831.4  | 696.4 | 358.2 | 121.0 | 91.6   |
| 20°   | 939.4  | 938.3  | 933.6  | 923.0  | 911.3  | 896.0  | 873.7  | 744.5 | 364.0 | 110.4 | 90.4   |
| 22.5° | 1048.6 | 1039.3 | 1021.6 | 999.3  | 971.1  | 934.7  | 904.2  | 780.9 | 361.7 | 98.6  | 88.1   |
| 25°   | 1137.9 | 1134.4 | 1115.6 | 1088.6 | 1051.0 | 1004.0 | 953.5  | 805.6 | 349.9 | 89.2  | 85.7   |
| 27.5° | 1196.6 | 1190.7 | 1173.1 | 1143.8 | 1103.8 | 1058.0 | 1011.1 | 824.4 | 333.5 | 81.0  | 82.2   |
| 30°   | 1237.7 | 1234.2 | 1216.6 | 1183.7 | 1142.6 | 1092.1 | 1043.9 | 845.5 | 311.2 | 72.8  | 78.7   |
| 32.5° | 1263.5 | 1260.0 | 1242.4 | 1213.0 | 1173.1 | 1120.3 | 1065.1 | 866.6 | 284.2 | 65.8  | 75.2   |
| 35°   | 1277.6 | 1274.1 | 1254.1 | 1228.3 | 1190.7 | 1139.1 | 1080.4 | 877.2 | 251.3 | 59.9  | 71.6   |
| 37.5° | 1295.2 | 1288.2 | 1261.2 | 1229.5 | 1191.9 | 1143.8 | 1085.0 | 876.0 | 218.4 | 55.2  | 69.3   |
| 40°   | 1324.6 | 1305.8 | 1267.1 | 1224.8 | 1186.0 | 1137.9 | 1081.5 | 866.6 | 182.0 | 51.7  | 66.9   |
| 42.5° | 1352.8 | 1325.8 | 1268.2 | 1217.7 | 1174.3 | 1127.3 | 1068.6 | 845.5 | 142.1 | 49.3  | 65.8   |
| 45°   | 1362.2 | 1322.3 | 1251.8 | 1201.3 | 1160.2 | 1112.1 | 1051.0 | 800.9 | 96.3  | 47.0  | 63.4   |
| 47.5° | 1299.9 | 1270.6 | 1211.9 | 1174.3 | 1135.5 | 1088.6 | 1025.2 | 753.9 | 55.2  | 44.6  | 61.1   |
| 50°   | 1186.0 | 1167.2 | 1134.4 | 1110.9 | 1089.7 | 1056.9 | 994.6  | 684.6 | 32.9  | 42.3  | 58.7   |
| 52.5° | 1080.4 | 1074.5 | 1051.0 | 1032.2 | 1020.5 | 1005.2 | 948.8  | 577.8 | 27.0  | 41.1  | 56.4   |
| 55°   | 937.1  | 918.3  | 912.4  | 905.4  | 930.0  | 928.9  | 852.5  | 395.7 | 25.8  | 38.8  | 54.0   |
| 57.5° | 588.3  | 596.5  | 627.1  | 683.4  | 750.4  | 789.1  | 786.8  | 211.4 | 24.7  | 36.4  | 50.5   |
| 60°   | 447.4  | 446.2  | 455.6  | 479.1  | 528.4  | 583.6  | 635.3  | 74.0  | 23.5  | 34.1  | 48.1   |
| 62.5° | 133.9  | 137.4  | 165.6  | 243.1  | 291.2  | 359.3  | 327.6  | 17.6  | 22.3  | 30.5  | 43.4   |
| 65°   | 27.0   | 28.2   | 28.2   | 31.7   | 38.8   | 58.7   | 71.6   | 15.3  | 21.1  | 28.2  | 39.9   |
| 67.5° | 11.7   | 11.7   | 11.7   | 12.9   | 12.9   | 15.3   | 12.9   | 14.1  | 18.8  | 24.7  | 35.2   |
| 70°   | 10.6   | 10.6   | 10.6   | 10.6   | 10.6   | 10.6   | 11.7   | 11.7  | 16.4  | 21.1  | 30.5   |
| 72.5° | 8.2    | 8.2    | 8.2    | 9.4    | 9.4    | 9.4    | 9.4    | 10.6  | 14.1  | 17.6  | 25.8   |
| 75°   | 7.0    | 7.0    | 7.0    | 7.0    | 8.2    | 8.2    | 8.2    | 9.4   | 11.7  | 15.3  | 21.1   |
| 77.5° | 5.9    | 5.9    | 5.9    | 5.9    | 5.9    | 7.0    | 7.0    | 7.0   | 9.4   | 11.7  | 17.6   |
| 80°   | 4.7    | 4.7    | 4.7    | 4.7    | 4.7    | 4.7    | 4.7    | 5.9   | 7.0   | 9.4   | 12.9   |
| 82.5° | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    | 4.7   | 5.9   | 7.0   | 9.4    |
| 85°   | 2.3    | 2.3    | 2.3    | 2.3    | 2.3    | 2.3    | 2.3    | 3.5   | 3.5   | 4.7   | 5.9    |
| 87.5° | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 1.2    | 2.3   | 2.3   | 2.3   | 3.5    |
| 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):**

|       | 135°  | 157.5° | 180°  |
|-------|-------|--------|-------|
| 0°    | 171.4 | 171.4  | 171.4 |
| 2.5°  | 130.3 | 123.3  | 119.8 |
| 5°    | 106.9 | 101.0  | 99.8  |
| 7.5°  | 98.6  | 97.5   | 97.5  |
| 10°   | 96.3  | 97.5   | 98.6  |
| 12.5° | 96.3  | 98.6   | 99.8  |
| 15°   | 96.3  | 98.6   | 99.8  |
| 17.5° | 96.3  | 98.6   | 99.8  |
| 20°   | 95.1  | 98.6   | 101.0 |
| 22.5° | 93.9  | 98.6   | 99.8  |
| 25°   | 92.8  | 98.6   | 99.8  |
| 27.5° | 91.6  | 97.5   | 99.8  |
| 30°   | 90.4  | 97.5   | 101.0 |
| 32.5° | 88.1  | 97.5   | 101.0 |
| 35°   | 86.9  | 97.5   | 101.0 |
| 37.5° | 85.7  | 97.5   | 102.2 |
| 40°   | 84.5  | 97.5   | 102.2 |
| 42.5° | 83.4  | 97.5   | 102.2 |
| 45°   | 82.2  | 96.3   | 102.2 |
| 47.5° | 79.9  | 96.3   | 102.2 |
| 50°   | 78.7  | 95.1   | 101.0 |
| 52.5° | 76.3  | 93.9   | 101.0 |
| 55°   | 74.0  | 91.6   | 97.5  |
| 57.5° | 70.5  | 88.1   | 92.8  |
| 60°   | 65.8  | 83.4   | 88.1  |
| 62.5° | 59.9  | 77.5   | 81.0  |
| 65°   | 55.2  | 70.5   | 75.2  |
| 67.5° | 48.1  | 62.2   | 66.9  |
| 70°   | 42.3  | 54.0   | 58.7  |
| 72.5° | 36.4  | 45.8   | 50.5  |
| 75°   | 30.5  | 37.6   | 41.1  |
| 77.5° | 23.5  | 30.5   | 32.9  |
| 80°   | 18.8  | 23.5   | 25.8  |
| 82.5° | 12.9  | 16.4   | 17.6  |
| 85°   | 8.2   | 10.6   | 11.7  |
| 87.5° | 3.5   | 4.7    | 4.7   |
| 90°   | 0.0   | 0.0    | 0.0   |

(END OF REPORT)