

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: P1310127

Luminaire Tested: P3SQAS09R509040DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1310127  
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: P3SQAS09R509040DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R50 optic, 4000K CCT AND, 90CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

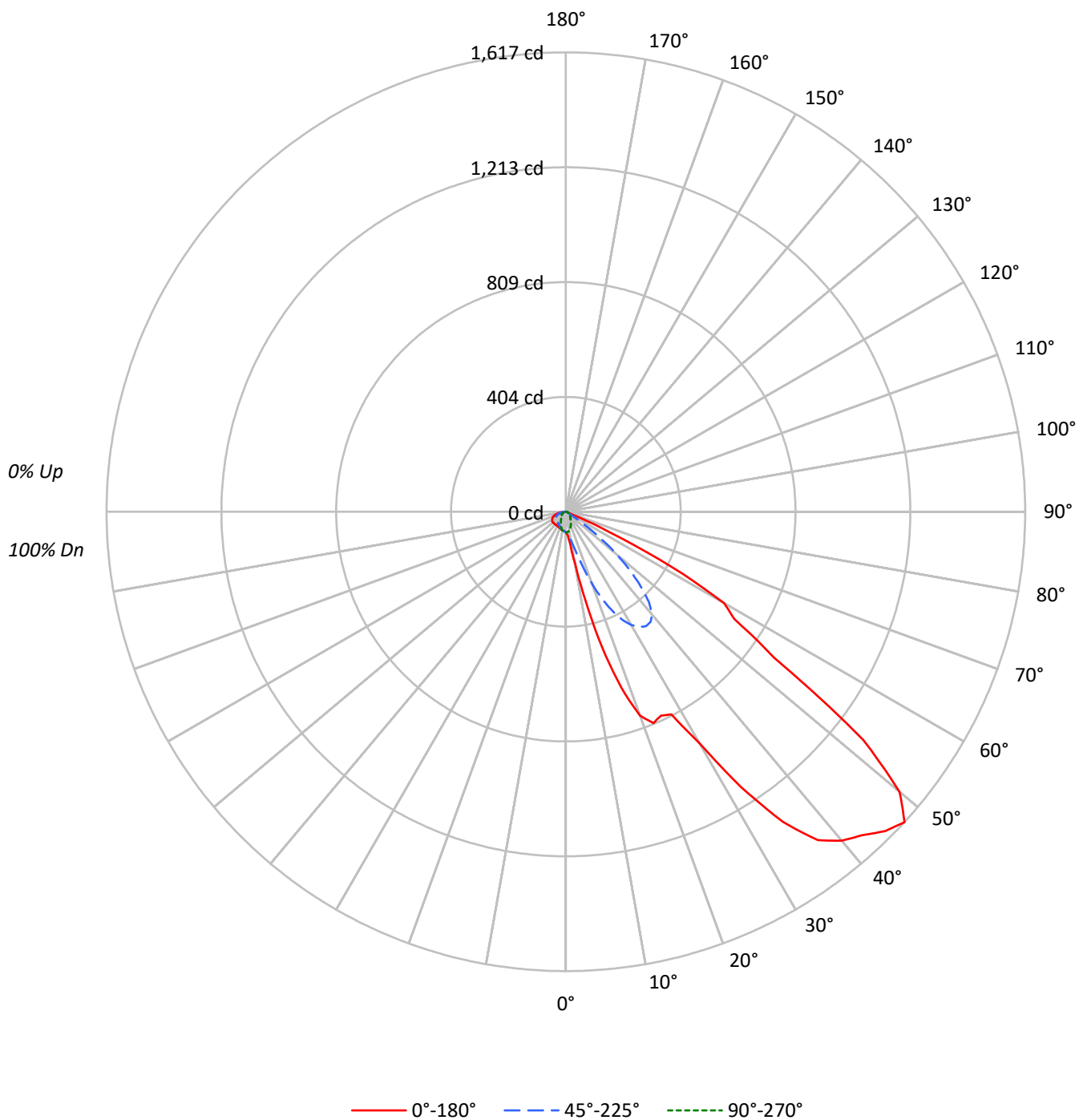
Lumens per Lamp: N/A  
Luminaire Lumens: 912.0 lumens  
Efficiency: N/A  
Efficacy: 82.2 lumens/watt  
Spacing Criteria (0/90/45): 3.58 / 0.82 / 1.91  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.1  
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°  | 12486  | 12486  | 12486 | 12486 | 12486 |
| 5°  | 14850  | 13882  | 12396 | 11842 | 11704 |
| 10° | 31968  | 17226  | 11839 | 11437 | 11577 |
| 15° | 88489  | 28225  | 10680 | 10947 | 11375 |
| 20° | 139894 | 49521  | 9237  | 10538 | 11125 |
| 25° | 150444 | 72742  | 7924  | 10185 | 11231 |
| 30° | 186735 | 91319  | 6901  | 10023 | 11594 |
| 35° | 280215 | 103335 | 5971  | 10113 | 12257 |
| 40° | 339861 | 106250 | 5306  | 10454 | 12927 |
| 45° | 387162 | 91140  | 5188  | 11131 | 14200 |
| 50° | 410926 | 62883  | 5278  | 12030 | 15835 |
| 55° | 268463 | 25312  | 5195  | 13001 | 17505 |
| 60° | 221409 | 4340   | 5167  | 14122 | 19254 |
| 65° | 66751  | 2241   | 4809  | 15078 | 21191 |
| 70° | 2769   | 2367   | 4784  | 15459 | 23012 |
| 75° | 2595   | 2595   | 4724  | 15704 | 25153 |
| 80° | 2380   | 2380   | 4661  | 15670 | 25787 |
| 85° | 1581   | 3162   | 6323  | 15611 | 24898 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47.5°

Luminance: 412259 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 7.5    | 0.8       |
| 10°-20°   | 43.2   | 4.7       |
| 20°-30°   | 111.0  | 12.2      |
| 30°-40°   | 199.4  | 21.9      |
| 40°-50°   | 266.4  | 29.2      |
| 50°-60°   | 202.9  | 22.2      |
| 60°-70°   | 61.6   | 6.8       |
| 70°-80°   | 14.7   | 1.6       |
| 80°-90°   | 5.3    | 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°    | 161.7  | 17.7      |
| 0°-40°    | 361.2  | 39.6      |
| 0°-60°    | 830.4  | 91.1      |
| 0°-90°    | 912.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 912.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 72   | 72  | 72  | 72   | 72   |      |
| 5°  | 86   | 80  | 72  | 68   | 68   | 11   |
| 15° | 496  | 158 | 60  | 61   | 64   | 146  |
| 25° | 792  | 383 | 42  | 54   | 59   | 378  |
| 35° | 1333 | 492 | 28  | 48   | 58   | 818  |
| 45° | 1590 | 374 | 21  | 46   | 58   | 1215 |
| 55° | 894  | 84  | 17  | 43   | 58   | 889  |
| 65° | 164  | 6   | 12  | 37   | 52   | 227  |
| 75° | 4    | 4   | 7   | 24   | 38   | 4    |
| 85° | 1    | 2   | 3   | 8    | 13   | 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°    | 72.5   | 72.5   | 72.5   | 72.5   | 72.5   | 72.5   | 72.5   | 72.5  | 72.5  | 72.5  | 72.5 |
| 2.5°  | 77.2   | 77.2   | 77.2   | 77.2   | 77.2   | 77.2   | 76.4   | 76.4  | 76.4  | 74.8  | 73.3 |
| 5°    | 85.9   | 86.7   | 85.9   | 85.9   | 84.3   | 84.3   | 82.7   | 82.7  | 80.3  | 75.6  | 71.7 |
| 7.5°  | 112.6  | 111.9  | 111.1  | 107.9  | 105.6  | 100.0  | 97.7   | 93.7  | 86.7  | 75.6  | 70.1 |
| 10°   | 182.8  | 178.0  | 174.9  | 167.8  | 152.8  | 143.4  | 130.8  | 118.2 | 98.5  | 75.6  | 67.7 |
| 12.5° | 317.5  | 316.7  | 307.2  | 283.6  | 262.3  | 233.2  | 202.4  | 171.7 | 121.3 | 74.0  | 64.6 |
| 15°   | 496.3  | 489.2  | 475.8  | 448.2  | 410.4  | 364.7  | 309.6  | 255.2 | 158.3 | 71.7  | 59.9 |
| 17.5° | 649.1  | 640.4  | 630.2  | 602.6  | 559.3  | 501.8  | 435.6  | 360.8 | 208.7 | 68.5  | 55.1 |
| 20°   | 763.3  | 757.8  | 749.1  | 727.1  | 686.1  | 634.1  | 560.1  | 469.5 | 270.2 | 64.6  | 50.4 |
| 22.5° | 805.1  | 804.3  | 805.8  | 798.0  | 777.5  | 736.5  | 665.6  | 571.1 | 330.8 | 59.9  | 45.7 |
| 25°   | 791.7  | 790.9  | 801.1  | 811.4  | 816.1  | 799.5  | 745.2  | 653.0 | 382.8 | 55.9  | 41.7 |
| 27.5° | 804.3  | 801.9  | 797.2  | 798.8  | 812.1  | 821.6  | 796.4  | 716.0 | 427.7 | 50.4  | 37.8 |
| 30°   | 939.0  | 925.6  | 904.3  | 868.1  | 841.3  | 838.9  | 827.9  | 765.7 | 459.2 | 44.9  | 34.7 |
| 32.5° | 1149.3 | 1132.8 | 1094.2 | 1027.2 | 963.4  | 914.6  | 879.9  | 807.4 | 481.3 | 39.4  | 30.7 |
| 35°   | 1332.8 | 1321.0 | 1276.1 | 1210.0 | 1118.6 | 1027.2 | 964.2  | 868.9 | 491.5 | 34.7  | 28.4 |
| 37.5° | 1457.3 | 1452.6 | 1408.5 | 1337.6 | 1244.6 | 1136.7 | 1053.2 | 931.9 | 489.2 | 29.1  | 26.0 |
| 40°   | 1511.7 | 1497.5 | 1460.5 | 1400.6 | 1306.8 | 1210.0 | 1121.7 | 972.1 | 472.6 | 23.6  | 23.6 |
| 42.5° | 1544.0 | 1528.2 | 1488.0 | 1431.3 | 1339.1 | 1235.9 | 1129.6 | 954.7 | 433.3 | 18.9  | 22.8 |
| 45°   | 1589.6 | 1573.1 | 1520.3 | 1459.7 | 1366.7 | 1247.0 | 1098.9 | 893.3 | 374.2 | 14.2  | 21.3 |
| 47.5° | 1617.2 | 1606.2 | 1566.8 | 1506.1 | 1393.5 | 1231.2 | 1028.0 | 835.8 | 308.8 | 11.0  | 20.5 |
| 50°   | 1533.7 | 1522.7 | 1493.5 | 1451.8 | 1376.2 | 1178.4 | 965.8  | 742.8 | 234.7 | 8.7   | 19.7 |
| 52.5° | 1320.2 | 1329.7 | 1335.2 | 1347.0 | 1291.9 | 1060.3 | 872.8  | 668.8 | 158.3 | 7.1   | 18.1 |
| 55°   | 894.1  | 908.3  | 924.0  | 971.3  | 1035.9 | 943.7  | 775.1  | 578.2 | 84.3  | 7.1   | 17.3 |
| 57.5° | 702.7  | 697.9  | 693.2  | 690.1  | 740.5  | 778.3  | 681.4  | 462.4 | 36.2  | 7.1   | 15.8 |
| 60°   | 642.8  | 628.6  | 619.2  | 621.5  | 646.7  | 631.8  | 539.6  | 301.7 | 12.6  | 7.1   | 15.0 |
| 62.5° | 421.4  | 432.5  | 453.7  | 490.0  | 472.6  | 405.7  | 313.5  | 119.7 | 6.3   | 7.1   | 13.4 |
| 65°   | 163.8  | 158.3  | 163.8  | 174.1  | 150.5  | 111.9  | 70.1   | 21.3  | 5.5   | 6.3   | 11.8 |
| 67.5° | 22.1   | 19.7   | 15.0   | 9.5    | 8.7    | 7.9    | 6.3    | 5.5   | 5.5   | 6.3   | 11.0 |
| 70°   | 5.5    | 5.5    | 5.5    | 5.5    | 5.5    | 5.5    | 5.5    | 4.7   | 4.7   | 5.5   | 9.5  |
| 72.5° | 4.7    | 4.7    | 4.7    | 4.7    | 4.7    | 4.7    | 4.7    | 4.7   | 4.7   | 5.5   | 7.9  |
| 75°   | 3.9    | 3.9    | 3.9    | 3.9    | 3.9    | 3.9    | 3.9    | 3.9   | 3.9   | 4.7   | 7.1  |
| 77.5° | 3.2    | 3.2    | 3.2    | 3.2    | 3.2    | 3.2    | 3.2    | 3.2   | 3.2   | 3.9   | 5.5  |
| 80°   | 2.4    | 2.4    | 2.4    | 2.4    | 2.4    | 2.4    | 2.4    | 2.4   | 2.4   | 3.2   | 4.7  |
| 82.5° | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 2.4   | 2.4   | 3.2   | 3.9  |
| 85°   | 0.8    | 1.6    | 0.8    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6   | 1.6   | 2.4   | 3.2  |
| 87.5° | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8    | 0.8   | 1.6   | 2.4   | 2.4  |
| 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):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 72.5   | 72.5 | 72.5   | 72.5 |
| 2.5°  | 71.7   | 70.1 | 70.1   | 70.1 |
| 5°    | 70.1   | 68.5 | 68.5   | 67.7 |
| 7.5°  | 67.7   | 67.0 | 67.0   | 67.0 |
| 10°   | 66.2   | 65.4 | 66.2   | 66.2 |
| 12.5° | 63.0   | 63.8 | 64.6   | 64.6 |
| 15°   | 59.9   | 61.4 | 63.0   | 63.8 |
| 17.5° | 56.7   | 59.9 | 61.4   | 62.2 |
| 20°   | 53.6   | 57.5 | 59.9   | 60.7 |
| 22.5° | 51.2   | 55.1 | 58.3   | 59.9 |
| 25°   | 48.1   | 53.6 | 57.5   | 59.1 |
| 27.5° | 44.9   | 51.2 | 55.9   | 58.3 |
| 30°   | 42.5   | 50.4 | 55.9   | 58.3 |
| 32.5° | 40.2   | 48.8 | 55.1   | 57.5 |
| 35°   | 38.6   | 48.1 | 55.1   | 58.3 |
| 37.5° | 37.0   | 47.3 | 55.1   | 57.5 |
| 40°   | 36.2   | 46.5 | 55.1   | 57.5 |
| 42.5° | 35.4   | 46.5 | 55.1   | 58.3 |
| 45°   | 33.9   | 45.7 | 55.1   | 58.3 |
| 47.5° | 33.1   | 45.7 | 55.1   | 58.3 |
| 50°   | 32.3   | 44.9 | 55.1   | 59.1 |
| 52.5° | 31.5   | 44.1 | 55.1   | 59.1 |
| 55°   | 29.9   | 43.3 | 54.4   | 58.3 |
| 57.5° | 29.1   | 42.5 | 53.6   | 56.7 |
| 60°   | 27.6   | 41.0 | 52.0   | 55.9 |
| 62.5° | 26.0   | 39.4 | 50.4   | 53.6 |
| 65°   | 23.6   | 37.0 | 48.1   | 52.0 |
| 67.5° | 21.3   | 33.9 | 45.7   | 49.6 |
| 70°   | 18.9   | 30.7 | 42.5   | 45.7 |
| 72.5° | 16.5   | 27.6 | 39.4   | 41.7 |
| 75°   | 14.2   | 23.6 | 34.7   | 37.8 |
| 77.5° | 11.8   | 20.5 | 29.1   | 31.5 |
| 80°   | 8.7    | 15.8 | 23.6   | 26.0 |
| 82.5° | 7.1    | 11.8 | 17.3   | 18.9 |
| 85°   | 4.7    | 7.9  | 11.0   | 12.6 |
| 87.5° | 2.4    | 3.9  | 5.5    | 6.3  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)