

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: P1314434

Luminaire Tested: P3SQAS13R509735DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1314434  
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: P3SQAS13R509735DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R50 optic, 3500K CCT AND, 97CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

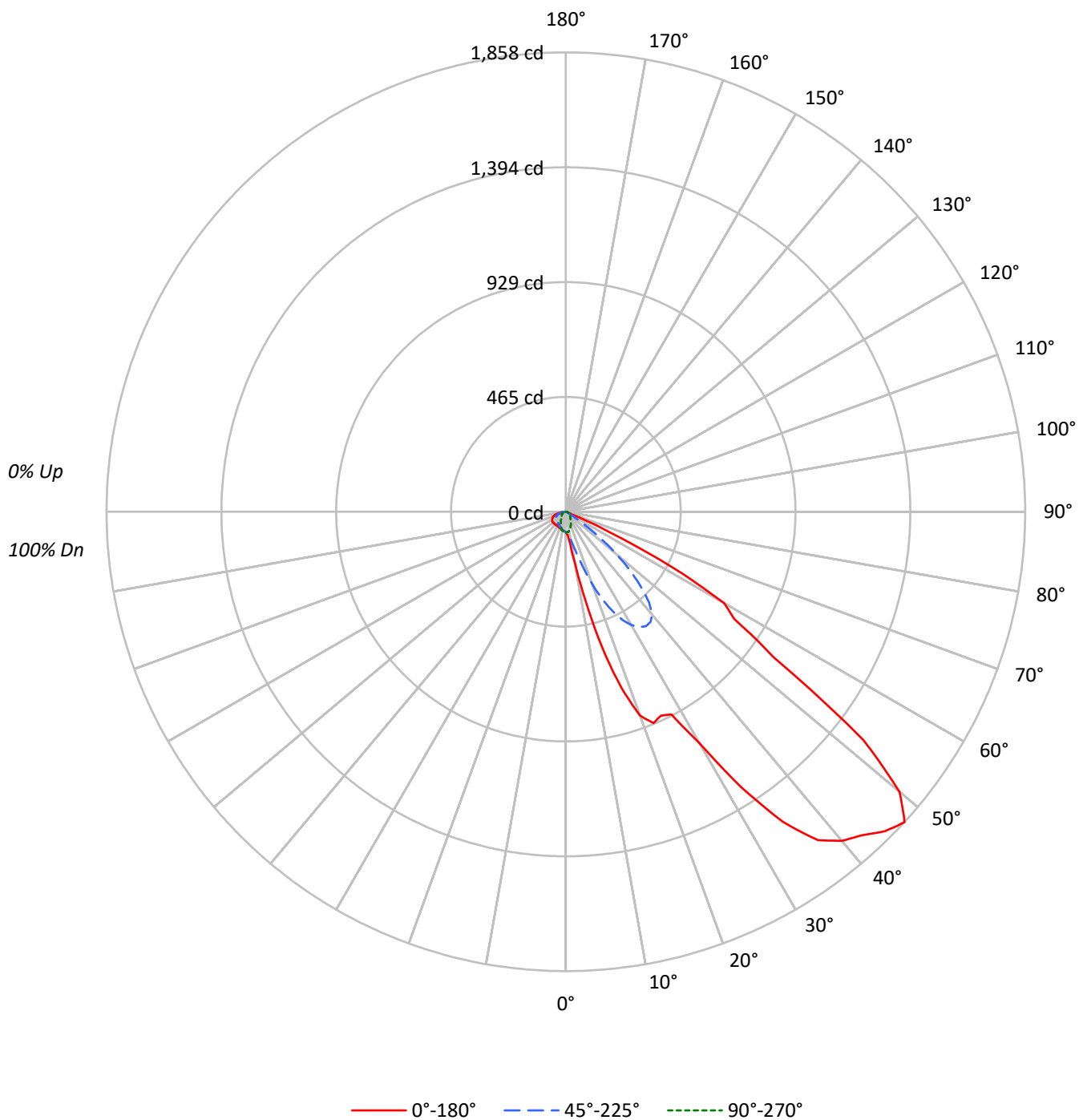
Lumens per Lamp: N/A  
Luminaire Lumens: 1048.0 lumens  
Efficiency: N/A  
Efficacy: 71.8 lumens/watt  
Spacing Criteria (0/90/45): 3.58 / 0.82 / 1.91  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 14.6  
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 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  | 95  | 93  | 91  | 92  | 90  | 88  | 86  |    |    |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  | 73  |    |    |
| 3   | 91  | 81  | 73  | 67  | 89  | 80  | 72  | 66  | 77  | 70  | 65  | 74  | 69  | 64  | 71  | 67  | 63  | 61  |    |    |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |    |    |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  | 43  |    |    |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 39  | 51  | 44  | 39  | 50  | 43  | 39  | 37  |    |    |
| 7   | 63  | 50  | 41  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34  | 44  | 38  | 33  | 31  |    |    |
| 8   | 58  | 44  | 36  | 30  | 57  | 44  | 35  | 29  | 42  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 27  |    |    |
| 9   | 54  | 40  | 31  | 26  | 53  | 39  | 31  | 26  | 38  | 31  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 23  |    |    |
| 10  | 50  | 36  | 28  | 23  | 49  | 36  | 28  | 22  | 35  | 27  | 22  | 34  | 27  | 22  | 33  | 27  | 22  | 20  |    |    |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 14346  | 14346  | 14346 | 14346 | 14346 |
| 5°  | 17063  | 15957  | 14245 | 13623 | 13450 |
| 10° | 36725  | 19779  | 13606 | 13133 | 13291 |
| 15° | 101683 | 32432  | 12267 | 12588 | 13069 |
| 20° | 160751 | 56907  | 10612 | 12115 | 12774 |
| 25° | 172867 | 83593  | 9121  | 11706 | 12903 |
| 30° | 214576 | 104941 | 7915  | 11514 | 13324 |
| 35° | 322011 | 118746 | 6854  | 11606 | 14086 |
| 40° | 390536 | 122100 | 6115  | 12005 | 14861 |
| 45° | 444910 | 104731 | 5943  | 12787 | 16318 |
| 50° | 472201 | 72261  | 6055  | 13825 | 18193 |
| 55° | 308488 | 29095  | 5975  | 14953 | 20117 |
| 60° | 254407 | 4994   | 5924  | 16223 | 22148 |
| 65° | 76735  | 2567   | 5542  | 17319 | 24329 |
| 70° | 3172   | 2719   | 5489  | 17775 | 26436 |
| 75° | 2994   | 2994   | 5390  | 18099 | 28879 |
| 80° | 2678   | 2678   | 5356  | 17951 | 29655 |
| 85° | 1778   | 3557   | 7114  | 17982 | 28652 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47.5°

Luminance: 473747 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 8.7    | 0.8       |
| 10°-20°   | 49.6   | 4.7       |
| 20°-30°   | 127.6  | 12.2      |
| 30°-40°   | 229.1  | 21.9      |
| 40°-50°   | 306.1  | 29.2      |
| 50°-60°   | 233.1  | 22.2      |
| 60°-70°   | 70.7   | 6.8       |
| 70°-80°   | 16.9   | 1.6       |
| 80°-90°   | 6.1    | 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°    | 185.9  | 17.7      |
| 0°-40°    | 415.0  | 39.6      |
| 0°-60°    | 954.2  | 91.1      |
| 0°-90°    | 1048.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1048.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 83   | 83  | 83  | 83   | 83   |      |
| 5°  | 99   | 92  | 82  | 79   | 78   | 13   |
| 15° | 570  | 182 | 69  | 71   | 73   | 168  |
| 25° | 910  | 440 | 48  | 62   | 68   | 434  |
| 35° | 1532 | 565 | 33  | 55   | 67   | 940  |
| 45° | 1827 | 430 | 24  | 52   | 67   | 1397 |
| 55° | 1027 | 97  | 20  | 50   | 67   | 1022 |
| 65° | 188  | 6   | 14  | 42   | 60   | 260  |
| 75° | 4    | 4   | 8   | 27   | 43   | 5    |
| 85° | 1    | 2   | 4   | 9    | 14   | 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°    | 83.3   | 83.3   | 83.3   | 83.3   | 83.3   | 83.3   | 83.3   | 83.3   | 83.3  | 83.3  | 83.3 |
| 2.5°  | 88.7   | 88.7   | 88.7   | 88.7   | 88.7   | 88.7   | 87.8   | 87.8   | 87.8  | 86.0  | 84.2 |
| 5°    | 98.7   | 99.6   | 98.7   | 98.7   | 96.9   | 96.9   | 95.0   | 95.0   | 92.3  | 86.9  | 82.4 |
| 7.5°  | 129.4  | 128.5  | 127.6  | 124.0  | 121.3  | 115.0  | 112.2  | 107.7  | 99.6  | 86.9  | 80.6 |
| 10°   | 210.0  | 204.6  | 201.0  | 192.8  | 175.6  | 164.7  | 150.3  | 135.8  | 113.1 | 86.9  | 77.8 |
| 12.5° | 364.8  | 363.9  | 353.0  | 325.9  | 301.4  | 267.9  | 232.6  | 197.3  | 139.4 | 85.1  | 74.2 |
| 15°   | 570.3  | 562.1  | 546.7  | 515.1  | 471.6  | 419.1  | 355.7  | 293.3  | 181.9 | 82.4  | 68.8 |
| 17.5° | 745.9  | 735.9  | 724.2  | 692.5  | 642.7  | 576.6  | 500.6  | 414.6  | 239.9 | 78.8  | 63.4 |
| 20°   | 877.1  | 870.8  | 860.8  | 835.5  | 788.4  | 728.7  | 643.6  | 539.5  | 310.5 | 74.2  | 57.9 |
| 22.5° | 925.1  | 924.2  | 926.0  | 917.0  | 893.4  | 846.4  | 764.9  | 656.3  | 380.2 | 68.8  | 52.5 |
| 25°   | 909.7  | 908.8  | 920.6  | 932.4  | 937.8  | 918.8  | 856.3  | 750.4  | 439.9 | 64.3  | 48.0 |
| 27.5° | 924.2  | 921.5  | 916.1  | 917.9  | 933.3  | 944.1  | 915.2  | 822.8  | 491.5 | 57.9  | 43.4 |
| 30°   | 1079.0 | 1063.6 | 1039.2 | 997.5  | 966.8  | 964.0  | 951.4  | 879.9  | 527.7 | 51.6  | 39.8 |
| 32.5° | 1320.7 | 1301.7 | 1257.3 | 1180.4 | 1107.1 | 1050.9 | 1011.1 | 927.8  | 553.1 | 45.3  | 35.3 |
| 35°   | 1531.6 | 1518.0 | 1466.4 | 1390.4 | 1285.4 | 1180.4 | 1108.0 | 998.4  | 564.8 | 39.8  | 32.6 |
| 37.5° | 1674.6 | 1669.2 | 1618.5 | 1537.0 | 1430.2 | 1306.2 | 1210.3 | 1070.9 | 562.1 | 33.5  | 29.9 |
| 40°   | 1737.1 | 1720.8 | 1678.2 | 1609.4 | 1501.7 | 1390.4 | 1289.0 | 1117.0 | 543.1 | 27.2  | 27.2 |
| 42.5° | 1774.2 | 1756.1 | 1709.9 | 1644.7 | 1538.8 | 1420.3 | 1298.1 | 1097.1 | 497.9 | 21.7  | 26.3 |
| 45°   | 1826.7 | 1807.7 | 1747.0 | 1677.3 | 1570.5 | 1432.9 | 1262.8 | 1026.5 | 430.0 | 16.3  | 24.4 |
| 47.5° | 1858.4 | 1845.7 | 1800.4 | 1730.7 | 1601.3 | 1414.8 | 1181.3 | 960.4  | 354.8 | 12.7  | 23.5 |
| 50°   | 1762.4 | 1749.7 | 1716.3 | 1668.3 | 1581.4 | 1354.2 | 1109.8 | 853.6  | 269.7 | 10.0  | 22.6 |
| 52.5° | 1517.1 | 1528.0 | 1534.3 | 1547.9 | 1484.5 | 1218.4 | 1003.0 | 768.5  | 181.9 | 8.1   | 20.8 |
| 55°   | 1027.4 | 1043.7 | 1061.8 | 1116.1 | 1190.3 | 1084.4 | 890.7  | 664.4  | 96.9  | 8.1   | 19.9 |
| 57.5° | 807.4  | 802.0  | 796.6  | 793.0  | 850.9  | 894.3  | 783.0  | 531.4  | 41.6  | 8.1   | 18.1 |
| 60°   | 738.6  | 722.3  | 711.5  | 714.2  | 743.2  | 726.0  | 620.1  | 346.7  | 14.5  | 8.1   | 17.2 |
| 62.5° | 484.3  | 497.0  | 521.4  | 563.0  | 543.1  | 466.2  | 360.3  | 137.6  | 7.2   | 8.1   | 15.4 |
| 65°   | 188.3  | 181.9  | 188.3  | 200.0  | 172.9  | 128.5  | 80.6   | 24.4   | 6.3   | 7.2   | 13.6 |
| 67.5° | 25.3   | 22.6   | 17.2   | 10.9   | 10.0   | 9.1    | 7.2    | 6.3    | 6.3   | 7.2   | 12.7 |
| 70°   | 6.3    | 6.3    | 6.3    | 6.3    | 6.3    | 6.3    | 6.3    | 5.4    | 5.4   | 6.3   | 10.9 |
| 72.5° | 5.4    | 5.4    | 5.4    | 5.4    | 5.4    | 5.4    | 5.4    | 5.4    | 5.4   | 6.3   | 9.1  |
| 75°   | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5   | 5.4   | 8.1  |
| 77.5° | 3.6    | 3.6    | 3.6    | 3.6    | 3.6    | 3.6    | 3.6    | 3.6    | 3.6   | 4.5   | 6.3  |
| 80°   | 2.7    | 2.7    | 2.7    | 2.7    | 2.7    | 2.7    | 2.7    | 2.7    | 2.7   | 3.6   | 5.4  |
| 82.5° | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 2.7    | 2.7   | 3.6   | 4.5  |
| 85°   | 0.9    | 1.8    | 0.9    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8   | 2.7   | 3.6  |
| 87.5° | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 0.9    | 1.8   | 2.7   | 2.7  |
| 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°    | 83.3   | 83.3 | 83.3   | 83.3 |
| 2.5°  | 82.4   | 80.6 | 80.6   | 80.6 |
| 5°    | 80.6   | 78.8 | 78.8   | 77.8 |
| 7.5°  | 77.8   | 76.9 | 76.9   | 76.9 |
| 10°   | 76.0   | 75.1 | 76.0   | 76.0 |
| 12.5° | 72.4   | 73.3 | 74.2   | 74.2 |
| 15°   | 68.8   | 70.6 | 72.4   | 73.3 |
| 17.5° | 65.2   | 68.8 | 70.6   | 71.5 |
| 20°   | 61.6   | 66.1 | 68.8   | 69.7 |
| 22.5° | 58.8   | 63.4 | 67.0   | 68.8 |
| 25°   | 55.2   | 61.6 | 66.1   | 67.9 |
| 27.5° | 51.6   | 58.8 | 64.3   | 67.0 |
| 30°   | 48.9   | 57.9 | 64.3   | 67.0 |
| 32.5° | 46.2   | 56.1 | 63.4   | 66.1 |
| 35°   | 44.4   | 55.2 | 63.4   | 67.0 |
| 37.5° | 42.5   | 54.3 | 63.4   | 66.1 |
| 40°   | 41.6   | 53.4 | 63.4   | 66.1 |
| 42.5° | 40.7   | 53.4 | 63.4   | 67.0 |
| 45°   | 38.9   | 52.5 | 63.4   | 67.0 |
| 47.5° | 38.0   | 52.5 | 63.4   | 67.0 |
| 50°   | 37.1   | 51.6 | 63.4   | 67.9 |
| 52.5° | 36.2   | 50.7 | 63.4   | 67.9 |
| 55°   | 34.4   | 49.8 | 62.5   | 67.0 |
| 57.5° | 33.5   | 48.9 | 61.6   | 65.2 |
| 60°   | 31.7   | 47.1 | 59.7   | 64.3 |
| 62.5° | 29.9   | 45.3 | 57.9   | 61.6 |
| 65°   | 27.2   | 42.5 | 55.2   | 59.7 |
| 67.5° | 24.4   | 38.9 | 52.5   | 57.0 |
| 70°   | 21.7   | 35.3 | 48.9   | 52.5 |
| 72.5° | 19.0   | 31.7 | 45.3   | 48.0 |
| 75°   | 16.3   | 27.2 | 39.8   | 43.4 |
| 77.5° | 13.6   | 23.5 | 33.5   | 36.2 |
| 80°   | 10.0   | 18.1 | 27.2   | 29.9 |
| 82.5° | 8.1    | 13.6 | 19.9   | 21.7 |
| 85°   | 5.4    | 9.1  | 12.7   | 14.5 |
| 87.5° | 2.7    | 4.5  | 6.3    | 7.2  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)