

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: P1307889

Luminaire Tested: P3SQAS09R509030DE010 E3SQCA451MB

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1307889  
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: P3SQAS09R509030DE010 E3SQCA451MB  
Description: 3in Adjustable LED luminaire with, R50 optic, 3000K CCT AND, 90CRI , E3SQCA451MB TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

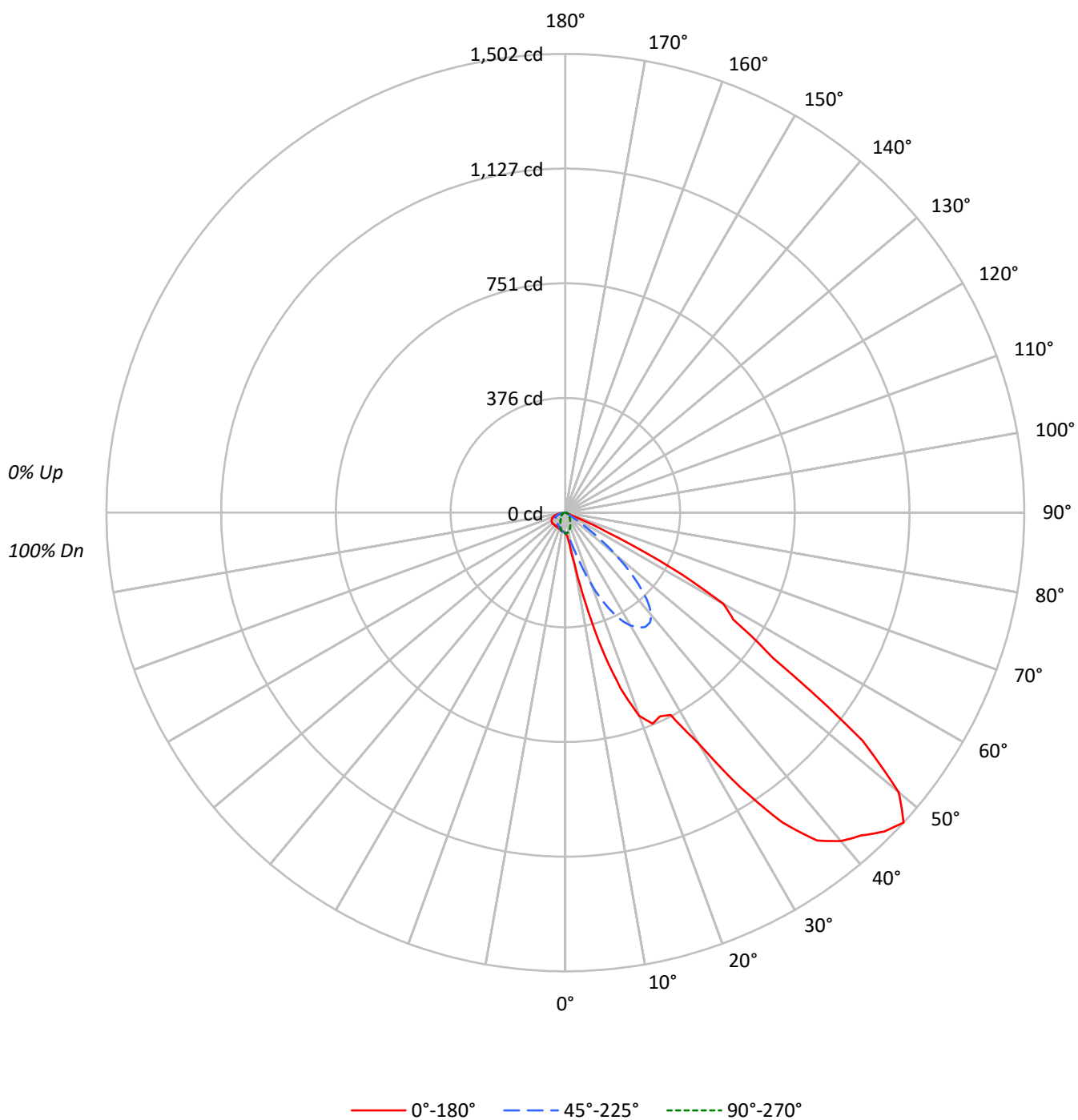
Lumens per Lamp: N/A  
Luminaire Lumens: 847.0 lumens  
Efficiency: N/A  
Efficacy: 76.3 lumens/watt  
Spacing Criteria (0/90/45): 3.58 / 0.82 / 1.91  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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  |     |     | 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   | 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°  | 11591  | 11591 | 11591 | 11591 | 11591 |
| 5°  | 13779  | 12897 | 11514 | 10995 | 10874 |
| 10° | 29677  | 15984 | 11000 | 10615 | 10755 |
| 15° | 82178  | 26210 | 9913  | 10181 | 10573 |
| 20° | 129924 | 45984 | 8577  | 9787  | 10318 |
| 25° | 139708 | 67573 | 7373  | 9444  | 10432 |
| 30° | 173431 | 84816 | 6403  | 9307  | 10759 |
| 35° | 260241 | 95977 | 5529  | 9377  | 11374 |
| 40° | 315626 | 98696 | 4924  | 9712  | 12005 |
| 45° | 359567 | 84637 | 4822  | 10327 | 13177 |
| 50° | 381641 | 58409 | 4903  | 11173 | 14709 |
| 55° | 249337 | 23510 | 4834  | 12070 | 16244 |
| 60° | 205634 | 4030  | 4788  | 13089 | 17877 |
| 65° | 62024  | 2078  | 4483  | 14018 | 19683 |
| 70° | 2568   | 2216  | 4431  | 14351 | 21350 |
| 75° | 2462   | 2462  | 4392  | 14573 | 23356 |
| 80° | 2182   | 2182  | 4364  | 14480 | 23902 |
| 85° | 1383   | 2964  | 5730  | 14425 | 23120 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47.5°

Luminance: 382867 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 7.0    | 0.8       |
| 10°-20°   | 40.1   | 4.7       |
| 20°-30°   | 103.1  | 12.2      |
| 30°-40°   | 185.2  | 21.9      |
| 40°-50°   | 247.4  | 29.2      |
| 50°-60°   | 188.4  | 22.2      |
| 60°-70°   | 57.2   | 6.8       |
| 70°-80°   | 13.7   | 1.6       |
| 80°-90°   | 4.9    | 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°    | 150.2  | 17.7      |
| 0°-40°    | 335.4  | 39.6      |
| 0°-60°    | 771.2  | 91.1      |
| 0°-90°    | 847.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 847.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 67   | 67  | 67  | 67   | 67   |      |
| 5°  | 80   | 75  | 67  | 64   | 63   | 10   |
| 15° | 461  | 147 | 56  | 57   | 59   | 136  |
| 25° | 735  | 356 | 39  | 50   | 55   | 351  |
| 35° | 1238 | 456 | 26  | 45   | 54   | 760  |
| 45° | 1476 | 348 | 20  | 42   | 54   | 1129 |
| 55° | 830  | 78  | 16  | 40   | 54   | 826  |
| 65° | 152  | 5   | 11  | 34   | 48   | 211  |
| 75° | 4    | 4   | 7   | 22   | 35   | 4    |
| 85° | 1    | 2   | 3   | 7    | 12   | 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°    | 67.3   | 67.3   | 67.3   | 67.3   | 67.3   | 67.3   | 67.3   | 67.3  | 67.3  | 67.3  | 67.3 |
| 2.5°  | 71.7   | 71.7   | 71.7   | 71.7   | 71.7   | 71.7   | 71.0   | 71.0  | 71.0  | 69.5  | 68.0 |
| 5°    | 79.7   | 80.5   | 79.7   | 79.7   | 78.3   | 78.3   | 76.8   | 76.8  | 74.6  | 70.2  | 66.6 |
| 7.5°  | 104.6  | 103.9  | 103.2  | 100.2  | 98.0   | 92.9   | 90.7   | 87.1  | 80.5  | 70.2  | 65.1 |
| 10°   | 169.7  | 165.3  | 162.4  | 155.8  | 141.9  | 133.1  | 121.4  | 109.7 | 91.4  | 70.2  | 62.9 |
| 12.5° | 294.8  | 294.1  | 285.3  | 263.4  | 243.6  | 216.5  | 188.0  | 159.5 | 112.7 | 68.8  | 60.0 |
| 15°   | 460.9  | 454.3  | 441.9  | 416.3  | 381.2  | 338.7  | 287.5  | 237.0 | 147.0 | 66.6  | 55.6 |
| 17.5° | 602.8  | 594.8  | 585.3  | 559.7  | 519.4  | 466.0  | 404.6  | 335.1 | 193.9 | 63.6  | 51.2 |
| 20°   | 708.9  | 703.8  | 695.7  | 675.3  | 637.2  | 588.9  | 520.2  | 436.0 | 250.9 | 60.0  | 46.8 |
| 22.5° | 747.7  | 747.0  | 748.4  | 741.1  | 722.1  | 684.0  | 618.2  | 530.4 | 307.3 | 55.6  | 42.4 |
| 25°   | 735.2  | 734.5  | 744.0  | 753.5  | 757.9  | 742.6  | 692.1  | 606.5 | 355.6 | 51.9  | 38.8 |
| 27.5° | 747.0  | 744.8  | 740.4  | 741.8  | 754.3  | 763.0  | 739.6  | 665.0 | 397.3 | 46.8  | 35.1 |
| 30°   | 872.1  | 859.6  | 839.9  | 806.2  | 781.3  | 779.1  | 768.9  | 711.1 | 426.5 | 41.7  | 32.2 |
| 32.5° | 1067.4 | 1052.0 | 1016.2 | 954.0  | 894.7  | 849.4  | 817.2  | 749.9 | 447.0 | 36.6  | 28.5 |
| 35°   | 1237.8 | 1226.9 | 1185.2 | 1123.7 | 1038.9 | 954.0  | 895.5  | 806.9 | 456.5 | 32.2  | 26.3 |
| 37.5° | 1353.4 | 1349.0 | 1308.1 | 1242.2 | 1155.9 | 1055.7 | 978.1  | 865.5 | 454.3 | 27.1  | 24.1 |
| 40°   | 1403.9 | 1390.7 | 1356.4 | 1300.8 | 1213.7 | 1123.7 | 1041.8 | 902.8 | 439.0 | 21.9  | 21.9 |
| 42.5° | 1433.9 | 1419.3 | 1382.0 | 1329.3 | 1243.7 | 1147.9 | 1049.1 | 886.7 | 402.4 | 17.6  | 21.2 |
| 45°   | 1476.3 | 1461.0 | 1412.0 | 1355.6 | 1269.3 | 1158.1 | 1020.6 | 829.6 | 347.5 | 13.2  | 19.8 |
| 47.5° | 1501.9 | 1491.7 | 1455.1 | 1398.8 | 1294.2 | 1143.5 | 954.7  | 776.2 | 286.8 | 10.2  | 19.0 |
| 50°   | 1424.4 | 1414.2 | 1387.1 | 1348.3 | 1278.1 | 1094.5 | 896.9  | 689.9 | 218.0 | 8.0   | 18.3 |
| 52.5° | 1226.1 | 1234.9 | 1240.0 | 1251.0 | 1199.8 | 984.7  | 810.6  | 621.1 | 147.0 | 6.6   | 16.8 |
| 55°   | 830.4  | 843.5  | 858.2  | 902.0  | 962.0  | 876.4  | 719.9  | 537.0 | 78.3  | 6.6   | 16.1 |
| 57.5° | 652.6  | 648.2  | 643.8  | 640.9  | 687.7  | 722.8  | 632.8  | 429.4 | 33.7  | 6.6   | 14.6 |
| 60°   | 597.0  | 583.8  | 575.0  | 577.2  | 600.6  | 586.7  | 501.1  | 280.2 | 11.7  | 6.6   | 13.9 |
| 62.5° | 391.4  | 401.6  | 421.4  | 455.0  | 439.0  | 376.8  | 291.2  | 111.2 | 5.9   | 6.6   | 12.4 |
| 65°   | 152.2  | 147.0  | 152.2  | 161.7  | 139.7  | 103.9  | 65.1   | 19.8  | 5.1   | 5.9   | 11.0 |
| 67.5° | 20.5   | 18.3   | 13.9   | 8.8    | 8.0    | 7.3    | 5.9    | 5.1   | 5.1   | 5.9   | 10.2 |
| 70°   | 5.1    | 5.1    | 5.1    | 5.1    | 5.1    | 5.1    | 5.1    | 4.4   | 4.4   | 5.1   | 8.8  |
| 72.5° | 4.4    | 4.4    | 4.4    | 4.4    | 4.4    | 4.4    | 4.4    | 4.4   | 4.4   | 5.1   | 7.3  |
| 75°   | 3.7    | 3.7    | 3.7    | 3.7    | 3.7    | 3.7    | 3.7    | 3.7   | 3.7   | 4.4   | 6.6  |
| 77.5° | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.9    | 2.9   | 2.9   | 3.7   | 5.1  |
| 80°   | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2    | 2.2   | 2.2   | 2.9   | 4.4  |
| 82.5° | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 2.2   | 2.2   | 2.9   | 3.7  |
| 85°   | 0.7    | 1.5    | 0.7    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5   | 1.5   | 2.2   | 2.9  |
| 87.5° | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7   | 1.5   | 2.2   | 2.2  |
| 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°    | 67.3   | 67.3 | 67.3   | 67.3 |
| 2.5°  | 66.6   | 65.1 | 65.1   | 65.1 |
| 5°    | 65.1   | 63.6 | 63.6   | 62.9 |
| 7.5°  | 62.9   | 62.2 | 62.2   | 62.2 |
| 10°   | 61.5   | 60.7 | 61.5   | 61.5 |
| 12.5° | 58.5   | 59.3 | 60.0   | 60.0 |
| 15°   | 55.6   | 57.1 | 58.5   | 59.3 |
| 17.5° | 52.7   | 55.6 | 57.1   | 57.8 |
| 20°   | 49.7   | 53.4 | 55.6   | 56.3 |
| 22.5° | 47.6   | 51.2 | 54.1   | 55.6 |
| 25°   | 44.6   | 49.7 | 53.4   | 54.9 |
| 27.5° | 41.7   | 47.6 | 51.9   | 54.1 |
| 30°   | 39.5   | 46.8 | 51.9   | 54.1 |
| 32.5° | 37.3   | 45.4 | 51.2   | 53.4 |
| 35°   | 35.8   | 44.6 | 51.2   | 54.1 |
| 37.5° | 34.4   | 43.9 | 51.2   | 53.4 |
| 40°   | 33.7   | 43.2 | 51.2   | 53.4 |
| 42.5° | 32.9   | 43.2 | 51.2   | 54.1 |
| 45°   | 31.5   | 42.4 | 51.2   | 54.1 |
| 47.5° | 30.7   | 42.4 | 51.2   | 54.1 |
| 50°   | 30.0   | 41.7 | 51.2   | 54.9 |
| 52.5° | 29.3   | 41.0 | 51.2   | 54.9 |
| 55°   | 27.8   | 40.2 | 50.5   | 54.1 |
| 57.5° | 27.1   | 39.5 | 49.7   | 52.7 |
| 60°   | 25.6   | 38.0 | 48.3   | 51.9 |
| 62.5° | 24.1   | 36.6 | 46.8   | 49.7 |
| 65°   | 21.9   | 34.4 | 44.6   | 48.3 |
| 67.5° | 19.8   | 31.5 | 42.4   | 46.1 |
| 70°   | 17.6   | 28.5 | 39.5   | 42.4 |
| 72.5° | 15.4   | 25.6 | 36.6   | 38.8 |
| 75°   | 13.2   | 21.9 | 32.2   | 35.1 |
| 77.5° | 11.0   | 19.0 | 27.1   | 29.3 |
| 80°   | 8.0    | 14.6 | 21.9   | 24.1 |
| 82.5° | 6.6    | 11.0 | 16.1   | 17.6 |
| 85°   | 4.4    | 7.3  | 10.2   | 11.7 |
| 87.5° | 2.2    | 3.7  | 5.1    | 5.9  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)