

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: P1312969

Luminaire Tested: P3SQAS02R509730DE010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1312969  
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: P3SQAS02R509730DE010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R50 optic, 3000K CCT AND, 97CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

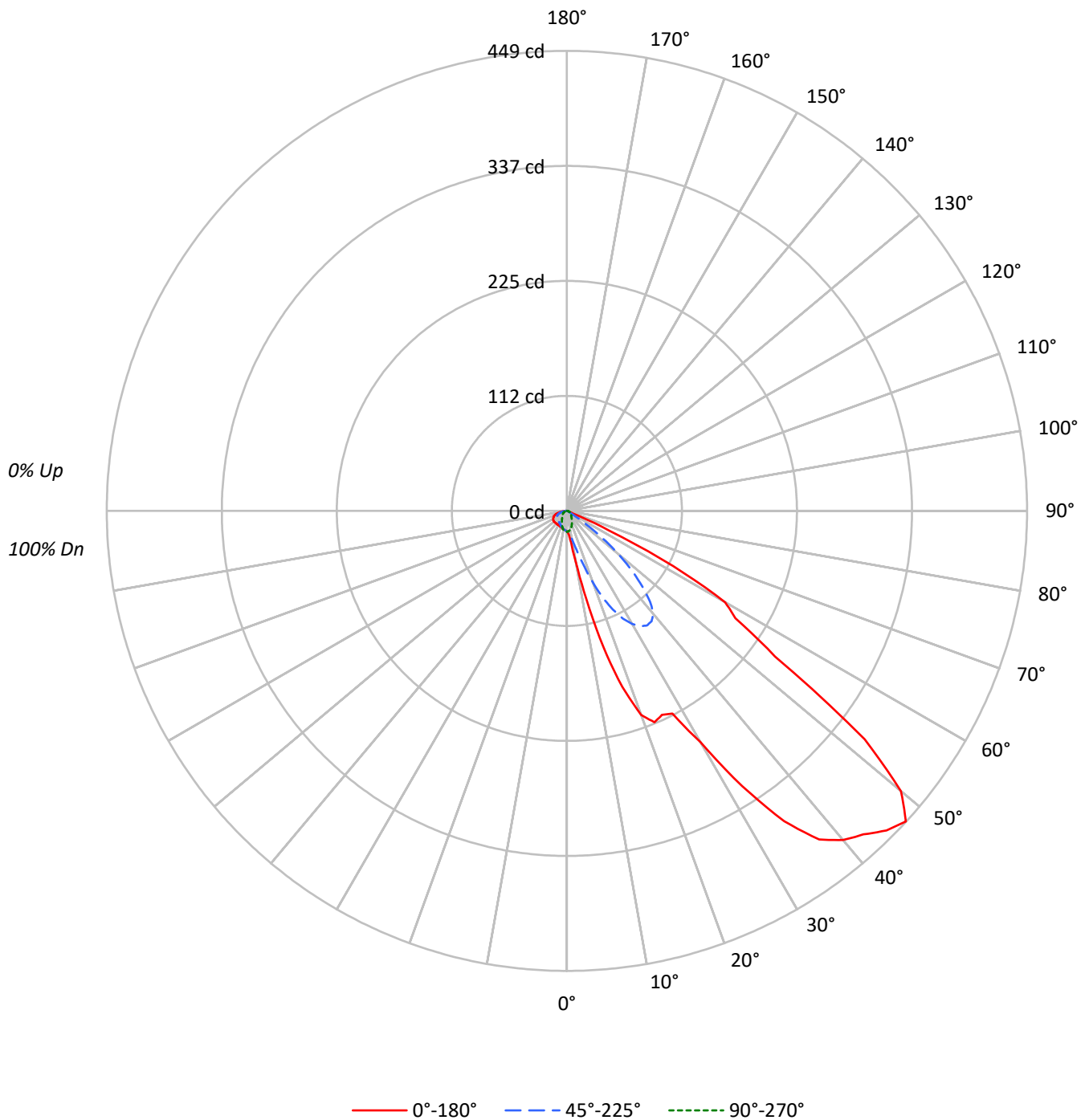
Lumens per Lamp: N/A  
Luminaire Lumens: 253.0 lumens  
Efficiency: N/A  
Efficacy: 70.3 lumens/watt  
Spacing Criteria (0/90/45): 3.58 / 0.83 / 1.91  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 3.6  
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

TEST NUMBER: P1312969

CATALOG NUMBER: P3SQAS02R509730DE010 E3SQCA451MW

### Luminous Intensity Polar Plot



TEST NUMBER: P1312969

CATALOG NUMBER: P3SQAS02R509730DE010 E3SQCA451MW

**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  | 55  | 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°  | 3462   | 3462  | 3462 | 3462 | 3462 |
| 5°  | 4115   | 3855  | 3440 | 3285 | 3250 |
| 10° | 8866   | 4774  | 3288 | 3165 | 3218 |
| 15° | 24552  | 7827  | 2960 | 3031 | 3156 |
| 20° | 38818  | 13746 | 2566 | 2932 | 3079 |
| 25° | 41730  | 20181 | 2204 | 2831 | 3116 |
| 30° | 51804  | 25335 | 1909 | 2784 | 3222 |
| 35° | 77728  | 28677 | 1661 | 2796 | 3406 |
| 40° | 94290  | 29474 | 1484 | 2900 | 3597 |
| 45° | 107410 | 25281 | 1437 | 3093 | 3946 |
| 50° | 114005 | 17442 | 1474 | 3349 | 4394 |
| 55° | 74465  | 7026  | 1441 | 3603 | 4864 |
| 60° | 61415  | 1206  | 1447 | 3927 | 5339 |
| 65° | 18542  | 611   | 1345 | 4197 | 5868 |
| 70° | 755    | 655   | 1309 | 4280 | 6395 |
| 75° | 732    | 732   | 1331 | 4392 | 6987 |
| 80° | 694    | 694   | 1289 | 4364 | 7141 |
| 85° | 395    | 790   | 1778 | 4347 | 6916 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47.5°

Luminance: 114358 cd/sqm

TEST NUMBER: P1312969

CATALOG NUMBER: P3SQAS02R509730DE010 E3SQCA451MW

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.1    | 0.8       |
| 10°-20°   | 12.0   | 4.7       |
| 20°-30°   | 30.8   | 12.2      |
| 30°-40°   | 55.3   | 21.9      |
| 40°-50°   | 73.9   | 29.2      |
| 50°-60°   | 56.3   | 22.2      |
| 60°-70°   | 17.1   | 6.7       |
| 70°-80°   | 4.1    | 1.6       |
| 80°-90°   | 1.5    | 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°    | 44.9   | 17.7      |
| 0°-40°    | 100.2  | 39.6      |
| 0°-60°    | 230.4  | 91.1      |
| 0°-90°    | 253.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 253.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 20  | 20  | 20  | 20   | 20   |      |
| 5°  | 24  | 22  | 20  | 19   | 19   | 3    |
| 15° | 138 | 44  | 17  | 17   | 18   | 41   |
| 25° | 220 | 106 | 12  | 15   | 16   | 105  |
| 35° | 370 | 136 | 8   | 13   | 16   | 227  |
| 45° | 441 | 104 | 6   | 13   | 16   | 337  |
| 55° | 248 | 23  | 5   | 12   | 16   | 247  |
| 65° | 46  | 2   | 3   | 10   | 14   | 63   |
| 75° | 1   | 1   | 2   | 7    | 10   | 1    |
| 85° | 0   | 0   | 1   | 2    | 4    | 0    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |



TEST NUMBER: P1312969

CATALOG NUMBER: P3SQAS02R509730DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 35°   | 45°   | 67.5° | 90°  |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 0°    | 20.1  | 20.1  | 20.1  | 20.1  | 20.1  | 20.1  | 20.1  | 20.1  | 20.1  | 20.1  | 20.1 |
| 2.5°  | 21.4  | 21.4  | 21.4  | 21.4  | 21.4  | 21.4  | 21.2  | 21.2  | 21.2  | 20.8  | 20.3 |
| 5°    | 23.8  | 24.0  | 23.8  | 23.8  | 23.4  | 23.4  | 22.9  | 22.9  | 22.3  | 21.0  | 19.9 |
| 7.5°  | 31.2  | 31.0  | 30.8  | 29.9  | 29.3  | 27.8  | 27.1  | 26.0  | 24.0  | 21.0  | 19.4 |
| 10°   | 50.7  | 49.4  | 48.5  | 46.5  | 42.4  | 39.8  | 36.3  | 32.8  | 27.3  | 21.0  | 18.8 |
| 12.5° | 88.1  | 87.8  | 85.2  | 78.7  | 72.8  | 64.7  | 56.2  | 47.6  | 33.7  | 20.5  | 17.9 |
| 15°   | 137.7 | 135.7 | 132.0 | 124.3 | 113.9 | 101.2 | 85.9  | 70.8  | 43.9  | 19.9  | 16.6 |
| 17.5° | 180.1 | 177.7 | 174.8 | 167.2 | 155.2 | 139.2 | 120.8 | 100.1 | 57.9  | 19.0  | 15.3 |
| 20°   | 211.8 | 210.2 | 207.8 | 201.7 | 190.3 | 175.9 | 155.4 | 130.2 | 75.0  | 17.9  | 14.0 |
| 22.5° | 223.3 | 223.1 | 223.6 | 221.4 | 215.7 | 204.3 | 184.7 | 158.4 | 91.8  | 16.6  | 12.7 |
| 25°   | 219.6 | 219.4 | 222.2 | 225.1 | 226.4 | 221.8 | 206.7 | 181.2 | 106.2 | 15.5  | 11.6 |
| 27.5° | 223.1 | 222.5 | 221.1 | 221.6 | 225.3 | 227.9 | 220.9 | 198.6 | 118.7 | 14.0  | 10.5 |
| 30°   | 260.5 | 256.8 | 250.9 | 240.8 | 233.4 | 232.7 | 229.7 | 212.4 | 127.4 | 12.5  | 9.6  |
| 32.5° | 318.8 | 314.2 | 303.5 | 285.0 | 267.3 | 253.7 | 244.1 | 224.0 | 133.5 | 10.9  | 8.5  |
| 35°   | 369.7 | 366.5 | 354.0 | 335.7 | 310.3 | 285.0 | 267.5 | 241.0 | 136.4 | 9.6   | 7.9  |
| 37.5° | 404.3 | 403.0 | 390.7 | 371.1 | 345.3 | 315.3 | 292.2 | 258.5 | 135.7 | 8.1   | 7.2  |
| 40°   | 419.4 | 415.4 | 405.1 | 388.5 | 362.5 | 335.7 | 311.2 | 269.7 | 131.1 | 6.6   | 6.6  |
| 42.5° | 428.3 | 423.9 | 412.8 | 397.1 | 371.5 | 342.9 | 313.4 | 264.9 | 120.2 | 5.2   | 6.3  |
| 45°   | 441.0 | 436.4 | 421.8 | 404.9 | 379.1 | 345.9 | 304.8 | 247.8 | 103.8 | 3.9   | 5.9  |
| 47.5° | 448.6 | 445.6 | 434.6 | 417.8 | 386.6 | 341.6 | 285.2 | 231.9 | 85.7  | 3.1   | 5.7  |
| 50°   | 425.5 | 422.4 | 414.3 | 402.7 | 381.8 | 326.9 | 267.9 | 206.1 | 65.1  | 2.4   | 5.5  |
| 52.5° | 366.2 | 368.9 | 370.4 | 373.7 | 358.4 | 294.1 | 242.1 | 185.5 | 43.9  | 2.0   | 5.0  |
| 55°   | 248.0 | 252.0 | 256.3 | 269.4 | 287.4 | 261.8 | 215.0 | 160.4 | 23.4  | 2.0   | 4.8  |
| 57.5° | 194.9 | 193.6 | 192.3 | 191.4 | 205.4 | 215.9 | 189.0 | 128.3 | 10.1  | 2.0   | 4.4  |
| 60°   | 178.3 | 174.4 | 171.8 | 172.4 | 179.4 | 175.3 | 149.7 | 83.7  | 3.5   | 2.0   | 4.2  |
| 62.5° | 116.9 | 120.0 | 125.9 | 135.9 | 131.1 | 112.5 | 87.0  | 33.2  | 1.7   | 2.0   | 3.7  |
| 65°   | 45.5  | 43.9  | 45.5  | 48.3  | 41.7  | 31.0  | 19.4  | 5.9   | 1.5   | 1.7   | 3.3  |
| 67.5° | 6.1   | 5.5   | 4.2   | 2.6   | 2.4   | 2.2   | 1.7   | 1.5   | 1.5   | 1.7   | 3.1  |
| 70°   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.5   | 1.3   | 1.3   | 1.5   | 2.6  |
| 72.5° | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.5   | 2.2  |
| 75°   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.1   | 1.3   | 2.0  |
| 77.5° | 0.9   | 0.9   | 0.9   | 0.9   | 0.9   | 0.9   | 0.9   | 0.9   | 0.9   | 1.1   | 1.5  |
| 80°   | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   | 0.7   | 0.9   | 1.3  |
| 82.5° | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.7   | 0.7   | 0.9   | 1.1  |
| 85°   | 0.2   | 0.4   | 0.2   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.4   | 0.7   | 0.9  |
| 87.5° | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.4   | 0.7   | 0.7  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  |

TEST NUMBER: P1312969

CATALOG NUMBER: P3SQAS02R509730DE010 E3SQCA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 20.1   | 20.1 | 20.1   | 20.1 |
| 2.5°  | 19.9   | 19.4 | 19.4   | 19.4 |
| 5°    | 19.4   | 19.0 | 19.0   | 18.8 |
| 7.5°  | 18.8   | 18.6 | 18.6   | 18.6 |
| 10°   | 18.4   | 18.1 | 18.4   | 18.4 |
| 12.5° | 17.5   | 17.7 | 17.9   | 17.9 |
| 15°   | 16.6   | 17.0 | 17.5   | 17.7 |
| 17.5° | 15.7   | 16.6 | 17.0   | 17.3 |
| 20°   | 14.9   | 16.0 | 16.6   | 16.8 |
| 22.5° | 14.2   | 15.3 | 16.2   | 16.6 |
| 25°   | 13.3   | 14.9 | 16.0   | 16.4 |
| 27.5° | 12.5   | 14.2 | 15.5   | 16.2 |
| 30°   | 11.8   | 14.0 | 15.5   | 16.2 |
| 32.5° | 11.1   | 13.5 | 15.3   | 16.0 |
| 35°   | 10.7   | 13.3 | 15.3   | 16.2 |
| 37.5° | 10.3   | 13.1 | 15.3   | 16.0 |
| 40°   | 10.1   | 12.9 | 15.3   | 16.0 |
| 42.5° | 9.8    | 12.9 | 15.3   | 16.2 |
| 45°   | 9.4    | 12.7 | 15.3   | 16.2 |
| 47.5° | 9.2    | 12.7 | 15.3   | 16.2 |
| 50°   | 9.0    | 12.5 | 15.3   | 16.4 |
| 52.5° | 8.7    | 12.2 | 15.3   | 16.4 |
| 55°   | 8.3    | 12.0 | 15.1   | 16.2 |
| 57.5° | 8.1    | 11.8 | 14.9   | 15.7 |
| 60°   | 7.6    | 11.4 | 14.4   | 15.5 |
| 62.5° | 7.2    | 10.9 | 14.0   | 14.9 |
| 65°   | 6.6    | 10.3 | 13.3   | 14.4 |
| 67.5° | 5.9    | 9.4  | 12.7   | 13.8 |
| 70°   | 5.2    | 8.5  | 11.8   | 12.7 |
| 72.5° | 4.6    | 7.6  | 10.9   | 11.6 |
| 75°   | 3.9    | 6.6  | 9.6    | 10.5 |
| 77.5° | 3.3    | 5.7  | 8.1    | 8.7  |
| 80°   | 2.4    | 4.4  | 6.6    | 7.2  |
| 82.5° | 2.0    | 3.3  | 4.8    | 5.2  |
| 85°   | 1.3    | 2.2  | 3.1    | 3.5  |
| 87.5° | 0.7    | 1.1  | 1.5    | 1.7  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)