

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: P1312782

Luminaire Tested: P3SQAS20R459727D010 E3SQCA451MB

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1312782  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS20R459727D010 E3SQCA451MB  
Description: 3in Adjustable LED luminaire with, R45 optic, 2700K CCT AND, 97CRI , E3SQCA451MB TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

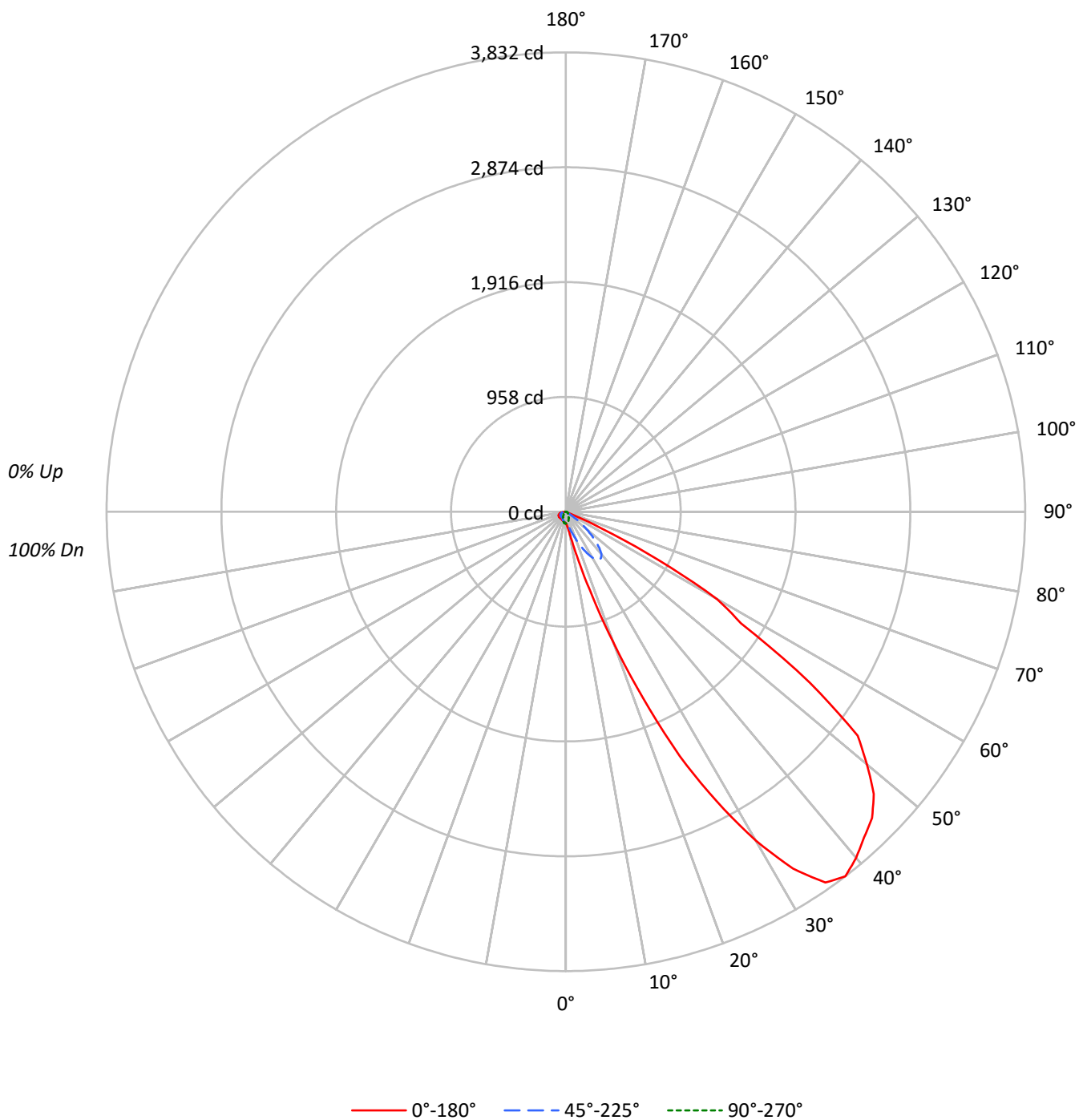
Lumens per Lamp: N/A  
Luminaire Lumens: 1712.0 lumens  
Efficiency: N/A  
Efficacy: 59.4 lumens/watt  
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.8  
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 | 99  |  | 107 | 104 | 100 | 97  |  | 99  | 97  | 94  |  | 96  | 93  | 91  |  | 92  | 90  | 88  |
| 2   | 100 | 93  | 86  | 81  |  | 98  | 91  | 85  | 80  |  | 87  | 83  | 78  |  | 84  | 80  | 77  |  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 67  |  | 89  | 80  | 72  | 66  |  | 77  | 70  | 65  |  | 74  | 69  | 64  |  | 71  | 67  | 63  |
| 4   | 83  | 71  | 62  | 56  |  | 81  | 70  | 62  | 55  |  | 67  | 60  | 55  |  | 65  | 59  | 54  |  | 63  | 58  | 53  |
| 5   | 76  | 63  | 53  | 47  |  | 73  | 61  | 53  | 46  |  | 59  | 52  | 46  |  | 57  | 51  | 45  |  | 55  | 50  | 45  |
| 6   | 69  | 55  | 46  | 39  |  | 67  | 54  | 46  | 39  |  | 52  | 45  | 39  |  | 51  | 44  | 39  |  | 49  | 43  | 38  |
| 7   | 63  | 49  | 40  | 34  |  | 61  | 48  | 40  | 33  |  | 47  | 39  | 33  |  | 45  | 38  | 33  |  | 44  | 37  | 33  |
| 8   | 58  | 44  | 35  | 29  |  | 56  | 43  | 35  | 29  |  | 42  | 34  | 29  |  | 40  | 33  | 28  |  | 39  | 33  | 28  |
| 9   | 53  | 39  | 31  | 25  |  | 52  | 39  | 30  | 25  |  | 38  | 30  | 25  |  | 36  | 29  | 25  |  | 35  | 29  | 24  |
| 10  | 49  | 36  | 27  | 22  |  | 48  | 35  | 27  | 22  |  | 34  | 27  | 21  |  | 33  | 26  | 21  |  | 32  | 26  | 21  |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 17050  | 17050  | 17050 | 17050 | 17050 |
| 5°  | 20296  | 18827  | 16873 | 15646 | 15646 |
| 10° | 32405  | 22017  | 15827 | 14847 | 14847 |
| 15° | 80716  | 29508  | 14371 | 13872 | 14371 |
| 20° | 212600 | 44078  | 12444 | 13214 | 14002 |
| 25° | 426876 | 65312  | 10756 | 12371 | 13701 |
| 30° | 629290 | 87481  | 8730  | 12091 | 14060 |
| 35° | 793780 | 102600 | 7443  | 11900 | 14570 |
| 40° | 846900 | 103687 | 6677  | 12410 | 15580 |
| 45° | 879932 | 86488  | 6211  | 13444 | 16879 |
| 50° | 878545 | 60258  | 6055  | 14415 | 18943 |
| 55° | 746689 | 26753  | 6366  | 16154 | 20808 |
| 60° | 501857 | 5373   | 6338  | 18014 | 23870 |
| 65° | 133175 | 2323   | 6357  | 19601 | 27100 |
| 70° | 3575   | 2870   | 6395  | 21350 | 30616 |
| 75° | 2795   | 2795   | 6588  | 22624 | 34801 |
| 80° | 2777   | 4166   | 7042  | 23803 | 39275 |
| 85° | 2766   | 5533   | 11263 | 25096 | 39125 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 902601 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 9.8    | 0.6       |
| 10°-20°   | 48.3   | 2.8       |
| 20°-30°   | 199.2  | 11.6      |
| 30°-40°   | 419.7  | 24.5      |
| 40°-50°   | 517.9  | 30.2      |
| 50°-60°   | 388.1  | 22.7      |
| 60°-70°   | 99.9   | 5.8       |
| 70°-80°   | 20.7   | 1.2       |
| 80°-90°   | 8.4    | 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°    | 257.3  | 15.0      |
| 0°-40°    | 677.0  | 39.5      |
| 0°-60°    | 1583.0 | 92.5      |
| 0°-90°    | 1712.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1712.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 99   | 99  | 99  | 99   | 99   |      |
| 5°  | 117  | 109 | 98  | 90   | 90   | 13   |
| 15° | 453  | 166 | 81  | 78   | 81   | 166  |
| 25° | 2246 | 344 | 57  | 65   | 72   | 1047 |
| 35° | 3776 | 488 | 35  | 57   | 69   | 2301 |
| 45° | 3613 | 355 | 26  | 55   | 69   | 2765 |
| 55° | 2487 | 89  | 21  | 54   | 69   | 2147 |
| 65° | 327  | 6   | 16  | 48   | 66   | 471  |
| 75° | 4    | 4   | 10  | 34   | 52   | 5    |
| 85° | 1    | 3   | 6   | 13   | 20   | 2    |
| 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°    | 99.0   | 99.0   | 99.0   | 99.0   | 99.0   | 99.0   | 99.0   | 99.0  | 99.0  | 99.0 | 99.0   |
| 2.5°  | 104.7  | 104.7  | 104.7  | 104.7  | 104.7  | 104.7  | 104.7  | 103.3 | 101.9 | 99.0 | 96.2   |
| 5°    | 117.4  | 116.0  | 116.0  | 116.0  | 114.6  | 113.2  | 113.2  | 108.9 | 103.3 | 97.6 | 93.4   |
| 7.5°  | 138.6  | 138.6  | 137.2  | 134.4  | 133.0  | 130.1  | 127.3  | 116.0 | 103.3 | 94.8 | 89.1   |
| 10°   | 185.3  | 182.5  | 178.2  | 175.4  | 168.3  | 158.4  | 151.4  | 125.9 | 101.9 | 90.5 | 86.3   |
| 12.5° | 277.3  | 282.9  | 268.8  | 254.6  | 234.8  | 216.4  | 193.8  | 142.9 | 101.9 | 86.3 | 82.0   |
| 15°   | 452.7  | 462.6  | 435.7  | 407.4  | 359.3  | 314.0  | 271.6  | 165.5 | 99.0  | 80.6 | 76.4   |
| 17.5° | 739.8  | 752.6  | 707.3  | 640.8  | 565.8  | 475.3  | 397.5  | 196.6 | 96.2  | 75.0 | 72.1   |
| 20°   | 1160.0 | 1158.5 | 1070.8 | 987.4  | 843.1  | 710.1  | 564.4  | 240.5 | 91.9  | 67.9 | 67.9   |
| 22.5° | 1676.3 | 1681.9 | 1574.4 | 1424.5 | 1219.4 | 1005.8 | 773.8  | 291.4 | 86.3  | 62.2 | 63.7   |
| 25°   | 2246.4 | 2198.3 | 2071.0 | 1888.5 | 1626.8 | 1331.1 | 1025.6 | 343.7 | 80.6  | 56.6 | 59.4   |
| 27.5° | 2721.7 | 2675.0 | 2529.3 | 2312.8 | 2031.3 | 1680.5 | 1281.6 | 396.1 | 73.6  | 50.9 | 55.2   |
| 30°   | 3164.4 | 3105.0 | 2929.6 | 2684.9 | 2349.6 | 1970.5 | 1522.1 | 439.9 | 65.1  | 43.9 | 50.9   |
| 32.5° | 3529.4 | 3475.6 | 3276.2 | 2991.8 | 2626.9 | 2219.5 | 1725.8 | 473.9 | 56.6  | 39.6 | 48.1   |
| 35°   | 3775.5 | 3720.4 | 3536.5 | 3223.8 | 2826.3 | 2400.5 | 1891.3 | 488.0 | 49.5  | 35.4 | 46.7   |
| 37.5° | 3832.1 | 3802.4 | 3670.8 | 3378.0 | 2963.6 | 2516.5 | 1997.4 | 483.8 | 41.0  | 32.5 | 43.9   |
| 40°   | 3767.0 | 3774.1 | 3711.9 | 3468.6 | 3037.1 | 2566.1 | 2041.2 | 461.2 | 34.0  | 29.7 | 42.4   |
| 42.5° | 3683.6 | 3702.0 | 3697.7 | 3505.3 | 3068.2 | 2568.9 | 2022.9 | 415.9 | 26.9  | 26.9 | 41.0   |
| 45°   | 3612.8 | 3631.2 | 3656.7 | 3489.8 | 3047.0 | 2532.1 | 1964.9 | 355.1 | 19.8  | 25.5 | 41.0   |
| 47.5° | 3484.1 | 3503.9 | 3540.7 | 3365.3 | 2939.5 | 2437.3 | 1860.2 | 288.6 | 14.1  | 24.0 | 39.6   |
| 50°   | 3279.0 | 3288.9 | 3279.0 | 3082.4 | 2733.0 | 2284.6 | 1690.4 | 224.9 | 9.9   | 22.6 | 39.6   |
| 52.5° | 3068.2 | 3048.4 | 2966.4 | 2717.4 | 2404.8 | 2042.7 | 1476.8 | 159.8 | 7.1   | 21.2 | 38.2   |
| 55°   | 2486.8 | 2455.7 | 2394.9 | 2242.1 | 2063.9 | 1745.6 | 1193.9 | 89.1  | 7.1   | 21.2 | 36.8   |
| 57.5° | 1732.9 | 1749.8 | 1771.1 | 1739.9 | 1657.9 | 1375.0 | 906.7  | 39.6  | 7.1   | 19.8 | 36.8   |
| 60°   | 1457.0 | 1442.9 | 1444.3 | 1424.5 | 1288.7 | 1002.9 | 623.8  | 15.6  | 7.1   | 18.4 | 35.4   |
| 62.5° | 870.0  | 879.9  | 898.3  | 902.5  | 768.1  | 560.2  | 326.8  | 7.1   | 7.1   | 17.0 | 34.0   |
| 65°   | 326.8  | 342.3  | 299.9  | 260.3  | 206.5  | 151.4  | 76.4   | 5.7   | 8.5   | 15.6 | 31.1   |
| 67.5° | 9.9    | 11.3   | 14.1   | 12.7   | 12.7   | 11.3   | 8.5    | 5.7   | 8.5   | 14.1 | 29.7   |
| 70°   | 7.1    | 7.1    | 7.1    | 7.1    | 7.1    | 5.7    | 5.7    | 5.7   | 7.1   | 12.7 | 26.9   |
| 72.5° | 5.7    | 5.7    | 5.7    | 5.7    | 5.7    | 5.7    | 5.7    | 5.7   | 7.1   | 11.3 | 24.0   |
| 75°   | 4.2    | 5.7    | 4.2    | 4.2    | 4.2    | 4.2    | 4.2    | 4.2   | 7.1   | 9.9  | 19.8   |
| 77.5° | 4.2    | 4.2    | 4.2    | 4.2    | 4.2    | 4.2    | 4.2    | 4.2   | 5.7   | 8.5  | 17.0   |
| 80°   | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 4.2   | 5.7   | 7.1  | 14.1   |
| 82.5° | 2.8    | 2.8    | 2.8    | 1.4    | 2.8    | 2.8    | 2.8    | 2.8   | 5.7   | 5.7  | 11.3   |
| 85°   | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 2.8   | 4.2   | 5.7  | 7.1    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 1.4    | 1.4    | 1.4    | 2.8   | 4.2   | 4.2  | 4.2    |
| 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):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 99.0 | 99.0   | 99.0 |
| 2.5°  | 93.4 | 93.4   | 93.4 |
| 5°    | 90.5 | 90.5   | 90.5 |
| 7.5°  | 87.7 | 87.7   | 87.7 |
| 10°   | 84.9 | 84.9   | 84.9 |
| 12.5° | 82.0 | 82.0   | 83.5 |
| 15°   | 77.8 | 80.6   | 80.6 |
| 17.5° | 75.0 | 77.8   | 79.2 |
| 20°   | 72.1 | 75.0   | 76.4 |
| 22.5° | 67.9 | 72.1   | 75.0 |
| 25°   | 65.1 | 70.7   | 72.1 |
| 27.5° | 62.2 | 69.3   | 72.1 |
| 30°   | 60.8 | 67.9   | 70.7 |
| 32.5° | 58.0 | 66.5   | 69.3 |
| 35°   | 56.6 | 66.5   | 69.3 |
| 37.5° | 56.6 | 65.1   | 69.3 |
| 40°   | 55.2 | 65.1   | 69.3 |
| 42.5° | 55.2 | 65.1   | 69.3 |
| 45°   | 55.2 | 65.1   | 69.3 |
| 47.5° | 53.8 | 65.1   | 70.7 |
| 50°   | 53.8 | 66.5   | 70.7 |
| 52.5° | 53.8 | 66.5   | 70.7 |
| 55°   | 53.8 | 66.5   | 69.3 |
| 57.5° | 52.3 | 65.1   | 69.3 |
| 60°   | 52.3 | 65.1   | 69.3 |
| 62.5° | 49.5 | 63.7   | 67.9 |
| 65°   | 48.1 | 62.2   | 66.5 |
| 67.5° | 45.3 | 60.8   | 63.7 |
| 70°   | 42.4 | 56.6   | 60.8 |
| 72.5° | 38.2 | 53.8   | 58.0 |
| 75°   | 34.0 | 49.5   | 52.3 |
| 77.5° | 29.7 | 43.9   | 46.7 |
| 80°   | 24.0 | 36.8   | 39.6 |
| 82.5° | 18.4 | 28.3   | 29.7 |
| 85°   | 12.7 | 18.4   | 19.8 |
| 87.5° | 5.7  | 8.5    | 9.9  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)