

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: P1317492

Luminaire Tested: P3SQAS20R709830D010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1317492  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-83)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS20R709830D010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R70 optic, 3000K CCT AND, 98CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

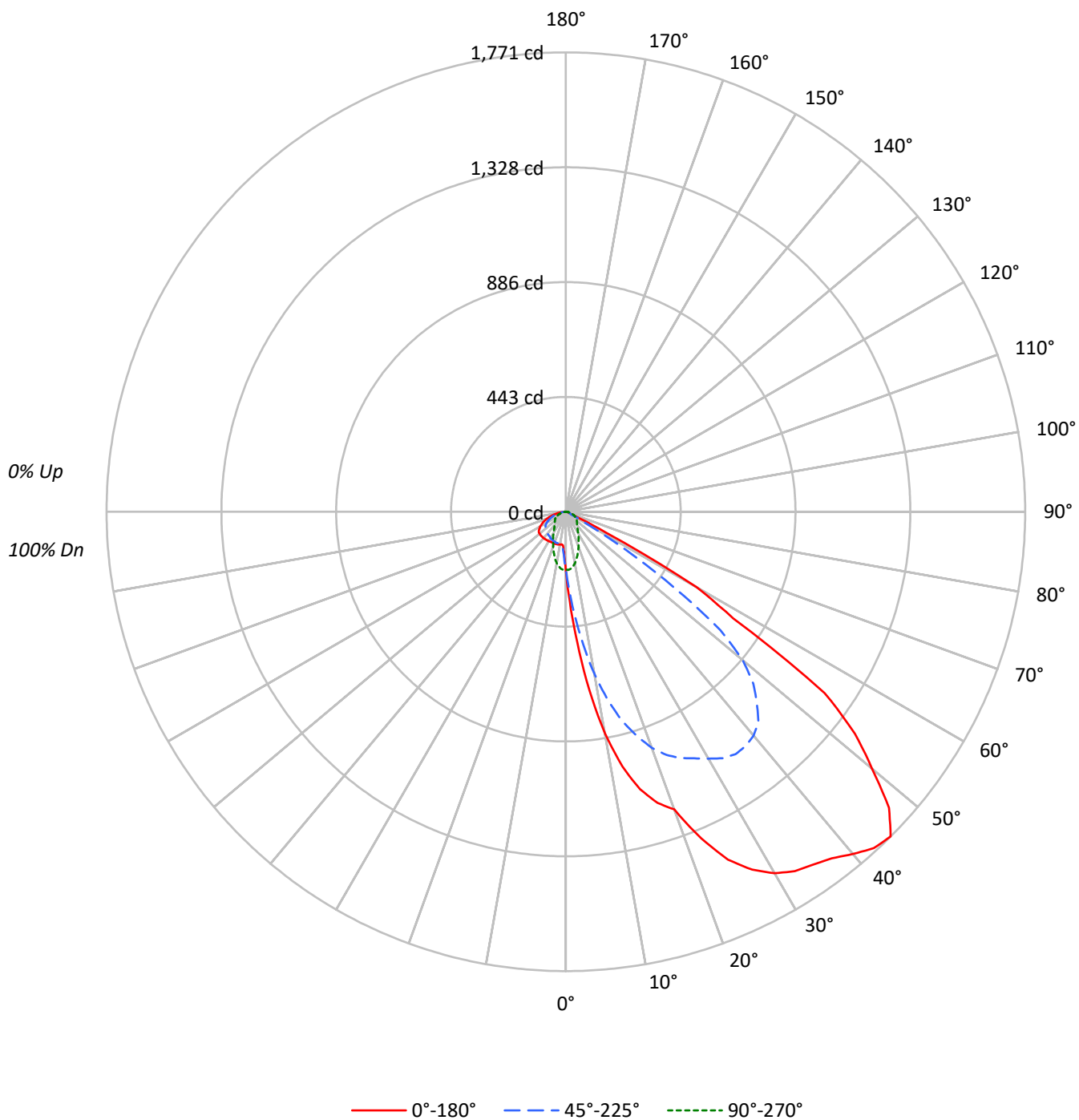
Lumens per Lamp: N/A  
Luminaire Lumens: 1530.0 lumens  
Efficiency: N/A  
Efficacy: 55.8 lumens/watt  
Spacing Criteria (0/90/45): 2.92 / 0.77 / 2.03  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 27.4  
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 | 103 | 99  | 108 | 104 | 101 | 98  | 100 | 97  | 95  |  | 96  | 94  | 92  |  | 93  | 91  | 89  | 87  |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 87  | 82  | 89  | 84  | 80  |  | 86  | 82  | 78  |  | 83  | 79  | 77  | 75  |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  |  | 76  | 71  | 67  |  | 74  | 69  | 66  | 64  |
| 4   | 85  | 74  | 66  | 59  | 83  | 72  | 65  | 59  | 70  | 63  | 58  |  | 68  | 62  | 57  |  | 66  | 61  | 57  | 54  |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 51  | 63  | 55  | 50  |  | 61  | 54  | 49  |  | 59  | 53  | 49  | 47  |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 43  |  | 54  | 48  | 43  |  | 53  | 47  | 43  | 41  |
| 7   | 66  | 53  | 44  | 38  | 65  | 52  | 44  | 38  | 51  | 43  | 38  |  | 49  | 43  | 38  |  | 48  | 42  | 37  | 35  |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  |  | 45  | 38  | 33  |  | 44  | 38  | 33  | 31  |
| 9   | 57  | 44  | 35  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  |  | 41  | 34  | 30  |  | 40  | 34  | 29  | 28  |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 27  | 38  | 31  | 27  |  | 37  | 31  | 26  |  | 37  | 31  | 26  | 25  |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 38388  | 38388  | 38388 | 38388 | 38388 |
| 5°  | 87357  | 69930  | 37999 | 24013 | 22440 |
| 10° | 151358 | 111048 | 35238 | 21895 | 22420 |
| 15° | 197590 | 148326 | 30756 | 22323 | 23143 |
| 20° | 223816 | 177374 | 26300 | 22653 | 24064 |
| 25° | 281087 | 198996 | 22043 | 22917 | 24665 |
| 30° | 319955 | 218573 | 18813 | 23367 | 26111 |
| 35° | 349175 | 239742 | 16378 | 23758 | 27605 |
| 40° | 387119 | 253261 | 15108 | 24708 | 29856 |
| 45° | 431271 | 253570 | 14881 | 26037 | 32345 |
| 50° | 413069 | 238432 | 14736 | 27409 | 35179 |
| 55° | 365748 | 154454 | 15133 | 28885 | 38043 |
| 60° | 200329 | 33136  | 15259 | 29450 | 39439 |
| 65° | 14304  | 8069   | 14915 | 29219 | 39814 |
| 70° | 6899   | 7704   | 13847 | 27695 | 38421 |
| 75° | 6122   | 8118   | 13175 | 26417 | 35533 |
| 80° | 6050   | 7538   | 12100 | 24200 | 33324 |
| 85° | 6126   | 9090   | 12054 | 21144 | 30233 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 431271 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 29.1   | 1.9       |
| 10°-20°   | 124.3  | 8.1       |
| 20°-30°   | 238.6  | 15.6      |
| 30°-40°   | 337.4  | 22.0      |
| 40°-50°   | 381.6  | 24.9      |
| 50°-60°   | 302.2  | 19.8      |
| 60°-70°   | 81.5   | 5.3       |
| 70°-80°   | 27.1   | 1.8       |
| 80°-90°   | 8.3    | 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°    | 392.0  | 25.6      |
| 0°-40°    | 729.3  | 47.7      |
| 0°-60°    | 1413.2 | 92.4      |
| 0°-90°    | 1530.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1530.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 223  | 223  | 223 | 223  | 223  |      |
| 5°  | 505  | 404  | 220 | 139  | 130  | 60   |
| 15° | 1108 | 832  | 172 | 125  | 130  | 312  |
| 25° | 1479 | 1047 | 116 | 121  | 130  | 678  |
| 35° | 1661 | 1140 | 78  | 113  | 131  | 1046 |
| 45° | 1771 | 1041 | 61  | 107  | 133  | 1325 |
| 55° | 1218 | 514  | 50  | 96   | 127  | 989  |
| 65° | 35   | 20   | 37  | 72   | 98   | 127  |
| 75° | 9    | 12   | 20  | 40   | 53   | 10   |
| 85° | 3    | 5    | 6   | 11   | 15   | 3    |
| 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°    | 222.9  | 222.9  | 222.9  | 222.9  | 222.9  | 222.9  | 222.9  | 222.9  | 222.9 | 222.9 | 222.9  |
| 2.5°  | 346.5  | 346.5  | 345.0  | 338.9  | 335.8  | 328.2  | 322.1  | 305.3  | 264.1 | 224.4 | 192.3  |
| 5°    | 505.3  | 512.9  | 502.2  | 500.7  | 491.5  | 477.8  | 468.6  | 404.5  | 305.3 | 219.8 | 164.9  |
| 7.5°  | 693.0  | 696.1  | 693.0  | 677.8  | 664.0  | 641.1  | 619.8  | 519.0  | 346.5 | 212.2 | 145.0  |
| 10°   | 865.5  | 860.9  | 851.8  | 841.1  | 821.2  | 796.8  | 760.2  | 635.0  | 386.2 | 201.5 | 132.8  |
| 12.5° | 1006.0 | 1004.4 | 993.7  | 983.1  | 958.6  | 926.6  | 889.9  | 740.3  | 419.8 | 187.8 | 126.7  |
| 15°   | 1108.2 | 1108.2 | 1097.5 | 1085.3 | 1062.4 | 1036.5 | 995.3  | 831.9  | 447.3 | 172.5 | 120.6  |
| 17.5° | 1176.9 | 1173.9 | 1166.2 | 1157.1 | 1138.8 | 1112.8 | 1080.8 | 905.2  | 465.6 | 157.2 | 119.1  |
| 20°   | 1221.2 | 1219.7 | 1213.6 | 1199.8 | 1184.6 | 1164.7 | 1135.7 | 967.8  | 473.2 | 143.5 | 117.5  |
| 22.5° | 1363.1 | 1350.9 | 1328.0 | 1299.0 | 1262.4 | 1215.1 | 1175.4 | 1015.1 | 470.2 | 128.2 | 114.5  |
| 25°   | 1479.2 | 1474.6 | 1450.2 | 1415.0 | 1366.2 | 1305.1 | 1239.5 | 1047.2 | 454.9 | 116.0 | 111.4  |
| 27.5° | 1555.5 | 1547.9 | 1525.0 | 1486.8 | 1434.9 | 1375.4 | 1314.3 | 1071.6 | 433.5 | 105.3 | 106.9  |
| 30°   | 1608.9 | 1604.3 | 1581.4 | 1538.7 | 1485.3 | 1419.6 | 1357.0 | 1099.1 | 404.5 | 94.6  | 102.3  |
| 32.5° | 1642.5 | 1637.9 | 1615.0 | 1576.9 | 1525.0 | 1456.3 | 1384.5 | 1126.5 | 369.4 | 85.5  | 97.7   |
| 35°   | 1660.8 | 1656.2 | 1630.3 | 1596.7 | 1547.9 | 1480.7 | 1404.4 | 1140.3 | 326.7 | 77.9  | 93.1   |
| 37.5° | 1683.7 | 1674.6 | 1639.4 | 1598.2 | 1549.4 | 1486.8 | 1410.5 | 1138.8 | 283.9 | 71.7  | 90.1   |
| 40°   | 1721.9 | 1697.4 | 1647.1 | 1592.1 | 1541.7 | 1479.2 | 1405.9 | 1126.5 | 236.6 | 67.2  | 87.0   |
| 42.5° | 1758.5 | 1723.4 | 1648.6 | 1583.0 | 1526.5 | 1465.4 | 1389.1 | 1099.1 | 184.7 | 64.1  | 85.5   |
| 45°   | 1770.7 | 1718.8 | 1627.2 | 1561.6 | 1508.2 | 1445.6 | 1366.2 | 1041.1 | 125.2 | 61.1  | 82.4   |
| 47.5° | 1689.8 | 1651.7 | 1575.3 | 1526.5 | 1476.1 | 1415.0 | 1332.6 | 980.0  | 71.7  | 58.0  | 79.4   |
| 50°   | 1541.7 | 1517.3 | 1474.6 | 1444.1 | 1416.6 | 1373.8 | 1292.9 | 889.9  | 42.7  | 55.0  | 76.3   |
| 52.5° | 1404.4 | 1396.7 | 1366.2 | 1341.8 | 1326.5 | 1306.7 | 1233.4 | 751.0  | 35.1  | 53.4  | 73.3   |
| 55°   | 1218.1 | 1193.7 | 1186.1 | 1176.9 | 1209.0 | 1207.4 | 1108.2 | 514.4  | 33.6  | 50.4  | 70.2   |
| 57.5° | 764.8  | 775.5  | 815.1  | 888.4  | 975.4  | 1025.8 | 1022.7 | 274.8  | 32.1  | 47.3  | 65.6   |
| 60°   | 581.6  | 580.1  | 592.3  | 622.8  | 686.9  | 758.7  | 825.8  | 96.2   | 30.5  | 44.3  | 62.6   |
| 62.5° | 174.0  | 178.6  | 215.2  | 316.0  | 378.6  | 467.1  | 425.9  | 22.9   | 29.0  | 39.7  | 56.5   |
| 65°   | 35.1   | 36.6   | 36.6   | 41.2   | 50.4   | 76.3   | 93.1   | 19.8   | 27.5  | 36.6  | 51.9   |
| 67.5° | 15.3   | 15.3   | 15.3   | 16.8   | 16.8   | 19.8   | 16.8   | 18.3   | 24.4  | 32.1  | 45.8   |
| 70°   | 13.7   | 13.7   | 13.7   | 13.7   | 13.7   | 13.7   | 15.3   | 15.3   | 21.4  | 27.5  | 39.7   |
| 72.5° | 10.7   | 10.7   | 10.7   | 12.2   | 12.2   | 12.2   | 12.2   | 13.7   | 18.3  | 22.9  | 33.6   |
| 75°   | 9.2    | 9.2    | 9.2    | 9.2    | 10.7   | 10.7   | 10.7   | 12.2   | 15.3  | 19.8  | 27.5   |
| 77.5° | 7.6    | 7.6    | 7.6    | 7.6    | 7.6    | 9.2    | 9.2    | 9.2    | 12.2  | 15.3  | 22.9   |
| 80°   | 6.1    | 6.1    | 6.1    | 6.1    | 6.1    | 6.1    | 6.1    | 7.6    | 9.2   | 12.2  | 16.8   |
| 82.5° | 4.6    | 4.6    | 4.6    | 4.6    | 4.6    | 4.6    | 4.6    | 6.1    | 7.6   | 9.2   | 12.2   |
| 85°   | 3.1    | 3.1    | 3.1    | 3.1    | 3.1    | 3.1    | 3.1    | 4.6    | 4.6   | 6.1   | 7.6    |
| 87.5° | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 3.1    | 3.1   | 3.1   | 4.6    |
| 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°    | 222.9 | 222.9  | 222.9 |
| 2.5°  | 169.4 | 160.3  | 155.7 |
| 5°    | 138.9 | 131.3  | 129.8 |
| 7.5°  | 128.2 | 126.7  | 126.7 |
| 10°   | 125.2 | 126.7  | 128.2 |
| 12.5° | 125.2 | 128.2  | 129.8 |
| 15°   | 125.2 | 128.2  | 129.8 |
| 17.5° | 125.2 | 128.2  | 129.8 |
| 20°   | 123.6 | 128.2  | 131.3 |
| 22.5° | 122.1 | 128.2  | 129.8 |
| 25°   | 120.6 | 128.2  | 129.8 |
| 27.5° | 119.1 | 126.7  | 129.8 |
| 30°   | 117.5 | 126.7  | 131.3 |
| 32.5° | 114.5 | 126.7  | 131.3 |
| 35°   | 113.0 | 126.7  | 131.3 |
| 37.5° | 111.4 | 126.7  | 132.8 |
| 40°   | 109.9 | 126.7  | 132.8 |
| 42.5° | 108.4 | 126.7  | 132.8 |
| 45°   | 106.9 | 125.2  | 132.8 |
| 47.5° | 103.8 | 125.2  | 132.8 |
| 50°   | 102.3 | 123.6  | 131.3 |
| 52.5° | 99.2  | 122.1  | 131.3 |
| 55°   | 96.2  | 119.1  | 126.7 |
| 57.5° | 91.6  | 114.5  | 120.6 |
| 60°   | 85.5  | 108.4  | 114.5 |
| 62.5° | 77.9  | 100.7  | 105.3 |
| 65°   | 71.7  | 91.6   | 97.7  |
| 67.5° | 62.6  | 80.9   | 87.0  |
| 70°   | 55.0  | 70.2   | 76.3  |
| 72.5° | 47.3  | 59.5   | 65.6  |
| 75°   | 39.7  | 48.8   | 53.4  |
| 77.5° | 30.5  | 39.7   | 42.7  |
| 80°   | 24.4  | 30.5   | 33.6  |
| 82.5° | 16.8  | 21.4   | 22.9  |
| 85°   | 10.7  | 13.7   | 15.3  |
| 87.5° | 4.6   | 6.1    | 6.1   |
| 90°   | 0.0   | 0.0    | 0.0   |

(END OF REPORT)