

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: P1311852

Luminaire Tested: P3SQAS24R709050D010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1311852  
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: P3SQAS24R709050D010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R70 optic, 5000K CCT AND, 90CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

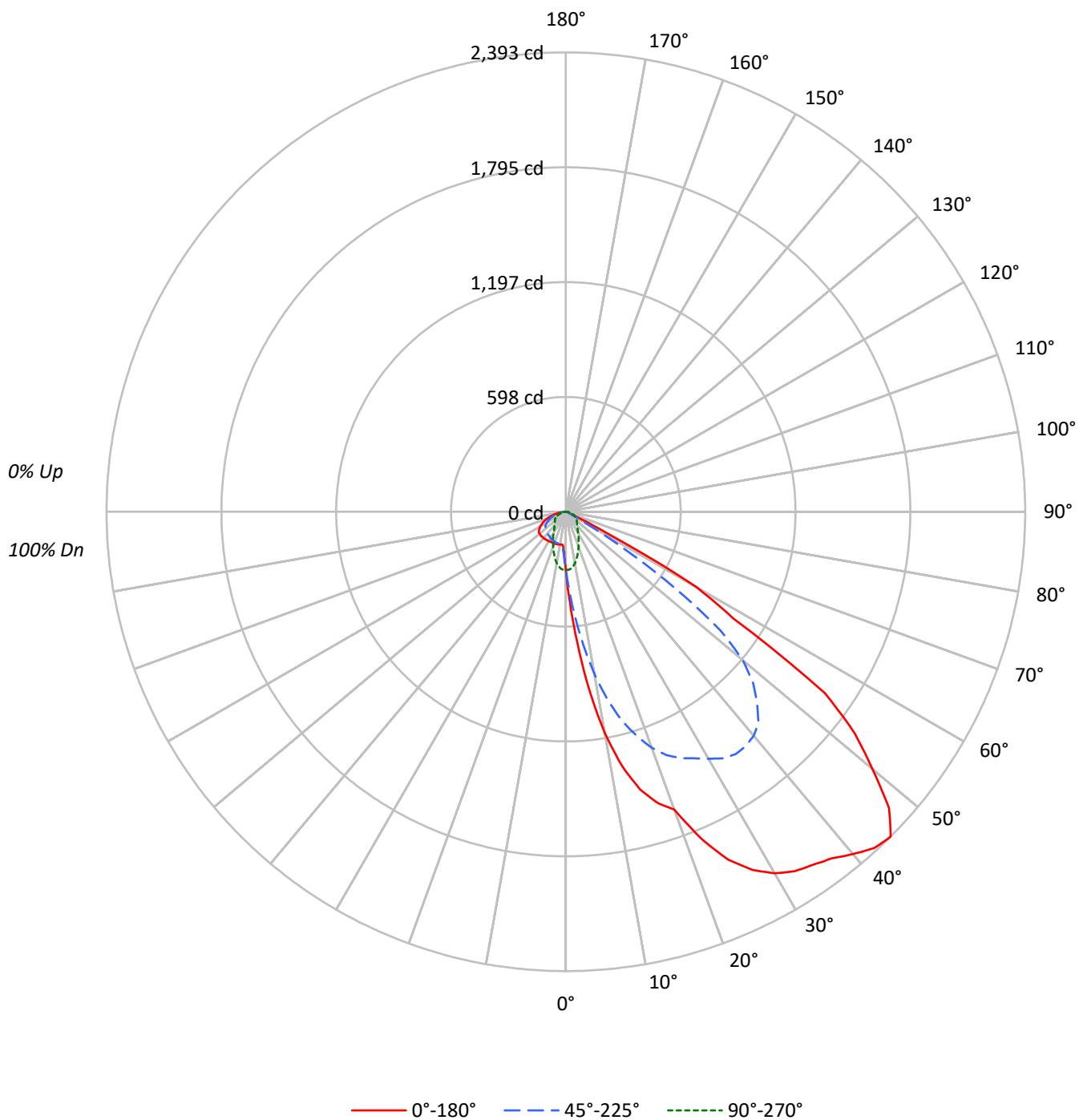
Lumens per Lamp: N/A  
Luminaire Lumens: 2068.0 lumens  
Efficiency: N/A  
Efficacy: 71.8 lumens/watt  
Spacing Criteria (0/90/45): 2.92 / 0.77 / 2.03  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 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  |     |    | 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 | 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°  | 51873  | 51873  | 51873 | 51873 | 51873 |
| 5°  | 118060 | 94531  | 51363 | 32467 | 30323 |
| 10° | 204591 | 150099 | 47620 | 29590 | 30307 |
| 15° | 267073 | 200496 | 41561 | 30168 | 31273 |
| 20° | 302515 | 239743 | 35537 | 30625 | 32513 |
| 25° | 379920 | 268964 | 29796 | 30974 | 33331 |
| 30° | 432473 | 295415 | 25435 | 31600 | 35279 |
| 35° | 471958 | 324030 | 22118 | 32104 | 37297 |
| 40° | 523225 | 342334 | 20414 | 33408 | 40355 |
| 45° | 582936 | 342713 | 20094 | 35170 | 43719 |
| 50° | 558341 | 322294 | 19907 | 37028 | 47531 |
| 55° | 494380 | 208771 | 20448 | 39034 | 51405 |
| 60° | 270768 | 44778  | 20598 | 39783 | 53286 |
| 65° | 19357  | 10921  | 20172 | 39529 | 53792 |
| 70° | 9366   | 10373  | 18682 | 37413 | 51966 |
| 75° | 8251   | 10979  | 17833 | 35666 | 48043 |
| 80° | 8232   | 10215  | 16365 | 32729 | 45027 |
| 85° | 8102   | 12251  | 16401 | 28455 | 40706 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 582936 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 39.3   | 1.9       |
| 10°-20°   | 168.1  | 8.1       |
| 20°-30°   | 322.4  | 15.6      |
| 30°-40°   | 456.0  | 22.0      |
| 40°-50°   | 515.8  | 24.9      |
| 50°-60°   | 408.5  | 19.8      |
| 60°-70°   | 110.1  | 5.3       |
| 70°-80°   | 36.6   | 1.8       |
| 80°-90°   | 11.2   | 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°    | 529.8  | 25.6      |
| 0°-40°    | 985.8  | 47.7      |
| 0°-60°    | 1910.1 | 92.4      |
| 0°-90°    | 2068.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2068.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 301  | 301  | 301 | 301  | 301  |      |
| 5°  | 683  | 547  | 297 | 188  | 175  | 81   |
| 15° | 1498 | 1124 | 233 | 169  | 175  | 422  |
| 25° | 1999 | 1415 | 157 | 163  | 175  | 916  |
| 35° | 2245 | 1541 | 105 | 153  | 177  | 1414 |
| 45° | 2393 | 1407 | 82  | 144  | 180  | 1791 |
| 55° | 1646 | 695  | 68  | 130  | 171  | 1336 |
| 65° | 48   | 27   | 50  | 97   | 132  | 171  |
| 75° | 12   | 16   | 27  | 54   | 72   | 13   |
| 85° | 4    | 6    | 8   | 14   | 21   | 5    |
| 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°    | 301.2  | 301.2  | 301.2  | 301.2  | 301.2  | 301.2  | 301.2  | 301.2  | 301.2 | 301.2 | 301.2  |
| 2.5°  | 468.4  | 468.4  | 466.3  | 458.0  | 453.9  | 443.6  | 435.3  | 412.6  | 356.9 | 303.3 | 260.0  |
| 5°    | 682.9  | 693.3  | 678.8  | 676.7  | 664.4  | 645.8  | 633.4  | 546.8  | 412.6 | 297.1 | 222.8  |
| 7.5°  | 936.7  | 940.8  | 936.7  | 916.1  | 897.5  | 866.6  | 837.7  | 701.5  | 468.4 | 286.8 | 196.0  |
| 10°   | 1169.9 | 1163.7 | 1151.3 | 1136.8 | 1110.0 | 1077.0 | 1027.5 | 858.3  | 522.0 | 272.3 | 179.5  |
| 12.5° | 1359.7 | 1357.6 | 1343.2 | 1328.7 | 1295.7 | 1252.4 | 1202.9 | 1000.7 | 567.4 | 253.8 | 171.2  |
| 15°   | 1497.9 | 1497.9 | 1483.5 | 1467.0 | 1436.0 | 1400.9 | 1345.2 | 1124.5 | 604.5 | 233.1 | 163.0  |
| 17.5° | 1590.8 | 1586.6 | 1576.3 | 1563.9 | 1539.2 | 1504.1 | 1460.8 | 1223.5 | 629.3 | 212.5 | 160.9  |
| 20°   | 1650.6 | 1648.5 | 1640.3 | 1621.7 | 1601.1 | 1574.3 | 1535.1 | 1308.1 | 639.6 | 193.9 | 158.9  |
| 22.5° | 1842.5 | 1826.0 | 1795.0 | 1755.8 | 1706.3 | 1642.3 | 1588.7 | 1372.1 | 635.5 | 173.3 | 154.7  |
| 25°   | 1999.3 | 1993.1 | 1960.1 | 1912.6 | 1846.6 | 1764.1 | 1675.4 | 1415.4 | 614.8 | 156.8 | 150.6  |
| 27.5° | 2102.4 | 2092.1 | 2061.2 | 2009.6 | 1939.5 | 1859.0 | 1776.5 | 1448.4 | 586.0 | 142.4 | 144.4  |
| 30°   | 2174.7 | 2168.5 | 2137.5 | 2079.8 | 2007.5 | 1918.8 | 1834.2 | 1485.5 | 546.8 | 127.9 | 138.2  |
| 32.5° | 2220.1 | 2213.9 | 2182.9 | 2131.3 | 2061.2 | 1968.3 | 1871.4 | 1522.7 | 499.3 | 115.5 | 132.0  |
| 35°   | 2244.8 | 2238.6 | 2203.5 | 2158.2 | 2092.1 | 2001.3 | 1898.2 | 1541.2 | 441.5 | 105.2 | 125.9  |
| 37.5° | 2275.8 | 2263.4 | 2215.9 | 2160.2 | 2094.2 | 2009.6 | 1906.4 | 1539.2 | 383.8 | 97.0  | 121.7  |
| 40°   | 2327.3 | 2294.3 | 2226.2 | 2152.0 | 2083.9 | 1999.3 | 1900.3 | 1522.7 | 319.8 | 90.8  | 117.6  |
| 42.5° | 2376.9 | 2329.4 | 2228.3 | 2139.6 | 2063.2 | 1980.7 | 1877.6 | 1485.5 | 249.7 | 86.7  | 115.5  |
| 45°   | 2393.4 | 2323.2 | 2199.4 | 2110.7 | 2038.5 | 1953.9 | 1846.6 | 1407.1 | 169.2 | 82.5  | 111.4  |
| 47.5° | 2284.0 | 2232.4 | 2129.3 | 2063.2 | 1995.2 | 1912.6 | 1801.2 | 1324.6 | 97.0  | 78.4  | 107.3  |
| 50°   | 2083.9 | 2050.9 | 1993.1 | 1951.8 | 1914.7 | 1856.9 | 1747.6 | 1202.9 | 57.8  | 74.3  | 103.2  |
| 52.5° | 1898.2 | 1887.9 | 1846.6 | 1813.6 | 1793.0 | 1766.1 | 1667.1 | 1015.1 | 47.5  | 72.2  | 99.0   |
| 55°   | 1646.5 | 1613.5 | 1603.1 | 1590.8 | 1634.1 | 1632.0 | 1497.9 | 695.3  | 45.4  | 68.1  | 94.9   |
| 57.5° | 1033.7 | 1048.1 | 1101.8 | 1200.8 | 1318.4 | 1386.5 | 1382.4 | 371.4  | 43.3  | 64.0  | 88.7   |
| 60°   | 786.1  | 784.0  | 800.5  | 841.8  | 928.5  | 1025.4 | 1116.2 | 130.0  | 41.3  | 59.8  | 84.6   |
| 62.5° | 235.2  | 241.4  | 290.9  | 427.1  | 511.7  | 631.4  | 575.6  | 30.9   | 39.2  | 53.6  | 76.3   |
| 65°   | 47.5   | 49.5   | 49.5   | 55.7   | 68.1   | 103.2  | 125.9  | 26.8   | 37.1  | 49.5  | 70.2   |
| 67.5° | 20.6   | 20.6   | 20.6   | 22.7   | 22.7   | 26.8   | 22.7   | 24.8   | 33.0  | 43.3  | 61.9   |
| 70°   | 18.6   | 18.6   | 18.6   | 18.6   | 18.6   | 18.6   | 20.6   | 20.6   | 28.9  | 37.1  | 53.6   |
| 72.5° | 14.4   | 14.4   | 14.4   | 16.5   | 16.5   | 16.5   | 16.5   | 18.6   | 24.8  | 30.9  | 45.4   |
| 75°   | 12.4   | 12.4   | 12.4   | 12.4   | 14.4   | 14.4   | 14.4   | 16.5   | 20.6  | 26.8  | 37.1   |
| 77.5° | 10.3   | 10.3   | 10.3   | 10.3   | 10.3   | 12.4   | 12.4   | 12.4   | 16.5  | 20.6  | 30.9   |
| 80°   | 8.3    | 8.3    | 8.3    | 8.3    | 8.3    | 8.3    | 8.3    | 10.3   | 12.4  | 16.5  | 22.7   |
| 82.5° | 6.2    | 6.2    | 6.2    | 6.2    | 6.2    | 6.2    | 6.2    | 8.3    | 10.3  | 12.4  | 16.5   |
| 85°   | 4.1    | 4.1    | 4.1    | 4.1    | 4.1    | 4.1    | 4.1    | 6.2    | 6.2   | 8.3   | 10.3   |
| 87.5° | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 4.1    | 4.1   | 4.1   | 6.2    |
| 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°    | 301.2 | 301.2  | 301.2 |
| 2.5°  | 229.0 | 216.6  | 210.5 |
| 5°    | 187.8 | 177.4  | 175.4 |
| 7.5°  | 173.3 | 171.2  | 171.2 |
| 10°   | 169.2 | 171.2  | 173.3 |
| 12.5° | 169.2 | 173.3  | 175.4 |
| 15°   | 169.2 | 173.3  | 175.4 |
| 17.5° | 169.2 | 173.3  | 175.4 |
| 20°   | 167.1 | 173.3  | 177.4 |
| 22.5° | 165.1 | 173.3  | 175.4 |
| 25°   | 163.0 | 173.3  | 175.4 |
| 27.5° | 160.9 | 171.2  | 175.4 |
| 30°   | 158.9 | 171.2  | 177.4 |
| 32.5° | 154.7 | 171.2  | 177.4 |
| 35°   | 152.7 | 171.2  | 177.4 |
| 37.5° | 150.6 | 171.2  | 179.5 |
| 40°   | 148.6 | 171.2  | 179.5 |
| 42.5° | 146.5 | 171.2  | 179.5 |
| 45°   | 144.4 | 169.2  | 179.5 |
| 47.5° | 140.3 | 169.2  | 179.5 |
| 50°   | 138.2 | 167.1  | 177.4 |
| 52.5° | 134.1 | 165.1  | 177.4 |
| 55°   | 130.0 | 160.9  | 171.2 |
| 57.5° | 123.8 | 154.7  | 163.0 |
| 60°   | 115.5 | 146.5  | 154.7 |
| 62.5° | 105.2 | 136.2  | 142.4 |
| 65°   | 97.0  | 123.8  | 132.0 |
| 67.5° | 84.6  | 109.4  | 117.6 |
| 70°   | 74.3  | 94.9   | 103.2 |
| 72.5° | 64.0  | 80.5   | 88.7  |
| 75°   | 53.6  | 66.0   | 72.2  |
| 77.5° | 41.3  | 53.6   | 57.8  |
| 80°   | 33.0  | 41.3   | 45.4  |
| 82.5° | 22.7  | 28.9   | 30.9  |
| 85°   | 14.4  | 18.6   | 20.6  |
| 87.5° | 6.2   | 8.3    | 8.3   |
| 90°   | 0.0   | 0.0    | 0.0   |

(END OF REPORT)