

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: P1306263

Luminaire Tested: P3SQASS20R459024D010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1306263  
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: P3SQASS20R459024D010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R45 optic, 2400K CCT AND, 90CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

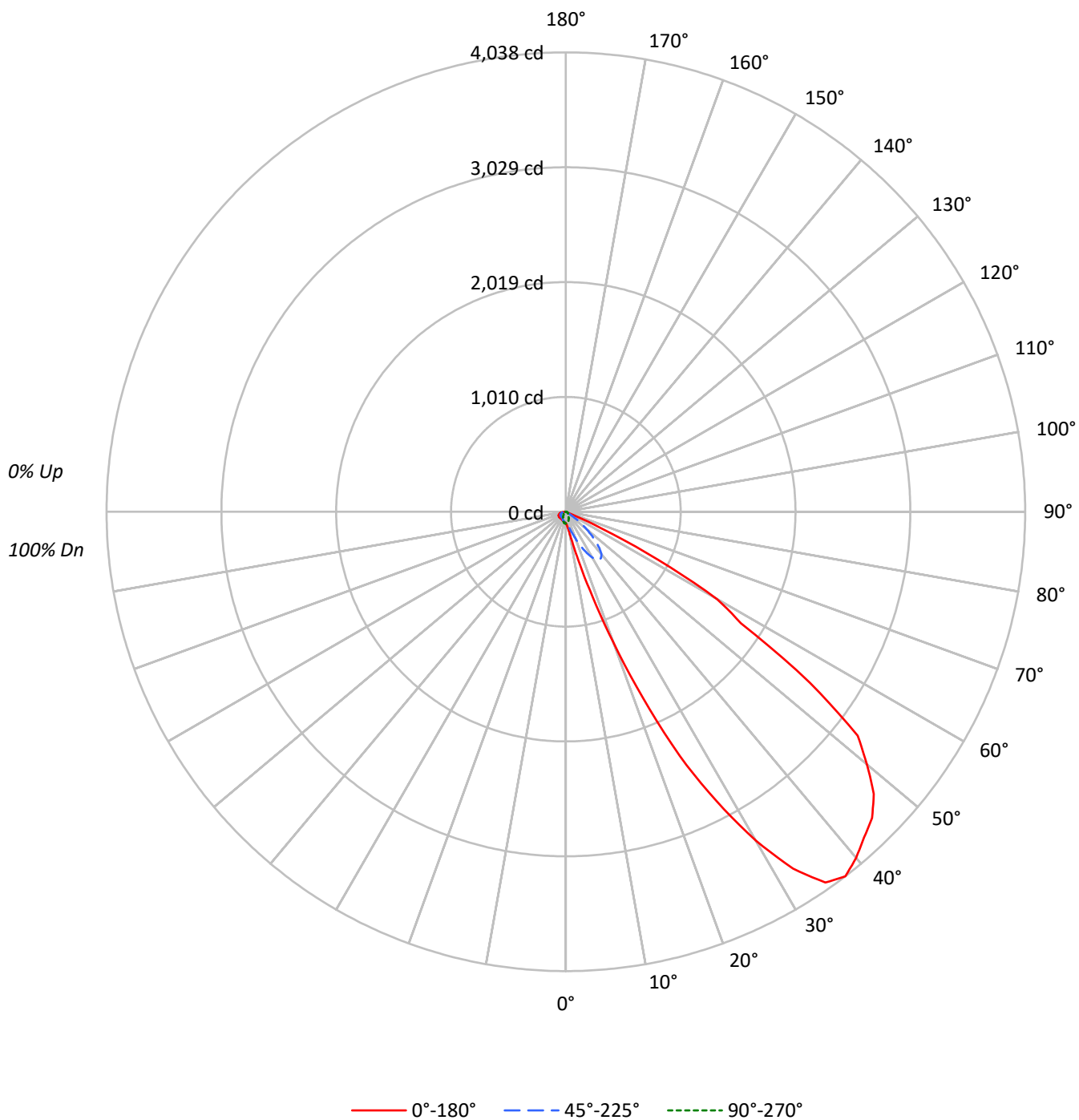
Lumens per Lamp: N/A  
Luminaire Lumens: 1804.0 lumens  
Efficiency: N/A  
Efficacy: 62.6 lumens/watt  
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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

TEST NUMBER: P1306263

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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  | 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 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 88  | 86  |    |    |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 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  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |    |    |
| 5   | 76  | 63  | 53  | 47  | 73  | 61  | 53  | 46  | 59  | 52  | 46  | 57  | 51  | 45  | 55  | 50  | 45  | 43  |    |    |
| 6   | 69  | 55  | 46  | 39  | 67  | 54  | 46  | 39  | 52  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 38  | 36  |    |    |
| 7   | 63  | 49  | 40  | 34  | 61  | 48  | 40  | 33  | 47  | 39  | 33  | 45  | 38  | 33  | 44  | 37  | 33  | 31  |    |    |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 42  | 34  | 29  | 40  | 33  | 28  | 39  | 33  | 28  | 26  |    |    |
| 9   | 53  | 39  | 31  | 25  | 52  | 39  | 30  | 25  | 38  | 30  | 25  | 36  | 29  | 25  | 35  | 29  | 24  | 22  |    |    |
| 10  | 49  | 36  | 27  | 22  | 48  | 35  | 27  | 22  | 34  | 27  | 21  | 33  | 26  | 21  | 32  | 26  | 21  | 19  |    |    |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 17963  | 17963  | 17963 | 17963 | 17963 |
| 5°  | 21385  | 19847  | 17789 | 16493 | 16493 |
| 10° | 34154  | 23207  | 16683 | 15634 | 15634 |
| 15° | 85048  | 31095  | 15155 | 14620 | 15155 |
| 20° | 224018 | 46442  | 13104 | 13929 | 14754 |
| 25° | 449812 | 68828  | 11326 | 13036 | 14442 |
| 30° | 663117 | 92194  | 9188  | 12747 | 14815 |
| 35° | 836439 | 108129 | 7842  | 12531 | 15348 |
| 40° | 892426 | 109240 | 7037  | 13062 | 16412 |
| 45° | 927231 | 91116  | 6527  | 14151 | 17780 |
| 50° | 925755 | 63500  | 6377  | 15165 | 19961 |
| 55° | 786834 | 28195  | 6726  | 16995 | 21919 |
| 60° | 528827 | 5649   | 6682  | 19013 | 25145 |
| 65° | 140307 | 2445   | 6683  | 20661 | 28567 |
| 70° | 3777   | 3021   | 6748  | 22508 | 32277 |
| 75° | 2994   | 2994   | 6920  | 23822 | 36731 |
| 80° | 2975   | 4463   | 7438  | 25092 | 41358 |
| 85° | 2964   | 5928   | 11856 | 26479 | 41299 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 951113 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 10.4   | 0.6       |
| 10°-20°   | 50.9   | 2.8       |
| 20°-30°   | 209.9  | 11.6      |
| 30°-40°   | 442.3  | 24.5      |
| 40°-50°   | 545.7  | 30.2      |
| 50°-60°   | 409.0  | 22.7      |
| 60°-70°   | 105.3  | 5.8       |
| 70°-80°   | 21.8   | 1.2       |
| 80°-90°   | 8.9    | 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°    | 271.1  | 15.0      |
| 0°-40°    | 713.4  | 39.5      |
| 0°-60°    | 1668.1 | 92.5      |
| 0°-90°    | 1804.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1804.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 104  | 104 | 104 | 104  | 104  |      |
| 5°  | 124  | 115 | 103 | 95   | 95   | 14   |
| 15° | 477  | 174 | 85  | 82   | 85   | 174  |
| 25° | 2367 | 362 | 60  | 69   | 76   | 1103 |
| 35° | 3978 | 514 | 37  | 60   | 73   | 2424 |
| 45° | 3807 | 374 | 27  | 58   | 73   | 2913 |
| 55° | 2620 | 94  | 22  | 57   | 73   | 2263 |
| 65° | 344  | 6   | 16  | 51   | 70   | 496  |
| 75° | 4    | 4   | 10  | 36   | 55   | 5    |
| 85° | 2    | 3   | 6   | 13   | 21   | 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°    | 104.3  | 104.3  | 104.3  | 104.3  | 104.3  | 104.3  | 104.3  | 104.3 | 104.3 | 104.3 | 104.3  |
| 2.5°  | 110.3  | 110.3  | 110.3  | 110.3  | 110.3  | 110.3  | 110.3  | 108.8 | 107.3 | 104.3 | 101.4  |
| 5°    | 123.7  | 122.2  | 122.2  | 122.2  | 120.7  | 119.2  | 119.2  | 114.8 | 108.8 | 102.9 | 98.4   |
| 7.5°  | 146.1  | 146.1  | 144.6  | 141.6  | 140.1  | 137.1  | 134.2  | 122.2 | 108.8 | 99.9  | 93.9   |
| 10°   | 195.3  | 192.3  | 187.8  | 184.8  | 177.4  | 166.9  | 159.5  | 132.7 | 107.3 | 95.4  | 90.9   |
| 12.5° | 292.2  | 298.1  | 283.2  | 268.3  | 247.4  | 228.1  | 204.2  | 150.6 | 107.3 | 90.9  | 86.5   |
| 15°   | 477.0  | 487.4  | 459.1  | 429.3  | 378.6  | 330.9  | 286.2  | 174.4 | 104.3 | 85.0  | 80.5   |
| 17.5° | 779.6  | 793.0  | 745.3  | 675.2  | 596.2  | 500.8  | 418.9  | 207.2 | 101.4 | 79.0  | 76.0   |
| 20°   | 1222.3 | 1220.8 | 1128.4 | 1040.4 | 888.4  | 748.3  | 594.8  | 253.4 | 96.9  | 71.5  | 71.5   |
| 22.5° | 1766.4 | 1772.3 | 1659.0 | 1501.0 | 1284.9 | 1059.8 | 815.4  | 307.1 | 90.9  | 65.6  | 67.1   |
| 25°   | 2367.1 | 2316.4 | 2182.2 | 1990.0 | 1714.2 | 1402.7 | 1080.7 | 362.2 | 85.0  | 59.6  | 62.6   |
| 27.5° | 2867.9 | 2818.7 | 2665.2 | 2437.1 | 2140.5 | 1770.8 | 1350.5 | 417.4 | 77.5  | 53.7  | 58.1   |
| 30°   | 3334.5 | 3271.9 | 3087.0 | 2829.2 | 2475.9 | 2076.4 | 1603.9 | 463.6 | 68.6  | 46.2  | 53.7   |
| 32.5° | 3719.1 | 3662.4 | 3452.2 | 3152.6 | 2768.0 | 2338.8 | 1818.5 | 499.4 | 59.6  | 41.7  | 50.7   |
| 35°   | 3978.4 | 3920.3 | 3726.5 | 3397.1 | 2978.2 | 2529.6 | 1992.9 | 514.3 | 52.2  | 37.3  | 49.2   |
| 37.5° | 4038.0 | 4006.7 | 3868.1 | 3559.6 | 3122.8 | 2651.8 | 2104.7 | 509.8 | 43.2  | 34.3  | 46.2   |
| 40°   | 3969.5 | 3976.9 | 3911.3 | 3655.0 | 3200.3 | 2704.0 | 2150.9 | 485.9 | 35.8  | 31.3  | 44.7   |
| 42.5° | 3881.5 | 3900.9 | 3896.4 | 3693.7 | 3233.1 | 2706.9 | 2131.6 | 438.2 | 28.3  | 28.3  | 43.2   |
| 45°   | 3807.0 | 3826.4 | 3853.2 | 3677.3 | 3210.8 | 2668.2 | 2070.4 | 374.1 | 20.9  | 26.8  | 43.2   |
| 47.5° | 3671.4 | 3692.2 | 3731.0 | 3546.1 | 3097.5 | 2568.3 | 1960.1 | 304.1 | 14.9  | 25.3  | 41.7   |
| 50°   | 3455.2 | 3465.6 | 3455.2 | 3248.0 | 2879.8 | 2407.3 | 1781.3 | 237.0 | 10.4  | 23.8  | 41.7   |
| 52.5° | 3233.1 | 3212.2 | 3125.8 | 2863.4 | 2534.0 | 2152.4 | 1556.2 | 168.4 | 7.5   | 22.4  | 40.2   |
| 55°   | 2620.5 | 2587.7 | 2523.6 | 2362.6 | 2174.8 | 1839.4 | 1258.1 | 93.9  | 7.5   | 22.4  | 38.8   |
| 57.5° | 1826.0 | 1843.9 | 1866.2 | 1833.4 | 1747.0 | 1448.9 | 955.5  | 41.7  | 7.5   | 20.9  | 38.8   |
| 60°   | 1535.3 | 1520.4 | 1521.9 | 1501.0 | 1357.9 | 1056.8 | 657.4  | 16.4  | 7.5   | 19.4  | 37.3   |
| 62.5° | 916.7  | 927.2  | 946.5  | 951.0  | 809.4  | 590.3  | 344.3  | 7.5   | 7.5   | 17.9  | 35.8   |
| 65°   | 344.3  | 360.7  | 316.0  | 274.3  | 217.6  | 159.5  | 80.5   | 6.0   | 8.9   | 16.4  | 32.8   |
| 67.5° | 10.4   | 11.9   | 14.9   | 13.4   | 13.4   | 11.9   | 8.9    | 6.0   | 8.9   | 14.9  | 31.3   |
| 70°   | 7.5    | 7.5    | 7.5    | 7.5    | 7.5    | 6.0    | 6.0    | 6.0   | 7.5   | 13.4  | 28.3   |
| 72.5° | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    | 6.0    | 6.0   | 7.5   | 11.9  | 25.3   |
| 75°   | 4.5    | 6.0    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5   | 7.5   | 10.4  | 20.9   |
| 77.5° | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5   | 6.0   | 8.9   | 17.9   |
| 80°   | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 4.5   | 6.0   | 7.5   | 14.9   |
| 82.5° | 3.0    | 3.0    | 3.0    | 1.5    | 3.0    | 3.0    | 3.0    | 3.0   | 6.0   | 6.0   | 11.9   |
| 85°   | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 3.0   | 4.5   | 6.0   | 7.5    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 1.5    | 1.5    | 1.5    | 3.0   | 4.5   | 4.5   | 4.5    |
| 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°    | 104.3 | 104.3  | 104.3 |
| 2.5°  | 98.4  | 98.4   | 98.4  |
| 5°    | 95.4  | 95.4   | 95.4  |
| 7.5°  | 92.4  | 92.4   | 92.4  |
| 10°   | 89.4  | 89.4   | 89.4  |
| 12.5° | 86.5  | 86.5   | 87.9  |
| 15°   | 82.0  | 85.0   | 85.0  |
| 17.5° | 79.0  | 82.0   | 83.5  |
| 20°   | 76.0  | 79.0   | 80.5  |
| 22.5° | 71.5  | 76.0   | 79.0  |
| 25°   | 68.6  | 74.5   | 76.0  |
| 27.5° | 65.6  | 73.0   | 76.0  |
| 30°   | 64.1  | 71.5   | 74.5  |
| 32.5° | 61.1  | 70.1   | 73.0  |
| 35°   | 59.6  | 70.1   | 73.0  |
| 37.5° | 59.6  | 68.6   | 73.0  |
| 40°   | 58.1  | 68.6   | 73.0  |
| 42.5° | 58.1  | 68.6   | 73.0  |
| 45°   | 58.1  | 68.6   | 73.0  |
| 47.5° | 56.6  | 68.6   | 74.5  |
| 50°   | 56.6  | 70.1   | 74.5  |
| 52.5° | 56.6  | 70.1   | 74.5  |
| 55°   | 56.6  | 70.1   | 73.0  |
| 57.5° | 55.2  | 68.6   | 73.0  |
| 60°   | 55.2  | 68.6   | 73.0  |
| 62.5° | 52.2  | 67.1   | 71.5  |
| 65°   | 50.7  | 65.6   | 70.1  |
| 67.5° | 47.7  | 64.1   | 67.1  |
| 70°   | 44.7  | 59.6   | 64.1  |
| 72.5° | 40.2  | 56.6   | 61.1  |
| 75°   | 35.8  | 52.2   | 55.2  |
| 77.5° | 31.3  | 46.2   | 49.2  |
| 80°   | 25.3  | 38.8   | 41.7  |
| 82.5° | 19.4  | 29.8   | 31.3  |
| 85°   | 13.4  | 19.4   | 20.9  |
| 87.5° | 6.0   | 8.9    | 10.4  |
| 90°   | 0.0   | 0.0    | 0.0   |

(END OF REPORT)