

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: P1305799

Luminaire Tested: P3SQASS09R509024DE010 E3SQCA451MB

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1305799  
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: P3SQASS09R509024DE010 E3SQCA451MB  
Description: 3in Adjustable LED luminaire with, R50 optic, 2400K CCT AND, 90CRI , E3SQCA451MB TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

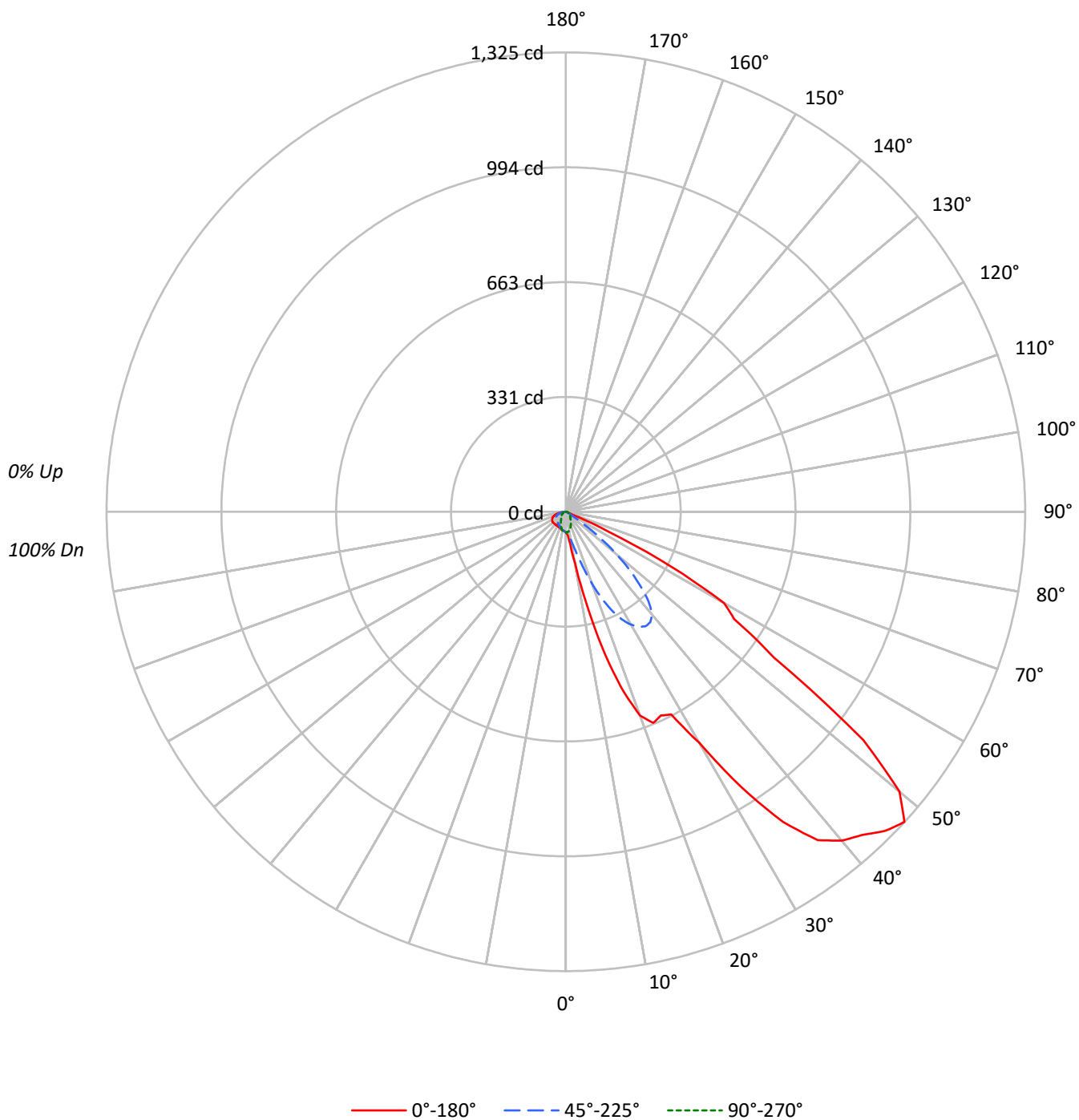
Lumens per Lamp: N/A  
Luminaire Lumens: 747.0 lumens  
Efficiency: N/A  
Efficacy: 67.3 lumens/watt  
Spacing Criteria (0/90/45): 3.58 / 0.82 / 1.91  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.1  
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 | 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  | 56  | 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°  | 10230  | 10230 | 10230 | 10230 | 10230 |
| 5°  | 12153  | 11376 | 10148 | 9699  | 9595  |
| 10° | 26179  | 14113 | 9706  | 9374  | 9478  |
| 15° | 72478  | 23125 | 8737  | 8968  | 9325  |
| 20° | 114584 | 40559 | 7569  | 8632  | 9109  |
| 25° | 123213 | 59592 | 6499  | 8342  | 9197  |
| 30° | 152948 | 74813 | 5648  | 8213  | 9486  |
| 35° | 229524 | 84645 | 4878  | 8284  | 10029 |
| 40° | 278373 | 87028 | 4362  | 8566  | 10589 |
| 45° | 317115 | 74651 | 4238  | 9109  | 11618 |
| 50° | 336575 | 51523 | 4314  | 9860  | 12968 |
| 55° | 219881 | 20718 | 4264  | 10659 | 14322 |
| 60° | 181350 | 3548  | 4237  | 11573 | 15776 |
| 65° | 54688  | 1834  | 3953  | 12348 | 17360 |
| 70° | 2266   | 1964  | 3877  | 12689 | 18833 |
| 75° | 2129   | 2129  | 3859  | 12909 | 20628 |
| 80° | 1884   | 1884  | 3868  | 12794 | 21125 |
| 85° | 1186   | 2569  | 5138  | 12844 | 20353 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 47.5°

Luminance: 337669 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 6.2    | 0.8       |
| 10°-20°   | 35.4   | 4.7       |
| 20°-30°   | 90.9   | 12.2      |
| 30°-40°   | 163.3  | 21.9      |
| 40°-50°   | 218.2  | 29.2      |
| 50°-60°   | 166.2  | 22.2      |
| 60°-70°   | 50.4   | 6.8       |
| 70°-80°   | 12.1   | 1.6       |
| 80°-90°   | 4.3    | 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°    | 132.5  | 17.7      |
| 0°-40°    | 295.8  | 39.6      |
| 0°-60°    | 680.2  | 91.1      |
| 0°-90°    | 747.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 747.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 59   | 59  | 59  | 59   | 59   |      |
| 5°  | 70   | 66  | 59  | 56   | 56   | 9    |
| 15° | 406  | 130 | 49  | 50   | 52   | 120  |
| 25° | 648  | 314 | 34  | 44   | 48   | 309  |
| 35° | 1092 | 403 | 23  | 39   | 48   | 670  |
| 45° | 1302 | 306 | 17  | 37   | 48   | 995  |
| 55° | 732  | 69  | 14  | 36   | 48   | 729  |
| 65° | 134  | 4   | 10  | 30   | 43   | 186  |
| 75° | 3    | 3   | 6   | 19   | 31   | 3    |
| 85° | 1    | 1   | 3   | 6    | 10   | 1    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 25°    | 30°   | 35°   | 45°   | 67.5° | 90°  |
|-------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|------|
| 0°    | 59.4   | 59.4   | 59.4   | 59.4   | 59.4   | 59.4   | 59.4  | 59.4  | 59.4  | 59.4  | 59.4 |
| 2.5°  | 63.2   | 63.2   | 63.2   | 63.2   | 63.2   | 63.2   | 62.6  | 62.6  | 62.6  | 61.3  | 60.0 |
| 5°    | 70.3   | 71.0   | 70.3   | 70.3   | 69.0   | 69.0   | 67.7  | 67.7  | 65.8  | 61.9  | 58.7 |
| 7.5°  | 92.3   | 91.6   | 91.0   | 88.4   | 86.5   | 81.9   | 80.0  | 76.8  | 71.0  | 61.9  | 57.4 |
| 10°   | 149.7  | 145.8  | 143.2  | 137.4  | 125.2  | 117.4  | 107.1 | 96.8  | 80.7  | 61.9  | 55.5 |
| 12.5° | 260.0  | 259.4  | 251.6  | 232.3  | 214.9  | 191.0  | 165.8 | 140.7 | 99.4  | 60.7  | 52.9 |
| 15°   | 406.5  | 400.7  | 389.7  | 367.1  | 336.2  | 298.7  | 253.6 | 209.0 | 129.7 | 58.7  | 49.0 |
| 17.5° | 531.7  | 524.6  | 516.2  | 493.6  | 458.1  | 411.0  | 356.8 | 295.5 | 171.0 | 56.1  | 45.2 |
| 20°   | 625.2  | 620.7  | 613.6  | 595.5  | 562.0  | 519.4  | 458.7 | 384.5 | 221.3 | 52.9  | 41.3 |
| 22.5° | 659.4  | 658.8  | 660.1  | 653.6  | 636.8  | 603.3  | 545.2 | 467.8 | 271.0 | 49.0  | 37.4 |
| 25°   | 648.4  | 647.8  | 656.2  | 664.6  | 668.4  | 654.9  | 610.4 | 534.9 | 313.6 | 45.8  | 34.2 |
| 27.5° | 658.8  | 656.8  | 653.0  | 654.2  | 665.2  | 673.0  | 652.3 | 586.5 | 350.4 | 41.3  | 31.0 |
| 30°   | 769.1  | 758.1  | 740.7  | 711.0  | 689.1  | 687.2  | 678.1 | 627.1 | 376.2 | 36.8  | 28.4 |
| 32.5° | 941.4  | 927.8  | 896.2  | 841.4  | 789.1  | 749.1  | 720.7 | 661.3 | 394.2 | 32.3  | 25.2 |
| 35°   | 1091.7 | 1082.0 | 1045.2 | 991.0  | 916.2  | 841.4  | 789.7 | 711.7 | 402.6 | 28.4  | 23.2 |
| 37.5° | 1193.6 | 1189.8 | 1153.6 | 1095.6 | 1019.4 | 931.0  | 862.7 | 763.3 | 400.7 | 23.9  | 21.3 |
| 40°   | 1238.2 | 1226.6 | 1196.2 | 1147.2 | 1070.4 | 991.0  | 918.8 | 796.2 | 387.1 | 19.4  | 19.4 |
| 42.5° | 1264.6 | 1251.7 | 1218.8 | 1172.4 | 1096.9 | 1012.3 | 925.2 | 782.0 | 354.9 | 15.5  | 18.7 |
| 45°   | 1302.0 | 1288.5 | 1245.3 | 1195.6 | 1119.4 | 1021.4 | 900.1 | 731.7 | 306.5 | 11.6  | 17.4 |
| 47.5° | 1324.6 | 1315.6 | 1283.3 | 1233.6 | 1141.4 | 1008.5 | 842.0 | 684.6 | 252.9 | 9.0   | 16.8 |
| 50°   | 1256.2 | 1247.2 | 1223.3 | 1189.1 | 1127.2 | 965.2  | 791.0 | 608.4 | 192.3 | 7.1   | 16.1 |
| 52.5° | 1081.4 | 1089.1 | 1093.6 | 1103.3 | 1058.1 | 868.5  | 714.9 | 547.8 | 129.7 | 5.8   | 14.8 |
| 55°   | 732.3  | 743.9  | 756.8  | 795.5  | 848.5  | 773.0  | 634.9 | 473.6 | 69.0  | 5.8   | 14.2 |
| 57.5° | 575.5  | 571.7  | 567.8  | 565.2  | 606.5  | 637.5  | 558.1 | 378.7 | 29.7  | 5.8   | 12.9 |
| 60°   | 526.5  | 514.9  | 507.1  | 509.1  | 529.7  | 517.5  | 442.0 | 247.1 | 10.3  | 5.8   | 12.3 |
| 62.5° | 345.2  | 354.2  | 371.6  | 401.3  | 387.1  | 332.3  | 256.8 | 98.1  | 5.2   | 5.8   | 11.0 |
| 65°   | 134.2  | 129.7  | 134.2  | 142.6  | 123.2  | 91.6   | 57.4  | 17.4  | 4.5   | 5.2   | 9.7  |
| 67.5° | 18.1   | 16.1   | 12.3   | 7.7    | 7.1    | 6.5    | 5.2   | 4.5   | 4.5   | 5.2   | 9.0  |
| 70°   | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5   | 3.9   | 3.9   | 4.5   | 7.7  |
| 72.5° | 3.9    | 3.9    | 3.9    | 3.9    | 3.9    | 3.9    | 3.9   | 3.9   | 3.9   | 4.5   | 6.5  |
| 75°   | 3.2    | 3.2    | 3.2    | 3.2    | 3.2    | 3.2    | 3.2   | 3.2   | 3.2   | 3.9   | 5.8  |
| 77.5° | 2.6    | 2.6    | 2.6    | 2.6    | 2.6    | 2.6    | 2.6   | 2.6   | 2.6   | 3.2   | 4.5  |
| 80°   | 1.9    | 1.9    | 1.9    | 1.9    | 1.9    | 1.9    | 1.9   | 1.9   | 1.9   | 2.6   | 3.9  |
| 82.5° | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3    | 1.3   | 1.9   | 1.9   | 2.6   | 3.2  |
| 85°   | 0.6    | 1.3    | 0.6    | 1.3    | 1.3    | 1.3    | 1.3   | 1.3   | 1.3   | 1.9   | 2.6  |
| 87.5° | 0.6    | 0.6    | 0.6    | 0.6    | 0.6    | 0.6    | 0.6   | 0.6   | 1.3   | 1.9   | 1.9  |
| 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):**

|       | 112.5° | 135° | 157.5° | 180° |
|-------|--------|------|--------|------|
| 0°    | 59.4   | 59.4 | 59.4   | 59.4 |
| 2.5°  | 58.7   | 57.4 | 57.4   | 57.4 |
| 5°    | 57.4   | 56.1 | 56.1   | 55.5 |
| 7.5°  | 55.5   | 54.8 | 54.8   | 54.8 |
| 10°   | 54.2   | 53.6 | 54.2   | 54.2 |
| 12.5° | 51.6   | 52.3 | 52.9   | 52.9 |
| 15°   | 49.0   | 50.3 | 51.6   | 52.3 |
| 17.5° | 46.5   | 49.0 | 50.3   | 51.0 |
| 20°   | 43.9   | 47.1 | 49.0   | 49.7 |
| 22.5° | 41.9   | 45.2 | 47.7   | 49.0 |
| 25°   | 39.4   | 43.9 | 47.1   | 48.4 |
| 27.5° | 36.8   | 41.9 | 45.8   | 47.7 |
| 30°   | 34.8   | 41.3 | 45.8   | 47.7 |
| 32.5° | 32.9   | 40.0 | 45.2   | 47.1 |
| 35°   | 31.6   | 39.4 | 45.2   | 47.7 |
| 37.5° | 30.3   | 38.7 | 45.2   | 47.1 |
| 40°   | 29.7   | 38.1 | 45.2   | 47.1 |
| 42.5° | 29.0   | 38.1 | 45.2   | 47.7 |
| 45°   | 27.7   | 37.4 | 45.2   | 47.7 |
| 47.5° | 27.1   | 37.4 | 45.2   | 47.7 |
| 50°   | 26.5   | 36.8 | 45.2   | 48.4 |
| 52.5° | 25.8   | 36.1 | 45.2   | 48.4 |
| 55°   | 24.5   | 35.5 | 44.5   | 47.7 |
| 57.5° | 23.9   | 34.8 | 43.9   | 46.5 |
| 60°   | 22.6   | 33.6 | 42.6   | 45.8 |
| 62.5° | 21.3   | 32.3 | 41.3   | 43.9 |
| 65°   | 19.4   | 30.3 | 39.4   | 42.6 |
| 67.5° | 17.4   | 27.7 | 37.4   | 40.6 |
| 70°   | 15.5   | 25.2 | 34.8   | 37.4 |
| 72.5° | 13.5   | 22.6 | 32.3   | 34.2 |
| 75°   | 11.6   | 19.4 | 28.4   | 31.0 |
| 77.5° | 9.7    | 16.8 | 23.9   | 25.8 |
| 80°   | 7.1    | 12.9 | 19.4   | 21.3 |
| 82.5° | 5.8    | 9.7  | 14.2   | 15.5 |
| 85°   | 3.9    | 6.5  | 9.0    | 10.3 |
| 87.5° | 1.9    | 3.2  | 4.5    | 5.2  |
| 90°   | 0.0    | 0.0  | 0.0    | 0.0  |

(END OF REPORT)