

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: P1312811

Luminaire Tested: P3SQAS20R609727D010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1312811  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-81)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS20R609727D010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R60 optic, 2700K CCT AND, 97CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

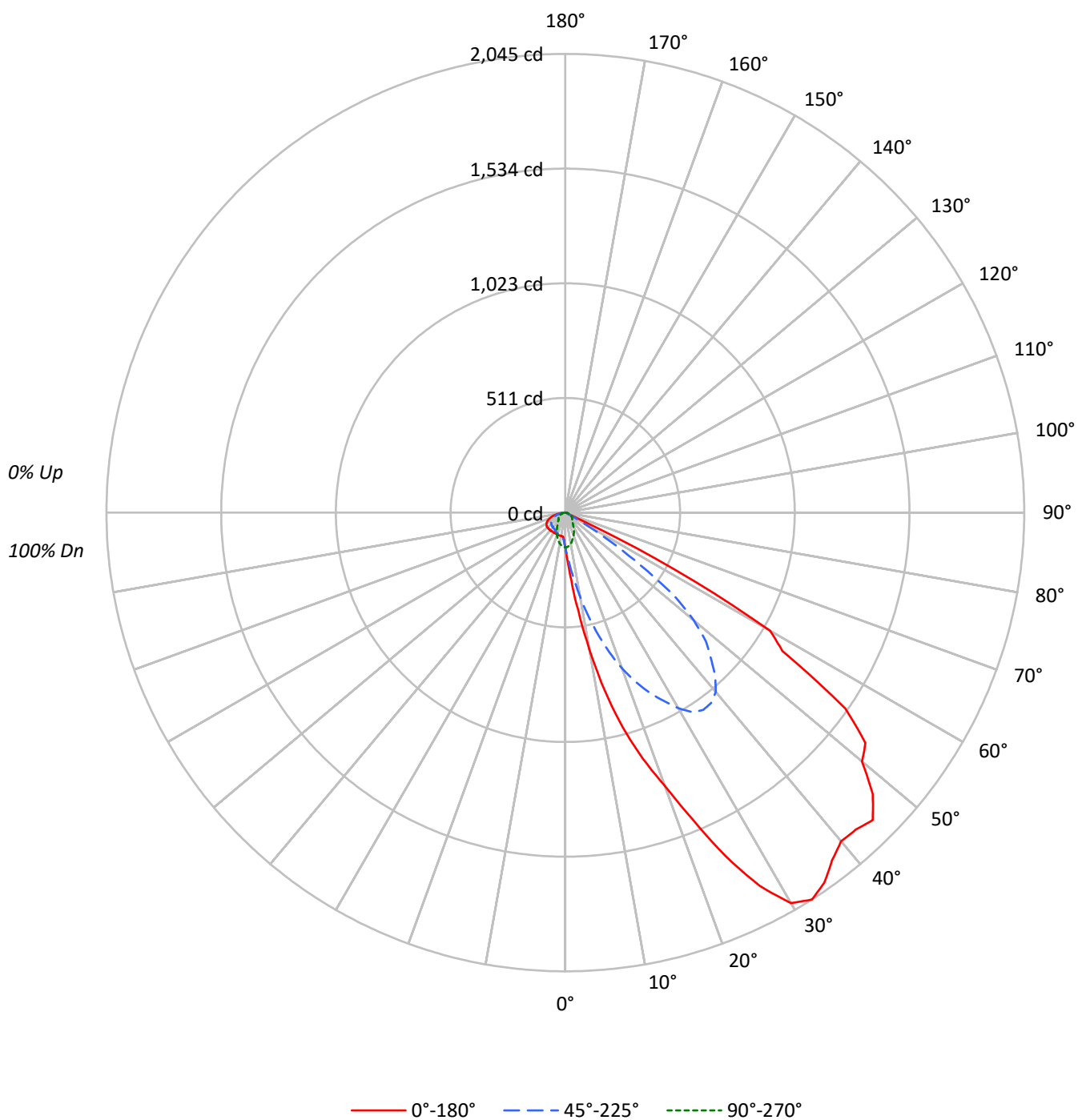
Lumens per Lamp: N/A  
Luminaire Lumens: 1557.0 lumens  
Efficiency: N/A  
Efficacy: 54.1 lumens/watt  
Spacing Criteria (0/90/45): 3.38 / 0.84 / 2.07  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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  | 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  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  | 87  |    |    |
| 2   | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 77  | 82  | 79  | 76  | 74  |    |    |
| 3   | 92  | 82  | 74  | 68  | 90  | 81  | 73  | 68  | 78  | 72  | 67  | 75  | 70  | 65  | 72  | 68  | 64  | 62  |    |    |
| 4   | 84  | 72  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 56  | 66  | 60  | 56  | 64  | 59  | 55  | 53  |    |    |
| 5   | 77  | 64  | 55  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  | 59  | 53  | 48  | 57  | 52  | 47  | 45  |    |    |
| 6   | 70  | 57  | 48  | 42  | 69  | 56  | 48  | 42  | 54  | 47  | 41  | 53  | 46  | 41  | 51  | 45  | 41  | 39  |    |    |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 35  | 33  |    |    |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |    |    |
| 9   | 55  | 42  | 33  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 27  | 38  | 32  | 27  | 25  |    |    |
| 10  | 52  | 38  | 30  | 25  | 50  | 38  | 30  | 25  | 37  | 29  | 24  | 36  | 29  | 24  | 35  | 29  | 24  | 22  |    |    |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 26574  | 26574  | 26574 | 26574 | 26574 |
| 5°  | 52366  | 40869  | 26174 | 19812 | 18844 |
| 10° | 108163 | 66577  | 24501 | 18065 | 18310 |
| 15° | 176889 | 99936  | 21948 | 18169 | 18668 |
| 20° | 237342 | 135404 | 19720 | 18163 | 18932 |
| 25° | 321126 | 168098 | 17216 | 18015 | 19630 |
| 30° | 399680 | 200118 | 14358 | 18017 | 20543 |
| 35° | 423139 | 225551 | 12194 | 18460 | 21424 |
| 40° | 429880 | 234510 | 11129 | 19087 | 23224 |
| 45° | 471921 | 223369 | 10692 | 20337 | 25160 |
| 50° | 462636 | 200225 | 10610 | 21622 | 27677 |
| 55° | 457267 | 122807 | 10629 | 23360 | 30597 |
| 60° | 362701 | 29243  | 11229 | 24869 | 33136 |
| 65° | 23065  | 5175   | 10962 | 25388 | 35780 |
| 70° | 4985   | 5690   | 10675 | 26386 | 37766 |
| 75° | 4724   | 5656   | 9449  | 25419 | 38594 |
| 80° | 4166   | 5653   | 9819  | 25291 | 36498 |
| 85° | 2766   | 5533   | 11263 | 22329 | 36359 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 15°

Vertical Angle: 52.5°

Luminance: 498114 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 19.3   | 1.2       |
| 10°-20°   | 97.1   | 6.2       |
| 20°-30°   | 225.2  | 14.5      |
| 30°-40°   | 350.0  | 22.5      |
| 40°-50°   | 398.8  | 25.6      |
| 50°-60°   | 335.9  | 21.6      |
| 60°-70°   | 97.5   | 6.3       |
| 70°-80°   | 25.0   | 1.6       |
| 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°    | 341.5  | 21.9      |
| 0°-40°    | 691.5  | 44.4      |
| 0°-60°    | 1426.1 | 91.6      |
| 0°-90°    | 1557.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1557.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 154  | 154  | 154 | 154  | 154  |      |
| 5°  | 303  | 236  | 151 | 115  | 109  | 39   |
| 15° | 992  | 560  | 123 | 102  | 105  | 287  |
| 25° | 1690 | 885  | 91  | 95   | 103  | 785  |
| 35° | 2013 | 1073 | 58  | 88   | 102  | 1250 |
| 45° | 1938 | 917  | 44  | 84   | 103  | 1457 |
| 55° | 1523 | 409  | 35  | 78   | 102  | 1281 |
| 65° | 57   | 13   | 27  | 62   | 88   | 280  |
| 75° | 7    | 8    | 14  | 38   | 58   | 7    |
| 85° | 1    | 3    | 6   | 11   | 18   | 2    |
| 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°    | 154.3  | 154.3  | 154.3  | 154.3  | 154.3  | 154.3  | 154.3  | 154.3  | 154.3  | 154.3 | 154.3 |
| 2.5°  | 208.1  | 206.6  | 206.6  | 205.2  | 203.8  | 202.4  | 198.1  | 196.7  | 188.2  | 171.3 | 154.3 |
| 5°    | 302.9  | 301.5  | 297.2  | 295.8  | 288.7  | 278.8  | 268.9  | 259.0  | 236.4  | 188.2 | 151.4 |
| 7.5°  | 438.8  | 441.6  | 438.8  | 423.2  | 413.3  | 397.7  | 368.0  | 346.8  | 301.5  | 205.2 | 145.8 |
| 10°   | 618.5  | 618.5  | 614.3  | 590.2  | 569.0  | 539.2  | 501.0  | 464.2  | 380.7  | 220.8 | 140.1 |
| 12.5° | 813.8  | 818.1  | 796.8  | 777.0  | 738.8  | 702.0  | 649.6  | 594.4  | 471.3  | 233.5 | 133.0 |
| 15°   | 992.1  | 989.3  | 968.1  | 942.6  | 903.0  | 852.0  | 796.8  | 726.1  | 560.5  | 242.0 | 123.1 |
| 17.5° | 1150.7 | 1145.0 | 1126.6 | 1098.3 | 1050.2 | 993.6  | 922.8  | 846.4  | 652.5  | 249.1 | 116.1 |
| 20°   | 1295.0 | 1275.2 | 1254.0 | 1224.3 | 1177.6 | 1118.1 | 1044.5 | 958.2  | 738.8  | 249.1 | 107.6 |
| 22.5° | 1477.6 | 1457.8 | 1428.1 | 1382.8 | 1320.5 | 1246.9 | 1160.6 | 1062.9 | 815.2  | 243.4 | 99.1  |
| 25°   | 1689.9 | 1674.3 | 1623.4 | 1565.4 | 1484.7 | 1396.9 | 1296.4 | 1164.8 | 884.6  | 234.9 | 90.6  |
| 27.5° | 1875.3 | 1858.3 | 1807.4 | 1722.5 | 1624.8 | 1520.1 | 1413.9 | 1279.5 | 945.4  | 219.4 | 80.7  |
| 30°   | 2009.8 | 1988.5 | 1948.9 | 1868.2 | 1749.4 | 1622.0 | 1496.0 | 1367.2 | 1006.3 | 201.0 | 72.2  |
| 32.5° | 2045.2 | 2042.3 | 2012.6 | 1953.2 | 1847.0 | 1706.9 | 1556.9 | 1416.7 | 1054.4 | 176.9 | 65.1  |
| 35°   | 2012.6 | 2016.9 | 2011.2 | 1981.5 | 1903.6 | 1766.3 | 1596.5 | 1443.6 | 1072.8 | 152.9 | 58.0  |
| 37.5° | 1953.2 | 1958.8 | 1968.7 | 1973.0 | 1923.4 | 1801.7 | 1619.1 | 1455.0 | 1068.6 | 128.8 | 53.8  |
| 40°   | 1912.1 | 1909.3 | 1909.3 | 1937.6 | 1927.7 | 1817.3 | 1622.0 | 1446.5 | 1043.1 | 103.3 | 49.5  |
| 42.5° | 1916.4 | 1885.2 | 1864.0 | 1909.3 | 1923.4 | 1810.2 | 1603.6 | 1423.8 | 987.9  | 79.3  | 45.3  |
| 45°   | 1937.6 | 1871.1 | 1834.3 | 1892.3 | 1914.9 | 1786.2 | 1569.6 | 1389.9 | 917.1  | 55.2  | 43.9  |
| 47.5° | 1858.3 | 1814.5 | 1808.8 | 1890.9 | 1899.4 | 1745.1 | 1517.2 | 1336.1 | 849.2  | 38.2  | 41.0  |
| 50°   | 1726.7 | 1719.6 | 1749.4 | 1834.3 | 1835.7 | 1677.2 | 1457.8 | 1238.4 | 747.3  | 26.9  | 39.6  |
| 52.5° | 1685.7 | 1689.9 | 1716.8 | 1760.7 | 1719.6 | 1562.5 | 1350.2 | 1156.3 | 618.5  | 21.2  | 38.2  |
| 55°   | 1522.9 | 1530.0 | 1555.5 | 1582.3 | 1552.6 | 1422.4 | 1220.0 | 1057.3 | 409.0  | 19.8  | 35.4  |
| 57.5° | 1146.4 | 1164.8 | 1211.5 | 1235.6 | 1238.4 | 1159.2 | 1105.4 | 911.5  | 230.7  | 19.8  | 34.0  |
| 60°   | 1053.0 | 1028.9 | 1007.7 | 958.2  | 912.9  | 903.0  | 908.6  | 683.6  | 84.9   | 18.4  | 32.6  |
| 62.5° | 550.6  | 539.2  | 571.8  | 593.0  | 598.7  | 629.8  | 588.8  | 360.9  | 18.4   | 18.4  | 29.7  |
| 65°   | 56.6   | 56.6   | 69.4   | 92.0   | 152.9  | 203.8  | 193.9  | 104.7  | 12.7   | 17.0  | 26.9  |
| 67.5° | 17.0   | 17.0   | 17.0   | 19.8   | 25.5   | 25.5   | 21.2   | 15.6   | 12.7   | 15.6  | 24.1  |
| 70°   | 9.9    | 9.9    | 9.9    | 9.9    | 9.9    | 9.9    | 11.3   | 9.9    | 11.3   | 14.2  | 21.2  |
| 72.5° | 8.5    | 8.5    | 8.5    | 8.5    | 9.9    | 9.9    | 9.9    | 9.9    | 9.9    | 12.7  | 18.4  |
| 75°   | 7.1    | 7.1    | 7.1    | 7.1    | 7.1    | 7.1    | 7.1    | 8.5    | 8.5    | 9.9   | 14.2  |
| 77.5° | 5.7    | 5.7    | 5.7    | 5.7    | 5.7    | 5.7    | 7.1    | 7.1    | 7.1    | 8.5   | 11.3  |
| 80°   | 4.2    | 4.2    | 4.2    | 4.2    | 4.2    | 5.7    | 5.7    | 5.7    | 5.7    | 7.1   | 9.9   |
| 82.5° | 2.8    | 2.8    | 2.8    | 2.8    | 4.2    | 4.2    | 4.2    | 4.2    | 4.2    | 5.7   | 7.1   |
| 85°   | 1.4    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 4.2   | 5.7   |
| 87.5° | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 2.8    | 2.8   | 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):**

|       | 112.5° | 135°  | 157.5° | 180°  |
|-------|--------|-------|--------|-------|
| 0°    | 154.3  | 154.3 | 154.3  | 154.3 |
| 2.5°  | 140.1  | 130.2 | 124.5  | 121.7 |
| 5°    | 127.4  | 114.6 | 110.4  | 109.0 |
| 7.5°  | 116.1  | 107.6 | 106.2  | 106.2 |
| 10°   | 109.0  | 103.3 | 104.7  | 104.7 |
| 12.5° | 104.7  | 103.3 | 104.7  | 106.2 |
| 15°   | 100.5  | 101.9 | 104.7  | 104.7 |
| 17.5° | 97.7   | 100.5 | 103.3  | 104.7 |
| 20°   | 93.4   | 99.1  | 103.3  | 103.3 |
| 22.5° | 90.6   | 97.7  | 101.9  | 103.3 |
| 25°   | 87.8   | 94.8  | 100.5  | 103.3 |
| 27.5° | 83.5   | 93.4  | 100.5  | 101.9 |
| 30°   | 79.3   | 90.6  | 99.1   | 103.3 |
| 32.5° | 75.0   | 89.2  | 99.1   | 101.9 |
| 35°   | 72.2   | 87.8  | 99.1   | 101.9 |
| 37.5° | 69.4   | 86.3  | 99.1   | 103.3 |
| 40°   | 67.9   | 84.9  | 97.7   | 103.3 |
| 42.5° | 65.1   | 84.9  | 97.7   | 103.3 |
| 45°   | 63.7   | 83.5  | 97.7   | 103.3 |
| 47.5° | 62.3   | 82.1  | 97.7   | 103.3 |
| 50°   | 59.4   | 80.7  | 96.2   | 103.3 |
| 52.5° | 58.0   | 79.3  | 96.2   | 103.3 |
| 55°   | 55.2   | 77.8  | 94.8   | 101.9 |
| 57.5° | 53.8   | 75.0  | 93.4   | 99.1  |
| 60°   | 51.0   | 72.2  | 90.6   | 96.2  |
| 62.5° | 46.7   | 67.9  | 86.3   | 93.4  |
| 65°   | 42.5   | 62.3  | 82.1   | 87.8  |
| 67.5° | 38.2   | 58.0  | 76.4   | 82.1  |
| 70°   | 34.0   | 52.4  | 69.4   | 75.0  |
| 72.5° | 29.7   | 45.3  | 62.3   | 66.5  |
| 75°   | 25.5   | 38.2  | 52.4   | 58.0  |
| 77.5° | 19.8   | 31.1  | 43.9   | 48.1  |
| 80°   | 15.6   | 25.5  | 34.0   | 36.8  |
| 82.5° | 12.7   | 18.4  | 25.5   | 26.9  |
| 85°   | 8.5    | 11.3  | 15.6   | 18.4  |
| 87.5° | 4.2    | 5.7   | 7.1    | 8.5   |
| 90°   | 0.0    | 0.0   | 0.0    | 0.0   |

(END OF REPORT)