

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: P1313782

Luminaire Tested: P3SQAS20R609730D010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1313782  
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: P3SQAS20R609730D010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R60 optic, 3000K CCT AND, 97CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

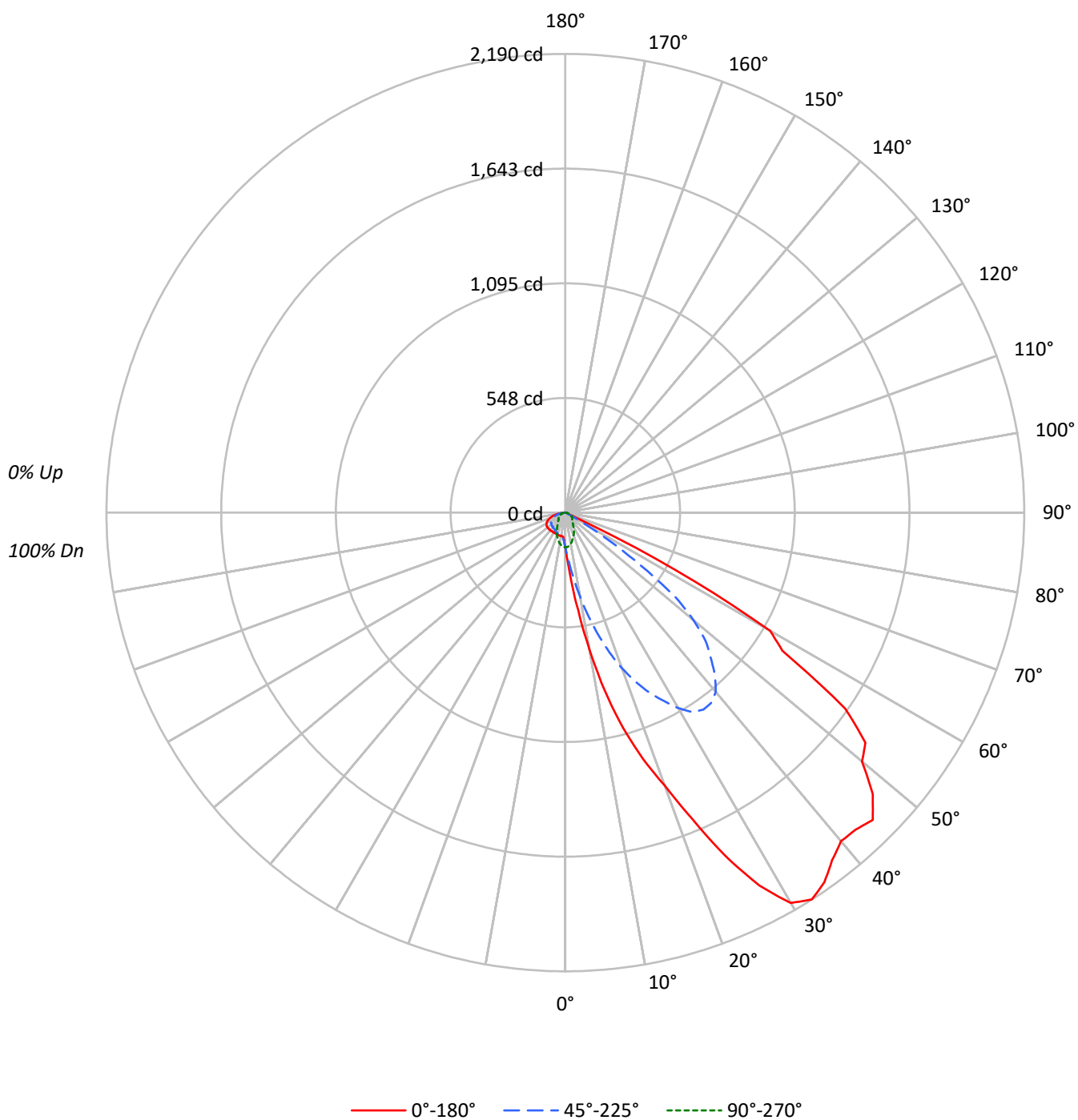
Lumens per Lamp: N/A  
Luminaire Lumens: 1667.0 lumens  
Efficiency: N/A  
Efficacy: 57.9 lumens/watt  
Spacing Criteria (0/90/45): 3.38 / 0.84 / 2.07  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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°  | 28451  | 28451  | 28451 | 28451 | 28451 |
| 5°  | 56065  | 43756  | 28024 | 21212 | 20175 |
| 10° | 115805 | 71281  | 26232 | 19342 | 19604 |
| 15° | 189388 | 106997 | 23500 | 19452 | 19987 |
| 20° | 254111 | 144971 | 21113 | 19446 | 20270 |
| 25° | 343815 | 179974 | 18433 | 19288 | 21017 |
| 30° | 427919 | 214258 | 15372 | 19290 | 21995 |
| 35° | 453036 | 241487 | 13056 | 19763 | 22938 |
| 40° | 460253 | 251080 | 11915 | 20436 | 24865 |
| 45° | 505264 | 239151 | 11447 | 21774 | 26938 |
| 50° | 495324 | 214371 | 11360 | 23149 | 29633 |
| 55° | 489576 | 131484 | 11380 | 25012 | 32758 |
| 60° | 388328 | 31310  | 12021 | 26626 | 35478 |
| 65° | 24695  | 5542   | 11736 | 27181 | 38306 |
| 70° | 5338   | 6093   | 11430 | 28249 | 40435 |
| 75° | 5057   | 6055   | 10114 | 27216 | 41322 |
| 80° | 4463   | 6050   | 10513 | 27076 | 39077 |
| 85° | 2964   | 5928   | 12054 | 23910 | 38928 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 15°

Vertical Angle: 52.5°

Luminance: 533307 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 20.6   | 1.2       |
| 10°-20°   | 103.9  | 6.2       |
| 20°-30°   | 241.1  | 14.5      |
| 30°-40°   | 374.7  | 22.5      |
| 40°-50°   | 427.0  | 25.6      |
| 50°-60°   | 359.6  | 21.6      |
| 60°-70°   | 104.3  | 6.3       |
| 70°-80°   | 26.7   | 1.6       |
| 80°-90°   | 9.0    | 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°    | 365.6  | 21.9      |
| 0°-40°    | 740.3  | 44.4      |
| 0°-60°    | 1526.9 | 91.6      |
| 0°-90°    | 1667.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1667.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 165  | 165  | 165 | 165  | 165  |      |
| 5°  | 324  | 253  | 162 | 123  | 117  | 42   |
| 15° | 1062 | 600  | 132 | 109  | 112  | 307  |
| 25° | 1809 | 947  | 97  | 102  | 111  | 840  |
| 35° | 2155 | 1149 | 62  | 94   | 109  | 1339 |
| 45° | 2074 | 982  | 47  | 89   | 111  | 1559 |
| 55° | 1630 | 438  | 38  | 83   | 109  | 1372 |
| 65° | 61   | 14   | 29  | 67   | 94   | 300  |
| 75° | 8    | 9    | 15  | 41   | 62   | 8    |
| 85° | 2    | 3    | 6   | 12   | 20   | 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°    | 165.2  | 165.2  | 165.2  | 165.2  | 165.2  | 165.2  | 165.2  | 165.2  | 165.2  | 165.2 | 165.2 |
| 2.5°  | 222.8  | 221.2  | 221.2  | 219.7  | 218.2  | 216.7  | 212.1  | 210.6  | 201.5  | 183.4 | 165.2 |
| 5°    | 324.3  | 322.8  | 318.2  | 316.7  | 309.1  | 298.5  | 287.9  | 277.3  | 253.1  | 201.5 | 162.1 |
| 7.5°  | 469.8  | 472.8  | 469.8  | 453.1  | 442.5  | 425.8  | 394.0  | 371.3  | 322.8  | 219.7 | 156.1 |
| 10°   | 662.2  | 662.2  | 657.7  | 631.9  | 609.2  | 577.3  | 536.4  | 497.0  | 407.6  | 236.4 | 150.0 |
| 12.5° | 871.3  | 875.9  | 853.1  | 831.9  | 791.0  | 751.6  | 695.5  | 636.4  | 504.6  | 250.0 | 142.4 |
| 15°   | 1062.2 | 1059.2 | 1036.5 | 1009.2 | 966.8  | 912.2  | 853.1  | 777.4  | 600.1  | 259.1 | 131.8 |
| 17.5° | 1232.0 | 1225.9 | 1206.2 | 1175.9 | 1124.4 | 1063.8 | 988.0  | 906.2  | 698.6  | 266.7 | 124.3 |
| 20°   | 1386.5 | 1365.3 | 1342.6 | 1310.8 | 1260.8 | 1197.1 | 1118.3 | 1025.9 | 791.0  | 266.7 | 115.2 |
| 22.5° | 1582.0 | 1560.8 | 1529.0 | 1480.5 | 1413.8 | 1335.0 | 1242.6 | 1138.0 | 872.8  | 260.6 | 106.1 |
| 25°   | 1809.3 | 1792.6 | 1738.1 | 1675.9 | 1589.6 | 1495.6 | 1388.0 | 1247.1 | 947.1  | 251.5 | 97.0  |
| 27.5° | 2007.8 | 1989.6 | 1935.1 | 1844.2 | 1739.6 | 1627.5 | 1513.8 | 1369.9 | 1012.2 | 234.9 | 86.4  |
| 30°   | 2151.8 | 2129.0 | 2086.6 | 2000.2 | 1872.9 | 1736.6 | 1601.7 | 1463.8 | 1077.4 | 215.2 | 77.3  |
| 32.5° | 2189.6 | 2186.6 | 2154.8 | 2091.1 | 1977.5 | 1827.5 | 1666.9 | 1516.8 | 1128.9 | 189.4 | 69.7  |
| 35°   | 2154.8 | 2159.3 | 2153.3 | 2121.5 | 2038.1 | 1891.1 | 1709.3 | 1545.6 | 1148.6 | 163.7 | 62.1  |
| 37.5° | 2091.1 | 2097.2 | 2107.8 | 2112.4 | 2059.3 | 1929.0 | 1733.5 | 1557.8 | 1144.1 | 137.9 | 57.6  |
| 40°   | 2047.2 | 2044.2 | 2044.2 | 2074.5 | 2063.9 | 1945.7 | 1736.6 | 1548.7 | 1116.8 | 110.6 | 53.0  |
| 42.5° | 2051.8 | 2018.4 | 1995.7 | 2044.2 | 2059.3 | 1938.1 | 1716.9 | 1524.4 | 1057.7 | 84.9  | 48.5  |
| 45°   | 2074.5 | 2003.3 | 1963.9 | 2026.0 | 2050.2 | 1912.3 | 1680.5 | 1488.0 | 981.9  | 59.1  | 47.0  |
| 47.5° | 1989.6 | 1942.6 | 1936.6 | 2024.5 | 2033.6 | 1868.4 | 1624.4 | 1430.5 | 909.2  | 40.9  | 43.9  |
| 50°   | 1848.7 | 1841.1 | 1872.9 | 1963.9 | 1965.4 | 1795.7 | 1560.8 | 1325.9 | 800.1  | 28.8  | 42.4  |
| 52.5° | 1804.8 | 1809.3 | 1838.1 | 1885.1 | 1841.1 | 1672.9 | 1445.6 | 1238.0 | 662.2  | 22.7  | 40.9  |
| 55°   | 1630.5 | 1638.1 | 1665.3 | 1694.1 | 1662.3 | 1522.9 | 1306.2 | 1131.9 | 437.9  | 21.2  | 37.9  |
| 57.5° | 1227.4 | 1247.1 | 1297.1 | 1322.9 | 1325.9 | 1241.1 | 1183.5 | 975.9  | 247.0  | 21.2  | 36.4  |
| 60°   | 1127.4 | 1101.6 | 1078.9 | 1025.9 | 977.4  | 966.8  | 972.8  | 731.9  | 90.9   | 19.7  | 34.9  |
| 62.5° | 589.5  | 577.3  | 612.2  | 634.9  | 641.0  | 674.3  | 630.4  | 386.4  | 19.7   | 19.7  | 31.8  |
| 65°   | 60.6   | 60.6   | 74.3   | 98.5   | 163.7  | 218.2  | 207.6  | 112.1  | 13.6   | 18.2  | 28.8  |
| 67.5° | 18.2   | 18.2   | 18.2   | 21.2   | 27.3   | 27.3   | 22.7   | 16.7   | 13.6   | 16.7  | 25.8  |
| 70°   | 10.6   | 10.6   | 10.6   | 10.6   | 10.6   | 10.6   | 12.1   | 10.6   | 12.1   | 15.2  | 22.7  |
| 72.5° | 9.1    | 9.1    | 9.1    | 9.1    | 10.6   | 10.6   | 10.6   | 10.6   | 10.6   | 13.6  | 19.7  |
| 75°   | 7.6    | 7.6    | 7.6    | 7.6    | 7.6    | 7.6    | 7.6    | 9.1    | 9.1    | 10.6  | 15.2  |
| 77.5° | 6.1    | 6.1    | 6.1    | 6.1    | 6.1    | 6.1    | 7.6    | 7.6    | 7.6    | 9.1   | 12.1  |
| 80°   | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 6.1    | 6.1    | 6.1    | 6.1    | 7.6   | 10.6  |
| 82.5° | 3.0    | 3.0    | 3.0    | 3.0    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 6.1   | 7.6   |
| 85°   | 1.5    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 4.5   | 6.1   |
| 87.5° | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 3.0    | 3.0   | 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):**

|       | 112.5° | 135°  | 157.5° | 180°  |
|-------|--------|-------|--------|-------|
| 0°    | 165.2  | 165.2 | 165.2  | 165.2 |
| 2.5°  | 150.0  | 139.4 | 133.3  | 130.3 |
| 5°    | 136.4  | 122.7 | 118.2  | 116.7 |
| 7.5°  | 124.3  | 115.2 | 113.6  | 113.6 |
| 10°   | 116.7  | 110.6 | 112.1  | 112.1 |
| 12.5° | 112.1  | 110.6 | 112.1  | 113.6 |
| 15°   | 107.6  | 109.1 | 112.1  | 112.1 |
| 17.5° | 104.6  | 107.6 | 110.6  | 112.1 |
| 20°   | 100.0  | 106.1 | 110.6  | 110.6 |
| 22.5° | 97.0   | 104.6 | 109.1  | 110.6 |
| 25°   | 94.0   | 101.5 | 107.6  | 110.6 |
| 27.5° | 89.4   | 100.0 | 107.6  | 109.1 |
| 30°   | 84.9   | 97.0  | 106.1  | 110.6 |
| 32.5° | 80.3   | 95.5  | 106.1  | 109.1 |
| 35°   | 77.3   | 94.0  | 106.1  | 109.1 |
| 37.5° | 74.3   | 92.4  | 106.1  | 110.6 |
| 40°   | 72.7   | 90.9  | 104.6  | 110.6 |
| 42.5° | 69.7   | 90.9  | 104.6  | 110.6 |
| 45°   | 68.2   | 89.4  | 104.6  | 110.6 |
| 47.5° | 66.7   | 87.9  | 104.6  | 110.6 |
| 50°   | 63.6   | 86.4  | 103.0  | 110.6 |
| 52.5° | 62.1   | 84.9  | 103.0  | 110.6 |
| 55°   | 59.1   | 83.3  | 101.5  | 109.1 |
| 57.5° | 57.6   | 80.3  | 100.0  | 106.1 |
| 60°   | 54.6   | 77.3  | 97.0   | 103.0 |
| 62.5° | 50.0   | 72.7  | 92.4   | 100.0 |
| 65°   | 45.5   | 66.7  | 87.9   | 94.0  |
| 67.5° | 40.9   | 62.1  | 81.8   | 87.9  |
| 70°   | 36.4   | 56.1  | 74.3   | 80.3  |
| 72.5° | 31.8   | 48.5  | 66.7   | 71.2  |
| 75°   | 27.3   | 40.9  | 56.1   | 62.1  |
| 77.5° | 21.2   | 33.3  | 47.0   | 51.5  |
| 80°   | 16.7   | 27.3  | 36.4   | 39.4  |
| 82.5° | 13.6   | 19.7  | 27.3   | 28.8  |
| 85°   | 9.1    | 12.1  | 16.7   | 19.7  |
| 87.5° | 4.5    | 6.1   | 7.6    | 9.1   |
| 90°   | 0.0    | 0.0   | 0.0    | 0.0   |

(END OF REPORT)