

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: P1313790

Luminaire Tested: P3SQAS20R659730D010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

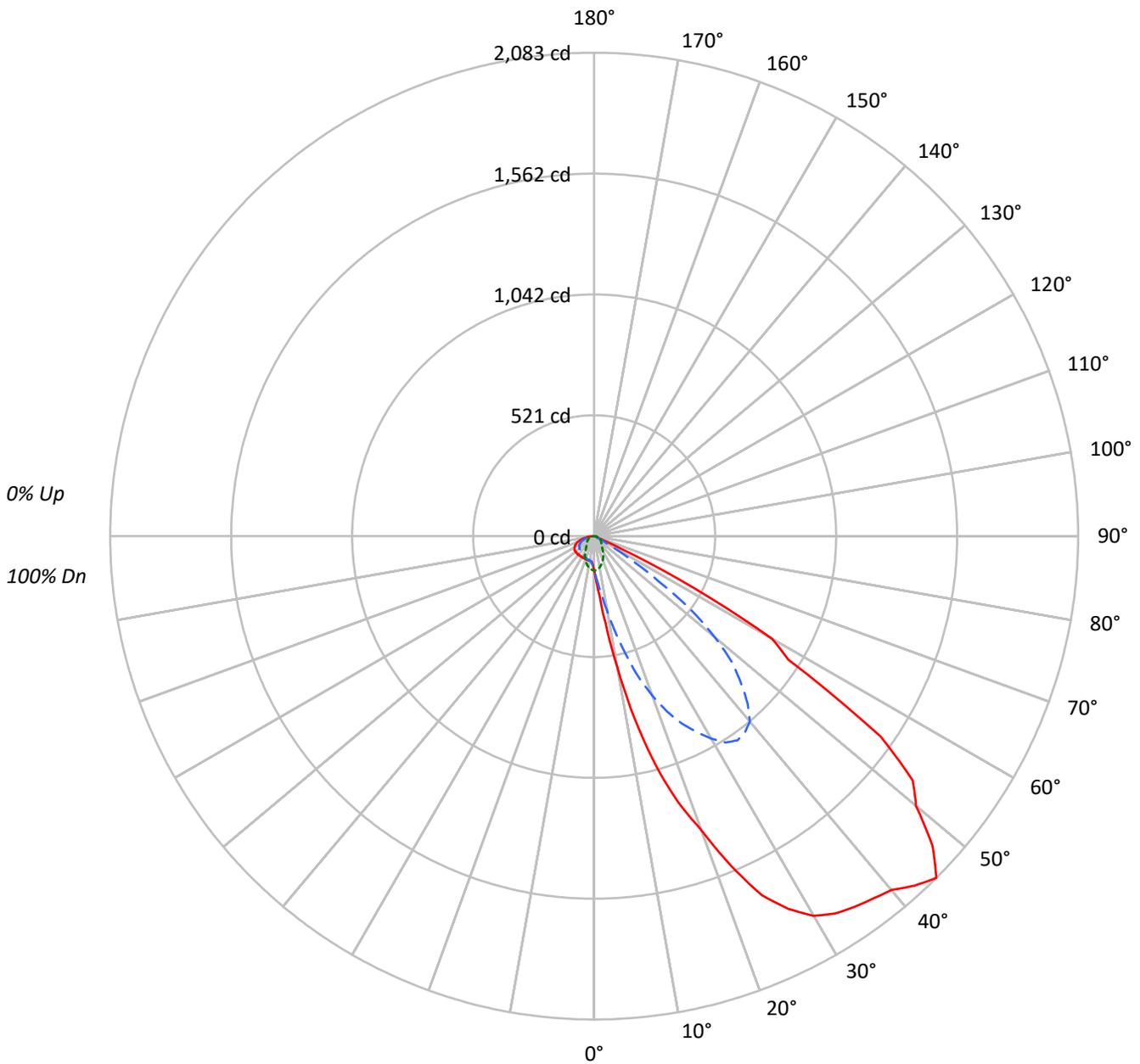
Test Method: LM-79-2019  
Report Number: P1313790  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-82)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS20R659730D010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R65 optic, 3000K CCT AND, 97CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1511.0 lumens  
Efficiency: N/A  
Efficacy: 52.5 lumens/watt  
Spacing Criteria (0/90/45): 3.28 / 0.89 / 2.04  
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



— 0°-180°    - - - 45°-225°    - - - 90°-270°



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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 | 100 | 100 |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 94  | 91  | 92  | 90  | 89  | 87  | 87  | 87  |
| 2   | 101 | 93  | 87  | 82  | 98  | 92  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 77  | 82  | 79  | 76  | 74  | 74  | 74  |
| 3   | 92  | 82  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  | 75  | 70  | 66  | 73  | 68  | 65  | 62  | 62  | 62  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 57  | 67  | 61  | 56  | 64  | 59  | 55  | 53  | 53  | 53  |
| 5   | 77  | 64  | 56  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  | 59  | 53  | 48  | 57  | 52  | 47  | 45  | 45  | 45  |
| 6   | 71  | 57  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  | 53  | 46  | 41  | 51  | 46  | 41  | 39  | 39  | 39  |
| 7   | 65  | 52  | 43  | 37  | 63  | 51  | 42  | 36  | 49  | 42  | 36  | 48  | 41  | 36  | 46  | 40  | 36  | 34  | 34  | 34  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 38  | 32  | 44  | 37  | 32  | 43  | 36  | 31  | 42  | 36  | 31  | 29  | 29  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  | 26  | 26  |
| 10  | 52  | 38  | 30  | 25  | 50  | 38  | 30  | 25  | 37  | 30  | 25  | 36  | 29  | 25  | 35  | 29  | 24  | 23  | 23  | 23  |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 25317  | 25317  | 25317 | 25317 | 25317 |
| 5°  | 44257  | 36149  | 24878 | 20175 | 19380 |
| 10° | 100153 | 58287  | 23854 | 18555 | 18817 |
| 15° | 182060 | 93731  | 22145 | 18632 | 19185 |
| 20° | 246854 | 133828 | 19995 | 18602 | 19446 |
| 25° | 324452 | 168991 | 17558 | 18129 | 19858 |
| 30° | 375697 | 200357 | 15074 | 18077 | 20781 |
| 35° | 410272 | 225845 | 12741 | 18481 | 21971 |
| 40° | 447551 | 234331 | 11241 | 19425 | 23494 |
| 45° | 507383 | 217353 | 10692 | 20654 | 25452 |
| 50° | 484660 | 181443 | 10556 | 21917 | 27999 |
| 55° | 451713 | 101909 | 10930 | 23661 | 30927 |
| 60° | 304249 | 21907  | 10953 | 25041 | 33411 |
| 65° | 46905  | 5542   | 10514 | 25918 | 36432 |
| 70° | 5338   | 5338   | 9920  | 26688 | 38924 |
| 75° | 5057   | 5057   | 9050  | 26217 | 39326 |
| 80° | 4463   | 6050   | 9025  | 24001 | 39077 |
| 85° | 2964   | 5928   | 8892  | 23910 | 35964 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 507383 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 17.8   | 1.2       |
| 10°-20°   | 96.1   | 6.4       |
| 20°-30°   | 225.7  | 14.9      |
| 30°-40°   | 341.1  | 22.6      |
| 40°-50°   | 392.0  | 25.9      |
| 50°-60°   | 311.2  | 20.6      |
| 60°-70°   | 93.2   | 6.2       |
| 70°-80°   | 25.3   | 1.7       |
| 80°-90°   | 8.5    | 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°    | 339.6  | 22.5      |
| 0°-40°    | 680.7  | 45.0      |
| 0°-60°    | 1383.9 | 91.6      |
| 0°-90°    | 1511.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1511.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 147  | 147  | 147 | 147  | 147  |      |
| 5°  | 256  | 209  | 144 | 117  | 112  | 34   |
| 15° | 1021 | 526  | 124 | 104  | 108  | 294  |
| 25° | 1707 | 889  | 92  | 95   | 104  | 779  |
| 35° | 1951 | 1074 | 61  | 88   | 104  | 1224 |
| 45° | 2083 | 892  | 44  | 85   | 104  | 1547 |
| 55° | 1504 | 339  | 36  | 79   | 103  | 1239 |
| 65° | 115  | 14   | 26  | 64   | 89   | 258  |
| 75° | 8    | 8    | 14  | 39   | 59   | 8    |
| 85° | 2    | 3    | 4   | 12   | 18   | 2    |
| 90° | 0    | 0    | 0   | 0    | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 45°    | 67.5° | 90°   | 112.5° | 135°  |
|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|-------|
| 0°    | 147.0  | 147.0  | 147.0  | 147.0  | 147.0  | 147.0  | 147.0  | 147.0 | 147.0 | 147.0  | 147.0 |
| 2.5°  | 186.3  | 187.9  | 186.3  | 186.3  | 184.8  | 183.3  | 172.7  | 160.6 | 147.0 | 136.4  | 128.8 |
| 5°    | 256.0  | 257.6  | 253.0  | 253.0  | 250.0  | 245.4  | 209.1  | 174.2 | 143.9 | 127.3  | 116.7 |
| 7.5°  | 378.8  | 384.8  | 377.2  | 368.2  | 351.5  | 348.5  | 260.6  | 187.9 | 140.9 | 118.2  | 109.1 |
| 10°   | 572.7  | 568.1  | 560.6  | 542.4  | 513.6  | 500.0  | 333.3  | 201.5 | 136.4 | 112.1  | 106.1 |
| 12.5° | 807.5  | 795.4  | 786.3  | 753.0  | 713.6  | 690.9  | 424.2  | 213.6 | 130.3 | 106.1  | 104.5 |
| 15°   | 1021.1 | 1012.0 | 990.8  | 959.0  | 910.5  | 892.4  | 525.7  | 221.2 | 124.2 | 101.5  | 104.5 |
| 17.5° | 1201.4 | 1192.3 | 1180.2 | 1148.4 | 1098.4 | 1071.1 | 639.3  | 225.7 | 116.7 | 98.5   | 103.0 |
| 20°   | 1346.9 | 1340.8 | 1324.1 | 1298.4 | 1248.4 | 1222.6 | 730.2  | 225.7 | 109.1 | 95.4   | 101.5 |
| 22.5° | 1534.7 | 1521.1 | 1499.9 | 1462.0 | 1399.9 | 1360.5 | 816.6  | 221.2 | 101.5 | 92.4   | 98.5  |
| 25°   | 1707.4 | 1698.3 | 1671.1 | 1625.6 | 1559.0 | 1519.6 | 889.3  | 212.1 | 92.4  | 87.9   | 95.4  |
| 27.5° | 1810.5 | 1804.4 | 1778.6 | 1731.7 | 1657.4 | 1627.1 | 949.9  | 198.5 | 83.3  | 83.3   | 93.9  |
| 30°   | 1889.2 | 1877.1 | 1851.4 | 1805.9 | 1730.2 | 1693.8 | 1007.5 | 181.8 | 75.8  | 78.8   | 90.9  |
| 32.5° | 1928.6 | 1924.1 | 1901.4 | 1862.0 | 1787.7 | 1746.8 | 1054.5 | 160.6 | 66.7  | 75.8   | 89.4  |
| 35°   | 1951.4 | 1946.8 | 1928.6 | 1890.8 | 1821.1 | 1781.7 | 1074.2 | 140.9 | 60.6  | 72.7   | 87.9  |
| 37.5° | 1969.5 | 1965.0 | 1942.3 | 1904.4 | 1834.7 | 1793.8 | 1065.1 | 119.7 | 54.5  | 69.7   | 86.4  |
| 40°   | 1990.7 | 1974.1 | 1939.2 | 1901.4 | 1837.7 | 1798.3 | 1042.3 | 100.0 | 50.0  | 68.2   | 86.4  |
| 42.5° | 2042.3 | 1984.7 | 1930.1 | 1895.3 | 1834.7 | 1789.2 | 977.2  | 78.8  | 45.5  | 65.1   | 84.8  |
| 45°   | 2083.2 | 1981.7 | 1912.0 | 1884.7 | 1822.6 | 1771.1 | 892.4  | 57.6  | 43.9  | 63.6   | 84.8  |
| 47.5° | 1975.6 | 1913.5 | 1881.7 | 1866.5 | 1799.9 | 1743.8 | 804.5  | 39.4  | 42.4  | 62.1   | 83.3  |
| 50°   | 1808.9 | 1801.4 | 1789.2 | 1790.8 | 1730.2 | 1684.7 | 677.2  | 27.3  | 39.4  | 60.6   | 81.8  |
| 52.5° | 1728.6 | 1719.6 | 1698.3 | 1683.2 | 1622.6 | 1583.2 | 536.3  | 21.2  | 37.9  | 59.1   | 80.3  |
| 55°   | 1504.4 | 1510.5 | 1487.8 | 1496.8 | 1478.7 | 1459.0 | 339.4  | 19.7  | 36.4  | 56.1   | 78.8  |
| 57.5° | 990.8  | 1021.1 | 1074.2 | 1137.8 | 1195.4 | 1234.7 | 183.3  | 19.7  | 33.3  | 54.5   | 75.8  |
| 60°   | 883.3  | 875.7  | 874.2  | 886.3  | 912.0  | 933.3  | 63.6   | 18.2  | 31.8  | 50.0   | 72.7  |
| 62.5° | 483.3  | 480.3  | 525.7  | 603.0  | 648.4  | 653.0  | 18.2   | 18.2  | 28.8  | 47.0   | 68.2  |
| 65°   | 115.1  | 119.7  | 133.3  | 166.7  | 197.0  | 216.6  | 13.6   | 16.7  | 25.8  | 43.9   | 63.6  |
| 67.5° | 18.2   | 19.7   | 19.7   | 24.2   | 27.3   | 27.3   | 12.1   | 15.2  | 22.7  | 39.4   | 59.1  |
| 70°   | 10.6   | 10.6   | 10.6   | 10.6   | 10.6   | 10.6   | 10.6   | 13.6  | 19.7  | 34.8   | 53.0  |
| 72.5° | 9.1    | 9.1    | 9.1    | 9.1    | 9.1    | 9.1    | 10.6   | 12.1  | 16.7  | 30.3   | 45.5  |
| 75°   | 7.6    | 7.6    | 7.6    | 7.6    | 7.6    | 7.6    | 7.6    | 10.6  | 13.6  | 24.2   | 39.4  |
| 77.5° | 6.1    | 6.1    | 6.1    | 6.1    | 6.1    | 6.1    | 7.6    | 9.1   | 12.1  | 19.7   | 31.8  |
| 80°   | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 4.5    | 6.1    | 7.6   | 9.1   | 15.2   | 24.2  |
| 82.5° | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 3.0    | 4.5    | 6.1   | 7.6   | 12.1   | 18.2  |
| 85°   | 1.5    | 1.5    | 1.5    | 1.5    | 3.0    | 3.0    | 3.0    | 4.5   | 4.5   | 7.6    | 12.1  |
| 87.5° | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 1.5    | 3.0    | 3.0   | 3.0   | 4.5    | 6.1   |
| 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):**

|       | 157.5° | 180°  |
|-------|--------|-------|
| 0°    | 147.0  | 147.0 |
| 2.5°  | 124.2  | 122.7 |
| 5°    | 112.1  | 112.1 |
| 7.5°  | 107.6  | 107.6 |
| 10°   | 106.1  | 107.6 |
| 12.5° | 106.1  | 107.6 |
| 15°   | 106.1  | 107.6 |
| 17.5° | 106.1  | 107.6 |
| 20°   | 104.5  | 106.1 |
| 22.5° | 103.0  | 104.5 |
| 25°   | 101.5  | 104.5 |
| 27.5° | 100.0  | 104.5 |
| 30°   | 100.0  | 104.5 |
| 32.5° | 100.0  | 104.5 |
| 35°   | 98.5   | 104.5 |
| 37.5° | 98.5   | 104.5 |
| 40°   | 98.5   | 104.5 |
| 42.5° | 98.5   | 104.5 |
| 45°   | 98.5   | 104.5 |
| 47.5° | 98.5   | 104.5 |
| 50°   | 98.5   | 104.5 |
| 52.5° | 97.0   | 104.5 |
| 55°   | 97.0   | 103.0 |
| 57.5° | 93.9   | 100.0 |
| 60°   | 90.9   | 97.0  |
| 62.5° | 87.9   | 93.9  |
| 65°   | 83.3   | 89.4  |
| 67.5° | 78.8   | 83.3  |
| 70°   | 71.2   | 77.3  |
| 72.5° | 63.6   | 68.2  |
| 75°   | 54.5   | 59.1  |
| 77.5° | 45.5   | 50.0  |
| 80°   | 36.4   | 39.4  |
| 82.5° | 25.8   | 28.8  |
| 85°   | 16.7   | 18.2  |
| 87.5° | 7.6    | 7.6   |
| 90°   | 0.0    | 0.0   |

(END OF REPORT)