

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: P1315734

Luminaire Tested: P3SQAS20R659740D010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1315734  
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: P3SQAS20R659740D010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R65 optic, 4000K CCT AND, 97CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

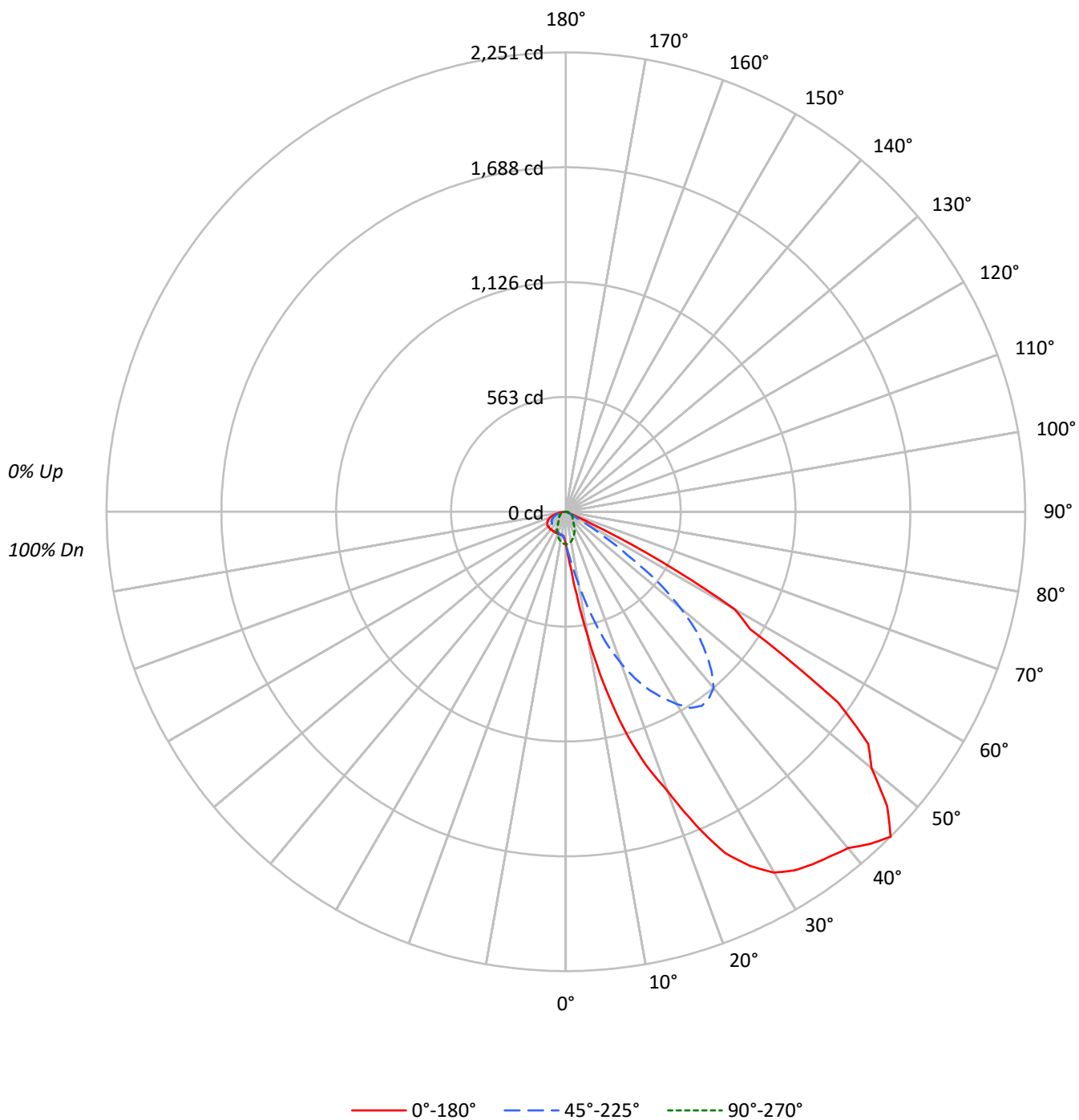
Lumens per Lamp: N/A  
Luminaire Lumens: 1633.0 lumens  
Efficiency: N/A  
Efficacy: 56.7 lumens/watt  
Spacing Criteria (0/90/45): 3.28 / 0.89 / 2.04  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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



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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  | 0   |
| 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  | 94  | 91  |  | 92  | 90  | 89  | 87  |
| 2   | 101 | 93  | 87  | 82  | 98  | 92  | 86  | 81  | 88  | 83  | 79  |  | 85  | 81  | 77  |  | 82  | 79  | 76  | 74  |
| 3   | 92  | 82  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  |  | 75  | 70  | 66  |  | 73  | 68  | 65  | 62  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 64  | 59  | 55  | 53  |
| 5   | 77  | 64  | 56  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  |  | 59  | 53  | 48  |  | 57  | 52  | 47  | 45  |
| 6   | 71  | 57  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  |  | 53  | 46  | 41  |  | 51  | 46  | 41  | 39  |
| 7   | 65  | 52  | 43  | 37  | 63  | 51  | 42  | 36  | 49  | 42  | 36  |  | 48  | 41  | 36  |  | 46  | 40  | 36  | 34  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 38  | 32  | 44  | 37  | 32  |  | 43  | 36  | 31  |  | 42  | 36  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  | 32  | 28  | 26  |
| 10  | 52  | 38  | 30  | 25  | 50  | 38  | 30  | 25  | 37  | 30  | 25  |  | 36  | 29  | 25  |  | 35  | 29  | 24  | 23  |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 27349  | 27349  | 27349 | 27349 | 27349 |
| 5°  | 47836  | 39071  | 26883 | 21800 | 20953 |
| 10° | 108233 | 62992  | 25777 | 20041 | 20338 |
| 15° | 196770 | 101309 | 23945 | 20148 | 20736 |
| 20° | 266776 | 144641 | 21608 | 20105 | 21003 |
| 25° | 350656 | 182635 | 18984 | 19611 | 21473 |
| 30° | 406044 | 216525 | 16287 | 19529 | 22472 |
| 35° | 443386 | 244073 | 13771 | 19973 | 23758 |
| 40° | 483702 | 253261 | 12140 | 20976 | 25405 |
| 45° | 548350 | 234889 | 11569 | 22334 | 27522 |
| 50° | 523805 | 196099 | 11414 | 23685 | 30276 |
| 55° | 488194 | 110136 | 11800 | 25552 | 33419 |
| 60° | 328807 | 23698  | 11849 | 27073 | 36098 |
| 65° | 50695  | 5990   | 11329 | 28037 | 39366 |
| 70° | 5791   | 5791   | 10726 | 28853 | 42046 |
| 75° | 5456   | 5456   | 9782  | 28347 | 42520 |
| 80° | 4860   | 6447   | 9720  | 25985 | 42250 |
| 85° | 3162   | 6521   | 9683  | 25886 | 38730 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 548350 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 19.2   | 1.2       |
| 10°-20°   | 103.8  | 6.4       |
| 20°-30°   | 244.0  | 14.9      |
| 30°-40°   | 368.6  | 22.6      |
| 40°-50°   | 423.7  | 25.9      |
| 50°-60°   | 336.4  | 20.6      |
| 60°-70°   | 100.8  | 6.2       |
| 70°-80°   | 27.4   | 1.7       |
| 80°-90°   | 9.2    | 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°    | 367.0  | 22.5      |
| 0°-40°    | 735.6  | 45.0      |
| 0°-60°    | 1495.7 | 91.6      |
| 0°-90°    | 1633.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1633.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 159  | 159  | 159 | 159  | 159  |      |
| 5°  | 277  | 226  | 156 | 126  | 121  | 37   |
| 15° | 1104 | 568  | 134 | 113  | 116  | 318  |
| 25° | 1845 | 961  | 100 | 103  | 113  | 842  |
| 35° | 2109 | 1161 | 66  | 95   | 113  | 1323 |
| 45° | 2251 | 964  | 48  | 92   | 113  | 1672 |
| 55° | 1626 | 367  | 39  | 85   | 111  | 1340 |
| 65° | 124  | 15   | 28  | 69   | 97   | 279  |
| 75° | 8    | 8    | 15  | 43   | 64   | 9    |
| 85° | 2    | 3    | 5   | 13   | 20   | 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°    | 158.8  | 158.8  | 158.8  | 158.8  | 158.8  | 158.8  | 158.8  | 158.8 | 158.8 | 158.8  | 158.8 |
| 2.5°  | 201.4  | 203.0  | 201.4  | 201.4  | 199.8  | 198.1  | 186.7  | 173.6 | 158.8 | 147.4  | 139.2 |
| 5°    | 276.7  | 278.3  | 273.4  | 273.4  | 270.2  | 265.3  | 226.0  | 188.3 | 155.5 | 137.5  | 126.1 |
| 7.5°  | 409.3  | 415.9  | 407.7  | 397.9  | 379.9  | 376.6  | 281.6  | 203.0 | 152.3 | 127.7  | 117.9 |
| 10°   | 618.9  | 614.0  | 605.8  | 586.2  | 555.1  | 540.3  | 360.2  | 217.8 | 147.4 | 121.2  | 114.6 |
| 12.5° | 872.7  | 859.6  | 849.8  | 813.8  | 771.2  | 746.6  | 458.5  | 230.9 | 140.8 | 114.6  | 113.0 |
| 15°   | 1103.6 | 1093.8 | 1070.8 | 1036.4 | 984.0  | 964.4  | 568.2  | 239.1 | 134.3 | 109.7  | 113.0 |
| 17.5° | 1298.4 | 1288.6 | 1275.5 | 1241.1 | 1187.1 | 1157.6 | 691.0  | 244.0 | 126.1 | 106.4  | 111.3 |
| 20°   | 1455.6 | 1449.1 | 1431.0 | 1403.2 | 1349.2 | 1321.3 | 789.2  | 244.0 | 117.9 | 103.2  | 109.7 |
| 22.5° | 1658.6 | 1643.9 | 1621.0 | 1580.0 | 1512.9 | 1470.3 | 882.5  | 239.1 | 109.7 | 99.9   | 106.4 |
| 25°   | 1845.3 | 1835.5 | 1806.0 | 1756.9 | 1684.8 | 1642.3 | 961.1  | 229.2 | 99.9  | 95.0   | 103.2 |
| 27.5° | 1956.6 | 1950.1 | 1922.3 | 1871.5 | 1791.3 | 1758.5 | 1026.6 | 214.5 | 90.1  | 90.1   | 101.5 |
| 30°   | 2041.8 | 2028.7 | 2000.8 | 1951.7 | 1869.9 | 1830.6 | 1088.8 | 196.5 | 81.9  | 85.1   | 98.2  |
| 32.5° | 2084.3 | 2079.4 | 2054.9 | 2012.3 | 1932.1 | 1887.9 | 1139.6 | 173.6 | 72.0  | 81.9   | 96.6  |
| 35°   | 2108.9 | 2104.0 | 2084.3 | 2043.4 | 1968.1 | 1925.5 | 1160.9 | 152.3 | 65.5  | 78.6   | 95.0  |
| 37.5° | 2128.6 | 2123.6 | 2099.1 | 2058.2 | 1982.8 | 1938.6 | 1151.1 | 129.4 | 58.9  | 75.3   | 93.3  |
| 40°   | 2151.5 | 2133.5 | 2095.8 | 2054.9 | 1986.1 | 1943.5 | 1126.5 | 108.1 | 54.0  | 73.7   | 93.3  |
| 42.5° | 2207.2 | 2144.9 | 2086.0 | 2048.3 | 1982.8 | 1933.7 | 1056.1 | 85.1  | 49.1  | 70.4   | 91.7  |
| 45°   | 2251.4 | 2141.7 | 2066.3 | 2036.9 | 1969.7 | 1914.1 | 964.4  | 62.2  | 47.5  | 68.8   | 91.7  |
| 47.5° | 2135.1 | 2068.0 | 2033.6 | 2017.2 | 1945.2 | 1884.6 | 869.4  | 42.6  | 45.8  | 67.1   | 90.1  |
| 50°   | 1955.0 | 1946.8 | 1933.7 | 1935.4 | 1869.9 | 1820.7 | 731.9  | 29.5  | 42.6  | 65.5   | 88.4  |
| 52.5° | 1868.2 | 1858.4 | 1835.5 | 1819.1 | 1753.6 | 1711.0 | 579.6  | 22.9  | 40.9  | 63.9   | 86.8  |
| 55°   | 1625.9 | 1632.4 | 1607.9 | 1617.7 | 1598.1 | 1576.8 | 366.8  | 21.3  | 39.3  | 60.6   | 85.1  |
| 57.5° | 1070.8 | 1103.6 | 1160.9 | 1229.7 | 1291.9 | 1334.4 | 198.1  | 21.3  | 36.0  | 58.9   | 81.9  |
| 60°   | 954.6  | 946.4  | 944.8  | 957.9  | 985.7  | 1008.6 | 68.8   | 19.6  | 34.4  | 54.0   | 78.6  |
| 62.5° | 522.3  | 519.0  | 568.2  | 651.7  | 700.8  | 705.7  | 19.6   | 19.6  | 31.1  | 50.8   | 73.7  |
| 65°   | 124.4  | 129.4  | 144.1  | 180.1  | 212.9  | 234.1  | 14.7   | 18.0  | 27.8  | 47.5   | 68.8  |
| 67.5° | 19.6   | 21.3   | 21.3   | 26.2   | 29.5   | 29.5   | 13.1   | 16.4  | 24.6  | 42.6   | 63.9  |
| 70°   | 11.5   | 11.5   | 11.5   | 11.5   | 11.5   | 11.5   | 11.5   | 14.7  | 21.3  | 37.7   | 57.3  |
| 72.5° | 9.8    | 9.8    | 9.8    | 9.8    | 9.8    | 9.8    | 11.5   | 13.1  | 18.0  | 32.7   | 49.1  |
| 75°   | 8.2    | 8.2    | 8.2    | 8.2    | 8.2    | 8.2    | 8.2    | 11.5  | 14.7  | 26.2   | 42.6  |
| 77.5° | 6.5    | 6.5    | 6.5    | 6.5    | 6.5    | 6.5    | 8.2    | 9.8   | 13.1  | 21.3   | 34.4  |
| 80°   | 4.9    | 4.9    | 4.9    | 4.9    | 4.9    | 4.9    | 6.5    | 8.2   | 9.8   | 16.4   | 26.2  |
| 82.5° | 3.3    | 3.3    | 3.3    | 3.3    | 3.3    | 3.3    | 4.9    | 6.5   | 8.2   | 13.1   | 19.6  |
| 85°   | 1.6    | 1.6    | 1.6    | 1.6    | 3.3    | 3.3    | 3.3    | 4.9   | 4.9   | 8.2    | 13.1  |
| 87.5° | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 1.6    | 3.3    | 3.3   | 3.3   | 4.9    | 6.5   |
| 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):**

|       | 157.5° | 180°  |
|-------|--------|-------|
| 0°    | 158.8  | 158.8 |
| 2.5°  | 134.3  | 132.6 |
| 5°    | 121.2  | 121.2 |
| 7.5°  | 116.3  | 116.3 |
| 10°   | 114.6  | 116.3 |
| 12.5° | 114.6  | 116.3 |
| 15°   | 114.6  | 116.3 |
| 17.5° | 114.6  | 116.3 |
| 20°   | 113.0  | 114.6 |
| 22.5° | 111.3  | 113.0 |
| 25°   | 109.7  | 113.0 |
| 27.5° | 108.1  | 113.0 |
| 30°   | 108.1  | 113.0 |
| 32.5° | 108.1  | 113.0 |
| 35°   | 106.4  | 113.0 |
| 37.5° | 106.4  | 113.0 |
| 40°   | 106.4  | 113.0 |
| 42.5° | 106.4  | 113.0 |
| 45°   | 106.4  | 113.0 |
| 47.5° | 106.4  | 113.0 |
| 50°   | 106.4  | 113.0 |
| 52.5° | 104.8  | 113.0 |
| 55°   | 104.8  | 111.3 |
| 57.5° | 101.5  | 108.1 |
| 60°   | 98.2   | 104.8 |
| 62.5° | 95.0   | 101.5 |
| 65°   | 90.1   | 96.6  |
| 67.5° | 85.1   | 90.1  |
| 70°   | 77.0   | 83.5  |
| 72.5° | 68.8   | 73.7  |
| 75°   | 58.9   | 63.9  |
| 77.5° | 49.1   | 54.0  |
| 80°   | 39.3   | 42.6  |
| 82.5° | 27.8   | 31.1  |
| 85°   | 18.0   | 19.6  |
| 87.5° | 8.2    | 8.2   |
| 90°   | 0.0    | 0.0   |

(END OF REPORT)