

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: P1311700

Luminaire Tested: P3SQAS20R659050D010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1311700  
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: P3SQAS20R659050D010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R65 optic, 5000K CCT AND, 90CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

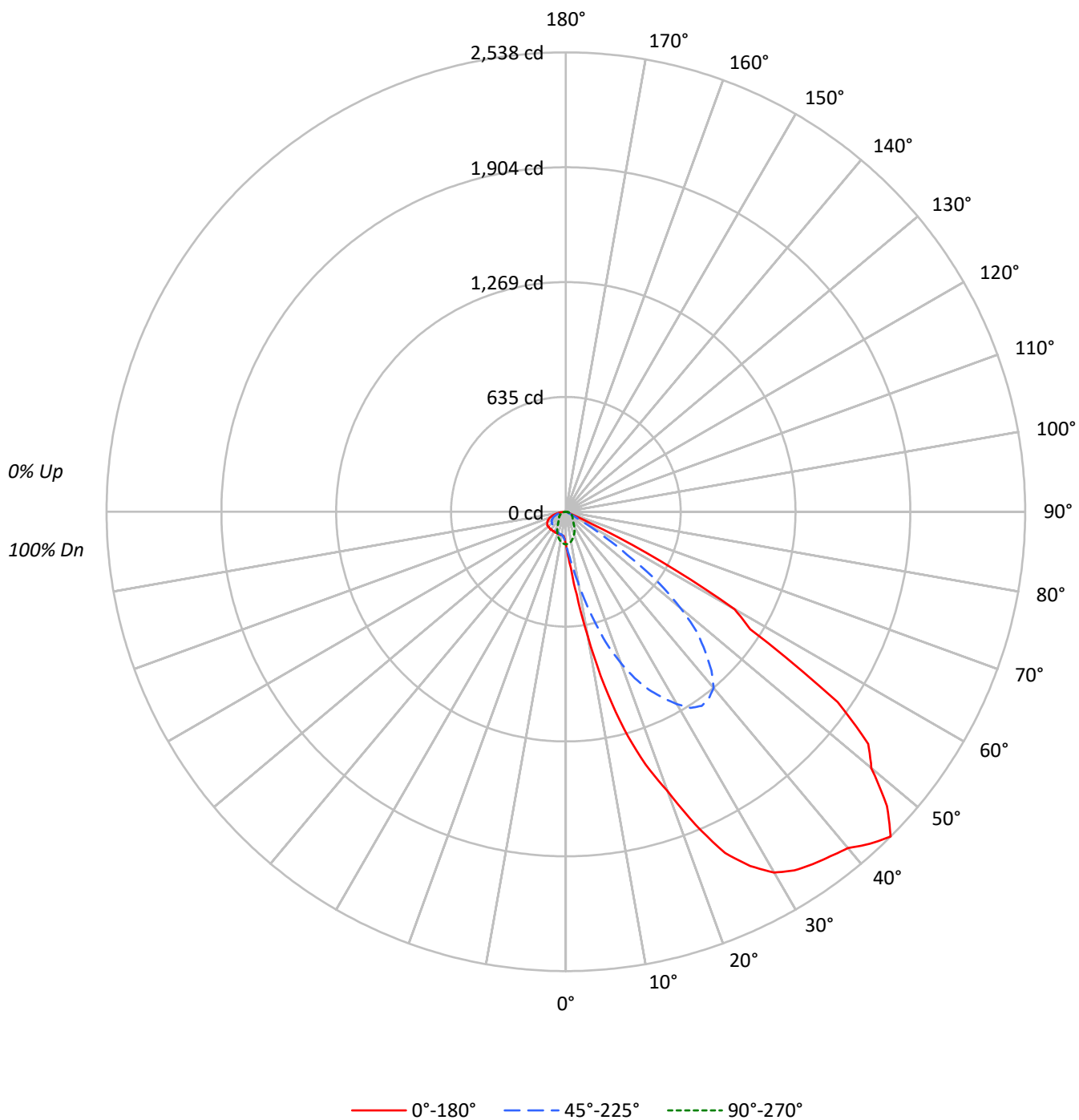
Lumens per Lamp: N/A  
Luminaire Lumens: 1841.0 lumens  
Efficiency: N/A  
Efficacy: 63.9 lumens/watt  
Spacing Criteria (0/90/45): 3.28 / 0.89 / 2.04  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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  | 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  | 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°  | 30845  | 30845  | 30845 | 30845 | 30845 |
| 5°  | 53939  | 44033  | 30323 | 24566 | 23615 |
| 10° | 122031 | 71019  | 29047 | 22594 | 22927 |
| 15° | 221821 | 114200 | 26994 | 22715 | 23375 |
| 20° | 300755 | 163060 | 24357 | 22671 | 23679 |
| 25° | 395312 | 205894 | 21397 | 22100 | 24209 |
| 30° | 457749 | 244107 | 18355 | 22034 | 25335 |
| 35° | 499858 | 275148 | 15516 | 22517 | 26785 |
| 40° | 545303 | 285522 | 13692 | 23651 | 28642 |
| 45° | 618179 | 264798 | 13030 | 25184 | 31029 |
| 50° | 590520 | 221070 | 12861 | 26713 | 34134 |
| 55° | 550378 | 124158 | 13302 | 28825 | 37683 |
| 60° | 370692 | 26695  | 13364 | 30518 | 40679 |
| 65° | 57174  | 6765   | 12796 | 31582 | 44378 |
| 70° | 6496   | 6496   | 12085 | 32529 | 47384 |
| 75° | 6122   | 6122   | 11046 | 31940 | 47910 |
| 80° | 5455   | 7339   | 11009 | 29258 | 47606 |
| 85° | 3557   | 7311   | 10868 | 29245 | 43868 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 618179 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 21.7   | 1.2       |
| 10°-20°   | 117.1  | 6.4       |
| 20°-30°   | 275.0  | 14.9      |
| 30°-40°   | 415.5  | 22.6      |
| 40°-50°   | 477.6  | 25.9      |
| 50°-60°   | 379.2  | 20.6      |
| 60°-70°   | 113.6  | 6.2       |
| 70°-80°   | 30.9   | 1.7       |
| 80°-90°   | 10.4   | 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°    | 413.8  | 22.5      |
| 0°-40°    | 829.3  | 45.0      |
| 0°-60°    | 1686.2 | 91.6      |
| 0°-90°    | 1841.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1841.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 179  | 179  | 179 | 179  | 179  |      |
| 5°  | 312  | 255  | 175 | 142  | 137  | 42   |
| 15° | 1244 | 640  | 151 | 127  | 131  | 358  |
| 25° | 2080 | 1084 | 113 | 116  | 127  | 950  |
| 35° | 2378 | 1309 | 74  | 107  | 127  | 1492 |
| 45° | 2538 | 1087 | 54  | 103  | 127  | 1885 |
| 55° | 1833 | 414  | 44  | 96   | 126  | 1510 |
| 65° | 140  | 17   | 31  | 78   | 109  | 315  |
| 75° | 9    | 9    | 17  | 48   | 72   | 10   |
| 85° | 2    | 4    | 6   | 15   | 22   | 3    |
| 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°    | 179.1  | 179.1  | 179.1  | 179.1  | 179.1  | 179.1  | 179.1  | 179.1 | 179.1 | 179.1  | 179.1 |
| 2.5°  | 227.0  | 228.9  | 227.0  | 227.0  | 225.2  | 223.4  | 210.4  | 195.7 | 179.1 | 166.1  | 156.9 |
| 5°    | 312.0  | 313.8  | 308.3  | 308.3  | 304.6  | 299.0  | 254.7  | 212.3 | 175.4 | 155.1  | 142.1 |
| 7.5°  | 461.5  | 468.9  | 459.6  | 448.6  | 428.3  | 424.6  | 317.5  | 228.9 | 171.7 | 144.0  | 132.9 |
| 10°   | 697.8  | 692.2  | 683.0  | 660.8  | 625.8  | 609.1  | 406.1  | 245.5 | 166.1 | 136.6  | 129.2 |
| 12.5° | 983.9  | 969.1  | 958.0  | 917.4  | 869.4  | 841.7  | 516.9  | 260.3 | 158.7 | 129.2  | 127.4 |
| 15°   | 1244.1 | 1233.1 | 1207.2 | 1168.5 | 1109.4 | 1087.2 | 640.5  | 269.5 | 151.4 | 123.7  | 127.4 |
| 17.5° | 1463.8 | 1452.7 | 1438.0 | 1399.2 | 1338.3 | 1305.1 | 779.0  | 275.0 | 142.1 | 120.0  | 125.5 |
| 20°   | 1641.0 | 1633.6 | 1613.3 | 1581.9 | 1521.0 | 1489.6 | 889.7  | 275.0 | 132.9 | 116.3  | 123.7 |
| 22.5° | 1869.9 | 1853.3 | 1827.4 | 1781.3 | 1705.6 | 1657.6 | 994.9  | 269.5 | 123.7 | 112.6  | 120.0 |
| 25°   | 2080.3 | 2069.3 | 2036.0 | 1980.7 | 1899.4 | 1851.4 | 1083.5 | 258.4 | 112.6 | 107.1  | 116.3 |
| 27.5° | 2205.9 | 2198.5 | 2167.1 | 2109.9 | 2019.4 | 1982.5 | 1157.4 | 241.8 | 101.5 | 101.5  | 114.4 |
| 30°   | 2301.8 | 2287.1 | 2255.7 | 2200.3 | 2108.0 | 2063.7 | 1227.5 | 221.5 | 92.3  | 96.0   | 110.8 |
| 32.5° | 2349.8 | 2344.3 | 2316.6 | 2268.6 | 2178.2 | 2128.3 | 1284.8 | 195.7 | 81.2  | 92.3   | 108.9 |
| 35°   | 2377.5 | 2372.0 | 2349.8 | 2303.7 | 2218.8 | 2170.8 | 1308.7 | 171.7 | 73.8  | 88.6   | 107.1 |
| 37.5° | 2399.7 | 2394.1 | 2366.5 | 2320.3 | 2235.4 | 2185.6 | 1297.7 | 145.8 | 66.5  | 84.9   | 105.2 |
| 40°   | 2425.5 | 2405.2 | 2362.8 | 2316.6 | 2239.1 | 2191.1 | 1270.0 | 121.8 | 60.9  | 83.1   | 105.2 |
| 42.5° | 2488.3 | 2418.1 | 2351.7 | 2309.2 | 2235.4 | 2180.0 | 1190.6 | 96.0  | 55.4  | 79.4   | 103.4 |
| 45°   | 2538.1 | 2414.4 | 2329.5 | 2296.3 | 2220.6 | 2157.9 | 1087.2 | 70.1  | 53.5  | 77.5   | 103.4 |
| 47.5° | 2407.1 | 2331.4 | 2292.6 | 2274.2 | 2192.9 | 2124.6 | 980.2  | 48.0  | 51.7  | 75.7   | 101.5 |
| 50°   | 2204.0 | 2194.8 | 2180.0 | 2181.9 | 2108.0 | 2052.6 | 825.1  | 33.2  | 48.0  | 73.8   | 99.7  |
| 52.5° | 2106.2 | 2095.1 | 2069.3 | 2050.8 | 1977.0 | 1929.0 | 653.5  | 25.8  | 46.1  | 72.0   | 97.8  |
| 55°   | 1833.0 | 1840.4 | 1812.7 | 1823.8 | 1801.6 | 1777.6 | 413.5  | 24.0  | 44.3  | 68.3   | 96.0  |
| 57.5° | 1207.2 | 1244.1 | 1308.7 | 1386.3 | 1456.4 | 1504.4 | 223.4  | 24.0  | 40.6  | 66.5   | 92.3  |
| 60°   | 1076.2 | 1066.9 | 1065.1 | 1079.9 | 1111.2 | 1137.1 | 77.5   | 22.2  | 38.8  | 60.9   | 88.6  |
| 62.5° | 588.8  | 585.2  | 640.5  | 734.7  | 790.0  | 795.6  | 22.2   | 22.2  | 35.1  | 57.2   | 83.1  |
| 65°   | 140.3  | 145.8  | 162.4  | 203.0  | 240.0  | 264.0  | 16.6   | 20.3  | 31.4  | 53.5   | 77.5  |
| 67.5° | 22.2   | 24.0   | 24.0   | 29.5   | 33.2   | 33.2   | 14.8   | 18.5  | 27.7  | 48.0   | 72.0  |
| 70°   | 12.9   | 12.9   | 12.9   | 12.9   | 12.9   | 12.9   | 12.9   | 16.6  | 24.0  | 42.5   | 64.6  |
| 72.5° | 11.1   | 11.1   | 11.1   | 11.1   | 11.1   | 11.1   | 12.9   | 14.8  | 20.3  | 36.9   | 55.4  |
| 75°   | 9.2    | 9.2    | 9.2    | 9.2    | 9.2    | 9.2    | 9.2    | 12.9  | 16.6  | 29.5   | 48.0  |
| 77.5° | 7.4    | 7.4    | 7.4    | 7.4    | 7.4    | 7.4    | 9.2    | 11.1  | 14.8  | 24.0   | 38.8  |
| 80°   | 5.5    | 5.5    | 5.5    | 5.5    | 5.5    | 5.5    | 7.4    | 9.2   | 11.1  | 18.5   | 29.5  |
| 82.5° | 3.7    | 3.7    | 3.7    | 3.7    | 3.7    | 3.7    | 5.5    | 7.4   | 9.2   | 14.8   | 22.2  |
| 85°   | 1.8    | 1.8    | 1.8    | 1.8    | 3.7    | 3.7    | 3.7    | 5.5   | 5.5   | 9.2    | 14.8  |
| 87.5° | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 1.8    | 3.7    | 3.7   | 3.7   | 5.5    | 7.4   |
| 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°    | 179.1  | 179.1 |
| 2.5°  | 151.4  | 149.5 |
| 5°    | 136.6  | 136.6 |
| 7.5°  | 131.1  | 131.1 |
| 10°   | 129.2  | 131.1 |
| 12.5° | 129.2  | 131.1 |
| 15°   | 129.2  | 131.1 |
| 17.5° | 129.2  | 131.1 |
| 20°   | 127.4  | 129.2 |
| 22.5° | 125.5  | 127.4 |
| 25°   | 123.7  | 127.4 |
| 27.5° | 121.8  | 127.4 |
| 30°   | 121.8  | 127.4 |
| 32.5° | 121.8  | 127.4 |
| 35°   | 120.0  | 127.4 |
| 37.5° | 120.0  | 127.4 |
| 40°   | 120.0  | 127.4 |
| 42.5° | 120.0  | 127.4 |
| 45°   | 120.0  | 127.4 |
| 47.5° | 120.0  | 127.4 |
| 50°   | 120.0  | 127.4 |
| 52.5° | 118.1  | 127.4 |
| 55°   | 118.1  | 125.5 |
| 57.5° | 114.4  | 121.8 |
| 60°   | 110.8  | 118.1 |
| 62.5° | 107.1  | 114.4 |
| 65°   | 101.5  | 108.9 |
| 67.5° | 96.0   | 101.5 |
| 70°   | 86.8   | 94.1  |
| 72.5° | 77.5   | 83.1  |
| 75°   | 66.5   | 72.0  |
| 77.5° | 55.4   | 60.9  |
| 80°   | 44.3   | 48.0  |
| 82.5° | 31.4   | 35.1  |
| 85°   | 20.3   | 22.2  |
| 87.5° | 9.2    | 9.2   |
| 90°   | 0.0    | 0.0   |

(END OF REPORT)