

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: P1312802

Luminaire Tested: P3SQAS20R559727D010 E3SQCA451MW

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1312802  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-80)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS20R559727D010 E3SQCA451MW  
Description: 3in Adjustable LED luminaire with, R55 optic, 2700K CCT AND, 97CRI , E3SQCA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

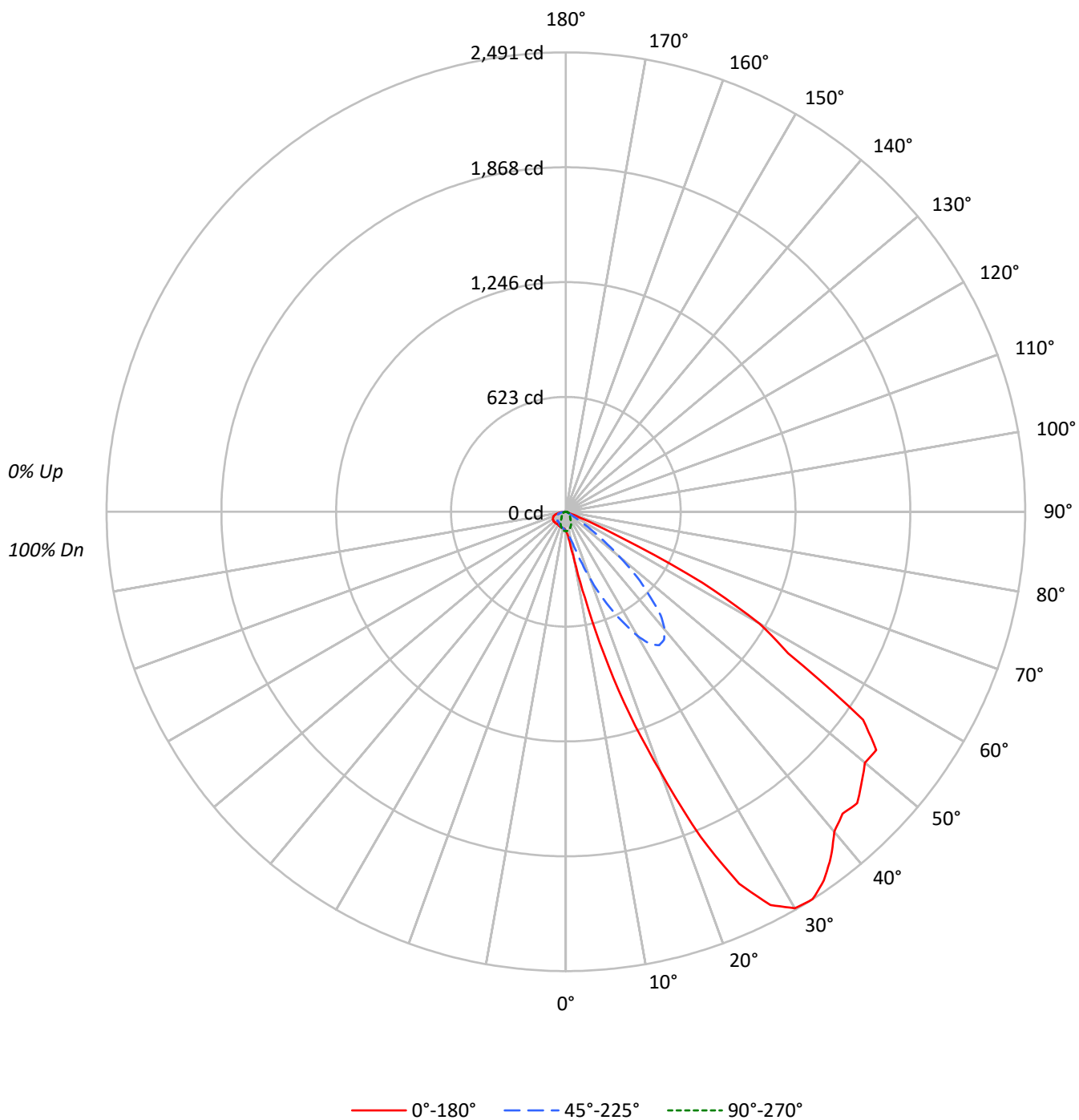
Lumens per Lamp: N/A  
Luminaire Lumens: 1602.0 lumens  
Efficiency: N/A  
Efficacy: 55.6 lumens/watt  
Spacing Criteria (0/90/45): 3.76 / 0.91 / 1.95  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 95  | 93  | 91  | 92  | 90  | 88  | 86  |    |    |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  | 73  |    |    |
| 3   | 91  | 81  | 73  | 67  | 89  | 80  | 72  | 67  | 77  | 71  | 65  | 74  | 69  | 64  | 72  | 67  | 63  | 61  |    |    |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 68  | 61  | 55  | 65  | 59  | 54  | 63  | 58  | 54  | 51  |    |    |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 60  | 52  | 47  | 58  | 51  | 46  | 56  | 50  | 46  | 43  |    |    |
| 6   | 69  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 46  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 37  |    |    |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 48  | 40  | 34  | 46  | 39  | 34  | 45  | 38  | 34  | 32  |    |    |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  | 41  | 35  | 29  | 40  | 34  | 29  | 27  |    |    |
| 9   | 54  | 40  | 32  | 26  | 53  | 40  | 32  | 26  | 39  | 31  | 26  | 38  | 31  | 26  | 36  | 30  | 26  | 24  |    |    |
| 10  | 50  | 37  | 28  | 23  | 49  | 36  | 28  | 23  | 35  | 28  | 23  | 34  | 27  | 23  | 33  | 27  | 23  | 21  |    |    |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 17791  | 17791  | 17791 | 17791 | 17791 |
| 5°  | 22751  | 20798  | 17859 | 16648 | 16147 |
| 10° | 46291  | 26494  | 17331 | 15844 | 15844 |
| 15° | 142086 | 40634  | 16154 | 15387 | 15904 |
| 20° | 274730 | 71074  | 14534 | 15047 | 15817 |
| 25° | 422828 | 110558 | 12637 | 14518 | 15867 |
| 30° | 493724 | 154538 | 10421 | 14358 | 16327 |
| 35° | 513061 | 185688 | 8620  | 14276 | 16967 |
| 40° | 509151 | 187433 | 7959  | 14951 | 18458 |
| 45° | 544356 | 155147 | 7575  | 16197 | 19996 |
| 50° | 567344 | 102403 | 7582  | 17442 | 22372 |
| 55° | 590764 | 44619  | 7657  | 19127 | 24651 |
| 60° | 417330 | 10230  | 7784  | 20977 | 27797 |
| 65° | 136110 | 3464   | 7498  | 22495 | 31134 |
| 70° | 4280   | 3575   | 7855  | 24221 | 35651 |
| 75° | 3793   | 3793   | 6588  | 25419 | 39526 |
| 80° | 2777   | 4166   | 7042  | 25291 | 42151 |
| 85° | 2766   | 5533   | 8299  | 25096 | 41892 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 52.5°

Luminance: 600271 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 11.0   | 0.7       |
| 10°-20°   | 68.0   | 4.2       |
| 20°-30°   | 228.0  | 14.2      |
| 30°-40°   | 374.5  | 23.4      |
| 40°-50°   | 417.7  | 26.1      |
| 50°-60°   | 351.6  | 21.9      |
| 60°-70°   | 119.3  | 7.4       |
| 70°-80°   | 23.3   | 1.5       |
| 80°-90°   | 8.7    | 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°    | 307.0  | 19.2      |
| 0°-40°    | 681.4  | 42.5      |
| 0°-60°    | 1450.7 | 90.6      |
| 0°-90°    | 1602.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1602.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 103  | 103 | 103 | 103  | 103  |      |
| 5°  | 132  | 120 | 103 | 96   | 93   | 16   |
| 15° | 797  | 228 | 91  | 86   | 89   | 253  |
| 25° | 2225 | 582 | 66  | 76   | 84   | 1000 |
| 35° | 2440 | 883 | 41  | 68   | 81   | 1515 |
| 45° | 2235 | 637 | 31  | 66   | 82   | 1707 |
| 55° | 1968 | 149 | 26  | 64   | 82   | 1602 |
| 65° | 334  | 8   | 18  | 55   | 76   | 452  |
| 75° | 6    | 6   | 10  | 38   | 59   | 6    |
| 85° | 1    | 3   | 4   | 13   | 21   | 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°    | 103.3  | 103.3  | 103.3  | 103.3  | 103.3  | 103.3  | 103.3 | 103.3 | 103.3 | 103.3  | 103.3 |
| 2.5°  | 113.2  | 113.2  | 113.2  | 113.2  | 113.2  | 113.2  | 111.8 | 107.6 | 104.7 | 100.5  | 99.1  |
| 5°    | 131.6  | 131.6  | 131.6  | 130.2  | 130.2  | 127.4  | 120.3 | 110.4 | 103.3 | 97.7   | 96.3  |
| 7.5°  | 169.9  | 168.4  | 165.6  | 164.2  | 159.9  | 158.5  | 133.1 | 113.2 | 101.9 | 94.8   | 93.4  |
| 10°   | 264.7  | 261.9  | 257.6  | 242.0  | 227.9  | 218.0  | 151.5 | 114.7 | 99.1  | 92.0   | 90.6  |
| 12.5° | 477.0  | 471.3  | 450.1  | 417.6  | 377.9  | 358.1  | 181.2 | 116.1 | 94.8  | 89.2   | 89.2  |
| 15°   | 796.9  | 789.8  | 750.2  | 704.9  | 632.7  | 593.1  | 227.9 | 114.7 | 90.6  | 84.9   | 86.3  |
| 17.5° | 1150.8 | 1131.0 | 1089.9 | 1030.5 | 932.8  | 886.1  | 297.2 | 111.8 | 84.9  | 82.1   | 84.9  |
| 20°   | 1499.0 | 1493.3 | 1425.4 | 1344.7 | 1224.4 | 1162.1 | 387.8 | 107.6 | 79.3  | 77.9   | 82.1  |
| 22.5° | 1906.6 | 1882.6 | 1810.4 | 1724.0 | 1558.4 | 1476.3 | 485.5 | 101.9 | 73.6  | 73.6   | 79.3  |
| 25°   | 2225.1 | 2196.8 | 2140.2 | 2039.7 | 1882.6 | 1794.8 | 581.8 | 94.8  | 66.5  | 69.4   | 76.4  |
| 27.5° | 2403.5 | 2370.9 | 2328.4 | 2242.1 | 2120.4 | 2042.5 | 678.0 | 86.3  | 59.4  | 65.1   | 73.6  |
| 30°   | 2482.7 | 2474.2 | 2443.1 | 2379.4 | 2267.6 | 2198.2 | 777.1 | 76.4  | 52.4  | 60.9   | 72.2  |
| 32.5° | 2491.2 | 2495.5 | 2482.7 | 2441.7 | 2356.7 | 2297.3 | 850.7 | 67.9  | 46.7  | 58.0   | 69.4  |
| 35°   | 2440.3 | 2455.8 | 2464.3 | 2447.3 | 2392.1 | 2344.0 | 883.2 | 58.0  | 41.0  | 55.2   | 67.9  |
| 37.5° | 2361.0 | 2389.3 | 2417.6 | 2421.9 | 2387.9 | 2356.7 | 874.8 | 49.5  | 38.2  | 53.8   | 67.9  |
| 40°   | 2264.7 | 2290.2 | 2348.3 | 2385.1 | 2373.7 | 2351.1 | 833.7 | 41.0  | 35.4  | 51.0   | 66.5  |
| 42.5° | 2220.9 | 2226.5 | 2288.8 | 2351.1 | 2348.3 | 2329.9 | 761.5 | 32.6  | 32.6  | 51.0   | 66.5  |
| 45°   | 2235.0 | 2209.5 | 2250.6 | 2322.8 | 2318.5 | 2294.5 | 637.0 | 25.5  | 31.1  | 49.5   | 66.5  |
| 47.5° | 2175.6 | 2140.2 | 2209.5 | 2294.5 | 2278.9 | 2243.5 | 526.6 | 18.4  | 29.7  | 48.1   | 65.1  |
| 50°   | 2117.5 | 2111.9 | 2165.7 | 2208.1 | 2186.9 | 2167.1 | 382.2 | 14.2  | 28.3  | 46.7   | 65.1  |
| 52.5° | 2121.8 | 2111.9 | 2117.5 | 2116.1 | 2073.7 | 2052.4 | 261.9 | 11.3  | 26.9  | 45.3   | 65.1  |
| 55°   | 1967.5 | 1936.4 | 1906.6 | 1915.1 | 1918.0 | 1903.8 | 148.6 | 9.9   | 25.5  | 45.3   | 63.7  |
| 57.5° | 1429.6 | 1421.1 | 1453.7 | 1545.7 | 1617.9 | 1626.4 | 72.2  | 9.9   | 24.1  | 43.9   | 62.3  |
| 60°   | 1211.6 | 1206.0 | 1207.4 | 1234.3 | 1272.5 | 1248.4 | 29.7  | 9.9   | 22.6  | 42.5   | 60.9  |
| 62.5° | 835.1  | 890.3  | 913.0  | 975.3  | 949.8  | 915.8  | 11.3  | 11.3  | 21.2  | 39.6   | 59.4  |
| 65°   | 334.0  | 332.6  | 363.8  | 393.5  | 385.0  | 359.5  | 8.5   | 9.9   | 18.4  | 36.8   | 55.2  |
| 67.5° | 77.9   | 70.8   | 60.9   | 52.4   | 43.9   | 35.4   | 8.5   | 9.9   | 17.0  | 34.0   | 52.4  |
| 70°   | 8.5    | 8.5    | 8.5    | 8.5    | 8.5    | 7.1    | 7.1   | 9.9   | 15.6  | 31.1   | 48.1  |
| 72.5° | 7.1    | 7.1    | 7.1    | 7.1    | 7.1    | 7.1    | 7.1   | 8.5   | 12.7  | 26.9   | 43.9  |
| 75°   | 5.7    | 5.7    | 5.7    | 5.7    | 5.7    | 5.7    | 5.7   | 7.1   | 9.9   | 22.6   | 38.2  |
| 77.5° | 4.2    | 4.2    | 4.2    | 5.7    | 4.2    | 5.7    | 5.7   | 7.1   | 8.5   | 18.4   | 32.6  |
| 80°   | 2.8    | 2.8    | 4.2    | 4.2    | 4.2    | 4.2    | 4.2   | 5.7   | 7.1   | 15.6   | 25.5  |
| 82.5° | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 4.2   | 4.2   | 5.7   | 11.3   | 18.4  |
| 85°   | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 2.8    | 2.8   | 4.2   | 4.2   | 8.5    | 12.7  |
| 87.5° | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 2.8   | 2.8   | 4.2   | 4.2    | 5.7   |
| 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°    | 103.3  | 103.3 |
| 2.5°  | 97.7   | 97.7  |
| 5°    | 94.8   | 93.4  |
| 7.5°  | 92.0   | 92.0  |
| 10°   | 90.6   | 90.6  |
| 12.5° | 89.2   | 90.6  |
| 15°   | 89.2   | 89.2  |
| 17.5° | 86.3   | 87.8  |
| 20°   | 84.9   | 86.3  |
| 22.5° | 83.5   | 84.9  |
| 25°   | 82.1   | 83.5  |
| 27.5° | 80.7   | 82.1  |
| 30°   | 79.3   | 82.1  |
| 32.5° | 77.9   | 80.7  |
| 35°   | 77.9   | 80.7  |
| 37.5° | 77.9   | 82.1  |
| 40°   | 77.9   | 82.1  |
| 42.5° | 77.9   | 82.1  |
| 45°   | 77.9   | 82.1  |
| 47.5° | 77.9   | 82.1  |
| 50°   | 77.9   | 83.5  |
| 52.5° | 77.9   | 83.5  |
| 55°   | 77.9   | 82.1  |
| 57.5° | 76.4   | 82.1  |
| 60°   | 76.4   | 80.7  |
| 62.5° | 75.0   | 79.3  |
| 65°   | 72.2   | 76.4  |
| 67.5° | 69.4   | 75.0  |
| 70°   | 65.1   | 70.8  |
| 72.5° | 60.9   | 65.1  |
| 75°   | 55.2   | 59.4  |
| 77.5° | 48.1   | 51.0  |
| 80°   | 38.2   | 42.5  |
| 82.5° | 29.7   | 32.6  |
| 85°   | 19.8   | 21.2  |
| 87.5° | 8.5    | 9.9   |
| 90°   | 0.0    | 0.0   |

(END OF REPORT)