

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: P1305831

Luminaire Tested: P3SQAS09R709024DE010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1305831  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-83)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS09R709024DE010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R70 optic, 2400K CCT AND, 90CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

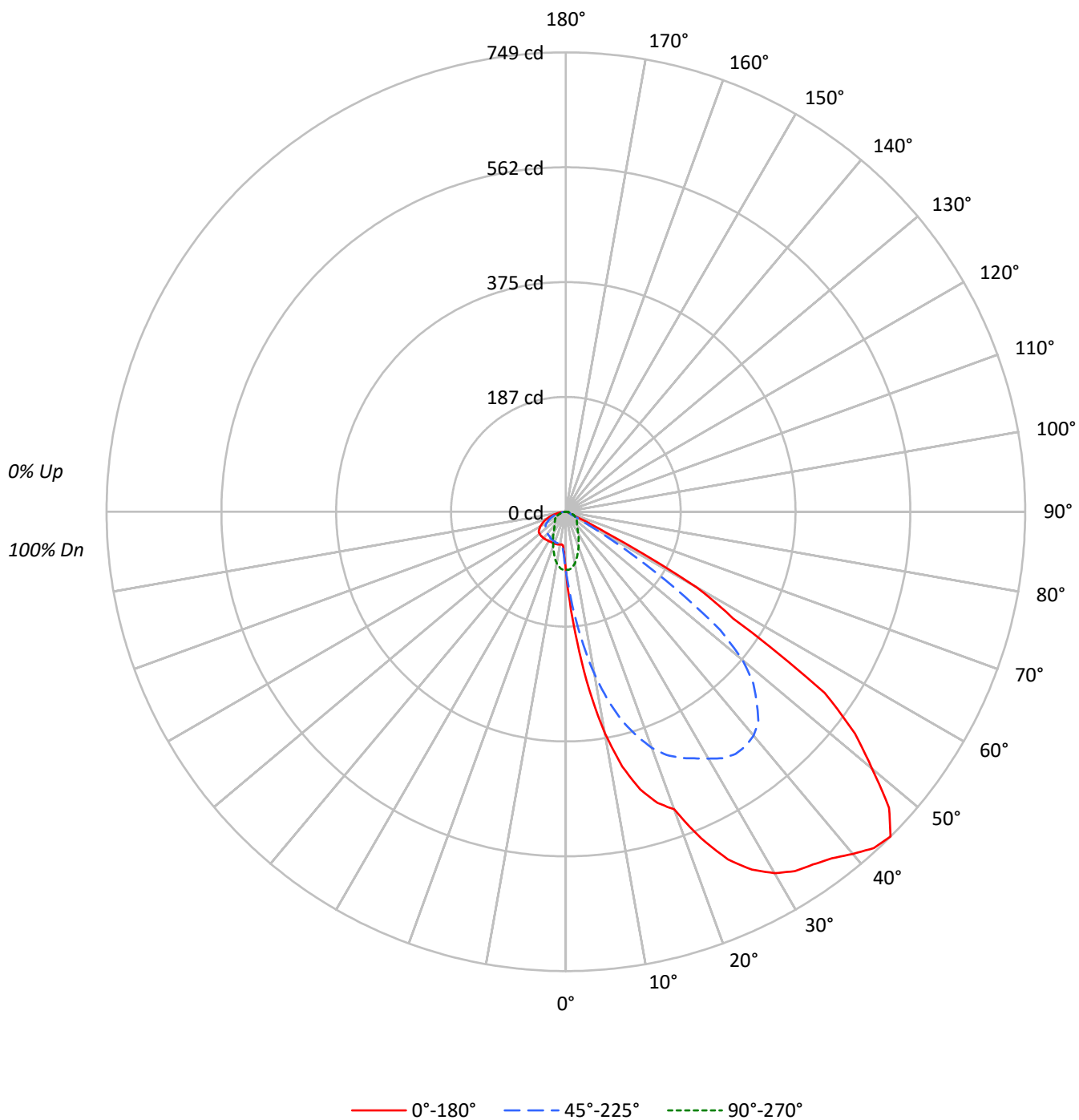
Lumens per Lamp: N/A  
Luminaire Lumens: 647.0 lumens  
Efficiency: N/A  
Efficacy: 58.3 lumens/watt  
Spacing Criteria (0/90/45): 2.92 / 0.77 / 2.03  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 11.1  
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 | 103 | 99  | 108 | 104 | 101 | 98  | 100 | 97  | 95  | 96  | 94  | 92  | 93  | 91  | 89  | 87  |    |    |
| 2   | 101 | 94  | 88  | 83  | 99  | 92  | 87  | 82  | 89  | 84  | 80  | 86  | 82  | 78  | 83  | 79  | 77  | 75  |    |    |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  | 76  | 71  | 67  | 74  | 69  | 66  | 64  |    |    |
| 4   | 85  | 74  | 66  | 59  | 83  | 72  | 65  | 59  | 70  | 63  | 58  | 68  | 62  | 57  | 66  | 61  | 57  | 54  |    |    |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 51  | 63  | 55  | 50  | 61  | 54  | 49  | 59  | 53  | 49  | 47  |    |    |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 43  | 54  | 48  | 43  | 53  | 47  | 43  | 41  |    |    |
| 7   | 66  | 53  | 44  | 38  | 65  | 52  | 44  | 38  | 51  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 37  | 35  |    |    |
| 8   | 61  | 48  | 40  | 34  | 60  | 47  | 39  | 34  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 31  |    |    |
| 9   | 57  | 44  | 35  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 29  | 28  |    |    |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 27  | 38  | 31  | 27  | 37  | 31  | 26  | 37  | 31  | 26  | 25  |    |    |

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

|     | 0°     | 45°    | 90°   | 135°  | 180°  |
|-----|--------|--------|-------|-------|-------|
| 0°  | 16223  | 16223  | 16223 | 16223 | 16223 |
| 5°  | 36945  | 29580  | 16078 | 10148 | 9491  |
| 10° | 64006  | 46955  | 14900 | 9251  | 9478  |
| 15° | 83550  | 62725  | 12998 | 9432  | 9789  |
| 20° | 94643  | 75015  | 11125 | 9585  | 10172 |
| 25° | 118862 | 84144  | 9330  | 9691  | 10432 |
| 30° | 135308 | 92433  | 7955  | 9884  | 11037 |
| 35° | 147655 | 101380 | 6917  | 10050 | 11669 |
| 40° | 163692 | 107105 | 6385  | 10454 | 12635 |
| 45° | 182377 | 107215 | 6284  | 11009 | 13688 |
| 50° | 174691 | 100822 | 6216  | 11575 | 14870 |
| 55° | 154664 | 65307  | 6396  | 12221 | 16094 |
| 60° | 84699  | 14019  | 6441  | 12434 | 16671 |
| 65° | 6031   | 3423   | 6316  | 12348 | 16830 |
| 70° | 2921   | 3273   | 5841  | 11682 | 16265 |
| 75° | 2595   | 3460   | 5590  | 11179 | 15038 |
| 80° | 2579   | 3174   | 5157  | 10215 | 14083 |
| 85° | 2569   | 3754   | 5138  | 8892  | 12844 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 182377 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 12.3   | 1.9       |
| 10°-20°   | 52.6   | 8.1       |
| 20°-30°   | 100.9  | 15.6      |
| 30°-40°   | 142.7  | 22.1      |
| 40°-50°   | 161.4  | 24.9      |
| 50°-60°   | 127.8  | 19.8      |
| 60°-70°   | 34.5   | 5.3       |
| 70°-80°   | 11.5   | 1.8       |
| 80°-90°   | 3.5    | 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°    | 165.8  | 25.6      |
| 0°-40°    | 308.4  | 47.7      |
| 0°-60°    | 597.6  | 92.4      |
| 0°-90°    | 647.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 647.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 45° | 90° | 135° | 180° | Flux |
|-----|-----|-----|-----|------|------|------|
| 0°  | 94  | 94  | 94  | 94   | 94   |      |
| 5°  | 214 | 171 | 93  | 59   | 55   | 25   |
| 15° | 469 | 352 | 73  | 53   | 55   | 132  |
| 25° | 626 | 443 | 49  | 51   | 55   | 287  |
| 35° | 702 | 482 | 33  | 48   | 56   | 442  |
| 45° | 749 | 440 | 26  | 45   | 56   | 560  |
| 55° | 515 | 218 | 21  | 41   | 54   | 418  |
| 65° | 15  | 8   | 16  | 30   | 41   | 54   |
| 75° | 4   | 5   | 8   | 17   | 23   | 4    |
| 85° | 1   | 2   | 3   | 4    | 6    | 1    |
| 90° | 0   | 0   | 0   | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 5°    | 10°   | 15°   | 20°   | 25°   | 30°   | 45°   | 67.5° | 90°  | 112.5° |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|--------|
| 0°    | 94.2  | 94.2  | 94.2  | 94.2  | 94.2  | 94.2  | 94.2  | 94.2  | 94.2  | 94.2 | 94.2   |
| 2.5°  | 146.5 | 146.5 | 145.9 | 143.3 | 142.0 | 138.8 | 136.2 | 129.1 | 111.7 | 94.9 | 81.3   |
| 5°    | 213.7 | 216.9 | 212.4 | 211.7 | 207.9 | 202.0 | 198.2 | 171.1 | 129.1 | 93.0 | 69.7   |
| 7.5°  | 293.1 | 294.4 | 293.1 | 286.6 | 280.8 | 271.1 | 262.1 | 219.5 | 146.5 | 89.7 | 61.3   |
| 10°   | 366.0 | 364.1 | 360.2 | 355.7 | 347.3 | 337.0 | 321.5 | 268.5 | 163.3 | 85.2 | 56.2   |
| 12.5° | 425.4 | 424.7 | 420.2 | 415.7 | 405.4 | 391.8 | 376.3 | 313.1 | 177.5 | 79.4 | 53.6   |
| 15°   | 468.6 | 468.6 | 464.1 | 459.0 | 449.3 | 438.3 | 420.9 | 351.8 | 189.1 | 72.9 | 51.0   |
| 17.5° | 497.7 | 496.4 | 493.2 | 489.3 | 481.6 | 470.6 | 457.0 | 382.8 | 196.9 | 66.5 | 50.4   |
| 20°   | 516.4 | 515.8 | 513.2 | 507.4 | 500.9 | 492.5 | 480.3 | 409.3 | 200.1 | 60.7 | 49.7   |
| 22.5° | 576.4 | 571.3 | 561.6 | 549.3 | 533.8 | 513.8 | 497.0 | 429.3 | 198.8 | 54.2 | 48.4   |
| 25°   | 625.5 | 623.6 | 613.2 | 598.4 | 577.7 | 551.9 | 524.2 | 442.8 | 192.4 | 49.1 | 47.1   |
| 27.5° | 657.8 | 654.6 | 644.9 | 628.7 | 606.8 | 581.6 | 555.8 | 453.2 | 183.3 | 44.5 | 45.2   |
| 30°   | 680.4 | 678.4 | 668.8 | 650.7 | 628.1 | 600.3 | 573.9 | 464.8 | 171.1 | 40.0 | 43.2   |
| 32.5° | 694.6 | 692.6 | 683.0 | 666.8 | 644.9 | 615.8 | 585.5 | 476.4 | 156.2 | 36.1 | 41.3   |
| 35°   | 702.3 | 700.4 | 689.4 | 675.2 | 654.6 | 626.1 | 593.9 | 482.2 | 138.1 | 32.9 | 39.4   |
| 37.5° | 712.0 | 708.1 | 693.3 | 675.9 | 655.2 | 628.7 | 596.5 | 481.6 | 120.1 | 30.3 | 38.1   |
| 40°   | 728.1 | 717.8 | 696.5 | 673.3 | 652.0 | 625.5 | 594.5 | 476.4 | 100.1 | 28.4 | 36.8   |
| 42.5° | 743.6 | 728.8 | 697.2 | 669.4 | 645.5 | 619.7 | 587.4 | 464.8 | 78.1  | 27.1 | 36.1   |
| 45°   | 748.8 | 726.8 | 688.1 | 660.4 | 637.8 | 611.3 | 577.7 | 440.2 | 52.9  | 25.8 | 34.9   |
| 47.5° | 714.6 | 698.4 | 666.2 | 645.5 | 624.2 | 598.4 | 563.5 | 414.4 | 30.3  | 24.5 | 33.6   |
| 50°   | 652.0 | 641.6 | 623.6 | 610.7 | 599.0 | 581.0 | 546.7 | 376.3 | 18.1  | 23.2 | 32.3   |
| 52.5° | 593.9 | 590.6 | 577.7 | 567.4 | 561.0 | 552.6 | 521.6 | 317.6 | 14.8  | 22.6 | 31.0   |
| 55°   | 515.1 | 504.8 | 501.6 | 497.7 | 511.2 | 510.6 | 468.6 | 217.5 | 14.2  | 21.3 | 29.7   |
| 57.5° | 323.4 | 327.9 | 344.7 | 375.7 | 412.5 | 433.8 | 432.5 | 116.2 | 13.6  | 20.0 | 27.8   |
| 60°   | 245.9 | 245.3 | 250.5 | 263.4 | 290.5 | 320.8 | 349.2 | 40.7  | 12.9  | 18.7 | 26.5   |
| 62.5° | 73.6  | 75.5  | 91.0  | 133.6 | 160.1 | 197.5 | 180.1 | 9.7   | 12.3  | 16.8 | 23.9   |
| 65°   | 14.8  | 15.5  | 15.5  | 17.4  | 21.3  | 32.3  | 39.4  | 8.4   | 11.6  | 15.5 | 21.9   |
| 67.5° | 6.5   | 6.5   | 6.5   | 7.1   | 7.1   | 8.4   | 7.1   | 7.7   | 10.3  | 13.6 | 19.4   |
| 70°   | 5.8   | 5.8   | 5.8   | 5.8   | 5.8   | 5.8   | 6.5   | 6.5   | 9.0   | 11.6 | 16.8   |
| 72.5° | 4.5   | 4.5   | 4.5   | 5.2   | 5.2   | 5.2   | 5.2   | 5.8   | 7.7   | 9.7  | 14.2   |
| 75°   | 3.9   | 3.9   | 3.9   | 3.9   | 4.5   | 4.5   | 4.5   | 5.2   | 6.5   | 8.4  | 11.6   |
| 77.5° | 3.2   | 3.2   | 3.2   | 3.2   | 3.2   | 3.9   | 3.9   | 3.9   | 5.2   | 6.5  | 9.7    |
| 80°   | 2.6   | 2.6   | 2.6   | 2.6   | 2.6   | 2.6   | 2.6   | 3.2   | 3.9   | 5.2  | 7.1    |
| 82.5° | 1.9   | 1.9   | 1.9   | 1.9   | 1.9   | 1.9   | 1.9   | 2.6   | 3.2   | 3.9  | 5.2    |
| 85°   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.3   | 1.9   | 1.9   | 2.6  | 3.2    |
| 87.5° | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 0.6   | 1.3   | 1.3   | 1.3  | 1.9    |
| 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):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 94.2 | 94.2   | 94.2 |
| 2.5°  | 71.7 | 67.8   | 65.8 |
| 5°    | 58.7 | 55.5   | 54.9 |
| 7.5°  | 54.2 | 53.6   | 53.6 |
| 10°   | 52.9 | 53.6   | 54.2 |
| 12.5° | 52.9 | 54.2   | 54.9 |
| 15°   | 52.9 | 54.2   | 54.9 |
| 17.5° | 52.9 | 54.2   | 54.9 |
| 20°   | 52.3 | 54.2   | 55.5 |
| 22.5° | 51.6 | 54.2   | 54.9 |
| 25°   | 51.0 | 54.2   | 54.9 |
| 27.5° | 50.4 | 53.6   | 54.9 |
| 30°   | 49.7 | 53.6   | 55.5 |
| 32.5° | 48.4 | 53.6   | 55.5 |
| 35°   | 47.8 | 53.6   | 55.5 |
| 37.5° | 47.1 | 53.6   | 56.2 |
| 40°   | 46.5 | 53.6   | 56.2 |
| 42.5° | 45.8 | 53.6   | 56.2 |
| 45°   | 45.2 | 52.9   | 56.2 |
| 47.5° | 43.9 | 52.9   | 56.2 |
| 50°   | 43.2 | 52.3   | 55.5 |
| 52.5° | 42.0 | 51.6   | 55.5 |
| 55°   | 40.7 | 50.4   | 53.6 |
| 57.5° | 38.7 | 48.4   | 51.0 |
| 60°   | 36.1 | 45.8   | 48.4 |
| 62.5° | 32.9 | 42.6   | 44.5 |
| 65°   | 30.3 | 38.7   | 41.3 |
| 67.5° | 26.5 | 34.2   | 36.8 |
| 70°   | 23.2 | 29.7   | 32.3 |
| 72.5° | 20.0 | 25.2   | 27.8 |
| 75°   | 16.8 | 20.7   | 22.6 |
| 77.5° | 12.9 | 16.8   | 18.1 |
| 80°   | 10.3 | 12.9   | 14.2 |
| 82.5° | 7.1  | 9.0    | 9.7  |
| 85°   | 4.5  | 5.8    | 6.5  |
| 87.5° | 1.9  | 2.6    | 2.6  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)