

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: P1315228

Luminaire Tested: P3SQAS09R459740DE010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1315228  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/29/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3SQAS09R459740DE010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R45 optic, 4000K CCT AND, 97CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

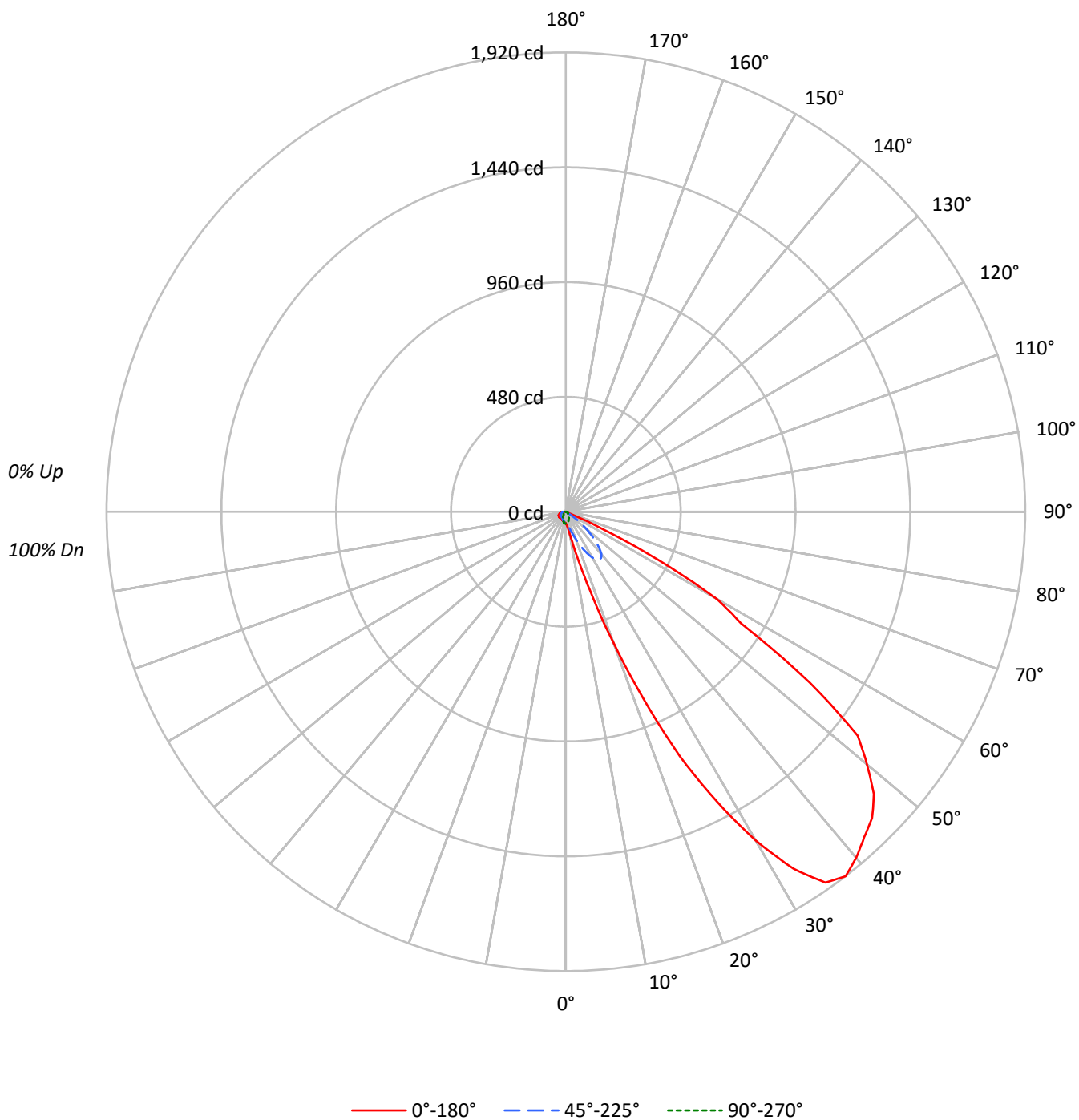
Lumens per Lamp: N/A  
Luminaire Lumens: 858.0 lumens  
Efficiency: N/A  
Efficacy: 77.3 lumens/watt  
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  |  | 96  | 93  | 91  |  | 92  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  |  | 84  | 80  | 77  |  | 81  |
| 3   | 91  | 81  | 73  | 67  | 89  | 80  | 72  | 66  | 77  | 70  | 65  |  | 74  | 69  | 64  |  | 71  |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  |  | 65  | 59  | 54  |  | 63  |
| 5   | 76  | 63  | 53  | 47  | 73  | 61  | 53  | 46  | 59  | 52  | 46  |  | 57  | 51  | 45  |  | 55  |
| 6   | 69  | 55  | 46  | 39  | 67  | 54  | 46  | 39  | 52  | 45  | 39  |  | 51  | 44  | 39  |  | 49  |
| 7   | 63  | 49  | 40  | 34  | 61  | 48  | 40  | 33  | 47  | 39  | 33  |  | 45  | 38  | 33  |  | 44  |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 42  | 34  | 29  |  | 40  | 33  | 28  |  | 39  |
| 9   | 53  | 39  | 31  | 25  | 52  | 39  | 30  | 25  | 38  | 30  | 25  |  | 36  | 29  | 25  |  | 35  |
| 10  | 49  | 36  | 27  | 22  | 48  | 35  | 27  | 22  | 34  | 27  | 21  |  | 33  | 26  | 21  |  | 32  |

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

|     | 0°     | 45°   | 90°  | 135°  | 180°  |
|-----|--------|-------|------|-------|-------|
| 0°  | 8542   | 8542  | 8542 | 8542  | 8542  |
| 5°  | 10165  | 9439  | 8454 | 7849  | 7849  |
| 10° | 16246  | 11035 | 7940 | 7432  | 7432  |
| 15° | 40456  | 14781 | 7203 | 6954  | 7203  |
| 20° | 106538 | 22085 | 6231 | 6635  | 7019  |
| 25° | 213932 | 32742 | 5397 | 6195  | 6879  |
| 30° | 315381 | 43850 | 4375 | 6065  | 7040  |
| 35° | 397826 | 51426 | 3721 | 5971  | 7296  |
| 40° | 424439 | 51956 | 3350 | 6205  | 7801  |
| 45° | 440989 | 43329 | 3118 | 6722  | 8452  |
| 50° | 440291 | 30196 | 3028 | 7207  | 9485  |
| 55° | 374215 | 13422 | 3183 | 8077  | 10419 |
| 60° | 251514 | 2687  | 3169 | 9024  | 11952 |
| 65° | 66751  | 1141  | 3179 | 9821  | 13570 |
| 70° | 1762   | 1410  | 3223 | 10726 | 15358 |
| 75° | 1397   | 1397  | 3327 | 11312 | 17434 |
| 80° | 1389   | 2083  | 3471 | 12001 | 19737 |
| 85° | 1383   | 2766  | 5533 | 12647 | 19563 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 452359 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 4.9    | 0.6       |
| 10°-20°   | 24.2   | 2.8       |
| 20°-30°   | 99.8   | 11.6      |
| 30°-40°   | 210.4  | 24.5      |
| 40°-50°   | 259.5  | 30.2      |
| 50°-60°   | 194.5  | 22.7      |
| 60°-70°   | 50.1   | 5.8       |
| 70°-80°   | 10.4   | 1.2       |
| 80°-90°   | 4.2    | 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°    | 128.9  | 15.0      |
| 0°-40°    | 339.3  | 39.5      |
| 0°-60°    | 793.3  | 92.5      |
| 0°-90°    | 858.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 858.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 50   | 50  | 50  | 50   | 50   |      |
| 5°  | 59   | 55  | 49  | 45   | 45   | 7    |
| 15° | 227  | 83  | 40  | 39   | 40   | 83   |
| 25° | 1126 | 172 | 28  | 33   | 36   | 525  |
| 35° | 1892 | 245 | 18  | 28   | 35   | 1153 |
| 45° | 1811 | 178 | 13  | 28   | 35   | 1385 |
| 55° | 1246 | 45  | 11  | 27   | 35   | 1076 |
| 65° | 164  | 3   | 8   | 24   | 33   | 236  |
| 75° | 2    | 2   | 5   | 17   | 26   | 2    |
| 85° | 1    | 1   | 3   | 6    | 10   | 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°    | 49.6   | 49.6   | 49.6   | 49.6   | 49.6   | 49.6   | 49.6   | 49.6  | 49.6  | 49.6 | 49.6   |
| 2.5°  | 52.5   | 52.5   | 52.5   | 52.5   | 52.5   | 52.5   | 52.5   | 51.8  | 51.0  | 49.6 | 48.2   |
| 5°    | 58.8   | 58.1   | 58.1   | 58.1   | 57.4   | 56.7   | 56.7   | 54.6  | 51.8  | 48.9 | 46.8   |
| 7.5°  | 69.5   | 69.5   | 68.8   | 67.3   | 66.6   | 65.2   | 63.8   | 58.1  | 51.8  | 47.5 | 44.7   |
| 10°   | 92.9   | 91.5   | 89.3   | 87.9   | 84.4   | 79.4   | 75.9   | 63.1  | 51.0  | 45.4 | 43.2   |
| 12.5° | 139.0  | 141.8  | 134.7  | 127.6  | 117.7  | 108.5  | 97.1   | 71.6  | 51.0  | 43.2 | 41.1   |
| 15°   | 226.9  | 231.8  | 218.4  | 204.2  | 180.1  | 157.4  | 136.1  | 82.9  | 49.6  | 40.4 | 38.3   |
| 17.5° | 370.8  | 377.2  | 354.5  | 321.2  | 283.6  | 238.2  | 199.2  | 98.5  | 48.2  | 37.6 | 36.2   |
| 20°   | 581.3  | 580.6  | 536.7  | 494.8  | 422.5  | 355.9  | 282.9  | 120.5 | 46.1  | 34.0 | 34.0   |
| 22.5° | 840.1  | 842.9  | 789.1  | 713.9  | 611.1  | 504.1  | 387.8  | 146.0 | 43.2  | 31.2 | 31.9   |
| 25°   | 1125.8 | 1101.7 | 1037.9 | 946.4  | 815.3  | 667.1  | 514.0  | 172.3 | 40.4  | 28.4 | 29.8   |
| 27.5° | 1364.0 | 1340.6 | 1267.6 | 1159.1 | 1018.0 | 842.2  | 642.3  | 198.5 | 36.9  | 25.5 | 27.6   |
| 30°   | 1585.9 | 1556.1 | 1468.2 | 1345.6 | 1177.6 | 987.6  | 762.8  | 220.5 | 32.6  | 22.0 | 25.5   |
| 32.5° | 1768.8 | 1741.9 | 1641.9 | 1499.4 | 1316.5 | 1112.3 | 864.9  | 237.5 | 28.4  | 19.9 | 24.1   |
| 35°   | 1892.2 | 1864.5 | 1772.4 | 1615.7 | 1416.5 | 1203.1 | 947.9  | 244.6 | 24.8  | 17.7 | 23.4   |
| 37.5° | 1920.5 | 1905.6 | 1839.7 | 1693.0 | 1485.2 | 1261.2 | 1001.0 | 242.5 | 20.6  | 16.3 | 22.0   |
| 40°   | 1887.9 | 1891.5 | 1860.3 | 1738.3 | 1522.1 | 1286.0 | 1023.0 | 231.1 | 17.0  | 14.9 | 21.3   |
| 42.5° | 1846.1 | 1855.3 | 1853.2 | 1756.8 | 1537.7 | 1287.4 | 1013.8 | 208.4 | 13.5  | 13.5 | 20.6   |
| 45°   | 1810.6 | 1819.9 | 1832.6 | 1749.0 | 1527.1 | 1269.0 | 984.7  | 177.9 | 9.9   | 12.8 | 20.6   |
| 47.5° | 1746.1 | 1756.1 | 1774.5 | 1686.6 | 1473.2 | 1221.5 | 932.3  | 144.6 | 7.1   | 12.1 | 19.9   |
| 50°   | 1643.3 | 1648.3 | 1643.3 | 1544.8 | 1369.7 | 1144.9 | 847.2  | 112.7 | 5.0   | 11.3 | 19.9   |
| 52.5° | 1537.7 | 1527.8 | 1486.7 | 1361.9 | 1205.2 | 1023.7 | 740.1  | 80.1  | 3.5   | 10.6 | 19.1   |
| 55°   | 1246.3 | 1230.7 | 1200.2 | 1123.7 | 1034.4 | 874.8  | 598.3  | 44.7  | 3.5   | 10.6 | 18.4   |
| 57.5° | 868.5  | 877.0  | 887.6  | 872.0  | 830.9  | 689.1  | 454.4  | 19.9  | 3.5   | 9.9  | 18.4   |
| 60°   | 730.2  | 723.1  | 723.8  | 713.9  | 645.8  | 502.6  | 312.6  | 7.8   | 3.5   | 9.2  | 17.7   |
| 62.5° | 436.0  | 441.0  | 450.2  | 452.3  | 385.0  | 280.7  | 163.8  | 3.5   | 3.5   | 8.5  | 17.0   |
| 65°   | 163.8  | 171.6  | 150.3  | 130.4  | 103.5  | 75.9   | 38.3   | 2.8   | 4.3   | 7.8  | 15.6   |
| 67.5° | 5.0    | 5.7    | 7.1    | 6.4    | 6.4    | 5.7    | 4.3    | 2.8   | 4.3   | 7.1  | 14.9   |
| 70°   | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    | 2.8    | 2.8    | 2.8   | 3.5   | 6.4  | 13.5   |
| 72.5° | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8    | 2.8   | 3.5   | 5.7  | 12.1   |
| 75°   | 2.1    | 2.8    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1   | 3.5   | 5.0  | 9.9    |
| 77.5° | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1    | 2.1   | 2.8   | 4.3  | 8.5    |
| 80°   | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 1.4    | 2.1   | 2.8   | 3.5  | 7.1    |
| 82.5° | 1.4    | 1.4    | 1.4    | 0.7    | 1.4    | 1.4    | 1.4    | 1.4   | 2.8   | 2.8  | 5.7    |
| 85°   | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 0.7    | 1.4   | 2.1   | 2.8  | 3.5    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.7    | 0.7    | 0.7    | 1.4   | 2.1   | 2.1  | 2.1    |
| 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):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 49.6 | 49.6   | 49.6 |
| 2.5°  | 46.8 | 46.8   | 46.8 |
| 5°    | 45.4 | 45.4   | 45.4 |
| 7.5°  | 44.0 | 44.0   | 44.0 |
| 10°   | 42.5 | 42.5   | 42.5 |
| 12.5° | 41.1 | 41.1   | 41.8 |
| 15°   | 39.0 | 40.4   | 40.4 |
| 17.5° | 37.6 | 39.0   | 39.7 |
| 20°   | 36.2 | 37.6   | 38.3 |
| 22.5° | 34.0 | 36.2   | 37.6 |
| 25°   | 32.6 | 35.4   | 36.2 |
| 27.5° | 31.2 | 34.7   | 36.2 |
| 30°   | 30.5 | 34.0   | 35.4 |
| 32.5° | 29.1 | 33.3   | 34.7 |
| 35°   | 28.4 | 33.3   | 34.7 |
| 37.5° | 28.4 | 32.6   | 34.7 |
| 40°   | 27.6 | 32.6   | 34.7 |
| 42.5° | 27.6 | 32.6   | 34.7 |
| 45°   | 27.6 | 32.6   | 34.7 |
| 47.5° | 26.9 | 32.6   | 35.4 |
| 50°   | 26.9 | 33.3   | 35.4 |
| 52.5° | 26.9 | 33.3   | 35.4 |
| 55°   | 26.9 | 33.3   | 34.7 |
| 57.5° | 26.2 | 32.6   | 34.7 |
| 60°   | 26.2 | 32.6   | 34.7 |
| 62.5° | 24.8 | 31.9   | 34.0 |
| 65°   | 24.1 | 31.2   | 33.3 |
| 67.5° | 22.7 | 30.5   | 31.9 |
| 70°   | 21.3 | 28.4   | 30.5 |
| 72.5° | 19.1 | 26.9   | 29.1 |
| 75°   | 17.0 | 24.8   | 26.2 |
| 77.5° | 14.9 | 22.0   | 23.4 |
| 80°   | 12.1 | 18.4   | 19.9 |
| 82.5° | 9.2  | 14.2   | 14.9 |
| 85°   | 6.4  | 9.2    | 9.9  |
| 87.5° | 2.8  | 4.3    | 5.0  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)