

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: P1339442

Luminaire Tested: P3A05R459727DE010 E3CA451MW

Issue Date: 2/13/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1339442  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-2510-583-84)  
Test Lab: INNOVATION CENTER  
Issue Date: 2/13/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: IRiS  
Catalog Number: P3A05R459727DE010 E3CA451MW  
Description: 3in Adjustable LED luminaire with, R45 optic, 2700K CCT AND, 97CRI , E3CA451MW TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

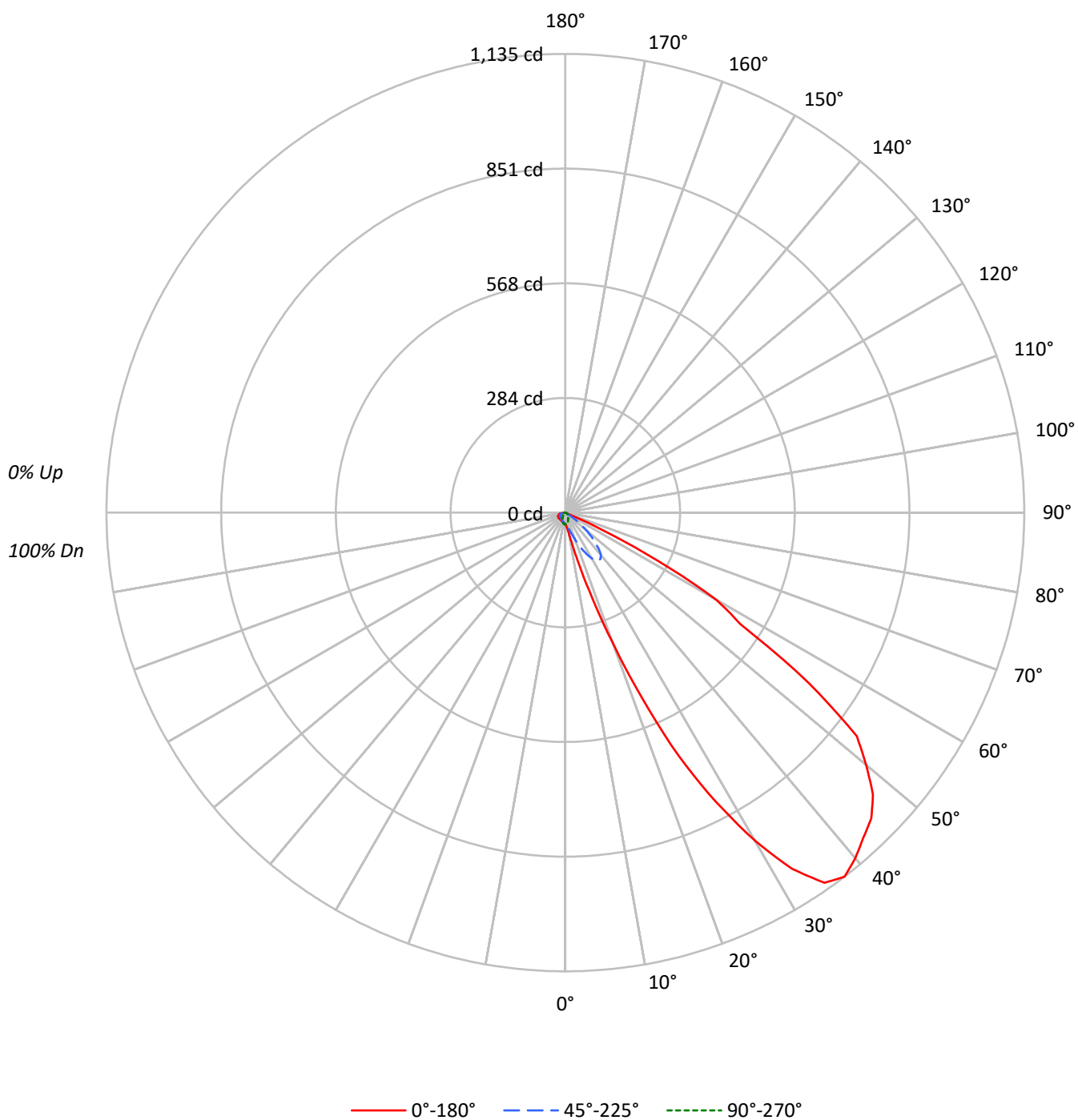
Lumens per Lamp: N/A  
Luminaire Lumens: 507.0 lumens  
Efficiency: N/A  
Efficacy: 70.4 lumens/watt  
Spacing Criteria (0/90/45): 3.81 / 0.82 / 1.83  
Luminous Opening: Circular (Dia: 0.25' x H: 0')  
CIE Type: Direct

Input Watts (W): 7.2  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 110 | 106 | 102 | 99  | 107 | 104 | 100 | 97  | 99  | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 88  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  | 84  | 80  | 77  | 81  | 78  | 75  |
| 3   | 91  | 81  | 73  | 67  | 89  | 80  | 72  | 66  | 77  | 70  | 65  | 74  | 69  | 64  | 71  | 67  | 63  |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  |
| 5   | 76  | 63  | 53  | 47  | 73  | 61  | 53  | 46  | 59  | 52  | 46  | 57  | 51  | 45  | 55  | 50  | 45  |
| 6   | 69  | 55  | 46  | 39  | 67  | 54  | 46  | 39  | 52  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 38  |
| 7   | 63  | 49  | 40  | 34  | 61  | 48  | 40  | 33  | 47  | 39  | 33  | 45  | 38  | 33  | 44  | 37  | 33  |
| 8   | 58  | 44  | 35  | 29  | 56  | 43  | 35  | 29  | 42  | 34  | 29  | 40  | 33  | 28  | 39  | 33  | 28  |
| 9   | 53  | 39  | 31  | 25  | 52  | 39  | 30  | 25  | 38  | 30  | 25  | 36  | 29  | 25  | 35  | 29  | 24  |
| 10  | 49  | 36  | 27  | 22  | 48  | 35  | 27  | 22  | 34  | 27  | 21  | 33  | 26  | 21  | 32  | 26  | 21  |

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

|     | 0°     | 45°   | 90°  | 135° | 180°  |
|-----|--------|-------|------|------|-------|
| 0°  | 6425   | 6425  | 6425 | 6425 | 6425  |
| 5°  | 7660   | 7110  | 6361 | 5899 | 5899  |
| 10° | 12224  | 8305  | 5967 | 5589 | 5589  |
| 15° | 30443  | 11124 | 5426 | 5221 | 5426  |
| 20° | 80157  | 16615 | 4690 | 4994 | 5274  |
| 25° | 160945 | 24630 | 4065 | 4670 | 5178  |
| 30° | 237277 | 32992 | 3292 | 4558 | 5292  |
| 35° | 299307 | 38682 | 2811 | 4497 | 5488  |
| 40° | 319341 | 39102 | 2519 | 4666 | 5868  |
| 45° | 331786 | 32593 | 2326 | 5055 | 6357  |
| 50° | 331281 | 22720 | 2286 | 5424 | 7130  |
| 55° | 281567 | 10093 | 2409 | 6079 | 7837  |
| 60° | 189239 | 2017  | 2368 | 6798 | 8991  |
| 65° | 50226  | 882   | 2387 | 7368 | 10222 |
| 70° | 1346   | 1090  | 2436 | 8078 | 11540 |
| 75° | 1101   | 1101  | 2457 | 8557 | 13132 |
| 80° | 1010   | 1642  | 2652 | 8966 | 14775 |
| 85° | 1006   | 2013  | 4277 | 9561 | 14844 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 10°

Vertical Angle: 47.5°

Luminance: 340351 cd/sqm

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CATALOG NUMBER: P3A05R459727DE010 E3CA451MW

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 2.9    | 0.6       |
| 10°-20°   | 14.3   | 2.8       |
| 20°-30°   | 59.0   | 11.6      |
| 30°-40°   | 124.3  | 24.5      |
| 40°-50°   | 153.4  | 30.2      |
| 50°-60°   | 114.9  | 22.7      |
| 60°-70°   | 29.6   | 5.8       |
| 70°-80°   | 6.1    | 1.2       |
| 80°-90°   | 2.5    | 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°    | 76.2   | 15.0      |
| 0°-40°    | 200.5  | 39.5      |
| 0°-60°    | 468.8  | 92.5      |
| 0°-90°    | 507.0  | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 507.0  | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45° | 90° | 135° | 180° | Flux |
|-----|------|-----|-----|------|------|------|
| 0°  | 29   | 29  | 29  | 29   | 29   |      |
| 5°  | 35   | 32  | 29  | 27   | 27   | 4    |
| 15° | 134  | 49  | 24  | 23   | 24   | 49   |
| 25° | 665  | 102 | 17  | 19   | 21   | 310  |
| 35° | 1118 | 144 | 10  | 17   | 20   | 681  |
| 45° | 1070 | 105 | 8   | 16   | 20   | 819  |
| 55° | 736  | 26  | 6   | 16   | 20   | 636  |
| 65° | 97   | 2   | 5   | 14   | 20   | 140  |
| 75° | 1    | 1   | 3   | 10   | 16   | 2    |
| 85° | 0    | 1   | 2   | 4    | 6    | 0    |
| 90° | 0    | 0   | 0   | 0    | 0    |      |

TEST NUMBER: P1339442

CATALOG NUMBER: P3A05R459727DE010 E3CA451MW

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°   | 25°   | 30°   | 45°   | 67.5° | 90°  | 112.5° |
|-------|--------|--------|--------|--------|-------|-------|-------|-------|-------|------|--------|
| 0°    | 29.3   | 29.3   | 29.3   | 29.3   | 29.3  | 29.3  | 29.3  | 29.3  | 29.3  | 29.3 | 29.3   |
| 2.5°  | 31.0   | 31.0   | 31.0   | 31.0   | 31.0  | 31.0  | 31.0  | 30.6  | 30.2  | 29.3 | 28.5   |
| 5°    | 34.8   | 34.4   | 34.4   | 34.4   | 33.9  | 33.5  | 33.5  | 32.3  | 30.6  | 28.9 | 27.6   |
| 7.5°  | 41.1   | 41.1   | 40.6   | 39.8   | 39.4  | 38.5  | 37.7  | 34.4  | 30.6  | 28.1 | 26.4   |
| 10°   | 54.9   | 54.0   | 52.8   | 51.9   | 49.9  | 46.9  | 44.8  | 37.3  | 30.2  | 26.8 | 25.6   |
| 12.5° | 82.1   | 83.8   | 79.6   | 75.4   | 69.5  | 64.1  | 57.4  | 42.3  | 30.2  | 25.6 | 24.3   |
| 15°   | 134.1  | 137.0  | 129.0  | 120.6  | 106.4 | 93.0  | 80.4  | 49.0  | 29.3  | 23.9 | 22.6   |
| 17.5° | 219.1  | 222.9  | 209.5  | 189.8  | 167.6 | 140.8 | 117.7 | 58.2  | 28.5  | 22.2 | 21.4   |
| 20°   | 343.5  | 343.1  | 317.1  | 292.4  | 249.7 | 210.3 | 167.1 | 71.2  | 27.2  | 20.1 | 20.1   |
| 22.5° | 496.4  | 498.1  | 466.3  | 421.9  | 361.1 | 297.9 | 229.2 | 86.3  | 25.6  | 18.4 | 18.9   |
| 25°   | 665.2  | 651.0  | 613.3  | 559.3  | 481.8 | 394.2 | 303.7 | 101.8 | 23.9  | 16.8 | 17.6   |
| 27.5° | 806.0  | 792.2  | 749.0  | 684.9  | 601.6 | 497.7 | 379.5 | 117.3 | 21.8  | 15.1 | 16.3   |
| 30°   | 937.1  | 919.5  | 867.6  | 795.1  | 695.8 | 583.6 | 450.8 | 130.3 | 19.3  | 13.0 | 15.1   |
| 32.5° | 1045.2 | 1029.3 | 970.2  | 886.0  | 777.9 | 657.3 | 511.1 | 140.3 | 16.8  | 11.7 | 14.2   |
| 35°   | 1118.1 | 1101.8 | 1047.3 | 954.7  | 837.0 | 710.9 | 560.1 | 144.5 | 14.7  | 10.5 | 13.8   |
| 37.5° | 1134.9 | 1126.1 | 1087.1 | 1000.4 | 877.6 | 745.3 | 591.5 | 143.3 | 12.1  | 9.6  | 13.0   |
| 40°   | 1115.6 | 1117.7 | 1099.3 | 1027.2 | 899.4 | 759.9 | 604.5 | 136.6 | 10.1  | 8.8  | 12.6   |
| 42.5° | 1090.9 | 1096.3 | 1095.1 | 1038.1 | 908.6 | 760.8 | 599.1 | 123.2 | 8.0   | 8.0  | 12.1   |
| 45°   | 1069.9 | 1075.4 | 1082.9 | 1033.5 | 902.4 | 749.9 | 581.9 | 105.1 | 5.9   | 7.5  | 12.1   |
| 47.5° | 1031.8 | 1037.7 | 1048.6 | 996.6  | 870.5 | 721.8 | 550.9 | 85.5  | 4.2   | 7.1  | 11.7   |
| 50°   | 971.1  | 974.0  | 971.1  | 912.8  | 809.4 | 676.6 | 500.6 | 66.6  | 2.9   | 6.7  | 11.7   |
| 52.5° | 908.6  | 902.8  | 878.5  | 804.7  | 712.2 | 604.9 | 437.4 | 47.3  | 2.1   | 6.3  | 11.3   |
| 55°   | 736.5  | 727.2  | 709.2  | 664.0  | 611.2 | 516.9 | 353.6 | 26.4  | 2.1   | 6.3  | 10.9   |
| 57.5° | 513.2  | 518.2  | 524.5  | 515.3  | 491.0 | 407.2 | 268.5 | 11.7  | 2.1   | 5.9  | 10.9   |
| 60°   | 431.5  | 427.3  | 427.7  | 421.9  | 381.6 | 297.0 | 184.7 | 4.6   | 2.1   | 5.4  | 10.5   |
| 62.5° | 257.6  | 260.6  | 266.0  | 267.3  | 227.5 | 165.9 | 96.8  | 2.1   | 2.1   | 5.0  | 10.1   |
| 65°   | 96.8   | 101.4  | 88.8   | 77.1   | 61.2  | 44.8  | 22.6  | 1.7   | 2.5   | 4.6  | 9.2    |
| 67.5° | 2.9    | 3.4    | 4.2    | 3.8    | 3.8   | 3.4   | 2.5   | 1.7   | 2.5   | 4.2  | 8.8    |
| 70°   | 2.1    | 2.1    | 2.1    | 2.1    | 2.1   | 1.7   | 1.7   | 1.7   | 2.1   | 3.8  | 8.0    |
| 72.5° | 1.7    | 1.7    | 1.7    | 1.7    | 1.7   | 1.7   | 1.7   | 1.7   | 2.1   | 3.4  | 7.1    |
| 75°   | 1.3    | 1.7    | 1.3    | 1.3    | 1.3   | 1.3   | 1.3   | 1.3   | 2.1   | 2.9  | 5.9    |
| 77.5° | 1.3    | 1.3    | 1.3    | 1.3    | 1.3   | 1.3   | 1.3   | 1.3   | 1.7   | 2.5  | 5.0    |
| 80°   | 0.8    | 0.8    | 0.8    | 0.8    | 0.8   | 0.8   | 0.8   | 1.3   | 1.7   | 2.1  | 4.2    |
| 82.5° | 0.8    | 0.8    | 0.8    | 0.4    | 0.8   | 0.8   | 0.8   | 0.8   | 1.7   | 1.7  | 3.4    |
| 85°   | 0.4    | 0.4    | 0.4    | 0.4    | 0.4   | 0.4   | 0.4   | 0.8   | 1.3   | 1.7  | 2.1    |
| 87.5° | 0.0    | 0.0    | 0.0    | 0.0    | 0.4   | 0.4   | 0.4   | 0.8   | 1.3   | 1.3  | 1.3    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0  | 0.0    |

TEST NUMBER: P1339442

CATALOG NUMBER: P3A05R459727DE010 E3CA451MW

**CANDELA DISTRIBUTION (continued):**

|       | 135° | 157.5° | 180° |
|-------|------|--------|------|
| 0°    | 29.3 | 29.3   | 29.3 |
| 2.5°  | 27.6 | 27.6   | 27.6 |
| 5°    | 26.8 | 26.8   | 26.8 |
| 7.5°  | 26.0 | 26.0   | 26.0 |
| 10°   | 25.1 | 25.1   | 25.1 |
| 12.5° | 24.3 | 24.3   | 24.7 |
| 15°   | 23.0 | 23.9   | 23.9 |
| 17.5° | 22.2 | 23.0   | 23.5 |
| 20°   | 21.4 | 22.2   | 22.6 |
| 22.5° | 20.1 | 21.4   | 22.2 |
| 25°   | 19.3 | 20.9   | 21.4 |
| 27.5° | 18.4 | 20.5   | 21.4 |
| 30°   | 18.0 | 20.1   | 20.9 |
| 32.5° | 17.2 | 19.7   | 20.5 |
| 35°   | 16.8 | 19.7   | 20.5 |
| 37.5° | 16.8 | 19.3   | 20.5 |
| 40°   | 16.3 | 19.3   | 20.5 |
| 42.5° | 16.3 | 19.3   | 20.5 |
| 45°   | 16.3 | 19.3   | 20.5 |
| 47.5° | 15.9 | 19.3   | 20.9 |
| 50°   | 15.9 | 19.7   | 20.9 |
| 52.5° | 15.9 | 19.7   | 20.9 |
| 55°   | 15.9 | 19.7   | 20.5 |
| 57.5° | 15.5 | 19.3   | 20.5 |
| 60°   | 15.5 | 19.3   | 20.5 |
| 62.5° | 14.7 | 18.9   | 20.1 |
| 65°   | 14.2 | 18.4   | 19.7 |
| 67.5° | 13.4 | 18.0   | 18.9 |
| 70°   | 12.6 | 16.8   | 18.0 |
| 72.5° | 11.3 | 15.9   | 17.2 |
| 75°   | 10.1 | 14.7   | 15.5 |
| 77.5° | 8.8  | 13.0   | 13.8 |
| 80°   | 7.1  | 10.9   | 11.7 |
| 82.5° | 5.4  | 8.4    | 8.8  |
| 85°   | 3.8  | 5.4    | 5.9  |
| 87.5° | 1.7  | 2.5    | 2.9  |
| 90°   | 0.0  | 0.0    | 0.0  |

(END OF REPORT)