

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: P1308369

Luminaire Tested: P3SQAS20R559030D010 E3SQCA451MB

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1308369  
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: P3SQAS20R559030D010 E3SQCA451MB  
Description: 3in Adjustable LED luminaire with, R55 optic, 3000K CCT AND, 90CRI , E3SQCA451MB TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

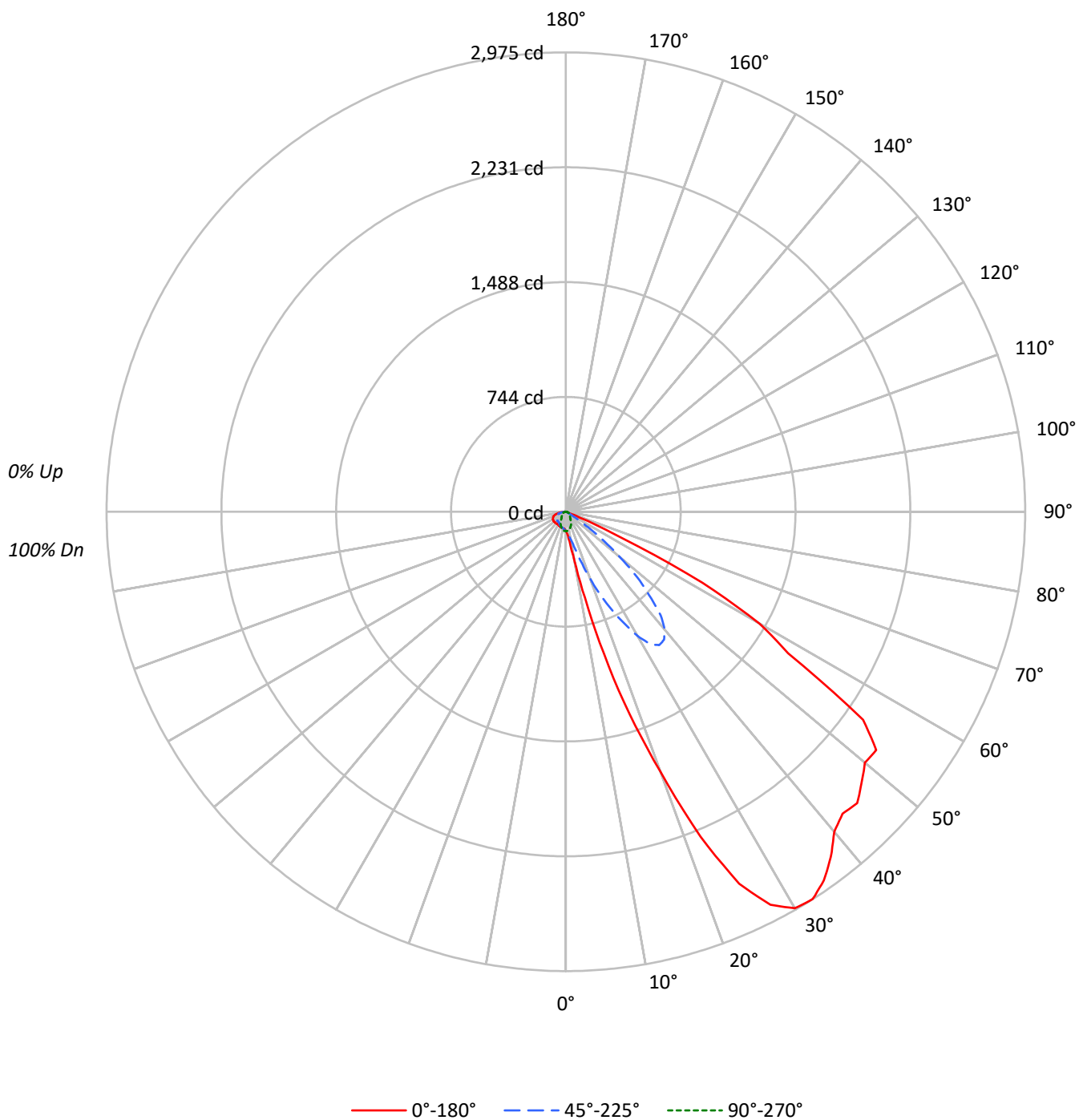
Lumens per Lamp: N/A  
Luminaire Lumens: 1913.0 lumens  
Efficiency: N/A  
Efficacy: 66.4 lumens/watt  
Spacing Criteria (0/90/45): 3.76 / 0.91 / 1.95  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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°  | 21252  | 21252  | 21252 | 21252 | 21252 |
| 5°  | 27177  | 24843  | 21333 | 19864 | 19293 |
| 10° | 55279  | 31636  | 20688 | 18922 | 18922 |
| 15° | 169668 | 48515  | 19292 | 18383 | 18989 |
| 20° | 328063 | 84875  | 17356 | 17961 | 18896 |
| 25° | 504920 | 132012 | 15088 | 17349 | 18946 |
| 30° | 589577 | 184527 | 12429 | 17142 | 19489 |
| 35° | 612654 | 221745 | 10302 | 17051 | 20247 |
| 40° | 608005 | 223831 | 9510  | 17851 | 22032 |
| 45° | 650036 | 185251 | 9060  | 19339 | 23869 |
| 50° | 677490 | 122284 | 9056  | 20845 | 26713 |
| 55° | 705433 | 53296  | 9128  | 22850 | 29426 |
| 60° | 498378 | 12228  | 9300  | 25041 | 33170 |
| 65° | 162557 | 4116   | 8965  | 26855 | 37206 |
| 70° | 5086   | 4280   | 9366  | 28954 | 42550 |
| 75° | 4525   | 4525   | 7852  | 30343 | 47245 |
| 80° | 3372   | 5058   | 8430  | 30150 | 50284 |
| 85° | 3359   | 6719   | 10078 | 30036 | 50191 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 52.5°

Luminance: 716801 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 13.1   | 0.7       |
| 10°-20°   | 81.2   | 4.2       |
| 20°-30°   | 272.3  | 14.2      |
| 30°-40°   | 447.2  | 23.4      |
| 40°-50°   | 498.8  | 26.1      |
| 50°-60°   | 419.8  | 21.9      |
| 60°-70°   | 142.4  | 7.4       |
| 70°-80°   | 27.9   | 1.5       |
| 80°-90°   | 10.5   | 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°    | 366.6  | 19.2      |
| 0°-40°    | 813.7  | 42.5      |
| 0°-60°    | 1732.3 | 90.6      |
| 0°-90°    | 1913.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1913.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 123  | 123  | 123 | 123  | 123  |      |
| 5°  | 157  | 144  | 123 | 115  | 112  | 20   |
| 15° | 952  | 272  | 108 | 103  | 106  | 302  |
| 25° | 2657 | 695  | 79  | 91   | 100  | 1194 |
| 35° | 2914 | 1055 | 49  | 81   | 96   | 1809 |
| 45° | 2669 | 761  | 37  | 79   | 98   | 2038 |
| 55° | 2349 | 178  | 30  | 76   | 98   | 1913 |
| 65° | 399  | 10   | 22  | 66   | 91   | 540  |
| 75° | 7    | 7    | 12  | 46   | 71   | 7    |
| 85° | 2    | 3    | 5   | 15   | 25   | 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°    | 123.4  | 123.4  | 123.4  | 123.4  | 123.4  | 123.4  | 123.4  | 123.4 | 123.4 | 123.4  | 123.4 |
| 2.5°  | 135.2  | 135.2  | 135.2  | 135.2  | 135.2  | 135.2  | 133.5  | 128.5 | 125.1 | 120.0  | 118.3 |
| 5°    | 157.2  | 157.2  | 157.2  | 155.5  | 155.5  | 152.1  | 143.7  | 131.8 | 123.4 | 116.6  | 114.9 |
| 7.5°  | 202.8  | 201.1  | 197.8  | 196.1  | 191.0  | 189.3  | 158.9  | 135.2 | 121.7 | 113.2  | 111.6 |
| 10°   | 316.1  | 312.7  | 307.6  | 289.0  | 272.1  | 260.3  | 180.9  | 136.9 | 118.3 | 109.9  | 108.2 |
| 12.5° | 569.6  | 562.9  | 537.5  | 498.6  | 451.3  | 427.6  | 216.4  | 138.6 | 113.2 | 106.5  | 106.5 |
| 15°   | 951.6  | 943.2  | 895.8  | 841.7  | 755.5  | 708.2  | 272.1  | 136.9 | 108.2 | 101.4  | 103.1 |
| 17.5° | 1374.2 | 1350.5 | 1301.5 | 1230.5 | 1113.9 | 1058.1 | 355.0  | 133.5 | 101.4 | 98.0   | 101.4 |
| 20°   | 1790.0 | 1783.2 | 1702.1 | 1605.7 | 1462.1 | 1387.7 | 463.1  | 128.5 | 94.7  | 93.0   | 98.0  |
| 22.5° | 2276.8 | 2248.0 | 2161.8 | 2058.7 | 1861.0 | 1762.9 | 579.8  | 121.7 | 87.9  | 87.9   | 94.7  |
| 25°   | 2657.1 | 2623.3 | 2555.7 | 2435.7 | 2248.0 | 2143.2 | 694.7  | 113.2 | 79.4  | 82.8   | 91.3  |
| 27.5° | 2870.0 | 2831.2 | 2780.5 | 2677.4 | 2532.0 | 2439.0 | 809.6  | 103.1 | 71.0  | 77.8   | 87.9  |
| 30°   | 2964.7 | 2954.6 | 2917.4 | 2841.3 | 2707.8 | 2625.0 | 927.9  | 91.3  | 62.5  | 72.7   | 86.2  |
| 32.5° | 2974.8 | 2979.9 | 2964.7 | 2915.7 | 2814.3 | 2743.3 | 1015.8 | 81.1  | 55.8  | 69.3   | 82.8  |
| 35°   | 2914.0 | 2932.6 | 2942.7 | 2922.4 | 2856.5 | 2799.1 | 1054.7 | 69.3  | 49.0  | 65.9   | 81.1  |
| 37.5° | 2819.3 | 2853.1 | 2886.9 | 2892.0 | 2851.5 | 2814.3 | 1044.6 | 59.2  | 45.6  | 64.2   | 81.1  |
| 40°   | 2704.4 | 2734.8 | 2804.1 | 2848.1 | 2834.5 | 2807.5 | 995.6  | 49.0  | 42.3  | 60.8   | 79.4  |
| 42.5° | 2652.0 | 2658.8 | 2733.1 | 2807.5 | 2804.1 | 2782.2 | 909.4  | 38.9  | 38.9  | 60.8   | 79.4  |
| 45°   | 2668.9 | 2638.5 | 2687.5 | 2773.7 | 2768.6 | 2739.9 | 760.6  | 30.4  | 37.2  | 59.2   | 79.4  |
| 47.5° | 2597.9 | 2555.7 | 2638.5 | 2739.9 | 2721.3 | 2679.0 | 628.8  | 22.0  | 35.5  | 57.5   | 77.8  |
| 50°   | 2528.6 | 2521.9 | 2586.1 | 2636.8 | 2611.4 | 2587.8 | 456.4  | 16.9  | 33.8  | 55.8   | 77.8  |
| 52.5° | 2533.7 | 2521.9 | 2528.6 | 2526.9 | 2476.2 | 2450.9 | 312.7  | 13.5  | 32.1  | 54.1   | 77.8  |
| 55°   | 2349.4 | 2312.3 | 2276.8 | 2286.9 | 2290.3 | 2273.4 | 177.5  | 11.8  | 30.4  | 54.1   | 76.1  |
| 57.5° | 1707.2 | 1697.0 | 1735.9 | 1845.8 | 1932.0 | 1942.1 | 86.2   | 11.8  | 28.7  | 52.4   | 74.4  |
| 60°   | 1446.9 | 1440.1 | 1441.8 | 1473.9 | 1519.5 | 1490.8 | 35.5   | 11.8  | 27.0  | 50.7   | 72.7  |
| 62.5° | 997.2  | 1063.2 | 1090.2 | 1164.6 | 1134.2 | 1093.6 | 13.5   | 13.5  | 25.4  | 47.3   | 71.0  |
| 65°   | 398.9  | 397.2  | 434.4  | 469.9  | 459.7  | 429.3  | 10.1   | 11.8  | 22.0  | 43.9   | 65.9  |
| 67.5° | 93.0   | 84.5   | 72.7   | 62.5   | 52.4   | 42.3   | 10.1   | 11.8  | 20.3  | 40.6   | 62.5  |
| 70°   | 10.1   | 10.1   | 10.1   | 10.1   | 10.1   | 8.5    | 8.5    | 11.8  | 18.6  | 37.2   | 57.5  |
| 72.5° | 8.5    | 8.5    | 8.5    | 8.5    | 8.5    | 8.5    | 8.5    | 10.1  | 15.2  | 32.1   | 52.4  |
| 75°   | 6.8    | 6.8    | 6.8    | 6.8    | 6.8    | 6.8    | 6.8    | 8.5   | 11.8  | 27.0   | 45.6  |
| 77.5° | 5.1    | 5.1    | 5.1    | 6.8    | 5.1    | 6.8    | 6.8    | 8.5   | 10.1  | 22.0   | 38.9  |
| 80°   | 3.4    | 3.4    | 5.1    | 5.1    | 5.1    | 5.1    | 5.1    | 6.8   | 8.5   | 18.6   | 30.4  |
| 82.5° | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 3.4    | 5.1    | 5.1   | 6.8   | 13.5   | 22.0  |
| 85°   | 1.7    | 1.7    | 1.7    | 1.7    | 1.7    | 3.4    | 3.4    | 5.1   | 5.1   | 10.1   | 15.2  |
| 87.5° | 1.7    | 1.7    | 1.7    | 1.7    | 1.7    | 1.7    | 3.4    | 3.4   | 5.1   | 5.1    | 6.8   |
| 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°    | 123.4  | 123.4 |
| 2.5°  | 116.6  | 116.6 |
| 5°    | 113.2  | 111.6 |
| 7.5°  | 109.9  | 109.9 |
| 10°   | 108.2  | 108.2 |
| 12.5° | 106.5  | 108.2 |
| 15°   | 106.5  | 106.5 |
| 17.5° | 103.1  | 104.8 |
| 20°   | 101.4  | 103.1 |
| 22.5° | 99.7   | 101.4 |
| 25°   | 98.0   | 99.7  |
| 27.5° | 96.3   | 98.0  |
| 30°   | 94.7   | 98.0  |
| 32.5° | 93.0   | 96.3  |
| 35°   | 93.0   | 96.3  |
| 37.5° | 93.0   | 98.0  |
| 40°   | 93.0   | 98.0  |
| 42.5° | 93.0   | 98.0  |
| 45°   | 93.0   | 98.0  |
| 47.5° | 93.0   | 98.0  |
| 50°   | 93.0   | 99.7  |
| 52.5° | 93.0   | 99.7  |
| 55°   | 93.0   | 98.0  |
| 57.5° | 91.3   | 98.0  |
| 60°   | 91.3   | 96.3  |
| 62.5° | 89.6   | 94.7  |
| 65°   | 86.2   | 91.3  |
| 67.5° | 82.8   | 89.6  |
| 70°   | 77.8   | 84.5  |
| 72.5° | 72.7   | 77.8  |
| 75°   | 65.9   | 71.0  |
| 77.5° | 57.5   | 60.8  |
| 80°   | 45.6   | 50.7  |
| 82.5° | 35.5   | 38.9  |
| 85°   | 23.7   | 25.4  |
| 87.5° | 10.1   | 11.8  |
| 90°   | 0.0    | 0.0   |

(END OF REPORT)