

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: P1309488

Luminaire Tested: P3SQAS20R559035D010 E3SQCA451MMS

Issue Date: 1/29/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1309488  
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: P3SQAS20R559035D010 E3SQCA451MMS  
Description: 3in Adjustable LED luminaire with, R55 optic, 3500K CCT AND, 90CRI , E3SQCA451MMS TRIM  
Light Source: -  
Ballast/Driver: -

**Summary**

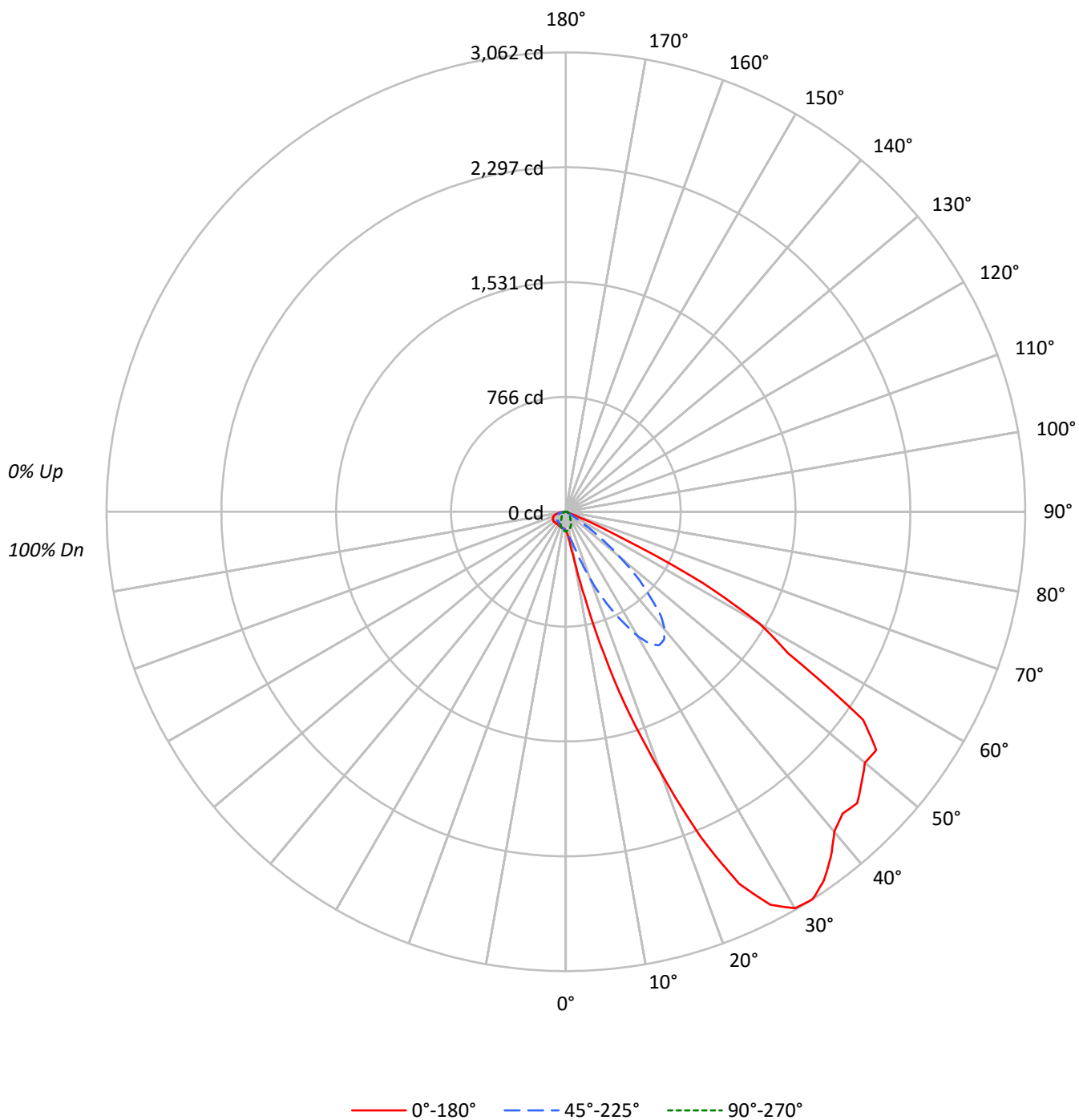
Lumens per Lamp: N/A  
Luminaire Lumens: 1969.0 lumens  
Efficiency: N/A  
Efficacy: 68.4 lumens/watt  
Spacing Criteria (0/90/45): 3.76 / 0.91 / 1.95  
Luminous Opening: Rectangular (W 0.25' x L: 0.25' x H: 0')  
CIE Type: Direct

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°  | 21872  | 21872  | 21872 | 21872 | 21872 |
| 5°  | 27972  | 25569  | 21956 | 20452 | 19847 |
| 10° | 56888  | 32563  | 21300 | 19464 | 19464 |
| 15° | 174643 | 49941  | 19845 | 18917 | 19541 |
| 20° | 337667 | 87367  | 17851 | 18492 | 19446 |
| 25° | 519704 | 135869 | 15544 | 17844 | 19497 |
| 30° | 606838 | 189937 | 12807 | 17639 | 20066 |
| 35° | 630588 | 228242 | 10617 | 17555 | 20856 |
| 40° | 625811 | 230374 | 9780  | 18390 | 22684 |
| 45° | 669058 | 190683 | 9328  | 19923 | 24575 |
| 50° | 697317 | 125847 | 9324  | 21434 | 27490 |
| 55° | 726091 | 54858  | 9398  | 23510 | 30296 |
| 60° | 512948 | 12572  | 9576  | 25765 | 34169 |
| 65° | 167325 | 4238   | 9210  | 27629 | 38266 |
| 70° | 5237   | 4381   | 9618  | 29810 | 43808 |
| 75° | 4658   | 4658   | 8118  | 31275 | 48642 |
| 80° | 3471   | 5157   | 8629  | 31043 | 51771 |
| 85° | 3359   | 6916   | 10275 | 31024 | 51574 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 52.5°

Luminance: 737792 cd/sqm

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CATALOG NUMBER: P3SQAS20R559035D010 E3SQCA451MMS

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 13.5   | 0.7       |
| 10°-20°   | 83.6   | 4.2       |
| 20°-30°   | 280.2  | 14.2      |
| 30°-40°   | 460.2  | 23.4      |
| 40°-50°   | 513.3  | 26.1      |
| 50°-60°   | 432.1  | 21.9      |
| 60°-70°   | 146.6  | 7.4       |
| 70°-80°   | 28.7   | 1.5       |
| 80°-90°   | 10.7   | 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°    | 377.3  | 19.2      |
| 0°-40°    | 837.6  | 42.5      |
| 0°-60°    | 1783.0 | 90.6      |
| 0°-90°    | 1969.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1969.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90° | 135° | 180° | Flux |
|-----|------|------|-----|------|------|------|
| 0°  | 127  | 127  | 127 | 127  | 127  |      |
| 5°  | 162  | 148  | 127 | 118  | 115  | 20   |
| 15° | 980  | 280  | 111 | 106  | 110  | 311  |
| 25° | 2735 | 715  | 82  | 94   | 103  | 1229 |
| 35° | 2999 | 1086 | 50  | 84   | 99   | 1862 |
| 45° | 2747 | 783  | 38  | 82   | 101  | 2098 |
| 55° | 2418 | 183  | 31  | 78   | 101  | 1969 |
| 65° | 411  | 10   | 23  | 68   | 94   | 556  |
| 75° | 7    | 7    | 12  | 47   | 73   | 7    |
| 85° | 2    | 4    | 5   | 16   | 26   | 2    |
| 90° | 0    | 0    | 0   | 0    | 0    |      |

TEST NUMBER: P1309488

CATALOG NUMBER: P3SQAS20R559035D010 E3SQCA451MMS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 45°    | 67.5° | 90°   | 112.5° | 135°  |
|-------|--------|--------|--------|--------|--------|--------|--------|-------|-------|--------|-------|
| 0°    | 127.0  | 127.0  | 127.0  | 127.0  | 127.0  | 127.0  | 127.0  | 127.0 | 127.0 | 127.0  | 127.0 |
| 2.5°  | 139.2  | 139.2  | 139.2  | 139.2  | 139.2  | 139.2  | 137.4  | 132.2 | 128.7 | 123.5  | 121.8 |
| 5°    | 161.8  | 161.8  | 161.8  | 160.1  | 160.1  | 156.6  | 147.9  | 135.7 | 127.0 | 120.0  | 118.3 |
| 7.5°  | 208.8  | 207.0  | 203.5  | 201.8  | 196.6  | 194.8  | 163.5  | 139.2 | 125.3 | 116.6  | 114.8 |
| 10°   | 325.3  | 321.8  | 316.6  | 297.5  | 280.1  | 267.9  | 186.2  | 140.9 | 121.8 | 113.1  | 111.3 |
| 12.5° | 586.3  | 579.3  | 553.2  | 513.2  | 464.5  | 440.2  | 222.7  | 142.7 | 116.6 | 109.6  | 109.6 |
| 15°   | 979.5  | 970.8  | 922.1  | 866.4  | 777.7  | 728.9  | 280.1  | 140.9 | 111.3 | 104.4  | 106.1 |
| 17.5° | 1414.4 | 1390.0 | 1339.6 | 1266.5 | 1146.5 | 1089.1 | 365.3  | 137.4 | 104.4 | 100.9  | 104.4 |
| 20°   | 1842.4 | 1835.4 | 1751.9 | 1652.7 | 1504.9 | 1428.3 | 476.7  | 132.2 | 97.4  | 95.7   | 100.9 |
| 22.5° | 2343.4 | 2313.8 | 2225.1 | 2119.0 | 1915.4 | 1814.5 | 596.7  | 125.3 | 90.5  | 90.5   | 97.4  |
| 25°   | 2734.9 | 2700.1 | 2630.5 | 2506.9 | 2313.8 | 2206.0 | 715.0  | 116.6 | 81.8  | 85.2   | 93.9  |
| 27.5° | 2954.1 | 2914.0 | 2861.9 | 2755.7 | 2606.1 | 2510.4 | 833.3  | 106.1 | 73.1  | 80.0   | 90.5  |
| 30°   | 3051.5 | 3041.0 | 3002.8 | 2924.5 | 2787.0 | 2701.8 | 955.1  | 93.9  | 64.4  | 74.8   | 88.7  |
| 32.5° | 3061.9 | 3067.1 | 3051.5 | 3001.0 | 2896.6 | 2823.6 | 1045.6 | 83.5  | 57.4  | 71.3   | 85.2  |
| 35°   | 2999.3 | 3018.4 | 3028.9 | 3008.0 | 2940.1 | 2881.0 | 1085.6 | 71.3  | 50.5  | 67.8   | 83.5  |
| 37.5° | 2901.9 | 2936.7 | 2971.5 | 2976.7 | 2934.9 | 2896.6 | 1075.2 | 60.9  | 47.0  | 66.1   | 83.5  |
| 40°   | 2783.6 | 2814.9 | 2886.2 | 2931.4 | 2917.5 | 2889.7 | 1024.7 | 50.5  | 43.5  | 62.6   | 81.8  |
| 42.5° | 2729.6 | 2736.6 | 2813.1 | 2889.7 | 2886.2 | 2863.6 | 936.0  | 40.0  | 40.0  | 62.6   | 81.8  |
| 45°   | 2747.0 | 2715.7 | 2766.2 | 2854.9 | 2849.7 | 2820.1 | 782.9  | 31.3  | 38.3  | 60.9   | 81.8  |
| 47.5° | 2674.0 | 2630.5 | 2715.7 | 2820.1 | 2801.0 | 2757.5 | 647.2  | 22.6  | 36.5  | 59.2   | 80.0  |
| 50°   | 2602.6 | 2595.7 | 2661.8 | 2714.0 | 2687.9 | 2663.5 | 469.7  | 17.4  | 34.8  | 57.4   | 80.0  |
| 52.5° | 2607.9 | 2595.7 | 2602.6 | 2600.9 | 2548.7 | 2522.6 | 321.8  | 13.9  | 33.1  | 55.7   | 80.0  |
| 55°   | 2418.2 | 2379.9 | 2343.4 | 2353.9 | 2357.3 | 2339.9 | 182.7  | 12.2  | 31.3  | 55.7   | 78.3  |
| 57.5° | 1757.1 | 1746.7 | 1786.7 | 1899.8 | 1988.5 | 1998.9 | 88.7   | 12.2  | 29.6  | 53.9   | 76.5  |
| 60°   | 1489.2 | 1482.2 | 1484.0 | 1517.0 | 1564.0 | 1534.4 | 36.5   | 12.2  | 27.8  | 52.2   | 74.8  |
| 62.5° | 1026.4 | 1094.3 | 1122.1 | 1198.7 | 1167.4 | 1125.6 | 13.9   | 13.9  | 26.1  | 48.7   | 73.1  |
| 65°   | 410.6  | 408.8  | 447.1  | 483.6  | 473.2  | 441.9  | 10.4   | 12.2  | 22.6  | 45.2   | 67.8  |
| 67.5° | 95.7   | 87.0   | 74.8   | 64.4   | 53.9   | 43.5   | 10.4   | 12.2  | 20.9  | 41.8   | 64.4  |
| 70°   | 10.4   | 10.4   | 10.4   | 10.4   | 10.4   | 8.7    | 8.7    | 12.2  | 19.1  | 38.3   | 59.2  |
| 72.5° | 8.7    | 8.7    | 8.7    | 8.7    | 8.7    | 8.7    | 8.7    | 10.4  | 15.7  | 33.1   | 53.9  |
| 75°   | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    | 7.0    | 8.7   | 12.2  | 27.8   | 47.0  |
| 77.5° | 5.2    | 5.2    | 5.2    | 7.0    | 5.2    | 7.0    | 7.0    | 8.7   | 10.4  | 22.6   | 40.0  |
| 80°   | 3.5    | 3.5    | 5.2    | 5.2    | 5.2    | 5.2    | 5.2    | 7.0   | 8.7   | 19.1   | 31.3  |
| 82.5° | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    | 3.5    | 5.2    | 5.2   | 7.0   | 13.9   | 22.6  |
| 85°   | 1.7    | 1.7    | 1.7    | 1.7    | 1.7    | 3.5    | 3.5    | 5.2   | 5.2   | 10.4   | 15.7  |
| 87.5° | 1.7    | 1.7    | 1.7    | 1.7    | 1.7    | 1.7    | 3.5    | 3.5   | 5.2   | 5.2    | 7.0   |
| 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°    | 127.0  | 127.0 |
| 2.5°  | 120.0  | 120.0 |
| 5°    | 116.6  | 114.8 |
| 7.5°  | 113.1  | 113.1 |
| 10°   | 111.3  | 111.3 |
| 12.5° | 109.6  | 111.3 |
| 15°   | 109.6  | 109.6 |
| 17.5° | 106.1  | 107.9 |
| 20°   | 104.4  | 106.1 |
| 22.5° | 102.6  | 104.4 |
| 25°   | 100.9  | 102.6 |
| 27.5° | 99.2   | 100.9 |
| 30°   | 97.4   | 100.9 |
| 32.5° | 95.7   | 99.2  |
| 35°   | 95.7   | 99.2  |
| 37.5° | 95.7   | 100.9 |
| 40°   | 95.7   | 100.9 |
| 42.5° | 95.7   | 100.9 |
| 45°   | 95.7   | 100.9 |
| 47.5° | 95.7   | 100.9 |
| 50°   | 95.7   | 102.6 |
| 52.5° | 95.7   | 102.6 |
| 55°   | 95.7   | 100.9 |
| 57.5° | 93.9   | 100.9 |
| 60°   | 93.9   | 99.2  |
| 62.5° | 92.2   | 97.4  |
| 65°   | 88.7   | 93.9  |
| 67.5° | 85.2   | 92.2  |
| 70°   | 80.0   | 87.0  |
| 72.5° | 74.8   | 80.0  |
| 75°   | 67.8   | 73.1  |
| 77.5° | 59.2   | 62.6  |
| 80°   | 47.0   | 52.2  |
| 82.5° | 36.5   | 40.0  |
| 85°   | 24.4   | 26.1  |
| 87.5° | 10.4   | 12.2  |
| 90°   | 0.0    | 0.0   |

(END OF REPORT)