

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



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: FAIL-SAFE

Report Number: P1499322

Luminaire Tested: MAE-G-4-120-2LO-LO-30-90

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499322  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P189185)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/26/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: MAE-G-4-120-2LO-LO-30-90  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 2 LO ambient , LO exam illumination levels  
Light Source: -  
Ballast/Driver: -

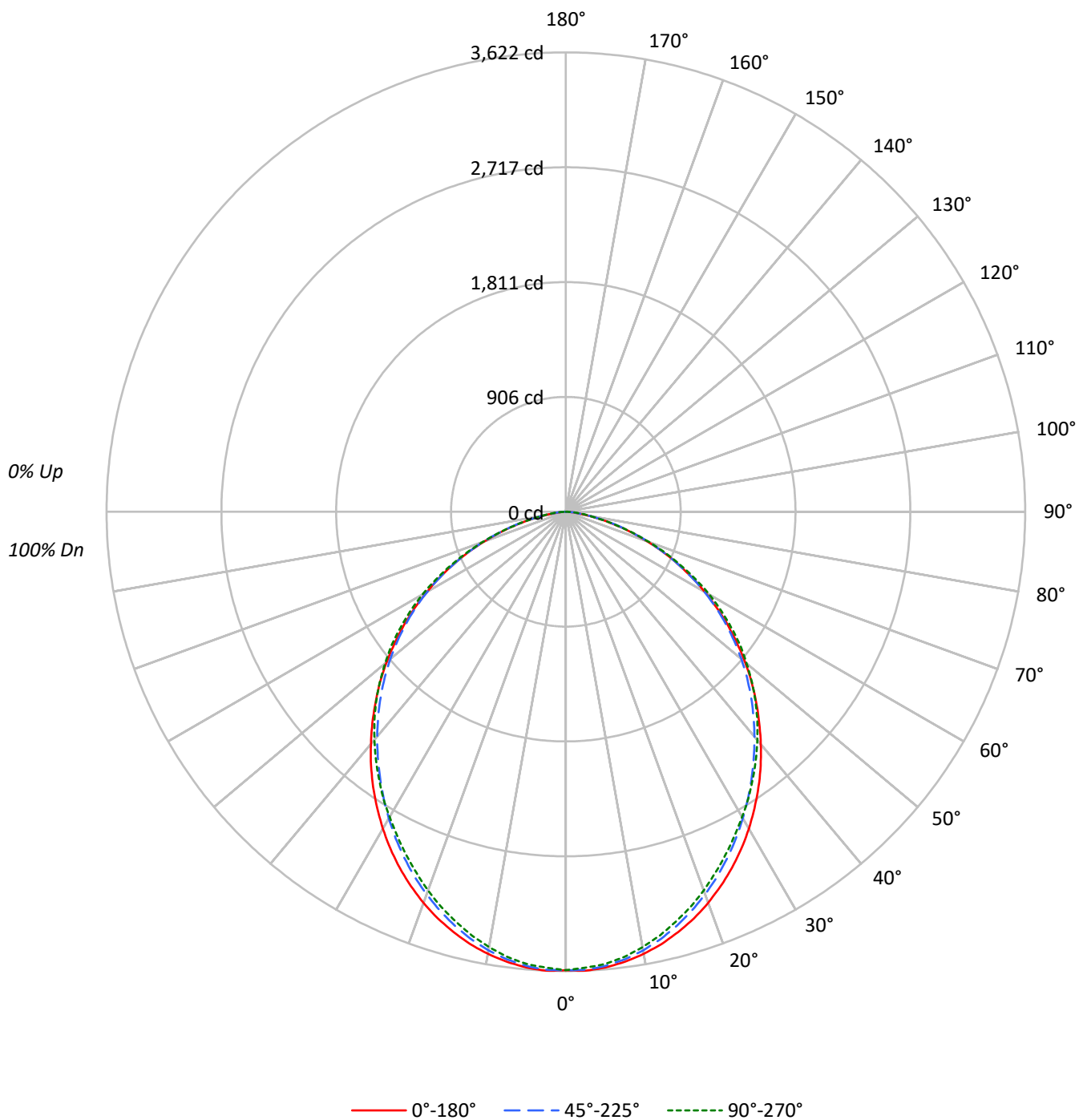
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8798.0 lumens  
Efficiency: N/A  
Efficacy: 91.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.15 / 1.28  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 96.2  
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  | 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 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 92  | 90  | 91  | 89  | 88  | 85  |    |    |
| 2   | 100 | 92  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 77  | 74  | 72  |    |    |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  | 74  | 69  | 65  | 72  | 67  | 64  | 61  |    |    |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 57  | 67  | 61  | 56  | 64  | 59  | 55  | 53  |    |    |
| 5   | 78  | 65  | 56  | 50  | 75  | 64  | 56  | 50  | 62  | 55  | 49  | 60  | 54  | 49  | 58  | 53  | 48  | 46  |    |    |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 43  | 54  | 48  | 43  | 53  | 47  | 43  | 41  |    |    |
| 7   | 67  | 53  | 45  | 39  | 65  | 53  | 45  | 39  | 51  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 38  | 36  |    |    |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 40  | 35  | 47  | 40  | 35  | 46  | 39  | 34  | 44  | 39  | 34  | 32  |    |    |
| 9   | 58  | 45  | 37  | 31  | 57  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 31  | 29  |    |    |
| 10  | 54  | 42  | 34  | 29  | 53  | 41  | 34  | 29  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4863 | 4863 | 4863 |
| 5°  | 4871 | 4855 | 4833 |
| 10° | 4836 | 4797 | 4761 |
| 15° | 4777 | 4707 | 4661 |
| 20° | 4699 | 4596 | 4550 |
| 25° | 4600 | 4472 | 4427 |
| 30° | 4483 | 4337 | 4317 |
| 35° | 4351 | 4197 | 4222 |
| 40° | 4200 | 4064 | 4125 |
| 45° | 4038 | 3929 | 4024 |
| 50° | 3861 | 3782 | 3896 |
| 55° | 3656 | 3608 | 3735 |
| 60° | 3411 | 3391 | 3521 |
| 65° | 3102 | 3103 | 3191 |
| 70° | 2679 | 2709 | 2748 |
| 75° | 2134 | 2195 | 2170 |
| 80° | 1445 | 1525 | 1530 |
| 85° | 743  | 1019 | 1301 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4038 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 339.9  | 3.9       |
| 10°-20°   | 952.0  | 10.8      |
| 20°-30°   | 1391.9 | 15.8      |
| 30°-40°   | 1614.4 | 18.3      |
| 40°-50°   | 1611.6 | 18.3      |
| 50°-60°   | 1388.2 | 15.8      |
| 60°-70°   | 968.7  | 11.0      |
| 70°-80°   | 447.5  | 5.1       |
| 80°-90°   | 83.9   | 1.0       |
| 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°    | 2683.8 | 30.5      |
| 0°-40°    | 4298.2 | 48.9      |
| 0°-60°    | 7297.9 | 82.9      |
| 0°-90°    | 8798.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8798.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3614 | 3614  | 3614 | 3614  | 3614 |      |
| 5°  | 3606 | 3593  | 3594 | 3574  | 3578 | 342  |
| 15° | 3429 | 3406  | 3379 | 3344  | 3346 | 967  |
| 25° | 3098 | 3063  | 3012 | 2978  | 2982 | 1426 |
| 35° | 2649 | 2604  | 2555 | 2554  | 2570 | 1656 |
| 45° | 2122 | 2082  | 2065 | 2093  | 2115 | 1637 |
| 55° | 1559 | 1528  | 1538 | 1576  | 1592 | 1392 |
| 65° | 974  | 960   | 975  | 992   | 1002 | 964  |
| 75° | 410  | 406   | 422  | 419   | 417  | 442  |
| 85° | 48   | 54    | 66   | 79    | 84   | 71   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3614.4 | 3614.4 | 3614.4 | 3614.4 | 3614.4 |
| 2.5°  | 3621.8 | 3610.0 | 3614.4 | 3598.7 | 3597.6 |
| 5°    | 3606.1 | 3593.0 | 3594.3 | 3573.6 | 3578.3 |
| 7.5°  | 3578.3 | 3563.2 | 3559.1 | 3535.7 | 3540.1 |
| 10°   | 3539.8 | 3521.2 | 3511.1 | 3482.4 | 3484.6 |
| 12.5° | 3490.5 | 3469.5 | 3451.8 | 3418.6 | 3422.4 |
| 15°   | 3429.2 | 3405.5 | 3379.1 | 3344.3 | 3346.4 |
| 17.5° | 3361.7 | 3335.9 | 3298.8 | 3261.7 | 3267.7 |
| 20°   | 3281.7 | 3253.4 | 3209.7 | 3171.2 | 3177.5 |
| 22.5° | 3193.2 | 3161.0 | 3115.5 | 3077.2 | 3080.7 |
| 25°   | 3098.5 | 3063.2 | 3012.1 | 2977.5 | 2981.8 |
| 27.5° | 2995.9 | 2956.4 | 2904.4 | 2873.4 | 2880.7 |
| 30°   | 2885.5 | 2844.0 | 2791.5 | 2768.5 | 2778.7 |
| 32.5° | 2769.3 | 2726.8 | 2675.7 | 2663.6 | 2678.9 |
| 35°   | 2648.9 | 2603.7 | 2554.9 | 2553.5 | 2570.4 |
| 37.5° | 2523.7 | 2479.2 | 2435.4 | 2444.3 | 2461.8 |
| 40°   | 2391.2 | 2349.4 | 2313.8 | 2329.8 | 2348.7 |
| 42.5° | 2258.0 | 2217.8 | 2190.7 | 2214.0 | 2234.4 |
| 45°   | 2121.9 | 2082.0 | 2064.7 | 2093.0 | 2114.7 |
| 47.5° | 1986.7 | 1946.5 | 1937.9 | 1970.5 | 1990.1 |
| 50°   | 1844.3 | 1808.5 | 1806.8 | 1842.0 | 1861.2 |
| 52.5° | 1700.6 | 1667.5 | 1673.6 | 1711.4 | 1734.9 |
| 55°   | 1558.7 | 1527.8 | 1538.0 | 1575.6 | 1592.2 |
| 57.5° | 1412.8 | 1388.4 | 1401.5 | 1435.0 | 1451.5 |
| 60°   | 1267.6 | 1245.1 | 1260.2 | 1292.3 | 1308.4 |
| 62.5° | 1120.8 | 1101.3 | 1118.6 | 1145.5 | 1155.9 |
| 65°   | 974.2  | 959.5  | 974.6  | 991.8  | 1002.4 |
| 67.5° | 829.9  | 816.1  | 832.6  | 849.2  | 852.9  |
| 70°   | 680.9  | 672.2  | 688.7  | 698.6  | 698.5  |
| 72.5° | 543.6  | 535.1  | 550.8  | 554.5  | 551.8  |
| 75°   | 410.5  | 406.0  | 422.3  | 418.7  | 417.4  |
| 77.5° | 289.6  | 291.8  | 300.3  | 297.7  | 297.0  |
| 80°   | 186.5  | 193.1  | 196.8  | 198.7  | 197.4  |
| 82.5° | 104.8  | 110.8  | 116.5  | 130.3  | 135.8  |
| 85°   | 48.1   | 54.0   | 66.0   | 78.9   | 84.3   |
| 87.5° | 16.3   | 20.9   | 27.7   | 29.8   | 28.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 16.42            | 18.01 | 16.79 | 18.32 | 18.63 | 16.65          | 18.23 | 17.01 | 18.54 | 18.86 |
|                 | 3H   | 17.89            | 19.31 | 18.26 | 19.64 | 20.00 | 18.11          | 19.54 | 18.49 | 19.86 | 20.22 |
|                 | 4H   | 18.31            | 19.65 | 18.71 | 20.00 | 20.37 | 18.53          | 19.87 | 18.93 | 20.21 | 20.59 |
|                 | 6H   | 18.52            | 19.76 | 18.93 | 20.12 | 20.51 | 18.74          | 19.97 | 19.15 | 20.34 | 20.73 |
|                 | 8H   | 18.55            | 19.73 | 18.97 | 20.11 | 20.51 | 18.78          | 19.96 | 19.21 | 20.35 | 20.75 |
|                 | 12H  | 18.55            | 19.67 | 18.97 | 20.06 | 20.48 | 18.81          | 19.94 | 19.24 | 20.32 | 20.75 |
| 4H              | 2H   | 16.98            | 18.32 | 17.38 | 18.67 | 19.04 | 17.16          | 18.50 | 17.56 | 18.85 | 19.23 |
|                 | 3H   | 18.62            | 19.73 | 19.03 | 20.13 | 20.53 | 18.82          | 19.93 | 19.23 | 20.33 | 20.73 |
|                 | 4H   | 19.13            | 20.13 | 19.56 | 20.55 | 20.99 | 19.32          | 20.32 | 19.75 | 20.74 | 21.18 |
|                 | 6H   | 19.42            | 20.29 | 19.87 | 20.73 | 21.19 | 19.61          | 20.48 | 20.07 | 20.92 | 21.38 |
|                 | 8H   | 19.46            | 20.27 | 19.92 | 20.72 | 21.18 | 19.68          | 20.49 | 20.14 | 20.93 | 21.40 |
|                 | 12H  | 19.47            | 20.20 | 19.96 | 20.68 | 21.15 | 19.73          | 20.46 | 20.21 | 20.93 | 21.40 |
| 8H              | 4H   | 19.32            | 20.13 | 19.78 | 20.58 | 21.04 | 19.49          | 20.31 | 19.96 | 20.75 | 21.22 |
|                 | 6H   | 19.66            | 20.33 | 20.16 | 20.82 | 21.30 | 19.84          | 20.51 | 20.33 | 21.00 | 21.48 |
|                 | 8H   | 19.73            | 20.33 | 20.24 | 20.84 | 21.33 | 19.94          | 20.54 | 20.45 | 21.05 | 21.54 |
|                 | 12H  | 19.77            | 20.30 | 20.28 | 20.79 | 21.35 | 20.03          | 20.56 | 20.54 | 21.05 | 21.62 |
| 12H             | 4H   | 19.32            | 20.05 | 19.80 | 20.53 | 21.00 | 19.49          | 20.22 | 19.97 | 20.70 | 21.17 |
|                 | 6H   | 19.66            | 20.27 | 20.17 | 20.77 | 21.26 | 19.84          | 20.44 | 20.35 | 20.95 | 21.43 |
|                 | 8H   | 19.77            | 20.30 | 20.28 | 20.79 | 21.35 | 19.97          | 20.51 | 20.48 | 21.00 | 21.56 |