

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: P1499739

Luminaire Tested: MAE-G-4-120-3STD-STD-35

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499739  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P189188)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/26/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: MAE-G-4-120-3STD-STD-35  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 3 STD ambient , STD exam illumination levels  
Light Source: -  
Ballast/Driver: -

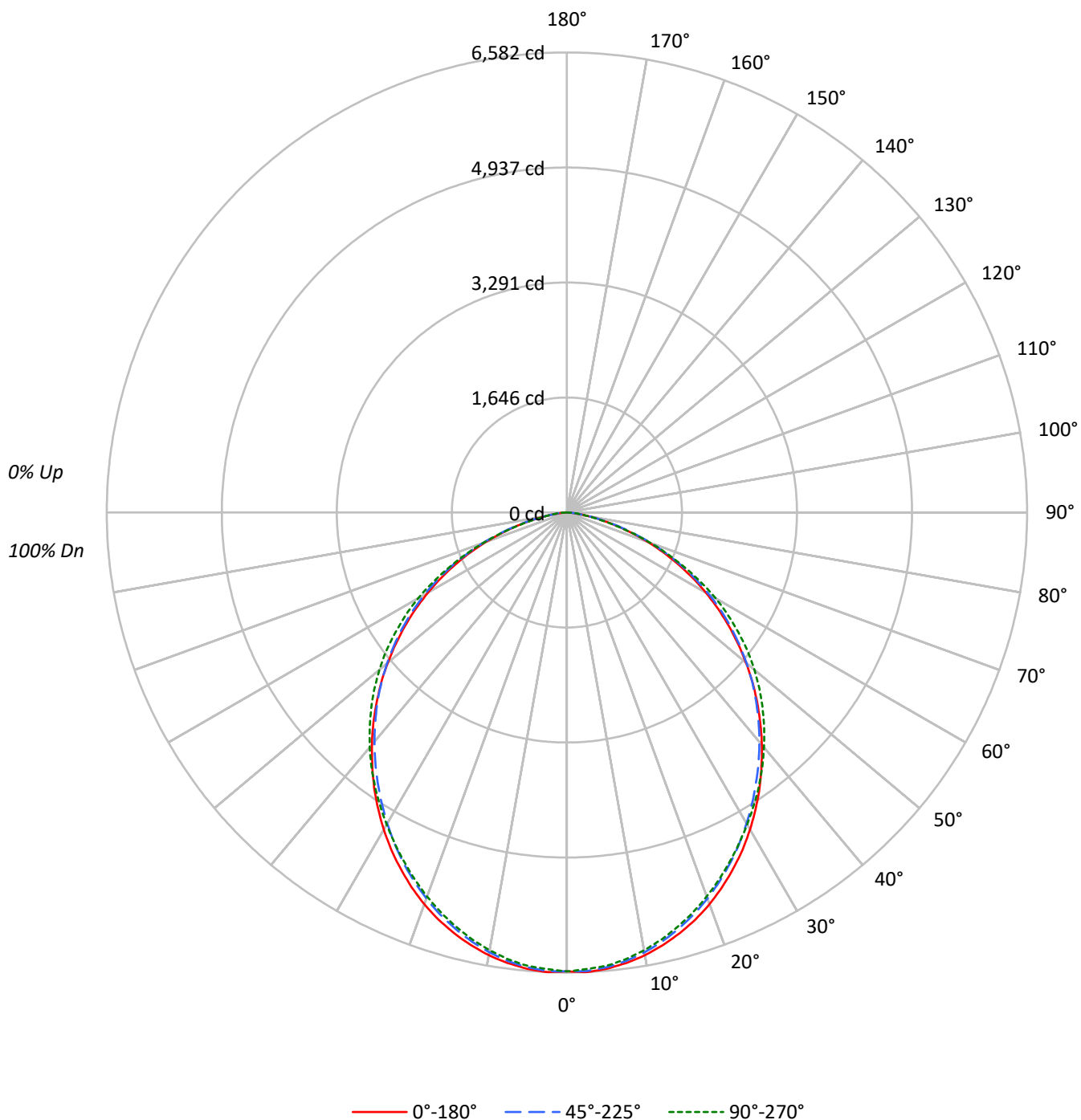
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 16162.0 lumens  
Efficiency: N/A  
Efficacy: 94.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 170.9  
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  |     |     |  | 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  |  | 0   |
| 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  |  | 86  |
| 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  |  | 62  |
| 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  |  | 40  |
| 7   | 67  | 53  | 45  | 39  | 65  | 53  | 44  | 39  | 51  | 44  | 38  |  | 50  | 43  | 38  |  | 48  | 42  | 38  |  | 36  |
| 8   | 62  | 49  | 40  | 35  | 60  | 48  | 40  | 35  | 47  | 40  | 34  |  | 46  | 39  | 34  |  | 44  | 38  | 34  |  | 32  |
| 9   | 58  | 45  | 37  | 31  | 57  | 44  | 37  | 31  | 43  | 36  | 31  |  | 42  | 36  | 31  |  | 41  | 35  | 31  |  | 29  |
| 10  | 54  | 41  | 34  | 29  | 53  | 41  | 33  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  | 32  | 28  |  | 26  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8834 | 8834 | 8834 |
| 5°  | 8850 | 8821 | 8793 |
| 10° | 8788 | 8730 | 8688 |
| 15° | 8682 | 8589 | 8544 |
| 20° | 8539 | 8416 | 8372 |
| 25° | 8352 | 8213 | 8183 |
| 30° | 8138 | 7983 | 8009 |
| 35° | 7895 | 7749 | 7861 |
| 40° | 7621 | 7521 | 7704 |
| 45° | 7323 | 7287 | 7531 |
| 50° | 6997 | 7023 | 7326 |
| 55° | 6630 | 6717 | 7025 |
| 60° | 6175 | 6325 | 6622 |
| 65° | 5609 | 5793 | 5920 |
| 70° | 4831 | 5030 | 4987 |
| 75° | 3838 | 3990 | 3720 |
| 80° | 2582 | 2607 | 2412 |
| 85° | 1326 | 1627 | 1976 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7531 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 618.1   | 3.8       |
| 10°-20°   | 1737.2  | 10.7      |
| 20°-30°   | 2551.6  | 15.8      |
| 30°-40°   | 2971.1  | 18.4      |
| 40°-50°   | 2978.1  | 18.4      |
| 50°-60°   | 2573.9  | 15.9      |
| 60°-70°   | 1790.6  | 11.1      |
| 70°-80°   | 802.8   | 5.0       |
| 80°-90°   | 138.5   | 0.9       |
| 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°    | 4907.0  | 30.4      |
| 0°-40°    | 7878.1  | 48.7      |
| 0°-60°    | 13430.1 | 83.1      |
| 0°-90°    | 16162.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 16162.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 6566 | 6566  | 6566 | 6566  | 6566 |      |
| 5°  | 6552 | 6524  | 6531 | 6501  | 6510 | 622  |
| 15° | 6233 | 6193  | 6166 | 6124  | 6134 | 1756 |
| 25° | 5626 | 5576  | 5532 | 5490  | 5512 | 2590 |
| 35° | 4807 | 4747  | 4718 | 4740  | 4786 | 3003 |
| 45° | 3848 | 3806  | 3830 | 3907  | 3958 | 2969 |
| 55° | 2826 | 2796  | 2863 | 2960  | 2995 | 2523 |
| 65° | 1762 | 1758  | 1820 | 1853  | 1859 | 1741 |
| 75° | 738  | 745   | 768  | 738   | 716  | 793  |
| 85° | 86   | 92    | 105  | 121   | 128  | 127  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 6565.5 | 6565.5 | 6565.5 | 6565.5 | 6565.5 |
| 2.5°  | 6581.9 | 6554.7 | 6565.5 | 6542.2 | 6537.3 |
| 5°    | 6552.4 | 6524.2 | 6531.4 | 6501.3 | 6510.0 |
| 7.5°  | 6501.5 | 6471.7 | 6471.4 | 6438.7 | 6446.6 |
| 10°   | 6432.4 | 6397.5 | 6390.1 | 6352.9 | 6359.2 |
| 12.5° | 6340.5 | 6304.5 | 6288.4 | 6246.0 | 6256.6 |
| 15°   | 6232.6 | 6192.9 | 6165.7 | 6124.1 | 6133.8 |
| 17.5° | 6107.5 | 6063.8 | 6031.0 | 5982.6 | 5998.3 |
| 20°   | 5963.9 | 5917.0 | 5877.7 | 5826.3 | 5847.0 |
| 22.5° | 5803.0 | 5753.8 | 5708.8 | 5662.9 | 5683.7 |
| 25°   | 5625.9 | 5576.3 | 5532.2 | 5490.5 | 5512.3 |
| 27.5° | 5439.7 | 5384.3 | 5340.1 | 5310.6 | 5334.7 |
| 30°   | 5238.1 | 5181.0 | 5138.4 | 5120.4 | 5154.8 |
| 32.5° | 5025.3 | 4968.8 | 4931.5 | 4933.2 | 4972.9 |
| 35°   | 4806.7 | 4747.3 | 4717.7 | 4739.6 | 4785.8 |
| 37.5° | 4571.7 | 4521.9 | 4502.3 | 4544.2 | 4591.2 |
| 40°   | 4338.7 | 4286.9 | 4281.9 | 4336.9 | 4386.4 |
| 42.5° | 4097.8 | 4052.2 | 4058.4 | 4128.9 | 4175.0 |
| 45°   | 3848.4 | 3806.2 | 3829.7 | 3907.3 | 3957.6 |
| 47.5° | 3603.5 | 3560.1 | 3596.6 | 3681.4 | 3735.7 |
| 50°   | 3342.9 | 3307.8 | 3355.2 | 3450.1 | 3499.9 |
| 52.5° | 3084.1 | 3050.5 | 3110.9 | 3210.9 | 3258.9 |
| 55°   | 2826.5 | 2796.2 | 2863.4 | 2960.4 | 2994.8 |
| 57.5° | 2560.0 | 2543.0 | 2612.4 | 2697.4 | 2733.3 |
| 60°   | 2294.8 | 2280.3 | 2350.3 | 2428.8 | 2461.0 |
| 62.5° | 2029.2 | 2021.3 | 2087.6 | 2150.8 | 2161.4 |
| 65°   | 1761.8 | 1757.5 | 1819.5 | 1853.0 | 1859.4 |
| 67.5° | 1491.5 | 1494.8 | 1551.0 | 1567.6 | 1566.5 |
| 70°   | 1228.0 | 1227.9 | 1278.7 | 1282.4 | 1267.7 |
| 72.5° | 971.8  | 979.3  | 1011.7 | 1002.8 | 979.5  |
| 75°   | 738.2  | 744.9  | 767.5  | 737.7  | 715.5  |
| 77.5° | 520.8  | 526.5  | 535.8  | 503.1  | 489.2  |
| 80°   | 333.2  | 343.5  | 336.5  | 320.8  | 311.3  |
| 82.5° | 186.1  | 196.5  | 190.4  | 204.6  | 211.0  |
| 85°   | 85.9   | 92.0   | 105.4  | 121.4  | 128.0  |
| 87.5° | 29.2   | 34.8   | 43.2   | 46.2   | 43.0   |
| 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 | 18.50            | 20.08 | 18.87 | 20.40 | 20.71 | 18.92          | 20.50 | 19.28 | 20.82 | 21.13 |
|                 | 3H   | 19.95            | 21.37 | 20.32 | 21.70 | 22.06 | 20.33          | 21.75 | 20.70 | 22.08 | 22.44 |
|                 | 4H   | 20.36            | 21.70 | 20.76 | 22.05 | 22.43 | 20.69          | 22.03 | 21.09 | 22.38 | 22.75 |
|                 | 6H   | 20.57            | 21.80 | 20.98 | 22.17 | 22.56 | 20.84          | 22.08 | 21.25 | 22.44 | 22.83 |
|                 | 8H   | 20.59            | 21.77 | 21.02 | 22.16 | 22.56 | 20.87          | 22.04 | 21.29 | 22.43 | 22.83 |
|                 | 12H  | 20.59            | 21.71 | 21.02 | 22.10 | 22.53 | 20.88          | 22.00 | 21.31 | 22.39 | 22.81 |
| 4H              | 2H   | 19.09            | 20.43 | 19.49 | 20.77 | 21.15 | 19.43          | 20.77 | 19.83 | 21.11 | 21.49 |
|                 | 3H   | 20.71            | 21.82 | 21.12 | 22.22 | 22.62 | 21.02          | 22.13 | 21.43 | 22.53 | 22.93 |
|                 | 4H   | 21.21            | 22.21 | 21.64 | 22.63 | 23.06 | 21.47          | 22.47 | 21.90 | 22.88 | 23.32 |
|                 | 6H   | 21.49            | 22.36 | 21.94 | 22.80 | 23.26 | 21.69          | 22.55 | 22.14 | 23.00 | 23.45 |
|                 | 8H   | 21.53            | 22.34 | 21.99 | 22.78 | 23.25 | 21.73          | 22.54 | 22.19 | 22.98 | 23.45 |
|                 | 12H  | 21.54            | 22.26 | 22.02 | 22.74 | 23.21 | 21.75          | 22.48 | 22.24 | 22.96 | 23.43 |
| 8H              | 4H   | 21.39            | 22.21 | 21.86 | 22.65 | 23.12 | 21.63          | 22.44 | 22.09 | 22.88 | 23.35 |
|                 | 6H   | 21.72            | 22.39 | 22.21 | 22.88 | 23.36 | 21.89          | 22.56 | 22.39 | 23.05 | 23.53 |
|                 | 8H   | 21.78            | 22.38 | 22.30 | 22.89 | 23.38 | 21.96          | 22.56 | 22.47 | 23.06 | 23.55 |
|                 | 12H  | 21.82            | 22.34 | 22.32 | 22.84 | 23.40 | 22.02          | 22.54 | 22.52 | 23.04 | 23.60 |
| 12H             | 4H   | 21.39            | 22.12 | 21.87 | 22.59 | 23.06 | 21.62          | 22.35 | 22.10 | 22.82 | 23.29 |
|                 | 6H   | 21.71            | 22.31 | 22.22 | 22.82 | 23.31 | 21.88          | 22.48 | 22.39 | 22.99 | 23.48 |
|                 | 8H   | 21.81            | 22.34 | 22.32 | 22.83 | 23.39 | 21.98          | 22.51 | 22.49 | 23.00 | 23.57 |