

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: P1499676

Luminaire Tested: MAE-G-4-120-3STD-50-90

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499676  
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-50-90  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 3 STD ambient illumination levels  
Light Source: -  
Ballast/Driver: -

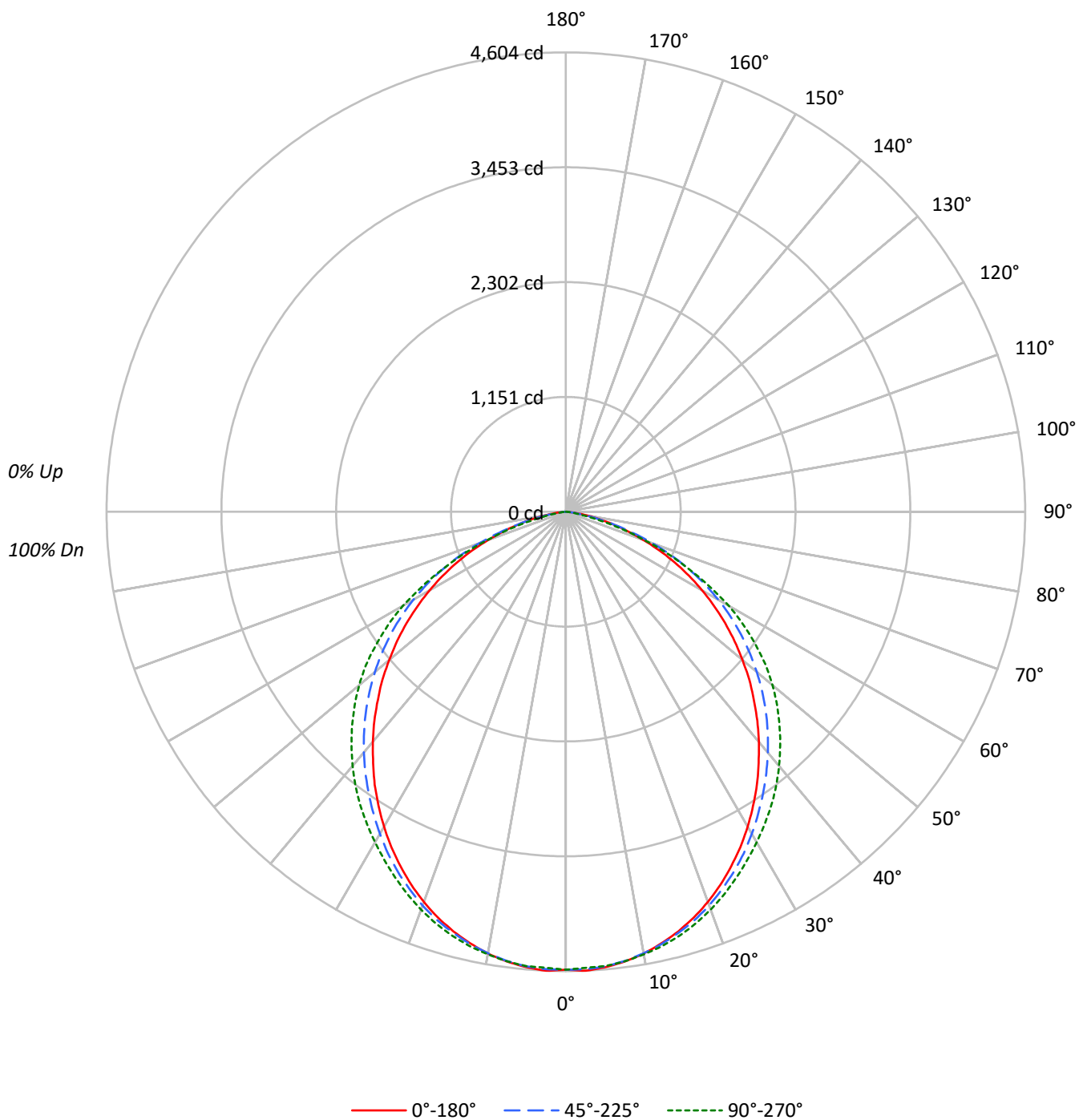
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 11632.0 lumens  
Efficiency: N/A  
Efficacy: 113.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 102.4  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 110 | 105 | 102 | 98  | 107 | 103 | 100 | 96  | 99  | 96  | 93  |  | 95  | 93  | 91  |  | 92  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  |  | 84  | 80  | 76  |  | 81  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 75  | 69  | 65  |  | 72  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 64  | 57  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 65  |
| 5   | 78  | 65  | 56  | 50  | 76  | 64  | 56  | 50  | 62  | 55  | 49  |  | 60  | 54  | 49  |  | 58  |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 43  |  | 54  | 48  | 43  |  | 53  |
| 7   | 67  | 53  | 45  | 39  | 65  | 53  | 44  | 39  | 51  | 44  | 38  |  | 50  | 43  | 38  |  | 48  |
| 8   | 62  | 49  | 40  | 35  | 60  | 48  | 40  | 35  | 47  | 40  | 34  |  | 46  | 39  | 34  |  | 44  |
| 9   | 58  | 45  | 37  | 31  | 57  | 44  | 36  | 31  | 43  | 36  | 31  |  | 42  | 36  | 31  |  | 41  |
| 10  | 54  | 41  | 34  | 28  | 53  | 41  | 33  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6175 | 6175 | 6175 |
| 5°  | 6188 | 6175 | 6173 |
| 10° | 6143 | 6140 | 6154 |
| 15° | 6064 | 6084 | 6128 |
| 20° | 5959 | 6014 | 6076 |
| 25° | 5821 | 5914 | 6007 |
| 30° | 5663 | 5791 | 5943 |
| 35° | 5485 | 5660 | 5898 |
| 40° | 5286 | 5532 | 5839 |
| 45° | 5070 | 5395 | 5765 |
| 50° | 4835 | 5228 | 5662 |
| 55° | 4575 | 5026 | 5444 |
| 60° | 4246 | 4749 | 5080 |
| 65° | 3834 | 4331 | 4351 |
| 70° | 3273 | 3636 | 3382 |
| 75° | 2570 | 2653 | 2080 |
| 80° | 1678 | 1364 | 805  |
| 85° | 804  | 539  | 428  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5765 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 433.5   | 3.7       |
| 10°-20°   | 1230.8  | 10.6      |
| 20°-30°   | 1830.5  | 15.7      |
| 30°-40°   | 2157.0  | 18.5      |
| 40°-50°   | 2187.0  | 18.8      |
| 50°-60°   | 1905.7  | 16.4      |
| 60°-70°   | 1303.3  | 11.2      |
| 70°-80°   | 523.5   | 4.5       |
| 80°-90°   | 60.7    | 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°    | 3494.8  | 30.0      |
| 0°-40°    | 5651.8  | 48.6      |
| 0°-60°    | 9744.4  | 83.8      |
| 0°-90°    | 11632.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 11632.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 4589 | 4589  | 4589 | 4589  | 4589 |      |
| 5°  | 4582 | 4554  | 4572 | 4567  | 4570 | 435  |
| 15° | 4354 | 4335  | 4368 | 4386  | 4400 | 1227 |
| 25° | 3921 | 3922  | 3983 | 4012  | 4046 | 1805 |
| 35° | 3339 | 3354  | 3446 | 3530  | 3591 | 2086 |
| 45° | 2665 | 2700  | 2835 | 2963  | 3030 | 2057 |
| 55° | 1950 | 1992  | 2142 | 2277  | 2321 | 1741 |
| 65° | 1204 | 1258  | 1360 | 1371  | 1367 | 1191 |
| 75° | 494  | 528   | 510  | 438   | 400  | 531  |
| 85° | 52   | 47    | 35   | 31    | 28   | 80   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 4589.4 | 4589.4 | 4589.4 | 4589.4 | 4589.4 |
| 2.5°  | 4604.2 | 4573.5 | 4589.4 | 4586.2 | 4574.4 |
| 5°    | 4581.9 | 4554.3 | 4572.3 | 4567.2 | 4570.2 |
| 7.5°  | 4545.8 | 4520.5 | 4539.5 | 4538.5 | 4543.7 |
| 10°   | 4496.1 | 4470.5 | 4494.0 | 4498.2 | 4504.5 |
| 12.5° | 4430.2 | 4409.1 | 4437.7 | 4446.1 | 4458.8 |
| 15°   | 4353.7 | 4334.7 | 4367.6 | 4385.6 | 4399.5 |
| 17.5° | 4264.6 | 4248.7 | 4291.1 | 4308.2 | 4327.2 |
| 20°   | 4161.6 | 4150.2 | 4199.9 | 4215.8 | 4243.5 |
| 22.5° | 4047.2 | 4040.9 | 4092.7 | 4117.1 | 4149.0 |
| 25°   | 3920.8 | 3921.9 | 3983.4 | 4012.2 | 4046.0 |
| 27.5° | 3788.3 | 3790.4 | 3860.5 | 3900.6 | 3936.7 |
| 30°   | 3645.0 | 3651.3 | 3727.7 | 3777.7 | 3825.3 |
| 32.5° | 3493.2 | 3505.9 | 3588.7 | 3656.7 | 3709.7 |
| 35°   | 3339.4 | 3354.1 | 3445.6 | 3530.3 | 3590.8 |
| 37.5° | 3172.8 | 3197.2 | 3300.2 | 3401.0 | 3463.4 |
| 40°   | 3009.4 | 3033.8 | 3149.4 | 3260.8 | 3324.6 |
| 42.5° | 2840.7 | 2871.5 | 2994.6 | 3118.7 | 3180.1 |
| 45°   | 2664.6 | 2700.5 | 2835.3 | 2962.7 | 3029.5 |
| 47.5° | 2495.7 | 2527.6 | 2669.7 | 2802.5 | 2871.5 |
| 50°   | 2310.0 | 2350.3 | 2497.8 | 2636.9 | 2704.9 |
| 52.5° | 2132.9 | 2169.9 | 2321.7 | 2464.1 | 2525.5 |
| 55°   | 1950.4 | 1991.7 | 2142.5 | 2277.1 | 2320.8 |
| 57.5° | 1763.5 | 1813.4 | 1958.9 | 2071.4 | 2112.7 |
| 60°   | 1578.0 | 1627.7 | 1764.7 | 1857.1 | 1887.8 |
| 62.5° | 1393.2 | 1446.4 | 1566.2 | 1627.7 | 1627.7 |
| 65°   | 1204.4 | 1258.5 | 1360.3 | 1370.9 | 1366.7 |
| 67.5° | 1015.6 | 1069.7 | 1147.1 | 1127.9 | 1115.2 |
| 70°   | 831.9  | 878.6  | 924.3  | 889.1  | 859.6  |
| 72.5° | 653.7  | 698.2  | 705.7  | 654.8  | 617.5  |
| 75°   | 494.4  | 527.5  | 510.4  | 438.4  | 400.1  |
| 77.5° | 344.8  | 364.0  | 327.9  | 254.7  | 224.0  |
| 80°   | 216.5  | 224.9  | 176.1  | 124.1  | 103.9  |
| 82.5° | 116.8  | 117.7  | 76.5   | 62.6   | 58.4   |
| 85°   | 52.1   | 46.7   | 34.9   | 30.7   | 27.7   |
| 87.5° | 18.1   | 15.9   | 12.7   | 11.7   | 9.6    |
| 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 | 17.25            | 18.83 | 17.62 | 19.15 | 19.46 | 18.23          | 19.82 | 18.60 | 20.13 | 20.45 |
|                 | 3H   | 18.66            | 20.08 | 19.04 | 20.41 | 20.77 | 19.44          | 20.86 | 19.82 | 21.19 | 21.55 |
|                 | 4H   | 19.06            | 20.39 | 19.45 | 20.74 | 21.11 | 19.66          | 20.99 | 20.05 | 21.34 | 21.71 |
|                 | 6H   | 19.23            | 20.46 | 19.64 | 20.83 | 21.22 | 19.67          | 20.91 | 20.08 | 21.27 | 21.66 |
|                 | 8H   | 19.24            | 20.42 | 19.67 | 20.81 | 21.21 | 19.65          | 20.82 | 20.08 | 21.21 | 21.61 |
|                 | 12H  | 19.24            | 20.36 | 19.67 | 20.74 | 21.17 | 19.62          | 20.75 | 20.05 | 21.13 | 21.56 |
| 4H              | 2H   | 17.92            | 19.26 | 18.32 | 19.60 | 19.98 | 18.71          | 20.05 | 19.11 | 20.39 | 20.77 |
|                 | 3H   | 19.49            | 20.60 | 19.90 | 21.00 | 21.40 | 20.08          | 21.19 | 20.49 | 21.59 | 21.99 |
|                 | 4H   | 19.97            | 20.96 | 20.40 | 21.38 | 21.81 | 20.35          | 21.35 | 20.79 | 21.76 | 22.20 |
|                 | 6H   | 20.21            | 21.07 | 20.66 | 21.51 | 21.97 | 20.41          | 21.27 | 20.86 | 21.71 | 22.17 |
|                 | 8H   | 20.23            | 21.03 | 20.69 | 21.48 | 21.94 | 20.38          | 21.19 | 20.84 | 21.63 | 22.10 |
|                 | 12H  | 20.23            | 20.95 | 20.71 | 21.43 | 21.90 | 20.36          | 21.08 | 20.84 | 21.56 | 22.03 |
| 8H              | 4H   | 20.11            | 20.92 | 20.58 | 21.36 | 21.83 | 20.47          | 21.28 | 20.94 | 21.72 | 22.19 |
|                 | 6H   | 20.39            | 21.05 | 20.88 | 21.54 | 22.02 | 20.53          | 21.19 | 21.03 | 21.68 | 22.16 |
|                 | 8H   | 20.43            | 21.02 | 20.94 | 21.53 | 22.02 | 20.51          | 21.10 | 21.02 | 21.61 | 22.10 |
|                 | 12H  | 20.44            | 20.96 | 20.95 | 21.46 | 22.02 | 20.50          | 21.02 | 21.00 | 21.51 | 22.07 |
| 12H             | 4H   | 20.09            | 20.81 | 20.58 | 21.29 | 21.76 | 20.46          | 21.18 | 20.94 | 21.66 | 22.13 |
|                 | 6H   | 20.36            | 20.95 | 20.87 | 21.46 | 21.95 | 20.51          | 21.10 | 21.02 | 21.61 | 22.10 |
|                 | 8H   | 20.42            | 20.95 | 20.93 | 21.44 | 22.00 | 20.51          | 21.03 | 21.02 | 21.52 | 22.09 |