

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: P1499157

Luminaire Tested: MAE-G-4-120-1STD-STD-30

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499157  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27581)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/26/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: MAE-G-4-120-1STD-STD-30  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 1 STD ambient , STD exam illumination levels  
Light Source: -  
Ballast/Driver: -

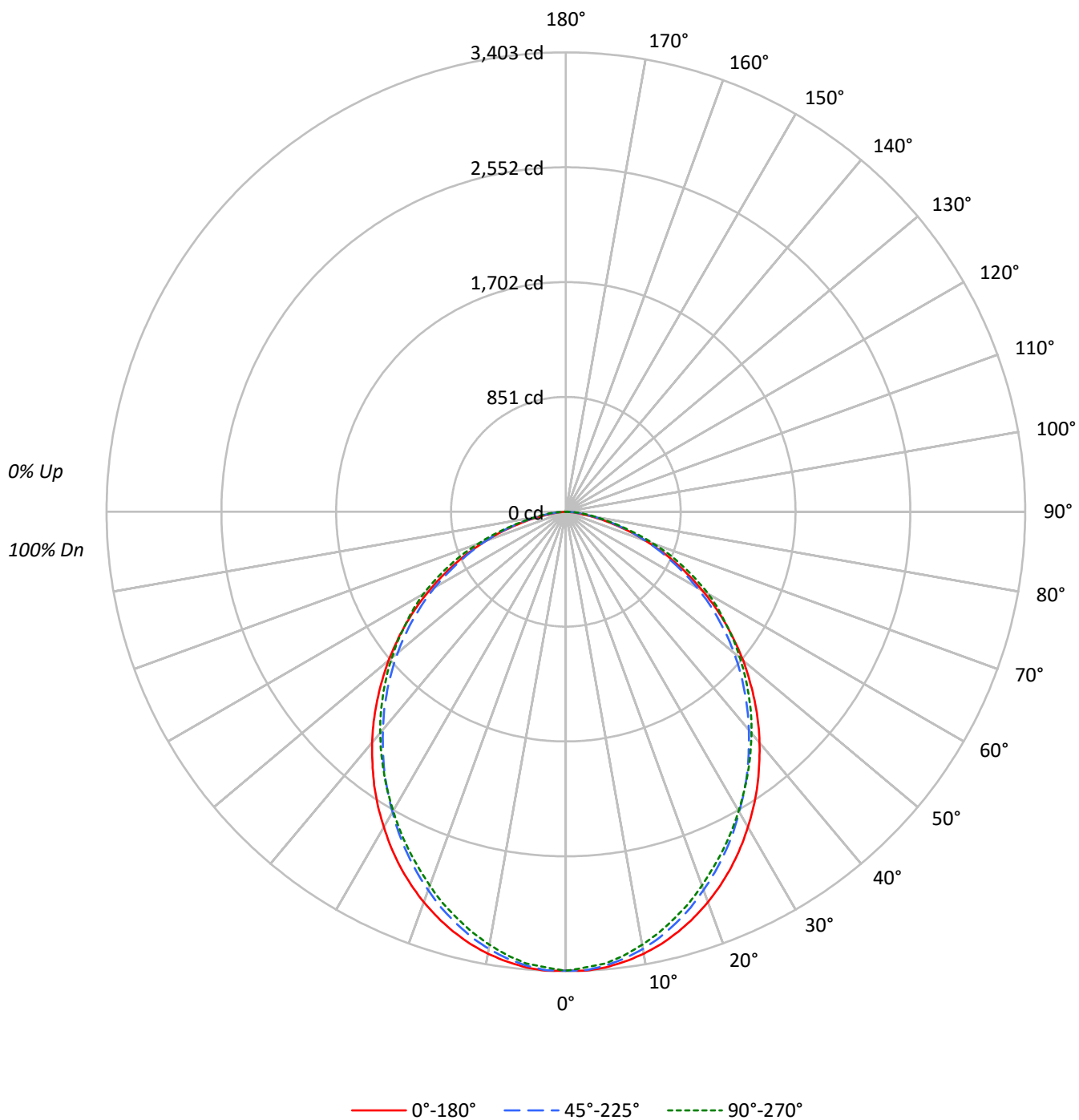
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8135.0 lumens  
Efficiency: N/A  
Efficacy: 79.3 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.13 / 1.26  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 102.6  
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  | 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 | 97  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  | 89  | 87  | 85  |
| 2   | 100 | 92  | 86  | 80  | 97  | 90  | 84  | 79  | 87  | 82  | 78  |  | 84  | 79  | 76  |  | 81  | 77  | 74  | 72  |
| 3   | 92  | 82  | 74  | 67  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 74  | 69  | 65  |  | 72  | 67  | 63  | 61  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 56  |  | 66  | 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  | 39  |  | 50  | 43  | 38  |  | 48  | 42  | 38  | 36  |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 40  | 35  | 47  | 40  | 35  |  | 46  | 39  | 34  |  | 45  | 39  | 34  | 32  |
| 9   | 58  | 45  | 37  | 32  | 57  | 44  | 37  | 31  | 43  | 36  | 31  |  | 42  | 36  | 31  |  | 41  | 35  | 31  | 29  |
| 10  | 55  | 42  | 34  | 29  | 53  | 41  | 34  | 29  | 40  | 33  | 29  |  | 39  | 33  | 28  |  | 38  | 32  | 28  | 27  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4574 | 4574 | 4574 |
| 5°  | 4576 | 4558 | 4536 |
| 10° | 4542 | 4493 | 4450 |
| 15° | 4485 | 4393 | 4340 |
| 20° | 4406 | 4270 | 4220 |
| 25° | 4309 | 4138 | 4097 |
| 30° | 4191 | 3990 | 3976 |
| 35° | 4066 | 3851 | 3864 |
| 40° | 3922 | 3705 | 3759 |
| 45° | 3761 | 3560 | 3643 |
| 50° | 3589 | 3405 | 3522 |
| 55° | 3390 | 3225 | 3395 |
| 60° | 3146 | 3018 | 3282 |
| 65° | 2863 | 2750 | 3052 |
| 70° | 2485 | 2472 | 2720 |
| 75° | 1983 | 2104 | 2233 |
| 80° | 1371 | 1626 | 1772 |
| 85° | 767  | 1240 | 1612 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3761 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 319.1  | 3.9       |
| 10°-20°   | 889.6  | 10.9      |
| 20°-30°   | 1292.2 | 15.9      |
| 30°-40°   | 1487.1 | 18.3      |
| 40°-50°   | 1471.9 | 18.1      |
| 50°-60°   | 1260.3 | 15.5      |
| 60°-70°   | 888.9  | 10.9      |
| 70°-80°   | 431.9  | 5.3       |
| 80°-90°   | 94.0   | 1.2       |
| 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°    | 2500.9 | 30.7      |
| 0°-40°    | 3988.0 | 49.0      |
| 0°-60°    | 6720.2 | 82.6      |
| 0°-90°    | 8135.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8135.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3400 | 3400  | 3400 | 3400  | 3400 |      |
| 5°  | 3388 | 3385  | 3375 | 3351  | 3358 | 321  |
| 15° | 3220 | 3202  | 3154 | 3112  | 3116 | 907  |
| 25° | 2902 | 2860  | 2787 | 2752  | 2759 | 1336 |
| 35° | 2475 | 2417  | 2344 | 2336  | 2352 | 1546 |
| 45° | 1976 | 1923  | 1871 | 1894  | 1914 | 1524 |
| 55° | 1445 | 1396  | 1375 | 1416  | 1447 | 1290 |
| 65° | 899  | 861   | 864  | 930   | 958  | 890  |
| 75° | 382  | 365   | 405  | 430   | 430  | 412  |
| 85° | 50   | 61    | 80   | 97    | 104  | 70   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3399.5 | 3399.5 | 3399.5 | 3399.5 | 3399.5 |
| 2.5°  | 3403.4 | 3406.2 | 3399.5 | 3374.0 | 3378.4 |
| 5°    | 3387.8 | 3384.9 | 3374.8 | 3350.9 | 3358.5 |
| 7.5°  | 3360.7 | 3356.1 | 3337.9 | 3309.6 | 3314.5 |
| 10°   | 3324.8 | 3315.5 | 3288.5 | 3253.2 | 3257.3 |
| 12.5° | 3278.3 | 3265.9 | 3227.7 | 3187.7 | 3192.1 |
| 15°   | 3220.1 | 3202.1 | 3153.6 | 3111.5 | 3116.0 |
| 17.5° | 3153.2 | 3132.7 | 3074.0 | 3028.4 | 3038.1 |
| 20°   | 3077.5 | 3049.8 | 2982.2 | 2939.0 | 2947.3 |
| 22.5° | 2994.1 | 2959.3 | 2888.4 | 2846.7 | 2853.2 |
| 25°   | 2902.3 | 2859.9 | 2787.3 | 2751.5 | 2759.4 |
| 27.5° | 2803.2 | 2756.7 | 2682.0 | 2649.3 | 2661.3 |
| 30°   | 2697.6 | 2647.5 | 2568.4 | 2545.9 | 2558.9 |
| 32.5° | 2589.2 | 2536.0 | 2457.8 | 2443.4 | 2456.5 |
| 35°   | 2475.3 | 2417.2 | 2344.5 | 2335.9 | 2352.2 |
| 37.5° | 2353.4 | 2297.5 | 2225.8 | 2231.3 | 2246.8 |
| 40°   | 2232.7 | 2174.9 | 2109.3 | 2121.6 | 2140.1 |
| 42.5° | 2107.1 | 2051.3 | 1991.5 | 2008.7 | 2030.4 |
| 45°   | 1976.3 | 1923.1 | 1870.8 | 1893.8 | 1914.5 |
| 47.5° | 1845.0 | 1792.4 | 1749.8 | 1776.8 | 1801.4 |
| 50°   | 1714.7 | 1664.1 | 1626.9 | 1659.6 | 1682.8 |
| 52.5° | 1577.9 | 1529.7 | 1503.1 | 1537.5 | 1567.3 |
| 55°   | 1445.3 | 1396.4 | 1374.9 | 1415.9 | 1447.4 |
| 57.5° | 1308.3 | 1268.1 | 1249.6 | 1297.8 | 1337.1 |
| 60°   | 1169.2 | 1129.5 | 1121.6 | 1182.6 | 1219.8 |
| 62.5° | 1033.2 | 994.4  | 990.8  | 1062.1 | 1088.9 |
| 65°   | 899.3  | 860.9  | 863.9  | 929.7  | 958.5  |
| 67.5° | 766.7  | 731.4  | 747.6  | 810.8  | 830.0  |
| 70°   | 631.6  | 600.1  | 628.5  | 681.8  | 691.4  |
| 72.5° | 504.7  | 478.2  | 516.7  | 554.0  | 556.4  |
| 75°   | 381.5  | 365.1  | 404.8  | 429.5  | 429.6  |
| 77.5° | 273.0  | 264.4  | 301.0  | 317.9  | 318.9  |
| 80°   | 177.0  | 180.9  | 209.8  | 222.9  | 228.7  |
| 82.5° | 103.2  | 112.3  | 134.9  | 157.2  | 163.2  |
| 85°   | 49.7   | 60.6   | 80.3   | 97.4   | 104.4  |
| 87.5° | 17.1   | 24.4   | 33.5   | 37.2   | 36.2   |
| 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 | 16.08            | 17.66 | 16.45 | 17.98 | 18.29 | 16.25          | 17.83 | 16.61 | 18.15 | 18.46 |
|                 | 3H   | 17.53            | 18.95 | 17.91 | 19.28 | 19.64 | 17.89          | 19.32 | 18.27 | 19.65 | 20.01 |
|                 | 4H   | 17.96            | 19.30 | 18.36 | 19.64 | 20.02 | 18.40          | 19.73 | 18.79 | 20.08 | 20.46 |
|                 | 6H   | 18.18            | 19.42 | 18.59 | 19.78 | 20.17 | 18.69          | 19.93 | 19.10 | 20.30 | 20.69 |
|                 | 8H   | 18.21            | 19.39 | 18.64 | 19.78 | 20.18 | 18.78          | 19.96 | 19.20 | 20.35 | 20.75 |
|                 | 12H  | 18.22            | 19.35 | 18.65 | 19.73 | 20.16 | 18.84          | 19.97 | 19.27 | 20.35 | 20.78 |
| 4H              | 2H   | 16.59            | 17.93 | 16.99 | 18.28 | 18.66 | 16.73          | 18.07 | 17.13 | 18.42 | 18.80 |
|                 | 3H   | 18.23            | 19.35 | 18.64 | 19.74 | 20.14 | 18.58          | 19.70 | 18.99 | 20.10 | 20.50 |
|                 | 4H   | 18.74            | 19.75 | 19.18 | 20.16 | 20.60 | 19.20          | 20.20 | 19.63 | 20.62 | 21.05 |
|                 | 6H   | 19.04            | 19.92 | 19.50 | 20.36 | 20.82 | 19.60          | 20.47 | 20.05 | 20.91 | 21.37 |
|                 | 8H   | 19.10            | 19.92 | 19.56 | 20.36 | 20.83 | 19.72          | 20.54 | 20.18 | 20.98 | 21.44 |
|                 | 12H  | 19.12            | 19.85 | 19.60 | 20.33 | 20.80 | 19.82          | 20.55 | 20.30 | 21.02 | 21.49 |
| 8H              | 4H   | 18.97            | 19.78 | 19.43 | 20.23 | 20.69 | 19.38          | 20.20 | 19.84 | 20.64 | 21.10 |
|                 | 6H   | 19.34            | 20.01 | 19.83 | 20.50 | 20.98 | 19.86          | 20.53 | 20.35 | 21.02 | 21.50 |
|                 | 8H   | 19.42            | 20.03 | 19.93 | 20.54 | 21.02 | 20.03          | 20.64 | 20.55 | 21.15 | 21.63 |
|                 | 12H  | 19.48            | 20.01 | 19.98 | 20.50 | 21.06 | 20.19          | 20.73 | 20.70 | 21.22 | 21.78 |
| 12H             | 4H   | 18.98            | 19.71 | 19.46 | 20.19 | 20.66 | 19.38          | 20.11 | 19.86 | 20.59 | 21.06 |
|                 | 6H   | 19.36            | 19.96 | 19.87 | 20.47 | 20.96 | 19.86          | 20.47 | 20.37 | 20.98 | 21.46 |
|                 | 8H   | 19.48            | 20.02 | 19.99 | 20.51 | 21.07 | 20.08          | 20.62 | 20.59 | 21.11 | 21.67 |