

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: P1498839

Luminaire Tested: MAE-G-2-120-3STD-HI-50

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498839  
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-2-120-3STD-HI-50  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 3 STD ambient , HI exam illumination levels  
Light Source: -  
Ballast/Driver: -

**Summary**

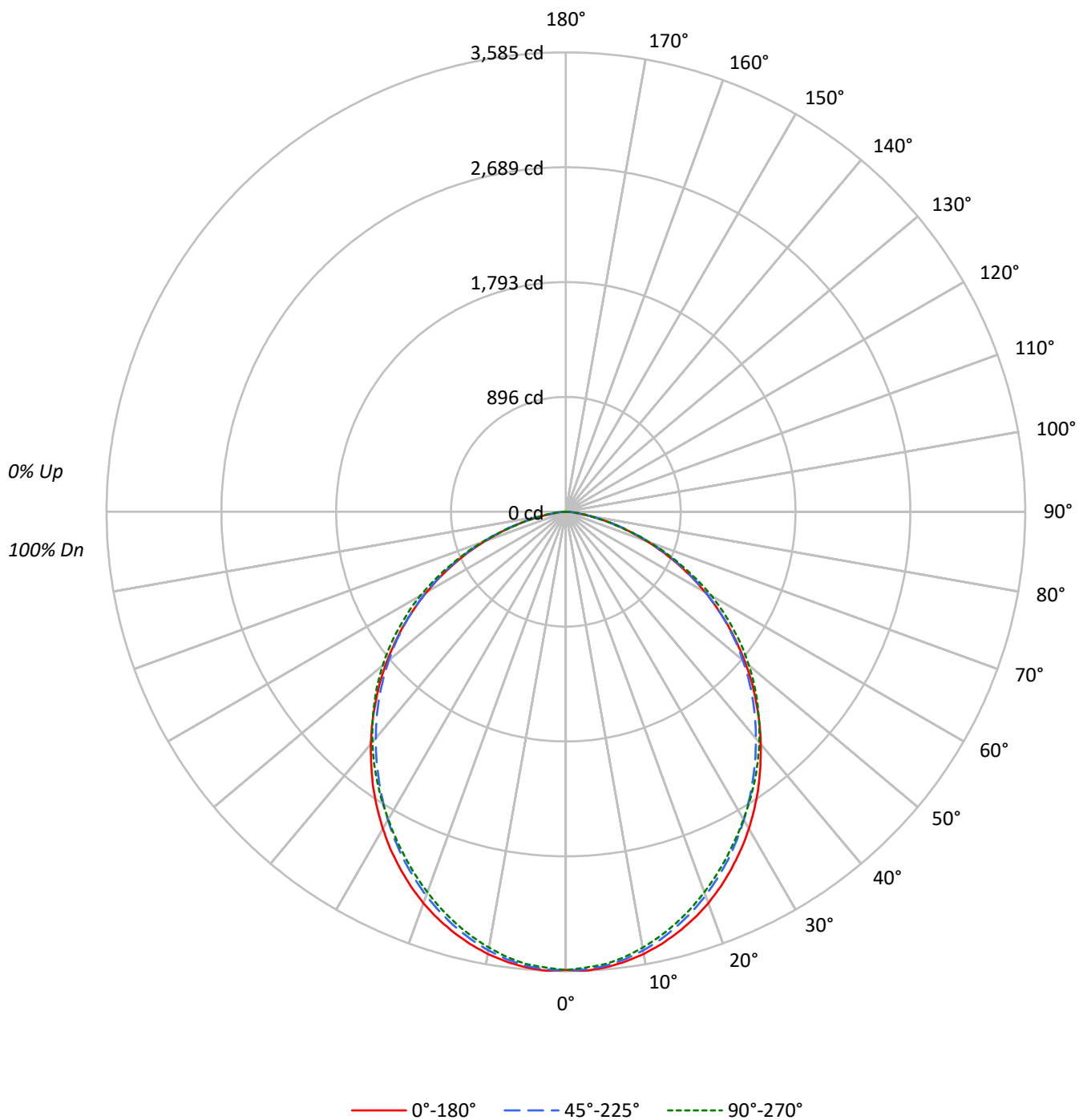
Lumens per Lamp: N/A  
Luminaire Lumens: 8751.0 lumens  
Efficiency: N/A  
Efficacy: 92.3 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.28  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 94.8  
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  | 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  | 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  | 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  | 42  | 40  |
| 7   | 67  | 53  | 45  | 39  | 65  | 53  | 44  | 39  | 51  | 44  | 38  |  | 50  | 43  | 38  |  | 48  | 42  | 38  | 36  |
| 8   | 62  | 49  | 41  | 35  | 61  | 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  | 34  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  | 32  | 28  | 26  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 9624 | 9624 | 9624 |
| 5°  | 9641 | 9608 | 9571 |
| 10° | 9575 | 9500 | 9440 |
| 15° | 9460 | 9332 | 9259 |
| 20° | 9307 | 9128 | 9050 |
| 25° | 9105 | 8893 | 8825 |
| 30° | 8875 | 8630 | 8616 |
| 35° | 8612 | 8365 | 8436 |
| 40° | 8316 | 8107 | 8249 |
| 45° | 7994 | 7844 | 8045 |
| 50° | 7641 | 7550 | 7809 |
| 55° | 7243 | 7212 | 7484 |
| 60° | 6750 | 6786 | 7071 |
| 65° | 6139 | 6222 | 6382 |
| 70° | 5297 | 5443 | 5467 |
| 75° | 4217 | 4391 | 4218 |
| 80° | 2853 | 2986 | 2909 |
| 85° | 1485 | 1964 | 2458 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8045 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 336.5  | 3.8       |
| 10°-20°   | 943.7  | 10.8      |
| 20°-30°   | 1382.5 | 15.8      |
| 30°-40°   | 1605.7 | 18.3      |
| 40°-50°   | 1605.6 | 18.3      |
| 50°-60°   | 1385.2 | 15.8      |
| 60°-70°   | 967.2  | 11.1      |
| 70°-80°   | 443.3  | 5.1       |
| 80°-90°   | 81.2   | 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°    | 2662.8 | 30.4      |
| 0°-40°    | 4268.5 | 48.8      |
| 0°-60°    | 7259.3 | 83.0      |
| 0°-90°    | 8751.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8751.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3576 | 3576  | 3576 | 3576  | 3576 |      |
| 5°  | 3569 | 3555  | 3557 | 3538  | 3543 | 339  |
| 15° | 3396 | 3373  | 3350 | 3320  | 3324 | 957  |
| 25° | 3067 | 3034  | 2995 | 2963  | 2972 | 1412 |
| 35° | 2622 | 2580  | 2546 | 2547  | 2568 | 1638 |
| 45° | 2100 | 2067  | 2061 | 2092  | 2114 | 1621 |
| 55° | 1544 | 1517  | 1537 | 1580  | 1595 | 1378 |
| 65° | 964  | 953   | 977  | 997   | 1002 | 953  |
| 75° | 406  | 405   | 422  | 414   | 406  | 436  |
| 85° | 48   | 53    | 64   | 75    | 80   | 71   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3576.5 | 3576.5 | 3576.5 | 3576.5 | 3576.5 |
| 2.5°  | 3584.9 | 3572.0 | 3576.5 | 3561.7 | 3560.4 |
| 5°    | 3569.1 | 3555.1 | 3556.9 | 3538.0 | 3543.3 |
| 7.5°  | 3541.5 | 3526.0 | 3522.7 | 3501.5 | 3505.9 |
| 10°   | 3504.1 | 3485.2 | 3476.7 | 3451.6 | 3454.7 |
| 12.5° | 3454.4 | 3434.0 | 3418.9 | 3389.8 | 3394.7 |
| 15°   | 3395.6 | 3372.7 | 3349.6 | 3319.5 | 3323.5 |
| 17.5° | 3327.8 | 3301.7 | 3273.5 | 3238.9 | 3246.2 |
| 20°   | 3250.0 | 3221.0 | 3187.4 | 3151.1 | 3160.3 |
| 22.5° | 3162.7 | 3131.4 | 3093.6 | 3059.6 | 3068.2 |
| 25°   | 3066.6 | 3033.9 | 2995.2 | 2963.2 | 2972.2 |
| 27.5° | 2965.6 | 2928.9 | 2888.7 | 2863.0 | 2873.1 |
| 30°   | 2856.1 | 2817.5 | 2777.5 | 2757.7 | 2772.7 |
| 32.5° | 2740.6 | 2701.6 | 2663.8 | 2654.2 | 2671.8 |
| 35°   | 2621.7 | 2580.4 | 2546.4 | 2547.3 | 2568.0 |
| 37.5° | 2494.0 | 2457.5 | 2428.3 | 2439.7 | 2460.7 |
| 40°   | 2367.3 | 2329.4 | 2307.7 | 2326.1 | 2348.3 |
| 42.5° | 2236.1 | 2201.2 | 2185.7 | 2212.2 | 2232.7 |
| 45°   | 2100.5 | 2067.1 | 2061.1 | 2091.6 | 2114.0 |
| 47.5° | 1966.7 | 1933.1 | 1934.5 | 1969.0 | 1993.6 |
| 50°   | 1825.3 | 1795.8 | 1803.5 | 1843.5 | 1865.4 |
| 52.5° | 1683.8 | 1655.7 | 1671.2 | 1714.1 | 1735.9 |
| 55°   | 1543.8 | 1517.3 | 1537.3 | 1579.6 | 1595.3 |
| 57.5° | 1398.7 | 1379.7 | 1401.9 | 1439.8 | 1456.8 |
| 60°   | 1254.2 | 1236.9 | 1260.9 | 1297.7 | 1313.9 |
| 62.5° | 1109.5 | 1095.7 | 1120.2 | 1151.9 | 1158.9 |
| 65°   | 964.1  | 952.6  | 977.1  | 997.3  | 1002.3 |
| 67.5° | 816.8  | 810.4  | 834.9  | 848.8  | 850.1  |
| 70°   | 673.2  | 665.7  | 691.8  | 699.7  | 694.8  |
| 72.5° | 533.4  | 531.2  | 551.3  | 553.6  | 544.3  |
| 75°   | 405.6  | 404.7  | 422.3  | 414.2  | 405.7  |
| 77.5° | 286.8  | 287.4  | 299.3  | 289.5  | 285.3  |
| 80°   | 184.1  | 189.5  | 192.7  | 190.7  | 187.7  |
| 82.5° | 103.5  | 110.1  | 112.7  | 124.2  | 129.1  |
| 85°   | 48.1   | 52.9   | 63.6   | 74.8   | 79.6   |
| 87.5° | 16.3   | 20.3   | 26.4   | 28.4   | 26.7   |
| 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 | 18.80            | 20.38 | 19.16 | 20.70 | 21.01 | 19.10          | 20.68 | 19.46 | 20.99 | 21.31 |
|                 | 3H   | 20.25            | 21.68 | 20.63 | 22.01 | 22.37 | 20.55          | 21.97 | 20.93 | 22.30 | 22.66 |
|                 | 4H   | 20.68            | 22.01 | 21.08 | 22.36 | 22.74 | 20.95          | 22.29 | 21.35 | 22.63 | 23.01 |
|                 | 6H   | 20.88            | 22.12 | 21.29 | 22.48 | 22.88 | 21.14          | 22.37 | 21.55 | 22.74 | 23.13 |
|                 | 8H   | 20.91            | 22.09 | 21.33 | 22.48 | 22.88 | 21.18          | 22.35 | 21.60 | 22.74 | 23.14 |
|                 | 12H  | 20.91            | 22.04 | 21.34 | 22.42 | 22.85 | 21.20          | 22.33 | 21.63 | 22.71 | 23.14 |
| 4H              | 2H   | 19.37            | 20.71 | 19.77 | 21.06 | 21.43 | 19.61          | 20.95 | 20.01 | 21.30 | 21.67 |
|                 | 3H   | 21.00            | 22.11 | 21.41 | 22.51 | 22.91 | 21.25          | 22.37 | 21.66 | 22.76 | 23.16 |
|                 | 4H   | 21.51            | 22.51 | 21.94 | 22.93 | 23.36 | 21.74          | 22.74 | 22.17 | 23.16 | 23.60 |
|                 | 6H   | 21.79            | 22.66 | 22.25 | 23.10 | 23.56 | 22.01          | 22.88 | 22.46 | 23.32 | 23.78 |
|                 | 8H   | 21.83            | 22.65 | 22.30 | 23.09 | 23.56 | 22.06          | 22.88 | 22.53 | 23.32 | 23.79 |
|                 | 12H  | 21.85            | 22.58 | 22.33 | 23.05 | 23.52 | 22.11          | 22.84 | 22.59 | 23.31 | 23.78 |
| 8H              | 4H   | 21.70            | 22.51 | 22.16 | 22.96 | 23.42 | 21.91          | 22.72 | 22.37 | 23.17 | 23.63 |
|                 | 6H   | 22.04            | 22.71 | 22.53 | 23.20 | 23.67 | 22.23          | 22.90 | 22.72 | 23.39 | 23.87 |
|                 | 8H   | 22.11            | 22.71 | 22.62 | 23.22 | 23.70 | 22.32          | 22.92 | 22.83 | 23.43 | 23.92 |
|                 | 12H  | 22.14            | 22.67 | 22.65 | 23.16 | 23.73 | 22.40          | 22.93 | 22.91 | 23.42 | 23.99 |
| 12H             | 4H   | 21.70            | 22.43 | 22.18 | 22.90 | 23.37 | 21.91          | 22.64 | 22.39 | 23.11 | 23.58 |
|                 | 6H   | 22.03            | 22.64 | 22.55 | 23.15 | 23.63 | 22.22          | 22.83 | 22.74 | 23.34 | 23.82 |
|                 | 8H   | 22.14            | 22.67 | 22.65 | 23.16 | 23.72 | 22.35          | 22.88 | 22.86 | 23.37 | 23.94 |

END OF REPORT