

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: P1498668

Luminaire Tested: MAE-G-2-120-3HI-LO-50-90

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498668  
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-2-120-3HI-LO-50-90  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 3 HI ambient , LO exam illumination levels  
Light Source: -  
Ballast/Driver: -

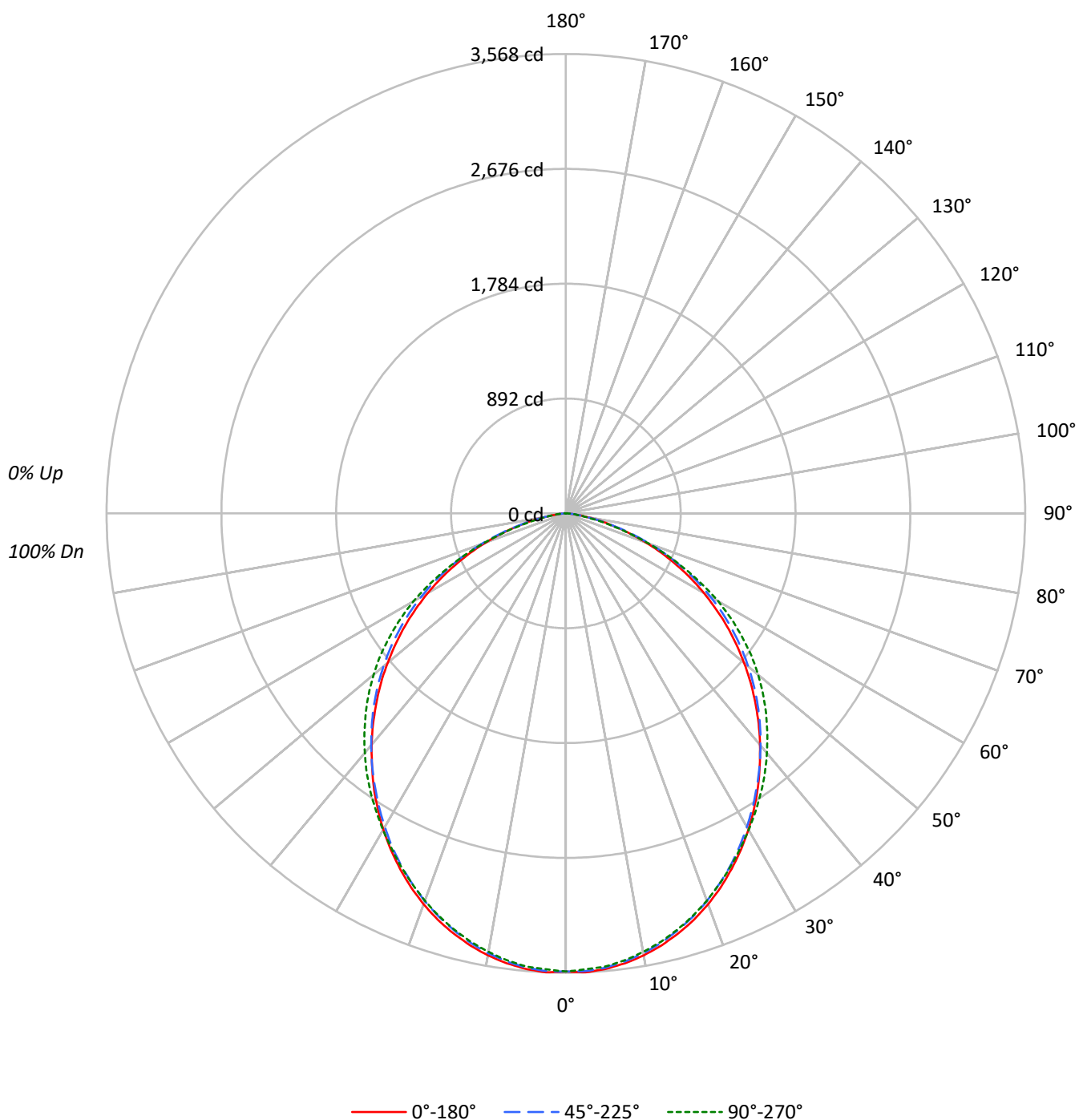
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8828.0 lumens  
Efficiency: N/A  
Efficacy: 95.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.19 / 1.3  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 92.3  
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 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 93  | 90  |  | 91  |
| 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  |  | 74  | 69  | 65  |  | 72  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 64  |
| 5   | 78  | 65  | 56  | 50  | 75  | 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  | 37  | 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°  | 9576 | 9576 | 9576 |
| 5°  | 9594 | 9566 | 9542 |
| 10° | 9526 | 9479 | 9451 |
| 15° | 9409 | 9343 | 9325 |
| 20° | 9253 | 9176 | 9167 |
| 25° | 9047 | 8973 | 8988 |
| 30° | 8811 | 8740 | 8822 |
| 35° | 8544 | 8499 | 8685 |
| 40° | 8244 | 8265 | 8537 |
| 45° | 7918 | 8022 | 8367 |
| 50° | 7562 | 7743 | 8162 |
| 55° | 7163 | 7416 | 7833 |
| 60° | 6666 | 6989 | 7363 |
| 65° | 6045 | 6394 | 6504 |
| 70° | 5194 | 5502 | 5364 |
| 75° | 4114 | 4270 | 3820 |
| 80° | 2746 | 2639 | 2256 |
| 85° | 1386 | 1522 | 1751 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8367 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 335.3  | 3.8       |
| 10°-20°   | 944.9  | 10.7      |
| 20°-30°   | 1392.5 | 15.8      |
| 30°-40°   | 1626.7 | 18.4      |
| 40°-50°   | 1635.6 | 18.5      |
| 50°-60°   | 1416.8 | 16.0      |
| 60°-70°   | 981.1  | 11.1      |
| 70°-80°   | 427.5  | 4.8       |
| 80°-90°   | 67.7   | 0.8       |
| 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       |
| <hr/>     |        |           |
| 0°-30°    | 2672.8 | 30.3      |
| 0°-40°    | 4299.4 | 48.7      |
| 0°-60°    | 7351.8 | 83.3      |
| 0°-90°    | 8828.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8828.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3558 | 3558  | 3558 | 3558  | 3558 |      |
| 5°  | 3552 | 3535  | 3541 | 3528  | 3532 | 337  |
| 15° | 3377 | 3358  | 3354 | 3341  | 3347 | 952  |
| 25° | 3047 | 3027  | 3022 | 3011  | 3027 | 1403 |
| 35° | 2601 | 2580  | 2587 | 2613  | 2644 | 1625 |
| 45° | 2081 | 2071  | 2108 | 2165  | 2199 | 1606 |
| 55° | 1527 | 1523  | 1581 | 1647  | 1670 | 1363 |
| 65° | 949  | 959   | 1004 | 1020  | 1021 | 938  |
| 75° | 396  | 405   | 411  | 384   | 367  | 425  |
| 85° | 45   | 46    | 49   | 55    | 57   | 67   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1498668

CATALOG NUMBER: MAE-G-2-120-3HI-LO-50-90

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3558.5 | 3558.5 | 3558.5 | 3558.5 | 3558.5 |
| 2.5°  | 3568.1 | 3550.9 | 3558.5 | 3548.5 | 3544.2 |
| 5°    | 3551.8 | 3534.8 | 3541.4 | 3528.3 | 3532.5 |
| 7.5°  | 3524.1 | 3507.0 | 3510.7 | 3497.4 | 3501.7 |
| 10°   | 3486.3 | 3467.1 | 3468.9 | 3454.9 | 3458.7 |
| 12.5° | 3436.2 | 3417.5 | 3416.9 | 3401.6 | 3408.5 |
| 15°   | 3377.4 | 3357.7 | 3353.6 | 3340.6 | 3347.3 |
| 17.5° | 3309.3 | 3288.6 | 3284.1 | 3268.4 | 3278.5 |
| 20°   | 3231.0 | 3209.8 | 3204.3 | 3187.0 | 3201.0 |
| 22.5° | 3143.4 | 3122.4 | 3115.0 | 3101.7 | 3116.4 |
| 25°   | 3046.9 | 3027.2 | 3022.2 | 3011.4 | 3027.0 |
| 27.5° | 2945.4 | 2923.7 | 2920.4 | 2916.7 | 2933.8 |
| 30°   | 2835.7 | 2814.1 | 2812.8 | 2815.7 | 2839.2 |
| 32.5° | 2719.7 | 2699.7 | 2701.7 | 2716.2 | 2742.9 |
| 35°   | 2601.0 | 2580.3 | 2587.1 | 2613.1 | 2643.9 |
| 37.5° | 2473.2 | 2458.3 | 2471.4 | 2508.8 | 2540.3 |
| 40°   | 2346.8 | 2331.1 | 2352.7 | 2397.4 | 2430.1 |
| 42.5° | 2216.2 | 2204.2 | 2231.8 | 2285.3 | 2316.2 |
| 45°   | 2080.6 | 2071.1 | 2107.9 | 2164.9 | 2198.7 |
| 47.5° | 1948.4 | 1937.5 | 1981.1 | 2042.0 | 2077.8 |
| 50°   | 1806.4 | 1800.6 | 1849.6 | 1915.9 | 1949.6 |
| 52.5° | 1666.9 | 1661.0 | 1716.1 | 1785.0 | 1816.7 |
| 55°   | 1526.8 | 1523.1 | 1580.7 | 1646.9 | 1669.5 |
| 57.5° | 1382.2 | 1385.7 | 1442.9 | 1499.9 | 1522.6 |
| 60°   | 1238.5 | 1242.8 | 1298.6 | 1348.9 | 1368.0 |
| 62.5° | 1094.7 | 1102.4 | 1153.3 | 1191.1 | 1195.3 |
| 65°   | 949.4  | 958.8  | 1004.2 | 1019.8 | 1021.4 |
| 67.5° | 802.9  | 815.3  | 853.5  | 856.2  | 853.2  |
| 70°   | 660.2  | 669.7  | 699.3  | 693.6  | 681.7  |
| 72.5° | 521.5  | 533.5  | 548.0  | 534.1  | 517.2  |
| 75°   | 395.7  | 405.1  | 410.7  | 384.1  | 367.4  |
| 77.5° | 278.4  | 284.6  | 280.9  | 253.0  | 241.1  |
| 80°   | 177.2  | 183.1  | 170.3  | 153.4  | 145.6  |
| 82.5° | 98.2   | 102.5  | 91.7   | 94.5   | 96.2   |
| 85°   | 44.9   | 46.3   | 49.3   | 54.8   | 56.7   |
| 87.5° | 15.4   | 17.1   | 19.9   | 20.8   | 19.1   |
| 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 | 18.78            | 20.36 | 19.14 | 20.68 | 20.99 | 19.35          | 20.94 | 19.72 | 21.25 | 21.57 |
|                 | 3H   | 20.22            | 21.64 | 20.59 | 21.97 | 22.33 | 20.70          | 22.13 | 21.08 | 22.45 | 22.81 |
|                 | 4H   | 20.63            | 21.96 | 21.03 | 22.31 | 22.69 | 21.02          | 22.36 | 21.42 | 22.71 | 23.08 |
|                 | 6H   | 20.82            | 22.06 | 21.23 | 22.42 | 22.81 | 21.13          | 22.37 | 21.54 | 22.73 | 23.12 |
|                 | 8H   | 20.84            | 22.02 | 21.27 | 22.41 | 22.81 | 21.14          | 22.32 | 21.56 | 22.71 | 23.11 |
|                 | 12H  | 20.84            | 21.97 | 21.27 | 22.35 | 22.78 | 21.14          | 22.26 | 21.57 | 22.65 | 23.07 |
| 4H              | 2H   | 19.39            | 20.73 | 19.79 | 21.07 | 21.45 | 19.85          | 21.19 | 20.25 | 21.54 | 21.91 |
|                 | 3H   | 21.00            | 22.11 | 21.41 | 22.50 | 22.90 | 21.38          | 22.49 | 21.79 | 22.89 | 23.29 |
|                 | 4H   | 21.49            | 22.49 | 21.92 | 22.90 | 23.34 | 21.78          | 22.78 | 22.21 | 23.19 | 23.63 |
|                 | 6H   | 21.76            | 22.62 | 22.21 | 23.07 | 23.52 | 21.94          | 22.81 | 22.40 | 23.25 | 23.71 |
|                 | 8H   | 21.79            | 22.60 | 22.25 | 23.04 | 23.51 | 21.96          | 22.77 | 22.42 | 23.22 | 23.68 |
|                 | 12H  | 21.80            | 22.52 | 22.28 | 23.00 | 23.47 | 21.97          | 22.70 | 22.46 | 23.18 | 23.65 |
| 8H              | 4H   | 21.66            | 22.47 | 22.13 | 22.92 | 23.38 | 21.93          | 22.74 | 22.39 | 23.18 | 23.65 |
|                 | 6H   | 21.98            | 22.64 | 22.47 | 23.13 | 23.61 | 22.13          | 22.80 | 22.62 | 23.29 | 23.76 |
|                 | 8H   | 22.03            | 22.63 | 22.54 | 23.14 | 23.63 | 22.16          | 22.76 | 22.68 | 23.27 | 23.76 |
|                 | 12H  | 22.06            | 22.59 | 22.57 | 23.08 | 23.64 | 22.20          | 22.73 | 22.71 | 23.22 | 23.78 |
| 12H             | 4H   | 21.66            | 22.38 | 22.14 | 22.86 | 23.33 | 21.92          | 22.64 | 22.40 | 23.12 | 23.59 |
|                 | 6H   | 21.96            | 22.56 | 22.47 | 23.07 | 23.56 | 22.11          | 22.71 | 22.63 | 23.22 | 23.71 |
|                 | 8H   | 22.05            | 22.58 | 22.56 | 23.07 | 23.63 | 22.18          | 22.71 | 22.69 | 23.20 | 23.76 |