

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: P1499163

Luminaire Tested: MAE-G-4-120-1STD-STD-35

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499163  
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-35  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 1 STD ambient , STD exam illumination levels  
Light Source: -  
Ballast/Driver: -

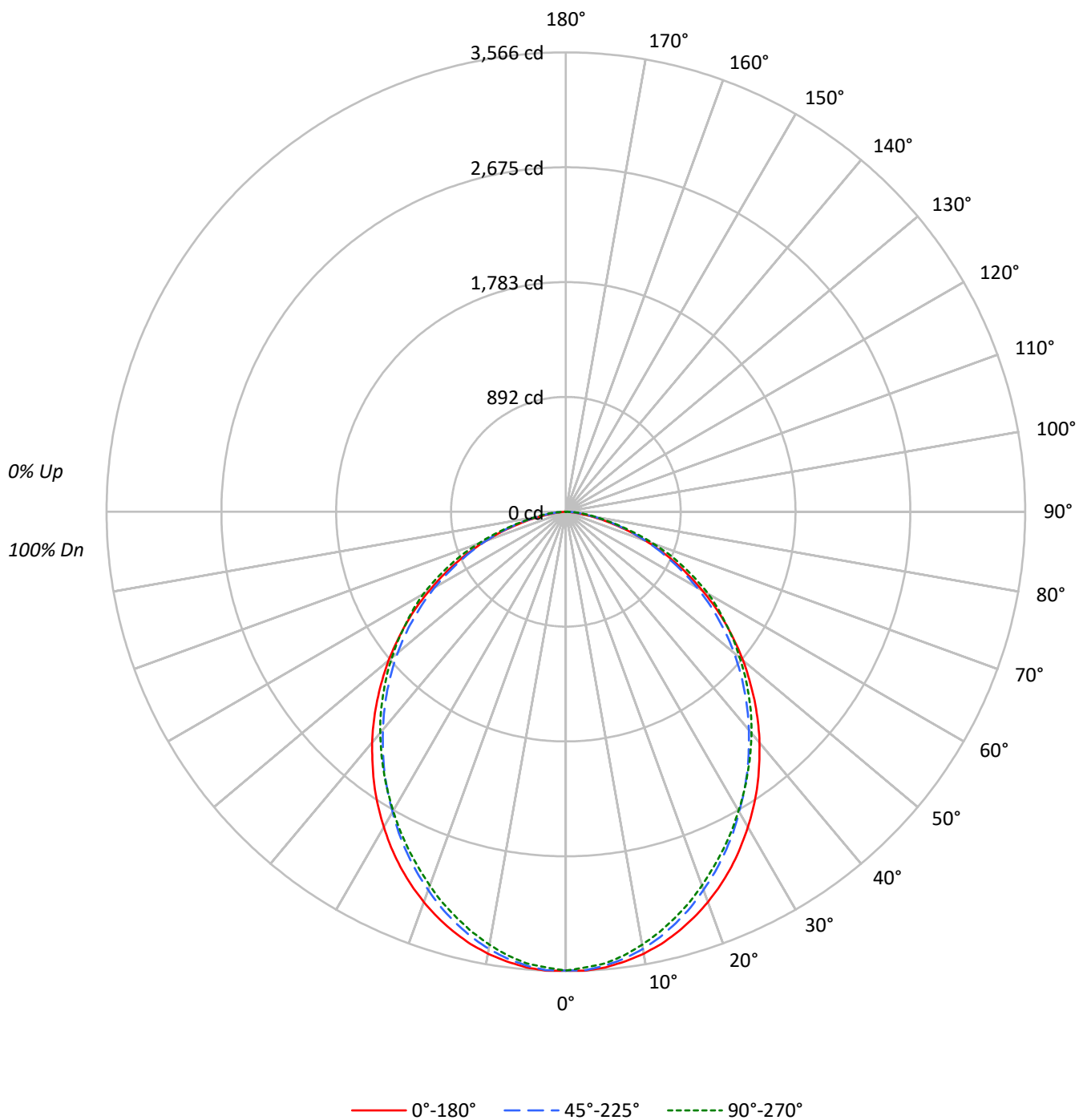
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8523.0 lumens  
Efficiency: N/A  
Efficacy: 83.1 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 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  |
| 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 | 97  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  |
| 2   | 100 | 92  | 86  | 80  | 97  | 90  | 84  | 79  | 87  | 82  | 78  |  | 84  | 79  | 76  |  | 81  |
| 3   | 92  | 82  | 74  | 67  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 74  | 69  | 65  |  | 72  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 56  |  | 66  | 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  | 45  | 39  | 51  | 44  | 39  |  | 50  | 43  | 38  |  | 48  |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 40  | 35  | 47  | 40  | 35  |  | 46  | 39  | 34  |  | 45  |
| 9   | 58  | 45  | 37  | 32  | 57  | 44  | 37  | 31  | 43  | 36  | 31  |  | 42  | 36  | 31  |  | 41  |
| 10  | 55  | 42  | 34  | 29  | 53  | 41  | 34  | 29  | 40  | 33  | 29  |  | 39  | 33  | 28  |  | 38  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4792 | 4792 | 4792 |
| 5°  | 4794 | 4775 | 4752 |
| 10° | 4759 | 4707 | 4663 |
| 15° | 4699 | 4602 | 4548 |
| 20° | 4617 | 4474 | 4421 |
| 25° | 4514 | 4335 | 4292 |
| 30° | 4391 | 4181 | 4165 |
| 35° | 4260 | 4035 | 4048 |
| 40° | 4108 | 3881 | 3938 |
| 45° | 3940 | 3730 | 3817 |
| 50° | 3760 | 3568 | 3690 |
| 55° | 3552 | 3379 | 3557 |
| 60° | 3296 | 3162 | 3439 |
| 65° | 3000 | 2882 | 3197 |
| 70° | 2603 | 2591 | 2850 |
| 75° | 2077 | 2205 | 2340 |
| 80° | 1437 | 1702 | 1857 |
| 85° | 804  | 1298 | 1689 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3940 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 334.3  | 3.9       |
| 10°-20°   | 932.0  | 10.9      |
| 20°-30°   | 1353.8 | 15.9      |
| 30°-40°   | 1558.1 | 18.3      |
| 40°-50°   | 1542.1 | 18.1      |
| 50°-60°   | 1320.4 | 15.5      |
| 60°-70°   | 931.3  | 10.9      |
| 70°-80°   | 452.5  | 5.3       |
| 80°-90°   | 98.5   | 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°    | 2620.1 | 30.7      |
| 0°-40°    | 4178.2 | 49.0      |
| 0°-60°    | 7040.7 | 82.6      |
| 0°-90°    | 8523.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8523.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3562 | 3562  | 3562 | 3562  | 3562 |      |
| 5°  | 3549 | 3546  | 3536 | 3511  | 3519 | 337  |
| 15° | 3374 | 3355  | 3304 | 3260  | 3265 | 951  |
| 25° | 3041 | 2996  | 2920 | 2883  | 2891 | 1399 |
| 35° | 2593 | 2532  | 2456 | 2447  | 2464 | 1620 |
| 45° | 2071 | 2015  | 1960 | 1984  | 2006 | 1597 |
| 55° | 1514 | 1463  | 1440 | 1483  | 1516 | 1352 |
| 65° | 942  | 902   | 905  | 974   | 1004 | 932  |
| 75° | 400  | 382   | 424  | 450   | 450  | 431  |
| 85° | 52   | 64    | 84   | 102   | 109  | 74   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3561.6 | 3561.6 | 3561.6 | 3561.6 | 3561.6 |
| 2.5°  | 3565.7 | 3568.7 | 3561.6 | 3535.0 | 3539.5 |
| 5°    | 3549.4 | 3546.3 | 3535.7 | 3510.7 | 3518.6 |
| 7.5°  | 3521.0 | 3516.1 | 3497.1 | 3467.5 | 3472.6 |
| 10°   | 3483.4 | 3473.6 | 3445.3 | 3408.4 | 3412.7 |
| 12.5° | 3434.6 | 3421.6 | 3381.7 | 3339.7 | 3344.3 |
| 15°   | 3373.6 | 3354.8 | 3304.0 | 3259.9 | 3264.7 |
| 17.5° | 3303.6 | 3282.1 | 3220.6 | 3172.8 | 3182.9 |
| 20°   | 3224.3 | 3195.2 | 3124.5 | 3079.1 | 3087.9 |
| 22.5° | 3136.9 | 3100.4 | 3026.2 | 2982.5 | 2989.3 |
| 25°   | 3040.6 | 2996.4 | 2920.2 | 2882.8 | 2891.0 |
| 27.5° | 2936.9 | 2888.2 | 2809.9 | 2775.7 | 2788.3 |
| 30°   | 2826.3 | 2773.8 | 2690.9 | 2667.3 | 2681.0 |
| 32.5° | 2712.7 | 2656.9 | 2575.1 | 2560.0 | 2573.7 |
| 35°   | 2593.3 | 2532.4 | 2456.4 | 2447.3 | 2464.4 |
| 37.5° | 2465.6 | 2407.1 | 2331.9 | 2337.7 | 2353.9 |
| 40°   | 2339.1 | 2278.5 | 2209.8 | 2222.8 | 2242.2 |
| 42.5° | 2207.6 | 2149.1 | 2086.4 | 2104.6 | 2127.3 |
| 45°   | 2070.6 | 2014.8 | 1960.1 | 1984.2 | 2005.8 |
| 47.5° | 1933.0 | 1877.9 | 1833.3 | 1861.5 | 1887.2 |
| 50°   | 1796.5 | 1743.5 | 1704.5 | 1738.8 | 1763.0 |
| 52.5° | 1653.2 | 1602.7 | 1574.7 | 1610.9 | 1642.1 |
| 55°   | 1514.3 | 1462.9 | 1440.4 | 1483.4 | 1516.4 |
| 57.5° | 1370.7 | 1328.6 | 1309.2 | 1359.7 | 1400.8 |
| 60°   | 1224.9 | 1183.4 | 1175.1 | 1239.0 | 1278.0 |
| 62.5° | 1082.5 | 1041.8 | 1038.1 | 1112.8 | 1140.9 |
| 65°   | 942.2  | 901.9  | 905.1  | 974.1  | 1004.3 |
| 67.5° | 803.2  | 766.3  | 783.3  | 849.5  | 869.6  |
| 70°   | 661.7  | 628.8  | 658.5  | 714.4  | 724.4  |
| 72.5° | 528.7  | 501.0  | 541.3  | 580.4  | 582.9  |
| 75°   | 399.6  | 382.5  | 424.1  | 450.0  | 450.2  |
| 77.5° | 286.0  | 277.0  | 315.4  | 333.0  | 334.1  |
| 80°   | 185.5  | 189.6  | 219.7  | 233.5  | 239.6  |
| 82.5° | 108.1  | 117.6  | 141.3  | 164.7  | 171.0  |
| 85°   | 52.1   | 63.5   | 84.1   | 102.0  | 109.4  |
| 87.5° | 17.9   | 25.6   | 35.1   | 39.0   | 37.9   |
| 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 | 16.24            | 17.83 | 16.61 | 18.14 | 18.45 | 16.41          | 17.99 | 16.78 | 18.31 | 18.62 |
|                 | 3H   | 17.69            | 19.12 | 18.07 | 19.44 | 19.80 | 18.06          | 19.48 | 18.43 | 19.81 | 20.17 |
|                 | 4H   | 18.12            | 19.46 | 18.52 | 19.81 | 20.18 | 18.56          | 19.90 | 18.96 | 20.24 | 20.62 |
|                 | 6H   | 18.34            | 19.58 | 18.75 | 19.94 | 20.33 | 18.85          | 20.09 | 19.27 | 20.46 | 20.85 |
|                 | 8H   | 18.37            | 19.55 | 18.80 | 19.94 | 20.34 | 18.94          | 20.12 | 19.37 | 20.51 | 20.91 |
|                 | 12H  | 18.38            | 19.51 | 18.81 | 19.89 | 20.32 | 19.00          | 20.13 | 19.43 | 20.51 | 20.94 |
| 4H              | 2H   | 16.76            | 18.10 | 17.16 | 18.44 | 18.82 | 16.90          | 18.23 | 17.29 | 18.58 | 18.96 |
|                 | 3H   | 18.39            | 19.51 | 18.80 | 19.91 | 20.31 | 18.75          | 19.86 | 19.16 | 20.26 | 20.66 |
|                 | 4H   | 18.91            | 19.91 | 19.34 | 20.32 | 20.76 | 19.36          | 20.36 | 19.79 | 20.78 | 21.22 |
|                 | 6H   | 19.21            | 20.08 | 19.66 | 20.52 | 20.98 | 19.76          | 20.63 | 20.21 | 21.07 | 21.53 |
|                 | 8H   | 19.26            | 20.08 | 19.72 | 20.52 | 20.99 | 19.88          | 20.70 | 20.34 | 21.14 | 21.61 |
|                 | 12H  | 19.28            | 20.02 | 19.77 | 20.49 | 20.96 | 19.98          | 20.71 | 20.46 | 21.19 | 21.66 |
| 8H              | 4H   | 19.13            | 19.95 | 19.59 | 20.39 | 20.86 | 19.54          | 20.36 | 20.00 | 20.80 | 21.27 |
|                 | 6H   | 19.50            | 20.17 | 19.99 | 20.66 | 21.14 | 20.02          | 20.70 | 20.51 | 21.18 | 21.66 |
|                 | 8H   | 19.59            | 20.19 | 20.10 | 20.70 | 21.19 | 20.20          | 20.80 | 20.71 | 21.31 | 21.80 |
|                 | 12H  | 19.64            | 20.17 | 20.15 | 20.66 | 21.23 | 20.35          | 20.89 | 20.86 | 21.38 | 21.94 |
| 12H             | 4H   | 19.14            | 19.87 | 19.62 | 20.35 | 20.82 | 19.54          | 20.27 | 20.02 | 20.75 | 21.22 |
|                 | 6H   | 19.52            | 20.12 | 20.03 | 20.63 | 21.12 | 20.02          | 20.63 | 20.54 | 21.14 | 21.63 |
|                 | 8H   | 19.65            | 20.18 | 20.15 | 20.67 | 21.24 | 20.25          | 20.78 | 20.75 | 21.27 | 21.83 |