

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: P1498854

Luminaire Tested: MAE-G-2-120-3STD-LO-40-90

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498854  
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-LO-40-90  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 3 STD ambient , LO exam illumination levels  
Light Source: -  
Ballast/Driver: -

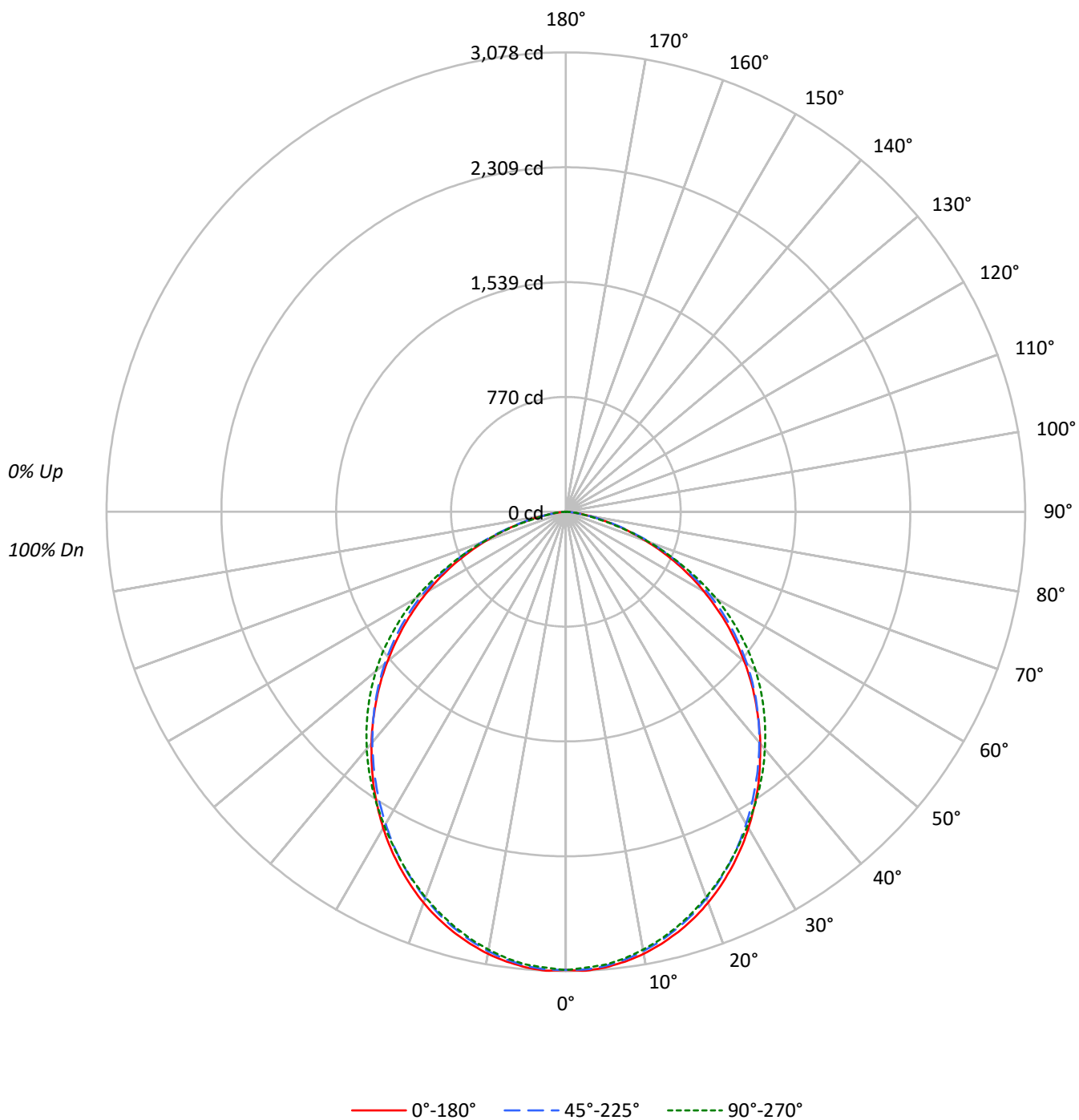
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7589.0 lumens  
Efficiency: N/A  
Efficacy: 98.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.3  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 76.8  
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  |
| 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 | 92  | 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  | 29  | 53  | 41  | 33  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8262 | 8262 | 8262 |
| 5°  | 8277 | 8252 | 8228 |
| 10° | 8219 | 8172 | 8141 |
| 15° | 8119 | 8047 | 8020 |
| 20° | 7984 | 7895 | 7872 |
| 25° | 7808 | 7714 | 7707 |
| 30° | 7606 | 7506 | 7555 |
| 35° | 7377 | 7293 | 7428 |
| 40° | 7119 | 7085 | 7291 |
| 45° | 6839 | 6872 | 7137 |
| 50° | 6533 | 6628 | 6953 |
| 55° | 6190 | 6344 | 6670 |
| 60° | 5762 | 5977 | 6278 |
| 65° | 5230 | 5470 | 5577 |
| 70° | 4498 | 4727 | 4644 |
| 75° | 3567 | 3706 | 3380 |
| 80° | 2391 | 2352 | 2091 |
| 85° | 1216 | 1408 | 1670 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7137 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 289.2  | 3.8       |
| 10°-20°   | 813.9  | 10.7      |
| 20°-30°   | 1197.6 | 15.8      |
| 30°-40°   | 1396.9 | 18.4      |
| 40°-50°   | 1402.5 | 18.5      |
| 50°-60°   | 1213.6 | 16.0      |
| 60°-70°   | 842.2  | 11.1      |
| 70°-80°   | 371.8  | 4.9       |
| 80°-90°   | 61.4   | 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       |
| 0°-30°    | 2300.6 | 30.3      |
| 0°-40°    | 3697.5 | 48.7      |
| 0°-60°    | 6313.6 | 83.2      |
| 0°-90°    | 7589.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7589.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3070 | 3070  | 3070 | 3070  | 3070 |      |
| 5°  | 3064 | 3050  | 3055 | 3042  | 3046 | 291  |
| 15° | 2914 | 2896  | 2889 | 2874  | 2879 | 821  |
| 25° | 2630 | 2610  | 2598 | 2584  | 2596 | 1211 |
| 35° | 2246 | 2223  | 2220 | 2237  | 2261 | 1403 |
| 45° | 1797 | 1784  | 1806 | 1849  | 1875 | 1387 |
| 55° | 1319 | 1311  | 1352 | 1404  | 1422 | 1178 |
| 65° | 821  | 825   | 859  | 874   | 876  | 812  |
| 75° | 343  | 349   | 356  | 338   | 325  | 369  |
| 85° | 39   | 41    | 46   | 52    | 54   | 59   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3070.1 | 3070.1 | 3070.1 | 3070.1 | 3070.1 |
| 2.5°  | 3078.1 | 3064.2 | 3070.1 | 3060.3 | 3057.4 |
| 5°    | 3064.1 | 3050.2 | 3054.8 | 3042.2 | 3046.0 |
| 7.5°  | 3040.3 | 3025.9 | 3027.6 | 3014.3 | 3018.1 |
| 10°   | 3007.8 | 2991.4 | 2990.6 | 2976.1 | 2979.2 |
| 12.5° | 2964.7 | 2948.3 | 2944.5 | 2928.2 | 2933.7 |
| 15°   | 2914.2 | 2896.4 | 2888.6 | 2873.6 | 2878.7 |
| 17.5° | 2855.5 | 2836.4 | 2827.3 | 2809.4 | 2817.5 |
| 20°   | 2788.1 | 2768.1 | 2757.1 | 2737.9 | 2748.9 |
| 22.5° | 2712.7 | 2692.3 | 2679.1 | 2662.9 | 2674.4 |
| 25°   | 2629.7 | 2609.7 | 2597.9 | 2583.9 | 2595.8 |
| 27.5° | 2542.3 | 2520.3 | 2509.1 | 2501.1 | 2514.2 |
| 30°   | 2447.8 | 2425.4 | 2415.6 | 2413.1 | 2431.4 |
| 32.5° | 2348.0 | 2326.6 | 2319.3 | 2326.5 | 2347.3 |
| 35°   | 2245.7 | 2223.2 | 2219.9 | 2236.7 | 2261.0 |
| 37.5° | 2135.6 | 2118.0 | 2119.7 | 2146.0 | 2170.9 |
| 40°   | 2026.6 | 2008.1 | 2017.0 | 2049.6 | 2075.4 |
| 42.5° | 1914.0 | 1898.5 | 1912.6 | 1952.6 | 1977.0 |
| 45°   | 1797.2 | 1783.6 | 1805.7 | 1848.8 | 1875.4 |
| 47.5° | 1682.9 | 1668.4 | 1696.4 | 1743.1 | 1771.3 |
| 50°   | 1560.6 | 1550.3 | 1583.3 | 1634.4 | 1660.9 |
| 52.5° | 1440.0 | 1429.9 | 1468.5 | 1522.1 | 1547.2 |
| 55°   | 1319.4 | 1311.0 | 1352.2 | 1403.9 | 1421.8 |
| 57.5° | 1194.6 | 1192.5 | 1234.0 | 1278.8 | 1297.2 |
| 60°   | 1070.6 | 1069.5 | 1110.5 | 1150.8 | 1166.5 |
| 62.5° | 946.5  | 948.3  | 986.3  | 1017.5 | 1021.7 |
| 65°   | 821.3  | 824.7  | 859.1  | 873.5  | 875.8  |
| 67.5° | 694.9  | 701.3  | 731.1  | 736.1  | 734.5  |
| 70°   | 571.7  | 576.1  | 600.8  | 599.0  | 590.2  |
| 72.5° | 452.1  | 459.2  | 473.0  | 464.6  | 451.7  |
| 75°   | 343.1  | 348.9  | 356.4  | 337.7  | 325.1  |
| 77.5° | 241.7  | 245.8  | 246.1  | 226.1  | 217.6  |
| 80°   | 154.3  | 159.2  | 151.8  | 140.6  | 134.9  |
| 82.5° | 85.7   | 90.1   | 83.7   | 88.1   | 90.3   |
| 85°   | 39.4   | 41.4   | 45.6   | 51.7   | 54.1   |
| 87.5° | 13.4   | 15.5   | 18.5   | 19.6   | 18.2   |
| 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 | 18.27            | 19.85 | 18.63 | 20.16 | 20.48 | 18.77          | 20.35 | 19.13 | 20.67 | 20.98 |
|                 | 3H   | 19.71            | 21.13 | 20.09 | 21.46 | 21.82 | 20.14          | 21.57 | 20.52 | 21.90 | 22.26 |
|                 | 4H   | 20.12            | 21.46 | 20.52 | 21.81 | 22.18 | 20.48          | 21.82 | 20.88 | 22.17 | 22.55 |
|                 | 6H   | 20.32            | 21.55 | 20.73 | 21.92 | 22.31 | 20.61          | 21.85 | 21.02 | 22.21 | 22.60 |
|                 | 8H   | 20.34            | 21.52 | 20.77 | 21.91 | 22.31 | 20.63          | 21.81 | 21.05 | 22.19 | 22.59 |
|                 | 12H  | 20.34            | 21.47 | 20.77 | 21.85 | 22.28 | 20.63          | 21.76 | 21.06 | 22.14 | 22.57 |
| 4H              | 2H   | 18.87            | 20.20 | 19.27 | 20.55 | 20.93 | 19.27          | 20.61 | 19.67 | 20.96 | 21.34 |
|                 | 3H   | 20.48            | 21.59 | 20.89 | 21.99 | 22.39 | 20.83          | 21.94 | 21.24 | 22.34 | 22.74 |
|                 | 4H   | 20.98            | 21.98 | 21.41 | 22.39 | 22.83 | 21.25          | 22.25 | 21.68 | 22.66 | 23.10 |
|                 | 6H   | 21.25            | 22.12 | 21.70 | 22.56 | 23.02 | 21.44          | 22.31 | 21.90 | 22.75 | 23.21 |
|                 | 8H   | 21.28            | 22.10 | 21.75 | 22.54 | 23.01 | 21.47          | 22.28 | 21.93 | 22.72 | 23.19 |
|                 | 12H  | 21.29            | 22.02 | 21.77 | 22.50 | 22.97 | 21.49          | 22.21 | 21.97 | 22.69 | 23.16 |
| 8H              | 4H   | 21.16            | 21.97 | 21.62 | 22.41 | 22.88 | 21.40          | 22.21 | 21.87 | 22.66 | 23.12 |
|                 | 6H   | 21.47            | 22.14 | 21.97 | 22.63 | 23.11 | 21.63          | 22.30 | 22.13 | 22.79 | 23.27 |
|                 | 8H   | 21.53            | 22.13 | 22.05 | 22.64 | 23.13 | 21.68          | 22.28 | 22.20 | 22.79 | 23.28 |
|                 | 12H  | 21.56            | 22.09 | 22.07 | 22.58 | 23.15 | 21.73          | 22.26 | 22.24 | 22.75 | 23.31 |
| 12H             | 4H   | 21.15            | 21.87 | 21.63 | 22.35 | 22.82 | 21.40          | 22.12 | 21.88 | 22.60 | 23.07 |
|                 | 6H   | 21.46            | 22.06 | 21.97 | 22.57 | 23.06 | 21.62          | 22.22 | 22.14 | 22.73 | 23.22 |
|                 | 8H   | 21.55            | 22.08 | 22.06 | 22.57 | 23.14 | 21.70          | 22.23 | 22.21 | 22.72 | 23.29 |