

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: P1498710

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

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498710  
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-2-120-3LO-40-90  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 3 LO ambient illumination levels  
Light Source: -  
Ballast/Driver: -

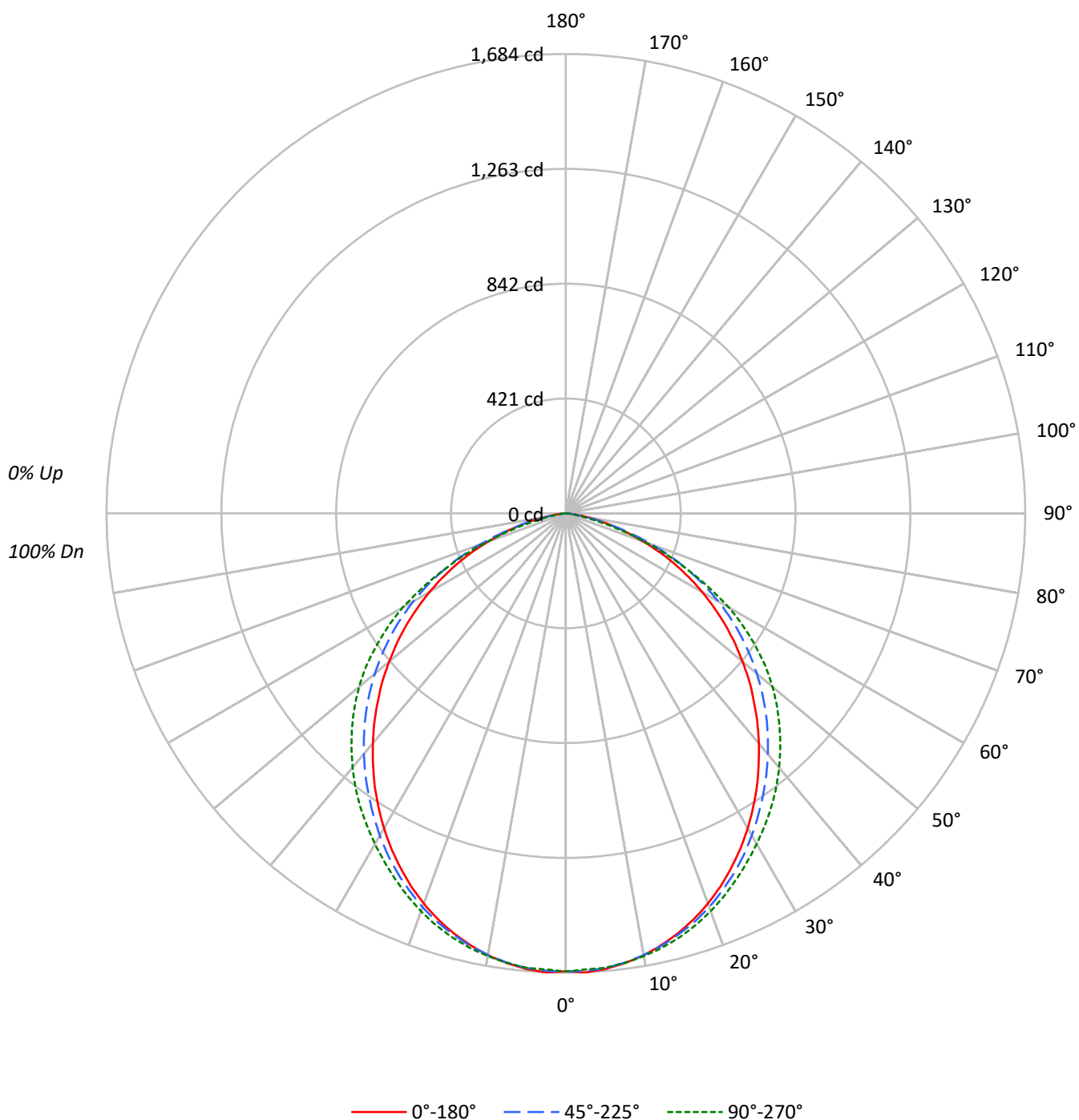
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4255.0 lumens  
Efficiency: N/A  
Efficacy: 115.9 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 36.7  
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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CATALOG NUMBER: MAE-G-2-120-3LO-40-90

### 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 | 102 | 98  | 107 | 103 | 100 | 96  | 99  | 96  | 93  |  | 95  | 93  | 91  |  | 92  |
| 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  |  | 75  | 69  | 65  |  | 72  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 64  | 57  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 65  |
| 5   | 78  | 65  | 56  | 50  | 76  | 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  | 36  | 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°  | 4518 | 4518 | 4518 |
| 5°  | 4528 | 4518 | 4516 |
| 10° | 4494 | 4492 | 4503 |
| 15° | 4437 | 4451 | 4483 |
| 20° | 4359 | 4399 | 4445 |
| 25° | 4258 | 4326 | 4394 |
| 30° | 4143 | 4237 | 4348 |
| 35° | 4013 | 4141 | 4315 |
| 40° | 3867 | 4047 | 4272 |
| 45° | 3709 | 3947 | 4217 |
| 50° | 3538 | 3825 | 4142 |
| 55° | 3347 | 3677 | 3983 |
| 60° | 3106 | 3474 | 3717 |
| 65° | 2805 | 3168 | 3183 |
| 70° | 2394 | 2660 | 2474 |
| 75° | 1881 | 1941 | 1522 |
| 80° | 1227 | 998  | 589  |
| 85° | 587  | 395  | 312  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4217 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 158.6  | 3.7       |
| 10°-20°   | 450.2  | 10.6      |
| 20°-30°   | 669.6  | 15.7      |
| 30°-40°   | 789.0  | 18.5      |
| 40°-50°   | 800.0  | 18.8      |
| 50°-60°   | 697.1  | 16.4      |
| 60°-70°   | 476.8  | 11.2      |
| 70°-80°   | 191.5  | 4.5       |
| 80°-90°   | 22.2   | 0.5       |
| 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°    | 1278.4 | 30.0      |
| 0°-40°    | 2067.4 | 48.6      |
| 0°-60°    | 3564.5 | 83.8      |
| 0°-90°    | 4255.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4255.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1679 | 1679  | 1679 | 1679  | 1679 |      |
| 5°  | 1676 | 1666  | 1673 | 1671  | 1672 | 159  |
| 15° | 1593 | 1586  | 1598 | 1604  | 1609 | 449  |
| 25° | 1434 | 1435  | 1457 | 1468  | 1480 | 660  |
| 35° | 1222 | 1227  | 1260 | 1291  | 1314 | 763  |
| 45° | 975  | 988   | 1037 | 1084  | 1108 | 752  |
| 55° | 714  | 729   | 784  | 833   | 849  | 637  |
| 65° | 441  | 460   | 498  | 502   | 500  | 436  |
| 75° | 181  | 193   | 187  | 160   | 146  | 194  |
| 85° | 19   | 17    | 13   | 11    | 10   | 29   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1678.8 | 1678.8 | 1678.8 | 1678.8 | 1678.8 |
| 2.5°  | 1684.2 | 1673.0 | 1678.8 | 1677.6 | 1673.3 |
| 5°    | 1676.1 | 1666.0 | 1672.6 | 1670.7 | 1671.8 |
| 7.5°  | 1662.9 | 1653.6 | 1660.5 | 1660.2 | 1662.1 |
| 10°   | 1644.7 | 1635.3 | 1643.9 | 1645.4 | 1647.8 |
| 12.5° | 1620.6 | 1612.8 | 1623.3 | 1626.4 | 1631.0 |
| 15°   | 1592.6 | 1585.7 | 1597.7 | 1604.3 | 1609.3 |
| 17.5° | 1560.0 | 1554.2 | 1569.7 | 1576.0 | 1582.9 |
| 20°   | 1522.3 | 1518.1 | 1536.3 | 1542.2 | 1552.3 |
| 22.5° | 1480.5 | 1478.2 | 1497.1 | 1506.0 | 1517.7 |
| 25°   | 1434.2 | 1434.7 | 1457.1 | 1467.7 | 1480.0 |
| 27.5° | 1385.8 | 1386.5 | 1412.2 | 1426.8 | 1440.1 |
| 30°   | 1333.3 | 1335.6 | 1363.6 | 1381.9 | 1399.3 |
| 32.5° | 1277.8 | 1282.5 | 1312.7 | 1337.6 | 1357.0 |
| 35°   | 1221.5 | 1226.9 | 1260.4 | 1291.4 | 1313.5 |
| 37.5° | 1160.6 | 1169.5 | 1207.2 | 1244.1 | 1266.9 |
| 40°   | 1100.8 | 1109.7 | 1152.0 | 1192.8 | 1216.1 |
| 42.5° | 1039.1 | 1050.4 | 1095.4 | 1140.8 | 1163.3 |
| 45°   | 974.7  | 987.8  | 1037.2 | 1083.8 | 1108.2 |
| 47.5° | 912.9  | 924.6  | 976.6  | 1025.2 | 1050.4 |
| 50°   | 845.0  | 859.7  | 913.7  | 964.6  | 989.5  |
| 52.5° | 780.2  | 793.8  | 849.3  | 901.4  | 923.8  |
| 55°   | 713.5  | 728.6  | 783.7  | 833.0  | 848.9  |
| 57.5° | 645.1  | 663.4  | 716.6  | 757.7  | 772.8  |
| 60°   | 577.2  | 595.4  | 645.5  | 679.3  | 690.6  |
| 62.5° | 509.6  | 529.1  | 572.9  | 595.4  | 595.4  |
| 65°   | 440.6  | 460.4  | 497.6  | 501.5  | 499.9  |
| 67.5° | 371.5  | 391.3  | 419.6  | 412.6  | 408.0  |
| 70°   | 304.3  | 321.4  | 338.1  | 325.2  | 314.4  |
| 72.5° | 239.1  | 255.4  | 258.2  | 239.5  | 225.9  |
| 75°   | 180.9  | 193.0  | 186.7  | 160.3  | 146.4  |
| 77.5° | 126.1  | 133.2  | 119.9  | 93.2   | 81.9   |
| 80°   | 79.2   | 82.3   | 64.4   | 45.4   | 38.0   |
| 82.5° | 42.7   | 43.1   | 28.0   | 22.9   | 21.4   |
| 85°   | 19.0   | 17.1   | 12.8   | 11.2   | 10.1   |
| 87.5° | 6.6    | 5.8    | 4.6    | 4.3    | 3.5    |
| 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 | 16.17            | 17.75 | 16.53 | 18.06 | 18.38 | 17.15          | 18.73 | 17.51 | 19.05 | 19.36 |
|                 | 3H   | 17.58            | 19.00 | 17.95 | 19.32 | 19.69 | 18.35          | 19.77 | 18.73 | 20.10 | 20.46 |
|                 | 4H   | 17.97            | 19.30 | 18.37 | 19.65 | 20.03 | 18.57          | 19.90 | 18.97 | 20.25 | 20.63 |
|                 | 6H   | 18.14            | 19.38 | 18.56 | 19.74 | 20.13 | 18.59          | 19.82 | 19.00 | 20.18 | 20.58 |
|                 | 8H   | 18.16            | 19.33 | 18.58 | 19.72 | 20.12 | 18.56          | 19.74 | 18.99 | 20.13 | 20.53 |
|                 | 12H  | 18.15            | 19.27 | 18.58 | 19.66 | 20.08 | 18.54          | 19.66 | 18.97 | 20.04 | 20.47 |
| 4H              | 2H   | 16.84            | 18.17 | 17.24 | 18.52 | 18.90 | 17.63          | 18.96 | 18.03 | 19.31 | 19.69 |
|                 | 3H   | 18.41            | 19.51 | 18.82 | 19.91 | 20.31 | 19.00          | 20.10 | 19.41 | 20.50 | 20.90 |
|                 | 4H   | 18.88            | 19.88 | 19.31 | 20.29 | 20.73 | 19.27          | 20.26 | 19.70 | 20.68 | 21.11 |
|                 | 6H   | 19.12            | 19.98 | 19.58 | 20.43 | 20.88 | 19.32          | 20.18 | 19.78 | 20.62 | 21.08 |
|                 | 8H   | 19.14            | 19.95 | 19.61 | 20.39 | 20.86 | 19.30          | 20.10 | 19.76 | 20.54 | 21.01 |
|                 | 12H  | 19.15            | 19.86 | 19.63 | 20.34 | 20.81 | 19.28          | 19.99 | 19.76 | 20.47 | 20.94 |
| 8H              | 4H   | 19.03            | 19.83 | 19.49 | 20.28 | 20.74 | 19.39          | 20.19 | 19.85 | 20.63 | 21.10 |
|                 | 6H   | 19.30            | 19.96 | 19.80 | 20.45 | 20.93 | 19.45          | 20.11 | 19.94 | 20.60 | 21.08 |
|                 | 8H   | 19.34            | 19.93 | 19.85 | 20.44 | 20.93 | 19.42          | 20.02 | 19.94 | 20.53 | 21.01 |
|                 | 12H  | 19.36            | 19.88 | 19.87 | 20.37 | 20.93 | 19.41          | 19.93 | 19.92 | 20.42 | 20.99 |
| 12H             | 4H   | 19.01            | 19.73 | 19.49 | 20.21 | 20.68 | 19.38          | 20.09 | 19.86 | 20.57 | 21.04 |
|                 | 6H   | 19.27            | 19.87 | 19.78 | 20.37 | 20.86 | 19.42          | 20.02 | 19.94 | 20.53 | 21.01 |
|                 | 8H   | 19.34            | 19.86 | 19.85 | 20.35 | 20.92 | 19.42          | 19.95 | 19.93 | 20.44 | 21.00 |