

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: P1498326

Luminaire Tested: MAE-G-2-120-2HI-40-90

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498326  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P189185)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/26/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: MAE-G-2-120-2HI-40-90  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 2 HI ambient illumination levels  
Light Source: -  
Ballast/Driver: -

**Summary**

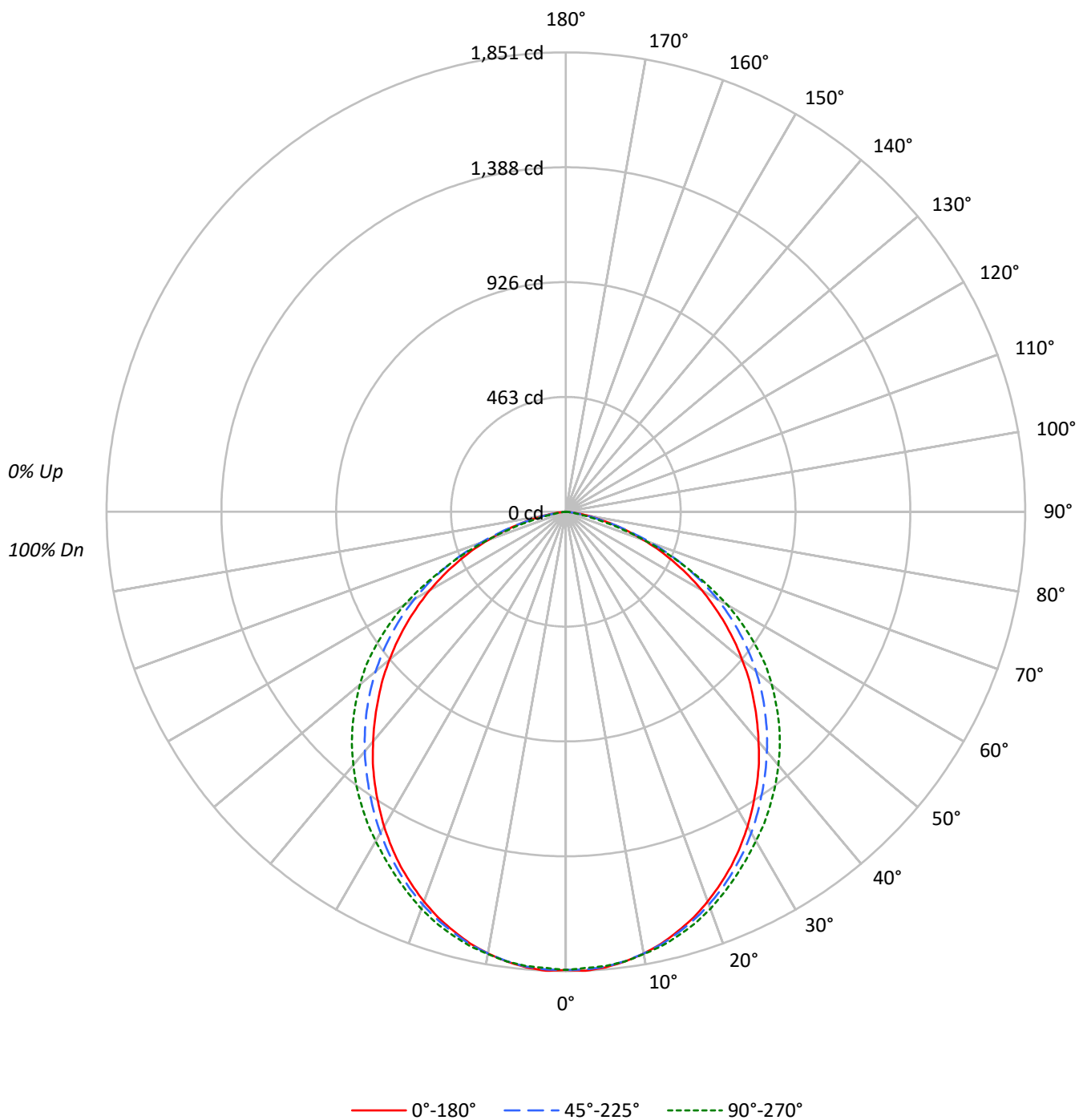
Lumens per Lamp: N/A  
Luminaire Lumens: 4660.0 lumens  
Efficiency: N/A  
Efficacy: 103.1 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 45.2  
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 | 102 | 98  | 107 | 103 | 100 | 97  | 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  | 58  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 65  |
| 5   | 78  | 65  | 57  | 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  | 45  | 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°  | 4968 | 4968 | 4968 |
| 5°  | 4977 | 4968 | 4963 |
| 10° | 4938 | 4938 | 4945 |
| 15° | 4872 | 4890 | 4919 |
| 20° | 4786 | 4826 | 4875 |
| 25° | 4679 | 4741 | 4812 |
| 30° | 4550 | 4644 | 4761 |
| 35° | 4407 | 4530 | 4724 |
| 40° | 4243 | 4429 | 4679 |
| 45° | 4070 | 4318 | 4628 |
| 50° | 3882 | 4189 | 4535 |
| 55° | 3667 | 4020 | 4364 |
| 60° | 3408 | 3795 | 4052 |
| 65° | 3074 | 3449 | 3469 |
| 70° | 2624 | 2870 | 2683 |
| 75° | 2060 | 2078 | 1675 |
| 80° | 1340 | 1069 | 642  |
| 85° | 621  | 408  | 330  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4628 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 174.3  | 3.7       |
| 10°-20°   | 494.5  | 10.6      |
| 20°-30°   | 734.6  | 15.8      |
| 30°-40°   | 865.3  | 18.6      |
| 40°-50°   | 876.6  | 18.8      |
| 50°-60°   | 763.0  | 16.4      |
| 60°-70°   | 519.9  | 11.2      |
| 70°-80°   | 207.8  | 4.5       |
| 80°-90°   | 23.8   | 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°    | 1403.5 | 30.1      |
| 0°-40°    | 2268.8 | 48.7      |
| 0°-60°    | 3908.4 | 83.9      |
| 0°-90°    | 4660.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4660.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1846 | 1846  | 1846 | 1846  | 1846 |      |
| 5°  | 1842 | 1832  | 1839 | 1837  | 1837 | 175  |
| 15° | 1749 | 1741  | 1755 | 1762  | 1766 | 493  |
| 25° | 1576 | 1577  | 1597 | 1610  | 1620 | 725  |
| 35° | 1342 | 1348  | 1379 | 1415  | 1438 | 838  |
| 45° | 1070 | 1083  | 1135 | 1188  | 1216 | 825  |
| 55° | 782  | 799   | 857  | 911   | 930  | 698  |
| 65° | 483  | 505   | 542  | 542   | 545  | 478  |
| 75° | 198  | 210   | 200  | 172   | 161  | 213  |
| 85° | 20   | 18    | 13   | 12    | 11   | 32   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1846.1 | 1846.1 | 1846.1 | 1846.1 | 1846.1 |
| 2.5°  | 1851.2 | 1839.3 | 1846.1 | 1844.8 | 1839.8 |
| 5°    | 1842.3 | 1831.6 | 1839.3 | 1836.8 | 1837.3 |
| 7.5°  | 1827.9 | 1817.9 | 1826.1 | 1825.4 | 1827.4 |
| 10°   | 1807.3 | 1797.3 | 1807.3 | 1807.8 | 1809.8 |
| 12.5° | 1781.5 | 1772.8 | 1784.7 | 1787.2 | 1791.6 |
| 15°   | 1748.9 | 1741.4 | 1755.2 | 1761.5 | 1765.8 |
| 17.5° | 1713.9 | 1708.9 | 1722.6 | 1730.8 | 1737.7 |
| 20°   | 1671.2 | 1668.7 | 1685.1 | 1693.1 | 1702.5 |
| 22.5° | 1624.8 | 1623.5 | 1643.1 | 1653.1 | 1662.5 |
| 25°   | 1575.9 | 1576.6 | 1596.7 | 1609.8 | 1620.5 |
| 27.5° | 1522.0 | 1523.2 | 1547.8 | 1563.4 | 1576.6 |
| 30°   | 1464.3 | 1467.5 | 1494.4 | 1515.7 | 1532.1 |
| 32.5° | 1403.5 | 1409.2 | 1438.0 | 1467.5 | 1488.2 |
| 35°   | 1341.5 | 1347.8 | 1379.1 | 1415.4 | 1438.0 |
| 37.5° | 1277.6 | 1284.5 | 1320.8 | 1363.5 | 1387.3 |
| 40°   | 1208.0 | 1218.6 | 1260.7 | 1307.6 | 1332.0 |
| 42.5° | 1139.6 | 1151.5 | 1198.6 | 1250.0 | 1276.3 |
| 45°   | 1069.5 | 1082.6 | 1134.6 | 1187.9 | 1216.1 |
| 47.5° | 1001.7 | 1012.9 | 1068.8 | 1124.6 | 1149.7 |
| 50°   | 927.2  | 942.1  | 1000.5 | 1056.3 | 1083.2 |
| 52.5° | 855.7  | 870.1  | 929.7  | 986.6  | 1014.3 |
| 55°   | 781.7  | 798.6  | 856.9  | 910.8  | 930.2  |
| 57.5° | 707.2  | 726.6  | 783.0  | 827.4  | 844.3  |
| 60°   | 633.2  | 652.6  | 705.2  | 740.3  | 752.9  |
| 62.5° | 558.5  | 578.6  | 625.0  | 646.3  | 648.8  |
| 65°   | 482.7  | 505.3  | 541.6  | 542.3  | 544.8  |
| 67.5° | 410.7  | 429.4  | 455.7  | 448.2  | 444.5  |
| 70°   | 333.5  | 354.1  | 364.8  | 349.8  | 341.0  |
| 72.5° | 265.2  | 280.2  | 278.3  | 256.3  | 245.8  |
| 75°   | 198.1  | 210.0  | 199.9  | 171.8  | 161.1  |
| 77.5° | 137.3  | 147.3  | 127.2  | 100.9  | 90.3   |
| 80°   | 86.5   | 90.9   | 69.0   | 48.9   | 41.4   |
| 82.5° | 46.4   | 45.7   | 29.5   | 24.4   | 22.6   |
| 85°   | 20.1   | 18.2   | 13.2   | 11.9   | 10.7   |
| 87.5° | 6.9    | 6.2    | 5.0    | 4.4    | 3.7    |
| 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 | 16.49            | 18.07 | 16.85 | 18.38 | 18.70 | 17.45          | 19.03 | 17.81 | 19.34 | 19.66 |
|                 | 3H   | 17.91            | 19.33 | 18.28 | 19.65 | 20.01 | 18.64          | 20.06 | 19.01 | 20.38 | 20.74 |
|                 | 4H   | 18.30            | 19.63 | 18.70 | 19.98 | 20.36 | 18.85          | 20.18 | 19.25 | 20.53 | 20.91 |
|                 | 6H   | 18.47            | 19.70 | 18.89 | 20.07 | 20.46 | 18.87          | 20.10 | 19.28 | 20.47 | 20.86 |
|                 | 8H   | 18.49            | 19.66 | 18.91 | 20.05 | 20.45 | 18.85          | 20.02 | 19.27 | 20.41 | 20.81 |
|                 | 12H  | 18.48            | 19.60 | 18.91 | 19.98 | 20.41 | 18.82          | 19.94 | 19.25 | 20.32 | 20.75 |
| 4H              | 2H   | 17.15            | 18.48 | 17.55 | 18.83 | 19.20 | 17.92          | 19.25 | 18.32 | 19.60 | 19.98 |
|                 | 3H   | 18.72            | 19.83 | 19.13 | 20.23 | 20.63 | 19.27          | 20.37 | 19.68 | 20.77 | 21.17 |
|                 | 4H   | 19.20            | 20.19 | 19.63 | 20.61 | 21.04 | 19.54          | 20.53 | 19.97 | 20.94 | 21.38 |
|                 | 6H   | 19.44            | 20.30 | 19.90 | 20.74 | 21.20 | 19.59          | 20.45 | 20.05 | 20.89 | 21.35 |
|                 | 8H   | 19.46            | 20.27 | 19.93 | 20.71 | 21.18 | 19.56          | 20.37 | 20.03 | 20.81 | 21.28 |
|                 | 12H  | 19.46            | 20.18 | 19.94 | 20.66 | 21.13 | 19.54          | 20.26 | 20.03 | 20.74 | 21.21 |
| 8H              | 4H   | 19.34            | 20.14 | 19.80 | 20.58 | 21.05 | 19.65          | 20.46 | 20.11 | 20.90 | 21.37 |
|                 | 6H   | 19.61            | 20.27 | 20.11 | 20.76 | 21.24 | 19.71          | 20.37 | 20.21 | 20.86 | 21.34 |
|                 | 8H   | 19.65            | 20.24 | 20.16 | 20.75 | 21.24 | 19.69          | 20.28 | 20.20 | 20.79 | 21.28 |
|                 | 12H  | 19.66            | 20.18 | 20.17 | 20.68 | 21.24 | 19.67          | 20.19 | 20.18 | 20.69 | 21.25 |
| 12H             | 4H   | 19.32            | 20.04 | 19.80 | 20.51 | 20.98 | 19.64          | 20.36 | 20.12 | 20.84 | 21.31 |
|                 | 6H   | 19.58            | 20.17 | 20.09 | 20.68 | 21.17 | 19.69          | 20.28 | 20.20 | 20.79 | 21.28 |
|                 | 8H   | 19.65            | 20.17 | 20.15 | 20.66 | 21.22 | 19.69          | 20.21 | 20.20 | 20.70 | 21.26 |