

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: P1499273

Luminaire Tested: MAE-G-4-120-2LO-30-90-WDDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499273  
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-4-120-2LO-30-90-WDDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, WDDCPH frame, 2 LO ambient illumination levels  
Light Source: -  
Ballast/Driver: -

**Summary**

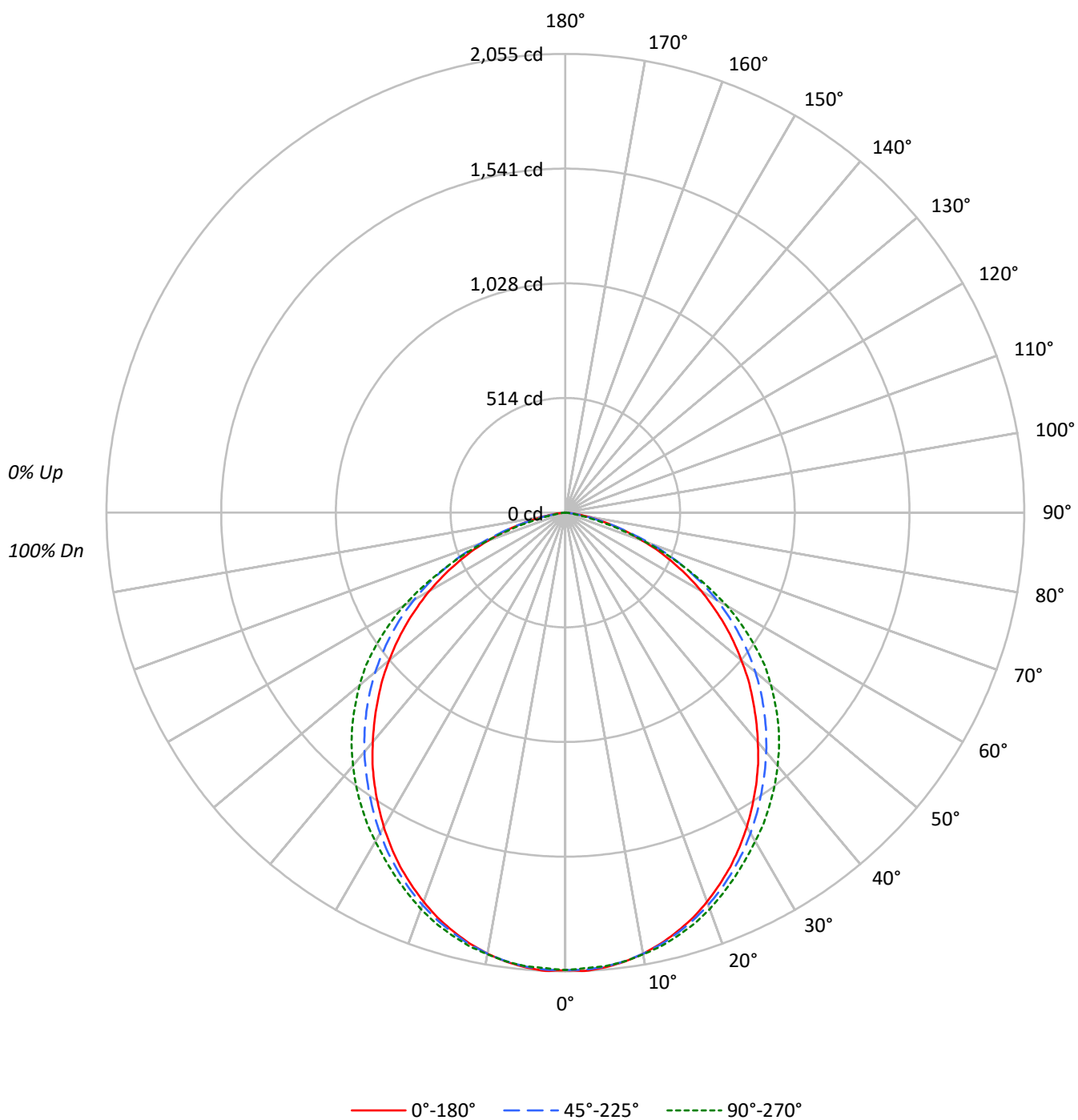
Lumens per Lamp: N/A  
Luminaire Lumens: 5173.0 lumens  
Efficiency: N/A  
Efficacy: 107.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 48  
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  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 110 | 105 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 93  | 95  | 93  | 91  | 92  | 90  | 88  | 86  |    |    |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  | 73  |    |    |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  | 75  | 69  | 65  | 72  | 68  | 64  | 62  |    |    |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 64  | 58  | 69  | 62  | 57  | 67  | 61  | 56  | 65  | 59  | 55  | 53  |    |    |
| 5   | 78  | 65  | 57  | 50  | 76  | 64  | 56  | 50  | 62  | 55  | 49  | 60  | 54  | 49  | 58  | 53  | 48  | 46  |    |    |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 43  | 54  | 48  | 43  | 53  | 47  | 43  | 41  |    |    |
| 7   | 67  | 53  | 45  | 39  | 65  | 53  | 45  | 39  | 51  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 38  | 36  |    |    |
| 8   | 62  | 49  | 40  | 35  | 60  | 48  | 40  | 35  | 47  | 40  | 34  | 46  | 39  | 34  | 44  | 38  | 34  | 32  |    |    |
| 9   | 58  | 45  | 37  | 31  | 57  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 31  | 29  |    |    |
| 10  | 54  | 41  | 34  | 28  | 53  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2757 | 2757 | 2757 |
| 5°  | 2762 | 2758 | 2755 |
| 10° | 2741 | 2741 | 2745 |
| 15° | 2704 | 2714 | 2730 |
| 20° | 2656 | 2678 | 2706 |
| 25° | 2597 | 2631 | 2671 |
| 30° | 2526 | 2577 | 2642 |
| 35° | 2446 | 2515 | 2622 |
| 40° | 2355 | 2458 | 2597 |
| 45° | 2259 | 2397 | 2569 |
| 50° | 2155 | 2325 | 2517 |
| 55° | 2036 | 2232 | 2422 |
| 60° | 1891 | 2107 | 2249 |
| 65° | 1706 | 1914 | 1926 |
| 70° | 1456 | 1593 | 1489 |
| 75° | 1143 | 1154 | 930  |
| 80° | 744  | 594  | 356  |
| 85° | 344  | 225  | 182  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 2569 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 193.5  | 3.7       |
| 10°-20°   | 549.0  | 10.6      |
| 20°-30°   | 815.5  | 15.8      |
| 30°-40°   | 960.6  | 18.6      |
| 40°-50°   | 973.1  | 18.8      |
| 50°-60°   | 847.0  | 16.4      |
| 60°-70°   | 577.2  | 11.2      |
| 70°-80°   | 230.7  | 4.5       |
| 80°-90°   | 26.4   | 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°    | 1558.0 | 30.1      |
| 0°-40°    | 2518.6 | 48.7      |
| 0°-60°    | 4338.7 | 83.9      |
| 0°-90°    | 5173.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5173.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2049 | 2049  | 2049 | 2049  | 2049 |      |
| 5°  | 2045 | 2033  | 2042 | 2039  | 2040 | 194  |
| 15° | 1942 | 1933  | 1948 | 1956  | 1960 | 547  |
| 25° | 1749 | 1750  | 1772 | 1787  | 1799 | 805  |
| 35° | 1489 | 1496  | 1531 | 1571  | 1596 | 931  |
| 45° | 1187 | 1202  | 1260 | 1319  | 1350 | 916  |
| 55° | 868  | 886   | 951  | 1011  | 1033 | 775  |
| 65° | 536  | 561   | 601  | 602   | 605  | 531  |
| 75° | 220  | 233   | 222  | 191   | 179  | 237  |
| 85° | 22   | 20    | 15   | 13    | 12   | 35   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2049.3 | 2049.3 | 2049.3 | 2049.3 | 2049.3 |
| 2.5°  | 2055.0 | 2041.7 | 2049.3 | 2047.9 | 2042.4 |
| 5°    | 2045.1 | 2033.3 | 2041.7 | 2039.0 | 2039.6 |
| 7.5°  | 2029.1 | 2018.1 | 2027.1 | 2026.4 | 2028.5 |
| 10°   | 2006.2 | 1995.1 | 2006.2 | 2006.8 | 2009.0 |
| 12.5° | 1977.6 | 1967.9 | 1981.1 | 1983.9 | 1988.8 |
| 15°   | 1941.5 | 1933.2 | 1948.4 | 1955.5 | 1960.2 |
| 17.5° | 1902.6 | 1897.0 | 1912.2 | 1921.3 | 1929.0 |
| 20°   | 1855.2 | 1852.4 | 1870.6 | 1879.5 | 1889.9 |
| 22.5° | 1803.7 | 1802.3 | 1824.0 | 1835.0 | 1845.5 |
| 25°   | 1749.4 | 1750.1 | 1772.4 | 1787.0 | 1798.9 |
| 27.5° | 1689.5 | 1690.9 | 1718.1 | 1735.5 | 1750.1 |
| 30°   | 1625.6 | 1629.1 | 1658.9 | 1682.6 | 1700.8 |
| 32.5° | 1558.0 | 1564.3 | 1596.3 | 1629.1 | 1652.0 |
| 35°   | 1489.1 | 1496.2 | 1531.0 | 1571.3 | 1596.3 |
| 37.5° | 1418.2 | 1425.9 | 1466.2 | 1513.6 | 1540.0 |
| 40°   | 1341.0 | 1352.7 | 1399.5 | 1451.6 | 1478.7 |
| 42.5° | 1265.0 | 1278.3 | 1330.6 | 1387.6 | 1416.8 |
| 45°   | 1187.2 | 1201.8 | 1259.5 | 1318.7 | 1349.9 |
| 47.5° | 1112.0 | 1124.5 | 1186.4 | 1248.4 | 1276.3 |
| 50°   | 1029.3 | 1045.9 | 1110.6 | 1172.6 | 1202.4 |
| 52.5° | 949.9  | 965.9  | 1032.0 | 1095.2 | 1126.0 |
| 55°   | 867.8  | 886.5  | 951.3  | 1011.1 | 1032.6 |
| 57.5° | 785.0  | 806.5  | 869.1  | 918.5  | 937.3  |
| 60°   | 702.9  | 724.4  | 782.9  | 821.8  | 835.8  |
| 62.5° | 620.0  | 642.3  | 693.8  | 717.5  | 720.3  |
| 65°   | 535.9  | 560.9  | 601.2  | 602.0  | 604.8  |
| 67.5° | 455.9  | 476.6  | 505.9  | 497.6  | 493.4  |
| 70°   | 370.2  | 393.1  | 405.0  | 388.4  | 378.5  |
| 72.5° | 294.4  | 311.0  | 309.0  | 284.5  | 272.8  |
| 75°   | 219.9  | 233.2  | 221.9  | 190.7  | 178.9  |
| 77.5° | 152.4  | 163.5  | 141.2  | 112.0  | 100.3  |
| 80°   | 96.0   | 100.9  | 76.6   | 54.3   | 46.0   |
| 82.5° | 51.5   | 50.8   | 32.8   | 27.1   | 25.1   |
| 85°   | 22.3   | 20.1   | 14.6   | 13.2   | 11.8   |
| 87.5° | 7.7    | 6.9    | 5.5    | 4.9    | 4.2    |
| 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 | 14.44            | 16.02 | 14.80 | 16.34 | 16.65 | 15.40          | 16.98 | 15.77 | 17.30 | 17.61 |
|                 | 3H   | 15.86            | 17.28 | 16.24 | 17.61 | 17.97 | 16.59          | 18.01 | 16.97 | 18.34 | 18.70 |
|                 | 4H   | 16.25            | 17.59 | 16.65 | 17.93 | 18.31 | 16.81          | 18.14 | 17.20 | 18.49 | 18.86 |
|                 | 6H   | 16.43            | 17.66 | 16.84 | 18.02 | 18.42 | 16.82          | 18.05 | 17.24 | 18.42 | 18.81 |
|                 | 8H   | 16.44            | 17.61 | 16.87 | 18.00 | 18.40 | 16.80          | 17.97 | 17.23 | 18.36 | 18.76 |
|                 | 12H  | 16.43            | 17.55 | 16.86 | 17.94 | 18.36 | 16.78          | 17.90 | 17.20 | 18.28 | 18.71 |
| 4H              | 2H   | 15.10            | 16.43 | 15.50 | 16.78 | 17.16 | 15.87          | 17.21 | 16.27 | 17.56 | 17.93 |
|                 | 3H   | 16.68            | 17.78 | 17.09 | 18.18 | 18.58 | 17.22          | 18.33 | 17.63 | 18.73 | 19.13 |
|                 | 4H   | 17.15            | 18.15 | 17.59 | 18.56 | 19.00 | 17.49          | 18.48 | 17.92 | 18.90 | 19.34 |
|                 | 6H   | 17.39            | 18.26 | 17.85 | 18.70 | 19.16 | 17.54          | 18.40 | 18.00 | 18.85 | 19.31 |
|                 | 8H   | 17.42            | 18.22 | 17.88 | 18.66 | 19.13 | 17.52          | 18.32 | 17.98 | 18.77 | 19.23 |
|                 | 12H  | 17.42            | 18.13 | 17.90 | 18.61 | 19.08 | 17.50          | 18.22 | 17.98 | 18.69 | 19.16 |
| 8H              | 4H   | 17.29            | 18.09 | 17.75 | 18.54 | 19.00 | 17.61          | 18.41 | 18.07 | 18.85 | 19.32 |
|                 | 6H   | 17.57            | 18.23 | 18.06 | 18.72 | 19.19 | 17.67          | 18.33 | 18.16 | 18.82 | 19.29 |
|                 | 8H   | 17.60            | 18.20 | 18.12 | 18.70 | 19.19 | 17.64          | 18.23 | 18.16 | 18.74 | 19.23 |
|                 | 12H  | 17.62            | 18.14 | 18.13 | 18.63 | 19.19 | 17.63          | 18.15 | 18.14 | 18.64 | 19.20 |
| 12H             | 4H   | 17.27            | 17.99 | 17.75 | 18.47 | 18.94 | 17.60          | 18.31 | 18.08 | 18.79 | 19.26 |
|                 | 6H   | 17.54            | 18.13 | 18.05 | 18.64 | 19.12 | 17.64          | 18.24 | 18.16 | 18.74 | 19.23 |
|                 | 8H   | 17.60            | 18.12 | 18.11 | 18.61 | 19.18 | 17.64          | 18.16 | 18.15 | 18.66 | 19.22 |