

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: P1499131

Luminaire Tested: MAE-G-4-120-1STD-LO-30-VRDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499131  
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-LO-30-VRDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, VRDCPH frame, 1 STD ambient , LO exam illumination levels  
Light Source: -  
Ballast/Driver: -

**Summary**

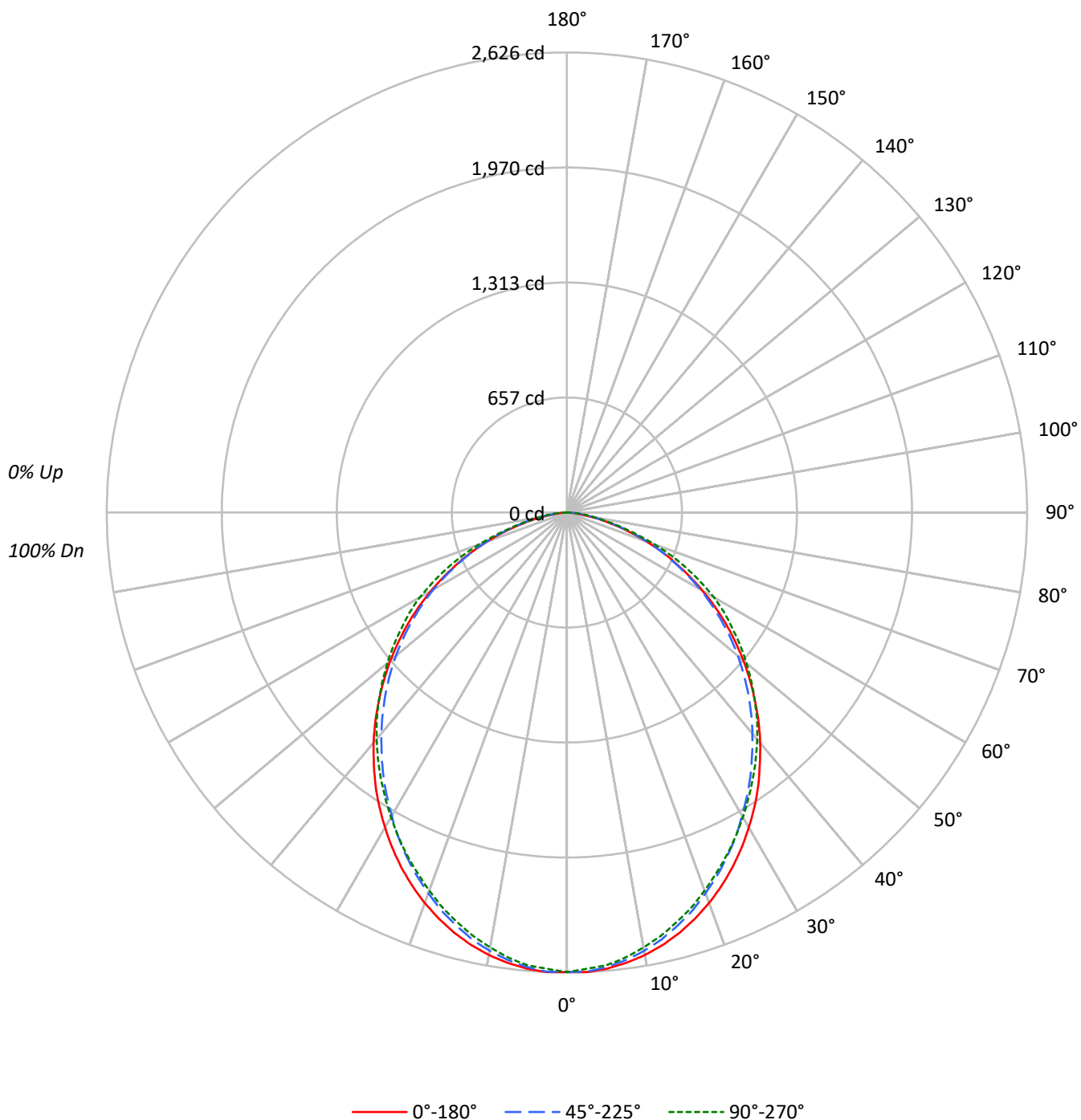
Lumens per Lamp: N/A  
Luminaire Lumens: 6318.0 lumens  
Efficiency: N/A  
Efficacy: 76.8 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.15 / 1.27  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 82.3  
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  | 92  | 90  |  | 91  |
| 2   | 100 | 92  | 86  | 80  | 98  | 90  | 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  | 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  | 28  |  | 39  | 33  | 28  |  | 38  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3529 | 3529 | 3529 |
| 5°  | 3530 | 3518 | 3503 |
| 10° | 3504 | 3471 | 3445 |
| 15° | 3459 | 3400 | 3372 |
| 20° | 3396 | 3311 | 3289 |
| 25° | 3318 | 3215 | 3204 |
| 30° | 3225 | 3105 | 3119 |
| 35° | 3127 | 3002 | 3041 |
| 40° | 3013 | 2893 | 2968 |
| 45° | 2887 | 2783 | 2885 |
| 50° | 2753 | 2666 | 2799 |
| 55° | 2598 | 2526 | 2702 |
| 60° | 2406 | 2366 | 2611 |
| 65° | 2185 | 2150 | 2399 |
| 70° | 1892 | 1916 | 2094 |
| 75° | 1505 | 1600 | 1652 |
| 80° | 1035 | 1192 | 1246 |
| 85° | 574  | 880  | 1116 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2887 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 246.4  | 3.9       |
| 10°-20°   | 688.6  | 10.9      |
| 20°-30°   | 1003.3 | 15.9      |
| 30°-40°   | 1157.9 | 18.3      |
| 40°-50°   | 1149.1 | 18.2      |
| 50°-60°   | 985.8  | 15.6      |
| 60°-70°   | 691.9  | 11.0      |
| 70°-80°   | 327.2  | 5.2       |
| 80°-90°   | 67.7   | 1.1       |
| 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°    | 1938.3 | 30.7      |
| 0°-40°    | 3096.2 | 49.0      |
| 0°-60°    | 5231.1 | 82.8      |
| 0°-90°    | 6318.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6318.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2623 | 2623  | 2623 | 2623  | 2623 |      |
| 5°  | 2614 | 2611  | 2604 | 2588  | 2594 | 248  |
| 15° | 2483 | 2471  | 2440 | 2415  | 2420 | 700  |
| 25° | 2235 | 2208  | 2165 | 2148  | 2158 | 1029 |
| 35° | 1904 | 1867  | 1828 | 1833  | 1851 | 1189 |
| 45° | 1517 | 1486  | 1463 | 1494  | 1516 | 1170 |
| 55° | 1107 | 1079  | 1077 | 1122  | 1152 | 989  |
| 65° | 686  | 664   | 675  | 730   | 753  | 679  |
| 75° | 290  | 280   | 308  | 321   | 318  | 313  |
| 85° | 37   | 45    | 57   | 68    | 72   | 53   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2622.9 | 2622.9 | 2622.9 | 2622.9 | 2622.9 |
| 2.5°  | 2626.1 | 2628.0 | 2622.9 | 2604.4 | 2606.9 |
| 5°    | 2613.7 | 2611.2 | 2604.4 | 2588.3 | 2593.9 |
| 7.5°  | 2592.5 | 2589.4 | 2577.1 | 2558.6 | 2562.3 |
| 10°   | 2564.5 | 2558.2 | 2540.5 | 2517.7 | 2521.4 |
| 12.5° | 2528.4 | 2520.4 | 2495.7 | 2470.6 | 2475.0 |
| 15°   | 2483.0 | 2471.4 | 2440.5 | 2415.4 | 2420.4 |
| 17.5° | 2430.7 | 2418.3 | 2381.6 | 2354.6 | 2364.0 |
| 20°   | 2371.6 | 2354.3 | 2312.6 | 2288.2 | 2297.2 |
| 22.5° | 2306.7 | 2284.8 | 2241.8 | 2219.3 | 2227.5 |
| 25°   | 2235.3 | 2208.3 | 2165.4 | 2148.5 | 2158.0 |
| 27.5° | 2158.0 | 2128.7 | 2085.9 | 2071.5 | 2084.8 |
| 30°   | 2076.0 | 2044.6 | 1998.8 | 1993.2 | 2007.8 |
| 32.5° | 1991.9 | 1958.8 | 1914.3 | 1915.5 | 1930.1 |
| 35°   | 1903.7 | 1867.4 | 1827.9 | 1833.4 | 1851.2 |
| 37.5° | 1809.1 | 1774.7 | 1736.3 | 1754.0 | 1771.0 |
| 40°   | 1715.7 | 1680.1 | 1646.9 | 1670.0 | 1689.6 |
| 42.5° | 1618.7 | 1585.0 | 1556.0 | 1582.9 | 1605.6 |
| 45°   | 1517.3 | 1486.1 | 1462.7 | 1494.0 | 1516.1 |
| 47.5° | 1415.9 | 1384.6 | 1368.8 | 1403.2 | 1428.3 |
| 50°   | 1315.1 | 1285.8 | 1273.6 | 1312.2 | 1337.0 |
| 52.5° | 1210.0 | 1181.9 | 1177.2 | 1217.2 | 1246.7 |
| 55°   | 1107.4 | 1078.6 | 1077.0 | 1121.8 | 1152.0 |
| 57.5° | 1001.6 | 979.8  | 979.2  | 1028.3 | 1064.8 |
| 60°   | 894.1  | 872.1  | 879.1  | 936.8  | 970.1  |
| 62.5° | 789.5  | 767.5  | 775.7  | 839.4  | 861.3  |
| 65°   | 686.3  | 664.2  | 675.3  | 729.7  | 753.4  |
| 67.5° | 585.0  | 564.2  | 583.1  | 632.4  | 647.3  |
| 70°   | 481.0  | 462.7  | 487.1  | 526.8  | 532.3  |
| 72.5° | 384.0  | 368.2  | 397.4  | 422.0  | 421.2  |
| 75°   | 289.5  | 280.4  | 307.7  | 320.9  | 317.8  |
| 77.5° | 206.9  | 202.0  | 225.3  | 231.9  | 229.2  |
| 80°   | 133.6  | 136.7  | 153.8  | 157.9  | 160.8  |
| 82.5° | 77.7   | 83.8   | 96.7   | 110.7  | 113.8  |
| 85°   | 37.2   | 44.6   | 57.0   | 68.1   | 72.3   |
| 87.5° | 13.0   | 17.9   | 23.6   | 26.0   | 25.4   |
| 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 | 15.15            | 16.74 | 15.52 | 17.05 | 17.37 | 15.52          | 17.10 | 15.88 | 17.41 | 17.73 |
|                 | 3H   | 16.59            | 18.01 | 16.97 | 18.34 | 18.70 | 17.10          | 18.53 | 17.48 | 18.86 | 19.22 |
|                 | 4H   | 17.01            | 18.35 | 17.41 | 18.70 | 19.07 | 17.56          | 18.89 | 17.96 | 19.24 | 19.62 |
|                 | 6H   | 17.22            | 18.46 | 17.63 | 18.82 | 19.22 | 17.80          | 19.04 | 18.21 | 19.40 | 19.79 |
|                 | 8H   | 17.25            | 18.43 | 17.68 | 18.82 | 19.22 | 17.86          | 19.04 | 18.29 | 19.43 | 19.83 |
|                 | 12H  | 17.26            | 18.39 | 17.69 | 18.77 | 19.20 | 17.91          | 19.04 | 18.34 | 19.42 | 19.85 |
| 4H              | 2H   | 15.69            | 17.02 | 16.09 | 17.37 | 17.75 | 15.99          | 17.32 | 16.38 | 17.67 | 18.05 |
|                 | 3H   | 17.31            | 18.42 | 17.72 | 18.82 | 19.22 | 17.77          | 18.89 | 18.18 | 19.28 | 19.68 |
|                 | 4H   | 17.81            | 18.81 | 18.24 | 19.23 | 19.66 | 18.33          | 19.33 | 18.76 | 19.75 | 20.18 |
|                 | 6H   | 18.10            | 18.97 | 18.56 | 19.41 | 19.87 | 18.66          | 19.54 | 19.12 | 19.98 | 20.44 |
|                 | 8H   | 18.15            | 18.97 | 18.61 | 19.41 | 19.88 | 18.76          | 19.57 | 19.22 | 20.02 | 20.48 |
|                 | 12H  | 18.17            | 18.90 | 18.65 | 19.38 | 19.85 | 18.84          | 19.56 | 19.32 | 20.04 | 20.51 |
| 8H              | 4H   | 18.02            | 18.84 | 18.49 | 19.28 | 19.75 | 18.50          | 19.31 | 18.96 | 19.76 | 20.22 |
|                 | 6H   | 18.38            | 19.05 | 18.87 | 19.54 | 20.02 | 18.90          | 19.57 | 19.40 | 20.06 | 20.54 |
|                 | 8H   | 18.46            | 19.06 | 18.97 | 19.57 | 20.06 | 19.04          | 19.65 | 19.55 | 20.15 | 20.64 |
|                 | 12H  | 18.51            | 19.04 | 19.02 | 19.53 | 20.09 | 19.17          | 19.70 | 19.68 | 20.19 | 20.76 |
| 12H             | 4H   | 18.03            | 18.76 | 18.51 | 19.24 | 19.71 | 18.50          | 19.22 | 18.98 | 19.70 | 20.17 |
|                 | 6H   | 18.39            | 19.00 | 18.90 | 19.50 | 19.99 | 18.90          | 19.51 | 19.41 | 20.01 | 20.50 |
|                 | 8H   | 18.51            | 19.04 | 19.02 | 19.54 | 20.10 | 19.08          | 19.62 | 19.59 | 20.11 | 20.67 |