

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: P1499140

Luminaire Tested: MAE-G-4-120-1STD-LO-40-90-VRDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499140  
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-40-90-VRDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, VRDCPH frame, 1 STD ambient , LO exam illumination levels  
Light Source: -  
Ballast/Driver: -

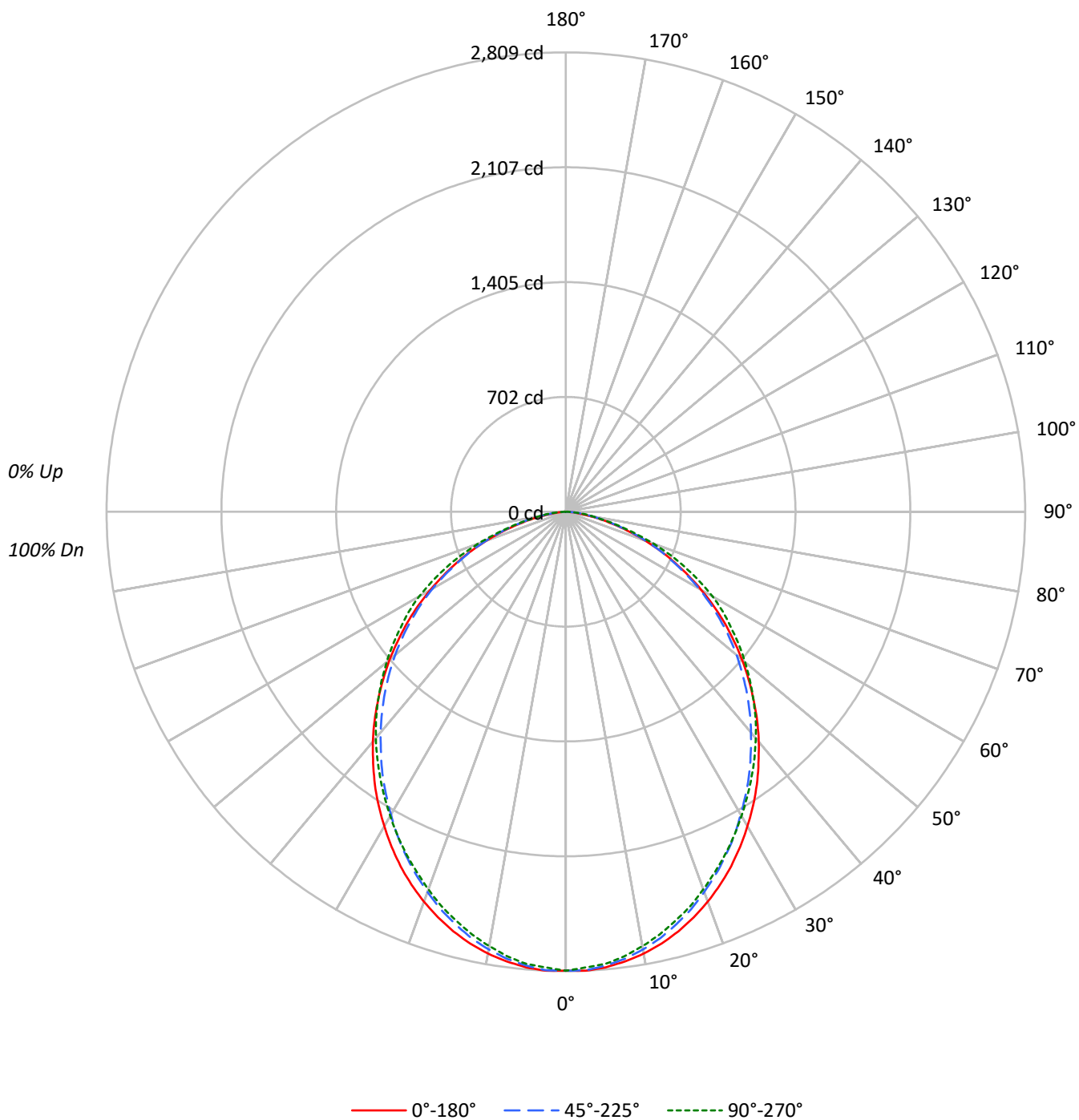
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6759.0 lumens  
Efficiency: N/A  
Efficacy: 82.1 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°  | 3776 | 3776 | 3776 |
| 5°  | 3776 | 3763 | 3748 |
| 10° | 3748 | 3713 | 3685 |
| 15° | 3700 | 3637 | 3607 |
| 20° | 3633 | 3542 | 3519 |
| 25° | 3550 | 3439 | 3427 |
| 30° | 3450 | 3322 | 3337 |
| 35° | 3345 | 3212 | 3253 |
| 40° | 3224 | 3094 | 3175 |
| 45° | 3088 | 2978 | 3086 |
| 50° | 2945 | 2852 | 2994 |
| 55° | 2779 | 2703 | 2891 |
| 60° | 2574 | 2531 | 2793 |
| 65° | 2337 | 2300 | 2566 |
| 70° | 2024 | 2050 | 2240 |
| 75° | 1610 | 1711 | 1767 |
| 80° | 1108 | 1275 | 1333 |
| 85° | 616  | 942  | 1193 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3088 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 263.6  | 3.9       |
| 10°-20°   | 736.6  | 10.9      |
| 20°-30°   | 1073.3 | 15.9      |
| 30°-40°   | 1238.8 | 18.3      |
| 40°-50°   | 1229.3 | 18.2      |
| 50°-60°   | 1054.6 | 15.6      |
| 60°-70°   | 740.2  | 11.0      |
| 70°-80°   | 350.1  | 5.2       |
| 80°-90°   | 72.4   | 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°    | 2073.6 | 30.7      |
| 0°-40°    | 3312.3 | 49.0      |
| 0°-60°    | 5596.3 | 82.8      |
| 0°-90°    | 6759.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6759.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2806 | 2806  | 2806 | 2806  | 2806 |      |
| 5°  | 2796 | 2793  | 2786 | 2769  | 2775 | 265  |
| 15° | 2656 | 2644  | 2611 | 2584  | 2589 | 748  |
| 25° | 2391 | 2362  | 2317 | 2298  | 2309 | 1100 |
| 35° | 2036 | 1998  | 1956 | 1962  | 1980 | 1272 |
| 45° | 1623 | 1590  | 1565 | 1598  | 1622 | 1252 |
| 55° | 1185 | 1154  | 1152 | 1200  | 1232 | 1058 |
| 65° | 734  | 711   | 722  | 781   | 806  | 727  |
| 75° | 310  | 300   | 329  | 343   | 340  | 335  |
| 85° | 40   | 48    | 61   | 73    | 77   | 57   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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CATALOG NUMBER: MAE-G-4-120-1STD-LO-40-90-VRDCPH

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2806.1 | 2806.1 | 2806.1 | 2806.1 | 2806.1 |
| 2.5°  | 2809.4 | 2811.4 | 2806.1 | 2786.1 | 2788.8 |
| 5°    | 2796.0 | 2793.4 | 2786.1 | 2768.9 | 2774.9 |
| 7.5°  | 2773.5 | 2770.2 | 2757.0 | 2737.1 | 2741.2 |
| 10°   | 2743.6 | 2736.8 | 2717.8 | 2693.4 | 2697.4 |
| 12.5° | 2704.8 | 2696.3 | 2669.9 | 2643.1 | 2647.8 |
| 15°   | 2656.3 | 2643.8 | 2610.8 | 2584.1 | 2589.4 |
| 17.5° | 2600.4 | 2587.1 | 2547.9 | 2519.0 | 2529.1 |
| 20°   | 2537.1 | 2518.6 | 2474.0 | 2447.9 | 2457.4 |
| 22.5° | 2467.8 | 2444.2 | 2398.2 | 2374.2 | 2383.1 |
| 25°   | 2391.3 | 2362.3 | 2316.6 | 2298.5 | 2308.7 |
| 27.5° | 2308.7 | 2277.2 | 2231.5 | 2216.1 | 2230.3 |
| 30°   | 2220.9 | 2187.2 | 2138.3 | 2132.4 | 2147.9 |
| 32.5° | 2130.9 | 2095.5 | 2048.0 | 2049.2 | 2064.8 |
| 35°   | 2036.5 | 1997.7 | 1955.5 | 1961.5 | 1980.5 |
| 37.5° | 1935.4 | 1898.6 | 1857.6 | 1876.4 | 1894.6 |
| 40°   | 1835.5 | 1797.4 | 1761.8 | 1786.6 | 1807.6 |
| 42.5° | 1731.7 | 1695.5 | 1664.6 | 1693.4 | 1717.7 |
| 45°   | 1623.1 | 1589.8 | 1564.9 | 1598.3 | 1621.8 |
| 47.5° | 1514.7 | 1481.3 | 1464.4 | 1501.1 | 1528.0 |
| 50°   | 1406.9 | 1375.5 | 1362.5 | 1403.9 | 1430.2 |
| 52.5° | 1294.5 | 1264.3 | 1259.4 | 1302.1 | 1333.7 |
| 55°   | 1184.6 | 1153.9 | 1152.2 | 1200.1 | 1232.5 |
| 57.5° | 1071.5 | 1048.1 | 1047.5 | 1100.2 | 1139.2 |
| 60°   | 956.4  | 932.9  | 940.4  | 1002.2 | 1037.8 |
| 62.5° | 844.6  | 821.1  | 829.8  | 898.1  | 921.5  |
| 65°   | 734.2  | 710.7  | 722.5  | 780.7  | 806.1  |
| 67.5° | 625.9  | 603.4  | 623.8  | 676.5  | 692.5  |
| 70°   | 514.6  | 495.0  | 521.0  | 563.6  | 569.5  |
| 72.5° | 410.8  | 393.8  | 425.1  | 451.6  | 450.7  |
| 75°   | 309.7  | 300.0  | 329.1  | 343.4  | 339.9  |
| 77.5° | 221.4  | 216.2  | 241.1  | 248.1  | 245.3  |
| 80°   | 143.0  | 146.3  | 164.5  | 168.9  | 172.1  |
| 82.5° | 83.1   | 89.6   | 103.3  | 118.4  | 121.7  |
| 85°   | 39.9   | 47.8   | 61.0   | 72.8   | 77.3   |
| 87.5° | 13.9   | 19.1   | 25.2   | 27.8   | 27.1   |
| 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 | 15.39            | 16.97 | 15.75 | 17.28 | 17.60 | 15.75          | 17.34 | 16.12 | 17.65 | 17.96 |
|                 | 3H   | 16.82            | 18.25 | 17.20 | 18.57 | 18.93 | 17.34          | 18.76 | 17.72 | 19.09 | 19.45 |
|                 | 4H   | 17.24            | 18.58 | 17.64 | 18.93 | 19.31 | 17.79          | 19.13 | 18.19 | 19.48 | 19.85 |
|                 | 6H   | 17.46            | 18.69 | 17.87 | 19.06 | 19.45 | 18.03          | 19.27 | 18.45 | 19.64 | 20.03 |
|                 | 8H   | 17.49            | 18.67 | 17.91 | 19.06 | 19.46 | 18.10          | 19.28 | 18.52 | 19.67 | 20.07 |
|                 | 12H  | 17.49            | 18.62 | 17.92 | 19.00 | 19.43 | 18.14          | 19.27 | 18.57 | 19.65 | 20.08 |
| 4H              | 2H   | 15.92            | 17.26 | 16.32 | 17.61 | 17.98 | 16.22          | 17.56 | 16.62 | 17.91 | 18.28 |
|                 | 3H   | 17.54            | 18.65 | 17.95 | 19.05 | 19.45 | 18.01          | 19.12 | 18.42 | 19.52 | 19.92 |
|                 | 4H   | 18.04            | 19.05 | 18.48 | 19.46 | 19.90 | 18.57          | 19.57 | 19.00 | 19.98 | 20.42 |
|                 | 6H   | 18.33            | 19.21 | 18.79 | 19.65 | 20.11 | 18.90          | 19.77 | 19.36 | 20.21 | 20.67 |
|                 | 8H   | 18.39            | 19.20 | 18.85 | 19.64 | 20.11 | 18.99          | 19.81 | 19.46 | 20.25 | 20.72 |
|                 | 12H  | 18.41            | 19.14 | 18.89 | 19.61 | 20.08 | 19.07          | 19.80 | 19.55 | 20.28 | 20.75 |
| 8H              | 4H   | 18.26            | 19.07 | 18.72 | 19.52 | 19.98 | 18.73          | 19.55 | 19.19 | 19.99 | 20.46 |
|                 | 6H   | 18.61            | 19.29 | 19.11 | 19.78 | 20.25 | 19.14          | 19.81 | 19.63 | 20.30 | 20.78 |
|                 | 8H   | 18.69            | 19.30 | 19.21 | 19.81 | 20.29 | 19.28          | 19.88 | 19.79 | 20.39 | 20.88 |
|                 | 12H  | 18.74            | 19.28 | 19.25 | 19.77 | 20.33 | 19.40          | 19.94 | 19.91 | 20.43 | 20.99 |
| 12H             | 4H   | 18.27            | 19.00 | 18.75 | 19.47 | 19.94 | 18.73          | 19.46 | 19.21 | 19.94 | 20.41 |
|                 | 6H   | 18.63            | 19.23 | 19.14 | 19.74 | 20.22 | 19.14          | 19.74 | 19.65 | 20.25 | 20.74 |
|                 | 8H   | 18.75            | 19.28 | 19.25 | 19.77 | 20.33 | 19.32          | 19.85 | 19.83 | 20.34 | 20.91 |