

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: P1499563

Luminaire Tested: MAE-G-4-120-3LO-30-VRDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499563  
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-4-120-3LO-30-VRDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, VRDCPH frame, 3 LO ambient illumination levels  
Light Source: -  
Ballast/Driver: -

**Summary**

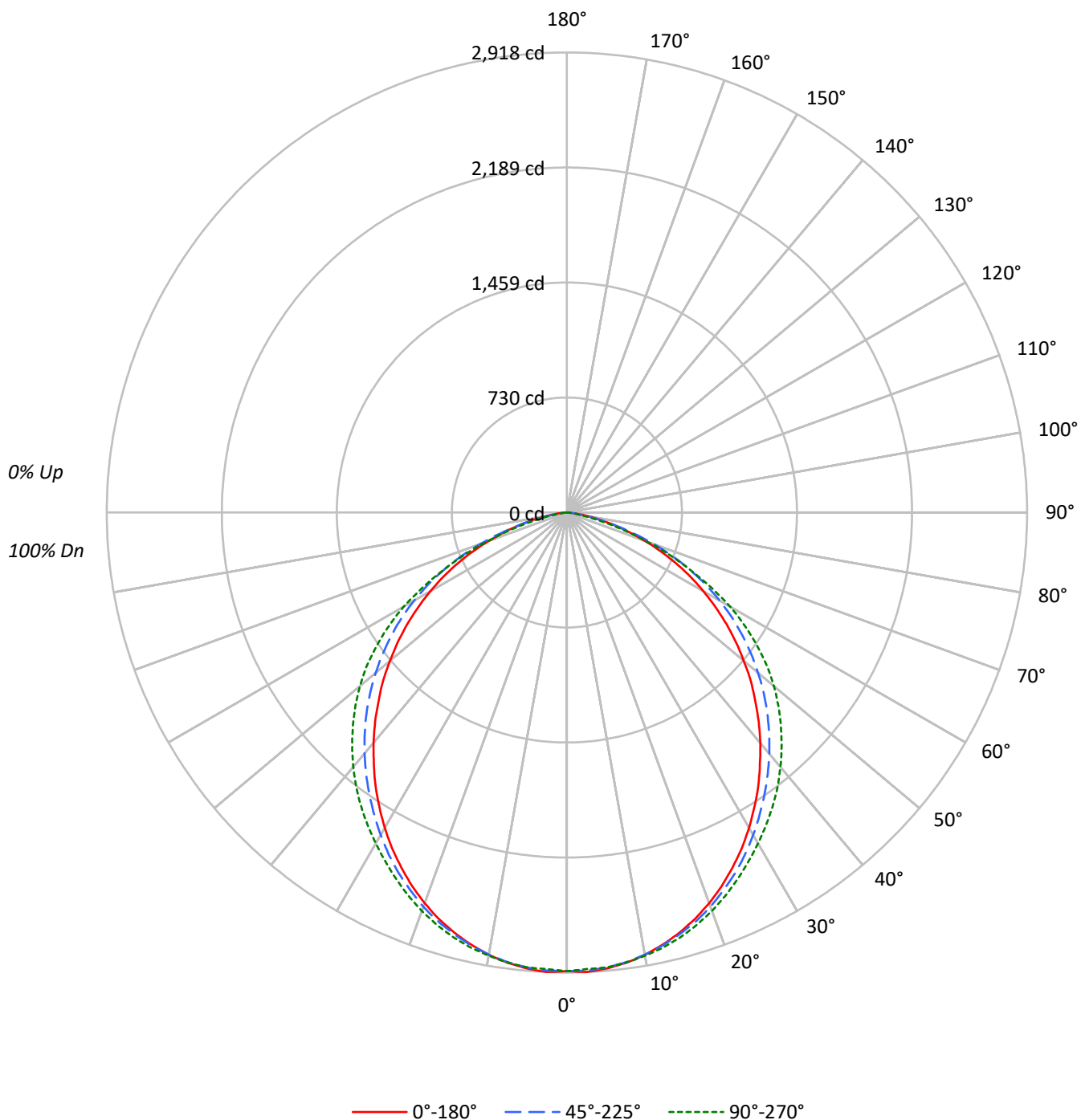
Lumens per Lamp: N/A  
Luminaire Lumens: 7371.0 lumens  
Efficiency: N/A  
Efficacy: 102.4 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.24 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 72  
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 | 96  | 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  | 57  | 69  | 62  | 57  | 67  | 61  | 56  | 65  | 59  | 55  | 53  |    |    |
| 5   | 78  | 65  | 56  | 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  | 44  | 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  | 36  | 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°  | 3913 | 3913 | 3913 |
| 5°  | 3922 | 3913 | 3912 |
| 10° | 3893 | 3891 | 3900 |
| 15° | 3843 | 3855 | 3883 |
| 20° | 3776 | 3811 | 3850 |
| 25° | 3688 | 3747 | 3806 |
| 30° | 3588 | 3670 | 3766 |
| 35° | 3476 | 3586 | 3737 |
| 40° | 3349 | 3505 | 3700 |
| 45° | 3213 | 3419 | 3653 |
| 50° | 3064 | 3313 | 3588 |
| 55° | 2899 | 3185 | 3450 |
| 60° | 2691 | 3009 | 3219 |
| 65° | 2430 | 2744 | 2757 |
| 70° | 2074 | 2304 | 2143 |
| 75° | 1629 | 1681 | 1318 |
| 80° | 1063 | 865  | 510  |
| 85° | 509  | 341  | 270  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 3653 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 274.7  | 3.7       |
| 10°-20°   | 779.9  | 10.6      |
| 20°-30°   | 1159.9 | 15.7      |
| 30°-40°   | 1366.9 | 18.5      |
| 40°-50°   | 1385.8 | 18.8      |
| 50°-60°   | 1207.6 | 16.4      |
| 60°-70°   | 825.9  | 11.2      |
| 70°-80°   | 331.8  | 4.5       |
| 80°-90°   | 38.5   | 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°    | 2214.6 | 30.0      |
| 0°-40°    | 3581.4 | 48.6      |
| 0°-60°    | 6174.9 | 83.8      |
| 0°-90°    | 7371.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7371.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2908 | 2908  | 2908 | 2908  | 2908 |      |
| 5°  | 2904 | 2886  | 2897 | 2894  | 2896 | 275  |
| 15° | 2759 | 2747  | 2768 | 2779  | 2788 | 777  |
| 25° | 2484 | 2485  | 2524 | 2542  | 2564 | 1144 |
| 35° | 2116 | 2126  | 2183 | 2237  | 2275 | 1322 |
| 45° | 1688 | 1711  | 1797 | 1877  | 1920 | 1303 |
| 55° | 1236 | 1262  | 1358 | 1443  | 1471 | 1103 |
| 65° | 763  | 798   | 862  | 869   | 866  | 755  |
| 75° | 313  | 334   | 323  | 278   | 254  | 337  |
| 85° | 33   | 30    | 22   | 20    | 18   | 51   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2908.3 | 2908.3 | 2908.3 | 2908.3 | 2908.3 |
| 2.5°  | 2917.6 | 2898.1 | 2908.3 | 2906.2 | 2898.7 |
| 5°    | 2903.5 | 2886.0 | 2897.4 | 2894.1 | 2896.1 |
| 7.5°  | 2880.6 | 2864.6 | 2876.6 | 2876.0 | 2879.3 |
| 10°   | 2849.1 | 2832.9 | 2847.8 | 2850.4 | 2854.5 |
| 12.5° | 2807.3 | 2794.0 | 2812.1 | 2817.4 | 2825.5 |
| 15°   | 2758.9 | 2746.8 | 2767.7 | 2779.1 | 2787.9 |
| 17.5° | 2702.4 | 2692.3 | 2719.2 | 2730.1 | 2742.1 |
| 20°   | 2637.2 | 2629.9 | 2661.4 | 2671.5 | 2689.0 |
| 22.5° | 2564.6 | 2560.6 | 2593.5 | 2608.9 | 2629.1 |
| 25°   | 2484.5 | 2485.3 | 2524.2 | 2542.5 | 2563.9 |
| 27.5° | 2400.6 | 2401.9 | 2446.3 | 2471.7 | 2494.6 |
| 30°   | 2309.7 | 2313.8 | 2362.2 | 2393.9 | 2424.0 |
| 32.5° | 2213.6 | 2221.6 | 2274.1 | 2317.2 | 2350.8 |
| 35°   | 2116.1 | 2125.5 | 2183.4 | 2237.1 | 2275.4 |
| 37.5° | 2010.6 | 2026.0 | 2091.3 | 2155.2 | 2194.7 |
| 40°   | 1907.0 | 1922.4 | 1995.7 | 2066.3 | 2106.7 |
| 42.5° | 1800.1 | 1819.6 | 1897.6 | 1976.2 | 2015.2 |
| 45°   | 1688.5 | 1711.2 | 1796.7 | 1877.4 | 1919.8 |
| 47.5° | 1581.5 | 1601.7 | 1691.8 | 1775.9 | 1819.6 |
| 50°   | 1463.8 | 1489.3 | 1582.8 | 1671.0 | 1714.1 |
| 52.5° | 1351.6 | 1375.1 | 1471.2 | 1561.4 | 1600.4 |
| 55°   | 1235.9 | 1262.1 | 1357.7 | 1443.0 | 1470.6 |
| 57.5° | 1117.5 | 1149.2 | 1241.3 | 1312.6 | 1338.8 |
| 60°   | 999.9  | 1031.4 | 1118.2 | 1176.8 | 1196.3 |
| 62.5° | 882.8  | 916.6  | 992.5  | 1031.4 | 1031.4 |
| 65°   | 763.2  | 797.5  | 862.0  | 868.7  | 866.0  |
| 67.5° | 643.5  | 677.9  | 726.9  | 714.7  | 706.7  |
| 70°   | 527.2  | 556.7  | 585.7  | 563.4  | 544.7  |
| 72.5° | 414.2  | 442.5  | 447.2  | 415.0  | 391.3  |
| 75°   | 313.3  | 334.3  | 323.4  | 277.8  | 253.6  |
| 77.5° | 218.5  | 230.7  | 207.8  | 161.4  | 141.9  |
| 80°   | 137.2  | 142.5  | 111.6  | 78.6   | 65.8   |
| 82.5° | 74.0   | 74.6   | 48.5   | 39.7   | 37.0   |
| 85°   | 33.0   | 29.6   | 22.1   | 19.5   | 17.5   |
| 87.5° | 11.4   | 10.1   | 8.0    | 7.4    | 6.1    |
| 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 | 15.67            | 17.25 | 16.03 | 17.56 | 17.88 | 16.65          | 18.23 | 17.01 | 18.55 | 18.86 |
|                 | 3H   | 17.08            | 18.50 | 17.45 | 18.83 | 19.19 | 17.85          | 19.28 | 18.23 | 19.60 | 19.96 |
|                 | 4H   | 17.47            | 18.80 | 17.87 | 19.15 | 19.53 | 18.07          | 19.40 | 18.47 | 19.75 | 20.13 |
|                 | 6H   | 17.65            | 18.88 | 18.06 | 19.24 | 19.63 | 18.09          | 19.32 | 18.50 | 19.69 | 20.08 |
|                 | 8H   | 17.66            | 18.83 | 18.09 | 19.22 | 19.62 | 18.06          | 19.24 | 18.49 | 19.63 | 20.03 |
|                 | 12H  | 17.65            | 18.77 | 18.08 | 19.16 | 19.58 | 18.04          | 19.16 | 18.47 | 19.55 | 19.97 |
| 4H              | 2H   | 16.34            | 17.67 | 16.74 | 18.02 | 18.40 | 17.13          | 18.46 | 17.53 | 18.81 | 19.19 |
|                 | 3H   | 17.91            | 19.01 | 18.32 | 19.41 | 19.81 | 18.50          | 19.60 | 18.91 | 20.00 | 20.40 |
|                 | 4H   | 18.38            | 19.38 | 18.81 | 19.79 | 20.23 | 18.77          | 19.76 | 19.20 | 20.18 | 20.62 |
|                 | 6H   | 18.62            | 19.48 | 19.08 | 19.93 | 20.38 | 18.82          | 19.68 | 19.28 | 20.12 | 20.58 |
|                 | 8H   | 18.65            | 19.45 | 19.11 | 19.89 | 20.36 | 18.80          | 19.60 | 19.26 | 20.04 | 20.51 |
|                 | 12H  | 18.65            | 19.36 | 19.13 | 19.84 | 20.31 | 18.78          | 19.49 | 19.26 | 19.97 | 20.44 |
| 8H              | 4H   | 18.53            | 19.33 | 18.99 | 19.78 | 20.24 | 18.89          | 19.69 | 19.35 | 20.14 | 20.60 |
|                 | 6H   | 18.80            | 19.46 | 19.30 | 19.95 | 20.43 | 18.95          | 19.61 | 19.44 | 20.10 | 20.58 |
|                 | 8H   | 18.84            | 19.43 | 19.36 | 19.94 | 20.43 | 18.93          | 19.52 | 19.44 | 20.03 | 20.51 |
|                 | 12H  | 18.86            | 19.38 | 19.37 | 19.87 | 20.43 | 18.91          | 19.43 | 19.42 | 19.92 | 20.49 |
| 12H             | 4H   | 18.51            | 19.23 | 18.99 | 19.71 | 20.18 | 18.88          | 19.60 | 19.36 | 20.07 | 20.54 |
|                 | 6H   | 18.77            | 19.37 | 19.29 | 19.87 | 20.36 | 18.92          | 19.52 | 19.44 | 20.03 | 20.51 |
|                 | 8H   | 18.84            | 19.36 | 19.35 | 19.85 | 20.42 | 18.93          | 19.45 | 19.43 | 19.94 | 20.50 |