

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: P1499323

Luminaire Tested: MAE-G-4-120-2LO-LO-30-VRDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499323  
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-LO-30-VRDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, VRDCPH frame, 2 LO ambient , LO exam illumination levels  
Light Source: -  
Ballast/Driver: -

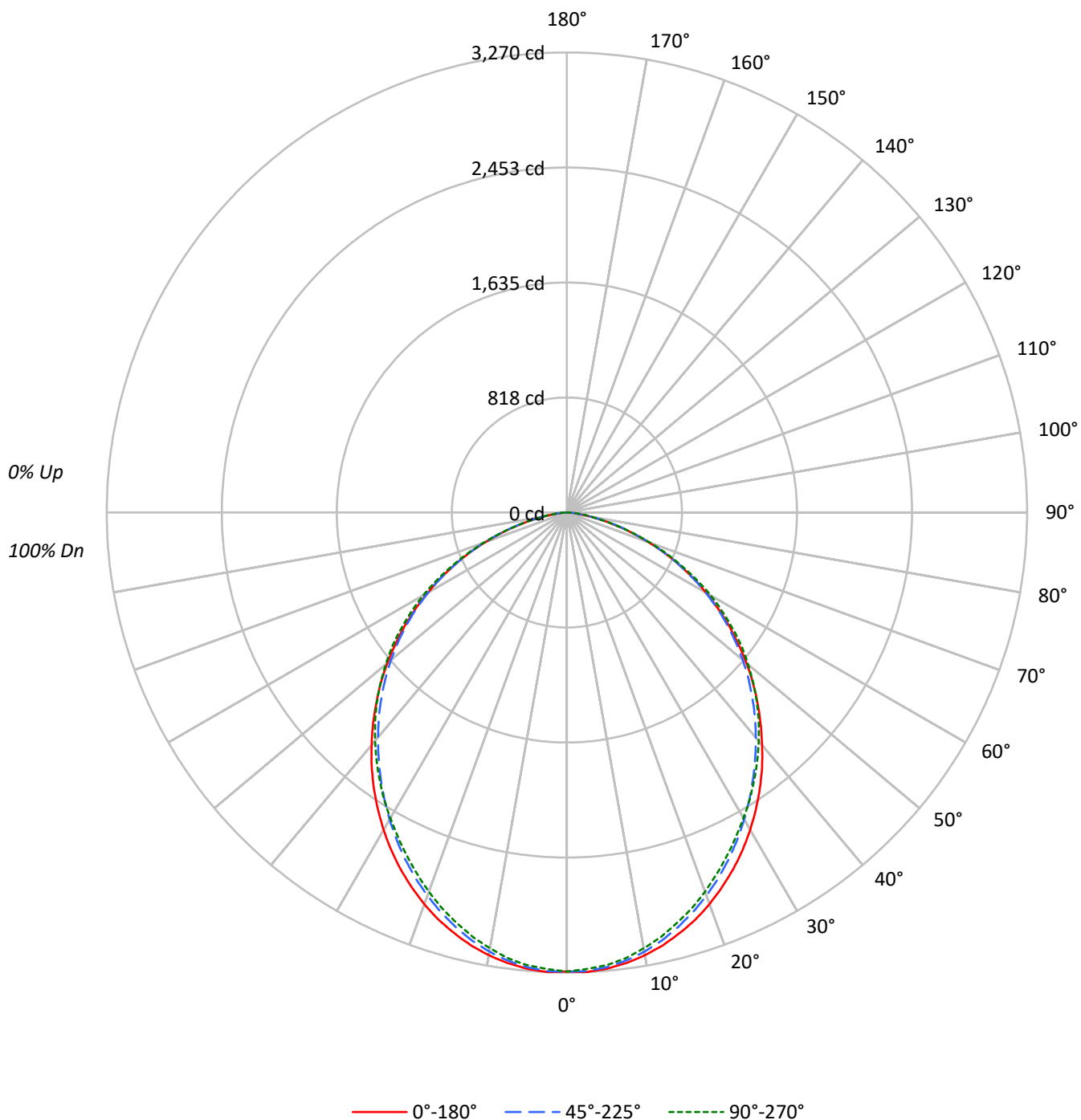
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7942.0 lumens  
Efficiency: N/A  
Efficacy: 82.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.15 / 1.28  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 96.2  
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 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  |  | 95  | 92  | 90  |  | 91  |
| 2   | 100 | 92  | 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  |  | 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  | 38  |  | 50  | 43  | 38  |  | 48  |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 40  | 35  | 47  | 40  | 35  |  | 46  | 39  | 34  |  | 44  |
| 9   | 58  | 45  | 37  | 31  | 57  | 44  | 37  | 31  | 43  | 36  | 31  |  | 42  | 36  | 31  |  | 41  |
| 10  | 54  | 42  | 34  | 29  | 53  | 41  | 34  | 29  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4390 | 4390 | 4390 |
| 5°  | 4397 | 4382 | 4363 |
| 10° | 4366 | 4330 | 4298 |
| 15° | 4312 | 4249 | 4208 |
| 20° | 4242 | 4149 | 4107 |
| 25° | 4153 | 4037 | 3996 |
| 30° | 4047 | 3915 | 3897 |
| 35° | 3928 | 3788 | 3811 |
| 40° | 3791 | 3669 | 3724 |
| 45° | 3645 | 3546 | 3632 |
| 50° | 3485 | 3414 | 3517 |
| 55° | 3301 | 3257 | 3371 |
| 60° | 3079 | 3061 | 3178 |
| 65° | 2800 | 2801 | 2881 |
| 70° | 2417 | 2446 | 2480 |
| 75° | 1927 | 1982 | 1959 |
| 80° | 1305 | 1377 | 1381 |
| 85° | 670  | 920  | 1175 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3645 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 306.8  | 3.9       |
| 10°-20°   | 859.3  | 10.8      |
| 20°-30°   | 1256.5 | 15.8      |
| 30°-40°   | 1457.3 | 18.3      |
| 40°-50°   | 1454.7 | 18.3      |
| 50°-60°   | 1253.1 | 15.8      |
| 60°-70°   | 874.5  | 11.0      |
| 70°-80°   | 403.9  | 5.1       |
| 80°-90°   | 75.7   | 1.0       |
| 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°    | 2422.7 | 30.5      |
| 0°-40°    | 3880.0 | 48.9      |
| 0°-60°    | 6587.8 | 82.9      |
| 0°-90°    | 7942.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7942.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3263 | 3263  | 3263 | 3263  | 3263 |      |
| 5°  | 3255 | 3243  | 3245 | 3226  | 3230 | 309  |
| 15° | 3096 | 3074  | 3050 | 3019  | 3021 | 873  |
| 25° | 2797 | 2765  | 2719 | 2688  | 2692 | 1287 |
| 35° | 2391 | 2350  | 2306 | 2305  | 2320 | 1495 |
| 45° | 1916 | 1879  | 1864 | 1889  | 1909 | 1478 |
| 55° | 1407 | 1379  | 1388 | 1422  | 1437 | 1257 |
| 65° | 879  | 866   | 880  | 895   | 905  | 870  |
| 75° | 371  | 366   | 381  | 378   | 377  | 399  |
| 85° | 43   | 49    | 60   | 71    | 76   | 64   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3262.8 | 3262.8 | 3262.8 | 3262.8 | 3262.8 |
| 2.5°  | 3269.5 | 3258.8 | 3262.8 | 3248.6 | 3247.7 |
| 5°    | 3255.2 | 3243.4 | 3244.6 | 3225.9 | 3230.2 |
| 7.5°  | 3230.1 | 3216.5 | 3212.8 | 3191.7 | 3195.6 |
| 10°   | 3195.5 | 3178.6 | 3169.6 | 3143.5 | 3145.6 |
| 12.5° | 3151.0 | 3131.9 | 3115.9 | 3086.0 | 3089.4 |
| 15°   | 3095.6 | 3074.2 | 3050.3 | 3018.8 | 3020.8 |
| 17.5° | 3034.6 | 3011.3 | 2977.8 | 2944.4 | 2949.8 |
| 20°   | 2962.5 | 2936.9 | 2897.4 | 2862.6 | 2868.4 |
| 22.5° | 2882.5 | 2853.6 | 2812.4 | 2777.8 | 2780.9 |
| 25°   | 2797.1 | 2765.1 | 2719.0 | 2687.8 | 2691.7 |
| 27.5° | 2704.4 | 2668.8 | 2621.7 | 2593.9 | 2600.3 |
| 30°   | 2604.8 | 2567.3 | 2519.8 | 2499.1 | 2508.3 |
| 32.5° | 2499.8 | 2461.4 | 2415.3 | 2404.4 | 2418.2 |
| 35°   | 2391.3 | 2350.4 | 2306.3 | 2305.0 | 2320.3 |
| 37.5° | 2278.2 | 2238.0 | 2198.4 | 2206.5 | 2222.3 |
| 40°   | 2158.5 | 2120.8 | 2088.8 | 2103.1 | 2120.2 |
| 42.5° | 2038.2 | 2002.0 | 1977.6 | 1998.5 | 2017.0 |
| 45°   | 1915.5 | 1879.4 | 1863.8 | 1889.2 | 1909.0 |
| 47.5° | 1793.4 | 1757.1 | 1749.4 | 1778.7 | 1796.4 |
| 50°   | 1664.8 | 1632.5 | 1631.0 | 1662.7 | 1680.1 |
| 52.5° | 1535.1 | 1505.2 | 1510.8 | 1544.9 | 1566.0 |
| 55°   | 1407.1 | 1379.2 | 1388.3 | 1422.3 | 1437.2 |
| 57.5° | 1275.4 | 1253.3 | 1265.2 | 1295.4 | 1310.2 |
| 60°   | 1144.3 | 1124.0 | 1137.6 | 1166.5 | 1181.1 |
| 62.5° | 1011.8 | 994.1  | 1009.8 | 1034.0 | 1043.4 |
| 65°   | 879.4  | 866.1  | 879.7  | 895.4  | 904.8  |
| 67.5° | 749.1  | 736.8  | 751.5  | 766.5  | 770.0  |
| 70°   | 614.5  | 606.7  | 621.7  | 630.6  | 630.5  |
| 72.5° | 490.7  | 483.1  | 497.3  | 500.5  | 498.0  |
| 75°   | 370.6  | 366.5  | 381.3  | 378.0  | 376.8  |
| 77.5° | 261.4  | 263.3  | 271.0  | 268.7  | 268.1  |
| 80°   | 168.4  | 174.3  | 177.7  | 179.4  | 178.2  |
| 82.5° | 94.7   | 100.0  | 105.2  | 117.6  | 122.6  |
| 85°   | 43.4   | 48.7   | 59.6   | 71.3   | 76.1   |
| 87.5° | 14.7   | 18.9   | 25.1   | 26.9   | 25.5   |
| 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 | 16.07            | 17.65 | 16.43 | 17.96 | 18.28 | 16.29          | 17.87 | 16.66 | 18.19 | 18.50 |
|                 | 3H   | 17.53            | 18.96 | 17.91 | 19.28 | 19.64 | 17.76          | 19.18 | 18.13 | 19.51 | 19.87 |
|                 | 4H   | 17.96            | 19.29 | 18.36 | 19.64 | 20.02 | 18.17          | 19.51 | 18.57 | 19.86 | 20.24 |
|                 | 6H   | 18.16            | 19.40 | 18.58 | 19.77 | 20.16 | 18.38          | 19.62 | 18.79 | 19.98 | 20.37 |
|                 | 8H   | 18.19            | 19.37 | 18.62 | 19.76 | 20.16 | 18.43          | 19.60 | 18.85 | 19.99 | 20.39 |
|                 | 12H  | 18.19            | 19.32 | 18.62 | 19.70 | 20.13 | 18.45          | 19.58 | 18.88 | 19.96 | 20.39 |
| 4H              | 2H   | 16.63            | 17.96 | 17.02 | 18.31 | 18.69 | 16.81          | 18.14 | 17.21 | 18.49 | 18.87 |
|                 | 3H   | 18.27            | 19.38 | 18.68 | 19.78 | 20.18 | 18.46          | 19.57 | 18.87 | 19.97 | 20.37 |
|                 | 4H   | 18.78            | 19.78 | 19.21 | 20.19 | 20.63 | 18.97          | 19.97 | 19.40 | 20.38 | 20.82 |
|                 | 6H   | 19.06            | 19.93 | 19.52 | 20.37 | 20.83 | 19.25          | 20.12 | 19.71 | 20.57 | 21.02 |
|                 | 8H   | 19.11            | 19.92 | 19.57 | 20.36 | 20.83 | 19.32          | 20.14 | 19.78 | 20.58 | 21.04 |
|                 | 12H  | 19.12            | 19.85 | 19.60 | 20.32 | 20.79 | 19.37          | 20.10 | 19.85 | 20.58 | 21.05 |
| 8H              | 4H   | 18.97            | 19.78 | 19.43 | 20.22 | 20.69 | 19.14          | 19.95 | 19.60 | 20.39 | 20.86 |
|                 | 6H   | 19.31            | 19.98 | 19.80 | 20.47 | 20.94 | 19.48          | 20.15 | 19.98 | 20.64 | 21.12 |
|                 | 8H   | 19.38            | 19.98 | 19.89 | 20.49 | 20.97 | 19.59          | 20.19 | 20.10 | 20.70 | 21.18 |
|                 | 12H  | 19.41            | 19.94 | 19.92 | 20.43 | 21.00 | 19.68          | 20.21 | 20.19 | 20.70 | 21.26 |
| 12H             | 4H   | 18.97            | 19.69 | 19.45 | 20.17 | 20.64 | 19.14          | 19.86 | 19.62 | 20.34 | 20.81 |
|                 | 6H   | 19.31            | 19.91 | 19.82 | 20.42 | 20.90 | 19.48          | 20.08 | 19.99 | 20.59 | 21.08 |
|                 | 8H   | 19.41            | 19.94 | 19.92 | 20.43 | 21.00 | 19.62          | 20.15 | 20.13 | 20.64 | 21.20 |