

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: P1499687

Luminaire Tested: MAE-G-4-120-3STD-HI-35-90-WDDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499687  
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-4-120-3STD-HI-35-90-WDDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, WDDCPH frame, 3 STD ambient , HI exam illumination levels  
Light Source: -  
Ballast/Driver: -

**Summary**

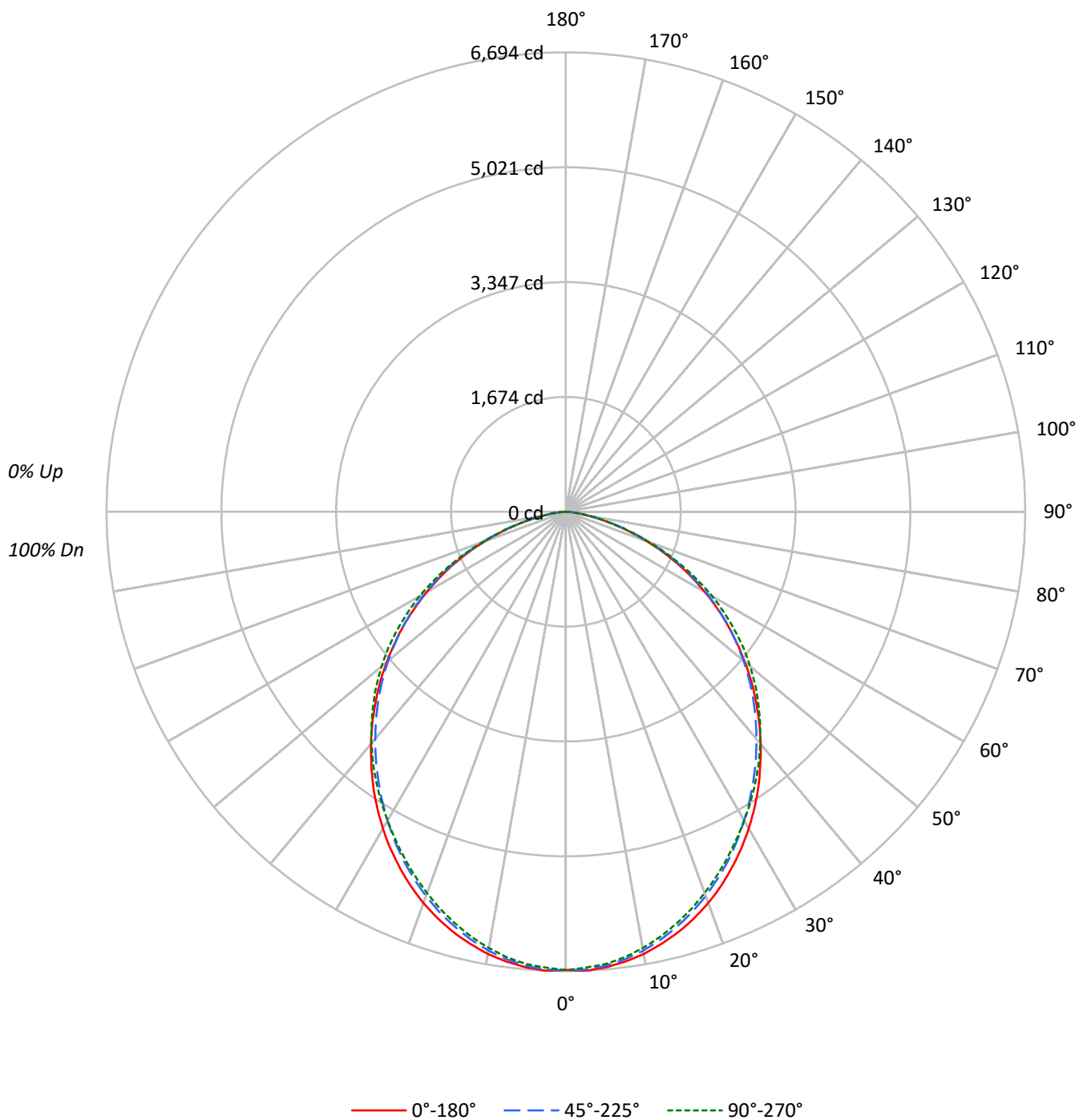
Lumens per Lamp: N/A  
Luminaire Lumens: 16367.0 lumens  
Efficiency: N/A  
Efficacy: 85.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 191.3  
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  | 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  |  | 66  | 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  | 44  | 39  | 51  | 44  | 38  |  | 50  | 43  | 38  |  | 48  |
| 8   | 62  | 49  | 40  | 35  | 60  | 48  | 40  | 35  | 47  | 40  | 34  |  | 46  | 39  | 34  |  | 44  |
| 9   | 58  | 45  | 37  | 31  | 57  | 44  | 37  | 31  | 43  | 36  | 31  |  | 42  | 36  | 31  |  | 41  |
| 10  | 54  | 41  | 34  | 29  | 53  | 41  | 34  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 8985 | 8985 | 8985 |
| 5°  | 9000 | 8970 | 8937 |
| 10° | 8938 | 8872 | 8819 |
| 15° | 8831 | 8718 | 8657 |
| 20° | 8687 | 8532 | 8467 |
| 25° | 8498 | 8317 | 8263 |
| 30° | 8283 | 8075 | 8072 |
| 35° | 8037 | 7830 | 7910 |
| 40° | 7759 | 7591 | 7740 |
| 45° | 7458 | 7348 | 7553 |
| 50° | 7129 | 7075 | 7336 |
| 55° | 6757 | 6762 | 7032 |
| 60° | 6296 | 6363 | 6640 |
| 65° | 5723 | 5832 | 5976 |
| 70° | 4935 | 5091 | 5094 |
| 75° | 3927 | 4087 | 3893 |
| 80° | 2653 | 2749 | 2641 |
| 85° | 1374 | 1783 | 2211 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7553 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 628.4   | 3.8       |
| 10°-20°   | 1763.4  | 10.8      |
| 20°-30°   | 2585.2  | 15.8      |
| 30°-40°   | 3004.8  | 18.4      |
| 40°-50°   | 3006.6  | 18.4      |
| 50°-60°   | 2595.3  | 15.9      |
| 60°-70°   | 1810.2  | 11.1      |
| 70°-80°   | 824.5   | 5.0       |
| 80°-90°   | 148.5   | 0.9       |
| 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°    | 4977.0  | 30.4      |
| 0°-40°    | 7981.9  | 48.8      |
| 0°-60°    | 13583.8 | 83.0      |
| 0°-90°    | 16367.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 16367.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 6678 | 6678  | 6678 | 6678  | 6678 |      |
| 5°  | 6664 | 6637  | 6642 | 6608  | 6617 | 632  |
| 15° | 6340 | 6298  | 6259 | 6206  | 6215 | 1787 |
| 25° | 5724 | 5666  | 5602 | 5547  | 5566 | 2636 |
| 35° | 4893 | 4821  | 4767 | 4774  | 4816 | 3057 |
| 45° | 3920 | 3863  | 3861 | 3925  | 3969 | 3024 |
| 55° | 2880 | 2836  | 2882 | 2967  | 2998 | 2571 |
| 65° | 1798 | 1781  | 1832 | 1868  | 1877 | 1777 |
| 75° | 755  | 756   | 786  | 767   | 749  | 811  |
| 85° | 89   | 97    | 116  | 135   | 143  | 131  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 6677.6 | 6677.6 | 6677.6 | 6677.6 | 6677.6 |
| 2.5°  | 6693.6 | 6668.3 | 6677.6 | 6651.0 | 6648.0 |
| 5°    | 6663.9 | 6637.0 | 6641.6 | 6607.6 | 6617.1 |
| 7.5°  | 6612.3 | 6582.9 | 6578.5 | 6540.5 | 6548.8 |
| 10°   | 6542.3 | 6507.0 | 6493.4 | 6449.1 | 6455.1 |
| 12.5° | 6449.3 | 6411.7 | 6386.8 | 6335.7 | 6345.4 |
| 15°   | 6339.6 | 6297.5 | 6258.8 | 6206.5 | 6214.7 |
| 17.5° | 6212.7 | 6165.2 | 6118.0 | 6058.0 | 6072.2 |
| 20°   | 6067.3 | 6015.0 | 5958.8 | 5895.4 | 5913.7 |
| 22.5° | 5904.1 | 5848.1 | 5784.7 | 5725.9 | 5743.4 |
| 25°   | 5724.5 | 5666.4 | 5602.1 | 5547.3 | 5565.6 |
| 27.5° | 5535.6 | 5470.6 | 5404.3 | 5361.3 | 5381.7 |
| 30°   | 5331.1 | 5263.1 | 5197.4 | 5165.8 | 5195.8 |
| 32.5° | 5115.2 | 5046.7 | 4985.6 | 4973.3 | 5008.3 |
| 35°   | 4893.1 | 4820.7 | 4766.8 | 4774.4 | 4815.5 |
| 37.5° | 4654.6 | 4591.4 | 4546.8 | 4574.1 | 4615.7 |
| 40°   | 4417.8 | 4352.2 | 4321.8 | 4362.4 | 4406.5 |
| 42.5° | 4172.8 | 4113.1 | 4094.3 | 4150.1 | 4190.8 |
| 45°   | 3919.6 | 3862.7 | 3861.4 | 3924.8 | 3969.4 |
| 47.5° | 3669.9 | 3612.6 | 3625.0 | 3695.6 | 3744.3 |
| 50°   | 3405.6 | 3356.2 | 3380.1 | 3461.2 | 3504.7 |
| 52.5° | 3141.6 | 3094.6 | 3132.8 | 3219.1 | 3262.0 |
| 55°   | 2880.3 | 2836.1 | 2882.4 | 2966.9 | 2997.8 |
| 57.5° | 2609.2 | 2578.9 | 2628.8 | 2703.9 | 2737.1 |
| 60°   | 2339.5 | 2312.2 | 2364.5 | 2436.4 | 2467.4 |
| 62.5° | 2069.2 | 2048.6 | 2100.6 | 2161.3 | 2173.6 |
| 65°   | 1797.7 | 1781.2 | 1831.8 | 1868.5 | 1877.0 |
| 67.5° | 1522.7 | 1515.1 | 1564.1 | 1587.6 | 1589.0 |
| 70°   | 1254.5 | 1244.6 | 1294.1 | 1305.8 | 1295.0 |
| 72.5° | 993.9  | 993.1  | 1029.2 | 1029.8 | 1010.5 |
| 75°   | 755.4  | 756.2  | 786.1  | 766.7  | 748.9  |
| 77.5° | 533.8  | 536.2  | 554.8  | 532.4  | 522.6  |
| 80°   | 342.4  | 352.5  | 354.8  | 347.6  | 340.8  |
| 82.5° | 192.1  | 204.1  | 205.6  | 225.1  | 233.5  |
| 85°   | 89.0   | 97.3   | 115.5  | 135.0  | 143.2  |
| 87.5° | 30.2   | 37.1   | 47.7   | 51.3   | 48.0   |
| 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 | 18.56            | 20.14 | 18.92 | 20.46 | 20.77 | 18.89          | 20.48 | 19.26 | 20.79 | 21.10 |
|                 | 3H   | 20.01            | 21.44 | 20.39 | 21.76 | 22.12 | 20.33          | 21.76 | 20.71 | 22.08 | 22.44 |
|                 | 4H   | 20.43            | 21.77 | 20.83 | 22.12 | 22.50 | 20.72          | 22.06 | 21.12 | 22.41 | 22.78 |
|                 | 6H   | 20.64            | 21.87 | 21.05 | 22.24 | 22.63 | 20.90          | 22.13 | 21.31 | 22.50 | 22.89 |
|                 | 8H   | 20.66            | 21.84 | 21.09 | 22.23 | 22.63 | 20.93          | 22.11 | 21.36 | 22.50 | 22.90 |
|                 | 12H  | 20.66            | 21.79 | 21.09 | 22.17 | 22.60 | 20.95          | 22.08 | 21.38 | 22.46 | 22.89 |
| 4H              | 2H   | 19.14            | 20.47 | 19.54 | 20.82 | 21.20 | 19.41          | 20.74 | 19.80 | 21.09 | 21.47 |
|                 | 3H   | 20.76            | 21.88 | 21.17 | 22.28 | 22.68 | 21.03          | 22.14 | 21.44 | 22.54 | 22.94 |
|                 | 4H   | 21.27            | 22.27 | 21.70 | 22.69 | 23.12 | 21.51          | 22.51 | 21.94 | 22.92 | 23.36 |
|                 | 6H   | 21.55            | 22.42 | 22.01 | 22.86 | 23.32 | 21.76          | 22.63 | 22.22 | 23.07 | 23.53 |
|                 | 8H   | 21.59            | 22.41 | 22.05 | 22.85 | 23.31 | 21.81          | 22.63 | 22.28 | 23.07 | 23.54 |
|                 | 12H  | 21.60            | 22.33 | 22.09 | 22.81 | 23.28 | 21.85          | 22.58 | 22.33 | 23.06 | 23.53 |
| 8H              | 4H   | 21.46            | 22.27 | 21.92 | 22.72 | 23.18 | 21.68          | 22.49 | 22.14 | 22.93 | 23.40 |
|                 | 6H   | 21.79            | 22.46 | 22.29 | 22.95 | 23.43 | 21.98          | 22.65 | 22.47 | 23.14 | 23.62 |
|                 | 8H   | 21.86            | 22.46 | 22.37 | 22.97 | 23.46 | 22.06          | 22.66 | 22.57 | 23.17 | 23.66 |
|                 | 12H  | 21.89            | 22.42 | 22.40 | 22.92 | 23.48 | 22.14          | 22.67 | 22.65 | 23.16 | 23.72 |
| 12H             | 4H   | 21.46            | 22.18 | 21.94 | 22.66 | 23.13 | 21.67          | 22.40 | 22.15 | 22.88 | 23.35 |
|                 | 6H   | 21.79            | 22.39 | 22.30 | 22.90 | 23.39 | 21.97          | 22.57 | 22.48 | 23.08 | 23.57 |
|                 | 8H   | 21.89            | 22.42 | 22.40 | 22.91 | 23.47 | 22.09          | 22.62 | 22.60 | 23.11 | 23.68 |

END OF REPORT