

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: P1499603

Luminaire Tested: MAE-G-4-120-3LO-HI-50-90-WDDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499603  
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-HI-50-90-WDDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, WDDCPH frame, 3 LO ambient , HI exam illumination levels  
Light Source: -  
Ballast/Driver: -

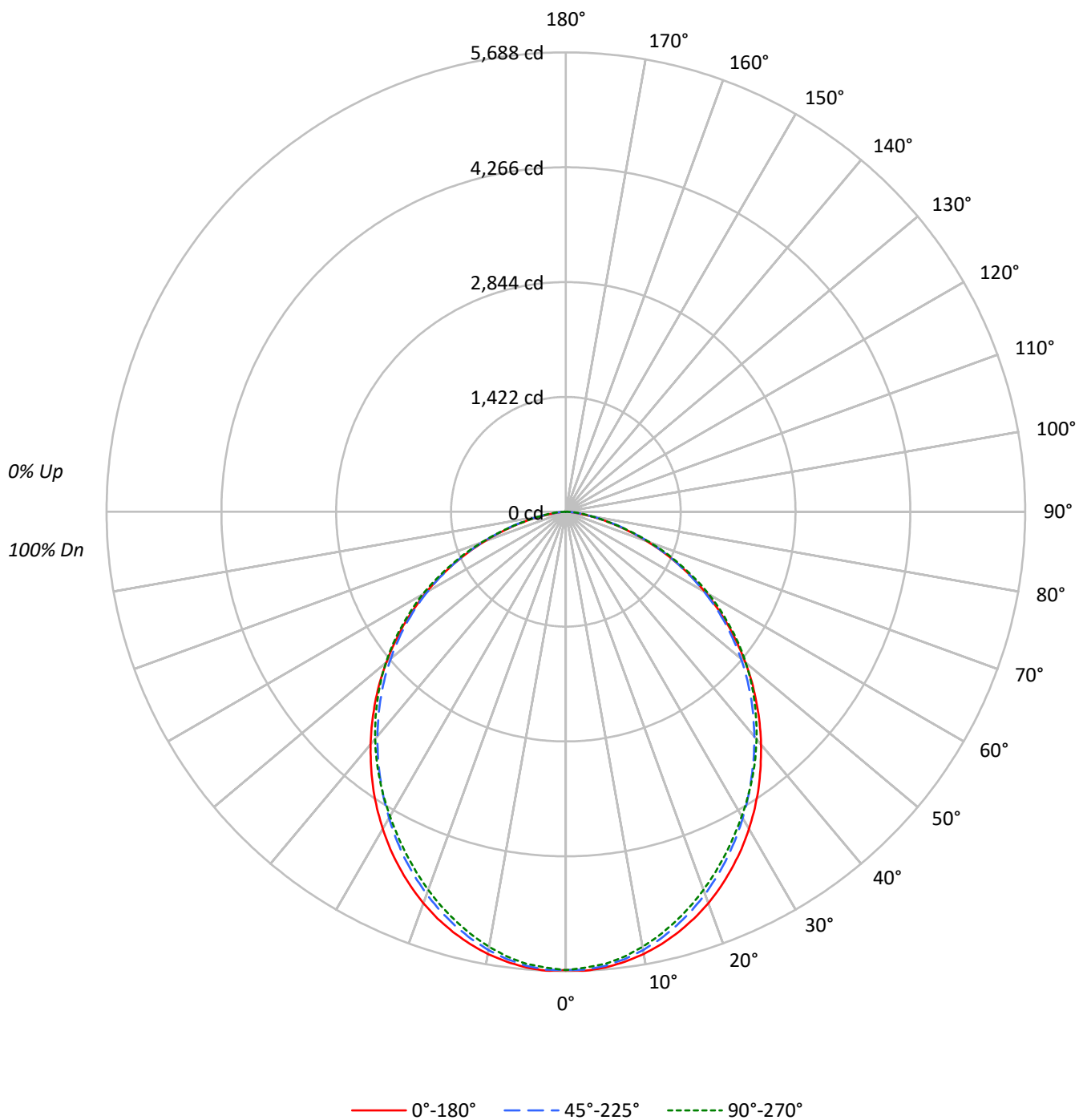
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13817.0 lumens  
Efficiency: N/A  
Efficacy: 85.9 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): 160.9  
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 | 102 | 102 | 100 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 87  | 87  | 85  |
| 2   | 100 | 92  | 86  | 80  | 98  | 90  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 77  | 74  | 74  | 74  | 72  |
| 3   | 92  | 82  | 74  | 68  | 89  | 80  | 73  | 67  | 77  | 71  | 66  | 74  | 69  | 65  | 72  | 67  | 64  | 64  | 64  | 61  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 56  | 66  | 61  | 56  | 64  | 59  | 55  | 55  | 55  | 53  |
| 5   | 78  | 65  | 56  | 50  | 75  | 64  | 56  | 50  | 62  | 55  | 49  | 60  | 54  | 49  | 58  | 53  | 48  | 48  | 48  | 46  |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 43  | 54  | 48  | 43  | 53  | 47  | 42  | 42  | 42  | 40  |
| 7   | 67  | 53  | 45  | 39  | 65  | 53  | 44  | 39  | 51  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 38  | 38  | 38  | 36  |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 40  | 35  | 47  | 40  | 34  | 46  | 39  | 34  | 44  | 39  | 34  | 34  | 34  | 32  |
| 9   | 58  | 45  | 37  | 31  | 57  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 31  | 31  | 31  | 29  |
| 10  | 54  | 42  | 34  | 29  | 53  | 41  | 34  | 29  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 28  | 28  | 26  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7635 | 7635 | 7635 |
| 5°  | 7648 | 7621 | 7588 |
| 10° | 7596 | 7529 | 7472 |
| 15° | 7506 | 7387 | 7314 |
| 20° | 7386 | 7215 | 7134 |
| 25° | 7227 | 7020 | 6943 |
| 30° | 7046 | 6804 | 6765 |
| 35° | 6840 | 6587 | 6611 |
| 40° | 6606 | 6375 | 6452 |
| 45° | 6352 | 6161 | 6281 |
| 50° | 6074 | 5925 | 6085 |
| 55° | 5758 | 5655 | 5829 |
| 60° | 5369 | 5317 | 5518 |
| 65° | 4888 | 4878 | 5019 |
| 70° | 4223 | 4293 | 4358 |
| 75° | 3368 | 3511 | 3452 |
| 80° | 2290 | 2462 | 2487 |
| 85° | 1201 | 1680 | 2141 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
Vertical Angle: 45°  
Luminance: 6352 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 533.6   | 3.9       |
| 10°-20°   | 1494.1  | 10.8      |
| 20°-30°   | 2184.1  | 15.8      |
| 30°-40°   | 2531.5  | 18.3      |
| 40°-50°   | 2526.1  | 18.3      |
| 50°-60°   | 2176.2  | 15.8      |
| 60°-70°   | 1524.1  | 11.0      |
| 70°-80°   | 711.1   | 5.1       |
| 80°-90°   | 136.2   | 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°    | 4211.8  | 30.5      |
| 0°-40°    | 6743.3  | 48.8      |
| 0°-60°    | 11445.6 | 82.8      |
| 0°-90°    | 13817.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 13817.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 5675 | 5675  | 5675 | 5675  | 5675 |      |
| 5°  | 5663 | 5642  | 5642 | 5609  | 5618 | 537  |
| 15° | 5388 | 5350  | 5303 | 5246  | 5251 | 1519 |
| 25° | 4868 | 4809  | 4729 | 4666  | 4677 | 2241 |
| 35° | 4164 | 4087  | 4010 | 3998  | 4025 | 2602 |
| 45° | 3338 | 3272  | 3238 | 3272  | 3301 | 2575 |
| 55° | 2455 | 2400  | 2411 | 2464  | 2485 | 2191 |
| 65° | 1535 | 1505  | 1532 | 1567  | 1577 | 1517 |
| 75° | 648  | 641   | 675  | 673   | 664  | 696  |
| 85° | 78   | 88    | 109  | 130   | 139  | 114  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 5674.8 | 5674.8 | 5674.8 | 5674.8 | 5674.8 |
| 2.5°  | 5687.5 | 5669.2 | 5674.8 | 5648.6 | 5648.3 |
| 5°    | 5662.7 | 5642.1 | 5642.3 | 5609.0 | 5618.0 |
| 7.5°  | 5619.0 | 5595.2 | 5586.2 | 5547.9 | 5555.1 |
| 10°   | 5559.9 | 5530.3 | 5510.7 | 5464.8 | 5469.3 |
| 12.5° | 5481.3 | 5448.3 | 5416.2 | 5362.2 | 5369.0 |
| 15°   | 5388.4 | 5350.2 | 5303.0 | 5245.6 | 5250.6 |
| 17.5° | 5281.1 | 5236.7 | 5178.5 | 5113.5 | 5123.4 |
| 20°   | 5158.2 | 5107.9 | 5038.8 | 4970.6 | 4982.5 |
| 22.5° | 5020.1 | 4964.7 | 4887.8 | 4822.4 | 4832.5 |
| 25°   | 4868.2 | 4808.8 | 4728.8 | 4666.2 | 4676.6 |
| 27.5° | 4708.2 | 4641.8 | 4557.5 | 4504.3 | 4516.4 |
| 30°   | 4535.0 | 4464.6 | 4379.3 | 4335.3 | 4354.3 |
| 32.5° | 4352.5 | 4279.9 | 4198.0 | 4168.9 | 4191.7 |
| 35°   | 4164.0 | 4087.0 | 4010.2 | 3997.6 | 4024.7 |
| 37.5° | 3961.9 | 3891.9 | 3821.8 | 3825.4 | 3852.5 |
| 40°   | 3760.9 | 3688.4 | 3629.7 | 3644.1 | 3673.5 |
| 42.5° | 3552.8 | 3484.8 | 3435.9 | 3462.7 | 3489.3 |
| 45°   | 3338.0 | 3271.7 | 3237.9 | 3271.6 | 3300.7 |
| 47.5° | 3125.2 | 3059.2 | 3037.8 | 3077.6 | 3110.4 |
| 50°   | 2901.6 | 2841.8 | 2830.5 | 2879.3 | 2907.2 |
| 52.5° | 2676.2 | 2619.5 | 2621.8 | 2675.2 | 2704.0 |
| 55°   | 2454.7 | 2400.0 | 2410.6 | 2464.0 | 2485.0 |
| 57.5° | 2224.6 | 2181.8 | 2197.4 | 2246.6 | 2270.4 |
| 60°   | 1995.3 | 1955.7 | 1975.9 | 2026.6 | 2050.6 |
| 62.5° | 1765.4 | 1731.8 | 1755.6 | 1802.4 | 1815.0 |
| 65°   | 1535.2 | 1505.4 | 1532.2 | 1567.1 | 1576.6 |
| 67.5° | 1301.5 | 1280.8 | 1311.8 | 1340.4 | 1344.9 |
| 70°   | 1073.4 | 1052.1 | 1091.3 | 1111.8 | 1107.8 |
| 72.5° | 851.6  | 840.1  | 875.1  | 887.9  | 877.2  |
| 75°   | 647.9  | 640.8  | 675.3  | 672.9  | 664.1  |
| 77.5° | 459.0  | 456.8  | 484.4  | 479.1  | 476.6  |
| 80°   | 295.5  | 303.8  | 317.8  | 323.0  | 321.0  |
| 82.5° | 166.9  | 178.8  | 190.4  | 213.4  | 223.0  |
| 85°   | 77.8   | 87.5   | 108.8  | 129.6  | 138.7  |
| 87.5° | 26.3   | 33.9   | 45.4   | 49.2   | 46.4   |
| 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 | 18.00            | 19.58 | 18.36 | 19.89 | 20.21 | 18.19          | 19.78 | 18.56 | 20.09 | 20.40 |
|                 | 3H   | 19.46            | 20.88 | 19.83 | 21.21 | 21.57 | 19.68          | 21.11 | 20.06 | 21.44 | 21.80 |
|                 | 4H   | 19.88            | 21.22 | 20.28 | 21.57 | 21.95 | 20.11          | 21.45 | 20.51 | 21.80 | 22.18 |
|                 | 6H   | 20.09            | 21.33 | 20.51 | 21.70 | 22.09 | 20.33          | 21.57 | 20.75 | 21.94 | 22.33 |
|                 | 8H   | 20.12            | 21.30 | 20.55 | 21.69 | 22.09 | 20.39          | 21.57 | 20.81 | 21.95 | 22.35 |
|                 | 12H  | 20.12            | 21.25 | 20.55 | 21.63 | 22.06 | 20.42          | 21.55 | 20.85 | 21.93 | 22.36 |
| 4H              | 2H   | 18.55            | 19.89 | 18.95 | 20.24 | 20.62 | 18.71          | 20.05 | 19.11 | 20.40 | 20.78 |
|                 | 3H   | 20.19            | 21.31 | 20.60 | 21.71 | 22.11 | 20.40          | 21.51 | 20.81 | 21.91 | 22.31 |
|                 | 4H   | 20.71            | 21.71 | 21.14 | 22.12 | 22.56 | 20.92          | 21.92 | 21.35 | 22.34 | 22.78 |
|                 | 6H   | 20.99            | 21.87 | 21.45 | 22.31 | 22.77 | 21.22          | 22.10 | 21.68 | 22.54 | 23.00 |
|                 | 8H   | 21.04            | 21.85 | 21.50 | 22.30 | 22.76 | 21.30          | 22.11 | 21.76 | 22.56 | 23.02 |
|                 | 12H  | 21.05            | 21.78 | 21.54 | 22.26 | 22.73 | 21.36          | 22.09 | 21.84 | 22.56 | 23.03 |
| 8H              | 4H   | 20.90            | 21.72 | 21.37 | 22.16 | 22.63 | 21.10          | 21.91 | 21.56 | 22.36 | 22.82 |
|                 | 6H   | 21.25            | 21.92 | 21.74 | 22.41 | 22.89 | 21.46          | 22.14 | 21.96 | 22.62 | 23.10 |
|                 | 8H   | 21.32            | 21.92 | 21.83 | 22.43 | 22.92 | 21.57          | 22.18 | 22.09 | 22.69 | 23.17 |
|                 | 12H  | 21.36            | 21.89 | 21.87 | 22.38 | 22.95 | 21.67          | 22.21 | 22.18 | 22.70 | 23.26 |
| 12H             | 4H   | 20.91            | 21.63 | 21.39 | 22.11 | 22.58 | 21.10          | 21.83 | 21.58 | 22.30 | 22.77 |
|                 | 6H   | 21.25            | 21.86 | 21.76 | 22.36 | 22.85 | 21.46          | 22.06 | 21.97 | 22.57 | 23.06 |
|                 | 8H   | 21.36            | 21.89 | 21.87 | 22.38 | 22.95 | 21.61          | 22.14 | 22.12 | 22.63 | 23.20 |