

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: P1499404

Luminaire Tested: MAE-G-4-120-2STD-HI-40-90-VRDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499404  
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-4-120-2STD-HI-40-90-VRDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, VRDCPH frame, 2 STD ambient , HI exam illumination levels  
Light Source: -  
Ballast/Driver: -

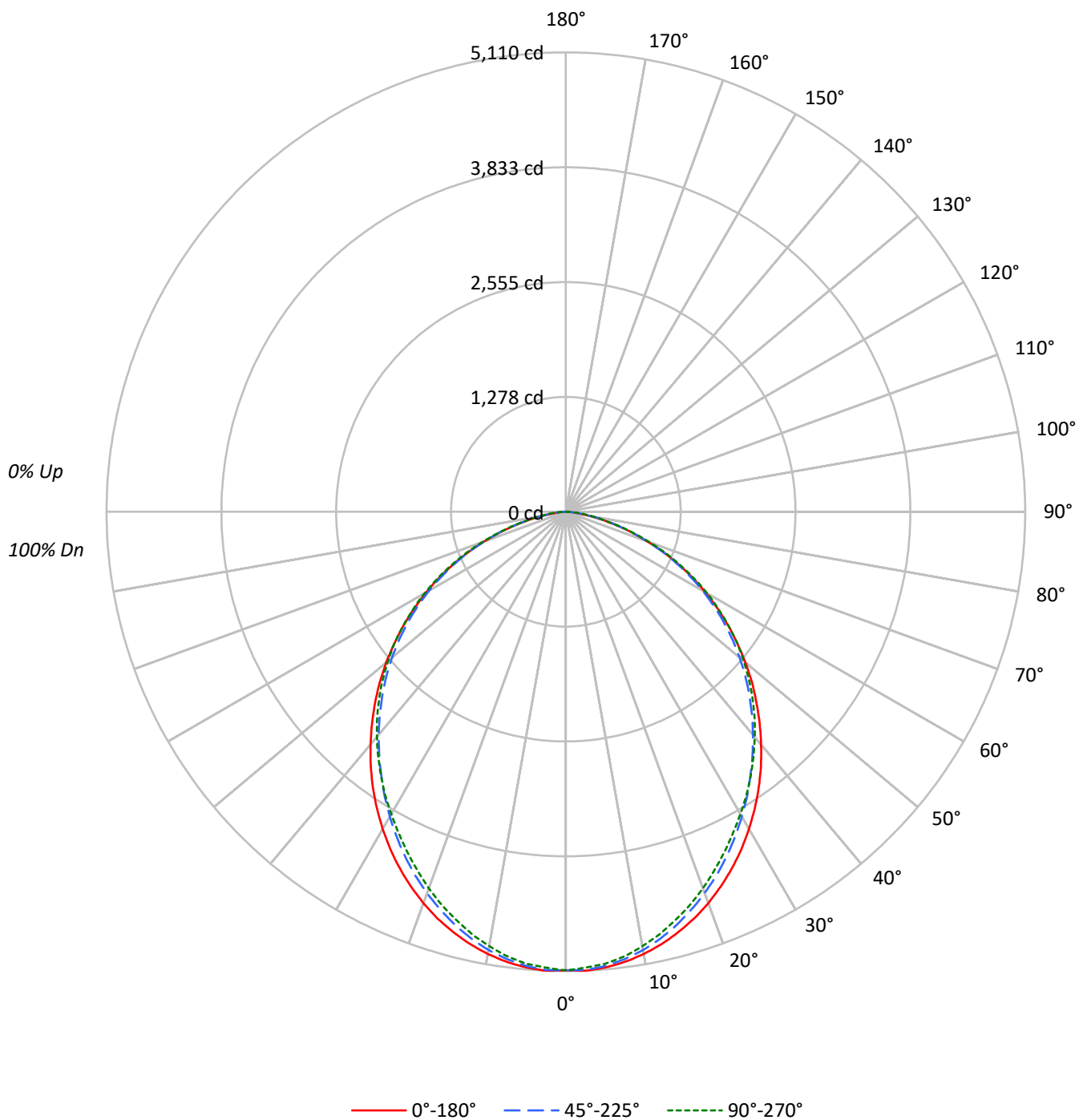
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12357.9 lumens  
Efficiency: N/A  
Efficacy: 78.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.14 / 1.27  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 157.2  
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  | 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  | 43  | 43  | 43  | 41  |
| 7   | 67  | 53  | 45  | 39  | 65  | 53  | 45  | 39  | 51  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 38  | 38  | 38  | 36  |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 40  | 35  | 47  | 40  | 35  | 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  | 55  | 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°  | 6863 | 6863 | 6863 |
| 5°  | 6872 | 6849 | 6815 |
| 10° | 6825 | 6763 | 6704 |
| 15° | 6742 | 6628 | 6551 |
| 20° | 6633 | 6463 | 6381 |
| 25° | 6495 | 6281 | 6197 |
| 30° | 6331 | 6083 | 6032 |
| 35° | 6146 | 5880 | 5887 |
| 40° | 5935 | 5687 | 5742 |
| 45° | 5707 | 5492 | 5590 |
| 50° | 5458 | 5281 | 5402 |
| 55° | 5171 | 5034 | 5176 |
| 60° | 4827 | 4729 | 4890 |
| 65° | 4393 | 4331 | 4467 |
| 70° | 3799 | 3806 | 3899 |
| 75° | 3032 | 3126 | 3154 |
| 80° | 2063 | 2235 | 2316 |
| 85° | 1073 | 1547 | 2005 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 5707 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 479.4   | 3.9       |
| 10°-20°   | 1340.5  | 10.8      |
| 20°-30°   | 1956.0  | 15.8      |
| 30°-40°   | 2264.1  | 18.3      |
| 40°-50°   | 2255.7  | 18.3      |
| 50°-60°   | 1940.4  | 15.7      |
| 60°-70°   | 1358.4  | 11.0      |
| 70°-80°   | 638.5   | 5.2       |
| 80°-90°   | 124.9   | 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°    | 3775.9  | 30.6      |
| 0°-40°    | 6040.0  | 48.9      |
| 0°-60°    | 10236.1 | 82.8      |
| 0°-90°    | 12357.9 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 12357.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 5100 | 5100  | 5100 | 5100  | 5100 |      |
| 5°  | 5088 | 5071  | 5071 | 5039  | 5046 | 483  |
| 15° | 4840 | 4805  | 4758 | 4701  | 4703 | 1364 |
| 25° | 4375 | 4318  | 4230 | 4171  | 4174 | 2014 |
| 35° | 3742 | 3668  | 3580 | 3565  | 3584 | 2339 |
| 45° | 2999 | 2931  | 2886 | 2913  | 2938 | 2313 |
| 55° | 2204 | 2150  | 2146 | 2187  | 2207 | 1969 |
| 65° | 1380 | 1349  | 1360 | 1388  | 1403 | 1365 |
| 75° | 583  | 572   | 601  | 605   | 607  | 627  |
| 85° | 70   | 79    | 100  | 121   | 130  | 102  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 5100.5 | 5100.5 | 5100.5 | 5100.5 | 5100.5 |
| 2.5°  | 5110.3 | 5095.7 | 5100.5 | 5075.8 | 5076.0 |
| 5°    | 5088.3 | 5071.2 | 5070.8 | 5038.8 | 5046.1 |
| 7.5°  | 5049.4 | 5028.7 | 5019.5 | 4982.5 | 4988.8 |
| 10°   | 4995.4 | 4969.3 | 4949.9 | 4903.9 | 4906.9 |
| 12.5° | 4926.1 | 4895.6 | 4863.5 | 4809.9 | 4814.5 |
| 15°   | 4839.9 | 4804.9 | 4758.3 | 4700.8 | 4702.7 |
| 17.5° | 4744.8 | 4705.6 | 4642.0 | 4580.5 | 4587.6 |
| 20°   | 4632.6 | 4588.6 | 4513.6 | 4449.8 | 4456.5 |
| 22.5° | 4508.1 | 4457.5 | 4378.5 | 4314.5 | 4316.8 |
| 25°   | 4374.8 | 4318.3 | 4230.5 | 4171.1 | 4174.2 |
| 27.5° | 4230.3 | 4167.3 | 4076.3 | 4021.9 | 4028.9 |
| 30°   | 4074.9 | 4008.1 | 3915.5 | 3871.8 | 3882.3 |
| 32.5° | 3911.4 | 3842.1 | 3751.3 | 3721.9 | 3739.0 |
| 35°   | 3741.9 | 3667.9 | 3579.8 | 3565.1 | 3584.2 |
| 37.5° | 3565.2 | 3492.2 | 3410.2 | 3409.8 | 3429.5 |
| 40°   | 3378.8 | 3308.9 | 3238.1 | 3247.3 | 3269.0 |
| 42.5° | 3190.8 | 3123.0 | 3064.1 | 3083.2 | 3106.8 |
| 45°   | 2999.1 | 2931.3 | 2886.2 | 2912.6 | 2937.5 |
| 47.5° | 2807.8 | 2740.2 | 2707.6 | 2740.0 | 2762.6 |
| 50°   | 2607.5 | 2545.5 | 2523.0 | 2559.6 | 2580.8 |
| 52.5° | 2404.2 | 2346.6 | 2336.0 | 2376.5 | 2404.2 |
| 55°   | 2204.4 | 2149.7 | 2145.8 | 2186.9 | 2206.7 |
| 57.5° | 1998.6 | 1953.1 | 1954.7 | 1992.6 | 2013.0 |
| 60°   | 1793.7 | 1751.3 | 1757.2 | 1796.1 | 1817.3 |
| 62.5° | 1586.3 | 1548.4 | 1560.1 | 1595.4 | 1611.2 |
| 65°   | 1379.8 | 1348.8 | 1360.3 | 1387.5 | 1403.2 |
| 67.5° | 1175.6 | 1147.4 | 1164.3 | 1193.3 | 1200.6 |
| 70°   | 965.6  | 944.8  | 967.4  | 988.1  | 991.0  |
| 72.5° | 771.3  | 752.7  | 778.3  | 791.7  | 790.9  |
| 75°   | 583.3  | 572.0  | 601.3  | 605.3  | 606.7  |
| 77.5° | 412.3  | 412.3  | 432.7  | 437.6  | 440.1  |
| 80°   | 266.2  | 275.1  | 288.5  | 298.4  | 298.9  |
| 82.5° | 150.4  | 160.2  | 174.7  | 198.3  | 207.6  |
| 85°   | 69.5   | 79.4   | 100.2  | 121.0  | 129.9  |
| 87.5° | 23.4   | 31.0   | 42.2   | 45.8   | 43.6   |
| 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 | 17.62            | 19.20 | 17.99 | 19.52 | 19.83 | 17.75          | 19.33 | 18.11 | 19.64 | 19.96 |
|                 | 3H   | 19.09            | 20.52 | 19.47 | 20.84 | 21.20 | 19.25          | 20.68 | 19.63 | 21.00 | 21.36 |
|                 | 4H   | 19.52            | 20.86 | 19.92 | 21.21 | 21.58 | 19.70          | 21.04 | 20.10 | 21.38 | 21.76 |
|                 | 6H   | 19.73            | 20.97 | 20.14 | 21.33 | 21.73 | 19.94          | 21.18 | 20.35 | 21.54 | 21.93 |
|                 | 8H   | 19.76            | 20.94 | 20.19 | 21.33 | 21.73 | 20.00          | 21.18 | 20.42 | 21.57 | 21.97 |
|                 | 12H  | 19.76            | 20.89 | 20.19 | 21.27 | 21.70 | 20.03          | 21.16 | 20.46 | 21.54 | 21.97 |
| 4H              | 2H   | 18.17            | 19.50 | 18.57 | 19.85 | 20.23 | 18.27          | 19.61 | 18.67 | 19.95 | 20.33 |
|                 | 3H   | 19.82            | 20.93 | 20.23 | 21.33 | 21.73 | 19.96          | 21.08 | 20.37 | 21.48 | 21.88 |
|                 | 4H   | 20.33            | 21.33 | 20.76 | 21.75 | 22.18 | 20.51          | 21.51 | 20.94 | 21.92 | 22.36 |
|                 | 6H   | 20.62            | 21.49 | 21.08 | 21.94 | 22.39 | 20.83          | 21.70 | 21.29 | 22.15 | 22.60 |
|                 | 8H   | 20.67            | 21.48 | 21.13 | 21.93 | 22.39 | 20.92          | 21.73 | 21.38 | 22.18 | 22.64 |
|                 | 12H  | 20.68            | 21.41 | 21.16 | 21.89 | 22.36 | 20.98          | 21.71 | 21.46 | 22.19 | 22.66 |
| 8H              | 4H   | 20.53            | 21.34 | 20.99 | 21.78 | 22.25 | 20.69          | 21.50 | 21.15 | 21.94 | 22.41 |
|                 | 6H   | 20.88            | 21.55 | 21.37 | 22.04 | 22.52 | 21.08          | 21.75 | 21.57 | 22.24 | 22.72 |
|                 | 8H   | 20.95            | 21.55 | 21.46 | 22.06 | 22.55 | 21.20          | 21.80 | 21.71 | 22.31 | 22.80 |
|                 | 12H  | 20.99            | 21.52 | 21.50 | 22.01 | 22.58 | 21.31          | 21.84 | 21.82 | 22.33 | 22.90 |
| 12H             | 4H   | 20.53            | 21.26 | 21.01 | 21.73 | 22.20 | 20.68          | 21.41 | 21.17 | 21.89 | 22.36 |
|                 | 6H   | 20.88            | 21.48 | 21.39 | 21.99 | 22.48 | 21.08          | 21.68 | 21.59 | 22.19 | 22.68 |
|                 | 8H   | 20.99            | 21.52 | 21.50 | 22.01 | 22.58 | 21.24          | 21.77 | 21.75 | 22.26 | 22.83 |