

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: P1499508

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

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499508  
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-4-120-3HI-HI-50-90  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 3 HI ambient , HI exam illumination levels  
Light Source: -  
Ballast/Driver: -

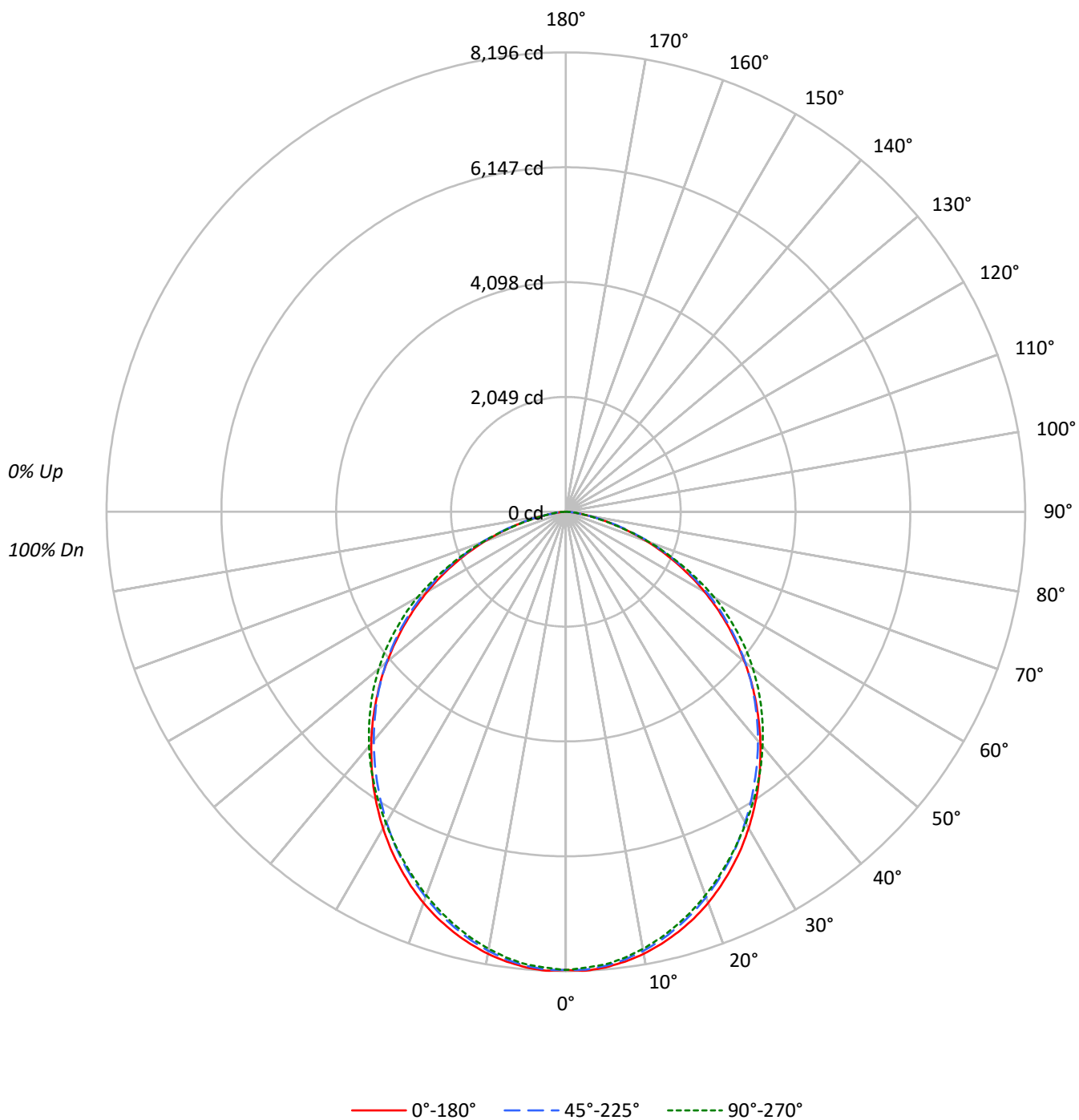
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20125.0 lumens  
Efficiency: N/A  
Efficacy: 90.7 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 221.8  
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

TEST NUMBER: P1499508

CATALOG NUMBER: MAE-G-4-120-3HI-HI-50-90

### Luminous Intensity Polar Plot



TEST NUMBER: P1499508

CATALOG NUMBER: MAE-G-4-120-3HI-HI-50-90

**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  | 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  | 33  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 11000 | 11000 | 11000 |
| 5°  | 11020 | 10985 | 10949 |
| 10° | 10943 | 10871 | 10819 |
| 15° | 10811 | 10695 | 10639 |
| 20° | 10633 | 10480 | 10425 |
| 25° | 10400 | 10227 | 10190 |
| 30° | 10134 | 9941  | 9972  |
| 35° | 9831  | 9649  | 9788  |
| 40° | 9489  | 9365  | 9594  |
| 45° | 9118  | 9074  | 9377  |
| 50° | 8713  | 8745  | 9122  |
| 55° | 8256  | 8364  | 8748  |
| 60° | 7689  | 7875  | 8246  |
| 65° | 6985  | 7213  | 7371  |
| 70° | 6015  | 6264  | 6210  |
| 75° | 4779  | 4968  | 4632  |
| 80° | 3215  | 3247  | 3004  |
| 85° | 1650  | 2027  | 2459  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 9377 cd/sqm

TEST NUMBER: P1499508

CATALOG NUMBER: MAE-G-4-120-3HI-HI-50-90

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 769.7   | 3.8       |
| 10°-20°   | 2163.2  | 10.7      |
| 20°-30°   | 3177.3  | 15.8      |
| 30°-40°   | 3699.6  | 18.4      |
| 40°-50°   | 3708.3  | 18.4      |
| 50°-60°   | 3205.0  | 15.9      |
| 60°-70°   | 2229.7  | 11.1      |
| 70°-80°   | 999.7   | 5.0       |
| 80°-90°   | 172.5   | 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°    | 6110.2  | 30.4      |
| 0°-40°    | 9809.8  | 48.7      |
| 0°-60°    | 16723.2 | 83.1      |
| 0°-90°    | 20125.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 20125.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 8175 | 8175  | 8175 | 8175  | 8175 |      |
| 5°  | 8159 | 8124  | 8133 | 8096  | 8106 | 774  |
| 15° | 7761 | 7712  | 7678 | 7626  | 7638 | 2187 |
| 25° | 7005 | 6944  | 6889 | 6837  | 6864 | 3225 |
| 35° | 5985 | 5911  | 5874 | 5902  | 5959 | 3739 |
| 45° | 4792 | 4740  | 4769 | 4865  | 4928 | 3697 |
| 55° | 3520 | 3482  | 3565 | 3686  | 3729 | 3142 |
| 65° | 2194 | 2188  | 2266 | 2307  | 2315 | 2168 |
| 75° | 919  | 928   | 956  | 919   | 891  | 987  |
| 85° | 107  | 114   | 131  | 151   | 159  | 158  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P1499508

CATALOG NUMBER: MAE-G-4-120-3HI-HI-50-90

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 8175.4 | 8175.4 | 8175.4 | 8175.4 | 8175.4 |
| 2.5°  | 8195.9 | 8161.9 | 8175.4 | 8146.3 | 8140.4 |
| 5°    | 8159.1 | 8124.0 | 8133.0 | 8095.6 | 8106.4 |
| 7.5°  | 8095.8 | 8058.6 | 8058.1 | 8017.4 | 8027.4 |
| 10°   | 8009.7 | 7966.1 | 7956.9 | 7910.7 | 7918.5 |
| 12.5° | 7895.4 | 7850.5 | 7830.4 | 7777.6 | 7790.8 |
| 15°   | 7760.9 | 7711.5 | 7677.6 | 7625.8 | 7637.8 |
| 17.5° | 7605.2 | 7550.7 | 7509.9 | 7449.6 | 7469.2 |
| 20°   | 7426.3 | 7367.9 | 7319.1 | 7254.9 | 7280.7 |
| 22.5° | 7226.0 | 7164.6 | 7108.6 | 7051.4 | 7077.3 |
| 25°   | 7005.4 | 6943.6 | 6888.8 | 6836.8 | 6864.0 |
| 27.5° | 6773.5 | 6704.6 | 6649.6 | 6612.8 | 6642.8 |
| 30°   | 6522.6 | 6451.3 | 6398.4 | 6376.0 | 6418.8 |
| 32.5° | 6257.4 | 6187.3 | 6140.7 | 6142.8 | 6192.2 |
| 35°   | 5985.3 | 5911.3 | 5874.4 | 5901.7 | 5959.3 |
| 37.5° | 5692.7 | 5630.7 | 5606.3 | 5658.5 | 5717.0 |
| 40°   | 5402.7 | 5338.1 | 5331.8 | 5400.4 | 5462.0 |
| 42.5° | 5102.6 | 5045.8 | 5053.5 | 5141.3 | 5198.7 |
| 45°   | 4792.1 | 4739.5 | 4768.7 | 4865.2 | 4928.0 |
| 47.5° | 4487.1 | 4433.0 | 4478.5 | 4584.0 | 4651.7 |
| 50°   | 4162.6 | 4118.9 | 4177.9 | 4296.0 | 4358.0 |
| 52.5° | 3840.4 | 3798.4 | 3873.7 | 3998.1 | 4057.9 |
| 55°   | 3519.6 | 3481.9 | 3565.4 | 3686.3 | 3729.2 |
| 57.5° | 3187.7 | 3166.7 | 3252.9 | 3358.8 | 3403.5 |
| 60°   | 2857.5 | 2839.5 | 2926.5 | 3024.3 | 3064.3 |
| 62.5° | 2526.8 | 2516.8 | 2599.4 | 2678.2 | 2691.4 |
| 65°   | 2193.9 | 2188.5 | 2265.6 | 2307.3 | 2315.3 |
| 67.5° | 1857.2 | 1861.4 | 1931.3 | 1952.0 | 1950.8 |
| 70°   | 1529.1 | 1529.0 | 1592.2 | 1596.8 | 1578.6 |
| 72.5° | 1210.1 | 1219.4 | 1259.7 | 1248.8 | 1219.6 |
| 75°   | 919.2  | 927.6  | 955.7  | 918.6  | 891.0  |
| 77.5° | 648.6  | 655.6  | 667.2  | 626.5  | 609.2  |
| 80°   | 414.9  | 427.7  | 419.0  | 399.5  | 387.7  |
| 82.5° | 231.7  | 244.7  | 237.1  | 254.7  | 262.7  |
| 85°   | 106.9  | 114.5  | 131.3  | 151.2  | 159.3  |
| 87.5° | 36.5   | 43.4   | 53.8   | 57.4   | 53.5   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

TEST NUMBER: P1499508

CATALOG NUMBER: MAE-G-4-120-3HI-HI-50-90

**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 | 19.26            | 20.85 | 19.63 | 21.16 | 21.47 | 19.68          | 21.27 | 20.05 | 21.58 | 21.89 |
|                 | 3H   | 20.71            | 22.13 | 21.09 | 22.46 | 22.82 | 21.09          | 22.51 | 21.47 | 22.84 | 23.20 |
|                 | 4H   | 21.13            | 22.46 | 21.53 | 22.81 | 23.19 | 21.45          | 22.79 | 21.85 | 23.14 | 23.51 |
|                 | 6H   | 21.33            | 22.56 | 21.74 | 22.93 | 23.32 | 21.60          | 22.84 | 22.01 | 23.20 | 23.60 |
|                 | 8H   | 21.35            | 22.53 | 21.78 | 22.92 | 23.32 | 21.63          | 22.81 | 22.05 | 23.19 | 23.59 |
|                 | 12H  | 21.35            | 22.48 | 21.78 | 22.86 | 23.29 | 21.64          | 22.77 | 22.07 | 23.15 | 23.58 |
| 4H              | 2H   | 19.85            | 21.19 | 20.25 | 21.54 | 21.91 | 20.19          | 21.53 | 20.59 | 21.88 | 22.25 |
|                 | 3H   | 21.47            | 22.58 | 21.88 | 22.98 | 23.38 | 21.78          | 22.89 | 22.19 | 23.29 | 23.69 |
|                 | 4H   | 21.97            | 22.97 | 22.41 | 23.39 | 23.83 | 22.23          | 23.23 | 22.66 | 23.64 | 24.08 |
|                 | 6H   | 22.25            | 23.12 | 22.70 | 23.56 | 24.02 | 22.45          | 23.32 | 22.90 | 23.76 | 24.22 |
|                 | 8H   | 22.29            | 23.10 | 22.75 | 23.54 | 24.01 | 22.49          | 23.30 | 22.95 | 23.74 | 24.21 |
|                 | 12H  | 22.30            | 23.02 | 22.78 | 23.50 | 23.97 | 22.52          | 23.24 | 23.00 | 23.72 | 24.19 |
| 8H              | 4H   | 22.16            | 22.97 | 22.62 | 23.41 | 23.88 | 22.39          | 23.20 | 22.85 | 23.64 | 24.11 |
|                 | 6H   | 22.48            | 23.15 | 22.98 | 23.64 | 24.12 | 22.65          | 23.32 | 23.15 | 23.81 | 24.29 |
|                 | 8H   | 22.55            | 23.14 | 23.06 | 23.65 | 24.14 | 22.72          | 23.32 | 23.23 | 23.83 | 24.31 |
|                 | 12H  | 22.58            | 23.11 | 23.09 | 23.60 | 24.16 | 22.78          | 23.31 | 23.29 | 23.80 | 24.36 |
| 12H             | 4H   | 22.15            | 22.88 | 22.63 | 23.35 | 23.82 | 22.38          | 23.11 | 22.86 | 23.59 | 24.06 |
|                 | 6H   | 22.47            | 23.07 | 22.99 | 23.58 | 24.07 | 22.64          | 23.25 | 23.16 | 23.75 | 24.24 |
|                 | 8H   | 22.57            | 23.10 | 23.08 | 23.59 | 24.15 | 22.74          | 23.27 | 23.25 | 23.76 | 24.33 |