

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: P1498689

Luminaire Tested: MAE-G-2-120-3HI-STD-40

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498689  
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-2-120-3HI-STD-40  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 3 HI ambient , STD exam illumination levels  
Light Source: -  
Ballast/Driver: -

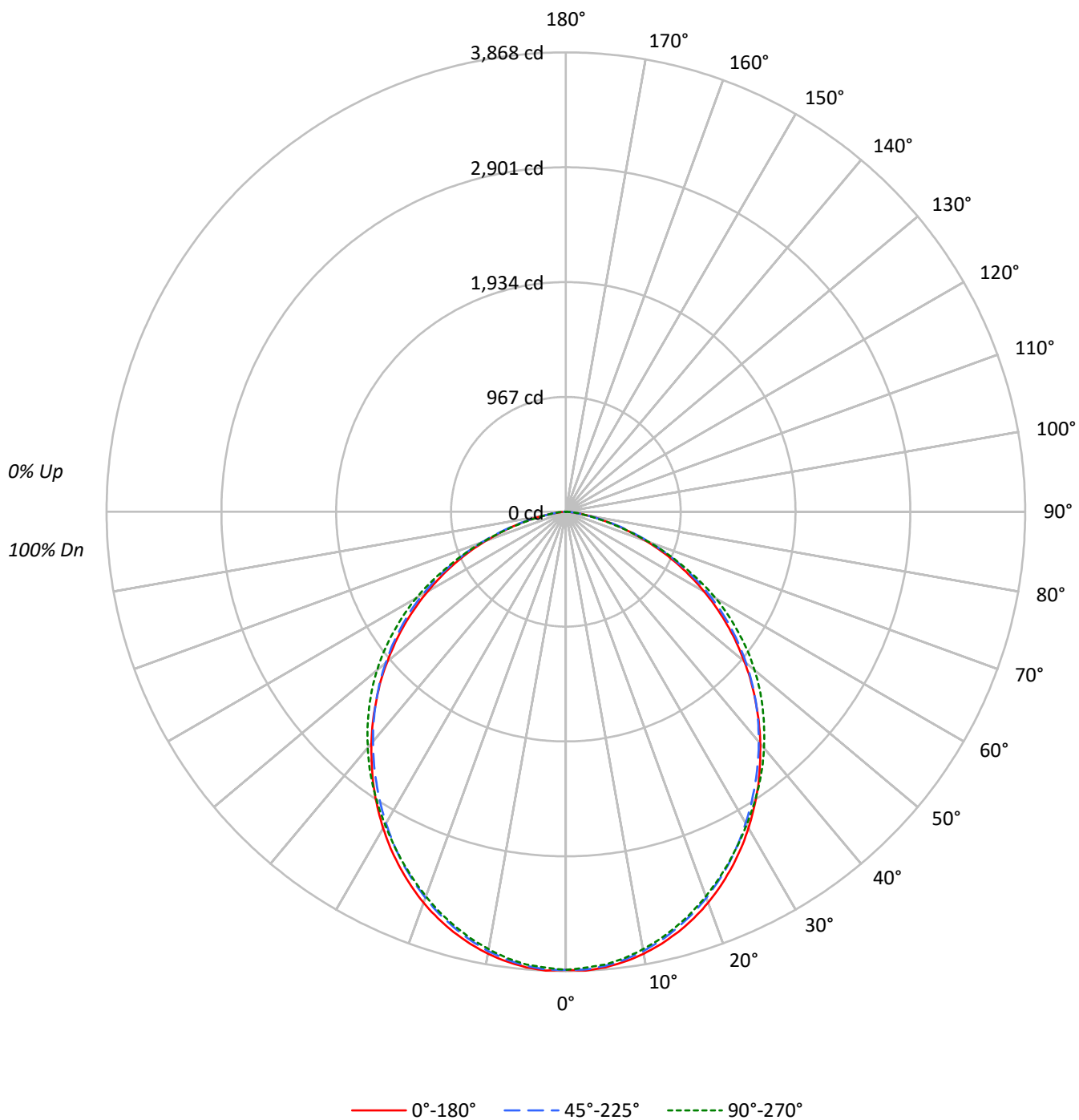
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 9520.0 lumens  
Efficiency: N/A  
Efficacy: 92.8 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 102.6  
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  | 93  | 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°  | 10381 | 10381 | 10381 |
| 5°  | 10400 | 10368 | 10336 |
| 10° | 10327 | 10265 | 10221 |
| 15° | 10202 | 10104 | 10063 |
| 20° | 10033 | 9908  | 9870  |
| 25° | 9813  | 9676  | 9658  |
| 30° | 9560  | 9411  | 9460  |
| 35° | 9273  | 9141  | 9295  |
| 40° | 8949  | 8877  | 9118  |
| 45° | 8598  | 8606  | 8920  |
| 50° | 8215  | 8298  | 8686  |
| 55° | 7783  | 7940  | 8331  |
| 60° | 7246  | 7478  | 7846  |
| 65° | 6579  | 6848  | 6987  |
| 70° | 5662  | 5928  | 5845  |
| 75° | 4494  | 4669  | 4296  |
| 80° | 3016  | 2999  | 2709  |
| 85° | 1541  | 1828  | 2186  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 8920 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 363.3  | 3.8       |
| 10°-20°   | 1021.9 | 10.7      |
| 20°-30°   | 1502.6 | 15.8      |
| 30°-40°   | 1751.4 | 18.4      |
| 40°-50°   | 1757.3 | 18.5      |
| 50°-60°   | 1519.9 | 16.0      |
| 60°-70°   | 1055.8 | 11.1      |
| 70°-80°   | 469.0  | 4.9       |
| 80°-90°   | 78.8   | 0.8       |
| 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°    | 2887.8 | 30.3      |
| 0°-40°    | 4639.2 | 48.7      |
| 0°-60°    | 7916.4 | 83.2      |
| 0°-90°    | 9520.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 9520.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3858 | 3858  | 3858 | 3858  | 3858 |      |
| 5°  | 3850 | 3833  | 3838 | 3822  | 3826 | 365  |
| 15° | 3662 | 3639  | 3627 | 3606  | 3612 | 1032 |
| 25° | 3305 | 3278  | 3259 | 3238  | 3253 | 1522 |
| 35° | 2823 | 2792  | 2782 | 2800  | 2829 | 1764 |
| 45° | 2259 | 2239  | 2261 | 2312  | 2344 | 1743 |
| 55° | 1659 | 1646  | 1692 | 1754  | 1776 | 1481 |
| 65° | 1033 | 1035  | 1075 | 1094  | 1097 | 1021 |
| 75° | 432  | 438   | 449  | 428   | 413  | 464  |
| 85° | 50   | 53    | 59   | 68    | 71   | 74   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3857.6 | 3857.6 | 3857.6 | 3857.6 | 3857.6 |
| 2.5°  | 3867.5 | 3850.6 | 3857.6 | 3844.9 | 3841.4 |
| 5°    | 3850.0 | 3833.0 | 3838.1 | 3821.5 | 3826.5 |
| 7.5°  | 3820.1 | 3802.3 | 3803.4 | 3785.7 | 3790.4 |
| 10°   | 3779.4 | 3758.9 | 3756.5 | 3736.8 | 3740.6 |
| 12.5° | 3725.3 | 3704.4 | 3697.8 | 3675.6 | 3682.2 |
| 15°   | 3661.9 | 3639.2 | 3626.8 | 3605.7 | 3612.0 |
| 17.5° | 3588.2 | 3563.5 | 3549.0 | 3524.1 | 3534.0 |
| 20°   | 3503.7 | 3477.6 | 3460.0 | 3433.5 | 3446.6 |
| 22.5° | 3409.0 | 3382.1 | 3361.5 | 3338.6 | 3352.0 |
| 25°   | 3304.8 | 3278.1 | 3258.8 | 3238.5 | 3252.6 |
| 27.5° | 3195.2 | 3165.5 | 3146.8 | 3133.7 | 3149.3 |
| 30°   | 3076.6 | 3046.3 | 3028.8 | 3022.7 | 3044.5 |
| 32.5° | 2951.3 | 2921.8 | 2907.6 | 2913.4 | 2938.5 |
| 35°   | 2822.8 | 2791.9 | 2782.5 | 2800.2 | 2829.4 |
| 37.5° | 2684.5 | 2659.5 | 2656.3 | 2686.0 | 2715.8 |
| 40°   | 2547.6 | 2521.5 | 2527.1 | 2564.5 | 2595.7 |
| 42.5° | 2406.1 | 2383.7 | 2395.8 | 2442.5 | 2471.7 |
| 45°   | 2259.4 | 2239.2 | 2261.4 | 2312.2 | 2344.0 |
| 47.5° | 2115.6 | 2094.5 | 2124.3 | 2179.3 | 2213.5 |
| 50°   | 1962.2 | 1946.3 | 1982.2 | 2043.1 | 2074.8 |
| 52.5° | 1810.5 | 1795.0 | 1838.3 | 1902.2 | 1932.4 |
| 55°   | 1659.0 | 1645.6 | 1692.5 | 1754.2 | 1775.8 |
| 57.5° | 1502.3 | 1496.8 | 1544.3 | 1598.1 | 1620.4 |
| 60°   | 1346.4 | 1342.2 | 1389.5 | 1438.4 | 1457.8 |
| 62.5° | 1190.5 | 1190.0 | 1234.2 | 1272.6 | 1278.3 |
| 65°   | 1033.2 | 1034.8 | 1075.4 | 1094.1 | 1097.3 |
| 67.5° | 874.5  | 880.0  | 915.7  | 923.4  | 921.9  |
| 70°   | 719.6  | 723.0  | 753.4  | 753.0  | 742.9  |
| 72.5° | 569.2  | 576.4  | 594.3  | 585.9  | 570.7  |
| 75°   | 432.2  | 438.2  | 449.1  | 427.9  | 413.2  |
| 77.5° | 304.7  | 309.0  | 311.5  | 288.8  | 279.0  |
| 80°   | 194.6  | 200.8  | 193.5  | 181.4  | 174.8  |
| 82.5° | 108.4  | 114.1  | 107.8  | 114.4  | 117.6  |
| 85°   | 49.9   | 52.7   | 59.2   | 67.5   | 70.8   |
| 87.5° | 17.1   | 19.9   | 24.1   | 25.6   | 23.8   |
| 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 | 19.06            | 20.64 | 19.43 | 20.96 | 21.27 | 19.53          | 21.11 | 19.90 | 21.43 | 21.74 |
|                 | 3H   | 20.50            | 21.93 | 20.88 | 22.26 | 22.62 | 20.92          | 22.34 | 21.30 | 22.67 | 23.03 |
|                 | 4H   | 20.92            | 22.26 | 21.32 | 22.61 | 22.98 | 21.27          | 22.60 | 21.67 | 22.95 | 23.33 |
|                 | 6H   | 21.12            | 22.35 | 21.53 | 22.72 | 23.11 | 21.40          | 22.64 | 21.82 | 23.00 | 23.40 |
|                 | 8H   | 21.14            | 22.32 | 21.57 | 22.71 | 23.11 | 21.42          | 22.60 | 21.85 | 22.99 | 23.39 |
|                 | 12H  | 21.14            | 22.27 | 21.57 | 22.65 | 23.08 | 21.43          | 22.56 | 21.86 | 22.94 | 23.37 |
| 4H              | 2H   | 19.66            | 20.99 | 20.06 | 21.34 | 21.72 | 20.04          | 21.37 | 20.43 | 21.72 | 22.10 |
|                 | 3H   | 21.27            | 22.38 | 21.68 | 22.78 | 23.18 | 21.61          | 22.72 | 22.02 | 23.12 | 23.52 |
|                 | 4H   | 21.77            | 22.77 | 22.20 | 23.19 | 23.62 | 22.04          | 23.04 | 22.47 | 23.45 | 23.89 |
|                 | 6H   | 22.04            | 22.91 | 22.50 | 23.35 | 23.81 | 22.24          | 23.11 | 22.69 | 23.55 | 24.01 |
|                 | 8H   | 22.08            | 22.89 | 22.54 | 23.34 | 23.80 | 22.27          | 23.08 | 22.73 | 23.53 | 23.99 |
|                 | 12H  | 22.09            | 22.82 | 22.57 | 23.29 | 23.76 | 22.29          | 23.02 | 22.78 | 23.50 | 23.97 |
| 8H              | 4H   | 21.95            | 22.76 | 22.41 | 23.21 | 23.67 | 22.19          | 23.00 | 22.65 | 23.45 | 23.91 |
|                 | 6H   | 22.27            | 22.94 | 22.77 | 23.43 | 23.91 | 22.44          | 23.11 | 22.93 | 23.60 | 24.07 |
|                 | 8H   | 22.33            | 22.93 | 22.85 | 23.44 | 23.93 | 22.49          | 23.09 | 23.00 | 23.60 | 24.09 |
|                 | 12H  | 22.36            | 22.89 | 22.87 | 23.38 | 23.95 | 22.54          | 23.07 | 23.05 | 23.56 | 24.13 |
| 12H             | 4H   | 21.95            | 22.67 | 22.43 | 23.15 | 23.62 | 22.19          | 22.91 | 22.67 | 23.39 | 23.86 |
|                 | 6H   | 22.26            | 22.86 | 22.77 | 23.37 | 23.86 | 22.43          | 23.03 | 22.94 | 23.54 | 24.02 |
|                 | 8H   | 22.36            | 22.88 | 22.86 | 23.38 | 23.94 | 22.52          | 23.04 | 23.02 | 23.53 | 24.10 |