

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: P1499633

Luminaire Tested: MAE-G-4-120-3LO-STD-30-90-WDDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1499633  
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-STD-30-90-WDDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, WDDCPH frame, 3 LO ambient , STD exam illumination levels  
Light Source: -  
Ballast/Driver: -

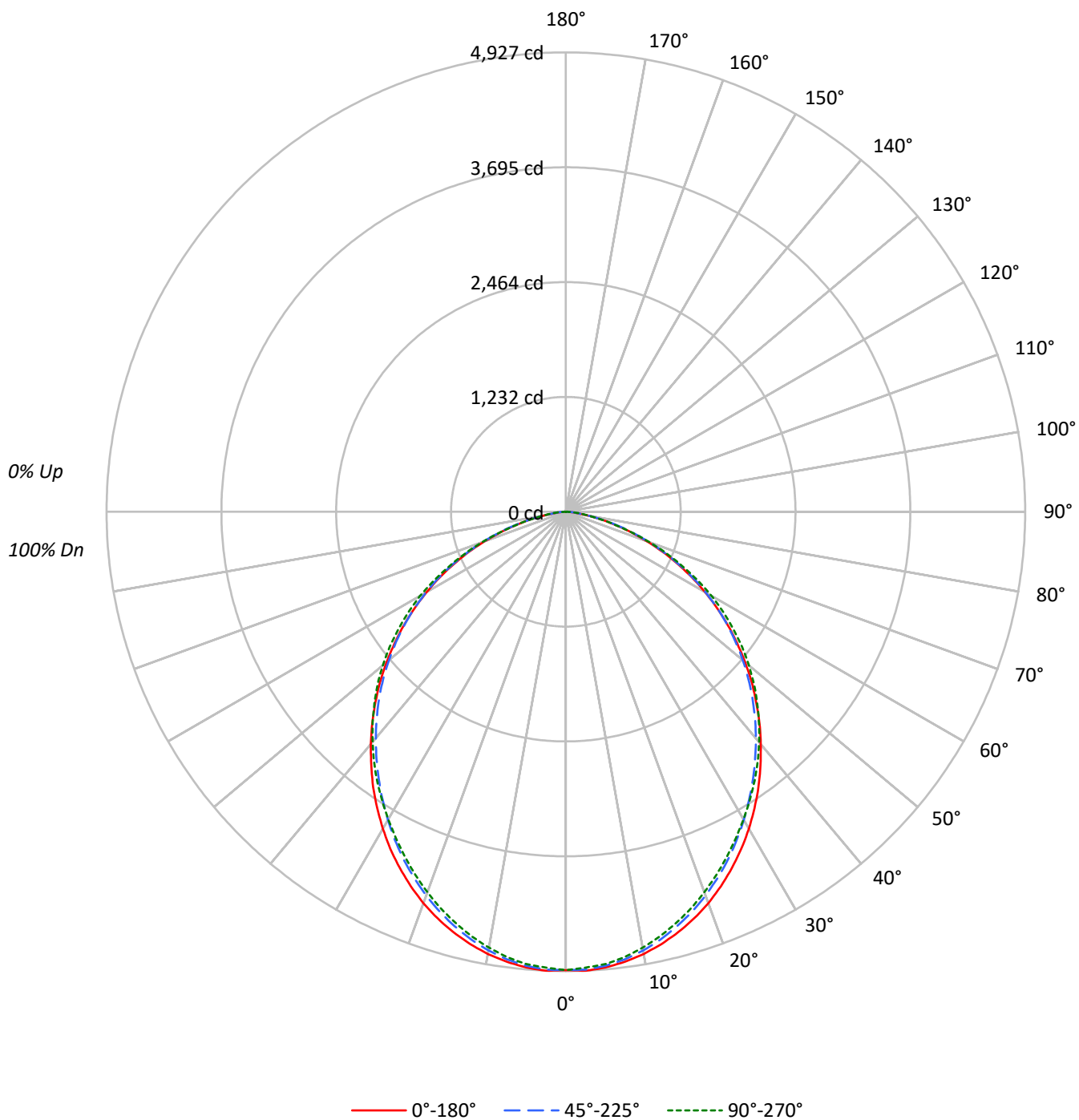
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12024.9 lumens  
Efficiency: N/A  
Efficacy: 85.6 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.16 / 1.28  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 140.5  
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  | 56  |  | 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  | 41  | 35  | 61  | 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°  | 6614 | 6614 | 6614 |
| 5°  | 6625 | 6603 | 6577 |
| 10° | 6580 | 6528 | 6487 |
| 15° | 6501 | 6412 | 6362 |
| 20° | 6396 | 6272 | 6217 |
| 25° | 6257 | 6110 | 6062 |
| 30° | 6099 | 5929 | 5918 |
| 35° | 5919 | 5747 | 5794 |
| 40° | 5715 | 5569 | 5666 |
| 45° | 5494 | 5388 | 5525 |
| 50° | 5252 | 5186 | 5363 |
| 55° | 4978 | 4954 | 5139 |
| 60° | 4640 | 4661 | 4856 |
| 65° | 4219 | 4273 | 4384 |
| 70° | 3640 | 3739 | 3758 |
| 75° | 2899 | 3018 | 2902 |
| 80° | 1962 | 2056 | 2005 |
| 85° | 1019 | 1354 | 1695 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 5525 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 462.5   | 3.8       |
| 10°-20°   | 1297.0  | 10.8      |
| 20°-30°   | 1899.8  | 15.8      |
| 30°-40°   | 2206.4  | 18.3      |
| 40°-50°   | 2205.9  | 18.3      |
| 50°-60°   | 1903.0  | 15.8      |
| 60°-70°   | 1329.0  | 11.1      |
| 70°-80°   | 609.6   | 5.1       |
| 80°-90°   | 111.9   | 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°    | 3659.3  | 30.4      |
| 0°-40°    | 5865.6  | 48.8      |
| 0°-60°    | 9974.6  | 82.9      |
| 0°-90°    | 12024.9 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 12024.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 4916 | 4916  | 4916 | 4916  | 4916 |      |
| 5°  | 4905 | 4886  | 4889 | 4862  | 4870 | 465  |
| 15° | 4667 | 4635  | 4603 | 4562  | 4567 | 1315 |
| 25° | 4215 | 4170  | 4116 | 4071  | 4084 | 1941 |
| 35° | 3604 | 3546  | 3499 | 3499  | 3528 | 2251 |
| 45° | 2887 | 2841  | 2832 | 2873  | 2904 | 2227 |
| 55° | 2122 | 2085  | 2112 | 2169  | 2191 | 1894 |
| 65° | 1325 | 1309  | 1342 | 1370  | 1377 | 1310 |
| 75° | 558  | 556   | 580  | 570   | 558  | 599  |
| 85° | 66   | 73    | 88   | 103   | 110  | 97   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 4915.6 | 4915.6 | 4915.6 | 4915.6 | 4915.6 |
| 2.5°  | 4927.2 | 4909.4 | 4915.6 | 4895.1 | 4893.5 |
| 5°    | 4905.4 | 4886.2 | 4888.6 | 4862.5 | 4869.7 |
| 7.5°  | 4867.5 | 4846.2 | 4841.5 | 4812.1 | 4818.2 |
| 10°   | 4816.1 | 4790.2 | 4778.2 | 4743.5 | 4747.7 |
| 12.5° | 4747.7 | 4719.8 | 4698.7 | 4658.3 | 4665.1 |
| 15°   | 4667.1 | 4635.4 | 4603.2 | 4561.5 | 4567.1 |
| 17.5° | 4573.9 | 4537.8 | 4498.4 | 4450.7 | 4460.6 |
| 20°   | 4466.9 | 4426.9 | 4380.1 | 4329.8 | 4342.3 |
| 22.5° | 4346.9 | 4303.6 | 4251.2 | 4204.0 | 4215.6 |
| 25°   | 4214.9 | 4169.6 | 4115.8 | 4071.4 | 4083.6 |
| 27.5° | 4075.9 | 4025.2 | 3969.4 | 3933.5 | 3947.1 |
| 30°   | 3925.5 | 3872.4 | 3816.5 | 3788.8 | 3809.2 |
| 32.5° | 3766.9 | 3712.9 | 3660.2 | 3646.4 | 3670.4 |
| 35°   | 3603.5 | 3546.2 | 3498.7 | 3499.4 | 3527.7 |
| 37.5° | 3428.0 | 3377.4 | 3336.4 | 3351.5 | 3380.0 |
| 40°   | 3253.9 | 3201.2 | 3170.6 | 3195.3 | 3225.7 |
| 42.5° | 3073.5 | 3025.2 | 3002.9 | 3038.8 | 3066.7 |
| 45°   | 2887.2 | 2840.7 | 2831.5 | 2873.0 | 2903.5 |
| 47.5° | 2703.2 | 2656.6 | 2657.6 | 2704.5 | 2738.2 |
| 50°   | 2508.9 | 2467.9 | 2477.6 | 2532.1 | 2561.9 |
| 52.5° | 2314.3 | 2275.4 | 2295.9 | 2354.3 | 2384.0 |
| 55°   | 2122.0 | 2085.1 | 2111.9 | 2169.4 | 2190.8 |
| 57.5° | 1922.6 | 1895.9 | 1925.8 | 1977.4 | 2000.8 |
| 60°   | 1724.1 | 1699.7 | 1732.1 | 1782.3 | 1804.6 |
| 62.5° | 1525.0 | 1505.8 | 1538.7 | 1582.2 | 1591.9 |
| 65°   | 1325.3 | 1309.1 | 1342.2 | 1370.2 | 1377.0 |
| 67.5° | 1122.8 | 1113.6 | 1147.0 | 1166.4 | 1168.4 |
| 70°   | 925.3  | 914.7  | 950.5  | 961.8  | 955.2  |
| 72.5° | 733.4  | 730.0  | 757.7  | 761.3  | 748.5  |
| 75°   | 557.6  | 556.1  | 580.5  | 569.8  | 558.3  |
| 77.5° | 394.4  | 395.1  | 411.7  | 398.7  | 393.0  |
| 80°   | 253.2  | 260.5  | 265.3  | 262.9  | 258.8  |
| 82.5° | 142.3  | 151.5  | 155.4  | 171.4  | 178.2  |
| 85°   | 66.0   | 72.8   | 87.7   | 103.2  | 109.8  |
| 87.5° | 22.4   | 27.9   | 36.3   | 39.1   | 36.8   |
| 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 | 17.50            | 19.08 | 17.86 | 19.39 | 19.71 | 17.79          | 19.37 | 18.15 | 19.69 | 20.00 |
|                 | 3H   | 18.95            | 20.38 | 19.33 | 20.70 | 21.06 | 19.24          | 20.67 | 19.62 | 21.00 | 21.36 |
|                 | 4H   | 19.37            | 20.71 | 19.77 | 21.06 | 21.44 | 19.64          | 20.98 | 20.04 | 21.33 | 21.71 |
|                 | 6H   | 19.58            | 20.82 | 19.99 | 21.18 | 21.57 | 19.83          | 21.07 | 20.24 | 21.44 | 21.83 |
|                 | 8H   | 19.61            | 20.79 | 20.03 | 21.17 | 21.57 | 19.87          | 21.05 | 20.30 | 21.44 | 21.84 |
|                 | 12H  | 19.61            | 20.73 | 20.04 | 21.12 | 21.54 | 19.89          | 21.02 | 20.32 | 21.41 | 21.83 |
| 4H              | 2H   | 18.07            | 19.41 | 18.47 | 19.75 | 20.13 | 18.30          | 19.64 | 18.70 | 19.99 | 20.37 |
|                 | 3H   | 19.70            | 20.81 | 20.11 | 21.21 | 21.61 | 19.95          | 21.06 | 20.36 | 21.46 | 21.86 |
|                 | 4H   | 20.21            | 21.21 | 20.64 | 21.62 | 22.06 | 20.44          | 21.44 | 20.87 | 21.85 | 22.29 |
|                 | 6H   | 20.49            | 21.36 | 20.94 | 21.80 | 22.26 | 20.70          | 21.57 | 21.16 | 22.02 | 22.47 |
|                 | 8H   | 20.53            | 21.35 | 20.99 | 21.79 | 22.25 | 20.76          | 21.58 | 21.23 | 22.02 | 22.49 |
|                 | 12H  | 20.54            | 21.27 | 21.03 | 21.75 | 22.22 | 20.81          | 21.54 | 21.29 | 22.01 | 22.48 |
| 8H              | 4H   | 20.40            | 21.21 | 20.86 | 21.65 | 22.12 | 20.61          | 21.42 | 21.07 | 21.86 | 22.33 |
|                 | 6H   | 20.73            | 21.41 | 21.23 | 21.90 | 22.37 | 20.93          | 21.60 | 21.42 | 22.09 | 22.57 |
|                 | 8H   | 20.80            | 21.40 | 21.32 | 21.91 | 22.40 | 21.02          | 21.62 | 21.53 | 22.13 | 22.62 |
|                 | 12H  | 20.84            | 21.37 | 21.35 | 21.86 | 22.42 | 21.10          | 21.63 | 21.61 | 22.12 | 22.69 |
| 12H             | 4H   | 20.40            | 21.12 | 20.88 | 21.60 | 22.07 | 20.60          | 21.33 | 21.09 | 21.81 | 22.28 |
|                 | 6H   | 20.73            | 21.33 | 21.24 | 21.84 | 22.33 | 20.92          | 21.53 | 21.44 | 22.03 | 22.52 |
|                 | 8H   | 20.84            | 21.37 | 21.34 | 21.86 | 22.42 | 21.05          | 21.58 | 21.56 | 22.07 | 22.64 |