

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: P1498257

Luminaire Tested: MAE-G-2-120-1STD-HI-40

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498257  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P27581)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/26/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: MAE-G-2-120-1STD-HI-40  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, no door frame, 1 STD ambient , HI exam illumination levels  
Light Source: -  
Ballast/Driver: -

**Summary**

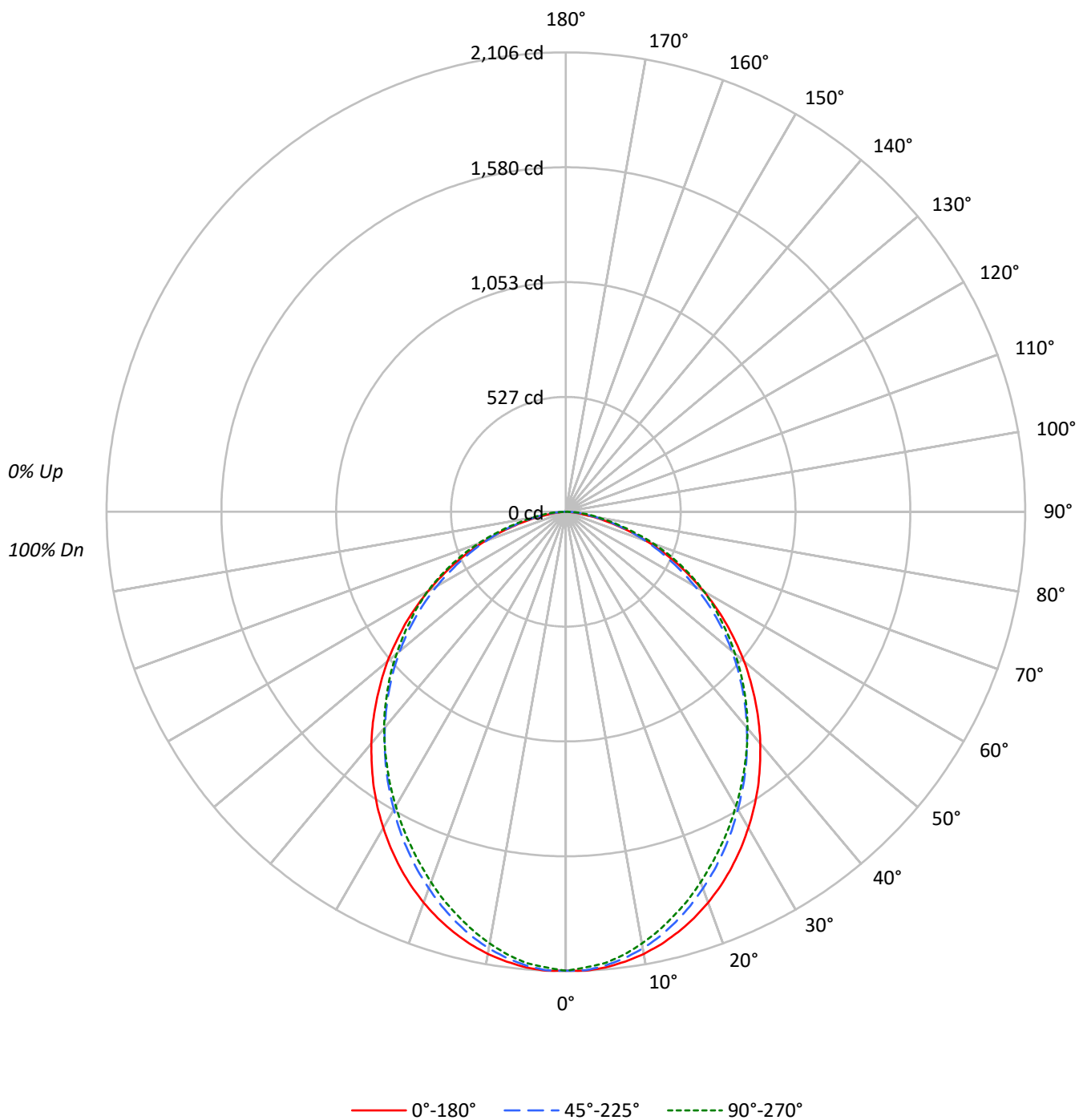
Lumens per Lamp: N/A  
Luminaire Lumens: 5004.0 lumens  
Efficiency: N/A  
Efficacy: 83.5 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.12 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 59.9  
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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 98  | 95  | 93  |  | 95  | 92  | 90  |  | 91  |
| 2   | 100 | 92  | 86  | 80  | 97  | 90  | 84  | 79  | 87  | 82  | 77  |  | 84  | 79  | 76  |  | 81  |
| 3   | 92  | 81  | 74  | 67  | 89  | 80  | 73  | 67  | 77  | 71  | 66  |  | 74  | 69  | 64  |  | 72  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 63  | 57  | 69  | 62  | 56  |  | 66  | 60  | 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  | 45  | 39  | 51  | 44  | 39  |  | 50  | 43  | 38  |  | 48  |
| 8   | 62  | 49  | 41  | 35  | 61  | 48  | 40  | 35  | 47  | 40  | 35  |  | 46  | 39  | 34  |  | 45  |
| 9   | 58  | 45  | 37  | 32  | 57  | 44  | 37  | 31  | 43  | 36  | 31  |  | 42  | 36  | 31  |  | 41  |
| 10  | 55  | 42  | 34  | 29  | 53  | 41  | 34  | 29  | 40  | 33  | 29  |  | 39  | 33  | 28  |  | 38  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5662 | 5662 | 5662 |
| 5°  | 5664 | 5641 | 5609 |
| 10° | 5624 | 5555 | 5492 |
| 15° | 5555 | 5422 | 5339 |
| 20° | 5460 | 5261 | 5174 |
| 25° | 5342 | 5089 | 5007 |
| 30° | 5200 | 4900 | 4844 |
| 35° | 5048 | 4721 | 4694 |
| 40° | 4872 | 4535 | 4553 |
| 45° | 4676 | 4351 | 4399 |
| 50° | 4467 | 4158 | 4240 |
| 55° | 4224 | 3936 | 4079 |
| 60° | 3927 | 3681 | 3947 |
| 65° | 3580 | 3363 | 3712 |
| 70° | 3112 | 3048 | 3373 |
| 75° | 2490 | 2641 | 2871 |
| 80° | 1733 | 2104 | 2373 |
| 85° | 973  | 1649 | 2183 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 4676 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 197.4  | 3.9       |
| 10°-20°   | 548.9  | 11.0      |
| 20°-30°   | 795.1  | 15.9      |
| 30°-40°   | 912.6  | 18.2      |
| 40°-50°   | 901.0  | 18.0      |
| 50°-60°   | 770.0  | 15.4      |
| 60°-70°   | 545.6  | 10.9      |
| 70°-80°   | 271.7  | 5.4       |
| 80°-90°   | 61.8   | 1.2       |
| 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°    | 1541.3 | 30.8      |
| 0°-40°    | 2453.9 | 49.0      |
| 0°-60°    | 4124.9 | 82.4      |
| 0°-90°    | 5004.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5004.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2104 | 2104  | 2104 | 2104  | 2104 |      |
| 5°  | 2097 | 2095  | 2088 | 2072  | 2077 | 199  |
| 15° | 1994 | 1981  | 1946 | 1915  | 1916 | 562  |
| 25° | 1799 | 1769  | 1714 | 1684  | 1686 | 828  |
| 35° | 1536 | 1494  | 1437 | 1422  | 1429 | 960  |
| 45° | 1229 | 1188  | 1143 | 1148  | 1156 | 948  |
| 55° | 900  | 863   | 839  | 854   | 870  | 804  |
| 65° | 562  | 533   | 528  | 566   | 583  | 556  |
| 75° | 240  | 227   | 254  | 274   | 276  | 258  |
| 85° | 32   | 39    | 53   | 66    | 71   | 45   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2103.9 | 2103.9 | 2103.9 | 2103.9 | 2103.9 |
| 2.5°  | 2106.3 | 2108.2 | 2103.9 | 2087.3 | 2090.8 |
| 5°    | 2096.8 | 2095.3 | 2088.3 | 2071.8 | 2076.6 |
| 7.5°  | 2080.3 | 2077.1 | 2064.5 | 2044.6 | 2047.6 |
| 10°   | 2058.3 | 2051.8 | 2032.8 | 2007.7 | 2009.9 |
| 12.5° | 2029.7 | 2020.7 | 1993.6 | 1964.6 | 1966.5 |
| 15°   | 1994.1 | 1981.2 | 1946.3 | 1914.8 | 1916.4 |
| 17.5° | 1953.2 | 1937.9 | 1895.2 | 1860.8 | 1865.3 |
| 20°   | 1906.8 | 1886.6 | 1837.1 | 1803.6 | 1806.9 |
| 22.5° | 1855.6 | 1830.4 | 1777.9 | 1744.8 | 1746.5 |
| 25°   | 1799.1 | 1768.8 | 1714.0 | 1684.0 | 1686.2 |
| 27.5° | 1738.5 | 1704.9 | 1647.6 | 1619.3 | 1623.7 |
| 30°   | 1673.6 | 1637.2 | 1576.8 | 1554.2 | 1558.9 |
| 32.5° | 1606.8 | 1567.9 | 1507.9 | 1489.8 | 1494.6 |
| 35°   | 1536.5 | 1494.3 | 1437.0 | 1422.4 | 1428.8 |
| 37.5° | 1461.5 | 1420.4 | 1363.3 | 1356.9 | 1362.6 |
| 40°   | 1386.9 | 1344.5 | 1290.9 | 1288.5 | 1296.0 |
| 42.5° | 1309.3 | 1267.9 | 1218.0 | 1218.6 | 1227.6 |
| 45°   | 1228.8 | 1188.5 | 1143.4 | 1147.7 | 1155.9 |
| 47.5° | 1147.6 | 1108.0 | 1069.1 | 1075.6 | 1086.3 |
| 50°   | 1067.1 | 1028.5 | 993.3  | 1003.5 | 1012.7 |
| 52.5° | 982.1  | 945.5  | 917.2  | 928.7  | 942.2  |
| 55°   | 900.4  | 863.2  | 838.9  | 854.4  | 869.5  |
| 57.5° | 815.6  | 783.8  | 762.2  | 783.2  | 802.9  |
| 60°   | 729.7  | 698.7  | 684.0  | 713.8  | 733.4  |
| 62.5° | 645.2  | 615.1  | 604.9  | 642.5  | 658.2  |
| 65°   | 562.2  | 532.8  | 528.1  | 566.2  | 582.9  |
| 67.5° | 479.4  | 452.9  | 458.1  | 496.8  | 508.6  |
| 70°   | 395.5  | 371.7  | 387.4  | 421.4  | 428.7  |
| 72.5° | 316.3  | 296.5  | 320.6  | 346.9  | 350.2  |
| 75°   | 239.5  | 226.9  | 254.0  | 273.5  | 276.1  |
| 77.5° | 171.7  | 165.1  | 191.4  | 206.6  | 209.8  |
| 80°   | 111.8  | 114.1  | 135.8  | 148.5  | 153.1  |
| 82.5° | 65.4   | 71.7   | 89.0   | 105.2  | 110.0  |
| 85°   | 31.5   | 39.1   | 53.4   | 65.5   | 70.7   |
| 87.5° | 10.9   | 15.9   | 22.5   | 25.0   | 24.3   |
| 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 | 16.84            | 18.43 | 17.21 | 18.74 | 19.06 | 16.83          | 18.41 | 17.20 | 18.73 | 19.04 |
|                 | 3H   | 18.31            | 19.73 | 18.68 | 20.06 | 20.42 | 18.53          | 19.96 | 18.91 | 20.28 | 20.64 |
|                 | 4H   | 18.74            | 20.08 | 19.14 | 20.43 | 20.81 | 19.08          | 20.42 | 19.48 | 20.77 | 21.15 |
|                 | 6H   | 18.97            | 20.21 | 19.38 | 20.57 | 20.96 | 19.43          | 20.67 | 19.84 | 21.04 | 21.43 |
|                 | 8H   | 19.01            | 20.19 | 19.43 | 20.58 | 20.98 | 19.54          | 20.72 | 19.97 | 21.11 | 21.51 |
|                 | 12H  | 19.01            | 20.14 | 19.44 | 20.53 | 20.95 | 19.62          | 20.75 | 20.05 | 21.13 | 21.56 |
| 4H              | 2H   | 17.34            | 18.68 | 17.74 | 19.03 | 19.41 | 17.33          | 18.67 | 17.73 | 19.02 | 19.40 |
|                 | 3H   | 18.99            | 20.11 | 19.40 | 20.51 | 20.91 | 19.24          | 20.36 | 19.65 | 20.75 | 21.15 |
|                 | 4H   | 19.52            | 20.52 | 19.95 | 20.94 | 21.37 | 19.91          | 20.92 | 20.34 | 21.33 | 21.77 |
|                 | 6H   | 19.83            | 20.70 | 20.28 | 21.14 | 21.60 | 20.37          | 21.25 | 20.83 | 21.69 | 22.15 |
|                 | 8H   | 19.88            | 20.70 | 20.35 | 21.15 | 21.61 | 20.52          | 21.34 | 20.98 | 21.78 | 22.25 |
|                 | 12H  | 19.91            | 20.64 | 20.39 | 21.12 | 21.59 | 20.64          | 21.37 | 21.12 | 21.85 | 22.32 |
| 8H              | 4H   | 19.75            | 20.57 | 20.21 | 21.01 | 21.48 | 20.10          | 20.92 | 20.57 | 21.37 | 21.83 |
|                 | 6H   | 20.13            | 20.81 | 20.62 | 21.30 | 21.77 | 20.66          | 21.33 | 21.15 | 21.82 | 22.30 |
|                 | 8H   | 20.22            | 20.83 | 20.73 | 21.34 | 21.82 | 20.87          | 21.47 | 21.38 | 21.98 | 22.47 |
|                 | 12H  | 20.28            | 20.82 | 20.79 | 21.31 | 21.87 | 21.05          | 21.59 | 21.56 | 22.08 | 22.64 |
| 12H             | 4H   | 19.77            | 20.50 | 20.25 | 20.98 | 21.45 | 20.11          | 20.84 | 20.59 | 21.32 | 21.79 |
|                 | 6H   | 20.16            | 20.77 | 20.67 | 21.27 | 21.76 | 20.67          | 21.27 | 21.18 | 21.78 | 22.27 |
|                 | 8H   | 20.29            | 20.83 | 20.80 | 21.32 | 21.88 | 20.92          | 21.46 | 21.43 | 21.95 | 22.51 |