

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: P1498894

Luminaire Tested: MAE-G-4-120-1HI-35-90-VRDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498894  
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-4-120-1HI-35-90-VRDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, VRDCPH frame, 1 HI ambient illumination levels  
Light Source: -  
Ballast/Driver: -

**Summary**

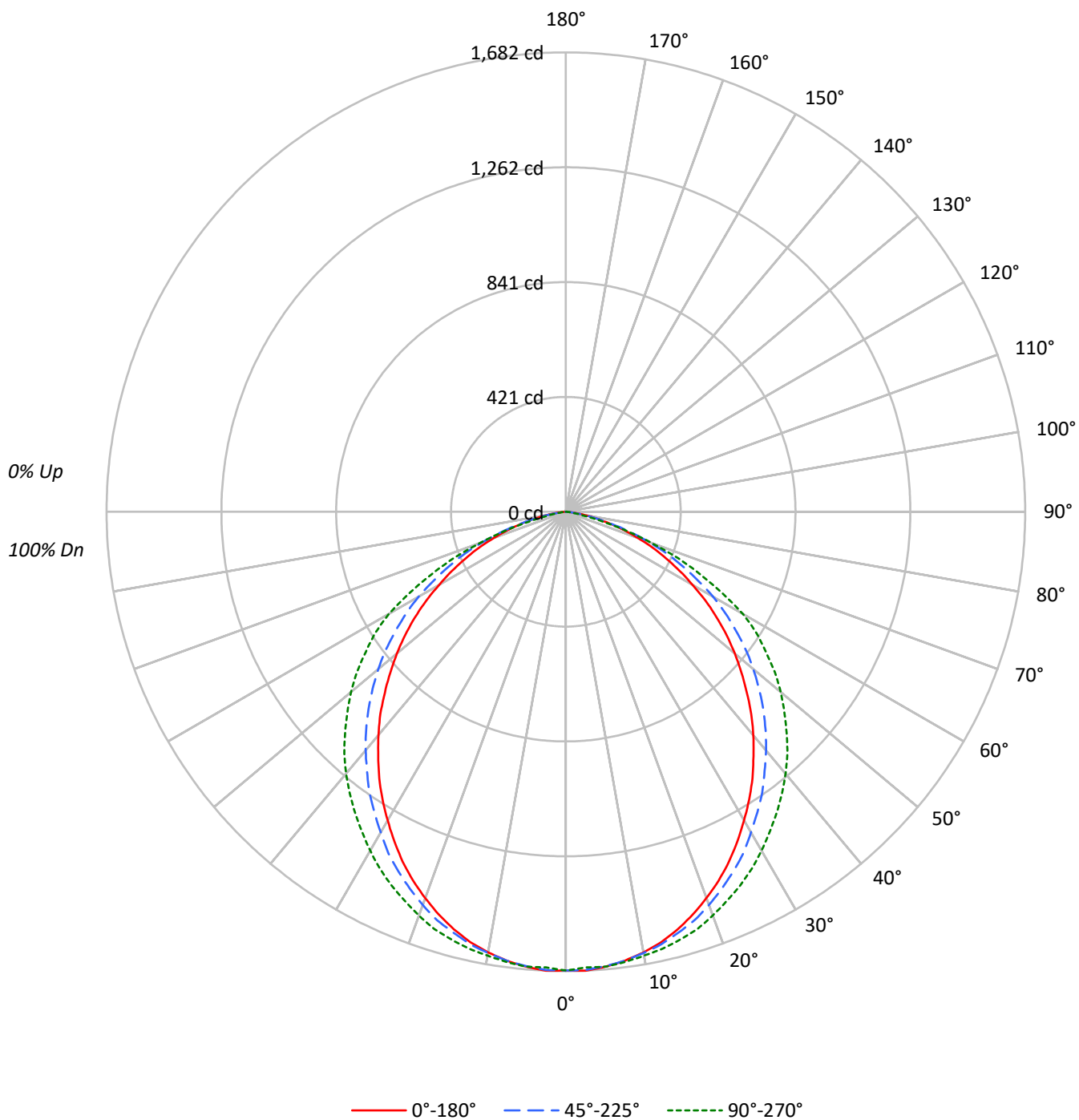
Lumens per Lamp: N/A  
Luminaire Lumens: 4228.0 lumens  
Efficiency: N/A  
Efficacy: 95.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.27 / 1.32  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 44.3  
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 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  |  | 95  | 93  | 91  |  | 92  |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 83  | 78  |  | 84  | 80  | 77  |  | 81  |
| 3   | 92  | 82  | 74  | 68  | 90  | 80  | 73  | 67  | 77  | 71  | 66  |  | 75  | 70  | 65  |  | 72  |
| 4   | 84  | 73  | 65  | 58  | 82  | 72  | 64  | 58  | 69  | 62  | 57  |  | 67  | 61  | 56  |  | 65  |
| 5   | 78  | 65  | 57  | 50  | 76  | 64  | 56  | 50  | 62  | 55  | 49  |  | 60  | 54  | 49  |  | 58  |
| 6   | 72  | 59  | 50  | 44  | 70  | 58  | 50  | 44  | 56  | 49  | 43  |  | 55  | 48  | 43  |  | 53  |
| 7   | 67  | 54  | 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  | 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°  | 2260 | 2260 | 2260 |
| 5°  | 2258 | 2255 | 2258 |
| 10° | 2238 | 2242 | 2255 |
| 15° | 2205 | 2221 | 2259 |
| 20° | 2155 | 2194 | 2252 |
| 25° | 2099 | 2156 | 2242 |
| 30° | 2027 | 2106 | 2226 |
| 35° | 1957 | 2060 | 2211 |
| 40° | 1876 | 2003 | 2199 |
| 45° | 1784 | 1945 | 2175 |
| 50° | 1689 | 1877 | 2150 |
| 55° | 1582 | 1786 | 2097 |
| 60° | 1443 | 1678 | 2016 |
| 65° | 1293 | 1500 | 1731 |
| 70° | 1103 | 1264 | 1321 |
| 75° | 854  | 917  | 741  |
| 80° | 562  | 487  | 262  |
| 85° | 298  | 224  | 150  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 2175 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 158.6  | 3.8       |
| 10°-20°   | 450.7  | 10.7      |
| 20°-30°   | 670.2  | 15.9      |
| 30°-40°   | 787.9  | 18.6      |
| 40°-50°   | 795.2  | 18.8      |
| 50°-60°   | 690.5  | 16.3      |
| 60°-70°   | 469.9  | 11.1      |
| 70°-80°   | 183.1  | 4.3       |
| 80°-90°   | 21.9   | 0.5       |
| 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°    | 1279.4 | 30.3      |
| 0°-40°    | 2067.3 | 48.9      |
| 0°-60°    | 3553.1 | 84.0      |
| 0°-90°    | 4228.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4228.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1679 | 1679  | 1679 | 1679  | 1679 |      |
| 5°  | 1672 | 1670  | 1670 | 1670  | 1672 | 159  |
| 15° | 1583 | 1585  | 1595 | 1612  | 1621 | 446  |
| 25° | 1414 | 1421  | 1452 | 1488  | 1510 | 650  |
| 35° | 1191 | 1206  | 1254 | 1312  | 1346 | 744  |
| 45° | 938  | 962   | 1022 | 1102  | 1143 | 724  |
| 55° | 674  | 696   | 761  | 848   | 894  | 602  |
| 65° | 406  | 425   | 471  | 522   | 544  | 403  |
| 75° | 164  | 174   | 176  | 160   | 143  | 179  |
| 85° | 19   | 19    | 14   | 12    | 10   | 28   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1679.4 | 1679.4 | 1679.4 | 1679.4 | 1679.4 |
| 2.5°  | 1681.8 | 1681.8 | 1679.4 | 1672.1 | 1669.7 |
| 5°    | 1672.1 | 1669.7 | 1669.7 | 1669.7 | 1672.1 |
| 7.5°  | 1657.6 | 1657.6 | 1657.6 | 1660.1 | 1662.5 |
| 10°   | 1638.3 | 1638.3 | 1640.7 | 1645.6 | 1650.4 |
| 12.5° | 1614.2 | 1616.6 | 1621.4 | 1631.1 | 1638.3 |
| 15°   | 1582.7 | 1585.2 | 1594.8 | 1611.7 | 1621.4 |
| 17.5° | 1546.5 | 1553.7 | 1568.2 | 1587.6 | 1602.1 |
| 20°   | 1505.4 | 1512.7 | 1532.0 | 1556.2 | 1573.1 |
| 22.5° | 1461.9 | 1469.2 | 1493.3 | 1522.3 | 1541.7 |
| 25°   | 1413.6 | 1420.8 | 1452.3 | 1488.5 | 1510.2 |
| 27.5° | 1360.4 | 1370.1 | 1408.8 | 1447.4 | 1474.0 |
| 30°   | 1304.9 | 1316.9 | 1355.6 | 1403.9 | 1432.9 |
| 32.5° | 1249.3 | 1263.8 | 1304.9 | 1360.4 | 1389.4 |
| 35°   | 1191.3 | 1205.8 | 1254.1 | 1312.1 | 1345.9 |
| 37.5° | 1128.5 | 1145.4 | 1196.1 | 1266.2 | 1300.0 |
| 40°   | 1068.0 | 1085.0 | 1140.5 | 1215.4 | 1251.7 |
| 42.5° | 1005.2 | 1024.6 | 1082.5 | 1159.9 | 1200.9 |
| 45°   | 937.6  | 961.7  | 1022.1 | 1101.9 | 1143.0 |
| 47.5° | 872.3  | 894.1  | 959.3  | 1041.5 | 1085.0 |
| 50°   | 807.1  | 831.2  | 896.5  | 981.1  | 1027.0 |
| 52.5° | 741.8  | 763.6  | 831.2  | 915.8  | 964.1  |
| 55°   | 674.2  | 695.9  | 761.2  | 848.2  | 894.1  |
| 57.5° | 606.5  | 633.1  | 693.5  | 778.1  | 828.8  |
| 60°   | 536.4  | 560.6  | 623.4  | 708.0  | 749.1  |
| 62.5° | 471.2  | 492.9  | 546.1  | 625.8  | 645.2  |
| 65°   | 406.0  | 425.3  | 471.2  | 521.9  | 543.7  |
| 67.5° | 345.5  | 360.0  | 401.1  | 435.0  | 444.6  |
| 70°   | 280.3  | 294.8  | 321.4  | 340.7  | 335.9  |
| 72.5° | 222.3  | 232.0  | 248.9  | 246.5  | 234.4  |
| 75°   | 164.3  | 174.0  | 176.4  | 159.5  | 142.6  |
| 77.5° | 116.0  | 120.8  | 113.6  | 89.4   | 72.5   |
| 80°   | 72.5   | 74.9   | 62.8   | 38.7   | 33.8   |
| 82.5° | 41.1   | 41.1   | 29.0   | 24.2   | 19.3   |
| 85°   | 19.3   | 19.3   | 14.5   | 12.1   | 9.7    |
| 87.5° | 7.2    | 7.2    | 4.8    | 4.8    | 4.8    |
| 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 | 13.44            | 15.02 | 13.80 | 15.33 | 15.64 | 15.02          | 16.60 | 15.38 | 16.91 | 17.22 |
|                 | 3H   | 14.77            | 16.19 | 15.15 | 16.52 | 16.88 | 16.28          | 17.70 | 16.66 | 18.03 | 18.39 |
|                 | 4H   | 15.14            | 16.47 | 15.54 | 16.82 | 17.19 | 16.48          | 17.81 | 16.88 | 18.16 | 18.54 |
|                 | 6H   | 15.30            | 16.53 | 15.72 | 16.90 | 17.29 | 16.48          | 17.71 | 16.89 | 18.07 | 18.46 |
|                 | 8H   | 15.32            | 16.49 | 15.74 | 16.88 | 17.28 | 16.45          | 17.62 | 16.88 | 18.01 | 18.41 |
|                 | 12H  | 15.31            | 16.43 | 15.74 | 16.81 | 17.24 | 16.43          | 17.55 | 16.86 | 17.93 | 18.36 |
| 4H              | 2H   | 14.10            | 15.43 | 14.50 | 15.78 | 16.16 | 15.39          | 16.72 | 15.79 | 17.07 | 17.45 |
|                 | 3H   | 15.60            | 16.70 | 16.01 | 17.10 | 17.50 | 16.83          | 17.93 | 17.24 | 18.33 | 18.73 |
|                 | 4H   | 16.04            | 17.03 | 16.47 | 17.44 | 17.88 | 17.08          | 18.07 | 17.52 | 18.49 | 18.93 |
|                 | 6H   | 16.27            | 17.12 | 16.72 | 17.57 | 18.03 | 17.11          | 17.97 | 17.57 | 18.41 | 18.87 |
|                 | 8H   | 16.29            | 17.09 | 16.75 | 17.54 | 18.00 | 17.08          | 17.88 | 17.55 | 18.33 | 18.80 |
|                 | 12H  | 16.29            | 17.01 | 16.78 | 17.49 | 17.96 | 17.06          | 17.78 | 17.54 | 18.26 | 18.73 |
| 8H              | 4H   | 16.20            | 17.00 | 16.66 | 17.44 | 17.91 | 17.17          | 17.97 | 17.63 | 18.41 | 18.88 |
|                 | 6H   | 16.46            | 17.12 | 16.95 | 17.61 | 18.08 | 17.20          | 17.86 | 17.70 | 18.35 | 18.83 |
|                 | 8H   | 16.50            | 17.09 | 17.01 | 17.60 | 18.09 | 17.18          | 17.76 | 17.69 | 18.27 | 18.76 |
|                 | 12H  | 16.52            | 17.04 | 17.03 | 17.53 | 18.10 | 17.16          | 17.68 | 17.67 | 18.17 | 18.73 |
| 12H             | 4H   | 16.18            | 16.90 | 16.66 | 17.37 | 17.84 | 17.15          | 17.87 | 17.64 | 18.35 | 18.82 |
|                 | 6H   | 16.43            | 17.02 | 16.94 | 17.53 | 18.02 | 17.17          | 17.76 | 17.69 | 18.27 | 18.76 |
|                 | 8H   | 16.50            | 17.02 | 17.01 | 17.51 | 18.07 | 17.17          | 17.69 | 17.68 | 18.18 | 18.75 |