

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: P1498330

Luminaire Tested: MAE-G-2-120-2HI-50-90-VRDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498330  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P189185)  
Test Lab: INNOVATION CENTER  
Issue Date: 6/26/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: MAE-G-2-120-2HI-50-90-VRDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, VRDCPH frame, 2 HI ambient illumination levels  
Light Source: -  
Ballast/Driver: -

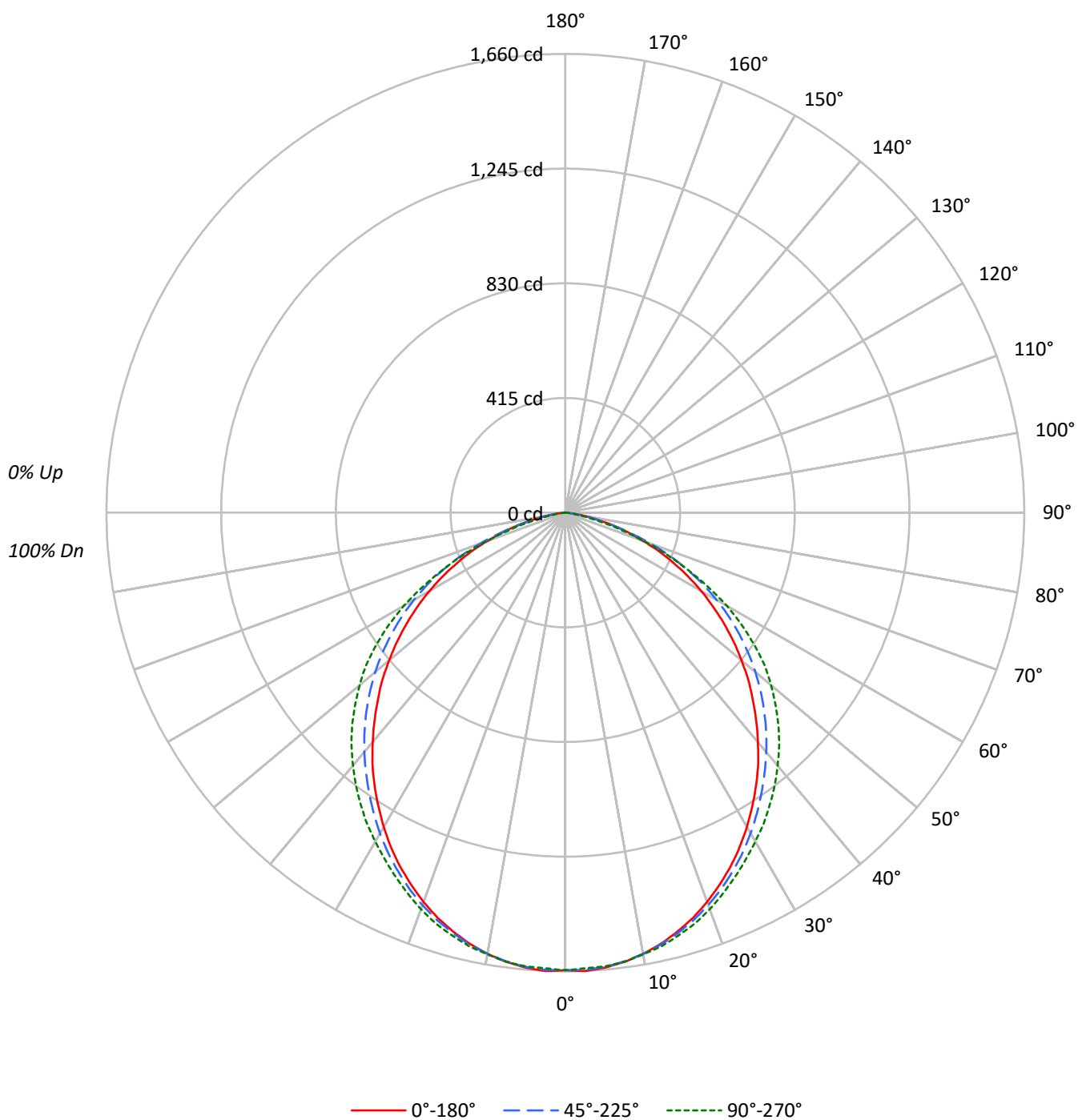
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4180.0 lumens  
Efficiency: N/A  
Efficacy: 92.5 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 45.2  
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 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 93  |  | 95  | 93  | 91  |  | 92  |
| 2   | 100 | 93  | 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  |  | 75  | 69  | 65  |  | 72  |
| 4   | 84  | 73  | 64  | 58  | 82  | 71  | 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  |  | 54  | 48  | 43  |  | 53  |
| 7   | 67  | 53  | 45  | 39  | 65  | 53  | 45  | 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  | 28  | 53  | 41  | 33  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4456 | 4456 | 4456 |
| 5°  | 4464 | 4457 | 4452 |
| 10° | 4430 | 4430 | 4436 |
| 15° | 4371 | 4386 | 4413 |
| 20° | 4293 | 4328 | 4373 |
| 25° | 4197 | 4252 | 4316 |
| 30° | 4081 | 4165 | 4270 |
| 35° | 3953 | 4064 | 4237 |
| 40° | 3806 | 3972 | 4197 |
| 45° | 3651 | 3873 | 4151 |
| 50° | 3482 | 3757 | 4068 |
| 55° | 3290 | 3606 | 3915 |
| 60° | 3057 | 3405 | 3634 |
| 65° | 2757 | 3093 | 3112 |
| 70° | 2353 | 2574 | 2407 |
| 75° | 1848 | 1864 | 1502 |
| 80° | 1203 | 959  | 576  |
| 85° | 556  | 364  | 296  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 4151 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 156.4  | 3.7       |
| 10°-20°   | 443.6  | 10.6      |
| 20°-30°   | 659.0  | 15.8      |
| 30°-40°   | 776.2  | 18.6      |
| 40°-50°   | 786.3  | 18.8      |
| 50°-60°   | 684.4  | 16.4      |
| 60°-70°   | 466.4  | 11.2      |
| 70°-80°   | 186.4  | 4.5       |
| 80°-90°   | 21.3   | 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°    | 1258.9 | 30.1      |
| 0°-40°    | 2035.1 | 48.7      |
| 0°-60°    | 3505.9 | 83.9      |
| 0°-90°    | 4180.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4180.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1656 | 1656  | 1656 | 1656  | 1656 |      |
| 5°  | 1652 | 1643  | 1650 | 1648  | 1648 | 157  |
| 15° | 1569 | 1562  | 1574 | 1580  | 1584 | 442  |
| 25° | 1414 | 1414  | 1432 | 1444  | 1454 | 650  |
| 35° | 1203 | 1209  | 1237 | 1270  | 1290 | 752  |
| 45° | 959  | 971   | 1018 | 1066  | 1091 | 740  |
| 55° | 701  | 716   | 769  | 817   | 834  | 626  |
| 65° | 433  | 453   | 486  | 486   | 489  | 429  |
| 75° | 178  | 188   | 179  | 154   | 144  | 191  |
| 85° | 18   | 16    | 12   | 11    | 10   | 28   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1655.9 | 1655.9 | 1655.9 | 1655.9 | 1655.9 |
| 2.5°  | 1660.5 | 1649.8 | 1655.9 | 1654.8 | 1650.3 |
| 5°    | 1652.5 | 1643.0 | 1649.8 | 1647.6 | 1648.1 |
| 7.5°  | 1639.6 | 1630.7 | 1638.0 | 1637.4 | 1639.1 |
| 10°   | 1621.1 | 1612.2 | 1621.1 | 1621.6 | 1623.3 |
| 12.5° | 1598.0 | 1590.2 | 1600.8 | 1603.1 | 1607.1 |
| 15°   | 1568.8 | 1562.1 | 1574.4 | 1580.1 | 1583.9 |
| 17.5° | 1537.3 | 1532.9 | 1545.2 | 1552.5 | 1558.7 |
| 20°   | 1499.1 | 1496.8 | 1511.5 | 1518.7 | 1527.2 |
| 22.5° | 1457.4 | 1456.3 | 1473.8 | 1482.8 | 1491.2 |
| 25°   | 1413.6 | 1414.2 | 1432.2 | 1444.0 | 1453.6 |
| 27.5° | 1365.2 | 1366.3 | 1388.3 | 1402.4 | 1414.2 |
| 30°   | 1313.5 | 1316.4 | 1340.5 | 1359.6 | 1374.3 |
| 32.5° | 1259.0 | 1264.0 | 1289.9 | 1316.4 | 1334.9 |
| 35°   | 1203.3 | 1209.0 | 1237.1 | 1269.6 | 1289.9 |
| 37.5° | 1146.0 | 1152.2 | 1184.8 | 1223.0 | 1244.4 |
| 40°   | 1083.6 | 1093.0 | 1130.8 | 1173.0 | 1194.8 |
| 42.5° | 1022.2 | 1032.9 | 1075.1 | 1121.3 | 1144.9 |
| 45°   | 959.3  | 971.1  | 1017.7 | 1065.6 | 1090.8 |
| 47.5° | 898.5  | 908.6  | 958.7  | 1008.8 | 1031.3 |
| 50°   | 831.7  | 845.1  | 897.4  | 947.5  | 971.6  |
| 52.5° | 767.6  | 780.5  | 833.9  | 885.0  | 909.9  |
| 55°   | 701.2  | 716.3  | 768.7  | 817.0  | 834.4  |
| 57.5° | 634.3  | 651.7  | 702.3  | 742.2  | 757.4  |
| 60°   | 568.0  | 585.4  | 632.6  | 664.0  | 675.3  |
| 62.5° | 501.0  | 519.0  | 560.6  | 579.8  | 582.0  |
| 65°   | 433.0  | 453.2  | 485.8  | 486.4  | 488.7  |
| 67.5° | 368.4  | 385.1  | 408.8  | 402.0  | 398.7  |
| 70°   | 299.1  | 317.7  | 327.2  | 313.8  | 305.9  |
| 72.5° | 237.9  | 251.3  | 249.7  | 229.9  | 220.5  |
| 75°   | 177.7  | 188.4  | 179.3  | 154.1  | 144.5  |
| 77.5° | 123.2  | 132.1  | 114.1  | 90.5   | 81.0   |
| 80°   | 77.6   | 81.5   | 61.9   | 43.9   | 37.2   |
| 82.5° | 41.6   | 41.0   | 26.5   | 21.9   | 20.3   |
| 85°   | 18.0   | 16.3   | 11.8   | 10.7   | 9.6    |
| 87.5° | 6.2    | 5.6    | 4.5    | 4.0    | 3.4    |
| 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 | 16.11            | 17.69 | 16.47 | 18.00 | 18.32 | 17.07          | 18.65 | 17.43 | 18.96 | 19.28 |
|                 | 3H   | 17.53            | 18.95 | 17.91 | 19.28 | 19.64 | 18.26          | 19.68 | 18.64 | 20.01 | 20.37 |
|                 | 4H   | 17.92            | 19.25 | 18.32 | 19.60 | 19.98 | 18.47          | 19.81 | 18.87 | 20.15 | 20.53 |
|                 | 6H   | 18.10            | 19.33 | 18.51 | 19.69 | 20.08 | 18.49          | 19.72 | 18.90 | 20.09 | 20.48 |
|                 | 8H   | 18.11            | 19.28 | 18.53 | 19.67 | 20.07 | 18.47          | 19.64 | 18.89 | 20.03 | 20.43 |
|                 | 12H  | 18.10            | 19.22 | 18.53 | 19.60 | 20.03 | 18.44          | 19.56 | 18.87 | 19.95 | 20.38 |
| 4H              | 2H   | 16.77            | 18.10 | 17.17 | 18.45 | 18.83 | 17.54          | 18.88 | 17.94 | 19.22 | 19.60 |
|                 | 3H   | 18.35            | 19.45 | 18.76 | 19.85 | 20.25 | 18.89          | 20.00 | 19.30 | 20.39 | 20.80 |
|                 | 4H   | 18.82            | 19.81 | 19.25 | 20.23 | 20.67 | 19.16          | 20.15 | 19.59 | 20.57 | 21.00 |
|                 | 6H   | 19.06            | 19.92 | 19.52 | 20.37 | 20.82 | 19.21          | 20.07 | 19.67 | 20.51 | 20.97 |
|                 | 8H   | 19.08            | 19.89 | 19.55 | 20.33 | 20.80 | 19.19          | 19.99 | 19.65 | 20.43 | 20.90 |
|                 | 12H  | 19.08            | 19.80 | 19.57 | 20.28 | 20.75 | 19.17          | 19.88 | 19.65 | 20.36 | 20.83 |
| 8H              | 4H   | 18.96            | 19.76 | 19.42 | 20.21 | 20.67 | 19.27          | 20.08 | 19.74 | 20.52 | 20.99 |
|                 | 6H   | 19.23            | 19.90 | 19.73 | 20.39 | 20.86 | 19.33          | 20.00 | 19.83 | 20.49 | 20.96 |
|                 | 8H   | 19.27            | 19.86 | 19.79 | 20.37 | 20.86 | 19.31          | 19.90 | 19.82 | 20.41 | 20.90 |
|                 | 12H  | 19.29            | 19.81 | 19.79 | 20.30 | 20.86 | 19.30          | 19.82 | 19.80 | 20.31 | 20.87 |
| 12H             | 4H   | 18.94            | 19.66 | 19.42 | 20.13 | 20.61 | 19.26          | 19.98 | 19.75 | 20.46 | 20.93 |
|                 | 6H   | 19.20            | 19.80 | 19.72 | 20.31 | 20.79 | 19.31          | 19.90 | 19.82 | 20.41 | 20.90 |
|                 | 8H   | 19.27            | 19.79 | 19.78 | 20.28 | 20.84 | 19.31          | 19.83 | 19.82 | 20.32 | 20.89 |