

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: P1498624

Luminaire Tested: MAE-G-2-120-3HI-HI-30-90-VRDCPH

Issue Date: 6/26/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1498624  
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-HI-30-90-VRDCPH  
Description: Patient Room Recessed Ceiling Ambient, Exam LED luminaire with, VRDCPH frame, 3 HI ambient , HI exam illumination levels  
Light Source: -  
Ballast/Driver: -

**Summary**

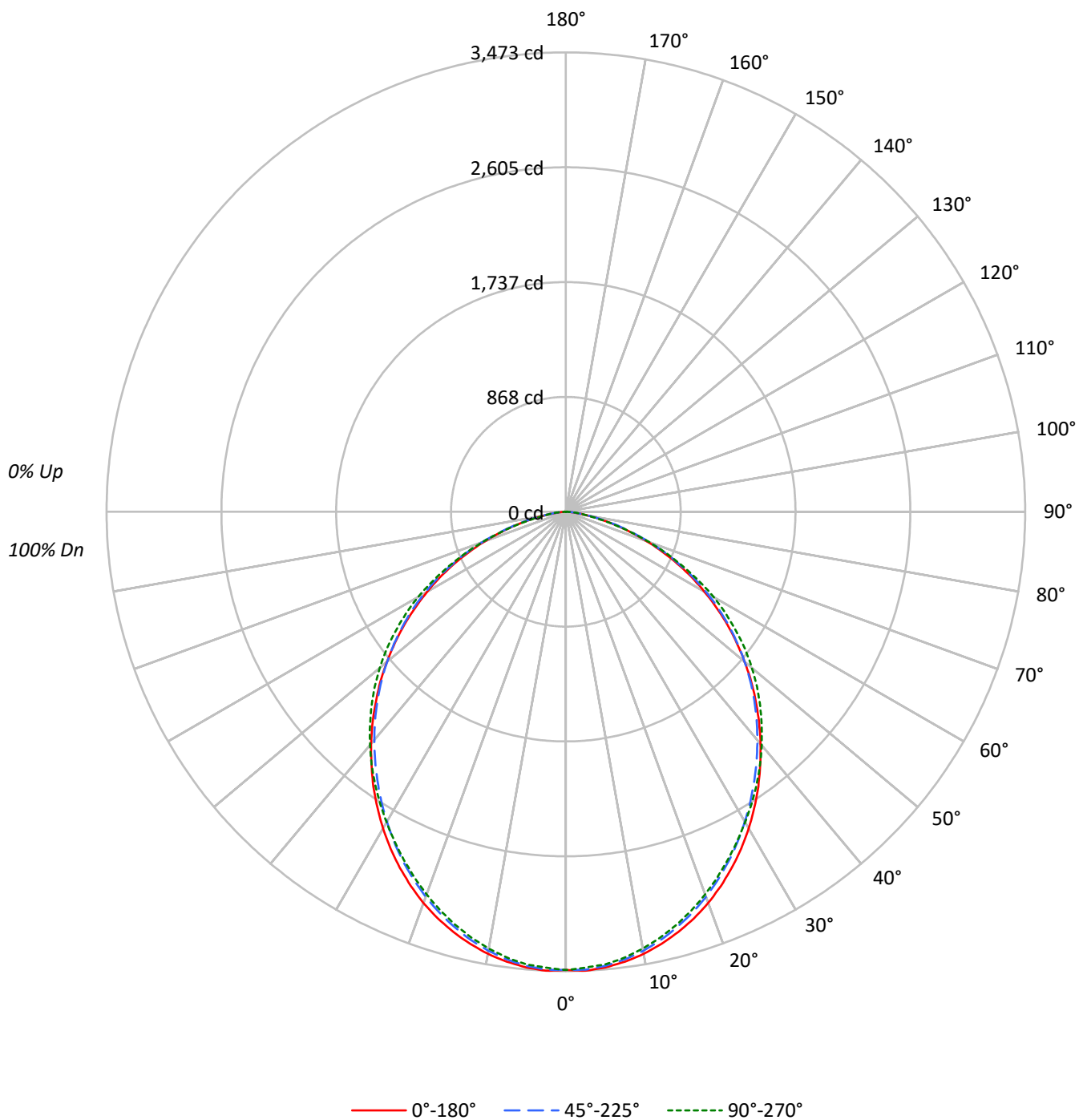
Lumens per Lamp: N/A  
Luminaire Lumens: 8514.0 lumens  
Efficiency: N/A  
Efficacy: 77.2 lumens/watt  
Spacing Criteria (0/90/45): 1.19 / 1.17 / 1.29  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 110.3  
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 | 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  | 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°  | 9322 | 9322 | 9322 |
| 5°  | 9339 | 9309 | 9277 |
| 10° | 9274 | 9210 | 9162 |
| 15° | 9162 | 9057 | 9003 |
| 20° | 9012 | 8871 | 8816 |
| 25° | 8816 | 8653 | 8612 |
| 30° | 8590 | 8407 | 8423 |
| 35° | 8334 | 8157 | 8262 |
| 40° | 8045 | 7914 | 8093 |
| 45° | 7732 | 7665 | 7905 |
| 50° | 7389 | 7385 | 7686 |
| 55° | 7002 | 7061 | 7370 |
| 60° | 6522 | 6647 | 6951 |
| 65° | 5927 | 6090 | 6229 |
| 70° | 5106 | 5298 | 5271 |
| 75° | 4059 | 4221 | 3968 |
| 80° | 2735 | 2789 | 2619 |
| 85° | 1408 | 1766 | 2161 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 7905 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 326.1  | 3.8       |
| 10°-20°   | 916.0  | 10.8      |
| 20°-30°   | 1344.4 | 15.8      |
| 30°-40°   | 1564.4 | 18.4      |
| 40°-50°   | 1567.0 | 18.4      |
| 50°-60°   | 1353.7 | 15.9      |
| 60°-70°   | 942.7  | 11.1      |
| 70°-80°   | 425.1  | 5.0       |
| 80°-90°   | 74.6   | 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°    | 2586.5 | 30.4      |
| 0°-40°    | 4150.8 | 48.8      |
| 0°-60°    | 7071.6 | 83.1      |
| 0°-90°    | 8514.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8514.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3464 | 3464  | 3464 | 3464  | 3464 |      |
| 5°  | 3457 | 3443  | 3446 | 3430  | 3434 | 328  |
| 15° | 3289 | 3268  | 3251 | 3227  | 3232 | 927  |
| 25° | 2969 | 2941  | 2914 | 2890  | 2901 | 1367 |
| 35° | 2537 | 2503  | 2483 | 2492  | 2515 | 1585 |
| 45° | 2032 | 2007  | 2014 | 2052  | 2077 | 1568 |
| 55° | 1492 | 1474  | 1505 | 1553  | 1571 | 1332 |
| 65° | 931  | 926   | 956  | 975   | 978  | 920  |
| 75° | 390  | 393   | 406  | 392   | 382  | 419  |
| 85° | 46   | 49    | 57   | 66    | 70   | 67   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3464.3 | 3464.3 | 3464.3 | 3464.3 | 3464.3 |
| 2.5°  | 3472.8 | 3458.9 | 3464.3 | 3451.4 | 3449.2 |
| 5°    | 3457.3 | 3442.8 | 3446.0 | 3429.5 | 3434.2 |
| 7.5°  | 3430.5 | 3414.9 | 3414.0 | 3395.8 | 3400.0 |
| 10°   | 3394.1 | 3375.7 | 3370.6 | 3349.7 | 3353.0 |
| 12.5° | 3345.7 | 3326.5 | 3316.3 | 3292.4 | 3297.8 |
| 15°   | 3288.7 | 3267.5 | 3250.9 | 3227.1 | 3231.8 |
| 17.5° | 3222.8 | 3199.1 | 3179.2 | 3151.4 | 3159.5 |
| 20°   | 3147.1 | 3121.5 | 3097.6 | 3068.3 | 3078.6 |
| 22.5° | 3062.3 | 3035.2 | 3008.0 | 2981.5 | 2991.7 |
| 25°   | 2969.1 | 2941.2 | 2914.3 | 2889.8 | 2900.6 |
| 27.5° | 2870.8 | 2840.0 | 2812.5 | 2794.3 | 2806.2 |
| 30°   | 2764.5 | 2732.5 | 2705.6 | 2693.5 | 2710.8 |
| 32.5° | 2652.3 | 2620.5 | 2596.2 | 2594.4 | 2614.3 |
| 35°   | 2537.0 | 2503.4 | 2483.1 | 2491.8 | 2515.1 |
| 37.5° | 2413.1 | 2384.5 | 2369.3 | 2388.4 | 2412.0 |
| 40°   | 2290.3 | 2260.4 | 2252.8 | 2278.9 | 2303.8 |
| 42.5° | 2163.2 | 2136.6 | 2134.9 | 2169.0 | 2192.1 |
| 45°   | 2031.7 | 2006.7 | 2014.2 | 2052.0 | 2077.3 |
| 47.5° | 1902.3 | 1876.8 | 1891.3 | 1933.0 | 1960.4 |
| 50°   | 1765.0 | 1743.8 | 1764.1 | 1811.1 | 1836.0 |
| 52.5° | 1628.3 | 1608.0 | 1635.4 | 1685.1 | 1709.3 |
| 55°   | 1492.5 | 1473.8 | 1505.0 | 1553.4 | 1570.8 |
| 57.5° | 1351.9 | 1340.4 | 1372.9 | 1415.6 | 1433.9 |
| 60°   | 1211.9 | 1201.8 | 1235.1 | 1274.9 | 1291.6 |
| 62.5° | 1071.8 | 1065.1 | 1097.1 | 1129.7 | 1135.6 |
| 65°   | 930.8  | 926.1  | 956.4  | 974.6  | 978.3  |
| 67.5° | 788.1  | 787.7  | 815.8  | 825.8  | 825.8  |
| 70°   | 649.0  | 647.0  | 673.4  | 677.0  | 670.0  |
| 72.5° | 513.8  | 516.1  | 533.8  | 531.0  | 519.6  |
| 75°   | 390.4  | 392.8  | 406.0  | 392.4  | 381.6  |
| 77.5° | 275.7  | 277.9  | 284.6  | 269.5  | 263.0  |
| 80°   | 176.5  | 181.8  | 180.0  | 173.4  | 169.0  |
| 82.5° | 98.7   | 104.5  | 102.9  | 111.2  | 115.0  |
| 85°   | 45.6   | 49.3   | 57.2   | 66.3   | 70.0   |
| 87.5° | 15.6   | 18.7   | 23.5   | 25.1   | 23.5   |
| 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 | 18.69            | 20.27 | 19.05 | 20.59 | 20.90 | 19.07          | 20.66 | 19.44 | 20.97 | 21.29 |
|                 | 3H   | 20.14            | 21.56 | 20.51 | 21.89 | 22.25 | 20.49          | 21.92 | 20.87 | 22.24 | 22.61 |
|                 | 4H   | 20.56            | 21.89 | 20.95 | 22.24 | 22.62 | 20.87          | 22.20 | 21.27 | 22.55 | 22.93 |
|                 | 6H   | 20.76            | 21.99 | 21.17 | 22.36 | 22.75 | 21.03          | 22.26 | 21.44 | 22.63 | 23.02 |
|                 | 8H   | 20.78            | 21.96 | 21.21 | 22.35 | 22.75 | 21.05          | 22.23 | 21.48 | 22.62 | 23.02 |
|                 | 12H  | 20.78            | 21.91 | 21.21 | 22.29 | 22.72 | 21.07          | 22.20 | 21.50 | 22.58 | 23.01 |
| 4H              | 2H   | 19.27            | 20.61 | 19.67 | 20.96 | 21.33 | 19.59          | 20.92 | 19.98 | 21.27 | 21.65 |
|                 | 3H   | 20.89            | 22.01 | 21.30 | 22.41 | 22.81 | 21.19          | 22.30 | 21.60 | 22.70 | 23.10 |
|                 | 4H   | 21.40            | 22.40 | 21.83 | 22.81 | 23.25 | 21.65          | 22.65 | 22.08 | 23.06 | 23.50 |
|                 | 6H   | 21.68            | 22.55 | 22.13 | 22.99 | 23.44 | 21.88          | 22.75 | 22.33 | 23.19 | 23.65 |
|                 | 8H   | 21.72            | 22.53 | 22.18 | 22.97 | 23.44 | 21.92          | 22.74 | 22.38 | 23.18 | 23.64 |
|                 | 12H  | 21.73            | 22.45 | 22.21 | 22.93 | 23.40 | 21.96          | 22.68 | 22.44 | 23.16 | 23.63 |
| 8H              | 4H   | 21.58            | 22.40 | 22.05 | 22.84 | 23.31 | 21.81          | 22.62 | 22.27 | 23.07 | 23.53 |
|                 | 6H   | 21.91            | 22.58 | 22.41 | 23.07 | 23.55 | 22.09          | 22.76 | 22.58 | 23.25 | 23.72 |
|                 | 8H   | 21.98            | 22.58 | 22.49 | 23.09 | 23.57 | 22.16          | 22.76 | 22.67 | 23.27 | 23.76 |
|                 | 12H  | 22.01            | 22.54 | 22.52 | 23.03 | 23.59 | 22.23          | 22.75 | 22.73 | 23.25 | 23.81 |
| 12H             | 4H   | 21.58            | 22.31 | 22.06 | 22.78 | 23.25 | 21.81          | 22.53 | 22.29 | 23.01 | 23.48 |
|                 | 6H   | 21.91            | 22.51 | 22.42 | 23.01 | 23.50 | 22.08          | 22.68 | 22.59 | 23.19 | 23.68 |
|                 | 8H   | 22.00            | 22.53 | 22.51 | 23.02 | 23.59 | 22.19          | 22.72 | 22.70 | 23.21 | 23.77 |