

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: P973368

Luminaire Tested: FLR2-14-20-L930-CA125

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973368  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-20-L930-CA125  
Description: 1\*4 FLR-2.0 2000 LUMEN at 3000CCT & 90CRI with Clear Acrylic (0.125" thickness)  
  
Light Source:  
Ballast/Driver: -

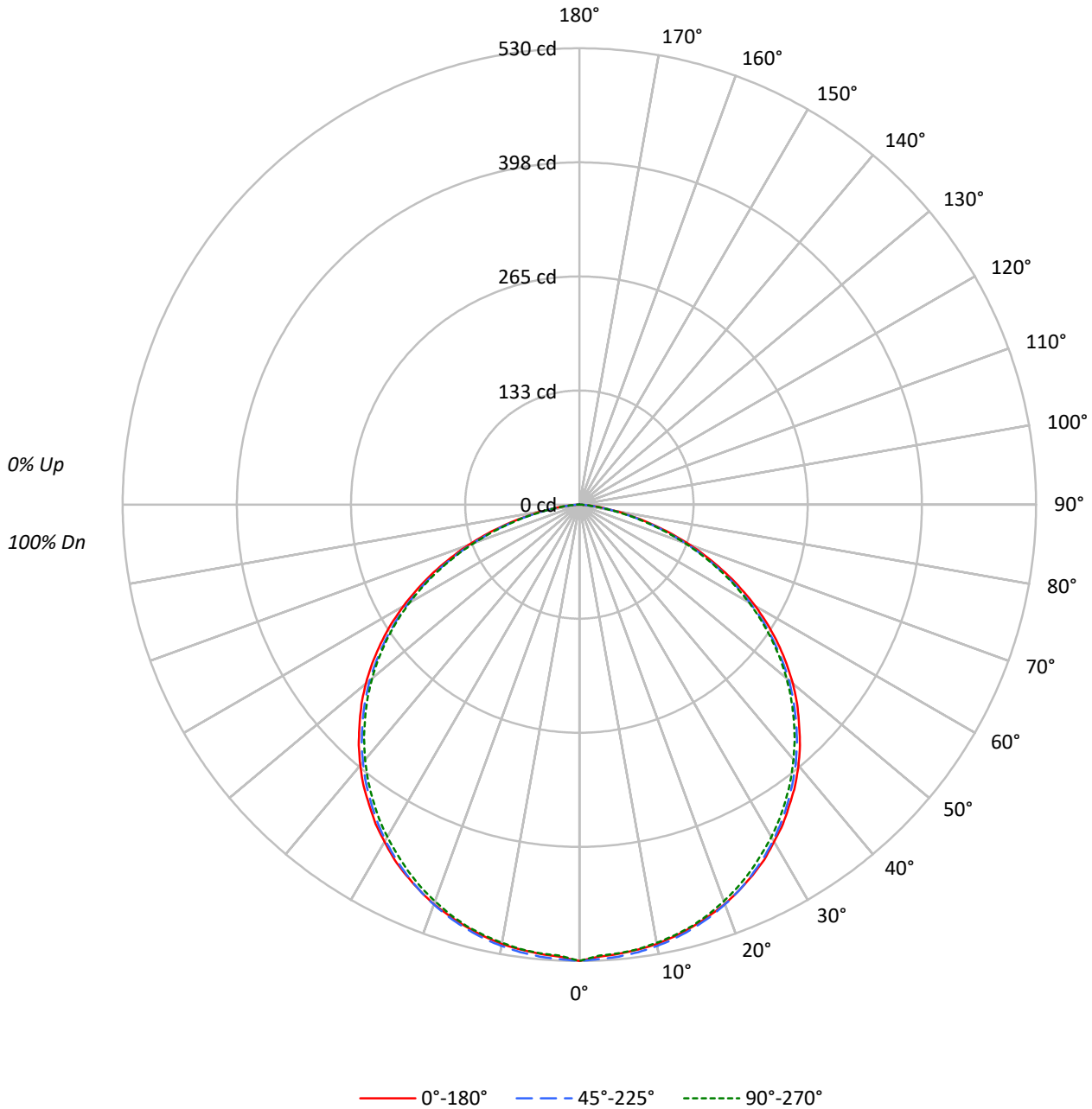
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1483.3 lumens  
Efficiency: N/A  
Efficacy: 90.4 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 16.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor:  
Total Harmonic Distortion (THDi):  
Frequency (hertz): 60  
Stabilization Time: HR  
Operation Time: HR  
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 |  |  |  |  |  |  |  |  |    |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 70  |     |     |     |     |     |     |     |     | 50 |    |    |    |    |     |  |  |  | 30 |  |  |  |  |  |  |  |  | 10 | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 | 50 | 30 | 10 | 0   |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |    |    |    |     |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |    |    |    | 100 |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 1   | 109 | 105 | 101 | 97  | 107 | 102 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 89  | 91  | 89  | 87  | 85  |    |    |    |    |    | 85  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 2   | 99  | 91  | 85  | 79  | 97  | 90  | 83  | 78  | 86  | 81  | 76  | 83  | 78  | 75  | 80  | 76  | 73  | 71  |    |    |    |    |    | 71  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  | 73  | 68  | 63  | 70  | 66  | 62  | 60  |    |    |    |    |    | 60  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 4   | 83  | 71  | 62  | 56  | 81  | 70  | 62  | 55  | 67  | 60  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |    |    |    |    |    | 51  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 5   | 76  | 64  | 55  | 48  | 74  | 62  | 54  | 48  | 60  | 53  | 47  | 58  | 52  | 47  | 57  | 51  | 46  | 44  |    |    |    |    |    | 44  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 6   | 70  | 57  | 48  | 42  | 69  | 56  | 48  | 42  | 54  | 47  | 41  | 53  | 46  | 41  | 51  | 45  | 41  | 39  |    |    |    |    |    | 39  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 7   | 65  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 49  | 42  | 37  | 48  | 41  | 36  | 47  | 41  | 36  | 34  |    |    |    |    |    | 34  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 8   | 61  | 47  | 39  | 33  | 59  | 47  | 38  | 33  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 30  |    |    |    |    |    | 30  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 9   | 57  | 43  | 35  | 30  | 55  | 43  | 35  | 30  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 27  |    |    |    |    |    | 27  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 27  | 38  | 32  | 27  | 38  | 31  | 27  | 37  | 31  | 26  | 25  |    |    |    |    |    | 25  |  |  |  |    |  |  |  |  |  |  |  |  |    |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1426 | 1426 | 1426 |
| 5°  | 1415 | 1423 | 1413 |
| 10° | 1416 | 1422 | 1412 |
| 15° | 1414 | 1420 | 1411 |
| 20° | 1414 | 1415 | 1404 |
| 25° | 1411 | 1408 | 1395 |
| 30° | 1405 | 1399 | 1385 |
| 35° | 1397 | 1386 | 1373 |
| 40° | 1389 | 1372 | 1358 |
| 45° | 1372 | 1353 | 1339 |
| 50° | 1354 | 1330 | 1314 |
| 55° | 1320 | 1290 | 1277 |
| 60° | 1269 | 1234 | 1223 |
| 65° | 1189 | 1154 | 1141 |
| 70° | 1072 | 1028 | 1020 |
| 75° | 898  | 853  | 844  |
| 80° | 652  | 609  | 592  |
| 85° | 346  | 306  | 278  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 1372 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 50.2   | 3.4       |
| 10°-20°   | 144.2  | 9.7       |
| 20°-30°   | 219.0  | 14.8      |
| 30°-40°   | 264.9  | 17.9      |
| 40°-50°   | 275.3  | 18.6      |
| 50°-60°   | 246.5  | 16.6      |
| 60°-70°   | 179.8  | 12.1      |
| 70°-80°   | 88.5   | 6.0       |
| 80°-90°   | 14.8   | 1.0       |
| 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°    | 413.4  | 27.9      |
| 0°-40°    | 678.3  | 45.7      |
| 0°-60°    | 1200.1 | 80.9      |
| 0°-90°    | 1483.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1483.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 530 | 530   | 530 | 530   | 530 |      |
| 5°  | 524 | 530   | 527 | 532   | 523 | 50   |
| 15° | 508 | 512   | 510 | 514   | 506 | 143  |
| 25° | 475 | 478   | 474 | 476   | 470 | 219  |
| 35° | 425 | 426   | 422 | 424   | 418 | 266  |
| 45° | 361 | 360   | 356 | 356   | 352 | 278  |
| 55° | 281 | 279   | 275 | 274   | 272 | 251  |
| 65° | 187 | 184   | 181 | 180   | 179 | 184  |
| 75° | 86  | 85    | 82  | 81    | 81  | 92   |
| 85° | 11  | 11    | 10  | 9     | 9   | 16   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 530.0 | 530.0 | 530.0 | 530.0 | 530.0 |
| 2.5°  | 525.4 | 531.3 | 528.4 | 533.7 | 524.3 |
| 5°    | 523.8 | 529.5 | 526.9 | 531.9 | 523.2 |
| 7.5°  | 521.2 | 527.1 | 524.3 | 529.1 | 520.7 |
| 10°   | 518.3 | 523.6 | 520.5 | 525.4 | 516.8 |
| 12.5° | 513.3 | 518.6 | 515.7 | 520.1 | 512.2 |
| 15°   | 507.6 | 512.2 | 509.6 | 513.9 | 506.5 |
| 17.5° | 501.0 | 505.4 | 502.5 | 506.5 | 499.0 |
| 20°   | 493.8 | 497.3 | 494.2 | 497.5 | 490.3 |
| 22.5° | 484.8 | 488.1 | 484.8 | 487.0 | 480.6 |
| 25°   | 475.1 | 477.5 | 474.2 | 476.4 | 469.9 |
| 27.5° | 464.8 | 466.1 | 462.8 | 464.6 | 457.8 |
| 30°   | 452.1 | 453.6 | 450.1 | 452.3 | 445.7 |
| 32.5° | 439.8 | 440.7 | 436.7 | 438.5 | 432.6 |
| 35°   | 425.3 | 426.2 | 422.0 | 423.8 | 417.9 |
| 37.5° | 411.5 | 411.3 | 406.9 | 408.0 | 403.0 |
| 40°   | 395.5 | 395.3 | 390.7 | 391.5 | 386.7 |
| 42.5° | 379.0 | 378.2 | 373.8 | 374.2 | 369.8 |
| 45°   | 360.6 | 360.2 | 355.6 | 356.2 | 351.8 |
| 47.5° | 342.9 | 341.5 | 336.9 | 337.1 | 333.4 |
| 50°   | 323.5 | 321.6 | 317.6 | 317.2 | 313.9 |
| 52.5° | 302.9 | 300.7 | 296.3 | 295.9 | 293.5 |
| 55°   | 281.4 | 279.0 | 274.9 | 274.2 | 272.2 |
| 57.5° | 259.3 | 256.2 | 252.9 | 251.6 | 250.1 |
| 60°   | 235.8 | 233.0 | 229.2 | 227.9 | 227.3 |
| 62.5° | 211.5 | 208.6 | 205.8 | 204.4 | 203.6 |
| 65°   | 186.7 | 184.5 | 181.2 | 179.9 | 179.2 |
| 67.5° | 161.4 | 159.5 | 156.4 | 154.9 | 154.6 |
| 70°   | 136.2 | 134.2 | 130.7 | 129.9 | 129.6 |
| 72.5° | 111.0 | 109.2 | 105.9 | 105.1 | 105.1 |
| 75°   | 86.4  | 84.9  | 82.0  | 81.2  | 81.2  |
| 77.5° | 63.2  | 61.9  | 59.7  | 58.6  | 58.6  |
| 80°   | 42.1  | 41.2  | 39.3  | 38.4  | 38.2  |
| 82.5° | 24.3  | 23.9  | 22.2  | 21.3  | 21.7  |
| 85°   | 11.2  | 10.7  | 9.9   | 8.8   | 9.0   |
| 87.5° | 2.9   | 2.6   | 2.0   | 1.5   | 2.0   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)