

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: P973447

Luminaire Tested: FLR2-14-30-L940-CP375

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P973447  
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: FLR2-14-30-L940-CP375  
Description: 1\*4 FLR-2.0 3000 LUMEN at 4000 CCT & 90 CRI with Clear Polycarbonate (0.375" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

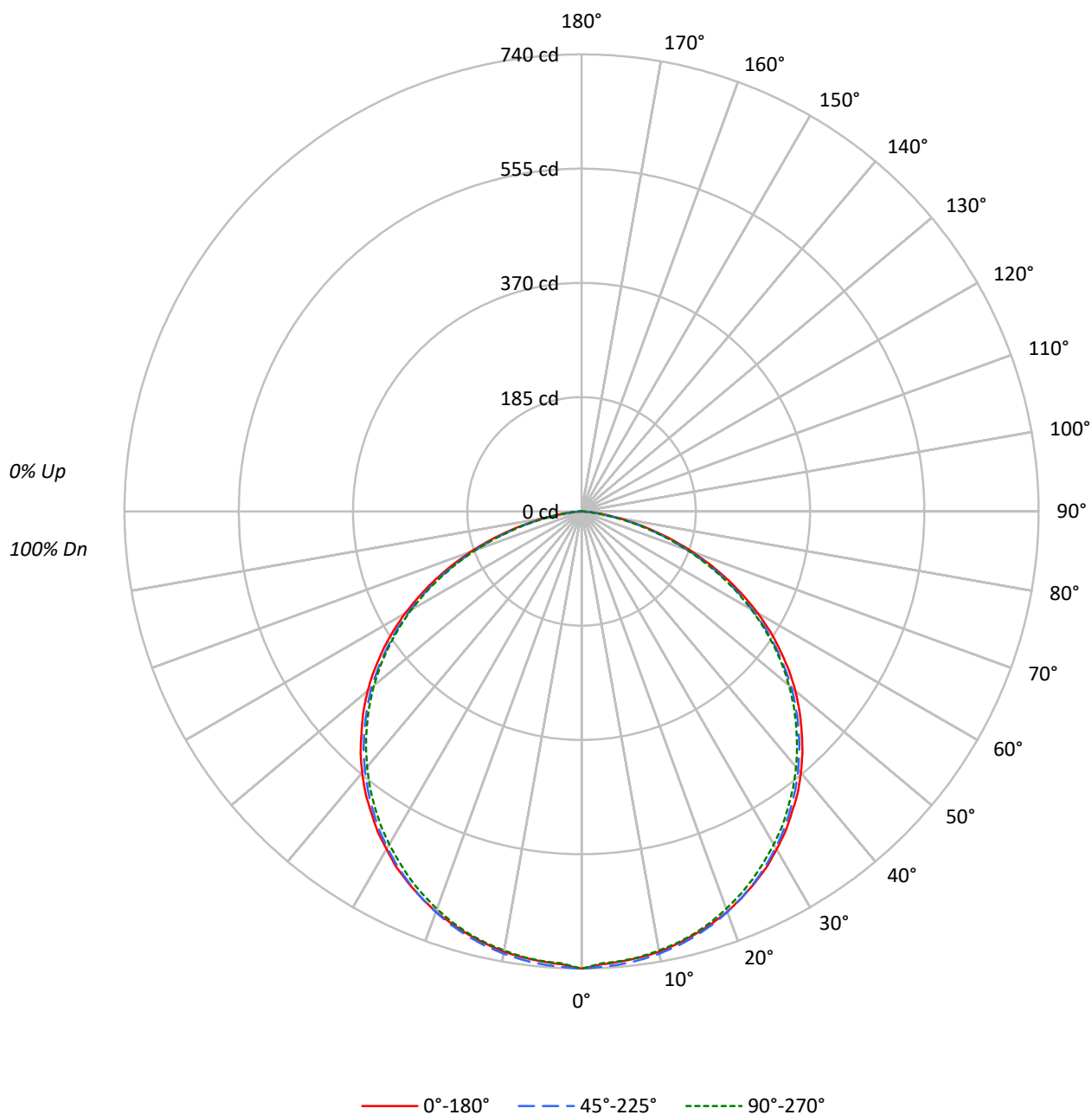
Lumens per Lamp: N/A  
Luminaire Lumens: 2072.0 lumens  
Efficiency: N/A  
Efficacy: 86.7 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.25 / 1.38  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 23.9  
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  |     |     |     |    | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |     |    | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 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°  | 1992 | 1992 | 1992 |
| 5°  | 1977 | 1988 | 1974 |
| 10° | 1979 | 1987 | 1973 |
| 15° | 1975 | 1983 | 1971 |
| 20° | 1975 | 1977 | 1961 |
| 25° | 1971 | 1967 | 1949 |
| 30° | 1962 | 1954 | 1935 |
| 35° | 1952 | 1937 | 1918 |
| 40° | 1941 | 1917 | 1898 |
| 45° | 1917 | 1890 | 1870 |
| 50° | 1892 | 1858 | 1836 |
| 55° | 1844 | 1801 | 1784 |
| 60° | 1773 | 1723 | 1709 |
| 65° | 1661 | 1612 | 1594 |
| 70° | 1497 | 1437 | 1425 |
| 75° | 1255 | 1192 | 1179 |
| 80° | 911  | 849  | 826  |
| 85° | 482  | 426  | 389  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1917 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 70.1   | 3.4       |
| 10°-20°   | 201.4  | 9.7       |
| 20°-30°   | 305.9  | 14.8      |
| 30°-40°   | 370.1  | 17.9      |
| 40°-50°   | 384.6  | 18.6      |
| 50°-60°   | 344.4  | 16.6      |
| 60°-70°   | 251.2  | 12.1      |
| 70°-80°   | 123.7  | 6.0       |
| 80°-90°   | 20.7   | 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°    | 577.4  | 27.9      |
| 0°-40°    | 947.5  | 45.7      |
| 0°-60°    | 1676.5 | 80.9      |
| 0°-90°    | 2072.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2072.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 740 | 740   | 740 | 740   | 740 |      |
| 5°  | 732 | 740   | 736 | 743   | 731 | 70   |
| 15° | 709 | 716   | 712 | 718   | 708 | 200  |
| 25° | 664 | 667   | 662 | 666   | 656 | 306  |
| 35° | 594 | 595   | 590 | 592   | 584 | 372  |
| 45° | 504 | 503   | 497 | 498   | 492 | 389  |
| 55° | 393 | 390   | 384 | 383   | 380 | 351  |
| 65° | 261 | 258   | 253 | 251   | 250 | 258  |
| 75° | 121 | 119   | 115 | 113   | 113 | 129  |
| 85° | 16  | 15    | 14  | 12    | 13  | 23   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 740.3 | 740.3 | 740.3 | 740.3 | 740.3 |
| 2.5°  | 733.9 | 742.2 | 738.2 | 745.5 | 732.3 |
| 5°    | 731.7 | 739.7 | 736.0 | 743.1 | 730.8 |
| 7.5°  | 728.1 | 736.3 | 732.3 | 739.1 | 727.4 |
| 10°   | 724.1 | 731.4 | 727.1 | 733.9 | 721.9 |
| 12.5° | 717.0 | 724.4 | 720.4 | 726.5 | 715.5 |
| 15°   | 709.1 | 715.5 | 711.8 | 717.9 | 707.5 |
| 17.5° | 699.9 | 706.0 | 702.0 | 707.5 | 697.1 |
| 20°   | 689.8 | 694.7 | 690.4 | 695.0 | 684.9 |
| 22.5° | 677.2 | 681.8 | 677.2 | 680.3 | 671.4 |
| 25°   | 663.7 | 667.1 | 662.5 | 665.5 | 656.4 |
| 27.5° | 649.3 | 651.1 | 646.5 | 649.0 | 639.5 |
| 30°   | 631.5 | 633.7 | 628.8 | 631.8 | 622.6 |
| 32.5° | 614.4 | 615.6 | 610.1 | 612.5 | 604.3 |
| 35°   | 594.2 | 595.4 | 589.6 | 592.0 | 583.7 |
| 37.5° | 574.8 | 574.5 | 568.4 | 569.9 | 562.9 |
| 40°   | 552.5 | 552.2 | 545.7 | 547.0 | 540.2 |
| 42.5° | 529.5 | 528.3 | 522.1 | 522.8 | 516.6 |
| 45°   | 503.8 | 503.1 | 496.7 | 497.6 | 491.5 |
| 47.5° | 478.9 | 477.1 | 470.7 | 471.0 | 465.8 |
| 50°   | 452.0 | 449.2 | 443.7 | 443.1 | 438.5 |
| 52.5° | 423.2 | 420.1 | 414.0 | 413.4 | 410.0 |
| 55°   | 393.1 | 389.8 | 383.9 | 383.0 | 380.3 |
| 57.5° | 362.2 | 357.9 | 353.3 | 351.5 | 349.3 |
| 60°   | 329.4 | 325.4 | 320.2 | 318.4 | 317.5 |
| 62.5° | 295.4 | 291.4 | 287.4 | 285.6 | 284.4 |
| 65°   | 260.8 | 257.7 | 253.1 | 251.3 | 250.3 |
| 67.5° | 225.5 | 222.8 | 218.5 | 216.3 | 216.0 |
| 70°   | 190.3 | 187.5 | 182.6 | 181.4 | 181.1 |
| 72.5° | 155.0 | 152.6 | 148.0 | 146.8 | 146.8 |
| 75°   | 120.7 | 118.6 | 114.6 | 113.4 | 113.4 |
| 77.5° | 88.2  | 86.4  | 83.3  | 81.8  | 81.8  |
| 80°   | 58.8  | 57.6  | 54.8  | 53.6  | 53.3  |
| 82.5° | 34.0  | 33.4  | 30.9  | 29.7  | 30.3  |
| 85°   | 15.6  | 15.0  | 13.8  | 12.3  | 12.6  |
| 87.5° | 4.0   | 3.7   | 2.8   | 2.1   | 2.8   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)