

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: P974770

Luminaire Tested: FLR2-24-30HE-L935-CP250

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974770  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-24-30HE-L935-CP250  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

**Summary**

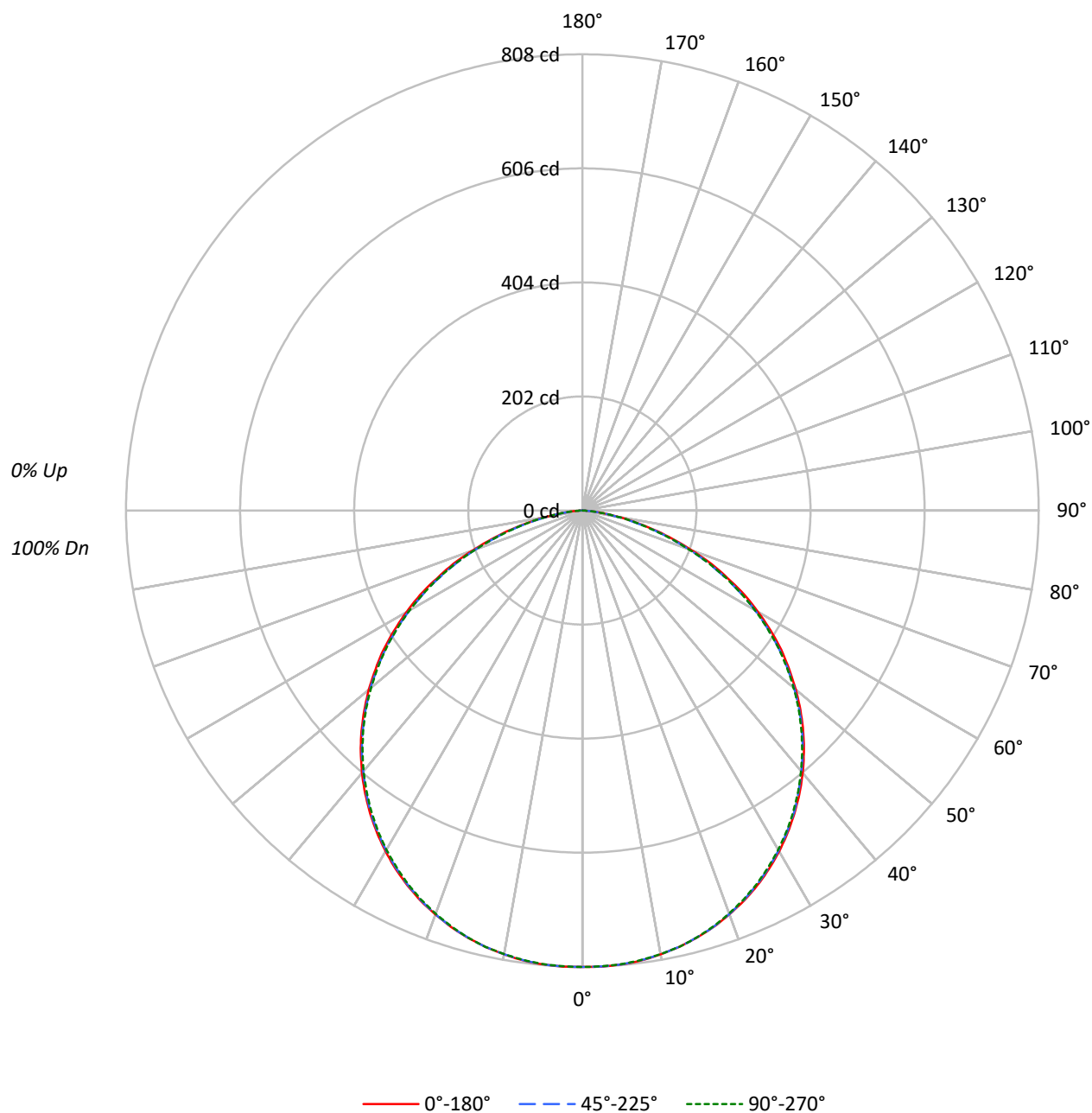
Lumens per Lamp: N/A  
Luminaire Lumens: 2285.0 lumens  
Efficiency: N/A  
Efficacy: 104.3 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 21.9  
Input Voltage (V):  
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 | 100 | 97  | 106 | 102 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 89  | 91  | 89  | 87  | 85  |    | 85  |
| 2   | 99  | 91  | 85  | 79  | 97  | 89  | 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  | 57  | 53  | 51  |    | 51  |
| 5   | 76  | 64  | 55  | 48  | 74  | 62  | 54  | 48  | 60  | 53  | 47  | 58  | 52  | 47  | 56  | 51  | 46  | 44  |    | 44  |
| 6   | 70  | 57  | 48  | 42  | 69  | 56  | 48  | 42  | 54  | 47  | 41  | 53  | 46  | 41  | 51  | 45  | 41  | 38  |    | 38  |
| 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  | 39  | 33  | 29  | 27  |    | 27  |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 27  | 38  | 31  | 27  | 38  | 31  | 26  | 37  | 31  | 26  | 25  |    | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1088 | 1088 | 1088 |
| 5°  | 1090 | 1090 | 1089 |
| 10° | 1091 | 1090 | 1090 |
| 15° | 1091 | 1091 | 1091 |
| 20° | 1090 | 1089 | 1088 |
| 25° | 1088 | 1086 | 1084 |
| 30° | 1083 | 1080 | 1078 |
| 35° | 1076 | 1073 | 1069 |
| 40° | 1066 | 1060 | 1058 |
| 45° | 1053 | 1047 | 1043 |
| 50° | 1033 | 1025 | 1022 |
| 55° | 1008 | 994  | 993  |
| 60° | 966  | 949  | 949  |
| 65° | 904  | 883  | 886  |
| 70° | 814  | 788  | 786  |
| 75° | 683  | 656  | 653  |
| 80° | 499  | 474  | 494  |
| 85° | 283  | 259  | 264  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 1053 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 76.7   | 3.4       |
| 10°-20°   | 221.1  | 9.7       |
| 20°-30°   | 337.1  | 14.8      |
| 30°-40°   | 408.4  | 17.9      |
| 40°-50°   | 424.2  | 18.6      |
| 50°-60°   | 379.5  | 16.6      |
| 60°-70°   | 276.6  | 12.1      |
| 70°-80°   | 137.0  | 6.0       |
| 80°-90°   | 24.5   | 1.1       |
| 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°    | 634.9  | 27.8      |
| 0°-40°    | 1043.3 | 45.7      |
| 0°-60°    | 1846.9 | 80.8      |
| 0°-90°    | 2285.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2285.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 808 | 808   | 808 | 808   | 808 |      |
| 5°  | 807 | 807   | 807 | 807   | 806 | 77   |
| 15° | 783 | 783   | 783 | 784   | 783 | 221  |
| 25° | 733 | 732   | 731 | 731   | 730 | 338  |
| 35° | 655 | 654   | 653 | 652   | 651 | 410  |
| 45° | 553 | 552   | 550 | 549   | 548 | 426  |
| 55° | 430 | 427   | 424 | 424   | 423 | 383  |
| 65° | 284 | 282   | 277 | 278   | 278 | 282  |
| 75° | 131 | 129   | 126 | 128   | 126 | 140  |
| 85° | 18  | 17    | 17  | 17    | 17  | 25   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |

TEST NUMBER: P974770

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 808.5 | 808.5 | 808.5 | 808.5 | 808.5 |
| 2.5°  | 808.5 | 808.2 | 808.2 | 808.5 | 807.9 |
| 5°    | 807.0 | 807.3 | 807.0 | 807.0 | 806.4 |
| 7.5°  | 803.8 | 803.5 | 803.2 | 803.5 | 802.7 |
| 10°   | 798.3 | 798.3 | 798.0 | 798.3 | 797.7 |
| 12.5° | 791.6 | 791.6 | 791.6 | 791.9 | 791.6 |
| 15°   | 783.2 | 782.9 | 782.9 | 783.5 | 782.9 |
| 17.5° | 773.4 | 773.1 | 773.1 | 772.8 | 772.2 |
| 20°   | 761.2 | 761.2 | 760.9 | 760.6 | 759.7 |
| 22.5° | 748.1 | 747.8 | 747.0 | 747.0 | 745.8 |
| 25°   | 732.8 | 731.9 | 731.3 | 731.0 | 730.1 |
| 27.5° | 715.9 | 714.8 | 713.9 | 713.3 | 712.4 |
| 30°   | 697.1 | 695.9 | 695.0 | 694.2 | 693.6 |
| 32.5° | 676.8 | 676.2 | 674.7 | 674.4 | 673.3 |
| 35°   | 655.0 | 654.1 | 653.3 | 652.1 | 651.0 |
| 37.5° | 631.8 | 630.9 | 628.9 | 628.3 | 627.5 |
| 40°   | 607.1 | 606.0 | 603.4 | 603.4 | 602.5 |
| 42.5° | 580.8 | 579.6 | 577.8 | 576.7 | 576.1 |
| 45°   | 553.2 | 552.0 | 550.0 | 548.8 | 548.3 |
| 47.5° | 523.9 | 523.0 | 520.7 | 519.8 | 519.0 |
| 50°   | 493.4 | 492.3 | 489.7 | 489.1 | 488.2 |
| 52.5° | 461.5 | 460.9 | 457.5 | 457.2 | 456.3 |
| 55°   | 429.9 | 426.7 | 423.8 | 423.8 | 423.2 |
| 57.5° | 395.1 | 392.8 | 389.0 | 389.0 | 388.4 |
| 60°   | 359.1 | 357.1 | 352.7 | 353.3 | 352.7 |
| 62.5° | 324.0 | 319.7 | 315.6 | 317.4 | 315.9 |
| 65°   | 284.0 | 281.7 | 277.3 | 278.5 | 278.2 |
| 67.5° | 247.4 | 243.1 | 239.0 | 241.4 | 240.2 |
| 70°   | 206.8 | 204.5 | 200.4 | 202.8 | 199.9 |
| 72.5° | 168.5 | 166.5 | 162.4 | 165.1 | 162.2 |
| 75°   | 131.4 | 129.4 | 126.2 | 128.5 | 125.6 |
| 77.5° | 96.3  | 94.9  | 92.0  | 94.3  | 94.9  |
| 80°   | 64.4  | 62.7  | 61.2  | 63.2  | 63.8  |
| 82.5° | 37.7  | 36.6  | 36.0  | 36.3  | 37.7  |
| 85°   | 18.3  | 16.8  | 16.8  | 17.1  | 17.1  |
| 87.5° | 4.9   | 4.4   | 4.9   | 5.2   | 5.5   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)