

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: P975018

Luminaire Tested: FLR2-24-72HE-L850-CP375

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P975018  
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: FLR2-24-72HE-L850-CP375  
Description: SHAPER SENSE CIRCLE  
  
Light Source:  
Ballast/Driver: -

**Summary**

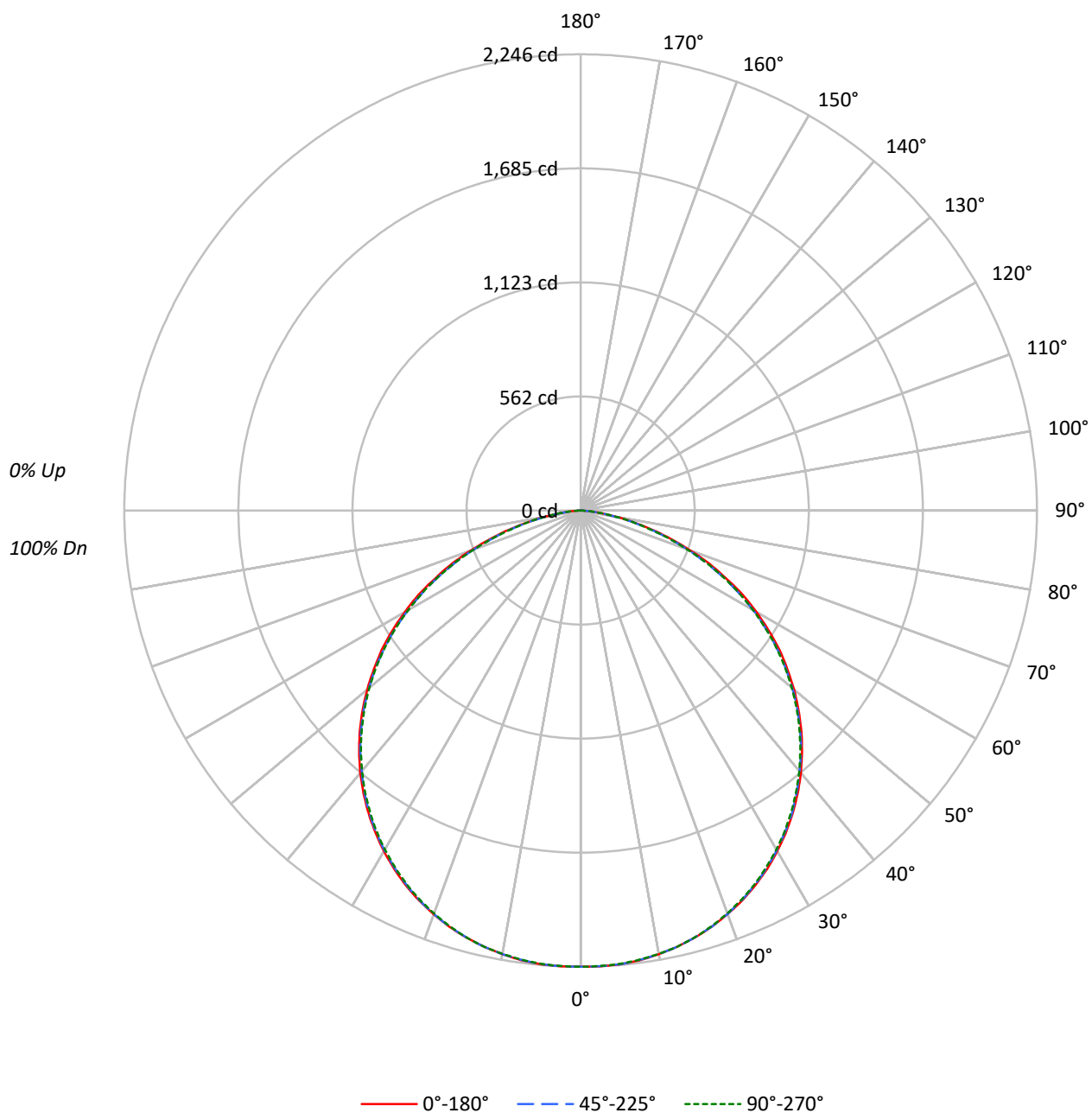
Lumens per Lamp: N/A  
Luminaire Lumens: 6348.5 lumens  
Efficiency: N/A  
Efficacy: 118.4 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 53.6  
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°  | 3022 | 3022 | 3022 |
| 5°  | 3028 | 3028 | 3026 |
| 10° | 3030 | 3029 | 3028 |
| 15° | 3031 | 3030 | 3030 |
| 20° | 3028 | 3027 | 3022 |
| 25° | 3022 | 3016 | 3012 |
| 30° | 3009 | 3000 | 2994 |
| 35° | 2989 | 2981 | 2971 |
| 40° | 2963 | 2944 | 2940 |
| 45° | 2925 | 2908 | 2899 |
| 50° | 2870 | 2848 | 2839 |
| 55° | 2802 | 2762 | 2758 |
| 60° | 2685 | 2637 | 2637 |
| 65° | 2512 | 2453 | 2461 |
| 70° | 2260 | 2191 | 2185 |
| 75° | 1898 | 1823 | 1814 |
| 80° | 1386 | 1318 | 1374 |
| 85° | 784  | 721  | 735  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 2925 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 213.2  | 3.4       |
| 10°-20°   | 614.2  | 9.7       |
| 20°-30°   | 936.5  | 14.8      |
| 30°-40°   | 1134.6 | 17.9      |
| 40°-50°   | 1178.6 | 18.6      |
| 50°-60°   | 1054.3 | 16.6      |
| 60°-70°   | 768.4  | 12.1      |
| 70°-80°   | 380.5  | 6.0       |
| 80°-90°   | 68.0   | 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°    | 1763.9 | 27.8      |
| 0°-40°    | 2898.6 | 45.7      |
| 0°-60°    | 5131.5 | 80.8      |
| 0°-90°    | 6348.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6348.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2246 | 2246  | 2246 | 2246  | 2246 |      |
| 5°  | 2242 | 2243  | 2242 | 2242  | 2241 | 213  |
| 15° | 2176 | 2175  | 2175 | 2177  | 2175 | 614  |
| 25° | 2036 | 2033  | 2032 | 2031  | 2029 | 938  |
| 35° | 1820 | 1817  | 1815 | 1812  | 1809 | 1138 |
| 45° | 1537 | 1534  | 1528 | 1525  | 1523 | 1184 |
| 55° | 1194 | 1186  | 1178 | 1178  | 1176 | 1064 |
| 65° | 789  | 783   | 770  | 774   | 773  | 782  |
| 75° | 365  | 360   | 351  | 357   | 349  | 389  |
| 85° | 51   | 47    | 47   | 48    | 48   | 70   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2246.2 | 2246.2 | 2246.2 | 2246.2 | 2246.2 |
| 2.5°  | 2246.2 | 2245.4 | 2245.4 | 2246.2 | 2244.6 |
| 5°    | 2242.2 | 2243.0 | 2242.2 | 2242.2 | 2240.6 |
| 7.5°  | 2233.3 | 2232.5 | 2231.7 | 2232.5 | 2230.1 |
| 10°   | 2218.0 | 2218.0 | 2217.2 | 2218.0 | 2216.4 |
| 12.5° | 2199.5 | 2199.5 | 2199.5 | 2200.3 | 2199.5 |
| 15°   | 2176.1 | 2175.3 | 2175.3 | 2176.9 | 2175.3 |
| 17.5° | 2148.7 | 2147.9 | 2147.9 | 2147.1 | 2145.5 |
| 20°   | 2114.8 | 2114.8 | 2114.0 | 2113.2 | 2110.8 |
| 22.5° | 2078.6 | 2077.8 | 2075.3 | 2075.3 | 2072.1 |
| 25°   | 2035.8 | 2033.4 | 2031.8 | 2031.0 | 2028.6 |
| 27.5° | 1989.1 | 1985.9 | 1983.5 | 1981.8 | 1979.4 |
| 30°   | 1936.7 | 1933.5 | 1931.1 | 1928.7 | 1927.0 |
| 32.5° | 1880.3 | 1878.7 | 1874.7 | 1873.8 | 1870.6 |
| 35°   | 1819.8 | 1817.4 | 1815.0 | 1811.8 | 1808.6 |
| 37.5° | 1755.4 | 1753.0 | 1747.3 | 1745.7 | 1743.3 |
| 40°   | 1686.9 | 1683.6 | 1676.4 | 1676.4 | 1674.0 |
| 42.5° | 1613.5 | 1610.3 | 1605.5 | 1602.2 | 1600.6 |
| 45°   | 1537.0 | 1533.7 | 1528.1 | 1524.9 | 1523.3 |
| 47.5° | 1455.6 | 1453.1 | 1446.7 | 1444.3 | 1441.9 |
| 50°   | 1370.9 | 1367.7 | 1360.5 | 1358.8 | 1356.4 |
| 52.5° | 1282.3 | 1280.7 | 1271.0 | 1270.2 | 1267.8 |
| 55°   | 1194.4 | 1185.6 | 1177.5 | 1177.5 | 1175.9 |
| 57.5° | 1097.7 | 1091.3 | 1080.8 | 1080.8 | 1079.2 |
| 60°   | 997.8  | 992.1  | 980.0  | 981.7  | 980.0  |
| 62.5° | 900.3  | 888.2  | 876.9  | 881.7  | 877.7  |
| 65°   | 789.0  | 782.6  | 770.5  | 773.7  | 772.9  |
| 67.5° | 687.5  | 675.4  | 664.1  | 670.6  | 667.3  |
| 70°   | 574.6  | 568.2  | 556.9  | 563.4  | 555.3  |
| 72.5° | 468.3  | 462.6  | 451.3  | 458.6  | 450.5  |
| 75°   | 365.1  | 359.5  | 350.6  | 357.0  | 349.0  |
| 77.5° | 267.6  | 263.5  | 255.5  | 261.9  | 263.5  |
| 80°   | 178.9  | 174.1  | 170.1  | 175.7  | 177.3  |
| 82.5° | 104.8  | 101.6  | 99.9   | 100.7  | 104.8  |
| 85°   | 50.8   | 46.7   | 46.7   | 47.6   | 47.6   |
| 87.5° | 13.7   | 12.1   | 13.7   | 14.5   | 15.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)