

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: P974184

Luminaire Tested: FLR2-24-72-L835-CP125

Issue Date: 3/13/2025

**Test Information**

Test Method: LM-79-2019  
Report Number: P974184  
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: FLR2-24-72-L835-CP125  
Description: SHAPER SENSE CIRCLE  
  
Light Source: FLR2-24-72-L835-CP125  
Ballast/Driver: -

**Summary**

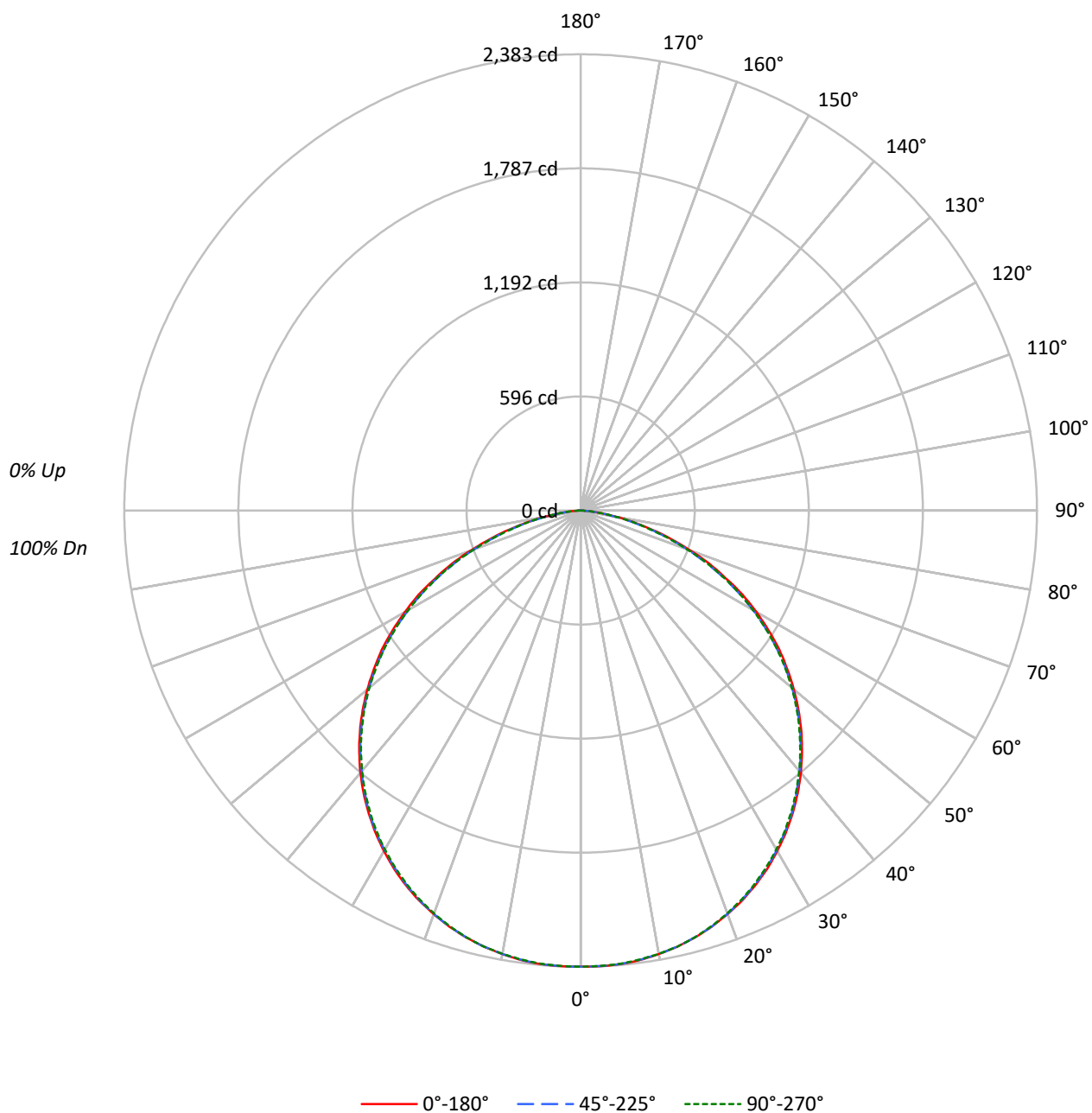
Lumens per Lamp: N/A  
Luminaire Lumens: 6734.3 lumens  
Efficiency: N/A  
Efficacy: 110.6 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 60.9  
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 | 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°  | 3206 | 3206 | 3206 |
| 5°  | 3212 | 3212 | 3210 |
| 10° | 3215 | 3213 | 3212 |
| 15° | 3215 | 3214 | 3214 |
| 20° | 3212 | 3211 | 3206 |
| 25° | 3206 | 3200 | 3195 |
| 30° | 3192 | 3182 | 3176 |
| 35° | 3171 | 3162 | 3151 |
| 40° | 3143 | 3123 | 3119 |
| 45° | 3102 | 3084 | 3075 |
| 50° | 3044 | 3021 | 3012 |
| 55° | 2972 | 2930 | 2926 |
| 60° | 2848 | 2798 | 2798 |
| 65° | 2665 | 2602 | 2610 |
| 70° | 2398 | 2324 | 2317 |
| 75° | 2013 | 1933 | 1925 |
| 80° | 1471 | 1398 | 1457 |
| 85° | 832  | 766  | 778  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°

Vertical Angle: 45°

Luminance: 3102 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 226.2  | 3.4       |
| 10°-20°   | 651.6  | 9.7       |
| 20°-30°   | 993.4  | 14.8      |
| 30°-40°   | 1203.6 | 17.9      |
| 40°-50°   | 1250.2 | 18.6      |
| 50°-60°   | 1118.4 | 16.6      |
| 60°-70°   | 815.1  | 12.1      |
| 70°-80°   | 403.7  | 6.0       |
| 80°-90°   | 72.1   | 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°    | 1871.1 | 27.8      |
| 0°-40°    | 3074.7 | 45.7      |
| 0°-60°    | 5443.4 | 80.8      |
| 0°-90°    | 6734.3 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6734.3 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2383 | 2383  | 2383 | 2383  | 2383 |      |
| 5°  | 2378 | 2379  | 2378 | 2378  | 2377 | 226  |
| 15° | 2308 | 2308  | 2308 | 2309  | 2308 | 652  |
| 25° | 2160 | 2157  | 2155 | 2154  | 2152 | 995  |
| 35° | 1930 | 1928  | 1925 | 1922  | 1918 | 1207 |
| 45° | 1630 | 1627  | 1621 | 1618  | 1616 | 1256 |
| 55° | 1267 | 1258  | 1249 | 1249  | 1247 | 1129 |
| 65° | 837  | 830   | 817  | 821   | 820  | 830  |
| 75° | 387  | 381   | 372  | 379   | 370  | 413  |
| 85° | 54   | 50    | 50   | 50    | 50   | 75   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2382.7 | 2382.7 | 2382.7 | 2382.7 | 2382.7 |
| 2.5°  | 2382.7 | 2381.9 | 2381.9 | 2382.7 | 2381.0 |
| 5°    | 2378.5 | 2379.3 | 2378.5 | 2378.5 | 2376.7 |
| 7.5°  | 2369.1 | 2368.2 | 2367.3 | 2368.2 | 2365.6 |
| 10°   | 2352.8 | 2352.8 | 2352.0 | 2352.8 | 2351.1 |
| 12.5° | 2333.1 | 2333.1 | 2333.1 | 2334.0 | 2333.1 |
| 15°   | 2308.4 | 2307.5 | 2307.5 | 2309.2 | 2307.5 |
| 17.5° | 2279.3 | 2278.4 | 2278.4 | 2277.6 | 2275.9 |
| 20°   | 2243.4 | 2243.4 | 2242.5 | 2241.7 | 2239.1 |
| 22.5° | 2204.9 | 2204.0 | 2201.5 | 2201.5 | 2198.1 |
| 25°   | 2159.6 | 2157.0 | 2155.3 | 2154.5 | 2151.9 |
| 27.5° | 2110.0 | 2106.6 | 2104.0 | 2102.3 | 2099.7 |
| 30°   | 2054.4 | 2051.0 | 2048.4 | 2045.9 | 2044.2 |
| 32.5° | 1994.6 | 1992.9 | 1988.6 | 1987.7 | 1984.3 |
| 35°   | 1930.5 | 1927.9 | 1925.3 | 1921.9 | 1918.5 |
| 37.5° | 1862.1 | 1859.5 | 1853.5 | 1851.8 | 1849.2 |
| 40°   | 1789.4 | 1786.0 | 1778.3 | 1778.3 | 1775.7 |
| 42.5° | 1711.6 | 1708.2 | 1703.1 | 1699.6 | 1697.9 |
| 45°   | 1630.4 | 1627.0 | 1621.0 | 1617.6 | 1615.8 |
| 47.5° | 1544.0 | 1541.5 | 1534.6 | 1532.1 | 1529.5 |
| 50°   | 1454.3 | 1450.8 | 1443.1 | 1441.4 | 1438.9 |
| 52.5° | 1360.2 | 1358.5 | 1348.2 | 1347.4 | 1344.8 |
| 55°   | 1267.0 | 1257.6 | 1249.1 | 1249.1 | 1247.4 |
| 57.5° | 1164.4 | 1157.6 | 1146.5 | 1146.5 | 1144.8 |
| 60°   | 1058.4 | 1052.4 | 1039.6 | 1041.3 | 1039.6 |
| 62.5° | 955.0  | 942.1  | 930.2  | 935.3  | 931.0  |
| 65°   | 837.0  | 830.2  | 817.3  | 820.7  | 819.9  |
| 67.5° | 729.3  | 716.4  | 704.5  | 711.3  | 707.9  |
| 70°   | 609.6  | 602.7  | 590.8  | 597.6  | 589.1  |
| 72.5° | 496.7  | 490.7  | 478.8  | 486.5  | 477.9  |
| 75°   | 387.3  | 381.3  | 371.9  | 378.7  | 370.2  |
| 77.5° | 283.8  | 279.6  | 271.0  | 277.9  | 279.6  |
| 80°   | 189.8  | 184.7  | 180.4  | 186.4  | 188.1  |
| 82.5° | 111.1  | 107.7  | 106.0  | 106.9  | 111.1  |
| 85°   | 53.9   | 49.6   | 49.6   | 50.4   | 50.4   |
| 87.5° | 14.5   | 12.8   | 14.5   | 15.4   | 16.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)