

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: P973142

Luminaire Tested: FLR2-14-70HE-L835-CP375

Issue Date: 3/13/2025

**Test Information**

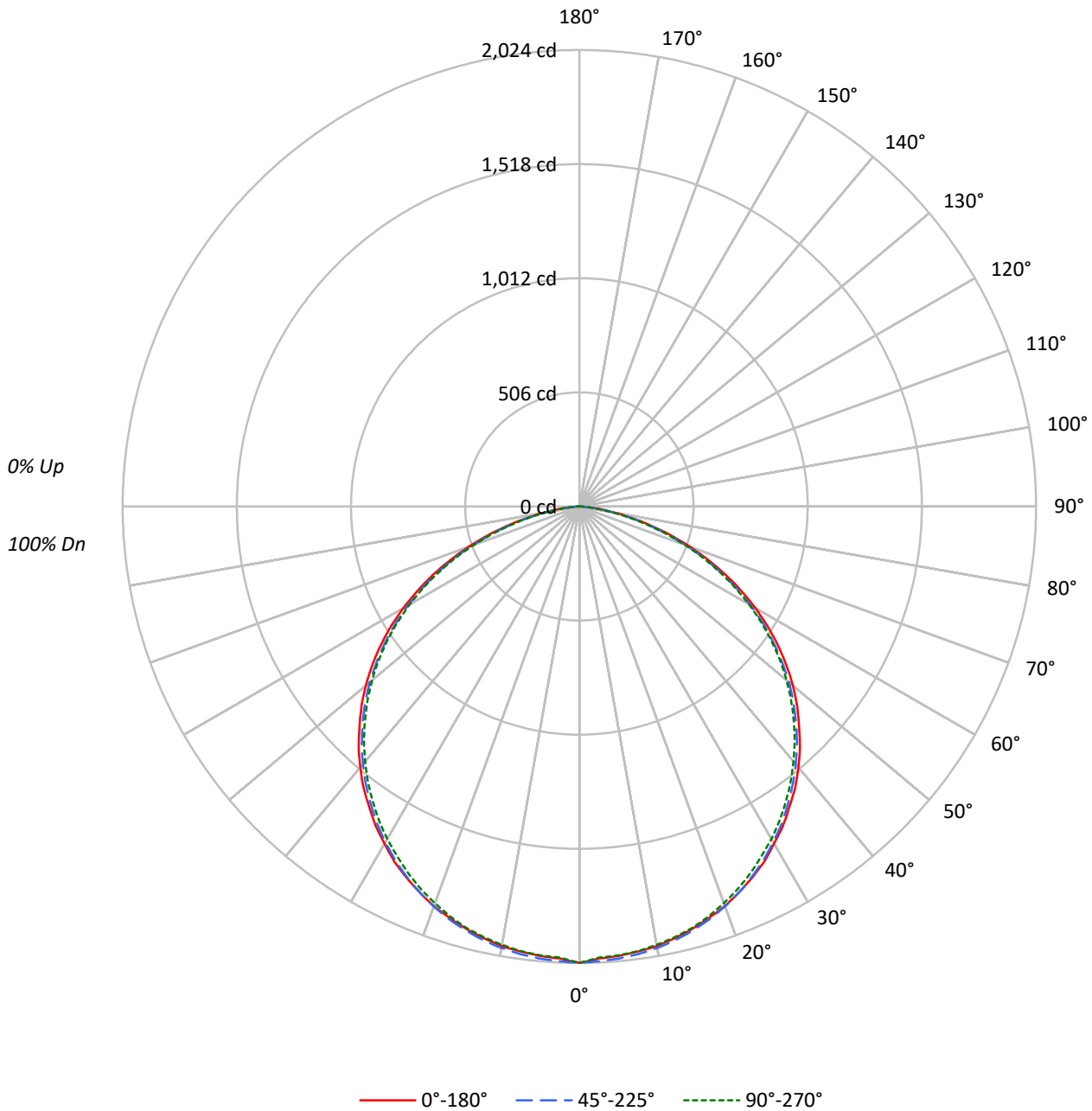
Test Method: LM-79-2019  
Report Number: P973142  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 3/13/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR2-14-70HE-L835-CP375  
Description: 1\*4 FLR-2.0 7000 Lumen High Efficacy at 3500CCT & 80CRI Clear Polycarbonate (0.375" thickness)  
  
Light Source:  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5664.8 lumens  
Efficiency: N/A  
Efficacy: 107.9 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): 52.5  
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°  | 5447 | 5447 | 5447 |
| 5°  | 5404 | 5435 | 5397 |
| 10° | 5409 | 5432 | 5393 |
| 15° | 5400 | 5421 | 5389 |
| 20° | 5400 | 5405 | 5362 |
| 25° | 5388 | 5378 | 5328 |
| 30° | 5365 | 5341 | 5290 |
| 35° | 5336 | 5295 | 5243 |
| 40° | 5306 | 5241 | 5188 |
| 45° | 5241 | 5168 | 5114 |
| 50° | 5173 | 5078 | 5019 |
| 55° | 5043 | 4925 | 4877 |
| 60° | 4847 | 4711 | 4671 |
| 65° | 4539 | 4406 | 4358 |
| 70° | 4093 | 3928 | 3895 |
| 75° | 3432 | 3257 | 3223 |
| 80° | 2492 | 2325 | 2259 |
| 85° | 1318 | 1164 | 1059 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 5241 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 191.7  | 3.4       |
| 10°-20°   | 550.5  | 9.7       |
| 20°-30°   | 836.4  | 14.8      |
| 30°-40°   | 1011.8 | 17.9      |
| 40°-50°   | 1051.5 | 18.6      |
| 50°-60°   | 941.5  | 16.6      |
| 60°-70°   | 686.7  | 12.1      |
| 70°-80°   | 338.2  | 6.0       |
| 80°-90°   | 56.5   | 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°    | 1578.7 | 27.9      |
| 0°-40°    | 2590.4 | 45.7      |
| 0°-60°    | 4583.4 | 80.9      |
| 0°-90°    | 5664.8 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5664.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2024 | 2024  | 2024 | 2024  | 2024 |      |
| 5°  | 2000 | 2022  | 2012 | 2032  | 1998 | 190  |
| 15° | 1938 | 1956  | 1946 | 1963  | 1934 | 547  |
| 25° | 1814 | 1824  | 1811 | 1820  | 1794 | 836  |
| 35° | 1624 | 1628  | 1612 | 1618  | 1596 | 1017 |
| 45° | 1377 | 1376  | 1358 | 1360  | 1344 | 1063 |
| 55° | 1075 | 1066  | 1050 | 1047  | 1040 | 959  |
| 65° | 713  | 704   | 692  | 687   | 684  | 704  |
| 75° | 330  | 324   | 313  | 310   | 310  | 352  |
| 85° | 43   | 41    | 38   | 34    | 34   | 62   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2024.0 | 2024.0 | 2024.0 | 2024.0 | 2024.0 |
| 2.5°  | 2006.4 | 2029.0 | 2018.1 | 2038.2 | 2002.2 |
| 5°    | 2000.5 | 2022.3 | 2012.2 | 2031.5 | 1998.0 |
| 7.5°  | 1990.4 | 2013.1 | 2002.2 | 2020.6 | 1988.8 |
| 10°   | 1979.6 | 1999.7 | 1987.9 | 2006.4 | 1973.7 |
| 12.5° | 1960.3 | 1980.4 | 1969.5 | 1986.3 | 1956.1 |
| 15°   | 1938.5 | 1956.1 | 1946.0 | 1962.8 | 1934.3 |
| 17.5° | 1913.4 | 1930.1 | 1919.2 | 1934.3 | 1905.8 |
| 20°   | 1885.7 | 1899.1 | 1887.4 | 1900.0 | 1872.3 |
| 22.5° | 1851.4 | 1863.9 | 1851.4 | 1859.8 | 1835.5 |
| 25°   | 1814.5 | 1823.7 | 1811.2 | 1819.5 | 1794.4 |
| 27.5° | 1775.1 | 1780.2 | 1767.6 | 1774.3 | 1748.3 |
| 30°   | 1726.6 | 1732.4 | 1719.0 | 1727.4 | 1702.3 |
| 32.5° | 1679.6 | 1683.0 | 1667.9 | 1674.6 | 1652.0 |
| 35°   | 1624.4 | 1627.7 | 1611.8 | 1618.5 | 1595.9 |
| 37.5° | 1571.6 | 1570.7 | 1554.0 | 1558.2 | 1538.9 |
| 40°   | 1510.4 | 1509.6 | 1492.0 | 1495.3 | 1476.9 |
| 42.5° | 1447.6 | 1444.2 | 1427.5 | 1429.2 | 1412.4 |
| 45°   | 1377.2 | 1375.5 | 1358.0 | 1360.5 | 1343.7 |
| 47.5° | 1309.4 | 1304.3 | 1286.7 | 1287.6 | 1273.3 |
| 50°   | 1235.6 | 1228.1 | 1213.0 | 1211.4 | 1198.8 |
| 52.5° | 1156.9 | 1148.5 | 1131.8 | 1130.1 | 1120.9 |
| 55°   | 1074.8 | 1065.6 | 1049.7 | 1047.2 | 1039.6 |
| 57.5° | 990.2  | 978.5  | 965.9  | 960.9  | 955.0  |
| 60°   | 900.6  | 889.7  | 875.4  | 870.4  | 867.9  |
| 62.5° | 807.6  | 796.7  | 785.8  | 780.8  | 777.4  |
| 65°   | 712.9  | 704.5  | 692.0  | 686.9  | 684.4  |
| 67.5° | 616.6  | 609.0  | 597.3  | 591.4  | 590.6  |
| 70°   | 520.2  | 512.7  | 499.3  | 495.9  | 495.1  |
| 72.5° | 423.9  | 417.2  | 404.6  | 401.3  | 401.3  |
| 75°   | 330.1  | 324.2  | 313.3  | 310.0  | 310.0  |
| 77.5° | 241.3  | 236.2  | 227.9  | 223.7  | 223.7  |
| 80°   | 160.8  | 157.5  | 150.0  | 146.6  | 145.8  |
| 82.5° | 93.0   | 91.3   | 84.6   | 81.3   | 82.9   |
| 85°   | 42.7   | 41.0   | 37.7   | 33.5   | 34.3   |
| 87.5° | 10.9   | 10.1   | 7.5    | 5.9    | 7.5    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)