

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: P688305

Luminaire Tested: FLR-HA-24-L3C3 (HI)-35-CP125

Issue Date: 5/22/2023

**Test Information**

Test Method: LM-79-2019  
Report Number: P688305  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-12)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/22/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: FAIL-SAFE  
Catalog Number: FLR-HA-24-L3C3 (HI)-35-CP125  
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 3500K Luminaire at High Lumen setting for High Abuse  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: -

**Summary**

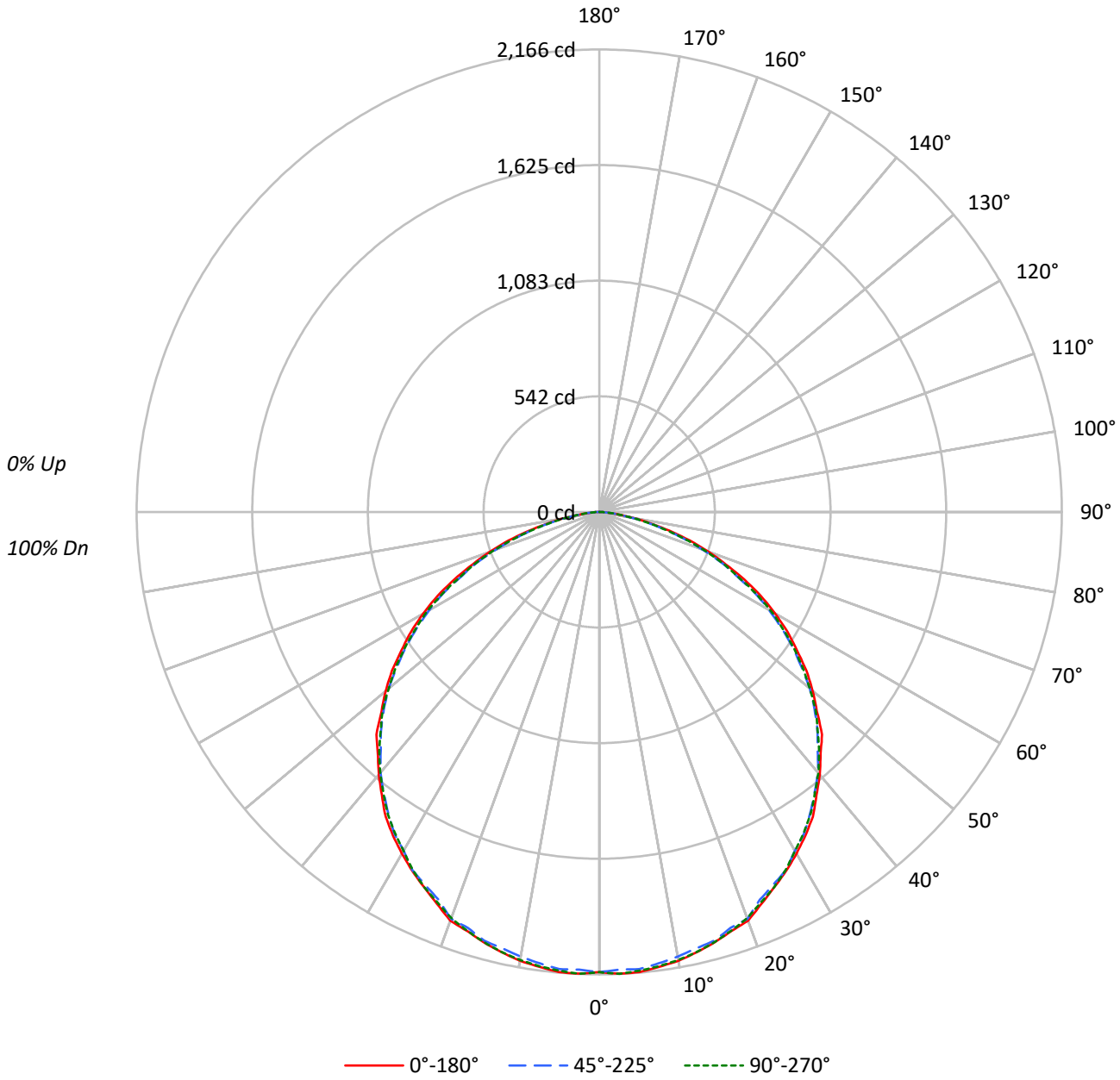
Lumens per Lamp: N/A  
Luminaire Lumens: 5979.7 lumens  
Efficiency: N/A  
Efficacy: 113.3 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 52.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



TEST NUMBER: P688305  
CATALOG NUMBER: FLR-HA-24-L3C3 (HI)-35-CP125

### Luminous Intensity Polar Plot



TEST NUMBER: P688305  
 CATALOG NUMBER: FLR-HA-24-L3C3 (HI)-35-CP125

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF  | 20  |     |     |     | 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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 90  | 91  | 89  | 87  | 85  |
| 2   | 100 | 92  | 85  | 79  | 97  | 90  | 84  | 78  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 76  | 73  | 71  |
| 3   | 91  | 81  | 73  | 66  | 88  | 79  | 72  | 66  | 76  | 70  | 64  | 73  | 68  | 63  | 71  | 66  | 62  | 60  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 68  | 61  | 55  | 65  | 59  | 54  | 63  | 58  | 54  | 51  |
| 5   | 77  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 61  | 53  | 48  | 59  | 52  | 47  | 57  | 51  | 47  | 44  |
| 6   | 71  | 57  | 49  | 42  | 69  | 56  | 48  | 42  | 55  | 47  | 42  | 53  | 46  | 41  | 51  | 46  | 41  | 39  |
| 7   | 66  | 52  | 43  | 37  | 64  | 51  | 43  | 37  | 50  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 36  | 34  |
| 8   | 61  | 48  | 39  | 33  | 59  | 47  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |
| 9   | 57  | 44  | 35  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 34  | 29  | 40  | 34  | 29  | 28  |
| 10  | 53  | 40  | 32  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 27  | 37  | 31  | 27  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2900 | 2900 | 2900 |
| 5°  | 2922 | 2903 | 2913 |
| 10° | 2917 | 2889 | 2911 |
| 15° | 2908 | 2896 | 2906 |
| 20° | 2917 | 2904 | 2899 |
| 25° | 2880 | 2861 | 2878 |
| 30° | 2871 | 2846 | 2848 |
| 35° | 2863 | 2830 | 2835 |
| 40° | 2820 | 2798 | 2803 |
| 45° | 2807 | 2749 | 2753 |
| 50° | 2731 | 2693 | 2693 |
| 55° | 2651 | 2592 | 2608 |
| 60° | 2558 | 2469 | 2503 |
| 65° | 2383 | 2260 | 2281 |
| 70° | 2135 | 2015 | 2046 |
| 75° | 1759 | 1653 | 1647 |
| 80° | 1232 | 1161 | 1161 |
| 85° | 667  | 596  | 596  |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 0°  
 Vertical Angle: 45°  
 Luminance: 2807 cd/sqm

TEST NUMBER: P688305  
 CATALOG NUMBER: FLR-HA-24-L3C3 (HI)-35-CP125

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 204.4  | 3.4       |
| 10°-20°   | 586.6  | 9.8       |
| 20°-30°   | 891.6  | 14.9      |
| 30°-40°   | 1078.4 | 18.0      |
| 40°-50°   | 1116.2 | 18.7      |
| 50°-60°   | 991.8  | 16.6      |
| 60°-70°   | 712.6  | 11.9      |
| 70°-80°   | 340.7  | 5.7       |
| 80°-90°   | 57.4   | 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°    | 1682.6 | 28.1      |
| 0°-40°    | 2760.9 | 46.2      |
| 0°-60°    | 4868.9 | 81.4      |
| 0°-90°    | 5979.7 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5979.7 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2155 | 2155  | 2155 | 2155  | 2155 |      |
| 5°  | 2163 | 2149  | 2150 | 2152  | 2157 | 205  |
| 15° | 2087 | 2074  | 2079 | 2075  | 2086 | 590  |
| 25° | 1940 | 1929  | 1927 | 1935  | 1938 | 896  |
| 35° | 1743 | 1732  | 1723 | 1720  | 1726 | 1087 |
| 45° | 1475 | 1454  | 1444 | 1440  | 1447 | 1129 |
| 55° | 1130 | 1119  | 1105 | 1098  | 1112 | 1012 |
| 65° | 748  | 740   | 710  | 692   | 717  | 740  |
| 75° | 338  | 333   | 318  | 291   | 317  | 363  |
| 85° | 43   | 41    | 39   | 36    | 39   | 61   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |

TEST NUMBER: P688305

CATALOG NUMBER: FLR-HA-24-L3C3 (HI)-35-CP125

**CANDELA DISTRIBUTION (FULL):**

|       | 0°            | 22.5°         | 45°           | 67.5°         | 90°           |
|-------|---------------|---------------|---------------|---------------|---------------|
| 0°    | 2155.4        | 2155.4        | 2155.4        | <i>2155.4</i> | 2155.4        |
| 2.5°  | <i>2164.5</i> | <i>2148.6</i> | <i>2145.2</i> | <i>2165.6</i> | <i>2165.6</i> |
| 5°    | 2163.4        | 2148.6        | 2149.7        | <i>2152.0</i> | 2156.6        |
| 7.5°  | 2148.6        | 2140.7        | 2132.7        | <i>2140.7</i> | 2146.3        |
| 10°   | 2135.0        | 2116.8        | 2114.5        | <i>2117.9</i> | 2130.4        |
| 12.5° | 2112.3        | 2091.8        | 2094.1        | <i>2099.8</i> | 2111.1        |
| 15°   | 2087.3        | 2073.7        | 2079.3        | <i>2074.8</i> | 2086.2        |
| 17.5° | 2057.8        | 2057.8        | 2043.0        | <i>2039.6</i> | 2056.6        |
| 20°   | 2037.3        | 2008.9        | 2028.2        | <i>2011.2</i> | 2024.8        |
| 22.5° | 1986.2        | 1970.3        | 1965.8        | <i>1979.4</i> | 1979.4        |
| 25°   | 1939.7        | 1929.4        | 1927.2        | <i>1935.1</i> | 1938.5        |
| 27.5° | 1895.4        | 1889.7        | 1892.0        | <i>1890.8</i> | 1890.8        |
| 30°   | 1847.7        | 1832.9        | 1831.8        | <i>1831.8</i> | 1832.9        |
| 32.5° | 1796.6        | 1786.3        | 1785.2        | <i>1778.4</i> | 1781.8        |
| 35°   | 1743.2        | 1731.8        | 1722.8        | <i>1720.5</i> | 1726.2        |
| 37.5° | 1671.6        | 1658.0        | 1656.9        | <i>1659.2</i> | 1659.2        |
| 40°   | 1605.8        | 1591.0        | 1593.3        | <i>1585.3</i> | 1595.6        |
| 42.5° | 1534.2        | 1521.7        | 1513.8        | <i>1511.5</i> | 1524.0        |
| 45°   | 1475.2        | 1453.6        | 1444.5        | <i>1440.0</i> | 1446.8        |
| 47.5° | 1382.1        | 1376.4        | 1367.3        | <i>1359.3</i> | 1375.2        |
| 50°   | 1304.8        | 1308.2        | 1286.7        | <i>1278.7</i> | 1286.7        |
| 52.5° | 1223.1        | 1208.3        | 1193.5        | <i>1179.9</i> | 1202.6        |
| 55°   | 1130.0        | 1118.6        | 1105.0        | <i>1098.2</i> | 1111.8        |
| 57.5° | 1044.8        | 1032.3        | 1011.8        | <i>995.9</i>  | 1019.8        |
| 60°   | 950.5         | 939.2         | 917.6         | <i>900.6</i>  | 930.1         |
| 62.5° | 854.0         | 841.5         | 821.1         | <i>793.8</i>  | 824.5         |
| 65°   | 748.4         | 740.4         | 709.8         | <i>691.6</i>  | 716.6         |
| 67.5° | 641.6         | 637.1         | 618.9         | <i>588.3</i>  | 624.6         |
| 70°   | 542.8         | 533.7         | 512.2         | <i>484.9</i>  | 520.1         |
| 72.5° | 445.2         | 429.3         | 413.4         | <i>387.2</i>  | 416.8         |
| 75°   | 338.4         | 332.7         | 318.0         | <i>290.7</i>  | 316.8         |
| 77.5° | 245.3         | 239.6         | 229.4         | <i>209.0</i>  | 229.4         |
| 80°   | 159.0         | 157.9         | 149.9         | <i>135.1</i>  | 149.9         |
| 82.5° | 90.9          | 90.9          | 85.2          | <i>79.5</i>   | 85.2          |
| 85°   | 43.2          | 40.9          | 38.6          | <i>36.3</i>   | 38.6          |
| 87.5° | 11.4          | 11.4          | 11.4          | <i>11.4</i>   | 12.5          |
| 90°   | 0.0           | 0.0           | 0.0           | <i>0.0</i>    | 0.0           |

(END OF REPORT)