

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: P973389

Luminaire Tested: FLR2-14-20-L835-CA125

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973389
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: FLR2-14-20-L835-CA125
Description: 1*4 FLR-2.0 2000 LUMEN at 3500 CCT & 80CRI with Clear Acrylic (0.125" thickness)

Light Source:
Ballast/Driver: -

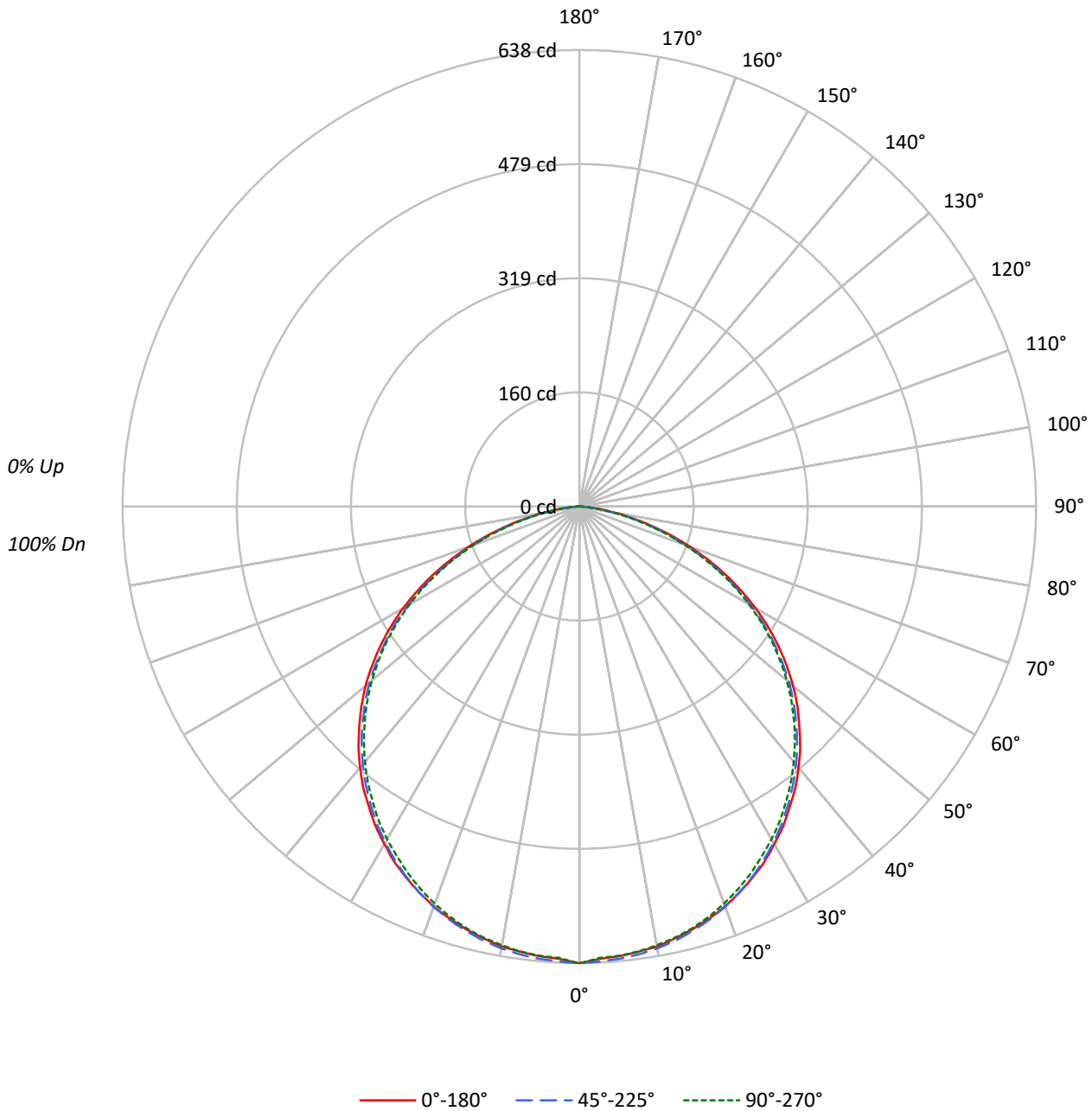
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1787.1 lumens
Efficiency: N/A
Efficacy: 109.0 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): 16.4
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





TEST NUMBER: P973389
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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° | 1718 | 1718 | 1718 |
| 5° | 1705 | 1715 | 1703 |
| 10° | 1706 | 1714 | 1702 |
| 15° | 1704 | 1710 | 1700 |
| 20° | 1704 | 1705 | 1692 |
| 25° | 1700 | 1697 | 1681 |
| 30° | 1693 | 1685 | 1669 |
| 35° | 1683 | 1670 | 1654 |
| 40° | 1674 | 1653 | 1637 |
| 45° | 1654 | 1630 | 1613 |
| 50° | 1632 | 1602 | 1583 |
| 55° | 1591 | 1553 | 1539 |
| 60° | 1529 | 1486 | 1474 |
| 65° | 1432 | 1390 | 1375 |
| 70° | 1291 | 1239 | 1229 |
| 75° | 1082 | 1027 | 1017 |
| 80° | 786 | 733 | 713 |
| 85° | 417 | 367 | 333 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1654 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 60.5 | 3.4 |
| 10°-20° | 173.7 | 9.7 |
| 20°-30° | 263.9 | 14.8 |
| 30°-40° | 319.2 | 17.9 |
| 40°-50° | 331.7 | 18.6 |
| 50°-60° | 297.0 | 16.6 |
| 60°-70° | 216.6 | 12.1 |
| 70°-80° | 106.7 | 6.0 |
| 80°-90° | 17.8 | 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° | 498.0 | 27.9 |
| 0°-40° | 817.2 | 45.7 |
| 0°-60° | 1445.9 | 80.9 |
| 0°-90° | 1787.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1787.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 638 | 638 | 638 | 638 | 638 | |
| 5° | 631 | 638 | 635 | 641 | 630 | 60 |
| 15° | 612 | 617 | 614 | 619 | 610 | 173 |
| 25° | 572 | 575 | 571 | 574 | 566 | 264 |
| 35° | 512 | 514 | 508 | 511 | 504 | 321 |
| 45° | 434 | 434 | 428 | 429 | 424 | 335 |
| 55° | 339 | 336 | 331 | 330 | 328 | 303 |
| 65° | 225 | 222 | 218 | 217 | 216 | 222 |
| 75° | 104 | 102 | 99 | 98 | 98 | 111 |
| 85° | 14 | 13 | 12 | 11 | 11 | 19 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P973389
 CATALOG NUMBER: FLR2-14-20-L835-CA125

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 638.5 | 638.5 | 638.5 | 638.5 | 638.5 |
| 2.5° | 633.0 | 640.1 | 636.7 | 643.0 | 631.6 |
| 5° | 631.1 | 638.0 | 634.8 | 640.9 | 630.3 |
| 7.5° | 627.9 | 635.1 | 631.6 | 637.5 | 627.4 |
| 10° | 624.5 | 630.8 | 627.1 | 633.0 | 622.7 |
| 12.5° | 618.4 | 624.8 | 621.3 | 626.6 | 617.1 |
| 15° | 611.6 | 617.1 | 613.9 | 619.2 | 610.2 |
| 17.5° | 603.6 | 608.9 | 605.5 | 610.2 | 601.2 |
| 20° | 594.9 | 599.1 | 595.4 | 599.4 | 590.7 |
| 22.5° | 584.1 | 588.0 | 584.1 | 586.7 | 579.0 |
| 25° | 572.4 | 575.3 | 571.4 | 574.0 | 566.1 |
| 27.5° | 560.0 | 561.6 | 557.6 | 559.8 | 551.6 |
| 30° | 544.7 | 546.5 | 542.3 | 545.0 | 537.0 |
| 32.5° | 529.9 | 530.9 | 526.2 | 528.3 | 521.2 |
| 35° | 512.4 | 513.5 | 508.5 | 510.6 | 503.5 |
| 37.5° | 495.8 | 495.5 | 490.2 | 491.6 | 485.5 |
| 40° | 476.5 | 476.2 | 470.7 | 471.7 | 465.9 |
| 42.5° | 456.7 | 455.6 | 450.3 | 450.9 | 445.6 |
| 45° | 434.5 | 434.0 | 428.4 | 429.2 | 423.9 |
| 47.5° | 413.1 | 411.5 | 405.9 | 406.2 | 401.7 |
| 50° | 389.8 | 387.4 | 382.7 | 382.2 | 378.2 |
| 52.5° | 365.0 | 362.3 | 357.0 | 356.5 | 353.6 |
| 55° | 339.1 | 336.2 | 331.1 | 330.4 | 328.0 |
| 57.5° | 312.4 | 308.7 | 304.7 | 303.1 | 301.3 |
| 60° | 284.1 | 280.7 | 276.2 | 274.6 | 273.8 |
| 62.5° | 254.8 | 251.3 | 247.9 | 246.3 | 245.3 |
| 65° | 224.9 | 222.3 | 218.3 | 216.7 | 215.9 |
| 67.5° | 194.5 | 192.1 | 188.4 | 186.6 | 186.3 |
| 70° | 164.1 | 161.7 | 157.5 | 156.5 | 156.2 |
| 72.5° | 133.7 | 131.6 | 127.6 | 126.6 | 126.6 |
| 75° | 104.1 | 102.3 | 98.8 | 97.8 | 97.8 |
| 77.5° | 76.1 | 74.5 | 71.9 | 70.6 | 70.6 |
| 80° | 50.7 | 49.7 | 47.3 | 46.2 | 46.0 |
| 82.5° | 29.3 | 28.8 | 26.7 | 25.6 | 26.2 |
| 85° | 13.5 | 12.9 | 11.9 | 10.6 | 10.8 |
| 87.5° | 3.4 | 3.2 | 2.4 | 1.8 | 2.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)