

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: P973342

Luminaire Tested: FLR2-14-30-L830-CP375

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973342
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: FLR2-14-30-L830-CP375
Description: 1*4 FLR-2.0 3000 LUMEN at 3000CCT & 80CRI Clear Polycarbonate (0.375" thickness)

Light Source: 3000k CCT, 80 CRI LEDS
Ballast/Driver: -

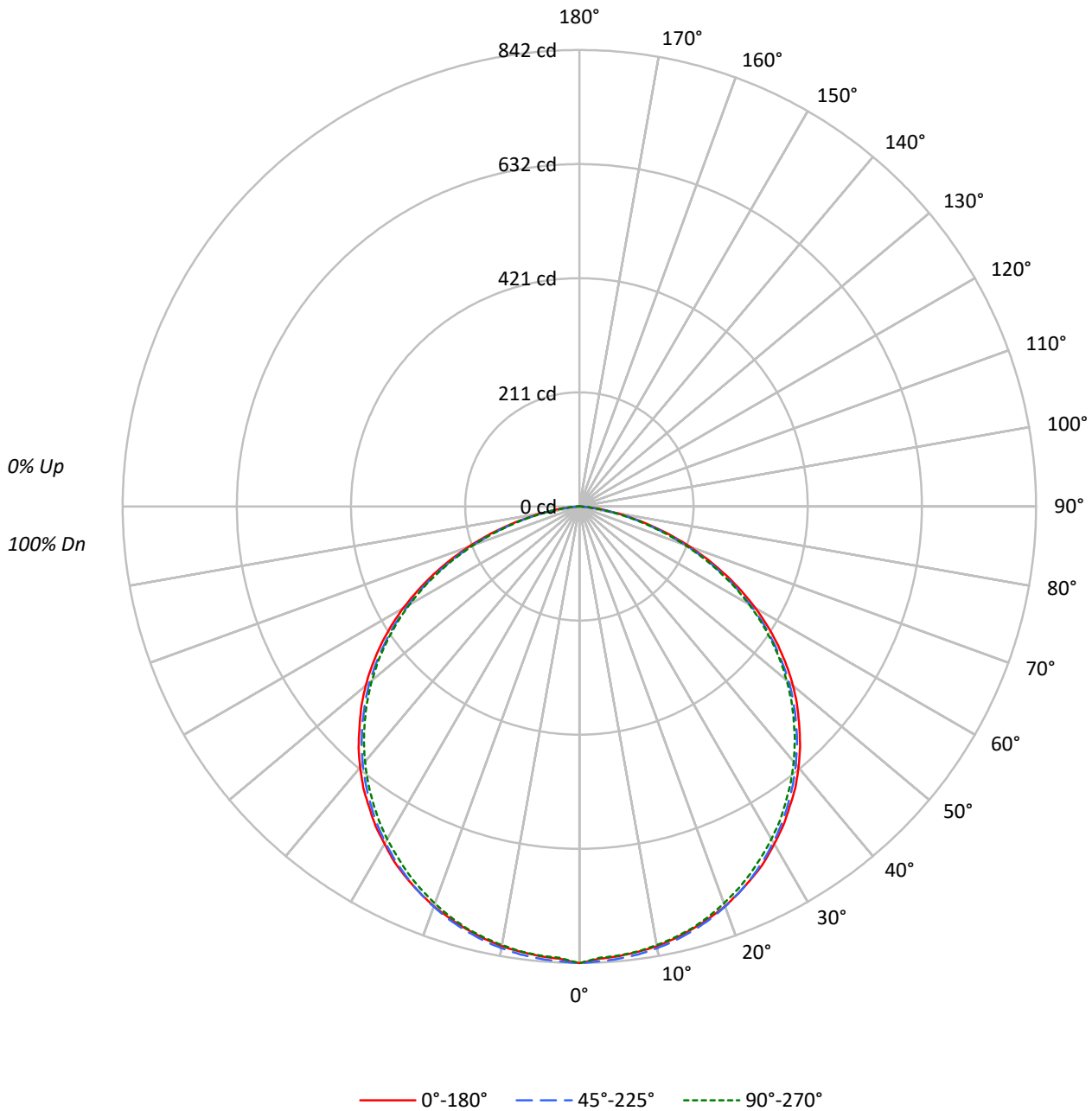
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2357.8 lumens
Efficiency: N/A
Efficacy: 98.7 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): 23.9
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 | | | | 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 | 102 | 99 | 95 | 98 | 95 | 92 | 94 | 92 | 89 | 91 | 89 | 87 | 85 |
| 2 | 99 | 91 | 85 | 79 | 97 | 90 | 83 | 78 | 86 | 81 | 76 | 83 | 78 | 75 | 80 | 76 | 73 | 71 |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 68 | 63 | 70 | 66 | 62 | 60 |
| 4 | 83 | 71 | 62 | 56 | 81 | 70 | 62 | 55 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 |
| 5 | 76 | 64 | 55 | 48 | 74 | 62 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 47 | 57 | 51 | 46 | 44 |
| 6 | 70 | 57 | 48 | 42 | 69 | 56 | 48 | 42 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 41 | 39 |
| 7 | 65 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 49 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 34 |
| 8 | 61 | 47 | 39 | 33 | 59 | 47 | 38 | 33 | 45 | 38 | 33 | 44 | 37 | 32 | 43 | 37 | 32 | 30 |
| 9 | 57 | 43 | 35 | 30 | 55 | 43 | 35 | 30 | 42 | 34 | 29 | 41 | 34 | 29 | 40 | 34 | 29 | 27 |
| 10 | 53 | 40 | 32 | 27 | 52 | 39 | 32 | 27 | 38 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 26 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2267 | 2267 | 2267 |
| 5° | 2249 | 2262 | 2246 |
| 10° | 2251 | 2261 | 2245 |
| 15° | 2248 | 2257 | 2243 |
| 20° | 2248 | 2250 | 2232 |
| 25° | 2243 | 2238 | 2218 |
| 30° | 2233 | 2223 | 2202 |
| 35° | 2221 | 2204 | 2182 |
| 40° | 2209 | 2181 | 2159 |
| 45° | 2181 | 2151 | 2128 |
| 50° | 2153 | 2114 | 2089 |
| 55° | 2099 | 2050 | 2030 |
| 60° | 2017 | 1961 | 1944 |
| 65° | 1889 | 1834 | 1814 |
| 70° | 1703 | 1635 | 1622 |
| 75° | 1429 | 1356 | 1341 |
| 80° | 1037 | 967 | 941 |
| 85° | 550 | 485 | 442 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2181 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 79.8 | 3.4 |
| 10°-20° | 229.2 | 9.7 |
| 20°-30° | 348.1 | 14.8 |
| 30°-40° | 421.1 | 17.9 |
| 40°-50° | 437.7 | 18.6 |
| 50°-60° | 391.9 | 16.6 |
| 60°-70° | 285.8 | 12.1 |
| 70°-80° | 140.7 | 6.0 |
| 80°-90° | 23.5 | 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° | 657.1 | 27.9 |
| 0°-40° | 1078.2 | 45.7 |
| 0°-60° | 1907.7 | 80.9 |
| 0°-90° | 2357.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2357.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 842 | 842 | 842 | 842 | 842 | |
| 5° | 833 | 842 | 838 | 846 | 832 | 79 |
| 15° | 807 | 814 | 810 | 817 | 805 | 228 |
| 25° | 755 | 759 | 754 | 757 | 747 | 348 |
| 35° | 676 | 678 | 671 | 674 | 664 | 423 |
| 45° | 573 | 572 | 565 | 566 | 559 | 443 |
| 55° | 447 | 444 | 437 | 436 | 433 | 399 |
| 65° | 297 | 293 | 288 | 286 | 285 | 293 |
| 75° | 137 | 135 | 130 | 129 | 129 | 146 |
| 85° | 18 | 17 | 16 | 14 | 14 | 26 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P973342
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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 842.4 | 842.4 | 842.4 | 842.4 | 842.4 |
| 2.5° | 835.1 | 844.5 | 840.0 | 848.4 | 833.4 |
| 5° | 832.7 | 841.7 | 837.5 | 845.6 | 831.6 |
| 7.5° | 828.5 | 837.9 | 833.4 | 841.0 | 827.8 |
| 10° | 823.9 | 832.3 | 827.4 | 835.1 | 821.5 |
| 12.5° | 815.9 | 824.3 | 819.8 | 826.7 | 814.2 |
| 15° | 806.9 | 814.2 | 810.0 | 817.0 | 805.1 |
| 17.5° | 796.4 | 803.4 | 798.8 | 805.1 | 793.3 |
| 20° | 784.9 | 790.5 | 785.6 | 790.8 | 779.3 |
| 22.5° | 770.6 | 775.8 | 770.6 | 774.1 | 764.0 |
| 25° | 755.3 | 759.1 | 753.9 | 757.3 | 746.9 |
| 27.5° | 738.9 | 741.0 | 735.7 | 738.5 | 727.7 |
| 30° | 718.6 | 721.1 | 715.5 | 719.0 | 708.5 |
| 32.5° | 699.1 | 700.5 | 694.2 | 697.0 | 687.6 |
| 35° | 676.1 | 677.5 | 670.9 | 673.7 | 664.2 |
| 37.5° | 654.1 | 653.8 | 646.8 | 648.6 | 640.5 |
| 40° | 628.7 | 628.3 | 621.0 | 622.4 | 614.7 |
| 42.5° | 602.5 | 601.1 | 594.2 | 594.9 | 587.9 |
| 45° | 573.2 | 572.5 | 565.2 | 566.3 | 559.3 |
| 47.5° | 545.0 | 542.9 | 535.6 | 535.9 | 530.0 |
| 50° | 514.3 | 511.2 | 504.9 | 504.2 | 499.0 |
| 52.5° | 481.5 | 478.0 | 471.1 | 470.4 | 466.5 |
| 55° | 447.4 | 443.5 | 436.9 | 435.9 | 432.7 |
| 57.5° | 412.1 | 407.3 | 402.0 | 399.9 | 397.5 |
| 60° | 374.8 | 370.3 | 364.4 | 362.3 | 361.2 |
| 62.5° | 336.1 | 331.6 | 327.1 | 325.0 | 323.6 |
| 65° | 296.7 | 293.2 | 288.0 | 285.9 | 284.9 |
| 67.5° | 256.6 | 253.5 | 248.6 | 246.2 | 245.8 |
| 70° | 216.5 | 213.4 | 207.8 | 206.4 | 206.1 |
| 72.5° | 176.4 | 173.6 | 168.4 | 167.0 | 167.0 |
| 75° | 137.4 | 134.9 | 130.4 | 129.0 | 129.0 |
| 77.5° | 100.4 | 98.3 | 94.8 | 93.1 | 93.1 |
| 80° | 66.9 | 65.6 | 62.4 | 61.0 | 60.7 |
| 82.5° | 38.7 | 38.0 | 35.2 | 33.8 | 34.5 |
| 85° | 17.8 | 17.1 | 15.7 | 13.9 | 14.3 |
| 87.5° | 4.5 | 4.2 | 3.1 | 2.4 | 3.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)