

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: P973140

Luminaire Tested: FLR2-14-30HE-L835-CP375

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973140
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: FLR2-14-30HE-L835-CP375
Description: 1*4 FLR-2.0 3500 Lumen High Efficacy at 3500CCT & 80CRI Clear Polycarbonate (0.375" thickness)

Light Source:
Ballast/Driver: -

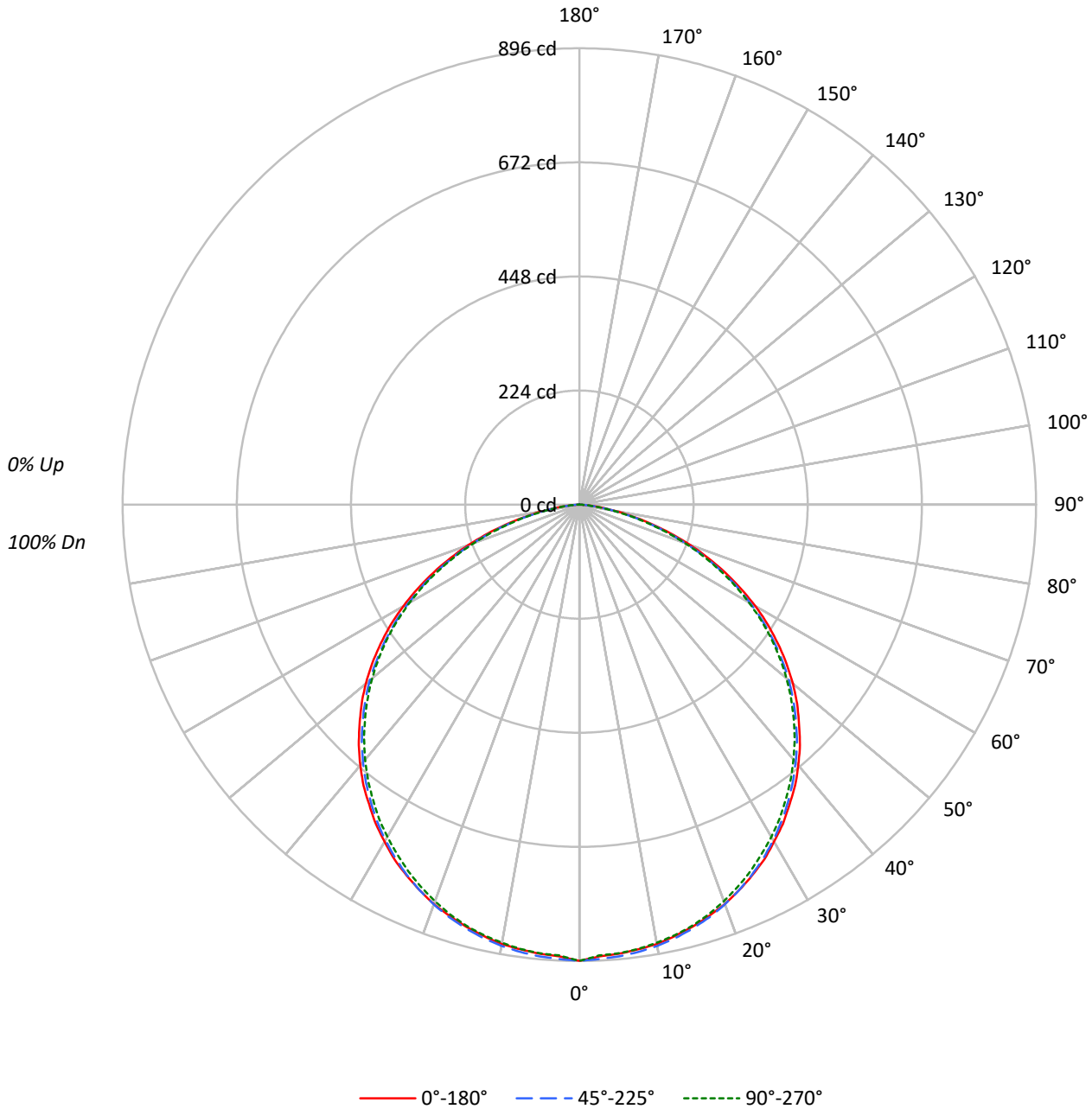
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2507.0 lumens
Efficiency: N/A
Efficacy: 111.9 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): 22.4
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





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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° | 2410 | 2410 | 2410 |
| 5° | 2391 | 2405 | 2388 |
| 10° | 2394 | 2404 | 2387 |
| 15° | 2390 | 2399 | 2385 |
| 20° | 2390 | 2392 | 2373 |
| 25° | 2384 | 2380 | 2358 |
| 30° | 2374 | 2364 | 2341 |
| 35° | 2362 | 2343 | 2320 |
| 40° | 2348 | 2320 | 2296 |
| 45° | 2320 | 2287 | 2263 |
| 50° | 2290 | 2247 | 2221 |
| 55° | 2232 | 2179 | 2159 |
| 60° | 2145 | 2085 | 2067 |
| 65° | 2009 | 1950 | 1929 |
| 70° | 1811 | 1739 | 1724 |
| 75° | 1519 | 1442 | 1426 |
| 80° | 1103 | 1029 | 1000 |
| 85° | 584 | 516 | 469 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2320 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 84.8 | 3.4 |
| 10°-20° | 243.6 | 9.7 |
| 20°-30° | 370.2 | 14.8 |
| 30°-40° | 447.8 | 17.9 |
| 40°-50° | 465.4 | 18.6 |
| 50°-60° | 416.6 | 16.6 |
| 60°-70° | 303.9 | 12.1 |
| 70°-80° | 149.7 | 6.0 |
| 80°-90° | 25.0 | 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° | 698.7 | 27.9 |
| 0°-40° | 1146.4 | 45.7 |
| 0°-60° | 2028.4 | 80.9 |
| 0°-90° | 2507.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2507.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 896 | 896 | 896 | 896 | 896 | |
| 5° | 885 | 895 | 890 | 899 | 884 | 84 |
| 15° | 858 | 866 | 861 | 869 | 856 | 242 |
| 25° | 803 | 807 | 802 | 805 | 794 | 370 |
| 35° | 719 | 720 | 713 | 716 | 706 | 450 |
| 45° | 610 | 609 | 601 | 602 | 595 | 471 |
| 55° | 476 | 472 | 464 | 463 | 460 | 425 |
| 65° | 316 | 312 | 306 | 304 | 303 | 312 |
| 75° | 146 | 144 | 139 | 137 | 137 | 156 |
| 85° | 19 | 18 | 17 | 15 | 15 | 27 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P973140
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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 895.7 | 895.7 | 895.7 | 895.7 | 895.7 |
| 2.5° | 887.9 | 897.9 | 893.1 | 902.0 | 886.1 |
| 5° | 885.3 | 895.0 | 890.5 | 899.1 | 884.2 |
| 7.5° | 880.9 | 890.9 | 886.1 | 894.2 | 880.2 |
| 10° | 876.1 | 885.0 | 879.8 | 887.9 | 873.5 |
| 12.5° | 867.5 | 876.4 | 871.6 | 879.0 | 865.7 |
| 15° | 857.9 | 865.7 | 861.2 | 868.7 | 856.1 |
| 17.5° | 846.8 | 854.2 | 849.4 | 856.1 | 843.4 |
| 20° | 834.5 | 840.5 | 835.3 | 840.9 | 828.6 |
| 22.5° | 819.3 | 824.9 | 819.3 | 823.1 | 812.3 |
| 25° | 803.0 | 807.1 | 801.6 | 805.3 | 794.1 |
| 27.5° | 785.6 | 787.8 | 782.3 | 785.2 | 773.7 |
| 30° | 764.1 | 766.7 | 760.8 | 764.5 | 753.4 |
| 32.5° | 743.3 | 744.8 | 738.2 | 741.1 | 731.1 |
| 35° | 718.9 | 720.4 | 713.3 | 716.3 | 706.3 |
| 37.5° | 695.5 | 695.1 | 687.7 | 689.6 | 681.1 |
| 40° | 668.5 | 668.1 | 660.3 | 661.8 | 653.6 |
| 42.5° | 640.6 | 639.2 | 631.8 | 632.5 | 625.1 |
| 45° | 609.5 | 608.8 | 601.0 | 602.1 | 594.7 |
| 47.5° | 579.5 | 577.3 | 569.5 | 569.8 | 563.5 |
| 50° | 546.9 | 543.5 | 536.8 | 536.1 | 530.5 |
| 52.5° | 512.0 | 508.3 | 500.9 | 500.1 | 496.1 |
| 55° | 475.7 | 471.6 | 464.5 | 463.4 | 460.1 |
| 57.5° | 438.2 | 433.0 | 427.5 | 425.2 | 422.7 |
| 60° | 398.6 | 393.7 | 387.4 | 385.2 | 384.1 |
| 62.5° | 357.4 | 352.6 | 347.8 | 345.5 | 344.1 |
| 65° | 315.5 | 311.8 | 306.2 | 304.0 | 302.9 |
| 67.5° | 272.9 | 269.5 | 264.3 | 261.7 | 261.4 |
| 70° | 230.2 | 226.9 | 221.0 | 219.5 | 219.1 |
| 72.5° | 187.6 | 184.6 | 179.1 | 177.6 | 177.6 |
| 75° | 146.1 | 143.5 | 138.7 | 137.2 | 137.2 |
| 77.5° | 106.8 | 104.6 | 100.8 | 99.0 | 99.0 |
| 80° | 71.2 | 69.7 | 66.4 | 64.9 | 64.5 |
| 82.5° | 41.2 | 40.4 | 37.4 | 36.0 | 36.7 |
| 85° | 18.9 | 18.2 | 16.7 | 14.8 | 15.2 |
| 87.5° | 4.8 | 4.4 | 3.3 | 2.6 | 3.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)