

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: P973479

Luminaire Tested: FLR2-14-20-L950-CP125

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973479
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-L950-CP125
Description: 1*4 FLR-2.0 2000 LUMEN at 5000 CCT & 90 CRI with Clear Polycarbonate (0.125" thickness)

Light Source:
Ballast/Driver: -

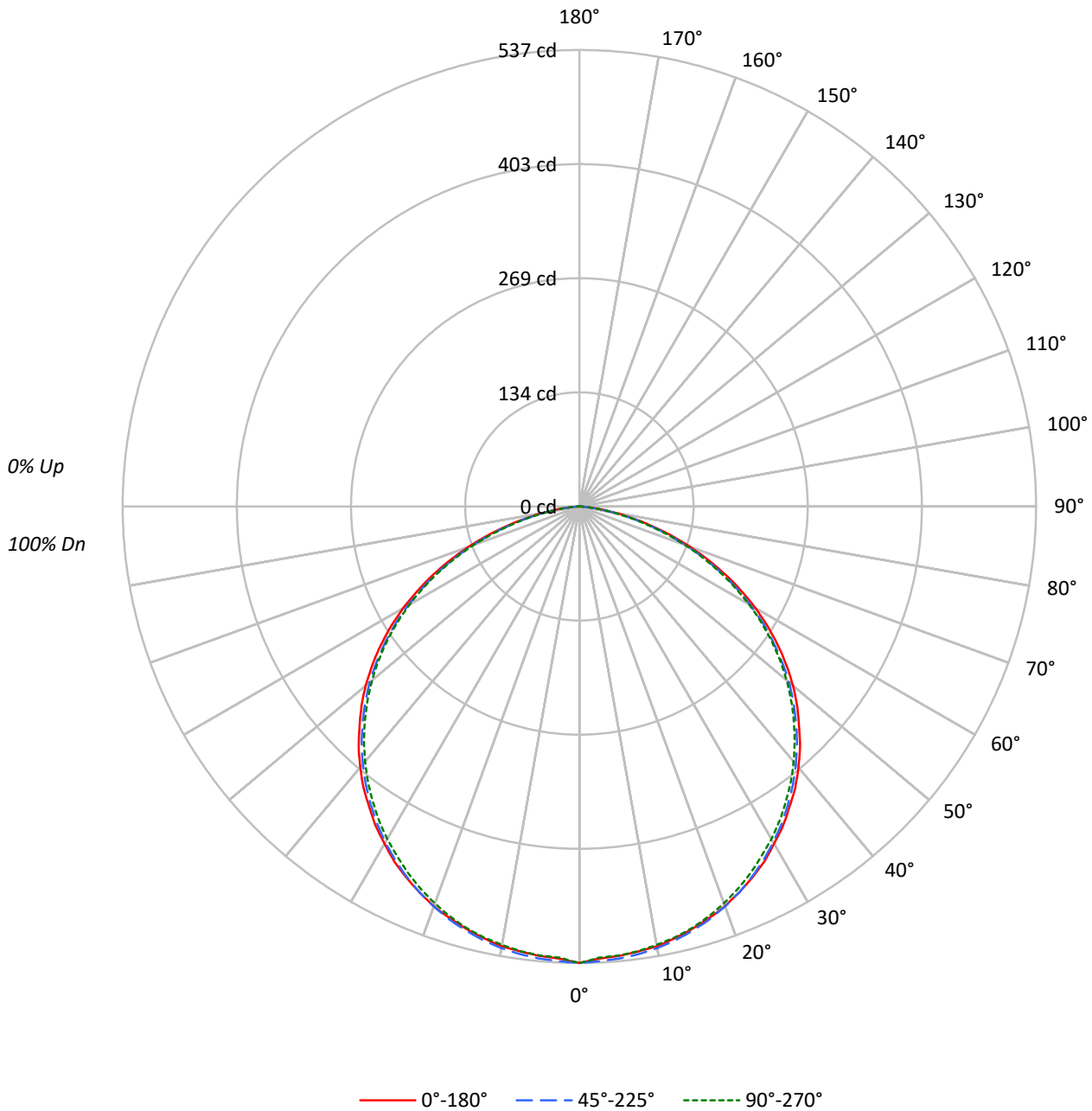
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1503.2 lumens
Efficiency: N/A
Efficacy: 91.7 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): 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





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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° | 1445 | 1445 | 1445 |
| 5° | 1434 | 1442 | 1432 |
| 10° | 1435 | 1441 | 1431 |
| 15° | 1433 | 1439 | 1430 |
| 20° | 1433 | 1434 | 1423 |
| 25° | 1430 | 1427 | 1414 |
| 30° | 1423 | 1417 | 1404 |
| 35° | 1416 | 1405 | 1391 |
| 40° | 1408 | 1391 | 1377 |
| 45° | 1391 | 1371 | 1357 |
| 50° | 1373 | 1348 | 1332 |
| 55° | 1338 | 1307 | 1294 |
| 60° | 1286 | 1250 | 1239 |
| 65° | 1205 | 1169 | 1156 |
| 70° | 1086 | 1042 | 1034 |
| 75° | 911 | 864 | 855 |
| 80° | 662 | 617 | 600 |
| 85° | 349 | 309 | 281 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1391 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 50.9 | 3.4 |
| 10°-20° | 146.1 | 9.7 |
| 20°-30° | 221.9 | 14.8 |
| 30°-40° | 268.5 | 17.9 |
| 40°-50° | 279.0 | 18.6 |
| 50°-60° | 249.8 | 16.6 |
| 60°-70° | 182.2 | 12.1 |
| 70°-80° | 89.7 | 6.0 |
| 80°-90° | 15.0 | 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° | 418.9 | 27.9 |
| 0°-40° | 687.4 | 45.7 |
| 0°-60° | 1216.2 | 80.9 |
| 0°-90° | 1503.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1503.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 537 | 537 | 537 | 537 | 537 | |
| 5° | 531 | 537 | 534 | 539 | 530 | 50 |
| 15° | 514 | 519 | 516 | 521 | 513 | 145 |
| 25° | 482 | 484 | 481 | 483 | 476 | 222 |
| 35° | 431 | 432 | 428 | 430 | 424 | 270 |
| 45° | 365 | 365 | 360 | 361 | 357 | 282 |
| 55° | 285 | 283 | 278 | 278 | 276 | 255 |
| 65° | 189 | 187 | 184 | 182 | 182 | 187 |
| 75° | 88 | 86 | 83 | 82 | 82 | 93 |
| 85° | 11 | 11 | 10 | 9 | 9 | 16 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P973479
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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 537.1 | 537.1 | 537.1 | 537.1 | 537.1 |
| 2.5° | 532.4 | 538.4 | 535.5 | 540.8 | 531.3 |
| 5° | 530.8 | 536.6 | 533.9 | 539.1 | 530.2 |
| 7.5° | 528.2 | 534.2 | 531.3 | 536.2 | 527.7 |
| 10° | 525.3 | 530.6 | 527.5 | 532.4 | 523.7 |
| 12.5° | 520.2 | 525.5 | 522.6 | 527.1 | 519.1 |
| 15° | 514.4 | 519.1 | 516.4 | 520.8 | 513.3 |
| 17.5° | 507.7 | 512.2 | 509.3 | 513.3 | 505.7 |
| 20° | 500.4 | 503.9 | 500.8 | 504.2 | 496.8 |
| 22.5° | 491.3 | 494.6 | 491.3 | 493.5 | 487.0 |
| 25° | 481.5 | 483.9 | 480.6 | 482.8 | 476.1 |
| 27.5° | 471.0 | 472.4 | 469.0 | 470.8 | 463.9 |
| 30° | 458.1 | 459.7 | 456.1 | 458.4 | 451.7 |
| 32.5° | 445.7 | 446.6 | 442.6 | 444.4 | 438.4 |
| 35° | 431.0 | 431.9 | 427.7 | 429.5 | 423.5 |
| 37.5° | 417.0 | 416.8 | 412.4 | 413.5 | 408.4 |
| 40° | 400.8 | 400.6 | 395.9 | 396.8 | 391.9 |
| 42.5° | 384.1 | 383.2 | 378.8 | 379.2 | 374.8 |
| 45° | 365.4 | 365.0 | 360.3 | 361.0 | 356.6 |
| 47.5° | 347.4 | 346.1 | 341.4 | 341.7 | 337.9 |
| 50° | 327.9 | 325.9 | 321.9 | 321.4 | 318.1 |
| 52.5° | 307.0 | 304.8 | 300.3 | 299.9 | 297.4 |
| 55° | 285.2 | 282.8 | 278.5 | 277.9 | 275.9 |
| 57.5° | 262.7 | 259.6 | 256.3 | 255.0 | 253.4 |
| 60° | 239.0 | 236.1 | 232.3 | 231.0 | 230.3 |
| 62.5° | 214.3 | 211.4 | 208.5 | 207.2 | 206.3 |
| 65° | 189.2 | 186.9 | 183.6 | 182.3 | 181.6 |
| 67.5° | 163.6 | 161.6 | 158.5 | 156.9 | 156.7 |
| 70° | 138.0 | 136.0 | 132.5 | 131.6 | 131.4 |
| 72.5° | 112.5 | 110.7 | 107.4 | 106.5 | 106.5 |
| 75° | 87.6 | 86.0 | 83.1 | 82.2 | 82.2 |
| 77.5° | 64.0 | 62.7 | 60.5 | 59.4 | 59.4 |
| 80° | 42.7 | 41.8 | 39.8 | 38.9 | 38.7 |
| 82.5° | 24.7 | 24.2 | 22.5 | 21.6 | 22.0 |
| 85° | 11.3 | 10.9 | 10.0 | 8.9 | 9.1 |
| 87.5° | 2.9 | 2.7 | 2.0 | 1.6 | 2.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)