

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: P973853

Luminaire Tested: FLR2-22-20HE-L935-CP125

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973853
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-2)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-22-20HE-L935-CP125
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

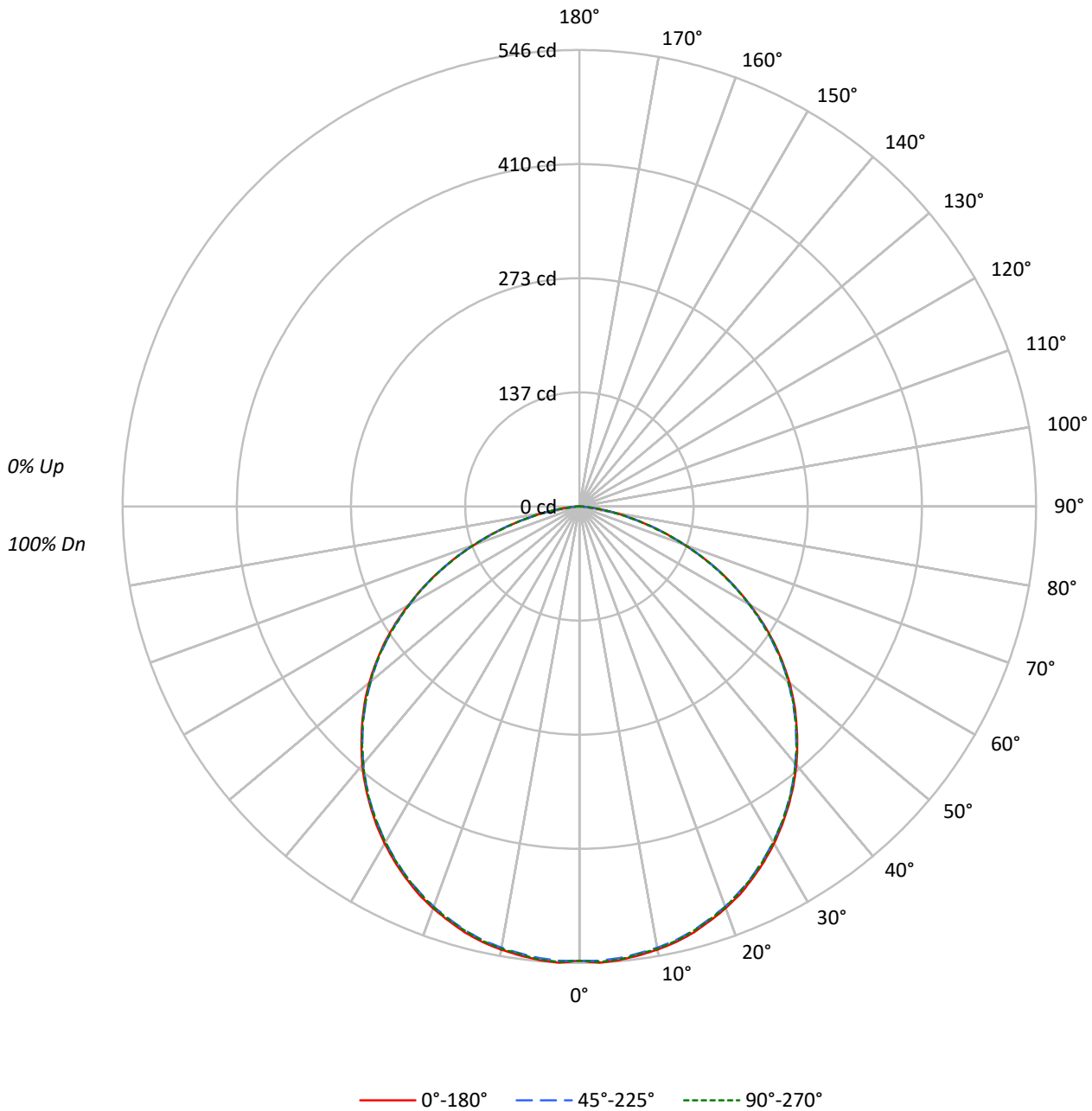
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1519.5 lumens
Efficiency: N/A
Efficacy: 102.7 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.27 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 14.8
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 | 63 | 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 | 71 | 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 | 50 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 34 |
| 8 | 61 | 47 | 39 | 33 | 59 | 47 | 39 | 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 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 26 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1462 | 1462 | 1462 |
| 5° | 1471 | 1465 | 1469 |
| 10° | 1471 | 1464 | 1467 |
| 15° | 1470 | 1463 | 1465 |
| 20° | 1464 | 1459 | 1461 |
| 25° | 1457 | 1451 | 1452 |
| 30° | 1446 | 1440 | 1441 |
| 35° | 1433 | 1428 | 1429 |
| 40° | 1418 | 1411 | 1412 |
| 45° | 1397 | 1391 | 1393 |
| 50° | 1373 | 1363 | 1366 |
| 55° | 1333 | 1323 | 1327 |
| 60° | 1268 | 1263 | 1263 |
| 65° | 1184 | 1182 | 1177 |
| 70° | 1048 | 1054 | 1051 |
| 75° | 883 | 875 | 869 |
| 80° | 634 | 625 | 618 |
| 85° | 330 | 330 | 321 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1397 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 51.4 | 3.4 |
| 10°-20° | 148.0 | 9.7 |
| 20°-30° | 224.8 | 14.8 |
| 30°-40° | 271.8 | 17.9 |
| 40°-50° | 282.1 | 18.6 |
| 50°-60° | 252.2 | 16.6 |
| 60°-70° | 183.4 | 12.1 |
| 70°-80° | 90.2 | 5.9 |
| 80°-90° | 15.6 | 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° | 424.2 | 27.9 |
| 0°-40° | 696.0 | 45.8 |
| 0°-60° | 1230.3 | 81.0 |
| 0°-90° | 1519.5 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1519.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 543 | 543 | 543 | 543 | 543 | |
| 5° | 545 | 538 | 542 | 540 | 544 | 52 |
| 15° | 528 | 522 | 525 | 524 | 526 | 149 |
| 25° | 491 | 485 | 489 | 488 | 489 | 226 |
| 35° | 436 | 433 | 435 | 435 | 435 | 273 |
| 45° | 367 | 366 | 366 | 366 | 366 | 283 |
| 55° | 284 | 283 | 282 | 283 | 283 | 253 |
| 65° | 186 | 187 | 186 | 186 | 185 | 183 |
| 75° | 85 | 86 | 84 | 85 | 84 | 90 |
| 85° | 11 | 11 | 11 | 11 | 10 | 16 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P973853
 CATALOG NUMBER: FLR2-22-20HE-L935-CP125

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 543.3 | 543.3 | 543.3 | 543.3 | 543.3 |
| 2.5° | 546.3 | 540.0 | 544.0 | 541.7 | 545.3 |
| 5° | 544.7 | 538.3 | 542.3 | 540.3 | 544.0 |
| 7.5° | 541.7 | 535.3 | 539.3 | 537.3 | 540.3 |
| 10° | 538.3 | 531.6 | 535.9 | 533.9 | 537.0 |
| 12.5° | 533.9 | 527.6 | 531.6 | 529.9 | 532.6 |
| 15° | 527.6 | 521.5 | 525.2 | 523.9 | 525.9 |
| 17.5° | 519.8 | 513.8 | 517.5 | 516.5 | 518.2 |
| 20° | 511.4 | 505.7 | 509.4 | 508.4 | 510.1 |
| 22.5° | 502.0 | 496.0 | 499.4 | 498.7 | 500.0 |
| 25° | 490.6 | 485.3 | 488.6 | 487.6 | 489.0 |
| 27.5° | 478.6 | 473.5 | 476.2 | 476.2 | 476.9 |
| 30° | 465.5 | 460.8 | 463.5 | 463.5 | 463.8 |
| 32.5° | 451.4 | 447.7 | 449.4 | 449.7 | 449.7 |
| 35° | 436.3 | 433.3 | 434.6 | 434.9 | 434.9 |
| 37.5° | 420.5 | 417.5 | 418.5 | 419.2 | 419.2 |
| 40° | 403.7 | 401.0 | 401.7 | 402.4 | 402.0 |
| 42.5° | 385.6 | 383.6 | 383.9 | 384.6 | 384.6 |
| 45° | 367.1 | 365.5 | 365.5 | 366.1 | 366.1 |
| 47.5° | 348.3 | 346.7 | 346.0 | 346.7 | 346.7 |
| 50° | 327.9 | 326.2 | 325.5 | 326.2 | 326.2 |
| 52.5° | 306.4 | 304.7 | 304.7 | 304.7 | 305.1 |
| 55° | 284.2 | 282.6 | 281.9 | 282.6 | 282.9 |
| 57.5° | 260.8 | 260.1 | 259.1 | 259.4 | 258.4 |
| 60° | 235.6 | 235.6 | 234.6 | 235.3 | 234.6 |
| 62.5° | 211.1 | 211.8 | 210.8 | 210.8 | 210.1 |
| 65° | 185.9 | 186.6 | 185.6 | 185.6 | 184.9 |
| 67.5° | 160.1 | 161.1 | 159.7 | 159.7 | 159.1 |
| 70° | 133.2 | 135.2 | 133.9 | 134.2 | 133.6 |
| 72.5° | 109.1 | 110.1 | 108.7 | 108.7 | 108.1 |
| 75° | 84.9 | 85.6 | 84.2 | 84.6 | 83.6 |
| 77.5° | 61.1 | 62.1 | 60.7 | 61.1 | 60.7 |
| 80° | 40.9 | 41.3 | 40.3 | 40.6 | 39.9 |
| 82.5° | 23.8 | 24.2 | 23.8 | 23.5 | 23.2 |
| 85° | 10.7 | 11.1 | 10.7 | 10.7 | 10.4 |
| 87.5° | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)