

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: P974302

Luminaire Tested: FLR2-24-55-L840-CP187

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974302
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-281-3)
Test Lab: INNOVATION CENTER
Issue Date: 3/13/2025
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR2-24-55-L840-CP187
Description: SHAPER SENSE CIRCLE

Light Source: FLR2-24-55-L840-CP187
Ballast/Driver: -

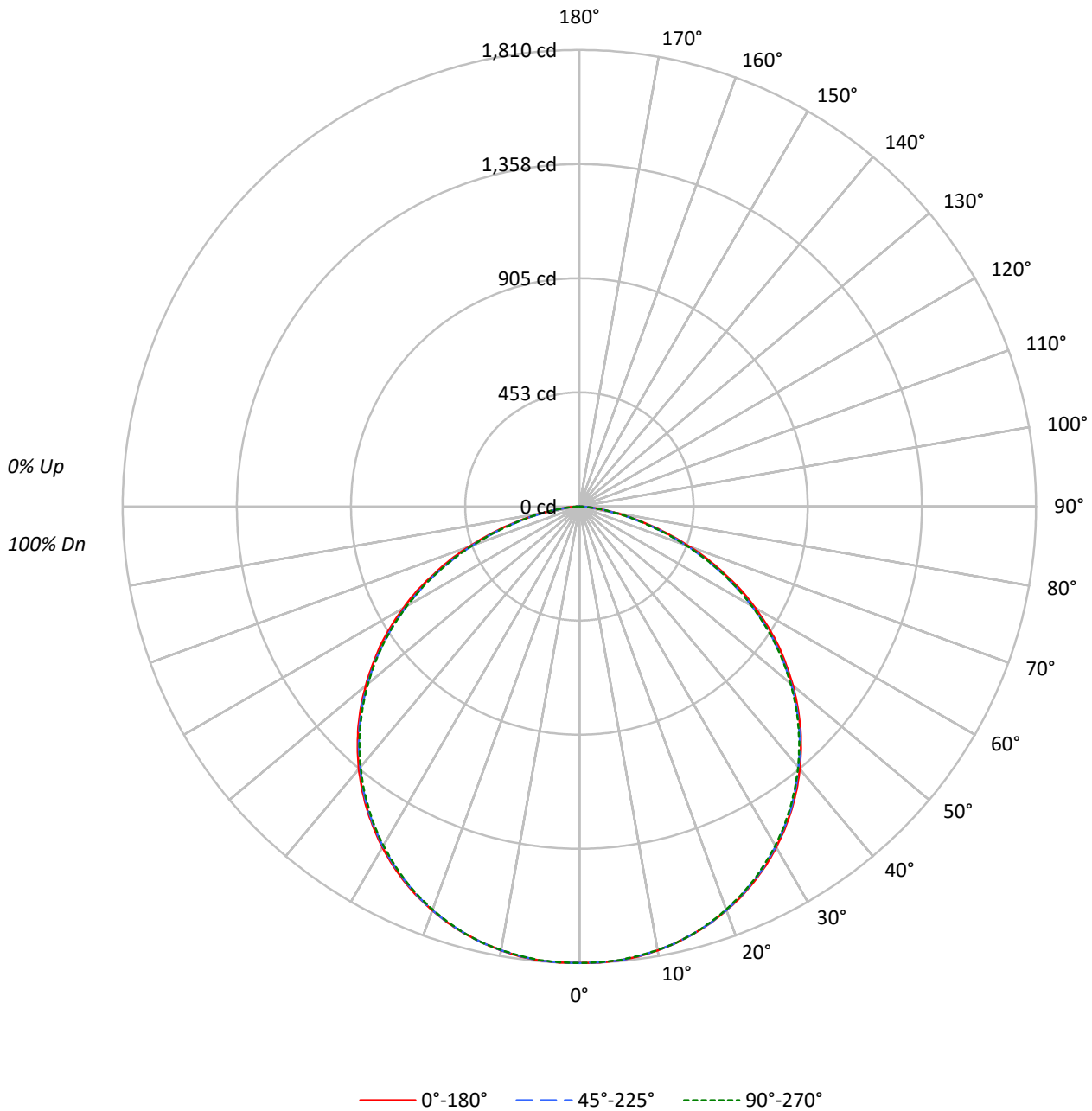
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5116.2 lumens
Efficiency: N/A
Efficacy: 116.0 lumens/watt
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.39
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 44.1
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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CATALOG NUMBER: FLR2-24-55-L840-CP187

Luminous Intensity Polar Plot





TEST NUMBER: P974302
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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 | 100 | 97 | 106 | 102 | 99 | 95 | 98 | 95 | 92 | 94 | 92 | 89 | 91 | 89 | 87 | 85 | | | | | | 85 | | | | | | | | | | | | | | |
| 2 | 99 | 91 | 85 | 79 | 97 | 89 | 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 | 57 | 53 | 51 | | | | | | 51 | | | | | | | | | | | | | | |
| 5 | 76 | 64 | 55 | 48 | 74 | 62 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 47 | 56 | 51 | 46 | 44 | | | | | | 44 | | | | | | | | | | | | | | |
| 6 | 70 | 57 | 48 | 42 | 69 | 56 | 48 | 42 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 41 | 38 | | | | | | 38 | | | | | | | | | | | | | | |
| 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 | 39 | 33 | 29 | 27 | | | | | | 27 | | | | | | | | | | | | | | |
| 10 | 53 | 40 | 32 | 27 | 52 | 39 | 32 | 27 | 38 | 31 | 27 | 38 | 31 | 26 | 37 | 31 | 26 | 25 | | | | | | 25 | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2436 | 2436 | 2436 |
| 5° | 2441 | 2441 | 2439 |
| 10° | 2442 | 2441 | 2440 |
| 15° | 2443 | 2442 | 2442 |
| 20° | 2440 | 2439 | 2436 |
| 25° | 2436 | 2431 | 2427 |
| 30° | 2425 | 2418 | 2413 |
| 35° | 2409 | 2403 | 2394 |
| 40° | 2388 | 2373 | 2370 |
| 45° | 2357 | 2343 | 2336 |
| 50° | 2313 | 2295 | 2288 |
| 55° | 2258 | 2226 | 2223 |
| 60° | 2164 | 2125 | 2125 |
| 65° | 2025 | 1977 | 1983 |
| 70° | 1822 | 1766 | 1760 |
| 75° | 1529 | 1469 | 1462 |
| 80° | 1117 | 1062 | 1107 |
| 85° | 631 | 582 | 591 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2357 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 171.8 | 3.4 |
| 10°-20° | 495.0 | 9.7 |
| 20°-30° | 754.7 | 14.8 |
| 30°-40° | 914.4 | 17.9 |
| 40°-50° | 949.8 | 18.6 |
| 50°-60° | 849.7 | 16.6 |
| 60°-70° | 619.3 | 12.1 |
| 70°-80° | 306.7 | 6.0 |
| 80°-90° | 54.8 | 1.1 |
| 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° | 1421.5 | 27.8 |
| 0°-40° | 2335.9 | 45.7 |
| 0°-60° | 4135.5 | 80.8 |
| 0°-90° | 5116.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 5116.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1810 | 1810 | 1810 | 1810 | 1810 | |
| 5° | 1807 | 1808 | 1807 | 1807 | 1806 | 172 |
| 15° | 1754 | 1753 | 1753 | 1754 | 1753 | 495 |
| 25° | 1641 | 1639 | 1637 | 1637 | 1635 | 756 |
| 35° | 1467 | 1465 | 1463 | 1460 | 1458 | 917 |
| 45° | 1239 | 1236 | 1232 | 1229 | 1228 | 955 |
| 55° | 963 | 955 | 949 | 949 | 948 | 858 |
| 65° | 636 | 631 | 621 | 624 | 623 | 630 |
| 75° | 294 | 290 | 282 | 288 | 281 | 314 |
| 85° | 41 | 38 | 38 | 38 | 38 | 57 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P974302
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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1810.2 | 1810.2 | 1810.2 | 1810.2 | 1810.2 |
| 2.5° | 1810.2 | 1809.6 | 1809.6 | 1810.2 | 1808.9 |
| 5° | 1807.0 | 1807.6 | 1807.0 | 1807.0 | 1805.7 |
| 7.5° | 1799.8 | 1799.2 | 1798.5 | 1799.2 | 1797.2 |
| 10° | 1787.5 | 1787.5 | 1786.8 | 1787.5 | 1786.2 |
| 12.5° | 1772.5 | 1772.5 | 1772.5 | 1773.2 | 1772.5 |
| 15° | 1753.7 | 1753.1 | 1753.1 | 1754.4 | 1753.1 |
| 17.5° | 1731.6 | 1731.0 | 1731.0 | 1730.3 | 1729.0 |
| 20° | 1704.3 | 1704.3 | 1703.7 | 1703.0 | 1701.1 |
| 22.5° | 1675.1 | 1674.5 | 1672.5 | 1672.5 | 1669.9 |
| 25° | 1640.7 | 1638.7 | 1637.4 | 1636.8 | 1634.8 |
| 27.5° | 1603.0 | 1600.4 | 1598.5 | 1597.2 | 1595.2 |
| 30° | 1560.8 | 1558.2 | 1556.3 | 1554.3 | 1553.0 |
| 32.5° | 1515.3 | 1514.0 | 1510.8 | 1510.1 | 1507.5 |
| 35° | 1466.6 | 1464.7 | 1462.7 | 1460.1 | 1457.5 |
| 37.5° | 1414.7 | 1412.7 | 1408.2 | 1406.9 | 1404.9 |
| 40° | 1359.5 | 1356.9 | 1351.0 | 1351.0 | 1349.1 |
| 42.5° | 1300.3 | 1297.7 | 1293.8 | 1291.3 | 1290.0 |
| 45° | 1238.6 | 1236.0 | 1231.5 | 1228.9 | 1227.6 |
| 47.5° | 1173.0 | 1171.1 | 1165.9 | 1163.9 | 1162.0 |
| 50° | 1104.8 | 1102.2 | 1096.4 | 1095.1 | 1093.1 |
| 52.5° | 1033.4 | 1032.1 | 1024.3 | 1023.6 | 1021.7 |
| 55° | 962.6 | 955.4 | 949.0 | 949.0 | 947.7 |
| 57.5° | 884.7 | 879.5 | 871.0 | 871.0 | 869.7 |
| 60° | 804.1 | 799.6 | 789.8 | 791.1 | 789.8 |
| 62.5° | 725.5 | 715.8 | 706.7 | 710.6 | 707.3 |
| 65° | 635.9 | 630.7 | 620.9 | 623.5 | 622.9 |
| 67.5° | 554.0 | 544.3 | 535.2 | 540.4 | 537.8 |
| 70° | 463.1 | 457.9 | 448.8 | 454.0 | 447.5 |
| 72.5° | 377.4 | 372.8 | 363.7 | 369.6 | 363.1 |
| 75° | 294.2 | 289.7 | 282.5 | 287.7 | 281.2 |
| 77.5° | 215.6 | 212.4 | 205.9 | 211.1 | 212.4 |
| 80° | 144.2 | 140.3 | 137.0 | 141.6 | 142.9 |
| 82.5° | 84.4 | 81.8 | 80.5 | 81.2 | 84.4 |
| 85° | 40.9 | 37.7 | 37.7 | 38.3 | 38.3 |
| 87.5° | 11.0 | 9.7 | 11.0 | 11.7 | 12.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)