

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: P973962

Luminaire Tested: FLR2-22-25HE-L940-CA080

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P973962
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: FLR2-22-25HE-L940-CA080
Description: SHAPER SENSE CIRCLE

Light Source:
Ballast/Driver: -

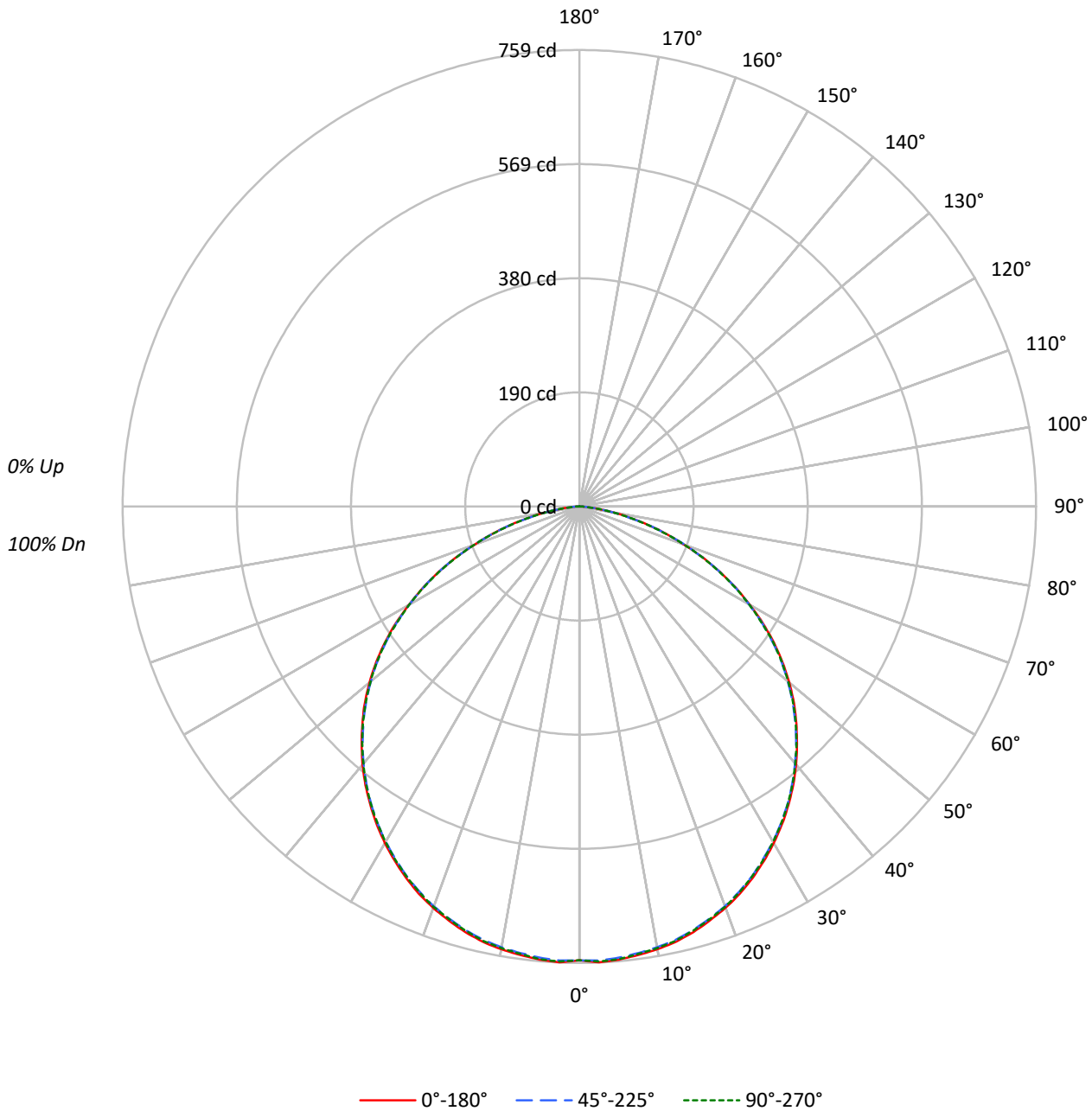
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2110.1 lumens
Efficiency: N/A
Efficacy: 109.9 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): 19.2
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





TEST NUMBER: P973962
 CATALOG NUMBER: FLR2-22-25HE-L940-CA080

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 | 101 | 97 | 107 | 102 | 99 | 95 | 98 | 95 | 92 | 94 | 92 | 89 | 91 | 89 | 87 | 85 | | | | | | 85 | | | | | | | | | | | | | | |
| 2 | 99 | 91 | 85 | 79 | 97 | 90 | 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 | 63 | 56 | 81 | 70 | 62 | 55 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 | | | | | | 51 | | | | | | | | | | | | | | |
| 5 | 76 | 64 | 55 | 48 | 74 | 62 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 47 | 57 | 51 | 46 | 44 | | | | | | 44 | | | | | | | | | | | | | | |
| 6 | 71 | 57 | 48 | 42 | 69 | 56 | 48 | 42 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 41 | 39 | | | | | | 39 | | | | | | | | | | | | | | |
| 7 | 65 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 50 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 34 | | | | | | 34 | | | | | | | | | | | | | | |
| 8 | 61 | 47 | 39 | 33 | 59 | 47 | 39 | 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 | 40 | 34 | 29 | 27 | | | | | | 27 | | | | | | | | | | | | | | |
| 10 | 53 | 40 | 32 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 26 | 25 | | | | | | 25 | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2031 | 2031 | 2031 |
| 5° | 2043 | 2035 | 2041 |
| 10° | 2043 | 2034 | 2038 |
| 15° | 2041 | 2032 | 2035 |
| 20° | 2034 | 2026 | 2029 |
| 25° | 2023 | 2015 | 2016 |
| 30° | 2009 | 2000 | 2001 |
| 35° | 1990 | 1983 | 1984 |
| 40° | 1970 | 1960 | 1961 |
| 45° | 1940 | 1931 | 1935 |
| 50° | 1906 | 1893 | 1896 |
| 55° | 1852 | 1837 | 1843 |
| 60° | 1761 | 1753 | 1753 |
| 65° | 1644 | 1641 | 1635 |
| 70° | 1456 | 1463 | 1459 |
| 75° | 1226 | 1216 | 1207 |
| 80° | 882 | 866 | 860 |
| 85° | 460 | 460 | 445 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1940 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 71.5 | 3.4 |
| 10°-20° | 205.5 | 9.7 |
| 20°-30° | 312.2 | 14.8 |
| 30°-40° | 377.4 | 17.9 |
| 40°-50° | 391.7 | 18.6 |
| 50°-60° | 350.2 | 16.6 |
| 60°-70° | 254.6 | 12.1 |
| 70°-80° | 125.2 | 5.9 |
| 80°-90° | 21.7 | 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° | 589.2 | 27.9 |
| 0°-40° | 966.6 | 45.8 |
| 0°-60° | 1708.6 | 81.0 |
| 0°-90° | 2110.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2110.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 755 | 755 | 755 | 755 | 755 | |
| 5° | 756 | 748 | 753 | 750 | 756 | 72 |
| 15° | 733 | 724 | 729 | 728 | 730 | 207 |
| 25° | 681 | 674 | 679 | 677 | 679 | 314 |
| 35° | 606 | 602 | 604 | 604 | 604 | 379 |
| 45° | 510 | 508 | 508 | 508 | 508 | 393 |
| 55° | 395 | 392 | 392 | 392 | 393 | 352 |
| 65° | 258 | 259 | 258 | 258 | 257 | 255 |
| 75° | 118 | 119 | 117 | 117 | 116 | 125 |
| 85° | 15 | 15 | 15 | 15 | 14 | 22 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P973962
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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 754.6 | 754.6 | 754.6 | 754.6 | 754.6 |
| 2.5° | 758.8 | 749.9 | 755.5 | 752.2 | 757.4 |
| 5° | 756.4 | 747.6 | 753.2 | 750.4 | 755.5 |
| 7.5° | 752.2 | 743.4 | 749.0 | 746.2 | 750.4 |
| 10° | 747.6 | 738.2 | 744.3 | 741.5 | 745.7 |
| 12.5° | 741.5 | 732.7 | 738.2 | 735.9 | 739.6 |
| 15° | 732.7 | 724.3 | 729.4 | 727.5 | 730.3 |
| 17.5° | 721.9 | 713.5 | 718.7 | 717.3 | 719.6 |
| 20° | 710.3 | 702.4 | 707.5 | 706.1 | 708.4 |
| 22.5° | 697.2 | 688.8 | 693.5 | 692.6 | 694.4 |
| 25° | 681.4 | 673.9 | 678.6 | 677.2 | 679.1 |
| 27.5° | 664.6 | 657.6 | 661.3 | 661.3 | 662.3 |
| 30° | 646.4 | 639.9 | 643.6 | 643.6 | 644.1 |
| 32.5° | 626.9 | 621.7 | 624.1 | 624.5 | 624.5 |
| 35° | 605.9 | 601.7 | 603.6 | 604.0 | 604.0 |
| 37.5° | 584.0 | 579.8 | 581.2 | 582.1 | 582.1 |
| 40° | 560.7 | 556.9 | 557.9 | 558.8 | 558.3 |
| 42.5° | 535.5 | 532.7 | 533.2 | 534.1 | 534.1 |
| 45° | 509.9 | 507.5 | 507.5 | 508.5 | 508.5 |
| 47.5° | 483.8 | 481.4 | 480.5 | 481.4 | 481.4 |
| 50° | 455.3 | 453.0 | 452.1 | 453.0 | 453.0 |
| 52.5° | 425.5 | 423.2 | 423.2 | 423.2 | 423.7 |
| 55° | 394.8 | 392.4 | 391.5 | 392.4 | 392.9 |
| 57.5° | 362.1 | 361.2 | 359.8 | 360.3 | 358.9 |
| 60° | 327.2 | 327.2 | 325.8 | 326.7 | 325.8 |
| 62.5° | 293.2 | 294.1 | 292.7 | 292.7 | 291.8 |
| 65° | 258.2 | 259.1 | 257.7 | 257.7 | 256.8 |
| 67.5° | 222.3 | 223.7 | 221.8 | 221.8 | 220.9 |
| 70° | 185.0 | 187.8 | 186.0 | 186.4 | 185.5 |
| 72.5° | 151.5 | 152.9 | 151.0 | 151.0 | 150.1 |
| 75° | 117.9 | 118.8 | 117.0 | 117.4 | 116.1 |
| 77.5° | 84.8 | 86.2 | 84.4 | 84.8 | 84.4 |
| 80° | 56.9 | 57.3 | 55.9 | 56.4 | 55.5 |
| 82.5° | 33.1 | 33.6 | 33.1 | 32.6 | 32.2 |
| 85° | 14.9 | 15.4 | 14.9 | 14.9 | 14.4 |
| 87.5° | 3.7 | 3.7 | 3.7 | 3.7 | 3.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)