

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: P974221

Luminaire Tested: FLR2-24-45-L835-CA125

Issue Date: 3/13/2025

Test Information

Test Method: LM-79-2019
Report Number: P974221
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: FLR2-24-45-L835-CA125
Description: SHAPER SENSE CIRCLE

Light Source: FLR2-24-45-L835-CA125
Ballast/Driver: -

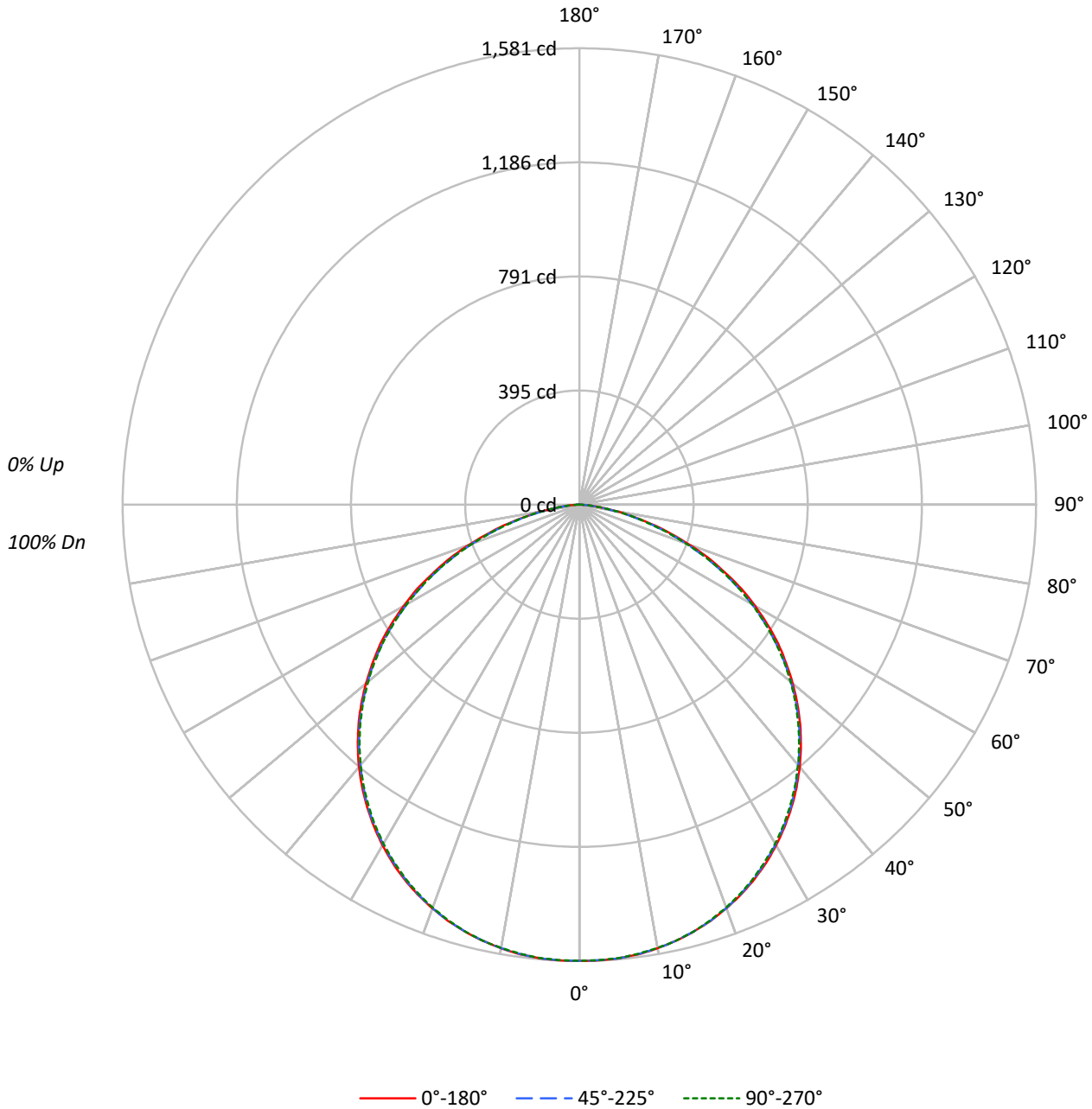
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4467.2 lumens
Efficiency: N/A
Efficacy: 125.5 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): 35.6
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 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 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° | 2127 | 2127 | 2127 |
| 5° | 2131 | 2131 | 2129 |
| 10° | 2132 | 2132 | 2131 |
| 15° | 2133 | 2132 | 2132 |
| 20° | 2131 | 2130 | 2127 |
| 25° | 2127 | 2123 | 2119 |
| 30° | 2117 | 2111 | 2107 |
| 35° | 2103 | 2098 | 2090 |
| 40° | 2085 | 2072 | 2069 |
| 45° | 2058 | 2046 | 2040 |
| 50° | 2019 | 2004 | 1998 |
| 55° | 1972 | 1944 | 1941 |
| 60° | 1889 | 1856 | 1856 |
| 65° | 1768 | 1726 | 1732 |
| 70° | 1591 | 1542 | 1537 |
| 75° | 1336 | 1282 | 1277 |
| 80° | 976 | 927 | 967 |
| 85° | 551 | 508 | 517 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 2058 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 150.0 | 3.4 |
| 10°-20° | 432.2 | 9.7 |
| 20°-30° | 659.0 | 14.8 |
| 30°-40° | 798.4 | 17.9 |
| 40°-50° | 829.3 | 18.6 |
| 50°-60° | 741.9 | 16.6 |
| 60°-70° | 540.7 | 12.1 |
| 70°-80° | 267.8 | 6.0 |
| 80°-90° | 47.9 | 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° | 1241.2 | 27.8 |
| 0°-40° | 2039.6 | 45.7 |
| 0°-60° | 3610.9 | 80.8 |
| 0°-90° | 4467.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4467.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1581 | 1581 | 1581 | 1581 | 1581 | |
| 5° | 1578 | 1578 | 1578 | 1578 | 1577 | 150 |
| 15° | 1531 | 1531 | 1531 | 1532 | 1531 | 432 |
| 25° | 1433 | 1431 | 1430 | 1429 | 1428 | 660 |
| 35° | 1281 | 1279 | 1277 | 1275 | 1273 | 801 |
| 45° | 1082 | 1079 | 1075 | 1073 | 1072 | 833 |
| 55° | 840 | 834 | 829 | 829 | 827 | 749 |
| 65° | 555 | 551 | 542 | 544 | 544 | 550 |
| 75° | 257 | 253 | 247 | 251 | 246 | 274 |
| 85° | 36 | 33 | 33 | 34 | 34 | 49 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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 CATALOG NUMBER: FLR2-24-45-L835-CA125

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1580.6 | 1580.6 | 1580.6 | 1580.6 | 1580.6 |
| 2.5° | 1580.6 | 1580.0 | 1580.0 | 1580.6 | 1579.5 |
| 5° | 1577.8 | 1578.3 | 1577.8 | 1577.8 | 1576.6 |
| 7.5° | 1571.5 | 1571.0 | 1570.4 | 1571.0 | 1569.3 |
| 10° | 1560.7 | 1560.7 | 1560.2 | 1560.7 | 1559.6 |
| 12.5° | 1547.7 | 1547.7 | 1547.7 | 1548.3 | 1547.7 |
| 15° | 1531.3 | 1530.7 | 1530.7 | 1531.8 | 1530.7 |
| 17.5° | 1512.0 | 1511.4 | 1511.4 | 1510.8 | 1509.7 |
| 20° | 1488.2 | 1488.2 | 1487.6 | 1487.0 | 1485.3 |
| 22.5° | 1462.6 | 1462.1 | 1460.4 | 1460.4 | 1458.1 |
| 25° | 1432.6 | 1430.9 | 1429.7 | 1429.2 | 1427.5 |
| 27.5° | 1399.7 | 1397.4 | 1395.7 | 1394.6 | 1392.9 |
| 30° | 1362.8 | 1360.5 | 1358.8 | 1357.1 | 1356.0 |
| 32.5° | 1323.1 | 1322.0 | 1319.1 | 1318.6 | 1316.3 |
| 35° | 1280.6 | 1278.9 | 1277.2 | 1274.9 | 1272.6 |
| 37.5° | 1235.2 | 1233.5 | 1229.5 | 1228.4 | 1226.7 |
| 40° | 1187.0 | 1184.7 | 1179.6 | 1179.6 | 1177.9 |
| 42.5° | 1135.4 | 1133.1 | 1129.7 | 1127.5 | 1126.3 |
| 45° | 1081.5 | 1079.2 | 1075.3 | 1073.0 | 1071.9 |
| 47.5° | 1024.2 | 1022.5 | 1018.0 | 1016.3 | 1014.6 |
| 50° | 964.7 | 962.4 | 957.3 | 956.2 | 954.5 |
| 52.5° | 902.3 | 901.2 | 894.4 | 893.8 | 892.1 |
| 55° | 840.5 | 834.2 | 828.6 | 828.6 | 827.4 |
| 57.5° | 772.4 | 767.9 | 760.5 | 760.5 | 759.4 |
| 60° | 702.1 | 698.1 | 689.6 | 690.8 | 689.6 |
| 62.5° | 633.5 | 625.0 | 617.0 | 620.4 | 617.6 |
| 65° | 555.2 | 550.7 | 542.2 | 544.4 | 543.9 |
| 67.5° | 483.8 | 475.3 | 467.3 | 471.9 | 469.6 |
| 70° | 404.4 | 399.8 | 391.9 | 396.4 | 390.8 |
| 72.5° | 329.5 | 325.5 | 317.6 | 322.7 | 317.0 |
| 75° | 256.9 | 252.9 | 246.7 | 251.2 | 245.6 |
| 77.5° | 188.3 | 185.5 | 179.8 | 184.3 | 185.5 |
| 80° | 125.9 | 122.5 | 119.7 | 123.6 | 124.8 |
| 82.5° | 73.7 | 71.5 | 70.3 | 70.9 | 73.7 |
| 85° | 35.7 | 32.9 | 32.9 | 33.5 | 33.5 |
| 87.5° | 9.6 | 8.5 | 9.6 | 10.2 | 10.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)