

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: P688160

Luminaire Tested: FLR-MC-24-L3C3 (LOW)-50-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688160
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2207-724-14)
Test Lab: INNOVATION CENTER
Issue Date: 5/22/2023
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FLR-MC-24-L3C3 (LOW)-50-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 2X4 5000K Luminaire at Low Lumen setting for Medical/Cleanroom
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

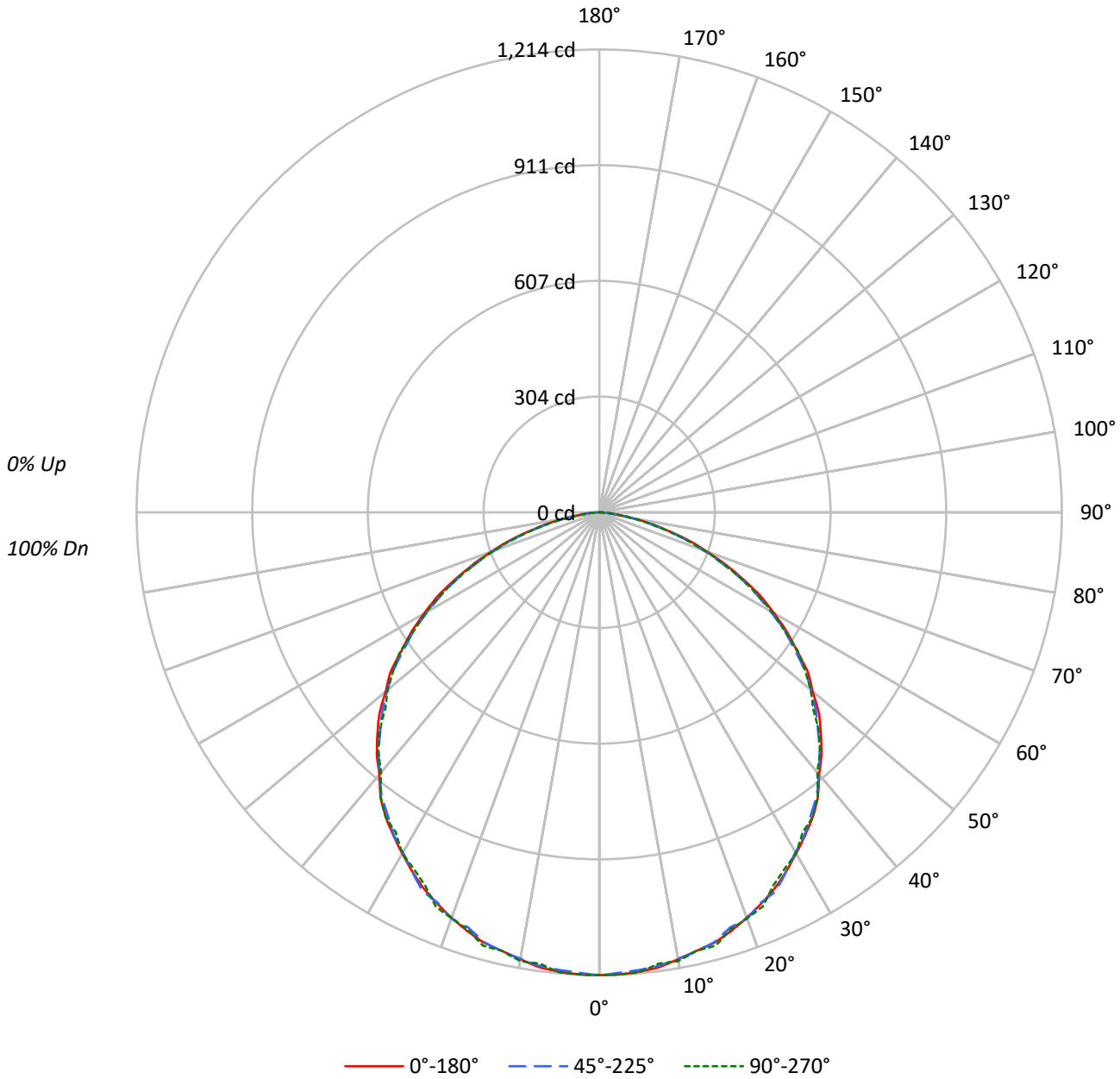
Lumens per Lamp: N/A
Luminaire Lumens: 3365.8 lumens
Efficiency: N/A
Efficacy: 121.1 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 27.8
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



TEST NUMBER: P688160
CATALOG NUMBER: FLR-MC-24-L3C3 (LOW)-50-CP250

Luminous Intensity Polar Plot



TEST NUMBER: P688160
 CATALOG NUMBER: FLR-MC-24-L3C3 (LOW)-50-CP250

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 | 90 | 91 | 89 | 87 | 85 |
| 2 | 100 | 92 | 85 | 79 | 97 | 90 | 84 | 78 | 86 | 81 | 77 | 83 | 79 | 75 | 80 | 76 | 73 | 71 |
| 3 | 91 | 81 | 73 | 66 | 88 | 79 | 72 | 66 | 76 | 70 | 64 | 73 | 68 | 63 | 71 | 66 | 62 | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 68 | 61 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 |
| 5 | 76 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 61 | 53 | 48 | 59 | 52 | 47 | 57 | 51 | 46 | 44 |
| 6 | 71 | 57 | 49 | 42 | 69 | 56 | 48 | 42 | 55 | 47 | 42 | 53 | 46 | 41 | 51 | 45 | 41 | 39 |
| 7 | 65 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 50 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 36 | 34 |
| 8 | 61 | 47 | 39 | 33 | 59 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 32 | 31 |
| 9 | 57 | 44 | 35 | 30 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 29 | 40 | 34 | 29 | 27 |
| 10 | 53 | 40 | 32 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1634 | 1634 | 1634 |
| 5° | 1634 | 1628 | 1636 |
| 10° | 1626 | 1625 | 1633 |
| 15° | 1629 | 1626 | 1640 |
| 20° | 1621 | 1625 | 1622 |
| 25° | 1617 | 1628 | 1603 |
| 30° | 1606 | 1600 | 1605 |
| 35° | 1605 | 1591 | 1605 |
| 40° | 1576 | 1575 | 1564 |
| 45° | 1565 | 1546 | 1553 |
| 50° | 1530 | 1518 | 1517 |
| 55° | 1486 | 1465 | 1495 |
| 60° | 1425 | 1394 | 1410 |
| 65° | 1329 | 1300 | 1302 |
| 70° | 1178 | 1145 | 1157 |
| 75° | 970 | 933 | 946 |
| 80° | 680 | 665 | 675 |
| 85° | 349 | 329 | 329 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 1565 cd/sqm

TEST NUMBER: P688160
 CATALOG NUMBER: FLR-MC-24-L3C3 (LOW)-50-CP250

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 114.8 | 3.4 |
| 10°-20° | 329.4 | 9.8 |
| 20°-30° | 500.8 | 14.9 |
| 30°-40° | 605.7 | 18.0 |
| 40°-50° | 627.6 | 18.6 |
| 50°-60° | 560.2 | 16.6 |
| 60°-70° | 402.3 | 12.0 |
| 70°-80° | 193.0 | 5.7 |
| 80°-90° | 32.0 | 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° | 945.0 | 28.1 |
| 0°-40° | 1550.6 | 46.1 |
| 0°-60° | 2738.5 | 81.4 |
| 0°-90° | 3365.8 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3365.8 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1214 | 1214 | 1214 | 1214 | 1214 | |
| 5° | 1210 | 1214 | 1205 | 1206 | 1211 | 115 |
| 15° | 1169 | 1170 | 1167 | 1167 | 1178 | 329 |
| 25° | 1089 | 1087 | 1097 | 1083 | 1080 | 502 |
| 35° | 977 | 969 | 968 | 965 | 977 | 609 |
| 45° | 823 | 817 | 812 | 812 | 816 | 634 |
| 55° | 634 | 626 | 625 | 623 | 638 | 568 |
| 65° | 418 | 405 | 408 | 403 | 409 | 413 |
| 75° | 186 | 174 | 179 | 179 | 182 | 202 |
| 85° | 23 | 21 | 21 | 21 | 21 | 33 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P688160
 CATALOG NUMBER: FLR-MC-24-L3C3 (LOW)-50-CP250

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1214.3 | 1214.3 | 1214.3 | 1214.3 | 1214.3 |
| 2.5° | 1213.7 | 1215.0 | 1209.1 | 1207.9 | 1213.7 |
| 5° | 1209.8 | 1213.7 | 1205.3 | 1205.9 | 1211.1 |
| 7.5° | 1204.0 | 1201.4 | 1200.1 | 1204.6 | 1194.3 |
| 10° | 1190.4 | 1196.2 | 1189.1 | 1185.9 | 1195.6 |
| 12.5° | 1178.8 | 1179.5 | 1180.1 | 1181.4 | 1178.2 |
| 15° | 1169.1 | 1170.4 | 1167.2 | 1167.2 | 1177.5 |
| 17.5° | 1151.7 | 1154.3 | 1142.0 | 1149.8 | 1147.2 |
| 20° | 1132.4 | 1129.8 | 1134.9 | 1133.0 | 1133.0 |
| 22.5° | 1111.1 | 1111.1 | 1108.5 | 1109.8 | 1120.1 |
| 25° | 1089.1 | 1086.6 | 1096.9 | 1083.3 | 1080.1 |
| 27.5° | 1062.7 | 1060.1 | 1062.7 | 1055.6 | 1054.3 |
| 30° | 1033.6 | 1027.2 | 1029.8 | 1030.4 | 1033.0 |
| 32.5° | 1005.3 | 998.8 | 1003.3 | 998.8 | 994.3 |
| 35° | 976.9 | 969.1 | 968.5 | 964.6 | 976.9 |
| 37.5° | 942.7 | 934.3 | 937.5 | 925.2 | 942.0 |
| 40° | 897.5 | 892.3 | 896.9 | 893.0 | 890.4 |
| 42.5° | 864.0 | 858.1 | 856.2 | 853.6 | 857.5 |
| 45° | 822.7 | 816.9 | 812.3 | 811.7 | 816.2 |
| 47.5° | 782.7 | 767.8 | 771.7 | 765.9 | 760.7 |
| 50° | 731.0 | 727.2 | 725.2 | 719.4 | 724.6 |
| 52.5° | 691.0 | 676.8 | 680.1 | 674.9 | 680.7 |
| 55° | 633.6 | 626.5 | 624.6 | 623.3 | 637.5 |
| 57.5° | 583.9 | 574.9 | 576.2 | 573.0 | 574.9 |
| 60° | 529.7 | 521.3 | 518.1 | 517.5 | 523.9 |
| 62.5° | 478.8 | 461.3 | 463.9 | 463.3 | 466.5 |
| 65° | 417.5 | 405.2 | 408.4 | 402.6 | 409.1 |
| 67.5° | 358.7 | 346.5 | 347.8 | 346.5 | 349.7 |
| 70° | 299.4 | 285.8 | 291.0 | 288.4 | 294.2 |
| 72.5° | 247.8 | 231.6 | 236.2 | 231.6 | 236.8 |
| 75° | 186.5 | 174.2 | 179.4 | 179.4 | 182.0 |
| 77.5° | 137.4 | 126.5 | 130.3 | 129.0 | 131.6 |
| 80° | 87.8 | 83.2 | 85.8 | 83.9 | 87.1 |
| 82.5° | 50.3 | 47.1 | 47.1 | 48.4 | 49.0 |
| 85° | 22.6 | 21.3 | 21.3 | 21.3 | 21.3 |
| 87.5° | 5.8 | 5.8 | 5.8 | 5.8 | 5.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)