

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: P688172

Luminaire Tested: FLR-WL-22-L3C3 (HI)-50-CP250

Issue Date: 5/22/2023

Test Information

Test Method: LM-79-2019
Report Number: P688172
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-WL-22-L3C3 (HI)-50-CP250
Description: Fail-Safe - FLR Fully Luminous Recessed 2X2 5000K Luminaire at High Lumen setting for Wet location
Light Source: 5000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

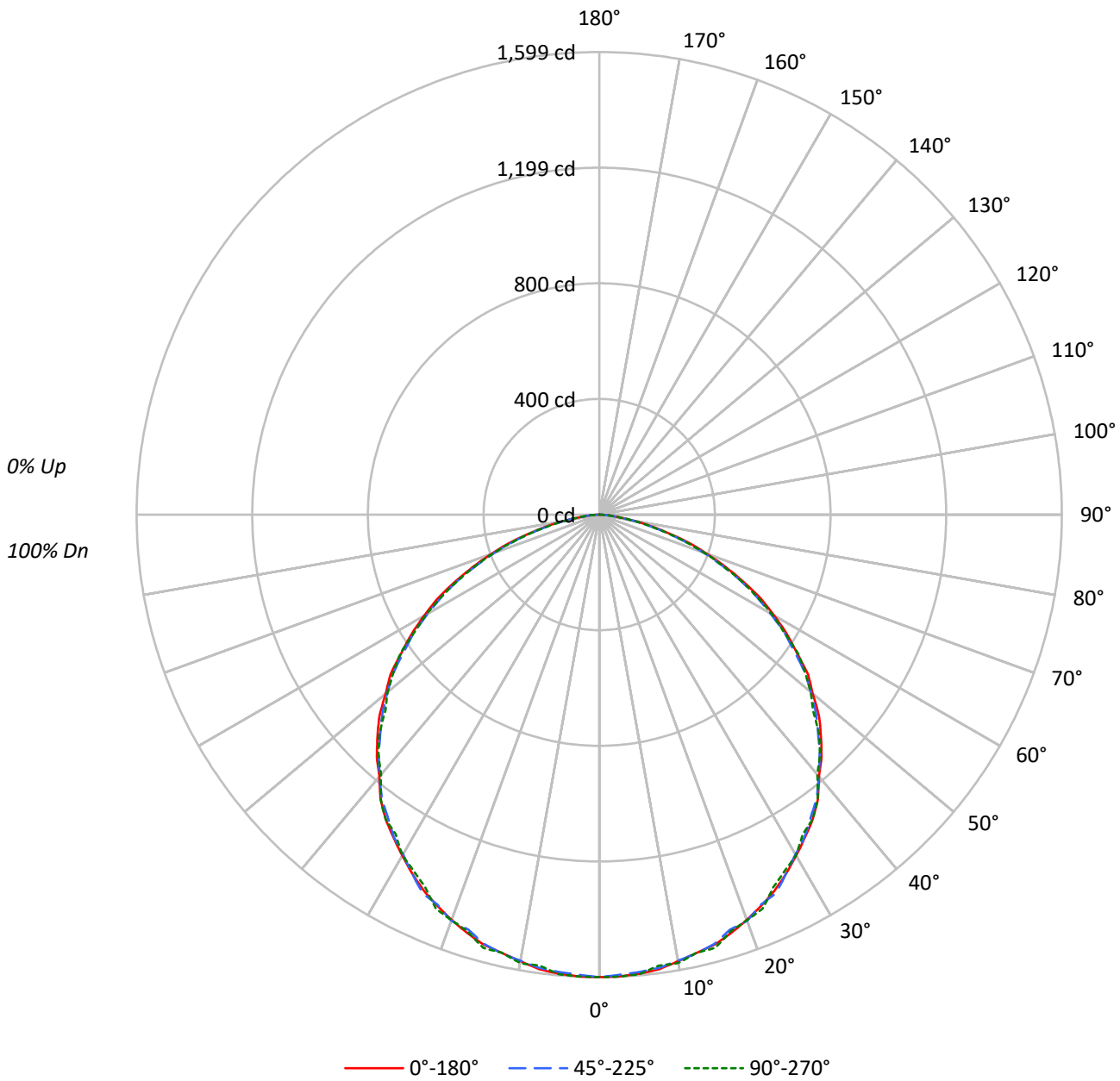
Lumens per Lamp: N/A
Luminaire Lumens: 4432.4 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.26 / 1.38
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

Input Watts (W): 40.5
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



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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 | 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° | 4303 | 4303 | 4303 |
| 5° | 4304 | 4287 | 4308 |
| 10° | 4284 | 4279 | 4302 |
| 15° | 4289 | 4282 | 4320 |
| 20° | 4270 | 4280 | 4273 |
| 25° | 4259 | 4289 | 4223 |
| 30° | 4230 | 4214 | 4227 |
| 35° | 4226 | 4190 | 4226 |
| 40° | 4152 | 4149 | 4119 |
| 45° | 4123 | 4071 | 4091 |
| 50° | 4030 | 3998 | 3995 |
| 55° | 3915 | 3859 | 3939 |
| 60° | 3754 | 3672 | 3714 |
| 65° | 3501 | 3425 | 3430 |
| 70° | 3102 | 3015 | 3049 |
| 75° | 2554 | 2456 | 2491 |
| 80° | 1791 | 1751 | 1777 |
| 85° | 917 | 865 | 865 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 4123 cd/sqm

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 151.2 | 3.4 |
| 10°-20° | 433.8 | 9.8 |
| 20°-30° | 659.5 | 14.9 |
| 30°-40° | 797.6 | 18.0 |
| 40°-50° | 826.5 | 18.6 |
| 50°-60° | 737.8 | 16.6 |
| 60°-70° | 529.8 | 12.0 |
| 70°-80° | 254.1 | 5.7 |
| 80°-90° | 42.2 | 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° | 1244.4 | 28.1 |
| 0°-40° | 2042.0 | 46.1 |
| 0°-60° | 3606.3 | 81.4 |
| 0°-90° | 4432.4 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4432.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1599 | 1599 | 1599 | 1599 | 1599 | |
| 5° | 1593 | 1598 | 1587 | 1588 | 1595 | 151 |
| 15° | 1540 | 1541 | 1537 | 1537 | 1551 | 434 |
| 25° | 1434 | 1431 | 1444 | 1427 | 1422 | 661 |
| 35° | 1286 | 1276 | 1275 | 1270 | 1286 | 802 |
| 45° | 1083 | 1076 | 1070 | 1069 | 1075 | 835 |
| 55° | 834 | 825 | 822 | 821 | 840 | 748 |
| 65° | 550 | 534 | 538 | 530 | 539 | 544 |
| 75° | 246 | 229 | 236 | 236 | 240 | 265 |
| 85° | 30 | 28 | 28 | 28 | 28 | 44 |
| 90° | 0 | 0 | 0 | 0 | 0 | |

TEST NUMBER: P688172
 CATALOG NUMBER: FLR-WL-22-L3C3 (HI)-50-CP250

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1599.1 | 1599.1 | 1599.1 | 1599.1 | 1599.1 |
| 2.5° | 1598.3 | 1600.0 | 1592.3 | 1590.6 | 1598.3 |
| 5° | 1593.2 | 1598.3 | 1587.2 | 1588.1 | 1594.9 |
| 7.5° | 1585.5 | 1582.1 | 1580.4 | 1586.4 | 1572.8 |
| 10° | 1567.7 | 1575.3 | 1566.0 | 1561.7 | 1574.5 |
| 12.5° | 1552.4 | 1553.2 | 1554.1 | 1555.8 | 1551.5 |
| 15° | 1539.6 | 1541.3 | 1537.1 | 1537.1 | 1550.7 |
| 17.5° | 1516.7 | 1520.1 | 1504.0 | 1514.2 | 1510.8 |
| 20° | 1491.2 | 1487.8 | 1494.6 | 1492.1 | 1492.1 |
| 22.5° | 1463.2 | 1463.2 | 1459.8 | 1461.5 | 1475.1 |
| 25° | 1434.3 | 1430.9 | 1444.5 | 1426.6 | 1422.4 |
| 27.5° | 1399.4 | 1396.0 | 1399.4 | 1390.1 | 1388.4 |
| 30° | 1361.2 | 1352.7 | 1356.1 | 1357.0 | 1360.4 |
| 32.5° | 1323.8 | 1315.3 | 1321.3 | 1315.3 | 1309.4 |
| 35° | 1286.4 | 1276.2 | 1275.4 | 1270.3 | 1286.4 |
| 37.5° | 1241.4 | 1230.4 | 1234.6 | 1218.5 | 1240.6 |
| 40° | 1181.9 | 1175.1 | 1181.1 | 1176.0 | 1172.6 |
| 42.5° | 1137.7 | 1130.1 | 1127.5 | 1124.1 | 1129.2 |
| 45° | 1083.4 | 1075.7 | 1069.8 | 1068.9 | 1074.9 |
| 47.5° | 1030.7 | 1011.1 | 1016.2 | 1008.6 | 1001.8 |
| 50° | 962.7 | 957.6 | 955.1 | 947.4 | 954.2 |
| 52.5° | 910.0 | 891.3 | 895.6 | 888.8 | 896.4 |
| 55° | 834.4 | 825.1 | 822.5 | 820.8 | 839.5 |
| 57.5° | 769.0 | 757.1 | 758.8 | 754.5 | 757.1 |
| 60° | 697.6 | 686.6 | 682.3 | 681.5 | 690.0 |
| 62.5° | 630.5 | 607.5 | 610.9 | 610.1 | 614.3 |
| 65° | 549.8 | 533.6 | 537.9 | 530.2 | 538.7 |
| 67.5° | 472.4 | 456.3 | 458.0 | 456.3 | 460.5 |
| 70° | 394.3 | 376.4 | 383.2 | 379.8 | 387.5 |
| 72.5° | 326.3 | 305.0 | 311.0 | 305.0 | 311.8 |
| 75° | 245.6 | 229.4 | 236.2 | 236.2 | 239.6 |
| 77.5° | 181.0 | 166.5 | 171.6 | 169.9 | 173.3 |
| 80° | 115.6 | 109.6 | 113.0 | 110.5 | 114.7 |
| 82.5° | 66.3 | 62.0 | 62.0 | 63.7 | 64.6 |
| 85° | 29.7 | 28.0 | 28.0 | 28.0 | 28.0 |
| 87.5° | 7.6 | 7.6 | 7.6 | 7.6 | 7.6 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)