

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: FAIL-SAFE

Report Number: P734020

Luminaire Tested: **24FCZ2-30-SQR-B2750-W2D-CA125-5000K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P734020  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P388488)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30-SQR-B2750-W2D-CA125-5000K  
Description: 2X4 3000 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT  
AND SQR LENS, WITH, CA125 BOTTOM LENS  
  
Light Source: -  
Ballast/Driver: -

**Summary**

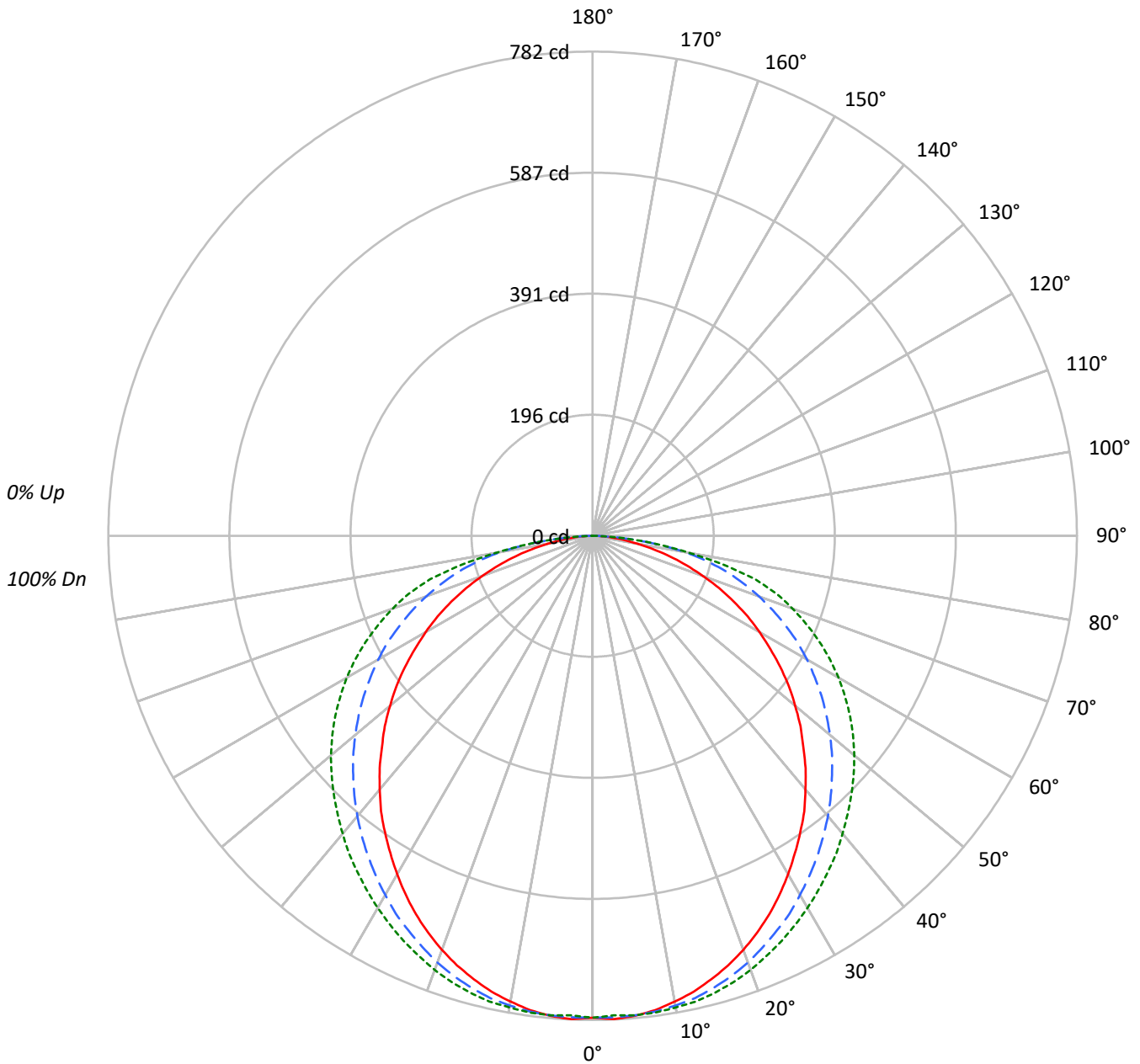
Lumens per Lamp: N/A  
Luminaire Lumens: 2435.0 lumens  
Efficiency: N/A  
Efficacy: 105.9 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 23  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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: 25 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  | 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   | 108 | 103 | 98  | 94  | 105 | 100 | 96  | 92  | 96  | 93  | 89  | 92  | 89  | 87  | 89  | 86  | 84  | 82  |    |    |    |  |  |  |  |   |
| 2   | 98  | 89  | 81  | 75  | 95  | 87  | 80  | 74  | 83  | 78  | 73  | 80  | 75  | 71  | 77  | 73  | 69  | 67  |    |    |    |  |  |  |  |   |
| 3   | 89  | 77  | 69  | 62  | 86  | 76  | 68  | 61  | 73  | 66  | 60  | 70  | 64  | 59  | 67  | 62  | 58  | 56  |    |    |    |  |  |  |  |   |
| 4   | 81  | 68  | 59  | 52  | 78  | 67  | 58  | 52  | 64  | 57  | 51  | 62  | 55  | 50  | 60  | 54  | 49  | 47  |    |    |    |  |  |  |  |   |
| 5   | 74  | 61  | 51  | 44  | 72  | 60  | 51  | 44  | 57  | 50  | 44  | 55  | 49  | 43  | 54  | 48  | 43  | 41  |    |    |    |  |  |  |  |   |
| 6   | 68  | 55  | 45  | 39  | 66  | 54  | 45  | 38  | 52  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 37  | 35  |    |    |    |  |  |  |  |   |
| 7   | 63  | 49  | 40  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 45  | 39  | 33  | 44  | 38  | 33  | 31  |    |    |    |  |  |  |  |   |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  | 42  | 35  | 30  | 40  | 34  | 30  | 28  |    |    |    |  |  |  |  |   |
| 9   | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |    |    |    |  |  |  |  |   |
| 10  | 52  | 38  | 30  | 25  | 50  | 37  | 30  | 24  | 36  | 29  | 24  | 36  | 29  | 24  | 35  | 29  | 24  | 22  |    |    |    |  |  |  |  |   |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1098 | 1098 | 1098 |
| 5°  | 1103 | 1102 | 1102 |
| 10° | 1095 | 1104 | 1109 |
| 15° | 1083 | 1104 | 1116 |
| 20° | 1069 | 1102 | 1121 |
| 25° | 1051 | 1096 | 1124 |
| 30° | 1029 | 1092 | 1131 |
| 35° | 1007 | 1089 | 1141 |
| 40° | 985  | 1089 | 1157 |
| 45° | 960  | 1091 | 1180 |
| 50° | 938  | 1098 | 1211 |
| 55° | 910  | 1110 | 1248 |
| 60° | 878  | 1128 | 1294 |
| 65° | 840  | 1149 | 1348 |
| 70° | 779  | 1178 | 1417 |
| 75° | 706  | 1219 | 1482 |
| 80° | 594  | 1222 | 1274 |
| 85° | 455  | 925  | 925  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 73.9   | 3.0       |
| 10°-20°   | 212.6  | 8.7       |
| 20°-30°   | 322.9  | 13.3      |
| 30°-40°   | 392.7  | 16.1      |
| 40°-50°   | 418.1  | 17.2      |
| 50°-60°   | 398.3  | 16.4      |
| 60°-70°   | 333.0  | 13.7      |
| 70°-80°   | 222.0  | 9.1       |
| 80°-90°   | 61.4   | 2.5       |
| 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°    | 609.3  | 25.0      |
| 0°-40°    | 1002.1 | 41.2      |
| 0°-60°    | 1818.5 | 74.7      |
| 0°-90°    | 2435.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2435.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 778 | 778   | 778 | 778   | 778 |      |
| 5°  | 778 | 774   | 778 | 778   | 778 | 74   |
| 15° | 741 | 743   | 756 | 762   | 764 | 209  |
| 25° | 675 | 683   | 704 | 716   | 722 | 311  |
| 35° | 585 | 602   | 632 | 653   | 662 | 366  |
| 45° | 481 | 507   | 547 | 577   | 591 | 372  |
| 55° | 370 | 402   | 451 | 490   | 507 | 331  |
| 65° | 252 | 289   | 344 | 387   | 404 | 249  |
| 75° | 130 | 170   | 224 | 261   | 272 | 137  |
| 85° | 28  | 52    | 57  | 56    | 57  | 34   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 778.3 | 778.3 | 778.3 | 778.3 | 778.3 |
| 2.5°  | 781.5 | 775.9 | 778.3 | 778.3 | 775.2 |
| 5°    | 778.3 | 773.5 | 777.6 | 777.6 | 777.6 |
| 7.5°  | 772.8 | 768.7 | 775.2 | 776.7 | 776.7 |
| 10°   | 763.9 | 762.3 | 770.4 | 772.8 | 773.5 |
| 12.5° | 754.3 | 753.4 | 764.7 | 767.9 | 770.4 |
| 15°   | 741.3 | 743.0 | 755.8 | 761.5 | 763.9 |
| 17.5° | 727.7 | 730.9 | 745.4 | 753.4 | 755.8 |
| 20°   | 711.6 | 716.4 | 733.4 | 741.3 | 746.2 |
| 22.5° | 694.0 | 701.2 | 718.8 | 728.5 | 734.1 |
| 25°   | 674.6 | 683.4 | 703.6 | 715.6 | 722.1 |
| 27.5° | 653.7 | 665.0 | 688.3 | 701.9 | 708.4 |
| 30°   | 631.2 | 644.0 | 669.8 | 685.9 | 694.0 |
| 32.5° | 607.9 | 623.1 | 651.3 | 669.0 | 678.6 |
| 35°   | 584.6 | 601.5 | 632.0 | 652.9 | 662.5 |
| 37.5° | 561.3 | 578.1 | 611.9 | 634.4 | 646.5 |
| 40°   | 534.7 | 554.8 | 591.0 | 615.9 | 628.0 |
| 42.5° | 509.0 | 530.6 | 569.3 | 596.6 | 609.5 |
| 45°   | 480.8 | 506.6 | 546.7 | 577.4 | 591.0 |
| 47.5° | 455.1 | 480.8 | 524.3 | 556.5 | 571.7 |
| 50°   | 427.0 | 454.3 | 500.1 | 535.6 | 551.6 |
| 52.5° | 399.6 | 427.8 | 476.0 | 513.8 | 529.9 |
| 55°   | 369.9 | 402.0 | 451.1 | 490.5 | 507.3 |
| 57.5° | 340.1 | 374.7 | 425.3 | 466.4 | 483.3 |
| 60°   | 311.2 | 346.5 | 399.6 | 440.7 | 458.3 |
| 62.5° | 282.2 | 317.6 | 373.1 | 414.9 | 431.8 |
| 65°   | 251.6 | 288.6 | 344.1 | 386.7 | 403.7 |
| 67.5° | 221.1 | 259.7 | 315.2 | 357.8 | 373.9 |
| 70°   | 188.9 | 230.0 | 285.5 | 327.3 | 343.4 |
| 72.5° | 159.3 | 200.2 | 254.9 | 295.9 | 311.2 |
| 75°   | 129.5 | 170.4 | 223.5 | 261.3 | 271.8 |
| 77.5° | 100.5 | 141.5 | 188.9 | 213.9 | 216.3 |
| 80°   | 73.1  | 111.8 | 150.4 | 157.6 | 156.7 |
| 82.5° | 49.0  | 83.6  | 103.8 | 104.5 | 106.9 |
| 85°   | 28.1  | 52.2  | 57.1  | 56.3  | 57.1  |
| 87.5° | 11.3  | 18.5  | 16.1  | 12.0  | 12.0  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



Report Generated By 670246072 / DESKTOP-50001EG







— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)