

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: P733945

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

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P733945  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P295011)  
Test Lab: INNOVATIONS CENTER(G3)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: 24FCZ2-30-HRP-B2750-W2D-CA125-5000K  
Description: 2X4 3000 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT  
AND HRP LENS, WITH, CA125 BOTTOM LENS

Light Source: -  
Ballast/Driver: -

**Summary**

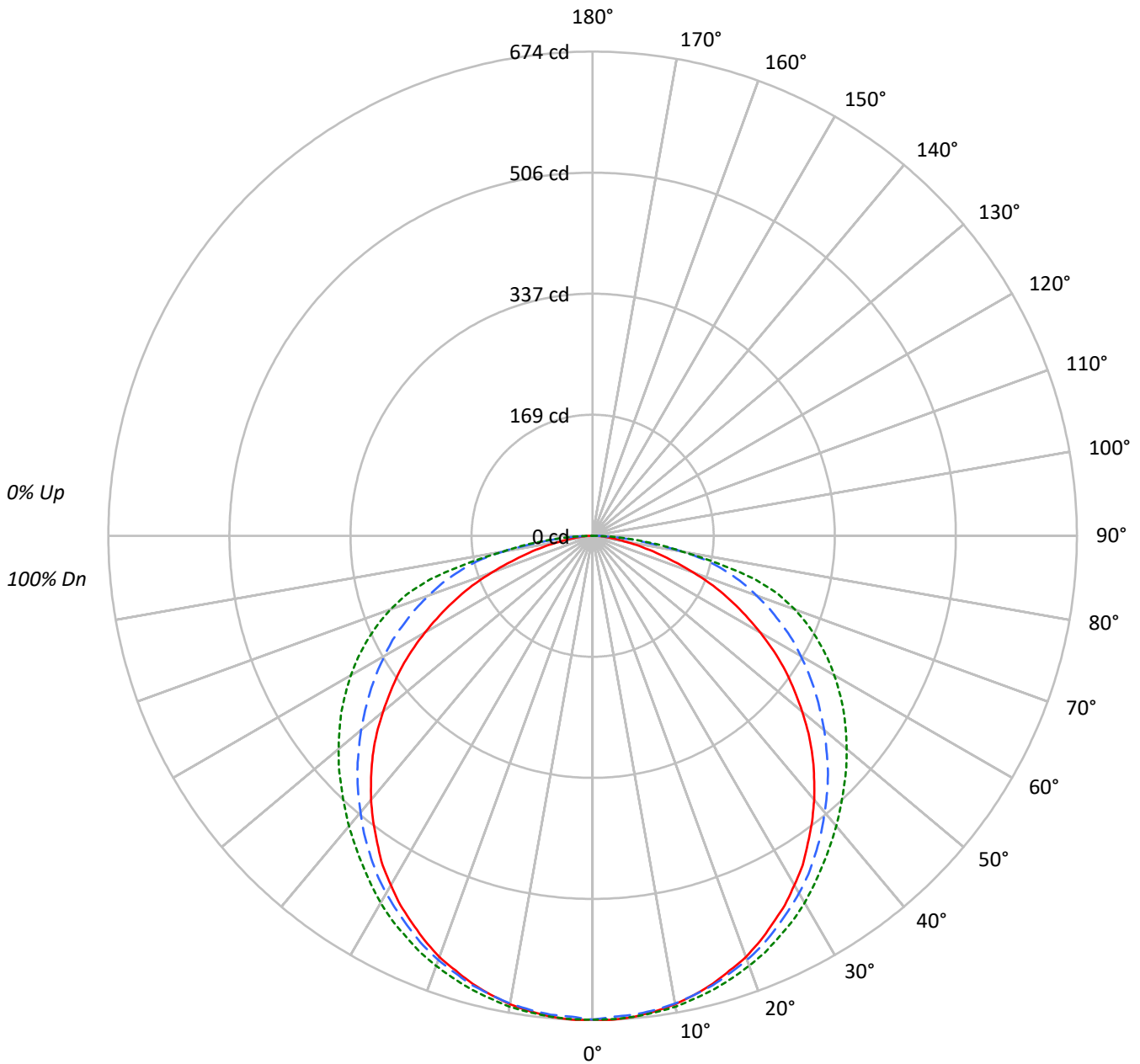
Lumens per Lamp: N/A  
Luminaire Lumens: 2076.0 lumens  
Efficiency: N/A  
Efficacy: 90.3 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4  
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')  
CIE Type: Direct

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  | 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 | 100 | 100 | 100 | 100 |  |   |
|     | 1  | 108 | 103 | 98  | 94  | 105 | 101 | 96  | 93  | 96  | 93  | 90  | 92  | 90  | 87  | 89  | 86  | 84  | 82  | 82  | 82  | 82  | 82  | 82  |  |   |
|     | 2  | 98  | 89  | 82  | 76  | 95  | 87  | 80  | 75  | 83  | 78  | 73  | 80  | 75  | 71  | 77  | 73  | 70  | 67  | 67  | 67  | 67  | 67  | 67  |  |   |
|     | 3  | 89  | 78  | 69  | 62  | 86  | 76  | 68  | 62  | 73  | 66  | 61  | 70  | 64  | 59  | 68  | 63  | 58  | 56  | 56  | 56  | 56  | 56  | 56  |  |   |
|     | 4  | 81  | 68  | 59  | 52  | 79  | 67  | 59  | 52  | 65  | 57  | 51  | 62  | 56  | 50  | 60  | 54  | 50  | 48  | 48  | 48  | 48  | 48  | 48  |  |   |
|     | 5  | 74  | 61  | 52  | 45  | 72  | 60  | 51  | 45  | 58  | 50  | 44  | 56  | 49  | 44  | 54  | 48  | 43  | 41  | 41  | 41  | 41  | 41  | 41  |  |   |
|     | 6  | 69  | 55  | 46  | 39  | 67  | 54  | 45  | 39  | 52  | 44  | 38  | 50  | 43  | 38  | 49  | 42  | 38  | 36  | 36  | 36  | 36  | 36  | 36  |  |   |
|     | 7  | 63  | 50  | 41  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 34  | 44  | 38  | 33  | 31  | 31  | 31  | 31  | 31  | 31  |  |   |
|     | 8  | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 36  | 30  | 42  | 35  | 30  | 41  | 34  | 30  | 28  | 28  | 28  | 28  | 28  | 28  |  |   |
|     | 9  | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 31  | 27  | 25  | 25  | 25  | 25  | 25  | 25  |  |   |
|     | 10 | 52  | 38  | 30  | 25  | 50  | 38  | 30  | 25  | 37  | 30  | 25  | 36  | 29  | 24  | 35  | 29  | 24  | 23  | 23  | 23  | 23  | 23  | 23  |  |   |

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

|     | 0°  | 45°  | 90°  |
|-----|-----|------|------|
| 0°  | 951 | 951  | 951  |
| 5°  | 952 | 948  | 952  |
| 10° | 949 | 948  | 954  |
| 15° | 943 | 946  | 955  |
| 20° | 937 | 944  | 957  |
| 25° | 926 | 939  | 958  |
| 30° | 915 | 936  | 962  |
| 35° | 900 | 931  | 963  |
| 40° | 884 | 926  | 972  |
| 45° | 864 | 925  | 987  |
| 50° | 836 | 924  | 1013 |
| 55° | 806 | 930  | 1050 |
| 60° | 761 | 944  | 1096 |
| 65° | 702 | 966  | 1158 |
| 70° | 613 | 1001 | 1234 |
| 75° | 498 | 1052 | 1275 |
| 80° | 367 | 1031 | 1031 |
| 85° | 282 | 761  | 858  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 63.8   | 3.1       |
| 10°-20°   | 183.2  | 8.8       |
| 20°-30°   | 278.9  | 13.4      |
| 30°-40°   | 338.7  | 16.3      |
| 40°-50°   | 357.8  | 17.2      |
| 50°-60°   | 337.7  | 16.3      |
| 60°-70°   | 280.7  | 13.5      |
| 70°-80°   | 184.7  | 8.9       |
| 80°-90°   | 50.4   | 2.4       |
| 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°    | 526.0  | 25.3      |
| 0°-40°    | 864.7  | 41.7      |
| 0°-60°    | 1560.2 | 75.2      |
| 0°-90°    | 2076.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2076.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 674 | 674   | 674 | 674   | 674 |      |
| 5°  | 672 | 672   | 669 | 672   | 672 | 64   |
| 15° | 646 | 647   | 648 | 654   | 654 | 182  |
| 25° | 594 | 598   | 603 | 614   | 615 | 274  |
| 35° | 522 | 528   | 541 | 554   | 559 | 327  |
| 45° | 433 | 442   | 463 | 486   | 494 | 333  |
| 55° | 328 | 342   | 378 | 414   | 427 | 292  |
| 65° | 210 | 235   | 289 | 332   | 347 | 208  |
| 75° | 91  | 133   | 193 | 229   | 234 | 98   |
| 85° | 17  | 38    | 47  | 52    | 53  | 21   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 673.6 | 673.6 | 673.6 | 673.6 | 673.6 |
| 2.5°  | 674.4 | 673.6 | 670.0 | 673.6 | 673.6 |
| 5°    | 671.9 | 671.9 | 669.2 | 671.9 | 671.9 |
| 7.5°  | 667.5 | 667.5 | 665.7 | 669.2 | 669.2 |
| 10°   | 662.3 | 662.3 | 661.3 | 665.7 | 665.7 |
| 12.5° | 654.5 | 655.3 | 654.5 | 659.6 | 659.6 |
| 15°   | 645.7 | 646.6 | 647.5 | 653.6 | 653.6 |
| 17.5° | 634.5 | 636.2 | 637.9 | 644.9 | 645.7 |
| 20°   | 624.0 | 624.9 | 628.3 | 636.2 | 637.0 |
| 22.5° | 610.1 | 612.8 | 617.1 | 624.9 | 627.5 |
| 25°   | 594.5 | 597.9 | 603.2 | 613.6 | 615.3 |
| 27.5° | 579.6 | 582.3 | 589.2 | 600.5 | 604.0 |
| 30°   | 561.5 | 565.8 | 574.5 | 585.8 | 590.1 |
| 32.5° | 544.1 | 548.4 | 558.8 | 571.0 | 574.5 |
| 35°   | 522.4 | 528.4 | 540.6 | 554.5 | 558.8 |
| 37.5° | 501.5 | 507.5 | 522.4 | 537.9 | 543.2 |
| 40°   | 479.7 | 486.7 | 502.4 | 520.6 | 527.5 |
| 42.5° | 456.3 | 465.8 | 483.2 | 503.2 | 511.1 |
| 45°   | 432.8 | 441.5 | 463.2 | 485.8 | 494.5 |
| 47.5° | 407.6 | 418.0 | 441.5 | 468.4 | 478.8 |
| 50°   | 380.7 | 393.7 | 420.7 | 450.2 | 461.5 |
| 52.5° | 353.7 | 368.4 | 398.9 | 432.0 | 444.1 |
| 55°   | 327.6 | 341.6 | 378.0 | 413.7 | 426.7 |
| 57.5° | 299.0 | 316.3 | 356.3 | 394.6 | 407.6 |
| 60°   | 269.5 | 288.6 | 334.6 | 374.6 | 388.4 |
| 62.5° | 239.9 | 261.6 | 313.7 | 353.7 | 368.4 |
| 65°   | 210.3 | 234.6 | 289.4 | 332.0 | 346.7 |
| 67.5° | 181.6 | 208.6 | 266.8 | 309.4 | 324.2 |
| 70°   | 148.6 | 182.5 | 242.5 | 284.2 | 299.0 |
| 72.5° | 118.2 | 157.4 | 219.0 | 258.2 | 271.2 |
| 75°   | 91.3  | 133.0 | 192.9 | 228.6 | 233.8 |
| 77.5° | 67.0  | 108.7 | 166.0 | 178.2 | 179.1 |
| 80°   | 45.1  | 87.0  | 126.9 | 125.1 | 126.9 |
| 82.5° | 29.6  | 65.1  | 80.0  | 89.5  | 90.4  |
| 85°   | 17.4  | 38.3  | 47.0  | 52.1  | 53.0  |
| 87.5° | 8.7   | 13.0  | 16.6  | 17.4  | 19.1  |
| 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)