

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: P733974

Luminaire Tested: **24FCZ2-30-RDP-B2750-W2D-CP187-4000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P733974
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P274775)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-30-RDP-B2750-W2D-CP187-4000K
Description: 2X4 3000 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT
AND RDP LENS, WITH, CP187 BOTTOM LENS

Light Source: -
Ballast/Driver: -

Summary

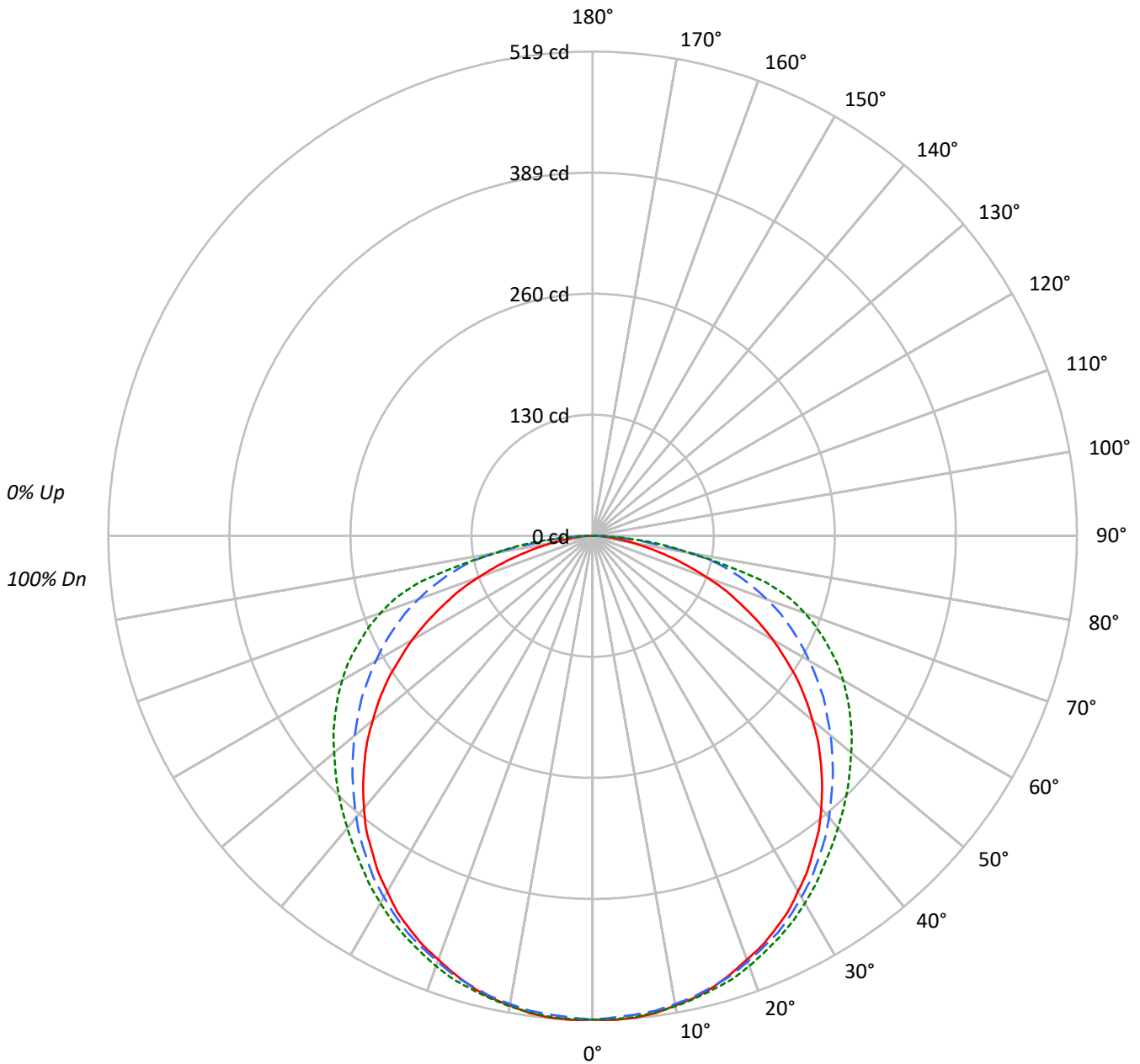
Lumens per Lamp: N/A
Luminaire Lumens: 1649.0 lumens
Efficiency: N/A
Efficacy: 71.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 23
Input Voltage (V): NR
Input Current (A_{in}): 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 | 88 | 86 | 84 | 82 | | | |
| 2 | 97 | 89 | 81 | 75 | 95 | 87 | 80 | 74 | 83 | 77 | 72 | 80 | 75 | 71 | 77 | 73 | 69 | 67 | | | |
| 3 | 88 | 77 | 68 | 62 | 86 | 76 | 67 | 61 | 72 | 66 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 56 | | | |
| 4 | 81 | 68 | 59 | 52 | 78 | 67 | 58 | 51 | 64 | 57 | 51 | 62 | 55 | 50 | 59 | 54 | 49 | 47 | | | |
| 5 | 74 | 60 | 51 | 44 | 72 | 59 | 51 | 44 | 57 | 49 | 43 | 55 | 48 | 43 | 53 | 47 | 42 | 40 | | | |
| 6 | 68 | 54 | 45 | 38 | 66 | 53 | 45 | 38 | 51 | 44 | 38 | 50 | 43 | 37 | 48 | 42 | 37 | 35 | | | |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 34 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 31 | | | |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 41 | 34 | 29 | 40 | 34 | 29 | 27 | | | |
| 9 | 55 | 41 | 33 | 27 | 53 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 26 | 37 | 31 | 26 | 24 | | | |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 29 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 34 | 28 | 24 | 22 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-----|-----|------|
| 0° | 732 | 732 | 732 |
| 5° | 735 | 730 | 734 |
| 10° | 733 | 730 | 734 |
| 15° | 731 | 730 | 735 |
| 20° | 726 | 730 | 737 |
| 25° | 723 | 731 | 739 |
| 30° | 717 | 729 | 741 |
| 35° | 710 | 727 | 744 |
| 40° | 702 | 726 | 754 |
| 45° | 691 | 727 | 770 |
| 50° | 675 | 731 | 794 |
| 55° | 658 | 743 | 829 |
| 60° | 630 | 757 | 875 |
| 65° | 590 | 784 | 929 |
| 70° | 537 | 820 | 999 |
| 75° | 455 | 865 | 1044 |
| 80° | 359 | 870 | 844 |
| 85° | 266 | 662 | 742 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 49.2 | 3.0 |
| 10°-20° | 141.6 | 8.6 |
| 20°-30° | 216.5 | 13.1 |
| 30°-40° | 264.7 | 16.0 |
| 40°-50° | 282.1 | 17.1 |
| 50°-60° | 269.7 | 16.4 |
| 60°-70° | 228.5 | 13.9 |
| 70°-80° | 153.5 | 9.3 |
| 80°-90° | 43.3 | 2.6 |
| 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° | 407.3 | 24.7 |
| 0°-40° | 671.9 | 40.7 |
| 0°-60° | 1223.7 | 74.2 |
| 0°-90° | 1649.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1649.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 519 | 519 | 519 | 519 | 519 | |
| 5° | 519 | 518 | 515 | 518 | 518 | 49 |
| 15° | 501 | 501 | 500 | 504 | 503 | 141 |
| 25° | 465 | 466 | 470 | 474 | 474 | 214 |
| 35° | 412 | 416 | 422 | 430 | 432 | 258 |
| 45° | 346 | 352 | 364 | 380 | 386 | 267 |
| 55° | 268 | 277 | 302 | 326 | 337 | 238 |
| 65° | 177 | 195 | 235 | 266 | 278 | 175 |
| 75° | 83 | 114 | 159 | 186 | 191 | 89 |
| 85° | 16 | 34 | 41 | 44 | 46 | 20 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 518.6 | 518.6 | 518.6 | 518.6 | 518.6 |
| 2.5° | 519.4 | 519.4 | 516.9 | 518.6 | 518.6 |
| 5° | 518.6 | 517.8 | 515.3 | 517.8 | 517.8 |
| 7.5° | 516.1 | 515.3 | 513.6 | 516.1 | 515.3 |
| 10° | 511.2 | 511.2 | 509.6 | 512.1 | 512.1 |
| 12.5° | 507.1 | 506.3 | 505.5 | 508.7 | 507.9 |
| 15° | 500.6 | 500.6 | 499.7 | 503.9 | 503.0 |
| 17.5° | 492.4 | 493.2 | 494.0 | 497.3 | 498.2 |
| 20° | 483.4 | 485.0 | 485.8 | 490.8 | 490.8 |
| 22.5° | 475.2 | 476.1 | 477.6 | 482.6 | 482.6 |
| 25° | 464.6 | 466.2 | 469.5 | 473.6 | 474.4 |
| 27.5° | 454.0 | 454.8 | 458.9 | 464.6 | 465.4 |
| 30° | 440.1 | 442.5 | 447.4 | 454.0 | 454.8 |
| 32.5° | 427.7 | 430.2 | 435.9 | 442.5 | 444.1 |
| 35° | 412.3 | 415.5 | 422.0 | 430.2 | 431.9 |
| 37.5° | 398.3 | 400.8 | 409.0 | 418.0 | 420.4 |
| 40° | 381.2 | 386.0 | 394.2 | 404.9 | 409.0 |
| 42.5° | 364.0 | 368.9 | 378.7 | 392.6 | 397.6 |
| 45° | 346.0 | 351.7 | 364.0 | 379.5 | 386.0 |
| 47.5° | 328.0 | 334.5 | 348.4 | 366.4 | 373.8 |
| 50° | 307.5 | 315.7 | 332.9 | 353.4 | 361.6 |
| 52.5° | 287.9 | 297.7 | 316.6 | 339.5 | 350.1 |
| 55° | 267.5 | 277.2 | 301.8 | 325.6 | 337.0 |
| 57.5° | 244.6 | 257.6 | 284.6 | 311.7 | 323.9 |
| 60° | 223.3 | 235.5 | 268.3 | 297.7 | 310.0 |
| 62.5° | 200.4 | 216.8 | 251.9 | 283.0 | 295.3 |
| 65° | 176.6 | 194.7 | 234.7 | 265.8 | 278.1 |
| 67.5° | 155.4 | 175.1 | 217.6 | 248.6 | 261.0 |
| 70° | 130.1 | 154.5 | 198.7 | 229.8 | 242.1 |
| 72.5° | 106.3 | 133.3 | 179.1 | 209.4 | 220.8 |
| 75° | 83.4 | 113.7 | 158.7 | 185.7 | 191.4 |
| 77.5° | 62.1 | 94.1 | 137.4 | 148.8 | 144.8 |
| 80° | 44.2 | 75.3 | 107.1 | 101.4 | 103.9 |
| 82.5° | 28.6 | 57.3 | 66.3 | 75.3 | 77.7 |
| 85° | 16.4 | 33.5 | 40.9 | 44.2 | 45.8 |
| 87.5° | 7.4 | 12.2 | 16.4 | 16.4 | 15.6 |
| 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)