

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: P732697

Luminaire Tested: **14FCZ2-29-HRP-B2750-W2D-CP187-3000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P732697
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P294787)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-29-HRP-B2750-W2D-CP187-3000K
Description: 1X4 2900 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 3000K CCT
AND HRP LENS, WITH, CP187 BOTTOM LENS

Light Source: -
Ballast/Driver: -

Summary

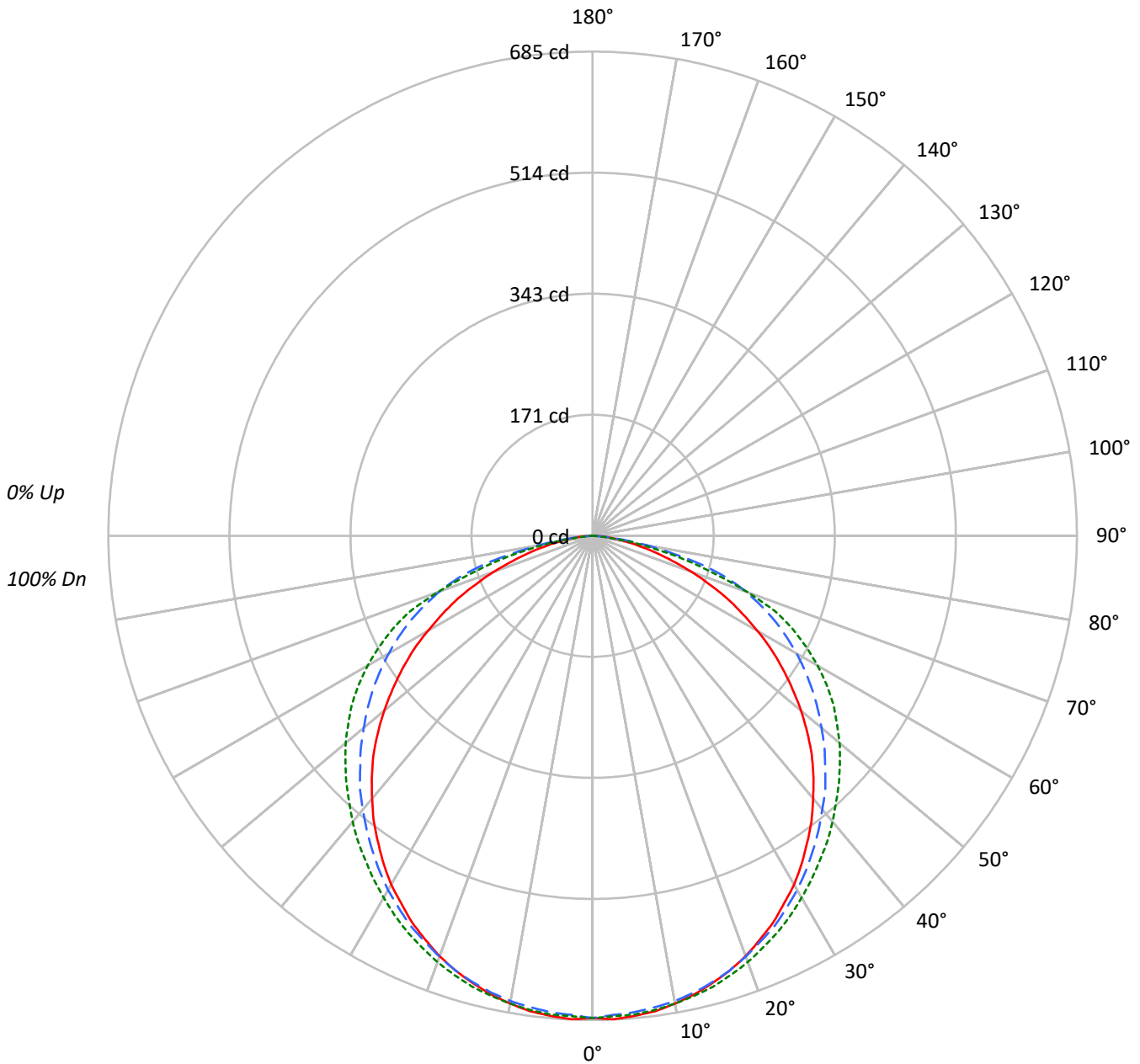
Lumens per Lamp: N/A
Luminaire Lumens: 2009.0 lumens
Efficiency: N/A
Efficacy: 87.3 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.29 / 1.39
Luminous Opening: Rectangular (W 0.96' x L: 3.98' x H: 0')
CIE Type: Direct

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 | | | | | | | | | |
| RC | 80 | | | | | | | | | 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 | 109 | 104 | 100 | 96 | 106 | 102 | 98 | 94 | 97 | 94 | 91 | 93 | 91 | 88 | 90 | 88 | 86 | 84 | | | | | | | | | | | | | | | | | | | |
| 2 | 99 | 90 | 83 | 78 | 96 | 88 | 82 | 77 | 85 | 79 | 75 | 82 | 77 | 73 | 78 | 75 | 71 | 69 | | | | | | | | | | | | | | | | | | | |
| 3 | 90 | 79 | 71 | 64 | 87 | 77 | 70 | 64 | 74 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | | | | | | | | | | | | | | | |
| 4 | 82 | 70 | 61 | 54 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 64 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | | | | | | | | | | | | | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 53 | 46 | 59 | 51 | 46 | 57 | 50 | 45 | 55 | 49 | 45 | 42 | | | | | | | | | | | | | | | | | | | |
| 6 | 69 | 56 | 47 | 40 | 68 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 45 | 39 | 50 | 44 | 39 | 37 | | | | | | | | | | | | | | | | | | | |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 35 | 33 | | | | | | | | | | | | | | | | | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 32 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 36 | 31 | 29 | | | | | | | | | | | | | | | | | | | |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 41 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 | | | | | | | | | | | | | | | | | | | |
| 10 | 52 | 39 | 31 | 26 | 51 | 38 | 31 | 26 | 37 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1926 | 1926 | 1926 |
| 5° | 1932 | 1917 | 1926 |
| 10° | 1926 | 1916 | 1926 |
| 15° | 1915 | 1911 | 1929 |
| 20° | 1901 | 1903 | 1928 |
| 25° | 1881 | 1897 | 1928 |
| 30° | 1857 | 1886 | 1927 |
| 35° | 1824 | 1872 | 1931 |
| 40° | 1788 | 1862 | 1946 |
| 45° | 1750 | 1856 | 1967 |
| 50° | 1689 | 1855 | 2003 |
| 55° | 1617 | 1866 | 2046 |
| 60° | 1519 | 1879 | 2072 |
| 65° | 1401 | 1899 | 2085 |
| 70° | 1221 | 1902 | 1919 |
| 75° | 1006 | 1771 | 1550 |
| 80° | 790 | 1273 | 1037 |
| 85° | 615 | 492 | 243 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 64.6 | 3.2 |
| 10°-20° | 185.3 | 9.2 |
| 20°-30° | 281.5 | 14.0 |
| 30°-40° | 341.0 | 17.0 |
| 40°-50° | 359.4 | 17.9 |
| 50°-60° | 335.5 | 16.7 |
| 60°-70° | 268.1 | 13.3 |
| 70°-80° | 147.5 | 7.3 |
| 80°-90° | 26.1 | 1.3 |
| 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° | 531.4 | 26.5 |
| 0°-40° | 872.4 | 43.4 |
| 0°-60° | 1567.3 | 78.0 |
| 0°-90° | 2009.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2009.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 682 | 682 | 682 | 682 | 682 | |
| 5° | 682 | 680 | 677 | 681 | 680 | 65 |
| 15° | 655 | 655 | 654 | 660 | 660 | 185 |
| 25° | 604 | 605 | 609 | 618 | 619 | 278 |
| 35° | 529 | 534 | 543 | 557 | 560 | 331 |
| 45° | 438 | 447 | 465 | 486 | 493 | 337 |
| 55° | 328 | 345 | 379 | 406 | 416 | 293 |
| 65° | 210 | 236 | 284 | 308 | 312 | 207 |
| 75° | 92 | 132 | 162 | 146 | 142 | 99 |
| 85° | 19 | 24 | 15 | 9 | 8 | 23 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P732697

CATALOG NUMBER: 14FCZ2-29-HRP-B2750-W2D-CP187-3000K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 682.2 | 682.2 | 682.2 | 682.2 | 682.2 |
| 2.5° | 684.7 | 682.8 | 678.5 | 682.2 | 680.4 |
| 5° | 681.7 | 679.8 | 676.6 | 681.1 | 679.8 |
| 7.5° | 678.5 | 676.0 | 672.8 | 677.9 | 676.6 |
| 10° | 672.1 | 670.2 | 668.4 | 672.8 | 672.1 |
| 12.5° | 664.6 | 664.0 | 662.0 | 667.2 | 666.5 |
| 15° | 655.2 | 655.2 | 653.9 | 660.1 | 660.1 |
| 17.5° | 644.9 | 644.3 | 644.9 | 652.0 | 651.3 |
| 20° | 632.9 | 632.9 | 633.6 | 641.9 | 641.9 |
| 22.5° | 618.4 | 619.0 | 621.0 | 631.0 | 630.4 |
| 25° | 604.0 | 605.1 | 609.0 | 617.8 | 619.0 |
| 27.5° | 586.3 | 589.5 | 593.8 | 604.5 | 605.8 |
| 30° | 569.8 | 571.7 | 578.6 | 588.8 | 591.2 |
| 32.5° | 550.3 | 554.0 | 561.6 | 573.0 | 576.2 |
| 35° | 529.3 | 534.5 | 543.3 | 557.2 | 560.4 |
| 37.5° | 508.6 | 513.0 | 525.0 | 539.4 | 545.2 |
| 40° | 485.2 | 492.7 | 505.4 | 521.8 | 528.1 |
| 42.5° | 462.4 | 470.0 | 487.1 | 504.1 | 509.8 |
| 45° | 438.4 | 446.7 | 464.9 | 485.9 | 492.7 |
| 47.5° | 411.8 | 421.4 | 444.8 | 466.8 | 474.3 |
| 50° | 384.7 | 396.6 | 422.5 | 447.3 | 456.1 |
| 52.5° | 356.4 | 371.4 | 401.1 | 427.0 | 435.3 |
| 55° | 328.5 | 344.9 | 379.1 | 405.6 | 415.7 |
| 57.5° | 300.1 | 317.8 | 356.4 | 386.6 | 392.3 |
| 60° | 269.1 | 290.7 | 332.9 | 359.4 | 367.1 |
| 62.5° | 238.9 | 263.5 | 308.9 | 334.1 | 340.5 |
| 65° | 209.8 | 236.3 | 284.3 | 307.6 | 312.1 |
| 67.5° | 178.1 | 209.8 | 257.1 | 278.7 | 279.8 |
| 70° | 147.9 | 184.5 | 230.5 | 240.6 | 232.5 |
| 72.5° | 118.1 | 157.3 | 199.7 | 191.4 | 184.5 |
| 75° | 92.2 | 132.1 | 162.4 | 146.0 | 142.1 |
| 77.5° | 68.3 | 108.1 | 116.2 | 107.4 | 100.4 |
| 80° | 48.6 | 85.2 | 78.3 | 67.0 | 63.8 |
| 82.5° | 33.4 | 53.7 | 43.0 | 33.4 | 29.1 |
| 85° | 19.0 | 24.0 | 15.2 | 9.4 | 7.5 |
| 87.5° | 8.2 | 5.8 | 3.2 | 2.6 | 2.6 |
| 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)