

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: P732426

Luminaire Tested: **14FCZ2-20-B2750-W2D-CP250-2700K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P732426
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P275502)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 14FCZ2-20-B2750-W2D-CP250-2700K
Description: 1X4 2000 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 2700K CCT
AND RIBBED LENS, WITH, CP250 BOTTOM LENS

Light Source: -
Ballast/Driver: -

Summary

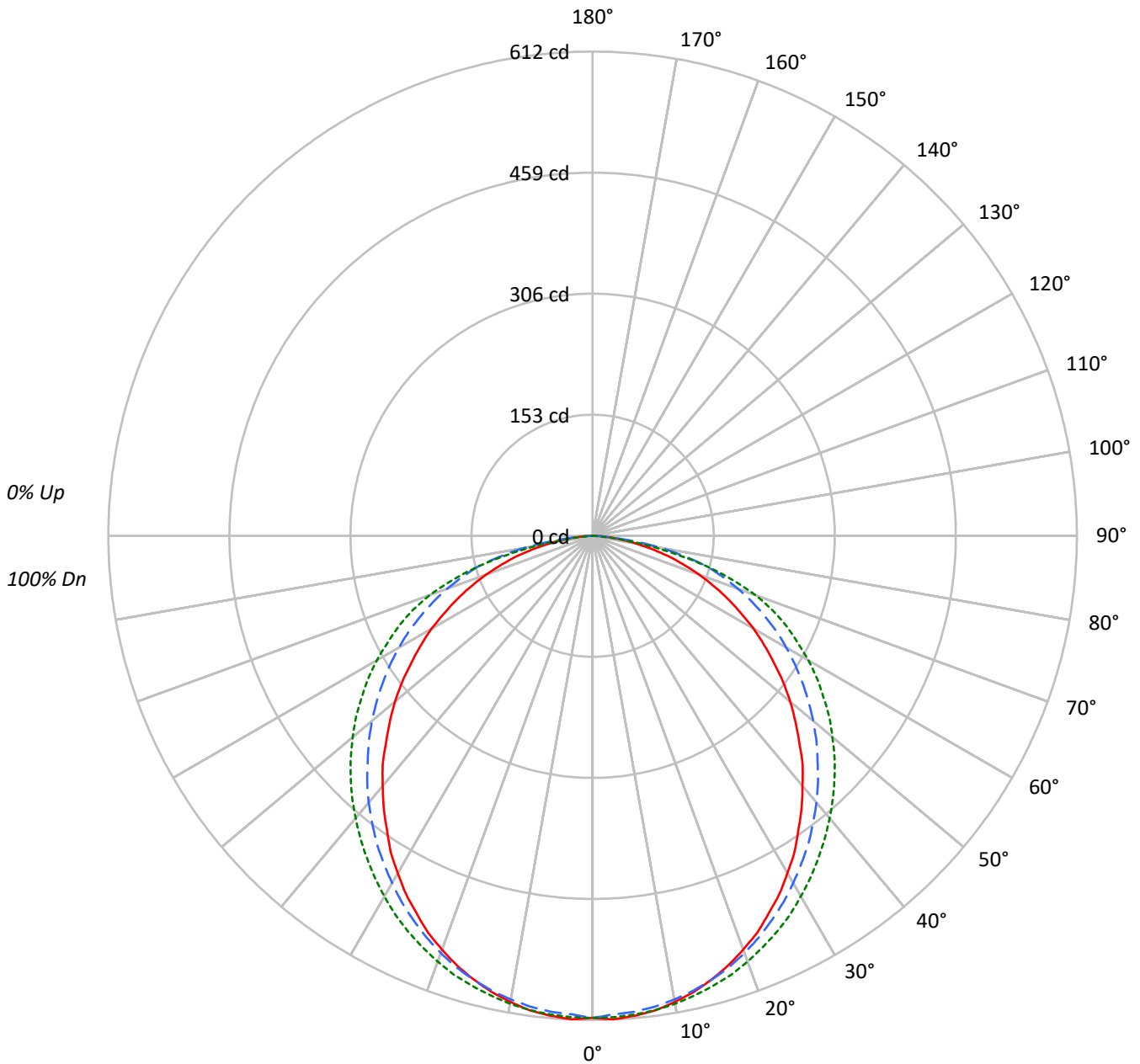
Lumens per Lamp: N/A
Luminaire Lumens: 1769.0 lumens
Efficiency: N/A
Efficacy: 110.6 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.37
Luminous Opening: Rectangular (W 0.96' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 16
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





TEST NUMBER: P732426

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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 | 109 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 90 | 87 | 85 | 83 | | | | | | | | |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 82 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 | | | | | | | | |
| 3 | 89 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 58 | | | | | | | | |
| 4 | 82 | 70 | 61 | 54 | 79 | 68 | 60 | 53 | 66 | 58 | 53 | 63 | 57 | 52 | 61 | 56 | 51 | 49 | | | | | | | | |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 | | | | | | | | |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 37 | | | | | | | | |
| 7 | 64 | 51 | 42 | 35 | 63 | 50 | 41 | 35 | 48 | 41 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 32 | | | | | | | | |
| 8 | 60 | 46 | 37 | 32 | 58 | 45 | 37 | 31 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 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 | 39 | 31 | 26 | 37 | 30 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 24 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1720 | 1720 | 1720 |
| 5° | 1726 | 1711 | 1721 |
| 10° | 1715 | 1706 | 1722 |
| 15° | 1697 | 1698 | 1721 |
| 20° | 1672 | 1686 | 1720 |
| 25° | 1640 | 1669 | 1719 |
| 30° | 1605 | 1652 | 1715 |
| 35° | 1562 | 1638 | 1714 |
| 40° | 1520 | 1622 | 1717 |
| 45° | 1474 | 1604 | 1726 |
| 50° | 1431 | 1597 | 1737 |
| 55° | 1376 | 1592 | 1753 |
| 60° | 1327 | 1595 | 1777 |
| 65° | 1259 | 1600 | 1805 |
| 70° | 1182 | 1612 | 1803 |
| 75° | 1071 | 1626 | 1630 |
| 80° | 879 | 1403 | 1159 |
| 85° | 651 | 664 | 269 |



TEST NUMBER: P732426

CATALOG NUMBER: 14FCZ2-20-B2750-W2D-CP250-2700K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 57.7 | 3.3 |
| 10°-20° | 164.7 | 9.3 |
| 20°-30° | 248.2 | 14.0 |
| 30°-40° | 297.8 | 16.8 |
| 40°-50° | 310.4 | 17.5 |
| 50°-60° | 287.3 | 16.2 |
| 60°-70° | 232.2 | 13.1 |
| 70°-80° | 141.6 | 8.0 |
| 80°-90° | 29.2 | 1.7 |
| 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° | 470.6 | 26.6 |
| 0°-40° | 768.3 | 43.4 |
| 0°-60° | 1366.1 | 77.2 |
| 0°-90° | 1769.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1769.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 609 | 609 | 609 | 609 | 609 | |
| 5° | 609 | 608 | 604 | 608 | 608 | 58 |
| 15° | 581 | 581 | 581 | 589 | 589 | 164 |
| 25° | 527 | 530 | 536 | 550 | 552 | 243 |
| 35° | 453 | 460 | 475 | 493 | 497 | 284 |
| 45° | 369 | 380 | 402 | 424 | 432 | 285 |
| 55° | 280 | 294 | 324 | 349 | 356 | 251 |
| 65° | 188 | 207 | 240 | 264 | 270 | 186 |
| 75° | 98 | 120 | 149 | 152 | 150 | 103 |
| 85° | 20 | 30 | 20 | 11 | 8 | 25 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P732426

CATALOG NUMBER: 14FCZ2-20-B2750-W2D-CP250-2700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 609.4 | 609.4 | 609.4 | 609.4 | 609.4 |
| 2.5° | 611.8 | 609.9 | 605.5 | 609.9 | 609.0 |
| 5° | 609.0 | 607.5 | 603.9 | 608.2 | 607.5 |
| 7.5° | 605.1 | 603.5 | 600.3 | 605.5 | 604.7 |
| 10° | 598.4 | 597.6 | 595.2 | 601.2 | 600.7 |
| 12.5° | 590.5 | 590.1 | 588.9 | 595.6 | 595.2 |
| 15° | 580.7 | 581.0 | 581.0 | 588.9 | 588.9 |
| 17.5° | 569.6 | 570.3 | 572.0 | 580.7 | 581.9 |
| 20° | 556.5 | 558.2 | 561.3 | 571.2 | 572.7 |
| 22.5° | 543.2 | 544.4 | 549.1 | 560.9 | 562.5 |
| 25° | 526.6 | 529.7 | 536.0 | 549.5 | 551.9 |
| 27.5° | 510.8 | 513.5 | 522.2 | 536.0 | 540.0 |
| 30° | 492.3 | 496.6 | 506.9 | 521.9 | 526.3 |
| 32.5° | 474.6 | 479.2 | 491.1 | 508.4 | 512.4 |
| 35° | 453.3 | 460.3 | 475.3 | 492.7 | 497.4 |
| 37.5° | 433.9 | 440.6 | 457.6 | 476.5 | 482.1 |
| 40° | 412.6 | 420.9 | 440.2 | 460.3 | 465.9 |
| 42.5° | 392.9 | 400.7 | 421.7 | 442.2 | 449.7 |
| 45° | 369.2 | 380.3 | 401.9 | 424.4 | 432.3 |
| 47.5° | 347.5 | 358.6 | 383.4 | 407.4 | 414.6 |
| 50° | 325.8 | 337.6 | 363.7 | 388.6 | 395.6 |
| 52.5° | 303.3 | 316.0 | 343.9 | 368.8 | 377.2 |
| 55° | 279.6 | 294.3 | 323.5 | 348.7 | 356.2 |
| 57.5° | 257.2 | 272.1 | 303.3 | 328.9 | 336.4 |
| 60° | 235.1 | 250.5 | 282.5 | 306.9 | 314.8 |
| 62.5° | 210.7 | 228.8 | 261.9 | 285.9 | 291.9 |
| 65° | 188.5 | 207.1 | 239.5 | 263.5 | 270.2 |
| 67.5° | 165.3 | 185.4 | 217.7 | 239.8 | 246.2 |
| 70° | 143.2 | 164.1 | 195.3 | 215.8 | 218.5 |
| 72.5° | 119.6 | 140.8 | 172.3 | 185.4 | 185.4 |
| 75° | 98.2 | 119.9 | 149.1 | 151.5 | 149.5 |
| 77.5° | 74.9 | 99.0 | 117.9 | 113.2 | 108.5 |
| 80° | 54.1 | 77.8 | 86.3 | 77.8 | 71.3 |
| 82.5° | 36.3 | 56.4 | 52.0 | 41.4 | 36.7 |
| 85° | 20.1 | 30.0 | 20.5 | 11.4 | 8.3 |
| 87.5° | 7.5 | 6.7 | 2.0 | 2.0 | 2.0 |
| 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)