

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: P734167

Luminaire Tested: **24FCZ2-35-B2750-W2D-CA125-3000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P734167
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P272053)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24FCZ2-35-B2750-W2D-CA125-3000K
Description: 2X4 3500 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 3000K CCT
AND RIBBED LENS, WITH, CA125 BOTTOM LENS

Light Source: -
Ballast/Driver: -

Summary

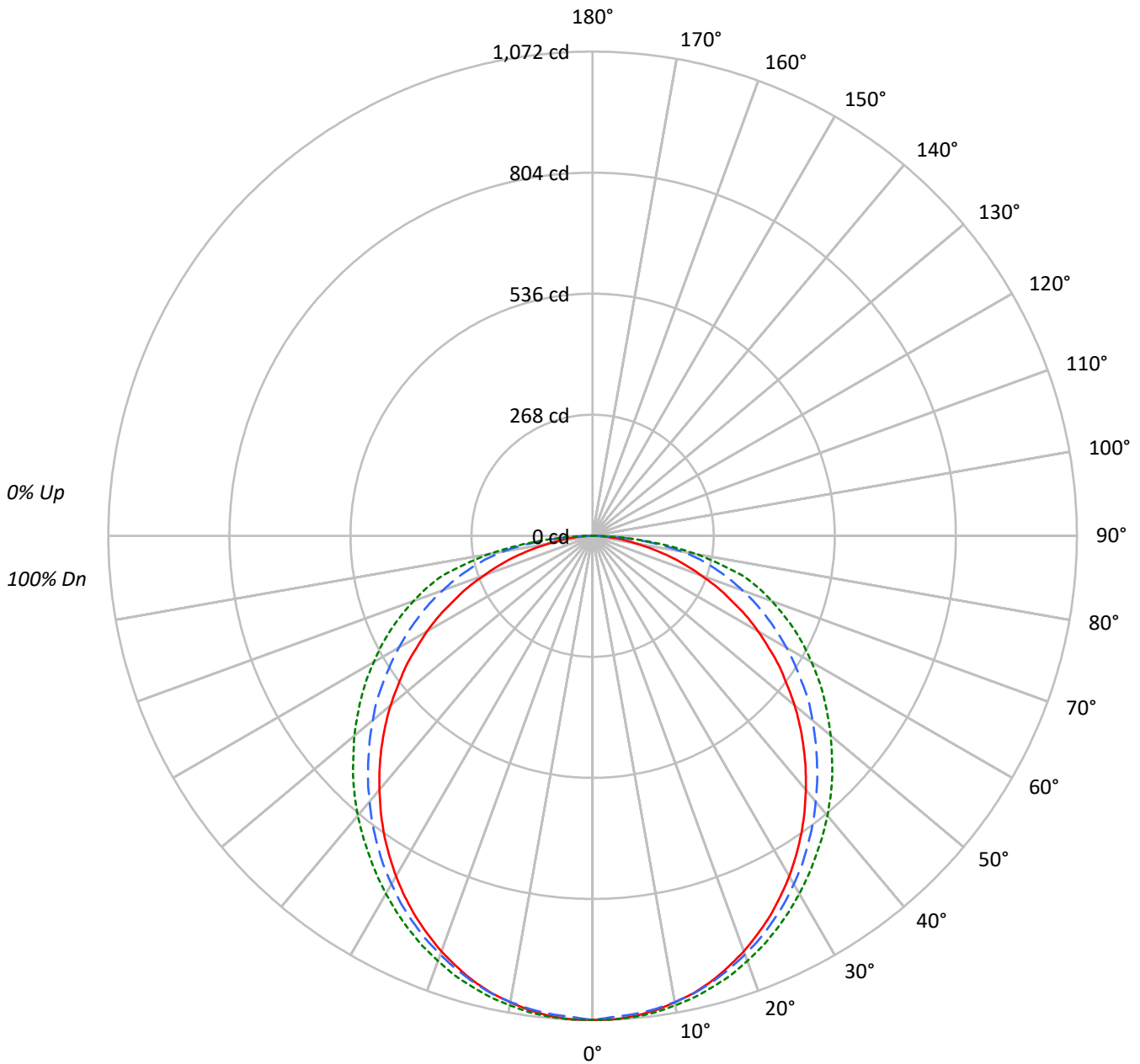
Lumens per Lamp: N/A
Luminaire Lumens: 3192.0 lumens
Efficiency: N/A
Efficacy: 114.0 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1513 | 1513 | 1513 |
| 5° | 1512 | 1506 | 1515 |
| 10° | 1504 | 1502 | 1513 |
| 15° | 1491 | 1494 | 1510 |
| 20° | 1470 | 1482 | 1504 |
| 25° | 1447 | 1468 | 1498 |
| 30° | 1418 | 1451 | 1491 |
| 35° | 1387 | 1433 | 1487 |
| 40° | 1352 | 1415 | 1490 |
| 45° | 1318 | 1401 | 1497 |
| 50° | 1282 | 1394 | 1511 |
| 55° | 1243 | 1392 | 1539 |
| 60° | 1194 | 1398 | 1579 |
| 65° | 1131 | 1419 | 1647 |
| 70° | 1051 | 1455 | 1741 |
| 75° | 959 | 1528 | 1888 |
| 80° | 788 | 1645 | 1888 |
| 85° | 602 | 1517 | 1623 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 101.4 | 3.2 |
| 10°-20° | 289.4 | 9.1 |
| 20°-30° | 435.5 | 13.6 |
| 30°-40° | 521.8 | 16.3 |
| 40°-50° | 543.8 | 17.0 |
| 50°-60° | 505.9 | 15.9 |
| 60°-70° | 416.7 | 13.1 |
| 70°-80° | 283.8 | 8.9 |
| 80°-90° | 93.7 | 2.9 |
| 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° | 826.2 | 25.9 |
| 0°-40° | 1348.0 | 42.2 |
| 0°-60° | 2397.8 | 75.1 |
| 0°-90° | 3192.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3192.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1072 | 1072 | 1072 | 1072 | 1072 | |
| 5° | 1067 | 1067 | 1063 | 1068 | 1070 | 101 |
| 15° | 1020 | 1022 | 1023 | 1032 | 1033 | 288 |
| 25° | 929 | 933 | 943 | 959 | 962 | 428 |
| 35° | 805 | 815 | 832 | 854 | 863 | 503 |
| 45° | 660 | 674 | 702 | 737 | 750 | 509 |
| 55° | 505 | 522 | 566 | 610 | 625 | 450 |
| 65° | 339 | 368 | 425 | 475 | 493 | 336 |
| 75° | 176 | 215 | 280 | 330 | 346 | 185 |
| 85° | 37 | 72 | 94 | 100 | 100 | 46 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P734167

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1071.8 | 1071.8 | 1071.8 | 1071.8 | 1071.8 |
| 2.5° | 1071.8 | 1071.8 | 1066.4 | 1071.8 | 1071.8 |
| 5° | 1067.4 | 1067.4 | 1063.1 | 1068.5 | 1069.6 |
| 7.5° | 1059.9 | 1061.1 | 1056.9 | 1063.1 | 1064.3 |
| 10° | 1049.3 | 1050.4 | 1048.3 | 1054.7 | 1055.7 |
| 12.5° | 1036.6 | 1037.6 | 1037.6 | 1045.0 | 1046.2 |
| 15° | 1020.5 | 1021.7 | 1022.7 | 1032.3 | 1033.4 |
| 17.5° | 1000.4 | 1003.6 | 1005.6 | 1017.4 | 1019.5 |
| 20° | 979.0 | 982.3 | 986.5 | 999.2 | 1001.4 |
| 22.5° | 954.5 | 958.8 | 966.2 | 980.1 | 983.3 |
| 25° | 929.0 | 933.2 | 942.8 | 958.8 | 962.0 |
| 27.5° | 900.2 | 906.6 | 918.3 | 935.4 | 939.6 |
| 30° | 870.4 | 876.7 | 890.6 | 908.7 | 915.1 |
| 32.5° | 838.5 | 846.9 | 862.8 | 883.1 | 889.6 |
| 35° | 805.3 | 815.0 | 832.0 | 854.4 | 862.8 |
| 37.5° | 770.3 | 780.9 | 801.1 | 825.6 | 836.3 |
| 40° | 734.1 | 746.8 | 768.1 | 796.8 | 808.5 |
| 42.5° | 697.7 | 709.5 | 736.1 | 767.1 | 779.8 |
| 45° | 660.5 | 674.4 | 702.1 | 737.1 | 750.0 |
| 47.5° | 622.1 | 636.0 | 669.0 | 706.3 | 718.0 |
| 50° | 583.8 | 597.7 | 634.9 | 674.4 | 688.2 |
| 52.5° | 542.2 | 560.3 | 603.0 | 642.4 | 656.3 |
| 55° | 505.0 | 521.9 | 565.7 | 610.4 | 625.3 |
| 57.5° | 462.4 | 482.5 | 530.5 | 577.4 | 593.3 |
| 60° | 422.9 | 444.3 | 495.4 | 543.3 | 559.3 |
| 62.5° | 382.5 | 405.9 | 460.2 | 509.2 | 527.3 |
| 65° | 338.7 | 367.5 | 425.0 | 475.1 | 493.2 |
| 67.5° | 299.3 | 329.2 | 389.9 | 441.1 | 457.0 |
| 70° | 254.6 | 290.8 | 352.6 | 403.8 | 421.9 |
| 72.5° | 216.2 | 252.4 | 317.4 | 367.5 | 385.6 |
| 75° | 175.8 | 215.2 | 280.2 | 330.2 | 346.2 |
| 77.5° | 135.3 | 179.0 | 244.0 | 282.4 | 287.6 |
| 80° | 96.9 | 142.8 | 202.4 | 224.8 | 232.3 |
| 82.5° | 68.2 | 109.8 | 149.2 | 164.1 | 168.3 |
| 85° | 37.2 | 72.4 | 93.7 | 100.2 | 100.2 |
| 87.5° | 15.9 | 30.9 | 37.2 | 38.4 | 39.4 |
| 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)