

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: P734176

Luminaire Tested: **24FCZ2-35-B2750-W2D-CP250-2700K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P734176
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-CP250-2700K
Description: 2X4 3500 LUMEN SEALED CRUZE TROFFER WITH BIO UP LEDS AT 2700K CCT
AND RIBBED LENS, WITH, CP250 BOTTOM LENS

Light Source: -
Ballast/Driver: -

Summary

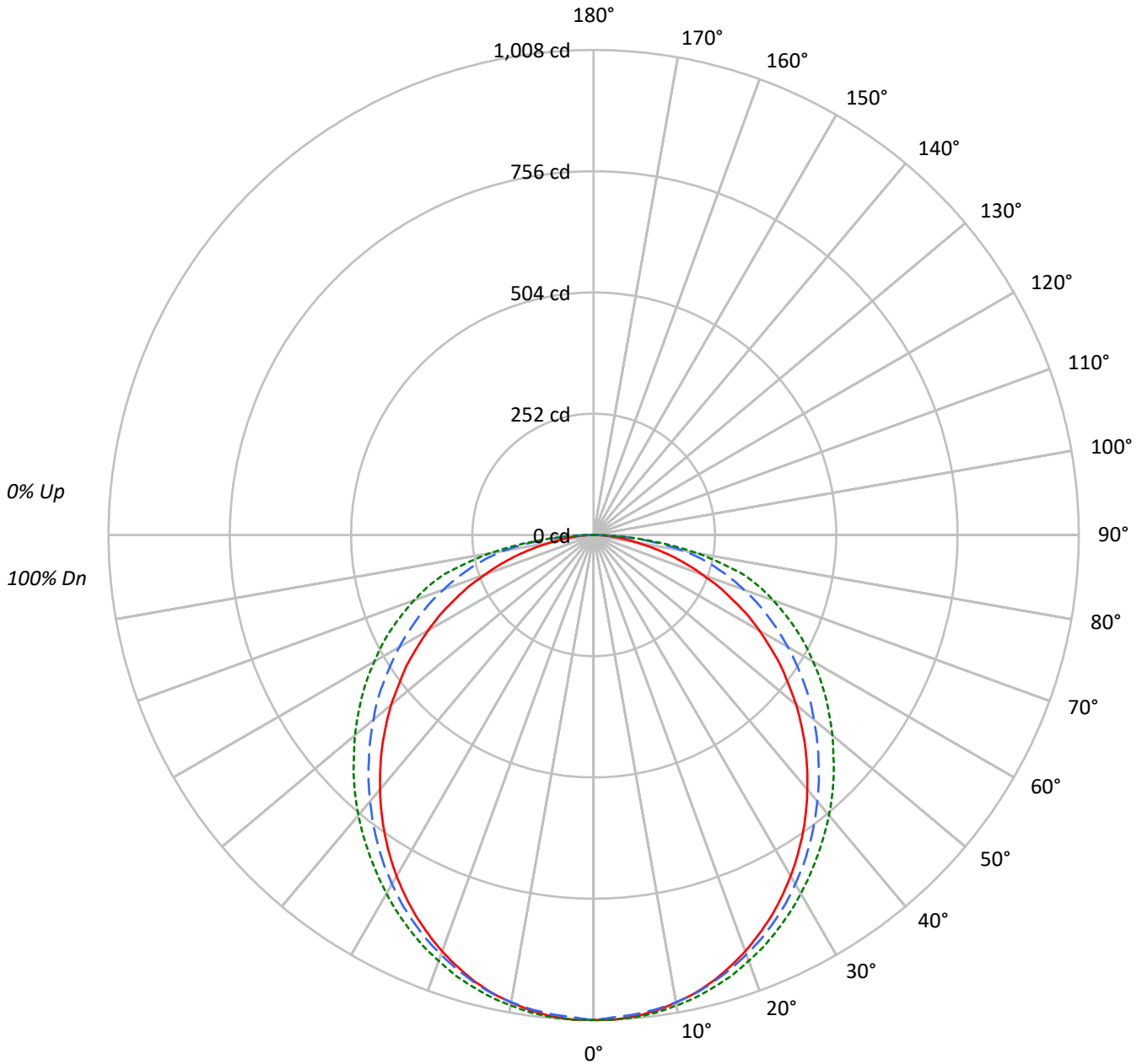
Lumens per Lamp: N/A
Luminaire Lumens: 3003.0 lumens
Efficiency: N/A
Efficacy: 107.2 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

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





TEST NUMBER: P734176

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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° | 1423 | 1423 | 1423 |
| 5° | 1423 | 1417 | 1426 |
| 10° | 1415 | 1413 | 1423 |
| 15° | 1403 | 1406 | 1421 |
| 20° | 1383 | 1394 | 1415 |
| 25° | 1361 | 1381 | 1409 |
| 30° | 1335 | 1365 | 1403 |
| 35° | 1305 | 1349 | 1399 |
| 40° | 1272 | 1331 | 1401 |
| 45° | 1240 | 1318 | 1408 |
| 50° | 1206 | 1311 | 1422 |
| 55° | 1169 | 1310 | 1448 |
| 60° | 1123 | 1315 | 1485 |
| 65° | 1064 | 1335 | 1550 |
| 70° | 988 | 1369 | 1638 |
| 75° | 902 | 1437 | 1776 |
| 80° | 741 | 1547 | 1776 |
| 85° | 567 | 1428 | 1525 |



TEST NUMBER: P734176

CATALOG NUMBER: 24FCZ2-35-B2750-W2D-CP250-2700K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 95.4 | 3.2 |
| 10°-20° | 272.2 | 9.1 |
| 20°-30° | 409.7 | 13.6 |
| 30°-40° | 490.9 | 16.3 |
| 40°-50° | 511.6 | 17.0 |
| 50°-60° | 476.0 | 15.9 |
| 60°-70° | 392.0 | 13.1 |
| 70°-80° | 267.0 | 8.9 |
| 80°-90° | 88.2 | 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° | 777.3 | 25.9 |
| 0°-40° | 1268.2 | 42.2 |
| 0°-60° | 2255.8 | 75.1 |
| 0°-90° | 3003.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3003.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1008 | 1008 | 1008 | 1008 | 1008 | |
| 5° | 1004 | 1004 | 1000 | 1005 | 1006 | 95 |
| 15° | 960 | 961 | 962 | 971 | 972 | 270 |
| 25° | 874 | 878 | 887 | 902 | 905 | 402 |
| 35° | 758 | 767 | 783 | 804 | 812 | 474 |
| 45° | 621 | 634 | 660 | 694 | 706 | 479 |
| 55° | 475 | 491 | 532 | 574 | 588 | 423 |
| 65° | 319 | 346 | 400 | 447 | 464 | 316 |
| 75° | 165 | 202 | 264 | 311 | 326 | 174 |
| 85° | 35 | 68 | 88 | 94 | 94 | 43 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P734176

CATALOG NUMBER: 24FCZ2-35-B2750-W2D-CP250-2700K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1008.3 | 1008.3 | 1008.3 | 1008.3 | 1008.3 |
| 2.5° | 1008.3 | 1008.3 | 1003.2 | 1008.3 | 1008.3 |
| 5° | 1004.2 | 1004.2 | 1000.2 | 1005.3 | 1006.2 |
| 7.5° | 997.2 | 998.3 | 994.3 | 1000.2 | 1001.3 |
| 10° | 987.2 | 988.2 | 986.2 | 992.2 | 993.2 |
| 12.5° | 975.2 | 976.2 | 976.2 | 983.2 | 984.3 |
| 15° | 960.1 | 961.2 | 962.1 | 971.2 | 972.2 |
| 17.5° | 941.1 | 944.2 | 946.1 | 957.2 | 959.1 |
| 20° | 921.1 | 924.1 | 928.1 | 940.0 | 942.1 |
| 22.5° | 898.0 | 902.0 | 909.0 | 922.0 | 925.1 |
| 25° | 874.0 | 878.0 | 887.0 | 902.0 | 905.0 |
| 27.5° | 846.9 | 852.9 | 863.9 | 880.0 | 884.0 |
| 30° | 818.9 | 824.8 | 837.8 | 854.9 | 860.9 |
| 32.5° | 788.8 | 796.8 | 811.8 | 830.8 | 836.9 |
| 35° | 757.6 | 766.7 | 782.8 | 803.8 | 811.8 |
| 37.5° | 724.7 | 734.7 | 753.7 | 776.7 | 786.8 |
| 40° | 690.6 | 702.6 | 722.6 | 749.7 | 760.7 |
| 42.5° | 656.4 | 667.5 | 692.5 | 721.6 | 733.6 |
| 45° | 621.4 | 634.4 | 660.5 | 693.5 | 705.6 |
| 47.5° | 585.3 | 598.3 | 629.4 | 664.5 | 675.5 |
| 50° | 549.3 | 562.3 | 597.3 | 634.4 | 647.5 |
| 52.5° | 510.1 | 527.2 | 567.3 | 604.3 | 617.4 |
| 55° | 475.1 | 491.0 | 532.2 | 574.3 | 588.3 |
| 57.5° | 435.0 | 454.0 | 499.1 | 543.2 | 558.2 |
| 60° | 397.9 | 418.0 | 466.0 | 511.1 | 526.2 |
| 62.5° | 359.9 | 381.8 | 432.9 | 479.1 | 496.1 |
| 65° | 318.7 | 345.7 | 399.8 | 446.9 | 464.0 |
| 67.5° | 281.6 | 309.7 | 366.9 | 414.9 | 429.9 |
| 70° | 239.5 | 273.6 | 331.7 | 379.9 | 396.9 |
| 72.5° | 203.4 | 237.5 | 298.6 | 345.7 | 362.8 |
| 75° | 165.4 | 202.5 | 263.6 | 310.7 | 325.7 |
| 77.5° | 127.3 | 168.4 | 229.5 | 265.6 | 270.6 |
| 80° | 91.2 | 134.3 | 190.4 | 211.5 | 218.5 |
| 82.5° | 64.1 | 103.3 | 140.4 | 154.4 | 158.4 |
| 85° | 35.0 | 68.1 | 88.2 | 94.2 | 94.2 |
| 87.5° | 15.0 | 29.1 | 35.0 | 36.1 | 37.1 |
| 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)