

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: P735716

Luminaire Tested: **24APR-49-B2750-W2D-CP250-4000K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P735716
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P708973)
Test Lab: INNOVATION CENTER(G2)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: FAIL-SAFE
Catalog Number: 24APR-49-B2750-W2D-CP250-4000K
Description: 2X4 4900 AMBIENT LUMEN OUTPUT APR TROFFER WITH BIO UP LEDS AT 4000K CCT, AND CP250 LENS

Light Source: -
Ballast/Driver: -

Summary

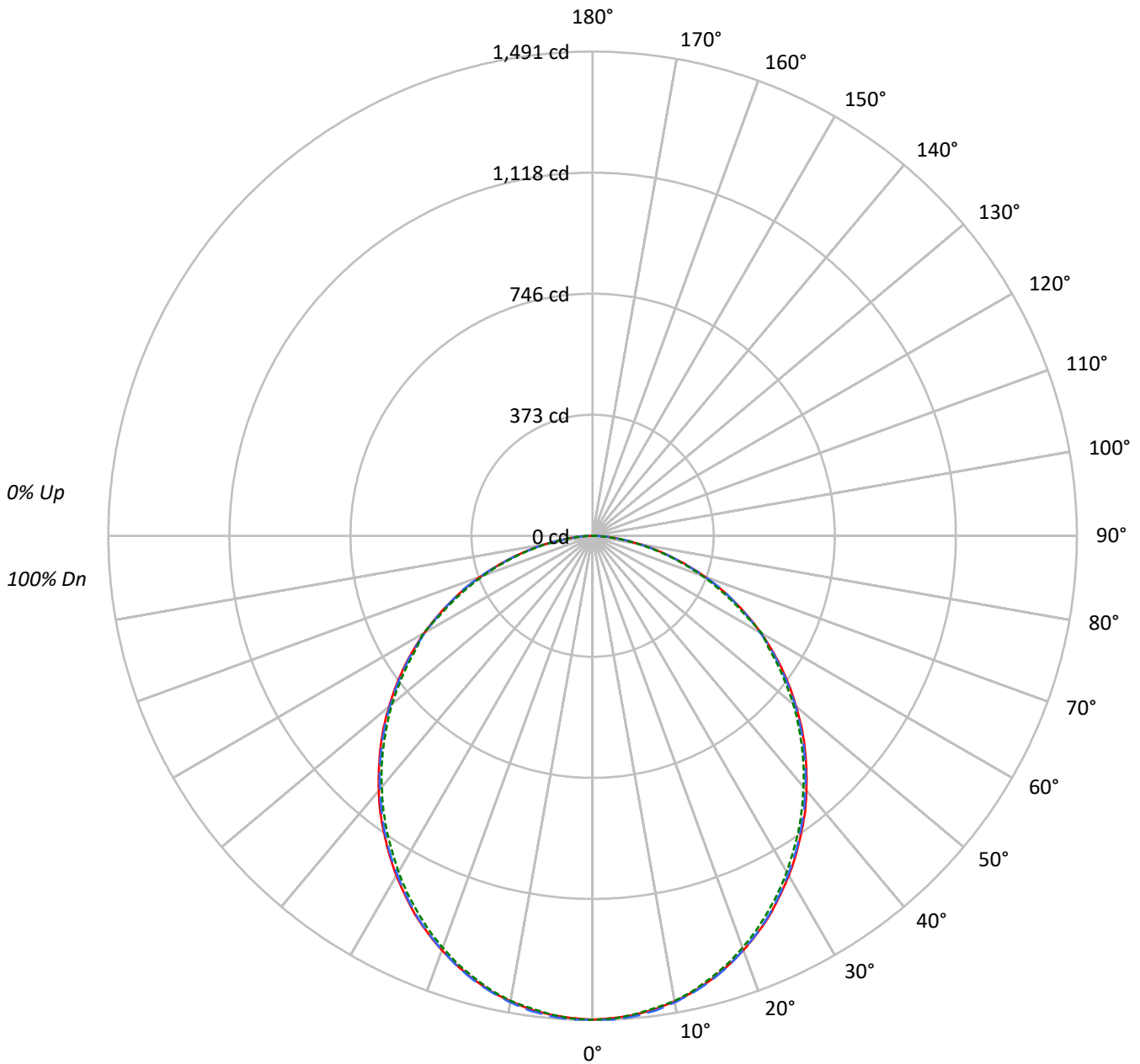
Lumens per Lamp: N/A
Luminaire Lumens: 3969.0 lumens
Efficiency: N/A
Efficacy: 84.4 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.32
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 47
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 | 95 | 98 | 95 | 92 | 94 | 91 | 89 | 90 | 88 | 86 | 84 | | | | | | | | | | | | | | | | | | | |
| 2 | 99 | 91 | 84 | 79 | 97 | 89 | 83 | 78 | 86 | 80 | 76 | 82 | 78 | 74 | 79 | 76 | 72 | 70 | | | | | | | | | | | | | | | | | | | |
| 3 | 90 | 80 | 72 | 65 | 88 | 78 | 71 | 65 | 75 | 69 | 64 | 73 | 67 | 63 | 70 | 65 | 61 | 59 | | | | | | | | | | | | | | | | | | | |
| 4 | 83 | 71 | 62 | 56 | 81 | 70 | 61 | 55 | 67 | 60 | 54 | 65 | 59 | 54 | 63 | 57 | 53 | 51 | | | | | | | | | | | | | | | | | | | |
| 5 | 76 | 63 | 55 | 48 | 74 | 62 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 47 | 56 | 51 | 46 | 44 | | | | | | | | | | | | | | | | | | | |
| 6 | 70 | 57 | 48 | 42 | 69 | 56 | 48 | 42 | 54 | 47 | 41 | 53 | 46 | 41 | 51 | 45 | 41 | 39 | | | | | | | | | | | | | | | | | | | |
| 7 | 65 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 50 | 42 | 37 | 48 | 41 | 36 | 47 | 41 | 36 | 34 | | | | | | | | | | | | | | | | | | | |
| 8 | 61 | 47 | 39 | 33 | 59 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 37 | 33 | 43 | 37 | 32 | 30 | | | | | | | | | | | | | | | | | | | |
| 9 | 57 | 44 | 35 | 30 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 29 | 40 | 34 | 29 | 27 | | | | | | | | | | | | | | | | | | | |
| 10 | 53 | 40 | 32 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 27 | 25 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2005 | 2005 | 2005 |
| 5° | 2000 | 2006 | 1998 |
| 10° | 1989 | 1994 | 1987 |
| 15° | 1970 | 1974 | 1963 |
| 20° | 1944 | 1944 | 1933 |
| 25° | 1915 | 1911 | 1896 |
| 30° | 1877 | 1871 | 1857 |
| 35° | 1838 | 1832 | 1817 |
| 40° | 1799 | 1790 | 1774 |
| 45° | 1758 | 1749 | 1731 |
| 50° | 1712 | 1706 | 1689 |
| 55° | 1666 | 1657 | 1635 |
| 60° | 1610 | 1600 | 1622 |
| 65° | 1536 | 1532 | 1503 |
| 70° | 1442 | 1444 | 1404 |
| 75° | 1308 | 1299 | 1269 |
| 80° | 1124 | 1110 | 1080 |
| 85° | 860 | 852 | 786 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 140.7 | 3.5 |
| 10°-20° | 398.7 | 10.0 |
| 20°-30° | 591.8 | 14.9 |
| 30°-40° | 696.6 | 17.6 |
| 40°-50° | 707.9 | 17.8 |
| 50°-60° | 629.3 | 15.9 |
| 60°-70° | 474.7 | 12.0 |
| 70°-80° | 263.7 | 6.6 |
| 80°-90° | 65.6 | 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° | 1131.2 | 28.5 |
| 0°-40° | 1827.8 | 46.1 |
| 0°-60° | 3165.1 | 79.7 |
| 0°-90° | 3969.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3969.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1490 | 1490 | 1490 | 1490 | 1490 | |
| 5° | 1481 | 1483 | 1485 | 1483 | 1479 | 141 |
| 15° | 1414 | 1416 | 1417 | 1414 | 1409 | 399 |
| 25° | 1290 | 1289 | 1287 | 1281 | 1277 | 594 |
| 35° | 1119 | 1119 | 1115 | 1108 | 1106 | 700 |
| 45° | 924 | 924 | 919 | 911 | 910 | 713 |
| 55° | 710 | 705 | 706 | 699 | 697 | 634 |
| 65° | 483 | 480 | 481 | 475 | 472 | 478 |
| 75° | 252 | 248 | 250 | 248 | 244 | 267 |
| 85° | 56 | 54 | 55 | 53 | 51 | 67 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P735716

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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1490.2 | 1490.2 | 1490.2 | 1490.2 | 1490.2 |
| 2.5° | 1486.3 | 1489.2 | 1491.1 | 1488.7 | 1488.2 |
| 5° | 1481.1 | 1483.4 | 1485.3 | 1483.0 | 1479.2 |
| 7.5° | 1470.6 | 1473.5 | 1474.9 | 1472.5 | 1467.3 |
| 10° | 1455.9 | 1458.8 | 1459.2 | 1456.9 | 1454.0 |
| 12.5° | 1437.8 | 1439.7 | 1439.7 | 1437.8 | 1434.5 |
| 15° | 1414.4 | 1415.9 | 1416.8 | 1413.5 | 1409.2 |
| 17.5° | 1387.8 | 1390.2 | 1389.3 | 1384.0 | 1382.1 |
| 20° | 1357.9 | 1359.8 | 1357.4 | 1354.1 | 1349.7 |
| 22.5° | 1325.0 | 1325.5 | 1323.6 | 1319.8 | 1315.4 |
| 25° | 1289.8 | 1288.9 | 1287.0 | 1281.2 | 1276.9 |
| 27.5° | 1248.8 | 1250.8 | 1245.9 | 1240.7 | 1237.9 |
| 30° | 1208.4 | 1208.8 | 1204.1 | 1197.4 | 1195.1 |
| 32.5° | 1165.1 | 1164.1 | 1160.8 | 1153.7 | 1149.9 |
| 35° | 1118.9 | 1119.4 | 1115.1 | 1108.4 | 1106.0 |
| 37.5° | 1074.1 | 1071.3 | 1068.0 | 1060.4 | 1058.9 |
| 40° | 1024.2 | 1023.7 | 1019.0 | 1012.3 | 1009.9 |
| 42.5° | 974.2 | 973.7 | 969.9 | 963.3 | 961.4 |
| 45° | 923.8 | 923.8 | 919.0 | 911.4 | 909.5 |
| 47.5° | 872.4 | 870.4 | 867.1 | 860.5 | 858.1 |
| 50° | 818.1 | 816.7 | 814.8 | 807.2 | 806.7 |
| 52.5° | 764.8 | 763.8 | 760.5 | 753.9 | 750.1 |
| 55° | 710.1 | 704.9 | 706.3 | 698.6 | 697.2 |
| 57.5° | 653.9 | 648.7 | 651.5 | 644.9 | 642.1 |
| 60° | 598.2 | 593.0 | 594.4 | 590.1 | 602.6 |
| 62.5° | 541.2 | 537.8 | 537.8 | 547.8 | 529.7 |
| 65° | 482.6 | 479.7 | 481.2 | 475.0 | 472.1 |
| 67.5° | 425.0 | 420.7 | 429.8 | 418.3 | 413.6 |
| 70° | 366.5 | 363.6 | 367.0 | 360.3 | 356.9 |
| 72.5° | 308.4 | 306.0 | 305.1 | 302.7 | 299.9 |
| 75° | 251.7 | 248.4 | 249.8 | 247.9 | 244.1 |
| 77.5° | 196.6 | 195.6 | 195.2 | 192.8 | 189.9 |
| 80° | 145.1 | 144.2 | 143.2 | 141.3 | 139.4 |
| 82.5° | 97.1 | 96.2 | 95.7 | 94.7 | 94.3 |
| 85° | 55.7 | 54.3 | 55.2 | 52.8 | 50.9 |
| 87.5° | 21.0 | 20.5 | 21.5 | 19.5 | 18.1 |
| 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)