

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: METALUX

Report Number: P843018

Luminaire Tested: **24CZ2-35-S-UNV-B50**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P843018
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P272125)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-35-S-UNV-B50
Description: 2X4 3500 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND SMOOTH LENS

Light Source: -
Ballast/Driver: -

Summary

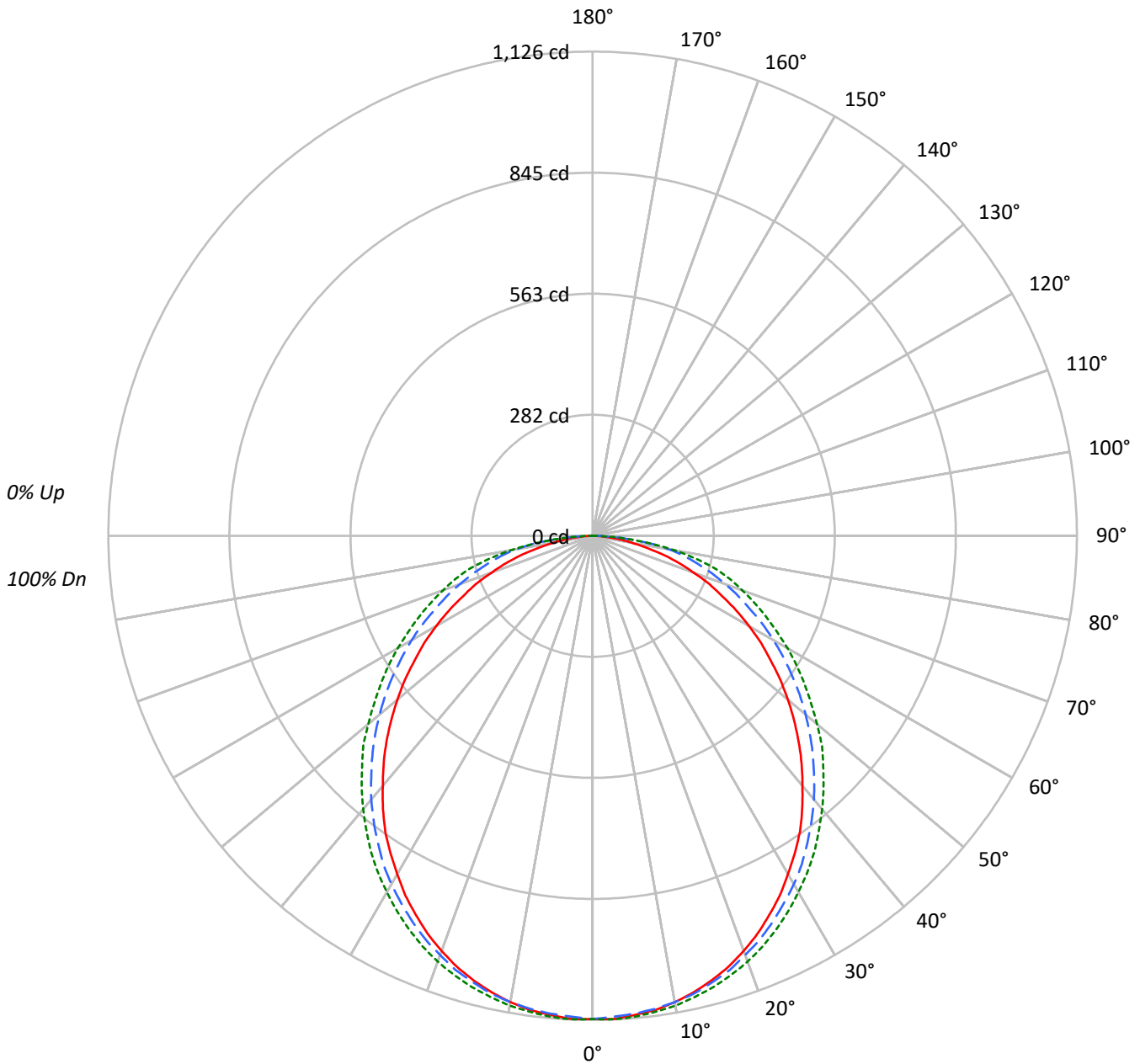
Lumens per Lamp: N/A
Luminaire Lumens: 3199.0 lumens
Efficiency: N/A
Efficacy: 114.2 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

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

TEST NUMBER: P843018

CATALOG NUMBER: 24CZ2-35-S-UNV-B50

Luminous Intensity Polar Plot





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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 | 108 | 103 | 99 | 95 | 106 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 88 | 89 | 87 | 85 | 83 | | | | | | | | |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 81 | 76 | 84 | 79 | 74 | 81 | 76 | 72 | 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 | 80 | 68 | 60 | 54 | 66 | 59 | 53 | 63 | 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 | 70 | 56 | 47 | 40 | 68 | 55 | 47 | 40 | 53 | 46 | 40 | 52 | 45 | 40 | 50 | 44 | 39 | 37 | | | | | | | | |
| 7 | 64 | 51 | 42 | 36 | 63 | 50 | 42 | 36 | 48 | 41 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 33 | | | | | | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 46 | 37 | 32 | 44 | 37 | 32 | 43 | 36 | 31 | 42 | 36 | 31 | 29 | | | | | | | | |
| 9 | 56 | 43 | 34 | 29 | 55 | 42 | 34 | 29 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 26 | | | | | | | | |
| 10 | 53 | 39 | 31 | 26 | 51 | 39 | 31 | 26 | 38 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 26 | 24 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1586 | 1586 | 1586 |
| 5° | 1585 | 1581 | 1591 |
| 10° | 1579 | 1579 | 1590 |
| 15° | 1563 | 1571 | 1587 |
| 20° | 1543 | 1558 | 1583 |
| 25° | 1514 | 1543 | 1573 |
| 30° | 1480 | 1525 | 1560 |
| 35° | 1448 | 1500 | 1548 |
| 40° | 1398 | 1475 | 1530 |
| 45° | 1353 | 1446 | 1513 |
| 50° | 1301 | 1419 | 1495 |
| 55° | 1243 | 1393 | 1480 |
| 60° | 1185 | 1371 | 1477 |
| 65° | 1110 | 1347 | 1486 |
| 70° | 1027 | 1354 | 1526 |
| 75° | 920 | 1380 | 1612 |
| 80° | 744 | 1461 | 1577 |
| 85° | 559 | 1283 | 1252 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 106.4 | 3.3 |
| 10°-20° | 304.0 | 9.5 |
| 20°-30° | 457.0 | 14.3 |
| 30°-40° | 544.3 | 17.0 |
| 40°-50° | 557.1 | 17.4 |
| 50°-60° | 501.6 | 15.7 |
| 60°-70° | 393.9 | 12.3 |
| 70°-80° | 255.6 | 8.0 |
| 80°-90° | 79.1 | 2.5 |
| 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° | 867.4 | 27.1 |
| 0°-40° | 1411.7 | 44.1 |
| 0°-60° | 2470.4 | 77.2 |
| 0°-90° | 3199.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3199.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1124 | 1124 | 1124 | 1124 | 1124 | |
| 5° | 1119 | 1121 | 1116 | 1122 | 1123 | 106 |
| 15° | 1070 | 1073 | 1075 | 1084 | 1086 | 302 |
| 25° | 972 | 980 | 991 | 1007 | 1010 | 448 |
| 35° | 840 | 850 | 871 | 892 | 898 | 524 |
| 45° | 678 | 694 | 724 | 752 | 758 | 523 |
| 55° | 505 | 527 | 566 | 596 | 602 | 453 |
| 65° | 332 | 358 | 403 | 437 | 445 | 331 |
| 75° | 169 | 201 | 253 | 288 | 296 | 179 |
| 85° | 34 | 64 | 79 | 77 | 77 | 42 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CATALOG NUMBER: 24CZ2-35-S-UNV-B50

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|---------------|---------------|---------------|---------------|---------------|
| 0° | 1123.9 | 1123.9 | 1123.9 | 1123.9 | <i>1123.9</i> |
| 2.5° | <i>1124.9</i> | <i>1124.9</i> | <i>1119.7</i> | <i>1124.9</i> | <i>1125.8</i> |
| 5° | 1118.7 | 1120.8 | 1115.7 | 1121.8 | <i>1122.8</i> |
| 7.5° | 1112.6 | 1112.6 | 1109.6 | 1115.7 | <i>1116.8</i> |
| 10° | 1101.5 | 1102.5 | 1101.5 | 1108.6 | <i>1109.6</i> |
| 12.5° | 1087.3 | 1089.2 | 1090.3 | 1097.4 | <i>1098.4</i> |
| 15° | 1070.0 | 1073.1 | 1075.0 | 1084.2 | <i>1086.3</i> |
| 17.5° | 1050.7 | 1053.7 | 1058.8 | 1068.9 | <i>1071.0</i> |
| 20° | 1027.3 | 1031.3 | 1037.4 | 1050.7 | <i>1053.7</i> |
| 22.5° | 1001.9 | 1006.0 | 1016.1 | 1028.3 | <i>1033.4</i> |
| 25° | 972.4 | 980.5 | 990.7 | 1007.0 | <i>1010.0</i> |
| 27.5° | 942.9 | 950.0 | 963.3 | 980.5 | <i>984.7</i> |
| 30° | 908.4 | 919.6 | 935.8 | 953.1 | <i>957.1</i> |
| 32.5° | 874.9 | 886.0 | 905.3 | 923.7 | <i>928.7</i> |
| 35° | 840.3 | 850.5 | 870.8 | 892.1 | <i>898.2</i> |
| 37.5° | 800.7 | 813.9 | 836.3 | 857.6 | <i>863.7</i> |
| 40° | 759.0 | 775.3 | 800.7 | 823.1 | <i>830.2</i> |
| 42.5° | 719.4 | 736.6 | 762.1 | 786.5 | <i>794.6</i> |
| 45° | 677.8 | 694.0 | 724.5 | 751.9 | <i>758.1</i> |
| 47.5° | 635.0 | 653.4 | 685.8 | 713.3 | <i>723.4</i> |
| 50° | 592.4 | 611.8 | 646.3 | 674.7 | <i>680.8</i> |
| 52.5° | 549.7 | 570.0 | 606.6 | 637.1 | <i>640.2</i> |
| 55° | 505.0 | 527.4 | 566.0 | 595.5 | <i>601.6</i> |
| 57.5° | 464.4 | 483.7 | 525.3 | 555.8 | <i>562.9</i> |
| 60° | 419.7 | 441.0 | 485.7 | 514.2 | <i>523.3</i> |
| 62.5° | 377.0 | 399.4 | 446.1 | 474.5 | <i>482.6</i> |
| 65° | 332.3 | 357.7 | 403.4 | 436.9 | <i>445.0</i> |
| 67.5° | 293.7 | 318.1 | 366.8 | 399.4 | <i>407.4</i> |
| 70° | 248.9 | 276.4 | 328.2 | 361.8 | <i>369.9</i> |
| 72.5° | 210.3 | 238.7 | 290.6 | 323.1 | <i>335.3</i> |
| 75° | 168.7 | 201.1 | 253.1 | 287.6 | <i>295.7</i> |
| 77.5° | 128.1 | 165.6 | 218.4 | 244.9 | <i>244.9</i> |
| 80° | 91.5 | 131.1 | 179.8 | 192.1 | <i>194.0</i> |
| 82.5° | 60.0 | 98.6 | 133.1 | 132.1 | <i>132.1</i> |
| 85° | 34.5 | 64.0 | 79.2 | 77.3 | <i>77.3</i> |
| 87.5° | 13.2 | 26.4 | 28.4 | 28.4 | <i>27.4</i> |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | <i>0.0</i> |



Report Generated By 670246072 / DESKTOP-50001EG





— 0°-180° - - 45°-225° - - - - 90°-270°







(END OF REPORT)