

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: P843101

Luminaire Tested: **24CZ2-50-HRP-UNV-B40**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P843101
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P295011)
Test Lab: INNOVATIONS CENTER(G3)
Issue Date: 1/5/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-50-HRP-UNV-B40
Description: 2X4 5000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND HRP LENS

Light Source: -
Ballast/Driver: -

Summary

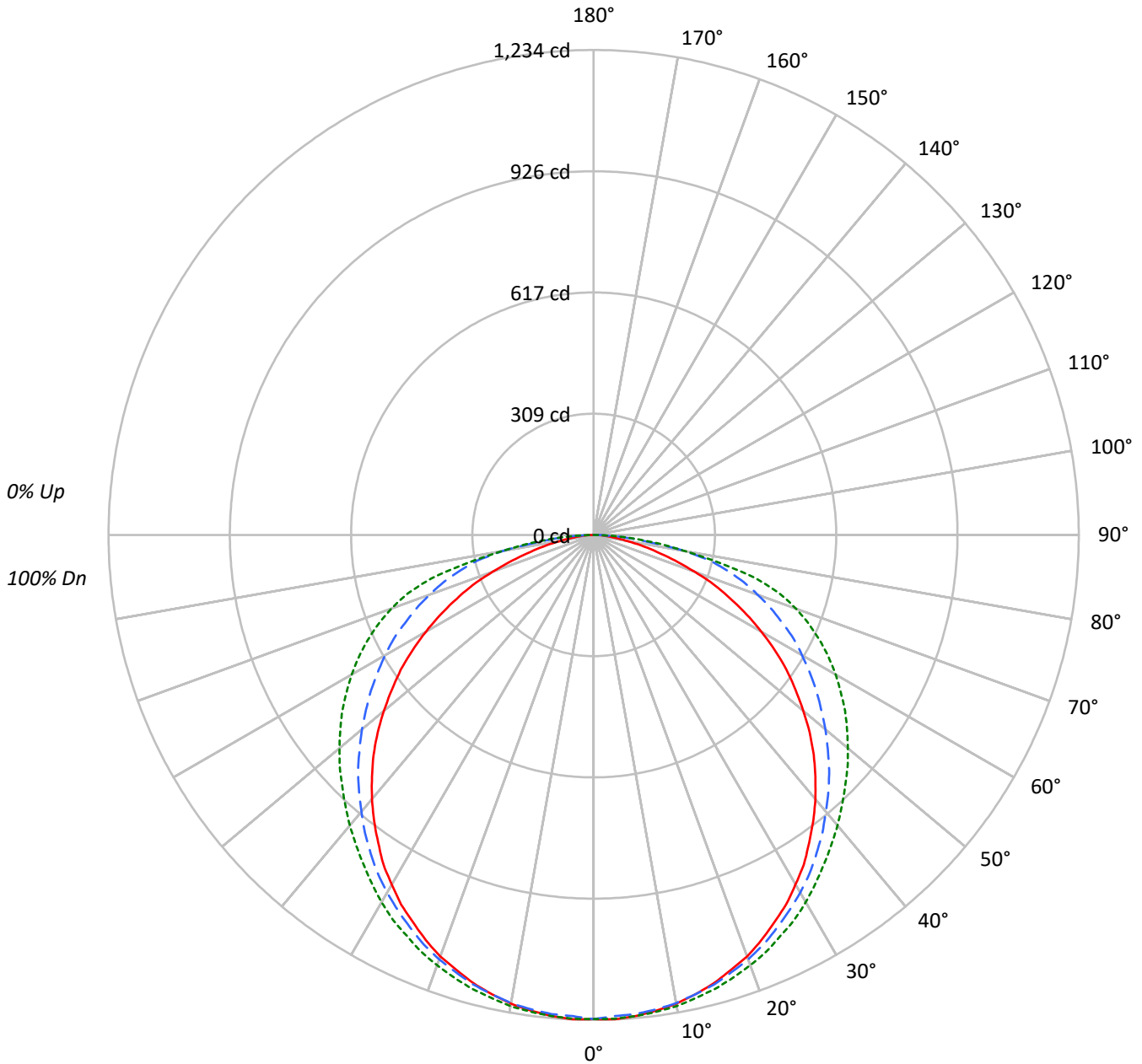
Lumens per Lamp: N/A
Luminaire Lumens: 3797.0 lumens
Efficiency: N/A
Efficacy: 94.9 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 40
Input Voltage (V): NR
Input Current (Ain): 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 | 101 | 96 | 93 | 96 | 93 | 90 | 92 | 90 | 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 | 59 | 68 | 63 | 58 | 56 | | | | | | | | | | | | | | | | | | | |
| 4 | 81 | 68 | 59 | 52 | 79 | 67 | 59 | 52 | 65 | 57 | 51 | 62 | 56 | 50 | 60 | 54 | 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 | 38 | 50 | 43 | 38 | 49 | 42 | 38 | 36 | | | | | | | | | | | | | | | | | | | |
| 7 | 63 | 50 | 41 | 34 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 46 | 39 | 34 | 44 | 38 | 33 | 31 | | | | | | | | | | | | | | | | | | | |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 36 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 28 | | | | | | | | | | | | | | | | | | | |
| 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 27 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 25 | | | | | | | | | | | | | | | | | | | |
| 10 | 52 | 38 | 30 | 25 | 50 | 38 | 30 | 25 | 37 | 30 | 25 | 36 | 29 | 24 | 35 | 29 | 24 | 23 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1739 | 1739 | 1739 |
| 5° | 1741 | 1734 | 1741 |
| 10° | 1736 | 1733 | 1745 |
| 15° | 1726 | 1730 | 1747 |
| 20° | 1714 | 1726 | 1750 |
| 25° | 1693 | 1718 | 1753 |
| 30° | 1674 | 1712 | 1759 |
| 35° | 1646 | 1704 | 1761 |
| 40° | 1616 | 1693 | 1778 |
| 45° | 1580 | 1691 | 1805 |
| 50° | 1529 | 1689 | 1853 |
| 55° | 1474 | 1701 | 1920 |
| 60° | 1391 | 1727 | 2006 |
| 65° | 1285 | 1768 | 2118 |
| 70° | 1122 | 1830 | 2257 |
| 75° | 910 | 1924 | 2332 |
| 80° | 671 | 1887 | 1887 |
| 85° | 515 | 1391 | 1569 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 116.7 | 3.1 |
| 10°-20° | 335.1 | 8.8 |
| 20°-30° | 510.2 | 13.4 |
| 30°-40° | 619.5 | 16.3 |
| 40°-50° | 654.5 | 17.2 |
| 50°-60° | 617.6 | 16.3 |
| 60°-70° | 513.5 | 13.5 |
| 70°-80° | 337.9 | 8.9 |
| 80°-90° | 92.1 | 2.4 |
| 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° | 962.0 | 25.3 |
| 0°-40° | 1581.5 | 41.7 |
| 0°-60° | 2853.5 | 75.2 |
| 0°-90° | 3797.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3797.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1232 | 1232 | 1232 | 1232 | 1232 | |
| 5° | 1229 | 1229 | 1224 | 1229 | 1229 | 117 |
| 15° | 1181 | 1183 | 1184 | 1195 | 1195 | 333 |
| 25° | 1087 | 1094 | 1103 | 1122 | 1125 | 502 |
| 35° | 955 | 966 | 989 | 1014 | 1022 | 598 |
| 45° | 792 | 808 | 847 | 889 | 904 | 610 |
| 55° | 599 | 625 | 691 | 757 | 780 | 534 |
| 65° | 385 | 429 | 529 | 607 | 634 | 380 |
| 75° | 167 | 243 | 353 | 418 | 428 | 180 |
| 85° | 32 | 70 | 86 | 95 | 97 | 39 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P843101

CATALOG NUMBER: 24CZ2-50-HRP-UNV-B40

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1232.0 | 1232.0 | 1232.0 | 1232.0 | 1232.0 |
| 2.5° | 1233.6 | 1232.0 | 1225.5 | 1232.0 | 1232.0 |
| 5° | 1228.8 | 1228.8 | 1223.9 | 1228.8 | 1228.8 |
| 7.5° | 1220.8 | 1220.8 | 1217.6 | 1223.9 | 1223.9 |
| 10° | 1211.3 | 1211.3 | 1209.6 | 1217.6 | 1217.6 |
| 12.5° | 1197.0 | 1198.6 | 1197.0 | 1206.4 | 1206.4 |
| 15° | 1181.1 | 1182.6 | 1184.2 | 1195.4 | 1195.4 |
| 17.5° | 1160.4 | 1163.6 | 1166.7 | 1179.5 | 1181.1 |
| 20° | 1141.4 | 1142.9 | 1149.2 | 1163.6 | 1165.1 |
| 22.5° | 1115.8 | 1120.7 | 1128.6 | 1142.9 | 1147.7 |
| 25° | 1087.3 | 1093.6 | 1103.2 | 1122.3 | 1125.4 |
| 27.5° | 1060.2 | 1065.1 | 1077.7 | 1098.3 | 1104.8 |
| 30° | 1027.0 | 1034.8 | 1050.7 | 1071.4 | 1079.2 |
| 32.5° | 995.1 | 1003.0 | 1022.0 | 1044.4 | 1050.7 |
| 35° | 955.4 | 966.4 | 988.8 | 1014.2 | 1022.0 |
| 37.5° | 917.3 | 928.3 | 955.4 | 983.9 | 993.5 |
| 40° | 877.4 | 890.1 | 918.8 | 952.2 | 964.8 |
| 42.5° | 834.5 | 852.0 | 883.8 | 920.4 | 934.8 |
| 45° | 791.6 | 807.6 | 847.3 | 888.6 | 904.5 |
| 47.5° | 745.4 | 764.5 | 807.6 | 856.7 | 875.8 |
| 50° | 696.3 | 720.1 | 769.4 | 823.5 | 844.1 |
| 52.5° | 647.0 | 673.9 | 729.5 | 790.1 | 812.3 |
| 55° | 599.2 | 624.7 | 691.4 | 756.6 | 780.4 |
| 57.5° | 546.9 | 578.5 | 651.7 | 721.7 | 745.4 |
| 60° | 492.8 | 527.8 | 612.0 | 685.1 | 710.5 |
| 62.5° | 438.8 | 478.5 | 573.8 | 647.0 | 673.9 |
| 65° | 384.7 | 429.1 | 529.4 | 607.2 | 634.2 |
| 67.5° | 332.2 | 381.6 | 487.9 | 566.0 | 592.9 |
| 70° | 271.9 | 333.8 | 443.5 | 519.8 | 546.9 |
| 72.5° | 216.2 | 287.8 | 400.6 | 472.2 | 496.0 |
| 75° | 166.9 | 243.2 | 352.9 | 418.1 | 427.6 |
| 77.5° | 122.5 | 198.7 | 303.5 | 325.9 | 327.5 |
| 80° | 82.6 | 159.0 | 232.2 | 228.8 | 232.2 |
| 82.5° | 54.1 | 119.1 | 146.3 | 163.8 | 165.3 |
| 85° | 31.8 | 70.0 | 85.9 | 95.3 | 96.9 |
| 87.5° | 15.9 | 23.8 | 30.3 | 31.8 | 35.0 |
| 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)