

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: P843042

Luminaire Tested: **24CZ2-40-HRP-UNV-B50**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P843042
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: 24CZ2-40-HRP-UNV-B50
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND HRP LENS

Light Source: -
Ballast/Driver: -

Summary

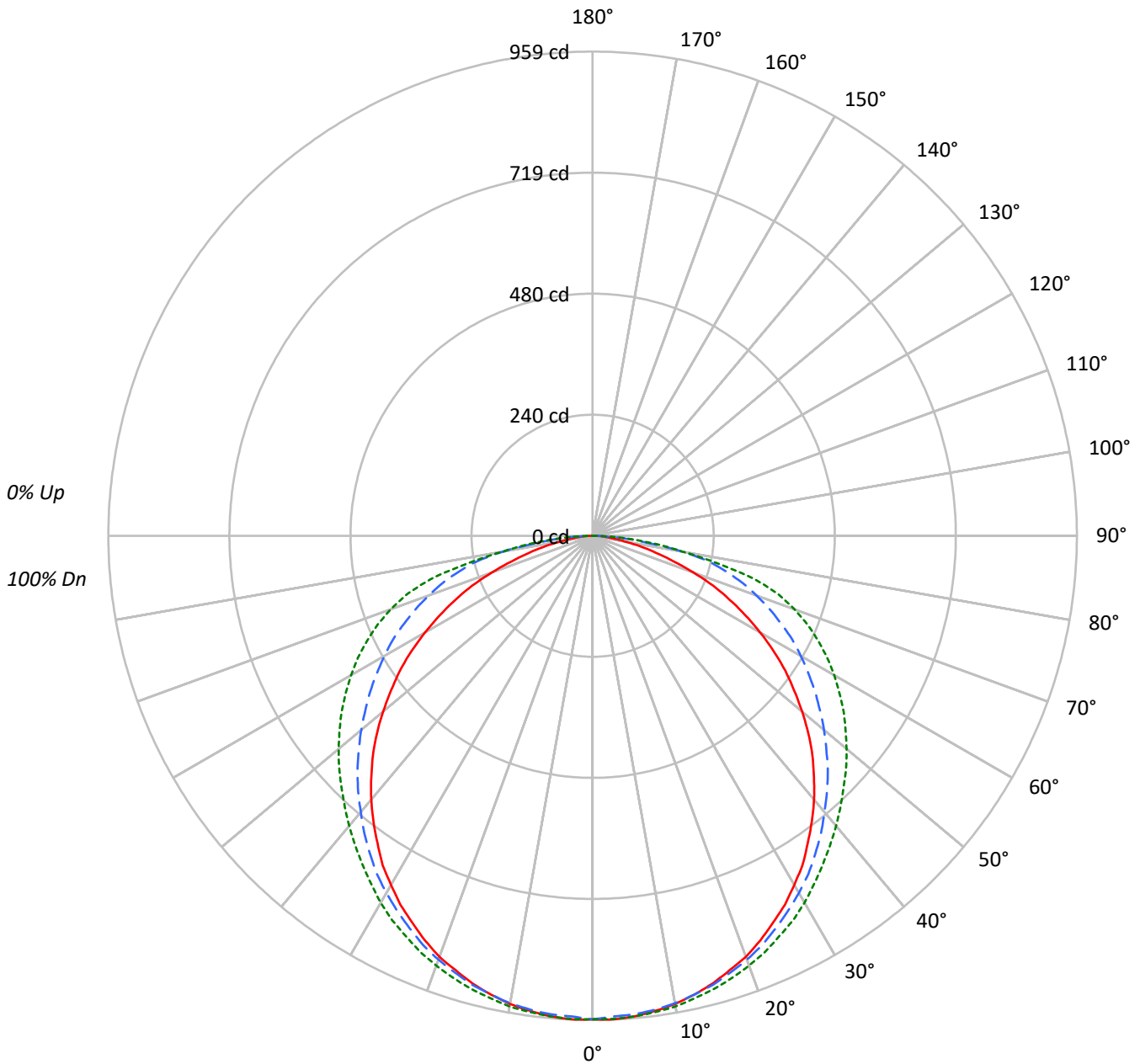
Lumens per Lamp: N/A
Luminaire Lumens: 2952.0 lumens
Efficiency: N/A
Efficacy: 95.2 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

Input Watts (W): 31
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: P843042

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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° | 1352 | 1352 | 1352 |
| 5° | 1354 | 1348 | 1354 |
| 10° | 1350 | 1348 | 1357 |
| 15° | 1342 | 1345 | 1358 |
| 20° | 1333 | 1342 | 1361 |
| 25° | 1316 | 1336 | 1363 |
| 30° | 1301 | 1331 | 1367 |
| 35° | 1280 | 1325 | 1369 |
| 40° | 1257 | 1316 | 1382 |
| 45° | 1228 | 1315 | 1404 |
| 50° | 1189 | 1313 | 1441 |
| 55° | 1146 | 1323 | 1493 |
| 60° | 1082 | 1343 | 1559 |
| 65° | 999 | 1375 | 1646 |
| 70° | 872 | 1423 | 1755 |
| 75° | 708 | 1496 | 1813 |
| 80° | 522 | 1467 | 1467 |
| 85° | 402 | 1082 | 1219 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 90.7 | 3.1 |
| 10°-20° | 260.5 | 8.8 |
| 20°-30° | 396.6 | 13.4 |
| 30°-40° | 481.6 | 16.3 |
| 40°-50° | 508.8 | 17.2 |
| 50°-60° | 480.1 | 16.3 |
| 60°-70° | 399.2 | 13.5 |
| 70°-80° | 262.7 | 8.9 |
| 80°-90° | 71.6 | 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° | 747.9 | 25.3 |
| 0°-40° | 1229.5 | 41.7 |
| 0°-60° | 2218.5 | 75.2 |
| 0°-90° | 2952.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2952.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 958 | 958 | 958 | 958 | 958 | |
| 5° | 955 | 955 | 952 | 955 | 955 | 91 |
| 15° | 918 | 920 | 921 | 929 | 929 | 259 |
| 25° | 845 | 850 | 858 | 872 | 875 | 390 |
| 35° | 743 | 751 | 769 | 788 | 795 | 465 |
| 45° | 616 | 628 | 659 | 691 | 703 | 474 |
| 55° | 466 | 486 | 538 | 588 | 607 | 415 |
| 65° | 299 | 334 | 412 | 472 | 493 | 296 |
| 75° | 130 | 189 | 274 | 325 | 332 | 140 |
| 85° | 25 | 54 | 67 | 74 | 75 | 30 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P843042

CATALOG NUMBER: 24CZ2-40-HRP-UNV-B50

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 957.8 | 957.8 | 957.8 | 957.8 | 957.8 |
| 2.5° | 959.0 | 957.8 | 952.8 | 957.8 | 957.8 |
| 5° | 955.4 | 955.4 | 951.5 | 955.4 | 955.4 |
| 7.5° | 949.1 | 949.1 | 946.7 | 951.5 | 951.5 |
| 10° | 941.8 | 941.8 | 940.4 | 946.7 | 946.7 |
| 12.5° | 930.6 | 931.8 | 930.6 | 937.9 | 937.9 |
| 15° | 918.2 | 919.5 | 920.7 | 929.4 | 929.4 |
| 17.5° | 902.2 | 904.6 | 907.1 | 917.0 | 918.2 |
| 20° | 887.4 | 888.6 | 893.5 | 904.6 | 905.9 |
| 22.5° | 867.5 | 871.3 | 877.4 | 888.6 | 892.2 |
| 25° | 845.3 | 850.2 | 857.7 | 872.5 | 875.0 |
| 27.5° | 824.2 | 828.1 | 837.8 | 853.9 | 858.9 |
| 30° | 798.4 | 804.5 | 816.9 | 832.9 | 839.1 |
| 32.5° | 773.6 | 779.8 | 794.6 | 812.0 | 816.9 |
| 35° | 742.8 | 751.3 | 768.8 | 788.5 | 794.6 |
| 37.5° | 713.1 | 721.7 | 742.8 | 764.9 | 772.4 |
| 40° | 682.1 | 692.0 | 714.3 | 740.3 | 750.1 |
| 42.5° | 648.8 | 662.4 | 687.1 | 715.6 | 726.7 |
| 45° | 615.5 | 627.8 | 658.7 | 690.8 | 703.2 |
| 47.5° | 579.5 | 594.4 | 627.8 | 666.1 | 680.9 |
| 50° | 541.3 | 559.8 | 598.2 | 640.2 | 656.3 |
| 52.5° | 503.0 | 523.9 | 567.2 | 614.2 | 631.5 |
| 55° | 465.8 | 485.7 | 537.5 | 588.3 | 606.8 |
| 57.5° | 425.2 | 449.8 | 506.6 | 561.1 | 579.5 |
| 60° | 383.2 | 410.4 | 475.8 | 532.6 | 552.3 |
| 62.5° | 341.1 | 372.0 | 446.1 | 503.0 | 523.9 |
| 65° | 299.1 | 333.6 | 411.6 | 472.1 | 493.0 |
| 67.5° | 258.3 | 296.7 | 379.3 | 440.0 | 460.9 |
| 70° | 211.4 | 259.5 | 344.8 | 404.1 | 425.2 |
| 72.5° | 168.1 | 223.8 | 311.5 | 367.1 | 385.6 |
| 75° | 129.8 | 189.1 | 274.3 | 325.1 | 332.4 |
| 77.5° | 95.2 | 154.5 | 236.0 | 253.4 | 254.6 |
| 80° | 64.2 | 123.6 | 180.5 | 177.9 | 180.5 |
| 82.5° | 42.0 | 92.6 | 113.7 | 127.3 | 128.5 |
| 85° | 24.8 | 54.4 | 66.8 | 74.1 | 75.3 |
| 87.5° | 12.4 | 18.5 | 23.5 | 24.8 | 27.2 |
| 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)