

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: P732191

Luminaire Tested: **24CZ2-40-HRP-B2750-W2D-2700K**

Issue Date: 1/5/2024



Test Information

Test Method: LM-79-08
Report Number: P732191
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-B2750-W2D-2700K
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 2700K CCT AND HRP LENS

Light Source: -
Ballast/Driver: -

Summary

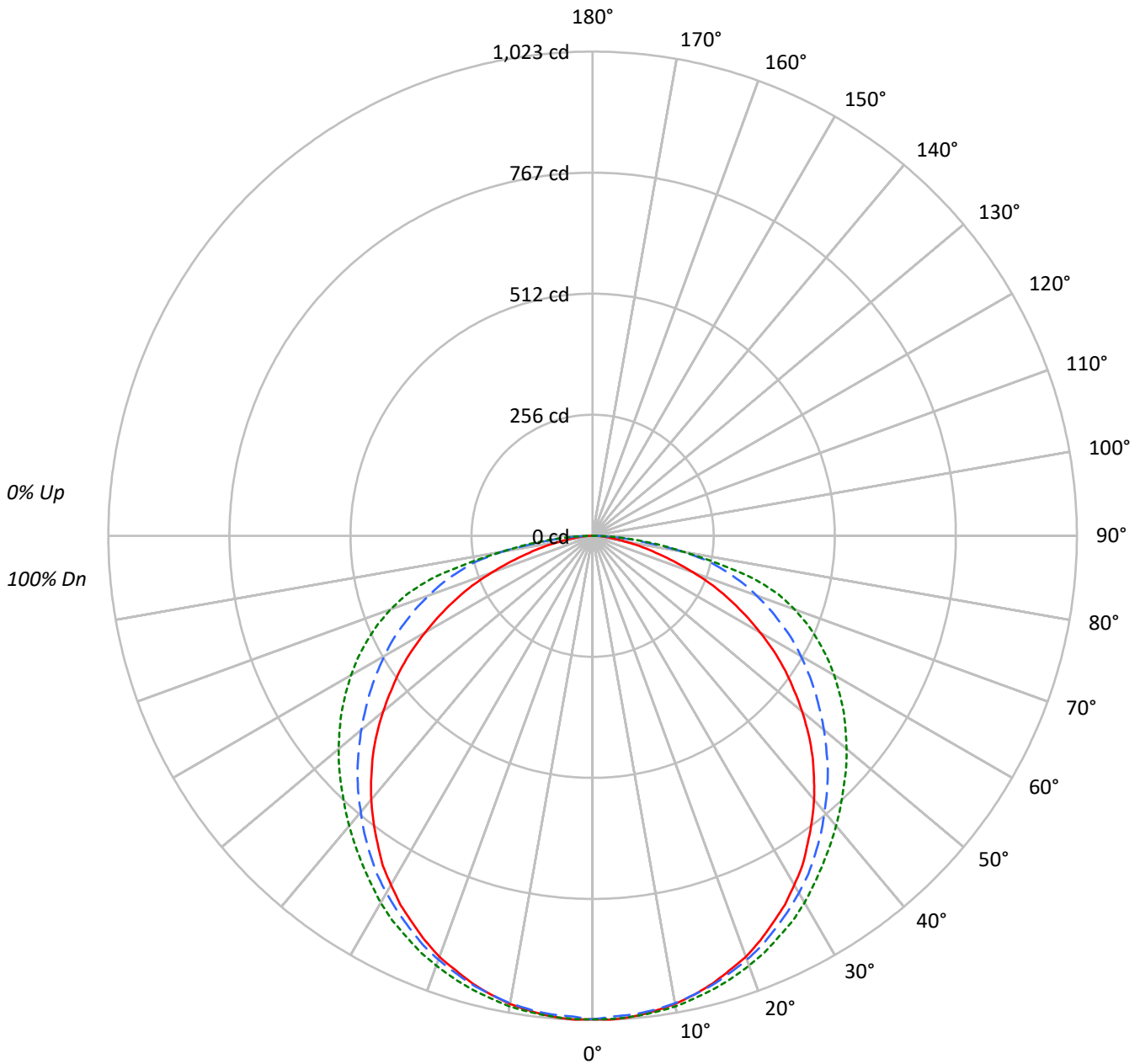
Lumens per Lamp: N/A
Luminaire Lumens: 3149.0 lumens
Efficiency: N/A
Efficacy: 101.6 lumens/watt
Spacing Criteria (0/90/45): 1.24 / 1.3 / 1.4
Luminous Opening: Rectangular (W 1.92' x L: 3.98' x H: 0')
CIE Type: Direct

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





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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 | 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° | 1442 | 1442 | 1442 |
| 5° | 1444 | 1438 | 1444 |
| 10° | 1440 | 1438 | 1447 |
| 15° | 1431 | 1435 | 1449 |
| 20° | 1422 | 1431 | 1451 |
| 25° | 1404 | 1425 | 1454 |
| 30° | 1388 | 1420 | 1459 |
| 35° | 1365 | 1413 | 1460 |
| 40° | 1341 | 1404 | 1474 |
| 45° | 1310 | 1403 | 1497 |
| 50° | 1268 | 1401 | 1537 |
| 55° | 1223 | 1411 | 1592 |
| 60° | 1154 | 1433 | 1663 |
| 65° | 1066 | 1466 | 1756 |
| 70° | 931 | 1518 | 1872 |
| 75° | 755 | 1596 | 1934 |
| 80° | 557 | 1565 | 1565 |
| 85° | 428 | 1153 | 1302 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 96.8 | 3.1 |
| 10°-20° | 277.9 | 8.8 |
| 20°-30° | 423.1 | 13.4 |
| 30°-40° | 513.8 | 16.3 |
| 40°-50° | 542.8 | 17.2 |
| 50°-60° | 512.2 | 16.3 |
| 60°-70° | 425.9 | 13.5 |
| 70°-80° | 280.2 | 8.9 |
| 80°-90° | 76.4 | 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° | 797.8 | 25.3 |
| 0°-40° | 1311.6 | 41.7 |
| 0°-60° | 2366.5 | 75.2 |
| 0°-90° | 3149.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3149.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1022 | 1022 | 1022 | 1022 | 1022 | |
| 5° | 1019 | 1019 | 1015 | 1019 | 1019 | 97 |
| 15° | 980 | 981 | 982 | 991 | 991 | 276 |
| 25° | 902 | 907 | 915 | 931 | 933 | 416 |
| 35° | 792 | 802 | 820 | 841 | 848 | 496 |
| 45° | 656 | 670 | 703 | 737 | 750 | 506 |
| 55° | 497 | 518 | 573 | 628 | 647 | 443 |
| 65° | 319 | 356 | 439 | 504 | 526 | 315 |
| 75° | 138 | 202 | 293 | 347 | 355 | 149 |
| 85° | 26 | 58 | 71 | 79 | 80 | 32 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1021.7 | 1021.7 | 1021.7 | 1021.7 | 1021.7 |
| 2.5° | 1023.0 | 1021.7 | 1016.4 | 1021.7 | 1021.7 |
| 5° | 1019.1 | 1019.1 | 1015.1 | 1019.1 | 1019.1 |
| 7.5° | 1012.4 | 1012.4 | 1009.8 | 1015.1 | 1015.1 |
| 10° | 1004.6 | 1004.6 | 1003.1 | 1009.8 | 1009.8 |
| 12.5° | 992.7 | 994.0 | 992.7 | 1000.5 | 1000.5 |
| 15° | 979.5 | 980.8 | 982.1 | 991.4 | 991.4 |
| 17.5° | 962.4 | 965.0 | 967.6 | 978.2 | 979.5 |
| 20° | 946.6 | 947.9 | 953.1 | 965.0 | 966.3 |
| 22.5° | 925.4 | 929.5 | 936.0 | 947.9 | 951.8 |
| 25° | 901.7 | 907.0 | 914.9 | 930.8 | 933.4 |
| 27.5° | 879.2 | 883.3 | 893.8 | 910.9 | 916.3 |
| 30° | 851.7 | 858.2 | 871.4 | 888.5 | 895.1 |
| 32.5° | 825.3 | 831.8 | 847.6 | 866.2 | 871.4 |
| 35° | 792.3 | 801.5 | 820.1 | 841.1 | 847.6 |
| 37.5° | 760.7 | 769.8 | 792.3 | 816.0 | 824.0 |
| 40° | 727.6 | 738.2 | 762.0 | 789.7 | 800.2 |
| 42.5° | 692.1 | 706.6 | 733.0 | 763.3 | 775.2 |
| 45° | 656.5 | 669.7 | 702.7 | 736.9 | 750.1 |
| 47.5° | 618.2 | 634.0 | 669.7 | 710.5 | 726.3 |
| 50° | 577.5 | 597.2 | 638.1 | 682.9 | 700.1 |
| 52.5° | 536.5 | 558.9 | 605.0 | 655.2 | 673.7 |
| 55° | 496.9 | 518.1 | 573.4 | 627.5 | 647.2 |
| 57.5° | 453.6 | 479.8 | 540.5 | 598.5 | 618.2 |
| 60° | 408.7 | 437.7 | 507.5 | 568.2 | 589.2 |
| 62.5° | 363.9 | 396.8 | 475.9 | 536.5 | 558.9 |
| 65° | 319.1 | 355.9 | 439.1 | 503.6 | 525.9 |
| 67.5° | 275.5 | 316.4 | 404.7 | 469.4 | 491.7 |
| 70° | 225.5 | 276.8 | 367.8 | 431.1 | 453.6 |
| 72.5° | 179.3 | 238.7 | 332.3 | 391.6 | 411.3 |
| 75° | 138.4 | 201.7 | 292.6 | 346.8 | 354.6 |
| 77.5° | 101.6 | 164.8 | 251.7 | 270.3 | 271.6 |
| 80° | 68.5 | 131.9 | 192.5 | 189.8 | 192.5 |
| 82.5° | 44.8 | 98.8 | 121.3 | 135.8 | 137.1 |
| 85° | 26.4 | 58.0 | 71.2 | 79.1 | 80.4 |
| 87.5° | 13.2 | 19.7 | 25.1 | 26.4 | 29.0 |
| 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)