

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: P263907

Luminaire Tested: **24CZ-LD5-50SE-RDP-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263907
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25696)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-50SE-RDP-UNV-L92765-W2A1-U-4500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 90 CRI LEDS TUNED AT 4500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3150.0 lumens
Efficiency: N/A
Efficacy: 77.9 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

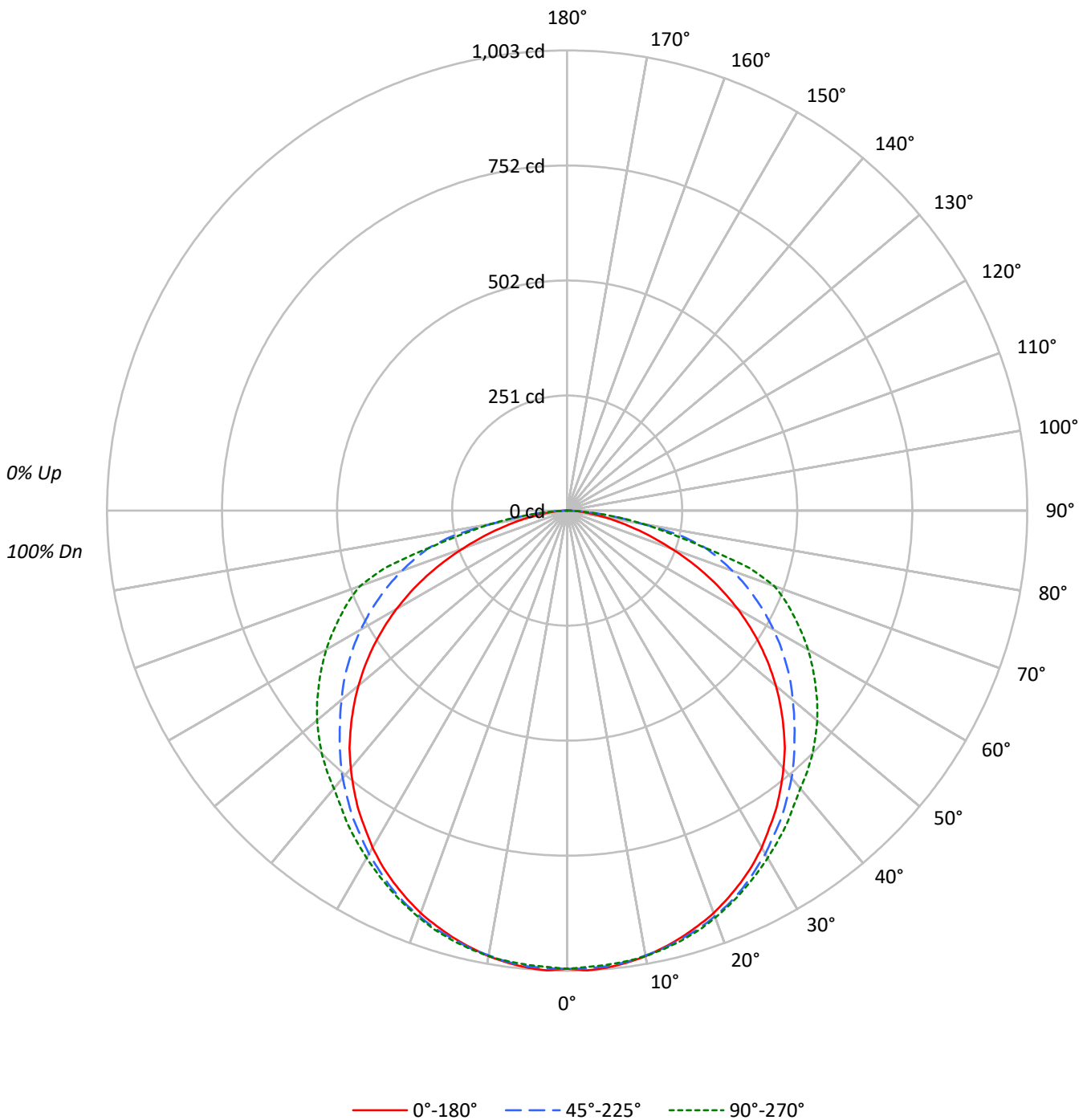
Input Watts (W): 40.455
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 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 | 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 | 97 | 93 | 96 | 93 | 90 | 92 | 90 | 87 | 89 | 87 | 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 | 60 | 70 | 64 | 59 | 67 | 62 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 78 | 67 | 58 | 52 | 64 | 57 | 51 | 62 | 56 | 50 | 60 | 54 | 50 | 47 |
| 5 | 74 | 61 | 51 | 45 | 72 | 60 | 51 | 44 | 57 | 50 | 44 | 55 | 49 | 43 | 54 | 48 | 43 | 41 |
| 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 38 | 52 | 44 | 38 | 50 | 43 | 38 | 48 | 42 | 37 | 35 |
| 7 | 63 | 49 | 40 | 34 | 61 | 48 | 40 | 34 | 47 | 39 | 34 | 45 | 38 | 33 | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 29 | 27 |
| 9 | 55 | 41 | 33 | 27 | 53 | 41 | 32 | 27 | 39 | 32 | 27 | 38 | 32 | 27 | 37 | 31 | 27 | 25 |
| 10 | 51 | 38 | 30 | 24 | 50 | 37 | 30 | 24 | 36 | 29 | 24 | 35 | 29 | 24 | 35 | 28 | 24 | 22 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 1344 | 1344 | 1344 |
| 5° | 1351 | 1347 | 1342 |
| 10° | 1347 | 1345 | 1347 |
| 15° | 1341 | 1346 | 1350 |
| 20° | 1337 | 1348 | 1352 |
| 25° | 1328 | 1347 | 1353 |
| 30° | 1318 | 1342 | 1359 |
| 35° | 1304 | 1340 | 1370 |
| 40° | 1288 | 1337 | 1389 |
| 45° | 1269 | 1334 | 1437 |
| 50° | 1243 | 1344 | 1490 |
| 55° | 1208 | 1368 | 1549 |
| 60° | 1156 | 1398 | 1632 |
| 65° | 1076 | 1442 | 1738 |
| 70° | 952 | 1507 | 1891 |
| 75° | 798 | 1612 | 1588 |
| 80° | 637 | 1274 | 1322 |
| 85° | 503 | 861 | 790 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 94.7 | 3.0 |
| 10°-20° | 272.6 | 8.7 |
| 20°-30° | 416.3 | 13.2 |
| 30°-40° | 509.0 | 16.2 |
| 40°-50° | 544.8 | 17.3 |
| 50°-60° | 522.6 | 16.6 |
| 60°-70° | 441.3 | 14.0 |
| 70°-80° | 282.0 | 9.0 |
| 80°-90° | 66.7 | 2.1 |
| 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° | 783.6 | 24.9 |
| 0°-40° | 1292.6 | 41.0 |
| 0°-60° | 2360.1 | 74.9 |
| 0°-90° | 3150.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3150.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|-----|-------|-----|------|
| 0° | 999 | 999 | 999 | 999 | 999 | |
| 5° | 1000 | 994 | 997 | 996 | 994 | 95 |
| 15° | 963 | 960 | 966 | 969 | 969 | 272 |
| 25° | 895 | 893 | 907 | 910 | 912 | 412 |
| 35° | 794 | 800 | 816 | 826 | 834 | 496 |
| 45° | 667 | 678 | 701 | 733 | 755 | 514 |
| 55° | 515 | 532 | 583 | 636 | 660 | 459 |
| 65° | 338 | 371 | 453 | 516 | 546 | 333 |
| 75° | 154 | 219 | 310 | 316 | 306 | 165 |
| 85° | 33 | 54 | 56 | 54 | 51 | 39 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|-------|-------|-------|-------|
| 0° | 998.6 | 998.6 | 998.6 | 998.6 | 998.6 |
| 2.5° | 1003.2 | 997.0 | 998.6 | 998.6 | 995.5 |
| 5° | 1000.1 | 993.9 | 997.0 | 995.5 | 993.9 |
| 7.5° | 993.9 | 989.3 | 992.4 | 992.4 | 990.8 |
| 10° | 986.2 | 981.5 | 984.6 | 986.2 | 986.2 |
| 12.5° | 975.3 | 972.2 | 976.9 | 976.9 | 978.4 |
| 15° | 962.9 | 959.8 | 966.0 | 969.1 | 969.1 |
| 17.5° | 949.0 | 947.4 | 955.2 | 956.7 | 958.3 |
| 20° | 933.5 | 931.9 | 941.2 | 941.2 | 944.3 |
| 22.5° | 914.8 | 913.3 | 925.7 | 925.7 | 928.8 |
| 25° | 894.7 | 893.1 | 907.1 | 910.2 | 911.7 |
| 27.5° | 873.0 | 871.4 | 885.4 | 890.0 | 893.1 |
| 30° | 848.2 | 848.2 | 863.7 | 869.9 | 874.5 |
| 32.5° | 820.3 | 824.9 | 838.9 | 848.2 | 854.4 |
| 35° | 793.9 | 800.1 | 815.6 | 826.5 | 834.2 |
| 37.5° | 764.4 | 770.6 | 787.7 | 801.7 | 811.0 |
| 40° | 733.4 | 741.2 | 761.3 | 776.8 | 790.8 |
| 42.5° | 702.4 | 710.2 | 731.9 | 755.1 | 773.7 |
| 45° | 666.8 | 677.6 | 700.9 | 733.4 | 755.1 |
| 47.5° | 631.1 | 641.9 | 671.4 | 711.7 | 733.4 |
| 50° | 593.9 | 606.3 | 641.9 | 688.5 | 711.7 |
| 52.5° | 555.1 | 569.1 | 614.0 | 663.7 | 686.9 |
| 55° | 514.8 | 531.9 | 583.0 | 635.7 | 660.5 |
| 57.5° | 472.9 | 491.5 | 552.0 | 607.8 | 634.2 |
| 60° | 429.5 | 452.8 | 519.4 | 578.4 | 606.3 |
| 62.5° | 384.5 | 412.5 | 486.9 | 547.4 | 576.8 |
| 65° | 338.0 | 370.6 | 452.8 | 516.3 | 545.8 |
| 67.5° | 290.0 | 333.4 | 418.7 | 485.3 | 514.8 |
| 70° | 241.9 | 293.1 | 383.0 | 451.2 | 480.7 |
| 72.5° | 196.9 | 255.8 | 347.3 | 410.9 | 417.1 |
| 75° | 153.5 | 218.6 | 310.1 | 316.3 | 305.5 |
| 77.5° | 114.7 | 181.4 | 255.8 | 227.9 | 226.4 |
| 80° | 82.2 | 145.8 | 164.4 | 169.0 | 170.6 |
| 82.5° | 54.3 | 110.1 | 107.0 | 110.1 | 108.5 |
| 85° | 32.6 | 54.3 | 55.8 | 54.3 | 51.2 |
| 87.5° | 15.5 | 20.2 | 15.5 | 14.0 | 12.4 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)