

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: P263771

Luminaire Tested: **24CZ-LD5-50SE-RDP-UNV-L82765-W2A1-U-4000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263771
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-L82765-W2A1-U-4000K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 4000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3470.0 lumens
Efficiency: N/A
Efficacy: 86.4 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

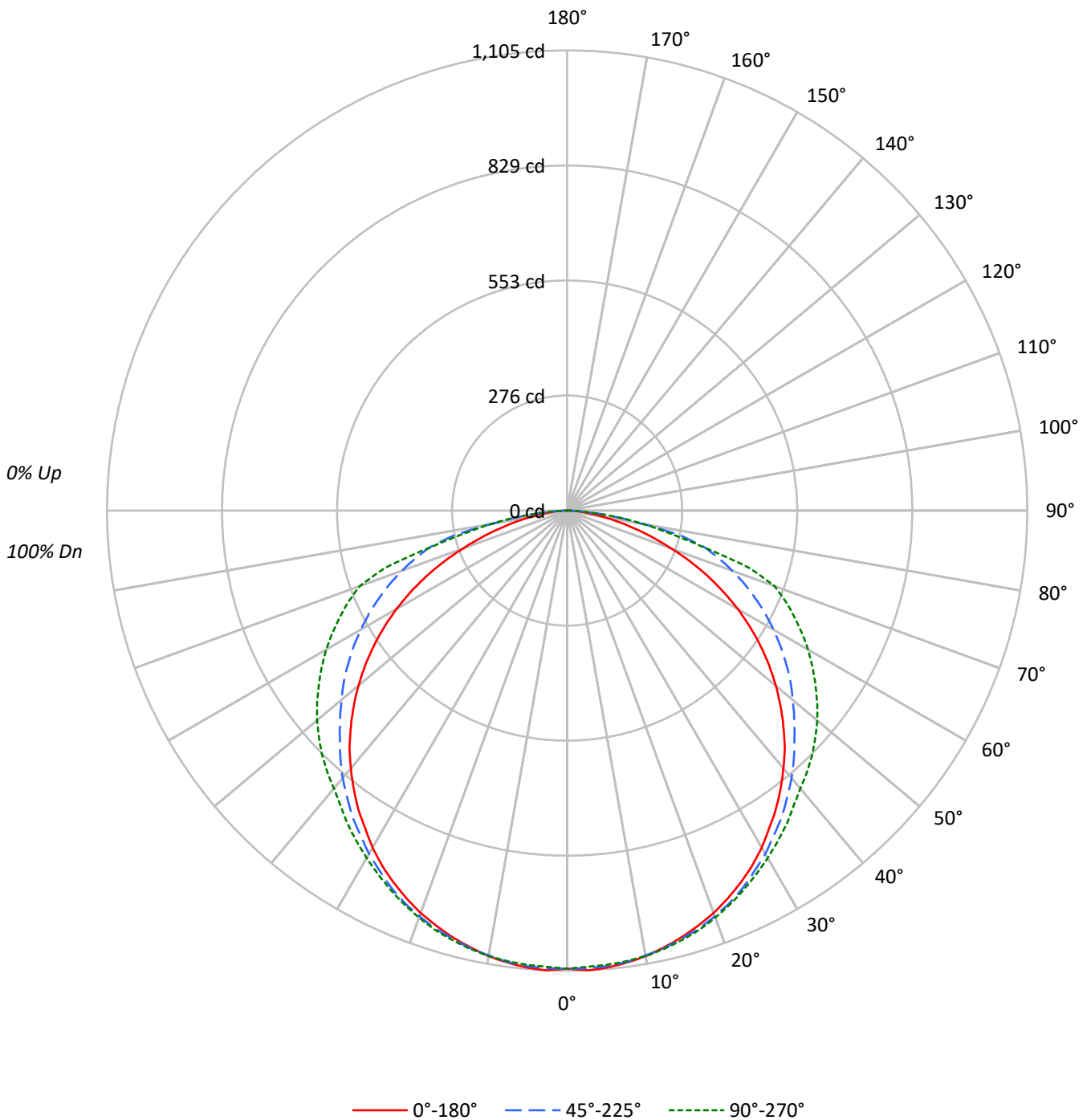
Input Watts (W): 40.176
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 61 | 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° | 1480 | 1480 | 1480 |
| 5° | 1488 | 1483 | 1479 |
| 10° | 1484 | 1482 | 1484 |
| 15° | 1478 | 1482 | 1487 |
| 20° | 1472 | 1485 | 1489 |
| 25° | 1463 | 1483 | 1491 |
| 30° | 1452 | 1478 | 1497 |
| 35° | 1436 | 1476 | 1509 |
| 40° | 1419 | 1473 | 1530 |
| 45° | 1398 | 1469 | 1583 |
| 50° | 1369 | 1480 | 1641 |
| 55° | 1330 | 1506 | 1707 |
| 60° | 1273 | 1540 | 1797 |
| 65° | 1186 | 1588 | 1914 |
| 70° | 1048 | 1660 | 2083 |
| 75° | 879 | 1776 | 1749 |
| 80° | 701 | 1403 | 1456 |
| 85° | 554 | 949 | 871 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 104.3 | 3.0 |
| 10°-20° | 300.3 | 8.7 |
| 20°-30° | 458.6 | 13.2 |
| 30°-40° | 560.7 | 16.2 |
| 40°-50° | 600.2 | 17.3 |
| 50°-60° | 575.7 | 16.6 |
| 60°-70° | 486.1 | 14.0 |
| 70°-80° | 310.6 | 9.0 |
| 80°-90° | 73.5 | 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° | 863.2 | 24.9 |
| 0°-40° | 1423.9 | 41.0 |
| 0°-60° | 2599.8 | 74.9 |
| 0°-90° | 3470.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3470.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1100 | 1100 | 1100 | 1100 | 1100 | |
| 5° | 1102 | 1095 | 1098 | 1097 | 1095 | 105 |
| 15° | 1061 | 1057 | 1064 | 1068 | 1068 | 299 |
| 25° | 986 | 984 | 999 | 1003 | 1004 | 454 |
| 35° | 874 | 881 | 898 | 910 | 919 | 547 |
| 45° | 734 | 746 | 772 | 808 | 832 | 567 |
| 55° | 567 | 586 | 642 | 700 | 728 | 506 |
| 65° | 372 | 408 | 499 | 569 | 601 | 367 |
| 75° | 169 | 241 | 342 | 348 | 336 | 182 |
| 85° | 36 | 60 | 62 | 60 | 56 | 43 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1100.0 | 1100.0 | 1100.0 | 1100.0 | 1100.0 |
| 2.5° | 1105.1 | 1098.3 | 1100.0 | 1100.0 | 1096.6 |
| 5° | 1101.7 | 1094.9 | 1098.3 | 1096.6 | 1094.9 |
| 7.5° | 1094.9 | 1089.8 | 1093.2 | 1093.2 | 1091.5 |
| 10° | 1086.4 | 1081.2 | 1084.6 | 1086.4 | 1086.4 |
| 12.5° | 1074.4 | 1071.0 | 1076.1 | 1076.1 | 1077.8 |
| 15° | 1060.7 | 1057.3 | 1064.1 | 1067.6 | 1067.6 |
| 17.5° | 1045.4 | 1043.7 | 1052.2 | 1053.9 | 1055.6 |
| 20° | 1028.3 | 1026.6 | 1036.8 | 1036.8 | 1040.2 |
| 22.5° | 1007.8 | 1006.1 | 1019.7 | 1019.7 | 1023.2 |
| 25° | 985.6 | 983.9 | 999.2 | 1002.7 | 1004.4 |
| 27.5° | 961.7 | 960.0 | 975.3 | 980.5 | 983.9 |
| 30° | 934.3 | 934.3 | 951.4 | 958.2 | 963.4 |
| 32.5° | 903.6 | 908.7 | 924.1 | 934.3 | 941.2 |
| 35° | 874.5 | 881.4 | 898.5 | 910.4 | 919.0 |
| 37.5° | 842.1 | 848.9 | 867.7 | 883.1 | 893.3 |
| 40° | 807.9 | 816.5 | 838.7 | 855.8 | 871.1 |
| 42.5° | 773.8 | 782.3 | 806.2 | 831.8 | 852.3 |
| 45° | 734.5 | 746.4 | 772.1 | 807.9 | 831.8 |
| 47.5° | 695.2 | 707.2 | 739.6 | 784.0 | 807.9 |
| 50° | 654.2 | 667.9 | 707.2 | 758.4 | 784.0 |
| 52.5° | 611.5 | 626.9 | 676.4 | 731.1 | 756.7 |
| 55° | 567.1 | 585.9 | 642.2 | 700.3 | 727.7 |
| 57.5° | 521.0 | 541.5 | 608.1 | 669.6 | 698.6 |
| 60° | 473.1 | 498.8 | 572.2 | 637.1 | 667.9 |
| 62.5° | 423.6 | 454.4 | 536.3 | 603.0 | 635.4 |
| 65° | 372.4 | 408.2 | 498.8 | 568.8 | 601.3 |
| 67.5° | 319.4 | 367.2 | 461.2 | 534.6 | 567.1 |
| 70° | 266.5 | 322.8 | 421.9 | 497.1 | 529.5 |
| 72.5° | 216.9 | 281.8 | 382.6 | 452.6 | 459.5 |
| 75° | 169.1 | 240.8 | 341.6 | 348.5 | 336.5 |
| 77.5° | 126.4 | 199.8 | 281.8 | 251.1 | 249.4 |
| 80° | 90.5 | 160.6 | 181.1 | 186.2 | 187.9 |
| 82.5° | 59.8 | 121.3 | 117.9 | 121.3 | 119.6 |
| 85° | 35.9 | 59.8 | 61.5 | 59.8 | 56.4 |
| 87.5° | 17.1 | 22.2 | 17.1 | 15.4 | 13.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)