

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: P263264

Luminaire Tested: **24CZ-LD5-50-SQP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263264
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25695)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ-LD5-50-SQP-UNV-L82765-W2A1-U-5500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER WITH SQP LENS
Light Source: (336) 80 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3460.0 lumens
Efficiency: N/A
Efficacy: 94.2 lumens/watt
Spacing Criteria (0/90/45): 1.27 / 1.31 / 1.42
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

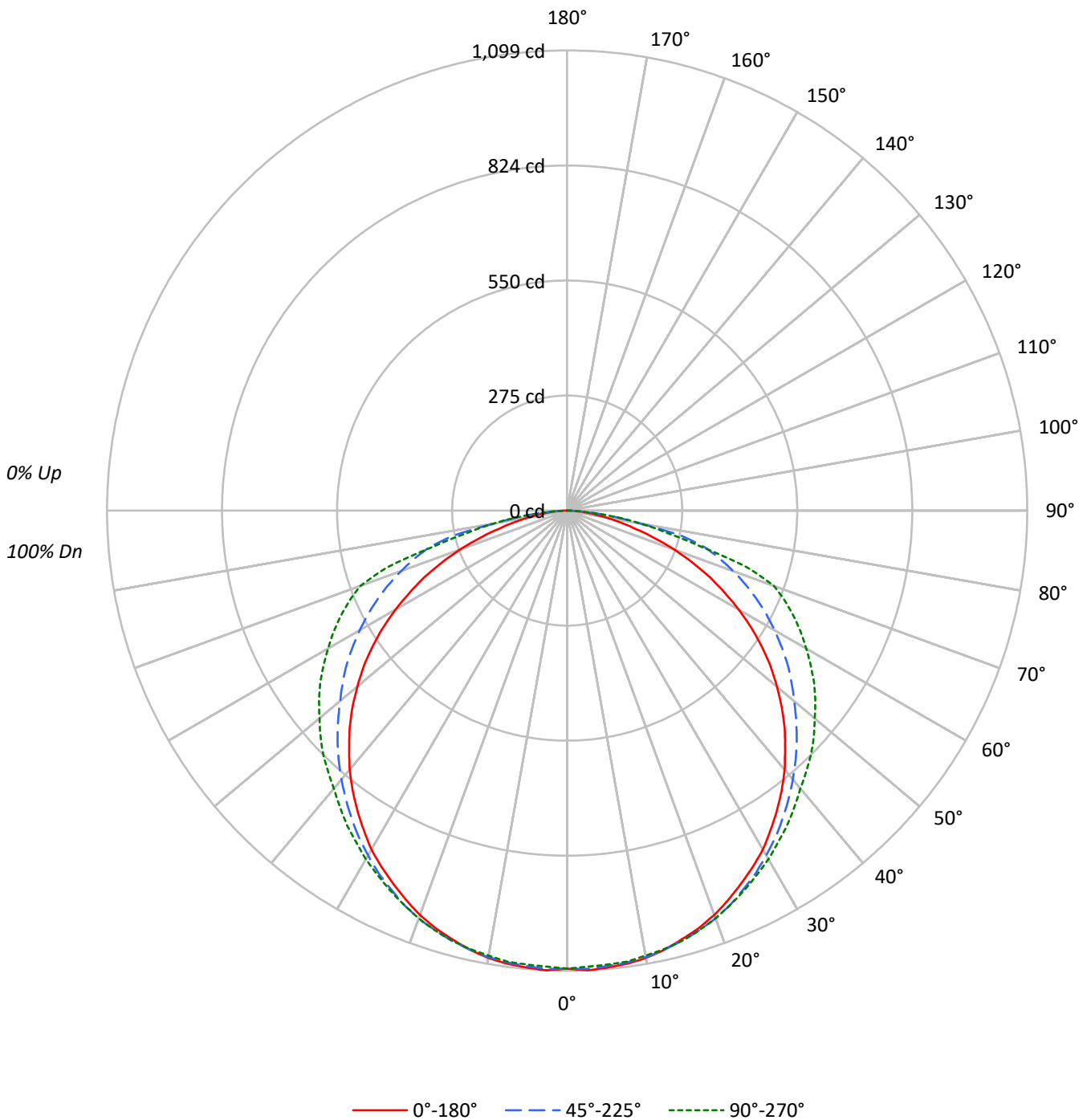
Input Watts (W): 36.735
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P263264

CATALOG NUMBER: 24CZ-LD5-50-SQP-UNV-L82765-W2A1-U-5500K

Luminous Intensity Polar Plot





TEST NUMBER: P263264

CATALOG NUMBER: 24CZ-LD5-50-SQP-UNV-L82765-W2A1-U-5500K

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 | 63 | 58 | 56 |
| 4 | 81 | 68 | 59 | 52 | 79 | 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 | 62 | 49 | 40 | 34 | 47 | 39 | 34 | 45 | 39 | 33 | 44 | 38 | 33 | 31 |
| 8 | 59 | 45 | 36 | 30 | 57 | 44 | 36 | 30 | 43 | 35 | 30 | 42 | 35 | 30 | 40 | 34 | 29 | 28 |
| 9 | 55 | 41 | 33 | 27 | 54 | 41 | 33 | 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° | 1472 | 1472 | 1472 |
| 5° | 1480 | 1475 | 1470 |
| 10° | 1482 | 1480 | 1475 |
| 15° | 1476 | 1481 | 1481 |
| 20° | 1471 | 1484 | 1484 |
| 25° | 1459 | 1481 | 1486 |
| 30° | 1452 | 1477 | 1494 |
| 35° | 1435 | 1474 | 1506 |
| 40° | 1419 | 1472 | 1522 |
| 45° | 1398 | 1476 | 1568 |
| 50° | 1369 | 1481 | 1616 |
| 55° | 1333 | 1509 | 1689 |
| 60° | 1274 | 1539 | 1775 |
| 65° | 1195 | 1587 | 1900 |
| 70° | 1069 | 1659 | 2067 |
| 75° | 883 | 1775 | 1709 |
| 80° | 720 | 1371 | 1385 |
| 85° | 579 | 911 | 855 |



TEST NUMBER: P263264

CATALOG NUMBER: 24CZ-LD5-50-SQP-UNV-L82765-W2A1-U-5500K

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 103.9 | 3.0 |
| 10°-20° | 299.8 | 8.7 |
| 20°-30° | 458.1 | 13.2 |
| 30°-40° | 560.3 | 16.2 |
| 40°-50° | 599.5 | 17.3 |
| 50°-60° | 574.1 | 16.6 |
| 60°-70° | 485.6 | 14.0 |
| 70°-80° | 307.9 | 8.9 |
| 80°-90° | 70.8 | 2.0 |
| 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° | 861.8 | 24.9 |
| 0°-40° | 1422.1 | 41.1 |
| 0°-60° | 2595.7 | 75.0 |
| 0°-90° | 3460.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3460.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1094 | 1094 | 1094 | 1094 | 1094 | |
| 5° | 1096 | 1090 | 1092 | 1090 | 1088 | 104 |
| 15° | 1060 | 1058 | 1063 | 1063 | 1063 | 299 |
| 25° | 983 | 983 | 997 | 1001 | 1001 | 454 |
| 35° | 874 | 879 | 897 | 910 | 917 | 547 |
| 45° | 734 | 747 | 776 | 808 | 824 | 566 |
| 55° | 568 | 586 | 643 | 697 | 720 | 507 |
| 65° | 375 | 411 | 499 | 566 | 597 | 370 |
| 75° | 170 | 240 | 341 | 340 | 329 | 185 |
| 85° | 38 | 57 | 59 | 54 | 55 | 45 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P263264

CATALOG NUMBER: 24CZ-LD5-50-SQP-UNV-L82765-W2A1-U-5500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1093.8 | 1093.8 | 1093.8 | 1093.8 | 1093.8 |
| 2.5° | 1099.1 | 1093.8 | 1095.6 | 1093.8 | 1090.2 |
| 5° | 1095.6 | 1090.2 | 1092.0 | 1090.2 | 1088.4 |
| 7.5° | 1092.0 | 1086.6 | 1088.4 | 1086.6 | 1086.6 |
| 10° | 1084.8 | 1079.5 | 1083.0 | 1081.3 | 1079.5 |
| 12.5° | 1074.1 | 1070.5 | 1074.1 | 1072.3 | 1072.3 |
| 15° | 1059.8 | 1058.0 | 1063.4 | 1063.4 | 1063.4 |
| 17.5° | 1045.5 | 1043.7 | 1050.9 | 1050.9 | 1050.9 |
| 20° | 1027.6 | 1025.9 | 1036.6 | 1036.6 | 1036.6 |
| 22.5° | 1006.2 | 1004.4 | 1018.7 | 1018.7 | 1018.7 |
| 25° | 983.0 | 983.0 | 997.3 | 1000.8 | 1000.8 |
| 27.5° | 959.7 | 959.7 | 975.8 | 981.2 | 981.2 |
| 30° | 934.7 | 934.7 | 950.8 | 957.9 | 961.5 |
| 32.5° | 904.3 | 907.9 | 925.8 | 934.7 | 938.3 |
| 35° | 873.9 | 879.3 | 897.2 | 909.7 | 916.8 |
| 37.5° | 841.8 | 847.1 | 868.6 | 882.9 | 891.8 |
| 40° | 807.8 | 815.0 | 838.2 | 856.1 | 866.8 |
| 42.5° | 770.3 | 781.0 | 807.8 | 831.1 | 845.3 |
| 45° | 734.5 | 747.1 | 775.6 | 807.8 | 823.9 |
| 47.5° | 695.2 | 709.5 | 741.7 | 782.8 | 798.9 |
| 50° | 654.1 | 668.4 | 707.7 | 754.2 | 772.1 |
| 52.5° | 613.0 | 629.1 | 675.6 | 725.6 | 747.1 |
| 55° | 568.3 | 586.2 | 643.4 | 697.0 | 720.2 |
| 57.5° | 521.9 | 543.3 | 607.7 | 664.8 | 689.9 |
| 60° | 473.6 | 500.4 | 571.9 | 632.7 | 659.5 |
| 62.5° | 423.6 | 455.7 | 536.2 | 600.5 | 629.1 |
| 65° | 375.3 | 411.1 | 498.6 | 566.5 | 596.9 |
| 67.5° | 323.5 | 368.2 | 461.1 | 534.4 | 563.0 |
| 70° | 271.7 | 323.5 | 421.8 | 496.8 | 525.4 |
| 72.5° | 219.8 | 282.4 | 382.5 | 450.4 | 450.4 |
| 75° | 169.8 | 239.5 | 341.4 | 339.6 | 328.8 |
| 77.5° | 128.7 | 200.2 | 280.6 | 239.5 | 241.3 |
| 80° | 92.9 | 160.8 | 176.9 | 176.9 | 178.7 |
| 82.5° | 62.6 | 123.3 | 114.4 | 112.6 | 116.2 |
| 85° | 37.5 | 57.2 | 59.0 | 53.6 | 55.4 |
| 87.5° | 17.9 | 19.7 | 16.1 | 10.7 | 10.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)