

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: P263774

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

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263774
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-5500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH RDP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3615.0 lumens
Efficiency: N/A
Efficacy: 88.5 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

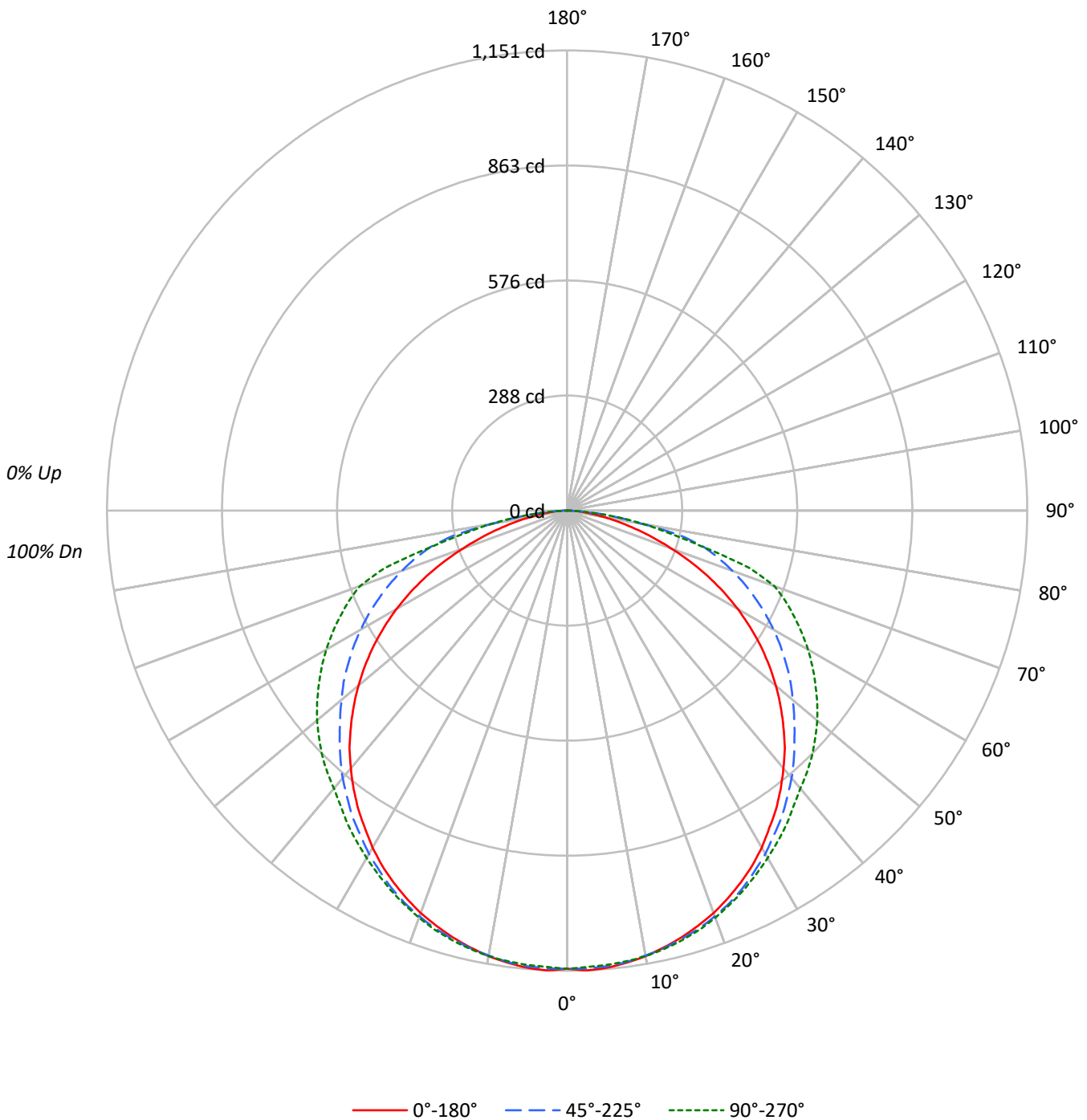
Input Watts (W): 40.827
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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° | 1542 | 1542 | 1542 |
| 5° | 1550 | 1545 | 1541 |
| 10° | 1546 | 1544 | 1546 |
| 15° | 1539 | 1544 | 1549 |
| 20° | 1534 | 1547 | 1552 |
| 25° | 1524 | 1545 | 1553 |
| 30° | 1512 | 1540 | 1559 |
| 35° | 1497 | 1537 | 1573 |
| 40° | 1478 | 1535 | 1594 |
| 45° | 1456 | 1530 | 1649 |
| 50° | 1427 | 1542 | 1710 |
| 55° | 1386 | 1570 | 1778 |
| 60° | 1326 | 1604 | 1872 |
| 65° | 1235 | 1654 | 1994 |
| 70° | 1092 | 1729 | 2170 |
| 75° | 916 | 1850 | 1823 |
| 80° | 731 | 1461 | 1516 |
| 85° | 577 | 990 | 906 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 108.7 | 3.0 |
| 10°-20° | 312.8 | 8.7 |
| 20°-30° | 477.8 | 13.2 |
| 30°-40° | 584.1 | 16.2 |
| 40°-50° | 625.3 | 17.3 |
| 50°-60° | 599.7 | 16.6 |
| 60°-70° | 506.4 | 14.0 |
| 70°-80° | 323.6 | 9.0 |
| 80°-90° | 76.5 | 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° | 899.3 | 24.9 |
| 0°-40° | 1483.5 | 41.0 |
| 0°-60° | 2708.5 | 74.9 |
| 0°-90° | 3615.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3615.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1146 | 1146 | 1146 | 1146 | 1146 | |
| 5° | 1148 | 1141 | 1144 | 1142 | 1141 | 109 |
| 15° | 1105 | 1102 | 1109 | 1112 | 1112 | 312 |
| 25° | 1027 | 1025 | 1041 | 1045 | 1046 | 473 |
| 35° | 911 | 918 | 936 | 948 | 957 | 570 |
| 45° | 765 | 778 | 804 | 842 | 867 | 590 |
| 55° | 591 | 610 | 669 | 730 | 758 | 527 |
| 65° | 388 | 425 | 520 | 593 | 626 | 383 |
| 75° | 176 | 251 | 356 | 363 | 351 | 190 |
| 85° | 37 | 62 | 64 | 62 | 59 | 45 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P263774

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

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1146.0 | 1146.0 | 1146.0 | 1146.0 | 1146.0 |
| 2.5° | 1151.3 | 1144.2 | 1146.0 | 1146.0 | 1142.4 |
| 5° | 1147.8 | 1140.6 | 1144.2 | 1142.4 | 1140.6 |
| 7.5° | 1140.6 | 1135.3 | 1138.9 | 1138.9 | 1137.1 |
| 10° | 1131.7 | 1126.4 | 1130.0 | 1131.7 | 1131.7 |
| 12.5° | 1119.3 | 1115.7 | 1121.1 | 1121.1 | 1122.9 |
| 15° | 1105.1 | 1101.5 | 1108.6 | 1112.2 | 1112.2 |
| 17.5° | 1089.0 | 1087.3 | 1096.2 | 1097.9 | 1099.7 |
| 20° | 1071.2 | 1069.5 | 1080.1 | 1080.1 | 1083.7 |
| 22.5° | 1049.9 | 1048.1 | 1062.3 | 1062.3 | 1065.9 |
| 25° | 1026.8 | 1025.0 | 1041.0 | 1044.6 | 1046.3 |
| 27.5° | 1001.8 | 1000.1 | 1016.1 | 1021.4 | 1025.0 |
| 30° | 973.4 | 973.4 | 991.2 | 998.3 | 1003.6 |
| 32.5° | 941.3 | 946.7 | 962.7 | 973.4 | 980.5 |
| 35° | 911.1 | 918.2 | 936.0 | 948.5 | 957.4 |
| 37.5° | 877.3 | 884.4 | 904.0 | 920.0 | 930.7 |
| 40° | 841.7 | 850.6 | 873.7 | 891.5 | 907.5 |
| 42.5° | 806.1 | 815.0 | 839.9 | 866.6 | 888.0 |
| 45° | 765.2 | 777.6 | 804.3 | 841.7 | 866.6 |
| 47.5° | 724.2 | 736.7 | 770.5 | 816.8 | 841.7 |
| 50° | 681.5 | 695.8 | 736.7 | 790.1 | 816.8 |
| 52.5° | 637.1 | 653.1 | 704.7 | 761.6 | 788.3 |
| 55° | 590.8 | 610.4 | 669.1 | 729.6 | 758.1 |
| 57.5° | 542.7 | 564.1 | 633.5 | 697.6 | 727.8 |
| 60° | 492.9 | 519.6 | 596.1 | 663.7 | 695.8 |
| 62.5° | 441.3 | 473.3 | 558.8 | 628.2 | 662.0 |
| 65° | 387.9 | 425.3 | 519.6 | 592.6 | 626.4 |
| 67.5° | 332.8 | 382.6 | 480.5 | 557.0 | 590.8 |
| 70° | 277.6 | 336.3 | 439.5 | 517.8 | 551.6 |
| 72.5° | 226.0 | 293.6 | 398.6 | 471.6 | 478.7 |
| 75° | 176.2 | 250.9 | 355.9 | 363.0 | 350.6 |
| 77.5° | 131.7 | 208.2 | 293.6 | 261.6 | 259.8 |
| 80° | 94.3 | 167.3 | 188.6 | 194.0 | 195.7 |
| 82.5° | 62.3 | 126.3 | 122.8 | 126.3 | 124.6 |
| 85° | 37.4 | 62.3 | 64.1 | 62.3 | 58.7 |
| 87.5° | 17.8 | 23.1 | 17.8 | 16.0 | 14.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)