

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: P263260

Luminaire Tested: **24CZ-LD5-50-SQP-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P263260
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-3500K
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER
WITH SQP LENS
Light Source: (336) 80 CRI LEDS TUNED AT 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3250.0 lumens
Efficiency: N/A
Efficacy: 90.5 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

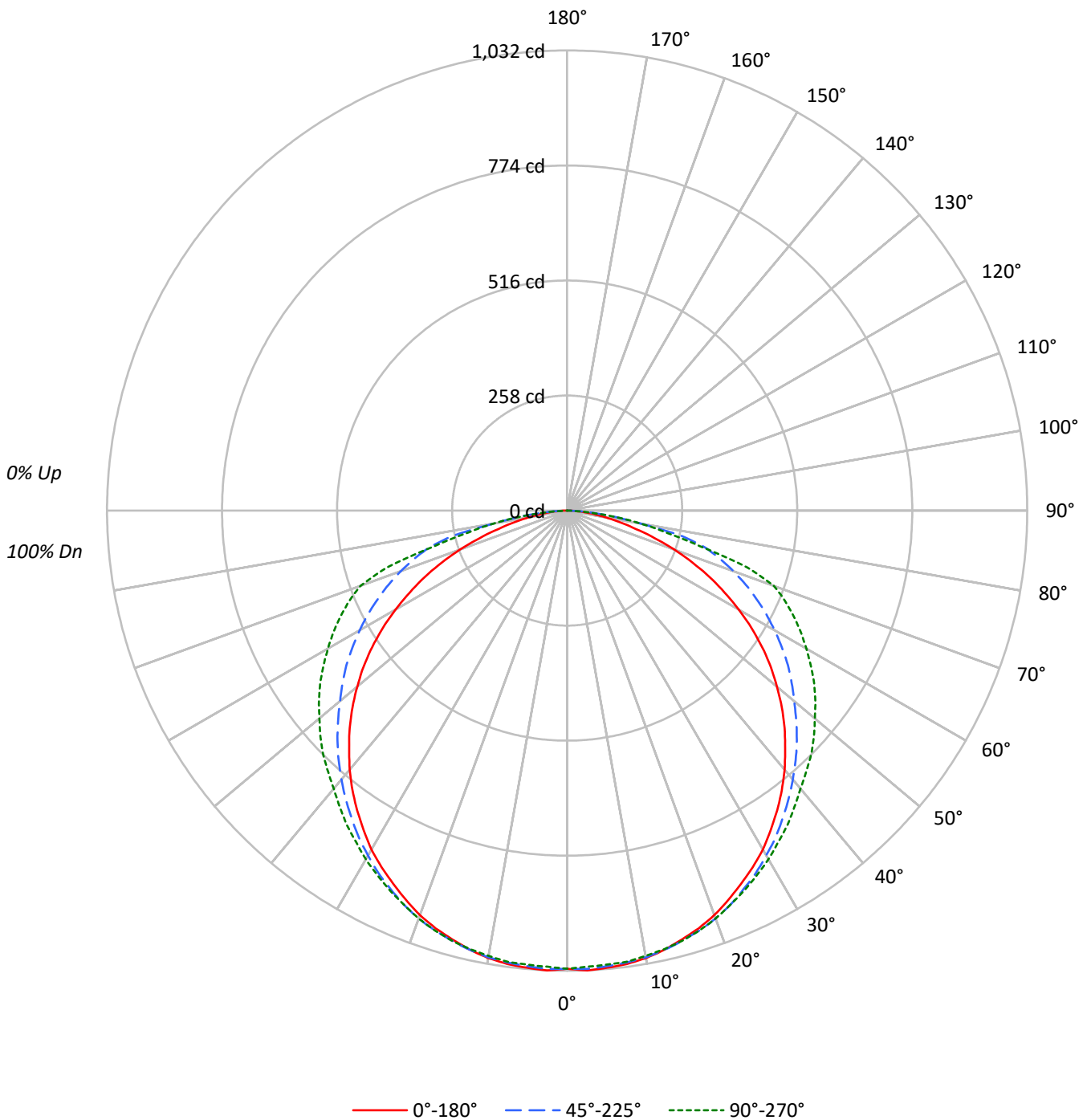
Input Watts (W): 35.898
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 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° | 1382 | 1382 | 1382 |
| 5° | 1390 | 1385 | 1381 |
| 10° | 1392 | 1390 | 1385 |
| 15° | 1387 | 1391 | 1391 |
| 20° | 1382 | 1394 | 1394 |
| 25° | 1371 | 1391 | 1396 |
| 30° | 1364 | 1388 | 1403 |
| 35° | 1348 | 1384 | 1415 |
| 40° | 1333 | 1383 | 1430 |
| 45° | 1313 | 1386 | 1473 |
| 50° | 1286 | 1392 | 1518 |
| 55° | 1252 | 1418 | 1587 |
| 60° | 1197 | 1446 | 1667 |
| 65° | 1122 | 1491 | 1785 |
| 70° | 1004 | 1559 | 1941 |
| 75° | 829 | 1667 | 1606 |
| 80° | 676 | 1288 | 1301 |
| 85° | 545 | 855 | 803 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 97.6 | 3.0 |
| 10°-20° | 281.6 | 8.7 |
| 20°-30° | 430.3 | 13.2 |
| 30°-40° | 526.3 | 16.2 |
| 40°-50° | 563.1 | 17.3 |
| 50°-60° | 539.2 | 16.6 |
| 60°-70° | 456.2 | 14.0 |
| 70°-80° | 289.2 | 8.9 |
| 80°-90° | 66.5 | 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° | 809.5 | 24.9 |
| 0°-40° | 1335.8 | 41.1 |
| 0°-60° | 2438.2 | 75.0 |
| 0°-90° | 3250.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3250.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1027 | 1027 | 1027 | 1027 | 1027 | |
| 5° | 1029 | 1024 | 1026 | 1024 | 1022 | 98 |
| 15° | 996 | 994 | 999 | 999 | 999 | 281 |
| 25° | 923 | 923 | 937 | 940 | 940 | 426 |
| 35° | 821 | 826 | 843 | 854 | 861 | 514 |
| 45° | 690 | 702 | 729 | 759 | 774 | 532 |
| 55° | 534 | 551 | 604 | 655 | 676 | 476 |
| 65° | 352 | 386 | 468 | 532 | 561 | 347 |
| 75° | 160 | 225 | 321 | 319 | 309 | 173 |
| 85° | 35 | 54 | 55 | 50 | 52 | 42 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1027.4 | 1027.4 | 1027.4 | 1027.4 | 1027.4 |
| 2.5° | 1032.4 | 1027.4 | 1029.1 | 1027.4 | 1024.0 |
| 5° | 1029.1 | 1024.0 | 1025.7 | 1024.0 | 1022.3 |
| 7.5° | 1025.7 | 1020.7 | 1022.3 | 1020.7 | 1020.7 |
| 10° | 1019.0 | 1014.0 | 1017.3 | 1015.6 | 1014.0 |
| 12.5° | 1008.9 | 1005.6 | 1008.9 | 1007.2 | 1007.2 |
| 15° | 995.5 | 993.8 | 998.8 | 998.8 | 998.8 |
| 17.5° | 982.1 | 980.4 | 987.1 | 987.1 | 987.1 |
| 20° | 965.3 | 963.6 | 973.7 | 973.7 | 973.7 |
| 22.5° | 945.1 | 943.4 | 956.9 | 956.9 | 956.9 |
| 25° | 923.3 | 923.3 | 936.7 | 940.1 | 940.1 |
| 27.5° | 901.5 | 901.5 | 916.6 | 921.6 | 921.6 |
| 30° | 878.0 | 878.0 | 893.1 | 899.8 | 903.2 |
| 32.5° | 849.4 | 852.8 | 869.6 | 878.0 | 881.3 |
| 35° | 820.9 | 825.9 | 842.7 | 854.5 | 861.2 |
| 37.5° | 790.7 | 795.7 | 815.9 | 829.3 | 837.7 |
| 40° | 758.8 | 765.5 | 787.3 | 804.1 | 814.2 |
| 42.5° | 723.5 | 733.6 | 758.8 | 780.6 | 794.0 |
| 45° | 690.0 | 701.7 | 728.6 | 758.8 | 773.9 |
| 47.5° | 653.0 | 666.5 | 696.7 | 735.3 | 750.4 |
| 50° | 614.4 | 627.8 | 664.8 | 708.4 | 725.2 |
| 52.5° | 575.8 | 590.9 | 634.6 | 681.6 | 701.7 |
| 55° | 533.8 | 550.6 | 604.3 | 654.7 | 676.5 |
| 57.5° | 490.2 | 510.3 | 570.8 | 624.5 | 648.0 |
| 60° | 444.9 | 470.0 | 537.2 | 594.3 | 619.5 |
| 62.5° | 397.9 | 428.1 | 503.6 | 564.1 | 590.9 |
| 65° | 352.5 | 386.1 | 468.4 | 532.2 | 560.7 |
| 67.5° | 303.9 | 345.8 | 433.1 | 501.9 | 528.8 |
| 70° | 255.2 | 303.9 | 396.2 | 466.7 | 493.5 |
| 72.5° | 206.5 | 265.2 | 359.2 | 423.0 | 423.0 |
| 75° | 159.5 | 225.0 | 320.6 | 319.0 | 308.9 |
| 77.5° | 120.9 | 188.0 | 263.6 | 225.0 | 226.6 |
| 80° | 87.3 | 151.1 | 166.2 | 166.2 | 167.9 |
| 82.5° | 58.8 | 115.8 | 107.4 | 105.8 | 109.1 |
| 85° | 35.3 | 53.7 | 55.4 | 50.4 | 52.0 |
| 87.5° | 16.8 | 18.5 | 15.1 | 10.1 | 10.1 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)