

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: P260486

Luminaire Tested: **22CZ-LD5-39-RDP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260486
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25714)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-39-RDP-UNV-L82765-W2A1-U-5500K
Description: CRUZE 2x2 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: 3018.0 lumens
Efficiency: N/A
Efficacy: 97.5 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.36
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

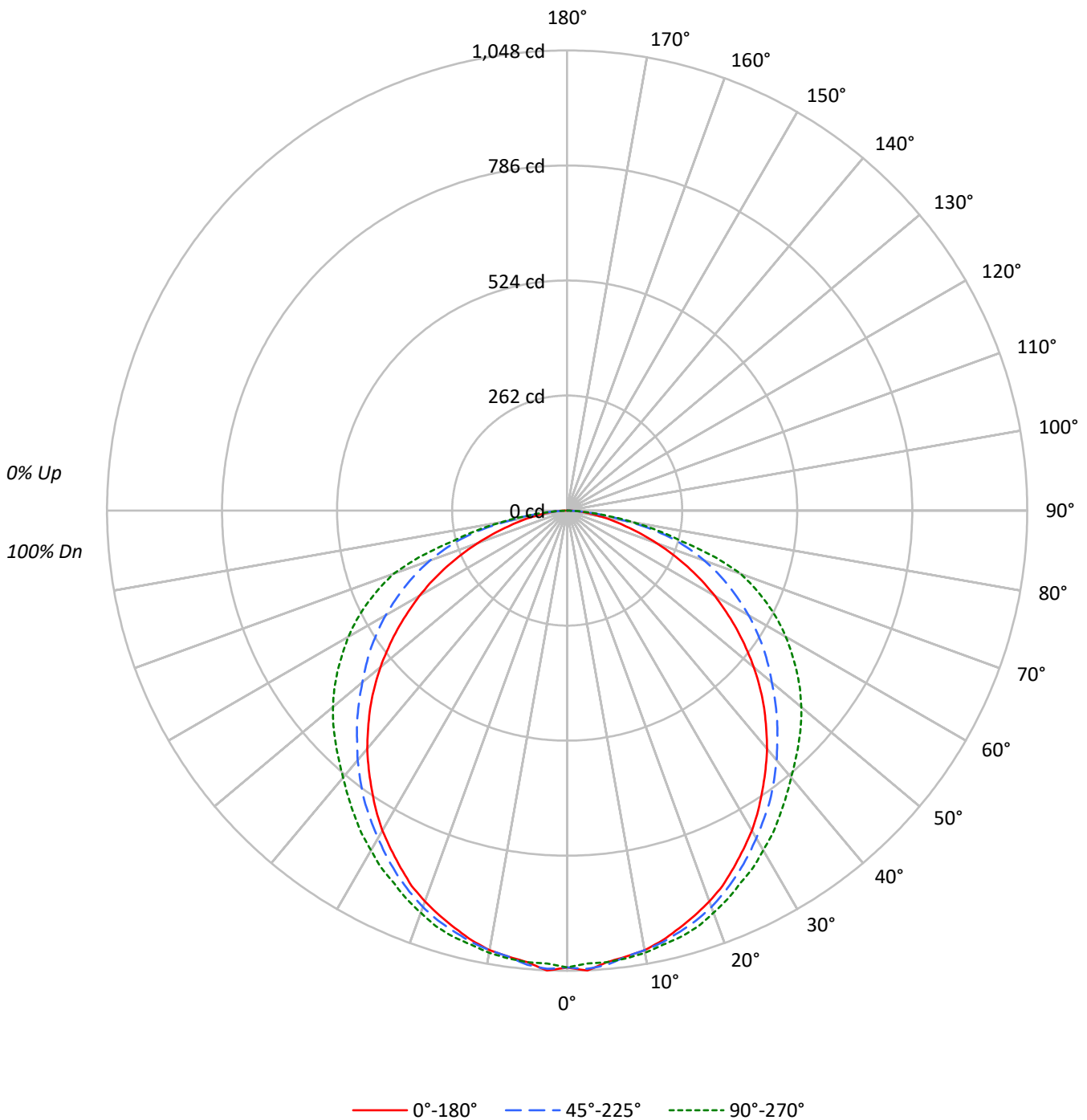
Input Watts (W): 30.969
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 104 | 99 | 95 | 106 | 101 | 97 | 94 | 97 | 94 | 91 | 93 | 90 | 88 | 89 | 87 | 85 | 83 |
| 2 | 98 | 90 | 83 | 77 | 96 | 88 | 81 | 76 | 84 | 79 | 74 | 81 | 77 | 73 | 78 | 74 | 71 | 69 |
| 3 | 89 | 79 | 70 | 64 | 87 | 77 | 69 | 63 | 74 | 67 | 62 | 71 | 66 | 61 | 69 | 64 | 60 | 57 |
| 4 | 82 | 69 | 60 | 54 | 79 | 68 | 60 | 53 | 66 | 58 | 52 | 63 | 57 | 52 | 61 | 56 | 51 | 49 |
| 5 | 75 | 62 | 53 | 46 | 73 | 61 | 52 | 46 | 59 | 51 | 45 | 57 | 50 | 45 | 55 | 49 | 44 | 42 |
| 6 | 69 | 56 | 47 | 40 | 67 | 55 | 46 | 40 | 53 | 45 | 40 | 51 | 44 | 39 | 50 | 44 | 39 | 37 |
| 7 | 64 | 50 | 42 | 35 | 62 | 50 | 41 | 35 | 48 | 40 | 35 | 47 | 40 | 35 | 45 | 39 | 34 | 32 |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 44 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 29 |
| 9 | 56 | 42 | 34 | 28 | 54 | 42 | 34 | 28 | 40 | 33 | 28 | 39 | 33 | 28 | 38 | 32 | 28 | 26 |
| 10 | 52 | 39 | 31 | 26 | 51 | 38 | 31 | 26 | 37 | 30 | 25 | 36 | 30 | 25 | 36 | 30 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2800 | 2800 | 2800 |
| 5° | 2789 | 2805 | 2789 |
| 10° | 2778 | 2778 | 2794 |
| 15° | 2744 | 2766 | 2799 |
| 20° | 2712 | 2752 | 2792 |
| 25° | 2664 | 2717 | 2776 |
| 30° | 2615 | 2677 | 2776 |
| 35° | 2549 | 2647 | 2778 |
| 40° | 2488 | 2607 | 2788 |
| 45° | 2415 | 2574 | 2839 |
| 50° | 2324 | 2549 | 2915 |
| 55° | 2212 | 2557 | 2996 |
| 60° | 2088 | 2570 | 3095 |
| 65° | 1926 | 2585 | 3205 |
| 70° | 1707 | 2614 | 3303 |
| 75° | 1448 | 2607 | 2813 |
| 80° | 1203 | 2097 | 2343 |
| 85° | 1044 | 1414 | 1352 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 98.3 | 3.3 |
| 10°-20° | 280.4 | 9.3 |
| 20°-30° | 421.9 | 14.0 |
| 30°-40° | 505.5 | 16.8 |
| 40°-50° | 527.2 | 17.5 |
| 50°-60° | 490.8 | 16.3 |
| 60°-70° | 398.5 | 13.2 |
| 70°-80° | 240.2 | 8.0 |
| 80°-90° | 55.1 | 1.8 |
| 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° | 800.6 | 26.5 |
| 0°-40° | 1306.1 | 43.3 |
| 0°-60° | 2324.2 | 77.0 |
| 0°-90° | 3018.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3018.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1040 | 1040 | 1040 | 1040 | 1040 | |
| 5° | 1032 | 1032 | 1038 | 1040 | 1032 | 98 |
| 15° | 985 | 989 | 993 | 999 | 1005 | 278 |
| 25° | 897 | 903 | 915 | 927 | 935 | 414 |
| 35° | 776 | 786 | 806 | 830 | 846 | 486 |
| 45° | 635 | 647 | 676 | 720 | 746 | 489 |
| 55° | 472 | 491 | 545 | 605 | 639 | 422 |
| 65° | 302 | 334 | 406 | 470 | 503 | 299 |
| 75° | 139 | 185 | 251 | 267 | 271 | 150 |
| 85° | 34 | 42 | 46 | 44 | 44 | 39 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1040.5 | 1040.5 | 1040.5 | 1040.5 | 1040.5 |
| 2.5° | 1048.5 | 1046.5 | 1044.5 | 1038.5 | 1032.5 |
| 5° | 1032.5 | 1032.5 | 1038.5 | 1040.5 | 1032.5 |
| 7.5° | 1024.6 | 1024.6 | 1024.6 | 1032.5 | 1028.6 |
| 10° | 1016.6 | 1016.6 | 1016.6 | 1022.6 | 1022.6 |
| 12.5° | 1002.7 | 1004.7 | 1006.7 | 1008.7 | 1012.6 |
| 15° | 984.8 | 988.8 | 992.7 | 998.7 | 1004.7 |
| 17.5° | 966.9 | 970.9 | 978.8 | 984.8 | 992.7 |
| 20° | 947.0 | 951.0 | 960.9 | 966.9 | 974.8 |
| 22.5° | 925.1 | 927.1 | 939.0 | 947.0 | 956.9 |
| 25° | 897.3 | 903.2 | 915.2 | 927.1 | 935.1 |
| 27.5° | 869.4 | 875.4 | 889.3 | 905.2 | 917.1 |
| 30° | 841.5 | 847.5 | 861.4 | 881.3 | 893.3 |
| 32.5° | 809.7 | 817.7 | 833.6 | 857.5 | 871.4 |
| 35° | 775.9 | 785.8 | 805.7 | 829.6 | 845.5 |
| 37.5° | 742.1 | 752.0 | 773.9 | 803.7 | 819.7 |
| 40° | 708.3 | 718.2 | 742.1 | 773.9 | 793.8 |
| 42.5° | 670.5 | 682.4 | 708.3 | 746.1 | 769.9 |
| 45° | 634.6 | 646.6 | 676.4 | 720.2 | 746.1 |
| 47.5° | 594.9 | 608.8 | 642.6 | 692.3 | 722.2 |
| 50° | 555.1 | 571.0 | 608.8 | 664.5 | 696.3 |
| 52.5° | 513.3 | 531.2 | 576.9 | 634.6 | 668.5 |
| 55° | 471.5 | 491.4 | 545.1 | 604.8 | 638.6 |
| 57.5° | 429.7 | 451.6 | 511.3 | 573.0 | 606.8 |
| 60° | 387.9 | 411.8 | 477.5 | 541.1 | 575.0 |
| 62.5° | 346.2 | 372.0 | 441.7 | 505.3 | 541.1 |
| 65° | 302.4 | 334.2 | 405.9 | 469.5 | 503.3 |
| 67.5° | 258.6 | 296.4 | 370.0 | 431.7 | 463.5 |
| 70° | 216.9 | 258.6 | 332.2 | 389.9 | 419.8 |
| 72.5° | 177.1 | 220.8 | 292.5 | 342.2 | 354.1 |
| 75° | 139.3 | 185.0 | 250.7 | 266.6 | 270.6 |
| 77.5° | 107.4 | 149.2 | 198.9 | 202.9 | 212.9 |
| 80° | 77.6 | 113.4 | 135.3 | 147.2 | 151.2 |
| 82.5° | 53.7 | 77.6 | 89.5 | 91.5 | 93.5 |
| 85° | 33.8 | 41.8 | 45.8 | 43.8 | 43.8 |
| 87.5° | 17.9 | 15.9 | 13.9 | 9.9 | 8.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)