

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: P260327

Luminaire Tested: **22CZ-LD5-44-SQP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P260327
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 22CZ-LD5-44-SQP-UNV-L82765-W2A1-U-5500K
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER
WITH SQP LENS
Light Source: (168) 80 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2876.0 lumens
Efficiency: N/A
Efficacy: 81.0 lumens/watt
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')
CIE Type: Direct

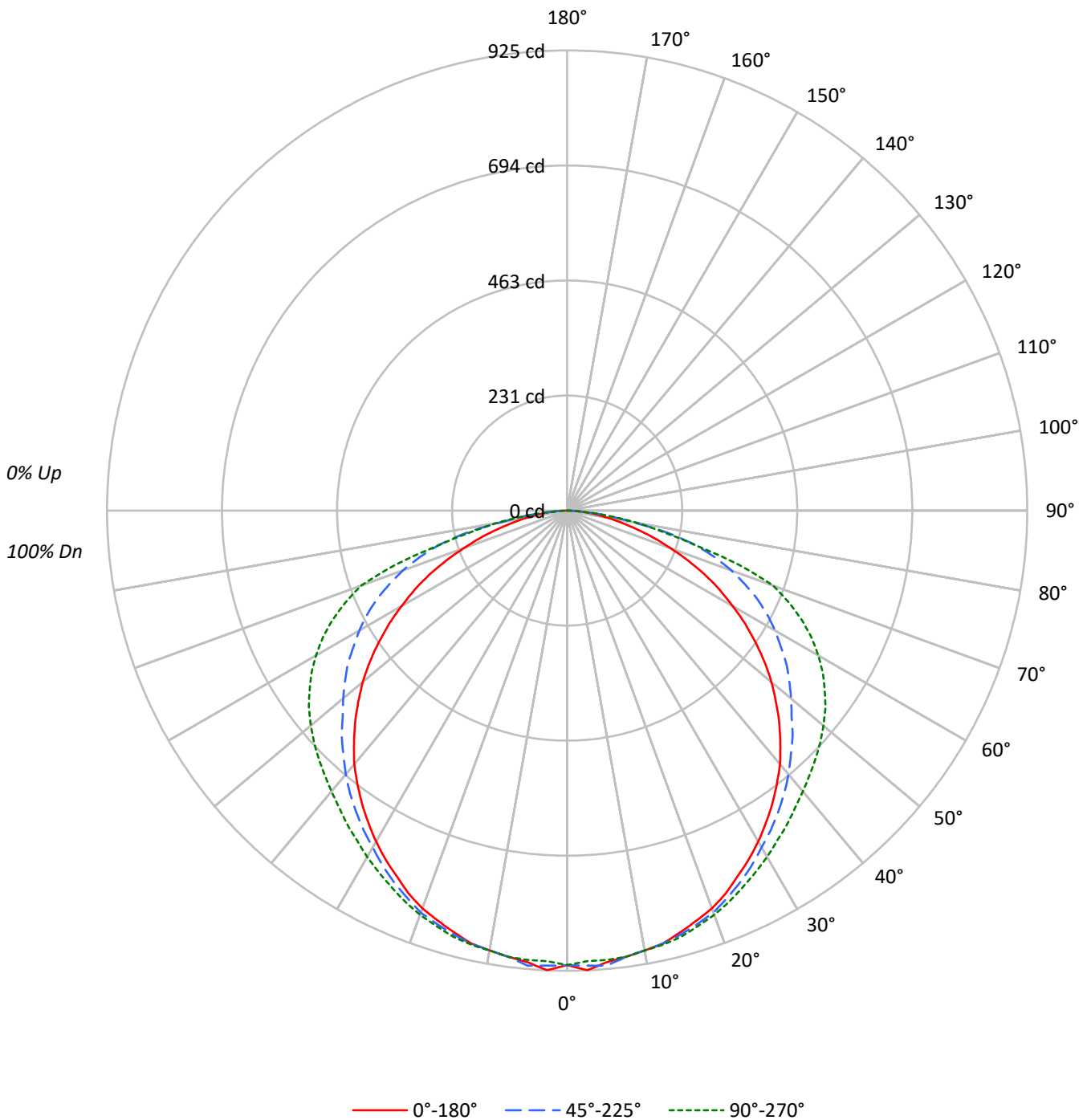
Input Watts (W): 35.526
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 99 | 95 | 105 | 101 | 97 | 93 | 97 | 93 | 90 | 93 | 90 | 87 | 89 | 87 | 85 | 83 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 81 | 75 | 84 | 78 | 73 | 80 | 76 | 71 | 77 | 73 | 70 | 68 |
| 3 | 89 | 78 | 69 | 62 | 86 | 76 | 68 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 68 | 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 | 52 | 45 | 72 | 60 | 51 | 44 | 58 | 50 | 44 | 56 | 49 | 43 | 54 | 48 | 43 | 41 |
| 6 | 68 | 55 | 45 | 39 | 66 | 54 | 45 | 39 | 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° | 2458 | 2458 | 2458 |
| 5° | 2462 | 2480 | 2450 |
| 10° | 2454 | 2454 | 2454 |
| 15° | 2445 | 2458 | 2470 |
| 20° | 2437 | 2462 | 2475 |
| 25° | 2407 | 2447 | 2480 |
| 30° | 2387 | 2429 | 2499 |
| 35° | 2363 | 2429 | 2531 |
| 40° | 2338 | 2432 | 2589 |
| 45° | 2295 | 2439 | 2686 |
| 50° | 2244 | 2459 | 2815 |
| 55° | 2169 | 2525 | 2966 |
| 60° | 2068 | 2596 | 3137 |
| 65° | 1948 | 2688 | 3314 |
| 70° | 1740 | 2759 | 3462 |
| 75° | 1510 | 2764 | 2741 |
| 80° | 1280 | 2042 | 2214 |
| 85° | 1102 | 1380 | 1241 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 86.7 | 3.0 |
| 10°-20° | 249.1 | 8.7 |
| 20°-30° | 379.6 | 13.2 |
| 30°-40° | 464.4 | 16.1 |
| 40°-50° | 499.7 | 17.4 |
| 50°-60° | 484.1 | 16.8 |
| 60°-70° | 410.1 | 14.3 |
| 70°-80° | 247.9 | 8.6 |
| 80°-90° | 54.4 | 1.9 |
| 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° | 715.4 | 24.9 |
| 0°-40° | 1179.8 | 41.0 |
| 0°-60° | 2163.6 | 75.2 |
| 0°-90° | 2876.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2876.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 914 | 914 | 914 | 914 | 914 | |
| 5° | 911 | 911 | 918 | 914 | 907 | 87 |
| 15° | 878 | 880 | 882 | 884 | 887 | 248 |
| 25° | 811 | 815 | 824 | 831 | 835 | 374 |
| 35° | 719 | 724 | 739 | 759 | 771 | 450 |
| 45° | 603 | 614 | 641 | 681 | 706 | 465 |
| 55° | 462 | 482 | 538 | 601 | 632 | 413 |
| 65° | 306 | 340 | 422 | 489 | 520 | 301 |
| 75° | 145 | 196 | 266 | 270 | 264 | 156 |
| 85° | 36 | 42 | 45 | 42 | 40 | 40 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 913.5 | 913.5 | 913.5 | 913.5 | 913.5 |
| 2.5° | 924.7 | 922.4 | 915.7 | 911.3 | 906.8 |
| 5° | 911.3 | 911.3 | 918.0 | 913.5 | 906.8 |
| 7.5° | 904.6 | 904.6 | 904.6 | 915.7 | 904.6 |
| 10° | 897.9 | 900.1 | 897.9 | 906.8 | 897.9 |
| 12.5° | 891.2 | 891.2 | 891.2 | 893.4 | 893.4 |
| 15° | 877.8 | 880.0 | 882.2 | 884.5 | 886.7 |
| 17.5° | 864.4 | 866.6 | 871.1 | 873.3 | 875.5 |
| 20° | 851.0 | 853.2 | 859.9 | 859.9 | 864.4 |
| 22.5° | 833.1 | 833.1 | 842.0 | 844.3 | 851.0 |
| 25° | 810.8 | 815.2 | 824.2 | 830.9 | 835.3 |
| 27.5° | 790.7 | 795.1 | 804.1 | 813.0 | 819.7 |
| 30° | 768.3 | 772.8 | 781.7 | 795.1 | 804.1 |
| 32.5° | 743.8 | 748.2 | 761.6 | 777.3 | 786.2 |
| 35° | 719.2 | 723.6 | 739.3 | 759.4 | 770.6 |
| 37.5° | 692.4 | 699.1 | 716.9 | 739.3 | 752.7 |
| 40° | 665.6 | 672.3 | 692.4 | 716.9 | 737.0 |
| 42.5° | 634.3 | 643.2 | 665.6 | 699.1 | 721.4 |
| 45° | 603.0 | 614.2 | 641.0 | 681.2 | 705.8 |
| 47.5° | 569.5 | 580.7 | 612.0 | 663.3 | 690.1 |
| 50° | 536.0 | 549.4 | 587.4 | 643.2 | 672.3 |
| 52.5° | 500.3 | 513.7 | 562.8 | 623.1 | 654.4 |
| 55° | 462.3 | 482.4 | 538.3 | 600.8 | 632.1 |
| 57.5° | 424.4 | 446.7 | 509.2 | 576.2 | 609.7 |
| 60° | 384.2 | 411.0 | 482.4 | 549.4 | 582.9 |
| 62.5° | 346.2 | 375.2 | 453.4 | 520.4 | 553.9 |
| 65° | 306.0 | 339.5 | 422.1 | 489.1 | 520.4 |
| 67.5° | 263.6 | 306.0 | 386.4 | 451.2 | 482.4 |
| 70° | 221.1 | 270.3 | 350.7 | 411.0 | 440.0 |
| 72.5° | 183.1 | 234.5 | 310.5 | 361.8 | 361.8 |
| 75° | 145.2 | 196.5 | 265.8 | 270.3 | 263.6 |
| 77.5° | 111.7 | 160.8 | 207.7 | 189.8 | 194.3 |
| 80° | 82.6 | 122.8 | 131.8 | 138.5 | 142.9 |
| 82.5° | 55.8 | 82.6 | 84.9 | 89.3 | 89.3 |
| 85° | 35.7 | 42.4 | 44.7 | 42.4 | 40.2 |
| 87.5° | 15.6 | 17.9 | 13.4 | 8.9 | 6.7 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)