

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: P258833

Luminaire Tested: **14CZ-LD5-25-S-UNV-L92765-W2A1-U-5500K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P258833
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35112)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 14CZ-LD5-25-S-UNV-L92765-W2A1-U-5500K
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 90 CRI LEDS TUNED AT 5500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2355.0 lumens
Efficiency: N/A
Efficacy: 125.4 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')
CIE Type: Direct

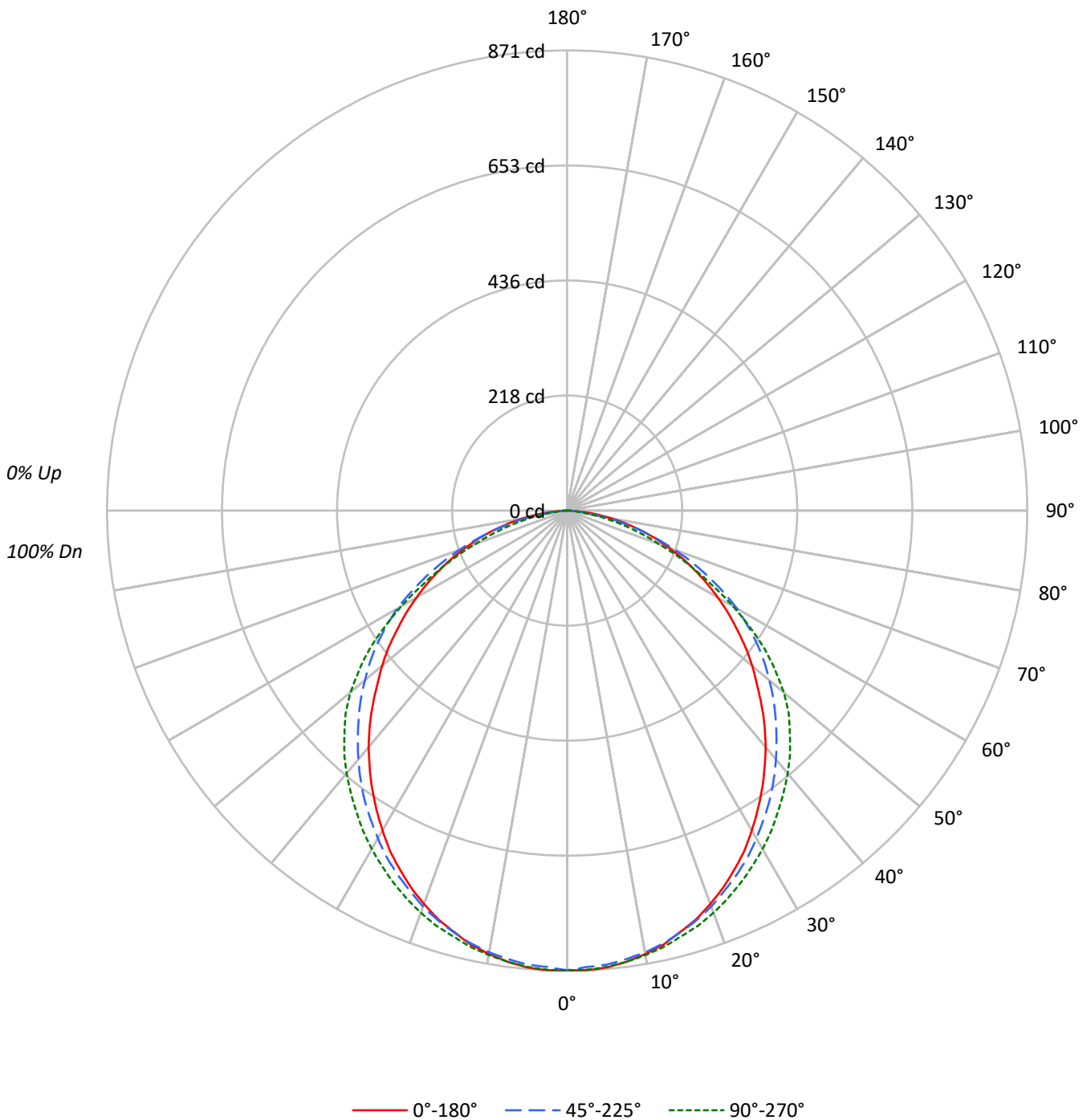
Input Watts (W): 18.786
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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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 | 109 | 105 | 100 | 97 | 106 | 102 | 98 | 95 | 98 | 95 | 92 | 94 | 92 | 89 | 91 | 89 | 87 | 85 |
| 2 | 99 | 91 | 85 | 79 | 97 | 89 | 83 | 78 | 86 | 81 | 76 | 83 | 78 | 75 | 80 | 76 | 73 | 71 |
| 3 | 91 | 80 | 72 | 66 | 88 | 79 | 71 | 65 | 76 | 69 | 64 | 73 | 68 | 63 | 70 | 66 | 62 | 60 |
| 4 | 83 | 71 | 63 | 56 | 81 | 70 | 62 | 56 | 67 | 60 | 55 | 65 | 59 | 54 | 63 | 58 | 53 | 51 |
| 5 | 76 | 64 | 55 | 48 | 74 | 63 | 54 | 48 | 60 | 53 | 47 | 58 | 52 | 47 | 57 | 51 | 46 | 44 |
| 6 | 71 | 57 | 48 | 42 | 69 | 56 | 48 | 42 | 55 | 47 | 42 | 53 | 46 | 41 | 51 | 45 | 41 | 39 |
| 7 | 65 | 52 | 43 | 37 | 64 | 51 | 43 | 37 | 50 | 42 | 37 | 48 | 42 | 37 | 47 | 41 | 36 | 34 |
| 8 | 61 | 47 | 39 | 33 | 59 | 47 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 32 | 31 |
| 9 | 57 | 44 | 35 | 30 | 56 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 29 | 28 |
| 10 | 53 | 40 | 32 | 27 | 52 | 40 | 32 | 27 | 39 | 32 | 27 | 38 | 31 | 27 | 37 | 31 | 27 | 25 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 2341 | 2341 | 2341 |
| 5° | 2344 | 2330 | 2341 |
| 10° | 2328 | 2320 | 2334 |
| 15° | 2301 | 2304 | 2324 |
| 20° | 2269 | 2284 | 2320 |
| 25° | 2225 | 2256 | 2309 |
| 30° | 2172 | 2227 | 2299 |
| 35° | 2113 | 2196 | 2285 |
| 40° | 2053 | 2160 | 2282 |
| 45° | 1981 | 2125 | 2268 |
| 50° | 1915 | 2091 | 2241 |
| 55° | 1841 | 2058 | 2142 |
| 60° | 1773 | 1999 | 1954 |
| 65° | 1697 | 1871 | 1717 |
| 70° | 1602 | 1701 | 1453 |
| 75° | 1495 | 1473 | 1200 |
| 80° | 1317 | 1139 | 879 |
| 85° | 1037 | 550 | 485 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 82.2 | 3.5 |
| 10°-20° | 234.2 | 9.9 |
| 20°-30° | 351.4 | 14.9 |
| 30°-40° | 419.0 | 17.8 |
| 40°-50° | 431.6 | 18.3 |
| 50°-60° | 384.6 | 16.3 |
| 60°-70° | 277.1 | 11.8 |
| 70°-80° | 144.9 | 6.2 |
| 80°-90° | 30.0 | 1.3 |
| 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° | 667.8 | 28.4 |
| 0°-40° | 1086.8 | 46.1 |
| 0°-60° | 1903.0 | 80.8 |
| 0°-90° | 2355.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2355.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 870 | 870 | 870 | 870 | 870 | |
| 5° | 868 | 866 | 863 | 868 | 867 | 82 |
| 15° | 826 | 827 | 827 | 835 | 834 | 233 |
| 25° | 749 | 754 | 760 | 774 | 778 | 345 |
| 35° | 643 | 652 | 668 | 690 | 696 | 402 |
| 45° | 520 | 532 | 558 | 590 | 596 | 402 |
| 55° | 392 | 405 | 439 | 459 | 456 | 352 |
| 65° | 266 | 276 | 294 | 280 | 270 | 264 |
| 75° | 144 | 151 | 142 | 123 | 115 | 152 |
| 85° | 34 | 29 | 18 | 16 | 16 | 40 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 869.9 | 869.9 | 869.9 | 869.9 | 869.9 |
| 2.5° | 871.0 | 868.9 | 864.7 | 869.9 | 869.9 |
| 5° | 867.8 | 865.7 | 862.6 | 867.8 | 866.8 |
| 7.5° | 861.5 | 859.4 | 856.3 | 862.6 | 861.5 |
| 10° | 852.1 | 851.0 | 849.0 | 855.2 | 854.2 |
| 12.5° | 841.6 | 840.6 | 839.5 | 845.8 | 845.8 |
| 15° | 825.9 | 826.9 | 826.9 | 835.3 | 834.3 |
| 17.5° | 811.2 | 812.2 | 813.3 | 823.8 | 823.8 |
| 20° | 792.3 | 793.3 | 797.5 | 809.1 | 810.1 |
| 22.5° | 772.3 | 773.4 | 778.6 | 792.3 | 794.4 |
| 25° | 749.3 | 753.5 | 759.8 | 774.4 | 777.6 |
| 27.5° | 726.2 | 729.3 | 739.8 | 756.6 | 758.7 |
| 30° | 698.9 | 705.2 | 716.7 | 735.6 | 739.8 |
| 32.5° | 671.6 | 679.0 | 692.6 | 713.6 | 718.8 |
| 35° | 643.3 | 651.7 | 668.5 | 690.5 | 695.7 |
| 37.5° | 613.9 | 621.2 | 642.2 | 665.3 | 672.7 |
| 40° | 584.5 | 591.9 | 614.9 | 641.2 | 649.6 |
| 42.5° | 553.0 | 563.5 | 586.6 | 616.0 | 624.4 |
| 45° | 520.5 | 532.0 | 558.3 | 589.8 | 596.0 |
| 47.5° | 486.9 | 499.5 | 529.9 | 561.4 | 568.8 |
| 50° | 457.5 | 469.1 | 499.5 | 529.9 | 535.2 |
| 52.5° | 426.0 | 436.5 | 470.1 | 495.3 | 496.4 |
| 55° | 392.5 | 405.1 | 438.6 | 458.6 | 456.5 |
| 57.5° | 362.0 | 372.5 | 405.1 | 415.6 | 409.3 |
| 60° | 329.5 | 339.0 | 371.5 | 372.5 | 363.1 |
| 62.5° | 298.0 | 307.5 | 332.7 | 325.3 | 313.8 |
| 65° | 266.5 | 276.0 | 293.8 | 280.2 | 269.7 |
| 67.5° | 236.1 | 244.5 | 255.0 | 237.2 | 226.7 |
| 70° | 203.6 | 215.1 | 216.2 | 195.2 | 184.7 |
| 72.5° | 175.2 | 181.5 | 179.4 | 159.5 | 150.1 |
| 75° | 143.8 | 151.1 | 141.7 | 122.8 | 115.4 |
| 77.5° | 114.4 | 119.6 | 107.0 | 89.2 | 84.0 |
| 80° | 85.0 | 88.1 | 73.5 | 59.8 | 56.7 |
| 82.5° | 57.7 | 57.7 | 42.0 | 32.5 | 29.4 |
| 85° | 33.6 | 29.4 | 17.8 | 15.7 | 15.7 |
| 87.5° | 11.5 | 7.3 | 7.3 | 7.3 | 7.3 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)