

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: P259036

Luminaire Tested: **14CZ-LD5-44-RDP-UNV-L92765-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259036  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35909)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ-LD5-44-RDP-UNV-L92765-W2A1-U-5000K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2703.0 lumens  
Efficiency: N/A  
Efficacy: 74.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.28 / 1.4  
Luminous Opening: Rectangular (W 1' x L: 4' x H: 0')  
CIE Type: Direct

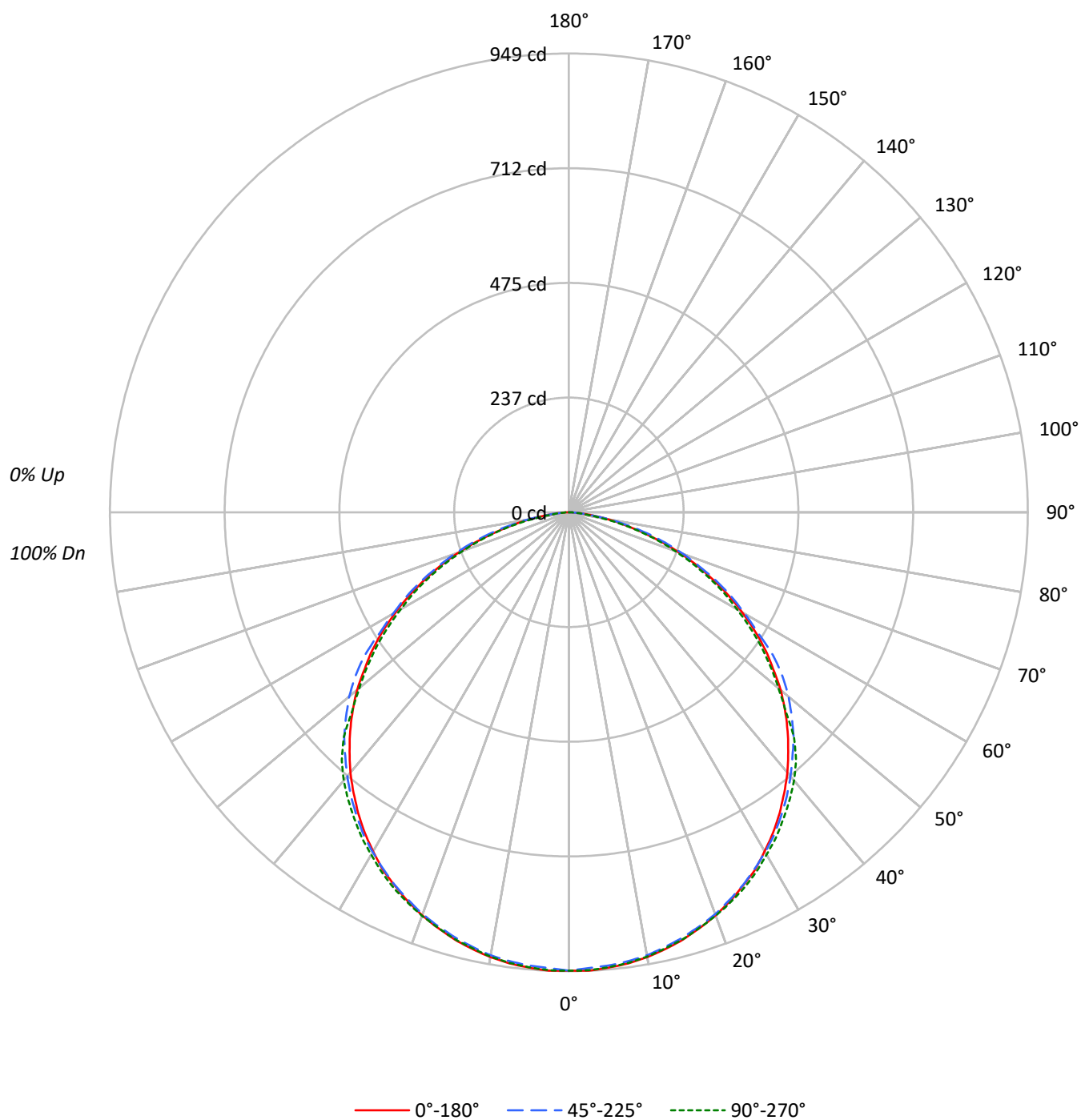
Input Watts (W): 36.456  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  |  | 94  | 91  | 89  |  | 90  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  |  | 82  | 78  | 74  |  | 79  |
| 3   | 90  | 80  | 72  | 65  | 88  | 78  | 71  | 65  | 75  | 69  | 64  |  | 73  | 67  | 63  |  | 70  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  |  | 65  | 58  | 53  |  | 62  |
| 5   | 76  | 63  | 54  | 48  | 74  | 62  | 54  | 47  | 60  | 53  | 47  |  | 58  | 51  | 46  |  | 56  |
| 6   | 70  | 57  | 48  | 42  | 68  | 56  | 47  | 41  | 54  | 47  | 41  |  | 52  | 46  | 41  |  | 51  |
| 7   | 65  | 52  | 43  | 37  | 63  | 51  | 42  | 36  | 49  | 42  | 36  |  | 48  | 41  | 36  |  | 46  |
| 8   | 61  | 47  | 38  | 33  | 59  | 46  | 38  | 33  | 45  | 38  | 32  |  | 44  | 37  | 32  |  | 43  |
| 9   | 57  | 43  | 35  | 29  | 55  | 43  | 35  | 29  | 41  | 34  | 29  |  | 40  | 34  | 29  |  | 39  |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 26  | 38  | 31  | 26  |  | 37  | 31  | 26  |  | 36  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2551 | 2551 | 2551 |
| 5°  | 2553 | 2542 | 2551 |
| 10° | 2552 | 2542 | 2549 |
| 15° | 2548 | 2535 | 2545 |
| 20° | 2541 | 2533 | 2543 |
| 25° | 2529 | 2527 | 2545 |
| 30° | 2516 | 2521 | 2541 |
| 35° | 2495 | 2515 | 2541 |
| 40° | 2470 | 2504 | 2544 |
| 45° | 2434 | 2501 | 2504 |
| 50° | 2394 | 2482 | 2368 |
| 55° | 2327 | 2418 | 2282 |
| 60° | 2229 | 2261 | 2162 |
| 65° | 2087 | 2143 | 2031 |
| 70° | 1899 | 1976 | 1837 |
| 75° | 1585 | 1731 | 1557 |
| 80° | 1257 | 1325 | 1079 |
| 85° | 815  | 707  | 627  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 89.7   | 3.3       |
| 10°-20°   | 257.8  | 9.5       |
| 20°-30°   | 393.5  | 14.6      |
| 30°-40°   | 479.7  | 17.7      |
| 40°-50°   | 502.3  | 18.6      |
| 50°-60°   | 446.9  | 16.5      |
| 60°-70°   | 329.7  | 12.2      |
| 70°-80°   | 170.3  | 6.3       |
| 80°-90°   | 33.1   | 1.2       |
| 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°    | 741.0  | 27.4      |
| 0°-40°    | 1220.7 | 45.2      |
| 0°-60°    | 2169.8 | 80.3      |
| 0°-90°    | 2703.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2703.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 948 | 948   | 948 | 948   | 948 |      |
| 5°  | 945 | 944   | 941 | 944   | 944 | 90   |
| 15° | 914 | 914   | 910 | 914   | 914 | 258  |
| 25° | 852 | 852   | 851 | 857   | 857 | 393  |
| 35° | 759 | 760   | 766 | 774   | 774 | 475  |
| 45° | 640 | 644   | 657 | 663   | 658 | 493  |
| 55° | 496 | 507   | 515 | 493   | 486 | 442  |
| 65° | 328 | 351   | 336 | 325   | 319 | 325  |
| 75° | 152 | 168   | 166 | 153   | 150 | 165  |
| 85° | 26  | 29    | 23  | 21    | 20  | 34   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 948.0 | 948.0 | 948.0 | 948.0 | 948.0 |
| 2.5°  | 948.8 | 948.0 | 943.5 | 948.0 | 948.0 |
| 5°    | 945.3 | 944.4 | 940.9 | 944.4 | 944.4 |
| 7.5°  | 940.9 | 940.0 | 936.5 | 940.0 | 940.0 |
| 10°   | 933.9 | 933.0 | 930.3 | 933.9 | 933.0 |
| 12.5° | 925.0 | 925.0 | 920.6 | 925.0 | 923.3 |
| 15°   | 914.5 | 913.6 | 910.1 | 913.6 | 913.6 |
| 17.5° | 901.3 | 900.4 | 897.7 | 902.1 | 900.4 |
| 20°   | 887.2 | 886.3 | 884.5 | 888.9 | 888.0 |
| 22.5° | 870.4 | 870.4 | 867.8 | 873.1 | 873.1 |
| 25°   | 851.9 | 851.9 | 851.0 | 857.2 | 857.2 |
| 27.5° | 833.4 | 831.7 | 831.7 | 837.8 | 838.7 |
| 30°   | 809.6 | 809.6 | 811.4 | 818.4 | 817.6 |
| 32.5° | 785.8 | 786.7 | 790.3 | 796.4 | 797.3 |
| 35°   | 759.4 | 760.3 | 765.6 | 774.4 | 773.5 |
| 37.5° | 731.2 | 733.9 | 740.0 | 749.7 | 749.7 |
| 40°   | 703.0 | 704.8 | 712.7 | 723.3 | 724.2 |
| 42.5° | 671.3 | 675.7 | 684.5 | 696.9 | 695.1 |
| 45°   | 639.6 | 644.0 | 657.2 | 663.4 | 658.1 |
| 47.5° | 606.1 | 611.4 | 624.6 | 625.5 | 607.9 |
| 50°   | 571.8 | 577.9 | 592.9 | 575.3 | 565.6 |
| 52.5° | 532.1 | 543.6 | 556.8 | 532.1 | 526.0 |
| 55°   | 496.0 | 506.6 | 515.4 | 493.4 | 486.3 |
| 57.5° | 455.5 | 469.6 | 463.4 | 452.8 | 444.0 |
| 60°   | 414.1 | 429.0 | 420.2 | 409.7 | 401.7 |
| 62.5° | 371.8 | 388.5 | 379.7 | 369.1 | 362.1 |
| 65°   | 327.7 | 350.6 | 336.5 | 325.1 | 318.9 |
| 67.5° | 286.3 | 308.3 | 291.6 | 282.8 | 276.6 |
| 70°   | 241.4 | 259.9 | 251.1 | 239.6 | 233.5 |
| 72.5° | 197.3 | 211.4 | 208.8 | 196.5 | 192.1 |
| 75°   | 152.4 | 168.3 | 166.5 | 153.3 | 149.8 |
| 77.5° | 114.5 | 129.5 | 124.2 | 113.6 | 109.2 |
| 80°   | 81.1  | 90.7  | 85.5  | 73.1  | 69.6  |
| 82.5° | 49.3  | 57.3  | 48.5  | 41.4  | 37.9  |
| 85°   | 26.4  | 29.1  | 22.9  | 21.1  | 20.3  |
| 87.5° | 9.7   | 9.7   | 9.7   | 8.8   | 8.8   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)