

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: P259035

Luminaire Tested: **14CZ-LD5-44-RDP-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P259035  
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-4500K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2649.0 lumens  
Efficiency: N/A  
Efficacy: 73.0 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

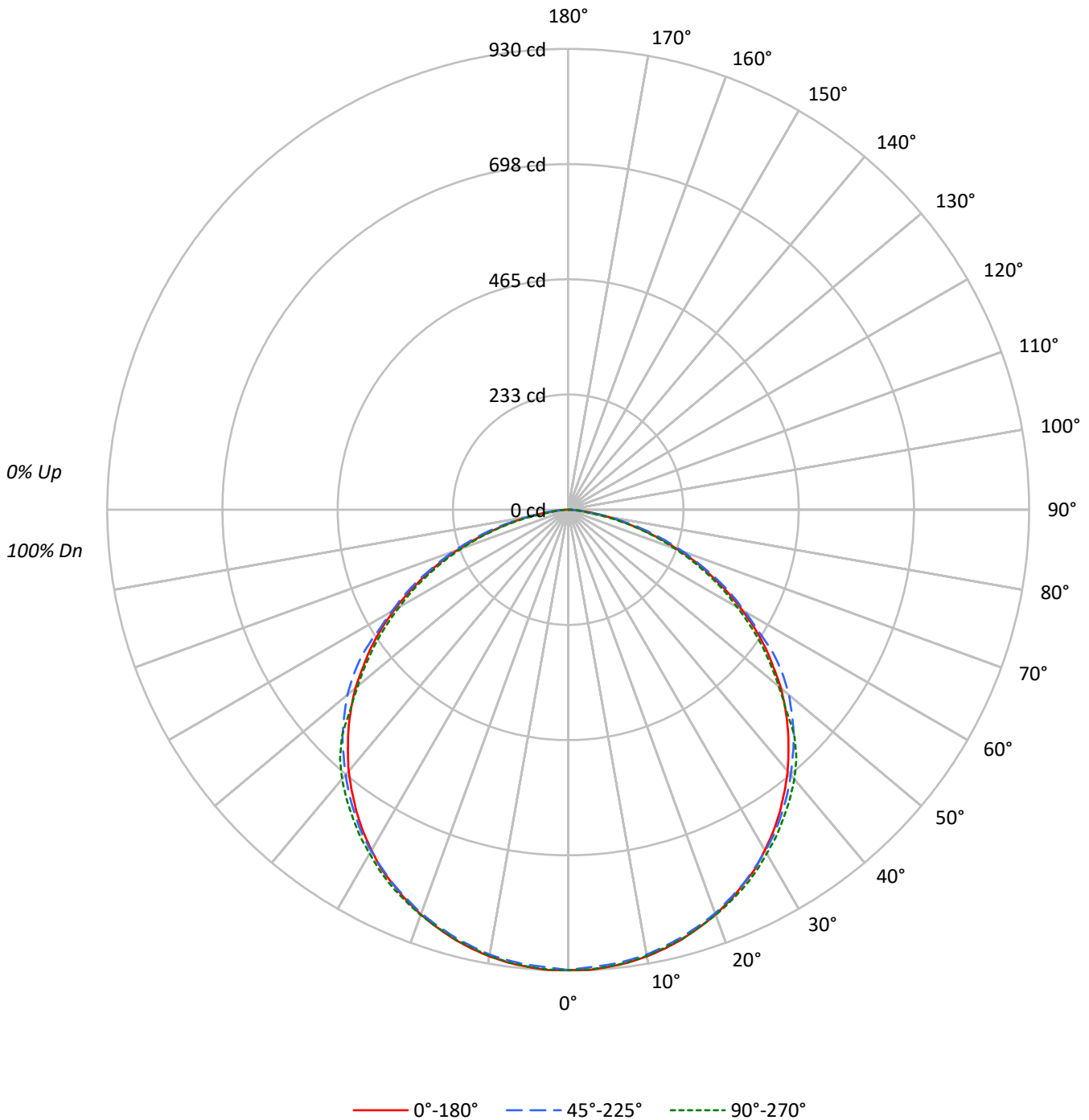
Input Watts (W): 36.27  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 73  | 70  |
| 3   | 90  | 80  | 72  | 65  | 88  | 78  | 71  | 65  | 75  | 69  | 64  | 73  | 67  | 63  | 70  | 65  | 61  | 59  |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 65  | 58  | 53  | 62  | 57  | 53  | 51  |
| 5   | 76  | 63  | 54  | 48  | 74  | 62  | 54  | 47  | 60  | 53  | 47  | 58  | 51  | 46  | 56  | 50  | 46  | 44  |
| 6   | 70  | 57  | 48  | 42  | 68  | 56  | 47  | 41  | 54  | 47  | 41  | 52  | 46  | 41  | 51  | 45  | 40  | 38  |
| 7   | 65  | 52  | 43  | 37  | 63  | 51  | 42  | 36  | 49  | 42  | 36  | 48  | 41  | 36  | 46  | 40  | 36  | 34  |
| 8   | 61  | 47  | 38  | 33  | 59  | 46  | 38  | 33  | 45  | 38  | 32  | 44  | 37  | 32  | 43  | 36  | 32  | 30  |
| 9   | 57  | 43  | 35  | 29  | 55  | 43  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 27  |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 26  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2500 | 2500 | 2500 |
| 5°  | 2502 | 2491 | 2500 |
| 10° | 2501 | 2491 | 2498 |
| 15° | 2497 | 2485 | 2494 |
| 20° | 2490 | 2483 | 2492 |
| 25° | 2479 | 2476 | 2494 |
| 30° | 2466 | 2471 | 2490 |
| 35° | 2445 | 2465 | 2490 |
| 40° | 2420 | 2454 | 2493 |
| 45° | 2385 | 2451 | 2455 |
| 50° | 2346 | 2433 | 2321 |
| 55° | 2281 | 2370 | 2236 |
| 60° | 2184 | 2216 | 2119 |
| 65° | 2045 | 2100 | 1990 |
| 70° | 1862 | 1936 | 1800 |
| 75° | 1553 | 1697 | 1526 |
| 80° | 1230 | 1297 | 1057 |
| 85° | 800  | 692  | 614  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 87.9   | 3.3       |
| 10°-20°   | 252.6  | 9.5       |
| 20°-30°   | 385.6  | 14.6      |
| 30°-40°   | 470.1  | 17.7      |
| 40°-50°   | 492.3  | 18.6      |
| 50°-60°   | 438.0  | 16.5      |
| 60°-70°   | 323.1  | 12.2      |
| 70°-80°   | 166.9  | 6.3       |
| 80°-90°   | 32.4   | 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°    | 726.1  | 27.4      |
| 0°-40°    | 1196.3 | 45.2      |
| 0°-60°    | 2126.5 | 80.3      |
| 0°-90°    | 2649.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2649.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 929 | 929   | 929 | 929   | 929 |      |
| 5°  | 926 | 926   | 922 | 926   | 926 | 88   |
| 15° | 896 | 895   | 892 | 895   | 895 | 253  |
| 25° | 835 | 835   | 834 | 840   | 840 | 385  |
| 35° | 744 | 745   | 750 | 759   | 758 | 465  |
| 45° | 627 | 631   | 644 | 650   | 645 | 483  |
| 55° | 486 | 496   | 505 | 484   | 477 | 433  |
| 65° | 321 | 344   | 330 | 319   | 312 | 318  |
| 75° | 149 | 165   | 163 | 150   | 147 | 162  |
| 85° | 26  | 28    | 22  | 21    | 20  | 34   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 929.0 | 929.0 | 929.0 | 929.0 | 929.0 |
| 2.5°  | 929.9 | 929.0 | 924.7 | 929.0 | 929.0 |
| 5°    | 926.4 | 925.6 | 922.1 | 925.6 | 925.6 |
| 7.5°  | 922.1 | 921.2 | 917.8 | 921.2 | 921.2 |
| 10°   | 915.2 | 914.3 | 911.7 | 915.2 | 914.3 |
| 12.5° | 906.6 | 906.6 | 902.2 | 906.6 | 904.8 |
| 15°   | 896.2 | 895.3 | 891.9 | 895.3 | 895.3 |
| 17.5° | 883.3 | 882.4 | 879.8 | 884.1 | 882.4 |
| 20°   | 869.4 | 868.6 | 866.9 | 871.2 | 870.3 |
| 22.5° | 853.0 | 853.0 | 850.4 | 855.6 | 855.6 |
| 25°   | 834.9 | 834.9 | 834.0 | 840.1 | 840.1 |
| 27.5° | 816.8 | 815.0 | 815.0 | 821.1 | 822.0 |
| 30°   | 793.5 | 793.5 | 795.2 | 802.1 | 801.2 |
| 32.5° | 770.1 | 771.0 | 774.5 | 780.5 | 781.4 |
| 35°   | 744.2 | 745.1 | 750.3 | 758.9 | 758.1 |
| 37.5° | 716.6 | 719.2 | 725.3 | 734.8 | 734.8 |
| 40°   | 689.0 | 690.7 | 698.5 | 708.8 | 709.7 |
| 42.5° | 657.9 | 662.2 | 670.9 | 682.9 | 681.2 |
| 45°   | 626.8 | 631.1 | 644.1 | 650.1 | 645.0 |
| 47.5° | 594.0 | 599.2 | 612.1 | 613.0 | 595.7 |
| 50°   | 560.3 | 566.4 | 581.1 | 563.8 | 554.3 |
| 52.5° | 521.5 | 532.7 | 545.7 | 521.5 | 515.4 |
| 55°   | 486.1 | 496.5 | 505.1 | 483.5 | 476.6 |
| 57.5° | 446.4 | 460.2 | 454.1 | 443.8 | 435.2 |
| 60°   | 405.8 | 420.5 | 411.8 | 401.5 | 393.7 |
| 62.5° | 364.4 | 380.8 | 372.1 | 361.8 | 354.9 |
| 65°   | 321.2 | 343.6 | 329.8 | 318.6 | 312.5 |
| 67.5° | 280.6 | 302.2 | 285.8 | 277.2 | 271.1 |
| 70°   | 236.6 | 254.7 | 246.1 | 234.8 | 228.8 |
| 72.5° | 193.4 | 207.2 | 204.6 | 192.5 | 188.2 |
| 75°   | 149.4 | 164.9 | 163.2 | 150.2 | 146.8 |
| 77.5° | 112.2 | 126.9 | 121.7 | 111.4 | 107.1 |
| 80°   | 79.4  | 88.9  | 83.7  | 71.7  | 68.2  |
| 82.5° | 48.4  | 56.1  | 47.5  | 40.6  | 37.1  |
| 85°   | 25.9  | 28.5  | 22.4  | 20.7  | 19.9  |
| 87.5° | 9.5   | 9.5   | 9.5   | 8.6   | 8.6   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)