

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: P258943

Luminaire Tested: **14CZ-LD5-25-RDP-UNV-L82765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P258943  
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-LD5-25-RDP-UNV-L82765-W2A1-U-3500K  
Description: CRUZE 1x4 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1611.0 lumens  
Efficiency: N/A  
Efficacy: 87.9 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

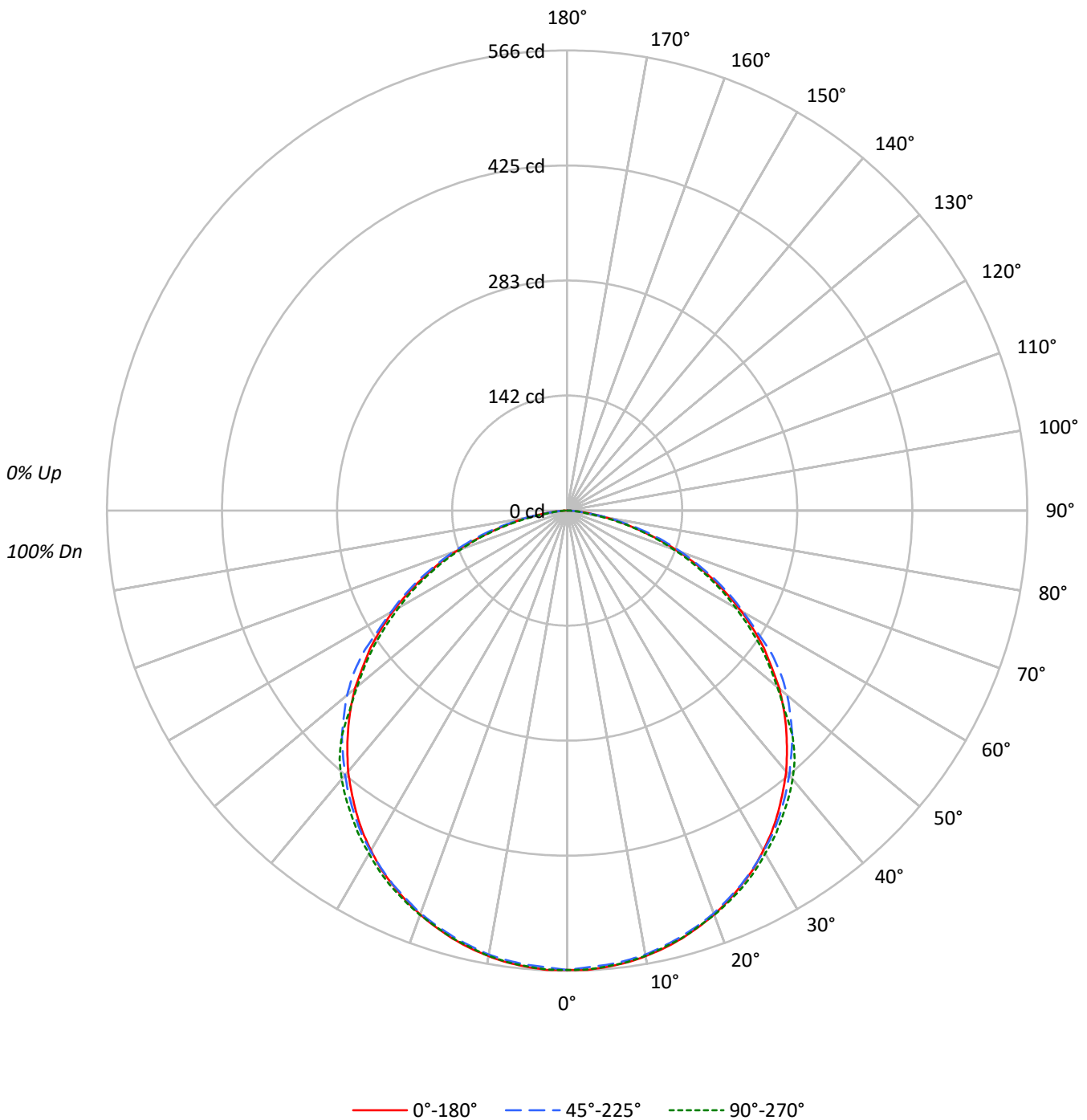
Input Watts (W): 18.321  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 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 |    |    |    |    | 100 |   |  |   |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |    |    |    |    | 84  |   |  |   |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 73  | 70  |    |    |    |    | 70  |   |  |   |
| 3   | 90  | 80  | 72  | 65  | 88  | 78  | 71  | 65  | 75  | 69  | 64  | 73  | 67  | 63  | 70  | 65  | 61  | 59  |    |    |    |    | 59  |   |  |   |
| 4   | 83  | 71  | 62  | 55  | 80  | 69  | 61  | 55  | 67  | 60  | 54  | 65  | 58  | 53  | 62  | 57  | 53  | 51  |    |    |    |    | 51  |   |  |   |
| 5   | 76  | 63  | 54  | 48  | 74  | 62  | 54  | 47  | 60  | 53  | 47  | 58  | 51  | 46  | 56  | 50  | 46  | 44  |    |    |    |    | 44  |   |  |   |
| 6   | 70  | 57  | 48  | 42  | 68  | 56  | 47  | 41  | 54  | 47  | 41  | 52  | 46  | 41  | 51  | 45  | 40  | 38  |    |    |    |    | 38  |   |  |   |
| 7   | 65  | 52  | 43  | 37  | 63  | 51  | 42  | 36  | 49  | 42  | 36  | 48  | 41  | 36  | 46  | 40  | 36  | 34  |    |    |    |    | 34  |   |  |   |
| 8   | 61  | 47  | 38  | 33  | 59  | 46  | 38  | 33  | 45  | 38  | 32  | 44  | 37  | 32  | 43  | 36  | 32  | 30  |    |    |    |    | 30  |   |  |   |
| 9   | 57  | 43  | 35  | 29  | 55  | 43  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 27  |    |    |    |    | 27  |   |  |   |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 26  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24  |    |    |    |    | 24  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1520 | 1520 | 1520 |
| 5°  | 1522 | 1515 | 1521 |
| 10° | 1521 | 1515 | 1520 |
| 15° | 1518 | 1511 | 1517 |
| 20° | 1514 | 1510 | 1516 |
| 25° | 1508 | 1506 | 1517 |
| 30° | 1499 | 1503 | 1514 |
| 35° | 1487 | 1499 | 1514 |
| 40° | 1472 | 1492 | 1516 |
| 45° | 1451 | 1491 | 1493 |
| 50° | 1427 | 1479 | 1411 |
| 55° | 1387 | 1441 | 1360 |
| 60° | 1328 | 1348 | 1288 |
| 65° | 1244 | 1277 | 1210 |
| 70° | 1132 | 1177 | 1094 |
| 75° | 944  | 1031 | 928  |
| 80° | 748  | 789  | 643  |
| 85° | 488  | 423  | 374  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.5   | 3.3       |
| 10°-20°   | 153.6  | 9.5       |
| 20°-30°   | 234.5  | 14.6      |
| 30°-40°   | 285.9  | 17.7      |
| 40°-50°   | 299.4  | 18.6      |
| 50°-60°   | 266.3  | 16.5      |
| 60°-70°   | 196.5  | 12.2      |
| 70°-80°   | 101.5  | 6.3       |
| 80°-90°   | 19.7   | 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°    | 441.6  | 27.4      |
| 0°-40°    | 727.5  | 45.2      |
| 0°-60°    | 1293.2 | 80.3      |
| 0°-90°    | 1611.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1611.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 565 | 565   | 565 | 565   | 565 |      |
| 5°  | 563 | 563   | 561 | 563   | 563 | 54   |
| 15° | 545 | 544   | 542 | 544   | 544 | 154  |
| 25° | 508 | 508   | 507 | 511   | 511 | 234  |
| 35° | 453 | 453   | 456 | 462   | 461 | 283  |
| 45° | 381 | 384   | 392 | 395   | 392 | 294  |
| 55° | 296 | 302   | 307 | 294   | 290 | 263  |
| 65° | 195 | 209   | 201 | 194   | 190 | 194  |
| 75° | 91  | 100   | 99  | 91    | 89  | 98   |
| 85° | 16  | 17    | 14  | 13    | 12  | 20   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 565.0 | 565.0 | 565.0 | 565.0 | 565.0 |
| 2.5°  | 565.5 | 565.0 | 562.4 | 565.0 | 565.0 |
| 5°    | 563.4 | 562.9 | 560.8 | 562.9 | 562.9 |
| 7.5°  | 560.8 | 560.3 | 558.2 | 560.3 | 560.3 |
| 10°   | 556.6 | 556.1 | 554.5 | 556.6 | 556.1 |
| 12.5° | 551.3 | 551.3 | 548.7 | 551.3 | 550.3 |
| 15°   | 545.0 | 544.5 | 542.4 | 544.5 | 544.5 |
| 17.5° | 537.2 | 536.6 | 535.1 | 537.7 | 536.6 |
| 20°   | 528.8 | 528.2 | 527.2 | 529.8 | 529.3 |
| 22.5° | 518.8 | 518.8 | 517.2 | 520.4 | 520.4 |
| 25°   | 507.8 | 507.8 | 507.2 | 510.9 | 510.9 |
| 27.5° | 496.7 | 495.7 | 495.7 | 499.3 | 499.9 |
| 30°   | 482.5 | 482.5 | 483.6 | 487.8 | 487.3 |
| 32.5° | 468.4 | 468.9 | 471.0 | 474.7 | 475.2 |
| 35°   | 452.6 | 453.1 | 456.3 | 461.5 | 461.0 |
| 37.5° | 435.8 | 437.4 | 441.1 | 446.8 | 446.8 |
| 40°   | 419.0 | 420.1 | 424.8 | 431.1 | 431.6 |
| 42.5° | 400.1 | 402.7 | 408.0 | 415.3 | 414.3 |
| 45°   | 381.2 | 383.8 | 391.7 | 395.4 | 392.2 |
| 47.5° | 361.3 | 364.4 | 372.3 | 372.8 | 362.3 |
| 50°   | 340.8 | 344.5 | 353.4 | 342.9 | 337.1 |
| 52.5° | 317.1 | 324.0 | 331.8 | 317.1 | 313.5 |
| 55°   | 295.6 | 301.9 | 307.2 | 294.0 | 289.8 |
| 57.5° | 271.5 | 279.9 | 276.2 | 269.9 | 264.6 |
| 60°   | 246.8 | 255.7 | 250.5 | 244.2 | 239.4 |
| 62.5° | 221.6 | 231.6 | 226.3 | 220.0 | 215.8 |
| 65°   | 195.3 | 209.0 | 200.6 | 193.8 | 190.1 |
| 67.5° | 170.7 | 183.8 | 173.8 | 168.6 | 164.9 |
| 70°   | 143.9 | 154.9 | 149.6 | 142.8 | 139.1 |
| 72.5° | 117.6 | 126.0 | 124.4 | 117.1 | 114.5 |
| 75°   | 90.8  | 100.3 | 99.2  | 91.4  | 89.3  |
| 77.5° | 68.3  | 77.2  | 74.0  | 67.7  | 65.1  |
| 80°   | 48.3  | 54.1  | 50.9  | 43.6  | 41.5  |
| 82.5° | 29.4  | 34.1  | 28.9  | 24.7  | 22.6  |
| 85°   | 15.8  | 17.3  | 13.7  | 12.6  | 12.1  |
| 87.5° | 5.8   | 5.8   | 5.8   | 5.3   | 5.3   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)