

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: P260388

Luminaire Tested: **22CZ-LD5-20-RDP-UNV-L83050-W2A1-U-5000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260388  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25714)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-20-RDP-UNV-L83050-W2A1-U-5000K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (168) 80 CRI LEDS TUNED AT 5000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1687.0 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.28 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

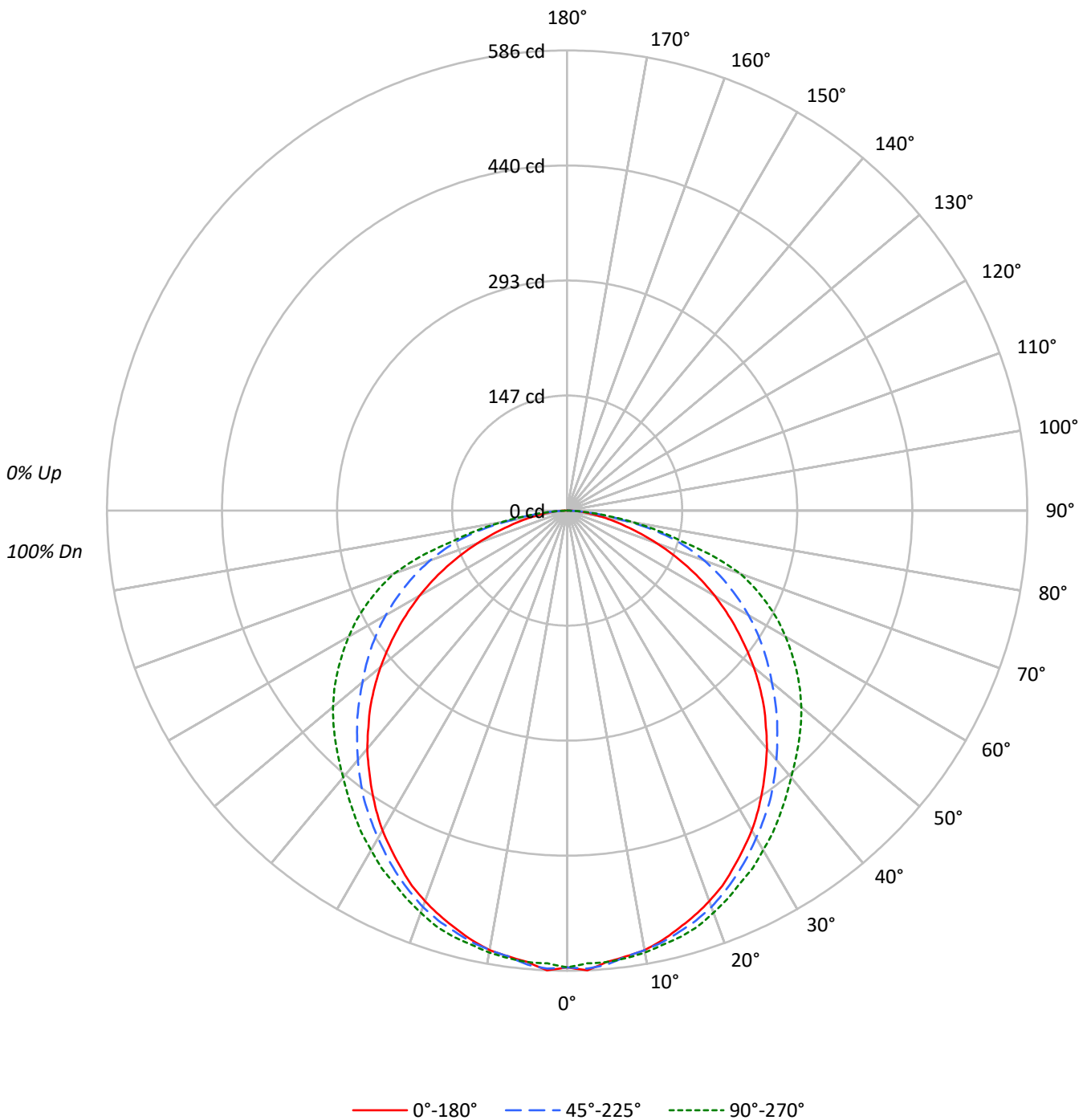
Input Watts (W): 16.275  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 81  | 76  | 84  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69  |
| 3   | 89  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 57  |
| 4   | 82  | 69  | 60  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 52  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  | 57  | 50  | 45  | 55  | 49  | 44  | 42  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  | 51  | 44  | 39  | 50  | 44  | 39  | 37  |
| 7   | 64  | 50  | 42  | 35  | 62  | 50  | 41  | 35  | 48  | 40  | 35  | 47  | 40  | 35  | 45  | 39  | 34  | 32  |
| 8   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 35  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 36  | 30  | 25  | 23  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1565 | 1565 | 1565 |
| 5°  | 1559 | 1568 | 1559 |
| 10° | 1553 | 1553 | 1562 |
| 15° | 1534 | 1546 | 1565 |
| 20° | 1516 | 1538 | 1560 |
| 25° | 1489 | 1519 | 1552 |
| 30° | 1462 | 1496 | 1551 |
| 35° | 1425 | 1480 | 1553 |
| 40° | 1391 | 1457 | 1559 |
| 45° | 1350 | 1439 | 1587 |
| 50° | 1299 | 1425 | 1629 |
| 55° | 1237 | 1430 | 1675 |
| 60° | 1167 | 1436 | 1730 |
| 65° | 1076 | 1445 | 1792 |
| 70° | 954  | 1461 | 1846 |
| 75° | 809  | 1457 | 1572 |
| 80° | 673  | 1172 | 1309 |
| 85° | 584  | 790  | 756  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 55.0   | 3.3       |
| 10°-20°   | 156.7  | 9.3       |
| 20°-30°   | 235.8  | 14.0      |
| 30°-40°   | 282.6  | 16.8      |
| 40°-50°   | 294.7  | 17.5      |
| 50°-60°   | 274.4  | 16.3      |
| 60°-70°   | 222.8  | 13.2      |
| 70°-80°   | 134.2  | 8.0       |
| 80°-90°   | 30.8   | 1.8       |
| 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°    | 447.5  | 26.5      |
| 0°-40°    | 730.1  | 43.3      |
| 0°-60°    | 1299.2 | 77.0      |
| 0°-90°    | 1687.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1687.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 582 | 582   | 582 | 582   | 582 |      |
| 5°  | 577 | 577   | 580 | 582   | 577 | 55   |
| 15° | 550 | 553   | 555 | 558   | 562 | 155  |
| 25° | 502 | 505   | 512 | 518   | 523 | 231  |
| 35° | 434 | 439   | 450 | 464   | 473 | 271  |
| 45° | 355 | 361   | 378 | 403   | 417 | 273  |
| 55° | 264 | 275   | 305 | 338   | 357 | 236  |
| 65° | 169 | 187   | 227 | 262   | 281 | 167  |
| 75° | 78  | 103   | 140 | 149   | 151 | 84   |
| 85° | 19  | 23    | 26  | 24    | 24  | 22   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 581.6 | 581.6 | 581.6 | 581.6 | 581.6 |
| 2.5°  | 586.1 | 585.0 | 583.8 | 580.5 | 577.2 |
| 5°    | 577.2 | 577.2 | 580.5 | 581.6 | 577.2 |
| 7.5°  | 572.7 | 572.7 | 572.7 | 577.2 | 574.9 |
| 10°   | 568.3 | 568.3 | 568.3 | 571.6 | 571.6 |
| 12.5° | 560.5 | 561.6 | 562.7 | 563.8 | 566.0 |
| 15°   | 550.5 | 552.7 | 554.9 | 558.3 | 561.6 |
| 17.5° | 540.5 | 542.7 | 547.1 | 550.5 | 554.9 |
| 20°   | 529.3 | 531.6 | 537.1 | 540.5 | 544.9 |
| 22.5° | 517.1 | 518.2 | 524.9 | 529.3 | 534.9 |
| 25°   | 501.5 | 504.9 | 511.6 | 518.2 | 522.7 |
| 27.5° | 486.0 | 489.3 | 497.1 | 506.0 | 512.7 |
| 30°   | 470.4 | 473.7 | 481.5 | 492.6 | 499.3 |
| 32.5° | 452.6 | 457.1 | 466.0 | 479.3 | 487.1 |
| 35°   | 433.7 | 439.3 | 450.4 | 463.7 | 472.6 |
| 37.5° | 414.8 | 420.4 | 432.6 | 449.3 | 458.2 |
| 40°   | 395.9 | 401.5 | 414.8 | 432.6 | 443.7 |
| 42.5° | 374.8 | 381.4 | 395.9 | 417.0 | 430.4 |
| 45°   | 354.8 | 361.4 | 378.1 | 402.6 | 417.0 |
| 47.5° | 332.5 | 340.3 | 359.2 | 387.0 | 403.7 |
| 50°   | 310.3 | 319.2 | 340.3 | 371.4 | 389.2 |
| 52.5° | 286.9 | 296.9 | 322.5 | 354.8 | 373.7 |
| 55°   | 263.6 | 274.7 | 304.7 | 338.1 | 357.0 |
| 57.5° | 240.2 | 252.4 | 285.8 | 320.3 | 339.2 |
| 60°   | 216.9 | 230.2 | 266.9 | 302.5 | 321.4 |
| 62.5° | 193.5 | 208.0 | 246.9 | 282.5 | 302.5 |
| 65°   | 169.0 | 186.8 | 226.9 | 262.4 | 281.4 |
| 67.5° | 144.6 | 165.7 | 206.8 | 241.3 | 259.1 |
| 70°   | 121.2 | 144.6 | 185.7 | 218.0 | 234.6 |
| 72.5° | 99.0  | 123.4 | 163.5 | 191.3 | 197.9 |
| 75°   | 77.8  | 103.4 | 140.1 | 149.0 | 151.2 |
| 77.5° | 60.1  | 83.4  | 111.2 | 113.4 | 119.0 |
| 80°   | 43.4  | 63.4  | 75.6  | 82.3  | 84.5  |
| 82.5° | 30.0  | 43.4  | 50.0  | 51.2  | 52.3  |
| 85°   | 18.9  | 23.4  | 25.6  | 24.5  | 24.5  |
| 87.5° | 10.0  | 8.9   | 7.8   | 5.6   | 4.4   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)