

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: P260511

Luminaire Tested: **22CZ-LD5-24-RDP-UNV-L92765-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260511  
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-LD5-24-RDP-UNV-L92765-W2A1-U-4500K  
Description: CRUZE 2x2 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: 1627.0 lumens  
Efficiency: N/A  
Efficacy: 90.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.28 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

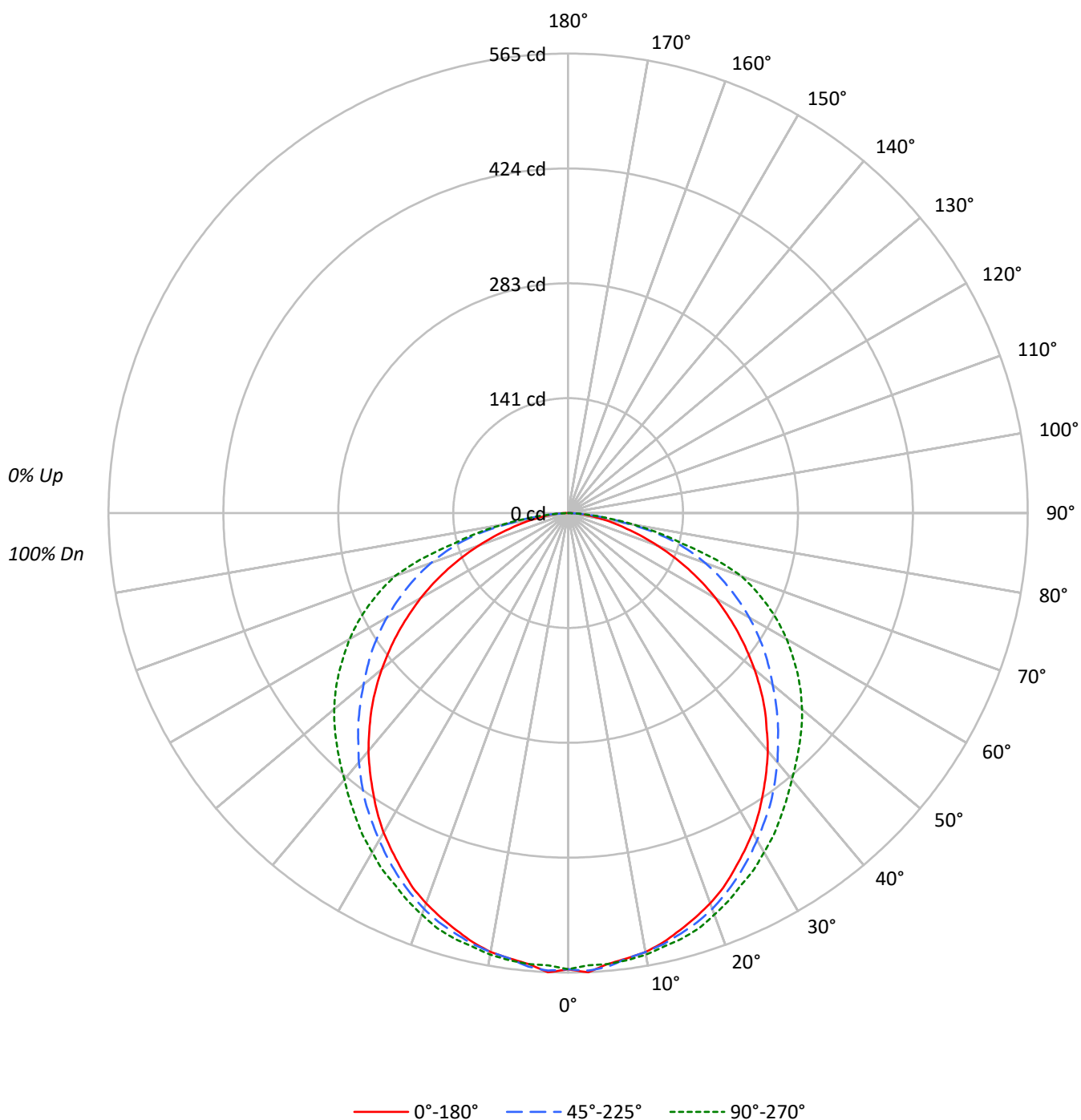
Input Watts (W): 17.949  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 108 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  |  | 93  | 90  | 88  |  | 89  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 81  | 76  | 84  | 79  | 74  |  | 81  | 77  | 73  |  | 78  |
| 3   | 89  | 79  | 70  | 64  | 87  | 77  | 69  | 63  | 74  | 67  | 62  |  | 71  | 66  | 61  |  | 69  |
| 4   | 82  | 69  | 60  | 54  | 79  | 68  | 60  | 53  | 66  | 58  | 52  |  | 63  | 57  | 52  |  | 61  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 52  | 46  | 59  | 51  | 45  |  | 57  | 50  | 45  |  | 55  |
| 6   | 69  | 56  | 47  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 40  |  | 51  | 44  | 39  |  | 50  |
| 7   | 64  | 50  | 42  | 35  | 62  | 50  | 41  | 35  | 48  | 40  | 35  |  | 47  | 40  | 35  |  | 45  |
| 8   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 37  | 31  |  | 43  | 36  | 31  |  | 42  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 40  | 33  | 28  |  | 39  | 33  | 28  |  | 38  |
| 10  | 52  | 39  | 31  | 26  | 51  | 38  | 31  | 26  | 37  | 30  | 25  |  | 36  | 30  | 25  |  | 36  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1509 | 1509 | 1509 |
| 5°  | 1504 | 1512 | 1504 |
| 10° | 1498 | 1498 | 1506 |
| 15° | 1479 | 1491 | 1509 |
| 20° | 1462 | 1483 | 1505 |
| 25° | 1436 | 1465 | 1497 |
| 30° | 1410 | 1443 | 1496 |
| 35° | 1374 | 1427 | 1497 |
| 40° | 1341 | 1405 | 1503 |
| 45° | 1302 | 1388 | 1531 |
| 50° | 1253 | 1374 | 1572 |
| 55° | 1193 | 1379 | 1615 |
| 60° | 1125 | 1385 | 1668 |
| 65° | 1038 | 1393 | 1727 |
| 70° | 920  | 1409 | 1781 |
| 75° | 781  | 1405 | 1517 |
| 80° | 648  | 1130 | 1263 |
| 85° | 562  | 763  | 729  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.0   | 3.3       |
| 10°-20°   | 151.2  | 9.3       |
| 20°-30°   | 227.4  | 14.0      |
| 30°-40°   | 272.5  | 16.8      |
| 40°-50°   | 284.2  | 17.5      |
| 50°-60°   | 264.6  | 16.3      |
| 60°-70°   | 214.9  | 13.2      |
| 70°-80°   | 129.5  | 8.0       |
| 80°-90°   | 29.7   | 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°    | 431.6  | 26.5      |
| 0°-40°    | 704.1  | 43.3      |
| 0°-60°    | 1253.0 | 77.0      |
| 0°-90°    | 1627.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1627.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 561 | 561   | 561 | 561   | 561 |      |
| 5°  | 557 | 557   | 560 | 561   | 557 | 53   |
| 15° | 531 | 533   | 535 | 538   | 542 | 150  |
| 25° | 484 | 487   | 493 | 500   | 504 | 223  |
| 35° | 418 | 424   | 434 | 447   | 456 | 262  |
| 45° | 342 | 349   | 365 | 388   | 402 | 263  |
| 55° | 254 | 265   | 294 | 326   | 344 | 227  |
| 65° | 163 | 180   | 219 | 253   | 271 | 161  |
| 75° | 75  | 100   | 135 | 144   | 146 | 81   |
| 85° | 18  | 22    | 25  | 24    | 24  | 21   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 560.9 | 560.9 | 560.9 | 560.9 | 560.9 |
| 2.5°  | 565.2 | 564.1 | 563.1 | 559.9 | 556.6 |
| 5°    | 556.6 | 556.6 | 559.9 | 560.9 | 556.6 |
| 7.5°  | 552.3 | 552.3 | 552.3 | 556.6 | 554.5 |
| 10°   | 548.1 | 548.1 | 548.1 | 551.3 | 551.3 |
| 12.5° | 540.6 | 541.6 | 542.7 | 543.8 | 545.9 |
| 15°   | 530.9 | 533.0 | 535.2 | 538.4 | 541.6 |
| 17.5° | 521.2 | 523.4 | 527.7 | 530.9 | 535.2 |
| 20°   | 510.5 | 512.7 | 518.0 | 521.2 | 525.5 |
| 22.5° | 498.7 | 499.8 | 506.2 | 510.5 | 515.9 |
| 25°   | 483.7 | 486.9 | 493.4 | 499.8 | 504.1 |
| 27.5° | 468.7 | 471.9 | 479.4 | 488.0 | 494.4 |
| 30°   | 453.7 | 456.9 | 464.4 | 475.1 | 481.6 |
| 32.5° | 436.5 | 440.8 | 449.4 | 462.3 | 469.8 |
| 35°   | 418.3 | 423.6 | 434.4 | 447.2 | 455.8 |
| 37.5° | 400.1 | 405.4 | 417.2 | 433.3 | 441.9 |
| 40°   | 381.8 | 387.2 | 400.1 | 417.2 | 427.9 |
| 42.5° | 361.4 | 367.9 | 381.8 | 402.2 | 415.1 |
| 45°   | 342.1 | 348.6 | 364.7 | 388.3 | 402.2 |
| 47.5° | 320.7 | 328.2 | 346.4 | 373.2 | 389.3 |
| 50°   | 299.2 | 307.8 | 328.2 | 358.2 | 375.4 |
| 52.5° | 276.7 | 286.4 | 311.0 | 342.1 | 360.4 |
| 55°   | 254.2 | 264.9 | 293.9 | 326.0 | 344.3 |
| 57.5° | 231.7 | 243.5 | 275.6 | 308.9 | 327.1 |
| 60°   | 209.1 | 222.0 | 257.4 | 291.7 | 310.0 |
| 62.5° | 186.6 | 200.6 | 238.1 | 272.4 | 291.7 |
| 65°   | 163.0 | 180.2 | 218.8 | 253.1 | 271.3 |
| 67.5° | 139.4 | 159.8 | 199.5 | 232.7 | 249.9 |
| 70°   | 116.9 | 139.4 | 179.1 | 210.2 | 226.3 |
| 72.5° | 95.5  | 119.0 | 157.7 | 184.5 | 190.9 |
| 75°   | 75.1  | 99.7  | 135.1 | 143.7 | 145.9 |
| 77.5° | 57.9  | 80.4  | 107.3 | 109.4 | 114.8 |
| 80°   | 41.8  | 61.1  | 72.9  | 79.4  | 81.5  |
| 82.5° | 29.0  | 41.8  | 48.3  | 49.3  | 50.4  |
| 85°   | 18.2  | 22.5  | 24.7  | 23.6  | 23.6  |
| 87.5° | 9.7   | 8.6   | 7.5   | 5.4   | 4.3   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)