

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: P260516

Luminaire Tested: **22CZ-LD5-29-RDP-UNV-L92765-W2A1-U-2700K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260516  
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-LD5-29-RDP-UNV-L92765-W2A1-U-2700K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 2700K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1646.0 lumens  
Efficiency: N/A  
Efficacy: 79.4 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

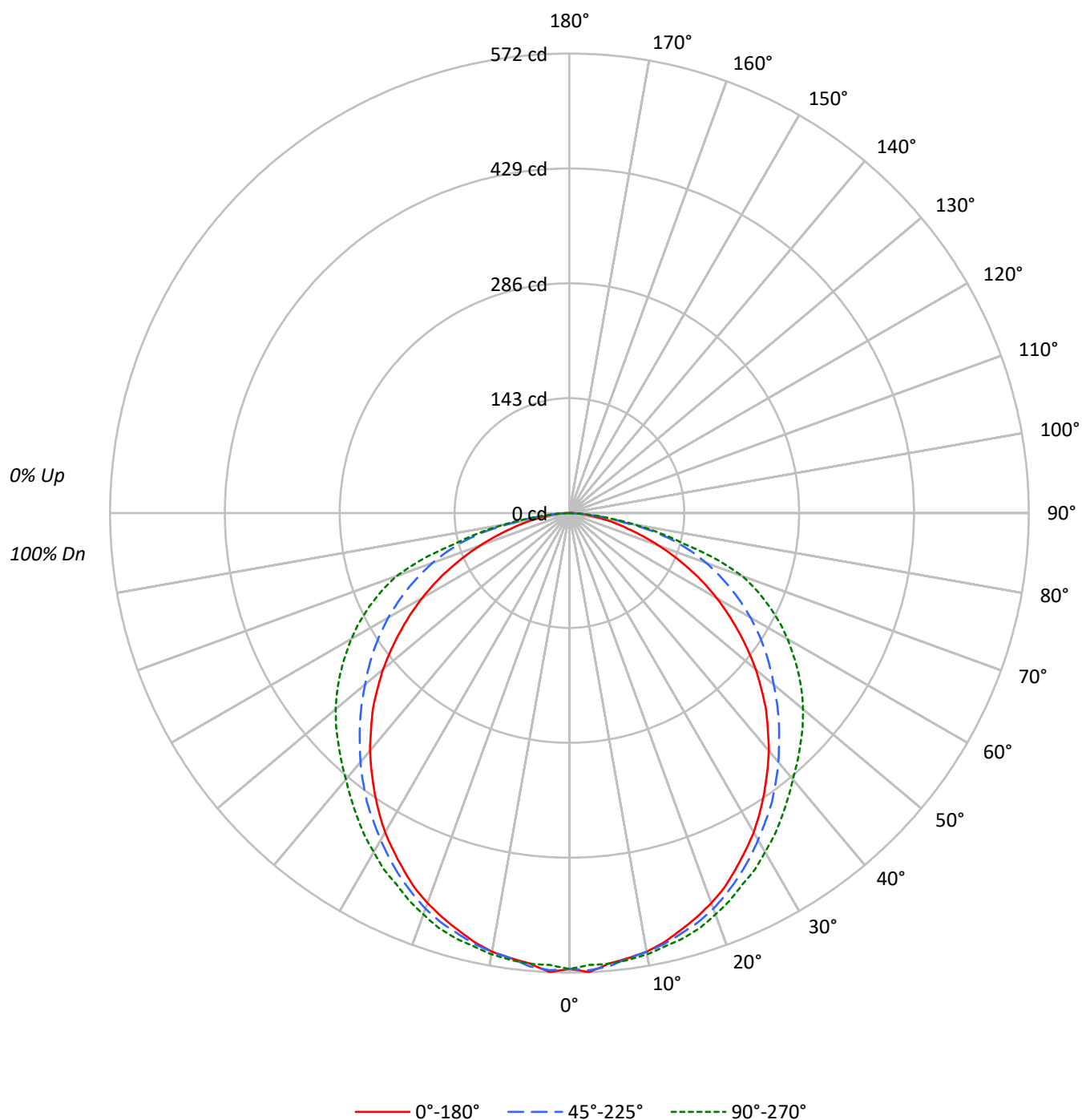
Input Watts (W): 20.739  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 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°  | 1527 | 1527 | 1527 |
| 5°  | 1521 | 1530 | 1521 |
| 10° | 1515 | 1515 | 1524 |
| 15° | 1496 | 1508 | 1526 |
| 20° | 1479 | 1501 | 1523 |
| 25° | 1453 | 1482 | 1514 |
| 30° | 1426 | 1460 | 1514 |
| 35° | 1390 | 1443 | 1515 |
| 40° | 1357 | 1422 | 1521 |
| 45° | 1317 | 1404 | 1549 |
| 50° | 1267 | 1390 | 1590 |
| 55° | 1207 | 1395 | 1634 |
| 60° | 1139 | 1401 | 1688 |
| 65° | 1050 | 1409 | 1748 |
| 70° | 931  | 1426 | 1801 |
| 75° | 790  | 1421 | 1535 |
| 80° | 656  | 1144 | 1278 |
| 85° | 568  | 772  | 738  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.6   | 3.3       |
| 10°-20°   | 152.9  | 9.3       |
| 20°-30°   | 230.1  | 14.0      |
| 30°-40°   | 275.7  | 16.8      |
| 40°-50°   | 287.5  | 17.5      |
| 50°-60°   | 267.7  | 16.3      |
| 60°-70°   | 217.4  | 13.2      |
| 70°-80°   | 131.0  | 8.0       |
| 80°-90°   | 30.0   | 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°    | 436.6  | 26.5      |
| 0°-40°    | 712.4  | 43.3      |
| 0°-60°    | 1267.6 | 77.0      |
| 0°-90°    | 1646.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1646.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 568 | 568   | 568 | 568   | 568 |      |
| 5°  | 563 | 563   | 566 | 568   | 563 | 54   |
| 15° | 537 | 539   | 541 | 545   | 548 | 152  |
| 25° | 489 | 493   | 499 | 506   | 510 | 226  |
| 35° | 423 | 429   | 439 | 452   | 461 | 265  |
| 45° | 346 | 353   | 369 | 393   | 407 | 266  |
| 55° | 257 | 268   | 297 | 330   | 348 | 230  |
| 65° | 165 | 182   | 221 | 256   | 274 | 163  |
| 75° | 76  | 101   | 137 | 145   | 148 | 82   |
| 85° | 18  | 23    | 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°    | 567.5 | 567.5 | 567.5 | 567.5 | 567.5 |
| 2.5°  | 571.8 | 570.7 | 569.6 | 566.4 | 563.1 |
| 5°    | 563.1 | 563.1 | 566.4 | 567.5 | 563.1 |
| 7.5°  | 558.8 | 558.8 | 558.8 | 563.1 | 561.0 |
| 10°   | 554.5 | 554.5 | 554.5 | 557.7 | 557.7 |
| 12.5° | 546.9 | 547.9 | 549.0 | 550.1 | 552.3 |
| 15°   | 537.1 | 539.3 | 541.4 | 544.7 | 547.9 |
| 17.5° | 527.3 | 529.5 | 533.8 | 537.1 | 541.4 |
| 20°   | 516.5 | 518.7 | 524.1 | 527.3 | 531.7 |
| 22.5° | 504.5 | 505.6 | 512.1 | 516.5 | 521.9 |
| 25°   | 489.4 | 492.6 | 499.1 | 505.6 | 510.0 |
| 27.5° | 474.2 | 477.4 | 485.0 | 493.7 | 500.2 |
| 30°   | 459.0 | 462.2 | 469.8 | 480.7 | 487.2 |
| 32.5° | 441.6 | 446.0 | 454.6 | 467.7 | 475.3 |
| 35°   | 423.2 | 428.6 | 439.4 | 452.5 | 461.1 |
| 37.5° | 404.7 | 410.1 | 422.1 | 438.4 | 447.0 |
| 40°   | 386.3 | 391.7 | 404.7 | 422.1 | 432.9 |
| 42.5° | 365.7 | 372.2 | 386.3 | 406.9 | 419.9 |
| 45°   | 346.1 | 352.6 | 368.9 | 392.8 | 406.9 |
| 47.5° | 324.4 | 332.0 | 350.5 | 377.6 | 393.9 |
| 50°   | 302.7 | 311.4 | 332.0 | 362.4 | 379.8 |
| 52.5° | 279.9 | 289.7 | 314.7 | 346.1 | 364.6 |
| 55°   | 257.2 | 268.0 | 297.3 | 329.9 | 348.3 |
| 57.5° | 234.4 | 246.3 | 278.9 | 312.5 | 330.9 |
| 60°   | 211.6 | 224.6 | 260.4 | 295.1 | 313.6 |
| 62.5° | 188.8 | 202.9 | 240.9 | 275.6 | 295.1 |
| 65°   | 164.9 | 182.3 | 221.3 | 256.1 | 274.5 |
| 67.5° | 141.1 | 161.7 | 201.8 | 235.5 | 252.8 |
| 70°   | 118.3 | 141.1 | 181.2 | 212.7 | 228.9 |
| 72.5° | 96.6  | 120.4 | 159.5 | 186.6 | 193.1 |
| 75°   | 76.0  | 100.9 | 136.7 | 145.4 | 147.6 |
| 77.5° | 58.6  | 81.4  | 108.5 | 110.7 | 116.1 |
| 80°   | 42.3  | 61.8  | 73.8  | 80.3  | 82.5  |
| 82.5° | 29.3  | 42.3  | 48.8  | 49.9  | 51.0  |
| 85°   | 18.4  | 22.8  | 25.0  | 23.9  | 23.9  |
| 87.5° | 9.8   | 8.7   | 7.6   | 5.4   | 4.3   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)