

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: P260518

Luminaire Tested: **22CZ-LD5-29-RDP-UNV-L92765-W2A1-U-3500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260518  
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-3500K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 3500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1797.0 lumens  
Efficiency: N/A  
Efficacy: 85.9 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

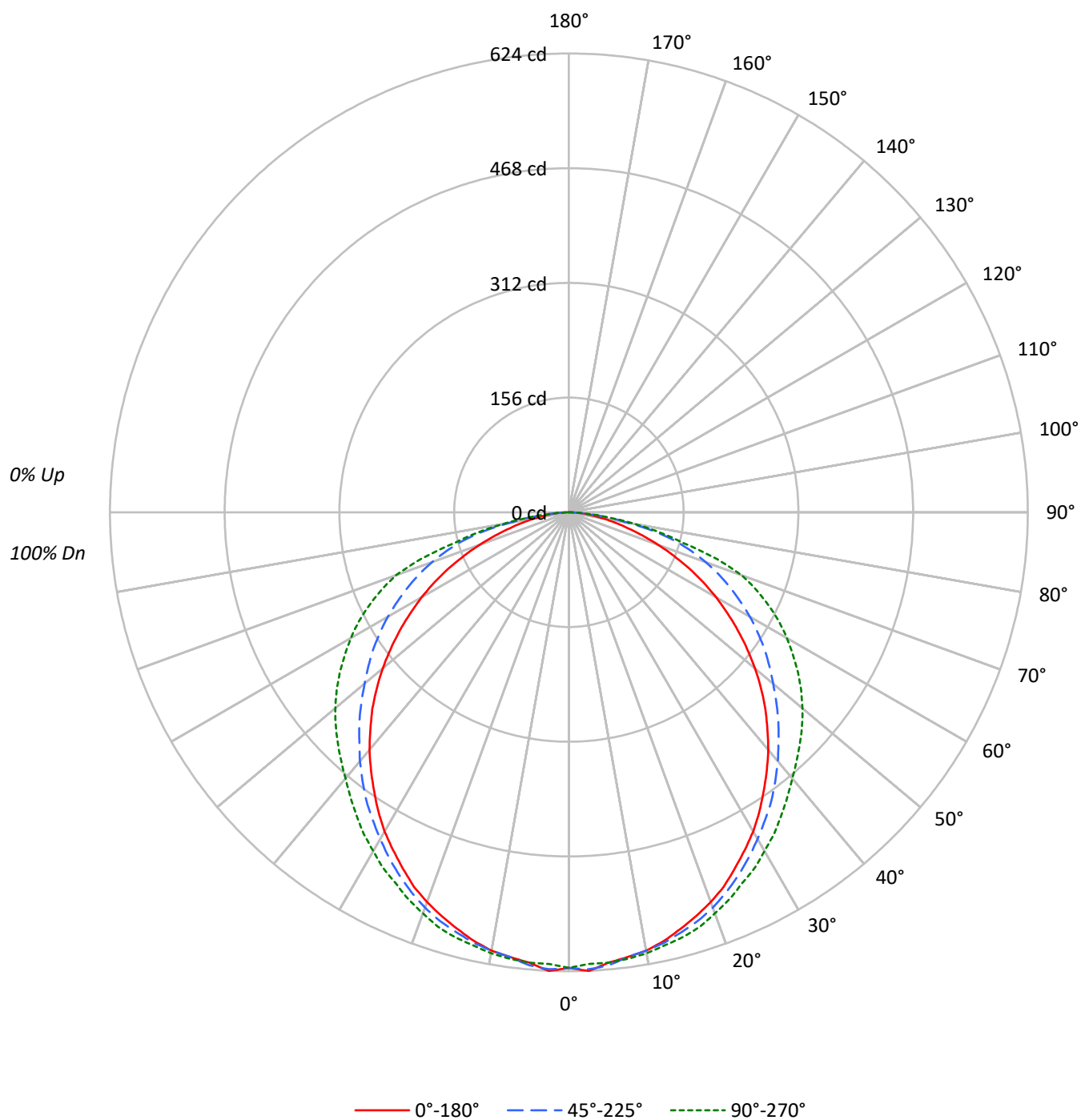
Input Watts (W): 20.925  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 1667 | 1667 | 1667 |
| 5°  | 1661 | 1670 | 1661 |
| 10° | 1654 | 1654 | 1664 |
| 15° | 1634 | 1647 | 1667 |
| 20° | 1615 | 1639 | 1662 |
| 25° | 1586 | 1618 | 1653 |
| 30° | 1557 | 1594 | 1653 |
| 35° | 1518 | 1576 | 1654 |
| 40° | 1481 | 1552 | 1660 |
| 45° | 1438 | 1533 | 1690 |
| 50° | 1384 | 1518 | 1736 |
| 55° | 1317 | 1523 | 1784 |
| 60° | 1243 | 1530 | 1842 |
| 65° | 1147 | 1539 | 1908 |
| 70° | 1016 | 1556 | 1966 |
| 75° | 862  | 1552 | 1675 |
| 80° | 716  | 1249 | 1395 |
| 85° | 621  | 840  | 806  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 58.5   | 3.3       |
| 10°-20°   | 167.0  | 9.3       |
| 20°-30°   | 251.2  | 14.0      |
| 30°-40°   | 301.0  | 16.8      |
| 40°-50°   | 313.9  | 17.5      |
| 50°-60°   | 292.3  | 16.3      |
| 60°-70°   | 237.3  | 13.2      |
| 70°-80°   | 143.0  | 8.0       |
| 80°-90°   | 32.8   | 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°    | 476.7  | 26.5      |
| 0°-40°    | 777.7  | 43.3      |
| 0°-60°    | 1383.9 | 77.0      |
| 0°-90°    | 1797.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1797.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 620 | 620   | 620 | 620   | 620 |      |
| 5°  | 615 | 615   | 618 | 620   | 615 | 58   |
| 15° | 586 | 589   | 591 | 595   | 598 | 165  |
| 25° | 534 | 538   | 545 | 552   | 557 | 246  |
| 35° | 462 | 468   | 480 | 494   | 503 | 289  |
| 45° | 378 | 385   | 403 | 429   | 444 | 291  |
| 55° | 281 | 293   | 325 | 360   | 380 | 251  |
| 65° | 180 | 199   | 242 | 280   | 300 | 178  |
| 75° | 83  | 110   | 149 | 159   | 161 | 90   |
| 85° | 20  | 25    | 27  | 26    | 26  | 23   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 619.5 | 619.5 | 619.5 | 619.5 | 619.5 |
| 2.5°  | 624.3 | 623.1 | 621.9 | 618.4 | 614.8 |
| 5°    | 614.8 | 614.8 | 618.4 | 619.5 | 614.8 |
| 7.5°  | 610.1 | 610.1 | 610.1 | 614.8 | 612.4 |
| 10°   | 605.3 | 605.3 | 605.3 | 608.9 | 608.9 |
| 12.5° | 597.0 | 598.2 | 599.4 | 600.6 | 603.0 |
| 15°   | 586.4 | 588.7 | 591.1 | 594.7 | 598.2 |
| 17.5° | 575.7 | 578.1 | 582.8 | 586.4 | 591.1 |
| 20°   | 563.9 | 566.2 | 572.2 | 575.7 | 580.4 |
| 22.5° | 550.8 | 552.0 | 559.1 | 563.9 | 569.8 |
| 25°   | 534.2 | 537.8 | 544.9 | 552.0 | 556.8 |
| 27.5° | 517.7 | 521.2 | 529.5 | 539.0 | 546.1 |
| 30°   | 501.1 | 504.6 | 512.9 | 524.8 | 531.9 |
| 32.5° | 482.1 | 486.9 | 496.3 | 510.6 | 518.8 |
| 35°   | 462.0 | 467.9 | 479.8 | 494.0 | 503.4 |
| 37.5° | 441.9 | 447.8 | 460.8 | 478.6 | 488.0 |
| 40°   | 421.7 | 427.6 | 441.9 | 460.8 | 472.6 |
| 42.5° | 399.2 | 406.3 | 421.7 | 444.2 | 458.4 |
| 45°   | 377.9 | 385.0 | 402.8 | 428.8 | 444.2 |
| 47.5° | 354.2 | 362.5 | 382.6 | 412.2 | 430.0 |
| 50°   | 330.5 | 340.0 | 362.5 | 395.7 | 414.6 |
| 52.5° | 305.6 | 316.3 | 343.5 | 377.9 | 398.0 |
| 55°   | 280.7 | 292.6 | 324.6 | 360.1 | 380.3 |
| 57.5° | 255.9 | 268.9 | 304.4 | 341.2 | 361.3 |
| 60°   | 231.0 | 245.2 | 284.3 | 322.2 | 342.3 |
| 62.5° | 206.1 | 221.5 | 263.0 | 300.9 | 322.2 |
| 65°   | 180.1 | 199.0 | 241.7 | 279.6 | 299.7 |
| 67.5° | 154.0 | 176.5 | 220.3 | 257.1 | 276.0 |
| 70°   | 129.1 | 154.0 | 197.8 | 232.2 | 249.9 |
| 72.5° | 105.4 | 131.5 | 174.1 | 203.7 | 210.9 |
| 75°   | 82.9  | 110.2 | 149.3 | 158.7 | 161.1 |
| 77.5° | 64.0  | 88.8  | 118.5 | 120.8 | 126.8 |
| 80°   | 46.2  | 67.5  | 80.6  | 87.7  | 90.0  |
| 82.5° | 32.0  | 46.2  | 53.3  | 54.5  | 55.7  |
| 85°   | 20.1  | 24.9  | 27.2  | 26.1  | 26.1  |
| 87.5° | 10.7  | 9.5   | 8.3   | 5.9   | 4.7   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)