

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: P260535

Luminaire Tested: **22CZ-LD5-39-RDP-UNV-L92765-W2A1-U-3000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260535  
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-LD5-39-RDP-UNV-L92765-W2A1-U-3000K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2365.0 lumens  
Efficiency: N/A  
Efficacy: 79.2 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

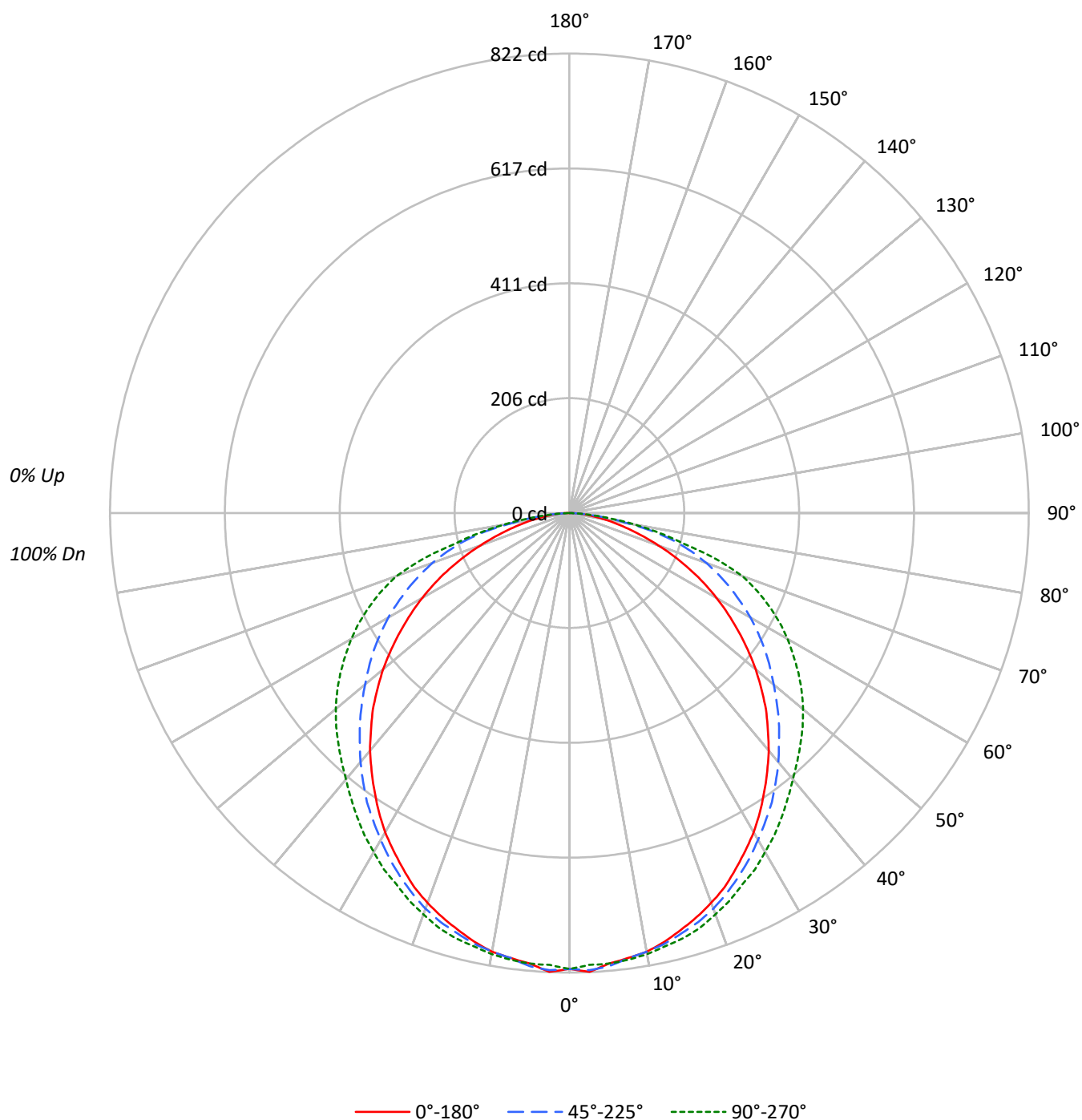
Input Watts (W): 29.853  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 2194 | 2194 | 2194 |
| 5°  | 2186 | 2198 | 2186 |
| 10° | 2177 | 2177 | 2190 |
| 15° | 2150 | 2167 | 2193 |
| 20° | 2125 | 2156 | 2188 |
| 25° | 2088 | 2129 | 2176 |
| 30° | 2049 | 2098 | 2175 |
| 35° | 1997 | 2074 | 2177 |
| 40° | 1950 | 2043 | 2185 |
| 45° | 1893 | 2017 | 2225 |
| 50° | 1821 | 1997 | 2285 |
| 55° | 1734 | 2004 | 2348 |
| 60° | 1636 | 2014 | 2425 |
| 65° | 1509 | 2025 | 2511 |
| 70° | 1337 | 2049 | 2589 |
| 75° | 1134 | 2042 | 2204 |
| 80° | 942  | 1643 | 1836 |
| 85° | 818  | 1108 | 1059 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 77.0   | 3.3       |
| 10°-20°   | 219.7  | 9.3       |
| 20°-30°   | 330.6  | 14.0      |
| 30°-40°   | 396.2  | 16.8      |
| 40°-50°   | 413.1  | 17.5      |
| 50°-60°   | 384.6  | 16.3      |
| 60°-70°   | 312.3  | 13.2      |
| 70°-80°   | 188.2  | 8.0       |
| 80°-90°   | 43.2   | 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°    | 627.4  | 26.5      |
| 0°-40°    | 1023.5 | 43.3      |
| 0°-60°    | 1821.3 | 77.0      |
| 0°-90°    | 2365.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2365.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 815 | 815   | 815 | 815   | 815 |      |
| 5°  | 809 | 809   | 814 | 815   | 809 | 77   |
| 15° | 772 | 775   | 778 | 783   | 787 | 218  |
| 25° | 703 | 708   | 717 | 726   | 733 | 324  |
| 35° | 608 | 616   | 631 | 650   | 663 | 381  |
| 45° | 497 | 507   | 530 | 564   | 585 | 383  |
| 55° | 370 | 385   | 427 | 474   | 500 | 330  |
| 65° | 237 | 262   | 318 | 368   | 394 | 234  |
| 75° | 109 | 145   | 196 | 209   | 212 | 118  |
| 85° | 26  | 33    | 36  | 34    | 34  | 31   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 815.4 | 815.4 | 815.4 | 815.4 | 815.4 |
| 2.5°  | 821.6 | 820.0 | 818.5 | 813.8 | 809.1 |
| 5°    | 809.1 | 809.1 | 813.8 | 815.4 | 809.1 |
| 7.5°  | 802.9 | 802.9 | 802.9 | 809.1 | 806.0 |
| 10°   | 796.7 | 796.7 | 796.7 | 801.3 | 801.3 |
| 12.5° | 785.7 | 787.3 | 788.9 | 790.4 | 793.5 |
| 15°   | 771.7 | 774.8 | 777.9 | 782.6 | 787.3 |
| 17.5° | 757.7 | 760.8 | 767.0 | 771.7 | 777.9 |
| 20°   | 742.1 | 745.2 | 753.0 | 757.7 | 763.9 |
| 22.5° | 724.9 | 726.5 | 735.9 | 742.1 | 749.9 |
| 25°   | 703.1 | 707.8 | 717.1 | 726.5 | 732.7 |
| 27.5° | 681.3 | 686.0 | 696.9 | 709.4 | 718.7 |
| 30°   | 659.5 | 664.1 | 675.1 | 690.6 | 700.0 |
| 32.5° | 634.5 | 640.8 | 653.2 | 671.9 | 682.8 |
| 35°   | 608.0 | 615.8 | 631.4 | 650.1 | 662.6 |
| 37.5° | 581.5 | 589.3 | 606.5 | 629.8 | 642.3 |
| 40°   | 555.0 | 562.8 | 581.5 | 606.5 | 622.0 |
| 42.5° | 525.4 | 534.7 | 555.0 | 584.6 | 603.3 |
| 45°   | 497.3 | 506.7 | 530.1 | 564.4 | 584.6 |
| 47.5° | 466.1 | 477.1 | 503.6 | 542.5 | 565.9 |
| 50°   | 435.0 | 447.4 | 477.1 | 520.7 | 545.7 |
| 52.5° | 402.2 | 416.3 | 452.1 | 497.3 | 523.8 |
| 55°   | 369.5 | 385.1 | 427.2 | 473.9 | 500.4 |
| 57.5° | 336.7 | 353.9 | 400.7 | 449.0 | 475.5 |
| 60°   | 304.0 | 322.7 | 374.2 | 424.1 | 450.6 |
| 62.5° | 271.3 | 291.5 | 346.1 | 396.0 | 424.1 |
| 65°   | 237.0 | 261.9 | 318.0 | 367.9 | 394.4 |
| 67.5° | 202.7 | 232.3 | 290.0 | 338.3 | 363.2 |
| 70°   | 169.9 | 202.7 | 260.4 | 305.6 | 329.0 |
| 72.5° | 138.8 | 173.1 | 229.2 | 268.2 | 277.5 |
| 75°   | 109.1 | 145.0 | 196.4 | 208.9 | 212.0 |
| 77.5° | 84.2  | 116.9 | 155.9 | 159.0 | 166.8 |
| 80°   | 60.8  | 88.9  | 106.0 | 115.4 | 118.5 |
| 82.5° | 42.1  | 60.8  | 70.2  | 71.7  | 73.3  |
| 85°   | 26.5  | 32.7  | 35.9  | 34.3  | 34.3  |
| 87.5° | 14.0  | 12.5  | 10.9  | 7.8   | 6.2   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)