

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: P260374

Luminaire Tested: **22CZ-LD5-39-SQP-UNV-L92765-W2A1-U-6500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P260374  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25713)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-39-SQP-UNV-L92765-W2A1-U-6500K  
Description: CRUZE 2x2 TUNABLE WHITE LED TROFFER  
WITH SQP LENS  
Light Source: (168) 90 CRI LEDS TUNED AT 6500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2339.0 lumens  
Efficiency: N/A  
Efficacy: 74.2 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.31 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

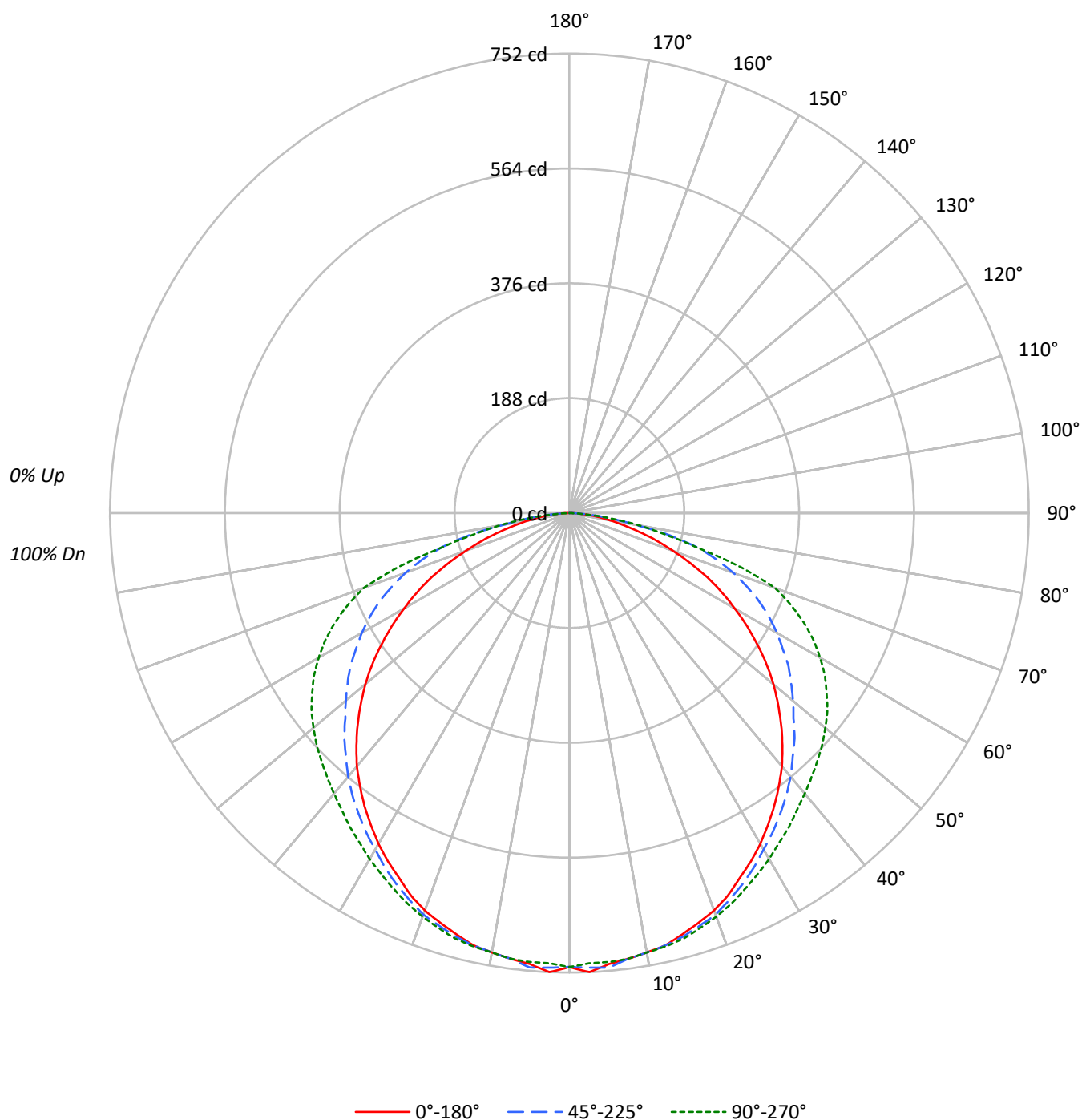
Input Watts (W): 31.527  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 103 | 99  | 95  | 105 | 101 | 97  | 93  | 97  | 93  | 90  |  | 93  | 90  | 87  |  | 89  |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 81  | 75  | 84  | 78  | 73  |  | 80  | 76  | 71  |  | 77  |
| 3   | 89  | 78  | 69  | 62  | 86  | 76  | 68  | 62  | 73  | 66  | 61  |  | 70  | 64  | 59  |  | 68  |
| 4   | 81  | 68  | 59  | 52  | 79  | 67  | 58  | 52  | 64  | 57  | 51  |  | 62  | 56  | 50  |  | 60  |
| 5   | 74  | 61  | 52  | 45  | 72  | 60  | 51  | 44  | 58  | 50  | 44  |  | 56  | 49  | 43  |  | 54  |
| 6   | 68  | 55  | 45  | 39  | 66  | 54  | 45  | 39  | 52  | 44  | 38  |  | 50  | 43  | 38  |  | 48  |
| 7   | 63  | 49  | 40  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  |  | 45  | 39  | 33  |  | 44  |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  |  | 42  | 35  | 30  |  | 40  |
| 9   | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  | 39  | 32  | 27  |  | 38  | 32  | 27  |  | 37  |
| 10  | 51  | 38  | 30  | 24  | 50  | 37  | 30  | 24  | 36  | 29  | 24  |  | 35  | 29  | 24  |  | 35  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1999 | 1999 | 1999 |
| 5°  | 2002 | 2017 | 1992 |
| 10° | 1995 | 1995 | 1995 |
| 15° | 1989 | 1999 | 2009 |
| 20° | 1982 | 2003 | 2013 |
| 25° | 1958 | 1990 | 2017 |
| 30° | 1942 | 1976 | 2032 |
| 35° | 1921 | 1975 | 2059 |
| 40° | 1901 | 1978 | 2106 |
| 45° | 1866 | 1984 | 2184 |
| 50° | 1825 | 2000 | 2289 |
| 55° | 1764 | 2054 | 2412 |
| 60° | 1681 | 2112 | 2552 |
| 65° | 1585 | 2186 | 2695 |
| 70° | 1415 | 2244 | 2815 |
| 75° | 1228 | 2248 | 2228 |
| 80° | 1041 | 1661 | 1802 |
| 85° | 898  | 1121 | 1010 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 70.5   | 3.0       |
| 10°-20°   | 202.6  | 8.7       |
| 20°-30°   | 308.7  | 13.2      |
| 30°-40°   | 377.7  | 16.1      |
| 40°-50°   | 406.4  | 17.4      |
| 50°-60°   | 393.7  | 16.8      |
| 60°-70°   | 333.5  | 14.3      |
| 70°-80°   | 201.6  | 8.6       |
| 80°-90°   | 44.3   | 1.9       |
| 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°    | 581.8  | 24.9      |
| 0°-40°    | 959.5  | 41.0      |
| 0°-60°    | 1759.6 | 75.2      |
| 0°-90°    | 2339.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 2339.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 743 | 743   | 743 | 743   | 743 |      |
| 5°  | 741 | 741   | 747 | 743   | 738 | 70   |
| 15° | 714 | 716   | 718 | 719   | 721 | 202  |
| 25° | 659 | 663   | 670 | 676   | 679 | 304  |
| 35° | 585 | 588   | 601 | 618   | 627 | 366  |
| 45° | 490 | 500   | 521 | 554   | 574 | 378  |
| 55° | 376 | 392   | 438 | 489   | 514 | 336  |
| 65° | 249 | 276   | 343 | 398   | 423 | 245  |
| 75° | 118 | 160   | 216 | 220   | 214 | 127  |
| 85° | 29  | 34    | 36  | 34    | 33  | 33   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 742.9 | 742.9 | 742.9 | 742.9 | 742.9 |
| 2.5°  | 752.0 | 750.2 | 744.7 | 741.1 | 737.5 |
| 5°    | 741.1 | 741.1 | 746.6 | 742.9 | 737.5 |
| 7.5°  | 735.7 | 735.7 | 735.7 | 744.7 | 735.7 |
| 10°   | 730.2 | 732.0 | 730.2 | 737.5 | 730.2 |
| 12.5° | 724.8 | 724.8 | 724.8 | 726.6 | 726.6 |
| 15°   | 713.9 | 715.7 | 717.5 | 719.3 | 721.1 |
| 17.5° | 703.0 | 704.8 | 708.4 | 710.2 | 712.0 |
| 20°   | 692.1 | 693.9 | 699.3 | 699.3 | 703.0 |
| 22.5° | 677.5 | 677.5 | 684.8 | 686.6 | 692.1 |
| 25°   | 659.4 | 663.0 | 670.3 | 675.7 | 679.4 |
| 27.5° | 643.0 | 646.7 | 653.9 | 661.2 | 666.6 |
| 30°   | 624.9 | 628.5 | 635.8 | 646.7 | 653.9 |
| 32.5° | 604.9 | 608.5 | 619.4 | 632.1 | 639.4 |
| 35°   | 584.9 | 588.5 | 601.2 | 617.6 | 626.7 |
| 37.5° | 563.1 | 568.5 | 583.1 | 601.2 | 612.1 |
| 40°   | 541.3 | 546.8 | 563.1 | 583.1 | 599.4 |
| 42.5° | 515.9 | 523.1 | 541.3 | 568.5 | 586.7 |
| 45°   | 490.4 | 499.5 | 521.3 | 554.0 | 574.0 |
| 47.5° | 463.2 | 472.3 | 497.7 | 539.5 | 561.3 |
| 50°   | 435.9 | 446.8 | 477.7 | 523.1 | 546.8 |
| 52.5° | 406.9 | 417.8 | 457.7 | 506.8 | 532.2 |
| 55°   | 376.0 | 392.4 | 437.8 | 488.6 | 514.1 |
| 57.5° | 345.1 | 363.3 | 414.2 | 468.6 | 495.9 |
| 60°   | 312.4 | 334.2 | 392.4 | 446.8 | 474.1 |
| 62.5° | 281.6 | 305.2 | 368.7 | 423.2 | 450.5 |
| 65°   | 248.9 | 276.1 | 343.3 | 397.8 | 423.2 |
| 67.5° | 214.3 | 248.9 | 314.2 | 366.9 | 392.4 |
| 70°   | 179.8 | 219.8 | 285.2 | 334.2 | 357.8 |
| 72.5° | 148.9 | 190.7 | 252.5 | 294.3 | 294.3 |
| 75°   | 118.1 | 159.8 | 216.2 | 219.8 | 214.3 |
| 77.5° | 90.8  | 130.8 | 168.9 | 154.4 | 158.0 |
| 80°   | 67.2  | 99.9  | 107.2 | 112.6 | 116.3 |
| 82.5° | 45.4  | 67.2  | 69.0  | 72.7  | 72.7  |
| 85°   | 29.1  | 34.5  | 36.3  | 34.5  | 32.7  |
| 87.5° | 12.7  | 14.5  | 10.9  | 7.3   | 5.4   |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)