

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: P731909

Luminaire Tested: **14CZ2-39-SQR-B2750-W2D-4000K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P731909  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P387389)  
Test Lab: INNOVATIONS CENTER(G2)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 14CZ2-39-SQR-B2750-W2D-4000K  
Description: 1X4 3900 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 4000K CCT AND SQR LENS  
  
Light Source: -  
Ballast/Driver: -

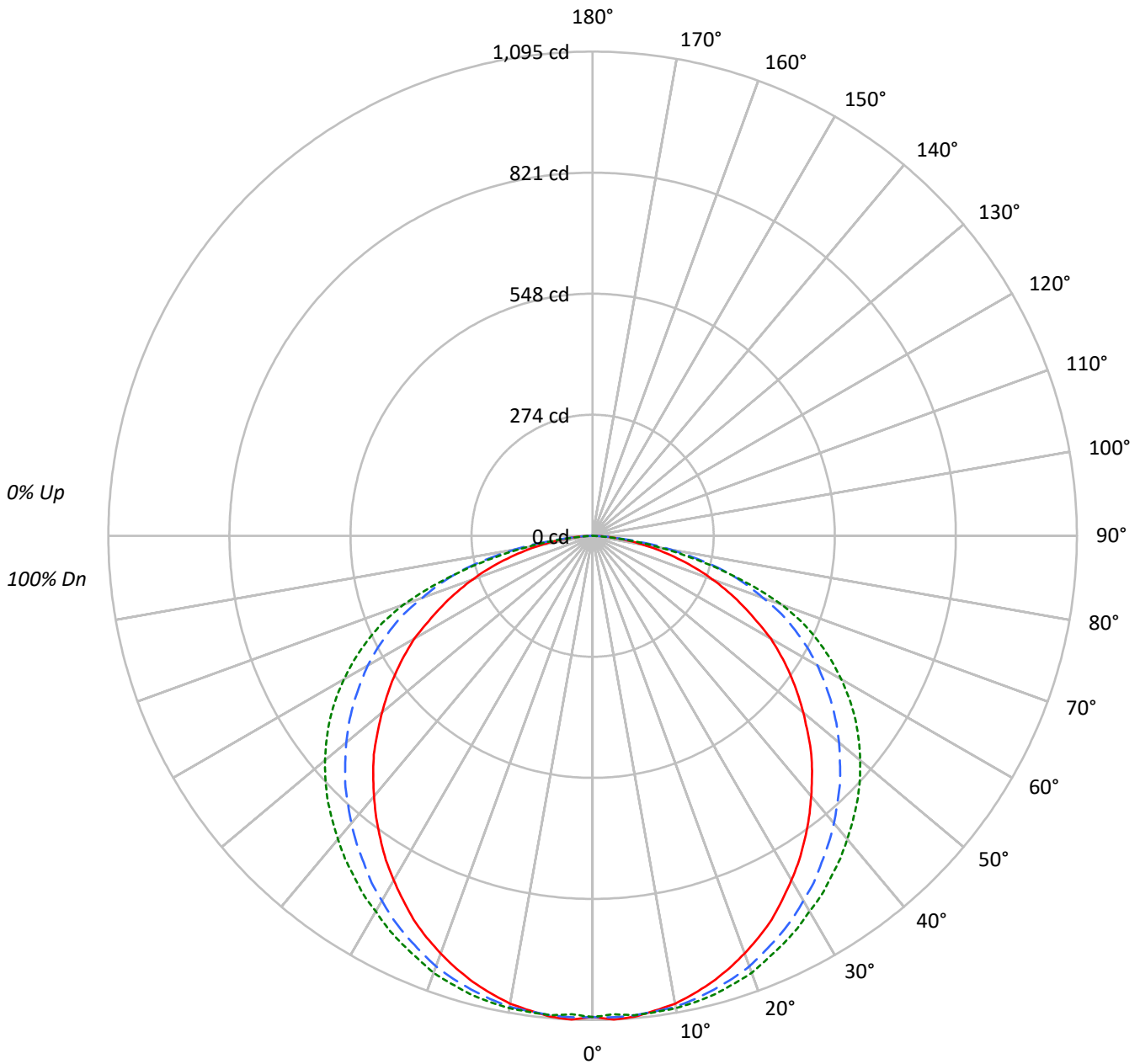
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3444.0 lumens  
Efficiency: N/A  
Efficacy: 111.1 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.34 / 1.44  
Luminous Opening: Rectangular (W 0.96' x L: 3.98' x H: 0')  
CIE Type: Direct

Input Watts (W): 31  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 50  |     |     |     |     |     |     |     |     | 30 |    |   |  |  |  |  |  |  | 10 |  |  |  |  |  |  |  |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 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 | 103 | 99  | 95  | 105 | 101 | 97  | 93  | 97  | 93  | 90  | 93  | 90  | 87  | 89  | 87  | 85  | 83  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 81  | 75  | 84  | 78  | 73  | 80  | 76  | 72  | 77  | 73  | 70  | 68  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 89  | 78  | 69  | 62  | 86  | 76  | 68  | 62  | 73  | 66  | 61  | 70  | 64  | 60  | 68  | 63  | 59  | 56  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 81  | 68  | 59  | 52  | 79  | 67  | 59  | 52  | 65  | 57  | 51  | 62  | 56  | 51  | 60  | 54  | 50  | 48  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 74  | 61  | 52  | 45  | 72  | 60  | 51  | 44  | 58  | 50  | 44  | 56  | 49  | 43  | 54  | 48  | 43  | 41  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 68  | 55  | 45  | 39  | 67  | 54  | 45  | 39  | 52  | 44  | 38  | 50  | 43  | 38  | 49  | 42  | 38  | 35  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 63  | 49  | 40  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 46  | 39  | 33  | 44  | 38  | 33  | 31  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 34  | 30  | 28  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 52  | 38  | 30  | 25  | 50  | 37  | 30  | 24  | 36  | 29  | 24  | 36  | 29  | 24  | 35  | 29  | 24  | 22  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3072 | 3072 | 3072 |
| 5°  | 3094 | 3084 | 3084 |
| 10° | 3080 | 3100 | 3109 |
| 15° | 3053 | 3104 | 3135 |
| 20° | 3019 | 3113 | 3160 |
| 25° | 2984 | 3108 | 3173 |
| 30° | 2931 | 3106 | 3196 |
| 35° | 2883 | 3110 | 3242 |
| 40° | 2833 | 3127 | 3300 |
| 45° | 2793 | 3159 | 3381 |
| 50° | 2729 | 3193 | 3468 |
| 55° | 2682 | 3246 | 3570 |
| 60° | 2626 | 3313 | 3664 |
| 65° | 2504 | 3373 | 3757 |
| 70° | 2378 | 3380 | 3753 |
| 75° | 2177 | 3370 | 3312 |
| 80° | 1861 | 2877 | 2568 |
| 85° | 1464 | 1629 | 959  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 103.4  | 3.0       |
| 10°-20°   | 298.8  | 8.7       |
| 20°-30°   | 456.9  | 13.3      |
| 30°-40°   | 560.1  | 16.3      |
| 40°-50°   | 602.3  | 17.5      |
| 50°-60°   | 578.8  | 16.8      |
| 60°-70°   | 482.0  | 14.0      |
| 70°-80°   | 295.8  | 8.6       |
| 80°-90°   | 65.9   | 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°    | 859.1  | 24.9      |
| 0°-40°    | 1419.2 | 41.2      |
| 0°-60°    | 2600.3 | 75.5      |
| 0°-90°    | 3444.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3444.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1088 | 1088  | 1088 | 1088  | 1088 |      |
| 5°  | 1092 | 1082  | 1088 | 1088  | 1088 | 104  |
| 15° | 1045 | 1042  | 1062 | 1069  | 1073 | 295  |
| 25° | 958  | 967   | 998  | 1010  | 1019 | 441  |
| 35° | 837  | 858   | 903  | 927   | 941  | 524  |
| 45° | 700  | 731   | 791  | 828   | 847  | 538  |
| 55° | 545  | 592   | 660  | 705   | 726  | 487  |
| 65° | 375  | 432   | 505  | 547   | 562  | 371  |
| 75° | 200  | 260   | 309  | 307   | 304  | 211  |
| 85° | 45   | 68    | 50   | 35    | 30   | 54   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1088.4 | 1088.4 | 1088.4 | 1088.4 | 1088.4 |
| 2.5°  | 1095.2 | 1084.8 | 1090.1 | 1088.4 | 1083.1 |
| 5°    | 1091.8 | 1081.5 | 1088.4 | 1088.4 | 1088.4 |
| 7.5°  | 1083.1 | 1074.5 | 1084.8 | 1086.5 | 1086.5 |
| 10°   | 1074.5 | 1067.5 | 1081.5 | 1083.1 | 1084.8 |
| 12.5° | 1060.5 | 1055.3 | 1072.8 | 1076.2 | 1079.6 |
| 15°   | 1044.9 | 1041.5 | 1062.2 | 1069.2 | 1072.8 |
| 17.5° | 1025.9 | 1027.6 | 1050.2 | 1058.9 | 1062.2 |
| 20°   | 1005.0 | 1010.3 | 1036.3 | 1044.9 | 1051.9 |
| 22.5° | 982.4  | 989.4  | 1017.2 | 1027.6 | 1034.6 |
| 25°   | 958.1  | 966.8  | 998.0  | 1010.3 | 1018.9 |
| 27.5° | 928.5  | 942.5  | 977.3  | 993.0  | 1001.6 |
| 30°   | 899.2  | 914.8  | 953.0  | 972.0  | 980.7  |
| 32.5° | 869.6  | 886.9  | 930.4  | 949.4  | 963.4  |
| 35°   | 836.7  | 857.6  | 902.6  | 926.8  | 940.8  |
| 37.5° | 803.7  | 828.0  | 876.6  | 904.2  | 919.9  |
| 40°   | 768.8  | 795.0  | 848.7  | 880.0  | 895.6  |
| 42.5° | 734.2  | 763.8  | 819.3  | 854.0  | 871.3  |
| 45°   | 699.6  | 730.8  | 791.4  | 828.0  | 847.0  |
| 47.5° | 659.6  | 697.9  | 758.5  | 800.1  | 819.3  |
| 50°   | 621.4  | 663.0  | 727.2  | 770.8  | 789.8  |
| 52.5° | 583.2  | 626.7  | 694.3  | 739.5  | 758.5  |
| 55°   | 545.0  | 591.8  | 659.6  | 704.6  | 725.5  |
| 57.5° | 505.0  | 553.6  | 623.1  | 670.0  | 689.0  |
| 60°   | 465.1  | 515.6  | 586.8  | 630.1  | 649.1  |
| 62.5° | 418.2  | 477.4  | 546.9  | 590.2  | 607.5  |
| 65°   | 374.9  | 432.2  | 505.0  | 546.9  | 562.5  |
| 67.5° | 331.6  | 390.5  | 461.7  | 500.0  | 513.7  |
| 70°   | 288.1  | 347.2  | 409.6  | 446.1  | 454.8  |
| 72.5° | 244.8  | 303.7  | 362.9  | 383.6  | 380.2  |
| 75°   | 199.6  | 260.4  | 309.0  | 307.3  | 303.7  |
| 77.5° | 156.3  | 215.2  | 244.8  | 232.6  | 227.5  |
| 80°   | 114.5  | 171.9  | 177.0  | 165.0  | 158.0  |
| 82.5° | 78.2   | 123.1  | 111.1  | 97.2   | 90.2   |
| 85°   | 45.2   | 67.6   | 50.3   | 34.6   | 29.6   |
| 87.5° | 19.0   | 17.3   | 5.3    | 5.3    | 3.4    |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)