

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: P732210

Luminaire Tested: **24CZ2-40-SQR-B2750-W2D-5000K**

Issue Date: 1/5/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P732210  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P388488)  
Test Lab: INNOVATION CENTER (G2)  
Issue Date: 1/5/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ2-40-SQR-B2750-W2D-5000K  
Description: 2X4 4000 LUMEN CRUZE TROFFER WITH BIO UP LEDS AT 5000K CCT AND SQR LENS  
  
Light Source: -  
Ballast/Driver: -

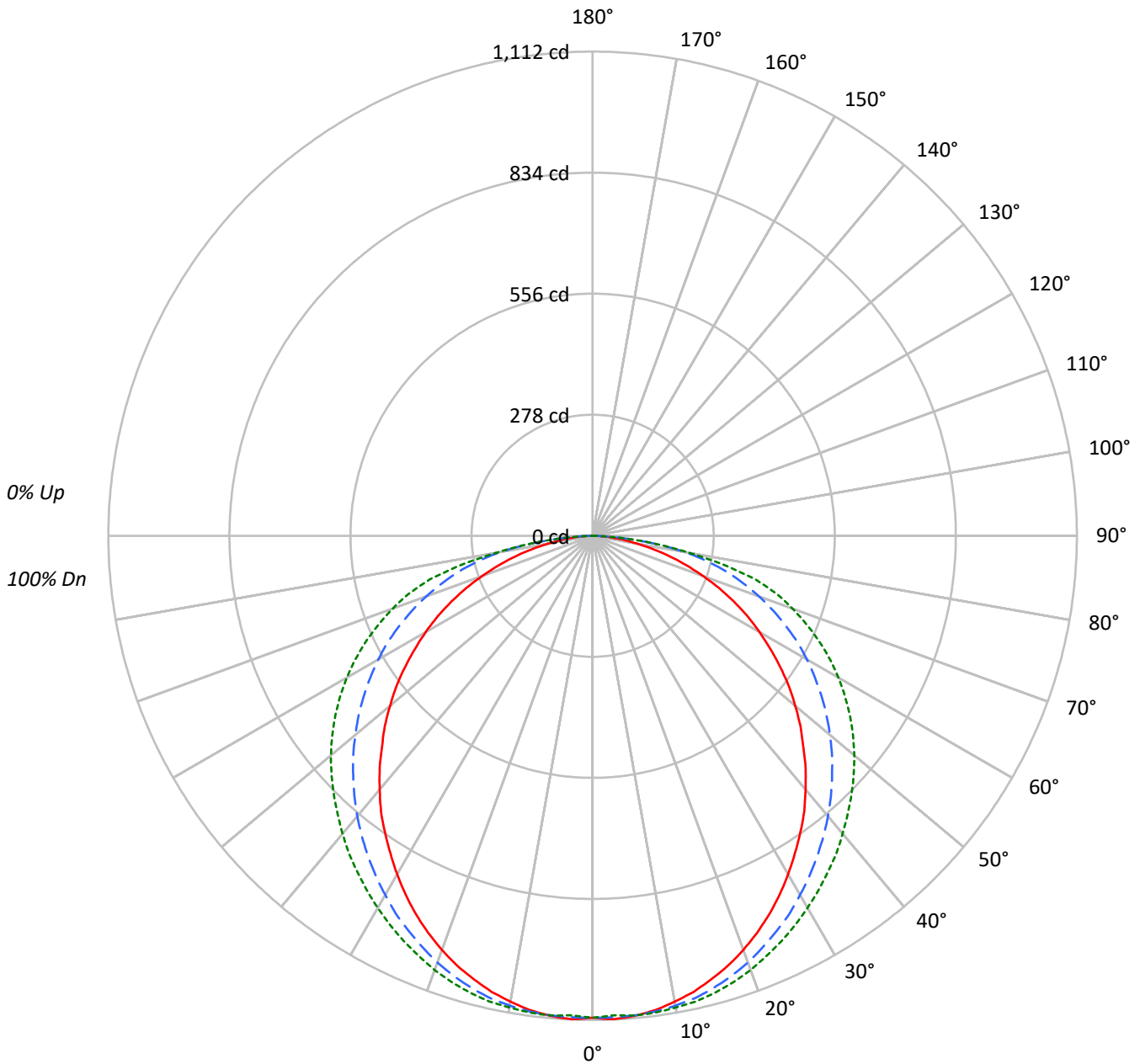
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3463.0 lumens  
Efficiency: N/A  
Efficacy: 111.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.33 / 1.41  
Luminous Opening: Rectangular (W 1.92' 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  |     |     |     | 20  |     |    |    | 20 |     |
| RC  | 80  |     |     |     | 70  |     |     |     | 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 |    |    |    | 100 |
| 1   | 108 | 103 | 98  | 94  | 105 | 100 | 96  | 92  | 96  | 93  | 89  | 92  | 89  | 87  | 89  | 86  | 84  | 82  |    |    |    | 82  |
| 2   | 98  | 89  | 81  | 75  | 95  | 87  | 80  | 74  | 83  | 78  | 73  | 80  | 75  | 71  | 77  | 73  | 69  | 67  |    |    |    | 67  |
| 3   | 89  | 77  | 69  | 62  | 86  | 76  | 68  | 61  | 73  | 66  | 60  | 70  | 64  | 59  | 67  | 62  | 58  | 56  |    |    |    | 56  |
| 4   | 81  | 68  | 59  | 52  | 78  | 67  | 58  | 52  | 64  | 57  | 51  | 62  | 55  | 50  | 60  | 54  | 49  | 47  |    |    |    | 47  |
| 5   | 74  | 61  | 51  | 44  | 72  | 60  | 51  | 44  | 57  | 50  | 44  | 55  | 49  | 43  | 54  | 48  | 43  | 41  |    |    |    | 41  |
| 6   | 68  | 55  | 45  | 39  | 66  | 54  | 45  | 38  | 52  | 44  | 38  | 50  | 43  | 38  | 48  | 42  | 37  | 35  |    |    |    | 35  |
| 7   | 63  | 49  | 40  | 34  | 62  | 49  | 40  | 34  | 47  | 39  | 34  | 45  | 39  | 33  | 44  | 38  | 33  | 31  |    |    |    | 31  |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  | 42  | 35  | 30  | 40  | 34  | 30  | 28  |    |    |    | 28  |
| 9   | 55  | 41  | 33  | 27  | 54  | 41  | 33  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |    |    |    | 25  |
| 10  | 52  | 38  | 30  | 25  | 50  | 37  | 30  | 24  | 36  | 29  | 24  | 36  | 29  | 24  | 35  | 29  | 24  | 22  |    |    |    | 22  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1562 | 1562 | 1562 |
| 5°  | 1568 | 1567 | 1567 |
| 10° | 1557 | 1570 | 1576 |
| 15° | 1540 | 1571 | 1587 |
| 20° | 1520 | 1566 | 1594 |
| 25° | 1494 | 1558 | 1599 |
| 30° | 1463 | 1552 | 1608 |
| 35° | 1432 | 1549 | 1623 |
| 40° | 1401 | 1549 | 1646 |
| 45° | 1365 | 1552 | 1678 |
| 50° | 1333 | 1562 | 1722 |
| 55° | 1295 | 1579 | 1775 |
| 60° | 1249 | 1604 | 1840 |
| 65° | 1195 | 1634 | 1917 |
| 70° | 1109 | 1675 | 2015 |
| 75° | 1004 | 1734 | 2108 |
| 80° | 845  | 1738 | 1812 |
| 85° | 648  | 1313 | 1313 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 105.1  | 3.0       |
| 10°-20°   | 302.3  | 8.7       |
| 20°-30°   | 459.2  | 13.3      |
| 30°-40°   | 558.5  | 16.1      |
| 40°-50°   | 594.7  | 17.2      |
| 50°-60°   | 566.4  | 16.4      |
| 60°-70°   | 473.6  | 13.7      |
| 70°-80°   | 315.8  | 9.1       |
| 80°-90°   | 87.4   | 2.5       |
| 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°    | 866.6  | 25.0      |
| 0°-40°    | 1425.1 | 41.2      |
| 0°-60°    | 2586.2 | 74.7      |
| 0°-90°    | 3463.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3463.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1107 | 1107  | 1107 | 1107  | 1107 |      |
| 5°  | 1107 | 1100  | 1106 | 1106  | 1106 | 105  |
| 15° | 1054 | 1057  | 1075 | 1083  | 1086 | 297  |
| 25° | 960  | 972   | 1001 | 1018  | 1027 | 442  |
| 35° | 831  | 855   | 899  | 928   | 942  | 520  |
| 45° | 684  | 720   | 778  | 821   | 841  | 529  |
| 55° | 526  | 572   | 642  | 698   | 722  | 470  |
| 65° | 358  | 410   | 489  | 550   | 574  | 354  |
| 75° | 184  | 242   | 318  | 372   | 386  | 195  |
| 85° | 40   | 74    | 81   | 80    | 81   | 48   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1106.9 | 1106.9 | 1106.9 | 1106.9 | 1106.9 |
| 2.5°  | 1111.5 | 1103.5 | 1106.9 | 1106.9 | 1102.4 |
| 5°    | 1106.9 | 1100.0 | 1105.8 | 1105.8 | 1105.8 |
| 7.5°  | 1099.0 | 1093.2 | 1102.4 | 1104.7 | 1104.7 |
| 10°   | 1086.4 | 1084.1 | 1095.6 | 1099.0 | 1100.0 |
| 12.5° | 1072.7 | 1071.5 | 1087.6 | 1092.0 | 1095.6 |
| 15°   | 1054.3 | 1056.7 | 1074.9 | 1083.0 | 1086.4 |
| 17.5° | 1035.0 | 1039.4 | 1060.1 | 1071.5 | 1074.9 |
| 20°   | 1012.1 | 1018.9 | 1043.0 | 1054.3 | 1061.3 |
| 22.5° | 987.0  | 997.2  | 1022.3 | 1036.0 | 1044.0 |
| 25°   | 959.5  | 971.9  | 1000.6 | 1017.7 | 1026.9 |
| 27.5° | 929.7  | 945.8  | 978.9  | 998.2  | 1007.5 |
| 30°   | 897.6  | 915.9  | 952.6  | 975.5  | 987.0  |
| 32.5° | 864.5  | 886.2  | 926.3  | 951.4  | 965.1  |
| 35°   | 831.4  | 855.4  | 898.8  | 928.5  | 942.2  |
| 37.5° | 798.2  | 822.1  | 870.3  | 902.2  | 919.5  |
| 40°   | 760.5  | 789.0  | 840.6  | 875.9  | 893.2  |
| 42.5° | 723.9  | 754.7  | 809.7  | 848.4  | 866.9  |
| 45°   | 683.8  | 720.5  | 777.6  | 821.1  | 840.6  |
| 47.5° | 647.2  | 683.8  | 745.6  | 791.4  | 813.1  |
| 50°   | 607.2  | 646.0  | 711.3  | 761.7  | 784.5  |
| 52.5° | 568.3  | 608.4  | 676.9  | 730.7  | 753.6  |
| 55°   | 526.1  | 571.7  | 641.6  | 697.6  | 721.5  |
| 57.5° | 483.7  | 532.9  | 604.9  | 663.3  | 687.3  |
| 60°   | 442.6  | 492.8  | 568.3  | 626.7  | 651.8  |
| 62.5° | 401.4  | 451.6  | 530.6  | 590.0  | 614.1  |
| 65°   | 357.9  | 410.5  | 489.4  | 550.0  | 574.1  |
| 67.5° | 314.5  | 369.3  | 448.2  | 508.9  | 531.7  |
| 70°   | 268.7  | 327.1  | 406.0  | 465.5  | 488.3  |
| 72.5° | 226.5  | 284.7  | 362.5  | 420.9  | 442.6  |
| 75°   | 184.1  | 242.4  | 317.9  | 371.7  | 386.5  |
| 77.5° | 143.0  | 201.2  | 268.7  | 304.2  | 307.6  |
| 80°   | 104.0  | 159.0  | 213.9  | 224.1  | 222.9  |
| 82.5° | 69.7   | 118.9  | 147.6  | 148.6  | 152.0  |
| 85°   | 40.0   | 74.3   | 81.1   | 80.1   | 81.1   |
| 87.5° | 16.1   | 26.3   | 22.9   | 17.1   | 17.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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







(END OF REPORT)