

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: P#

Luminaire Tested: **22CZ-LD5-44-S-UNV-L850-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P#  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25712)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22CZ-LD5-44-S-UNV-L850-CD1-U  
Description: CRUZE 2x2 LED TROFFER

Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4988.9 lumens  
Efficiency: N/A  
Efficacy: 119.4 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.24 / 1.33  
Luminous Opening: Rectangular w/ Sides (W: 2' x L: 2' x H: 0.1')  
CIE Type: Direct

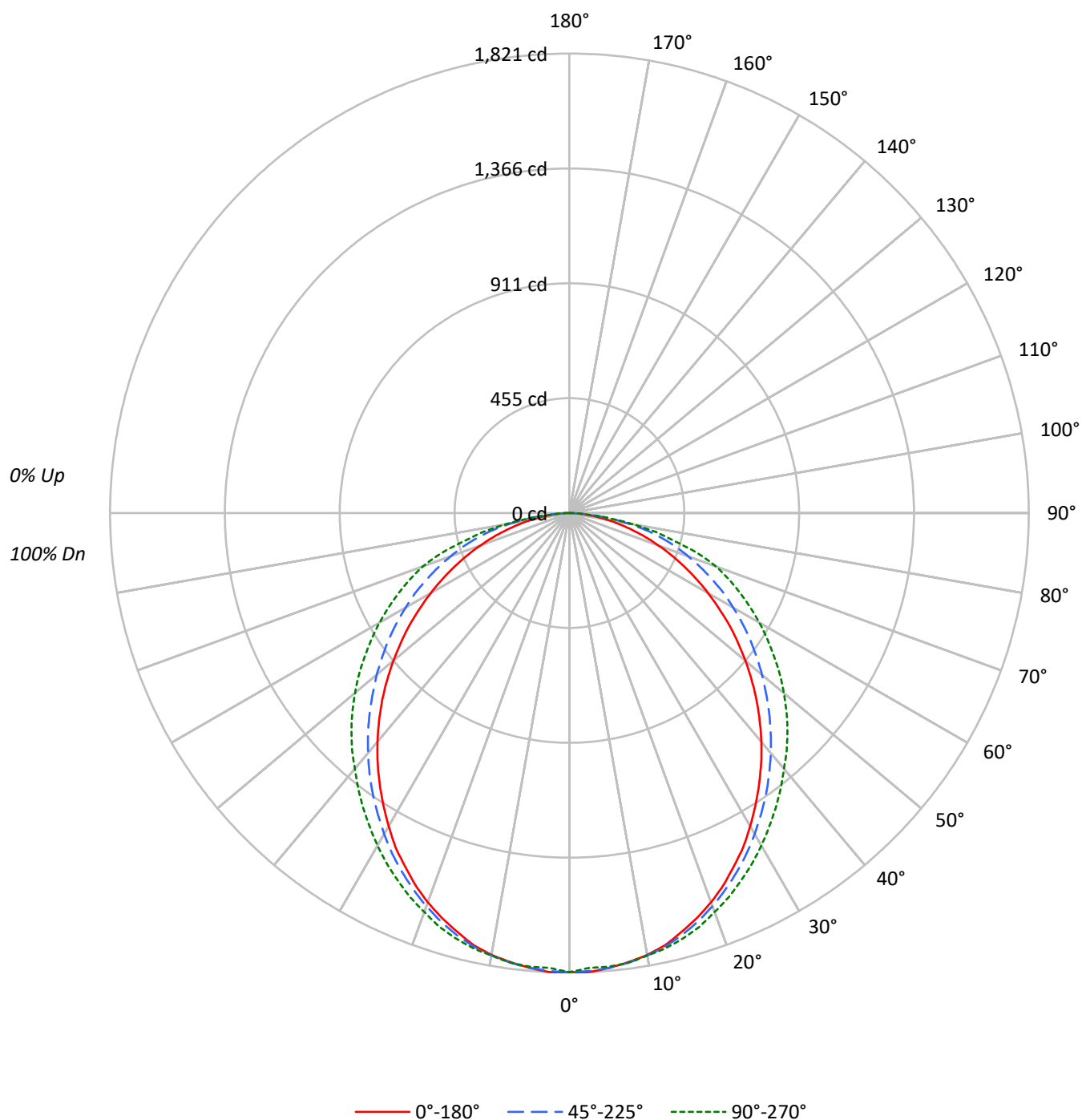
Input Watts (W): 41.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |     |     |     |    | 0  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 109 | 104 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 87  | 85  | 83  |    |    |
| 2   | 99  | 90  | 83  | 77  | 96  | 88  | 82  | 77  | 85  | 79  | 75  | 81  | 77  | 73  | 78  | 75  | 71  | 69  |    |    |
| 3   | 90  | 79  | 71  | 64  | 87  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 62  | 69  | 64  | 60  | 58  |    |    |
| 4   | 82  | 70  | 61  | 54  | 80  | 69  | 61  | 54  | 66  | 59  | 53  | 64  | 58  | 53  | 62  | 56  | 52  | 50  |    |    |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 56  | 50  | 45  | 43  |    |    |
| 6   | 70  | 56  | 47  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 41  | 36  | 46  | 40  | 35  | 33  |    |    |
| 8   | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30  |    |    |
| 9   | 56  | 43  | 35  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 27  |    |    |
| 10  | 53  | 40  | 32  | 26  | 52  | 39  | 32  | 26  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 24  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4894 | 4894 | 4894 |
| 5°  | 4866 | 4857 | 4853 |
| 10° | 4816 | 4805 | 4822 |
| 15° | 4723 | 4730 | 4796 |
| 20° | 4616 | 4629 | 4731 |
| 25° | 4478 | 4512 | 4665 |
| 30° | 4328 | 4385 | 4595 |
| 35° | 4160 | 4253 | 4525 |
| 40° | 3991 | 4116 | 4459 |
| 45° | 3804 | 3978 | 4429 |
| 50° | 3598 | 3849 | 4384 |
| 55° | 3389 | 3727 | 4334 |
| 60° | 3145 | 3596 | 4308 |
| 65° | 2894 | 3458 | 4285 |
| 70° | 2602 | 3299 | 4276 |
| 75° | 2247 | 3095 | 3800 |
| 80° | 1823 | 2597 | 3067 |
| 85° | 1224 | 1515 | 1554 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 171.7  | 3.4       |
| 10°-20°   | 487.9  | 9.8       |
| 20°-30°   | 724.7  | 14.5      |
| 30°-40°   | 853.0  | 17.1      |
| 40°-50°   | 869.6  | 17.4      |
| 50°-60°   | 784.3  | 15.7      |
| 60°-70°   | 617.8  | 12.4      |
| 70°-80°   | 381.0  | 7.6       |
| 80°-90°   | 98.9   | 2.0       |
| 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°    | 1384.3 | 27.7      |
| 0°-40°    | 2237.3 | 44.8      |
| 0°-60°    | 3891.2 | 78.0      |
| 0°-90°    | 4988.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4988.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1819 | 1819  | 1819 | 1819  | 1819 |      |
| 5°  | 1809 | 1812  | 1809 | 1807  | 1804 | 172  |
| 15° | 1718 | 1725  | 1730 | 1740  | 1744 | 484  |
| 25° | 1543 | 1553  | 1570 | 1596  | 1608 | 711  |
| 35° | 1311 | 1325  | 1359 | 1402  | 1426 | 820  |
| 45° | 1050 | 1066  | 1119 | 1186  | 1222 | 809  |
| 55° | 774  | 800   | 875  | 954   | 990  | 691  |
| 65° | 503  | 539   | 625  | 704   | 745  | 498  |
| 75° | 256  | 300   | 376  | 419   | 434  | 274  |
| 85° | 62   | 79    | 89   | 84    | 79   | 73   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1818.8 | 1818.8 | 1818.8 | 1818.8 | 1818.8 |
| 2.5°  | 1821.2 | 1821.2 | 1816.4 | 1811.6 | 1804.4 |
| 5°    | 1809.2 | 1811.6 | 1809.2 | 1806.8 | 1804.4 |
| 7.5°  | 1794.8 | 1797.2 | 1797.2 | 1797.2 | 1797.2 |
| 10°   | 1778.0 | 1780.4 | 1780.4 | 1780.4 | 1780.4 |
| 12.5° | 1754.1 | 1756.5 | 1758.9 | 1761.3 | 1766.0 |
| 15°   | 1718.1 | 1725.3 | 1730.1 | 1739.7 | 1744.5 |
| 17.5° | 1682.2 | 1689.4 | 1696.6 | 1708.5 | 1718.1 |
| 20°   | 1641.4 | 1646.2 | 1658.2 | 1672.6 | 1682.2 |
| 22.5° | 1595.9 | 1603.1 | 1615.1 | 1634.3 | 1648.6 |
| 25°   | 1543.2 | 1552.8 | 1569.6 | 1595.9 | 1607.9 |
| 27.5° | 1492.9 | 1500.1 | 1521.6 | 1550.4 | 1567.2 |
| 30°   | 1433.0 | 1442.6 | 1468.9 | 1504.9 | 1521.6 |
| 32.5° | 1373.1 | 1385.0 | 1413.8 | 1454.5 | 1473.7 |
| 35°   | 1310.8 | 1325.1 | 1358.7 | 1401.8 | 1425.8 |
| 37.5° | 1248.5 | 1262.8 | 1301.2 | 1349.1 | 1375.5 |
| 40°   | 1183.8 | 1198.1 | 1241.3 | 1294.0 | 1322.7 |
| 42.5° | 1116.7 | 1133.4 | 1181.4 | 1241.3 | 1274.8 |
| 45°   | 1049.6 | 1066.3 | 1119.1 | 1186.2 | 1222.1 |
| 47.5° | 980.1  | 999.2  | 1056.8 | 1131.0 | 1167.0 |
| 50°   | 910.6  | 932.1  | 996.8  | 1073.5 | 1109.5 |
| 52.5° | 841.1  | 865.1  | 934.5  | 1013.6 | 1052.0 |
| 55°   | 774.0  | 800.4  | 874.6  | 953.7  | 989.7  |
| 57.5° | 702.1  | 733.3  | 812.3  | 889.0  | 929.8  |
| 60°   | 635.0  | 668.6  | 750.0  | 826.7  | 869.8  |
| 62.5° | 567.9  | 603.9  | 690.1  | 766.8  | 807.5  |
| 65°   | 503.2  | 539.2  | 625.4  | 704.5  | 745.2  |
| 67.5° | 438.5  | 479.3  | 563.1  | 642.2  | 682.9  |
| 70°   | 376.2  | 419.3  | 500.8  | 577.5  | 618.2  |
| 72.5° | 316.3  | 359.4  | 440.9  | 512.8  | 536.8  |
| 75°   | 256.4  | 299.5  | 376.2  | 419.3  | 433.7  |
| 77.5° | 201.3  | 242.0  | 309.1  | 335.5  | 354.6  |
| 80°   | 151.0  | 186.9  | 234.8  | 251.6  | 254.0  |
| 82.5° | 103.0  | 134.2  | 162.9  | 165.3  | 162.9  |
| 85°   | 62.3   | 79.1   | 88.7   | 83.9   | 79.1   |
| 87.5° | 28.8   | 31.2   | 28.8   | 19.2   | 12.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)