

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: P263720

Luminaire Tested: **24CZ-LD5-70-RDP-UNV-L82765-W2A1-U-5500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P263720  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P25696)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CZ-LD5-70-RDP-UNV-L82765-W2A1-U-5500K  
Description: CRUZE 2x4 TUNABLE WHITE LED TROFFER  
WITH RDP LENS  
Light Source: (336) 80 CRI LEDS TUNED AT 5500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5096.0 lumens  
Efficiency: N/A  
Efficacy: 92.4 lumens/watt  
Spacing Criteria (0/90/45): 1.26 / 1.3 / 1.41  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

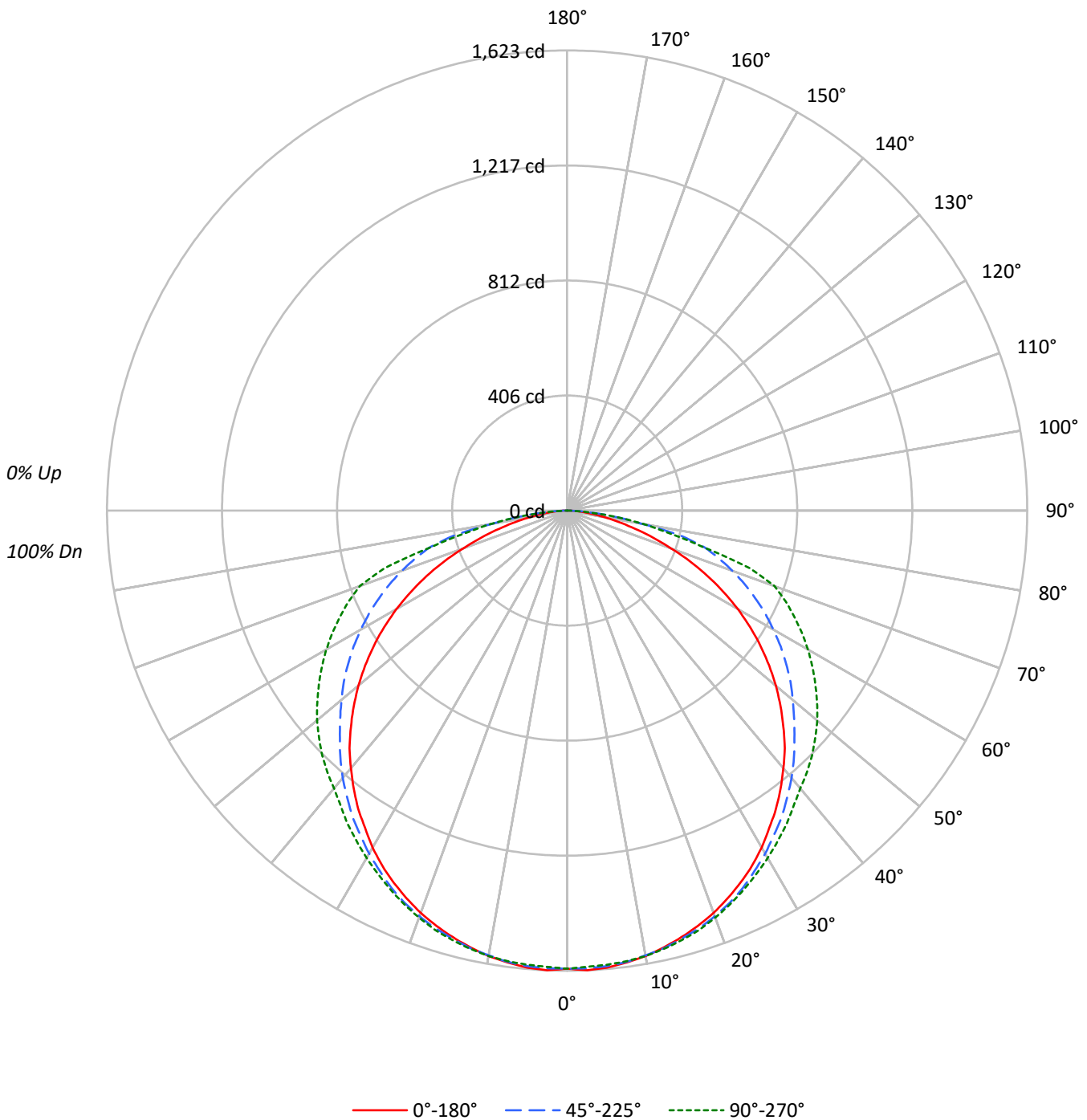
Input Watts (W): 55.149  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |    |     |   |  | 0 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 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 | 101 | 97  | 93  | 96  | 93  | 90  | 92  | 90  | 87  | 89  | 87  | 84  | 82  |    |    |    |    | 82  |   |  |   |
| 2   | 98  | 89  | 82  | 76  | 95  | 87  | 80  | 75  | 83  | 78  | 73  | 80  | 75  | 71  | 77  | 73  | 70  | 67  |    |    |    |    | 67  |   |  |   |
| 3   | 89  | 78  | 69  | 62  | 86  | 76  | 68  | 62  | 73  | 66  | 60  | 70  | 64  | 59  | 67  | 62  | 58  | 56  |    |    |    |    | 56  |   |  |   |
| 4   | 81  | 68  | 59  | 52  | 78  | 67  | 58  | 52  | 64  | 57  | 51  | 62  | 56  | 50  | 60  | 54  | 50  | 47  |    |    |    |    | 47  |   |  |   |
| 5   | 74  | 61  | 51  | 45  | 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  | 61  | 48  | 40  | 34  | 47  | 39  | 34  | 45  | 38  | 33  | 44  | 38  | 33  | 31  |    |    |    |    | 31  |   |  |   |
| 8   | 59  | 45  | 36  | 30  | 57  | 44  | 36  | 30  | 43  | 35  | 30  | 42  | 35  | 30  | 40  | 34  | 29  | 27  |    |    |    |    | 27  |   |  |   |
| 9   | 55  | 41  | 33  | 27  | 53  | 41  | 32  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |    |    |    |    | 25  |   |  |   |
| 10  | 51  | 38  | 30  | 24  | 50  | 37  | 30  | 24  | 36  | 29  | 24  | 35  | 29  | 24  | 35  | 28  | 24  | 22  |    |    |    |    | 22  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2174 | 2174 | 2174 |
| 5°  | 2185 | 2179 | 2172 |
| 10° | 2180 | 2176 | 2180 |
| 15° | 2170 | 2177 | 2184 |
| 20° | 2162 | 2180 | 2187 |
| 25° | 2149 | 2179 | 2190 |
| 30° | 2132 | 2171 | 2198 |
| 35° | 2110 | 2167 | 2217 |
| 40° | 2084 | 2163 | 2247 |
| 45° | 2053 | 2157 | 2324 |
| 50° | 2011 | 2174 | 2410 |
| 55° | 1954 | 2213 | 2507 |
| 60° | 1870 | 2261 | 2639 |
| 65° | 1741 | 2332 | 2811 |
| 70° | 1539 | 2437 | 3059 |
| 75° | 1291 | 2608 | 2569 |
| 80° | 1031 | 2060 | 2138 |
| 85° | 814  | 1394 | 1278 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 153.2  | 3.0       |
| 10°-20°   | 441.0  | 8.7       |
| 20°-30°   | 673.6  | 13.2      |
| 30°-40°   | 823.5  | 16.2      |
| 40°-50°   | 881.4  | 17.3      |
| 50°-60°   | 845.4  | 16.6      |
| 60°-70°   | 713.9  | 14.0      |
| 70°-80°   | 456.2  | 9.0       |
| 80°-90°   | 107.9  | 2.1       |
| 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°    | 1267.7 | 24.9      |
| 0°-40°    | 2091.2 | 41.0      |
| 0°-60°    | 3818.0 | 74.9      |
| 0°-90°    | 5096.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5096.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1616 | 1616  | 1616 | 1616  | 1616 |      |
| 5°  | 1618 | 1608  | 1613 | 1610  | 1608 | 154  |
| 15° | 1558 | 1553  | 1563 | 1568  | 1568 | 440  |
| 25° | 1447 | 1445  | 1468 | 1472  | 1475 | 667  |
| 35° | 1284 | 1294  | 1320 | 1337  | 1350 | 803  |
| 45° | 1079 | 1096  | 1134 | 1186  | 1222 | 832  |
| 55° | 833  | 860   | 943  | 1028  | 1069 | 743  |
| 65° | 547  | 600   | 732  | 835   | 883  | 539  |
| 75° | 248  | 354   | 502  | 512   | 494  | 267  |
| 85° | 53   | 88    | 90   | 88    | 83   | 63   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1615.5 | 1615.5 | 1615.5 | 1615.5 | 1615.5 |
| 2.5°  | 1623.0 | 1613.0 | 1615.5 | 1615.5 | 1610.5 |
| 5°    | 1618.0 | 1607.9 | 1613.0 | 1610.5 | 1607.9 |
| 7.5°  | 1607.9 | 1600.4 | 1605.4 | 1605.4 | 1602.9 |
| 10°   | 1595.4 | 1587.9 | 1592.9 | 1595.4 | 1595.4 |
| 12.5° | 1577.8 | 1572.8 | 1580.4 | 1580.4 | 1582.9 |
| 15°   | 1557.8 | 1552.8 | 1562.8 | 1567.8 | 1567.8 |
| 17.5° | 1535.2 | 1532.7 | 1545.2 | 1547.7 | 1550.3 |
| 20°   | 1510.1 | 1507.6 | 1522.7 | 1522.7 | 1527.7 |
| 22.5° | 1480.0 | 1477.5 | 1497.6 | 1497.6 | 1502.6 |
| 25°   | 1447.4 | 1444.9 | 1467.5 | 1472.5 | 1475.0 |
| 27.5° | 1412.3 | 1409.8 | 1432.4 | 1439.9 | 1444.9 |
| 30°   | 1372.1 | 1372.1 | 1397.2 | 1407.3 | 1414.8 |
| 32.5° | 1327.0 | 1334.5 | 1357.1 | 1372.1 | 1382.2 |
| 35°   | 1284.4 | 1294.4 | 1319.5 | 1337.0 | 1349.6 |
| 37.5° | 1236.7 | 1246.7 | 1274.3 | 1296.9 | 1311.9 |
| 40°   | 1186.5 | 1199.1 | 1231.7 | 1256.8 | 1279.3 |
| 42.5° | 1136.4 | 1148.9 | 1184.0 | 1221.6 | 1251.7 |
| 45°   | 1078.7 | 1096.2 | 1133.8 | 1186.5 | 1221.6 |
| 47.5° | 1021.0 | 1038.5 | 1086.2 | 1151.4 | 1186.5 |
| 50°   | 960.8  | 980.8  | 1038.5 | 1113.8 | 1151.4 |
| 52.5° | 898.0  | 920.6  | 993.4  | 1073.6 | 1111.3 |
| 55°   | 832.8  | 860.4  | 943.2  | 1028.5 | 1068.6 |
| 57.5° | 765.1  | 795.2  | 893.0  | 983.3  | 1026.0 |
| 60°   | 694.9  | 732.5  | 840.3  | 935.7  | 980.8  |
| 62.5° | 622.1  | 667.3  | 787.7  | 885.5  | 933.2  |
| 65°   | 546.9  | 599.5  | 732.5  | 835.3  | 883.0  |
| 67.5° | 469.1  | 539.3  | 677.3  | 785.2  | 832.8  |
| 70°   | 391.3  | 474.1  | 619.6  | 730.0  | 777.6  |
| 72.5° | 318.6  | 413.9  | 561.9  | 664.8  | 674.8  |
| 75°   | 248.3  | 353.7  | 501.7  | 511.7  | 494.2  |
| 77.5° | 185.6  | 293.5  | 413.9  | 368.7  | 366.2  |
| 80°   | 133.0  | 235.8  | 265.9  | 273.4  | 275.9  |
| 82.5° | 87.8   | 178.1  | 173.1  | 178.1  | 175.6  |
| 85°   | 52.7   | 87.8   | 90.3   | 87.8   | 82.8   |
| 87.5° | 25.1   | 32.6   | 25.1   | 22.6   | 20.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)