

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: P558469

Luminaire Tested: **24CBRK-36-UNV-L840-CD1-U**

Issue Date: 7/20/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P558469  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2105-259-9)  
Test Lab: COOPER LIGHTING SOLUTIONS  
Issue Date: 7/20/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24CBRK-36-UNV-L840-CD1-U  
Description: 2X4 3600 LUMEN, LED TROFFER RETROFIT KIT WITH 4000K AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

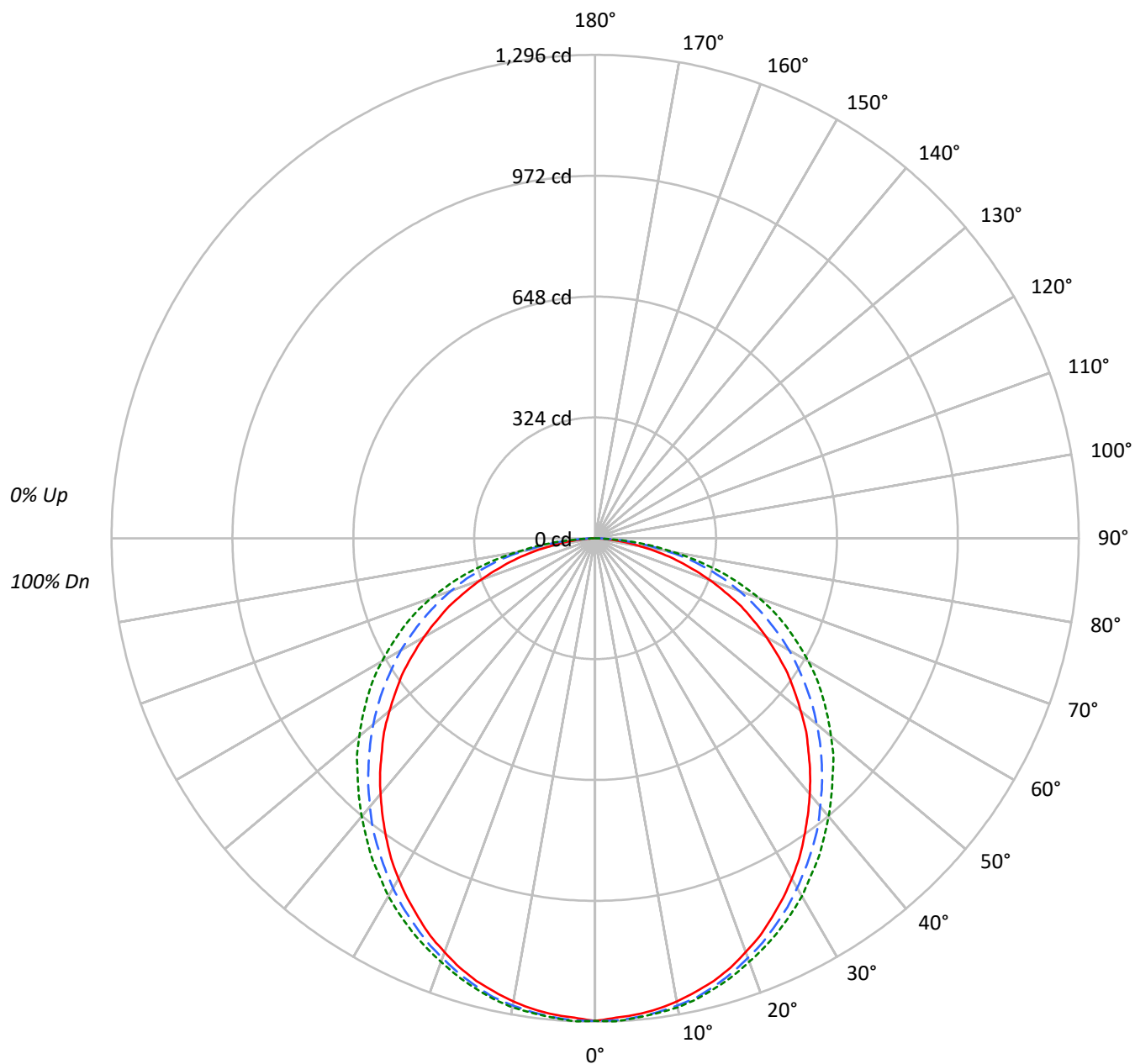
Lumens per Lamp: N/A  
Luminaire Lumens: 3805.0 lumens  
Efficiency: N/A  
Efficacy: 156.6 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 24.3  
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  |     |     |     |    | 10 |
| 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   | 108 | 103 | 99  | 95  | 105 | 101 | 97  | 93  | 97  | 93  | 90  | 93  | 90  | 87  | 89  | 87  | 85  | 83  |    |    |
| 2   | 98  | 90  | 82  | 76  | 95  | 88  | 81  | 76  | 84  | 79  | 74  | 81  | 76  | 72  | 78  | 74  | 70  | 68  |    |    |
| 3   | 89  | 78  | 70  | 63  | 87  | 77  | 69  | 63  | 74  | 67  | 61  | 71  | 65  | 60  | 68  | 63  | 59  | 57  |    |    |
| 4   | 82  | 69  | 60  | 53  | 79  | 68  | 59  | 53  | 65  | 58  | 52  | 63  | 57  | 51  | 61  | 55  | 51  | 48  |    |    |
| 5   | 75  | 62  | 52  | 46  | 73  | 61  | 52  | 45  | 58  | 51  | 45  | 56  | 50  | 44  | 55  | 49  | 44  | 42  |    |    |
| 6   | 69  | 55  | 46  | 40  | 67  | 55  | 46  | 40  | 53  | 45  | 39  | 51  | 44  | 39  | 49  | 43  | 39  | 36  |    |    |
| 7   | 64  | 50  | 41  | 35  | 62  | 49  | 41  | 35  | 48  | 40  | 35  | 46  | 40  | 34  | 45  | 39  | 34  | 32  |    |    |
| 8   | 60  | 46  | 37  | 31  | 58  | 45  | 37  | 31  | 44  | 36  | 31  | 43  | 36  | 31  | 41  | 35  | 31  | 29  |    |    |
| 9   | 56  | 42  | 34  | 28  | 54  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 38  | 32  | 28  | 26  |    |    |
| 10  | 52  | 39  | 31  | 25  | 51  | 38  | 31  | 25  | 37  | 30  | 25  | 36  | 30  | 25  | 35  | 29  | 25  | 23  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 1741 | 1741 | 1741 |
| 5°  | 1731 | 1741 | 1742 |
| 10° | 1723 | 1738 | 1744 |
| 15° | 1711 | 1730 | 1738 |
| 20° | 1690 | 1714 | 1730 |
| 25° | 1665 | 1699 | 1726 |
| 30° | 1638 | 1682 | 1722 |
| 35° | 1605 | 1666 | 1715 |
| 40° | 1572 | 1648 | 1710 |
| 45° | 1538 | 1634 | 1712 |
| 50° | 1505 | 1624 | 1727 |
| 55° | 1475 | 1616 | 1749 |
| 60° | 1426 | 1618 | 1776 |
| 65° | 1377 | 1611 | 1810 |
| 70° | 1284 | 1611 | 1834 |
| 75° | 1171 | 1597 | 1810 |
| 80° | 962  | 1493 | 1652 |
| 85° | 633  | 1246 | 1376 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 122.4  | 3.2       |
| 10°-20°   | 349.8  | 9.2       |
| 20°-30°   | 527.1  | 13.9      |
| 30°-40°   | 633.7  | 16.7      |
| 40°-50°   | 661.9  | 17.4      |
| 50°-60°   | 615.1  | 16.2      |
| 60°-70°   | 496.9  | 13.1      |
| 70°-80°   | 311.8  | 8.2       |
| 80°-90°   | 86.4   | 2.3       |
| 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°    | 999.2  | 26.3      |
| 0°-40°    | 1632.9 | 42.9      |
| 0°-60°    | 2909.9 | 76.5      |
| 0°-90°    | 3805.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3805.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1294 | 1294  | 1294 | 1294  | 1294 |      |
| 5°  | 1282 | 1284  | 1289 | 1291  | 1290 | 122  |
| 15° | 1229 | 1234  | 1242 | 1247  | 1248 | 346  |
| 25° | 1121 | 1129  | 1144 | 1159  | 1162 | 517  |
| 35° | 977  | 989   | 1014 | 1035  | 1044 | 611  |
| 45° | 808  | 825   | 859  | 890   | 900  | 625  |
| 55° | 629  | 646   | 689  | 730   | 746  | 560  |
| 65° | 432  | 454   | 506  | 552   | 568  | 425  |
| 75° | 225  | 257   | 307  | 340   | 348  | 237  |
| 85° | 41   | 65    | 81   | 89    | 89   | 54   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1293.7 | 1293.7 | 1293.7 | 1293.7 | 1293.7 |
| 2.5°  | 1286.5 | 1288.9 | 1293.7 | 1296.1 | 1296.1 |
| 5°    | 1281.6 | 1284.1 | 1288.9 | 1291.3 | 1290.1 |
| 7.5°  | 1273.2 | 1276.8 | 1281.6 | 1284.1 | 1284.1 |
| 10°   | 1261.2 | 1264.8 | 1272.0 | 1276.8 | 1276.8 |
| 12.5° | 1245.5 | 1250.3 | 1260.0 | 1263.6 | 1264.8 |
| 15°   | 1228.6 | 1233.5 | 1241.9 | 1246.7 | 1247.9 |
| 17.5° | 1207.0 | 1211.8 | 1221.4 | 1227.4 | 1229.8 |
| 20°   | 1180.5 | 1186.5 | 1197.3 | 1207.0 | 1208.2 |
| 22.5° | 1154.0 | 1160.0 | 1173.2 | 1184.1 | 1186.5 |
| 25°   | 1121.4 | 1128.7 | 1144.3 | 1158.8 | 1162.4 |
| 27.5° | 1088.9 | 1097.3 | 1115.4 | 1131.1 | 1135.9 |
| 30°   | 1054.0 | 1063.6 | 1082.9 | 1101.0 | 1108.2 |
| 32.5° | 1017.8 | 1027.5 | 1049.2 | 1069.6 | 1074.5 |
| 35°   | 976.9  | 988.9  | 1014.2 | 1034.7 | 1044.3 |
| 37.5° | 935.9  | 950.4  | 979.3  | 1003.4 | 1008.2 |
| 40°   | 895.0  | 909.4  | 938.3  | 966.1  | 973.3  |
| 42.5° | 852.8  | 868.5  | 899.8  | 928.7  | 937.1  |
| 45°   | 808.3  | 825.1  | 858.8  | 890.2  | 899.8  |
| 47.5° | 767.3  | 781.8  | 817.9  | 851.6  | 866.1  |
| 50°   | 719.1  | 737.2  | 775.7  | 811.9  | 825.1  |
| 52.5° | 673.3  | 691.4  | 733.6  | 772.1  | 785.4  |
| 55°   | 628.8  | 645.6  | 689.0  | 730.0  | 745.6  |
| 57.5° | 578.2  | 598.7  | 644.4  | 689.0  | 704.7  |
| 60°   | 530.0  | 550.5  | 601.1  | 645.6  | 660.1  |
| 62.5° | 479.4  | 503.5  | 552.9  | 597.5  | 613.1  |
| 65°   | 432.4  | 454.1  | 505.9  | 551.7  | 568.5  |
| 67.5° | 377.0  | 403.5  | 458.9  | 503.5  | 520.4  |
| 70°   | 326.4  | 352.9  | 409.5  | 452.9  | 466.2  |
| 72.5° | 273.4  | 304.8  | 361.4  | 397.5  | 408.3  |
| 75°   | 225.3  | 256.6  | 307.2  | 339.7  | 348.1  |
| 77.5° | 173.5  | 206.0  | 255.4  | 274.6  | 281.9  |
| 80°   | 124.1  | 160.2  | 192.7  | 208.4  | 213.2  |
| 82.5° | 80.7   | 113.2  | 134.9  | 147.0  | 151.8  |
| 85°   | 41.0   | 65.0   | 80.7   | 89.1   | 89.1   |
| 87.5° | 13.3   | 24.1   | 28.9   | 25.3   | 19.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



Report Generated By 670246072 / DESKTOP-MV3F9LC







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







(END OF REPORT)