

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: P558487

Luminaire Tested: **24CBRK-A-42-UNV-L835-CD1-WAB-U**

Issue Date: 7/20/2021



**Test Information**

Test Method: LM-79-08  
Report Number: P558487  
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-A-42-UNV-L835-CD1-WAB-U  
Description: 2X4 4200 LUMEN, LED TROFFER RETROFIT KIT WITH 3500K AND 80 CRI LEDS  
Light Source: -  
Ballast/Driver: -

**Summary**

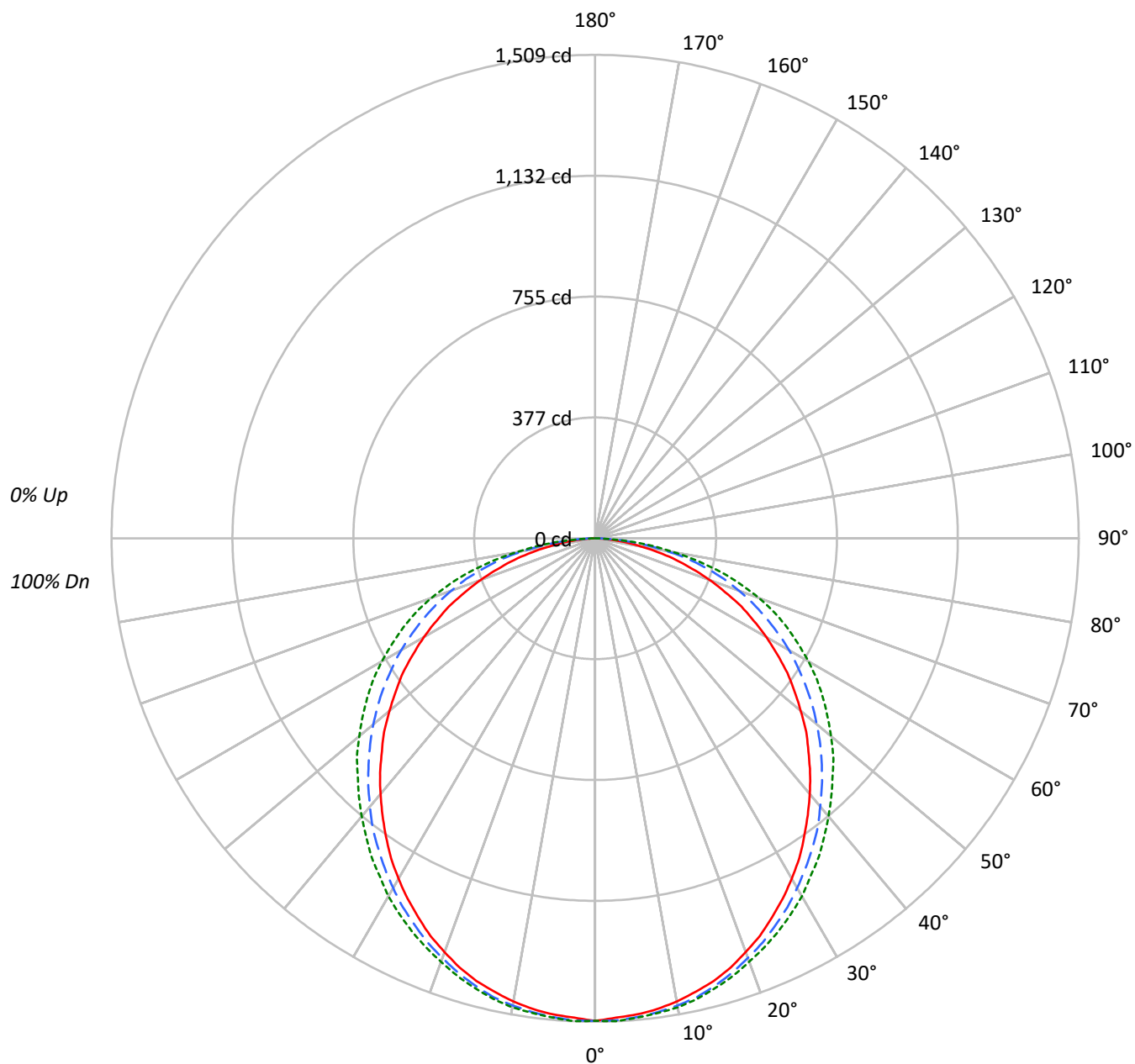
Lumens per Lamp: N/A  
Luminaire Lumens: 4430.0 lumens  
Efficiency: N/A  
Efficacy: 157.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 28.2  
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°  | 2027 | 2027 | 2027 |
| 5°  | 2015 | 2027 | 2029 |
| 10° | 2006 | 2023 | 2031 |
| 15° | 1993 | 2014 | 2024 |
| 20° | 1968 | 1996 | 2014 |
| 25° | 1938 | 1978 | 2009 |
| 30° | 1906 | 1959 | 2005 |
| 35° | 1868 | 1940 | 1997 |
| 40° | 1830 | 1919 | 1990 |
| 45° | 1791 | 1903 | 1993 |
| 50° | 1752 | 1891 | 2011 |
| 55° | 1717 | 1882 | 2036 |
| 60° | 1661 | 1883 | 2068 |
| 65° | 1603 | 1875 | 2107 |
| 70° | 1495 | 1876 | 2135 |
| 75° | 1364 | 1859 | 2107 |
| 80° | 1119 | 1739 | 1923 |
| 85° | 736  | 1451 | 1602 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 142.5  | 3.2       |
| 10°-20°   | 407.2  | 9.2       |
| 20°-30°   | 613.7  | 13.9      |
| 30°-40°   | 737.8  | 16.7      |
| 40°-50°   | 770.6  | 17.4      |
| 50°-60°   | 716.1  | 16.2      |
| 60°-70°   | 578.5  | 13.1      |
| 70°-80°   | 363.0  | 8.2       |
| 80°-90°   | 100.6  | 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°    | 1163.4 | 26.3      |
| 0°-40°    | 1901.1 | 42.9      |
| 0°-60°    | 3387.9 | 76.5      |
| 0°-90°    | 4430.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4430.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1506 | 1506  | 1506 | 1506  | 1506 |      |
| 5°  | 1492 | 1495  | 1501 | 1503  | 1502 | 142  |
| 15° | 1430 | 1436  | 1446 | 1452  | 1453 | 403  |
| 25° | 1306 | 1314  | 1332 | 1349  | 1353 | 602  |
| 35° | 1137 | 1151  | 1181 | 1205  | 1216 | 712  |
| 45° | 941  | 961   | 1000 | 1036  | 1048 | 727  |
| 55° | 732  | 752   | 802  | 850   | 868  | 652  |
| 65° | 504  | 529   | 589  | 642   | 662  | 495  |
| 75° | 262  | 299   | 358  | 396   | 405  | 275  |
| 85° | 48   | 76    | 94   | 104   | 104  | 62   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1506.2 | 1506.2 | 1506.2 | 1506.2 | 1506.2 |
| 2.5°  | 1497.8 | 1500.6 | 1506.2 | 1509.0 | 1509.0 |
| 5°    | 1492.2 | 1495.0 | 1500.6 | 1503.4 | 1502.0 |
| 7.5°  | 1482.3 | 1486.6 | 1492.2 | 1495.0 | 1495.0 |
| 10°   | 1468.3 | 1472.5 | 1480.9 | 1486.6 | 1486.6 |
| 12.5° | 1450.1 | 1455.7 | 1466.9 | 1471.1 | 1472.5 |
| 15°   | 1430.5 | 1436.1 | 1445.9 | 1451.5 | 1452.9 |
| 17.5° | 1405.2 | 1410.8 | 1422.0 | 1429.1 | 1431.9 |
| 20°   | 1374.4 | 1381.4 | 1394.0 | 1405.2 | 1406.6 |
| 22.5° | 1343.5 | 1350.5 | 1365.9 | 1378.6 | 1381.4 |
| 25°   | 1305.6 | 1314.1 | 1332.3 | 1349.1 | 1353.3 |
| 27.5° | 1267.8 | 1277.6 | 1298.6 | 1316.9 | 1322.5 |
| 30°   | 1227.1 | 1238.3 | 1260.8 | 1281.8 | 1290.2 |
| 32.5° | 1185.0 | 1196.3 | 1221.5 | 1245.3 | 1250.9 |
| 35°   | 1137.4 | 1151.4 | 1180.8 | 1204.7 | 1215.9 |
| 37.5° | 1089.7 | 1106.5 | 1140.2 | 1168.2 | 1173.8 |
| 40°   | 1042.0 | 1058.8 | 1092.5 | 1124.7 | 1133.1 |
| 42.5° | 992.9  | 1011.1 | 1047.6 | 1081.3 | 1091.1 |
| 45°   | 941.0  | 960.6  | 999.9  | 1036.4 | 1047.6 |
| 47.5° | 893.3  | 910.2  | 952.2  | 991.5  | 1008.3 |
| 50°   | 837.2  | 858.3  | 903.2  | 945.2  | 960.6  |
| 52.5° | 783.9  | 805.0  | 854.1  | 898.9  | 914.4  |
| 55°   | 732.1  | 751.7  | 802.2  | 849.9  | 868.1  |
| 57.5° | 673.2  | 697.0  | 750.3  | 802.2  | 820.4  |
| 60°   | 617.1  | 640.9  | 699.8  | 751.7  | 768.5  |
| 62.5° | 558.2  | 586.2  | 643.7  | 695.6  | 713.8  |
| 65°   | 503.5  | 528.7  | 589.0  | 642.3  | 661.9  |
| 67.5° | 439.0  | 469.8  | 534.3  | 586.2  | 605.8  |
| 70°   | 380.1  | 410.9  | 476.8  | 527.3  | 542.7  |
| 72.5° | 318.3  | 354.8  | 420.7  | 462.8  | 475.4  |
| 75°   | 262.3  | 298.7  | 357.6  | 395.5  | 405.3  |
| 77.5° | 201.9  | 239.8  | 297.3  | 319.7  | 328.2  |
| 80°   | 144.4  | 186.5  | 224.4  | 242.6  | 248.2  |
| 82.5° | 94.0   | 131.8  | 157.1  | 171.1  | 176.7  |
| 85°   | 47.7   | 75.7   | 94.0   | 103.8  | 103.8  |
| 87.5° | 15.4   | 28.0   | 33.7   | 29.5   | 22.4   |
| 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)