

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: P475600

Luminaire Tested: **24GR-LD5-48-F125-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475600  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-48-F125-UNV-L835-CD1-U  
Description: GR 2'X4' LED TROFFER w/ F125 LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 4855.9 lumens  
Efficiency: N/A  
Efficacy: 147.1 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.23 / 1.33  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

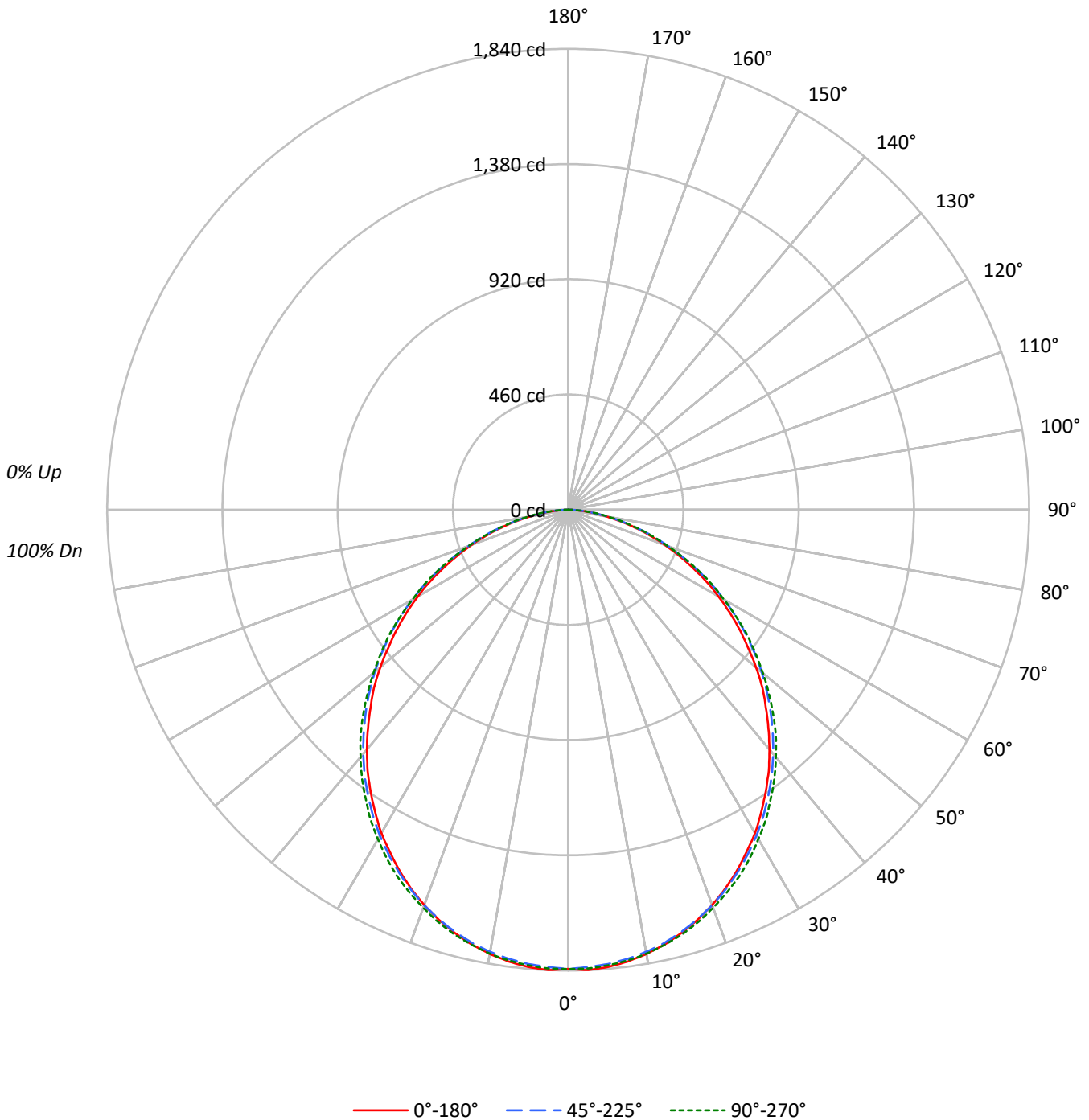
Input Watts (W): 33  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475600

CATALOG NUMBER: 24GR-LD5-48-F125-UNV-L835-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475600

CATALOG NUMBER: 24GR-LD5-48-F125-UNV-L835-CD1-U

**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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |
| 1   | 109 | 104 | 100 | 97  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |
| 2   | 99  | 91  | 85  | 79  | 97  | 89  | 83  | 78  | 86  | 81  | 76  | 83  | 78  | 75  | 80  | 76  | 73  | 71  |
| 3   | 91  | 80  | 72  | 66  | 88  | 79  | 71  | 65  | 76  | 69  | 64  | 73  | 68  | 63  | 71  | 66  | 62  | 60  |
| 4   | 83  | 71  | 63  | 56  | 81  | 70  | 62  | 56  | 68  | 61  | 55  | 65  | 59  | 54  | 63  | 58  | 53  | 51  |
| 5   | 77  | 64  | 55  | 48  | 74  | 63  | 54  | 48  | 61  | 53  | 48  | 59  | 52  | 47  | 57  | 51  | 47  | 45  |
| 6   | 71  | 58  | 49  | 42  | 69  | 57  | 48  | 42  | 55  | 47  | 42  | 53  | 47  | 41  | 52  | 46  | 41  | 39  |
| 7   | 66  | 52  | 44  | 38  | 64  | 51  | 43  | 37  | 50  | 43  | 37  | 48  | 42  | 37  | 47  | 41  | 37  | 35  |
| 8   | 61  | 48  | 39  | 34  | 60  | 47  | 39  | 33  | 46  | 38  | 33  | 45  | 38  | 33  | 43  | 37  | 33  | 31  |
| 9   | 57  | 44  | 36  | 30  | 56  | 43  | 35  | 30  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 28  |
| 10  | 54  | 41  | 33  | 27  | 52  | 40  | 32  | 27  | 39  | 32  | 27  | 38  | 32  | 27  | 37  | 31  | 27  | 25  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 2467 | 2467 | 2467 |
| 5°  | 2475 | 2459 | 2466 |
| 10° | 2461 | 2449 | 2459 |
| 15° | 2436 | 2431 | 2446 |
| 20° | 2405 | 2406 | 2422 |
| 25° | 2363 | 2373 | 2398 |
| 30° | 2317 | 2335 | 2359 |
| 35° | 2258 | 2288 | 2315 |
| 40° | 2196 | 2235 | 2265 |
| 45° | 2123 | 2175 | 2203 |
| 50° | 2049 | 2109 | 2123 |
| 55° | 1960 | 2031 | 2046 |
| 60° | 1867 | 1930 | 1933 |
| 65° | 1744 | 1812 | 1821 |
| 70° | 1616 | 1661 | 1656 |
| 75° | 1435 | 1487 | 1491 |
| 80° | 1201 | 1244 | 1290 |
| 85° | 902  | 969  | 1003 |



TEST NUMBER: P475600

CATALOG NUMBER: 24GR-LD5-48-F125-UNV-L835-CD1-U

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 173.3  | 3.6       |
| 10°-20°   | 493.0  | 10.2      |
| 20°-30°   | 736.9  | 15.2      |
| 30°-40°   | 870.6  | 17.9      |
| 40°-50°   | 878.9  | 18.1      |
| 50°-60°   | 767.0  | 15.8      |
| 60°-70°   | 559.2  | 11.5      |
| 70°-80°   | 301.6  | 6.2       |
| 80°-90°   | 75.5   | 1.6       |
| 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°    | 1403.1 | 28.9      |
| 0°-40°    | 2273.7 | 46.8      |
| 0°-60°    | 3919.6 | 80.7      |
| 0°-90°    | 4855.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 4855.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1834 | 1834  | 1834 | 1834  | 1834 |      |
| 5°  | 1832 | 1826  | 1821 | 1822  | 1826 | 174  |
| 15° | 1749 | 1746  | 1745 | 1749  | 1756 | 493  |
| 25° | 1592 | 1592  | 1598 | 1608  | 1615 | 733  |
| 35° | 1374 | 1378  | 1393 | 1407  | 1409 | 860  |
| 45° | 1116 | 1124  | 1143 | 1157  | 1158 | 861  |
| 55° | 836  | 846   | 866  | 869   | 872  | 747  |
| 65° | 548  | 560   | 569  | 570   | 572  | 544  |
| 75° | 276  | 279   | 286  | 287   | 287  | 293  |
| 85° | 58   | 60    | 63   | 66    | 65   | 71   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P475600

CATALOG NUMBER: 24GR-LD5-48-F125-UNV-L835-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1833.8 | 1833.8 | 1833.8 | 1833.8 | 1833.8 |
| 2.5°  | 1839.9 | 1833.3 | 1828.1 | 1829.2 | 1833.6 |
| 5°    | 1832.5 | 1825.9 | 1820.9 | 1822.5 | 1826.1 |
| 7.5°  | 1819.2 | 1813.2 | 1809.3 | 1811.0 | 1815.7 |
| 10°   | 1801.1 | 1796.1 | 1792.5 | 1795.0 | 1800.0 |
| 12.5° | 1778.0 | 1773.0 | 1771.6 | 1775.2 | 1779.6 |
| 15°   | 1749.1 | 1745.5 | 1745.2 | 1749.3 | 1755.9 |
| 17.5° | 1716.6 | 1713.0 | 1714.9 | 1720.4 | 1726.2 |
| 20°   | 1679.7 | 1676.4 | 1680.2 | 1687.7 | 1691.5 |
| 22.5° | 1637.6 | 1634.8 | 1641.7 | 1649.4 | 1654.4 |
| 25°   | 1591.9 | 1592.1 | 1598.2 | 1608.4 | 1615.0 |
| 27.5° | 1541.2 | 1543.2 | 1552.2 | 1562.1 | 1568.8 |
| 30°   | 1491.4 | 1489.7 | 1502.7 | 1513.4 | 1518.4 |
| 32.5° | 1433.6 | 1434.4 | 1449.6 | 1460.6 | 1468.0 |
| 35°   | 1374.4 | 1378.3 | 1393.1 | 1406.6 | 1409.4 |
| 37.5° | 1314.7 | 1317.4 | 1335.3 | 1348.5 | 1352.1 |
| 40°   | 1250.0 | 1254.9 | 1272.6 | 1285.0 | 1289.4 |
| 42.5° | 1182.6 | 1188.9 | 1207.9 | 1220.8 | 1226.6 |
| 45°   | 1115.7 | 1123.6 | 1142.9 | 1157.2 | 1157.5 |
| 47.5° | 1051.0 | 1056.8 | 1075.5 | 1088.1 | 1086.8 |
| 50°   | 978.9  | 987.4  | 1007.5 | 1015.2 | 1014.4 |
| 52.5° | 905.1  | 918.0  | 936.5  | 942.5  | 941.7  |
| 55°   | 835.7  | 845.9  | 865.7  | 869.0  | 872.0  |
| 57.5° | 763.9  | 772.7  | 794.1  | 795.5  | 795.0  |
| 60°   | 693.7  | 701.7  | 717.3  | 721.2  | 718.2  |
| 62.5° | 622.9  | 630.9  | 645.0  | 648.8  | 648.3  |
| 65°   | 547.8  | 559.6  | 569.0  | 570.1  | 572.0  |
| 67.5° | 477.9  | 485.3  | 494.4  | 496.0  | 494.7  |
| 70°   | 410.7  | 417.0  | 422.3  | 423.4  | 420.9  |
| 72.5° | 341.3  | 347.1  | 354.5  | 355.9  | 353.2  |
| 75°   | 276.1  | 278.8  | 286.0  | 287.1  | 286.8  |
| 77.5° | 212.8  | 215.0  | 220.2  | 224.3  | 224.9  |
| 80°   | 155.0  | 155.8  | 160.5  | 163.5  | 166.5  |
| 82.5° | 102.7  | 104.9  | 108.5  | 111.5  | 114.2  |
| 85°   | 58.4   | 59.7   | 62.8   | 65.8   | 65.0   |
| 87.5° | 22.6   | 25.6   | 25.9   | 28.9   | 30.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)