

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: P475617

Luminaire Tested: **24GR-LD5-64-F125-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475617  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-64-F125-UNV-L840-CD1-U  
Description: GR 2'X4' LED TROFFER w/ F125 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6458.2 lumens  
Efficiency: N/A  
Efficacy: 148.8 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

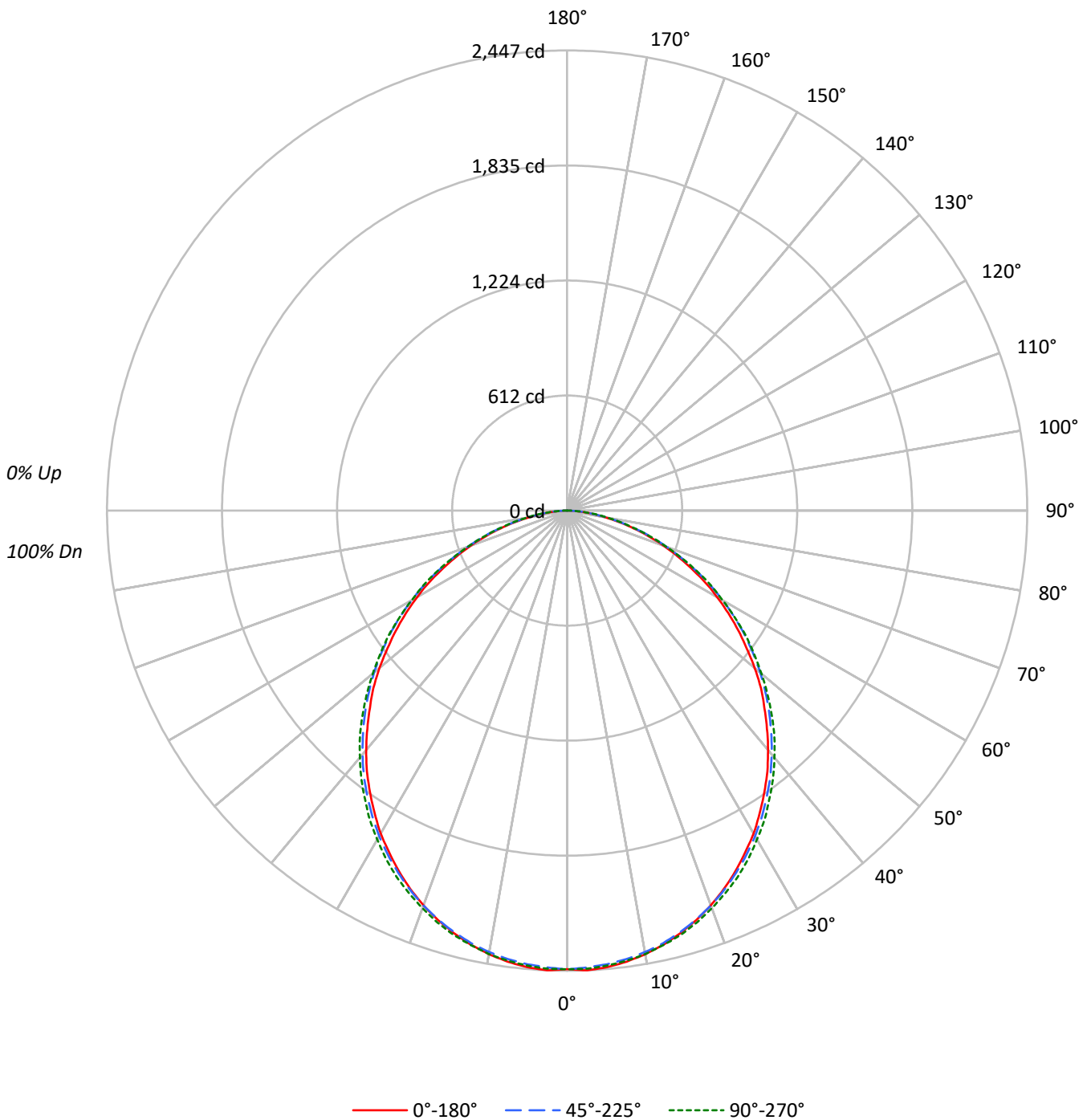
Input Watts (W): 43.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P475617

CATALOG NUMBER: 24GR-LD5-64-F125-UNV-L840-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P475617

CATALOG NUMBER: 24GR-LD5-64-F125-UNV-L840-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°  | 3282 | 3282 | 3282 |
| 5°  | 3292 | 3271 | 3280 |
| 10° | 3273 | 3257 | 3271 |
| 15° | 3240 | 3233 | 3253 |
| 20° | 3199 | 3200 | 3221 |
| 25° | 3143 | 3156 | 3189 |
| 30° | 3082 | 3105 | 3137 |
| 35° | 3003 | 3043 | 3079 |
| 40° | 2920 | 2973 | 3012 |
| 45° | 2823 | 2892 | 2929 |
| 50° | 2725 | 2805 | 2824 |
| 55° | 2607 | 2701 | 2721 |
| 60° | 2483 | 2567 | 2570 |
| 65° | 2319 | 2409 | 2422 |
| 70° | 2149 | 2209 | 2202 |
| 75° | 1909 | 1978 | 1983 |
| 80° | 1597 | 1654 | 1716 |
| 85° | 1198 | 1289 | 1334 |



TEST NUMBER: P475617

CATALOG NUMBER: 24GR-LD5-64-F125-UNV-L840-CD1-U

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 230.4  | 3.6       |
| 10°-20°   | 655.6  | 10.2      |
| 20°-30°   | 980.1  | 15.2      |
| 30°-40°   | 1157.9 | 17.9      |
| 40°-50°   | 1168.9 | 18.1      |
| 50°-60°   | 1020.1 | 15.8      |
| 60°-70°   | 743.7  | 11.5      |
| 70°-80°   | 401.1  | 6.2       |
| 80°-90°   | 100.4  | 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°    | 1866.2 | 28.9      |
| 0°-40°    | 3024.1 | 46.8      |
| 0°-60°    | 5213.1 | 80.7      |
| 0°-90°    | 6458.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6458.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2439 | 2439  | 2439 | 2439  | 2439 |      |
| 5°  | 2437 | 2428  | 2422 | 2424  | 2429 | 231  |
| 15° | 2326 | 2322  | 2321 | 2327  | 2335 | 656  |
| 25° | 2117 | 2118  | 2126 | 2139  | 2148 | 975  |
| 35° | 1828 | 1833  | 1853 | 1871  | 1874 | 1144 |
| 45° | 1484 | 1494  | 1520 | 1539  | 1540 | 1146 |
| 55° | 1112 | 1125  | 1151 | 1156  | 1160 | 993  |
| 65° | 728  | 744   | 757  | 758   | 761  | 724  |
| 75° | 367  | 371   | 380  | 382   | 382  | 390  |
| 85° | 78   | 79    | 84   | 88    | 86   | 94   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P475617

CATALOG NUMBER: 24GR-LD5-64-F125-UNV-L840-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2439.0 | 2439.0 | 2439.0 | 2439.0 | 2439.0 |
| 2.5°  | 2447.0 | 2438.2 | 2431.3 | 2432.8 | 2438.6 |
| 5°    | 2437.1 | 2428.4 | 2421.8 | 2424.0 | 2428.7 |
| 7.5°  | 2419.6 | 2411.5 | 2406.4 | 2408.6 | 2414.8 |
| 10°   | 2395.4 | 2388.8 | 2384.1 | 2387.4 | 2393.9 |
| 12.5° | 2364.7 | 2358.1 | 2356.2 | 2361.0 | 2366.9 |
| 15°   | 2326.2 | 2321.5 | 2321.1 | 2326.6 | 2335.4 |
| 17.5° | 2283.0 | 2278.3 | 2280.8 | 2288.1 | 2295.8 |
| 20°   | 2234.0 | 2229.6 | 2234.7 | 2244.6 | 2249.7 |
| 22.5° | 2177.9 | 2174.3 | 2183.4 | 2193.7 | 2200.3 |
| 25°   | 2117.2 | 2117.5 | 2125.6 | 2139.1 | 2147.9 |
| 27.5° | 2049.8 | 2052.4 | 2064.5 | 2077.6 | 2086.4 |
| 30°   | 1983.5 | 1981.3 | 1998.6 | 2012.8 | 2019.4 |
| 32.5° | 1906.7 | 1907.8 | 1927.9 | 1942.5 | 1952.4 |
| 35°   | 1828.0 | 1833.1 | 1852.8 | 1870.8 | 1874.4 |
| 37.5° | 1748.5 | 1752.2 | 1776.0 | 1793.5 | 1798.3 |
| 40°   | 1662.5 | 1669.1 | 1692.5 | 1709.0 | 1714.8 |
| 42.5° | 1572.8 | 1581.2 | 1606.5 | 1623.7 | 1631.4 |
| 45°   | 1483.8 | 1494.4 | 1520.1 | 1539.1 | 1539.5 |
| 47.5° | 1397.8 | 1405.5 | 1430.4 | 1447.2 | 1445.4 |
| 50°   | 1301.9 | 1313.2 | 1339.9 | 1350.2 | 1349.1 |
| 52.5° | 1203.7 | 1221.0 | 1245.5 | 1253.5 | 1252.4 |
| 55°   | 1111.5 | 1125.0 | 1151.4 | 1155.8 | 1159.8 |
| 57.5° | 1015.9 | 1027.7 | 1056.2 | 1058.0 | 1057.3 |
| 60°   | 922.6  | 933.2  | 954.1  | 959.2  | 955.2  |
| 62.5° | 828.5  | 839.1  | 857.8  | 862.9  | 862.2  |
| 65°   | 728.5  | 744.3  | 756.7  | 758.2  | 760.8  |
| 67.5° | 635.6  | 645.4  | 657.5  | 659.7  | 657.9  |
| 70°   | 546.2  | 554.6  | 561.6  | 563.1  | 559.8  |
| 72.5° | 454.0  | 461.7  | 471.5  | 473.4  | 469.7  |
| 75°   | 367.2  | 370.9  | 380.4  | 381.8  | 381.5  |
| 77.5° | 283.0  | 285.9  | 292.9  | 298.4  | 299.1  |
| 80°   | 206.1  | 207.2  | 213.4  | 217.5  | 221.5  |
| 82.5° | 136.6  | 139.5  | 144.2  | 148.3  | 151.9  |
| 85°   | 77.6   | 79.4   | 83.5   | 87.5   | 86.4   |
| 87.5° | 30.0   | 34.0   | 34.4   | 38.4   | 39.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)