

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: P475797

Luminaire Tested: **24GR-LD5-64-A125-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475797  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-64-A125-UNV-L840-CD1-U  
Description: GR 2'X4' LED TROFFER w/ A125 LENS  
Light Source: 4000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 6484.5 lumens  
Efficiency: N/A  
Efficacy: 149.4 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

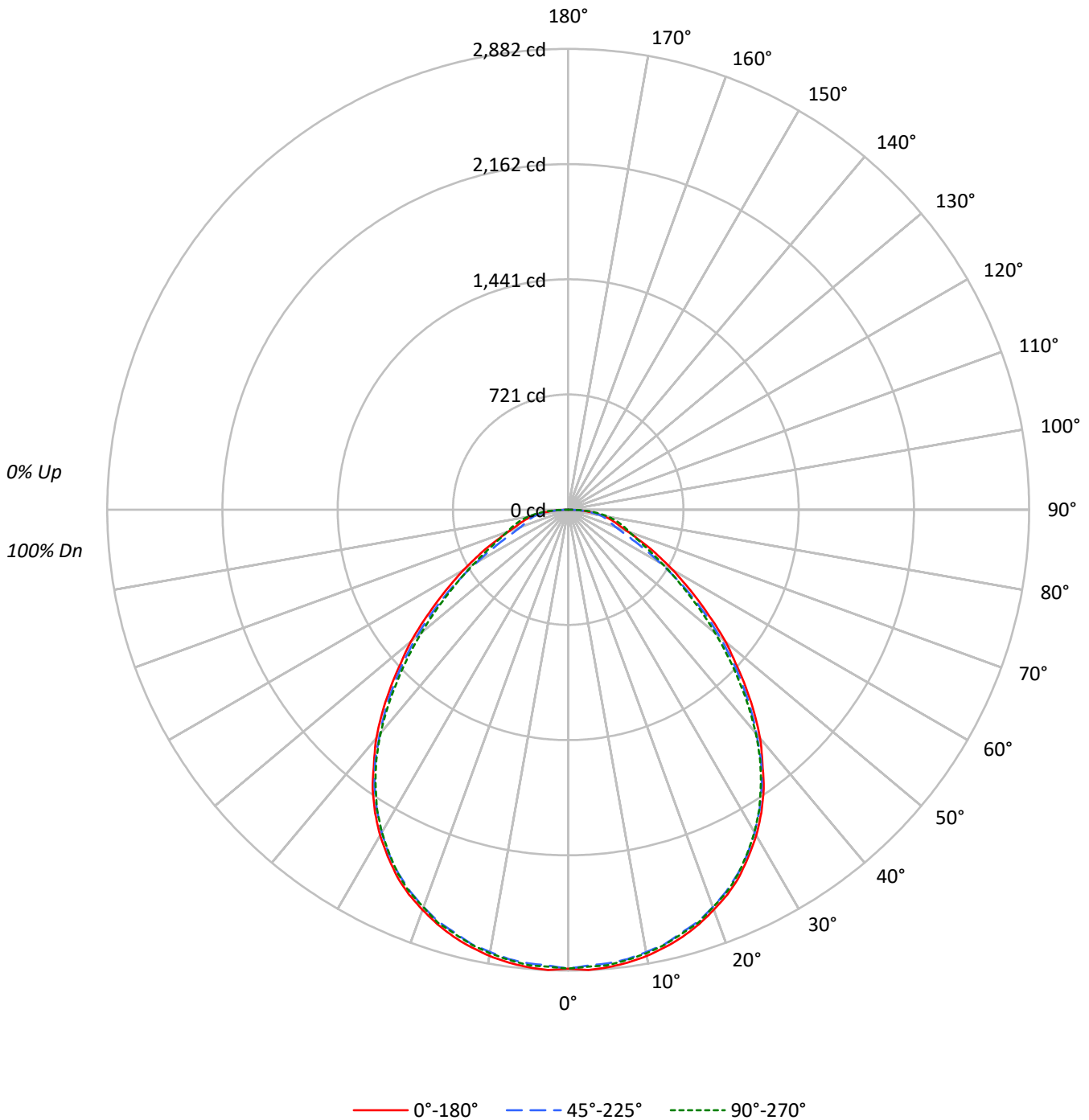
Input Watts (W): 43.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 110 | 105 | 101 | 98  | 107 | 103 | 100 | 96  | 99  | 96  | 93  | 95  | 93  | 90  | 91  | 90  | 88  |     |    |    |    | 86 |     |   |  |   |
| 2   | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 77  | 82  | 78  | 76  |     |    |    |    | 73 |     |   |  |   |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  | 76  | 71  | 67  | 73  | 69  | 66  |     |    |    |    | 63 |     |   |  |   |
| 4   | 86  | 74  | 66  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  | 68  | 63  | 58  | 66  | 61  | 57  |     |    |    |    | 55 |     |   |  |   |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  | 62  | 56  | 51  | 60  | 55  | 51  |     |    |    |    | 49 |     |   |  |   |
| 6   | 73  | 61  | 53  | 47  | 72  | 60  | 52  | 46  | 58  | 51  | 46  | 57  | 50  | 46  | 55  | 50  | 45  |     |    |    |    | 43 |     |   |  |   |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 41  | 53  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 41  |     |    |    |    | 39 |     |   |  |   |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 43  | 37  | 49  | 42  | 37  | 48  | 42  | 37  | 47  | 41  | 37  |     |    |    |    | 35 |     |   |  |   |
| 9   | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 34  | 43  | 38  | 33  |     |    |    |    | 32 |     |   |  |   |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 40  | 35  | 31  |     |    |    |    | 29 |     |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3862 | 3862 | 3862 |
| 5°  | 3880 | 3846 | 3863 |
| 10° | 3871 | 3838 | 3848 |
| 15° | 3852 | 3815 | 3824 |
| 20° | 3813 | 3786 | 3788 |
| 25° | 3758 | 3727 | 3733 |
| 30° | 3654 | 3621 | 3619 |
| 35° | 3500 | 3466 | 3449 |
| 40° | 3280 | 3216 | 3202 |
| 45° | 2986 | 2926 | 2870 |
| 50° | 2688 | 2593 | 2508 |
| 55° | 2332 | 2206 | 2140 |
| 60° | 2037 | 1778 | 1840 |
| 65° | 1762 | 1413 | 1636 |
| 70° | 1555 | 1239 | 1598 |
| 75° | 1561 | 1347 | 1747 |
| 80° | 1710 | 1601 | 1978 |
| 85° | 1803 | 1743 | 2268 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 271.2  | 4.2       |
| 10°-20°   | 775.1  | 12.0      |
| 20°-30°   | 1155.6 | 17.8      |
| 30°-40°   | 1313.6 | 20.3      |
| 40°-50°   | 1183.9 | 18.3      |
| 50°-60°   | 852.7  | 13.2      |
| 60°-70°   | 496.0  | 7.6       |
| 70°-80°   | 303.5  | 4.7       |
| 80°-90°   | 132.8  | 2.0       |
| 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°    | 2201.9 | 34.0      |
| 0°-40°    | 3515.5 | 54.2      |
| 0°-60°    | 5552.1 | 85.6      |
| 0°-90°    | 6484.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6484.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2870 | 2870  | 2870 | 2870  | 2870 |      |
| 5°  | 2873 | 2853  | 2848 | 2853  | 2860 | 273  |
| 15° | 2766 | 2750  | 2739 | 2743  | 2745 | 780  |
| 25° | 2531 | 2516  | 2511 | 2507  | 2515 | 1163 |
| 35° | 2131 | 2116  | 2110 | 2098  | 2100 | 1326 |
| 45° | 1569 | 1551  | 1538 | 1514  | 1508 | 1210 |
| 55° | 994  | 971   | 940  | 931   | 912  | 897  |
| 65° | 554  | 498   | 444  | 479   | 514  | 554  |
| 75° | 300  | 272   | 259  | 295   | 336  | 320  |
| 85° | 117  | 116   | 113  | 153   | 147  | 124  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2870.1 | 2870.1 | 2870.1 | 2870.1 | 2870.1 |
| 2.5°  | 2881.6 | 2866.2 | 2853.4 | 2854.0 | 2860.4 |
| 5°    | 2872.6 | 2852.7 | 2847.6 | 2853.4 | 2859.8 |
| 7.5°  | 2856.6 | 2838.0 | 2834.8 | 2831.6 | 2839.3 |
| 10°   | 2833.5 | 2820.7 | 2809.1 | 2812.3 | 2816.8 |
| 12.5° | 2802.7 | 2791.8 | 2783.5 | 2777.0 | 2786.7 |
| 15°   | 2765.5 | 2750.1 | 2738.6 | 2743.0 | 2745.0 |
| 17.5° | 2718.7 | 2703.9 | 2700.7 | 2698.1 | 2707.8 |
| 20°   | 2662.9 | 2653.9 | 2644.3 | 2646.8 | 2645.5 |
| 22.5° | 2603.8 | 2590.4 | 2582.7 | 2578.8 | 2589.1 |
| 25°   | 2531.3 | 2516.0 | 2510.8 | 2507.0 | 2514.7 |
| 27.5° | 2442.8 | 2434.5 | 2427.4 | 2422.3 | 2422.9 |
| 30°   | 2351.7 | 2343.4 | 2330.6 | 2326.7 | 2329.3 |
| 32.5° | 2247.2 | 2237.5 | 2226.0 | 2214.4 | 2222.8 |
| 35°   | 2131.1 | 2116.3 | 2109.9 | 2097.7 | 2099.6 |
| 37.5° | 1993.8 | 1987.4 | 1981.6 | 1965.5 | 1970.7 |
| 40°   | 1867.4 | 1850.1 | 1830.8 | 1821.2 | 1823.1 |
| 42.5° | 1721.1 | 1703.2 | 1687.8 | 1674.3 | 1667.9 |
| 45°   | 1569.1 | 1551.1 | 1537.7 | 1513.9 | 1508.2 |
| 47.5° | 1417.7 | 1401.0 | 1386.3 | 1367.7 | 1351.0 |
| 50°   | 1284.3 | 1253.5 | 1238.7 | 1219.5 | 1198.3 |
| 52.5° | 1134.2 | 1116.2 | 1087.3 | 1071.3 | 1052.1 |
| 55°   | 994.3  | 970.6  | 940.4  | 930.8  | 912.2  |
| 57.5° | 868.6  | 842.9  | 798.7  | 794.8  | 794.2  |
| 60°   | 757.0  | 722.3  | 660.7  | 665.2  | 683.8  |
| 62.5° | 648.6  | 599.2  | 543.3  | 563.2  | 590.8  |
| 65°   | 553.6  | 497.8  | 443.9  | 478.6  | 513.8  |
| 67.5° | 462.5  | 412.5  | 366.9  | 413.1  | 450.3  |
| 70°   | 395.2  | 353.5  | 315.0  | 364.4  | 406.1  |
| 72.5° | 338.7  | 306.6  | 281.6  | 326.5  | 371.4  |
| 75°   | 300.2  | 272.0  | 259.2  | 295.1  | 336.1  |
| 77.5° | 264.3  | 239.3  | 235.4  | 267.5  | 297.7  |
| 80°   | 220.7  | 203.4  | 206.6  | 239.3  | 255.3  |
| 82.5° | 168.1  | 162.9  | 163.6  | 204.6  | 207.8  |
| 85°   | 116.8  | 115.5  | 112.9  | 153.3  | 146.9  |
| 87.5° | 59.0   | 60.3   | 59.7   | 87.2   | 78.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)