

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: P475774

Luminaire Tested: **24GR-LD5-150-A125-UNV-L830-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475774  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-150-A125-UNV-L830-CD1-U  
Description: GR 2'X4' LED TROFFER w/ A125 LENS  
Light Source: 3000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 14612.8 lumens  
Efficiency: N/A  
Efficacy: 141.3 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

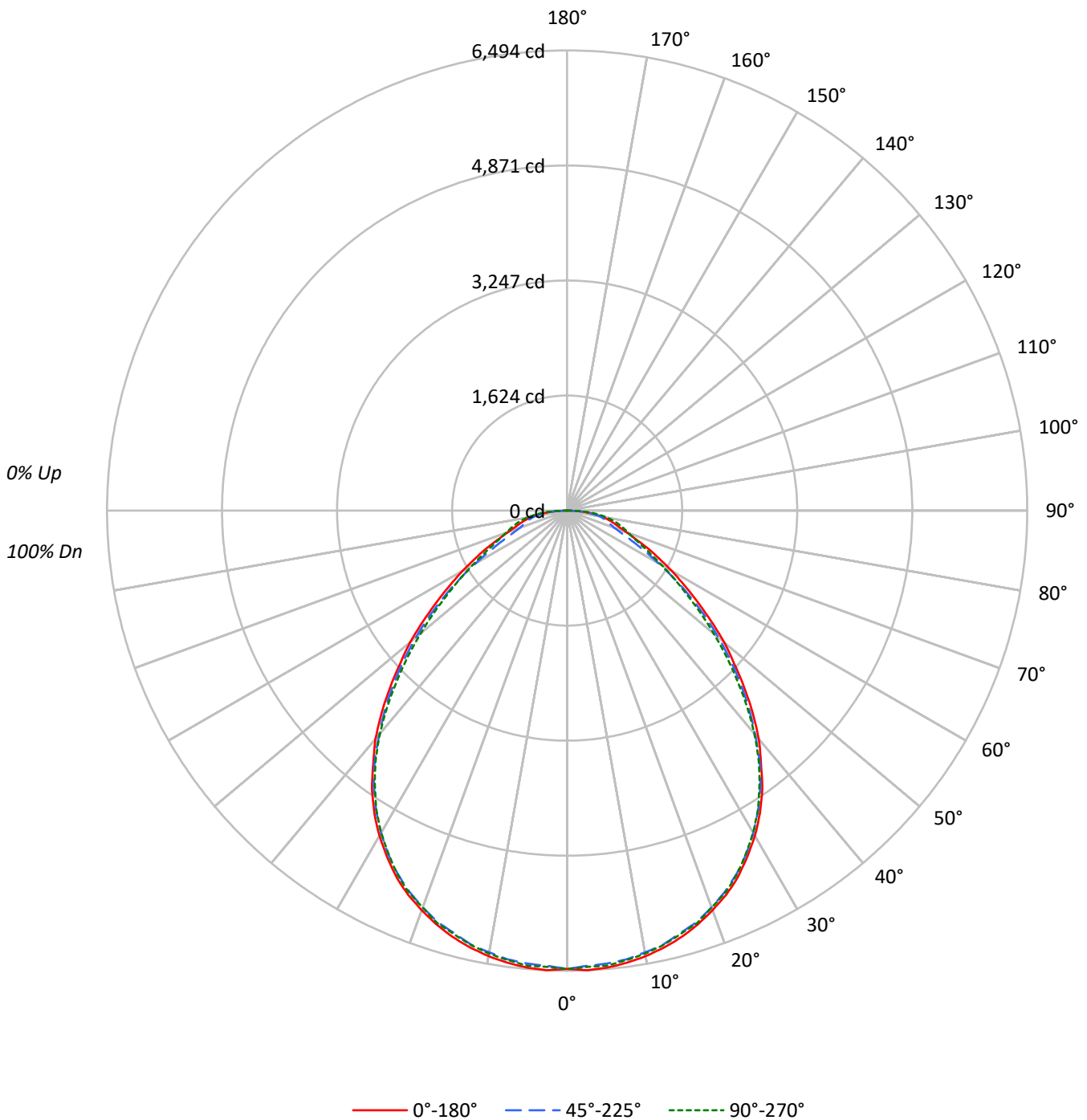
Input Watts (W): 103.4  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 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°  | 8702 | 8702 | 8702 |
| 5°  | 8743 | 8667 | 8704 |
| 10° | 8724 | 8649 | 8673 |
| 15° | 8681 | 8596 | 8617 |
| 20° | 8592 | 8532 | 8536 |
| 25° | 8469 | 8400 | 8413 |
| 30° | 8234 | 8160 | 8155 |
| 35° | 7888 | 7810 | 7772 |
| 40° | 7391 | 7247 | 7216 |
| 45° | 6728 | 6594 | 6467 |
| 50° | 6058 | 5843 | 5653 |
| 55° | 5256 | 4971 | 4822 |
| 60° | 4590 | 4007 | 4147 |
| 65° | 3972 | 3185 | 3686 |
| 70° | 3503 | 2792 | 3600 |
| 75° | 3517 | 3036 | 3938 |
| 80° | 3853 | 3607 | 4458 |
| 85° | 4062 | 3927 | 5110 |



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CATALOG NUMBER: 24GR-LD5-150-A125-UNV-L830-CD1-U

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 611.2   | 4.2       |
| 10°-20°   | 1746.6  | 12.0      |
| 20°-30°   | 2604.1  | 17.8      |
| 30°-40°   | 2960.3  | 20.3      |
| 40°-50°   | 2667.9  | 18.3      |
| 50°-60°   | 1921.7  | 13.2      |
| 60°-70°   | 1117.8  | 7.6       |
| 70°-80°   | 683.9   | 4.7       |
| 80°-90°   | 299.3   | 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°    | 4961.9  | 34.0      |
| 0°-40°    | 7922.3  | 54.2      |
| 0°-60°    | 12511.8 | 85.6      |
| 0°-90°    | 14612.8 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 14612.8 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 6468 | 6468  | 6468 | 6468  | 6468 |      |
| 5°  | 6474 | 6429  | 6417 | 6430  | 6445 | 615  |
| 15° | 6232 | 6197  | 6171 | 6182  | 6186 | 1757 |
| 25° | 5704 | 5670  | 5658 | 5650  | 5667 | 2620 |
| 35° | 4802 | 4769  | 4755 | 4727  | 4732 | 2988 |
| 45° | 3536 | 3496  | 3465 | 3412  | 3399 | 2728 |
| 55° | 2241 | 2187  | 2119 | 2098  | 2056 | 2020 |
| 65° | 1248 | 1122  | 1000 | 1078  | 1158 | 1248 |
| 75° | 677  | 613   | 584  | 665   | 758  | 720  |
| 85° | 263  | 260   | 254  | 346   | 331  | 279  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 6467.7 | 6467.7 | 6467.7 | 6467.7 | 6467.7 |
| 2.5°  | 6493.7 | 6459.0 | 6430.1 | 6431.6 | 6446.0 |
| 5°    | 6473.5 | 6428.7 | 6417.1 | 6430.1 | 6444.6 |
| 7.5°  | 6437.4 | 6395.4 | 6388.2 | 6381.0 | 6398.3 |
| 10°   | 6385.3 | 6356.4 | 6330.4 | 6337.6 | 6347.7 |
| 12.5° | 6315.9 | 6291.3 | 6272.6 | 6258.1 | 6279.8 |
| 15°   | 6232.1 | 6197.4 | 6171.4 | 6181.5 | 6185.8 |
| 17.5° | 6126.5 | 6093.3 | 6086.1 | 6080.3 | 6102.0 |
| 20°   | 6000.8 | 5980.5 | 5958.9 | 5964.6 | 5961.7 |
| 22.5° | 5867.8 | 5837.4 | 5820.1 | 5811.4 | 5834.5 |
| 25°   | 5704.4 | 5669.7 | 5658.2 | 5649.5 | 5666.8 |
| 27.5° | 5504.9 | 5486.1 | 5470.2 | 5458.7 | 5460.1 |
| 30°   | 5299.7 | 5280.9 | 5251.9 | 5243.3 | 5249.1 |
| 32.5° | 5064.0 | 5042.3 | 5016.3 | 4990.3 | 5009.1 |
| 35°   | 4802.4 | 4769.1 | 4754.7 | 4727.2 | 4731.5 |
| 37.5° | 4493.0 | 4478.5 | 4465.5 | 4429.4 | 4441.0 |
| 40°   | 4208.2 | 4169.2 | 4125.8 | 4104.1 | 4108.5 |
| 42.5° | 3878.6 | 3838.1 | 3803.4 | 3773.1 | 3758.6 |
| 45°   | 3536.0 | 3495.5 | 3465.2 | 3411.7 | 3398.7 |
| 47.5° | 3194.8 | 3157.2 | 3124.0 | 3082.1 | 3044.5 |
| 50°   | 2894.1 | 2824.7 | 2791.5 | 2748.1 | 2700.4 |
| 52.5° | 2555.9 | 2515.4 | 2450.3 | 2414.2 | 2370.8 |
| 55°   | 2240.7 | 2187.2 | 2119.3 | 2097.6 | 2055.7 |
| 57.5° | 1957.4 | 1899.5 | 1799.8 | 1791.1 | 1789.7 |
| 60°   | 1705.8 | 1627.8 | 1489.0 | 1499.1 | 1541.0 |
| 62.5° | 1461.5 | 1350.2 | 1224.4 | 1269.3 | 1331.4 |
| 65°   | 1247.6 | 1121.8 | 1000.4 | 1078.4 | 1157.9 |
| 67.5° | 1042.3 | 929.5  | 826.9  | 931.0  | 1014.8 |
| 70°   | 890.5  | 796.5  | 709.8  | 821.1  | 915.1  |
| 72.5° | 763.3  | 691.0  | 634.6  | 735.8  | 837.0  |
| 75°   | 676.6  | 612.9  | 584.0  | 665.0  | 757.5  |
| 77.5° | 595.6  | 539.2  | 530.5  | 602.8  | 670.8  |
| 80°   | 497.3  | 458.3  | 465.5  | 539.2  | 575.4  |
| 82.5° | 378.8  | 367.2  | 368.6  | 461.2  | 468.4  |
| 85°   | 263.1  | 260.2  | 254.4  | 345.5  | 331.0  |
| 87.5° | 133.0  | 135.9  | 134.4  | 196.6  | 176.4  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)