

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: P475801

Luminaire Tested: **24GR-LD5-100-A125-UNV-L840-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P475801  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-100-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: 10276.1 lumens  
Efficiency: N/A  
Efficacy: 153.1 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

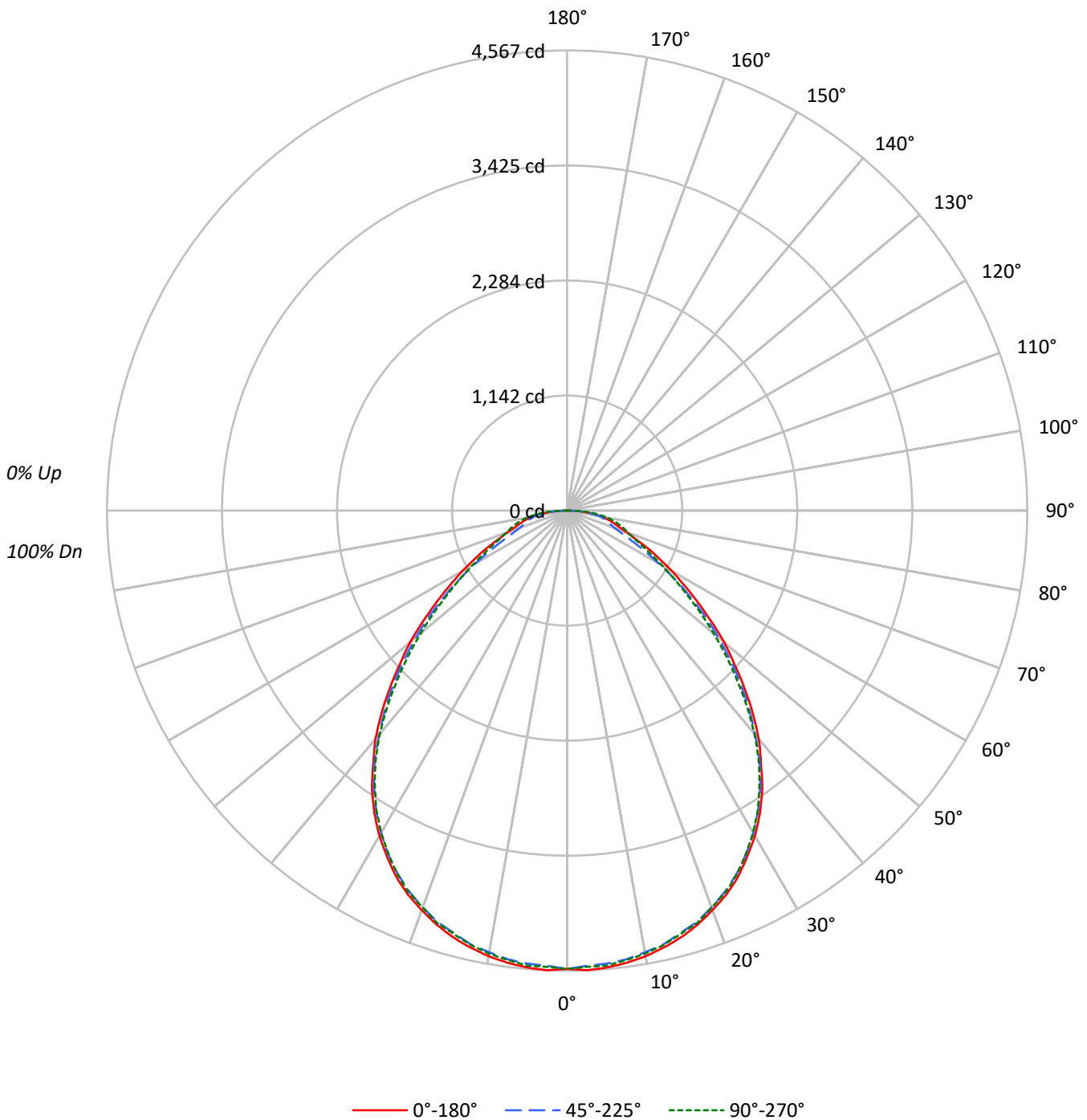
Input Watts (W): 67.1  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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°  | 6120 | 6120 | 6120 |
| 5°  | 6148 | 6095 | 6121 |
| 10° | 6135 | 6082 | 6099 |
| 15° | 6105 | 6045 | 6059 |
| 20° | 6042 | 6000 | 6003 |
| 25° | 5955 | 5907 | 5916 |
| 30° | 5790 | 5738 | 5735 |
| 35° | 5547 | 5492 | 5465 |
| 40° | 5198 | 5096 | 5075 |
| 45° | 4732 | 4637 | 4548 |
| 50° | 4260 | 4109 | 3975 |
| 55° | 3696 | 3496 | 3391 |
| 60° | 3228 | 2818 | 2916 |
| 65° | 2793 | 2240 | 2592 |
| 70° | 2463 | 1963 | 2531 |
| 75° | 2473 | 2135 | 2769 |
| 80° | 2710 | 2536 | 3135 |
| 85° | 2856 | 2762 | 3594 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 429.8   | 4.2       |
| 10°-20°   | 1228.3  | 12.0      |
| 20°-30°   | 1831.3  | 17.8      |
| 30°-40°   | 2081.8  | 20.3      |
| 40°-50°   | 1876.1  | 18.3      |
| 50°-60°   | 1351.4  | 13.2      |
| 60°-70°   | 786.0   | 7.6       |
| 70°-80°   | 480.9   | 4.7       |
| 80°-90°   | 210.5   | 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°    | 3489.4  | 34.0      |
| 0°-40°    | 5571.1  | 54.2      |
| 0°-60°    | 8798.7  | 85.6      |
| 0°-90°    | 10276.1 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 10276.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 4548 | 4548  | 4548 | 4548  | 4548 |      |
| 5°  | 4552 | 4521  | 4513 | 4522  | 4532 | 433  |
| 15° | 4383 | 4358  | 4340 | 4347  | 4350 | 1235 |
| 25° | 4012 | 3987  | 3979 | 3973  | 3985 | 1843 |
| 35° | 3377 | 3354  | 3344 | 3324  | 3327 | 2101 |
| 45° | 2487 | 2458  | 2437 | 2399  | 2390 | 1918 |
| 55° | 1576 | 1538  | 1490 | 1475  | 1446 | 1421 |
| 65° | 877  | 789   | 704  | 758   | 814  | 878  |
| 75° | 476  | 431   | 411  | 468   | 533  | 507  |
| 85° | 185  | 183   | 179  | 243   | 233  | 196  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 4548.3 | 4548.3 | 4548.3 | 4548.3 | 4548.3 |
| 2.5°  | 4566.6 | 4542.2 | 4521.8 | 4522.8 | 4533.0 |
| 5°    | 4552.3 | 4520.8 | 4512.7 | 4521.8 | 4532.0 |
| 7.5°  | 4526.9 | 4497.4 | 4492.3 | 4487.3 | 4499.5 |
| 10°   | 4490.3 | 4470.0 | 4451.7 | 4456.8 | 4463.9 |
| 12.5° | 4441.5 | 4424.2 | 4411.0 | 4400.9 | 4416.1 |
| 15°   | 4382.6 | 4358.2 | 4339.9 | 4347.0 | 4350.0 |
| 17.5° | 4308.3 | 4285.0 | 4279.9 | 4275.8 | 4291.1 |
| 20°   | 4219.9 | 4205.7 | 4190.4 | 4194.5 | 4192.5 |
| 22.5° | 4126.4 | 4105.0 | 4092.8 | 4086.7 | 4103.0 |
| 25°   | 4011.5 | 3987.1 | 3979.0 | 3972.9 | 3985.1 |
| 27.5° | 3871.2 | 3858.0 | 3846.8 | 3838.7 | 3839.7 |
| 30°   | 3726.8 | 3713.6 | 3693.3 | 3687.2 | 3691.3 |
| 32.5° | 3561.1 | 3545.9 | 3527.6 | 3509.3 | 3522.5 |
| 35°   | 3377.1 | 3353.8 | 3343.6 | 3324.3 | 3327.3 |
| 37.5° | 3159.6 | 3149.4 | 3140.3 | 3114.9 | 3123.0 |
| 40°   | 2959.3 | 2931.9 | 2901.4 | 2886.1 | 2889.2 |
| 42.5° | 2727.5 | 2699.1 | 2674.7 | 2653.3 | 2643.2 |
| 45°   | 2486.6 | 2458.1 | 2436.8 | 2399.2 | 2390.0 |
| 47.5° | 2246.7 | 2220.3 | 2196.9 | 2167.4 | 2141.0 |
| 50°   | 2035.2 | 1986.4 | 1963.1 | 1932.6 | 1899.0 |
| 52.5° | 1797.3 | 1768.9 | 1723.1 | 1697.7 | 1667.2 |
| 55°   | 1575.7 | 1538.1 | 1490.3 | 1475.1 | 1445.6 |
| 57.5° | 1376.5 | 1335.8 | 1265.7 | 1259.6 | 1258.5 |
| 60°   | 1199.6 | 1144.7 | 1047.1 | 1054.2 | 1083.7 |
| 62.5° | 1027.8 | 949.5  | 861.1  | 892.6  | 936.3  |
| 65°   | 877.3  | 788.9  | 703.5  | 758.4  | 814.3  |
| 67.5° | 733.0  | 653.7  | 581.5  | 654.7  | 713.7  |
| 70°   | 626.2  | 560.1  | 499.1  | 577.4  | 643.5  |
| 72.5° | 536.8  | 485.9  | 446.3  | 517.4  | 588.6  |
| 75°   | 475.8  | 431.0  | 410.7  | 467.6  | 532.7  |
| 77.5° | 418.8  | 379.2  | 373.1  | 423.9  | 471.7  |
| 80°   | 349.7  | 322.3  | 327.3  | 379.2  | 404.6  |
| 82.5° | 266.3  | 258.2  | 259.2  | 324.3  | 329.4  |
| 85°   | 185.0  | 183.0  | 178.9  | 243.0  | 232.8  |
| 87.5° | 93.5   | 95.6   | 94.5   | 138.3  | 124.0  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)