

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: P231820

Luminaire Tested: **24GR-LD5-100-A125-UNV-L930-CD2-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P231820  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33307)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-100-A125-UNV-L930-CD2-U  
Description: METALUX 2X4 GRLED TROFFER  
WITH A125 LENS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7926.9 lumens  
Efficiency: N/A  
Efficacy: 110.6 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.27  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

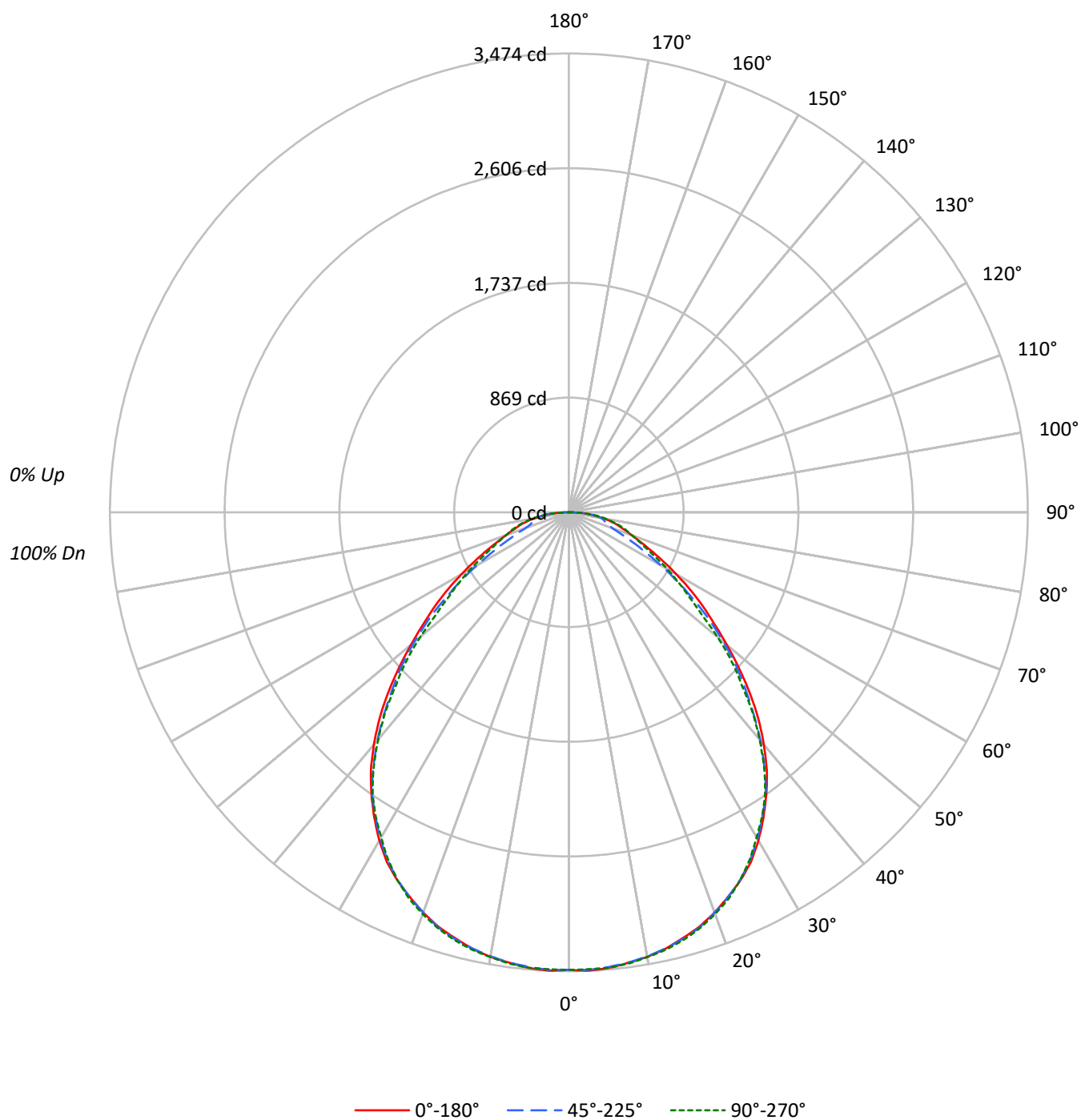
Input Watts (W): 71.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |     |  |     |     | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  | 30  | 10  |
| RCR |     |     |     |     |     |     |     |     |  |     |     |     |  |     |     |     |  |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 |  | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 | 102 | 102 |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 100 | 96  |  | 99  | 96  | 93  |  | 95  | 93  | 90  |  | 91  | 90  | 88  |
| 2   | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  |  | 88  | 83  | 79  |  | 85  | 81  | 77  |  | 82  | 79  | 76  |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  |  | 79  | 73  | 68  |  | 76  | 71  | 67  |  | 73  | 69  | 66  |
| 4   | 86  | 75  | 66  | 60  | 83  | 73  | 66  | 60  |  | 71  | 64  | 59  |  | 68  | 63  | 58  |  | 66  | 61  | 57  |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  |  | 64  | 57  | 52  |  | 62  | 56  | 51  |  | 60  | 55  | 51  |
| 6   | 73  | 61  | 53  | 47  | 72  | 60  | 52  | 46  |  | 58  | 51  | 46  |  | 57  | 50  | 46  |  | 55  | 50  | 45  |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 41  |  | 53  | 46  | 41  |  | 52  | 46  | 41  |  | 51  | 45  | 41  |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 43  | 37  |  | 49  | 42  | 37  |  | 48  | 41  | 37  |  | 47  | 41  | 37  |
| 9   | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 34  |  | 45  | 38  | 34  |  | 44  | 38  | 33  |  | 43  | 38  | 33  |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  |  | 42  | 35  | 31  |  | 41  | 35  | 31  |  | 40  | 35  | 30  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 5305 | 5305 | 5305 |
| 5°  | 5324 | 5312 | 5322 |
| 10° | 5316 | 5308 | 5318 |
| 15° | 5290 | 5300 | 5314 |
| 20° | 5255 | 5255 | 5275 |
| 25° | 5195 | 5185 | 5189 |
| 30° | 5074 | 5048 | 5024 |
| 35° | 4874 | 4860 | 4842 |
| 40° | 4591 | 4507 | 4488 |
| 45° | 4200 | 4085 | 4010 |
| 50° | 3713 | 3639 | 3498 |
| 55° | 3302 | 3078 | 2959 |
| 60° | 2875 | 2462 | 2640 |
| 65° | 2483 | 1909 | 2335 |
| 70° | 2265 | 1562 | 2259 |
| 75° | 2283 | 1684 | 2401 |
| 80° | 2378 | 2192 | 2531 |
| 85° | 2478 | 2608 | 2803 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 328.6  | 4.1       |
| 10°-20°   | 942.3  | 11.9      |
| 20°-30°   | 1410.6 | 17.8      |
| 30°-40°   | 1611.8 | 20.3      |
| 40°-50°   | 1457.2 | 18.4      |
| 50°-60°   | 1048.4 | 13.2      |
| 60°-70°   | 607.8  | 7.7       |
| 70°-80°   | 360.5  | 4.5       |
| 80°-90°   | 159.7  | 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°    | 2681.5 | 33.8      |
| 0°-40°    | 4293.3 | 54.2      |
| 0°-60°    | 6798.9 | 85.8      |
| 0°-90°    | 7926.9 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7926.9 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3464 | 3464  | 3464 | 3464  | 3464 |      |
| 5°  | 3462 | 3458  | 3455 | 3450  | 3461 | 329  |
| 15° | 3336 | 3343  | 3343 | 3339  | 3351 | 942  |
| 25° | 3074 | 3071  | 3068 | 3062  | 3071 | 1413 |
| 35° | 2607 | 2594  | 2599 | 2567  | 2590 | 1625 |
| 45° | 1939 | 1906  | 1886 | 1868  | 1851 | 1490 |
| 55° | 1237 | 1213  | 1152 | 1123  | 1108 | 1106 |
| 65° | 685  | 608   | 527  | 589   | 644  | 692  |
| 75° | 386  | 323   | 284  | 351   | 406  | 408  |
| 85° | 141  | 152   | 148  | 171   | 160  | 151  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3463.8 | 3463.8 | 3463.8 | 3463.8 | 3463.8 |
| 2.5°  | 3473.7 | 3461.3 | 3467.5 | 3463.8 | 3462.5 |
| 5°    | 3462.5 | 3457.6 | 3455.2 | 3450.2 | 3461.3 |
| 7.5°  | 3440.3 | 3436.6 | 3437.8 | 3439.1 | 3446.5 |
| 10°   | 3418.0 | 3411.9 | 3413.1 | 3415.5 | 3419.3 |
| 12.5° | 3383.4 | 3379.7 | 3380.9 | 3383.4 | 3392.1 |
| 15°   | 3336.4 | 3342.6 | 3342.6 | 3338.9 | 3351.3 |
| 17.5° | 3289.4 | 3288.2 | 3294.4 | 3283.3 | 3300.6 |
| 20°   | 3223.9 | 3225.1 | 3223.9 | 3225.1 | 3236.3 |
| 22.5° | 3149.7 | 3155.9 | 3152.2 | 3152.2 | 3164.5 |
| 25°   | 3074.3 | 3070.6 | 3068.1 | 3061.9 | 3070.6 |
| 27.5° | 2984.0 | 2976.6 | 2970.4 | 2958.0 | 2964.2 |
| 30°   | 2869.0 | 2870.2 | 2854.2 | 2843.0 | 2840.6 |
| 32.5° | 2740.4 | 2740.4 | 2725.5 | 2716.9 | 2724.3 |
| 35°   | 2606.8 | 2594.5 | 2599.4 | 2567.3 | 2589.5 |
| 37.5° | 2462.1 | 2442.4 | 2431.2 | 2420.1 | 2427.5 |
| 40°   | 2296.4 | 2270.4 | 2254.3 | 2232.1 | 2244.5 |
| 42.5° | 2122.1 | 2089.9 | 2070.1 | 2054.0 | 2059.0 |
| 45°   | 1939.1 | 1905.7 | 1885.8 | 1868.5 | 1851.2 |
| 47.5° | 1746.1 | 1725.1 | 1715.2 | 1693.0 | 1673.1 |
| 50°   | 1558.2 | 1550.7 | 1527.2 | 1508.7 | 1467.9 |
| 52.5° | 1386.3 | 1380.1 | 1343.0 | 1312.1 | 1260.1 |
| 55°   | 1236.6 | 1213.1 | 1152.5 | 1122.8 | 1108.0 |
| 57.5° | 1084.5 | 1046.2 | 973.3  | 969.5  | 979.4  |
| 60°   | 938.6  | 891.6  | 803.8  | 823.6  | 861.9  |
| 62.5° | 806.3  | 735.8  | 651.7  | 698.7  | 744.5  |
| 65°   | 685.1  | 608.4  | 526.8  | 588.6  | 644.3  |
| 67.5° | 584.9  | 508.2  | 424.2  | 507.0  | 571.3  |
| 70°   | 505.8  | 427.9  | 348.7  | 443.9  | 504.5  |
| 72.5° | 440.3  | 369.7  | 304.2  | 394.5  | 457.6  |
| 75°   | 385.8  | 322.8  | 284.5  | 351.2  | 405.7  |
| 77.5° | 331.4  | 280.7  | 272.1  | 312.8  | 346.3  |
| 80°   | 269.6  | 246.1  | 248.5  | 274.5  | 286.9  |
| 82.5° | 201.6  | 202.8  | 209.0  | 230.0  | 225.1  |
| 85°   | 141.0  | 152.1  | 148.4  | 170.6  | 159.5  |
| 87.5° | 77.9   | 85.4   | 80.4   | 97.7   | 87.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)