

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: P219167

Luminaire Tested: **24GR-LD5-85-A125-UNV-L935-CD1-U**

Issue Date: 3/12/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P219167  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33306)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/12/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-85-A125-UNV-L935-CD1-U  
Description: METALUX GR 2X4 LED TROFFER WITH A125 LENS  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 7295.6 lumens  
Efficiency: N/A  
Efficacy: 103.7 lumens/watt  
Spacing Criteria (0/90/45): 1.21 / 1.2 / 1.26  
Luminous Opening: Rectangular (W 1.83' x L: 3.83' x H: 0')  
CIE Type: Direct

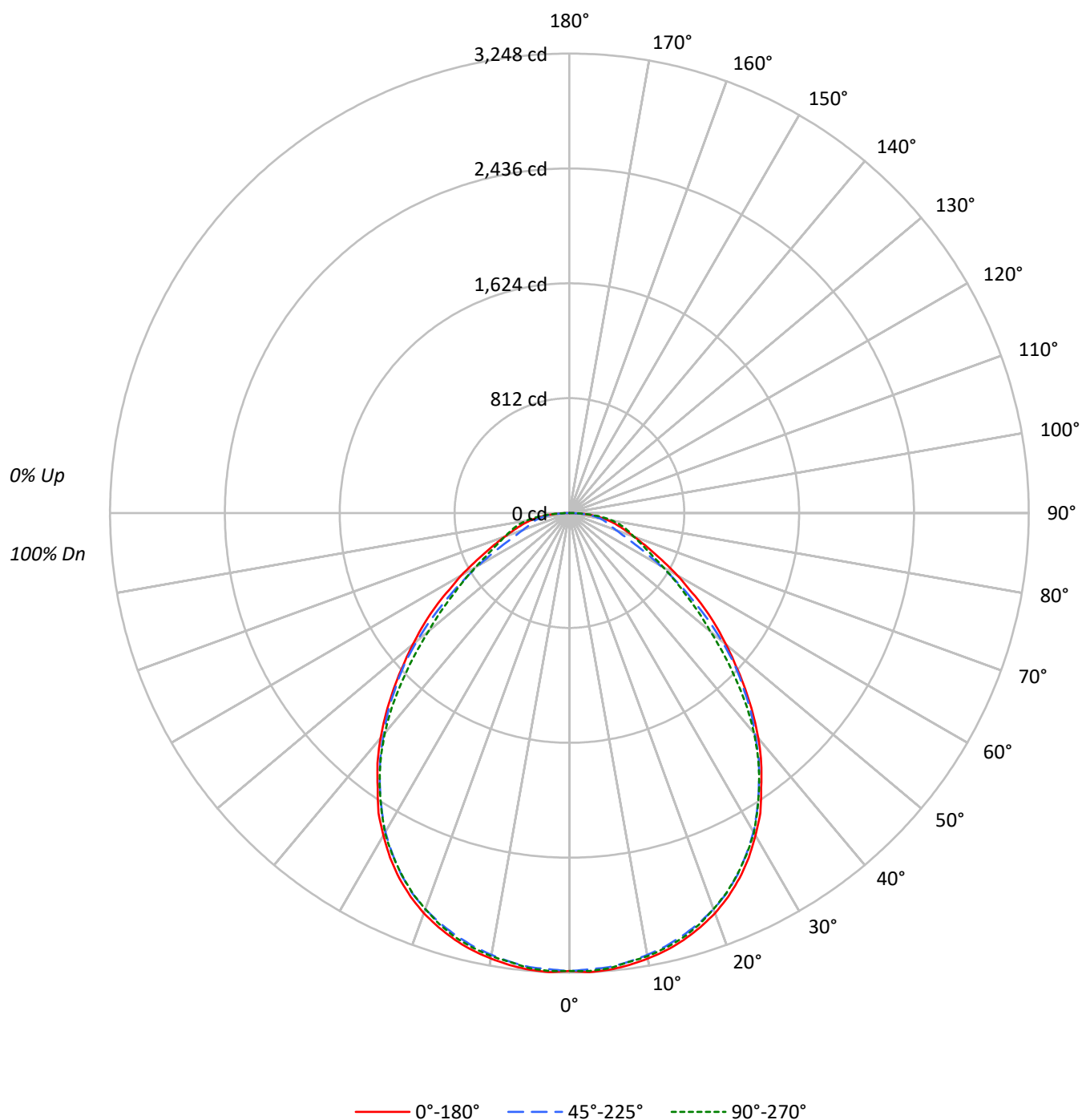
Input Watts (W): 70.34  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 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 | 100 |    |    |
| 1   | 110 | 105 | 101 | 98  | 107 | 103 | 99  | 96  | 99  | 96  | 93  | 95  | 93  | 90  | 91  | 89  | 88  | 86  |    |    |
| 2   | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 77  | 82  | 78  | 75  | 73  |    |    |
| 3   | 93  | 83  | 75  | 69  | 90  | 81  | 74  | 69  | 79  | 73  | 68  | 76  | 71  | 67  | 73  | 69  | 65  | 63  |    |    |
| 4   | 86  | 74  | 66  | 60  | 83  | 73  | 65  | 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  | 46  | 72  | 60  | 52  | 46  | 58  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 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  | 41  | 37  | 47  | 41  | 37  | 35  |    |    |
| 9   | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 33  | 43  | 38  | 33  | 32  |    |    |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 40  | 35  | 30  | 29  |    |    |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4958 | 4958 | 4958 |
| 5°  | 4982 | 4954 | 4967 |
| 10° | 4973 | 4933 | 4947 |
| 15° | 4954 | 4904 | 4925 |
| 20° | 4907 | 4857 | 4855 |
| 25° | 4811 | 4760 | 4756 |
| 30° | 4652 | 4604 | 4615 |
| 35° | 4419 | 4369 | 4375 |
| 40° | 4155 | 4083 | 4059 |
| 45° | 3808 | 3757 | 3608 |
| 50° | 3443 | 3349 | 3097 |
| 55° | 3091 | 2814 | 2670 |
| 60° | 2707 | 2265 | 2348 |
| 65° | 2361 | 1781 | 2161 |
| 70° | 2160 | 1554 | 2160 |
| 75° | 2161 | 1654 | 2381 |
| 80° | 2346 | 1948 | 2714 |
| 85° | 2575 | 2198 | 2912 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 306.5  | 4.2       |
| 10°-20°   | 874.8  | 12.0      |
| 20°-30°   | 1297.1 | 17.8      |
| 30°-40°   | 1463.3 | 20.1      |
| 40°-50°   | 1325.3 | 18.2      |
| 50°-60°   | 956.1  | 13.1      |
| 60°-70°   | 570.9  | 7.8       |
| 70°-80°   | 352.8  | 4.8       |
| 80°-90°   | 148.7  | 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°    | 2478.4 | 34.0      |
| 0°-40°    | 3941.8 | 54.0      |
| 0°-60°    | 6223.2 | 85.3      |
| 0°-90°    | 7295.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 7295.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3237 | 3237  | 3237 | 3237  | 3237 |      |
| 5°  | 3240 | 3236  | 3222 | 3219  | 3230 | 308  |
| 15° | 3124 | 3105  | 3093 | 3094  | 3106 | 881  |
| 25° | 2847 | 2831  | 2817 | 2806  | 2814 | 1308 |
| 35° | 2364 | 2360  | 2336 | 2338  | 2340 | 1479 |
| 45° | 1758 | 1747  | 1735 | 1692  | 1666 | 1355 |
| 55° | 1158 | 1121  | 1054 | 1002  | 1000 | 1033 |
| 65° | 651  | 574   | 491  | 558   | 596  | 655  |
| 75° | 365  | 317   | 280  | 348   | 402  | 390  |
| 85° | 146  | 128   | 125  | 164   | 166  | 153  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3237.0 | 3237.0 | 3237.0 | 3237.0 | 3237.0 |
| 2.5°  | 3248.3 | 3239.3 | 3228.0 | 3234.8 | 3240.4 |
| 5°    | 3240.4 | 3235.9 | 3222.4 | 3219.0 | 3230.3 |
| 7.5°  | 3223.5 | 3212.2 | 3199.8 | 3205.4 | 3200.9 |
| 10°   | 3197.5 | 3187.4 | 3171.6 | 3172.7 | 3180.6 |
| 12.5° | 3166.0 | 3153.6 | 3136.7 | 3141.2 | 3148.0 |
| 15°   | 3124.3 | 3105.1 | 3092.7 | 3093.8 | 3106.2 |
| 17.5° | 3071.3 | 3056.7 | 3040.9 | 3044.3 | 3049.9 |
| 20°   | 3010.4 | 3002.5 | 2980.0 | 2973.2 | 2978.9 |
| 22.5° | 2933.8 | 2919.2 | 2906.7 | 2903.3 | 2904.4 |
| 25°   | 2847.0 | 2831.3 | 2816.6 | 2806.4 | 2814.4 |
| 27.5° | 2745.6 | 2732.1 | 2712.9 | 2709.5 | 2716.3 |
| 30°   | 2630.6 | 2620.5 | 2603.5 | 2599.0 | 2609.2 |
| 32.5° | 2513.4 | 2496.4 | 2472.8 | 2472.8 | 2475.0 |
| 35°   | 2363.5 | 2360.1 | 2336.5 | 2337.6 | 2339.8 |
| 37.5° | 2228.3 | 2212.5 | 2199.0 | 2185.4 | 2192.2 |
| 40°   | 2078.3 | 2060.3 | 2042.3 | 2033.3 | 2029.9 |
| 42.5° | 1917.2 | 1903.7 | 1895.8 | 1863.0 | 1855.2 |
| 45°   | 1758.2 | 1747.0 | 1734.6 | 1691.8 | 1665.8 |
| 47.5° | 1596.0 | 1593.7 | 1583.6 | 1508.1 | 1482.1 |
| 50°   | 1444.9 | 1441.5 | 1405.5 | 1325.4 | 1299.6 |
| 52.5° | 1301.8 | 1279.2 | 1231.9 | 1153.0 | 1148.5 |
| 55°   | 1157.5 | 1121.4 | 1053.8 | 1002.0 | 999.7  |
| 57.5° | 1005.4 | 962.5  | 893.8  | 865.6  | 880.3  |
| 60°   | 883.7  | 818.3  | 739.3  | 742.7  | 766.4  |
| 62.5° | 757.4  | 684.2  | 606.4  | 640.2  | 668.4  |
| 65°   | 651.4  | 573.7  | 491.4  | 557.9  | 596.2  |
| 67.5° | 559.0  | 486.9  | 408.0  | 497.1  | 534.2  |
| 70°   | 482.4  | 423.8  | 347.1  | 440.7  | 482.4  |
| 72.5° | 421.5  | 367.5  | 307.7  | 395.6  | 444.0  |
| 75°   | 365.2  | 316.7  | 279.5  | 348.2  | 402.4  |
| 77.5° | 316.7  | 269.4  | 252.4  | 307.7  | 360.7  |
| 80°   | 266.0  | 223.1  | 220.9  | 268.3  | 307.7  |
| 82.5° | 207.4  | 178.1  | 178.1  | 224.3  | 247.9  |
| 85°   | 146.5  | 128.5  | 125.1  | 163.5  | 165.7  |
| 87.5° | 75.5   | 72.2   | 65.4   | 85.7   | 85.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)