

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: P293693

Luminaire Tested: **24GR-LD5-56-A125-UNV-L83050-W2A1-U-4500K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293693  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33307)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-56-A125-UNV-L83050-W2A1-U-4500K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH A125 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4500K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5984.0 lumens  
Efficiency: N/A  
Efficacy: 146.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.22 / 1.27  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

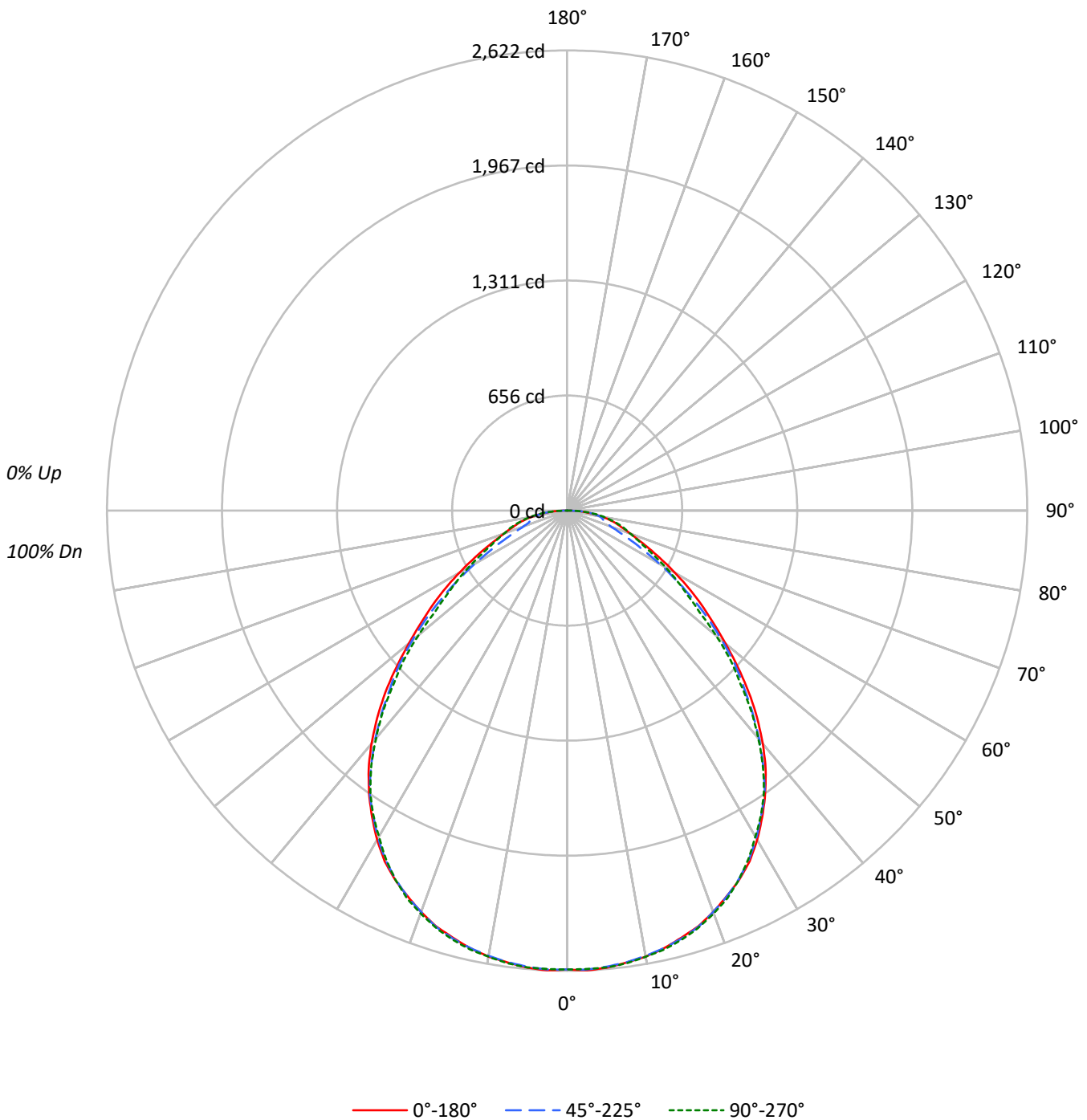
Input Watts (W): 40.92  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |    |    |    |    | 86  |   |  |   |
| 2   | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 77  | 82  | 79  | 76  | 74  |    |    |    |    | 74  |   |  |   |
| 3   | 93  | 83  | 76  | 70  | 90  | 82  | 75  | 69  | 79  | 73  | 68  | 76  | 71  | 67  | 73  | 69  | 66  | 64  |    |    |    |    | 64  |   |  |   |
| 4   | 86  | 75  | 66  | 60  | 83  | 73  | 66  | 60  | 71  | 64  | 59  | 68  | 63  | 58  | 66  | 61  | 57  | 55  |    |    |    |    | 55  |   |  |   |
| 5   | 79  | 67  | 59  | 53  | 77  | 66  | 58  | 52  | 64  | 57  | 52  | 62  | 56  | 51  | 60  | 55  | 51  | 49  |    |    |    |    | 49  |   |  |   |
| 6   | 73  | 61  | 53  | 47  | 72  | 60  | 52  | 46  | 58  | 51  | 46  | 57  | 50  | 46  | 55  | 50  | 45  | 43  |    |    |    |    | 43  |   |  |   |
| 7   | 68  | 56  | 47  | 42  | 67  | 55  | 47  | 41  | 53  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 41  | 39  |    |    |    |    | 39  |   |  |   |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 43  | 37  | 49  | 42  | 37  | 48  | 41  | 37  | 47  | 41  | 37  | 35  |    |    |    |    | 35  |   |  |   |
| 9   | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 33  | 43  | 38  | 33  | 32  |    |    |    |    | 32  |   |  |   |
| 10  | 56  | 44  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 31  | 40  | 35  | 30  | 29  |    |    |    |    | 29  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3518 | 3518 | 3518 |
| 5°  | 3530 | 3523 | 3529 |
| 10° | 3525 | 3520 | 3527 |
| 15° | 3508 | 3515 | 3524 |
| 20° | 3485 | 3485 | 3498 |
| 25° | 3445 | 3438 | 3441 |
| 30° | 3365 | 3347 | 3331 |
| 35° | 3232 | 3223 | 3211 |
| 40° | 3045 | 2989 | 2976 |
| 45° | 2785 | 2709 | 2659 |
| 50° | 2462 | 2413 | 2319 |
| 55° | 2190 | 2041 | 1962 |
| 60° | 1907 | 1633 | 1751 |
| 65° | 1647 | 1266 | 1549 |
| 70° | 1502 | 1036 | 1498 |
| 75° | 1514 | 1116 | 1592 |
| 80° | 1577 | 1454 | 1678 |
| 85° | 1643 | 1729 | 1859 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 248.0  | 4.1       |
| 10°-20°   | 711.4  | 11.9      |
| 20°-30°   | 1064.8 | 17.8      |
| 30°-40°   | 1216.8 | 20.3      |
| 40°-50°   | 1100.1 | 18.4      |
| 50°-60°   | 791.4  | 13.2      |
| 60°-70°   | 458.8  | 7.7       |
| 70°-80°   | 272.2  | 4.5       |
| 80°-90°   | 120.5  | 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°    | 2024.2 | 33.8      |
| 0°-40°    | 3241.0 | 54.2      |
| 0°-60°    | 5132.5 | 85.8      |
| 0°-90°    | 5984.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5984.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 2615 | 2615  | 2615 | 2615  | 2615 |      |
| 5°  | 2614 | 2610  | 2608 | 2604  | 2613 | 248  |
| 15° | 2519 | 2523  | 2523 | 2520  | 2530 | 711  |
| 25° | 2321 | 2318  | 2316 | 2311  | 2318 | 1067 |
| 35° | 1968 | 1958  | 1962 | 1938  | 1955 | 1227 |
| 45° | 1464 | 1439  | 1424 | 1411  | 1398 | 1125 |
| 55° | 934  | 916   | 870  | 848   | 836  | 835  |
| 65° | 517  | 459   | 398  | 444   | 486  | 522  |
| 75° | 291  | 244   | 215  | 265   | 306  | 308  |
| 85° | 106  | 115   | 112  | 129   | 120  | 114  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 2614.8 | 2614.8 | 2614.8 | 2614.8 | 2614.8 |
| 2.5°  | 2622.3 | 2612.9 | 2617.6 | 2614.8 | 2613.9 |
| 5°    | 2613.9 | 2610.1 | 2608.3 | 2604.5 | 2612.9 |
| 7.5°  | 2597.1 | 2594.3 | 2595.2 | 2596.1 | 2601.7 |
| 10°   | 2580.3 | 2575.6 | 2576.5 | 2578.4 | 2581.2 |
| 12.5° | 2554.1 | 2551.3 | 2552.3 | 2554.1 | 2560.7 |
| 15°   | 2518.6 | 2523.3 | 2523.3 | 2520.5 | 2529.8 |
| 17.5° | 2483.2 | 2482.2 | 2486.9 | 2478.5 | 2491.6 |
| 20°   | 2433.7 | 2434.6 | 2433.7 | 2434.6 | 2443.0 |
| 22.5° | 2377.7 | 2382.4 | 2379.6 | 2379.6 | 2388.9 |
| 25°   | 2320.7 | 2317.9 | 2316.1 | 2311.4 | 2317.9 |
| 27.5° | 2252.6 | 2247.0 | 2242.3 | 2233.0 | 2237.7 |
| 30°   | 2165.8 | 2166.7 | 2154.6 | 2146.2 | 2144.3 |
| 32.5° | 2068.7 | 2068.7 | 2057.5 | 2051.0 | 2056.6 |
| 35°   | 1967.9 | 1958.5 | 1962.3 | 1938.0 | 1954.8 |
| 37.5° | 1858.6 | 1843.7 | 1835.3 | 1826.9 | 1832.5 |
| 40°   | 1733.6 | 1713.9 | 1701.8 | 1685.0 | 1694.3 |
| 42.5° | 1601.9 | 1577.7 | 1562.7 | 1550.6 | 1554.3 |
| 45°   | 1463.8 | 1438.6 | 1423.6 | 1410.6 | 1397.5 |
| 47.5° | 1318.1 | 1302.3 | 1294.8 | 1278.0 | 1263.1 |
| 50°   | 1176.2 | 1170.6 | 1152.9 | 1138.9 | 1108.1 |
| 52.5° | 1046.5 | 1041.8 | 1013.8 | 990.5  | 951.3  |
| 55°   | 933.5  | 915.8  | 870.0  | 847.6  | 836.4  |
| 57.5° | 818.7  | 789.8  | 734.7  | 731.9  | 739.4  |
| 60°   | 708.5  | 673.1  | 606.8  | 621.7  | 650.7  |
| 62.5° | 608.7  | 555.4  | 492.0  | 527.4  | 562.0  |
| 65°   | 517.2  | 459.3  | 397.7  | 444.4  | 486.4  |
| 67.5° | 441.6  | 383.7  | 320.2  | 382.7  | 431.3  |
| 70°   | 381.8  | 323.0  | 263.3  | 335.1  | 380.9  |
| 72.5° | 332.3  | 279.1  | 229.6  | 297.8  | 345.4  |
| 75°   | 291.3  | 243.6  | 214.7  | 265.1  | 306.2  |
| 77.5° | 250.2  | 211.9  | 205.4  | 236.2  | 261.4  |
| 80°   | 203.5  | 185.8  | 187.6  | 207.2  | 216.6  |
| 82.5° | 152.2  | 153.1  | 157.8  | 173.6  | 169.9  |
| 85°   | 106.4  | 114.8  | 112.0  | 128.8  | 120.4  |
| 87.5° | 58.8   | 64.4   | 60.7   | 73.7   | 66.3   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)