

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: P293203

Luminaire Tested: **24GR-LD5-85-F125-UNV-L83050-W2A1-U-4000K**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P293203  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P33304)  
Test Lab: INNOVATION CENTER-P3  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 24GR-LD5-85-F125-UNV-L83050-W2A1-U-4000K  
Description: GRLED 2x4 TUNABLE WHITE TROFFER  
WITH F125 LENS  
Light Source: (336) 80 CRI LEDS TUNED TO 4000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8703.0 lumens  
Efficiency: N/A  
Efficacy: 136.4 lumens/watt  
Spacing Criteria (0/90/45): 1.2 / 1.19 / 1.27  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

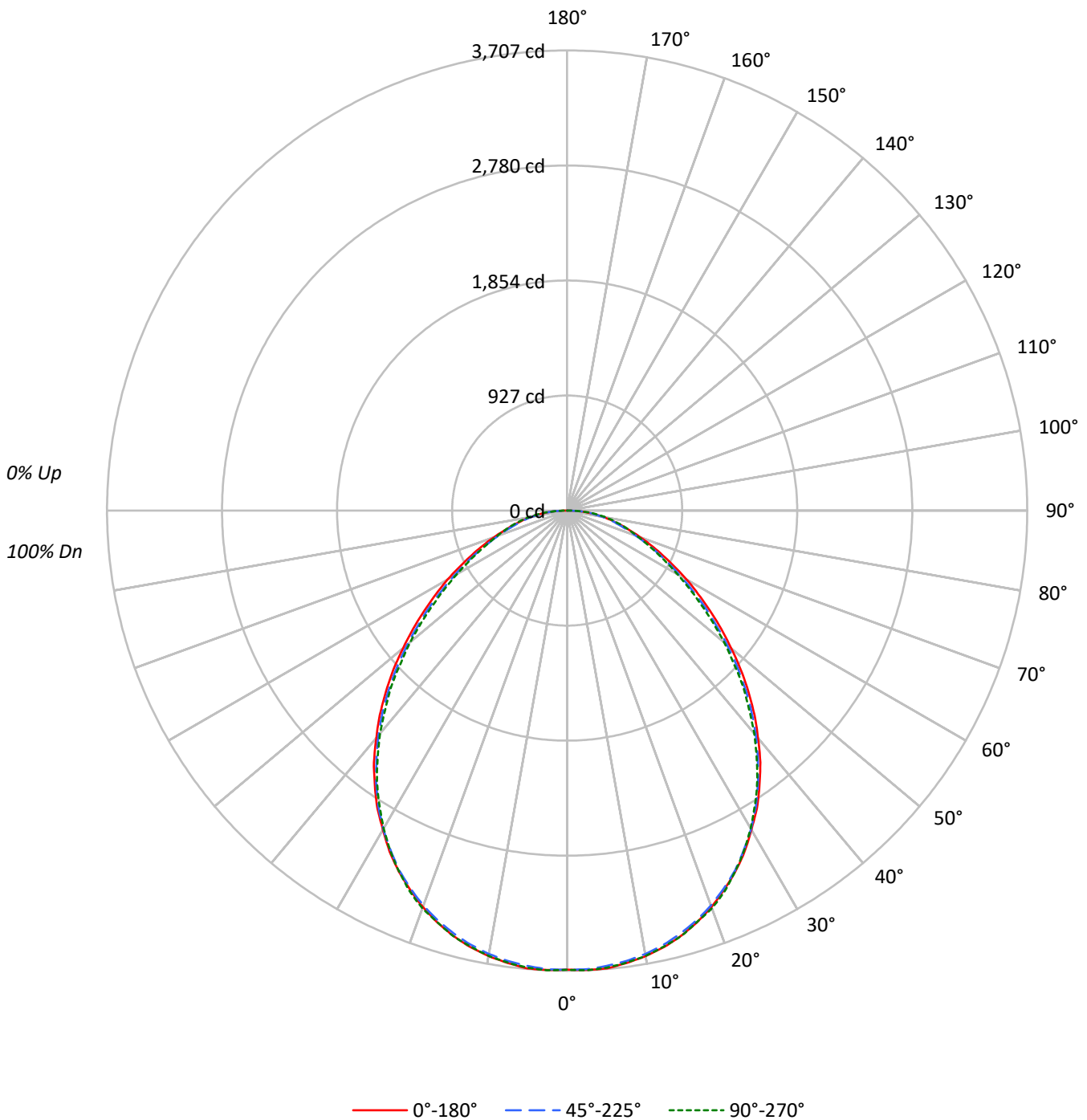
Input Watts (W): 63.798  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P293203

CATALOG NUMBER: 24GR-LD5-85-F125-UNV-L83050-W2A1-U-4000K

### Luminous Intensity Polar Plot





TEST NUMBER: P293203

CATALOG NUMBER: 24GR-LD5-85-F125-UNV-L83050-W2A1-U-4000K

**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   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 98  | 95  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |    |    | 85  |   |  |   |
| 2   | 100 | 92  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 77  | 74  | 72  |    |    |    |    | 72  |   |  |   |
| 3   | 92  | 82  | 74  | 68  | 90  | 80  | 73  | 68  | 78  | 71  | 66  | 75  | 70  | 65  | 72  | 68  | 64  | 62  |    |    |    |    | 62  |   |  |   |
| 4   | 85  | 73  | 65  | 59  | 82  | 72  | 64  | 58  | 70  | 63  | 57  | 67  | 61  | 57  | 65  | 60  | 56  | 54  |    |    |    |    | 54  |   |  |   |
| 5   | 78  | 66  | 57  | 51  | 76  | 65  | 57  | 51  | 63  | 56  | 50  | 61  | 55  | 50  | 59  | 54  | 49  | 47  |    |    |    |    | 47  |   |  |   |
| 6   | 72  | 60  | 51  | 45  | 71  | 59  | 51  | 45  | 57  | 50  | 44  | 55  | 49  | 44  | 54  | 48  | 44  | 42  |    |    |    |    | 42  |   |  |   |
| 7   | 67  | 54  | 46  | 40  | 66  | 54  | 46  | 40  | 52  | 45  | 40  | 51  | 44  | 39  | 49  | 44  | 39  | 37  |    |    |    |    | 37  |   |  |   |
| 8   | 63  | 50  | 42  | 36  | 61  | 49  | 41  | 36  | 48  | 41  | 36  | 47  | 40  | 36  | 46  | 40  | 35  | 33  |    |    |    |    | 33  |   |  |   |
| 9   | 59  | 46  | 38  | 33  | 58  | 45  | 38  | 33  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 30  |    |    |    |    | 30  |   |  |   |
| 10  | 55  | 43  | 35  | 30  | 54  | 42  | 35  | 30  | 41  | 34  | 30  | 40  | 34  | 29  | 39  | 33  | 29  | 28  |    |    |    |    | 28  |   |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 4977 | 4977 | 4977 |
| 5°  | 4999 | 4972 | 4992 |
| 10° | 4979 | 4955 | 4977 |
| 15° | 4940 | 4914 | 4944 |
| 20° | 4868 | 4848 | 4883 |
| 25° | 4762 | 4750 | 4760 |
| 30° | 4612 | 4603 | 4593 |
| 35° | 4437 | 4404 | 4386 |
| 40° | 4200 | 4153 | 4119 |
| 45° | 3929 | 3857 | 3810 |
| 50° | 3611 | 3514 | 3454 |
| 55° | 3293 | 3172 | 3079 |
| 60° | 2991 | 2830 | 2756 |
| 65° | 2694 | 2542 | 2499 |
| 70° | 2467 | 2306 | 2371 |
| 75° | 2306 | 2200 | 2362 |
| 80° | 2287 | 2245 | 2466 |
| 85° | 2331 | 2353 | 2688 |



TEST NUMBER: P293203

CATALOG NUMBER: 24GR-LD5-85-F125-UNV-L83050-W2A1-U-4000K

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 350.1  | 4.0       |
| 10°-20°   | 995.2  | 11.4      |
| 20°-30°   | 1470.2 | 16.9      |
| 30°-40°   | 1671.5 | 19.2      |
| 40°-50°   | 1561.0 | 17.9      |
| 50°-60°   | 1213.9 | 13.9      |
| 60°-70°   | 805.5  | 9.3       |
| 70°-80°   | 466.1  | 5.4       |
| 80°-90°   | 169.5  | 1.9       |
| 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°    | 2815.5 | 32.4      |
| 0°-40°    | 4487.0 | 51.6      |
| 0°-60°    | 7261.9 | 83.4      |
| 0°-90°    | 8703.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8703.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3699 | 3699  | 3699 | 3699  | 3699 |      |
| 5°  | 3702 | 3682  | 3681 | 3688  | 3696 | 351  |
| 15° | 3546 | 3529  | 3527 | 3526  | 3549 | 999  |
| 25° | 3208 | 3194  | 3200 | 3193  | 3206 | 1475 |
| 35° | 2702 | 2688  | 2681 | 2662  | 2670 | 1687 |
| 45° | 2065 | 2049  | 2027 | 2001  | 2002 | 1591 |
| 55° | 1404 | 1384  | 1352 | 1317  | 1313 | 1259 |
| 65° | 846  | 820   | 798  | 784   | 785  | 846  |
| 75° | 444  | 433   | 423  | 442   | 454  | 474  |
| 85° | 151  | 148   | 152  | 173   | 174  | 164  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P293203

CATALOG NUMBER: 24GR-LD5-85-F125-UNV-L83050-W2A1-U-4000K

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3698.8 | 3698.8 | 3698.8 | 3698.8 | 3698.8 |
| 2.5°  | 3704.2 | 3693.3 | 3698.8 | 3694.7 | 3706.9 |
| 5°    | 3701.5 | 3682.4 | 3681.1 | 3687.9 | 3696.1 |
| 7.5°  | 3675.6 | 3655.2 | 3659.3 | 3659.3 | 3672.9 |
| 10°   | 3644.4 | 3624.0 | 3626.7 | 3628.0 | 3643.0 |
| 12.5° | 3602.2 | 3581.8 | 3583.1 | 3581.8 | 3596.7 |
| 15°   | 3546.4 | 3528.7 | 3527.4 | 3526.0 | 3549.1 |
| 17.5° | 3478.4 | 3453.9 | 3462.1 | 3463.4 | 3475.7 |
| 20°   | 3399.5 | 3380.5 | 3385.9 | 3384.5 | 3410.4 |
| 22.5° | 3305.6 | 3292.0 | 3296.1 | 3293.4 | 3317.9 |
| 25°   | 3207.7 | 3194.1 | 3199.5 | 3192.7 | 3206.3 |
| 27.5° | 3097.5 | 3088.0 | 3082.5 | 3078.5 | 3088.0 |
| 30°   | 2968.3 | 2962.8 | 2962.8 | 2945.1 | 2956.0 |
| 32.5° | 2845.8 | 2828.2 | 2828.2 | 2821.4 | 2814.6 |
| 35°   | 2701.6 | 2688.0 | 2681.2 | 2662.2 | 2670.4 |
| 37.5° | 2557.4 | 2526.2 | 2523.4 | 2508.5 | 2508.5 |
| 40°   | 2391.5 | 2373.8 | 2364.3 | 2348.0 | 2345.2 |
| 42.5° | 2233.7 | 2216.0 | 2199.7 | 2172.5 | 2167.0 |
| 45°   | 2065.0 | 2048.7 | 2026.9 | 2001.1 | 2002.4 |
| 47.5° | 1897.7 | 1874.6 | 1854.1 | 1822.9 | 1818.8 |
| 50°   | 1724.9 | 1708.6 | 1678.7 | 1651.5 | 1650.1 |
| 52.5° | 1563.0 | 1537.2 | 1510.0 | 1477.3 | 1477.3 |
| 55°   | 1403.9 | 1383.5 | 1352.2 | 1316.8 | 1312.7 |
| 57.5° | 1251.5 | 1232.5 | 1197.1 | 1171.3 | 1164.5 |
| 60°   | 1111.4 | 1084.2 | 1051.5 | 1029.8 | 1024.3 |
| 62.5° | 971.3  | 946.8  | 922.3  | 900.5  | 899.2  |
| 65°   | 846.1  | 820.3  | 798.5  | 783.6  | 784.9  |
| 67.5° | 733.2  | 711.5  | 687.0  | 682.9  | 684.3  |
| 70°   | 627.1  | 604.0  | 586.3  | 595.8  | 602.6  |
| 72.5° | 526.5  | 514.2  | 502.0  | 515.6  | 525.1  |
| 75°   | 443.5  | 432.6  | 423.1  | 442.1  | 454.4  |
| 77.5° | 367.3  | 359.1  | 357.8  | 374.1  | 385.0  |
| 80°   | 295.2  | 285.7  | 289.8  | 308.8  | 318.3  |
| 82.5° | 224.5  | 217.7  | 219.0  | 242.1  | 248.9  |
| 85°   | 151.0  | 148.3  | 152.4  | 172.8  | 174.1  |
| 87.5° | 80.3   | 80.3   | 83.0   | 95.2   | 91.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)