

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: P476047

Luminaire Tested: **22GR-LD5-85-A-UNV-L835-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P476047  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-85-A-UNV-L835-CD1-U  
Description: GR 2'X2' LED TROFFER w/ A LENS  
Light Source: 3500K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 8289.5 lumens  
Efficiency: N/A  
Efficacy: 127.9 lumens/watt  
Spacing Criteria (0/90/45): 1.18 / 1.22 / 1.25  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

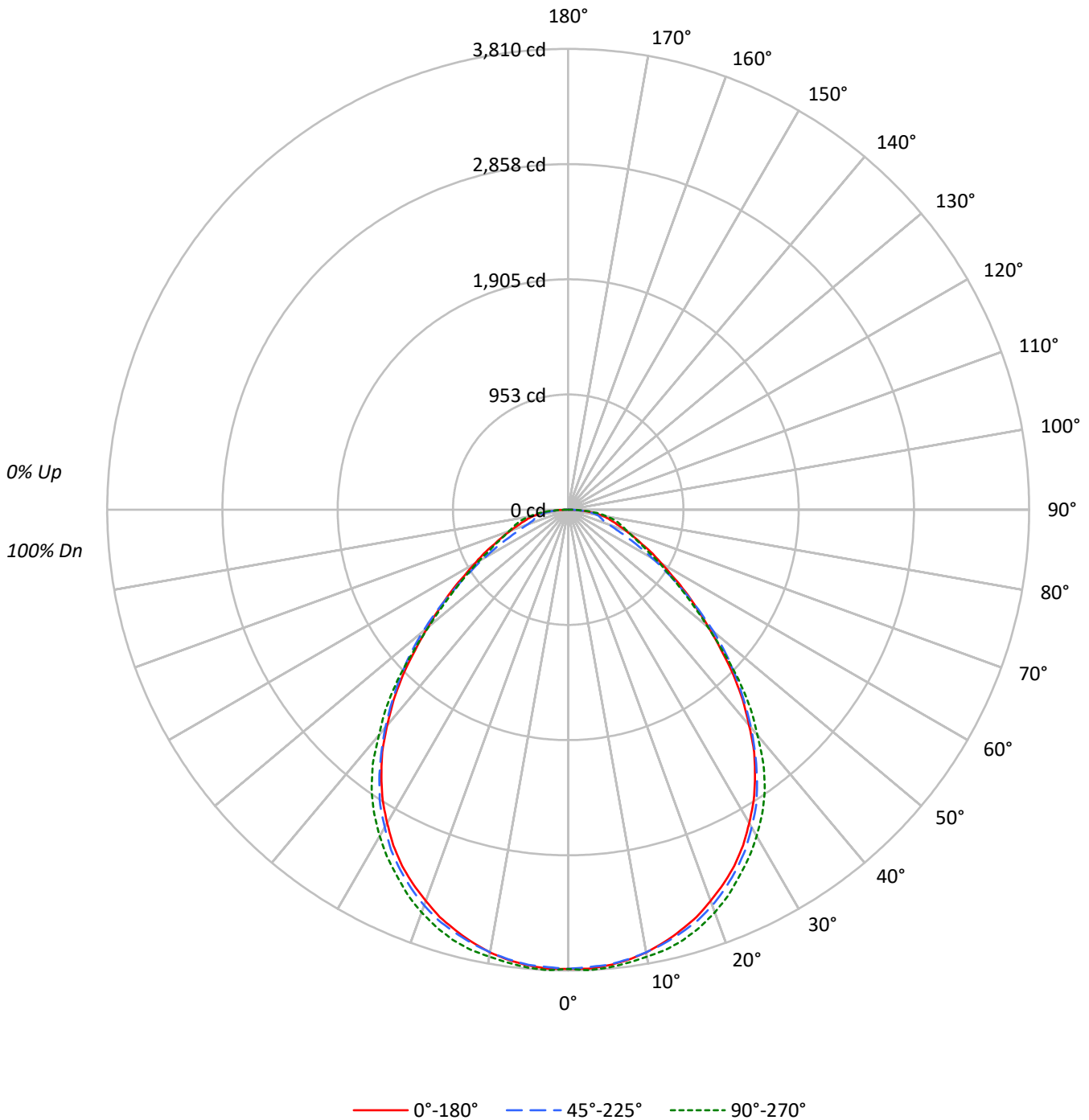
Input Watts (W): 64.8  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 106 | 102 | 98  | 107 | 103 | 100 | 97  | 99  | 96  | 94  | 95  | 93  | 91  | 92  | 90  | 88  | 86  |
| 2   | 101 | 94  | 87  | 82  | 99  | 92  | 86  | 81  | 88  | 84  | 79  | 85  | 81  | 78  | 82  | 79  | 76  | 74  |
| 3   | 93  | 84  | 76  | 70  | 91  | 82  | 75  | 70  | 79  | 73  | 68  | 76  | 71  | 67  | 74  | 70  | 66  | 64  |
| 4   | 86  | 75  | 67  | 61  | 84  | 74  | 66  | 60  | 71  | 65  | 60  | 69  | 63  | 59  | 67  | 62  | 58  | 56  |
| 5   | 80  | 68  | 59  | 53  | 78  | 67  | 59  | 53  | 65  | 58  | 53  | 63  | 57  | 52  | 61  | 56  | 51  | 49  |
| 6   | 74  | 62  | 53  | 47  | 72  | 61  | 53  | 47  | 59  | 52  | 47  | 57  | 51  | 46  | 56  | 50  | 46  | 44  |
| 7   | 69  | 56  | 48  | 42  | 67  | 55  | 48  | 42  | 54  | 47  | 42  | 53  | 46  | 42  | 51  | 46  | 41  | 39  |
| 8   | 64  | 52  | 44  | 38  | 63  | 51  | 43  | 38  | 50  | 43  | 38  | 48  | 42  | 38  | 47  | 42  | 37  | 36  |
| 9   | 60  | 48  | 40  | 35  | 59  | 47  | 40  | 35  | 46  | 39  | 34  | 45  | 39  | 34  | 44  | 38  | 34  | 32  |
| 10  | 57  | 44  | 37  | 32  | 55  | 44  | 36  | 32  | 43  | 36  | 31  | 42  | 36  | 31  | 41  | 35  | 31  | 30  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 10215 | 10215 | 10215 |
| 5°  | 10219 | 10203 | 10266 |
| 10° | 10157 | 10153 | 10252 |
| 15° | 10028 | 10082 | 10259 |
| 20° | 9855  | 9970  | 10147 |
| 25° | 9645  | 9754  | 9932  |
| 30° | 9296  | 9423  | 9680  |
| 35° | 8840  | 8941  | 9303  |
| 40° | 8173  | 8261  | 8551  |
| 45° | 7341  | 7473  | 7591  |
| 50° | 6347  | 6573  | 6283  |
| 55° | 5539  | 5393  | 5321  |
| 60° | 4796  | 4318  | 4610  |
| 65° | 4287  | 3390  | 4141  |
| 70° | 3976  | 2807  | 4084  |
| 75° | 3970  | 2966  | 4532  |
| 80° | 4398  | 3733  | 5109  |
| 85° | 4585  | 4051  | 5783  |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 359.3  | 4.3       |
| 10°-20°   | 1023.2 | 12.3      |
| 20°-30°   | 1513.3 | 18.3      |
| 30°-40°   | 1707.7 | 20.6      |
| 40°-50°   | 1505.4 | 18.2      |
| 50°-60°   | 1032.6 | 12.5      |
| 60°-70°   | 609.4  | 7.4       |
| 70°-80°   | 380.2  | 4.6       |
| 80°-90°   | 158.5  | 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°    | 2895.7 | 34.9      |
| 0°-40°    | 4603.4 | 55.5      |
| 0°-60°    | 7141.4 | 86.1      |
| 0°-90°    | 8289.5 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 8289.5 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 3796 | 3796  | 3796 | 3796  | 3796 |      |
| 5°  | 3783 | 3775  | 3777 | 3791  | 3800 | 359  |
| 15° | 3600 | 3603  | 3619 | 3664  | 3682 | 1015 |
| 25° | 3248 | 3260  | 3285 | 3328  | 3345 | 1492 |
| 35° | 2691 | 2714  | 2722 | 2788  | 2832 | 1677 |
| 45° | 1929 | 1939  | 1964 | 1975  | 1995 | 1482 |
| 55° | 1181 | 1152  | 1150 | 1111  | 1134 | 1059 |
| 65° | 673  | 592   | 532  | 616   | 650  | 678  |
| 75° | 382  | 344   | 285  | 399   | 436  | 410  |
| 85° | 148  | 139   | 131  | 172   | 187  | 160  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 3796.2 | 3796.2 | 3796.2 | 3796.2 | 3796.2 |
| 2.5°  | 3798.2 | 3788.5 | 3784.9 | 3800.3 | 3810.0 |
| 5°    | 3782.9 | 3775.2 | 3777.3 | 3790.6 | 3800.3 |
| 7.5°  | 3755.9 | 3750.2 | 3750.2 | 3769.1 | 3778.8 |
| 10°   | 3717.1 | 3715.5 | 3715.5 | 3738.5 | 3751.8 |
| 12.5° | 3663.5 | 3665.0 | 3672.6 | 3703.8 | 3726.8 |
| 15°   | 3599.7 | 3603.2 | 3619.1 | 3663.5 | 3682.3 |
| 17.5° | 3530.2 | 3530.2 | 3560.9 | 3595.6 | 3619.1 |
| 20°   | 3441.4 | 3447.0 | 3481.7 | 3520.5 | 3543.5 |
| 22.5° | 3350.6 | 3360.3 | 3389.4 | 3433.8 | 3454.7 |
| 25°   | 3248.5 | 3260.2 | 3285.2 | 3327.6 | 3344.9 |
| 27.5° | 3129.0 | 3144.3 | 3171.4 | 3202.0 | 3238.8 |
| 30°   | 2991.7 | 3015.2 | 3032.6 | 3074.9 | 3115.2 |
| 32.5° | 2852.9 | 2874.3 | 2893.7 | 2938.1 | 2984.1 |
| 35°   | 2691.1 | 2714.0 | 2721.7 | 2787.5 | 2831.9 |
| 37.5° | 2525.2 | 2534.9 | 2538.4 | 2604.3 | 2652.3 |
| 40°   | 2326.6 | 2345.5 | 2351.6 | 2403.7 | 2434.3 |
| 42.5° | 2135.2 | 2143.4 | 2154.6 | 2193.4 | 2230.1 |
| 45°   | 1929.0 | 1938.7 | 1963.7 | 1975.4 | 1994.8 |
| 47.5° | 1713.1 | 1742.1 | 1770.7 | 1734.0 | 1736.0 |
| 50°   | 1516.0 | 1539.5 | 1570.1 | 1500.7 | 1500.7 |
| 52.5° | 1340.4 | 1352.2 | 1354.2 | 1296.5 | 1307.8 |
| 55°   | 1180.7 | 1151.6 | 1149.5 | 1111.2 | 1134.2 |
| 57.5° | 1020.4 | 982.1  | 968.3  | 956.6  | 983.6  |
| 60°   | 891.2  | 821.8  | 802.4  | 819.8  | 856.5  |
| 62.5° | 785.1  | 696.2  | 659.5  | 703.9  | 737.1  |
| 65°   | 673.3  | 592.1  | 532.4  | 615.6  | 650.3  |
| 67.5° | 586.5  | 509.4  | 432.3  | 549.7  | 574.8  |
| 70°   | 505.3  | 445.6  | 356.8  | 499.7  | 519.1  |
| 72.5° | 440.0  | 393.6  | 308.8  | 451.2  | 474.7  |
| 75°   | 381.8  | 343.5  | 285.3  | 399.2  | 435.9  |
| 77.5° | 335.9  | 293.0  | 266.5  | 345.1  | 389.5  |
| 80°   | 283.8  | 240.9  | 240.9  | 289.4  | 329.7  |
| 82.5° | 223.6  | 188.9  | 195.0  | 235.3  | 264.4  |
| 85°   | 148.5  | 138.8  | 131.2  | 171.5  | 187.3  |
| 87.5° | 75.0   | 77.1   | 69.4   | 88.8   | 90.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)