

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: P476161

Luminaire Tested: **22GR-LD5-36-FGW080-UNV-L850-CD1-U**

Issue Date: 02/10/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P476161  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 02/10/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22GR-LD5-36-FGW080-UNV-L850-CD1-U  
Description: GR 2'X2' LED TROFFER w/ FGW080 LENS  
Light Source: 5000K CCT, 80 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3193.2 lumens  
Efficiency: N/A  
Efficacy: 112.0 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 1.24 / 1.36  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

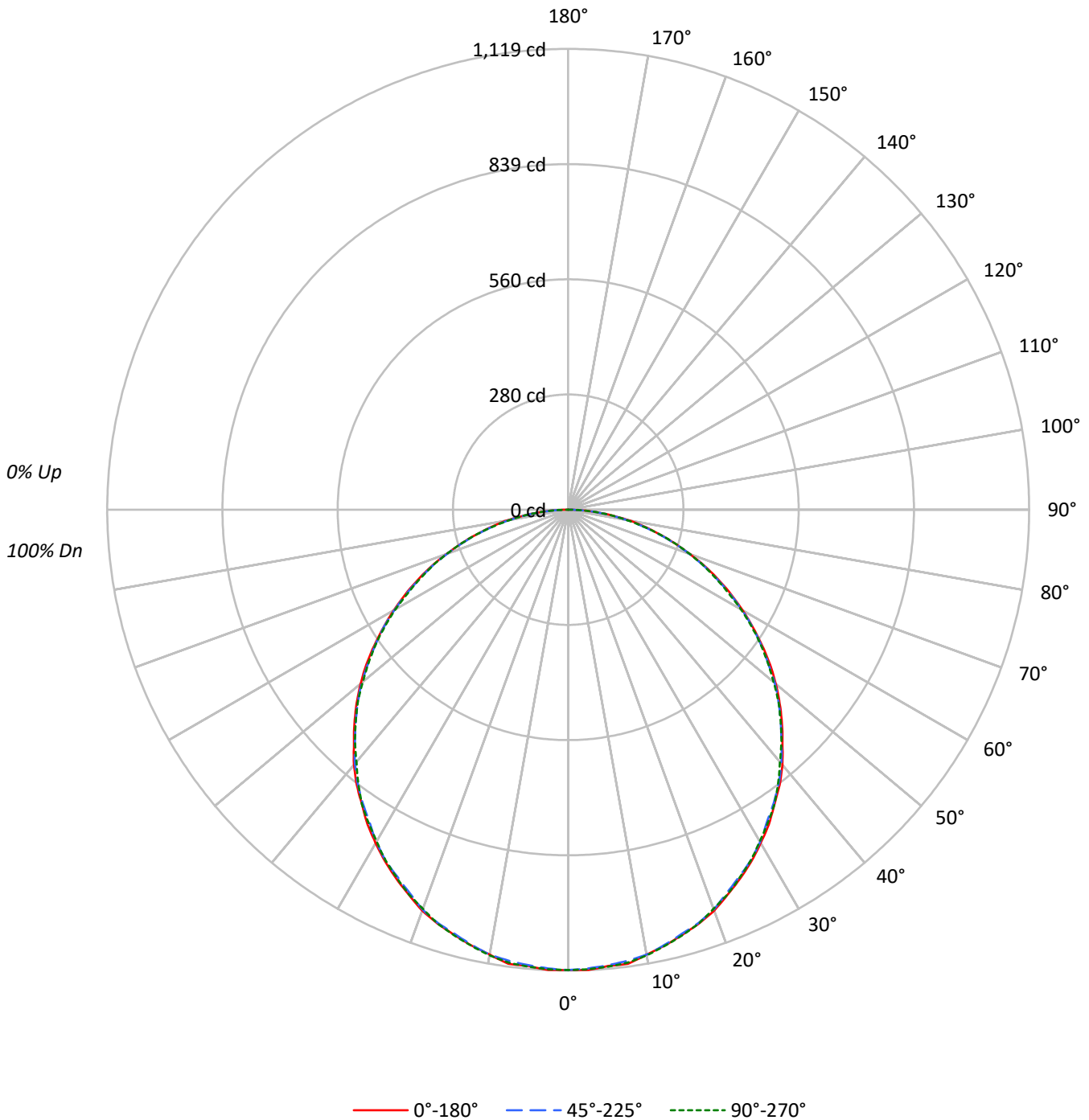
Input Watts (W): 28.5  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 108 | 103 | 99  | 95  | 106 | 101 | 97  | 94  | 97  | 94  | 91  | 93  | 90  | 88  | 89  | 87  | 85  | 83  |
| 2   | 98  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 85  | 79  | 74  | 81  | 77  | 73  | 78  | 74  | 71  | 69  |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 63  | 74  | 68  | 62  | 71  | 66  | 61  | 69  | 64  | 60  | 58  |
| 4   | 82  | 70  | 61  | 54  | 80  | 68  | 60  | 54  | 66  | 59  | 53  | 64  | 57  | 52  | 61  | 56  | 51  | 49  |
| 5   | 75  | 62  | 53  | 46  | 73  | 61  | 53  | 46  | 59  | 51  | 46  | 57  | 50  | 45  | 55  | 49  | 45  | 43  |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 40  | 53  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 39  | 37  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 48  | 41  | 35  | 47  | 40  | 35  | 46  | 40  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 37  | 32  | 44  | 37  | 32  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 28  | 40  | 33  | 28  | 39  | 33  | 28  | 26  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 26  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3008 | 3008 | 3008 |
| 5°  | 3004 | 2999 | 3009 |
| 10° | 2998 | 2998 | 3003 |
| 15° | 2978 | 2970 | 2981 |
| 20° | 2967 | 2959 | 2954 |
| 25° | 2934 | 2918 | 2926 |
| 30° | 2904 | 2896 | 2890 |
| 35° | 2868 | 2856 | 2868 |
| 40° | 2843 | 2829 | 2810 |
| 45° | 2794 | 2776 | 2776 |
| 50° | 2755 | 2740 | 2724 |
| 55° | 2697 | 2679 | 2675 |
| 60° | 2634 | 2619 | 2609 |
| 65° | 2567 | 2537 | 2525 |
| 70° | 2464 | 2457 | 2464 |
| 75° | 2379 | 2349 | 2368 |
| 80° | 2352 | 2236 | 2222 |
| 85° | 2087 | 2029 | 2056 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 105.7  | 3.3       |
| 10°-20°   | 301.7  | 9.4       |
| 20°-30°   | 454.2  | 14.2      |
| 30°-40°   | 545.1  | 17.1      |
| 40°-50°   | 564.0  | 17.7      |
| 50°-60°   | 511.2  | 16.0      |
| 60°-70°   | 396.2  | 12.4      |
| 70°-80°   | 240.5  | 7.5       |
| 80°-90°   | 74.5   | 2.3       |
| 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°    | 861.7  | 27.0      |
| 0°-40°    | 1406.8 | 44.1      |
| 0°-60°    | 2482.0 | 77.7      |
| 0°-90°    | 3193.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3193.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1118 | 1118  | 1118 | 1118  | 1118 |      |
| 5°  | 1112 | 1112  | 1110 | 1113  | 1114 | 106  |
| 15° | 1069 | 1069  | 1066 | 1071  | 1070 | 302  |
| 25° | 988  | 986   | 983  | 986   | 985  | 456  |
| 35° | 873  | 873   | 869  | 870   | 873  | 547  |
| 45° | 734  | 733   | 729  | 729   | 729  | 567  |
| 55° | 575  | 574   | 571  | 570   | 570  | 514  |
| 65° | 403  | 403   | 398  | 400   | 396  | 399  |
| 75° | 229  | 228   | 226  | 226   | 228  | 243  |
| 85° | 68   | 67    | 66   | 66    | 67   | 77   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1117.7 | 1117.7 | 1117.7 | 1117.7 | 1117.7 |
| 2.5°  | 1118.7 | 1114.0 | 1114.9 | 1116.8 | 1116.8 |
| 5°    | 1112.1 | 1112.1 | 1110.2 | 1113.0 | 1114.0 |
| 7.5°  | 1112.1 | 1107.4 | 1104.6 | 1107.4 | 1109.3 |
| 10°   | 1097.1 | 1095.2 | 1097.1 | 1096.1 | 1099.0 |
| 12.5° | 1083.9 | 1082.1 | 1082.1 | 1084.9 | 1084.9 |
| 15°   | 1068.9 | 1068.9 | 1066.1 | 1070.8 | 1069.9 |
| 17.5° | 1053.9 | 1053.9 | 1052.0 | 1052.0 | 1053.9 |
| 20°   | 1036.1 | 1031.4 | 1033.3 | 1032.3 | 1031.4 |
| 22.5° | 1011.7 | 1008.9 | 1007.0 | 1009.8 | 1010.7 |
| 25°   | 988.2  | 986.3  | 982.6  | 986.3  | 985.4  |
| 27.5° | 962.9  | 961.0  | 960.1  | 958.2  | 960.1  |
| 30°   | 934.7  | 932.8  | 931.9  | 930.0  | 930.0  |
| 32.5° | 906.6  | 902.8  | 898.1  | 902.8  | 901.9  |
| 35°   | 873.0  | 873.0  | 869.3  | 870.2  | 873.0  |
| 37.5° | 843.0  | 841.1  | 839.2  | 836.4  | 837.4  |
| 40°   | 809.2  | 806.4  | 805.4  | 803.6  | 799.8  |
| 42.5° | 769.8  | 769.8  | 766.0  | 767.0  | 766.0  |
| 45°   | 734.1  | 733.2  | 729.4  | 729.4  | 729.4  |
| 47.5° | 696.6  | 695.6  | 692.8  | 691.0  | 692.8  |
| 50°   | 658.1  | 654.4  | 654.4  | 651.5  | 650.6  |
| 52.5° | 618.0  | 615.2  | 611.4  | 612.4  | 610.5  |
| 55°   | 574.8  | 573.9  | 571.1  | 570.1  | 570.1  |
| 57.5° | 531.6  | 532.6  | 530.7  | 527.0  | 527.9  |
| 60°   | 489.4  | 488.5  | 486.6  | 484.7  | 484.7  |
| 62.5° | 446.2  | 446.2  | 442.5  | 442.5  | 438.7  |
| 65°   | 403.1  | 403.1  | 398.4  | 400.3  | 396.5  |
| 67.5° | 360.1  | 359.2  | 356.4  | 355.4  | 356.4  |
| 70°   | 313.2  | 314.2  | 312.3  | 312.3  | 313.2  |
| 72.5° | 271.0  | 270.0  | 269.1  | 269.1  | 271.0  |
| 75°   | 228.8  | 227.8  | 225.9  | 225.9  | 227.8  |
| 77.5° | 190.3  | 185.6  | 184.6  | 186.5  | 183.7  |
| 80°   | 151.8  | 145.2  | 144.3  | 143.4  | 143.4  |
| 82.5° | 107.0  | 104.2  | 105.1  | 104.2  | 106.0  |
| 85°   | 67.6   | 66.6   | 65.7   | 65.7   | 66.6   |
| 87.5° | 31.9   | 30.0   | 30.0   | 29.1   | 29.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)