

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: P238869

Luminaire Tested: **22ENA-LD2-39-UNV-L930-CD1-U**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P238869  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1706-118-11)  
Test Lab: INNOVATION CENTER(G3)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 22ENA-LD2-39-UNV-L930-CD1-U  
Description: METALUX ENCOUNTER 2X2 LED TROFFER  
AIR-VENTED OPTION  
Light Source: (168)3000K CCT, 90 CRI LEDs  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3251.2 lumens  
Efficiency: N/A  
Efficacy: 97.6 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.29 / 1.39  
Luminous Opening: Rectangular (W 1.67' x L: 1.83' x H: 0')  
CIE Type: Direct

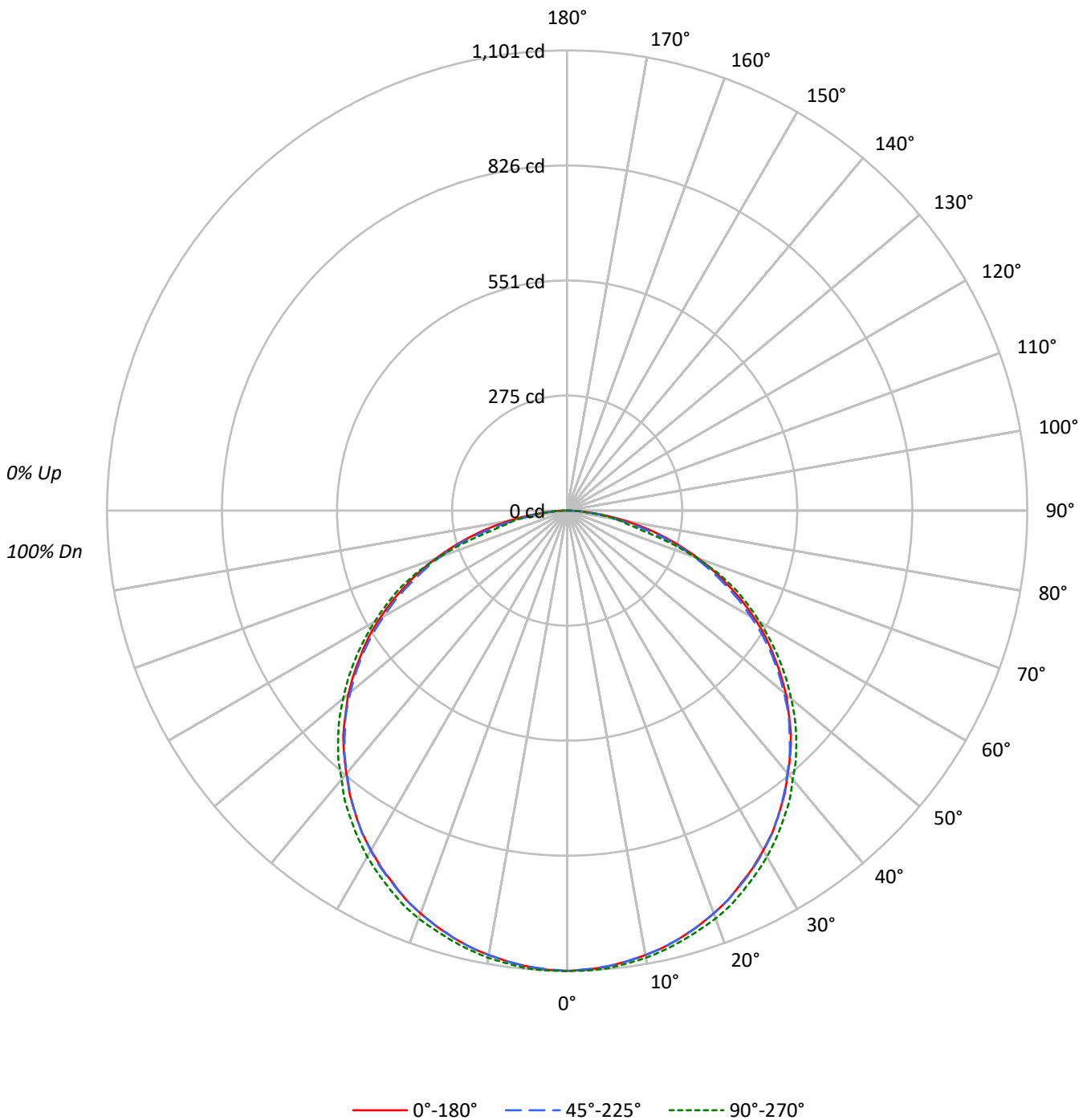
Input Watts (W): 33.3  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P238869

CATALOG NUMBER: 22ENA-LD2-39-UNV-L930-CD1-U

### Luminous Intensity Polar Plot





TEST NUMBER: P238869

CATALOG NUMBER: 22ENA-LD2-39-UNV-L930-CD1-U

**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   | 109 | 104 | 99  | 95  | 106 | 101 | 98  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 88  | 86  | 83  |
| 2   | 99  | 90  | 83  | 77  | 96  | 88  | 82  | 76  | 85  | 79  | 75  | 81  | 77  | 73  | 78  | 75  | 71  | 69  |
| 3   | 90  | 79  | 71  | 64  | 87  | 77  | 70  | 63  | 74  | 68  | 62  | 72  | 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  | 42  |
| 6   | 69  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 46  | 40  | 51  | 45  | 39  | 50  | 44  | 39  | 37  |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 35  | 48  | 41  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 33  |
| 8   | 60  | 46  | 38  | 32  | 58  | 45  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |
| 9   | 56  | 42  | 34  | 28  | 54  | 42  | 34  | 28  | 41  | 33  | 28  | 39  | 33  | 28  | 38  | 32  | 28  | 26  |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 30  | 26  | 37  | 30  | 25  | 36  | 30  | 25  | 24  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 3880 | 3880 | 3880 |
| 5°  | 3871 | 3871 | 3889 |
| 10° | 3863 | 3863 | 3887 |
| 15° | 3855 | 3855 | 3885 |
| 20° | 3845 | 3845 | 3894 |
| 25° | 3827 | 3833 | 3890 |
| 30° | 3817 | 3824 | 3891 |
| 35° | 3802 | 3802 | 3880 |
| 40° | 3778 | 3770 | 3861 |
| 45° | 3773 | 3748 | 3863 |
| 50° | 3744 | 3708 | 3835 |
| 55° | 3700 | 3660 | 3802 |
| 60° | 3654 | 3573 | 3747 |
| 65° | 3554 | 3458 | 3692 |
| 70° | 3426 | 3324 | 3374 |
| 75° | 3227 | 3024 | 2577 |
| 80° | 2838 | 2372 | 2471 |
| 85° | 2061 | 1997 | 1928 |



TEST NUMBER: P238869

CATALOG NUMBER: 22ENA-LD2-39-UNV-L930-CD1-U

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 104.2  | 3.2       |
| 10°-20°   | 299.0  | 9.2       |
| 20°-30°   | 456.4  | 14.0      |
| 30°-40°   | 555.9  | 17.1      |
| 40°-50°   | 585.1  | 18.0      |
| 50°-60°   | 538.7  | 16.6      |
| 60°-70°   | 419.3  | 12.9      |
| 70°-80°   | 232.7  | 7.2       |
| 80°-90°   | 59.8   | 1.8       |
| 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°    | 859.5  | 26.4      |
| 0°-40°    | 1415.4 | 43.5      |
| 0°-60°    | 2539.3 | 78.1      |
| 0°-90°    | 3251.2 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3251.2 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1101 | 1101  | 1101 | 1101  | 1101 |      |
| 5°  | 1095 | 1095  | 1095 | 1098  | 1100 | 104  |
| 15° | 1057 | 1057  | 1057 | 1062  | 1065 | 298  |
| 25° | 984  | 986   | 986  | 994   | 1001 | 454  |
| 35° | 884  | 884   | 884  | 894   | 902  | 553  |
| 45° | 757  | 752   | 752  | 764   | 775  | 583  |
| 55° | 602  | 601   | 596  | 606   | 619  | 539  |
| 65° | 426  | 422   | 415  | 428   | 443  | 423  |
| 75° | 237  | 232   | 222  | 198   | 189  | 250  |
| 85° | 51   | 48    | 49   | 48    | 48   | 64   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P238869

CATALOG NUMBER: 22ENA-LD2-39-UNV-L930-CD1-U

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1101.4 | 1101.4 | 1101.4 | 1101.4 | 1101.4 |
| 2.5°  | 1099.7 | 1098.1 | 1098.1 | 1101.4 | 1101.4 |
| 5°    | 1094.8 | 1094.8 | 1094.8 | 1098.1 | 1099.7 |
| 7.5°  | 1088.2 | 1088.2 | 1088.2 | 1093.1 | 1093.1 |
| 10°   | 1080.0 | 1078.3 | 1080.0 | 1083.3 | 1086.6 |
| 12.5° | 1070.1 | 1068.4 | 1070.1 | 1073.4 | 1076.7 |
| 15°   | 1056.9 | 1056.9 | 1056.9 | 1061.9 | 1065.2 |
| 17.5° | 1042.1 | 1040.5 | 1042.1 | 1047.0 | 1052.0 |
| 20°   | 1025.6 | 1025.6 | 1025.6 | 1032.2 | 1038.8 |
| 22.5° | 1007.5 | 1005.9 | 1007.5 | 1015.8 | 1022.3 |
| 25°   | 984.5  | 986.1  | 986.1  | 994.4  | 1000.9 |
| 27.5° | 963.1  | 961.4  | 964.7  | 971.3  | 979.5  |
| 30°   | 938.4  | 938.4  | 940.0  | 948.3  | 956.5  |
| 32.5° | 913.7  | 912.0  | 913.7  | 921.9  | 930.2  |
| 35°   | 884.1  | 884.1  | 884.1  | 893.9  | 902.2  |
| 37.5° | 854.4  | 852.8  | 852.8  | 862.7  | 874.2  |
| 40°   | 821.5  | 819.9  | 819.9  | 831.4  | 839.6  |
| 42.5° | 790.2  | 788.6  | 788.6  | 798.5  | 810.0  |
| 45°   | 757.3  | 752.4  | 752.4  | 763.9  | 775.4  |
| 47.5° | 719.4  | 716.1  | 717.8  | 727.7  | 739.2  |
| 50°   | 683.2  | 678.3  | 676.6  | 688.2  | 699.7  |
| 52.5° | 643.7  | 642.1  | 637.1  | 647.0  | 660.2  |
| 55°   | 602.5  | 600.9  | 596.0  | 605.8  | 619.0  |
| 57.5° | 563.0  | 558.1  | 553.2  | 561.4  | 576.2  |
| 60°   | 518.6  | 513.6  | 507.1  | 518.6  | 531.8  |
| 62.5° | 474.1  | 467.5  | 462.6  | 472.5  | 487.3  |
| 65°   | 426.4  | 421.5  | 414.9  | 428.0  | 442.9  |
| 67.5° | 381.9  | 377.0  | 368.8  | 380.3  | 390.2  |
| 70°   | 332.6  | 326.0  | 322.7  | 324.3  | 327.6  |
| 72.5° | 284.8  | 281.5  | 276.6  | 263.4  | 260.1  |
| 75°   | 237.1  | 232.1  | 222.2  | 197.6  | 189.3  |
| 77.5° | 189.3  | 186.0  | 167.9  | 146.5  | 146.5  |
| 80°   | 139.9  | 138.3  | 116.9  | 120.2  | 121.8  |
| 82.5° | 95.5   | 92.2   | 85.6   | 84.0   | 84.0   |
| 85°   | 51.0   | 47.7   | 49.4   | 47.7   | 47.7   |
| 87.5° | 19.8   | 19.8   | 21.4   | 19.8   | 19.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)