

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: P856437

Luminaire Tested: **12MMS-L3C5-UNV-HIGH-4000K**

Issue Date: 7/30/2024



**Test Information**

Test Method: LM-79-08  
Report Number: P856437  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-156-10)  
Test Lab: INNOVATION CENTER  
Issue Date: 7/30/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: 12MMS-L3C5-UNV-HIGH-4000K  
Description: 1x2 Multi-mount Selectable Direct Mound LED Backlit Panel atHIGH and 4000K settings  
Light Source: -  
Ballast/Driver: -

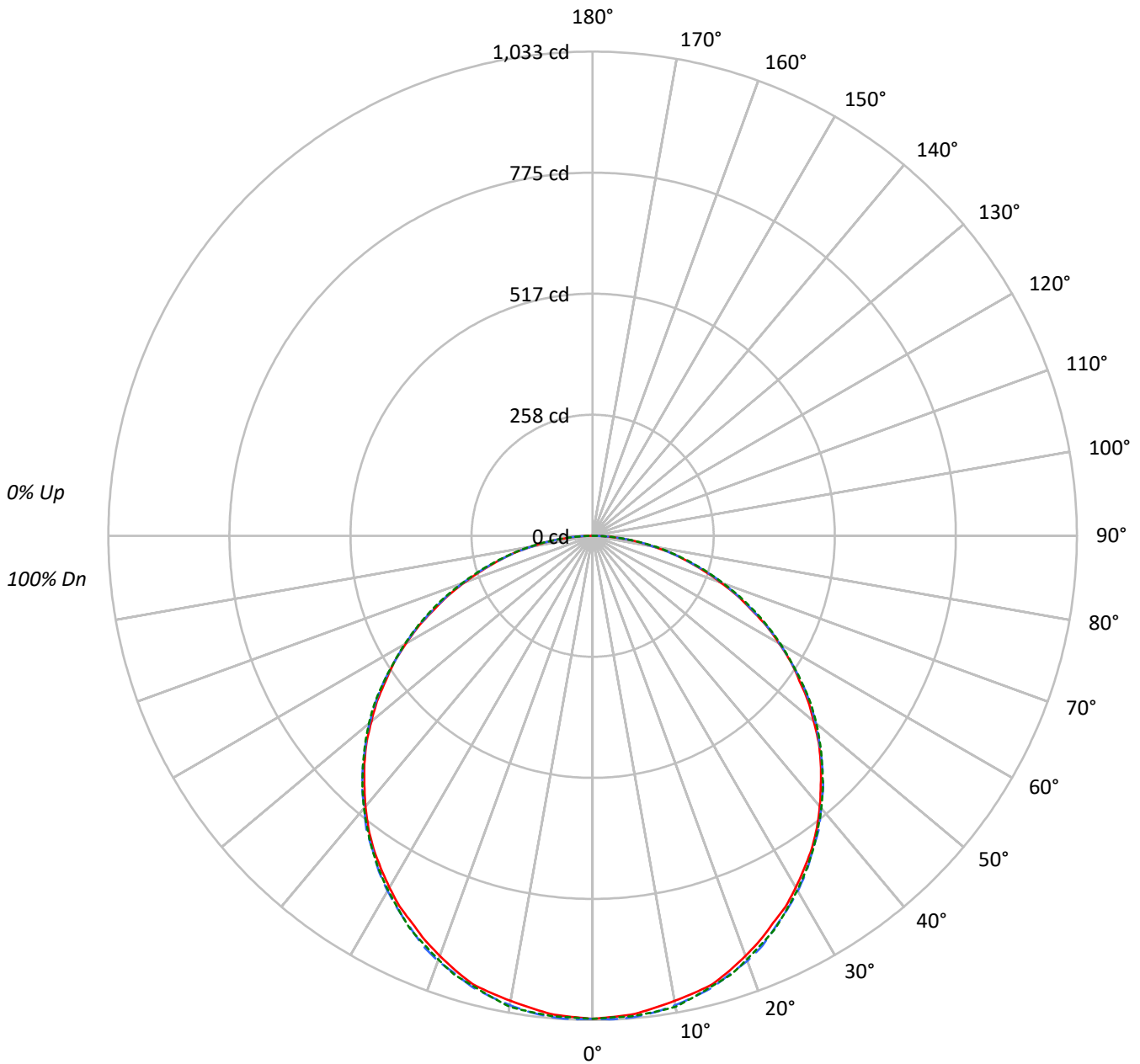
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3000.0 lumens  
Efficiency: N/A  
Efficacy: 90.9 lumens/watt  
Spacing Criteria (0/90/45): 1.25 / 1.26 / 1.38  
Luminous Opening: Rectangular (W 0.83' x L: 1.83' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 33  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): 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 |  |  |  |  |  |  |  |  |   |
| RC  | 80  |     |     |     |     |     |     |     |     | 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 | 0 |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 1   | 108 | 104 | 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  | 84  | 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  | 42  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 70  | 56  | 47  | 40  | 68  | 55  | 46  | 40  | 53  | 46  | 40  | 52  | 45  | 39  | 50  | 44  | 39  | 37  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 64  | 51  | 42  | 36  | 63  | 50  | 41  | 36  | 48  | 41  | 35  | 47  | 40  | 35  | 46  | 39  | 35  | 33  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 37  | 32  | 44  | 37  | 31  | 43  | 36  | 31  | 42  | 36  | 31  | 29  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 56  | 42  | 34  | 29  | 55  | 42  | 34  | 28  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 32  | 28  | 26  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 52  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 25  | 24  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 7260 | 7260 | 7260 |
| 5°  | 7244 | 7288 | 7273 |
| 10° | 7209 | 7276 | 7299 |
| 15° | 7222 | 7267 | 7244 |
| 20° | 7151 | 7237 | 7213 |
| 25° | 7084 | 7165 | 7181 |
| 30° | 7051 | 7118 | 7101 |
| 35° | 7009 | 7036 | 7044 |
| 40° | 6932 | 6971 | 6980 |
| 45° | 6859 | 6900 | 6900 |
| 50° | 6750 | 6807 | 6830 |
| 55° | 6610 | 6686 | 6686 |
| 60° | 6472 | 6500 | 6530 |
| 65° | 6222 | 6273 | 6360 |
| 70° | 5959 | 6065 | 6108 |
| 75° | 5700 | 5730 | 5869 |
| 80° | 5299 | 5343 | 5595 |
| 85° | 4697 | 4778 | 4947 |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 97.7   | 3.3       |
| 10°-20°   | 280.2  | 9.3       |
| 20°-30°   | 424.0  | 14.1      |
| 30°-40°   | 511.9  | 17.1      |
| 40°-50°   | 533.5  | 17.8      |
| 50°-60°   | 485.5  | 16.2      |
| 60°-70°   | 374.7  | 12.5      |
| 70°-80°   | 224.8  | 7.5       |
| 80°-90°   | 67.6   | 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°    | 801.9  | 26.7      |
| 0°-40°    | 1313.8 | 43.8      |
| 0°-60°    | 2332.8 | 77.8      |
| 0°-90°    | 3000.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3000.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 1030 | 1030  | 1030 | 1030  | 1030 |      |
| 5°  | 1024 | 1025  | 1030 | 1030  | 1028 | 97   |
| 15° | 990  | 992   | 996  | 994   | 993  | 279  |
| 25° | 911  | 920   | 922  | 921   | 924  | 421  |
| 35° | 815  | 819   | 818  | 821   | 819  | 509  |
| 45° | 688  | 689   | 692  | 692   | 692  | 531  |
| 55° | 538  | 543   | 544  | 544   | 544  | 482  |
| 65° | 373  | 377   | 376  | 380   | 382  | 371  |
| 75° | 209  | 212   | 210  | 215   | 216  | 222  |
| 85° | 58   | 58    | 59   | 60    | 61   | 66   |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 1030.5 | 1030.5 | 1030.5 | 1030.5 | 1030.5 |
| 2.5°  | 1027.4 | 1029.5 | 1032.6 | 1032.6 | 1028.4 |
| 5°    | 1024.3 | 1025.3 | 1030.5 | 1029.5 | 1028.4 |
| 7.5°  | 1016.0 | 1020.2 | 1025.3 | 1025.3 | 1024.3 |
| 10°   | 1007.7 | 1012.9 | 1017.0 | 1018.1 | 1020.2 |
| 12.5° | 999.4  | 1002.5 | 1006.7 | 1008.7 | 1006.7 |
| 15°   | 990.1  | 992.2  | 996.3  | 994.2  | 993.2  |
| 17.5° | 972.5  | 975.6  | 978.7  | 978.7  | 981.8  |
| 20°   | 953.8  | 955.9  | 965.2  | 965.2  | 962.1  |
| 22.5° | 934.1  | 937.2  | 946.5  | 942.4  | 942.4  |
| 25°   | 911.3  | 919.6  | 921.7  | 920.6  | 923.7  |
| 27.5° | 891.6  | 894.7  | 898.9  | 899.9  | 897.8  |
| 30°   | 866.7  | 869.8  | 875.0  | 872.9  | 872.9  |
| 32.5° | 840.8  | 843.9  | 849.1  | 848.1  | 847.0  |
| 35°   | 814.9  | 819.0  | 818.0  | 821.1  | 819.0  |
| 37.5° | 785.8  | 785.8  | 792.1  | 790.0  | 789.0  |
| 40°   | 753.7  | 756.8  | 757.9  | 758.9  | 758.9  |
| 42.5° | 720.5  | 724.7  | 727.8  | 725.7  | 726.8  |
| 45°   | 688.4  | 689.4  | 692.5  | 692.5  | 692.5  |
| 47.5° | 654.2  | 656.3  | 656.3  | 658.3  | 658.3  |
| 50°   | 615.8  | 620.0  | 621.0  | 624.1  | 623.1  |
| 52.5° | 579.5  | 579.5  | 583.7  | 585.8  | 585.8  |
| 55°   | 538.1  | 543.3  | 544.3  | 544.3  | 544.3  |
| 57.5° | 501.8  | 503.9  | 501.8  | 504.9  | 502.8  |
| 60°   | 459.3  | 461.3  | 461.3  | 463.4  | 463.4  |
| 62.5° | 418.8  | 419.9  | 420.9  | 423.0  | 423.0  |
| 65°   | 373.2  | 377.4  | 376.3  | 380.5  | 381.5  |
| 67.5° | 333.8  | 335.9  | 335.9  | 339.0  | 340.1  |
| 70°   | 289.3  | 293.4  | 294.4  | 298.6  | 296.5  |
| 72.5° | 248.8  | 251.9  | 254.0  | 255.0  | 255.0  |
| 75°   | 209.4  | 212.5  | 210.5  | 214.6  | 215.6  |
| 77.5° | 173.1  | 171.1  | 172.1  | 174.2  | 174.2  |
| 80°   | 130.6  | 132.7  | 131.7  | 133.7  | 137.9  |
| 82.5° | 94.3   | 95.4   | 96.4   | 97.5   | 97.5   |
| 85°   | 58.1   | 58.1   | 59.1   | 60.1   | 61.2   |
| 87.5° | 25.9   | 27.0   | 27.0   | 25.9   | 27.0   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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— 0°-180°    - - 45°-225°    - - - - 90°-270°







(END OF REPORT)