

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269



Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: METALUX

Report Number: P894228

Luminaire Tested: 4MB-SC3-LVR-UNV-CC83-LOW-3500K

Issue Date: 11/11/2024

**Test Information**

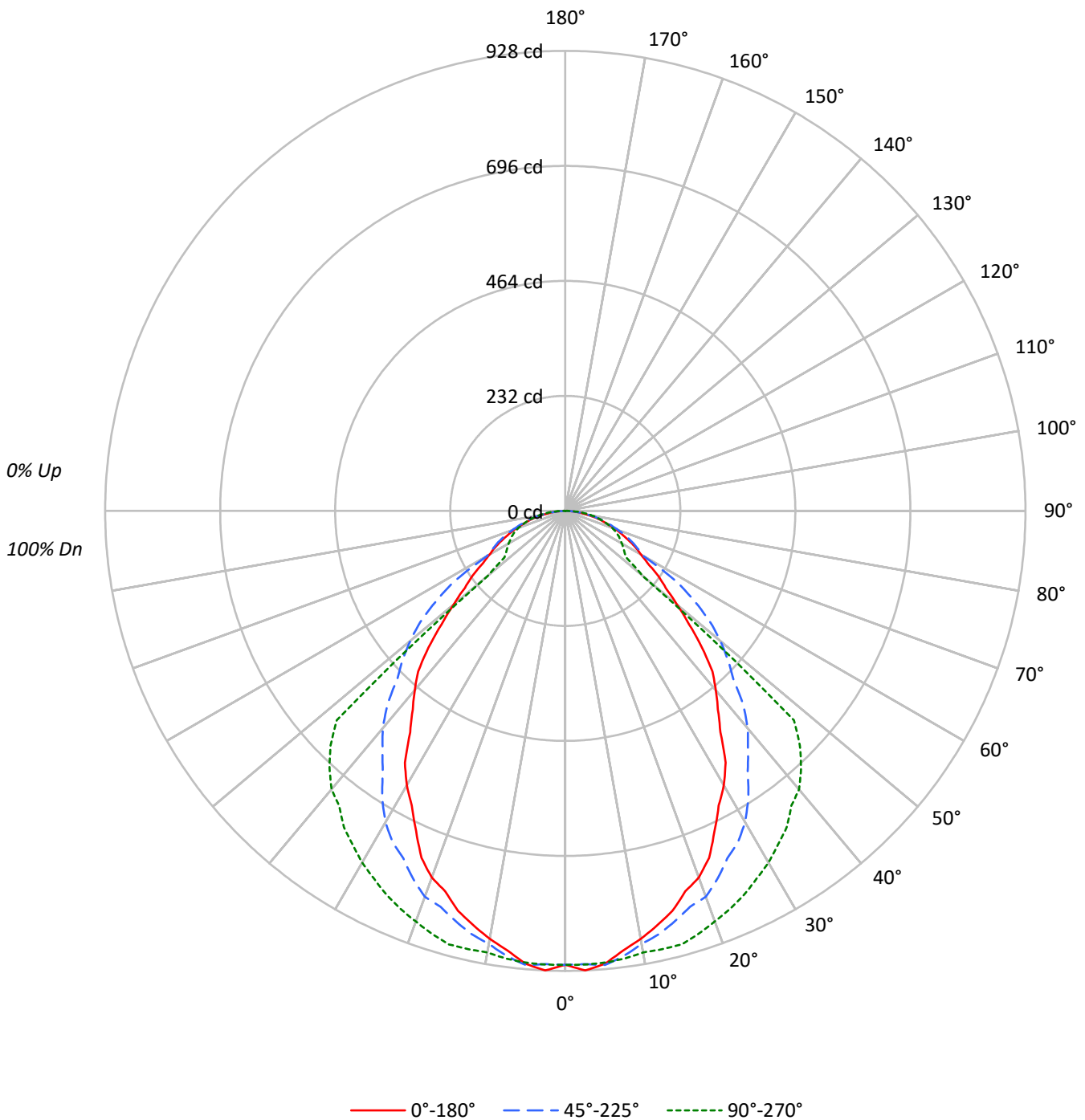
Test Method: LM-79-2019  
Report Number: P894228  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 4MB-SC3-LVR-UNV-CC83-LOW-3500K  
Description: Selectable 4FT MICROBAY LINEAR BAY with LOUVER, 80CRI, 3500K CCT, LOW lumen setting  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 1954.0 lumens  
Efficiency: N/A  
Efficacy: 117.0 lumens/watt  
Spacing Criteria (0/90/45): 1.06 / 1.33 / 1.27  
Luminous Opening: Rectangular (W 0.38' x L: 3.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 16.7  
Input Voltage (V): 120  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: 0.9915  
Total Harmonic Distortion (THDi): 6.67573310469889  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 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  | 50  | 30  | 10  | 0   |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 102 | 102 | 102 | 100 |
| 1   | 110 | 106 | 102 | 99  | 108 | 104 | 100 | 97  | 100 | 97  | 94  | 96  | 93  | 91  | 92  | 90  | 89  | 89  | 89  | 89  | 87  |
| 2   | 102 | 94  | 88  | 83  | 99  | 92  | 87  | 82  | 89  | 84  | 80  | 86  | 82  | 79  | 83  | 80  | 77  | 77  | 77  | 77  | 75  |
| 3   | 94  | 84  | 77  | 71  | 91  | 83  | 76  | 71  | 80  | 74  | 69  | 77  | 72  | 68  | 75  | 71  | 67  | 67  | 67  | 67  | 65  |
| 4   | 87  | 76  | 68  | 62  | 84  | 74  | 67  | 61  | 72  | 66  | 61  | 70  | 64  | 60  | 68  | 63  | 59  | 59  | 59  | 59  | 57  |
| 5   | 80  | 68  | 60  | 54  | 78  | 67  | 60  | 54  | 65  | 59  | 53  | 63  | 58  | 53  | 62  | 57  | 52  | 52  | 52  | 52  | 50  |
| 6   | 75  | 62  | 54  | 48  | 73  | 61  | 54  | 48  | 60  | 53  | 48  | 58  | 52  | 47  | 56  | 51  | 47  | 47  | 47  | 47  | 45  |
| 7   | 69  | 57  | 49  | 43  | 68  | 56  | 48  | 43  | 55  | 48  | 43  | 53  | 47  | 42  | 52  | 46  | 42  | 42  | 42  | 42  | 40  |
| 8   | 65  | 52  | 44  | 39  | 63  | 52  | 44  | 39  | 50  | 43  | 39  | 49  | 43  | 38  | 48  | 42  | 38  | 38  | 38  | 38  | 36  |
| 9   | 61  | 48  | 40  | 35  | 59  | 48  | 40  | 35  | 47  | 40  | 35  | 45  | 39  | 35  | 44  | 39  | 35  | 35  | 35  | 35  | 33  |
| 10  | 57  | 45  | 37  | 32  | 56  | 44  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 32  | 41  | 36  | 32  | 32  | 32  | 32  | 30  |

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

|     | 0°   | 45°  | 90°  |
|-----|------|------|------|
| 0°  | 6514 | 6514 | 6514 |
| 5°  | 6550 | 6567 | 6533 |
| 10° | 6335 | 6409 | 6534 |
| 15° | 6152 | 6307 | 6669 |
| 20° | 5959 | 6271 | 6674 |
| 25° | 5591 | 6068 | 6704 |
| 30° | 5252 | 5959 | 6731 |
| 35° | 4736 | 5573 | 6763 |
| 40° | 4387 | 5316 | 6811 |
| 45° | 3924 | 4819 | 6734 |
| 50° | 3255 | 4514 | 2262 |
| 55° | 2837 | 3962 | 1810 |
| 60° | 2509 | 2581 | 1877 |
| 65° | 2386 | 2512 | 1992 |
| 70° | 2238 | 2374 | 2101 |
| 75° | 2084 | 2238 | 2161 |
| 80° | 1897 | 2106 | 2262 |
| 85° | 1682 | 1796 | 2441 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 6734 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 86.8   | 4.4       |
| 10°-20°   | 244.3  | 12.5      |
| 20°-30°   | 359.4  | 18.4      |
| 30°-40°   | 411.0  | 21.0      |
| 40°-50°   | 389.2  | 19.9      |
| 50°-60°   | 214.4  | 11.0      |
| 60°-70°   | 137.7  | 7.0       |
| 70°-80°   | 85.0   | 4.3       |
| 80°-90°   | 26.2   | 1.3       |
| 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°    | 690.6  | 35.3      |
| 0°-40°    | 1101.6 | 56.4      |
| 0°-60°    | 1705.2 | 87.3      |
| 0°-90°    | 1954.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 1954.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°  | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0°  | 916 | 916   | 916 | 916   | 916 |      |
| 5°  | 917 | 924   | 919 | 919   | 915 | 86   |
| 15° | 835 | 846   | 856 | 901   | 905 | 234  |
| 25° | 712 | 744   | 773 | 824   | 854 | 328  |
| 35° | 545 | 592   | 642 | 735   | 779 | 345  |
| 45° | 390 | 427   | 479 | 614   | 669 | 298  |
| 55° | 229 | 240   | 319 | 165   | 146 | 204  |
| 65° | 142 | 146   | 149 | 133   | 118 | 140  |
| 75° | 76  | 77    | 81  | 86    | 79  | 81   |
| 85° | 21  | 21    | 22  | 25    | 30  | 23   |
| 90° | 0   | 0     | 0   | 0     | 0   |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   |
|-------|-------|-------|-------|-------|-------|
| 0°    | 915.6 | 915.6 | 915.6 | 915.6 | 915.6 |
| 2.5°  | 927.8 | 930.1 | 915.2 | 914.7 | 916.1 |
| 5°    | 917.1 | 924.5 | 919.4 | 919.4 | 914.7 |
| 7.5°  | 894.1 | 906.8 | 905.4 | 916.1 | 911.0 |
| 10°   | 876.8 | 887.1 | 887.1 | 915.2 | 904.4 |
| 12.5° | 856.3 | 867.9 | 874.5 | 904.0 | 905.4 |
| 15°   | 835.2 | 845.5 | 856.3 | 901.2 | 905.4 |
| 17.5° | 804.8 | 823.5 | 837.1 | 881.0 | 894.6 |
| 20°   | 787.0 | 798.3 | 828.2 | 863.7 | 881.5 |
| 22.5° | 757.6 | 774.0 | 802.9 | 842.7 | 868.9 |
| 25°   | 712.2 | 744.0 | 773.0 | 823.5 | 853.9 |
| 27.5° | 670.1 | 694.0 | 753.8 | 807.2 | 836.1 |
| 30°   | 639.3 | 658.0 | 725.3 | 783.3 | 819.3 |
| 32.5° | 601.9 | 632.3 | 687.0 | 759.9 | 798.3 |
| 35°   | 545.3 | 592.0 | 641.6 | 734.7 | 778.6 |
| 37.5° | 505.5 | 537.8 | 605.1 | 708.5 | 749.2 |
| 40°   | 472.3 | 501.8 | 572.4 | 675.7 | 733.3 |
| 42.5° | 439.1 | 463.0 | 531.2 | 651.4 | 703.8 |
| 45°   | 390.0 | 427.0 | 478.9 | 614.5 | 669.2 |
| 47.5° | 338.6 | 377.9 | 444.7 | 583.2 | 625.2 |
| 50°   | 294.1 | 325.5 | 407.8 | 521.0 | 204.4 |
| 52.5° | 255.3 | 284.3 | 368.5 | 188.5 | 154.3 |
| 55°   | 228.7 | 239.9 | 319.4 | 164.6 | 145.9 |
| 57.5° | 196.9 | 215.1 | 268.0 | 156.7 | 138.4 |
| 60°   | 176.3 | 184.3 | 181.4 | 148.7 | 131.9 |
| 62.5° | 159.9 | 165.5 | 164.6 | 140.8 | 124.4 |
| 65°   | 141.7 | 146.4 | 149.2 | 132.8 | 118.3 |
| 67.5° | 123.5 | 127.7 | 131.9 | 123.0 | 109.9 |
| 70°   | 107.6 | 110.4 | 114.1 | 111.3 | 101.0 |
| 72.5° | 91.2  | 94.5  | 96.8  | 99.1  | 89.3  |
| 75°   | 75.8  | 77.2  | 81.4  | 85.6  | 78.6  |
| 77.5° | 61.7  | 63.1  | 65.9  | 70.6  | 66.9  |
| 80°   | 46.3  | 47.7  | 51.4  | 55.2  | 55.2  |
| 82.5° | 32.7  | 33.7  | 36.0  | 41.2  | 43.5  |
| 85°   | 20.6  | 20.6  | 22.0  | 25.3  | 29.9  |
| 87.5° | 7.9   | 7.9   | 9.4   | 11.2  | 15.0  |
| 90°   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |



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**CIE UGR TABLE:**

| Reflectances:   |      |                  |       |       |       |       |                |       |       |       |       |
|-----------------|------|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Ceiling         |      | 0.7              | 0.7   | 0.5   | 0.5   | 0.3   | 0.7            | 0.7   | 0.5   | 0.5   | 0.3   |
| Wall            |      | 0.5              | 0.3   | 0.5   | 0.3   | 0.3   | 0.5            | 0.3   | 0.5   | 0.3   | 0.3   |
| Reference plane |      | 0.2              | 0.2   | 0.2   | 0.2   | 0.2   | 0.2            | 0.2   | 0.2   | 0.2   | 0.2   |
| Room dimensions |      | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X=2H            | Y=2H | 14.46            | 15.94 | 14.83 | 16.26 | 16.57 | 12.26          | 13.75 | 12.63 | 14.06 | 14.38 |
|                 | 3H   | 15.99            | 17.31 | 16.37 | 17.64 | 18.01 | 14.59          | 15.92 | 14.97 | 16.25 | 16.61 |
|                 | 4H   | 16.58            | 17.82 | 16.98 | 18.17 | 18.55 | 15.54          | 16.79 | 15.95 | 17.14 | 17.52 |
|                 | 6H   | 17.04            | 18.18 | 17.45 | 18.55 | 18.94 | 16.33          | 17.48 | 16.74 | 17.84 | 18.24 |
|                 | 8H   | 17.18            | 18.27 | 17.61 | 18.66 | 19.07 | 16.64          | 17.73 | 17.07 | 18.12 | 18.52 |
|                 | 12H  | 17.28            | 18.32 | 17.71 | 18.71 | 19.13 | 16.89          | 17.93 | 17.32 | 18.32 | 18.75 |
| 4H              | 2H   | 15.01            | 16.25 | 15.41 | 16.60 | 16.98 | 13.37          | 14.61 | 13.77 | 14.96 | 15.34 |
|                 | 3H   | 16.78            | 17.81 | 17.20 | 18.21 | 18.62 | 15.81          | 16.84 | 16.22 | 17.24 | 17.64 |
|                 | 4H   | 17.50            | 18.43 | 17.94 | 18.85 | 19.29 | 16.88          | 17.81 | 17.31 | 18.22 | 18.66 |
|                 | 6H   | 18.09            | 18.90 | 18.55 | 19.34 | 19.80 | 17.77          | 18.57 | 18.23 | 19.02 | 19.48 |
|                 | 8H   | 18.28            | 19.03 | 18.74 | 19.48 | 19.94 | 18.12          | 18.87 | 18.58 | 19.32 | 19.79 |
|                 | 12H  | 18.42            | 19.09 | 18.90 | 19.57 | 20.04 | 18.41          | 19.08 | 18.89 | 19.56 | 20.03 |
| 8H              | 4H   | 17.81            | 18.56 | 18.28 | 19.01 | 19.48 | 17.27          | 18.02 | 17.73 | 18.46 | 18.93 |
|                 | 6H   | 18.52            | 19.15 | 19.02 | 19.64 | 20.12 | 18.30          | 18.93 | 18.80 | 19.42 | 19.90 |
|                 | 8H   | 18.78            | 19.35 | 19.30 | 19.86 | 20.35 | 18.75          | 19.31 | 19.26 | 19.82 | 20.31 |
|                 | 12H  | 18.99            | 19.49 | 19.50 | 19.98 | 20.55 | 19.13          | 19.63 | 19.64 | 20.12 | 20.69 |
| 12H             | 4H   | 17.85            | 18.52 | 18.33 | 19.00 | 19.47 | 17.30          | 17.97 | 17.78 | 18.45 | 18.93 |
|                 | 6H   | 18.59            | 19.15 | 19.10 | 19.66 | 20.15 | 18.37          | 18.93 | 18.88 | 19.44 | 19.93 |
|                 | 8H   | 18.91            | 19.41 | 19.42 | 19.90 | 20.46 | 18.88          | 19.37 | 19.39 | 19.87 | 20.43 |