

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: P894265

Luminaire Tested: 4MB-SC3-LVRF-UNV-CC83-LOW-4000K

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P894265
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2407-175-7)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 4MB-SC3-LVRF-UNV-CC83-LOW-4000K
Description: Selectable 4FT MICROBAY LINEAR BAY with LOUVER WITH FROSTED INLAY, 80CRI, 4000K CCT
lumen setting
Light Source: -
Ballast/Driver: -

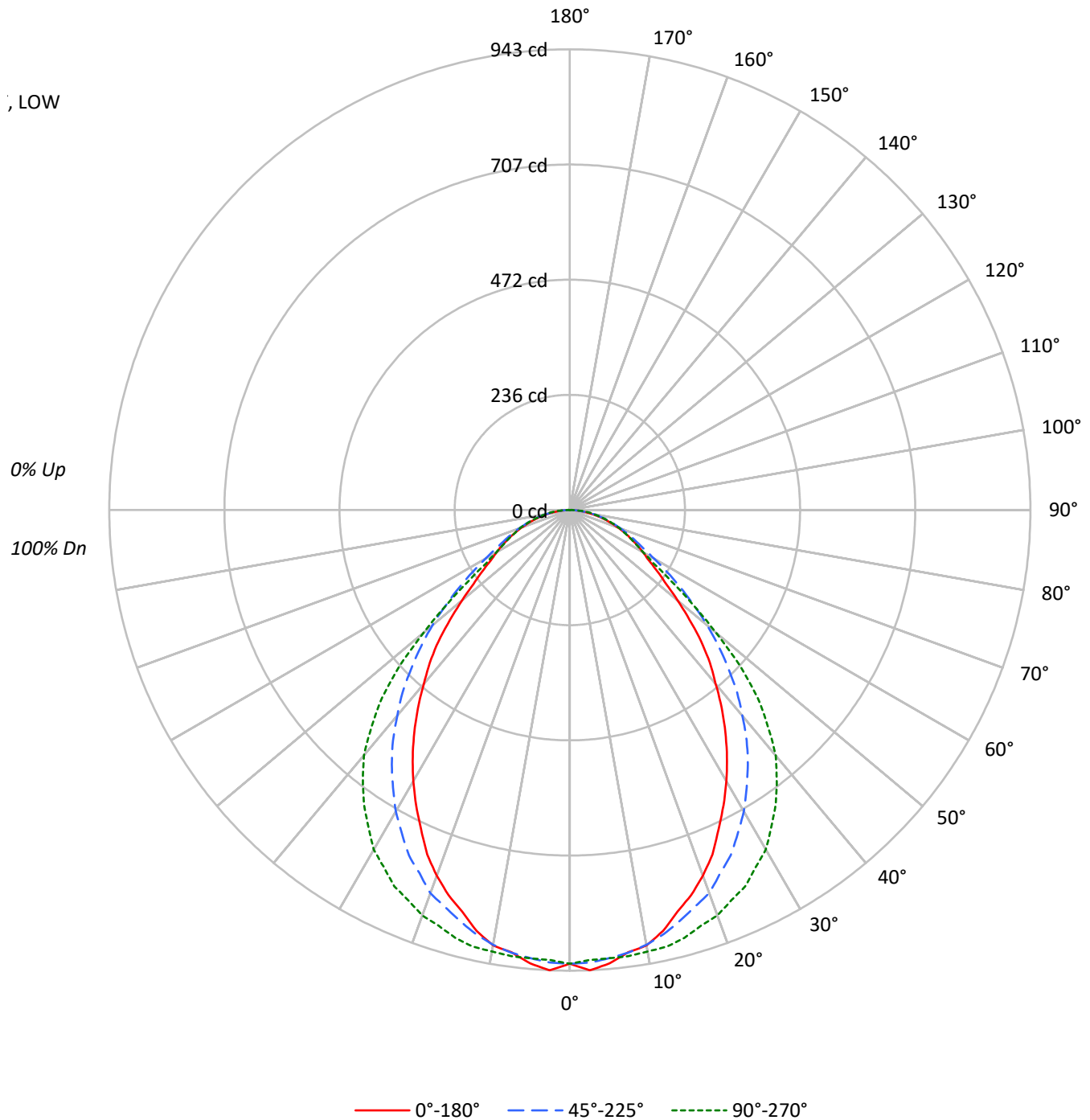
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 1930.0 lumens
Efficiency: N/A
Efficacy: 115.6 lumens/watt
Spacing Criteria (0/90/45): 1.06 / 1.27 / 1.23
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 | 70 | 80 | 74 | 69 | 77 | 72 | 68 | 75 | 71 | 67 | 67 | 67 | 67 | 65 |
| 4 | 87 | 76 | 68 | 62 | 84 | 74 | 67 | 61 | 72 | 66 | 60 | 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 | 56 | 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 | 44 | 39 | 49 | 43 | 38 | 48 | 42 | 38 | 38 | 38 | 38 | 36 |
| 9 | 61 | 48 | 41 | 35 | 60 | 48 | 40 | 35 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 35 | 35 | 35 | 33 |
| 10 | 57 | 45 | 37 | 32 | 56 | 44 | 37 | 32 | 43 | 37 | 32 | 42 | 36 | 32 | 42 | 36 | 32 | 32 | 32 | 32 | 30 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|------|------|------|
| 0° | 6607 | 6607 | 6607 |
| 5° | 6653 | 6577 | 6577 |
| 10° | 6538 | 6528 | 6629 |
| 15° | 6268 | 6414 | 6677 |
| 20° | 6029 | 6319 | 6687 |
| 25° | 5656 | 6123 | 6672 |
| 30° | 5265 | 5852 | 6594 |
| 35° | 4820 | 5520 | 6384 |
| 40° | 4315 | 5104 | 6091 |
| 45° | 3829 | 4621 | 5476 |
| 50° | 3186 | 4068 | 4319 |
| 55° | 2714 | 3426 | 3138 |
| 60° | 2460 | 2832 | 2480 |
| 65° | 2317 | 2480 | 2308 |
| 70° | 2180 | 2301 | 2251 |
| 75° | 2032 | 2191 | 2150 |
| 80° | 1860 | 2020 | 2077 |
| 85° | 1616 | 1771 | 2327 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5476 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 87.9 | 4.6 |
| 10°-20° | 247.4 | 12.8 |
| 20°-30° | 359.3 | 18.6 |
| 30°-40° | 400.1 | 20.7 |
| 40°-50° | 353.4 | 18.3 |
| 50°-60° | 231.9 | 12.0 |
| 60°-70° | 142.0 | 7.4 |
| 70°-80° | 82.6 | 4.3 |
| 80°-90° | 25.3 | 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° | 694.6 | 36.0 |
| 0°-40° | 1094.7 | 56.7 |
| 0°-60° | 1680.0 | 87.0 |
| 0°-90° | 1930.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 1930.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|-----|-------|-----|-------|-----|------|
| 0° | 929 | 929 | 929 | 929 | 929 | |
| 5° | 932 | 932 | 921 | 930 | 921 | 88 |
| 15° | 851 | 860 | 871 | 905 | 906 | 240 |
| 25° | 720 | 738 | 780 | 830 | 850 | 332 |
| 35° | 555 | 585 | 636 | 703 | 735 | 346 |
| 45° | 380 | 404 | 459 | 521 | 544 | 291 |
| 55° | 219 | 234 | 276 | 274 | 253 | 198 |
| 65° | 138 | 140 | 147 | 143 | 137 | 137 |
| 75° | 74 | 75 | 80 | 81 | 78 | 78 |
| 85° | 20 | 21 | 22 | 25 | 28 | 22 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|-------|-------|-------|-------|-------|
| 0° | 928.6 | 928.6 | 928.6 | 928.6 | 928.6 |
| 2.5° | 943.1 | 931.5 | 927.2 | 931.5 | 921.9 |
| 5° | 931.5 | 932.0 | 920.9 | 930.1 | 920.9 |
| 7.5° | 913.2 | 919.5 | 914.1 | 928.1 | 920.9 |
| 10° | 905.0 | 905.4 | 903.5 | 918.0 | 917.5 |
| 12.5° | 882.3 | 883.7 | 889.0 | 910.8 | 915.6 |
| 15° | 850.9 | 860.5 | 870.7 | 905.0 | 906.4 |
| 17.5° | 826.3 | 837.8 | 851.4 | 888.1 | 892.4 |
| 20° | 796.3 | 801.1 | 834.5 | 866.8 | 883.2 |
| 22.5° | 763.0 | 772.2 | 804.5 | 848.0 | 864.4 |
| 25° | 720.5 | 737.9 | 779.9 | 829.6 | 849.9 |
| 27.5° | 681.4 | 701.7 | 745.1 | 800.7 | 824.3 |
| 30° | 640.8 | 664.0 | 712.3 | 766.9 | 802.6 |
| 32.5° | 598.8 | 627.8 | 673.7 | 736.4 | 767.8 |
| 35° | 554.9 | 584.8 | 635.5 | 702.6 | 735.0 |
| 37.5° | 510.9 | 539.9 | 594.9 | 666.9 | 695.9 |
| 40° | 464.6 | 493.0 | 549.5 | 622.5 | 655.8 |
| 42.5° | 424.5 | 449.1 | 507.1 | 569.3 | 600.3 |
| 45° | 380.5 | 403.7 | 459.2 | 521.1 | 544.2 |
| 47.5° | 332.2 | 359.3 | 413.4 | 464.1 | 473.2 |
| 50° | 287.8 | 315.8 | 367.5 | 396.9 | 390.2 |
| 52.5° | 248.7 | 272.4 | 319.7 | 332.2 | 316.3 |
| 55° | 218.8 | 234.2 | 276.2 | 273.8 | 253.0 |
| 57.5° | 191.2 | 200.9 | 236.6 | 223.1 | 203.3 |
| 60° | 172.9 | 177.2 | 199.0 | 186.4 | 174.3 |
| 62.5° | 155.5 | 157.4 | 169.0 | 162.3 | 153.1 |
| 65° | 137.6 | 140.0 | 147.3 | 142.9 | 137.1 |
| 67.5° | 121.2 | 122.2 | 128.9 | 128.0 | 120.7 |
| 70° | 104.8 | 106.2 | 110.6 | 112.5 | 108.2 |
| 72.5° | 88.9 | 90.3 | 94.6 | 96.6 | 92.7 |
| 75° | 73.9 | 74.9 | 79.7 | 81.1 | 78.2 |
| 77.5° | 59.4 | 61.3 | 64.2 | 66.6 | 63.3 |
| 80° | 45.4 | 46.4 | 49.3 | 52.2 | 50.7 |
| 82.5° | 31.9 | 33.3 | 35.3 | 39.1 | 40.1 |
| 85° | 19.8 | 20.8 | 21.7 | 24.6 | 28.5 |
| 87.5° | 7.7 | 8.2 | 9.7 | 10.6 | 14.0 |
| 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 | 14.09 | 15.57 | 14.45 | 15.88 | 16.20 | 14.74 | 16.22 | 15.11 | 16.54 | 16.85 |
| | 3H | 15.69 | 17.02 | 16.07 | 17.34 | 17.71 | 16.18 | 17.50 | 16.56 | 17.83 | 18.19 |
| | 4H | 16.31 | 17.55 | 16.71 | 17.90 | 18.28 | 16.78 | 18.02 | 17.18 | 18.37 | 18.75 |
| | 6H | 16.78 | 17.93 | 17.19 | 18.29 | 18.69 | 17.27 | 18.42 | 17.68 | 18.78 | 19.18 |
| | 8H | 16.93 | 18.02 | 17.36 | 18.41 | 18.81 | 17.47 | 18.56 | 17.89 | 18.95 | 19.35 |
| | 12H | 17.03 | 18.08 | 17.46 | 18.46 | 18.89 | 17.63 | 18.68 | 18.06 | 19.06 | 19.49 |
| 4H | 2H | 14.71 | 15.95 | 15.11 | 16.30 | 16.68 | 15.24 | 16.48 | 15.64 | 16.83 | 17.21 |
| | 3H | 16.53 | 17.56 | 16.94 | 17.96 | 18.36 | 16.93 | 17.96 | 17.34 | 18.36 | 18.76 |
| | 4H | 17.27 | 18.20 | 17.70 | 18.61 | 19.05 | 17.69 | 18.61 | 18.12 | 19.03 | 19.47 |
| | 6H | 17.87 | 18.67 | 18.33 | 19.12 | 19.58 | 18.32 | 19.13 | 18.78 | 19.57 | 20.03 |
| | 8H | 18.07 | 18.82 | 18.53 | 19.26 | 19.73 | 18.58 | 19.33 | 19.04 | 19.77 | 20.24 |
| | 12H | 18.21 | 18.88 | 18.69 | 19.36 | 19.83 | 18.80 | 19.47 | 19.28 | 19.95 | 20.42 |
| 8H | 4H | 17.59 | 18.34 | 18.05 | 18.79 | 19.25 | 17.96 | 18.71 | 18.42 | 19.15 | 19.62 |
| | 6H | 18.31 | 18.94 | 18.81 | 19.43 | 19.91 | 18.73 | 19.35 | 19.23 | 19.85 | 20.32 |
| | 8H | 18.59 | 19.15 | 19.10 | 19.66 | 20.15 | 19.08 | 19.64 | 19.59 | 20.15 | 20.64 |
| | 12H | 18.80 | 19.30 | 19.31 | 19.79 | 20.36 | 19.39 | 19.89 | 19.90 | 20.38 | 20.95 |
| 12H | 4H | 17.62 | 18.30 | 18.11 | 18.78 | 19.25 | 17.98 | 18.65 | 18.46 | 19.13 | 19.60 |
| | 6H | 18.38 | 18.94 | 18.89 | 19.45 | 19.94 | 18.78 | 19.34 | 19.29 | 19.85 | 20.34 |
| | 8H | 18.71 | 19.21 | 19.22 | 19.70 | 20.27 | 19.18 | 19.68 | 19.69 | 20.17 | 20.74 |