

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: P894788

Luminaire Tested: 8TMB-18HL-FLT-UNV-L950

Issue Date: 11/11/2024

**Test Information**

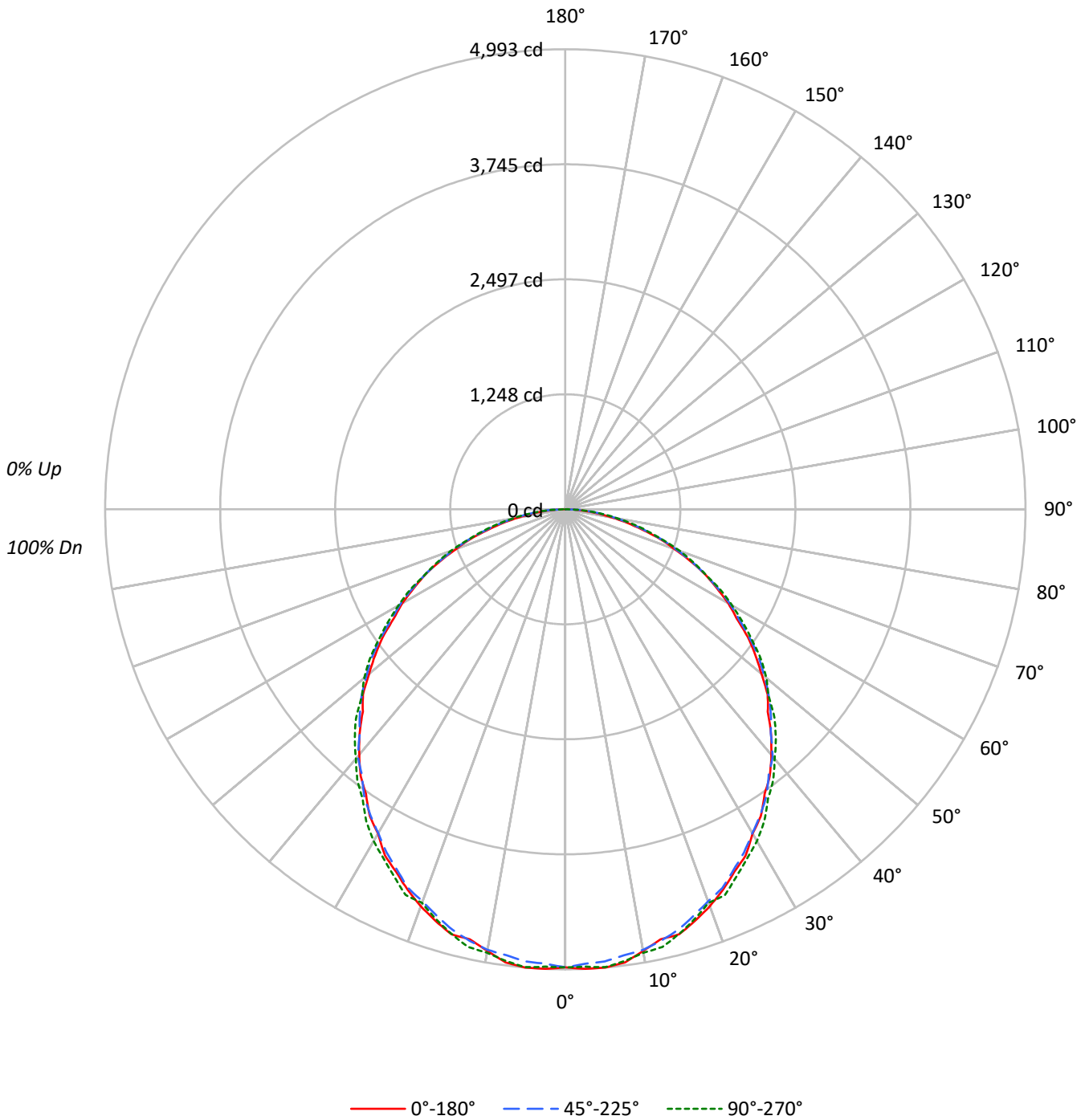
Test Method: LM-79-2019  
Report Number: P894788  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2403-334-4)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/11/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: METALUX  
Catalog Number: 8TMB-18HL-FLT-UNV-L950  
Description: 18000 Lumen 8FT MICROBAY LINEAR BAY with FLAT FROSTED LENS, 90CRI, 5000K CCT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13774.0 lumens  
Efficiency: N/A  
Efficacy: 102.2 lumens/watt  
Spacing Criteria (0/90/45): 1.22 / 1.24 / 1.34  
Luminous Opening: Rectangular (W 0.38' x L: 7.98' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 134.8  
Input Voltage (V): 120  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: 0.996  
Total Harmonic Distortion (THDi): 8.62  
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  |     |     |     | 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   | 109 | 104 | 99  | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 93  | 91  | 88  | 90  | 88  | 86  | 86  | 86  | 86  | 84  |
| 2   | 99  | 90  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 73  | 79  | 75  | 72  | 72  | 72  | 72  | 70  |
| 3   | 90  | 79  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 67  | 62  | 69  | 65  | 61  | 61  | 61  | 61  | 59  |
| 4   | 82  | 70  | 62  | 55  | 80  | 69  | 61  | 54  | 67  | 59  | 54  | 64  | 58  | 53  | 62  | 57  | 52  | 52  | 52  | 52  | 50  |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  | 45  | 45  | 45  | 43  |
| 6   | 70  | 57  | 48  | 41  | 68  | 56  | 47  | 41  | 54  | 46  | 41  | 52  | 45  | 40  | 51  | 45  | 40  | 40  | 40  | 40  | 38  |
| 7   | 65  | 51  | 43  | 36  | 63  | 51  | 42  | 36  | 49  | 41  | 36  | 48  | 41  | 36  | 46  | 40  | 35  | 35  | 35  | 35  | 33  |
| 8   | 60  | 47  | 38  | 33  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 44  | 37  | 32  | 42  | 36  | 32  | 32  | 32  | 32  | 30  |
| 9   | 57  | 43  | 35  | 29  | 55  | 42  | 35  | 29  | 41  | 34  | 29  | 40  | 34  | 29  | 39  | 33  | 29  | 29  | 29  | 29  | 27  |
| 10  | 53  | 40  | 32  | 27  | 52  | 39  | 32  | 26  | 38  | 31  | 26  | 37  | 31  | 26  | 36  | 30  | 26  | 26  | 26  | 26  | 24  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 17638 | 17638 | 17638 |
| 5°  | 17782 | 17545 | 17767 |
| 10° | 17539 | 17492 | 17608 |
| 15° | 17543 | 17361 | 17527 |
| 20° | 17311 | 17100 | 17165 |
| 25° | 16998 | 16906 | 17208 |
| 30° | 16654 | 16628 | 17041 |
| 35° | 16333 | 16472 | 16612 |
| 40° | 16113 | 16212 | 16371 |
| 45° | 15591 | 15828 | 16119 |
| 50° | 15338 | 15563 | 15717 |
| 55° | 14957 | 15143 | 15302 |
| 60° | 14491 | 14705 | 14842 |
| 65° | 14062 | 14116 | 14116 |
| 70° | 13076 | 13389 | 13723 |
| 75° | 12041 | 12511 | 12775 |
| 80° | 10619 | 11540 | 11935 |
| 85° | 9530  | 10666 | 11452 |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°  
 Vertical Angle: 45°  
 Luminance: 16119 cd/sqm



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 470.5   | 3.4       |
| 10°-20°   | 1341.0  | 9.7       |
| 20°-30°   | 2011.3  | 14.6      |
| 30°-40°   | 2388.8  | 17.3      |
| 40°-50°   | 2445.8  | 17.8      |
| 50°-60°   | 2191.3  | 15.9      |
| 60°-70°   | 1664.6  | 12.1      |
| 70°-80°   | 969.6   | 7.0       |
| 80°-90°   | 291.2   | 2.1       |
| 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°    | 3822.8  | 27.8      |
| 0°-40°    | 6211.6  | 45.1      |
| 0°-60°    | 10848.6 | 78.8      |
| 0°-90°    | 13774.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 13774.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 4971 | 4971  | 4971 | 4971  | 4971 |      |
| 5°  | 4993 | 4973  | 4926 | 4956  | 4988 | 473  |
| 15° | 4776 | 4808  | 4726 | 4746  | 4771 | 1340 |
| 25° | 4342 | 4381  | 4318 | 4374  | 4396 | 2004 |
| 35° | 3771 | 3854  | 3803 | 3818  | 3835 | 2370 |
| 45° | 3107 | 3184  | 3154 | 3180  | 3212 | 2417 |
| 55° | 2418 | 2454  | 2448 | 2476  | 2474 | 2154 |
| 65° | 1675 | 1675  | 1681 | 1703  | 1681 | 1645 |
| 75° | 878  | 893   | 913  | 940   | 932  | 935  |
| 85° | 234  | 238   | 262  | 279   | 281  | 262  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



TEST NUMBER: P894788

CATALOG NUMBER: 8TMB-18HL-FLT-UNV-L950

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 4971.1 | 4971.1 | 4971.1 | 4971.1 | 4971.1 |
| 2.5°  | 4992.6 | 4968.9 | 4936.7 | 4947.5 | 4968.9 |
| 5°    | 4992.6 | 4973.2 | 4926.0 | 4956.1 | 4988.3 |
| 7.5°  | 4960.4 | 4986.1 | 4883.1 | 4883.1 | 4943.2 |
| 10°   | 4868.0 | 4917.4 | 4855.1 | 4848.7 | 4887.3 |
| 12.5° | 4780.0 | 4870.2 | 4797.2 | 4818.6 | 4865.9 |
| 15°   | 4775.7 | 4807.9 | 4726.3 | 4745.6 | 4771.4 |
| 17.5° | 4683.3 | 4715.6 | 4627.5 | 4664.0 | 4664.0 |
| 20°   | 4584.6 | 4591.0 | 4528.7 | 4608.2 | 4545.9 |
| 22.5° | 4470.8 | 4537.3 | 4451.4 | 4477.2 | 4530.9 |
| 25°   | 4341.9 | 4380.6 | 4318.3 | 4374.1 | 4395.6 |
| 27.5° | 4236.7 | 4283.9 | 4198.0 | 4264.6 | 4271.1 |
| 30°   | 4064.9 | 4116.5 | 4058.5 | 4101.4 | 4159.4 |
| 32.5° | 3949.0 | 3966.1 | 3936.1 | 4000.5 | 4017.7 |
| 35°   | 3770.7 | 3854.5 | 3802.9 | 3818.0 | 3835.1 |
| 37.5° | 3646.2 | 3672.0 | 3626.9 | 3678.4 | 3706.3 |
| 40°   | 3478.7 | 3517.3 | 3500.2 | 3508.8 | 3534.5 |
| 42.5° | 3304.8 | 3345.6 | 3300.5 | 3362.7 | 3382.1 |
| 45°   | 3107.2 | 3184.5 | 3154.4 | 3180.2 | 3212.4 |
| 47.5° | 2978.4 | 3004.1 | 2995.5 | 3010.6 | 2989.1 |
| 50°   | 2778.7 | 2804.4 | 2819.5 | 2838.8 | 2847.4 |
| 52.5° | 2600.4 | 2619.8 | 2647.7 | 2658.4 | 2677.7 |
| 55°   | 2417.9 | 2454.4 | 2448.0 | 2475.9 | 2473.7 |
| 57.5° | 2205.3 | 2259.0 | 2241.8 | 2282.6 | 2282.6 |
| 60°   | 2042.1 | 2050.7 | 2072.2 | 2091.5 | 2091.5 |
| 62.5° | 1853.2 | 1863.9 | 1874.6 | 1891.8 | 1904.7 |
| 65°   | 1674.9 | 1674.9 | 1681.4 | 1702.8 | 1681.4 |
| 67.5° | 1468.8 | 1460.2 | 1481.7 | 1507.4 | 1505.3 |
| 70°   | 1260.5 | 1271.2 | 1290.6 | 1322.8 | 1322.8 |
| 72.5° | 1082.3 | 1082.3 | 1103.7 | 1120.9 | 1118.8 |
| 75°   | 878.3  | 893.3  | 912.6  | 940.5  | 931.9  |
| 77.5° | 695.7  | 706.5  | 738.7  | 764.5  | 766.6  |
| 80°   | 519.7  | 530.4  | 564.8  | 590.5  | 584.1  |
| 82.5° | 362.9  | 377.9  | 410.1  | 429.5  | 427.3  |
| 85°   | 234.1  | 238.4  | 262.0  | 279.2  | 281.3  |
| 87.5° | 107.4  | 116.0  | 133.1  | 139.6  | 139.6  |
| 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 | 21.50            | 23.14 | 21.87 | 23.45 | 23.77 | 21.61          | 23.24 | 21.97 | 23.56 | 23.87 |
|                 | 3H   | 23.28            | 24.76 | 23.66 | 25.09 | 25.45 | 23.44          | 24.93 | 23.82 | 25.25 | 25.61 |
|                 | 4H   | 23.94            | 25.34 | 24.34 | 25.69 | 26.06 | 24.14          | 25.54 | 24.54 | 25.89 | 26.26 |
|                 | 6H   | 24.42            | 25.72 | 24.83 | 26.08 | 26.47 | 24.69          | 25.99 | 25.10 | 26.35 | 26.74 |
|                 | 8H   | 24.57            | 25.81 | 24.99 | 26.20 | 26.59 | 24.88          | 26.12 | 25.30 | 26.51 | 26.91 |
|                 | 12H  | 24.67            | 25.86 | 25.10 | 26.24 | 26.67 | 25.02          | 26.21 | 25.45 | 26.59 | 27.02 |
| 4H              | 2H   | 22.15            | 23.54 | 22.54 | 23.89 | 24.27 | 22.23          | 23.63 | 22.63 | 23.97 | 24.35 |
|                 | 3H   | 24.15            | 25.32 | 24.56 | 25.72 | 26.12 | 24.29          | 25.47 | 24.70 | 25.86 | 26.26 |
|                 | 4H   | 24.94            | 26.00 | 25.37 | 26.42 | 26.85 | 25.13          | 26.19 | 25.56 | 26.61 | 27.04 |
|                 | 6H   | 25.54            | 26.47 | 25.99 | 26.91 | 27.36 | 25.82          | 26.75 | 26.27 | 27.19 | 27.64 |
|                 | 8H   | 25.74            | 26.61 | 26.20 | 27.05 | 27.51 | 26.06          | 26.93 | 26.52 | 27.38 | 27.84 |
|                 | 12H  | 25.89            | 26.67 | 26.37 | 27.15 | 27.62 | 26.26          | 27.05 | 26.74 | 27.52 | 27.99 |
| 8H              | 4H   | 25.27            | 26.15 | 25.73 | 26.59 | 27.05 | 25.44          | 26.31 | 25.90 | 26.76 | 27.22 |
|                 | 6H   | 26.00            | 26.72 | 26.49 | 27.21 | 27.69 | 26.27          | 26.99 | 26.76 | 27.48 | 27.95 |
|                 | 8H   | 26.27            | 26.92 | 26.78 | 27.43 | 27.91 | 26.60          | 27.25 | 27.11 | 27.76 | 28.24 |
|                 | 12H  | 26.50            | 27.08 | 27.00 | 27.57 | 28.13 | 26.89          | 27.46 | 27.39 | 27.95 | 28.51 |
| 12H             | 4H   | 25.32            | 26.10 | 25.80 | 26.58 | 27.05 | 25.48          | 26.26 | 25.96 | 26.73 | 27.20 |
|                 | 6H   | 26.07            | 26.72 | 26.58 | 27.23 | 27.71 | 26.32          | 26.98 | 26.83 | 27.48 | 27.97 |
|                 | 8H   | 26.41            | 26.98 | 26.91 | 27.47 | 28.03 | 26.72          | 27.30 | 27.23 | 27.79 | 28.35 |