

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: P895036

Luminaire Tested: 8TMB-4SL-RFLW-UNV-L950

Issue Date: 11/11/2024

Test Information

Test Method: LM-79-2019
Report Number: P895036
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2408-210-3)
Test Lab: INNOVATION CENTER
Issue Date: 11/11/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: METALUX
Catalog Number: 8TMB-4SL-RFLW-UNV-L950
Description: 4000 Lumen 8FT MICROBAY LINEAR BAY with REFLECTOR WITH WHITE FINISH, 90CRI, 5000K
Light Source: -
Ballast/Driver: -

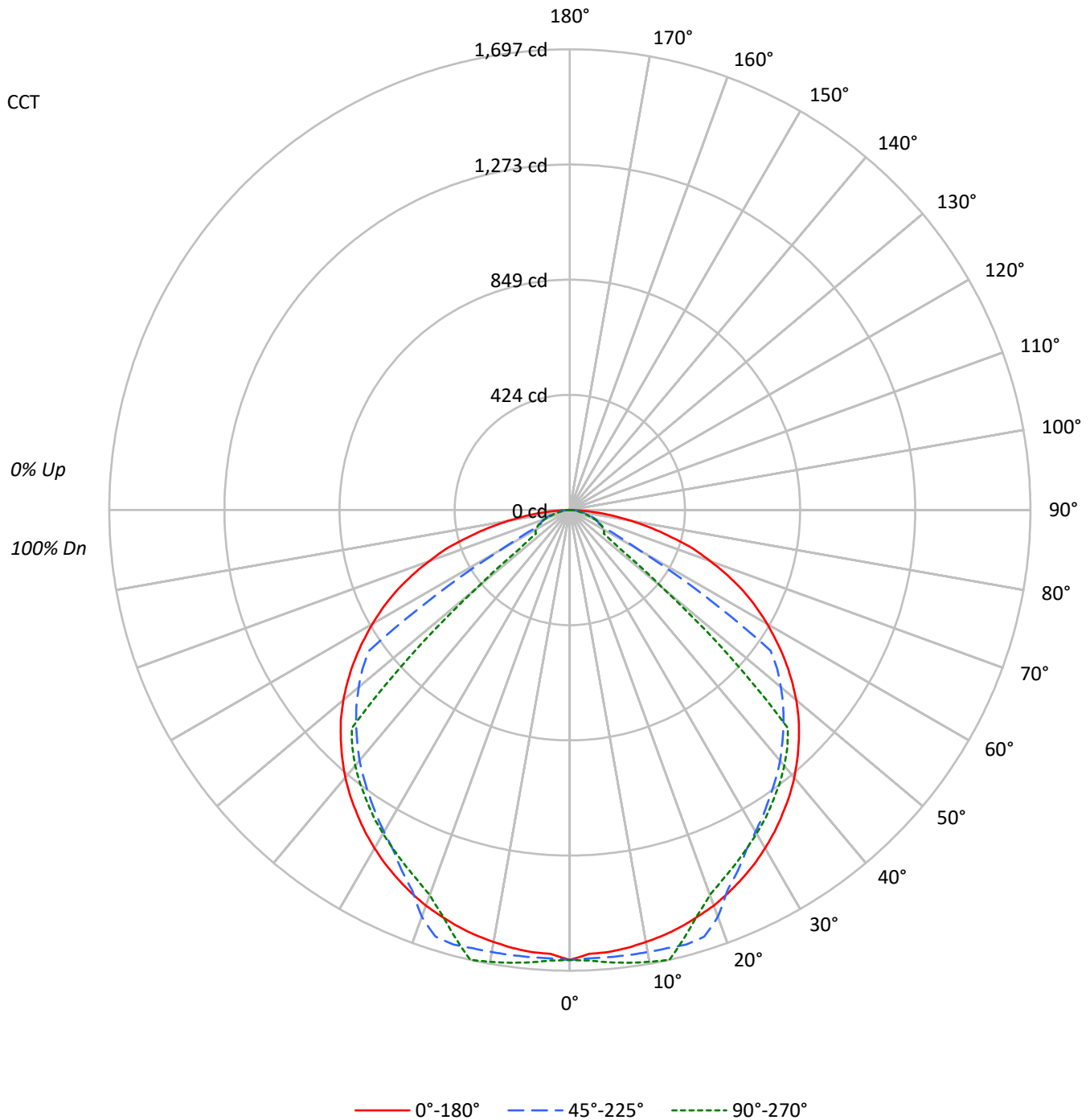
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4042.0 lumens
Efficiency: N/A
Efficacy: 146.4 lumens/watt
Spacing Criteria (0/90/45): 1.29 / 1.24 / 1.38
Luminous Opening: Rectangular (W 0.21' x L: 7.98' x H: 0')
CIE Type: Direct

Input Watts (W): 27.6
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: 0.99
Total Harmonic Distortion (THDi): 4.5
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 | 101 | 98 | 100 | 97 | 94 | 96 | 94 | 92 | 92 | 91 | 89 | 89 | 89 | 89 | 87 | |
| 2 | 101 | 94 | 88 | 83 | 99 | 92 | 87 | 82 | 89 | 84 | 80 | 86 | 82 | 78 | 83 | 79 | 77 | 77 | 77 | 77 | 75 | |
| 3 | 93 | 84 | 76 | 70 | 91 | 82 | 75 | 70 | 79 | 73 | 69 | 77 | 72 | 67 | 74 | 70 | 66 | 66 | 66 | 66 | 64 | |
| 4 | 86 | 75 | 67 | 61 | 84 | 74 | 66 | 60 | 71 | 65 | 59 | 69 | 63 | 59 | 67 | 62 | 58 | 58 | 58 | 58 | 56 | |
| 5 | 79 | 67 | 59 | 53 | 77 | 66 | 58 | 53 | 64 | 57 | 52 | 62 | 56 | 51 | 61 | 55 | 51 | 51 | 51 | 51 | 49 | |
| 6 | 73 | 61 | 53 | 47 | 72 | 60 | 52 | 46 | 58 | 51 | 46 | 57 | 50 | 46 | 55 | 50 | 45 | 45 | 45 | 45 | 43 | |
| 7 | 68 | 55 | 47 | 41 | 67 | 55 | 47 | 41 | 53 | 46 | 41 | 52 | 45 | 41 | 50 | 45 | 40 | 40 | 40 | 40 | 38 | |
| 8 | 64 | 51 | 43 | 37 | 62 | 50 | 42 | 37 | 49 | 42 | 37 | 48 | 41 | 37 | 46 | 41 | 36 | 36 | 36 | 36 | 35 | |
| 9 | 60 | 47 | 39 | 33 | 58 | 46 | 39 | 33 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 33 | 33 | 33 | 31 | |
| 10 | 56 | 43 | 35 | 30 | 55 | 43 | 35 | 30 | 42 | 35 | 30 | 41 | 34 | 30 | 40 | 34 | 30 | 30 | 30 | 30 | 28 | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10732 | 10732 | 10732 |
| 5° | 10624 | 10747 | 10872 |
| 10° | 10622 | 10872 | 11110 |
| 15° | 10651 | 11110 | 10931 |
| 20° | 10687 | 10988 | 10399 |
| 25° | 10714 | 10469 | 10293 |
| 30° | 10757 | 10232 | 10289 |
| 35° | 10802 | 10171 | 10322 |
| 40° | 10877 | 10185 | 10394 |
| 45° | 10930 | 10199 | 10408 |
| 50° | 10971 | 10224 | 4499 |
| 55° | 10943 | 10191 | 1716 |
| 60° | 10879 | 3889 | 1870 |
| 65° | 10804 | 1805 | 1921 |
| 70° | 10434 | 1943 | 1799 |
| 75° | 9747 | 1854 | 1569 |
| 80° | 8577 | 1630 | 1346 |
| 85° | 6776 | 1412 | 1129 |

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 50°
 Luminance: 10971 cd/sqm



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 158.3 | 3.9 |
| 10°-20° | 459.5 | 11.4 |
| 20°-30° | 685.7 | 17.0 |
| 30°-40° | 831.1 | 20.6 |
| 40°-50° | 851.0 | 21.1 |
| 50°-60° | 565.9 | 14.0 |
| 60°-70° | 322.6 | 8.0 |
| 70°-80° | 135.5 | 3.4 |
| 80°-90° | 32.3 | 0.8 |
| 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° | 1303.5 | 32.2 |
| 0°-40° | 2134.6 | 52.8 |
| 0°-60° | 3551.6 | 87.9 |
| 0°-90° | 4042.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 4042.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|-----|------|-------|------|-------|------|------|
| 0° | 1657 | 1657 | 1657 | 1657 | 1657 | |
| 5° | 1634 | 1667 | 1653 | 1657 | 1672 | 155 |
| 15° | 1589 | 1632 | 1657 | 1652 | 1631 | 449 |
| 25° | 1500 | 1572 | 1465 | 1433 | 1441 | 692 |
| 35° | 1366 | 1391 | 1287 | 1292 | 1306 | 856 |
| 45° | 1194 | 1121 | 1114 | 1127 | 1136 | 921 |
| 55° | 969 | 888 | 903 | 198 | 152 | 866 |
| 65° | 705 | 631 | 118 | 125 | 125 | 694 |
| 75° | 390 | 82 | 74 | 65 | 63 | 414 |
| 85° | 91 | 23 | 19 | 15 | 15 | 109 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P895036
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CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|-------|--------|--------|--------|--------|--------|
| 0° | 1657.3 | 1657.3 | 1657.3 | 1657.3 | 1657.3 |
| 2.5° | 1636.3 | 1670.6 | 1653.4 | 1655.4 | 1661.1 |
| 5° | 1634.4 | 1666.8 | 1653.4 | 1657.3 | 1672.5 |
| 7.5° | 1626.8 | 1661.1 | 1653.4 | 1664.9 | 1682.0 |
| 10° | 1615.4 | 1655.4 | 1653.4 | 1672.5 | 1689.6 |
| 12.5° | 1604.0 | 1643.9 | 1653.4 | 1682.0 | 1697.2 |
| 15° | 1588.8 | 1632.5 | 1657.3 | 1651.5 | 1630.6 |
| 17.5° | 1569.8 | 1621.1 | 1647.7 | 1566.0 | 1564.1 |
| 20° | 1550.8 | 1605.9 | 1594.5 | 1516.6 | 1509.0 |
| 22.5° | 1526.1 | 1590.7 | 1516.6 | 1463.4 | 1472.9 |
| 25° | 1499.5 | 1571.7 | 1465.3 | 1433.0 | 1440.6 |
| 27.5° | 1471.0 | 1552.7 | 1410.2 | 1398.8 | 1408.3 |
| 30° | 1438.7 | 1526.1 | 1368.4 | 1364.6 | 1376.0 |
| 32.5° | 1404.5 | 1474.8 | 1328.5 | 1330.4 | 1343.7 |
| 35° | 1366.5 | 1391.2 | 1286.7 | 1292.4 | 1305.7 |
| 37.5° | 1328.5 | 1313.3 | 1246.7 | 1256.2 | 1269.5 |
| 40° | 1286.7 | 1252.4 | 1204.9 | 1214.4 | 1229.6 |
| 42.5° | 1241.0 | 1187.8 | 1159.3 | 1172.6 | 1185.9 |
| 45° | 1193.5 | 1121.3 | 1113.7 | 1127.0 | 1136.5 |
| 47.5° | 1144.1 | 1064.3 | 1066.2 | 1075.7 | 805.8 |
| 50° | 1089.0 | 1007.3 | 1014.9 | 703.2 | 446.6 |
| 52.5° | 1030.1 | 948.4 | 963.6 | 391.5 | 226.2 |
| 55° | 969.3 | 887.5 | 902.7 | 197.7 | 152.0 |
| 57.5° | 904.6 | 826.7 | 589.2 | 142.5 | 150.1 |
| 60° | 840.0 | 762.1 | 300.3 | 140.6 | 144.4 |
| 62.5° | 773.5 | 697.5 | 142.5 | 134.9 | 136.8 |
| 65° | 705.1 | 631.0 | 117.8 | 125.4 | 125.4 |
| 67.5° | 629.1 | 560.7 | 112.1 | 112.1 | 110.2 |
| 70° | 551.1 | 465.6 | 102.6 | 96.9 | 95.0 |
| 72.5° | 478.9 | 178.6 | 89.3 | 79.8 | 77.9 |
| 75° | 389.6 | 81.7 | 74.1 | 64.6 | 62.7 |
| 77.5° | 309.8 | 68.4 | 58.9 | 51.3 | 49.4 |
| 80° | 230.0 | 53.2 | 43.7 | 38.0 | 36.1 |
| 82.5° | 159.6 | 36.1 | 30.4 | 24.7 | 24.7 |
| 85° | 91.2 | 22.8 | 19.0 | 15.2 | 15.2 |
| 87.5° | 36.1 | 11.4 | 9.5 | 5.7 | 5.7 |
| 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 | 21.17 | 22.69 | 21.54 | 23.01 | 23.32 | 8.93 | 10.46 | 9.30 | 10.77 | 11.08 |
| | 3H | 23.19 | 24.55 | 23.57 | 24.88 | 25.24 | 11.25 | 12.61 | 11.63 | 12.94 | 13.30 |
| | 4H | 23.65 | 24.93 | 24.05 | 25.27 | 25.65 | 11.96 | 13.23 | 12.36 | 13.58 | 13.96 |
| | 6H | 24.06 | 25.23 | 24.47 | 25.60 | 25.99 | 12.45 | 13.62 | 12.86 | 13.99 | 14.38 |
| | 8H | 24.21 | 25.32 | 24.64 | 25.71 | 26.12 | 12.58 | 13.70 | 13.01 | 14.09 | 14.49 |
| | 12H | 24.31 | 25.38 | 24.74 | 25.76 | 26.19 | 12.67 | 13.74 | 13.10 | 14.12 | 14.55 |
| 4H | 2H | 21.01 | 22.28 | 21.41 | 22.63 | 23.01 | 9.73 | 11.00 | 10.13 | 11.35 | 11.73 |
| | 3H | 23.22 | 24.26 | 23.63 | 24.66 | 25.06 | 12.24 | 13.29 | 12.65 | 13.69 | 14.09 |
| | 4H | 23.66 | 24.60 | 24.10 | 25.02 | 25.46 | 13.06 | 14.00 | 13.50 | 14.42 | 14.86 |
| | 6H | 24.13 | 24.94 | 24.59 | 25.39 | 25.85 | 13.66 | 14.47 | 14.11 | 14.91 | 15.37 |
| | 8H | 24.32 | 25.08 | 24.78 | 25.53 | 25.99 | 13.83 | 14.59 | 14.29 | 15.03 | 15.50 |
| | 12H | 24.47 | 25.15 | 24.95 | 25.63 | 26.10 | 13.94 | 14.62 | 14.43 | 15.10 | 15.57 |
| 8H | 4H | 23.58 | 24.34 | 24.05 | 24.79 | 25.25 | 13.90 | 14.66 | 14.37 | 15.11 | 15.58 |
| | 6H | 24.04 | 24.67 | 24.54 | 25.16 | 25.64 | 14.53 | 15.15 | 15.02 | 15.65 | 16.12 |
| | 8H | 24.24 | 24.81 | 24.76 | 25.32 | 25.80 | 14.73 | 15.29 | 15.24 | 15.80 | 16.29 |
| | 12H | 24.43 | 24.93 | 24.94 | 25.42 | 25.98 | 14.88 | 15.38 | 15.39 | 15.88 | 16.44 |
| 12H | 4H | 23.55 | 24.23 | 24.03 | 24.71 | 25.18 | 13.97 | 14.65 | 14.46 | 15.13 | 15.60 |
| | 6H | 23.99 | 24.56 | 24.51 | 25.07 | 25.56 | 14.62 | 15.18 | 15.13 | 15.69 | 16.18 |
| | 8H | 24.22 | 24.72 | 24.73 | 25.21 | 25.78 | 14.87 | 15.37 | 15.38 | 15.87 | 16.43 |