

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: P828631

Luminaire Tested: **OHBL-24HE-MCL-UNV-L950-CD-UPL24**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P828631
REPORT IS A COMBINATION OF REPORTS P826240 AND G3-2310-221-6
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-24HE-MCL-UNV-L950-CD-UPL24
Description:
Light Source: -
Ballast/Driver: -

Summary

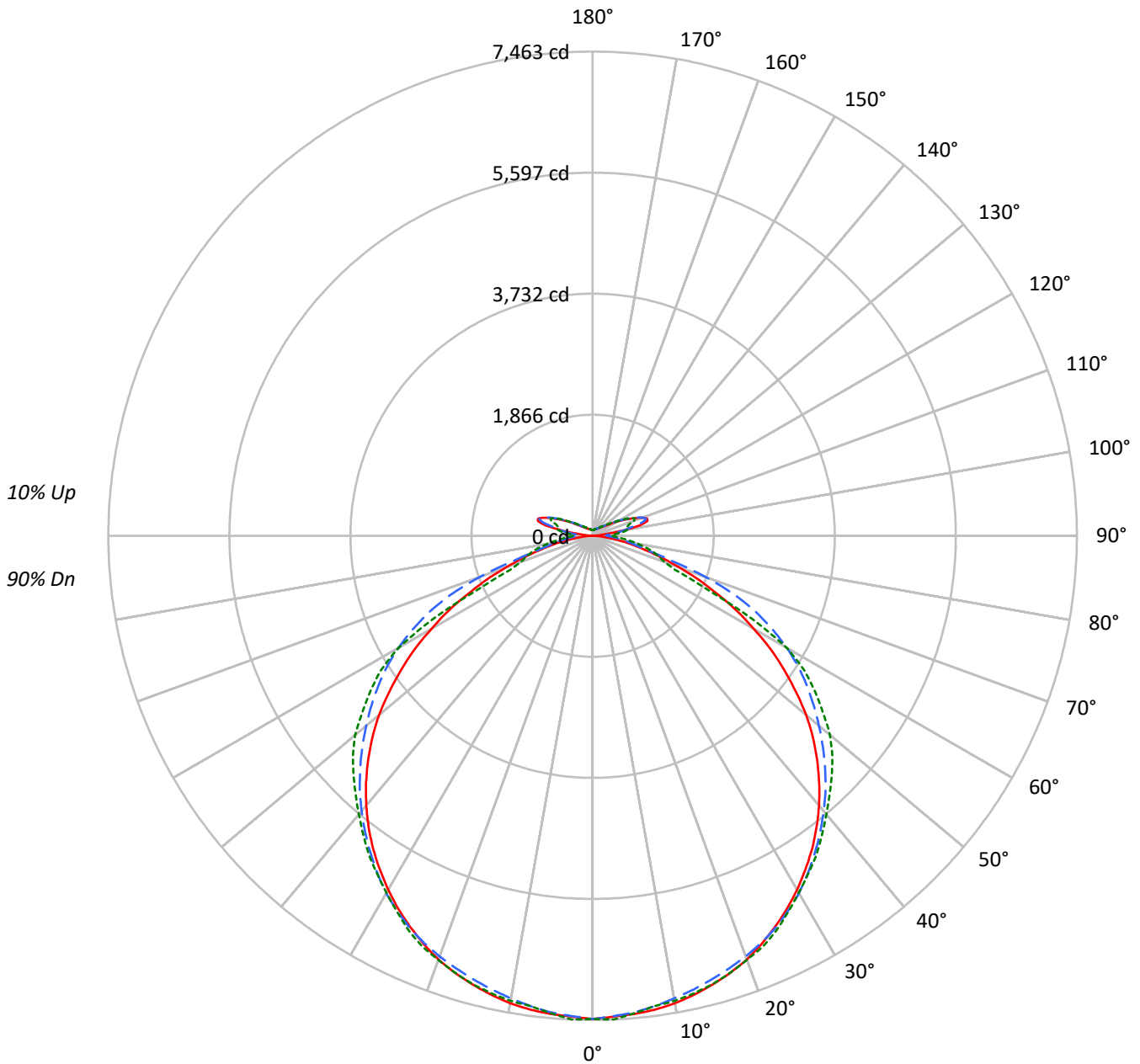
Lumens per Lamp: N/A
Luminaire Lumens: 23156.1 lumens
Efficiency: N/A
Efficacy: 154.0 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.8' x H: 0.17')
CIE Type: Semi-Direct

Input Watts (W): 150.4
Input Voltage (V): NR
Input Current (Ain): 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

TEST NUMBER: P828631

CATALOG NUMBER: OHBL-24HE-MCL-UNV-L950-CD-UPL24

Luminous Intensity Polar Plot





TEST NUMBER: P828631

CATALOG NUMBER: OHBL-24HE-MCL-UNV-L950-CD-UPL24

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 | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 105 | 105 | 105 | 99 | 99 | 99 | 93 | 93 | 93 | 90 | | | | | | | | | | | | | | | | | | | |
| 1 | 107 | 102 | 98 | 94 | 103 | 99 | 95 | 92 | 93 | 90 | 87 | 87 | 85 | 83 | 82 | 80 | 79 | 76 | | | | | | | | | | | | | | | | | | | |
| 2 | 97 | 89 | 83 | 77 | 94 | 87 | 81 | 76 | 82 | 77 | 72 | 77 | 73 | 69 | 72 | 69 | 66 | 64 | | | | | | | | | | | | | | | | | | | |
| 3 | 89 | 79 | 71 | 64 | 86 | 76 | 69 | 63 | 72 | 66 | 61 | 68 | 63 | 59 | 64 | 60 | 56 | 54 | | | | | | | | | | | | | | | | | | | |
| 4 | 81 | 70 | 61 | 55 | 78 | 68 | 60 | 54 | 64 | 57 | 52 | 60 | 55 | 50 | 57 | 52 | 48 | 46 | | | | | | | | | | | | | | | | | | | |
| 5 | 75 | 62 | 53 | 47 | 72 | 60 | 52 | 46 | 57 | 50 | 45 | 54 | 48 | 43 | 51 | 46 | 42 | 40 | | | | | | | | | | | | | | | | | | | |
| 6 | 69 | 56 | 47 | 41 | 66 | 54 | 46 | 40 | 52 | 45 | 39 | 49 | 43 | 38 | 47 | 41 | 37 | 35 | | | | | | | | | | | | | | | | | | | |
| 7 | 64 | 51 | 42 | 36 | 62 | 49 | 41 | 36 | 47 | 40 | 35 | 45 | 38 | 34 | 42 | 37 | 33 | 31 | | | | | | | | | | | | | | | | | | | |
| 8 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 43 | 36 | 31 | 41 | 35 | 30 | 39 | 33 | 29 | 27 | | | | | | | | | | | | | | | | | | | |
| 9 | 55 | 42 | 34 | 29 | 53 | 41 | 34 | 28 | 39 | 33 | 28 | 38 | 31 | 27 | 36 | 30 | 26 | 25 | | | | | | | | | | | | | | | | | | | |
| 10 | 52 | 39 | 31 | 26 | 50 | 38 | 31 | 26 | 36 | 30 | 25 | 35 | 29 | 25 | 33 | 28 | 24 | 22 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11779 | 11779 | 11779 |
| 5° | 11653 | 11608 | 11682 |
| 10° | 11561 | 11432 | 11601 |
| 15° | 11438 | 11301 | 11573 |
| 20° | 11315 | 11218 | 11522 |
| 25° | 11126 | 11134 | 11474 |
| 30° | 10923 | 11003 | 11313 |
| 35° | 10688 | 10794 | 11254 |
| 40° | 10398 | 10579 | 11157 |
| 45° | 10015 | 10329 | 11161 |
| 50° | 9517 | 10046 | 11162 |
| 55° | 8767 | 9766 | 10850 |
| 60° | 7811 | 9358 | 10152 |
| 65° | 6597 | 8599 | 6535 |
| 70° | 5200 | 6713 | 4841 |
| 75° | 3775 | 3985 | 5074 |
| 80° | 2489 | 3313 | 5116 |
| 85° | 1262 | 3035 | 5380 |



TEST NUMBER: P828631

CATALOG NUMBER: OHBL-24HE-MCL-UNV-L950-CD-UPL24

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 702.3 | 3.0 |
| 10°-20° | 2013.8 | 8.7 |
| 20°-30° | 3075.8 | 13.3 |
| 30°-40° | 3732.0 | 16.1 |
| 40°-50° | 3911.5 | 16.9 |
| 50°-60° | 3544.4 | 15.3 |
| 60°-70° | 2376.4 | 10.3 |
| 70°-80° | 1067.1 | 4.6 |
| 80°-90° | 392.6 | 1.7 |
| 90°-100° | 318.1 | 1.4 |
| 100°-110° | 754.8 | 3.3 |
| 110°-120° | 627.9 | 2.7 |
| 120°-130° | 303.2 | 1.3 |
| 130°-140° | 154.6 | 0.7 |
| 140°-150° | 90.5 | 0.4 |
| 150°-160° | 53.9 | 0.2 |
| 160°-170° | 28.6 | 0.1 |
| 170°-180° | 8.7 | 0.0 |
| 0°-30° | 5791.9 | 25.0 |
| 0°-40° | 9523.9 | 41.1 |
| 0°-60° | 16979.7 | 73.3 |
| 0°-90° | 20815.8 | 89.9 |
| 90°-120° | 1700.8 | 7.3 |
| 90°-150° | 2249.1 | 9.7 |
| 90°-180° | 2340.0 | 10.1 |
| 0°-180° | 23156.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 7448 | 7448 | 7448 | 7448 | 7448 | |
| 5° | 7400 | 7426 | 7374 | 7396 | 7387 | 704 |
| 15° | 7160 | 7132 | 7081 | 7143 | 7152 | 2021 |
| 25° | 6651 | 6622 | 6668 | 6730 | 6710 | 3066 |
| 35° | 5895 | 5909 | 5970 | 6033 | 6009 | 3685 |
| 45° | 4892 | 4972 | 5065 | 5194 | 5210 | 3769 |
| 55° | 3600 | 3774 | 4031 | 4192 | 4183 | 3214 |
| 65° | 2113 | 2444 | 2774 | 2341 | 1912 | 2105 |
| 75° | 831 | 1206 | 887 | 908 | 967 | 909 |
| 85° | 143 | 275 | 352 | 425 | 446 | 175 |
| 90° | 5 | 121 | 223 | 282 | 299 | 12 |
| 95° | 47 | 154 | 274 | 350 | 380 | 145 |
| 105° | 876 | 887 | 795 | 597 | 558 | 832 |
| 115° | 610 | 621 | 639 | 646 | 643 | 615 |
| 125° | 301 | 318 | 335 | 337 | 336 | 283 |
| 135° | 184 | 188 | 195 | 202 | 205 | 145 |
| 145° | 136 | 140 | 143 | 145 | 147 | 87 |
| 155° | 112 | 114 | 116 | 117 | 116 | 52 |
| 165° | 99 | 100 | 100 | 100 | 100 | 28 |
| 175° | 90 | 91 | 90 | 90 | 90 | 9 |
| 180° | 89 | 89 | 89 | 89 | 89 | |



TEST NUMBER: P828631

CATALOG NUMBER: OHBL-24HE-MCL-UNV-L950-CD-UPL24

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 7448.2 | 7448.2 | 7448.2 | 7448.2 | 7448.2 |
| 2.5° | 7418.0 | 7449.2 | 7410.4 | 7452.4 | 7463.2 |
| 5° | 7399.7 | 7425.6 | 7373.8 | 7396.5 | 7386.8 |
| 7.5° | 7366.3 | 7375.0 | 7313.5 | 7331.9 | 7312.5 |
| 10° | 7316.8 | 7312.5 | 7240.3 | 7275.9 | 7280.1 |
| 12.5° | 7243.5 | 7230.6 | 7166.0 | 7219.9 | 7220.9 |
| 15° | 7159.5 | 7131.5 | 7080.9 | 7143.4 | 7152.0 |
| 17.5° | 7062.6 | 7026.0 | 6992.6 | 7073.4 | 7060.5 |
| 20° | 6949.6 | 6906.4 | 6900.0 | 6988.3 | 6956.0 |
| 22.5° | 6809.6 | 6776.2 | 6791.2 | 6875.2 | 6854.8 |
| 25° | 6651.2 | 6622.1 | 6668.5 | 6729.8 | 6710.5 |
| 27.5° | 6484.3 | 6467.1 | 6519.9 | 6567.3 | 6529.5 |
| 30° | 6301.2 | 6291.6 | 6361.6 | 6400.3 | 6352.9 |
| 32.5° | 6102.0 | 6105.2 | 6172.0 | 6224.8 | 6180.6 |
| 35° | 5895.2 | 5909.2 | 5969.5 | 6033.1 | 6009.3 |
| 37.5° | 5668.0 | 5699.2 | 5759.5 | 5831.6 | 5806.9 |
| 40° | 5427.9 | 5473.1 | 5539.8 | 5627.0 | 5604.4 |
| 42.5° | 5168.2 | 5225.4 | 5311.5 | 5408.5 | 5406.3 |
| 45° | 4892.5 | 4972.3 | 5064.9 | 5194.1 | 5210.2 |
| 47.5° | 4606.1 | 4695.5 | 4812.9 | 4985.2 | 5010.0 |
| 50° | 4294.9 | 4406.9 | 4553.4 | 4760.1 | 4775.2 |
| 52.5° | 3948.1 | 4101.0 | 4294.9 | 4493.0 | 4474.7 |
| 55° | 3600.2 | 3773.6 | 4031.0 | 4192.5 | 4182.9 |
| 57.5° | 3253.5 | 3448.4 | 3760.7 | 3875.9 | 3874.9 |
| 60° | 2865.8 | 3112.4 | 3453.8 | 3541.0 | 3454.8 |
| 62.5° | 2507.1 | 2772.0 | 3126.3 | 3062.9 | 2767.8 |
| 65° | 2113.0 | 2443.6 | 2774.2 | 2341.2 | 1911.6 |
| 67.5° | 1763.0 | 2107.6 | 2356.4 | 1603.6 | 1373.1 |
| 70° | 1410.8 | 1791.0 | 1837.3 | 1190.0 | 1173.8 |
| 72.5° | 1098.5 | 1503.4 | 1267.6 | 1018.8 | 1070.5 |
| 75° | 831.4 | 1206.2 | 887.4 | 907.9 | 967.1 |
| 77.5° | 606.4 | 926.1 | 690.3 | 795.9 | 844.3 |
| 80° | 416.8 | 655.8 | 563.2 | 668.8 | 702.2 |
| 82.5° | 261.7 | 432.9 | 451.2 | 538.4 | 573.0 |
| 85° | 143.2 | 274.7 | 352.1 | 425.4 | 445.9 |
| 87.5° | 59.2 | 165.9 | 269.3 | 328.5 | 345.7 |
| 90° | 5.4 | 121.1 | 222.8 | 282.2 | 299.1 |
| 92.5° | 15.8 | 109.1 | 211.2 | 272.8 | 291.7 |
| 95° | 47.1 | 153.5 | 274.5 | 350.1 | 380.5 |
| 97.5° | 236.1 | 298.2 | 376.6 | 455.5 | 488.5 |
| 100° | 483.2 | 547.2 | 498.5 | 540.3 | 551.3 |
| 102.5° | 746.0 | 767.5 | 610.5 | 570.0 | 566.3 |
| 105° | 876.4 | 887.3 | 795.2 | 596.9 | 557.5 |



TEST NUMBER: P828631

CATALOG NUMBER: OHBL-24HE-MCL-UNV-L950-CD-UPL24

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 710.1 | 728.0 | 735.6 | 725.4 | 699.6 |
| 115° | 610.3 | 620.7 | 639.0 | 645.8 | 642.8 |
| 117.5° | 523.3 | 526.4 | 546.0 | 551.6 | 554.6 |
| 120° | 434.6 | 445.2 | 467.2 | 468.1 | 464.0 |
| 122.5° | 365.9 | 376.4 | 393.4 | 397.1 | 393.0 |
| 125° | 301.4 | 318.1 | 335.0 | 337.3 | 335.9 |
| 127.5° | 257.3 | 268.6 | 285.9 | 290.0 | 290.2 |
| 130° | 225.1 | 233.1 | 247.2 | 252.4 | 253.3 |
| 132.5° | 201.8 | 209.0 | 218.3 | 226.1 | 225.3 |
| 135° | 183.5 | 188.1 | 195.3 | 202.4 | 205.3 |
| 137.5° | 169.9 | 172.5 | 177.7 | 185.7 | 186.8 |
| 140° | 156.8 | 160.3 | 163.5 | 169.6 | 171.5 |
| 142.5° | 144.4 | 149.0 | 151.4 | 156.4 | 157.5 |
| 145° | 135.7 | 140.3 | 142.9 | 144.8 | 146.8 |
| 147.5° | 129.0 | 132.5 | 134.2 | 136.0 | 137.0 |
| 150° | 122.9 | 124.7 | 127.3 | 128.2 | 129.0 |
| 152.5° | 116.9 | 118.6 | 121.2 | 122.1 | 122.1 |
| 155° | 111.6 | 114.4 | 116.2 | 117.0 | 116.0 |
| 157.5° | 107.3 | 110.1 | 111.8 | 112.7 | 112.7 |
| 160° | 103.8 | 105.7 | 107.5 | 108.3 | 108.3 |
| 162.5° | 101.4 | 102.2 | 103.1 | 104.0 | 104.0 |
| 165° | 98.8 | 99.6 | 100.5 | 100.5 | 100.5 |
| 167.5° | 96.2 | 97.3 | 97.0 | 97.9 | 97.9 |
| 170° | 93.6 | 94.4 | 94.4 | 94.2 | 94.2 |
| 172.5° | 91.8 | 92.7 | 92.7 | 91.6 | 92.5 |
| 175° | 90.1 | 90.9 | 89.9 | 89.6 | 89.6 |
| 177.5° | 91.2 | 90.1 | 89.0 | 87.9 | 86.9 |
| 180° | 89.0 | 89.0 | 89.0 | 89.0 | 89.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-------|-------|-------|-------|-------|
| 107.5° | 880.9 | 899.4 | 864.0 | 697.4 | 593.5 |
| 110° | 814.1 | 832.8 | 820.6 | 763.3 | 680.3 |



(END OF REPORT)