

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: P828511

Luminaire Tested: **OHB-24SE-N-UNV-L950-CD-UPL24**

Issue Date: 5/3/2024

Test Information

Test Method: LM-79-08
Report Number: P828511
REPORT IS A COMBINATION OF REPORTS P826212 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: OHB-24SE-N-UNV-L950-CD-UPL24
Description:
Light Source: -
Ballast/Driver: -

Summary

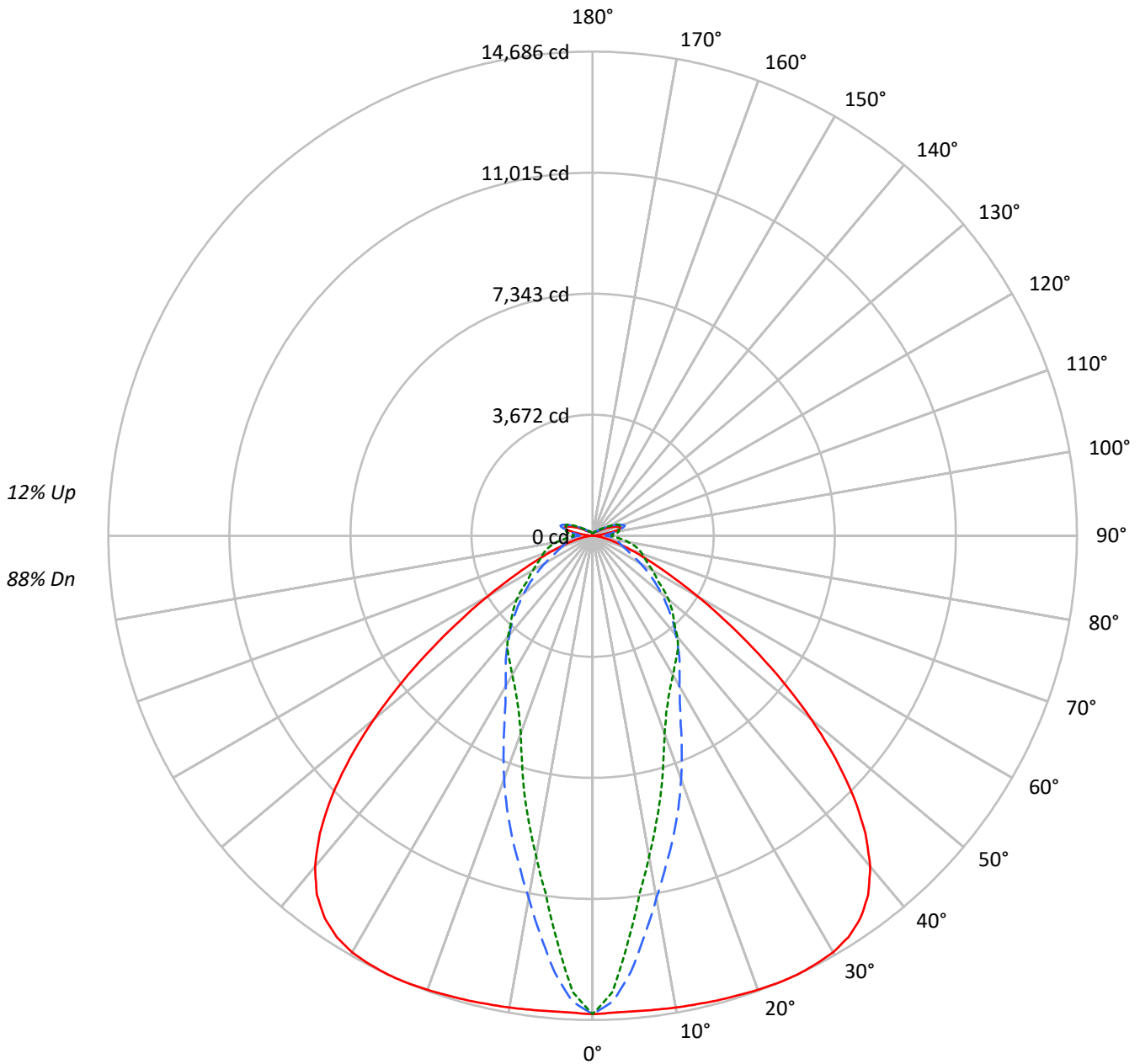
Lumens per Lamp: N/A
Luminaire Lumens: 23517.0 lumens
Efficiency: N/A
Efficacy: 143.4 lumens/watt
Spacing Criteria (0/90/45): 1.47 / 0.53 / 0.78
Luminous Opening: Rectangular w/ Sides (W: 1.93' x L: 1.67' x H: 0.17')
CIE Type: Semi-Direct

Input Watts (W): 164
Input Voltage (V): NR
Input Current (A_{in}): 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: P828511

CATALOG NUMBER: OHB-24SE-N-UNV-L950-CD-UPL24

Luminous Intensity Polar Plot





TEST NUMBER: P828511

CATALOG NUMBER: OHB-24SE-N-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 | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 104 | 104 | 104 | 97 | 97 | 97 | 91 | 91 | 91 | 88 | | | | | | | | | | | | | | | | | | | |
| 1 | 107 | 102 | 98 | 95 | 103 | 99 | 95 | 92 | 93 | 90 | 87 | 87 | 84 | 82 | 81 | 80 | 78 | 75 | | | | | | | | | | | | | | | | | | | |
| 2 | 98 | 91 | 85 | 79 | 95 | 88 | 82 | 78 | 82 | 78 | 74 | 77 | 74 | 71 | 73 | 70 | 67 | 65 | | | | | | | | | | | | | | | | | | | |
| 3 | 90 | 81 | 74 | 68 | 87 | 79 | 72 | 66 | 74 | 68 | 64 | 70 | 65 | 61 | 66 | 62 | 59 | 56 | | | | | | | | | | | | | | | | | | | |
| 4 | 84 | 73 | 65 | 59 | 80 | 71 | 63 | 58 | 67 | 61 | 56 | 63 | 58 | 54 | 60 | 55 | 52 | 49 | | | | | | | | | | | | | | | | | | | |
| 5 | 77 | 66 | 58 | 52 | 75 | 64 | 57 | 51 | 61 | 54 | 49 | 58 | 52 | 48 | 55 | 50 | 46 | 44 | | | | | | | | | | | | | | | | | | | |
| 6 | 72 | 60 | 52 | 46 | 69 | 58 | 51 | 45 | 55 | 49 | 44 | 53 | 47 | 43 | 50 | 45 | 41 | 39 | | | | | | | | | | | | | | | | | | | |
| 7 | 67 | 55 | 47 | 41 | 65 | 54 | 46 | 41 | 51 | 44 | 40 | 49 | 43 | 39 | 46 | 41 | 38 | 36 | | | | | | | | | | | | | | | | | | | |
| 8 | 63 | 50 | 43 | 37 | 61 | 49 | 42 | 37 | 47 | 41 | 36 | 45 | 39 | 35 | 43 | 38 | 34 | 32 | | | | | | | | | | | | | | | | | | | |
| 9 | 59 | 47 | 39 | 34 | 57 | 46 | 39 | 34 | 44 | 37 | 33 | 42 | 36 | 32 | 40 | 35 | 31 | 30 | | | | | | | | | | | | | | | | | | | |
| 10 | 56 | 43 | 36 | 31 | 54 | 42 | 36 | 31 | 41 | 35 | 30 | 39 | 34 | 30 | 37 | 33 | 29 | 27 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 48465 | 48465 | 48465 |
| 5° | 48132 | 44022 | 41085 |
| 10° | 48438 | 36986 | 32983 |
| 15° | 49139 | 31550 | 27104 |
| 20° | 50261 | 26606 | 21950 |
| 25° | 51720 | 21961 | 19258 |
| 30° | 53199 | 18864 | 17915 |
| 35° | 53966 | 17137 | 17094 |
| 40° | 52674 | 15426 | 16245 |
| 45° | 48076 | 13886 | 15068 |
| 50° | 40189 | 12213 | 14173 |
| 55° | 30202 | 10641 | 12645 |
| 60° | 20877 | 9067 | 12144 |
| 65° | 13794 | 7745 | 11938 |
| 70° | 9193 | 7190 | 12593 |
| 75° | 6151 | 7301 | 13564 |
| 80° | 3983 | 7893 | 14147 |
| 85° | 2049 | 9443 | 15219 |



TEST NUMBER: P828511

CATALOG NUMBER: OHB-24SE-N-UNV-L950-CD-UPL24

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1221.3 | 5.2 |
| 10°-20° | 2873.0 | 12.2 |
| 20°-30° | 3601.3 | 15.3 |
| 30°-40° | 3821.4 | 16.2 |
| 40°-50° | 3455.1 | 14.7 |
| 50°-60° | 2505.2 | 10.7 |
| 60°-70° | 1572.1 | 6.7 |
| 70°-80° | 1040.4 | 4.4 |
| 80°-90° | 604.7 | 2.6 |
| 90°-100° | 491.9 | 2.1 |
| 100°-110° | 900.2 | 3.8 |
| 110°-120° | 724.0 | 3.1 |
| 120°-130° | 347.9 | 1.5 |
| 130°-140° | 171.7 | 0.7 |
| 140°-150° | 98.6 | 0.4 |
| 150°-160° | 55.2 | 0.2 |
| 160°-170° | 25.2 | 0.1 |
| 170°-180° | 7.7 | 0.0 |
| 0°-30° | 7695.6 | 32.7 |
| 0°-40° | 11517.0 | 49.0 |
| 0°-60° | 17477.3 | 74.3 |
| 0°-90° | 20694.5 | 88.0 |
| 90°-120° | 2116.2 | 9.0 |
| 90°-150° | 2734.3 | 11.6 |
| 90°-180° | 2822.0 | 12.0 |
| 0°-180° | 23517.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 14508 | 14508 | 14508 | 14508 | 14508 | |
| 5° | 14479 | 14108 | 13279 | 12664 | 12344 | ### |
| 15° | 14590 | 11892 | 9445 | 8400 | 8018 | 4138 |
| 25° | 14686 | 9195 | 6324 | 5613 | 5435 | 6785 |
| 35° | 14160 | 6113 | 4590 | 4446 | 4445 | 8803 |
| 45° | 11194 | 3872 | 3326 | 3406 | 3464 | 8528 |
| 55° | 5926 | 2400 | 2171 | 2354 | 2438 | 5355 |
| 65° | 2120 | 1392 | 1256 | 1610 | 1790 | 2206 |
| 75° | 654 | 750 | 844 | 1310 | 1389 | 730 |
| 85° | 115 | 311 | 617 | 859 | 788 | 137 |
| 90° | 4 | 159 | 398 | 558 | 568 | 11 |
| 95° | 52 | 188 | 464 | 626 | 672 | 148 |
| 105° | 883 | 923 | 963 | 826 | 792 | 839 |
| 115° | 617 | 650 | 762 | 799 | 798 | 622 |
| 125° | 310 | 332 | 394 | 414 | 410 | 290 |
| 135° | 188 | 194 | 218 | 239 | 241 | 148 |
| 145° | 143 | 148 | 153 | 165 | 164 | 90 |
| 155° | 118 | 123 | 126 | 129 | 126 | 52 |
| 165° | 87 | 88 | 89 | 89 | 89 | 25 |
| 175° | 78 | 79 | 79 | 80 | 80 | 8 |
| 180° | 78 | 78 | 78 | 78 | 78 | |



TEST NUMBER: P828511

CATALOG NUMBER: OHB-24SE-N-UNV-L950-CD-UPL24

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|---------|---------|---------|---------|---------|
| 0° | 14508.2 | 14508.2 | 14508.2 | 14508.2 | 14508.2 |
| 2.5° | 14477.8 | 14395.0 | 14136.8 | 13979.4 | 13846.9 |
| 5° | 14479.2 | 14107.8 | 13279.3 | 12663.5 | 12344.5 |
| 7.5° | 14500.0 | 13674.2 | 12181.5 | 11282.6 | 10932.0 |
| 10° | 14531.7 | 13137.0 | 11157.0 | 10198.7 | 9871.4 |
| 12.5° | 14555.2 | 12532.3 | 10255.4 | 9270.8 | 8911.8 |
| 15° | 14589.7 | 11891.6 | 9444.8 | 8399.5 | 8018.4 |
| 17.5° | 14621.4 | 11288.2 | 8643.9 | 7551.6 | 7127.8 |
| 20° | 14653.2 | 10637.8 | 7843.0 | 6717.7 | 6368.3 |
| 22.5° | 14683.6 | 9951.6 | 7061.5 | 6070.0 | 5831.2 |
| 25° | 14686.4 | 9194.8 | 6324.2 | 5613.0 | 5434.9 |
| 27.5° | 14650.5 | 8410.6 | 5726.2 | 5230.5 | 5120.1 |
| 30° | 14588.3 | 7649.7 | 5262.3 | 4954.4 | 4875.7 |
| 32.5° | 14433.6 | 6873.7 | 4903.3 | 4687.9 | 4642.3 |
| 35° | 14160.3 | 6112.9 | 4589.8 | 4446.3 | 4444.9 |
| 37.5° | 13729.5 | 5437.7 | 4250.2 | 4225.3 | 4255.7 |
| 40° | 13092.9 | 4846.6 | 3928.4 | 3994.7 | 3994.7 |
| 42.5° | 12243.7 | 4333.0 | 3637.1 | 3704.7 | 3686.8 |
| 45° | 11194.3 | 3871.8 | 3326.4 | 3406.5 | 3464.5 |
| 47.5° | 9977.7 | 3465.9 | 3008.8 | 3163.5 | 3243.5 |
| 50° | 8655.0 | 3079.2 | 2718.8 | 2916.3 | 3007.4 |
| 52.5° | 7268.6 | 2721.6 | 2435.7 | 2662.2 | 2735.4 |
| 55° | 5926.5 | 2399.8 | 2170.7 | 2354.3 | 2438.5 |
| 57.5° | 4711.3 | 2093.3 | 1911.0 | 2085.0 | 2259.0 |
| 60° | 3666.1 | 1829.6 | 1666.6 | 1915.2 | 2089.2 |
| 62.5° | 2800.3 | 1594.8 | 1437.5 | 1756.4 | 1930.3 |
| 65° | 2119.5 | 1391.9 | 1256.5 | 1610.0 | 1789.6 |
| 67.5° | 1597.6 | 1216.5 | 1115.7 | 1503.7 | 1679.1 |
| 70° | 1199.9 | 1046.6 | 1002.5 | 1437.5 | 1594.8 |
| 72.5° | 886.5 | 890.7 | 912.7 | 1379.5 | 1499.5 |
| 75° | 654.5 | 749.8 | 843.7 | 1310.4 | 1389.1 |
| 77.5° | 468.1 | 621.4 | 781.5 | 1227.6 | 1255.1 |
| 80° | 324.5 | 506.8 | 716.7 | 1118.5 | 1095.0 |
| 82.5° | 203.0 | 405.9 | 658.7 | 998.3 | 933.4 |
| 85° | 114.6 | 310.7 | 617.2 | 858.8 | 788.4 |
| 87.5° | 51.1 | 232.0 | 539.9 | 669.7 | 625.5 |
| 90° | 4.3 | 159.4 | 398.5 | 557.9 | 568.1 |
| 92.5° | 17.6 | 146.8 | 392.6 | 549.8 | 575.0 |
| 95° | 51.6 | 187.6 | 464.4 | 626.3 | 671.7 |
| 97.5° | 240.7 | 333.1 | 567.7 | 727.2 | 772.4 |
| 100° | 488.2 | 581.3 | 683.3 | 800.7 | 822.2 |
| 102.5° | 751.3 | 803.5 | 787.3 | 814.4 | 818.6 |
| 105° | 883.1 | 923.3 | 963.0 | 826.3 | 792.0 |



TEST NUMBER: P828511

CATALOG NUMBER: OHB-24SE-N-UNV-L950-CD-UPL24

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 716.3 | 759.9 | 871.6 | 897.2 | 876.3 |
| 115° | 616.9 | 650.5 | 762.4 | 799.3 | 798.2 |
| 117.5° | 531.3 | 552.9 | 654.3 | 688.0 | 690.3 |
| 120° | 442.6 | 468.7 | 559.4 | 584.1 | 578.9 |
| 122.5° | 373.9 | 395.4 | 469.7 | 491.4 | 484.8 |
| 125° | 310.5 | 331.6 | 394.3 | 414.1 | 410.2 |
| 127.5° | 263.9 | 277.9 | 332.2 | 352.4 | 350.1 |
| 130° | 231.7 | 241.4 | 283.3 | 303.4 | 304.3 |
| 132.5° | 206.0 | 214.8 | 245.7 | 268.6 | 267.7 |
| 135° | 187.7 | 194.0 | 218.0 | 239.0 | 240.7 |
| 137.5° | 172.9 | 179.6 | 196.0 | 216.5 | 216.5 |
| 140° | 159.9 | 166.2 | 178.8 | 197.0 | 197.9 |
| 142.5° | 150.0 | 154.8 | 163.8 | 179.4 | 179.4 |
| 145° | 142.7 | 147.5 | 152.8 | 164.8 | 164.2 |
| 147.5° | 134.9 | 141.0 | 144.2 | 152.8 | 151.5 |
| 150° | 128.8 | 134.6 | 137.2 | 142.2 | 141.7 |
| 152.5° | 122.7 | 128.5 | 131.1 | 134.8 | 133.4 |
| 155° | 117.5 | 123.3 | 126.4 | 128.7 | 125.9 |
| 157.5° | 96.5 | 98.2 | 100.0 | 100.9 | 100.9 |
| 160° | 93.0 | 93.9 | 95.6 | 96.5 | 96.5 |
| 162.5° | 89.6 | 90.4 | 91.3 | 92.2 | 92.2 |
| 165° | 86.9 | 87.8 | 88.7 | 88.7 | 88.7 |
| 167.5° | 84.3 | 84.3 | 85.2 | 86.1 | 86.1 |
| 170° | 81.7 | 82.6 | 82.6 | 83.5 | 83.5 |
| 172.5° | 80.0 | 80.9 | 80.9 | 80.9 | 81.7 |
| 175° | 78.2 | 79.1 | 79.1 | 80.0 | 80.0 |
| 177.5° | 78.2 | 78.2 | 78.2 | 78.2 | 78.2 |
| 180° | 78.2 | 78.2 | 78.2 | 78.2 | 78.2 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-------|-------|--------|-------|-------|
| 107.5° | 886.6 | 935.6 | 1021.1 | 905.9 | 809.5 |
| 110° | 820.1 | 866.7 | 968.4 | 952.5 | 876.9 |



(END OF REPORT)