

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: P828201

Luminaire Tested: **OHB-24SE-A-UNV-L940-CD-UPL12**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P828201
REPORT IS A COMBINATION OF REPORTS P826041 AND G3-2310-221-12
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHB-24SE-A-UNV-L940-CD-UPL12
Description:
Light Source: -
Ballast/Driver: -

Summary

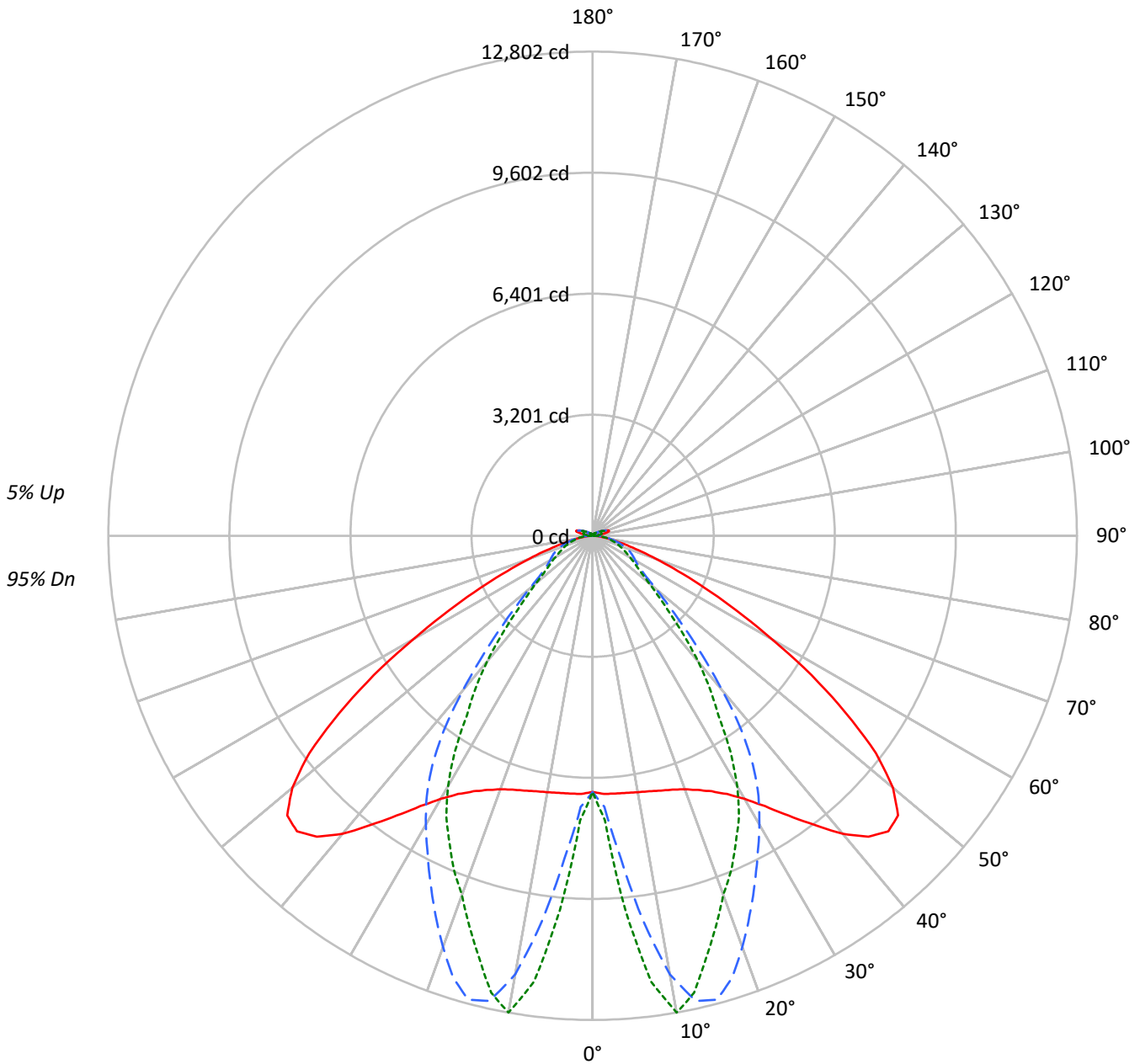
Lumens per Lamp: N/A
Luminaire Lumens: 22821.5 lumens
Efficiency: N/A
Efficacy: 147.2 lumens/watt
Spacing Criteria (0/90/45): 2.18 / 1.37 / 1.3
Luminous Opening: Rectangular w/ Sides (W: 1.93' x L: 1.67' x H: 0.17')
CIE Type: Direct

Input Watts (W): 155
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: P828201

CATALOG NUMBER: OHB-24SE-A-UNV-L940-CD-UPL12

Luminous Intensity Polar Plot





TEST NUMBER: P828201

CATALOG NUMBER: OHB-24SE-A-UNV-L940-CD-UPL12

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 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 108 | 108 | 108 | 103 | 103 | 103 | 98 | 98 | 98 | 95 | | | | |
| 1 | 109 | 105 | 102 | 99 | 106 | 103 | 100 | 97 | 98 | 95 | 93 | 93 | 91 | 89 | 89 | 87 | 86 | 83 | | | | |
| 2 | 101 | 94 | 89 | 84 | 98 | 92 | 87 | 82 | 88 | 84 | 80 | 84 | 80 | 77 | 80 | 78 | 75 | 73 | | | | |
| 3 | 94 | 85 | 78 | 72 | 91 | 83 | 76 | 71 | 79 | 74 | 69 | 76 | 71 | 68 | 73 | 69 | 66 | 64 | | | | |
| 4 | 87 | 76 | 69 | 63 | 84 | 75 | 68 | 62 | 72 | 66 | 61 | 69 | 64 | 60 | 66 | 62 | 58 | 56 | | | | |
| 5 | 81 | 69 | 61 | 56 | 78 | 68 | 61 | 55 | 65 | 59 | 54 | 63 | 57 | 53 | 61 | 56 | 52 | 50 | | | | |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 55 | 49 | 60 | 53 | 48 | 58 | 52 | 48 | 56 | 51 | 47 | 45 | | | | |
| 7 | 70 | 58 | 50 | 44 | 68 | 57 | 49 | 44 | 55 | 48 | 44 | 53 | 47 | 43 | 51 | 46 | 42 | 40 | | | | |
| 8 | 65 | 53 | 45 | 40 | 64 | 52 | 45 | 40 | 51 | 44 | 39 | 49 | 43 | 39 | 48 | 42 | 38 | 37 | | | | |
| 9 | 61 | 49 | 42 | 37 | 60 | 48 | 41 | 36 | 47 | 40 | 36 | 46 | 40 | 36 | 44 | 39 | 35 | 33 | | | | |
| 10 | 58 | 46 | 38 | 33 | 56 | 45 | 38 | 33 | 44 | 37 | 33 | 42 | 37 | 33 | 41 | 36 | 32 | 31 | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 22630 | 22630 | 22630 |
| 5° | 22745 | 28389 | 33052 |
| 10° | 22948 | 39039 | 42773 |
| 15° | 23495 | 42417 | 39111 |
| 20° | 24466 | 39253 | 34818 |
| 25° | 26250 | 35204 | 31718 |
| 30° | 29271 | 31605 | 28081 |
| 35° | 34411 | 27575 | 22270 |
| 40° | 41376 | 20927 | 17630 |
| 45° | 47462 | 14201 | 12473 |
| 50° | 48117 | 9698 | 9160 |
| 55° | 41650 | 7592 | 7420 |
| 60° | 31111 | 7058 | 6606 |
| 65° | 21325 | 7022 | 6173 |
| 70° | 13635 | 6700 | 5865 |
| 75° | 8199 | 6106 | 5455 |
| 80° | 4825 | 5236 | 5364 |
| 85° | 2323 | 4302 | 4486 |



TEST NUMBER: P828201

CATALOG NUMBER: OHB-24SE-A-UNV-L940-CD-UPL12

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 884.4 | 3.9 |
| 10°-20° | 3121.5 | 13.7 |
| 20°-30° | 4599.7 | 20.2 |
| 30°-40° | 4833.5 | 21.2 |
| 40°-50° | 3698.5 | 16.2 |
| 50°-60° | 2233.3 | 9.8 |
| 60°-70° | 1362.8 | 6.0 |
| 70°-80° | 743.9 | 3.3 |
| 80°-90° | 263.8 | 1.2 |
| 90°-100° | 103.4 | 0.5 |
| 100°-110° | 359.9 | 1.6 |
| 110°-120° | 309.1 | 1.4 |
| 120°-130° | 148.1 | 0.6 |
| 130°-140° | 74.1 | 0.3 |
| 140°-150° | 43.1 | 0.2 |
| 150°-160° | 25.2 | 0.1 |
| 160°-170° | 13.1 | 0.1 |
| 170°-180° | 4.0 | 0.0 |
| 0°-30° | 8605.5 | 37.7 |
| 0°-40° | 13439.1 | 58.9 |
| 0°-60° | 19370.9 | 84.9 |
| 0°-90° | 21741.5 | 95.3 |
| 90°-120° | 772.4 | 3.4 |
| 90°-150° | 1037.8 | 4.5 |
| 90°-180° | 1080.0 | 4.7 |
| 0°-180° | 22821.5 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 6774 | 6774 | 6774 | 6774 | 6774 | |
| 5° | 6842 | 7341 | 8564 | 9562 | 9931 | 654 |
| 15° | 6976 | 10865 | 12698 | 11849 | 11570 | 1983 |
| 25° | 7454 | 12610 | 10138 | 9178 | 8951 | 3484 |
| 35° | 9029 | 10098 | 7385 | 6150 | 5791 | 5728 |
| 45° | 11051 | 5762 | 3402 | 2994 | 2868 | 8350 |
| 55° | 8173 | 1954 | 1549 | 1435 | 1431 | 7222 |
| 65° | 3276 | 1237 | 1139 | 975 | 925 | 3357 |
| 75° | 872 | 769 | 706 | 582 | 559 | 1004 |
| 85° | 130 | 238 | 281 | 256 | 232 | 160 |
| 90° | 3 | 16 | 21 | 27 | 30 | 9 |
| 95° | 22 | 50 | 75 | 101 | 116 | 71 |
| 105° | 450 | 444 | 379 | 269 | 247 | 425 |
| 115° | 313 | 313 | 314 | 311 | 306 | 313 |
| 125° | 153 | 159 | 163 | 161 | 162 | 143 |
| 135° | 89 | 91 | 95 | 96 | 96 | 71 |
| 145° | 65 | 67 | 68 | 69 | 70 | 41 |
| 155° | 52 | 53 | 54 | 55 | 55 | 24 |
| 165° | 45 | 45 | 46 | 46 | 46 | 13 |
| 175° | 41 | 41 | 41 | 41 | 41 | 4 |
| 180° | 40 | 40 | 40 | 40 | 40 | |



TEST NUMBER: P828201

CATALOG NUMBER: OHB-24SE-A-UNV-L940-CD-UPL12

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|---------|---------|---------|---------|---------|
| 0° | 6774.4 | 6774.4 | 6774.4 | 6774.4 | 6774.4 |
| 2.5° | 6829.8 | 6899.6 | 7174.4 | 7459.7 | 7529.1 |
| 5° | 6842.4 | 7340.8 | 8563.5 | 9562.0 | 9930.9 |
| 7.5° | 6856.9 | 8055.8 | 10284.7 | 11507.2 | 11898.4 |
| 10° | 6884.4 | 8959.8 | 11776.1 | 12653.7 | 12801.6 |
| 12.5° | 6918.8 | 9917.6 | 12596.8 | 12564.9 | 12378.4 |
| 15° | 6975.7 | 10864.8 | 12697.9 | 11849.0 | 11570.5 |
| 17.5° | 7035.5 | 11666.3 | 12256.9 | 11069.9 | 10827.4 |
| 20° | 7132.8 | 12261.3 | 11571.1 | 10377.4 | 10101.7 |
| 22.5° | 7273.2 | 12588.3 | 10851.8 | 9751.1 | 9571.3 |
| 25° | 7454.1 | 12609.6 | 10137.5 | 9177.9 | 8951.4 |
| 27.5° | 7696.7 | 12317.1 | 9452.8 | 8616.5 | 8377.0 |
| 30° | 8026.7 | 11757.0 | 8816.6 | 7939.2 | 7642.4 |
| 32.5° | 8474.9 | 10950.8 | 8160.6 | 7121.8 | 6788.9 |
| 35° | 9029.2 | 10097.9 | 7385.3 | 6150.4 | 5790.8 |
| 37.5° | 9634.1 | 9150.9 | 6444.4 | 5290.2 | 5080.8 |
| 40° | 10284.7 | 8175.1 | 5329.2 | 4485.3 | 4335.4 |
| 42.5° | 10792.5 | 7114.2 | 4293.2 | 3727.4 | 3567.9 |
| 45° | 11051.3 | 5762.0 | 3402.0 | 2993.6 | 2867.8 |
| 47.5° | 10950.6 | 4472.8 | 2696.9 | 2378.6 | 2340.8 |
| 50° | 10362.3 | 3302.7 | 2159.0 | 1959.4 | 1943.7 |
| 52.5° | 9442.6 | 2461.7 | 1783.3 | 1659.9 | 1632.9 |
| 55° | 8172.9 | 1953.9 | 1548.7 | 1435.4 | 1431.0 |
| 57.5° | 6861.8 | 1659.9 | 1405.7 | 1318.0 | 1287.5 |
| 60° | 5463.3 | 1480.1 | 1297.4 | 1198.3 | 1136.5 |
| 62.5° | 4282.5 | 1354.3 | 1217.7 | 1083.2 | 1025.4 |
| 65° | 3276.5 | 1237.0 | 1139.3 | 974.9 | 925.3 |
| 67.5° | 2442.5 | 1125.1 | 1043.4 | 861.0 | 832.0 |
| 70° | 1779.6 | 1010.4 | 934.2 | 765.7 | 742.8 |
| 72.5° | 1268.3 | 895.9 | 825.0 | 676.3 | 651.0 |
| 75° | 872.4 | 769.2 | 705.6 | 582.2 | 558.6 |
| 77.5° | 588.5 | 640.0 | 588.0 | 497.1 | 487.1 |
| 80° | 393.1 | 507.5 | 475.5 | 421.2 | 415.2 |
| 82.5° | 238.5 | 368.4 | 375.3 | 342.5 | 326.0 |
| 85° | 129.9 | 238.5 | 281.2 | 256.2 | 232.4 |
| 87.5° | 50.9 | 132.2 | 193.8 | 174.0 | 163.8 |
| 90° | 2.6 | 15.6 | 20.9 | 27.0 | 30.4 |
| 92.5° | 7.8 | 20.0 | 33.0 | 47.0 | 51.3 |
| 95° | 21.7 | 50.4 | 74.8 | 100.9 | 116.5 |
| 97.5° | 117.4 | 127.8 | 144.3 | 170.4 | 179.1 |
| 100° | 240.0 | 258.2 | 214.8 | 224.3 | 228.7 |
| 102.5° | 381.7 | 376.5 | 274.7 | 248.7 | 244.3 |
| 105° | 449.5 | 444.3 | 379.1 | 268.7 | 246.9 |



TEST NUMBER: P828201

CATALOG NUMBER: OHB-24SE-A-UNV-L940-CD-UPL12

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 363.4 | 366.0 | 363.4 | 349.5 | 334.7 |
| 115° | 313.0 | 313.0 | 313.9 | 311.3 | 306.0 |
| 117.5° | 262.6 | 266.0 | 268.7 | 266.0 | 264.3 |
| 120° | 220.0 | 225.2 | 226.9 | 223.4 | 223.4 |
| 122.5° | 185.2 | 189.5 | 192.1 | 189.5 | 190.4 |
| 125° | 153.0 | 159.1 | 162.6 | 160.8 | 161.7 |
| 127.5° | 127.8 | 133.0 | 139.1 | 138.2 | 138.2 |
| 130° | 111.3 | 114.8 | 119.1 | 120.0 | 120.0 |
| 132.5° | 99.1 | 101.7 | 105.2 | 106.1 | 106.9 |
| 135° | 88.7 | 91.3 | 94.8 | 95.6 | 95.6 |
| 137.5° | 81.7 | 83.5 | 86.1 | 86.9 | 87.8 |
| 140° | 74.8 | 77.4 | 79.1 | 80.0 | 80.0 |
| 142.5° | 69.6 | 71.3 | 73.0 | 73.9 | 74.8 |
| 145° | 65.2 | 66.9 | 67.8 | 68.7 | 69.6 |
| 147.5° | 60.9 | 62.6 | 64.3 | 64.3 | 65.2 |
| 150° | 58.3 | 59.1 | 60.0 | 60.9 | 60.9 |
| 152.5° | 54.8 | 55.6 | 56.5 | 57.4 | 57.4 |
| 155° | 52.2 | 53.0 | 53.9 | 54.8 | 54.8 |
| 157.5° | 49.6 | 51.3 | 51.3 | 52.2 | 52.2 |
| 160° | 47.8 | 48.7 | 49.6 | 49.6 | 49.6 |
| 162.5° | 46.1 | 47.0 | 47.0 | 47.8 | 47.8 |
| 165° | 45.2 | 45.2 | 46.1 | 46.1 | 46.1 |
| 167.5° | 43.5 | 43.5 | 44.3 | 44.3 | 44.3 |
| 170° | 42.6 | 42.6 | 42.6 | 43.5 | 43.5 |
| 172.5° | 41.7 | 41.7 | 41.7 | 41.7 | 41.7 |
| 175° | 40.9 | 40.9 | 40.9 | 40.9 | 40.9 |
| 177.5° | 40.0 | 40.9 | 40.9 | 40.9 | 40.9 |
| 180° | 40.0 | 40.0 | 40.0 | 40.0 | 40.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-------|-------|-------|-------|-------|
| 107.5° | 452.1 | 453.8 | 418.2 | 324.3 | 268.7 |
| 110° | 413.9 | 419.9 | 400.8 | 365.2 | 320.8 |



(END OF REPORT)