

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: P826460

Luminaire Tested: **OHBL-12SE-MFL-UNV-L830-CD-UPL18**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P826460
REPORT IS A COMBINATION OF REPORTS P826151 AND G3-2310-221-8
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-12SE-MFL-UNV-L830-CD-UPL18
Description:
Light Source: -
Ballast/Driver: -

Summary

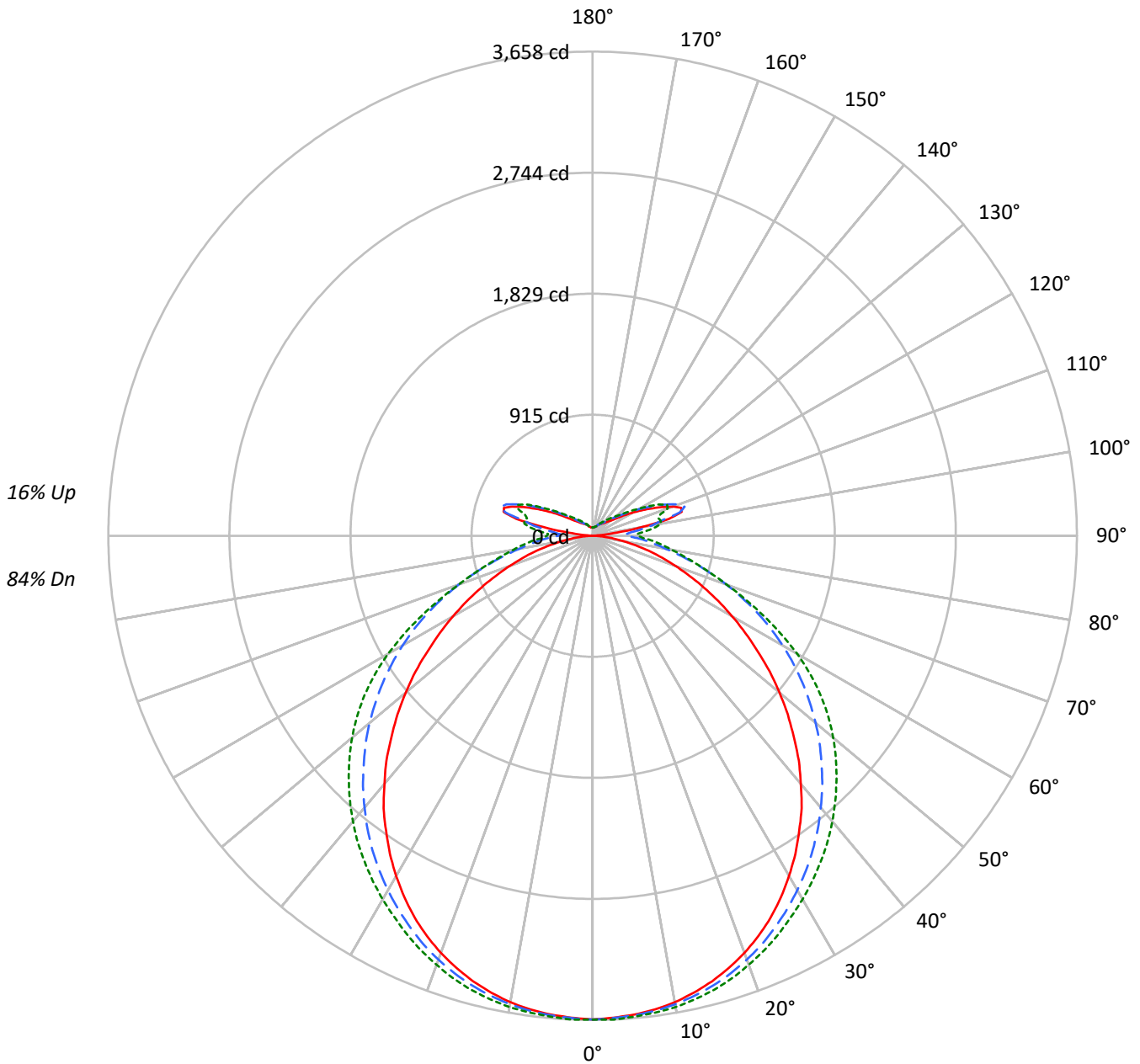
Lumens per Lamp: N/A
Luminaire Lumens: 12603.4 lumens
Efficiency: N/A
Efficacy: 153.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 0.88' x H: 0.17')
CIE Type: Semi-Direct

Input Watts (W): 82.3
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: P826460

CATALOG NUMBER: OHBL-12SE-MFL-UNV-L830-CD-UPL18

Luminous Intensity Polar Plot





TEST NUMBER: P826460

CATALOG NUMBER: OHBL-12SE-MFL-UNV-L830-CD-UPL18

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 | 115 | 115 | 115 | 115 | 111 | 111 | 111 | 111 | 102 | 102 | 102 | 94 | 94 | 94 | 87 | 87 | 87 | 84 | | | | | | | | | | | | | | | | | | | |
| 1 | 105 | 100 | 95 | 91 | 100 | 96 | 92 | 88 | 89 | 86 | 83 | 82 | 80 | 77 | 76 | 74 | 72 | 69 | | | | | | | | | | | | | | | | | | | |
| 2 | 95 | 87 | 80 | 74 | 91 | 83 | 77 | 72 | 77 | 72 | 68 | 72 | 68 | 64 | 67 | 63 | 60 | 57 | | | | | | | | | | | | | | | | | | | |
| 3 | 87 | 76 | 68 | 62 | 83 | 73 | 66 | 60 | 68 | 62 | 57 | 63 | 58 | 54 | 59 | 55 | 51 | 48 | | | | | | | | | | | | | | | | | | | |
| 4 | 79 | 67 | 59 | 52 | 76 | 65 | 57 | 51 | 60 | 54 | 48 | 56 | 51 | 46 | 52 | 48 | 44 | 41 | | | | | | | | | | | | | | | | | | | |
| 5 | 73 | 60 | 51 | 45 | 70 | 58 | 50 | 44 | 54 | 47 | 42 | 50 | 45 | 40 | 47 | 42 | 38 | 36 | | | | | | | | | | | | | | | | | | | |
| 6 | 67 | 54 | 45 | 39 | 64 | 52 | 44 | 38 | 49 | 42 | 36 | 46 | 40 | 35 | 43 | 37 | 33 | 31 | | | | | | | | | | | | | | | | | | | |
| 7 | 62 | 49 | 40 | 34 | 59 | 47 | 39 | 34 | 44 | 37 | 32 | 42 | 35 | 31 | 39 | 34 | 30 | 27 | | | | | | | | | | | | | | | | | | | |
| 8 | 58 | 45 | 36 | 30 | 55 | 43 | 35 | 30 | 41 | 34 | 29 | 38 | 32 | 28 | 36 | 30 | 27 | 24 | | | | | | | | | | | | | | | | | | | |
| 9 | 54 | 41 | 33 | 27 | 52 | 40 | 32 | 27 | 37 | 31 | 26 | 35 | 29 | 25 | 33 | 28 | 24 | 22 | | | | | | | | | | | | | | | | | | | |
| 10 | 51 | 38 | 30 | 25 | 48 | 36 | 29 | 24 | 34 | 28 | 23 | 32 | 27 | 23 | 31 | 25 | 22 | 20 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11890 | 11890 | 11890 |
| 5° | 11665 | 11707 | 11863 |
| 10° | 11438 | 11535 | 11851 |
| 15° | 11167 | 11344 | 11820 |
| 20° | 10857 | 11126 | 11752 |
| 25° | 10492 | 10872 | 11684 |
| 30° | 10044 | 10600 | 11619 |
| 35° | 9534 | 10315 | 11575 |
| 40° | 8954 | 9994 | 11538 |
| 45° | 8299 | 9647 | 11481 |
| 50° | 7600 | 9290 | 11407 |
| 55° | 6784 | 8868 | 11230 |
| 60° | 5956 | 8377 | 10787 |
| 65° | 5074 | 7770 | 9990 |
| 70° | 4144 | 7019 | 9137 |
| 75° | 3213 | 6153 | 8689 |
| 80° | 2150 | 5405 | 9102 |
| 85° | 1071 | 5119 | 11410 |



TEST NUMBER: P826460

CATALOG NUMBER: OHBL-12SE-MFL-UNV-L830-CD-UPL18

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 346.3 | 2.7 |
| 10°-20° | 993.5 | 7.9 |
| 20°-30° | 1502.5 | 11.9 |
| 30°-40° | 1803.7 | 14.3 |
| 40°-50° | 1863.0 | 14.8 |
| 50°-60° | 1676.1 | 13.3 |
| 60°-70° | 1262.6 | 10.0 |
| 70°-80° | 762.4 | 6.0 |
| 80°-90° | 377.0 | 3.0 |
| 90°-100° | 316.3 | 2.5 |
| 100°-110° | 642.9 | 5.1 |
| 110°-120° | 528.0 | 4.2 |
| 120°-130° | 258.1 | 2.0 |
| 130°-140° | 129.7 | 1.0 |
| 140°-150° | 73.8 | 0.6 |
| 150°-160° | 41.5 | 0.3 |
| 160°-170° | 20.0 | 0.2 |
| 170°-180° | 6.1 | 0.0 |
| 0°-30° | 2842.2 | 22.6 |
| 0°-40° | 4646.0 | 36.9 |
| 0°-60° | 8185.0 | 64.9 |
| 0°-90° | 10587.0 | 84.0 |
| 90°-120° | 1487.2 | 11.8 |
| 90°-150° | 1948.8 | 15.5 |
| 90°-180° | 2016.0 | 16.0 |
| 0°-180° | 12603.4 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 3655 | 3655 | 3655 | 3655 | 3655 | |
| 5° | 3631 | 3641 | 3637 | 3651 | 3647 | 345 |
| 15° | 3485 | 3502 | 3518 | 3547 | 3551 | 982 |
| 25° | 3182 | 3217 | 3263 | 3314 | 3322 | 1464 |
| 35° | 2721 | 2784 | 2899 | 2986 | 3004 | 1701 |
| 45° | 2148 | 2256 | 2444 | 2578 | 2606 | 1658 |
| 55° | 1522 | 1679 | 1934 | 2080 | 2105 | 1364 |
| 65° | 928 | 1118 | 1368 | 1436 | 1420 | 922 |
| 75° | 437 | 628 | 792 | 813 | 805 | 467 |
| 85° | 91 | 241 | 397 | 452 | 460 | 105 |
| 90° | 4 | 117 | 259 | 328 | 344 | 8 |
| 95° | 40 | 140 | 290 | 372 | 402 | 115 |
| 105° | 696 | 720 | 681 | 539 | 513 | 660 |
| 115° | 484 | 504 | 543 | 558 | 560 | 489 |
| 125° | 240 | 254 | 287 | 302 | 303 | 225 |
| 135° | 144 | 149 | 164 | 179 | 184 | 114 |
| 145° | 109 | 110 | 114 | 122 | 125 | 69 |
| 155° | 89 | 92 | 92 | 92 | 93 | 40 |
| 165° | 69 | 70 | 70 | 71 | 71 | 20 |
| 175° | 62 | 62 | 63 | 63 | 63 | 6 |
| 180° | 62 | 62 | 62 | 62 | 62 | |



TEST NUMBER: P826460

CATALOG NUMBER: OHBL-12SE-MFL-UNV-L830-CD-UPL18

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 3654.7 | 3654.7 | 3654.7 | 3654.7 | 3654.7 |
| 2.5° | 3644.0 | 3652.9 | 3647.5 | 3659.1 | 3658.2 |
| 5° | 3631.4 | 3641.3 | 3636.8 | 3651.0 | 3646.6 |
| 7.5° | 3609.9 | 3620.7 | 3619.8 | 3635.9 | 3634.1 |
| 10° | 3578.6 | 3590.3 | 3593.8 | 3615.3 | 3615.3 |
| 12.5° | 3535.6 | 3550.9 | 3559.8 | 3585.8 | 3586.6 |
| 15° | 3484.7 | 3501.7 | 3517.8 | 3547.3 | 3550.9 |
| 17.5° | 3423.0 | 3444.5 | 3466.8 | 3500.8 | 3505.3 |
| 20° | 3353.3 | 3377.4 | 3407.8 | 3443.5 | 3448.9 |
| 22.5° | 3272.8 | 3301.3 | 3340.7 | 3382.8 | 3389.0 |
| 25° | 3182.4 | 3217.3 | 3262.9 | 3313.9 | 3321.9 |
| 27.5° | 3079.5 | 3119.8 | 3181.5 | 3238.7 | 3245.9 |
| 30° | 2967.7 | 3015.1 | 3092.0 | 3160.1 | 3171.6 |
| 32.5° | 2849.6 | 2904.3 | 2999.0 | 3075.0 | 3091.1 |
| 35° | 2720.9 | 2784.4 | 2898.9 | 2986.5 | 3004.4 |
| 37.5° | 2593.8 | 2663.6 | 2793.3 | 2893.5 | 2915.0 |
| 40° | 2445.4 | 2532.1 | 2680.7 | 2791.5 | 2817.4 |
| 42.5° | 2305.8 | 2399.7 | 2568.0 | 2688.7 | 2713.7 |
| 45° | 2147.5 | 2255.8 | 2444.5 | 2577.7 | 2605.5 |
| 47.5° | 1999.0 | 2116.3 | 2325.6 | 2463.3 | 2491.9 |
| 50° | 1842.5 | 1971.3 | 2198.5 | 2342.5 | 2372.1 |
| 52.5° | 1686.0 | 1824.6 | 2067.0 | 2216.4 | 2244.1 |
| 55° | 1521.5 | 1678.8 | 1933.8 | 2079.5 | 2104.6 |
| 57.5° | 1368.5 | 1534.9 | 1796.9 | 1935.6 | 1950.7 |
| 60° | 1217.4 | 1390.0 | 1657.4 | 1779.0 | 1784.4 |
| 62.5° | 1069.8 | 1251.3 | 1514.3 | 1610.9 | 1603.7 |
| 65° | 928.4 | 1118.1 | 1368.5 | 1436.5 | 1420.4 |
| 67.5° | 792.5 | 988.3 | 1219.1 | 1263.0 | 1241.5 |
| 70° | 663.7 | 862.3 | 1074.2 | 1096.6 | 1076.9 |
| 72.5° | 550.1 | 742.4 | 927.5 | 946.3 | 932.0 |
| 75° | 437.4 | 627.8 | 792.5 | 813.0 | 805.0 |
| 77.5° | 331.8 | 517.0 | 668.1 | 694.9 | 696.8 |
| 80° | 238.8 | 415.9 | 559.9 | 602.0 | 607.3 |
| 82.5° | 157.4 | 322.9 | 469.6 | 523.3 | 531.3 |
| 85° | 91.2 | 240.6 | 397.2 | 451.7 | 459.7 |
| 87.5° | 39.4 | 173.5 | 319.3 | 368.5 | 378.4 |
| 90° | 3.7 | 117.2 | 258.8 | 328.1 | 344.4 |
| 92.5° | 14.8 | 108.5 | 246.1 | 319.4 | 336.7 |
| 95° | 39.8 | 139.8 | 290.0 | 371.8 | 402.3 |
| 97.5° | 186.9 | 251.9 | 369.1 | 451.1 | 474.1 |
| 100° | 379.5 | 439.2 | 457.3 | 510.7 | 523.4 |
| 102.5° | 590.7 | 625.5 | 534.2 | 526.4 | 527.1 |
| 105° | 695.8 | 719.7 | 680.9 | 539.2 | 512.9 |



TEST NUMBER: P826460

CATALOG NUMBER: OHBL-12SE-MFL-UNV-L830-CD-UPL18

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 567.4 | 588.1 | 620.7 | 629.1 | 609.4 |
| 115° | 484.5 | 503.5 | 542.9 | 557.9 | 560.5 |
| 117.5° | 414.7 | 427.3 | 465.0 | 482.8 | 486.4 |
| 120° | 347.7 | 361.3 | 397.3 | 412.4 | 414.1 |
| 122.5° | 291.9 | 304.8 | 338.9 | 353.1 | 353.9 |
| 125° | 239.8 | 253.7 | 287.0 | 302.2 | 303.0 |
| 127.5° | 203.5 | 213.7 | 245.3 | 260.5 | 261.3 |
| 130° | 177.5 | 184.9 | 210.1 | 226.3 | 229.9 |
| 132.5° | 159.8 | 164.4 | 184.2 | 199.5 | 205.0 |
| 135° | 144.0 | 148.6 | 164.0 | 179.2 | 183.7 |
| 137.5° | 131.9 | 136.5 | 147.3 | 161.7 | 166.2 |
| 140° | 122.6 | 126.3 | 133.5 | 146.1 | 150.6 |
| 142.5° | 115.1 | 117.9 | 122.5 | 133.2 | 136.8 |
| 145° | 109.4 | 110.5 | 114.1 | 122.2 | 124.9 |
| 147.5° | 102.9 | 104.8 | 106.6 | 112.1 | 114.7 |
| 150° | 97.3 | 100.1 | 101.1 | 102.9 | 106.5 |
| 152.5° | 93.6 | 95.5 | 96.4 | 96.5 | 98.3 |
| 155° | 89.0 | 91.8 | 91.8 | 91.8 | 92.7 |
| 157.5° | 77.2 | 78.2 | 79.1 | 80.0 | 80.0 |
| 160° | 74.4 | 74.4 | 75.4 | 76.3 | 76.3 |
| 162.5° | 71.7 | 71.7 | 72.6 | 73.5 | 73.5 |
| 165° | 68.9 | 69.8 | 69.8 | 70.7 | 70.7 |
| 167.5° | 67.0 | 67.0 | 67.9 | 67.9 | 68.9 |
| 170° | 65.1 | 65.1 | 66.1 | 66.1 | 66.1 |
| 172.5° | 63.3 | 64.2 | 64.2 | 64.2 | 64.2 |
| 175° | 62.3 | 62.3 | 63.3 | 63.3 | 63.3 |
| 177.5° | 61.4 | 62.3 | 62.3 | 62.3 | 62.3 |
| 180° | 62.3 | 62.3 | 62.3 | 62.3 | 62.3 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-------|-------|-------|-------|-------|
| 107.5° | 702.3 | 728.3 | 728.8 | 613.2 | 536.7 |
| 110° | 643.7 | 673.5 | 693.9 | 663.1 | 603.4 |



(END OF REPORT)