

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: P827123

Luminaire Tested: **OHBL-18SE-NL-UNV-L840-CD-UPL24**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P827123
REPORT IS A COMBINATION OF REPORTS P826237 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-18SE-NL-UNV-L840-CD-UPL24
Description: 18000 LUMEN OHBL SE LED LUMINAIRE WITH 80CRI, 4000K LEDS AND NO LENS AND 2400 LUMEN UPLIGHT MODULE
Light Source: -
Ballast/Driver: -

Summary

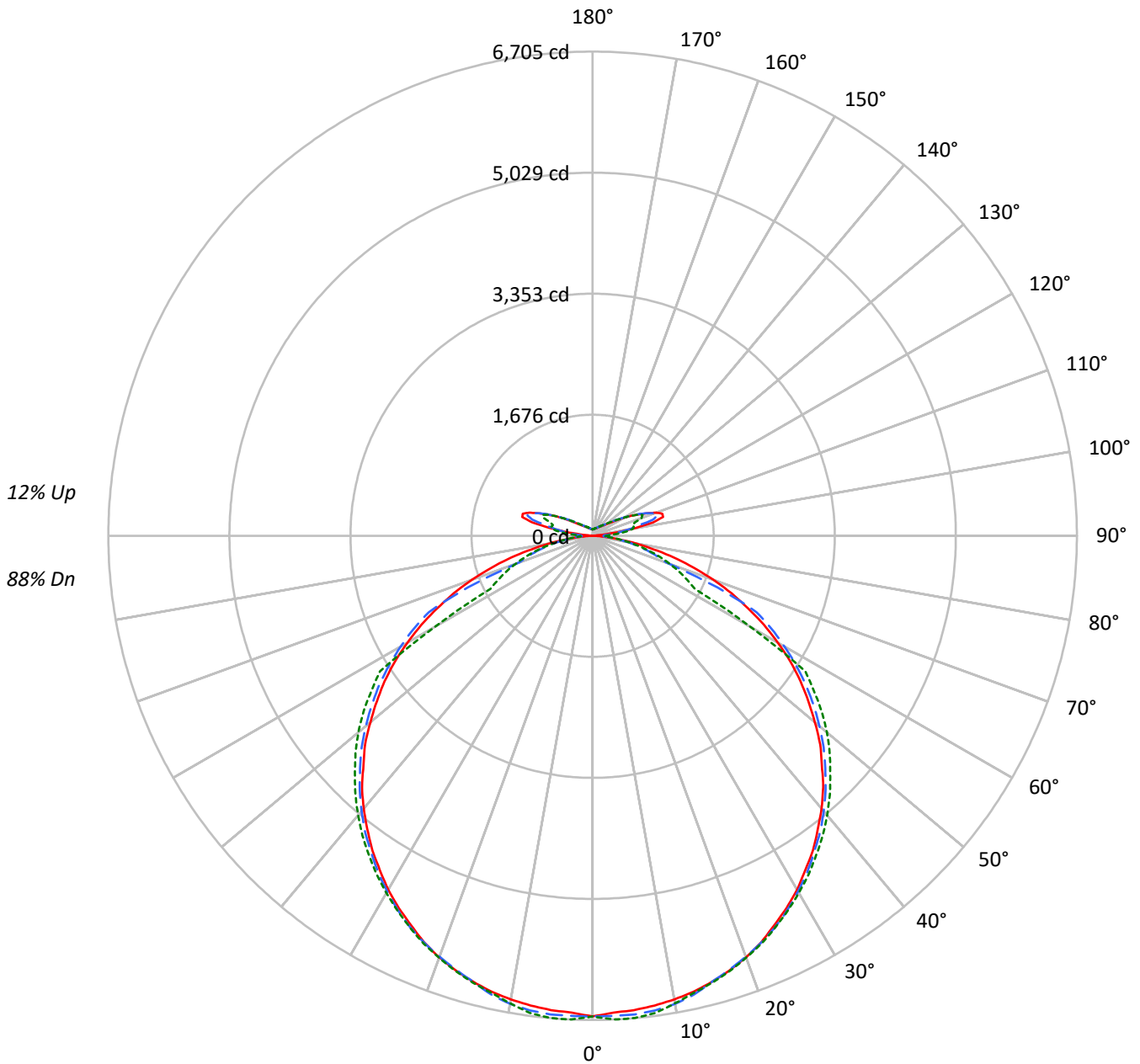
Lumens per Lamp: N/A
Luminaire Lumens: 21107.3 lumens
Efficiency: N/A
Efficacy: 172.4 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.28 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.67' x H: 0.1')
CIE Type: Semi-Direct

Input Watts (W): 122.4
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

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Luminous Intensity Polar Plot





TEST NUMBER: P827123

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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 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 116 | 116 | 116 | 116 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98 | 98 | 98 | 91 | 91 | 91 | 88 | | | | | | | | | | | | | |
| 1 | 107 | 102 | 98 | 94 | 103 | 99 | 95 | 92 | 92 | 89 | 87 | 86 | 84 | 82 | 81 | 79 | 77 | 75 | | | | | | | | | | | | | |
| 2 | 97 | 89 | 83 | 77 | 93 | 86 | 80 | 75 | 81 | 76 | 72 | 76 | 72 | 69 | 71 | 68 | 65 | 63 | | | | | | | | | | | | | |
| 3 | 89 | 79 | 71 | 64 | 85 | 76 | 69 | 63 | 71 | 65 | 61 | 67 | 62 | 58 | 63 | 59 | 56 | 53 | | | | | | | | | | | | | |
| 4 | 81 | 70 | 61 | 55 | 78 | 67 | 60 | 54 | 63 | 57 | 52 | 60 | 54 | 50 | 56 | 52 | 48 | 45 | | | | | | | | | | | | | |
| 5 | 75 | 62 | 53 | 47 | 72 | 60 | 52 | 46 | 57 | 50 | 45 | 54 | 48 | 43 | 51 | 46 | 42 | 39 | | | | | | | | | | | | | |
| 6 | 69 | 56 | 47 | 41 | 66 | 54 | 46 | 40 | 51 | 44 | 39 | 49 | 42 | 38 | 46 | 41 | 37 | 34 | | | | | | | | | | | | | |
| 7 | 64 | 51 | 42 | 36 | 61 | 49 | 41 | 35 | 47 | 40 | 34 | 44 | 38 | 33 | 42 | 36 | 32 | 30 | | | | | | | | | | | | | |
| 8 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 43 | 36 | 31 | 40 | 34 | 30 | 38 | 33 | 29 | 27 | | | | | | | | | | | | | |
| 9 | 55 | 42 | 34 | 29 | 53 | 41 | 34 | 28 | 39 | 32 | 28 | 37 | 31 | 27 | 35 | 30 | 26 | 24 | | | | | | | | | | | | | |
| 10 | 52 | 39 | 31 | 26 | 50 | 38 | 31 | 26 | 36 | 30 | 25 | 34 | 28 | 24 | 33 | 28 | 24 | 22 | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 11368 | 11368 | 11368 |
| 5° | 11246 | 11347 | 11467 |
| 10° | 11190 | 11294 | 11349 |
| 15° | 11128 | 11122 | 11249 |
| 20° | 11050 | 11029 | 11194 |
| 25° | 10909 | 10959 | 11142 |
| 30° | 10788 | 10837 | 11094 |
| 35° | 10643 | 10693 | 11051 |
| 40° | 10467 | 10557 | 11018 |
| 45° | 10222 | 10365 | 10949 |
| 50° | 9960 | 10150 | 10906 |
| 55° | 9642 | 9877 | 10720 |
| 60° | 9165 | 9473 | 8282 |
| 65° | 8481 | 8955 | 5516 |
| 70° | 7601 | 4604 | 5274 |
| 75° | 6310 | 4161 | 4917 |
| 80° | 4431 | 3480 | 4306 |
| 85° | 1779 | 2788 | 3724 |



TEST NUMBER: P827123

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 632.3 | 3.0 |
| 10°-20° | 1810.5 | 8.6 |
| 20°-30° | 2754.9 | 13.1 |
| 30°-40° | 3349.5 | 15.9 |
| 40°-50° | 3521.9 | 16.7 |
| 50°-60° | 3215.9 | 15.2 |
| 60°-70° | 2061.5 | 9.8 |
| 70°-80° | 973.8 | 4.6 |
| 80°-90° | 276.2 | 1.3 |
| 90°-100° | 303.4 | 1.4 |
| 100°-110° | 824.5 | 3.9 |
| 110°-120° | 695.9 | 3.3 |
| 120°-130° | 331.2 | 1.6 |
| 130°-140° | 165.7 | 0.8 |
| 140°-150° | 96.1 | 0.5 |
| 150°-160° | 56.0 | 0.3 |
| 160°-170° | 29.0 | 0.1 |
| 170°-180° | 8.8 | 0.0 |
| 0°-30° | 5197.7 | 24.6 |
| 0°-40° | 8547.3 | 40.5 |
| 0°-60° | 15285.1 | 72.4 |
| 0°-90° | 18596.6 | 88.1 |
| 90°-120° | 1823.7 | 8.6 |
| 90°-150° | 2416.8 | 11.5 |
| 90°-180° | 2511.0 | 11.9 |
| 0°-180° | 21107.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 6656 | 6656 | 6656 | 6656 | 6656 | |
| 5° | 6594 | 6620 | 6654 | 6690 | 6704 | 627 |
| 15° | 6394 | 6442 | 6393 | 6402 | 6407 | 1805 |
| 25° | 5950 | 5960 | 5981 | 5990 | 5985 | 2746 |
| 35° | 5319 | 5287 | 5348 | 5413 | 5398 | 3324 |
| 45° | 4486 | 4478 | 4554 | 4661 | 4653 | 3467 |
| 55° | 3515 | 3488 | 3606 | 3727 | 3736 | 3135 |
| 65° | 2368 | 2368 | 2506 | 1438 | 1442 | 2348 |
| 75° | 1170 | 1192 | 774 | 815 | 819 | 1234 |
| 85° | 153 | 194 | 242 | 262 | 248 | 226 |
| 90° | 5 | 99 | 154 | 189 | 194 | 10 |
| 95° | 56 | 145 | 249 | 332 | 362 | 167 |
| 105° | 1009 | 1005 | 863 | 620 | 570 | 958 |
| 115° | 698 | 707 | 711 | 705 | 692 | 702 |
| 125° | 338 | 356 | 363 | 362 | 359 | 317 |
| 135° | 200 | 204 | 211 | 213 | 215 | 158 |
| 145° | 145 | 149 | 152 | 153 | 154 | 92 |
| 155° | 116 | 118 | 120 | 121 | 121 | 54 |
| 165° | 100 | 101 | 102 | 102 | 102 | 29 |
| 175° | 90 | 91 | 91 | 92 | 92 | 9 |
| 180° | 90 | 90 | 90 | 90 | 90 | |



TEST NUMBER: P827123

CATALOG NUMBER: OHBL-18SE-NL-UNV-L840-CD-UPL24

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 6655.8 | 6655.8 | 6655.8 | 6655.8 | 6655.8 |
| 2.5° | 6609.1 | 6631.3 | 6655.8 | 6687.4 | 6704.8 |
| 5° | 6593.9 | 6619.6 | 6653.5 | 6689.7 | 6703.7 |
| 7.5° | 6561.2 | 6597.3 | 6630.1 | 6655.8 | 6664.0 |
| 10° | 6520.3 | 6563.6 | 6582.3 | 6579.9 | 6574.1 |
| 12.5° | 6465.4 | 6511.0 | 6505.2 | 6478.3 | 6483.0 |
| 15° | 6394.2 | 6442.0 | 6393.1 | 6402.4 | 6407.0 |
| 17.5° | 6310.1 | 6356.8 | 6299.6 | 6318.3 | 6319.5 |
| 20° | 6212.1 | 6247.0 | 6202.7 | 6217.9 | 6217.9 |
| 22.5° | 6094.1 | 6118.6 | 6099.9 | 6110.4 | 6112.8 |
| 25° | 5950.4 | 5959.7 | 5980.7 | 5990.1 | 5985.4 |
| 27.5° | 5812.7 | 5800.9 | 5841.9 | 5864.0 | 5852.2 |
| 30° | 5659.6 | 5640.9 | 5688.8 | 5725.0 | 5711.0 |
| 32.5° | 5484.4 | 5472.8 | 5527.7 | 5570.8 | 5562.7 |
| 35° | 5318.6 | 5287.0 | 5347.8 | 5413.2 | 5398.0 |
| 37.5° | 5122.4 | 5103.7 | 5172.6 | 5241.5 | 5233.4 |
| 40° | 4930.8 | 4899.3 | 4977.6 | 5059.3 | 5051.1 |
| 42.5° | 4725.3 | 4687.9 | 4773.2 | 4871.3 | 4861.9 |
| 45° | 4485.8 | 4477.7 | 4553.6 | 4661.0 | 4652.9 |
| 47.5° | 4273.4 | 4232.5 | 4338.7 | 4442.7 | 4452.1 |
| 50° | 4016.3 | 4001.2 | 4098.2 | 4224.3 | 4233.6 |
| 52.5° | 3765.3 | 3754.8 | 3856.3 | 3983.7 | 4000.0 |
| 55° | 3515.3 | 3488.5 | 3606.4 | 3726.7 | 3736.1 |
| 57.5° | 3248.0 | 3219.9 | 3340.2 | 3471.0 | 3490.8 |
| 60° | 2961.7 | 2934.9 | 3066.8 | 3188.4 | 2535.5 |
| 62.5° | 2675.6 | 2656.9 | 2794.8 | 1979.6 | 1595.4 |
| 65° | 2368.5 | 2368.5 | 2506.2 | 1437.7 | 1442.3 |
| 67.5° | 2081.2 | 2062.6 | 1868.7 | 1291.6 | 1291.6 |
| 70° | 1772.9 | 1779.9 | 1076.7 | 1131.7 | 1132.9 |
| 72.5° | 1463.4 | 1489.1 | 929.7 | 974.0 | 976.3 |
| 75° | 1170.2 | 1192.5 | 774.3 | 815.2 | 818.7 |
| 77.5° | 859.6 | 661.0 | 622.4 | 654.1 | 655.2 |
| 80° | 603.8 | 416.9 | 476.5 | 506.8 | 503.4 |
| 82.5° | 352.6 | 291.9 | 349.2 | 371.4 | 370.2 |
| 85° | 153.0 | 193.9 | 241.7 | 261.6 | 247.5 |
| 87.5° | 49.0 | 120.3 | 150.6 | 162.3 | 161.1 |
| 90° | 5.0 | 99.4 | 154.4 | 189.2 | 194.0 |
| 92.5° | 17.0 | 96.3 | 165.5 | 218.8 | 233.0 |
| 95° | 56.5 | 144.9 | 249.2 | 332.0 | 362.0 |
| 97.5° | 271.3 | 315.5 | 367.9 | 460.7 | 496.1 |
| 100° | 554.3 | 605.8 | 509.2 | 558.4 | 568.6 |
| 102.5° | 858.8 | 864.3 | 640.1 | 591.3 | 584.6 |
| 105° | 1008.8 | 1004.9 | 862.7 | 619.7 | 569.6 |



TEST NUMBER: P827123

CATALOG NUMBER: OHBL-18SE-NL-UNV-L840-CD-UPL24

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 815.0 | 829.4 | 816.9 | 790.4 | 750.1 |
| 115° | 697.8 | 707.2 | 710.6 | 705.2 | 692.1 |
| 117.5° | 592.0 | 593.0 | 597.0 | 596.0 | 597.0 |
| 120° | 490.0 | 501.0 | 510.0 | 505.0 | 499.0 |
| 122.5° | 411.0 | 423.0 | 429.0 | 427.0 | 421.0 |
| 125° | 338.0 | 356.0 | 363.0 | 362.0 | 359.0 |
| 127.5° | 286.0 | 299.0 | 309.0 | 310.0 | 309.0 |
| 130° | 249.0 | 257.0 | 267.0 | 268.0 | 269.0 |
| 132.5° | 221.0 | 228.0 | 235.0 | 239.0 | 238.0 |
| 135° | 200.0 | 204.0 | 211.0 | 213.0 | 215.0 |
| 137.5° | 183.0 | 186.0 | 192.0 | 195.0 | 195.0 |
| 140° | 168.0 | 172.0 | 177.0 | 179.0 | 180.0 |
| 142.5° | 155.0 | 159.0 | 163.0 | 165.0 | 165.0 |
| 145° | 145.0 | 149.0 | 152.0 | 153.0 | 154.0 |
| 147.5° | 136.0 | 140.0 | 142.0 | 144.0 | 144.0 |
| 150° | 129.0 | 131.0 | 134.0 | 135.0 | 136.0 |
| 152.5° | 122.0 | 124.0 | 127.0 | 128.0 | 128.0 |
| 155° | 116.0 | 118.0 | 120.0 | 121.0 | 121.0 |
| 157.5° | 111.0 | 113.0 | 115.0 | 116.0 | 116.0 |
| 160° | 107.0 | 108.0 | 110.0 | 111.0 | 111.0 |
| 162.5° | 103.0 | 104.0 | 105.0 | 106.0 | 106.0 |
| 165° | 100.0 | 101.0 | 102.0 | 102.0 | 102.0 |
| 167.5° | 97.0 | 97.0 | 98.0 | 99.0 | 99.0 |
| 170° | 94.0 | 95.0 | 95.0 | 96.0 | 96.0 |
| 172.5° | 92.0 | 93.0 | 93.0 | 93.0 | 94.0 |
| 175° | 90.0 | 91.0 | 91.0 | 92.0 | 92.0 |
| 177.5° | 90.0 | 90.0 | 90.0 | 90.0 | 90.0 |
| 180° | 90.0 | 90.0 | 90.0 | 90.0 | 90.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|--------|--------|-------|-------|-------|
| 107.5° | 1012.8 | 1022.6 | 949.3 | 739.5 | 610.5 |
| 110° | 936.0 | 948.5 | 907.0 | 825.4 | 719.1 |



(END OF REPORT)