

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: P827108

Luminaire Tested: **OHBL-18HE-W-UNV-L840-CD-UPL24**

Issue Date: 5/3/2024

Test Information

Test Method: LM-79-08
Report Number: P827108
REPORT IS A COMBINATION OF REPORTS P826232 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-18HE-W-UNV-L840-CD-UPL24
Description: 18000 LUMEN OHBL HE LED LUMINAIRE WITH 80CRI, 4000K LEDS AND WIDE LENS AND 2400 LUMEN UPLIGHT MODULE
Light Source: -
Ballast/Driver: -

Summary

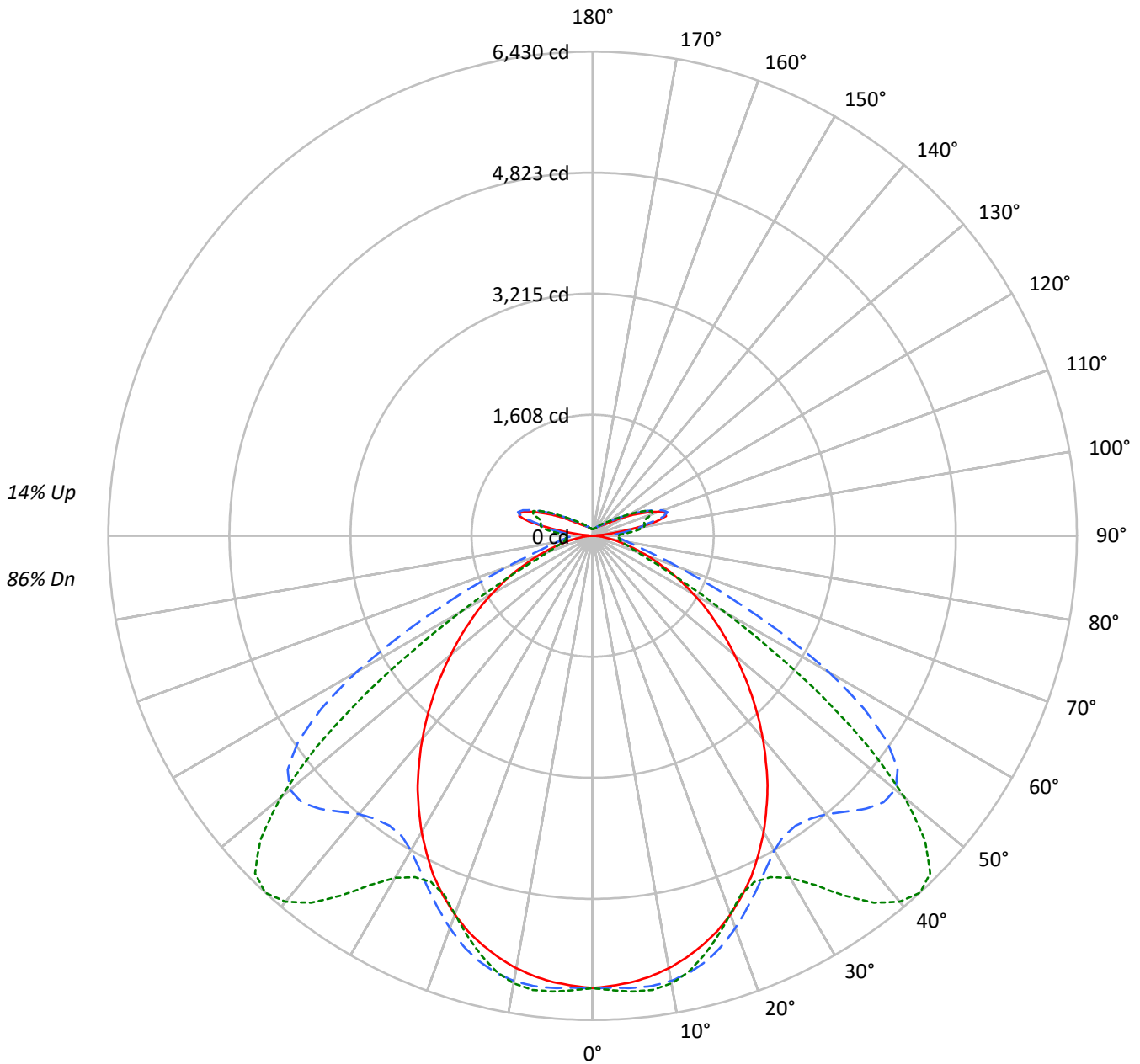
Lumens per Lamp: N/A
Luminaire Lumens: 20404.3 lumens
Efficiency: N/A
Efficacy: 169.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.58 / 1.62
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.67' x H: 0.17')
CIE Type: Semi-Direct

Input Watts (W): 120.4
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

TEST NUMBER: P827108

CATALOG NUMBER: OHBL-18HE-W-UNV-L840-CD-UPL24

Luminous Intensity Polar Plot





TEST NUMBER: P827108

CATALOG NUMBER: OHBL-18HE-W-UNV-L840-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 | 111 | 111 | 111 | 111 | 103 | 103 | 103 | 96 | 96 | 96 | 89 | 89 | 89 | 86 | | | | | | | | | | | | | | | | | | | |
| 1 | 106 | 102 | 97 | 94 | 102 | 98 | 94 | 91 | 91 | 88 | 86 | 85 | 83 | 81 | 79 | 78 | 76 | 73 | | | | | | | | | | | | | | | | | | | |
| 2 | 97 | 89 | 82 | 77 | 93 | 86 | 80 | 75 | 80 | 75 | 71 | 75 | 71 | 68 | 70 | 67 | 64 | 61 | | | | | | | | | | | | | | | | | | | |
| 3 | 88 | 78 | 70 | 64 | 85 | 76 | 68 | 63 | 71 | 65 | 60 | 66 | 61 | 57 | 62 | 58 | 54 | 52 | | | | | | | | | | | | | | | | | | | |
| 4 | 81 | 69 | 61 | 54 | 77 | 67 | 59 | 53 | 63 | 56 | 51 | 59 | 53 | 49 | 55 | 51 | 47 | 44 | | | | | | | | | | | | | | | | | | | |
| 5 | 74 | 62 | 53 | 46 | 71 | 60 | 52 | 46 | 56 | 49 | 44 | 53 | 47 | 42 | 49 | 44 | 40 | 38 | | | | | | | | | | | | | | | | | | | |
| 6 | 68 | 55 | 47 | 40 | 65 | 54 | 45 | 40 | 50 | 43 | 38 | 47 | 41 | 37 | 45 | 39 | 35 | 33 | | | | | | | | | | | | | | | | | | | |
| 7 | 63 | 50 | 41 | 35 | 61 | 48 | 40 | 35 | 46 | 39 | 34 | 43 | 37 | 32 | 41 | 35 | 31 | 29 | | | | | | | | | | | | | | | | | | | |
| 8 | 59 | 45 | 37 | 31 | 56 | 44 | 36 | 31 | 42 | 35 | 30 | 39 | 33 | 29 | 37 | 32 | 28 | 26 | | | | | | | | | | | | | | | | | | | |
| 9 | 55 | 41 | 33 | 28 | 52 | 40 | 33 | 27 | 38 | 31 | 27 | 36 | 30 | 26 | 34 | 29 | 25 | 23 | | | | | | | | | | | | | | | | | | | |
| 10 | 51 | 38 | 30 | 25 | 49 | 37 | 30 | 25 | 35 | 29 | 24 | 33 | 27 | 23 | 32 | 26 | 23 | 21 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10259 | 10259 | 10259 |
| 5° | 10114 | 10244 | 10376 |
| 10° | 9938 | 10229 | 10388 |
| 15° | 9696 | 10059 | 10055 |
| 20° | 9384 | 9714 | 9562 |
| 25° | 8983 | 9295 | 9371 |
| 30° | 8469 | 8984 | 10084 |
| 35° | 7891 | 9150 | 11800 |
| 40° | 7232 | 9910 | 13641 |
| 45° | 6548 | 11240 | 14663 |
| 50° | 5839 | 12429 | 13645 |
| 55° | 5173 | 12413 | 10426 |
| 60° | 4498 | 10501 | 6375 |
| 65° | 3791 | 7251 | 3861 |
| 70° | 3005 | 4687 | 2788 |
| 75° | 2204 | 3358 | 2585 |
| 80° | 1488 | 2948 | 2916 |
| 85° | 889 | 3238 | 4610 |



TEST NUMBER: P827108

CATALOG NUMBER: OHBL-18HE-W-UNV-L840-CD-UPL24

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 574.0 | 2.8 |
| 10°-20° | 1625.3 | 8.0 |
| 20°-30° | 2378.4 | 11.7 |
| 30°-40° | 3088.8 | 15.1 |
| 40°-50° | 3771.8 | 18.5 |
| 50°-60° | 3321.7 | 16.3 |
| 60°-70° | 1731.0 | 8.5 |
| 70°-80° | 742.3 | 3.6 |
| 80°-90° | 362.7 | 1.8 |
| 90°-100° | 399.3 | 2.0 |
| 100°-110° | 909.0 | 4.5 |
| 110°-120° | 752.0 | 3.7 |
| 120°-130° | 364.7 | 1.8 |
| 130°-140° | 182.5 | 0.9 |
| 140°-150° | 104.1 | 0.5 |
| 150°-160° | 58.8 | 0.3 |
| 160°-170° | 29.0 | 0.1 |
| 170°-180° | 8.8 | 0.0 |
| 0°-30° | 4577.7 | 22.4 |
| 0°-40° | 7666.5 | 37.6 |
| 0°-60° | 14760.0 | 72.3 |
| 0°-90° | 17595.9 | 86.2 |
| 90°-120° | 2060.3 | 10.1 |
| 90°-150° | 2711.7 | 13.3 |
| 90°-180° | 2808.0 | 13.8 |
| 0°-180° | 20404.3 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 6006 | 6006 | 6006 | 6006 | 6006 | |
| 5° | 5951 | 5996 | 6028 | 6082 | 6075 | 564 |
| 15° | 5630 | 5789 | 5844 | 5800 | 5754 | 1585 |
| 25° | 4989 | 5256 | 5167 | 5069 | 5075 | 2290 |
| 35° | 4050 | 4477 | 4701 | 5483 | 5834 | 2524 |
| 45° | 2982 | 3752 | 5128 | 6208 | 6338 | 2299 |
| 55° | 1985 | 3286 | 4775 | 4187 | 3722 | 1782 |
| 65° | 1139 | 2277 | 2186 | 1216 | 1046 | 1127 |
| 75° | 459 | 1065 | 702 | 481 | 456 | 500 |
| 85° | 97 | 380 | 358 | 350 | 354 | 108 |
| 90° | 6 | 171 | 283 | 332 | 345 | 10 |
| 95° | 56 | 191 | 360 | 448 | 485 | 167 |
| 105° | 1008 | 1037 | 966 | 747 | 701 | 957 |
| 115° | 700 | 725 | 774 | 789 | 786 | 706 |
| 125° | 347 | 369 | 407 | 419 | 417 | 325 |
| 135° | 208 | 212 | 232 | 248 | 251 | 164 |
| 145° | 155 | 157 | 161 | 170 | 173 | 98 |
| 155° | 126 | 128 | 128 | 129 | 129 | 58 |
| 165° | 100 | 101 | 102 | 102 | 102 | 29 |
| 175° | 90 | 91 | 91 | 92 | 92 | 9 |
| 180° | 90 | 90 | 90 | 90 | 90 | |



TEST NUMBER: P827108

CATALOG NUMBER: OHBL-18HE-W-UNV-L840-CD-UPL24

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 6006.3 | 6006.3 | 6006.3 | 6006.3 | 6006.3 |
| 2.5° | 5980.4 | 6006.3 | 6007.6 | 6043.9 | 6040.0 |
| 5° | 5950.6 | 5996.0 | 6028.4 | 6081.5 | 6075.0 |
| 7.5° | 5901.4 | 5972.6 | 6029.7 | 6088.0 | 6082.8 |
| 10° | 5831.4 | 5928.6 | 6003.7 | 6051.7 | 6036.1 |
| 12.5° | 5740.7 | 5869.0 | 5942.8 | 5953.2 | 5923.4 |
| 15° | 5630.5 | 5788.6 | 5844.3 | 5800.3 | 5753.6 |
| 17.5° | 5506.1 | 5691.4 | 5710.9 | 5615.0 | 5556.7 |
| 20° | 5350.6 | 5561.8 | 5542.4 | 5410.2 | 5345.4 |
| 22.5° | 5178.3 | 5419.3 | 5357.1 | 5218.4 | 5156.2 |
| 25° | 4989.1 | 5256.0 | 5166.6 | 5069.4 | 5074.6 |
| 27.5° | 4767.5 | 5070.7 | 4983.9 | 5028.0 | 5110.9 |
| 30° | 4542.0 | 4876.3 | 4823.2 | 5079.8 | 5243.1 |
| 32.5° | 4294.5 | 4676.8 | 4724.7 | 5231.4 | 5498.3 |
| 35° | 4049.6 | 4477.2 | 4701.4 | 5482.8 | 5834.0 |
| 37.5° | 3778.7 | 4275.1 | 4739.0 | 5773.1 | 6141.1 |
| 40° | 3515.7 | 4078.1 | 4824.5 | 6033.5 | 6344.5 |
| 42.5° | 3247.4 | 3901.8 | 4968.3 | 6187.7 | 6430.1 |
| 45° | 2981.8 | 3751.5 | 5127.7 | 6208.5 | 6338.1 |
| 47.5° | 2716.1 | 3624.5 | 5237.9 | 6043.9 | 5984.3 |
| 50° | 2459.5 | 3511.8 | 5245.7 | 5648.7 | 5405.0 |
| 52.5° | 2219.8 | 3408.1 | 5103.1 | 5018.9 | 4640.5 |
| 55° | 1985.3 | 3286.3 | 4775.3 | 4186.9 | 3721.7 |
| 57.5° | 1771.4 | 3117.8 | 4269.9 | 3292.8 | 2784.8 |
| 60° | 1544.7 | 2889.8 | 3616.8 | 2409.0 | 2008.6 |
| 62.5° | 1336.0 | 2606.0 | 2884.6 | 1676.8 | 1443.6 |
| 65° | 1139.1 | 2276.8 | 2186.1 | 1215.5 | 1045.8 |
| 67.5° | 930.4 | 1936.0 | 1613.4 | 886.4 | 777.5 |
| 70° | 767.2 | 1619.8 | 1201.3 | 689.4 | 625.9 |
| 72.5° | 600.0 | 1319.2 | 898.0 | 559.8 | 524.8 |
| 75° | 458.7 | 1065.2 | 702.4 | 480.8 | 456.1 |
| 77.5° | 338.2 | 842.3 | 565.0 | 425.0 | 401.7 |
| 80° | 237.1 | 663.5 | 473.0 | 379.7 | 370.6 |
| 82.5° | 159.4 | 513.2 | 403.0 | 361.5 | 362.8 |
| 85° | 97.2 | 379.7 | 357.7 | 349.9 | 353.8 |
| 87.5° | 46.7 | 269.5 | 307.1 | 318.8 | 322.7 |
| 90° | 6.3 | 171.4 | 282.8 | 331.5 | 345.0 |
| 92.5° | 17.0 | 150.0 | 279.3 | 343.0 | 362.5 |
| 95° | 55.6 | 191.3 | 359.9 | 448.3 | 484.8 |
| 97.5° | 271.6 | 357.1 | 481.5 | 581.2 | 618.0 |
| 100° | 555.9 | 643.0 | 623.3 | 682.7 | 695.6 |
| 102.5° | 856.9 | 898.5 | 752.8 | 717.3 | 711.9 |
| 105° | 1008.2 | 1037.4 | 965.8 | 747.4 | 701.0 |



TEST NUMBER: P827108

CATALOG NUMBER: OHBL-18HE-W-UNV-L840-CD-UPL24

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 815.8 | 851.1 | 889.5 | 884.7 | 855.3 |
| 115° | 699.8 | 724.9 | 774.2 | 789.0 | 785.6 |
| 117.5° | 601.1 | 616.3 | 663.1 | 677.6 | 679.9 |
| 120° | 499.1 | 520.4 | 567.0 | 577.6 | 572.9 |
| 122.5° | 420.1 | 438.6 | 479.5 | 491.8 | 487.1 |
| 125° | 347.1 | 369.0 | 407.1 | 419.0 | 417.3 |
| 127.5° | 293.8 | 308.1 | 346.6 | 360.5 | 360.8 |
| 130° | 256.8 | 264.8 | 298.1 | 312.1 | 315.7 |
| 132.5° | 228.8 | 235.8 | 260.9 | 277.9 | 279.5 |
| 135° | 207.8 | 211.8 | 231.7 | 248.0 | 251.3 |
| 137.5° | 190.8 | 193.8 | 208.8 | 224.8 | 227.4 |
| 140° | 175.8 | 179.8 | 190.0 | 204.9 | 207.2 |
| 142.5° | 164.1 | 166.8 | 174.7 | 187.0 | 188.3 |
| 145° | 155.4 | 156.8 | 161.1 | 169.8 | 173.4 |
| 147.5° | 146.4 | 149.1 | 151.1 | 158.3 | 159.6 |
| 150° | 139.4 | 141.4 | 141.8 | 145.4 | 149.0 |
| 152.5° | 132.4 | 134.4 | 134.8 | 135.8 | 138.4 |
| 155° | 126.4 | 128.4 | 127.8 | 128.8 | 128.8 |
| 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° | 1013.5 | 1051.2 | 1041.9 | 859.9 | 740.5 |
| 110° | 935.5 | 973.0 | 988.9 | 932.6 | 837.2 |



(END OF REPORT)