

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: P827189

Luminaire Tested: **OHBL-36HE-MCL-UNV-L840-CD-UPL18**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P827189
REPORT IS A COMBINATION OF REPORTS P826168 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-36HE-MCL-UNV-L840-CD-UPL18
Description: 36000 LUMEN OHBL HE LED LUMINAIRE WITH 80CRI, 4000K LEDS AND MEDIUM CLEAR LENS AND 1800 LUMEN UPLIGHT MODULE
Light Source: -
Ballast/Driver: -

Summary

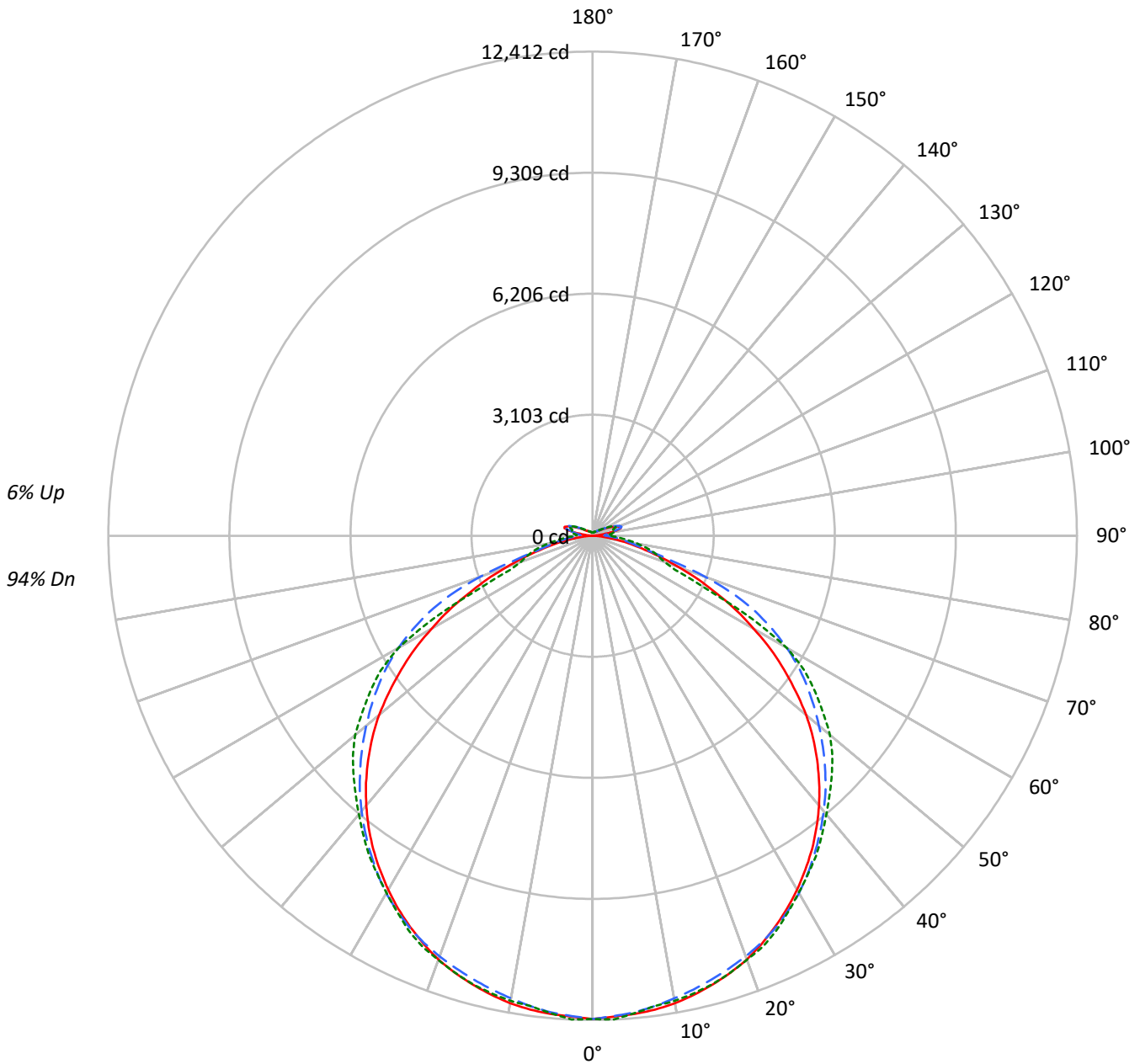
Lumens per Lamp: N/A
Luminaire Lumens: 36801.9 lumens
Efficiency: N/A
Efficacy: 164.1 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.8' x H: 0.17')
CIE Type: Direct

Input Watts (W): 224.3
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: P827189

CATALOG NUMBER: OHBL-36HE-MCL-UNV-L840-CD-UPL18

Luminous Intensity Polar Plot





TEST NUMBER: P827189

CATALOG NUMBER: OHBL-36HE-MCL-UNV-L840-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 | 118 | 118 | 118 | 118 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 102 | 102 | 102 | 97 | 97 | 97 | 94 | | | | | | | | | | | | | | | | | | | |
| 1 | 108 | 103 | 99 | 95 | 104 | 100 | 97 | 93 | 95 | 92 | 89 | 90 | 88 | 85 | 86 | 84 | 82 | 79 | | | | | | | | | | | | | | | | | | | |
| 2 | 98 | 90 | 84 | 78 | 95 | 88 | 82 | 77 | 83 | 78 | 74 | 79 | 75 | 71 | 75 | 72 | 69 | 67 | | | | | | | | | | | | | | | | | | | |
| 3 | 90 | 79 | 71 | 65 | 87 | 77 | 70 | 64 | 74 | 67 | 62 | 70 | 65 | 60 | 67 | 62 | 59 | 56 | | | | | | | | | | | | | | | | | | | |
| 4 | 82 | 70 | 62 | 55 | 79 | 69 | 61 | 54 | 65 | 59 | 53 | 62 | 56 | 52 | 60 | 55 | 50 | 48 | | | | | | | | | | | | | | | | | | | |
| 5 | 75 | 63 | 54 | 47 | 73 | 61 | 53 | 47 | 59 | 51 | 46 | 56 | 50 | 45 | 54 | 48 | 44 | 42 | | | | | | | | | | | | | | | | | | | |
| 6 | 70 | 56 | 48 | 41 | 67 | 55 | 47 | 41 | 53 | 46 | 40 | 51 | 44 | 39 | 49 | 43 | 39 | 36 | | | | | | | | | | | | | | | | | | | |
| 7 | 64 | 51 | 43 | 36 | 62 | 50 | 42 | 36 | 48 | 41 | 35 | 46 | 40 | 35 | 44 | 39 | 34 | 32 | | | | | | | | | | | | | | | | | | | |
| 8 | 60 | 47 | 38 | 32 | 58 | 46 | 38 | 32 | 44 | 37 | 32 | 42 | 36 | 31 | 41 | 35 | 31 | 29 | | | | | | | | | | | | | | | | | | | |
| 9 | 56 | 43 | 35 | 29 | 54 | 42 | 34 | 29 | 40 | 33 | 28 | 39 | 33 | 28 | 37 | 32 | 28 | 26 | | | | | | | | | | | | | | | | | | | |
| 10 | 52 | 39 | 32 | 26 | 51 | 39 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 25 | 35 | 29 | 25 | 23 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19590 | 19590 | 19590 |
| 5° | 19380 | 19306 | 19428 |
| 10° | 19228 | 19013 | 19294 |
| 15° | 19023 | 18794 | 19247 |
| 20° | 18817 | 18657 | 19162 |
| 25° | 18504 | 18518 | 19082 |
| 30° | 18166 | 18299 | 18815 |
| 35° | 17776 | 17952 | 18718 |
| 40° | 17293 | 17594 | 18556 |
| 45° | 16656 | 17179 | 18562 |
| 50° | 15827 | 16707 | 18564 |
| 55° | 14581 | 16242 | 18045 |
| 60° | 12991 | 15563 | 16885 |
| 65° | 10971 | 14301 | 10869 |
| 70° | 8649 | 11164 | 8052 |
| 75° | 6279 | 6627 | 8439 |
| 80° | 4139 | 5510 | 8508 |
| 85° | 2100 | 5049 | 8947 |



TEST NUMBER: P827189

CATALOG NUMBER: OHBL-36HE-MCL-UNV-L840-CD-UPL18

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1168.0 | 3.2 |
| 10°-20° | 3349.3 | 9.1 |
| 20°-30° | 5115.4 | 13.9 |
| 30°-40° | 6206.8 | 16.9 |
| 40°-50° | 6505.3 | 17.7 |
| 50°-60° | 5894.8 | 16.0 |
| 60°-70° | 3952.2 | 10.7 |
| 70°-80° | 1774.7 | 4.8 |
| 80°-90° | 648.5 | 1.8 |
| 90°-100° | 365.1 | 1.0 |
| 100°-110° | 686.1 | 1.9 |
| 110°-120° | 556.7 | 1.5 |
| 120°-130° | 270.6 | 0.7 |
| 130°-140° | 139.9 | 0.4 |
| 140°-150° | 82.8 | 0.2 |
| 150°-160° | 50.2 | 0.1 |
| 160°-170° | 27.1 | 0.1 |
| 170°-180° | 8.3 | 0.0 |
| 0°-30° | 9632.7 | 26.2 |
| 0°-40° | 15839.5 | 43.0 |
| 0°-60° | 28239.5 | 76.7 |
| 0°-90° | 34614.9 | 94.1 |
| 90°-120° | 1607.9 | 4.4 |
| 90°-150° | 2101.3 | 5.7 |
| 90°-180° | 2187.0 | 5.9 |
| 0°-180° | 36801.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 12387 | 12387 | 12387 | 12387 | 12387 | |
| 5° | 12307 | 12350 | 12264 | 12301 | 12285 | ### |
| 15° | 11907 | 11861 | 11776 | 11880 | 11895 | 3362 |
| 25° | 11062 | 11014 | 11090 | 11193 | 11160 | 5099 |
| 35° | 9804 | 9828 | 9928 | 10034 | 9994 | 6128 |
| 45° | 8137 | 8270 | 8424 | 8638 | 8665 | 6268 |
| 55° | 5988 | 6276 | 6704 | 6973 | 6957 | 5345 |
| 65° | 3514 | 4064 | 4614 | 3894 | 3179 | 3501 |
| 75° | 1383 | 2006 | 1476 | 1510 | 1608 | 1511 |
| 85° | 238 | 457 | 586 | 708 | 742 | 291 |
| 90° | 6 | 177 | 337 | 425 | 448 | 17 |
| 95° | 40 | 177 | 337 | 420 | 451 | 122 |
| 105° | 748 | 775 | 728 | 565 | 536 | 711 |
| 115° | 527 | 540 | 570 | 578 | 581 | 531 |
| 125° | 262 | 276 | 301 | 306 | 305 | 248 |
| 135° | 164 | 169 | 176 | 187 | 189 | 130 |
| 145° | 124 | 128 | 131 | 134 | 136 | 79 |
| 155° | 104 | 108 | 109 | 110 | 108 | 49 |
| 165° | 94 | 95 | 95 | 96 | 96 | 27 |
| 175° | 87 | 87 | 86 | 84 | 84 | 8 |
| 180° | 85 | 85 | 85 | 85 | 85 | |



TEST NUMBER: P827189

CATALOG NUMBER: OHBL-36HE-MCL-UNV-L840-CD-UPL18

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|---------|---------|---------|---------|---------|
| 0° | 12387.3 | 12387.3 | 12387.3 | 12387.3 | 12387.3 |
| 2.5° | 12337.1 | 12389.1 | 12324.6 | 12394.4 | 12412.4 |
| 5° | 12306.7 | 12349.7 | 12263.7 | 12301.3 | 12285.2 |
| 7.5° | 12251.2 | 12265.5 | 12163.4 | 12193.8 | 12161.6 |
| 10° | 12168.8 | 12161.6 | 12041.6 | 12100.7 | 12107.9 |
| 12.5° | 12047.0 | 12025.5 | 11918.0 | 12007.6 | 12009.4 |
| 15° | 11907.3 | 11860.7 | 11776.5 | 11880.4 | 11894.7 |
| 17.5° | 11746.1 | 11685.2 | 11629.6 | 11764.0 | 11742.5 |
| 20° | 11558.0 | 11486.3 | 11475.6 | 11622.5 | 11568.7 |
| 22.5° | 11325.2 | 11269.6 | 11294.7 | 11434.4 | 11400.4 |
| 25° | 11061.9 | 11013.5 | 11090.5 | 11192.6 | 11160.4 |
| 27.5° | 10784.2 | 10755.6 | 10843.3 | 10922.2 | 10859.5 |
| 30° | 10479.7 | 10463.6 | 10580.1 | 10644.5 | 10565.7 |
| 32.5° | 10148.4 | 10153.8 | 10264.8 | 10352.6 | 10279.1 |
| 35° | 9804.5 | 9827.8 | 9928.1 | 10033.8 | 9994.4 |
| 37.5° | 9426.6 | 9478.5 | 9578.8 | 9698.8 | 9657.6 |
| 40° | 9027.2 | 9102.4 | 9213.4 | 9358.5 | 9320.9 |
| 42.5° | 8595.5 | 8690.4 | 8833.7 | 8994.9 | 8991.3 |
| 45° | 8137.0 | 8269.5 | 8423.6 | 8638.5 | 8665.4 |
| 47.5° | 7660.6 | 7809.2 | 8004.4 | 8291.0 | 8332.2 |
| 50° | 7142.9 | 7329.2 | 7572.8 | 7916.7 | 7941.8 |
| 52.5° | 6566.2 | 6820.5 | 7142.9 | 7472.5 | 7442.0 |
| 55° | 5987.7 | 6276.0 | 6704.1 | 6972.8 | 6956.6 |
| 57.5° | 5410.9 | 5735.1 | 6254.5 | 6446.2 | 6444.4 |
| 60° | 4766.1 | 5176.3 | 5744.1 | 5889.1 | 5745.9 |
| 62.5° | 4169.7 | 4610.3 | 5199.6 | 5093.9 | 4603.1 |
| 65° | 3514.1 | 4064.0 | 4613.9 | 3893.9 | 3179.2 |
| 67.5° | 2932.0 | 3505.2 | 3918.9 | 2667.0 | 2283.7 |
| 70° | 2346.3 | 2978.6 | 3055.6 | 1979.2 | 1952.3 |
| 72.5° | 1826.9 | 2500.4 | 2108.1 | 1694.4 | 1780.4 |
| 75° | 1382.7 | 2006.0 | 1475.9 | 1509.9 | 1608.4 |
| 77.5° | 1008.4 | 1540.3 | 1148.1 | 1323.6 | 1404.2 |
| 80° | 693.2 | 1090.8 | 936.7 | 1112.3 | 1167.8 |
| 82.5° | 435.2 | 720.0 | 750.5 | 895.6 | 952.9 |
| 85° | 238.2 | 456.7 | 585.7 | 707.5 | 741.5 |
| 87.5° | 98.5 | 275.8 | 447.8 | 546.3 | 574.9 |
| 90° | 5.8 | 177.2 | 336.7 | 424.7 | 447.6 |
| 92.5° | 14.8 | 149.4 | 302.2 | 382.3 | 402.8 |
| 95° | 39.8 | 176.9 | 336.8 | 419.5 | 450.7 |
| 97.5° | 198.6 | 288.2 | 411.7 | 491.6 | 514.7 |
| 100° | 407.4 | 484.7 | 499.1 | 546.5 | 557.9 |
| 102.5° | 636.2 | 678.2 | 575.8 | 556.9 | 556.2 |
| 105° | 748.2 | 775.2 | 728.1 | 564.6 | 536.0 |



TEST NUMBER: P827189

CATALOG NUMBER: OHBL-36HE-MCL-UNV-L840-CD-UPL18

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 614.5 | 631.1 | 654.9 | 655.0 | 633.6 |
| 115° | 527.3 | 540.5 | 569.9 | 578.3 | 580.9 |
| 117.5° | 451.3 | 457.9 | 486.8 | 495.5 | 500.1 |
| 120° | 379.3 | 388.1 | 415.4 | 421.4 | 421.2 |
| 122.5° | 319.3 | 328.3 | 353.0 | 359.0 | 358.8 |
| 125° | 262.5 | 276.3 | 301.2 | 305.6 | 305.4 |
| 127.5° | 226.3 | 235.3 | 258.7 | 263.0 | 262.8 |
| 130° | 198.3 | 207.1 | 222.1 | 230.2 | 231.2 |
| 132.5° | 181.1 | 185.9 | 197.3 | 205.4 | 207.4 |
| 135° | 164.1 | 168.9 | 175.7 | 186.7 | 189.4 |
| 137.5° | 152.9 | 155.9 | 159.9 | 170.9 | 173.7 |
| 140° | 141.9 | 144.9 | 146.1 | 155.3 | 158.1 |
| 142.5° | 131.1 | 135.9 | 137.1 | 143.5 | 146.3 |
| 145° | 124.1 | 127.9 | 130.9 | 133.7 | 135.5 |
| 147.5° | 118.9 | 120.9 | 122.9 | 124.9 | 126.7 |
| 150° | 112.9 | 114.9 | 116.9 | 117.9 | 118.9 |
| 152.5° | 108.9 | 109.9 | 111.9 | 112.9 | 112.9 |
| 155° | 103.9 | 107.7 | 108.7 | 109.7 | 107.9 |
| 157.5° | 100.9 | 103.7 | 104.7 | 105.7 | 105.7 |
| 160° | 97.9 | 99.7 | 100.7 | 101.7 | 101.7 |
| 162.5° | 96.7 | 96.7 | 97.7 | 98.7 | 98.7 |
| 165° | 93.7 | 94.7 | 94.7 | 95.7 | 95.7 |
| 167.5° | 91.7 | 93.5 | 92.7 | 92.7 | 93.7 |
| 170° | 89.7 | 89.7 | 90.7 | 88.9 | 88.9 |
| 172.5° | 87.7 | 88.7 | 88.7 | 86.9 | 86.9 |
| 175° | 86.7 | 86.7 | 85.9 | 84.1 | 84.1 |
| 177.5° | 87.5 | 86.7 | 84.9 | 83.1 | 81.3 |
| 180° | 84.9 | 84.9 | 84.9 | 84.9 | 84.9 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-------|-------|-------|-------|-------|
| 107.5° | 757.0 | 782.0 | 777.8 | 641.7 | 558.3 |
| 110° | 695.7 | 721.7 | 736.4 | 692.6 | 627.1 |



(END OF REPORT)