

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: P827191

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

Issue Date: 5/3/2024

Test Information

Test Method: LM-79-08
Report Number: P827191
REPORT IS A COMBINATION OF REPORTS P826169 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-MFL-UNV-L840-CD-UPL18
Description: 36000 LUMEN OHBL HE LED LUMINAIRE WITH 80CRI, 4000K LEDS AND MEDIUM FROSTED LENS AND 1800 LUMEN UPLIGHT MODULE
Light Source: -
Ballast/Driver: -

Summary

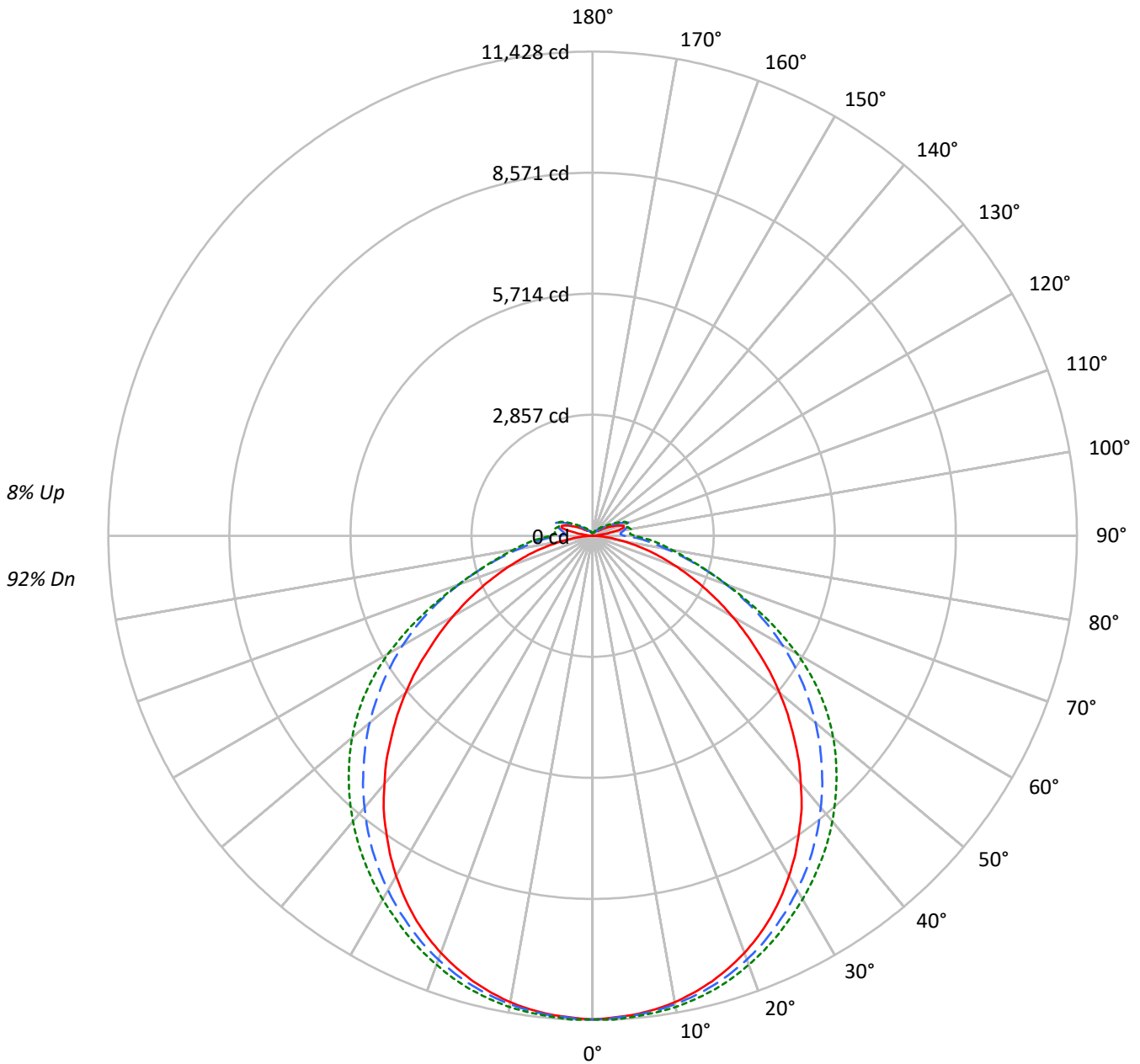
Lumens per Lamp: N/A
Luminaire Lumens: 35959.9 lumens
Efficiency: N/A
Efficacy: 160.3 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.8' x H: 0.17')
CIE Type: Direct

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: P827191

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

Luminous Intensity Polar Plot





TEST NUMBER: P827191

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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 | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 107 | 107 | 107 | 100 | 100 | 100 | 95 | 95 | 95 | 92 | | | | | | | | | | | | | | | | | | | |
| 1 | 106 | 101 | 97 | 93 | 103 | 98 | 94 | 91 | 93 | 89 | 86 | 87 | 85 | 82 | 82 | 80 | 78 | 76 | | | | | | | | | | | | | | | | | | | |
| 2 | 97 | 88 | 81 | 75 | 93 | 86 | 79 | 74 | 81 | 75 | 71 | 76 | 72 | 68 | 72 | 69 | 65 | 63 | | | | | | | | | | | | | | | | | | | |
| 3 | 88 | 77 | 69 | 63 | 85 | 75 | 68 | 61 | 71 | 65 | 59 | 67 | 62 | 57 | 64 | 59 | 55 | 53 | | | | | | | | | | | | | | | | | | | |
| 4 | 80 | 68 | 60 | 53 | 78 | 67 | 58 | 52 | 63 | 56 | 50 | 60 | 54 | 49 | 57 | 52 | 47 | 45 | | | | | | | | | | | | | | | | | | | |
| 5 | 74 | 61 | 52 | 45 | 71 | 59 | 51 | 45 | 56 | 49 | 44 | 54 | 47 | 42 | 51 | 46 | 41 | 39 | | | | | | | | | | | | | | | | | | | |
| 6 | 68 | 55 | 46 | 40 | 66 | 54 | 45 | 39 | 51 | 44 | 38 | 49 | 42 | 37 | 46 | 41 | 36 | 34 | | | | | | | | | | | | | | | | | | | |
| 7 | 63 | 50 | 41 | 35 | 61 | 49 | 40 | 35 | 46 | 39 | 34 | 44 | 38 | 33 | 42 | 36 | 32 | 30 | | | | | | | | | | | | | | | | | | | |
| 8 | 59 | 45 | 37 | 31 | 57 | 44 | 36 | 31 | 42 | 35 | 30 | 40 | 34 | 29 | 39 | 33 | 29 | 27 | | | | | | | | | | | | | | | | | | | |
| 9 | 55 | 42 | 33 | 28 | 53 | 41 | 33 | 28 | 39 | 32 | 27 | 37 | 31 | 27 | 36 | 30 | 26 | 24 | | | | | | | | | | | | | | | | | | | |
| 10 | 52 | 38 | 30 | 25 | 50 | 38 | 30 | 25 | 36 | 29 | 25 | 35 | 28 | 24 | 33 | 28 | 24 | 22 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 18056 | 18056 | 18056 |
| 5° | 17865 | 17885 | 18016 |
| 10° | 17665 | 17727 | 17997 |
| 15° | 17392 | 17539 | 17950 |
| 20° | 17055 | 17308 | 17847 |
| 25° | 16630 | 17020 | 17744 |
| 30° | 16071 | 16707 | 17645 |
| 35° | 15411 | 16376 | 17578 |
| 40° | 14634 | 15992 | 17523 |
| 45° | 13733 | 15574 | 17436 |
| 50° | 12754 | 15153 | 17322 |
| 55° | 11574 | 14636 | 17055 |
| 60° | 10366 | 14028 | 16381 |
| 65° | 9055 | 13251 | 15171 |
| 70° | 7642 | 12261 | 13876 |
| 75° | 6205 | 11117 | 13195 |
| 80° | 4455 | 10290 | 13823 |
| 85° | 2512 | 10695 | 17328 |



TEST NUMBER: P827191

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

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1081.8 | 3.0 |
| 10°-20° | 3103.7 | 8.6 |
| 20°-30° | 4693.8 | 13.1 |
| 30°-40° | 5634.9 | 15.7 |
| 40°-50° | 5819.9 | 16.2 |
| 50°-60° | 5236.1 | 14.6 |
| 60°-70° | 3944.3 | 11.0 |
| 70°-80° | 2381.7 | 6.6 |
| 80°-90° | 1169.3 | 3.3 |
| 90°-100° | 661.5 | 1.8 |
| 100°-110° | 874.5 | 2.4 |
| 110°-120° | 675.2 | 1.9 |
| 120°-130° | 338.3 | 0.9 |
| 130°-140° | 171.5 | 0.5 |
| 140°-150° | 94.9 | 0.3 |
| 150°-160° | 50.4 | 0.1 |
| 160°-170° | 21.5 | 0.1 |
| 170°-180° | 6.6 | 0.0 |
| 0°-30° | 8879.3 | 24.7 |
| 0°-40° | 14514.2 | 40.4 |
| 0°-60° | 25570.2 | 71.1 |
| 0°-90° | 33065.5 | 92.0 |
| 90°-120° | 2211.2 | 6.1 |
| 90°-150° | 2815.9 | 7.8 |
| 90°-180° | 2894.0 | 8.0 |
| 0°-180° | 35959.9 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 11417 | 11417 | 11417 | 11417 | 11417 | |
| 5° | 11345 | 11375 | 11361 | 11406 | 11392 | ### |
| 15° | 10886 | 10940 | 10990 | 11082 | 11093 | 3069 |
| 25° | 9942 | 10051 | 10193 | 10353 | 10378 | 4573 |
| 35° | 8500 | 8698 | 9056 | 9330 | 9386 | 5314 |
| 45° | 6709 | 7047 | 7637 | 8053 | 8140 | 5179 |
| 55° | 4753 | 5245 | 6041 | 6497 | 6575 | 4261 |
| 65° | 2900 | 3493 | 4275 | 4488 | 4437 | 2882 |
| 75° | 1366 | 1962 | 2476 | 2540 | 2515 | 1458 |
| 85° | 285 | 752 | 1241 | 1411 | 1436 | 329 |
| 90° | 4 | 318 | 744 | 939 | 980 | 21 |
| 95° | 52 | 280 | 660 | 843 | 892 | 131 |
| 105° | 761 | 849 | 933 | 843 | 826 | 723 |
| 115° | 535 | 583 | 708 | 766 | 776 | 540 |
| 125° | 272 | 293 | 384 | 433 | 439 | 255 |
| 135° | 168 | 176 | 215 | 259 | 271 | 133 |
| 145° | 136 | 135 | 141 | 164 | 173 | 85 |
| 155° | 114 | 119 | 117 | 115 | 118 | 49 |
| 165° | 74 | 75 | 75 | 76 | 76 | 21 |
| 175° | 67 | 67 | 68 | 68 | 68 | 6 |
| 180° | 67 | 67 | 67 | 67 | 67 | |



TEST NUMBER: P827191

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

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|----------------|----------------|----------------|----------------|----------------|
| 0° | 11417.3 | 11417.3 | 11417.3 | <i>11417.3</i> | 11417.3 |
| 2.5° | <i>11383.8</i> | <i>11411.7</i> | <i>11394.9</i> | <i>11431.3</i> | <i>11428.5</i> |
| 5° | 11344.6 | 11375.4 | 11361.4 | <i>11406.1</i> | 11392.1 |
| 7.5° | 11277.6 | 11311.1 | 11308.3 | <i>11358.6</i> | 11353.0 |
| 10° | 11179.8 | 11216.1 | 11227.3 | <i>11294.3</i> | 11294.3 |
| 12.5° | 11045.6 | 11093.2 | 11121.1 | <i>11202.1</i> | 11204.9 |
| 15° | 10886.4 | 10939.5 | 10989.8 | <i>11082.0</i> | 11093.2 |
| 17.5° | 10693.6 | 10760.6 | 10830.5 | <i>10936.7</i> | 10950.6 |
| 20° | 10475.6 | 10551.1 | 10646.1 | <i>10757.8</i> | 10774.6 |
| 22.5° | 10224.1 | 10313.6 | 10436.5 | <i>10567.8</i> | 10587.4 |
| 25° | 9941.9 | 10050.9 | 10193.4 | <i>10352.7</i> | 10377.8 |
| 27.5° | 9620.6 | 9746.3 | 9939.1 | <i>10118.0</i> | 10140.3 |
| 30° | 9271.3 | 9419.4 | 9659.7 | <i>9872.1</i> | 9908.4 |
| 32.5° | 8902.5 | 9072.9 | 9369.1 | <i>9606.6</i> | 9656.9 |
| 35° | 8500.1 | 8698.5 | 9056.1 | <i>9330.0</i> | 9385.9 |
| 37.5° | 8103.3 | 8321.3 | 8726.4 | <i>9039.4</i> | 9106.4 |
| 40° | 7639.5 | 7910.5 | 8374.4 | <i>8720.8</i> | 8801.9 |
| 42.5° | 7203.6 | 7497.0 | 8022.3 | <i>8399.5</i> | 8477.7 |
| 45° | 6709.0 | 7047.1 | 7636.7 | <i>8053.0</i> | 8139.6 |
| 47.5° | 6245.1 | 6611.2 | 7265.0 | <i>7695.4</i> | 7784.8 |
| 50° | 5756.1 | 6158.5 | 6868.3 | <i>7318.1</i> | 7410.3 |
| 52.5° | 5267.2 | 5700.3 | 6457.5 | <i>6924.1</i> | 7010.8 |
| 55° | 4753.0 | 5244.8 | 6041.2 | <i>6496.6</i> | 6574.9 |
| 57.5° | 4275.2 | 4794.9 | 5613.6 | <i>6046.7</i> | 6094.2 |
| 60° | 3803.0 | 4342.3 | 5177.7 | <i>5557.8</i> | 5574.5 |
| 62.5° | 3341.9 | 3909.1 | 4730.7 | <i>5032.4</i> | 5010.1 |
| 65° | 2900.4 | 3492.8 | 4275.2 | <i>4487.6</i> | 4437.3 |
| 67.5° | 2475.7 | 3087.6 | 3808.6 | <i>3945.5</i> | 3878.4 |
| 70° | 2073.3 | 2693.7 | 3355.9 | <i>3425.7</i> | 3364.3 |
| 72.5° | 1718.5 | 2319.2 | 2897.6 | <i>2956.3</i> | 2911.6 |
| 75° | 1366.4 | 1961.6 | 2475.7 | <i>2540.0</i> | 2514.8 |
| 77.5° | 1036.7 | 1615.1 | 2087.3 | <i>2171.1</i> | 2176.7 |
| 80° | 746.1 | 1299.3 | 1749.2 | <i>1880.5</i> | 1897.3 |
| 82.5° | 491.8 | 1008.7 | 1467.0 | <i>1634.6</i> | 1659.8 |
| 85° | 285.0 | 751.7 | 1240.6 | <i>1411.1</i> | 1436.2 |
| 87.5° | 122.9 | 542.1 | 997.5 | <i>1151.2</i> | 1182.0 |
| 90° | 4.0 | 318.4 | 743.7 | <i>939.2</i> | 980.5 |
| 92.5° | 21.4 | 276.1 | 664.1 | <i>852.8</i> | 891.5 |
| 95° | 52.0 | 280.4 | 659.9 | <i>843.2</i> | 892.4 |
| 97.5° | 211.8 | 380.7 | 699.1 | <i>871.6</i> | 912.7 |
| 100° | 418.8 | 567.3 | 753.6 | <i>887.9</i> | 916.3 |
| 102.5° | 645.8 | 756.5 | 803.3 | <i>862.7</i> | 876.2 |
| 105° | 760.6 | 848.6 | 933.4 | <i>843.4</i> | 826.1 |



TEST NUMBER: P827191

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

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 624.4 | 681.4 | 806.4 | 863.0 | 849.2 |
| 115° | 535.4 | 583.3 | 708.0 | 766.3 | 776.5 |
| 117.5° | 462.1 | 495.9 | 609.7 | 669.1 | 678.5 |
| 120° | 390.1 | 419.5 | 524.1 | 577.0 | 586.2 |
| 122.5° | 330.1 | 353.1 | 450.3 | 500.4 | 506.8 |
| 125° | 272.4 | 292.7 | 383.6 | 432.9 | 439.2 |
| 127.5° | 231.6 | 246.1 | 327.8 | 377.1 | 383.5 |
| 130° | 203.6 | 213.4 | 280.8 | 329.3 | 338.7 |
| 132.5° | 184.6 | 193.1 | 243.9 | 289.6 | 302.7 |
| 135° | 167.6 | 176.1 | 214.7 | 258.6 | 270.8 |
| 137.5° | 154.6 | 163.1 | 189.5 | 230.6 | 242.8 |
| 140° | 146.4 | 152.1 | 169.1 | 204.7 | 216.8 |
| 142.5° | 140.1 | 143.1 | 151.7 | 183.5 | 192.9 |
| 145° | 135.9 | 135.1 | 140.9 | 164.3 | 172.7 |
| 147.5° | 128.9 | 130.9 | 132.9 | 146.1 | 154.5 |
| 150° | 122.9 | 127.7 | 126.9 | 130.7 | 140.1 |
| 152.5° | 118.9 | 122.7 | 121.9 | 120.1 | 125.7 |
| 155° | 113.9 | 118.7 | 116.9 | 115.1 | 117.9 |
| 157.5° | 83.0 | 84.0 | 85.0 | 86.0 | 86.0 |
| 160° | 80.0 | 80.0 | 81.0 | 82.0 | 82.0 |
| 162.5° | 77.0 | 77.0 | 78.0 | 79.0 | 79.0 |
| 165° | 74.0 | 75.0 | 75.0 | 76.0 | 76.0 |
| 167.5° | 72.0 | 72.0 | 73.0 | 73.0 | 74.0 |
| 170° | 70.0 | 70.0 | 71.0 | 71.0 | 71.0 |
| 172.5° | 68.0 | 69.0 | 69.0 | 69.0 | 69.0 |
| 175° | 67.0 | 67.0 | 68.0 | 68.0 | 68.0 |
| 177.5° | 66.0 | 67.0 | 67.0 | 67.0 | 67.0 |
| 180° | 67.0 | 67.0 | 67.0 | 67.0 | 67.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-------|-------|-------|-------|-------|
| 107.5° | 767.6 | 848.6 | 961.0 | 893.7 | 820.6 |
| 110° | 704.6 | 782.4 | 903.3 | 921.5 | 866.5 |



(END OF REPORT)