

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: P830484

Luminaire Tested: **OHBL-48HE-MFL-UNV-L935-CD**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P830484
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2106-285-1)
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-48HE-MFL-UNV-L935-CD
Description: 48000 LUMEN OHBL HE LED LUMINAIRE WITH 90CRI, 3500K LEDS AND MEDIUM FROSTED LENS
Light Source: -
Ballast/Driver: -

Summary

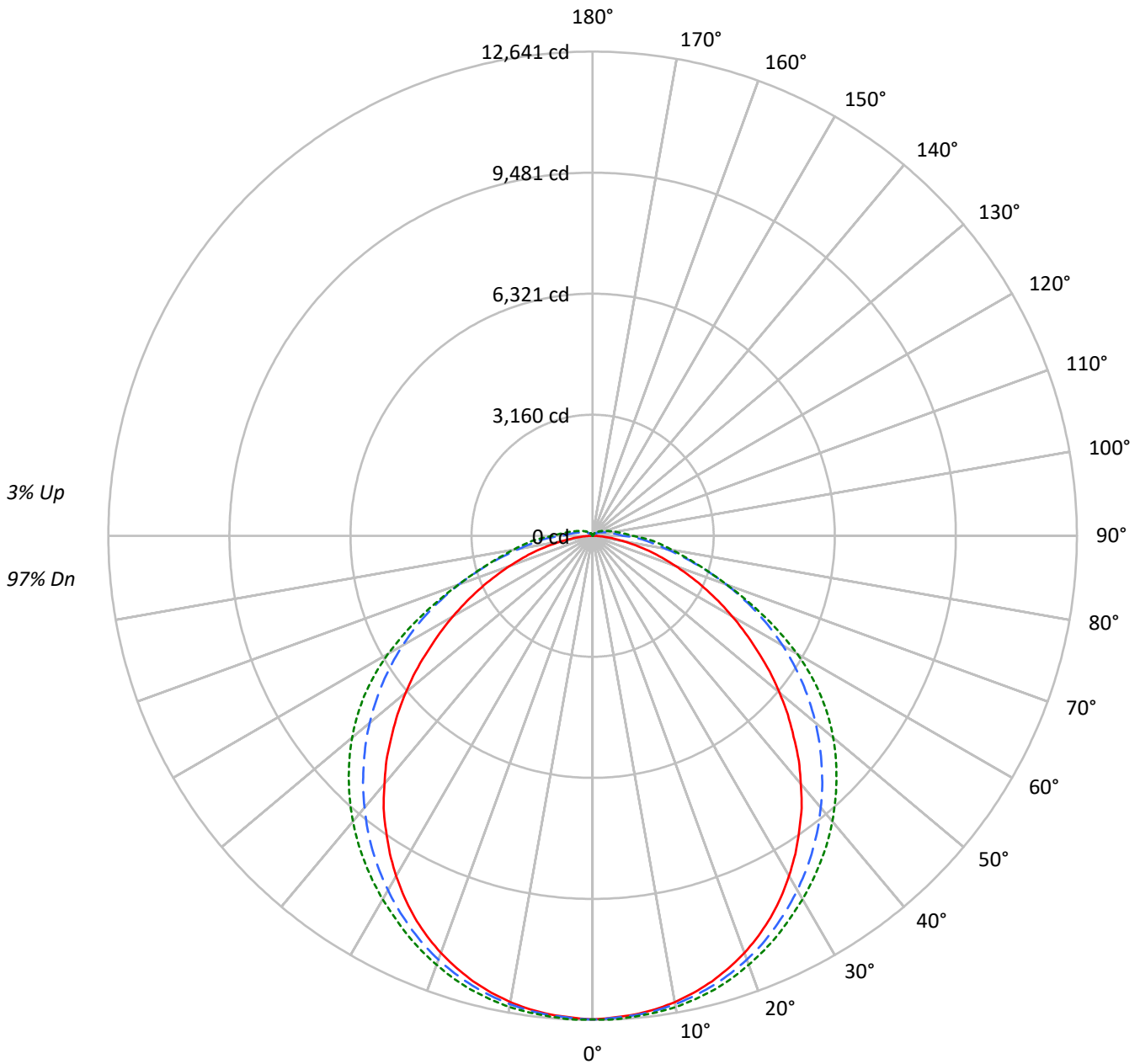
Lumens per Lamp: N/A
Luminaire Lumens: 37796.0 lumens
Efficiency: N/A
Efficacy: 142.1 lumens/watt
Spacing Criteria (0/90/45): 1.21 / 1.29 / 1.38
Luminous Opening: Rectangular w/ Sides (W: 1.8' x L: 3.78' x H: 0.17')
CIE Type: Direct

Input Watts (W): 266
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: P830484

CATALOG NUMBER: OHBL-48HE-MFL-UNV-L935-CD

Luminous Intensity Polar Plot





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CATALOG NUMBER: OHBL-48HE-MFL-UNV-L935-CD

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|
| RF | 20 | | | | 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 | 0 |
| RCR | | | | | | | | | | | | | | | | | | | | | |
| 0 | 118 | 118 | 118 | 118 | 115 | 115 | 115 | 115 | 109 | 109 | 109 | 104 | 104 | 104 | 99 | 99 | 99 | 99 | 99 | 99 | 97 |
| 1 | 107 | 102 | 98 | 94 | 104 | 100 | 96 | 92 | 95 | 91 | 88 | 90 | 88 | 85 | 86 | 84 | 82 | 82 | 82 | 82 | 80 |
| 2 | 98 | 89 | 82 | 76 | 95 | 87 | 80 | 75 | 83 | 77 | 73 | 79 | 74 | 71 | 75 | 72 | 68 | 68 | 68 | 68 | 66 |
| 3 | 89 | 78 | 70 | 63 | 86 | 76 | 69 | 62 | 73 | 66 | 61 | 70 | 64 | 59 | 67 | 62 | 58 | 58 | 58 | 58 | 56 |
| 4 | 81 | 69 | 60 | 53 | 79 | 68 | 59 | 53 | 65 | 57 | 52 | 62 | 56 | 51 | 59 | 54 | 50 | 50 | 50 | 50 | 47 |
| 5 | 75 | 62 | 53 | 46 | 72 | 60 | 52 | 46 | 58 | 50 | 45 | 56 | 49 | 44 | 53 | 48 | 43 | 43 | 43 | 43 | 41 |
| 6 | 69 | 56 | 47 | 40 | 67 | 54 | 46 | 40 | 52 | 45 | 39 | 50 | 44 | 39 | 48 | 43 | 38 | 38 | 38 | 38 | 36 |
| 7 | 64 | 50 | 42 | 35 | 62 | 49 | 41 | 35 | 48 | 40 | 35 | 46 | 39 | 34 | 44 | 38 | 34 | 34 | 34 | 34 | 32 |
| 8 | 60 | 46 | 37 | 31 | 58 | 45 | 37 | 31 | 43 | 36 | 31 | 42 | 35 | 31 | 41 | 35 | 30 | 30 | 30 | 30 | 28 |
| 9 | 56 | 42 | 34 | 28 | 54 | 41 | 34 | 28 | 40 | 33 | 28 | 39 | 32 | 28 | 37 | 32 | 27 | 27 | 27 | 27 | 25 |
| 10 | 52 | 39 | 31 | 26 | 51 | 38 | 31 | 26 | 37 | 30 | 25 | 36 | 29 | 25 | 35 | 29 | 25 | 25 | 25 | 25 | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 19972 | 19972 | 19972 |
| 5° | 19844 | 19783 | 19844 |
| 10° | 19705 | 19609 | 19740 |
| 15° | 19485 | 19400 | 19603 |
| 20° | 19193 | 19145 | 19404 |
| 25° | 18803 | 18826 | 19201 |
| 30° | 18262 | 18481 | 18998 |
| 35° | 17608 | 18114 | 18823 |
| 40° | 16823 | 17689 | 18650 |
| 45° | 15896 | 17227 | 18430 |
| 50° | 14883 | 16761 | 18162 |
| 55° | 13637 | 16189 | 17710 |
| 60° | 12361 | 15517 | 16807 |
| 65° | 10968 | 14658 | 15323 |
| 70° | 9458 | 13562 | 13717 |
| 75° | 7930 | 12297 | 12631 |
| 80° | 6012 | 11382 | 12531 |
| 85° | 3804 | 11830 | 14004 |



TEST NUMBER: P830484

CATALOG NUMBER: OHBL-48HE-MFL-UNV-L935-CD

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1196.6 | 3.2 |
| 10°-20° | 3433.0 | 9.1 |
| 20°-30° | 5191.8 | 13.7 |
| 30°-40° | 6232.9 | 16.5 |
| 40°-50° | 6437.5 | 17.0 |
| 50°-60° | 5791.8 | 15.3 |
| 60°-70° | 4362.9 | 11.5 |
| 70°-80° | 2634.4 | 7.0 |
| 80°-90° | 1288.4 | 3.4 |
| 90°-100° | 542.3 | 1.4 |
| 100°-110° | 309.6 | 0.8 |
| 110°-120° | 181.7 | 0.5 |
| 120°-130° | 102.8 | 0.3 |
| 130°-140° | 54.1 | 0.1 |
| 140°-150° | 26.3 | 0.1 |
| 150°-160° | 9.8 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 9821.5 | 26.0 |
| 0°-40° | 16054.4 | 42.5 |
| 0°-60° | 28283.6 | 74.8 |
| 0°-90° | 36569.4 | 96.8 |
| 90°-120° | 1033.6 | 2.7 |
| 90°-150° | 1216.8 | 3.2 |
| 90°-180° | 1227.0 | 3.2 |
| 0°-180° | 37796.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 12629 | 12629 | 12629 | 12629 | 12629 | |
| 5° | 12548 | 12582 | 12567 | 12616 | 12601 | ### |
| 15° | 12042 | 12100 | 12156 | 12258 | 12270 | 3395 |
| 25° | 10997 | 11118 | 11275 | 11451 | 11479 | 5058 |
| 35° | 9402 | 9622 | 10017 | 10320 | 10382 | 5878 |
| 45° | 7421 | 7795 | 8447 | 8908 | 9003 | 5729 |
| 55° | 5257 | 5801 | 6682 | 7186 | 7273 | 4714 |
| 65° | 3208 | 3864 | 4729 | 4964 | 4908 | 3187 |
| 75° | 1511 | 2170 | 2738 | 2810 | 2782 | 1612 |
| 85° | 315 | 831 | 1372 | 1561 | 1589 | 364 |
| 90° | 0 | 324 | 785 | 989 | 1029 | 20 |
| 95° | 16 | 219 | 587 | 748 | 776 | 13 |
| 105° | 22 | 127 | 340 | 445 | 464 | 22 |
| 115° | 25 | 71 | 210 | 281 | 294 | 25 |
| 125° | 25 | 34 | 127 | 182 | 192 | 22 |
| 135° | 22 | 28 | 65 | 111 | 124 | 17 |
| 145° | 31 | 28 | 31 | 56 | 65 | 18 |
| 155° | 31 | 34 | 31 | 28 | 31 | 10 |
| 165° | 0 | 0 | 0 | 0 | 0 | 0 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P830484

CATALOG NUMBER: OHBL-48HE-MFL-UNV-L935-CD

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|----------------|----------------|----------------|----------------|----------------|
| 0° | 12628.8 | 12628.8 | 12628.8 | <i>12628.8</i> | 12628.8 |
| 2.5° | <i>12591.8</i> | <i>12622.7</i> | <i>12604.1</i> | <i>12644.3</i> | <i>12641.2</i> |
| 5° | 12548.5 | 12582.5 | 12567.0 | <i>12616.5</i> | 12601.0 |
| 7.5° | 12474.3 | 12511.4 | 12508.3 | <i>12563.9</i> | 12557.8 |
| 10° | 12366.1 | 12406.3 | 12418.7 | <i>12492.9</i> | 12492.9 |
| 12.5° | 12217.8 | 12270.3 | 12301.2 | <i>12390.9</i> | 12393.9 |
| 15° | 12041.6 | 12100.3 | 12156.0 | <i>12258.0</i> | 12270.3 |
| 17.5° | 11828.3 | 11902.5 | 11979.8 | <i>12097.2</i> | 12112.7 |
| 20° | 11587.3 | 11670.7 | 11775.8 | <i>11899.4</i> | 11918.0 |
| 22.5° | 11309.1 | 11408.0 | 11544.0 | <i>11689.3</i> | 11710.9 |
| 25° | 10996.9 | 11117.5 | 11275.1 | <i>11451.3</i> | 11479.1 |
| 27.5° | 10641.5 | 10780.6 | 10993.8 | <i>11191.6</i> | 11216.4 |
| 30° | 10255.1 | 10419.0 | 10684.8 | <i>10919.7</i> | 10959.8 |
| 32.5° | 9847.2 | 10035.7 | 10363.3 | <i>10626.0</i> | 10681.7 |
| 35° | 9402.1 | 9621.5 | 10017.2 | <i>10320.0</i> | 10381.9 |
| 37.5° | 8963.2 | 9204.3 | 9652.4 | <i>9998.6</i> | 10072.8 |
| 40° | 8450.1 | 8749.9 | 9263.0 | <i>9646.3</i> | 9735.9 |
| 42.5° | 7968.0 | 8292.5 | 8873.6 | <i>9290.8</i> | 9377.4 |
| 45° | 7420.9 | 7794.9 | 8447.0 | <i>8907.6</i> | 9003.4 |
| 47.5° | 6907.8 | 7312.7 | 8036.0 | <i>8512.0</i> | 8610.9 |
| 50° | 6367.0 | 6812.0 | 7597.1 | <i>8094.7</i> | 8196.7 |
| 52.5° | 5826.1 | 6305.2 | 7142.7 | <i>7658.9</i> | 7754.7 |
| 55° | 5257.4 | 5801.4 | 6682.2 | <i>7186.0</i> | 7272.6 |
| 57.5° | 4728.9 | 5303.7 | 6209.3 | <i>6688.4</i> | 6740.9 |
| 60° | 4206.5 | 4803.0 | 5727.2 | <i>6147.5</i> | 6166.1 |
| 62.5° | 3696.5 | 4324.0 | 5232.7 | <i>5566.5</i> | 5541.7 |
| 65° | 3208.2 | 3863.5 | 4728.9 | <i>4963.8</i> | 4908.1 |
| 67.5° | 2738.4 | 3415.3 | 4212.7 | <i>4364.2</i> | 4290.0 |
| 70° | 2293.3 | 2979.5 | 3712.0 | <i>3789.3</i> | 3721.3 |
| 72.5° | 1900.8 | 2565.3 | 3205.1 | <i>3270.0</i> | 3220.6 |
| 75° | 1511.4 | 2169.7 | 2738.4 | <i>2809.5</i> | 2781.7 |
| 77.5° | 1146.7 | 1786.5 | 2308.8 | <i>2401.5</i> | 2407.7 |
| 80° | 825.2 | 1437.2 | 1934.8 | <i>2080.1</i> | 2098.6 |
| 82.5° | 544.0 | 1115.8 | 1622.6 | <i>1808.1</i> | 1835.9 |
| 85° | 315.3 | 831.4 | 1372.3 | <i>1560.8</i> | 1588.7 |
| 87.5° | 136.0 | 599.6 | 1103.4 | <i>1273.4</i> | 1307.4 |
| 90° | 0.0 | 324.5 | 785.1 | <i>989.0</i> | 1029.2 |
| 92.5° | 9.3 | 268.9 | 673.8 | <i>859.2</i> | 893.2 |
| 95° | 15.5 | 219.4 | 587.2 | <i>748.0</i> | 775.8 |
| 97.5° | 18.5 | 185.4 | 510.0 | <i>652.2</i> | 680.0 |
| 100° | 18.5 | 160.7 | 442.0 | <i>571.8</i> | 596.5 |
| 102.5° | 18.5 | 142.2 | 386.3 | <i>500.7</i> | 522.3 |
| 105° | 21.6 | 126.7 | 340.0 | <i>445.1</i> | 463.6 |



TEST NUMBER: P830484

CATALOG NUMBER: OHBL-48HE-MFL-UNV-L935-CD

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|------|-------|-------|-------|-------|
| 112.5° | 24.7 | 83.5 | 234.9 | 315.3 | 327.6 |
| 115° | 24.7 | 71.1 | 210.2 | 281.3 | 293.6 |
| 117.5° | 27.8 | 61.8 | 185.4 | 253.4 | 262.7 |
| 120° | 27.8 | 52.5 | 163.8 | 225.6 | 238.0 |
| 122.5° | 27.8 | 43.3 | 145.3 | 204.0 | 213.3 |
| 125° | 24.7 | 34.0 | 126.7 | 182.4 | 191.6 |
| 127.5° | 21.6 | 27.8 | 108.2 | 163.8 | 173.1 |
| 130° | 21.6 | 24.7 | 92.7 | 145.3 | 154.5 |
| 132.5° | 21.6 | 27.8 | 77.3 | 126.7 | 139.1 |
| 135° | 21.6 | 27.8 | 64.9 | 111.3 | 123.6 |
| 137.5° | 21.6 | 27.8 | 52.5 | 95.8 | 108.2 |
| 140° | 24.7 | 27.8 | 43.3 | 80.4 | 92.7 |
| 142.5° | 27.8 | 27.8 | 34.0 | 68.0 | 77.3 |
| 145° | 30.9 | 27.8 | 30.9 | 55.6 | 64.9 |
| 147.5° | 30.9 | 30.9 | 30.9 | 43.3 | 52.5 |
| 150° | 30.9 | 34.0 | 30.9 | 34.0 | 43.3 |
| 152.5° | 30.9 | 34.0 | 30.9 | 27.8 | 34.0 |
| 155° | 30.9 | 34.0 | 30.9 | 27.8 | 30.9 |
| 157.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 160° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 162.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 165° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|------|-------|-------|-------|-------|
| 107.5° | 21.6 | 111.3 | 299.8 | 395.6 | 411.1 |
| 110° | 21.6 | 98.9 | 265.8 | 352.3 | 367.8 |



(END OF REPORT)