

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: P828043

Luminaire Tested: **OHBL-24HE-W-UNV-L935-CD-UPL24**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P828043
REPORT IS A COMBINATION OF REPORTS P826244 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-24HE-W-UNV-L935-CD-UPL24
Description:
Light Source: -
Ballast/Driver: -

Summary

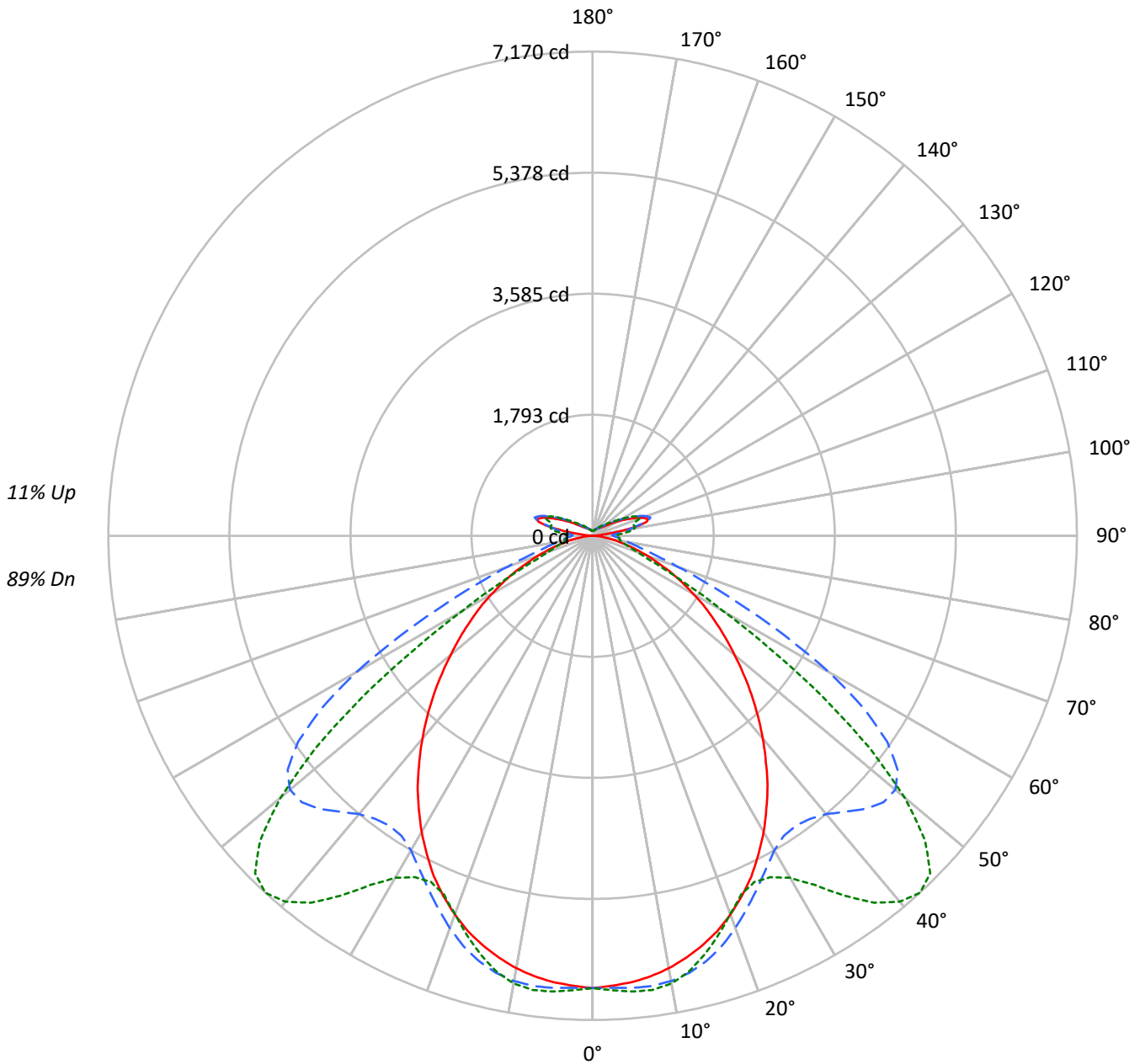
Lumens per Lamp: N/A
Luminaire Lumens: 22071.1 lumens
Efficiency: N/A
Efficacy: 146.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.58 / 1.62
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.8' x H: 0.17')
CIE Type: Semi-Direct

Input Watts (W): 150.4
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: P828043

CATALOG NUMBER: OHBL-24HE-W-UNV-L935-CD-UPL24

Luminous Intensity Polar Plot





TEST NUMBER: P828043

CATALOG NUMBER: OHBL-24HE-W-UNV-L935-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 | 112 | 112 | 112 | 112 | 105 | 105 | 105 | 98 | 98 | 98 | 92 | 92 | 92 | 89 | | | | | | | | | | | | | | | | | | | |
| 1 | 107 | 102 | 98 | 94 | 103 | 99 | 95 | 92 | 93 | 90 | 87 | 87 | 84 | 82 | 82 | 80 | 78 | 75 | | | | | | | | | | | | | | | | | | | |
| 2 | 97 | 89 | 83 | 77 | 94 | 87 | 81 | 76 | 81 | 76 | 72 | 76 | 72 | 69 | 72 | 69 | 66 | 63 | | | | | | | | | | | | | | | | | | | |
| 3 | 89 | 79 | 71 | 64 | 85 | 76 | 69 | 63 | 72 | 66 | 61 | 67 | 62 | 58 | 64 | 59 | 56 | 53 | | | | | | | | | | | | | | | | | | | |
| 4 | 81 | 70 | 61 | 55 | 78 | 67 | 60 | 54 | 64 | 57 | 52 | 60 | 54 | 50 | 57 | 52 | 48 | 46 | | | | | | | | | | | | | | | | | | | |
| 5 | 74 | 62 | 53 | 47 | 72 | 60 | 52 | 46 | 57 | 50 | 44 | 54 | 48 | 43 | 51 | 46 | 42 | 39 | | | | | | | | | | | | | | | | | | | |
| 6 | 69 | 56 | 47 | 41 | 66 | 54 | 46 | 40 | 51 | 44 | 39 | 48 | 42 | 38 | 46 | 41 | 36 | 34 | | | | | | | | | | | | | | | | | | | |
| 7 | 63 | 50 | 42 | 36 | 61 | 49 | 41 | 35 | 46 | 39 | 34 | 44 | 38 | 33 | 42 | 36 | 32 | 30 | | | | | | | | | | | | | | | | | | | |
| 8 | 59 | 46 | 37 | 31 | 57 | 44 | 37 | 31 | 42 | 35 | 30 | 40 | 34 | 29 | 38 | 33 | 29 | 27 | | | | | | | | | | | | | | | | | | | |
| 9 | 55 | 42 | 34 | 28 | 53 | 41 | 33 | 28 | 39 | 32 | 27 | 37 | 31 | 26 | 35 | 30 | 26 | 24 | | | | | | | | | | | | | | | | | | | |
| 10 | 51 | 38 | 31 | 25 | 50 | 37 | 30 | 25 | 36 | 29 | 24 | 34 | 28 | 24 | 32 | 27 | 23 | 21 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 10592 | 10592 | 10592 |
| 5° | 10449 | 10582 | 10713 |
| 10° | 10275 | 10571 | 10726 |
| 15° | 10031 | 10401 | 10382 |
| 20° | 9714 | 10048 | 9873 |
| 25° | 9306 | 9620 | 9676 |
| 30° | 8780 | 9303 | 10412 |
| 35° | 8187 | 9480 | 12184 |
| 40° | 7510 | 10273 | 14085 |
| 45° | 6806 | 11661 | 15140 |
| 50° | 6077 | 12905 | 14089 |
| 55° | 5391 | 12901 | 10765 |
| 60° | 4695 | 10927 | 6582 |
| 65° | 3966 | 7556 | 3987 |
| 70° | 3153 | 4894 | 2878 |
| 75° | 2323 | 3517 | 2669 |
| 80° | 1579 | 3102 | 3010 |
| 85° | 956 | 3438 | 4760 |



TEST NUMBER: P828043

CATALOG NUMBER: OHBL-24HE-W-UNV-L935-CD-UPL24

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 640.0 | 2.9 |
| 10°-20° | 1812.4 | 8.2 |
| 20°-30° | 2652.2 | 12.0 |
| 30°-40° | 3444.4 | 15.6 |
| 40°-50° | 4206.0 | 19.1 |
| 50°-60° | 3704.0 | 16.8 |
| 60°-70° | 1930.2 | 8.7 |
| 70°-80° | 827.7 | 3.8 |
| 80°-90° | 402.7 | 1.8 |
| 90°-100° | 380.0 | 1.7 |
| 100°-110° | 786.8 | 3.6 |
| 110°-120° | 644.0 | 2.9 |
| 120°-130° | 313.3 | 1.4 |
| 130°-140° | 156.9 | 0.7 |
| 140°-150° | 89.1 | 0.4 |
| 150°-160° | 49.8 | 0.2 |
| 160°-170° | 24.2 | 0.1 |
| 170°-180° | 7.4 | 0.0 |
| 0°-30° | 5104.6 | 23.1 |
| 0°-40° | 8549.0 | 38.7 |
| 0°-60° | 16459.1 | 74.6 |
| 0°-90° | 19619.7 | 88.9 |
| 90°-120° | 1810.8 | 8.2 |
| 90°-150° | 2370.1 | 10.7 |
| 90°-180° | 2451.0 | 11.1 |
| 0°-180° | 22071.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|------|-------|------|-------|------|------|
| 0° | 6698 | 6698 | 6698 | 6698 | 6698 | |
| 5° | 6636 | 6686 | 6722 | 6782 | 6774 | 629 |
| 15° | 6279 | 6455 | 6517 | 6468 | 6416 | 1768 |
| 25° | 5563 | 5861 | 5761 | 5653 | 5659 | 2553 |
| 35° | 4516 | 4993 | 5243 | 6114 | 6506 | 2815 |
| 45° | 3325 | 4183 | 5718 | 6923 | 7068 | 2564 |
| 55° | 2214 | 3665 | 5325 | 4669 | 4150 | 1987 |
| 65° | 1270 | 2539 | 2438 | 1355 | 1166 | 1257 |
| 75° | 512 | 1188 | 783 | 536 | 509 | 558 |
| 85° | 108 | 423 | 399 | 390 | 394 | 121 |
| 90° | 6 | 182 | 302 | 352 | 365 | 11 |
| 95° | 47 | 182 | 353 | 436 | 468 | 139 |
| 105° | 842 | 877 | 839 | 664 | 626 | 799 |
| 115° | 585 | 611 | 666 | 683 | 681 | 591 |
| 125° | 292 | 311 | 352 | 365 | 364 | 273 |
| 135° | 175 | 179 | 199 | 216 | 220 | 138 |
| 145° | 132 | 133 | 137 | 146 | 150 | 84 |
| 155° | 108 | 110 | 109 | 110 | 110 | 49 |
| 165° | 83 | 84 | 85 | 85 | 85 | 24 |
| 175° | 75 | 76 | 76 | 77 | 77 | 7 |
| 180° | 75 | 75 | 75 | 75 | 75 | |



TEST NUMBER: P828043

CATALOG NUMBER: OHBL-24HE-W-UNV-L935-CD-UPL24

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 0° | 6697.8 | 6697.8 | 6697.8 | 6697.8 | 6697.8 |
| 2.5° | 6668.8 | 6697.8 | 6699.2 | 6739.7 | 6735.3 |
| 5° | 6635.6 | 6686.2 | 6722.2 | 6781.5 | 6774.3 |
| 7.5° | 6580.7 | 6660.2 | 6723.8 | 6788.8 | 6783.0 |
| 10° | 6502.7 | 6611.0 | 6694.8 | 6748.3 | 6731.0 |
| 12.5° | 6401.5 | 6544.6 | 6626.9 | 6638.5 | 6605.2 |
| 15° | 6278.7 | 6455.0 | 6517.1 | 6468.0 | 6415.9 |
| 17.5° | 6139.9 | 6346.6 | 6368.2 | 6261.3 | 6196.3 |
| 20° | 5966.5 | 6202.1 | 6180.4 | 6033.0 | 5960.8 |
| 22.5° | 5774.3 | 6043.2 | 5973.8 | 5819.2 | 5749.8 |
| 25° | 5563.4 | 5861.1 | 5761.3 | 5653.0 | 5658.8 |
| 27.5° | 5316.2 | 5654.4 | 5557.6 | 5606.8 | 5699.2 |
| 30° | 5064.8 | 5437.7 | 5378.4 | 5664.5 | 5846.6 |
| 32.5° | 4788.8 | 5215.1 | 5268.6 | 5833.6 | 6131.2 |
| 35° | 4515.8 | 4992.6 | 5242.6 | 6113.9 | 6505.5 |
| 37.5° | 4213.8 | 4767.2 | 5284.5 | 6437.6 | 6848.0 |
| 40° | 3920.3 | 4547.5 | 5379.8 | 6728.1 | 7074.9 |
| 42.5° | 3621.2 | 4351.0 | 5540.2 | 6900.0 | 7170.2 |
| 45° | 3325.0 | 4183.3 | 5718.0 | 6923.2 | 7067.7 |
| 47.5° | 3028.8 | 4041.8 | 5840.8 | 6739.7 | 6673.2 |
| 50° | 2742.7 | 3916.0 | 5849.5 | 6298.9 | 6027.2 |
| 52.5° | 2475.3 | 3800.4 | 5690.5 | 5596.6 | 5174.7 |
| 55° | 2213.8 | 3664.6 | 5324.9 | 4668.9 | 4150.2 |
| 57.5° | 1975.3 | 3476.8 | 4761.4 | 3671.8 | 3105.3 |
| 60° | 1722.5 | 3222.4 | 4033.1 | 2686.3 | 2239.8 |
| 62.5° | 1489.8 | 2906.0 | 3216.7 | 1869.8 | 1609.8 |
| 65° | 1270.2 | 2538.9 | 2437.8 | 1355.4 | 1166.2 |
| 67.5° | 1037.5 | 2158.9 | 1799.1 | 988.4 | 867.0 |
| 70° | 855.5 | 1806.2 | 1339.6 | 768.8 | 697.9 |
| 72.5° | 669.1 | 1471.1 | 1001.4 | 624.2 | 585.2 |
| 75° | 511.5 | 1187.8 | 783.2 | 536.1 | 508.7 |
| 77.5° | 377.2 | 939.2 | 630.0 | 474.0 | 448.0 |
| 80° | 264.4 | 739.8 | 527.4 | 423.4 | 413.2 |
| 82.5° | 177.8 | 572.3 | 449.4 | 403.2 | 404.6 |
| 85° | 108.4 | 423.4 | 398.8 | 390.2 | 394.5 |
| 87.5° | 52.0 | 300.6 | 342.5 | 355.5 | 359.8 |
| 90° | 5.6 | 181.5 | 302.2 | 352.2 | 365.3 |
| 92.5° | 14.2 | 154.6 | 291.2 | 353.8 | 371.8 |
| 95° | 47.1 | 182.1 | 352.8 | 435.7 | 467.9 |
| 97.5° | 227.1 | 316.2 | 448.7 | 541.2 | 573.1 |
| 100° | 464.3 | 551.9 | 561.8 | 620.4 | 632.3 |
| 102.5° | 715.2 | 763.0 | 665.2 | 643.8 | 640.0 |
| 105° | 841.6 | 877.3 | 839.2 | 664.1 | 626.2 |



TEST NUMBER: P828043

CATALOG NUMBER: OHBL-24HE-W-UNV-L935-CD-UPL24

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 682.0 | 718.0 | 765.3 | 766.4 | 742.7 |
| 115° | 585.3 | 611.4 | 666.3 | 683.4 | 681.3 |
| 117.5° | 503.4 | 520.2 | 571.2 | 587.7 | 590.0 |
| 120° | 418.4 | 439.2 | 488.6 | 501.8 | 498.2 |
| 122.5° | 352.6 | 369.8 | 413.8 | 428.1 | 424.5 |
| 125° | 291.8 | 311.1 | 351.7 | 365.2 | 364.2 |
| 127.5° | 247.0 | 259.3 | 299.4 | 314.7 | 315.3 |
| 130° | 216.2 | 222.8 | 257.2 | 272.5 | 276.2 |
| 132.5° | 192.8 | 198.7 | 224.8 | 242.5 | 244.6 |
| 135° | 175.3 | 178.7 | 198.9 | 216.5 | 219.7 |
| 137.5° | 161.2 | 163.7 | 178.8 | 195.8 | 198.7 |
| 140° | 148.7 | 152.0 | 161.9 | 178.1 | 180.3 |
| 142.5° | 139.2 | 141.2 | 148.8 | 162.1 | 163.5 |
| 145° | 132.4 | 132.8 | 136.8 | 146.2 | 150.0 |
| 147.5° | 124.9 | 126.8 | 128.4 | 135.9 | 137.3 |
| 150° | 119.1 | 120.8 | 120.3 | 124.1 | 127.8 |
| 152.5° | 113.3 | 114.9 | 114.5 | 115.3 | 118.3 |
| 155° | 108.3 | 109.9 | 108.7 | 109.5 | 109.5 |
| 157.5° | 92.5 | 94.2 | 95.8 | 96.7 | 96.7 |
| 160° | 89.2 | 90.0 | 91.7 | 92.5 | 92.5 |
| 162.5° | 85.8 | 86.7 | 87.5 | 88.3 | 88.3 |
| 165° | 83.3 | 84.2 | 85.0 | 85.0 | 85.0 |
| 167.5° | 80.8 | 80.8 | 81.7 | 82.5 | 82.5 |
| 170° | 78.3 | 79.2 | 79.2 | 80.0 | 80.0 |
| 172.5° | 76.7 | 77.5 | 77.5 | 77.5 | 78.3 |
| 175° | 75.0 | 75.8 | 75.8 | 76.7 | 76.7 |
| 177.5° | 75.0 | 75.0 | 75.0 | 75.0 | 75.0 |
| 180° | 75.0 | 75.0 | 75.0 | 75.0 | 75.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-------|-------|-------|-------|-------|
| 107.5° | 846.4 | 887.3 | 898.9 | 753.4 | 654.7 |
| 110° | 781.4 | 820.7 | 851.1 | 810.1 | 731.2 |



(END OF REPORT)