

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: P828422

Luminaire Tested: **OHBL-48SE-W-UNV-L940-CD-UPL24**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P828422
REPORT IS A COMBINATION OF REPORTS P826262 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-48SE-W-UNV-L940-CD-UPL24
Description:
Light Source: -
Ballast/Driver: -

Summary

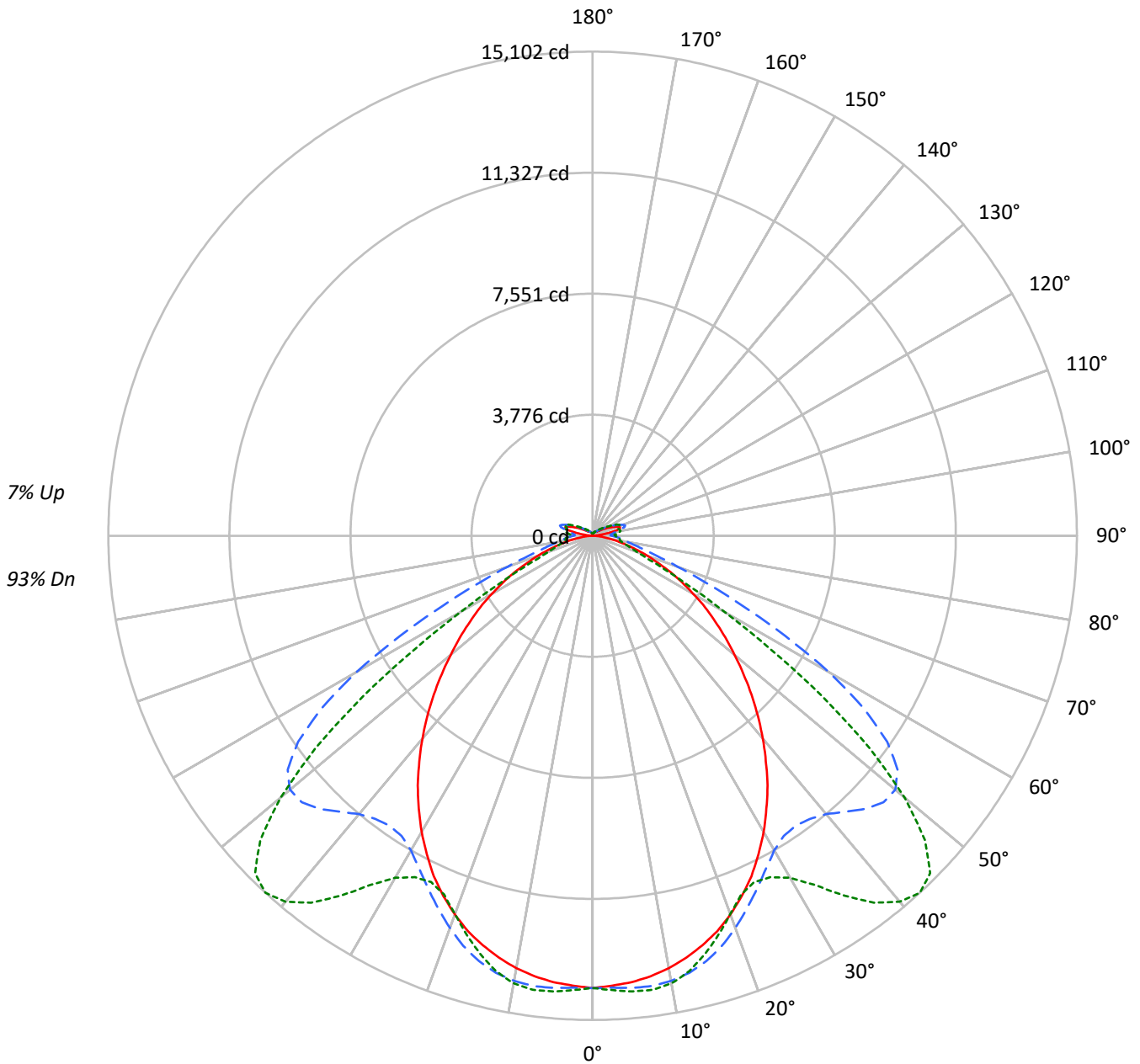
Lumens per Lamp: N/A
Luminaire Lumens: 44341.0 lumens
Efficiency: N/A
Efficacy: 144.8 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.58 / 1.62
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.67' x H: 0.17')
CIE Type: Direct

Input Watts (W): 306.2
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: P828422

CATALOG NUMBER: OHBL-48SE-W-UNV-L940-CD-UPL24

Luminous Intensity Polar Plot





TEST NUMBER: P828422

CATALOG NUMBER: OHBL-48SE-W-UNV-L940-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 | 117 | 117 | 117 | 117 | 114 | 114 | 114 | 114 | 107 | 107 | 107 | 101 | 101 | 101 | 96 | 96 | 96 | 93 | | | | | | | | | | | | | | | | | | | |
| 1 | 108 | 103 | 99 | 95 | 104 | 100 | 96 | 93 | 95 | 92 | 89 | 90 | 87 | 85 | 85 | 83 | 81 | 79 | | | | | | | | | | | | | | | | | | | |
| 2 | 98 | 90 | 84 | 78 | 95 | 88 | 82 | 77 | 83 | 78 | 74 | 79 | 75 | 71 | 75 | 72 | 69 | 66 | | | | | | | | | | | | | | | | | | | |
| 3 | 90 | 79 | 71 | 65 | 87 | 77 | 70 | 64 | 73 | 67 | 62 | 70 | 65 | 60 | 66 | 62 | 58 | 56 | | | | | | | | | | | | | | | | | | | |
| 4 | 82 | 70 | 62 | 55 | 79 | 68 | 60 | 54 | 65 | 58 | 53 | 62 | 56 | 51 | 59 | 54 | 50 | 48 | | | | | | | | | | | | | | | | | | | |
| 5 | 75 | 63 | 54 | 47 | 73 | 61 | 53 | 47 | 58 | 51 | 46 | 56 | 49 | 44 | 53 | 48 | 43 | 41 | | | | | | | | | | | | | | | | | | | |
| 6 | 69 | 56 | 47 | 41 | 67 | 55 | 47 | 41 | 52 | 45 | 40 | 50 | 44 | 39 | 48 | 42 | 38 | 36 | | | | | | | | | | | | | | | | | | | |
| 7 | 64 | 51 | 42 | 36 | 62 | 50 | 41 | 36 | 47 | 40 | 35 | 45 | 39 | 34 | 44 | 38 | 33 | 31 | | | | | | | | | | | | | | | | | | | |
| 8 | 60 | 46 | 38 | 32 | 58 | 45 | 37 | 32 | 43 | 36 | 31 | 41 | 35 | 30 | 40 | 34 | 30 | 28 | | | | | | | | | | | | | | | | | | | |
| 9 | 55 | 42 | 34 | 28 | 54 | 41 | 34 | 28 | 40 | 33 | 28 | 38 | 32 | 27 | 37 | 31 | 27 | 25 | | | | | | | | | | | | | | | | | | | |
| 10 | 52 | 39 | 31 | 26 | 50 | 38 | 31 | 25 | 37 | 30 | 25 | 35 | 29 | 25 | 34 | 28 | 24 | 22 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 24093 | 24093 | 24093 |
| 5° | 23753 | 24060 | 24368 |
| 10° | 23341 | 24023 | 24397 |
| 15° | 22772 | 23625 | 23615 |
| 20° | 22038 | 22813 | 22458 |
| 25° | 21098 | 21830 | 22008 |
| 30° | 19889 | 21099 | 23682 |
| 35° | 18533 | 21489 | 27713 |
| 40° | 16984 | 23273 | 32038 |
| 45° | 15377 | 26399 | 34437 |
| 50° | 13714 | 29191 | 32047 |
| 55° | 12149 | 29154 | 24486 |
| 60° | 10563 | 24663 | 14971 |
| 65° | 8902 | 17029 | 9068 |
| 70° | 7058 | 11007 | 6548 |
| 75° | 5177 | 7886 | 6071 |
| 80° | 3496 | 6925 | 6849 |
| 85° | 2087 | 7604 | 10826 |



TEST NUMBER: P828422

CATALOG NUMBER: OHBL-48SE-W-UNV-L940-CD-UPL24

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1348.0 | 3.0 |
| 10°-20° | 3817.2 | 8.6 |
| 20°-30° | 5585.8 | 12.6 |
| 30°-40° | 7254.3 | 16.4 |
| 40°-50° | 8858.4 | 20.0 |
| 50°-60° | 7801.2 | 17.6 |
| 60°-70° | 4065.3 | 9.2 |
| 70°-80° | 1743.3 | 3.9 |
| 80°-90° | 842.6 | 1.9 |
| 90°-100° | 594.9 | 1.3 |
| 100°-110° | 944.3 | 2.1 |
| 110°-120° | 744.9 | 1.7 |
| 120°-130° | 366.6 | 0.8 |
| 130°-140° | 183.5 | 0.4 |
| 140°-150° | 102.5 | 0.2 |
| 150°-160° | 55.3 | 0.1 |
| 160°-170° | 25.2 | 0.1 |
| 170°-180° | 7.7 | 0.0 |
| 0°-30° | 10751.0 | 24.2 |
| 0°-40° | 18005.3 | 40.6 |
| 0°-60° | 34665.0 | 78.2 |
| 0°-90° | 41316.1 | 93.2 |
| 90°-120° | 2284.1 | 5.2 |
| 90°-150° | 2936.6 | 6.6 |
| 90°-180° | 3025.0 | 6.8 |
| 0°-180° | 44341.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 14106 | 14106 | 14106 | 14106 | 14106 | |
| 5° | 13975 | 14082 | 14158 | 14283 | 14268 | ### |
| 15° | 13224 | 13595 | 13726 | 13622 | 13513 | 3723 |
| 25° | 11717 | 12344 | 12134 | 11906 | 11918 | 5377 |
| 35° | 9511 | 10515 | 11042 | 12877 | 13702 | 5928 |
| 45° | 7003 | 8811 | 12043 | 14581 | 14885 | 5400 |
| 55° | 4663 | 7718 | 11215 | 9833 | 8741 | 4185 |
| 65° | 2675 | 5347 | 5134 | 2855 | 2456 | 2647 |
| 75° | 1077 | 2502 | 1650 | 1129 | 1071 | 1175 |
| 85° | 228 | 892 | 840 | 822 | 831 | 254 |
| 90° | 7 | 352 | 595 | 687 | 708 | 19 |
| 95° | 52 | 285 | 591 | 716 | 757 | 148 |
| 105° | 884 | 969 | 1020 | 866 | 830 | 840 |
| 115° | 620 | 669 | 784 | 822 | 823 | 626 |
| 125° | 315 | 340 | 419 | 449 | 449 | 294 |
| 135° | 192 | 196 | 232 | 267 | 272 | 152 |
| 145° | 150 | 148 | 154 | 173 | 180 | 94 |
| 155° | 125 | 127 | 123 | 124 | 124 | 55 |
| 165° | 87 | 88 | 89 | 89 | 89 | 25 |
| 175° | 78 | 79 | 79 | 80 | 80 | 8 |
| 180° | 78 | 78 | 78 | 78 | 78 | |



TEST NUMBER: P828422

CATALOG NUMBER: OHBL-48SE-W-UNV-L940-CD-UPL24

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|---------|---------|---------|---------|---------|
| 0° | 14106.3 | 14106.3 | 14106.3 | 14106.3 | 14106.3 |
| 2.5° | 14045.4 | 14106.3 | 14109.3 | 14194.6 | 14185.4 |
| 5° | 13975.4 | 14082.0 | 14158.0 | 14282.8 | 14267.6 |
| 7.5° | 13859.8 | 14027.2 | 14161.1 | 14298.0 | 14285.8 |
| 10° | 13695.4 | 13923.7 | 14100.2 | 14212.8 | 14176.3 |
| 12.5° | 13482.4 | 13783.7 | 13957.2 | 13981.5 | 13911.5 |
| 15° | 13223.7 | 13595.0 | 13725.8 | 13622.4 | 13512.8 |
| 17.5° | 12931.5 | 13366.8 | 13412.4 | 13187.2 | 13050.2 |
| 20° | 12566.3 | 13062.4 | 13016.7 | 12706.3 | 12554.2 |
| 22.5° | 12161.5 | 12727.6 | 12581.6 | 12255.9 | 12109.8 |
| 25° | 11717.2 | 12344.1 | 12134.1 | 11905.9 | 11918.1 |
| 27.5° | 11196.8 | 11909.0 | 11705.1 | 11808.5 | 12003.3 |
| 30° | 10667.2 | 11452.4 | 11327.6 | 11930.3 | 12313.7 |
| 32.5° | 10085.9 | 10983.8 | 11096.4 | 12286.3 | 12913.2 |
| 35° | 9510.7 | 10515.1 | 11041.6 | 12876.7 | 13701.5 |
| 37.5° | 8874.7 | 10040.3 | 11129.8 | 13558.5 | 14422.8 |
| 40° | 8256.9 | 9577.7 | 11330.7 | 14170.2 | 14900.6 |
| 42.5° | 7626.9 | 9163.8 | 11668.6 | 14532.4 | 15101.5 |
| 45° | 7002.9 | 8810.7 | 12042.8 | 14581.1 | 14885.4 |
| 47.5° | 6379.0 | 8512.5 | 12301.5 | 14194.6 | 14054.6 |
| 50° | 5776.4 | 8247.7 | 12319.8 | 13266.3 | 12694.1 |
| 52.5° | 5213.4 | 8004.2 | 11985.0 | 11787.2 | 10898.5 |
| 55° | 4662.6 | 7718.1 | 11215.1 | 9833.3 | 8740.7 |
| 57.5° | 4160.4 | 7322.5 | 10028.1 | 7733.4 | 6540.3 |
| 60° | 3627.8 | 6786.9 | 8494.2 | 5657.7 | 4717.3 |
| 62.5° | 3137.7 | 6120.4 | 6774.7 | 3938.2 | 3390.4 |
| 65° | 2675.2 | 5347.3 | 5134.2 | 2854.7 | 2456.0 |
| 67.5° | 2185.2 | 4546.8 | 3789.0 | 2081.7 | 1826.1 |
| 70° | 1801.7 | 3804.3 | 2821.3 | 1619.1 | 1470.0 |
| 72.5° | 1409.1 | 3098.2 | 2109.1 | 1314.8 | 1232.6 |
| 75° | 1077.4 | 2501.7 | 1649.5 | 1129.1 | 1071.3 |
| 77.5° | 794.3 | 1978.2 | 1326.9 | 998.2 | 943.4 |
| 80° | 557.0 | 1558.2 | 1110.9 | 891.7 | 870.4 |
| 82.5° | 374.4 | 1205.2 | 946.5 | 849.1 | 852.1 |
| 85° | 228.2 | 891.7 | 840.0 | 821.7 | 830.8 |
| 87.5° | 109.6 | 633.0 | 721.3 | 748.7 | 757.8 |
| 90° | 7.4 | 352.1 | 594.8 | 686.9 | 708.2 |
| 92.5° | 14.8 | 285.6 | 549.6 | 654.8 | 681.3 |
| 95° | 52.2 | 285.2 | 590.9 | 715.6 | 756.9 |
| 97.5° | 240.0 | 408.2 | 667.8 | 804.3 | 842.1 |
| 100° | 489.1 | 643.4 | 764.3 | 863.9 | 880.8 |
| 102.5° | 750.8 | 856.0 | 853.8 | 865.2 | 864.3 |
| 105° | 884.2 | 969.0 | 1019.9 | 866.4 | 829.9 |



TEST NUMBER: P828422

CATALOG NUMBER: OHBL-48SE-W-UNV-L940-CD-UPL24

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 720.8 | 786.0 | 899.9 | 922.5 | 900.7 |
| 115° | 619.9 | 668.6 | 784.2 | 822.1 | 822.9 |
| 117.5° | 536.0 | 570.4 | 674.3 | 709.9 | 713.8 |
| 120° | 447.3 | 481.2 | 577.3 | 609.5 | 607.3 |
| 122.5° | 378.6 | 404.3 | 491.7 | 523.4 | 521.2 |
| 125° | 315.2 | 340.0 | 419.1 | 448.6 | 449.1 |
| 127.5° | 266.9 | 281.3 | 356.9 | 388.2 | 390.4 |
| 130° | 234.8 | 241.7 | 305.2 | 336.5 | 343.4 |
| 132.5° | 210.4 | 216.5 | 265.2 | 299.1 | 304.3 |
| 135° | 192.1 | 195.6 | 232.1 | 267.4 | 272.1 |
| 137.5° | 177.4 | 180.0 | 206.5 | 239.5 | 245.6 |
| 140° | 164.3 | 167.8 | 184.3 | 216.5 | 220.4 |
| 142.5° | 156.1 | 156.5 | 169.1 | 195.2 | 198.2 |
| 145° | 150.4 | 147.8 | 153.5 | 172.6 | 179.5 |
| 147.5° | 142.6 | 143.0 | 144.8 | 158.7 | 161.7 |
| 150° | 136.5 | 138.2 | 134.8 | 141.7 | 148.7 |
| 152.5° | 130.4 | 132.2 | 128.7 | 129.5 | 135.6 |
| 155° | 125.2 | 126.9 | 122.6 | 123.5 | 123.5 |
| 157.5° | 96.5 | 98.2 | 100.0 | 100.9 | 100.9 |
| 160° | 93.0 | 93.9 | 95.6 | 96.5 | 96.5 |
| 162.5° | 89.6 | 90.4 | 91.3 | 92.2 | 92.2 |
| 165° | 86.9 | 87.8 | 88.7 | 88.7 | 88.7 |
| 167.5° | 84.3 | 84.3 | 85.2 | 86.1 | 86.1 |
| 170° | 81.7 | 82.6 | 82.6 | 83.5 | 83.5 |
| 172.5° | 80.0 | 80.9 | 80.9 | 80.9 | 81.7 |
| 175° | 78.2 | 79.1 | 79.1 | 80.0 | 80.0 |
| 177.5° | 78.2 | 78.2 | 78.2 | 78.2 | 78.2 |
| 180° | 78.2 | 78.2 | 78.2 | 78.2 | 78.2 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-------|-------|--------|-------|-------|
| 107.5° | 890.7 | 973.3 | 1066.8 | 941.2 | 841.2 |
| 110° | 822.9 | 897.7 | 1001.6 | 983.3 | 904.2 |



(END OF REPORT)