

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: P828402

Luminaire Tested: **OHBL-36SE-MCL-UNV-L940-CD-UPL36**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P828402
REPORT IS A COMBINATION OF REPORTS P826318 AND G3-2310-221-2
Test Lab: INNOVATION CENTER
Issue Date: 5/3/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: OHBL-36SE-MCL-UNV-L940-CD-UPL36
Description:
Light Source: -
Ballast/Driver: -

Summary

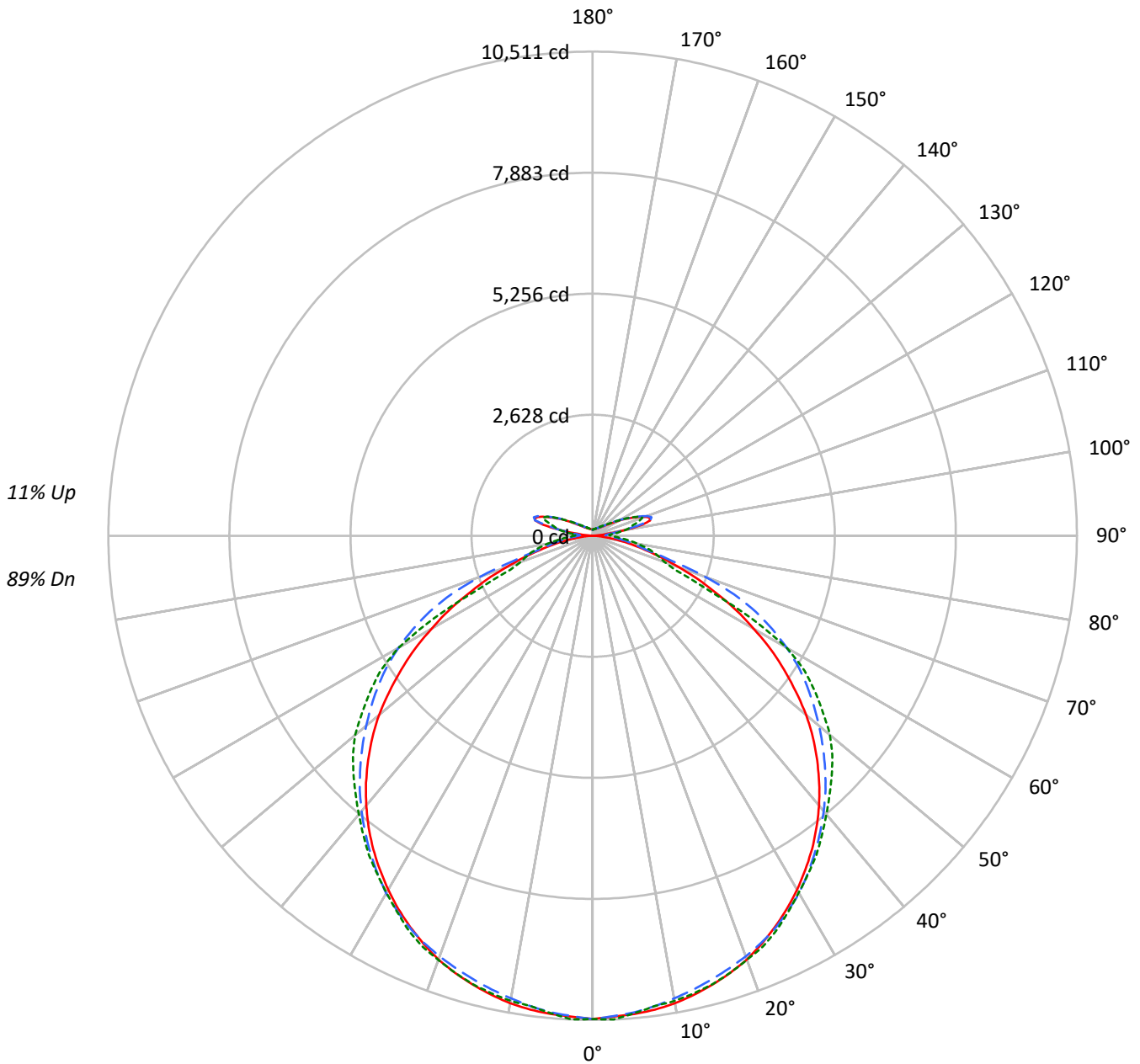
Lumens per Lamp: N/A
Luminaire Lumens: 32764.1 lumens
Efficiency: N/A
Efficacy: 136.6 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.8' x H: 0.17')
CIE Type: Semi-Direct

Input Watts (W): 239.8
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: P828402

CATALOG NUMBER: OHBL-36SE-MCL-UNV-L940-CD-UPL36

Luminous Intensity Polar Plot





TEST NUMBER: P828402

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|---|
| RF | 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 | 117 | 117 | 117 | 117 | 113 | 113 | 113 | 113 | 105 | 105 | 105 | 99 | 99 | 99 | 92 | 92 | 92 | 89 | | | |
| 1 | 107 | 102 | 98 | 94 | 103 | 99 | 95 | 92 | 93 | 90 | 87 | 87 | 85 | 83 | 82 | 80 | 78 | 76 | | | |
| 2 | 97 | 89 | 83 | 77 | 94 | 87 | 81 | 76 | 81 | 76 | 72 | 77 | 73 | 69 | 72 | 69 | 66 | 63 | | | |
| 3 | 89 | 79 | 71 | 64 | 85 | 76 | 69 | 63 | 72 | 66 | 61 | 68 | 63 | 58 | 64 | 60 | 56 | 54 | | | |
| 4 | 81 | 70 | 61 | 55 | 78 | 68 | 60 | 54 | 64 | 57 | 52 | 60 | 55 | 50 | 57 | 52 | 48 | 46 | | | |
| 5 | 75 | 62 | 53 | 47 | 72 | 60 | 52 | 46 | 57 | 50 | 45 | 54 | 48 | 43 | 51 | 46 | 42 | 40 | | | |
| 6 | 69 | 56 | 47 | 41 | 66 | 54 | 46 | 40 | 52 | 44 | 39 | 49 | 43 | 38 | 46 | 41 | 37 | 35 | | | |
| 7 | 64 | 51 | 42 | 36 | 61 | 49 | 41 | 36 | 47 | 40 | 35 | 44 | 38 | 34 | 42 | 37 | 33 | 31 | | | |
| 8 | 59 | 46 | 38 | 32 | 57 | 45 | 37 | 32 | 43 | 36 | 31 | 41 | 35 | 30 | 39 | 33 | 29 | 27 | | | |
| 9 | 55 | 42 | 34 | 29 | 53 | 41 | 34 | 28 | 39 | 32 | 28 | 37 | 31 | 27 | 36 | 30 | 26 | 24 | | | |
| 10 | 52 | 39 | 31 | 26 | 50 | 38 | 31 | 26 | 36 | 30 | 25 | 35 | 29 | 24 | 33 | 28 | 24 | 22 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 16590 | 16590 | 16590 |
| 5° | 16412 | 16349 | 16453 |
| 10° | 16283 | 16101 | 16339 |
| 15° | 16110 | 15916 | 16300 |
| 20° | 15936 | 15799 | 16228 |
| 25° | 15670 | 15682 | 16160 |
| 30° | 15384 | 15497 | 15934 |
| 35° | 15054 | 15203 | 15851 |
| 40° | 14644 | 14899 | 15714 |
| 45° | 14105 | 14548 | 15719 |
| 50° | 13403 | 14148 | 15721 |
| 55° | 12348 | 13755 | 15281 |
| 60° | 11002 | 13179 | 14298 |
| 65° | 9291 | 12111 | 9205 |
| 70° | 7324 | 9454 | 6819 |
| 75° | 5317 | 5612 | 7147 |
| 80° | 3505 | 4667 | 7205 |
| 85° | 1778 | 4276 | 7576 |



TEST NUMBER: P828402

CATALOG NUMBER: OHBL-36SE-MCL-UNV-L940-CD-UPL36

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 989.1 | 3.0 |
| 10°-20° | 2836.3 | 8.7 |
| 20°-30° | 4332.0 | 13.2 |
| 30°-40° | 5256.2 | 16.0 |
| 40°-50° | 5509.0 | 16.8 |
| 50°-60° | 4992.0 | 15.2 |
| 60°-70° | 3346.9 | 10.2 |
| 70°-80° | 1502.9 | 4.6 |
| 80°-90° | 552.1 | 1.7 |
| 90°-100° | 403.3 | 1.2 |
| 100°-110° | 1160.8 | 3.5 |
| 110°-120° | 935.5 | 2.9 |
| 120°-130° | 445.8 | 1.4 |
| 130°-140° | 229.6 | 0.7 |
| 140°-150° | 135.5 | 0.4 |
| 150°-160° | 81.0 | 0.2 |
| 160°-170° | 43.0 | 0.1 |
| 170°-180° | 13.2 | 0.0 |
| 0°-30° | 8157.4 | 24.9 |
| 0°-40° | 13413.6 | 40.9 |
| 0°-60° | 23914.5 | 73.0 |
| 0°-90° | 29316.4 | 89.5 |
| 90°-120° | 2499.6 | 7.6 |
| 90°-150° | 3310.5 | 10.1 |
| 90°-180° | 3448.0 | 10.5 |
| 0°-180° | 32764.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 10490 | 10490 | 10490 | 10490 | 10490 | |
| 5° | 10422 | 10458 | 10385 | 10417 | 10404 | 991 |
| 15° | 10084 | 10044 | 9973 | 10061 | 10073 | 2847 |
| 25° | 9368 | 9327 | 9392 | 9478 | 9451 | 4318 |
| 35° | 8303 | 8323 | 8408 | 8497 | 8464 | 5190 |
| 45° | 6891 | 7003 | 7133 | 7316 | 7338 | 5308 |
| 55° | 5071 | 5315 | 5677 | 5905 | 5891 | 4526 |
| 65° | 2976 | 3442 | 3907 | 3298 | 2692 | 2965 |
| 75° | 1171 | 1699 | 1250 | 1279 | 1362 | 1280 |
| 85° | 202 | 387 | 496 | 599 | 628 | 246 |
| 90° | 8 | 172 | 311 | 384 | 400 | 17 |
| 95° | 55 | 188 | 319 | 396 | 416 | 203 |
| 105° | 1290 | 1316 | 1292 | 1001 | 919 | 1228 |
| 115° | 908 | 902 | 934 | 952 | 947 | 917 |
| 125° | 451 | 469 | 494 | 491 | 484 | 425 |
| 135° | 274 | 282 | 291 | 301 | 303 | 217 |
| 145° | 203 | 209 | 213 | 218 | 220 | 130 |
| 155° | 168 | 172 | 175 | 177 | 175 | 79 |
| 165° | 148 | 150 | 151 | 152 | 152 | 42 |
| 175° | 137 | 137 | 136 | 134 | 135 | 13 |
| 180° | 133 | 133 | 133 | 133 | 133 | |



TEST NUMBER: P828402

CATALOG NUMBER: OHBL-36SE-MCL-UNV-L940-CD-UPL36

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|---------|---------|---------|---------|---------|
| 0° | 10490.1 | 10490.1 | 10490.1 | 10490.1 | 10490.1 |
| 2.5° | 10447.7 | 10491.7 | 10437.1 | 10496.2 | 10511.3 |
| 5° | 10421.9 | 10458.3 | 10385.4 | 10417.3 | 10403.7 |
| 7.5° | 10374.8 | 10387.0 | 10300.5 | 10326.3 | 10299.0 |
| 10° | 10305.1 | 10299.0 | 10197.4 | 10247.4 | 10253.5 |
| 12.5° | 10202.0 | 10183.7 | 10092.7 | 10168.6 | 10170.1 |
| 15° | 10083.6 | 10044.2 | 9972.9 | 10060.9 | 10073.0 |
| 17.5° | 9947.1 | 9895.6 | 9848.5 | 9962.3 | 9944.1 |
| 20° | 9787.9 | 9727.2 | 9718.0 | 9842.5 | 9797.0 |
| 22.5° | 9590.7 | 9543.6 | 9564.8 | 9683.2 | 9654.4 |
| 25° | 9367.7 | 9326.7 | 9392.0 | 9478.4 | 9451.1 |
| 27.5° | 9132.6 | 9108.3 | 9182.6 | 9249.4 | 9196.3 |
| 30° | 8874.8 | 8861.1 | 8959.7 | 9014.3 | 8947.5 |
| 32.5° | 8594.1 | 8598.7 | 8692.7 | 8767.0 | 8704.9 |
| 35° | 8302.9 | 8322.7 | 8407.5 | 8497.1 | 8463.7 |
| 37.5° | 7982.9 | 8026.9 | 8111.8 | 8213.4 | 8178.5 |
| 40° | 7644.6 | 7708.3 | 7802.4 | 7925.2 | 7893.3 |
| 42.5° | 7279.1 | 7359.5 | 7480.8 | 7617.3 | 7614.2 |
| 45° | 6890.8 | 7003.0 | 7133.4 | 7315.5 | 7338.2 |
| 47.5° | 6487.3 | 6613.2 | 6778.5 | 7021.2 | 7056.2 |
| 50° | 6049.0 | 6206.7 | 6413.0 | 6704.2 | 6725.4 |
| 52.5° | 5560.5 | 5776.0 | 6049.0 | 6328.1 | 6302.3 |
| 55° | 5070.6 | 5314.8 | 5677.4 | 5904.8 | 5891.2 |
| 57.5° | 4582.2 | 4856.8 | 5296.7 | 5458.9 | 5457.4 |
| 60° | 4036.2 | 4383.6 | 4864.4 | 4987.2 | 4865.8 |
| 62.5° | 3531.1 | 3904.2 | 4403.2 | 4313.7 | 3898.2 |
| 65° | 2975.9 | 3441.6 | 3907.3 | 3297.5 | 2692.3 |
| 67.5° | 2483.0 | 2968.4 | 3318.8 | 2258.5 | 1933.9 |
| 70° | 1987.0 | 2522.4 | 2587.6 | 1676.0 | 1653.3 |
| 72.5° | 1547.1 | 2117.4 | 1785.2 | 1434.8 | 1507.7 |
| 75° | 1171.0 | 1698.8 | 1249.8 | 1278.7 | 1362.1 |
| 77.5° | 854.0 | 1304.4 | 972.3 | 1120.9 | 1189.1 |
| 80° | 587.0 | 923.7 | 793.3 | 942.0 | 988.9 |
| 82.5° | 368.6 | 609.7 | 635.6 | 758.4 | 806.9 |
| 85° | 201.7 | 386.8 | 496.0 | 599.1 | 627.9 |
| 87.5° | 83.5 | 233.6 | 379.2 | 462.6 | 486.9 |
| 90° | 8.4 | 171.5 | 311.1 | 384.1 | 400.2 |
| 92.5° | 23.2 | 150.8 | 276.2 | 342.8 | 358.6 |
| 95° | 55.4 | 188.2 | 319.4 | 396.5 | 416.5 |
| 97.5° | 328.2 | 413.2 | 450.5 | 540.0 | 567.0 |
| 100° | 702.7 | 769.5 | 678.4 | 708.6 | 730.5 |
| 102.5° | 1099.8 | 1151.0 | 979.5 | 849.5 | 828.0 |
| 105° | 1290.3 | 1316.4 | 1291.5 | 1001.1 | 918.7 |



TEST NUMBER: P828402

CATALOG NUMBER: OHBL-36SE-MCL-UNV-L940-CD-UPL36

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|--------|--------|--------|--------|--------|
| 112.5° | 1062.6 | 1075.9 | 1096.6 | 1106.8 | 1082.0 |
| 115° | 907.7 | 901.5 | 934.3 | 952.5 | 946.8 |
| 117.5° | 778.2 | 772.4 | 802.1 | 807.8 | 801.3 |
| 120° | 656.4 | 657.9 | 686.3 | 681.7 | 676.3 |
| 122.5° | 546.0 | 558.2 | 580.9 | 579.8 | 570.0 |
| 125° | 451.4 | 468.6 | 494.2 | 490.9 | 483.8 |
| 127.5° | 390.4 | 395.6 | 419.9 | 420.0 | 421.6 |
| 130° | 337.3 | 345.8 | 362.9 | 370.7 | 369.0 |
| 132.5° | 302.3 | 310.7 | 324.0 | 332.7 | 335.3 |
| 135° | 274.5 | 282.0 | 290.6 | 300.7 | 303.2 |
| 137.5° | 253.4 | 258.6 | 263.8 | 275.8 | 278.1 |
| 140° | 234.2 | 239.4 | 243.2 | 252.7 | 254.2 |
| 142.5° | 217.1 | 223.8 | 226.7 | 233.8 | 235.4 |
| 145° | 203.2 | 209.0 | 213.4 | 217.5 | 219.9 |
| 147.5° | 194.2 | 197.7 | 202.1 | 202.9 | 205.4 |
| 150° | 184.7 | 187.3 | 190.8 | 192.5 | 193.4 |
| 152.5° | 176.0 | 178.6 | 182.1 | 182.9 | 183.8 |
| 155° | 168.2 | 172.3 | 174.9 | 176.7 | 175.1 |
| 157.5° | 161.2 | 165.4 | 168.0 | 168.8 | 168.8 |
| 160° | 156.0 | 159.3 | 161.9 | 161.9 | 162.8 |
| 162.5° | 152.3 | 154.1 | 155.8 | 156.7 | 157.5 |
| 165° | 148.0 | 149.7 | 150.6 | 151.5 | 152.3 |
| 167.5° | 144.5 | 146.8 | 146.2 | 147.1 | 147.1 |
| 170° | 141.0 | 141.9 | 142.8 | 141.2 | 142.1 |
| 172.5° | 138.4 | 139.3 | 140.2 | 138.6 | 138.6 |
| 175° | 136.7 | 136.7 | 136.0 | 134.5 | 135.4 |
| 177.5° | 136.4 | 135.8 | 134.2 | 132.8 | 132.2 |
| 180° | 133.4 | 133.4 | 133.4 | 133.4 | 133.4 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|--------|--------|--------|--------|---------------|
| 107.5° | 1303.9 | 1327.7 | 1342.0 | 1205.8 | <i>1057.6</i> |
| 110° | 1205.5 | 1231.9 | 1249.8 | 1213.9 | <i>1148.3</i> |



(END OF REPORT)