

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: P828389

Luminaire Tested: **OHBL-36HE-MCL-UNV-L940-CD-UPL18**

Issue Date: 5/3/2024



Test Information

Test Method: LM-79-08
Report Number: P828389
REPORT IS A COMBINATION OF REPORTS P826168 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-MCL-UNV-L940-CD-UPL18
Description:
Light Source: -
Ballast/Driver: -

Summary

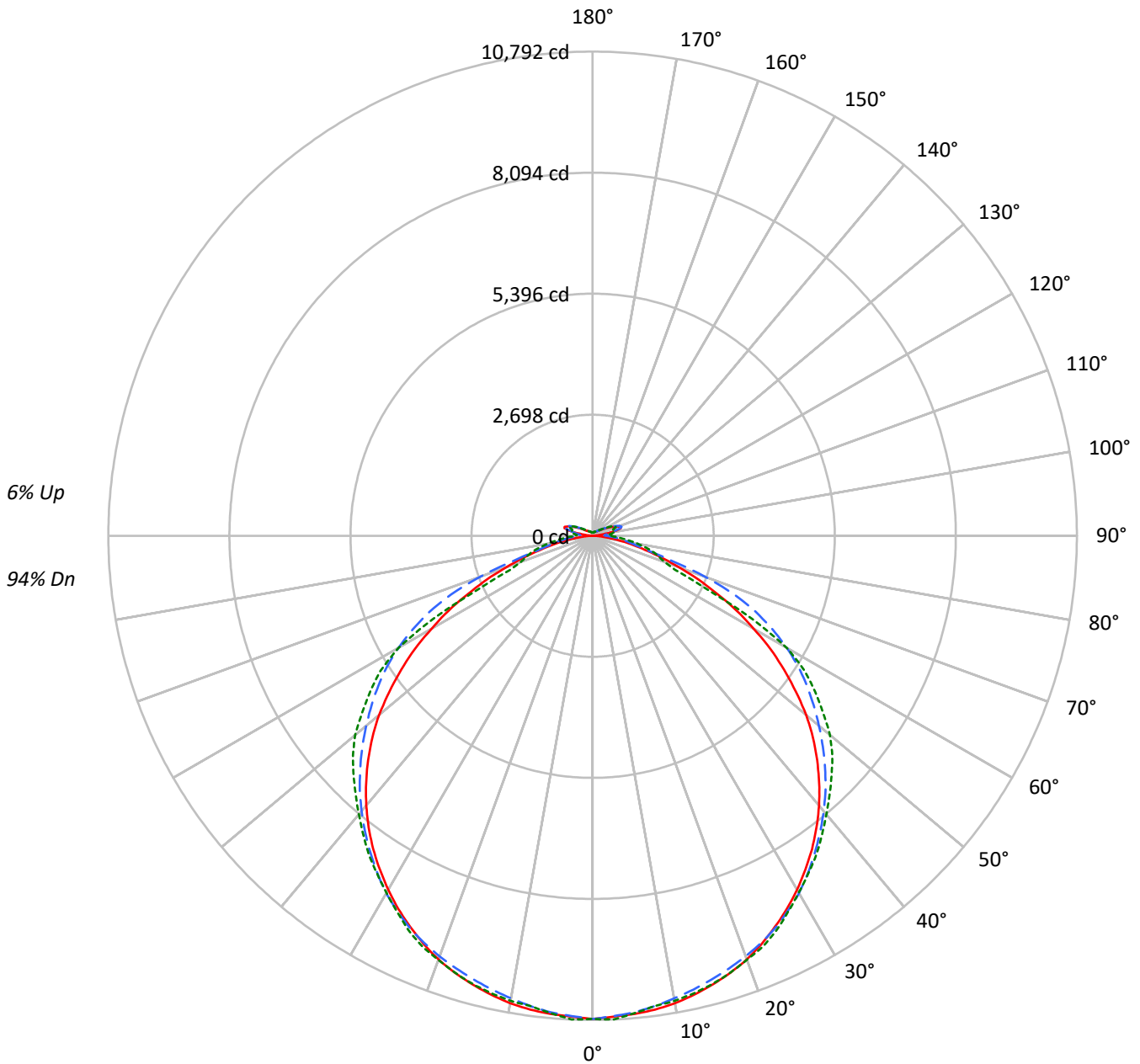
Lumens per Lamp: N/A
Luminaire Lumens: 31997.2 lumens
Efficiency: N/A
Efficacy: 142.7 lumens/watt
Spacing Criteria (0/90/45): 1.26 / 1.27 / 1.39
Luminous Opening: Rectangular w/ Sides (W: 3.78' x L: 1.8' x H: 0.17')
CIE Type: Direct

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: P828389

CATALOG NUMBER: OHBL-36HE-MCL-UNV-L940-CD-UPL18

Luminous Intensity Polar Plot





TEST NUMBER: P828389

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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 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 102 | 102 | 102 | 97 | 97 | 97 | 94 | | | | 94 |
| 1 | 108 | 103 | 99 | 95 | 104 | 100 | 97 | 93 | 95 | 92 | 89 | 90 | 88 | 85 | 86 | 84 | 82 | 79 | | | | 79 |
| 2 | 98 | 90 | 84 | 78 | 95 | 88 | 82 | 77 | 83 | 78 | 74 | 79 | 75 | 71 | 75 | 72 | 69 | 67 | | | | 67 |
| 3 | 90 | 79 | 71 | 65 | 87 | 77 | 70 | 64 | 74 | 67 | 62 | 70 | 65 | 60 | 67 | 62 | 59 | 56 | | | | 56 |
| 4 | 82 | 70 | 62 | 55 | 79 | 69 | 61 | 54 | 65 | 59 | 53 | 62 | 56 | 52 | 60 | 55 | 50 | 48 | | | | 48 |
| 5 | 75 | 63 | 54 | 47 | 73 | 61 | 53 | 47 | 59 | 51 | 46 | 56 | 50 | 45 | 54 | 48 | 44 | 42 | | | | 42 |
| 6 | 70 | 56 | 48 | 41 | 67 | 55 | 47 | 41 | 53 | 46 | 40 | 51 | 44 | 39 | 49 | 43 | 39 | 36 | | | | 36 |
| 7 | 64 | 51 | 43 | 36 | 62 | 50 | 42 | 36 | 48 | 41 | 35 | 46 | 40 | 35 | 44 | 39 | 34 | 32 | | | | 32 |
| 8 | 60 | 47 | 38 | 32 | 58 | 46 | 38 | 32 | 44 | 37 | 32 | 42 | 36 | 31 | 41 | 35 | 31 | 29 | | | | 29 |
| 9 | 56 | 43 | 35 | 29 | 54 | 42 | 34 | 29 | 40 | 33 | 28 | 39 | 33 | 28 | 37 | 32 | 28 | 26 | | | | 26 |
| 10 | 52 | 39 | 32 | 26 | 51 | 39 | 31 | 26 | 37 | 30 | 26 | 36 | 30 | 25 | 35 | 29 | 25 | 23 | | | | 23 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 45° | 90° |
|-----|-------|-------|-------|
| 0° | 17033 | 17033 | 17033 |
| 5° | 16850 | 16785 | 16892 |
| 10° | 16717 | 16531 | 16775 |
| 15° | 16540 | 16341 | 16735 |
| 20° | 16361 | 16221 | 16660 |
| 25° | 16088 | 16100 | 16591 |
| 30° | 15794 | 15910 | 16359 |
| 35° | 15455 | 15609 | 16274 |
| 40° | 15035 | 15297 | 16134 |
| 45° | 14482 | 14936 | 16139 |
| 50° | 13761 | 14526 | 16141 |
| 55° | 12677 | 14122 | 15689 |
| 60° | 11295 | 13531 | 14680 |
| 65° | 9539 | 12434 | 9450 |
| 70° | 7519 | 9707 | 7001 |
| 75° | 5459 | 5762 | 7337 |
| 80° | 3599 | 4791 | 7397 |
| 85° | 1826 | 4390 | 7779 |



TEST NUMBER: P828389

CATALOG NUMBER: OHBL-36HE-MCL-UNV-L940-CD-UPL18

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 1015.5 | 3.2 |
| 10°-20° | 2912.0 | 9.1 |
| 20°-30° | 4447.6 | 13.9 |
| 30°-40° | 5396.4 | 16.9 |
| 40°-50° | 5656.0 | 17.7 |
| 50°-60° | 5125.2 | 16.0 |
| 60°-70° | 3436.2 | 10.7 |
| 70°-80° | 1543.0 | 4.8 |
| 80°-90° | 563.8 | 1.8 |
| 90°-100° | 317.4 | 1.0 |
| 100°-110° | 596.5 | 1.9 |
| 110°-120° | 484.0 | 1.5 |
| 120°-130° | 235.3 | 0.7 |
| 130°-140° | 121.7 | 0.4 |
| 140°-150° | 72.0 | 0.2 |
| 150°-160° | 43.7 | 0.1 |
| 160°-170° | 23.6 | 0.1 |
| 170°-180° | 7.2 | 0.0 |
| 0°-30° | 8375.1 | 26.2 |
| 0°-40° | 13771.5 | 43.0 |
| 0°-60° | 24552.6 | 76.7 |
| 0°-90° | 30095.7 | 94.1 |
| 90°-120° | 1398.0 | 4.4 |
| 90°-150° | 1827.0 | 5.7 |
| 90°-180° | 1901.0 | 5.9 |
| 0°-180° | 31997.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 22.5° | 45° | 67.5° | 90° | Flux |
|------|-------|-------|-------|-------|-------|------|
| 0° | 10770 | 10770 | 10770 | 10770 | 10770 | |
| 5° | 10700 | 10737 | 10663 | 10695 | 10681 | ### |
| 15° | 10353 | 10312 | 10239 | 10329 | 10342 | 2923 |
| 25° | 9618 | 9576 | 9643 | 9731 | 9703 | 4433 |
| 35° | 8524 | 8545 | 8632 | 8724 | 8690 | 5328 |
| 45° | 7075 | 7190 | 7324 | 7511 | 7534 | 5450 |
| 55° | 5206 | 5457 | 5829 | 6062 | 6048 | 4647 |
| 65° | 3055 | 3533 | 4012 | 3386 | 2764 | 3044 |
| 75° | 1202 | 1744 | 1283 | 1313 | 1398 | 1314 |
| 85° | 207 | 397 | 509 | 615 | 645 | 253 |
| 90° | 5 | 154 | 293 | 369 | 389 | 15 |
| 95° | 35 | 154 | 293 | 365 | 392 | 106 |
| 105° | 650 | 674 | 633 | 491 | 466 | 618 |
| 115° | 458 | 470 | 496 | 503 | 505 | 461 |
| 125° | 228 | 240 | 262 | 266 | 266 | 215 |
| 135° | 143 | 147 | 153 | 162 | 165 | 113 |
| 145° | 108 | 111 | 114 | 116 | 118 | 69 |
| 155° | 90 | 94 | 94 | 95 | 94 | 42 |
| 165° | 82 | 82 | 82 | 83 | 83 | 23 |
| 175° | 75 | 75 | 75 | 73 | 73 | 7 |
| 180° | 74 | 74 | 74 | 74 | 74 | |



TEST NUMBER: P828389

CATALOG NUMBER: OHBL-36HE-MCL-UNV-L940-CD-UPL18

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|---------|---------|---------|---------|---------|
| 0° | 10770.1 | 10770.1 | 10770.1 | 10770.1 | 10770.1 |
| 2.5° | 10726.4 | 10771.6 | 10715.6 | 10776.2 | 10791.9 |
| 5° | 10700.0 | 10737.4 | 10662.6 | 10695.3 | 10681.3 |
| 7.5° | 10651.7 | 10664.2 | 10575.4 | 10601.8 | 10573.8 |
| 10° | 10580.1 | 10573.8 | 10469.5 | 10520.9 | 10527.1 |
| 12.5° | 10474.2 | 10455.5 | 10362.0 | 10439.9 | 10441.5 |
| 15° | 10352.7 | 10312.2 | 10239.0 | 10329.3 | 10341.8 |
| 17.5° | 10212.6 | 10159.6 | 10111.3 | 10228.1 | 10209.5 |
| 20° | 10049.0 | 9986.7 | 9977.4 | 10105.1 | 10058.3 |
| 22.5° | 9846.6 | 9798.3 | 9820.1 | 9941.6 | 9912.0 |
| 25° | 9617.7 | 9575.6 | 9642.6 | 9731.3 | 9703.3 |
| 27.5° | 9376.3 | 9351.4 | 9427.6 | 9496.2 | 9441.7 |
| 30° | 9111.5 | 9097.5 | 9198.8 | 9254.8 | 9186.3 |
| 32.5° | 8823.5 | 8828.2 | 8924.7 | 9001.0 | 8937.1 |
| 35° | 8524.5 | 8544.7 | 8631.9 | 8723.8 | 8689.6 |
| 37.5° | 8195.9 | 8241.0 | 8328.2 | 8432.6 | 8396.7 |
| 40° | 7848.6 | 7914.0 | 8010.5 | 8136.7 | 8104.0 |
| 42.5° | 7473.3 | 7555.8 | 7680.4 | 7820.6 | 7817.4 |
| 45° | 7074.7 | 7189.9 | 7323.9 | 7510.7 | 7534.1 |
| 47.5° | 6660.5 | 6789.7 | 6959.4 | 7208.6 | 7244.4 |
| 50° | 6210.4 | 6372.3 | 6584.1 | 6883.1 | 6905.0 |
| 52.5° | 5708.9 | 5930.0 | 6210.4 | 6496.9 | 6470.4 |
| 55° | 5206.0 | 5456.6 | 5828.8 | 6062.5 | 6048.4 |
| 57.5° | 4704.5 | 4986.4 | 5437.9 | 5604.6 | 5603.0 |
| 60° | 4143.9 | 4500.5 | 4994.2 | 5120.2 | 4995.7 |
| 62.5° | 3625.3 | 4008.4 | 4520.8 | 4428.9 | 4002.1 |
| 65° | 3055.3 | 3533.4 | 4011.5 | 3385.5 | 2764.1 |
| 67.5° | 2549.2 | 3047.6 | 3407.3 | 2318.8 | 1985.6 |
| 70° | 2040.0 | 2589.7 | 2656.7 | 1720.8 | 1697.4 |
| 72.5° | 1588.4 | 2174.0 | 1832.9 | 1473.2 | 1548.0 |
| 75° | 1202.2 | 1744.1 | 1283.2 | 1312.8 | 1398.4 |
| 77.5° | 876.7 | 1339.2 | 998.2 | 1150.8 | 1220.9 |
| 80° | 602.7 | 948.4 | 814.4 | 967.1 | 1015.3 |
| 82.5° | 378.4 | 626.0 | 652.5 | 778.7 | 828.5 |
| 85° | 207.1 | 397.1 | 509.2 | 615.1 | 644.7 |
| 87.5° | 85.6 | 239.8 | 389.3 | 475.0 | 499.8 |
| 90° | 5.0 | 154.1 | 292.7 | 369.3 | 389.2 |
| 92.5° | 12.9 | 129.9 | 262.7 | 332.4 | 350.2 |
| 95° | 34.6 | 153.8 | 292.8 | 364.7 | 391.9 |
| 97.5° | 172.7 | 250.6 | 358.0 | 427.4 | 447.5 |
| 100° | 354.2 | 421.4 | 433.9 | 475.2 | 485.1 |
| 102.5° | 553.1 | 589.7 | 500.6 | 484.2 | 483.6 |
| 105° | 650.5 | 674.0 | 633.0 | 490.9 | 466.0 |



TEST NUMBER: P828389

CATALOG NUMBER: OHBL-36HE-MCL-UNV-L940-CD-UPL18

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° |
|--------|-------|-------|-------|-------|-------|
| 112.5° | 534.3 | 548.7 | 569.4 | 569.5 | 550.9 |
| 115° | 458.5 | 469.9 | 495.5 | 502.8 | 505.1 |
| 117.5° | 392.4 | 398.1 | 423.2 | 430.8 | 434.8 |
| 120° | 329.8 | 337.4 | 361.2 | 366.4 | 366.2 |
| 122.5° | 277.6 | 285.4 | 306.9 | 312.1 | 312.0 |
| 125° | 228.2 | 240.2 | 261.9 | 265.7 | 265.5 |
| 127.5° | 196.8 | 204.6 | 224.9 | 228.7 | 228.5 |
| 130° | 172.4 | 180.1 | 193.1 | 200.1 | 201.0 |
| 132.5° | 157.5 | 161.6 | 171.5 | 178.6 | 180.3 |
| 135° | 142.7 | 146.8 | 152.8 | 162.3 | 164.7 |
| 137.5° | 132.9 | 135.5 | 139.0 | 148.6 | 151.0 |
| 140° | 123.4 | 126.0 | 127.0 | 135.0 | 137.5 |
| 142.5° | 114.0 | 118.2 | 119.2 | 124.8 | 127.2 |
| 145° | 107.9 | 111.2 | 113.8 | 116.2 | 117.8 |
| 147.5° | 103.4 | 105.1 | 106.9 | 108.6 | 110.2 |
| 150° | 98.2 | 99.9 | 101.6 | 102.5 | 103.4 |
| 152.5° | 94.7 | 95.6 | 97.3 | 98.2 | 98.2 |
| 155° | 90.3 | 93.6 | 94.5 | 95.4 | 93.8 |
| 157.5° | 87.7 | 90.2 | 91.0 | 91.9 | 91.9 |
| 160° | 85.1 | 86.7 | 87.6 | 88.4 | 88.4 |
| 162.5° | 84.1 | 84.1 | 84.9 | 85.8 | 85.8 |
| 165° | 81.5 | 82.3 | 82.3 | 83.2 | 83.2 |
| 167.5° | 79.7 | 81.3 | 80.6 | 80.6 | 81.5 |
| 170° | 78.0 | 78.0 | 78.9 | 77.3 | 77.3 |
| 172.5° | 76.3 | 77.1 | 77.1 | 75.6 | 75.6 |
| 175° | 75.4 | 75.4 | 74.7 | 73.1 | 73.1 |
| 177.5° | 76.1 | 75.4 | 73.8 | 72.3 | 70.7 |
| 180° | 73.8 | 73.8 | 73.8 | 73.8 | 73.8 |



Report Generated By 670246072 / DESKTOP-50001EG





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







| | | | | | |
|--------|-------|-------|-------|-------|-------|
| 107.5° | 658.2 | 679.9 | 676.3 | 557.9 | 485.4 |
| 110° | 604.9 | 627.5 | 640.3 | 602.2 | 545.2 |



(END OF REPORT)