

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: P730760

Luminaire Tested: **HBLED-LD5-24SE-W-AI-UNV-L735**

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P730760  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23765)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-24SE-W-AI-UNV-L735  
Description: 24000 LUMEN, SE HBLED WITH WIDE DISTRIBUTION AND PRISMATIC ACRYLIC LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 21908.0 lumens  
Efficiency: N/A  
Efficacy: 146.1 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 1.16 / 1.26  
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')  
CIE Type: Direct

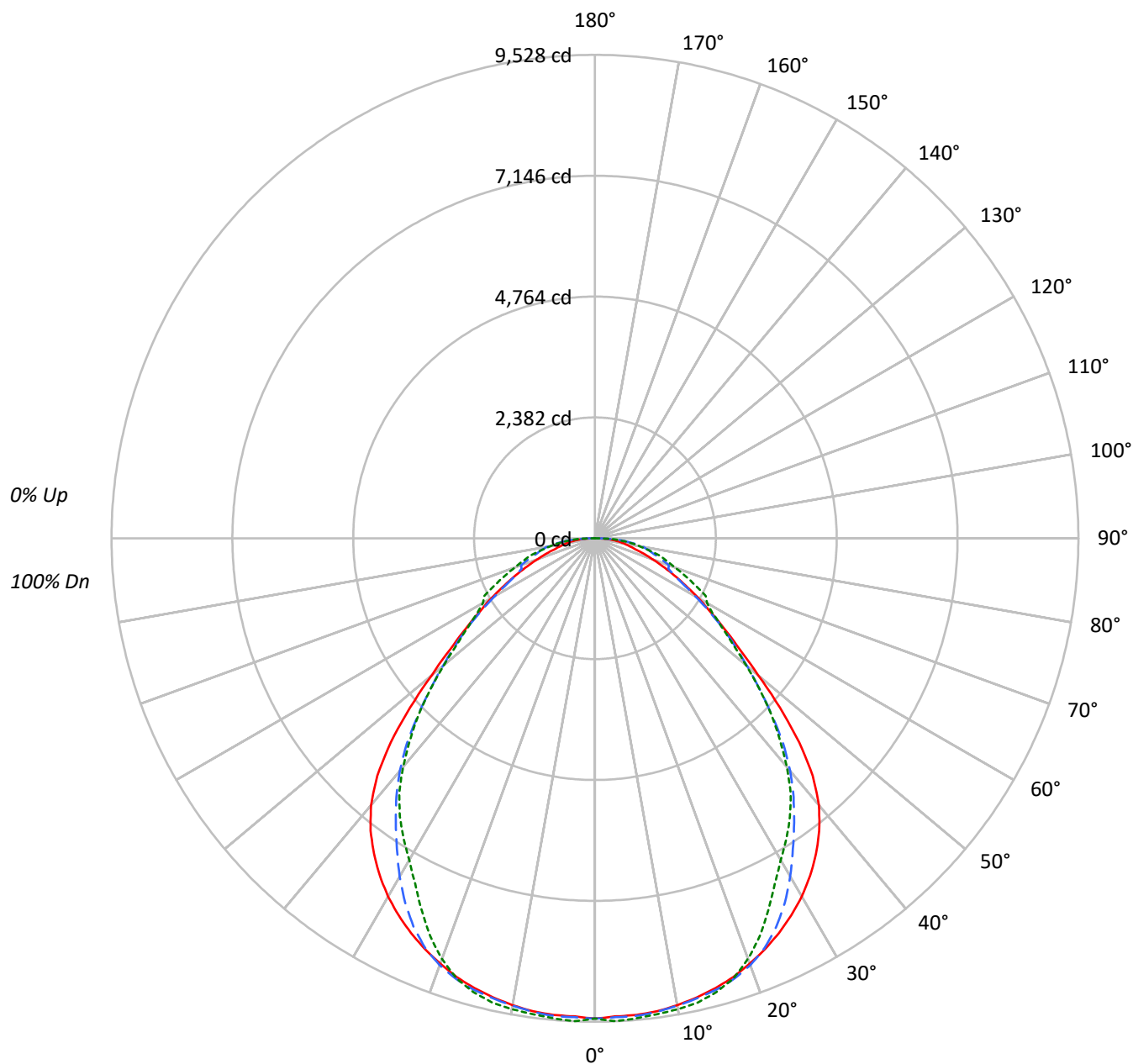
Input Watts (W): 150  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|
| RF  | 20  |     |     |     | 20  |     |     |     |     | 20  |     |     |     |     | 20  |     |     |     |    | 20 |
| RC  | 80  |     |     |     | 70  |     |     |     |     | 50  |     |     |     |     | 30  |     |     |     |    | 10 |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 109 | 105 | 101 | 97  | 107 | 103 | 99  | 96  | 98  | 95  | 93  | 95  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |
| 2   | 100 | 93  | 86  | 81  | 98  | 91  | 85  | 80  | 87  | 82  | 78  | 84  | 80  | 76  | 81  | 78  | 75  | 73  |    |    |
| 3   | 92  | 82  | 75  | 69  | 90  | 81  | 74  | 68  | 78  | 72  | 67  | 75  | 70  | 66  | 73  | 68  | 65  | 63  |    |    |
| 4   | 85  | 74  | 66  | 59  | 83  | 73  | 65  | 59  | 70  | 64  | 58  | 68  | 62  | 57  | 66  | 61  | 57  | 55  |    |    |
| 5   | 79  | 67  | 58  | 52  | 77  | 66  | 58  | 52  | 64  | 57  | 51  | 62  | 55  | 51  | 60  | 54  | 50  | 48  |    |    |
| 6   | 73  | 61  | 52  | 46  | 71  | 60  | 52  | 46  | 58  | 51  | 45  | 56  | 50  | 45  | 55  | 49  | 45  | 43  |    |    |
| 7   | 68  | 55  | 47  | 41  | 66  | 54  | 47  | 41  | 53  | 46  | 41  | 52  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 42  | 37  | 49  | 42  | 37  | 48  | 41  | 36  | 46  | 41  | 36  | 34  |    |    |
| 9   | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 33  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |    |    |
| 10  | 56  | 43  | 36  | 31  | 55  | 43  | 35  | 31  | 42  | 35  | 30  | 41  | 35  | 30  | 40  | 34  | 30  | 29  |    |    |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 15282 | 15282 | 15282 |
| 5°  | 15281 | 15314 | 15389 |
| 10° | 15319 | 15338 | 15451 |
| 15° | 15343 | 15400 | 15475 |
| 20° | 15327 | 15384 | 15156 |
| 25° | 15288 | 15059 | 14404 |
| 30° | 15198 | 14349 | 13650 |
| 35° | 14970 | 13486 | 13205 |
| 40° | 14469 | 12610 | 12402 |
| 45° | 13005 | 11260 | 11218 |
| 50° | 10548 | 9808  | 9740  |
| 55° | 8758  | 8596  | 8592  |
| 60° | 7583  | 7362  | 8230  |
| 65° | 6572  | 6531  | 8296  |
| 70° | 5666  | 7326  | 7908  |
| 75° | 5082  | 7509  | 8244  |
| 80° | 5282  | 8839  | 8271  |
| 85° | 5995  | 10187 | 9452  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 901.2   | 4.1       |
| 10°-20°   | 2602.7  | 11.9      |
| 20°-30°   | 3865.5  | 17.6      |
| 30°-40°   | 4388.5  | 20.0      |
| 40°-50°   | 3923.1  | 17.9      |
| 50°-60°   | 2712.5  | 12.4      |
| 60°-70°   | 1789.8  | 8.2       |
| 70°-80°   | 1207.5  | 5.5       |
| 80°-90°   | 517.2   | 2.4       |
| 90°-100°  | 0.0     | 0.0       |
| 100°-110° | 0.0     | 0.0       |
| 110°-120° | 0.0     | 0.0       |
| 120°-130° | 0.0     | 0.0       |
| 130°-140° | 0.0     | 0.0       |
| 140°-150° | 0.0     | 0.0       |
| 150°-160° | 0.0     | 0.0       |
| 160°-170° | 0.0     | 0.0       |
| 170°-180° | 0.0     | 0.0       |
| 0°-30°    | 7369.4  | 33.6      |
| 0°-40°    | 11757.9 | 53.7      |
| 0°-60°    | 18393.5 | 84.0      |
| 0°-90°    | 21908.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 21908.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 22.5° | 45°  | 67.5° | 90°  | Flux |
|-----|------|-------|------|-------|------|------|
| 0°  | 9465 | 9465  | 9465 | 9465  | 9465 |      |
| 5°  | 9428 | 9486  | 9449 | 9487  | 9495 | 897  |
| 15° | 9179 | 9223  | 9213 | 9264  | 9258 | 2591 |
| 25° | 8582 | 8663  | 8453 | 8201  | 8086 | 3954 |
| 35° | 7595 | 7435  | 6842 | 6743  | 6700 | 4736 |
| 45° | 5696 | 5213  | 4931 | 4969  | 4913 | 4331 |
| 55° | 3111 | 2840  | 3054 | 3011  | 3052 | 2826 |
| 65° | 1720 | 1527  | 1710 | 1999  | 2172 | 1717 |
| 75° | 815  | 1025  | 1204 | 1286  | 1322 | 890  |
| 85° | 324  | 450   | 550  | 553   | 510  | 337  |
| 90° | 0    | 0     | 0    | 0     | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    |
|-------|--------|--------|--------|--------|--------|
| 0°    | 9465.0 | 9465.0 | 9465.0 | 9465.0 | 9465.0 |
| 2.5°  | 9432.8 | 9491.7 | 9447.8 | 9488.5 | 9528.1 |
| 5°    | 9428.5 | 9486.4 | 9448.8 | 9487.4 | 9494.9 |
| 7.5°  | 9401.7 | 9455.2 | 9411.3 | 9448.8 | 9457.4 |
| 10°   | 9343.8 | 9407.1 | 9355.6 | 9413.5 | 9424.2 |
| 12.5° | 9268.8 | 9333.1 | 9288.0 | 9367.4 | 9371.7 |
| 15°   | 9178.8 | 9222.7 | 9213.1 | 9264.5 | 9258.1 |
| 17.5° | 9065.1 | 9115.6 | 9108.0 | 9120.9 | 9090.9 |
| 20°   | 8920.5 | 8977.2 | 8953.7 | 8894.7 | 8820.8 |
| 22.5° | 8765.1 | 8833.6 | 8740.4 | 8591.5 | 8487.4 |
| 25°   | 8581.7 | 8663.2 | 8453.2 | 8201.3 | 8085.5 |
| 27.5° | 8379.2 | 8452.1 | 8102.7 | 7794.0 | 7674.0 |
| 30°   | 8152.0 | 8183.0 | 7696.4 | 7402.8 | 7321.3 |
| 32.5° | 7889.4 | 7844.4 | 7262.4 | 7068.4 | 7021.2 |
| 35°   | 7594.7 | 7434.9 | 6842.3 | 6742.6 | 6699.7 |
| 37.5° | 7262.4 | 6969.9 | 6427.5 | 6381.4 | 6336.3 |
| 40°   | 6864.8 | 6432.8 | 5982.7 | 5952.7 | 5884.1 |
| 42.5° | 6351.4 | 5848.7 | 5488.6 | 5453.2 | 5392.1 |
| 45°   | 5695.5 | 5213.1 | 4931.3 | 4968.8 | 4913.1 |
| 47.5° | 4940.9 | 4575.5 | 4396.5 | 4499.4 | 4396.5 |
| 50°   | 4199.2 | 3953.8 | 3904.5 | 3997.8 | 3877.7 |
| 52.5° | 3591.5 | 3370.8 | 3472.6 | 3488.7 | 3416.9 |
| 55°   | 3111.4 | 2840.2 | 3053.6 | 3010.6 | 3052.4 |
| 57.5° | 2693.4 | 2390.0 | 2652.7 | 2603.4 | 2747.0 |
| 60°   | 2348.3 | 2007.5 | 2279.7 | 2269.0 | 2548.7 |
| 62.5° | 2009.6 | 1737.4 | 1956.0 | 2113.6 | 2457.6 |
| 65°   | 1720.2 | 1527.3 | 1709.5 | 1998.9 | 2171.5 |
| 67.5° | 1442.6 | 1369.7 | 1563.7 | 1724.5 | 1913.2 |
| 70°   | 1200.3 | 1237.9 | 1551.9 | 1521.9 | 1675.2 |
| 72.5° | 996.8  | 1124.4 | 1369.7 | 1375.1 | 1483.3 |
| 75°   | 814.6  | 1024.7 | 1203.7 | 1286.2 | 1321.5 |
| 77.5° | 677.4  | 929.2  | 1086.8 | 1115.8 | 1081.4 |
| 80°   | 568.1  | 818.8  | 950.6  | 937.8  | 889.5  |
| 82.5° | 458.7  | 620.6  | 749.2  | 761.0  | 704.1  |
| 85°   | 323.6  | 450.2  | 549.9  | 553.1  | 510.2  |
| 87.5° | 173.6  | 277.6  | 333.4  | 343.0  | 317.2  |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



Report Generated By 670246072 / DESKTOP-MV3F9LC





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







(END OF REPORT)