

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: P731011

Luminaire Tested: **HBLED-LD5-36SE-W-A-UNV-L850**

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P731011  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23761)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-36SE-W-A-UNV-L850  
Description: 36000 LUMEN, SE HBLED WITH WIDE DISTRIBUTION AND PRISMATIC ACRYLIC LENS & DOOR FRAME  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 32840.0 lumens  
Efficiency: N/A  
Efficacy: 144.4 lumens/watt  
Spacing Criteria (0/90/45): 1.23 / 1.2 / 1.27  
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')  
CIE Type: Direct

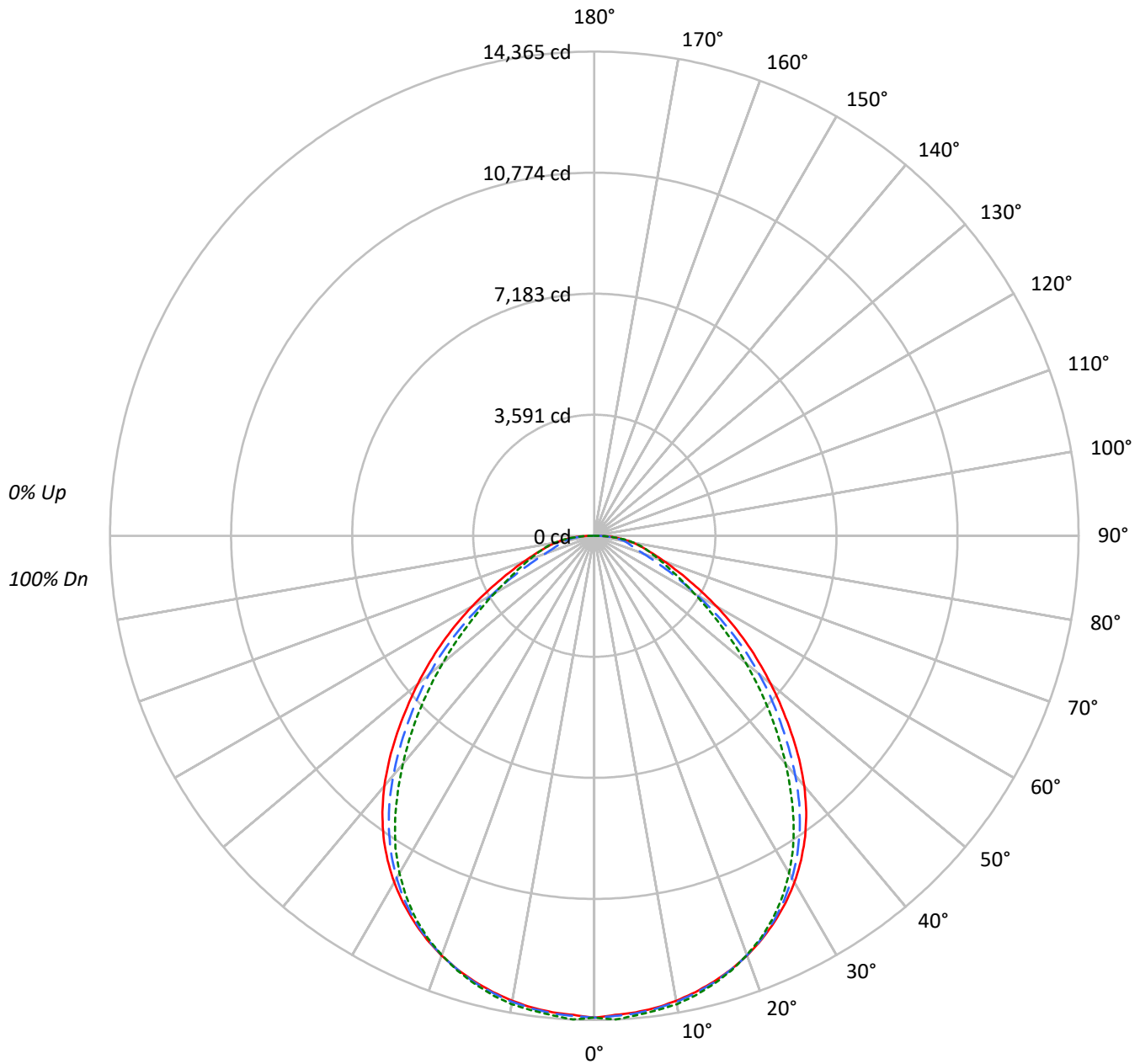
Input Watts (W): 227.5  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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   | 110 | 105 | 101 | 98  | 107 | 103 | 100 | 96  | 99  | 96  | 93  | 95  | 93  | 90  | 91  | 90  | 88  | 86  |    |    |
| 2   | 101 | 93  | 87  | 82  | 98  | 91  | 86  | 81  | 88  | 83  | 79  | 85  | 81  | 77  | 82  | 78  | 75  | 73  |    |    |
| 3   | 93  | 83  | 75  | 70  | 90  | 81  | 75  | 69  | 79  | 73  | 68  | 76  | 71  | 67  | 73  | 69  | 65  | 63  |    |    |
| 4   | 85  | 74  | 66  | 60  | 83  | 73  | 65  | 60  | 71  | 64  | 59  | 68  | 63  | 58  | 66  | 61  | 57  | 55  |    |    |
| 5   | 79  | 67  | 59  | 52  | 77  | 66  | 58  | 52  | 64  | 57  | 52  | 62  | 56  | 51  | 60  | 55  | 51  | 49  |    |    |
| 6   | 73  | 61  | 52  | 46  | 72  | 60  | 52  | 46  | 58  | 51  | 46  | 56  | 50  | 45  | 55  | 49  | 45  | 43  |    |    |
| 7   | 68  | 55  | 47  | 41  | 67  | 55  | 47  | 41  | 53  | 46  | 41  | 52  | 45  | 41  | 50  | 45  | 40  | 38  |    |    |
| 8   | 64  | 51  | 43  | 37  | 62  | 50  | 42  | 37  | 49  | 42  | 37  | 48  | 41  | 37  | 47  | 41  | 36  | 35  |    |    |
| 9   | 60  | 47  | 39  | 34  | 58  | 46  | 39  | 34  | 45  | 38  | 33  | 44  | 38  | 33  | 43  | 37  | 33  | 31  |    |    |
| 10  | 56  | 43  | 36  | 31  | 55  | 43  | 36  | 31  | 42  | 35  | 31  | 41  | 35  | 30  | 40  | 34  | 30  | 29  |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 23082 | 23082 | 23082 |
| 5°  | 23000 | 23052 | 23146 |
| 10° | 22967 | 23020 | 23137 |
| 15° | 22891 | 22937 | 22991 |
| 20° | 22771 | 22754 | 22738 |
| 25° | 22524 | 22446 | 22320 |
| 30° | 22135 | 21867 | 21549 |
| 35° | 21492 | 20951 | 20306 |
| 40° | 20423 | 19546 | 18608 |
| 45° | 18867 | 17814 | 16735 |
| 50° | 17151 | 16041 | 14721 |
| 55° | 15421 | 13888 | 12726 |
| 60° | 13495 | 11350 | 11042 |
| 65° | 11636 | 8925  | 9966  |
| 70° | 10374 | 7284  | 9605  |
| 75° | 9937  | 7110  | 10037 |
| 80° | 10749 | 8410  | 11183 |
| 85° | 12067 | 10126 | 12186 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1354.9  | 4.1       |
| 10°-20°   | 3877.6  | 11.8      |
| 20°-30°   | 5800.5  | 17.7      |
| 30°-40°   | 6617.9  | 20.2      |
| 40°-50°   | 6024.1  | 18.3      |
| 50°-60°   | 4423.5  | 13.5      |
| 60°-70°   | 2611.9  | 8.0       |
| 70°-80°   | 1496.8  | 4.6       |
| 80°-90°   | 632.9   | 1.9       |
| 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°    | 11033.0 | 33.6      |
| 0°-40°    | 17650.9 | 53.7      |
| 0°-60°    | 28098.5 | 85.6      |
| 0°-90°    | 32840.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 32840.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 14296 | 14296 | 14296 | 14296 | 14296 |      |
| 5°  | 14191 | 14280 | 14223 | 14280 | 14281 | ###  |
| 15° | 13694 | 13770 | 13722 | 13770 | 13754 | 3864 |
| 25° | 12643 | 12688 | 12600 | 12595 | 12529 | 5820 |
| 35° | 10904 | 10850 | 10630 | 10447 | 10302 | 6793 |
| 45° | 8263  | 8214  | 7802  | 7452  | 7329  | 6368 |
| 55° | 5478  | 5225  | 4934  | 4576  | 4521  | 4899 |
| 65° | 3046  | 2659  | 2336  | 2499  | 2609  | 3065 |
| 75° | 1593  | 1366  | 1140  | 1486  | 1609  | 1717 |
| 85° | 651   | 601   | 547   | 645   | 658   | 681  |
| 90° | 0     | 0     | 0     | 0     | 0     |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 14295.7 | 14295.7 | 14295.7 | 14295.7 | 14295.7 |
| 2.5°  | 14229.6 | 14311.9 | 14260.3 | 14316.7 | 14365.1 |
| 5°    | 14191.1 | 14279.7 | 14223.3 | 14279.7 | 14281.3 |
| 7.5°  | 14120.1 | 14202.3 | 14147.5 | 14208.8 | 14202.3 |
| 10°   | 14008.8 | 14091.0 | 14041.1 | 14107.2 | 14112.0 |
| 12.5° | 13866.9 | 13945.9 | 13894.4 | 13970.2 | 13957.3 |
| 15°   | 13694.4 | 13770.2 | 13721.8 | 13770.2 | 13754.1 |
| 17.5° | 13491.3 | 13560.6 | 13497.8 | 13551.0 | 13523.6 |
| 20°   | 13252.7 | 13310.7 | 13243.0 | 13292.9 | 13233.4 |
| 22.5° | 12967.4 | 13018.9 | 12947.9 | 12975.3 | 12914.0 |
| 25°   | 12643.2 | 12688.3 | 12599.7 | 12594.9 | 12528.8 |
| 27.5° | 12282.1 | 12306.3 | 12193.4 | 12154.7 | 12078.9 |
| 30°   | 11872.7 | 11879.0 | 11729.1 | 11656.6 | 11558.2 |
| 32.5° | 11413.0 | 11397.0 | 11205.1 | 11097.1 | 10976.1 |
| 35°   | 10903.6 | 10850.4 | 10629.6 | 10447.4 | 10302.3 |
| 37.5° | 10328.1 | 10244.3 | 9979.9  | 9710.6  | 9571.9  |
| 40°   | 9689.6  | 9591.3  | 9273.7  | 8939.9  | 8828.7  |
| 42.5° | 8994.8  | 8911.0  | 8536.9  | 8188.6  | 8079.0  |
| 45°   | 8262.8  | 8214.4  | 7801.6  | 7451.8  | 7329.2  |
| 47.5° | 7530.8  | 7495.4  | 7092.3  | 6736.0  | 6587.6  |
| 50°   | 6827.9  | 6750.5  | 6386.2  | 5995.9  | 5860.6  |
| 52.5° | 6145.9  | 5987.8  | 5667.1  | 5267.2  | 5167.3  |
| 55°   | 5478.4  | 5225.3  | 4933.5  | 4575.6  | 4520.7  |
| 57.5° | 4817.4  | 4490.1  | 4206.4  | 3938.7  | 3937.1  |
| 60°   | 4179.0  | 3804.9  | 3514.7  | 3374.4  | 3419.6  |
| 62.5° | 3580.8  | 3197.1  | 2882.7  | 2892.3  | 2974.6  |
| 65°   | 3045.6  | 2658.6  | 2336.1  | 2499.0  | 2608.6  |
| 67.5° | 2586.1  | 2216.8  | 1889.5  | 2192.7  | 2297.4  |
| 70°   | 2197.5  | 1863.7  | 1543.0  | 1921.7  | 2034.7  |
| 72.5° | 1870.3  | 1589.7  | 1301.1  | 1696.1  | 1810.5  |
| 75°   | 1592.9  | 1365.5  | 1139.8  | 1486.5  | 1608.9  |
| 77.5° | 1367.2  | 1165.6  | 1022.2  | 1286.5  | 1413.9  |
| 80°   | 1156.0  | 978.7   | 904.5   | 1093.2  | 1202.7  |
| 82.5° | 915.7   | 793.3   | 749.7   | 888.3   | 944.8   |
| 85°   | 651.4   | 601.3   | 546.6   | 644.9   | 657.8   |
| 87.5° | 357.9   | 370.8   | 306.3   | 370.8   | 372.4   |
| 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)