

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: P731181

Luminaire Tested: **HBLED-LD5-60SE-W-CLI-UNV-L740**

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P731181  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23766)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-60SE-W-CLI-UNV-L740  
Description: 60000 LUMEN, SE HBLED WITH WIDE DISTRIBUTION AND CLEAR ACRYLIC LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 57849.0 lumens  
Efficiency: N/A  
Efficacy: 157.6 lumens/watt  
Spacing Criteria (0/90/45): 1.28 / 1.27 / 1.37  
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')  
CIE Type: Direct

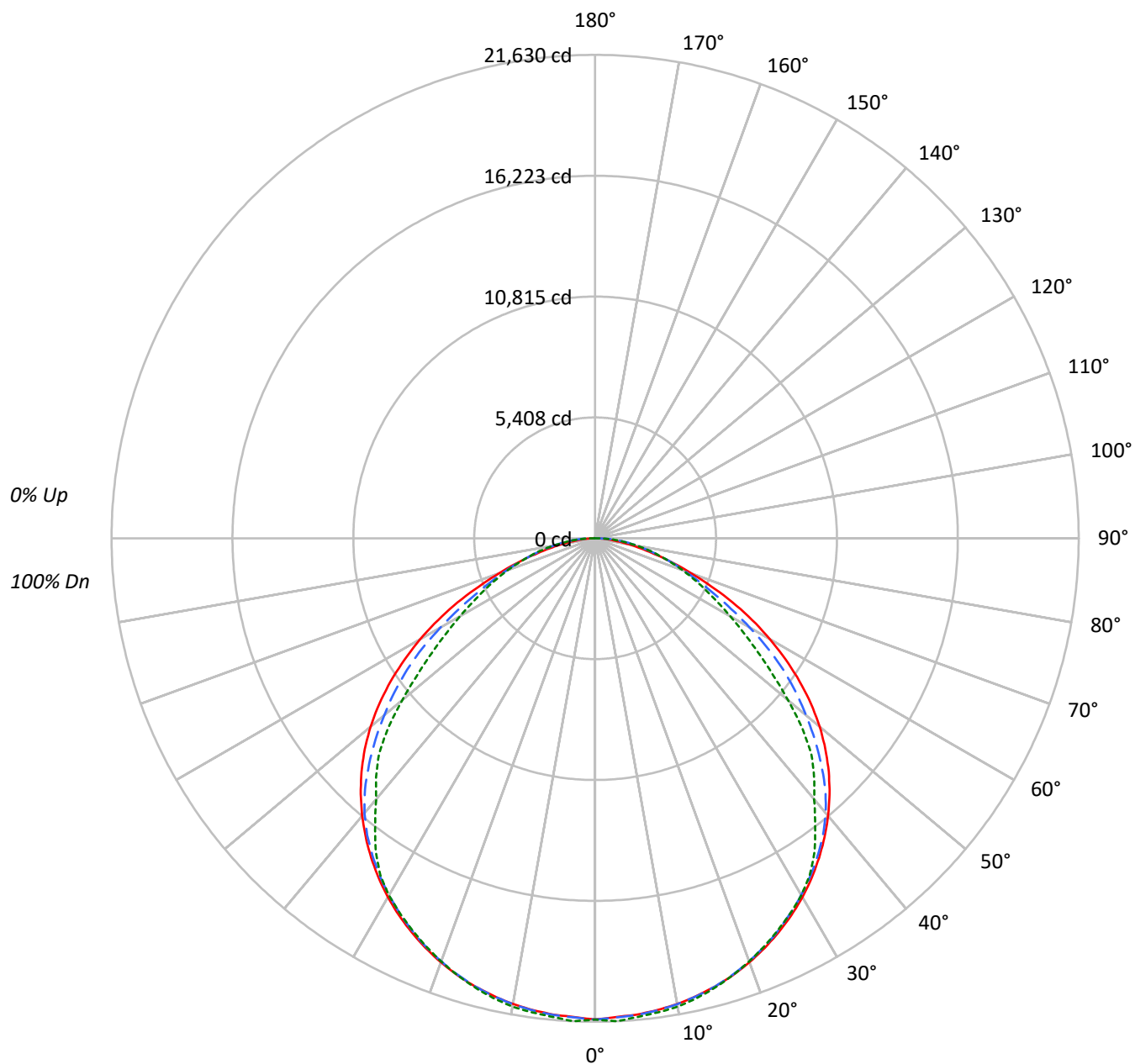
Input Watts (W): 367  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 102 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 90  | 91  | 89  | 87  | 85  |    |    |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 77  | 74  | 71  |    |    |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 77  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  | 61  |    |    |
| 4   | 84  | 72  | 64  | 57  | 81  | 71  | 63  | 57  | 68  | 61  | 56  | 66  | 60  | 55  | 64  | 59  | 54  | 52  |    |    |
| 5   | 77  | 65  | 56  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  | 59  | 53  | 48  | 58  | 52  | 47  | 45  |    |    |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 49  | 43  | 55  | 48  | 43  | 54  | 47  | 42  | 52  | 46  | 42  | 40  |    |    |
| 7   | 66  | 53  | 44  | 38  | 64  | 52  | 44  | 38  | 50  | 43  | 38  | 49  | 42  | 37  | 48  | 42  | 37  | 35  |    |    |
| 8   | 62  | 48  | 40  | 34  | 60  | 48  | 40  | 34  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 33  | 31  |    |    |
| 9   | 58  | 44  | 36  | 31  | 56  | 44  | 36  | 31  | 43  | 35  | 30  | 41  | 35  | 30  | 40  | 35  | 30  | 28  |    |    |
| 10  | 54  | 41  | 33  | 28  | 53  | 40  | 33  | 28  | 39  | 32  | 28  | 38  | 32  | 28  | 38  | 32  | 27  | 26  |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 34765 | 34765 | 34765 |
| 5°  | 34671 | 34696 | 34852 |
| 10° | 34691 | 34708 | 34890 |
| 15° | 34695 | 34691 | 34773 |
| 20° | 34686 | 34607 | 34615 |
| 25° | 34634 | 34505 | 34463 |
| 30° | 34577 | 34370 | 34389 |
| 35° | 34415 | 34202 | 33718 |
| 40° | 34170 | 33822 | 32116 |
| 45° | 33737 | 32656 | 31228 |
| 50° | 32925 | 30918 | 28282 |
| 55° | 31426 | 28916 | 25009 |
| 60° | 29164 | 25800 | 22553 |
| 65° | 25922 | 22338 | 20738 |
| 70° | 21513 | 19963 | 19548 |
| 75° | 17399 | 18269 | 18496 |
| 80° | 13821 | 17474 | 17401 |
| 85° | 10821 | 18772 | 17907 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 2042.0  | 3.5       |
| 10°-20°   | 5873.5  | 10.2      |
| 20°-30°   | 8956.0  | 15.5      |
| 30°-40°   | 10835.5 | 18.7      |
| 40°-50°   | 10975.4 | 19.0      |
| 50°-60°   | 9071.4  | 15.7      |
| 60°-70°   | 5991.5  | 10.4      |
| 70°-80°   | 3124.2  | 5.4       |
| 80°-90°   | 979.4   | 1.7       |
| 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°    | 16871.5 | 29.2      |
| 0°-40°    | 27707.0 | 47.9      |
| 0°-60°    | 47753.9 | 82.5      |
| 0°-90°    | 57849.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 57849.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux  |
|-----|-------|-------|-------|-------|-------|-------|
| 0°  | 21532 | 21532 | 21532 | 21532 | 21532 |       |
| 5°  | 21392 | 21522 | 21408 | 21501 | 21503 | ###   |
| 15° | 20756 | 20862 | 20754 | 20818 | 20803 | 5861  |
| 25° | 19441 | 19518 | 19368 | 19417 | 19345 | 8964  |
| 35° | 17460 | 17484 | 17352 | 17329 | 17106 | 10921 |
| 45° | 14775 | 14736 | 14302 | 13857 | 13676 | 11377 |
| 55° | 11164 | 10998 | 10272 | 9274  | 8884  | 9950  |
| 65° | 6785  | 6589  | 5847  | 5467  | 5428  | 6702  |
| 75° | 2789  | 2838  | 2929  | 2967  | 2965  | 3038  |
| 85° | 584   | 752   | 1013  | 1006  | 967   | 709   |
| 90° | 0     | 0     | 0     | 0     | 0     |       |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 21531.6 | 21531.6 | 21531.6 | 21531.6 | 21531.6 |
| 2.5°  | 21441.3 | 21567.9 | 21461.8 | 21554.9 | 21629.9 |
| 5°    | 21392.1 | 21521.5 | 21407.6 | 21500.7 | 21503.3 |
| 7.5°  | 21296.6 | 21425.8 | 21309.3 | 21402.4 | 21399.8 |
| 10°   | 21159.4 | 21281.1 | 21169.8 | 21281.1 | 21281.1 |
| 12.5° | 20973.5 | 21092.3 | 20983.8 | 21087.1 | 21071.5 |
| 15°   | 20756.4 | 20862.2 | 20753.8 | 20818.4 | 20802.8 |
| 17.5° | 20500.4 | 20596.1 | 20474.5 | 20528.7 | 20497.8 |
| 20°   | 20187.6 | 20275.5 | 20141.2 | 20211.0 | 20146.1 |
| 22.5° | 19835.9 | 19918.7 | 19781.7 | 19833.6 | 19761.0 |
| 25°   | 19440.7 | 19518.2 | 19368.3 | 19417.3 | 19345.0 |
| 27.5° | 19014.0 | 19083.8 | 18915.8 | 18975.4 | 18918.3 |
| 30°   | 18546.2 | 18579.9 | 18435.2 | 18512.7 | 18445.5 |
| 32.5° | 18024.1 | 18044.8 | 17918.0 | 17987.8 | 17874.2 |
| 35°   | 17460.5 | 17483.9 | 17352.1 | 17328.8 | 17106.5 |
| 37.5° | 16858.3 | 16868.7 | 16744.7 | 16535.1 | 16168.2 |
| 40°   | 16212.2 | 16207.1 | 16046.8 | 15563.3 | 15237.6 |
| 42.5° | 15521.8 | 15519.5 | 15237.6 | 14687.0 | 14501.0 |
| 45°   | 14774.9 | 14736.3 | 14301.8 | 13857.3 | 13676.3 |
| 47.5° | 13973.8 | 13932.3 | 13324.9 | 12970.8 | 12559.8 |
| 50°   | 13107.8 | 13035.4 | 12309.0 | 11825.5 | 11259.6 |
| 52.5° | 12174.6 | 12063.4 | 11324.2 | 10543.5 | 10008.5 |
| 55°   | 11163.9 | 10998.4 | 10272.2 | 9274.5  | 8884.2  |
| 57.5° | 10112.0 | 9866.4  | 9160.7  | 8188.9  | 7870.9  |
| 60°   | 9031.5  | 8757.4  | 7989.7  | 7191.1  | 6984.2  |
| 62.5° | 7919.9  | 7648.6  | 6865.4  | 6263.1  | 6149.3  |
| 65°   | 6785.2  | 6588.6  | 5846.9  | 5466.9  | 5428.3  |
| 67.5° | 5622.0  | 5552.3  | 4986.1  | 4792.4  | 4776.8  |
| 70°   | 4557.1  | 4544.1  | 4228.8  | 4130.5  | 4140.9  |
| 72.5° | 3642.1  | 3626.6  | 3580.1  | 3530.9  | 3533.4  |
| 75°   | 2789.1  | 2838.1  | 2928.6  | 2967.3  | 2964.9  |
| 77.5° | 2080.8  | 2181.7  | 2372.8  | 2450.4  | 2437.4  |
| 80°   | 1486.4  | 1636.3  | 1879.3  | 1951.6  | 1871.5  |
| 82.5° | 990.0   | 1147.6  | 1434.5  | 1444.9  | 1380.3  |
| 85°   | 584.1   | 752.1   | 1013.3  | 1005.5  | 966.6   |
| 87.5° | 289.4   | 452.3   | 607.4   | 581.5   | 555.8   |
| 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)