

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: P731182

Luminaire Tested: **HBLED-LD5-60SE-W-CLI-UNV-L750**

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P731182  
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-L750  
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: 59241.0 lumens  
Efficiency: N/A  
Efficacy: 161.4 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

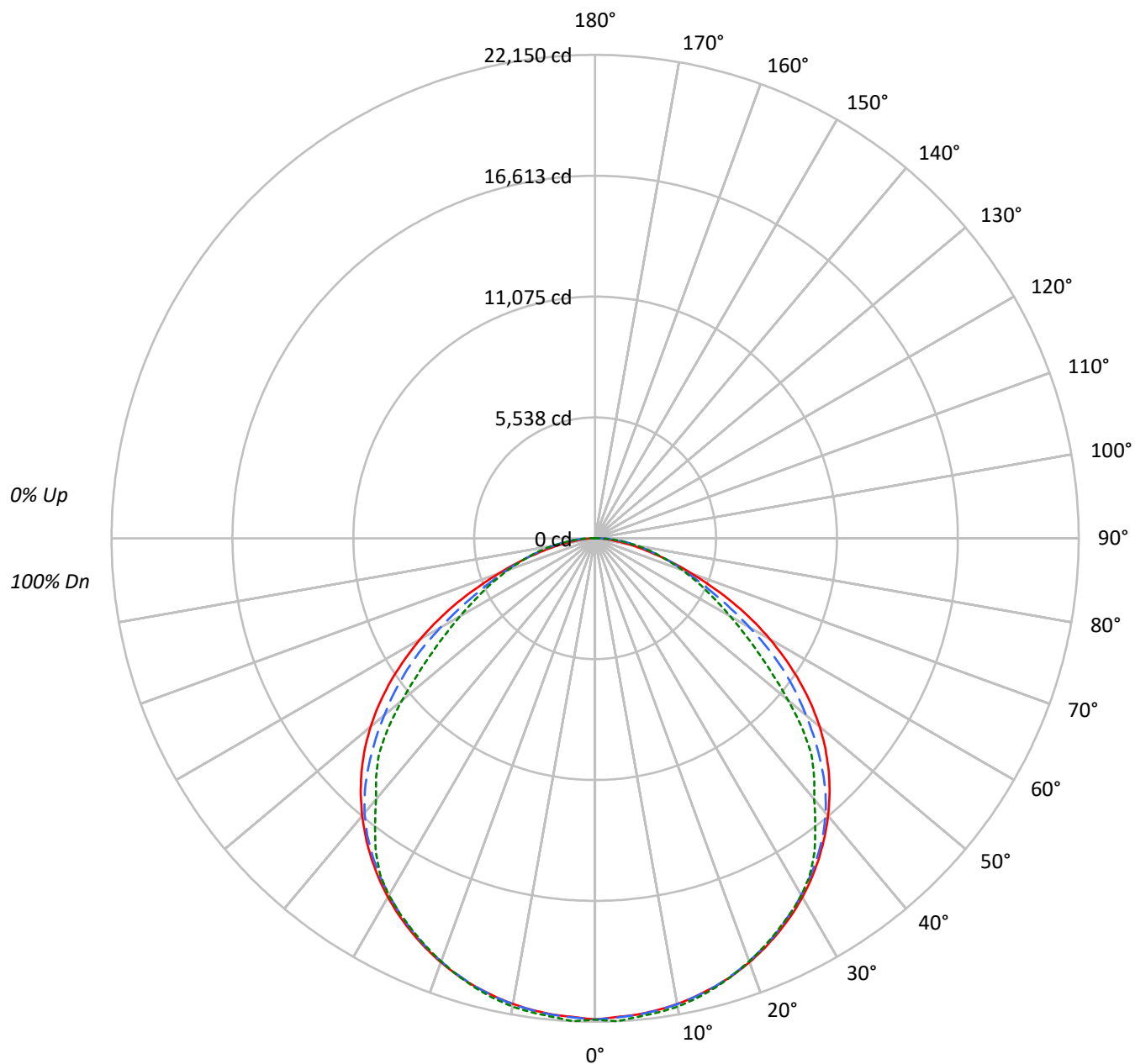
Input Watts (W): 367  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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 | 102 | 102 | 100 |
| 1   | 109 | 105 | 101 | 97  | 107 | 102 | 99  | 95  | 98  | 95  | 92  | 94  | 92  | 90  | 91  | 89  | 87  | 87  | 87  | 85  |
| 2   | 100 | 92  | 85  | 80  | 97  | 90  | 84  | 79  | 86  | 81  | 77  | 83  | 79  | 75  | 80  | 77  | 74  | 74  | 74  | 71  |
| 3   | 91  | 81  | 73  | 67  | 89  | 79  | 72  | 66  | 77  | 70  | 65  | 74  | 68  | 64  | 71  | 67  | 63  | 63  | 63  | 61  |
| 4   | 84  | 72  | 64  | 57  | 81  | 71  | 63  | 57  | 68  | 61  | 56  | 66  | 60  | 55  | 64  | 59  | 54  | 54  | 54  | 52  |
| 5   | 77  | 65  | 56  | 49  | 75  | 63  | 55  | 49  | 61  | 54  | 48  | 59  | 53  | 48  | 58  | 52  | 47  | 47  | 47  | 45  |
| 6   | 71  | 58  | 49  | 43  | 69  | 57  | 49  | 43  | 55  | 48  | 43  | 54  | 47  | 42  | 52  | 46  | 42  | 42  | 42  | 40  |
| 7   | 66  | 53  | 44  | 38  | 64  | 52  | 44  | 38  | 50  | 43  | 38  | 49  | 42  | 37  | 48  | 42  | 37  | 37  | 37  | 35  |
| 8   | 62  | 48  | 40  | 34  | 60  | 48  | 40  | 34  | 46  | 39  | 34  | 45  | 38  | 34  | 44  | 38  | 33  | 33  | 33  | 31  |
| 9   | 58  | 44  | 36  | 31  | 56  | 44  | 36  | 31  | 43  | 35  | 30  | 41  | 35  | 30  | 40  | 35  | 30  | 30  | 30  | 28  |
| 10  | 54  | 41  | 33  | 28  | 53  | 40  | 33  | 28  | 39  | 32  | 28  | 38  | 32  | 28  | 38  | 32  | 27  | 27  | 27  | 26  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 35601 | 35601 | 35601 |
| 5°  | 35506 | 35531 | 35690 |
| 10° | 35526 | 35543 | 35730 |
| 15° | 35530 | 35526 | 35610 |
| 20° | 35521 | 35440 | 35448 |
| 25° | 35467 | 35335 | 35292 |
| 30° | 35409 | 35197 | 35217 |
| 35° | 35244 | 35025 | 34529 |
| 40° | 34993 | 34636 | 32889 |
| 45° | 34548 | 33442 | 31980 |
| 50° | 33717 | 31662 | 28963 |
| 55° | 32182 | 29612 | 25610 |
| 60° | 29866 | 26421 | 23096 |
| 65° | 26546 | 22875 | 21237 |
| 70° | 22031 | 20443 | 20018 |
| 75° | 17818 | 18709 | 18941 |
| 80° | 14153 | 17894 | 17820 |
| 85° | 11080 | 19224 | 18338 |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 2091.1  | 3.5       |
| 10°-20°   | 6014.8  | 10.2      |
| 20°-30°   | 9171.6  | 15.5      |
| 30°-40°   | 11096.2 | 18.7      |
| 40°-50°   | 11239.5 | 19.0      |
| 50°-60°   | 9289.7  | 15.7      |
| 60°-70°   | 6135.7  | 10.4      |
| 70°-80°   | 3199.4  | 5.4       |
| 80°-90°   | 1003.0  | 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°    | 17277.5 | 29.2      |
| 0°-40°    | 28373.7 | 47.9      |
| 0°-60°    | 48902.9 | 82.5      |
| 0°-90°    | 59241.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 59241.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux  |
|-----|-------|-------|-------|-------|-------|-------|
| 0°  | 22050 | 22050 | 22050 | 22050 | 22050 |       |
| 5°  | 21907 | 22039 | 21923 | 22018 | 22021 | ###   |
| 15° | 21256 | 21364 | 21253 | 21319 | 21303 | 6002  |
| 25° | 19908 | 19988 | 19834 | 19885 | 19810 | 9180  |
| 35° | 17881 | 17905 | 17770 | 17746 | 17518 | 11184 |
| 45° | 15130 | 15091 | 14646 | 14191 | 14005 | 11651 |
| 55° | 11432 | 11263 | 10519 | 9498  | 9098  | 10190 |
| 65° | 6948  | 6747  | 5988  | 5598  | 5559  | 6863  |
| 75° | 2856  | 2906  | 2999  | 3039  | 3036  | 3112  |
| 85° | 598   | 770   | 1038  | 1030  | 990   | 726   |
| 90° | 0     | 0     | 0     | 0     | 0     |       |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 22049.7 | 22049.7 | 22049.7 | 22049.7 | 22049.7 |
| 2.5°  | 21957.3 | 22086.9 | 21978.3 | 22073.6 | 22150.4 |
| 5°    | 21906.8 | 22039.3 | 21922.8 | 22018.1 | 22020.8 |
| 7.5°  | 21809.1 | 21941.3 | 21822.1 | 21917.4 | 21914.8 |
| 10°   | 21668.6 | 21793.1 | 21679.2 | 21793.1 | 21793.1 |
| 12.5° | 21478.1 | 21599.8 | 21488.8 | 21594.5 | 21578.5 |
| 15°   | 21255.8 | 21364.2 | 21253.2 | 21319.3 | 21303.4 |
| 17.5° | 20993.7 | 21091.7 | 20967.1 | 21022.7 | 20991.0 |
| 20°   | 20673.4 | 20763.4 | 20625.9 | 20697.3 | 20630.9 |
| 22.5° | 20313.2 | 20398.0 | 20257.7 | 20310.9 | 20236.5 |
| 25°   | 19908.5 | 19987.9 | 19834.4 | 19884.6 | 19810.5 |
| 27.5° | 19471.6 | 19543.0 | 19370.9 | 19432.0 | 19373.6 |
| 30°   | 18992.4 | 19027.0 | 18878.8 | 18958.2 | 18889.4 |
| 32.5° | 18457.8 | 18479.0 | 18349.2 | 18420.6 | 18304.3 |
| 35°   | 17880.7 | 17904.6 | 17769.6 | 17745.7 | 17518.1 |
| 37.5° | 17263.9 | 17274.6 | 17147.6 | 16933.0 | 16557.2 |
| 40°   | 16602.4 | 16597.0 | 16432.9 | 15937.8 | 15604.2 |
| 42.5° | 15895.3 | 15892.9 | 15604.2 | 15040.4 | 14850.0 |
| 45°   | 15130.4 | 15090.8 | 14646.0 | 14190.7 | 14005.4 |
| 47.5° | 14310.0 | 14267.5 | 13645.5 | 13282.9 | 12862.0 |
| 50°   | 13423.2 | 13349.1 | 12605.1 | 12110.1 | 11530.5 |
| 52.5° | 12467.6 | 12353.6 | 11596.7 | 10797.2 | 10249.3 |
| 55°   | 11432.5 | 11263.1 | 10519.4 | 9497.7  | 9098.0  |
| 57.5° | 10355.3 | 10103.8 | 9381.1  | 8385.9  | 8060.3  |
| 60°   | 9248.8  | 8968.1  | 8181.9  | 7364.2  | 7152.2  |
| 62.5° | 8110.5  | 7832.7  | 7030.6  | 6413.9  | 6297.3  |
| 65°   | 6948.5  | 6747.2  | 5987.6  | 5598.5  | 5558.9  |
| 67.5° | 5757.3  | 5685.9  | 5106.1  | 4907.7  | 4891.7  |
| 70°   | 4666.8  | 4653.5  | 4330.5  | 4229.9  | 4240.5  |
| 72.5° | 3729.8  | 3713.8  | 3666.3  | 3615.8  | 3618.5  |
| 75°   | 2856.2  | 2906.4  | 2999.1  | 3038.7  | 3036.3  |
| 77.5° | 2130.9  | 2234.2  | 2429.9  | 2509.3  | 2496.1  |
| 80°   | 1522.1  | 1675.6  | 1924.5  | 1998.6  | 1916.5  |
| 82.5° | 1013.8  | 1175.3  | 1469.0  | 1479.6  | 1413.5  |
| 85°   | 598.1   | 770.2   | 1037.7  | 1029.7  | 989.9   |
| 87.5° | 296.4   | 463.2   | 622.0   | 595.5   | 569.2   |
| 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)