

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: P731193

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

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P731193  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2304-003-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-60SE-W-UNV-L740  
Description: 60000 LUMEN, SE HBLED WITH WIDE DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 62270.0 lumens  
Efficiency: N/A  
Efficacy: 169.7 lumens/watt  
Spacing Criteria (0/90/45): 1.3 / 1.31 / 1.43  
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')  
CIE Type: Direct

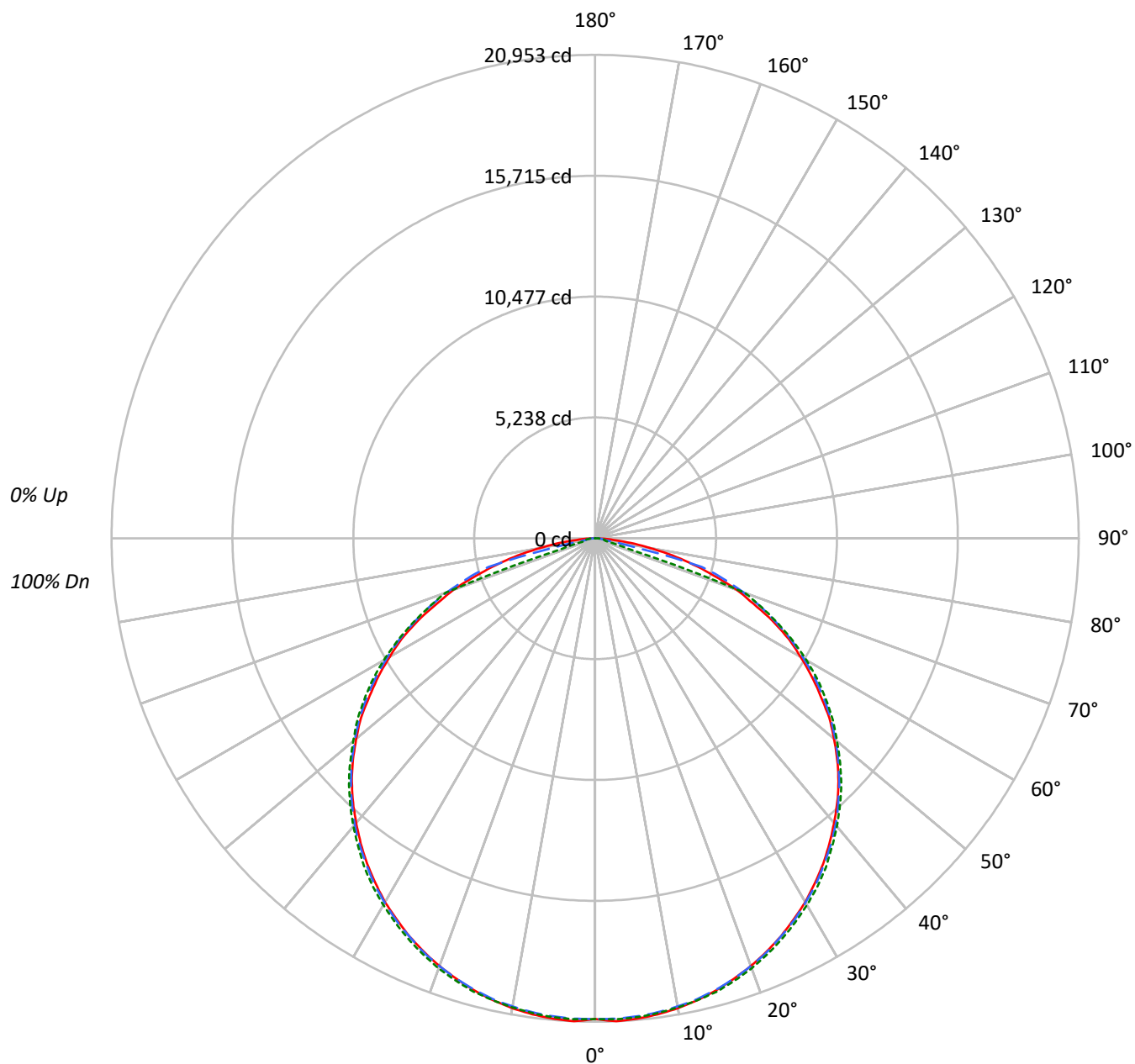
Input Watts (W): 367  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 |
| 1   | 109 | 105 | 100 | 97  | 106 | 102 | 98  | 95  | 98  | 95  | 92  | 94  | 92  | 89  | 91  | 88  | 87  |
| 2   | 99  | 91  | 84  | 79  | 97  | 89  | 83  | 78  | 86  | 80  | 76  | 82  | 78  | 74  | 79  | 76  | 72  |
| 3   | 90  | 80  | 72  | 65  | 88  | 78  | 71  | 64  | 75  | 69  | 63  | 72  | 67  | 62  | 70  | 65  | 61  |
| 4   | 82  | 70  | 62  | 55  | 80  | 69  | 61  | 54  | 67  | 59  | 54  | 64  | 58  | 53  | 62  | 57  | 52  |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 56  | 50  | 45  |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 40  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 40  | 35  | 46  | 40  | 35  |
| 8   | 60  | 46  | 38  | 32  | 58  | 46  | 38  | 32  | 44  | 37  | 32  | 43  | 36  | 31  | 42  | 36  | 31  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 33  | 28  | 40  | 33  | 28  | 39  | 33  | 28  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 25  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 33644 | 33644 | 33644 |
| 5°  | 33885 | 33712 | 33772 |
| 10° | 33904 | 33782 | 33851 |
| 15° | 33899 | 33853 | 34008 |
| 20° | 33897 | 33905 | 34080 |
| 25° | 33913 | 33930 | 34136 |
| 30° | 33950 | 33993 | 34218 |
| 35° | 33944 | 34054 | 34337 |
| 40° | 33949 | 34164 | 34350 |
| 45° | 34044 | 34172 | 34447 |
| 50° | 33941 | 34140 | 34361 |
| 55° | 33568 | 34039 | 34404 |
| 60° | 33187 | 33726 | 34146 |
| 65° | 32453 | 33127 | 33375 |
| 70° | 30810 | 32125 | 32519 |
| 75° | 27480 | 29797 | 3591  |
| 80° | 22098 | 3712  | 3927  |
| 85° | 14705 | 4815  | 4902  |



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**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1979.1  | 3.2       |
| 10°-20°   | 5718.6  | 9.2       |
| 20°-30°   | 8786.3  | 14.1      |
| 30°-40°   | 10816.2 | 17.4      |
| 40°-50°   | 11531.2 | 18.5      |
| 50°-60°   | 10779.3 | 17.3      |
| 60°-70°   | 8533.2  | 13.7      |
| 70°-80°   | 3630.5  | 5.8       |
| 80°-90°   | 495.7   | 0.8       |
| 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°    | 16483.9 | 26.5      |
| 0°-40°    | 27300.1 | 43.8      |
| 0°-60°    | 49610.6 | 79.7      |
| 0°-90°    | 62270.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 62270.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux  |
|-----|-------|-------|-------|-------|-------|-------|
| 0°  | 20837 | 20837 | 20837 | 20837 | 20837 |       |
| 5°  | 20907 | 20814 | 20800 | 20717 | 20837 | ###   |
| 15° | 20280 | 20243 | 20252 | 20197 | 20345 | 5726  |
| 25° | 19036 | 19013 | 19046 | 19036 | 19162 | 8777  |
| 35° | 17221 | 17194 | 17277 | 17337 | 17421 | 10776 |
| 45° | 14910 | 14826 | 14965 | 15026 | 15086 | 11488 |
| 55° | 11925 | 11962 | 12092 | 12134 | 12222 | 10678 |
| 65° | 8495  | 8569  | 8671  | 8736  | 8736  | 8357  |
| 75° | 4405  | 4595  | 4776  | 780   | 576   | 4660  |
| 85° | 794   | 237   | 260   | 269   | 265   | ###   |
| 90° | 0     | 0     | 0     | 0     | 0     |       |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 20837.3 | 20837.3 | 20837.3 | 20837.3 | 20837.3 |
| 2.5°  | 20953.4 | 20855.9 | 20837.3 | 20753.8 | 20865.2 |
| 5°    | 20907.0 | 20814.1 | 20800.2 | 20716.6 | 20837.3 |
| 7.5°  | 20809.5 | 20735.2 | 20725.9 | 20637.7 | 20758.4 |
| 10°   | 20679.5 | 20609.9 | 20605.2 | 20526.3 | 20647.0 |
| 12.5° | 20503.1 | 20442.8 | 20461.3 | 20382.4 | 20503.1 |
| 15°   | 20280.3 | 20243.2 | 20252.4 | 20196.7 | 20345.3 |
| 17.5° | 20011.1 | 19992.5 | 20011.1 | 19969.3 | 20103.9 |
| 20°   | 19727.9 | 19704.7 | 19732.6 | 19709.3 | 19834.7 |
| 22.5° | 19398.3 | 19370.5 | 19426.2 | 19393.7 | 19509.7 |
| 25°   | 19036.3 | 19013.1 | 19045.6 | 19036.3 | 19161.6 |
| 27.5° | 18623.2 | 18599.9 | 18669.6 | 18674.2 | 18771.7 |
| 30°   | 18210.0 | 18177.5 | 18233.2 | 18256.4 | 18353.9 |
| 32.5° | 17718.0 | 17708.7 | 17792.3 | 17810.8 | 17912.9 |
| 35°   | 17221.3 | 17193.5 | 17277.0 | 17337.4 | 17420.9 |
| 37.5° | 16678.2 | 16673.6 | 16761.8 | 16812.8 | 16854.6 |
| 40°   | 16107.3 | 16084.1 | 16209.4 | 16260.4 | 16297.6 |
| 42.5° | 15527.0 | 15476.0 | 15596.7 | 15661.6 | 15703.4 |
| 45°   | 14909.7 | 14826.1 | 14965.4 | 15025.7 | 15086.1 |
| 47.5° | 14232.0 | 14157.7 | 14292.3 | 14357.3 | 14399.1 |
| 50°   | 13512.5 | 13442.8 | 13591.4 | 13647.1 | 13679.6 |
| 52.5° | 12788.3 | 12718.7 | 12876.5 | 12922.9 | 13001.9 |
| 55°   | 11924.9 | 11962.1 | 12092.1 | 12133.8 | 12222.0 |
| 57.5° | 11126.5 | 11159.0 | 11284.4 | 11335.4 | 11437.6 |
| 60°   | 10277.1 | 10328.1 | 10444.2 | 10495.3 | 10574.2 |
| 62.5° | 9455.5  | 9460.1  | 9599.4  | 9622.6  | 9682.9  |
| 65°   | 8494.6  | 8568.9  | 8671.0  | 8736.0  | 8736.0  |
| 67.5° | 7422.3  | 7603.4  | 7779.8  | 7765.8  | 7803.0  |
| 70°   | 6526.5  | 6596.1  | 6805.0  | 6837.5  | 6888.5  |
| 72.5° | 5403.1  | 5584.2  | 5816.3  | 4344.8  | 1476.1  |
| 75°   | 4405.1  | 4595.4  | 4776.5  | 779.8   | 575.6   |
| 77.5° | 3421.1  | 3569.6  | 1587.5  | 445.6   | 436.3   |
| 80°   | 2376.6  | 2613.4  | 399.2   | 408.5   | 422.4   |
| 82.5° | 1564.3  | 1276.5  | 329.6   | 362.1   | 366.7   |
| 85°   | 793.8   | 236.7   | 259.9   | 269.2   | 264.6   |
| 87.5° | 259.9   | 143.9   | 148.5   | 153.2   | 157.8   |
| 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)