

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: P731162

Luminaire Tested: **HBLED-LD5-60SE-N-CLI-UNV-L735**

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P731162  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23769)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-60SE-N-CLI-UNV-L735  
Description: 60000 LUMEN, SE HBLED WITH NARROW DISTRIBUTION AND CLEAR ACRYLIC LENS INSERT  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 53851.0 lumens  
Efficiency: N/A  
Efficacy: 146.7 lumens/watt  
Spacing Criteria (0/90/45): 1.24 / 0.64 / 0.78  
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')  
CIE Type: Direct

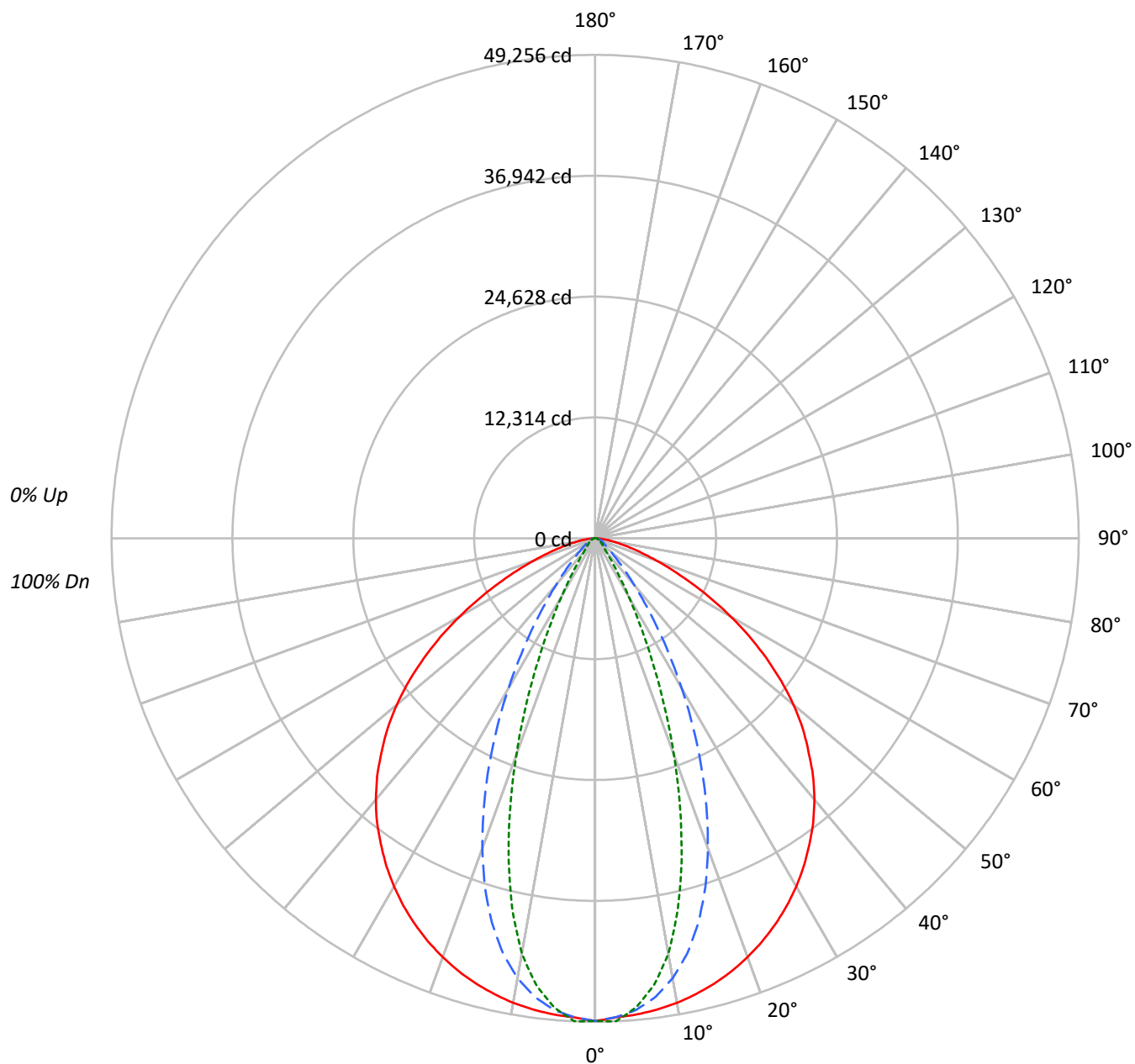
Input Watts (W): 367  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P731162

CATALOG NUMBER: HBLED-LD5-60SE-N-CLI-UNV-L735

### Luminous Intensity Polar Plot





TEST NUMBER: P731162

CATALOG NUMBER: HBLED-LD5-60SE-N-CLI-UNV-L735

**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   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98  | 98  | 96  | 95  | 95  | 93  | 92  | 90  |    |    |
| 2   | 105 | 98  | 93  | 89  | 102 | 97  | 92  | 88  | 93  | 89  | 86  | 90  | 87  | 84  | 87  | 85  | 82  | 81  |    |    |
| 3   | 98  | 90  | 84  | 79  | 96  | 88  | 83  | 78  | 86  | 81  | 77  | 83  | 79  | 75  | 81  | 77  | 74  | 72  |    |    |
| 4   | 92  | 82  | 75  | 70  | 90  | 81  | 75  | 70  | 79  | 73  | 69  | 77  | 72  | 68  | 75  | 71  | 67  | 65  |    |    |
| 5   | 86  | 76  | 69  | 63  | 84  | 75  | 68  | 63  | 73  | 67  | 62  | 71  | 66  | 62  | 69  | 65  | 61  | 60  |    |    |
| 6   | 81  | 70  | 63  | 58  | 79  | 69  | 62  | 57  | 68  | 62  | 57  | 66  | 61  | 57  | 65  | 60  | 56  | 55  |    |    |
| 7   | 76  | 65  | 58  | 53  | 75  | 64  | 58  | 53  | 63  | 57  | 52  | 62  | 56  | 52  | 60  | 56  | 52  | 50  |    |    |
| 8   | 72  | 61  | 54  | 49  | 70  | 60  | 53  | 49  | 59  | 53  | 48  | 58  | 52  | 48  | 57  | 52  | 48  | 46  |    |    |
| 9   | 68  | 57  | 50  | 45  | 67  | 56  | 50  | 45  | 55  | 49  | 45  | 54  | 49  | 45  | 53  | 48  | 45  | 43  |    |    |
| 10  | 64  | 53  | 47  | 42  | 63  | 53  | 46  | 42  | 52  | 46  | 42  | 51  | 46  | 42  | 50  | 45  | 42  | 40  |    |    |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 79420 | 79420 | 79420 |
| 5°  | 78942 | 78157 | 77746 |
| 10° | 78810 | 74618 | 70413 |
| 15° | 78493 | 67826 | 56866 |
| 20° | 78022 | 57714 | 40304 |
| 25° | 77324 | 45509 | 24351 |
| 30° | 76385 | 32845 | 12515 |
| 35° | 75006 | 21473 | 6250  |
| 40° | 73227 | 12898 | 3647  |
| 45° | 70185 | 7702  | 2727  |
| 50° | 66197 | 5037  | 2291  |
| 55° | 59912 | 3821  | 1998  |
| 60° | 51485 | 3254  | 1824  |
| 65° | 41414 | 2969  | 1722  |
| 70° | 31199 | 3180  | 1712  |
| 75° | 22949 | 3022  | 1761  |
| 80° | 16790 | 3011  | 1928  |
| 85° | 12577 | 3649  | 2494  |



TEST NUMBER: P731162

CATALOG NUMBER: HBLED-LD5-60SE-N-CLI-UNV-L735

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 4530.0  | 8.4       |
| 10°-20°   | 11269.8 | 20.9      |
| 20°-30°   | 12483.0 | 23.2      |
| 30°-40°   | 10001.1 | 18.6      |
| 40°-50°   | 7139.5  | 13.3      |
| 50°-60°   | 4585.8  | 8.5       |
| 60°-70°   | 2485.2  | 4.6       |
| 70°-80°   | 1062.2  | 2.0       |
| 80°-90°   | 294.6   | 0.5       |
| 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°    | 28282.7 | 52.5      |
| 0°-40°    | 38283.8 | 71.1      |
| 0°-60°    | 50009.0 | 92.9      |
| 0°-90°    | 53851.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 53851.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux  |
|-----|-------|-------|-------|-------|-------|-------|
| 0°  | 49189 | 49189 | 49189 | 49189 | 49189 |       |
| 5°  | 48707 | 48889 | 48222 | 48070 | 47969 | ###   |
| 15° | 46958 | 45489 | 40577 | 35859 | 34020 | 13249 |
| 25° | 43404 | 38271 | 25545 | 16643 | 13669 | 19995 |
| 35° | 38054 | 27525 | 10894 | 4394  | 3171  | 23793 |
| 45° | 30737 | 15889 | 3373  | 1435  | 1194  | 23692 |
| 55° | 21283 | 7104  | 1357  | 834   | 710   | 18968 |
| 65° | 10840 | 2917  | 777   | 536   | 451   | 10855 |
| 75° | 3679  | 1068  | 484   | 337   | 282   | 4088  |
| 85° | 679   | 282   | 197   | 163   | 135   | 829   |
| 90° | 0     | 0     | 0     | 0     | 0     |       |



TEST NUMBER: P731162

CATALOG NUMBER: HBLED-LD5-60SE-N-CLI-UNV-L735

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 49188.9 | 49188.9 | 49188.9 | 49188.9 | 49188.9 |
| 2.5°  | 48865.1 | 49170.9 | 48841.7 | 49046.4 | 49256.2 |
| 5°    | 48707.1 | 48888.6 | 48222.5 | 48069.6 | 47968.8 |
| 7.5°  | 48432.4 | 48380.6 | 47129.4 | 46318.4 | 45927.0 |
| 10°   | 48069.6 | 47649.9 | 45512.5 | 43730.2 | 42947.8 |
| 12.5° | 47551.6 | 46686.3 | 43323.3 | 40193.7 | 38867.3 |
| 15°   | 46958.3 | 45489.4 | 40577.1 | 35859.4 | 34019.9 |
| 17.5° | 46248.3 | 44090.2 | 37294.5 | 31211.5 | 28783.8 |
| 20°   | 45409.0 | 42401.1 | 33589.8 | 26273.3 | 23457.1 |
| 22.5° | 44471.2 | 40452.8 | 29623.2 | 21350.7 | 18330.0 |
| 25°   | 43403.7 | 38271.3 | 25545.4 | 16643.4 | 13669.0 |
| 27.5° | 42250.9 | 35849.1 | 21490.8 | 12435.9 | 9723.2  |
| 30°   | 40970.9 | 33227.1 | 17617.4 | 8966.9  | 6712.8  |
| 32.5° | 39574.5 | 30439.4 | 14019.0 | 6306.0  | 4591.0  |
| 35°   | 38053.8 | 27524.8 | 10894.2 | 4393.9  | 3171.1  |
| 37.5° | 36496.6 | 24550.4 | 8228.4  | 3106.2  | 2274.8  |
| 40°   | 34742.6 | 21586.4 | 6119.6  | 2274.8  | 1730.5  |
| 42.5° | 32859.2 | 18679.7 | 4528.8  | 1751.2  | 1401.6  |
| 45°   | 30737.3 | 15889.3 | 3373.3  | 1435.4  | 1194.5  |
| 47.5° | 28680.3 | 13288.3 | 2562.3  | 1222.8  | 1038.9  |
| 50°   | 26353.7 | 10941.1 | 2005.2  | 1067.5  | 911.9   |
| 52.5° | 23884.7 | 8876.1  | 1627.0  | 940.5   | 803.1   |
| 55°   | 21283.4 | 7103.9  | 1357.4  | 834.2   | 709.9   |
| 57.5° | 18648.6 | 5627.1  | 1160.7  | 743.4   | 632.3   |
| 60°   | 15943.8 | 4500.2  | 1007.8  | 665.8   | 564.7   |
| 62.5° | 13303.9 | 3598.7  | 880.8   | 598.5   | 505.3   |
| 65°   | 10840.0 | 2917.1  | 777.2   | 536.3   | 450.8   |
| 67.5° | 8562.5  | 2305.8  | 725.5   | 481.8   | 406.9   |
| 70°   | 6609.0  | 1795.4  | 673.7   | 430.0   | 362.7   |
| 72.5° | 5007.9  | 1378.4  | 596.0   | 383.4   | 321.3   |
| 75°   | 3678.8  | 1067.5  | 484.5   | 336.8   | 282.3   |
| 77.5° | 2632.3  | 821.4   | 393.8   | 292.7   | 243.6   |
| 80°   | 1805.8  | 611.5   | 323.8   | 251.3   | 207.4   |
| 82.5° | 1173.8  | 432.8   | 261.6   | 207.4   | 170.9   |
| 85°   | 678.9   | 282.3   | 197.0   | 163.2   | 134.6   |
| 87.5° | 292.7   | 155.3   | 134.6   | 121.8   | 103.6   |
| 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)