

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: P730605

Luminaire Tested: **HBLED-LD5-18SE-N-UNV-L740**

Issue Date: 11/13/2023

**Test Information**

Test Method: LM-79-08  
Report Number: P730605  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P23767)  
Test Lab: INNOVATION CENTER  
Issue Date: 11/13/2023  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: METALUX  
Catalog Number: HBLED-LD5-18SE-N-UNV-L740  
Description: 18000 LUMEN, SE HBLED WITH NARROW DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 18899.0 lumens  
Efficiency: N/A  
Efficacy: 164.6 lumens/watt  
Spacing Criteria (0/90/45): 1.27 / 0.62 / 0.77  
Luminous Opening: Rectangular (W 1.67' x L: 4' x H: 0')  
CIE Type: Direct

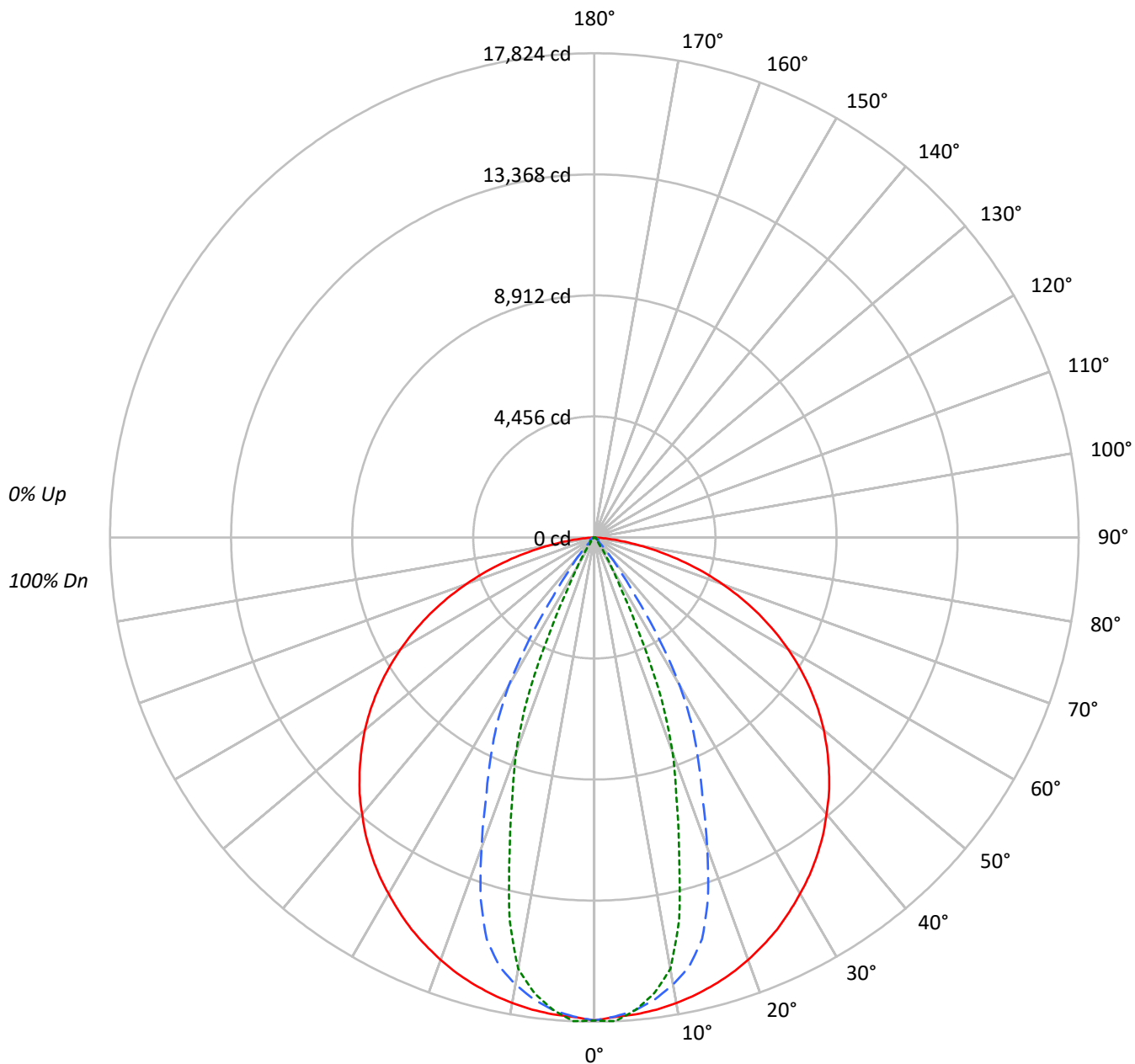
Input Watts (W): 114.8  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



TEST NUMBER: P730605

CATALOG NUMBER: HBLED-LD5-18SE-N-UNV-L740

### Luminous Intensity Polar Plot





TEST NUMBER: P730605

CATALOG NUMBER: HBLED-LD5-18SE-N-UNV-L740

**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  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98  |  | 98  | 96  | 95  |  | 95  |
| 2   | 105 | 98  | 93  | 89  | 102 | 97  | 92  | 88  | 93  | 89  | 86  |  | 90  | 87  | 84  |  | 87  |
| 3   | 98  | 90  | 84  | 79  | 96  | 88  | 83  | 78  | 86  | 81  | 77  |  | 83  | 79  | 76  |  | 81  |
| 4   | 92  | 82  | 76  | 70  | 90  | 81  | 75  | 70  | 79  | 73  | 69  |  | 77  | 72  | 68  |  | 75  |
| 5   | 86  | 76  | 69  | 64  | 84  | 75  | 68  | 63  | 73  | 67  | 63  |  | 71  | 66  | 62  |  | 70  |
| 6   | 81  | 70  | 63  | 58  | 79  | 70  | 63  | 58  | 68  | 62  | 58  |  | 66  | 61  | 57  |  | 65  |
| 7   | 76  | 66  | 58  | 54  | 75  | 65  | 58  | 53  | 63  | 57  | 53  |  | 62  | 57  | 53  |  | 61  |
| 8   | 72  | 61  | 54  | 49  | 71  | 61  | 54  | 49  | 59  | 53  | 49  |  | 58  | 53  | 49  |  | 57  |
| 9   | 68  | 57  | 51  | 46  | 67  | 57  | 50  | 46  | 56  | 50  | 46  |  | 55  | 49  | 46  |  | 54  |
| 10  | 65  | 54  | 47  | 43  | 64  | 53  | 47  | 43  | 53  | 47  | 43  |  | 52  | 46  | 43  |  | 51  |

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

|     | 0°    | 45°   | 90°   |
|-----|-------|-------|-------|
| 0°  | 28709 | 28709 | 28709 |
| 5°  | 28555 | 28303 | 28291 |
| 10° | 28538 | 27396 | 26435 |
| 15° | 28497 | 25595 | 20119 |
| 20° | 28431 | 20865 | 14482 |
| 25° | 28359 | 16133 | 7134  |
| 30° | 28233 | 11725 | 2313  |
| 35° | 28167 | 5202  | 595   |
| 40° | 28019 | 2113  | 401   |
| 45° | 27894 | 593   | 427   |
| 50° | 27676 | 421   | 474   |
| 55° | 27278 | 500   | 202   |
| 60° | 26605 | 557   | 123   |
| 65° | 25510 | 355   | 146   |
| 70° | 23699 | 316   | 180   |
| 75° | 20732 | 238   | 248   |
| 80° | 15502 | 291   | 354   |
| 85° | 7679  | 376   | 469   |



TEST NUMBER: P730605

CATALOG NUMBER: HBLED-LD5-18SE-N-UNV-L740

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 1650.1  | 8.7       |
| 10°-20°   | 4126.1  | 21.8      |
| 20°-30°   | 4469.2  | 23.6      |
| 30°-40°   | 3309.6  | 17.5      |
| 40°-50°   | 2383.8  | 12.6      |
| 50°-60°   | 1476.0  | 7.8       |
| 60°-70°   | 907.7   | 4.8       |
| 70°-80°   | 478.5   | 2.5       |
| 80°-90°   | 97.9    | 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°    | 10245.4 | 54.2      |
| 0°-40°    | 13555.0 | 71.7      |
| 0°-60°    | 17414.8 | 92.1      |
| 0°-90°    | 18899.0 | 100.0     |
| 90°-120°  | 0.0     | 0.0       |
| 90°-150°  | 0.0     | 0.0       |
| 90°-180°  | 0.0     | 0.0       |
| 0°-180°   | 18899.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°    | 22.5° | 45°   | 67.5° | 90°   | Flux |
|-----|-------|-------|-------|-------|-------|------|
| 0°  | 17781 | 17781 | 17781 | 17781 | 17781 |      |
| 5°  | 17619 | 17684 | 17463 | 17476 | 17455 | ###  |
| 15° | 17048 | 16653 | 15312 | 13021 | 12036 | 4813 |
| 25° | 15918 | 14581 | 9056  | 5697  | 4004  | 7335 |
| 35° | 14290 | 10074 | 2639  | 621   | 302   | 8940 |
| 45° | 12216 | 5676  | 260   | 188   | 187   | 9421 |
| 55° | 9690  | 1169  | 178   | 161   | 72    | 8651 |
| 65° | 6677  | 124   | 93    | 59    | 38    | 6588 |
| 75° | 3323  | 29    | 38    | 50    | 40    | 3510 |
| 85° | 414   | 11    | 20    | 30    | 25    | 626  |
| 90° | 0     | 0     | 0     | 0     | 0     |      |



TEST NUMBER: P730605

CATALOG NUMBER: HBLED-LD5-18SE-N-UNV-L740

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 22.5°   | 45°     | 67.5°   | 90°     |
|-------|---------|---------|---------|---------|---------|
| 0°    | 17781.0 | 17781.0 | 17781.0 | 17781.0 | 17781.0 |
| 2.5°  | 17666.8 | 17779.4 | 17646.6 | 17745.6 | 17824.2 |
| 5°    | 17618.6 | 17683.8 | 17463.0 | 17475.7 | 17455.4 |
| 7.5°  | 17534.0 | 17518.8 | 17147.5 | 16985.1 | 16914.1 |
| 10°   | 17406.4 | 17305.7 | 16710.2 | 16371.0 | 16124.0 |
| 12.5° | 17241.4 | 17016.4 | 16164.6 | 15086.1 | 14416.2 |
| 15°   | 17048.5 | 16652.7 | 15311.9 | 13021.4 | 12035.9 |
| 17.5° | 16818.4 | 16257.6 | 13917.9 | 10913.4 | 10033.8 |
| 20°   | 16546.9 | 15816.9 | 12143.3 | 9285.1  | 8428.3  |
| 22.5° | 16244.1 | 15280.6 | 10419.5 | 7716.9  | 6494.6  |
| 25°   | 15918.4 | 14581.1 | 9055.9  | 5696.9  | 4004.3  |
| 27.5° | 15542.0 | 13682.0 | 7776.9  | 3355.6  | 2043.6  |
| 30°   | 15143.7 | 12599.2 | 6289.0  | 1805.1  | 1240.9  |
| 32.5° | 14741.8 | 11371.9 | 4450.1  | 1127.5  | 703.7   |
| 35°   | 14290.2 | 10074.3 | 2639.1  | 620.9   | 302.0   |
| 37.5° | 13819.0 | 8885.0  | 1559.8  | 282.6   | 193.7   |
| 40°   | 13293.7 | 7798.1  | 1002.3  | 187.7   | 190.3   |
| 42.5° | 12786.2 | 6784.7  | 564.2   | 185.2   | 188.6   |
| 45°   | 12216.0 | 5675.8  | 259.7   | 187.7   | 186.9   |
| 47.5° | 11626.5 | 4526.2  | 168.3   | 189.5   | 189.5   |
| 50°   | 11018.3 | 3236.3  | 167.5   | 193.7   | 188.6   |
| 52.5° | 10376.3 | 2019.1  | 174.3   | 192.9   | 154.8   |
| 55°   | 9690.3  | 1169.0  | 177.6   | 160.7   | 71.9    |
| 57.5° | 8979.8  | 689.4   | 179.3   | 92.2    | 40.6    |
| 60°   | 8238.8  | 381.5   | 172.5   | 68.5    | 38.1    |
| 62.5° | 7474.9  | 181.9   | 136.2   | 64.3    | 37.2    |
| 65°   | 6677.3  | 123.5   | 93.0    | 59.2    | 38.1    |
| 67.5° | 5849.2  | 95.5    | 73.6    | 55.8    | 38.9    |
| 70°   | 5020.2  | 71.0    | 66.9    | 55.8    | 38.1    |
| 72.5° | 4177.8  | 48.2    | 55.8    | 56.6    | 38.1    |
| 75°   | 3323.4  | 28.8    | 38.1    | 49.9    | 39.7    |
| 77.5° | 2476.7  | 17.7    | 29.6    | 51.6    | 48.2    |
| 80°   | 1667.2  | 15.2    | 31.3    | 48.2    | 38.1    |
| 82.5° | 978.7   | 13.6    | 30.5    | 37.2    | 30.5    |
| 85°   | 414.5   | 11.0    | 20.3    | 30.5    | 25.3    |
| 87.5° | 77.8    | 9.3     | 16.1    | 24.5    | 22.0    |
| 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)