

Technical Application Guide for PHILIPS LED Lamps

Philips TrueForce Core LED Urban











Introduction

Philips TrueForce LED Public lamps provide an easy LED solution with a fast payback to replace High-Intensity Discharge (HID) lamps. These lamps bring the energy efficiency and long lifetime benefits of LED to HID replacement, with a low initial investment delivering instant savings. With the right lamp size and light distribution, customers can easily install TrueForce Core LED lamps into their existing system, thereby enhancing the light quality without having to change the fixtures.

Benefits

- · Cost saving with short payback time
- · Low initial investment
- Enhance lighting quality with easy adoption

Features

- · High energy efficiency, >153lm/W
- Long lifetime 25,000hrs
- · Same/right lamp size and lighting distribution
- Pleasant white light with CRI 80
- IP65 design, suitable to use in the enclosed/open fixture

Applications

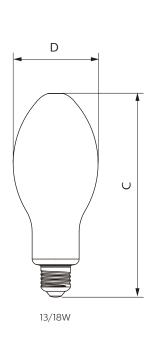
- · Public Urban Streets, Parks, Squares
- · Public Road/Area Streets, Area

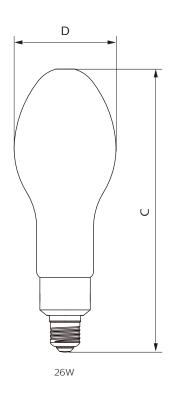
Technical Specifications

| Product description | Lumen Output | Wattage | Color Temp | Beam Angle | Voltage | Cap | Lifetime | CRI | Dimmable |
|------------------------------------|-----------------|---------|---------------|---------------|---------|-----|----------|-----|----------|
| | lm | W | K | o | VAC | | hrs | | |
| TForce Core LED HPL 13W E27 830 FR | 2000 | 13 | 3000 | 300 | 220-240 | E27 | 25000 | 80 | No |
| TForce Core LED HPL 13W E27 840 FR | 2000 | 13 | 4000 | 300 | 220-240 | E27 | 25000 | 80 | No |
| TForce Core LED HPL 18W E27 830 FR | 3000 | 18 | 3000 | 300 | 220-240 | E27 | 25000 | 80 | No |
| TForce Core LED HPL 18W E27 840 FR | 3000 | 18 | 4000 | 300 | 220-240 | E27 | 25000 | 80 | No |
| TForce Core LED HPL 26W E27 830 FR | 4000 | 26 | 3000 | 300 | 220-240 | E27 | 25000 | 80 | No |
| TForce Core LED HPL 26W E27 840 FR | 4000 | 26 | 4000 | 300 | 220-240 | E27 | 25000 | 80 | No |

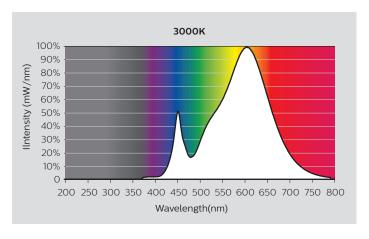
Fixture compatibility

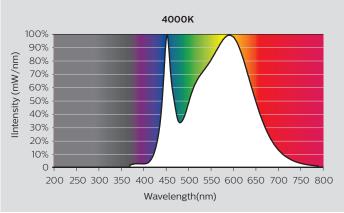
| Product description | C max. Overall Length | D max. Diameter | Weight |
|---------------------|--------------------------|--------------------|--------|
| | mm | mm | g |
| 13W LED HID lamp | 180 | 75 | 120 |
| 18W LED HID lamp | 180 | 75 | 130 |
| 26W LED HID lamp | 245 | 90 | 240 |





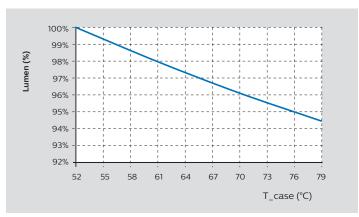
Spectral Power Distribution





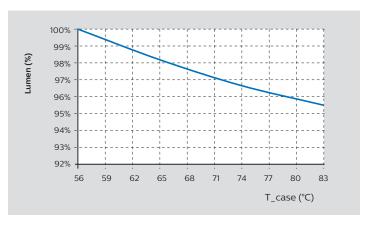
Temperature

13/18W LED HID lamp





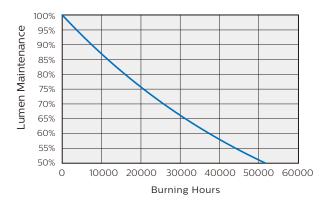
26W LED HID lamp





Lifetime + Sustainability

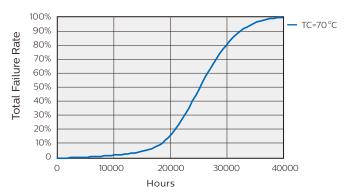
Lumen Maintenance vs Lifetime



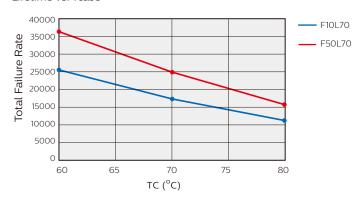
Failure Rate vs Lifetime



Lifetime vs. Failure Rate @ Ta 25°C



Lifetime vs. Tcase



- Philips TrueForce LED Public lamps have lifetime of 25,000 hours, defined as the number of hours when 50% of a large group of identical lamps fall below 70% of its initial lumens.
- Lifetime estimation based on the application environment condition: please refer to the Tc for lifetime forecast.

WARNINGS & CAUTIONS

- · Always switch off the power supply before commencing work!
- · Please read the installation instructions carefully and follow the wiring instructions to ensure safety.
- · The product is NOT dimmable.
- The product can be operated on Direct Mains or ElectroMagnetic (EM) gear without ignitor. Ignitor ALWAYS needs to be disconnected from the system.
- · Recommended to remove capacitor to improve system power factor..
- The product is not compatible with electronic gear.
- Suitable for use in operating temperature range between -20°C to +45°C.
- Do not change the structure or any components of the product to ensure safety.
- The product is designed to fit in standard IEC compliant E27 lamp holders.
- · The product should be installed by qualified professional.

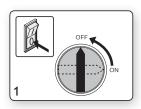
- Perform inspection before installation to ensure the luminaire and lamp holder are in good condition to carry the weight and performance of the product.
- · Recommended not to use in open luminaire.
- Please do not apply the product in applications which contains emergency or/and explosive proof luminaires.
- The total system performance may vary depending on the lighting/luminaire system.
- · For latest information, please refer to www.philips.com/lighting.
- In case of doubt, please consult Philips representative.
- · *Outdoor applications requires the lamp cap to be protected with suitable lamp socket.

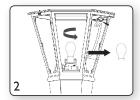
DISCLAIMER:

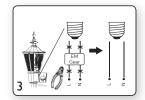
Signify disclaims liability for any direct, indirect or incidental damages in case of installation performed either not according to this guide or not performed by a professional electrician.

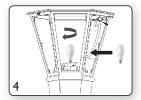
Installation Guide

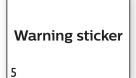
• For replacing HPL/SON/Other Lamps, Convert to Direct Mains (Recommended)

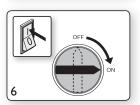




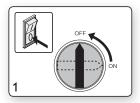


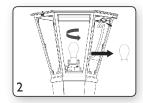


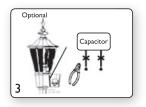


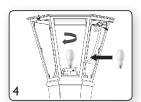


• For replacing HPL Lamps and keeping the EM ballast

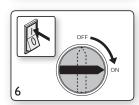






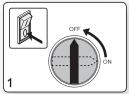


Warning sticker

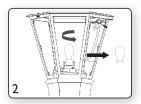


- After capacitor is removed, open wires should be terminated properly.
- If capacitor remains the power factor might be lower.

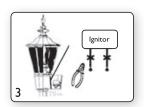
• For replacing SON Lamps and keeping the EM ballast

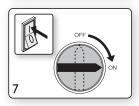


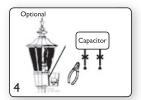












- After capacitor/ignitor is removed, open wires should be terminated properly.
- If capacitor remains the power factor might be lower.



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