

A man with a beard and short hair, wearing a blue work shirt and an orange safety harness, stands with his arms crossed in a workshop. The background is blurred, showing industrial equipment and a bright light source.

**PHILIPS**

TrueForce/LED HID lamps

# Real pros have powerful substitutes for HID

Discover the high-performance portfolio of  
Philips LED lamps for HID replacement

a lighting brand by ©signify

[philips.com/trueforce-led-lamps](https://philips.com/trueforce-led-lamps)

**REAL  
PROs**  
**REAL  
QUALITY**



# Switch out-of-date HID for out-of-this-world LED

Philips LED HID lamps provide an easy LED solution to replace HPL, HPI, SOX as well as SON-T lamps

Enjoy the benefits of LED like improved energy efficiency and long lifetime, while keeping your initial investment low. With the right lamp size and light distribution, you can easily fit LED HID lamps into your customers' existing systems, thereby enhancing light quality without having to change the light fixtures or altering the luminous effect. Our top-class LED technology guarantees low maintenance and comes with a warranty of up to 8 years.\*

Great light should go anywhere, which is why Philips LED HID lamps feel at home in a number of applications, from industry and retail to urban, street, and road.

And because budgets can be as varied as applications, the portfolio of Philips LED HID lamps offers the families TrueForce/MASTER and the even more cost-effective TrueForce Core/CorePro. Both offer outstanding performance that lasts and performs longer.

For more information visit:  
[philips.com/trueforce-led-lamps](http://philips.com/trueforce-led-lamps)



## Easy adoption

No need to change the fixture!



## Fast payback

It usually takes less than two years for LED lamps to pay for themselves.



## Sustainability

Low energy consumption and a longer lifetime make LED lighting the sustainable choice.



## Right light distribution

Enhances comfort and safety in multiple application areas.



## Low investment, long lifetime

The long lifetime of up to 70,000 hours (L70B50) makes LED an attractive investment.



## First-rate LED technology

Our high-quality products require minimal maintenance – yet come with a warranty of up to 8 years for peace of mind.\*

\* Warranty depends on lifetime of lamp

Range tiering

Finding the right lamps for different plans, needs and budgets is easy with the extensive Philips portfolio. It ensures that you always have a quality solution at the price you want.

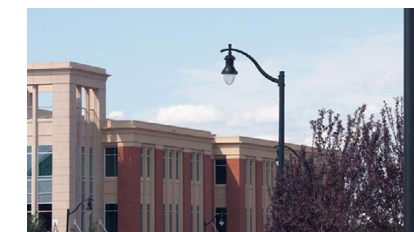


## Everywhere amazing



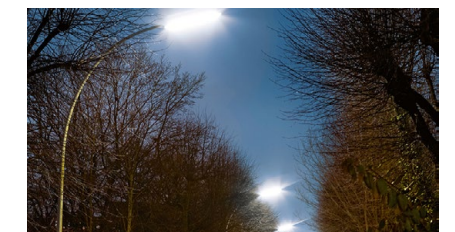
### Industry and retail

Replace conventional HPL lamps to improve light quality, safety and productivity.



### Outdoor community spaces

Easily replace existing HPI and SON-T lamps with LED HID lamps for more sustainable, safer and brighter urban locations.



### Road, street and landscape

Big in performance and low in maintenance: use LED HID lamps to replace conventional SOX, SON-T and CDO lamps.

# Product overview

Find the right Philips LED HID lamp for every application and demand using our handy product finder: [philips.com/productfinder](https://philips.com/productfinder)

Find our ballast compability list on [philips.com/ledtube](https://philips.com/ledtube)



## TrueForce Core / CorePro

Value and features:    

## TrueForce / MASTER

Value and features:    

### CorePro LED HID HPL

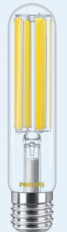


Philips CorePro LED HID HPL lamps offer you an easy, short-payback LED solution to replace HID lamps in road, street and other public areas.

- Similar look and feel as conventional HID SON/HPL lamps
- IP65 design suitable for indoor and outdoor applications<sup>1</sup>
- Perfect fit in HID luminaires with mains-only connection
- Up to 2KV surge protection

[Click here for more details](#)

### CorePro LED SON-T



Replace conventional SON-T lamps with highly efficient, cost-saving LED in road applications. As a quick payback solution these lamps combine instant savings with a low initial investment.

- **New:** LED replacement for conventional up to 100-150W SON-T lamps available
- Enables 60% energy savings compared to conventional road lighting<sup>2</sup>
- High-efficiency GaN driver design
- Perfect fit in HID luminaires with mains-only connection
- Up to 2KV surge protection
- IP65 product (IP-rated sockets required for outdoor applications)

[Click here for more details](#)

### MASTER LED HID HPL



Philips MASTER LED HID HPL lamps offer an easy and short payback LED solution to replace HID lamps in urban applications.

- Similar look and feel as conventional HID
- Long lifetime of 50,000 hrs (L70B50)
- IP65 design suitable for indoor and outdoor applications<sup>1</sup>
- Perfect fit in HID luminaires with mains-only connection
- Up to 4KV surge protection

[Click here for more details](#)

### MASTER LED SON-T UltraEfficient



The first ultra-efficient Philips LED SON-T lamp to easily replace conventional HID.

- Ultra efficient with up to 210 lm/W and energy class A
- Saves 65% in energy costs<sup>3</sup>
- Long lifetime of 50,000 hours (L70B50)
- Direct retrofit solution with little installation effort
- Available with E27 and E40 sockets
- Up to 4kV surge protection
- IP65 product (IP-rated sockets required for outdoor applications)

[Click here for more details](#)

### MASTER LED HID SON-T



Your easy and short-payback LED solution to replace HID lamps in urban and road applications.

- Easy retrofit solution, no changing of luminaire's ballast or reflector necessary
- Cost saving with short payback time
- Longer lifetime than conventional HID – up to 70,000 hrs (L70B50)
- Two versions: InstantFit; EM/Mains Voltage
- Up to 6KV surge protection
- IP40 product (IP-rated sockets required for outdoor applications)

[Click here for more details](#)

### CorePro highbay HPL



Philips CorePro LED industrial and retail lamps give you an affordable and easy payback solution to replace HID lamps in highbay applications.

- Quick and easy payback solutions to replace HID lamps in low/medium and highbay applications
- Low initial investment and quick payback through energy cost savings
- Additional energy savings by replacing EM gear for mains-only connection

[Click here for more details](#)

### TrueForce Core LED highbay HPL



Easily replace HID lamps in warehouses, factories, shops and transport hubs and provide instant savings with low initial investment.

- Enhance lighting quality with easy adoption
- Low initial investment and quick payback through energy cost savings
- Light distribution supports wider working spaces
- Wide beam angle (WB 240°)

[Click here for more details](#)

### TrueForce LED HID HPL



Easily retrofit TrueForce LED lamps into existing systems in public urban applications like parks, squares, streets and parking areas.

- Low initial investment and quick payback through energy cost savings
- Up to 4KV surge protection
- Light in weight
- Direct retrofit – for EM/Mains connections
- IP65 product (IP-rated sockets required for outdoor applications)

[Click here for more details](#)

### TrueForce LED highbay universal HPI

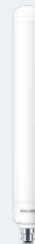


Bring all the benefits of replacing HID with LED to industrial and retail facilities like warehouses, factories, shops and transport hubs.

- Quick and easy payback solution to replace HID lamps in highbay applications
- Direct retrofit – no need to change the fixture
- Two beam angles: narrow beam (NB 60°); wide beam (WB 120°)
- Compatible with both 250W and 400W gears

[Click here for more details](#)

### TrueForce LED SOX



The perfect fit LED solution for SOX system retrofit in road, street and tunnel applications.

- Direct retrofit for traditional SOX system with TrueForce LED SOX lamp and integrated LED driver
- Low initial investment and quick payback through energy cost savings
- Perfect fit in HID SOX luminaires with mains-only connection
- Up to 6KV surge protection
- IP60 product (IP-rated sockets required for outdoor applications)

[Click here for more details](#)

<sup>1</sup> Use relevant IP rated sockets for outdoor installations

<sup>2</sup> This calculation compares the Philips CorePro LED SON-T 40W with conventional SON-T lamp 100W (including 10W ballast loss).

<sup>3</sup> This calculation compares the Philips MASTER LED SON-T UE 42.8W with a conventional SON-T lamp 100W (including 10W ballast loss).

All calculations are based on the average energy cost of 0.252 €/kWh according to the latest [Eurostat report](#), and it is calculated for the non-household consumers in Europe, valid in H12023, based on 27 countries, all taxes and levies included. The data presented is an illustrative forecast based on a proprietary model developed by Signify to help customers understand the impact of lighting on the environment. Signify's „Green Switch conventional light point conversion model“ uses input from numerous sources, references, and data points (available upon request) to generate a simulated view of a given market's energy consumption, but the accuracy of which cannot be verified. The thousand separator is a comma (,) and the decimal separator is a period (.).

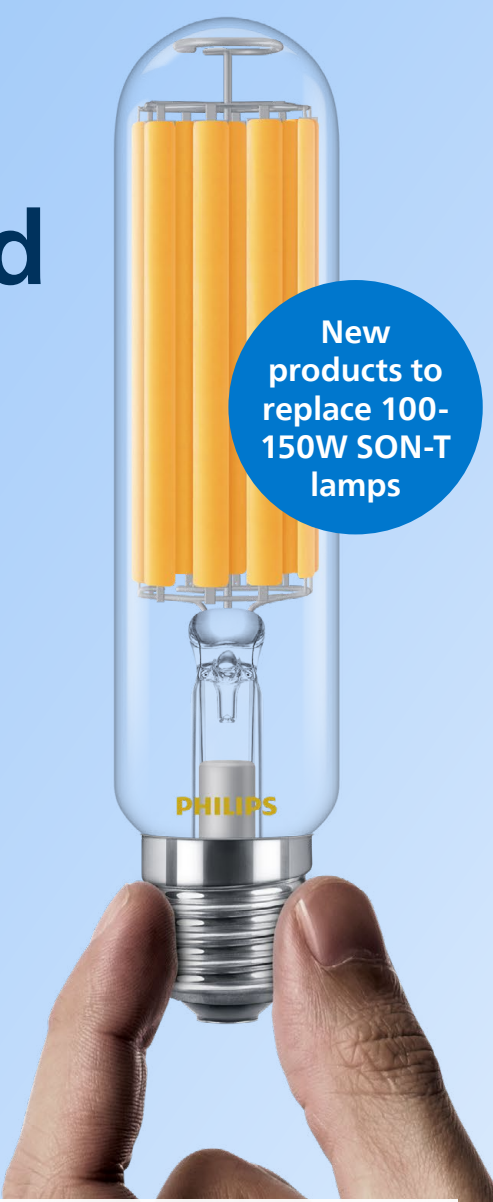


# Real pros tell HID to hit the road

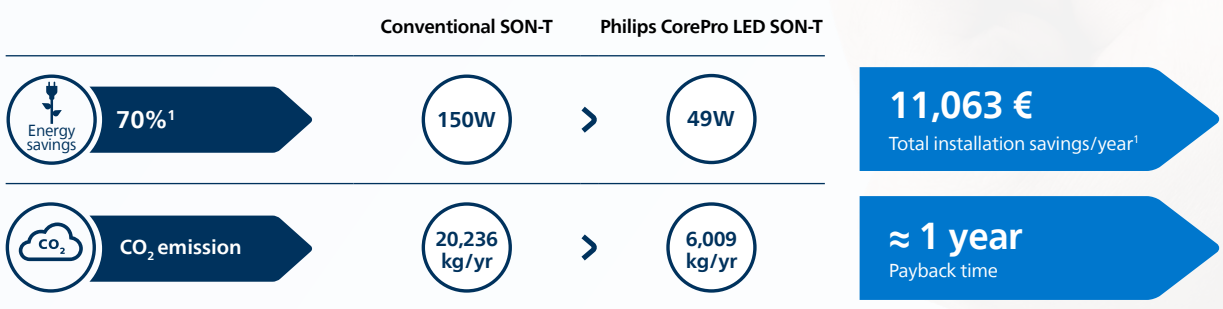
Discover the Philips CorePro LED SON-T – the straightforward replacement for conventional SON-T lamps in road lighting

Benefits and features

- Enables 70% energy savings compared to conventional road lighting<sup>1</sup>
- Low initial investment, short payback time
- Full glass design for familiar look and feel
- Up to 10,000 lm output thanks to mega-filament
- High efficiency thanks to advanced driver design (GaN technology)
- Lifetime of 25,000 hours
- Direct retrofit with mains-only wiring solution for E27/E40
- IP65 for long-lasting outdoor use<sup>2</sup>
- Good color rendering (Ra 70) and color temperatures of 2700K, 3000K and 4000K



Great savings ahead



Number of lamps	100	Installation cost/light source	≈10 €
Burning hours per year	4,380 hrs	Average buying price/lamp	112.58 €
Energy costs	0.252 €/kWh	Relative total costs/year/lamp	75.56 €

Compared to a conventional SON-T, the annual energy saving from one Philips CorePro LED SON-T can charge 15 electric cars for a whole year!<sup>4</sup>

<sup>1</sup> This calculation compares the Philips CorePro LED SON-T 49W 740 E40 MV with a conventional SON-T lamp 150W (including 15W ballast loss). The lights are on for an average of 12 hours per day, 365 days of the year (4,380 hours annually). The average energy cost is 0.252 €/kWh according to the latest Eurostat report, and it is calculated for the non-household consumers in Europe, valid in H1 2023, based on 27 countries, all taxes and levies included. The data presented is an illustrative forecast based on a proprietary model developed by Signify to help customers understand the impact of lighting on the environment. Signify's „Green Switch conventional light point conversion model“ uses input from numerous sources, references, and data points (available upon request) to generate a simulated view of a given market's energy consumption, but the accuracy of which cannot be verified. The thousand separator is a comma (,) and the decimal separator is a period (.).

<sup>2</sup> IP-certified luminaires with a suitable IP-certified socket must be used for outdoor installation.

<sup>3</sup> Calculation based on CO<sub>2</sub> gas emission of 0.28 kg/kWh.

<sup>4</sup> This calculation compares the Philips CorePro LED SON-T 49W 740 E40 MV with a conventional SON-T lamp 150W (including 15W ballast loss). The lights are on for an average of 12 hours per day, 365 days of the year (4,380 hours annually). The calculation of the charging energy for electric cars is based on the assumption that 170Wh/km are required for 20,000 km per year. Source: <https://ev-database.org/cheatsheet/energy-consumption-electric-car>



# Exceeding expectations with TrueForce LED HID SON-T

Background

Stratford-upon-Avon, a medieval market town in England's West Midlands, is the 16th-century birthplace of William Shakespeare. As you might expect from a town steeped in history, Stratford-upon-Avon has a large number of Heritage lanterns. Whilst much of Warwickshire County Council's residential and traffic routes have already been upgraded to LED, the Heritage lanterns had not been.

The main concern in upgrading was maintaining the structural integrity of the lanterns. Whilst replacing the lanterns was considered, the cost was deemed prohibitive.

A small trial of Philips TrueForce LED HID SON-T lamps was installed.

The solution

Philips TrueForce LED HID SON-T lamps were selected, as the product offered a like for like replacement into the existing lantern using the existing optic to photometrically replace the SON-T & CDO-TT lamps.

Philips TrueForce LED HID SON-T lamps offer an easy and short payback LED solution to replace High Intensity Discharge (HID) lamps. The products bring the energy-efficiency and long lifetime benefits of LED to HID replacement, while providing instant savings with a low initial investment. With the right lamp size and light distribution, you can easily retrofit TrueForce LED SON-T lamps into the existing systems without changing the luminaire's ballast or reflector while enhancing the lighting quality.

Following trials, Warwickshire County Council took the decision to replace all Heritage and Beta 5 lanterns with Philips TrueForce. The upgrade means that energy usage will be more than halved.

With the improved energy efficiency, the payback period on the installation will be less than two years.

"We were confident using a Philips lamp that we were getting a top product but TrueForce has exceeded our expectations."

Mike Cunningham, Street lighting Manager, Warwickshire County Council





Conventional oval shape

Wattage	Philips LED HID		
HPL E27 50W	Core LED HPL 13W	M	×
	MAS LED HPL 19W	M	×
	TForce LED HPL 21W	EM	×
HPL-N E27 80W	Core LED HPL 13W	M	○
	Core LED HPL 18W	M	×
	MAS LED HPL 19W	M	×
	TForce LED HPL 21W	EM	×
HPL E27 100W	Core LED HPL 18W	M	○
	Core LED HPL 26W	M	×
	MAS LED HPL 19W	M	○
	MAS LED HPL 24W	M	×
	TForce LED HPL 21W	EM	○
	TForce LED HPL 28W	EM	×
HPL-N E27 125W	Core LED HPL 24.5W	M	○
	Core LED HPL 36W	M	×
	MAS LED HPL 24W	M	○
	MAS LED HPL 33.5W	M	×
	TForce LED HPL 28W	EM	○
HPL E27 200W	Core LED HPL 36W	M	○
	MAS LED HPL 33.5W	M	○
	TForce LED HPL 42W	EM	○
HPL E40 250W	Core LED HPL 36W	M	○
	MAS LED HPL 33W	M	○
	TForce LED HPL 42W	EM	○
SON / SON PIA Plus E27 50W	Core LED HPL 18W	M	○
	Core LED HPL 24.5W	M	×
	MAS LED HPL 19W	M	○
	MAS LED HPL 24W	M	×
	TForce LED HPL 21W	EM	○
	TForce LED HPL 28W	EM	×
SON / SON-PIA Plus E27 70W CDO-TT 50W	Core LED HPL 24.5W	M	○
	Core LED HPL 36W	M	×
	MAS LED HPL 24W	M	○
	MAS LED HPL 33.5W	M	×
	TForce LED HPL 28W	EM	○
SON / SON PIA Plus E40 100W CDO-TT 70W	Core LED HPL 36W	M	×
	MAS LED HPL 33.5W	M	×
	TForce LED HPL 42W	EM	×
HPI E40 150W			
HPI E40 250W			
HPI E40 400W			
MH E40 250W			
MH E40 400W			



Philips LED HID		
Core LED HPL 13W	M	×
MAS LED HPL 19W	M	×
Core LED HPL 13W	M	○
Core LED HPL 18W	M	×
MAS LED HPL 19W	M	×
Core LED HPL 18W	M	○
Core LED HPL 24.5W	M	×
MAS LED HPL 19W	M	○
MAS LED HPL 24W	M	×
Core LED HPL 24.5W	M	○
Core LED HPL 36W	M	×
MAS LED HPL 24W	M	○
MAS LED HPL 33.5W	M	×
Core LED HPL 36W	M	○
MAS LED HPL 33.5W	M	○
Core LED HPL 36W	M	○
MAS LED HPL 33W	M	○

CorePro HPI 65W	M	×
CorePro HPI 105W	M	×
LED HPI UN 95W	UN	×
LED HPI UN 140W	UN	×
LED HPI Mains 140W	M	×
CorePro HPI 105W	M	×
LED HPI UN 95W	UN	×
LED HPI UN 140W	UN	×
LED HPI Mains 140W	M	×



Conventional tubular shape

Wattage	Philips LED HID		
SON-T (A)PIA Plus E27 50W	Core LED Road 17W	M	○
	Core LED Road 26W	M	×
	MAS LED SON-T UE 19W	M	×
	MAS LED SON-T 23W*	IF/EM	×
SON-T (A)PIA Plus E27 70W	Core LED Road 26W	M	○
	MAS LED SON-T UE 19W	M	○
	MAS LED SON-T UE 28.5W	M	×
	MAS LED SON-T 23W*	IF/EM	○
SON-T (A)PIA Plus E40 100W	Core LED Road 40W	M	×
	Core LED Road 45W	M	×
	MAS LED SON-T UE 42.8W	M	×
	MAS LED SON-T 50W*	IF/EM	×
SON-T (A)PIA Plus E40 150W	Core LED Road 45W	M	○
	MAS LED SON-T UE 42.8W	M	○
	MAS LED SON-T 65W*	IF/EM	×
SON-T E27 50W	Core LED Road 17W	M	×
	MAS LED SON-T UE 19W	M	×
	MAS LED SON-T 23W*	IF/EM	×
SON-T E27 70W	Core LED Road 26W	M	×
	Core LED Road 40W	M	×
	MAS LED SON-T UE 19W	M	○
	MAS LED SON-T UE 28.5W	M	×
	MAS LED SON-T 34W*	IF/EM	×
SON-T E40 100W	Core LED Road 40W	M	×
	Core LED Road 45W	M	×
	MAS LED SON-T UE 28.5W	M	○
	MAS LED SON-T UE 42.8W	M	×
	MAS LED SON-T 50W*	IF/EM	×
SON-T E40 150W	Core LED Road 45W	M	○
	MAS LED SON-T UE 42.8W	M	○
	MAS LED SON-T 65W*	IF/EM	×
CDO-TT E27 50W	Core LED Road 17W	M	○
	Core LED Road 26W	M	×
	MAS LED SON-T UE 28.5W	M	×
	MAS LED SON-T 23W*	IF/EM	×
CDO-TT E27 70W	MAS LED SON-T UE 28.5W	M	×
	MAS LED SON-T 34W*	IF/EM	×
CDO-TT E40 100W	Core LED Road 45W	M	×
	MAS LED SON-T UE 42.8W	M	×
	MAS LED SON-T 50W*	IF/EM	○
CDO-TT E40 150W	Core LED Road 45W	M	○
	MAS LED SON-T UE 42.8W	M	○
	MAS LED SON-T 65W*	IF/EM	○



Conventional tubular shape

Wattage	Philips LED HID		
SOX B22 35W/26W	LED SOX 18W	EM	×
SOX B22 55W/36W	LED SOX 28W	EM	×
SOX B22 55W	LED SOX 36W	EM	×

Symbols and abbreviations

- TrueForce Core LED/CorePro lamps:**  
Convenient and cost-effective
- TrueForce LED/MASTER lamps:**  
Top-quality and robust
- ×** **True replacement:**  
Initial perceived light effect/lux levels of LED lamp is the same or better than conventional HID
- **Average equivalence:**  
Average perceived light effect / lux levels of LED lamp during the life comparable to conventional HID
- UN** **Universal:**  
Plug & play solution with existing gear, no need to re-wire or remove any components. Can also work with direct mains voltage input to save additional energy.
- EM** **EM/Mains:**  
The solution works both with EM ballast or connected directly to Mains. When being connected directly to mains you achieve even more energy savings. When connected to the existing EM ballast, the ignitor as well as a parallel compensation capacitor should be removed to decrease the power factor.
- IF** **InstantFit:**  
Plug & play solution with existing gear, no need to re-wire or remove any components. Not recommended to remove ignitor and capacitor. Cannot work on Direct Mains.
- M** **Mains only:**  
Mandatory to bypass EM ballast, capacitor and ignitor. Can only be used with direct mains voltage input.
- \*** Available in both IF and EM/Mains versions.



# Get ready to save energy and costs

Click here and use our online total cost of ownership calculator for all of your projects!



## Road

	Conventional HID 70W		MASTER LED SON-T IF	MASTER LED SON-T mains	MASTER UE LED SON-T glass	Core LED SON-T glass
Lifetime	20,000 hrs	>	70,000 hrs	70,000 hrs	50,000 hrs	25,000 hrs
Lamp wattage	100W	>	50W	50W	42.8W	40W
Average buying price/ lamp (ex. VAT)	16 €	>	155.17 €	136.81 €	136.81 €	52.81 €
Total costs/year/lamp <sup>1</sup>	119.88 €	>	72.16 €	60.67 €	56.61 €	52.81 €
Number of lamps	100					
Burning hours/year	4,100 hrs					
Total savings/year			4,773 €	5,922 €	6,327 €	6,793 €
Payback period			3.3 years	2.3 years	2.2 years	0.8 years
Reduced CO <sub>2</sub> emissions over lifetime <sup>2</sup>			93,800 kg	114,100 kg	91,900 kg	48,000 kg
			Choose MASTER LED SON-T lamps for extra durable lighting with top performance and great energy savings.		Choose MASTER UE LED SON-T lamps for ultra-high energy efficiency and savings.	Choose Core LED SON-T lamps for reliable road lighting with an attractive payback time.




## Industry

	Conventional HPI 400W		MASTER LED HPI UN highbay	MASTER LED HPI mains highbay
Lifetime	15,000 hrs	>	50,000 hrs	50,000 hrs
Lamp wattage	400W	>	140W	140W
Average buying price/ lamp (ex. VAT)	23 €	>	179.02 €	161.12 €
Total costs/year/lamp <sup>1</sup>	407.94 €	>	169.24 €	144.46 €
Number of lamps	100			
Burning hours/year	3,750 hrs			
Total savings/year			23,870 €	26,348 €
Payback period			0.7 years	0.6 years
Reduced CO <sub>2</sub> emissions over lifetime <sup>2</sup>			653,300 kg	685,900 kg
			Choose MASTER LED highbays for extra durable lighting with top performance and great energy savings.	



## Retail

	Conventional HPL 125W		MASTER LED HPL mains	CorePro LED HPL mains
Lifetime	15,000 hrs	>	50,000 hrs	25,000 hrs
Lamp wattage	125W	>	33.5W	24.5W
Average buying price/ lamp (ex. VAT)	15 €	>	83.26 €	35 €
Total costs/year/lamp <sup>1</sup>	117.50 €	>	30.72 €	23.78 €
Number of lamps	100			
Burning hours/year	3,000 hrs			
Total savings/year			8,678 €	9,373 €
Payback period			1 year	0.4 years
Reduced CO <sub>2</sub> emissions over lifetime <sup>2</sup>			168,900 kg	91,000 kg
			Choose MASTER LED HPL lamps for extra durable lighting with top performance and great energy savings.	
			Choose CorePro LED HPL lamps for low-maintenance retail lighting with a low initial investment and an attractive payback time.	



## Urban

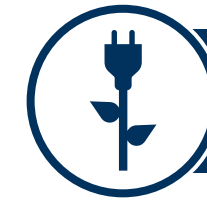
	Conventional HPL 125W		MASTER LED HPL mains – Premium	MASTER LED HPL mains	CorePro LED HPL mains
Lifetime	15,000 hrs	>	50,000 hrs	50,000 hrs	25,000 hrs
Lamp wattage	125W	>	24W	33.5W	24.5W
Average buying price/ lamp	15 €	>	75 €	83 €	35 €
Total costs/year/lamp <sup>1</sup>	160.58 €	>	31.57 €	41.96 €	32.49 €
Number of lamps	100				
Burning hours/year	4,100 hrs				
Total savings/year			12,901 €	11.862 €	12,809 €
Payback period			0.6 years	0.7 years	0.3 years
Reduced CO <sub>2</sub> emissions over lifetime <sup>2</sup>			182,700 kg	168,900 kg	91,000 kg
			Choose MASTER LED HPL lamps for extra durable lighting with top performance and great energy savings.		Choose CorePro LED HPL lamps for reliable lighting with an attractive payback time.

<sup>1</sup> Including maintenance and lamp replacement cost.<sup>2</sup> Calculation based on CO<sub>2</sub> gas emissions of 0,42 kg/kW.

All calculations are based on the average energy cost of 0.252 €/kWh according to the latest Eurostat report, and it is calculated for the non-household consumers in Europe, valid in H12023, based on 27 countries, all taxes and levies included. The data presented is an illustrative forecast based on a proprietary model developed by Signify to help customers understand the impact of lighting on the environment. Signify's „Green Switch conventional light point conversion model“ uses input from numerous sources, references, and data points (available upon request) to generate a simulated view of a given market's energy consumption, but the accuracy of which cannot be verified. The thousand separator is a comma (,) and the decimal separator is a period (.).



# Philips LED vs. HID



High efficiency for  
high energy savings

## Replace outdated HID with outstanding LED

Ever wonder what's better when it comes to urban and road applications: HID or LED?

We took a closer look at the main factors you might consider when choosing lighting products. You'll see that with all the advantages of LED lamps, it's hard to find anything that's not to like.

And it gets even better: Switching from HID to LED is easy with Philips LED HID lamps that offer a direct retrofit alternative for many conventional lamp types – without losing the familiar look and feel.

Choose Philips TrueForce/MASTER LED lamps for projects that demand especially high-quality and robust LED lamps – and TrueForce Core/CorePro LED lamps for more cost-effective and convenient solutions.

Real pros switch to LED now!



Switching to LED has  
never been easier!

## Light quality

### LED

- Very high light quality
- Wide range of color temperatures
- Broad spectrum and high CRI – for a safer, more pleasant atmosphere in outdoor environments
- Instant 100% brightness without start-up delay or flickering
- Optically efficient – emits light only towards usage direction

### HID

- Very limited light spectrum (around 2200K)
- Low CRI values, usually emitting a yellow light
- Optically inefficient – at least half the light needs to be reflected and redirected

✓ LED wins

## Efficiency and robustness

### LED

- Highest system efficacy
- Shock resistant, robust technology with low failure rate
- Up to 8 years warranty\*
- Long lifetime of up to 50,000 hours
- IP ratings for outdoor usage

### HID

- Lower system efficiency due to losses associated with omnidirectional light output
- Fragile, can fail in a number of ways
- Broken bulbs release a small amount of toxic mercury as a gas
- Approximately half the lifetime of LED

✓ LED wins

\* Warranty depends on lifetime of lamp

## Cost of ownership

### LED

- Relatively high initial costs – but low lifetime costs
- Virtually no maintenance needed – low replacement frequency
- Major payback comes from energy efficiency improvements

### HID

- Cheap to purchase, but much shorter service life
- Will require several replacements plus monitoring and replacing aging or expired components within the lifetime of a single LED lamp

✓ LED wins



# Real pros choose Philips LED lighting for:

## The best products

- We're setting new standards for high-quality products that require less maintenance, experience fewer technical hiccups, and strengthen your reputation as a reliable lighting expert.
- Our products are designed with easy installation in mind, saving you time and money.
- From connected lighting to 3D printed luminaires – with Philips you get LED lighting that's setting the reference in the industry and that keeps you ahead of the competition.

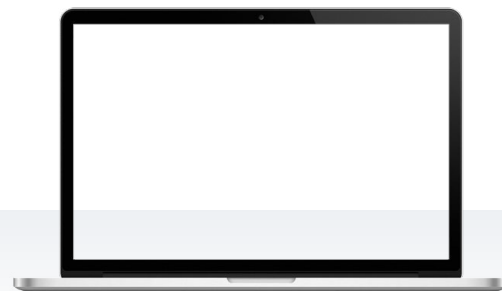
## The widest portfolio

Whatever the need, whatever the budget: with our complete portfolio of LED lighting products you'll always have the right solution at hand.



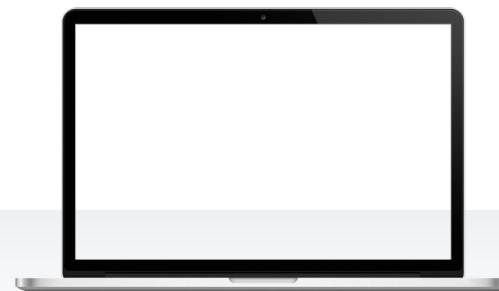
Save time with a partner who understands the challenges you face.

Which is why we offer a comprehensive portfolio of LED luminaires and lamps along with handy online tools that make your life easier.



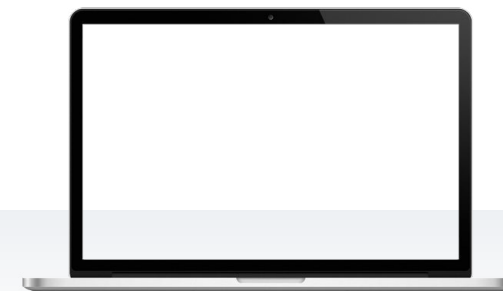
### Installer hub

- All latest product information
- Installation videos and training
- Links to all tools
- And more!



### TCO calculator

- Calculate the total cost of ownership (TCO) of your product in a few simple steps



### Product finder

- Easily find the perfect LED lamp or luminaire for every budget and application demand



### LED conversion tool

- Use our tool to help clients switch to Philips LED and enable high energy savings



# You and Signify – a reliable partnership

Signify, previously known as Philips Lighting, is the world leader in connected LED lighting systems, software and services. We proudly market the best lighting brands in the world, including Philips and Interact.

Close cooperation before, during and after projects is important to us. Our local service teams make sure you always get the competent support and information you need. We are closely working with local wholesalers to offer you flexible and on-time delivery – and product availability you can rely on.

To help you stay on top of your game the [Signify Lighting Academy](#) offers a comprehensive range of educational resources for you to grow your expertise and get certified.

## Our global brands

### PHILIPS

The Philips brand stands for quality and energy-efficiency in light. For over 125 years, Philips products have been at the forefront of innovation.

Today Philips is recognized as the leading brand in lighting.

### interact

Interact is the brand of our IoT software and platform that manages smart lighting systems and the data that those systems collect.

Easy to install and set up, Interact software can be used in a wide range of application areas, from small offices to entire cities.

We aim to help you work faster, better, smoother. How? Check:

The Signify logo, featuring a stylized 'S' inside a circle followed by the word 'ignify' in a sans-serif font.

## Driven by responsible innovation

Signify and Mercedes-AMG PETRONAS F1 Team are driven by a shared passion for technology and the desire to push the boundaries of what is possible.

Our innovations in lighting support the team's ambition to become one of the world's most sustainable in sport, serve the well-being and performance of the team, and deliver powerful experiences for fans, trackside and at home.

[Learn more at](#)

Signify is Official Lighting Partner of  
Mercedes-AMG PETRONAS F1 Team

The Signify logo, featuring a stylized 'S' inside a circle followed by the word 'ignify' in a sans-serif font.

Official Lighting Partner

**AMG**  
PETRONAS  
FORMULA ONE TEAM





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