



PHILIPS

TrueForce

Real pros have powerful substitutes for HID

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

philips.com/trueforce-led-lamps

**REAL
PROS
REAL
QUALITY**

Switch out of date HID for out of this world LED

Philips TrueForce LED lamps provide an easy LED solution to replace HPL, HID, 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 TrueForce LED lamps into your customers existing system, thereby enhancing the light quality without having to change the light fixtures or sacrifice the light effect. Our highest standard LED technology guarantees low maintenance and has a five-year warranty.

Great light should go anywhere, which is why the Philips TrueForce LED range feels 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 TrueForce family comes in TrueForce LED and the even more cost-effective TrueForce Core LED. Both offer outstanding performance that lasts and performs longer.

For more information visit:
philips.com/trueforce-led-lamps



Easy adoption
No need to change the fixture!



Right light distribution
Enhances comfort and safety in multiple application areas.



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



Low investment, long lifetime
The long lifetime of up to 50,000 hours makes LED a clever investment.



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



Highest standard LED technology
Low maintenance and up to 5 years warranty pay off!

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.



Urban

Easily fit TrueForce LED lamps into existing systems and make urban locations more sustainable, brighter and safer.



Road, Street and Landscape

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

Product overview

Find the right Philips TrueForce lamp for every application and demand using our handy product finder: philips.com/productfinder

TrueForce Core

Value and features: 

TrueForce Core LED HPL



Philips Trueforce Core LED HPL lamps offer you an easy, short-payback LED solution to replace HID lamps in road, street and other public areas, as well as industrial buildings and warehouses.

- Similar look & feel as conventional HID SON/HPL lamps
- Perfect fit in HID luminaires on existing EM ballast or mains connection
- IP65 design suitable for indoor and outdoor applications

[Click here for more details](#)

TrueForce Core 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.

- First full glass LED lamp for road lighting
- Enables up to 60% energy saving compared to conventional road lighting and lower initial investment
- High efficiency GaN driver design

[Click here for more details](#)

TrueForce

Value and features: 

TrueForce LED HPL



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

- Direct retrofit – no need to change the fixture
- Low initial investment and quick payback through energy cost savings
- Up to 6KV surge protection
- Light in weight

[Click here for more details](#)

TrueForce LED 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
- Low initial investment
- Two versions: InstantFit; EM/Mains Voltage

[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 on the wider working space
- Wide beam angle (WB 240°)

[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

[Click here for more details](#)



Real pros tell HID to hit the road

Discover the new Philips TrueForce Core LED SON-T – the first full glass LED lamp for road lighting.

Benefits and features

- First LED lamp for road lighting made from glass
- Enables up to 60% energy saving compared to conventional road lighting
- Lower initial investment, shorter payback time
- High efficiency thanks to advanced driver design (GaN technology)
- Lifetime of 25,000 hours
- Direct retrofit solution with E27/E40 cap
- Up to 7500 lm output thanks to mega-filament
- IP65 for long-lasting outdoor use
- Good color rendering (Ra 70) and color temperatures of 3000 and 4000 K



Instant savings ahead

	Conventional SON-T	TrueForce Core LED SON-T	
Energy savings 60%	82W ¹	>	26W
Longer lifetime	15,000 hrs	>	25,000 hrs
			2,882 € Energy savings/year
			< 14 months Payback time
Number of lamps	100	Installation cost/light source	≈35 €
Burning hours per year	4380 hrs ²	Lamp cost	43.50 €
Energy costs	0.12 €/kWh ³	Relative annual cost/lamp	7.62 €

Make the sustainable choice: Over its lifetime, the new Philips TrueForce Core LED SON-T saves the equivalent of the CO₂ emissions absorbed by 2,673 trees!

¹ Including ballast loss. Lamp consumption is 70W. ² Energy use. Based on 12h burning per day, 365 days per year. ³ Energy price. Based on the European average of 12 cent/kWh.



Exceeding expectations with TrueForce LED 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 SON-T lamps was installed.

The solution

Philips TrueForce LED 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 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.

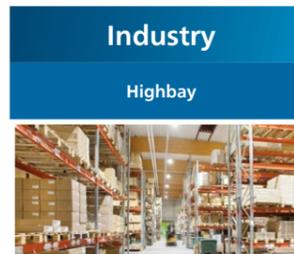
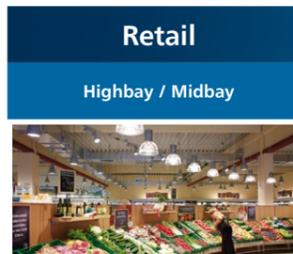
With the improved energy efficiency, the payback period on the installation will be less than two years.

"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



Choose the right TrueForce LED lamp



Conventional oval shape



Wattage:	TrueForce		
HPL E27 50W	Core LED HPL 13W	MV	×
	Core LED HPL 21W	MV	×
HPL E27 80W	Core LED HPL 26W	MV	×
	Core LED HPL 18W	MV	○
	LED HPL 28W	MV	×
	LED HPL 21W	MV	○
HPL E27 125W	Core LED HPL 36W	MV	×
	Core LED HPL 26W	MV	○
	LED HPL 42W	MV	×
	LED HPL 28W	MV	○
HPL E40 125W	Core LED HPL 36W	MV	×
	LED HPL 42W	MV	×
HPL E40 200W	Core LED HPL 36W	MV	○
	LED HPL 42W	MV	○
SON E27 50W	Core LED HPL 18W	MV	○
	Core LED HPL 26W	MV	×
	LED HPL 21W	MV	○
SON E27 70W	LED HPL 28W	MV	×
	Core LED HPL 26W	MV	○
	Core LED HPL 36W	MV	×
SON E27 100W	LED HPL 28W	MV	○
	LED HPL 42W	MV	×
	Core LED HPL 36W	MV	○
SON E40 100W	LED HPL 42W	MV	○
	Core LED HPL 36W	MV	○
MH E40 250W			
MH E40 400W			
HPI E40 250W			
HPI E40 400W			

TrueForce		
Core LED HPL 13W	MV	×
Core LED HPL 26W	MV	×
Core LED HPL 18W	MV	○
Core LED HPL 36W	MV	×
Core LED HPL 26W	MV	○
Core LED HPL 36W	MV	×
Core LED HPL 26W	MV	○
Core LED HPL 36W	MV	×
Core LED HPL 36W	MV	×
LED HPI UN 95W	UN	×
LED HPI UN 140W	UN	×
LED HPI UN 95W	UN	×
LED HPI UN 140W	UN	×

TrueForce		
Core HB 20W	MV	×
Core HB 35W	MV	×
Core HB 30W	MV	×
Core HB 20W	MV	○
Core HB 35W	MV	○
Core HB 30W	MV	○
LED HPI UN 95W	UN	×
LED HPI UN 140W	UN	×

Conventional tubular shape



Wattage:	TrueForce		
SON-T PIA E27 50W	Core LED SON-T 17W	MV	○
	LED SON-T 25W	IF/MV	×
SON-T PIA E27 70W	Core LED SON-T 26W	MV	○
	LED SON-T 35W	IF/MV	○
SON-T PIA E27 100W	LED SON-T25W	IF/MV	○
	Core LED SON-T 40W	MV	○
SON-T PIA E40 100W	LED SON-T 55W	IF/MV	○
	LED SON-T 68W	IF/MV	×
SON-T PIA E40 150W	LED SON-T 68W	IF/MV	○
	Core LED SON-T 26W	MV	○
SON-T E27 70W	LED SON-T 35W	IF/MV	×
	Core LED SON-T 40W	MV	○
SON-T E40 100W	LED SON-T 55W	IF/MV	×
	LED SON-T 68W	IF/MV	○
SON-T E40 150W	LED SON-T 68W	IF/MV	○
	Core LED SON-T 26W	MV	○
CDO E27 50W	LED SON-T 25W	IF/MV	○
	LED SON-T 35W	IF/MV	○
CDO E27 70W	LED SON-T 55W	IF/MV	○
	LED SON-T 68W	IF/MV	×
CDO E40 100W	LED SON-T 68W	IF/MV	○
	LED SON-T 68W	IF/MV	○
SOX B22 35W / 26W	LED SOX 18W	MV	×
	LED SOX 28W	MV	×
	LED SOX 36W	MV	×
SOX B22 55W / 36W			
SOX B22 55W			

Symbols and abbreviations

- **TrueForce Core LED lamps:**
convenient and cost-effective
- **TrueForce LED 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.
- MV 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.

Get ready to save energy and costs

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



Road

Designing and installing road lighting comes with a lot of demands – lamps need to be highly efficient, robust and low in maintenance. Installation should be fast and easy and ideally the price doesn't blow your budget. At the same time, the right lighting can improve road safety and comfort. It can save energy and reduce the environmental impact.

	SON-T	TrueForce LED SON-T IF	TrueForce LED SON-T MV	TrueForce Core LED SON-T
Lifetime	15,000 hrs >	50,000 hrs	50,000 hrs	25,000 hrs
Lamp wattage	70W >	35W	35W	26W
Average buying price/ lamp installer	16 € >	98.00 €	98.00 €	43.50 €
Total costs/year/lamp*	57.99 € >	34.78 €	30.05 €	27.42 €
Number of lamps	100			
Burning hours/year	4,380 hrs			
Total savings/year		2,374 €	2,847 €	3,057 €
Payback period		3.5 years	2.9 years	0.9 years



Choose TrueForce LED SON-T lamps for extra durable lighting with top performance and great energy savings.

Choose TrueForce Core LED SON-T lamps for reliable road lighting with an attractive payback time.



Industry

In ultra-demanding applications, 24/7 operations can run up expensive energy bills. With high energy-efficiency, reduced maintenance and a much longer lifetime switching to LED lamps pays off – in most cases, the energy savings in the first year alone are higher than the purchase price of the lamp!

	400W HPI	TrueForce LED highbay universal HPI
Lifetime	15,000 hrs >	50,000 hrs
Lamp wattage	400W >	140W
Average buying price/ lamp installer	23 € >	185 €
Total costs/year/lamp*	240.32 € >	92.86 €
Number of lamps	100	
Burning hours/year	4,380 hrs	
Total savings/year		14,746 €
Payback period		1.1 years



Choose TrueForce LED highbay universal for extra durable lighting with top performance and great energy savings.



Retail

Beautiful lighting brings out the best in the products on display and enhances the shopping experience for customers. But with lamps burning for up to 18 hours a day, food retailers want solutions that will reduce energy and maintenance costs – and show their green credentials in the best light.

	HPL	TrueForce Core LED HPL
Lifetime	15,000 hrs >	25,000 hrs
Lamp wattage	80W >	18W
Average buying price/ lamp installer	5.5 € >	29.75 €
Total costs/year/lamp*	60.71 € >	20.81 €
Number of lamps	100	
Burning hours/year	4,380 hrs	
Total savings/year		3,990 €
Payback period		0.6 years



Choose TrueForce Core LED HPL lamps for low-maintenance retail lighting with a low initial investment and an attractive payback time.



Urban

LED lighting helps urban areas feel safer and more inviting as well. By switching from conventional HPL to TrueForce LED HPL lamps, you can improve safety and liveability, while saving energy and reducing the environmental impact of a city.

	125W HPL	TrueForce LED HPL	TrueForce Core LED HPL
Lifetime	15,000 hrs >	50,000 hrs	25,000 hrs
Lamp wattage	125W >	42W	36W
Average buying price/ lamp installer	5.50 € >	89.25 €	50 €
Total costs/year/lamp*	84.88 € >	32.96 €	33.81 €
Number of lamps	100		
Burning hours/year	4,380 hrs		
Total savings/year		5,192 €	5,107 €
Payback period		1.6 years	0.9 years



Choose TrueForce LED HPL lamps for extra durable lighting with top performance and great energy savings.

Choose TrueForce Core LED HPL lamps for reliable lighting with an attractive payback time.

All calculations are based on the European average of 12 cent/kW hour.

*Including maintenance and lamp replacement cost.

Philips LED vs. HID



Up to 60% 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 the Philips TrueForce LED range that offers a direct retrofit alternative for many conventional lamp types – without losing the familiar look and feel.

Choose TrueForce LED for projects that demand especially high-quality and robust LED lamps – and TrueForce Core LED for more cost-effective and convenient solutions. Turn the leaflet around for all recommendations for urban and road applications.

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 of 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 5 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

Cost of ownership

LED

- Relatively high initial costs – but low lifetime costs
- Virtually no maintenance needed – low frequency with which bulbs have to be changed out
- 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 lamps

✓ LED wins

Choose Philips LED lighting for:

A reliable partnership

- Close cooperation before, during and after projects is important to us. Our large 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.

The best products

- We're setting new standards for high-quality products that result in less maintenance, fewer technical hiccups and strengthens your reputation as a reliable lighting expert.
- Philips LED products are designed with easy installation in mind, saving you time and money.
- From connected lighting solutions 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.

More sustainability

Energy efficient lighting is a fast and cost-efficient way to reduce emissions and combat climate change. To unlock this potential, we strive to bring the most energy-efficient products to the market. And we do more: by recycling up to 90% of our manufacturing waste, using 100% renewable electricity and saving over 500,000 kilos of plastic waste per year through our paper packaging!



Over 2 billion Philips LED lamps and luminaires sold worldwide* show: Real pros trust in Philips as their partner in lighting.

* LED lamps and luminaires delivered since 2015 (source: Signify's fourth quarter and full year results 2020)





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