

PHILIPS

Public lighting

TrueForce LED Road



Lighting mess or road to success?

Real professionals count on **Philips TrueForce LED Road** – a cost effective LED lamp alternative for street lighting

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

This is the **TrueForce LED Road**

- ✓ A real retrofit alternative: replacement for conventional SON-T with almost the same light distribution
- ✓ No rewiring necessary: works in existing luminaires with conventional ballasts – even with igniters.
- ✓ Good colour rendering with Ra 70 and a colour temperature of 3.000 and 4.000 Kelvin
- ✓ High efficiency with up to 177lm/W
- ✓ Good protection rating with IP40
- ✓ Easy replacement thanks to small size and weight (200 × 61mm/250g for 25/35W and 262 × 71mm/<525g for 55/68W) E27 socket and good fit.
- ✓ 50,000-hour service life and 5-year warranty
- ✓ Perfectly suited for street lighting luminaires designed for SON-T operation

You'll be amazed by the **TrueForce LED Road**

- ✓ Certified quality with reduced energy consumption of up to 55% compared to conventional lamps.
- ✓ No fixture changes necessary: igniter (if applicable) and conventional ballast can still be used for optimal luminaire conformity.
- ✓ TrueForce LED Road uses conventional optics designed around traditional HID lights. With its omni-directional light, it delivers almost the same light distribution as conventional SON-T installations.
- ✓ Its soft, white and CRI 70 light creates a safer, more pleasant atmosphere in outdoor environments.
- ✓ Philips TrueForce LED Road pays off with energy savings higher than the price of the lamp in just two years.
- ✓ Gets noticed thanks to passive heat management and a 6kV surge protector.
- ✓ Extremely long-lasting with a service life three times longer than that of conventional lamps. Instant 100% brightness without start-up delay or flickering.
- ✓ No toxic substances and 100% mercury-free
- ✓ Meets highest quality standards with up to a five-year warranty.*



* For warranty conditions, visit www.lighting.philips.com/main/support/support/warranty

Small start or big savings?

LED lamps are up to 55% more efficient than sodium lamps and save energy and costs while providing a consistently high quality of light. The table below shows energy savings per Watt in relation to time spent in use and energy costs.

LED compared with a conventional solution	TrueForce Road replacement 50 W		TrueForce Road replacement 70 W		TrueForce Road replacement 100 W		TrueForce Road replacement 150 W	
	50 W	25 W	73 W	35 W	100 W	55 W	154 W	68 W
Lamp wattage	50 W	25 W	73 W	35 W	100 W	55 W	154 W	68 W
Ballast power loss	5 W	2,5 W	7,3 W	3,5 W	10 W	5,5 W	15,4 W	6,8 W
System output	55 W	27,5 W	80,3 W	38,5 W	110 W	60,5 W	169,4 W	74,8 W
Savings per year		27,5 W		41,8 W		49,5 W		94,6 W

Energy savings from replacing a conventional SON-T lamp with a TrueForce Road lamp, per year.

Lighting time per year	50 W				70 W				100 W				150 W			
	0.15 ct*	0.17 ct*	0.19 ct*	0.21 ct*	0.15 ct*	0.17 ct*	0.19 ct*	0.21 ct*	0.15 ct*	0.17 ct*	0.19 ct*	0.21 ct*	0.15 ct*	0.17 ct*	0.19 ct*	0.21 ct*
1,000	€ 5,49	€ 6,22	€ 6,95	€ 7,69	€ 6,27	€ 7,11	€ 7,94	€ 8,78	€ 7,43	€ 8,42	€ 9,41	€ 10,40	€ 14,19	€ 16,08	€ 17,97	€ 19,87
1,500	€ 8,24	€ 9,33	€ 10,43	€ 11,53	€ 9,41	€ 10,66	€ 11,91	€ 13,17	€ 11,14	€ 12,62	€ 14,11	€ 15,59	€ 21,29	€ 24,12	€ 26,96	€ 29,80
2,000	€ 10,98	€ 12,44	€ 13,91	€ 15,37	€ 12,54	€ 14,21	€ 15,88	€ 17,56	€ 14,85	€ 16,83	€ 18,81	€ 20,79	€ 28,38	€ 32,16	€ 35,95	€ 39,73
5,000	€ 27,45	€ 31,11	€ 34,77	€ 38,43	€ 31,35	€ 35,53	€ 39,71	€ 43,89	€ 37,13	€ 42,08	€ 47,03	€ 51,98	€ 70,95	€ 80,41	€ 89,87	€ 99,33

*Electricity price/kWh per year

Light distribution

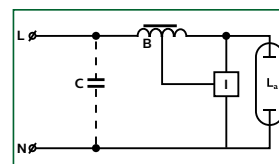
	50 W		70 W		100 W		150 W	
	Conventional SON-T lamp	TrueForce Road	Conventional SON-T lamp	TrueForce Road	Conventional SON-T lamp	TrueForce Road	Conventional SON-T lamp	TrueForce Road
Light distribution curve (lamp)								
Light distribution curve (luminaire)	not available yet							

TrueForce Road mimics light distribution of conventional SON-T lamp thanks to the same burning arc location. Existing optics design around conventional HID are optimally used, even after lamp replacement.

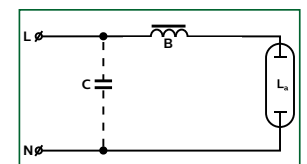
Simple installation in existing road lights with SON/HPI ballast.

The TrueForce LED Road is a real SON/HPL retrofit alternative which works with existing fixtures, equipped with an electro-magnetic ballast. There is no need to rewire or modify the luminaire, also ignitor can stay in the system. The minimum dimensions requirement on lamp compartment is (L x Ø) 220 x 170mm (25/35W) and 280 x 180mm (55/68W).

Circuit diagram for SON/ high-pressure sodium lamp



Circuit diagram for HPL/ mercury-vapor lamp



Specifications

Product name	Traditional (W)	LED (W)	CCT (K)	CRI	Voltage (Vac)	"Input current" (mA)	Lifetime (hrs.)	Dimmable	Lumen output		Dimensions (H x W)	Pack (pcs)	EOC
TForce LED Road	(W)	(W)	(K)		(Vac)	(mA)	(hrs.)						871869
38-25W E27 730	50	25	3000	70	50-60	800	50,000	no	4000	A**	200 x 61	6	963251900
40-25W E27 740		25	4000	70	50-60	800	50,000	no	4200	A**	200 x 61	6	963253300
55-35W E27 730	70	35	3000	70	70-80	920	50,000	no	5500	A**	200 x 61	6	681115300
60-35W E27 740		35	4000	70	70-80	920	50,000	no	6000	A**	200 x 61	6	681117700
84-55W E40 730	100	55	3000	70	88-98	1000	50,000	no	8400	A**	262 x 71	6	963904400
90-55W E40 740		55	4000	70	88-98	1000	50,000	no	9000	A**	262 x 71	6	963906800
112-68W E40 730	100-150	68	3000	70	80-90	1650	50,000	no	11,200	A**	262 x 71	6	963908200
120-68W E40 740		68	4000	70	80-90	1650	50,000	no	12,000	A**	262 x 71	6	963910500

