

PHILIPS

TrueForce LED highbay universal



Low expectations or high performance?

Real professionals count on Philips LED technology

REAL PROs
REAL QUALITY

This is the **TrueForce LED highbay universal**

- ✓ **A real retrofit alternative:** replacement for 250 and 400 W SON/HPI/HPL in conventional high-bay applications
- ✓ **Two different beam angle options:** wide angle (120°) and narrow angle (60°) for high installation heights
- ✓ **No rewiring necessary:** even with ignitors, meanwhile, it's also possible to use mains voltage directly.
- ✓ **Excellent color rendering** with Ra 80 and a color temperature of 4,000 kelvin
- ✓ Available in **13,000 and 20,000 lumen type**
- ✓ **50,000-hour service life** and **5-year warranty**
- ✓ Dimensions: 285 X 250 mm, weight: 1.05Kg, additional steel cable to securely attach the lamp to the fixture
- ✓ IP40 protection rating (dry, clean environment)
- ✓ Perfectly suited for **industrial use, in warehouses, and retail areas.**

You'll be amazed by the **TrueForce LED highbay universal**

- ✓ **Place your trust in certified quality:** cut your **energy consumption by 65%** compared to conventional lamps.
- ✓ **No need for any changes to the fixture** since the ignitor (if applicable) as well as the conventional ballast can both still be used. As a result, the conformity of the luminaire remains valid.
- ✓ **It pays to use TrueForce LED highbay universal.** In most cases, the energy savings in the first year alone are higher than the purchase price of the lamp!
- ✓ Stands out thanks to its **passive heat management** and a **4 kV surge protector.**
- ✓ Extremely long-lasting: up to a **3x longer service life** than conventional discharge lamps.
- ✓ **Immediate 100% brightness:** no start-up delay and perfect light without any flickering.
- ✓ Does not contain any toxic substances and is **100% mercury-free.**
- ✓ Meets the highest standards of quality: **with up to a 5-year warranty*.**



Now also available as a 400 W alternative

“TrueForce LED highbay universal is the first universal HID replacement product in the market enabling the installers to switch to LED without worrying about the type of installation or ballast and in this way finalize the installation much faster.”

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



Big consumption or big savings?

LED lamps are up to **65% more efficient** than conventional lamps, meaning that you can save energy costs without any reduction in lighting quality. The tables show the electricity cost savings per watt based on lighting time (in hours) and electricity price.

LED compared with a conventional solution	Metal halide lamp (HPI) BU 250 W E40	TrueForce Highbay E40 95W
Lamp wattage	250 W	95 W
Ballast power loss	24 W	17 W
System output	274 W	112 W
Savings per year		162 W

LED compared with a conventional solution	Metal halide lamp (HPI) BU 400 W E40	TrueForce Highbay E40 140W
Lamp wattage	400 W	140 W
Ballast power loss	28 W	18 W
System output	428 W	158 W
Savings per year		270 W

Energy savings from replacing a 250 W lamp with a TrueForce Highbay 95W, per year							
Lighting time per year	Electricity price/kWh per year						
	0.15 c	0.16 c	0.17 c	0.18 c	0.19 c	0.20 c	0.21 c
1,000	€ 24.30	€ 25.92	€ 27.54	€ 29.16	€ 30.78	€ 32.40	€ 34.02
2,000	€ 48.60	€ 51.84	€ 55.08	€ 58.32	€ 61.56	€ 64.80	€ 68.04
3,000	€ 72.90	€ 77.76	€ 82.62	€ 87.48	€ 92.34	€ 97.20	€ 102.06
4,000	€ 97.20	€ 103.68	€ 110.16	€ 116.64	€ 123.12	€ 129.60	€ 136.08
5,000	€ 121.50	€ 129.60	€ 137.70	€ 145.80	€ 153.90	€ 162.00	€ 170.10
6,000	€ 145.80	€ 155.52	€ 165.24	€ 174.96	€ 184.68	€ 194.40	€ 204.12
7,000	€ 170.10	€ 181.44	€ 192.78	€ 204.12	€ 215.46	€ 226.80	€ 238.14
8,000	€ 194.40	€ 207.36	€ 220.32	€ 233.28	€ 246.24	€ 259.20	€ 272.16

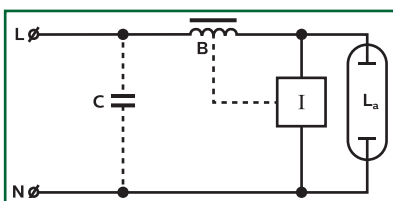
Energy savings from replacing a 400 W lamp with a TrueForce Highbay 140W, per year							
Lighting time per year	Electricity price/kWh per year						
	0.15 c	0.16 c	0.17 c	0.18 c	0.19 c	0.20 c	0.21 c
1,000	€ 40.50	€ 43.20	€ 45.90	€ 48.60	€ 51.30	€ 54.00	€ 56.70
2,000	€ 81.00	€ 86.40	€ 91.80	€ 97.20	€ 102.60	€ 108.00	€ 113.40
3,000	€ 121.50	€ 129.60	€ 137.70	€ 145.80	€ 153.90	€ 162.00	€ 170.10
4,000	€ 162.00	€ 172.80	€ 183.60	€ 194.40	€ 205.20	€ 216.00	€ 226.80
5,000	€ 202.50	€ 216.00	€ 229.50	€ 243.00	€ 256.50	€ 270.00	€ 283.50
6,000	€ 243.00	€ 259.20	€ 275.40	€ 291.60	€ 307.80	€ 324.00	€ 340.20
7,000	€ 283.50	€ 302.40	€ 321.30	€ 340.20	€ 359.10	€ 378.00	€ 396.90
8,000	€ 324.00	€ 345.60	€ 367.20	€ 388.80	€ 410.40	€ 432.00	€ 453.60

Simple installation in existing high-bay fixtures with SON/HPI/HPL ballasts – universal driver design

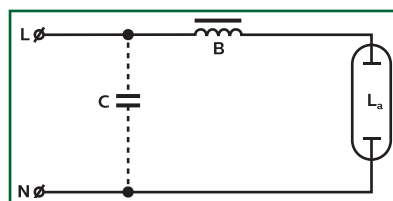
The **TrueForce LED highbay universal** is a real retrofit alternative which works with existing fixtures in connection with existing conventional/low-loss ballasts including those with ignitors¹. For good thermal management, the fixture's glass cover should be removed (if applicable). In addition, steel cable is attached to securely attach the lamp to the fixture.

“The new Philips TrueForce LED highbay universal is 18 % lighter than the previous one with a total weight of 1.07Kg”

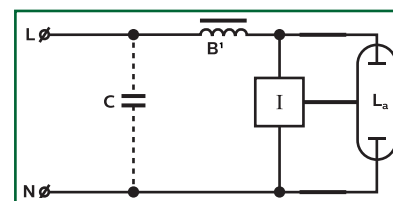
Circuit diagram for SON / high-pressure sodium lamp



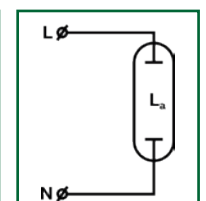
Circuit diagram for HPL / mercury-vapor lamp



Circuit diagram for SON and HPI / with series igniter (superimposed)



Circuit diagram for conv. HID with mains voltage



Specifications

Product name	Alternative for HPI (W)	Power (W)	Light output (lm)	Color temperature (K)	Dimmable	R _a value	Service life (h)		Packaging	Philips order no.
TForce LED HPI UN 95W E40 840 NB	250	95	13.000	4.000	no	80	50	A ⁺	4	75367200
TForce LED HPI UN 95W E40 840 WB		95	13.000	4.000	no	80	50	A ⁺	4	75369600
TForce LED HPI UN 140W E40 840 NB	400	140	20.000	4.000	no	80	50	A ⁺	4	75371900
TForce LED HPI UN 140W E40 840 WB		140	20.000	4.000	no	80	50	A ⁺	4	75373300

¹Please refer to compatibility list available at philips.com/trueforce-led-lamps

