The path to more efficient lighting

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PHILIPS

sense and simplicity

High pressure sodium lamps

The implementing measure for office, industry and street lighting (tertiary) laid down new requirements regarding minimum efficiency in sodium vapour lamps. Inefficient sodium vapour lamps will therefore be discontinued as of April 2012.

Which lamp is the ideal replacement?

Standard
high pressure sodium ovoide

Standard-lamp	MASTER SON PIA Plus	EOC
70 Watt	▶ 70 Watt	871150020426430
100 Watt	▶ 100 Watt	871150018225815
150 Watt	▶ 150 Watt	871150018228915
250 Watt	▶ 250 Watt	871150019344515
400 Watt	▶ 400 Watt	871150019345215

- 1-1 lamp replacement, from yellow to yellow light
- high reliability
- improved service lifetime from 12000 hrs to 16000 hrs (4 years)

Standard-lamp	MASTER CityWhite CDO-ET	EOC
50 Watt	▶ 50 Watt	8727900823356100
70 Watt	▶ 70 Watt	871150020544530
100 Watt	▶ 100 Watt	871150020679430
150 Watt	▶ 150 Watt	871150020548315

- 1-1 lamp replacement, from yellow to white light
- hight qualitative white light

Standard
high pressure sodium tubular

Standard-lamp	MASTER SON-T PIA Plus	EOC
70 Watt	▶ 70 Watt	871150019266015
100 Watt	▶ 100 Watt	871150019230115
150 Watt	▶ 150 Watt	871150019229515
250 Watt	▶ 250 Watt	871150017987615
400 Watt	▶ 400 Watt	871150017988315

- 1-1 lamp replacement, from yellow to white light
- high reliability
- improved service lifetime from 12000 hrs to 16000 hrs (4 years)

Standard-lamp	MASTER CityWhite CDO-TT	EOC
50 Watt	▶ 50 Watt	872790080029600
70 Watt	▶ 70 Watt	871150020546915
100 Watt	▶ 100 Watt	871150020681715
150 Watt	▶ 150 Watt	871150020536015
250 Watt	▶ 250 Watt	871150020905415

- 1-1 lamp replacement, from yellow to white light
- hight qualitative white light

Timeplan for the phasing out

Permitted
Discontinuation

Note: All wattages are approximate. The decisive factor is the luminous flux (lumen)
Lamps may no longer be put on the market. All stocks may be used up.

High pressure mercury lamps

New approaches are particularly in demand in times of financial and energy crises. The mercury vapour lamp will soon be obsolete, as it will lose the CE symbol from 2015. So municipalities should already be rethinking and including new lighting solutions in future budget planning. Modern lighting concepts make the entire townscape more attractive. Both residents and visitors benefit from this.

Philips offers a wide spectrum of low-maintenance, high-quality outdoor luminaires that are state of the art. Here we give just a selection of the available products. Please consult the latest catalogue or the Internet for other outdoor luminaires.

Which energy saving lamp is the ideal replacement?

High pressure mercury lampe

Up to 20%*** Energy saving

High pressure mercury	SON-H	EOC
80 Watt**	▶ 68 Watt**	872790081097400
125 Watt**	▶ 110 Watt**	872790081099800
250 Watt**	▶ 220 Watt**	871150018207415
400 Watt**	▶ 350 Watt**	871150018213515

- from white to yellow light
- lower running costs
- 1-1 lamp replacement

Existing luminaires

Up to 42%* Energy saving

High pressure mercury	MASTER CityWhite
80 Watt**	▶ CDO-ET 70 Watt
125 Watt**	▶ CDO-ET 70 Watt
250 Watt**	▶ CDO-ET 150 Watt

- lamp and gear to build in existing luminaire
- high qualitative white light

* Energy consumption with similar luminous flux and number of lighting hours.
** These lamps will lose the CE symbol in 2015.
*** Energy consumption of an energy-saving lamp compared to a mercury vapour lamp.

High pressure mercury lamps

Green Flagship

A "Green Flagship" product is better in at least one of the key areas than rival products, its predecessor or a different product type in the same application. In all other key areas it is at least as good.

Key areas:

- Efficient use of energy
- Hazardous materials
- Packaging
- Reliability over course of service life
- Recyclability
- Weight

High pressure mercury lamp

New luminaire

Which energy saving system is the ideal replacement?

Up to 79%* Energy saving

High pressure mercury	MASTER CosmoWhite
50/80 Watt**	▶ CPO-TW 45 Watt
125 Watt**	▶ CPO-TW 160 Watt
2x 50/80 Watt**	▶ CPO-TW 45/60 Watt
250 Watt**	▶ CPO-TW 60/90 Watt
400 Watt**	▶ CPO-TW 90/140 Watt

- high qualitative white light
- more light
- service lifetime up to 16000 hrs (4 years)
- dimming down to 60% of nominal power

Up to 65%* Energy saving

High pressure mercury	MASTER CityWhite CDO-TT²
80 Watt**	▶ CDO-TT 50/70 Watt
125 Watt**	▶ CDO-TT 70 Watt
250 Watt**	▶ CDO-TT 150 Watt

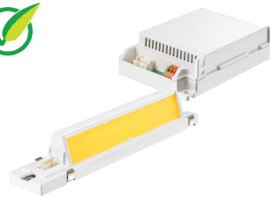
- high qualitative white light
- more light
- service lifetime up to 12000 hrs (3 years)
- dimming down to 60% of nominal power

Up to 75%* Energy saving

High pressure mercury	MASTER SON-T Plus
80 Watt**	▶ SON-T Plus 50 Watt
125 Watt**	▶ SON-T Plus 50/70 Watt
250 Watt**	▶ SON-T Plus 100/150 Watt

- from white to yellow light
- more light
- service lifetime up to 16000 hrs (4 years)
- dimming down to 30% of nominal power

Up to 70%* Energy saving



High pressure mercury	Fortimo LED LLM***
50 Watt	▶ 1000 lm / 16 - 17 Watt
80 Watt	▶ 1300 lm / 25 - 28 Watt
125 Watt	▶ 3000 lm / 35 - 40 Watt
	▶ 4500 lm / 56 - 60 Watt

- high qualitative white light
- more light
- service lifetime up to 50000 hrs
- dimming down to 0% of nominal power

Here we give just a selection of the available products. Please consult the latest catalogue or the Internet for other products or their technical characteristics and dimensions.

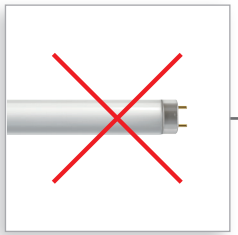
* Energy consumption with similar luminous flux and number of lighting hours.
** These lamps will lose the CE symbol in 2015.
*** Power consumption depends on colour temperature.

Fluorescent lamps

The implementing measure for office, industry and street lighting (tertiary) laid down new requirements regarding minimum efficiency and colour rendering in fluorescent lamps. Inefficient TL-D standard lamps in light colours 33-640 and 54-765 will thus be discontinued as of April 2010 and must be replaced by Super 80 light colours.

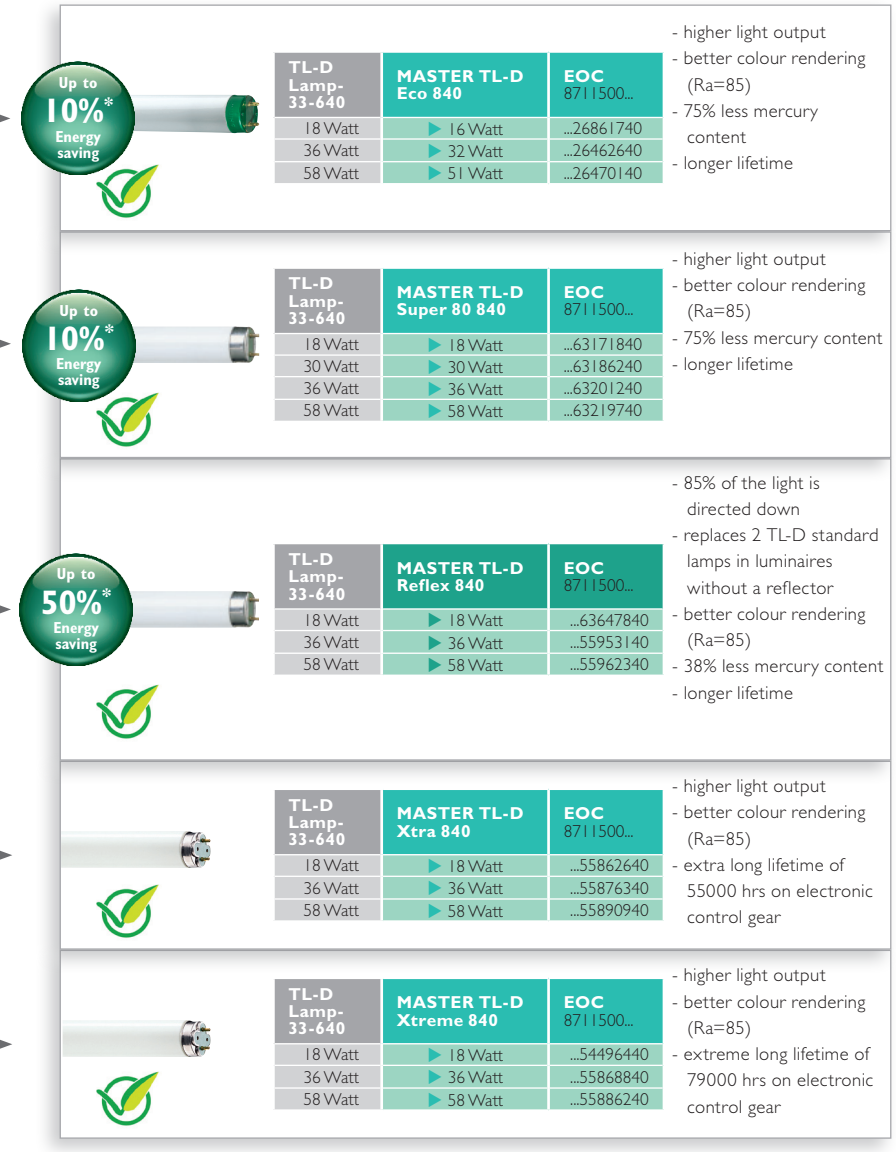
From 13.04.2010

Discontinuation of all light colours
33-540 and 54-765
via minimum efficiency (lm/W) and colour rendering (RA > 80)



TL-D Standardlamps
Light colour 33-640

Which fluorescent lamp is the ideal replacement?

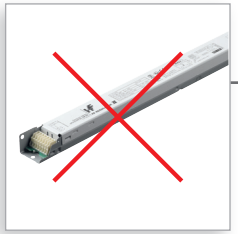


For even higher energy efficiency, consider switching from TL-D luminaires to luminaires with TL-5 lamps inside and controls.

Standby losses for dimmable DALI gear

A light fixture using dimmable electronic gear is considered most efficient in today's EEI classification and contains the A1 class label. Leglistation for these types of gear becomes more stringent on standby losses. Dimmable electronic gears containing a Digital Adressable Lighting Interface (DALI) or Digital Serial Interface (DSI) are mostly not switched off but go in standby mode when an area is vacated. In an average office application the power consumption in standby lasts on average 14 hrs per day and 24 hrs during the weekends. This can add up the energy costs considerable. Therefor per 2010 these standby losses can no longer exceed 1 Watt. Per 2012 this is further restricted to max 0,5 Watt per ballast.

Already today Philips offers dimmable DALI gear with lowest available standby loss in the market at only 350mW for its existing HFR EII range, and only 250mW for its new HFR Intelligent range.



Dimmable electronic gear with standby loss > 1 Watt and future > 0,5 Watt (2012)

Which energy efficient gear is the ideal replacement

Up to 65%* Standby loss saving

Dimmable gear with standby loss > 1 Watt	HF-R TD EII
-	▶ HF-R TD TL-5 EII range
-	▶ HF-R TD PLL EII range
-	▶ HF-R TD TL-D EII range
-	▶ HF-R TD PL-T/C/R EII range

- only 350 mW standby loss
- 1-100% dimmable range
- anti extinguish control
- extended cable flexibility technology
- full DALI compliant

Up to 75%* Standby loss saving

Dimmable gear with standby loss > 1 Watt	HF-R intelligent TD
-	▶ -
-	▶ HF-Ri TD 1 28/35/49/54 TL-5
-	▶ HF-Ri TD 2 28/35/49/54 TL-5
-	▶ HF-Ri TD 1 35/49/80 TL-5

- only 250 mW standby loss
- delivering 5% energy saving VS.HF-R EII by smart electrode heating
- T5 eco compatible
- optimized for control systems such as Actilume, OccuPlus, full DALI compliant
- lamp on guard

ElectroMagnetic and class A3 electronic gear

Also for ballasts for fluorescent lamps the EUP legislation becomes more stringent. Since November 2005 Class D and C classed ElectroMagnetic (EM) ballasts are already banned within the EU. Per 2012 every single luminaire range, equipped with B class EM ballasts which is offered to the market, published in a catalog or offered in a price lists is to be published or offered in a class A3 or A2 electronic alternative as well. The next stage is the period 2012 -2017 that serves as a transition period for luminaire manufacturers to adjust and further build towards a complete A2 class electronic luminaire portfolio. By 2017 this transition must be completed. Per 2017 all light fixtures containing electro-magnetic (EM) ballasts and also A3 class electronic ballasts will be banned within the EU.

Already today Philips offers class A2 and A3 energy efficient alternatives to EM ballasts in a wide range of electronic gear as displayed in the overview.

Which energy efficient gear is the ideal replacement

D,C and future (2017) B class ElectroMagnetic gear

25%* Energy saving

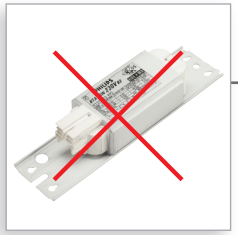
BTA C and B2	HF Performer Intelligent
BTA 18W C 220V 50Hz	▶ HFPi 1 14/21/39 TL5 EII 220-240 50/60Hz
BTA 36W C 220V 50Hz	▶ HFPi 1 14/21/39 TL5 EII 220-240 50/60Hz

- Ability to recognise and operate multiple lamp types, TLD, TL5, PLL
- 25% Energy saving, A2 class
- Compliant with DC emergency lighting norms

Up to 25%* Energy saving

BTA C and B2	HF Performer III
BTA 18W C 220V 50Hz	▶ HF P III 418 220-240 50/60Hz
BTA 36W C 220V 50Hz	▶ HF P III 236 220-240 50/60Hz

- One product can run multiple lamps
- Flicker free operation
- Silent operation
- 25% Energy saving, A2 class



D, C and future (2017) B class electromagnetic gear

Up to 20%* Energy saving

BTA C and B2	HF Selectalume II
BTA 18W C 220V 50Hz	▶ HF SII 1 18W 220-240 50/60Hz
BTA 36W C 220V 50Hz	▶ HF SII 1 36W 220-240 50/60Hz

- Ability to operate from 220 to 240V
- 20% energy saving, A3 class
- One piece hassle free installation compared with multiple component magnetic system

Here we give just a selection of the available products. Please consult the latest catalogue or the Internet for other products or their technical characteristics and dimensions.

* The calculations are based on the energy consumption of a luminaire with LLB and TL-D lamp compared to a luminaire with EB and TL-D lamp or a luminaire with EB and TL5 lamp technology, with similar luminous flux and age.

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