



# The world's most efficient fluorescent lighting

## MASTER TL5 High Efficiency Eco

This extremely efficient TL5 lamp (tube diameter 16 mm) saves considerable energy by simple lamp-for-lamp replacement. The TL5 HE Eco lamp offers excellent lumen maintenance and color rendering. Application areas vary from offices and industry to schools and retail environments.

### Benefits

- Up to 10 % energy saving with simply changing the lamp
- The same quality of light as compared with MASTER TL5 HE lamps
- All benefits of regular TL5 lamps

### Features

- High lamp efficacies up to 114 lm/W
- Up to 10% power reduction in comparison with standard MASTER TL5 HE lamps
- Fluorescent Super 80 light quality

### Application

- Ideally suited for recessed, surface-mounted and suspended luminaires e.g. in offices, shops, schools, public buildings and industry (low ceiling), wherever high-quality, energy-efficient lighting is required

### Warnings and Safety

- A reduction in energy consumption is only achieved with current-controlled gear.
- The lamps operate perfectly with power-controlled gear, but in that case the light output can be up to 10% higher.
- A lamp breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.

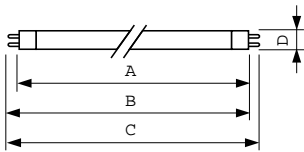
# MASTER TL5 High Efficiency Eco

## Versions



G5, T5

## Dimensional drawing



### Product

MASTER TL5 HE Eco 25=28W/830 UNP/40
MASTER TL5 HE Eco 32=35W/840 UNP/40
MASTER TL5 HE Eco 32=35W/830 UNP/40
MASTER TL5 HE Eco 25=28W/840 UNP/40
MASTER TL5 HE Eco 25=28W/840 1SL/40
MASTER TL5 HE Eco 13=14W/830 UNP/40
MASTER TL5 HE Eco 13=14W/840 UNP/40
MASTER TL5 HE Eco 13=14W/840 1SL/40

# MASTER TL5 High Efficiency Eco

## Approval and Application

Energy Efficiency Label (EEL)	A+
Mercury (Hg) Content (Nom)	1.4 mg

## Controls and Dimming

Dimmable	Yes
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## Operating and Electrical

Lamp Current (Nom)	0.170 A
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## General Information

Cap-Base	G5
Life To 50% Failures Preheat (Nom)	25000 h
LSF Preheat 16000 h Rated	99 %
LSF Preheat 20000 h Rated	94 %
LSF Preheat 2000 h Rated	99 %
LSF Preheat 4000 h Rated	99 %
LSF Preheat 6000 h Rated	99 %
LSF Preheat 8000 h Rated	99 %

## Light Technical

Color Rendering Index (Max)	85
Color Rendering Index (Min)	80
Color Rendering Index (Nom)	82
LLMF 12000 h Rated	92 %
LLMF 16000 h Rated	91 %
LLMF 2000 h Rated	96 %
LLMF 4000 h Rated	95 %
LLMF 6000 h Rated	94 %
LLMF 8000 h Rated	93 %

## Mechanical and Housing

Bulb Shape	T5
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## Temperature

Design Temperature (Nom)	35 °C
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## Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/1000 h
927989883031	MASTER TL5 HE Eco 13=14W/830 UNP/40	14 kWh
927989884031	MASTER TL5 HE Eco 13=14W/840 UNP/40	14 kWh
927989884033	MASTER TL5 HE Eco 13=14W/840 1SL/40	14 kWh
927990983031	MASTER TL5 HE Eco 25=28W/830 UNP/40	28 kWh
927990984031	MASTER TL5 HE Eco 25=28W/840 UNP/40	28 kWh
927990984033	MASTER TL5 HE Eco 25=28W/840 1SL/40	28 kWh
927991183031	MASTER TL5 HE Eco 32=35W/830 UNP/40	35 kWh
927991184031	MASTER TL5 HE Eco 32=35W/840 UNP/40	35 kWh

## Operating and Electrical

Order Code	Full Product Name	Power (Rated) (Nom)
927989883031	MASTER TL5 HE Eco 13=14W/830 UNP/40	12.5 W
927989884031	MASTER TL5 HE Eco 13=14W/840 UNP/40	13 W
927989884033	MASTER TL5 HE Eco 13=14W/840 1SL/40	13 W
927990983031	MASTER TL5 HE Eco 25=28W/830 UNP/40	25.2 W

Order Code	Full Product Name	Power (Rated) (Nom)
927990984031	MASTER TL5 HE Eco 25=28W/840 UNP/40	25.2 W
927990984033	MASTER TL5 HE Eco 25=28W/840 1SL/40	25.2 W
927991183031	MASTER TL5 HE Eco 32=35W/830 UNP/40	31.7 W
927991184031	MASTER TL5 HE Eco 32=35W/840 UNP/40	31.7 W

## Light Technical (1/2)

## MASTER TL5 High Efficiency Eco

Order Code	Full Product Name	Color Code	Color Designation	Correlated Color Temperature (Nom)	LLMF 20000 h Rated
				(K)	(%)
927989883031	MASTER TL5 HE Eco 13=14W/830 UNP/40	830	Warm White (WW)	3000 K	88 %
927989884031	MASTER TL5 HE Eco 13=14W/840 UNP/40	840	Cool White (CW)	4000 K	90 %
927989884033	MASTER TL5 HE Eco 13=14W/840 1SL/40	840	Cool White (CW)	4000 K	90 %
927990983031	MASTER TL5 HE Eco 25=28W/830 UNP/40	830	Warm White (WW)	3000 K	90 %

Order Code	Full Product Name	Color Code	Color Designation	Correlated Color Temperature (Nom)	LLMF 20000 h Rated
				(K)	(%)
927990984031	MASTER TL5 HE Eco 25=28W/840 UNP/40	840	Cool White (CW)	4000 K	90 %
927990984033	MASTER TL5 HE Eco 25=28W/840 1SL/40	840	Cool White (CW)	4000 K	90 %
927991183031	MASTER TL5 HE Eco 32=35W/830 UNP/40	830	Warm White (WW)	3000 K	90 %
927991184031	MASTER TL5 HE Eco 32=35W/840 UNP/40	840	Cool White (CW)	4000 K	90 %

### Light Technical (2/2)

Order Code	Full Product Name	Luminous Efficacy (@ Max Lumen, Rated)	Luminous Efficacy (rated)	Luminous Flux (Nom)	Luminous Flux (Rated)
		(lm/W)	(lm/W)	(lm)	(lm)
927989883031	MASTER TL5 HE Eco 13=14W/830 UNP/40	108 lm/W	92 lm/W	1350 lm	1150 lm
927989884031	MASTER TL5 HE Eco 13=14W/840 UNP/40	108 lm/W	92 lm/W	1350 lm	1150 lm
927989884033	MASTER TL5 HE Eco 13=14W/840 1SL/40	108 lm/W	92 lm/W	1350 lm	1150 lm
927990983031	MASTER TL5 HE Eco 25=28W/830 UNP/40	114 lm/W	103 lm/W	2900 lm	2600 lm
927990984031	MASTER TL5 HE Eco	114 lm/W	103 lm/W	2900 lm	2600 lm

Order Code	Full Product Name	Luminous Efficacy (@ Max Lumen, Rated)	Luminous Efficacy (rated)	Luminous Flux (Nom)	Luminous Flux (Rated)
		(lm/W)	(lm/W)	(lm)	(lm)
	25=28W/840 UNP/40				
927990984033	MASTER TL5 HE Eco 25=28W/840 1SL/40	114 lm/W	103 lm/W	2900 lm	2600 lm
927991183031	MASTER TL5 HE Eco 32=35W/830 UNP/40	114 lm/W	103 lm/W	3650 lm	3250 lm
927991184031	MASTER TL5 HE Eco 32=35W/840 UNP/40	114 lm/W	103 lm/W	3650 lm	3250 lm

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