



# 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.

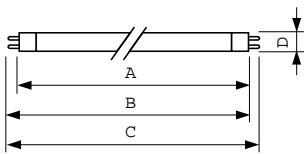
# MASTER TL5 High Efficiency Eco

## Versions



G5, T5

## Dimensional drawing



Product	D (max)	A (max)	B (max)	B (min)	C (max)
MASTER TL5 HE Eco 13=14W/840 1SL/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HE Eco 13=14W/840 UNP/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HE Eco 13=14W/830 UNP/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HE Eco 25=28W/840 1SL/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HE Eco 25=28W/840 UNP/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HE Eco 32=35W/830 UNP/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HE Eco 32=35W/840 UNP/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HE Eco 25=28W/830 UNP/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm

# MASTER TL5 High Efficiency Eco

Approval and Application	
Mercury (Hg) Content (Nom)	1.4 mg
Controls and Dimming	
Dimmable	Yes
Operating and Electrical	
Lamp Current (Nom)	0.170 A
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
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
Temperature	
Design Temperature (Nom)	35 °C

## Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/ 1000 h	Mercury (Hg) Content (Max)
927989883031	MASTER TL5 HE Eco 13=14W/830 UNP/40	13 kWh	1.4 mg
927989884031	MASTER TL5 HE Eco 13=14W/840 UNP/40	13 kWh	1.4 mg
927989884033	MASTER TL5 HE Eco 13=14W/840 1SL/40	14 kWh	-
927990983031	MASTER TL5 HE Eco 25=28W/830 UNP/40	26 kWh	1.4 mg
927990984031	MASTER TL5 HE Eco 25=28W/840 UNP/40	26 kWh	1.4 mg
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	32 kWh	1.4 mg

## 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	12.5 W
927989884033	MASTER TL5 HE Eco 13=14W/840 1SL/40	13 W
927990983031	MASTER TL5 HE Eco 25=28W/830 UNP/40	25.4 W

Order Code	Full Product Name	Power (Rated) (Nom)
927990984031	MASTER TL5 HE Eco 25=28W/840 UNP/40	25.4 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)

Order Code	Full Product Name	Chromaticity		Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Designation
927989883031	MASTER TL5 HE Eco 13=14W/830 UNP/40	0.44	0.403	830	Warm White (WW)

Order Code	Full Product Name	Chromaticity		Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Designation
927989884031	MASTER TL5 HE Eco 13=14W/840 UNP/40	0.38	0.38	840	Cool White (CW)

## MASTER TL5 High Efficiency Eco

Order Code	Full Product Name	Chromaticity		Color		Order Code	Full Product Name	Chromaticity		Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Color Code	Color Designation			Coordinate X (Nom)	Coordinate Y (Nom)	Color Code	Color Designation
927989884033	MASTER TL5 HE Eco 13=14W/840 1SL/40	-	-	840	Cool White (CW)	927990984033	MASTER TL5 HE Eco 25=28W/840 1SL/40	-	-	840	Cool White (CW)
927990983031	MASTER TL5 HE Eco 25=28W/830 UNP/40	0.44	0.403	830	Warm White (WW)	927991183031	MASTER TL5 HE Eco 32=35W/830 UNP/40	-	-	830	Warm White (WW)
927990984031	MASTER TL5 HE Eco 25=28W/840 UNP/40	0.38	0.38	840	Cool White (CW)	927991184031	MASTER TL5 HE Eco 32=35W/840 UNP/40	0.38	0.38	840	Cool White (CW)

### Light Technical (2/2)

Order Code	Full Product Name	Color			Luminous Efficacy			
		Correlated Color Temperature (Nom)	Color Rendering Index (Nom)	LLMF 20000 h Rated	(@ Max Lumen, Rated) (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
927989883031	MASTER TL5 HE Eco 13=14W/830 UNP/40	3000 K	82	88 %	108 lm/W	92 lm/W	1150 lm	1150 lm
927989884031	MASTER TL5 HE Eco 13=14W/840 UNP/40	4000 K	80	90 %	108 lm/W	92 lm/W	1150 lm	1150 lm
927989884033	MASTER TL5 HE Eco 13=14W/840 1SL/40	4000 K	82	90 %	108 lm/W	92 lm/W	1350 lm	1150 lm
927990983031	MASTER TL5 HE Eco 25=28W/830 UNP/40	3000 K	82	90 %	114 lm/W	103 lm/W	2520 lm	2600 lm
927990984031	MASTER TL5 HE Eco 25=28W/840 UNP/40	4000 K	80	90 %	114 lm/W	103 lm/W	2520 lm	2600 lm
927990984033	MASTER TL5 HE Eco 25=28W/840 1SL/40	4000 K	82	90 %	114 lm/W	103 lm/W	2900 lm	2600 lm
927991183031	MASTER TL5 HE Eco 32=35W/830 UNP/40	3000 K	82	90 %	114 lm/W	103 lm/W	3650 lm	3250 lm
927991184031	MASTER TL5 HE Eco 32=35W/840 UNP/40	4000 K	80	90 %	114 lm/W	103 lm/W	3150 lm	3250 lm

