



# 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.

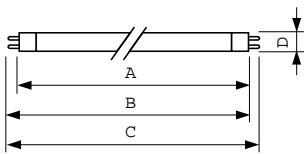
# MASTER TL5 High Efficiency Eco

## Versions



G5, T5

## Dimensional drawing



Product	D (max)	A (max)	B (max)	B (min)	C (max)
MASTER TL5 HE Eco 13=14W/840 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 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)
88081600	MASTER TL5 HE Eco 13=14W/830 UNP/40	13 kWh	1.4 mg
88083000	MASTER TL5 HE Eco 13=14W/840 UNP/40	13 kWh	1.4 mg
82588600	MASTER TL5 HE Eco 25=28W/830 UNP/40	26 kWh	1.4 mg
82589300	MASTER TL5 HE Eco 25=28W/840 UNP/40	26 kWh	1.4 mg
82592300	MASTER TL5 HE Eco 32=35W/830 UNP/40	35 kWh	-
82593000	MASTER TL5 HE Eco 32=35W/840 UNP/40	32 kWh	1.4 mg

## Operating and electrical

Order Code	Full Product Name	Power (Nom)
88081600	MASTER TL5 HE Eco 13=14W/830 UNP/40	12.5 W
88083000	MASTER TL5 HE Eco 13=14W/840 UNP/40	12.5 W
82588600	MASTER TL5 HE Eco 25=28W/830 UNP/40	25.4 W

Order Code	Full Product Name	Power (Nom)
82589300	MASTER TL5 HE Eco 25=28W/840 UNP/40	25.4 W
82592300	MASTER TL5 HE Eco 32=35W/830 UNP/40	31.7 W
82593000	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
88081600	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
88083000	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
82588600	MASTER TL5 HE Eco 25=28W/830 UNP/40	0.44	0.403	830	Warm White (WW)	82592300	MASTER TL5 HE Eco 32=35W/830 UNP/40	-	-	830	Warm White (WW)
82589300	MASTER TL5 HE Eco 25=28W/840 UNP/40	0.38	0.38	840	Cool White (CW)	82593000	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)	Rendering Index (Nom)	LLMF 20000 h Rated	(@ Max Lumen, Rated) (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
88081600	MASTER TL5 HE Eco 13=14W/830 UNP/40	3000 K	82	88 %	108 lm/W	92 lm/W	1150 lm	1150 lm
88083000	MASTER TL5 HE Eco 13=14W/840 UNP/40	4000 K	80	90 %	108 lm/W	92 lm/W	1150 lm	1150 lm
82588600	MASTER TL5 HE Eco 25=28W/830 UNP/40	3000 K	82	90 %	114 lm/W	103 lm/W	2520 lm	2600 lm
82589300	MASTER TL5 HE Eco 25=28W/840 UNP/40	4000 K	80	90 %	114 lm/W	103 lm/W	2520 lm	2600 lm
82592300	MASTER TL5 HE Eco 32=35W/830 UNP/40	3000 K	82	90 %	114 lm/W	103 lm/W	3650 lm	3250 lm
82593000	MASTER TL5 HE Eco 32=35W/840 UNP/40	4000 K	80	90 %	114 lm/W	103 lm/W	3150 lm	3250 lm

