



# Product Description

## MASTER TL5 High Efficiency

Low-pressure mercury discharge lamps with a tubular 16 mm envelope

### Benefits

- Allow system miniaturisation and maximum luminaire design freedom
- Lamp lengths enable easy fitting into ceiling module systems
- Offers higher efficiencies and energy savings compared with TL-D lamps
- Virtually constant lumen level with excellent lumen maintenance
- Good colour rendering

### Features

- 40% thinner than TL-D lamps
- High lamp efficacies up to 104 lm/W
- Highly efficient 3-band fluorescent coating in combination with precoating
- Specifically designed for operation with electronic gear and well suited for dimming
- Maximum lumen output reached at approx. 35 °C in free-burning position if an HF electronic ballast without additional electrode heating is used
- Can be ignited from -15 ° to +50 °C
- Green end-plate indicates full recyclable lamp technology

### Application

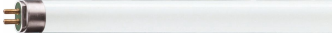
- Ideally suited for recessed, surface-mounted and suspended luminaires in applications like offices, shops, schools, public buildings and industry (low ceiling), wherever high-quality, energy-effective lighting is required

### Warnings and Safety

- 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

## Versions



G5, T5

# MASTER TL5 High Efficiency

## Dimensional drawing

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Product	D (max)	A (max)	B (max)	B (min)	C (max)
MASTER TL5 HE 28W/827 SLV/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HE 35W/840 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HE 14W/827 SLV/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HE 21W/840 SLV/40	17 mm	849.0 mm	856.1 mm	853.7 mm	863.2 mm
MASTER TL5 HE 14W/830 SLV/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HE 35W/865 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HE 21W/830 SLV/40	17 mm	849.0 mm	856.1 mm	853.7 mm	863.2 mm
MASTER TL5 HE 21W/865 SLV/40	17 mm	849.0 mm	856.1 mm	853.7 mm	863.2 mm
MASTER TL5 HE 35W/830 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
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MASTER TL5 HE 35W/827 SLV/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HE 14W/840 SLV/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HE 14W/840 UNP/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
MASTER TL5 HE 28W/840 SLV/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HE 28W/840 UNP/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HE 28W/830 SLV/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HE 28W/865 SLV/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
MASTER TL5 HE 35W/840 UNP/40	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm
MASTER TL5 HE 14W/865 SLV/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm

# MASTER TL5 High Efficiency

## Approval and Application

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

## Controls and Dimming

Dimmable	Yes
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## General Information

Cap-Base	G5
Life To 50% Failures Preheat (Nom)	24000 h
LSF Preheat 16000 h Rated	97 %
LSF Preheat 20000 h Rated	84 %
LSF Preheat 2000 h Rated	99 %
LSF Preheat 4000 h Rated	99 %
LSF Preheat 6000 h Rated	99 %
LSF Preheat 8000 h Rated	99 %
System Description	High Efficiency

## 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 20000 h Rated	90 %
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
64102155	MASTER TL5 HE 14W/827 1SL/40	15 kWh
63938755	MASTER TL5 HE 14W/830 1SL/40	15 kWh
61066955	MASTER TL5 HE 14W/840 UNP/40	15 kWh
63940055	MASTER TL5 HE 14W/840 1SL/40	15 kWh
71009355	MASTER TL5 HE 14W/865 1SL/40	15 kWh
64320955	MASTER TL5 HE 21W/827 1SL/40	23 kWh
63942455	MASTER TL5 HE 21W/830 1SL/40	23 kWh
63944855	MASTER TL5 HE 21W/840 1SL/40	23 kWh
71011655	MASTER TL5 HE 21W/865 1SL/40	23 kWh
64322355	MASTER TL5 HE 28W/827 1SL/40	31 kWh
63946255	MASTER TL5 HE 28W/830 1SL/40	31 kWh
61090455	MASTER TL5 HE 28W/840 UNP/40	31 kWh
63948655	MASTER TL5 HE 28W/840 1SL/40	31 kWh
71015455	MASTER TL5 HE 28W/865 1SL/40	31 kWh
64324755	MASTER TL5 HE 35W/827 1SL/40	38 kWh
63950955	MASTER TL5 HE 35W/830 SLV/40	38 kWh
61105555	MASTER TL5 HE 35W/840 UNP/40	38 kWh
63952355	MASTER TL5 HE 35W/840 1SL/40	38 kWh
71018555	MASTER TL5 HE 35W/865 1SL/40	38 kWh

## Operating and Electrical

Order Code	Full Product Name	Lamp Current (Nom)	Power (Rated) (Nom)
64102155	MASTER TL5 HE 14W/827 1SL/40	0.165 A	14 W
63938755	MASTER TL5 HE 14W/830 1SL/40	0.165 A	14 W
61066955	MASTER TL5 HE 14W/840 UNP/40	0.165 A	14 W
63940055	MASTER TL5 HE 14W/840 1SL/40	0.165 A	14 W
71009355	MASTER TL5 HE 14W/865 1SL/40	0.165 A	14 W
64320955	MASTER TL5 HE 21W/827 1SL/40	0.165 A	20.6 W
63942455	MASTER TL5 HE 21W/830 1SL/40	0.165 A	20.6 W
63944855	MASTER TL5 HE 21W/840 1SL/40	0.165 A	20.6 W
71011655	MASTER TL5 HE 21W/865 1SL/40	0.165 A	20.6 W
64322355	MASTER TL5 HE 28W/827 1SL/40	0.170 A	27.9 W

Order Code	Full Product Name	Lamp Current (Nom)	Power (Rated) (Nom)
63946255	MASTER TL5 HE 28W/830 1SL/40	0.170 A	27.9 W
61090455	MASTER TL5 HE 28W/840 UNP/40	0.170 A	27.9 W
63948655	MASTER TL5 HE 28W/840 1SL/40	0.170 A	27.9 W
71015455	MASTER TL5 HE 28W/865 1SL/40	0.170 A	27.9 W
64324755	MASTER TL5 HE 35W/827 1SL/40	0.175 A	35.5 W
63950955	MASTER TL5 HE 35W/830 SLV/40	0.175 A	35.5 W
61105555	MASTER TL5 HE 35W/840 UNP/40	0.175 A	35.5 W
63952355	MASTER TL5 HE 35W/840 1SL/40	0.175 A	35.5 W
71018555	MASTER TL5 HE 35W/865 1SL/40	0.175 A	35.5 W

## Light Technical (1/2)

## MASTER TL5 High Efficiency

Order Code	Full Product Name	Color Code	Color Designation	Correlated	Color
				Color Temperature (Nom)	Rendering Index (Nom)
64102155	MASTER TL5 HE 14W/827 1SL/40	827	Incandescent White	2700 K	82
63938755	MASTER TL5 HE 14W/830 1SL/40	830	Warm White (WW)	3000 K	>80
61066955	MASTER TL5 HE 14W/840 UNP/40	840	Cool White (CW)	4000 K	82
63940055	MASTER TL5 HE 14W/840 1SL/40	840	Cool White (CW)	4000 K	82
71009355	MASTER TL5 HE 14W/865 1SL/40	865	Cool Daylight	6500 K	82
64320955	MASTER TL5 HE 21W/827 1SL/40	827	Incandescent White	2700 K	82
63942455	MASTER TL5 HE 21W/830 1SL/40	830	Warm White (WW)	3000 K	>80
63944855	MASTER TL5 HE 21W/840 1SL/40	840	Cool White (CW)	4000 K	82
71011655	MASTER TL5 HE 21W/865 1SL/40	865	Cool Daylight	6500 K	82
64322355	MASTER TL5 HE 28W/827 1SL/40	827	Incandescent White	2700 K	82

Order Code	Full Product Name	Color Code	Color Designation	Correlated	Color
				Color Temperature (Nom)	Rendering Index (Nom)
63946255	MASTER TL5 HE 28W/830 1SL/40	830	Warm White (WW)	3000 K	>80
61090455	MASTER TL5 HE 28W/840 UNP/40	840	Cool White (CW)	4000 K	82
63948655	MASTER TL5 HE 28W/840 1SL/40	840	Cool White (CW)	4000 K	82
71015455	MASTER TL5 HE 28W/865 1SL/40	865	Cool Daylight	6500 K	82
64324755	MASTER TL5 HE 35W/827 1SL/40	827	Incandescent White	2700 K	82
63950955	MASTER TL5 HE 35W/830 SLV/40	830	Warm White (WW)	3000 K	82
61105555	MASTER TL5 HE 35W/840 UNP/40	840	Cool White (CW)	4000 K	82
63952355	MASTER TL5 HE 35W/840 1SL/40	840	Cool White (CW)	4000 K	82
71018555	MASTER TL5 HE 35W/865 1SL/40	865	Cool Daylight	6500 K	82

### Light Technical (2/2)

Order Code	Full Product Name	Luminous	Luminous	Luminous	
		Efficacy (@ Max Lumen, Rated) (Nom)	Efficacy (rated) (Nom)	Luminous Flux (Nom)	Flux (Rated) (Nom)
64102155	MASTER TL5 HE 14W/827 1SL/40	96 lm/W	86 lm/W	1350 lm	1200 lm
63938755	MASTER TL5 HE 14W/830 1SL/40	96 lm/W	86 lm/W	1350 lm	1200 lm
61066955	MASTER TL5 HE 14W/840 UNP/40	96 lm/W	86 lm/W	1350 lm	1200 lm
63940055	MASTER TL5 HE 14W/840 1SL/40	96 lm/W	86 lm/W	1350 lm	1200 lm
71009355	MASTER TL5 HE 14W/865 1SL/40	89 lm/W	80 lm/W	1250 lm	1125 lm
64320955	MASTER TL5 HE 21W/827 1SL/40	101 lm/W	90 lm/W	2100 lm	1850 lm
63942455	MASTER TL5 HE 21W/830 1SL/40	101 lm/W	90 lm/W	2100 lm	1850 lm
63944855	MASTER TL5 HE 21W/840 1SL/40	101 lm/W	90 lm/W	2100 lm	1850 lm
71011655	MASTER TL5 HE 21W/865 1SL/40	94 lm/W	84 lm/W	1950 lm	1725 lm
64322355	MASTER TL5 HE 28W/827 1SL/40	104 lm/W	96 lm/W	2900 lm	2675 lm

Order Code	Full Product Name	Luminous	Luminous	Luminous	
		Efficacy (@ Max Lumen, Rated) (Nom)	Efficacy (rated) (Nom)	Luminous Flux (Nom)	Flux (Rated) (Nom)
63946255	MASTER TL5 HE 28W/830 1SL/40	104 lm/W	96 lm/W	2900 lm	2675 lm
61090455	MASTER TL5 HE 28W/840 UNP/40	104 lm/W	96 lm/W	2900 lm	2675 lm
63948655	MASTER TL5 HE 28W/840 1SL/40	104 lm/W	96 lm/W	2900 lm	2675 lm
71015455	MASTER TL5 HE 28W/865 1SL/40	96 lm/W	90 lm/W	2700 lm	2500 lm
64324755	MASTER TL5 HE 35W/827 1SL/40	104 lm/W	94 lm/W	3650 lm	3325 lm
63950955	MASTER TL5 HE 35W/830 SLV/40	104 lm/W	94 lm/W	3650 lm	3325 lm
61105555	MASTER TL5 HE 35W/840 UNP/40	104 lm/W	94 lm/W	3650 lm	3325 lm
63952355	MASTER TL5 HE 35W/840 1SL/40	104 lm/W	94 lm/W	3650 lm	3325 lm
71018555	MASTER TL5 HE 35W/865 1SL/40	97 lm/W	87 lm/W	3400 lm	3100 lm

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