MASTER TL5 High Efficiency Eco

MASTER TL5 HE Eco 25=28W/840 UNP

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.

Product data

• General Characteristics

Cap-Base	G5
Bulb	T5 [16 mm]
Life to 50% fail Preheat EL,3h	25000 hr
Life to 10% fail Preheat EL,3h	21000 hr
LSF HF Preheat 20000h Rated,3h	92 %
LSF HF Preheat 16000h Rated,3h	95 %
LSF HF Preheat 12000h Rated,3h	95 %
LSF HF Preheat 8000h Rated,3h	97 %
LSF HF Preheat 6000h Rated,3h	98 %
LSF HF Preheat 4000h Rated,3h	98 %
LSF HF Preheat 2000h Rated,3h	99 %

• Electrical Characteristics

Lamp Wattage	25 W
Lamp Voltage EL 25°C	147 V
Lamp Current EL 25°C	0.170 A
Dimmable	Yes
Lamp Wattage EL 35°C	25.5 W
Lamp Current EL 35°C	0.170 A
Lamp Voltage EL 35°C	153 V
Lamp Wattage EL 25°C, Rated	25.0 W
Lamp Wattage EL 25°C, Nominal	25 W

• Environmental Characteristics

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

• Light Technical Characteristics

Color Code	840 [CCT of 4000K]
Color Rendering Index	85 Ra8
Color Designation (text)	Cool White
Color Temperature	4000 K
Chromaticity Coordinate X	383 -
Chromaticity Coordinate Y	386 -
Luminous Flux Lamp EL 35°C	2900 Lm
Luminance Average EL 25°C	1.5 cd/cm2
Lum Efficacy Rated HF 25°C	98 Lm/W
Lum Efficacy Rated HF 35°C	114 Lm/W
LLMF HF 20000h Rated	88 %
LLMF HF 16000h Rated	90 %

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LLMF HF 12000h Rated	91 %
LLMF HF 8000h Rated	93 %
LLMF HF 6000h Rated	94 %
LLMF HF 4000h Rated	95 %
LLMF HF 2000h Rated	96 %
Luminous Flux EL 25°C, Rated	2450 Lm
Luminous Flux EL 25°C, Nominal	2450 Lm
Design Temperature	35 C

- Product Dimensions

Base Face to Base Face A	1149.0 (max) mm
Insertion Length B	1153.7 (min), 1156.1 (max) mm
Overall Length C	1163.2 (max) mm
Diameter D	17 (max) mm

- Measuring Conditions

Calibration Current	170 A
HF Generator Rated Voltage	315 V
Resistor	950 ohm

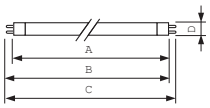
- Product Data

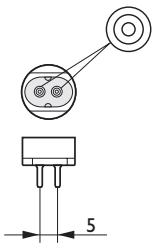
Order code	927990984031
Full product code	927990984031
Full product name	MASTER TL5 HE Eco 25=28W/840 UNP
Order product name	MASTER TL5 HE Eco 25=28W/840 UNP/40
Pieces per pack	1
Packing configuration	40
Packs per outerbox	40
Bar code on pack - EAN1	8711500880017
Bar code on outerbox - EAN3	8727900825893
Logistic code(s) - 12NC	927990984031
ILCOS code	FDH-25/40/1B-L/P-G5-16/1150
Net weight per piece	104.500 gr

Warnings and Safety

- Energy reduction is only achieved with current-controlled gear
- The lamps operate perfectly with power-controlled gear, but in that case give more light output instead of using less energy
- Depending on the technical design of the ballast the increase of light output can be up to 10 % with a fully power-controlled ballast

Dimensional drawing





Product	A (Max)	B (Min)	B (Max)	C (Max)	D (Max)
TL5 HE Eco 25=28W/840	1149.0	1153.7	1156.1	1163.2	17

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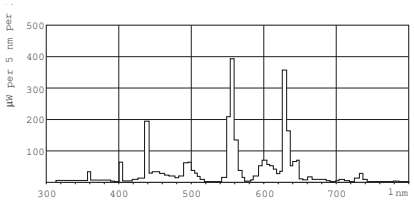
Photometric data



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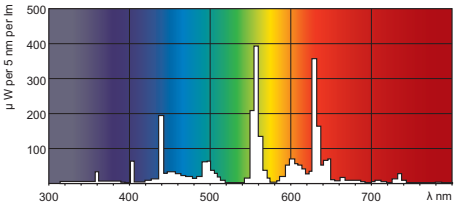

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Lamps being part of this product family comply with Commission Regulation (EC) No 245/2009 – Ecodesign requirements, applicable from 13 April 2010.
1.3 Product information requirements on lamps
a) Nominal and rated lamp wattage;
b) Nominal and rated lamp luminous flux;
c) Rated lamp efficacy at 100 h in standard conditions (25 °C, for T5 lamps at 35 °C). For fluorescent lamps both at 50 Hz (mains frequency) operation (where applicable) and at High Frequency (> 50 Hz) operation (where applicable) for the same rated luminous flux in all cases, indicating for High Frequency operation the calibration current of the test conditions and/or the rated voltage of the HF generator with the resistance. It shall be stated in a conspicuous manner that the power dissipated by auxiliary equipment such as ballasts is not included in the power consumed by the source;
d) Rated lamp Lumen Maintenance Factor at 2000 h, 4000 h, 6000 h, 8000 h, 12000 h, 16000 h and 20000 h (up to 8000 h only for new lamps on the market where no data is yet available), indicating which operation mode of the lamp was used for the test if both 50 Hz and High Frequency operation are possible;
e) Rated lamp Survival Factor at 2000 h, 4000 h, 6000 h, 8000 h, 12000 h, 16000 h and 20000 h (up to 8000 h only for new lamps on the market where no data is yet available), indicating which operation mode of the lamp was used for the test if both 50 Hz and High Frequency operation are possible;
f) Lamp mercury content as X.X mg;
g) Colour Rendering Index (Ra) of the lamp;
h) Colour temperature of the lamp;
i) Ambient temperature inside the luminaire at which the lamp was designed to maximise its luminous flux. If this temperature is equal to or lower than 0 °C or equal to or higher than 50 °C it shall be stated that the lamp is not suitable for indoor use at standard room temperatures;
j) For fluorescent lamps without integrated ballast, the energy efficiency index(es) of ballasts as defined in Table 17 with which the lamp can operate.
See Table 17-EuP245.pdf for Table 17 – Energy efficiency index requirements for non-dimmable ballasts for fluorescent lamps.
For more information see: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:076:0017:0044:EN:PDF

www.philips.com/lighting

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data subject to change