



MASTER TL5 High Efficiency

MASTER TL5 HE 28W/840 1SL

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

Product data

• General Characteristics

System Description	High Efficiency
Cap-Base	G5
Cap-Base Information	Green Plate
Bulb	T5 [16 mm]
Life to 50% fail	24000 hr
Preheat EL,3h	
Life to 10% fail	19000 hr
Preheat EL,3h	
LSF HF Preheat	85 %
20000h Rated,3h	
LSF HF Preheat	95 %
12000h Rated,3h	
LSF HF Preheat	97 %
8000h Rated,3h	
LSF HF Preheat	98 %
6000h Rated,3h	
LSF HF Preheat	98 %
4000h Rated,3h	
LSF HF Preheat	99 %
2000h Rated,3h	
LSF HF Preheat	94 %
16000h Rated,3h	

• Electrical Characteristics

Lamp Wattage	28 W
Lamp Voltage EL	166 V
25°C	
Lamp Current EL	0.170 A
25°C	
Dimmable	yes
Lamp Wattage EL	27.8 W
35°C	
Lamp Current EL	0.170 A
35°C	

Lamp Voltage EL	167 V
35°C	
Lamp Wattage EL	28.2 W
25°C, Rated	
Lamp Wattage EL	28 W
25°C, Nominal	

• Environmental Characteristics

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

• Light Technical Characteristics

Colour Code	840 [CCT of 4000K]
Colour Rendering	85 Ra8
Index	
Colour Designation	Cool White
Colour Temperature	4000 K
Chromaticity Coordinate X	381 -
Chromaticity Coordinate Y	379 -
Luminous Flux Lamp	2900 Lm
EL 35°C	
Luminance Average	1.5 cd/cm2
EL 25°C	
Lum Efficacy Rated	93 Lm/W
HF 25°C	
Lum Efficacy Rated	104 Lm/W
HF 35°C	
LLMF HF 20000h	88 %
Rated	
LLMF HF 16000h	90 %
Rated	



asimpleswitch.com

PHILIPS

sense and simplicity

MASTER TL5 High Efficiency

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	2625 Lm
Luminous Flux EL 25°C, Nominal	2625 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

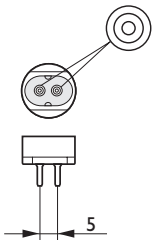
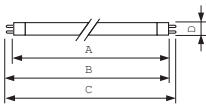
• Measuring Conditions

Calibration Current	0.170 A
HF Generator Rated Voltage	329 V
Resistor	950 ohm

• Product Data

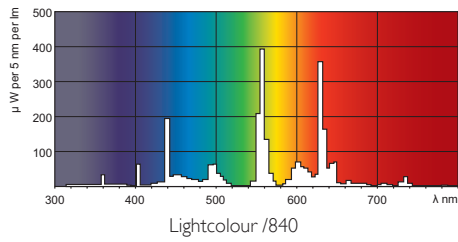
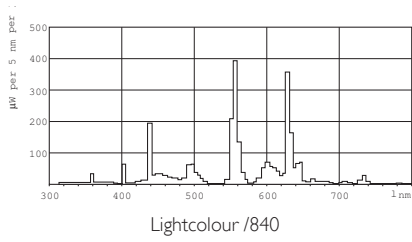
Order code	639486 55
Full product code	871150063948655
Full product name	MASTER TL5 HE 28W/840 1SL
Order product name	MASTER TL5 HE 28W/840 1SL/40
Pieces per pack	1
Packing configuration	40
Packs per outerbox	40
Bar code on pack - EAN1	8711500639486
Bar code on outerbox - EAN3	8711500867605
Logistic code(s) - 12NC	927926584055
ILCOS code	FDH-28/40/1B-L/P-G5-16/1150
Net weight per piece	80.500 gr

Dimensional drawing



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

Photometric data



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

- Nominal and rated lamp wattage;
- Nominal and rated lamp luminous flux;
- 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;
- 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;
- 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;
- Lamp mercury content as X.X mg;
- Colour Rendering Index (Ra) of the lamp;
- Colour temperature of the lamp;
- 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;
- 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>



© 2011 Koninklijke Philips Electronics N.V.
All rights reserved.

Specifications are subject to change without notice. Trademarks are the property of Koninklijke Philips Electronics N.V. or their respective owners.

www.philips.com/lighting

2011, May 8
data subject to change