



# Efficient fluorescent lighting with improved color rendering

## MASTER TL-D HF Super 80

The MASTER TL-D HF Super 80 lamp offers more lumens per watt and better color rendering than TL-D standard colors. Furthermore, it has a lower mercury content. The lamp is designed to be operated on special high-frequency electronic ballasts. It is not for general use.

### Benefits

- Relatively high efficacy, both initially and during lamp lifetime
- Smooth start
- Stable behavior in dimming operation with cool environments

### Features

- Special lamp designed for High Frequency operation
- Highly efficient 3-band fluorescent coating
- Low mercury dose

### Application

- Suitable for use in a wide range of luminaires for TL-D fluorescent lamps for 'human' applications such as schools, offices, shops, factory halls etc.

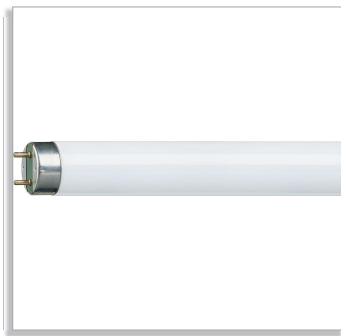
### Warnings and Safety

- Special electronic gear must be used

**PHILIPS**

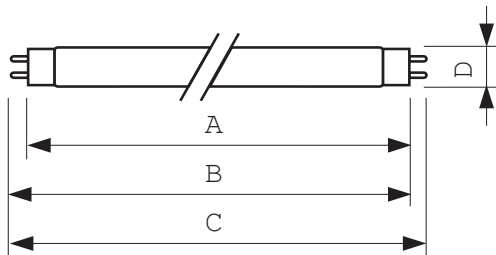


Related products



G13, T8

Dimensional drawing



MASTER TL-D HF Super 80 16W/830 1SL

Product	A (Max)	B (Min)	B (Max)	C (Max)	D (Max)
TL-D HF 16W/830	589.8	594.5	596.9	604	28
TL-D HF 16W/840	589.8	594.5	596.9	604	28
TL-D HF 32W/830	1199.4	1204.1	1206.5	1213.6	28
TL-D HF 32W/840	1199.4	1204.1	1206.5	1213.6	28
TL-D HF 50W/830	1500.0	1504.7	1507.1	1514.2	28
TL-D HF 50W/840	1500.0	1504.7	1507.1	1514.2	28

General Characteristics (1/2)

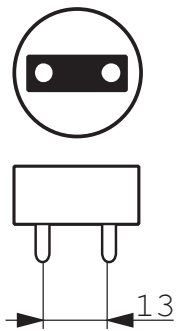
Order code	Full product name	System Description	Cap-Base	Bulb	Life to 10% fail Preheat EL,3h	Life to 10% fail Nonpreh EL,3h	Life to 50% fail Preheat EL,3h	Life to 50% fail Nonpreh EL,3h	LSF HF Preheat 2000h Rated,3h	LSF HF Preheat 4000h Rated,3h	LSF HF Preheat 6000h Rated,3h
927924083023	MASTER TL-D HF Super 80 16W/830 1SL	High Frequency	G13	T8	17000 hr	10000 hr	20000 hr	12000 hr	99 %	99 %	99 %
927924084023	MASTER TL-D HF Super 80 16W/840 1SL	High Frequency	G13	T8	17000 hr	10000 hr	20000 hr	12000 hr	99 %	99 %	99 %
927924583023	MASTER TL-D HF Super 80 32W/830 1SL	High Frequency	G13	T8	17000 hr	10000 hr	20000 hr	12000 hr	99 %	99 %	99 %
927924584023	MASTER TL-D HF Super 80 32W/840 1SL	High Frequency	G13	T8	17000 hr	10000 hr	20000 hr	12000 hr	99 %	99 %	99 %
927925083014	MASTER TL-D HF Super 80 50W/830 1SL	High Frequency	G13	T8	17000 hr	10000 hr	20000 hr	12000 hr	99 %	99 %	99 %
927925084014	MASTER TL-D HF Super 80 50W/840 1SL	High Frequency	G13	T8	17000 hr	10000 hr	20000 hr	12000 hr	99 %	99 %	99 %

General Characteristics (2/2)

Order code	Full product name	LSF HF Preheat 8000h Rated,3h	LSF HF Preheat 12000h Rated,3h	LSF HF Preheat 16000h Rated,3h	LSF HF Preheat 20000h Rated,3h
927924083023	MASTER TL-D HF Super 80 16W/830 1SL	99 %	99 %	95 %	50 %
927924084023	MASTER TL-D HF Super 80 16W/840 1SL	99 %	99 %	95 %	50 %
927924583023	MASTER TL-D HF Super 80 32W/830 1SL	99 %	99 %	95 %	50 %
927924584023	MASTER TL-D HF Super 80 32W/840 1SL	99 %	99 %	95 %	50 %

Order code	Full product name	LSF HF Preheat 8000h Rated,3h	LSF HF Preheat 12000h Rated,3h	LSF HF Preheat 16000h Rated,3h	LSF HF Preheat 20000h Rated,3h
927925083014	MASTER TL-D HF Super 80 50W/830 1SL	99 %	99 %	95 %	50 %
927925084014	MASTER TL-D HF Super 80 50W/840 1SL	99 %	99 %	95 %	50 %

Installation diagrams



G13

Light Technical Characteristics (1/2)

Order code	Full product name	Color Code	Color Rendering Index	Color Designation (text)	Color Temperature	Luminous Flux EL 25°C, Rated	Luminous Flux EL 25°C, Nominal	Lum Efficacy Rated HF 25°C	LLMF HF 2000h Rated	LLMF HF 4000h Rated	LLMF HF 6000h Rated
927924083023	MASTER TL-D HF Super 80 16W/830 1SL	830	85 Ra8	Warm White	3000 K	1400 Lm	1400 Lm	87.5 Lm/W	96 %	95 %	94 %
927924084023	MASTER TL-D HF Super 80 16W/840 1SL	840	85 Ra8	Cool White	4000 K	1400 Lm	1400 Lm	87.5 Lm/W	96 %	95 %	94 %
927924583023	MASTER TL-D HF Super 80 32W/830 1SL	830	85 Ra8	Warm White	3000 K	3200 Lm	3200 Lm	100 Lm/W	96 %	95 %	94 %
927924584023	MASTER TL-D HF Super 80 32W/840 1SL	840	85 Ra8	Cool White	4000 K	3200 Lm	3200 Lm	100 Lm/W	96 %	95 %	94 %
927925083014	MASTER TL-D HF Super 80 50W/830 1SL	830	85 Ra8	Warm White	3000 K	5000 Lm	5000 Lm	100 Lm/W	96 %	95 %	94 %
927925084014	MASTER TL-D HF Super 80 50W/840 1SL	840	85 Ra8	Cool White	4000 K	5000 Lm	5000 Lm	100 Lm/W	96 %	95 %	94 %

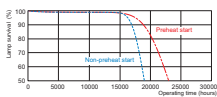
Light Technical Characteristics (2/2)

Order code	Full product name	LLMF HF 8000h Rated	LLMF HF 12000h Rated	LLMF HF 16000h Rated	LLMF HF 20000h Rated	Design Temperature	Chromaticity Coordinate X	Chromaticity Coordinate Y
927924083023	MASTER TL-D HF Super 80 16W/830 1SL	93 %	92 %	91 %	90 %	25 C	442 -	405 -
927924084023	MASTER TL-D HF Super 80 16W/840 1SL	93 %	92 %	91 %	90 %	25 C	384 -	381 -
927924583023	MASTER TL-D HF Super 80 32W/830 1SL	93 %	92 %	91 %	90 %	25 C	444 -	410 -
927924584023	MASTER TL-D HF Super 80 32W/840 1SL	93 %	92 %	91 %	90 %	25 C	383 -	386 -
927925083014	MASTER TL-D HF Super 80 50W/830 1SL	93 %	92 %	91 %	90 %	25 C	444 -	410 -
927925084014	MASTER TL-D HF Super 80 50W/840 1SL	93 %	92 %	91 %	90 %	25 C	383 -	386 -

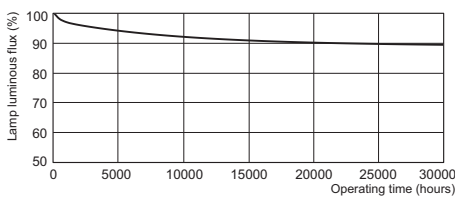
Electrical Characteristics

Order code	Full product name	Lamp Wattage	Lamp Wattage EL 25°C, Rated	Lamp Wattage EL 25°C, Nominal	Lamp Voltage EL 25°C	Lamp Current EL 25°C	Dimmable
927924083023	MASTER TL-D HF Super 80 16W/830 1SL	16 W	16.0 W	16 W	64 V	0.255 A	Yes
927924084023	MASTER TL-D HF Super 80 16W/840 1SL	16 W	16.0 W	16 W	64 V	0.255 A	Yes
927924583023	MASTER TL-D HF Super 80 32W/830 1SL	32 W	32.0 W	32 W	128 V	0.255 A	Yes
927924584023	MASTER TL-D HF Super 80 32W/840 1SL	32 W	32.0 W	32 W	128 V	0.255 A	Yes
927925083014	MASTER TL-D HF Super 80 50W/830 1SL	50 W	50.0 W	50 W	142 V	0.355 A	Yes
927925084014	MASTER TL-D HF Super 80 50W/840 1SL	50 W	50.0 W	50 W	142 V	0.355 A	Yes

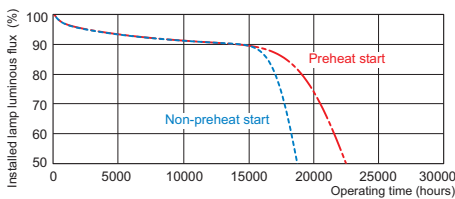
Performance diagrams



MASTER TL-D HF Super 80 Life Expectancy 3 h cycle



MASTER TL-D HF Super 80 Lumen Maintenance 3 h + 12 h cycle



MASTER TL-D HF Super 80 Service Lifetime 3 h cycle

## Environmental Characteristics

Order code	Full product name	Energy Efficiency Label (EEL)	Mercury (Hg) Content	Energy consumption kWh/1000h
927924083023	MASTER TL-D HF Super 80 16W/830 1SL	A	2.0 mg	20 kWh
927924084023	MASTER TL-D HF Super 80 16W/840 1SL	A	2.0 mg	20 kWh
927924583023	MASTER TL-D HF Super 80 32W/830 1SL	A+	2.0 mg	38 kWh
927924584023	MASTER TL-D HF Super 80 32W/840 1SL	A+	2.0 mg	38 kWh
927925083014	MASTER TL-D HF Super 80 50W/830 1SL	A+	2.0 mg	58 kWh
927925084014	MASTER TL-D HF Super 80 50W/840 1SL	A+	2.0 mg	58 kWh

## Measuring Conditions

Order code	Full product name	Calibration Current	HF Generator Rated Voltage	Resistor
927924083023	MASTER TL-D HF Super 80 16W/830 1SL	0.255 A	128 V	250 ohm
927924084023	MASTER TL-D HF Super 80 16W/840 1SL	0.255 A	128 V	250 ohm
927924583023	MASTER TL-D HF Super 80 32W/830 1SL	0.255 A	256 V	500 ohm
927924584023	MASTER TL-D HF Super 80 32W/840 1SL	0.255 A	256 V	500 ohm
927925083014	MASTER TL-D HF Super 80 50W/830 1SL	0.355 A	284 V	400 ohm
927925084014	MASTER TL-D HF Super 80 50W/840 1SL	0.355 A	284 V	400 ohm



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data subject to change