



# Seeing colors in a natural way

## MASTER TL-D 90 De Luxe

This TL-D lamp makes colors appear rich, deep and enhanced in a natural way. Thus very suitable for applications where a high color recognition is needed: first aid and treatment rooms in hospitals, printing rooms, jewelry, dentists, hairdressing, museums and shops

### Benefits

- Very good color rendering, making products appear more attractive and colors appear rich, deep and enhanced as they do in daylight
- Enabling customer to switch to improved color rendering properties with (almost) no decrease of light level
- Enabling customers (in certain segments) to respect the new European standard for lighting of indoor workplaces (CEN 12464-1), without investing in new luminaires

### Features

- High-quality fluorescent coating for improved color rendering
- Use of three-band phosphors for high efficacy
- Retrofit in current luminaires for standard TL-D lamps
- Available in various color designations

### Application

- Used in applications where good color rendering is crucial, such as shops (flower, fashion, department, etc.), hairdresser, museums, hospitals, etc.

### 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.

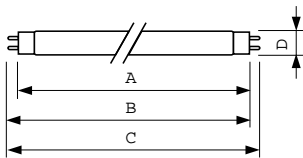
# MASTER TL-D 90 De Luxe

## Versions



G13, T8

## Dimensional drawing



Product	D (max)	A (max)	B (max)	B (min)	C (max)
MASTER TL-D 90 De Luxe 18W/940 SLV/10	28 mm	589.8 mm	596.9 mm	594.5 mm	604 mm
MASTER TL-D 90 De Luxe 18W/950 SLV/10	28 mm	589.8 mm	596.9 mm	594.5 mm	604 mm
MASTER TL-D 90 De Luxe 18W/965 SLV/10	28 mm	589.8 mm	596.9 mm	594.5 mm	604 mm
MASTER TL-D 90 De Luxe 36W/940 SLV/10	28 mm	1199.4 mm	1206.5 mm	1204.1 mm	1213.6 mm
MASTER TL-D 90 De Luxe 36W/950 SLV/10	28 mm	1199.4 mm	1206.5 mm	1204.1 mm	1213.6 mm
MASTER TL-D 90 De Luxe 36W/965 SLV/10	28 mm	1199.4 mm	1206.5 mm	1204.1 mm	1213.6 mm
MASTER TL-D 90 De Luxe 58W/940 SLV/10	28 mm	1500.0 mm	1507.1 mm	1504.7 mm	1514.2 mm
MASTER TL-D 90 De Luxe 58W/950 SLV/10	28 mm	1500.0 mm	1507.1 mm	1504.7 mm	1514.2 mm
MASTER TL-D 90 De Luxe 58W/965 SLV/10	28 mm	1500.0 mm	1507.1 mm	1504.7 mm	1514.2 mm

# MASTER TL-D 90 De Luxe

## Approval and Application

Mercury (Hg) Content (Nom)	2 mg
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## Controls and Dimming

Dimmable	Yes
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## General Information

Cap-Base	G13
Life To 50% Failures Preheat (Nom)	20000 h
Life To 10% Failures (Nom)	12000 h
Life To 50% Failures (Nom)	15000 h
LSF 12000 h Rated	89 %
LSF 16000 h Rated	33 %
LSF 2000 h Rated	99 %
LSF 20000 h Rated	2 %
LSF 4000 h Rated	99 %
LSF 6000 h Rated	99 %
LSF 8000 h Rated	99 %

## Light Technical

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	T8
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## Temperature

Design Temperature (Nom)	25 °C
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## Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/	Energy Efficiency
		1000 h	Label (EEL)
928043594081	MASTER TL-D 90 De Luxe 18W/940 SLV/10	22 kWh	B
928043595081	MASTER TL-D 90 De Luxe 18W/950 SLV/10	22 kWh	B
928043596581	MASTER TL-D 90 De Luxe 18W/965 SLV/10	22 kWh	B
928044594081	MASTER TL-D 90 De Luxe 36W/940 SLV/10	43 kWh	A
928044595081	MASTER TL-D 90 De Luxe 36W/950 SLV/10	43 kWh	A
928044596581	MASTER TL-D 90 De Luxe 36W/965 SLV/10	43 kWh	A
928045094081	MASTER TL-D 90 De Luxe 58W/940 SLV/10	68 kWh	A
928045095081	MASTER TL-D 90 De Luxe 58W/950 SLV/10	68 kWh	A
928045096581	MASTER TL-D 90 De Luxe 58W/965 SLV/10	68 kWh	A

## Operating and Electrical

Order Code	Full Product Name	Lamp Current (Nom)	Power (Rated) (Nom)
928043594081	MASTER TL-D 90 De Luxe 18W/940 SLV/10	0.360 A	18.0 W
928043595081	MASTER TL-D 90 De Luxe 18W/950 SLV/10	0.360 A	18.0 W
928043596581	MASTER TL-D 90 De Luxe 18W/965 SLV/10	0.360 A	18.0 W
928044594081	MASTER TL-D 90 De Luxe 36W/940 SLV/10	0.440 A	36.0 W
928044595081	MASTER TL-D 90 De Luxe 36W/950 SLV/10	0.440 A	36.0 W

Order Code	Full Product Name	Lamp Current (Nom)	Power (Rated) (Nom)
928044596581	MASTER TL-D 90 De Luxe 36W/965 SLV/10	0.440 A	36.0 W
928045094081	MASTER TL-D 90 De Luxe 58W/940 SLV/10	0.670 A	58.5 W
928045095081	MASTER TL-D 90 De Luxe 58W/950 SLV/10	0.670 A	58.5 W
928045096581	MASTER TL-D 90 De Luxe 58W/965 SLV/10	0.670 A	58.5 W

## Light Technical (1/2)

## MASTER TL-D 90 De Luxe

Order Code	Full Product Name	Chromaticity	Chromaticity	Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Designation
928043594081	MASTER TL-D 90 De Luxe 18W/940 SLV/10	380	380	940	Cool White (CW)
928043595081	MASTER TL-D 90 De Luxe 18W/950 SLV/10	340	352	950	Daylight
928043596581	MASTER TL-D 90 De Luxe 18W/965 SLV/10	309	323	965	Cool Daylight
928044594081	MASTER TL-D 90 De Luxe 36W/940 SLV/10	381	379	940	Cool White (CW)
928044595081	MASTER TL-D 90 De Luxe	340	352	950	Daylight

Order Code	Full Product Name	Chromaticity	Chromaticity	Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Designation
	36W/950 SLV/10				
928044596581	MASTER TL-D 90 De Luxe 36W/965 SLV/10	309	322	965	Cool Daylight
928045094081	MASTER TL-D 90 De Luxe 58W/940 SLV/10	380	380	940	Cool White (CW)
928045095081	MASTER TL-D 90 De Luxe 58W/950 SLV/10	340	352	950	Daylight
928045096581	MASTER TL-D 90 De Luxe 58W/965 SLV/10	309	323	965	Cool Daylight

### Light Technical (2/2)

Order Code	Full Product Name	Correlated	Color	Luminous	Luminous	
		Color Temperature (Nom)	Rendering Index (Nom)	Efficacy (rated) (Nom)	Luminous Flux (Nom)	Flux (Rated) (Nom)
928043594081	MASTER TL-D 90 De Luxe 18W/940 SLV/10	4000 K	91	66.7 lm/W	1200 lm	1200 lm
928043595081	MASTER TL-D 90 De Luxe 18W/950 SLV/10	-	92	63.9 lm/W	1150 lm	1150 lm
928043596581	MASTER TL-D 90 De Luxe 18W/965 SLV/10	6500 K	93	63.9 lm/W	1150 lm	1150 lm
928044594081	MASTER TL-D 90 De Luxe 36W/940 SLV/10	4000 K	91	77.8 lm/W	2800 lm	2800 lm
928044595081	MASTER TL-D 90 De Luxe	-	92	77.8 lm/W	2800 lm	2800 lm

Order Code	Full Product Name	Correlated	Color	Luminous	Luminous	
		Color Temperature (Nom)	Rendering Index (Nom)	Efficacy (rated) (Nom)	Luminous Flux (Nom)	Flux (Rated) (Nom)
	36W/950 SLV/10					
928044596581	MASTER TL-D 90 De Luxe 36W/965 SLV/10	6500 K	93	77.8 lm/W	2800 lm	2800 lm
928045094081	MASTER TL-D 90 De Luxe 58W/940 SLV/10	4000 K	91	78.6 lm/W	4600 lm	4600 lm
928045095081	MASTER TL-D 90 De Luxe 58W/950 SLV/10	-	92	77.8 lm/W	4550 lm	4550 lm
928045096581	MASTER TL-D 90 De Luxe 58W/965 SLV/10	6500 K	93	77.8 lm/W	4550 lm	4550 lm

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