



# Seeing colors as they are

## MASTER TL-D 90 Graphica

This TL-D lamp has excellent color rendering which makes it very suitable for the graphical and printing industry to check the quality of printed material.

### Benefits

- Making representation of colors extremely realistic
- Consistent with the strict standards for the graphical industry defined in standard EN-12464
- Enabling customer to switch to excellent color rendering properties with low decrease of light level

### Features

- High-quality fluorescent coating for excellent color rendering and very accurate color point
- Use of mix of three-band phosphors and halophosphates for high efficacy
- Retrofit in current luminaires for standard TL-D lamps

### Application

- Used in applications where excellent color rendering is crucial, such as the graphical industry, printing industry, photo shops, 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 Graphica

## Versions



G13, T8

## Dimensional drawing

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

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## Approval and Application

Mercury (Hg) Content (Max)	2 mg
Mercury (Hg) Content (Nom)	2 mg

## Controls and Dimming

Dimmable	Yes
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## General Information

Cap-Base	G13
Life To 50% Failures Preheat (Nom)	10000 h
Life To 10% Failures (Nom)	6000 h
Life To 50% Failures (Nom)	8000 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	82 %
LLMF 16000 h Rated	80 %
LLMF 2000 h Rated	93 %
LLMF 20000 h Rated	78 %
LLMF 4000 h Rated	90 %
LLMF 6000 h Rated	88 %
LLMF 8000 h Rated	85 %

## 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/1000 h
928043795081	MASTER TL-D 90 Graphica 18W/950 SLV/10	19 kWh
928043796581	MASTER TL-D 90 Graphica 18W/965 SLV/10	19 kWh
928044795081	MASTER TL-D 90 Graphica 36W/950 SLV/10	37 kWh
928044796581	MASTER TL-D 90 Graphica 36W/965 SLV/10	37 kWh
928045295081	MASTER TL-D 90 Graphica 58W/950 SLV/10	60 kWh
928045296581	MASTER TL-D 90 Graphica 58W/965 SLV/10	60 kWh

## Operating and Electrical

Order Code	Full Product Name	Lamp Current (Nom)	Power (Rated) (Nom)
928043795081	MASTER TL-D 90 Graphica 18W/950 SLV/10	0.360 A	18.4 W
928043796581	MASTER TL-D 90 Graphica 18W/965 SLV/10	0.360 A	18.4 W
928044795081	MASTER TL-D 90 Graphica 36W/950 SLV/10	0.440 A	36.8 W

Order Code	Full Product Name	Lamp Current (Nom)	Power (Rated) (Nom)
928044796581	MASTER TL-D 90 Graphica 36W/965 SLV/10	0.440 A	36.8 W
928045295081	MASTER TL-D 90 Graphica 58W/950 SLV/10	0.670 A	59.6 W
928045296581	MASTER TL-D 90 Graphica 58W/965 SLV/10	0.670 A	59.6 W

## Light Technical (1/2)

## MASTER TL-D 90 Graphica

Order Code	Full Product Name	Chromaticity		Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Designation
928043795081	MASTER TL-D 90 Graphica 18W/950 SLV/10	0.34	0.351	950	Daylight
928043796581	MASTER TL-D 90 Graphica 18W/965 SLV/10	0.313	0.337	965	Cool Daylight
928044795081	MASTER TL-D 90 Graphica 36W/950 SLV/10	0.34	0.351	950	Daylight
928044796581	MASTER TL-D 90 Graphica	0.313	0.337	965	Cool Daylight

Order Code	Full Product Name	Chromaticity		Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Code	Designation
	36W/965 SLV/10				
928045295081	MASTER TL-D 90 Graphica 58W/950 SLV/10	0.34	0.351	950	Daylight
928045296581	MASTER TL-D 90 Graphica 58W/965 SLV/10	0.313	0.337	965	Cool Daylight

### Light Technical (2/2)

Order Code	Full Product Name	Correlated Color Temperature (Nom)	Color Rendering Index (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux	
					(Nom)	(Rated)
928043795081	MASTER TL-D 90 Graphica 18W/950 SLV/10	5200 K	95	52.8 lm/W	960 lm	990 lm
928043796581	MASTER TL-D 90 Graphica 18W/965 SLV/10	6500 K	96	51.7 lm/W	950 lm	930 lm
928044795081	MASTER TL-D 90 Graphica 36W/950 SLV/10	5200 K	95	65 lm/W	2300 lm	2330 lm

Order Code	Full Product Name	Correlated Color Temperature (Nom)	Color Rendering Index (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux	
					(Nom)	(Rated)
928044796581	MASTER TL-D 90 Graphica 36W/965 SLV/10	6500 K	97	58.3 lm/W	2100 lm	2100 lm
928045295081	MASTER TL-D 90 Graphica 58W/950 SLV/10	5200 K	97	62.7 lm/W	3640 lm	3750 lm
928045296581	MASTER TL-D 90 Graphica 58W/965 SLV/10	6500 K	97	57.3 lm/W	3625 lm	3350 lm

