



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.

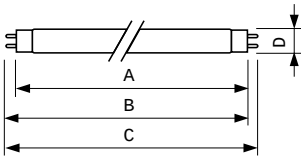
MASTER TL-D 90 De Luxe

Versions



G13, T8

Dimensional drawing



Product	D (max)	A (max)	B (max)	B (min)	C (max)
MASTER TL-D 90 De Luxe 18W/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 58W/965 SLV/10	28 mm	1500.0 mm	1507.1 mm	1504.7 mm	1514.2 mm
MASTER TL-D 90 De Luxe 36W/930 SLV/10	28 mm	1199.4 mm	1206.5 mm	1204.1 mm	1213.6 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 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 18W/940 SLV/10	28 mm	589.8 mm	596.9 mm	594.5 mm	604 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
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MASTER TL-D 90 De Luxe 18W/930 SLV/10	28 mm	589.8 mm	596.9 mm	594.5 mm	604 mm

MASTER TL-D 90 De Luxe

Approval and Application	
Mercury (Hg) Content (Nom)	2 mg
Controls and Dimming	
Dimmable	Yes
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
Temperature	
Design Temperature (Nom)	25 °C

Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/1000 h	Energy Efficiency
			Label (EEL)
928043593081	MASTER TL-D 90 De Luxe 18W/930 SLV/10	22 kWh	B
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
928044593081	MASTER TL-D 90 De Luxe 36W/930 SLV/10	43 kWh	A
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
928045093081	MASTER TL-D 90 De Luxe 58W/930 SLV/10	68 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	Power (Rated)
		(Nom)	(Nom)
928043593081	MASTER TL-D 90 De Luxe 18W/930 SLV/10	0.360 A	18.0 W
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
928044593081	MASTER TL-D 90 De Luxe 36W/930 SLV/10	0.440 A	36.0 W
928044594081	MASTER TL-D 90 De Luxe 36W/940 SLV/10	0.440 A	36.0 W

Order Code	Full Product Name	Lamp Current	Power (Rated)
		(Nom)	(Nom)
928044595081	MASTER TL-D 90 De Luxe 36W/950 SLV/10	0.440 A	36.0 W
928044596581	MASTER TL-D 90 De Luxe 36W/965 SLV/10	0.440 A	36.0 W
928045093081	MASTER TL-D 90 De Luxe 58W/930 SLV/10	0.670 A	58.5 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 Code	Color Designation
		Coordinate X (Nom)	Coordinate Y (Nom)		
928043593081	MASTER TL-D 90 De Luxe 18W/930 SLV/10	434	399	930	Warm White (WW)
928043594081	MASTER TL-D 90 De Luxe 18W/940 SLV/10	381	379	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
928044593081	MASTER TL-D 90 De Luxe 36W/930 SLV/10	434	399	930	Warm White (WW)
928044594081	MASTER TL-D 90 De Luxe 36W/940 SLV/10	381	379	940	Cool White (CW)

Order Code	Full Product Name	Chromaticity	Chromaticity	Color Code	Color Designation
		Coordinate X (Nom)	Coordinate Y (Nom)		
928044595081	MASTER TL-D 90 De Luxe 36W/950 SLV/10	340	352	950	Daylight
928044596581	MASTER TL-D 90 De Luxe 36W/965 SLV/10	309	322	965	Cool Daylight
928045093081	MASTER TL-D 90 De Luxe 58W/930 SLV/10	434	399	930	Warm White (WW)
928045094081	MASTER TL-D 90 De Luxe 58W/940 SLV/10	381	379	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 Temperature (Nom)	Color Rendering Index (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
		Temperature (Nom)	Index (Nom)	(rated) (Nom)	Flux (Nom)	Flux (Rated) (Nom)
928043593081	MASTER TL-D 90 De Luxe 18W/930 SLV/10	3000 K	91	66.7 lm/W	1200 lm	1200 lm
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	5300 K	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
928044593081	MASTER TL-D 90 De Luxe 36W/930 SLV/10	3000 K	91	77.8 lm/W	2800 lm	2800 lm

Order Code	Full Product Name	Correlated Color Temperature (Nom)	Color Rendering Index (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
		Temperature (Nom)	Index (Nom)	(rated) (Nom)	Flux (Nom)	Flux (Rated) (Nom)
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 36W/950 SLV/10	5300 K	92	77.8 lm/W	2800 lm	2800 lm
928044596581	MASTER TL-D 90 De Luxe 36W/965 SLV/10	6500 K	93	77.8 lm/W	2800 lm	2800 lm
928045093081	MASTER TL-D 90 De Luxe 58W/930 SLV/10	3000 K	91	74.4 lm/W	4350 lm	4350 lm
928045094081	MASTER TL-D 90 De Luxe 58W/940 SLV/10	4000 K	91	78.6 lm/W	4600 lm	4600 lm

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Order Code	Full Product Name	Correlated Color Temperature	Color Rendering Index	Luminous Efficacy (rated)	Luminous Flux (Nom)	Luminous Flux (Rated)
		(Nom)	(Nom)	(Nom)	(Nom)	(Nom)
928045095081	MASTER TL-D 90 De Luxe 58W/950 SLV/10	5300 K	92	77.8 lm/W	4550 lm	4550 lm

Order Code	Full Product Name	Correlated Color Temperature	Color Rendering Index	Luminous Efficacy (rated)	Luminous Flux (Nom)	Luminous Flux (Rated)
		(Nom)	(Nom)	(Nom)	(Nom)	(Nom)
928045096581	MASTER TL-D 90 De Luxe 58W/965 SLV/10	6500 K	93	77.8 lm/W	4550 lm	4550 lm

