



# The easiest switch to comfortable white light

## MASTER CityWhite CDO-TT

Ceramic metal halide lamp with clear tubular outer bulb shape, used in outdoor offering pleasant white light

### Benefits

- White warm colour impression providing comfort and safety
- Easy upgrade from SON to white light without additional cost
- Flexible light levels and reduced energy consumption possible via dimming option

### Features

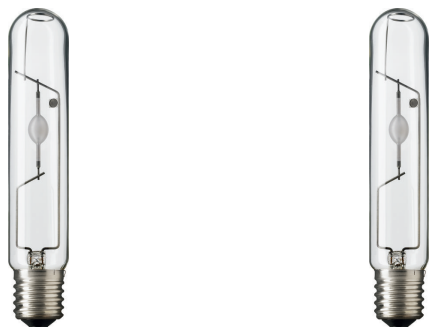
- High-quality white light
- Directly retrofit on HPS (SON/NAV) installations for upgrade from yellow to white light
- "Plus" concept with high efficacy translates into high light output and improved lumen maintenance
- Good colour rendering and harmonized warm white colour temperature
- Dimmable

### Application

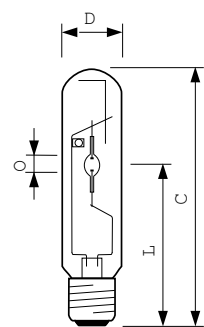
- Beautification and functional lighting for City centers, shopping centers and pedestrian areas, residential areas, road lighting and floodlighting

# MASTER CityWhite CDO-TT

## Versions



## Dimensional drawing



Product	D (max)	O	L	C (max)
MASTER CityWhite CDO-TT Plus 250W/830 E40	47 mm	12.1 mm	157 mm	257 mm
MASTER CityWhite CDO-TT Plus 150W/828 E40	47 mm	10 mm	132 mm	211 mm

Approval and Application	
Energy Efficiency Label (EEL)	A+
Controls and Dimming	
Dimmable	yes
Operating and Electrical	
Re-Ignition Time (Min) (Max)	900 s
General Information	
Cap-Base	E40
LSF 2000 h Rated	99 %
LSF 4000 h Rated	99 %
LSF 6000 h Rated	99 %
LSF 8000 h Rated	99 %
Operating Position	UNIVERSAL
Luminaire Design Requirements	
Bulb Temperature (Max)	450 °C
Light Technical	
Colour Designation	Warm white (WW)
LLMF 12000 h Rated	85 %
LLMF 16000 h Rated	82 %
LLMF 2000 h Rated	95 %
LLMF 20000 h Rated	80 %
LLMF 4000 h Rated	92 %
LLMF 6000 h Rated	90 %
LLMF 8000 h Rated	88 %
Ratio Scotopic/Photopic Lumens	1.30
Mechanical and Housing	
Bulb Finish	Clear (CL)
Bulb Shape	T46

Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/	Mercury (Hg)
		1000 h	Content (Nom)
928082219231	MASTER CityWhite CDO-TT Plus 150W/828 E40	163 kWh	15.8 mg
928082319230	MASTER CityWhite CDO-TT Plus 250W/830 E40	275 kWh	25.3 mg

Operating and Electrical (1/2)

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
928082219231	MASTER CityWhite CDO-TT Plus 150W/828 E40	1.8 A	106 V	90 V	98 V

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
928082319230	MASTER CityWhite CDO-TT Plus 250W/830 E40	2.92 A	108 V	92 V	100 V

Operating and Electrical (2/2)

Order Code	Full Product Name	Power (Rated) (Nom)
928082219231	MASTER CityWhite CDO-TT Plus 150W/828 E40	148.0 W

Order Code	Full Product Name	Power (Rated) (Nom)
928082319230	MASTER CityWhite CDO-TT Plus 250W/830 E40	250.0 W

General Information (1/2)

# MASTER CityWhite CDO-TT

Order Code	Full Product Name	Life To			
		Life To 10% Failures (Nom)	Life To 20% Failures (Nom)	50% Failures (Nom)	Life To 5% Failures (Nom)
928082219231	MASTER CityWhite CDO-TT Plus 150W/828 E40	20000 h	22500 h	27000 h	18000 h
928082319230	MASTER CityWhite CDO-	16000 h	18500 h	23000 h	14000 h

Order Code	Full Product Name	Life To			
		Life To 10% Failures (Nom)	Life To 20% Failures (Nom)	50% Failures (Nom)	Life To 5% Failures (Nom)
	TT Plus 250W/830 E40				

## General Information (2/2)

Order Code	Full Product Name	LSF 12000 h	LSF 16000 h	LSF 20000 h
		Rated	Rated	Rated
928082219231	MASTER CityWhite CDO-TT Plus 150W/828 E40	99 %	97 %	90 %

Order Code	Full Product Name	LSF 12000 h	LSF 16000 h	LSF 20000 h
		Rated	Rated	Rated
928082319230	MASTER CityWhite CDO-TT Plus 250W/830 E40	98 %	90 %	71 %

## Light Technical (1/2)

Order Code	Full Product Name	Chromaticity Coordinate X (Nom)	Chromaticity Coordinate Y (Nom)	Correlated Colour Code	Correlated Colour Temperature (Nom)
928082219231	MASTER CityWhite CDO-TT Plus 150W/828 E40	445	395	828	2800 K
928082319230	MASTER CityWhite	426	390	830	3000 K

Order Code	Full Product Name	Chromaticity Coordinate X (Nom)	Chromaticity Coordinate Y (Nom)	Correlated Colour Code	Correlated Colour Temperature (Nom)
	CDO-TT Plus 250W/830 E40				

## Light Technical (2/2)

Order Code	Full Product Name	Colour Rendering Index (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Rated) (Nom)
928082219231	MASTER CityWhite CDO-TT Plus 150W/828 E40	87	110 lm/W	16500 lm
928082319230	MASTER CityWhite CDO-TT Plus 250W/830 E40	88	113 lm/W	28300 lm

