



# 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

### Warnings and Safety

- Use only in totally enclosed luminaire, even during testing (IEC61167, IEC 62035, IEC60598)
- The luminaire must be able to contain hot lamp parts if the lamp ruptures
- Lamps may use electronic or electromagnetic control gear
- Control gear must include end-of-life protection (IEC61167, IEC 62035)

# MASTER CityWhite CDO-TT

## Versions



### Approval and Application

Energy Efficiency Label (EEL)	A+
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### Controls and Dimming

Dimmable	Yes
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### General Information

Life To 50% Failures (Nom)	27000 h
LSF 2000 h Rated	99 %
LSF 4000 h Rated	99 %
Operating Position	UNIVERSAL

### Light Technical

Colour Code	828
Colour Designation	Warm white (WW)
Correlated Colour Temperature (Nom)	2800 K
Ratio Scotopic/Photopic Lumens	1.30

### Mechanical and Housing

Bulb Finish	Clear
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### Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/ 1000 h	Mercury (Hg) Content (Nom)
12030800	MASTER CityWhite CDO-TT Plus 70W/828 1SL/12	81 kWh	7.8 mg
12034600	MASTER CityWhite CDO-TT Plus 150W/828 E40	163 kWh	15.8 mg

## Operating and Electrical (1/2)

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
12030800	MASTER CityWhite CDO-TT Plus 70W/828 1SL/12	0.96 A	101 V	85 V	91 V

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
12034600	MASTER CityWhite CDO-TT Plus 150W/828 E40	0.177 A	106 V	90 V	99 V

## Operating and Electrical (2/2)

Order Code	Full Product Name	Power (Rated)	Re-Ignition Time
		(Nom)	(Min) (Max)
12030800	MASTER CityWhite CDO-TT Plus 70W/828 1SL/12	73.5 W	720 s

Order Code	Full Product Name	Power (Rated)	Re-Ignition Time
		(Nom)	(Min) (Max)
12034600	MASTER CityWhite CDO-TT Plus 150W/828 E40	148.5 W	900 s

## General Information (1/2)

# MASTER CityWhite CDO-TT

Order Code	Full Product Name	Cap-Base	Life To 10% Failures (Nom)	Life To 20% Failures (Nom)	Life To 5% Failures (Nom)
12030800	MASTER CityWhite CDO-TT Plus 70W/828 1SL/12	E27	15000 h	17000 h	13000 h

Order Code	Full Product Name	Cap-Base	Life To 10% Failures (Nom)	Life To 20% Failures (Nom)	Life To 5% Failures (Nom)
12034600	MASTER CityWhite CDO-TT Plus 150W/828 E40	E40	20000 h	22500 h	18000 h

## General Information (2/2)

Order Code	Full Product Name	LSF 12000 h Rated	LSF 16000 h Rated	LSF 20000 h Rated	LSF 6000 h Rated	LSF 8000 h Rated
12030800	MASTER CityWhite CDO-TT Plus 70W/828 1SL/12	90 %	81 %	71 %	98 %	96 %
12034600	MASTER CityWhite CDO-	99 %	97 %	90 %	99 %	99 %

Order Code	Full Product Name	LSF 12000 h Rated	LSF 16000 h Rated	LSF 20000 h Rated	LSF 6000 h Rated	LSF 8000 h Rated
	TT Plus 150W/828 E40					

## Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)
12030800	MASTER CityWhite CDO-TT Plus 70W/828 1SL/12	350 °C

Order Code	Full Product Name	Bulb Temperature (Max)
12034600	MASTER CityWhite CDO-TT Plus 150W/828 E40	450 °C

## Light Technical (1/2)

Order Code	Full Product Name	Chromaticity Coordinate X (Nom)	Chromaticity Coordinate Y (Nom)	Colour Rendering Index (Min)	Colour Rendering Index (Nom)
12030800	MASTER CityWhite CDO-TT Plus	446	393	83	86

Order Code	Full Product Name	Chromaticity Coordinate X (Nom)	Chromaticity Coordinate Y (Nom)	Colour Rendering Index (Min)	Colour Rendering Index (Nom)
	70W/828 1SL/12				
12034600	MASTER CityWhite CDO-TT Plus 150W/828 E40	445	395	-	87

## Light Technical (2/2)

Order Code	Full Product Name	LLMF 12000 h Rated	LLMF 16000 h Rated	LLMF 2000 h Rated	LLMF 20000 h Rated	LLMF 4000 h Rated	LLMF 6000 h Rated	LLMF 8000 h Rated	Luminous Efficacy (rated) (Nom)	Luminous Flux (Rated) (Nom)
12030800	MASTER CityWhite CDO-TT Plus 70W/828 1SL/12	80.5 %	76.5 %	97 %	73.5 %	93 %	89.5 %	86 %	105.44 lm/W	7750 lm
12034600	MASTER CityWhite CDO-TT Plus 150W/828 E40	85 %	82 %	95 %	80 %	92 %	90 %	88 %	110.44 lm/W	16400 lm

## Mechanical and Housing

Order Code	Full Product Name	Bulb Shape
12030800	MASTER CityWhite CDO-TT Plus 70W/828 1SL/12	T35

Order Code	Full Product Name	Bulb Shape
12034600	MASTER CityWhite CDO-TT Plus 150W/828 E40	T46

