



# Product Description

## MASTER CityWhite CDO-ET

Ceramic metal halide Outdoor with opalized ovoid outer bulb

### Benefits

- Reduced cost of ownership compared to predecessor MASTERColour CDM-ET
- Comfortable warm colour impression with stable colour over lifetime
- Flexible light levels and reduced energy consumption possible via dimming option
- Upgrade for existing HPL installations with gear exchange

### Features

- Robust lamp with long lifetime
- Directly retrofit on HPS (SON) installations for upgrade from yellow to white light
- Good colour rendering and harmonized warm white colour temperature

### Application

- City centres, shopping centres 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)
- Warm restart time can be up to 15 minutes; T15 ignitors therefore advised
- 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.

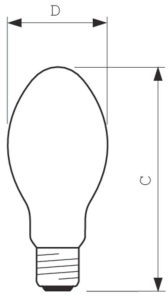
# MASTER CityWhite CDO-ET

## Versions



CDO-ET, E40

## Dimensional drawing



Product	D (max)	C (max)
MASTER CityWhite CDO-ET Plus 150W/828 E40	91 mm	227 mm
MASTER CityWhite CDO-ET Plus 70W/828 E27	71 mm	156 mm
MASTER CityWhite CDO-ET Plus 100W/828 E40	76 mm	186 mm
MASTER CityWhite CDO-ET Plus 50W/828 E27	71 mm	156 mm

### Approval and Application

Energy Efficiency Label (EEL) A+

### Controls and Dimming

Dimmable Yes

### General Information

LSF 2000 h Rated 99 %

LSF 4000 h Rated 99 %

Operating Position UNIVERSAL

### Light Technical

Color Code 828

Color Designation Warm White (WW)

Ratio Scotopic/Photopic Lumens 1.30

### Mechanical and Housing

Bulb Finish Coated glass

### Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/ 1000 h	Mercury (Hg) Content (Nom)
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	78 kWh	7.8 mg
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	57 kWh	5.4 mg
15877600	MASTER CityWhite CDO-ET Plus 100W/828 E40	105 kWh	11.6 mg
15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	157 kWh	15.8 mg

## Operating and Electrical (1/2)

# MASTER CityWhite CDO-ET

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	0.99 A	96 V	80 V	83 V
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	0.77 A	86 V	70 V	78 V

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
15877600	MASTER CityWhite CDO-ET Plus 100W/828 E40	0.123 A	98 V	82 V	90 V
15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	1.85 A	98 V	82 V	89 V

## Operating and Electrical (2/2)

Order Code	Full Product Name	Power (Rated) (Nom)	Re-Ignition Time (Min) (Max)
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	71.0 W	720 s
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	52.0 W	720 s

Order Code	Full Product Name	Power (Rated) (Nom)	Re-Ignition Time (Min) (Max)
15877600	MASTER CityWhite CDO-ET Plus 100W/828 E40	95.0 W	900 s
15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	143 W	900 s

## General Information (1/2)

Order Code	Full Product Name	Cap-Base	Life To 10%	Life To 20%	Life To 50%
			Failures (Nom)	Failures (Nom)	Failures (Nom)
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	E27	15000 h	17000 h	27000 h
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	E27	15000 h	17000 h	21000 h

Order Code	Full Product Name	Cap-Base	Life To 10%	Life To 20%	Life To 50%
			Failures (Nom)	Failures (Nom)	Failures (Nom)
15877600	MASTER CityWhite CDO-ET Plus 100W/828 E40	E40	20000 h	22500 h	27000 h
15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	E40	20000 h	22500 h	27000 h

## General Information (2/2)

Order Code	Full Product Name	Life To 5% Failures (Nom)	LSF 12000 h Rated	LSF 16000 h Rated	LSF 20000 h Rated	LSF 6000 h Rated	LSF 8000 h Rated
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	13000 h	90 %	81 %	71 %	98 %	96 %
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	13000 h	90 %	74 %	50 %	99 %	98 %
15877600	MASTER CityWhite CDO-ET Plus 100W/828 E40	18000 h	99 %	97 %	90 %	99 %	99 %
15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	18000 h	99 %	97 %	90 %	99 %	99 %

## Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)	Order Code	Full Product Name	Bulb Temperature (Max)
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	350 °C	15877600	MASTER CityWhite CDO-ET Plus 100W/828 E40	450 °C
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	350 °C	15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	350 °C

## Light Technical (1/3)

# MASTER CityWhite CDO-ET

Order Code	Full Product Name	Chromaticity		Correlated Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Temperature (Nom)	Color Rendering Index (Min)
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	438	398	2900 K	81
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	443	399	2800 K	79
15877600	MASTER CityWhite	444	403	2890 K	-

Order Code	Full Product Name	Chromaticity		Correlated Color	
		Coordinate X (Nom)	Coordinate Y (Nom)	Temperature (Nom)	Color Rendering Index (Min)
	CDO-ET Plus 100W/828 E40				
15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	443	402	2830 K	-

## Light Technical (2/3)

Order Code	Full Product Name	Color Rendering Index (Nom)	Color							Luminous Efficacy (rated) (Nom)
			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	
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	84	80.5 %	76.5 %	97 %	73.5 %	93 %	89.5 %	86 %	99.3 lm/W
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	82	80 %	74 %	98 %	71 %	96 %	92 %	88 %	99.04 lm/W
15877600	MASTER CityWhite CDO-ET Plus 100W/828 E40	87	85 %	82 %	95 %	80 %	92 %	90 %	88 %	98.95 lm/W
15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	85	85 %	82 %	95 %	80 %	92 %	90 %	88 %	107.69 lm/W

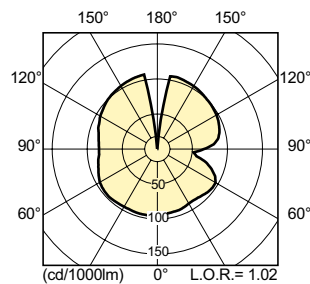
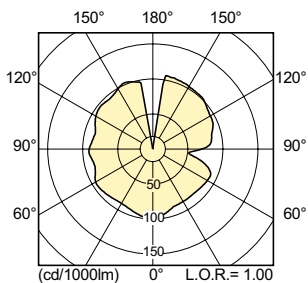
## Light Technical (3/3)

Order Code	Full Product Name	Luminous Flux (Rated) (Nom)
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	7050 lm
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	5150 lm

Order Code	Full Product Name	Luminous Flux (Rated) (Nom)
15877600	MASTER CityWhite CDO-ET Plus 100W/828 E40	9400 lm
15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	15400 lm

## Mechanical and Housing

Order Code	Full Product Name	Bulb Shape
15875200	MASTER CityWhite CDO-ET Plus 70W/828 E27	B70
18563500	MASTER CityWhite CDO-ET Plus 50W/828 E27	B70
15877600	MASTER CityWhite CDO-ET Plus 100W/828 E40	B75
15881300	MASTER CityWhite CDO-ET Plus 150W/828 E40	BD90



# MASTER CityWhite CDO-ET

