



# MASTER CosmoWhite CPO-TW & CPO-TW Xtra

## MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12

New-generation ceramic metal halide lamps used in Outdoor offering efficient and pleasant white light

### 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
- Use only with electronic control gear
- Control gear must include end-of-life protection (IEC61167, IEC 62035)
- 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.

### Product data

General Information	
Cap base	PGZ12 [ PGZ12]
Operating position	UNIVERSAL [ Any or Universal (U)]
Life to 5% failures (nom.)	21500 h
Life to 10% failures (nom.)	24000 h
Life to 20% failures (nom.)	27000 h
Life to 50% failures (nom.)	32000 h
ANSI code HID	C188/E
LSF 2000 h Rated	99 %
LSF 4000 h Rated	99 %

LSF 6000 h Rated	99 %
LSF 8000 h Rated	99 %
LSF 12000 h Rated	99 %
LSF 16000 h Rated	99 %
LSF 20000 h Rated	97 %
LSF 24000 h Rated	90 %
LSF 30000 h Rated	63 %

### Light Technical

Colour Code	728 [ CCT of 2,800 K]
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Luminous flux (rated) (nom.)	10800 lm
Colour designation	White (WH)
Chromaticity coordinate X (nom.)	449
Chromaticity coordinate Y (nom.)	412
Luminous efficacy (rated) (nom.)	120 lm/W
Colour-rendering index (min.)	67
Colour rendering index (nom.)	70
LLMF 2000 h Rated	94 %
LLMF 4000 h Rated	93 %
LLMF 6000 h Rated	93 %
LLMF 8000 h Rated	93 %
LLMF 12000 h Rated	92 %
LLMF 16000 h Rated	91 %
LLMF 20000 h Rated	90 %
Ratio scotopic/photopic lumens	1.15

## Operating and Electrical

Power (Rated) (Nom)	90.0 W
Ignition peak voltage (max.)	5000 V
Re-ignition time (min.) (max.)	900 s
Ignition time (max.)	30 s
Voltage (Max)	98 V
Voltage (Min)	86 V
Voltage (Nom)	92 V

## Controls and Dimming

Dimmable	Yes
Run-up time 90% (max.)	4 min

## Mechanical and Housing

Lamp Finish	Clear
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## Approval and Application

Energy efficiency label (EEL)	A+
Mercury (Hg) content (nom.)	3.0 mg
Energy consumption kWh/1,000 hours	99 kWh

## UV

PET (NIOSH) (min.)	8 h/500lx
PET (NIOSH) (nom.)	38 h/500lx
Damage factor D/fc (nom.)	0.18

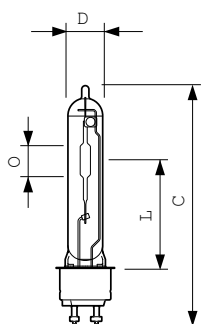
## Luminaire Design Requirements

Bulb temperature (max.)	470 °C
Cap-base temperature (max.)	300 °C

## Product Data

Full product code	871150021121715
Order product name	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12
EAN/UPC – product	8711500211217
Order code	21121715
SAP numerator – quantity per pack	1
Numerator – packs per outer box	12
SAP material	928093505127
SAP net weight (piece)	0.037 kg
ILCOS code	MT-90/728-H-PGZ12-20/143

## Dimensional drawing

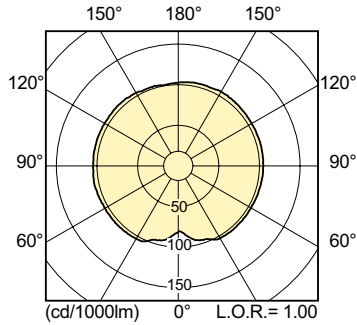


CPO-TW Xtra 90W/728 PGZ12

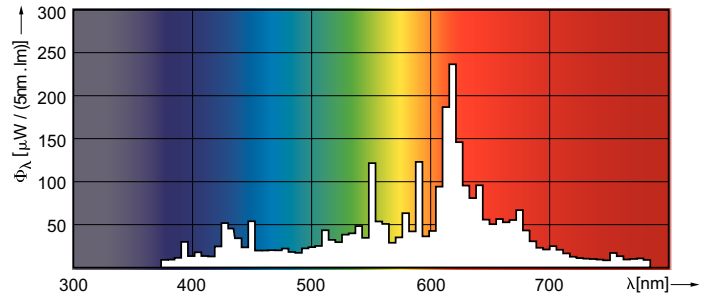
Product	D (max)	D	O	L	C (max)
MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	20 mm	19 mm	18 mm	66 mm	143 mm

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## Photometric data

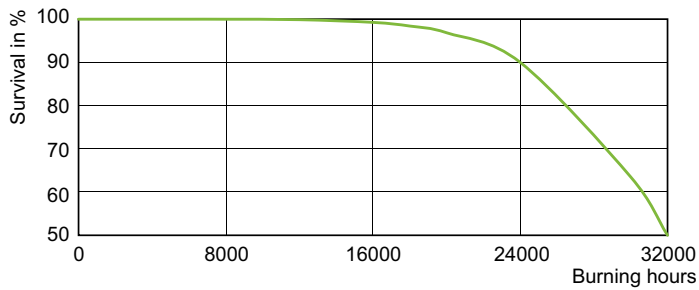


LDLD\_CPO-TW\_0003-Light distribution diagram

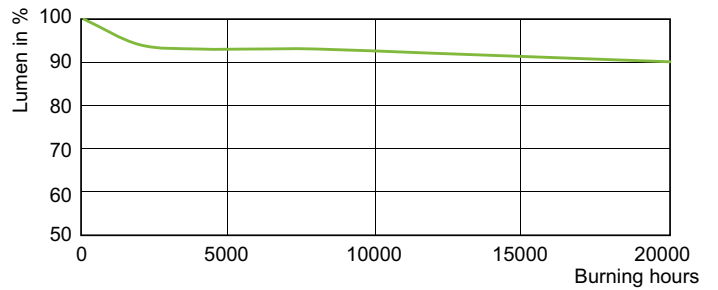


LDPO\_CPO-TW\_90W\_728-Spectral power distribution Colour

## Lifetime



LDLE\_CPO-TW\_0001-Life expectancy diagram



LDLM\_CPO-TW\_0003-Lumen maintenance diagram

