



# 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)

### Product data

General information	
Cap base	PGZ12 [ PGZ12]
Burning Position	UNIVERSAL [ Any/Universal]
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 %
	Sphere
Light technical	
Colour Code	728 [ CCT of 2,800 K]
Lamp Luminous Flux 25°C EL (Nom)	10800 lm
Lamp Luminous Flux (Nom)	10800 lm
Colour Designation	White (WH)
Chromaticity coordinate X (nom.)	0.447
Chromaticity coordinate Y (nom.)	0.4

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Colour Temperature, horizontal (Nom)	2800 K
Lamp Luminous Efficacy EM (Nom)	120 lm/W
Colour Rendering Index,horiz (Min)	67
Colour Rendering Index,horiz (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
Bulb shape	T19 [ T 19mm]

### Approval and application

Energy Efficiency Class	E
Mercury (Hg) content (max.)	3 mg
Mercury (Hg) content (nom.)	3.0 mg
Energy consumption kWh/1,000 hours	90 kWh 473351

### UV

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

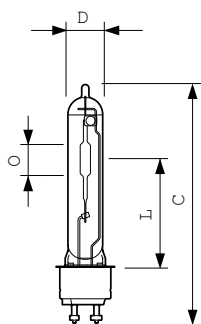
### Luminaire design requirements

Bulb temperature (max.)	470 °C
Cap-base temperature (max.)	300 °C
Cap-base temperature (max.)	572 °F

### Product data

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

## Dimensional drawing

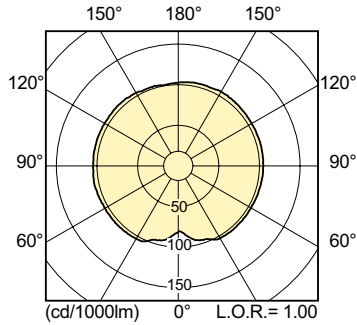


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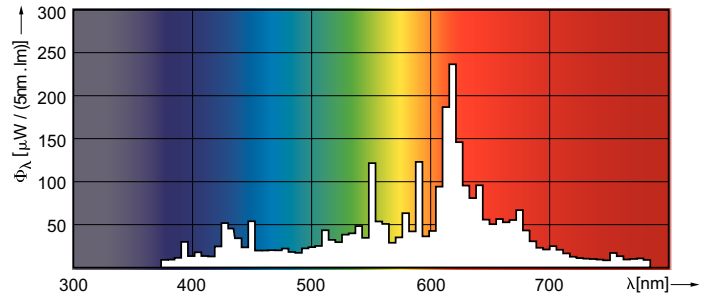
Product	D (max)	D	O	L	C (max)
MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	20 mm	19 mm	18 mm	66 mm	143 mm

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## Photometric data

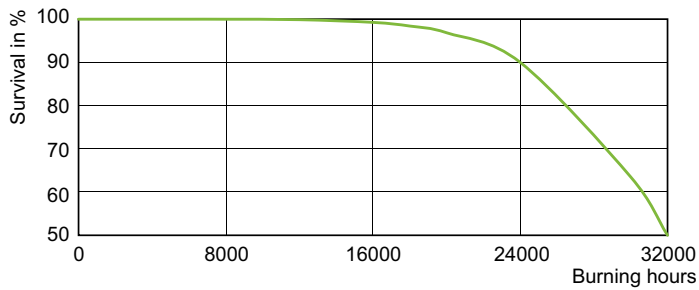


LDLD\_CPO-TW\_0003-Light distribution diagram

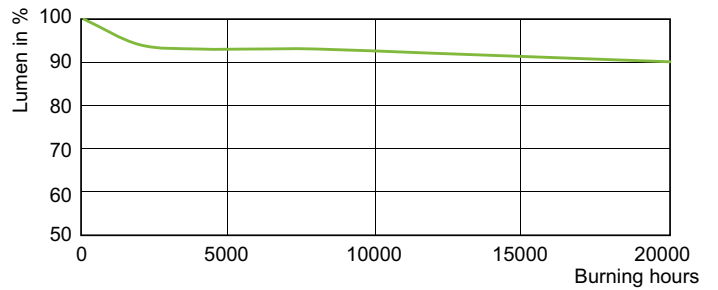


LDPO\_CPO-TW\_90W\_728-Spectral power distribution Colour

## Lifetime



LDLE\_CPO-TW\_0001-Life expectancy diagram



LDLM\_CPO-TW\_0003-Lumen maintenance diagram

