



The most energy-efficient reliable white light solution for Outdoor

MASTER CosmoWhite CPO-TW & CPO-TW Xtra

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

Benefits

- Attractive white light
- Best optical efficacy allows greater spacing between luminaires, thereby reducing investment
- Highest energy saving and lowest cost of ownership

Features

- Highly efficient white light
- Long reliable lifetime combined with highest system efficacy
- Unique new burner design and positioning in combination with best lamp fixation (PGZ12) provides best optical efficacy
- Compact size: 50% smaller than SON/HPL systems
- New electronic gear platform including dimming options

Application

- Urban public lighting for city centers, residential areas and roads

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)

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Controls and Dimming

Dimmable	Yes
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Operating and Electrical

Re-Ignition Time (Min) (Max)	900 s
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General Information

Cap-Base	PGZ12
LSF 12000 h Rated	99 %
LSF 2000 h Rated	99 %
LSF 4000 h Rated	99 %
LSF 6000 h Rated	99 %
LSF 8000 h Rated	99 %
Operating Position	UNIVERSAL

Light Technical

Chromaticity Coordinate X (Nom)	0.447
Chromaticity Coordinate Y (Nom)	0.4
Colour Code	728
Colour Designation	White (WH)
Correlated Colour Temperature (Nom)	2800 K

Mechanical and Housing

Bulb Finish	Clear
Bulb Shape	T19

Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/1000 h	Mercury (Hg) Content (Max)	Mercury (Hg) Content (Nom)
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	60 kWh	2 mg	2.0 mg
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	90 kWh	3 mg	3.0 mg
928088805127	MASTER CosmoWhite CPO-TW Xtra 140W/728 PGZ12	141 kWh	3.9 mg	3.9 mg

Operating and Electrical

Order Code	Full Product Name	Voltage (Max)	Voltage (Min)	Voltage (Nom)	Power (Rated) (Nom)
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	99 V	85 V	92 V	60.0 W
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	98 V	86 V	92 V	90.0 W

Order Code	Full Product Name	Voltage (Max)	Voltage (Min)	Voltage (Nom)	Power (Rated) (Nom)
928088805127	MASTER CosmoWhite CPO-TW Xtra 140W/728 PGZ12	100 V	88 V	94 V	141.0 W

General Information (1/2)

Order Code	Full Product Name	Life To 10% Failures (Nom)	Life To 20% Failures (Nom)	Life To 50% Failures (Nom)	Life To 5% Failures (Nom)
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	24000 h	27000 h	32000 h	21500 h
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	24000 h	27000 h	32000 h	21500 h

Order Code	Full Product Name	Life To 10% Failures (Nom)	Life To 20% Failures (Nom)	Life To 50% Failures (Nom)	Life To 5% Failures (Nom)
928088805127	MASTER TW Xtra 140W/728 PGZ12	20000 h	24000 h	30000 h	18000 h

General Information (2/2)

MASTER CosmoWhite CPO-TW & CPO-TW Xtra

Order Code	Full Product Name	LSF	LSF	LSF	LSF
		16000 h	20000 h	24000 h	30000 h
		Rated	Rated	Rated	Rated
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	99 %	97 %	90 %	63 %
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	99 %	97 %	90 %	63 %

Order Code	Full Product Name	LSF	LSF	LSF	LSF
		16000 h	20000 h	24000 h	30000 h
		Rated	Rated	Rated	Rated
928088805127	MASTER CosmoWhite CPO-TW Xtra 140W/728 PGZ12	97 %	90 %	80 %	50 %

Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	400 °C
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	470 °C

Order Code	Full Product Name	Bulb Temperature (Max)
928088805127	MASTER CosmoWhite CPO-TW Xtra 140W/728 PGZ12	550 °C

Light Technical (1/3)

Order Code	Full Product Name	Colour Rendering	Colour Rendering	LLMF	LLMF
		Index (Min)	Index (Nom)	12000 h	16000 h
		Rated	Rated	Rated	Rated
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	70	73	89 %	87 %
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	67	70	92 %	91 %

Order Code	Full Product Name	Colour Rendering	Colour Rendering	LLMF	LLMF
		Index (Min)	Index (Nom)	12000 h	16000 h
		Rated	Rated	Rated	Rated
928088805127	MASTER CosmoWhite CPO-TW Xtra 140W/728 PGZ12	-	72	89 %	88 %

Light Technical (2/3)

Order Code	Full Product Name	LLMF		LLMF		Luminous				
		2000 h	20000 h	24000 h	30000 h	4000 h	6000 h	8000 h	Efficacy (rated) (Nom)	Luminous Flux (Nom)
		Rated	Rated	Rated	Rated	Rated	Rated	Rated	Rated	Rated
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	92 %	86 %	84 %	82 %	90 %	90 %	90 %	120 lm/W	7200 lm
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	94 %	90 %	-	-	93 %	93 %	93 %	120 lm/W	10800 lm
928088805127	MASTER CosmoWhite CPO-TW Xtra 140W/728 PGZ12	94 %	87 %	86 %	-	93 %	92 %	91 %	125 lm/W	17600 lm

Light Technical (3/3)

Order Code	Full Product Name	Luminous Flux	Ratio
		(Rated) (Nom)	Scotopic/Photopic Lumens
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	7200 lm	1.15
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	10800 lm	1.15

Order Code	Full Product Name	Luminous Flux	Ratio
		(Rated) (Nom)	Scotopic/Photopic Lumens
928088805127	MASTER CosmoWhite CPO-TW Xtra 140W/728 PGZ12	17600 lm	1.30

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