

## Ceramic Metal Halide MASTER CosmoWhite CPO-TT Xtra



The easy-fitting solution for highly energy-efficient and reliable white light outdoors

New-generation ceramic metal-halide tubular lamps used in outdoor applications, offering efficient and pleasant white light

### Product Features

- Highly efficient white light; extremely high system efficacy
- Long reliable lifetime; new Xtra range offering service life of up to 6 years (> 30 hours average life)
- Unique new burner design in combination with glass outer bulb and Edison lamp base offering easy fit into existing HPS / SON luminaire platform
- Designed for electronic gear platforms including all control features and dimming options offering flexible light levels and reduced energy consumption

### Product Benefits

- Attractive white-light alternative to current standard mercury-vapor, HPS and ceramic solutions
- Offering easy access to low-cost high-performance new system with existing standard components
- Best combination of low investment and high energy savings (up to 65%), resulting in very low cost of ownership

### Environment

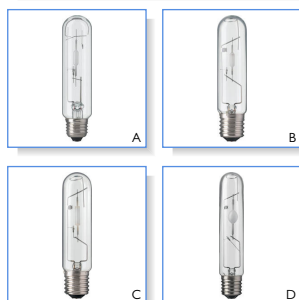
- Philips Green product with highest efficacy: minimizes environmental impact and CO<sub>2</sub> emissions:
- Good environmental choice due to high energy efficiency in combination with easy-to-install white light
  - RoHS-compliant (lead-free), very low mercury content (max. 2.5 mg), covered by WEEE

### Application

- Street lighting and area lighting, urban and residential areas and city centers; for functional lighting and city beautification

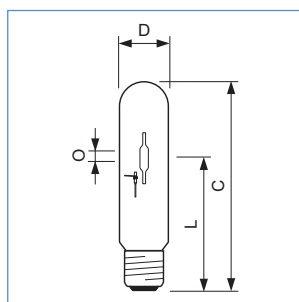
### Warnings and Safety

- Use only in a totally enclosed luminaire, even during testing (IEC 61167, IEC 62035, IEC 60598)
- The luminaire must be able to contain hot lamp parts if the lamp ruptures
- Use only with suitable electronic control gear
- Control gear must include end-of-life protection (IEC 61167, IEC 62035)
- E27 lamp holders and other parts in luminaires should be designed to withstand the ignition voltage of the electronic control gear (rated at 5 kV ignition pulse)

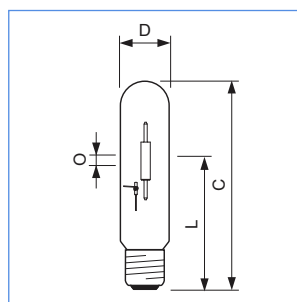


Type	Wattage/Colour Code	Cap-Base	Packing type	Packing configuration	Lum. Flux EL25°C, Rat. horiz. (lm)	Dim. no.	Photo letter	Ordering number 8718291...
MASTER CosmoWhite CPO-TT Xtra Xtra	45W/628	E27	ISL	12	4,950	1	A	69171600
MASTER CosmoWhite CPO-TT Xtra Xtra	60W/628	E27	ISL	12	7,090	2	A	69034400
MASTER CosmoWhite CPO-TT Xtra Xtra	90W/628	E40	ISL	12	10,139	3	B	68115100
MASTER CosmoWhite CPO-TT Xtra Xtra	140W/628	E40	ISL	12	15,989	4	C	69032000
MASTER CosmoWhite CPO-TT Xtra Xtra	210W/942	E40	ISL	12	21,994	5	D	69105100
MASTER CosmoWhite CPO-TT Xtra Xtra	315W/942	E40	ISL	12	35,177	6	D	69107500

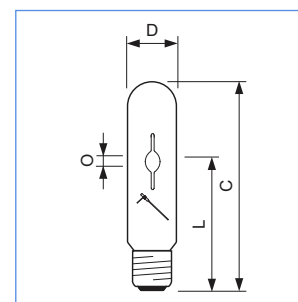
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Dim. no.	C max.	D nom.	L nom.	O nom.
1	156	35	103	14
2	156	35	102	14
3	211	46	132	18



Dim. no.	C max.	D nom.	L nom.	O nom.
4	211	46	132	22



Dim. no.	C max.	D nom.	L nom.	O nom.
5	257	46	157	12.3
6	257	46	162	14.0

### Additional technical data

Product name	Color Rendering Index, horiz (R <sub>s</sub> )	Lamp Voltage (V)	Lamp Current EL (A)	Bulb Finish	Bulb Temperature (°C [max.])	Cap-Base Temperature (°C [max.])	Operating Position
MASTER CosmoWhite CPO-TT Xtra 90W/628 E40	66	91.0	0.970	T46	Clear	450	p
MASTER CosmoWhite CPO-TT Xtra 140W/628 E40	62	92.0	1.531	T46	Clear	450	p
MASTER CosmoWhite CPO-TT Xtra 60W/628 E27	70	91.0	0.650	T35	Clear	350	p
MASTER CosmoWhite CPO-TT Xtra 210W/942 E40	90	107.0	1.940	T46	Clear	450	Any
MASTER CosmoWhite CPO-TT Xtra 315W/942 E40	90	92.8	3.370	T46	Clear	450	Any
MASTER CosmoWhite CPO-TT Xtra 45W/628 E27	66	91.0	0.484	T35	Clear	450	p

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Ceramic Metal Halide  
MASTER CosmoWhite CPO-TT Xtra

Product name	Dimmable	Mercury (Hg) Content (mg)
MASTER CosmoWhite CPO-TT Xtra 90W/628 E40	yes	3.00
MASTER CosmoWhite CPO-TT Xtra 140W/628 E40	yes	2.83
MASTER CosmoWhite CPO-TT Xtra 60W/628 E27	yes	2.00
MASTER CosmoWhite CPO-TT Xtra 210W/942 E40	yes	24.50
MASTER CosmoWhite CPO-TT Xtra 315W/942 E40	yes	23.00
MASTER CosmoWhite CPO-TT Xtra 45W/628 E27	yes	2.00

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2nd additional technical data

Product name	LLMF EL 2000h Rated, horiz. (%)	LLMF EL 4000h Rated, horiz. (%)	LLMF EL 6000h Rated, horiz. (%)	LLMF EL 8000h Rated, horiz. (%)	LLMF EL 12000h Rated, horiz. (%)	LLMF EL 24000h Rated, horiz. (%)	LLMF EL 30000h Rated, horiz. (%)
MASTER CosmoWhite CPO-TT Xtra 90W/628 E40	91	89	87	85	83	79	77
MASTER CosmoWhite CPO-TT Xtra 140W/628 E40	95	-	-	80	-	-	-
MASTER CosmoWhite CPO-TT Xtra 60W/628 E27	88	-	-	90	-	-	-
MASTER CosmoWhite CPO-TT Xtra 210W/942 E40	97	-	-	84	-	-	-
MASTER CosmoWhite CPO-TT Xtra 315W/942 E40	92	-	-	80	-	-	-
MASTER CosmoWhite CPO-TT Xtra 45W/628 E27	92	90	90	90	89	-	-

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3rd additional technical data

Product name	LSF EL 2kh Rated, 12h cyc. hor (%)	LSF EL 4kh Rated, 12h cyc. hor (%)	LSF EL 6kh Rated, 12h cyc. hor (%)	LSF EL 8kh Rated, 12h cyc. hor (%)	LSF EL 24kh Rated, 12h cyc. hor (%)	LSF EL 30kh Rated, 12h cyc. hor (%)	Lamp Wattage EL 25°C, Nominal (W)
MASTER CosmoWhite CPO-TT Xtra 90W/628 E40	99	99	99	99	78	50	90
MASTER CosmoWhite CPO-TT Xtra 140W/628 E40	99	99	99	99	50	-	140
MASTER CosmoWhite CPO-TT Xtra 60W/628 E27	99	99	99	99	90	63	60
MASTER CosmoWhite CPO-TT Xtra 210W/942 E40	99	99	99	98	70	48	210
MASTER CosmoWhite CPO-TT Xtra 315W/942 E40	99	99	99	98	70	49	315
MASTER CosmoWhite CPO-TT Xtra 45W/628 E27	99	99	99	99	90	63	45

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Logistic data

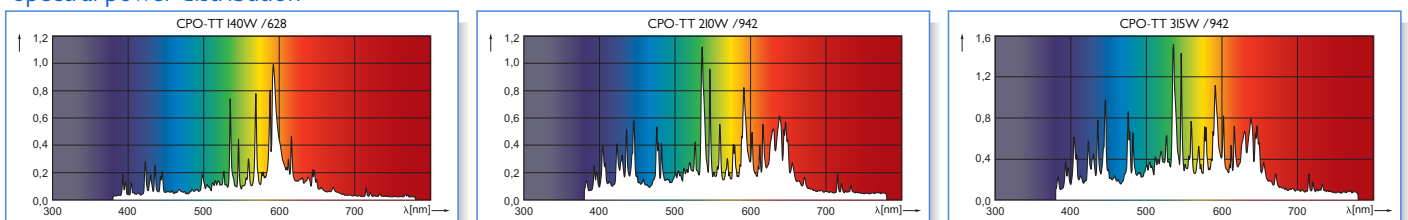
Product name	Packing type	Packs per outer box	Quantity per pack	Packing length (mm)
MASTER CosmoWhite CPO-TT Xtra 90W/628 E40	ISL	12	1	225
MASTER CosmoWhite CPO-TT Xtra 140W/628 E40	ISL	12	1	225
MASTER CosmoWhite CPO-TT Xtra 60W/628 E27	ISL	12	1	180
MASTER CosmoWhite CPO-TT Xtra 210W/942 E40	ISL	12	1	225
MASTER CosmoWhite CPO-TT Xtra 315W/942 E40	ISL	12	1	225
MASTER CosmoWhite CPO-TT Xtra 45W/628 E27	ISL	12	1	180

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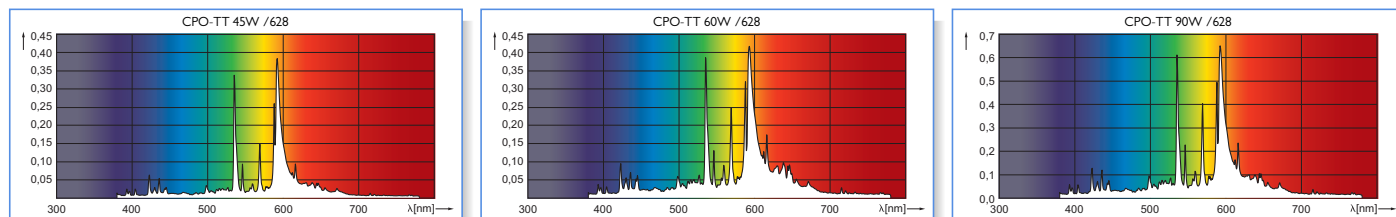
Product name	Packing width (mm)	Packing height (mm)	Gross weight per piece (g)	Net weight per piece (g)
MASTER CosmoWhite CPO-TT Xtra 90W/628 E40	169	242	166	140
MASTER CosmoWhite CPO-TT Xtra 140W/628 E40	169	242	172	145
MASTER CosmoWhite CPO-TT Xtra 60W/628 E27	146	187	63	50
MASTER CosmoWhite CPO-TT Xtra 210W/942 E40	169	289	192	160
MASTER CosmoWhite CPO-TT Xtra 315W/942 E40	169	289	197	165
MASTER CosmoWhite CPO-TT Xtra 45W/628 E27	146	187	63	50

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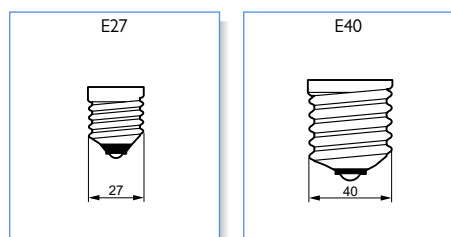
Spectral power distribution



## Ceramic Metal Halide MASTER CosmoWhite CPO-TT Xtra



### Cap/base



### Additional extended technical data

Product name	Chromaticity Coordinate X	Chromaticity Coordinate Y	Ignition Time	Run-up time 90%	Damage Factor D/fc	Color Designation (text)
			(sec. [max.])	(min. [max.])		
MASTER CosmoWhite CPO-TT Xtra 90W/628 E40	0.460	0.417	30	2	0.28	Warm white
MASTER CosmoWhite CPO-TT Xtra 140W/628 E40	0.451	0.408	30	4	0.30	Warm white
MASTER CosmoWhite CPO-TT Xtra 60W/628 E27	0.459	0.408	30	3	0.17	Warm white
MASTER CosmoWhite CPO-TT Xtra 210W/942 E40	0.372	0.373	30	3	0.65	Cool White
MASTER CosmoWhite CPO-TT Xtra 315W/942 E40	0.362	0.375	30	3	0.59	Cool White
MASTER CosmoWhite CPO-TT Xtra 45W/628 E27	0.459	0.412	30	2	0.21	Warm white

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### Burning position



### Special data

Product name	I0NC	I2NC
MASTER CosmoWhite CPO-TT Xtra 90W/628 E40	9280 602 09200	9280 602 09227
MASTER CosmoWhite CPO-TT Xtra 140W/628 E40	9280 603 09200	9280 603 09227
MASTER CosmoWhite CPO-TT Xtra 60W/628 E27	9280 601 09200	9280 601 09227
MASTER CosmoWhite CPO-TT Xtra 210W/942 E40	9280 604 09200	9280 604 09227
MASTER CosmoWhite CPO-TT Xtra 315W/942 E40	9280 605 09200	9280 605 09227
MASTER CosmoWhite CPO-TT Xtra 45W/628 E27	9280 608 09200	9280 608 09227

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Product name	Lamp Voltage (V [min.])	Lamp Voltage (V [max.])	Name Extension
MASTER CosmoWhite CPO-TT Xtra 90W/628 E40	81	97	Xtra
MASTER CosmoWhite CPO-TT Xtra 140W/628 E40	86	98	Xtra
MASTER CosmoWhite CPO-TT Xtra 60W/628 E27	84	98	Xtra
MASTER CosmoWhite CPO-TT Xtra 210W/942 E40	-	-	Xtra
MASTER CosmoWhite CPO-TT Xtra 315W/942 E40	-	-	Xtra
MASTER CosmoWhite CPO-TT Xtra 45W/628 E27	84	98	Xtra

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