



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
- Excellent optical efficacy allows greater spacing between luminaires, thereby reducing investment
- Energy savings of up to 60% and very low cost of ownership

Features

- Highly efficient white light with extremely high system efficacy
- Long reliable lifetime; new Xtra range offering service life of up to 6 years
- Unique new burner design and positioning in combination with optimum lamp fixation (PGZ12) ensures excellent 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)

PHILIPS
sense and simplicity

Related products



CPO-TW 140W PGZ12



CPO-TW Xtra 45W /728 PGZ12

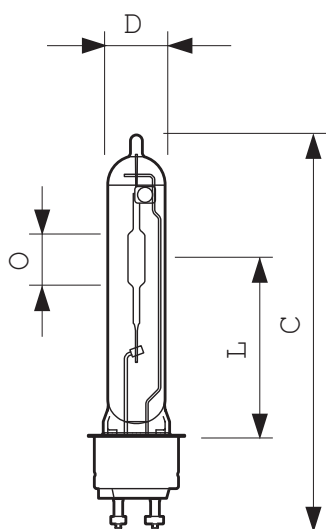


CPO-TW 60W PGZ12



CPO-TW 90W PGZ12

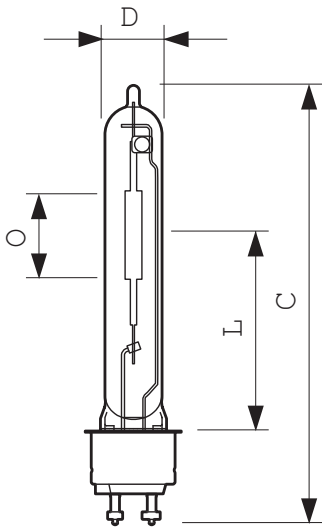
Dimensional drawing



CPO-TW 45W, 60W PGZ12

Product	C (Max)	D (Norm)	D (Max)	L (Norm)	O (Norm)
CPO-TW Xtra 45W/728 PGZ12	132	19	20	59	14
CPO-TW Xtra 60W/728 PGZ12	132	19	20	59	14
CPO-TW 60W/840 PGZ12	132	19	20	59	14

Dimensional drawing



CPO-TW 90W, 140W PGZ12

Product	C (Max)	D (Norm)	D (Max)	L (Norm)	O (Norm)
CPO-TW 140W/728 PGZ12	149.8	19	20	66	22
CPO-TW Xtra 90W/728 PGZ12	143	19	20	66	18
CPO-TW 90W/840 PGZ12	143	19	20	66	18
CPO-TW 140W/840 PGZ12	149.8	19	20	66	22

General Characteristics (1/3)

Order code	Full product name	Bulb	Bulb Finish	Cap-Base	Operating Position	Life to 20% failures	Life to 5% failures	Life to 10% failures, base up	Life to 10% failures, horiz.	Life to 50% failures, base up	Life to 50% failures, horiz.
928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	T19	Clear	PGZ12	any	20500	12500	16000	16000	30000	30000
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	T19	Clear	PGZ12	any	14000	11000	10500	12000	14000	15000
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	T19	Clear	PGZ12	any	-	-	13000	22000	16000	30000
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	T19	Clear	PGZ12	any	-	-	13000	22000	16000	30000
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	T19	Clear	PGZ12	any	-	-	12000	12000	16000	16000
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	T19	Clear	PGZ12	any	20500	12500	13000	20000	16000	30000
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	T19	Clear	PGZ12	any	14000	11000	11000	12000	14500	15000

General Characteristics (2/3)

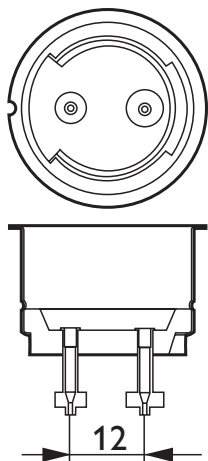
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928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	-	95	-	-	-	-	99	99	99	98
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	82	90	99	99	98	96	99	99	99	98
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	92	99	99	99	99	99	99	99	99	99
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	92	99	99	99	99	99	99	99	99	99
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	90	90	99	99	99	98	99	99	99	98

Order code	Full product name	LSF EL 12kh Rated, 12h cyc. bup	LSF EL 12kh Rated, 12h cyc. hor	LSF EL 2kh Rated, 12h cyc. bup	LSF EL 4kh Rated, 12h cyc. bup	LSF EL 6kh Rated, 12h cyc. bup	LSF EL 8kh Rated, 12h cyc. bup	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
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	92	98	99	99	99	99	99	99	99	99
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	80	91	99	99	98	96	99	99	99	98

General Characteristics (3/3)

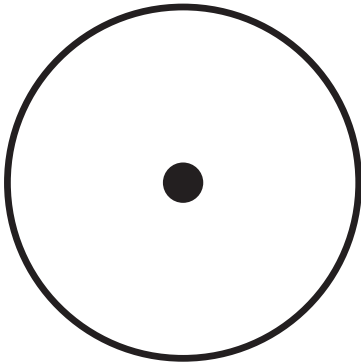
Order code	Full product name	LSF EL 30kh Rated,12h cyc. bup	LSF EL 30kh Rated,12h cyc. hor	LSF EL 24kh Rated,12h cyc. bup	LSF EL 24kh Rated,12h cyc. hor	LSF EL 20kh Rated,12h cyc. bup	LSF EL 20kh Rated,12h cyc. hor	LSF EL 16kh Rated,12h cyc. bup	LSF EL 16kh Rated,12h cyc. hor
928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	-	-	-	-	-	81	-	90
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	-	-	-	-	-	-	-	-
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	-	50	-	87	-	95	50	98
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	-	50	-	87	-	95	50	98
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	-	-	-	-	-	-	50	50
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	-	50	-	75	-	90	50	96
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	-	-	-	-	-	-	-	45

Installation diagrams



PGZ12

Installation diagrams



any

Light Technical Characteristics (1/4)

Order code	Full product name	Color Code	Color Designation (text)	Chromaticity Coordinate X	Chromaticity Coordinate Y	Lum. Flux EL25°C, Rat. base up	Lum. Flux EL25°C, Rat. horiz.	Lum Effic Rat EL 25°C base up	Lum Effic Rat EL 25°C horiz.	Color Rendering Index, base up	Color Rendering Index, horiz
928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	728	White	444	401	16500	16500	118	118	57 (min), 66 (nom)	57 (min), 66 (nom)
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	840	White	385	400	15120	16100	110	115	75	77 (min), 80 (nom)
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	728	White	459	412	4455	4950	99	110	57 (min), 60 (nom)	63 (min), 66 (nom)
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	728	White	453	405	6780	7200	113	120	64 (min), 67 (nom)	70 (min), 73 (nom)
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	840	White	382	392	6420	7020	107	117	79 (min), 81 (nom)	81 (min), 83 (nom)
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	728	White	454	406	10000	10450	111	116	49 (min), 58 (nom)	57 (min), 66 (nom)
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	840	White	392	397	9450	10350	105	115	69 (min), 72 (nom)	74 (min), 77 (nom)

Light Technical Characteristics (2/4)

Order code	Full product name	Color Temperature, base up	Color Temperature, horizontal	Color Temp. Technical, base up	Color Temp. Technical, horiz.	LLMF EL 12000h Rated, base up	LLMF EL 12000h Rated, horiz.	LLMF EL 2000h Rated, base up	LLMF EL 2000h Rated, horiz.	LLMF EL 4000h Rated, base up	LLMF EL 4000h Rated, horiz.
928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	2800	2800	2860	2860	87	88	95	97	92	97
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	4000	4000	3750	4000	90	90	95	98	91	95
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	2800	2800	2630	2725	84	89	90	92	87	90
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	2800	2800	2590	2760	84	89	89	92	87	90
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	4000	4000	3900	4050	82	85	87	91	87	91
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	2800	2800	2640	2750	88	84	94	94	92	91
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	4000	4000	3620	3850	90	90	95	95	93	93

Light Technical Characteristics (3/4)

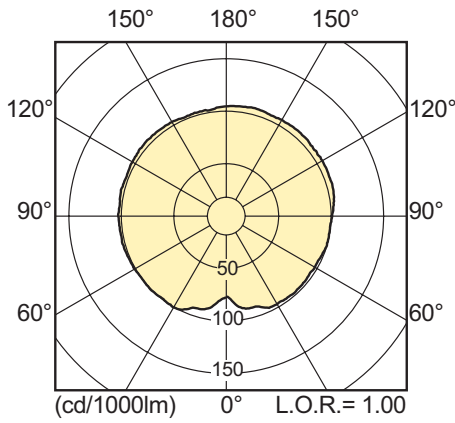
Order code	Full product name	LLMF EL 6000h Rated, base up	LLMF EL 6000h Rated, horiz.	LLMF EL 8000h Rated, horiz.	LLMF EL 8000h Rated, base up	LLMF EL 16000h Rated, base up	LLMF EL 16000h Rated, horiz.	LLMF EL 20000h Rated, base up	LLMF EL 20000h Rated, horiz.	LLMF EL 24000h Rated, base up	LLMF EL 24000h Rated, horiz.
928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	91	95	93	90	85	85	-	81	-	78
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	91	94	94	90	-	-	-	-	-	-
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	87	90	90	86	77	87	-	86	-	84
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	87	90	90	86	77	87	-	86	-	84
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	87	91	89	84	-	-	-	-	-	-
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	92	88	87	92	88	84	-	82	-	80
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	93	93	92	92	-	-	-	-	-	-

Light Technical Characteristics (4/4)

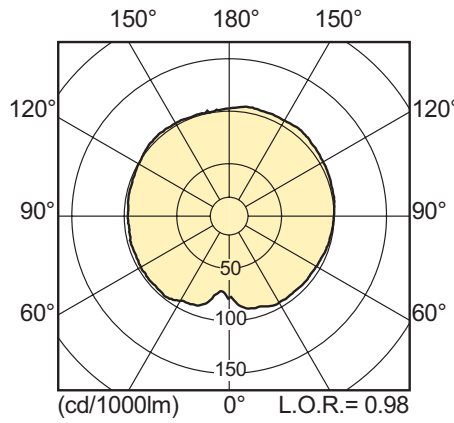
Order code	Full product name	LLMF EL 30000h Rated, base up	LLMF EL 30000h Rated, horiz.	Chrom. Coord. X @ ±60% power	Chrom. Coord. Y @ ±60% power	Colour Temp. @ ±60% power	CRI @ ±60% power	Luminous Efficacy @ ±60% power	Luminous Flux @ ±60% power
928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	-	-	449	414	2880	56	90	7560
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	-	-	367	372	4355	71	80	6720

Order code	Full product name	LLMF EL 30000h Rated, base up	LLMF EL 30000h Rated, horiz.	Chrom. Coord. X @ ±60% power	Chrom. Coord. Y @ ±60% power	Colour Temp. @ ±60% power	CRI @ ±60% power	Luminous Efficacy @ ±60% power	Luminous Flux @ ±60% power
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	-	82	459	424	2815	59	84	2520
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	-	82	461	414	2715	62	90	3240
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	-	-	365	374	4440	75	83	2988
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	-	78	463	414	2675	55	88	4752
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	-	-	377	382	4125	70	82	4428

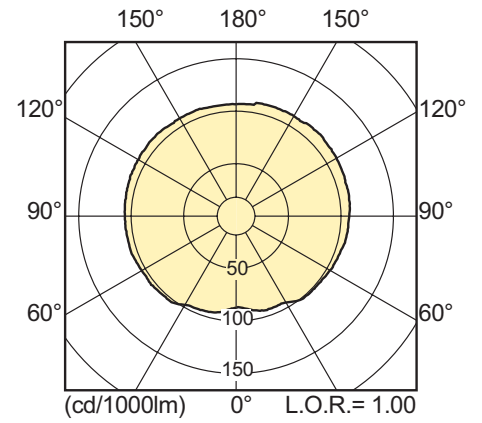
Light technical



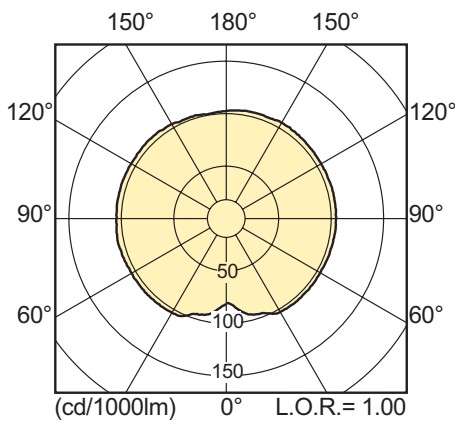
CPO-TW Xtra 45W /728



CPO-TW 60W



CPO-TW 140W

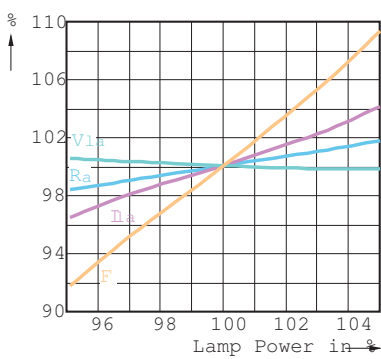


CPO-TW 90W

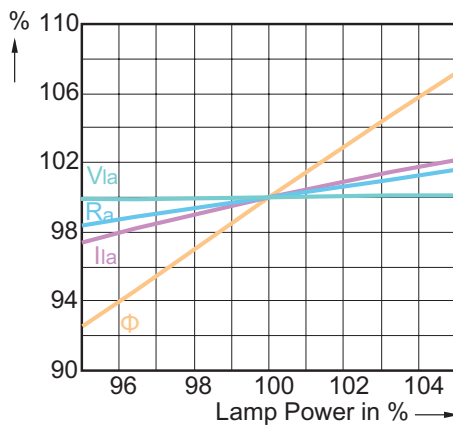
Electrical Characteristics

Order code	Full product name	Lamp Wattage	Lamp Voltage	Lamp Current EL	Dimmable	Re-ignition Time [sec]	Lamp Wattage EL 25°C, Rated	Lamp Wattage EL 25°C, Nominal
928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	140	94	1.49	Yes	900 (max)	140	140
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	140	99	1.414	Yes	900 (max)	140	140
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	45	91	0.484	Yes	900 (max)	45	45
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	60	92	0.644	Yes	900 (max)	60	60
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	60	92	0.65	Yes	900 (max)	60	60
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	90	92	0.97	Yes	900 (max)	90	90
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	90	96	0.95	Yes	900 (max)	90	90

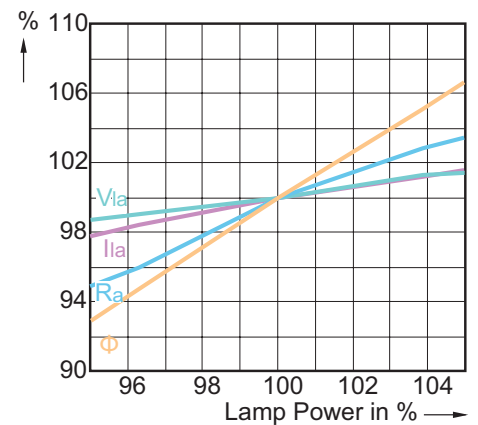
Performance diagrams



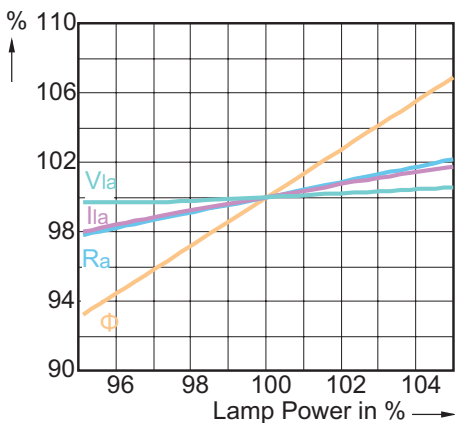
CPO-TW Xtra 45W /728



CPO-TW 60W

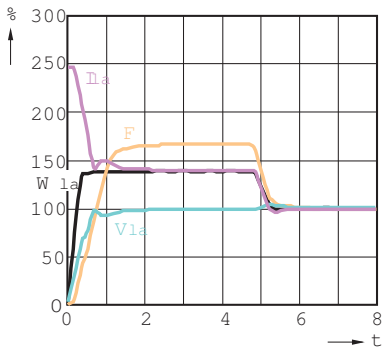


CPO-TW 140W

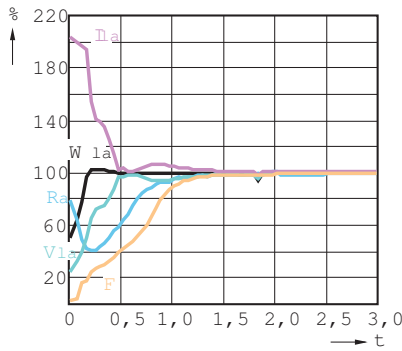


CPO-TW 90W

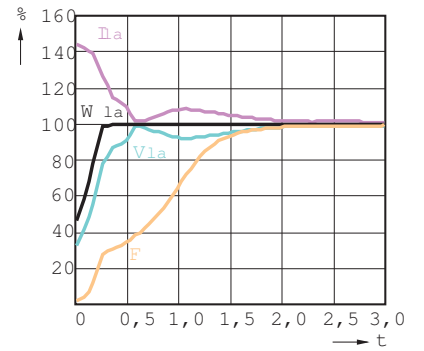
Performance diagrams



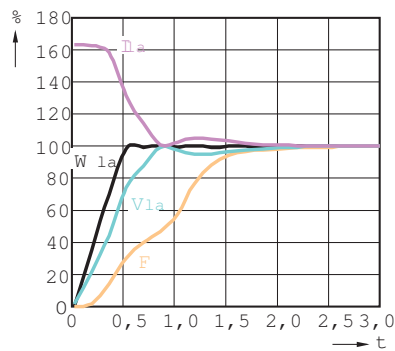
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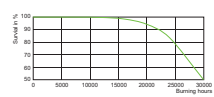
CPO-TW 60W



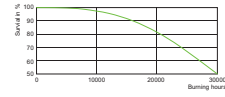
CPO-TW 140W



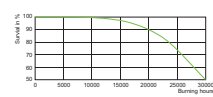
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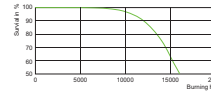
CPO-TW Xtra 45W, 60W /728



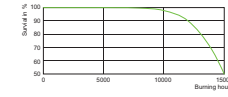
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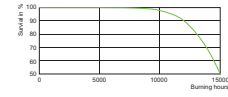
CPO-TW Xtra 90W /728



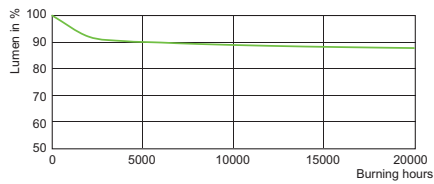
CPO-TW 60W /840



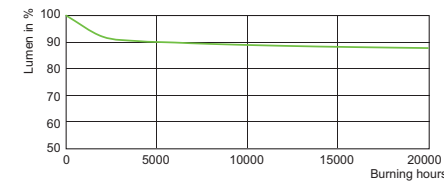
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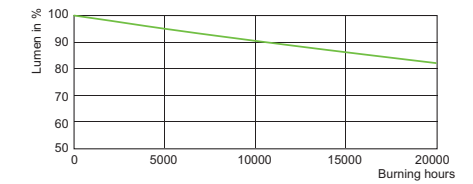
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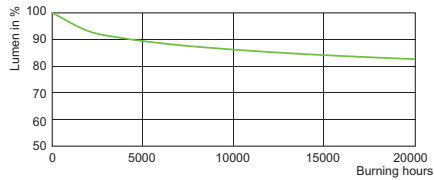
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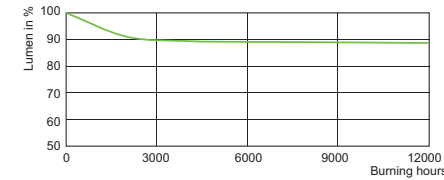
CPO-TW Xtra 60W /728



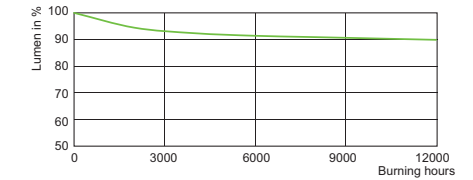
CPO-TW 140W /728



CPO-TW Xtra 90W /728

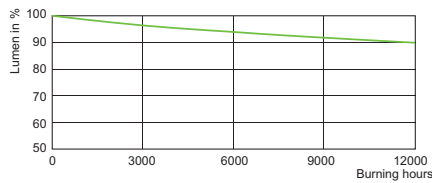


CPO-TW 60W /840



CPO-TW 90W /840

Performance diagrams



CPO-TW 140W /840

Environmental Characteristics

Order code	Full product name	Mercury (Hg) Content
928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	2.83
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	2
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	2
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	2
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	1.54
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	1.6
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	1.40

Order code	Full product name	Cap-Base Temperature	Bulb Temperature
928083805127	MASTER CosmoWhite CPO-TW Xtra 45W/728 PGZ12	250 (max)	380 (max)
928088505127	MASTER CosmoWhite CPO-TW Xtra 60W/728 PGZ12	300 (max)	400 (max)
928095005127	MASTER CosmoWhite CPO-TW 60W/840 PGZ12 1CT	300 (max)	400 (max)
928093505127	MASTER CosmoWhite CPO-TW Xtra 90W/728 PGZ12	300 (max)	470 (max)
928095105127	MASTER CosmoWhite CPO-TW 90W/840 PGZ12 1CT	300 (max)	470 (max)

Luminaire Design Requirements

Order code	Full product name	Cap-Base Temperature	Bulb Temperature
928088805127	MASTER CosmoWhite CPO-TW 140W/728 PGZ12 1CT	300 (max)	550 (max)
928095205127	MASTER CosmoWhite CPO-TW 140W/840 PGZ12 1CT	300 (max)	550 (max)



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www.philips.com/lighting

2012, March 17
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