



# The longest life and most reliable solution in road lighting

## MASTER SON-T APIA Plus Xtra

High Pressure Sodium lamp with clear tubular outer bulb shape, high output and longest reliable lifetime

### Benefits

- Most-cost effective solution (both initial as well as running cost) in this category
- 6 years service life
- Highest lumen output, maintained over life

### Features

- Completely lead-free lamps with tubular outer bulb
- Ceramic discharge tube with new Active Philips Integrated Antenna (APIA) for up to 6 years service lifetime (Xtra)
- Robust construction with few welding points is highly vibration- and shock-resistant, further reducing early failures and extending lamp life
- "Plus" concept with high efficacy for high light output
- Special versions of the 250W and 400W lamps of the MASTER SON(-T) APIA Plus Xtra range are compatible with electronic gear using HF operation of the lamps. HF Control gear requirements (LDi guideline) and lamp performance specifications on HF ballasts can be obtained from the local Philips representative

### Application

- Road and residential lighting
- Decorative floodlighting, illumination
- Industrial area lighting
- Recreational sports facilities indoor and outdoor

# MASTER SON-T APIA Plus Xtra

## Versions

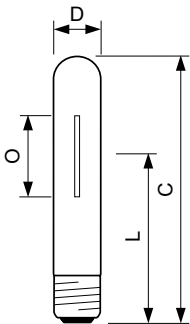


SON-T APIA Plus Xtra, E27



SON-T APIA Plus Xtra, E40

## Dimensional drawing



Product	D (max)	O	L	C (max)
MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	48 mm	65 mm	158 mm	257 mm
MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	36 mm	35 mm	102 mm	156 mm
MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	48 mm	47 mm	132 mm	210 mm
MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	48 mm	61 mm	132 mm	210 mm
MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	48 mm	83 mm	175 mm	283 mm
MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	36 mm	42 mm	102 mm	156 mm

### Controls and Dimming

Dimmable	Yes
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### General Information

LSF 12000 h Rated	99 %
LSF 4000 h Rated	99 %
LSF 6000 h Rated	99 %
LSF 8000 h Rated	99 %
Operating Position	UNIVERSAL
System Description	External Ignitor

### Light Technical

Color Code	-
Correlated Color Temperature (Nom)	1950 K
Color Rendering Index (Max)	25

### Mechanical and Housing

Bulb Finish	Clear
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## Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/1000 h	Energy	
			Efficiency Label (EEL)	Mercury (Hg) Content (Nom)
928150019227	MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	58 kWh	A	9.8 mg
928150119227	MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	83 kWh	A+	12.0 mg
928150219230	MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	110 kWh	A+	16.0 mg
928150319230	MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	169 kWh	A+	16 mg
928150419230	MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	275 kWh	A+	15.1 mg
928150519227	MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	429 kWh	A++	20 mg

## Operating and Electrical (1/2)

# MASTER SON-T APIA Plus Xtra

Order Code	Full Product Name	Lamp	Voltage (Max)	Voltage (Min)	Voltage (Nom)
		Current (EM) (Nom)			
928150019227	MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	0.75 A	100 V	70 V	85 V
928150119227	MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	0.975 A	105 V	75 V	90 V
928150219230	MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	1.2 A	115 V	85 V	100 V

Order Code	Full Product Name	Lamp	Voltage (Max)	Voltage (Min)	Voltage (Nom)
		Current (EM) (Nom)			
928150319230	MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	1.8 A	115 V	85 V	100 V
928150419230	MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	3 A	115 V	85 V	100 V
928150519227	MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	4.5 A	115 V	85 V	100 V

## Operating and Electrical (2/2)

Order Code	Full Product Name	Power (Rated) (Nom)	Re-Ignition	
			Time (Min) (Max)	
928150019227	MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	53.0 W	30 s	
928150119227	MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	75.0 W	30 s	
928150219230	MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	100.0 W	120 s	

Order Code	Full Product Name	Power (Rated) (Nom)	Re-Ignition	
			Time (Min) (Max)	
928150319230	MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	154.0 W	180 s	
928150419230	MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	250.0 W	120 s	
928150519227	MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	390 W	120 s	

## General Information (1/2)

Order Code	Full Product Name	Cap-Base	Life To		
			10% Failures (Nom)	20% Failures (Nom)	50% Failures (Nom)
928150019227	MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	E27	25000 h	29500 h	38000 h
928150119227	MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	E27	28000 h	32000 h	40000 h
928150219230	MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	E40	28000 h	32000 h	40000 h

Order Code	Full Product Name	Cap-Base	Life To		
			10% Failures (Nom)	20% Failures (Nom)	50% Failures (Nom)
928150319230	MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	E40	32000 h	36500 h	45000 h
928150419230	MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	E40	32000 h	36500 h	45000 h
928150519227	MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	E40	32000 h	36500 h	45000 h

## General Information (2/2)

Order Code	Full Product Name	Life To 5% Failures (Nom)	LSF		
			16000 h Rated	2000 h Rated	20000 h Rated
928150019227	MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	21000 h	98 %	99 %	96 %
928150119227	MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	24000 h	99 %	99 %	97 %

Order Code	Full Product Name	Life To 5% Failures (Nom)	LSF		
			16000 h Rated	2000 h Rated	20000 h Rated
928150219230	MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	24000 h	99 %	99 %	97 %
928150319230	MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	28000 h	99 %	100 %	99 %

# MASTER SON-T APIA Plus Xtra

Order Code	Full Product Name	Life To 5%	LSF	LSF	LSF
		Failures (Nom)	16000 h Rated	2000 h Rated	20000 h Rated
928150419230	MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	28000 h	99 %	100 %	99 %

Order Code	Full Product Name	Life To 5%	LSF	LSF	LSF
		Failures (Nom)	16000 h Rated	2000 h Rated	20000 h Rated
928150519227	MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	28000 h	99 %	100 %	99 %

## Luminaire Design Requirements

Order Code	Full Product Name	Bulb Temperature (Max)
928150019227	MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	350 °C
928150119227	MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	350 °C
928150219230	MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	450 °C
928150319230	MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	450 °C

Order Code	Full Product Name	Bulb Temperature (Max)
928150419230	MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	450 °C
928150519227	MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	450 °C

## Light Technical (1/2)

Order Code	Full Product Name	Chromaticity	Chromaticity	LLMF	LLMF
		Coordinate X (Nom)	Coordinate Y (Nom)	12000 h Rated	16000 h Rated
928150019227	MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	540	420	87 %	86 %
928150119227	MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	540	420	87 %	86 %
928150219230	MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	535	420	92 %	90 %

Order Code	Full Product Name	Chromaticity	Chromaticity	LLMF	LLMF
		Coordinate X (Nom)	Coordinate Y (Nom)	12000 h Rated	16000 h Rated
928150319230	MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	535	420	96 %	95 %
928150419230	MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	530	420	96 %	95 %
928150519227	MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	525	425	96 %	95 %

## Light Technical (2/2)

Order Code	Full Product Name	LLMF 2000 h Rated	LLMF 20000 h Rated	LLMF 4000 h Rated	LLMF 6000 h Rated	LLMF 8000 h Rated	Luminous Efficacy (rated) (Nom)	Luminous Flux (Rated) (Nom)	Ratio
									Scotopic/Photopic Lumens
928150019227	MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	92 %	86 %	90 %	89 %	88 %	85 lm/W	4500 lm	0.50
928150119227	MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	92 %	86 %	90 %	89 %	88 %	97 lm/W	7300 lm	0.50
928150219230	MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	98 %	89 %	96 %	95 %	94 %	107 lm/W	10700 lm	0.55
928150319230	MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	99 %	94 %	98 %	97 %	96 %	117 lm/W	18000 lm	0.55
928150419230	MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	99 %	94 %	98 %	97 %	96 %	133 lm/W	33300 lm	0.60
928150519227	MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	99 %	94 %	98 %	97 %	96 %	141 lm/W	55000 lm	0.60

## Mechanical and Housing

# MASTER SON-T APIA Plus Xtra

Order Code	Full Product Name	Bulb Shape
928150019227	MASTER SON-T APIA Plus Xtra 50W E27 1SL/12	T35
928150119227	MASTER SON-T APIA Plus Xtra 70W E27 1SL/12	T35
928150219230	MASTER SON-T APIA Plus Xtra 100W E40 1SL/12	T46
928150319230	MASTER SON-T APIA Plus Xtra 150W E40 1SL/12	T46
928150419230	MASTER SON-T APIA Plus Xtra 250W E40 1SL/12	T46
928150519227	MASTER SON-T APIA Plus Xtra 400W E40 1SL/12	T46

