



# MASTER SON-T PIA Plus

## MASTER SON-T PIA Plus 400W E40 1SL/12

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

### Warnings and Safety

- Control gear must include end-of-life protection (IEC60662, IEC 62035)
- A lamp breaking is extremely unlikely to have any impact on your health. If a lamp breaks, ventilate the room for 30 minutes and remove the parts, preferably with gloves. Put them in a sealed plastic bag and take it to your local waste facilities for recycling. Do not use a vacuum cleaner.

### Product data

General Information	
Cap base	E40 [ E40]
Operating position	UNIVERSAL [ Any or Universal (U)]
Life to 5% failures (nom.)	20500 h
Life to 10% failures (nom.)	24000 h
Life to 20% failures (nom.)	28000 h
Life to 50% failures (nom.)	36000 h
ANSI code HID	-
System description	External Ignitor (E)
LSF 2000 h Rated	100 %
LSF 4000 h Rated	99 %
LSF 6000 h Rated	99 %
LSF 8000 h Rated	99 %
LSF 12000 h Rated	99 %
LSF 16000 h Rated	98 %
LSF 20000 h Rated	95 %

Light Technical	
Colour Code	220 [ CCT of 2,000 K]
Luminous flux (rated) (nom.)	55900 lm
Lumen maintenance 2,000 hours (min.)	95 %
Lumen maintenance 2,000 hours (nom.)	99 %
Lumen maintenance 20,000 hours	88 %
Lumen maintenance 5,000 hours (min.)	90.5 %
Lumen maintenance 5,000 hours (nom.)	96.5 %
Chromaticity coordinate X (nom.)	525
Chromaticity coordinate Y (nom.)	425
Correlated Colour Temperature (Nom)	2000 K
Luminous efficacy (rated) (nom.)	137 lm/W
Color rendering index (max.)	25
LLMF 2000 h Rated	99 %
LLMF 4000 h Rated	97 %
LLMF 6000 h Rated	96 %
LLMF 8000 h Rated	94 %

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LLMF 12000 h Rated	92 %
LLMF 16000 h Rated	90 %
LLMF 20000 h Rated	88 %
Ratio scotopic/photopic lumens	0.60

## Operating and Electrical

Power (Rated) (Nom)	408.0 W
Lamp current (EM) (nom.)	0.441 A
Ignition supply voltage (max.)	198 V
Ignition peak voltage (max.)	2800 V
Re-ignition time (min.) (max.)	120 s
Ignition time (max.)	10 s
Voltage (Max)	115 V
Voltage (Min)	85 V
Voltage (Nom)	105 V

## Controls and Dimming

Dimmable	Yes
Run-up time 90% (max.)	5 min

## Mechanical and Housing

Lamp Finish	Clear
Cap-base information	na [-]

## Approval and Application

Energy efficiency label (EEL)	A++
Mercury (Hg) content (nom.)	20 mg
Energy consumption kWh/1,000 hours	449 kWh

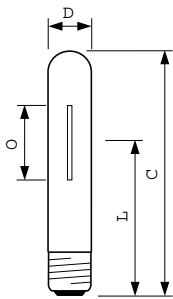
## Luminaire Design Requirements

Bulb temperature (max.)	450 °C
Cap-base temperature (max.)	250 °C

## Product Data

Full product code	871829118077700
Order product name	MASTER SON-T PIA Plus 400W E40 1SL/12
EAN/UPC – product	8718291180777
Order code	18077700
Numerator – quantity per pack	1
Numerator – packs per outer box	12
SAP material	928144809293
SAP net weight (piece)	0.148 kg
ILCOS code	ST-400-H/E-E40

## Dimensional drawing

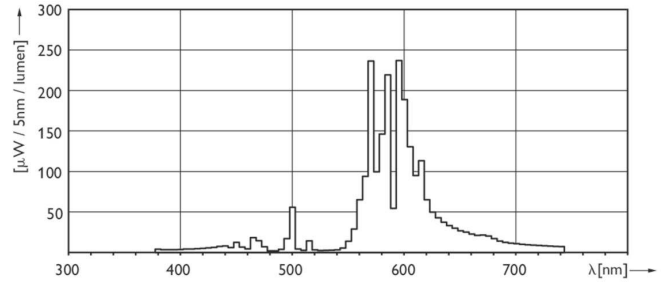


SON-T Plus 400W/220 E40

Product	D (max)	O	L	C (max)
MASTER SON-T PIA Plus 400W E40 1SL/12	48 mm	83 mm	175 mm	279 mm

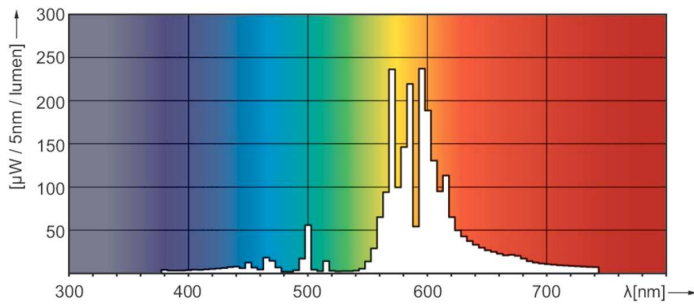
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## Photometric data



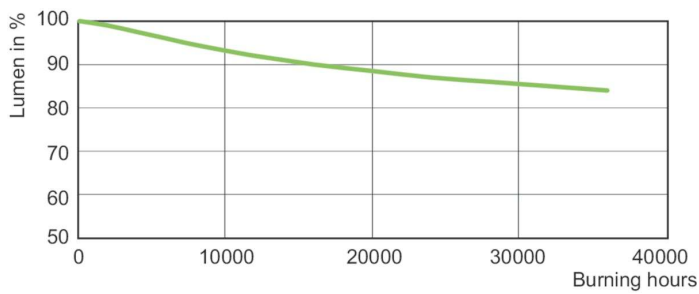
LDLD\_SON-TPIA-Light distribution diagram

LDPB\_SON-TPIA\_0013-Spectral power distribution B/W

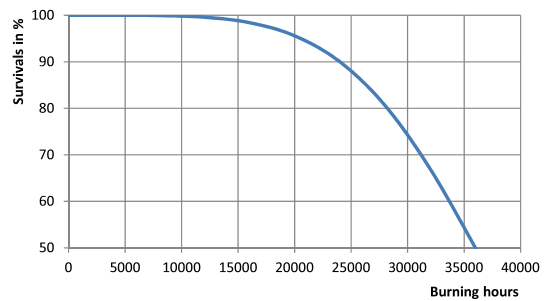


LDPO\_SON-TPIA\_0013-Spectral power distribution Colour

## Lifetime



LDLM\_SON-TPIA\_0009-Lumen maintenance diagram



SON(-T) PIA Plus 150W 250W 400W Life Expectancy Diagram

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