



MASTER SON-T PIA Plus

MASTER SON-T PIA Plus 400W E 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
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	
Color Code	220 [CCT of 2000K]
Luminous Flux (Rated) (Nom)	56700 lm
Lumen Maintenance 2000 h (Min)	95 %
Lumen Maintenance 2000 h (Nom)	99 %
Lumen Maintenance 20000 h	88 %
Lumen Maintenance 5000 h (Min)	90.5 %
Lumen Maintenance 5000 h (Nom)	96.5 %
Chromaticity Coordinate X (Nom)	525
Chromaticity Coordinate Y (Nom)	425
Correlated Color Temperature (Nom)	2000 K
Luminous Efficacy (rated) (Nom)	138.97 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 (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

Bulb Finish	Clear
Cap-Base Information	-

Approval and Application

Energy Efficiency Label (EEL)	A++
Mercury (Hg) Content (Nom)	20 mg
Energy Consumption kWh/1000 h	449 kWh

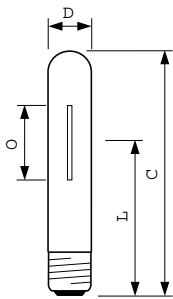
Luminaire Design Requirements

Bulb Temperature (Max)	450 °C
Cap-Base Temperature (Max)	250 °C

Product Data

Full product code	871150017988315
Order product name	MASTER SON-T PIA Plus 400W E E40 ISL/12
EAN/UPC - Product	8711500179883
Order code	928144809227
Numerator - Quantity Per Pack	1
Numerator - Packs per outer box	12
Material Nr. (12NC)	928144809227
Net Weight (Piece)	0.180 kg
ILCOS Code	ST-400-H/E-E40

Dimensional drawing

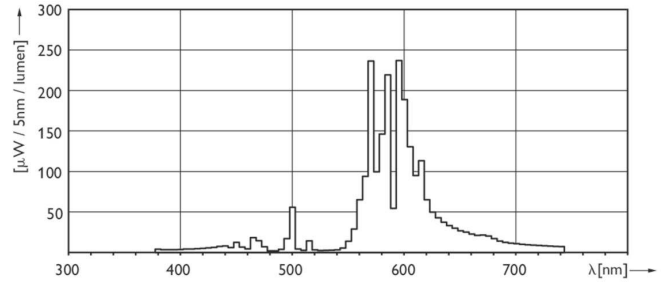


SON-T Plus 400W/220 E40

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

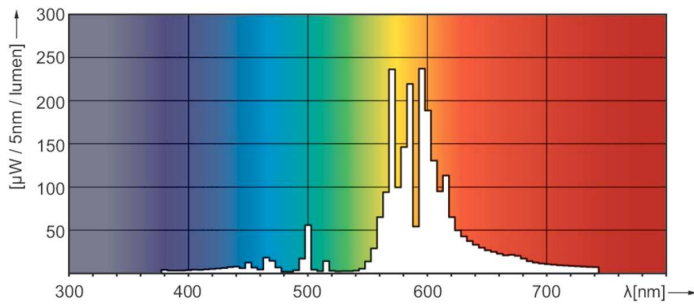
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Photometric data



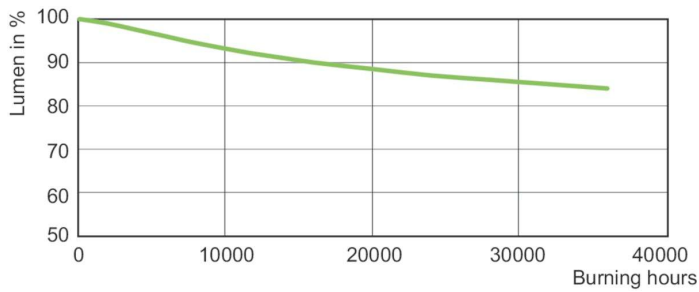
LDLD_SON-TPIA-Light distribution diagram

LDPB_SON-TPIA_0013-Spectral power distribution B/W

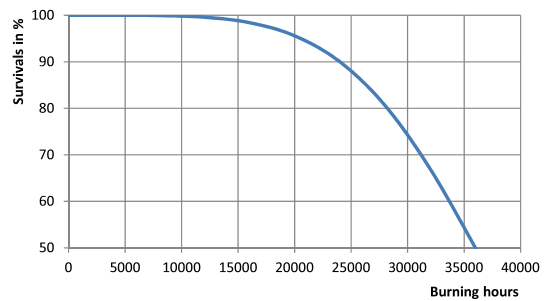


LDPO_SON-TPIA_0013-Spectral power distribution Colour

Lifetime



LDLM_SON-TPIA_0009-Lumen maintenance diagram



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

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