

SON High pressure sodium

SON PIA Plus



SON PIA Plus E40

Product Description

- High Pressure Sodium lamp with opalized ovoid outer bulb, high output and long reliable lifetime

Product Feature

- Ovoid, internally white coated outer bulb
- Ceramic discharge tube with Philips Integrated Antenna (PIA) for a long and reliable lifetime
- Robust construction with few welding points is highly vibration- and shock-resistant, further reducing early failures and extending lamp life
- ZrCo getter ensures high lumen maintenance and few early failures
- "Plus" concept with high efficacy translated into high light output
- Completely lead-free lamps

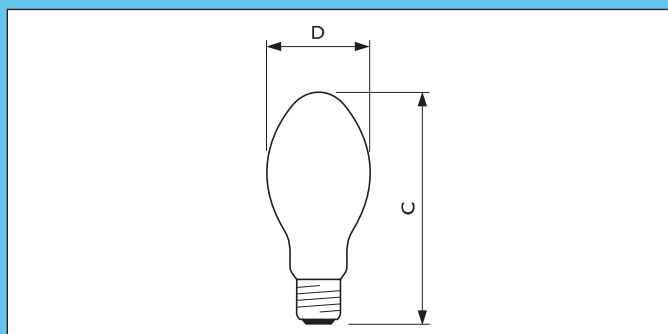
Product Benefit

- Superior technology results in a long and reliable lifetime, high lumen maintenance and a reliable ignition over lifetime
- High energy efficacy and absence of lead (Pb) makes this a sound environmental offer
- High luminous efficacy makes this the most energy efficient HPS lamp

Application

- Road and residential lighting
- Industrial lighting both indoor and outdoor
- Recreational sports facilities

Dimensions in mm



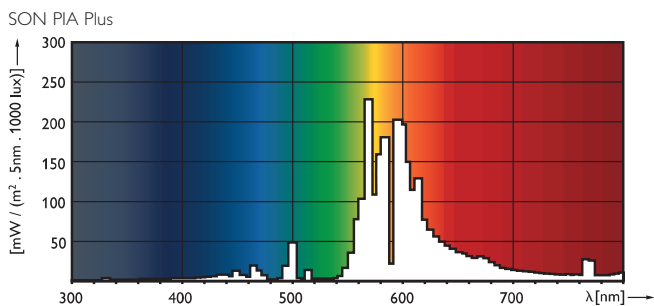
Product ID	Overall length	Diameter
	C max.	D max.
100W	186	76
150W/250W	227	91
400W	290	122

Preferred selection

Product ID	Rated Lamp Wattage (W)	Lamp Wattage EL (W)	Lamp Current EL (A)	Lamp Voltage (V)	Cap Base	Color Temperature (K)	Color Rendering Index (R _a)	Chromaticity Coordinate X	Chromaticity Coordinate Y
MASTER SON PIA Plus 100W E E40 SLV	100	100.0	1.2	100	E40	2000	25	535	420
MASTER SON PIA Plus 150W E E40 SLV	150	154	1.8	100	E40	2000	25	535	420
MASTER SON PIA Plus 250W E E40 SLV	250	260.0	2.85	105	E40	2000	25	530	420
MASTER SON PIA Plus 400W E E40 SLV	400	400.0	4.5	105	E40	2000	25	525	425

Product ID	Bulb Finish	Luminous Flux Lamp EM/CuFe (lm)	Luminous Efficacy Lamp EM (lm/W)	Ignition Supply Voltage (V)	Cap-Base Temperature (C)	Bulb Temperature (C)	Nett Weight Product In Grams (gr)
MASTER SON PIA Plus 100W E E40 SLV	Coated	10200	107	198	200	350	110
MASTER SON PIA Plus 150W E E40 SLV	Coated	17000	114	198	250	350	180
MASTER SON PIA Plus 250W E E40 SLV	Coated	31100	120	198	250	350	180
MASTER SON PIA Plus 400W E E40 SLV	Coated	55500	135	198	250	350	240

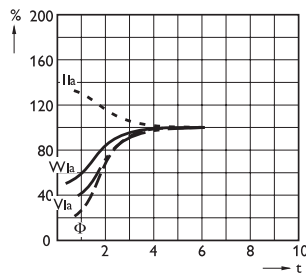
Spectral power distribution



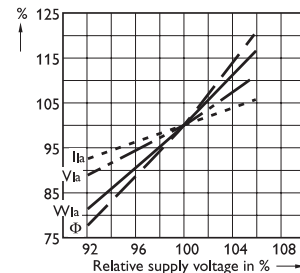
Performance diagrams

SON PIA Plus

Lamp performance during run up



Effects of mains voltage variations



- I_{la} = Lamp current
- Φ = Luminous Flux
- V_{la} = Lamp Voltage
- W_{la} = Lamp Wattage