



# Product Description

## SON H

High Pressure Sodium lamp with opalized outer bulb retrofit for High Pressure Mercury lamps

### Benefits

- Instant and cost-effective upgrade of light level and reduction of energy use replacing HPL

### Features

- Direct replacement for mercury lamps as they operate on the same control gear
- High luminous efficacy
- Robust construction is vibration- and shock-resistant leading to a reliable life

### Application

- Road and residential lighting
- Commercial and industrial applications

### Warnings and Safety

- For use with control gear designed for high-pressure mercury lamps
- For outdoor use only
- 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.

**Controls and Dimming**

Dimmable No

**General Information**

LSF 2000 h Rated 99 %

LSF 20000 h Rated 69 %

Operating Position UNIVERSAL

**Luminaire Design Requirements**

Bulb Temperature (Max) 350 °C

**Light Technical**

Correlated Colour Temperature (Nom) 2000 K

Colour Rendering Index (Max) 25

**Mechanical and Housing**

Bulb Finish Coated glass

**Approval and Application**

Order Code	Full Product Name	Energy Consumption	Energy Efficiency	Mercury (Hg)
		kWh/1000 h	Label (EEL)	Content (Nom)
928152409830	SON H 220W/220 E40 1SL/12	237 kWh	A	28.6 mg
928153509830	SON H 350W/220 E40 1SL/12	385 kWh	A+	28.6 mg
928486900191	SON H 110W I E27 1CT/24	121 kWh	A+	22.2 mg

**Operating and Electrical (1/2)**

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
928152409830	SON H 220W/220 E40 1SL/12	2.3 A	130 V	105 V	120 V
928153509830	SON H 350W/220 E40 1SL/12	3.6 A	129 V	105 V	117 V

Order Code	Full Product Name	Lamp			
		Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)
928486900191	SON H 110W I E27 1CT/24	1.32 A	122 V	92 V	107 V

**Operating and Electrical (2/2)**

Order Code	Full Product Name	Power (Rated)	Re-Ignition Time
		(Nom)	(Min) (Max)
928152409830	SON H 220W/220 E40 1SL/12	218.0 W	180 s
928153509830	SON H 350W/220 E40 1SL/12	350.0 W	180 s

Order Code	Full Product Name	Power (Rated)	Re-Ignition Time
		(Nom)	(Min) (Max)
928486900191	SON H 110W I E27 1CT/24	110.0 W	600 s

**General Information (1/2)**

Order Code	Full Product Name	Cap-Base	Life To 10%	Life To 20%	Life To 50%
			Failures (Nom)	Failures (Nom)	Failures (Nom)
928152409830	SON H 220W/220 E40 1SL/12	E40	12000 h	16000 h	26000 h
928153509830	SON H 350W/220 E40 1SL/12	E40	12000 h	16000 h	26000 h

Order Code	Full Product Name	Cap-Base	Life To 10%	Life To 20%	Life To 50%
			Failures (Nom)	Failures (Nom)	Failures (Nom)
928486900191	SON H 110W I E27 1CT/24	E27	-	15000 h	28000 h

**General Information (2/2)**

Order Code	Full Product Name	Life To 5% Failures	LSF 12000 h	LSF 16000 h	LSF 4000 h	LSF 6000 h	LSF 8000 h	System
		(Nom)	Rated	Rated	Rated	Rated	Rated	Description
928152409830	SON H 220W/220 E40 1SL/12	9000 h	90 %	81 %	99 %	98 %	96 %	na
928153509830	SON H 350W/220 E40 1SL/12	9000 h	90 %	81 %	99 %	98 %	96 %	na
928486900191	SON H 110W I E27 1CT/24	7000 h	86 %	78 %	98 %	96 %	93 %	Internal Ignitor (I)

## Light Technical (1/3)

Order Code	Full Product Name	Chromaticity		Colour Rendering	
		Coordinate X (Nom)	Coordinate Y (Nom)	Colour Code	Index (Nom)
928152409830	SON H 220W/220 E40 1SL/12	530	410	220	-
928153509830	SON H 350W/220 E40 1SL/12	525	415	220	-

Order Code	Full Product Name	Chromaticity		Colour Rendering	
		Coordinate X (Nom)	Coordinate Y (Nom)	Colour Code	Index (Nom)
928486900191	SON H 110W I E27 1CT/24	545	391	-	-

## Light Technical (2/3)

Order Code	Full Product Name	LLMF 12000	LLMF 16000	LLMF 2000	LLMF 20000	LLMF 4000	LLMF 6000	LLMF 8000	Luminous Efficacy (rated) (Nom)	Luminous Flux (Rated) (Min)
		h Rated	h Rated	h Rated	h Rated	h Rated	h Rated	h Rated	h Rated	
928152409830	SON H 220W/220 E40 1SL/12	90 %	87 %	98 %	84 %	96 %	95 %	93 %	85 lm/W	-
928153509830	SON H 350W/220 E40 1SL/12	90 %	87 %	98 %	84 %	96 %	95 %	93 %	98 lm/W	-
928486900191	SON H 110W I E27 1CT/24	94 %	92 %	99 %	90 %	98 %	97 %	96 %	84 lm/W	8000 lm

## Light Technical (3/3)

Order Code	Full Product Name	Luminous Flux (Rated) (Nom)	Ratio Scotopic/ Photopic Lumens
928152409830	SON H 220W/220 E40 1SL/12	18250 lm	0.60
928153509830	SON H 350W/220 E40 1SL/12	34000 lm	0.60

Order Code	Full Product Name	Luminous Flux (Rated) (Nom)	Ratio Scotopic/ Photopic Lumens
928486900191	SON H 110W I E27 1CT/24	9600 lm	-

## Mechanical and Housing

Order Code	Full Product Name	Bulb Shape
928152409830	SON H 220W/220 E40 1SL/12	BD90
928153509830	SON H 350W/220 E40 1SL/12	BD120

Order Code	Full Product Name	Bulb Shape
928486900191	SON H 110W I E27 1CT/24	BF70

