



## Product Description

### SON

High Pressure Sodium lamp with opalized ovoid outer bulb

#### Benefits

- SON is a cost-efficient and reliable solution in High Pressure Sodium

#### Features

- Ovoid, internally white coated outer bulb
- High luminous efficacy
- Robust construction is vibration- and shock-resistant leading to a reliable life
- Dimming possible with dedicated gear

#### Application

- Road and residential lighting
- Decorative floodlighting
- Commercial and industrial applications

#### Versions



SON (Internal Ignitor) E27

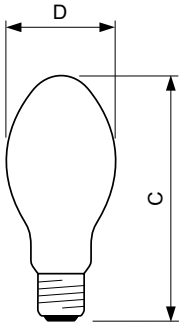


SON, E26/E27



SON, E39/E40

## Dimensional drawing



Product	D (max)	C (max)
SON 150W E E40 CO 1SL/12	91 mm	226 mm
SON 50W/220 I E27 1CT/24	71 mm	156 mm
SON 70W E E27 CO 1CT/24	71 mm	156 mm
SON 70W E E27 CO 1CT	71 mm	156 mm
SON 50W/220 E27 1CT/24	71 mm	156 mm
SON 100W E E40 1SL	76 mm	186 mm
SON 100W E E40 CO 1SL	76 mm	186 mm
SON 400W E E40 CO 1SL/12	122 mm	290 mm
SON 400W E E40 CO 1SL	122 mm	290 mm
SON 250W E E40 CO 1SL/12	91 mm	226 mm
SON 250W E E40 CO 1SL	91 mm	226 mm
SON 70W/220 I E27 1CT/24	71 mm	155 mm

### Controls and Dimming

Dimmable	Yes
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### General Information

Operating Position	UNIVERSAL
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### Luminaire Design Requirements

Bulb Temperature (Max)	350 °C
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### Light Technical

Color Code	220
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Color Rendering Index (Max)	25
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### Mechanical and Housing

Bulb Finish	Coated glass
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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)
928150108828	SON 70W/220 I E27 1CT/24	77 kWh	A	16.3 mg
928150808828	SON 50W/220 I E27 1CT/24	55 kWh	A	12 mg
928152908835	SON 50W/220 E27 1CT/24	55 kWh	A	12 mg
928486700091	SON 70W E E27 CO 1CT/24	77 kWh	A	16.3 mg
928486700097	SON 70W E E27 CO 1CT	77 kWh	A	16.3 mg
928486800091	SON 150W E E40 CO 1SL/12	162 kWh	A+	20.4 mg

Order Code	Full Product Name	Energy Consumption kWh/1000 h	Energy Efficiency Label (EEL)	Mercury (Hg) Content (Nom)
928486900091	SON 250W E E40 CO 1SL/12	275 kWh	A+	20.4 mg
928486900097	SON 250W E E40 CO 1SL	275 kWh	A+	20.4 mg
928487000091	SON 400W E E40 CO 1SL/12	440 kWh	A+	24.5 mg
928487000097	SON 400W E E40 CO 1SL	440 kWh	A+	24.5 mg
928490000091	SON 100W E E40 CO 1SL	110 kWh	A+	20.2 mg
928490000097	SON 100W E E40 1SL	110 kWh	A+	20.2 mg

## Operating and Electrical

Order Code	Full Product Name	Lamp Current (EM) (Nom)	Voltage (Max)	Voltage (Min)	Voltage (Nom)	Power (Rated) (Nom)	Re-ignition Time (Min) (Max)
928150108828	SON 70W/220 I E27 1CT/24	0.98 A	105 V	75 V	90 V	70.0 W	-
928150808828	SON 50W/220 I E27 1CT/24	0.76 A	100 V	70 V	85 V	50.0 W	-
928152908835	SON 50W/220 E27 1CT/24	0.76 A	100 V	70 V	85 V	50.0 W	180 s
928486700091	SON 70W E E27 CO 1CT/24	0.98 A	105 V	75 V	90 V	70.0 W	180 s
928486700097	SON 70W E E27 CO 1CT	0.98 A	105 V	75 V	90 V	70.0 W	180 s
928486800091	SON 150W E E40 CO 1SL/12	1.8 A	115 V	85 V	100 V	147.0 W	180 s
928486900091	SON 250W E E40 CO 1SL/12	3 A	115 V	85 V	100 V	250 W	120 s
928486900097	SON 250W E E40 CO 1SL	3 A	115 V	85 V	100 V	250 W	120 s
928487000091	SON 400W E E40 CO 1SL/12	4.45 A	120 V	90 V	105 V	400.0 W	120 s
928487000097	SON 400W E E40 CO 1SL	4.45 A	120 V	90 V	105 V	400.0 W	120 s
928490000091	SON 100W E E40 CO 1SL	1.2 A	115 V	85 V	100 V	100.0 W	120 s
928490000097	SON 100W E E40 1SL	1.2 A	115 V	85 V	100 V	100.0 W	120 s

### General Information (1/2)

Order Code	Full Product Name	Cap-Base	Life To 10%		Life To 20% Failures		Life To 50% Failures		Life To 5% Failures		LSF 12000 h		LSF 16000 h	
			Failures (Nom)	(Nom)	(Nom)	(Nom)	(Nom)	(Nom)	Rated	Rated				
928150108828	SON 70W/220 I E27 1CT/24	E27	13000 h	18000 h	28000 h	10000 h	92 %	84 %						
928150808828	SON 50W/220 I E27 1CT/24	E27	13000 h	18000 h	28000 h	10000 h	92 %	84 %						
928152908835	SON 50W/220 E27 1CT/24	E27	15000 h	19000 h	28000 h	12000 h	95 %	88 %						
928486700091	SON 70W E E27 CO 1CT/24	E27	-	22000 h	28000 h	12000 h	94 %	86 %						
928486700097	SON 70W E E27 CO 1CT	E27	-	22000 h	28000 h	12000 h	94 %	86 %						
928486800091	SON 150W E E40 CO 1SL/12	E40	-	20000 h	28000 h	12000 h	-	-						
928486900091	SON 250W E E40 CO 1SL/12	E40	-	20000 h	28000 h	12000 h	-	-						
928486900097	SON 250W E E40 CO 1SL	E40	-	20000 h	28000 h	12000 h	-	-						
928487000091	SON 400W E E40 CO 1SL/12	E40	-	20000 h	28000 h	12000 h	-	-						
928487000097	SON 400W E E40 CO 1SL	E40	-	20000 h	28000 h	12000 h	-	-						
928490000091	SON 100W E E40 CO 1SL	E40	12000 h	-	24000 h	-	-	-						
928490000097	SON 100W E E40 1SL	E40	12000 h	-	24000 h	-	-	-						

### General Information (2/2)

Order Code	Full Product Name	LSF 2000 h Rated	LSF 20000 h Rated	LSF 4000 h Rated	LSF 6000 h Rated	LSF 8000 h Rated	System Description
928150108828	SON 70W/220 I E27 1CT/24	99 %	74 %	99 %	98 %	97 %	Internal Ignitor
928150808828	SON 50W/220 I E27 1CT/24	99 %	74 %	99 %	98 %	97 %	Internal Ignitor
928152908835	SON 50W/220 E27 1CT/24	99 %	78 %	99 %	99 %	98 %	External Ignitor
928486700091	SON 70W E E27 CO 1CT/24	99 %	76 %	99 %	99 %	98 %	External Ignitor
928486700097	SON 70W E E27 CO 1CT	99 %	76 %	99 %	99 %	98 %	External Ignitor
928486800091	SON 150W E E40 CO 1SL/12	-	-	-	-	-	External Ignitor
928486900091	SON 250W E E40 CO 1SL/12	-	-	-	-	-	External Ignitor
928486900097	SON 250W E E40 CO 1SL	-	-	-	-	-	External Ignitor
928487000091	SON 400W E E40 CO 1SL/12	-	-	-	-	-	External Ignitor
928487000097	SON 400W E E40 CO 1SL	-	-	-	-	-	External Ignitor
928490000091	SON 100W E E40 CO 1SL	-	-	-	-	-	External Ignitor
928490000097	SON 100W E E40 1SL	-	-	-	-	-	External Ignitor

### Light Technical (1/3)

Order Code	Full Product Name	Chromaticity	Chromaticity	Correlated Color	Color Rendering	LLMF 12000 h	LLMF 16000 h	LLMF 2000 h
		Coordinate X (Nom)	Coordinate Y (Nom)					
928150108828	SON 70W/220 I E27 1CT/24	540	415	2000 K	-	80 %	79 %	88 %
928150808828	SON 50W/220 I E27 1CT/24	540	415	2000 K	-	80 %	79 %	88 %
928152908835	SON 50W/220 E27 1CT/24	-	-	2000 K	-	81 %	81 %	89 %
928486700091	SON 70W E E27 CO 1CT/24	-	-	2000 K	-	81 %	79 %	93 %
928486700097	SON 70W E E27 CO 1CT	-	-	2000 K	-	81 %	79 %	93 %
928486800091	SON 150W E E40 CO 1SL/12	-	-	2000 K	-	-	-	-
928486900091	SON 250W E E40 CO 1SL/12	-	-	2000 K	-	-	-	-
928486900097	SON 250W E E40 CO 1SL	-	-	2000 K	-	-	-	-
928487000091	SON 400W E E40 CO 1SL/12	-	-	2000 K	-	-	-	-
928487000097	SON 400W E E40 CO 1SL	-	-	2000 K	-	-	-	-
928490000091	SON 100W E E40 CO 1SL	-	-	1900 K	-	-	-	-
928490000097	SON 100W E E40 1SL	-	-	1900 K	-	-	-	-

### Light Technical (2/3)

Order Code	Full Product Name	LLMF	LLMF	LLMF	LLMF	Lumen	Lumen	Lumen	Lumen	Lumen
		20000 h Rated	4000 h Rated	6000 h Rated	8000 h Rated	Maintenance 10000 h (Min)	Maintenance 10000 h (Nom)	Maintenance 2000 h (Min)	Maintenance 2000 h (Nom)	Maintenance 20000 h
928150108828	SON 70W/220 I E27 1CT/24	78 %	84 %	83 %	81 %	70 %	81 %	80 %	88 %	78 %
928150808828	SON 50W/220 I E27 1CT/24	78 %	84 %	83 %	81 %	-	-	-	-	-
928152908835	SON 50W/220 E27 1CT/24	80 %	86 %	85 %	84 %	70 %	83 %	80 %	89 %	80 %
928486700091	SON 70W E E27 CO 1CT/24	78 %	89 %	86 %	84 %	-	85 %	85 %	93 %	-
928486700097	SON 70W E E27 CO 1CT	78 %	89 %	86 %	84 %	-	85 %	85 %	93 %	-
928486800091	SON 150W E E40 CO 1SL/12	-	-	-	-	80 %	85 %	90 %	95 %	-
928486900091	SON 250W E E40 CO 1SL/12	-	-	-	-	90 %	95 %	95 %	98 %	-
928486900097	SON 250W E E40 CO 1SL	-	-	-	-	90 %	95 %	95 %	98 %	-
928487000091	SON 400W E E40 CO 1SL/12	-	-	-	-	81 %	88 %	94 %	97 %	-
928487000097	SON 400W E E40 CO 1SL	-	-	-	-	81 %	88 %	94 %	97 %	-
928490000091	SON 100W E E40 CO 1SL	-	-	-	-	-	-	80 %	90 %	-
928490000097	SON 100W E E40 1SL	-	-	-	-	-	-	80 %	90 %	-

### Light Technical (3/3)

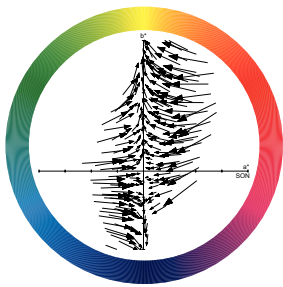
Order Code	Full Product Name	Lumen Maintenance	Lumen Maintenance	Luminous Efficacy	Luminous Flux	Luminous Flux	Ratio
		5000 h (Min)	5000 h (Nom)	(rated) (Nom)	(Rated) (Min)	(Rated) (Nom)	Scotopic/ Photopic Lumens
928150108828	SON 70W/220 I E27 1CT/24	75 %	83.5 %	80 lm/W	5040 lm	5600 lm	-

Order Code	Full Product Name	Lumen Maintenance 5000 h (Min)	Lumen Maintenance 5000 h (Nom)	Luminous Efficacy (rated) (Nom)	Luminous Flux (Rated) (Min)	Luminous Flux (Rated) (Nom)	Ratio Scotopic/ Photopic Lumens
928150808828	SON 50W/220 I E27 1CT/24	-	-	70 lm/W	-	3500 lm	-
928152908835	SON 50W/220 E27 1CT/24	75 %	85 %	70 lm/W	3150 lm	3500 lm	0.50
928486700091	SON 70W E E27 CO 1CT/24	80 %	88 %	80 lm/W	4500 lm	5600 lm	-
928486700097	SON 70W E E27 CO 1CT	80 %	88 %	80 lm/W	4500 lm	5600 lm	-
928486800091	SON 150W E E40 CO 1SL/12	85 %	90 %	93 lm/W	12375 lm	13750 lm	-
928486900091	SON 250W E E40 CO 1SL/12	92 %	96 %	106 lm/W	22500 lm	27000 lm	-
928486900097	SON 250W E E40 CO 1SL	92 %	96 %	106 lm/W	22500 lm	27000 lm	-
928487000091	SON 400W E E40 CO 1SL/12	88 %	94 %	122 lm/W	42000 lm	48000 lm	-
928487000097	SON 400W E E40 CO 1SL	88 %	94 %	122 lm/W	42000 lm	48000 lm	-
928490000091	SON 100W E E40 CO 1SL	75 %	85 %	85 lm/W	7200 lm	8000 lm	-
928490000097	SON 100W E E40 1SL	75 %	85 %	85 lm/W	7200 lm	8000 lm	-

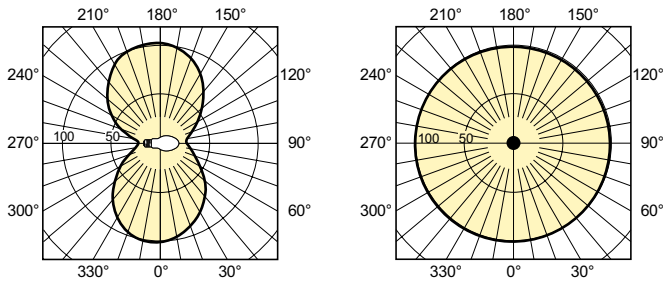
### Mechanical and Housing

Order Code	Full Product Name	Bulb Shape	Order Code	Full Product Name	Bulb Shape
928150108828	SON 70W/220 I E27 1CT/24	B70	928486900091	SON 250W E E40 CO 1SL/12	ED90
928150808828	SON 50W/220 I E27 1CT/24	B70	928486900097	SON 250W E E40 CO 1SL	ED90
928152908835	SON 50W/220 E27 1CT/24	B70	928487000091	SON 400W E E40 CO 1SL/12	ED120
928486700091	SON 70W E E27 CO 1CT/24	BF70	928487000097	SON 400W E E40 CO 1SL	ED120
928486700097	SON 70W E E27 CO 1CT	BF70	928490000091	SON 100W E E40 CO 1SL	ED75
928486800091	SON 150W E E40 CO 1SL/12	ED90	928490000097	SON 100W E E40 1SL	ED75

### Color Rendering Diagrams



SON



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2019, August 29 - data subject to change