

# High energy efficiency low pressure sodium lamps for indoor and outdoor applications

## Low Pressure Sodium – SOX

High energy efficiency low pressure sodium lamps for indoor and outdoor applications.

### Benefits

- Vibration resistant.
- Long Life.
- Energy efficient

### Features

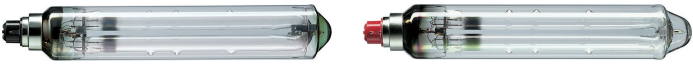
- Energy Efficient up to 180 lumens per watt.
- 18,000 hours rated average life.
- Vibration Resistant – rough service arc tube support system provides protection against shock and vibration.
- T17 base available in 18, 35, and 55 watts / T21 base available in 90, 135, and 180 watts.

### Application

- Ideal for roadway lighting, bridge and tunnel lighting, security lighting, area floodlighting, railway crossing lighting and airport lighting.

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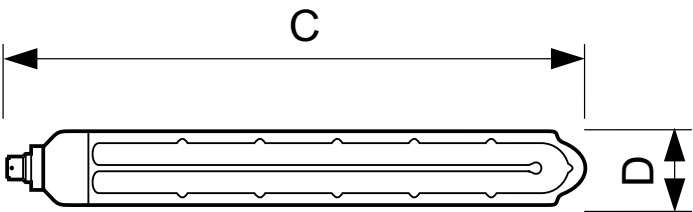
## Versions



BY22d, T50/T65

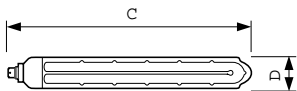
BY22d, T50/T65

## Dimensional drawing



Product	D (max)	C (max)
SOX 180W BY22d 1SL/6	66 mm	1120 mm
SOX 135W BY22d 1SL/12	66 mm	775 mm
SOX 90W BY22d 1SL/12	66 mm	528 mm
SOX 55W BY22d 1SL	52 mm	425 mm
SOX 35W BY22d 1SL/12	52 mm	311 mm

Product	D (max)	C (max)
MASTER SOX-E 18W BY22d 1SL/12	52 mm	216 mm



## Low Pressure Sodium - SOX

### Approval and Application

Mercury (Hg) Content (Nom) 0 mg

### Controls and Dimming

Dimmable No

### General Information

Cap-Base BY22D

Life To 20% Failures (Nom) 12000 h

Life To 50% Failures (Nom) 18000 h

Life To 5% Failures (Nom) 6000 h

### Luminaire Design Requirements

Bulb Temperature (Max) 150 °C

### Light Technical

Correlated Color Temperature (Nom) 1800 K

### Approval and Application

Order Code	Full Product Name	Energy Consumption kWh/	Energy Efficiency Label
		1000 h	(EEL)
928145200028	MASTER SOX-E 18W BY22d 1SL/12	21 kWh	A+
928145500028	SOX 35W BY22d 1SL/12	43 kWh	A+
928146000028	SOX 55W BY22d 1SL	64 kWh	A++
928146500028	SOX 90W BY22d 1SL/12	105 kWh	A++
928147000028	SOX 135W BY22d 1SL/12	155 kWh	A++
928147500029	SOX 180W BY22d 1SL/6	213 kWh	A++

### Operating and Electrical

Order Code	Full Product Name	Lamp	Lamp	Voltage (Nom)	Power (Rated) (Nom)
		Current (Nom)	Current (EM) (Nom)		
928145200028	MASTER SOX-E 18W BY22d 1SL/12	-	0.33 A	57 V	18.0 W
928145500028	SOX 35W BY22d 1SL/12	0.53 A	-	70 V	37 W
928146000028	SOX 55W BY22d 1SL	0.51 A	-	109 V	56.0 W

Order Code	Full Product Name	Lamp	Lamp	Voltage (Nom)	Power (Rated) (Nom)
		Current (Nom)	Current (EM) (Nom)		
928146500028	SOX 90W BY22d 1SL/12	0.82 A	-	112 V	91.0 W
928147000028	SOX 135W BY22d 1SL/12	0.82 A	-	164 V	135.0 W
928147500029	SOX 180W BY22d 1SL/6	0.78 A	-	240 V	180.0 W

### General Information

Order Code	Full Product Name	Operating Position
928145200028	MASTER SOX-E 18W BY22d 1SL/12	H110
928145500028	SOX 35W BY22d 1SL/12	H110
928146000028	SOX 55W BY22d 1SL	H110

Order Code	Full Product Name	Operating Position
928146500028	SOX 90W BY22d 1SL/12	P20
928147000028	SOX 135W BY22d 1SL/12	P20
928147500029	SOX 180W BY22d 1SL/6	P20

### Light Technical (1/2)

Order Code	Full Product Name	Lumen	Lumen	Luminous	Luminous
		Maintenance 2000 h (Nom)	Maintenance 5000 h (Nom)	Efficacy (rated) (Nom)	Flux (Nom)
928145200028	MASTER SOX-E 18W BY22d 1SL/12	95 %	90 %	100 lm/W	-
928145500028	SOX 35W BY22d 1SL/12	95 %	90 %	129 lm/W	-
928146000028	SOX 55W BY22d 1SL	102 %	100 %	140 lm/W	7800 lm

Order Code	Full Product Name	Lumen	Lumen	Luminous	Luminous
		Maintenance 2000 h (Nom)	Maintenance 5000 h (Nom)	Efficacy (rated) (Nom)	Flux (Nom)
928146500028	SOX 90W BY22d 1SL/12	95 %	90 %	150 lm/W	-
928147000028	SOX 135W BY22d 1SL/12	95 %	90 %	167 lm/W	-

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Order Code	Full Product Name	Lumen	Lumen	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)
		Maintenance 2000 h (Nom)	Maintenance 5000 h (Nom)		
928147500029	SOX 180W BY22d 1SL/6	90 %	80 %	176 lm/W	-

### Light Technical (2/2)

Order Code	Full Product Name	Luminous Flux (Rated) (Nom)
928145200028	MASTER SOX-E 18W BY22d 1SL/12	1800 lm
928145500028	SOX 35W BY22d 1SL/12	4550 lm
928146000028	SOX 55W BY22d 1SL	7800 lm

Order Code	Full Product Name	Luminous Flux (Rated) (Nom)
928146500028	SOX 90W BY22d 1SL/12	13600 lm
928147000028	SOX 135W BY22d 1SL/12	22600 lm
928147500029	SOX 180W BY22d 1SL/6	32000 lm

### Mechanical and Housing

Order Code	Full Product Name	Bulb Shape
928145200028	MASTER SOX-E 18W BY22d 1SL/12	T50
928145500028	SOX 35W BY22d 1SL/12	T50
928146000028	SOX 55W BY22d 1SL	T50
928146500028	SOX 90W BY22d 1SL/12	T65
928147000028	SOX 135W BY22d 1SL/12	T65
928147500029	SOX 180W BY22d 1SL/6	T65

