



SOX



SOX-E

SOX(-E) low-pressure sodium vapour lamps have a U-shaped discharge tube, containing sodium, enclosed in an evacuated clear tubular outer bulb.

With their extremely high luminous efficacy they are the most efficient light sources for road lighting, security and tunnel lighting.

SOX-E

Compared with SOX lamps, the SOX-E lamps have reduced heat losses and hence an even higher lamp efficacy.

Unique dimples

The U-shaped discharge tube of SOX(-E) low-pressure sodium lamps is made of a special sodium-resistant glass with dimples to collect the sodium in the cooling stage. Thus, a uniform distribution of sodium along the discharge tube is achieved, which means a more stable discharge, a higher efficacy and a better lumen maintenance and lamp life.

A neon-argon mixture is added to facilitate starting.

The colour is monochromatic yellow, with colour rendering non-existent.

SOX(-E) lamps employ a ballast and an ignitor or a leak-transformer.

SOX(-E) and HF electronic gear

An even further improvement of the efficacy of SOX(-E) lamps can now be reached by operating these lamps on HF electronic gear: a nearly equal amount of light for 10 to 40% less energy. Next to that HF gear provides a zero influence from mains voltage variations on lamp parameters.

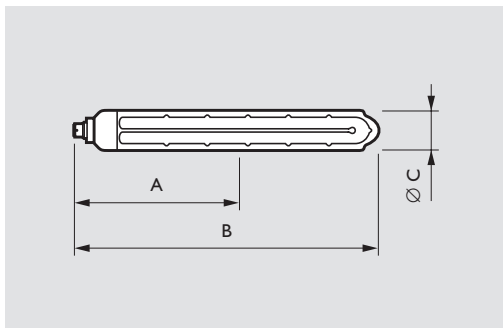
Burning positions

The burning position of the SOX 35 and 55 W and the SOX-E 18, 26 and 36 W types is vertical, base up with a tolerance of +/-110 degrees (when luminaires are installed in shock-free positions: universal burning position).

The SOX 90, 135 and 180 W and the SOX-E 66, 91 and 131 W have a horizontal burning position with a tolerance of +/-20 degs.

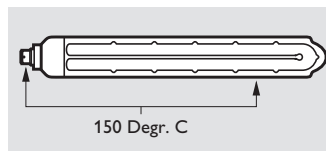
Applications

- Road lighting, marshalling yards, railway crossings, airports, harbours and docks, quarries, foundries and rolling mills.
- Security and orientation lighting.

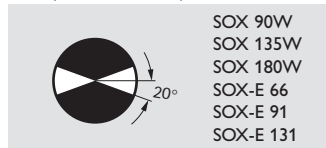


Dimensions in mm

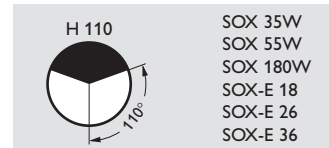
Type	A max.	B max.	C max.
SOX 35W	183.0	311.0	52.0
SOX 55W	240.0	425.0	52.0
SOX 90W	291.0	528.0	68.0
SOX 135W	412.0	775.0	68.0
SOX 180W	580.0	1120.0	68.0
SOX-E 18	140.0	216.0	52.0
SOX-E 26	183.0	311.0	52.0
SOX-E 36	240.0	425.0	52.0
SOX-E 66	291.0	528.0	68.0
SOX-E 91	412.0	775.0	68.0
SOX-E 131	580.0	1120.0	68.0



Max. permissible temperatures

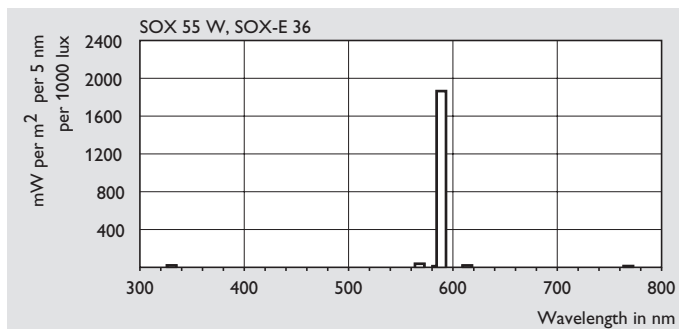


Burning positions

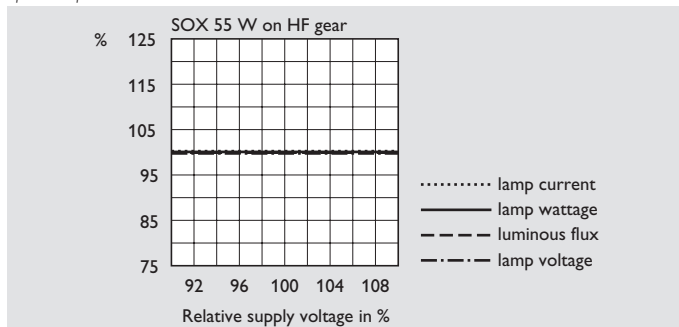


Type	Lamp wattage	Lamp voltage	Lumen output	Efficacy source	Average system power	Average system efficacy	Nett weight	Ordering number
	W	V	lm	lm/W	W ¹⁾	lm/W ¹⁾	g	
SOX on Philips hybride gear								
SOX 35W BY22D	37.0	70.00	4550.00	123.00	46	100	222.00	9281 455 00000
SOX 55W BY22D	56.0	109.00	7800.00	140.00	77	102	308.00	9281 460 00000
SOX 90W BY22D	89.0	112.00	13000.00	146.00	101	129	493.00	9281 465 00000
SOX 135W BY22D	129.0	164.00	20800.00	161.00	155	134	717.00	9281 470 00000
SOX 180W BY22D	180.0	240.00	32500.00	179.00	211	154	1044.00	9281 475 00000
SOX on Philips autoleak ballast								
SOX 35W BY22D	37.0	70.00	4550.00	130.00	57	84	222.00	9281 455 00000
SOX 55W BY22D	55.0	109.00	7800.00	147.00	76	105	308.00	9281 460 00000
SOX 90W BY22D	91.0	112.00	14000.00	154.00	119	113	493.00	9281 465 00000
SOX 135W BY22D	135.0	164.00	22600.00	167.00	165	136	717.00	9281 470 00000
SOX 180W BY22D	181.0	240.00	32000.00	176.00	216	153	1044.00	9281 475 00000
SOX-E on Philips optimal hybride gear								
SOX-E 18 BY22D	18.0	55.00	1770.00	99.00	26	69	150.00	9281 452 00000
SOX-E 26 BY22D	27.0	81.00	3700.00	137.00	33	112	222.00	9281 457 00000
SOX-E 36 BY22D	38.0	120.00	6160.00	160.00	48	122	308.00	9281 458 00000
SOX-E 66 BY22D	65.0	110.00	10700.00	165.00	81	133	493.00	9281 459 00000
SOX-E 91 BY22D	90.0	165.00	17000.00	189.00	108	158	717.00	9281 461 00000
SOX-E 131 BY22D	128.0	235.00	26000.00	203.00	150	173	1044.00	9281 451 00000
SOX-E on Philips hybrid gear for SOX								
SOX-E 26 BY22D	28.0	81.00	3500.00	125.00	40	88	222.00	9281 457 00000
SOX-E 36 BY22D	37.0	120.00	5800.00	157.00	57	102	308.00	9281 458 00000
SOX-E 66 BY22D	71.0	110.00	10500.00	148.00	92	114	493.00	9281 459 00000
SOX-E 91 BY22D	96.0	165.00	16000.00	167.00	127	126	717.00	9281 461 00000
SOX-E 131 BY22D	131.0	235.00	26000.00	198.00	167	156	1044.00	9281 451 00000
SOX-E on Philips autoleak ballast for SOX								
SOX-E 26 BY22D	27.0	81.00	3600.00	133.00	49	73	222.00	9281 457 00000
SOX-E 36 BY22D	39.0	120.00	6000.00	154.00	59	102	308.00	9281 458 00000
SOX-E 66 BY22D	67.0	110.00	10500.00	157.00	104	106	493.00	9281 459 00000
SOX-E 91 BY22D	101.0	165.00	18200.00	180.00	139	131	717.00	9281 461 00000
SOX-E 131 BY22D	140.0	235.00	27000.00	193.00	179	151	1044.00	9281 451 00000
SOX on Philips HF Electronic gear								
SOX 35W BY22D	33.0	-	4300.00	129.00	-	-	-	9281 455 00000
SOX 55W BY22D	51.0	-	7500.00	147.00	57	137	308.00	9281 460 00000
SOX-E on Philips HF Electronic gear								
SOX-E 36 BY22D	35.0	-	5800.00	166.00	38	153	308.00	9281 458 00000
SOX-E 66 BY22D	63.0	-	10700.00	170.00	68	157	493.00	9281 459 00000

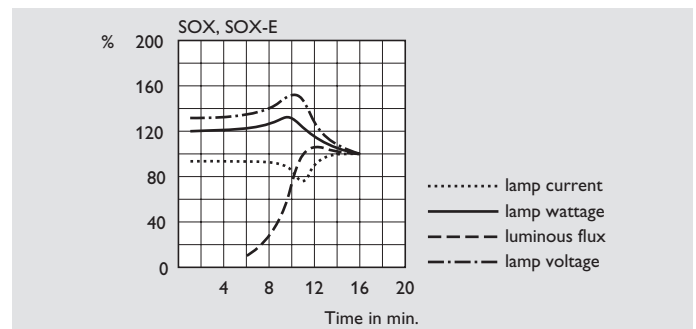
¹⁾ After 100 burning hours.



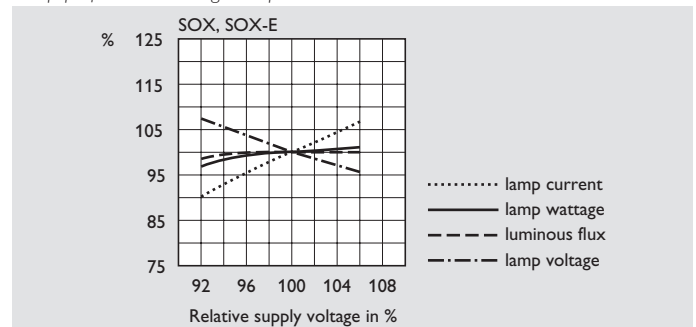
Spectral power distribution



Effects of mains voltage variations



Lamp performance during run-up



Effects of mains voltage variations