

Philips White SON® High
Pressure Sodium Lamps

*Ideal for accent/display
lighting and downlighting*

WHITE SON®



Incandescent-like color performance

Philips White SON® High Pressure Sodium Lamps
produce warm, incandescent-like color with exceptional
brightness and color rendering properties

Energy efficient

- Three times the efficacy and five times the life of incandescent lamps

Excellent lumen maintenance

- Long life and reliable stable color performance

Choice of ED-17 or T-10 lamps

- ED-17 diffuse coated medium screw base lamp offers low source brightness for downlighting applications
- T-10 clear lamp with PG-12 prefocus base provides precise optical control for accent and display lighting applications

Low ultraviolet output

- Minimizes fading of materials

Rated for use in open fixtures

PHILIPS

Ordering Data

Product Number	Ordering Code	Lamp Watts	Lamp Volts	Lamp Oper. Current (Amps)	ANSI Code	Approx. Initial Lumens ¹	Approx Mean Lumens ²
31344-5	SDW-50W/LV/D	50	45	1.4	S104	2350	2000
31346-0	SDW-100W/LV/D	100	52	2.5	S105	4900	4170
30229-9	SDW-T50W/LV	50	45	1.4	S104AF-50	2300	2070
30228-1	SDW-T100W/LV	100	52	2.5	S105NZ-100	5000	4250

- 1) Based on photometry of 100-hour lamps in vertical position at rated watts. Lumen output rating applies to all operating positions.
- 2) Lumen output at 50% rated life.
- 3) Based on survival of at least 50% of the lamps, operated under specified test.
- 4) 90% survival at 5000 hours.

Electrical and Technical Data

Lamp Current Crest Factor (Maximum) _____ 1.8
 Warm-up to 80% Full Brightness _____ 3-4 minutes
 Restrike Time for Hot Lamps _____ 1-2 minutes
 Starter Pulse Voltage—Peak _____ 3500-4900
 Pulse Width @ 90% Peak _____ 0.5 Micro Sec. Minimum
 Pulse per Cycle (Minimum) _____ 1

Physical Characteristics

Bulb _____ ED-17 (SDW)
 _____ T-10 (SDW-T)
 Bulb Finish _____ Diffuse (SDW)
 _____ Clear (SDW-T)
 Base _____ Medium (SDW)
 _____ PG-12 (SDW-T)
 Max. Overall Length (MOL) _____ 5.438" (xxmm) (SDW)
 _____ 5.875" (XXmm) (SDW-T)
 Light Center Length (LCL) _____ 3.438" (xxmm) (SDW)
 _____ 3.563" (XXmm) (SDW-T)
 Arc Length _____ 0.X" (7mm) (50W)
 _____ 0.XX" (9mm) (100W)
 Max. Bulb Temp. _____ 350°C (XXX°F) (50W T-10)
 _____ 400°C (XXX°F) (50W & 100W ED-17)
 _____ 450°C (XXX°F) (100W T-10)
 Max. Base Temp. _____ 150° C (50W T-10)
 _____ 190° C (50W & 100W ED-17)
 _____ 180° C (100W T-10)
 Standard Package Quantity _____ 12

Operating Characteristics

Rated Average Life, Hours.^{3,4} _____ 10,000
 Color Rendering Index (CRI) _____ 85
 Color Temperature _____ 2700K

Operating Position

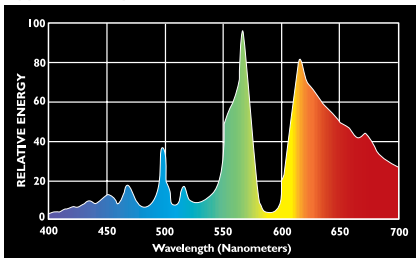
Universal

RECOMMENDED WARNINGS, CAUTIONS AND OPERATING INSTRUCTIONS

R“WARNING: These lamps must be operated in fixtures designed for use with High Pressure Sodium lamps. The fixture wattage rating must match the wattage indicated on the outer glass bulb. Do not scratch the outer bulb or subject it to pressure as this could cause the outer bulb to crack or shatter. A partial vacuum in the outer bulb may cause glass to fly if the glass is struck. Operating the lamp improperly may result in PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.

1. If the outer glass bulb is broken, shut off power immediately and remove the lamp after it has cooled.
2. Use only auxiliary equipment meeting Philips and/or ANSI standards. Use within voltage limits recommended by ballast manufacturer.
 - A. Operate lamp only within specified limits of operation.
 - B. For total supply load refer to ballast manufacturers electrical data.
3. Protect lamp base, socket and wiring against moisture, corrosive atmospheres and excessive heat.
4. Replace the lamp if the outer glass bulb has been scratched, cracked or damaged in any way.
5. If a lamp bulb support is used, be sure to insulate the support electrically so as to avoid possible decomposition of the bulb glass.
6. Do not use this lamp in a fixture which redirects a substantial portion of the energy toward the arc tube and its immediate vicinity, as this may lead to very early lamp failure.
7. Take care in handling and disposing of lamps. If arc tube is broken, avoid skin contact with any of the contents or fragments.
8. The arc tube of this lamp contains sodium and mercury. Dispose of lamp in accordance with federal, state and local requirements.

Approximate Spectral Distribution



C.I.E. Color Coordinates	X	Y
50 Watt	.462	.414
100 Watt	.461	.410

Maximum Color Shift:
-250K (7500 hours)

Above specifications subject to change without notice.



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