

# Extra low mercury

## Philips T8 Lamps are energy-efficient lighting solutions.

#### **Extended life**

- Reduce maintenance costs by extending the relamping cycle
- Limited warranty period based on usage\*

#### **Outstanding lumen performance**

• 95% lumen maintenance and reduced lamp-end blackening

#### **Better for the environment**

- Only 1.7mg of mercury with ALTO II Technology
- · Reduced impact on the environment without sacrificing performance

Philips T8 Lamps featuring ALTO II Technology

Ideal for applications requiring maximum maintained light output

**T8** Collection



#### ALTO II means 50% less mercury than the original ALTO T8 lamps<sup>†</sup>

The EPA's TCLP test is used to determine if an item can be managed as hazardous or nonhazardous waste. Philips ALTO and ALTO II lamps are TCLP Compliant and can be managed as non-hazardous waste.

† This lamp is better for the environment because of its reduced mercury content. All Philips ALTO lamps give you end-of-life options, which can simplify and reduce your lamp disposal costs, depending on your state and local regulations. ALTO II Lamps have only 1.7mg of mercury.



#### Philips T8 Lamps featuring ALTO II Technology

#### **Ordering, Electrical and Technical Data**

				Color	Nom.	Rated Average Life (Hrs) <sup>1</sup>		Approx.			
Product Number	Ordering Code	Watts	Pack. Qty.	Temp. (Kelvin)	Length (In.)	12-hr on Ins. Start	12-hr on Prog. Start	Initial Lumens²	Design Lumens <sup>3</sup>	CRI	Lumen Maint.
28188-1	F17T8/TL835/ALTO	17	30	3500	24	30,000	36,000	1350	1280	85	95%
28189-9	F17T8/TL841/ALTO	17	30	4100	24	30,000	36,000	1350	1280	84	95%
28090-9	F17T8/TL850/ALTO	17	30	5000	24	30,000	36,000	1300	1235	82	95%
28190-7	F25T8/TL835/ALTO	25	30	3500	36	30,000	36,000	2150	2040	85	95%
28191-5	F25T8/TL841/ALTO	25	30	4100	36	30,000	36,000	2150	2040	84	95%
28092-5	F25T8/TL850/ALTO	25	30	5000	36	30,000	36,000	2150	2040	82	95%
28151-9	F32T8/TL830/ALTO	32	30	3000	48	30,000	36,000	2850	2710	85	95%
28153-5	F32T8/TL835/ALTO	32	30	3500	48	30,000	36,000	2850	2710	84	95%
28155-0	F32T8/TL841/ALTO	32	30	4100	48	30,000	36,000	2850	2710	82	95%
28156-8	F32T8/TL850/ALTO	32	30	5000	48	30,000	36,000	2850	2710	82	95%
28162-6	F32T8/TL730/ALTO	32	30	3000	48	30,000	36,000	2700	2565	78	95%
28161-8	F32T8/TL735/ALTO	32	30	3500	48	30,000	36,000	2700	2565	78	95%
28157-6	F32T8/TL741/ALTO	32	30	4100	48	30,000	36,000	2700	2565	78	95%
38351-3	F32T8/TL741/ALTO	32	10	4100	48	30,000	36,000	2700	2565	78	95%
28163-4	F32T8/TL750/ALTO	32	30	5000	48	30,000	36,000	2600	2470	78	95%

I) Average life under engineering data with lamps turned off and restarted once every 12 operating hours.

2) Approximate initial lumens. The lamp lumen output is based upon lamp performance after 100 hours of operating life, when the output is measured during operation on a reference ballast under standard laboratory conditions. For expected lamp lumen output, commercial ballast manufacturers can advise the appropriate ballast factor for each of their ballasts when they are informed of the designated lamp. The ballast factor is a multiplier applied to the designated lamp lumen output.

3) Design lumens are the approximate lamp lumen output at 40% of the lamp's rated average life. This output is based upon measurements obtained during lamp operation on a reference ballast under standard laboratory conditions. Design lumens rated at 3 hours per start on instant start ballast.

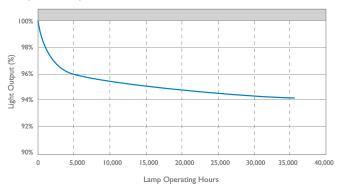
4) Average life under specified test conditions with lamps turned off and restarted no more frequently than once every 3 operating hours. Lamp life is appreciably longer if lamps are started less frequently.

G Lamp meets US Federal Minimum Efficiency Standards.

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#### 95% Lumen Maintenance

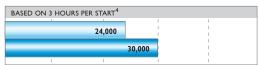
Philips T8 Lamps



### **Rated Average Life**

#### Philips T8 Lamps

Instant Start Ballast
Instant Start Ballast







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