PHILIPS

F96T8/ADV841/XEW/ALTO 51W

Alto Lamp Technology
Energy Advantage Slimline

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Energy saving T8 Slimline 8-foot lamps

Philips Energy Advantage T8 51W Slimline 8-foot Lamps

help lower energy costs while extending the relamping cycle.

51W is the lowest wattageT8 Slimline 8-foot in the industry

- Save 8 watts per lamp instantly and up to 14% in system energy costs when compared to a standard 59W Slimline 8-foot
- Save over \$24.00 in energy costs over the rated average life[§]
 of the lamp when compared to a standard 59W Slimline 8-foot

Outstanding light levels and lumen maintenance

- 104 lumens per watt
- 93% lumen maintenance

Sustainable lighting solution

- Reduces the impact on the environment—low mercury and energy efficient
- With just 37 Picograms per lumen hour[†], these lamps allow for more design freedom and help exceed your LEED requirements[†]

Warranty period: 24 months

 $(\S, \uparrow/See \text{ back page for footnotes})$

Philips Energy Advantage T8 51W Slimline 8-foot Lamps featuring ALTO® LampTechnology

Ideal for industrial applications requiring maximum energy savings and long life

Energy Advantage





- † 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.
- * Fluorescent lamps that are TCLP compliant reduce the amount of pollutants released into the environment



Philips Energy Advantage T8 51W Slimline 8-foot Lamps featuring ALTO® Lamp Technology

Ordering, Electrical and Technical Data (Subject to change without notice)

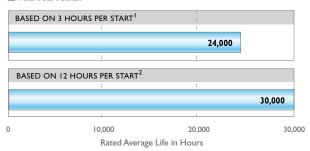
Product	Ordering		Pack.	Color Temp.	Nom. Length	Rated Ave	rage Life (hrs) ¹ 12-hr on	Approx.	Design		Lumen
Number		Watts	Qty.	(Kelvin)	(ln.)	Ins. Start ²	Ins. Start ³	Lumens ⁴	Lumens ⁵	CRI	Maint.
23235-5	F96T8/ADV835/XEW/ALTO 51W	51	24	3500K	96	24,000	30,000	5300	4940	86	93%
23236-3	F96T8/ADV841/XEW/ALTO 51W	51	24	4100K	96	24,000	30,000	5300	4940	86	93%
23237-I	F96T8/ADV850/XEW/ALTO 51W	51	24	5000K	96	24,000	30,000	5200	4840	86	93%

¹⁾ Rated average life is the length of operation (in hours) at which point an average of 50% of a large sample of lamps will still be operational and 50% will not.

Rated Average Life

Philips Energy Advantage T8 51W Slimline 8-foot Lamps

Instant Start Ballast



Dollars Saved Over the Life of the Lamp

Philips Energy Advantage T8 51W Slimline 8-foot Lamp vs. the Industry Standard T8 59W Slimline 8-foot Lamp

kWh rate	Watts Saved‡	Savings over 24,000 hour Rated Average Life**	Savings over 30,000 hour Rated Average Life**
\$0.06	8W	\$11.52	\$14.40
\$0.08	8W	\$15.36	\$19.20
\$0.10	8W	\$19.20	\$24.00
\$0.12	8W	\$23.04	\$28.80
\$0.20	8W	\$38.40	\$48.00

[‡] Compared to the Industry Standard T8 59W Slimline 8-foot.

Footnotes from front:



²⁾ 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.

³⁾ Average life under engineering data with lamps turned off and restarted once every 12 operating hours.

⁴⁾ 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.

⁵⁾ 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.

^{**} Based on wattage savings (8W) \times rated average life / 1000 \times kWh rate.

^{*} Based on 30,000 hour rated average life at \$0.10 per kWh at 12 hours per start on an instant start ballast (8W \times 30000 hours / 1000 \times \$0.10 = \$24.00). kWh rate may vary.

[†] Picogram calculation: mercury content (mg) x 1,000,000,000 / (RAL x design lumens) = picogram per lumen hour.

[/]For more information on LEED, please visit www.usgbc.org