

Philips PLUS T8 U-Bent Lamps featuring ALTO® Lamp Technology

Ideal for applications requiring longer life

T8 COLLECTION



† 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.

Extend your relamping cycles

Philips PLUS T8 U-Bent Lamps are environmentally-responsible lamps that offer long life and low mercury.

Long life

- Reduce your maintenance costs and meet your annual budget by extending your relamping cycle
- PLUS 32W T8 U-Bent has the longest rated average life in the industry
- 25% longer life than standard 32W T8 U-Bent*
- Warranty period: 30 months

Sustainable lighting solution

- Low mercury, which reduces the impact to the environment
- Long life for increased savings on maintenance and recycling costs

Ideal for locations already using 32W T8 lamps

* The PLUS 32W T8 has a rated average life of 30,000 hours compared to an industry standard 4' T8 32W U-Bent lamp with 24,000 hours rated average life (12 hrs per start on an instant start ballast with 2800 lumens and 85 CRI)

PHILIPS

sense and simplicity

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Ordering, Electrical and Technical Data

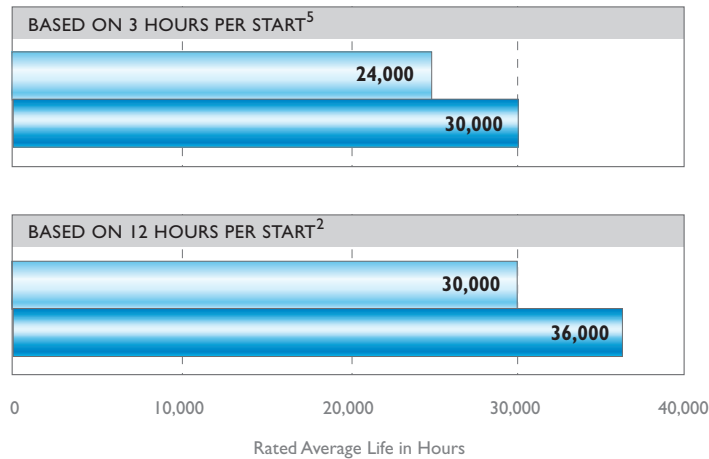
Product Number	Ordering Code	Watts	Pack. Qty.	Color Temp. (Kelvin)	Nom. Length (In.)	Rated Average Life (Hrs.) ¹		Approx. Initial Lumens ³	Design Lumens ⁴	CRI	Lumen Maint.
						12-hr on Ins. Start ²	12-hr on Prog. Start ²				
21977-4	FB32T8/TL830/PLUS/6/ALTO	32	20	3000	22 ⁷ / ₁₆	30,000	36,000	2800	2535	85	95%
21978-2	FB32T8/TL835/PLUS/6/ALTO	32	20	3500	22 ⁷ / ₁₆	30,000	36,000	2800	2535	85	95%
21983-2	FB32T8/TL841/PLUS/6/ALTO	32	20	4100	22 ⁷ / ₁₆	30,000	36,000	2800	2535	85	95%
21987-3	FB32T8/TL850/PLUS/6/ALTO	32	20	5000	22 ⁷ / ₁₆	30,000	36,000	2750	2500	84	95%

- 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.
 2) Average life under engineering data with lamps turned off and restarted once every 12 operating hours. Lamp life is appreciably longer if lamps are started less frequently.
 3) 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.
 4) 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.

Rated Average Life

Philips PLUS T8 U-Bent Lamps

Instant Start Ballast Programmed Start Ballast



- 5) 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.
 2) See above for footnote



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