

Philips T5 Fluorescent Lamps featuring ALTO Technology

Powerful, environmentally-responsible ultra-slim lamps



- ✓ Industry low 1.4mg of mercury in all Philips T5 and T5HO lamps
- ✓ No burn in required before dimming Philips T5 and T5HO lamps
- ✓ Operate on programmed start ballast only to maintain warranty
- ✓ Lumen output ratings at 35°C, lumens at 25°C, average 10% lower

T5 High Efficiency

- New 25W Energy Advantage version of 28W
- Up to 116 lumens per watt
- 5000 kelvin being added to all sizes
- Slim profile lamp and ballast
- Perfect for office, healthcare and government applications

T5 High Output

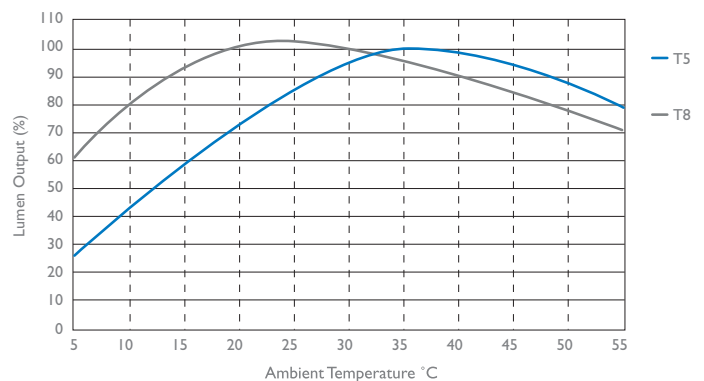
- New 49W HO Energy Advantage version of 54W HO
- 49W HO also available in extreme temperature version
- T5HO offers superb high bay options
- Increased energy saving options for many applications
- Perfect for retail, industrial and warehouse applications

PHILIPS T5 LAMP WARRANTY PERIODS

Philips Lamp	WARRANTY PERIOD*
T5 High Output Energy Advantage Lamps	42 Months
T5 High Output Energy Advantage Lamps "Extreme Temperature" with Amalgam Technology	42 Months
T5 High Output Lamps	36 Months
Energy Advantage T5 Lamps	42 Months
T5 Lamps	36 Months

* Certain limitations and conditions apply. See Philips for further warranty details.

T5/T8 LUMENS VS. TEMPERATURE



PHILIPS T5 LAMP FAMILY—LIFE RATINGS

Products	PROGRAMMED START ¹	
	Rated Average Life (Hrs.)	
	3 hour start	12 hour start
T5 High Output Energy Advantage Lamps	35,000	40,000
T5 High Output Energy Advantage Lamps "Extreme Temperature" with Amalgam Technology	35,000	40,000
T5 High Output Lamps	25,000	35,000
T5 Energy Advantage Lamps	35,000	40,000
T5 Lamps	25,000	35,000

¹) Average life under engineering data on programmed start ballast with lamps turned off and restarted once every 3 or 12 operating hours as noted.

FLUORESCENT LAMPS

T5 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life 3 Hr. Start (202) 12 Hr. Start (241)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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T5 HIGH OUTPUT (HO) ENERGY ADVANTAGE LAMPS*

T5 Miniature Bipin; Programmed Start

44	41781-6	\$ @ ● †	F54T5/835/HO/XEW/ALTO 44W	40	TL 835, 3500K	46	35,000	40,000	4520	4150	85
	41782-4	\$ @ ● †	F54T5/841/HO/XEW/ALTO 44W	40	TL 841, 4100K	46	35,000	40,000	4520	4150	85
	41783-2	\$ @ ● †	F54T5/850/HO/XEW/ALTO 44W	40	TL 850, 5000K	46	35,000	40,000	4300	3950	82
49	22049-1	\$ @ ●	F54T5/830/HO/EA/ALTO 49W	40	TL 830, 3000K	46	35,000	40,000	5000	4750	85
	22050-9	\$ @ ●	F54T5/835/HO/EA/ALTO 49W	40	TL 835, 3500K	46	35,000	40,000	5000	4750	85
	22052-5	\$ @ ●	F54T5/841/HO/EA/ALTO 49W	40	TL 841, 4100K	46	35,000	40,000	5000	4750	85
	41249-4	\$ @ ● †	F54T5/841/HO/EA/ALTO 49W Sleeved	20	TL 841, 4100K	46	35,000	40,000	5000	4750	85
	40649-6	\$ @ ●	F54T5/850/HO/EA/ALTO 49W	40	TL 850, 5000K	46	35,000	40,000	4850	4625	82
	41248-6	\$ @ ● †	F54T5/850/HO/EA/ALTO 49W Sleeved	20	TL 850, 5000K	46	35,000	40,000	4850	4625	82

T5 HIGH OUTPUT (HO) ENERGY ADVANTAGE LAMPS "EXTREME TEMPERATURE" WITH AMALGAM TECHNOLOGY

T5 Miniature Bipin; Programmed Start

49	40729-6	\$ @ ●	F54T5/835/HO/A/EA/ALTO 49W	40	TL 835, 3500K	46	35,000	40,000	5000	4750	85
	40730-4	\$ @ ●	F54T5/841/HO/A/EA/ALTO 49W	40	TL 841, 4100K	46	35,000	40,000	5000	4750	85
	40752-8	\$ @ ● †	F54T5/850/HO/A/EA/ALTO 49W	40	TL 850, 5000K	46	35,000	40,000	4850	4625	82

T5 HIGH OUTPUT (HO) LAMPS—(2FT–5 FT)

T5 Miniature Bipin; Programmed Start

24	29019-7	\$ ●	F24T5/830/HO/ALTO	40	TL 830, 3000K	22	25,000	35,000	2000	1900	85
	29020-5	\$ ●	F24T5/835/HO/ALTO	40	TL 835, 3500K	22	25,000	35,000	2000	1900	85
	29021-3	\$ ●	F24T5/841/HO/ALTO	40	TL 841, 4100K	22	25,000	35,000	2000	1900	85
	41277-5	\$ ● †	F24T5/850/HO/ALTO	40	TL 850, 5000K	22	25,000	35,000	1900	1800	82
39	29022-1	\$ ●	F39T5/830/HO/ALTO	40	TL 830, 3000K	34	25,000	35,000	3500	3325	85
	29023-9	\$ ●	F39T5/835/HO/ALTO	40	TL 835, 3500K	34	25,000	35,000	3500	3325	85
	29025-4	\$ ●	F39T5/841/HO/ALTO	40	TL 841, 4100K	34	25,000	35,000	3500	3325	85
	41435-9	\$ ● †	F39T5/850/HO/ALTO	40	TL 850, 5000K	34	25,000	35,000	3400	3230	82
54	29026-2	\$ ● @	F54T5/830/HO/ALTO	40	TL 830, 3000K	46	25,000	35,000	5000	4750	85
	29028-8	\$ ● @	F54T5/835/HO/ALTO	40	TL 835, 3500K	46	25,000	35,000	5000	4750	85
	29083-3	\$ ● @	F54T5/841/HO/ALTO	40	TL 841, 4100K	46	25,000	35,000	5000	4750	85
	41181-9	\$ ● @ †	F54T5/841/HO/ALTO Sleeved	20	TL 841, 4100K	46	25,000	35,000	5000	4750	85
	13510-3	\$ ● @	F54T5/850/HO/ALTO	40	TL 850, 5000K	46	25,000	35,000	4850	4625	82
	14745-4	\$ ● @	F54T5/865/HO/ALTO	40	TL 865, 6500K	46	25,000	35,000	4750	4500	82
80	29084-1	\$ ●	F80T5/830/HO/ALTO	40	TL 830, 3000K	58	25,000	35,000	7000	6650	85
	14744-7	\$ ●	F80T5/835/HO/ALTO	40	TL 835, 3000K	58	25,000	35,000	7000	6650	85
	29088-2	\$ ●	F80T5/841/HO/ALTO	40	TL 841, 4100K	58	25,000	35,000	7000	6650	85

For the most current product information, go to the e-catalog on www.philips.com
Fluorescent symbols and footnotes located on page 51

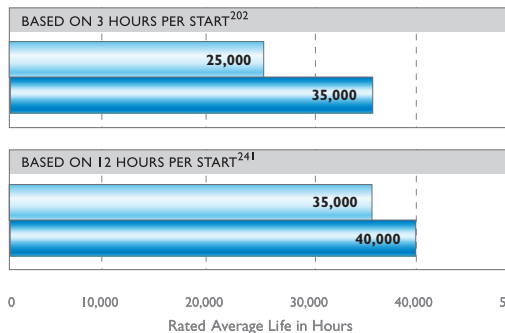
ENERGY ADVANTAGE T5 AND T5 HO

Warranty Period: 42 months*

* Certain limitations and conditions apply.
See Philips for further warranty details.

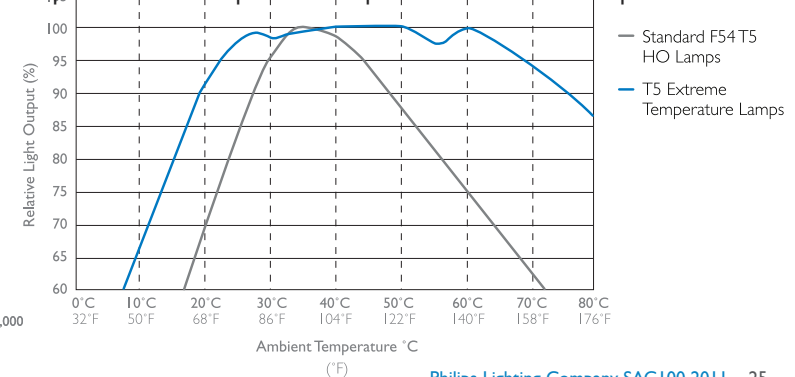
RATED AVERAGE LIFE

■ Philips T5 Lamps ■ Philips Energy Advantage Lamps



PERFORMANCE (RELATIVE LIGHT OUTPUT VS. TEMPERATURE)

Philips T5 Extreme Temperature Lamps vs. Standard F54T5 Lamps



T5 Miniature Bipin