



# Maximize energy savings without sacrificing light output

## T5 High Output Energy Advantage

Philips Energy Advantage T5 HO 49W lamps are environmentally-responsible, ultra-slim and have extraordinary light output with increased energy savings.

### Benefits

- Outstanding energy savings - save 5 watts when switching from a standard T5 HO 54W lamp, with no sacrifice to performance.
- Sustainable Lighting Solution - only 1.4 mg of mercury per lamp - the lowest mercury levels in the industry.
- With just 12 Picograms per lumen hour<sup>◇</sup>, these lamps allow for more design freedom and help exceed all LEED requirements (For more information on LEED, please visit [www.usgbc.org](http://www.usgbc.org))

## T5 High Output Energy Advantage

### Features

- Reduced maintenance and disposal costs.
- Long life (40,000 hrs RAL\*\*) for an extended relamping cycle.
- Outstanding energy savings - save 5 watts when switching from a standard T5 HO 54W lamp, with no sacrifice to performance.
- Save \$20.00 instantly in energy costs over the rated average life\$ of the lamp
- Operates on any Programmed Start ballast.
- Sustainable lighting solution- Reduces the impact on the environment: low mercury, energy efficiency, long life, and less material.
- Only 1.4 mg of mercury, the lowest in the industry.
- With just 9.8 Picograms per lumen hour◇, these lamps allow for more design freedom and help exceed all LEED requirements‡.
- Extreme Temperature lamp provides extraordinary output even in spaces without climate control. Lumen output is >90% from 65 degrees F to 170 degrees F due to amalgam technology.
- Available in 49 Watt - 3000K, 3500K, 4100K and 5000K Color Temperatures.

### Application

- Ideal for medium-bay and high-bay retail and industrial applications.

### Warnings and Safety

- Lamp contains mercury.
- Manage in Accord with Disposal Laws.
- See: [www.lamprecycle.org](http://www.lamprecycle.org) or 1-800-555-0050

### Versions



48.0 W G5 16 mm (T5)

# T5 High Output Energy Advantage

## Dimensional drawing

Product	D (max)	A (max)	B (max)	B (min)	C (max)
F54T5 835 HO EA ALTO 49W	11/16 in	45-1/4 in	45-9/16 in	45-7/16 in	45-13/16 in
F54T5 841 HO EA ALTO 49W	11/16 in	45-1/4 in	45-9/16 in	45-7/16 in	45-13/16 in
F54T5 850 HO EA ALTO 49W	11/16 in	45-1/4 in	45-9/16 in	45-7/16 in	45-13/16 in

Approval and application	
Mercury (Hg) Content (Nom)	1.4 mg
Controls and dimming	
Dimmable	Yes
Operating and electrical	
Lamp Current (Nom)	0.460 A
Power (Nom)	48.0 W
General information	
Cap-Base	G5
Life To 50% Failures Preheat (Nom)	30000 h
LSF Preheat 16000 h Rated	99 %
LSF Preheat 20000 h Rated	94 %
LSF Preheat 2000 h Rated	99 %
LSF Preheat 4000 h Rated	99 %
LSF Preheat 6000 h Rated	99 %
LSF Preheat 8000 h Rated	99 %
Light technical	
Color Rendering Index (Max)	85
Color Rendering Index (Min)	80
Color Rendering Index (Nom)	82
LLMF 12000 h Rated	92 %
LLMF 16000 h Rated	91 %
LLMF 2000 h Rated	96 %
LLMF 20000 h Rated	90 %
LLMF 4000 h Rated	95 %
LLMF 6000 h Rated	94 %
LLMF 8000 h Rated	93 %
Mechanical and housing	
Bulb Shape	T5
Temperature	
Design Temperature (Nom)	95 °F

## Light technical (1/2)

Order Code	Full Product Name	Color Code	Color Designation	Correlated Color Temperature (Nom)	Luminous Efficacy (@ Max Lumen, Rated) (Nom)
220509	F54T5/835/HO/EA/ALTO 49W 40/1	835	White (WH)	3500 K	102 lm/W
220525	F54T5/841/HO/EA/ALTO 49W 40/1	841	Cool White (CW)	4100 K	102 lm/W
406496	F54T5/850/HO/EA/ALTO 49W 40/1	850	Daylight	5000 K	98 lm/W

## Light technical (2/2)

## T5 High Output Energy Advantage

Order Code	Full Product Name	Luminous		
		Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
220509	F54T5/835/HO/EA/ ALTO 49W 40/1	93 lm/W	5000 lm	4450 lm
220525	F54T5/841/HO/EA/ ALTO 49W 40/1	93 lm/W	5000 lm	4450 lm

Order Code	Full Product Name	Luminous		
		Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
406496	F54T5/850/HO/EA/ ALTO 49W 40/1	89 lm/W	4800 lm	4275 lm

