



Outstanding performance and reliability

T5 TuffGuard Coated

When you select Philips TuffGuard™ Fluorescent lamp with ALTO® lamp technology, you are reducing the impact on the environment, while the coating helps to protect your customers, employees, and reputation. Philips TuffGuard™ fluorescent lamps meet sustainability requirements because they reduce the impact on the environment with low mercury, energy efficiency and long life. The patented green endcaps mean you're using ALTO low-mercury technology. The 16 mils thick coating on TuffGuard™ fluorescent lamps forms a protective seal from end to end and is guaranteed to last the average rated life of the lamp under specific conditions

Benefits

- Sustainable Lighting Solution - Philips TuffGuard lamps reduce the impact on the environment with low mercury.
- Energy Efficient for a greener, brighter future
- Long Life to assist with lowering your maintenance costs and reducing waste.

Features

- Keeps broken glass contained.
- Coating will not yellow, crack, or flake.
- Reduces the impact on the environment: Low mercury, Energy efficient, Long life
- Warranty: Coating Guaranteed to Last the Average Rated Life of the Lamp.
- Lighting Required to be Shielded or Otherwise Protected in Food Service and Food Processing Areas.
- 8,13,14,21,24,28,35,54 watts with 3000,3500,4100,and, 5000 color temperatures

Application

- Ideal for food processing/services, manufacturing, and hospitals

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Warnings and Safety

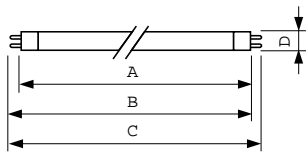
- All HO lamps recommended for use only in open fixtures.
- Lamp contains mercury. Manage in Accord with Disposal Laws. See: www.lamprecycle.org or 1-800-555-0050

Versions



G5, T5

Dimensional drawing



Product	D (max)	A (max)	B (max)	B (min)	C (max)
F54T5/850/HO/ALTO TG	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
F54T5/841/HO/ALTO TG	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
40PK					

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Approval and Application

Mercury (Hg) Content (Nom)	1.4 mg
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Controls and Dimming

Dimmable	Yes
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Operating and Electrical

Lamp Current (Nom)	0.455 A
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General Information

Cap-Base	G5
Life To 50% Failures Preheat (Nom)	30000 h
LSF Preheat 16000 h Rated	97 %
LSF Preheat 20000 h Rated	84 %
LSF Preheat 2000 h Rated	99 %
LSF Preheat 4000 h Rated	99 %
LSF Preheat 6000 h Rated	99 %
LSF Preheat 8000 h Rated	99 %
System Description	High Output (HO)

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
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Temperature

Design Temperature (Nom)	35 °C
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Operating and Electrical

Order Code	Full Product Name	Power (Rated) (Nom)
162982	F54T5/841/HO/ALTO TG 40PK	54 W
166868	F54T5/850/HO/ALTO TG	54.1 W

Light Technical (1/2)

Order Code	Full Product Name	Color Code	Color Designation	Correlated Color Temperature (Nom)	Luminous Efficacy (@ Max Lumen, Rated) (Nom)
162982	F54T5/841/HO/ALTO TG 40PK	841	Cool White (CW)	4100 K	93 lm/W

Order Code	Full Product Name	Color Code	Color Designation	Correlated Color Temperature (Nom)	Luminous Efficacy (@ Max Lumen, Rated) (Nom)
166868	F54T5/850/HO/ALTO TG	850	Daylight	5000 K	89 lm/W

Light Technical (2/2)

Order Code	Full Product Name	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
162982	F54T5/841/HO/ALTO TG 40PK	83 lm/W	5000 lm	4500 lm

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Order Code	Full Product Name	Luminous		
		Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
166868	F54T5/850/HO/ ALTO TG	80 lm/W	4800 lm	4325 lm

