



# Powerful, environmentally- responsible ultra-slim lamps

## T5 Standard

Philips T5 Fluorescent Lamps featuring ALTO® Lamp Technology offer increased energy savings and low toxicity in a slim profile.

### Benefits

- Philips T5 Warranty period - 36 months.
- Sustainable Lighting Solution - low mercury.
- Ultra slim profile allows for flexibility in design.

### Features

- Less mercury combined with energy efficiency and long life reduces the impact on the environment.
- Our green end-caps mean you are using ALTO® environmentally-responsible lamps.
- Only 1.4mg of mercury per lamp.
- Slim profile lamp and ballast.
- Operates on programmed start electronic ballasts only.
- Available in 14, 21, 28, and 35 Watts with 3000, 3500, 4100 color temperatures.

### Application

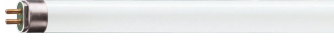
- Ideal for general, decorative and architectural lighting in offices, retail stores, hotels, schools and hospitals.

# T5 Standard

## 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



G5, T5

## Dimensional drawing

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Product	D (max)	A (max)	B (max)	B (min)	C (max)
14W/830 Min Bipin T5 HE ALTO UNP/40	17 mm	549.0 mm	556.1 mm	553.7 mm	563.2 mm
14W/835 Min Bipin T5 HE ALTO UNP/40	11/16 in	21-5/8 in	21-15/16 in	21-13/16 in	22-3/16 in
14W/841 Min Bipin T5 HE ALTO UNP/40	11/16 in	21-5/8 in	21-15/16 in	21-13/16 in	22-3/16 in
28W/830 Min Bipin T5 HE ALTO UNP/40	17 mm	1149.0 mm	1156.1 mm	1153.7 mm	1163.2 mm
28W/835 Min Bipin T5 HE ALTO UNP/40	11/16 in	45-1/4 in	45-9/16 in	45-7/16 in	45-13/16 in
28W/841 Min Bipin T5 HE ALTO UNP/40	11/16 in	45-1/4 in	45-9/16 in	45-7/16 in	45-13/16 in
F21T5/830/ALTO 40PK	17 mm	849.0 mm	856.1 mm	853.7 mm	863.2 mm
21W/835 Min Bipin T5 HE ALTO UNP/40	11/16 in	33-7/16 in	33-3/4 in	33-5/8 in	34 in
F21T5/841/ALTO 40PK	17 mm	849.0 mm	856.1 mm	853.7 mm	863.2 mm
F35T5/830 40PK	11/16 in	57-1/16 in	57-3/8 in	57-1/4 in	57-5/8 in
F35T5/841 40PK	17 mm	1449.0 mm	1456.1 mm	1453.7 mm	1463.2 mm

# T5 Standard

## Approval and application

Mercury (Hg) Content (Nom)	1.4 mg
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## Controls and dimming

Dimmable	Yes
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## General information

Cap-Base	G5
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Life To 50% Failures Preheat (Nom)	24000 h
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LSF Preheat 16000 h Rated	97 %
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LSF Preheat 20000 h Rated	84 %
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LSF Preheat 2000 h Rated	99 %
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LSF Preheat 4000 h Rated	99 %
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LSF Preheat 6000 h Rated	99 %
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LSF Preheat 8000 h Rated	99 %
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System Description	High Efficiency
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## Light technical

Color Rendering Index (Max)	85
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Color Rendering Index (Min)	80
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Color Rendering Index (Nom)	82
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LLMF 12000 h Rated	92 %
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LLMF 16000 h Rated	91 %
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LLMF 2000 h Rated	96 %
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LLMF 20000 h Rated	90 %
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LLMF 4000 h Rated	95 %
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LLMF 6000 h Rated	94 %
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LLMF 8000 h Rated	93 %
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## Mechanical and housing

Bulb Shape	T5
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## Temperature

Design Temperature (Nom)	95 °F
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## Operating and electrical

Order Code	Full Product Name	Lamp Current (Nom)	Power (Nom)
230771	F14T5/830/ALTO 40PK	0.165 A	14.0 W
230797	F14T5/835/ALTO 40PK	0.165 A	14.0 W
230805	F14T5/841/ALTO 40PK	0.165 A	14.0 W
230847	F28T5/830 ALTO 40PK	0.170 A	27.9 W
230854	F28T5/835 ALTO 40PK	0.170 A	27.9 W
230862	F28T5/841 ALTO 40PK	0.170 A	27.9 W
230813	F21T5/830/ALTO 40PK	0.165 A	21 W
230821	F21T5/835/ALTO 40PK	0.165 A	20.6 W
230839	F21T5/841/ALTO 40PK	0.165 A	20.6 W
230888	F35T5/830 40PK	0.175 A	35.5 W
230953	F35T5/841 40PK	0.175 A	35.5 W

## Light technical (1/2)

Order Code	Full Product Name	Color Code	Color Designation	Correlated Color Temperature (Nom)	Luminous Efficacy (@ Max Lumen, Rated) (Nom)
230771	F14T5/830/ALTO 40PK	830	Warm White (WW)	3000 K	99 lm/W
230797	F14T5/835/ALTO 40PK	835	White (WH)	3500 K	99 lm/W
230805	F14T5/841/ALTO 40PK	841	Cool White (CW)	4100 K	99 lm/W
230847	F28T5/830 ALTO 40PK	830	Warm White (WW)	3000 K	104 lm/W
230854	F28T5/835 ALTO 40PK	835	White (WH)	3500 K	104 lm/W
230862	F28T5/841 ALTO 40PK	841	Cool White (CW)	4100 K	104 lm/W

Order Code	Full Product Name	Color Code	Color Designation	Correlated Color Temperature (Nom)	Luminous Efficacy (@ Max Lumen, Rated) (Nom)
230813	F21T5/830/ALTO 40PK	830	Warm White (WW)	3000 K	101 lm/W
230821	F21T5/835/ALTO 40PK	835	White (WH)	3500 K	101 lm/W
230839	F21T5/841/ALTO 40PK	841	Cool White (CW)	4100 K	101 lm/W
230888	F35T5/830 40PK	830	Warm White (WW)	3000 K	105 lm/W
230953	F35T5/841 40PK	841	Cool White (CW)	4100 K	105 lm/W

## T5 Standard

### Light technical (2/2)

Order Code	Full Product Name	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
230771	F14T5/830/ALTO 40PK	86 lm/W	1350 lm	1200 lm
230797	F14T5/835/ALTO 40PK	86 lm/W	1350 lm	1200 lm
230805	F14T5/841/ALTO 40PK	86 lm/W	1350 lm	1200 lm
230847	F28T5/830 ALTO 40PK	96 lm/W	2900 lm	2675 lm
230854	F28T5/835 ALTO 40PK	96 lm/W	2900 lm	2675 lm

Order Code	Full Product Name	Luminous Efficacy (rated) (Nom)	Luminous Flux (Nom)	Luminous Flux (Rated) (Nom)
230862	F28T5/841 ALTO 40PK	96 lm/W	2900 lm	2675 lm
230813	F21T5/830/ALTO 40PK	90 lm/W	2100 lm	1850 lm
230821	F21T5/835/ALTO 40PK	90 lm/W	2100 lm	1850 lm
230839	F21T5/841/ALTO 40PK	90 lm/W	2100 lm	1850 lm
230888	F35T5/830 40PK	94 lm/W	3650 lm	3325 lm
230953	F35T5/841 40PK	94 lm/W	3650 lm	3325 lm

