# PHILIPS



Product Catalogue

# Philips Lighting Canada The **right light** is everything



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## How to use this catalogue

The Philips Lighting Consumer portfolio within this catalogue have been grouped by technology. Technologies include: LED, HUE, TLED, CFL, Halogen, Incandescent, HID, Linear Fluorescent and Ballasts. Within the product technology sections, the bulbs have been further sorted by their application; Household, Recessed and Track lighting, Decorative, and Specialty.

# Why Philips?

Since the introduction of the first Philips light bulb more than 120 years ago, innovation and a people-centric approach have always been at the core of our company.

Our commitment is to deliver new lighting technologies that make a real difference to our customers, consumers and stakeholders across the globe. We believe that the best way for us to do this, is through a deep understanding of people's needs and desires. We use light to make people feel happier and safer offering rich lighting experiences that make people feel comfortable, focused, energized and entertained... satisfying people's daily needs.

Philips has been revolutionizing lighting for over 120 years. We pioneered the world changing development of electric light and LED, and are now leading the way in intelligent lighting systems. Our deep understanding of how lighting positively affects people, enables us to deliver innovations that unlock new business value to our customers.

## The new digital revolution

Philips pioneered the development of high-quality, energyefficient LED lighting. We are now taking lighting into a fully digital world that connects people, places, and devices. We foresee a day, in the near future, when all our lamps, luminaires, and system devices will be digital and networkready. We deliver truly meaningful lighting by combining our deep understanding of people's needs with our expertise in lighting technology, human behaviour, and the biological effects of light. We believe that everyone should experience and interact with the best light possible at every moment of the day or night.

# innovation #you

Core to Philips is our customer-centric approach to innovation. We involve our customers right from the beginning, driving innovations using customer requirements and insights. At Philips we have in-depth knowledge of lighting behaviour and applications, and a deep understanding of how to optimize light for our customers in any situation.

Our brand starts with you. Each system, product, and service that Philips offers is designed to have a positive impact on people's lives and to add sustainable value to your business. We deliver innovation that matters to you.

# Understanding Lighting

## **Colour Temperature**

The colour of the light from a bulb is referenced as colour temperature and is measured in a unit called Kelvin (K). The higher the number, the whiter and bluer, or cooler the light emanating from the bulb will appear. The lower the number, the more yellow, or warmer the colour.



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## Colour Rendering Index (CRI)

The effect of a light source on colour appearance is expressed in the colour rendering index (CRI), on a scale of 0-100. Natural outdoor light has a CRI of 100 and is used as the standard of comparison for any other light source.





**Reasonable CRI** 

## 80



Good CRI

## 90



**Excellent CRI** 

## Lumens Per Watt

Lumens Per Watt is an expression of how many lumens we get from a light bulb compared to how much energy (wattage) we put in. The light bulb that produces the greatest number of lumens per one watt of energy is the most efficient bulb (sort of like the car that can travel the furthest distance on a single litre of gas is the most fuel efficient car).

## Candela

Candela is the measurement of light intensity emitted by a light source in a particular direction.

## Lumens

Lumens are the measurement of total light output from a light bulb, regardless of direction.

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## Common light bulb shapes

Letters designate the shape of the light bulb:



GY8.6

GY6.35

Candelabra Bayonet Single or Double Contact S.C.Bay D.C BAY

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Single Contact

RSC

## Light bulb sizes

Letters designate the shape of the bulb and numbers indicate the diameter of the bulb in eighths of an inch.

For example:



# Lighting Technology Overview

	LED	HUE	TLED	CFL
			PHILIPS Liter	
Energy Efficiency	• Best	• Best	• Best	• Better / Best
Life	Best     10,950 to 25,000 Hours	• Best • 15,000 to 25,000 Hours	<ul> <li>Best</li> <li>36,000 to 50,000</li> <li>Hours</li> </ul>	• Better / Best • 10,000 Hours
Energy Used	• Lowest	• Lowest	• Lowest	• Low
Light Properties	<ul> <li>80+ CRI</li> <li>30 to 1,600 Lumens</li> <li>Warm glow</li> <li>Soft white</li> <li>Bright white</li> <li>Daylight</li> </ul>	<ul> <li>80+ CRI</li> <li>120 to 1,600 Lumens</li> <li>Multicolour</li> <li>Tuneable white</li> </ul>	<ul> <li>80+ CRI</li> <li>1,050 to 1,200 Lumens</li> <li>Cool white</li> <li>Daylight</li> <li>Daylight deluxe</li> </ul>	<ul> <li>82 CRI</li> <li>250 to 3,300 Lumens</li> <li>Soft white</li> <li>Daylight</li> </ul>
Key Points	<ul> <li>Highest efficiency</li> <li>Lowest operating costs</li> <li>Longest life</li> <li>Dimmable</li> <li>Instant-on with quiet operation</li> <li>Exceptional light quality</li> </ul>	<ul> <li>Connected lighting</li> <li>Multi colour</li> <li>Tuneable white</li> <li>Personal wireless lighting</li> </ul>	Quick retrofit solution     InstantFit	<ul> <li>Warm to cool light</li> <li>Higher efficiency</li> <li>Lower operating costs</li> <li>Longer life than incandescents</li> </ul>
Common Bulb Shapes				

HALOGEN	INCANDESCENT	HID	LINEAR FLUORESCENT
	T T T		<b>\$</b>
• Good / Better	• Fair	• Fair	• Best
Better     1,000 to 4,000 Hours	• Good • 500 to 10,000 Hours	• 10,000 to 24,000 Hours	• 7,500 to 35,000 Hours
• Medium	• High	• High	• Low
<ul> <li>100 CRI</li> <li>140 to 9,500 Lumens</li> <li>Soft white</li> <li>Bright White</li> </ul>	<ul> <li>100 CRI</li> <li>14 to 5,000 Lumens</li> <li>Soft White</li> </ul>	• 6,500 to 140,000 Lumens	<ul> <li>62-92 CRI</li> <li>300 to 8,800 Lumens</li> <li>Soft white</li> <li>Cool white</li> <li>Natural Light</li> <li>Daylight</li> <li>Daylight Deluxe</li> </ul>
<ul> <li>Bright, white light</li> <li>High efficiency</li> <li>Low operating costs</li> <li>Longer life than incandescents</li> <li>Dimmable</li> <li>Available in a variety of shapes</li> </ul>	<ul> <li>Warm light</li> <li>Lowest efficiency</li> <li>Highest operating costs</li> <li>Dimmable</li> <li>Available in a variety of shapes and finishes</li> </ul>	<ul> <li>Lowest efficiency</li> <li>High operating costs</li> </ul>	<ul> <li>Energy saving</li> <li>Long life</li> <li>Linear fluorescents use ALTO and ALTO II technology</li> </ul>





# Light Bulb Applications



#### Household bulbs

Ideal for table and floor lamps. A-line bulbs are the most commonly found household bulbs and fit into most standard fixtures.



#### Globe bulbs

Ideal for ceiling fans, vanity strips and pendant lighting fixtures.

## Chandelier bulbs



Ideal for wall sconces, chandelier and decorative fixtures. These bulbs add decorative flair versus standard A-line light bulbs. Use a clear bulb for sparkle and coated bulb for less glare.



#### Indoor Flood (Reflectors)

Ideal for track lighting and recessed fixtures. These bulbs are ideal for accenting objects or for general room lighting. BR, R, and PAR types are interchangeable.



#### Night lights

Small long life light bulbs that are designed to fit inside night light fixtures.

### Capsules



Tiny light bulbs with pins used for under cabinet lighting, task lights and outdoor landscape lighting. Available in 12 volt & 120 volt versions. The base numbers represent pin spacing in millimeters. Match pin spacing and watts to specific fixture requirements.



## Garage door opener light bulbs

Use light bulbs specified for garage door openers, they are designed to withstand shock and vibration.



### Fan light bulbs

A fan light bulb is designed to fit comfortably inside the fixture and can withstand the vibration of ceiling fans.



#### Appliance light bulbs

Are designed to withstand the shock and vibration found in refrigerators and ovens and have high temperature basing cement to ensure long life in hot ovens. Many appliances use application specific bulbs.



#### Rough Service light bulbs

Are shock and vibration resistant and designed for long life for use in work lights. Some bulbs have a coating to prevent broken bulbs from shattering.





## Bug lights

Have a special yellow coating that minimizes attractiveness to flying insects.



## Recessed Downlights (Retrofit)

Retrofit LED Downlights enable the upgrade of existing recessed fixtures, converting a standard 4" - 6" recessed cans into an energy efficient LED flood - a fast and easy retrofit installation.

## Connected Lighting

Lighting or lighting equipment that has an element of intelligence or connectivity, using smart phones and web applications to control it.



# Sustainability

## Sustainability at Philips Lighting

Our lighting improves lives and creates sustainable value beyond illumination for our customers, our company and society. How are we working towards this goal? To begin with, we recognize that the world needs more light, more energyefficient light, and more digital light. That's why we're leading a global switch to LED and connected lighting that will bring economic, environmental and social benefits to both our customers and people around the globe.

## Shaping the lighting revolution

Energy-efficient lighting is a fast and cost-effective way to reduce emissions and combat climate change. More than 90% of a lighting product's environmental footprint is due to energy use. By switching to LED lighting, electricity consumption can be reduced by up to 80%. And intelligent, connected lighting systems offer additional energy savings by providing the right level of light, at the right time and place.

## **Climate Change**

Lighting accounts for 19% of global electricity production, so a global switch to the latest LED and connected lighting solutions would provide an average of 40% energy savings and, therefore, a significant reduction in CO<sub>2</sub> emissions. In addition, solar LEDs and a shift to renewables can further reduce global CO<sub>2</sub> emissions. In collaboration with customers, governments, civil society and academia, we're actively championing the accelerated adoption of energy-efficient lighting. In addition to significant energy savings, we believe LED lighting solutions will help create better environments for living, working and playing. Switching from standard Incandescent to Philips energy saving bulbs can help reduce electrical costs, save energy and create the perfect lighting for your customers' many household applications. Philips offers energy efficient lighting solutions. From table lamps and recessed lighting to decorative and accent lighting, Philips variety of energy efficient light bulbs can be used in most fixtures around the home. Many of these bulbs are EnergyStar® qualified. Energy Star® qualified bulbs use approximately 80 percent less energy than standard Incandescent bulbs and last up to 25 times longer. Go to www.energystar.gov for more information about Energy Star®.

# Can replacing one light bulb really make a difference?

Lighting uses 19% of worldwide energy consumption\*. But that figure can shrink dramatically because home owners have choices for energy efficient lighting... YOU can make an impact by the product offering you make available to them.



#### LEDs

Energy savings - save up to 85%\*\*

Life - lasts up to 22.8 years



#### EnergySaver CFLs

Energy savings - save up to 78%\*\*

Life - lasts up to 9 years



#### Halogen

Energy savings - save up to 28%\*\* Life - lasts up to 1000 hours

\* Environmental News network "Let there be light – for the next 35 years; the green gift that keeps on giving". Dec 4, 2007. (htt://www.enn.com/energy/article/26500/print).

# Product Guide

The following pages provide a detailed listing of all products currently offered by the Consumer channel of Philips Lighting Canada.

Please refer to the catalogue entry guide located on the next page for clear definitions of each of the labels used to describe Philips Lighting products.



LED Lighting



Compact Fluorescent Lighting



HID Lighting

9



Hue Personal Wireless Lighting



Halogen Lighting



98

Linear Fluorescent Lighting



54

InstantFit TLED Lamps



Incandescent Lighting



# Catalogue Entry Guide

## LED

## A19 <sup>12</sup> Household

				5	6	7 8	9	10	1	12
0	2	Part #	Description 3 (Actual Wattage) 4	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
PHILIPS (1) 60- Martine (1) Martine (1) Ma		455832	DEL 60 W (9,5 W)	A19	Culot Moy.	BD WG (2200 K - 2700 K)	800	25000	0	Energy STAR

#### 1 Product Image

Product / package reference image.

#### 2 Part #

Philips part number used to identify specific products.

#### 3 Description

Describes product technology, equivalent replacement wattage, number of bulbs in a pack.

#### 4 Actual Wattage

Describes actual wattage of bulb.

#### 5 Bulb Shape

Describes the shape of bulb.

#### 6 Bulb Base

Describes the end of the lamp that inserts into lamp socket.

#### 7 Colour

Describes name of colour temperatureand bulb finish:WG – Warm GlowDLX – Daylight DeluxeSW – Soft WhiteCLR – Clear (Finish)BW – Bright WhiteFRT – Frost (Finish)CW – Cool WhiteAMB – Amber (Finish)DL – DaylightTW - Tuneable WhiteNW - Neutral WhiteMC - Multi ColourNTL - Natural

#### 8 Temperature

Describes measured colour temperature in Kelvins.

#### 9 Lumens

The measurement of light output from a light bulb. More lumens equals more light.

#### 10 Hours

The length of operation (in hours).

#### 🕕 Dim

Indicates if the bulb is dimmable: Y – Dimmable N – Non-dimmable

#### 😰 E-Star

Logo indicates if product is Energy Star certified.

- 13 Technology Type
  - Technology Category:
  - LED Light Emitting Diode
  - HUE HUE Connected Lighting
  - TLED Tubular LED
  - CFL Compact Fluorescent Light
  - HAL Halogen
  - HID High Intensity Discharge Lamps
  - INC Incandescent Lamps
  - TL Linear Fluorescent (Tube Lights)
  - BAL Ballasts

#### 14 Category

Describes bulb category

Beam Degree (Not shown) Describes angle of beam for reflector type bulbs. Beam Degree > 35° – Flood Beam Degree < 35° – Spot / Projector

#### **Other Abbreviations**

HO High Output

Disclaimer: Please note that items and content information is subject to change without prior notification. Please contact your Philips Lighting Account Manager for up-to-date information.



# LED Lighting

Consumer Lighting Product Catalogue 2018





## What is LED?

LED simply means 'Light Emitting Diode', which is a chip that gives off light when electricity passes through it. It doesn't use much energy to do this, so it's very energy efficient.

#### The technology

LED chips are made from semiconductor materials a lot like those used in computer chips but made to glow rather than perform incredibly fast digital calculations. By grouping several individual LED chips in a grid, we produce a bright light that is energy efficient and long lasting. LEDs have no moving parts and do not create heat, all energy is used towards generating light.

LEDs are designed to be used in applications in place of conventional light sources, such as Incandescent, Halogen and Fluorescent technologies.

LED technology is changing rapidly. Please contact your Philips Lighting Account Manager for the most up-to-date product selection.

## Why choose LEDs?

The elegant design of Philips LED bulbs provides high quality white light and increases life when compared to less efficient Incandescent and Halogens. There are many benefits of switching to LED lighting.

The average Philips LED bulb lasts more than twenty times longer than a traditional (also called incandescent) light bulb. In fact, a Philips LED bulb has a lifespan of up to 25,000 hours, which means at three hours on time per day, it will be 22+ years before you need to change the bulb. They also consume approximately 80% less energy than traditional lamps, so you'll soon enjoy savings in your energy bill. And because Philips LED lamps perform better than many 'similar' LED lamps with the same wattage and colour temperature, you get brighter illumination for the same energy consumption.

#### Long lifetime

LED light sources last longer, sparing you the hassle of frequently changing light bulbs. This significantly reduces waste and saves money in the long term. For example, the lifetime of a LED light source is up to 25 times longer



than that of a traditional incandescent light source. An incandescent bulb has a lifetime of approximately 1,000 hours, while Philips LED bulbs can last up to 25,000 hours. That is the equivalent of 22.8 years!

= 25 x **9W LED bulb 60W Incandescent bulbs** Lifetime: 25,000 hours each

Lifetime 1,000 hours each

LED



# The more you dim, the warmer the light

## Philips WarmGlow LED lamps

Philips WarmGlow dimmable LED lamps, the more you dim the warmer the light. Create the perfect atmosphere from a cozy diffused light at 2200K to a whiter, more energized light at 2700K. As the light dims, it produces a relaxing ambience. In the past, this dimming effect was only available with halogen and incandescent lamps, now Philips offers it with LED lamps. PHILIPS

SERE:

ARE LE





#### When you dim a LED bulb with WarmGlow

- Brightness is reduced
- Colour of the light becomes warmer



#### When you dim a regular LED bulb

• Brightness is reduced

 $\cdot$  Colour of the light does not change

10% Dimmed

10% Dimmed

50% Dimmed

50% Dimmed

80% Dimmed

80% Dimmed

The light you **need** and the light you **want**, **in one bulb** 

## Philips SceneSwitch LED bulbs

Philips SceneSwitch LED range is a unique technology that can be used with standard light switches without the need for a dimmer or any additional installation. Simply flick your existing light switch on and off to select one of up to three settings to quickly and effectively transform the

ambiance of a room. Create different moods from the same fixture without any dimmer installation, purchase of additional fixtures, or complex bridges/ apps.

- One bulb, three light settings
- $\cdot$  No need for any additional installation or equipment.



#### Three SceneSwitch bulb options to choose from:

#### Three Colour change settings

ON

Change from functional soft white light, to an energizing daylight to a relaxing warm glow.



### Three Soft white settings

Change from functional soft white light to a warm natural light to a relaxing warm glow.





Remembers the last setting of your bulb

> Full brightness 800 Lumens (5000K)

Medium 320 Lumens (5000K)

3



**Three Daylight settings** 

Change from full brightness, natural

brightness simulating horizon daylight.

daylight to mid-day light, to a low

Daylight

LED

# The right light is **designed to be seen**

## Philips LED Filament bulbs

## Vintage Filament

LED

Philips LED Vintage Filament bulbs recreate the ambiance and familiar look of vintage incandescent bulbs. The classic shapes have a timeless, decorative appeal. Use in a clear shade or exposed socket to enjoy its shape and ambient glow - Philips Vintage Filament bulbs complement your nostalgically styled and antique lamps. UL-Wet rated for indoor and outdoor use.\*

## **Classic Filament**

Featuring a classic heritage design, Philips LED Filament lamps are made from glass and look great switched on or off. Philips LED Filament bulbs look

beautiful in an outdoor string light display and in an indoor light fixture with an industrial look. UL-Wet rated for indoor and outdoor use.\*





\*Check packaging for additional details. BA11 Chandelier bulbs are not wet rated.

## LED Bulb Shapes & Base Types

(Diagrams not to scale)



Medium Candelabra

E12

E26

PHILIPS

PHIL

PHILIP

PHILIPS

6

6

60.

PHILIPS

PHILIPS

PHILIP

## A19 Household



## A19 Household

	Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
PHILIPS (1) 60. File File File File File File File File	461236	LED 60W (9.5W)	A19	Med. Base	SW (2700K)	800	25000	Y	
PHILIPS (D)	462234	LED 60W (9W)	A19	Med. Base	BW (3000K)	800	25000	Y	Energy STAR
	461368	LED 60W (9W)	A19	Med. Base	DL (5000K)	800	25000	Y	Energy STAR
PHILIPS	462226	LED 60W 3Pk (9.5W)	A19	Med. Base	SW (2700K)	800	25000	Y	
PHILIPS	462242	LED 60W 3Pk (9W)	A19	Med. Base	BW (3000K)	800	25000	Y	energy STAR
PHILIPS	462259	LED 60W 3Pk (9W)	A19	Med. Base	DL (5000K)	800	25000	Y	Energy STAR
PHILIPS	461251	LED 60W 6Pk (9.5W)	A19	Med. Base	SW (2700K)	800	25000	Y	
PHILIPS (D)	471664	LED 60W Glass 2Pk (7W)	A19	Med. Base	SW (2700K)	800	15000	Ν	energy ENERGY STAR
	471672	LED 60W Glass 2Pk (7W)	A19	Med. Base	DL (5000K)	800	15000	N	Energy STAR

## A19 Household

	Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
FILAMENT	466227	LED 60W Filament (4.5W)	A19	Med. Base	WG CLR (2200K)	350	15000	Y	
FILAMENT	470492	LED 60W Filament (4.5W)	A19	Med. Base	DL CLR (5000K)	300	15000	Y	
FILAMENT	469742	LED 60W Glass Filament 2Pk (8.5W)	A19	Med. Base	SW WG CLR (2200K - 2700K)	800	15000	Y	
FILAMENT	532977	LED 40W Glass Filament (5.5W)	A19	Med. Base	SW WG CLR (2200K - 2700K)	450	25000	Y	Energy STAR
	459313	LED 60W 2Pk (9.5W)	A19	Med. Base	SW WG (2200K - 2700K)	800	25000	Y	

## A21 Household

Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
459081	LED 75W (14W)	A21	Med. Base	SW WG (2200K - 2700K)	1100	25000	Y	energy Star
472472	LED 100W (16W)	A21	Med. Base	SW WG (2200K - 2700K)	1600	25000	Y	Energy STAR
472498	LED 100W (16W)	A21	Med. Base	DL (5000K)	1600	25000	Y	energy STAR
459172	LED 40/60/100W 3Way (5/8/18W)	A21	Med. Base	SW (2700K)	450 / 800 / 1600	25000	N	energy Star
465161	LED 50/100/150W 3Way (8/16/22W)	A21	Med. Base	SW (2700K)	620 / 1600 / 2200	25000	N	

## LED

# Specialty



	Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
FILAMENT PHILIPS C	470575	LED 40W Filament Fan (3W)	A15	Med. Base	WG CLR (2200K)	200	15000	Y	
PHILIPS         00           40.         10           100         10	463975	LED 40W Fan (5.5W)	A15	Cand. Base	SW WG CLR (2200K - 2700K)	450	25000	Y	Energy STAR
PHILIPS (0) 40. (1) 40. (1) 40	462473	LED 40W Fan (7.5W)	A15	Med. Base	SW WG CLR (2200K - 2700K)	450	25000	Y	ENERGY STAR
	466573	LED 60W Dusk to Dawn (8W)	A19	Med. Base	SW (2700K)	800	25000	Ν	
	475921	LED 60W (9.5W)	A19	GU24	BW (3000K)	800	25000	Y	Energy ENERGY STAR











## SceneSwitch Household Specialty

Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
464875	LED 60W SceneSwitch Colour (9.5W)	A19	Med. Base	WG SW DL (2200K - 5000K)	80-800	15000	Ν	Energy STAR
464891	LED 60W SceneSwitch (9W)	A19	Med. Base	SW WG (2200K - 2700K)	80-800	15000	Ν	Energy ENERGY STAR
464917	LED 60W SceneSwitch (9W)	A19	Med. Base	DL (5000K)	80-800	15000	Ν	Energy STAR
473850	LED 100W SceneSwitch (17W)	A21	Med. Base	WG SW DL (2200K - 5000K)	0-160	15000	Ν	Energy STAR
473678	LED 65W SceneSwitch Colour (8/7/3W)	BR30	Med. Base	WG SW DL (2200K - 5000K)	650-650- 65	25000	N	energy ENERGY STAR

## Filament – Vintage Household Specialty

Description

Part #







Bulb

Colour (Temp.)

Lumens

Hours

Dim.

E-Star

Bulb

## LED

J

J

Y

T

## Coloured **Household Specialty**



## **ST19 Household Specialty**

		Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
FILAMENT	PHILIPS CO	470476	LED 40W Filament (5W)	ST19	Med. Base	WG CLR (2200K)	350	15000	Y	
FILAMENT	PHILPS C	470500	LED 40W Filament (5W)	ST19	Med. Base	DL CLR (5000K)	350	15000	Y	

## Globe Household Specialty



## Chandelier



Decorative

		Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
-		461897	LED 40W 3Pk (4.5W)	B11	Cand. Base	SW (2700K)	300	15000	Y	Energy STAR
		461953	LED 40W 3Pk (4.5W)	B11	Med. Base	SW (2700K)	300	15000	У	Energy ENERGY STAR
		463919	LED 40W 3Pk (4.5W)	B11	Cand. Base	DL (5000K)	300	15000	Y	Energy STAR
		463935	LED 40W 3Pk (4.5W)	B11	Med. Base	DL (5000K)	300	15000	Y	Energy STAR
FILAMENT		469692	LED 25W Glass Filament 3Pk (2.5W)	B11	Cand. Base	SW (2700K)	180	15000	Y	energy STAR
FILAMENT		469700	LED 40W Glass Filament 3Pk (4W)	B11	Cand. Base	SW (2700K)	300	15000	Y	Energy STAR
FILAMENT		469726	LED 40W Glass Filament 3Pk (4W)	B11	Med. Base	SW (2700K)	300	15000	Y	Energy STAR
FILAMENT	PHILIPS (C) 40. (I) (I) (I) (I) (I) (I) (I) (I) (I) (I)	470567	LED 40W Filament (4.5W)	BA11	Cand. Base	SW (2200K)	300	15000	Y	
FILAMENT		470583	LED 40W Filament (4.5W)	BA11	Med. Base	DL CLR (5000K)	300	15000	Y	

## Chandelier

Decorative



500

500

25000

25000

Υ

Y

NERGY S























461822

458646

LED 60W 2Pk (6W)

LED 60W Post Light

(7W)

B12

F15

Base

Med. Base

(5000K)

SW WG

(2200K -

2700K)

## Capsule, Quartz & Speciality



	Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
	465575	LED 7W Night Light 2Pk (0.5W)	С7	Cand. Base	SW (2700K)	30	15000	N	
PHILIPS (C) 25. (C) Water (C) Market (C	465138	LED 25W (3W)	G9	G9	BW (3000K)	250	15000	N	
	458505	LED 10W (1.2W)	Т3	G4	ВW (3000К)	105	15000	N	
PHILIPS	458521	LED 20W (2W)	Т3	G4	BW (3000K)	195	15000	N	
	463463	LED 7W 2Pk (1.2W)	Τ5	Wedge	BW (3000K)	120	15000	N	
	463471	LED 18W 2Pk (2W)	Τ5	Wedge	BW (3000K)	200	15000	N	
	471946	LED 60W (7.5W)	Т3	RSC	BW (3000K)	800	15000	N	
PHILIPS	471952	LED 100W (14W)	Т3	RSC	BW (3000K)	1500	15000	N	
PHILIPS C	471391	LED 20W Glass Filament (2W)	Τ6	Cand. Base	SW CLR (2700K)	130	15000	N	
	471375	LED 40W Glass Filament (4W)	T10	Med. Base	SW CLR (2700K)	330	15000	N	

## GU10 Indoor Flood

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HH Item # Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Beam Degree	Lumens	Hours	Dim.	E-Star
471573	LED 50W Glass (4.5W)	GU10	GU10	SW WG (2200K - 2700K)	35°	380	25000	Y	energy STAR
474544	LED 50W Glass 3Pk (4.5W)	GU10	GU10	SW WG (2200K - 2700K)	35°	380	25000	Y	Energy STAR
468116	LED 50W Glass (4.5W)	GU10	GU10	BW (3000K)	35°	400	25000	Y	ENERGY STAR
468124	LED 50W Glass 3Pk (4.5W)	GU10	GU10	BW (3000K)	35°	400	25000	Y	ENERGY STAR
468132	LED 50W Glass 6Pk (4.5W)	GU10	GU10	BW (3000K)	35°	400	25000	Y	energy STAR
468157	LED 50W Glass (4.5W)	GU10	GU10	DL (5000K)	35°	400	25000	Y	ENERGY STAR
468165	LED 50W Glass 3Pk (4.5W)	GU10	GU10	DL (5000K)	35°	400	25000	Y	ENERGY STAR

## MR











HH Item # Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Beam Degree	Lumens	Hours	Dim.	E-Star
458547	LED 20W (3.5W)	MR11	GU4	BW (3000K)	24°	215	25000	N	
470302	LED 20W (3W)	MR11	GU4	BW (3000K)	35°	220	15000	N	
458877	LED 35W (6.5W)	MR16	GU5.3	SW WG (2200K - 2700K)	35°	410	25000	Y	
470328	LED 20W Glass (3W)	MR11	GU4	BW (3000K)	35°	250	15000	N	
470260	LED 35W Glass (5.5W)	MR16	GU5.3	BW (3000K)	35°	380	15000	Y	
470286	LED 50W Glass (7.5W)	MR16	GU5.3	BW (3000k)	35°	620	15000	Y	
## R & BR Indoor Flood



	HH Item # Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Beam Degree	Lumens	Hours	Dim.	E-Star
Construction of the second sec	474569	LED 65W (11W)	BR30	Med. Base	SW (2700K)	110°	650	10950	Y	
PHILIPS © 65. C L L	474130	LED 65W 2Pk (11W)	BR30	Med. Base	SW (2700K)	110°	650	10950	Y	
	474239	LED 65W 4Pk (11W)	BR30	Med. Base	SW (2700K)	110°	650	10950	Y	
PHILIPS Company Com	473900	LED 65W (11W)	BR30	Med. Base	DL (5000K)	110°	650	10950	Y	
	474155	LED 65W 2Pk (11W)	BR30	Med. Base	DL (5000K)	110°	650	10950	Ν	
	456987	LED 45W (6W)	R20	Med. Base	SW WG (2200K - 2700K)	110°	450	25000	Y	ENERGY STAR
C C C C C C C C C C C C C C C C C C C	457051	LED 65W (9W)	BR30	Med. Base	SW WG (2200K - 2700K)	110°	650	25000	Y	ENERGY STAR
PHILIPS (D)	457093	LED 65W (8W)	BR30	Med. Base	DL (5000K)	110°	650	25000	Y	Energy STAR
DHILIPS	457028	LED 65W (9W)	BR40	Med. Base	SW WG (2200K - 2700K)	110°	650	25000	Y	ENERGY STAR











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HH Item # Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Beam Degree	Lumens	Hours	Dim.	E-Star
469980	LED 50W Glass (6W)	PAR16	Med. Base	SW (2700K)	40°	400	15000	Y	
470013	LED 50W Glass 3Pk (6W)	PAR16	Med. Base	SW (2700K)	40°	400	15000	Y	
469998	LED 50W Glass (6W)	PAR16	Med. Base	BW (3000K)	40°	400	15000	Y	
470021	LED 50W Glass 3Pk (6W)	PAR16	Med. Base	BW (3000K)	40°	400	15000	Y	
470005	LED 50W Glass (6W)	PAR16	Med. Base	DL (5000K)	40°	400	15000	Y	
470039	LED 50W Glass 3Pk (6W)	PAR16	Med. Base	DL (5000K)	40°	400	15000	Y	

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	HH Item # Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Beam Degree	Lumens	Hours	Dim.	E-Star
	471250	LED 50W Glass (6W)	PAR20	Med. Base	SW WG (2200K - 2700K)	40°	500	25000	Y	Energy STAR
PHILIP	471219	LED 50W Glass 3Pk (6W)	PAR20	Med. Base	SW WG (2200K - 2700K)	40°	500	25000	Y	Energy STAR
PHILIPS	471185	LED 50W Glass (6W)	PAR20	Med. Base	BW (3000K)	40°	500	25000	Y	Energy STAR
PHILIP A STATE	471227	LED 50W Glass 3Pk (6W)	PAR20	Med. Base	BW (3000K)	40°	500	25000	Y	Energy STAR
	471722	LED 50W Glass 6Pk (6W)	PAR20	Med. Base	BW (3000K)	40°	500	25000	Y	energy STAR
	471193	LED 50W Glass (6W)	PAR20	Med. Base	DL (5000K)	40°	500	25000	Y	energy STAR
PHILIP	471235	LED 50W Glass 3Pk (6W)	PAR20	Med. Base	DL (5000K)	40°	500	25000	Y	Energy STAR





HH Item #

Part #

Description (LED Wattage)

Bulb

Shape



Dim. E-Star









473744	LED 90W Glass (13.5W)	PAR38	Med. Base	Red	10950	Ν
473728	LED 90W Glass (13.5W)	PAR38	Med. Base	Yellow	10950	N
473736	LED 90W Glass (13.5W)	PAR38	Med. Base	Green	10950	Ν
473751	LED 90W Glass (13.5W)	PAR38	Med. Base	Blue	10950	N

Bulb

Base

Beam Degree

Lumens

Hours

Colour

(Temp.)

Section Constraints

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## PLC/T



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Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
472852	LED 26W Horizontal (8.5W)	PLC/T	4Pin	CW (4000K)	950	50000	Ν	
472860	LED 26W Vertical (10.5W)	PLC/T	4Pin	СW (4000К)	1300	50000	N	

## LED Fixtures Downlight Retrofit





## Hue Personal Wireless Lighting

Consumer Lighting Product Catalogue 2018





## **Smart lighting** your way

## Hue

Philips Hue is your personal wireless lighting system, designed for real life and all its potential. It combines brilliant and energy-efficient LED light with intuitive technology. Together, the light, the bridge and the smart controls will forever change the way you control and experience light. Philips Hue is stunning, smart and tailored for you.

#### Control your Smart lights Comfort and security

Philips Hue welcomes you home and lets you control your lights from your bedroom to your backyard. You can automate your lights completely to make it seem like you're home when you're not. With geofencing technology, your lights can even welcome you home or switch off automatically when you leave your home. Customize your daily routines Ambiance

Philips Hue can wake you up and help you energize, read, concentrate and relax. Customize your daily routines into moments you can enjoy. Change the ambiance. Feel the difference. Set the right ambiance for any moment with a range of beautiful, natural white light. Use the app to set any shade of white light, from cool energizing daylight to relaxing warm white light. Create extraordinary experiences Limitless possibilities

Turn your everyday lighting into an extraordinary experience. Play with colours or sync lights with your music, TV and games for an immersive effect. The possibilities are endless once you start exploring. And with hundreds of apps to choose from, the only real limit is your imagination.



















A new light

for gaming



Control your lights from anywhere

Set light schedules for easy home automation

Simple to dim

Wake up gently to your personal sunrise

Warm white to cool bright daylight

Energize, concentrate, read and relax with light

Play with light and choose from 16 million colours

Sync your Philips Hue lights with films and music

### Why Philips Hue?

- · It is an integrated lighting system... not a single standalone product
- · Simple to set-up, control and expand
- Reliable and secure
- In home and out of home wireless control & geofencing
- Programmable light schedules, timers and routines
- Rich tunable white and colour experience with scenes and a great user interface

#### **Controls & Accessories**

Personalize your Philips Hue system with multiple intuitive apps, switches and other accessories to control your lights.

- Add up to 50 Philips Hue Lights
- Connect up to 12 accessories

#### Control your lights your way

Works with

Remotely, through the Philips Hue app, accessories, voice commands, and other enabled devices.

works with the Apple HomeKit **Google** Assistant





- Fast and responsive to switches and sensors
- Future proof by over the air updates
- Over 450 apps dedicated to Hue for smartphone and web use
- Freedom to choose how to interact with your lights:
  - Hue app, 3rd party apps, switches, sensors, remotes, IFTTT, thermostats, wearables
- Reliable, even if the internet connection is down

#### Easy to install

#### Turn on your lighting

Install all lamps and turn on the light switches

#### Make connection

Put the Hue bridge power on and connect it with the Wi-Fi router

#### Download the Hue app

Follow the instructions to install Hue

#### Expand

Add more lights and accessories to complete your Hue experience



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## Hue White Light for Peace of Mind

	Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
	458983	Hue White Starter Kit: 2 Bulbs + Bridge (9W)	A19	Med. Base	SW (2700K)	800	25000	Y	Energy STAR
EVENCES TUE TUE TUE TUE TUE TUE TUE TUE	472019	Hue White Starter Kit: 4 Bulbs + Bridge (9W)	A19	Med. Base	SW (2700K)	800	25000	Y	
	453118	Hue White 4Pk (9.5W)	A19	Med. Base	SW (2700K)	806	25000	Y	
	459222	Hue White (9W)	A19	Med. Base	SW (2700K)	800	25000	Y	energy J
	458991	Hue Wireless Dimming Kit: Bulb + Switch (9W)	A19	Med. Base	SW (2700K)	800	25000	Y	energy ENERGY STAR

## Hue White Ambiance



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## Hue White Ambiance **Light for your Moments**

Hue Being Ceiling























Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
466508	Hue White Ambiance BR30 2Pk (8.5W)	BR30	Med. Base	TW (2200K - 6500K)	680	25000	Y	Energy STAR
468926	Hue White Amiance Chandelier (6W)	B12	Cand. Base	TW (2200K - 6500K)	470	25000	Y	
466490	Hue White Ambiance GU10 2Pk (5.5W)	GU10	GU10	TW (2200K - 6500K)	300	25000	Y	
4100730U7	Hue Wellness Table Lamp Black (10W)	_	Plug-In	TW (2200K - 6500K)	800	25000	Y	
4100531U7	Hue Wellner Table Lamp White (10W)	_	Plug-In	TW (2200K - 6500K)	800	35000	Y	

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4100448U7	Lamp Aluminium (32W)	_	Hardwired	(2200K - 6500K)	2400	25000
4100348U7	Hue Fair Pendant Aluminium (39W)	-	Hardwired	TW (2200K - 6500K)	3000	25000
4100248U7	Hue Fair Ceiling Lamp Aluminium Flush (39W)	_	Hardwired	TW (2200K - 6500K)	3000	25000
4100148U7	Hue Fair Ceiling Lamp Aluminium SemiFlush (39W)	_	Hardwired	TW (2200K - 6500K)	3000	25000

ΤW Hue Phoenix Table 799981 Plug-In (2200K -506-905 20000 Υ Lamp (9W) 6500K) Hue Phoenix Wall ΤW 799999 (2200K -506-905 20000 Υ and Ceiling Light Hardwired (9W) 6500K)

## Hue White Ambiance





Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
800086	Hue Phoenix Ceiling Light (9W)	_	Hardwired	TW (2200K - 6500K)	5	20000	Y	
800094	Hue Phoenix Pendant Light (9W)	_	Hardwired	TW (2200K - 6500K)	0	20000	Y	

## Hue White and Colour Ambiance



	Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
	471978	Hue White & Colour Ambiance Starter Kit - Richer Colours: 4 Bulbs + Bridge (10W)	A19	Med. Base	MC TW (16M+ Colours, 2200K - 6500K)	800	25000	Y	
	464487	Hue White & Colour Ambiance - Richer Colours (10W)	A19	Med. Base	MC TW (16M+ Colours, 2200K - 6500K)	800	25000	Y	Energy STAR
	468942	Hue White & Colour Ambiance BR30 - Richer Colours (9W)	BR30	Med. Base	MC TW (16M+ Colours, 2200K - 6500K)	650	25000	Y	
	468900	Hue White & Colour Ambiance Chandelier (6W)	B12	Cand. Base	MC TW (16M+ Colours, 2200K - 6500K)	470	25000	Y	
FILLOS Filler Transition Transiti	456681	Hue White & Colour Ambiance GU10 (6.5W)	GU10	GU10	MC TW (16M+ Colours, 2200K - 6500K)	300	25000	Y	
	456673	Hue White & Colour Ambiance PAR16 (6.5W)	PAR16	Med. Base	MC TW (16M+ Colours, 2200K - 6500K)	300	25000	Y	

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#### Colour Ambiance Light for your Imagination

Hue White and

Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
798835	Hue Go (8W)	_	ACPlug	MC TW (16M+ Colours, 2200K - 6500K)	300	Plug & Play	Y	
797977	Hue Bloom (8W)	_	ACPlug	MC (16M+ Colours)	120	Plug & Play	Y	
800540	Hue LightStrip Plus (20.5W)	_	ACPlug	MC TW (16M+ Colours, 2200K - 6500K)	1600	15000	Y	
800268	Hue LightStrip Plus Extension 1m (11W)	_	ACPlug	MC TW (16M+ Colours, 2200K - 6500K)	1600	15000	Y	
789090	Hue Beyond Pendant Lamp (4.5W)	_	Hardwired	MC TW (16M+ Colours, 2200K - 6500K)	720-1200	15000	Y	
798108	Hue Beyond Ceiling Lamp (4.5W)	_	Hardwired	MC TW (16M+ Colours, 2200K - 6500K)	720-1200	15000	Y	
798082	Hue Beyond Table Lamp (2 x 4.5W)	_	Plug-In	MC TW (16M+ Colours, 2200K - 6500K)	360-600	15000	Y	





## Hue Accessories

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Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
458141	Hue Wireless Dimmer Switch	_	BatteryOp	N/A (N/A)	N/A	N/A	N/A	
456699	Hue Tap	_	N/A	N/A (N/A)	N/A	N/A	N/A	
464602	Hue Motion Sensor	_	N/A	N/A (N/A)	N/A	N/A	N/A	
458471	Hue Bridge	_	N/A	N/A (N/A)	N/A	N/A	N/A	



## InstantFit TLED

Consumer Lighting Product Catalogue 2018





energy savings

## Philips InstantFit TLED Lamps

Upgrading to energy-saving lighting just got a whole lot easier. Philips InstantFit TLED tubes fit seamlessly into your existing fluorescent fixtures – so you can switch to energyefficient illumination just by swapping tubes. These groundbreaking linear lights come in a range of sizes and they utilize your existing ballasts so no re-wiring is needed.

Philips InstantFit tubes are compatible with 80% of fluorescent

### Why Philips InstantFit TLED?

- Widest compatibility in the market with 184 compatible ballasts (2x more than the closest competitor)– less hassle for customers and fewer returns
- Plug and play
  - InstantFit tubes are installed in seconds
  - Fits into existing linear fixtures
  - No re-wiring or new ballasts needed in compatible fixtures
- Creates perfectly uniform light levels
- Instant on no flicker or buzz

ballasts in use today. What's more, they provide energy savings of up to 40% compared to fluorescent T8 systems.

Philips InstantFit LED tubes are an ideal energy saving choice for existing linear fluorescent fixtures. Perfect for a wide range of applications – full light output in spaces with temperatures down to -20°C. Perfect for applications with frequent "on/off" switching cycles.

- Energy savings > 40%
- T8 TLED bulbs compatible with electronic Instant Start ballasts
  - eliminating the need for rewiring and allows fixture to maintain original UL and CSA compliance
- T12 replacement T8 Shape TLED bulbs
  - Compatible with T12 fluorescent rapid start magnetic ballasts
- Long life

PHILIPS

- T8's lifetime 50,000 hours
- T12's lifetime 36,000 hours

T8's replace standard 32w 4ft T8 linear fluorescent bulbs. Also available in 2ft and 3ft TLED options. T12's replacement - T8 Shape replaces standard 34/40W 4ft T12 linear fluorescent bulbs. Compatible with T12 fluorescent rapid start magnetic ballasts

## TLED InstantFit

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Retrofit LED Lamps

	HH Item # Part #	Description (LED Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
PHILIPS	469445	TLED 17W T8 InstantFit 24" (17W)	T8 24"	Med. Bipin	CW (4000K)	1150	50000	N	
PHILIPS	469478	TLED 25W T8 InstantFit 36" (25W)	T8 36″	Med. Bipin	CW (4000K)	1200	50000	N	
	472936	TLED 32W T8 InstantFit 48" (32W)	T8 48″	Med. Bipin	CW (4000K)	2100	36000	N	
Y PHILIPS IDade	472968	TLED 32W T8 InstantFit 48″ 2Pk (32W)	T8 48″	Med. Bipin	CW (4000K)	2100	36000	N	
PHILIPS	472944	TLED 32W T8 InstantFit 48" (32W)	T8 48″	Med. Bipin	DL (5000K)	2100	36000	N	
PHILIPS	472976	TLED 32W T8 InstantFit 48" 2Pk (32W)	T8 48″	Med. Bipin	DL (5000K)	2100	36000	N	
PHILIPS	466664	TLED 34W/40W T12 InstantFit 48" (34W/40W)	T12 48"	Med. Bipin	CW (4000K)	1200	36000	N	
PHILIPS	466672	TLED 34W/40W T12 InstantFit 48" (34W/40W)	T12 48"	Med. Bipin	DLX (6500K)	1200	36000	N	
	470625	TLED 32W Ubent InstantFit 24" (32W)	Ubent 24"	Med. Bipin	CW (4000K)	2100	50000	N	



## CFL Lighting

Consumer Lighting Product Catalogue 2018





## Compact Fluorescent Lighting

Compact fluorescent light bulbs last longer and use less electricity than conventional incandescent light bulbs. They are a great choice if you looking for an easy way to save energy and reduce your lighting bills.

Philips Compact Fluorescent Light (CFL) bulbs provide high performance, energy saving and long lasting light. CFLs combine the energy efficiency of fluorescent lighting with the convenience and light quality of incandescent bulbs.

### How Philips CFL bulbs work

CFL - Compact fluorescent lamps use fluorescent technology. When power is turned on, an electric current is created inside the tube and runs between two electrodes. This current causes the encapsulated mercury to vaporize. The mercury vapour gets "excited" causing the electrons to hit the edge of the tube; in turn lighting the phosphors. This is what makes the tube glow.

Fluorescent bulbs require a special power supply called a ballast that is needed to regulate bulb operating current and provide a compatible start-up voltage. The ballast is built in on CFL bulbs with screw and GU24 bases.

Philips EnergySaver compact fluorescent lamps provide similar light output to standard comparable incandescent bulbs.

Philips compact fluorescent light bulbs fit in most fixtures designed for incandescent bulbs and use approximately 75% less energy.

For use in table lamps and decorative fixtures, compact fluorescents are available in the familiar twister shape you are accustomed to in soft white and daylight colour temperatures.

CFLs are a direct replacement for incandescent bulbs, delivering an incandescent-like light and fitting into traditional light fixtures

#### **Benefits**

- Direct replacement for incandescenct bulbs
- Long life lasts up to 10 times longer than standard incandescenct bulbs
- Saves energy uses up to 75% less energy than standard incandescenct bulbs

The compact spiral shape is perfect for functional lighting, typically in common light fixtures or shaded lamps where the bulb is less visible.

#### CFLi Bulb Shapes & Base Types

(Diagrams not to scale)



## CFLni

Philips Compact Fluorescent Light non-integrated ballast (CFLni) bulbs offer the versatility in application possibilities. Philips CFLni light bulbs are designed for use with either magnetic or electronic ballasts for lower operating costs and flicker-free starting.

#### Product range: PL-C, PL-S, PL-L

• Ideal for general lighting in downlights and wall washers and decorative lighting in wall sconces

#### Benefits

Philips CFLni lamps offer designers, specifiers and end-users new levels of efficiencies and versatility in sizes, configurations and application possibilities. Philips CFLni lamps offer significant energy savings in a compact size, perfect for downlights and recessed cans.

### CFLni Bulb Shapes & Base Types

(Diagrams not to scale)

PL-S

PL-C



PL-L

## Household - Twister



	Part #	Description (CFL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
PHILIPS	415877	CFL 40W 2Pk (9W)	Twister	Med. Base	SW (2700K)	550	10000	N	
PHILIPS	415893	CFL 40W 2Pk (9W)	Twister	Med. Base	DL (6500K)	520	10000	N	
	415901	CFL 60W 2Pk (13W)	Twister	Med. Base	SW (2700K)	840	10000	N	
	415927	CFL 60W 2Pk (13W)	Twister	Med. Base	DL (6500K)	860	10000	N	
PHILIPS	431122	CFL 60W 6Pk (13W)	Twister	Med. Base	SW (2700K)	900	10000	N	
	431148	CFL 60W 6Pk (13W)	Twister	Med. Base	DL (6500K)	860	10000	N	
	415967	CFL 100W 2Pk (23W)	Twister	Med. Base	SW (2700K)	1600	10000	N	
	415983	CFL 100W 2Pk (23W)	Twister	Med. Base	DL (6500K)	1600	10000	N	
DHILIPS	415991	CFL 100W 4Pk (23W)	Twister	Med. Base	SW (2700K)	1600	10000	N	
	416016	CFL 100W 4Pk (23W)	Twister	Med. Base	DL (6500K)	1600	10000	N	

## CFLni PL-L

Part #	Description (CFL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
Special Order300426	CFLni 40W (40W)	PL-L	2G11	ВW (3000К)	3300	20000	N	
Special Order300434	CFLni 40W (40W)	PL-L	2G11	NW (3500K)	3300	24000	N	
Special Order300442	CFLni 40W (40W)	PL-L	2G11	CW (4100K)	3300	24000	N	

## CFLni PL-S

Part #	Description (CFL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
146712	CFLni 5W (5W)	PL-S	G23	SW (2700K)	250	10000	Ν	
148676	CFLni 9W (9W)	PL-S	G23	SW (2700K)	600	10000	N	
148718	CFLni 7W (7W)	PL-S	G23	SW (2700K)	400	10000	N	
146811	CFLni 13W (13W)	PL-S	GX23	SW (2700K)	825	10000	N	
146852	CFLni 13W (13W)	PL-S	GX23	CW (4100K)	825	10000	N	

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## CFLni PL-C



Part #	Description (CFL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
383109	CFLni 13W (13W)	PL-C	GX23-2	SW (2700K)	860	10000	Ν	
383141	CFLni 13W (13W)	PL-C	G24d-1	SW (2700K)	900	10000	N	
383240	CFLni 26W (26W)	PL-C	G24D-3	CW (4100K)	1800	10000	N	
383257	CFLni 13W (13W)	PL-C	G24q-1	SW (2700K)	900	12000	N	
383281	CFLni 13W (13W)	PL-C	G24q-1	CW (4100K)	900	12000	N	
383323	CFLni 18W (18W)	PL-C	G24Q-2	NW (3500K)	1250	12000	N	
383356	CFLni 26W (26W)	PL-C	G24q-3	ВW (3000К)	1800	12000	N	
383364	CFLni 26W (26W)	PL-C	G24q-3	NW (3500K)	1800	12000	N	


Philips Consumer Lighting Guide - 2018-04



# Halogen Lighting

Consumer Lighting Product Catalogue 2018



## Create the right atmosphere

## Halogen Lighting

ΗΔΙ

Halogen light bulbs stand out for their brilliant light. They create rich contrasts and can light spaces with a clean, bright ambiance.

### How our halogen bulbs work

Our Halogen bulbs share the same shape as traditional incandescent bulbs, but are brighter and more durable. Halogen bulbs are an advanced form of the well-known incandescent bulb. It has a tungsten filament just like a regular incandescent that you may use in your home, however the bulb is filled with halogen gas, usually bromine or iodine. Halogen light bulbs last two to five times longer than traditional incandescent bulbs. This is due to the halogen regenerative cycle process. The halogen gas helps the evaporated tungsten particles to deposit back on the filament instead of the lamp wall. This postpones the breakage of the filament and allows the lamp to extend its life. The halogen bulb uses stronger glass than standard incandescent bulbs in order to contain the high pressure. The halogen bulb has a compact size and high lumen output.

A halogen light source provides a crisp white light with outstanding colour rendering which makes this bulb ideal for many applications. They give clear, crisp light that sparkles and are fully dimmable. From the familiar A19 shape bulbs, to reflector lamps and special fittings, halogen light bulbs are available in a large variety of shapes and sizes and are designed to suit a wide range of fixtures and applications. And, they are up to 30% more efficient than standard incandescent bulbs.

#### Experience more brightness

- Superior quality of light with excellent colour rendering
- Fully dimmable (0 to 100 %) for all brightness levels
- Instant light, no warm up time
- Compact size, easy to fit
- Longer lifetime than conventional incandescent bulbs

## HAL Bulb Shapes & Base Types

(Diagrams not to scale)





PHILIPS

PHILIPS

HILIPS

## A19 Household



## Chandelier

Decorative

Part #	Description (HAL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
424291	HAL 40W 2Pk (25W)	B11	Cand. Base	CLR (2850K)	300	3000	Y	
425900	HAL 40W 2Pk (25W)	B11	Med. Base	CLR (2850K)	300	3000	Y	
424309	HAL 60W 2Pk (40W)	B11	Cand. Base	CLR (2850K)	540	3000	Y	
425918	HAL 60W 2Pk (40W)	B11	Med. Base	CLR (2850K)	540	3000	Y	

## Globe Decorative

	Part #	Description (HAL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
PHILIPS	432229	HAL 40W 2Pk (25W)	G16.5	Cand. Base	CLR (2850K)	245	2500	Y	
PHILIPS	432237	HAL 40W 2Pk (25W)	G16.5	Cand. Base	SW (2850K)	270	2500	Y	
	435222	HAL 60W 3Pk (40W)	G25	Med. Base	CLR (2850K)	550	2200	Y	
	435230	HAL 60W 3Pk (40W)	G25	Med. Base	SW (2850K)	500	2200	Y	

## Capsule

#### 

	Part #	Description (HAL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
	406108	HAL 40W (40W)	T4	G9	CLR (2850K)	490	3000	Y	
PHILIPS 40- cyrul and	456384	HAL 60W (60W)	T4	G9	CLR (2850K)	700	2000	Y	
PHILIPS 25- Symbol D	456392	HAL 25W (25W)	T4	G9	CLR (2850K)	250	2000	Y	
Allogen	513457	HAL 12V (20W)	Т3	G4	CLR (2850K)	250	2000	Y	
Hologen Mologen	513465	HAL 12V (50W)	Т3	G4	CLR (2700K)	700	2000	Y	
Malogran	127431	HAL 12V (10W)	Т3	G4	CLR (2850K)	140	2000	Y	
	277806	HAL 12V (35W)	T4	GY8.6	CLR (3000K)	400	2500	Y	
	165761	HAL 50W (50W)	T4	MiniCand. Base	CLR (2700K)	500	1000	Y	

## GU10 Indoor Flood

Part #

Description

(HAL Wattage)



Dim. E-Star







213454	HAL 35W 6Pk (35W)	GU10	GU10	CLR (2800K)	35°	265	2000	Y
213462	HAL 50W 6Pk (50W)	GU10	GU10	CLR (2800K)	35°	430	2000	Y
218297	HAL 50W 12Pk (50W)	GU10	GU10	CLR (2800K)	35°	430	2000	Y

Bulb

Base

Colour

(Temp.)

Beam

Degree

Lumens

Hours

Bulb

Shape

## MR Indoor Flood



	Part #	Description (HAL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Beam Degree	Lumens	Hours	Dim.	E-Star
Element	127738	HAL 20W (20W)	MRC11	G4	CLR (2700K)	28°	300	4000	Y	
	127746	HAL 35W (35W)	MRC11	G4	CLR (2700K)	28°	750	4000	Y	
	151209	HAL 50W 3PK (50W)	MRC16	GU5.3	CLR (2800K)	35°	870	2000	Y	
Commentation	162479	HAL 20W (20W)	MRC16	GU5.3	CLR (2700K)	28°	260	2000	Y	
	162487	HAL 35W (35W)	MRC16	GU5.3	CLR (2700K)	28°	560	2000	Y	
	278846	HAL 50W Xenon 3Pk (50W)	MRC16	Med. Base	CLR (3000K)	35°	540	2000	Y	

## PAR Indoor Flood

	Part #	Description (HAL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Beam Degree	Lumens	Hours	Dim.	E-Star
	431916	HAL 50W (50W)	PAR16	Med. Base	CLR (2850K)	28°	450	3000	Y	
All PHILIPS	424531	HAL 50W (39W)	PAR20	Med. Base	CLR (2850K)	25°	480	1100	Y	
PHILIPS	424556	HAL 50W 4Pk (39W)	PAR20	Med. Base	CLR (2850K)	25°	480	1100	Y	
	456772	HAL 50W Spot (39W)	PAR20	Med. Base	CLR (2850K)	10°	480	1100	Y	
CHILIPS CONTRACTOR	149534	HAL 50W 2Pk (50W)	PAR20	Med. Base	CLR (2850K)	28°	520	3000	Y	
PHILIPS Alfored First	160036	HAL 50W (50W)	PAR20	Med. Base	CLR (2850K)	28°	520	3000	Y	
POPULOS Margen	238758	HAL 50W 4Pk (50W)	PAR20	Med. Base	CLR (2850K)	28°	520	3000	Y	
PHILIPS	456764	HAL 50W (39W)	PAR30L	Med. Base	CLR (2850K)	25°	500	1100	Y	
PHILIPS	424549	HAL 75W (50W)	PAR30L	Med. Base	CLR (2850K)	25°	960	4200	Y	
	424572	HAL 75W 2Pk (53W)	PAR30L	Med. Base	CLR (2850K)	25°	920	1100	Y	
## PAR Indoor Flood



	Part #	Description (HAL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Beam Degree	Lumens	Hours	Dim.	E-Star
PHILIPS 23- Halogen	156422	HAL 75W 2Pk (75W)	PAR30L	Med. Base	CLR (2850K)	25°	940	3000	Y	
PHILIPS The file	456749	HAL 50W (39W)	PAR30S	Med. Base	CLR (2850K)	25°	530	1100	Y	
	456780	HAL 75W (53W)	PAR30S	Med. Base	CLR (2850K)	40°	920	1100	Y	
PHILIPS	456756	HAL 45W PAR38 (39W)	PAR38	Med. Base Skirted	CLR (2850K)	25°	540	1100	Y	
PHILIPS	276758	HAL 90W (70W)	PAR38	Med. Base	CLR (2850K)	25°	1550	4200	Y	
	150615	HAL 90W PAR38 2Pk (90W)	PAR38	Med. Base	CLR (2850K)	25°	1260	3000	Y	

## PAR

(j)-----(c)

	Part #	Description (HAL Wattage)	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
Malagen Parties Malagen Malage	112128	HAL 100W (100W)	T3 (79 mm)	R.S.C.	CLR (2850K)	1600	2000	Y	
HALLY Heliggen	112136	HAL 150W (150W)	T3 (79 mm)	R.S.C.	CLR (2850K)	2400	2000	Y	
Table and the second se	127720	HAL 250W (250W)	T3 (79 mm)	R.S.C.	CLR (2850K)	4000	2000	Y	
Antum Halagan Barang ang Halagan Halag	127704	HAL 100W (100W)	T3 (119 mm)	R.S.C.	CLR (2700K)	1400	2000	Y	
	127712	HAL 150W (150W)	T3 (119 mm)	R.S.C.	CLR (2700K)	2400	2000	Y	
Malagen Valent	512103	HAL 300W 2Pk (300W)	T3 (119 mm)	R.S.C.	CLR (2850K)	6000	2000	Y	
MALES	512129	HAL 500W 2Pk (500W)	T3 (119 mm)	R.S.C.	CLR (2700K)	9500	2000	Y	

## Notes

-	



# Incandescent Lighting

Consumer Lighting Product Catalogue 2018



# **Traditional light** for your home

# Incandescent Lighting

In an incandescent bulb, a tungsten filament is heated by an electric current until the filament becomes incandescent or gives off light. A standard bulb's life is 750–1000 hours and longer life bulbs last 1000–1500 hours.

## Incandescent Types

### **General Service**

Includes, A, C, S, and T shape bulbs. Used mainly for general illumination.

#### **Reflector Types**

Provide directional illumination. Reflector bulbs (R) and (BR) are often used in recessed down lights and track lighting. They have a soft, smooth beam and are available in spot and flood. They cannot be used outside in open fixtures.

#### Decorative

"Deco" bulbs come in a variety of shapes, sizes, and finishes. They are most often used when the bulb is in direct view. Decorative bulbs are available for many applications including Chandeliers, Wall Sconces, Vanity Strips, and surface mounted decorative fixtures.

### Industrial Grade and Contractors Choice

Also referred to as rough service or 130 volt bulbs. These bulbs are designed to last 3 times as long as standard Incandescent bulbs. 130 volt bulbs have an extra thick filament and are ideal for hard to reach applications and areas that have a lot of surges and spikes on the power line. Because of the thick filaments, they produce less light than a standard bulb, and have a warmer colour appearance than standard bulbs.

## **Bulb Shapes**

- Letters designate the shape of the glass bulb.
- Numbers indicate the diameter of the bulb in eighths of an inch.
- For example, "A19" indicates an Arbitrary Designation shaped bulb having a diameter of 19/8 or 2 3/8 inches.

# INC Bulb Shapes & Base Types (Diagrams not to scale)



## Appliance Household Specialty

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
PHILIPS C	208967	INC 40W 2Pk	A15	Med. Base	CLR (2700K)	400	2000	Y	
	208975	INC 40W 2Pk	A15	Med. Base	FRT (2700K)	365	2000	Y	
Table	615344	INC 25W	T10	Med. Base	CLR (2700K)	200	2000	Y	
	694950	INC 40W	T10	Med. Base	CLR (2700K)	280	2000	Y	
	511238	INC 25W	T6.5	Int. Base	CLR (2700K)	180	2000	Y	
I S wat	217190	INC 15W	Τ7	Int. Base	CLR (2700K)	104	2000	Y	
Applance	128462	INC 40W	Τ8	Int. Base	CLR (2700K)	360	2000	Y	

## A19/A21/PS25 Household Specialty

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
PHILIPS Rough Service	111716	INC 50W Rough Service 2Pk	A19	Med. Base	FRT (2700K)	500	2000	Y	
PHILIPS Rough Service	111724	INC 100W Rough Service 2Pk	A19	Med. Base	FRT (2700K)	1195	2000	Y	
	149716	INC 100W Rough Service 2Pk	A19	Med. Base	FRT Silicone (2700K)	1347	10000	Y	
Y CONTRACTOR	126904	INC 30/70/100W 3Way	A21	Med. Base	SW (2700K)	285 920 1205	1750	Y	
	126912	INC 50/100/150W 3Way	A21	Med. Base	SW (2700K)	575 1440 2015	1750	Y	
PHILIPS Philips Phi	110031	INC 100/200/300W 3Way	PS25	MogBase	SW (2700K)	1350 3350 4700	1500	Y	
10035 <b>1</b> Cherr <b>1</b> Cher <b>1</b> Cher <b>1</b> Cherr <b>1</b> Cherr <b>1</b> Cherr <b>1</b> Cherr <b>1</b> C	515536	INC 300W	PS25	Med. Base	CLR (2700K)	5500	750	Y	

## Fan & Garage Household Specialty

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
	129387	INC 40W 2Pk	A15	Med. Base	CLR (2700K)	350	2000	Y	
Duration Party of the second sec	129403	INC 60W 2Pk	A15	Med. Base	CLR (2700K)	620	2000	Y	
Durrainax	129411	INC 60W 2Pk	A15	Med. Base	WHT (2700K)	550	2000	Y	

### Chandelier Decorative

Bulb Bulb Part # Description Colour (Temp.) Dim. E-Star Lumens Hours Shape Base Cand. FRT 129213 INC 25W 2Pk B10.5 150 2000 Υ Base (2700K) Cand. FRT 129254 INC 40W 2Pk B10.5 301 2000 Υ Base (2700K) Cand. CLR 160135 INC 25W 4Pk B10.5 137 2000 Υ Base (2700K) Cand. CLR 160143 INC 40W 4Pk B10.5 308 2000 Υ Base (2700K) Cand. CLR 160150 INC 60W 4Pk B10.5 582 2000 Υ Base (2700K) CLR 129262 INC 40W 2Pk B13 Med. Base 266 2000 Υ (2700K) CLR 129437 INC 40W Flame 2Pk 350 2000 Υ F15 Med. Base (2700K)

## Globe Decorative

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
	129346	INC 40W 2Pk	G16.5	Cand. Base	CLR (2700K)	287	2000	Y	
Duration 3	129353	INC 40W 2Pk	G16.5	Cand. Base	WHT (2700K)	228	2000	Y	
and the second sec	127950	INC 40W 2Pk	G16.5	Med. Base	CLR (2700K)	300	2000	Y	
4 Onur	127944	INC 40W 2Pk	G16.5	Med. Base	WHT (2700K)	270	2000	Y	
PHILIPS	126821	INC 40W 3Pk	G25	Med. Base	CLR (2700K)	460	2000	Y	
	126839	INC 40W 3Pk	G25	Med. Base	WHT (2700K)	415	2000	Y	

## Night Light Decorative



Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
513200	INC 4W 2Pk	C7	Cand. Base	CLR (2700K)	16	2000	Y	
899443	INC 4W 2Pk	C7	Cand. Base	WНТ (2700К)	14	2000	Y	
896597	INC 7W 2Pk	C7	Cand. Base	CLR (2700K)	35	2000	Y	

## R & BR Indoor Flood

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
	510479	INC 40W	R14	Int. Base	FRT (2700K)	280	1500	Y	
DHILIPS (25) Indeer Flood	234666	INC 45W 3Pk	R20	Med. Base	FRT (2700K)	385	2500	Y	
	126433	INC 65W 3Pk	BR30	Med. Base	FRT (2700K)	595	2500	Y	
Paula Decorriex Files To the second	126508	INC 65W	BR40	Med. Base	FRT (2700K)	630	2500	Y	

# Plant



Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
151829	INC 60W Plant Agro	A19	Med. Base	Plant (Argo)	N/A	1000	Y	
151845	INC 75W Plant Agro	BR30	Med. Base	Plant (Agro)	N/A	2000	Y	

# Heat Lamp

Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
203836	INC 250W	BR40	Med. Base	CLR (Heat)	n/a	5000	Y	
232306	INC 175W	PAR38	Med. Base Skirted	Red (Heat)	N/A	5000	Y	
405183	INC 175W	PAR38	Med. Base	CLR (Heat)	N/A	5000	Y	

# Specialty











Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
809780	INC 40W Track	K16	Med. Base	FRT (2700K)	260	2000	Y	
511782	INC 15W Exit Sign	T6	Cand. Base	CLR (2700K)	102	2000	Y	
811521	INC 7.5W	S11	Med. Base	WHT (2700K)	33	2000	Y	
595397	INC 40W High Intensity	S11	Int. Base	CLR (2700K)	370	2000	Y	
127910	INC 12W 2Pk	S8	S.C.BAY.	CLR (2700K)	120	500	Y	



# HID Lighting

Consumer Lighting Product Catalogue 2018



# Upgrade to a **better white light**

# HID Lighting

HID

High-intensity discharge lamps (HID lamps) are among the most efficient, compact, long lived lamps known. They include Mercury Vapor, Metal Halide and High Pressure Sodium lamps. These lamps belong to the general classification of discharge lamps in which light is produced by the passage of an electric current through a vapor or gas, rather than through a tungsten wire. HID lamps are used primarily in applications where the most critical factor is creating as much visible light per watt as possible. Major applications include streetlights, gymnasiums, warehouses, large retail facilities, and stadiums, and plant growing rooms. Recently, these lamps have also been used in some high-end vehicle headlights. Since most HID lamps produce light which is either very cool white/ blue or warm white/yellow, they are generally not used in applications where the aesthetic quality of light is important.

## HID Bulb Shapes & Base Types

(Diagrams not to scale)



Med. Medium

E26

Mog.

Mogule

E39





# High Pressure Sodium (HPS)

Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
368837	HID 1000W	E39	Mogul	CLR (2100K)	140000	24000	N	
140961	HID 150W	ED 23.5	Mogul	CLR (2100K)	15800	24000	N	
313585	HID 175W	ED17	Med. Base	CLR (2700K)	15400	10000	N	

# Metal Halide (MH)

	$\bigcap$	$\bigcirc$
$\bigcirc$		

Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
137505	HID 70W	BD17	Med. Base	CLR (4000K)	15400	10000	N	
429968	HID 100W	ED17P	Med. Base	WHT (4000K)	8700	20000	N	
321505	HID 1000W	BT37	Mogul	CLR (3700K)	110000	10000	N	
274498	HID 400W	ED37	Mogul	CLR (4000K)	39000	20000	N	
133322	HID 400W	ED37-P	EX39	CLR (4000K)	38000	20000	N	





# Mercury Vapour (MV)





Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
319657	HID 175W	ED28	Mogul	CLR (6800K)	23000	15000	Ν	
248427	HID 400W	ED37	Mogul	WHT (3700K)	21000	24000	Ν	




# Linear Fluorescent Lighting

Consumer Lighting Product Catalogue 2018



# Long life and energy efficiency

# Linear Fluorescent Lighting

The Philips Linear Fluorescent lamp portfolio offers some of the lowest mercury and longest life lamps in the industry.

Philips fluorescent lamps combine low mercury with long life and energy efficiency. Philips leads the industry with the lowest level mercury technology. ALTO and ALTO II lamp technology introduces less mercury into the environment. Look for the green endcap... available only on Philips low mercury fluorescent bulbs. Reducing the mercury level during the manufacturing phase is essential to creating products that are less harmful to the environment.

### Operation

When started, the electrodes at each end of the lamp emit electrons.

- 1. The electrons travel through the tube in the form of an electrical current. The electrons collide with the mercury atoms contained in the glass bulb.
- 2. After the collision, the mercury atom releases invisible ultraviolet energy.
- 3. The ultraviolet energy strikes the phosphor coating and the phosphor converts the ultraviolet to visible light.

### Ballast

All fluorescent lamps need a ballast to operate properly. The ballast provides the proper starting voltage and limits the current through the lamp. It is important to have the correct ballast for proper operation. The ballast label has important information such as which lamps the ballast will operate and a wiring diagram.

#### **Measuring Fluorescent Lamps**

To determine the length of a fluorescent lamp, you do not measure the bulb. The Nominal Length of the bulb is the measurement from back of socket to back of socket on the fixture.



To determine the type of lamp you need, measure the endcap and use the illustration below as a guide.



## **Colour Selection**

This chart provides you with an overview of fluorescent lighting colour temperature and possible applications.

NOTE: Colour is a personal preference. Select a bulb that creates the mood you desire to have in the room.

#### Soft white

3000K Kitchen, bath

- Creates a comfortable, pleasant atmosphere
- Available in 78-86 CRI

#### **Cool white**

4100K Garage, basement

• Efficient task lighting

• Available in 62-85 CRI

#### **Daylight deluxe**

6500K Garage, workshop, laundry

- $\cdot$  Creates a cool refreshing environment
- Available in 78-85 CRI

#### **Colour Temperature Range**

3000 Kelvin = Warm, Soft White Light 6500 Kelvin = Cool, Vibrant White Light

#### veutral

3500K Office

- Balanced general purpose lighting
- Available in 70-85 CRI

#### **Natural Light**

#### 5000K Any room in the home

- Creates a comfortable, pleasant atmosphere
- Available in 78-86 CRI

#### Colour Rendering Index (CRI)

How well objects appear in the light. On a scale of 0-100, the lamp's ability to show an objects true colour accurately. The higher the number, the better you can distinguish between colours.



## TL Bulb Shapes & Base Types

(Diagrams not to scale)

The size and shape of a bulb is designated by a letter or letters followed by a number. The letter indicates the shape of the bulb, while the number indicates the diameter of the bulb in eighths of an inch. For example, "T12" indicates a tubular shaped bulb having a diameter of <sup>12</sup>/<sub>8</sub> or 1<sup>1</sup>/<sub>2</sub> inches. The following illustrations show some of the more popular bulb shapes and sizes.



	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
=	411298	TL 8W	T5 12"	Mini Bipin	SW (3000K)	450	7500	N	
=	411306	TL 13W	T5 21"	Mini Bipin	SW (3000K)	1000	7500	N	
=	220913	TL 14W	T5 22"	Mini Bipin	SW (3000K)	1350	20000	N	
=	230805	TL 14W	T5 22"	Mini Bipin	CW (4100K)	1350	24000	N	
=	220962	TL 21W	T5 34"	Mini Bipin	SW (3000K)	2100	20000	N	
=	290239	TL 39W HO	T5 34"	Mini Bipin	NW (3500K)	3500	19000	N	
=	206136	TL 28W	T5 46"	Mini Bipin	NW (3500K)	2900	35000	N	
=	414193	TL 54W HO	T5 46"	Mini Bipin	CW (4100K)	5000	35000	N	
=	135103	TL 54W HO	T5 46"	Mini Bipin	NTL (5000K)	4800	30000	N	
=	147454	TL 54W HO	T5 46"	Mini Bipin	DL (6500K)	4650	24000	N	
=	290833	TL 54W HO	T5 46"	Mini Bipin	CW (4100K)	4750	25000	N	

## Τ8

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
-	410639	TL 15W	T8 18″	Med. Bipin	CW (4100K)	870	7500	N	
-	282715	TL 17W	T8 24"	Med. Bipin	SW (3000K)	1400	20000	N	
	281451	TL 30W	T8 36″	Med. Bipin	CW (4100K)	2200	7500	N	
-	248732	TL 32W 2Pk	T8 48"	Med. Bipin	SW (3000K)	2950	30000	N	
-	248781	TL 32W 10Pk	T8 48″	Med. Bipin	NTL (5000K)	2850	30000	N	
-	248864	TL 32W 2Pk	T8 48″	Med. Bipin	NTL (5000K)	2850	30000	N	
-	280784	TL 25W LongLife 30Pk	T8 48″	Med. Bipin	CW (4100K)	2500	38000	N	
-	281550	TL 32W 30Pk	T8 48″	Med. Bipin	CW (4100K)	2850	30000	N	
	434068	TL 32W LongLife 30Pk	T8 48″	Med. Bipin	CW (4100K)	2950	52000	N	
-	453803	TL 32W	T8 48″	Med. Bipin	CW (4100K)	2850	20000	N	

## Τ8

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
	454504	TL 32W 2Pk	T8 48"	Med. Bipin	DLX (6500K)	2850	30000	N	
-	454512	TL 32W 10Pk	T8 48"	Med. Bipin	DLX (6500K)	2850	30000	N	
	454958	TL 32W Plant	T8 48"	Med. Bipin	Plant	300	24000	N	
	457879	TL 32W 2Pk	T8 48"	Med. Bipin	CW (4100K)	2875	30000	N	
-	457887	TL 32W 10Pk	T8 48"	Med. Bipin	СW (4100К)	2875	30000	N	
-	236851	TL 59W LongLife	T8 96"	SinglePin	CW (4100K)	5900	30000	N	
-	408617	TL 59W	T8 96″	SinglePin	CW (4100K)	5900	30000	N	

Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
.83947	TL 15W	T12 18"	Med. Bipin	CW (4100K)	695	9000	N	
48443	TL 20W Plant	T12 24"	Med. Bipin	Plant (Plant)	600	9000	Ν	
48492	TL 20W	T12 24"	Med. Bipin	SW (3000K)	1350	9000	Ν	
48690	TL 20W	T12 24"	Med. Bipin	NTL (5000K)	850	9000	Ν	
48740	TL 20W 2Pk	T12 24"	Med. Bipin	DLX (6500K)	1075	9000	N	
48948	TL 20W 2Pk	T12 24"	Med. Bipin	CW (4100K)	1200	9000	N	
73490	TL 20W	T12 24"	Med. Bipin	SW (2700K)	1250	9000	N	
48468	TL 30W	T12 36″	Med. Bipin	SW (3000K)	2400	24000	N	
48401	TL 60W HO	T12 48″	R.D.C.	CW (4100K)	4050	12000	N	
48450	TL 40W Plant	T12 48"	Med. Bipin	Plant (Plant)	1600	24000	N	
	83947 48443 48492 48690 48740 48948 73490 48468 48401	83947    TL 15W      48443    TL 20W Plant      48492    TL 20W      48690    TL 20W      48740    TL 20W 2Pk      48948    TL 20W 2Pk      73490    TL 20W      48468    TL 30W      48401    TL 60W HO	Description      Shape        83947      TL 15W      T12 18"        48443      TL 20W Plant      T12 24"        48492      TL 20W Plant      T12 24"        48690      TL 20W      T12 24"        48740      TL 20W 2Pk      T12 24"        48948      TL 20W 2Pk      T12 24"        73490      TL 20W 2Pk      T12 24"        48468      TL 20W 2Pk      T12 24"        48468      TL 20W 2Pk      T12 24"        73490      TL 20W 2Pk      T12 24"        48468      TL 30W      T12 24"        48401      TL 60W HO      T12 48"	Part #      Description      Shape      Base        83947      TL 15W      T12 18"      Med. Bipin        48443      TL 20W Plant      T12 24"      Med. Bipin        48492      TL 20W Plant      T12 24"      Med. Bipin        48690      TL 20W      T12 24"      Med. Bipin        48740      TL 20W 2Pk      T12 24"      Med. Bipin        48948      TL 20W 2Pk      T12 24"      Med. Bipin        73490      TL 20W 2Pk      T12 24"      Med. Bipin        48468      TL 20W 2Pk      T12 24"      Med. Bipin        48468      TL 30W      T12 24"      Med. Bipin        48468      TL 30W      T12 24"      Med. Bipin        48468      TL 30W      T12 24"      Med. Bipin	Part #      Description      Shape      Base      Colour (Temp.)        83947      TL 15W      T12 18"      Med. Bipin      CW (4100K)        48443      TL 20W Plant      T12 24"      Med. Bipin      Plant (Plant)        48492      TL 20W      T12 24"      Med. Bipin      SW (3000K)        48690      TL 20W      T12 24"      Med. Bipin      SW (3000K)        48690      TL 20W      T12 24"      Med. Bipin      OUX        48740      TL 20W 2Pk      T12 24"      Med. Bipin      OUX        48948      TL 20W 2Pk      T12 24"      Med. Bipin      OUX        73490      TL 20W 2Pk      T12 24"      Med. Bipin      SW (2700K)        48468      TL 30W      T12 24"      Med. Bipin      SW (2700K)        48468      TL 30W      T12 36"      Med. Bipin      SW (3000K)        48401      TL 60W HO      T12 48"      R.D.C.      CW (4100K)        48401      TL 40W Plant      T12 48"      Med. Bipin      Plant	Shape      Base      Colour (Temp.)      Lumens        83947      TL 15W      T12 18"      Med. Bipin      CW (4100K)      695        48443      TL 20W Plant      T12 24"      Med. Bipin      Plant (Plant)      600        48492      TL 20W      T12 24"      Med. Bipin      SW (3000K)      1350        48690      TL 20W      T12 24"      Med. Bipin      SW (3000K)      850        48740      TL 20W 2Pk      T12 24"      Med. Bipin      CUX (5000K)      1075        48948      TL 20W 2Pk      T12 24"      Med. Bipin      CW (100K)      1200        73490      TL 20W 2Pk      T12 24"      Med. Bipin      SW (2700K)      1250        48468      TL 30W      T12 36"      Med. Bipin      SW (2700K)      2400        48469      TL 30W      T12 36"      Med. Bipin      SW (4100K)      2400        48460      TL 60W HO      T12 48"      R.D.C.      CW (4100K)      4050        48460      TL 40W Plant      T12 48"      Med. Bipin      Plant      1600	Part #      Description      Shape      Base      Colour (Temp.)      Lumens      Hours        83947      TL 15W      T12 18"      Med. Bipin      CW (4100K)      695      9000        48443      TL 20W Plant      T12 24"      Med. Bipin      Plant (Plant)      600      9000        48492      TL 20W      T12 24"      Med. Bipin      SW (3000K)      1350      9000        48690      TL 20W      T12 24"      Med. Bipin      SW (3000K)      1350      9000        48740      TL 20W      T12 24"      Med. Bipin      SW (5000K)      1075      9000        488948      TL 20W 2Pk      T12 24"      Med. Bipin      CW (4100K)      1200      9000        73490      TL 20W 2Pk      T12 24"      Med. Bipin      SW (2700K)      1250      9000        48468      TL 30W      T12 36"      Med. Bipin      SW (3000K)      2400      24000        48460      TL 60W H0      T12 48"      RDC.      CW (4100K)      4050      12000	Part #      Description      Shape      Base      Colour (18mp.)      Lumens      Hours      Dim.        83947      TL 15W      T12 18"      Med. Bipin $\binom{CW}{(4100K)}$ 695      9000      N        48443      TL 20W Plant      T12 24"      Med. Bipin $\binom{Plont}{(Plant)}$ 600      9000      N        48492      TL 20W      T12 24"      Med. Bipin $\binom{SW}{(3000K)}$ 1350      9000      N        48690      TL 20W      T12 24"      Med. Bipin $\binom{SW}{(3000K)}$ 1350      9000      N        48740      TL 20W 2Pk      T12 24"      Med. Bipin $\binom{SW}{(5000K)}$ 1075      9000      N        48948      TL 20W 2Pk      T12 24"      Med. Bipin $\binom{CW}{(4100K)}$ 1200      9000      N        73490      TL 20W      T12 24"      Med. Bipin $\binom{SW}{(2700K)}$ 1250      9000      N        48468      TL 30W      T12 26"      Med. Bipin $\binom{SW}{(3000K)}$ 2400      24000      N        48460      TL 60W HO      T12 48"

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
	427476	TL 40W 2Pk	T12 48"	Med. Bipin	NTL (5000K)	2500	24000	N	
	428821	TL 40W	T12 48"	Med. Bipin	CW (4100K)	2650	20000	N	
	452888	TL 40W 30Pk	T12 48"	Med. Bipin	CW (4100K)	2600	24000	N	
	452896	TL 40W 2Pk	T12 48"	Med. Bipin	SW (3000K)	2600	24000	N	
	452904	TL 40W 2Pk	T12 48"	Med. Bipin	CW (4100K)	2600	24000	N	
	452912	TL 40W 2Pk	T12 48"	Med. Bipin	DL (6500K)	2325	24000	N	
	366518	TL 85W HO	T12 72"	R.D.C.	CW (4100K)	6350	12000	N	
	214890	TL 110W HO 15Pk	T12 96"	R.D.C.	DLX (6500K)	5800	12000	N	
-	248328	TL 75W 2Pk	T12 96"	SinglePin	DLX (6500K)	4775	12000	N	
-	248559	TL 60W 2Pk	T12 96"	SinglePin	CW (4100K)	5400	12000	N	

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
-	248658	TL 60W 15Pk	T12 96"	SinglePin	CW (4100K)	5400	12000	N	
-	372821	TL 75W 15Pk	T12 96"	SinglePin	DLX (6500K)	4500	12000	N	
	381764	TL 110W HO 15Pk	T12 96"	R.D.C.	CW (4100K)	8800	12000	N	
4	423194	TL 75W 15Pk	T12 96"	SinglePin	CW (4100K)	5000	12000	N	
-	427492	TL 75W NTL 2Pk	T12 96″	SinglePin	NTL (5000K)	5000	12000	N	
	428839	TL 110W HO	T12 96″	R.D.C.	CW (4100K)	8000	12000	N	

## U-Bent

Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
248096	T8 32W	Ubent 22.5″	Med. Bipin	NTL (5000K)	2750	24000	N	
452920	T8 32W	Ubent 22.5″	Med. Bipin	CW (4100K)	2800	30000	N	
248013	T12 40W	Ubent 22.5″	Med. Bipin	DLX (6500K)	2250	20000	N	
290866	T12 40W	Ubent 22.5″	Med. Bipin	CW (4100K)	2300	18000	N	

## Circline

	Part #	Description	Bulb Shape	Bulb Base	Colour (Temp.)	Lumens	Hours	Dim.	E-Star
$\bigcirc$	409599	Cicline 32W	T9 12″	4Pin	DLX (6500K)	1570	12000	N	
$\bigcirc$	409607	Circline 32W	T9 12"	4Pin	SW (3000K)	1900	12000	N	
	409565	Circline 22W	T9 8″	4Pin	DLX (6500K)	910	12000	N	
H	409573	Circline 22W	T9 8″	4Pin	SW (3000K)	1150	12000	N	



# Ballasts

Consumer Lighting Product Catalogue 2018





# Ballasts

## What is a ballast?

A lighting ballast is a piece of equipment required to control the starting and operating voltages of electrical gas discharge lamps. The term lighting ballast can refer to any component of the circuit intended to limit the flow of current through light, from a single resistor to more complex devices.

#### **Basic Construction Types**

• Electronic (High Frequency)

#### Size of a Ballast

• Generally, the larger the lamp, the larger the ballast

#### Purpose of a Ballast

- Incandescent Lamps
  - Designed to start at 120V
  - Size of filament regulates current
- Fluorescent Lamps
  - Starting voltage dictated by lamp length and diameter
  - Lamp itself will not regulate current

#### **Ballast Function**

- $\cdot\,$  Provides starting voltage to the lamp
- $\cdot$  Limits current through the lamp

#### In Preheat and Rapid Start Lamps:

 $\cdot$  Provides proper cathode heating

### Features and benefits

#### Electronic

- Most energy efficient design—saves 20-30%
- Lightweight
  - 4 ft unit = 1.5 Lbs.
  - Less stress on ceiling and easier to install
- Quiet Operation
  - Reduces or eliminates ballast humming
- Smaller size (N)
  - Same mounting dimensions—easier to handle
- Proven reliability—20 year track record
- Used in all new commercial fixtures
- Operates lamps at "High Frequency"

#### Parallel Instant Start Circuit

- Parallel
  - Instant Start
  - Independent Lamp Operation—
    One lamp out the others remain lit

#### Series Rapid Start Circuit

- Series
  - Rapid Start
  - One Lamp Out–All Lamps Out
  - Industry standard for T12 Lamps

# Ballasts

	Part #	Description	Ballast Type	# of Lamps	Input Volts	Start Type		
	108662	BAL RELB2S40N	Electronic Fluorescent Ballast	1 or 2	120V	RS / Rapid Start		
	Compatible with: F30T12, F34T12, F34T12/U, F40T12, F40T12/U							
	109132	BAL ICN4P32N	Electronic Fluorescent Ballast	3 or 4	120-277V	IS / Instant Start		
	Compatible with: F17T8, FBO16T8, F25T8, FBO24T8, F32T8, FBO31T8, F32T8/U6, F40T8							
	196865	BAL ICN2P32N	Electronic Fluorescent Ballast	1 or 2	120-277V	IS / Instant Start		
	Compatible with: F17T8, FBO16T8, F25T8, FBO24T8, F32T8, FBO31T8, F32T8/U6, F40T8							
	503128	BAL ICN2P60N	Electronic Fluorescent Ballast	1 or 2	120-277V	IS / Instant Start		
A Design of the second se	Compatible with: F72T12. F96T12/ES, F96T12							
	503193	BAL IOP2P59N	Electronic Fluorescent Ballast	1 or 2	120-277V	IS / Instant Start		
	Compatible with: F72T8, F96T8/ES, F96T8							
	107136	BAL ICN2S110SC	Electronic Fluorescent Ballast	1 or 2	120-277V	RS / Rapid Start		
	Compatible with: F48T12/HO, F60T12/HO, F72T12/HO, F96T12/HO, F96T12/HO							
	197970	BAL GOPA4P32SC	Electronic Fluorescent Ballast	3 or 4	347V	IS / Instant Start		
	Compatible with: F17T8, FBO16T8, F25T8, FBO24T8, F32T8/ES, F32T8/ES, F32T8, FBO31T8, F32T8/U6, F40T8							



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