

GE
Lighting

Lamp product catalogue 2012

SPECTRUM



GE imagination at work

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GE
Lighting

Spectrum

Lamp product catalogue 2012



GE imagination at work

GE Lighting is constantly developing and improving its products. For this reason, all product descriptions in this catalogue are intended as a general guide, and we may change specifications from time to time in the interest of product development, without prior notification or public announcement. All descriptions in this publication present only general particulars of the goods to which they refer and shall not form part of any contract. Data in this guide has been obtained in controlled experimental conditions. However, GE Lighting cannot accept any liability arising from the reliance on such data to the extent permitted by law.

All lamp drawings are a guide, if further technical details are required please contact your nearest sales office.

General conditions of sale

GE Lighting products are supplied according to GE's General Conditions of Sale. If you require a copy of these conditions please contact your nearest GE Lighting sales office.

Prices

A price list is available from all GE Lighting sales offices.

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GE works on things that matter

Every single day, all around the world, GE is helping its customers find solutions to the toughest environmental challenges.

As such, at GE Lighting we have long pioneered advanced lighting technologies with a knowledge and technical expertise that spans more than 100 years providing a foundation for future innovation.

With lighting accounting for 20% of our global energy demand, mounting legislation and environmental pressures - now more than ever this heritage and capability is absolutely crucial.

GE Lighting continues to bring new technologies to the market to meet the global demands for high quality and low energy lighting.



LED Innovation *for a sustainable future*



Never before in its 118 year history has the craftsmanship of City of London's iconic Tower Bridge been so beautifully revealed as it is today, thanks to more than 2.5 km of flexible, architectural LED lighting provided by GE Lighting.

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WORLDWIDE PARTNER

As a Worldwide Partner of the Olympic Games, GE is the exclusive provider of a wide range of innovative products and services that are integral to the successful Games.



LED Lamp Solutions



LED's you can trust

More than 15 years of experience in manufacturing and selling high quality LED solutions

Up to 90% energy savings compared to conventional lamps

Up to 50,000 hours of light with our R63 lamps

Reduced maintenance and related costs

Outstanding lumen performance and lumen/watt efficiency.

Low UV and IR (ultraviolet and infrared)



Home



Office



Hospitality



Retail



Omni-directional GLS Lamp

GE's LED retrofit lamps offer a great opportunity to replace incandescent, compact fluorescent or halogen lamps with an LED 2700K Extra Warm White, 270 degree beam angle product for general lighting. GE LEDs are very economical and environmentally friendly: they are mercury free, use far less energy than halogen or incandescent lights, and last longer.

They fit into everyday light fittings and the light comes on the instant you click the switch.

GE's omni-directional lamp enables a 270 degree light distribution unlike traditional LED lamps thus making it an ideal choice for general lighting applications such as table lamps.



- 7.5W & 12W replacements for 40W and 60W
- 270° omni-directional beam
- 2700 Kelvin Colour Temperature
- E27 and B22 cap types



6W Energy Smart™ GU10 Dimmable Lamp

The new generation of dimmable GU10 lamps provide market leading efficiency and lumen performance providing a true replacement for GU10 halogens. The range offers 50W equivalent lamps between 320-360lm, all with a long life of 25,000 hours (L70/B10). The new dimmable GU10 lamps are suitable for both domestic and commercial applications.



- Multiple colour temperatures (3000K)
- Reduces ongoing maintenance costs
- Suitable for track and recessed lighting
- Outstanding performance up to 60lm/W efficiency for 6W lamp



Advanced lighting technologies

7W 12V Energy Smart™ MR16 Dimmable Lamp

The 7W MR16 range has been developed to replace 35W & 50W equivalent MR16 halogen lamps and offers a high level of technical performance in the form of a halogen shaped LED lamp. Simple to change, it offers an outstanding lumen package that ensures a relatively short payback period.



- Multiple colour temperatures (2700-3000K)
- Reduces ongoing maintenance costs
- Suitable for track and recessed lighting
- Outstanding performance up to 56lm/W efficiency for 7W lamp



Decor Candle, Spherical and Globe Lamps

Create a mood and save energy with Decor LED's.

GE's Decor LED range offers decorative looking bulbs that can fit into all existing fixtures with E14, E27 and B22 sockets.

The incandescent-like spherical, candle and globe shapes also come in clear and frosted finishes, offering effective replacement light output and excellent value for money. The range also offers a very broad coverage of market requirements, as well as dimming to add an extra dimension to a superb product range.



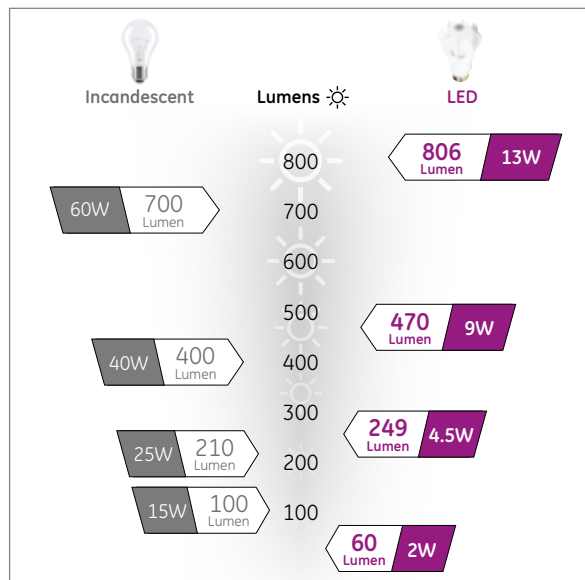
- 17,000 hours life
- Lasts up to 17 times longer than similar decorative HAL/INC lamps
- Mercury free
- Up to 250 lumens
- Clear and frosted types
- 2700K
- 100% retrofit



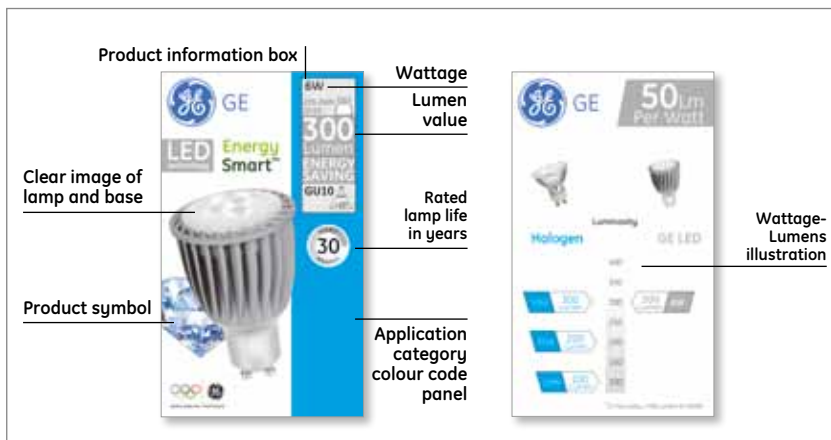
Switching from Watts to Lumens

Traditional light bulbs are being phased out and modern light technologies use different amounts of power to achieve the same amount of light. Instead of referring to watts anymore, we now need to measure and compare light in terms of lumens.

Our LEDs can be used everywhere, from general to mood lighting and spotlighting. To assist in selecting the appropriate LED replacement for your existing Incandescent or Halogen bulb, GE packaging shows relevant product lumens compared to the old wattages.



Quick guide to GE Lighting packaging



LED Solutions

LED Energy Smart™ Directional



GU10 Dimmable

Cap: GU10
Wattage: 4.5-6.5W
Voltage: 220-240V
Beam Spread: 25-35°
Rated life: 25,000Hrs

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MR16 Dimmable

Cap: GU5.3
Wattage: 7W
Voltage: 12V
Beam Spread: 15-35°
Rated life: 25,000Hrs

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MR16

Cap: GU5.3
Wattage: 4-6.5W
Voltage: 12V
Beam Spread: 15-36°
Rated life: 25,000Hrs

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PAR30 Dimmable

Cap: E27
Wattage: 10W
Voltage: 220-240V
Beam Spread: 20-35°
Rated life: 50,000Hrs

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R50, R63 Dimmable

Cap: E14, E27
Wattage: 5-7W
Voltage: 220-240V
Beam Spread: 20-35°
Rated life: 25,000-50,000Hrs

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LED Decor Directional



PAR 16

Cap: E14
Wattage: 1W
Voltage: 220-240V
Rated life: 12,000Hrs

I.11



GU10

Cap: GU10
Wattage: 1-2W
Voltage: 220-240V
Rated life: 12,000Hrs

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MR16

Cap: GU5.3
Wattage: 1W
Voltage: 12V
Rated life: 12,000

Page I.11



R50

Cap: E14
Wattage: 2W
Voltage: 220-240V
Rated life: 12,000

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Selector

LED Energy Smart™ GLS, Candle, Spherical



GLS

Cap: E27, B22
Wattage: 5-12W
Voltage: 220-240V
Rated life: 15,000-25,000Hrs

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Candle Dimmable

Cap: E27, B22, E14
Wattage: 4.5W
Voltage: 220-240V
Rated life: 20,000Hrs

Page I.12



Spherical Dimmable

Cap: E27, B22, E14
Wattage: 4.5W
Voltage: 220-240V
Rated life: 20,000Hrs

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LED Energy Smart™ Globe



Globe Dimmable

Cap: E27, B22
Wattage: 4.5W
Voltage: 220-240V
Rated life: 20,000Hrs

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LED Decor Candle, Spherical



Candle Dimmable

Cap: E14, B15, B22
Wattage: 4W
Voltage: 230-240V
Rated life: 15,000Hrs

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Candle

Cap: E14, B15, B22
Wattage: 1.2W
Voltage: 230-240V
Rated life: 15,000Hrs

Page I.13



Spherical Dimmable

Cap: E14, E27, B22
Wattage: 4W
Voltage: 230-240V
Rated life: 15,000

Page I.13



Spherical

Cap: E14, E27, B22
Wattage: 1.2W
Voltage: 230-240V
Rated life: 15,000

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Product identification

The following glossary of terms will help you when selecting lamps in this section. Within each product line, lamps are divided into families – within these families, lamps are listed by wattage. The Product Description can be used as a quick reference to each product's attributes. LED lamp and system life is expressed as L70 – the point in time when light output has fallen to 70% of its initial value.

Watts:

Energy Used – Nominal Watts. To estimate energy consumption (kWh), multiply watts x hours of use and divide by 1000

Cap:

The type of cap fitted. See page 148-149 for cap drawings

Volts: Lamp data is based on operation at rated voltage

Product description: The lamp's identification code

Product code:

It is important to use this code when ordering to ensure that you receive the exact product you require

CCT [K]: Colour Temperature – Kelvins
A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value the whiter or "cooler" the light appears

Life [L70, h]: LED lamp and system life is expressed as L70 – the point in time when light output has fallen to 70% of its initial value

Length: Lamp length in mm

Additional parameters:

Forward Voltage (Vf) Typical (Vt): Typical voltage drop across the LED when driven at 350mA. Value will vary at different drive currents.

Track Angle: LED Cove is available with 3 mounting options, at 0, 15 and 30 degrees to the horizontal surface.

Wattage [W]

Volts [V]

Cap

Product Description

Product Code

Lumen [lm]

CCT [K]

CRI [Ra]

Life [L70, h]

Diameter [mm]

Length [mm]

Pack Qty

LED Decor Range - Candle

1.2	230-240	E14	LED1.2/B35/830/230-240V/E14/F/HBX1/6	97299	60	3000	80	15,000	39	104	1/6
1.2	230-240	B22	LED1.2/B35/830/230-240V/B22/F/HBX1/6	97300	60	3000	80	15,000	39	102.5	1/6
1.2	230-240	B15	LED1.2/B35/830/230-240V/B15/F/HBX1/6	97301	60	3000	80	15,000	39	102.5	1/6

LED 1.2 / B35 / 8 30 / 230-240V / E14 / F / HBX 1/6

(LED)
Identifies lamp as LED lamp

(1.2)
Identifies Lamp's wattage

(B35)
Identifies the lamp family

(8) Colour rendering
6 - Ra 58 to 67 (Group 2B)
7 - Ra 68 to 77 (Group 2A)
8 - Ra 78 to 87 (Group 1B)
9 - Ra 88 to 97 (Group 1A)

(30) Colour temperature
XX = First 2 digits of temperature in Kelvin - XX00K
Example: 30 is 3000K

(230-240V)
Volts: Lamp data is based on operation at rated voltage

(E14)
Identifies the cap type

(F)
Identifies the finish of the lamp

(HBX)
Identifies product type

(1/6)
Pack quantity: Number of product units packed in a case

Lumens:
Initial Lumens - light output at 100 hours

Diameter:
Bulb diameter in mm

CRI [Ra]:
Colour Rendering Index
An indication of the ability of the lamp to render object colours in a normal, natural way. The higher the number (0-100), the better the colour appearance

Pack quantity:
Number of product units packed in a case

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Lumen (lm)	Beam Angle [°]	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
4.5	220-240	GU10	LED4.5D/GU10/827/220-240V/FL/BX 1/8	65775	500	170	25	2700	80	25,000	50	58	1/8
4.5	220-240	GU10	LED4.5D/GU10/830/220-240V/FL/BX 1/8	65777	560	180	25	3000	80	25,000	50	58	1/8
4.5	220-240	GU10	LED4.5D/GU10/840/220-240V/FL/BX 1/8	65780	610	200	25	4000	80	25,000	50	58	1/8
4.5	220-240	GU10	LED4.5D/GU10/827/220-240V/WFL/BX 1/8	97248	400	170	35	2700	80	25,000	50	58	1/8
4.5	220-240	GU10	LED4.5D/GU10/830/220-240V/WFL/BX 1/8	97266	450	180	35	3000	80	25,000	50	58	1/8
4.5	220-240	GU10	LED4.5D/GU10/840/220-240V/WFL/BX 1/8	97273	500	200	35	4000	80	25,000	50	58	1/8
5	220-240	GU10	LED5D/GU10/827/220-240V/FL/BX	65249	950	220	25	2700	80	25,000	50.7	56.5	1/8
5	220-240	GU10	LED5D/GU10/827/220-240V/WFL/BX	65250	600	220	35	2700	80	25,000	50.7	56.5	1/8
5	220-240	GU10	LED5D/GU10/830/220-240V/FL/BX	65253	1050	240	25	3000	80	25,000	50.7	56.5	1/8
5	220-240	GU10	LED5D/GU10/830/220-240V/WFL/BX	65254	700	240	35	3000	80	25,000	50.7	56.5	1/8
5	220-240	GU10	LED5D/GU10/840/220-240V/FL/BX	65799	1200	270	25	4000	80	25,000	50	58	1/8
5	220-240	GU10	LED5D/GU10/840/220-240V/WFL/BX	65801	750	270	35	4000	80	25,000	50	58	1/8
6	220-240	GU10	LED6D/GU10/827/220-240V/FL BX 1/8	98170	1250	320	25	2700	80	25,000	50.2	57	1/10
6	220-240	GU10	LED6D/GU10/827/220-240V/WFL BX 1/8	98172	700	320	35	2700	80	25,000	50.2	57	1/10
6	220-240	GU10	LED6D/GU10/830/220-240V/FL BX 1/8	98173	1280	340	25	3000	80	25,000	50.2	57	1/10
6	220-240	GU10	LED6D/GU10/830/220-240V/WFL BX 1/8	98174	720	340	35	3000	80	25,000	50.2	57	1/10
6	220-240	GU10	LED6D/GU10/840/220-240V/FL BX 1/8	98175	1400	360	25	4000	80	25,000	50.2	57	1/10
6	220-240	GU10	LED6D/GU10/840/220-240V/WFL BX 1/8	98176	780	360	35	4000	80	25,000	50.2	57	1/10
6.5	220-240	GU10	LED6.5D/GU10/827/220-240V/FL/BX	65252	1600	400	25	2700	80	25,000	50.7	77.6	1/8
6.5	220-240	GU10	LED6.5D/GU10/827/220-240V/WFL/BX	65255	750	380	35	2700	80	25,000	50.7	77.6	1/8
6.5	220-240	GU10	LED6.5D/GU10/830/220-240V/FL/BX	65256	1600	400	25	3000	80	25,000	50.7	77.6	1/8
6.5	220-240	GU10	LED6.5D/GU10/830/220-240V/WFL/BX	65257	750	380	35	3000	80	25,000	50.7	77.6	1/8
6.5	220-240	GU10	LED6.5D/GU10/840/220-240V/FL/BX	65258	1800	450	25	4000	80	25,000	50.7	77.6	1/8
6.5	220-240	GU10	LED6.5D/GU10/840/220-240V/WFL/BX	65259	850	430	35	4000	80	25,000	50.7	77.6	1/8



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Lumen (lm)	Beam Angle [°]	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
7	12	GU5.3	LED7DMR16/827/15	65808	3500	370	15	2700	80	25,000	50	50	1/8
7	12	GU5.3	LED7DMR16/827/25	65809	1800	370	25	2700	80	25,000	50	50	1/8
7	12	GU5.3	LED7DMR16/827/35	65810	1000	370	35	2700	80	25,000	50	50	1/8
7	12	GU5.3	LED7DMR16/830/25	65805	1900	390	25	3000	80	25,000	50	50	1/8
7	12	GU5.3	LED7DMR16/830/15	65806	3700	390	15	3000	80	25,000	50	50	1/8
7	12	GU5.3	LED7DMR16/830/35	65807	1100	390	35	3000	80	25,000	50	50	1/8
7	12	GU5.3	LED7DMR16/840/15	65811	4000	430	15	4000	80	25,000	50	50	1/8
7	12	GU5.3	LED7DMR16/840/25	65812	2100	430	25	4000	80	25,000	50	50	1/8
7	12	GU5.3	LED7DMR16/840/35	65813	1200	430	35	4000	80	25,000	50	50	1/8
7X	12	GU5.3	LED7XDMR16827/25	65816	2400	440	25	2700	80	25,000	50	48.7	1/8
7X	12	GU5.3	LED7XDMR16827/35	65817	1400	440	35	2700	80	25,000	50	48.7	1/8
7X	12	GU5.3	LED7XDMR16830/25	65814	2500	460	25	3000	80	25,000	50	48.7	1/8
7X	12	GU5.3	LED7XDMR16830/35	65815	1500	460	35	3000	80	25,000	50	48.7	1/8
7X	12	GU5.3	LED7XDMR16840/25	65818	2700	510	25	4000	80	25,000	50	48.7	1/8
7X	12	GU5.3	LED7XDMR16840/35	65819	1600	510	35	4000	80	25,000	50	48.7	1/8



LED Solutions



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Lumen (lm)	Beam Angle (°)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
LED Energy Smart™ Range - MR16													
4	12	GU5.3	LED 4/MR16/827/12V/GU5.3/FL	63633	960	240	25	2700	80	25,000	50.7	46	1/8
4	12	GU5.3	LED 4/MR16/827/12V/GU5.3/SP	63634	2500	210	15	2700	80	25,000	50.7	46	1/8
4	12	GU5.3	LED 4/MR16/827/12V/GU5.3/WFL	63635	580	240	36	2700	80	25,000	50.7	46	1/8
4	12	GU5.3	LED 4/MR16/830/12V/GU5.3/SP	63636	2500	210	15	3000	80	25,000	50.7	46	1/8
4	12	GU5.3	LED 4/MR16/830/12V/GU5.3/FL	63637	960	240	25	3000	80	25,000	50.7	46	1/8
4	12	GU5.3	LED 4/MR16/830/12V/GU5.3/WFL	63638	580	240	36	3000	80	25,000	50.7	46	1/8
6.5	12	GU5.3	LED 6.5/MR16/830/12V/GU5.3/FL BX 1/8	98188	1600	320	24	3000	80	25,000	50	46	1/8



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Lumen (lm)	Beam Angle (°)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
LED Energy Smart™ Range - PAR30 dimmable													
10	220-240	E27	LED10DP30S/827/20/E27	79409	3450	450	20	2700	80	50,000	97	99	1/6
10	220-240	E27	LED10DP30S/827/35/E27	79410	1100	450	35	2700	80	50,000	97	99	1/6
10	220-240	E27	LED10DP30S/830/20/E27	79411	3720	500	20	3000	80	50,000	97	99	1/6
10	220-240	E27	LED10DP30S/830/35/E27	79412	1130	500	35	3000	80	50,000	97	99	1/6



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Lumen (lm)	Beam Angle (°)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
LED Energy Smart™ Range - R50, R63 dimmable													
5	220-240	E14	LED50/R50/827/220-240V/WFL HBX 1/8	97283	500	220	35	2700	80	25,000	50.2	82.9	1/8
7	220-240	E27	LED7DR63S/827/20/E27	62578	1900	300	20	2700	80	50,000	65	105	1/8
7	220-240	E27	LED7DR63S/827/35/E27	62582	830	300	35	2700	80	50,000	65	105	1/8
7	220-240	E27	LED7DR63S/830/20/E27	79407	2000	330	20	3000	80	50,000	65	105	1/8
7	220-240	E27	LED7DR63S/830/35/E27	79408	850	330	35	3000	80	50,000	65	105	1/8



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Lumen (lm)	Beam Angle (°)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
LED Decor Range - GU10													
1	220-240	GU10	OT LED GU10 1W 220-240V WHITE GE BX1/10	96736	80	28	20	5500	70	12,000	50.7	57	1/10
2	230-240	GU10	LED 2/GU10/630/230-240V/SP HBX	63982	500	110	15	3000	60	12,000	50.7	59	1/8



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Lumen (lm)	Beam Angle (°)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
LED Decor Range - MR16													
1	12	GU5.3	OT LED MR16 GU5.3 1W 12V WHITE GE BX1/10	96739	80	28	20	5000	70	12,000	50.7	50.5	1/10

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Lumen (lm)	Beam Angle (°)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
LED Decor Range - PAR16													
1	220-240	E14	OT LED PAR16 E14 1W 220-240V WHITE GE BX	96740	80	28	20	5000	70	12,000	57.2	76	1/10



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Lumen (lm)	Beam Angle (°)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
LED Decor Range - R50													
2	230-240	E14	LED 2/R50/630/230-240V/SP/E14 HBX	97179	500	110	15	3000	60	12,000	50.7	76	1/8

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
5	220-240	E27	LED5/GLS/827/220-240/E27/HBX	65737	185	2700	80	25,000	63.5	110	1/8
5	220-240	E27	LED5/GLS/830/220-240/E27/HBX	79428	200	3000	80	25,000	63.5	110	1/6
5	220-240	B22	LED5/GLS/827/220-240/B22/HBX	65742	185	2700	80	25,000	63.5	108.5	1/8
5	220-240	B22	LED5/GLS/830/220-240B22/HBX	79432	200	3000	80	25,000	63.5	108.5	1/6
9	220-240	E27	LED9/GLS/827/220-240/E27/HBX	65739	405	2700	80	25,000	63.5	110	1/8
9	220-240	E27	LED9/GLS/830/220-240/E27/HBX	79426	430	3000	80	25,000	63.5	110	1/6
9	220-240	B22	LED9GLS/827/220-240/B22/HBX	65736	405	2700	80	25,000	63.5	110	1/8
9	220-240	B22	LED9/GLS/830/220-240/B22/HBX	79430	430	3000	80	25,000	63.5	110	1/6
8	230-240	E27	LED8D/A60/827/230-240V/E27/F/HBX1/6	97311	470	2700	80	15,000	61	115	1/6
8	230-240	B22	LED8D/A60/827/230-240V/B22/F/HBX1/6	97312	470	2700	80	15,000	61	115	1/6
9	220-240	E27	LED9/GLS/OMNI/830/220-240V/E27 HBX	63640	470	3000	80	25,000	69	116	1/6
9	220-240	B22	LED9/GLS/OMNI/830/220-240V/B22 HBX	63639	470	3000	80	25,000	69	116	1/6
7.5	220-240	E27	LED7.5/GLS/OMNI/827/220-240V/E27 HBX	97992	470	2700	80	15,000	62	110	1/8
7.5	220-240	B22	LED7.5/GLS/OMNI/827/220-240V/B22 HBX	97993	470	2700	80	15,000	62	110	1/8
12	220-240	E27	LED12/GLS/OMNI/827/220-240V/E27 HBX	97994	810	2700	80	15,000	62	110	1/8
12	220-240	B22	LED12/GLS/OMNI/827/220-240V/B22 HBX	97995	810	2700	80	15,000	62	110	1/8



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
4.5	220-240	E27	LED4.5D/B35/827/E27/220-240V/FR	98204	250	2700	80	20,000	36	98.5	1/10
4.5	220-240	E27	LED4.5D/B35/827/E27/220-240V/CL	98205	250	2700	80	20,000	36	98.5	1/10
4.5	220-240	E14	LED4.5D/B35/827/E14/220-240V/FR	98207	250	2700	80	20,000	36	104	1/10
4.5	220-240	E14	LED4.5D/B35/827/E14/220-240V/CL	98208	250	2700	80	20,000	36	104	1/10
4.5	220-240	B22	LED4.5D/B35/827/B22/220-240V/FR	98213	250	2700	80	20,000	36	97	1/10
4.5	220-240	B22	LED4.5D/B35/827/B22/220-240V/CL	98215	250	2700	80	20,000	36	97	1/10
4.5	220-240	E14	LED4.5D/B358T/827/E14/220-240V/FR	98217	250	2700	80	20,000	36	123.5	1/6



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
4.5	220-240	E27	LED4.5D/P45/827/E27/220-240V/FR	98221	250	2700	80	20,000	46	74	1/6
4.5	220-240	E14	LED4.5D/P45/827/E14/220-240V/FR	98222	250	2700	80	20,000	46	80	1/6
4.5	220-240	B22	LED4.5D/P45/827/B22/220-240V/FR	98224	250	2700	80	20,000	46	72.5	1/6



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
4.5	220-240	E27	LED4.5D/G80/827/E27/220-240V/FR	98225	250	2700	80	20,000	46	112.5	1/6
4.5	220-240	B22	LED4.5D/G80/827/B22/220-240V/FR	98226	250	2700	80	20,000	81	111	1/6



LED Solutions

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Life (L70, h)	Diameter (mm)	Length (mm)	Pack Qty
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LED Decor Range - Candle dimmable



4	230-240	E14	LED4D/B35/827/230-240V/E14/F/HBX1/6	97305	220	2700	80	15000	39	104	1/6
4	230-240	B22	LED4D/B35/827/230-240V/B22/F/HBX1/6	97306	220	2700	80	15000	39	102.5	1/6
4	230-240	B15	LED4D/B35/827/230-240V/B15/F/HBX1/6	97307	220	2700	80	15000	39	102.5	1/6

LED Decor Range - Candle



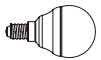
1.2	230-240	E14	LED1.2/B35/830/230-240V/E14/F/HBX1/6	97299	60	3000	80	15000	39	104	1/6
1.2	230-240	B22	LED1.2/B35/830/230-240V/B22/F/HBX1/6	97300	60	3000	80	15000	39	102.5	1/6
1.2	230-240	B15	LED1.2/B35/830/230-240V/B15/F/HBX1/6	97301	60	3000	80	15000	39	102.5	1/6

LED Decor Range - Spherical dimmable



4	230-240	E14	LED4D/P45/827/230-240V/E14/F/HBX1/6	97308	220	2700	80	15000	46	80	1/6
4	230-240	B22	LED4D/P45/827/230-240V/B22/F/HBX1/6	97309	220	2700	80	15000	46	72.5	1/6
4	230-240	E27	LED4D/P45/827/230-240V/E27/F/HBX1/6	97310	220	2700	80	15000	46	74	1/6

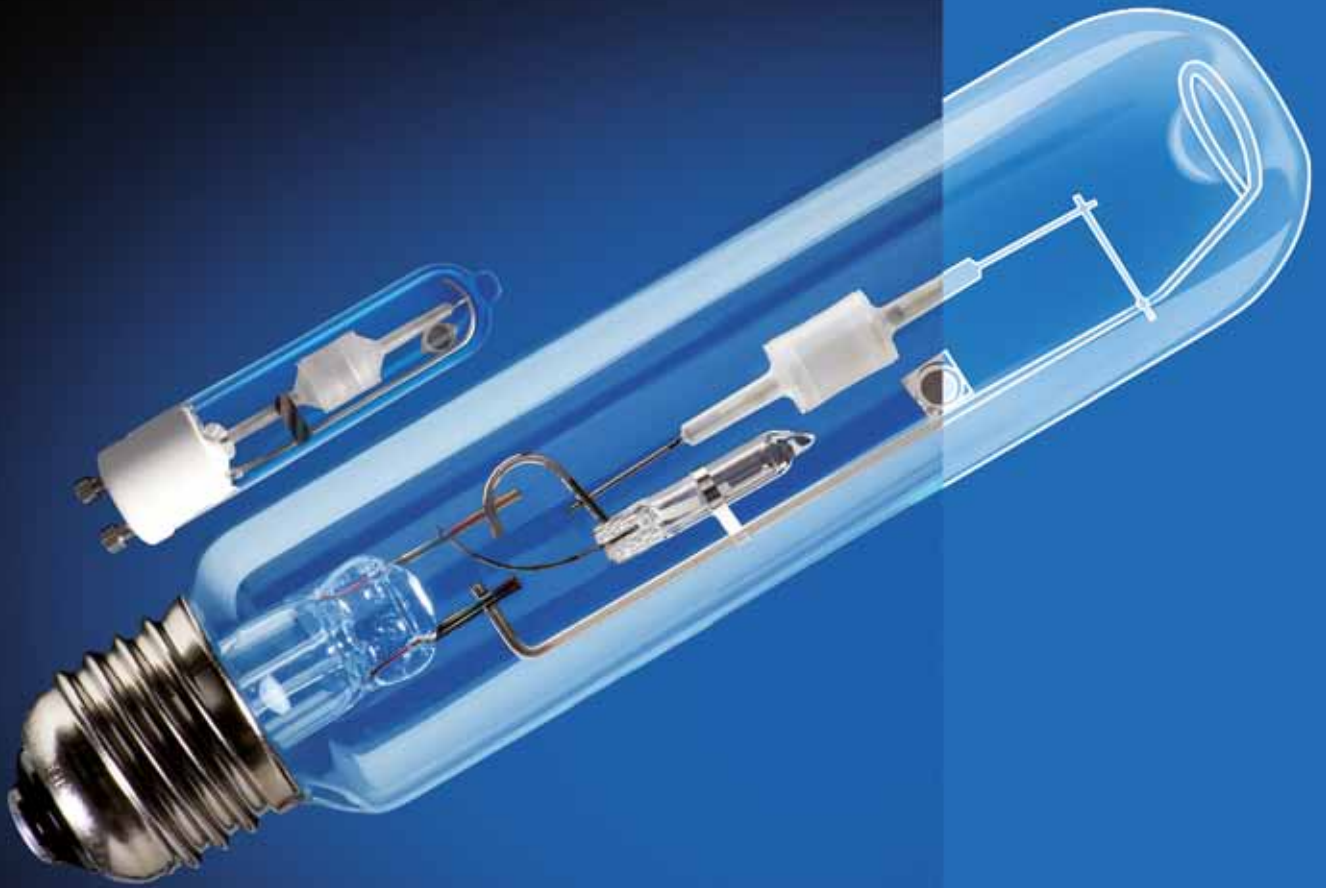
LED Decor Range - Spherical



1.2	230-240	E14	LED1.2/P45/830/230-240V/E14/F/HBX1/6	97302	60	3000	80	15000	46	80	1/6
1.2	230-240	E27	LED1.2/P45/830/230-240V/E27/F/HBX1/6	97303	60	3000	80	15000	46	74	1/6
1.2	230-240	B22	LED1.2/P45/830/230-240V/B22/F/HBX1/6	97304	60	3000	80	15000	46	72.5	1/6



High Intensity Discharge Lamps



Ultra-efficient light sources Outstanding light quality and exceptional reliability

When considering lamp life, light efficiency and excellent colour rendering, GE's Ceramic Metal Halide (CMH) range offers the perfect solution. From retail, decorative or industrial applications to outdoor applications the wide range of products represent the most advanced technology to deliver unbeatable reliability and performance. GE also provides a wide range of Lucalox™ High Pressure Sodium products for street lighting and industrial applications. GE's Lucalox™ range offers outstanding efficiency, extremely long life and reliability to meet increasing performance expectations and new regulations in these market segments.



Indoor Solutions



Retail



Industrial

When factors such as lamp life, light efficiency, cost and colour rendering matter, GE's Ceramic Metal Halide (CMH) range can provide the perfect solution. Combining high quality of light with excellent energy efficiency, GE CMH products offer the flexibility to meet challenging design requirements across environments and applications ranging from retail, industrial and decorative to outdoor use on floodlighting, street lighting or city beautification.



Quality of Light

Constant Color™ CMH range

ConstantColor™ Ceramic Metal Halide (CMH) lighting offers a high quality light source for a wide range of applications.

Available in Single Ended, Double Ended, Supermini, MR16 and reflector variations.



- Widest range from 20W to 400W
- Very efficient, up to 92LpW
- High CRI up to 90
- Outstanding long life up to 24,000hrs



High Intensity Discharge Lamps

ConstantColor™ CMH Ultra

Our next generation of CMH lamps are the ultimate light source for retail applications where quality of light, colour and efficiency is important.

Key features

- 35W and 70W 3000K CMH lamps in GU6.5, G8.5, G12 and GX10 formats
- Lumen maintenance and colour rendering (CRI) are both significantly improved vs. standard CMH, while maintaining industry leading 16,500-18,000 hours life
- The 930 colour gives a true representation of all colours in the spectrum
- These lamps will operate in any existing CMH70 and 35 G12 or G8.5 systems.



Benefits

- Extended service life and lamp replacement cycles
- Creates a higher level product offering through improved lumen maintenance and colour rendering
- Improved lumen maintenance keeps stores brighter longer

Applications

- Retail and accent lighting
- General retail display
- Wherever current generation CMH 35 & 70W G12 and G8.5 products are in use

Outdoor Solutions



Road and tunnel



Street and pedestrian



Commercial areas

Quality of Light



CMH – street lighting – bright, safe white light

It is generally observed that white light makes it easier for drivers to recognize shapes and colour, particularly in the peripheral vision. For pedestrians white light promotes a feeling of security and confidence, much more than under yellow or orange street lighting.

- CRI up to 85
- Very efficient white light up to 110LpW
- Outstanding long life up to 24,000 hours

Solution for Reliability



Lucalox™ XO & XO Superlife – solution for reliability in street lighting

GE Lucalox™ XO High Pressure Sodium lamps offer outstanding luminous efficiency, lumen maintenance and long life, thus reducing energy and maintenance costs.

- luminous efficiency up to 146 LpW
- Long life up to 60,000 hours



High Intensity Discharge Lamps

GE ConstantColor™ CMH StreetWise™

StreetWise™

GE ConstantColor™ CMH StreetWise™ ceramic metal halide lamps have been designed as the easy-fit replacement for outdated technologies. They are also the logical first choice for new installations.

They are fitted with standard E27/E40 bases and can be dimmed, they outperform most standard HID systems and with high reliability and sustained lumen output across a longer working life of 24,000 hours, they are supremely cost effective.

They support electronic and electromagnetic ballasts and are compatible with the major street light ballasts, retrofitting the existing HPS systems. If you have any particular needs please contact your GE sales representative.



StreetWise™ ceramic metal halide lamps are an excellent white light energy efficient choice, offering:

- Lowest total cost of ownership
- Wide range: 50/70/100/150 Watts
- Dimmable for all wattages (except 50W EM version) for further energy saving
- System flexibility, operating on both electronic and electromagnetic ballasts
- Standard E27/E40 bases for simplicity
- Compatible with existing HPS fixtures and optics
- Same size and LCL as current HPS
- Horizontal burning position
- Very efficient up to 110LpW
- Outstanding long life of 24,000hrs

When to specify StreetWise™

In applications where lighting class reduction using lamps above Ra8 60 can be considered, StreetWise™ is a clear leader. Its excellent Ra8 value of 70 provides improved colour rendering over similar systems of comparable life and efficiency.



Selector

ConstantColor™ CMH (Ceramic Metal Halide) GU6.5, TC, T, TD



Single Ended Supermini Ultra and Standard (GU6.5)

Cap: GU6.5
Wattages: 20-35W
Colours: 830, 930, 942
Rated life: 10,000-16,500Hrs
Page II.10



Single Ended Mini Ultra, Ultra White and Standard (TC)

Cap: G8.5
Wattages: 20-70W
Colours: 830, 930, 942
Rated life: 12,000-18,000Hrs
Page II.10



Single Ended Ultra, Ultra White and Standard (T)

Cap: G12
Wattages: 20-150W
Colours: 830, 930, 942
Rated life: 12,000-18,000Hrs
Page II.10



Double Ended (TD)

Cap: RX7s or RX7s-24
Wattages: 35-150W
Colours: 830
Rated life: 15,000Hrs
Page II.10

ConstantColor™ CMH (Ceramic Metal Halide) Reflectors



MR16 Ultra and Standard

Cap: GX10
Wattages: 20-35W
Colours: 830, 930, 942
Rated life: 10,000-16,500Hrs
Page II.11



PAR20

Cap: E27
Wattages: 20-35W
Colours: 830, 942
Rated life: 10,000-12,000Hrs
Page II.11



PAR30

Cap: E27
Wattages: 20-70W
Colours: 830, 942
Rated life: 10,000-13,000Hrs
Page II.11

ConstantColor™ CMH (Ceramic Metal Halide) Elliptical and Tubular



Open Rated Elliptical

Cap: E27
Wattages: 70-150W
Colours: 942
Finish: Clear or Diffuse
Rated life: 10,000-15,000Hrs
Page II.11



Elliptical

Cap: E27, E40
Wattages: 70-400W
Colours: 830
Finish: Clear or Diffuse
Rated life: 10,000-24,000Hrs
Page II.12



StreetWise™

Cap: E27, E40
Wattages: 50-150W
Colours: 730
Finish: Clear
Rated life: 24,000Hrs
Page II.12



Tubular

Cap: E27, E40
Wattages: 70-400W
Colours: 830, 842, 942
Finish: Clear
Rated life: 10,000-24,000Hrs
Page II.12



Open Rated Tubular

Cap: E40
Wattages: 150W
Colours: 830, 942
Finish: Clear
Rated life: 12,000Hrs
Page II.12

CMH Ballasts



CMH Standard Ballasts

A range of standard ballasts for 35-70W CMH lamps
Page II.12



CMH Miniature Ballasts

A range of miniature ballasts for 20-35W CMH lamps
Page II.12

High Intensity Discharge Lamps

Arcstream Metal Halide

Operates on suitable metal halide/high pressure sodium ballast and metal halide ignitor



Single Ended

Cap: G12
Wattages: 70-150W
Colours: 3000-4200K
CRI: 70-80
Rated life: 6,000Hrs

Page II.13



Double Ended

Cap: Rx7s-Fc2
Wattages: 70-250W
Colours: 3000-6500K
CRI: 75-90
Rated life: 8,000-12,000Hrs

Page II.13



Double Ended Coloured

Cap: RX7s-24
Wattages: 150W
Colours: Green, Blue, Orange, Magenta
Rated life: 6,000Hrs

Page II.13



Tubular

Cap: E40
Wattages: 250-400W
Colours: 4200-6000K
CRI: 70-90+
Finish: Clear
Rated life: 12,000Hrs

Page II.13



Elliptical

Cap: E40
Wattages: 250W
Colours: 4000-6000K
CRI: 70-90
Finish: Clear or Diffuse
Rated life: 12,000-14,000Hrs

Page II.14

Multi-Vapour Metal Halide

Operates from CWA Control Gear



Standard - Elliptical

Cap: E40
Wattages: 250-1000W
Colours: 3700-4200K
CRI: 65-70
Finish: Clear or Diffuse
Rated life: 10,000-20,000Hrs

Page II.14



High Output - Elliptical

Cap: E40
Wattages: 250-400W
Colours: 3200-4200K
CRI: 65-70
Finish: Clear or Diffuse
Rated life: 20,000Hrs

Page II.14

Kolorarc™ Metal Halide

Operates from suitable mercury or metal halide ballast rated 3.5A and metal halide ignitor



Tubular

Cap: E40
Wattages: 400W
Colours: 6000K
CRI: 90
Finish: Clear
Rated life: 14,000Hrs

Page II.14



Elliptical

Cap: E40
Wattages: 400W
Colours: 4000-6000K
CRI: 65-90
Finish: Clear or Diffuse
Rated life: 14,000Hrs

Page II.14

Sportlight™ Metal Halide

For sports and floodlighting



Linear

Cap: Rx7s - spec
Wattages: 1500-2000W
Colours: 5200K
CRI: 65
Rated life: 6,000Hrs

Page II.15



Tubular Clear

Cap: E40
Wattages: 1000-2000W
Colours: 4000-6000K
CRI: 65-93
Rated life: 2,000-8,000Hrs

Page II.15



Internal Ignitor

Cap: E40
Wattages: 2000W
Colours: 4000-6000K
CRI: 65-93
Rated life: 2,000-5,000Hrs

Page II.15

Selector

Lucalox™ High Pressure Sodium



Lucalox™ XO Superlife
Cap: E27, E40
Wattages: 50-400W
Feature: Extra high lumen output and Twin Arc tubes for extra life
Finish: Tubular Clear or Elliptical Diffuse
Rated life: 40,000 -60,000Hrs
Page II.15



Lucalox™ XO
Cap: E27, E40
Wattages: 50-600W
Feature: Extra high lumen output
Finish: Tubular Clear or Elliptical Diffuse
Rated life: 28,500 -35,000Hrs
Page II.15



Lucalox™ Superlife
Cap: E40
Wattages: 250-400W
Feature: Twin Arc tubes for extra life
Finish: Elliptical Diffuse
Rated life: 55,000Hrs
Page II.16



Lucalox™ Standard
Cap: E27, E40
Wattages: 70-1000W
Finish: Tubular Clear or Elliptical Diffuse
Rated life: 24,000 -28,500Hrs
Page II.16



Lucalox™ Start
Cap: E27, E40
Wattages: 70-400W
Finish: Tubular clear
Rated life: 12,000-24,000Hrs
Page II.16



Lucalox™ Internal Ignitor
Cap: E27
Wattages: 70W
Feature: Internal ignitor
Finish: Elliptical Clear or Diffuse
Rated life: 17,500Hrs
Page II.16

Mercury Lamps



Kolorlux™ Mercury Standard
Cap: E27, E40
Wattages: 50-400W
Rated life: 16,000-20,000Hrs
Page II.17



Kolorlux™ Mercury Deluxe
Cap: E27, E40
Wattages: 50-400W
Rated life: 16,000-20,000Hrs
Page II.17



Kolorlux™ Mercury Start
Cap: E27
Wattages: 125W
Rated life: 12,000 Hrs
Page II.17



Mixed Light
Cap: E27, E40
Wattages: 160-500W
Voltage: 230-240V or 240-250V
Rated life: 8,000Hrs
Page II.17

High Intensity Discharge Lamps

Product identification

The following glossary of terms will help you when selecting lamps in this section. Within each product line, lamps are divided into families – within these families, lamps are listed by wattage. The Product Description can be used as a quick reference to each product's attributes. Where Life or Average Life are stated we refer to the industry standard definition of how many hours of operation 50% of a given installation will exceed.

Additional parameters:

CCT (K): Colour Temperature - Kelvins

A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value the whiter or "cooler" the light appears.

CRI (Ra): Colour Rendering Index

An indication of the ability of the lamp to render object colours in a normal, natural way. The higher the number (0-100), the better the colour appearance.

Watts:

Energy Used – Nominal Watts. To estimate energy consumption (kWh), multiply watts x hours of use and divide by 1000

Cap:

The type of cap fitted. See page 148-149 for cap drawings

Nominal Volts: Lamp data is based on operation at rated voltage

Product description: The lamp's identification code

Lumens: Initial Lumens - light output at 100 hours

Life (Horizontal): Rated average life in horizontal burning position

Operating position:
U - Universal
HOR - Horizontal
BU - Base Up
VBU - Vertical Base Up

Diameter: Bulb diameter in mm

Wattage (W)

Volts (V)

Cap

Product Description

Product Code

Lumen (lm)

Colour

Operating position

Rated life (Vertical) (h)

Rated life (Horizontal) (h)

Length (mm)

Diameter (mm)

Pack Qty

ConstantColor™ - CMH Supermini

20	95	GU6.5	CMH20/T/UVC/830/GU6.5	40399	1615	830	U	12,000	12,000	52	13	12
35	95	GU6.5	CMH35/T/UVC/930/GU6.5	88656	3400	930	U	10000*	10,000*	52	13	12

CMH 70 / T / UVC / U / 9 30 / G12 ULTRA

(70) Identifies Lamp's wattage

(UVC) UV Control

(U) Operating Position

(G12): Identifies the cap type

(CMH) Product Family

CMH - ConstantColor™ CMH
ARC - Arcstream™
KRC - Kolorarc™
MPR/MVR - Multi-Vapor™
SPL - Sportlight™
LU - Lucalox™
H - Mercury
ML - Blended Light
BLS - Ballast

(T) Identifies the lamp format.

TD - Double Ended
E - Elliptical Clear
D - Elliptical Diffused
L - Linear
PARxx - PAR + size
T - Tubular Clear

(9) Colour rendering

6 - nom 60, min 57 (Group 2B)
7 - nom 70, min 67 (Group 2A)
8 - nom 80, min 77 (Group 1B)
9 - nom 90, min 87 (Group 1A)

(30) Colour temperature

XX = First 2 digits of temperature in Kelvin - XX00K
Example: 30 is 3000K

Colour: Combination of colour rendering and colour temperature

Length: Lamp length in mm

Product code:

It is important to use this code when ordering to ensure that you receive the exact product you require

Life (Vertical):

Rated average life in vertical burning position

Pack quantity:

Number of product units packed in a case



ConstantColor™ CMH Lamps

Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	Colour	Operating position	Rated life (Vertical) [h]	Rated life (Horizontal) [h]	Length [mm]	Diameter [mm]	Pack Qty
ConstantColor™ - CMH Supermini												
20	95	GU6.5	CMH20/TC/UVC/830/GU6.5	40399	1615	830	U	12,000	12,000	52	13	12
35	93	GU6.5	CMH35/T/UVC/V60/930/GU6.5 ULTRA	76122	3500	930	V+/-60	16,500	-	52	13	12
35	95	GU6.5	CMH35/T/UVC/930/GU6.5	88656	3400	930	U	10,000	10,000	52	13	12
35	95	GU6.5	CMH35/T/UVC/942/GU6.5	88657	3400	942	U	12,000	12,000	52	13	12



ConstantColor™ - CMH Single Ended Mini

20	90	G8.5	CMH20/TC/UVC/U/830/G8.5 PLUS	39858	1650	830	U	12,000	12,000	85	14.5	12
35	90	G8.5	CMH35/TC/UVC/U/942/G8.5	26348	3200	942	U	18,000	18,000	85	14.5	12
35	90	G8.5	CMH35/TC/UVC/U/830/G8.5 PLUS	43273	3400	830	U	16,500	16,500	85	14.5	12
35	92	G8.5	CMH35/TC/V60/UVC/930/G8.5 ULTRA	76120	3600	930	V+/-60	16,500	-	85	14.5	12
70	90	G8.5	CMH70/TC/UVC/U/942/G8.5	26349	6200	942	U	15,000	15,000	85	14.5	12
70	90	G8.5	CMH70/TC/UVC/U/830/G8.5 PLUS	43274	6200	830	U	15,000	15,000	85	14.5	12
70	90	G8.5	CMH70/TC/UVC/U/930/G8.5 ULTRA WHITE	63595	6700	930	U	18,000	18,000	85	14.5	12
70	90	G8.5	CMH70/TC/UVC/U/930/G8.5 ULTRA	96751	6200	930	U	18,000	18,000	85	14.5	12



ConstantColor™ - CMH Single Ended

20	90	G12	CMH20/T/UVC/U/830/G12 PLUS	42708	1650	830	U	12,000	12,000	90	14.5	12
35	90	G12	CMH35/T/UVC/U/830/G12 PLUS	43272	3400	830	U	16,500	16,500	90	14.5	12
35	92	G12	CMH35/T/V60/UVC/930/G12 ULTRA	76121	3600	930	V+/-60	16,500	-	90	19	12
35	90	G12	CMH35/T/UVC/U/942/G12	92141	3200	942	U	18,000	18,000	90	14.5	12
70	90	G12	CMH70/T/UVC/U/830/G12	20005	6400	830	U	15,000	15,000	90	19	12
70	90	G12	CMH70/T/UVC/U/942/G12	20013	6000	942	U	15,000	15,000	90	19	12
70	95	G12	CMH70/T/UVC/U/930/G12 ULTRA WHITE	63596	6600	930	U	18,000	18,000	90	19	12
70	95	G12	CMH70/T/UVC/U/930/G12 ULTRA	96752	6400	930	U	18,000	18,000	90	19	12
150	90	G12	CMH150/T/UVC/U/830/G12	20012	14000	830	U	12,000	12,000	100	19	12
150	90	G12	CMH150/T/UVC/U/942/G12	20014	13000	942	U	12,000	12,000	100	19	12



ConstantColor™ - CMH Double Ended

35	90	RX7s	CMH35/TD/UVC/830/RX7s	43278	3400	830	HOR±45°	-	15,000	118	21	12
70	90	RX7s	CMH70/TD/UVC/830/RX7s	36910	7000	N/A	HOR±45°	-	15,000	118	21	12
70	90	RX7s	CMH70/TD/UVC/942/RX7s	38698	6200	N/A	HOR±45°	-	15,000	118	21	12
150	96	RX7s-24	CMH150/TD/UVC/830/RX7s-24	36912	14500	N/A	HOR±45°	-	15,000	135	27	12
150	96	RX7s-24	CMH150/TD/UVC/942/RX7s-24	38692	12500	N/A	HOR±45°	-	15,000	135	27	12



High Intensity Discharge Lamps

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Beam Angle [°]	Colour	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
ConstantColor™ - CMH MR16 Precise													
20	95	GX10	CMH20/MR16/UVC/830/GX10/SP	40400	9000	12	830	U	12,000	12,000	54.5	51	12
20	95	GX10	CMH20/MR16/UVC/830/GX10/FL GX10	40401	2900	25	830	U	12,000	12,000	54.5	51	12
20	95	GX10	CMH20/MR16/UVC/830/GX10/WFL GX10	42691	1500	40	830	U	12,000	12,000	54.5	51	12
35	93	GX10	CMH35/MR16/V60/UVC/930/GX10/SP Ultra	76123	16000	12	930	V+/-60	16,500	-	54.5	51	12
35	93	GX10	CMH35/MR16/V60/UVC/930/GX10/FL Ultra	76124	5500	25	930	V+/-60	16,500	-	54.5	51	12
35	93	GX10	CMH35/MR16/V60/UVC/930/GX10/WFL Ultra	76125	3000	40	930	V+/-60	16,500	-	54.5	51	12
35	90	GX10	CMH35/MR16/UVC/930/GX10/SP GX10	88658	16000	12	930	U	10,000	10,000	54.5	51	12
35	90	GX10	CMH35/MR16/UVC/930/GX10/FL GX10	88659	5500	25	930	U	10,000	10,000	54.5	51	12
35	90	GX10	CMH35/MR16/UVC/930/GX10/WFL GX10	88660	3000	40	930	U	10,000	10,000	54.5	51	12
35	90	GX10	CMH35/MR16/UVC/942/GX10/SP GX10	88661	16000	12	942	U	12,000	12,000	54.5	51	12
35	90	GX10	CMH35/MR16/UVC/942/GX10/FL GX10	88662	5500	25	942	U	12,000	12,000	54.5	51	12
35	90	GX10	CMH35/MR16/UVC/942/GX10/WFL GX10	88663	3000	40	942	U	12,000	12,000	54.5	51	12



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Beam Angle [°]	Colour	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
ConstantColor™ - CMH PAR 20													
20	95	E27	CMH20PAR20/UVC/830/E27/SP10	26478	13000	10	830	U	12,000	12,000	92	64	15
20	95	E27	CMH20/PAR20/UVC/830/E27/FL25	26481	3750	25	830	U	12,000	12,000	92	64	15
35	90	E27	CMH35/PAR20/UVC/830/E27/SP10	21684	22000	10	830	U	10,000	10,000	92	64	15
35	90	E27	CMH35/PAR20/UVC/830/E27/FL25	21685	7500	25	830	U	10,000	10,000	92	64	15
35	90	E27	CMH35/PAR20/UVC/942/E27/SP10	44890	19450	10	942	U	10,000	10,000	92	64	15
35	90	E27	CMH35/PAR20/UVC/942/E27/FL25	44919	6950	25	942	U	10,000	10,000	92	64	15



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Beam Angle [°]	Colour	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
ConstantColor™ - CMH PAR 30													
20	95	E27	CMH20PAR30/UVC/830/E27/SP10	26497	19800	10	830	U	12,000	12,000	124	95.5	6
20	95	E27	CMH20PAR30/UVC/830/E27/FL25	26518	4900	25	830	U	12,000	12,000	124	95.5	6
35	90	E27	CMH35/PAR30/UVC/830/E27/SP10	21689	39600	10	N/A	U	10,000	10,000	124	95.5	6
35	90	E27	CMH35/PAR30/UVC/830/E27/FL 25	21690	11000	25	N/A	U	10,000	10,000	124	95.5	6
35	90	E27	CMH35/PAR30/UVC/942/E27/SP10	44939	36700	15	942	U	10,000	10,000	124	95.5	6
35	90	E27	CMH35/PAR30/UVC/942/E27/FL25	44942	10200	40	942	U	10,000	10,000	124	95.5	6
70	90	E27	CMH70/PAR30/UVC/830/E27/SP15	21683	42800	25	N/A	U	13,000	13,000	124	95.5	6
70	90	E27	CMH70/PAR30/UVC/830/E27/FL40	21682	10000	10	N/A	U	13,000	13,000	124	95.5	6
70	90	E27	CMH70/PAR30/UVC/942/E27/SP15	74620	33500	15	942	U	10,000	10,000	124	95.5	6
70	90	E27	CMH70/PAR30/UVC/942/E27/FL40	74619	9000	40	942	U	10,000	10,000	124	95.5	6



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	Colour	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
ConstantColor™ - CMH Elliptical Clear												
70	97	E27	CMH70/E/UVC/U/830/E27/C	97982	6300	N/A	U	15,000	15,000	138	54	6
100	102	E27	CMH100/E/UVC/U/830/E27/C	97984	9200	N/A	U	15,000	15,000	138	54	6



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	Colour	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
ConstantColor™ - CMH Elliptical Clear, Open Rated												
150	95	E27	CMH150/UVC/O/U/942/E27/C	43285	13200	942	U	15,000	15,000	138	55	6

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	Colour	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
ConstantColor™ - CMH Elliptical Diffuse												
70	97	E27	CMH70/E/UVC/U/830/E27/D	97979	6000	830	U	15,000	15,000	138	54	6
100	102	E27	CMH100/E/UVC/U/830/E27/D	97985	8700	830	U	10,000	10,000	138	54	6
250	117	E40	CMH250/E/UVC/U/830/E40/D	10591	23500	830	U	24,000	24,000	227	90	12
400	120	E40	CMH400/E/UVC/U/830/E40/D	13087	39000	830/836	U	20,000	20,000	282	120	6



ConstantColor™ - CMH Elliptical Diffuse, Open Rated												
70	97	E27	CMH70/UVC/O/U/940/E27/D	43282	5300	940	U	15,000	15,000	138	54	6
150	95	E27	CMH150/UVC/O/U/940/E27/D	43286	12300	940	U	15,000	15,000	138	55	6

ConstantColor™ - CMH Tubular Clear StreetWise												
50	85	E27	CMH50/TT/UVC/730/E27 STREETWISE ECG	64982	5000	730	HOR±15°***	-	24,000*	156	39	12
50	85	E27	CMH50/TT/UVC/730/E27 STREETWISE EM	77400	4500	730	HOR±15°***	-	24,000*	156	39	12
70	95	E27	CMH70/TT/UVC/730/E27 STREETWISE	77401	7640	730	HOR±15°***	-	24,000*	156	39	12
100	100	E40	CMH100/TT/UVC/730/E40 STREETWISE	77399	10900	730	HOR±15°***	-	24,000*	211	48	12
150	100	E40	CMH150/TT/UVC/730/E40 STREETWISE	77402	16200	730	HOR±15°	-	24,000*	211	48	12



*Testing is still on-going to determine final design life
 ** Universal burning position to be available in Q4

ConstantColor™ - CMH Tubular Clear												
70	95	E27	CMH70/TT/UVC/830/E27	38752	6400	830	U	15,000	20,000	156	37	12
100	109	E40	CMH100/TT/UVC/830/E40	92478	9200	830	U	10,000	15,000	209	48	12
150	95	E40	CMH150/UVC/T/U/842/E40	21514	14500	842	U	15,000	15,000	209	48	12
150	100	E40	CMH150/TT/UVC/830/E40	38749	14000	830	U	15,000	20,000	209	48	12
250	117	E40	CMH250/TT/UVC/U/830/E40	10589	25000	830	U	24,000	24,000	260	48	12
250	110	E40	KRC250/CMH/830/T/H/E40	20302	20000	830	HOR	-	24,000	260	48	12
250	107	E40	CMH250/T/U/942/E40	62356	25000	942	U	16,000*	16,000*	260	48	12
400	120	E40	CMH400/TT/UVC/U/830/E40	13067**	41000	830/836	U	20,000	20,000	278	60	12



*Testing is still on-going to determine final design life
 ** 830 in horizontal burning position, 836 in vertical burning position

ConstantColor™ - CMH Tubular Clear, Open Rated												
150	100	E40	CMH150/UVC/O/T/U/830/E40	21516	14000	830	U	12,000	12,000	209	48	12
150	100	E40	CMH150/UVC/O/T/U/942/E40	21517	14000	942	U	12,000	12,000	209	48	12



Wattage (W)	Volts (V)	Product Description	Product Code	Category	Weight (g)	Pack Qty
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CMH Standard Ballast						
35	220-240	BLS/E/35W/CMH	61487	integral	350	10
35	220-240	BLS/E/35W/CMH/R CC	61488	remote cable clamp	370	10
70	220-240	BLS/E/70W/CMH	61376	integral	350	10
70	220-240	BLS/E/70W/CMH/R CC	61569	remote cable clamp	370	10

CMH Miniature Ballast						
20	220-240	BLS/E/20W/CMH	78711	integral	165	12
20	220-240	BLS/E/20W/CMH/R/CC	78712	remote cable clamp	180	12
20	220-240	BLS/E/20W/CMH/R/LP	78713	remote with lead	240	12
35	220-240	BLS/E/35W/CMH	78714	integral	165	12
35	220-240	BLS/E/35W/CMH/R/CC	78715	remote cable clamp	180	12
35	220-240	BLS/E/35W/CMH/R/LP	78716	remote with lead	240	12


High Intensity Discharge Lamps

Metal Halide Lamps




Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
Arcstream™ Single Ended  RG-2													
150	95	G12	ARC150/G12/830	88654	12000	3000	80	U	6,000	6,000	76	21.5	10
150	95	G12	ARC150/G12/842	88655	11500	4200	80	U	6,000	6,000	76	21.5	10


WARNING: UV emitted from lamps in Risk Group 2 and 3. Avoid eye and skin exposure to unshielded product.

Arcstream™ Single Ended  UVC													
70	95	G12	ARC70/T/U/730/G12	97286	5200	3000	70	U	6,000	6,000	87	23	10
70	95	G12	ARC70/T/U/742/G12	97287	5200	4200	75	U	6,000	6,000	87	23	10




Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
Arcstream™ Double Ended  UVC												
70	95	RX7s	ARC70/UVC/TD/730/Rx7s	34530	5500	3000	75	HOR±45°	12,000	114	19	12
70	95	RX7s	ARC70/UVC/TD/742/Rx7s	34536	5500	4200	75	HOR±45°	12,000	114	22	12
150	95	RX7s-24	ARC150/UVC/TD/732/Rx7s-24	34527	12000	3200	75	HOR±45°	8,000	132	22	12
150	95	RX7s-24	ARC150/UVC/TD/742/Rx7s-24	34535	12000	4200	75	HOR±45°	8,000	132	25	12



Arcstream™ Double Ended  RG-3												
150	95	RX7s-24	ARC150/AQUA/TD/865/Rx7s-24	35284	11000	6500	85	HOR±45°	8,000	132	25	12
150	110	RX7s-24	ARC150/TD/952/Rx7s-24	93772	11000	5200	90	HOR±45°	8,000	132	25	12
250	114	Fc2	ARC250/TD/832/Fc2	30099	20000	3200	75	HOR±45°	8,000	163	25	12
250	115	Fc2	ARC250/TD/842/Fc2	30101	20000	4200	75	HOR±45°	8,000	163	25	12


WARNING: UV emitted from lamps in Risk Group 2 and 3. Avoid eye and skin exposure to unshielded product.



Colour	Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Operating position	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
Arcstream™ Double Ended Coloured  UVC										
green	150	95	RX7s-24	ARC150/UVC/TD/GREEN/RX7S-24	12181	HOR±45°	6,000	132	25	12
blue	150	95	RX7s-24	ARC150/UVC/TD/BLUE/RX7S-24	12182	HOR±45°	6,000	132	25	12
orange	150	95	RX7s-24	ARC150/UVC/TD/ORANGE/RX7S-24	12183	HOR±45°	6,000	132	25	12
magenta	150	95	RX7s-24	ARC150/UVC/TD/MAGENTA/RX7S-24	12184	HOR±45°	6,000	132	25	12

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
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Arcstream™ Tubular Clear													
250	100	E40	ARC250/T/H/960/E40	32664	19000	6000	90	HOR±45°	-	12,000	220	47	12
250	100	E40	ARC250/T/VBU/960/E40	32665	19000	6000	90	BU±45°	12,000	-	220	47	12
250	112	E40	ARC250/T/H/742/E40	42357	21000	4200	70	HOR±15°	-	12,000	220	48	12
400	105	E40	ARC400/T/H/742/E40	42369	35000	4200	70	HOR±15°	-	12,000	260	47	12

 The lamp shall be operated only in a luminaire provided with a protective shield.

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
Arcstream™ Elliptical Diffuse													
250	100	E40	ARC250/D/H/740/E40	16870	19500	4000	70	HOR±15°	-	14,000	227	90	10
250	100	E40	ARC250/D/H/960/E40	30047	17000	6000	90	HOR±45°	-	12,000	227	91	12
250	100	E40	ARC250/D/VBU/960/E40	32666	17000	6000	90	VBU±45°	12,000	-	227	90	12

Operating from suitable metal halide / high pressure sodium (HPS) ballast and metal halide ignitor. Arcstream™ lamps are only suitable for operation in fully enclosed fixtures where lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100°C)

Multi-Vapor™ Elliptical Clear

250**	133	E40	MVR250/U/40*	44542	20800	4200	65	U	10,000	10,000	216	89	12
400**	135	E40	MVR400/U/40*	43907	40000	4000	65	U	20,000	20,000	295	118	6
1000**	V250 H245	E40	MVR1000/U/40	41828	108000	4000	65	U	15,000	15,000	385	178	6

*Non EU Product

**Performance data claimed for vertical position

Multi-Vapor™ Elliptical Diffuse

250**	133	E40	MVR250/C/U/40*	44543	20000	3900	70	U	10,000	10,000	216	89	12
400**	135	E40	MVR400/C/U/40	43908	40000	3700	70	U	20,000	20,000	295	117	6

*Non EU Product

**Performance data claimed for vertical position

Multi-Vapor™ High Output Elliptical Clear

250	133	E40	MVR250/VBU/40	98777	22000	4200	65	VBU±15°	10,000	-	216	89	12
400	135	E40	MVR400/VBU/40	49860	41000	4000	65	VBU±15°	20,000	-	295	117	6

Multi-Vapor™ High Output Elliptical Diffuse

250	133	E40	MVR250/C/VBU/40	98778	20000	4000	65	VBU±15°	10,000	-	216	89	12
400*	135	E40	MPR400/C/VBU/0/40	27738	38000	3200	70	VBU±15°	20,000	-	295	117	6
400	135	E40	MVR400/C/VBU/40	49857	40000	3700	70	VBU±15°	20,000	-	295	117	6

Operating from CWA control gear. Initial lumen values and Rated Average Life based on vertical orientation for Universal types. Multi-Vapor™ lamps must operated in fully enclosed fixtures except those marked *when used VBU or VBD +/-15°. For lamps requiring enclosed fixtures, lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100 °C). Lamps operated in the vertical position that are not designated "Enclosed Fixtures only" lamp may be used in an open or enclosed lighting fixture depending upon the application and operating environment. For example, if the lamp is located near combustible material or in an area which is unoccupied for extended periods, an enclosed fixture which can contain fragments of hot quartz or glass is recommended. For more information contact your fixture manufacturer.

Kolorarc™ Tubular Clear

400	130	E40	KRC400/T/H/960/E40	30052	28400	6000	90	HOR±45°	-	14,000	270	58	12
400	130	E40	KRC400/T/VBU/960/E40	30704	27000	6000	90	VBU±45°	14,000	-	270	58	12

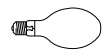
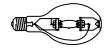
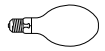
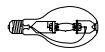
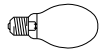
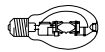
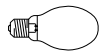
Kolorarc™ Elliptical Clear

400	135	E40	KRC400/E/VBU/645/E40	16871	33500	4500	65	VBU±30°	14,000	-	286	122	10
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Kolorarc™ Elliptical Diffuse

400	130	E40	KRC400/D/H/960/E40	10834	26800	6000	90	HOR±45°	-	14,000	282	121	6
400	130	E40	KRC400/D/VBU/960/E40	10837	25400	6000	90	VBU±45°	14,000	-	282	121	6
400	135	E40	KRC400/D/VBU/740/E40	16872	33500	4000	70	VBU±30°	14,000	-	286	122	10
400	135	E40	KRC400/D/H/740/E40	16875	38000	4000	70	HOR±15°	-	14,000	286	120	10

Operating from suitable mercury or metal halide ballast rated 3.5A and metal halide ignitor. Low loss ballast recommended for 400W 6000K (960) products - see lamp data sheet for details. * Enhanced lumen performance operating from special "High Output" ballast rated 3.8A - see lamp data sheet for details. Kolorarc™ lamps are only suitable for operation in fully enclosed fixtures where lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100 °C)



High Intensity Discharge Lamps


Metal Halide Lamps (continued)

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated life (Vertical) (h)	Rated life (Horizontal) (h)	Length (mm)	Diameter (mm)	Pack Qty
Sportlight™ Linear													
1500	250	RX7SM	SPL1500/L/H/652/Rx7SM	16920	120000	5200	65	HOR±15°	-	6,000	256	24	1
2000	230	spec.	SPL2000/L/H/651/SPEC	16922	200000	5200	65	HOR±15°	-	6,000	311	26	1




Sportlight™ Tubular Clear													
1000	120	E40	SPL1000/T/H/960/E40	88882	80000	6000	93	HOR±60°	-	8,000	334	65	4
2000	125	E40	SPL2000/220V/T/H/640/E40	36078	189000	4000	65	HOR±75°	-	2,000	430	102	4
2000	225	E40	SPL2000/380V/T/H/960/E40	30102	170000	6000	93	HOR±60°	-	5,000	430	102	4




Sportlight™ Internal Ignitor 													
2000	225	E40	SPL2000/380V/I/T/H/960/E40	30103	170000	6000	93	HOR±60°	-	5,000	430	101	4
2000	235	E40	SPL2000/380V/I/T/H/640/E40	33148	190000	4000	65	HOR±75°	-	2,000	430	101	4




Please refer to technical data sheet for appropriate ballast and ignitors. Sportlight™ lamps are only suitable in fully enclosed fixtures, where fixture lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100° C)

 Internal Ignitor

High Pressure Sodium Lamps

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated Life (h)	Length (mm)	Diameter (mm)	Pack Qty
Lucalox™ XO Superlife Tubular Clear 												
70	90	E27	LU 70/XO/SBY/T/E27	88258	6600	2000	25	U	50,000	156	39	25
100	100	E40	LU 100/XO/SBY/T/E40	88256	10500	2000	25	U	60,000	211	48	12
150	100	E40	LU 150/XO/SBY/T/E40	78737	17500	2000	25	U	60,000	211	48	12
250	100	E40	LU 250/XO/SBY/T/E40	78738	33000	2000	25	U	55,000	260	48	12
400	100	E40	LU 400/XO/SBY/T/E40	78739	55800	2000	25	U	55,000	283	48	12



Lucalox™ XO Superlife Elliptical Diffuse 												
50	85	E27	LU50/85/XO/SBY/D/E27	97238	3500	2000	25	U	40,000	156	72	12
70	90	E27	LU70/90/XO/SBY/D/E27	88257	6000	2000	25	U	50,000	156	71	12
100	100	E40	LU100/XO/SBY/D/E40	88255	10000	2000	25	U	60,000	186	75	12





Lucalox™ XO Tubular Clear												
50	85	E27	LU50/85/XO/T/27	93373	4400	2100	25	U	28,500	156	39	25
70	90	E27	LU70/90/XO/T/27	93375	6600	2100	25	U	28,500	156	39	25
100	100	E40	LU100/100/XO/T/40	93376	10700	2100	25	U	35,000	211	48	12
150	100	E40	LU150/150/XO/T/40	93377	17500	2100	25	U	35,000	211	48	12
250	100	E40	LU250/XO/T/40	93378	33200	2100	25	U	32,000	260	48	12
400	100	E40	LU400/XO/T/40	93269	56500	2100	25	U	32,000	292	48	12
600	115	E40	LU600/XO/T/40	93270	88500	2100	25	U	32,000	292	48	12




Lucalox™ XO Elliptical Diffuse												
50	85	E27	LU50/85/XO/D/27	45696	3600	2100	25	U	28,500	156	72	12
70	90	E27	LU70/90/XO/D/27	45697	6000	2100	25	U	33,000	156	72	12
400	105	E40	LU400/XO/D/40	93296	54000	2100	25	U	32,000	292	122	6
100	100	E40	LU100/100/XO/D/40	93379	10200	2100	25	U	35,000	186	76	12
150	100	E40	LU150/100/XO/D/40	93380	16900	2100	25	U	35,000	227	91	12
250	100	E40	LU250/XO/D/40	93381	31200	2100	25	U	32,000	227	91	12




 External Ignitor,  Internal Ignitor




Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated Life (h)	Length (mm)	Diameter (mm)	Pack Qty
Lucalox™ Superlife Elliptical Diffuse 												
250	100	E40	LU250/SBY/D/E40*	35590	26000	2000	25	U	55,000	227	91	12
400	105	E40	LU400/SBY/D/E40*	35591	48000	2000	25	U	55,000	282	122	6


* Non EU product

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated Life (h)	Length (mm)	Diameter (mm)	Pack Qty
Lucalox™ Standard Tubular Clear 												
70	90	E27	LU 70/90/MO/T/E27	46221	6100	2000	25	U	28,500	156	39	25
100	100	E40	LU100/100/MO/T/40	93767	9600	2000	25	U	28,500	211	48	12
150	100	E40	LU150/100/HO/T/E40	97241	17500	2000	25	U	24,000	283	48	12
150	100	E40	LU150/100/40*	44244	15000	2000	25	U	28,500	211	48	12
250	100	E40	LU250/T/40*	22453	28500	2000	25	U	28,500	260	48	12
400	100	E40	LU400/HO/T/E40	97240	56500	2000	25	U	24,000	260	48	12
400	100	E40	LU400/T/40*	11678	48000	2000	25	U	28,500	278	48	12
1000	250	E40	LU1000/40	44059	130000	2100	22	U	24,000	383	79	6
1000	110	E40	LU1000/110/T/40	45751	130000	2000	25	U	24,000	374	68	4


* Non EU product


Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated Life (h)	Length (mm)	Diameter (mm)	Pack Qty
Lucalox™ Standard Elliptical Diffuse 												
70	90	E27	LU70/90/MO/D/E27	46217	5750	2000	25	U	28,500	156	72	12
100	100	E40	LU100/100/MO/D/40*	93766	9200	2000	25	U	28,500	186	76	12
150	100	E40	LU150/100/D/40*	44245	14500	2000	25	U	28,500	227	91	12
250	100	E40	LU250/D/40*	44052	26000	2000	25	U	28,500	227	91	12
400	105	E40	LU400/D/40*	44057	48000	2000	25	U	28,500	282	122	6



* Non EU product

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated Life (h)	Length (mm)	Diameter (mm)	Pack Qty
Lucalox™ Start Tubular Clear 												
70	90	E27	LU70/90/T12/27 START*	96815	5100	2000	21	U	12,000	156	39	25
150	100	E40	LU150/100/T/40 START*	96808	15000	2000	21	U	24,000	211	48	12
250	100	E40	LU250/T/40 START*	96810	28000	2000	21	U	24,000	260	48	12
400	105	E40	LU400/T/40 START*	96813	48000	2000	21	U	24,000	292	48	12

* Non EU product

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated Life (h)	Length (mm)	Diameter (mm)	Pack Qty
Lucalox™ Internal Ignitor Elliptical Clear 												
70	90	E27	LU 70/90/MO/I/E27	46209	6100	2000	25	U	17,500	156	72	12

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated Life (h)	Length (mm)	Diameter (mm)	Pack Qty
Lucalox™ Internal Ignitor Elliptical Diffuse 												
70	90	E27	LU70/90/MO/D/I/E27	46186	5750	2000	25	U	17,500	156	72	12

 External Ignitor,  Internal Ignitor



High Intensity Discharge Lamps

High Pressure Mercury Lamps

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Operating position	Rated Life (h)	Length (mm)	Diameter (mm)	Pack Qty
Kolorlux™ Mercury Standard												
50	95	E27	H50/27	74171	1800	4000	40	U	16,000	130	55	24
80	115	E27	H80/27	74172	3800	4000	45	U	20,000	156	70	24
125	125	E27	H125/27	73736	6300	4000	45	U	20,000	170	75	24
250	130	E40	H250/40	73737	13000	4000	40	U	20,000	227	90	12
400	135	E40	H400/40	74174	22500	4000	40	U	20,000	292	120	12
Kolorlux™ Mercury Deluxe												
50	95	E27	H50 DX E27	77055	1800	3700	52	U	16,000	130	55	24
80	115	E27	H80 DX E27	77056	3800	3600	53	U	20,000	156	70	24
125	125	E27	H125 NDX E27	77057	6500	3500	53	U	20,000	170	75	24
250	130	E40	H250 NDX E40	77058	13800	3400	45	U	20,000	227	90	12
400	135	E40	H400 DX E40	77061	24400	3400	47	U	20,000	292	120	12
Kolorlux™ Mercury Start												
125	125	E27	H125/E27/GE/START	44180	5800	4000	40	U	12,000	178	76	24
Mixed Light												
160	230-240	E27	ML160/230-240V E27	96724	3100	4200	52	VBU±30	8,000	170	76	24
160	240-250	E27	ML160/240-250V E27	96728	3100	4200	52	VBU±30	8,000	170	76	24
250	230-240	E40	ML250/230-240V E40	96723	5500	3800	52	U	8,000	227	91	12
250	230-240	E27	ML250/230-240V E27	96725	5500	3800	52	U	8,000	227	91	12
250	240-250	E40	ML250/240-250V E40	96726	5500	3800	52	U	8,000	227	91	12
500	230-240	E40	ML500/230-240V E40	96713	14000	3800	45	U	8,000	292	121	10



Brand cross reference

The following pages show GE and alternative brand Order Codes. These cross references are provided as a quick guide and may only represent a near equivalent to other brands. The table contains data from alternative brands' catalogues and website.

GE	OSRAM	PHILIPS	Havells Sylvania	Venture
ConstantColor CMH™				
CMH20/TC/UVC/830/GU6.5	HCI-TF 20W/830 WDL PB GU6.5	CDM-Tm Mini GU6.5 20W/830	CMi-Tmini 20W/WDL UVS	-
CMH35/T/UVC/930/GU6.5	HCI-TF 35/930 WDL PB GU6.5	-	-	-
CMH35/T/UVC/930/GU6.5 Ultra	-	CDM-Tm Elite Mini GU6.5 35W/930	-	-
CMH35/T/UVC/942/GU6.5	-	-	-	-
CMH20/TC/UVC/U/830/G8.5 Plus	HCI-TC 20W/830 WDL PB G8.5	CDM-TC 20W/830 G8.5	-	-
CMH35/TC/UVC/U/830/G8.5 Plus	HCI-TC 35W/830 WDL PB G8.5	CDM-TC 35W/830 G8.5	CMi-TC 35W/WDL UVS	-
CMH35/TC/UVC/U/930/G8.5 Ultra	HCI-TC 35/930 WDL PB Shop G8.5	CDM-TC Elite 35W/930 G8.5	-	-
CMH35/TC/UVC/U/942/G8.5	HCI-TC 35W/942 NDL PB UVS G8.5	CDM-TC 35W/942 G8.5	-	-
CMH70/TC/UVC/U/830/G8.5 Plus	HCI-TC 70W/830 WDL PB G8.5	CDM-TC 70W/830 G8.5	-	-
CMH70/TC/UVC/U/942/G8.5	HCI-TC 70W/942 NDL PB G8.5	CDM-TC 70W/942 G8.5	CMi-TC 70W/WDL UVS	-
CMH70/TC/UVC/U/930/G8.5 Ultra / Ultra White	HCI-TC 70/930 WDL PB Shop G8.5*	CDM-TC Elite 70W/930 G8.5	-	-
CMH20/T/UVC/U/830/G12 Plus	-	CDM-T 20W/830 G12	-	-
CMH35/T/UVC/U/830/G12 Plus	HCI-T 35W/830 WDL PB G12	CDM-T 35W/830 G12	CMi-T 35W/WDL UVS	CM-PLUS T 35W/U/UVS/G12/830
CMH35/T/UVC/U/930/G12 Ultra	HCI-T 35/930 WDL PB Shop G12	CDM-T Elite 35W/930 G12	-	-
CMH35/T/UVC/U/942/G12	HCI-T 35W/942 NDL PB UVS G12	CDM-T 35W/942 G12	CMi-T 70W/WDL UVS	CM-PLUS T 35W/U/UVS/G12/942
CMH70/T/UVC/U/830/G12	HCI-T 70W/830 WDL PB G12	CDM-T 70W/830 G12	CMi-T 70W/NDL UVS	CM-PLUS T 70W/U/UVS/G12/830
CMH70/T/UVC/U/942/G12	HCI-T 70W/942 NDL PB UVS G12	CDM-T 70W/942 G12	-	CM-PLUS T 70W/U/UVS/G12/942
CMH70/T/UVC/U/930/G12 Ultra / Ultra White	HCI-TC 70/930 WDL PB Shop G12	CDM-T Elite 70W/930 G12	-	-
CMH150/T/UVC/U/830/G12	HCI-T 150W/830 WDL PB G12	CDM-T 150W/830 G12	CMi-T 150W/WDL UVS	CM-PLUS T 150W/U/UVS/G12/830
CMH150/T/UVC/U/942/G12	HCI-T 150/NDL PB UVS G12	CDM-T 150W/942 G12	CMi-T 150W/NDL UVS	CM-PLUS T 150W/U/UVS/G12/942
CMH35/TD/UVC/830/Rx7s	-	-	CMi-T 35W/WDL UVS	-
CMH70/TD/UVC/830/Rx7s	HCI-TS 70W/830 WDL PB UVS RX7S	CDM-TD 70W/830 RX7s	CMi-T 70W/WDL UVS	CM-PLUS TD 70W/U/UVS/RX7s/830
CMH70/TD/UVC/942/Rx7s	HCI-TS 70W/942 NDL PB UVS RX7S	CDM-TD 70W/942 RX7s	CMi-T 70W/NDL UVS	CM-PLUS TD 70W/U/UVS/RX7s/942
CMH150/TD/UVC/830/Rx7s-24	HCI-TS 150W/830 WDL PB RX7S-24	CDM-TD 150W/830 RX7s-24	CMi-T 150W/WDL UVS	CM-PLUS TD 150W/U/UVS/RX7s/830
CMH150/TD/UVC/942/Rx7s-24	HCI-TS 150W/942 NDL PB RX7S-24	CDM-TD 150W/942 RX7s-24	CMi-T 150W/NDL UVS	CM-PLUS TD 150W/U/UVS/RX7s/942
CMH20/MR16/UVC/830/GX10/SP12	-	CDM-Rm Mini 20W/830 GX10 MR16 10D	-	-
CMH20/MR16/UVC/830/GX10/FL25	-	CDM-Rm Mini 20W/830 GX10 MR16 25D	-	-
CMH20/MR16/UVC/830/GX10/WFL40	-	CDM-Rm Mini 20W/830 GX10 MR16 40D	-	-
CMH35/MR16/UVC/930/GX10/SP 12	-	-	-	-
CMH35/MR16/UVC/930/GX10/FL 25	-	-	-	-
CMH35/MR16/UVC/930/GX10/WFL40	-	-	-	-
CMH35/MR16/UVC/930/GX10/SP12 Ultra	-	CDM-Rm Elite Mini 35W/930 GX10 MR16 10D	-	-
CMH35/MR16/UVC/930/GX10/FL25 Ultra	-	CDM-Rm Elite Mini 35W/930 GX10 MR16 25D	-	-
CMH35/MR16/UVC/930/GX10/WFL40 Ultra	-	CDM-Rm Elite Mini 35W/930 GX10 MR16 40D	-	-
CMH35/MR16/UVC/942/GX10/SP12	-	-	-	-
CMH35/MR16/UVC/942/GX10/FL25	-	-	-	-
CMH35/MR16/UVC/942/GX10/WFL40	-	-	-	-
CMH20/PAR20/UVC/830/E27/SP10	-	-	-	-
CMH20/PAR20/UVC/830/E27/FL25	-	-	-	-
CMH35/PAR20/830/E27/SP	HCI-PAR20 35W/830 WDL SP E27	CDM-R 35W/830 E27 PAR20L10D	-	-
CMH35/PAR20/830/E27/FL	HCI-PAR20 35W/830 WDL FL E27	CDM-R 35W/830 E27 PAR20L30D	-	-
CMH35/PAR20/UVC/942/E27/SP10	-	CDM-R 35W/942 E27 PAR20L10D	-	-
CMH35/PAR20/UVC/942/E27/FL25	-	CDM-R 35W/942 E27 PAR20L30D	-	-
CMH20/PAR30/UVC/830/E27/SP10	HCI-PAR30 20W/830 WDL SP E27	-	-	-
CMH20/PAR30/UVC/830/E27/FL25	HCI-PAR30 20W/830 WDL FL E27	-	-	-
CMH35/PAR30/UVC/830/E27/SP10	HCI-PAR30 35W/830 WDL SP E27	CDM-R 35W/830 E27 PAR20L10D	-	-
CMH35/PAR30/UVC/830/E27/FL25	HCI-PAR30 35W/830 WDL FL E27	CDM-R 35W/830 E27 PAR20L30D	-	-
CMH35/PAR30/UVC/942/E27/SP10	-	-	-	-
CMH35/PAR30/UVC/942/E27/FL25	-	-	-	-
CMH70/PAR30/UVC/830/E27/SP	HCI-PAR30 70W/830 WDL SP E27	CDM-R 70W/830 E27 PAR30L10D	-	-
CMH70/PAR30/UVC/830/E27/FL	HCI-PAR30 70W/830 WDL FL E27	CDM-R 70W/830 E27 PAR30L40D	-	-
CMH70/E/UVC/U/830/E27/C	HCI-E/P 70/830 WDL PB E27 clear	CDM-ET 70W /830 E27	-	CM-PLUS ED 70W/U/UVS/830
CMH100/E/UVC/U/830/E27/C	HCI-E/P 100/830 WDL PB clear	CDM-ET 100W /830 E40	-	CM-PLUS ED 100W/U/UVS/830
CMH150/UVC/O/U/942/E27/C	HCI-E/P 150W/942 NDL PBMO CL E27	-	-	-
CMH70/E/UVC/U/830/E27/D	HCI-E/P 70W/830 NDL PB COE27	CDO-ET Coated 70W/828 E27	-	-
CMH70/UVC/O/U/940/E27/D	HCI-E/P 70W/942 NDL Coated E27	-	-	-
CMH100/E/UVC/U/830/E27/D	HCI-E/P 100W/830 WDL PB Coated E27	CDO-ET Coated 100W/828 E40	-	-
CMH150/UVC/O/U/940/E27/D	HCI-E/P 150W/942 NDL PB MO E27	CDO-ET Coated 150W/828 E40	-	-
CMH250/E/UVC/U/830/E40/D	HCI-E 250W/830 WDL PB E40	-	-	-
CMH400/E/UVC/U/830/E40/D	-	-	-	-

High Intensity Discharge Lamps

GE	OSRAM	PHILIPS	Havells Sylvania	Venture
ConstantColor CMH™				
CMH50/TT/UVC/730/E27 STREETWISE	-	CDO-TT 50W/828 E27	-	-
CMH70/TT/UVC/830/E27	HCI-T/P 70W/830 WDL PB E27	-	-	CM-PLUS TT 70W/U/UVS/830
CMH70/TT/UVC/730/E27 STREETWISE	-	CDO-TT 70W /828 E27	-	-
CMH100/TT/UVC/830/E40	HCI-TT 100/830 WDL PB E40	-	-	CM-PLUS TT 100W/U/UVS/830
CMH100/TT/UVC/730/E40 STREETWISE	-	CDO-TT 100W /828 E27	-	-
CMH150/TT/UVC/830/E40	HCI-T/P 150W/830 WDL PB E40	-	-	CM-PLUS TT 150W/U/UVS/830
CMH150/TT/UVC/730/E40 STREETWISE	-	CDO-TT 150W/828 E40	-	-
CMH150/UVC/T/U/842/E40	HCI-TT 150/830 WDL PB E40	-	-	CM-PLUS TT 150W/U/UVS/942
CMH150/UVC/O/T/U/830/E40	HCI-T/P 150W/830 NDL PB E40	-	-	-
CMH150/T/UVC/O/U/942/E40	HCI-T/P 150W/942 NDL PB E40	-	-	-
CMH250/TT/UVC/U/830/E40	HCI-T 250W/830 WDL PB E40	CDO-TT 250W /828 E27	-	-
KRC250/CMH/830/T/H/E40	-	-	-	-
CMH400/TT/UVC/U/830/E40	-	-	-	-
Arcstream™				
ARC70/T/U/730/G12	HQI T 70/WDL	-	HSI-T 70W/WDL	-
ARC70/T/U/742/G12	HQI T 70/NDL	-	HSI-T 70W/NDL	-
ARC150/G12/830	HQI T 150/WDL	-	HSI-T 150W/WDL	HIT 150W/G12/UVS/3K
ARC150/G12/842	HQI T 150/NDL	-	HSI-T 150W/NDL	HIT 150W/G12/UVS/4K
ARC70/UVC/TD/730/Rx7s	HQI TS 70/WDL UVS	-	HSI-TD 75W/WDL 3K UVS	MH-DE 70W/UVS/3K
ARC70/UVC/TD/742/Rx7s	HQI TS 70/NDL UVS	-	HSI-TD 75W/NDL 4K UVS	MH-DE 70W/UVS/4K
ARC150/UVC/TD/732/Rx7s-24	HQI TS 150/WDL UVS	-	HSI-TD 150W/WDL 3K UVS	MH-DE 150W/UVS/3K
ARC150/UVC/TD/742/Rx7s-24	HQI TS 150/NDL UVS	-	HSI-TD 150W/NDL 4K UVS	MH-DE 150W/UVS/4K
ARC150/TD/952/Rx7s-24	HQI TS 150/D UVS	-	HSI-TD 150W/D 5K UVS	-
ARC150/UVC/AQUA/TD/865/Rx7s-24	-	-	-	MH-DE 150W/UVS/FS/6K
ARC250/TD/832/Fc2	HQI TS 250/WDL UVS	-	HSI-TD 250W/NDL 3K UVS	MH-DE 250W/UVS/3K/Fc2
ARC250/TD/842/Fc2	HQI TS 250/NDL UVS	-	HSI-TD 250W/NDL 4K UVS	MH-DE 250W/UVS/4K/Fc2
ARC150/UVC/TD/GREEN/RX7S-24	-	-	-	MH-DE 150W/UVS/GDX
ARC150/UVC/TD/BLUE/RX7S-24	-	-	-	MH-DE 150W/UVS/BDX
ARC150/UVC/TD/ORANGE/RX7S-24	-	-	-	-
ARC150/UVC/TD/MAGENTA/RX7S-24	-	-	-	MH-DE 150W/UVS/MDX
ARC250/T/VBU/960/E40	HQI-T 250/D*	-	HSI-T 250W / 6K*	-
ARC250/T/H/960/E40	-	-	HSI-T 250W / 6K*	-
ARC400/T/H/742/E40	HQI-T 400/N*	MASTER HPI-T Plus 400W/645 E40 1SL*	HSI-TSX 400W*	HIT 400W/U/EURO/4K*
ARC250/D/H/740/E40	-	MASTER HPI Plus 250W/745 BU E40 1SL*	HSI-SX 250W/CO*	-
ARC250/D/H/960/E40	HQI-E 250/D*	-	-	-
ARC250/D/VBU/960/E40	HQI-E 250/D*	MASTER HPI Plus 250W/767 BU E40 1SL*	-	-
Kolorarc™				
KRC400/T/H/960/E40	HQI-BT 400/D*	-	HSI-T 400W / 6K*	HIT 400W/U/LU/6.5K*
KRC400/T/VBU/960/E40	HQI-BT 400/D*	-	HSI-T 400W / 6K*	HIT 400W/U/LU/6.5K*
KRC400/E/VBU/645/E40	HQI-E 400/N CLEAR*	-	HSI-HX 400W CL*	HIE 400W/BU/EURO/4K*
KRC400/D/VBU/740/E40	HQI-E 400/N*	MASTER HPI Plus 400W/745 BU E40 1SL*	HSI-HX 400W CO*	HIE 400W/C//V/DU/4.5K*
KRC400/D/H/740/E40	HQI-E 400/N*	-	HSI-HX 400W CO*	HIE 400W/C//U/EURO/4K*
KRC400/D/VBU/960/E40	-	MASTER HPI Plus 250W/767 BU E40 1SL*	-	-
KRC400/D/H/960/E40	-	-	-	-
Multi-vapor™				
MVR250/U/40	-	-	-	-
MVR400/U/40	-	-	-	-
MVR1000/U/40	-	-	-	HIE 1000W/U/4K*
MVR250/C/U/40	-	-	-	-
MVR400/C/U/40	-	-	-	-
MVR400/VBU/40	-	-	-	-
MVR400/C/VBU/40	-	-	-	-
MVR400/C/VBU/0/40	-	-	-	-
Sportlight™				
SPL1500/L/H/652/Rx75M	-	-	-	-
SPL2000/L/H/654	-	-	-	-
SPL2000/T/H/960/E40	HQI-T 2000/D*	-	-	-
SPL2000/I/T/H/640/E40	HQI-T 2000 /N*	HPI-T 2000W/642 E40 380V CRP*	HSI-T 2000W-S4K 380V/I*	-
SPL2000/I/T/H/960/E40	HQI-T 2000 /D/I*	-	-	-
SPL1000/T/H/960/E40 1/4	HQI-T 1000/D*	-	-	-

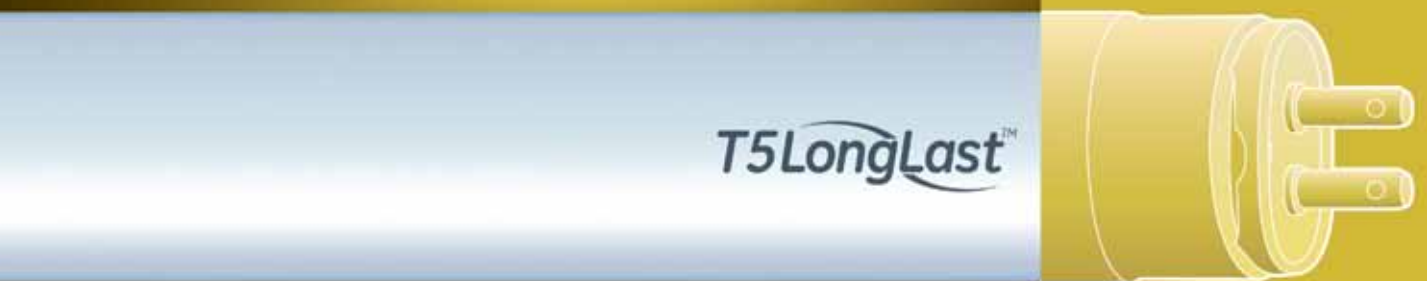


Brand cross reference

GE	OSRAM	PHILIPS	Havells Sylvania	Venture
Mixed Light				
ML 160/230-240V E27	HWL 160 235V	ML 160W E27 235-245	HSB-BW 160W 230V E27	-
ML 160/240-250V	HWL 160 240V	ML 160W E27 235-245	HSB-BW 160W 240	-
ML 250/230-240V E40	HWL 250 235V	ML 250W E27 225-235	HSB-BW 250W 240V E40	-
ML 250/230-240V E27	-	ML 250W E40 225-235	HSB-BW 250W 240V E27	-
ML 250/ 240-250V E40	HWL 250 240V	ML 250W E40 235-245	HSB-BW 250W 240	-
ML 500/230-240V E40	HWL 500 235V	ML 500W E40 225-235	HSB-BW 500W 240V E40	-
Lucalox™ Standard				
LU70/90/D/27	NAV-E 70/E	SON E 70W	SHP 70W/CO-E	-
LU100/100/MO/D/40	NAV-E 100	SON E 100W	SHP 100W	-
LU150/100/D/40	NAV-E 150	SON E 150W	SHP 150W	-
LU250/D/40	NAV-E 250	SON E 250W	SHP 250W	-
LU400/D/40	NAV-E 400	SON E 400W	SHP 400W	-
LU70/90/T12/27	NAV-T 70	SON-T 70W	SHP-T 70W	-
LU100/100/MO/T/40	NAV-T 1000	SON-T 100W	-	-
LU150/100/T /40	NAV-T 150	SON-T 150W	SHP-T 150W	-
LU250/T/40	NAV-T 250	SON-T 250W	SHP-T 150W	-
LU400/T/40	NAV-T 400	SON-T 400W	SHP-T 400W	-
LU1000/110/T/40	NAV-T 1000	SON-T 1000W	SHP-T 1000W	-
Lucalox™ XO				
LU50/85/XO/D/27	NAV-T 50 SUPER 4Y	-	SHP S 50W	-
LU70/90/XO/D/27	NAV-T 70 SUPER 4Y	MASTER SON PIA PLUS 70W	SHP S 70W	-
LU100/100/XO/D/40	NAV-E 100 SUPER 4Y	MASTER SON PIA PLUS 100W	SHP S 100W	-
LU250/XO/D/40	NAV-E 250 SUPER 4Y	MASTER SON PIA PLUS 250W	SHP S 250W	-
LU400/XO/D/40	NAV-E 400 SUPER 4Y	MASTER SON PIA PLUS 400W	SHP S 400W	-
LU50/85/XO/T/27	NAV-T 50 SUPER 4Y	MASTER SON-T PIA PLUS 50W	SHP TS 50W	-
LU70/90/XO/T/27	NAV-T 70 SUPER 4Y	MASTER SON-T PIA PLUS 70W	SHP TS 70W	-
LU100/100/XO/T/40	NAV-T 100 SUPER 4Y	MASTER SON-T PIA PLUS 100W	SHP TS 100W	-
LU150/150/XO/T/40	NAV-T 150 SUPER 4Y	MASTER SON-T PIA PLUS 150W	SHP TS 150W	-
LU250/XO/T/40	NAV-T 250 SUPER 4Y	MASTER SON-T PIA PLUS 250W	SHP TS 250W	-
LU400/XO/T/40	NAV-T 400 SUPER 4Y	MASTER SON-T PIA PLUS 400W	SHP TS 400W	-
LU600/XO/T/40	NAV-T 600 SUPER 4Y	MASTER SON-T PIA PLUS 600W	SHP TS 600W	-
Lucalox™ I				
LU50/85/D/I/27	NAV-E 50/I	SON 50W I	SHP 50W/CO-I	-
LU70/90/D/I/27	NAV-E 70/I	SON 70W I	SHP 70W/CO-I	-
LU70/90/I/27	-	-	SHP 70W/CL-I	-
Lucalox™ E-Z lux				
LUH110/D/27 - SHx	NAV-E 110	SON-H Pro 110W	SHx 110W E27	-
Lucalox™ SUPERLIFE				
LU70/90/XO/SBY/T12/E27	-	-	SHP-TS 70W TWInarc	-
LU100/100/XO/SBY/T/E40	-	-	SHP-TS 100W TWInarc	-
LU150/XO/SBY/T/E41	-	-	SHP-TS 150W TWInarc	-
LU250/XO/SBY/T/E42	-	-	SHP-TS 250W TWInarc	-
LU400/XO/SBY/T/E43	-	-	SHP-TS 400W TWInarc	-
LU50/85/XO/SBY/D/27	-	-	-	-
LU70/90/XO/SBY/D/E27	-	-	SHP-S 70W TWInarc	-
LU100/100/XO/SBY/D/E40	-	-	SHP-S 100W TWInarc	-
LU250/SBY/D/40	-	-	SHP-S 250W TWInarc	-
LU400/SBY/D/40	-	-	SHP-S 400W TWInarc	-
Kolorlux Standard				
H50/27	HQL 50	HPL-N 50W	HSL-BW 50W E27	-
H80/27	HQL 80	HPL-N 80W	HSL-BW 80W E27	-
H125/27	HQL 125	HPL-N 125W	HSL-BW 125W E27	-
H250/40	HQL 250	HPL-N 250W	HSL-BW 250W E40	-
H400/40	HQL 400	HPL-N 400W	HSL-BW 400W E40	-

*Similar product, please contact your local sales representative for more details

Linear Fluorescent Lamps



Discover GE's LFL solutions WattMiser for extra energy savings LongLast for extra long life

Remarkable light distribution, less shadow than point source lamps

Flexibility of wattage and length for every application

Up to 46,000 hours of life with our T8 LongLast™ lamps at 12-hour burning cycles

85 CRI high colour rendering and high lumen maintenance

5-10% energy savings with WattMiser lamps versus traditional LFL lamps

Dimmability for additional cost savings





Office



Retail



Education



Industrial



Main application areas

Education and Office

Classrooms and office areas need a creative and stimulating environment. Minimum glare on screens, low luminance contrasts around the desk, energy cost reduction are just a few of the key requirements. Many schools and offices have already discovered the benefits of replacing their outdated light sources with our new-generation LFL lamps.

Retail

LFL lamps are the perfect complement of directional light sources, as it has an excellent lighting distribution. At a retail environment, directed light is indispensable to highlight the merchandise however it need additional light sources with a good light distribution to elevate the brilliance in the entire store, so less point source lamp is needed. Directed light sources and LFL lamps together provide a perfect and economic solution for the illuminance of the retail environment.

Industrial

For industrial and commercial environments, the use of appropriate illumination systems is essential for profitable growth, greater safety in the workplace, improved productivity and reduced error rates. We recommend our LongLast lamps to cover all these needs.

Linear Fluorescent Lamps

T5 & T8 Watt-Miser™ *For reduced electricity costs*

T5WattMiser™

T5 Watt-Miser™ uses 5% less energy than other T5 lamps in the range, with the same lumen output. T5 Watt-Miser ideal for any indoor application from a single fitting to large scale installations such as offices, retail outlets and public buildings. Hence very significant energy savings can be achieved.

T5WattMiser™

- 5% energy saving with existing fittings on current controlled gear
- Reduced CO2 and other greenhouse gas emissions
- Energy saving without loss of light output
- Excellent lumen maintenance
- Product life 30,000 hours at 12-hour burning cycle
- Complies with RoHS Directive 2011/65/EU and contains recyclable components

T5 coating

Our T5 LFL lamps use an advanced coating technology, which improves lamp efficiency by increasing phosphor efficiency.

GE's T5 coating technology gives the option for either longer life or energy saving lamps due to the improvement in lamp performance.





All of GE's T8 range offers excellent service life and high quality light but with the addition of Watt-Miser™ technology. Cost savings of up to 10% can also be achieved with T8 WattMiser.

T8 Watt-Miser™ is ideal for retail, property management, commercial and industrial applications where lighting cycles are typically very long.

T8 WattMiser™

- Retrofitable – with existing fittings and control gear
- Excellent colour quality – Ra 85
- Exceptional lumen maintenance
- Product life 23,000hours – at 12-hour burning cycle with electronic gear
- Significantly reduced CO2 emission – 0.5kg/kWh
- Short payback – less than a year
- Complies with RoHS Directive 2011/65/EU and contains recyclable components

Energy-saving example: 32W

Annual savings from a typical installation of 1000 lamps used for 4000 hours a year with energy costs of 0,1 €/kWh	Regular T8	T8 Watt-Miser
Power at 25°C (W/lamp)	36	32
Annual energy (kWh)	144	128
Annual energy saving (kWh/lamp)	-	16
Annual energy cost saving with WattMiser T8 (€)	1600	
Annual replacement cost saving (€)	356	
CO2 saved in a year (tons)*	6.9	

*CO2 emission per kWh 0,37 kg which can vary by country. Best result is achieved with optimal lamp, ballast and fitting combination used at 30°C ambient temperature.

Linear Fluorescent Lamps

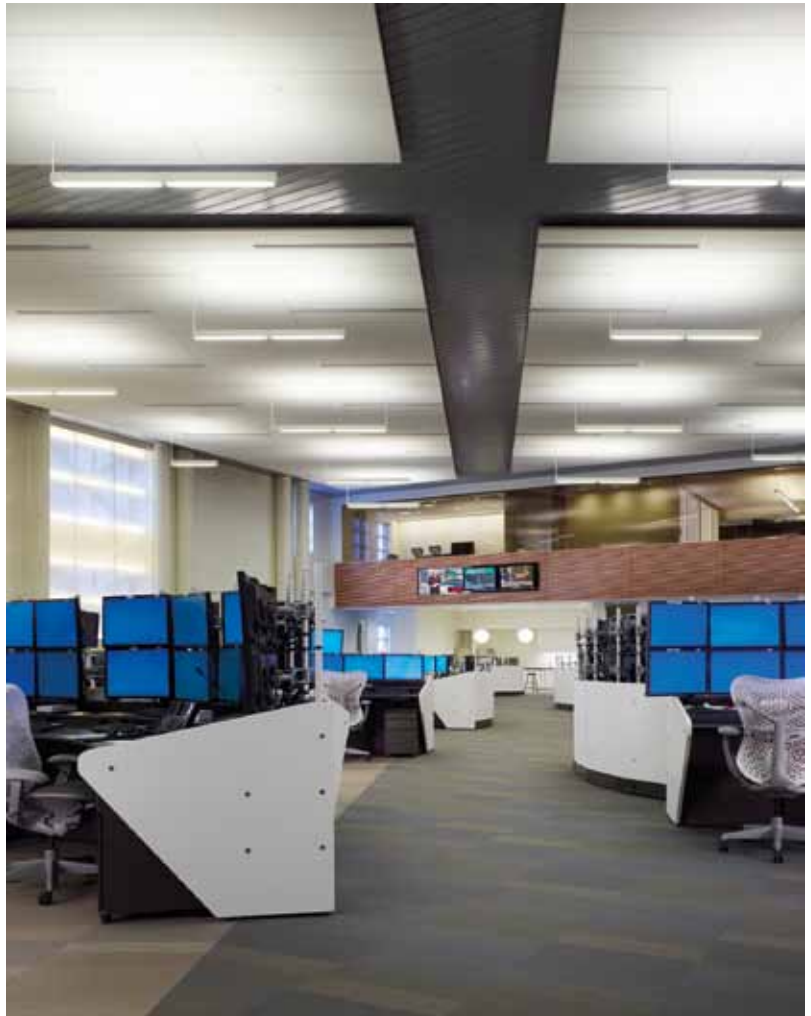
T5&T8 LongLast *For reduced relamping costs*

LongLast™

All businesses look to achieve cost reductions, which is why GE's LongLast range has been designed to meet this requirement. Our LongLast lamps offer reliability and an extended service life, without compromising on other key features, such as initial lumen and lumen maintenance. LongLast lamps with extra long relamping cycles are perfect for facilities where lumiares are hard to reach. LongLast lamps also reduce the total cost of ownership and the environmental footprint of your buildings.

T5LongLast™

- Very long and reliable product life – up to 36,000 hours at 12-hour burning cycle
- Up to 7000 lumens per lamp – same illumination with fewer fittings
- High colour quality – CRI 85Ra
- High efficiency for ongoing cost savings
- Smaller physical dimensions
- Complies with RoHS Directive 2011/65/EU and contains recyclable components



Which to use?

T5 Watt-Miser™ or T5 LongLast™?
Here's some help to choose.

	Rated Life 3 hour cycle	Rated Life 12 hour cycle	Energy saving
Regular T5	25,000	28,000	-
GE T5 LongLast™	30,000	30,000 (36,000)	-
GE T5 Watt-Miser™	25,000 (30,000)	25,000 (30,000)	5%





T8LongLast™

- Very long reliable product life - 46,000hrs at 12-hour burning cycle with electronic gear
- Same lumen output as regular T8 and excellent lumen maintenance
- Outstanding colour rendering - CRI 85Ra
- Can be used on existing control gears and fixtures
- Complies with RoHS Directive 2011/65/EU and contains recyclable components



Linear Fluorescent Lamps

T5 Tubes Long



High Efficiency Watt-Miser™
Wattages: 13-33W
Colours: Warm White to Cool White
CRI (Ra): 85
Rated life: 25,000Hrs

Page III.8



High Output Watt-Miser™
Wattages: 21-76W
Colours: Warm White to Cool White
CRI (Ra): 85
Rated life: 25,000(30,000)hrs

Page III.8



High Efficiency LongLast™
Wattages: 14-35W
Colours: Extra Warm White to Daylight
CRI (Ra): 85
Rated life: 30,000Hrs

Page III.8



High Output LongLast™
Wattages: 24-80W
Colours: Warm White to Daylight
CRI (Ra): 85
Rated life: 30,000Hrs

Page III.9

T5 Tubes Short



Specfill Triphosphor
Wattages: 6-8W
Colours: Cool White and Daylight
CRI (Ra): 80+
Rated life: 8,000Hrs

Page III.9



Specfill Standard
Wattages: 6-8W
Colours: Cool White and White
CRI (Ra): 54-58
Rated life: 8,000Hrs

Page III.9



Triphosphor
Wattages: 8-13W
Colours: Extra Warm White to Cool White
CRI (Ra): 80+
Rated life: 5,000Hrs

Page III.9



Standard
Wattages: 4-13W
Colours: Warm White to Cool White
CRI (Ra): 51-58
Rated life: 5,000Hrs-6,000Hrs

Page III.9

Circular Tubes



T5 Circline™
Wattages: 22-55W
Colours: Extra Warm White to Daylight
CRI (Ra): 80+
Rated life: 12,000Hrs

Page III.10

Selector

T8 Tubes



Watt-Miser™

Wattages: 16-51W
Colours: Warm White
to Daylight
CRI (Ra): 85
Rated life: 15,000Hrs

Page III.10



Polylux XLR™ LongLast™

Wattages: 18-58W
Colours: Warm White
and Cool White
CRI (Ra): 85
Rated life: 24,000Hrs

Page III.10



Polylux XLR™

Wattages: 15-70W
Colours: Extra Warm
White to Daylight
CRI (Ra): 85
Rated life: 15,000Hrs

Page III.11

Starters



A range of 6 starters in
standard (250) or bulk
(2000) pack

Page III.11

Where "Rated Life" or "Average Rated Life" is stated, we refer to the industry standard definition of how many hours of operation on standard electromagnetic gear 50% of a given installation will exceed (at 3-hours burning cycle). Rated Average Life for all linear fluorescent products is provided on standard electromagnetic gear except for T5 long tubes and T5 Circline tubes.

Linear Fluorescent Lamps

Product identification

The following glossary of terms will help you when selecting lamps in this section. Within each product line, lamps are divided into families – within these families, lamps are listed by wattage. The Product Description can be used as a quick reference to each product’s attributes. Where “Life” or “Average Rated Life” is stated, we refer to the industry standard definition of how many hours of operation on standard electromagnetic gear 50% of a given installation will exceed. Rated Average Life for all linear fluorescent products is provided on standard electromagnetic ballast except for T5 long tubes and T5 Circline tubes.

Additional parameters:

Cap: The type of cap fitted. See the “Cap Drawings” chapter for more information.

Watts:

Energy Used – To estimate energy consumption (kWh), multiply watts x hours of use and divide by 1000

Diameter:
Tube diameter in mm

Length:
Lamp length in mm

Product description:
Lamp reference – describes the lamp’s main characteristics

Initial Lumen (at 25°C):
Light output after the initial 100 hours of operation

CCT:
Colour temperature – Kelvin [K]. The visual warmth or coolness of the light. The higher the number the whiter or cooler the light appears

Rated Average Life (3-hr cycle):
The point in time when 50% of installed lamps are still burning

EEC:
Energy Efficiency Class

Wattage [W]

Length [mm]

Diameter [mm]

Product Description

Product Code

Initial Lumen (at 25°C) [lm]

Colour Type

CCT [K]

CRI [Ra]

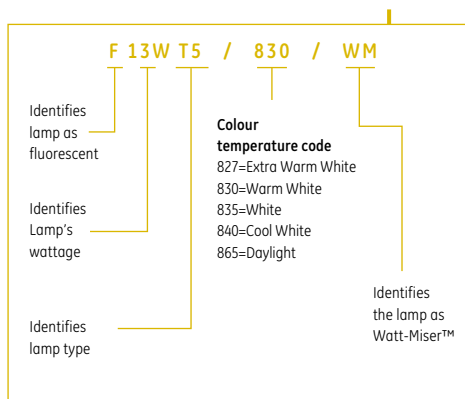
Rated Average Life (3-hr cycle) [h]

EEC

Pack Qty

T5 Watt-Miser™ - High Efficiency, G5 Cap

Wattage [W]	Length [mm]	Diameter [mm]	Product Description	Product Code	Initial Lumen (at 25°C) [lm]	Colour Type	CCT [K]	CRI [Ra]	Rated Average Life (3-hr cycle) [h]	EEC	Pack Qty
13	549	16	F13W/T5/830/WM	88364	1230	Warm White	3000	85	25,000	A	30
13	549	16	F13W/T5/840/WM	88362	1230	Cool White	4000	85	25,000	A	30
20	849	16	F20W/T5/830/WM	88360	1910	Warm White	3000	85	25,000	A	30



Colour Type:
Extra Warm White
Warm White
White
Natural White
Cool White
Northlight
Daylight

Product code:
It is important to use this code when ordering to ensure that you receive the exact product you require

CRI:
Colour rendering index, the higher the number (1-100), the more natural the lit subject appears

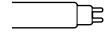
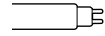
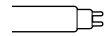
Pack quantity:
The number of lamps in one outer case

Wattage (W)	Length (mm)	Diameter (mm)	Product Description	Product Code	Initial Lumen (at 25°C) (lm)	Colour Type	CCT (K)	CRI (Ra)	Rated Average Life (3-hr cycle) (h)	EEC	Pack Qty
T5 Watt-Miser™ - High Efficiency, G5 Cap											
13	549	16	F13W/T5/830/WM	79418	1230	Warm White	3000	85	25,000	A	30
13	549	16	F13W/T5/840/WM	61080	1230	Cool White	4000	85	25,000	A	30
20	849	16	F20W/T5/840/WM	61079	1910	Cool White	4000	85	25,000	A	30
26	1,149	16	F26W/T5/830/WM	97231	2640	Warm White	3000	85	25,000	A	30
26	1,149	16	F26W/T5/840/WM	61078	2640	Cool White	4000	85	25,000	A	30
33	1,449	16	F33W/T5/830/WM	79417	3320	Warm White	3000	85	25,000	A	30
33	1,449	16	F33W/T5/840/WM	61077	3320	Cool White	4000	85	25,000	A	30

T5 Watt-Miser™ - High Output, G5 Cap											
21	549	16	F21W/T5/840/WM	61076	1750	Cool White	4000	85	25,000	A	30
36	849	16	F36W/T5/840/WM	61075	3200	Cool White	4000	85	25,000	A	30
46	1,449	16	F46W/T5/830/WM	97232	4450	Warm White	3000	85	25,000	A	30
46	1,449	16	F46W/T5/840/WM	61073	4450	Cool White	4000	85	25,000	A	30
51	1,149	16	F51W/T5/830/WM	97966	4460	Warm White	3000	85	30,000	A	30
51	1,149	16	F51W/T5/840/WM	61074	4460	Cool White	4000	85	30,000	A	30
76	1,449	16	F76W/T5/830/WM	97965	6150	Warm White	3000	85	25,000	A	30
76	1,449	16	F76W/T5/840/WM	61072	6150	Cool White	4000	85	25,000	A	30

T5 LongLast™ - High Efficiency, G5 Cap											
14	549	16	F14W/T5/827/LL	61086	1230	Extra Warm White	2700	85	30,000	A	30
14	549	16	F14W/T5/830/LL	61087	1230	Warm White	3000	85	30,000	A	30
14	549	16	F14W/T5/835/LL	61090	1230	White	3500	85	30,000	A	30
14	549	16	F14W/T5/840/LL	61091	1230	Cool White	4000	85	30,000	A	30
14	549	16	F14W/T5/865/LL	61088	1140	Daylight	6500	85	30,000	A	30
21	849	16	F21W/T5/827/LL	61089	1910	Extra Warm White	2700	85	30,000	A	30
21	849	16	F21W/T5/830/LL	61092	1910	Warm White	3000	85	30,000	A	30
21	849	16	F21W/T5/840/LL	61093	1910	Cool White	4000	85	30,000	A	30
21	849	16	F21W/T5/865/LL	61094	1770	Daylight	6500	85	30,000	A	30
28	1,149	16	F28W/T5/827/LL	61095	2640	Extra Warm White	2700	85	30,000	A	30
28	1,149	16	F28W/T5/830/LL	61096	2640	Warm White	3000	85	30,000	A	30
28	1,149	16	F28W/T5/840/LL	61102	2640	Cool White	4000	85	30,000	A	30
28	1,149	16	F28W/T5/865/LL	61098	2450	Daylight	6500	85	30,000	A	30
35	1,449	16	F35W/T5/827/LL	61099	3320	Extra Warm White	2700	85	30,000	A	30
35	1,449	16	F35W/T5/830/LL	61100	3320	Warm White	3000	85	30,000	A	30
35	1,449	16	F35W/T5/835/LL	61101	3320	White	3500	85	30,000	A	30
35	1,449	16	F35W/T5/840/LL	61103	3320	Cool White	4000	85	30,000	A	30
35	1,449	16	F35W/T5/865/LL	61104	3090	Daylight	6500	85	30,000	A	30

T5 LongLast™ range was formerly called Starcoat™ range after the GE's T5 coating technology.



Linear Fluorescent Lamps

Wattage (W)	Length (mm)	Diameter (mm)	Product Description	Product Code	Initial Lumen (at 25°C) (lm)	Colour Type	CCT (K)	CRI (Ra)	Rated Average Life (3-hr cycle) (h)	EEC	Pack Qty
T5 LongLast™ - High Output, G5 Cap											
24	549	16	F24W/T5/830/LL	61105	1750	Warm White	3000	85	30,000	A	30
24	549	16	F24W/T5/835/LL	61106	1750	White	3500	85	30,000	A	30
24	549	16	F24W/T5/840/LL	61097	1750	Cool White	4000	85	30,000	A	30
24	549	16	F24W/T5/865/LL	61107	1600	Daylight	6500	85	30,000	A	30
39	849	16	F39W/T5/830/LL	61108	3200	Warm White	3000	85	30,000	A	30
39	849	16	F39W/T5/840/LL	61109	3200	Cool White	4000	85	30,000	A	30
49	1,449	16	F49W/T5/830/LL	61119	4450	Warm White	3000	85	30,000	A	30
49	1,449	16	F49W/T5/835/LL	61121	4450	White	3500	85	30,000	A	30
49	1,449	16	F49W/T5/840/LL	61122	4450	Cool White	4000	85	30,000	A	30
49	1,449	16	F49W/T5/865/LL	78707	4100	Daylight	6500	85	30,000	A	30
54	1,149	16	F54W/T5/830/LL	61110	4460	Warm White	3000	85	30,000	A	30
54	1,149	16	F54W/T5/840/LL	61111	4460	Cool White	4000	85	30,000	A	30
54	1,149	16	F54W/T5/865/LL	61118	4100	Daylight	6500	85	30,000	A	30
80	1,449	16	F80W/T5/830/LL	78708	6150	Warm White	3000	85	30,000	A	30
80	1,449	16	F80W/T5/840/LL	78709	6150	Cool White	4000	85	30,000	A	30

T5 LongLast™ range was formerly called Starcoat™ range after the GE's T5 coating technology.

T5 Miniature - Specfill Triphosphor - Emergency Lighting, G5 Cap

6	212	16	F6W/T5/840/SPECFILL/IND	40327	300	Cool White	4000	80+	8,000	B	100
8	288	16	F8W/T5/840/SPECFILL/IND	40331	460	Cool White	4000	80+	8,000	A	100
8	288	16	F8W/T5/865/SPECFILL/IND	45034	430	Daylight	6500	80+	8,000	B	100

T5 Miniature - Specfill Standard - Emergency Lighting, G5 Cap

6	212	16	F6W/T5/33/SPECFILL/IND	40307	260	Cool White	4040	58	8,000	B	100
8	288	16	F8W/T5/35/SPECFILL/SL	27027	400	White	3450	54	8,000	B	25
8	288	16	F8W/T5/35/SPECFILL/IND	91451	400	White	3450	54	8,000	B	100
8	288	16	F8W/T5/33/SPECFILL/SL	27011	400	Cool White	4040	58	8,000	B	25
8	288	16	F8W/T5/33/SPECFILL/IND	91450	400	Cool White	4040	58	8,000	B	100

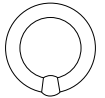
T5 Miniature - Triphosphor, G5 Cap

8	288	16	F8W/T5/827/IND	37008	460	Extra Warm White	2700	80+	5,000	A	100
8	288	16	F8W/T5/840/IND	37009	460	Cool White	4000	80+	5,000	A	100
13	517	16	F13W/T5/827/SL	39447	970	Extra Warm White	2700	80+	5,000	A	25

T5 Miniature - Standard, G5 Cap

4	150.1	16	F4W/T5/35/SL	39446	130	White	3450	54	5,000	B	25
4	150.1	16	F4W/T5/33/SL	39441	130	Cool White	4040	58	5,000	B	25
6	226.3	16	F6W/T5/35/SL	39442	260	White	3450	54	5,000	B	25
6	226.3	16	F6W/T5/33/SL	39445	260	Cool White	4040	58	5,000	B	25
8	302.5	16	F8W/T5/29/SL	37754	400	Warm White	2940	51	5,000	B	25
8	302.5	16	F8W/T5/35/SL	37756	400	White	3450	54	5,000	B	25
8	302.5	16	F8W/T5/33/SL	37755	400	Cool White	4040	58	5,000	B	25
13	531.1	16	F13W/T5/29/SL	39437	850	Warm White	2950	51	5,000	B	25
13	531.1	16	F13W/T5/35/SL	39439	850	White	3450	54	5,000	B	25
13	531.1	16	F13W/T5/33/SL	39440	850	Cool White	3450	58	5,000	B	25

Wattage [W]	Length [mm]	Diameter [mm]	Product Description	Product Code	Initial Lumen (at 25°C) [lm]	Colour Type	CCT [K]	CRI [Ra]	Rated Average Life (3-hr cycle) [h]	EEC	Pack Qty
T5 Circline™ - 2Gx13 Cap											
22	225	16	FC22W/T5/827	75707	1900	Extra Warm White	2700	82	12,000	A	10
22	225	16	FC22W/T5/830	75709	1900	Warm White	3000	82	12,000	A	10
22	225	16	FC22W/T5/840	75720	1900	Cool White	4000	82	12,000	A	10
22	225	16	FC22W/T5/865	75710	1800	Daylight	6500	82	12,000	A	10
40	300	16	FC40W/T5/827	75711	3300	Extra Warm White	2700	82	12,000	A	10
40	300	16	FC40W/T5/830	75712	3300	Warm White	3000	82	12,000	A	10
40	300	16	FC40W/T5/840	75713	3300	Cool White	4000	82	12,000	A	10
40	300	16	FC40W/T5/865	75715	3150	Daylight	6500	82	12,000	B	10
55	300	16	FC55W/T5/827	75716	4200	Extra Warm White	2700	82	12,000	B	10
55	300	16	FC55W/T5/830	75717	4200	Warm White	3000	82	12,000	B	10
55	300	16	FC55W/T5/840	75718	4200	Cool White	4000	82	12,000	B	10
55	300	16	FC55W/T5/865	75719	3900	Daylight	6500	82	12,000	B	10



T8 Watt-Miser™ - G13 Cap											
16	604	26	F18/T8/830/16W/WM	62524	1300	Warm White	3000	85	15,000	A	25
16	604	26	F18/T8/840/16W/WM	62525	1300	Cool White	4000	85	15,000	A	25
16	604	26	F18/T8/860/16W/WM	62526	1230	Daylight	6400	85	15,000	A	25
32	1,200	26	F36/T8/830/32W/WM	62527	2750	Warm White	3000	85	15,000	A	25
32	1,200	26	F36/T8/840/32W/WM	62528	2750	Cool White	4000	85	15,000	A	25
32	1,200	26	F36/T8/860/32W/WM	62529	2600	Daylight	6400	85	15,000	A	25
51	1,514.2	26	F58/T8/830/51W/WM	73609	4320	Warm White	3000	85	15,000	A	25
51	1,514.2	26	F58/T8/840/51W/WM	73611	4320	Cool White	4000	85	15,000	A	25
51	1,514.2	26	F58/T8/860/51W/WM	73613	4120	Daylight	6400	85	15,000	A	25



T8 Polylux XLR™ LongLast™ - G13 Cap											
18	604	26	F18/T8/830/LL	62567	1350	Warm White	3000	85	24,000	A	25
18	604	26	F18/T8/840/LL	62566	1350	Cool White	4000	85	24,000	A	25
36	1,200	26	F36/T8/830/LL	62565	3350	Warm White	3000	84	24,000	A	25
36	1,200	26	F36/T8/840/LL	62564	3350	Cool White	4000	84	24,000	A	25
58	1,500	26	F58/T8/830/LL	43510	5200	Warm White	3000	84	24,000	A	25
58	1,500	26	F58/T8/840/LL	43511	5200	Cool White	4000	84	24,000	A	25



Linear Fluorescent Lamps

Wattage [W]	Length [mm]	Diameter [mm]	Product Description	Product Code	Initial Lumen (at 25°C) [lm]	Colour Type	CCT [K]	CRI [Ra]	Rated Average Life (3-hr cycle) [h]	EEC	Pack Qty
15	451.6	26	F15W/T8/830/POLYLUX	23248	950	Warm White	3000	85	15,000	B	25
15	451.6	26	F15W/T8/835 POLYLUX	78133	950	White	3500	85	15,000	B	25
15	451.6	26	F15W/T8/840/POLYLUX	23249	950	Cool White	4000	85	15,000	B	25
15	451.6	26	F15W/T8/860/POLYLUX	78131	900	Daylight	6400	85	15,000	B	25
18	604	26	F18W/T8/827/POLYLUX	62560	1350	Extra Warm White	2700	85	15,000	A	25
18	604	26	F18W/T8/830/POLYLUX	62559	1350	Warm White	3000	85	15,000	A	25
18	604	26	F18W/T8/835/POLYLUX	62534	1350	White	3500	85	15,000	A	25
18	604	26	F18W/T8/840/POLYLUX	62558	1350	Cool White	4000	85	15,000	A	25
18	604	26	F18W/T8/860/POLYLUX	62557	1250	Daylight	6400	85	15,000	A	25
30	908.8	26	F30W/T8/830/POLYLUX	18141	2450	Warm White	3000	85	15,000	A	25
30	908.8	26	F30W/T8/835/POLYLUX	78132	2450	White	3500	85	15,000	A	25
30	908.8	26	F30W/T8/840/POLYLUX	18142	2450	Cool White	4000	85	15,000	A	25
30	908.8	26	F30W/T8/860/POLYLUX	12607	2300	Daylight	6400	85	15,000	B	25
36	1,213.6	26	F36W/T8/827/POLYLUX	62554	3350	Extra Warm White	2700	85	15,000	A	25
36	1,213.6	26	F36W/T8/830/POLYLUX	62553	3350	Warm White	3000	85	15,000	A	25
36	1,213.6	26	F36W/T8/835/POLYLUX	62532	3350	White	3500	85	15,000	A	25
36	1,213.6	26	F36W/T8/840/POLYLUX	62551	3350	Cool White	4000	85	15,000	A	25
36	1,213.6	26	F36W/T8/860/POLYLUX	62552	3250	Daylight	6400	85	15,000	A	25
58	1,514.2	26	F58W/T8/827/POLYLUX	93330	5200	Extra Warm White	2700	85	15,000	A	25
58	1,514.2	26	F58W/T8/830/POLYLUX	93334	5200	Warm White	3000	85	15,000	A	25
58	1,514.2	26	F58W/T8/835/POLYLUX	93331	5200	White	3500	85	15,000	A	25
58	1,514.2	26	F58W/T8/840/POLYLUX	93333	5200	Cool White	4000	85	15,000	A	25
58	1,514.2	26	F58W/T8/860/POLYLUX	12943	5000	Daylight	6400	85	15,000	A	25
70	1,778	26	F70W/T8/835/POLYLUX	62572	6000	White	3500	85	15,000	A	25
70	1,778	26	F70W/T8/840/POLYLUX	62573	6000	Cool White	4000	85	15,000	A	25



Wattage [W]	Product Description	Product Code	Pack Qty
Single 4-65W	155/501/4/65W/UNIV/BX	36536	250
Single 4-65W	155/501/4/65W/UNIV/IND	36537	2000
Series 4-8W, 15-22W	155/200/4-22W/TANDEM/BX	36711	250
Series 4-8W, 15-22W	155/200/4-22W/TANDEM/IND	36714	2000
Single 75-125W	155/800/75-125W/BX	37864	250
Single 75-115W	155/801/75-115W/BX	37975	250
Single 75-115W	155/801/75-115W/IND	37974	2000



Brand cross reference

The following pages show GE and alternative brand Order Codes. These cross references are provided as a quick guide and may only represent a near equivalent to other brands. The table contains data from alternative brands' catalogues and website.

GE	OSRAM	PHILIPS	Havells Sylvania
T5 Watt-Miser™ High Efficiency	Lumilux T5 HE ES	Master TL5 HE Eco	
F13/T5/830/WM	-	13W/830	-
F13/T5/840/WM	13W/840	13W/840	-
F20/T5/840/WM	-	-	-
F26/T5/830/WM	25W/830	25W/830	-
F26/T5/840/WM	25W/840	25W/840	-
F33/T5/830/WM	32W/830	32W/830	-
F33/T5/840/WM	32W/840	32W/840	-
T5 Watt-Miser™ High Output	Lumilux T5 HO ES	Master TL5 HO Eco	
F21/T5/840/WM	-	-	-
F36/T5/840/WM	-	-	-
F46/T5/830/WM	45W/830	45W/830	-
F46/T5/840/WM	45W/840	45W/840	-
F51/T5/830/WM	50W/830	50W/830	-
F51/T5/840/WM	50W/840	50W/840	-
F76/T5/830/WM	73W/830	73W/830	-
F76/T5/840/WM	73W/840	73W/840	-
T5 LongLast™ High Efficiency	Lumilux T5 HE	Master TL5 HE	T5 Luxline Plus FHE
F14W/T5/827/LL	FH14W/827HE	14W/827	FHE14W/827
F14W/T5/830/LL	FH14W/830HE	14W/830	FHE14W/830
F14W/T5/835/LL	FH 14W/835HE	-	FHE14W/835
F14W/T5/840/LL	FH14W/840HE	14W/840	FHE14W/840
F14W/T5/865/LL	FH14W/865HE	14W/865	FHE14W/860
F21W/T5/827/LL	FH21W/827HE	21W/827	FHE21W/827
F21W/T5/830/LL	FH21W/830HE	21W/830	FHE21W/830
F21W/T5/840/LL	FH21W/840HE	21W/840	FHE21W/840
F21W/T5/865/LL	FH21W/865HE	21W/865	FHE21W/860
F28W/T5/827/LL	FH28W/827HE	28W/827	FHE28W/827
F28W/T5/830/LL	FH28W/830HE	28W/830	FHE28W/830
F28W/T5/840/LL	FH28W/840HE	28W/840	FHE28W/840
F28W/T5/865/LL	FH28W/865HE	28W/865	FHE28W/860
F35W/T5/827/LL	FH35W/827HE	35W/827	FHE35W/827
F35W/T5/830/LL	FH35W/830HE	35W/830	FHE35W/830
F35W/T5/835/LL	FH35W/835HE	-	FHE35W/835
F35W/T5/840/LL	FH35W/840HE	35W/840	FHE35W/840
F35W/T5/865/LL	FH35W/865HE	35W/865	FHE35W/860
T5 LongLast™ High Output	Lumilux T5 HO	Master TL5 HO	T5 Luxline Plus FHO
F24W/T5/830/LL	FH24W/830HO	24W/830	FHO24W/830
F24W/T5/835/LL	FH24W/835HO	-	FHO24W/835
F24W/T5/840/LL	FH24W/840HO	24W/840	FHO24W/840
F24W/T5/865/LL	FH24W/865HO	24W/865	FHO24W/860
F39W/T5/830/LL	FH39W/830HO	39W/830	FHO39W/830
F39W/T5/840/LL	FH39W/840HO	39W/840	FHO39W/840
F49W/T5/830/LL	FH49W/830HO	49W/830	FHO49W/830
F49W/T5/835/LL	-	-	FHO49W/835
F49W/T5/840/LL	FH49W/840HO	49W/840	FHO49W/840
F49W/T5/865/LL	FH49W/885HO	49W/865	FHO49W/860
F54W/T5/830/LL	-	54W/830	FHO54W/830
F54W/T5/840/LL	FH54W/840HO	54W/840	FHO54W/840
F54W/T5/865/LL	FH54W/865HO	54W/865	FHO54W/860
F80W/T5/830/LL	FH80W/830HO	80W/830	FHO80W/830
F80W/T5/840/LL	FH80W/840HO	80W/840	FHO80W/840

Linear Fluorescent Lamps

GE	OSRAM	PHILIPS	Havells Sylvania
T5 Miniature Standard	Energy Saver (Basic) T5 short	TL Mini	T5 Standard
F4W/T5/35	-	-	F4W/135
F4W/T5/33	L4W/640	4W/33-640	F4W/133
F6W/T5/35	-	-	F6W/135
F6W/T5/33	L6W/640	6W/33-640	F6W/133
F8W/T5/29	-	-	F8W/129
F8W/T5/35	L8W/535	-	F8W/135
F8W/T5/33	L8W/640	8W/33-640	F8W/133
F13W/T5/29	-	-	F13W/129
F13W/T5/35	-	-	F13W/135
F13W/T5/33	L13W/640	13W/33-640	F13W/133
T5 Miniature Triphosphore	Lumilux T5 short	Master TL Mini Super	T5 Luxline Plus
F8W/T5/827	L8W/827	8W/827	-
F8W/T5/840	L8W/840	8W/840	F8W/840
F13W/T5/827	L13W/840	13W/840	-
T5 Miniature Specfill Standard - Emergency Lighting	Emergency Lighting (Basic) T5 short	-	T5 Emergency
F6W/T5/33/SPECFILL	L6W/640	-	F6W/133 Emergency
F8W/T5/35/SPECFILL	-	-	-
F8W/T5/33/SPECFILL	L8W/640	-	F8W/133 Emergency
T5 Miniature Specfill Triphosphore - Emergency Lighting	-	-	T5 Emergency
F6W/T5/840/SPECFILL	-	-	-
F8W/T5/840/SPECFILL	-	-	F8W/1840 Emergency
F8W/T5/865/SPECFILL	-	-	-
T5 Circline™	Lumilux T5 FC	Master TL5 Circular	
FC22W/T5/827	FC22W/827	22W/827	
FC22W/T5/830	FC22W/830	22W/830	-
FC22W/T5/840	FC22W/840	22W/840	-
FC22W/T5/865	FC22W/865	-	
FC40W/T5/827	FC40W/827	40W/827	-
FC40W/T5/830	FC40W/830	40W/830	-
FC40W/T5/840	FC40W/840	40W/840	-
FC40W/T5/865	FC40W/865	-	
FC55W/T5/827	FC55W/827	-	
FC55W/T5/830	FC55W/830	55W/830	-
FC55W/T5/840	FC55W/840	55W/840	-
FC55W/T5/865	FC55W/865	-	
T8 Watt-Miser™	Lumilux T8 ES	Master TL-D Eco	T8 Luxline Eco
F16W/T8/830/WM	16W/830	16W/830	F16W/830
F16W/T8/840/WM	16W/840	16W/840	F16W/840
F16W/T8/860/WM	-	16W/865	-
F32W/T8/830/WM	32W/830	32W/830	F32W/830
F32W/T8/840/WM	32W/840	32W/840	F32W/840
F32W/T8/860/WM	-	32W/865	F32W/865
F51W/T8/830/WM	51W/830	51W/830	F51W/830
F51W/T8/840/WM	51W/840	51W/840	F51W/840
F51W/T8/860/WM	-	51W/865	F51W/865
T8 PolyLux XLR™ LongLast™	Lumilux XT T8	Master TL-D Xtra	-
F18W/T8/830/POLYLUX/LL	L18W/830XT	18W/830	-
F18W/T8/840/POLYLUX/LL	L18W/840XT	18W/840	-
F36W/T8/830/POLYLUX/LL	L36W/830XT	36W/830	-
F36W/T8/840/POLYLUX/LL	L36W/840XT	36W/840	-
F58W/T8/830/POLYLUX/LL	L58W/830XT	58W/830	-
F58W/T8/840/POLYLUX/LL	L58W/840XT	58W/840	-



Brand cross reference

GE	OSRAM	PHILIPS	Havells Sylvania
T8 PolyLux XLR™	Lumilux T8	Master TL-D Super 80	T8 Luxline Plus
F15W/T8/830/POLYLUX	L15W/830	15W/830	F15W/830
FF15W/T8/835 POLYLUX	-	-	F15W/835
F15W/T8/840/POLYLUX	L15W/840	15W/840	F15W/840
F15W/T8/860/POLYLUX	L15W/860	15W/865	F15W/865
F18W/T8/827/POLYLUX	L18W/827	18W/827	F18W/827
F18W/T8/830/POLYLUX	L18W/830	18W/830	F18W/830
F18W/T8/835/POLYLUX	L18W/835	18W/835	F18W/835
F18W/T8/840/POLYLUX	L18W/840	18W/840	F18W/840
F18W/T8/860/POLYLUX	L18W/865	18W/865	F18W/865
F30W/T8/830/POLYLUX	L30W/830	30W/830	F30W/830
F30W/T8/835/POLYLUX	-	30W/835	F30W/835
F30W/T8/840/POLYLUX	L30W/840	30W/840	F30W/840
F30W/T8/860/POLYLUX	L30W/865	30W/865	F30W/865
F36W/T8/827/POLYLUX	L36W/827	36W/827	F36W/827
F36W/T8/830/POLYLUX	L36W/830	36W/830	F36W/830
F36W/T8/835/POLYLUX	L36W/835	36W/835	F36W/835
F36W/T8/840/POLYLUX	L36W/840	36W/840	F36W/840
F36W/T8/860/POLYLUX	L36W/865	36W/865	F36W/865
F58W/T8/827/POLYLUX	L58W/827	58W/827	F58W/827
F58W/T8/830/POLYLUX	L58W/830	58W/830	F58W/830
F58W/T8/835/POLYLUX	L58W/835	58W/835	F58W/835
F58W/T8/840/POLYLUX	L58W/840	58W/840	F58W/840
F58W/T8/860/POLYLUX	L58W/865	58W/865	F58W/860
F70W/T8/835/POLYLUX	L70W/835	70W/835	F70W/840
F70W/T8/840/POLYLUX	L70W/840	70W/840	-

Compact Fluorescent Lamps Non-Integrated



The smart way to reduce costs

Extra energy saving up to 12% with WattMiser™ lamps compared to regular plug-in lamps

Up to 20,000 hours of extended service life with LongLast™ lamps

Wide range of colour and wattage (2700-6500K, 5-70W)

Dimmability for additional cost savings

Motion detection available with selected drivers

Extra low relamping cost with LongLast™ lamps



Office



Industrial



Biax™ D/T/Q/L LongLast™ for reduced relamping costs

GE Lighting's compact fluorescent LongLast™ lamps provide increased service life, which significantly reduces replacement and maintenance costs.

They are compact energy saving fluorescent lamps with double, triple and quad tube designs providing an ideal light source for small fixtures and downlighters.

GE Biax™ T and Biax™ Q LongLast™ guarantees the same light output in any burning position. It can be used in both closed luminaires and outdoor applications without significant light loss due to GE Amalgam technology providing stable lumen performance within a wide colour temperature range.

LongLast™

- **Retrofit – can be used with existing fittings and control gears***
- **Reduces replacement and maintenance costs**
- **Further energy saving with dimming possibilities**
- **Available in warm to cool colour temperatures (2700 – 6500K)**

*Recommended control gear list available in the data sheets (www.gelighting.com/eu)



Compact Fluorescent Lamps Non-Integrated

2D™ Watt-Miser™ *for reduced electricity bills*

GE 2D™ Watt-Miser™ lamps are energy saving compact fluorescent tubes formed into a '2D' shape. All types are available with a 4-pin cap which allows the lamps to be used with conventional or electronic control gears, dimming and emergency lighting circuits.

The lamps offer additional energy savings, even when used with standard control gear, and deliver market leading life performance and remarkable energy saving performance that is unique to GE Lighting.



2DWattMiser™

- Direct replacements for 16-21-28-38W standard 2D™ lamps
- Unique shape suitable for broad range of applications
- Interchangeable – can be used with existing fittings and control gear
- Very good for circular light distribution
- 5-12% extra energy saving compared to conventional plug-in lamps
- The only 'A' class energy 2D™ lamp on the market



Selector

Biax™ S



Biax™ S - 2pin

Cap: G23
Wattages: 5-7-9-11W
Colours: 2700 - 6500K
Rated life: 10,000Hrs

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Biax™ S/E - 4pin

Cap: 2G7
Wattages: 5-7-9-11W
Colours: 2700 - 6500K
Rated life: 10,000Hrs
11W version available in Red/Green/Blue colours.

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Biax™ D



Biax™ D - 2pin

Cap: G24d
Wattages: 10-13-18-26W
Colours: 2700 - 6500K
Rated life: 12,000Hrs

LongLast™ Page IV.6-7



Biax™ D/E - 4pin

Cap: G24q
Wattage: 10-13-18-26W
Colours: 2700 - 6500K
Rated life: 12,000Hrs

LongLast™ Page IV.7

Biax™ T



Biax™ T - 2pin

Cap: GX24d
Wattages: 13-18-26W
Colours: 2700 - 4000K
Rated life: 12,000Hrs

LongLast™ Page IV.7



Biax™ T/E - 4pin

Cap: GX24q
Wattages: 13-18-26-32-42W
Colours: 2700 - 4000K
Rated life: 12,000 - 20,000Hrs

LongLast™ Page IV.7-8

Biax™ Q



Biax™ Q/E - 4pin

Cap: GX24q
Wattages: 57-70W
Colours: 2700 - 4000K
Rated life: 20,000Hrs

LongLast™ Page IV.8

Biax™ L



Biax™ L - 4pin

Cap: 2G11
Wattages: 18-55W
Colours: 2700 - 6500K
Rated life: 8,000 - 22,500Hrs

LongLast™ * Page IV.8

2D™



2D™

Cap: GR8, GR10q
Wattages: 16-38W
Colours: 2700 - 6000K
Rated life: 12,000-15,000Hrs

WattMiser™ Page IV.9



Biax 2D™

Cap: GR10q, GR10q-3
Wattages: 10-55W
Colours: 2700 - 3500K
Rated life: 8,000 - 10,000Hrs

Page IV.9



Biax™ 2D™ Integral

Cap: GR210d
Wattages: 18W
Colours: 2700 - 4000K
Rated life: 10,000Hrs

WattMiser™ Page IV.9

*the 40-55W versions are LongLast types

Compact Fluorescent Lamps Non-Integrated

Product identification

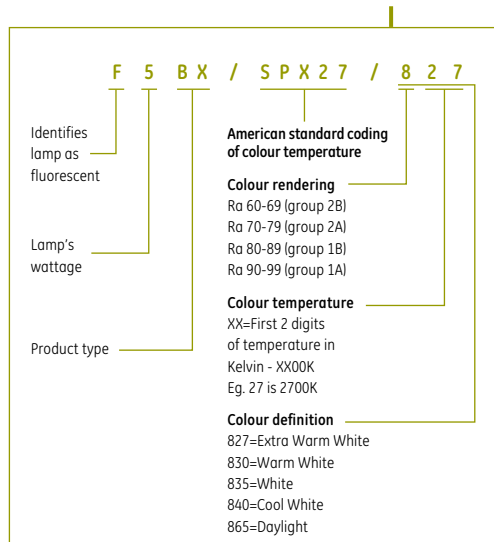
The following glossary of terms will help you when selecting lamps in this section. Within each product line, lamps are divided into families – within these families, lamps are listed by wattage. The Product Description can be used as a quick reference to each product's attributes. Where Rated Life is stated we refer to the industry standard definition of how many hours of operation 50% of a given installation will exceed.

All Biax™ CFL lamps are manufactured with the high quality PolyLux triphosphor technology.

Watts: Energy Used – Nominal Watts. To estimate energy consumption (kWh), multiply watts x hours of use and divide by 1000	Volts: Lamp data is based on operation at rated voltage	Cap: The type of cap fitted. See page 148-149 for cap drawings	Product description: The lamp's identification code	Product Code	Lumens (lm): Light output after the initial 100 hours of operation	CCT (K):	CRI (Ra): Colour rendering index, the higher the number (1-100), the more natural the lit subject appears	Rated life (h):	Diameter (mm): Bulb diameter in mm	Length (mm):	EEC: Energy Efficiency Class	Pack Qty
Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	CCT [K]	CRI [Ra]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty

Biax™ S 2-pin, Internal Starter

5	35	G23	F5BX/SPX27/827	37654	265	2700	82	10,000	32	107.5	A	10
5	35	G23	F5BX/SPX41/840	37661	265	4000	82	10,000	32	107.5	A	10
7	47	G23	F7BX/SPX27/827	37846	425	2700	82	10,000	32	136.5	A	10



CCT:
Colour temperature - Kelvin [K]. The visual warmth or coolness of the light. The higher the number the whiter or cooler the light appears

Product code:
It is important to use this code when ordering to ensure that you receive the exact product you require

Rated Life:
The point in time when 50% of installed lamps are still burning with 3h cycling. With HF gear used with 12h cycling.

Length:
Total length including the length of the pin in mm

Pack quantity:
Number of product units packed in a case

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Diameter (mm)	Length (mm)	EEC	Pack Qty
5	35	G23	F5BX/SPX27/827	37654	265	2700	82	10,000	32	107.5	B	10
5	35	G23	F5BX/SPX41/840	37661	265	4000	82	10,000	32	107.5	B	10
7	47	G23	F7BX/SPX27/827	37846	425	2700	82	10,000	32	136.5	A	10
7	47	G23	F7BX/830	38930	425	3000	82	10,000	32	136.5	A	10
7	47	G23	F7BX/SPX35/835	37659	425	3500	82	10,000	32	136.5	A	10
7	47	G23	F7BX/SPX41/840	37660	425	4000	82	10,000	32	136.5	A	10
7	47	G23	F7BX/865	38984	425	6500	82	10,000	32	136.5	A	10
9	60	G23	F9BX/827	37651	600	2700	82	10,000	32	167	A	10
9	60	G23	F9BX/830	38929	600	3000	82	10,000	32	167	A	10
9	60	G23	F9BX/SPX35/835	37652	600	3500	82	10,000	32	167	A	10
9	60	G23	F9BX/SPX41/840	37653	600	4000	82	10,000	32	167	A	10
9	60	G23	F9BX/865	38985	600	6500	82	10,000	32	167	A	10
11	91	G23	F11BX/827	37663	900	2700	82	10,000	32	237	A	10
11	91	G23	F11BX/830	38928	900	3000	82	10,000	32	237	A	10
11	91	G23	F11BX/835	37666	900	3500	82	10,000	32	237	A	10
11	91	G23	F11BX/840	37664	900	4000	82	10,000	32	237	A	10
11	91	G23	F11BX/865	38986	900	6500	82	10,000	32	237	A	10



Biax™ S/E 4-pin, External Starter Required

5	35	2G7	F5BX/827/4P	37714	265	2700	82	10,000	37.5	92	B	10
5	35	2G7	F5BX/840/4P	37715	265	4000	82	10,000	37.5	92	B	10
7	47	2G7	F7BX/827/4P	37658	425	2700	82	10,000	37.5	121	A	10
7	47	2G7	F7BX/840/4P	37716	425	4000	82	10,000	37.5	121	A	10
9	60	2G7	F9BX/827/4P	37710	600	2700	82	10,000	37.5	151	A	10
9	60	2G7	F9BX/830/4P	97925	600	3000	82	10,000	37.5	151	A	10
9	60	2G7	F9BX/840/4P	37711	600	4000	82	10,000	37.5	151	A	10
11	91	2G7	F11BX/827/4P	37717	900	2700	82	10,000	37.5	222	A	10
11	91	2G7	F11BX/830/4P	97926	900	3000	82	10,000	37.5	222	A	10
11	91	2G7	F11BX/840/4P	37713	900	4000	82	10,000	37.5	222	A	10
11	91	2G7	F11BX/865/4P	12603	900	6500	82	10,000	37.5	222	A	10
11	91	2G7	F11BX/GREEN/2G7 GE	98311	1200	GREEN	N/A	10,000	37.5	222	N/A	10
11	91	2G7	F11BX/BLUE/2G7 GE	98313	250	BLUE	N/A	10,000	37.5	222	N/A	10
11	91	2G7	F11BX/RED/2G7 GE	98314	600	RED	N/A	10,000	37.5	222	N/A	10



Biax™ D 2-pin, Internal Starter

10	64	G24D-1	F10DBX/T3/827/2P	78211	600	2700	82	12,000	34.4	108	B	10
10	64	G24D-1	F10DBX/T3/830/2P	78212	600	3000	82	12,000	34.4	108	B	10
10	64	G24D-1	F10DBX/T3/835/2P	78213	600	3500	82	12,000	34.4	108	B	10
10	64	G24D-1	F10DBX/T3/840/2P	78214	600	4000	82	12,000	34.4	108	B	10
10	64	G24D-1	F10DBX/T3/865/2P	78215	600	6500	82	12,000	34.4	108	B	10
13	91	G24D-1	F13DBX/T3/827/2P	78221	900	2700	82	12,000	34.4	139	A	10
13	91	G24D-1	F13DBX/T3/830/2P	78222	900	3000	82	12,000	34.4	139	A	10
13	91	G24D-1	F13DBX/T3/835/2P	78223	900	3500	82	12,000	34.4	139	A	10
13	91	G24D-1	F13DBX/T3/840/2P	78224	900	4000	82	12,000	34.4	139	A	10
13	91	G24D-1	F13DBX/T3/865/2P	78225	900	6500	82	12,000	34.4	139	A	10
18	100	G24d-2	F18DBXT4/SPX27/827	12860	1200	2700	82	12,000	34.4	154	B	10
18	100	G24d-2	F18DBXT4/SPX30/830	12861	1200	3000	82	12,000	34.4	154	B	10
18	100	G24d-2	F18DBXT4/SPX35/835	12863	1200	3500	82	12,000	34.4	154	B	10
18	100	G24d-2	F18DBXT4/SPX41/840	12864	1200	4000	82	12,000	34.4	154	B	10
18	100	G24d-2	F18DBXT4/SPX65/865	13017	1200	6500	82	12,000	34.4	154	B	10
26	105	G24d-3	F26DBXT4/SPX27/827	35250	1800	2700	82	12,000	34.4	169.5	B	10
26	105	G24d-3	F26DBXT4/SPX30/830	35237	1800	3000	82	12,000	34.4	169.5	B	10
26	105	G24d-3	F26DBXT4/SPX35/835	35251	1800	3500	82	12,000	34.4	169.5	B	10



Compact Fluorescent Lamps Non-Integrated

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Diameter (mm)	Length (mm)	EEC	Pack Qty
Biax™ D 2-pin, Internal Starter												
26	105	G24d-3	F26DBXT4/SPX41/840	35252	1800	4000	82	12,000	34.4	169.5	B	10
26	105	G24d-3	F26DBXT4/SPX65/865	35305	1710	6500	82	12,000	34.4	169.5	B	10

Biax™ D/E LongLast™ 4-pin, External Starter Required

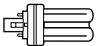
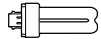
10	64	G24q-1	F10DBX/T3/827/4P	78217	600	2700	82	12,000	34.4	100.5	B	10
10	64	G24q-1	F10DBX/T3/830/4P	78218	600	3000	82	12,000	34.4	100.5	B	10
10	64	G24q-1	F10DBX/T3/835/4P	78219	600	3500	82	12,000	34.4	100.5	B	10
10	64	G24q-1	F10DBX/T3/840/4P	78220	600	4000	82	12,000	34.4	100.5	B	10
10	64	G24q-1	F10DBX/T3/865/4P	78231	600	6500	82	12,000	34.4	100.5	B	10
13	91	G24q-1	F13DBX/T3/827/4P	78226	900	2700	82	12,000	34.4	131.5	A	10
13	91	G24q-1	F13DBX/T3/830/4P	78227	900	3000	82	12,000	34.4	131.5	A	10
13	91	G24q-1	F13DBX/T3/835/4P	78228	900	3500	82	12,000	34.4	131.5	A	10
13	91	G24q-1	F13DBX/T3/840/4P	78229	900	4000	82	12,000	34.4	131.5	A	10
13	91	G24q-1	F13DBX/T3/865/4P	78232	900	6500	82	12,000	34.4	131.5	A	10
18	100	G24q-2	F18DBX/SPX27/827/4P	12865	1200	2700	82	12,000	34.4	146.5	B	10
18	100	G24q-2	F18DBX/SPX30/830/4P	12866	1200	3000	82	12,000	34.4	146.5	B	10
18	100	G24q-2	F18DBX/SPX35/835/4P	12869	1200	3500	82	12,000	34.4	146.5	B	10
18	100	G24q-2	F18DBX/SPX41/840/4P	12870	1200	4000	82	12,000	34.4	146.5	B	10
26	105	G24q-3	F26DBX/SPX27/827/4P	35247	1800	2700	82	12,000	34.4	162	B	10
26	105	G24q-3	F26DBX/SPX30/830/4P	35235	1800	3000	82	12,000	34.4	162	B	10
26	105	G24q-3	F26DBX/SPX35/835/4P	35248	1800	3500	82	12,000	34.4	162	B	10
26	105	G24q-3	F26DBX/SPX41/840/4P	35236	1800	4000	82	12,000	34.4	162	B	10
26	105	G24q-3	F26DBX/SPX65/865/4P	42798	1710	6500	82	12,000	34.4	162	B	10

Biax™ T 2-pin with Amalgam, Internal Starter

13	91	GX24d-1	F13TBX/827/A/2P	35940	900	2700	82	12,000	49.3	112.9	A	10
13	91	GX24d-1	F13TBX/SPX30/830/A/2P	35966	900	3000	82	12,000	49.3	112.9	A	10
13	91	GX24d-1	F13TBX/SPX41/A/2P	35941	900	4000	82	12,000	49.3	112.9	A	10
18	100	GX24d-2	F18TBX/SPX27/827/A/2P	35945	1200	2700	82	12,000	49.3	127.4	B	10
18	100	GX24d-2	F18TBX/SPX30/830/A/2P	35944	1200	3000	82	12,000	49.3	127.4	B	10
18	100	GX24d-2	F18TBX/SPX35/835/A/2P	35937	1200	3500	82	12,000	49.3	127.4	B	10
18	100	GX24d-2	F18TBX/SPX41/840/A/2P	35939	1200	4000	82	12,000	49.3	127.4	B	10
26	105	GX24d-3	F26TBX/SPX27/827/A/2P	35959	1800	2700	82	12,000	49.3	139.9	B	10
26	105	GX24d-3	F26TBX/SPX30/830/A/2P	35952	1800	3000	82	12,000	49.3	139.9	B	10
26	105	GX24d-3	F26TBX/SPX35/835/A/2P	35963	1800	3500	82	12,000	49.3	139.9	B	10
26	105	GX24d-3	F26TBX/SPX41/840/A/2P	35964	1800	4000	82	12,000	49.3	139.9	B	10

Biax™ T/E LongLast™ 4-pin with Amalgam, External Starter Required

13	91	GX24q-1	F13TBX/SPX27/827/A/4P	34391	900	2700	82	12,000	49.3	106.2	A	10
13	91	GX24q-1	F13TBX/SPX30/830/A/4P	34395	900	3000	82	12,000	49.3	106.2	A	10
13	91	GX24q-1	F13TBX/SPX35/835/A/4P	34400	900	3500	82	12,000	49.3	106.2	A	10
13	91	GX24q-1	F13TBX/SPX41/840/A/4P	34387	900	4000	82	12,000	49.3	106.2	A	10
18	100	GX24q-2	F18TBX/SPX27/827/A/4P	34392	1200	2700	82	12,000	49.3	120.7	B	10
18	100	GX24q-2	F18TBX/SPX30/830/A/4P	34396	1200	3000	82	12,000	49.3	120.7	B	10
18	100	GX24q-2	F18TBX/SPX35/835/A/4P	34405	1200	3500	82	12,000	49.3	120.7	B	10
18	100	GX24q-2	F18TBX/SPX41/840/A/4P	34385	1200	4000	82	12,000	49.3	120.7	B	10
26	105	GX24q-3	F26TBX/SPX27/827/A/4P	34393	1800	2700	82	12,000	49.3	133.2	B	10
26	105	GX24q-3	F26TBX/SPX30/830/A/4P	34397	1800	3000	82	12,000	49.3	133.2	B	10
26	105	GX24q-3	F26TBX/SPX35/835/A/4P	34406	1800	3500	82	12,000	49.3	133.2	B	10
26	105	GX24q-3	F26TBX/SPX41/840/A/4P	34381	1800	4000	82	12,000	49.3	133.2	B	10



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Diameter (mm)	Length (mm)	EEC	Pack Qty
Biax™ T/E LongLast™ 4-pin with Amalgam, External Starter Required with HF gear*												
32	100	GX24q-3	F32TBX/SPX27/827/AP4P	39377	2400	2700	82	20,000	49.3	141.2	B	10
32	100	GX24q-3	F32TBX/SPX30/830/AP4P	39378	2400	3000	82	20,000	49.3	141.2	B	10
32	100	GX24q-3	F32TBX/SPX35/835/A/4P	39379	2400	3500	82	20,000	49.3	141.2	B	10
32	100	GX24q-3	F32TBX/SPX41/840/A/4P	39380	2400	4000	82	20,000	49.3	141.2	B	10
42	135	GX24q-4	F42TBX/827/A/4P	46312	3200	2700	82	12,000	49.3	163.2	B	10
42	135	GX24q-4	F42TBX/830/A/4P	46313	3200	3000	82	12,000	49.3	163.2	B	10
42	135	GX24q-4	F42TBX/835/A/4P	46314	3200	3500	82	12,000	49.3	163.2	B	10
42	135	GX24q-4	F42TBX/841/A/4P	46315	3200	4000	82	12,000	49.3	163.2	B	10



Biax™ Q/E LongLast™ 4-pin with Amalgam, External Starter Required with HF gear*												
57	175	GX24q-5	F57QBX/827/A/4P/LL	45213	4300	2700	82	20,000	58.3	180.7	B	10
57	175	GX24q-5	F57QBX/830/A/4P/LL	45204	4300	3000	82	20,000	58.3	180.7	B	10
57	175	GX24q-5	F57QBX/835/A/4P/LL	45202	4300	3500	82	20,000	58.3	180.7	B	10
57	175	GX24q-5	F57QBX/840/A/4P/LL	45201	4300	4000	82	20,000	58.3	180.7	B	10
70	219	GX24q-6	F70QBX/830/A/4P/LL	45208	5200	3000	82	20,000	58.3	208.2	B	10
70	219	GX24q-6	F70QBX/835/A/4P/LL	45219	5200	3500	82	20,000	58.3	208.2	B	10
70	219	GX24q-6	F70QBX/840/A/4P/LL	45218	5200	4000	82	20,000	58.3	208.2	B	10



Biax™ L LongLast™ 4-pin, External Starter Required with HF gear*												
40	126	2G11	F40BX/830	41171	3500	3000	82	22,500	43.8	538.8	A	25
40	126	2G11	F40BX/835	41172	3500	3500	82	22,500	43.8	538.8	A	25
40	126	2G11	F40BX/840	41173	3500	4000	82	22,500	43.8	538.8	A	25
55	101	2G11	F55BX/830	41174	4800	3000	82	22,500	43.8	538.8	A	25
55	101	2G11	F55BX/835	41260	4800	3500	82	22,500	43.8	538.8	A	25
55	101	2G11	F55BX/840	41298	4800	4000	82	22,500	43.8	538.8	A	25
55	101	2G11	F55BX/865	75695	4550	6500	82	22,500	43.8	538.8	B	25



Biax™ L 4-pin, External Starter Required												
18	58	2G11	F18BX/827	41087	1250	2700	82	8,000	43.8	231.3	B	25
18	58	2G11	F18BX/830	41088	1250	3000	82	8,000	43.8	231.3	B	25
18	58	2G11	F18BX/835	41089	1250	3500	82	8,000	43.8	231.3	B	25
18	58	2G11	F18BX/840	41090	1250	4000	82	8,000	43.8	231.3	B	25
24	87	2G11	F24BX/827	41128	1800	2700	82	8,000	43.8	326.8	B	25
24	87	2G11	F24BX/830	41134	1800	3000	82	8,000	43.8	326.8	B	25
24	87	2G11	F24BX/835	41145	1800	3500	82	8,000	43.8	326.8	B	25
24	87	2G11	F24BX/840	41155	1800	4000	82	8,000	43.8	326.8	B	25
34	120	2G11	F34BX/830	41163	2800	3000	82	10,000	43.8	538.8	A	25
34	120	2G11	F34BX/835	41166	2800	3500	82	10,000	43.8	538.8	A	25
34	120	2G11	F34BX/840	41167	2800	4000	82	10,000	43.8	538.8	A	25
36	106	2G11	F36BX/827	41307	2900	2700	82	10,000	43.8	421.8	A	25
36	106	2G11	F36BX/830	41168	2900	3000	82	10,000	43.8	421.8	A	25
36	106	2G11	F36BX/835	41169	2900	3500	82	10,000	43.8	421.8	A	25
36	106	2G11	F36BX/840	41170	2900	4000	82	10,000	43.8	421.8	A	25
36	106	2G11	F36BX/865	75694	2750	6500	82	10,000	43.8	421.8	B	25



*Life test: If HF gear used with 12h cycling, otherwise with 3h cycling.

Compact Fluorescent Lamps Non-Integrated



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	CCT [K]	CRI [Ra]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
2D™ Watt-Miser™												
16	103	GR8	F162D/827	41744	1100	2700	82	12,000	138	142	A	20
16	103	GR8	F162D/835	41745	1100	3500	82	12,000	138	142	A	20
16	103	GR10q	F162D/827/4P	41746	1100	2700	82	12,000	138	142	A	20
16	103	GR10q	F162D/830/4P	75066	1100	3000	82	12,000	138	142	A	20
16	103	GR10q	F162D/835/4P	41747	1100	3500	82	12,000	138	142	A	20
16	103	GR8	F162D/860	41749	1050	6000	82	12,000	138	142	B	20
21	103	GR10q	F212D/827/4P	41794	1375	2700	82	12,000	138	142	B	20
21	103	GR10q	F212D/835/4P	41806	1375	3500	82	12,000	138	142	B	20
21	103	GR10q	F212D/860/4P	41808	1305	6000	82	12,000	138	142	B	20
28	108	GR8	F282DT5/827/2P	10546	2150	2700	82	15,000	202	204	A	20
28	108	GR10q	F282DT5/827/4P	10547	2150	2700	82	15,000	202	204	A	20
28	108	GR10q	F282DT5/830/4P	75068	2150	3000	82	15,000	202	204	A	20
28	108	GR10q	F282DT5/835/4P	10567	2150	3500	82	15,000	202	204	A	20
28	108	GR10q	F282DT5/840/4P	10548	2150	4000	82	15,000	202	204	A	20
38	110	GR10q	F382DT5/827/4P	10550	3020	2700	82	15,000	202	204	A	20
38	110	GR10q	F382DT5/830/4P	75067	3020	3000	82	15,000	202	204	A	20
38	110	GR10q	F382DT5/835/4P	10566	3020	3500	82	15,000	202	204	A	20



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	CCT [K]	CRI [Ra]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
Biax™ 2D™												
10	60	GR10q	F10W/2D/827/4P	88105	650	2700	82	8,000	92	95	B	20
10	60	GR10q	F10W/2D/835/4P	88106	650	3500	82	8,000	92	95	B	20
55	98	GR10q-3	F552D/T5/827/A/4P	78337*	3900	2700	80	10,000	202	204	B	20
55	98	GR10q-3	F552D/T5/830/4P	78339*	3900	3000	80	10,000	202	204	B	20
55	98	GR10q-3	F552D/T5/835/A/4P	78340*	3900	3500	80	10,000	202	204	B	20



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	CCT [K]	CRI [Ra]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
Biax™ 2D™ Watt-Miser™ with Integral Control Gear												
18	220-240	GRZ10d	FLE18W2D/827 GRZ10D	18122	1200	2700	82	10,000	138	142	A	10
18	220-240	GRZ10d	FLE18W2D/835 GRZ10D	18123	1200	3500	82	10,000	138	142	A	10
18	220-240	GRZ10d	FLE18W2D/840 GRZ10D	18120	1200	4000	82	10,000	138	142	A	10

Wattage [W]	Volts [V]	Product Description	Product Code	Diameter [mm]	Length [mm]	Pack Qty
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Biax™ Q/E Electronic Ballast

57-70	220-240	BLS/E/1X57-70W/QBX220-240V	13248	79	123	12
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*With 50Hz gear.

Brand cross reference

The following pages show GE and alternative brand Order Codes. These cross references are provided as a quick guide and may only represent a near equivalent to other brands. The table contains data from alternative brands' catalogues and website.

GE		OSRAM	PHILIPS	Havells Sylvania	
	Biax™S 2pin	Colour temperature	Dulux S	Master PL-S 2	
				Lynx-S	
5W	F5BX/827	2700	DULUX S 5W/827	PL-S 5W/827/2P	Lynx S 5W/827
	F5BX/840	4000	DULUX S 5W/840	-	Lynx S 5W/840
7W	F7BX/827	2700	DULUX S 7W/827	PL-S 7W/827/2P	Lynx S 7W/827
	F7BX/830	3000	DULUX S 7W/830	-	Lynx S 7W/830
	F7BX/835	3500	DULUX S 7W/835	-	-
	F7BX/840	4000	DULUX S 7W/840	PL-S 7W/840/2P	Lynx S 7W/840
	F7BX/865	6500	DULUX S 7W/865	-	-
9W	F9BX/827	2700	DULUX S 9W/827	PL-S 9W/827/2P	Lynx S 9W/827
	F9BX/830	3000	DULUX S 9W/830	PL-S 9W/830/2P	Lynx S 9W/830
	F9BX/835	3500	DULUX S 9W/835	-	-
	F9BX/840	4000	DULUX S 9W/840	PL-S 9W/840/2P	Lynx S 9W/840
	F9BX/865	6500	DULUX S 9W/865	-	-
11W	F11BX/827	2700	DULUX S 11W/827	PL-S 11W/827/2P	Lynx S 11W/827
	F11BX/830	3000	DULUX S 11W/830	-	Lynx S 11W/830
	F11BX/835	3500	-	-	-
	F11BX/840	4000	DULUX S 11W/840	PL-S 11W/840/2P	Lynx S 11W/840
	F11BX/865	6500	DULUX S 11W/865	-	-
	-	-	DULUX S 9W/Red	-	-
	-	-	DULUX S 9W/Green	-	-
	-	-	DULUX S 9W/Blue	-	-
	Biax™S/E 4pin		Dulux-SE	Master PL-S 4	
				Lynx - SE	
5W	F5BX/827/4P	2700	-	PL-S 5W/827/4P	Lynx SE 5W/827
	F5BX/840/4P	4000	-	PL-S 5W/840/4P	Lynx SE 5W/840
7W	F7BX/827/4P	2700	DULUX S/E 7W/827	PL-S 7W/827/4P	Lynx SE 7W/827
	F7BX/840/4P	4000	DULUX S/E 7W/840	PL-S 7W/840/4P	Lynx SE 7W/840
9W	F9BX/827/4P	2700	DULUX S/E 9W/827	PL-S 9W/827/4P	Lynx SE 9W/827
	F9BX/830/4P	3000	DULUX S/E 9W/830	-	Lynx SE 9W/830
	F9BX/840/4P	4000	DULUX S/E 9W/840	PL-S 9W/840/4P	Lynx SE 9W/840
11W	F11BX/827/4P	2700	DULUX S/E 11W/827	PL-S 11W/827/4P	Lynx SE 11W/827
	F11BX/827/4P	3000	DULUX S/E 11W/830	-	Lynx SE 11W/830
	F11BX/840/4P	4000	DULUX S/E 11W/840	PL-S 11W/840/4P	Lynx SE 11W/840
	F11BX/865/4P	6500	-	-	-
	F11BX/Red	-	-	-	-
	F11BX/Green	-	-	-	-
	F11BX/Blue	-	-	-	-
	Biax™D 2pin		Dulux-D	Master PL-C	
				Lynx-D	
10W	F10DBX/827	2700	DULUX D 10W/827	PL-C 10W/827/2P	Lynx D 10W/827
	F10DBX/830	3000	DULUX D 10W/830	PL-C 10W/830/2P	Lynx D 10W/830
	F10DBX/835	3500	DULUX D 10W/835	-	Lynx D 10W/835
	F10DBX/840	4000	DULUX D 10W/840	PL-C 10W/840/2P	Lynx D 10W/840
	F10DBX/865	6500	DULUX D 10W/865	-	Lynx D 10W/860
13W	F13DBX/827	2700	DULUX D 13W/827	PL-C 13W/827/2P	Lynx D 13W/827
	F13DBX/830	3000	DULUX D 13W/830	PL-C 13W/830/2P	Lynx D 13W/830
	F13DBX/835	3500	DULUX D 13W/835	-	Lynx D 13W/835
	F13DBX/840	4000	DULUX D 13W/840	PL-C 13W/840/2P	Lynx D 13W/840
	F13DBX/865	6500	DULUX D 13W/865	-	Lynx D 13W/860
18W	F18DBX/827	2700	DULUX D 18W/827	PL-C 18W/827/2P	Lynx D 18W/827
	F18DBX/830	3000	DULUX D 18W/830	PL-C 18W/830/2P	Lynx D 18W/830
	F18DBX/835	3500	DULUX D 18W/835	-	Lynx D 18W/835
	F18DBX/840	4000	DULUX D 18W/840	PL-C 18W/840/2P	Lynx D 18W/840
	F18DBX/865	6500	DULUX D 18W/865	-	Lynx D 18W/860
26W	F26DBX/827	2700	DULUX D 26W/827	PL-C 26W/827/2P	Lynx D 26W/827
	F26DBX/830	3000	DULUX D 26W/830	PL-C 26W/830/2P	Lynx D 26W/830
	F26DBX/835	3500	DULUX D 26W/835	PL-C 26W/835/2P	Lynx D 26W/835
	F26DBX/840	4000	DULUX D 26W/840	PL-C 26W/840/2P	Lynx D 26W/840
	F26DBX/865	6500	DULUX D 26W/865	PL-C 26W/865/2P	Lynx D 26W/860

Compact Fluorescent Lamps Non-Integrated

GE			OSRAM	PHILIPS	Havells Sylvania
	Biax™D/E 4pin	Colour temperature	Dulux-DE	Master PL-C	Lynx-DE
10W	F10DBX/827/4P/EOL	2700	DULUX D/E 10W/827	PL-C 10W/827/4P	Lynx DE 10W/827
	F10DBX/830/4P/EOL	3000	DULUX D/E 10W/830	PL-C 10W/830/4P	Lynx DE 10W/830
	F10DBX/835/4P/EOL	3500	DULUX D/E 10W/835	-	-
	F10DBX/840/4P/EOL	4000	DULUX D/E 10W/840	PL-C 10W/840/4P	Lynx DE 10W/840
	F10DBX/865/4P/EOL	6500	-	-	Lynx DE 10W/860
13W	F13DBX/827/4P/EOL	2700	DULUX D/E 13W/827	PL-C 13W/827/4P	Lynx DE 13W/827
	F13DBX/830/4P/EOL	3000	DULUX D/E 13W/830	PL-C 13W/830/4P	Lynx DE 13W/830
	F13DBX/835/4P/EOL	3500	DULUX D/E 13W/835	-	Lynx DE 13W/835
	F13DBX/840/4P/EOL	4000	-	PL-C 13W/840/4P	Lynx DE 13W/840
	F13DBX/865/4P/EOL	6500	-	-	Lynx DE 13W/860
18W	F18DBX/827/4P/EOL	2700	DULUX D/E 18W/827	PL-C 18W/827/4P	Lynx DE 18W/827
	F18DBX/830/4P/EOL	3000	DULUX D/E 18W/830	PL-C 18W/830/4P	Lynx DE 18W/830
	F18DBX/835/4P/EOL	3500	DULUX D/E 18W/835	-	Lynx DE 18W/835
	F18DBX/840/4P/EOL	4000	DULUX D/E 18W/840	PL-C 18W/840/4P	Lynx DE 18W/840
26W	F26DBX/827/4P/EOL	2700	DULUX D/E 26W/827	PL-C 26W/827/4P	Lynx DE 26W/827
	F26DBX/830/4P/EOL	3000	DULUX D/E 26W/830	PL-C 26W/830/4P	Lynx DE 26W/830
	F26DBX/835/4P/EOL	3500	DULUX D/E 26W/835	PL-C 26W/835/4P	Lynx DE 26W/835
	F26DBX/840/4P/EOL	4000	DULUX D/E 26W/840	PL-C 26W/840/4P	Lynx DE 26W/840
	F26DBX/865/4P/EOL	6500	DULUX D/E 26W/865	-	Lynx DE 26W/860
Biax™T 2pin			Dulux T Plus	Master PL-T	Lynx-T
13W	F13TBX/827/A/2P	2700	-	PL-T 13W/827/2P	-
	F13TBX/830/A/2P	3000	DULUX T 13W/830	PL-T 13W/830/2P	-
	F13TBX/840/A/2P	4000	DULUX T 13W/840	PL-T 13W/840/2P	-
18W	F18TBX/827/A/2P	2700	DULUX T 18W/827	PL-T 18W/827/2P	-
	F18TBX/830/A/2P	3000	DULUX T 18W/830	PL-T 18W/830/2P	Lynx T 18W/830
	F18TBX/835/A/2P	3500	-	-	-
	F18TBX/840/A/2P	4000	DULUX T 18W/840	PL-T 18W/840/2P	Lynx T 18W/840
26W	F26TBX/827/A/2P	2700	DULUX T 26W/827	PL-T 26W/827/2P	-
	F26TBX/830/A/2P	3000	DULUX T 26W/830	PL-T 26W/830/2P	Lynx T 26W/830
	F26TBX/835/A/2P	3500	-	-	-
	F26TBX/840/A/2P	4000	DULUX T 26W/840	PL-T 26W/840/2P	Lynx T 26W/840
Biax™T/E 4pin			Dulux T/E Plus	Master PL-T 4pin	Lynx- TE
13W	F13TBX/827/A/4P/EOL	2700	DULUX T/E 13W/827	PL-T 13W/827/4P	-
	F13TBX/830/A/4P/EOL	3000	DULUX T/E 13W/830	PL-T 13W/830/4P	-
	F13TBX/835/A/4P/EOL	3500	-	-	-
	F13TBX/840/A/4P/EOL	4000	DULUX T/E 13W/840	PL-T 13W/840/4P	-
18W	F18TBX/827/A/4P/EOL	2700	DULUX T/E 18W/827	PL-T 18W/827/4P	-
	F18TBX/830/A/4P/EOL	3000	DULUX T/E 18W/830	PL-T 18W/830/4P	Lynx TE 18W/830
	F18TBX/835/A/4P/EOL	3500	-	-	-
	F18TBX/840/A/4P/EOL	4000	DULUX T/E 18W/840	PL-T 18W/840/4P	Lynx TE 18W/840
26W	F26TBX/827/A/4P/EOL	2700	DULUX T/E 26W/827	PL-T 26W/827/4P	-
	F26TBX/830/A/4P/EOL	3000	DULUX T/E 26W/830	PL-T 26W/830/4P	Lynx TE 26W/830
	F26TBX/835/A/4P/EOL	3500	-	-	-
	F26TBX/840/A/4P/EOL	4000	DULUX T/E 26W/840	PL-T 26W/840/4P	Lynx TE 26W/840
32W	F32TBX/827/A/4P/EOL	2700	DULUX T/E 32W/827	PL-T 32W/827/4P	-
	F32TBX/830/A/4P/EOL	3000	DULUX T/E 32W/830	PL-T 32W/830/4P	Lynx TE 32W/830
	F32TBX/835/A/4P/EOL	3500	-	-	-
	F32TBX/840/A/4P/EOL	4000	DULUX T/E 32W/840	PL-T 32W/840/4P	Lynx TE 32W/840
42W	F42TBX/827/A/4P/EOL	2700	DULUX T/E 42W/827	PL-T 42W/827/4P	-
	F42TBX/830/A/4P/EOL	3000	DULUX T/E 42W/830	PL-T 42W/830/4P	Lynx TE 42W/830
	F42TBX/841/A/4P/EOL	3500	-	-	-
	F42TBX/835/A/4P/EOL	4000	DULUX T/E 42W/840	PL-T 42W/830/4P	Lynx TE 42W/840



Brand cross reference

GE			OSRAM	PHILIPS	Havells Sylvania
	Biax™Q/E 4pin	Colour temperature	Dulux T/E	PL-T	Lynx- TE
57W	F57QBX/827/A/4P/EOL	2700	-	PL-T 57W/827/4P	-
	F57QBX/830/A/4P/EOL	3000	-	PL-T 57W/830/4P	-
	F57QBX/835/A/4P/EOL	3500	-	-	-
	F57QBX/840/A/4P/EOL	4000	-	PL-T 57W/840/4P	-
70W	F70QBX/830/A/4P/EOL	3000	-	-	-
	F70QBX/835/A/4P/EOL	3500	-	-	-
	F70QBX/840/A/4P/EOL	4000	-	-	-
	Biax™L 4pin		Dulux-L	PL-L	Lynx L & Lynx-LE
18W	F18BX/827	2700	DULUX L 18W/827	-	Lynx L 18W/827
	F18BX/830	3000	DULUX L 18W/830	PL-L 18W/830/4P	Lynx L 18W/830
	F18BX/835	3500	DULUX L 18W/835	PL-L 18W/835/4P	-
	F18BX/840	4000	DULUX L 18W/840	PL-L 18W/840/4P	Lynx L 18W/840
24W	F24BX/827	2700	DULUX L 24W/827	-	Lynx L 24W/827
	F24BX/830	3000	DULUX L 24W/830	PL-L 24W/830/4P	Lynx L 24W/830
	F24BX/835	3500	DULUX L 24W/835	PL-L 24W/835/4P	-
	F24BX/840	4000	DULUX L 24W/840	PL-L 24W/840/4P	Lynx L 24W/840
34W	F34BX/830	3000	-	-	-
	F34BX/835	3500	-	-	-
	F34BX/840	4000	-	-	-
36W	F36BX/827	2700	DULUX L 36W/827	-	Lynx L 36W/827
	F36BX/830	3000	DULUX L 36W/830	PL-L 36W/830/4P	Lynx L 36W/830
	F36BX/835	3500	DULUX L 36W/835	-	-
	F36BX/840	4000	DULUX L 36W/840	PL-L 36W/840/4P	Lynx L 36W/840
	F36BX/865	6500	DULUX L 36W/865	PL-L 36W/865/4P	Lynx L 36W/865
40W	F40BX/830	3000	DULUX L 40W/830	PL-L 40W/830/4P	Lynx LE 40W/830
	F40BX/835	3500	DULUX L 40W/835	PL-L 40W/835/4P	Lynx LE 40W/835
	F40BX/840	4000	DULUX L 40W/840	PL-L 40W/840/4P	Lynx LE 40W/840
55W	F55BX/830	3000	DULUX L 55W/830	PL-L 55W/830/4P	Lynx LE 55W/830
	F55BX/835	3500	DULUX L 55W/835	PL-L 55W/835/4P	Lynx LE 55W/835
	F55BX/840	4000	DULUX L 55W/840	PL-L 55W/840/4P	Lynx LE 55W/840
	F55BX/854	6500	DULUX L 55W/865	PL-L 55W/865/4P	Lynx LE 55W/865
	Biax™ 2D 2pin			PL-Q 2pin	Lynx-Q (GR8 base) 2 pin
16W	F162D/827 GE 20PK WM	2700	CFL Square 16W/827	PLQ 16W/827/2P	Lynx-Q 16W/827/2P
	F162D/835 GE 20PK	3500	CFL Square 16W/835	PLQ 16W/835/2P	Lynx-Q 16W/835/2P
	F162D/860 GE 20PK	6000	-	-	-
28W	F282DT5/827/2P BL 1/20 WM	2700	CFL Square 28W/827	-	-
	Biax™ 2D 4pin			PL-Q 4pin	Lynx-QE 4 pin
10W	OT F10W/2D/827/4P GE BL 1/20	2700	-	-	-
	OT F10W/2D/835/4P GE BL 1/20	3500	-	-	-
16W	F162D/827/4P GE 20PK	2700	CFL Square 16W/827	PLQ 16W/827/4P	Lynx-QE 16W/827/4P
	F162D/830/4P BL1/20 WM	3000	-	PLQ 16W/830/4P	-
	F162D/835/4P GE 20PK	3500	CFL Square 16W/835	PLQ 16W/835/4P	Lynx-QE 16W/835/4P
21W	F212D/827/4P GE 20PK	2700	-	-	-
	F212D/835/4P GE 20PK	3500	-	-	-
	F212D/860/4P GE 20PK	6000	-	-	-
28W	F282DT5/827/4P BL 1/20 WM	2700	CFL Square 28W/827	PLQ 28W/827/4P	Lynx-QE 28W/827/4P
	F282D/830/4P BL1/20 WM	3000	-	PLQ 28W/830/4P	-
	F282DT5/835/4P BL 1/20 WM	3500	CFL Square 28W/835	PLQ 28W/835/4P	Lynx-QE 28W/835/4P
	F282DT5/840/4P BL 1/20 WM	4000	-	PLQ 28W/840/4P	Lynx-QE 28W/840/4P
38W	F382DT5/827/4P BL 1/20 WM	2700	CFL Square 38W/827	PLQ 38W/827/4P	Lynx-QE 38W/827/4P
	F382D/830/4P BL1/20 WM	3000	-	PLQ 38W/830/4P	-
	F382DT5/835/4P BL 1/20 WM	3500	-	PLQ 38W/835/4P	Lynx-QE 38W/835/4P
55W	F55 2D/827/A 4P BL20 MIH	2700	-	-	-
	F55 2D/830/A 4P BL20 MIH	3000	-	-	-
	F55 2D/835/A 4P BL20 MIH	3500	-	-	-
	Biax™ 2D Integral				
18W	FLE18W2D/827 GRZ10D 1/10	2700	-	-	-
	FLE18W2D/835 GRZ10D 1/10	3500	-	-	-
	FLE18W2D/840 GRZ10D 1/10	4000	-	-	-

Compact Fluorescent Lamps Integrated



Compact Fluorescent Lamps Integrated

Save money on energy bills and maintain quality

Longer life from 6,000 to 15,000 hours

Quick start Flicker-free and fast warm-up

Fit almost everywhere stick, spiral, small incandescent shapes

Environmentally friendly solutions – with reduced mercury content

Special applications/options dimmability, dusk to dawn, high switching endurance

Energy efficient and economic 80% efficiency vs. traditional incandescent *

GE Lighting's integrated compact fluorescent lamps combine energy saving benefits with high quality lighting.

Integrated compact fluorescent lamps are suitable for a variety of applications, available in small incandescent sizes and look-a-like shapes, with both ES and BC caps.

Outstanding light quality is guaranteed throughout the life of the lamps with colour temperatures from 2700-6500K.



Home



Office



*from our 'A' energy labelled products

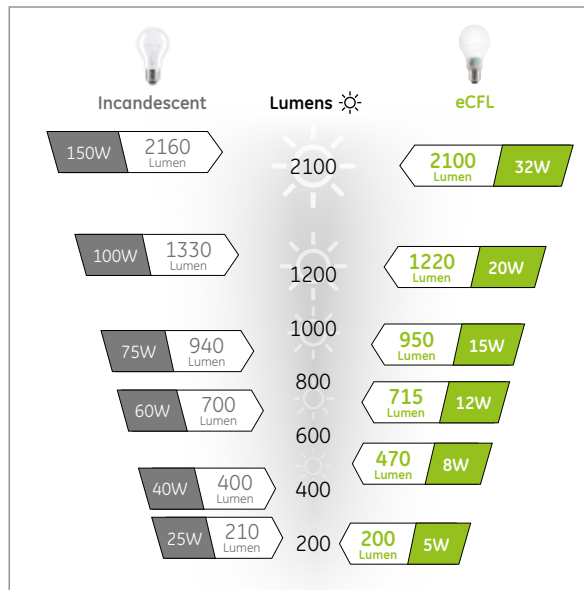


V.1

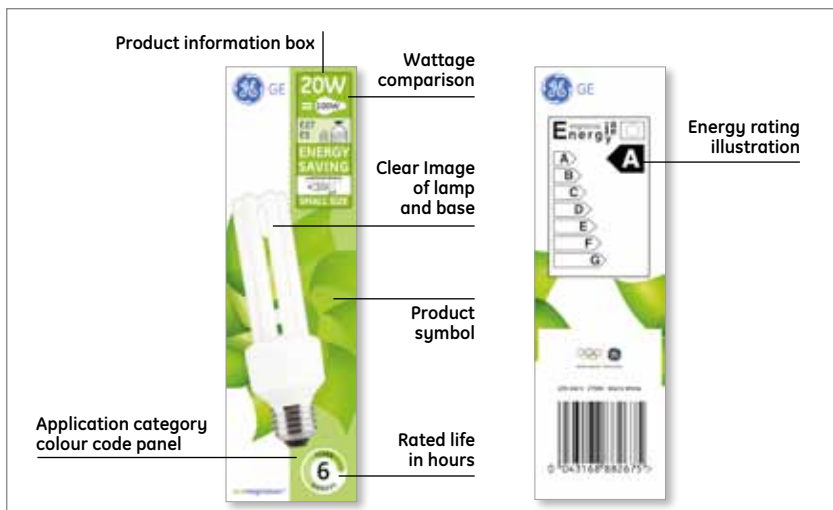
Switching from Watts to Lumens

Traditional light bulbs are being phased out as modern light technologies use different amounts of power to achieve the same amount of light. Instead of referring to watts anymore, we now need to measure and compare light in terms of lumens.

Save money on bills yet lose nothing in quality with GE's new electronic compact fluorescent (eCFL) lamps. Ideal for ambient light, eCFLs combine energy saving benefits with high quality lighting.



Quick guide to GE Lighting packaging



Compact Fluorescent Lamps Integrated

LongLast™ Spiral T2

The LongLast™ T2 Spiral Compact Fluorescent Lamp (CFL) is the smallest size long life CFL lightbulb on the market.

This unique lamp offers excellent light quality over its 15,000 hours rated life and can be used in indoor or outdoor applications.

With continuing technological advancements and miniaturisation, today's T2 CFL lamps are even smaller than the incandescent lamps that they replace to ensure that they are discreet – yet high performing.



LongLast™

- 15,000 hours rated life
- Small dimensions
- Fast warm-up
- 20,000 high switching cycle endurance
- Low mercury content <1 mg
- Eco Label approved premium quality until 11 August 2012
- 'A' energy class

Product range:

LongLast™ T2 Spiral lamps are available in a full range of:

- 8, 12, 15, 20 and 23 wattages
- E14, E27, B22 caps
- Warm (2700K), Cool (4000K) and Daylight (6500K) colours
- Box and blister packs



Stick T3 Mini

The T3 10,000 hours Mini stick range offers low energy consumption in a compact size, along with additional benefits such as instant light-on and fast warm-up. Stick shaped lamps provide an energy saving alternative for almost all applications where incandescent bulbs are currently used – ensuring excellent light quality and reliable energy savings.



- 10,000 hours rated life
- Fast warm-up
- Instant switch on feature
- 'A' energy class
- Small dimensions

Product range:

Stick T3 Mini 10,000 hours lamps are available in:

- 9W, 11W, 15W, 20W and 23W
- E14, E27, B22 caps
- Warm (2700K), Cool (4000K) and Daylight (6500K) colours
- Box and blister packs



Compact Fluorescent Lamps Integrated

Stick



T3 Mini

Cap: E27, E14, B22
Wattages: 9-23W
Colours: 2700-6500K
Rated life: 10,000Hrs

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T3 Mini Economy

Cap: E27, E14, B22
Wattages: 9-23W
Colours: 2700K
Rated life: 6,000Hrs

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T4 Sensor

Cap: E27, B22
Wattages: 15W
Colours: 2700K
Rated life: 6,000Hrs

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Spiral



LongLast T2

Cap: E27, E14, B22
Wattages: 8-23W
Colours: 2700-6500K
Rated life: 15,000Hrs

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T2

Cap: E27, E14, B22
Wattages: 8-23W
Colours: 2700-6500K
Rated life: 8,000 - 10,000Hrs

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T3 Dimmable

Cap: E27, B22
Wattages: 20W
Colours: 2700K
Rated life: 10,000Hrs

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T3

Cap: E27, E14, B22
Wattages: 11-20W
Colours: 2700-6500K
Rated life: 8,000Hrs

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T4 High Power Factor (HPF)

Cap: E27
Wattages: 32W
Colours: 2700K
Rated life: 10,000Hrs

Page V.10

Circlite



Circlite T5

Cap: E27
Wattages: 22W
Colours: 2700-6500K
Rated life: 6,000Hrs

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Selector

Decor

GLS, Spherical



Energy Smart™ T2
Cap: E27, B22
Wattages: 9-20W
Colours: 3000-6500K
Rated life: 10,000Hrs

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GLS T2/T3
Cap: E27, E14, B22
Wattages: 8-20W
Colours: 2700-4000K
Rated life: 6,000Hrs

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Spherical T2
Cap: E27, E14, B22
Wattages: 5-7W
Colours: 2700-4000K
Rated life: 6,000Hrs

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Candle




Candle T2/T3
Cap: E27, E14, B22
Wattages: 7-11W
Colours: 2700-4000K
Rated life: 6,000 - 8,000Hrs

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Twisted Candle T2
Cap: E27, E14, B22
Wattages: 5-9W
Colours: 2400-2700K
Rated life: 6,000-10,000Hrs

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Bent Tip Candle T3
Cap: E14
Wattages: 7W
Colours: 2700K
Rated life: 6,000Hrs

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Reflector



Reflector T2
Cap: E27, E14, B22
Wattages: 7-11W
Colours: 2700-4000K
Rated life: 6,000Hrs

Page V.12



Reflector Genura
Cap: E27
Wattages: 22.5W
Colours: 2700-3000K
Rated life: 15,000Hrs

Page V.12



GU10 T2
Cap: GU10
Wattages: 7-9W
Colours: 2700K
Rated life: 6,000Hrs

Page V.12

Globe



Globe T3
Cap: E27
Wattages: 15-23W
Colours: 2700-4000K
Rated life: 8,000Hrs

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Compact Fluorescent Lamps Integrated

Product identification

The following glossary of terms will help you when selecting lamps in this section. Within each product line, lamps are divided into families – within these families, lamps are listed by wattage. The Product Description can be used as a quick reference to each product's attributes. Where "rated life" or "median life" are stated we refer to the industry standard definition of how many hours of operation 50% of a given installation will exceed.

Watts:

Energy Used –
Nominal Watts.

To estimate energy
consumption (kWh),
multiply watts x
hours of use and
divide by 1000

Cap:

The type of cap
fitted. See page
148-149 for cap
drawings

Lumens:

Light output after
the initial 100 hours
of operation

Diameter:

Bulb diameter in mm

Volts:
Lamp data
is based on
operation at
rated voltage

Product description:
The lamp's
identification code

CRI:
Colour rendering index,
the higher the number
(1-100), the more natural
the lit subject appears

EEC:
Energy Efficiency Class

Wattage (W)

Volts (V)

Cap

Product
Description

Product Code

Lumen (lm)

CCT (K)

CRI (Ra)

Rated life (h)

Diameter
(mm)

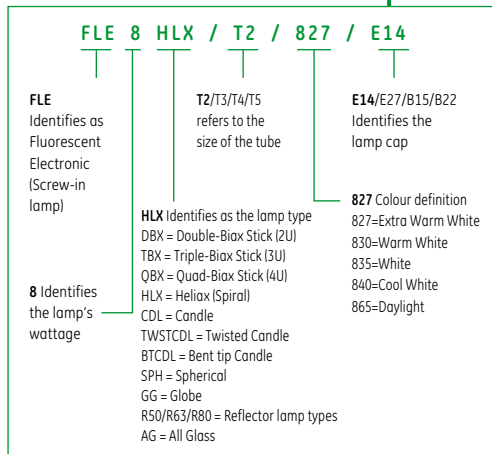
Length (mm)

EEC

Pack Qty

Spiral T2 - 15,000 hours

8	220-240	E14	FLE8HLX/T2/827/E14	76153	460	2700	80	15,000	100.5	46	A	8
8	220-240	E27	FLE8HLX/T2/827/E27	76154	460	2700	80	15,000	88.5	46	A	8
12	220-240	E14	FLE12HLX/T2/827/E14	76155	700	2700	80	15,000	112.5	53	A	6



CCT:
Colour temperature –
Kelvin (K). The visual
warmth or coolness
of the light. The
higher the number
the whiter or cooler
the light appears

Length:
Lamp length in mm

Product code:
It is important to
use this code when
ordering to ensure
that you receive the
exact product you
require

Rated life:
The point in time when
50% of installed lamps
are still burning

Pack quantity:
Number of product
units packed in a case



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Length (mm)	Diameter (mm)	EEC	Pack Qty
9	220-240	E14	FLE9TBX/T3/827/E14	88697	480	2700	82	10,000	119	44	A	8
9	220-240	E27	FLE9TBX/T3/827/E27	88695	480	2700	82	10,000	115	44	A	8
9	220-240	B22	FLE9TBX/T3/827/B22	88696	480	2700	82	10,000	114	44	A	8
9	220-240	E14	FLE9TBX/T3/840/E14	88700	455	4000	82	10,000	119	44	A	10
9	220-240	E27	FLE9TBX/T3/840/E27	88698	455	4000	82	10,000	115	44	A	10
9	220-240	E14	FLE9TBX/T3/865/E14	88703	455	6500	82	10,000	119	44	A	10
9	220-240	E27	FLE9TBX/T3/865/E27	88701	455	6500	82	10,000	115	44	A	10
11	220-240	E14	FLE11TBX/T3/827/E14	78690	660	2700	82	10,000	131	44	A	8
11	220-240	E27	FLE11TBX/T3/827/E27	72689	660	2700	82	10,000	127	44	A	8
11	220-240	B22	FLE11TBX/T3/827/B22	72690	660	2700	82	10,000	126	44	A	8
11	220-240	E14	FLE11TBX/T3/840/E14	88709	620	4000	82	10,000	131	44	A	10
11	220-240	E27	FLE11TBX/T3/840/E27	88707	620	4000	82	10,000	127	44	A	10
11	220-240	E14	FLE11TBX/T3/865/E14	88712	620	6500	82	10,000	131	44	A	10
11	220-240	E27	FLE11TBX/T3/865/E27	75730	620	6500	82	10,000	127	44	A	8
15	220-240	E27	FLE15TBX/T3/827/E27	72688	850	2700	82	10,000	137.5	44	A	8
15	220-240	B22	FLE15TBX/T3/827/B22	88713	850	2700	82	10,000	136.5	44	A	8
15	220-240	E27	FLE15TBX/T3/840/E27	88714	800	4000	82	10,000	137.5	44	A	10
15	220-240	E27	FLE15TBX/T3/865/E27	88716	800	6500	82	10,000	137.5	44	A	10
20	220-240	E27	FLE20TBX/T3/827/E27	88718	1200	2700	82	10,000	149	44	A	8
20	220-240	B22	FLE20TBX/T3/827/B22	88719	1200	2700	82	10,000	148	44	A	8
20	220-240	E27	FLE20TBX/T3/840/E27	88720	1152	4000	82	10,000	149	44	A	10
20	220-240	E27	FLE20TBX/T3/865/E27	88722	1152	6500	82	10,000	149	44	A	10
20	220-240	B22	FLE20TBX/T3/865/B22	88723	1152	6500	82	10,000	148	44	A	10
23	220-240	E27	FLE23QBX/T3/827/E27	75268	1450	2700	82	10,000	145	48	A	8
23	220-240	B22	FLE23QBX/T3/827/B22	75039	1450	2700	82	10,000	144	48	A	8
23	220-240	E27	FLE23QBX/T3/840/E27	97000	1450	4000	82	10,000	145	48	A	8
23	220-240	E27	FLE23QBX/T3/865/E27	97006	1371	6500	82	10,000	145	48	A	8



Stick T3 Mini Economy - 6,000 hours

9	220-240	E14	FLE9DBX/T3/827/E14	63965	435	2700	82	6,000	123	40	A	8
9	220-240	E27	FLE9DBX/T3/827/E27	63966	435	2700	82	6,000	124	40	A	8
9	220-240	B22	FLE9DBX/T3/827/B22	63908	435	2700	82	6,000	123	40	A	8
11	220-240	E14	FLE11DBX/T3/827/E14	63967	600	2700	82	6,000	142	44.5	A	8
11	220-240	E27	FLE11DBX/T3/827/E27	63968	600	2700	82	6,000	142	44.5	A	8
11	220-240	B22	FLE11DBX/T3/827/B22	63909	600	2700	82	6,000	141	44.5	A	8
15	220-240	E27	FLE15TBX/T3/827/E27	63969	820	2700	82	6,000	136	44.5	A	8
15	220-240	B22	FLE15TBX/T3/827/B22	63911	820	2700	82	6,000	135	44.5	A	8
20	220-240	E27	FLE20TBX/T3/827/E27	63971	1152	2700	82	6,000	154	44.5	A	8
20	220-240	B22	FLE20TBX/T3/827/B22	63912	1152	2700	82	6,000	153	44.5	A	8
23	220-240	E27	FLE23TBX/T3/827/E27	63976	1380	2700	82	6,000	173	44.5	A	8



Stick T4 Senzor - 6,000 hours

15	220-240	E27	FLE15TBX/827/E27/T4/SENZ	88643	850	2700	80	6,000	146	55	A	8
15	220-240	B22	FLE15TBX/827/B22/T4/SENZ	70884	850	2700	80	6,000	145	55	A	8



Compact Fluorescent Lamps Integrated

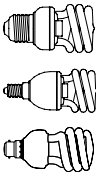
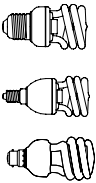
Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Length (mm)	Diameter (mm)	EEC	Pack Qty
LongLast™ Spiral T2 - 15,000 hours												
8	220-240	E14	FLE8HLX/T2/827/E14	76153	470	2700	80	15,000	97	45	A	8
8	220-240	E27	FLE8HLX/T2/827/E27	76154	470	2700	80	15,000	85	45	A	8
8	220-240	B22	FLE8HLX/T2/827/B22	78156	470	2700	80	15,000	84	45	A	8
8	220-240	E14	FLE8HLX/T2/840/E14	78157	460	4000	80	15,000	97	45	A	8
8	220-240	E27	FLE8HLX/T2/840/E27	78188	460	4000	80	15,000	85	45	A	8
8	220-240	E27	FLE8HLX/T2/865/E27	78189	430	6500	80	15,000	85	45	A	8
12	220-240	E14	FLE12HLX/T2/827/E14	76155	715	2700	80	15,000	110	52	A	6
12	220-240	E27	FLE12HLX/T2/827/E27	76157	715	2700	80	15,000	98	52	A	6
12	220-240	B22	FLE12HLX/T2/827/B22	78190	715	2700	80	15,000	97	52	A	6
12	220-240	E14	FLE12HLX/T2/840/E14	78191	700	4000	80	15,000	110	52	A	6
12	220-240	E27	FLE12HLX/T2/840/E27	78192	700	4000	80	15,000	98	52	A	6
12	220-240	E14	FLE12HLX/T2/865/E14	78193	665	6500	80	15,000	110	52	A	6
12	220-240	E27	FLE12HLX/T2/865/E27	78194	665	6500	80	15,000	98	52	A	6
15	220-240	E27	FLE15HLX/T2/827/E27	76156	950	2700	80	15,000	98	52	A	6
15	220-240	B22	FLE15HLX/T2/827/B22	78195	950	2700	80	15,000	97	52	A	6
15	220-240	E27	FLE15HLX/T2/840/E27	78196	950	4000	80	15,000	98	52	A	6
15	220-240	E27	FLE15HLX/T2/865/E27	78197	900	6500	80	15,000	98	52	A	6
20	220-240	E27	FLE20HLX/T2/827/E27	76158	1220	2700	80	15,000	118	56	A	6
20	220-240	B22	FLE20HLX/T2/827/B22	78198	1220	2700	80	15,000	117	56	A	6
20	220-240	E27	FLE20HLX/T2/840/E27	78199	1200	4000	80	15,000	118	56	A	6
20	220-240	E27	FLE20HLX/T2/865/E27	78200	1152	6500	80	15,000	118	56	A	6
23	220-240	E27	FLE23HLX/T2/827/E27	76159	1500	2700	80	15,000	126	56	A	6
23	220-240	E27	FLE23HLX/T2/840/E27	78202	1380	4000	80	15,000	126	56	A	6
23	220-240	E27	FLE23HLX/T2/865/E27	78203	1380	6500	80	15,000	126	56	A	6

Spiral T2 - 8,000-10,000 hours

8	220-240	E14	FLE8HLX/T2/827/E14	72711	470	2700	80	10,000	99	46	A	8
8	220-240	E27	FLE8HLX/T2/827/E27	72712	470	2700	80	10,000	86.5	46	A	8
8	220-240	B22	FLE8HLX/T2/827/B22	72713	470	2700	80	10,000	85.5	46	A	8
8	220-240	E14	FLE8HLX/T2/865/E14	71002	430	6500	80	10,000	99	46	A	10
8	220-240	E27	FLE8HLX/T2/865/E27	71003	430	6500	80	10,000	86.5	46	A	10
12	220-240	E14	FLE12HLX/T2/827/E14	72714	715	2700	80	10,000	112.5	53	A	6
12	220-240	E27	FLE12HLX/T2/827/E27	72715	715	2700	80	10,000	100	53	A	6
12	220-240	B22	FLE12HLX/T2/827/B22	72716	715	2700	80	10,000	99	53	A	6
12	220-240	E14	FLE12HLX/T2/865/E14	71004	665	6500	80	10,000	112.5	53	A	10
12	220-240	E27	FLE12HLX/T2/865/E27	71005	665	6500	80	10,000	100	53	A	10
15	220-240	E27	FLE15HLX/T2/827/E27	72717	950	2700	80	10,000	100	53	A	6
15	220-240	B22	FLE15HLX/T2/827/B22	72718	950	2700	80	10,000	99	53	A	6
15	220-240	E27	FLE15HLX/T2/865/E27	71006	900	6500	80	10,000	100	53	A	10
20	220-240	E27	FLE20HLX/T2/827/E27	88680	1220	2700	80	8,000	105	56	A	6
20	220-240	B22	FLE20HLX/T2/827/B22	88681	1220	2700	80	8,000	104	56	A	6
20	220-240	E27	FLE20HLX/T2/840/E27	88684	1200	4000	80	8,000	105	56	A	10
20	220-240	B22	FLE20HLX/T2/865/B22	88685	1200	6500	80	8,000	104	56	A	10
23	220-240	E27	FLE23HLX/T2/827/E27	88686	1450	2700	80	8,000	125	56	A	6
23	220-240	B22	FLE23HLX/T2/827/B22	88687	1450	2700	80	8,000	124	56	A	6
23	220-240	E27	FLE23HLX/T2/840/E27	88690	1380	4000	80	8,000	125	56	A	10
23	220-240	E27	FLE23HLX/T2/865/E27	88691	1380	6500	80	8,000	125	56	A	10

Spiral T3 Dimmable - 10,000 hours

20	220-240	E27	FLE20HLX/T3/827/E27	97030	1220	2700	80	10,000	136	59	A	6
20	220-240	B22	FLE20HLX/T3/827/B22	97031	1220	2700	80	10,000	135	59	A	6



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Length (mm)	Diameter (mm)	EEC	Pack Qty
11	220-240	E27	FLE11HLX/T3/827/E27	82926	580	2700	82	8,000	114	43	A	10
11	220-240	E27	FLE11HLX/T3/865/E27	43271	580	6500	82	8,000	114	43	A	10
20	220-240	E27	FLE20HLX/T3/827/E27	82941	1200	2700	82	8,000	124	59	A	10
20	220-240	B22	FLE20HLX/T3/827/B22	88123	1200	2700	82	8,000	123	59	A	10
20	220-240	E27	FLE20HLX/T3/865/E27	43270	1152	6500	82	8,000	124	59	A	10
24	220-240	E27	FLE24HLX/T3/827/E27	62128	1750	2700	82	8,000	134	59	A	10
24	220-240	E27	FLE24HLX/T3/865/E27	62129	1650	6500	82	8,000	134	59	A	10

Spiral T3 - 8,000 hours



32	220-240	E27	FLE32HLX/T4/827/E27/HPF	76152	2100	2700	80	10,000	172	66	A	6
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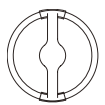
Spiral T4 High Power Factor (HPF) - 10,000 hours



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Length (mm)	Diameter (mm)	EEC	Pack Qty
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Circlite T5 - 6,000 hours

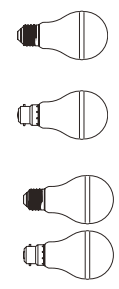
22	220-240	E27	FLE22/CLITE/T5/827/E27	73767	1800	2700	80	6,000	230	230	A	6
22	220-240	E27	FLE22/CLITE/T5/865/E27	73768	1700	6500	80	6,000	230	230	A	6



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Length (mm)	Diameter (mm)	EEC	Pack Qty
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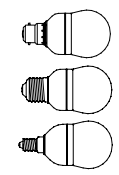
Energy Smart™ T2 - 10,000 hours

9	220-240	E27	FLE9AG/T2/830/E27	77368	450	3000	80	10,000	115	60	A	6
9	220-240	B22	FLE9AG/T2/830/B22	78233	450	3000	80	10,000	117	60	A	6
9	220-240	E27	FLE9AG/T2/865/E27	78686	450	6500	80	10,000	115	60	A	6
11	220-240	E27	FLE11AG/T2/830/E27	77367	590	3000	80	10,000	115	60	A	6
11	220-240	B22	FLE11AG/T2/830/B22	78234	590	3000	80	10,000	117	60	A	6
11	220-240	E27	FLE11AG/T2/865/E27	78687	532	6500	80	10,000	115	60	A	6
15	220-240	E27	FLE15AG/T2/830/E27	77366	800	3000	80	10,000	115	60	A	6
15	220-240	B22	FLE15AG/T2/830/B22	78235	800	3000	80	10,000	117	60	A	6
15	220-240	E27	FLE15AG/T2/865/E27	78688	800	6500	80	10,000	115	60	A	6
20	220-240	E27	FLE20AG/T3/830/E27	77365	1152	3000	80	8,000	137	67	A	6
20	220-240	B22	FLE20AG/T3/830/B22	78236	1152	3000	80	8,000	139	67	A	6
20	220-240	E27	FLE20AG/T3/865/E27	78689	1152	6500	80	8,000	137	67	A	6



GLS T2/T3 - 6,000 hours

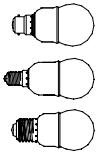
8	220-240	E14	FLE8GLS/T2/827/E14	88178	370	2700	80	6,000	103.5	52.5	A	8
8	220-240	E27	FLE8GLS/T2/827/E27	88180	370	2700	80	6,000	100	52.5	A	8
8	220-240	B22	FLE8GLS/T2/827/B22	88179	370	2700	80	6,000	99	52.5	A	8
8	220-240	E14	FLE8GLS/T2/840/E14	88151	370	4000	80	6,000	103.5	52.5	A	10
8	220-240	E27	FLE8GLS/T2/840/E27	88152	370	4000	80	6,000	100	52.5	A	10
12	220-240	E14	FLE12GLS/T2/827/E14	88177	625	2700	80	6,000	113.5	56	A	6
12	220-240	E27	FLE12GLS/T2/827/E27	88209	625	2700	80	6,000	110	56	A	6
12	220-240	B22	FLE12GLS/T2/827/B22	88208	625	2700	80	6,000	109	56	A	6
12	220-240	E14	FLE12GLS/T2/840/E14	88149	600	4000	80	6,000	113.5	56	A	10
12	220-240	E27	FLE12GLS/T2/840/E27	88150	600	4000	80	6,000	110	56	A	10
15	220-240	E27	FLE15GLS/T3/827/E27	88176	830	2700	80	6,000	121	61	A	6
15	220-240	B22	FLE15GLS/T3/827/B22	88175	830	2700	80	6,000	120	61	A	6
15	220-240	E27	FLE15GLS/T3/840/E27	88148	825	4000	80	6,000	121	61	A	10
20	220-240	E27	FLE20GLS/T3/827/E27	82151	1160	2700	80	6,000	152	75	A	6



Compact Fluorescent Lamps Integrated

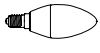
Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Length (mm)	Diameter (mm)	EEC	Pack Qty
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Spherical T2 - 6,000 hours



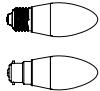
5	220-240	E14	FLE5SPH/T2/827/E14	88839	200	2700	80	6,000	100	45	A	8
5	220-240	E27	FLE5SPH/T2/827/E27	78691	200	2700	80	6,000	89	45	A	8
5	220-240	B22	FLE5SPH/T2/827/B22	88841	200	2700	80	6,000	88	45	A	8
5	220-240	E14	FLE5SPH/T2/840/E14	73387	200	4000	80	6,000	100	45	A	10
5	220-240	E27	FLE5SPH/T2/840/E27	73389	200	4000	80	6,000	89	45	A	10
7	220-240	E14	FLE7SPH/T2/827/E14	88842	310	2700	80	6,000	100	45	A	8
7	220-240	B22	FLE7SPH/T2/827/B22	88844	310	2700	80	6,000	88	45	A	8
7	220-240	E27	FLE7SPH/T2/827/E27	75313	310	2700	80	6,000	89	45	A	8
7	220-240	E14	FLE7SPH/T2/840/E14	73402	310	4000	80	6,000	100	45	A	10
7	220-240	E27	FLE7SPH/T2/840/E27	73398	310	4000	80	6,000	89	45	A	10

Candle T2 - 8,000 hours



9	220-240	E14	FLE9CDL/T2/827/E14	63623	405	2700	82	8,000	113	37	A	8
9	220-240	E27	FLE9CDL/T2/827/E27	63624	405	2700	82	8,000	110.5	37	A	8
9	220-240	B15	FLE9CDL/T2/827/B15	97145	405	2700	82	8,000	111.5	37	A	8
9	220-240	B22	FLE9CDL/T2/827/B22	63625	405	2700	82	8,000	109.5	37	A	8
9	220-240	E14	FLE9CDL/T2/840/E14	65248	405	4000	82	8,000	113	37	A	8

Candle T2 - 6,000 hours



7	220-240	E14	FLE7CDL/T2/827/E14	75677	300	2700	80	6,000	108	37	A	8
7	220-240	E27	FLE7CDL/T2/827/E27	75311	300	2700	80	6,000	105	37	A	8
7	220-240	B22	FLE7CDL/T2/827/B22	88856	300	2700	80	6,000	104	37	A	10
7	220-240	E14	FLE7CDL/T2/840/E14	73451	300	4000	80	6,000	108	37	A	10
7	220-240	E27	FLE7CDL/T2/840/E27	73453	300	4000	80	6,000	105	37	A	10

Candle T3 - 6,000 hours



11	220-240	E14	FLE11CDL/T3/827/E14	76198	580	2700	80	6,000	141	50	A	6
11	220-240	E27	FLE11CDL/T3/827/E27	76201	580	2700	80	6,000	141	50	A	6
11	220-240	B22	FLE11CDL/T3/827/B22	76202	580	2700	80	6,000	140	50	A	6

Twisted Candle T2 - 6,000 hours



5	220-240	E14	FLE5TWSTCDL/OP/827/E14	78693	200	2700	82	6,000	112	40	A	6
5	220-240	E14	FLE5TWSTCDL/AMBER E14	78692	200	2400	82	6,000	112	40	A	6
7	220-240	E27	FLE7TWSTCDL/OP/827/E27	78695	310	2700	82	6,000	127	46	A	6
7	220-240	E14	FLE7TWSTCDL/AMBER E14	78694	310	2400	82	6,000	128	46	A	6
9	220-240	E14	FLE9TWSTCDL/OP/827/E14	78696	435	2700	82	6,000	138	50	A	6
9	220-240	E27	FLE9TWSTCDL/OP/827/E27	78697	435	2700	82	6,000	137	50	A	6

Twisted Candle T2 - 10,000 hours



9	220-240	E14	FLE9TWSTCDL/OP/827/E14	65265	405	2700	82	10,000	114	39	A	8
9	220-240	E27	FLE9TWSTCDL/OP/827/E27	65266	405	2700	82	10,000	111.5	39	A	8
9	220-240	B22	FLE9TWSTCDL/OP/827/B22	65267	405	2700	82	10,000	110.5	39	A	8

Bent Tip Candle T3 - 6,000 hours

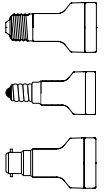


7	220-240	E14	FLE7BTCDL/OP/827/E14	88162	310	2700	82	6,000	158	44	A	10
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Wattage (W)	Volts (V)	Cap	Product Description	Product Code	CCT (K)	CRI (Ra)	Rated life (h)	Length (mm)	Diameter (mm)	Pack Qty
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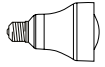
Reflector T2 - 6,000 hours

7	220-240	E14	FLE7R50/T2/827/E14	88845	2700	80	6,000	91	50	10
7	220-240	E27	FLE7R50/T2/827/E27	78701	2700	80	6,000	91	50	10
7	220-240	B22	FLE7R50/T2/827/B22	78700	2700	80	6,000	90	50	10
7	220-240	E14	FLE7R50/T2/840/E14	73403	4000	80	6,000	91	50	10
11	220-240	E14	FLE11R63/T2/827/E14	78699	2700	80	6,000	105	63	10
11	220-240	E27	FLE11R63/T2/827/E27	88849	2700	80	6,000	105	63	10
11	220-240	B22	FLE11R63/T2/827/B22	88850	2700	80	6,000	104	63	10
11	220-240	E14	FLE11R63/T2/840/E14	73405	4000	80	6,000	105	63	10



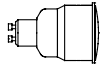
Reflector Genura R80 - 15,000 hours

23	220-240	E27	EFL23W/827/R80/E27	82174	2700	80	15,000	130	83	6
23	220-240	E27	EFL23W/830/R80/E27	92246	3000	80	15,000	130	83	6



GU10 T2 - 6,000 hours

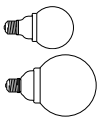
7	220-240	GU10	FLE7GU10/T2/827	73454	2700	80	6,000	86.5	50	8
9	220-240	GU10	FLE9GU10/T2/827	78702	2700	80	6,000	86.5	50	8



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	CRI (Ra)	Rated life (h)	Length (mm)	Diameter (mm)	EEC	Pack Qty
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Globe T3 - 8,000 hours

15	220-240	E27	FLE15GG/827/E27	96776	805	2700	80	8,000	156	95	A	6
15	220-240	E27	FLE15GG/840/E27	96778	805	4000	80	8,000	156	95	A	6
20	220-240	E27	FLE20GG/827/E27	96780	1152	2700	80	8,000	171	105	A	6
20	220-240	E27	FLE20GG/840/E27	96794	1152	4000	80	8,000	171	105	A	6
23	220-240	E27	FLE23GG/827/E27	96793	1371	2700	80	8,000	176	110	A	6
23	220-240	E27	FLE23GG/840/E27	96790	1371	4000	80	8,000	176	110	A	6



Halogen Lamps



Halogen Lamps

Instant powerful bright light. Invented in 1958 by GE.

Up to 30% energy savings compared to conventional lamps

Instant re-start full light output immediately

Crisp white light, CCT up to 3000K

100% dimmable for additional cost savings

Remarkable colour rendering, close to natural light (100% CRI)

0% mercury and lead Environmentally friendly technology

Halogen lights are the ideal replacement for inefficient incandescent lamps, as their way of operation is exactly the same but they have a smaller physical size.

GE halogen lighting is perfect for accent, display and general lighting in a wide variety of commercial, industrial and residential uses.



Home



Hospitality



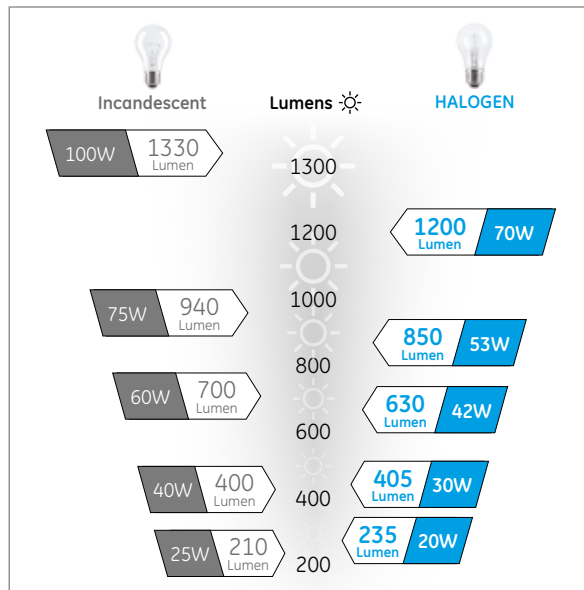
VI.1

Switching from Watts to Lumens

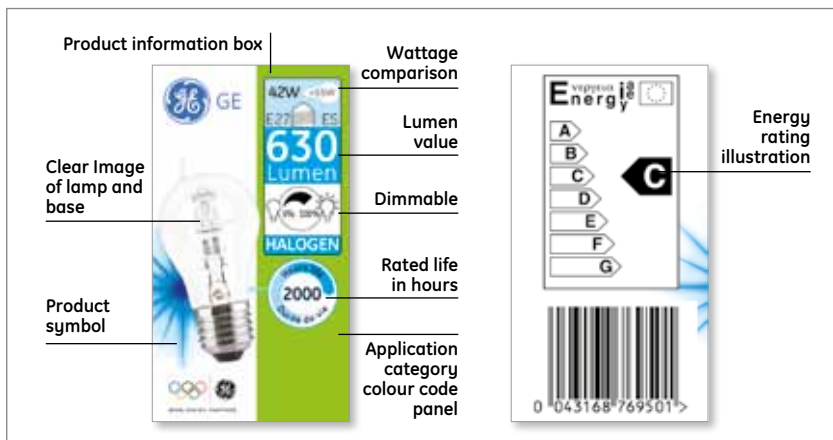
Traditional light bulbs are being phased out and modern light technologies use different amounts of power to achieve the same amount of light. Instead of referring to watts anymore, we now need to measure and compare light in terms of lumens.

GE's halogen lamps look just the same as traditional bulbs, with the same bright quality light, but cut down on energy consumption by up to 30%.

Available in standard candle, spherical and reflector shapes, our lamps create a stunning light, and can also be used with dimming switches for a cosier atmosphere.



Quick guide to GE Lighting packaging



Halogen Lamps

Precise™ ConstantColor™ MR16 IR

Energy efficient low voltage halogen reflector lamps with dichroic mirror

GE's halogen IR (infrared) range of low voltage reflector lamps provide up to 43% energy savings over conventional MR16 lamps and – with the addition of the patented GE reflector coating technology – unparalleled colour rendering throughout life.

Incandescent and halogen lamps lose approximately 76% of the input energy by radiating heat, and convert only 8% into useful light. The Precise™ IR halogen capsule has multiple layers of very durable, thin, interference film which redirects heat back onto the lamp filament. This allows it to give off more visible light for the same input power.



- Up to 43% energy savings compared to standard products
- very good white light and cool beam characteristics
- Long 5000 hour life, 2.5x longer than standard MR16's
- UV control reduces fading and discolouration



Decor HaloGLS

Familiar shape and light

GE's retrofit halogen lamp range is a direct replacement for regular incandescent lamps offering a crisp white light.



- EEH lamps are 100% retrofit
- Last twice as long as incandescent lamps
- Can be used with dimming switches
- Instant-on, full light output at start-up
- Environmentally friendly with no lead and mercury



Halogen Lamps

Low Voltage Reflectors



MR11
 Cap: GU4
 Wattages: 12-35W
 Volts: 12
 Rated life: 2,000 - 3,500Hrs

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**Precise™
 ConstantColor™
 MR16 IR**
 Cap: GU5.3
 Wattages: 20-45W
 Volts: 12
 Rated life: 5,000Hrs

Page VI.8



Precise™ MR16 IR
 Cap: GU5.3
 Wattages: 20-45W
 Volts: 12
 Rated life: 5,000Hrs

Page VI.8



**Precise™
 ConstantColor™
 MR16**
 Cap: GU5.3
 Wattages: 20-71W
 Volts: 12
 Rated life: 4,000-6,000Hrs

Page VI.9



**Precise™ Bright
 5000 MR16**
 Cap: GU5.3
 Wattages: 20-50W
 Volts: 12
 Beam Spread: 18-60°
 Rated life: 5,000Hrs

Page VI.9



MR16 Start
 Cap: GU5.3
 Wattages: 20-50W
 Volts: 12
 Rated life: 2,000Hrs

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**Precise™ Alutech™
 MR16 - Closed**
 Cap: GU5.3
 Wattages: 20-50W
 Volts: 12
 Rated life: 3,000Hrs

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**AR111 Aluminium
 Reflector**
 Cap: G53
 Wattages: 35-75W
 Volts: 12
 Rated life: 2,000-3,000Hrs

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Mains Voltage Reflectors



**GU10 Energy
 Saver**
 Cap: GU10
 Wattages: 35W
 Volts: 230, 240
 Rated life: 2,000Hrs

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**MR16 Mains
 Alutech™**
 Cap: GU10
 Wattages: 20-50W
 Volts: 230-240
 Rated life: 2,000Hrs

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**MR16 Mains
 Alutech™ -
 Coloured**
 Cap: GU10
 Wattages: 50W
 Volts: 240
 Rated life: 1,500Hrs

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**PAR Reflector 16,
 20, 25, 30**
 Cap: E14, E27
 Wattages: 40-100W
 Volts: 230, 240
 Rated life: 2,000-3,000Hrs

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Capsules



**Mains Voltage
 Capsule G9**
 Cap: G9
 Wattages: 33-42W
 Volts: 230, 240
 Rated life: 2,000Hrs

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**Low voltage
 capsule - Trans-
 versal Filament**
 Cap: G4 or GY6.35
 Wattages: 5-100W
 Volts: 6, 12, 24
 Rated life: 4,000Hrs

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**Low voltage
 capsule - Axial
 Filament**
 Cap: G4 or GY6.35
 Wattages: 10-100W
 Volts: 6, 12
 Rated life: 2,000Hrs

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Selector

Linear



Linear 117 mm

Cap: R7s
Wattages: 130-330W
Volts: 230, 240
Rated life: 1,000Hrs

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Linear 78 mm

Cap: R7s
Wattages: 100W
Rated life: 1,000Hrs

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Linear - High Watt

Cap: R7s
Wattages: 1000-2000W
Rated life: 2,000Hrs

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Decor



GLS

Cap: E27, B22
Wattages: 20-100W
Volts: 230, 240
Rated life: 2,000Hrs

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Candle

Cap: E14, E27, B15, B22
Wattages: 20-42W
Volts: 230, 240
Rated life: 2,000Hrs

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Spherical

Cap: E14, B15, E27, B22
Wattages: 20-42W
Volts: 230, 240
Rated life: 2,000Hrs

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Reflector

Cap: E14, E27
Wattages: 28-70W
Rated life: 2,000Hrs

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Tubular



Tubular T38

Cap: E40
Wattage: 1000
Volts: 230, 240
Rated life: 2,000

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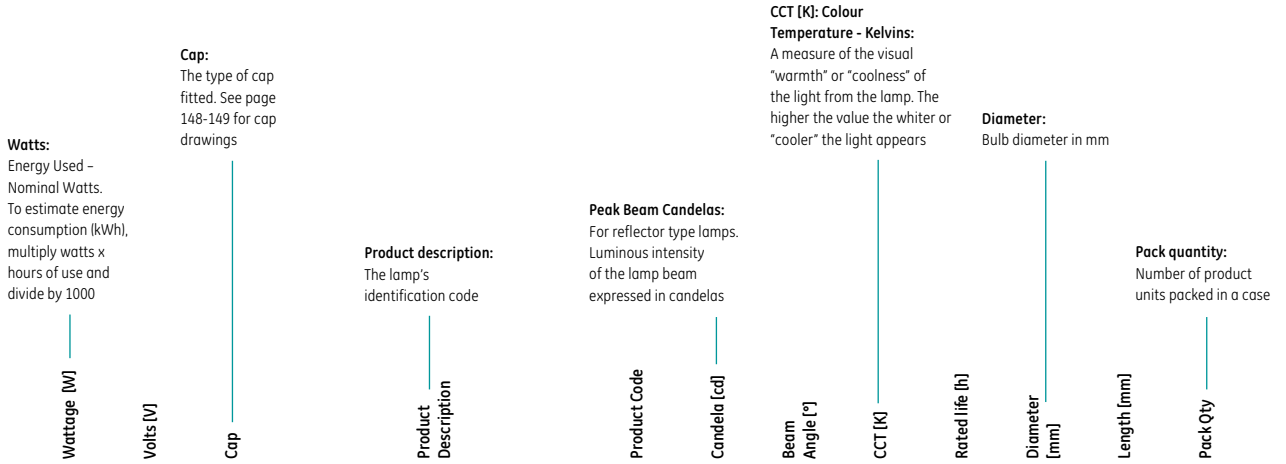
Halogen Lamps

Product identification

The following glossary of terms will help you when selecting lamps in this section. Within each product line, lamps are divided into families – within these families, lamps are listed by wattage. The Product Description can be used as a quick reference to each product's attributes. Where Rated Life is stated we refer to the industry standard definition of how many hours of operation 50% of a given installation will exceed.

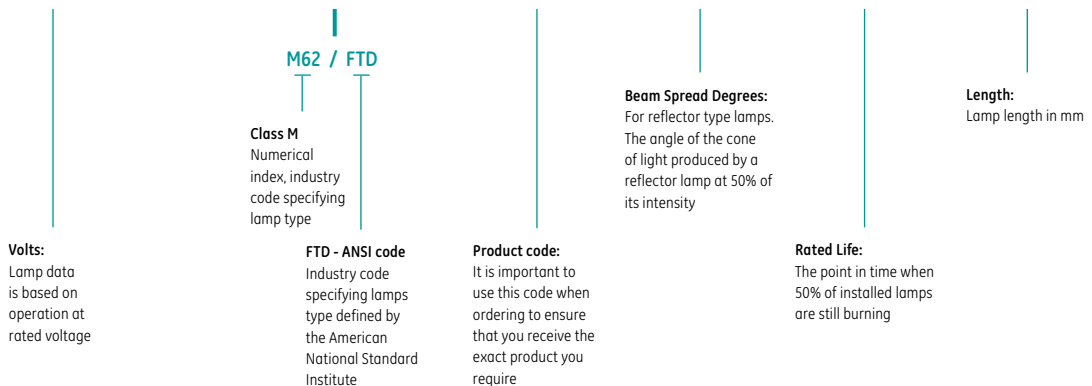
Additional parameters:

Lumens: Light output
EEC: Energy Efficiency Class



Precise™ MR11 - Open

20	12	GU4	M62/FTD	19626	550	26	2900	3,500	35.3	40	10
35	12	GU4	M66/FTF	19635	2300	21	2900	3,500	35.3	40	10
35	12	GU4	M199/FTH	19634	1300	26	2900	3,500	35.3	40	10



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Candela [cd]	Beam Angle [°]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty	Open/Closed
12	12	GU4	M264/FTA/CG	19639	3960	8	2900	2,000	35.3	45	10	closed
20	12	GU4	M251/FTC/CG	19636	1800	17	2900	3,500	35.3	45	10	closed
20	12	GU4	M62/FTD	19626	550	26	2900	3,500	35.3	40	10	open
20	12	GU4	M262/FTD/CG	19625	490	26	2900	3,500	35.3	45	10	closed
20	12	GU4	FTD/M262/CG	17200	490	26	2900	2,000	35	40	10	closed
35	12	GU4	M66/FTF	19635	2300	21	2900	3,500	35.3	40	10	open
35	12	GU4	M266/FTF/CG	19627	2070	21	2900	3,500	35.3	45	10	closed
35	12	GU4	M199/FTH	19634	1300	26	2900	3,500	35.3	40	10	open
35	12	GU4	FTF/M199/CG	17201	1150	26	2900	2,000	35	40	10	closed



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Candela [cd]	Beam Angle [°]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
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Precise™ ConstantColor™ MR16 IR

20	12	GU5.3	Q20MR16HIR/CCG10	77900	6000	10	2900	5,000	50.7	50.5	20
20	12	GU5.3	Q20MR16HIR/CCG24	77901	2300	24	2900	5,000	50.7	50.5	20
20	12	GU5.3	Q20MR16HIR/CCG36	77902	1000	36	2900	5,000	50.7	50.5	20
20	12	GU5.3	Q20 MR16HIR CG35CD	77910	1000	36	2900	5,000	50.7	50.5	20
30	12	GU5.3	Q30MR16HIR/CCG10	79584	10000	10	2950	5,000	50.7	50.5	20
30	12	GU5.3	Q30MR16HIR/CCG24	79585	3350	24	2950	5,000	50.7	50.5	20
30	12	GU5.3	Q30MR16HIR/CCG36	79586	1600	36	2950	5,000	50.7	50.5	20
35	12	GU5.3	Q35MR16HIR/CCG10	77904	12000	10	2950	5,000	50.7	50.5	20
35	12	GU5.3	Q35MR16HIR/CCG24	77905	4200	24	2950	5,000	50.7	50.5	20
35	12	GU5.3	Q35MR16HIR/CCG36	77906	2000	36	2950	5,000	50.7	50.5	20
45	12	GU5.3	Q45MR16HIR/CCG10	77907	14000	10	3000	5,000	50.7	50.5	20
45	12	GU5.3	Q45MR16HIR/CCG24	77908	5200	24	3000	5,000	50.7	50.5	20
45	12	GU5.3	Q45MR16HIR/CCG36	77909	2300	36	3000	5,000	50.7	50.5	20
35	12	GU5.3	Q35 MR16HIR CG35CD	77911	2000	36	2950	5,000	50.7	50.5	20
35	12	GU5.3	Q35MR16HIRCG35CD	79017	2000	36	2950	5,000	50.7	50.5	20
35	12	GU5.3	Q35MR16HIR/CCG55	79233	1000	55	2950	5,000	50.7	50.5	20



Precise™ MR16 IR

20	12	GU5.3	MR16 IR 20W 12V FL	77657	1000	36	2900	5,000	50.7	50.5	10
20	12	GU5.3	MR16 IR 20W 12V FL	77659	1000	36	2900	5,000	50	46	10
30	12	GU5.3	MR16 IR 30W 12V FL	62163	1600	36	2950	5,000	50	46	10
35	12	GU5.3	MR16 IR 35W 12V FL	77658	2000	36	2950	5,000	50.7	50.5	10
35	12	GU5.3	MR16 IR 35W 12V FL	63953	2000	36	2950	5,000	50	46	10
35	12	GU5.3	MR16 IR 35W 12V FL	77670	2000	36	2950	5,000	50	46	10
35	12	GU5.3	MR16 IR 35W 12V WFL	79234	1000	55	2950	5,000	50	46	10



Halogen Lamps

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Candela (cd)	Beam Angle (°)	CCT (K)	Rated life (h)	Diameter (mm)	Length (mm)	Pack Qty	Open/Closed
Precise™ ConstantColor™ MR16												
20	12	GU5.3	ESX/CG	20858	3150	15	3000	5,000	50.7	50.5	10	closed
20	12	GU5.3	BAB/CG	20857	475	40	3000	5,000	50.7	50.5	20	closed
35	12	GU5.3	FRB/CG	20864	7500	12	3000	5,000	50.7	50.5	20	closed
35	12	GU5.3	FRA/CG	20860	3200	20	3000	5,000	50.7	50.5	20	closed
35	12	GU5.3	FMW/CG	20859	900	40	3000	5,000	50.7	50.5	20	closed
50	12	GU5.3	EXT/CG	20872	8400	15	3000	6,000	50.7	50.5	10	closed
50	12	GU5.3	EXZ/CG	20871	2900	25	3000	6,000	50.7	50.5	20	closed
50	12	GU5.3	EXN/CG	20867	1500	40	3000	6,000	50.7	50.5	20	closed
50	12	GU5.3	FNV/CG	20865	850	55	3000	6,000	50.7	50.5	10	closed
71	12	GU5.3	EYF/CG	20876	10400	15	3000	4,000	50.7	50.5	20	closed
71	12	GU5.3	EYJ/CG	20874	4550	25	3000	4,000	50.7	50.5	20	closed
71	12	GU5.3	EYJ/CC	20841	5500	25	3000	4,000	50.7	46	20	open
71	12	GU5.3	EYC/CG	20873	2000	40	3000	4,000	50.7	50.5	20	closed
71	12	GU5.3	EYC/CC	20840	2000	42	3000	4,000	50.7	46	20	open

Precise™ Bright 5000 MR16

20	12	GU5.3	M69/BAB	88231	480	36	2900	5,000	50.7	46	10	open
20	12	GU5.3	M269/BAB/CG	88235	450	36	2900	5,000	50.7	50.5	10	closed
35	12	GU5.3	M81/FMW	88229	1390	36	2900	5,000	50.7	46	10	open
35	12	GU5.3	M281/FMW/CG	88236	1300	36	2900	5,000	50.7	50.5	10	closed
50	12	GU5.3	M58/EXN	88234	2250	36	2900	5,000	50.7	46	10	open
50	12	GU5.3	M250/EXZ/CG	88237	4750	18	2900	5,000	50.7	50.5	10	closed
50	12	GU5.3	M258/EXN/CG	88239	2100	36	2900	5,000	50.7	50.5	10	closed
50	12	GU5.3	M280/FNV/CG	88238	950	60	2900	5,000	50.7	50.5	10	closed
50	12	GU5.3	M80/FNV	88232	1070	60	2900	5,000	50.7	46	10	open

MR16 Start

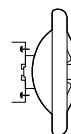
20	12	GU5.3	M268/ESX/CG/EC	38012	3150	12	2900	2,000	50.7	50.5	20	closed
20	12	GU5.3	M269/BAB/CG/EC	38006	450	36	2900	2,000	50.7	50.5	20	closed
35	12	GU5.3	M81/FMW/EC	38001	925	36	2900	2,000	50.7	47.6	20	open
35	12	GU5.3	FRB/CG/EC	38013	6750	12	2900	2,000	50.7	50.5	20	closed
35	12	GU5.3	M281/FMW/CG/EC	38007	830	36	2900	2,000	50.7	50.5	20	closed
50	12	GU5.3	M249/EXT/CG/EC	38014	8550	12	2900	2,000	50.7	50.5	20	closed
50	12	GU5.3	M250/EXZ/CG/EC	39611	2700	24	2900	2,000	50.7	50.5	20	closed
50	12	GU5.3	M258/EXN/CG/EC	38011	1350	36	2900	2,000	50.7	50.5	20	closed
50	12	GU5.3	M58/EXN/EC	38002	1500	36	2900	2,000	50.7	47.6	20	open
50	12	GU5.3	M280/FNV/CG/EC	39236	630	55	2900	2,000	50.7	50.5	20	closed

Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Candela [cd]	Beam Angle [°]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
Precise™ Alutech™ MR16 - Closed											
20	12	GU5.3	M269/BAB/CG/AL	88216	450	36	2900	3,000	50.7	50.5	10
35	12	GU5.3	M281/FMW/CG/AL	88217	1300	36	2900	3,000	50.7	50.5	10
50	12	GU5.3	M258/EXN/CG/AL	88215	1800	36	2900	3,000	50.7	50.5	10
50	12	GU5.3	M280/FNW/CG/AL	88214	700	60	2900	3,000	50.7	50.5	10



AR111 - Aluminium Reflector

35	12	G53	AR111 35W12V SP	10774	14000	8	2900	2,000	111	67	10
35	12	G53	AR111 35W12V FL	10775	2500	24	2900	2,000	111	67	10
50	12	G53	AR111 50W12V SP	10766	17800	8	2900	3,000	111	67	10
50	12	G53	AR111 50W12V FL	10767	3500	24	2900	3,000	111	67	10
75	12	G53	AR111 75W12V SP	10768	23500	8	2900	3,000	111	67	10
75	12	G53	AR111 75W12V FL	10769	5300	24	2900	3,000	111	67	10
75	12	G53	AR111 75W12V WFL	10771	1700	45	2900	3,000	111	67	10



GU10 Energy Saver

35	240	GU10	Q35MR16240V GU10ES FL	63962	600	36	2800	2,000	50	55	24
35	230	GU10	Q35MR16230V GU10ES FL	63963	600	36	2800	2,000	50	55	10

MR16 Mains Alutech™

20	230	GU10	Q20MR16/230/FL	10898	200	36	2700	2,000	51	55	10
35	230	GU10	Q35MR16/230/FL	10896	400	36	2700	2,000	51	55	10
50	230	GU10	Q50MR16/230/FL	92729	600	36	2700	2,000	51	55	10
20	240	GU10	Q20MR16/240/FL	10859	200	36	2700	2,000	51	55	10
35	240	GU10	Q35MR16/240/FL	10857	400	36	2700	2,000	51	55	10
50	240	GU10	Q50MR16/240/FL	92730	600	36	2700	2,000	51	55	10



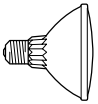
Colour	Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Candela [cd]	Beam Angle [°]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
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MR16 Mains Alutech™ - Coloured

Red	50	240	GU10	Q50MR16/240/FL	12988	600	36	2700	1,500	51	55	10
Blue	50	240	GU10	Q50MR16/240/FL	12995	600	36	2700	1,500	51	55	10
Yellow	50	240	GU10	Q50MR16/240/FL	13003	600	36	2700	1,500	51	55	10



Halogen Lamps



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Candela [cd]	Beam Angle [°]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
40	230	E14	40PAR16/230/FL	27826	950	25	2800	2,000	51	79	10
40	240	E14	40PAR16/240/FL	27845	950	25	2800	2,000	51	79	10
50	230	E27	50PAR20/230/SP	40363	3000	10	2800	2,000	64.5	91	15
50	230	E27	50PAR20/230/FL	40362	1000	25	2800	2,000	64.5	91	15
50	240	E27	50PAR20/240/FL	40365	1000	25	2800	2,000	64.5	91	15
75	230	E27	75PAR25/230/FL	91775	1300	25	2800	3,000	81	108	15
75	240	E27	75PAR25/240/FL	92165	1300	25	2800	3,000	81	108	15
75	230	E27	75PAR30/230/SP	40366	6200	10	2800	2,000	97	90.5	15
75	230	E27	75PAR30/230/FL	40349	2000	30	2800	2,000	97	90.5	15
75	240	E27	75PAR30/240/SP	40367	6200	10	2800	2,000	97	90.5	15
75	240	E27	75PAR30/240/FL	40361	2000	30	2800	2,000	97	90.5	15
100	230	E27	100PAR30/230/FL	32484	3100	30	2800	3,000	97	90.5	15
100	240	E27	100PAR30/240/FL	32482	3100	30	2800	3,000	97	90.5	15

Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
33	240	G9	SHORTG9 33W CL 240V	97278	460	2800	2,000	13	43	10
33	230	G9	SHORTG9 33W CL 230V	97279	460	2800	2,000	13	43	10
42	230	G9	SHORTG9 42W CL 230V	64126	630	2800	2,000	13	43	10



Low voltage capsule - Transversal Filament

10	6	G4	M29/Q10 G4	34720	200	2800	100	9	33	20
20	6	G4	M30/ESB/Q20 G4	34718	450	2900	100	9	33	20
20	6	G4	M34/FHE/Q20 G4	34719	350	2900	2,000	9	33	20
5	12	G4	M9/H5 G4	42959	60	2800	2,000	9	33	20
10	12	G4	M11/H10 G4	34674	140	2800	2,000	9	33	20
10	12	G4	M11/Q10/G4 ST	12708	100	2800	1,000	10	33	20
20	12	G4	M35/Q20 G4	34714	400	2900	250	9	33	20
20	12	G4	M47/Q20 G4	34715	380	2900	2,000	9	33	100
35	12	GY6.35	M95/Q35/GY6.35	34708	550	2900	3,000	11	44	100
50	12	GY6.35	M32/Q50 GY6.35	34702	930	2900	4,000	11	44	100
75	12	GY6.35	M313/Q75/GY6.35	34682	1350	2900	2,000	11	44	20
100	12	GY6.35	M28/Q100 GY6.35	34676	2200	2900	3,000	11	44	100
100	24	GY6.35	M67/Q100 GY6.35 24V	34663	2000	2900	2,000	11	44	100



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
10	6	G4	M42/Q10 G4	34728	140	2800	2,000	9	33	20
10	12	G4	Q10T2,5/12V G4	35705	140	2800	2,000	9	33	20
20	12	GY6.35	M76/Q20/GY6.35	34712	300	2900	3,000	11	44	100
20	12	G4	Q20T2,5/12V G4	35710	320	2900	2,000	9	33	20
20	12	GY6.35	Q20T3/12V GY6.35	35696	300	2900	2,000	11	44	20
35	12	GY6.35	M75/Q35/GY6.35	34710	600	2900	4,000	11	44	100
35	12	GY6.35	Q35T3/12V GY6.35	35699	600	2900	2,000	11	44	20
50	12	GY6.35	M74/Q50/GY6.35	34703	900	2900	4,000	11	44	100
50	12	GY6.35	Q50T3/12V GY6.35	35700	900	2900	2,000	11	44	20
75	12	GY6.35	Q75T3/12V GY6.35	35701	1350	2900	2,000	11	44	20
75	12	GY6.35	M73/Q75/GY6.35	34683	1350	2900	4,000	11	44	20
100	12	GY6.35	M180/Q100/GY6.35	34664	2150	2900	4,000	11	44	20

Low voltage capsule - Axial Filament



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
130	230	R7s	K11 C130W 230V R7S 117MM	63951	2440	2900	1,000	8.8	119	C	10
330	230	R7s	K1 C330W 230V R7S 117MM	64967	7000	3000	1,000	10	119	C	10
200	230	R7s	K9 C200W 230V R7S 117MM	64968	4000	3000	1,000	8	119	C	10
330	240	R7s	K1 C330W 240V R7S 117MM	64970	7000	3000	1,000	8	119	C	10
200	240	R7s	K9 C200W 240V R7S 117MM	64971	4000	3000	1,000	8	119	C	10
130	230	R7s	K11 C130W 230V R7S 117MM	64973	2440	2900	1,000	8.8	119	C	10
130	240	R7s	K11 C130W 240V R7S 117MM	64974	2440	2900	1,000	8.8	119	C	10

Linear 117mm



100	230	R7s	K12 C100W 230V R7S 78MM	76210	1900	2900	1,000	8	80.1	C	10
100	240	R7s	K12 C100W 240V R7S 78MM	76530	1900	2900	1,000	8	80.1	C	10

Linear 78mm



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
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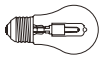
Linear - High Watt

1000	230	R7s	K4 1000W 230V R7S 189MM BX	29180	21000	3,000	2,000	10	190.5	10
1000	240	R7s	K4 1000W 240V R7S 189MM BX	29181	21000	3,000	2,000	10	190.5	10
1500	230	R7s	K5 1500W 230V R7S 254MM BX	29184	32000	3,000	2,000	10	255.5	10
1500	240	R7s	K5 1500W 240V R7S 254MM BX	29187	32000	3,000	2,000	10	255.5	10
2000	230	R7s	K8 2000W 230V R7S 331MM BX	30886	44000	3,000	2,000	10	332.2	10



Halogen Lamps

Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	CCT (K)	Rated life (h)	Diameter (mm)	Length (mm)	EEC	Pack Qty
20	230	E27	20W HALO A CL E27 230V	98410	235	2800	2,000	50	89.5	C	10
30	240	B22	30W HALO A CL B22 240V8	98361	405	2800	2,000	50	89.5	C	8
30	230	E27	30W HALO A CL E27 230V	98362	405	2800	2,000	50	89.5	C	10
30	240	E27	30W HALO A CL E27 240V	98406	405	2800	2,000	50	89.5	C	8
42	240	B22	42W HALO A CL B22 240V	62575	630	2800	2,000	50	89.5	C	8
42	230	E27	42W HALO A CL E27 230V	63613	630	2800	2,000	50	89.5	C	10
42	240	E27	42W HALO A CL E27 240V	79422	630	2800	2,000	50	88	C	8
53	240	B22	53W HALO A CL B22 240V	64993	850	2900	2,000	50	89.5	C	8
53	230	E27	53W HALO A CL E27 230V	63959	850	2900	2,000	50	89.5	C	10
53	240	E27	53W HALO A CL E27 240V	63961	850	2900	2,000	50	89.5	C	8
70	240	B22	70W HALO A CL B22 240V	62576	1200	2900	2,000	50	89.5	C	8
70	230	E27	70W HALO A CL E27 230V	63612	1200	2900	2,000	50	89.5	C	10
70	240	E27	70W HALO A CL E27 240V	79423	1200	2900	2,000	50	89.5	C	8
100	230	E27	100W HALO A CL E27 230V	97246	1800	2900	2,000	50	89.5	C	10
100	240	E27	100W HALO A CL E27 240V	97243	1800	2900	2,000	50	89.5	C	8
100	240	B22	100W HALO A CL B22 240V	97244	1800	2900	2,000	50	89.5	C	8



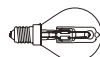
Candle

20	230	E14	20W HALO C CL E14 230V	98402	235	2900	2,000	36	100	D	10
30	230	E14	30W HALO C CL E14 230V	98398	405	2900	2,000	36	100	D	10
42	230	E14	42W HALO C CL E14 230V	76575	630	2900	2,000	36	100	C	10
30	230	E27	30W HALO C CL E27 230V	98396	405	2900	2,000	36	100	D	10
42	230	E27	42W HALO C CL E27 230V	76573	630	2900	2,000	36	100	C	10
20	240	E14	20W HALO C CL E14 240V	98399	235	2900	2,000	36	100	D	12
30	240	E14	30W HALO C CL E14 240V	98392	405	2900	2,000	36	100	D	12
42	240	E14	42W HALO C CL E14 240V	76569	630	2900	2,000	36	100	C	12
30	240	E27	30W HALO C CL E27 240V	98391	405	2900	2,000	36	100	D	12
42	240	E27	42W HALO C CL E27 240V	76568	630	2900	2,000	36	100	C	12
30	240	B15	30W HALO C CL B15 240V	98394	405	2900	2,000	36	100	D	12
42	240	B15	42W HALO C CL B15 240V	76571	630	2900	2,000	36	100	C	12
20	240	B22	20W HALO C CL B22 240V	98400	235	2900	2,000	36	100	D	12
30	240	B22	30W HALO C CL B22 240V	98393	405	2900	2,000	36	100	D	12
42	240	B22	42W HALO C CL B22 240V	76570	630	2900	2,000	36	100	C	12



Spherical

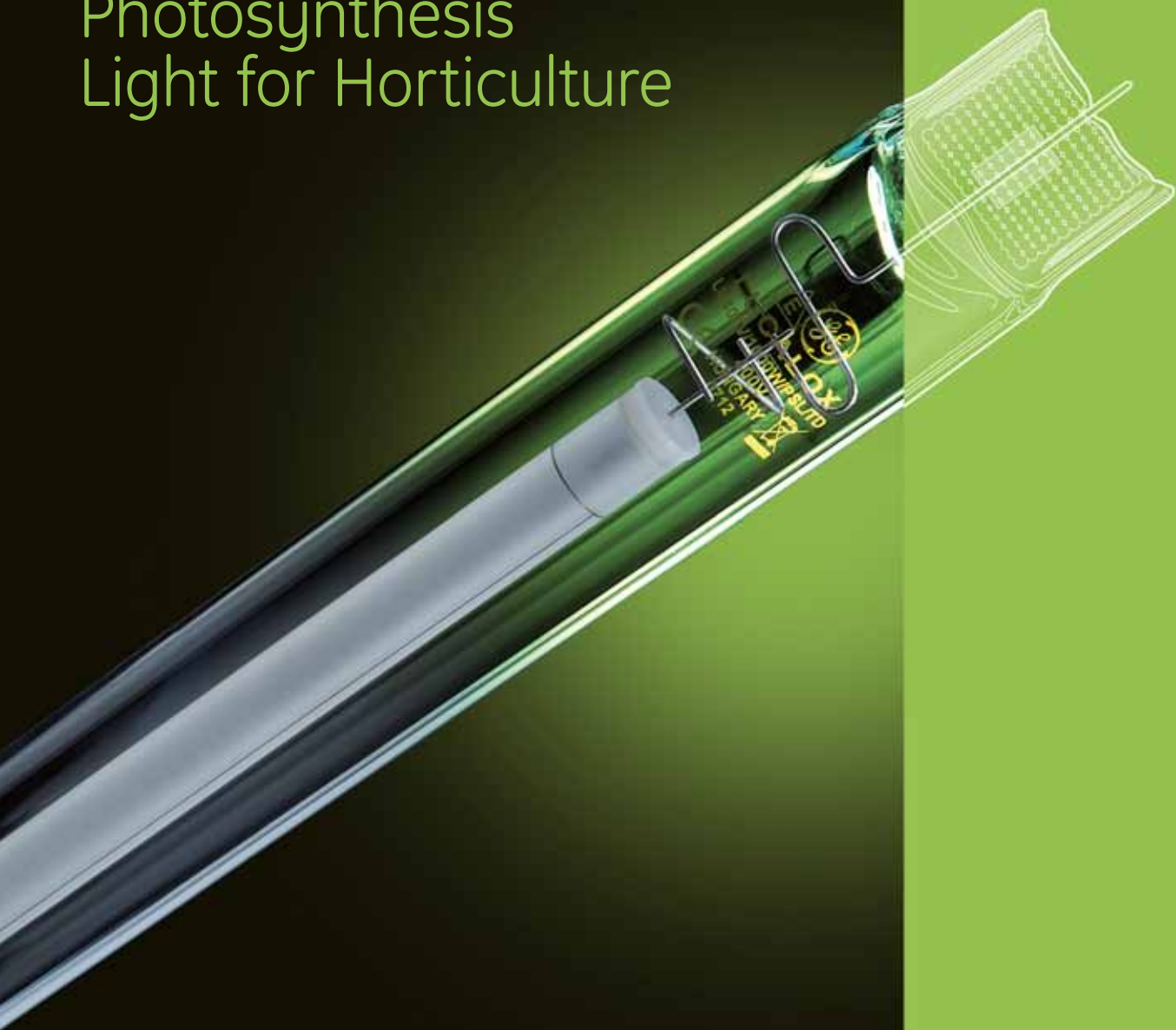
20	230	E14	20W HALO S CL E14 230V	98390	235	2900	2,000	45	78	D	10
30	230	E14	30W HALO S CL E14 230V	98384	405	2900	2,000	45	78	D	10
42	230	E14	42W HALO S CL E14 230V	76553	630	2900	2,000	45	78	C	10
20	230	E27	20W HALO S CL E27 230V	98388	235	2900	2,000	45	78	D	10
30	230	E27	30W HALO S CL E27 230V	98382	405	2900	2,000	45	78	D	10
42	230	E27	42W HALO S CL E27 230V	76551	630	2900	2,000	45	78	C	10
20	240	E14	20W HALO S CL E14 240V	98385	235	2900	2,000	45	78	D	12
30	240	E14	30W HALO S CL E14 240V	98378	405	2900	2,000	45	78	D	12
42	240	E14	42W HALOS CL E14 240V	76548	630	2900	2,000	45	78	C	12
30	240	E27	30W HALO S CL E27 240V	98377	405	2900	2,000	45	78	D	12
42	240	E27	42W HALOS CL E27 240V	76547	630	2900	2,000	45	78	C	12
30	240	B15	30W HALO S CL B15 240V	98380	405	2900	2,000	45	78	D	12
20	240	B22	20W HALO S CL B22 240V	98386	235	2900	2,000	45	78	D	12
30	240	B22	30W HALO S CL B22 240V	98379	405	2900	2,000	45	78	D	12
42	240	B22	42W HALOS CL B22 240V	76549	630	2900	2,000	45	78	C	12



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Candela [cd]	CCT [K]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
Reflector										
28	230	E14	28W HALO R50 E14 230V	76546	220	2900	2,000	50	86	10
42	230	E27	42W HALO R63 E27 230V	76543	600	2900	2,000	63.5	101	10
42	230	E27	42W HALO R80 E27 230V	76540	230	2900	2,000	80	121	10
70	230	E27	70W HALO R80 E27 230V	76537	TBD	2900	2,000	80	121	10
28	240	E14	28W HALO R50 E14 240V	76544	220	2900	2,000	50	86	8
42	240	E27	42W HALO R63 E27 240V	76541	600	2900	2,000	63.5	101	6
42	240	E27	42W HALO R80 E27 240V	76538	230	2900	2,000	80	121	6
Tubular T8										
1000	230	E40	Halo T38/1000W/E40/230	32108	21000	2900	2,000	38	280	10
1000	240	E40	Halo T38/1000W/E40/240	32109	21000	2900	2,000	38	280	10



Photosynthesis Light for Horticulture



Lighting for growth Lamps and lighting for horticulture

Properly balanced blue and red colours to optimise growth

Improves the yield and quality of glasshouse crops

Specially developed for horticulture

More PAR on average compared to standard HPS

Stable PAR performance

Wide range 250 - 1000W





Horticulture

Main application area

Greenhouses

Growers of food plants find artificial light just as important as it is for flowering plants. GE's specially-developed range of horticultural lamps enable growers to use artificial lighting to improve the yield and quality of glasshouse crops and time growth to meet market demands.

Light output and lumen maintenance on their own are not enough to create plant growth. Plants require a certain radiation level to help with the photosynthesis that enables them to grow, and others factors such as day length also play an important part. Photosynthetically Active Radiation (PAR), measured in micromole/sec, is essential for plant growth. Lucalox™ Photosynthesis Lamps (PSL) are high pressure sodium lamps with a spectrum that gives the best possible PAR, with stable lumen and micromole maintenance, in a greenhouse lighting regime.

Lucalox™ PSL lamps are available in 230V with 250W, 400W and 750W options, and in 400V with 600W, 750W and 1000W.

New to the range are the 600W 400V electronic single ended and 1000W 400V double ended products.

Lucalox™ PhotoSynthesis Lamp (PSL) range

GE's range of horticultural lamps has been extended with the recent addition of 600W electronic and 1000W double ended products, so the range now spans 250 - 1000 watts with 230 and 400 volt options, to suit both OEMs and growers.



NEW PRODUCT

600W 400V Electronic PSL

- High initial mean PAR 1120 μ Mol
- Long service life of 12,000 HOURS (B10)



NEW PRODUCT

1000W Double Ended PSL

- High initial mean PAR 1970 μ Mol
- Long service life of 10,000 hours (B10)



1000W PSL Lamp Features

- High initial mean PAR of 1970 μ Mol
- Over 1900 μ Mol average PAR over life
- Long service life of 10,000 hours (B10)
- Electronic ballast system efficiency versus electromagnetic ballast
- Improved electrical load on the installation
- Compatible with known ballasts
- Output power of ballast constant
- Less fixtures required in greenhouse



PSL technology

Performance and reliability

- GE's advanced sodium resistant ceramic helps eliminate early failures to give a rated service life of 10,000 to 12,000 hours for Lucalox™ PSL products.
- In order to achieve maximum performance, GE recommends lamp replacement when the Rated Service Life is reached.
- The lamps use extra rugged monolithic arc tubes equipped with GE Reliable Starting Technology which provides continuous high performance.

Photosynthetically Active Radiation to extend daylight

The effect of optical radiation on plants has been studied extensively. Generally, photons emitted in the spectral region of 400 - 700nm are particularly effective. Therefore the simple measurement of the quantity of light (Lux) is not sufficient for the horticultural market. Photosynthetically Active Radiation (PAR) and Photosynthetic Photon Flux (PPF) are more useful measurements.

PPF is defined as flux of the photons emitted in the 400 - 700nm wavelength range by the light source. It is expressed in micromoles/second ($\mu\text{mol/s}$), where 1 micromole means 6×10^{17} photons.

The Lucalox™ PSL range from GE has optimised spectra for greenhouse use, with an enhanced red portion of the light output.

- Plants can be used over a longer period
- In winter, fruit can be produced with taste to match summer fruit
- Production can start earlier
- Year-round cultivation is possible

High xenon-fill gas

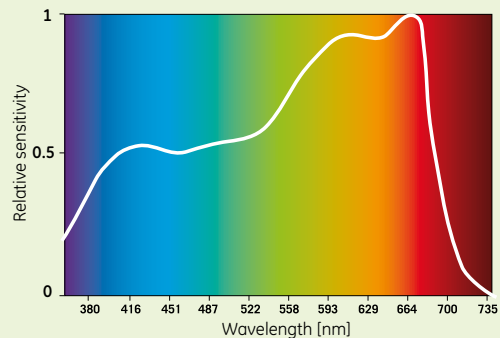
- Extra light and PAR (Photosynthetically Active Radiation) output.
- More resistance to mains voltage fluctuations.

Zirconium gettering system

- Improves PAR maintenance that drives constant and uniform plant growth.
- The diameter of the frame wire in the lamp has been minimised to reduce shading in the installation without affecting the robustness of the lamp.
- Monolithic arc tube construction for durability and lumen maintenance.

Spectral range

Plants respond to light of varying colour. In general, red light causes plants to become tall and "leggy" while blue light, when used alone, can cause low, stocky growth. A proper balance of red and blue energy produces plants that have normal growth and shape.



Plants have different sensitivity to different wavelengths.

Day and night Photoperiodism

The relative length of day and night and the seasons is important to plants. The number of hours of darkness in a 24-hour cycle is an important factor in determining blossoming and growing time.

Night length triggers seed germination, tuber and bulb formation, and other growth characteristics such as colour, enlargement of leaves and stem size and shape. This rhythmic characteristic is called photoperiodism and is of great value to growers.

Plants can be classified according to photoperiodicity.

Short day (long night)



The perennial *Chrysanthemum* and the *Poinsettia*, which flower in the autumn, are examples of *short-day (long-night)* plants. They fail to flower when the day length, or period of light, is extended beyond a critical value.

Long day



Long-day plants, such as the *China Aster* and *Tuberous Rooted Begonia*, flower only with a day length longer than a critical value.

Day neutral



Day-neutral plants, such as the *Rose* and *Carnation*, are not limited by photoperiod.

Understanding these principles enables commercial growers to use artificial light profitably, so that flowering and vegetable harvesting can be timed for markets.

Timing

Slow down

The *Perennial Chrysanthemum* is a short-day length plant that will not flower when the day is long (short-night). To postpone flowering *Chrysanthemum* growers, instead of lengthening the day, interrupt the night for about four hours. This makes the night appear short to plants, which then continue to grow vegetatively instead of starting to flower.

A more economical method of postponing flowering of *Chrysanthemums* is to apply cycles of light, switching light on for 10 minutes and off for 50 minutes, for four hours during the night, instead of applying light continuously. This is cyclic lighting. It is an effective way of growing flowers. If lighting levels are higher then the grower will see better stem and flower quality and less opportunity for disease.

Speed up

The *China Aster* is a typical long-day (short-night) plant. Long-day plants can be brought to flower ahead of the normal time by lengthening the day. Relatively low intensities of light are enough to induce flowering, when applied early in the morning or at the end of the day. A dark-period interruption - from a few minutes to a few hours - as with other long-day plants, effectively induces flowering just as it inhibits flowering of short-day plants.

Poinsettias must have complete and continuous darkness for about 12 hours a day in order to flower. Even 1 minute of light in the middle of the dark period will prevent their flowering.

Tuberous Begonias flower only when daily dark periods are short - less than 12 hours - but they require long dark periods for best production of tubers. Flowering of tomatoes, however, is not influenced by photoperiod.

Setting the clock



Add

Use Lucalox™ PSL as an additional daytime source of light, boosting existing light levels and aiding photosynthesis.



Extend

Use Lucalox™ PSL as a means of extending the growth time per day. Lights can be switched on at dusk or other non daylight hours.



Extend

Use Lucalox™ PSL as an extension to the growing season through usage during the winter months.



Substitute

Use Lucalox™ PSL as a complete natural light substitute for total environmental control in growing rooms and biological research establishments.

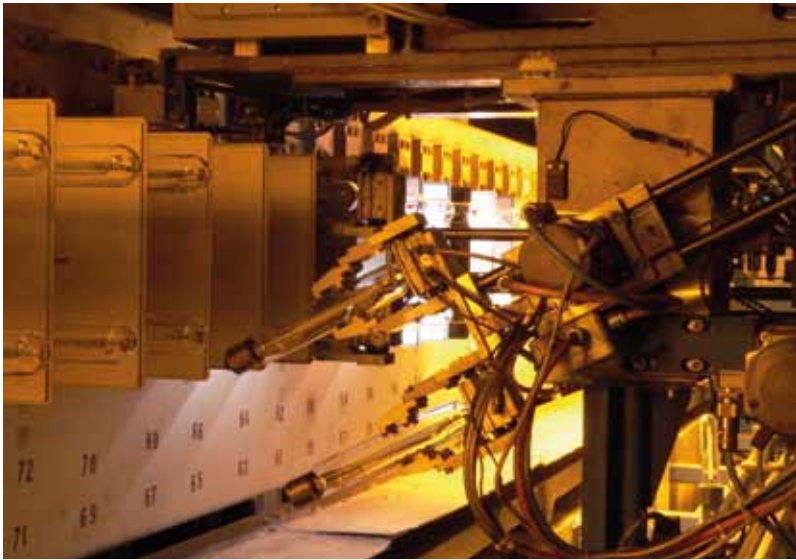
Plant colour and leaf formation

Photoperiod also influences plant responses such as colour and formation of the leaves.

Coleus, for example, under continuous lighting, produces dark red leaves with bright green edges. Less than 10 hours of light per day results in less sturdy plants and paler colours. The tulip bulb is the main source of food reserve, and the light is needed mainly to develop the plants' green colour. Stems attain their greatest length if grown under lighting.



Quality from start to finish



Reliable performance

While light quality is paramount, reliability and performance have also been key factors in the development of the Lucalox™ PSL lamp range.

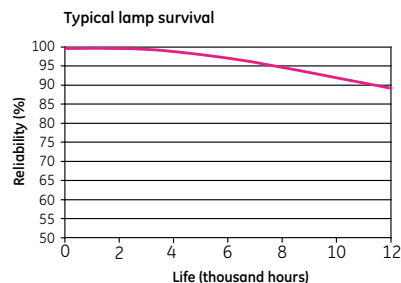
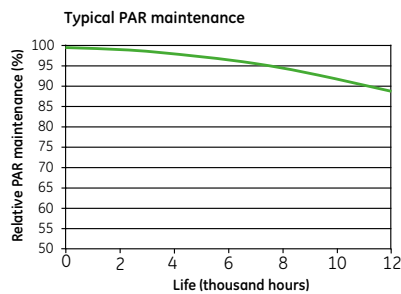
Robust construction, reliable starting technology and improved lumen maintenance ensure peace of mind against early lamp failures and provide the consistency demanded for perfect growing conditions.

Guaranteed

GE is constantly engaged in a global quality process. A statistical quality system, designated SIX SIGMA, is applied in all areas of the company from manufacturing through to sales. The lamps comply with the IEC/EN 62035 standards.

GE offers warranties to distributors of its Lucalox™ PSL lamps. The warranty comprises two parts:

- Warranty on lamp reliability (Lamp Survival).
- Warranty on PAR (Photosynthetically Active Radiation) maintenance.



Selector

Single ended 230V



230V 250W

Lamp volts: 115V
Current: 2.7A
Watts: 250W
100 h lumens: 33,000
100 h PAR: 430 $\mu\text{mole/sec}$
Packing: 12 or 63



230V 400W

Lamp volts: 110V
Current: 4.3A
Watts: 420W
100 h lumens: 56,500
100 h PAR: 710 $\mu\text{mole/sec}$
Packing: 12 or 63



230V 600W

Lamp volts: 115V
Current: 6.0A
Watts: 615W
100 h lumens: 90,000
100 h PAR: 1080 $\mu\text{mole/sec}$
Packing: 12 or 63



230V 750W

Lamp volts: 115V
Current: 7.4A
Watts: 755W
100 h lumens: 112,000
100 h PAR: 1320 $\mu\text{mole/sec}$
Packing: 12 or 63

Single ended 400V



400V 600W

Lamp volts: 200V
Current: 3.6A
Watts: 620W
100 h lumens: 85,000
100 h PAR: 1120 $\mu\text{mole/sec}$
Packing: 12 or 63



400V 600W EL

Lamp volts: 200V
Current: 3.6A
Watts: 620W
100 h lumens: 85,000
100 h PAR: 1120 $\mu\text{mole/sec}$
Packing: 12 or 63
(Electronic ballast)



400V 750W

Lamp volts: 205V
Current: 4.4A
Watts: 765W
100 h lumens: 104,000
100 h PAR: 1390 $\mu\text{mole/sec}$
Packing: 12 or 63

Double ended 400V



400V 1000W

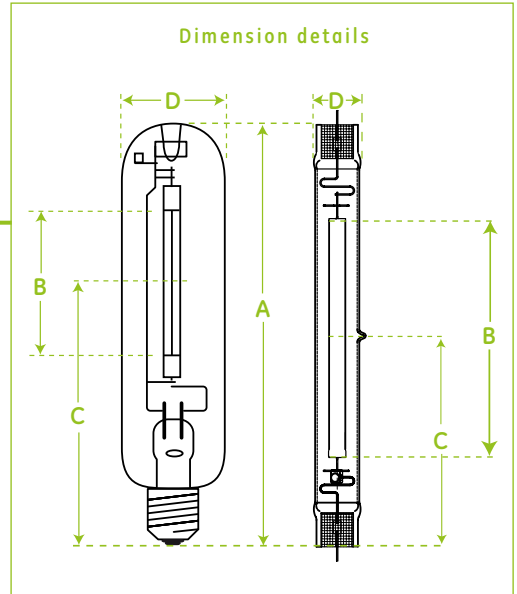
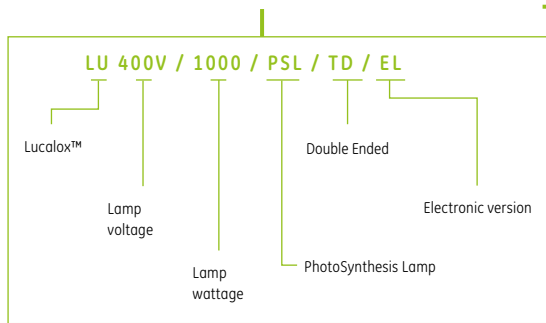
Lamp volts: 220-240V
Current: 4.5A
Watts: 1000W
100 h lumens: 140,000
100 h PAR: 1970 $\mu\text{mole/sec}$
Packing: 12 or 32

Horticulture Lamps

Product identification

The following glossary of terms will help you when selecting lamps in this section. Within each product line, lamps are divided into families – within these families, lamps are listed by wattage. The Product Description can be used as a quick reference to each product's attributes. Where Life or Average Life are stated we refer to the industry standard definition of how many hours of operation 50% of a given installation will exceed.

			Product description: Lamp reference – describes the lamp's main characteristics	Product code: GE SKU code. Choose code according to pack quantity.		Dimensions: In mm. See diagram.				Performance: This gives an indication of the lamp's brightness and its effect on plant growth.				
Volts (V)	Current (A)	Power* (W)	Product Description	Product Code (12 pack)	Product Code (63 pack)	Max Length A (mm)	Arc gap B (mm)	LCL C (mm)	Diameter D (mm)	Cap	100 hour lumens (Lumens)	100 hour PAR (µmole/sec)	Bulb glass	Operating position
200	3.6	620	LU400V/600W/PSL/T	43440	43439	292	124.5	169	48	E40/45	85,000	1120	Hard	Universal

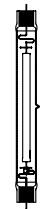
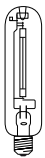


Volts [V]	Current [A]	Power* [W]	Product Description	Product Code [12 pack]	Product Code [63 pack]	Max Length A [mm]	Arc gap B [mm]	LCL C [mm]	Diameter D [mm]	Cap	100 hour lumens [Lumens]	100 hour PAR [µmole/sec]	Bulb glass	Operating position
230V - E40 Cap														
115	2.7	250	LU250W/PSL/T	88665	N/A	260	64	158	48	E40/45	33,000	430	Hard	Universal
110	4.3	420	LU400W/PSL/T	17106	44304	292	87	175	48	E40/45	56,500	710	Hard	Universal
115	6.0	615	LU600W/PSL/T	17107	44305	292	125	169	48	E40/45	90,000	1080	Hard	Universal
115	7.4	755	LU750W/PSL/T	17108	44306	293	130	178	51	E40/45	112,000	1320	Hard	Universal
400V - E40 Cap														
200	3.6	620	LU400V/600W/PSL/T	43440	43439	292	124.5	169	48	E40/45	85,000	1120	Hard	Universal
200	3.6	620	LU400V/600/PSL/T/EL**	63919	63922	292	124.5	169	48	E40/45	85,000	1120	Hard	Universal
205	4.4	765	LU400V/750W/PSL/T	43438	43437	293	143	175	51	E40/45	104,000	1390	Hard	Universal
400V - Double ended														
220-240	4.5	1000	LU400V/1000/PSL/TD/EL**	63921	63924***	327	160	150-160	34	K12x30S	140,000	1970	Hard	Universal

* Depending on system conditions, lamp power can vary by ±2.5%

** Electronic ballast

** 32 bulk pack not 63



Brand cross reference

The following table shows GE and alternative brand Product Descriptions. These cross references are provided as a quick guide and may only represent a near equivalent to other brands. The table contains data from alternative brands' catalogues and website.

GE	PHILIPS	Osram	Sylvania
LU250W/PSL/T		Plantastar Inter 250	
LU400W/PSL/T	MASTER GreenPower 400W EM 230V	Plantastar 400	SHP-TS GroLux 400W
LU600W/PSL/T	MASTER GreenPower 600W EM 230V	Plantastar 600	SHP-TS GroLux 600W
LU750W/PSL/T			
LU400V/600W/PSL/T	MASTER GreenPower 600W EM 400V		SHP-TS GroLux 600W-400V
LU400V/600/PSL/T/EL	MASTER GreenPower 600W EL 400V		
LU400V/750W/PSL/T			
LU400V/1000/PSL/TD/EL	MASTER GreenPower TD 1000W EL 400V		

Incandescent



We invented incandescent technology. We know how to replace it.

From Thomas Edison's first commercially viable light bulb to the first X-ray machines, we've continued to innovate what has yet to be imagined.

GE was born from the invention of the world's first affordable incandescent lamp. More than a century later, our lighting business still brings light to the world, helping to advance new technologies, that operate with more efficiency, less cost and less environmental impact than ever before.



Since March 2009 a regulation was adopted in all EU countries and inefficient non-directional lamps have been gradually phased out from the EU market.

GE Lighting, as member of ELC (European Lamp Companies Federation), is fully committed to this regulation and has a complete range of new energy efficient products to replace old incandescent lamps.



Home

Product alternatives for incandescent lamps



**Strong,
vibrant**



**Fresh,
energising**



**Comfortable,
inviting**



**Cosy,
relaxing**



**Subtle,
reassuring**



PAR30 10W



GU10 6W



GLS 12W



CANDLE 4.5W



SPHERICAL 1.2W

LED



STICK 23W



SPIRAL 15W



GLS 12W



CANDLE 7W



SPHERICAL 5W

CFL



PAR30 75W



PAR20 50W



GLS 42W



CANDLE 28W



SPHERICAL 18W

HALO

Incandescent Lamps

GLS



Standard

Cap: E27 or B22
Wattages: 25-300W
Finish: Clear or Frosted
Rated life: 1,000Hrs

Page VIII.6



Low Volt

Cap: E27
Wattages: 25-100W
Voltage: 24V
Finish: Clear or Frosted
Rated life: 1,000Hrs

Page VIII.6



Rough Service

Cap: E27 or B22
Wattages: 40-100W
Voltage: 120, 230-240V
Finish: Frosted
Rated life: 1,500-3,000Hrs

Page VIII.6



Traffic Light

Cap: E27
Wattages: 60-100W
Finish: Clear
Rated life: 3,000Hrs

Page VIII.7



Coloured

Cap: E27
Wattages: 25W
Finish: 5 colours
Rated life: 1,000Hrs

Page VIII.7

Spherical



Standard

Cap: E14, E27 or B22
Wattages: 15-60W
Finish: Clear or Frosted
Rated life: 1,000Hrs

Page VIII.7



Coloured

Cap: E14, E27
Wattages: 15W
Finish: 8 colours
Rated life: 1,000Hrs

Page VIII.8



T45

Cap: E14, E27
Wattages: 25-60W
Finish: Softlight
Rated life: 1,000Hrs

Page VIII.8



Oven

Cap: E14 or E27
Wattages: 25, 40W
Finish: Clear

Page VIII.8

Candle



Standard

Cap: E14, E27
Wattages: 25-60W
Finish: Opal or Frosted
Rated life: 1,000Hrs

Page VIII.8



Twisted

Cap: E14
Finish: Clear or Frosted
Rated life: 1,000Hrs

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Selector

Reflector



R39
Cap: E14
Wattages: 25-30W
Rated life: 1,000Hrs

Page VIII.9



R50
Cap: E14
Wattages: 25-60W
Rated life: 1,000Hrs

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R63
Cap: E27
Wattages: 40-60W
Rated life: 1,000Hrs

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R80
Cap: E27
Wattages: 40-100W
Rated life: 1,000Hrs

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R95
Cap: E27
Wattages: 75-150W
Rated life: 1,000Hrs

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**Coloured
R50, R63, R80**
Cap: E14, E27
Wattage: 40-60W
Rated life: 1,000

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Infrared Reflector



**Infrared
Hard Glass**
Cap: E27
Wattages: 100-275W
Beam: Clear, Red or Satin
Rated life: 5,000Hrs

Page VIII.10

Pygmy



**Standard and
Appliance**
Cap: E14, E27
Wattages: 15-40W
Finish: Clear
Rated life: 300-1,000Hrs

Page VIII.11

Tubular



T25
Cap: E14
Wattage: 15, 25W
Finish: Clear
Rated life: 1,000

Page VIII.11



T28
Cap: E14
Wattage: 25-60W
Finish: Clear
Rated life: 1,000

Page VIII.11

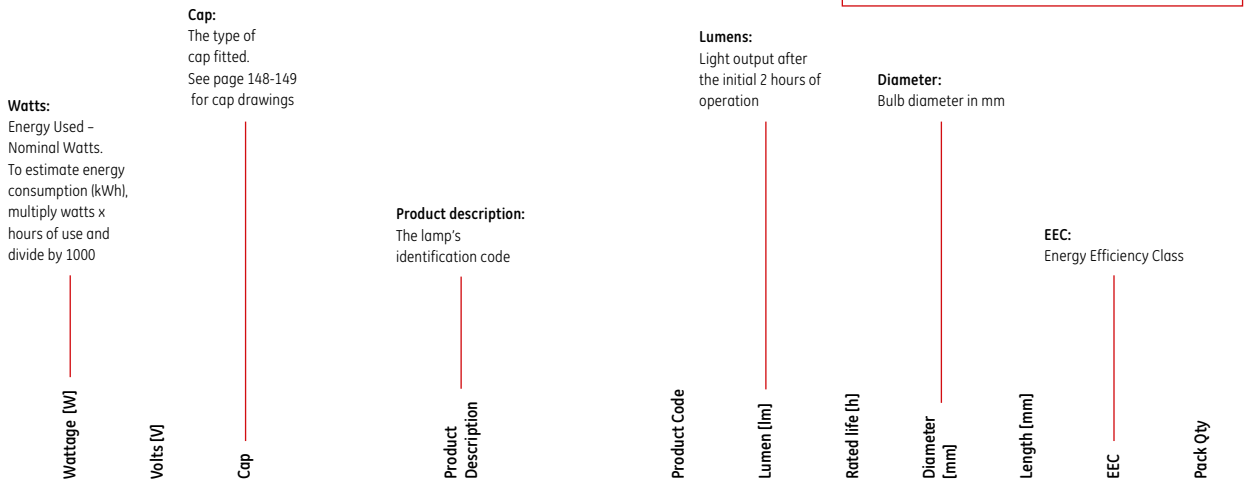
Incandescent Lamps

Product identification

The following glossary of terms will help you when selecting lamps in this section. Within each product line, lamps are divided into families – within these families, lamps are listed by wattage. The Product Description can be used as a quick reference to each product's attributes. Where Rated Life is are stated we refer to the industry standard definition of how many hours of operation 50% of a given installation will exceed.

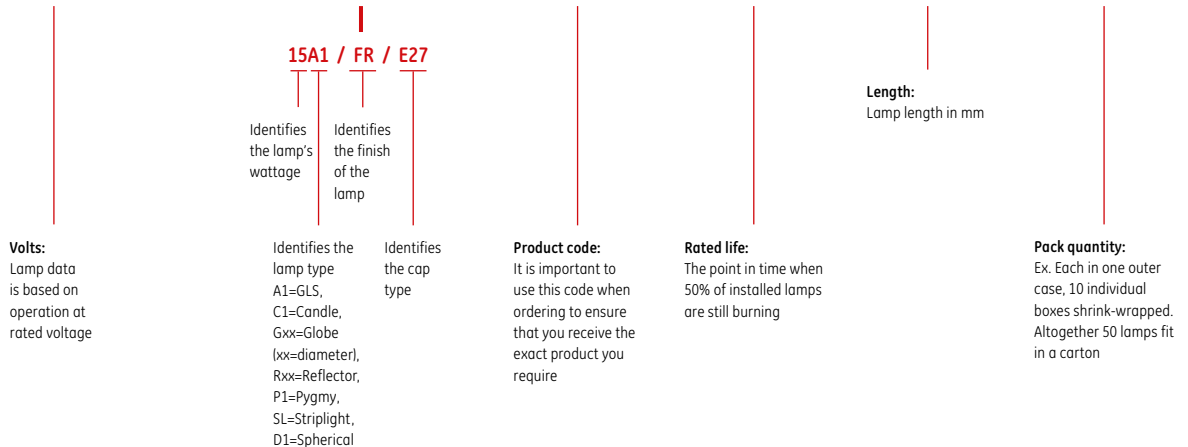
Additional parameters:

Beam Spread Degrees: For reflector type lamps. The angle of the cone of light produced by a reflector lamp at 50% of its intensity
Peak Beam Intensity: For reflector type lamps. Luminous intensity of the lamp beam expressed in candelas



Standard GLS - Frosted

Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
60	127V	E27	60A1/F/E27	22433	820	1,000	50	88.5	D	1/10/120
40	230	E27	40A1/F/E27	21671	415	1,000	50	88.5	E	1/10/60



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Lumen (lm)	Rated life (h)	Diameter (mm)	Length (mm)	EEC	Pack Qty
Standard GLS - Frosted										
40	240	E27	40A1/F/E27	19952	410	1,000	50	88.5	E	1/10/120
60	240	E27	60A1/F/E27	19954	700	1,000	50	88.5	E	1/10/120
100	240	E27	100A1/F/E27	19956	1330	1,000	50	88.5	E	1/10/120
150	230	E27	150A65/FR/E27	22568	2160	1,000	65	123	E	1/20
200	230	E27	200A1/F/E27	91128	3040	1,000	80	142	E	1/20
60	230	B22	60A1/F/B22	21663	710	1,000	50	88.5	E	1/10/60
75	230	B22	75A1/F/B22	21664	940	1,000	50	88.5	E	1/10/60
100	230	B22	100A1/F/B22	21665	1340	1,000	50	88.5	E	1/10/60



Standard GLS - Clear

25	240	E27	25A1/CL/E27	19944	225	1,000	50	88.5	E	1/120
40	240	E27	40A1/CL/E27	19946	410	1,000	50	88.5	E	1/10/120
60	240	E27	60A1/CL/E27	19947	700	1,000	50	88.5	E	1/10/120
75	240	E27	75A1/CL/E27	19948	930	1,000	50	88.5	E	1/10/120
100	240	E27	100A1/CL/E27	19949	1330	1,000	50	88.5	E	1/10/120
150	230	E27	150A65/CL/E27	22566	2160	1,000	65	123	E	1/20
200	230	E27	200A1/CL/E27	91127	3040	1,000	80	142	E	1/20
300	230-240	E27	300A1/CL/E27	91226	4850	1,000	90	168	E	1/20
300	230-240	E40	300A1/CL/E40	91724	4850	1,000	90	180	E	1/20
40	240	B22	40A1/CL/B22	19958	410	1,000	50	88.5	E	1/10/120
60	240	B22	60A1/CL/B22	19962	700	1,000	50	88.5	E	1/10/120
75	240	B22	75A1/CL/B22	19965	930	1,000	50	88.5	E	1/10/120
100	240	B22	100A1/CL/B22	19967	1330	1,000	50	88.5	E	1/10/120



Low Volt GLS - Clear

25	24	E27	25A1/CL/E27 24V	35178	320	1,000	60	104.5	C	1/10/100
40	24	E27	40A1/CL/E27 24V	91876	580	1,000	60	104.5	D	1/10/100
60	24	E27	60A1/CL/E27 24V	91877	930	1,000	60	104.5	D	1/10/100
100	24	E27	100A1/CL/E27 24V	35174	1740	1,000	60	104.5	D	1/10/100



Low Volt GLS - Frosted

60	24	E27	60A1/F/E27 24V	91875	930	1,000	60	104.5	D	1/10/100
100	24	E27	100A1/F/E27 24V	91873	1740	1,000	60	104.5	D	1/10/100



Rough Service GLS - Frosted

60	120	E27	60A1/P/VRS/E27	31546	450	1,500	60	105	G	1/20
100	120	E27	100A1/P/GRS/E27	31573	820	3,000	60	105	G	1/20
40	230-240	E27	40A1/F-RS/E27	91228	250	2,500	60	105	G	1/20
60	230-240	E27	60A1/F-RS/E27	91229	450	2,500	60	105	G	1/20
100	230-240	E27	100A1/F-RS/E27	91227	880	2,500	60	105	G	1/20
60	120	B22	60A1/P/VRS/B22	31535	450	1,500	60	103.5	G	1/20
100	120	B22	100A1/P/GRS/B22	31560	820	3,000	60	103.5	G	1/20



Product only available OUTSIDE the EU.
Product only available OUTSIDE the EU from 1 September 2012.

Incandescent Lamps



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
70	230	E27	70A1/CL/E27	35238	420	3,000	60	105	G	1/10/100
60	230	E27	60A1/CL/E27/TSR	35239	380	3,000	60	105	G	1/10/100
100	230	E27	100A65/CL/E27	22620	880	3,000	60	105	G	1/10

Colour	Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
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Coloured GLS



Red	25	230	E27	25A1/R/E27	90922	1,000	50	88.5	1/10/120
Orange	25	230	E27	25A1/O/E27	90923	1,000	50	88.5	1/10/120
Yellow	25	230	E27	25A1/Y/E27	90921	1,000	50	88.5	1/10/120
Green	25	230	E27	25A1/G/E27	90920	1,000	50	88.5	1/10/120
Blue	25	230	E27	25A1/B/E27	90924	1,000	50	88.5	1/10/120

Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
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Spherical - Clear



25	240	E14	25D1/CL/E14	19775	210	1,000	45	74	E	1/10/100
40	240	E14	40D1/CL/E14	19782	400	1,000	45	74	E	1/10/100
60	240	E14	60D1/CL/E14	19784	660	1,000	45	74	E	1/10/100
15	230	E27	15D1/CL/E27	91917	100	1,000	45	71	E	1/10/50
25	230	E27	25D1/CL/E27	90564	210	1,000	45	71	E	1/10/50
40	230	E27	40D1/CL/E27	90565	400	1,000	45	71	E	1/10/50
60	230	E27	60D1/CL/E27	91593	660	1,000	45	71	E	1/10/50
15	230	B22	15D1/CL/B22	91911	100	1,000	45	70	E	1/10/50
40	230	B22	40D1/CL/B22	91989	400	1,000	45	70	E	1/10/50

Spherical - Frosted

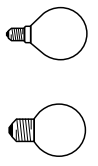


25	240	E14	25D1/FR/E14	19777	200	1,000	45	74	F	1/10/100
40	240	E14	40D1/FR/E14	19778	400	1,000	45	74	E	1/10/100
60	240	E14	60D1/FR/E14	19786	660	1,000	45	74	E	1/10/50
40	230	E27	40D1/F/E27	90567	400	1,000	45	71	E	1/10/50
60	230	E27	60D1/F/E27	90568	660	1,000	45	71	E	1/10/50

Product only available OUTSIDE the EU.

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Colour	Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
Red	15	230	E14	15D1/R/E14	90525	1,000	45	74	1/10/50
Red	15	230	E27	15D1/R/E27	90531	1,000	45	71	1/10/50
Orange	15	230	E27	15D1/ORANGE/E27	90528	1,000	45	71	1/10/50
Yellow	15	230	E14	15D1/Y/E14	90526	1,000	45	74	1/10/50
Yellow	15	230	E27	15D1/Y/E27	90527	1,000	45	71	1/10/50
Green	15	230	E14	15D1/G/E14	92004	1,000	45	74	1/10/50
Green	15	230	E27	15D1/G/E27	91521	1,000	45	71	1/10/50
Yellow	15	230	E14	15D1/B/E14	92001	1,000	45	74	1/10/50
Yellow	15	230	E27	15D1/B/E27	91522	1,000	45	71	1/10/50



Colour	Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
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Spherical T45 - Softlight

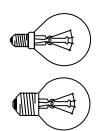
Softlight	40	230	E14	40T45/SL/E14	90562	350	1,000	45	74	F	1/10/50
Softlight	60	230	E14	60T45/SL/E14	91952	600	1,000	45	74	F	1/10/50



Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
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Spherical Oven - Clear

25	230	E27	25D1/CL/E27	12513	140	300	45	71	G	1/10/100
40	230	E14	40D1/CL/E14	12462	320	300	45	74	F	1/10/50
40	230	E27	40D1/CL/E27	12515	320	300	45	71	F	1/10/100



Candle - Clear

25	240	E14	25C1/CL/E14	90478	210	1,000	35	97	E	1/10/50
40	240	E14	40C1/CL/E14	91673	400	1,000	35	97	E	1/10/50
60	240	E14	60C1/CL/E14	91677	660	1,000	35	97	E	1/10/50
40	240	E27	40C1/CL/E27	10879	400	1,000	35	93	E	1/10/100
60	240	E27	60C1/CL/E27	10880	660	1,000	35	93	E	1/10/100



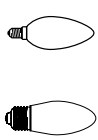
Candle - Frosted

25	240	E14	25C1/FR/E14	91680	200	1,000	35	97	F	1/10/50
40	240	E14	40C1/FR/E14	91682	400	1,000	35	97	E	1/10/50
60	240	E14	60C1/FR/E14	91683	660	1,000	35	97	E	1/10/50



Candle - Opal

25	230	E14	25C1/SL/E14	90483	180	1,000	35	97	F	1/10/50
40	230	E14	40C1/SL/E14	90482	360	1,000	35	97	F	1/10/50
60	230	E14	60C1/SL/E14	90481	600	1,000	35	97	F	1/10/50
25	230	E27	25C1/O/E27	10875	180	1,000	35	78.5	F	1/10/50
40	230	E27	40C1/O/E27	10877	360	1,000	35	78.5	F	1/10/50
60	230	E27	60C1/O/E27	10878	600	1,000	35	78.5	F	1/10/50



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Incandescent Lamps

Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
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Decor Candle - Twisted Clear



15	230	E14	15TC1/CL/E14	10823	100	1,000	35	97	E	1/10/50
25	230	E14	25TC1/CL/E14	10826	210	1,000	35	97	E	1/10/50
40	230	E14	40TC1/CL/E14	10827	400	1,000	35	97	E	1/10/50
60	230	E14	60TC1/CL/E14	10828	660	1,000	35	97	E	1/10/50

Decor Candle - Twisted Frosted



25	230	E14	25TC1/F/E14	10831	200	1,000	35	97	F	1/10/50
40	230	E14	40TC1/F/E14	10832	400	1,000	35	97	E	1/10/50
60	230	E14	60TC1/F/E14	10833	660	1,000	35	97	E	1/10/50

Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Candela [cd]	Beam Angle [°]	Rated life [h]	Diameter [mm]	Length [mm]	Pack Qty
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Reflector - R39



25	230	E14	25R39/E14	91523	65	80	1,000	39	64	1/10/100
30	230	E14	30R39/E14	91524	80	80	1,000	39	64	1/10/100

Reflector - R50



25	230	E14	25R50/E14	92373	200	35	1,000	50	86	1/10/50
40	230	E14	40R50/E14	92366	300	35	1,000	50	86	1/10/50
60	230	E14	60R50/E14	91327	600	35	1,000	50	86	1/10/50

Reflector - R63



40	230	E27	40R63/E27	91079	250	35	1,000	63.5	101	1/10/40
60	230	E27	60R63/E27	91080	410	35	1,000	63.5	101	1/10/40

Reflector - R80



40	230	E27	40R80S/E27	92858	200	35	1,000	80	121	1/10
60	230	E27	60R80S/E27	92839	450	35	1,000	80	121	1/10
75	230	E27	75R80S/E27	92859	600	35	1,000	80	121	1/10
100	230	E27	100R80S/E27	92860	800	35	1,000	80	121	1/10

Reflector - R95



75	230	E27	75R95/E27	91351	1000	35	1,000	95	129	1/32
100	230	E27	100R95/E27	91366	1350	35	1,000	95	129	1/32
150	230	E27	150R95/E27	91367	2250	35	1,000	95	129	1/32

Product only available OUTSIDE the EU.

Product only available OUTSIDE the EU from 1 September 2012.

Colour	Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Rated life (h)	Diameter (mm)	Length (mm)	Pack Qty
Coloured Reflector - R50									
Red	40	230	E14	40R50/R/E14	91386	1,000	50	86	1/25
Yellow	40	230	E14	40R50/Y/E14	91388	1,000	50	86	1/25
Green	40	230	E14	40R50/G/E14	91389	1,000	50	86	1/25
Blue	40	230	E14	40R50/B/E14	91387	1,000	50	86	1/25



Coloured Reflector - R63									
Red	40	230	E27	40R63/R/E27	91532	1,000	63.5	101	1/25
Yellow	40	230	E27	40R63/Y/E27	91531	1,000	63.5	101	1/25
Green	40	230	E27	40R63/G/E27	91533	1,000	63.5	101	1/25
Blue	40	230	E27	40R63/B/E27	91530	1,000	63.5	101	1/25



Coloured Reflector - R80									
Red	60	230	E27	60R80/R/E27	91528	1,000	80	121	1/40
Yellow	60	230	E27	60R80/Y/E27	91527	1,000	80	121	1/40
Green	60	230	E27	60R80/G/E27	91526	1,000	80	121	1/40
Blue	60	230	E27	60R80/B/E27	91525	1,000	80	121	1/40



Wattage (W)	Volts (V)	Cap	Product Description	Product Code	Rated life (h)	Diameter (mm)	Length (mm)	Pack Qty
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Infrared Reflector Hard Glass - Clear

150	230-240	E27	150R/IR/CL/E27	28720	5,000	125	170	1/9
250	230-240	E27	250R/IR/CL/E27	28724	5,000	125	170	1/9
275	230-240	E27	275R/IR/CL/E27	32569	5,000	125	170	1/9



Infrared Reflector Hard Glass - Red Front

150	240	E27	150R/IR/R/E27	91372	5,000	125	170	1/10
250	240	E27	250R/IR/R/E27	91391	5,000	125	170	1/10









Infrared Reflector Hard Glass - Satin

150	240	E27	150/IR/F/E27	91288	5,000	125	170	1/10
250	240	E27	250R/IR/F/E27	91390	5,000	125	170	1/10
275	230-240	E27	275R/IR/SA/E27	32296	5,000	125	170	1/9



Incandescent Lamps

	Wattage [W]	Volts [V]	Cap	Product Description	Product Code	Lumen [lm]	Rated life [h]	Diameter [mm]	Length [mm]	EEC	Pack Qty
Pygmy - Clear											
	15	110	E14	15P1/CL/E14	31821	65	1,000	28	60	G	1/50
	15	110	B22	15P1/CL/B22	31811	65	1,000	28	55	G	1/50
	15	230	E14	15P1/CL/E14	12512	90	1,000	28	60	F	1/10/50
	25	230	E14	25P1/CL/E14	91955	190	1,000	28	60	F	1/10/50
	15	240	E14	15P1/CL/E14	91950	85	1,000	26	55	F	1/10/50
	25	240	E14	25P1/CL/E14	34420	190	1,000	28	60	F	1/50
Pygmy Fridge - Clear											
	15	230	E14	15P1/CL/E14	92046	85	1,000	26	55	F	1/10/50
	15	230-240	E15	15P1/CL E14	73478	90	1,000	26	60	F	500
	25	230-240	E14	25P/E14/CL	73479	190	1,000	26	60	F	500
Pygmy Oven - Clear											
	15	230	E14	15P1/OVEN22/CL/E14	12447	85	1,000	22	48	F	1/50
	15	230-240	E14	15P1/RS/CL/E14	93301	90	1,000	22	60	F	300
	25	230	E14	25P1/OVEN25/CL/E14	43381	160	1,000	25	55	G	1/50
	25	230-240	E14	25P1/OVEN/T25/CL	45330	190	1,000	25	60	F	250
Tubular T25 - Clear											
	15	230	E14	15T25/CL/E14	13118	100	1,000	25	67.5	E	1/50
	25	230	E14	25T25/CL/E14	13119	210	1,000	25	67.5	E	1/50
Tubular T28 - Clear											
	25	230	E14	25T28/CL/E14	13109	210	1,000	29	93.5	E	1/50
	40	230	E14	40T28/CL/E14	13110	400	1,000	29	93.5	E	1/50
	60	230	E14	60T28/CL/E14	13111	660	1,000	29	93.5	E	1/50

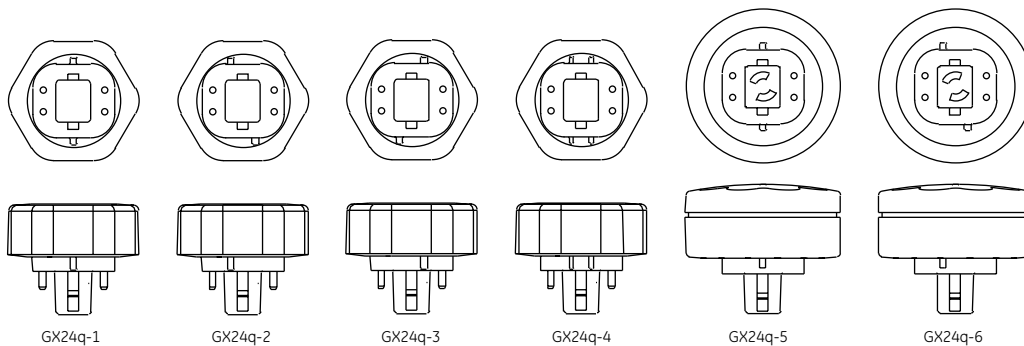
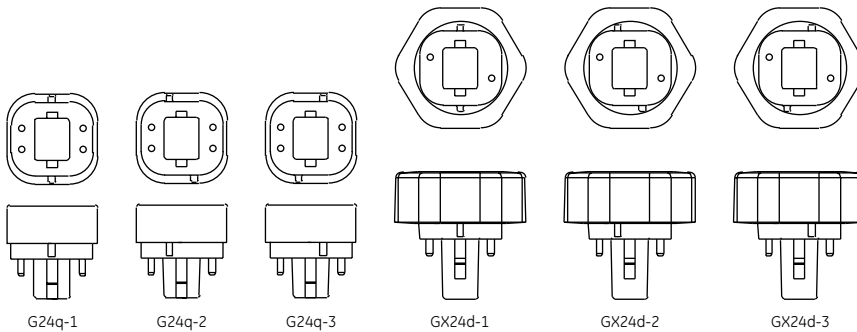
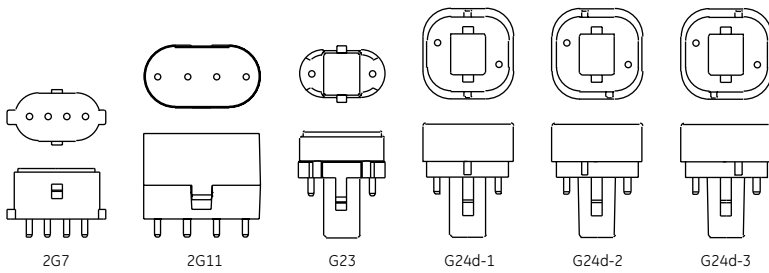
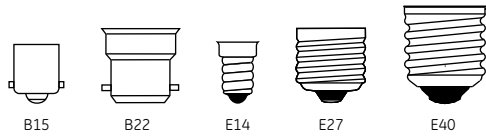
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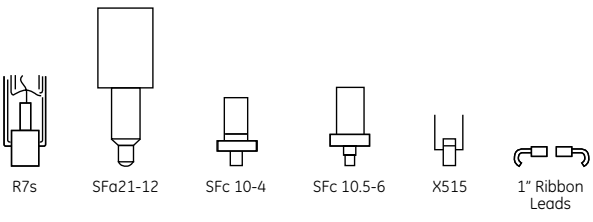
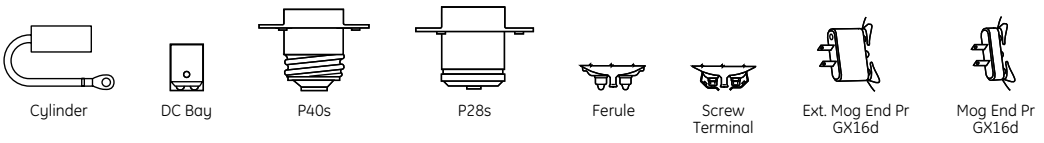
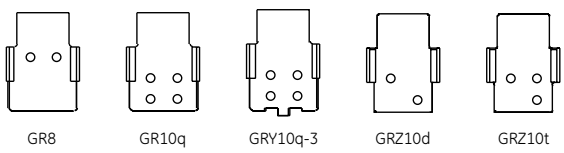
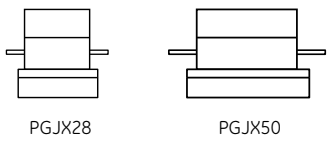
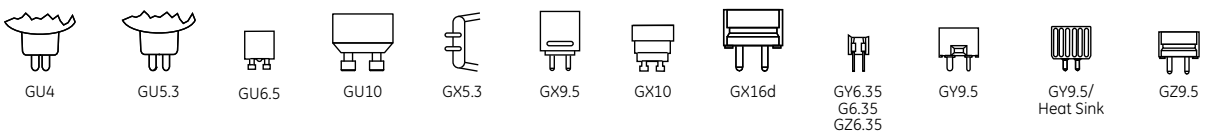
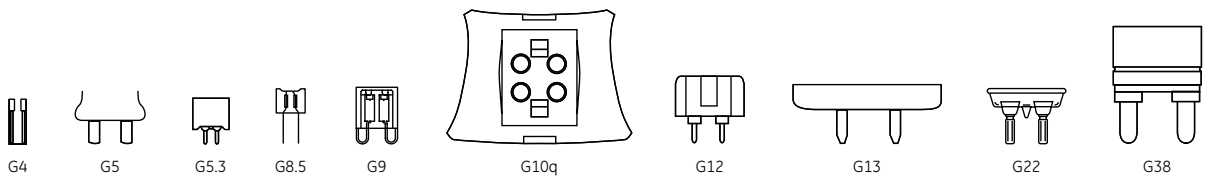
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Cap drawings

All cap drawings are a guide, if further technical details are required please contact your nearest sales office.





Glossary

A

Accent Lighting

Directional lighting to emphasize a particular object or draw attention to a display item.

Adaptation

The process by which the human eye adjusts to a change in light level.

Ambient Lighting

The general lighting present in an area -excluding task lighting and accent lighting but including general lighting and daylight streaming in.

Ambient Temperature

The surrounding temperature within an environment.

Amperes ("Amps.")

A measure of electrical current. In incandescent lamps, the current is related to voltage and power as follows: Watts (power) = Volts x Amps (current).

American National Standards Institute (ANSI)

A consensus-based organization which coordinates voluntary standards for the physical, electrical and performance characteristics of lamps, ballasts, luminaires and other lighting and electrical equipment.

Anode

The "positive" terminal of a diode.

ANSI Ballast Type

Ballast type used to operate lamp in accordance with ANSI standard.

ANSI Codes

These are 3-letter codes assigned by the American National Standards Institute. They provide a system of assuring mechanical and electrical interchangeability among similarly coded lamps from various manufacturers. General Electric uses the assigned ANSI Codes as Lamp Ordering Codes for most Projection Lamps.

Application

Also called "lighting application," it refers to the particular use the lamp is being put to. (e.g. high-bay industrial application or retail lighting application.) The term can also refer in a general way to "application engineering" which deals with specific parameters and usage of light sources. (e.g. how to do a lighting layout, where to place fixtures and so on.)

Arc

A general term for a high intensity electrical discharge occurring between two electrodes in a gaseous medium, usually accompanied by the generation of heat and the emission of light (See ELECTRICAL DISCHARGE).

Arc Lamp

A light source containing an arc (see above). Also called a discharge lamp, or an arc discharge lamp (See ELECTRICAL DISCHARGE).

Arc Length

In High Intensity Discharge lamps this is the distance between the electrode tips, which represents the physical length of the electrical discharge.

Atmosphere

This field designates the type of gas or vacuum filling a volume or chamber of the lamp. This chamber might contain a filament or it might refer to the bulb which contains the arc tube.

Auto Reset Shutdown Circuit

Circuit senses lamp end life and will automatically shut off power to the lamp(s). When a new lamp is inserted in the socket, the ballast resets, and turns on the lamp automatically. Some shutdown circuits require the power to be cycled before a new lamp will re-light.

B

Ballast

An auxiliary piece of equipment required to start and to properly control the flow of current to gas discharge light sources such as fluorescent and high intensity discharge (HID) lamps.

Ballast Efficacy Factor (BEF)

Defined as ballast factor x 100 divided by input watts. The value is used to evaluate various lighting systems based on light output and power input. The BEF can only be used to compare systems operating the same type and quantity of lamps.

Ballast Factor (BF)

This is the percentage of a lamp's rated lumen output that can be expected when operated on a specific, commercially available ballast. For example, a ballast with a ballast factor of 0.93 will result in the lamp's emitting 93% of its rated lumen output. A ballast with a lower BF results in less light output and also generally consumes less power.

Ballast Hum

Sound generated by the vibration of laminations in the iron core of the transformer or inductor present in the ballast.

Ballast Losses

Power or energy dissipated in the ballast as heat and not converted to lamp energy.

Base or Socket

The socket is the receptacle connected to the electrical supply; the base is the end of the lamp that fits into the socket. There are many types of bases used in lamps, screw bases being the most common for incandescent and HID lamps, while bipin bases are common for linear fluorescent lamps.

Base Temperature (Maximum)

The maximum operating temperature permitted for the base in Celsius. Fixture manufacturers need to ensure that these conditions are satisfied in their fixture.

Bayonet

A style of bulb base which uses keyways instead of threads to connect the bulb to the fixture base. The bulb is locked in place by pushing it down and turning it clockwise.

Beam Angle

The angular dimension of the cone of light from reflectorized lamps (such as R and PAR types) encompassing the central part of the beam out to the angle where the intensity is 50% of maximum. The beam angle sometimes called "beam spread" is often part of the ordering code for the reflectorized lamps. Example: The 50PAR30/HIR/NFL25 is a 50 watt PAR30 narrow flood lamp with a beam angle of 25 degrees (See FIELD ANGLE).

Beam Lumens

The total lumens present within the portion of the beam contained in the beam angle.

Beam Spread (Approximate)

For reflector type lamps. The total angle of the directed beam (in degrees horizontal or vertical) to where the intensity of the beam falls to 50% or 10% of the maximum candlepower value as indicated.

Bi-Pin

Any base with two metal pins for electrical contact. This is the typical base for a fluorescent tube of 1 to 4 feet in length. It consists of 2 prong contacts which connect into the fixture. Medium bi-pins are used with type T-8 and T-12 tubular fluorescent lamps, and miniature bi-pins are used for tubular T-5 fluorescent lamps.



Biax™

GE trademark for its biaxial family of high-efficiency and long-life compact fluorescent lamps. DBX (Double Biax), TBX (Triple Biax) and QBX (Quad Biax) refer to the number of U-shaped legs present in the lamp.

Blackbody

A hot body with an incandescent black surface at a certain temperature used as a standard for comparison. Note that a black surface is the best radiator possible. A tungsten filament will emit slightly less radiation than a blackbody at the same temperature.

Black Light

A popular term referring to a light source emitting mostly near UV (320 to 400 nm) and very little visible light.

Blacktop

Whether or not the top of the miniature lamp has a blacktop coating. The coating is used to control unwanted brightness or glare.

Bollard

A short, thick post with a light at its top, used for grounds and outdoor walkway lighting.

Bottom Exit Studs (BES)

(LFL plug-in ballasts) A configuration with screw studs mounted on the base plate or bottom of the ballast. The screws are 3/8" inches long with a #8-32 thread size (#8-32 nut). They are mounted on a two-inch center. The studs are usually used to mount the ballast directly onto a junction box plate.

Bulb

A loose way of referring to a lamp. "Bulb" refers to the outer glass bulb containing the light source.

Bulb Material or Coating

The type of glass (or quartz) used in the glass envelope surrounding the light source. The material can also have coatings applied to achieve particular performances.

Bulb Size

Bulb shape followed by its size (the maximum diameter of the bulb expressed in eighths of an inch). For Compact Fluorescent products, "S", "D", "T", and "Q" are used to represent Single, Double, Triple and Quad Biax® sizes. The code also includes a reference such as T4 to represent the size of the tube. Rectangular headlamps are designated as "Rect" and the number of millimeters horizontally.

C

Canadian Energy Standards

Indicates ballast complies with Canadian Energy Standards and meets the requirements of CAN/CSA C654-M91.

Canadian Standards Association (CSA)

An organization that writes standards and tests lighting equipment for performance as well as electrical and fire safety. Canadian provincial laws generally require that all products sold for consumer use in Canada must have CSA or equivalent approval.

Candela [cd]

The measure of luminous intensity of a source in a given direction. The term has been retained from the early days of lighting when a standard candle of a fixed size and composition was defined as producing one candela in every direction. A plot of intensity versus direction is called a candela distribution curve and is often provided for reflectorized lamps and for luminaires with a lamp operating in them.

Candlepower

An obsolete term for luminous intensity; current practice is to refer to this simply as candelas (see CANDELA).

Candlepower (Mean Spherical)

Initial mean spherical candlepower at the design voltage. Mean spherical candlepower is the generally accepted method of rating the total light output of miniature lamps. To convert this rating to lumens, multiply it by 12.57 (4 pi).

Candlepower Distribution Curve

A graphical presentation of the distribution of light intensity of a light source, usually a reflector lamp or luminaire.

Capacitor

Device in an electronic circuit (part of ballast or a separate element) that stores electrical energy. Often used for power factor correction and lamp regulation.

Cathode

The "negative" terminal of a diode/arc.

Cathode Resistance

Resistance of the cathode in a Fluorescent lamp. It is measured "cold" before the lamp is turned on (Rc) or "hot" after the lamp is turned on (Rh). The ratio of the hot resistance to the cold resistance is also measured (Rh/Rc).

Center Beam Candlepower (CBCP)

Refers to the luminous intensity at the center of the beam of a blown or pressed reflector lamp (such as a PAR lamp). Measured in candelas.

Ceramic Metal Halide (CMH)

A type of metal halide lamp that uses a ceramic material for the arc tube instead of glass quartz, resulting in better colour rendering (>80 CRI) and improved lumen maintenance. GE ConstantColor™ CMH lamps feature a 3-piece arc tube design that delivers excellent colour consistency and lamp reliability.

Chip

A very small square of semi-conducting material. Also known as a "die," it is the "active" light-emitting component of an LED.

Chromaticity

Measure to identify the colour of a light source, typically expressed as (x,y) coordinates on a chromaticity chart (See COLOUR TEMPERATURE).

Chromaticity Coordinates

A system for measuring the colour of the light emitted from a light source—either a primary source like a lamp or a secondary source like an illuminated object. Usually two numbers, x and y coordinates ranging from 0 to 1 specify the chromaticity.

Class P Thermal Protector

A switching device sensitive to current and heat that automatically disconnects ballast if the temperature exceeds UL temperature limitations.

Coefficient of Utilization (CU)

In general lighting calculations, the fraction of initial lamp lumens that reach the work plane. CU is a function of luminaire efficiency, room surface reflectances and room shape.

Coil

Windings of copper or aluminum wire surrounding the steel core in ballast. Also refers to the entire assembly comprising the inductor or transformer.

Colour Bin

LEDs are often sorted according to their CIE chromaticity coordinates into different groupings or "bins."

Glossary

Colour Rendering Index (CRI)

An international system used to rate a lamp's ability to render object colours. The higher the CRI (based upon a 0-100 scale) the richer colours generally appear. CRI ratings of various lamps may be compared, but a numerical comparison is only valid if the lamps are close in colour temperature. CRI differences among lamps are not usually significant (visible to the eye) unless the difference is more than 3-5 points.

Colour Rendering Indicator

Draws attention to the fact that this is a lamp with high colour rendering, which helps objects and persons illuminated to appear more true to life.

Colour Temperature (Correlated Colour Temperature - CCT)

A number indicating the degree of "yellowness" or "blueness" of a white light source. Measured in Kelvins, CCT represents the temperature an incandescent object (like a filament) must reach to mimic the colour of the lamp. Yellowish-white ("warm") sources, like incandescent lamps, have lower colour temperatures in the 2700K-3000K range; white and bluish-white ("cool") sources, such as cool white (4100K) and natural daylight (6000K), have higher colour temperatures. The higher the colour temperature the whiter, or bluer, the light will be (See CHROMATICITY).

Compact Fluorescent Lamp (CFL)

The general term applied to fluorescent lamps that are single-ended and that have smaller diameter tubes that are bent to form a compact shape. Some CFLs have integral ballasts and medium or candelabra screw bases for easy replacement of incandescent lamps.

ConstantColor™

A GE registered name for lamp families that show very little colour shift over life, such as GE's Precise™ MR16 lamps and GE's ceramic metal halide (CMH) lamps.

Coolbeam

(See DICHROIC REFLECTOR)

Cool White

A term loosely used to denote a colour temperature of around 4100 K or higher. The Cool White (CW) designation is used specifically for T12 and other fluorescent lamps using halophosphors and having a CRI of 62.

Core

Component of electromagnetic ballast that is surrounded by the coil. Core is comprised of steel laminations or solid ferrite material.

Core & Coil Ballast

A ballast that uses a "Core & Coil" assembly to operate fluorescent or HID lamps. Refers to copper or aluminum windings on a steel core.

Cosine-Corrected

An illuminance meter that measures the light level correctly irrespective of the angle the light is coming from. (See ILLUMINANCE METER)

Cost of Light

Usually refers to the cost of operating and maintaining a lighting system on an ongoing basis. The 88-8-4 rule states that (typically) 88% is the cost of electricity, 8% is labor and only 4% is the cost of lamps.

covRguard™

A lamp encased by a plastic sleeve or coating to help contain glass fragments if the lamp breaks.

Crest Factor (Max Current)

The ratio of the peak lamp current to average lamp operating current (RMS). The lower the current crest factor is, the gentler the ballast is on the lamp.

Current Type (AC/DC)

Whether the operational voltage is based on Alternating Current or Direct Current.

D

Daylight Harvesting

Lighting design for building interiors that makes of daylight as a way of reducing energy consumption.

Daylight Lamp

A lamp resembling the colour of daylight, typically with a colour temperature of 5500 K to 6500K.

Declaration of Conformity (DoC)

A self-declaration of a product on its compliance to the Electromagnetic Compatibility Directive and the Low Voltage Directive and it can bare CE conformity marking (EU).

Dichroic Reflector (or Filter)

A reflector (or filter) that reflects one region of the spectrum while allowing the other region(s) to pass through. A reflector lamp with a dichroic reflector will have a "cool beam" i.e. most of the heat has been removed from the beam by allowing it to pass through the reflector while the light has been reflected.

Die

See Chip.

Dimmable

Whether or not the lamp lumens can be varied while maintaining reliability.

Dimmer, Dimming Control

A device used to lower the light output of a source, usually by reducing the wattage it is being operated at. Dimming controls are increasing in popularity as energy conserving devices.

Discharge Lamp

A lamp where light is emitted from an electrical discharge between two electrodes as opposed to a filament lamp. Examples are: Fluorescent lamps and HID (High Intensity Discharge) lamps like Metal Halide, Mercury and High Pressure Sodium.

All discharge lamps require some kind of current limiting device, e.g. a ballast, to operate them.

Driver

Control gear for LED-based products. Can be either constant current or constant voltage. For LED lamps the driver is often integral (see 'Self-Ballasted Lamps').

E

Eccentricity (Maximum)

In High Intensity Discharge lamps the Bulb to Arc Angle is the angle off of center between electrodes and bulb. The Bulb to Base Angle is the angle off of center that the bulb is from the base.

Edison Award

An annual competition where lighting designers submit their best projects. The entries are judged by an international panel and awards are presented at a banquet accompanying Light Fair, the North American trade show for the lighting industry.

Efficacy

A measurement of how effective the light source is in converting electrical energy to LUMENS of visible light. Expressed in LUMENS-PER-WATT (LPW) this measure gives more weight to the yellow region of the spectrum and less weight to the blue and red region where the eye is not as sensitive.

Efficiency

The efficiency of a light source is simply the fraction of electrical energy converted to light, i.e. watts of visible light produced for each watt of electrical power with no concern about the wavelength where the energy is being radiated. For example, a 100 watt incandescent lamp converts 7% of the electrical energy into light; discharge lamps convert 25% to 40% into light.

The efficiency of a luminaire or fixture is the percentage of the lamp lumens that actually comes out of the fixture (See LUMINOUS EFFICACY).

Efficiency of Ballast

The ratio of output power divided by input power. A premium ballast would have an electrical efficiency greater than 90%. The efficiency of a luminaire or fixture is the percentage of the lamp lumens that actually comes out of the fixture.

e-HID ballast

(see ELECTRONIC HID BALLAST).

ELC (European Lamp Companies Federation)

Created in 1985, the European Lamp Companies Federation (ELC) is both the forum and the voice of the lamp industry in Europe. It represents the leading European lamp manufacturers, which collectively directly employ 50,000 people, and account for 95 percent of total European production, with an annual turnover in Europe of €5 billion. From the outset, ELC objectives have been to promote efficient lighting practice for a sustainable environment and the advancement of human comfort, health and safety. To this end, ELC monitors, advises and co-operates with legislative bodies in developing European Directives and Regulations relevant to the European lamp industry.

Electrical Discharge

A condition under which a gas becomes electrically conducting and becomes capable of transmitting current, usually accompanied by the emission of visible and other radiation. An electric spark in air is an example of an electrical discharge, as is a welder's arc and a lightning bolt. (See ARC, ELECTRODELESS LAMPS)

Electrical Testing Laboratory (ETL)

Independent testing laboratory that performs ballast tests and certifies accuracy of performance data.

Electrode

Any metal terminal emitting or collecting charged particles, typically inside the chamber of a gas discharge lamp. In a fluorescent lamp, the electrodes are typically metal filaments coated with special powders called emission mix. Negatively charged free electrons emitted by one electrode are attracted to the positive electrode (anode), creating an electric current and arc between electrodes.

Electrodeless Lamps

Light sources where the discharge occurs in a chamber with no electrodes (no metal). The energy for the discharge is supplied by radio frequency excitation, e.g. microwaves (See GENURA).

Electromagnetic Ballast

(See MAGNETIC BALLASTS).

Electromagnetic Interference (EMI)

High frequency electronic ballasts and other electronic devices can produce a small amount of radio waves which can interfere with radio and TV. Federal mandated requirements must be met for EMI levels before an electronic device is considered FCC compliant (US). (FCC is the Federal Communications Commission).

Electromagnetic Spectrum

A continuum of electric and magnetic radiation that can be characterized by wavelength or frequency. Visible light encompasses a small part of the electromagnetic spectrum in the region from about 380 nanometers (violet) to 770 nanometers (red) by wavelength.

Electronic Ballast

A short name for a fluorescent high frequency electronic ballast. Electronic ballasts use solid state electronic components and typically operate fluorescent lamps at frequencies in the range of 25-35 kHz. The benefits are: increased lamp efficacy, reduced ballast losses and lighter, smaller ballasts compared to electromagnetic ballasts. Electronic ballasts may also be used with HID (high intensity discharge) lamps (See ELECTROMAGNETIC BALLAST).

Electronic HID Ballast

An electronic ballast capable of operating an HID lamp. GE's UltraMax® (electronic HID ballast) operates PulseArc® (metal halide) and CMH (ceramic metal halide) lamps between 250W and 400W and provides higher efficiency and significantly improved lumen maintenance over magnetic ballasts.

Elliptical Reflector (ER) Lamp

An incandescent lamp with a built-in elliptically-shaped reflecting surface. This shape produces a focal point directly in front of the lamp which reduces the light absorption in some types of luminaires. It is particularly effective at increasing the efficacy of baffled downlights.

Enclosed Fixtures

(See OPEN FIXTURE RATED)

Energy Policy Act (EPACT)

Comprehensive energy legislation passed by the U. S. Congress in 1992. The lighting portion includes lamp labeling and minimum energy efficacy (lumens/watt) requirements for many commonly used incandescent and fluorescent lamp types. Federal Canadian legislation sets similar minimum energy efficacy requirements for incandescent reflector lamps and common linear fluorescent lamps.

Energy Policy Act (EPACT) Indicator

Means this lamp is Federally regulated for Energy Efficiency (US) (See ENERGY POLICY ACT).

EoL (End-of-Life Protection)

A circuit that senses that a lamp has reached end of life (compact fluorescent lamps and small diameter linear fluorescent lamps) and turns off power to the lamp. Continuing to power the lamp beyond end of life can result in overheating of the lamp ends.

Energy-Using Products (EuP)

The EuP Directive establishes a framework for the setting of eco-design requirements for energy-using products. It aims to improve the environmental performance of products throughout the life-cycle, by systematic integration of environmental aspects at a very early stage in the product design.

Eye Sensitivity

A curve depicting the sensitivity of the human eye as a function of wavelength (or colour). The peak of human eye sensitivity is in the yellow-green region of the spectrum. The normal curve refers to photopic vision or the response of the cones. (See Photopic, Scotopic, Fovea, Foveal vision)

Glossary

F

Federal Communications Commission (FCC)

The U. S. Federal agency that regulates emissions in the radio frequency portion of the electromagnetic spectrum. Part 18 of the FCC rules specifies electromagnetic interference (EMI) from lighting devices operating at frequencies greater than 9 kilohertz (kHz). Typical electronically-ballasted compact fluorescent lamps operate in the 24 - 100 kHz frequency range.

Field Angle

The angular dimension of the cone of light from reflectorized lamps (such as R and PAR types) encompassing the central part of the beam out to the angle where the intensity is 10% of maximum (See BEAM ANGLE).

Filament Design

Filaments are designated by a letter combination in which C is a coiled wire filament, CC is a coiled wire that is itself wound into a larger coil, and SR is a straight ribbon filament. Numbers represent the type of filament-support arrangement.

Fixture Requirements

Describes fixture requirements for HID lamps.

O = Open or Enclosed Fixtures

E = Enclosed Fixtures Only

S = Lamps operated in a vertical position (Base Up or Down) $\pm 15^\circ$, can be used in an open fixture. Lamps burned in any other orientation must be used in "enclosed fixtures only".

Flicker

The periodic variation in light level caused by AC operation that can lead to strobe effects.

Flood

Used to refer to the beam pattern of a reflector lamp, which disperses the light over a wide beam angle, typically 20 degrees or more. ("Flood" as opposed to "Spot")

Floodlight

A luminaire used to light a scene or object to a level much brighter than its surroundings. Usually floodlights can be aimed at the object or area of interest.

Fluorescence

A physical phenomenon whereby an atom of a material absorbs a photon of light and immediately emits a photon of longer wavelength. If there is a significant delay the phenomenon is called phosphorescence rather than fluorescence. It is interesting that "phosphors" used in lamps exhibit "fluorescence," not "phosphorescence." (See PHOSPHOR).

Fluorescent HO

Fluorescent HO and VHO lamps require special ballasts that generate higher currents than standard ballasts and operate the lamps at higher wattage than standard lamps. These lamps are generally less efficient than the standard product. Metal Halide HO and XHO lamps operate on the same ballasts as standard lamps and at the same wattage but are more efficient and produce higher light output than standard lamps.

Fluorescent Lamp

A high efficiency lamp utilizing an electric discharge through low pressure mercury vapour to produce ultraviolet (UV) energy. The UV excites phosphor materials applied as a thin layer on the inside of a glass tube which makes up the structure of the lamp. The phosphors transform the UV to visible light.

Footcandle (fc)

A unit of illuminance or light falling onto a surface. It stands for the light level on a surface one foot from a standard candle. One footcandle is equal to one lumen per square foot. See also Lux.

Footcandle Meter

(See ILLUMINANCE METER).

Footlambert

An obsolete term referring to a luminance of 1/7 candela per square foot.

Forward Current

Current through an LED in the direction of its greatest conduction.

Forward Voltage (VF)

The voltage across an LED for a given forward current.

Four-Pin Compact Fluorescent Lamps

A "plug-in" compact fluorescent lamp with 4 pins in the base to make electrical contact with the ballast. Four-pin lamps can be dimmed on appropriate dimming ballasts while two-pin lamps cannot.

Frequency

Rate of alternation in an AC current. Expressed in cycles per second or Hertz (Hz).

Fovea, Foveal Vision

A small region of the retina corresponding to what an observer is looking straight at. This region is populated almost entirely with cones, while the peripheral region has increasing numbers of rods. Cones have a sensitivity peaking in the yellow and corresponding to the eye response curve (See PHOTOPIC, SCOTOPIC, EYE SENSITIVITY).

Full Spectrum Lighting

A marketing term, typically associated with light sources that are similar to some forms of natural daylight (5000K and above, 90+ CRI), but sometimes more broadly used for lamps that have a smooth and continuous colour spectrum.

G

Genura™

GE's electrodeless compact fluorescent lamp, Genura™, uses induction to power the discharge. The chamber generates UV (just like a discharge in a regular fluorescent lamp) that is converted by phosphors to visible light. Because Genura™ uses no electrodes, the life of this unique reflector lamp is longer than typical compact fluorescent products (see INDUCTION LIGHTING).

Glare

Visual discomfort caused by excessive brightness is called discomfort glare. If task performance is affected it is called disability glare. Glare can be direct glare or indirect (reflected) glare (See VEILING REFLECTIONS and VISUAL COMFORT PROBABILITY).

Group Relamping

The practice of replacing all the lamps at an installation at one time with new lamps when the lamps have operated for (typically) 65% to 70% of rated life. The two benefits of group relamping are: (1) reduced maintenance costs because of the expense and inconvenience of replacing failing lamps one at a time, and (2) improved appearance and performance since older lamps are often degrading in brightness and colour as they age.

H

Halogen Lamp

A halogen lamp is an incandescent lamp with a filament that is surrounded by halogen gases, such as iodine or bromine. Halogen gases allow the filaments to be operated at higher temperatures and higher efficacies. The halogen participates in a tungsten transport cycle, returning tungsten to the filament and prolonging lamp life.

Halogen-IR (HIR™) Lamp

GE designation for high-efficiency tungsten halogen lamps. HIR lamps utilize shaped filament tubes coated with numerous layers of materials that transmit light but reflect the heat (infrared) back into the filament. This reduces the power needed to keep the filament hot.

High-Efficiency (Energy Saving) Electromagnetic Ballast

Ballast with core & coils, designed to minimize ballast losses compared to the "standard" ballast.

High-Bay Lighting

Lighting designed for (typically) industrial locations with a ceiling height of 25 feet and above.

High Intensity Discharge (HID) Lamp

A general term for mercury, metal halide and high-pressure sodium lamps. HID lamps contain compact arc tubes which enclose various gases and metal salts operating at relatively high pressures and temperatures.

High Output/Very High Output (HO, VHO) Lamps

Designation for lamps generating more light than standard lamps.

High Power Factor

A ballast or lamp with integral electronics whose power factor is corrected to 90% or greater.

High-Pressure Sodium (HPS) Lamp

HPS lamps are high intensity discharge light sources that produce light by an electrical discharge through sodium vapor operating at relatively high pressures and temperatures. GE markets these lamps under the trade name of Lucalox™.

Hot Restart Time

Time it takes for a High Intensity Discharge lamp to reach 90% of light output after going from on to off to on.

I-Line

A GE designation for a family of metal halide lamps which will operate on a mercury ballast. Designed as a simple retrofit for mercury lamp.

Ignitor

An electronic device providing a high voltage pulse to initiate an electrical discharge. Typically, the ignitor is paired with or is a part of the ballast (See STARTER).

Illuminance

The "density" of light (lumens/area) incident on a surface; i.e. the light level on a surface. Illuminance is measured in footcandles or lux.

Illuminance Meter

A device that measures the illuminance at a location calibrated either in footcandles or in lux. (Also know as a light meter - See COSINE CORRECTED).

Incandescent Lamp

A light source that generates light utilizing a thin filament wire (usually of tungsten) heated to white heat by an electric current passing through it.

Indirect Lighting

The method of lighting a space by directing the light from luminaires upwards towards the ceiling. The light scattered off the ceiling produces a soft, diffuse illumination for the entire area.

Induction Lighting

Gases can be excited directly by radio-frequency or microwaves from a coil that creates induced electromagnetic fields. This is called induction lighting and it differs from a conventional discharge, which uses electrodes to carry current into the arc. Induction lamps have no electrodes inside the chamber and generally, therefore, have longer life than standard lamps.

Infrared Radiation

Electromagnetic energy radiated in the wavelength range of about 770 to 1,000,000 nanometers. Energy in this range cannot be seen by the human eye, but can be sensed as heat by the skin.

Input Voltage

Power supply voltage required for proper operation of fluorescent or HID ballast.

Input Watts

The total power input to the ballast that includes lamp watts and ballast losses. The total power input to the fixture is the input watts to the ballast or ballasts and is the value to be used when calculating cost of energy and air conditioning loads. More than 90% of the input watts is wattage or power delivered to the lamp load with typical ballast.

Instant Start

A type of ballast designed to start fluorescent lamps as soon as the power is applied. Most T8 fluorescent lamps are being operated on electronic instant-start ballasts. Slimline fluorescent lamps operate only on instant-start circuits.

Instant-Start Lamp

A fluorescent lamp, usually with a single pin at each end, approved to operate on instant-start ballasts. The lamp is ignited by a high voltage without any filament heating.

Integral

A popular term for a lamp which includes a built-in ballast (CFL or HID), driver (LED) or transformer (halogen).

Intensity Bin

LEDs are often sorted according to their luminous intensity values into different groupings or "bins".

Inverse Square Law

Formula stating that if you double the distance from the light source, the light level goes down by a factor of 4, if you triple the distance, it goes down by a factor of 9, and so on.

Isocandela Plot

A plot with lines connecting points of equal luminous intensity around a source.

Isolux Plot (or Isofootcandle Plot)

A line plotted to show points of equal illuminance (lux or footcandles) on a surface illuminated by a source or sources.

K

Kelvin

A unit of temperature starting from absolute zero, parallel to the Celsius (or Centigrade) scale. 0C is 273K.

Kilowatt (kW)

The measure of electrical power equal to 1000 watts.

Kilowatt Hour (kWh)

The standard measure of electrical energy and the typical billing unit used by electrical utilities for electricity use. A 100-watt lamp operated for 10 hours consumes 1000 watt-hours (100 x 10) or one kilowatt-hour. If the utility charges \$.10/kWh, then the electricity cost for the 10 hours of operation would be 10 cents (1 x \$.10)

L

Laminations

Layers of steel, making up the "core" that is surrounded by the coils in a core & coil ballast.

Glossary

Lamp

The term used to refer to the complete light source package, including the inner parts as well as the outer bulb or tube. "Lamp", of course, is also commonly used to refer to a type of small light fixture such as a table lamp.

Lamp Current Crest Factor

Ratio of peak lamp current to RMS or average lamp operating current.

Lamp Height

Referenced by IEC as Dimension C. Also referred to as "Base Face to Top of Lamp".

Lamp Types

Filament lamps: Incandescent, Halogen, Halogen-IR.

Discharge Lamps: Fluorescent, HID (High Intensity Discharge)

HID Lamps: Mercury, HPS (High Pressure Sodium), MH (Metal Halide) and CMH (Ceramic Metal Halide)

LED Lamps

Lamp Width

Referenced by IEC as Dimension A.

Leadframe

A metallic frame used for mounting and connecting LED chips. The leadframe functions as the electrical leads of the device.

Lens

A transparent or semi-transparent element which controls the distribution of light by redirecting individual rays. Luminaires often have lenses in addition to reflectors.

Life

(See RATED LAMP LIFE).

Light

Radiant energy that can be sensed or seen by the human eye. Visible light is measured in lumens.

Light Center Length (L.C.L.)

The distance between the center of the filament, or arc tube, and a reference plane - usually the bottom of the lamp base. Refer to the following chart for reference plane locations.

Base type	L.C.L Reference Plane Location
All screw bases (except Mini-Can)	Bottom of base contact
Mini-Can	Where diameter of ceramic base insulator is .531 inches
3-Contact Medium	Bottom of base contact
Mogul Medium Prefocus	Top of base fins
Mogul Prefocus	Top of base fins
Medium BiPost	Base end of bulb (Glass lamps) Bottom of ceramic base (Quartz lamps)
Mogul BiPost	Shoulder of posts (Glass lamps) Bottom of ceramic base (Quartz lamps)
2-Pin Prefocus	Bottom of ceramic base
S.C. or D.C. Bayonet Candelabra	Top of base pins
Medium Bayonet	Top of base pins
S.C. or D.C. Prefocus	Plane of locating bases on prefocus collar
Medium 2-Pin	Bottom of metal base shell

Light Emitting Diode (LED)

A solid that directly converts electrical impulses into light. Most white light LEDs incorporate phosphors to change the colour characteristics of the emitted light.

Lighting Industry Federation (LIF) Code

For Stage & Studio lamps, these are assigned by the Lighting Federation of London U.K. They ensure electrical and mechanical interchangeability of similarly coded lamps. LIF codes are divided into groups according to the primary application of the lamps.

Light Loss Factor

The product of all factors that contribute to lowering the illumination level including reflector degradation, dirt, lamp depreciation over time, voltage fluctuations, etc.

Light Meter

(See ILLUMINANCE METER)

Light Pollution

Light that is directed to areas where it is not needed, and thereby interferes with some visual act. Light pollution directed or reflected into the sky creates a "dome" of wasted light and makes it difficult to see stars above cities.

Light Trespass (Spill Light)

Light that is not aimed properly or shielded effectively can spill out at into areas that don't want it: it can be directed towards drivers, pedestrians or neighbors. It is distracting and annoying and can sometimes be disabling.

Lualox™

The GE brand name for high-pressure sodium lamps.

Lumens

A measure of the luminous flux or quantity of light emitted by a source. For example, a dinner candle provides about 12 lumens. A 60-watt Soft White incandescent lamp provides about 840 lumens.

Lumen Depreciation, Lumen Maintenance

A measure of how well a lamp maintains its light output over time. It may be expressed numerically or as a graph of light output vs. time. The "mean lumens" of a lamp is the lumens at 40% of rated life (50% for HPS lamp).

Lumens Per Watt (LPW)

A ratio expressing the luminous efficacy of a lightsource.

Typical lamp efficacies:

Edison's first lamp	1.4 LPW
Incandescent lamps	10-20
Halogen lamps	15-30
Fluorescent lamps	35-105
Mercury lamps	50-60
Metal halide lamps	60-120
High-pressure sodium lamps	60-140

Note: The values above for discharge lamps do not include the effect of the ballasts, which must be used with those lamps. Taking ballast losses into account reduces "system" or lamp ballast efficacies typically by 10-20% depending upon the type of ballast used.

Luminaire

A complete lighting unit consisting of a lamp (or lamps), ballast (or ballasts) as required together with the parts designed to distribute the light, position and protect the lamps and connect them to the power supply. A luminaire is often referred to as a fixture.

Luminaire Efficiency

The ratio of total lumens emitted by a luminaire to those emitted by the lamp or lamps used in that luminaire. Also commonly referred to as 'Light Output Ratio' or LOR.

Luminance

A measure of "surface brightness" when an observer is looking in the direction of the surface. It is measured in candelas per square meter (or per square foot) and was formerly referred to as "photometric brightness."

Luminous Efficacy

The light output (lumens) of a light source divided by the total power input (watts) to that source. It is expressed in lumens per watt (see LUMENS PER WATT).

Luminous Intensity

A measure of the visibility of a light source generally expressed in candelas. It is defined as luminous flux per unit solid angle (steradian) in a given direction.

Lux (lx)

A unit of illuminance or light falling onto a surface. One lux is equal to one lumen per square meter. Ten lux approximately equals one footcandle. (See FOOTCANDLE)

M

Magnetic Ballast

A ballast used with discharge lamps that consists primarily of transformer-like copper or aluminum windings on a steel or iron core. Also called "Core & Coil" (see ELECTRONIC BALLASTS).

Maximum Overall Length (M.O.L.)

The end-to-end measurement of a lamp, expressed in inches or millimeters.

Mean Lumens

The average light output of a lamp over its rated life. Based on the shape of the lumen depreciation curve, for fluorescent and metal halide lamps, mean lumens are measured at 40% of rated lamp life. For mercury, high-pressure sodium and incandescent lamps, mean lumen ratings refer to lumens at 50% of rated lamp life (See LUMEN MAINTENANCE).

Medium Base

Usually refers to the screw base typically used in household incandescent lamps. There is also the medium bipin base commonly used in T12 and T8 fluorescent lamps.

Mercury Lamp

A high-intensity discharge light source operating at a relatively high pressure (about 1 atmosphere) and temperature in which most of the light is produced by radiation from excited mercury vapor. Phosphor coatings on some lamp types add additional light and improve colour rendering.

Metal Cases

Case design used in both magnetic and electronic ballasts. These ballasts are grounded once they are mounted to the fixture. They meet all safety codes, some of which do not allow plastic in open plenum areas.

Metal Halide Lamp

A high-intensity discharge light source in which the light is produced by the radiation from mercury, plus halides of metals such as sodium, scandium, indium and dysprosium. Some lamp types may also utilize phosphor coatings.

Mesopic

Typically referring to nighttime outdoor lighting conditions, the region between PHOTOPIC and SCOTOPIC vision (See SCOTOPIC).

Mogul Base

A screw base used on larger lamps, e.g. many HID lamps.

Monochromatic Light

Light with only one wavelength (i.e. colour) present.

Mortality Curve

Lamps have a rated or expected life but individual failures occur earlier and some lamps will last longer. The mortality curve depicts the expected percent surviving in a group of lamps at various points between zero hours and rated life or beyond. The curve starts with 100% at zero hours and goes to 50% surviving at the rated life (e.g. 3000 hours or 20,000 hours, etc.) However, the shape of the curve between these two end points can vary depending on the lamp type.

Mounting Height

Distance from the bottom of the fixture to either the floor or work plane, depending on usage.

Multi-Vapor™

A GE brand name for metal halide lamps.

N

Nanometer

A unit of wavelength equal to one billionth of a meter.

National Energy Standards for Fluorescent Ballasts

A federal law enacted in 1988 that sets energy standards for ballasts consistent throughout the United States.

National Electric Code (NEC)

A nationally accepted electrical installation code to reduce the risk of fire, developed by the National Fire Protection Association (US).

National Stock Number

The standardized part number used by the US Government for procurement.

Non-PCB Capacitor

Capacitor used in ballasts to help provide power factor correction. Contains no polychlorinated biphenyls and meets EPA requirements.

Normal Power Factor

Ballasts with power factor less than .90 and do not incorporate any means of Power Factor Correction.

O

Open Circuit Voltage (OCV)

Open Circuit Voltage measured across the socket the lamp screws into, with the ballast powered on. It is dangerous to stick a voltmeter into such a socket without precise knowledge of the ballast because exceedingly high voltages could be present.

Open Fixture Rated

Lamps that are approved for burning in open fixtures (as opposed to enclosed fixtures which have an acrylic lens or plate glass enclosure).

Operating Position or Burn Position

Mercury and High Pressure Sodium lamps may be operated in any burn position and will still maintain their rated performance specifications. Metal Halide and Low Pressure Sodium lamps, however, are optimized for performance in specific burn positions, or may be restricted to certain burn positions for safety reasons.

U = Universal burning position

HBU = Horizontal -15° to Base Up

HBD = Horizontal +15° to Base Down

HOR = Horizontal ±15°

H45 = Horizontal to -45° only

VBU = Vertical Base Up ±15°

VBD = Vertical Base Down ±15°

If no special burn position is noted, the burn position is universal.

Operating Voltage

For electrical discharge lamps, this is the voltage measured across the discharge when the lamp is operating. It is governed by the contents of the chamber and is somewhat independent of the ballast and other external factors.

Glossary

P

PAR Lamp

PAR is an acronym for parabolic aluminized reflector. A PAR lamp, which may utilize either an incandescent filament, a halogen filament tube or a HID arc tube, is a precision pressed-glass reflector lamp. PAR lamps rely on both the internal reflector and prisms in the lens for control of the light beam.

Parallel Lamp Operation/Parallel Wiring

Refers to ballasts that employ multiple output current paths from a single ballast to allow lamps to operate independent of one another, allowing other lamps operated by the ballast to remain lit should companion lamp(s) fail (see SERIES LAMP OPERATION).

PCB (Polychlorinated Biphenyls)

Chemical pollutant formerly used in ballast capacitors that were part of ballasts. It is now illegal to use PCBs and most such ballasts have been replaced over time.

Peak Wavelength

The maximum wavelength of an LED.

Phosphor

An inorganic chemical compound processed into a powder and deposited on the inner glass surface of fluorescent tubes and some mercury and metal-halide lamp bulbs. Phosphors are designed to absorb short wavelength ultraviolet radiation and to transform and emit it as visible light (See FLUORESCENCE). Phosphors are also used in LED devices to create white light when used in combination with LEDs of certain wavelengths.

Photometry

The measurement of light and related quantities.

Photopic

Vision for which the cones in the eye are responsible; typically at high brightness and in the foveal or central region (See SCOTOPIC, FOVEA, FOVEAL VISION).

Plug-In

(See CFL).

Potting

Material used to completely surround and cover components of some magnetic and electronic ballasts. Potting compound fulfills functions of protecting components, dampening sound, and dissipating heat.

Power Factor (PF)

A measure of the phase difference between voltage and current drawn by an electrical device, such as a ballast or motor. Power factors can range from 0 to 1.0, with 1.0 being ideal. Power factor is sometimes expressed as a percent. Incandescent lamps have power factors close to 1.0 because they are simple "resistive" loads. The power factor of a fluorescent and HID lamp system is determined by the ballast used. "High" power factor usually means a rating of 0.9 or greater. Power companies may penalize users for using low power factor devices.

Power Factor Corrected

Ballasts that incorporate a means of Power Factor Correction yielding power factor of 90% or greater.

Precise™

The GE trade name for the compact MR-16 and MR-11 low-voltage halogen dichroic cool beam reflectorized spot and flood lamps.

Preheat Circuit

A type of fluorescent lamp-ballast circuit used with the first commercial fluorescent lamp products. A push button or automatic switch is used to preheat the lamp cathodes to a glow state. Starting the lamp can then be accomplished using simple "choke" or reactor ballasts.

Product Code

It is important to use this five-digit code when ordering to ensure that you receive the exact product you require.

Programmed Rapid Start

Lamp starting method which preheats the lamp filaments while not allowing the lamp to ignite and then applies the open circuit voltage (OCV) to start the lamp. The user may experience a half- to one-second delay after turning on the lamps while the preheating takes place. This type of starting circuit keeps lamp end blackening to a minimum and improves lamp life performance, especially in applications where the lamps are frequently switched on and off.

Pulse Start

An HID ballast with a high voltage ignitor to start the lamp.

Q

Quad

Generally refers to a compact fluorescent lamp containing 4 U-shaped tubes.

Quartz

A name for fused silica or melted sand from which many high-temperature containers are fashioned in the lighting industry. Quartz looks like glass but can withstand the high temperatures needed to contain high intensity arc discharges.

Quartz-Halogen Lamp

(See HALOGEN LAMPS).

Quartzline®

A GE registered trademark term for some types of halogen lamps.

R

Radiation

A general term for the release of energy in a "wave" or "ray" form. All light is radiant energy or radiation, as is heat, UV, microwaves, radio waves, etc.

Rapid Start

Lamp starting method in which lamp filaments are heated while open circuit voltage (OCV) is applied to facilitate lamp ignition. A Rapid Start fluorescent lamp has two pins at each end connected to the filament. Some rapid start lamps may be instant-started without filament heat, for example, the F32T8 lamp.

Rapid Start Circuit

A fluorescent lamp-ballast circuit that utilizes continuous cathode heating, while the system is energized, to start and maintain lamp light output at efficient levels. Rapid start ballasts may be either electromagnetic, electronic or of hybrid designs. Full-range fluorescent lamp dimming is only possible with rapid start systems (See INSTANT START).

Rated Lamp Life

For most lamp types, rated lamp life is the length of time of a statistically large sample between first use and the point when 50% of the lamps have died. It is possible to define "useful life" of a lamp based on practical considerations involving lumen depreciation and colour shift and also on the need to reduce lamp replacement costs (See GROUP RELAMPING).

For GE LED products, rated life is quoted (unless where indicated otherwise), as the 'L70' value. This refers to the time taken to reach 70% of initial lumen output. This is the emerging industry standard for LED products.

Reflectance

The ratio of light reflected from a surface to that incident upon it.

Reflector Lamp (R)

A light source with a built-in reflecting surface. Sometimes, the term is used to refer specifically to blown bulbs like the R and ER lamps; at other times, it includes all reflectorized lamps like PAR and MR. Most LED lamps are also replacements for reflector lamps, even if they do not physically have a reflector as part of their construction.

Reverse Voltage (VR)

Voltage across the diode for a given reverse current.

RoHS (Restriction of Hazardous Substances)

The Restriction of Hazardous Substances (RoHS) Directive aims to minimise the environmental impact of waste electrical and electronic equipment by reducing the quantities of four heavy metals and two brominated flame retardants that it may contain.

Room Cavity Ratio (RCR)

A shape factor (for a room, etc.) used in lighting calculations.

$RCR = 5H (L+W) / L \times W$, or, alternately,

$RCR = (2.5) \text{ Total Wall Area} / \text{Floor Area}$.

Where H = height, L = length and W = width of the room. A cubical room will have an RCR of 10; the flatter the room the lower the RCR.

S

State and County Code (SCC)

The full 14 digit case code used on GE's content label.

Scotopic

Vision where the rods of the retina are exclusively responsible for seeing, typically like the light levels in the countryside on a moonless, starlit night (See also PHOTOPIC, FOVEA, FOVEAL VISION MESOPIC).

Scotopic/Photopic (S/P) Ratio

This measurement accounts for the fact that of the two light sensors in the retina, rods are more sensitive to blue light (scotopic vision) and cones to yellow light (photopic vision). The

scotopic/photopic (S/P) ratio is an attempt to capture the relative strengths of these two responses. S/P is calculated as the ration of scotopic lumens to photopic lumens for the light source on an ANSI reference ballast. Cooler sources (higher colour temperatures lamps) tend to have higher values of the S/P ratio compared to warm sources.

Screw-In

(See CFL).

Seal Temperature (Maximum)

The maximum operating temperature of the seal of the lamp in Celsius.

Self-Ballasted Lamps

A lamp with an integral ballasting device allowing the lamp to be directly connected to a socket providing line voltage (See CFL).

Series Lamp Operation

Refers to ballasts that employ a single current path passing through all lamps operated by the ballast. If one lamp should fail, companion lamps operated by the same ballasts will also extinguish or dim.

Source Size

For Projection lamps, this is defined as the dimensions of the rectangular area, centered on the lamp axis, within which all luminous parts of the filament lie, when viewed perpendicular to the axis of the filament coil or to the plane of C-13 and C-13D filaments.

Spacing to Mounting Height Ratio

Ratio of fixture spacing (distance apart) to mounting height above the work plane; sometimes called spacing criterion. It is OK to have fixture spaced closer than the spacing criterion suggested by the manufacturer but not farther, or you will get dark spots in-between fixtures.

Specification Series (SP) Colours

Energy-efficient, all-purpose, tri-phosphor fluorescent lamp colours that provide good colour rendering. The CRI for SP colours is 70 or above and varies by specific lamp type.

Specification Series Deluxe (SPX) Colours

Energy-efficient, all-purpose, tri-phosphor fluorescent lamp colours that provide better colour rendering than Specification Series (SP) colours. The CRI for SPX colours is 80 or above and varies by specific lamp type. All GE CFL products use SPX phosphors.

Specification Series Deluxe eXtreme (SPXX) Colours

A colour designation for GE ceramic metal halide lamps with superior colour rendering ~ 90.

Spectral Power Distribution (SPD)

A graph of the radiant power emitted by a light source as a function of wavelength. SPDs provide a visual profile or "finger print" of the colour characteristics of the source throughout the visible part of the spectrum.

Spectrum

See SPECTRAL POWER DISTRIBUTION (SPD).

Specular Reflection

Reflection from a smooth, shiny surface, as opposed to diffuse reflection.

Spiral™ Lamp

GE trademark for its helical family of high efficiency, long-life compact fluorescent lamps.

Spot

A colloquial term referring to a reflector lamp with a tight beam of light, typically around 10 degrees or less. It comes from the fact that such a lamp produces a narrow spot of light as opposed to a wide flood of light.

SPXX

A Colour Designation for GE Ceramic Metal Halide Lamps with superior Colour Rendering ~ 90.

Starcoat™

GE's special barrier coating applied on the inside of all GE T8 fluorescent lamps, as well as some other lamp types, to enhance lamp life and deliver superior lumen maintenance.

Starter

An electronic module or device used to assist in starting a discharge lamp, typically by providing a high-voltage surge (See IGNITOR).

Starting Temperature (Minimum)

The minimum ambient temperature at which the lamp will start reliably.

Sunburn

Skin reddening and inflammation caused by overexposure to sources containing UV-B and/or UV-C.

System

A term referring to the lamp and ballast combination, and sometimes to the entire lighting delivery system including the fixture, the optics, the thermal management system, the particular layout and the lighting controls.

Glossary

T

T12, T8, T5

A designation for the diameter of a tubular bulb in eighths of an inch; T12 is 12 eighths of an inch, or 1-1/2 inches; T8 is 1 inch, and so on.

Task Lighting

Supplemental lighting provided to assist in performing a localized task, e.g. a table lamp for reading or an inspection lamp for fabric inspection.

Terminal-to-Terminal Starting Lamp Voltage (VRMS) (Minimum or Maximum)

The minimum or maximum voltage allowed into lamp from ballast under varying conditions as specified.

Total Harmonic Distortion (THD)

A measure of the distortion caused by ballasts and other inductive loads of the input current on alternating current (AC) power systems caused by higher order harmonics of the fundamental frequency (60Hz in North America). THD is expressed in percent and may refer to individual electrical loads (such as ballast) or a total electrical circuit or system in a building. ANSI C82.77 recommends THD not exceed 32% for individual commercial electronic ballasts, although some electrical utilities may require lower THDs on some systems. Excessive THDs on electrical systems can cause efficiency losses as well as overheating and deterioration of system components.

Transients

High voltage surges through an electrical system caused by lightning strikes to nearby transformers, overhead lines or the ground. May also be caused by switching of motors or compressors, as well as by short circuits or utility system switching. Can lead to premature ballast failure (see TVSS).

Troffer

A long, recessed lighting unit, usually installed in an opening in the ceiling.

Tungsten-Halogen Lamp

(See HALOGEN LAMP).

TVSS

Transient Voltage Surge Suppressors, which will protect ballasts and other electronic equipment from transient high-voltage spikes that may be present in the power line.

Two-Pin Compact Fluorescent Lamps

Type of lamps that have the glow bottle starter built into the base of the lamp. Traditionally 2-pin lamps are designed to work with electromagnetic ballasts (see FOUR-PIN COMPACT FLUORESCENT LAMPS).

U

Uniform Code Council (UCC)

The 12 digit case code derived from the last 12 digits of the 14 digit SCC code on GE's case content label.

Uniform Product Code (UPC)

The 12 digit code on the saleable unit that is used for scanning at the register.

Ultra

A common way of referring to high-efficiency.

Ultraviolet (UV) Radiation

For practical purposes, any radiant energy within the range of 100–380 nanometers. It is beyond the blue or violet region of the spectrum, and is invisible to the eye just like the silent "ultrasound" dog whistle is inaudible to the ear.

UV is divided into 3 regions:

UVA	100 to 280 nm
UVB	280 to 315 nm
UVC	315 to 400 nm

Some wavelengths (180–220) produce ozone, some (220–300) are bactericidal, some (280–320) erythral (redden human skin); others (320–400) cause secondary luminance (black light).

V

Valance Lighting

Lighting from light sources on a wall typically above eye level, shielded by horizontal panels. The light may be upward or downward directed.

Veiling Reflection

Effective reduction in contrast between task and its background caused by the reflection of light rays; sometimes called "reflected glare". You might have dealt with veiling reflections when you have to tilt a shiny magazine to avoid glare so as to read it, or struggled with reading a computer monitor because of the reflection of a window or a light fixture (See GLARE).

Vio™

GE's unique LED platform that provides best in class quality and stability of light from LED's, due to its unique use of violet chips combined with proprietary phosphors.

Visual Comfort Probability (VCP)

For a given lighting scheme, VCP is a ratio expressed as a percent of people who, when viewing from a specific location and in a specified direction, find the system acceptable in terms of glare (See GLARE).

Visual Task

The task associated with seeing; objects and details that must be seen to perform an activity.

Volt

A measure of "electrical pressure" between two points. The higher the voltage, the more current will be pushed through a resistor connected across the points. The volt specification of an incandescent lamp is the electrical "pressure" required to drive it at its designed point. The "voltage" of a ballast (e.g. 277 V) refers to the line voltage it must be connected to.

Voltage

A measurement of the electromotive force in an electrical circuit or device expressed in volts. Voltage can be thought of as being analogous to the pressure in a waterline.

Voltage (Design)

For Automotive lamps, voltage at which the lamp is designed to provide the amperes, candlepower, and laboratory life characteristics. For Projection lamps, the voltage shown is the design voltage of the lamp, on which the life and wattage ratings are based. Lamps for which 115-120 is shown in the Volts column are designed at 118 volts. Lamps are available only in the design voltage(s) shown. When ordering lamps listed for more than one voltage, be sure to specify the voltage required. (Supply voltage variation can significantly affect lamp life.)

Voltage Surge

Transient spikes in line voltage that can be harmful to electronic equipment like computers and electronic ballasts. Surge suppressors are often used to protect against such transients.

W

Wall Temperature (Maximum Bulb)

The maximum operating bulb wall temperature in Celsius.

Warm-Up Time

HID lamps typically take a few minutes to warm up to full brightness after starting.

Warm Up Time to 90%

The time it takes for a High Intensity Discharge lamp to reach 90% of light output after being turned on.

Warm White

Refers to a colour temperature around 3000K, providing a yellowish-white light.

Watt

A unit of electrical power. Lamps are rated in watts to indicate the rate at which they consume energy (See KILOWATT HOUR).

Wattage Indicator Reduced

Indicates that this is a reduced wattage option for lamps normally used in this application. Be sure to check wattage, lumens and life to determine which lamp is best suited to your needs.

Watt-Miser™

A Watt-Miser™ lamp is a term used by GE to indicate a reduced-wattage lamp with performance characteristics (life, light output, etc.) such that it can usually directly replace a higher-wattage product. Watt-Miser™ lamps are available in a wide range of incandescent and fluorescent lamp types.

Wavelength

The distance between two neighboring crests of a traveling wave. The wavelength of light is between 400 and 700 nanometers.

WEEE (Waste Electrical and Electronic Equipment)

The Waste Electrical and Electronic Equipment Directive (WEEE Directive) aims to minimise the impact of electrical and electronic goods on the environment, by increasing re-use and recycling and reducing the amount of WEEE going to landfill. It seeks to achieve this by making producers responsible for financing the collection, treatment, and recovery of waste electrical equipment, and by obliging distributors to allow consumers to return their waste equipment free of charge.

Work Plane

Plane at which work is done and at which illumination is specified and measured; unless otherwise indicated, it is assumed to be a horizontal plane 30 inches above the floor (table-top height) having the same area as the floor.

Working Distance (Typical)

The Working Distance shown is the distance from the front surface of the reflector rim to the film plane, in the optical system for which the lamp was first designed. In most cases, it provides a uniform plane of light for the intended aperture.

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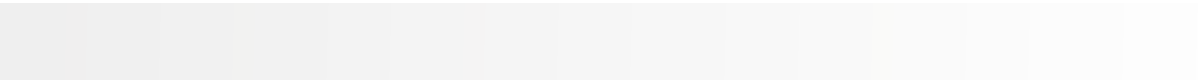
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