

**LongLast™**

# Biax™ D and D/E

Compact Fluorescent Lamps Non-Integrated  
10W, 13W, 18W and 26W

DATA SHEET

## Product information

Biax™ D & D/E LongLast™ lamps are available in 10, 13, 18 and 26 watt ratings, 10 and 13W in T3 tube size, 18 and 26W in T4 tube size and ranging from 101mm to 174mm in length. Five colours are available in two-pin and four-pin caps. A high colour rendering index (CRI) of 82 gives rich, vibrant colour. The lamps are available in warm and cool colour temperatures suitable for a wide variety of environments.



## Features

- Up to 80% energy saving versus normal incandescent lamps
- Lasts 10 times longer than standard incandescent lamps
- High colour rendering index – 82Ra
- Full range of colour temperatures — 2700, 3000, 3500, 4000 and 6500K
- 4-pin lamps for use with electronic gear may be used with dimmers

## Application Areas:



Hospitality



Retail



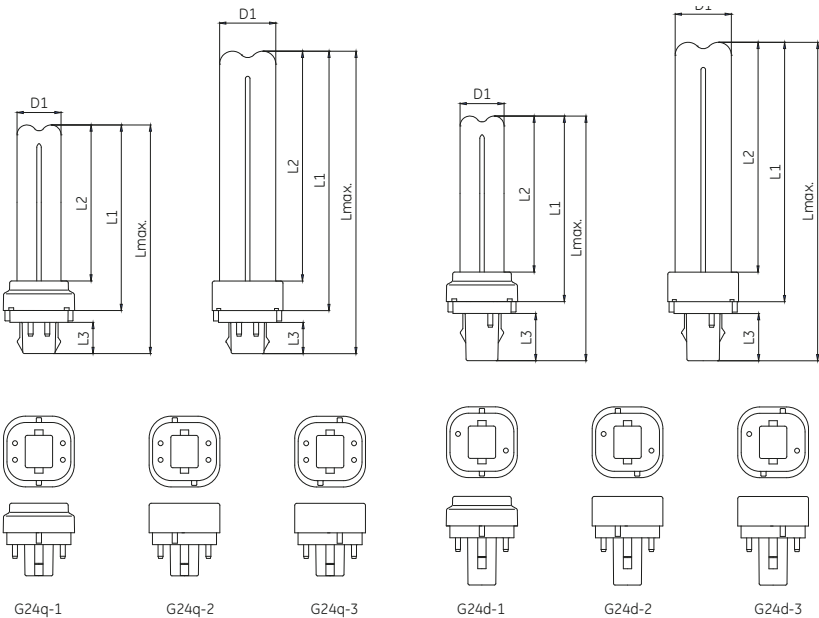
GE imagination at work

Basic data

| Nominal<br>Wattage<br>[W]                            | Rated<br>Wattage on<br>Standard<br>Gear<br>[W] | Energy<br>consumption<br>[kWh/1000h] | Voltson<br>Standard<br>Gear<br>[V] | Cap    | Product<br>Description | Product<br>Code | Nominal<br>Lumen<br>[lm] | Rated<br>Lumen<br>[lm] | Rated Lamp<br>Efficacy on<br>Standard<br>Gear<br>[lm/W] | CCT<br>[K] | CRI<br>[Ra] | Mercury<br>[mg] | Life on<br>Standard<br>Gear<br>3h-cycle<br>[h] | Diameter<br>[mm] | Length<br>[mm] | EEC | PackQty |
|------------------------------------------------------|------------------------------------------------|--------------------------------------|------------------------------------|--------|------------------------|-----------------|--------------------------|------------------------|---------------------------------------------------------|------------|-------------|-----------------|------------------------------------------------|------------------|----------------|-----|---------|
| Biax™ D 2-pin, Internal Starter                      |                                                |                                      |                                    |        |                        |                 |                          |                        |                                                         |            |             |                 |                                                |                  |                |     |         |
| 10                                                   | 10                                             | 12.7                                 | 64                                 | G24d-1 | F10DBX/T3/827/2P       | 78211           | 600                      | 600                    | 60                                                      | 2700       | 82          | 1.3             | 12,000                                         | 34,4             | 108            | B   | 10      |
| 10                                                   | 10                                             | 12.7                                 | 64                                 | G24d-1 | F10DBX/T3/830/2P       | 78212           | 600                      | 600                    | 60                                                      | 3000       | 82          | 1.3             | 12,000                                         | 34,4             | 108            | B   | 10      |
| 10                                                   | 10                                             | 12.7                                 | 64                                 | G24d-1 | F10DBX/T3/835/2P       | 78213           | 600                      | 600                    | 60                                                      | 3500       | 82          | 1.3             | 12,000                                         | 34,4             | 108            | B   | 10      |
| 10                                                   | 10                                             | 12.7                                 | 64                                 | G24d-1 | F10DBX/T3/840/2P       | 78214           | 600                      | 600                    | 60                                                      | 4000       | 82          | 1.3             | 12,000                                         | 34,4             | 108            | B   | 10      |
| 10                                                   | 10                                             | 12.7                                 | 64                                 | G24d-1 | F10DBX/T3/865/2P       | 78215           | 600                      | 600                    | 60                                                      | 6500       | 82          | 1.3             | 12,000                                         | 34,4             | 108            | B   | 10      |
| 13                                                   | 13                                             | 16.18                                | 91                                 | G24d-1 | F13DBX/T3/827/2P       | 78221           | 900                      | 900                    | 69                                                      | 2700       | 82          | 1.3             | 12,000                                         | 34,4             | 139            | A   | 10      |
| 13                                                   | 13                                             | 16.18                                | 91                                 | G24d-1 | F13DBX/T3/830/2P       | 78222           | 900                      | 900                    | 69                                                      | 3000       | 82          | 1.3             | 12,000                                         | 34,4             | 139            | A   | 10      |
| 13                                                   | 13                                             | 16.18                                | 91                                 | G24d-1 | F13DBX/T3/835/2P       | 78223           | 900                      | 900                    | 69                                                      | 3500       | 82          | 1.3             | 12,000                                         | 34,4             | 139            | A   | 10      |
| 13                                                   | 13                                             | 16.18                                | 91                                 | G24d-1 | F13DBX/T3/840/2P       | 78224           | 900                      | 900                    | 69                                                      | 4000       | 82          | 1.3             | 12,000                                         | 34,4             | 139            | A   | 10      |
| 13                                                   | 13                                             | 16.18                                | 91                                 | G24d-1 | F13DBX/T3/865/2P       | 78225           | 900                      | 900                    | 69                                                      | 6500       | 82          | 1.3             | 12,000                                         | 34,4             | 139            | A   | 10      |
| 18                                                   | 18                                             | 22.1                                 | 100                                | G24d-2 | F18DBXT4/SPX27/827     | 12860           | 1200                     | 1200                   | 67                                                      | 2700       | 82          | 1.3             | 12,000                                         | 34,4             | 154            | B   | 10      |
| 18                                                   | 18                                             | 22.1                                 | 100                                | G24d-2 | F18DBXT4/SPX30/830     | 12861           | 1200                     | 1200                   | 67                                                      | 3000       | 82          | 1.3             | 12,000                                         | 34,4             | 154            | B   | 10      |
| 18                                                   | 18                                             | 22.1                                 | 100                                | G24d-2 | F18DBXT4/SPX35/835     | 12863           | 1200                     | 1200                   | 67                                                      | 3500       | 82          | 1.3             | 12,000                                         | 34,4             | 154            | B   | 10      |
| 18                                                   | 18                                             | 22.1                                 | 100                                | G24d-2 | F18DBXT4/SPX41/840     | 12864           | 1200                     | 1200                   | 67                                                      | 4000       | 82          | 1.3             | 12,000                                         | 34,4             | 154            | B   | 10      |
| 18                                                   | 18                                             | 22.1                                 | 100                                | G24d-2 | F18DBXT4/SPX65/865     | 13017           | 1200                     | 1200                   | 67                                                      | 6500       | 82          | 1.3             | 12,000                                         | 34,4             | 154            | B   | 10      |
| 26                                                   | 26                                             | 31.35                                | 105                                | G24d-3 | F26DBXT4/SPX27/827     | 35250           | 1800                     | 1800                   | 69                                                      | 2700       | 82          | 1.3             | 12,000                                         | 34,4             | 169.5          | B   | 10      |
| 26                                                   | 26                                             | 31.35                                | 105                                | G24d-3 | F26DBXT4/SPX30/830     | 35237           | 1800                     | 1800                   | 69                                                      | 3000       | 82          | 1.3             | 12,000                                         | 34,4             | 169.5          | B   | 10      |
| 26                                                   | 26                                             | 31.35                                | 105                                | G24d-3 | F26DBXT4/SPX35/835     | 35251           | 1800                     | 1800                   | 69                                                      | 3500       | 82          | 1.3             | 12,000                                         | 34,4             | 169.5          | B   | 10      |
| 26                                                   | 26                                             | 31.35                                | 105                                | G24d-3 | F26DBXT4/SPX41/840     | 35252           | 1800                     | 1800                   | 69                                                      | 4000       | 82          | 1.3             | 12,000                                         | 34,4             | 169.5          | B   | 10      |
| 26                                                   | 26                                             | 31.42                                | 105                                | G24d-3 | F26DBXT4/SPX65/865     | 35305           | 1710                     | 1710                   | 66                                                      | 6500       | 82          | 1.3             | 12,000                                         | 34,4             | 169.5          | B   | 10      |
| Biax™ D/E LongLast™ 4-pin, External Starter Required |                                                |                                      |                                    |        |                        |                 |                          |                        |                                                         |            |             |                 |                                                |                  |                |     |         |
| 10                                                   | 10                                             | 10.45                                | 64                                 | G24q-1 | F10DBX/T3/827/4P       | 78217           | 600                      | 600                    | 60                                                      | 2700       | 82          | 1.3             | 12,000                                         | 34,4             | 100.5          | A   | 10      |
| 10                                                   | 10                                             | 10.45                                | 64                                 | G24q-1 | F10DBX/T3/830/4P       | 78218           | 600                      | 600                    | 60                                                      | 3000       | 82          | 1.3             | 12,000                                         | 34,4             | 100.5          | A   | 10      |
| 10                                                   | 10                                             | 10.45                                | 64                                 | G24q-1 | F10DBX/T3/835/4P       | 78219           | 600                      | 600                    | 60                                                      | 3500       | 82          | 1.3             | 12,000                                         | 34,4             | 100.5          | A   | 10      |
| 10                                                   | 10                                             | 10.45                                | 64                                 | G24q-1 | F10DBX/T3/840/4P       | 78220           | 600                      | 600                    | 60                                                      | 4000       | 82          | 1.3             | 12,000                                         | 34,4             | 100.5          | A   | 10      |
| 10                                                   | 10                                             | 10.45                                | 64                                 | G24q-1 | F10DBX/T3/865/4P       | 78231           | 600                      | 600                    | 60                                                      | 6500       | 82          | 1.3             | 12,000                                         | 34,4             | 100.5          | A   | 10      |
| 13                                                   | 13                                             | 13.75                                | 91                                 | G24q-1 | F13DBX/T3/827/4P       | 78226           | 900                      | 900                    | 69                                                      | 2700       | 82          | 1.3             | 12,000                                         | 34,4             | 131.5          | A   | 10      |
| 13                                                   | 13                                             | 13.75                                | 91                                 | G24q-1 | F13DBX/T3/830/4P       | 78227           | 900                      | 900                    | 69                                                      | 3000       | 82          | 1.3             | 12,000                                         | 34,4             | 131.5          | A   | 10      |
| 13                                                   | 13                                             | 13.75                                | 91                                 | G24q-1 | F13DBX/T3/835/4P       | 78228           | 900                      | 900                    | 69                                                      | 3500       | 82          | 1.3             | 12,000                                         | 34,4             | 131.5          | A   | 10      |
| 13                                                   | 13                                             | 13.75                                | 91                                 | G24q-1 | F13DBX/T3/840/4P       | 78229           | 900                      | 900                    | 69                                                      | 4000       | 82          | 1.3             | 12,000                                         | 34,4             | 131.5          | A   | 10      |
| 13                                                   | 13                                             | 13.75                                | 91                                 | G24q-1 | F13DBX/T3/865/4P       | 78232           | 900                      | 900                    | 69                                                      | 6500       | 82          | 1.3             | 12,000                                         | 34,4             | 131.5          | A   | 10      |
| 18                                                   | 18                                             | 18.15                                | 100                                | G24q-2 | F18DBX/SPX27/827/4P    | 12865           | 1200                     | 1200                   | 67                                                      | 2700       | 82          | 1.3             | 12,000                                         | 34,4             | 146.5          | A   | 10      |
| 18                                                   | 18                                             | 18.15                                | 100                                | G24q-2 | F18DBX/SPX30/830/4P    | 12866           | 1200                     | 1200                   | 67                                                      | 3000       | 82          | 1.3             | 12,000                                         | 34,4             | 146.5          | A   | 10      |
| 18                                                   | 18                                             | 18.15                                | 100                                | G24q-2 | F18DBX/SPX35/835/4P    | 12869           | 1200                     | 1200                   | 67                                                      | 3500       | 82          | 1.3             | 12,000                                         | 34,4             | 146.5          | A   | 10      |
| 18                                                   | 18                                             | 18.15                                | 100                                | G24q-2 | F18DBX/SPX41/840/4P    | 12870           | 1200                     | 1200                   | 67                                                      | 4000       | 82          | 1.3             | 12,000                                         | 34,4             | 146.5          | A   | 10      |
| 26                                                   | 26                                             | 26.4                                 | 105                                | G24q-3 | F26DBX/SPX27/827/4P    | 35247           | 1800                     | 1800                   | 69                                                      | 2700       | 82          | 1.3             | 12,000                                         | 34,4             | 162            | A   | 10      |
| 26                                                   | 26                                             | 26.4                                 | 105                                | G24q-3 | F26DBX/SPX30/830/4P    | 35235           | 1800                     | 1800                   | 69                                                      | 3000       | 82          | 1.3             | 12,000                                         | 34,4             | 162            | A   | 10      |
| 26                                                   | 26                                             | 26.4                                 | 105                                | G24q-3 | F26DBX/SPX35/835/4P    | 35248           | 1800                     | 1800                   | 69                                                      | 3500       | 82          | 1.3             | 12,000                                         | 34,4             | 162            | A   | 10      |
| 26                                                   | 26                                             | 26.4                                 | 105                                | G24q-3 | F26DBX/SPX41/840/4P    | 35236           | 1800                     | 1800                   | 69                                                      | 4000       | 82          | 1.3             | 12,000                                         | 34,4             | 162            | A   | 10      |
| 26                                                   | 26                                             | 26.4                                 | 105                                | G24q-3 | F26DBX/SPX65/865/4P    | 42798           | 1710                     | 1710                   | 66                                                      | 6500       | 82          | 1.3             | 12,000                                         | 34,4             | 162            | A   | 10      |

Biax™ D/E LongLast™ 4-pin average life with electronic gear on 12 hours per start is 20,000 hours

Dimensions



| Nominal<br>Wattage [W]    | L1<br>[mm] | L2<br>[mm] | L3<br>[mm] | Lmax<br>[mm] | D1<br>[mm] |
|---------------------------|------------|------------|------------|--------------|------------|
| Biax™ D 2-pin             |            |            |            |              |            |
| 10                        | 78.7       | 64.5       | 22.4       | 108          | 21.5       |
| 13                        | 109.7      | 95.5       | 22.4       | 139          | 21.5       |
| 18                        | 124.7      | 110.5      | 22.4       | 154          | 27         |
| 26                        | 140.2      | 126        | 22.4       | 169.5        | 27         |
| Biax™ D/E LongLast™ 4-pin |            |            |            |              |            |
| 10                        | 78.7       | 91.2       | 15         | 100.5        | 21.5       |
| 13                        | 109.7      | 95.5       | 15         | 131.5        | 21.5       |
| 18                        | 124.7      | 110.5      | 15         | 146.5        | 27         |
| 26                        | 140.2      | 126        | 15         | 162          | 27         |

## Lamp life

Rated average life for Biax™ D LongLast™ is 12,000 hours (switching cycle: 2hrs 45min ON/15min OFF, see Graph A) and D/E LongLast™ is 20,000 hours (switching cycle: 11hrs ON/1hrs OFF, see graph B).

Cathodes of a fluorescent lamp lose their electron-emissivity during life due to the evaporation of emission mixture. When the deterioration reaches a certain level, the cathode breaks. Typical lifetime characteristics are based on GE Lighting's measurements according to the relevant IEC standards. The declared lamp life is the median life, which is when 50% of the lamps from a large sample batch would have failed. Real lifetime figures may depend on actual application. For instance improper cathode preheat, too high operating current, or too low operating current without additional cathode heating reduces the expected life.

## Lumen maintenance

Lumen maintenance graph shows how the luminous output decreases throughout life. The main causes of the light depreciation are the deterioration of phosphor coating and the lamp blackening due to the deposition of evaporated emission mixture on the glass tube. These effects are unavoidable. Lumen maintenance curve presented here for Biax™ D and D/E LongLast™ lamps are based on lumen readings under laboratory conditions.

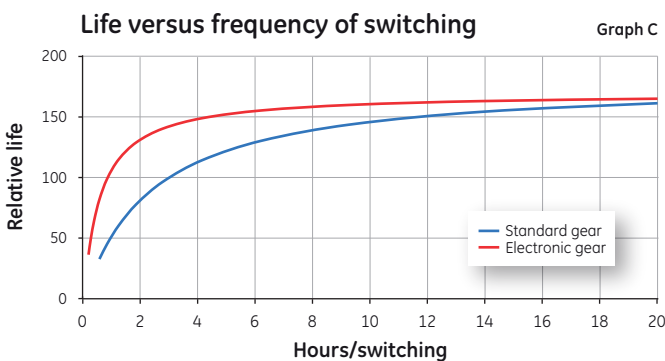
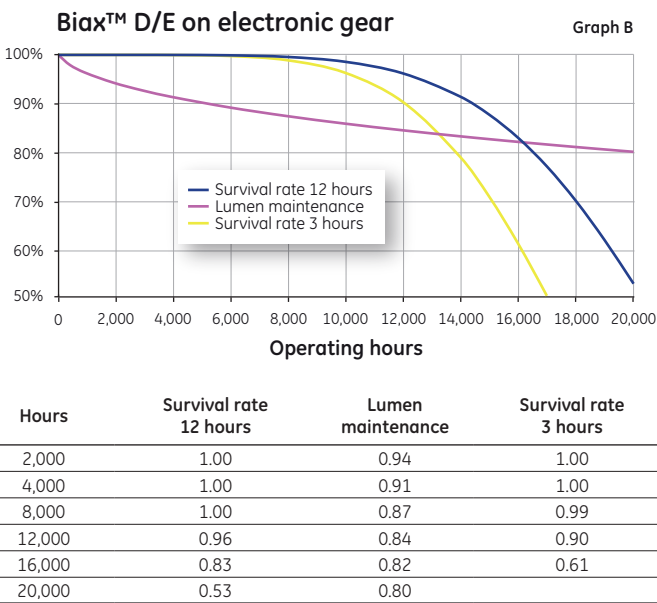
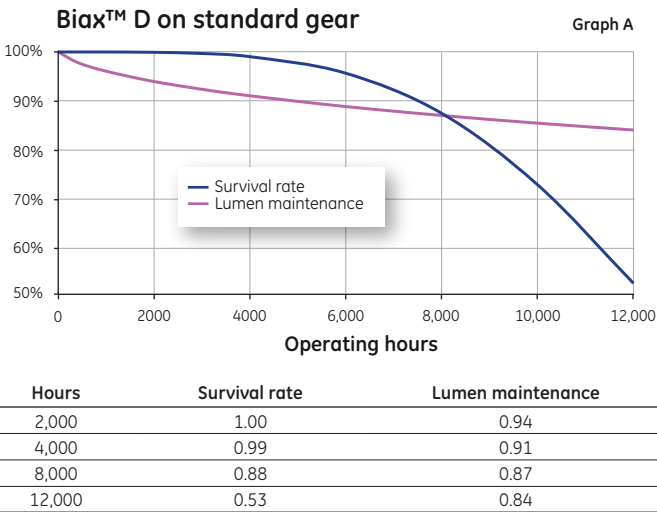
### Test conditions:

- Photometric sphere
- Vertical, cap up burning position
- Switching cycle: 11 hours On – 1 hour Off
- High frequency operation 25°C ambient temperature

See graph A and B.

## Life versus frequency of switching

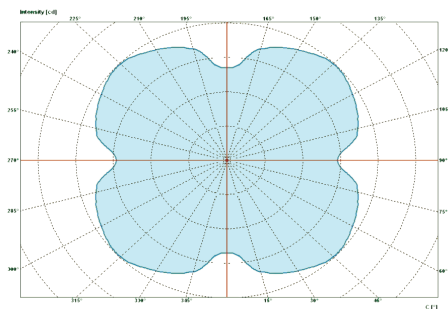
For impact on life of alternative switching cycles refer to the Graph C. For applications where a fast switching cycle is required it is possible to minimise the effect of switching on lamp life with the use of a suitable electronic gear with a 4-pin lamp.



## Luminous intensity distribution

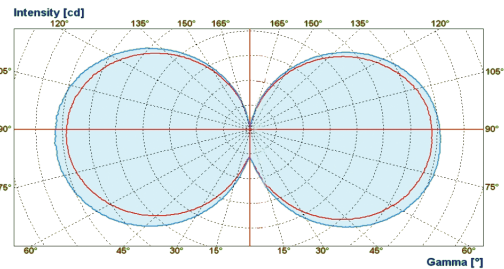
The luminous intensity distribution describes the quantity of light that is radiated in a particular direction. Graph D shows luminous intensity distribution curve of Biax™ D & D/E lamps. Tests were taken with lamps burning in vertical cap up position. The left plot of Graph D shows horizontal while the right plot shows the vertical light intensity distribution plots.

### Radial luminous intensity distribution (horizontal)



Graph D

### Radial luminous intensity distribution (vertical)



Burning position: cap up

Graph D

## Lumen output vs. ambient air temperature

Photometrical and light parameters of a fluorescent lamp depend on the mercury vapor pressure inside the lamp. Mercury vapor pressure in turn is controlled by temperature. When installed in a luminaire, the temperature of the air surrounding the lamp cap changes and this can affect the light output of the lamp. The effects of changes in ambient temperature for a typical lamp are shown in Graph E.

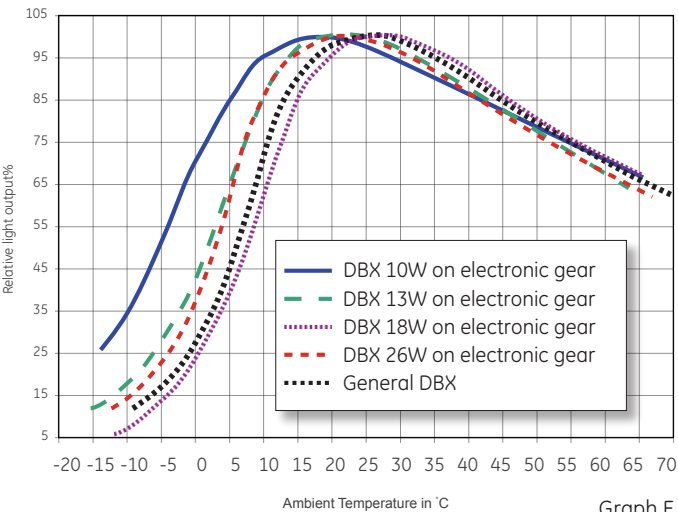
### Standards

Biax™ D & D/E lamps comply with the relevant clauses of all applicable safety and performance specifications including IEC

61199 Single-capped fluorescent lamps – Safety specifications

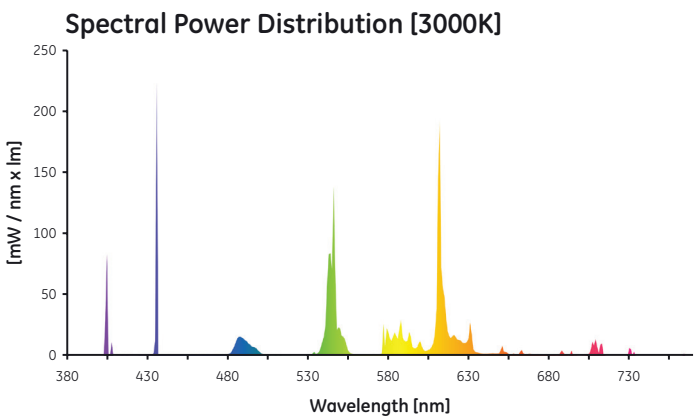
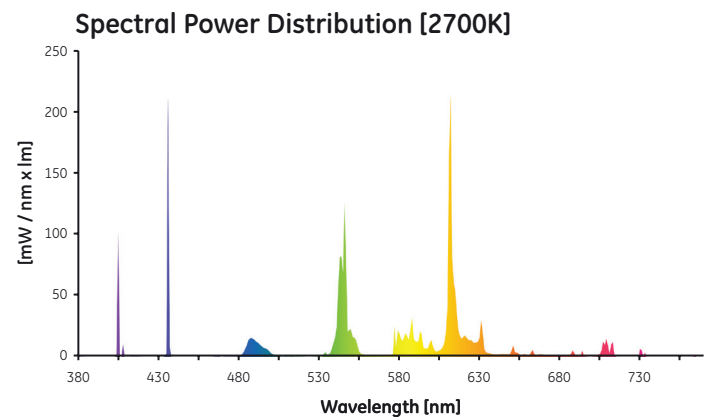
and IEC 60901 Single-capped fluorescent lamps – performance specifications.

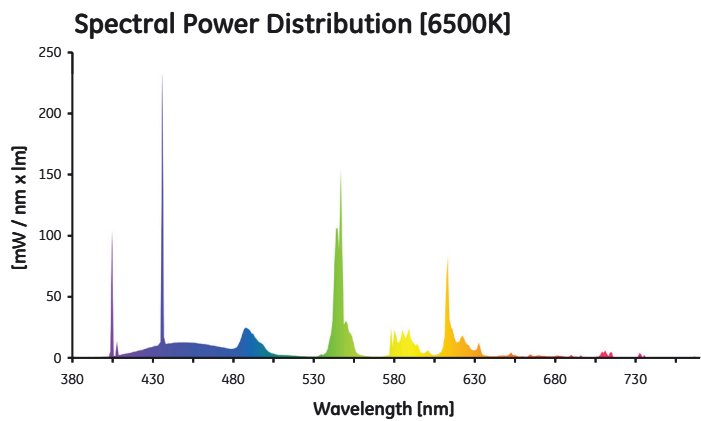
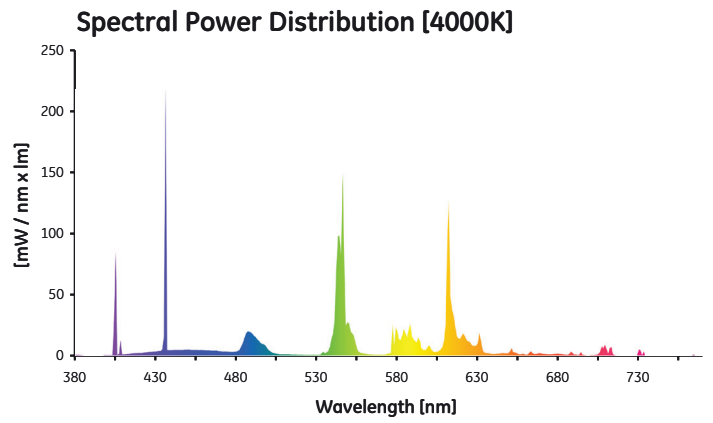
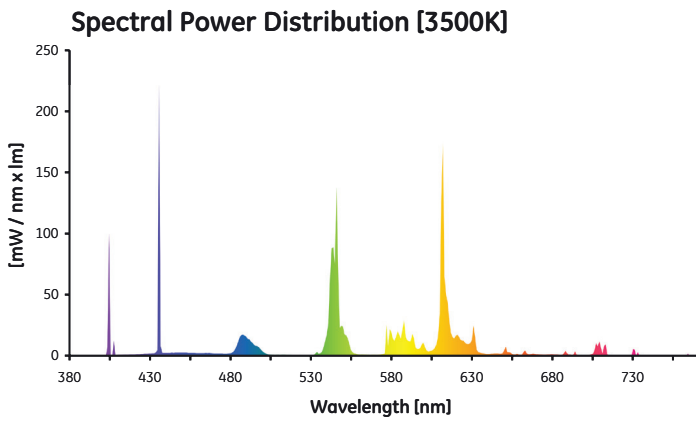
### Light output of DBX lamps vs ambient temperature vertical base up burning position



Graph E

## Spectral distribution

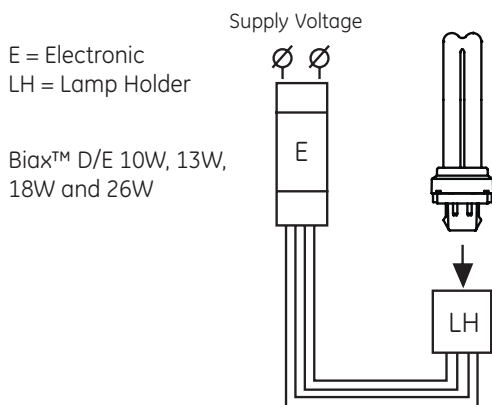




## Biax™ D/E compatibility with other 4pin cap lamps

| 2 pin Biax™ T (triple) | 2 pin Biax™ D (double) |         |         | 2 pin Biax™ S (single)                 |
|------------------------|------------------------|---------|---------|----------------------------------------|
|                        | F13DBX                 | F18DBX  | F26DBX  | F5BX/4P<br>F7BX/4P<br>F9BX/4P<br>F11BX |
|                        | GX24d-1                | GX24d-2 | GX24d-3 | GX24d-4                                |
| F13TBX   GX24d-1       | YES                    |         |         |                                        |
| F18TBX   GX24d-2       | YES                    |         |         |                                        |
| F26TBX   GX24d-3       | YES                    |         |         |                                        |

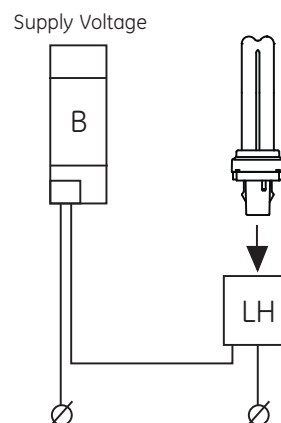
## Circuit diagrams



### Parallel Compensated

B = Ballast (50Hz)  
LH = Lamp Holder

Biax™ D 10W, 13W, 18W and 26W



## Light colour applications

### Warm; Warm White 2700

Specialty retailers, restaurants, hotel lobbies, residential applications

### Neutral; Neutral White 3000-3500

Grocery stores & produce markets, retail stores, bank lobbies

### Cool; Cool White 4000

Offices, manufacturing, schools, hospitals

### Daylight Plus; Full Spectrum 6500

Printers, paint studios, art galleries, car dealerships

## Gear specification

### Cathode resistances

| Nominal Power | Cap    | Standard Datasheet<br>60901-IEC | Test current<br>[A] | Cathode resistance @ I <sub>test</sub> |               |               |
|---------------|--------|---------------------------------|---------------------|----------------------------------------|---------------|---------------|
|               |        |                                 |                     | Rated<br>[ohm]                         | Min.<br>[ohm] | Max.<br>[ohm] |
| 10            | G24q-1 | -2510                           | 0.1                 | 50                                     | 37.5          | 62.5          |
| 13            | G24q-1 | -2513                           | 0.1                 | 50                                     | 37.5          | 62.5          |
| 18            | G24q-2 | -2518                           | 0.2                 | 26                                     | 19.5          | 32.5          |
| 26            | G24q-3 | -2526                           | 0.3                 | 13                                     | 9.7           | 16.3          |

Resistance values measured a test current  
Values conform IEC 60901 related datasheets

### Cathode preheat requirements

| Nominal Power | Cap    | Standard Datasheet<br>60901-IEC | E <sub>min</sub> = Q <sub>min</sub> + P <sub>min</sub> *t <sub>s</sub> |                         |                               | E <sub>max</sub> = Q <sub>max</sub> + P <sub>max</sub> *t <sub>s</sub> |                         |                               |
|---------------|--------|---------------------------------|------------------------------------------------------------------------|-------------------------|-------------------------------|------------------------------------------------------------------------|-------------------------|-------------------------------|
|               |        |                                 | Q <sub>min</sub><br>[J]                                                | P <sub>min</sub><br>[W] | R <sub>sub,min</sub><br>[ohm] | Q <sub>max</sub><br>[J]                                                | P <sub>max</sub><br>[W] | R <sub>sub,max</sub><br>[ohm] |
| 10            | G24q-1 | -2510                           | 1                                                                      | 0.6                     | 30                            | 2                                                                      | 1.2                     | 40                            |
| 13            | G24q-1 | -2513                           | 1                                                                      | 0.7                     | 30                            | 2                                                                      | 1.4                     | 40                            |
| 18            | G24q-2 | -2518                           | 0.9                                                                    | 0.7                     | 18                            | 1.8                                                                    | 1.4                     | 24                            |
| 26            | G24q-3 | -2526                           | 1                                                                      | 0.8                     | 9                             | 2                                                                      | 1.6                     | 12                            |

Preheat time shall be longer than 0.4s and shorter than 3s  
Ballast preheat energy shall be measured with substitution resistance of above table  
Values conform IEC 60901 related datasheets

### Dimming requirements

| Nominal Power | Cap    | Standard Datasheet<br>60901-IEC | I <sub>dmin</sub><br>[A] | I <sub>dmax</sub><br>[A] | X<br>[A2] | Y<br>[A] |
|---------------|--------|---------------------------------|--------------------------|--------------------------|-----------|----------|
| 10            | G24q-1 | -2510                           | 0.015                    | 0.115                    | 0.035     | 0.26     |
| 13            | G24q-1 | -2513                           | 0.015                    | 0.115                    | 0.035     | 0.26     |
| 18            | G24q-2 | -2518                           | 0.02                     | 0.16                     | 0.07      | 0.35     |
| 26            | G24q-3 | -2526                           | 0.03                     | 0.25                     | 0.175     | 0.57     |

In the dimming range of the lamp operating current I<sub>dmin</sub> — I<sub>dmax</sub>  
Minimum SoS = ILH2+ILL2=X-Y\*I<sub>d</sub>  
Target SoS = ILH2+ILL2=X-0.3\*Y\*I<sub>d</sub>  
I<sub>dmax</sub> for dimming operation = I<sub>dmin</sub> for normal operation  
Values conform IEC proposal

When the new fluorescent lamp is installed into dimming system, it is advised to operate lamps for period of 100 hours at full light output.

## Starting requirements

| Nominal Power | Cap    | Standard Datasheet<br>60901-IEC | Ignition voltage<br>[Vrms] | Non-ignition voltage<br>[Vrms] | Rsub<br>[ohm] |
|---------------|--------|---------------------------------|----------------------------|--------------------------------|---------------|
| 10            | G24q-1 | -2510                           | 340                        | 180                            | 30...90       |
| 13            | G24q-1 | -2513                           | 380                        | 190                            | 30...90       |
| 18            | G24q-2 | -2518                           | 400                        | 220                            | 18...54       |
| 26            | G24q-3 | -2526                           | 420                        | 240                            | 9...27        |

Ballast open circuit voltage shall be measured with substitution resistance of above table  
Values conform IEC 60901 related datasheets

## Recommended list of ballasts\*

|                           | Wattage | Lamp description    | Ballast manufacturer                       | Single ballast description                               | Twin ballast description                              |
|---------------------------|---------|---------------------|--------------------------------------------|----------------------------------------------------------|-------------------------------------------------------|
| Biax™ D/E LongLast™ 4-pin | 10W     | F10DBX/SPX27/827/4P | Tridonic Atco<br>Helvar<br>Vossloh-Schwabe | PC 1x10-13 TCD PRO<br>EL 1/2x9-13TCs<br>ELXc.113.402     | PC 2/10/13 TCD PRO<br>EL 1/2x9-13TCs                  |
| Biax™ D/E LongLast™ 4-pin | 13W     | F13DBX/SPX27/827/4P | Tridonic Atco<br>Helvar<br>Vossloh-Schwabe | PC 1x5-16 W Basic<br>EL 1/2x9-13TCs<br>ELXc.113.402      | PC 2/10/13 TCD PRO<br>EL 1/2x9-13TCs                  |
| Biax™ D/E LongLast™ 4-pin | 18W     | F18DBX/SPX27/827/4P | Tridonic Atco<br>Helvar<br>Vossloh-Schwabe | PC 1x18 TCD PRO<br>EL1/2x18TCs<br>ELXc.118.831           | PC 2/18 TCD PRO<br>EL1/2x18TCs                        |
| Biax™ D/E LongLast™ 4-pin | 26W     | F26DBX/SPX27/827/4P | Tridonic Atco<br>Helvar<br>Vossloh-Schwabe | PC 1x26/32/42 TCT PRO<br>EL 1/2x18-42TCs<br>ELXc.142.872 | PC 2x26/32 TCT PRO<br>EL 1/2x18-42TCs<br>ELXc.257.836 |

\*Ballast manufacturers have the right to change ballast specification without prior notification or official announcement so these data based on GE measurement 2010/2011.



GE imagination at work

[www.gelighting.com/eu](http://www.gelighting.com/eu)



and General Electric are both registered trademarks  
of the General Electric Company

GE Lighting is constantly developing and improving its products. For this reason, all product descriptions in this brochure are intended as a general guide, and we may change specifications 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.

Biax™ D and DE Data Sheet – August 2013