



Biax™ D and D/E

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



Biax™ D & D/E LongLast™ lamps are available in 10, 13, 18 and 26 watt ratings. 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 (only in 18W and 26W)
- 4-pin lamps for use with electronic gear may be used with dimmers

Application Areas:



Hospitality



Retail



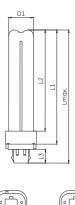




Basic data

10	Nominal Wattage [W]	Rated Wattage on Standard Gear [W]	Energy consumption [kWh/1000h]	Voltson Standard Gear [V]	Сар	Product Description	Product Code	Nominal Lumen [lm]	Rated Lumen [lm]	Rated Lamp Efficacy on Standard Gear [lm/W]	CCT [K]	CRI [Ra]	Mercury [mg]	Life on Standard Gear 3h-cycle [h]	Diameter [mm]	Length [mm]	EEC	PackQty
10	Biax™ D 2	2-pin, Interi	nal Starter															
10	10	10	12.70	64	G24d-1	F10DBX/T4/827/2P	70248	600	600	60	2700	82	1.3	12,000	34,4	108,5	В	10
10	10	10	12.70	64	G24d-1	F10DBX/T4/830/2P	70258	600	600	60	3000	82	1.3	12,000	34.4	108,5	В	10
13	10	10	12.70	64	G24d-1	F10DBX/T4/840/2P	70265	600	600	60	4000	82	1.3	12,000	34.4	108,5	В	10
13	10	10	12.70	64	G24d-1	F10DBX/T4/865/2P	70268	600	600	60	6500	82	1.3	12,000	34.4	108,5	В	10
13	13	13	16.18	91	G24d-1	F13DBX/T4/827/2P	70561	900	900	69	2700	82	1.3	12,000	34.4	133	Α	10
13	13	13	16.18	91	G24d-1	F13DBX/T4/830/2P	70572	900	900	69	3000	82	1.3	12,000	34.4	133	Α	10
18	13	13	16.18	91	G24d-1	F13DBX/T4/840/2P	70573	900	900	69	4000	82	1.3	12,000	34.4	133	Α	10
18	13	13	16.18	91	G24d-1	F13DBX/T4/865/2P	70574	900	900	69	6500	82	1.3	12,000	34.4	133	Α	10
18 18 22.10 100 G24d-2 F18DBXT4/SPX35/835 12863 1200 1200 67 3500 82 1.3 12,000 34.4 154 8 10 18 18 22.10 100 G24d-2 F18DBXT4/SPX41/840 12864 1200 1200 67 4000 62 1.3 12,000 34.4 154 8 10 126 26 26 31.35 105 G24d-3 F26DBXT4/SPX27/827 35250 1800 1800 69 2700 82 1.3 12,000 34.4 169.5 8 10 26 26 31.35 105 G24d-3 F26DBXT4/SPX36/855 1301 1200 1800 69 2700 82 1.3 12,000 34.4 169.5 8 10 26 26 31.35 105 G24d-3 F26DBXT4/SPX36/855 3530 1800 1800 69 3000 82 1.3 12,000 34.4 169.5 8 10 26 26 31.35 105 G24d-3 F26DBXT4/SPX36/850 35237 1800 1800 69 3000 82 1.3 12,000 34.4 169.5 8 10 26 26 31.35 105 G24d-3 F26DBXT4/SPX36/850 35237 1800 1800 69 3000 82 1.3 12,000 34.4 169.5 8 10 26 26 31.35 105 G24d-3 F26DBXT4/SPX41/840 35252 1800 1800 69 3000 82 1.3 12,000 34.4 169.5 8 10 26 26 31.35 105 G24d-3 F26DBXT4/SPX65/865 35305 1710 1710 66 650 82 1.3 12,000 34.4 169.5 8 10 26 26 26 31.42 105 G24d-3 F26DBXT4/SPX65/865 35305 1710 1710 66 650 82 1.3 12,000 34.4 169.5 8 10 26 26 26 26 26 26 26 26 26 26 26 26 26	18	18	22.10	100	G24d-2	F18DBXT4/SPX27/827	12860	1200	1200	67	2700	82	1.3	12,000	34.4	154	В	10
18	18	18	22.10	100	G24d-2	F18DBXT4/SPX30/830	12861	1200	1200	67	3000	82	1.3	12,000	34.4	154	В	10
18	18	18	22.10	100	G24d-2	F18DBXT4/SPX35/835	12863	1200	1200	67	3500	82	1.3	12,000	34.4	154	В	10
26 26 31.35 105 G24d-3 F26DBXT4/SPX27/827 35.25 1800 1800 69 2700 82 1.3 12,000 34.4 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 8 10 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5 169.5	18	18	22.10	100	G24d-2	F18DBXT4/SPX41/840	12864	1200	1200	67	4000	82	1.3	12,000	34.4	154	В	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 8 10 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5 160.5	18	18	22.10	100	G24d-2	F18DBXT4/SPX65/865	13017	1200	1200	67	6500	82	1.3	12,000	34.4	154	В	10
26	26	26	31.35	105	G24d-3	F26DBXT4/SPX27/827	35250	1800	1800	69	2700	82	1.3	12,000	34.4	169.5	В	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 10 10 10 10 10 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	В	10
Product Nominal Wattage on February (IV) Product Voltage on February (IV) Produ	26	26	31.35	105	G24d-3	F26DBXT4/SPX35/835	35251	1800	1800	69	3500	82	1.3	12,000	34.4	169.5	В	10
Nominal Wattage on Energy Koltson Standard Consumption Standard (IwW) Standard (IwW)	26	26	31.35	105	G24d-3	F26DBXT4/SPX41/840	35252	1800	1800	69	4000	82	1.3	12,000	34.4	169.5	В	10
Nominal Water Nominal Water Standard Gear Cap Product Description Product Code Cap Product Code Cap Nominal Cap Product Code Cap	26	26	31.42	105	G24d-3	F26DBXT4/SPX65/865	35305	1710	1710	66	6500	82	1.3	12,000	34.4	169.5	В	10
10 10 10.45 64 G24q-1 F10DBX/T4/827/4P 70553 600 600 60 2700 82 1.3 20,000 34.4 101 A 10 10 10 10.45 64 G24q-1 F10DBX/T4/830/4P 70555 600 600 60 3000 82 1.3 20,000 34.4 101 A 10 10 10 10.45 64 G24q-1 F10DBX/T4/840/4P 70560 600 600 60 4000 82 1.3 20,000 34.4 101 A 10 11 10 10 10.45 64 G24q-1 F10DBX/T4/840/4P 70560 600 600 60 4000 82 1.3 20,000 34.4 101 A 10 11 11 12 13 13 13.75 91 G24q-1 F13DBX/T4/827/4P 70580 900 900 69 2700 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/830/4P 70582 900 900 69 3000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/840/4P 70584 900 900 69 3000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/865/4P 70587 900 900 69 4000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-2 F18DBX/SPX27/827/4P 12865 1200 1200 67 2700 82 1.3 20,000 34.4 125,5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX30/830/4P 12866 1200 1200 67 3000 82 1.3 20,000 34.4 146.5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX35/835/4P 12869 1200 1200 67 3000 82 1.3 20,000 34.4 146.5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX35/835/4P 12869 1200 1200 67 3000 82 1.3 20,000 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 20,000 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 20,000 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 20,000 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 20,000 34.4 146.5 A 10 18 18 18 18.15 100 G24q-2 F18DBX/SPX35/835/4P 12869 1200 1200 67 3500 82 1.3 20,000 34.4 146.5 A 10 18 18 18 18.15 100 G24q-2 F18DBX/SPX35/835/4P 12860 1200 1200 67 3500 82 1.3 20,000 34.4 146.5 A 10 18 18 18 18 18 18 18 18 18 18 18 18 18		Wattage on	Energy			Droduct		Nominal	Datod									
10 10 10.45 64 G24q-1 F10DBX/T4/830/4P 70555 600 600 60 3000 82 1.3 20,000 34.4 101 A 10 10 10 10.45 64 G24q-1 F10DBX/T4/840/4P 70560 600 600 600 60 4000 82 1.3 20,000 34.4 101 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/827/4P 70580 900 900 69 2700 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/830/4P 70582 900 900 69 3000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/840/4P 70584 900 900 69 3000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/840/4P 70584 900 900 69 4000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/865/4P 70587 900 900 69 6500 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/865/4P 70587 900 900 69 6500 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-2 F18DBX/SPX27/827/4P 12865 1200 1200 67 2700 82 1.3 20,000 34.4 125,5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX30/830/4P 12866 1200 1200 67 2700 82 1.3 20,000 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 20,000 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 20,000 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 20,000 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 20,000 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 20,000 34.4 146.5 A 10 18 18 18 18.15 100 G24q-2 F18DBX/SPX35/835/4P 12869 1200 1200 67 3500 82 1.3 20,000 34.4 146.5 A 10 18 18 18 18.15 100 G24q-2 F18DBX/SPX35/835/4P 35247 1800 1800 69 3000 82 1.3 20,000 34.4 166.5 A 10 18 18 18 18 18.15 100 G24q-3 F26DBX/SPX35/835/4P 35248 1800 1800 69 3500 82 1.3 20,000 34.4 162 A 10 18 18 18 18 18 18 18 18 18 18 18 18 18	[W]	Gear		Gear	Cap			Lumen	Lumen	Standard Gear				gear 12h-cycle	Didilletel		EEC	PackQty
10 10 10.45 64 G24q-1 F10DBX/T4/840/4P 70560 600 600 60 4000 82 1.3 20,000 34.4 101 A 10 1 1		Gear [W]	[kWh/1000h]	Gear [V]	•	Description		Lumen	Lumen	Standard Gear				gear 12h-cycle	Didilletel		EEC	PackQty
13 13 13.75 91 G24q-1 F13DBX/T4/827/4P 70580 900 900 69 2700 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/840/4P 70582 900 900 69 3000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/840/4P 70584 900 900 69 4000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/865/4P 70587 900 900 69 6500 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/865/4P 70587 900 900 69 6500 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-2 F18DBX/SPX27/827/4P 12865 1200 1200 67 2700 82 1.3 20,000 34.4 125,5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX27/827/4P 12865 1200 1200 67 2700 82 1.3 20,000 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 20,000 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 20,000 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 20,000 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 20,000 34.4 146.5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX35/835/4P 12870 1200 1200 67 4000 82 1.3 20,000 34.4 146.5 A 10 18 18 18.15 100 G24q-3 F26DBX/SPX27/827/4P 35247 1800 1800 69 2700 82 1.3 20,000 34.4 162 A 10 18 18 18 18 18 18 18 18 18 18 18 18 18	Biax™ D/	Gear [W] E LongLast	[kWh/1000h] ™ 4-pin, Exte	Gear [V] ernal Star	ter Require	Description ed	Code	Lumen [lm]	Lumen [lm]	Standard Gear [lm/W]	[K]	[Ra]	[mg] ´	gear 12h-cycle [h]	[mm]	[mm]		PackQty
13 13 13.75 91 G24q-1 F13DBX/T4/830/4P 70582 900 900 69 3000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/840/4P 70584 900 900 69 4000 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-1 F13DBX/T4/865/4P 70587 900 900 69 6500 82 1.3 20,000 34.4 125,5 A 10 13 13 13.75 91 G24q-2 F18DBX/SPX27/827/4P 12865 1200 1200 67 2700 82 1.3 20,000 34.4 125,5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX27/827/4P 12865 1200 1200 67 2700 82 1.3 20,000 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 20,000 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 20,000 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 20,000 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 20,000 34.4 146.5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX35/835/4P 12870 1200 1200 67 4000 82 1.3 20,000 34.4 146.5 A 10 18 18 18.15 100 G24q-3 F26DBX/SPX27/827/4P 35247 1800 1800 69 2700 82 1.3 20,000 34.4 162. A 10 18 18 18 18 18 18 18 18 18 18 18 18 18	Biαx™ D/	Gear [W] E LongLast	[kWh/1000h] TM 4-pin, External 10.45	Gear [V] ernal Star 64	ter Require	Description ed F10DBX/T4/827/4P	Code 70553	Lumen (lm)	Lumen [lm]	Standard Gear [lm/W]	[K] 2700	(Ra)	[mg] 1.3	gear 12h-cycle [h] 20,000	[mm]	[mm]	A	
13 13 13.75 91 G24q-1 F13DBX/T4/840/4P 70584 900 900 69 4000 82 1.3 20,000 34.4 125,5 A 10 13 13.75 91 G24q-1 F13DBX/T4/865/4P 70587 900 900 69 6500 82 1.3 20,000 34.4 125,5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX27/827/4P 12865 1200 1200 67 2700 82 1.3 20,000 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 20,000 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 20,000 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 20,000 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 20,000 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 20,000 34.4 146.5 A 10 18 18 18.15 100 G24q-3 F26DBX/SPX27/827/4P 35247 1800 1800 69 2700 82 1.3 20,000 34.4 162. A 10 18 18 18 18 18 18 18 18 18 18 18 18 18	Biax™ D/ 10 10	Gear [W] E LongLast 10 10	[kWh/1000h] TM 4-pin, External 10.45 10.45	Gear [V] ernal Star 64 64	ter Require G24q-1 G24q-1	Description ed F10DBX/T4/827/4P F10DBX/T4/830/4P	70553 70555	600 600	600 600	Standard Gear [lm/W]	[K] 2700 3000	82 82	1.3 1.3	gear 12h-cycle [h] 20,000 20,000	34.4 34.4	[mm] 101 101	A	10
13 13 13.75 91 G24q-1 F13DBX/T4/865/4P 70587 900 900 69 6500 82 1.3 20,000 34.4 125,5 A 10 18 18 18.15 100 G24q-2 F18DBX/SPX27/827/4P 12865 1200 1200 67 2700 82 1.3 20,000 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 20,000 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 20,000 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 20,000 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 20,000 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 20,000 34.4 146.5 A 10 18 18 18.15 100 G24q-3 F26DBX/SPX27/827/4P 35247 1800 1800 69 2700 82 1.3 20,000 34.4 162. A 10 18 18 18 18 18 18 18 18 18 18 18 18 18	10 10 10	Gear [W] E LongLast 10 10	[kWh/1000h] TM 4-pin, External 10.45 10.45 10.45	Gear [V] ernal Star 64 64 64	ter Require G24q-1 G24q-1 G24q-1	Ped F10DBX/T4/827/4P F10DBX/T4/830/4P F10DBX/T4/840/4P	70553 70555 70560	600 600 600	600 600 600	Standard Gear [lm/W] 60 60	2700 3000 4000	82 82 82	1.3 1.3 1.3	gear 12h-cycle [h] 20,000 20,000 20,000	34.4 34.4 34.4	101 101 101	A A A	10 10
18	10 10 10 10 13	Gear [W] E LongLast 10 10 10 13	[kWh/1000h] TM 4-pin, Exte 10.45 10.45 10.45 13.75	Gear [V] ernal Star 64 64 64 91	ter Require G24q-1 G24q-1 G24q-1 G24q-1	Ped F10DBX/T4/827/4P F10DBX/T4/830/4P F10DBX/T4/840/4P F13DBX/T4/827/4P	70553 70555 70560 70580	600 600 600 900	600 600 600 900	60 60 60 60	2700 3000 4000 2700	82 82 82 82 82	1.3 1.3 1.3 1.3	gear 12h-cycle [h] 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4	101 101 101 101 125,5	A A A	10 10 10
18 18 18.15 100 G24q-2 F18DBX/SPX30/830/4P 12866 1200 1200 67 3000 82 1.3 20,000 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 20,000 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 20,000 34.4 146.5 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX27/827/4P 35247 1800 1800 69 2700 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX30/830/4P 35235 1800 1800 69 3000 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3	Biαx TM D/ 10 10 10 13 13	Gear [W] E LongLast 10 10 10 13 13	[kWh/1000h] TM 4-pin, Exter 10.45 10.45 10.45 13.75 13.75	Gear [V] ernal Star 64 64 64 91	ter Requir G24q-1 G24q-1 G24q-1 G24q-1 G24q-1	Ped F10DBX/T4/827/4P F10DBX/T4/830/4P F10DBX/T4/840/4P F13DBX/T4/827/4P F13DBX/T4/830/4P	70553 70555 70560 70580 70582	600 600 600 900 900	600 600 600 900	Standard Gear [Im/W] 60 60 60 69	2700 3000 4000 2700 3000	82 82 82 82 82 82	1.3 1.3 1.3 1.3 1.3	gear 12h-cycle [h] 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4	101 101 101 125,5 125,5	A A A A	10 10 10 10
18 18 18.15 100 G24q-2 F18DBX/SPX35/835/4P 12869 1200 1200 67 3500 82 1.3 20,000 34.4 146.5 A 16 18 18 18.15 100 G24q-2 F18DBX/SPX41/840/4P 12870 1200 1200 67 4000 82 1.3 20,000 34.4 146.5 A 16 26 26 26.40 105 G24q-3 F26DBX/SPX27/827/4P 35247 1800 1800 69 2700 82 1.3 20,000 34.4 162 A 16 26 26 26.40 105 G24q-3 F26DBX/SPX30/830/4P 35235 1800 1800 69 3000 82 1.3 20,000 34.4 162 A 16 26 26 26.40 105 G24q-3 F26DBX/SPX35/835/4P 35248 1800 1800 69 3500 82 1.3 20,000 34.4 162 A 16 26 26 26.40 105 G24q-3 F26DBX/SPX35/835/4P 35248 1800 1800 69 3500 82 1.3 20,000 34.4 162 A	Biax™ D/ 10 10 10 13 13 13	Gear [W] E LongLast 10 10 10 10 13 13	TM 4-pin, Exter 10.45 10.45 10.45 10.45 13.75 13.75 13.75	Gear [V] ernal Star 64 64 64 91 91	ter Require G24q-1 G24q-1 G24q-1 G24q-1 G24q-1	Ped F10DBX/T4/827/4P F10DBX/T4/830/4P F10DBX/T4/840/4P F13DBX/T4/827/4P F13DBX/T4/830/4P F13DBX/T4/840/4P	70553 70555 70560 70580 70582 70584	600 600 600 900 900	600 600 600 900 900 900	Standard Gear [Im/W] 60 60 60 69 69	2700 3000 4000 2700 3000 4000	82 82 82 82 82 82 82	1.3 1.3 1.3 1.3 1.3 1.3	gear 12h-cycle [h] 20,000 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4 34.4	101 101 101 125,5 125,5 125,5	A A A A A	10 10 10 10 10
18 18 18.15 100 G24q-2 F18DBX/SPX41/840/4P 12870 1200 1200 67 4000 82 1.3 20,000 34.4 146.5 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX27/827/4P 35247 1800 1800 69 2700 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX30/830/4P 35235 1800 1800 69 3000 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX35/835/4P 35248 1800 1800 69 3500 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX41/840/4P 35236 1800 1800 69 3500 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX41/840/4P 35236 1800 1800 69 4000 82 1.3 20,000 34.4 162 A	Biax™ D/ 10 10 10 13 13 13 13	Gear [W] E LongLast' 10 10 10 13 13 13 13	[kwh/1000h] *** 4-pin, Exter 10.45 10.45 10.45 13.75 13.75 13.75 13.75	Gear [V] ernal Star 64 64 64 91 91 91	624q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1	Ped F10DBX/T4/827/4P F10DBX/T4/830/4P F10DBX/T4/840/4P F13DBX/T4/827/4P F13DBX/T4/830/4P F13DBX/T4/840/4P F13DBX/T4/840/4P F13DBX/T4/865/4P	70553 70555 70560 70580 70582 70584 70587	600 600 600 900 900 900	600 600 600 900 900 900 900	Standard Gear [lm/W] 60 60 60 69 69 69	2700 3000 4000 2700 3000 4000 6500	82 82 82 82 82 82 82 82	1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	gear 12h-cycle [h] 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4 34.4 34.4	101 101 101 125,5 125,5 125,5 125,5	A A A A A	10 10 10 10 10 10
26 26 26.40 105 G24q-3 F26DBX/SPX27/827/4P 35247 1800 1800 69 2700 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX30/830/4P 35235 1800 1800 69 3000 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX35/835/4P 35248 1800 1800 69 3500 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX35/835/4P 35248 1800 1800 69 3500 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX41/840/4P 35236 1800 1800 69 4000 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX41/840/4P 35236 1800 1800 69 4000 82 1.3 20,000 34.4 162 A 10 26 26 26 26 26 26 26 26 26 26 26 26 26	Biax™ D/ 10 10 10 13 13 13 13 18	Gear (W) E LongLast 10 10 10 13 13 13 13	[kwh/1000h] *** 4-pin, Exter 10.45 10.45 10.45 13.75 13.75 13.75 13.75 13.75	Gear [V] ernal Star 64 64 64 91 91 91 100	624q-1 624q-1 624q-1 624q-1 624q-1 624q-1 624q-1 624q-1	Ped F10DBX/T4/827/4P F10DBX/T4/830/4P F10DBX/T4/840/4P F13DBX/T4/827/4P F13DBX/T4/830/4P F13DBX/T4/840/4P F13DBX/T4/840/4P F13DBX/T4/865/4P F18DBX/SPX27/827/4P	70553 70555 70560 70580 70582 70584 70587 12865	600 600 600 900 900 900 900	600 600 600 900 900 900 900 1200	\$tandard Gear [lm/W] 60 60 60 69 69 69 69 67	2700 3000 4000 2700 3000 4000 6500 2700	82 82 82 82 82 82 82 82 82	1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	gear 12h-cycle [h] 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4 34.4 34.4 34.4	101 101 101 125,5 125,5 125,5 125,5 146.5	A A A A A A	10 10 10 10 10 10
26 26 26.40 105 G24q-3 F26DBX/SPX30/830/4P 35235 1800 1800 69 3000 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX35/835/4P 35248 1800 1800 69 3500 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX41/840/4P 35236 1800 1800 69 4000 82 1.3 20,000 34.4 162 A 10 26 26 26.40 105 G24q-3 F26DBX/SPX41/840/4P 35236 1800 1800 69 4000 82 1.3 20,000 34.4 162 A 10	Biax™ D/ 10 10 10 10 13 13 13 13 18 18	Gear (W) E LongLast 10 10 10 13 13 13 13 18 18	[kwh/1000h] *** 4-pin, Exter 10.45 10.45 10.45 13.75 13.75 13.75 13.75 18.15 18.15	Gear [V] ernal Star 64 64 64 91 91 91 91 100 100	624q-1 624q-1 624q-1 624q-1 624q-1 624q-1 624q-1 624q-1 624q-2 624q-2	Page Properties Proper	70553 70555 70560 70580 70582 70584 70587 12865 12866	600 600 600 900 900 900 900 1200 1200	600 600 600 900 900 900 900 1200	\$tandard Gear [lm/W] 60 60 60 69 69 69 69 67 67	2700 3000 4000 2700 3000 4000 6500 2700 3000	82 82 82 82 82 82 82 82 82 82	1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4 34.4 34.4 34.4	101 101 101 125,5 125,5 125,5 125,5 146.5 146.5	A A A A A A A	10 10 10 10 10 10 10 10
26	Biax™ D/ 10 10 10 13 13 13 13 18 18	Gear (W) E LongLast 10 10 10 13 13 13 13 18 18	[kwh/1000h] *** 4-pin, Exter 10.45 10.45 10.45 13.75 13.75 13.75 13.75 18.15 18.15 18.15	Gear (V) ernal Star 64 64 64 91 91 91 100 100	ter Requiri G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-2 G24q-2 G24q-2	Page Page Page Page Page Page Page Page	70553 70555 70560 70580 70582 70584 70587 12865 12866 12869	600 600 600 900 900 900 900 1200 1200 1200	600 600 600 900 900 900 1200 1200 1200	\$tandard Gear [lm/W] 60 60 60 69 69 69 69 67 67	2700 3000 4000 2700 3000 4000 6500 2700 3000 3500	82 82 82 82 82 82 82 82 82 82	1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	gear 12h-cycle (h) 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4 34.4 34.4 34.4	101 101 101 125,5 125,5 125,5 125,5 146.5 146.5	A A A A A A A	10 10 10 10 10 10 10 10 10
26	Biax™ D/ 10 10 10 13 13 13 13 18 18 18	Gear (W) E LongLast 10 10 10 13 13 13 13 18 18 18	[kwh/1000h] *** 4-pin, Exter 10.45 10.45 10.45 13.75 13.75 13.75 13.75 18.15 18.15 18.15 18.15	Gear (V) ernal Star 64 64 64 91 91 91 100 100 100	ter Requiri G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-2 G24q-2 G24q-2 G24q-2	Page Page Page Page Page Page Page Page	70553 70555 70560 70580 70582 70584 70587 12865 12866 12869	600 600 600 900 900 900 1200 1200 1200 1200	600 600 600 900 900 900 900 1200 1200 1200 1200	\$tandard Gear [lm/W] 60 60 60 69 69 69 69 67 67 67	2700 3000 4000 2700 3000 4000 6500 2700 3000 3500 4000	82 82 82 82 82 82 82 82 82 82 82 82	1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4 34.4 34.4 34.4	101 101 125,5 125,5 125,5 125,5 146.5 146.5 146.5	A A A A A A A A A A A A A A A A A A A	10 10 10 10 10 10 10 10 10 10
26 26 26.40 105 G24q-3 F26DBX/SPX41/840/4P 35236 1800 1800 69 4000 82 1.3 20,000 34.4 162 A 10	Biax™ D/ 10 10 10 13 13 13 13 18 18 18 18 26	Gear (W) E LongLast 10 10 10 13 13 13 13 18 18 18 18 26	[kwh/1000h] *** 4-pin, Exter 10.45 10.45 10.45 13.75 13.75 13.75 13.75 18.15 18.15 18.15 18.15 26.40	Gear (V) ernal Star 64 64 64 91 91 91 100 100 100 105	ter Requir G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-2 G24q-2 G24q-2 G24q-2 G24q-3	Page Page Page Page Page Page Page Page	70553 70555 70560 70580 70582 70584 70587 12865 12866 12869 12870 35247	600 600 600 900 900 900 1200 1200 1200 1200 1800	600 600 600 900 900 900 1200 1200 1200 1200 1800	\$tandard Gear [lm/W] 60 60 60 69 69 69 69 67 67 67 67	2700 3000 4000 2700 3000 4000 6500 2700 3000 3500 4000 2700	Raj	1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4 34.4 34.4 34.4	101 101 125,5 125,5 125,5 125,5 146.5 146.5 146.5	A A A A A A A A A A A A A A A A A A A	10 10 10 10 10 10 10 10 10 10 10
	Biax™ D/ 10 10 10 13 13 13 13 18 18 18 26 26	Gear (W) E LongLast 10 10 10 13 13 13 18 18 18 26 26	Ikwh/1000h] TM 4-pin, Exter 10.45 10.45 10.45 13.75 13.75 13.75 13.75 18.15 18.15 18.15 18.15 26.40 26.40	Gear (V) ernal Star 64 64 64 91 91 91 100 100 100 105 105	ter Requir G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-2 G24q-2 G24q-2 G24q-2 G24q-3 G24q-3	PECODBX/T4/827/4P F10DBX/T4/830/4P F10DBX/T4/840/4P F13DBX/T4/827/4P F13DBX/T4/830/4P F13DBX/T4/830/4P F13DBX/T4/840/4P F13DBX/T4/865/4P F18DBX/SPX27/827/4P F18DBX/SPX30/830/4P F18DBX/SPX35/835/4P F18DBX/SPX27/827/4P F18DBX/SPX27/827/4P F26DBX/SPX27/827/4P F26DBX/SPX30/830/4P	70553 70555 70560 70580 70582 70584 70587 12865 12866 12869 12870 35247 35235	600 600 600 900 900 900 1200 1200 1200 1200 1800	600 600 600 900 900 900 1200 1200 1200 1200 1800 1800	\$\text{Standard Gear [lm/W]}\$ 60 60 60 69 69 69 67 67 67 67 69 69	2700 3000 4000 2700 3000 4000 6500 2700 3000 4000 2700 3000	82 82 82 82 82 82 82 82 82 82 82 82 82 8	1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4 34.4 34.4 34.4	101 101 125,5 125,5 125,5 125,5 146.5 146.5 146.5 146.5 162	A A A A A A A A A A A A A A A A A A A	10 10 10 10 10 10 10 10 10 10 10 10 10
- 20 20 20.70 100 0244-0 120PDM/3FMO30P4F 42130 1/10 1/10 00 0000 02 1.0 20,000 04.4 102 A 1/	Biax™ D/ 10 10 10 13 13 13 13 18 18 18 26 26 26	Gear (W) E LongLast 10 10 10 13 13 13 18 18 18 26 26 26	Ikwh/1000h] TM 4-pin, Exter 10.45 10.45 10.45 13.75 13.75 13.75 18.15 18.15 18.15 18.15 26.40 26.40 26.40	Gear (V) ernal Star 64 64 64 91 91 91 100 100 100 105 105	ter Requir G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-1 G24q-2 G24q-2 G24q-2 G24q-2 G24q-3 G24q-3 G24q-3	PECODBX/T4/827/4P F10DBX/T4/830/4P F10DBX/T4/840/4P F13DBX/T4/827/4P F13DBX/T4/827/4P F13DBX/T4/830/4P F13DBX/T4/840/4P F13DBX/T4/840/4P F13DBX/SPX27/827/4P F18DBX/SPX30/830/4P F18DBX/SPX35/835/4P F18DBX/SPX27/827/4P F26DBX/SPX27/827/4P F26DBX/SPX30/830/4P F26DBX/SPX35/835/4P	70553 70555 70560 70580 70582 70584 70587 12865 12866 12869 12870 35247 35235 35248	600 600 600 900 900 900 1200 1200 1200 1200 1800 1800	600 600 600 900 900 900 1200 1200 1200 1200 1800 1800	\$\text{Standard Gear [lm/W]}\$ 60 60 60 69 69 69 67 67 67 67 69 69 69	2700 3000 4000 2700 3000 4000 6500 2700 3500 4000 2700 3500 3500	82 82 82 82 82 82 82 82 82 82 82 82 82 8	1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3 1.3	20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000 20,000	34.4 34.4 34.4 34.4 34.4 34.4 34.4 34.4	101 101 125,5 125,5 125,5 125,5 146.5 146.5 146.5 162 162	A A A A A A A A A A A A A A A A A A A	10 10 10 10 10 10 10 10 10 10 10 10 10

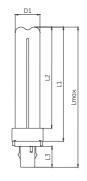
Dimensions















Nominal Wattage [W]	L1 [mm]	L2 [mm]	L3 [mm]	Lmax [mm]	D1 [mm]
Biax™ D 2-pin					
10	79,2	65	22.4	108,5	27
13	103,7	89,5	22.4	133	27
18	124.7	110.5	22.4	154	27
26	140.2	126	22.4	169.5	27
Biax™ D/E Lon	gLast™ 4-	pin			
10	79.2	65	15	101	27
13	103.7	89,5	15	125,5	27
18	124.7	110.5	15	146.5	27
26	140.2	126	15	162	27

Lamp life

Rated average life for $Biax^{TM}$ D LongLastTM is 12,000 hours (switching cycle: 2hrs 45min ON/15min OFF, see Graph A) and D/E LongLastTM 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.



Survival rate 3h cycle	Lumen maintenance
1.00	1.00
1.00	0.97
1.00	0.95
1.00	0.91
1.00	0.89
0.99	0.87
0.96	0.83
0.88	0.80
0.73	0.77
0.53	0.75
	1.00 1.00 1.00 1.00 1.00 0.99 0.96 0.88 0.73

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 BiaxTM D and D/E LongLastTM lamps are based on lumen readings under laboratory conditions.

Test conditions:

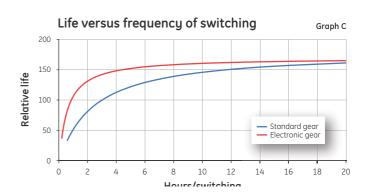
- Photometric sphere
- Vertical, cap up burning position
- Switching cycle: 11 hours On 1 hour Off or 2 hours 45 minutes On – 15 minutes Off
- High frequency operation 25°C ambient temperature

See graph A and B.

Survival rate 12 hours cycle	Lumen maintenance	Survival rate 3 hours cycle
1.00	0.93	1.00
1.00	0.89	1.00
1.00	0.84	0.99
0.96	0.80	0.90
0.83	0.78	0.61
0.53	0.75	
	12 hours cycle 1.00 1.00 1.00 0.96 0.83	12 hours cycle maintenance 1.00 0.93 1.00 0.89 1.00 0.84 0.96 0.80 0.83 0.78

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.

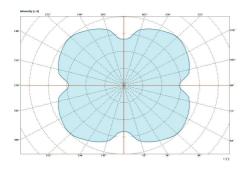


Luminous intensity distribution

The luminous intensity distribution describes the quantity of light that is radiated in a particular direction.

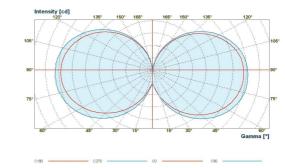
Graph D shows luminous intensity distribution curve of Biax™ D & D/E lamps. Tests were taken with lamps burning in vertical cap up position. The left plot of Graph D shows horizontal while the right plot shows the vertical light intensity distribution plots.

Radial luminous intensity distribution (horizontal)



Graph D

Radial luminous intensity distribution (vertical)

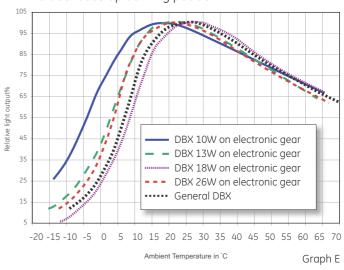


Burning position: cap up Graph D

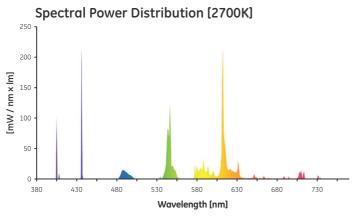
Lumen output vs. ambient air temperature

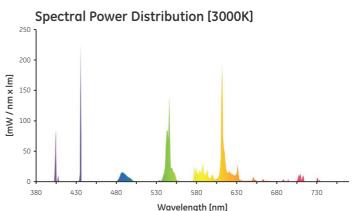
Photometrical and light parameters of a fluorescent lamp depend on the mercury vapor pressure inside the lamp. Mercury vapor pressure in turn is controlled by temperature. When installed in a luminaire, the temperature of the air surrounding the lamp cap changes and this can affect the light output of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

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

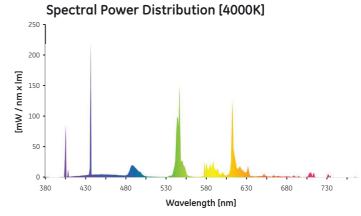


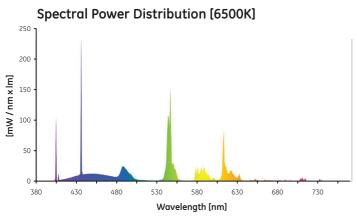
Spectral distribution





Spectral Power Distribution [3500K] 200 200 150 150 50 380 430 480 530 580 630 680 730 Wavelength [nm]

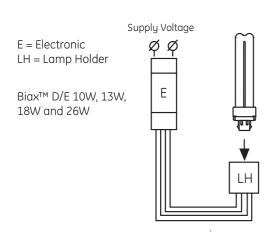




Biax™ D/E compatibility with other 4pin cap lamps

Bia	Biax™ D Compatibility with Biax™ T 2pin Cap Lamps					≀™ D Compati	bility with Biax™	¹ T 4pin Cap Lar	nps
	2pin BiaxTM T (Triple)						4p	in BiaxTM T (Trip	ole)
2pin BiaxTN	1 D (Double)	F13TBX	F18TBX	F26TBX	4pin BiaxTM	D (Double)	F13TBX/4P	F18TBX/4P	F26TBX/4P
		Gx24d-1	Gx24d-2	Gx24d-3	1		Gx24q-1	Gx24q-2	Gx24q-3
F10DBX F13DBX	G24d-1	yes			F10DBX/4P F13DBX/4P	G24q-1	yes		
F18DBX	G24d-2		yes		F18DBX/4P	G24q-2		yes	
F26DBX	G24d-3			yes	F26DBX/4P	G24q-3			yes

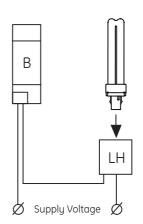
Circuit diagrams



Parallel Compensated

B = Ballast (50Hz) LH = Lamp Holder

Biax™ D 10W, 13W, 18W and 26W



Light colour applications

Soft White 2700 K

Specialty retailers, restaurants, hotel lobbies, residential applications

Warm white - Bright white 3000-3500 K

Grocery stores & produce markets, retail stores, bank lobbies

Cool; Cool White 4000 K

Offices, manufacturing, schools, hospitals

Daylight 6500 K

Printers, paint studios, art galleries, car dealerships

Gear specification

Cathode resistances

				Cathod	le resistance @) Itest
Nominal Power	Cap	Standard Datasheet 60901-IEC	Test current [A]	Rated [ohm]	Min. (ohm)	Max. [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

			Emi	n = Qmin + Pr	nin*ts	Emax = Qmax + Pmax*ts		
Nominal Power	Сар	Standard Datasheet 60901-IEC	Qmin [J]	Pmin [W]	Rsub,min [ohm]	Qmax [J]	Pmax [W]	Rsub,max [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 60901-IEC	ldmin [A]	Idmax [A]	X [A2]	Y [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 $\operatorname{Idmin}-\operatorname{Idmax}$

Minimum SoS = ILH2+ILL2=X-Y*Id

Target SoS = ILH2+ILL2=X-0.3*Y*Id

Idmax for dimming operation = Idmin 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 60901-IEC	Ignition voltage [Vrms]	Non-ignition voltage [Vrms]	Rsub (ohm)	
10	G24q-1	-2510	340	180	3090	_
13	G24q-1	-2513	380	190	3090	
18	G24q-2	-2518	400	220	1854	
26	G24q-3	-2526	420	240	927	

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 Helvar Vossloh-Schwabe	PC 1x10-13 TCD PRO EL 1/2x9-13TCs ELXc.113.402	PC 2/10/13 TCD PRO EL 1/2x9-13TCs
Biax™ D/E LongLast™ 4-pin	13W	F13DBX/SPX27/827/4P	Tridonic Atco Helvar Vossloh-Schwabe	PC 1x5-16 W Basic EL 1/2x9-13TCs ELXc.113.402	PC 2/10/13 TCD PRO EL 1/2x9-13TCs
Biax™ D/E LongLast™ 4-pin	18W	F18DBX/SPX27/827/4P	Tridonic Atco Helvar Vossloh-Schwabe	PC 1×18 TCD PRO EL1/2×18TCs ELXc.118.831	PC 2/18 TCD PRO EL1/2x18TCs
Biax™ D/E LongLast™ 4-pin	26W	F26DBX/SPX27/827/4P	Tridonic Atco Helvar Vossloh-Schwabe	PC 1x26/32/42 TCT PRO EL 1/2x18-42TCs ELXc.142.872	PC 2x26/32 TCT PRO EL 1/2x18-42TCs 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.

Compliance

Standards	
IEC 60061-1	Lamp caps and holders together with gauges for the control of interchangeablity and safety
IEC or EN 60901	Single-capped lamps - performance requirements
IEC or EN 61199	Single-capped lamps - safety requirements
CIE S 009/E:2002	Photobiological safety of lamps and lamp systems
European Directives	
CE mark	93/68/EEC; LVD: 2006/95/EC; Ecodesign 2005/32/EC, ROHS 2011/65/EU
Energy Labelling	Directive 2010/30/EU, 874/2012/EU energy labelling of electrical lamps and luminaires
RoHS	Directive 2011/65/EU on Restrictions of the use of certain Hazardous Substances (RoHS)
WEEE	Directive 2012/19/EU on Waste Electrical and Electronic Equipment (WEEE)
REACH	Directive 2006/1907/EC on Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
ErP ecodesign	Directive 2005/32/EC, 2009/245/EC ecodesign requirements (of Energy-related Products) for tertiary sector lamps

