

# SubstiTUBE® DULUX® LED Pin Base Lamps



## Key Features & Benefits

- Ballast compatible LED replacement lamps for traditional pin-base compact fluorescent lamps minimize labor cost by utilizing existing fluorescent ballasts.
- G24q/GX24q base lamps have four pins and operate on existing electronic ballasts directly replacing DULUX D/E traditional lamps.\*
- GX23 base lamps have two pins, operate on magnetic ballasts and are for horizontal applications, directly replacing DULUX DS traditional lamps.
- High LPW of up to 122 provides a low wattage, energy saving replacement for traditional lamps.
- Horizontal and Vertical configurations available with G24q/GX24q to optimize different fixture optics.
- Horizontal lamps have rotating bases for ease of directing light.
- Over current protection provides consistent lumen output regardless of compatible ballast operation.
- Over temperature protection ensures that lamps will not overheat.
- Available in 2700K-4100K providing choices to harmonize colors with other technologies in the same application space.
- Long life of 50,000 hours, lasting up to three times as long as the lamps they replace, minimizes maintenance costs over the life of the lamp.
- 5-year warranty for worry-free installations.

\*See chart below for replacement guide.

## Product Offering

| Ordering Abbreviation | Wattage | CCT                        | Typical Lumens   |
|-----------------------|---------|----------------------------|------------------|
| LED6PBGX23H           | 6       | 2700K, 3500K, 4100K        | 625              |
| LED9PBGX24QHG2        | 9       | 2700K, 3000K, 3500K, 4100K | 900, 950, 1000   |
| LED9PBGX24QVG2        | 9       | 2700K, 3000K, 3500K, 4100K | 900, 950, 1000   |
| LED16PBGX24QH         | 16      | 2700K, 3000K, 3500K, 4100K | 1650, 1750, 1850 |

## Application Information

### Applications

- Commercial
- Healthcare facilities
- Hospitality
- Office
- Property management
- Residential
- Retail

### Application Notes

1. Operating Temperature range between -20°C and 45°C.
2. Not for use in totally enclosed fixtures.
3. Suitable for damp locations.
4. Not for use with emergency light fixtures or exit lights.
5. Not suitable for use in dimming applications.
6. Check LED retrofit compatibility list and ballast compatibility list ([www.sylvania.com](http://www.sylvania.com)) before installation.
7. Selected LED Retrofit models may produce less light output than corresponding original traditional CFL lamps.
8. DULUX LED GX24Q lamp works in a G24Q base and any base of the series. Verify MOL for compatibility.
9. DULUX LED GX23 is not a replacement for 7W & 5W traditional CFL lamps.
10. DULUX GX23 base is not compatible with traditional G23 base.
11. This DULUX LED family is not compatible with G24d-1 2-pin 13W, G24d-2 4-pin 18W and G24d-3 4-pin 26W.
12. Lamps with GX24q bases are not suitable for use with magnetic ballasts.

### Specifications and Certifications



## Specification Data

|             |      |
|-------------|------|
| Catalog #   | Type |
| Project     |      |
| Comments    |      |
| Prepared by |      |

## Specifications

EMI/RFI: FCC Title 47 CFR, Part 18, Non-Consumer (GX24q)  
and Part 15, Class B (GX23)

## Ordering Information

| Item Number | Ordering Abbreviation | Configuration | Wattage | Lumens (lm) | CCT   | CRI | DIM | DLC (Y/N) |
|-------------|-----------------------|---------------|---------|-------------|-------|-----|-----|-----------|
| 40448       | LED6PBGX23H827        | Horizontal    | 6W      | 625         | 2700K | 80  | No  | N/A       |
| 40449       | LED6PBGX23H835        | Horizontal    | 6W      | 625         | 3500K | 80  | No  | N/A       |
| 40450       | LED6PBGX23H841        | Horizontal    | 6W      | 625         | 4100K | 80  | No  | N/A       |
| 40019       | LED9PBGX24QH827G2     | Horizontal    | 9W      | 900         | 2700K | 80  | No  | Y         |
| 40020       | LED9PBGX24QH830G2     | Horizontal    | 9W      | 950         | 3000K | 80  | No  | Y         |
| 75036       | LED9PBGX24QH835G2     | Horizontal    | 9W      | 950         | 3500K | 80  | No  | Y         |
| 75037       | LED9PBGX24QH841G2     | Horizontal    | 9W      | 1000        | 4100K | 80  | No  | Y         |
| 40017       | LED9PBGX24QV827G2     | Vertical      | 9W      | 900         | 2700K | 80  | No  | Y         |
| 40018       | LED9PBGX24QV830G2     | Vertical      | 9W      | 950         | 3000K | 80  | No  | Y         |
| 75038       | LED9PBGX24QV835G2     | Vertical      | 9W      | 950         | 3500K | 80  | No  | Y         |
| 75039       | LED9PBGX24QV841G2     | Vertical      | 9W      | 1000        | 4100K | 80  | No  | Y         |
| 40406       | LED16/PB/GX24Q/H/827  | Horizontal    | 16W     | 1650        | 2700K | 80  | No  | Y         |
| 40407       | LED16/PB/GX24Q/H/830  | Horizontal    | 16W     | 1750        | 3000K | 80  | No  | Y         |
| 40408       | LED16/PB/GX24Q/H/835  | Horizontal    | 16W     | 1750        | 3500K | 80  | No  | Y         |
| 40409       | LED16/PB/GX24Q/H/841  | Horizontal    | 16W     | 1850        | 4100K | 80  | No  | Y         |
| 40410       | LED16/PB/GX24Q/V/827  | Vertical      | 16W     | 1650        | 2700K | 80  | No  | Y         |
| 40411       | LED16/PB/GX24Q/V/830  | Vertical      | 16W     | 1750        | 3000K | 80  | No  | Y         |
| 40412       | LED16/PB/GX24Q/V/835  | Vertical      | 16W     | 1750        | 3500K | 80  | No  | Y         |
| 40413       | LED16/PB/GX24Q/V/841  | Vertical      | 16W     | 1850        | 4100K | 80  | No  | Y         |

## Ordering Guide

|            |          |          |           |          |             |          |             |          |          |                   |            |
|------------|----------|----------|-----------|----------|-------------|----------|-------------|----------|----------|-------------------|------------|
| <b>LED</b> | <b>9</b> | <b>/</b> | <b>PB</b> | <b>/</b> | <b>GX23</b> | <b>/</b> | <b>H</b>    | <b>/</b> | <b>8</b> | <b>35</b>         | <b>G2</b>  |
| LED Lamp   | Wattage  |          | Pin Base  |          | Base Type   |          | Orientation |          | CRI= 80+ | Color Temperature | Generation |

## Lamp Dimensions

| Ordering Abbreviation | (A)<br>Max. Overall Length | (B)<br>Base Face to Top of Lamp | (C)<br>Guide Post Length | (D)<br>Max. Base Width (Front) | (E)<br>Max. Base Width (Side) |
|-----------------------|----------------------------|---------------------------------|--------------------------|--------------------------------|-------------------------------|
| GX23                  | 6.77" (172mm)              | 6.18" (157mm)                   | .59" (15mm)              | 1.06" (27mm)                   |                               |
| 9W GX24Q Horizontal   | 6.61" (168mm)              | 6.02" (153mm)                   | .59" (15mm)              | 1.06" (27mm)                   |                               |
| 9W GX24Q Vertical     | 4.63" (117.5mm)            | 4.0" (101.5mm)                  | .63" (16mm)              | 1.81" (46mm)                   |                               |
| 16W GX24Q Horizontal  | 6.40" (162.6mm)            | 5.82" (147.7mm)                 | .59" (15mm)              | 1.59" (40mm)                   | 1.61" (41mm)                  |
| 16W GX24Q Vertical    | 5.81" (147.5mm)            | 5.18" (131.5mm)                 | .63" (16mm)              | 3.74" (95mm)                   | N/A                           |

## Replacement Chart

| Traditional Family   | Watts | Traditional Description | Watts | Mean Lumens | Base    | MOL Length | Base         | SubstiTUBE® DULUX LED Lamps |               |            |              |              |            |              | Comments   |
|----------------------|-------|-------------------------|-------|-------------|---------|------------|--------------|-----------------------------|---------------|------------|--------------|--------------|------------|--------------|--|
|                      |       |                         |       |             |         |            |              | LED16PBGX24q                |               |            | LED9PBGX24q  |              |            | LED6PB GX23  |  |
|                      |       |                         |       |             |         |            |              | MOL 16W LED H               | MOL 16W LED V | 16W Lumens | MOL 9W LED H | MOL 9W LED V | 16W Lumens | MOL 6W LED H |  |
| DULUX T/E Electronic | 42    | CF42DT/E/IN/8XX/ECO     | 42    | 2752        | GX24q-4 | 6.5"       | G24q / GX24q | 6.40"                       | 5.81"         | 1650-1850  | 6.61"        | 4.63"        | 900-1000   |              | 16W is the direct replacement  |
|                      | 32    | CF32DT/E/IN/8XX/ECO     | 32    | 2064        | GX24q-3 | 5.6"       |              |                             | 5.81"         | 1650-1850  |              | 4.63"        | 900-1000   |              | 9W H & 16W H & V may be too long, 9W V may not be bright enough.                         |
|                      | 26    | CF26DT/E/IN/8XX/ECO     | 26    | 1548        | GX24q-3 | 5"         |              |                             |               |            |              | 4.63"        | 900-1000   |              | 16W Will be too long, 9W may not be bright enough.                                       |
|                      | 18    | CF18DT/E/IN/8XX/ECO     | 18    | 1032        | GX24q-2 | 4.4"       |              |                             |               |            |              | 4.63"        | 900-1000   |              | 16W H & V will be too long and too bright. 9W H too long, 9W V, check fit and brightness |
|                      | 13    | CF13DT/E/ECO            | 13    | 774         | GX24q-1 | 4.2"       |              |                             |               |            |              | 4.63"        | 900-1000   |              | 9W V may work but may be too bright  |
| DULUX D/E Electronic | 26    | CF26DD/E/8XX/ECO        | 26    | 1470        | G24q-3  | 6.5"       | G24q / GX24q | 6.40"                       | 5.81"         | 1650-1850  | 6.61"        | 4.63"        | 900-1000   |              | 9W is the Direct Replacement; 16W will be too bright                                     |
|                      | 18    | CF18DD/E/8XX/ECO        | 18    | 989         | G24q-2  | 5.8"       |              |                             |               |            |              | 4.63"        | 900-1000   |              | 9W V may work, check brightness; 9W H is too long  |
|                      | 13    | CF13DD/E/8XX/ECO        | 13    | 774         | G24q-1  | 5.2"       |              |                             |               |            |              | 4.63"        | 900-1000   |              | 9W V may work, check brightness; 9W H is too long  |
| DULUX S Magnetic     | 13    | CF13DS/ECO              | 13    | 688         | GX23    | 7.1"       | GX23         |                             |               |            | 6.61"        | N/A          | 625        | 6.77"        | 6W is the Direct Replacement   |

Notes: Before replacing lamps with LED replacement lamps, check the lumens and overall length of the lamp to ensure a proper retrofit. Cells that are RED do not imply mechanical incompatibility. When in doubt, try the lamp prior to a large installation.

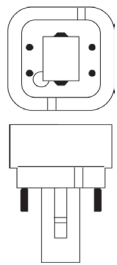
### Key:

Direct Replacement

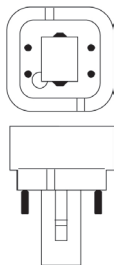
Likely fit, check fixture dimensions and brightness

Base fits, length or lumens may be prohibitive

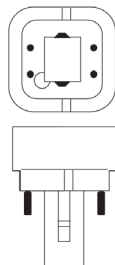
## Base Types



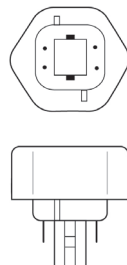
G24q-3



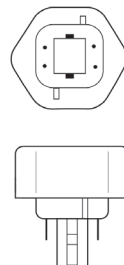
G24q-2



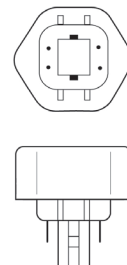
G24q-1



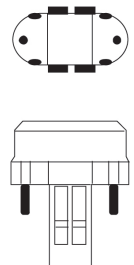
GX24q-2



GX24q-3



GX24q-4



GX23

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