

BENSON  
ENERGY  
SAVING  
TECHNOLOGY  
CO., LTD

CATALOG

2021

# BEST PRODUCT

## LINER SERIES

NOTE: WITH NEW RELEASED DIMMABLE FEATURE OPTION

T5



T8



# BEST PRODUCT

## PL SERIES

NOTE: WITH NEW RELEASED DIMMABLE FEATURE OPTION

G23



G24q



2G10



2G11



2G7



# 01



T5 tube

## EASY PLUG & PLAY NEW RELEASED DIMMABLE OPTION

Dimming Methods:

AC-Triac Mains Dimming

DALI (Digital Addressable Lighting Interface)

1-10V Analogue Dimming

# T5

LED Lamp  
Series



|                                |                                |     |     |     |
|--------------------------------|--------------------------------|-----|-----|-----|
| ECGsmart T5 HE LED Series      | 3W                             | 4W  | 5W  | 7W  |
| Length (mm)                    | 136                            | 212 | 288 | 517 |
| Directly Retrofit Old T5 HE FL | 4W                             | 6W  | 8W  | 13W |
| Compatibility                  | Electronic Ballast, LED driver |     |     |     |

## ECGsmart T5 Short LED Tube



|                                |                                |     |      |      |
|--------------------------------|--------------------------------|-----|------|------|
| ECGsmart T5 HE LED Series      | 9W                             | 14W | 20W  | 24w  |
| Length (mm)                    | 549                            | 849 | 1149 | 1449 |
| Directly Retrofit Old T5 HE FL | 14W                            | 21W | 28W  | 35W  |
| Compatibility                  | Electronic Ballast, LED driver |     |      |      |

## ECGsmart T5 HE LED Tube



|                                |                                |     |      |      |      |
|--------------------------------|--------------------------------|-----|------|------|------|
| ECGsmart T5 HO LED Series      | 13W                            | 23W | 32W  | 31W  | 44W  |
| Length (mm)                    | 549                            | 849 | 1149 | 1449 | 1449 |
| Directly Retrofit Old T5 HO FL | 24W                            | 39W | 54W  | 49W  | 80W  |
| Compatibility                  | Electronic Ballast, LED driver |     |      |      |      |

## ECGsmart T5 HO LED Tube



single / double ended

|                         |                                      |     |      |      |
|-------------------------|--------------------------------------|-----|------|------|
| ECGall T5 HE LED Series | 3W                                   | 4W  | 5W   | 7W   |
| Length (mm)             | 549                                  | 849 | 1149 | 1449 |
| T5 HE FL                | 14W                                  | 21W | 28W  | 35W  |
| Compatibility           | Electronic Ballast, AC in(100V~240V) |     |      |      |

## ECGall T5 HE LED Tube



|                         |                                      |     |      |      |      |
|-------------------------|--------------------------------------|-----|------|------|------|
| ECGall T5 H0 LED Series | 13W                                  | 23W | 32W  | 31W  | 44W  |
| Length (mm)             | 549                                  | 849 | 1149 | 1449 | 1449 |
| T5 H0 FL                | 24W                                  | 39W | 54W  | 49W  | 80W  |
| Compatibility           | Electronic Ballast, AC in(100V~240V) |     |      |      |      |

## ECGall T5 H0 LED Series Tube



|                       |                    |     |     |     |
|-----------------------|--------------------|-----|-----|-----|
| VBDC T5 HE LED Series | 3W                 | 4W  | 5W  | 7W  |
| Length (mm)           | 136                | 212 | 288 | 517 |
| Old T5 HE FL          | 4W                 | 6W  | 8W  | 13W |
| Compatibility         | 12V / 24V DC input |     |     |     |

## VBDC T5 Short LED Tube

For direct connection into AC supply, the power consumption may increase 1~3 watts

# 02

T8 tube

## EASY PLUG & PLAY

### NEW RELEASED DIMMABLE OPTION

Dimming Methods:

AC-Triac Mains Dimming

DALI (Digital Addressable Lighting Interface)

1-10V Analogue Dimming



# T8<sub>LED Lamp</sub> Series



normal

rotate

Safety switch

|                                |                                                                                                            |     |        |      |
|--------------------------------|------------------------------------------------------------------------------------------------------------|-----|--------|------|
| ECGsmart<br>T8 LED             | 10W                                                                                                        | 18W | 24W    | 38W  |
| Length (mm)                    | 600                                                                                                        | 900 | 1200   | 1500 |
| Directly Retrofit<br>Old T8 FL | 20/18W                                                                                                     | 30W | 36/38W | 58W  |
| Compatibility                  | ECGsmart: Electronic Ballast, LED driver<br>ECGall: Electronic Ballast, Magnetic Ballast, AC in(100V~240V) |     |        |      |

## ECGsmart T8 LED Tube ECGall T8 LED Tube

End Cap Options: safety switch / rotate / normal

For direct connection into AC supply, the power consumption may increase 1~3 watts

# 03

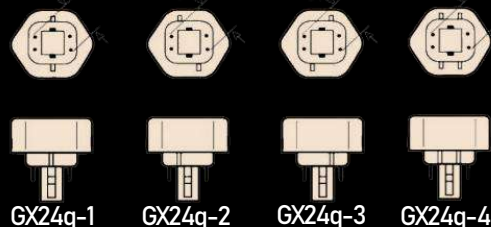
GX24q



G24q



G24q<sup>LED Lamp</sup>  
Series



Horizontal  
Mounting

270 degree rotate



| ECGsmart<br>G24q LED Series      | 5w                                                                                        | 6w   | 7w   | 9w   | 13W   |
|----------------------------------|-------------------------------------------------------------------------------------------|------|------|------|-------|
| Base                             | G24q                                                                                      | G24q | G24q | G24q | Gx24q |
| Directly Retrofit<br>Old G24 CFL | 10w                                                                                       | 13w  | 18w  | 26w  | 32W   |
| Compatibility                    | ECGsmart: Electronic Ballast, LED driver<br>ECGall: Electronic Ballast, AC in (100V-240V) |      |      |      |       |

## ECGsmart G24q/GX24q LED lamp ECGall G24q/GX24q LED lamp

| Model                             | LED Watt | Old CFL types                                                | Replace CFL     |
|-----------------------------------|----------|--------------------------------------------------------------|-----------------|
| ECGsmart/ECGall G24q 5W LED Lamp  | 5        | GE Biax D/E Series<br>PHILIPS MASTER PL-C<br>OSRAM DULUX D/E | Replace CFL 10w |
| ECGsmart/ECGall G24q 6W LED Lamp  | 6        |                                                              | Replace CFL 13W |
| ECGsmart/ECGall G24q 7W LED Lamp  | 7        |                                                              | Replace CFL 18W |
| ECGsmart/ECGall G24q 9W LED Lamp  | 9        |                                                              | Replace CFL 26W |
| ECGsmart/ECGall G24q 13W LED Lamp | 13       |                                                              | Replace CFL 32W |

# 04



## 2G11<sup>LED Lamp</sup> Series



|                                   |                                                                                          |      |      |      |      |
|-----------------------------------|------------------------------------------------------------------------------------------|------|------|------|------|
| ECGsmart<br>2G11 LED              | 9w                                                                                       | 12w  | 18w  | 20w  | 25   |
| Base                              | 2G11                                                                                     | 2G11 | 2G11 | 2G11 | 2G11 |
| Directly Retrofit<br>Old 2G11 CFL | 18w                                                                                      | 24w  | 36w  | 40w  | 55w  |
| Compatibility                     | ECGsmart: Electronic Ballast, LED driver<br>ECGall: Electronic Ballast, AC in(100V~240V) |      |      |      |      |

For direct connection into AC supply, the power consumption may increase 1~2 watts

## ECGsmart 2G11 LED lamp

## ECGall 2G11 LED lamp

| Model                             | Retrofit Target      | PL-L Wattage     |
|-----------------------------------|----------------------|------------------|
| ECGsmart/ECGall 2G11 9W LED Lamp  |                      | Replace PL-L 18w |
| ECGsmart/ECGall 2G11 12W LED Lamp | GE Biax L Series     | Replace PL-L 24w |
| ECGsmart/ECGall 2G11 18W LED Lamp | PHILIPS MASTER PL-L, | Replace PL-L 36w |
| ECGsmart/ECGall 2G11 20W LED Lamp | OSRAM DULUX L        | Replace PL-L 40w |
| ECGsmart/ECGall 2G11 25W LED Lamp |                      | Replace PL-L 55w |



05



# G23 LED Lamp Series



## AC-IN G23 LED lamp

| AC-IN G23 LED Series | 3w                     | 4w  | 5w  | 6w  |
|----------------------|------------------------|-----|-----|-----|
| Type                 | G23                    | G23 | G23 | G23 |
| Old 2 Pin PLS CFL    | 5w                     | 7w  | 9w  | 11w |
| Compatibility        | AC input( 100V ~ 240V) |     |     |     |

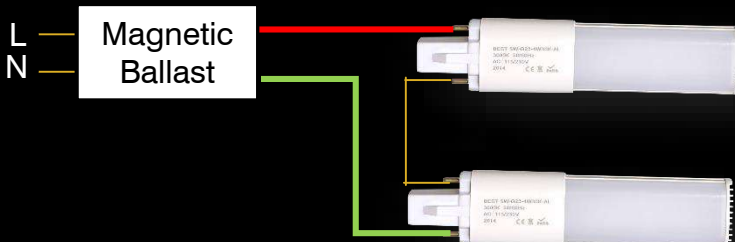
## Wiring diagram One Ballast to one G23 LED lamp

For single use



## Wiring diagram One Ballast to two G23 LED lamps in serial

For tandem use

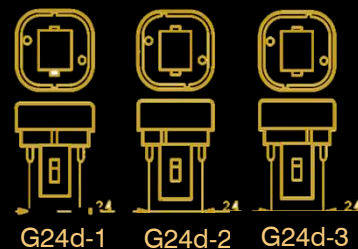


| Model                 | Watt | Old CFL type                                                   | Replace CFL     |
|-----------------------|------|----------------------------------------------------------------|-----------------|
| AC-IN 3W G23 LED lamp | 3    | OSRAM DULUX S ,<br>GE Low voltage Biax Series,<br>PHILIPS PL-S | Replace 5w CFL  |
| AC-IN 4W G23 LED lamp | 4    |                                                                | Replace 7w CFL  |
| AC-IN 5W G23 LED lamp | 5    |                                                                | Replace 9w CFL  |
| AC-IN 6W G23 LED lamp | 6    |                                                                | Replace 11w CFL |

# 06



**G24d** LED Lamp  
**Series**



Horizontal Mounting

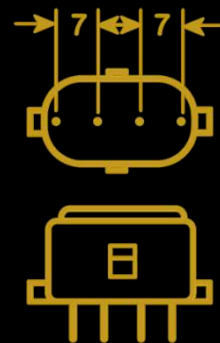
| AC-IN<br>G24q LED Series | 5w                     | 6w   | 7w   | 9w   |
|--------------------------|------------------------|------|------|------|
| Base                     | G24d                   | G24d | G24d | G24d |
| Old CFL                  | 10w                    | 13w  | 18w  | 26w  |
| Compatibility            | AC input( 100V ~ 240V) |      |      |      |

| Model                  | LED Watt | Old CFL types                                | Replace CFL     |
|------------------------|----------|----------------------------------------------|-----------------|
| AC-IN G24d 5W LED Lamp | 5        |                                              | Replace CFL 10w |
| AC-IN G24d 6W LED Lamp | 6        | OSRAM DULUX D<br>OSRAM DULUX D ES            | Replace CFL 13W |
| AC-IN G24d 7W LED Lamp | 7        | PHILIPS MASTER PL-C<br>GE double BIAx Series | Replace CFL 18W |
| AC-IN G24d 9W LED Lamp | 9        |                                              | Replace CFL 26W |

# 07



## 2G7<sup>LED Lamp</sup> Series



| ECGsmart<br>2G7 LED Series | 3w                                                                          | 4w  | 5w  | 6w  |
|----------------------------|-----------------------------------------------------------------------------|-----|-----|-----|
| Base                       | 2G7                                                                         | 2G7 | 2G7 | 2G7 |
| Old 2G7 CFL                | 5w                                                                          | 7w  | 9w  | 11w |
| Compatibility              | ECGsmart: Electronic Ballast, LED driver<br>SW type: AC input( 100V ~ 240V) |     |     |     |

## ECGsmart 2G7 LED lamp SW/AC-IN 2G7 LED lamp

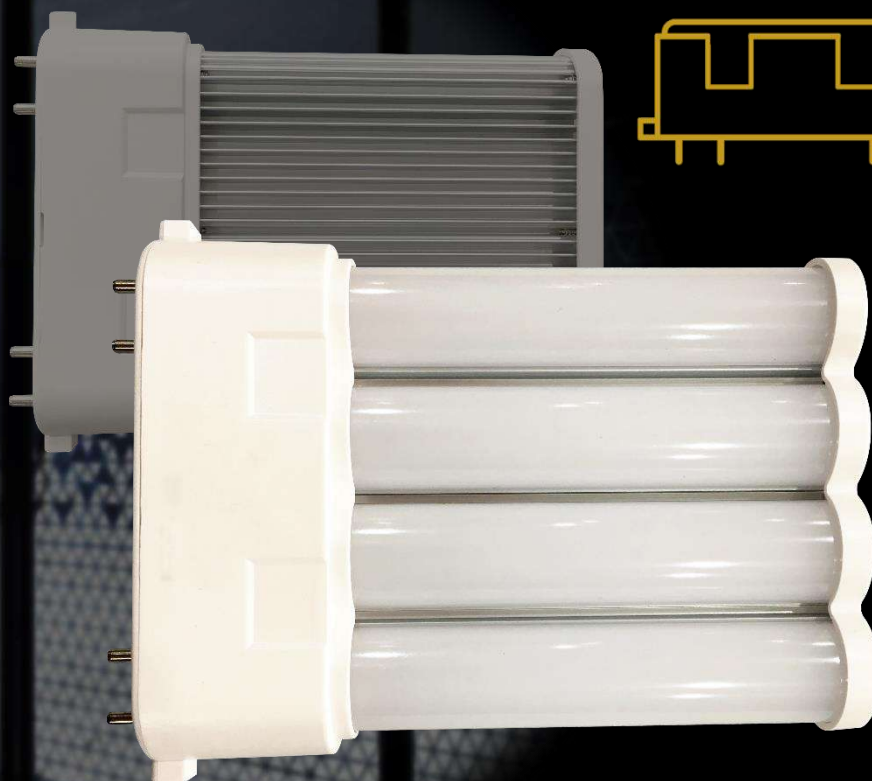
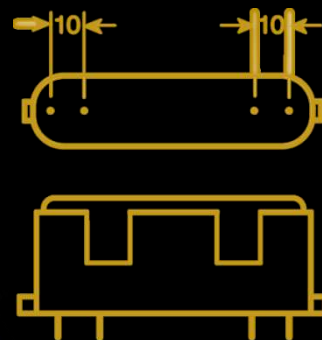
| Model                          | LED Watt | Old CFL types                              | Replace CFL      |
|--------------------------------|----------|--------------------------------------------|------------------|
| ECGsmart/AC-IN 2G7 3W LED Tube | 3        |                                            | Replace PL-S 5w  |
| ECGsmart/AC-IN 2G7 4W LED Tube | 4        | Philips - PLS 4 Pin<br>Sylvania - Lynx S/E | Replace PL-S 7W  |
| ECGsmart/AC-IN 2G7 5W LED Tube | 5        | Osram - Dulux S/E<br>GE - Biax S/E         | Replace PL-S 9W  |
| ECGsmart/AC-IN 2G7 6W LED Tube | 6        |                                            | Replace PL-S 11W |



# 08



**2G10** LED Lamp  
**Series**



|                             |                                                                             |      |      |
|-----------------------------|-----------------------------------------------------------------------------|------|------|
| ECGsmart<br>2G10 LED Series | 9w                                                                          | 12w  | 18w  |
| Base                        | 2G10                                                                        | 2G10 | 2G10 |
| Old 2G10 CFL                | 18w                                                                         | 24w  | 36w  |
| Compatibility               | ECGsmart: Electronic Ballast, LED driver<br>SW type: AC input( 100V ~ 240V) |      |      |

## ECGsmart 2G10 LED lamp

### AC-IN 2G10 LED lamp

| Model                             | LED Watt | Old CFL types                        | Replace CFL            |
|-----------------------------------|----------|--------------------------------------|------------------------|
| ECGsmart /AC-IN 2G10 9W LED Tube  | 9        |                                      | Replace DuluxF 18w     |
| ECGsmart /AC-IN 2G10 12W LED Tube | 12       | Osram - Dulux F<br>Sylvania - Lynx F | Replace PL-S Dulux 24w |
| ECGsmart /AC-IN 2G10 18W LED Tube | 18       |                                      | Replace PL-S Dulux 36w |

09



# MICROWAVE T8<sup>LED Lamp</sup> Series

# Product features

- ★ Integrated Microwave Motion sensors & auto-dimming function
- ★ Maximize light output while also maximizing power saving by running at approx. 30% power (ONLY 3W around) in 45 seconds when no presence is detected.
- ★ The auto-dimming feature makes the areas remain partially lit rather than stay dark waiting for the circuit sensors to activate.
- ★ Only the lights in the direct vicinity of present will be activated allowing another areas to remain at maximum energy saving.
- ★ Built-in high power factor isolated drivers to maximize the light efficiency combined with total in-rush protection to safeguard vital components from power surges, over-load and over- heat protection.
- ★ Single ended power supply and nonconductive end caps design ensures simple and safe installation.



**BEST Microwave Sensor T8 LED Tube**



|                |                         |                         |           |                        |
|----------------|-------------------------|-------------------------|-----------|------------------------|
| Input Voltage: | AC 100 ~ 277 50/60Hz    |                         |           |                        |
| Dimension      | Φ26*1200mm              |                         | Φ26*600mm |                        |
| Function Mode  | On/Off                  | Dual mode               | On/Off    | Dual mode              |
| Rated Power    | 0W ←→ 18W               | 3W←→18W<br>(adjustable) | 0W ←→ 9W  | 3W←→9W<br>(adjustable) |
| Lumen          | >2000                   |                         | >900      |                        |
| Power Factor   | ≥0.9                    |                         |           |                        |
| CRI:           | ≥80                     |                         |           |                        |
| Lumen efficacy | >110                    |                         |           |                        |
| Materials:     | Aluminum + PC diffuser  |                         |           |                        |
| Working temp   | -20 ~ 45°C              |                         |           |                        |
| Sensor Angle   | 120°                    |                         |           |                        |
| Sensor Time    | 10-120 sec (adjustable) |                         |           |                        |
| Sensor Range   | 8-12 meter (adjustable) |                         |           |                        |

## BEST Microwave Sensor T8 LED Tube



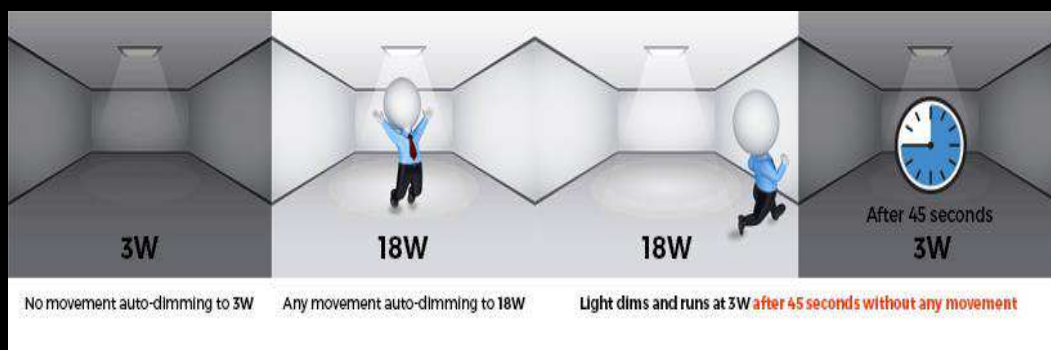
# Product features

- ★ Integrated PIR sensors & auto-dimming function
- ★ Maximize light output while also maximizing power saving by running at approx. 30% power (ONLY 3W around) in 45 seconds when no presence is detected.
- ★ The auto-dimming feature makes the areas remain partially lit rather than stay dark waiting for the circuit sensors to activate.
- ★ Only the lights in the direct vicinity of present will be activated allowing another areas to remain at maximum energy saving.
- ★ Built-in high power factor isolated drivers to maximize the light efficiency combined with total in-rush protection to safeguard vital components from power surges, over-load and over-heat protection.
- ★ Single ended power supply and nonconductive end caps design ensures simple and safe installation.

Pyro-electric  
Infrared Detector

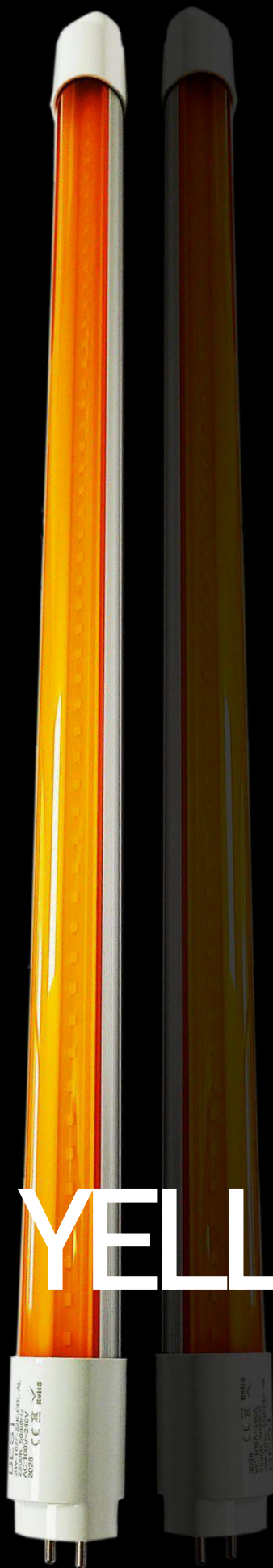


|                |                         |                     |           |                    |
|----------------|-------------------------|---------------------|-----------|--------------------|
| Input Voltage: | AC 100 ~ 277 50/60Hz    |                     |           |                    |
| Dimension      | Φ26*1200mm              |                     | Φ26*600mm |                    |
| Function Mode  | On/Off                  | Dual mode           | On/Off    | Dual mode          |
| Rated Power    | 0W ↔ 18W                | 3W↔18W (adjustable) | 0W ↔ 9W   | 3W↔9W (adjustable) |
| Lumen          | >2000                   |                     | >900      |                    |
| Power Factor   | ≥0.9                    |                     |           |                    |
| CRI:           | ≥80                     |                     |           |                    |
| Lumen efficacy | >110                    |                     |           |                    |
| Materials:     | Aluminum + PC diffuser  |                     |           |                    |
| Working temp   | -20 ~ 45°C              |                     |           |                    |
| Sensor Angle   | 120°                    |                     |           |                    |
| Sensor Time    | 10-120 sec (adjustable) |                     |           |                    |
| Sensor Range   | 8-12 meter (adjustable) |                     |           |                    |



10

# For Semiconductor clean room



**YELLOW T8**  
Series

LED Lamp

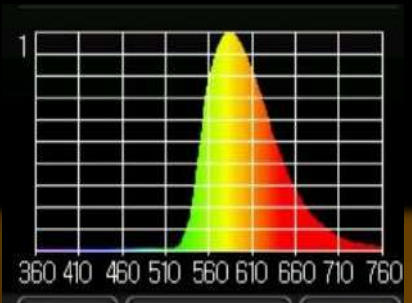
AC Input  
(100V~277V)  
Compatibility

Magnetic  
Ballast  
Compatibility

Electronic  
Ballast  
Compatibility

### *One for all solution*

- Directly replace fluorescent tube and
- Applied in semiconductor clean room, photo lithography, print shop or other UV-sensitive areas



Cut-Off  
Under 500nm

ECGsmart / ECGall T8 Yellow Clean Room LED Tube



## ECGsmart / ECGall T8 CRL LED Tube

### Safety

- ✓ Fuse protection. Over current / temperature protection
- ✓ Electric arc / Spark prevention

### Reliability

- ✓ No liquid capacitors and inductors on PCB
- ✓ 50,000 hours rated lifespan(L70); 25,000 switching cycles.

### Compatibility

- ✓ Perfectly compatible with rapid & preheat & instant start electronic ballast
- ✓ Working with magnetic ballast (For ECGall type)
- ✓ Support 1 ballast to multi-lamps(2/3/4)

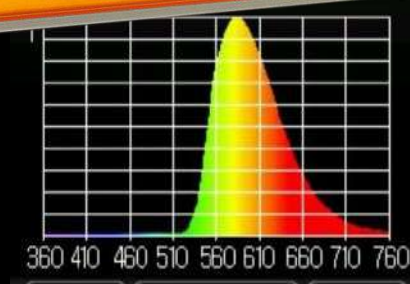
### Easy Installation

- ✓ Easy of use. Direct plug-and-play
- ✓ No need to rewire the fixture or bypass ballast
- ✓ Reduce maintenance and installation cost

### Energy-saving

- ✓ Work with Electronic Ballast without increasing the power consumption





|                                |                                                                                                                |        |      |
|--------------------------------|----------------------------------------------------------------------------------------------------------------|--------|------|
| Yellow T8 Clean Room LED       | 10W                                                                                                            | 24W    | 38W  |
| Length (mm)                    | 600                                                                                                            | 1200   | 1500 |
| Directly Retrofit<br>Old T8 FL | 20/18W                                                                                                         | 38/36W | 58W  |
| Compatibility                  | ECGsmart: Electronic Ballast, LED driver<br><br>ECGall: Electronic Ballast, Magnetic Ballast, AC in(100V~240V) |        |      |

## ECGsmart Yellow T8 LED Tube ECGall Yellow T8 LED Tube





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