

## Product Description

LF-GOE050YF/YE is a 50W LED driver owning 2 versions: 0-10V/PWM/Rx dimmable version LF-GOE050YF & non-dimmable version LF-GOE050YE. Its rated input voltage ranges from 100 to 277Vac; voltage limit: 90-305Vac. This driver features new casing design and is suitable for street light, tunnel light and various lighting projects. Besides, it has all-round protections, including surge protection, over voltage protection, short circuit protection and over temperature protection, which greatly improves the product stability. There is a potentiometer on the side that helps to adjust the output current (power) of the driver.

## Features

- High efficiency up to 89%
- Output current adjustable via potentiometer
- 0-10V/PWM/Rx dimmable (YF)
- Surge protection: L-N 6kV, L/N-GND 10kV
- All-round protections: over temperature protection, over voltage protection, short circuit protection + IP67
- Flicker index <30%
- 5-year warranty (please refer to the warranty description)

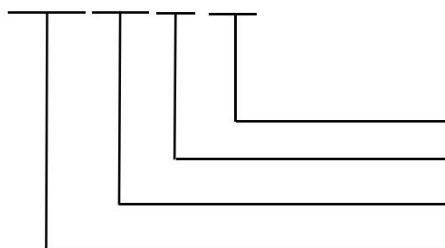
## Applications

- Street light
- Tunnel light



## Product Naming

LF - GOE 050 YF/YE



YE: non-dimmable  
 YF: 0-10V/PWM/Rx dimmable  
 050: rated power: 50W  
 GOE: street light LED driver

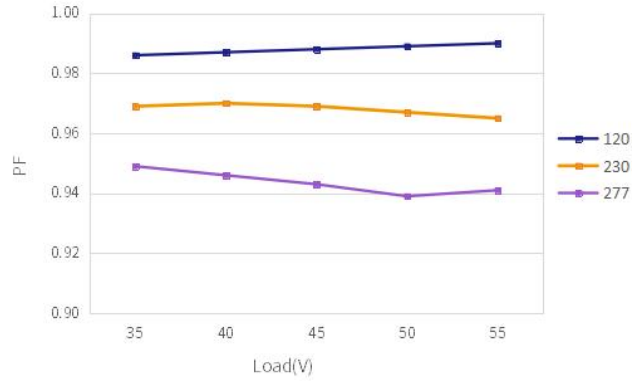
## Electrical Characteristics

| Full Model Number          |                               | LF-GOE050YF  | LF-GOE050YE |
|----------------------------|-------------------------------|--|-------------|
| Output                     | Output Voltage                | 30-54Vdc (LED)   |             |
|                            |                               | 27-54Vdc (LED) for CCC certified only  |             |
|                            | Output Current                | 600mA-1400mA (the potentiometer is beside the mark of IO ADJ)                    |             |
|                            | Output Power                  | 50W max @100~277Vac  |             |
|                            | Linear Adjustment Rate        | ±5% @full load   |             |
|                            | Load Adjustment Rate          | ±8% @full load   |             |
|                            | Temperature Drift             | ±5% @Ta-40°C~+60°C   |             |
|                            | Start-up Time                 | 120Vac <1S; 230Vac <0.5S   |             |
| Input                      | Input Voltage                 | 100~277Vac (voltage limit: 90-305Vac), 141~391Vdc                                |             |
|                            | Input Current                 | 0.8A max.  |             |
|                            | Power Factor                  | ≥0.97/120Vac; ≥0.95/230Vac; ≥0.9/277Vac @54Vdc 926mA                             |             |
|                            | THD                           | ≤15%/120Vac; ≤15%/230Vac; ≤20%/277Vac @54Vdc 926mA                               |             |
|                            | Efficiency                    | ≥89%/120Vac; ≥89%/230Vac; ≥89%/277Vac @54Vdc 926mA                               |             |
|                            | In-rush Current               | <80A/700uS @230Vac   |             |
|                            | Standby Power Consumption     | ≤2W  |             |
| Protection Characteristics | Open Circuit Protection       | Open-circuit voltage ≤60Vdc  |             |
|                            | Short Circuit Protection      | Hiccup mode (auto-recovery)  |             |
| Environment Descriptions   | Working Temperature           | -40°C~+60°C  |             |
|                            | Working Humidity              | 0-95%RH (no condensation)  |             |
|                            | Storage Temperature/ Humidity | -40°C~+80°C (six months under class I environment);<br>0-95%RH (no condensation) |             |
|                            | Atmospheric Pressure          | 86~106kPa  |             |

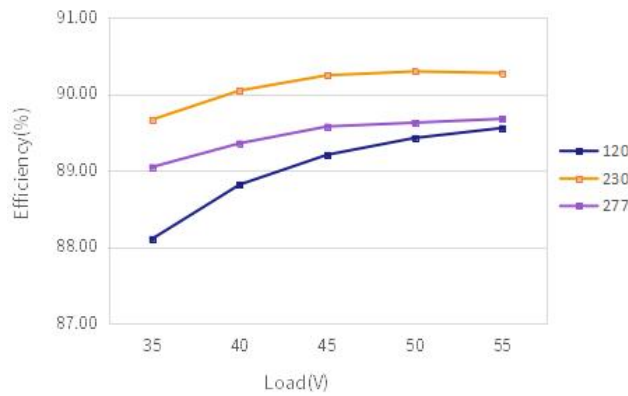
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| Safety and<br>Electromagnetic<br>Compatibility | Certification  | UL, FCC  |
|  | Withstanding Voltage   | I/P-O/P: 3.75kVac, <5mA 60S; I/P-FG: 1.6kVac, <5mA 60S;<br>O/P-FG: 0.5kVac, <5mA 60S |
|  | Insulation Resistance  | I/P-O/P: 500VDC, >100MΩ  |
|  | Safety Standard  | UL8750   |
|  | EMI  | FCC Part 15  |
|  | EMS  | Complies with IEC61000-4-2, 3, 4, 5 (DM 6kV, CM 10kV), 6, 8, 11, 12                  |
| Others   | IP Rating  | IP67   |
|  | RoHS   | RoHS 2.0 (EU) 2015/863   |
|  | Warranty   | 5 years (Tc ≤79°C)   |
| Remarks  | <p>1. It is recommended that customer should install protection devices for surge, for over voltage and for undervoltage to ensure safety before connecting to electricity.</p> <p>2. As an accessory, the LED driver is not the only factor determining the EMC performance of the LED light fixture. The structure and the wiring of the light fixture are also relevant. Thus it's strongly recommended the LED light fixture manufacturer re-confirms the EMC of the whole LED light fixture.</p> <p>3. It is suggested that user use slotted screwdriver or Philips to adjust the output current of LED driver in case that the potentiometer is damaged. (the screwdriver should have good insulation at the head, body and handle, and the screwdriver with a 2mm head is well-advised as well. What's more, please pay attention that the intensity of torque not exceed 0.5KN.m).</p> <p>4. The total output power of the light fixture should NOT exceed the maximum rated output power of the driver. ⚠</p> |  |

### Characteristic Curves

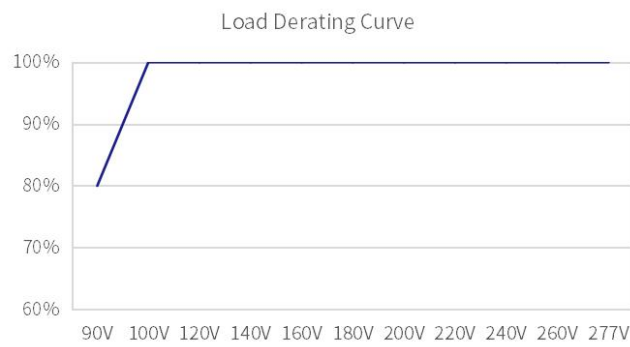
#### PF Curve



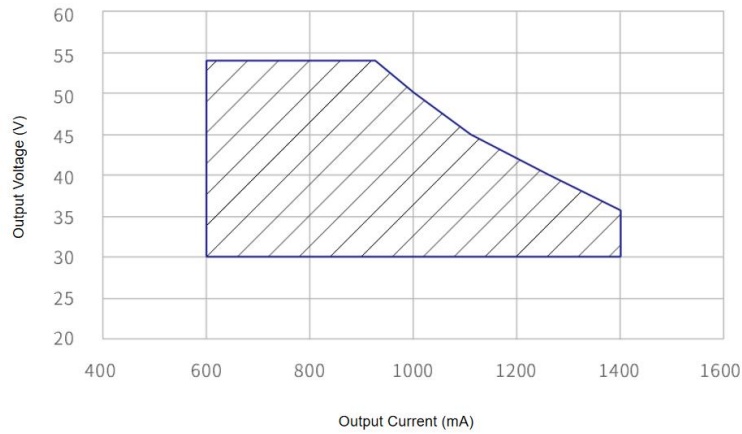
#### Efficiency Curve



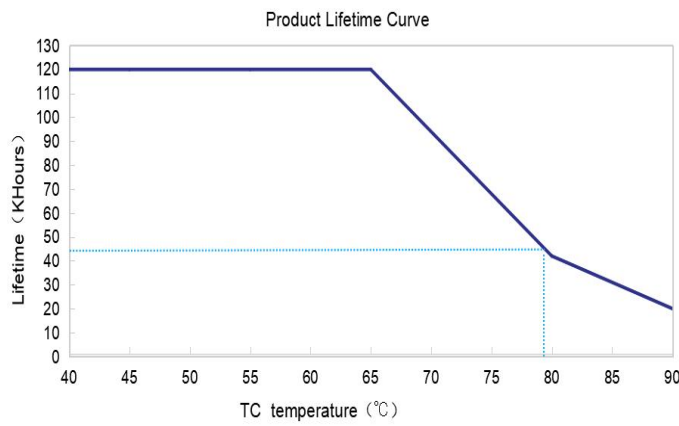
#### Load Derating Curve



**Power Curve**

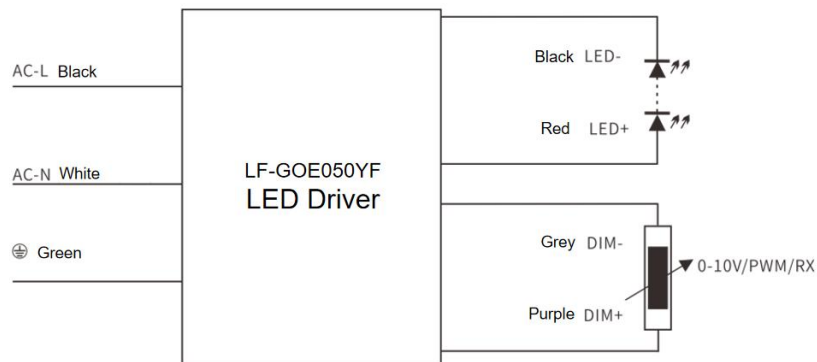


**Lifetime Curve**



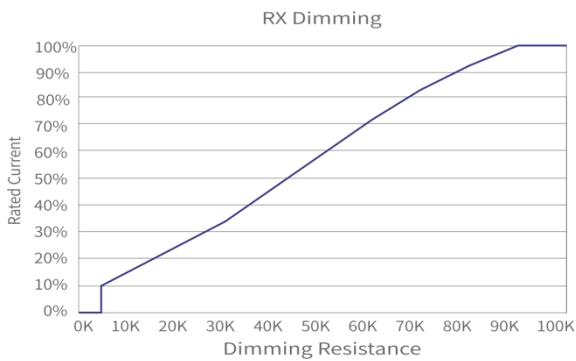
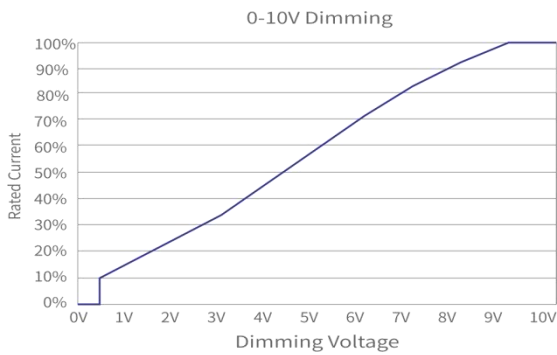
**Dimming Instructions**

**Dimming Diagram**

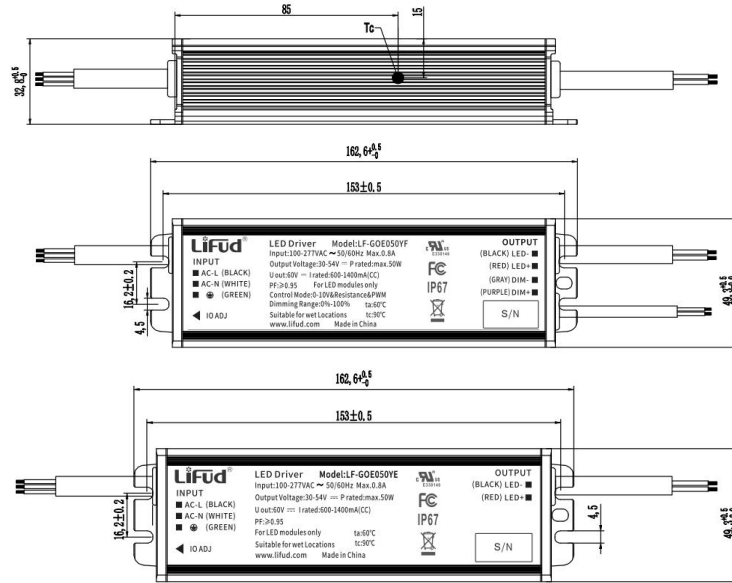


## 0-10V, PWM & RX Dimming Operations

- Connect the 0-10V, PWM or Rx signal to the DIM terminal.
- In 0-10V dimming mode, when the input voltage is less than 0.3V, the light turns off; when it's more than 0.5V, the light turns on.
- Minimum dimming depth of 0.5-10V: 10%
- PWM dimming depth: 10% (typical value)
- PWM signal requirement : 400-3000 (Hz); amplitude: 10(V)
- Rx range: 0-100K $\Omega$
- DIM+/- (no signal connection): 100% rated current



Structure & Dimensions (unit: mm)



| Input Wire  |             |             | Output Wire |             |             | Dimming Wire |             |             |
|-------------|-------------|-------------|-------------|-------------|-------------|--------------|-------------|-------------|
| Length (mm) | Peeled (mm) | Tinned (mm) | Length (mm) | Peeled (mm) | Tinned (mm) | Length (mm)  | Peeled (mm) | Tinned (mm) |
| 300         | 40          | 10          | 220         | 36          | 6           | 200          | 40          | 10          |

Input wire: 3\*18AWG Ø7.8±1mm; dimming wire: 2\*22AWG Ø5.0±1mm; output wire: 2\*18AWG Ø7.7±1mm

Packaging Specifications

|          |                                       |
|----------|---------------------------------------|
| Model    | LF-GOE050YF/YE                        |
| Carton   | 400*325*140mm (L*W*H)                 |
| Quantity | 8 pcs/layer; 2 layers/ctn; 16 pcs/ctn |
| Weight   | 0.41 kg /pc; 7±5% kg/ctn              |

## Transportation & Storage

### ■ Transportation

- Suitable transportation means: vehicles, boats and aircraft.
- During transportation, there should be awnings for rain protection and sun protection. Civilized loading and unloading are required. There should be no severe vibration or impact.

### ■ Storage

- Storage in accordance with the standard of GB 3873-83. For products which have been stored for more than 1 year, they mustn't be used until they pass the re-inspection.

## Attention

- Please use this product according to its specifications otherwise there may be malfunction.
- Use light fixtures that have not been certified or are not compatible with the LED drivers may cause fire or other hazards.
- Man-made damage, any use beyond the specification and non-original-factory modification are not covered by warranty.

Remark: The final interpretation right of the contents of this data sheet belongs to Lifud Technology Co., Ltd.