Product Description

LF-GLD045YI is a US-Standard dimmable flicker free LED driver. It complies with the latest safety standards of North America and requirements of DLC5.0 certification. It supports 0-10V/Rx dimming functions and its output circuit is isolated from the dimming circuit.

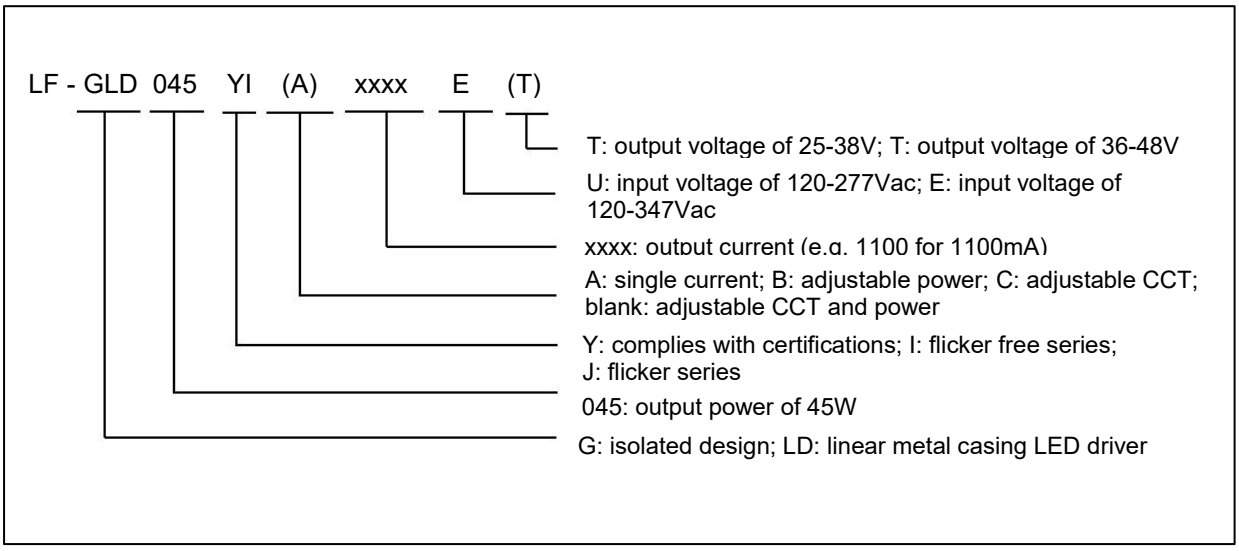
Features

- Complies with to the latest safety standards of North America: the output circuit is isolated from the dimming circuit
- Complies with the requirements of latest DLC 5.0 certification
- Smooth dimming effect
- Can be dimmed to off
- Adjustable current and CCT

Applications

- Backlit panel light

Product Naming



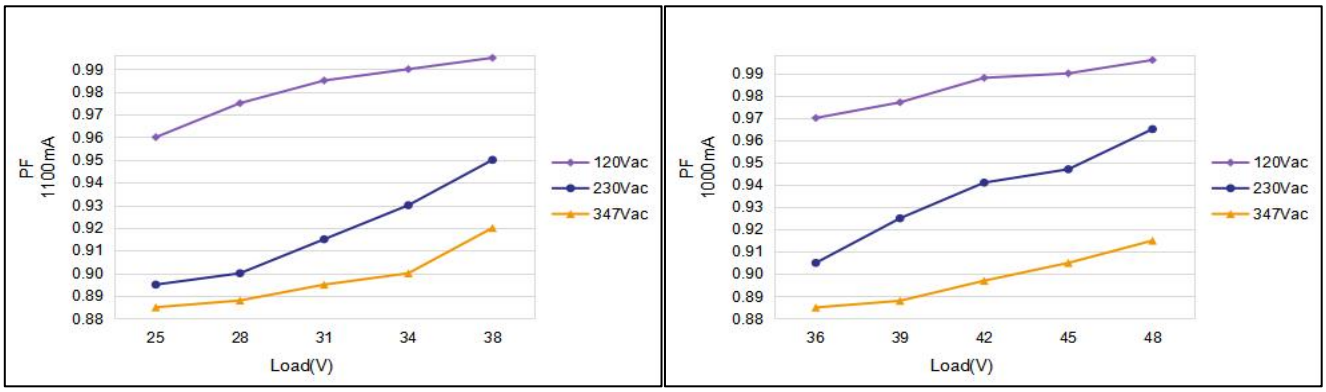
Electrical Characteristics

Model		LF-GLD045YIxxxxE(T)			LF-GLD045YIxxxxE(V)		
Output	Output Voltage	25-38Vdc			36-48Vdc		
	Output Current	700mA	900mA	1100mA	600mA	800mA	1000mA
	Flicker	<1%					
	Current Tolerance	±5%					
	Temperature Drift	±10%					
	Start-up Time	<1S					
Input	Input Voltage	120-347Vac					
	DC Input Voltage	142-490Vdc					
	Input Frequency	47Hz-63Hz					
	Input Current	0.6A max.					
	Power Factor	≥0.9@347Vac					
	Total Harmonic Distortion	≤20%					
	Efficiency (full load)	≥84%	≥85%	≥85%	≥84%	≥85%	≥85%
	Inrush Current	≤40A&260uS@230Vac					
	Load Quantity of what a Circuit Breaker can support	Circuit Breaker Model	B10	C10	B16	C16	
		Quantity (pcs)	10	10	16	16	
	Leakage Current	<0.5mA					
	Standby Power Consumption	≤1W (DIM OFF)					
Protective Features	Open-Circuit Protection	<55V			<59V		
	Short-Circuit Protection	Hiccup mode					
Environment Conditions	Operating Temperature	-30℃ ~ +50℃					
	Operating Humidity	20-90%RH (no condensation)					
	Storage Temperature/Humidity	-40℃ ~ +80℃ (six months under class I environment); 10-90%RH (no condensation)					
	Atmospheric Pressure	86kPa-106kPa					

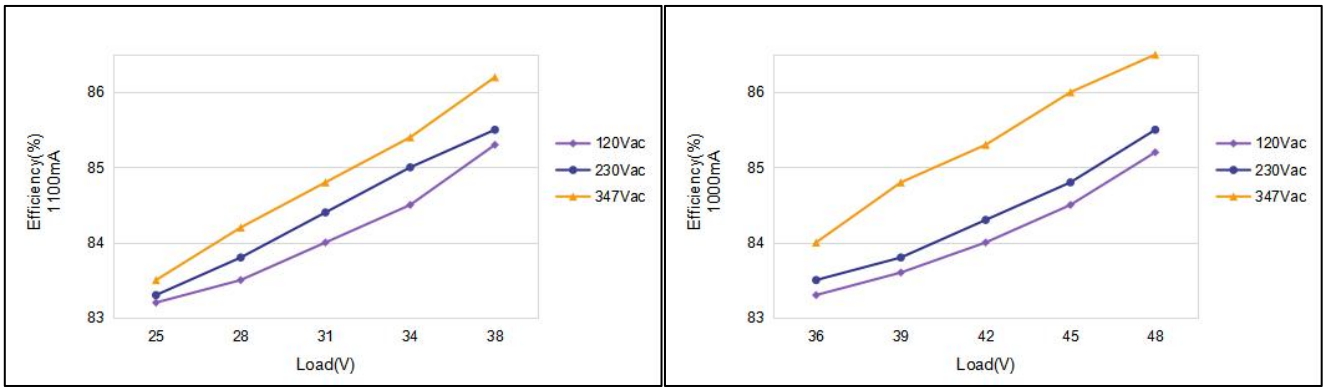
Safety & Norms	Certifications	Complies with UL and FCC
	Withstanding Voltage	I/P-O/P: 3.75kV/5mA/60S; I/P-GND 1.6kV 5mA 60S
	Insulation Resistance	I/P-O/P: >100MΩ@500Vdc
	Safety Standard	UL8750
	EMI	FCC: part 15B
	EMS	CE-EMC/RCM: EN61000-4-2, 3, 4, 5 (lightning strike 1kV), 6, 11 CCC: GB/T17626.2, 3, 4, 5 (lightning strike 1kV), 6, 11
Others	IP Rating	/
	RoHS	RoHS 2.0 (EU) 2015/863
	Warranty Condition	Please refer to the temperature limit of key components
Remarks	1. It is recommended that customer should install over voltage and under voltage protection devices and surge protection devices in the power supply circuits of the light fixtures to ensure safety before connecting to electricity. 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. 3. The test conditions of the circuit breaker configuration quantity are the same as that of the inrush current test. 4. Unless otherwise stated, the parameters of the power factor, harmonic and efficiency were test results under the ambient temperature of 25±5℃, humidity of 50%, AC input voltage of 120V/60Hz and full load. 5. The LED driver is wrapped with a layer of Mylar during the assessment on the range of its operating temperature.	

Characteristic Curves

■ **PF curves**

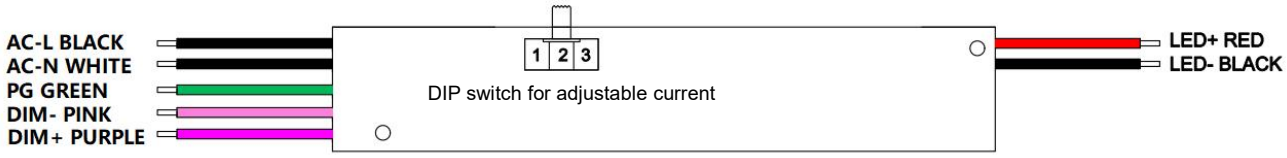


■ Efficiency curves

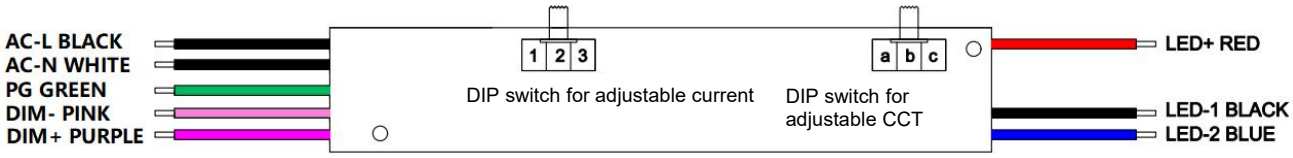


Dimming Operation Instructions

■ Definitions of Wires



LF-GLD045YI(B)



LF-GLD045YI

■ DIP Switch and Wire Instructions

	Shift \ Current	1100mA	1000mA		Shift \ Current	1000mA/1100mA
DIP switch for adjustable current	1	700mA	600mA	DIP switch for adjustable current	1	LED-2 warm color (blue wire)
	2	900mA	800mA		2	LED-2 & LED-1 warm color and cold color (blue wire and black wire)
	3	1100mA	1000mA		3	LED-1 cold color (black wire)

Function	Type of Wire	Specification	Color	Length	Note
AC-L	PVC electronic wire UL1015	18AWG	black	162mm	peeled and tinned: 8mm
AC-N	PVC electronic wire UL1015	18AWG	white	162mm	peeled and tinned: 8mm
PG	PVC electronic wire UL1015	18AWG	green	162mm	peeled and tinned: 8mm
LED+	PVC electronic wire UL1015	22AWG	red	162mm	peeled and tinned: 8mm
LED-	PVC electronic wire UL1015	22AWG	black	162mm	peeled and tinned: 8mm
LED-1	PVC electronic wire UL1015	22AWG	black	162mm	peeled and tinned: 8mm (connecting to the negative electrode of **cold color** LED board)
LED-2	PVC electronic wire UL1015	22AWG	blue	162mm	peeled and tinned: 8mm (connecting to the negative electrode of **warm color** LED board)
DIM+	PVC electronic wire UL1015	22AWG	purple	280mm	peeled and tinned: 8mm
DIM-	PVC electronic wire UL1015	22AWG	pink	280mm	peeled and tinned: 8mm

Note: users can select adjustable CCT or current functions according to their different demands
① If there is no need to adjust the current, users can select the LED drivers without DIP switches for adjustable current.
② If there is no need to adjust the CCT, users can select the LED drivers without DIP switches for adjustable CCT.

■ 0-10V and Rx Dimming Operations

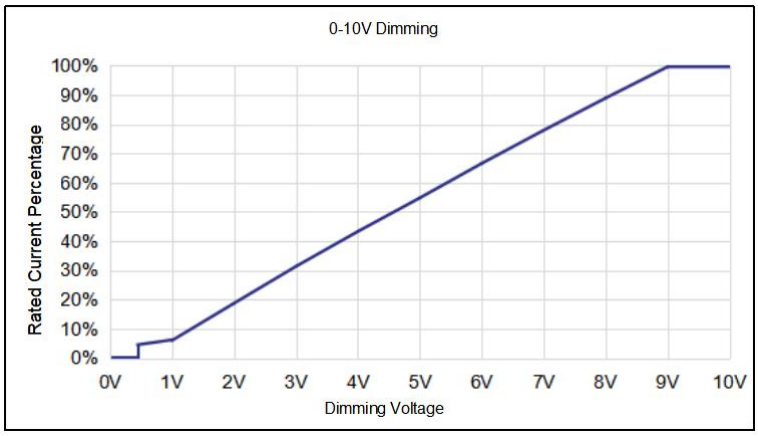
1. 0-10V or Rx signal is connected to the DIM terminal.

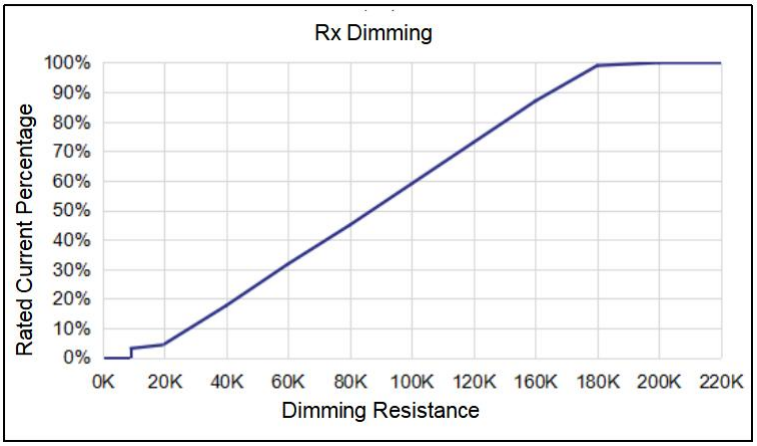
2. In 0-10V dimming mode, when the input voltage is less than 0.3V±0.2, the light turns off. When it's more than 0.5V±0.2, the light turns on.

3. Minimum dimming depth of 0-10V dimming: 8%.

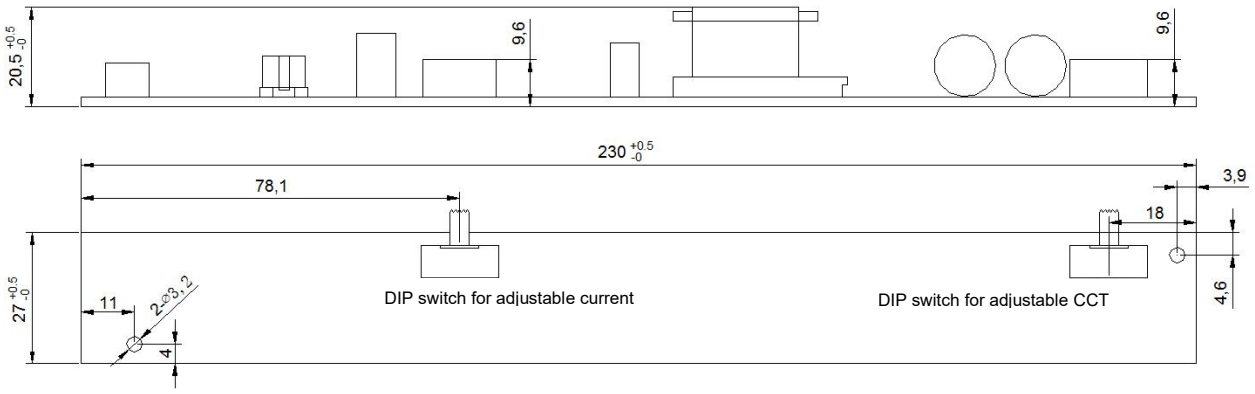
4. Dimming depth of Rx dimming: 8%. (dimming devices for reference: LUTRON coopersburg and PA 18036 USA)

5. DIM+/-(vacant): 100% rated current





Structure and Dimensions (unit: mm)



Temperature Limit of Key Components

Please make sure that the operating temperature of the following components does not exceed the temperature limits:

No.	Position	Component Name	Temperature Limit (℃)
1	T7	Transformer	110
2	DS2	Diode	120
3	Q2	MOS	120
4	C17, C19	Electrolytic capacitor	105
5	CS1	Electrolytic capacitor	105
6	CS3	Electrolytic capacitor	105
7	C12	Electrolytic capacitor	105

The 5-yr warranty service of LED driver is valid on the condition that the operating temperature of its following capacitors does not exceed their temperature limits:

No.	Position	Component Name	Temperature Limit (℃)
1	C17, C19	Electrolytic capacitor	75
2	C12	Electrolytic capacitor	85
3	CS1	Electrolytic capacitor	80
4	CS3	Electrolytic capacitor	80

Packaging Specifications

Model	LF-GLD045YI
Packaging dimensions	385*285*210 mm (L*W*H)
Quantities	9 pcs/layer; 4 layers/ctn; 36 pcs/ctn
Weights	0.11 kg/pc; 4.63 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 provisions of the Class I environment. For products which have been stored for more than six months, 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.