Product Description

LF-GMD035YSV conforms to the latest safety standards and DLC5.0 certification of North American. Its output circuit is isolated from the dimming circuit. It has three-in-one dimming function including 0-10V, PWM & Rx dimming. With upgraded dimming effect and wider output current range, this product is a better solution for your US-standard panel light.

Features

- Conforms to the latest safety standards: the output circuit is isolated from the dimming circuit
- Conforms to the latest DLC5.0 certification standards
- Upgraded dimming effect: the dimming curve becomes much smoother; the light can be dimmed to off; up to 10 pieces of LED drivers to be turned on and off synchronously

Application

- Indoor US-standard panel light

Technical Data (1)

Full Model Name		LF-GMD035YSV						
Output	Output Voltage	25-42V						
	Output Current	500mA	550mA	600mA	650mA	700mA	750mA	800mA
	Ripple Voltage	<2V @ 20MHz						
	Percent Flicker	Meet the US standards						
	Current Tolerance	±5%						
	Temperature Drift	±10%						
	Line Regulation	±5%						
	Start-up Time	<1s						
Input	Line Regulation	±5%						
	Rated Input Voltage	100-277VAC						
	Input Frequency Range	47Hz-63Hz						
	Input Current	0.4A Maximum						
	Power Factor	≥0.95 @ 120VAC						
		≥0.90 @ 277VAC						
	THD	≤20%						
	Efficiency	≥84% @ 120VAC	≥84% @ 120VAC	≥85% @ 120VAC	≥85% @ 120VAC	≥85% @ 120VAC	≥85% @ 120VAC	≥86% @ 120VAC
		≥83% @ 277VAC	≥84% @ 277VAC	≥84% @ 277VAC	≥85% @ 277VAC	≥85% @ 277VAC	≥86% @ 277VAC	≥87% @ 277VAC
	Inrush Current	≤60A & 300uS @ 230VAC						
	Quantity of LED drivers that can be configured by a circuit breaker	Under the condition of 230VAC, the total quantity of the same model of power supply that can be configured by a type-B 16A circuit breaker is 45 pieces.						
	Standby Power Consumption	≤1W (dim-to-off)						
Protection	Output Short-Circuit Protection	Hiccup mode (auto-recovery)						
	Output Open-Circuit Protection	<55V						
	Output Overvoltage Protection	<55V						
Environment Condition	Working Temperature	-30℃ ~ +50℃						
	Working Humidity	20-90%RH (no condensation)						
	Storage Temperature/Humidity	-50℃ ~ 85℃ (six months under class I environment); 10-95%RH (no condensation)						
	Atmospheric Pressure	86KPa-106KPa						
	Vibration	Displacement amplitude: 5Hz ~ 9Hz 1.2mm; acceleration amplitude: 9Hz ~ 200Hz 1G; sweep-frequency: 1.0oct/min; test time: XYZ, 30 min each; The driver was in operating state and was tested according to system setting.						

Safety & Norm	Certificate	UL, FCC, Class P
	Withstand Voltage	I/P-O/P: 3.75KV, 5mA, 60s; I/P-GND: 1.6KV 5mA 60S
	Insulation Resistance	I/P-O/P: 500VDC, >100MΩ
	Surge Rating	IEC61000-4-5 (L-N: 1KV, L/N-PG: 2KV) , Class B
	Electrical Fast Transient / Burst	2KV (Class B)
	Ringing wave	2.5KV (Class B)
	Safety Standard	UL8750, AS/NZS 61347-1: 2016
	Electromagnetic Interference	FCC Part 15B
	Electromagnetic Susceptibility	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, IEC61000-4-13
	EMI Light Fixture	LED panel light
	Electrostatic Discharge (ESD)	Air 8KV; touch 4KV (Class B)

Technical Data (2)

Full Model Name		**LF-GMD035YSV**						
Output	Output Voltage	25-42V						
	Output Current	200mA	250mA	280mA	300mA	350mA	400mA	450mA
	Ripple Voltage	<2V @ 20MHz						
	Percent Flicker	Meet the US standards						
	Current Tolerance	±5%						
	Temperature Drift	±10%						
	Line Regulation	±5%						
	Start-up Time	<1s						
Input	Line Regulation	±5%						
	Rated Input Voltage	100-277VAC						
	Input Frequency Range	47Hz-63Hz						
	Input Current	0.4A Maximum						
	Power Factor	≥0.95 @ 120VAC						
		≥0.90 @ 277VAC						
	THD	≤20%						
	Efficiency	≥82% @ 120VAC	≥83% @ 120VAC	≥83% @ 120VAC	≥83% @ 120VAC	≥83% @ 120VAC	≥84% @ 120VAC	≥84% @ 120VAC
		≥80% @ 277VAC	≥81% @ 277VAC	≥82% @ 277VAC	≥82% @ 277VAC	≥82% @ 277VAC	≥83% @ 277VAC	≥83% @ 277VAC
	Inrush Current	≤60A & 300uS @ 230VAC						
	Quantity of LED drivers that can be configured by a circuit breaker	Under the condition of 230VAC, the total quantity of the same model of power supply that can be configured by a type-B 16A circuit breaker is 45 pieces.						

	Standby Power Consumption	≤1W (dim-to-off)
Protection	Output Short-Circuit Protection	Hiccup mode (auto-recovery)
	Output Open-Circuit Protection	<55V
	Output Overvoltage Protection	<55V
Environment Condition	Working Temperature	-30℃ ~ +50℃
	Working Humidity	20-90%RH (no condensation)
	Storage Temperature/Humidity	-50℃ ~ 85℃ (six months under class I environment); 10-95%RH (no condensation)
	Atmospheric Pressure	86KPa-106KPa
	Vibration	Displacement amplitude: 5Hz ~ 9Hz 1.2mm; acceleration amplitude: 9Hz ~ 200Hz 1G; sweep-frequency: 1.0oct/min; test time: XYZ, 30 min each; The driver was in operating state and was tested according to system setting.
Safety & Norm	Certificate	UL, FCC, Class P
	Withstand Voltage	I/P-O/P: 3.75KV, 5mA, 60s; I/P-GND: 1.6KV 5mA 60S
	Insulation Resistance	I/P-O/P: 500VDC, >100MΩ
	Surge Rating	IEC61000-4-5 (L-N: 1KV, L/N-PG: 2KV) , Class B
	Electrical Fast Transient / Burst	2KV (Class B)
	Ringing wave	2.5KV (Class B)
	Safety Standard	UL8750, AS/NZS 61347-1: 2016
	Electromagnetic Interference	FCC Part 15B
	Electromagnetic Susceptibility	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, IEC61000-4-13
	EMI Light Fixture	LED panel light
	Electrostatic Discharge (ESD)	Air 8KV; touch 4KV (Class B)

Technical Data (3)

Full Model Name		**LF-GMD035YSV**		
Output	Output Voltage	25-42V		
	Output Current	100mA	140mA	150mA
	Ripple Voltage	<2V @ 20MHz		
	Percent Flicker	Meet the US standards		
	Current Tolerance	±5%		
	Temperature Drift	±10%		
	Line Regulation	±5%		
	Start-up Time	<1s		

Input	Line Regulation	±5%		
	Rated Input Voltage	100-277VAC		
	Input Frequency Range	47Hz-63Hz		
	Input Current	0.4A Maximum		
	Power Factor	≥0.95 @ 120VAC		
		≥0.90 @ 277VAC		
	Total Harmonic Distortion	≤20%		
	Efficiency	≥81% @ 120VAC	≥81% @ 120VAC	≥82% @ 120VAC
		≥80% @ 277VAC	≥80% @ 277VAC	≥80% @ 277VAC
	Inrush Current	≤60A & 300uS @ 230VAC		
	Quantity of LED drivers that can be configured by a circuit breaker	Under the condition of 230VAC, the total quantity of the same model of power supply that can be configured by a type-B 16A circuit breaker is 45 pieces.		
	Standby Power Consumption	≤1W (dim-to-off)		
Protection	Output Short-Circuit Protection	Hiccup mode (auto-recovery)		
	Output Open-Circuit Protection	<55V		
	Output Overvoltage Protection	<55V		
Environment Condition	Working Temperature	-30℃ ~ +50℃		
	Working Humidity	20-90%RH (no condensation)		
	Storage Temperature/Humidity	-50℃ ~ 85℃ (six months under class I environment); 10-95%RH (no condensation)		
	Atmospheric Pressure	86KPa-106KPa		
	Vibration	Displacement amplitude: 5Hz ~ 9Hz 1.2mm; acceleration amplitude: 9Hz ~ 200Hz 1G; sweep-frequency: 1.0oct/min; test time: XYZ, 30 min each; The driver was in operating state and was tested according to system setting.		
Safety & Norm	Certificate	UL, FCC, Class P		
	Withstand Voltage	I/P-O/P: 3.75KV, 5mA, 60s; I/P-GND: 1.6KV 5mA 60S		
	Insulation Resistance	I/P-O/P: 500VDC, >100MΩ		
	Surge Rating	IEC61000-4-5 (L-N: 1KV, L/N-PG: 2KV) , Class B		
	Electrical Fast Transient / Burst	2KV (Class B)		
	Ringing wave	2.5KV (Class B)		
	Safety Standard	UL8750, AS/NZS 61347-1: 2016		
	Electromagnetic Interference	FCC Part 15B		
	Electromagnetic Susceptibility	EN61000-4-2, 3, 4, 5, 6, 8, 11; EN61547, IEC61000-4-13		
	EMI Light Fixture	LED panel light		
	Electrostatic Discharge (ESD)	Air 8KV; touch 4KV (Class B)		

Other Statements

Others	RoHS	RoHS 2.0 (EU) 2015 / 863
	Warranty Condition	5 years (43,800 hours) @Tc 67 ℃
	Noise Rating	≤20db (Tested in a soundproof room and the noise collector was 10cm away from the driver.)
Testing Equipment	AC power source: CHROMA6530, digital power meter: CHROMA66202, Oscilloscope: Tektronix DPO3014, DC electronic load: M9712B, LED board, constant temperature and humidity chamber, lightning surge generator: Everfine EMS61000-5B, rapid group pulse generator: Everfine EMS61000-4A, spectrum analyzer: KH3935, hi-pot tester: TH9201B, flicker tester 60N-01, etc.	
Testing Condition	Unless otherwise stated, the parameters of the power factor, THD and efficiency are the test results under the ambient temperature of 25℃ and humidity of 50%, AC input of 230V and 100% load.	
Additional Remark	1. It is recommended that customer should install protection devices for surge and for overvoltage & undervoltage to ensure safety before connecting to electricity. 2. The PC cover, housing, end caps and other parts of the LED driver inside the LED light fixture must conform to UL94-V0 flammability standard or above. 3. 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.	

RoHS: Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment

ITHD: The total harmonic distortion of the current

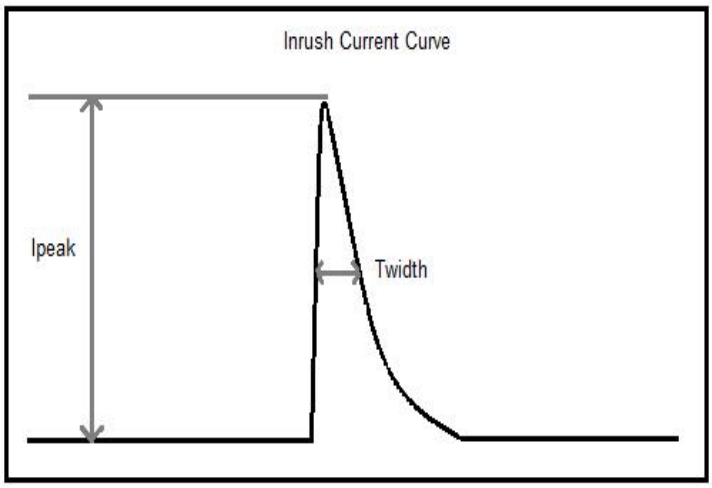
MTBF: Mean time between failure

Circuit Breaker & Relevant Parameters

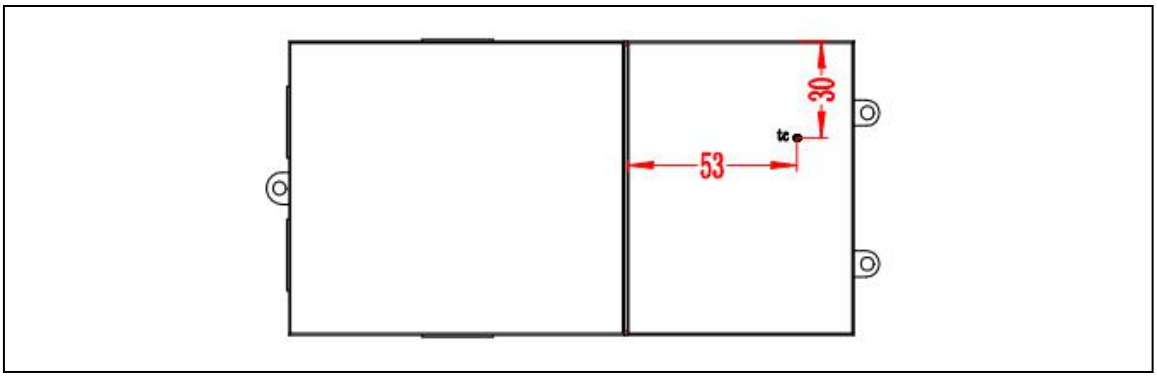
Name	Value	Remark
Surge peak current (Ipeak)	32A	Input voltage 230Vac
Surge half-peak time (Twidth)	82μs	Input voltage 230Vac. Measure the time for Ipeak to drop to its half value.
Quantity of the same model of driver that can be configured by a type-B 16A circuit breaker.	45 pcs (maximum)	

Driver quantities are below if use another type of circuit breaker.

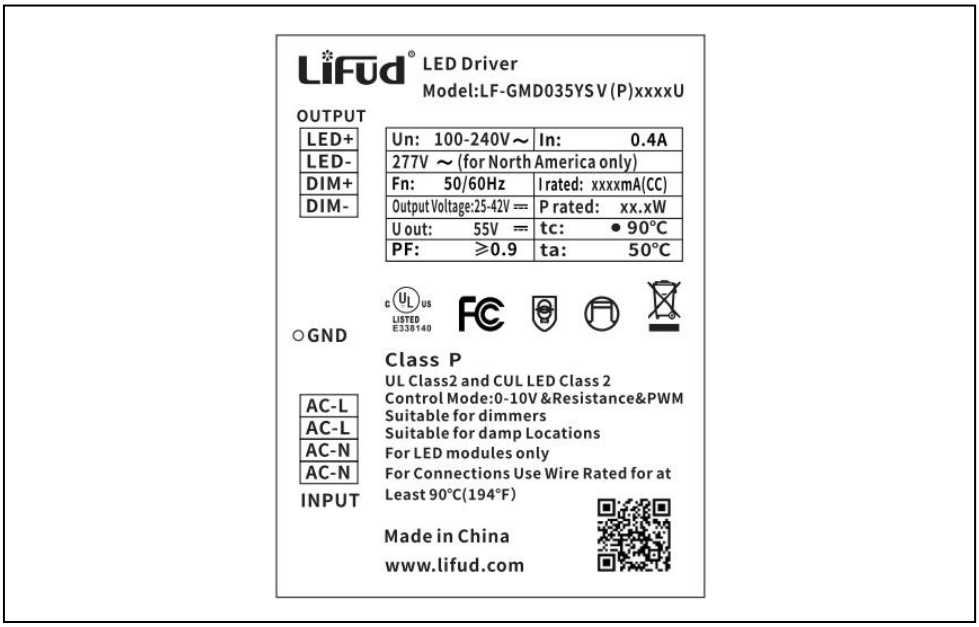
Type	Rank	Qty of accommodated drivers	Relative conversion ratio
B	10A	28 pcs	63%
	13A	36 pcs	81%
	16A	45 pcs	100% (benchmark)
	20A	56 pcs	125%
	25A	70 pcs	156%
C	10A	46 pcs	104%
	13A	60 pcs	135%
	16A	76 pcs	170%
	20A	93 pcs	208%
	25A	117 pcs	260%



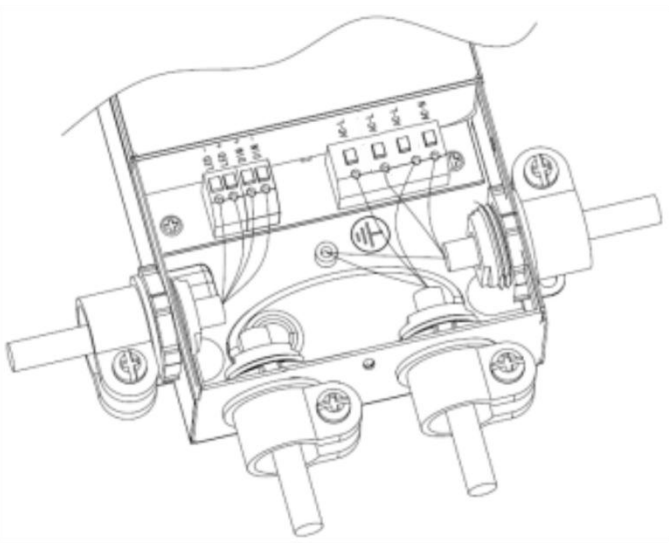
Tc Spot on the Upper Casing



Label



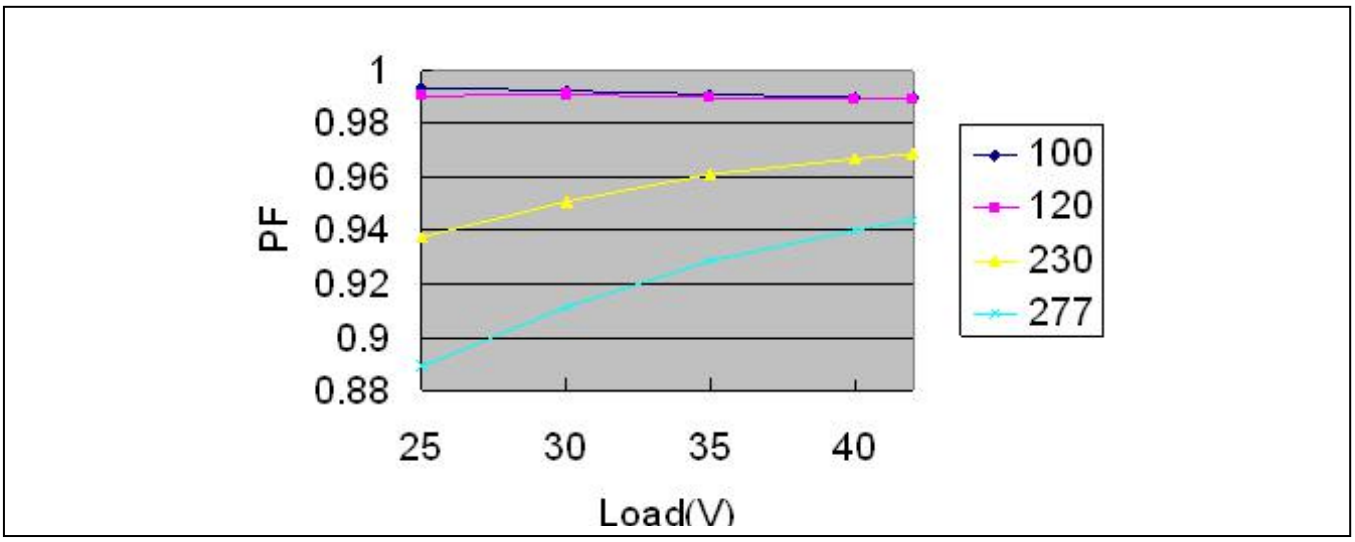
Wiring Diagram



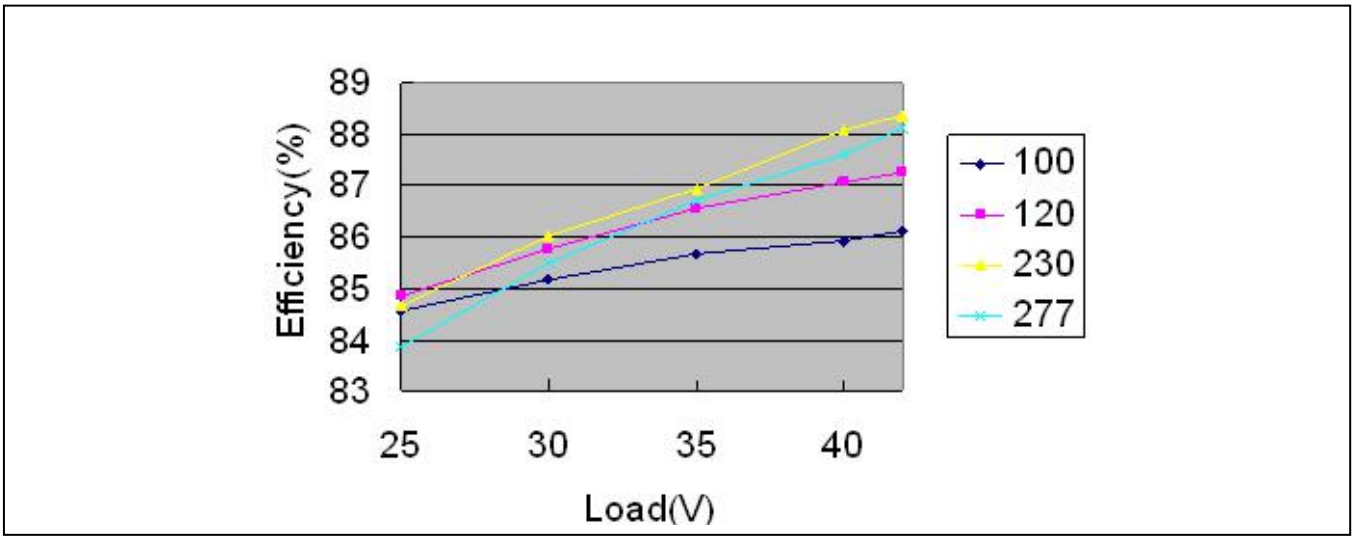
Remarks:
1. Press the screw terminals while connecting or disconnecting the wires.
2. Suitable wire: AWG16-20.
3. Peel 6-7mm of the wire. The copper wire should not be exposed after connecting to the screw terminal.

Feature Curves

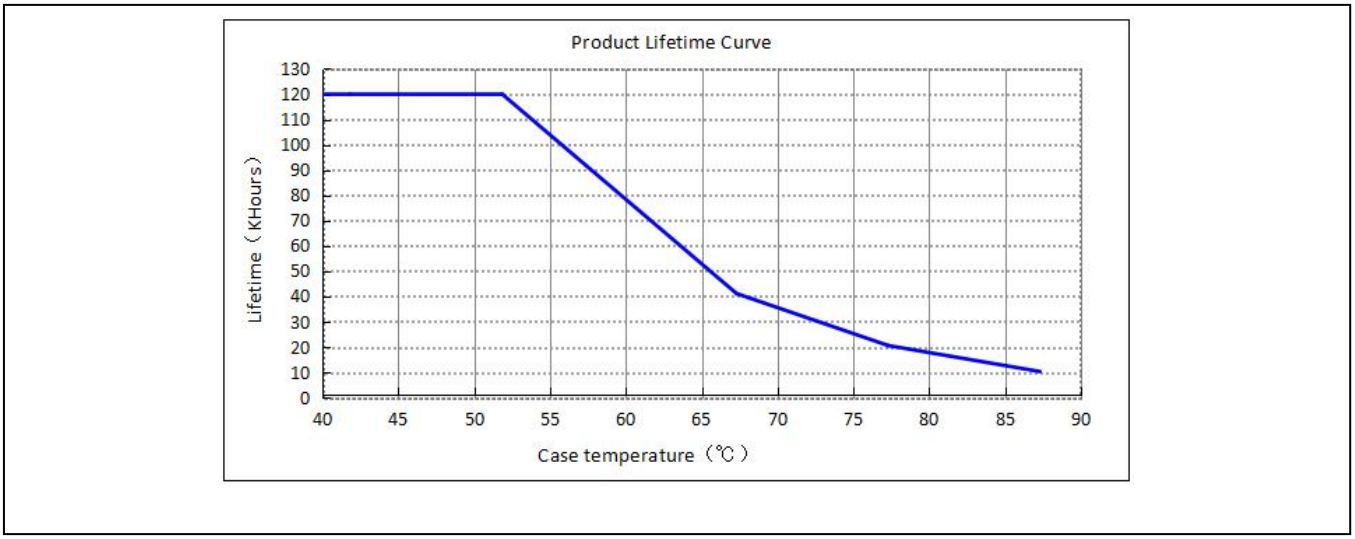
1. PF curve



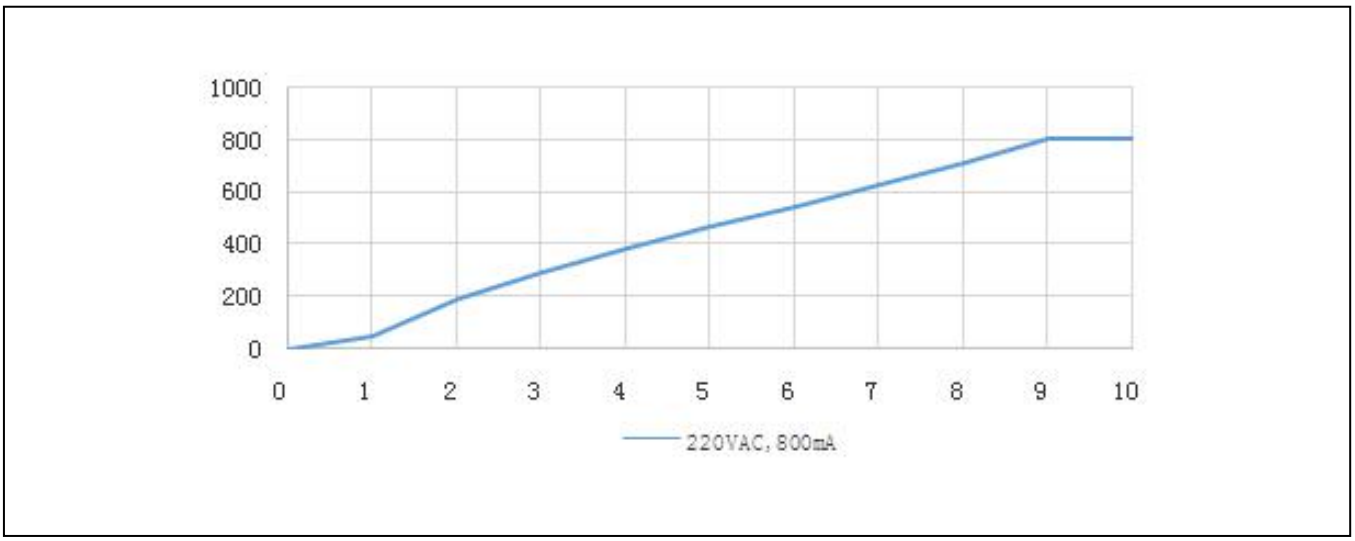
2. Efficiency curve



3. Lifetime curve



4. Dimming curve



Dimming Operation

1. 0-10V signal connects to the DIM terminal.
2. In 0-10V mode, when the input voltage is equal to or below 0.3V, the light will be turned off. When it's over 0.5V, the light will be turned on.
3. In 0-10V mode, the minimum dimming depth is 8% (Iout).

0-10V dimming

Dimming voltage	≤0.3V	0.5V	1V	2V	3V	4V	5V	6V	7V	8V	9V	10V
Output current	OFF	38	47	188	287	382	467	546	627	713	801	801

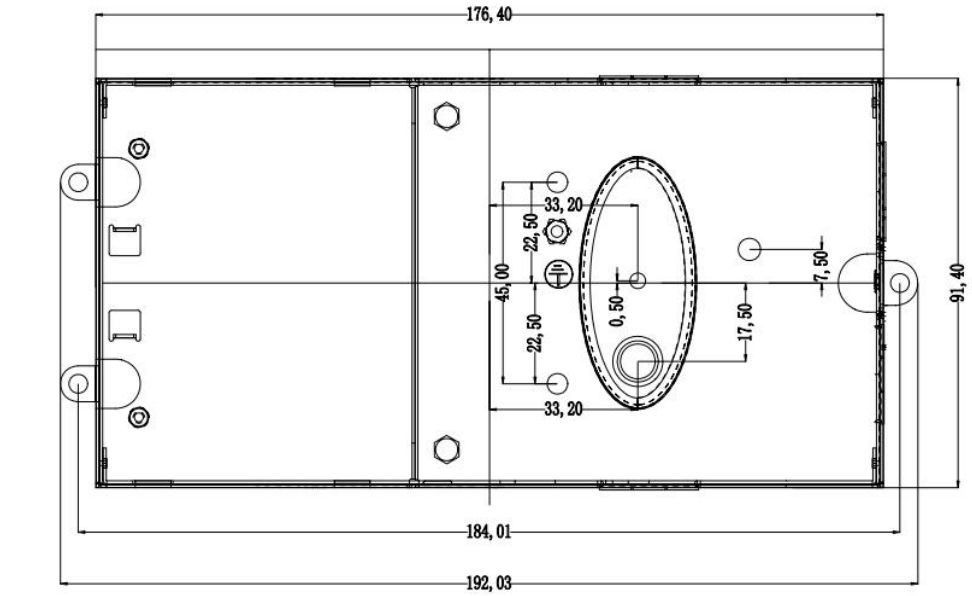
PWM dimming

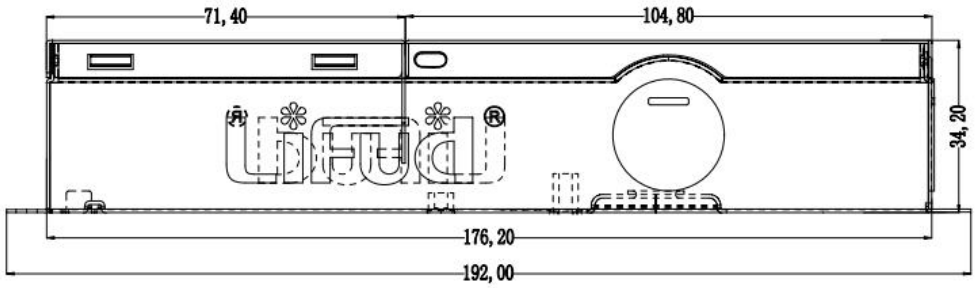
PWM signal	0-5%	8%	10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Output current	OFF	37	102	197	294	394	476	559	643	730	797	798

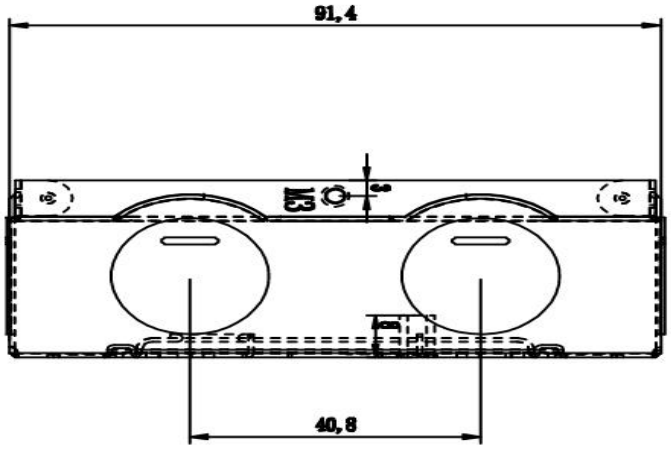
Rx dimming

Dimming resistance	0KΩ	5KΩ	10KΩ	20 KΩ	30 KΩ	40 KΩ	50 KΩ	60 KΩ	70 KΩ	80 KΩ	90 KΩ	100 KΩ
Output current	OFF	37	90	201	318	431	527	624	713	797	798	798

Dimension (unit: mm, tolerance: +0.5mm)







Packaging Specification

Carton dimension	420*300*210mm (L*W*H)
Quantity	12 pcs/layer; 2 layers/ctn; 24 pcs/ctn
Weight	360g/pc; 9.43Kg/ctn

Attention

1. Use this product according to the specifications, please. Otherwise there may be malfunction.
2. Use luminaires that have not been certified or are not compatible with the drivers may cause fire, explosion or other hazards.
3. Man-made damage is not covered by warranty.
4. The withstanding voltage of the aluminium substrate should meet the requirement.

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