

## LED Intelligent Driver (constant current)

- Dimming interface: DMX512/RDM
- **T-PWM**™ digital dimming, present a perfect visual experience.
- With soft-on and fade in function, visual more comfortable.
- With RDM remote device management protocol.
- DIP switch for multiple optional currents' quick selection.
- Dimming range: 0~100%, LED start at 0.01% possible.
- 0-100% flicker-free, High frequency exemption level.
- Innovative thermal management technology, intelligent power life protection.
- Over-heat / Over load / Short circuit protection, recover automatically.
- Suitable for internal lights application for I / II / III
- Up to 50000-hour life time.
- 5 years warranty (Rubycon capacitor).

### T-PWM™

Super depth dimming technology

### Flicker-free

IEEE 1789

TUV Certificate No. B 001119 0007 Rev. 00  
 CB Certificate No. SG PSB-LE-01925  
 RCM Certificate No. RCMP19279 001  
 CE EMC Certificate No. BSTXD190412501201EC  
 LVD Certificate No. BST1904125012015C  
 CCC Certificate No. 2019011002209509



Dimmable:  
 .....  
 0.01-100%



RoHS Class 2

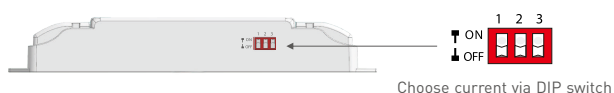


## Specification

Model		SE-10-350-700-W1M	SE-12-100-400-W1M	SE-12-350-700-W1M
OUTPUT	Output Voltage	2-12Vdc	10-42Vdc	10-24Vdc
	Max Output Voltage	20Vdc	50Vdc	35Vdc
	Output Current	350-700mA	100-400mA	350-700mA
	Output Power Range	0.7W-8.4W	1W-12W	3.5W-12W
	Strobe Level	No video flicker / High frequency exemption assessment level.		
	Dimming Range	0~100%, 0.01% dimming depth.		
	LF current ripple(<120Hz)	<1%		
	Current Accuracy	±5%		
	Ripple & Noise	≤2V		
	PWM Dimming Frequency	≤3600Hz		
INPUT	Dimming Interface	DMX512/RDM		
	Input Voltage	100-240Vac Max. 265Vac		
	Frequency	50/60Hz		
	Input Current	0.15A@115Vac, 0.1A@230Vac	0.25A@115Vac, 0.15A@230Vac	
	Power Factor	PF>0.95/115Vac, PF>0.80/230Vac, at full load		
	Efficiency	75%	82%	81%
	Inrush Current(typ.)	Cold start 5A at 230Vac		
	Anti Surge	L-N: 1kV		
	Leakage Current	<0.35mA/230Vac	<0.5mA/230Vac	
ENVIRONMENT	Working Temperature	ta: -30°C ~ 50°C tc: 75°C		
	Working Humidity	20 ~ 95%RH, non-condensing		
	Storage Temp., Humidity	-40°C ~ 80°C, 10~95%RH		
	Temp. Coefficient	±0.03%/°C (0-50°C)		
	Vibration	10-500Hz, 2G 12min./1cycle, period for 72min. each along X, Y, Z axes.		
PROTECTION	Over-heat Protection	Intelligently adjusting or turning off the output current if the PCB temperature ≥110°C, auto recovers.		
	Over Load Protection	Shut down the output when current load ≥102%, auto recovers.		
	Short Circuit Protection	Shut down automatically if short circuit occurs, auto recovers.		
SAFETY & EMC	Withstand Voltage	I/P-O/P: 3750Vac		
	Isolation Resistance	I/P-O/P: 100MΩ/500VDC/25°C/70%RH		
	Safety Standards	IEC/EN61347-1, IEC/EN61347-2-13		
	EMC Emission	EN55015, EN61000-3-2 Class C, IEC61000-3-3		
	EMC Immunity	EN61000-4-2,3,4,5,6,8,11 EN61547		
	Strobe Test Standard	IEEE 1789		
OTHERS	Dimension	135×30×20mm(L×W×H)		
	Packing	140×34×23mm(L×W×H)		
	Weight(G.W.)	80g±10g		

## LED current selection

DIP switch for multi optional currents' quick selection (see the table below).



SE-10-350-700-W1M	DIP Switch	⬇ ⬇ ⬇	⬇ ⬇ ⬆	⬇ ⬆ ⬇	⬇ ⬆ ⬆	⬆ ⬇ ⬇	⬆ ⬇ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	⬆ ON ⬇ OFF
	Output Current	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
	Output Voltage	2-12V	2-12V	2-12V	2-12V	2-12V	2-12V	2-12V	2-12V	
	Output Power	0.7-4.2W	0.8-4.8W	0.9-5.4W	1-6W	1.1-6.6W	1.2-7.2W	1.3-7.8W	1.4-8.4W	

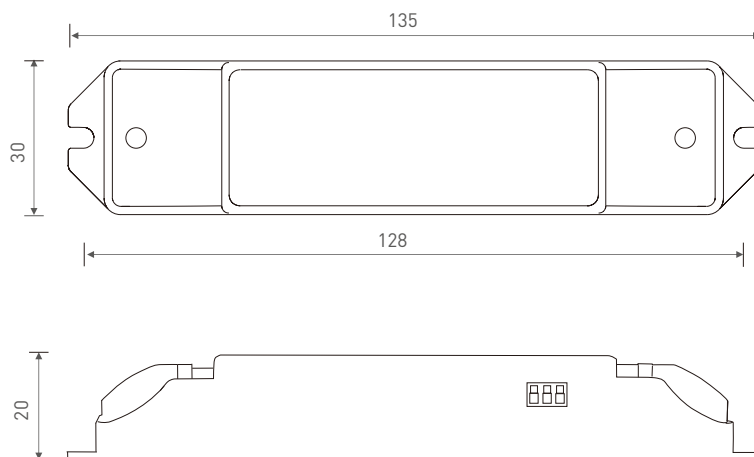
SE-12-100-400-W1M	DIP Switch	⬇ ⬇ ⬆	⬇ ⬆ ⬇	⬇ ⬆ ⬆	⬆ ⬇ ⬇	⬆ ⬇ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	⬆ ON ⬇ OFF
	Output Current	100mA	150mA	200mA	250mA	300mA	350mA	400mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-40V	10-34V	10-30V	
	Output Power	1-4.2W	1.5-6.3W	2-8.4W	2.5-10.5W	3-12W	3.5-12W	4-12W	

SE-12-350-700-W1M	DIP Switch	⬇ ⬇ ⬇	⬇ ⬇ ⬆	⬇ ⬆ ⬇	⬇ ⬆ ⬆	⬆ ⬇ ⬇	⬆ ⬇ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	⬆ ON ⬇ OFF
	Output Current	350mA	400mA	450mA	500mA	550mA	600mA	650mA	700mA	
	Output Voltage	10-24V	10-24V	10-24V	10-24V	10-22V	10-20V	10-18.5V	10-17V	
	Output Power	3.5-8.4W	4-9.6W	4.5-10.8W	5-12W	5.5-12.1W	6-12W	6.5-12W	7-12W	

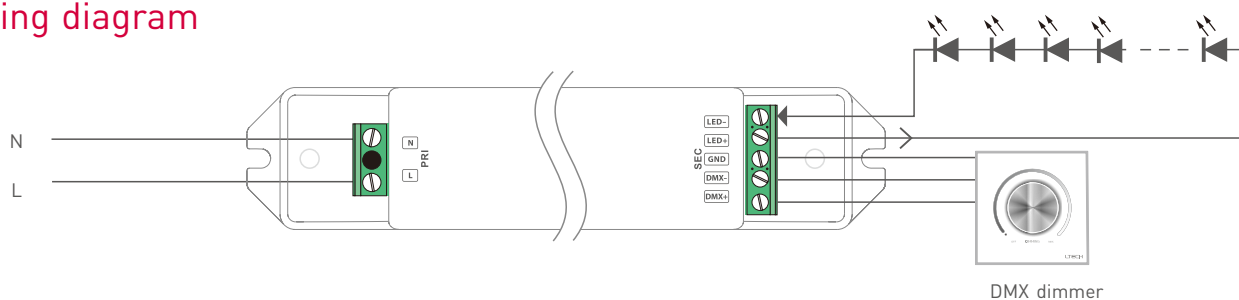
- \* Please choose the current value when the driver is power off.
- \* E.g. LED 3V/pcs: 10-24V can power 3-8pcs LEDs in series, 10-42V can power 3-14pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.
- \* Setting DMX address via RDM function

## Dimensions

Unit : mm

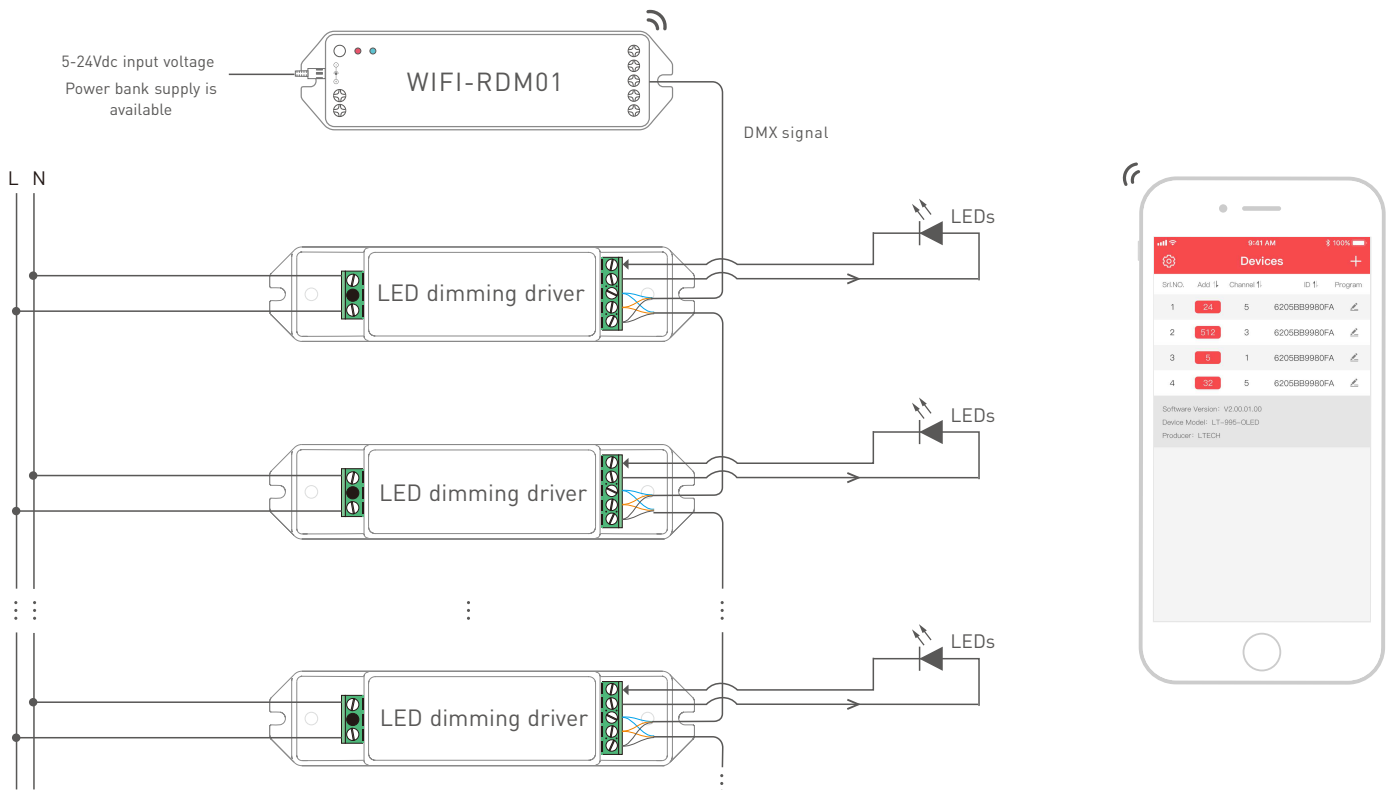


## Wiring diagram



## DMX Address Setting

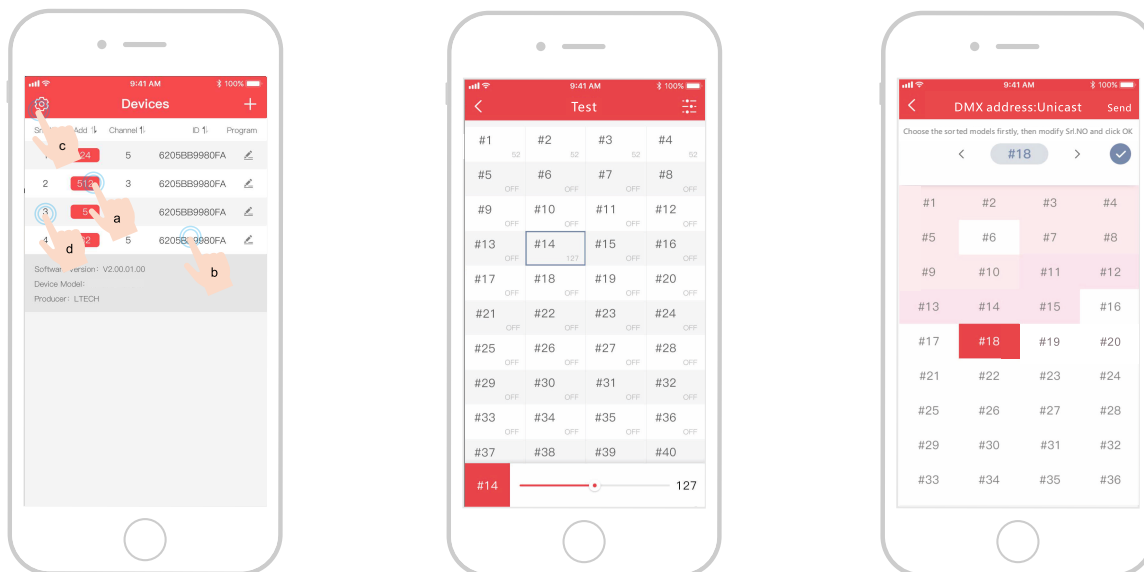
The DMX driver can work with the address editor that complies with standard RDM protocol. It is recommended to use LTECH's RDM editor (model WiFi-RDM01), which can achieve more functions such as remote browsing and parameter setting. Wiring diagram as below:



\* the defaulted DMX address of the driver is 1.

## LTECH RDM editor App interface instruction

Download the App, setting the parameters after well connecting the RDM editor, please check the manual of WiFi-RDM01 for more details.



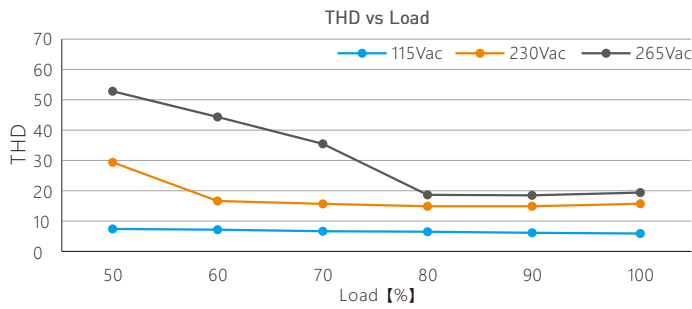
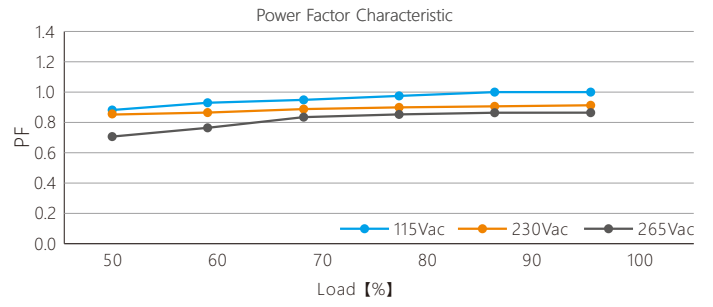
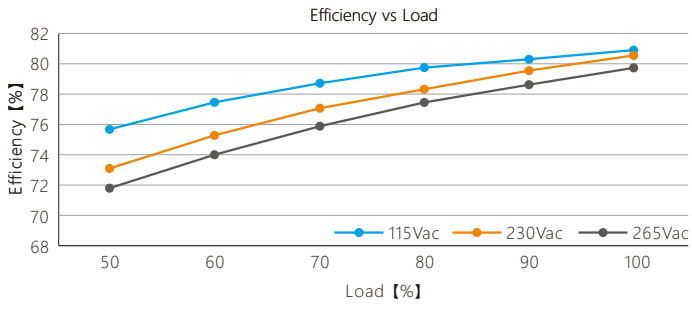
- a: Click "Add", edited the address in corresponding box.
- b: Click "ID", get more product details.
- c: Click "Settings", enter setting interface.
- d: Click "No.", issue the recognizing command.

Test

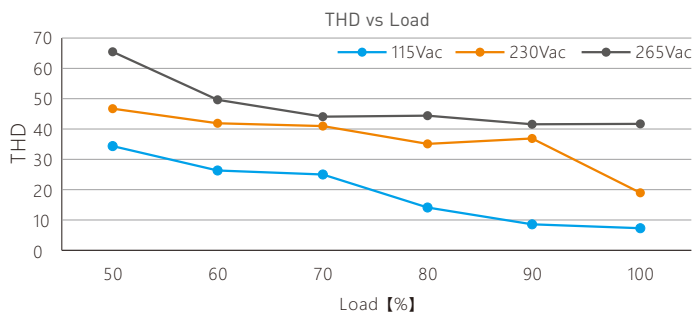
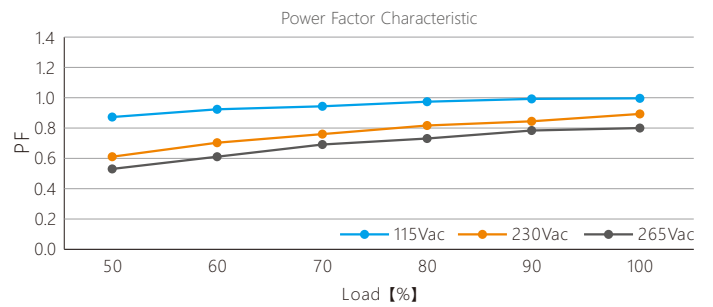
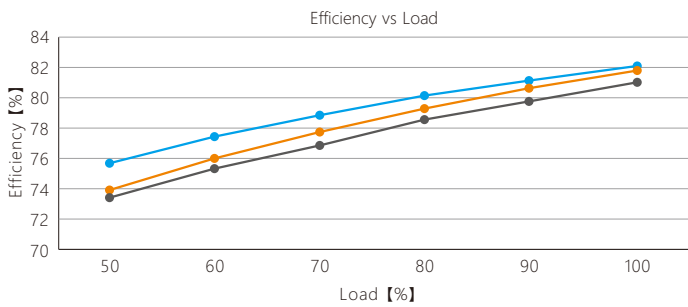
DMX address setting

## Relationship Diagrams

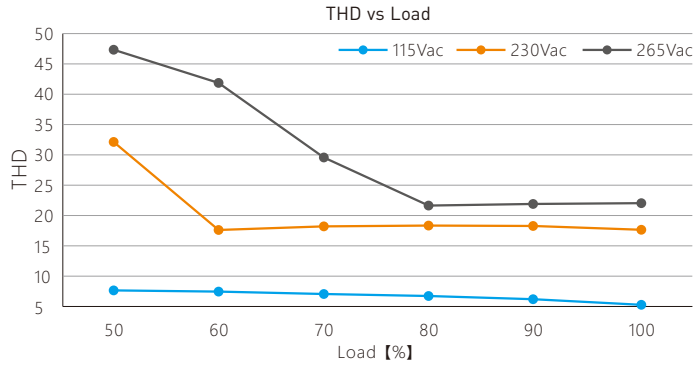
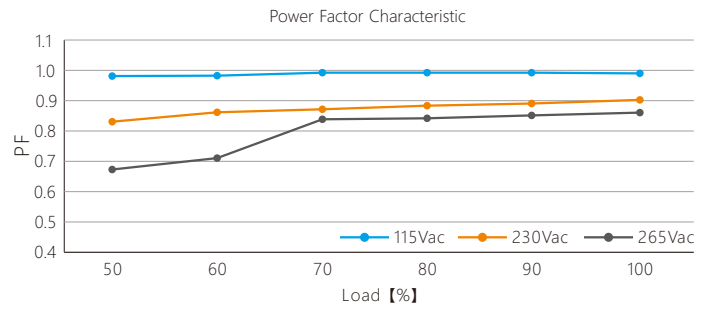
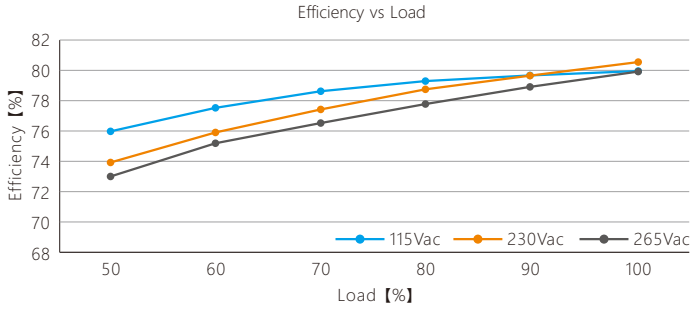
SE-10-350-700-W1M



SE-12-100-400-W1M



SE-12-350-700-W1M

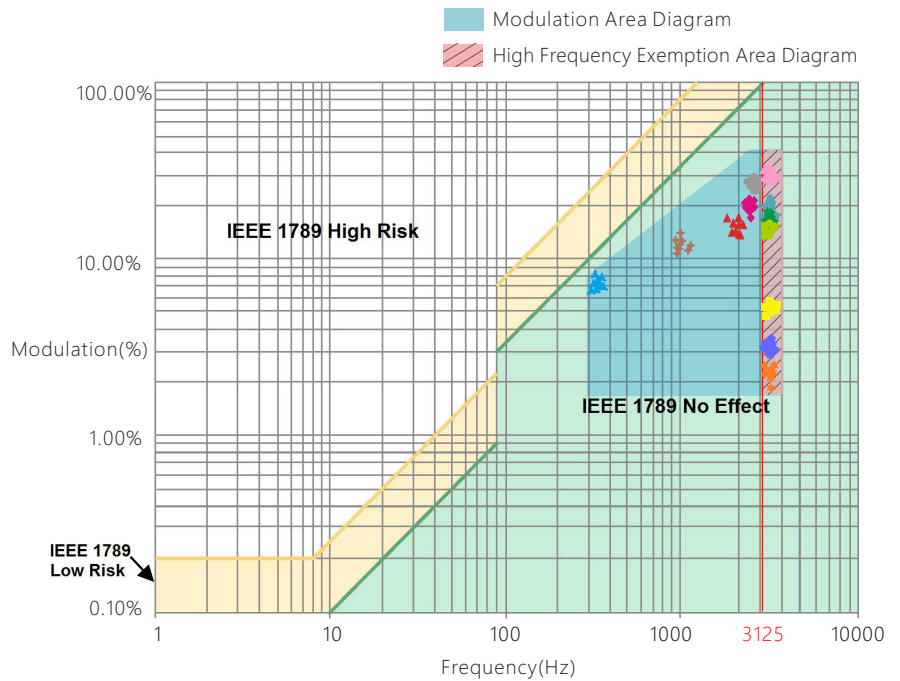


## Flicker Test Form

IEEE 1789

Limit of Modulation in low risk area	
Waveform frequency of Optical output	limit [%]
$f \leq 8\text{Hz}$	0.2
$8\text{Hz} < f \leq 90\text{Hz}$	$0.025 \times f$
$90\text{Hz} < f \leq 1250\text{Hz}$	$0.08 \times f$
$f > 1250\text{Hz}$	Exemption assessment
Limit of Modulation in no effect area	
Waveform frequency of Optical output	limit [%]
$f \leq 10\text{Hz}$	0.1
$10\text{Hz} < f \leq 90\text{Hz}$	$0.01 \times f$
$90\text{Hz} < f \leq 3125\text{Hz}$	$(0.08/2.5) \times f$
$f > 3125\text{Hz}$	Exemption assessment (High frequency exemption)

- Brightness
- ▲ 0.1%
  - ◆ 1%
  - ▲ 5%
  - ◆ 10%
  - 20%
  - ▲ 30%
  - 40%
  - ★ 50%
  - 60%
  - 70%
  - 80%
  - ★ 90%
  - ◆ 100%



Marks in the right chart were tested results of different current ranges.

The output frequency is 0Hz in 100% brightness and its corresponding modulation is 0%, which could not be shown in the right chart.