

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

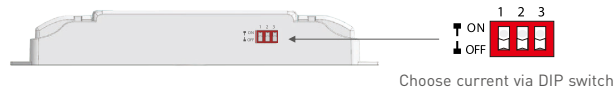


Specification

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	

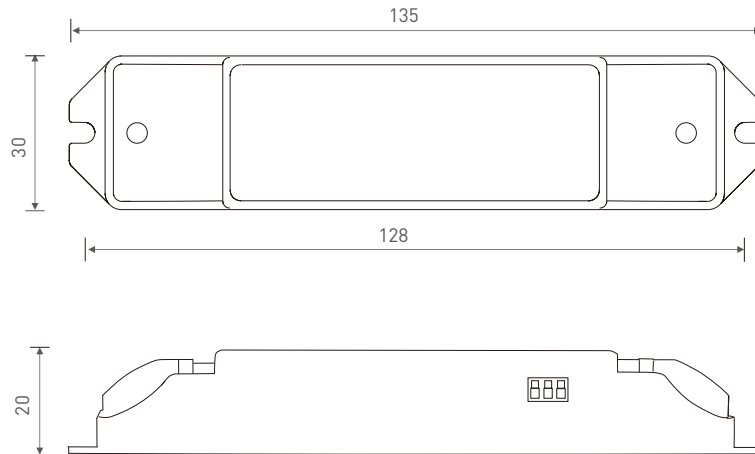
SE-12-100-400-W1M	DIP Switch	⬇ ⬇ ⬆	⬇ ⬆ ⬇	⬇ ⬆ ⬆	⬆ ⬇ ⬇	⬆ ⬇ ⬆	⬆ ⬆ ⬇	⬆ ⬆ ⬆	⬆ ON ⬇ OFF
	Output Current	100mA	150mA	200mA	250mA	300mA	350mA	400mA	
	Output Voltage	10-42V	10-42V	10-42V	10-42V	10-40V	10-34V	10-30V	
	Output Power	1-4.2W	1.5-6.3W	2-8.4W	2.5-10.5W	3-12W	3.5-12W	4-12W	

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	

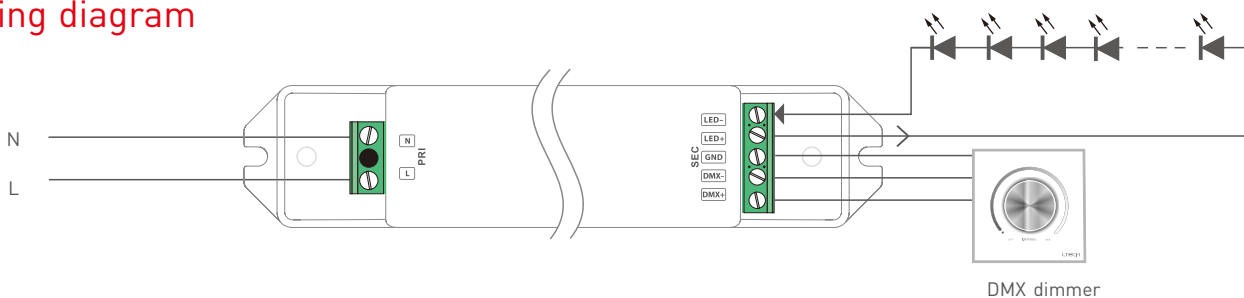
- * Please choose the current value when the driver is power off.
- * E.g. LED 3V/pcs: 10-24V can power 3-8pcs LEDs in series, 10-42V can power 3-14pcs LEDs, the max quantity of LEDs in series will be subject to the actual voltage of LED.
- * Setting DMX address via RDM function

Dimensions

Unit : mm

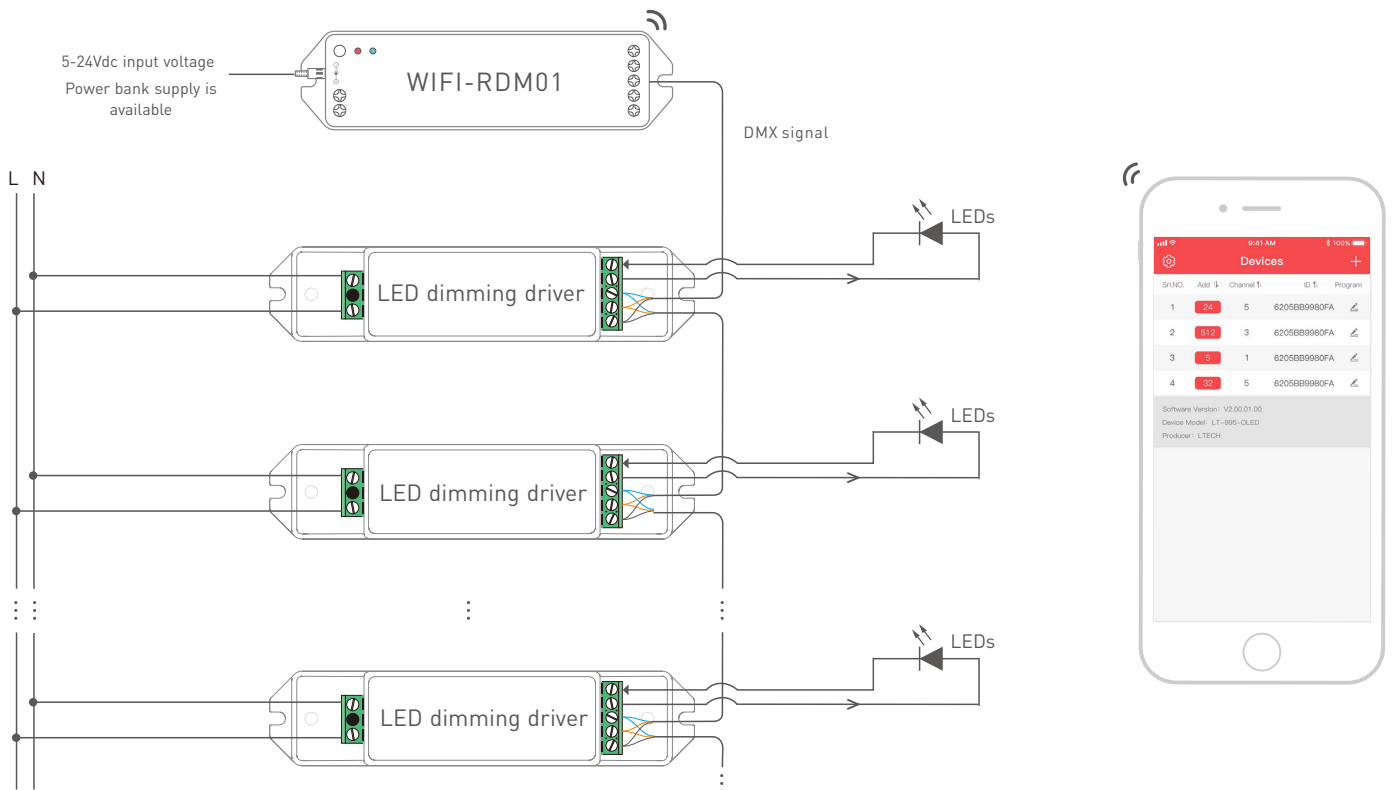


Wiring diagram



DMX Address Setting

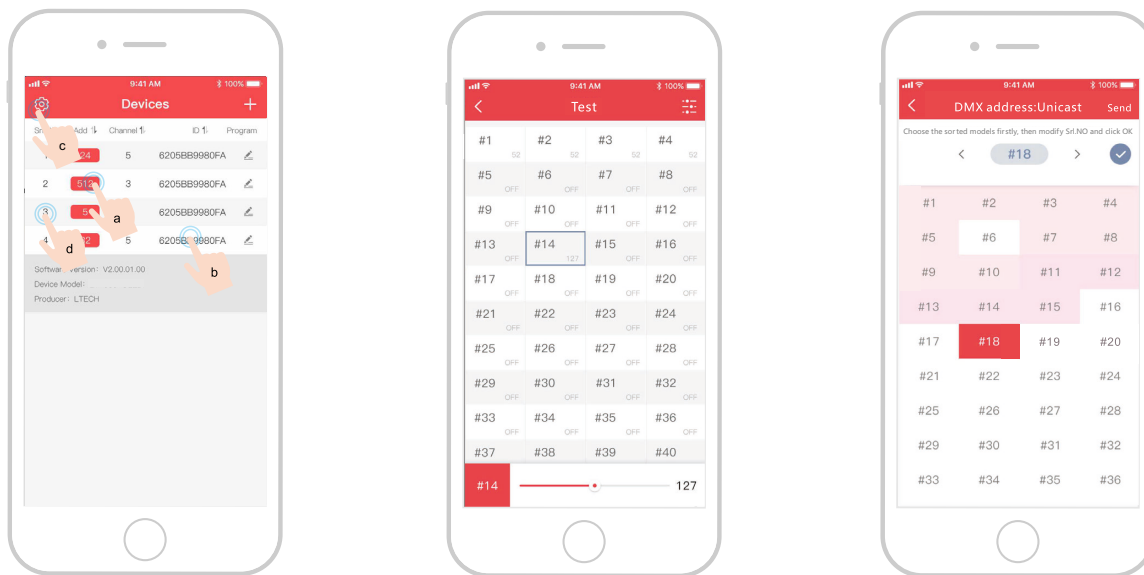
The DMX driver can work with the address editor that complies with standard RDM protocol. It is recommended to use LTECH's RDM editor (model WiFi-RDM01), which can achieve more functions such as remote browsing and parameter setting. Wiring diagram as below:



* 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.



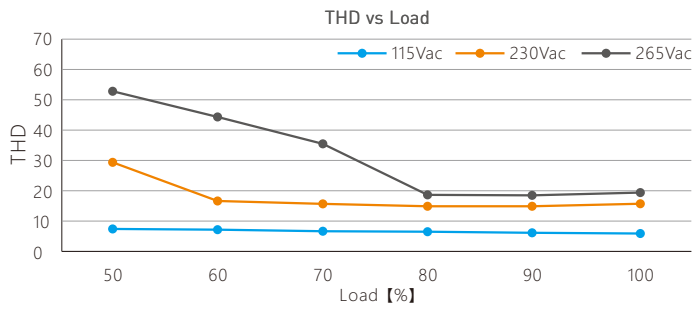
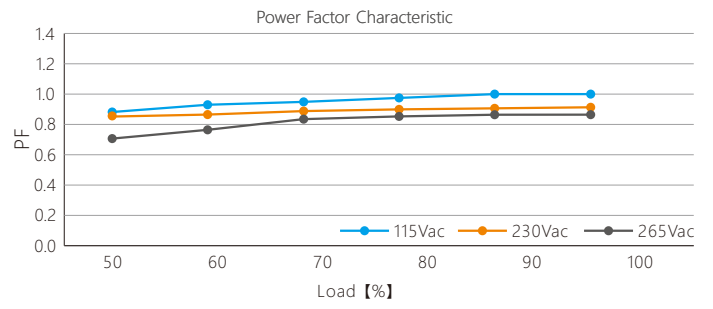
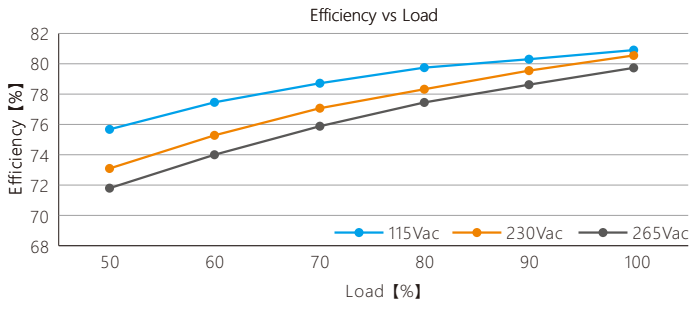
- a: Click "Add", edited the address in corresponding box.
- b: Click "ID", get more product details.
- c: Click "Settings", enter setting interface.
- d: Click "No.", issue the recognizing command.

Test

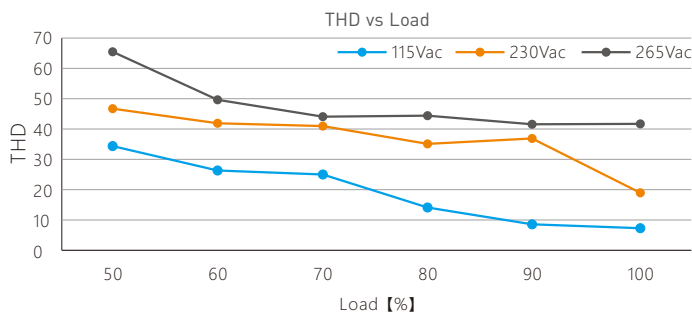
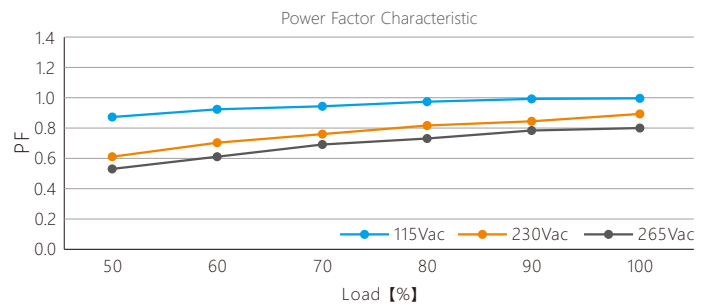
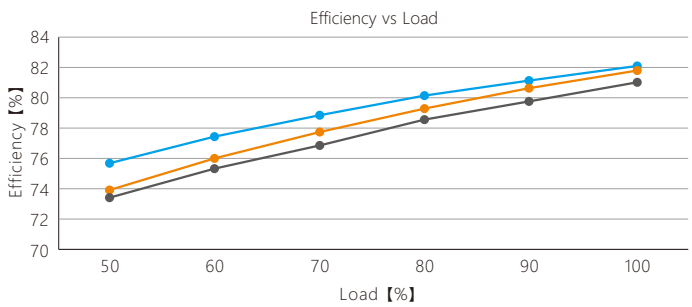
DMX address setting

Relationship Diagrams

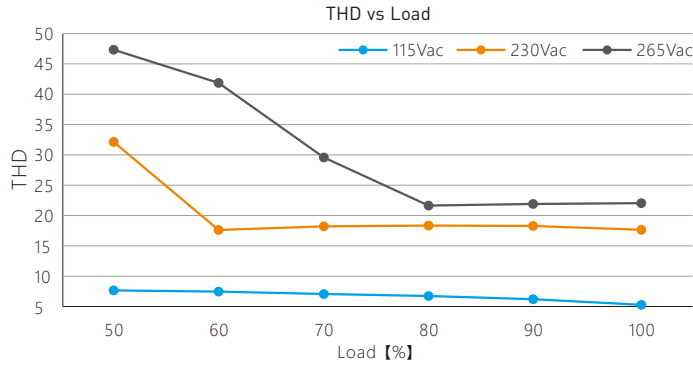
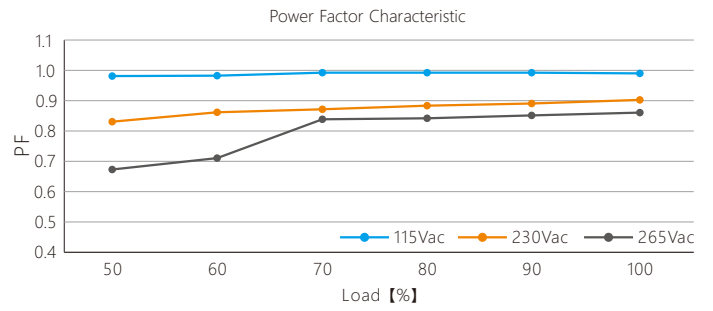
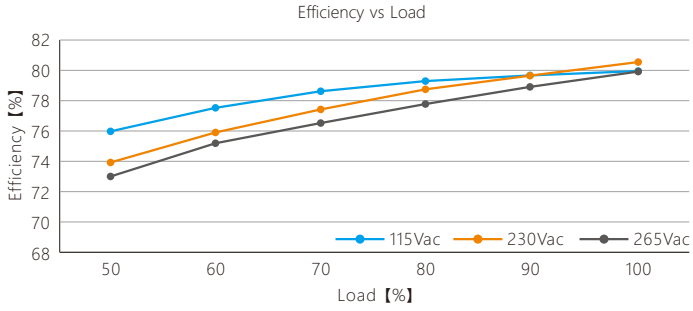
SE-10-350-700-W1M



SE-12-100-400-W1M



SE-12-350-700-W1M

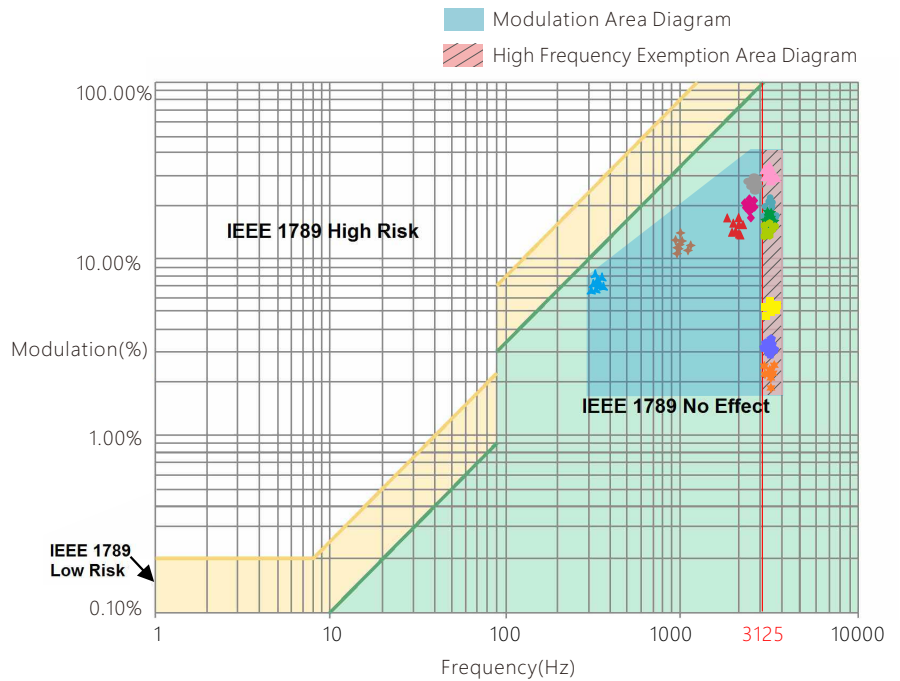


Flicker Test Form

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.