



■ Features:

- Universal AC input/Full rang 90-305VAC
- Built-in active PFC function
- Protections: Short circuit/Over current /Over voltage
- Cooling by free air convection
- Built-in 3 in 1 dimming function (0/1-10VDC or 10V PWM signal or resistance)
- Metal case, IP65 design for indoor or outdoor installations
- Suitable for outdoor LED street lighting, outdoor LED and moving sign applications
- Ultra-long life



SELV IP65



150R-42□	V: IP65 Level, Io adjustable through potentiometer
	D: IP65 Level, 3 in 1dimming function (1-10VDC,10V PWM signal and resistance), Io adjustable through potentiometer
	DQ: 1. IP65 Level, 3 in 1dimming function (0-10VDC,10V PWM signal and resistance), Io adjustable through potentiometer
	2. Auxiliary Power DC12V/Max 200mA (Constant Voltage mode, special parameter can be customized)

INPUT SPECIFICATIONS

Parameter Name	Min.	Typ.	Max.	Unit
Input Voltage	100	230	277	Vac
Input Current	---	0.8	2	A
Power Factor	0.95	0.98	0.99	PF
THD	4	8	20	%
Frequency Rang	47	50\60	63	Hz
Inrush Current(Typ.)	Cold Start 65A(twidth=595us measured at 50% Ipeak) at 230VAC			
MAX. No. of PSUs on 16A Circuit Breaker	4 units (circuit breaker of type B)/7units (circuit breaker of type C) at 230VAC			

OUTPUT SPECIFICATIONS

Parameter Name		Min.	Typ.	Max.	Unit
150R-42□	Output no-load Voltage	43	46	48	Vdc
	Output Serving Voltage	32	42	43	Vdc
	Output Current	-3%	3.57	+3%	Adc
	Efficiency	88	91	---	%（230VAC）
Overshoot		---	---	10	%
Ripple & Noise		---	0.5	1	%（100% load）
No Load Power		---	0.5	2	W
Over Current Protection		---	---	110	%
Short Circuit Protection		Constant Current limiting, recovers automatically after fault condition is removed			

WORKING ENVIRONMENT

Item	Min.	Typ.	Max.	Unit
Working Temp.	-40~+70℃ (Please refer to "OUTPUT LOAD vs TEMPERATURE" section)			
IP Rating	IP65			
MAX. Working Humidity	20~95%RH non-condensing			
Cooling Method	Cooling by free air convection, External LED Driver can improve the lifespan.			
Storage Temp. , Humidity	-40~+80℃, 10~95%RH			
Working Atmosphere	70	---	106	Kpa

SAFETY

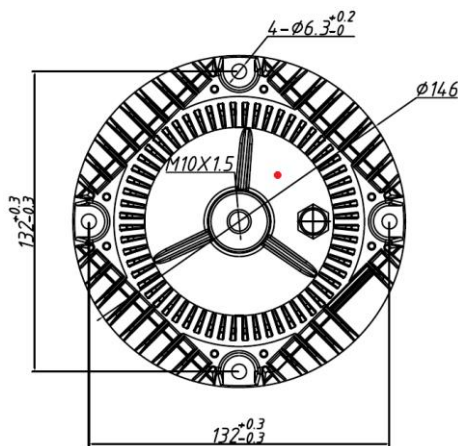
Item	Min.	Typ.	Max.	Unit
I/P-O/P	3750	---	---	V(AC)
I/P-FG	2000	---	---	V(AC)
O/P-FG	500	---	---	V(DC)
Surge: L-N	---	4000	---	V
Surge :L,N-FG	---	6000	---	V

OTHER

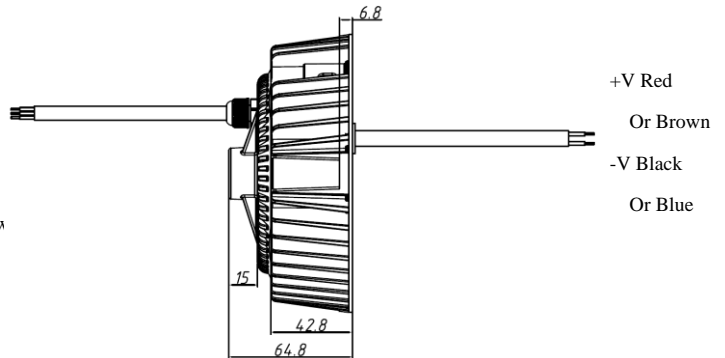
MTBF	≥250.4Khrs MIL-HDBK-217F (25℃)			
Dimensions	146*64.8 mm			
Weight	1.28 Kg			

MECHANIC SPECIFICATION

※ V-Type:

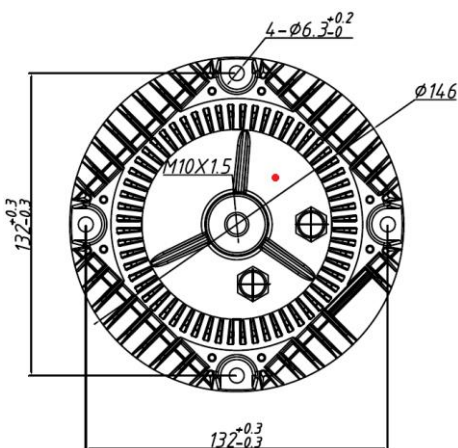


AC/L Black
Or Brown
AC/N White
Or Blue
FG Green
Or Green/Yellow

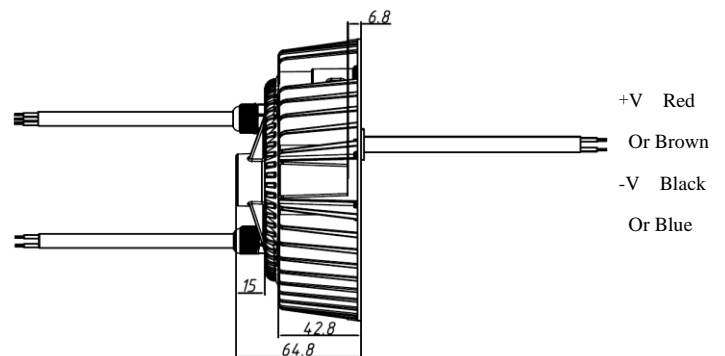


• tc: MAX. Case Temperature.(case temperature measured point)

※ D-Type:

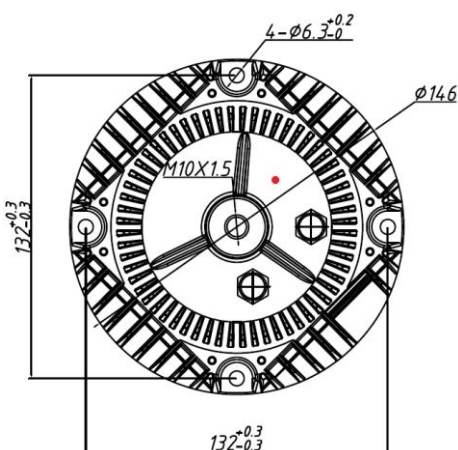


AC/L Black
Or Brown
AC/N White
Or Blue
FG Green
Or Green/Yellow
DIM+ Blue
Or Purple
DIM- White
Or Gray

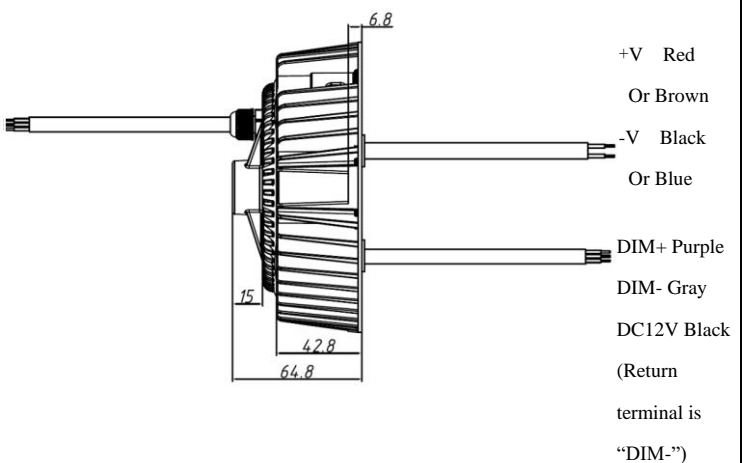


• tc: MAX. Case Temperature.(case temperature measured point)

※ DQ-Type:



AC/L Black
Or Brown
AC/N White
Or Blue
FG Green
Or Green/Yellow



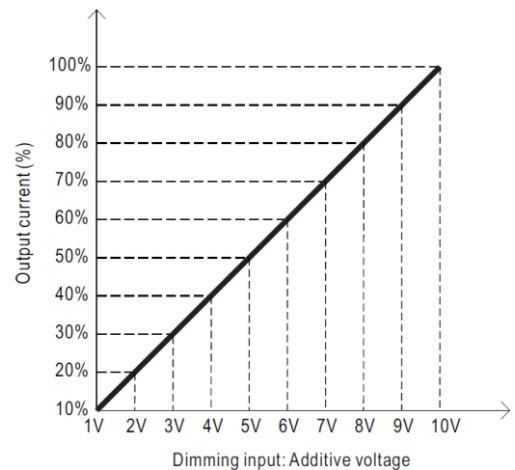
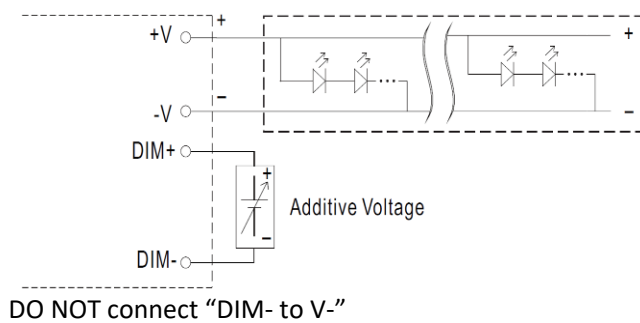
• tc: MAX. Case Temperature.(case temperature measured point)

DIMMING OPERATION

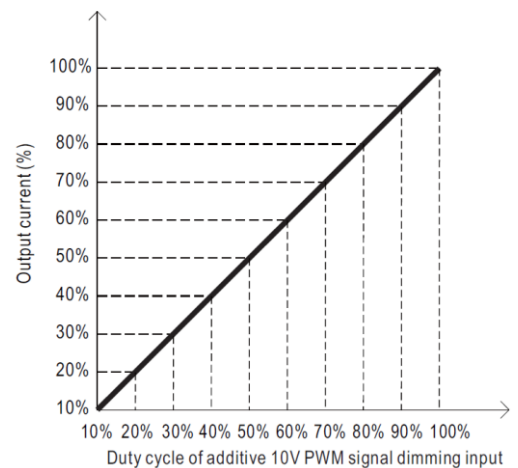
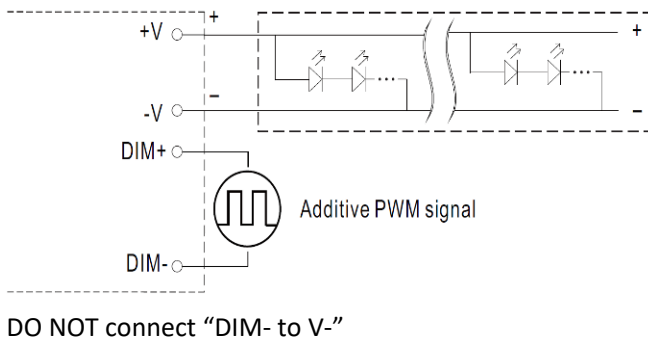
※ 3 in 1 dimming function(for D-Type and DQ-Type)

- Output constant current level can be adjusted by applying one of the three methodologies between DIM+ and DIM-:0/1-10VDC, or 10V PWM signal or resistance.
- Direct connecting to LEDs is suggested .It is not suitable to be used with additional drivers.
- Dimming source current from power supply: 100uA (typ.).

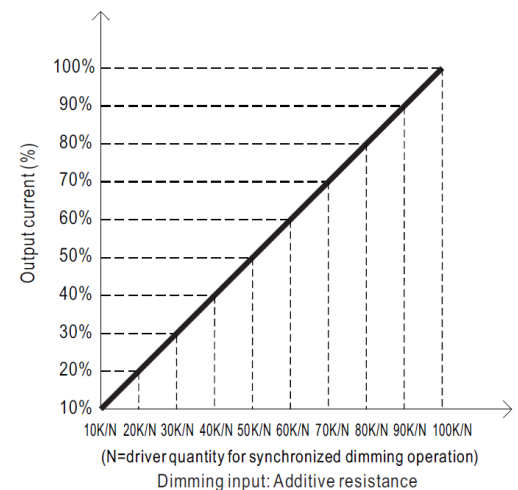
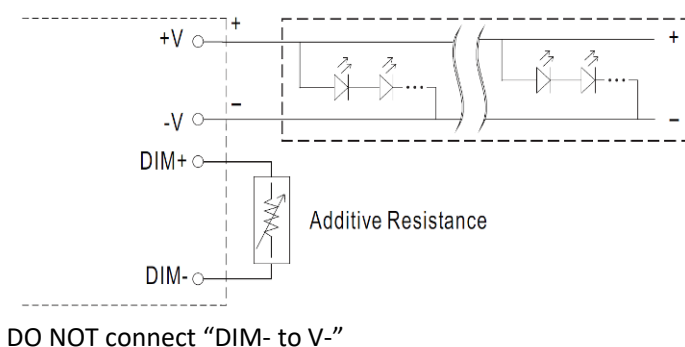
◎ Applying additive 0/1-10VDC



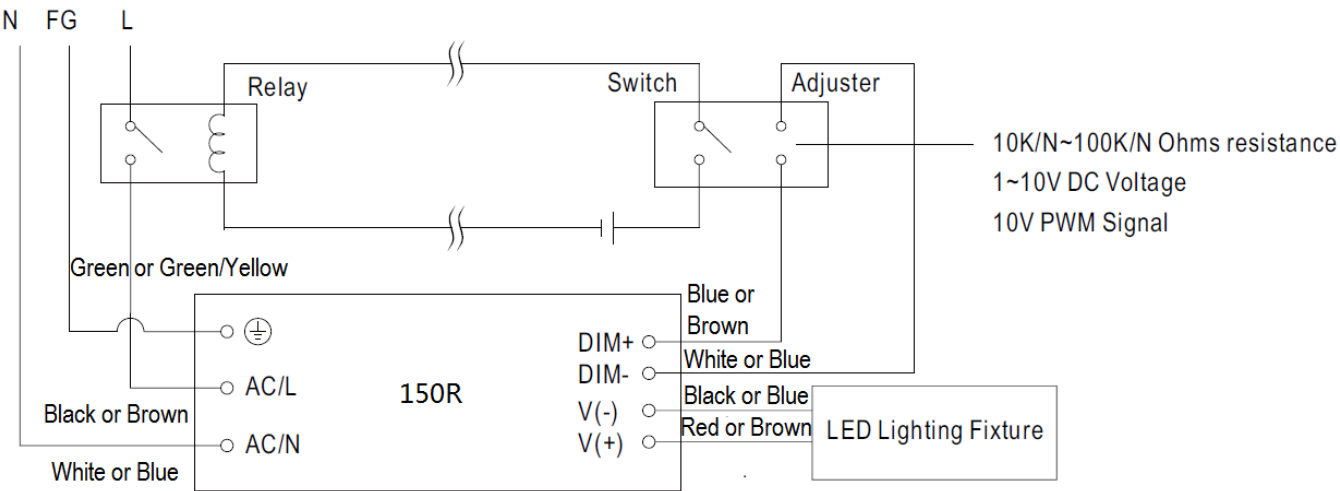
◎ Applying additive 10V PWM signal(frequency rang 100Hz-3KHz)



◎ Applying additive resistance:

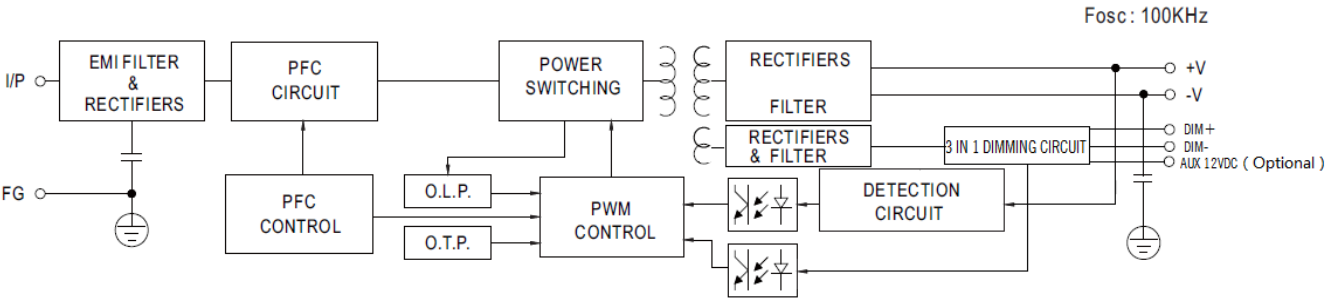


Note: In the case of turning the lighting fixture down to 0% brightness (For D-Type),
please refer to the configuration as follow:

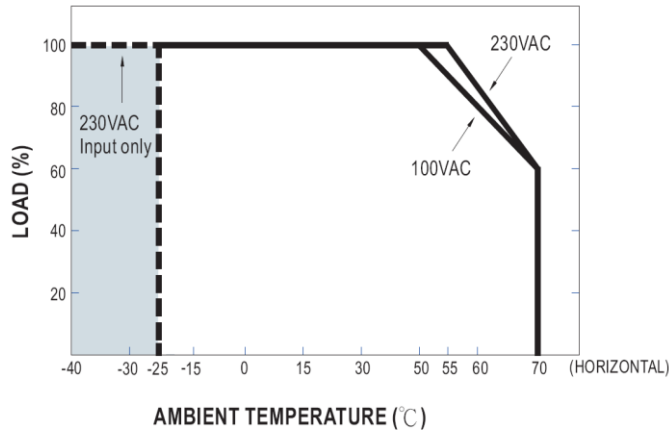


※ Using a switch and relay can turn ON/OFF the lighting fixture.

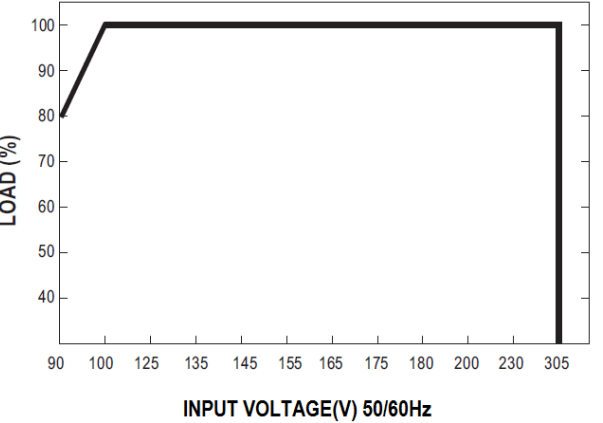
BLOCK DIAGRAM



OUTPUT LOAD vs TEMPERATURE

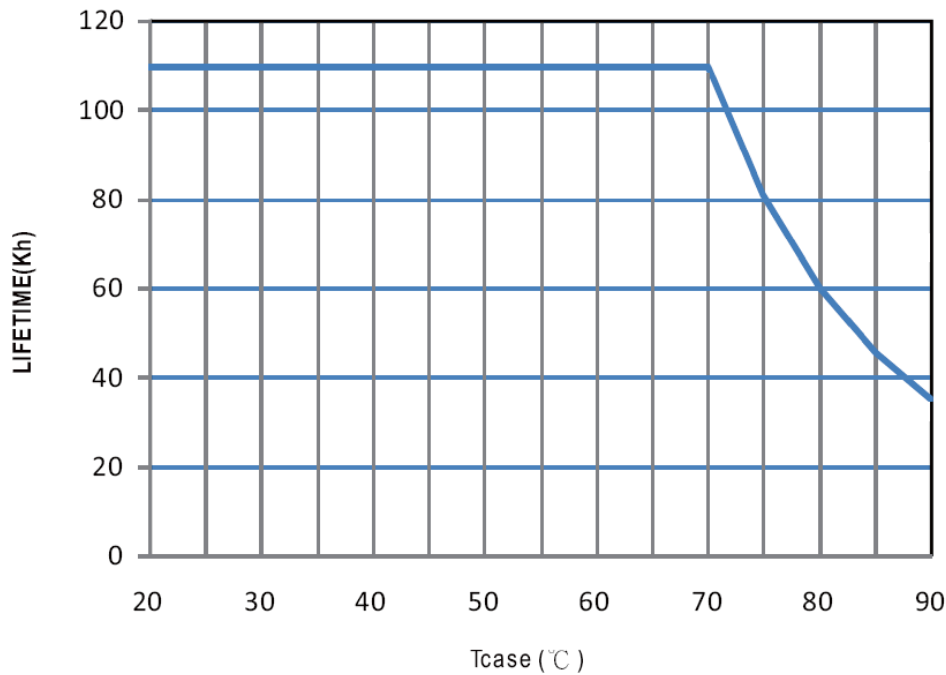


STATIC CHARACTERISTICS

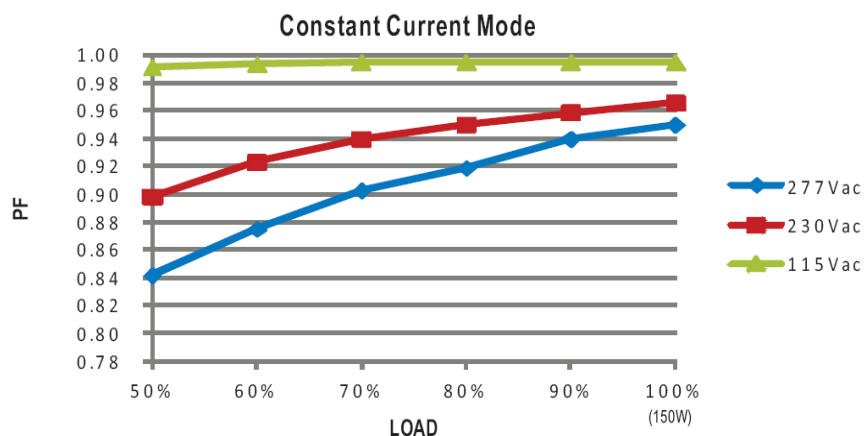


※ De-rating is needed under low input voltage.

LIFETIME



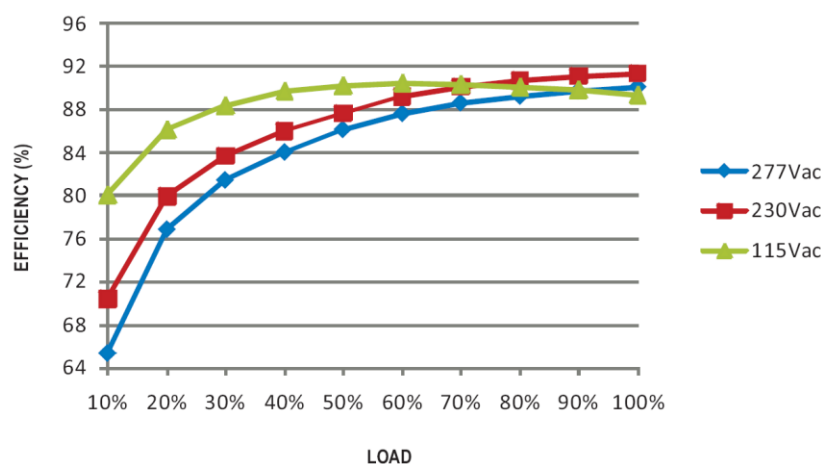
POWER FACTOR (PF) CHARACTERISTIC



EFFICIENCY vs LOAD

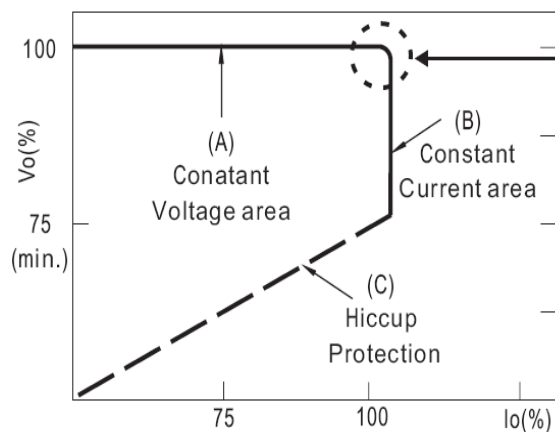
150R series possess superior working efficiency that up to 91%

Can be reached in field applications.



DRIVING METHODS OF LED MODULE

※ This series is able to work in either Constant Current mode(a direct drive way) or Constant Voltage mode (usually through additional DC/DC drive) to drive the LEDs.



In the constant current region, the highest voltage at the output of the driver depends on the configuration of the end systems.

Typical LED power supply I-V curve