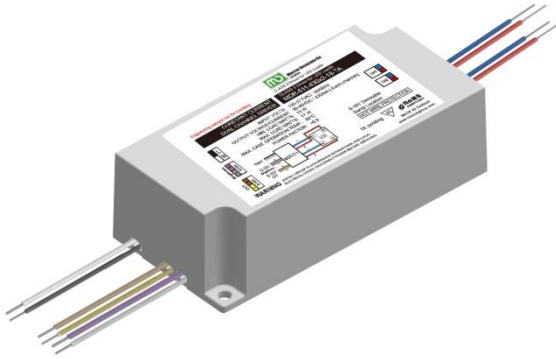




## MDR-511TW-430-18-TA



UL in process.

### ■ Features

- ✓ 0-10V Dimmable
- ✓ designed for tune-able white LED
- ✓ Compact size
- ✓ Low profile
- ✓ Constant Current Output
- ✓ Active Power Factor
- ✓ Class 2 compliance
- ✓ 5 Year Warranty
- ✓ Support CASAMBI CBU-A2D/CBU-ASR Controller
- ✓ Support Ambientech 2ch Wall Switch

### ■ Environmental Specifications

- MTBF >50,000 hrs
- RoHS Compliant
- Lead Free SMT process
- Power Factor Correction / Low Load
- FCC Class B Certified
- Operating Temperature -20° to 60°C
- Storage Temperature -20° to 70°C

### ■ Protection

- Overload protection
- Thermal protection
- Class 2

### ■ Mechanical and Thermal

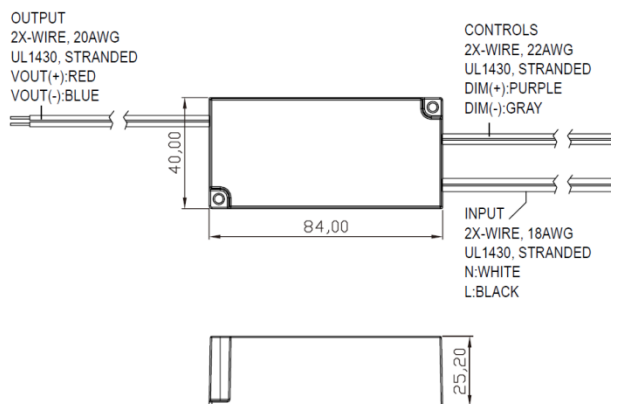
Dimensions L 3.878" × W2.047" × H 1.171"

Weight 245 g

Lead Wire Length 6" (Standard)

Max. Case Operation Temp. 80°C

\* Dimension in Inch / Metric



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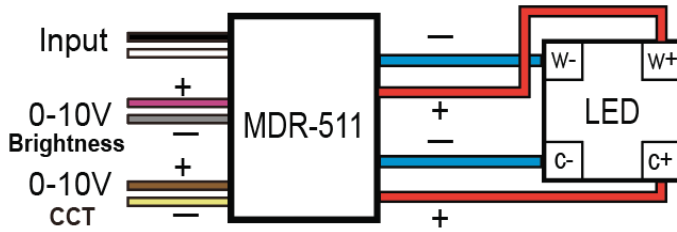
TEL: 886-4-22708357 FAX: 886-4-22767307 Email: macron@macrongroup.com

A1020

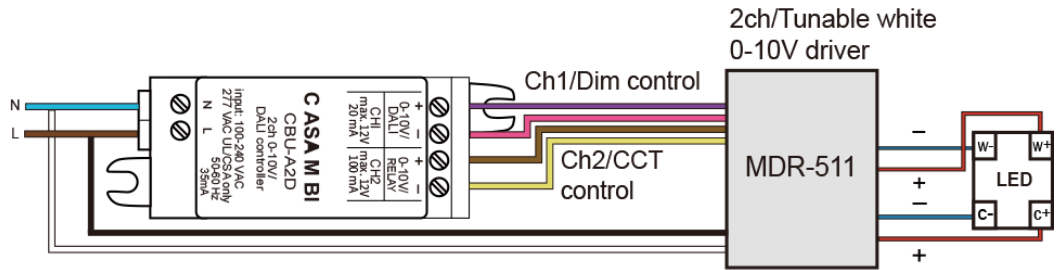


## ■ Wiring Diagram

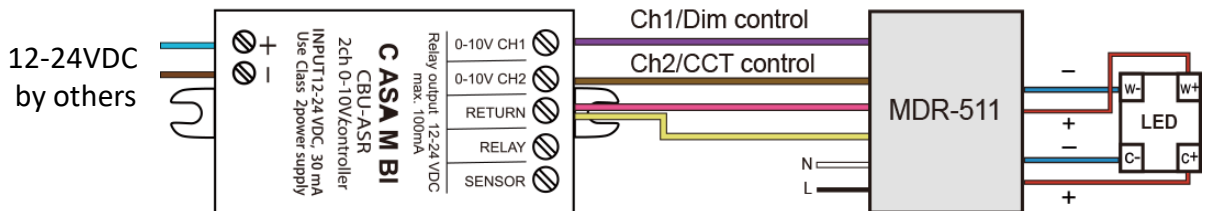
A. Wire Diagram/0-10V Dimmer(4 contact tunable white COB/engine)



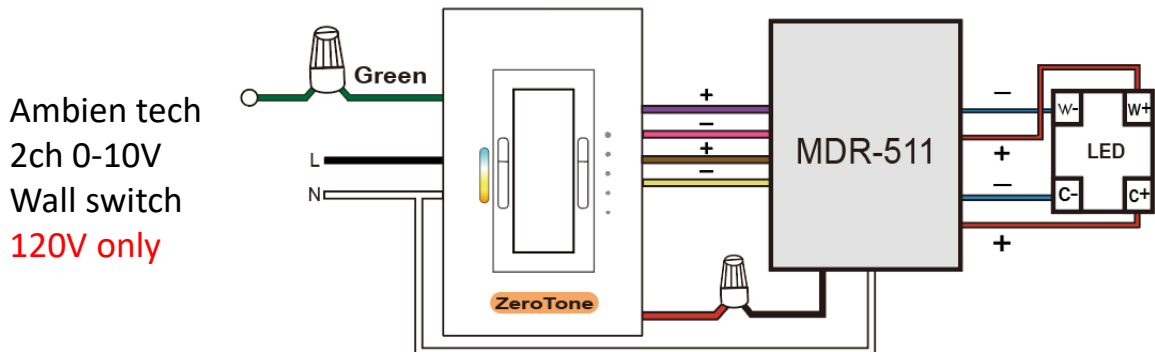
B. Wire Diagram/CASAMBI CBU-A2D Controller



C. Wire Diagram/CASAMBI CBU-ASR Controller



D. Wire Diagram/Ambientech 2ch 0-10V Wall Switch

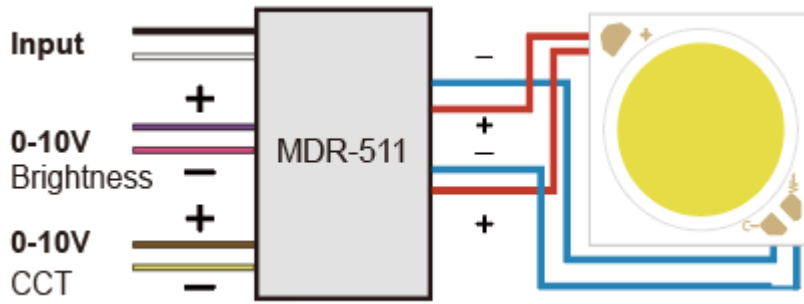




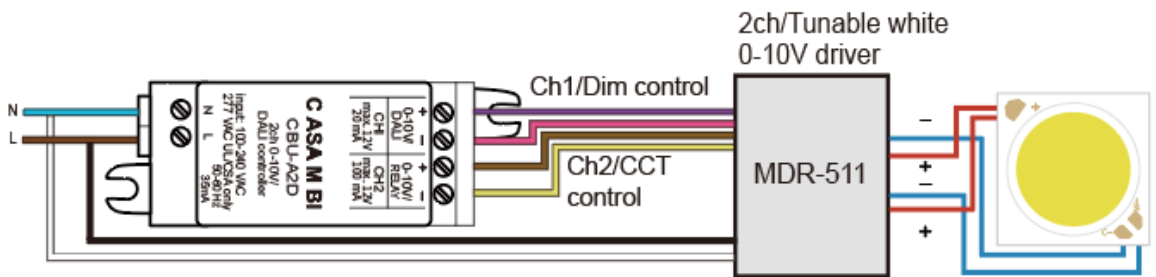
# SPECIFICATIONS

## ■ Wiring Diagram

A. Wire Diagram/0-10V Dimmer(3 contact tunable white COB)

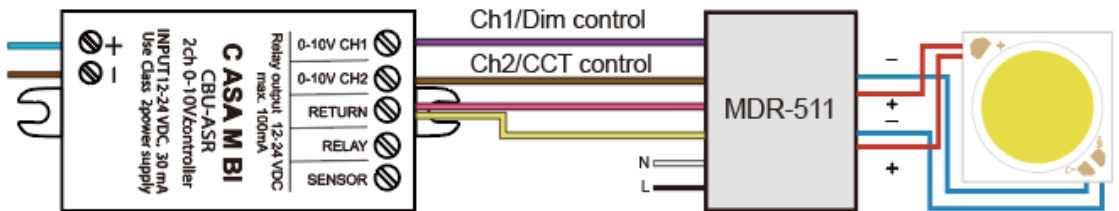


B. Wire Diagram/CASAMBI CBU-A2D Controller



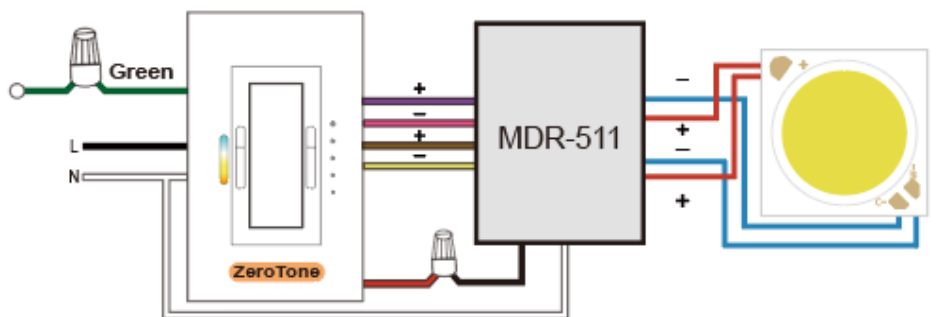
C. Wire Diagram/CASAMBI CBU-ASR Controller

12-24VDC  
by others"



D. Wire Diagram/Ambientech 2ch 0-10V Wall Switch

Ambien tech  
2ch 0-10V  
Wall switch  
120V only



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NO.352, Peng-Yi Road, Taiping, Taichung, Taiwan 411

TEL: 886-4-22708357 FAX: 886-4-22767307 Email: macron@macrongroup.com

## Input - specification

	Units	Minimum	Typical	Maximum	Notes
Input Voltage Range(Vin)	Vac	108	120-277	304	
Input Frequency Range	Hz	50	60	63	
Input Power	W		20		
Power Factor(PF)		0.9	>0.9		>80% Load
Input Current	A	-	-	0.16A@120VAC 0.07A@277VAC	
Inrush Current	A			4 A peak	According to IEC 60555
Total Harmonics Distortion (THD)				20%	1. At nominal input voltage and nominal LED voltage 2. Measure at full load
Efficiency		-	>80%	-	Efficiency is measured after driver has thermally stabilized + full load
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				

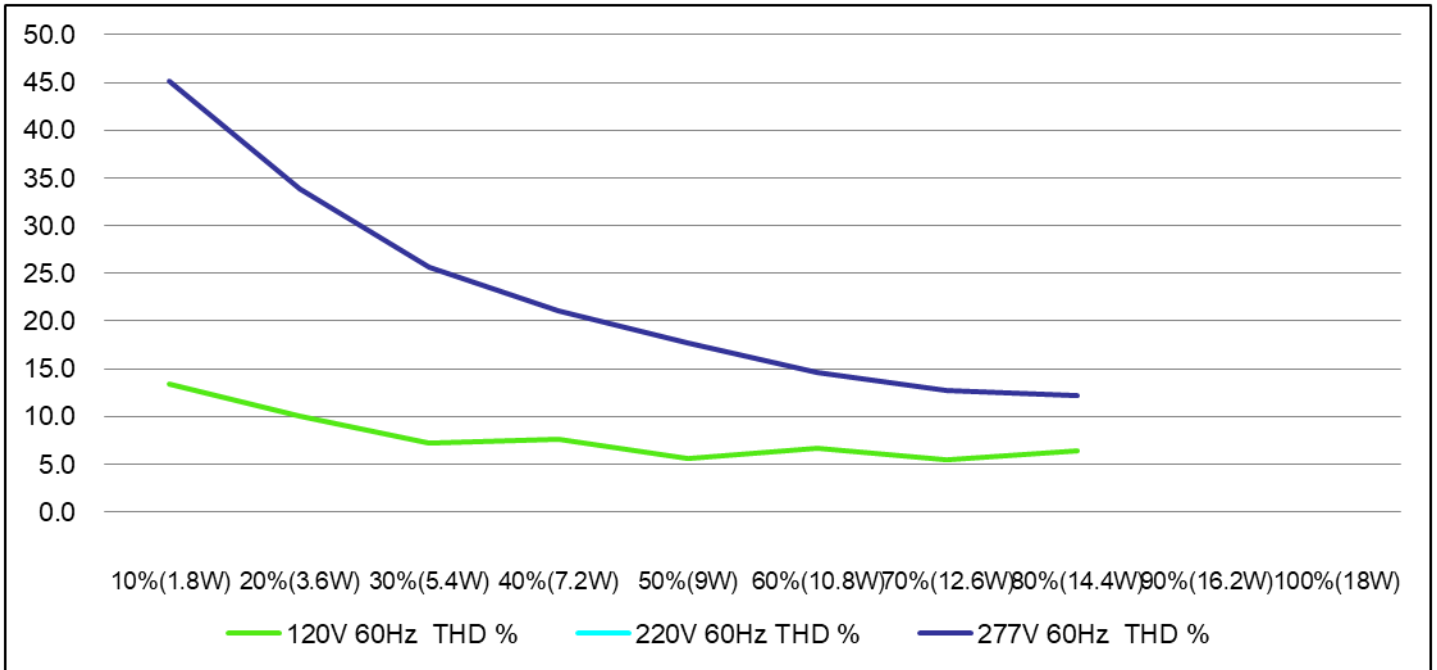
## Output - specification

	Units	Minimum	Typical	Maximum	Notes
Output Voltage(V out)	Vdc	30		40	
Output Current(I out)	mA		420(Each channel)		
Output Current Tolerance	%		±3		
Output Ripple Current	<20% peak-to-peak of 420(Each channel)				≤ 20% pk-to-pk of the rated output current for all models with Vout max ≥ 32V
					≤ 50% pk-to-pk of the rated output current for all models with Vout max ≤ 30V
					At nominal LED voltage and nominal input voltage without dimming
Dimming Range	%	1%		100%	Please refer to Dimmer compatibility list
Start-up Time	ms		200		With nominal LED voltage and without dimmer attached
			250		With nominal LED voltage, with an recommended dimmer attached(see dimmer compatibility list) and at the full dimming conduction angle
Operation Case Temperature	°C	-30		80C	
Isolation	Meet UL1310/UL8750 for class 2 isolation power supply				

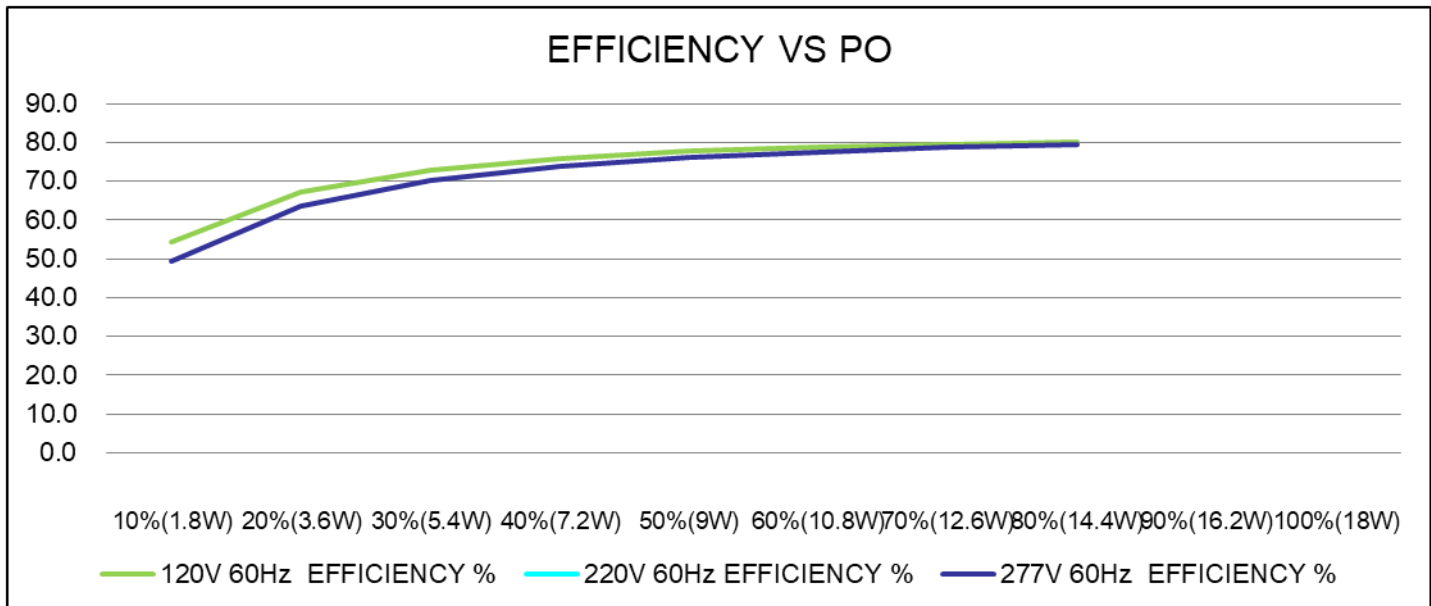
## EMC / Protection / Compliance

Conducted and Radiated EMI		FCC CFR Title 47 Part 15 Class B and EN55022(CISPR 22) Class B compliant			
Immunity Compliance	ESD (Electrostatic Discharge)	IEC61000-4-2	6 kV contact discharge, 8 kV air discharge, level 3		
	Electrical Fast Transient	IEC61000-4-4	±2 kV on AC power port for 1 minute, ±1kV on signal/control lines		
	Surge	IEC61000-4-5	±1kV line to line/±2kV line to earth on AC power port, ±0.5kV for outdoor cables		
Transient Protection	Ring Wave		ANSI/IEEE c62.41-1-2002 & c62.41-2-2002 category A, 2.5kV ring wave		

## THD of the driver VS Power Output (W) :

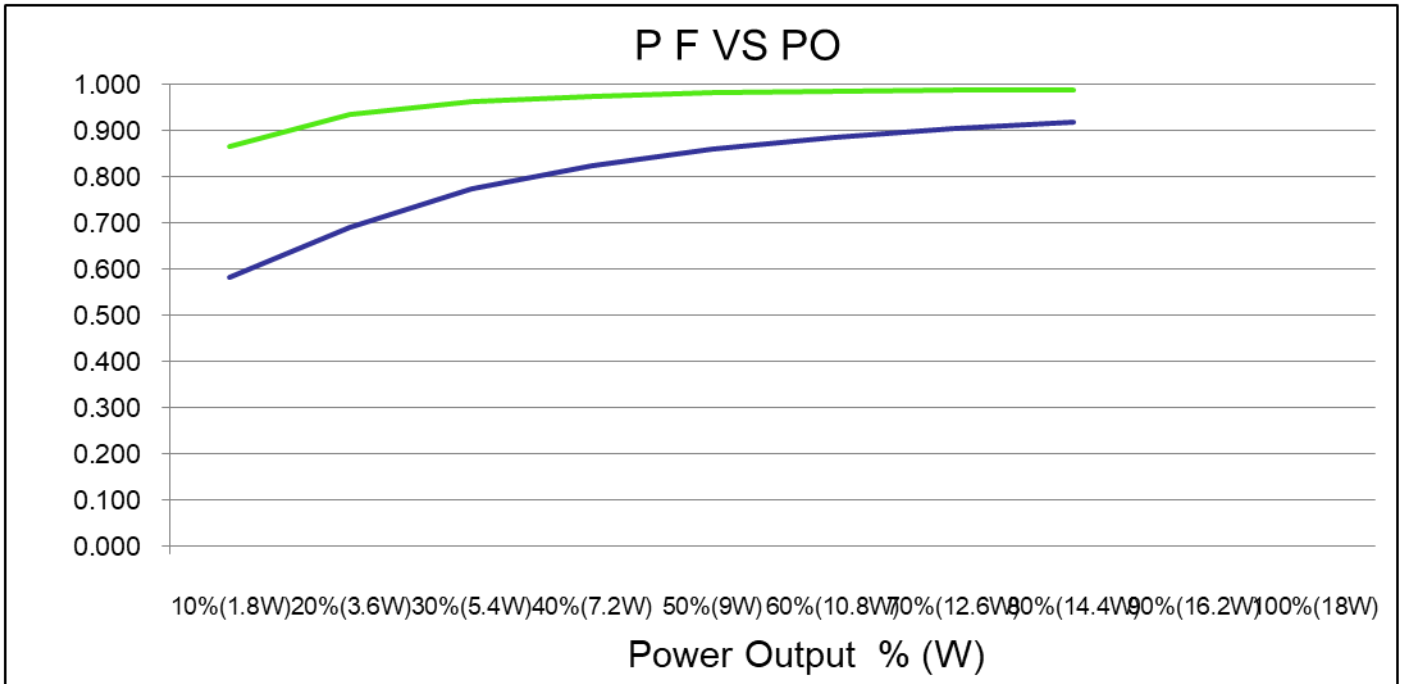


## Efficiency of the driver VS Power Output (W) :

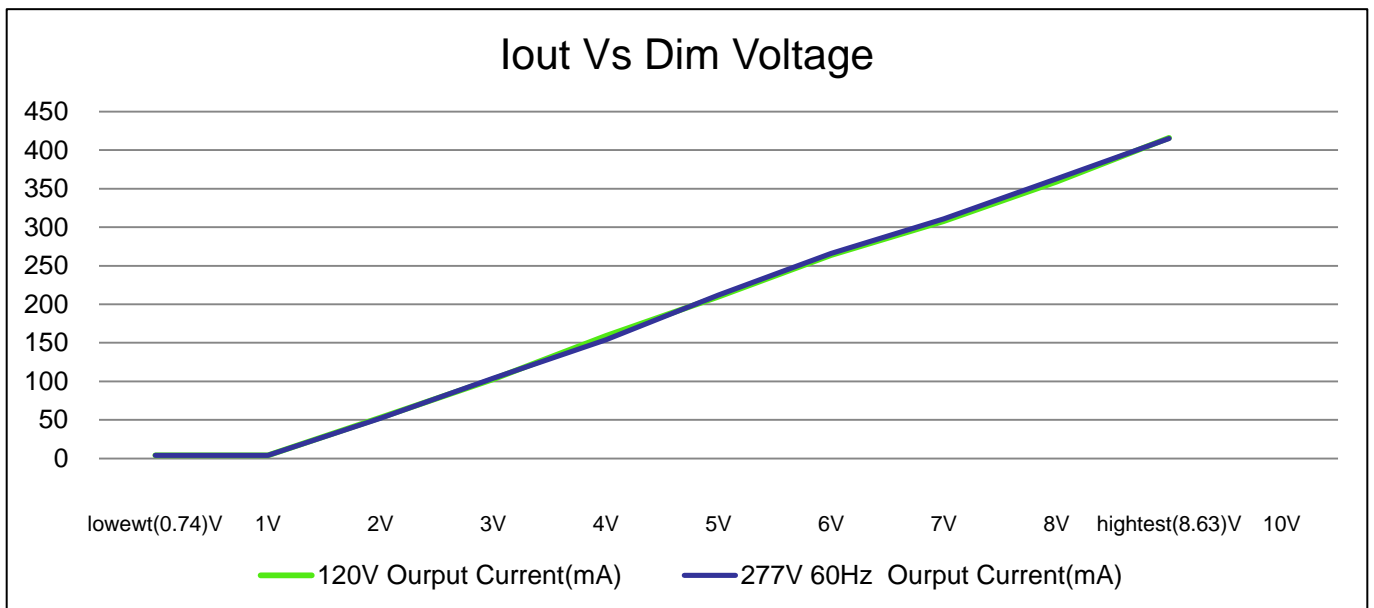


# Electrical Specifications

## Efficiency of the driver VS Power Output (W) :



## 0-10V Dimming



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