



12W 254mm 12V AC Electronic Linear Module

AC LED Technology by Lynk Labs
Compatible with Phase-cut Dimmers
5 yr. Warranty when used with TRP 12V AC power supply

Specifications

Drive Voltage:	Power with TRP #99002, 99004 or 99006 electronic transformer. Not to exceed 13V.
AC Current:	1050mA @25°C typical; 1167mA max
Power Dissipation:	11.8W typical; 14W max
Life:	50,000 Hrs, if used as specified
Luminous Flux:	711 lm @3000K
Luminous Efficacy:	71 LPW ±10% @3000K
Viewing Angle:	120 deg
Operating Temp:	-25°C to +100°C
Storage Temp:	-40°C to +100°C
Soldering Temp:	370°C

Low voltage AC LED modules offer an effective replacement for incandescent, Xenon or Halogen lamps. Patented AC LED technology eliminates the need for an AC-DC driver. Compatible with existing electronic 12V AC power supplies.

Features

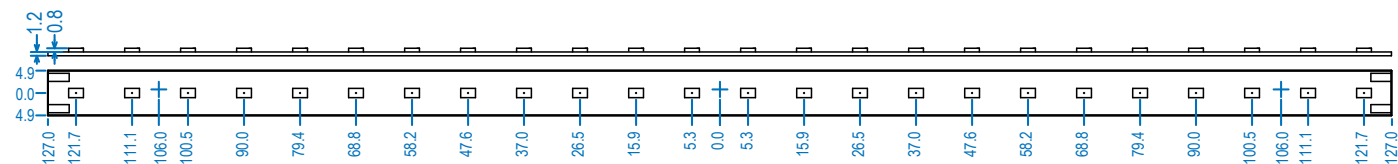
- Compatible with existing electronic 12V AC Power Supplies
- Polarity Independent
- Reliable, fast and easy - "Plug & Play"
- Compatible with most existing leading edge or trailing edge phase cut AC Dimmers
- High Power Efficiency
- High Power Factor
- Significant Energy Savings
- Durable Light Source
- Long Operating life

Applications

- Linear Lighting
- Cove Lighting
- Under Cabinet Lights
- Step Lights
- Accent Lights
- Garden Lights
- Display Lights

Dimensions:

254 ±0.254 mm L x 10 ±0.254 mm W x 2.0 mm ±10% H



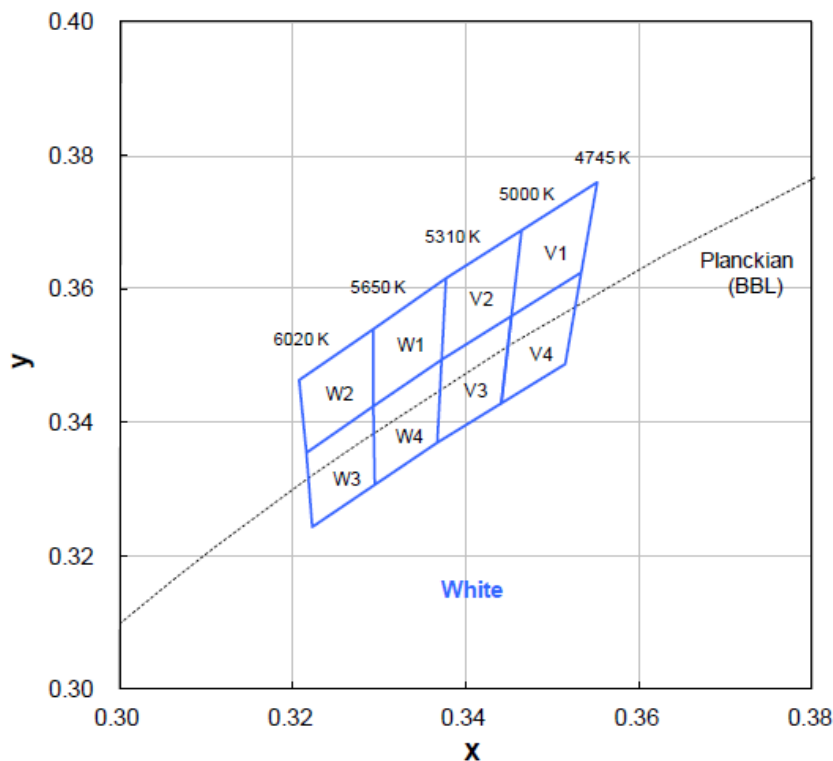
Modules can be daisy-chained, limit of 4 per chain.

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254mm 12V AC LED Module - Electronic Transformer Only					
Model Number	Input Power (W)	Input Voltage (Vac)	Color Temp (K)	Lumens	LPW
99016	11.8	12	2200	753	64
99260	11.8	12	2700	770	65
99017	11.8	12	3000	779	66
99261	11.8	12	3500	794	67
99018	11.8	12	4000	803	68
99019	11.8	12	5000	822	70
99020	11.8	12	5700	833	71

CIE Chromaticity Coordinates:

White Binning Structure Graphical Representation

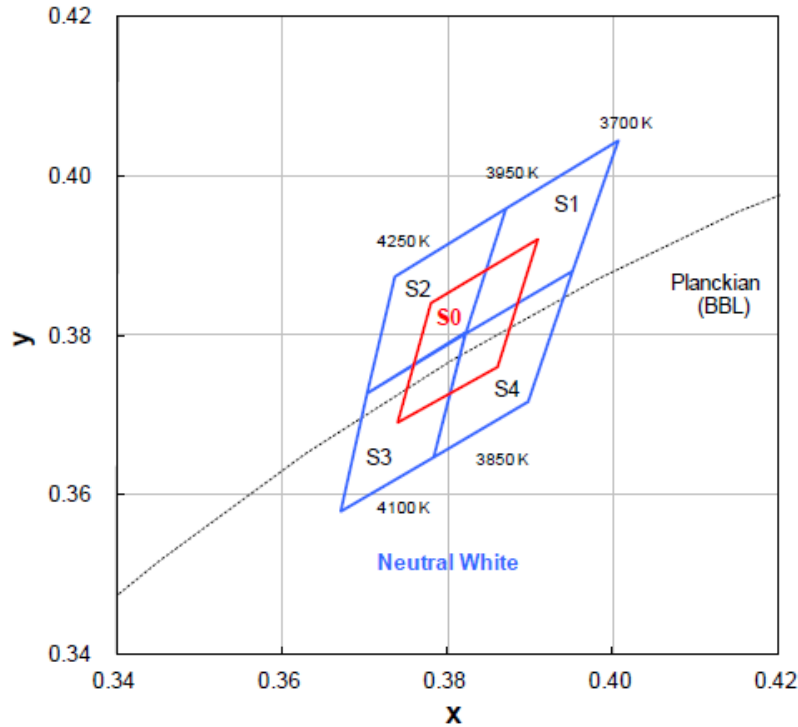


White Bin Structure

Bin Code	x	y	Typ. CCT (K)	Bin Code	x	y	Typ. CCT (K)
V1	0.346	0.369	4870	W1	0.329	0.354	5475
	0.355	0.376			0.338	0.362	
	0.353	0.362			0.337	0.349	
	0.345	0.356			0.329	0.342	
V4	0.345	0.356	4870	W4	0.329	0.342	5475
	0.353	0.362			0.337	0.349	
	0.352	0.349			0.337	0.337	
	0.344	0.343			0.329	0.331	
V2	0.338	0.362	5155	W2	0.321	0.346	5830
	0.346	0.369			0.329	0.354	
	0.345	0.356			0.329	0.342	
	0.337	0.349			0.322	0.335	
V3	0.337	0.349	5155	W3	0.322	0.335	5830
	0.345	0.356			0.329	0.342	
	0.344	0.343			0.329	0.331	
	0.337	0.337			0.322	0.324	

● Tolerance on each color bin (x , y) is ± 0.01

Neutral White Binning Structure Graphical Representation



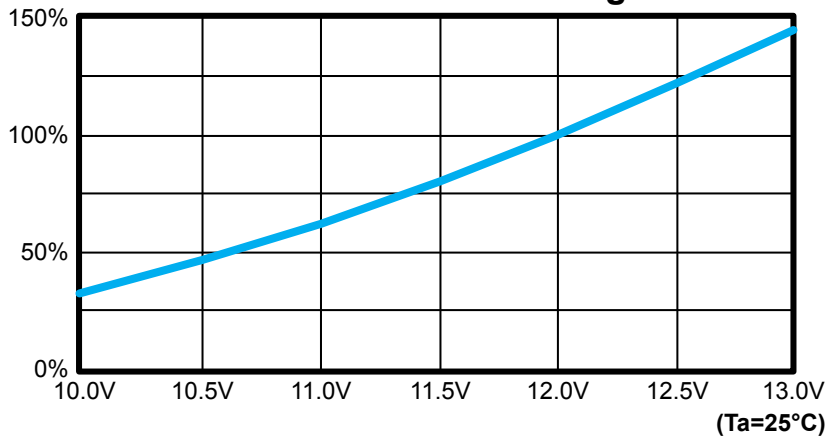
Neutral White Bin Structure

Bin Code	x	y	Typ. CCT (K)	Bin Code	x	y	Typ. CCT (K)
S1	0.387	0.396	3825	S2	0.374	0.387	4100
	0.401	0.404			0.387	0.396	
	0.395	0.388			0.382	0.380	
	0.382	0.380			0.370	0.373	
S4	0.382	0.380	3825	S3	0.370	0.373	4100
	0.395	0.388			0.382	0.380	
	0.390	0.372			0.378	0.365	
	0.378	0.365			0.367	0.358	
	0.374	0.369					
S0	0.378	0.384	3975				
	0.391	0.392					
	0.386	0.376					

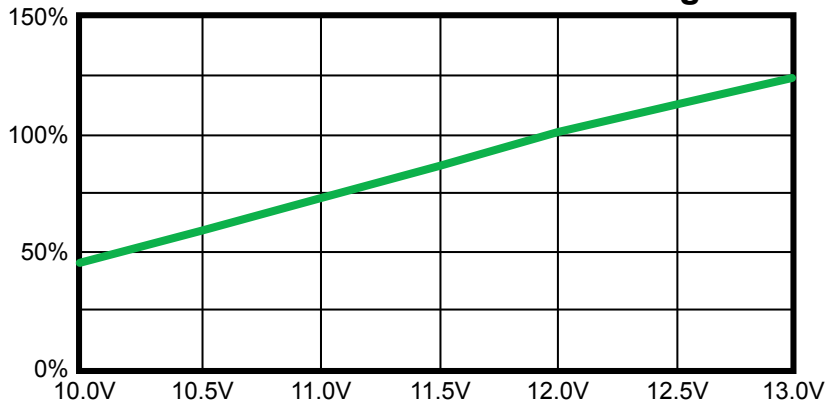
- Tolerance on each color bin (x , y) is ± 0.01

Typical Electrical & Optical Characteristic Curves:

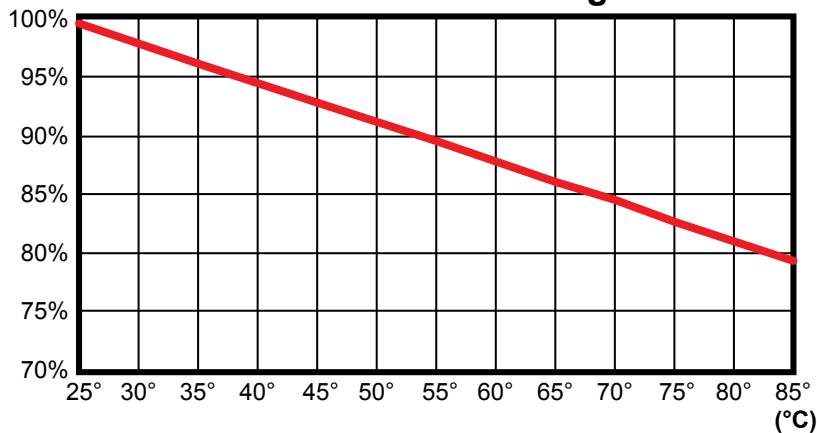
Relative Power / Voltage



Relative Luminous Flux / Voltage

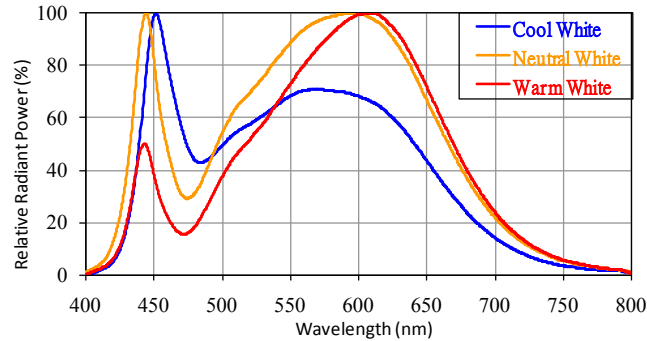


Lumen Thermal De-Rating Curve

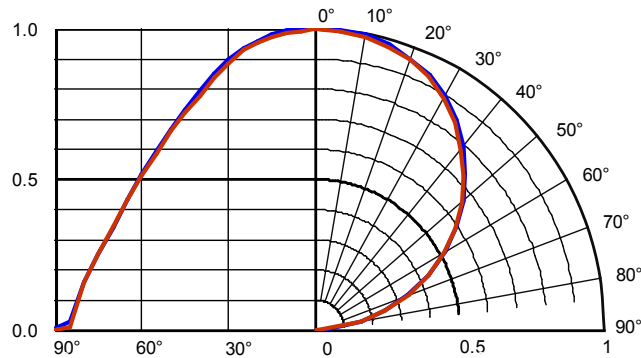


Typical Electrical & Optical Characteristic Curves:

Spectrum (VF=12Vrms, Ta=25°C, pulsed measurement)



Radiant Angle & Pattern (VF=12Vrms, Ta=25°C, pulsed measurement)



Packaging

- LED Modules will be packaged in trays for primary protection.
- According to the total delivery amount, cardboard boxes will be used to protect the trays of LED Modules from mechanical shocks during transportation.
- The boxes are not water resistant and therefore must be kept away from water and moisture.

Reliability and Average Lumen Maintenance

Before releasing new products the manufacturer puts a representative product sample set through an entire suite of qualification tests, including the most stressful test for high power LEDs, the Wet High-Temperature Operating Life (WHTOL) test at 85°C/85%RH for 1000 hours at the specified operating current.

LED lifetime has been extrapolated based on the accumulated operating and accelerated aging data. Based on this data, the manufacturer projects that the LED products will deliver, on average, 70% lumen maintenance at 50,000 hours of operation at the specified operating current, provided that the case temperature is maintained at or below 80°C.

Design Considerations/Specifications

Thermal Management Requirements

- Heat Sink Required (22 square cm/watt surface area)
- Thermal epoxy – No mechanical mounting required
- Thermal tape – No mechanical mounting required
- Thermal grease – Mechanical mounting required

Mechanical Mounting

- Use nylon washers for all mounting holes when using screws.
- Do not put force on LEDs.
- Do not bend PCB.

Electrical Interface

- Solder Pads