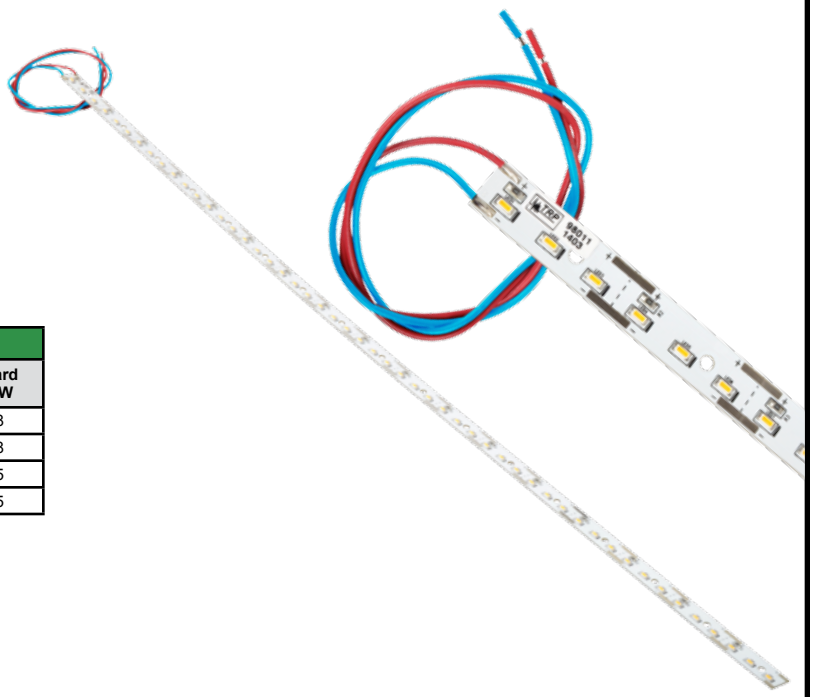
LED Light Engine, 22.7” Narrow Linear Module

12V Constant-Voltage Array, 3 LED Series x 17 Sections
Engineered by Norlux
51 Nichia LEDs
5 yr. Warranty

Specifications

Driver Type:	**12V Constant-Voltage**
Nominal Current:	445mA total (26mA per section)
Drive Voltage:	12V
Total Board Power:	5.3W ±5%
Life:	50,000 Hrs @70% lumen maint., if used as specified (current & heat)
Max Junction Temp:	90°C
Max Test Point Temp:	80°C
Operating Temp:	-40ºC to +60ºC Ambient
Storage Temp:	-40ºC to +80ºC
Viewing Angle (FWHM):	120° Lambertian distribution
CRI:	85 typical

- Can be cut to length in 1.33” increments
- Designed for easy use in standard luminaires
- Tight LED pitch eliminates pixelization
- Color: ¼ ANSI Binning, 3 Step MacAdam Ellipse
- Suggested Applications: Cove or Undercabinet Lighting, Sign Lighting
- Customizable: Engines can be modified to your application. Contact us.



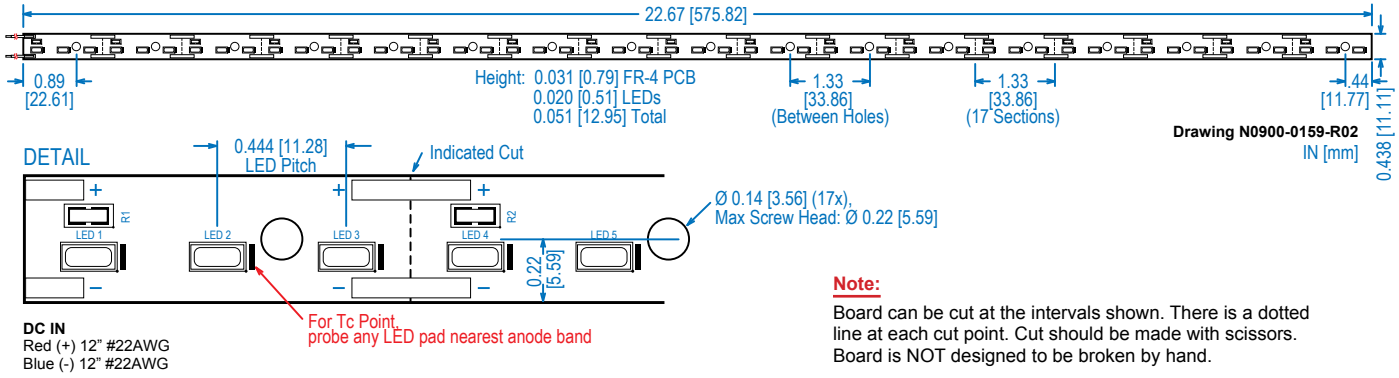
22.7 Inch Narrow Linear LED Module

Model Number	Total Board Power *(W)*	Total Current *(mA)*	Color Temp *(K)*	Lumens *(± 15%)*	Board LPW
98010	5.3	445	3000	465	88
98011	5.3	445	3500	465	88
98012	5.3	445	4000	504	95
98030	5.3	445	5000	510	95

Connectivity Options

Suffix	Connection
(blank)	12 IN, #22 AWG Stranded Leads
-01	No Leads

Dimensions:



DC IN
Red (+) 12” #22AWG
Blue (-) 12” #22AWG

Note:
Board can be cut at the intervals shown. There is a dotted line at each cut point. Cut should be made with scissors. Board is NOT designed to be broken by hand.

★MADE IN USA★
Of Imported And Domestic Components

Specifications subject to change without notice. Trademarks are property of their respective owners.

Rev 5-14-15

CIE Chromaticity Coordinates:

3000K

3 Step Macadams Ellipse

X	Y
0.4325	0.4101
0.4452	0.4146
0.4244	0.3923
0.4362	0.3965

3500K

3 Step Macadams Ellipse

X	Y
0.4045	0.3975
0.4189	0.4044
0.3989	0.3819
0.412	0.3875

4000K

3 Step Macadams Ellipse

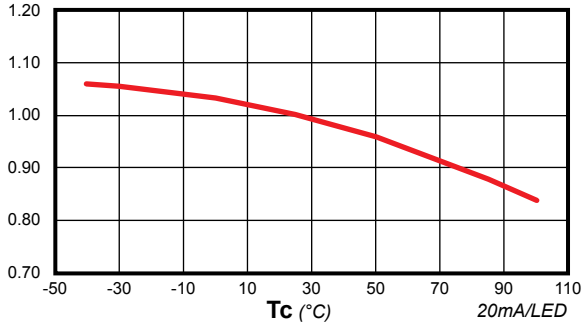
X	Y
0.3783	0.3836
0.3909	0.3906
0.3746	0.3687
0.3864	0.3757

5000K

3 Step Macadams Ellipse

X	Y
0.3408	0.3461
0.3485	0.3520
0.3416	0.3585
0.3499	0.3644

Relative Luminous Flux / Tc Temperature



Step Dimming:

This Light Engine can be step-dimmed, with a recommended TRP dimmable driver and SD series step-dimming module. See the SD2 or SD3 data sheet for wiring information.

Compatible TRP Drivers:

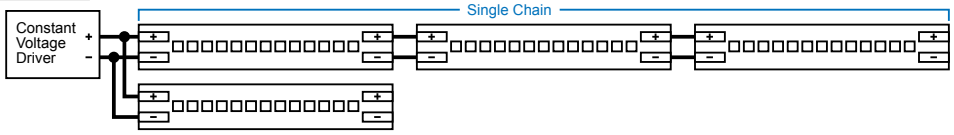
The drivers listed here are all compatible with this module. Choose the best driver for your application.

- LED12W-12 *(1-2 Boards Total)*
- LED17W-12 *(2-3 Boards Total)*
- LED20W-012 *(1-3 Boards Total)*
- LED25W-12 *(2-5 Boards Total)*
- LED25W-12-HL-B *(2-5 Boards Total)*
- LED25W-12-HL-S *(2-5 Boards Total)*
- LED30W-12 *(2-5 Boards Total)*
- LED40W-012 *(2-7 Boards Total)*
- LED50W-012 *(3-9 Boards Total)*
- LED60W-012 *(3-11 Boards Total)*
- PLED75W-12 *(3-14 Boards Total)*
- TRV-100S012ST *(1-18 Boards Total)*
- TRV-150S012ST *(1-28 Boards Total)*
- TRV-200S012ST *(1-33 Boards Total)*
- TRV-250S012ST *(1-41 Boards Total)*
- TRV-300S012ST *(1-51Boards Total)*

Parallel Configurations

The 22.7” Specialty Narrow Linear Board is designed for parallel connections only. For a single chain (end-to-end), the positive and negative of one board is connected to the respective positive and negative of the next. Current adds, so the supply must be 2x the current for 2 boards. Add currents for parallel chains also.

Parallel



Maximum Run Lengths

The max number of boards wired in a chain **(end-to-end/parallel)** is limited by the max current rating of the first board wired to the driver. The sum of the board currents, in the chain, funnels through the first board. Multiple chains can connect directly to the power supply in parallel. See table for max chain length.

Product	Series/Parallel	Max Allowable Uncut Boards	
		High Current *(Nom)*	Low Current
22.7” Narrow	Parallel	5	N/A

Mounting Notes

The LED assembly is supplied with mounting holes, per the dimensional drawing. It is important to mount the board in such a way as to maintain the Tc point below the max. The steady state thermals in application will dictate if the board needs to be mounted directly to metallic housing and/or include a thermal pad. For example fully enclosed recessed fixture will require better thermal mounting than an open air pendant.

Thermal Application Notes

This board may require additional heat sinking to run above 60ºC ambient. Heat sink is also required when operated above specified drive currents.

Maximum Current

Max Current: 445mA
Voltage at max current: 12V, Power at max current: 5.3W
The total maximum current reflects the LED maximum forward current only, without considering thermal needs. Driving the LEDs this hard will likely violate their thermal limits, depending on the application. **Tc point must remain at or below the max temperature, or the warranty will be voided.** Temperature is directly correlated to LED current.

Static Sensitive Device

Handle only at static-safe work stations.

Packaging

50 per box standard.