



LED Light Engine, 11" Linear Module

Constant-Current DC Array, 6 LED Series x 4 Parallel Strings
 Engineered by Norlux
 24 Nichia LEDs
 5 yr. Warranty

Specifications

Driver Type:	Constant-Current
Drive Current:	350mA Nominal
Nom. Forward Voltage:	17.9V
Total Board Power:	6.3W Nominal
Life:	50,000 Hrs, 70% lumen maint. @ Ta max 50°C, used as specified
Max Junction Temp:	90°C
Max Test Point Temp:	80°C
Operating Temp:	-40°C to +60°C Ambient
Storage Temp:	-40°C to +80°C
Viewing Angle (FWHM):	120° Lambertian distribution
CRI:	83 typical

- Designed for easy use in standard luminaires
- Tight LED pitch eliminates pixelization, no complex lens or optics required
- Color: ¼ ANSI Binning, 3 Step MacAdam Ellipse
- Suggested Applications: Troffers, Troffer Retrofits, Linear Recessed and Flush-mount
- Customizable: Engines can be modified to your application. Contact us.

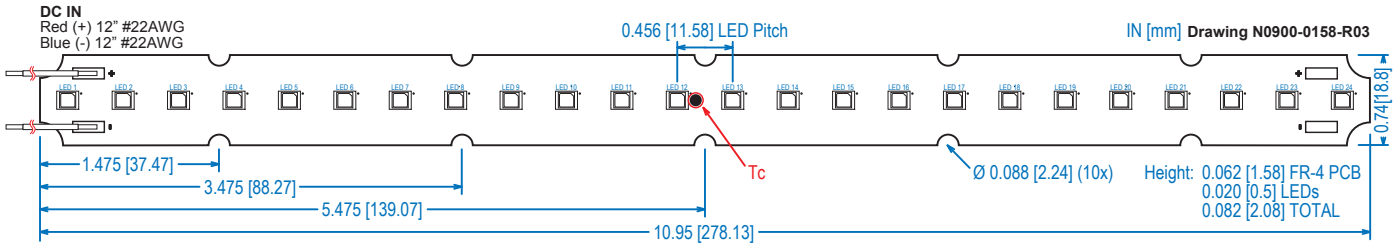


11 Inch Linear DC LED Module					
Model Number	Color Temp (K)	Total Current (mA)	Total Board Power (W)	Lumens (± 15%)	Board LPW
98044	2700	175	2.9	397	137
		350	6.3	765	121
98000	3000	175	2.9	425	146
		350	6.3	820	130
98001	3500	175	2.9	446	153
		350	6.3	860	136
98002	4000	175	2.9	458	157
		350	6.3	883	140
98029	5000	175	2.9	472	163
		350	6.3	910	145

Connectivity Options	
Suffix	Connection
(blank)	12 IN, #22 AWG Stranded Leads
-01	No Leads
-02	Push-in Connectors

For Poke-In Connectors, use #24-18 AWG stranded or solid wire

Dimensions:



★ MADE IN USA ★
 Of Imported And Domestic Components

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CIE Chromaticity Coordinates:

2700K

3 Step Macadams Ellipse

X	Y
0.4576	0.4183
0.4698	0.4212
0.4478	0.3999
0.4591	0.4025

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

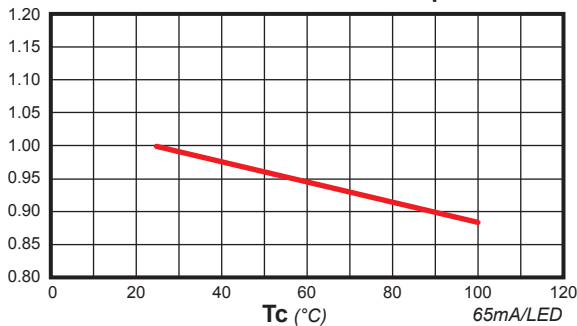
X	Y
0.3783	0.3836
0.3909	0.3906
0.3746	0.3687
0.3864	0.3757

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



Compatible TRP Drivers:

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

- BLED12W-036-C0350
- LED12W-24-C0350

Step Dimming:

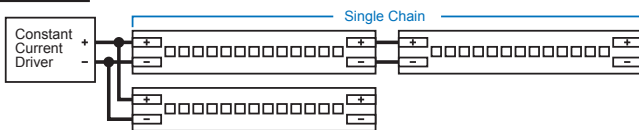
This Light Engine can be step-dimmed, with a recommended TRP dimmable driver and SD series step-dimming module. See the SD2 or SD3 data sheet for wiring information.

Series/Parallel Configurations

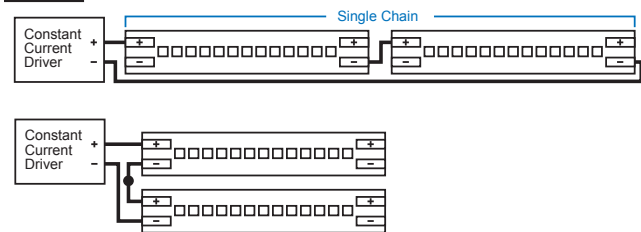
Parallel: The positive and negative of one board is connected to the respective positive and negative of the next. Current adds, so the supply must be 2x the current for 2 boards, for example.

Series: The negative of one board is connected to the positive of the next. Voltage adds, so the supply must be 2x the voltage for 2 boards.

Parallel



Series



Maximum Run Lengths

The max number of boards wired in a chain (**parallel or series**) 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 Boards	
		High Current (Nom)	Low Current
11" Troffer	Parallel	11	22

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 requires additional heat sinking to run above 55°C ambient at nominal specifications. Heat sink is also required when operated above specified drive currents.

Maximum Current

Max Current: 720mA

Voltage at max current: 20V, Power at max current: 14.4W

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.