

Aurora Design NEL-1 User Manual

The NEL-1C RGB LED Array and NEL-1M Monochrome LED Array are high efficiency, high brightness, low power replacement lamps for use in mechanical televisions that originally used a Neon Plate lamp. They can be mounted to a standard 3 or 4 pin tube base, or an Osram bayonet base to fit most original mechanical televisions.

Note: These lamps are not direct replacements for a Neon Plate Lamp. Neon lamps typically run at 100-300VDC while these LED Arrays run at 8-12VDC. Driving these LED Arrays from a high voltage source as found on original mechanical television may damage them.

If connecting the LED Array to the WC-01 World Converter, simply plug the supplied cable into the LED and the Mechanical Current Driver Output of the WC-01. The WC-01 will sense the type of LED Array attached, and make the appropriate adjustments.

If connecting the LED Array to a custom driver, a cable can be soldered to one of the two sets of pads on the LED Array. The NEL-1C has 4 pads labeled +, R, G and B. The NEL-1M has two pads labeled + and -.

A custom modular cable can also be fabricated to connect to the RJ25 jack on the LED Array.

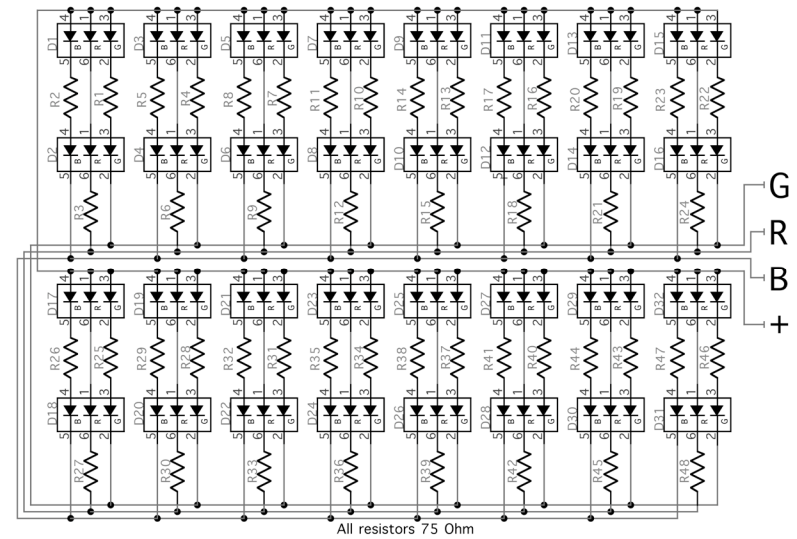
NEL-1C	NEL-1M
Pin 1 Blue Signal	Pin 1 -
Pin 2 Red Signal	Pin 2 -
Pin 3 Green Signal	Pin 3 -
Pin 4 Common +	Pin 4 +
Pin 5 Sense Resistor	Pin 5 Sense Resistor
Pin 6 Sense Resistor	Pin 6 Sense Resistor

Specifications:

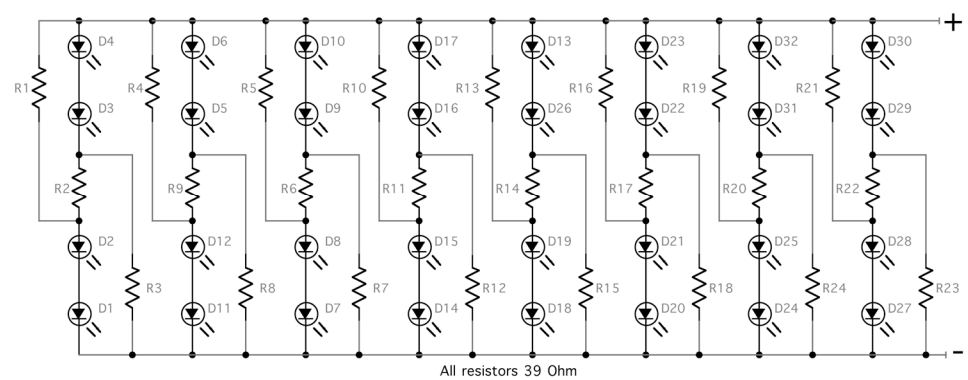
	NEL-1C	NEL-1M
Power Requirements	6.0V @ 333ma max (red) 8.0V @ 333ma max (green) 8.0V @ 333ma max (blue) 7.5W max dissipation	11V @ 450ma max 5W max dissipation
Luminous Flux	68 lumens (red) 88 lumens (green) 27 lumens (blue)	310 lumens
Dominant Wavelength	632nm (red) 523nm (green) 465nm (blue)	606nm (orange)

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NEL-1C Schematic



NEL-1M Schematic



NEL-1 Mechanical Drawing

