Linear LED Arrays

Product Range Overview

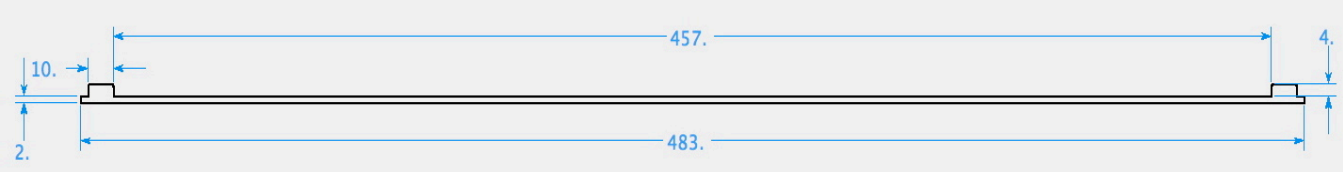
A range of Linear Arrays with an efficiency of 74 lumens per watt (typical).

Each array has ON BOARD CURRENT CONTROL – this allows the use of larger, more efficient constant voltage power supplies to drive a number of boards.

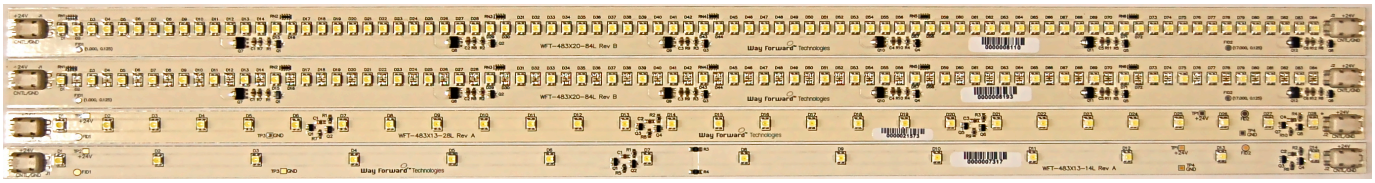
As well as advanced electronic management – they incorporate excellent thermal management – each board is printed onto a patented aluminium/dielectric substrate and is finished off on the back with a pre-applied double sided thermally conductive adhesive tape for easy assembly onto a suitable heat sink.

Easy connectivity – each array comes with a push fit connector on both ends allowing connection with either single solid core cable (from 0.75 – 1.00mm diameter) or stranded cable finished off with a ferrule bootlace – in addition arrays can be daisy chained in limited numbers (see below).

SIDE DIMENSIONS



Product images – 84, 42, 28 & 14 Diode boards (top down)



Notes:

Polarity – it is important to connect the + 24 VDC and GND (or 0 VDC) correctly.
Linking – it is possible to 'daisy chain' the arrays connecting + 24 VDC on one board to + 24 VDC on the next and GND to GND – please refer to the table on the next page for maximum linked numbers permitted in one 'string'.
Mounting Tape – the double sided thermally conductive tape on the reverse of the boards is applied prior to populating and passing the array through a Reflow Solder oven – this can result in a yellowing of the paper carrier – this is normal and does not affect the properties of the tape.
ESD – it is recommended that ESD precautions are taken when handling the boards prior to fitting into their final application.
HEAT SINK – these units must be mounted onto a suitable heat sink – minimum thermal conductivity requirements are detailed in the table overleaf.

Physical properties

Part Number	Description	Color/CCT/CRI	Dimensions	Max Linked Units
100L8466024WC	84 Diode Linear Array	White/5700K/Ra66	483mm x 20mm x 6mm	3
100L4233024WC	42 Diode Linear Array	White/5700K/Ra66	483mm x 20mm x 6mm	6
100L2820024WC	28 Diode Linear Array	White/5700K/Ra66	483mm x 13mm x 6mm	8
100L1410024WC	14 Diode Linear Array	White/5700K/Ra66	483mm x 13mm x 6mm	12

Electrical properties

Part Number	Input Voltage (V)			Current Draw (A)			Power Consumption (W)	
	Min	Nominal	Max	Min	Nominal	Max	Nominal	Max
100L8466024WC	23.5	24.0	26.0	0.570	0.600	0.630	14.4	16.4
100L4233024WC	23.5	24.0	26.0	0.285	0.300	0.315	7.2	8.2
100L2820024WC	23.5	24.0	26.0	0.190	0.200	0.210	4.8	5.5
100L1410024WC	23.5	24.0	26.0	0.095	0.100	0.105	2.4	2.7

Optical and Thermal properties

Part Number	Luminous Output* (lm)		Efficacy (lm/W)		Heat Sink Dissipation
	Min	Typical	Min	Typical	Thermal resistance °C/W
100L8466024WC	840	1080	53	75	2.08
100L4233024WC	420	540	53	75	4.17
100L2820024WC	280	360	53	75	6.25
100L1410024WC	140	180	53	75	12.5

* Luminous output specified at 25degC, 1 minute after power applied on standard heatsink