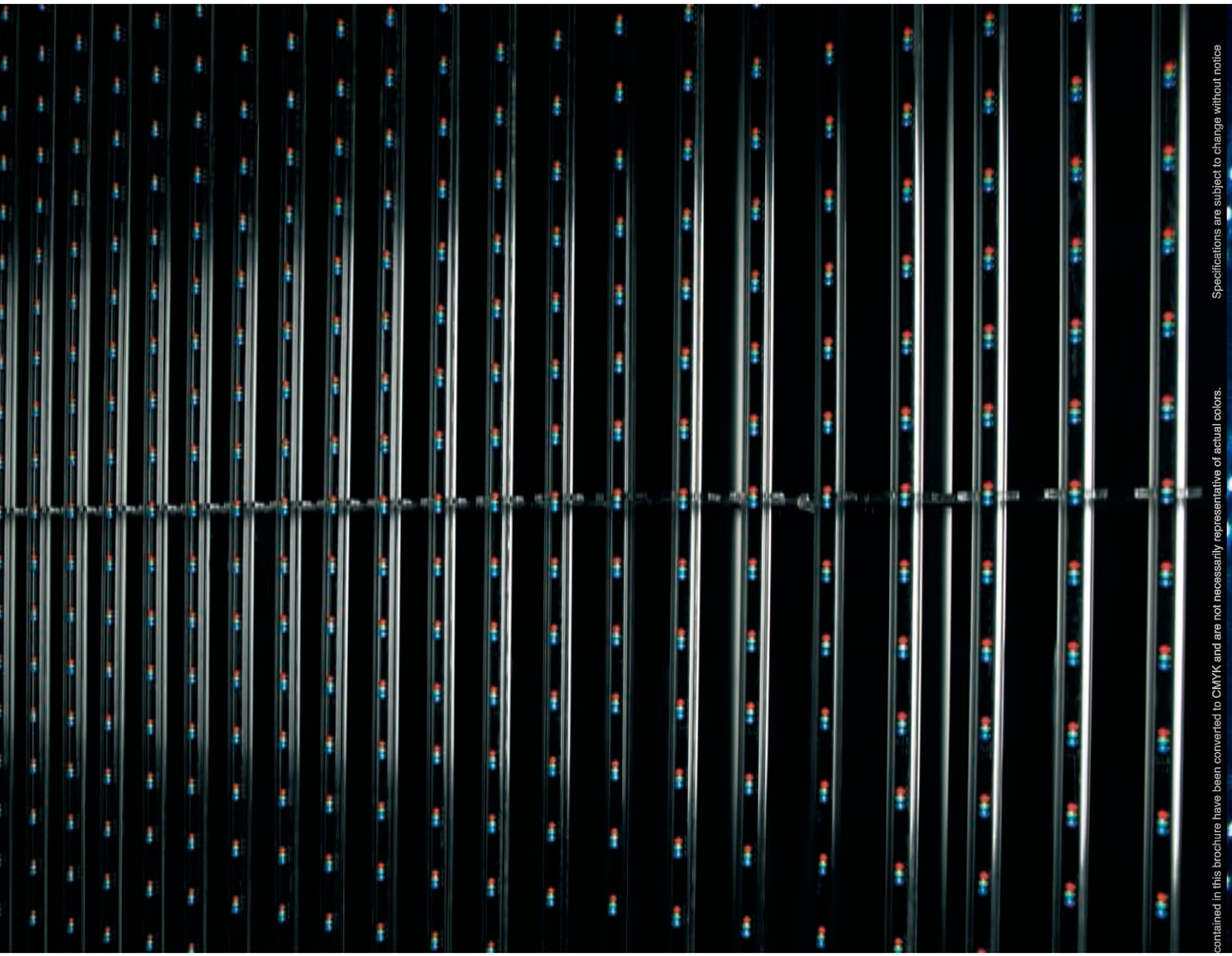
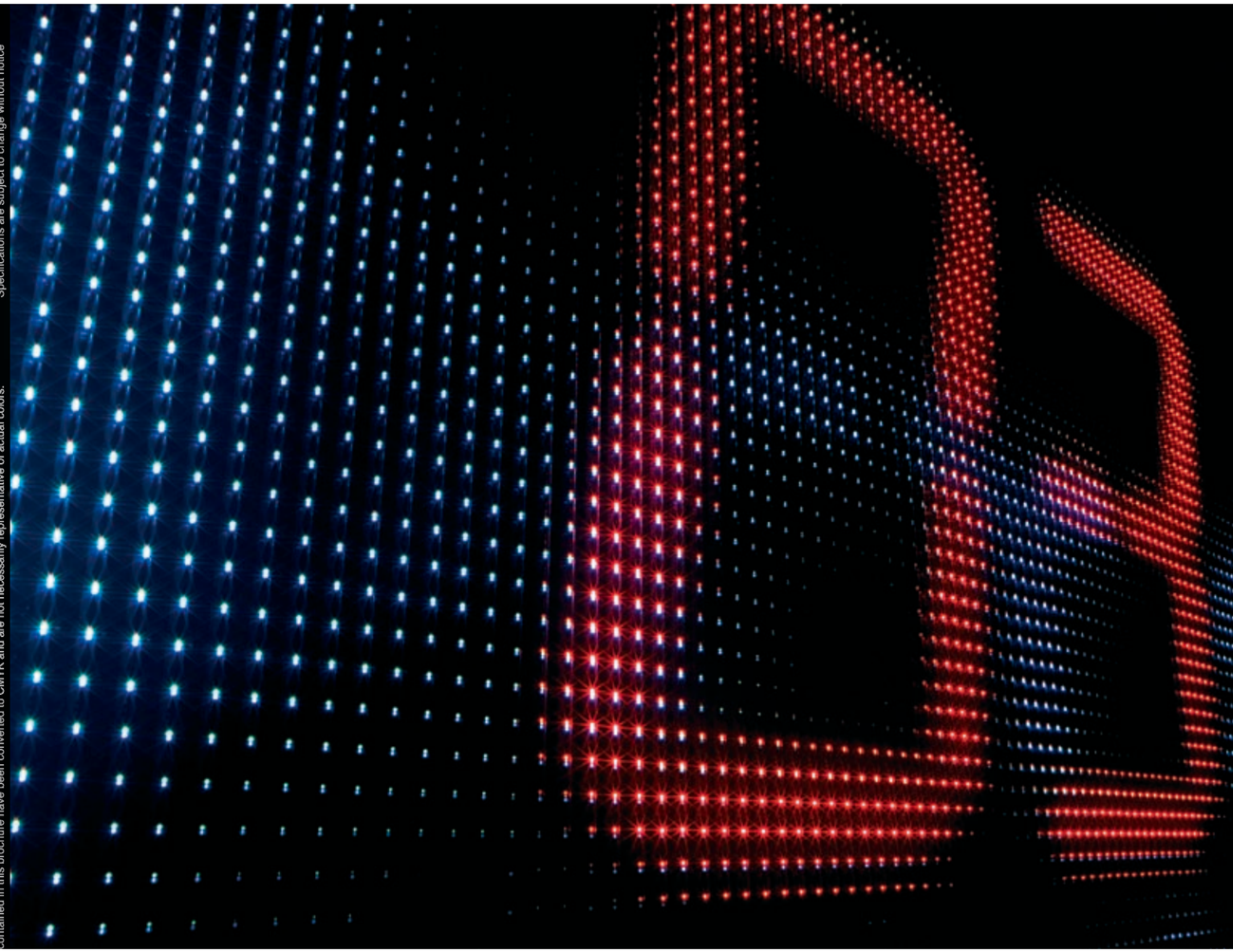




Martin

Martin Professional A/S • Olof Palmes Allé 18 • 8200 Aarhus N • Denmark • Phone: +45 87 40 00 00 • Fax: +45 87 40 00 10 • www.martin.com

Martin

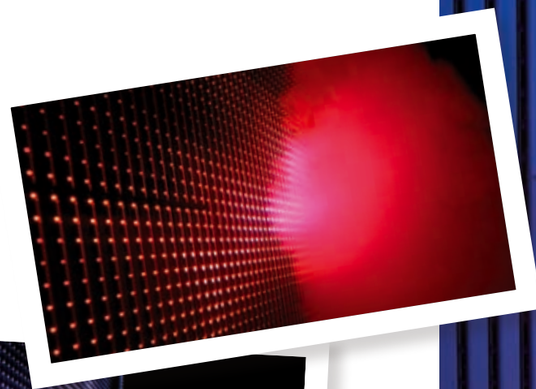
The LC Series is a semi-transparent, modular system of LED panels, perfect for displaying video and images. Designed for stage shows, TV studios and other commercial applications, the LC closely integrates light, video and set design, offering entirely new possibilities for staging.

Semi-transparent video

One truly innovative aspect of the LC series is its transparency. With LEDs encased in clear acrylic tubes, the screens are 60% transparent and allow light, air and effects to pass through them.

This opens up a whole new set of possibilities for lighting and stage designers.

Dim the panels and they seem to ‘disappear’, revealing objects or performers placed upstage. Light can be projected from behind and smoke effects made to emerge through the screens. In architectural applications video walls can be placed behind windows to allow sunlight into interior spaces.



Wow – it's bright!

The LC is an extremely bright video source. With an output of 1800 NITs (Cd/m2), the LC is clearly visible in daylight, making it suitable for large-scale and outdoor productions.

Excellent image quality

With a 40 mm pixel pitch, the LC offers excellent resolution without compromising on its light weight and transparency. A video wall's resolution is determined by its pixel pitch.

High resolution screens have a fine pixel pitch, typically around 6 mm. Low resolution screens can go up to 100 mm. The LC has an ideal balance at 40 mm, which means it remains lightweight, transparent and relatively inexpensive but is still tight enough to offer excellent image quality.

"Even during the middle of the day the screens were really bright. I had to back it off by the end of the day because my retinas were hurting."

Matt Arthur, Main Operator at One Big Weekend, UK.
Lighting Design by Paul Normandale.

Extremely viewable

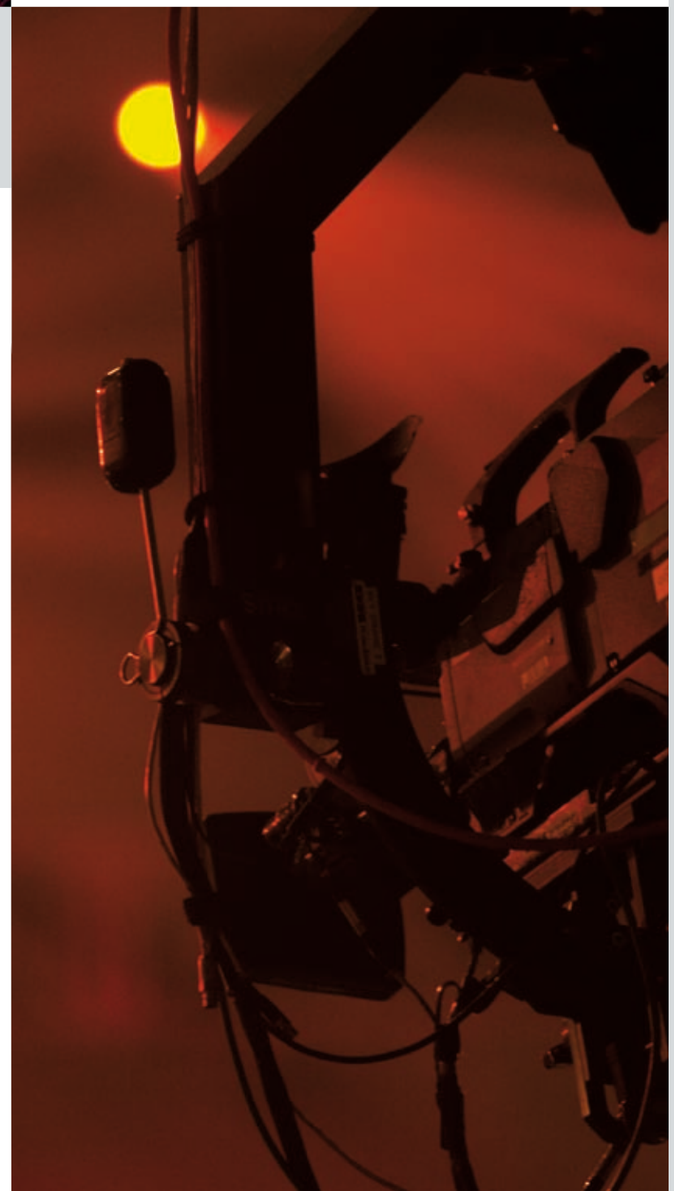
The LC portrays seamless images at thirty meters and beyond. Although still a useful effect at shorter distances, a simple rule of thumb is that in order to see an unpixelated image on an LED video screen, you need to be at a viewing distance of 750 times the pixel pitch. LC panels present a seamless image at about 30 m (750 x 40 mm = 30 m) or 100 ft.

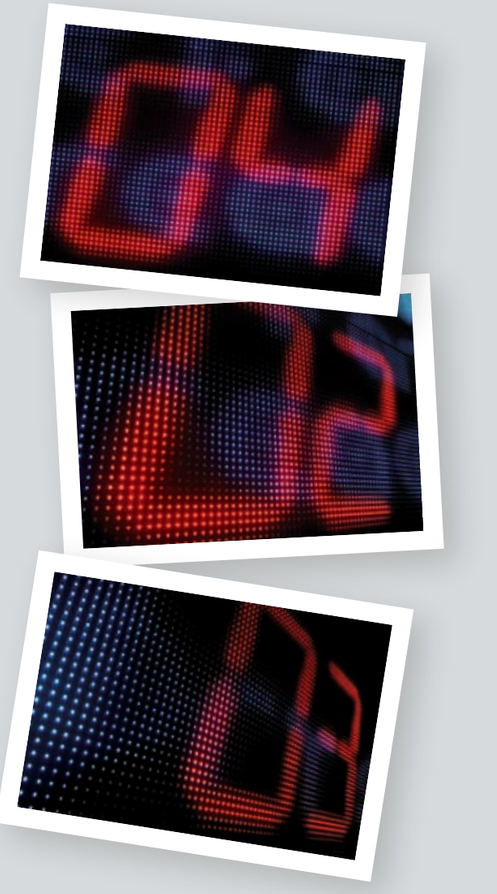
"The panels are very lightweight and an absolute joy to rig."

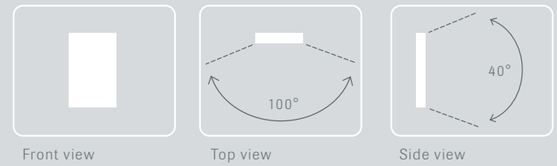
Lighting Designer Francesco Calvi at the Sydney Royal Easter Show, Australia.

Flicker–free video wall

The LC can be genlocked using a DVI box available as an accessory, making it suitable for a wide range of TV and video applications.







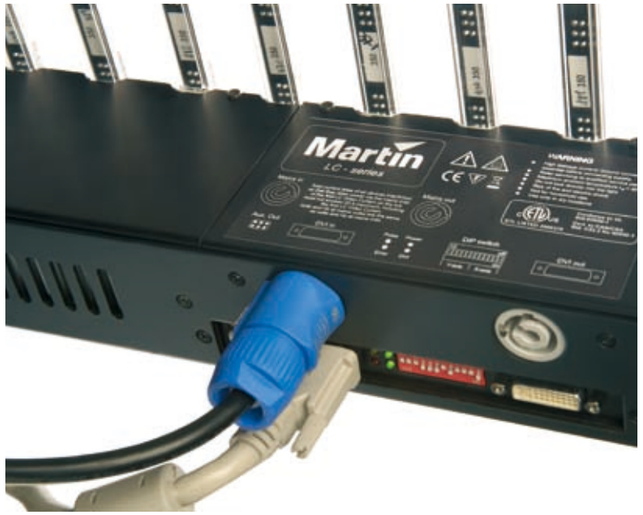
Front view Top view Side view

Wide viewing angle

Another important feature of the LC has to do with the pixel design. While most LED screens use triangular configurations, the LC comes with ellipitical pixels. This offers a very wide, 100° viewing angle, a feature that is especially valuable for applications where you can cover not only the front but also the sides where viewers tend to miss out.

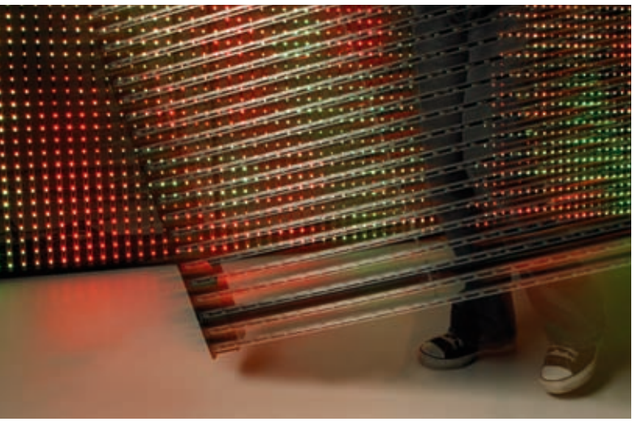
Easy assembly

You can stack or hang the LC Series seven units high (14 m/46 ft) and as wide as necessary. With standard Prolyte CCS6 conical truss connectors, connecting the lightweight units together is simple and the resulting structure is very sturdy. The construction of the panels means they are not affected by wind.



Cable management

Data and power can be daisy chained between frames with standard DVI and PowerCon cables so you don't have to run a separate cable to each frame from a control box. Daisy–chain up to five 2x1 m frames (LC2140) or up to 10 1x1 m frames (LC1140) on one power line (@230 V), and up to 6 frames via standard DVI-D cables on one link.



Simple logistics

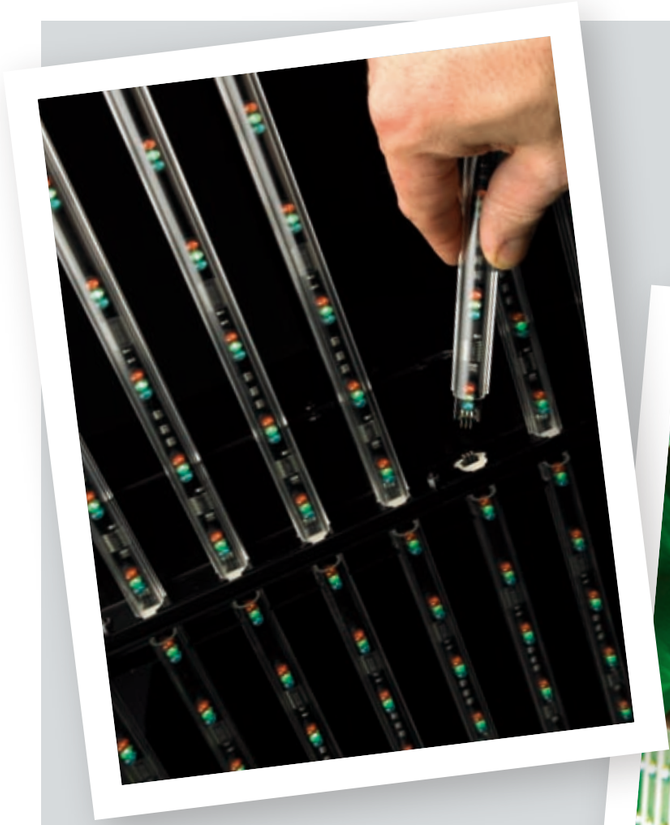
LC units are built tough for the road and smart for easy set-up. With no external power supplies or drivers, each unit comes with everything built in - substantially reducing logistical costs and set-up time.

Worldwide compatibility

Each unit contains a switch–mode power supply that covers all worldwide voltages, so you are always ready to go - anywhere in the world.

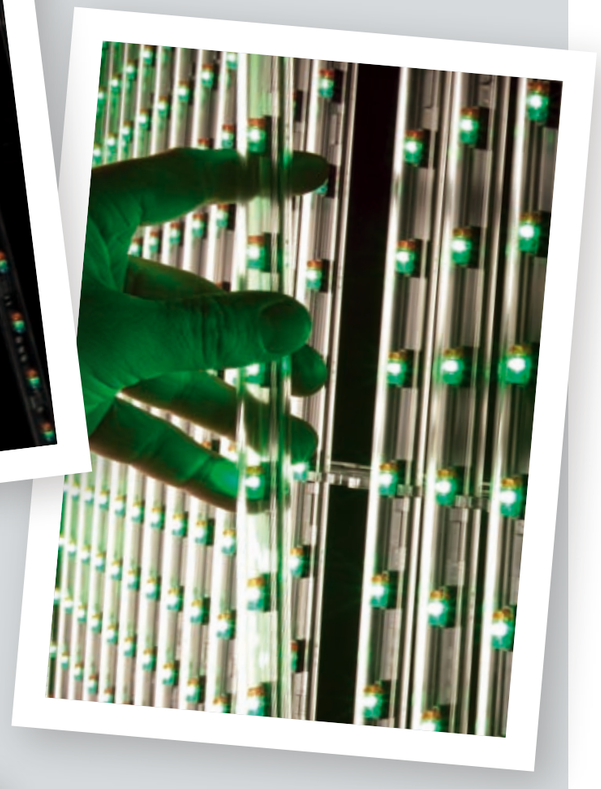
Designed for travel

The lightweight units can tour four frames to a flightcase, which means fewer flightcases and a reduction in shipping cost.



Hassle–free service

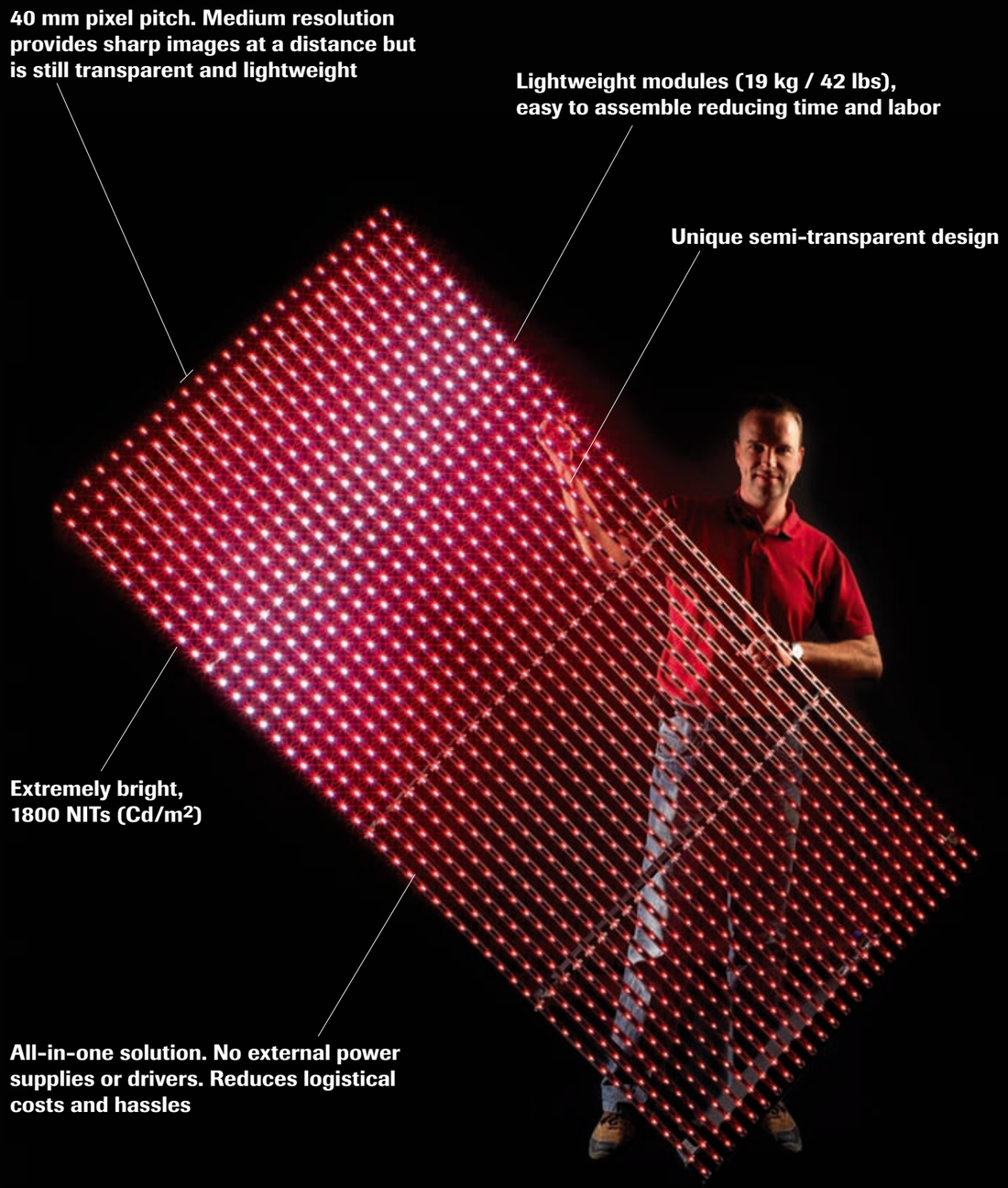
Each individual LED tube on a unit can be removed for service without the use of tools, cutting down service time and hassles.



Available in two sizes

The LC Series is currently available in two sizes; 1x1 m or 2x1 m (3.3x3.3 ft or 6.6x3.3 ft).

At a glance



Specifications

PHYSICAL

Length:	1000 mm (39.4 in.)
Width:	110 mm (4.3 in.)
Height:	1004 mm (39.5 in.), LC 1140
Height:	2004 mm (78.9 in.), LC 2140
Weight:	14.3 kg (31.5 lbs.), LC 1140
Weight:	19.4 kg (42.8 lbs.), LC 2140

CONTROL AND PROGRAMMING

Setting and addressing:	DIP-switch / addressing via LC Software

VIDEO PROCESSING

Video signal processor:	Integrated
Video signal:	XGA 1024 x 768 DVI-D (digital single link), 25 x 25 (LC 1140) or 25 x 50 (LC 2140) pixels displayed
Video signal frequency:	50 or 60 Hz
Genlock:	Yes, (via Martin DVI buffer box)

PHOTOMETRIC DATA

Light source:	5 mm (0.2 in.) oval LED
Total output (max):	1800 NITs (Cd/m²) measured outside LED tubes, Ta 25° C (77° F)
Resolution, one fixture:	25 x 25 pixels (LC 1140), 25 x 50 pixels (LC 2140)
Pitch (pixel center-to-center):	40 mm (1.6 in.)
Pixel per m²:	625
Red dominant wavelength:	627.5 nm ± 2.5 nm
Green dominant wavelength:	522.5 nm ± 2.5 nm
Blue dominant wavelength:	472.5 nm ± 2.5 nm
Color resolution:	14 bits per color
Viewing angle:	>100° horizontal, >40° vertical at 50% intensity

CONSTRUCTION

Panel frames:	Steel and aluminum
LED tubes:	Acrylic
LED tubes per panel:	25
Transparency through panel (unmasked area):	>60%
Color:	Black panel frames
Protection rating:	IP 20

INSTALLATION

Orientation:	Any
Panel combination:	Up to 7 hung or stacked vertically, no limit horizontally
Panel interlocking:	Prolyte CCS6 conical coupler system

CONNECTIONS

Power in/out:	Neutrik® Powercon®
Video in/out:	DVI-D single link (DVI-I dual link connectors provided)

ELECTRICAL

AC power:	100-120/200-240 V nominal, 50/60 Hz
Power supply unit:	Integrated, auto-sensing multi-voltage
Main fuses:	Three 5 AT (LC 1140), three 10 AT (LC 2140)

THERMAL

Cooling:	Forced air (temperature-regulated, low noise)
Maximum ambient temperature (Ta max.):	40° C (104° F)
Minimum ambient temperature (Ta min.):	0° C (32° F)
Total heat dissipation (calculated, +/- 10%):	1060 BTU/hr. (LC 1140), 2140 BTU/hr. (LC 2140)

ACOUSTIC

Noise level:	<45 dBA for one panel at 1 m (3.3 ft.), steady state, Ta 25° C (77° F)

APPROVALS

EU safety:	EN 60825-1, EN 60950
EU EMC:	EN 55022, EN 55024, EN 61000-3-2, EN 61000-3-3
US safety:	ANSI/UL 60950-1
Canadian safety:	CSA C22.2 No. 60950-1-03

INCLUDED ITEMS

Prolyte® CSS6 conical couplers and threaded spigots	
User manual:	P/N 35000196

ACCESSORIES

3 m (9.8 ft.) power cable, 12 AWG, SJT, with PowerCon® NAC3FCA power input connector:	P/N 11541503
Neutrik® PowerCon® NAC3FCA power input connector, cable mount, blue:	P/N 05342804
Neutrik® PowerCon® NAC3FCB power output connector, cable mount, light grey:	P/N 05342805
PowerCon daisy-chain power cable, 1.4 m (4.6 ft.):	P/N 11850099
PowerCon daisy-chain power cable, 2.25 m (7.4 ft.):	P/N 11850100
PowerCon daisy-chain power cable, 3.25 m (10.7 ft.):	P/N 11850101
DVI-D cable, 1.5 m (4.9 ft.):	P/N 91611265
DVI-D cable, 3.2 m (10.5 ft.):	P/N 91611266
DVI-D cable, 5 m (16.4 ft.):	P/N 91611267
Martin DVI buffer box, LC series:	P/N 91611269
Martin DVI splitter, 2-output:	P/N 91611280
Martin DVI splitter, 4-output:	P/N 91611290
Martin DVI splitter, 8-output:	P/N 91611281
Prolyte CSS6 conical coupler:	P/N 21021150
Threaded spigot for conical coupler:	P/N 08330125
Half conical coupler (used as floor-mounting option):	P/N 26820300
Four-unit flightcase for 4 x LC 1140:	P/N 91510110
Four-unit flightcase for 4 x LC 2140:	P/N 91510040

ORDERING INFORMATION

4 x LC 2140, 2 x 1 m in 4-unit flightcase with 16 couplers and 24 spigots:	P/N 90354100
4 x LC 1140, 1 x 1 m in 4-unit flightcase with 16 couplers and 24 spigots:	P/N 90354110
LC 2140, 2 x 1 m in cardboard box, with 4 conical couplers and 6 spigots:	P/N 90354120
LC 1140, 1 x 1 m in cardboard box, with 4 conical couplers and 6 spigots:	P/N 90354130