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# WELCOME

From the launch of our new London showroom with its one hundred percent OLED lighting scheme, to the ongoing development of our 6.3 acre manufacturing facility in Yorkshire, we're having an exciting year.

We're delighted to announce that Applelec will be involved in the darc awards for a second consecutive year in 2016 as manufacturer of the award invitations and trophies with Light iQ. With peer to peer voting across all categories, we're proud to be supporting these innovative lighting design awards that break all the boundaries of award ceremonies.

Projects featuring Applelec's LED Light Sheet are on the shortlist for a number of awards and we've picked three to feature in this latest newsletter. Our cover story, Mary Branson's inspiring New Dawn sculpture, is shortlisted for Art (High Budget), while in the Art (Low Budget) category our collaboration with artists [musson+retallick] for this year's Luminale event and our work with James Poore Lighting Design on the Kirkstall Clock Tower are both on the shortlist. Finally, LG Display's OLED Light Panels, supplied in the UK by Applelec, are shortlisted in the Technology category.

The Applelec Lighting Team



LED profiles from Applelec



**LED LIGHT SHEET**

A product from Applelec

lightspace  
dot  
london  
2016

23 - 24 Nov | Excel | Stand: D22

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## [MUSSON + RETALLICK] AND APPLELEC PRESENT COLONIES

**Applelec have once again collaborated with artists [musson + retallick] on Colonies, a light sculpture for the 2016 Luminale event, which was held in Frankfurt earlier this year.**

Artist Neil Musson explained: 'For Luminale, we created two related light sculptures which talk to each other in response to people's movement within the proximity of the work. Questioning social behaviour, the forms are inspired by insect and plant life which cluster in colonies.'

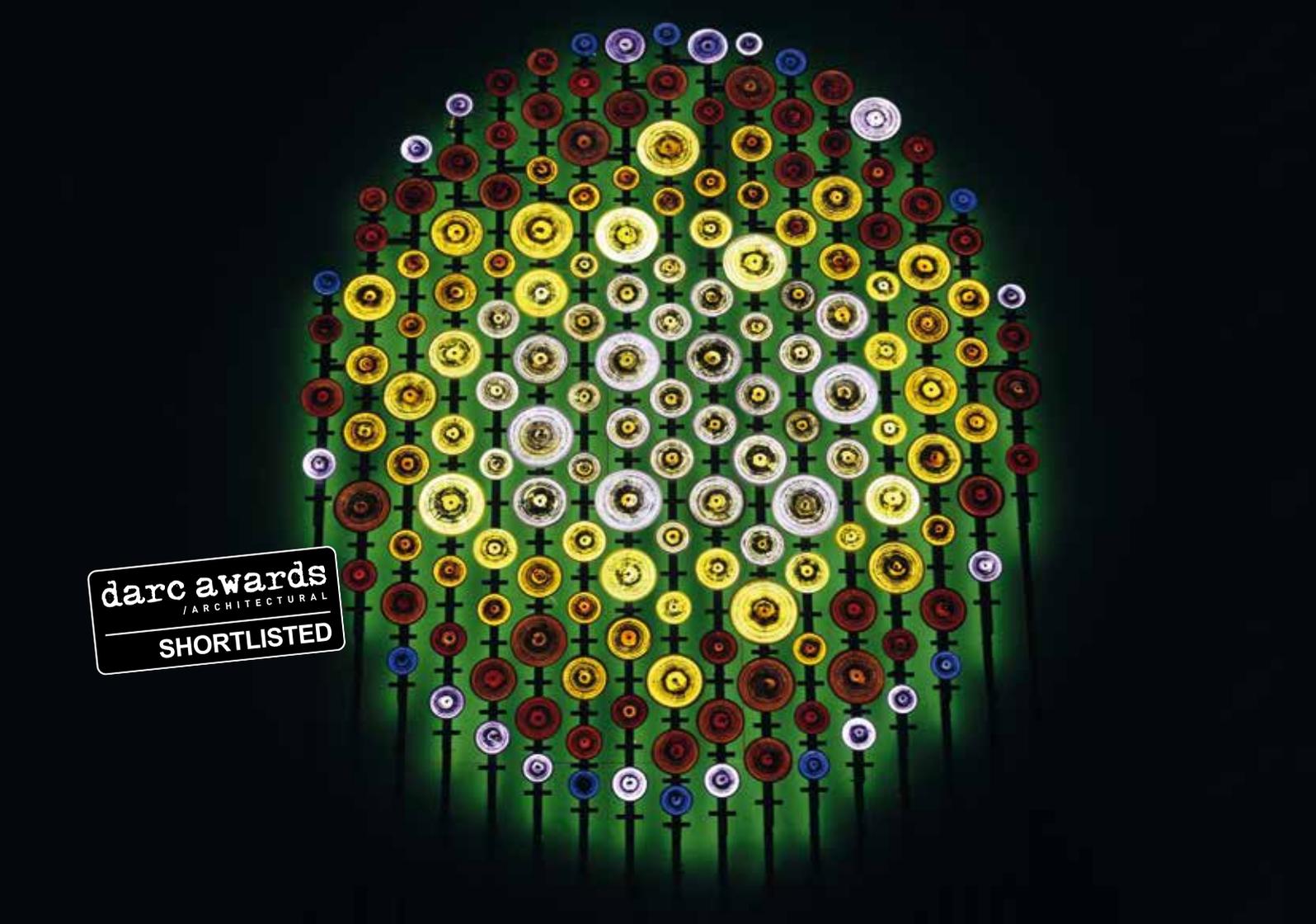
Two colonies at different developmental stages exist within sight of each other but their relationship is intentionally unclear. The viewer is invited to move amongst the lit elements leading to discussions about the nature of the colony.

Neil Musson said: 'We wanted to ask more questions than we answer; this installation consists of two groups of different life forms confronting each other. We are not sure if they are friendly or hostile.'

Colonies consists of a group of cocoon-like forms hanging in a tree which glow with gently pulsing light. Their counterparts are brightly lit forms that grow from the ground and radiate colour-changing light. They are printed with magnified detail from insect and plant life; patterns which appear to change shape as the illuminated colour changes. The two groups communicate through a series of lighting sequences which build up to a frenzy of information exchange.

RGB LED Light Sheet was used to create the colour-changing colony, with each piece featuring a surface cladding of printed acrylic. The cocoon-like structures of the suspended colony were created by Applelec's metal fabrication department.

Applelec have previously collaborated with [musson + retallick] on the event specific light installations Collider, and Call and Response.



**darc awards**  
/ ARCHITECTURAL

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**SHORTLISTED**

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# NEW DAWN

## **LED Light Sheet illuminates New Dawn, a light sculpture for the Houses of Parliament**

Celebrating all the people who campaigned for women's votes, a new light sculpture created for permanent display in Parliament has been lit by Applelec's LED Light Sheet. The site-specific sculpture, by artist Mary Branson, is the first permanent artwork in Parliament to consider women's suffrage and the first abstract artwork created for the historic Palace of Westminster.

At over six metres in height, New Dawn features 168 hand-blown glass scrolls, each illuminated individually by LED Light Sheet to create an enormous sun-shaped composition. The glass scrolls are a visual reference to the many Acts of Parliament stored in the Parliamentary Archives which restricted and then acknowledged women's right to the vote.

The principle emblem of Parliament, the portcullis, gives shape to the structure on which the glass scrolls are mounted above

the entrance to St Stephen's Hall, rising above the place where campaigners walked and where future visitors to Parliament will pass. The title of the sculpture, New Dawn, is inspired by language used by many campaigners who viewed the vote as providing a 'new dawn' for women.

Light has special significance in the artwork. With the illumination of each scroll controlled individually, the light of New Dawn rises and falls over a twelve hour cycle, linked to the tide of the Thames. This ebb and flow of light symbolises the tide of change that campaigners were certain would eventually bring women the vote.

Mary Branson explained: 'Applelec's LED Light Sheet has been vitally important in the creation of New Dawn. Being really bright but thin, the light source could be hidden in our structure and so gives the impression that the glass itself is glowing and floating in front of the structural portcullis metalwork. I needed a light source that was low power, and low maintenance, as my brief was to create an artwork that could be enjoyed by future generations. LED Light Sheet generates almost no heat and with our DMX controlled drivers, fades smoothly to give beautiful and subtle effects through the glass.'

A lighting sequence designed by the artist was programmed by WLX Productions using an Avolites Quartz desk running Titan software. This is triggered over a twelve hour cycle using data collected from a tide gauge on Tower Bridge. Custom software written with Avolites and Parliament's IT services department picks up the tide data and provides control to New Dawn. Starting with a single lit scroll in the centre of the sculpture, light grows with the tide, radiating out in thirty separate sequences that build towards the high tide six hours later. The sequence is then reversed to low tide.

New Dawn was revealed to the public on the 150th anniversary of the date John Stuart Mill MP presented the first mass petition calling for women's votes in the Houses of Parliament.



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# KIRKSTALL CLOCK TOWER

## JAMES POORE LIGHTING DESIGN



At the heart of the new Kirkstall Bridge Shopping Park in Leeds, a screen-printed glass clock tower is lit with LED Light Sheet which provides illumination to two clock faces.

Created by artist Kirsty Brooks, the clock tower is a response to the industrial history of the area and features screen-printed glass cladding with images of industrial artefacts and processes specific to Kirkstall and Leeds.

Each visual component of the clock mechanism is created from photographs of surrounding industrial elements: the pendulum – a forge-made vehicle axle, the clock face – the original Thrift Stores clock. The clock tower itself is wrapped in an image of a woollen spool, reflecting the blanket making and textile fulling activities carried out nearby.

JPLD were appointed to develop a subtle lighting scheme for the clock tower that would emphasise the artist's work whilst helping to establish the piece against a visually busy backdrop.

James Poore, JPLD, said: 'After testing various sources the obvious choice for the backlighting of the clock faces was dimmable LED Light Sheet. We have used it on numerous projects and the ability to create bespoke forms and shapes was ideal for this application. By stepping the LED Light Sheet back and using a diffuser disc behind the glass, we were able to achieve completely uniform illumination of the clock face. The ability to control the intensity of the light output allowed us to tune the clock face lighting to the daylight ambient level to ensure it is visible yet comfortable to view, regardless of the time of day.'

The design and treatment of the glass was adapted by Kirsty Brooks and Proto Studios in conjunction with JPLD's lighting concept to maximise the light transmission and diffusion as well as concealing the luminaires and controls.



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## APPLELEC EXPAND CENTRAL LONDON SHOWROOM

Alongside the latest developments in LED Light Sheet, Applelec's showroom features a lighting scheme composed entirely in OLED, making it the ideal place to discover this unique technology.

Using almost one hundred OLED lights, the showroom's lighting provides an exciting new destination for architects and designers interested in organic LED technology. The showroom features track mounted OLED modules and pendants that explore the possibilities of lighting with this innovative light source.

For LED Light Sheet, individually addressable, tuneable white and colour-changing panels are displayed along with the full range of colour temperature LEDs on offer, including those with a CRI over 90. An LED Light Sheet illuminated table enables visitors to see the results of lighting different surface materials including decorative glass, CORIAN® and other unique materials.



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## OLED LIGHT PANELS SHORTLISTED IN DARC AWARDS

Supplied by Applelec in the UK and shortlisted in the Technology category at the 2016 darc awards, OLED Light Panels, in rigid and ground-breaking flexible options, have been designed to give freedom to creativity.

Incredibly thin and lightweight, OLED Light Panels ensure designers can develop much more creative shapes than existing lighting can provide. With a bending radius of 20mm, the flexible panels can be twisted into extraordinary shapes whilst maintaining homogenous light from their surface. Freedom of movement creates freedom of expression as the flexible OLED Light Panels present entirely new ways to seamlessly blend light into interior and lighting designs.

Created by LG Display, OLED Light Panels have a completely flat and even light output with no glare and no shadow. Running at a cool 35° C, the panels do not require additional heat sinking meaning the 0.88mm



thickness of the rigid panel and 0.41 mm flexible panel depth is not compromised. As well as reducing glaring light, OLED Light Panels have no UV and their blue levels are much lower than non-organic LEDs.

Available in 3000K and 4000K CCT, the rigid OLED panels have an efficacy of up to 65lm/W whilst the flexible panels achieve 50lm/W. A high CRI of over 90 is achieved without compromising the efficiency of the panels.

For more information about OLED or to visit our showroom, please contact [oled@applelec.co.uk](mailto:oled@applelec.co.uk).



## RIBA CPD

Our RIBA accredited CPD seminar, **Edge Lighting: The perfect backlighting solution**, can be booked to take place at studio and practice offices or can be hosted at Applelec's London and Bradford showrooms.

'It was really, really informative and you explain everything really clearly. I wish all CPDs would be like this!'

### Kai Design

'Thanks again for coming in to see us, it was very interesting, so much appreciated.'

### Aros Architects



## SASO CERTIFICATE OF CONFORMITY

For projects in the Middle East, Applelec can provide a SASO Certificate of Conformity for LED Light Sheet panels exported to the Kingdom of Saudi Arabia and Kuwait.

## LED Light Sheet: construction notes at a glance

### LED colour temperatures:

2700K, 3000K, 3700K, 4100K, 5300K, 6500K

Dynamic White (tuneable) - 2700K to 6500K

### Colour-changing LEDs:

RGB with pre-programmable options

### Sheet thickness with white LEDs:

3mm, 6mm, 8mm or 10mm

### Sheet thickness with RGB LEDs:

8mm

### Ingress protection:

IP54 or IP67

### Maximum dimensions:

1500mm x 3000mm

### Grid etching dimensions:

1.4mm, 2.8mm, 5.6mm, PPP

### Forward current:

12V DC

### Controllable/Dimmable:

0-10V, Dali, DMX, Lutron

### 90+ High CRI LEDs:

In 2800K, 3100K, 4100K, 5200K

## BE INSPIRED WITH OUR PRODUCT WEBSITES

[www.ledlightsheet.co.uk](http://www.ledlightsheet.co.uk)

[www.astalinear.co.uk](http://www.astalinear.co.uk)

Please contact our product specialists to discuss your project requirements

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Applelec is a UK trade supplier of bespoke sign, display and LED lighting products including LED Light Sheet and Asta Linear.  
[www.applelec.co.uk](http://www.applelec.co.uk)

