



REACH FOR THE STARS

Sharon Stammers of Light Collective, co-organiser of Noche Zero, on why the event is unique and why it is essential in a world where light pollution is slowly but surely eclipsing the night sky

The lighting community has been talking a lot about darkness of late. About how we've lost our connection to the night sky and therefore the universe, about how light pollution not only affects our view of the stars, but also our health and our ecology. We know that a fifth of the world's population (mostly Europe) can't see the Milky Way, and almost two-thirds live in areas where the night sky is brighter than the threshold for light-polluted status set by the International Astronomical Union.

We also know that by 2050, 70 per cent of the world will live in cities where light pollution is at its worst. As urban

populations expand and the global population migrates to cities, there is more need than ever to embrace darkness and understand how to manage the balance of light and dark within the future metropolitan environment.

Two years ago Paulina Villalobos of DIAV, a lighting consultancy based in Santiago, asked Light Collective to help realise her dream of hosting a darkness event in Chile. That event will take place next month. Created by DIAV and Light Collective, Noche Zero is an inspirational event: an educational summit and darkness experience held in San Pedro in the Atacama desert.

Above, main image, the Alma Observatory in the Atacama Desert, Chile. Inset image, the Wilson Observatory, overlooking Los Angeles (also cover)

Everyone likes to think they are doing something different, but we believe that Noche Zero is a first. We are confident that we are doing something unique, that it is possible to generate new ideas, and there are four reasons why we believe this.

Firstly, there are already numerous existing organisations dedicated to curbing light pollution, to putting in place planning within cities to preserve the night sky or to educate us about darkness and the stars. They all have conferences. They have websites and magazines and dedicated followers but they never really communicate. The aim of Noche Zero is to link all of their aspirations together.

Like the lines that reveal the constellations, Noche Zero aims to join the dots.

Its speakers are drawn from many walks of life: lighting design, film, photography, science, astronomy and urban planning. The ambition of Noche Zero is that, having brought together the lighting, urban planning and astronomical communities, they will continue to work together. Specifically for our own lighting community, we want to create a mindset that embraces darkness and ensures it is fully integrated into the lighting design process.

Secondly, we don't believe that learning and discussing a topic should be divorced from the item under discussion. How many times have you sat in a darkened lecture space listening to a talk on the benefits of daylight? We believe that the topic should be part of the event. For this reason, Noche Zero isn't taking place in London or Berlin but in the darkest place on the planet with the clearest skies, one of the world's epicentres for astronomical observation.

In other words, the most stunning starry skies on Earth will be the backdrop to this event. The idea is that those who attend will have the experience of a lifetime, and will come away passionate and inspired about the night sky.

Thirdly, on the basis that the Atacama desert offers a few more logistical problems than a venue in London or Berlin, we have invited various online discussion groups to help inform the open session and the Atacama Think Tank, which will be held on the event's last day. This is an open invitation. All are welcome to contact us with specific thoughts and ideas on how we move this forward. Collective input from as many as possible will be a key way of achieving our aims.

Lastly, we believe in having realistic goals. We hope that what will emerge from the think tank is a set of achievable outcomes that will help deliver the aims outlined above. We are looking at this from the following perspectives: we are starting with the present; resources are required; we need a space online to share all the available knowledge on the topic

and to create a network that will disseminate information. This could include relevant case studies, research, film, local regulations and documentation of successful innovations.

For the future, we need ideas and innovation to make changes. This could be the creation of a Noche Zero Award for good design, training practitioners to include the subject on courses and installing darkness ambassadors in every major city to safeguard the night sky. The big picture would be to ensure a legacy. Who can we invite to the next Noche Zero to forge new partnerships, for instance, while retaining a continuing exchange with the partners already involved?

The small picture lies with every individual. There are many ways people can reconnect with darkness and the night sky. Do a star count. Visit the UK's only Dark Sky Park or just download Star Walk on to your iPhone and go outside and look at some stars.

For more details, go to nochezero.com, contact Light Collective or DIAV via [facebook.com/groups/116913745047604/](https://www.facebook.com/groups/116913745047604/)

Colin Ball, associate lighting designer at BDP Lighting

'Noche Zero is a very inspiring event for a lighting designer. We will be able to talk about the fundamental issues of what we do and why we do it with astronomers, city planners and neurobiologists.

'Where lighting is concerned, technological advances are about to start transforming urban centres in the next 20 years. As an industry we are driving technology forward to enable greater efficiency and lower power consumption, but very few people are seriously talking about reducing the total amount of light that is generated an average of 12 hours a day. An opportunity to discuss the impacts of overexposure to light on both human, societal and global scales is not one to be missed.

'In Europe we've immersed ourselves in artificial light for more than a century and we no longer know what we are missing. When was the last time you saw more than 500 stars? Have you ever seen more than 5,000?'

Mark Major, director, Speirs + Major

'As someone who has worked with light for more than 25 years I have long been concerned about issues such as over-illumination, light pollution and energy use. I have also always argued that we should embrace the qualities of darkness and have been an advocate

of the principle that less is more when it comes to lighting design. Noche Zero is a unique, groundbreaking event in which like-minded experts from all over the world will meet to debate this most important area of design.'

Professor George Brainard, director of the Light Research Program at TJU, credited with discovering the third receptor in the eye linked with circadian regulation

'This is a unique and important event. The organisers are true visionaries. My lecture will discuss the effects of light exposure at night on human health and behaviour. Specifically, the lecture will provide an update on how light regulates people's hormones, behaviour and circadian rhythms. It will also touch on the control of light and darkness on spacecraft for healthy astronauts during space flight, along with its relevance to lighting applications on Earth.

'Both developed and undeveloped nations face myriads of problems. Which problem is the most urgent is a matter of position and perspective, but the problems of light trespass should not be ignored now or for future generations. In general the problem is growing worse. It is encouraging, however, to see communities and even whole cities dedicating their resources to minimising nocturnal light trespass. Education on this issue is a key to the future.'

NOCHE ZERO

When: 16-18 October

Where: San Pedro, Atacama desert, Chile

What: Organised by DIAV, Light Collective and UCN (Universidad Católica del Norte), Noche Zero is an educational summit and darkness experience in the desert. It will involve the local community, including children, and will encompass workshops, star observation, film and photographic exhibitions, speakers and discussions. The collaboration is targeted at an international group of influential people working in and linked to urban lighting design, culture, art and heritage, astronomy, neurobiology and biology related to darkness and the night sky. The aim is to connect design and science, to celebrate darkness and to create a joined-up methodology for light and urban design in order to help preserve darkness.

Who: Speakers include lighting designers Mark Major of Speirs + Major; Karao Mende of Lighting Planners Associates; Colin Ball of BDP Lighting; Ian Cheney, director of the film *The City Dark*; Professor George Brainard of Thomas Jefferson University and Nasa; and Cipriano Marin of the Unesco Starlight Initiative. The event is supported by PLDA (Professional Lighting Designers Association), IDA, LUCI (Lighting Urban Community International), Unesco Starlight Initiative, Chilean Ministry of Energy, ESO (European Organisation for Astronomical Research in the Southern Hemisphere), and the municipality of San Pedro.