Hosting a global sustainability summit calls for sustainable lighting. That's why Copenhagen's Bella Centre, the venue for the 15th United Nations Climate Change Conference (COP15) this December, is one of the earliest locations for the Thorn Adelie lantern. Nine of the energy saving, long life LED lanterns are now installed in the arrivals area, staged by the Copenhagen architects SLA. The temporary urban space entitled "White Balance" is designed to inspire a future balance between human urbanisation and the earth's resources.

Lars Thomas Hansen, Thorn Nordic marketing manager, said that the case for LEDs has never been more compelling, especially as urban lighting typically accounts for 40 per cent of a city's electricity bill.

"Known technologies such as lighting controls and more efficient light sources are already delivering CO2 savings, but solid-state technologies are where the future lies when it comes to balancing energy and maintenance costs with an improved nightscape.

"We see Adelie's presence at COP15 Copenhagen as recognition of the LEDs' characteristics, and many commentators suggest that, together with Danish designer Morten Lyhne, we have anticipated what comes next for urban lighting," he said.

Dynamic techniques in future design

Unlike many outdoor LED luminaires on the market Adelie could only be achieved with LEDs. Lars Thomas explained: "Often, manufacturers simply pour new wine in old bottles, adapting existing fittings for LED technology. However, Adelie is based on the LED, so it can evolve with technology's rapid progress."

The unique post-top mounted luminaire, which combines a ring of 32 x 1.1W LEDs with a funnel-shaped canopy to create a soft indirect light, has recently been upgraded with 3800K, 100 lm/W LEDs.

Research may increase energy saving potential

Adelie is also displayed - in a solar cell concept to make illumination CO2 neutral – at the "Better Living with Efficient Energy" exhibiton adjacent to the Bella Centre, hosted by the Danish

Energy Association. The lantern's large top canopy presents an ideal surface for an array of photovoltaic cells, grid-connected as Northern Europe is unable to capture significant amounts of winter energy.

Lighting in harmony with other elements

SLA's site-specific architectural work features additional sustainable elements. The LED lanterns are landscaped in bright limestone to reflect sunlight and neutralise the CO2 in rainwater, while trees and circular water mirrors, including one containing biomass, serve to remind delegates of their beneficial and sustainable importance.

Stig L. Andersson, SLA founder, concludes: "The city is an ecosystem where each part is interdependent. Nature and city are not opposites, but merely different systems, that as a whole must be in balance. COP15 will affect the possibility for a future balance between human urbanization and Earth's resources. The arrival area at COP15 hopefully inspires this thinking."

For more information on the Adelie lantern, please see the product page in the E-Catalogue.