

# SINGAPORE



# SPORTS HUB

*Lighting the retractable dome by Light Cibles*

**Developer:** SportsHub Pte. Ltd  
**Sports Venue Design / Structural Design:** Arup  
**Architect:** DP Architects Pte.Ltd  
**Masterplanning & Landscape Architect:** Aecom Singapore Pte.Ltd  
**Lighting Design:** Light Cibles  
**M&E Consultant:** Squire Mech Pte. Ltd  
**Main contractor:** Dragages Singapore Pte Ltd  
**Specialist M&E sub-contractor:** Byrne Singapore Pte Ltd  
**Photo Credits:** SportSG / Brice Schneider (Light Cibles)

**Dome Lighting**

**Lighting Solution & Manufacturer:** Light10 Industries

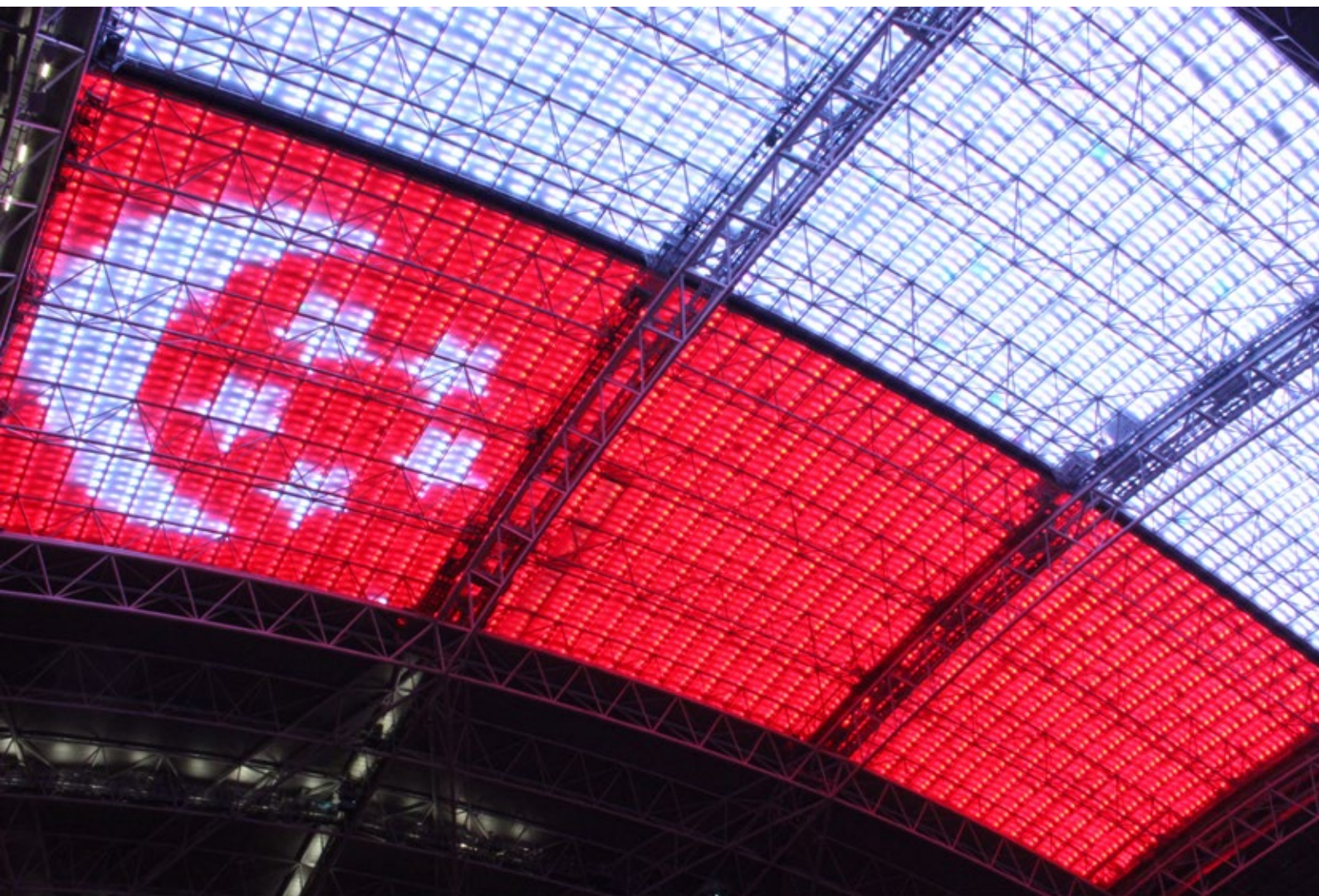
**Landscape Lighting:**

**Landscape Lighting Supplier:** Lumitron Pte Ltd

**Lighting Manufacturers:**

Targetti, Shreder, Ligman, KKDC, Lycorpole, Griven, Unilamp, Lumitron, GE Lighting, Megabay, Philips, Osram





**LIGHT CIBLES** is one of the leading, lighting design consultancy companies in the world with offices in France, China, Spain, Singapore and Malaysia.

*Founded in 1983, Light Cibles has gained award-winning expertise in the conception and the realization of innovative lighting design around the world.*

*Louis CLAIR, founder of Light Cibles, and his son Emmanuel CLAIR, lighting designer and architect, have both the experience in research and studies to develop lighting design concepts.*

*Awards include: IALD Award for Excellence 2012; BCA Award 2011 (Recognising Excellence in the Built Environment); BCA Green Mark for Buildings Award 2011; BCA Award 2010 Green Mark for Buildings Award; BCA Award 2010 Green Mark for Districts Award; Trophées des Lumières Lyon 2003; Prix Lumière IES-Montréal 2001; SAD Award 1992 (Salon des artistes décorateurs France); Special Contribution Award for Festival Guangzhou Lighting"*

**T**he Singapore sports hub is one of the most iconic buildings in Singapore. Located in the heart of the city, on the waterfront and developed on a 35-hectare site, the centrepiece of Premier Park includes a 55,000 seat Olympic stadium – the largest ultra-lightweight tropical dome in the sporting world, with a sliding roof that lights up at night and doubles up as a projection screen to create the most dramatic effects for night events.

#### **The Dome Lighting**

The stadium will give out a welcoming and majestic ambience by its scale and a relatively strong light intensity as compared to its surrounding environment. The top retractable roof is the key element of the stadium lighting. Each ETFE air pillow frame is considered as a pixel and the whole roof can be transformed into a huge low-resolution display screen. The lighting is done through a RGBW LED lighting system. The stadium will change its garment according to the occasion. Singapore's National Flag will perhaps be one of the most preferred graphics for this roof. The lower part of the stadium is lit in basic architectural white light, which serves at the same time as the functional lighting inside the concourse. The dome shape will be highlighted with RGB led fixtures integrated within the scupper of the stadium.



### The Landscape Lighting

The different light ambiances of the landscape take into consideration the different activities and create lighting hierarchies to guide people into the various spaces, highlighting some elements while leaving others more discreet. Emphasis has been laid on the principle axis, which anchors the stadium to its landscape.

Lighting for landscape around the Stadium is marked by the lighting of the canopies extending out from the stadium, creating luminous surfaces that anchor the stadium to its landscape. In contrast to the stadium, the grass areas and the roof gardens are more discreet. Here only the natural elements such as the trees are highlighted giving a more passive and romantic mood.

As we move away from the stadium towards the promenade, the lights gravitate to lower luminance levels. Many light points create a cosy and friendly environment. The Main Entrance is lit up to meet functional requirements as well as to create a grand yet playful and welcoming atmosphere.

The retail and other façades are lit up by the light coming from the interiors of the buildings. The exterior is lit with warm white light creating cosy and convivial ambiance around the inner circulation walkway.

The ambience for the landscape lighting along the promenade area is more discreet and serene. Lighting has been provided for the trees along the axis.

Thus creating discreet soft ambience much more relaxed. Here again the elements falling on the main axis have been highlighted. In order to put an accent on these elements contrast has been created and the general luminance levels have been kept low in the surrounding areas. Along the main drive way lighting has been provided for some trees on one side of the road thus creating a rhythm and giving a perspective view of the ring. The car park area is lit in functional lighting to ensure that visitors have a sense of safety.

