



WRAPPERS DELIGHT!

Syncrolite searchlights were used to colour wash the exterior 'Wrap' of the stadium at night.

Dave Keighley, Executive Vice President and COO of Syncrolite, was Project Creator and Lighting Designer for the lighting of the exterior 'Wrap' of the main stadium at night. In 2011 Keighley was Acting Managing Director for Elstree Light & Power (ELP) who had won the tender for the lighting contract for the Opening and Closing Ceremonies, acting as agents for Syncrolite. However, it soon became clear that there were further opportunities to get Syncrolite involved. Keighley elaborates: "I knew that Dow Chemical had agreed to make and supply a 'Wrap' to go around the Olympic Stadium. After some research I discovered the person in charge of the Wrap at Dow was Jennifer Montgomery, based in Dallas. Dallas is where Syncrolite is based, so I called Jack (Syncrolite owner Jack Calmes) with her contact info and suggested he call her. This he did and they were very excited at the idea of us lighting the Wrap with Syncrolites."

Having arranged a site visit to get a close-up look at the Stadium, Keighley met Kevin Owens, Design Principle of the Olympic Park and Venues for LOCOG.

After a lot of consultation it was decided that a dynamic lighting design would be appropriate so Syncrolite 8K XL Searchlights were put forward as the tools to illuminate

the Main Stadium. Due to the lack of real estate on the Podium Level outside the Stadium, (the podium level is the level where all spectators access the Stadium) the final design was to use 18 self climbing rigging towers. These towers were to be placed around the Stadium as evenly as the site would allow. The towers were vertical truss towers with two metre square bases with heavy ballast to maintain stability. The towers then had a custom frame on which was rigged two 8K XL Syncrolites, one either side of the tower mast and the frames would travel up and down the mast by means of a one ton chain hoist running over a head block.

The aim of the design was to illuminate the exterior of the Stadium with a soft flat wash, predominantly in white but also to introduce colour. The Syncrolite XL has an 8k Xenon lamp which delivers approximately 400,000 lumens. The unique aspect of the Syncrolite searchlights is not only can they be used to push a collimated beam three miles into the sky with dramatic effect but when this beam is used in conjunction with Syncrolite's VFL holographic lens system, the beam can be shaped in many different ways. For this project Keighley had lenses made that were 60 degrees on the horizontal and 10 degrees in the vertical planes.

This effectively gave a letter box shape wash light. By focusing the lights on the main compression truss of the Stadium roof structure and overlapping each light with the adjacent light Keighley created a beautiful soft full wash effect over the entire Stadium and the Wrap.

Kevin Owens commented: "The brief and the timescales were near impossible, but the innovation and commitment of the Syncrolite team meant that there would only be one outcome - success. The dynamic lighting scheme was embraced by all and captured the hearts and emotions of all at the Games, turning the stadium into the ever changing heart beat of 2012 - seamlessly translating the energy of the ceremonies into the euphoric moments of sport. For me personally, as Design Principal for the Games, the lighting of the stadium was the defining moment proving that collaborative team working, innovative design and collective spirit can deliver truly magical moments. Thanks to Dave Keighley and his team, and through their lighting of our stadium, we were able to leave a fleeting, but indelible and compelling image of London's magical summer in the hearts and minds of all."

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