CASE STUDY



## THE LONDON STADIUM



## OVERVIEW

The London Stadium (formerly Olympic Stadium) was built to host London 2012 and is home to Premier League football club West Ham United and UK Athletics, as well as holding numerous rock concerts and other sporting events. Philip Payne supplied the original emergency luminaires and was approached in 2022 by TClarke, the appointed engineering services provider, to retrofit the luminaires to LED.





### THE SOLUTION

Utilising the existing luminaire bodies, Philip Payne designed custom made gear trays eliminating the expense and inconvenience of replacing the entire luminaire. Changing the traditional light sources to LED realises significant benefits in terms of energy efficiency, maintenance costs and luminaire lifetime. Additional to this, by making use of the existing lighting positions the install time was significantly reduced

We spoke to Daniel Southerton, Project Engineer and Roger Good from TClarke about their decision to retrofit, rather than replace, the existing luminaires.

## QUESTIONS

#### Q: Why did you want to upgrade your emergency lighting?

A: There are a few reasons. Firstly all the lighting on the site had older fluorescent lamps, from anti-corrosives to emergency lighting, and the energy saving from changing would be large. Secondly, converting all lighting to LED, it would be easier to monitor through the client's central DALI monitoring system.

## Q: Why did you choose to refurbish the existing luminaires rather than replace?

A: From the contractors perspective – It speeds up our labour time dramatically, as we don't have to take fittings off the ceiling/wall and replace them with new luminaires. Alongside this, we can use existing cabling which saves us money in rewiring. Also when we are doing retrofits, newer fittings tend to have different brackets which could make installation complicated, but this is eliminated if we are able to use existing fittings.

From the client's perspective – for all of the above reasons, this has a huge environmental benefit as there is barely any waste from upgrading existing lighting. There isn't a need to use more material for cabling, no need to throw away old fittings to install new, and no need to replaster as we are using existing fixings. Also, maintenance will be easy as nothing has changed in terms of fixings, the only change is the technology inside the fittings.

#### **Q: Was it purely a financial decision?**

A: No, but it played a big part. We have to align with the client's budget so we make these decisions based on this.

#### Q: How important is sustainability to your business? Do you consider the circular economy in your procurement decisions?

A: It is important as we all need to find ways to be more sustainable, so it is important to our business. In terms of the circular economy, it is a new thing for us. Usually, upgrading fittings means installing new, more efficient luminaires and disposing of older ones - rather than changing existing technologies and installing newer technologies. For us, it's easier using the same fittings, especially with emergency lighting as we can use the same brackets, keep the legends the same as they are printed. This is also the more environmentally friendly option.

#### Q: Why did you approach/choose Philip Payne?

A: Philip Payne had supplied the orginal emergency lighting, and a lot of the luminaires were still functional. We know Philip Payne is a good, reliable manufacturer and is trusted. For us, it avoids having to shop around and change the whole emergency lighting structure, so it was the best option to stick with Philip Payne.



## LUMINAIRES USED



# *"We know Philip Payne is a good, reliable manufacturer and is trusted."*

TClarke