

## **WHAT IS LIGHT POLLUTION?**

### **What does it mean? Need I consider it?**

Light Pollution is a problem associated with our modern night environment. It can cause serious adverse affects both physiologically and ecologically in City, Urban and Rural areas. Over recent years however Light Pollution has rapidly increased and is now recognised as a problem requiring definite preventative measures.

Sports Lighting has in the past provided some of the worst cases of individual light pollution. As a consequence the control of Light Pollution is a high priority design consideration for both new projects and existing installations. It can be effectively restricted by applying Best Practice principles, careful planning, improvements in luminaires and lighting design, backed by clear education.

### **What is Light Pollution / Obtrusive Light?**

Light is not a pollutant in the normal sense, being non-poisonous, noxious or harmful in most instances. A better definition is accepted as being Obtrusive Light, encompassing a multitude of forms of undesirable light and lighting. We can separate these into:

#### **Light Intrusion (Light trespass, Overspill, Light into windows).**

The flow of light spilling outside the location boundary. With inadequate control Intrusive light may be sufficiently great as to provide a serious nuisance and disturbance to adjacent areas.

#### **Glare.**

Glare may be divided into 2 types known as disability and discomfort glare. In a Sports Lighting context it relates primarily to direct viewing of the floodlights. Only in severe situations would disability glare be experienced. In most instances it is discomfort glare that may result, causing annoyance to the viewer if inadequate screening of floodlights is not provided.

#### **Sky Glow**

The general term for the Halo-effect caused by upwardly directed light, forming a glow in the night sky. It can cause diminished contrast of stars against their dark background making astronomical observations difficult and often impossible. The upwardly directed light can be caused by direct waste light from floodlights or indirect redirected light from the sports surface.

#### **Light Presence**

The undesirable viewing of a lighting installation, which although glare and intrusion are not evident, the Light Presence may be considered a nuisance.

## **Beam brightness**

Whilst it may not be possible to view the lit surface or experience glare from luminaires, the intense beam of light emitted by some floodlights may cause an undesirable visual scene to the viewer.

## **Light Flicker**

Flickering light may cause degrees of annoyance and irritation to the viewer. This lighting aspect is generally associated with advertising signage and attractions and is generally not associated with sports lighting.

Some degree Obtrusive Light may be obtained from even the best designed Sports Installations. The aim must be to prevent or alleviate any visual disturbance to an acceptable level for the location and application.