

3.0 Light Trespass and Skyglow

Light can be considered a form of pollution. This is implied by the inclusion of light as a statutory nuisance as described in local standards like ‘Abu Dhabi Roadway & Public Realm Lighting Specifications and Roadway Project Compliance Checklist Tables’, ‘Abu Dhabi Urban Street Design Manual’, ‘Abu Dhabi UPC Manuals’ or ESTIDAMA, etc.

Exterior lighting is the major source of light pollution. Complaints about light pollution from exterior lighting can be divided into two categories, light trespass and skyglow.

Light trespass is local in that it is associated with complaints from individuals in a specific location. The classic case of light trespass is a complaint about light from a road lighting luminaire entering a bedroom window and keeping the occupant awake. Light trespass can be avoided by the careful selection, positioning, aiming and shielding of luminaires and by operating a curfew system where lighting is only available during specified times, all solutions applied should be within latest ESTIDAMA requirements.

The Institution of Lighting Professionals (ILP) has produced general guidance, which is used in this handbook to cover this item for all Abu Dhabi Public Realm areas as follows:

The maximum vertical illuminance that should be allowed to fall on windows, the maximum luminous intensity of any obtrusive light source and a maximum allowed building luminance for floodlighting is summarised in the Tables below.

These limits are different for different environmental zones. The idea behind environmental zones is that some locations are more sensitive to light pollution than others. Table 23 shows the four environmental zones identified by the CIE and how they are in line with local standards like the Abu Dhabi Urban Street Design Manual.

The limits recommended for Abu Dhabi for limiting light trespass are given in Table 23.

The environmental zoning system of the CIE and referenced to local Abu Dhabi environmental zones as follows:

