

The values in Table 24 are for general guidance only and may need to be adjusted for specific circumstances; in any case the requirements of ESTIDAMA take precedence. For example, the criteria given under zone E1 would not preclude the installation of lighting to meet health and safety requirements. As for the maximum building luminance, this is given to avoid over-lighting but should be adjusted according to the general district brightness.

Skyglow is more diffuse than light trespass in that it can affect people over great distances. Skyglow is caused by the multiple scattering of light in the atmosphere, resulting in a diffuse distribution of luminance. The problem this causes is that it reduces the luminance contrast of all the features of the night sky thereby reducing the number of stars and other astronomical phenomena that can be seen. Skyglow has two components, one natural and one due to human activity. Natural Skyglow is light from the moon, planets and stars that is scattered by interplanetary dust, and by air molecules, dust particles,

water vapour and aerosols in the Earth’s atmosphere, and light produced by a chemical reaction of the upper atmosphere with ultra-violet radiation from the sun. The luminance of the natural Skyglow at zenith is of the order of 0.0002 cd/m<sup>2</sup> (meaning approx. 0.004 lux)\*. The contribution of human activity is produced by light traversing the atmosphere and being scattered by dust and aerosols in the atmosphere.

Skyglow can be reduced by limiting the amount of light used for exterior lighting, by using full-cutoff luminaires that have no upward component (see Chapter D / Table 18) and by adopting a curfew in which the exterior lighting is either extinguished or reduced to a lower level when there are few people using it. For each environmental zone the maximum installed upward light output ratio of the luminaires used should be limited as shown in Table 25. Again, this is general guidance only and may need to be overturned in specific circumstances.

Maximum installed upward light output ratio; luminous flux emitted above the horizontal plane as a percentage of the total luminous flux emitted by the luminaire

Environmental Zone		Maximum upward light output ratio (%)
E1	=>	0
E2	=>	5
E3	=>	15
E4	=>	25

Table 25

\* Lux level is indicative and only applied to show relation of figures described.