



Light Pollution & Church Lighting Installation

Artificial lighting and light pollution

Artificial light is essential in today's society including in and around church property. However, the increased use of lighting and light in the wrong place at the wrong time can be intrusive. Churches must be considerate in their use of artificial lighting to ensure their lighting serves the intended purpose without causing a nuisance.

Problems caused by light pollution

Light pollution is artificial light which is allowed to illuminate, or intrude upon, areas not intended to be lit. Inconsiderate or incorrectly set lighting can:

- produce glare which interferes with the ability to view an area or object;
- detract from the architectural appearance of a building and even hide complex or attractive features;
- impact ecology and wildlife, affecting the behavioural patterns of mammals, birds, insects and fish;
- waste energy, money and contribute to global warming by increasing CO2 emissions.

Considerations when updating or installing church lighting

Lighting will only become a problem if it is poorly designed or incorrectly installed. There has been an increase in complaints about light pollution to local authorities in recent years. Before going to the expense and effort of installing lighting consider if artificial lighting is actually necessary or could safety or whether security could be achieved by other measures, such as segregation or screening of an area.

If lighting is necessary, ask the following simple questions:

- At what times should the lights be on?
- When are lights needed and when would they be a waste, for example, overnight, the exterior of buildings or empty car parks?
- What is the right amount of light for the task? No more than required should be installed.

Tips to help get lighting solutions right

- Make sure that lights are correctly adjusted so that they only illuminate the surface intended and do not throw light onto neighbouring property.
- For domestic security lights a 150W lamp is adequate. High power (300/500W) lamps create too much glare, reducing security.
- For an all-night porch light a 9W lamp is more than adequate in most situations.
- Security lights should be correctly adjusted so that they only pick up the movement of persons in the area intended and not beyond.
- To reduce the effects of glare, main beam angles of all lights should be below 70 degrees.
- Direct light downwards. If up-lighting has to be used then install shields or baffles above the lamp to reduce the amount of wasted upward light.

Types of light pollution

Intrusive light: over-bright or poorly directed light which affects a neighbour's right to enjoy their property, for example, a security light which shines into a bedroom window.

Over-illumination: excessive use of light, for example, improper design, incorrect fixtures and failing to turn off lighting when not required.

Light clutter: excessive groups of lights which may generate confusion, distract from obstacles and potentially cause accidents.

Skyglow: the orange light over roads, towns and cities from upward light; a serious problem for astronomers.

QUERIES TO: property@rcbdub.org or Property Department, Representative Church Body, Church of Ireland House, Church Avenue, Rathmines, Dublin 6, D06 CF67.