

Corsham House External Lighting Information for Planning

Existing Lighting Installation

The existing lighting installation uses a mixture of light fittings.

The car park area is mainly lit by floodlights mounted just above the ground floor level on the building façade.

They are aimed sideways to throw light across the carpark, as seen in Figure 1. This directs light to be emitted upwards from the fitting, adding to the local light pollution when the fittings are used, as shown in Figure 6.

The existing external fittings along the rear extension are circular surface-mounted lights, shown in Figure 2. These fittings emit diffused light in a wide and uniform spread, as shown in Figure 5.

This will add to light pollution currently, as nothing blocks light from being emitted upwards.

There is also a surface-mounted light on the garage wall that illuminates the area around it shown in Figure 3. This light has no upward shielding, so it will directly contribute directly to local light pollution, as shown in Figure 5.

The existing heritage fitting mounted on the external corner of the building onto the high street, shown in Figure 4, has the light fitting within it mounted downwards from the top of the fitting, so most of the light is distributed downwards.

The external glass on the fitting will refract the light, causing general area illumination from the glass, as shown in Figure 7. Although not highly substantial, this will add to the background light spill.

The lamp's current optic is unknown, so the light distribution might be broader or more focused than the indicative spread shown in Figure 7.



Figure 1 Floodlights mounted onto rear of building



Figure 2 Rear extension circular wall lights



Figure 3 Garage wall light



Figure 4 Heritage wall mounted fitting on high street

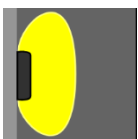


Figure 5

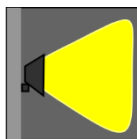


Figure 6

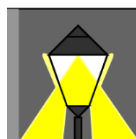


Figure 7

Proposed Lighting Design

The external lighting scheme has been designed to minimise light pollution as part of the core design criteria.

- The selected fittings emit light with a low-temperature rating of 3000K, ensuring that the short-wavelength blue light is minimised. This lowers the amount of light reflected or scattered on surfaces it is projected onto.
- Our design gives people a safe amount of light to travel through the paces without being excessive and brighter than necessary, with brighter emergency lighting only operational in an evacuation situation.
- The proposed fittings either throw light downwards or have shrouds/lids that block the upward throw of light, reducing upward light spill significantly compared to the existing lighting scheme.



Figure 8

The fittings used in the hotel and brasserie gardens are Limehouse Lamp Company surface-mounted candle type fittings as shown in Figure 8. These are relatively low output with a shroud blocking upward light spill.

The fittings proposed for the carpark are the David Hunt Lighting wall-mounted downlights shown in Figure 9. These only have a downlight element which ensures upward light spill is minimised.



Figure 9

The Limehouse Lamp Company “Chelsea” heritage fittings are proposed around the site. The fitting has an LED filament-style bulb inside which emits a warm white light, minimising short-wavelength blue light. The bulb is located at the top of the fitting, sitting close to the opaque shroud, again minimising the upward throw of light, as seen in Figure 10.

All external lighting is to be controlled on both a photocell sensor and a timeclock so that it will operate only during operation critical parts of the night. Non-maintained emergency lighting is provided by low level Kingfisher SEMITA Urban lights as shown in Figure 11. These produce a much higher level of light to provide safe wayfinding only during an emergency situation and are not on under normal circumstances. This allows a lower level of general external lighting to be installed with brighter external lighting only occurring in a life safety situation.



Figure 10 Limehouse Lamp Company LTD Chelsea Overhead Arm



Figure 11 Kingfisher SEMITA Urban Emergency Light