IMPLEMENTATION

This regulation should be considered together with *Regulation 502.05* which specifies the maximum lighting power density that can be used for exterior lighting. Exterior lighting should use the lowest possible illumination to provide adequate light for safety and security.

Unless it is required for safety or security, direct lighting must not extend beyond property boundaries. Efficient lighting design can reduce light pollution by reducing the uplight, glare and light trespass. Minimising direct views of lamps avoids glare. Also, efficient use of sensors, timers and appropriate selection of light fittings can effectively optimise light usage, reduce light pollution and also reduce the energy consumption and costs.

In order to comply with this regulation, exterior lighting must be shielded as shown fig. 303.01(1), so that all of the light emitted by the fixture, either directly or indirectly by reflection or refraction from any part of the fixture, is projected below the horizontal plane passing through the lowest part of the fixture. The light fitting type should not emit light above the horizontal plane and be shielded to direct all light towards the ground so that the lighting elements are not exposed to normal view or create or constitute a hazard or nuisance to motorists/ pedestrians / neighbouring residents.
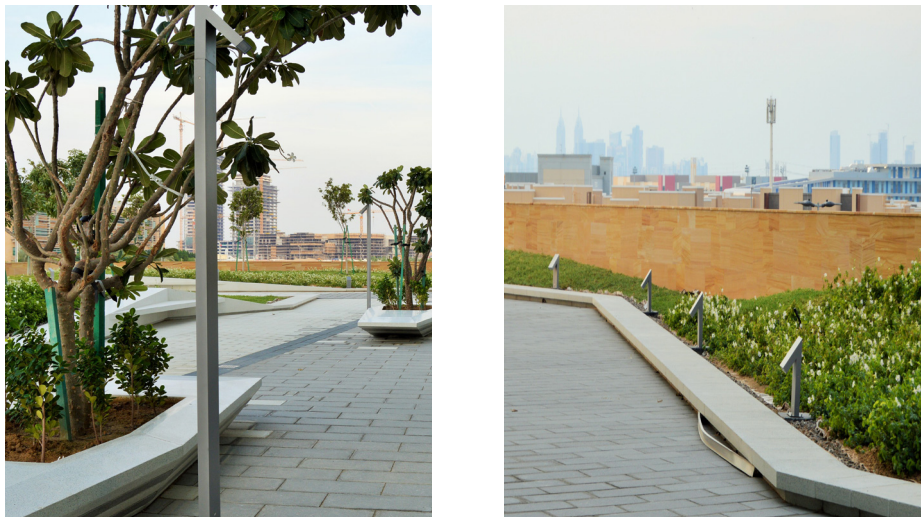

Fig 303.01(1): Full Cut-off Light Fixture

Daylight sensors or timers must be used to ensure that exterior lighting is not operating during daylight hours. Spotlights may only be used for special occasions and only with the permission of Dubai Municipality.

Choose outdoor light fixtures that are full cut-off, meaning there is a solid cap above the light bulb that prevents light from being emitted directly to the sky to minimise light pollution.

The use of motion sensors, timers, photocells or other means of activating lighting when it is needed is encouraged to conserve energy and avoid light pollution.

Install motion sensors on outdoor fixtures so they turn on when needed and turn off after a short time. Make sure to test and adjust the motion detector's sensitivity as needed to prevent the lights from turning on and off unnecessarily.

The maximum lighting power density allowable for outdoor lighting is specified in *Regulation 502.05*.