

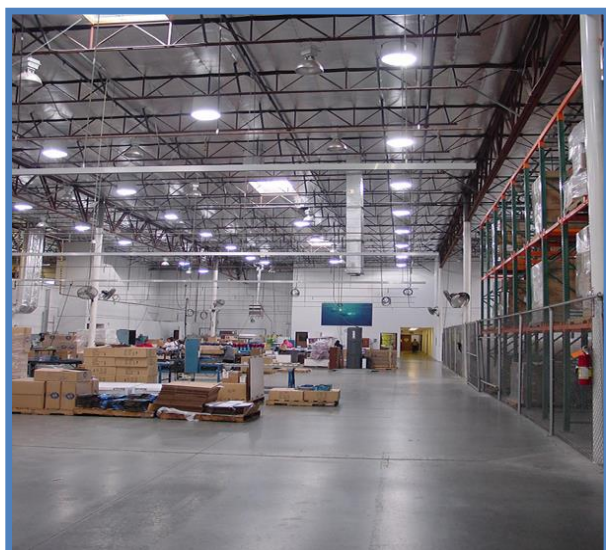
Natural Light Tubes

Light tubes or **light pipes** are used for transporting or distributing natural or artificial light. Although the concept was originally developed by the ancient Egyptians, new patented technologies, coupled with the world's most reflective tubing material, ensure that the maximum amount of natural light is transferred into the dark or windowless areas, allowing you to switch off artificial lighting during daylight hours and thus significantly reduce your energy costs and consumption.

A tube lined with highly reflective material leads the light rays through a building, starting from an entrance-point located on its roof or one of its outer walls. The entrance point usually comprises a dome (cupola), which has the function of collecting and reflecting as much sunlight as possible into the tube. Many units also have directional "collectors", "reflectors" or even Fresnel lens devices that assist in collecting additional directional light down the tube. To further optimize the use of solar light, a heliostat can be installed which tracks the movement of the sun, thereby directing sunlight into the light tube at all times of the day as far as the surroundings' limitations allow, possibly with additional mirrors or other reflective elements that influence the light path. The heliostat can also be set to capture moonlight at night.

With the emphasis increasingly focused on energy usage and CO2 emissions on new and existing buildings, Architects and specifiers can miss the obvious simple solutions. Tubular Daylighting Devices (TDDs) specified into buildings, particularly those occupied primarily during the day; such as schools, medical centres, offices, retail units and factories, could dramatically reduce their requirement for electric light – and therefore the power required to run those lights. In addition, electric lighting is also the primary cause of heat build-up and therefore places an increasing load on the requirement for cooling within a building.

An excellent 'Green Opportunity' for designing into any building.



Interior View



Exterior View

Benefits

- Reduces / eliminates the need to use electric lighting during the day
- Provide amazing levels of natural light for better working environment
- Gives a reduction in cooling required by eliminating the heat gain from electrical lighting
- Suffers virtually no heat loss or solar gain
- Easily installed into existing buildings, designed into new builds and ideal for use in modular buildings

For Further Information contact Jason Riddell Tel – 01625 512 972