

THE 5 CRITICAL STEPS TO A SUCCESSFUL LED LIGHT PROJECT!



POLARIS
EXPERTS IN LED LIGHTS

1) What Energy efficiency is provided?

Energy efficiency is measured in Lumen output/Watt (Lm/W). Many cheaper products feature low energy efficiency of 80-100lm/w, but you can double your energy savings (or lux levels) by choosing LED Light products with an energy efficiency of 180 lm/w.

2) What Lux levels are provided?

The end result in your site will be the light levels (lux levels) and the starting point will usually be around 150lux. With LED Lights you can really push the lux levels higher and reach the recommended levels of 250-300lux for warehousing and 500lux for offices. This result is reached as a combination of how many fittings you install, the position of each fitting and the lumen output of each fitting. These numbers can be calculated in a Dialux model before the project is signed off.

3) What Beam Angle will be provided?

The beam angle of the light fitting is important when you want the light directed to a specific area below. Most fittings are supplied with 120 degree beam angle, but for example in narrow aisles it can be beneficial to use 60deg or 25deg in order to direct as much light as possible to the ground.

4) What driver brand is provided?


The LED Driver determines the lifespan of the LED Fitting and low-cost products often will feature a low-quality driver which will only last 2 years time. Most respected Industrial LED providers will provide High Spec drivers and have them tested before installation. This will ensure the LED fitting lasting 5-10 years if not longer.

5) What sensors & automation are provided?

Sensors can reduce energy consumption significantly and at the same time prolong the lifespan of the LED fittings by up to two years. The most used types are as follows:

- *Motion sensors (PIR), which will dim the lights when there are no people around.*
- *Daylight harvesting sensors, which will dim the lights when the sun shines through the skylights.*



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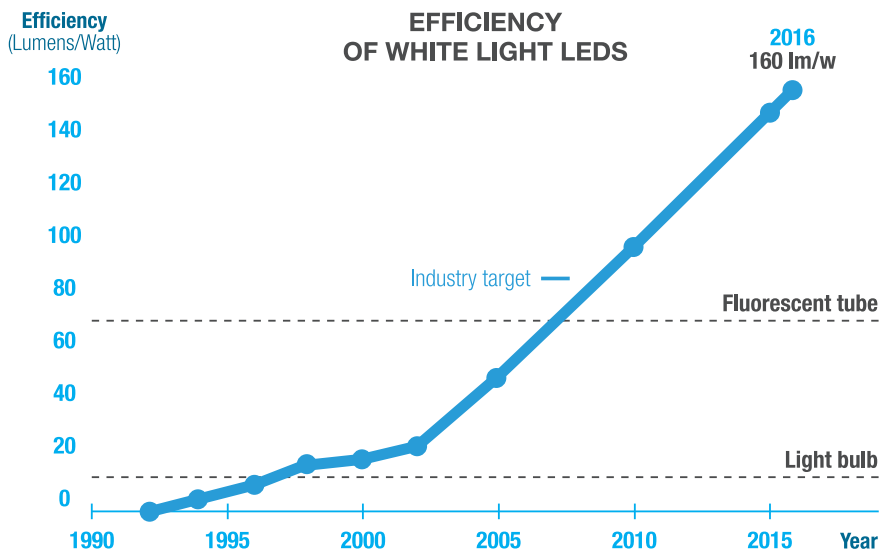
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What is Lumen?

Lumen – Light output

When everyone used incandescent lights brightness (lumen or luminous flux) was measured in Watt. Today new technology has pushed the amount of lumen output per watt significantly, why most lights today are measured in lumen or luminous flux.



Lumen/Watt – Energy efficiency

A lumen is a measure of how much visible light is emitted by a source. Lumens per Watt (Lm/W) refers to the energy efficiency of lighting: how much visible light you get for a given amount of electricity. Most LED lights today are produced at below 100 Lm/W, however Polaris are able to deliver up to 180 Lm/W, resulting in 60% more energy saving over other LED lights.

Lux levels

Lux levels are the amount of light per m² and can be measured with a lux meter.

Recommended lux levels

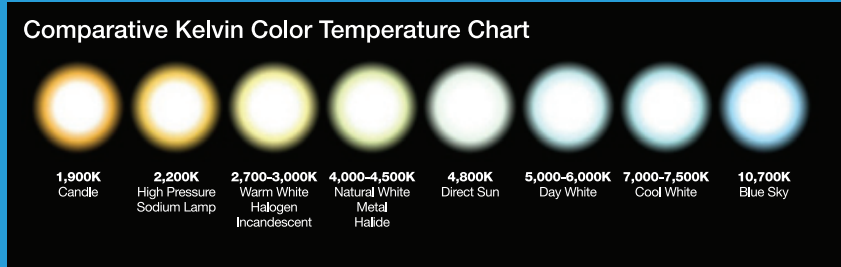
General areas	200 lux
Computer work stations	300-500 lux
Industrial work shop	300-500 lux
Warehouse	150-300 lux
Small item stores	200 lux
Packing & dispatch	300 lux

TEMPERATURE

Light Characteristics

Kelvin (Color Temperature)

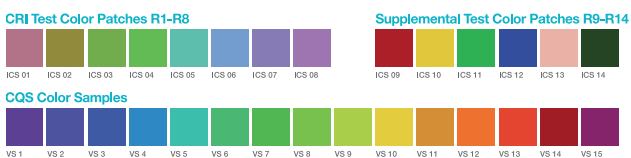
Kelvin is a measurement of color temperature where 5000 corresponds to daylight. 300 kelvin is often used in places needing atmosphere like café's and fashion retail whereas 6000 kelvin is mostly used in industrial areas.



COLOR

CRI (Color Rendering Index)

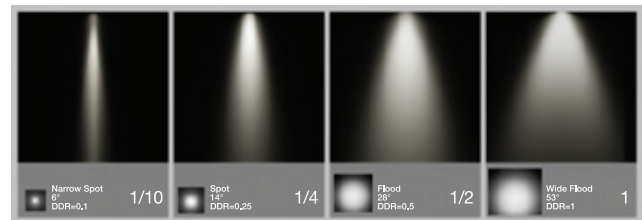
A color rendering index (CRI) is ability of a luminaire to reveal the colors of objects faithfully in comparison with a natural light source. Normally Fashion retail and art galleries would prefer as high CRI as possible in order to render the colors of the products as well as possible. Industrial buildings and football fields on the other hand are happy with CRI around 80%.



ANGLE

Beam angle

A beam angle is a measurement of how the light is distributed in degrees. Most lights are produced at beam angle 120deg, but by reducing it to 20deg you will be able to channel light much further which is used by sports fields and car lights. By increasing beam angle to 120deg you will spread the light wider at a shorter distance. This beam angle is commonly used by flood lights and road lights.



Benefits



5 year warranty

on all products leading to reduced maintenance



Lumen/Watt of up to 180Lm/W
giving up to

85% energy saving



Sales direct from factory giving the

lowest prices



Installation team with

300 installers across UK



Financing options

giving immediate savings
without upfront investment

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