



7 QUESTIONS TO ASK BEFORE INVESTING IN HOME LIGHTING

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 **DARKSPACE**

INTRODUCTION

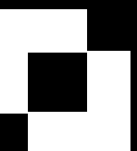
A QUICK BOOK ON THE IMPORTANT QUESTIONS YOU NEED TO ASK BEFORE LIGHTING YOUR HOME, FROM A CERTIFIED LIGHTING DESIGNER

The modern lighting industry is overwhelmed with as many tricked up sales techniques and miss information as a fortune teller festival. Each “vendor” promising you, your future dreams from their tent. Good lighting is not only about using the right product but using the right product the right way to create an illuminated visual comfort that enhances your homes architectural features, creates atmosphere, and supports ease of use and good sleeping patterns. Yes you read that right. Your home lighting can help, not hinder your sleep.

Light, not only enables us to see, but connect with the world around us, and as such, has the ability to influence psychological and emotional states. The experience we have in a space can be enriched consciously through effective lighting methodologies, therefore it is important to have a clear understanding of what you are wanting to light and why.

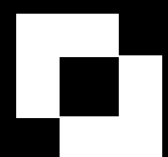
Good lighting is as much of an investment as the products and surfaces being illuminated. The quality of everything you see in your home is determined by the quality of the light illuminating it. Don't be fooled into thinking that a \$12 dollar fitting, produces the same quality light as an \$80 fitting.

Here are seven questions you should ask yourself, before purchasing lights for your home.



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WHAT ARE YOU LIGHTING AND WHY



Before you even look at lights, you should be asking yourself, what am I lighting and why?

WHAT?

Take your kitchen for example. Too often, we see people putting lights over the standing space between the island benchtop and the built-in kitchen cupboards...WRONG! This often creates shadows over the island benchtop, workstation, and basically anywhere you actually need the light. Instead, you should be looking at lighting the benchtop itself, so you can actually see what you are doing with that sharp knife!

WHY?

Is it for function such as cooking or cleaning, for ambience and atmosphere or for accent eg highlighting the artwork you recently hung? Each will require a different approach to identifying the right product.



It is important to identify the various spaces of your home and the “tasks” that will be performed in those spaces. The reason this is important is because each space will vary gravely and as such, will require an as varied lighting solutions. For example....

KITCHEN

Functional lighting for cooking is important over the benches where fine knife work will be carried out.

LOUNGE ROOM

A lounge room will require adequate lighting for playing board games or reading but may also have artwork displayed that requires its own illumination.

BATHROOM

A main bathroom might require good lighting around the vanity to enable application of makeup, but may also benefit from a lighting arrangement that can be dimmed for an atmospheric soak in the tub.

LATE NIGHT

Low level lighting is great for functional night-time movement without having to turn on bright, high level lighting. Removing the argument between the brain and big toe!





Installing 4 downlights in every room might be just what your electrician and builder are telling you to do.

Sure, they have been doing it for years and have plenty of happy customers, but I promise you, electricians are not the best place to be seeking lighting advice. The only lighting training they receive is how to install them and their product knowledge is gained from wholesalers pedalling the latest and greatest cheap, one size fits all, crap that they can sell to every customer that walks through the doors.

I know this! While not only earning a Masters in Lighting Design, I used to be an electrician, and still manage my own team of excellent installers. But trust me. Electricians don't know lights, and neither do the so called "experts" at "Hammer Barn!"

'Sometimes the best lighting of all is a power failure'

Douglas Coupland



LEDS, WHAT IS MY MONEY ACTUALLY BUYING ME

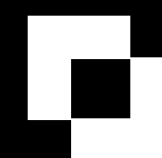
LEDS are cheap, sure. But just like a stereo, you get what you pay for.

Many manufactures are on a race to the bottom to give you, the customer, the cheapest downlight on the market. This just means that they cut every corner possible during the manufacturing process, to out sell the competitor on price, resulting in poor quality lights.

Think of lights like speakers for your eyes. Sure, a cheap stereo makes some noise, but it is not what you call quality sound. Now, will you want to listen to it all day long, knowing, with those cheap components, it is not going to sound as good in 6 to 12 months' time? Cheap lights are the same. They may appear to be working, but they sure as heck are not producing quality light at the start let alone after 6 months of use.

So what should you be looking for in lights?

Where possible choose COB over SMD, look for high CRI, quality electronics and good heavy heat sinks. Like all electronics, heavy is good! It means more copper and aluminium and heavier internal components.



HOW DO I MEASURE THE QUALITY OF A LAMP

Good light quality



LED Lamps
CRI 80 or above

Bad light quality



Fluorescent Lamps
CRI 70 or below

Brighter means better right?

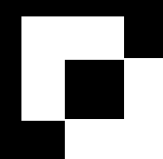
No, no, no it is does not! Quality over quantity is key.

We no longer talk about lights in terms of Watts. Instead, we talk about lumens – being the light output of a luminaire (light fitting). Think of it as the volume control on your speakers and how loud they will go. But unlike speakers, we generally run our lights at full output all the time.

In addition to trying to produce the cheapest lights, many manufactures are also trying to outdo each other with their lumen output. Meaning they are using the cheapest components and running them as hard as they can. Not a great recipe for longevity!

Instead, a much more important unit of measurement on the box, is the CRI. This is a measurement or score out of 100 as to how well the luminaire produces all colours (wavelengths) of visible light. See, not all lights are the same! But that is another topic. For now, just remember that the higher the CRI the better your vision will be. Lower CRI produces a greyer and washed-out view.

High CRI will provide better vision, rather than blasting high lumens. As the quality of light is improved, you do not need as many lumens.



HOW DO I WANT TO CONTROL MY LIGHTS

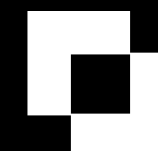
Lighting control is often overlooked until the end of a project, and as a result, can often leave one in a bit of a predicament.

Before purchasing lights, ask yourself, how much control do I want to have? Do I want my lights to be dimmable? Do I want the option for colour control? Am I happy for pre-sets or do I want the ability to adjust temperature dependant on my mood?

Lighting technology is forever evolving, and so too is the control we have over it. So make sure you have a good think about the functionality of your lights, and then find a product that best suits.

LEDs have electronics. The more you pay, the better the electronics will be. If you do not want your lights to flicker every time someone turns on the blender or fail when there is a bit of dirty power, then you need to spend a bit more money. And if you do spend a bit more, you should also have less trouble being able to find a dimmer that works well with your lights.

Once upon a time, dimming was all solid-state coils of copper and rheostats, now it is microchips talking to microchips. And sometimes these microchips do not talk so well to others. When that happens, you can end up with lights that do not dim very well, do not dim at all, shut off or decide to have a flicker party when you try get romantic. And let's be honest, nobody wants to go to a disco on Valentine's Day.



HOW DO I AVOID UNWANTED GLARE

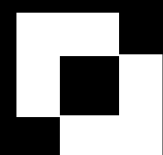
Glare is that awful thing that happens when there is something too bright in your field of view that impedes your ability to accurately see what you are looking at. We break glare up into two categories, disability glare and discomfort glare.

Like an oncoming car with their headlights on or sun reflecting off someone's phone while you are trying to make a field goal, disability glare is glare so bad that you become unable to do your task.

Just down from that we have discomfort glare. Discomfort glare is low level glare that makes it harder or uncomfortable to do a task. This means that there is something in your field of view that is substantially brighter than what you want to look at. Like a light shining through a window behind your computer monitor or TV that creates a mirror like effect on your flat screen.

Lights produce glare. Some more than others. And the cheap SMD fittings are glare bombs! They will produce bright beams of light that poke you in the eye and cause you to look away. The best lighting is when we do not see the light fitting, only what is being lit. If you can see light directly out of the fitting while doing an everyday task, such as sitting in your lounge room or cooking in the kitchen, you will be experiencing glare. As such your eyes will attempt to 'adapt' to this higher level of brightness and what you are in fact trying to look at will seem darker!

Most downlights will not come with a glare rating on the box, so I will not go into UGR here (Unified Glare Rating). But just keep in mind, that it is best not to see the light source. And if you do not want to see the light source, do not buy an SMD downlight (see images to the left).



WHAT COLOUR TEMPERATURE WILL WORK BEST IN MY SPACE

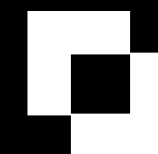
CCT – CORRELATED COLOUR TEMPERATURE

This is probably the more well-known light quality. Though most of us know it as Warm White, Cool White or Daylight. Long story short. Different manufacturers have different values for warm white or cool white. So, to keep it an even playing field, they must include a CCT on the box. Now without getting into how CCT is calculated against a black body curve graph etc. I will give you some basics, so you can work in figures rather than terms.

A CCT of 6000K is like being out in the sun at midday with a clear sky. Inside this is bright and almost looks a little blue.

A CCT of 4000K is a very Crisp White. It is often used in doctors' surgeries, waiting rooms, offices and even some homes. It is a cooler white than Warm White

A CCT of 3000K is the old Warm White. 3000K can still produce perfectly high CRI like crisp white light does, but it is warmer and feels more natural at night in a living area, kitchen, hotel foyer or casual dining setting.



Below 3000K it starts to get really warm really quickly.

2700K is great for warm indoor or outdoor atmosphere, even dining.

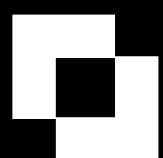
2500K is starting to be too warm for functional lighting.

2200K is great for accent lighting and creating that romantic mood of soft ambience. However, it needs to be used with delicacy.

Below 2200K is super warm, used primarily for accent or ambience. Good fairy lights that have that beautiful rose gold are around the 1800-2200K mark.

There are now various fittings on the market that have switchable CCT – meaning you can select a CCT on the fitting before it is installed and leave it that way. I avoid these fittings! Each fitting is constructed with LED chips to achieve each CCT, however, you only use one, which means the fitting is inherently over built for price. And more often than not, they are cheaper fittings, meaning you are buying very cheap components.

There are also fittings that can now vary the CCT in the same way we dim the light. Very useful, but if you are looking into a product with this functionality, do your research as it is still a little experimental, expensive, and not always the best. It can, however, be an incredible atmosphere changer when applied correctly.



WHAT IS LAYERED LIGHTING AND DO I NEED IT?



To create a well-lit and balanced space that is both functional and aesthetic, it is important to use a combination of natural, task, ambient and accent lighting, which we in the biz commonly referred to as layered lighting.

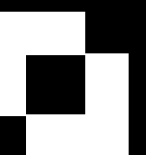
All too often I see high powered CFL or LED fittings, blasting cool colour temperature light everywhere, and lighting the place up like a stadium. I don't plan on playing AFL in my lounge room, so why is it lit up like the MCG? More light does not mean better vision or a more pleasant viewing environment. Quite often it creates the opposite.

Our eyes adjust to light levels on a sliding scale. The pupil of our eye, opening and closing just like a camera's aperture, protects the light sensitive tissue from damage. If there is a bright light source in our environment, our eyes are forced to adjust, closing the pupil to protect itself.

This leaves the rest of the room looking darker, causing our pupils to slowly adjust when we look at other surfaces. If the room lighting is balanced, our pupils won't need to adjust, and our environment is therefore more comfortable.

Homes are places for an array of activities and a single lighting arrangement really doesn't suit all situations. With more natural light in our home, we can prioritise electric lighting to ease focus on ambience and function, instead of attempting to recreate daylight.

Using warmer colour temperature lamps, combinations of indirect and direct lighting, up lighting, low level and feature lighting, combined with controllable light levels, we can modify the feel of our home, altering our moods and our emotional and physiological state.



CONCLUSION

When looking at upgrading your lights, it is always best to do your research and understand what you want to light and why. Be it quality bright light for a functional task area, quality soft light to highlight features in the space, or soft ambient lighting from indirect sources to create that mood and atmosphere that has long been missing in your home.

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