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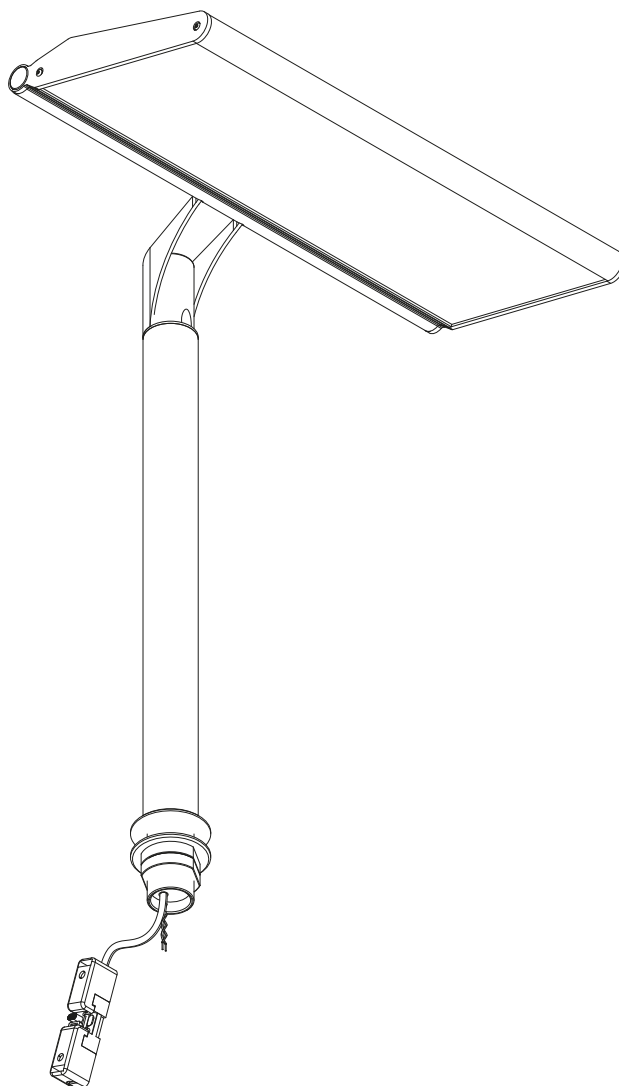
STOANE LIGHTING

EQUIPMENT DESIGN + MANUFACTURE




Work Place Light Through Desk Version


Installation and Maintenance Instructions




IMPORTANT: All wiring connections must be made before applying power.

 BRIDGELUX WPL 2700-5700K 29W @650mA

 Do not stare at the operating light source


 This product should not be disposed of in your general waste


 Please retain these instructions for future reference

 Class I - Fitting must be Earthed

IP20 Indoor Use Only

t_a 35°C Rated maximum ambient temperature

 European Conformity

 UKCA (UK Conformity Assessed)

Stoane Lighting Ltd
20 Dryden Road Bilston Glen Ind Est.
Loanhead Midlothian EH20 9LZ UK

T: +44 (0) 131 440 1313
F: +44 (0) 131 440 0049
sales@mikestoanelighting.com

www.stoanelighting.com
VAT No GB682885284
Limited Company 188910

Electrical Supply

Installation must be carried out by a qualified electrician in accordance with BS 7671:2018 + A2:2022 Wiring Regulations. 230/240V AC 50/60Hz mains supply to a suitable SELV LED Driver.

Site conditions: LED equipment is more susceptible to static damage and over voltage than previous technology. Before handling or connecting to the mains supply ensure that all Stoane Lighting (SL) products are protected from static discharge and that the mains supply is to regulation. (230V +10 -6%)

Refer to the fitting label for the module version and total wattage.

Mains cables must be double insulated, strain relieved and separated from E.L.V output cables.

This unit contains a constant current driver set at 650mA.

The supplied driver has been specifically programmed for the tunable light source supplied, if/when the driver needs replaced, please contact SL for more information.

This unit must be connected to mains with an Earth connection to operate.

All connections must be made before applying power. If the supply is energised prior to making the connections to the fitting then the resulting surge will damage the LED.

SL can provide assistance on dimming compatibility or control systems by request. For advice on specific dimming systems we recommend seeking assistance from the commissioning engineer or the control systems provider in the first instance.

Maintenance:

All lighting equipment is delicate and easily damaged through misuse or inappropriate installation (mechanical or electrical). Repairs and replacements may cause delays and will be chargeable. Contact SL for support if required.

All Stoane Lighting products are covered by a five year Warranty and a 25 year Duty of Care. Products are designed to be upgraded, adapted and refreshed using our comprehensive ReNew service. For more information on our ReNew service and for full Warranty terms and conditions visit stoanelighting.com or contact us at the address shown.

When supplying digital equipment with the potential to be connected to networks, physically or wirelessly (i.e. Bluetooth, WiFi, DMX radio etc.), SL does not take responsibility for the digital security of the equipment or associated networks. It is the customer's responsibility to select a protocol suitably robust for their requirements and to ensure responsible utilisation of passwords.

The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person.

If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.

Disassembly notes are available on our website, and are accessed by entering your product serial number into the search function of our website. Serial numbers are typically located in an area that is not visible when the fitting is installed.

Cleaning:

Fully isolate the fitting and allow to cool.

Clean the fitting with a slightly damp lint free cloth from a mild solution of soap and water. The fitting must be completely dry before reconnecting power.

Incompatible or abrasive chemicals can damage the fitting, contact SL for advice if required.

Warning: Acrylic is a **fragile** material, handle with care.

Installation

Check that the mounting surface is suitable for the installation of this fitting. **Fitting Weight : 3.1kg.**

Fully isolate and allow fitting to cool sufficiently before handling

A 36mm diameter hole is required for mounting through desk version.

Step 1 Insert the fitting into the cut-out and tighten the washer-nut from below the mounting surface. Fully secure the light in place by fastening the second nut.

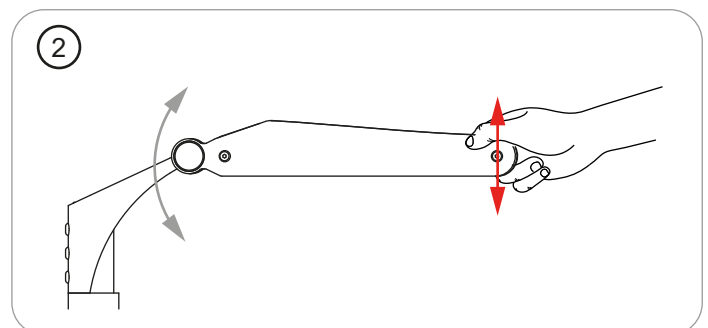
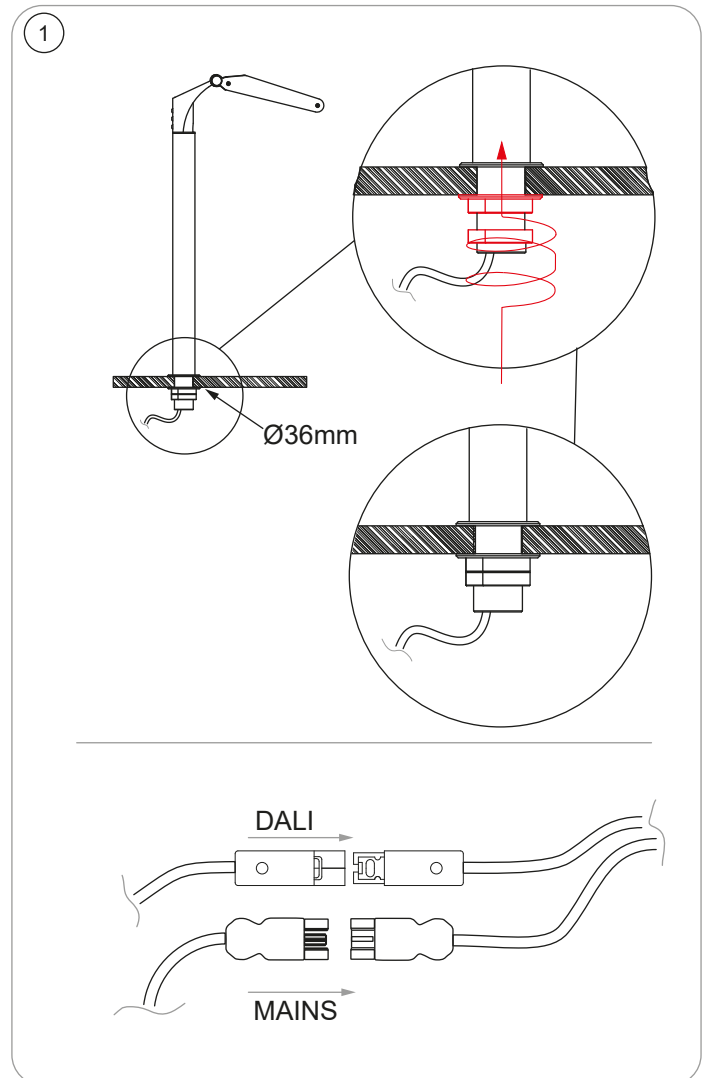
Make connections to DALI and Mains via the supplied Weiland connectors.

Step 2 The angle of the WPL head can be adjusted by hand, take care not to apply excessive force when adjusting.

Fully isolate and allow fitting to cool sufficiently before handling.

WARNING: Do not look at exposed LED lamps in operation. Eye injury can result.

Additional items should not be hung or suspended from this fitting. SL takes no responsibility for additional items added by others or the consequences of those items.



Lighting in the Workplace

Introduction

Light has a conscious effect on our vision but also several unconscious effects on our health.

1. The direct activating effect in the brain, stimulating alertness, suppressing sleepiness, suppressing melatonin at night, increasing performance, etc.
2. The synchronising effects of the biological clock strengthening our sleep / wake cycle.
3. Improving sleep quality in the night after the day in question.
4. Helping to alleviate depression.

We evolved in daylight, but now often spend 90% of our time indoors where daytime light levels are much lower than outdoors, and electric light of a different spectral composition to daylight. Under such conditions the light effects listed above are often reduced. The Workplace Light has been designed to give you correct light levels and composition at your workplace.

Good Lighting in the Workplace

During the day higher light levels are needed for health aspects than vision aspects, and often light levels are too low. (The opposite is true in the evenings when the main external trigger for the release of hormones connected to sleep is darkness and lower evening light levels in our homes should be embraced. There is link with this discussion and light pollution externally. External light levels and spectral content not only cause sky glow and prevent us seeing the Milky Way but have a direct physiological effect on animals: disrupted metabolism, circadian clocks, feeding rhythms etc - *Stoane Lighting has a range of products and expertise which can support your project with the above.*)

There are two considerations to be aware of when checking that light levels in workspaces are optimum for health aspects:

1. Light levels should be measured vertically at the eye, as opposed to horizontally on your desk as is the norm for measuring light for vision (See Figure 1).
2. Light consists of outputs at different wavelengths which combine to make shades of white light. The combination can be 'cool' white like the appearance of daylight at noon or 'warm' white like the appearance of cozy home lighting. The dominant wavelengths that trigger photoreceptors for health aspects are cooler than the dominant wavelengths that trigger photoreceptors for vision. Therefore, different units are used. Light for vision is measured in Photopic lux and light for health is measured in m-EDI lux, which stands for melanopic Equivalent Daylight Illumination. (Melanopsin is the relevant photosensitive pigment in the eye and as you would expect the units are linked to Daylight: as commented on above it was in daylight that mankind evolved.)

Recommended vertical light levels at the eye in m-EDI lux are tabulated below (Table 1).

Table 1, taken from The Good Light Group's healthy lighting guide in which far more information on this topic can be found. (www.goodlightgroup.org).

Age	<30 years	~50 years	>75 years
Daytime (eg. 7am-7pm)	MEDI ≥ 250 lux	MEDI ≥ 300 lux	MEDI ≥ 425 lux

How to measure good light at your workspace?

This is not something that can be taken from luminaire manufacturers' literature though this can provide a starting point. The issue is that probably light will enter the eye from several light sources (daylight and different electric light sources). Almost all light meters measure photopic lux but there are others which also measure m-EDI lux (*one of which is the UPRtek MK350s*).

If direct measurement of m-EDI lux is not possible it is suggested to take a photopic measurement and convert to m-EDI lux using the coefficients in table 2 below. Of course, there is some guess work that has gone into these coefficients as complete accuracy is not possible without knowing the wavelengths of the light (its "spectral composition"). But they are conservative so safe to use.

In the case where your meter measures the light's appearance in terms of CCT (Correlated Colour Temperature) this should be a starting point. Basically, CCT is a marker for the warmth or coolness of a light's appearance as discussed above. 3000K is warm white as in your home; 5000K is cool light as daylight at noon and 4000K in-between; the norm for electric office lighting.

Table 2 Coefficient to convert photopic lux to m-EDI following CCT

CCT	3000K	4000K	5000K
Coefficient to convert photopic lux to m-EDI lux	0.50	0.65	0.85
m-DER values	0.55	0.72	0.83

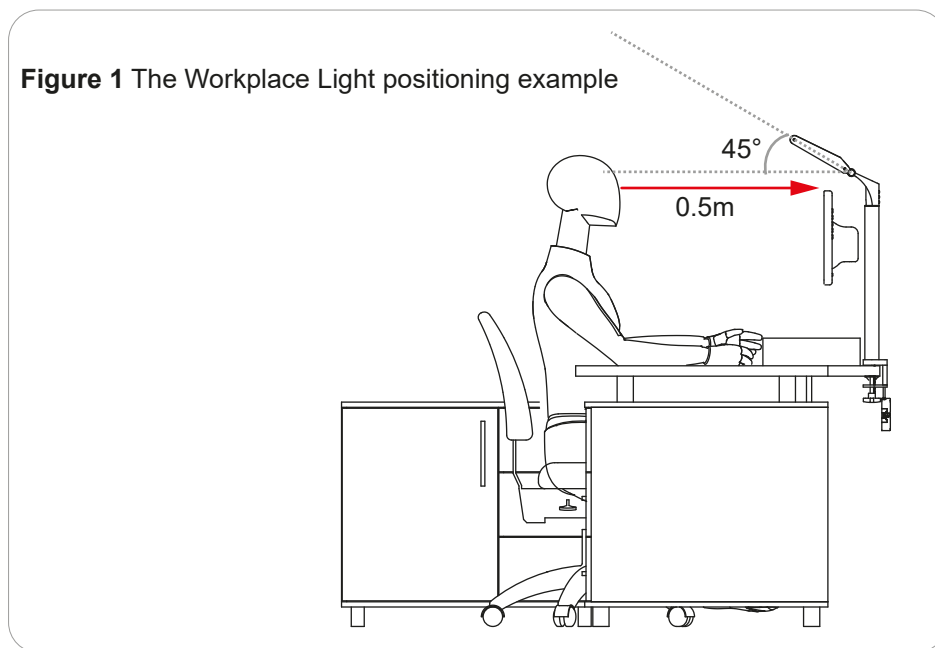
The m-DER figures, are related to the source's Melanopic Daylight Efficacy ratio (melanopic-DER), a relative quantity that describes the melanopic effectiveness of the spectrum of a light source. It expresses the melanopic activation of a source as compared to daylight (D65)

Usage of The Workplace Light

Once mounting is finalised the The Workplace Light's output should be adjusted to give a target illuminance in such a way that no glare results for the user or co-workers in the vicinity.

An illumination level of 250m-EDI lux vertical on the user's eye is recommended for daytime working (see next section for more information), with adjustments for age, see Table 1 which is taken from The Good Light Group's healthy lighting guide (which we recommend for background reading <https://www.goodlightgroup.org/downloads>). Note that 250m-EDI lux can be achieved at any Correlated Colour Temperature (CCT) via dimming up or down, so an optimum setting for a user's CCT preference is always obtainable.

An example is to have it 0.5m in front of you and just above your head, at angle of 45° (see Figure 1 below).



Measurement of healthy light

Using a device such as a UPRtek's MK350S meter allows a direct measurement of a user's received m-EDI lux level.

If no m-EDI lux meter is available, the coefficients from Table 2 can be used to calculate m-EDI lux levels from photopic lux readings as follows:

Placing a light meter at head height pointing straight at the Workplace light (as shown in Figure 1), take the measured reading and either get:

1. Direct m-EDI-lux reading
2. Estimated conversion of photopic lux to m-EDI lux (using Table 2).

a) For example - if 500 photopic lux is measured.

Multiply by 0.50 (take 3000K CCT) = 250m-EDI lux so suitable lighting for a user aged <30 years old.

coefficient × illuminance (lux) = illuminance (m-EDI)

$500 \times 0.5 = 250$ m-EDI lux, which would be suitable for a user under the age of 30.

b) In terms of the light quality an indicator is given by the CRI (Colour Rendering Index) reading.

This should be as close as possible to 100, ie. natural light.

All meter measurements should be taken with the sensor held vertically facing The Workplace Light, at the user's eye level. Include all light sources including daylight, ie not just The Workplace Light.

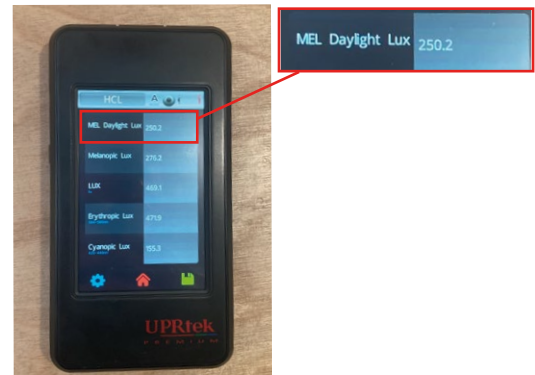
Note

These science-based guidelines should be used as a starting point and optimised to users considering individual chronotypes, ages, tasks and colour preferences. In all likelihood preferred settings balancing task needs, physiological needs and comfort levels will change over time, maybe within a day. Use these recommendations as starting points and then over time users should hone their preferred settings to suit themselves, balancing comfort preference with benefit.

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Stoane Lighting always recommend consultation with a professional lighting designer in matters of perfecting workplace lighting to ensure the right light at the right place and at the right time.

UPRtek MK350S m-EDI lux reading



A Light meter with photopic lux and CCT readings



A light meter that measures CCT is useful but is not essential for the setup as the Casambi app provides an indication.

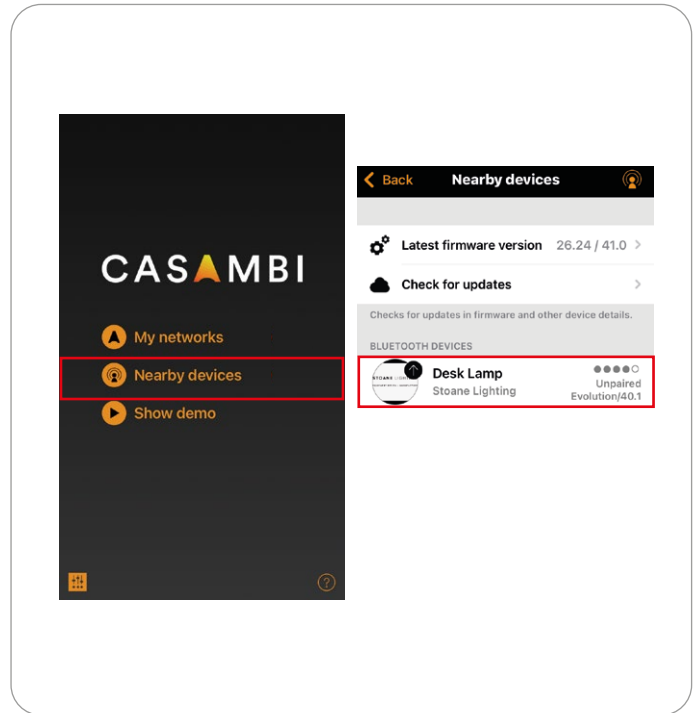
Control via Casambi

This luminaire can be operated using the Casambi application on your mobile device by using Bluetooth®.

To connect to the luminaire the user must first install the Application on the appropriate platform, the Apple App Store or on Google Play. It can be found by searching Casambi.

Scanning the below QR code will direct you to a link which will let you directly choose the appropriate platform your phone uses.

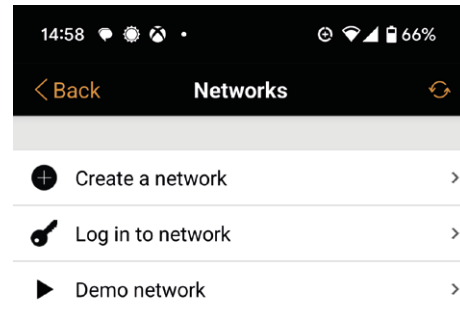
While the following pages are useful for getting you set up with The Workplace Light, the Casambi website is a useful resource if you want to learn more about the control system.



Getting Started with Casambi

Creating a Network

Create a Network if you do not have one already.



Select 'Evolution' when asked what firmware to be used.



Give your network a name.

Turn on the 'Show Nearby luminaires' tab

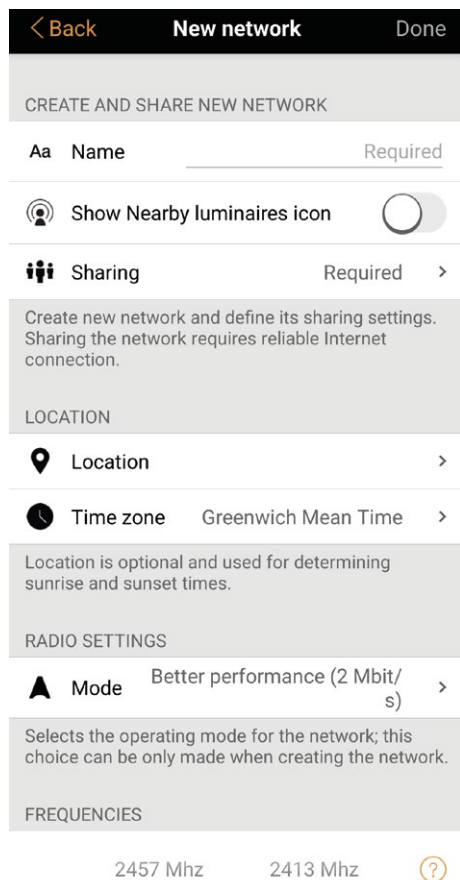
Select sharing and refer to the next page for options

Location - Choose to turn on location or not, this is optional.

Time Zone - Select your time zone

Mode - Choose a mode, select Balanced if you plan to use an enocean switch or similar on the network. If using just the app select Better performance.

Frequencies - Choose a frequency as required, if there are multiple network in the areas try and keep them on separate frequencies where possible to improve performance.



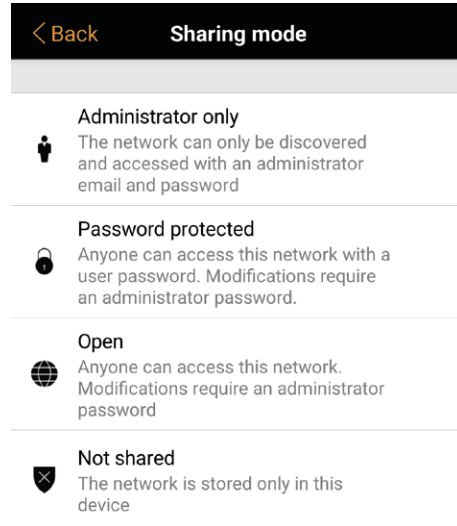
Select the type of network you would like.

Administrator Only - setup with a username and password, only those who have logged into the network can control the fitting on the app.

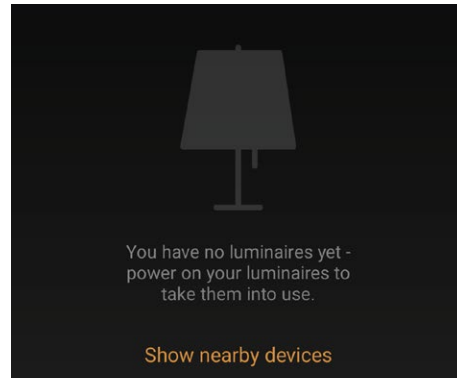
Password Protected - Everyone can see the network but can only control it with the user password.

Open - Everyone can see and control fittings on this network.

Not Shared - Network is tied to the setup device only.



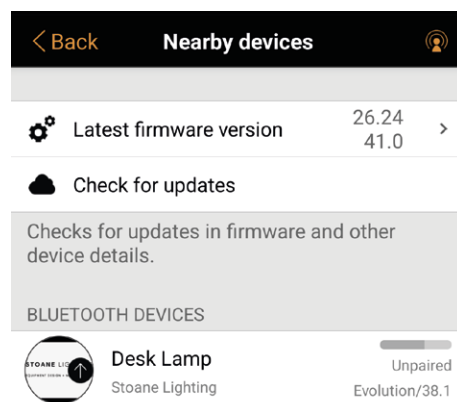
Once you enter your selected network, select 'show nearby devices'.



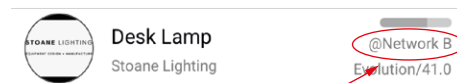
The Workplace Light will appear as 'Desk Lamp'.

Click on 'Desk Lamp' and add it to your network when prompted.

If prompted to update the firmware, this can be done if required but your device should stay in range of the fitting while it is updated.



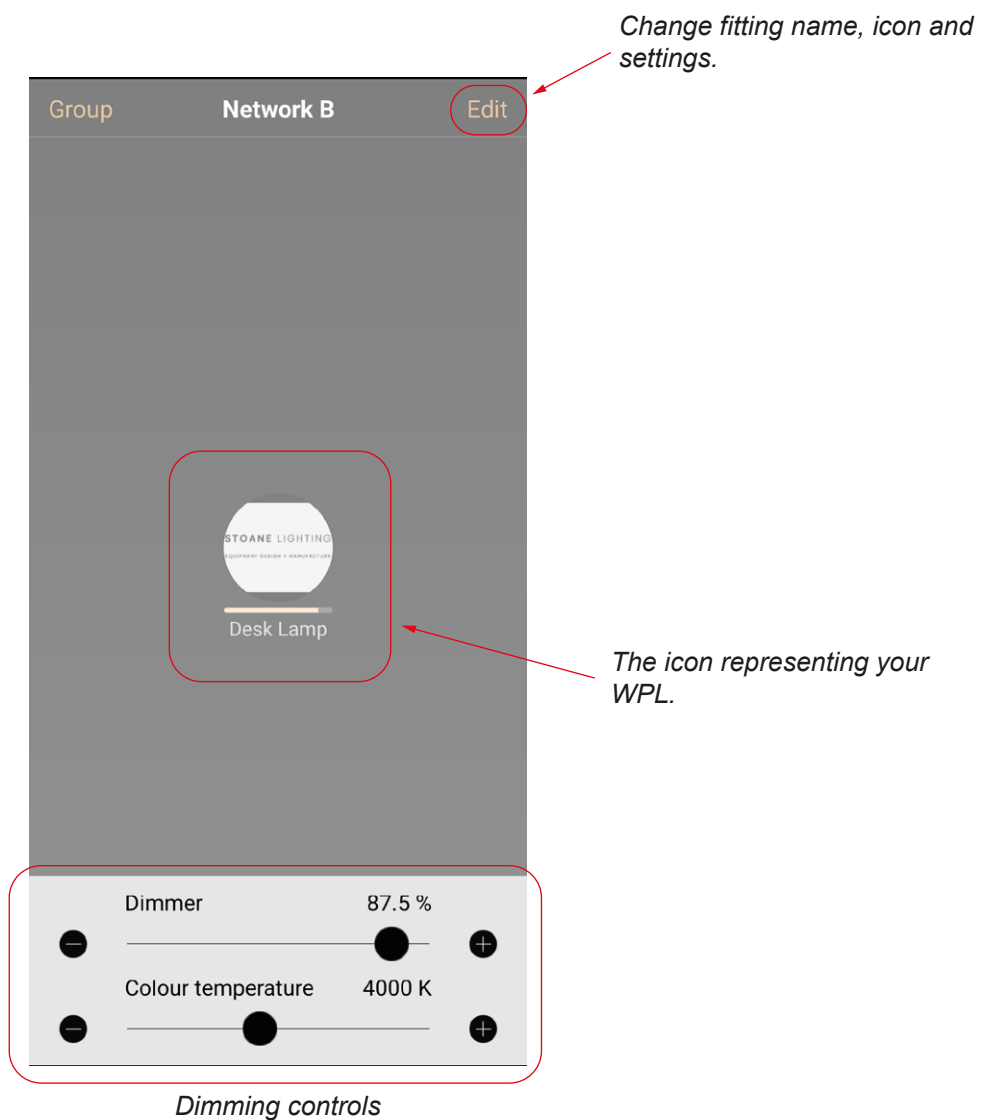
Once the fitting is added to your network, the network name will replace the word 'unpaired'.



Controlling your WPL with Casambi

Long press on the Desk Lamp icon on the center of the screen to bring up the dimming controls.

Should you wish to update the icon, name or power on state of the fitting, press the edit button at the top right and click on the Desk lamp icon. Note that it is recommended that the 'Startup state for power on' is set to 'last state' so the fitting remembers your preference.



Certified**Corporation**

Stoane Lighting firmly believe that we have a responsibility as environmental custodians, we believe that lighting equipment should be built to last, to be repaired and to be reused. As a BCorp we have pledged to operate a business not aiming to just be best *in* the world but a business best *for* the world. Stoane Lighting believe that the circular economy is a fundamental aspect of how we approach the challenges we face. If you read this at the end of the product life we encourage you to consider how you can ensure this product sees an extended life. If removal is unavoidable, please see the disassembly note below.

All Stoane Lighting products are supplied with a 5 year warranty and a 25 year duty of care.

Stoane Lighting operate a ReNew division, which can take your existing fittings and refurbish or upgrade without the need for replacing what you already have.



Through the ReNew service, Stoane Lighting provides general repair, deep cleans and electrical safety checks on luminaires, as well as possible repainting if needed. We will replace components that are nearing end of life, such as drivers, LEDs, and optics. If the fittings are to be used in a new area, or the existing space is undergoing a change in use, ReNew can offer a different mounting method or light technical performance (such as colour tuning), if needed, alongside the addition of on-board wireless control. ReNew as a service, depending on location, can be done on site or by returning equipment to Stoane Lighting.



Once fittings have been repaired or upgraded through ReNew, they will start a new five-year warranty period, and any unwanted parts will be recycled.



Product Disassembly and Component Recycling - While every effort has been made to ensure that our products are built to last and are ReNewable, there may come a point when, as a very last resort, the fittings need to be recycled. The Stoane Lighting website will provide information on how the fitting can easily be disassembled into its component parts for more effective recycling. Information on recycling services in your local region can also be supplied on request.

For more information on the above please visit stoanelighting.com or contact us at the address shown.