

 **LumenIZE**<sup>®</sup>

App Controlled Lighting System

**LEDBAR**

SMART LED BAR

**PROTS**

SMART UVB KIT



**Safety, Installation and  
Maintenance Instructions**

INTEGRATED • ZOOLOGICAL • ENVIRONMENTOLOGY



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App Store



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## App Controlled Lighting System

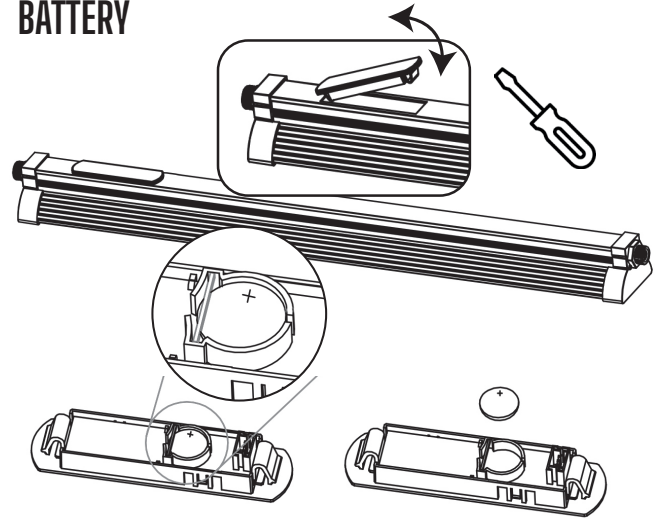
The LumenIZE APP provides wild-like energy for your species, incorporates automated dawn till dusk cycles, allows wild-like circadian rhythm and brings reptile keeping into the modern world. Integrated (no extra purchases needed), Zoological (The very best zoo standard lighting systems), Environmentology (the study of and replication of wild-like environments) Wild Re-Creation®.



Scan the QR Code to download the APP

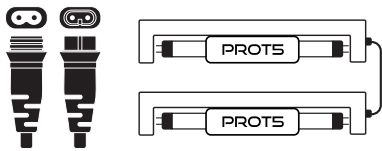


## BATTERY

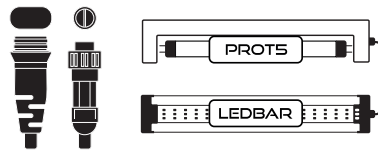


Code: CR1220  
Dimensions: Ø12 x 2.0mm  
Voltage: 3V

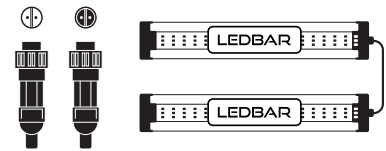
## LINKING CABLES - 1.2M\*\*



Code: RARLLC1  
Barcode: 5018296000753

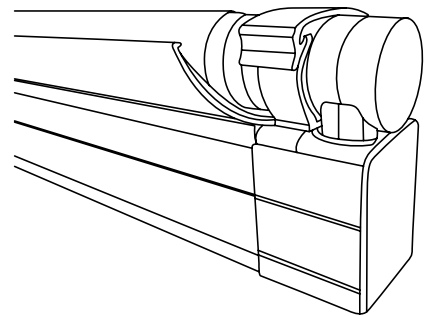
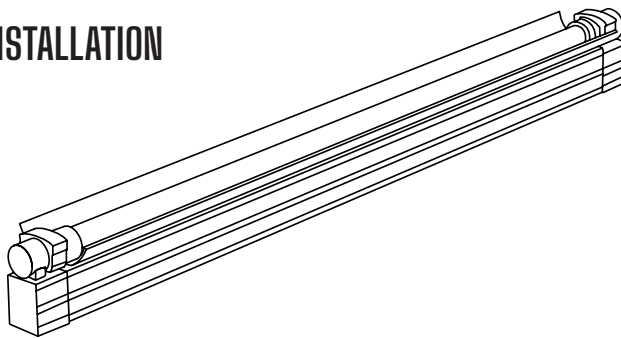


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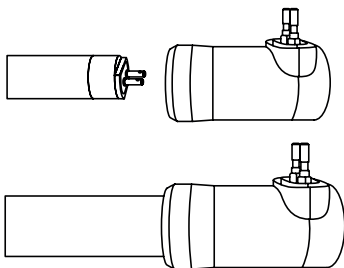


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Barcode: 5018296000777

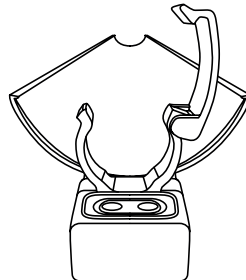
## LAMP INSTALLATION



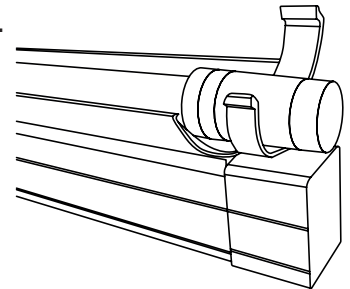
1.



2.



3.



LIGHTING GUIDE

[www.arcadiareptile.com/lighting/guide/](http://www.arcadiareptile.com/lighting/guide/)



LAMP REMINDER SERVICE

[www.arcadiareptile.com/lamp-reminder/](http://www.arcadiareptile.com/lamp-reminder/)

## LUMENIZE PRODUCT AND APP INSTRUCTIONS

**DO NOT INSERT LAMPS OR LINK FURTHER KITS WITH THE POWER SWITCHED ON. RISK OF FAILURE NOT COVERED BY WARRANTY.**

T5 lamp install. With the power cable removed unclick lamp locks and remove the rubber lamp-holders by gently pulling upwards. Plug these directly onto the T5 lamp taking care that the pins line up with the sockets inside of the lamp holders (do not force). When both lamp holders are fully pressed onto the lamp push them both into the LumenIZE T5 fitting together fully, being sure that the pins are lined up and pushed into the bar fully. Replace the lamp locking clips into the locked position.

Do not place heat lamps over or very closely to these lamps. Ensure adequate airflow around the lamps. This will help prolong life and running programmes.

The IP65 standard. IP65 denotes the tested level of water resistance that will protect the lamp and fitting from usual humidity, condensation, and dust. Arcadia Reptile T5 and JungleDawn-LED Bar 'LumenIZE' products have been tested to the IP65 standard and are classified as being 'water resistant'. Direct powerful spraying of the fittings must be avoided; However, the usual use of sprayers, humidifiers and rain systems is possible. Be careful to not place rain or fogging devices so that they emit over or directly onto the fittings. Do not submerge the fitting, protect from direct jets of water).

DO NOT USE WITH TIMERS IF THE PRODUCT IS CONNECTED TO THE APP, LumenIZE products when connected to the LumenIZE app have an inbuilt clock that has a battery back-up. If timers\* are used this will remove all power from the fitting when off and needlessly drain the battery. \*#thermostat light sockets, #smart, #mechanical, # digital. Connect directly to mains. Surge protectors are advised.

We advise that you open the app and open each lamp within the app monthly. This will send to the lamp up to date running data and also refresh the clock.

Open the app and connect to each kit if changing time zones, or for seasonal time changes. In doing so the app will send new data to the clock to each bar as you connect to them all individually.

Sunrise/sunset cycles can be programmed to suit your species locality. A good sample could look like this. 06.00 = 0%, 11am 100%, 3pm 100%, 7pm 0%. It is essential to bookend each cycle at 0%. In this way, between 6am and 11am the output of the lamp will increase from being off at 0% and 100% output very slowly until 11am. At 11am the lamp will be running at full power. We must then add in a stabilising time to maintain the midday sun output of 100%. It is by adding in a second time at 3pm of 100% we instruct the lamp to maintain 100% output between 11am and 3pm. From 3pm and until 7pm the output of the lamp will start to reduce very slowly until it finally reaches 7pm and the lamp will turn off fully. It is within a programme such as this that we find the most naturalistic sunrise sunset pattern, but also greatly reduce energy spend. If we programmed 05.59 at 0% and 6am 100% and 5.30pm 0% we would be programming an unnatural cycle. In this way the lamp would go from 0% to 100% between 06.00 and 06.01am. Then it would start to come down again from 100% at 6.01am and 0% at 5.30pm very slowly. There would be no sunrise and a very brief period of 100% output from 6am but decreasing from 06.02am.

LumenIZE uses true dimming, not stepped output, this process is more fluid in LED than T5 due to the nature of fluorescent lamps and the requirement for constant element heating. Internal clocks are accurate to 2 mins in average and should be refreshed by opening the lamp on the app monthly.

T5 lamps require a certain amount of energy to start safely. Therefore, with LumenIZE control we have programmed into the function of the fitting a 'safe start' mechanism. This is to protect the lamp, reduce rolling and ensure a long lamp and kit life. It is therefore advised that if programming a T5 lamp to run at a low % of output that you select a % that is over 20% of total output. This is automated when the programme is running. I.e you can programme a 0% to 100% reduction, and this will be operated safely by the internal programming via our safe-start function. It is not advised to run a time schedule that instructs a lamp to turn on and off again fully within a half an hour period or shorter. This may confuse the programming and the lamp will remain illuminated.

Linking; Both ProT5 and JungleDawn-LED Bar with LumenIZE ability can be linked with the addition of a suitable linking cable (sold separately). LumenIZE branded fittings cannot be mixed with non-LumenIZE ProT5/JungleDawn-LED Bar. LumenIZE ProT5 and JungleDawn-LED Bar use differing plugged connectors, the design is different due to IP65 waterproofing. As such 3 differing link cables are available separately. This will offer connection between T5 to T5 or LED to LED and T5 to LED. Please see data printed on the bar for the maximum number of bars that can be linked in a chain. Linking does NOT transfer LumenIZE programming from lamp to lamp. Each lamp is controlled via internal memory and as set via the Arcadia Reptile LumenIZE App. In this way, every lamp in a linked chain can have a different programme of function.

## BASIC LUMENIZE APP CONTROL

The LumenIZE APP has been specifically designed to offer ease of control. The APP is very intuitive and does not have any wasteful or unrequired function. LumenIZE can be used with most phones and tablets. Use the QR code on the product box, links from our website or visit the App provider store on your device.

1. Download the LumenIZE APP via the QR code or search within your APP providers store.
2. Accept the pop up message that allows Bluetooth to function. Ensure that Bluetooth is switched on for your device before trying to connect to a lamp.
3. After installing the Arcadia Reptile LumenIZE lamp and with the power on, the APP should automatically display your lamp by wattage and type under 'Device name'. Press the screen within the lamp box and this will select the lamp for control and the APP screen will fill with data. If you 'press and hold' the lamps name, a pop-up will appear to allow you to change the lamp name. (you can add up to 50 lamps to one App). If your lamp does not automatically appear, please press the 'My Devices' button which will start a new scan.
4. If you press the 'full power test' button the lamp will dim to 0% and come back on again. This can help you find a lamp where many are used and can also be used to refresh lamps.
5. Next to the 'full power test' button is a 'cog'. Press this to set a password per lamp\* may not be available on all devices.
6. You will see a slider central to the page. This allows you to both turn your LumenIZE cycle programme on/off but also to obtain manual control of a lamp. If the green button says 'on' this means that your pre-selected programme of dimming is running, and that the dimming slider is not operable. If the button says 'off' it means that the auto-run programme is 'off' and that the lamp is being controlled by hand by the slider. (please also see point 15)
7. LumenIZE has 2 pre-set 'Light cycles' should you wish to use them. Or you can create up to 5 custom settings of your choice for easy lamp control. Further to this, each lamp can have its own cycles programmed also should you so wish, (programming is internal to the lamp, not the device).
8. Setting up a bespoke programme is easy. Select the lamp that you wish to control. Press Custom mode 1-5. Press 'Add time slot'. Use the wheels to select your first time in the AM. This should be set via the slider to 0%. Press ok. Press 'Add time slot' and add in the time that you wish the lamp to be running at 100% (this may be 12 midday or similar). Move the slider up to 100% in this time slot. Again, press 'add time slot' and repeat at 0% for lights out. You can have any variation and as many 'time slot' function commands as you wish. As example, you may wish to run at 50% out for a certain time, or to prolong periods of lower energy to provide seasonality. The choice is always yours with LumenIZE.
9. When you have set up the daily function that you wish to run it is easy to 'copy and paste' this to other lamps. Simply press 'Save schedule', select another lamp and press 'apply schedule'.
10. If you wish to delete a 'time slot', simply press and hold that time slot over the 'clock' and a 'delete time slot' button will appear.
11. Pressing 'brightness' at the bottom of the screen will show you a graph of your lighting pattern.
12. The 'My devices' button will scan for LumenIZE devices.

13. The 'My animals records' button is simply a page that allows you to make notes.
14. Refresh each lamp monthly by pressing on the lamp and using the 'full power test' button. This will refresh the programme and the internal clock
15. If manual control is lost at any time please press the 'full power test' button 3 times and wait. Usually this is either a poor Bluetooth signal or the lamp is already midway through a process. Manual control will return when the process has completed. This is usually within 2 mins.
16. LumenIZE LED and HOT5 products are not compatible with the standard LED Bar and ProT5 kits for linking. The LumenIZE app does not add any control to the Non-LumenIZE range.
17. Password Reset; If you forget or lose a password for an individual kit you can reset the kit with a simple manual process. Turn the lamp on as usual, switch the kit off for 3 seconds, then on for 1 second, then off for 3 seconds, the on for 1 second, then off for 3 seconds. Repeat this pattern 3 times and this will restore the factory settings. This will reset the lamp that is being controlled with the switch, but will also reset ALL LAMPS in a chain if linked, please remove linking if you do not wish to reset all lamps in the chain.
18. Backup battery exchange; ProT5 and JungleDawn-LED Bars with integrated LumenIZE ability have been fitted with an internal battery back up. This simply means that the programs that you set via the LumenIZE app are stored within the lamp itself rather than on your device. This ensures continuing function of the program and clock in the event of a power failure or any phone issues. The lamp will not illuminate in the event of a localised power failure but the clock will continue to function. This means that when power is returned to the product the clock is still running and the lamp will carry on within the settings that you have created. If you choose to not use the product for any length of time and it is removed from power, the clock will continue to run which will drain the battery. You can stop this by using the reset function. The internal battery is a CR1220 standard cell. The average life of this battery is 2-3 years within normal function. The battery can however be replaced. Remove all power from the lamp (unplug). Being sure that the lamp is unplugged use a smooth flat tool to gently lift up the plastic cover from the top of the bar, taking care not to damage the seal. Lift the unit out carefully making sure that you do not stretch the wiring or touch the components. Remove and replace the battery. Making sure that the seal is in place, firmly replace the plastic cover into the unit, refresh your app and adjust any settings that may have been interrupted.
  - a. "The Bluetooth® word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. The Auracast™ word mark and logos are trademarks owned by Bluetooth SIG, Inc. Any use of such marks by [licensee name] is under license. Other trademarks and trade names are those of their respective owners."
  - b. Apple: App Store is a trademark of Apple Inc., registered in the U.S. and other countries and regions. Google Play is a trademark of Google LLC.
  - c. LumenIZE product has been designed so that it can be used with or without use of the LumenIZE app. In this way new products can be switched on at a pre-set 100% output directly from the box. There is NO method to provide dimming control to this product outside of use of the LumenIZE app. Therefore, dimming is not functional. In order to benefit from programming the LumenIZE app should be used. If a previously used product is used then it will arrive with the pre-existing programme running internally as set from the previous use. This can be overridden by connecting the lamp to the LumenIZE App or via the 'restart' process given in point (17).
  - d. Arcadia, Arcadia Reptile, ProT5, JungleDawn, ShadeDweller, LumenIZE and Wild Re-Creation are all registered trademarks.
  - e. Energy efficiency. Over a range of live tests, we found that Product used with the LumenIZE App over a 9 hour cycle and with a 4 hour full 100% output saved 30% of electricity\* used when compared non-dimming lamps used over the same period. The length of day cycle, graduation of dimming curve and period of running at 100% output will impact this average saving. \* Quoted test 8w ShadeDweller-Pro. 100% output for 9 hours = 0.07kwh. 8w ShadeDweller-Pro with LumenIZE control = 0.05kwh. running at 246v 50hz. Measured with Ketotek meter.
  - f. The use of the Arcadia Reptile LumenIZE App is provided free of charge wherever possible\*. The functions listed within this document have been tested on the majority of devices. However, we do not guarantee that every function will work as stated on every device or through every App programme provider. Please do use 'app updates' whenever they are shown in order to fix any bugs found and install any new function. Details of updates will be published on our websites or social media. Advice can be obtained from and bugs reported to [info@arcadia-reptile.com](mailto:info@arcadia-reptile.com) App translations, we have an auto-detect programme within the App that should look for the most common language linked to your IP provider or device. These translations have been provided in good faith and to be as accurate as possible. It is not possible to select a language of your preference at this time. \* We reserve the right to charge for certain additional optional function updates in the future.

## SAFETY, INSTALLATION AND MAINTENANCE INSTRUCTIONS

### KEEP THESE INSTRUCTIONS FOR FUTURE REFERENCE. READ AND FOLLOW ALL SAFETY INSTRUCTIONS.

**DANGER** - To avoid possible electric shock, special care should be taken if water is employed in the use of vivarium equipment. For each of the following situations, do not attempt repairs yourself; return the appliance to an authorised service facility or discard the appliance. This product is designed for indoor use and the illumination of Vivariums and Aviaris only and will provide a good and safe service life, provided that these instructions are followed. Failure to do so may result in serious personal injury or property damage. If you are in any doubt about the installation or operation of this product, please consult a qualified and experienced electrician. Check that the voltage and frequency rating on the product label is the same as your electrical supply before proceeding further.

**WARNING** - To guard against injury, basic safety precautions should be observed, including the following:

- Disconnect from the mains supply socket before maintaining the Luminaire. Never pull on the cord to remove the plug from the socket, instead grasp the plug and pull to disconnect.
- The Luminaire can get HOT. Never touch the Luminaire while it is operating, allow adequate time for it to cool before attempting any maintenance.
- This luminaire is rated IP65 water resistant, do not allow direct jets onto the unit or submerge. If electrical components of the appliance get wet unplug the appliance immediately. If the appliance shows any sign of water leakage disconnect from the power supply immediately.
- Do not use the appliance other than for its intended use. The use of non-Arcadia attachment or accessories is not recommended and may cause an unsafe condition.
- Do not install or store the appliance where it will be exposed to extremes of weather or temperatures below freezing.
- Do not operate the Luminaire with defective or faulty lamps – circuit damage may occur. Replace lamps promptly with a lamp of the correct type and wattage. It is advisable to keep spare lamps available.
- UV producing lamps are powerful devices which can lead to UV burns quickly. Please take care to not directly expose the skin to lamps when they are switched on.

**LAMP INSTALLATION** - Ensure lamps are of the correct type and wattage.

**PHYSICAL INSTALLATION** - Select a suitable site close to your electricity supply. Do not connect appliance to the mains supply socket during installation. This appliance is for indoor use only. Ensure the appliance is kept in a ventilated area and away from other heat sources. Make sure that the light from the appliance is aimed within the vivarium. Place the luminaire in the desired position either on top of the Vivarium mesh or screwed to the top of the Vivarium. Ensure the mains lead and the luminaire are kept well out of reach of animals that might bite or damage them.

**ELECTRICAL INSTALLATION** - Before installing, ensure that the rated voltage and frequency of the Luminaire match that of your power supply, and that the mains lead plug is fully compatible with your mains supply socket. If in doubt, please return the unit to the point of purchase for verification. Plug the luminaire into the mains socket.

**TROUBLE SHOOTING** - Lamps strike almost immediately at nearly full brightness (dependant on ambient temperature) and reach their operating temperature soon after. After switching the fluorescent lamps off, they can be switched on straight away. If the Luminaire does not light:

- Check that the mains power is connected and switched on both at the wall and on the Luminaire.
- Check that the Luminaire plug is properly fused.
- Check that the Luminaire is rated for the same supply voltage that you are using.
- Check that the Lamps are of the correct wattage, type and length for the Luminaire.
- Check that the lamps are installed correctly.
- Check App programming or use the override slider.

**MAINTENANCE** - Cleaning: Disconnect from the power supply and wait till the Luminaire is cool before cleaning, this not only avoids smears but also reduces the likelihood of any damage from moisture entering the Luminaire. Both the appearance and performance of your Luminaire can benefit from regular cleaning. A damp cloth is normally adequate to clean the body.

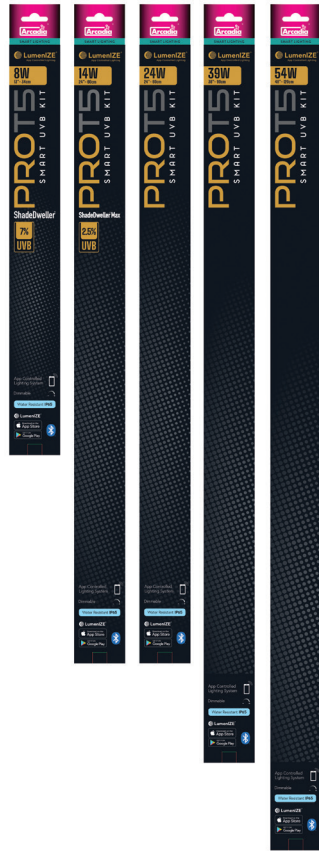
**END OF USE RECYCLING INFORMATION** - This product is covered by European Directive 2012/19/EU. Please do not dispose of this product or replacement lamps with your normal household waste. To safely and responsibly dispose of the product please ensure all the components are deposited in the appropriate areas of your local civic recycling centre. Proper disposal of this product helps to prevent potential negative consequences for the environment and human health. All electronic components (this includes the power supply and the lamp holder) should be placed in the electronic waste recycling area.

**ProT5** - If a fluorescent lamp is provided with this product it contains mercury and cannot be disposed of with normal household waste; it should be deposited in the fluorescent lamp recycling area at your local civic recycling centre or taken to any approved recycling point for fluorescent lamps.



# PROTS

Datasheet



# LEDBAR

Datasheet



## PROTS

Code	Watt	Length	UV-B	UV-A	Kelvin	Safe Distance*	Max Link**
RARLZ8S	8W	34cm / 13"	7%	17%	6000K	25cm / 10"	10
RARLZ14S	14W	60cm / 24"	2.5%	12%	7000K	10cm / 4"	10
RARLZ24F	24W	60cm / 24"	6%	30%	7000K	30cm / 12"	10
RARLZ24R	24W	60cm / 24"	12%	30%	7000K	38cm / 15"	10
RARLZ24D	24W	60cm / 24"	14%	30%	8000K	38cm / 15"	10
RARLZ39F	39W	90cm / 36"	6%	30%	7000K	30cm / 12"	10
RARLZ39R	39W	90cm / 36"	12%	30%	7000K	38cm / 15"	10
RARLZ39D	39W	90cm / 36"	14%	30%	8000K	38cm / 15"	10
RARLZ54F	54W	120cm / 48"	6%	30%	7000K	30cm / 12"	8
RARLZ54R	54W	120cm / 48"	12%	30%	7000K	38cm / 15"	8
RARLZ54D	54W	120cm / 48"	14%	30%	8000K	38cm / 15"	8

## LEDBAR

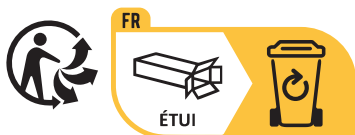
Code	Watt	Length	Lumens	Kelvin	Safe Distance*	Max Link**
RARLJ1	18W	30cm / 12"	2534lm	6200K	12.5cm / 5"	10
RARLJ2	24W	48cm / 19"	3447lm	6200K	12.5cm / 5"	10
RARLJ3	39W	58cm / 23"	5700lm	6200K	12.5cm / 5"	10
RARLJ4	54W	88cm / 35"	7900lm	6200K	12.5cm / 5"	10
RARLJ5	80W	118cm / 47"	1100lm	6200K	12.5cm / 5"	8

Class II Luminaire.  
Double insulated

Do not look directly at  
light source

For use with  
Reptiles, Amphibians,  
Invertebrates & Plants

\*Minimum Distance



IP65 ✓RoHS

220~240V 50Hz