



# User Guide

## UFO CARINA TUNEABLE LED LIGHT SOURCE

Rev. D3 UK

This guide contains important safety information and installation instructions.

Please read fully before installing, operating or performing any maintenance on the product.

# 02 Introduction

Thank you for purchasing this UFO light source.

This innovative light source is designed to provide a flexible and creative lighting solution. Powered by a high output LED array, the Carina offers a tuneable white light making it a versatile light source and ideal for a range of applications.

To ensure that the light source is set up optimally and gives a long service life, please read this user guide before installing, operating or performing any maintenance on the unit. Please retain this user guide for future reference.

## Features

The CARINA is an 18W tuneable and dual channel, LED light source. The Carina LED Light Source can be specified and manufactured with a choice of the following industry standard dimming methods:

- Manual CCT and dimming – using rear panel potentiometers
- 0-10V / 1-10V – using rear panel screw connections
- DALI – using rear panel screw connections

### Important Safety Information

- This product must be installed in accordance with the applicable installation code, by a person familiar with the construction and operation of the product, and the hazards involved.
- These light sources are not mains dimmable.
- The LED array in this light source is not replaceable. When it reaches end of life the whole unit must be replaced.
- Type Y Attachment: If the external flexible cable or cord of this luminaire or associated PSU/driver is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person to avoid a hazard.
- Location: Do not locate this light source closer than 200mm from any flammable surface.
- Clearance / Ventilation: It is imperative that a gap of 200mm is left around the unit. This is to allow air to circulate and prevent overheating. The location must have free ventilation and must not have an ambient temperature higher than that specified for the unit.
- Mounting: This luminaire comes with an integral mounting feet for securing the unit to a vertical or horizontal surface.
- Warning: Never look directly at the luminaire through the fibre port of the light source.
- Warning: The luminaire should be positioned so that staring into the luminaire at a distance closer than 2.7 metres is not expected.

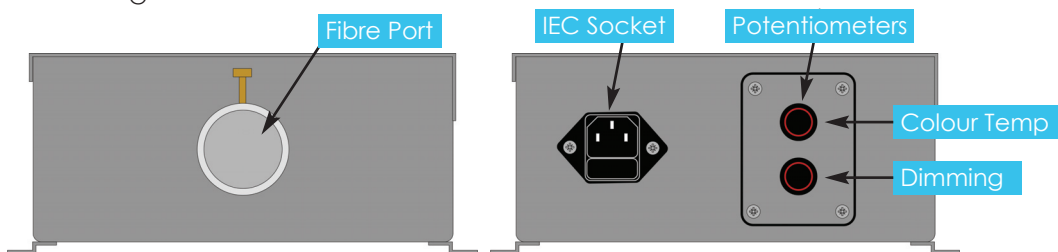
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## Model Product Codes

Product Code	CCT Range	CRI	Control
<b>UFO CAR 2750-90-M</b>	2700K - 5000K	90	Manual
<b>UFO CAR 2750-90-V</b>	2700K - 5000K	90	0-10V / 1-10V
<b>UFO CAR 2750-90-D</b>	2700K - 5000K	90	DALI
<b>UFO CAR 2750-98-M</b>	2700K - 5000K	98	Manual
<b>UFO CAR 2750-98-V</b>	2700K - 5000K	98	0-10V / 1-10V
<b>UFO CAR 2750-98-D</b>	2700K - 5000K	98	DALI

## Overview

The manually controlled versions of the Carina feature 2 rear mounted potentiometers. The top one controls the colour temperature whilst the bottom one is used to control the dimming level.



## Connection

Firstly plug the fibre optic harness' connector into the fibre port on the front face of the light source. Ensure the connector is pushed in as far as it will go and then tighten the M5 brass screw to secure it in place.

Insert the IEC power cable connector into the IEC input on the rear of the light source and then switch on the power. The Carina will initialise.

## Operation

The top potentiometer controls the colour temperature - rotate clockwise to adjust lighting to a cooler CCT and anti-clockwise to adjust to a warmer CCT.

The bottom potentiometer controls dimming - rotate clockwise to increase the light intensity and anti-clockwise to decrease it.

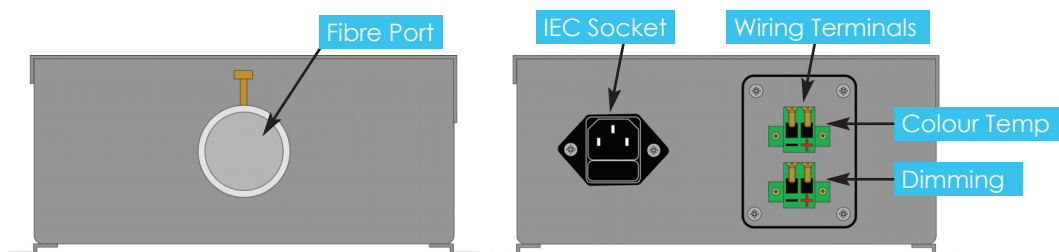
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## 0-10V / 1-10V Controlled Models

### Overview

The 0-10V & 1-10V controlled versions of the Carina feature 4 rear mounted screw terminals for connection to standard 0-10V or 1-10V controllers.

0-10V is a current sink (2mA max) system, whilst 1-10V is current source (10mA max).



### Connection & Operation

Firstly plug the fibre optic harness' connector into the fibre port on the front face of the light source. Ensure the connector is pushed in as far as it will go and then tighten the M5 brass screw to secure it in place.

Loosen the screws on the terminal connectors and insert the wires from a standard 0-10V or 1-10V controller, observing the polarity shown on the unit. Re-tighten the screws to secure the wires.

Insert the IEC power cable into the IEC input on the rear of the light source and then switch on the power. The Carina will initialise.

The controller wired to the top pair of terminals is used to control the colour temperature whilst the bottom pair are used to control the dimming level. If no controllers are connected the light source will default to maximum light output and the coolest colour temperature available.

**Colour Temperature Control**

The following tables detail the approximate colour temperature for the range of voltages between 0-10V & 1-10V for each of the tuneable options. These should be used for guidance only and do not replace proper measurements.

<b>0-10V (2700K - 5000K)</b>	
Volts (V)	Colour Temp. (K)
0	2700
1	2930
2	3160
3	3390
4	3620
5	3850
6	4080
7	4310
8	4540
9	4770
10	5000

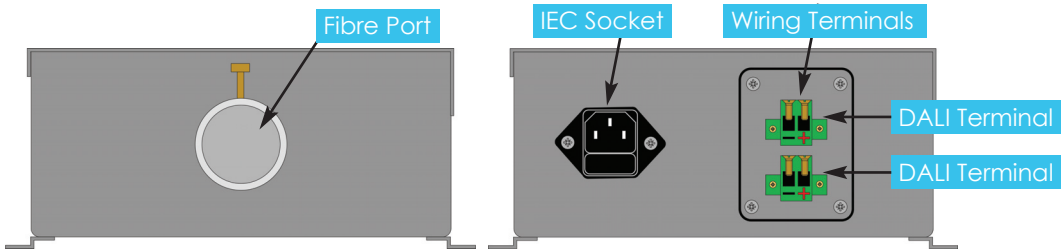
<b>1-10V (2700K - 5000K)</b>	
Volts (V)	Colour Temp. (K)
1	2700
2	2955
3	3211
4	3467
5	3722
6	3977
7	4233
8	4486
9	4744
10	5000

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## DALI Controlled Models

### Overview

The DALI controlled versions of the Carina feature 2 x 2 way rear mounted screw terminals for connection to a DALI-2 DT8 compatible master or another daisychained light source.



### Connection & Operation

Firstly plug the fibre optic harness' connector into the fibre port on the front face of the light source. Ensure the connector is pushed in as far as it will go and then tighten the M5 brass screw to secure it in place.

Loosen the screws on the terminal connectors and insert the wires from a standard DALI-2 DT8 compatible controller, observing the polarity shown on the unit. Re-tighten the screws to secure the wires.

Insert the IEC power cable connector into the IEC input on the rear of the light source and then switch on the power. The Carina will initialise.

The 2 DALI terminals are wired together and either can be used for input or output. If no DALI master is detected each light source will revert to the dimming level and colour temperature to which it was last set.

See figures opposite for connection examples.

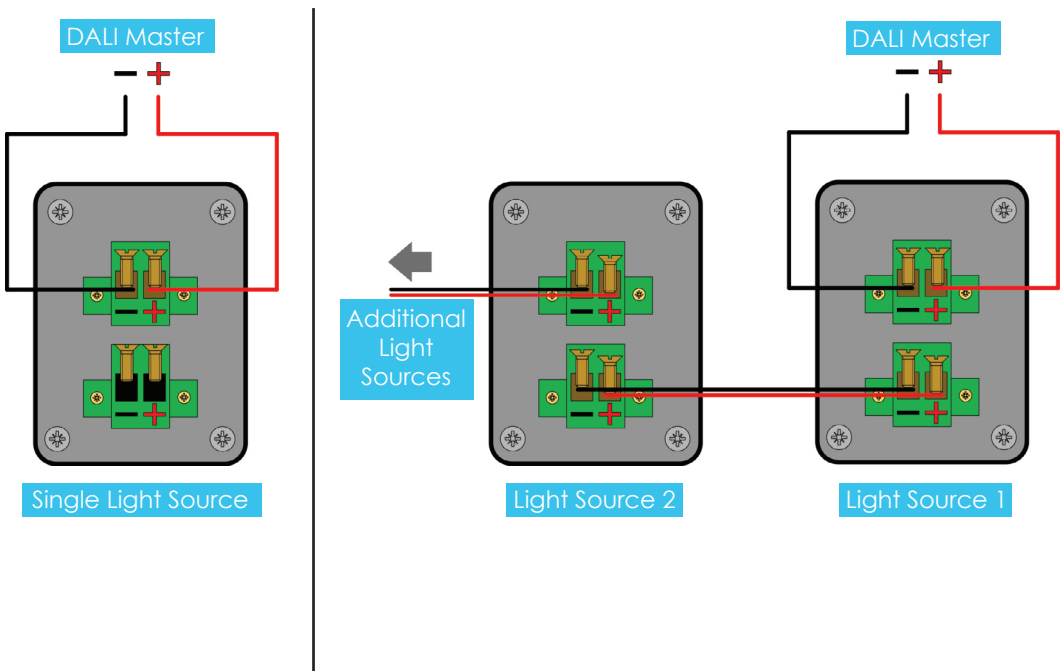
# DALI Controlled Models 07

## DALI Notes

The rear wiring terminals for the DALI master are connected internally to allow multiple Carina light sources to be connected together. A maximum of 64 units can be connected to one controller all which are individually addressable and can have different colour temperatures or dimming levels set.

On Addressing, the DALI enabled Carina will be accessible as a multi-type device. This then allows colour temperature and dimming control. Please consult the relevant DALI Master Software user guides for the procedure to address and control DALI devices.

## DALI Connection Examples



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## Basic Troubleshooting

### Manual Control Models

Fault	Possible Cause	Solution
<b>No light output</b>	Dimmer potentiometer turned anti-clockwise	Turn dimmer clockwise to increase light intensity
	Light source faulty	Contact UFO

### 0-10 / 1-10V Control Models

Fault	Possible Cause	Solution
<b>No light output</b>	External dimmer control turned down	Turn dimmer to increase light intensity
	Light source faulty	Contact UFO
<b>No response to controls</b>	Faulty controller	Try different controller or same controller on another light source

### DALI Control Models

Fault	Possible Cause	Solution
<b>No light output</b>	DALI master not configured properly	Check DALI software & reconfigure
	Light source faulty	Contact UFO
<b>No response to controls</b>	DALI master not configured properly	Check DALI software & reconfigure

If you are unable to sort or diagnose an issue with the light source please contact your local UFO technical department using the contact details on the back page of this guide.

## Maintenance Procedures

To ensure a long working life and the safe, reliable operation of the light source, it is very important to maintain it properly and ensure it is installed in an appropriate and safe location.

Before performing any maintenance on the light source it should be disconnected from the power supply and allowed to cool down.

- The light source fans and vents should be blown out with compressed air at least every 12 months, or more often if located in a dusty environment.
- Do not allow dust to build up on internal pcb's & components as this will increase heat within the light source and lead to failure. Units should be checked regularly and all dust must be vacuumed off. Failure caused by excessive dust will not be covered under warranty.
- After the light source has been installed, check the fans and vents to ensure they are clear of dust and debris. Blow out with compressed air if required.
- The body of the light source can be cleaned using a soft damp cloth. Do not use any abrasives on the unit.

Note that a record of all maintenance MUST be kept in the table on the next page, indicating what maintenance was undertaken. This must be dated and is required for warranty purposes.

## Safety Guidance

- A gap of 200mm (8") MUST be left around the unit. This is to allow air to circulate and prevent overheating. The location must have free ventilation and must not have an ambient temperature higher than that specified for the luminaire.
- The outer body of the light source may become hot - keep away from all combustible materials and DO NOT locate this light source within 200mm (8") of any flammable surface.
- The light source must not be run without the fibre optic harness fitted.



<b>Port Connector Size</b>	30mm diameter
<b>Fibre Type</b>	Glass / PMMA
<b>Material/Finish</b>	Aluminium, grey powdercoat (RAL 7024)
<b>Dimensions (L x W x H)</b>	281mm x 193mm x 99mm
<b>Operating Environment</b>	Indoor use - IP20
<b>Min. Ambient Temp.</b>	-10°C
<b>Max. Ambient Temp.</b>	+45°C
<b>Control Options</b>	0-10V / 1-10V / DALI / Manual
<b>Functions</b>	Tuneable colour temp. & dimming
<b>LED Array Type</b>	Bridgelux white light
<b>LED Array Power</b>	18W
<b>LED Array Life (L70, B10)</b>	>50,000 hours (typical)
<b>Lumen Outputs</b>	2700K-5000K @ >90CRI - 1742-(2001) lm 2700K-5000K @ 98CRI - 1510-(1762) lm
<b>Supply Voltage</b>	110 - 240VAC 50/60Hz



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