

AMBIUS

TECHNICAL DATA SHEET - ADLFR12W110-3T



COLOUR CHANGING SWITCH

 **950**
LUMENS

 **FIRE RATED**
60 MINUTES

 **88mm**
CUTOUT

 **DIMMABLE**

 **IP65**

ADLFR12W110-3T
Q5070610

AS/NZS - Electrical Safety

LUMINAIRE SPECIFICATION

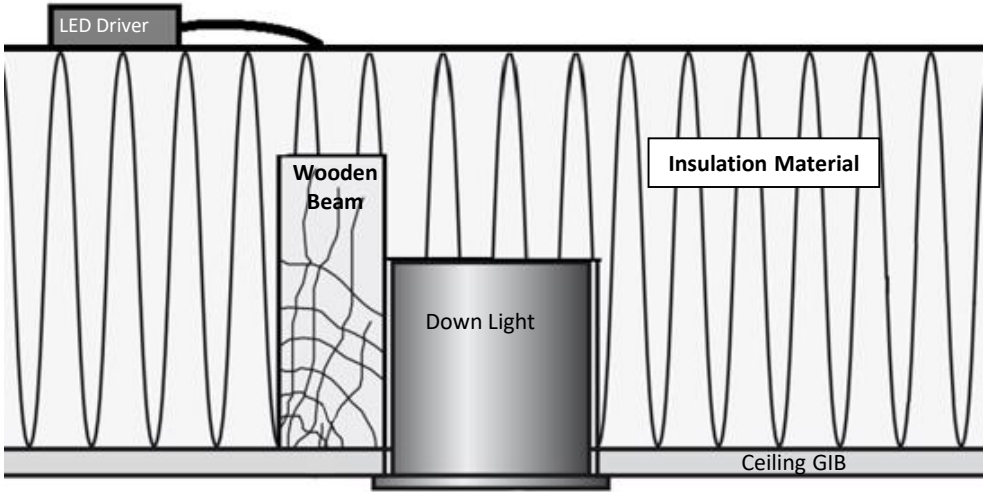
- Model No: ADLFR12W110-3T
- Rating: IC-F/IC-4
- Wattage: 12W
- Input Voltage: 220 ~ 240 Volts 50Hz
- Colour temperature: Switchable 3000k / 4000k / 6000K
- This product is intended for indoor and outdoor (covered) use
- IP Rating: IP40 for parts inside ceiling, IP65 for parts outside ceiling
- Installation Hole Diameter: Not less than 88mm

INSULATION:

- This product can be fully covered by insulation material.
- Insulation material can abut and or cover this luminaire.
- This product **is** suitable for use with:
 - Glass fibre insulation or
 - insulation that is certified for continual exposure to temperatures up to 90°C and withstand a 30 sec needle flame test as per AS/NZS 60695.11.5
- This product **is not** suitable for use with loose fill insulation as defined in NZS 4246

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BUILDING CLEARANCES FOR RECESSED LUMINAIRES



(MIC) Minimum Insulation Clearance – distance from insulation to building element above

(SCB) Side Clearance to Building element = **0 mm**

(HCB) Height Clearance to Building element = **0 mm**

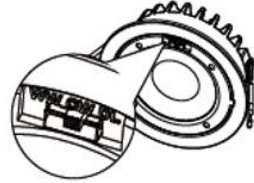
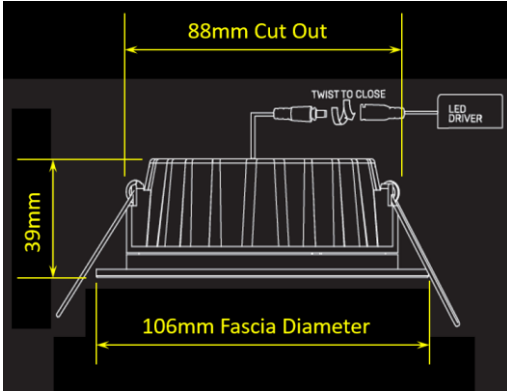
SAFETY:

- *Isolate (turn off) mains supply before connecting the downlight.*
- *It is prohibited to cut or notch joists, beams, rafters and ceiling battens*
- *Recessed luminaires and their auxiliary equipment may pose a risk of fire or damage to property if not installed and maintained correctly.*
- *Ensure that all connections comply with the AS/NZS 3000 Electrical Wiring rules.*

INSTALLATION:

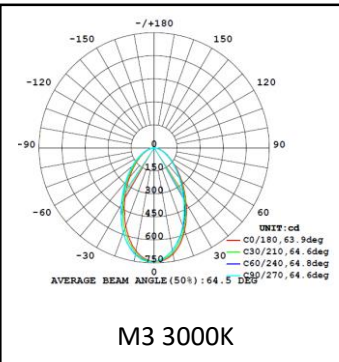
1. Cut a 88mm hole in diameter into the ceiling panel
2. To pre-wire, open the cover on the LED Driver to expose terminal block
3. Connect the power cable from the mains into the terminal block (**N = Neutral Blue L = Live Brown**)
4. Ensure all connections to be secure
5. Close the terminal cover and ensure it is firmly seated over the power input cable. The LED Driver cover should clamp the supply cable to hold it securely in place
6. Be careful not to over-tighten or damage the electrical cables.
7. Lift up springs, hold back and insert luminaire
8. Once luminaire is installed attach the magnetic fascia.
9. Do not swap the LED Driver for any other model as it is specific and certified to this LED downlight.

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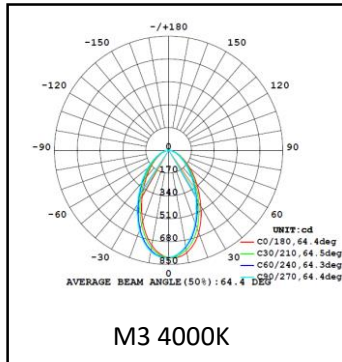


Select the desired colour temperature 3000k/4000k/6000k via the switch.

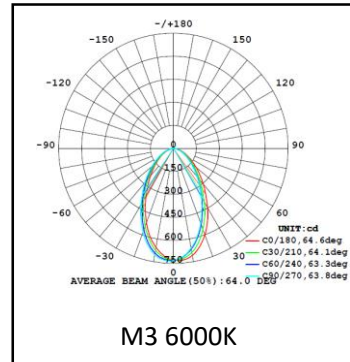
PHOTOMETRICS



M3 3000K



M3 4000K



M3 6000K

Other features available within the AMBIUS range

There is a product within the AMBIUS range to suit almost every application. New builds, retrofit, task, designer. We have you covered.



INTERCHANGEABLE FASCIAS

There are over 8 different fascia finishes available for various downlight models.



COLOUR TEMPERATURE

The range includes options in 3K/4k/5k/6k colour temperatures. Some models can be changed with the flick of a switch.



HIGH CRI

High CRI for exceptional colour rendering.



FIRE RATED

Where specification calls for a fire rated downlight the Ambius range also includes a fire rated product.



ABUTTED AND COVERED

All Ambius downlights can be covered with insulation and on many models zero clearance to building materials.



QUICK CONNECT

This is a feature on a number of downlights for quick and easy wiring.



PRE-WIRE

The Ambius range includes low profile product with independent drivers which can facilitate a pre-wire option.



DOCUMENTATION

All Ambius product is rigorously tested to meet NZ standards and supplied with appropriate documentation.

FIRE RATING

Fire Rating for Lighting has recently become a focus across the industry. The requirements are not well communicated and there is a general level of misunderstanding.

Overview:

- *Fire Rating is part of the C/AS2 Building Code which is independent of AS/NZS 60598.2.2: 2016 Electrical Safety Standard*
- *Electrical Safety has no reference or requirement for Fire Rating*
- *The two standards and requirements need to be reviewed independent of each other*
- *Fire Rating testing is not about the downlight, but the design and materials used in a building construction.*
- *If a downlight is part of a construction design and in this example, requiring a penetration through the ceiling, then the fire rating test needs to include the hole with the downlight installed.*
- *If the construction achieves a pass result then the elements included in the test, including the downlight, also receive the same Fire Rating.*
- *Test Fixtures should be constructed using fire rated building materials.*
- *For the Australia and New Zealand markets there are two recognized Fire Rating standards*
 - *AS1530.4-2014*
 - *BS 476.21-23-1987*
- *The Fire Rating Test Report data is not included on the Electrical Safety SDoC. This was an instruction from the NZ Regulator as Building Code compliance is independent of Electrical Safety Declarations.*

Fire Rating

- *The fire resistance of a building element is described by the use of three numbers.*
- *Together, they give the Fire Resistance Level (FRL) expressed in the form structural adequacy / integrity/ insulation.*
- *The numbers refer to the time in minutes for which each of the criteria are satisfied when the element is exposed to the temperature, pressure and applied load specified in the test procedure.*
- **STRUCTURAL ADEQUACY** *to prevent collapse of structural (primary) elements during fire. It is the ability to support a vertical axial load and only applies to loadbearing elements of structure.*
- **INTEGRITY** *It is the ability to prevent the passage of flame and hot gases measured by the creation of a gap or ignition of a cotton pad on the non-fire (unexposed) face.*
- **INSULATION** *To prevent the transmission of heat to other fire cells or adjacent property. It is the ability to limit the temperature rise on the non-fire (unexposed) face.*

AMBIUS LED Downlight ADLFR12W110-3T

- *Holds two Test Reports for two different building construction designs*
 - *2018 TUV Lab Test Report to the AS 1530.4 -2014 Standard*
 - *2019 PFITS Lab Test Report to the AS 1530.4 -2014 Standard using locally supplied fire rated building materials and construction as per the latest C/AS2 building code*
- *The product has a FRL Rating: --- / 60 / 60 using (60 min)*
- *Note there is no Structural Adequacy result as the downlight does not add any structural benefit.*
- *The Ceiling Gib used in the construction was rated to 60 minutes. The testing was concluded after 60 minutes.*
- *The next 3 pages are extracts from the Test Report validating these claims.*

Test Report

Test Number PF19038

Client: CDB Media Ltd

Fire resistance test for ceiling penetrations

Test method AS 1530.4:2014

Report Date 06/11/2019

Specimen A



Product Tested

Testing products were selected by Client and accepted by Laboratory in “as supplied” condition based on Client description as follows:

- ADLFR12W110-3T- downlight fire rated 12w 110mm fire rated

Test results

Structural adequacy	Not applicable
Integrity	63 minutes
Insulation	63 minutes

Schedule of Materials

- 190 x 45 h1.2 sg8 radiata pine framing
- 90mm x 3.15mm d head bright steel gun nails
- 19 mm structural flooring grade plywood (18.9 mm measured)
- 8g x 50mm wood screws
- 16mm GIB Fyreline plasterboard (as a part of 60 minutes Fire Rated ceiling)
- 51mm x 7g screws
- GIB Tradeset 90 stopping compound
- ADLFR12W110-3T- downlight fire rated 12w 110mm fire rated

Penetration Details

The light fitting is to be fitted to an 88 mm hole drilled through the plasterboard