atom

AT9012 FR

12W LED Fire Rated Downlight With Dimmable

Driver

- Ideal for residential, retail, showroom and decorative lighting applications
- Acoustic rating according to AS/NZS ISO 717.1:2004
- Fire rating FRL_/120/120 in accordance with AS 1530.4:2014.
- Simulated ceiling fire resistance test of Horizontal separating elements - Section 4 - 4.1.2 Part (e) Ceiling system.
- Assessment of site installation suitability recommended by accredited person (Fire Assessor) prior to purchase.
- Supplied with a dimmable LED driver
- Long life and durability
- Suitable for 24 hour use

ORDERING INFORMATION

Order code	11426
Description	12W LED Fire rated Downlight w/Dimm Driver - 120o beam - Cool White -IP65
Driver Power	12 W
Driver Type	Dimmable (Phase cut)
Item Code	AT9012/WH/FR/CW

EFFICIENCIES

Total System Efficiency	81 lm/W

The performance of each component of a luminaire is demonstrated through its efficiencies, which together determine the total system efficiency of the product. The output of the LED chip is first multiplied by the optical and thermal efficiencies to calculate the Luminaire efficiency. However, this calculation does not consider the driver efficiency. To determine the overall efficiency of the system, the Luminaire efficiency must be multiplied by the driver efficiency, which accounts for all losses in the system.

MECHANICAL

Adjustability	Fixed
Body Material	Aluminium
Product Finish	Powder coated
Fitting Colour	White
IC Rating	IC-4

IC-4 rating has been conducted at the products maximum working Temperature Range (C) in line with Australian standards. This provides the required safety when covered with insulation and used in Australian Environments.

Installation Type	Recessed
IP Rating	IP65 Front Face Only

ELECTRICAL

Electrical Rating	Class II
Input Frequency	50 Hz
Input voltage	230Vac

In Australia the Input voltage is defined as 230Vac -6%/+10%. This effectively means that the voltage range of these products are 216Vac - 253Vac or 240V +6%

Maximum Wattage	12 W
Power Factor	0.9
Switch Type	Inline
System Max Wattage	12 W
Working Temp Range	0 to 40 °C

LAMP

Macadam Steps (SDCM)	4-step MacAdam Ellipse
Beam Angle	120 °
CCT Configuration	Single
Colour Rendering Index (CRI)	>80
Lamp/LED Current	350 mA
LED Type	Diffused
Number of Lamps	1

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LED LIFETIME

LED Lifetime	102000 hrs

This is the Reported LED Lifetime in Hours based on TM-21. Atom does not list the projected or calculated LED lifetime, which is normally longer as TM-21 Addendum B explicitly states "The Calculated and Projected Lp(Dk) are not to be reported". This Lifetime refers to the life of a single LED however the system life is longer since the probability and binomial distribution of all LEDs in the system means that the average led is performing above the specification and compensates for the LEDs falling below.

LED Lifetime Rating	L70B10	
Ambient Temp (°C)	25 °C	40 °C
L90B10	55000 hrs	54000 hrs

This rating defines the performance of the led within its lifetime. L relates to lumen depreciation, where the proceeding number gives the resultant lumen output at the end of it reported lifetime. L70, would mean 30% lumen depreciation which means 70% of its initial output and is tested accordingly to TM-21. The B part refers to failures, which can be define as the percentage of LEDs which fall below the L value in the projected lifetime. A value of B10 refers to 10% failure and a value of B50 refers to 50% failure. After the defined lifetime, the system will reach the defined lumen depreciation and the average led failures is defined by the B rating. The B rating is defined in and tested to IEC62717.

TM-21 Test Hours	17000 hrs

COLOUR TEMPERATURE

CCT	4000 K
CCT Colour	Cool White
Luminaire Lumens	1050 lm

All photometric data has a tolerance of ±10%. Luminaire lumens refers to the exit lumens or delivered lumens from the luminaire.

DRIVER

Dimmable	Yes
Driver Code	10974
Driver Included	Yes
Integrated Driver	No
Driver Type	Dimmable (Phase cut)
Driver Warranty	3 Yr
Flex & Plug or Lead Length	120 mm
Wiring Type	Re-wireable Flex & Plug (2 pin)

ENERGY SAVINGS SCHEME

Ipart Approval	Yes
REES Approval	Yes
VEU Approval	Yes

COMPLIANCE

Standards	AS/NZS 60598.1
	AS/NZS 60598.2.2
	AS/NZS 61347.1
	AS/NZS 61347.2.13
	AS CISPR 15
	AS 1530.4:2014

WARRANTY

Domestic Use Warranty	3 RTB (Total 3 Years)
Operational Lifetime	30000 hrs
VIP Warranty	2 Onsite, 3 RTB (Total 5 Years)

VIP warranty is available to registered users and is subjected to additional terms and conditions.

DIMENSIONS

Cutout	92 mm
Product Diameter	110 mm
Product Height	38 mm

LINE DRAWINGS

AT9012/FR

PHOTOMETRICS

AT9012/WH/FR/CW

ACCESSORIES

Order code	10121
Description	140mm Downlight Extension Plate - White
Item Code	AT9018/WH
Order code	10130
Description	170mm Downlight Extension Plate - White
Item Code	AT9019/WH

Recommended Drivers

Order code	Item Code	Description
14929	**DK1-0AABBHZX00035**	Driver Kit - Wireless DALI+ LED driver with 1.2m 2 core flex and plug - set to 350mA
14911	**DK1-0AADADZX00035**	Driver Kit - DALI-2 LED driver with 1.2m 2 core flex and plug and 2 core flying lead - set to 350mA
14947	**DK1-0AAJADZX00035**	Driver Kit - DALI-2 LED driver with 2.4m CMS lead - set to 350mA
14965	**DK1-0AAKADZX00035**	Driver Kit - DALI-2 LED driver with 2.4m Wire-By-Click (WBC) lead - set to 350mA