



ELS

Turn on the light
Turn down the sound

FUSE RANGE

01 2024

Australian made like nothing ELSe.

The famous Australian Made, Australian Grown (AMAG) logo is the true mark of Aussie authenticity. It's Australia's most trusted, recognised and widely used country of origin symbol, and is underpinned by a third-party accreditation system which ensures products that carry the logo are certified as 'genuinely Australian'.

Efficient Lighting Systems is proud to have the strong backing of the Australian Made campaign.



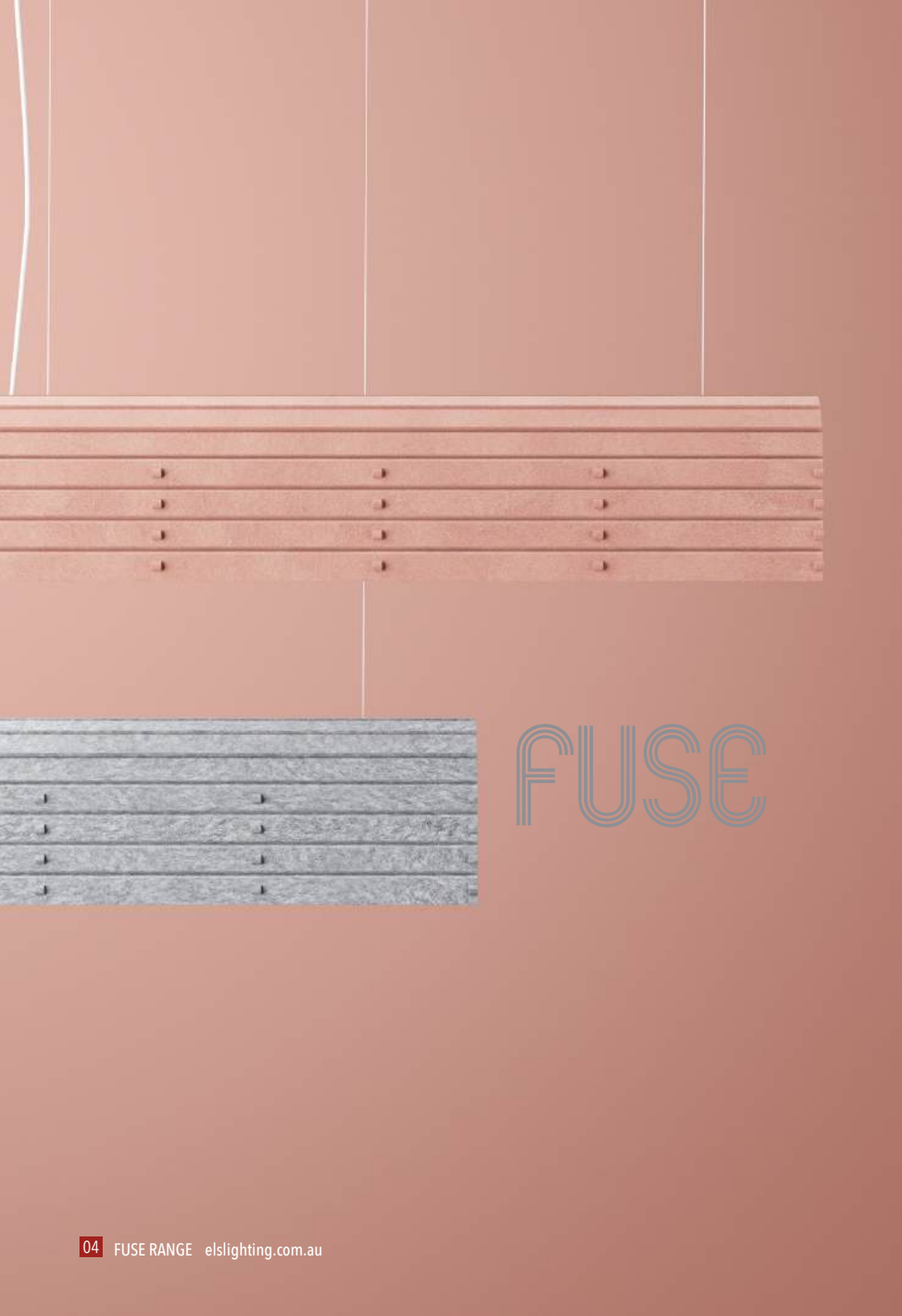
Our commitment to designing and building luminaires that last.

Efficient Lighting Systems understands the importance of creating sustainable, quality luminaires that are built to last. This commitment to designing and producing quality luminaires is controlled through the use of the highest quality components and our strict quality control processes from design through to delivery.

This commitment ensures our luminaires are built to last and this is why we back this claim with a 7 year warranty for all product ranges. Our specialty extended 10 year warranty is offered on an individual project basis, upon assessment.

The logo for Efficient Lighting Systems (ELSe) is displayed in a large, white, sans-serif font. The letters 'E', 'L', and 'S' are tall and narrow, while the 'e' is smaller and positioned to the right of the 'S'. A small grey square is located at the top of the 'e'.A grey rectangular box containing the number '7' in a large white font. Below the '7' is the word 'YEAR' in a smaller white font. Below the box is the word 'WARRANTY' in a white, bold, sans-serif font.A grey rectangular box containing the number '10' in a large white font. Below the '10' is the word 'YEAR' in a smaller white font. Below the box is the text '-EXTENDED-' in a smaller white font, followed by the word 'WARRANTY' in a white, bold, sans-serif font.

**Durability like
nothing ELSe.**



Fusing together exceptional lighting and sound absorption.

At ELS we believe that acoustic comfort and quality lighting are essential components of healthy spaces. Studies have shown that light and room acoustics have an undeniable impact on productivity, human interaction, and wellbeing. With this front of mind, we have developed FUSE - a unique range of pendant luminaires where light and sound work in harmony.

Designed in Australia, the FUSE range combines form and function to enhance workspaces, while visually and acoustically creating a distraction-free, productive and comfortable environment.



Our commitment to sustainable manufacturing.

Environmentally conscious from concept through to manufacture and beyond our driving force is to design luminaires first and foremost for longevity. Looking to principles of circularity, we optimise all the resources at our disposal to reduce our consumption not only during design and manufacture but also at end of life. When considering the luminaire life cycle and how we tackle end of life, we ensure wherever possible that materials can be reused or

recycled. Partnering with local Australian manufacturers of raw materials ensures our footprint is further reduced while supporting our local economy.

The FUSE products are no different in their design and manufacture approach. The acoustic material is manufactured in Australia from 60% post consumer recycled PET and at end of life the material can be recycled into a third life product.



The science of sound waves.

Sound has both volume and pitch. Volume is seen as an increase in amplitude of the sound wave. Pitch is seen as a change in the frequency of the sound wave.

Reverberation is the multiple reflections of sound waves within a space. Sound reverberation as described in the standard is the time it takes for a sound to decay by 60 decibels within an occupied interior space. As an example if a reverberation time is 1second this means it takes 1second for a sound to decay by 60 decibels, thus allowing the sound to bounce around the space for that period of time and become distracting or uncomfortable for the occupants. It is therefore advantageous to have a low reverberation time within a space to ensure healthy, comfortable and productive conditions.

The advantages of reducing sound reverberation.

Poor sound quality can have negative effects on concentration, information retention and even mood. In certain environments this is exceptionally important such as schools, workplaces and some health and medical facilities.

Research suggests that there is a direct correlation between the acoustic environment of a learning space and the academic and social achievements of children, particularly so in special needs environments. This is backed by many governing bodies including the WELL Standard that has specific recommendations around sound reducing surfaces and reverberation. It ensures spaces are designed in accordance with comfortable times of reverberation which support speech intelligibility, vocal effort and are conducive to concentration. AS/NZS 2107:2016 also specifies reverberation times for various spaces, assisting designers in achieving the best possible acoustic outcomes for their interiors.

The FUSE Range has been designed to enhance the acoustic performance of a space when used in conjunction with other materials. The form and shape of the FUSE has been specifically designed to not only absorb sound but also capture sound.



Engineered Optics like nothing ELSE.

As LEDs have become more powerful over time glare from light sources has become an issue that requires careful consideration during luminaire design. The FUSE Range utilises a number of solutions to ensure performance and low glare illumination can be achieved.

The FUSE Round and Tapered utilises state of the art diffuser materials created specifically for even LED illumination. A considered approach to the luminaire design ensures the diffuser is set back for the exact requirements of achieving wide beam general illumination while providing the best possible outcome for visual comfort.

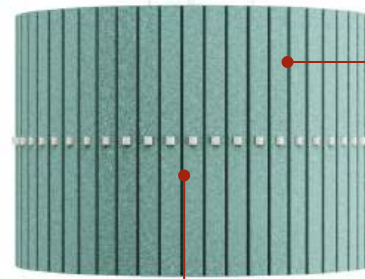
The FUSE Linear offers both a dual optical system for exceptional cutoff and glare control or alternatively a diffused option where wide spacing and visual comfort are important.



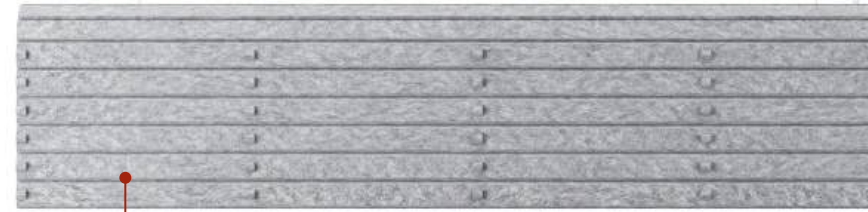
NEW TAPERED SERIES



1 Available in 34 colour finishes



2 FUSE Round available in 3 sizes



4 FUSE Linear available in 4 heights, 2 widths and fully customisable length

3 Acoustic cover made from PET, 60% being post consumer recycled PET

FEATURES

1 CONSTRUCTION

- Made in Australia
- Available in either round or linear style
- FUSE Tapered available in 2 sizes
- FUSE Round available in 3 sizes
- FUSE Linear available in 4 heights, 2 widths and fully customisable length
- Acoustic cover made from PET, 60% being post consumer recycled PET
- Acoustic cover is Grade 1 fire rated
- Available in 34 colour finishes

2 LED PERFORMANCE

- Exceptional LED performance up to 107 lm/w
- Available in 3000K, 4000K or white tunable
- L80B10 @ 70,000h
- 90+ CRI
- 3 SDCM

3 CONTROL GEAR

- Fully integrated control gear
- Available as DALI or wireless Casambi controlled
- Dynamic RGBW and Pixel colour illumination available in linear version
- New Variable Output Technology (VOT) gives the opportunity to optimise exact project requirements for non-dimmable, DALI and Casambi versions

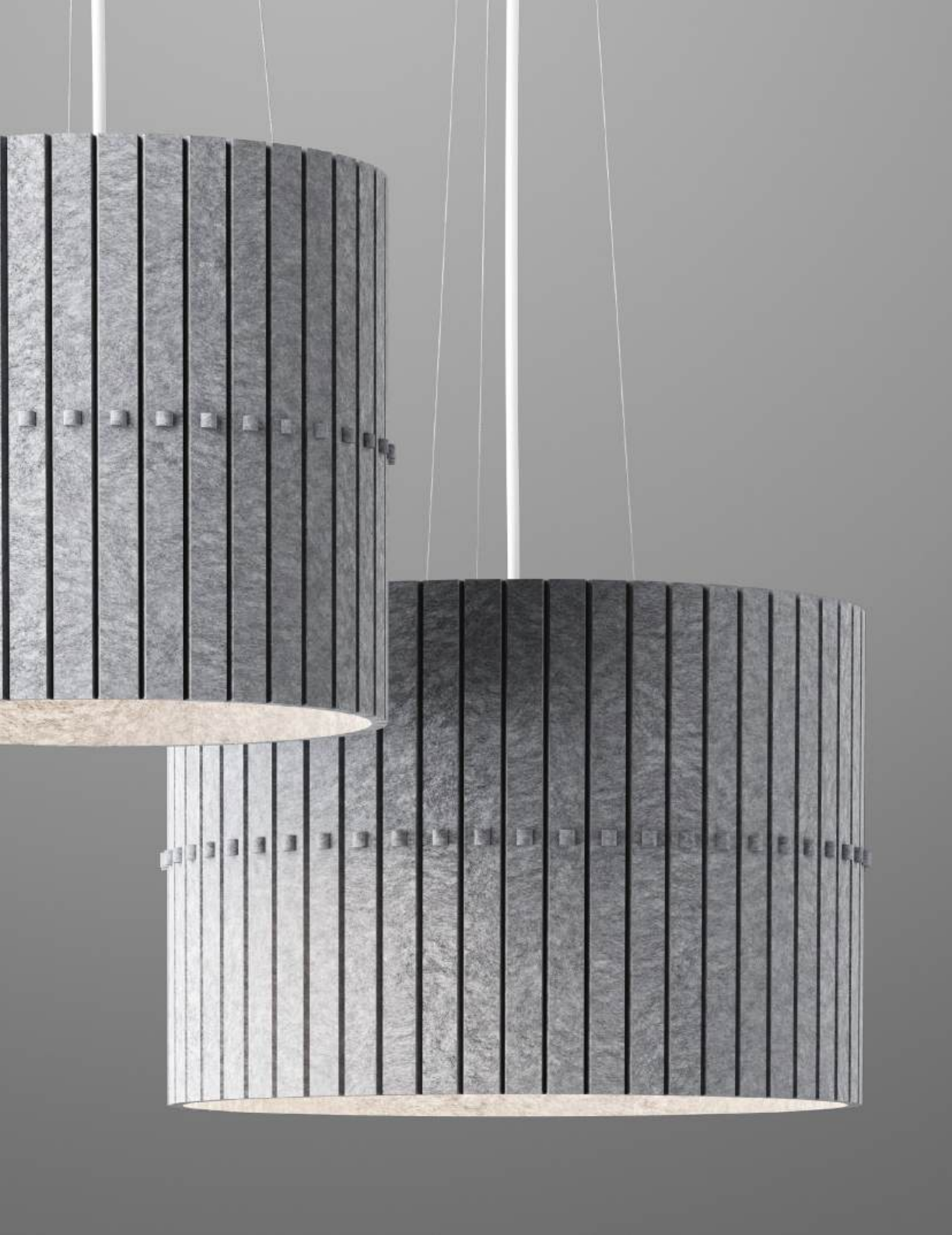
CUSTOMISATION



Over 10,000 possible design combinations.

With 34 colours available across two design styles and 13 size variations the FUSE range is exceptionally customisable.

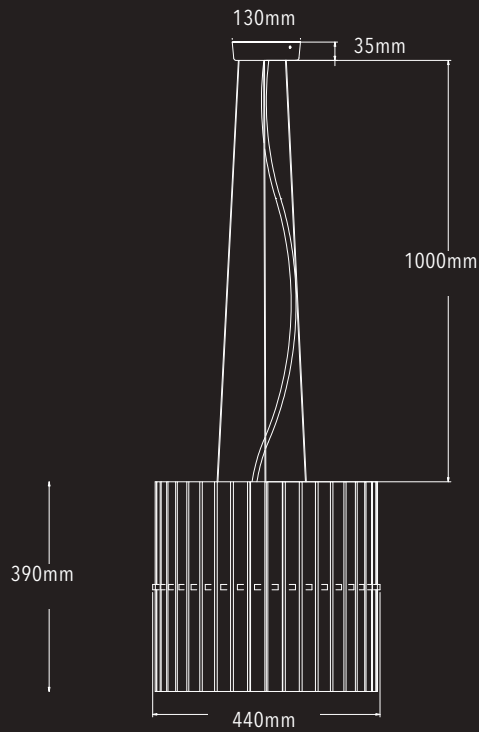
Opening the door to truly individual design outcomes ensures each and every project can meet it's full potential from a lighting, acoustic and aesthetic standpoint without any compromise.



Variable output Technology.

All versions of the FUSE Range are available with Variable Output Technology (VOT). This provides maximum flexibility and offers the opportunity to optimise exact project requirements and overall power usage of the lighting solution provided.

An array of standard outputs are catalogued however the ability to tune the luminaire to exact requirements is also available. Outputs are preset at the factory and IES files can be provided to ensure lighting designs are accurate.



Fuse Round 440

Variable Output
20W / 1835lm - 40W / 3486lm

- 3000K 90+CRI
- 4000K 90+CRI

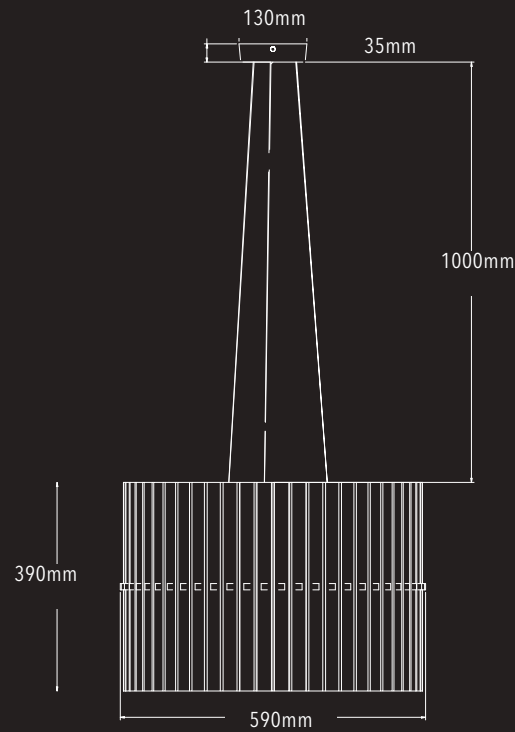
ND Non dimmable



dimmable

CASAMBI dimmable

34 colour finishes



Fuse Round 590

Variable Output
47W / 4732lm - 80W / 8186lm

- 3000K 90+CRI
- 4000K 90+CRI

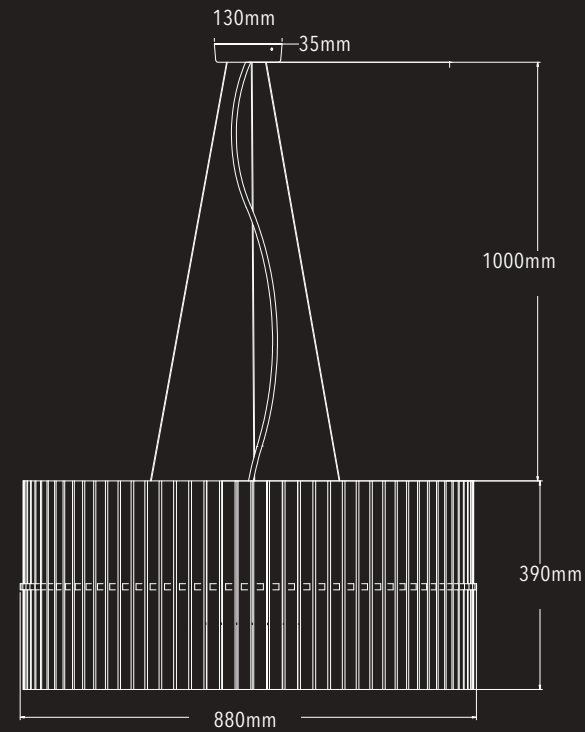
ND Non dimmable



dimmable

CASAMBI dimmable

34 colour finishes



Fuse Round 880

Variable Output
92W / 9345lm - 155W / 16125lm

- 3000K 90+CRI
- 4000K 90+CRI

ND Non dimmable



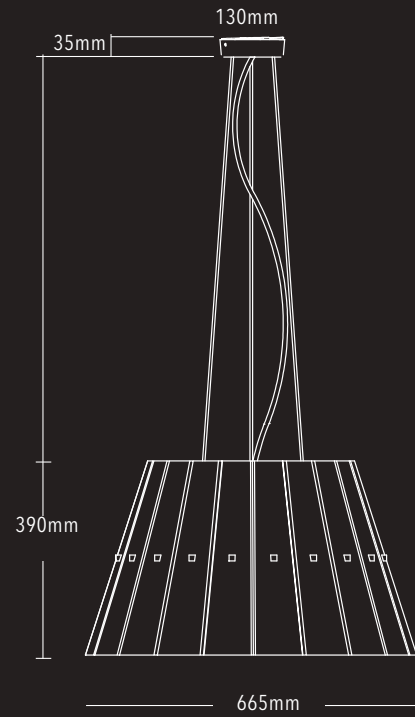
dimmable

CASAMBI dimmable

34 colour finishes

FUSE
ROUND

FUSE TAPERED



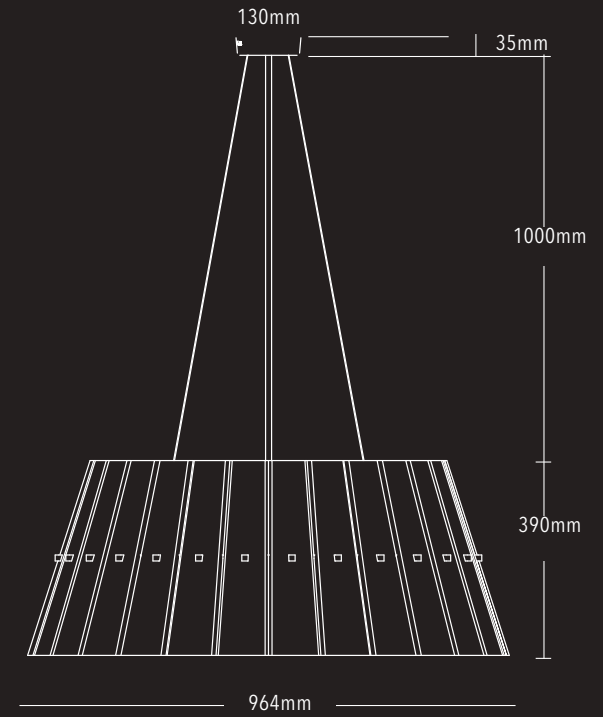
Fuse Tapered 665

Variable Output
47W / 4732lm - 80W / 8186lm

- 3000K 90+CRI
- 4000K 90+CRI

- ND Non dimmable
- dimmable
- CASAMBI dimmable

34 colour finishes



Fuse Tapered 964

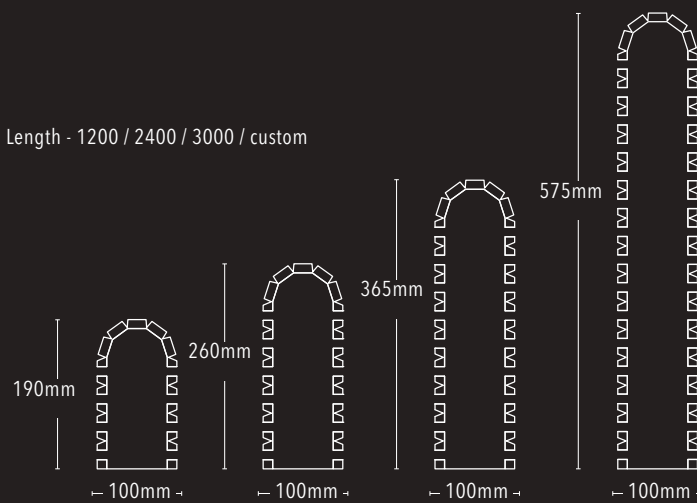
Variable Output
92W / 9345lm - 155W / 16125lm

- 3000K 90+CRI
- 4000K 90+CRI

- ND Non dimmable
- dimmable
- CASAMBI dimmable

34 colour finishes

Length - 1200 / 2400 / 3000 / custom



FUSE LINEAR 100

Luminaire engine SK45

Variable Output
9W / 1003lm - 28W / 2973lm

Divisible by 280mm

- 3000K 80/90CRI
- 4000K 80/90CRI
- TW 2700K-6500K 80CRI

- Dual optic
- Flat diffuser

- 35°
- 65°
- 80°

- Black louvre
- White louvre

- ND Non dimmable
- dimmable
- CASAMBI dimmable

34 colour finishes

Luminaire engine UD50

Variable Output
9W / 827lm - 30W/3510lm

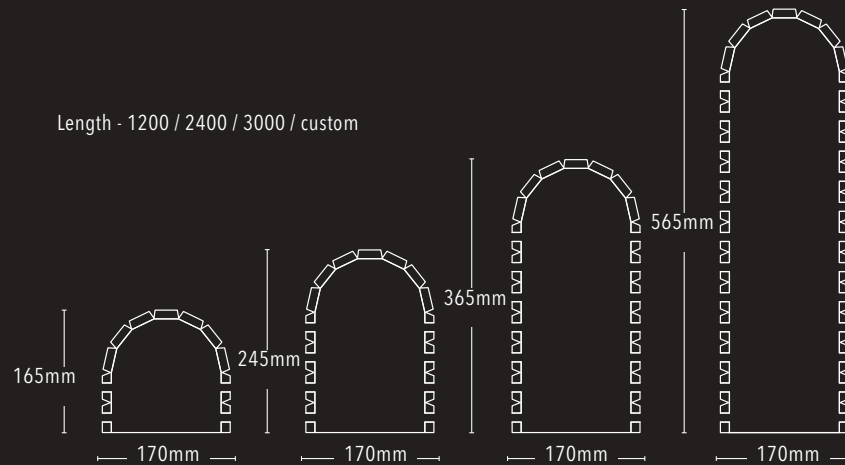
Divisible by 140mm

- 2700K 80/90CRI
- 3000K 80/90CRI
- 3500K 80/90CRI
- 4000K 80/90CRI
- TW 2700K-6500K 80CRI

- Flat diffuser
- U diffuser

- ND Non dimmable
- dimmable
- CASAMBI dimmable

34 colour finishes



Luminaire engine SK45

Variable Output
9W / 1003lm - 28W / 2973lm

Divisible by 280mm

- 3000K 80/90CRI
- 4000K 80/90CRI
- TW 2700K-6500K 80CRI

- Dual optic
- Flat diffuser

- 35°
- 65°
- 80°

- Black louvre
- White louvre

ND Non dimmable

dimmable

CASAMBI dimmable

34 colour finishes

Luminaire engine UD50

Variable Output
9W / 827lm - 30W/3510lm

Divisible by 140mm

- 2700K 80/90CRI
- 3000K 80/90CRI
- 3500K 80/90CRI
- 4000K 80/90CRI
- TW 2700K-6500K 80CRI

- Flat diffuser
- U diffuser

ND Non dimmable

dimmable

CASAMBI dimmable

34 colour finishes

**FUSE
LINEAR
170**

CASE STUDY

Fuse Round.

PRODUCT	FSR800.300.93.66.345
System watts	88W
Delivered lumen output	8849lm
Luminaire efficacy	101lm/w
Colour deviation	3 SDCM
Colour rendition index	>90
Correlated colour temperature	3000K
Lumen maintenance	L80B10 72,000hours

ROOM TYPE	Meeting Room
Room size	5 x 4 x 2.7m
Floors	Carpet
Ceiling and walls	Plasterboard
Target RT	0.7 (midpoint for recommended meeting room level, 0.6-0.8)
Before treatment	0.9
After treatment	0.7
Fitting required	1 x 3600mm long





CASE STUDY

Fuse Linear.

PRODUCT	FSL.SK50.21.93.F.3600.66
System watts	50W
Delivered lumen output	5193lm
Luminaire efficacy	103lm/w
Colour deviation	3 SDCM
Colour rendition index	>90
Correlated colour temperature	3000K
Lumen maintenance	L80B10 72,000hours

ROOM TYPE	Meeting Room
Room size	5 x 4 x 2.7m
Floors	Carpet
Ceiling and walls	Plasterboard
Target RT	0.7 (midpoint for recommended meeting room level, 0.6-0.8)
Before treatment	0.9
After treatment	0.64
Fitting required	1 x 3600mm long

ELS

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