

Intralux

Kove LED



Founded in 1986, **Intralux Australia** has extensive international presence in more than 20 countries via strategic alliances with local distributors and re-sellers. Our manufacturing facilities encompass modern semi-automated production techniques and an in-house research and development department that utilises sophisticated 3D modelling technologies to take advantage of rapid prototyping processes.



The Intralux team comprises of dedicated professionals working together in a corporate culture that is focused on the customer, human resources, design and innovation.

- Customers, design inception driven by customer needs, delivery time, prices and personalised service.
- Human Resources, in terms of continuous learning, team work and people empowerment.
- Design and Innovation, in terms of investment in new technology and acquisition of new techniques to achieve one of Intralux's competitive advantages – clever design. The intense development processes that Intralux employs will certainly assure the quality of products with unparalleled performance, lasting well into the future. Our aims are of course to provide maximum benefits, utilising the latest lamp technology available in the world today.

Illumination for tomorrow's world

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Kove LED Adjustable

Kove LED Adjustable incorporates an effortless, 'no tool' adjustment mechanism that enables the beam direction to be adjusted in incremental steps between 0-36°. This feature allows the luminaire to be adapted to a wide range of pelmet lighting applications.

Mounting

Designed for surface mounting, the KLLED-A Luminaire offers versatility in installation with optional mounting clips for additional flexibility.

Colour Temperature

Colour temperature options of 2700K, 3000K, and 4000K, allowing users to create different atmospheres based on their preferences.

CRI

With a high CRI of 90, the luminaire ensures accurate and vibrant colour representation, enhancing the overall lighting experience.

Output options

21.8W/m - up to 2230 lms/m
32.1W/m - up to 3686 lms/m

Color Temperature



2,700 K
CRI ≥ 94

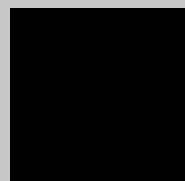


3,000 K
CRI ≥ 94



4,000 K
CRI ≥ 94

Finishes



Black
Anodized
as standard

Lifespan

L80 B10 > 72,000 hours

Max. Verified Ambient Temperature

Withstands a maximum ambient temperature of 40°C for reliable operation in diverse climates.

Ingress Protection (IP40)

With an IP40 rating, the luminaire ensures protection against solid objects greater than 1mm and offers versatility for indoor applications.

Interconnection

Assembled luminaires arrive to customer with a plug and go interconnection system which enables interconnected runs of up to 10m at the click of a plug.



Kove LED Professional

Kove LED Professional is amongst the latest generation of the Kove LED family. Kove LED Professional has the same high performance optical qualities as the other Kove LED family members but in a smaller, more streamlined footprint coupled to other engineering benefits.

Location

Versatile and suitable for a variety of indoor environments, the luminaire offers efficient illumination with a contemporary touch.

Colour Temperature

Colour temperature options of 2700K, 3000K, and 4000K, allowing users to create different atmospheres based on their preferences.

CRI

With a high CRI of 90, the luminaire ensures accurate and vibrant colour representation, enhancing the overall lighting experience.

Output options

21.8W/m - up to 1936 lms/m
32.1W/m - up to 3200 lms/m

Color Temperature



2,700 K
CRI ≥ 94

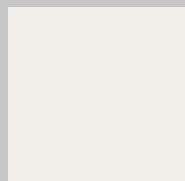


3,000 K
CRI ≥ 94

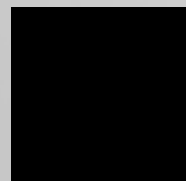


4,000 K
CRI ≥ 94

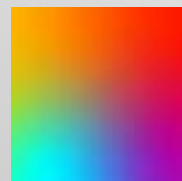
Finishes



Pearl
White



Black
Anodized
as standard



Special
Finishes
Upon
Request

Lifespan

L80 B10 > 72,000 hours

Max. Verified Ambient Temperature

Withstands a maximum ambient temperature of 40°C for reliable operation in diverse climates.

Ingress Protection (IP40)

With an IP40 rating, the luminaire ensures protection against solid objects greater than 1mm and offers versatility for indoor applications.

Interconnection

Assembled luminaires arrive to customer with a plug and go interconnection system which enables interconnected runs of up to 10m at the click of a plug.



Kove LED Tunable

Kove LED Tunable has the same footprint as Kove LED Professional but additionally features a Tunable White system allowing the tuning of the colour temperature from 2700K to 6500K whilst also controlling intensity. Kove LED Tunable offers specifiers extreme design flexibility.

Mounting

Designed for surface mounting, the KLLED-A Luminaire offers versatility in installation with optional mounting clips for additional flexibility.

Colour Temperature

Tunable white options of 2700K to 6500K allowing users to create different atmospheres based on their preferences.

CRI

With a high CRI of 90, the luminaire ensures accurate and vibrant colour representation, enhancing the overall lighting experience.

Output options

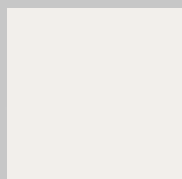
32.1W/m - up to 3200 lms/m

Color Temperature

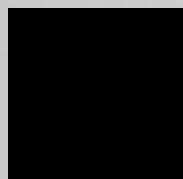


Tunable White Options
2700K - 6500K

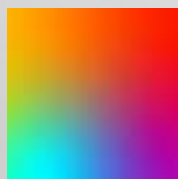
Finishes



Pearl
White



Black
Anodized
as standard



Special
Finishes
Upon
Request

Lifespan

L80 B10 > 72,000 hours

Max. Verified Ambient Temperature

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Ingress Protection (IP40)

With an IP40 rating, the luminaire ensures protection against solid objects greater than 1mm and offers versatility for indoor applications.

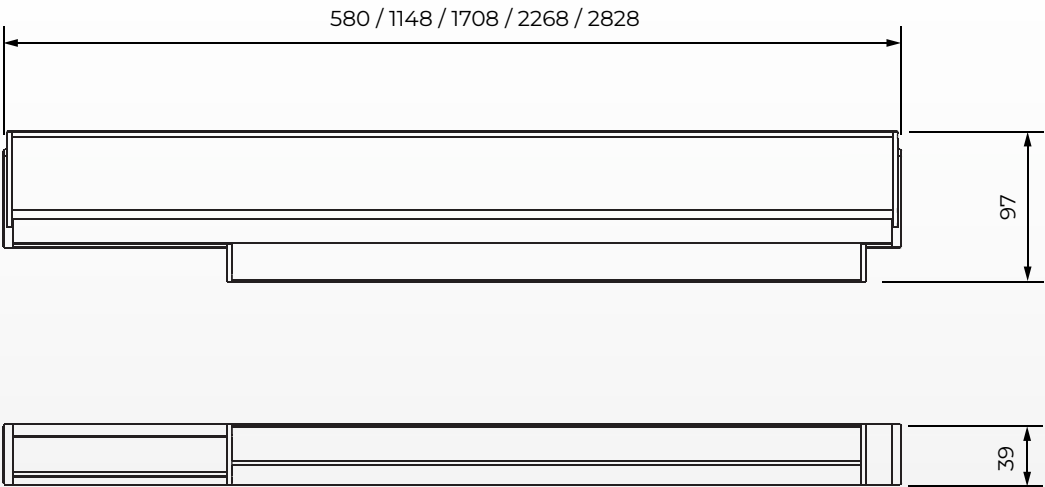
Interconnection

Assembled luminaires arrive to customer with a plug and go interconnection system which enables interconnected runs of up to 10m at the click of a plug.



Kove LED Adjustable

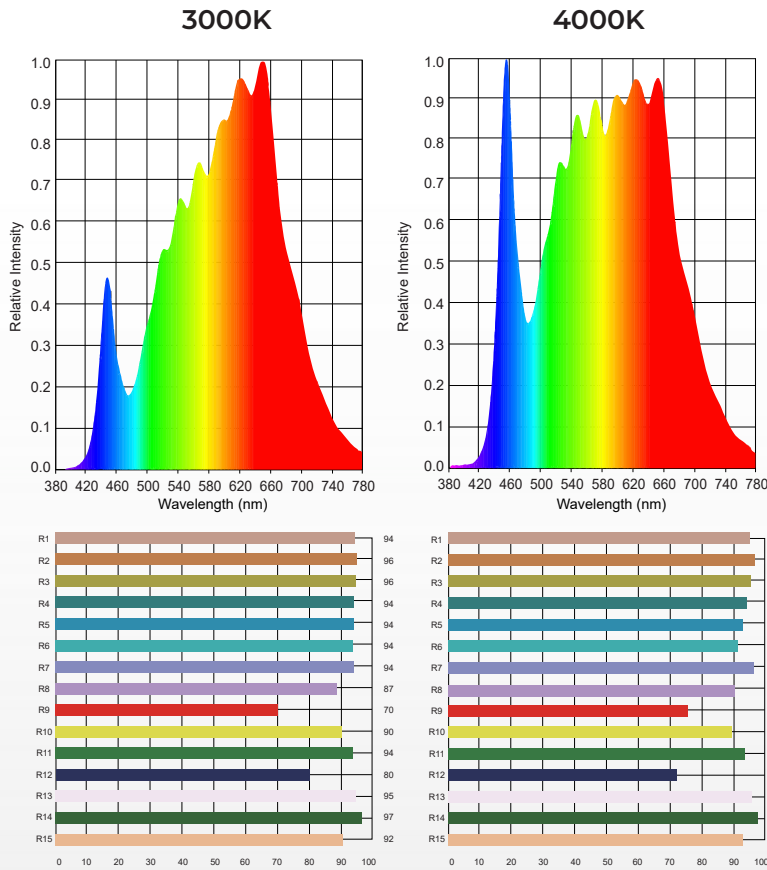
MEASUREMENT



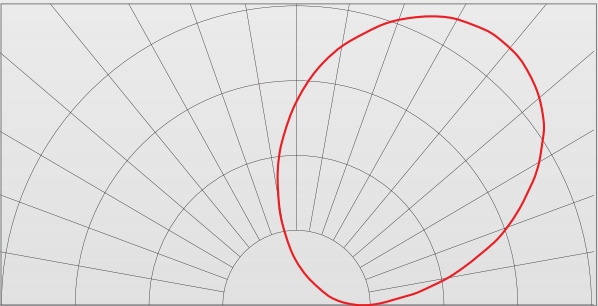
TECHNICAL INFORMATION

Mounting	Location	Surface	
	Type	Mounting Clip (Optional)	
Ingress Protection		IP40	
Electrical	Input Voltage	220-240V AC 50/60Hz	
	Dimming	Fixed Output, DALI & Push Dim, 1-10V, Casambi	
	Driver Location	Integral	
	Electrical Connection Type	Plug+Go	
	Starter Lead Length	1m	
	Interconnection Between Fixtures	Yes	
Dimension	Width	97mm	
	Height	39mm to 70mm depending on adjusted angle	
	Weight	2.45kgs/m	
	Maximum Single Luminaire Length	2 . 828m	
	Finished Fixture Length	LED Module Increments + 20mm (Excluding 560mm or shorter LED Module Length)	
Light	12W Module	19W Module	
	Luminaire Power (Typical)	21.8W/m	32.1W/m
		Luminaire Lumens	2230 lms/m
			3686 lms/m
Colour Temperature		2700K / 3000K / 4000K	
CRI/R9		90 / 50+	
LED Module Increments		70mm	
Beam Angle		Asymmetric	
Beam Adjustment		0°-36°	
Binning (SDCM)		3	
LM-80/TM-21 Lifespan		L90 B10 42,000 / L80 B10 > 72,000 hours	
Max. Verified Ambient Temperature		40°C	
Max. Interconnectable Run Length		60m (Dependant on module configuration)	
Accessories:			
KLLED-SL-D		Kove LED 1m Starter Lead - Dimmable	
KLLED-SL-F		Kove LED 1m Starter Lead - Non Dimmable	
KLLED-EL1-D		Kove LED 1m Extension Lead - Dimmable * Other lengths available	
KLLED-A-MC1		Kove LED Adjustable Mounting Clip (EA)	

COLOUR METRICS



PHOTOMETRICS

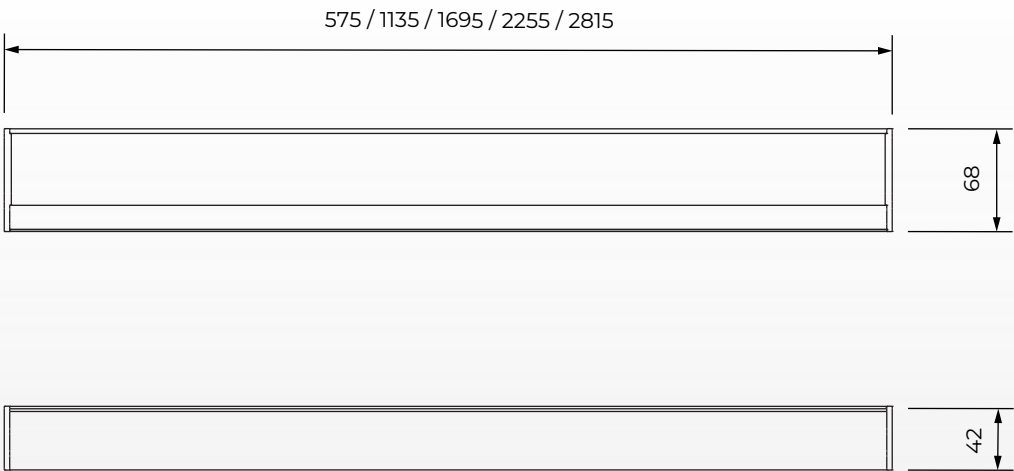


SPECIFICATION CODE

PRODUCT	MODEL	LUMINAIRE LENGTH	FINISH	COLOUR TEMPERATURE	DIMMING
KLLED-A	12	2828	BA	930	DALI
(Kove LED Adjustable)	(12) HE - 2230 lms/m (19) HO - 3686 lms/m	Fitting length in mm	(BA) Black Anodized as standard	(927) 2700K (930) 3000K (940) 4000K	(F) Fixed Output (DALI) DALI & Push Dim (DSI) DSI Dimmable (CAS) Casambi

Kove LED Professional

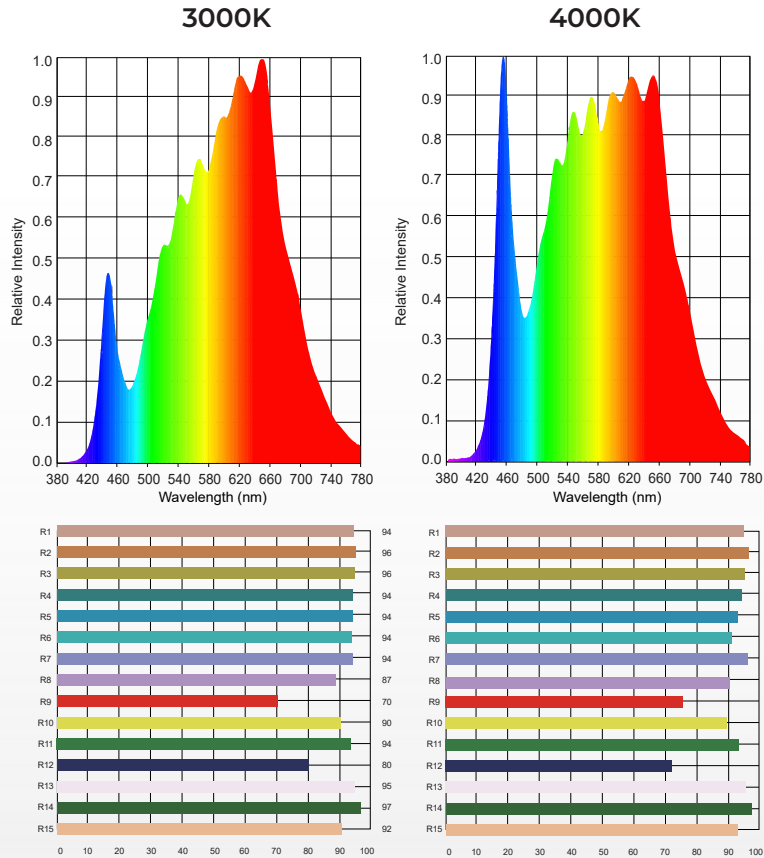
MEASUREMENT



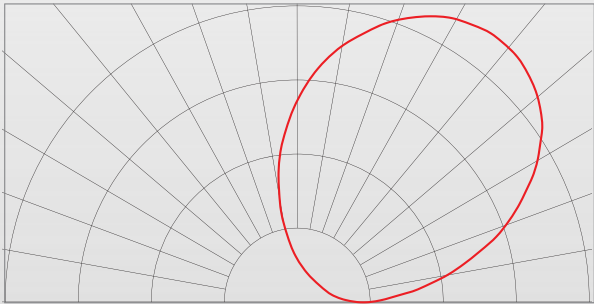
TECHNICAL INFORMATION

Mounting	Location	Surface	
	Type	Mounting Clip (Optional)	
Ingress Protection		IP40	
Electrical			
Input Voltage		220-240V AC 50/60Hz	
Dimming		Fixed Output, DALI & Push Dim, 1-10V,	
Driver Location		Casambi Integral	
Electrical Connection Type		Plug+Go	
Starter Lead Length		1m	
Interconnection Between Fixtures		Yes	
Dimension			
Width		68mm	
Height		42mm	
Weight		1.7kgs/m	
Maximum Single Luminaire Length		2.815m	
Finished Fixture Length		LED Module Increments + 15mm	
Light		12W Module	19W Module
Luminaire Power (Typical)		21.8W/m	32.1W/m
Luminaire Lumens		1936 lms/m	3200 lms/m
Colour Temperature		2700K / 3000K / 4000K	
CRI/R9		90 / 50+	
LED Module Increments		140mm	
Beam Angle		Asymmetric	
Binning (SDCM)		3	
LM-80/TM-21 Lifespan		L90 B10 - 42,000 hours / L80 B10 > 72,000 hours	
Max. Verified Ambient Temperature		40°C	
Max. Interconnectable Run Length		60m (Dependant on module configuration)	
Accessories:			
KLLED-SL-D		Kove LED 1m Starter Lead - Dimmable	
KLLED-SL-F		Kove LED 1m Starter Lead - Non Dimmable	
KLLED-EL1-D		Kove LED 1m Extension Lead - Dimmable * Other lengths available	
KLLED-P-MC1		Kove LED Adjustable Mounting Clip (EA)	

COLOUR METRICS



PHOTOMETRICS

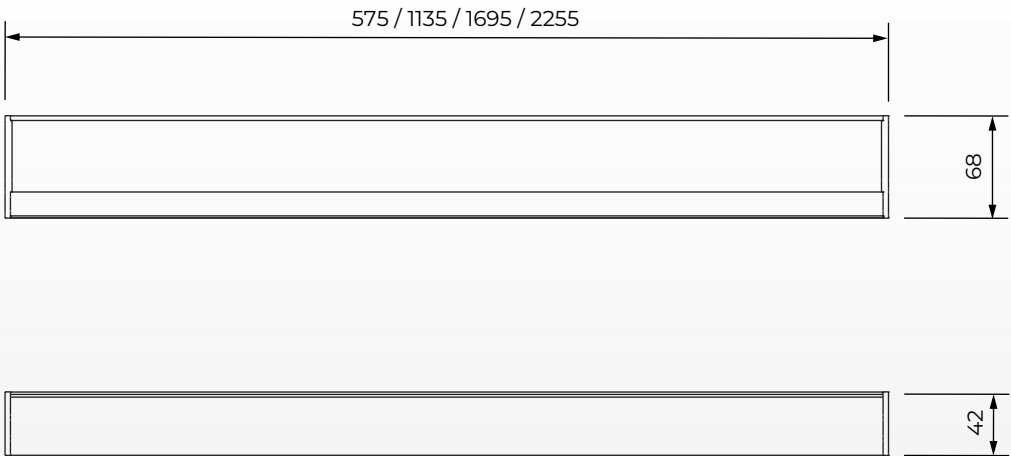


SPECIFICATION CODE

PRODUCT	MODEL	LUMINAIRE LENGTH	FINISH	COLOUR TEMPERATURE	DIMMING
KLLED-P	12	2815	BA	930	DALI
(Kove LED Professional)	(12) HE - 2230 lms/m (19) HO - 3686 lms/m	Fitting length in mm	(BA) Black Anodized as standard (PW) Pearl White (SP) Other	(927) 2700K (930) 3000K (940) 4000K	(F) Fixed Output (DALI) DALI & Push Dim (DSI) DSI Dimmable (CAS) Casambi

Kove LED Tunable

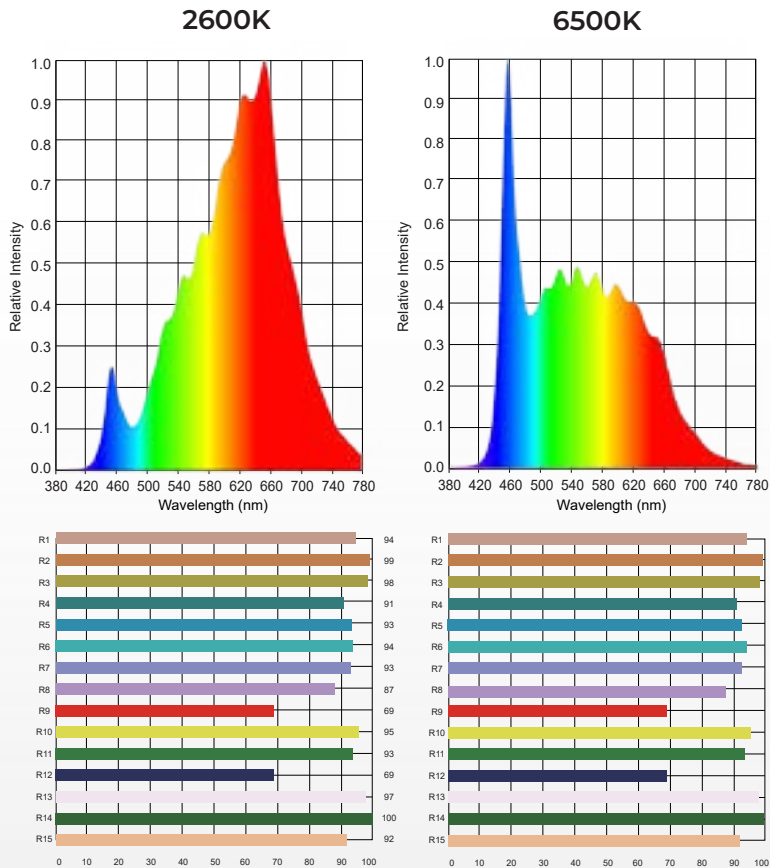
MEASUREMENT



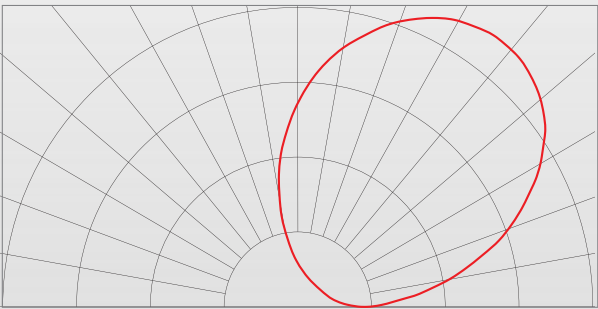
TECHNICAL INFORMATION

Mounting	
Location	Surface
Type	Mounting Clip (Optional)
Ingress Protection	IP40
Electrical	
Input Voltage	220-240V AC
Dimming	50/60Hz DALI DT8
Driver Location	Integral
Electrical Connection Type	Plug+Go
Starter Lead Length	1000mm
Interconnection Between Fixtures	Yes
Dimension	
Width	68mm
Height	42mm
Weight	1.7kgs/m
Maximum Single Luminaire Length	2255mm
Finished Fixture Length	LED Module Increments + 15mm
Light	
19W Module	
Luminaire Power (Typical)	32.1W/m
Luminaire Lumens	3200 lms/m
Colour Temperature	Tunable White (2700K to 6500K)
CRI/R9	90
LED Module Increments	280mm
Beam Angle	Asymmetric
Binning (SDCM)	3
LM-80/TM-21 Lifespan	L80 B10 > 72,000 hours
Max. Verified Ambient Temperature	40°C
Max. Interconnectable Run Length	60m (Dependant on module configuration)
Accessories:	
KLLED-SL-D	Kove LED 1m Starter Lead - Dimmable
KLLED-EL1-D	Kove LED 1m Extension Lead - Dimmable * Other lengths available
KLLED-T-MC1	Kove LED Adjustable Mounting Clip (EA)

COLOUR METRICS



PHOTOMETRICS



SPECIFICATION CODE

PRODUCT
KLLED-T

(Kove LED Professional)

LUMINAIRE
LENGTH
2255

Fitting length in mm

FINISH
BA

(BA) Black Anodised as standard
(PW) Pearl White
(SP) Other

COLOUR
TEMPERATURE
TW

(TW) 2700K to 6500K

DIMMING
DALIDT8

(DALIDT8) DALI DT8 Dimmable

Specification - Accessories

KOVE LED WIRING ACCESSORIES

KLLED-SL-F	Kove LED Starter Lead 1m for Fixed Output applications
KLLED-EL1-F	Kove LED Extension Lead 1m for Fixed Output applications
KLLED-EL2-F	Kove LED Extension Lead 2m for Fixed Output applications
KLLED-EL3-F	Kove LED Extension Lead 3m for Fixed Output applications
KLLED-SL-D	Kove LED Starter Lead 1m for Dimmable applications
KLLED-EL1-D	Kove LED Extension Lead 1m for Dimmable applications
KLLED-EL2-D	Kove LED Extension Lead 2m for Dimmable applications
KLLED-EL3-D	Kove LED Extension Lead 3m for Dimmable applications

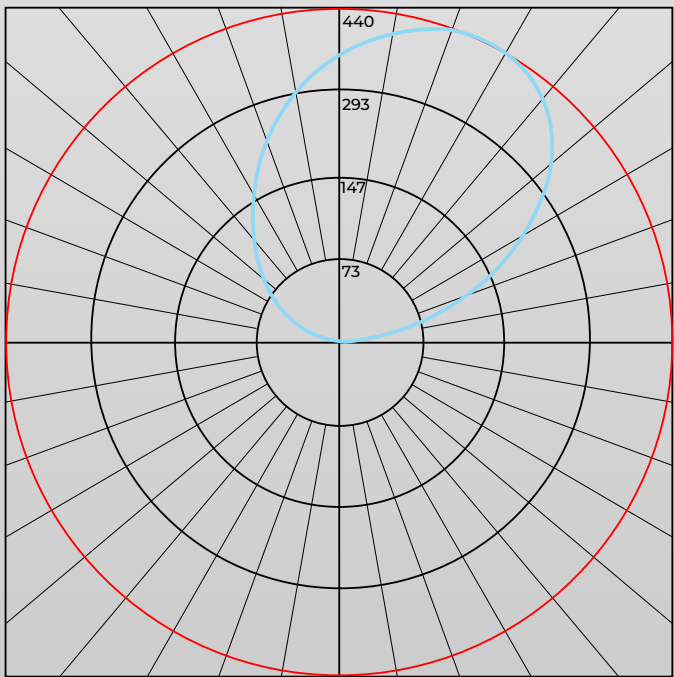
KOVE LED MOUNTING ACCESSORIES

KLLED-A-MC1	Kove LED Adjustable Mounting Clip (EA)
KLLED-P-MC1	Kove LED Professional Mounting Clip (EA)
KLLED-T-MC1	Kove LED Tunable Mounting Clip (EA)

Recommended Mounting Clips per module

KLLED-A-1x12 / KLLED-A-1x19 / KLLED-P-1x12 / KLLED-P-1x19	2 Clips per module
KLLED-A-2x12 / KLLED-A-2x19 / KLLED-P-2x12 / KLLED-P-2x19	2 Clips per module
KLLED-A-3x12 / KLLED-A-3x19 / KLLED-P-3x12 / KLLED-P-3x19	3 Clips per module
KLLED-A-4x12 / KLLED-A-4x19 / KLLED-P-4x12 / KLLED-P-4x19	3 Clips per module
KLLED-A-5x12 / KLLED-A-5x19 / KLLED-P-5x12 / KLLED-P-5x19	4 Clips per module
KLLED-T-1x19 / KLLED-T-1.5x19 / KLLED-T-2x19	2 Clips per module
KLLED-T-2.5x19 / KLLED-T-3x19 / KLLED-T-3.5x19 / KLLED-T-4x19	3 Clips per module

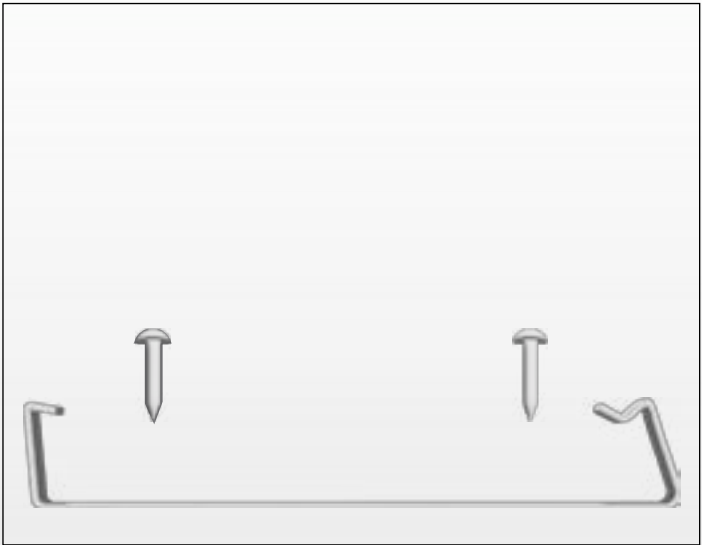
PHOTOMETRICS



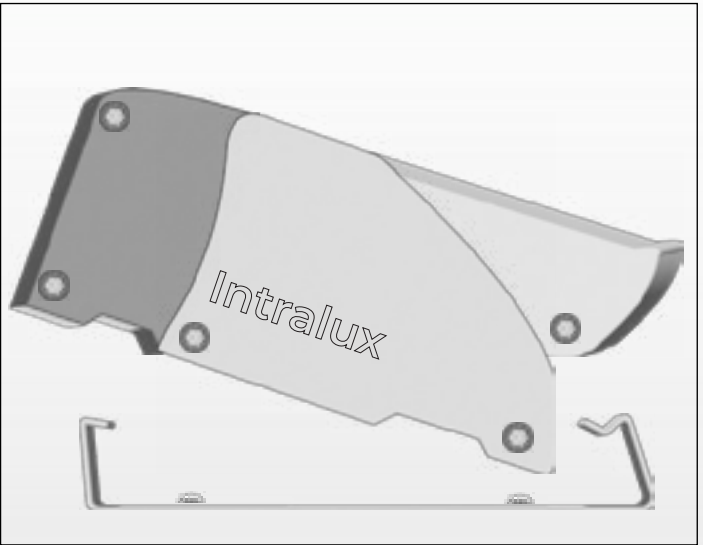
IES files available for all Kove LED variants at www.intralux.com

MOUNTING GUIDE

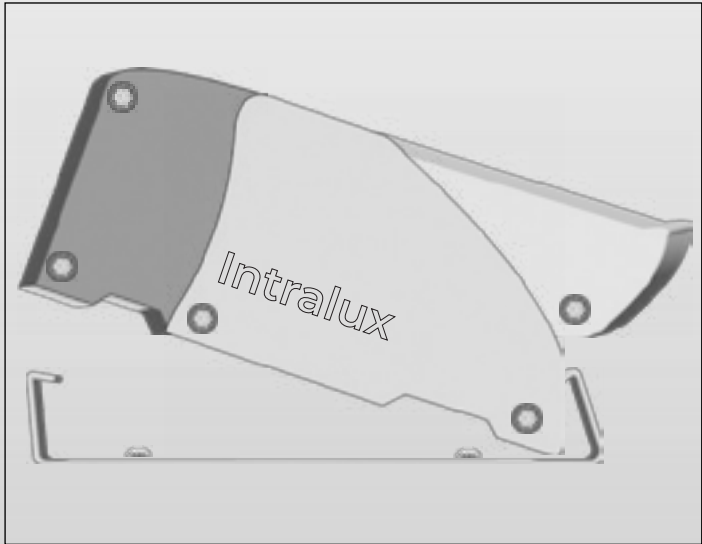
Utilising the mounting clip



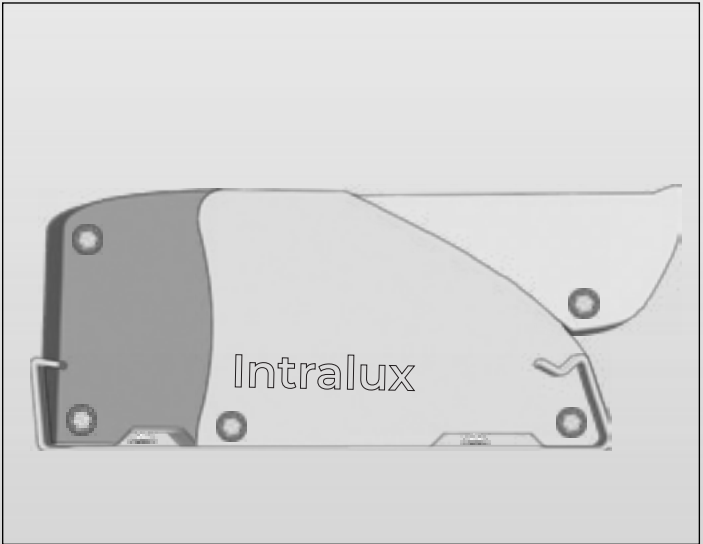
1. Install screws through the two holes in the mounting bracket to secure to surface. Screw head height to be 4mm.



2. Tilt the fixture backward and push until the rear of the bracket engages.



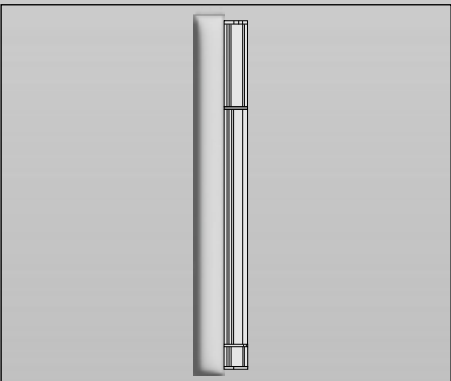
3. Pivot the front down and push firmly to engage the front of the bracket.



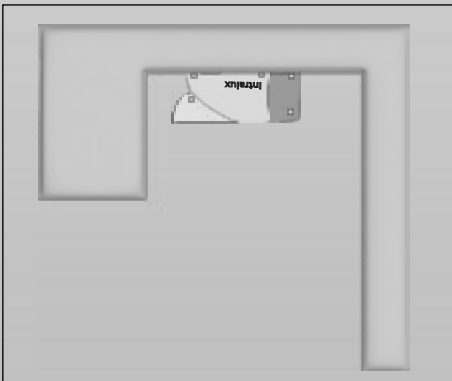
4. Press up and inward on the front leg of the mounting bracket ensuring that the end seats firmly in the corresponding channel.

Each product group has its own mounting clip.
See page 19 for mounting clip spacing recommendation.

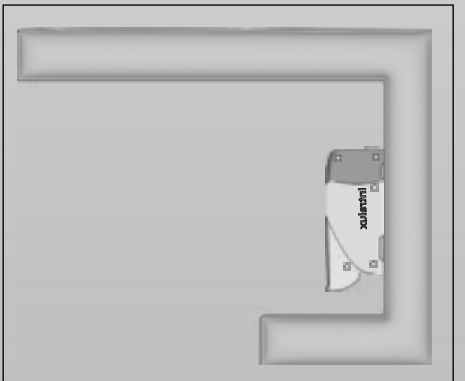
MOUNTING OPTIONS



Vertical

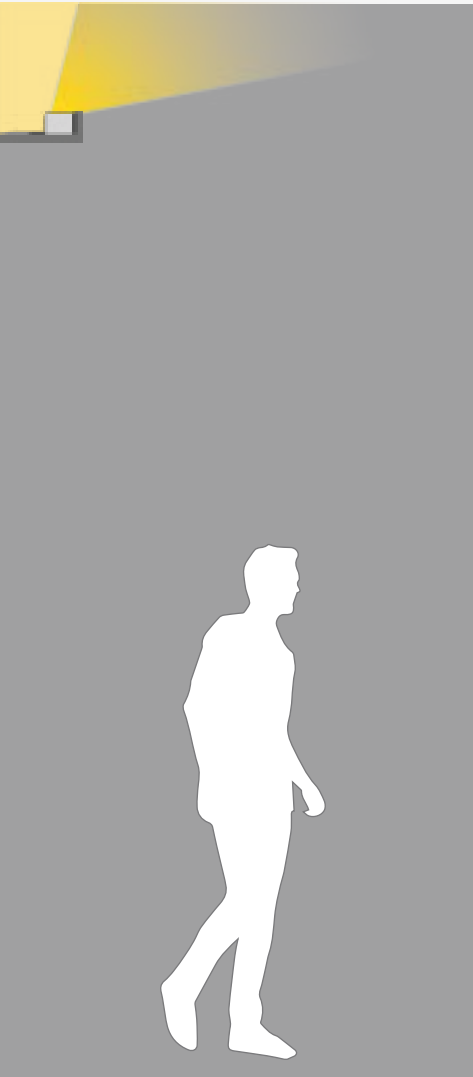


Upside down

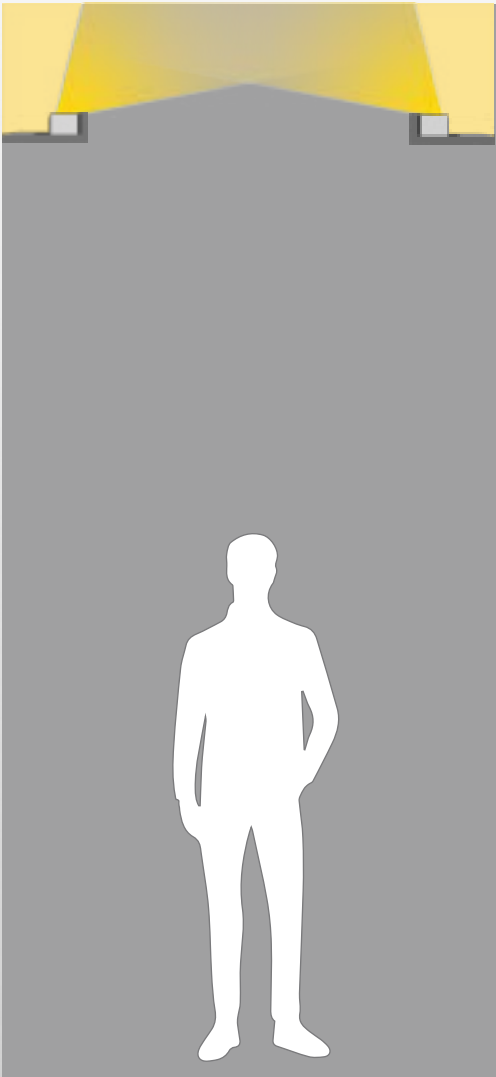


On edge

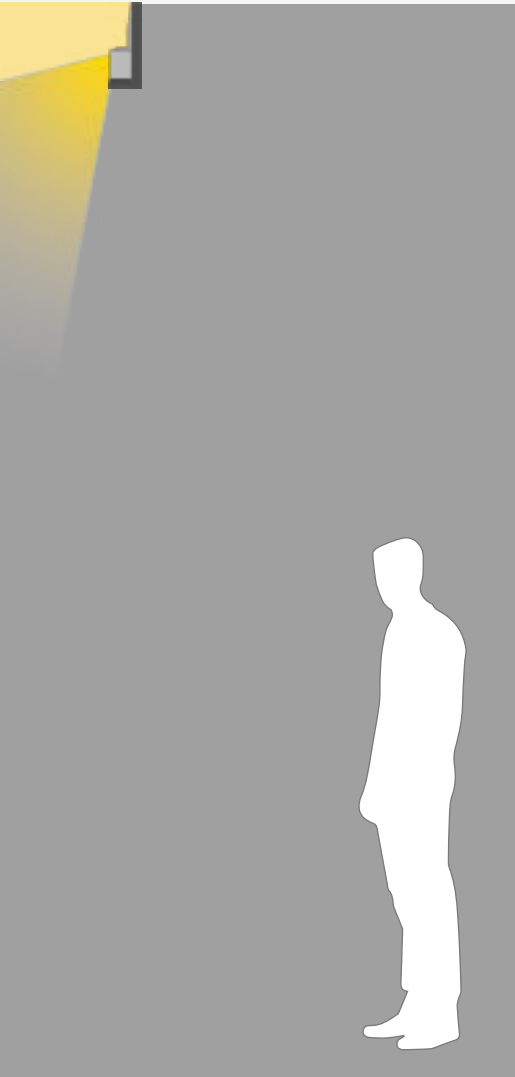
Kove LED Application



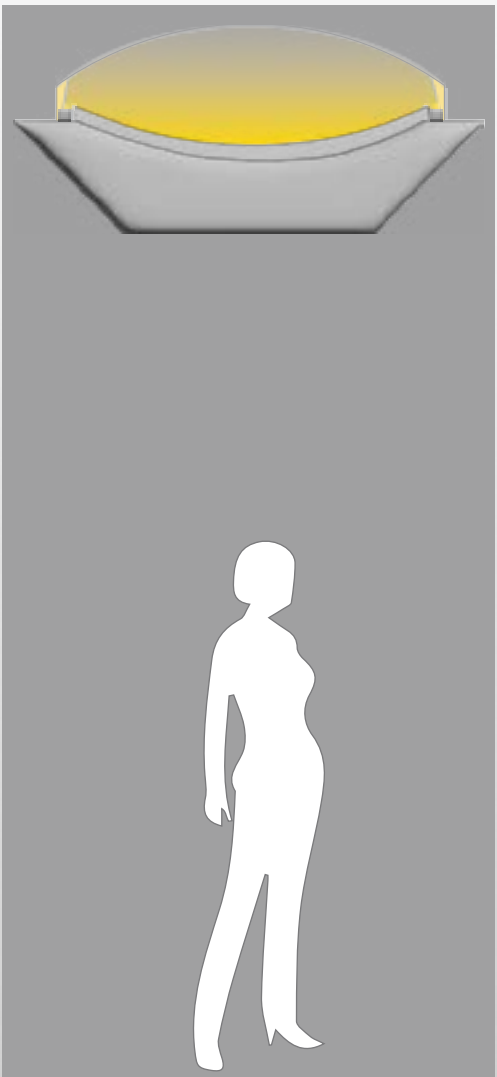
Ceiling illumination from
perimeter pelmet at top of wall



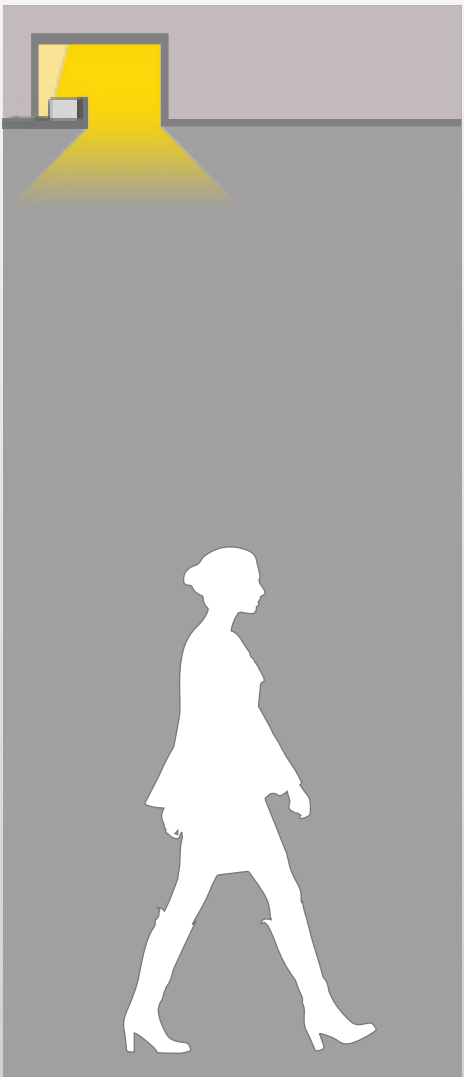
Ceiling illumination from a
perimeter pelmet



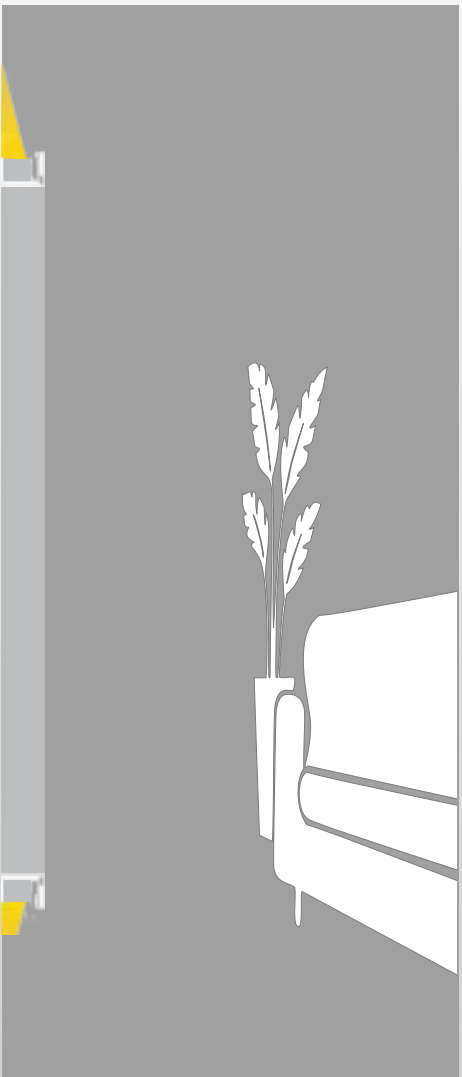
Wall illumination from perimeter pelmet at
edge of ceiling



Radius application



Ceiling Light Slot



Floating Wall



Award Winner

Luminaire Design Awards - Award of Excellence

- ✓ Australian made
- ✓ Originality of design
- ✓ Effectiveness of light control
- ✓ Standards compliance
- ✓ Australian designed
- ✓ Uniqueness of concept
- ✓ Energy efficiency
- ✓ Ease of installation

IES Judges Comments:

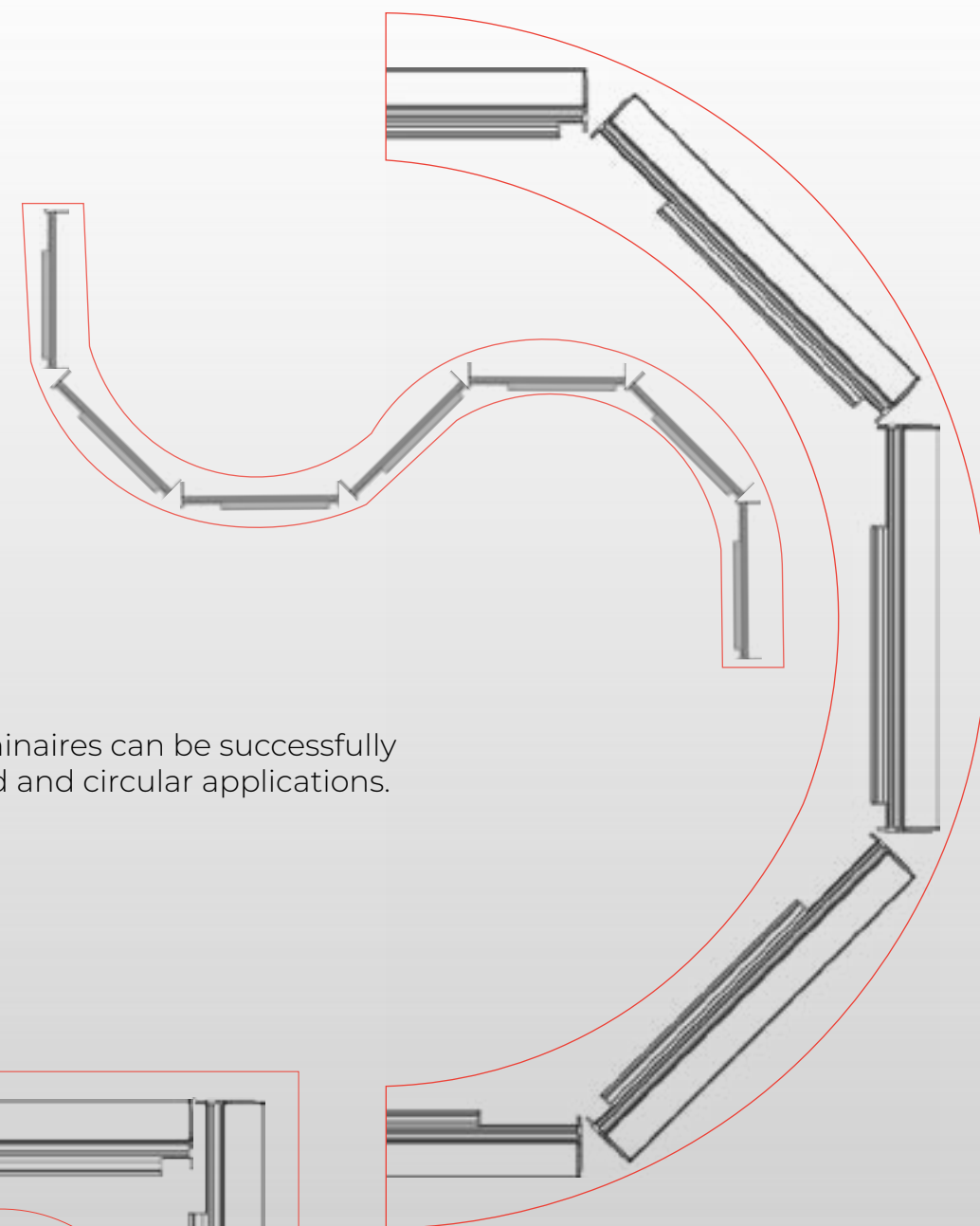
"The unique, easy to install, low maintenance LED pelmet luminaire is considered to be equal to, if not better than, any of its market competition and by the very nature of its high quality LED light source, is clearly very conservative in its power consumption. The primary aluminum extrusion construction is considered to be both simple in construction after being complex in development, and provides both the specifier and the installer the confidence in achieving a seamless, high quality pelmet or cove lighting installation."

"The modular Plug+Go' nature of each luminaire 'building block' is considered to offer significant benefits and savings in minimizing the need for unnecessary power supply cabling and/or the creation of multiple points of supply, while making module replacement simple and fool proof. The judges could not help but be impressed by the quality of this luminaire and sincerely congratulate Intralux for their ability to very capably compete in the international market."

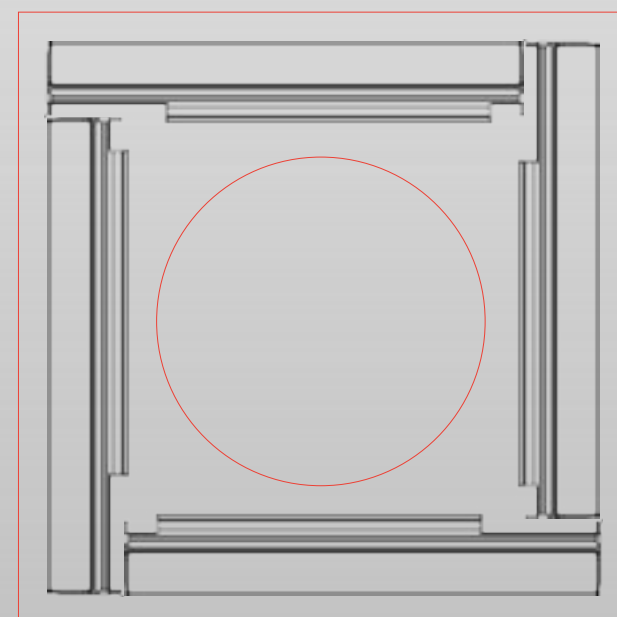
Lighting Australia Magazine



Circles & Curves



Kove LED luminaires can be successfully used in curved and circular applications.

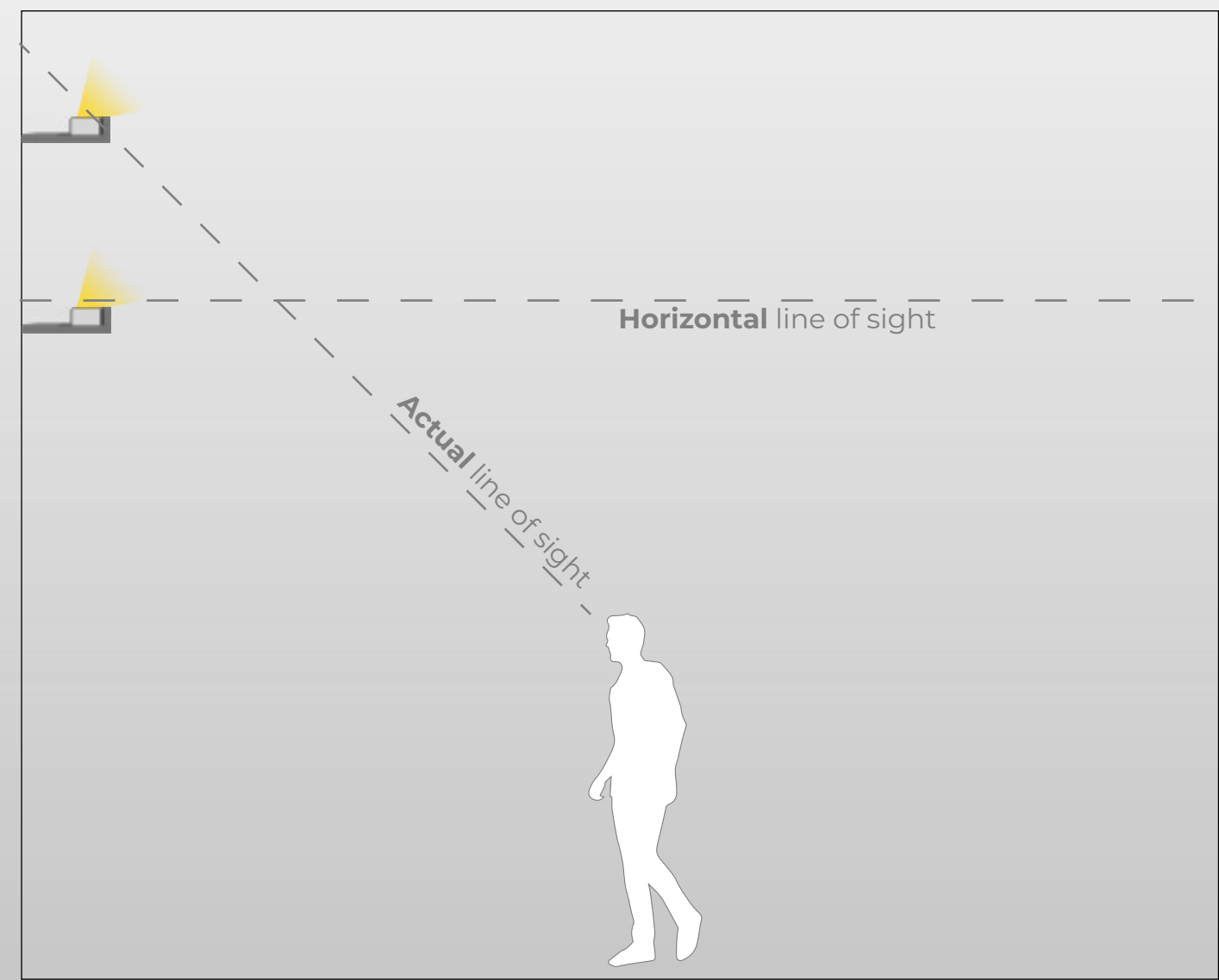


To use Kove LED luminaires in tight circular applications it is required to install the fittings in a square configuration.

Line of Sight

Horizontal Line Of Sight: This is normally used in pelmets that are 2700mm or less above the finished floor level (FFL). This is calculated by drawing a line from the tallest part of the fixture to the back wall of the pelmet.

Actual Line Of Sight: This is normally used in pelmets that are located higher than 2700mm above the finished floor level (FFL). To calculate, find the farthest location from which the Kove fixture will be visible. Draw a line from this point at 2100mm above FFL to the tallest lip on the fixture. This will provide your pelmet return height.

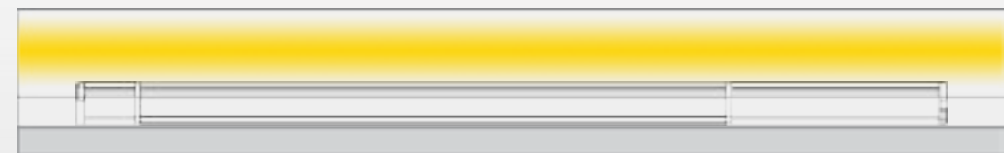


Visual consideration needs to be given to the line of sight angles within a design application. It is important to avoid visual contact with lamps and luminaires without compromising the pelmet return height.

Surface Finish

Choosing the correct surface finish.

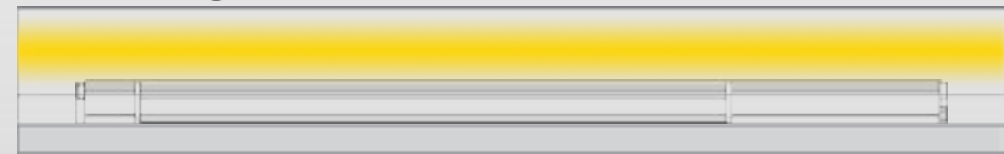
Matte



Matte surface: diffuses the light well, resulting in no lamp reflection. This is the preferred finish.



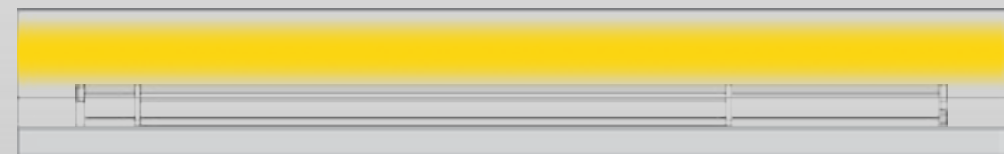
Semi gloss



Semi gloss surface: reflects similar to a frosted window. The lamp reflection is slightly blurred.



Gloss



Gloss surface: reflects like a mirror which results in a sharp lamp reflection.



PELMET FINISHING TIPS

In order to achieve even light distribution and diffusion it is recommended that a light coloured, smooth, matte finish is used in the pelmet and on the ceiling surfaces.

Optical Control

All **Kove LED** luminaires feature a specialised optical chamber providing a semi-asymmetric light distribution. This results in a greater volume of light distributed to where it is needed - ensuring the most efficient illumination of a space.



The **optical chamber** was the result of extensive R&D efforts in prototype development and specific testing of a wide range of optical control materials. The result of this development is a uniquely designed configuration that positions the LED's in a distinct orientation to a highly efficient internal reflector. This allows the light to be controlled, diffuses the harshness of the LED point sources and distributes the light effectively as it exits the luminaire. Furthermore, a specialised diffuser material has been integrated to remove any remaining sharpness and create the smooth, visually appealing output for which Intralux Kove products are renowned. A benefit of this specific optical chamber is that luminaires become less sensitive to the characteristic 'dark spot' or 'shadow' that exists when linear luminaire ends are not installed directly end to end.

The creative landscape of modern architectural design, demands lighting products that are versatile in their application, enabling them adapt to the varied contexts in which they are applied. Significant research and development was conducted during the development of Kove LED Adjustable, to incorporate a simple, low cost adjustable beam direction. Resulting from these efforts, **Kove LED Adjustable** boasts a 'no tool' adjustment mechanism that allows the installer to pivot the light source in incremental steps between 0-36°. By incorporating a mechanism with this calculated versatility, Kove LED Adjustable addresses the issue of adaptability while keeping the product size to the absolute minimum.

Dimmability Control Options

DALI - Digital Addressable Lighting Interface

An International Standard (IEC62386) lighting control system providing a single interface for all Electronic Control Gears (light sources) and Electronic Control Devices (lighting controllers). The DALI Standard enables dimmable drivers, transformers, relay modules, emergency fittings and controllers from different manufacturers to be mixed and matched into a single control system.

DSI - Digital Serial Interface

These ballasts require a digital (DSI) signal from an external source to instruct the driver to switch ON /OFF or dim. This system is commonly employed in larger installations, with scene-set controllers or energy management systems.



Interconnectability

The fully integrated fixture incorporates the unrivaled
'Plug+Go' 5-way connection system
featuring high end, light specific connectors.

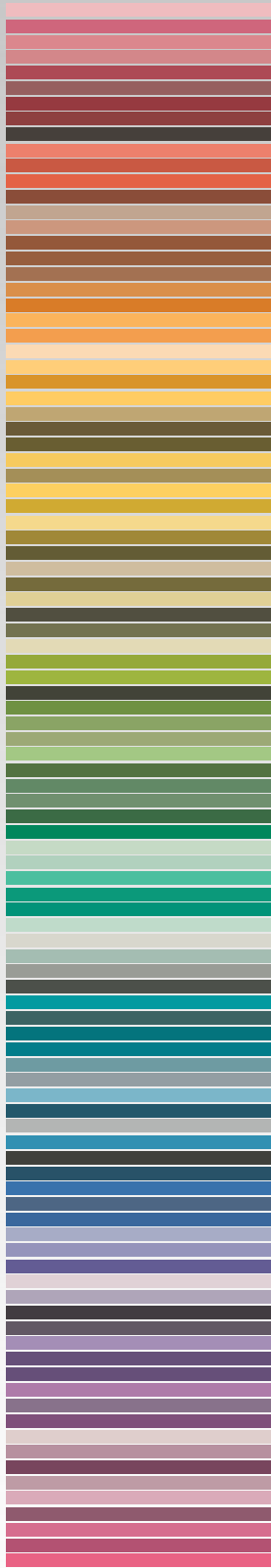
This system facilitates simple installation, allowing for up to 60 meters of Kove LED to be installed from one power circuit, whilst also incorporating controls wiring.

* Dependent on fixture configuration.



Light Quality

99 Colour Swatch used in TM-30 Colour Analysis



a higher CRI
produce more
natural colours.

What is the Colour Rendering Index (CRI)?

There are two main colour standards relating to methods of measuring the degree of colour shift a lit object undergoes when illuminated by a light source (i.e. an LED light source) compared with the colour of that object when illuminated by a reference source (i.e. sunlight) using comparable colour temperatures. The most commonly used method, is the CIE 1995 method which breaks the spectrum into 15 reference colours and are measured on a scale of 1-100, the higher the number the better the light sources ability to render that colour.

This is generally what one is referencing when speaking about CRI. Whereas Testing Method 30 - 2015 (TM-30-15) is widely considered a more comprehensive method of evaluating colour rendering than the traditional CIE 1995 method.

What is TM-30-15?

TM-30 testing uses two distinct values - Colour Fidelity (Rf): The closeness to the reference sample colour, similar to CIE 1995 method but with 99 colours. Colour Gamut (Rg): The saturation of a colour sample. Outputs from testing is in the form two images, a colour vector graphic and a colour distortion graphic. These images are able to portray the affects of any given light source on an environment.

Colour Rendering Quality is one of the most important aspects of professional lighting design. Obtaining great colour rendition is extremely important in producing a high quality visual experience for the end user.

The 'R9' Value is a common comparison point when discussing high quality LED luminaires. The 'R9' Value relates to red tones and a light sources ability to reproduce these tones. This tone in particular is such a crucial point in the index as red tones surround us everyday! From skin tones, clothing, and even at the supermarket.

Cyanosis Compliant

What is Cyanosis?

Cyanosis is the blu-ish tinge to skin and mucous membranes which indicates oxygen levels are dangerously low.

What is Cyanosis Compliant Lighting?

Cyanosis compliant lighting requires a specific part of the red visible spectrum which allows for true colour rendering of skin. If it slightly too high this could mask Cyanosis symptoms, oppositely a two higher red output could result in patients being treated for Cyanosis when in fact they do not suffer from cyanosis.

Where is Compliance to this standard required?

All medical and care institutions such as hospitals, aged care and day surgery centres. It is important for medical staff to be able to reliably detect the onset of cyanosis by visual observation.

The standard and how is it observed?

Compliance index – COI (Cyanosis Observation Index) and requires a value of <3.3 - Standard Reference: AS/NZS: 1680.2.5:2018

*Note - Cyanosis compliance is not a standard feature and needs to be mentioned upon order placement.

4000K Cyanosis Compliant Lighting

4000K lighting is often used for its neutral white light, offering a balance between warm and cool tones. In healthcare environments, cyanosis-compliant lighting helps in the accurate diagnosis of cyanosis (bluish discoloration of the skin due to lack of oxygen). Ensuring that lighting meets cyanosis compliance criteria is crucial for safety and accuracy in clinical settings.

Glossary of terms

Ambient Temperature (Ta): The temperature surrounding the fixture during time of operation.

Ampere (Amp): The unit for measuring the rate of flow in an electrical current.

Candela: the unit of measure indicating the luminous intensity (candlepower) of a light source in a specific direction; any given light source will have many different intensities, depending upon the direction considered.

Casambi: A wireless lighting control system using Bluetooth. It allows for smart, flexible, and user-friendly control of lighting fixtures.

Colour Fidelity (Rf): The closeness to the reference sample colour measured by a number between 1 to 100. An element of TM-30 reporting. See page 10.

Colour Gamut (Rg): The saturation of a colour sample. While the value is represented by a number between 1 to 100, this number is also accompanied by two images depicting finer details. These images are a colour vector graphic and a colour distortion graphic. See page 10.

Colour Rendering Index (CRI): An international system used to rate a lamp (LED or Fluorescent or other) ability to render object colours. The higher the CRI (based on a scale of 1 to 100), the richer the colours generally appear. CRI differences among lamps are not usually visible to the eye unless the difference is more than 3-5 points.

Cyanosis Compliant: A method of lighting in the medical enviroment that requires a specific part of the red visible spectrum which allows for true colour rendering of skin tone. This allows for diagnosis of the medical cyanosis condition much earlier. See page 12.

DALI: A digital communications protocol for controlling and dimming lighting fixtures, originally developed in Europe by an industry organisation.

HE: A lower output high efficiency model.

HO: A high output, less efficient model.

Illuminance: the ‘density’ of the light (lumens/area) incident on a surface, ie. The light level on a surface. Illuminance is measured in Lux (lx).

Kelvin (K): A measurement of lamp colour. Generally, 3000K resembles the colour of a halogen lamp, 4000K resembles a crisp white lightRR

LED Module Wattage: The wattage of the LED only, this does not include the wattage of the LED driver.

Louver: A light fixture component designed to minimise glare from LED modules.

Lumens: A measure of luminous flux or quantity of light emitted by a source. For example, a dinner candle provides approximately 12 lumens. A 60-watt soft-white incandescent lamp provides approximately 840 lumens.

Luminaire: A complete lighting unit consisting of a lamp (or lamps), and driver (or ballast) together with the parts designed to distribute the light, position and protect the lamps, and connect them to a power supply. A luminaire is often referred to as a fixture.

Lux (lx): A unit of illuminance or light falling onto a surface. One lux is equal to one lumen per square meter. Ten lux approximately equals one foot-candle(fc).

MacAdam Ellipse: is the region on a chromaticity diagram which contains all colors which are indistinguishable, to the average human eye, from the color at the center of the ellipse.

Photometry: The measurement of light and related qualities.

Polar Curve: A graph of distribution of light intensity of luminaire and other light sources.

System: A term referring to the lamp and ballast combination, and sometimes the entire lighting delivery system including the fixture, the optics, the particular layout and the lighting controls. Many luminaires linked together could form a system.

Planckian locus: The locus of points on a chromaticity diagram that represents blackbody radiators at various temperatures.

TM-30: a method of measuring the degree of colour shift a lit object undergoes when illuminated by a light source (ie an LED light source) compared with the colour of that object when illuminated by a reference source (ie sunlight). This method is widely considered as a more comprehensive method of evaluation. See page 10.

UGR (Unified Glare Ratio): a method of calculating the glare in a space from all potential light sources, including luminaires. See page 12.

RE- USE
RE- THINK
RE- INVENT
REDUCE
RECYCLE

Residential and Commercial sector lighting has a large draw on energy resources, accounting for 25% and 40% respectively of total energy use. In a world of diminishing energy reserves, efficiency in lighting plays a major role in slowing the demand on these finite resources.

Whilst lighting is of great importance to industry, commerce and the general well being of earth's human inhabitants, greater innovation is being applied to lighting development than most other energy use sectors. Now beyond community pressure or encouragement, Governments now legislate levels of reduction in lighting energy consumption because it is a visible commodity. Yet much would be made of degradation to the amenity of public lighting if it was to be switched off or dramatically reduced. Some would argue that law and order would suffer if public lighting was curtailed. Therefore More Light - Less Power is the future.

The lighting industry has done more over the past twenty years to arrest the trend of energy over consumption than over the previous 100 years, with the introduction of energy efficient lamps such as the T5 fluorescent, through to today's LED's and smart controls

Intralux Australia has a heavy commitment as a product developer in ensuring environmental impact is minimized and sustainability remains a priority. Being a product designer and manufacturer, our ability to influence the outcomes are considerable. Everything from minimizing the factory footprint for manufacturing, to raw material selections enabling near 100% recyclability, to the minimization of disposable packaging. Our holistic approach from 'design to recycle' enhances the sustainable nature of our product contribution to the community at large. Products with life expectancy of 20 years + that are both maintainable and upgradable further reducing the need for unsustainable frequent product replacement, which has become the 'norm' with low cost inferior products.

As a good corporate citizen, coupled to the genuine concern for the future viability of a sustainable environment, Intralux Australia is dedicated to continuous energy efficient product development initiatives.



- 1 Intralux Australia. ("Intralux") guarantees that Intralux Kove LED products ("products") are free from manufacturing and/or material defects, as long as they are used in compliance with their intended use, for a period of 5 Years from the invoice date beyond 21st July 2021 as standard.
- 2 This warranty ("warranty") is given by Intralux to your company ("client") on Intralux Kove LED products.
- 3 The warranty shall be enabled only if the client completes the Intralux Warranty Registration form which can be downloaded from www.intralux.com and returned to Intralux within 60 days from invoice date.
- 4 The Warranty shall only be effective subject to the following conditions:
 - a) The product has been used in compliance with the relevant specification and use (technical specifications) guidelines provided.
 - b) Any installation and/or assembly work on the product is to be carried out by certified electrical personnel only and are required to comply with the instructions accompanying the product.
 - c) Temperature and voltage limit values have not been exceeded and the product has not been subjected to mechanical loads which do not comply with its intended use.
 - d) Maintenance of this product is to be carried out by certified electrical personnel only. This maintenance should be in compliance with any instructions accompanying the product. The product shall not be changed/repared without either the relevant written authorisation or the noncompliance with the enclosed instructions.
 - e) The Client has previously carried out all first-level interventions as outlined in the instruction manual accompanying the product.
 - f) If a defect has been identified, it is within warranty conditions that it is reported in writing by the client to Intralux within sixty (60) days from its discovery.
 - g) If your luminaire has been repaired under warranty, your product warranty will not restart its warranty cycle. However, the remaining warranty period will still apply.
- 5 The Warranty does not cover:
 - a) Product defects caused by unforeseen and unforeseeable events, i.e. accidental circumstances and/or force majeure (including electric shocks, lightning) that cannot be attributed to a defective manufacturing process of the product.
 - b) Defects caused by power disturbances (surges) of range or duration In accordance with CISPR 15.
- 6 Should the Product be affected by defects covered by this Warranty and the conditions under paragraphs 4 and 5 above are met, Intralux shall be free to decide in its absolute discretion whether to repair and/or replace the product with the same or an equivalent product - subject to the technological progression that has taken place from the release of the original product.
- 7 If the defects in a product are in compliance with warranty guidelines, the following will not be included in the warranty service of this product:
 - a) All additional costs incurred due to any work needed to repair the defect (e.g. costs incurred to assemble/disassemble the product or to transport the defective/repared/new product as well as expenses incurred for disposal, allowances, travel, lifting devices and scaffolding). Said costs shall be charged to the Client.
 - b) Parts subject to wear and tear such as light sources unless otherwise specified.
- 8 If duly enabled, this warranty constitutes the sole and exclusive form of guarantee on the Product offered by Intralux to the client and expressly derogates from any other right, whether express and/or implied, acknowledged by the law to the client, who renounces said right in the broadest manner allowed by the law as well as any other warranties given by Intralux.
- 9 The client shall claim no further rights from Intralux in relation to the defective Product. In particular, the client may not claim from Intralux any expenses incurred in storing the defective/faulty product nor any other costs and/or compensation. Moreover the client shall not request and/or claim any payment extensions, price reductions or the termination of the supply contract. ---END--

Kove LED Notes

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