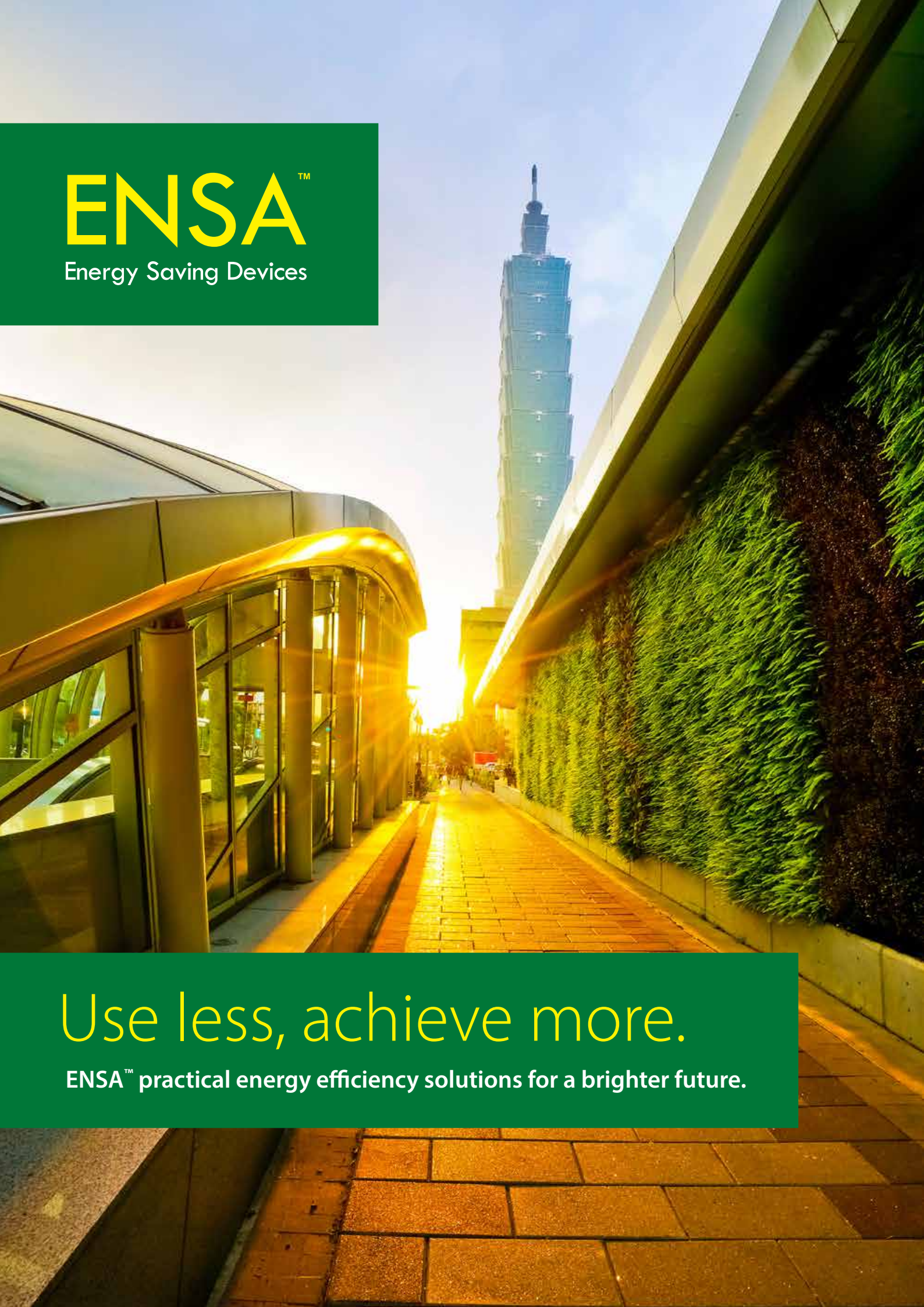
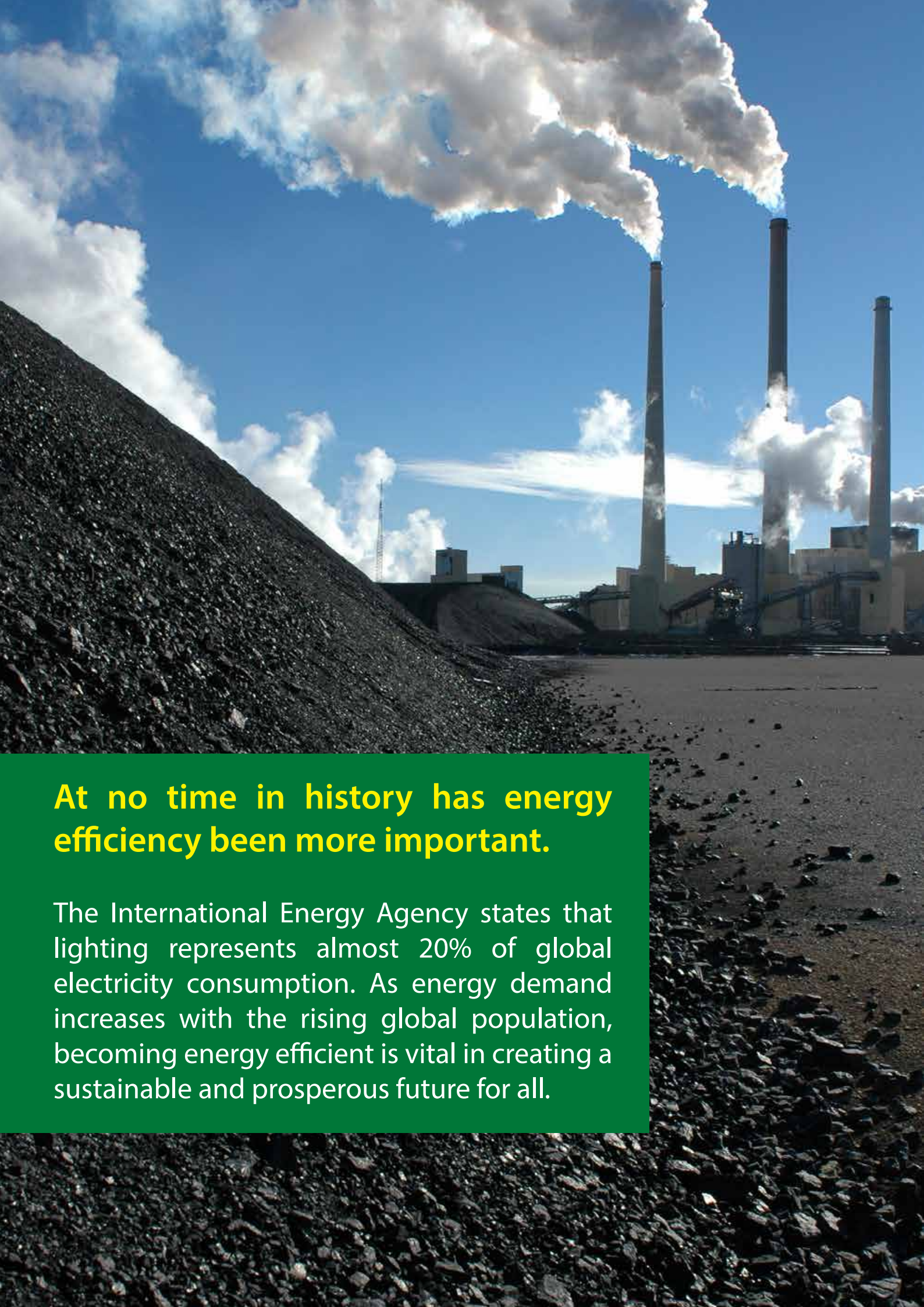


ENSA™

Energy Saving Devices

Use less, achieve more.

ENSA™ practical energy efficiency solutions for a brighter future.



At no time in history has energy efficiency been more important.

The International Energy Agency states that lighting represents almost 20% of global electricity consumption. As energy demand increases with the rising global population, becoming energy efficient is vital in creating a sustainable and prosperous future for all.

ENSA™ Energy Saving Devices

We believe energy efficiency is key to creating a richer society, with happier and safer communities, and more productive workplaces. ENSA is dedicated to delivering energy efficiency to enhance the quality of life of future generations.

ENSA is committed to building healthier environments through energy efficiency. By using less, we aim to achieve more: reducing energy consumption & pollution, minimising harm to the environment and saving on precious natural resources. With ENSA products, you are choosing:

- Efficient lights that reduce energy consumption & harmful emissions.
- Lights with exceptional service life that minimise waste from re-lamping.
- Recyclable lights that do not contain toxic materials such as mercury.

Practical energy efficiency solutions

At ENSA, we understand the complexities of lighting upgrades. Production interruptions, equipment hire, increased operational expenses, and labour costs make it essential for upgrades to be reliable and perform as intended from day one.

The ENSA LED lighting and energy saving devices range comprises practical energy efficiency solutions, designed for fast installation, power consumption reduction and improved lighting performance.

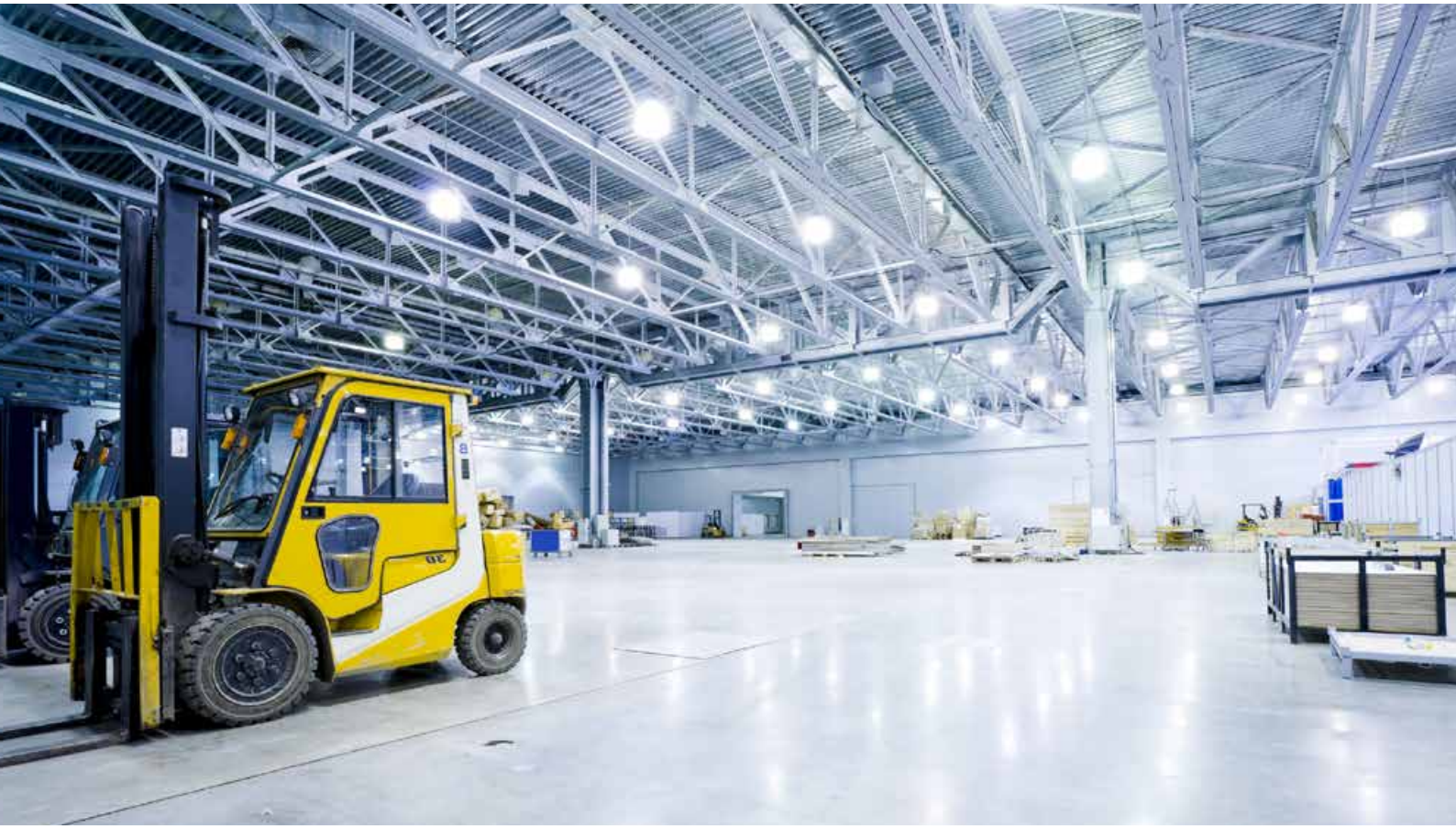
The ENSA range includes industrial grade fixtures such as high bays, street lighting, flood lighting and canopy lighting. It features a wide range of lights, such as LED tubes, downlights and panel lights, that are ready for commercial, shop fit-out and residential applications.

Products also include backup battery LED lights for emergency lighting and intelligent lighting and sensors to compound your energy saving.

LED lighting is the lighting technology for the future and ENSA is at the forefront of the field.

Our products incorporate the latest in LED lighting technology to ensure each light offers excellent efficiency, light quality and service life. Select high bay and flood lights are assembled and quality tested in Australia to ensure continued performance and reliability over the lifespan of the light.

To see our full product range, case studies or to find a reseller, please visit: **www.ensalife.com**



Contents

ENSA™ LED Lighting and energy saving solutions

Australian Assembled LED High Bay Lighting

Available in 150W and 200W models, assembled & quality tested in Australia

The LEDHB series of high bay lights delivers unique, energy efficient alternatives to HPS and metal-halide high bay lighting. Each model features heatsinks with phase-change cooling technology to provide excellent thermal efficiency & long LED lifespan.

They use a precision-built glass lens for optimal light transmittance, removing the need for additional reflectors and allowing the lights to stay compact and robust. Each product is assembled and quality tested in Australia to ensure continued performance and reliability across the lifespan of the light.

- 150W and 200W industry-ready, LED high bay lights.
- Compact and robust: no additional reflector required.
- Efficient phase-change cooling heatsink technology.
- Standard in 4500K natural white with 90° beam angle.
- Control with optional DALI dimming integration.
- Includes steel fail-safe cable & tough eyelet mount.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LEDHB150W	LEDHB200W
Product Image		
Series Name	LEDHB Series Australian Assembled LED High Bay Lights	
Optical		
Luminous Flux	15000lm	20000lm
Luminous Efficacy	100lm/W	
Colour Temperature	4500K	
Colour Rendering Index	>70	
Beam Angle	90° (lens only)	
Light Decay	< 15% at 25,000 hours	
Rated Lifespan	50,000 hours	
Electrical		
Power Consumption	150W	200W
Input Voltage	85 ~ 265VAC	
Power Factor	> 0.9	
Dimmable	DALI Dimming (optional)	
General		
Ingress Protection	IP54	
Plug / Socket / Base	3-pin AC plug	
Reflector / Diffuser	Aluminium or Polycarbonate (optional)	
Housing Adjustments	N/A	
Operating Environment	-10 ~ 50°C	
Dimensions	Ø270 x 400mm	
Equivalent Wattage	300W metal-halide	400W metal-halide

Accessories (optional)

Model	LEDHBRF45P	LEDHBRF45	LEDHBRF90	LEDHBRF120
Product Image				
General				
Material	Polycarbonate	Aluminium		
Rec. Install Height	10 ~ 15m		8 ~ 12m	4 ~ 8m
Beam Angle	45°		90°	120°

Photometry results vary with different colour temperatures and reflector options.

Ordering Information

Type	Wattage	Colour Temperature	Other
LEDHB	150W (150W) 200W (200W)	45K (Natural white)	D (DALI dimming)

LEDHB150W: 150W LED Professional High Bay Light in Natural White

Professional LED High Bay Lighting

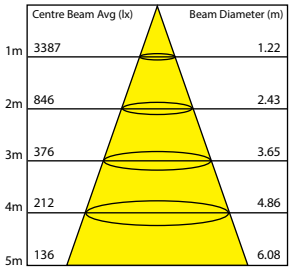
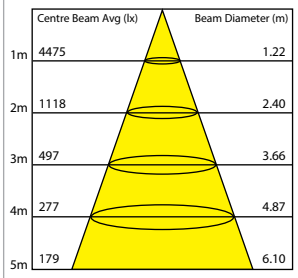
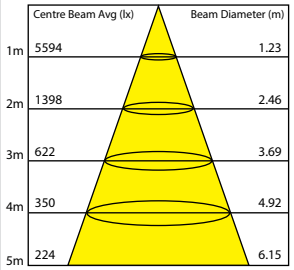
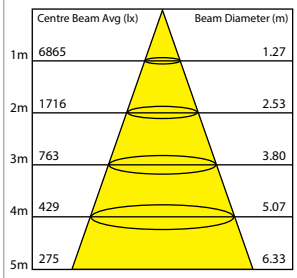
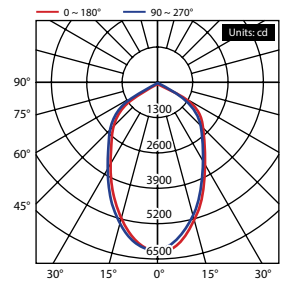
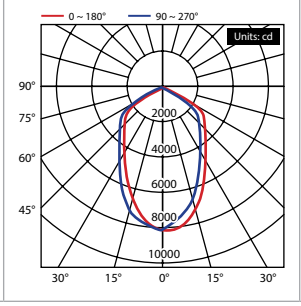
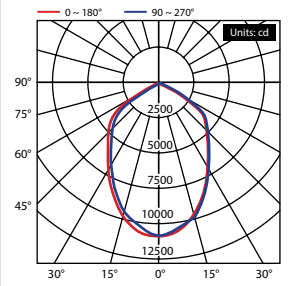
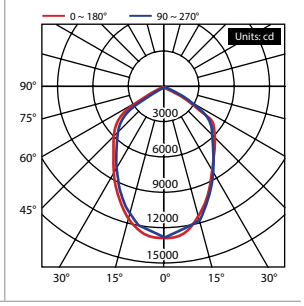
LHB-A series: Available in 80W, 120W, 160W and 200W models

The ENSA™ LHB-A Series of professional LED high bay lighting comprises energy efficient bay lighting built for demanding industrial and commercial environments. Each model features an innovative aluminium heatsink for optimal heat dissipation and Samsung LEDs for reliability and performance. The series is ideal for exhibition halls, manufacturing facilities, warehouses, large retail and more.

- High efficiency, low energy use LED high bay light.
- Effective lighting in high ceiling environments up to 15m.
- Excellent colour rendering, LED lifepsan and light output.
- Superior build quality and thermal management.
- Standard in 6500K cool white with 60° beam angle.
- Includes aluminium reflector and mounting eyelet.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LHB-A80	LHB-A120	LHB-A160	LHB-A200
Product Image				
Seres Name	LHB-A Series Professional LED High Bay Lights			
Optical				
Luminous Flux	8500lm	12500lm	16000lm	20000lm
Luminous Efficacy	105lm/W	105lm/W	100lm/W	1000lm/W
Colour Temperature	6500K			
Colour Rendering Index	> 80			
Beam Angle	60°			
Light Decay	<2% at 6,000 hours			
Rated Lifespan	50,000 hours			
Electrical				
Power Consumption	80W	120W	160W	200W
Input Voltage	100 ~ 240VAC			
Power Factor	> 0.95			
Dimmable	N/A			
General				
Ingress Protection	IP20			
Plug / Socket / Base	3-pin AC plug			
Reflector / Diffuser	Aluminium reflector / Frosted diffuser			
Housing Adjustments	N/A			
Operating Environment	-20° ~ 40°C			
Dimensions	Ø461 x 418mm		Ø468 x 483mm	
Equivalent Wattage	160W metal-halide	240W metal-halide	320W metal-halide	400W metal-halide
Illuminance at a Distance				
Luminous Light Distribution				

Ordering Information

Type		Series	Wattage		Colour Temperature
LHB	-	A	80 (80W) 120 (120W) 160 (160W) 200 (200W)	-	CW (Cool white)

LHB-A120-CW: 120W LED High Bay in Cool White

Australian Assembled LED Flood Lighting

Available in 100W, 200W, 400W and 600W models, assembled & quality tested in Australia

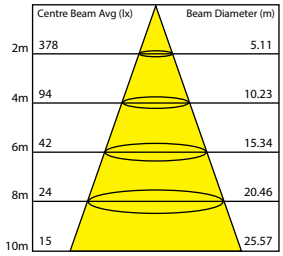
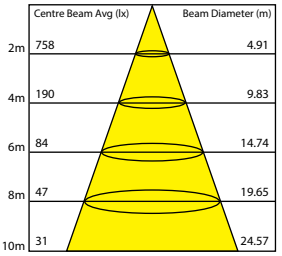
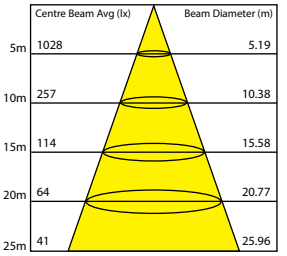
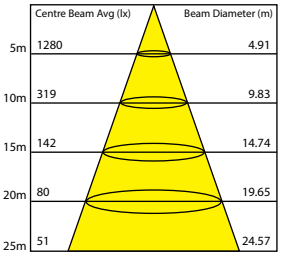
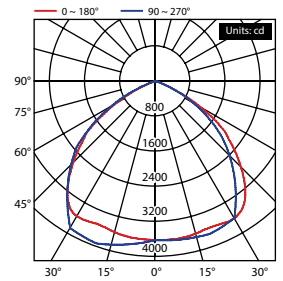
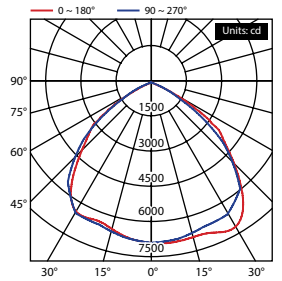
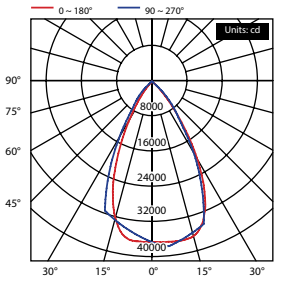
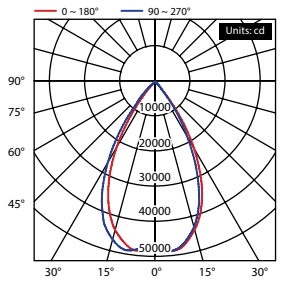
Experience impressive, high-power LED flood lighting with the ENSA™ Australian assembled LED flood light series. Available in 100W, 200W, 400W and 600W models, the series is designed for continuous high light output with a 50,000 hour rated lifespan.

The 120° beam angle 100W and 200W models are perfect for large scale general purpose illumination, whereas the 62° beam angle 400W and 600W models offer concentrated light distribution for high mount heights. Each light features a two-point fastened adjustable mounting bracket, tempered glass front and IP65 weather resistant aluminium housing. Each product is assembled and quality tested in Australia to ensure continued performance and reliability across the lifespan of the light.

- High powered professional flood lights, ready for industry.
- Available in cool, natural and warm white colour temp.
- IP65 weather resistant, suitable for outdoor applications.
- 400/600W models feature phase change cooling pipes.
- Australian assembled & quality tested for reliability.
- Two-point mounting bracket 180°+ adjustable.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LEDFLP100WxK	LEDFLP200WxK	LEDFLP400WxK	LEDFLP600WxK
Product Image				
Series Name	LEDFLP Series Australian Assembled LED Flood Lights			
Optical				
Luminous Flux	10000lm	20000lm	34000lm	51000lm
Luminous Efficacy	100lm/W		85lm/W	
Colour Temperature	3000K / 4500K / 5500K			
Colour Rendering Index	> 90			
Beam Angle	120°		62°	
Light Decay	<15% at 30,000 hours			
Rated Lifespan	50,000 hours			
Electrical				
Power Consumption	100W	200W	400W	600W
Input Voltage	85 ~ 265VAC			
Power Factor	>0.9			
Dimmable	N/A			
General				
Ingress Protection	IP65			
Plug / Socket / Base	3-pin AC plug			
Reflector / Diffuser	Aluminium reflector / Tempered glass front			
Housing Adjustments	180° adjustable 2-point fastened bracket		216° adjustable 2-point fastened bracket	
Operating Environment	-20 ~ 40°C			
Dimensions	250 x 309 x 116mm	340 x 395 x 187mm	367 x 266 x 467mm	
Equivalent Wattage	240W metal-halide	450W metal-halide	800W metal-halide	1200W metal-halide
Photometry				
Illuminance at a Distance (Note: height change)				
Luminous Light Distribution				

Ordering Information

Type	Wattage	Colour Temperature
LEDFLP	100W (100W) 200W (200W) 400W (400W) 600W (600W)	3K (Warm white) 45K (Natural white) 55K (Cool white)

LEDFLP200W45K: 200W LED Professional Flood Light in Natural White

Professional LED Flood Lighting

LFL-A series: Available in 100W and 200W models in two colour temperatures

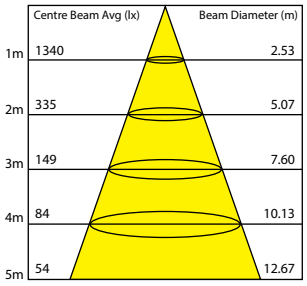
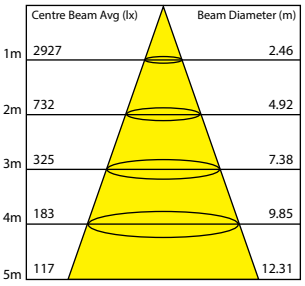
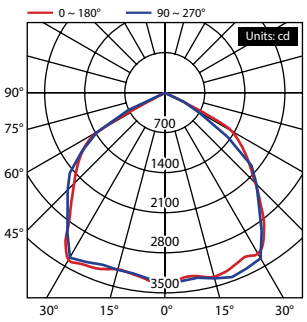
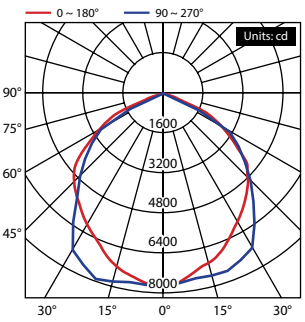
The ENSA™ LFL-A series of high-power LED flood lights delivers exceptional lighting performance in a robust, weather resistant package. Available in 100W and 200W models with a wide 140° beam angle, LFL-A series flood lights are ideal for general purpose lighting in commercial and industrial environments including parking lots, building sites, security lighting, sporting fields, signage illumination and more.

Each light features a finned, high thermal conductivity aluminium heatsink and UV stabilised plastic construction. Lights include a two-point fastened adjustable mounting bracket, tempered glass front and IP65 weather resistant housing.

- High luminous efficacy LED flood lighting (95lm/W).
- Available in cool white colour temperature (5000K).
- IP65 weather resistant, suitable for outdoor applications.
- Wide 140° beam angle, ideal for general purpose lighting.
- Efficient replacement for metal-halide and HPS lamps.
- 180° adjustable two-point fastened mounting bracket.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LFL-A100	LFL-A200
Product Image		
Series Name	LFL-A Series Professional LED Flood Lights	
Optical		
Luminous Flux	9500lm	19000lm
Luminous Efficacy	95lm/W	
Colour Temperature	5000K	
Colour Rendering Index	>72	
Beam Angle	140°	
Light Decay	< 15% at 30,000 hours	
Rated Lifespan	50,000 hours	
Electrical		
Power Consumption	100W	200W
Input Voltage	100 ~ 265VAC	
Power Factor	> 0.9	
Dimmable	N/A	
General		
Ingress Protection	IP65	
Plug / Socket / Base	3-pin AC plug	
Reflector / Diffuser	Aluminium reflector / Tempered glass front	
Housing Adjustments	180° adjustable 2-point fastened bracket	
Operating Environment	-20° ~ 40°C	
Dimensions	395 x 345 x 240mm	470 x 420 x 260mm
Equivalent Wattage	175W metal-halide	350W metal-halide
Photometry		
Illuminance at a Distance		
Luminous Light Distribution		

Ordering Information

Type		Series	Wattage		Colour Temperature
LFL	-	A	100 (100W) 200 (200W)	-	CW (Cool white)

LFL-A200-CW: 200W LED Flood Light in Cool White

Residential LED Flood Lighting

Available in 10W, 20W, 30W and 50W models, with PIR motion sensing

The ENSA™ residential LED flood light series comprises durable, IP65 rated weather resistant LED lights best used in domestic and small business applications. They are an excellent alternative to halogen flood lights, using almost a third of the power for equivalent light output.

Available in a variety of models, this series has a flood light fit to illuminate any space. The versatile range can be used in general purpose lighting, signage illumination, security lighting and more. 20W and 50W models are also available with PIR motion sensing built in. Further reduce your energy usage and increase your security by incorporating LED sensor flood lighting.

- Variety of efficient LED flood lights, for every application.
- Efficient replacement for conventional halogen floods.
- Wide 120° beam angle, ideal for general purpose lighting.
- Sensor flood light models detect up to 12m in a 90° arc.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications (Standard)

Model	LEDFL10W5K	LEDFL20W5K	LEDFL30W5K	LEDFL50W5K
Product Image				
Series Name	Domestic LED Flood Lights			
Optical				
Luminous Flux	530lm	1300lm	2000lm	3300lm
Luminous Efficacy	53lm/W	65lm/W	67lm/W	66lm/W
Colour Temperature	5000K			
Colour Rendering Index	>80			
Beam Angle	120°			
Light Decay	<15% at 20,000 hours			
Rated Lifespan	35,000 hours			
Electrical				
Power Consumption	10W	20W	30W	50W
Input Voltage	85 ~ 265VAC			
Power Factor	>0.9			
Dimmable	N/A			
General				
Ingress Protection	IP65			
Plug / Socket / Base	No plug			
Reflector / Diffuser	Aluminium reflector; glass front			
Housing Adjustments	Single-point fastened 180° angle adjustable			
Operating Environment	-20° ~ 40°C			
Dimensions	115 x 100 x 85mm	180 x 140 x 135mm	224 x 185 x160mm	285 x 234 x 170mm
Equivalent Wattage	20W halogen	50W halogen	75W halogen	120W halogen

Series Specifications (Sensor)

Model	LEDFL20W5KS	LEDFL50W5KS
Product Image		
Series Name	Domestic LED Sensor Flood Lights	
Optical		
Luminous Flux	1120lm	2800lm
Luminous Efficacy	56lm/W	
Colour Temperature	5000K	
Colour Rendering Index	>80	
Beam Angle	120°	
Light Decay	<15% at 20,000 hours	
Rated Lifespan	35,000 hours	
Electrical		
Power Consumption	20W	50W
Input Voltage	85 ~ 265VAC	
Power Factor	>0.9	
Dimmable	N/A	
Detection		
Light Sensor	Built-in dusk/dawn switch	
Motion Sensor	Passive infrared detection	
Sensing Shape/Range	90° arc up to 12m range	
General		
Ingress Protection	IP65	
Plug / Socket / Base	No plug	
Reflector / Diffuser	Aluminium reflector; glass front	
Housing Adjustments	Single-point fastened 180° angle adjustable	
Operating Environment	IP65	
Dimensions	180 x 140 x 135mm	285 x 250 x 170mm
Equivalent Wattage	40W halogen	80W halogen

Professional LED Street Lighting

LSL-A series: Available in 50W, 100W, 150W and 200W models

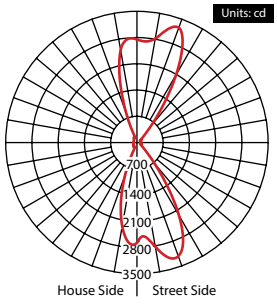
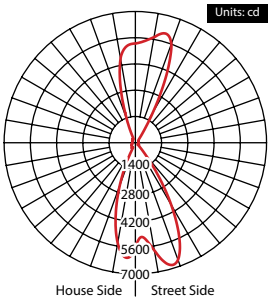
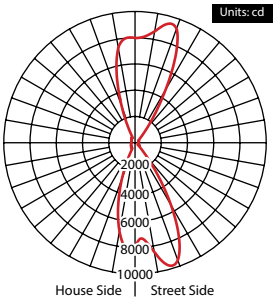
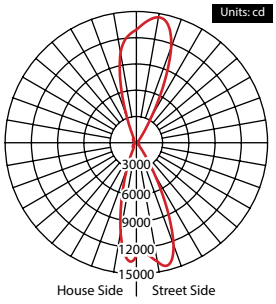
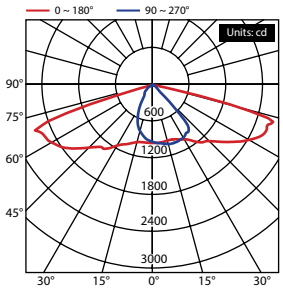
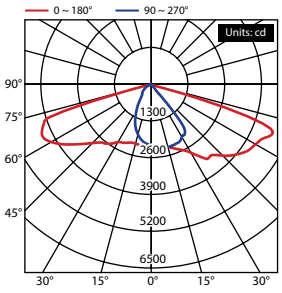
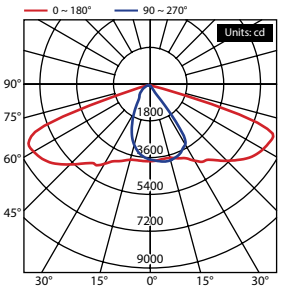
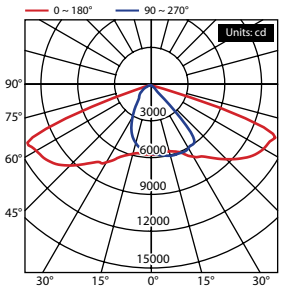
The ENSA™ LSL-A series features all-weather, high efficiency LED street lights, with superior light distribution, colour rendering and vertical illumination when compared to traditional HPS lamps. With an innovative, modular design, the LSL-A series offers a variety of models suitable for all road types, parks, squares and more.

Each street light utilises Philips Lumileds to deliver long lasting, high efficiency lighting. Each light has a batwing light distribution that concentrates light upon roads and walkways, reducing street light glare and light spill into homes/private property.

- High efficiency, all-weather, low energy use street light.
- Effective light distribution with 140° x 60° beam angle.
- Up to 100lm/W performance with Philips Lumileds LEDs.
- Each street light model includes in-line surge protection.
- Available in 4500K natural white colour temperature.
- IP65 dust and weather resistant for external use.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LSL-A50	LSL-A100	LSL-A150	LSL-A200
Product Image				
Series Name	LSL-A Series Professional LED Street Lights			
Optical				
Luminous Flux	5000lm	10000lm	15000lm	20000lm
Luminous Efficacy	100lm/W			
Colour Temperature	3000K / 4500K / 6000K			
Colour Rendering Index	> 80			
Beam Angle	140° x 60°			
Light Decay	<3% at 6,000 hours			
Rated Lifespan	50,000 hours			
Electrical				
Power Consumption	50W	100W	150W	200W
Input Voltage	85 ~ 265VAC			
Power Factor	> 0.95			
Dimmable	N/A			
General				
Ingress Protection	IP65			
Plug / Socket / Base	No plug			
Reflector / Diffuser	N/A			
Housing Adjustments	Adjustable pole fitting: Ø57 ~ 63mm			
Operating Environment	-45° ~ 50°C / 10~90%RH			
Dimensions	485 x 330 x 90mm	590 x 330 x 90mm	690 x 330 x 90mm	770 x 330 x 90mm
Equivalent Wattage	120W HPS	240W HPS	360W HPS	480W HPS
Photometry				
Street Light Distribution				
Luminous Light Distribution				

Ordering Information

Type		Series	Wattage		Colour Temperature
LSL	-	A	50 (50W) 100 (100W) 150 (150W) 200 (200W)	-	CW (Cool white) NW (Natural white) WW (Warm white)

LSL-A150-NW: 150W LED Street Light in Natural White

Professional LED Canopy Lighting

LCL-A series: Available in 70W, 100W and 150W in recessed and surface mount models

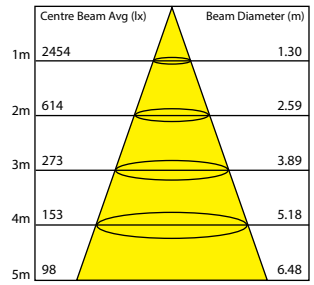
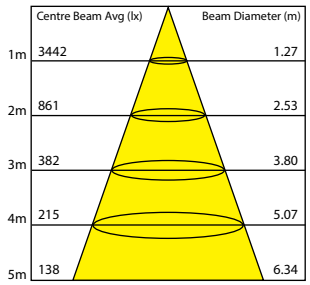
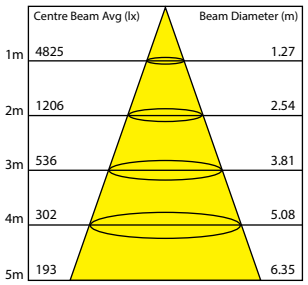
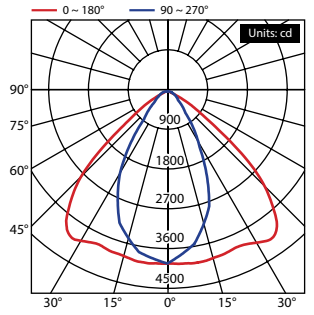
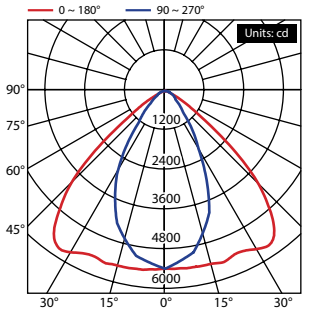
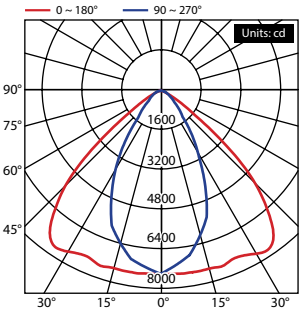
ENSA™ professional LED canopy light series is comprised of energy efficient, recessed and surface mount light fixtures, purpose built for low-bay or canopy lighting applications. They are an ideal, efficient replacement for metal halide and HPS lamps.

Each light in the series features an IP65 dust/water ingress protection rating making them perfect for demanding lighting applications such as in petroleum stations, car parks & car washes, industrial lighting and more. This series utilises high quality CREE LEDs for high-intensity light output and long LED lifespan.

- Efficient replacements for high intensity discharge lamps.
- Rectangular light pattern with 90° x 60° beam angle.
- High quality CREE LEDs with 35,000 hours rated lifespan.
- Superior aluminium thermal management system.
- Available in a variety of colour temperatures.
- IP65 dust and weather resistant for external use

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LCL-A70	LCL-A100	LCL-A150
Product Image			
Series Name	LCL-A Series Professional LED Canopy Lights		
Optical			
Luminous Flux	6500lm	9500lm	12500lm
Luminous Efficacy	93lm/W	95lm/W	84lm/W
Colour Temperature	3000K / 4500K / 6500K		
Colour Rendering Index	>75		
Beam Angle	90° x 60°		
Light Decay	<15% at 20,000 hours		
Rated Lifespan	35,000 hours		
Electrical			
Power Consumption	70W	100W	150W
Input Voltage	85 ~ 265VAC		
Power Factor	> 0.95		
Dimmable	N/A		
General			
Ingress Protection	IP65		
Plug / Socket / Base	3-pin AC plug		
Reflector / Diffuser	Clear glass		
Housing Adjustments	N/A		
Operating Environment	-20° ~ 40°C		
Dimensions	445 x 445 x 213mm (surface) / 479 x 479 x 180mm (recessed)		
Equivalent Wattage	150W metal-halide	200W metal-halide	300W metal-halide
Photometry			
Illuminance at a Distance			
Luminous Light Distribution			

Ordering Information

Type		Series	Wattage		Colour Temperature	Other Features
LCL	-	A	70 (70W) 100 (100W) 150 (150W)	-	CW (Cool white) NW (Natural white) WW (Warm white)	R (Recessed)

LCL-A150-NWR: 150W Recessed Mount LED Canopy Light in Natural White

Professional LED Panel Lighting

LPL-A series: Available in 36W and 48W models, with low unified glare rating

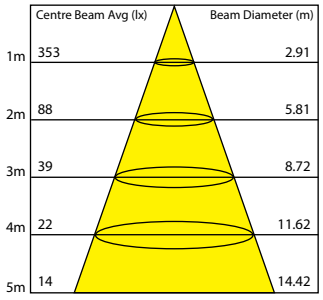
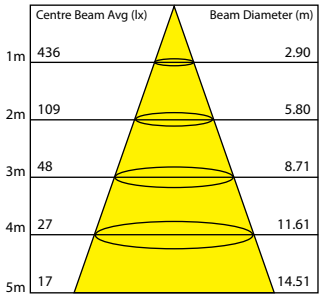
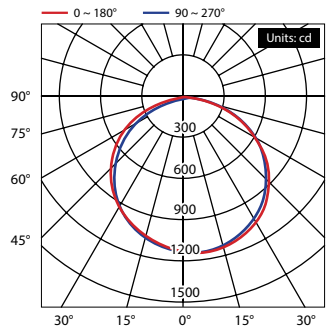
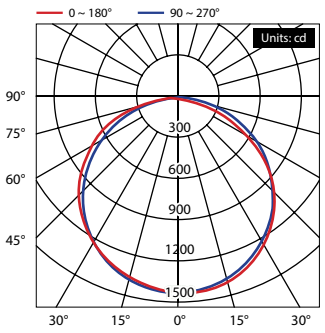
ENSA™ LED panel lights are for replacing traditional tube lighting and are best suited for office and business, in medical and educational environments, in conference rooms, and more. These convenient and efficient lights have a standard rectangular profile (1200 x 300mm) and can be easily recessed in tiled ceilings, surface mounted or suspension mounted.

Each ENSA™ LED panel light features a low Unified Glare Rating, providing a pleasing light that isn't distracting or detrimental to workplace productivity. They are the efficient LED upgrade solution for fluorescent tube troffers.

- Minimalist, stylish & efficient 9mm thick LED panel light.
- Versatile: recessed, suspension & surface mount options.
- Produces a pleasing, soft and evenly distributed light.
- Minimises glare with a low unified glare rating.
- Available in a variety of colour temperatures.
- Designed to fit into standard ceiling grid sizes.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LPL-A36	LPL-A48
Product Image		
Series Name	LPL-A Series Professional LED Panel Lights	
Optical		
Luminous Flux	3300lm	4300lm
Luminous Efficacy	88lm/W	92lm/W
Colour Temperature	3000K / 4000K / 6000K	
Colour Rendering Index	>80	
Beam Angle	110°	
Light Decay	<10% at 6,000 hours	
Rated Lifespan	>25,000 hours	
Electrical		
Power Consumption	36W	48W
Input Voltage	85 ~ 265VAC	
Power Factor	> 0.95	
Dimmable	N/A	
General		
Ingress Protection	IP20	
Plug / Socket / Base	2-pin AC plug with external driver	
Reflector / Diffuser	Frosted diffuser with UGR <22	Frosted diffuser with UGR <19
Housing Adjustments	Recessed (standard) / Hanging (optional) / Surface (optional)	
Operating Environment	-20°C ~ 40°C	
Dimensions	295 x 1195 x 9mm	
Equivalent Wattage	85W twin batten fluorescent	100W twin batten fluorescent
Photometry		
Illuminance at a Distance		
Luminous Light Distribution		

Accessories

Model	LPL-AS	LPL-AH
Product Image		
Type	Surface mount kit	Hanging mount kit
Components	4 x matte white aluminium panels, includes fasteners	Lockable steel cable tethers, includes clips & fasteners

Ordering Information

Type		Series		Wattage		Colour Temperature
LPL	-	A		36 (36W) 48 (48W)	-	CW (Cool white) NW (Natural white) WW (Warm white)

LPL-A36-CW: 36W LED Panel Light in Cool White

Intelligent LED Batten Lighting

Available in 18W and 36W models, in standard batten 600mm & 1200mm lengths

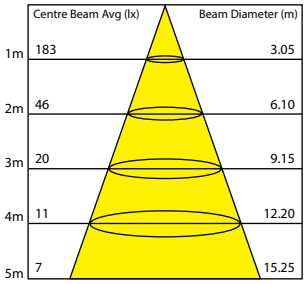
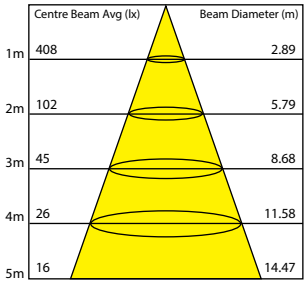
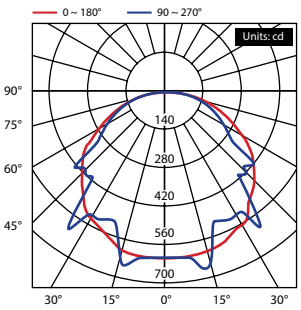
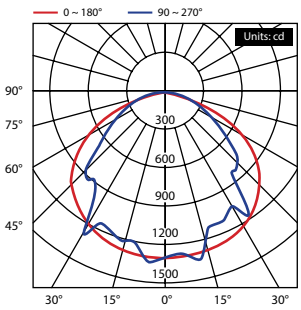
The ENSA™ LED batten light series comprises truly customisable energy efficient lighting solutions that deliver unparalleled control over your lighting, without the need for a complex management system.

Each LED batten uses a fully-configurable ambient light sensor, 5.8GHz microwave motion sensor and light on-timer in tandem, achieving impressively low total energy consumption when compared to traditional twin-batten fluorescent tubes. They are perfect for areas with intermittent people traffic such as in stairwells, corridors, underpasses, multi-storey car parks and more.

- Tailor your light use to further compound energy savings.
- Adjustable light & motion sensing with on-time control.
- Sensor can detect motion through glass and thin walls.
- Built tough housing: IP65 dust and weather resistant.
- Control standby mode: completely off or half brightness.
- Long lifespan LED lighting: rated for up to 50,000 hours.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LEDBT18WS	LEDBT36WS
Product Image		
Series Name	Standard LED Smart Batten	
Optical		
Luminous Flux	1350lm	3240lm
Luminous Efficacy	75lm/W	90lm/W
Colour Temperature	6000K	
Colour Rendering Index	> 70	
Beam Angle	140°	
Light Decay	< 15% at 20,000 hours	
Rated Lifespan	> 50,000 hours	
Electrical		
Power Consumption	18W	36W
Input Voltage	220 ~ 240VAC (50Hz)	
Power Factor	> 0.9	
Dimmable	N/A	
Detection		
Ambient Light Sensor	3 ~ 2000lx (adjustable)	
Motion Detection	360° Microwave (5.8GHz) / 8m radius (adjustable)	
On-Time Delay	10s ~ 12min (adjustable)	
Standby Light Modes	Off (0% brightness) / Dimmed (50% brightness)	
General		
Ingress Protection	IP65	
Plug / Socket / Base	Internal terminal block	
Reflector / Diffuser	Clear polycarbonate diffuser / Metal clips	
Operating Environment	-20° ~ 50°C	
Dimensions	600 x 86 x 65mm	1200 x 95 x 80mm
Equivalent Wattage	40W fluorescent	80W fluorescent
Photometry		
Illuminance at a Distance		
Luminous Light Distribution		

Ordering Information

Type	Wattage	Features
LEDBT	18W (18W) 36W (36W)	S (Sensor batten)

LEDBT36WS: 36W LED Intelligent Batten Light

Intelligent LED Batten Lighting with Backup

Available in 600mm & 1200mm models, with backup battery for emergency lighting

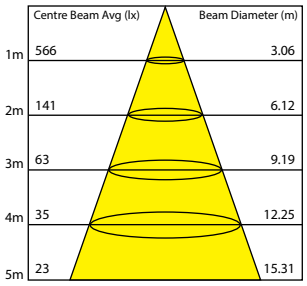
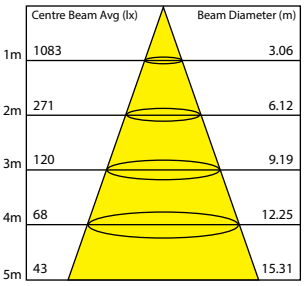
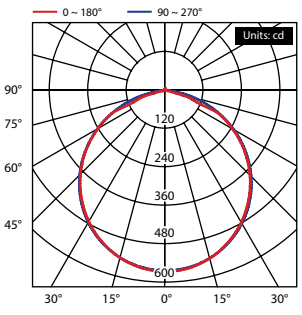
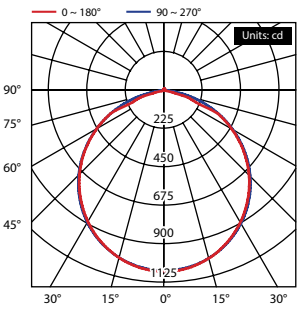
The ENSA™ LED batten light series comprises truly customisable energy efficient lighting solutions that deliver unparalleled control over your lighting, without the need for a complex management system. Models are available as standard sensor batten lights or as an emergency sensor batten light fitted with an emergency NiCad backup battery for over 2 hours light uptime.

Similar to the non-emergency range, the intelligent emergency battens feature three smart ways to customise your lighting. Each light includes an ambient light sensor, microwave motion sensor and on-timer which can be configured to compound energy savings and provide a lighting experience tailored to your exact specifications.

- Tailor your light use to further compound energy savings.
- Adjustable light & motion sensing with on-time control.
- Sensor can detect motion through glass and thin walls.
- Built tough housing: IP65 dust and weather resistant.
- Emergency lighting models are AS2293.3 approved.
- Easy access TEST button for emergency light testing.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LEDBT18WS2	LEDBT18WSE	LEDBT36WS2	LEDBT36WSE
Product Image				
Series Name	Standard LED Smart Batten / Battery Backup LED Smart Batten			
Optical				
Luminous Flux	1600lm		3000lm	
Luminous Efficacy	88lm/W		83lm/W	
Colour Temperature	6000K			
Colour Rendering Index	> 80			
Beam Angle	120°			
Light Decay	< 15% at 10,000 hours			
Rated Lifespan	35,000 hours			
Electrical				
Power Consumption	18W		36W	
Input Voltage	220 ~ 240VAC (50 ~ 60Hz)			
Power Factor	>0.9			
Dimmable	N/A			
Battery Backup	N/A	12V 750mAh NiCad / >120min use	N/A	12V 1500mAh NiCad / >120min use
Emergency Brightness	N/A	20% sensing / 100% on detection	N/A	20% sensing / 100% on detection
Detection				
Ambient Light Sensor	< 50lx / Disabled			
Motion Detection	360° Microwave (5.8GHz) / 8m radius (adjustable)			
On-Time Delay	10s / 30s / 90s / 3min / 20min / 30min			
Standby Light Modes	Dimmed (20% brightness)			
General				
Ingress Protection	IP65			
Plug / Socket / Base	Internal terminal block			
Reflector / Diffuser	Frosted diffuser			
Operating Environment	-25° ~ 40°C			
Dimensions	655 x 108 x 85mm		1260 x 108 x 85mm	
Equivalent Wattage	40W fluorescent		80W fluorescent	
Photometry				
Illuminance at a Distance				
Luminous Light Distribution				

Ordering Information

Type	Wattage	Features
LEDBT	18W (18W) 36W (36W)	S2 (Sensor batten) E (Backup battery)

LEDBT36WSE: 36W LED Sensor Batten with Backup Battery

Intelligent LED Oyster Lighting with Backup

Available in 10W and 16W models, with backup battery for emergency lighting

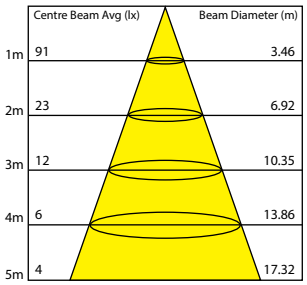
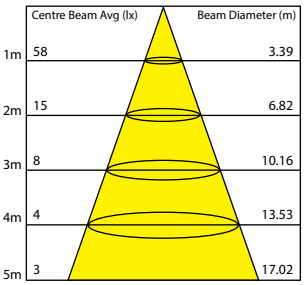
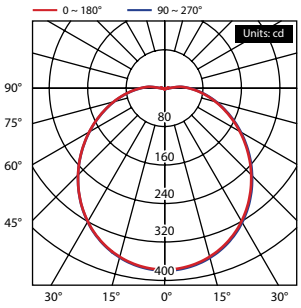
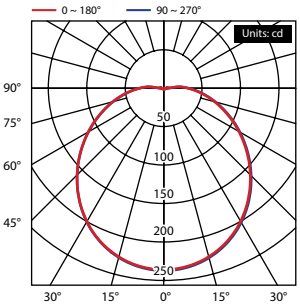
Make the smarter choice in energy efficient lighting. Compound your LED energy savings by choosing ENSA™ Intelligent LED Oyster Lighting, with three adjustable sensors designed to control light use and boost energy efficiency.

Each LED oyster light uses a fully-configurable ambient light sensor, 5.8GHz microwave motion sensor and light on-timer in tandem, achieving impressively low total energy consumption when compared to traditional fluorescent or incandescent lamps. This makes them the perfect energy efficient light for areas with intermittent people traffic such as in apartment complexes, stairwells, walkways, university campuses and more.

This series is also available in a battery backup model, for use in emergency lighting applications. In the event of AC power loss, the light switches to the backup battery operating at half power (5W), for up to 3 hours of continuous illumination.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LEDDL16WxKS	LEDDL10WxKSE
Product Image		
Series Name	Smart LED Oyster Lights	Smart LED Oyster Lights with Backup Battery
Optical		
Luminous Flux	1200lm	700lm
Luminous Efficacy	75lm/W	70lm/W
Colour Temperature	3000K / 5000K	
Colour Rendering Index	> 80	
Beam Angle	120°	
Light Decay	< 15% at 10,000 hours	
Rated Lifespan	30,000 hours	
Electrical		
Power Consumption	16W	10W
Input Voltage	220 ~ 240VAC (50Hz)	
Power Factor	> 0.9	
Dimmable	N/A	
Battery Backup	N/A	7.2V 1800mAh NiMH >120min uptime at 5W
Emergency Brightness	N/A	50% sensing / 100% on detection
Detection		
Ambient Light Sensor	< 3 ~ 2000lx (adjustable)	
Motion Detection	360° Microwave (5.8GHz) / 8m radius (adjustable)	
On-Time Delay	10s ~ 12min (adjustable)	
Standby Light Modes	Off (0% brightness)	
General		
Ingress Protection	IP44	
Plug / Socket / Base	Internal terminal block	
Reflector / Diffuser	Frosted diffuser	
Operating Environment	-20° ~ 50°C	
Dimensions	Ø300 x 115mm	Ø280 x 117mm
Equivalent Wattage	75W halogen	50W halogen
Photometry		
Illuminance at a Distance		
Luminous Light Distribution		

Ordering Information

Type	Wattage	Colour Temperature	Features
LEDDL	10W (10W) 16W (16W)	3K (Warm white) 5K (Cool white)	S (Sensor batten) E (Backup battery)

LEDDL10W5KSE: 10W LED Sensor Oyster Light with Backup Battery

Professional T8 LED Tube Lighting

LTU series: Available in 1200 & 1500mm lengths and in standard & sensor models

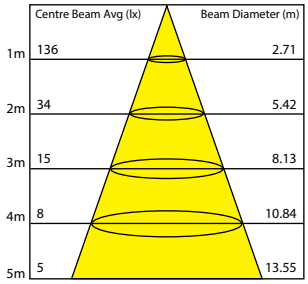
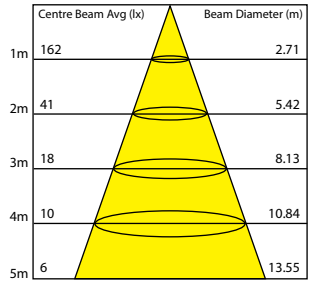
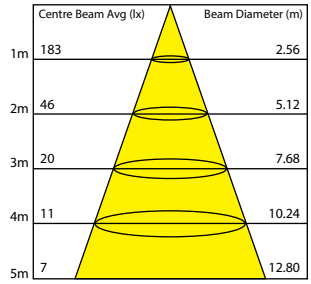
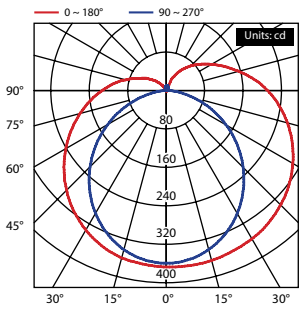
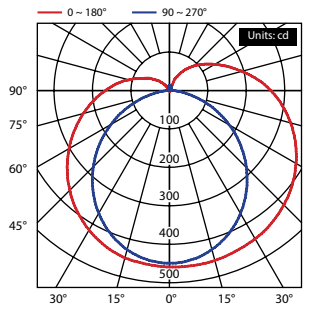
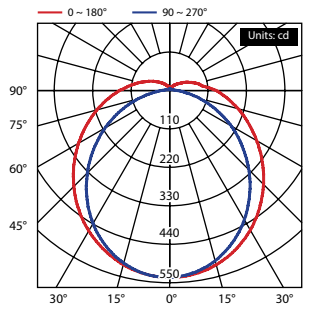
The ENSA™ LED tube light series is designed to reduce your fluorescent tube lighting costs by a minimum of 50%. Available in 1200mm (4ft) and 1500mm (5ft), LTU series tubes are more than energy efficient options to conventional fluorescents. They deliver better quality & longer lasting light with no UV, they do not require a magnetic or electronic ballast, they turn on/off instantly with no warm up period, they do not fade or flicker, and they are 100% recyclable with no mercury or toxic materials.

Each tube features an AC input at one end only and is supplied with an LED starter to replace fluorescent tube fuses. The LTU series is available as a standard LED tube or as a microwave sensor tube.

- Cut your energy use in half by switching to LED tubes.
- Available sensor tube with adjustable on-time delay.
- High luminous efficacy for optimal return on investment.
- Retrofit or replace: ideal for carparks, offices and more.
- Polycarbonate for low risk of shock (standard model only).
- Wide beam angle 140° (standard) and 120° (sensor).

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LTU-A18	LTU-A22	LTU-B18-S
Product Image			
Series Name	LTU-A Series T8 LED Tube Lights		LTU-B Series T8 LED Sensor Tube Lights
Optical			
Luminous Flux	1800lm	2200lm	1800lm
Luminous Efficacy	100lm/W		
Colour Temperature	6000K		
Colour Rendering Index	> 80		
Beam Angle	140°		120°
Light Decay	< 15% at 10,000 hours		
Rated Lifespan	> 30,000 hours		
Electrical			
Power Consumption	18W	22W	18W
Input Voltage	220 ~ 240VAC (50Hz)		100 ~ 265VAC
Power Factor	> 0.9		
Dimmable	N/A		
Detection			
Motion Detection	N/A		360° Microwave sensor / 12m range
On-Time Delay	N/A		5s ~ 60min (adjustable)
Standby Light Modes	N/A		Dimmed (40 ~ 10% brightness) / Off
General			
Plug / Socket / Base	T8 size / G13 base		
Reflector / Diffuser	Frosted diffuser		
Housing Construction	Polycarbonate		Aluminium & polycarbonate cover
Operating Environment	-20° ~ 40°C		-20° ~ 45°C
Dimensions	Ø26 x 1198mm	Ø26 x 1498mm	Ø26 x 1198mm
Equivalent Wattage	40W fluorescent + ballast	60W fluorescent + ballast	40W fluorescent + ballast
Photometry			
Illuminance at a Distance			
Luminous Light Distribution			

Ordering Information

Type		Series	Wattage		Colour Temperature	Other Features
LTU	-	A B	18 (18W) 22 (22W)	-	C (Cool white)	S (Sensor)

LTU-B18-CS: 18W LED Tube Light in Cool White with Microwave Motion Sensing

Linkable LED Strip Lighting

Available in 13W in two colour temperatures, with surface & right angle brackets

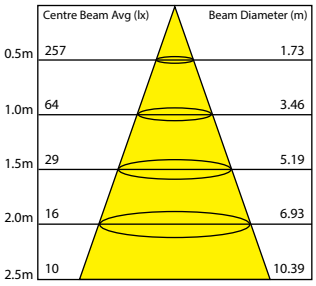
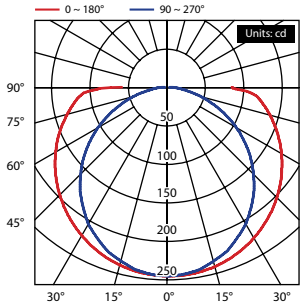
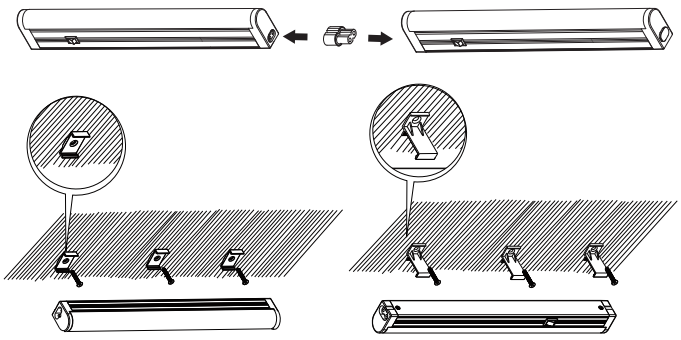
The ENSA™ LED linkable strip light range offers energy efficient lighting in a uniquely versatile, slim package. Connect three LED strip lights together for a maximum 3.5m length LED light strip.

Each linkable strip light comes standard with light connectors, connector safety caps, and surface mount and right angle mount clips. The simple mounting clips enable implementation of the linkable strip light across a wide variety of applications including shelf and cabinet lighting, accent lighting, recessed wall-wash lighting and more.

- Unique, energy efficient linkable LED strip lighting.
- Connect up to 3 lights together; easy on/off switch.
- 78lm/W luminous efficacy & 30,000 hours service life.
- Available in 3000K warm white and 6500K cool white.
- Right angle & surface clips enable rapid light installation.
- Wide 135° beam angle and >80 colour rendering index.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LEDBR13W
Product Image	
Series Name	
Optical	
Luminous Flux	1050lm
Luminous Efficacy	78lm/W
Colour Temperature	3000K / 6500K
Colour Rendering Index	> 80
Beam Angle	135°
Light Decay	<10% after 6,000 hours
Rated Lifespan	> 30,000 hours
Electrical	
Power Consumption	13.5W
Input Voltage	220 ~ 240VAC (50 ~ 60Hz)
Power Factor	> 0.5
Dimmable	N/A
General	
Plug / Socket / Base	3-pin AC plug
Reflector / Diffuser	Frosted diffuser
Housing Construction	Polycarbonate & aluminium
Operating Environment	-25° ~ +40°C
Dimensions	1170 x 25 x 35mm
Equivalent Wattage	50W halogen
Photometry	
Illuminance at a Distance	
Luminous Light Distribution	
Diagrams	
Mounting Options	

Ordering Information

Type	Wattage	Colour Temperature
LEDBR	13W (13.5W)	3K (Warm white) 65K (Cool white)

LEDBR13W65K: 13W LED Linkable Strip Light in Cool White

Premium Adjustable LED Downlights

Tilt & rotate adjustable circular downlights available in 20W, 38W and 60W models

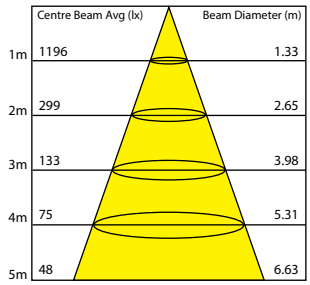
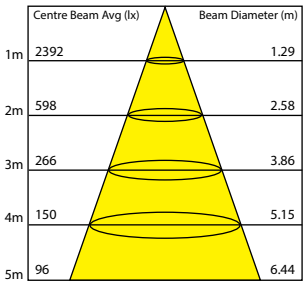
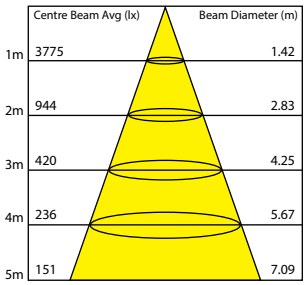
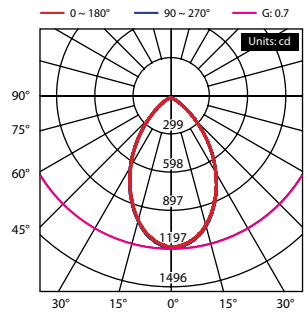
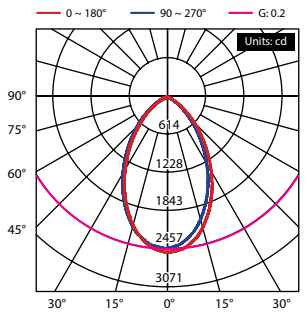
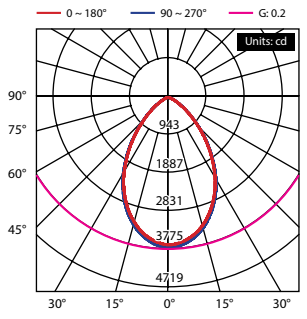
Choose the ENSA™ premium range of adjustable LED downlights for the best in light output, service life, colour rendering accuracy and more. Available in cool and warm white colour temperatures, these downlights utilise high quality Samsung LEDs to provide a minimum of 85lm/W luminous efficacy and up to 50,000 hours rated LED lifespan.

Each downlight in the range can rotate 350° and tilt up to 60°, coupled with a 60° beam angle, these lights are perfect for versatile spot or key lighting in retail spaces, showrooms, foyers, office environments and more.

- Excellent alternative to halogen and metal-halide lamps.
- Ideal for use in shopfitting applications & large fitouts.
- Versatile: 350° rotation and 60° tilt adjustable housing.
- Minimalist, bevelled white gimble downlight surround.
- Samsung LEDs for optimal performance & lifespan.
- Hole cut size: Ø165mm (20W, 38W) and Ø230mm (60W).

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LEDDL20WxKR	LEDDL38WxKR	LEDDL60WxKR
Product Image			
Series Name	Premium Adjustable Series LED Downlights		
Optical			
Luminous Flux	1700lm	3220lm	6300lm
Luminous Efficacy	85lm/W		105lm/W
Colour Temperature	3000K / 5500K		
Colour Rendering Index	> 80		
Beam Angle	60°		
Light Decay	30% over 25,000 hours		
Rated Lifespan	> 50,000 hours		
Electrical			
Power Consumption	20W	38W	60W
Input Voltage	85 ~ 265VAC		
Power Factor	> 0.9		
Dimmable	N/A		
General			
Plug / Socket / Base	3-pin AC plug with external driver		
Reflector / Diffuser	Frosted diffuser		
Housing Adjustments	Tilt 60°/ Rotate 350°		
Operating Environment	-20°C ~ 40°C		
Dimensions	Ø195 x 175mm		Ø250 x 144mm
Hole Cut Size	Ø165mm		Ø230mm
Equivalent Wattage	100W halogen	175W halogen	300W halogen
Photometry			
Illuminance at a Distance			
Luminous Light Distribution			

Ordering Information

Type	Wattage	Colour Temperature	Other Features
LEDDL	20W (20W) 38W (38W) 60W (60W)	3K (Warm white) 5K (Cool white)	R (Round)

LEDDL20W3KR: 20W Round Adjustable Downlight in Warm White

Premium Adjustable LED Downlights

Tilt adjustable rectangular downlights available in 20W, 38W and 48W models

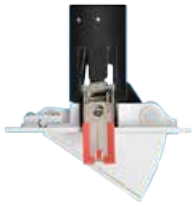
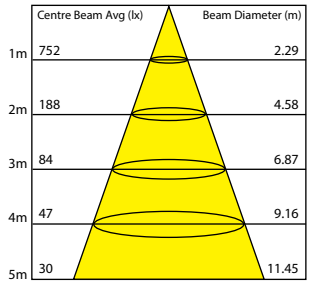
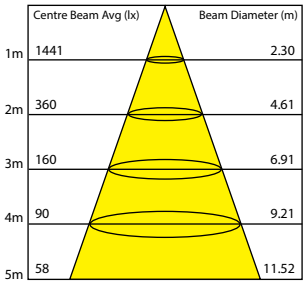
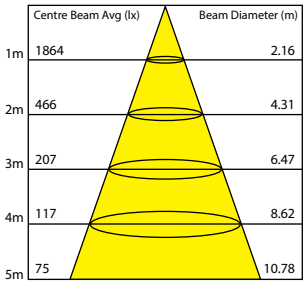
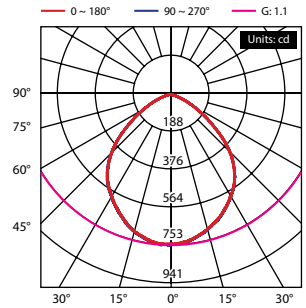
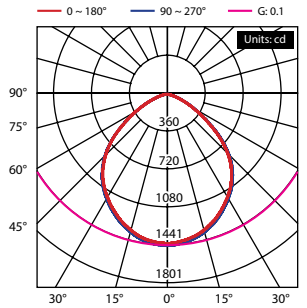
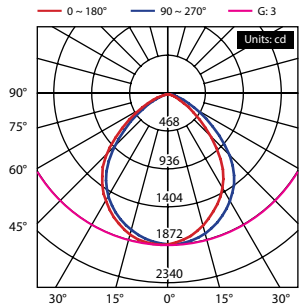
Choose the ENSA™ premium range of adjustable LED downlights for the best in light output, service life, colour rendering accuracy and more. Available in cool and warm white colour temperatures, these downlights utilise high quality Samsung LEDs to provide a minimum of 90lm/W luminous efficacy and up to 50,000 hours rated LED lifespan.

Each downlight in the range can tilt up to 60° and features a wide beam angle of 120°. Their rectangular shape and light distribution makes them ideal for bay lighting, signage illumination and wall highlighting, especially in retail environments.

- Excellent alternative to halogen and metal-halide lamps.
- Ideal for use in shopfitting applications & large fit-outs.
- Samsung LEDs for optimal performance & lifespan.
- Minimalist, bevelled white gimble downlight surround.
- 60° tilt adjustable & frosted diffuser for glare reduction.
- Uniform hole cut size across range: 227 x 130mm.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LEDDL20WxKS	LEDDL38WxKS	LEDDL48WxKS
Product Image			
Series Name	Premium Rectangular Adjustable Series LED Downlights		
Optical			
Luminous Flux	1800lm	3700lm	4300lm
Luminous Efficacy	90lm/W	98lm/W	90lm/W
Colour Temperature	3000K / 5500K		
Colour Rendering Index	>80		
Beam Angle	120°		
Light Decay	30% over 25,000 hours		
Rated Lifespan	> 50,000 hours		
Electrical			
Power Consumption	20W	38W	48W
Input Voltage	85 ~ 265VAC		
Power Factor	> 0.9		
Dimmable	No		
General			
Plug / Socket / Base	3-pin AC plug with external driver		
Reflector / Diffuser	Frosted diffuser		
Housing Adjustments	Tilt 60°		
Operating Environment	-20°C ~ 40°C		
Dimensions	240 x 145 x 135mm		
Hole Cut Size	227 x 130mm		
Equivalent Wattage	100W halogen	175W halogen	250W halogen
Photometry			
Illuminance at a Distance			
Luminous Light Distribution			

Ordering Information

Type	Wattage	Colour Temperature	Other Features
LEDDL	20W (20W) 38W (38W) 48W (48W)	3K (Warm white) 5K (Cool white)	S (Rectangular)

LEDDL20W5KS: 20W Rectangular Adjustable Downlight in Cool White

Premium Fixed LED Downlights

Dimmable models available in 20W, 36W and 48W, in two colour temperatures

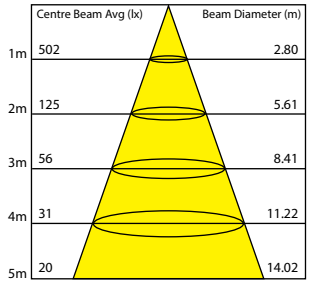
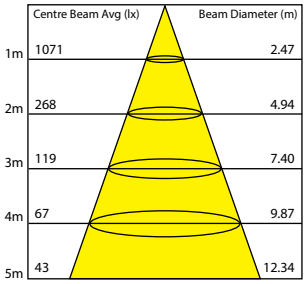
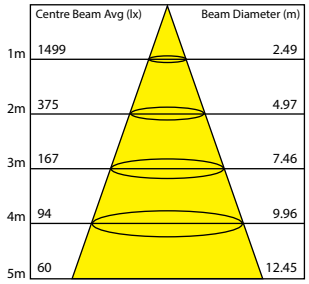
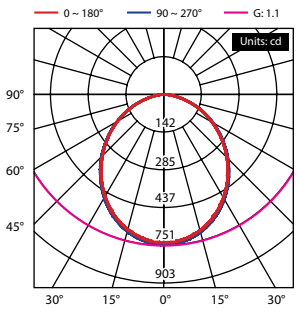
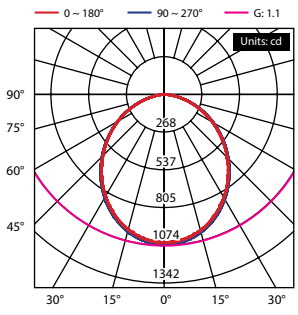
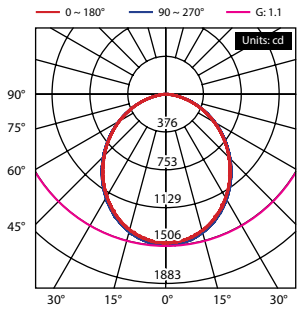
Choose the ENSA™ premium range of fixed LED downlights for the best in light output, service life, colour rendering accuracy and more. Available in cool and warm white colour temperatures, these downlights utilise high quality Samsung LEDs to provide a minimum of 100lm/W luminous efficacy and up to 50,000 hours rated LED lifespan.

With a 100° beam angle and circular light distribution, these lights are designed to provide evenly distributed, high quality light perfect for general purpose illumination in store fit-outs, galleries, residential and office environments and more.

- 100lm/W high efficiency, low energy use LED downlights.
- 6" and 8" total diameter, suitable for retrofit installations.
- Excellent colour rendering, lifepsan and light output.
- Minimalist, bevelled white gimble downlight surround.
- Each downlight model features TRIAC dimming.
- Hole cut size: Ø165mm (20W, 36W) and Ø210mm (48W).

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LEDDL20WxK6RD	LEDDL36WxK6RD	LEDDL48WxK8RD
Product Image			
Series Name	Premium Fixed Dimmable Series LED Downlights		
Optical			
Luminous Flux	2000lm	3600lm	4800lm
Luminous Efficacy	100lm/W		
Colour Temperature	3000K / 5000K		
Colour Rendering Index	> 80		
Beam Angle	100°		
Light Decay	30% over 25,000 hours		
Rated Lifespan	>50,000 hours		
Electrical			
Power Consumption	20W	36W	48W
Input Voltage	100 ~ 240VAC		
Power Factor	> 0.9		
Dimmable	Yes (TRIAC)		
General			
Plug / Socket / Base	3-pin AC plug with external driver		
Reflector / Diffuser	Frosted diffuser		
Housing Adjustments	N/A		
Operating Environment	-20 ~ +40°C		
Dimensions	Ø195x 56mm		Ø245 x 54mm
Hole Cut Size	Ø165mm		Ø210mm
Equivalent Wattage	120W halogen	200W halogen	250W halogen
Photometry			
Illuminance at a Distance			
Luminous Light Distribution			

Ordering Information

Type	Wattage	Colour Temperature	Other Features
LEDDL	20W (20W) 36W (38W) 48W (48W)	3K (Warm white) 5K (Cool white)	6 / 8 (Ø inches) R (Round) D (Dimmable)

LEDDL48W5K8RD: 48W Round Fixed Dimmable Downlight in Cool White

Commercial Adjustable LED Downlights

LDL-BD adjustable series: Available in six dimmable models, in two colour temperatures

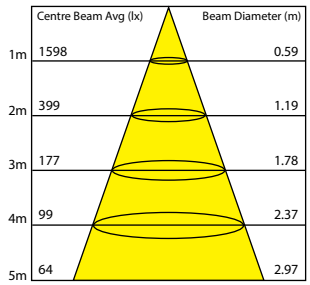
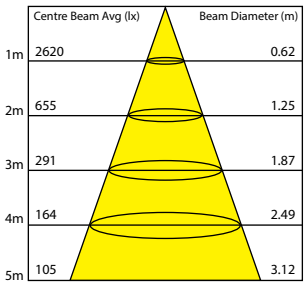
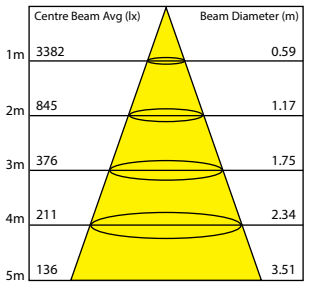
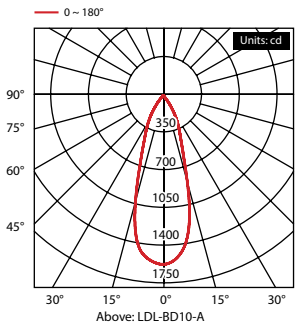
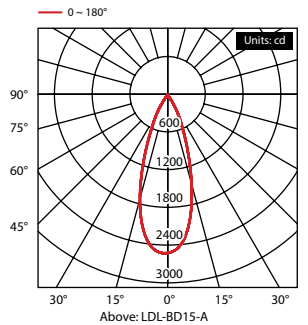
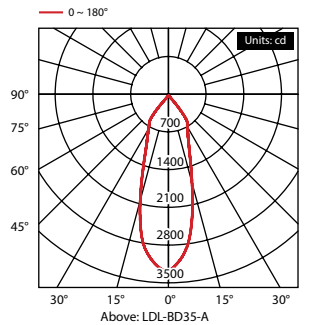
Available in a wide range of wattages and hole cut sizes to suit your installation needs, the ENSA™ LDL-BD adjustable commercial downlight series delivers energy efficient, dimmable downlights for every application. With focused beam angles across the range, LDL-BD adjustable series downlights provide concentrated light distribution, ideal for key and spot lighting.

Each downlight can be tailored to your specifications, featuring an adjustable housing with 40° of lateral tilt (±20°). The series is available in 3000K warm white and 6000K cool white models with an average luminous efficacy of 70lm/W across the range.

- Available in 10W, 12W, 15W, 25W, 35W and 45W models.
- Average beam angle of 35°, ideal for spot & key lighting.
- Dimmable, energy efficient replacement for halogens.
- Rounded, white gimble surround & clear glass diffuser.
- Lateral tilt adjustable housing ±20° from origin.
- Hole cut sizes ranging from Ø75mm ~ Ø160mm.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LDL-BD10-A	LDL-BD12-A	LDL-BD15-A	LDL-BD25-A	LDL-BD35-A	LDL-BD45-A
Product Image						
Series Name	LDL-BD Series Adjustable Dimmable LED Downlights					
Optical						
Luminous Flux	700lm	800lm	1050lm	1800lm	2600lm	3200lm
Luminous Efficacy	70lm/W	68lm/W	70lm/W	72lm/W	74lm/W	71lm/W
Colour Temperature	3000K / 6000K					
Colour Rendering Index	> 80					
Beam Angle	30°	35°	35°	35°	35°	45°
Light Decay	< 30% over 10,000 hours					
Rated Lifespan	>35,000 hours					
Electrical						
Power Consumption	10W	12W	15W	25W	35W	45W
Input Voltage	100 ~ 240VAC					
Power Factor	> 0.9					
Dimmable	Yes					
General						
Plug / Socket / Base	3-pin AC plug with external driver					
Reflector / Diffuser	Clear diffuser					
Housing Adjustments	-20° ~ +20° Lateral tilt					
Operating Environment	-20 ~ +40°C					
Dimensions	Ø95 x 81mm	Ø110 x 88mm	Ø119 x 103mm	Ø142 x 118mm	Ø180 x 129mm	Ø193 x 129mm
Hole Cut Size	Ø75mm	Ø80mm	Ø90mm	Ø110mm	Ø145mm	Ø160mm
Equivalent Wattage	30W halogen	35W halogen	45W halogen	75W halogen	100W halogen	120W halogen
Photometry						
Illuminance at a Distance	 Above: LDL-BD10-A		 Above: LDL-BD15-A		 Above: LDL-BD35-A	
Luminous Light Distribution	 Above: LDL-BD10-A		 Above: LDL-BD15-A		 Above: LDL-BD35-A	

Ordering Information

Type		Series	Wattage		Housing Style	Colour Temperature
LDL	-	BD	10 (10W) 12 (12W) 15 (15W) 25 (25W) 35 (35W) 45 (45W)	-	A (Adjustable)	C (Cool white) W (Warm white)

LDL-BD45-AW: 45W Dimmable Adjustable LED Downlight in Warm White

Recessed Adjustable LED Downlights

LDL-BC series: Available in 10W and 12W dimmable models, in two colour temperatures

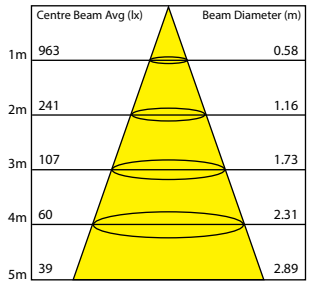
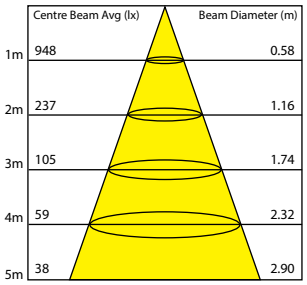
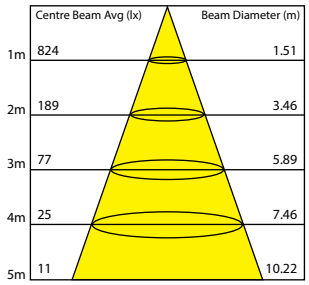
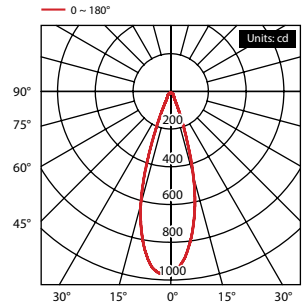
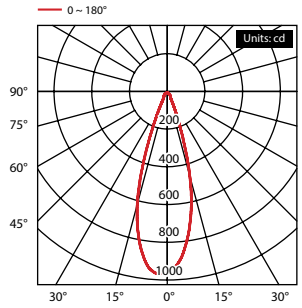
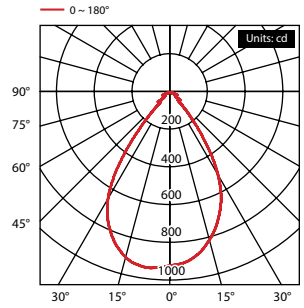
The ENSA™ LDL-BC series comprises a unique range of downlights, available in standard lens and recessed lens models. Standard lens models offer a concentrated circular light distribution with 60° beam angle. All models are dimmable.

Designed to be discreet, recessed lens models have the lens front positioned away from the light opening. Combined with their 20° narrow beam angle and tilt-adjustable housing, they subtly cast light that is free of glare when viewed from almost all angles. Light openings for recessed models are available in circle and elliptical openings.

- Tilt adjustable LED downlights in 10W and 12W models.
- Dimmable, energy efficient replacement for halogens.
- Lateral tilt adjustable housing ±20° from origin.
- Flat-surface, low-profile white gimble (recessed models).
- Simple, stylish bevelled white gimble (standard models).
- Hole cut size: Ø80mm (10W) and Ø70mm (12W).

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LDL-BC10-A1	LDL-BC10-A2	LDL-BC12-A
Product Image			
Series Name	LDL-BC Deep-Recessed Adjustable Dimmable LED Downlights		LDL-BC Adjustable Dimmable LED Downlights
Optical			
Luminous Flux	650lm		900lm
Luminous Efficacy	65lm/W		75lm/W
Colour Temperature	3000K / 6000K		
Colour Rendering Index	> 80		
Beam Angle	20°		60°
Light Decay	< 30% over 10,000 hours		
Rated Lifespan	>35,000 hours		
Electrical			
Power Consumption	10W		12W
Input Voltage	100 ~ 240VAC		
Power Factor	> 0.9		
Dimmable	Yes		
General			
Plug / Socket / Base	3-pin AC plug with external driver		
Reflector / Diffuser	Ellipse shape; deep recessed 'invisible' lens	Circle shape; deep recessed 'invisible' lens	Clear lens/diffuser
Housing Adjustments	-20° ~ +20° Lateral Tilt		
Operating Environment	-20 ~ +40°C		
Dimensions	Ø92 x 92mm		Ø100 x 90mm
Hole Cut Size	Ø80mm		Ø70mm
Equivalent Wattage	35W halogen		40W halogen
Photometry			
Illuminance at a Distance			
Luminous Light Distribution			

Ordering Information

Type		Series	Wattage		Housing Style	Colour Temperature	Other
LDL	-	BC	10 (10W) 12 (12W)	-	A (Adjustable)	C (Cool white) W (Warm white)	1 ~ 9 (Identifier)

LDL-BC10-AC2: 10W Dimmable Adjustable LED Downlight in Cool White

Commercial Fixed LED Downlights

LDL-BD fixed series: Available in four dimmable models, in two colour temperatures

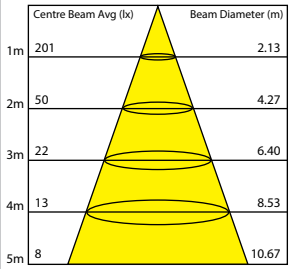
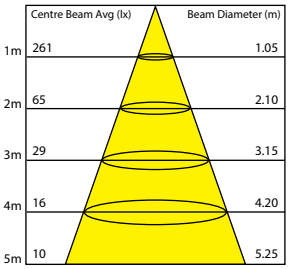
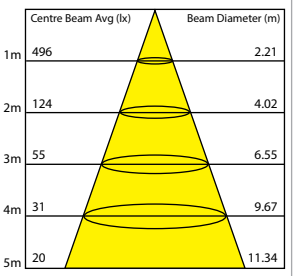
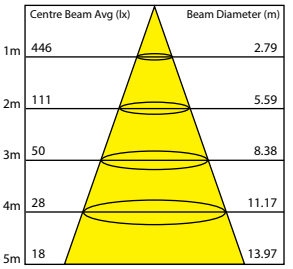
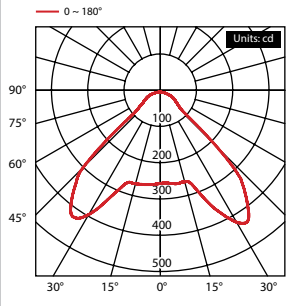
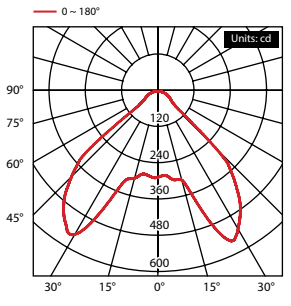
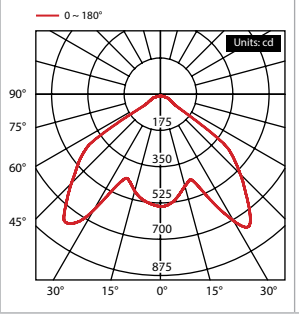
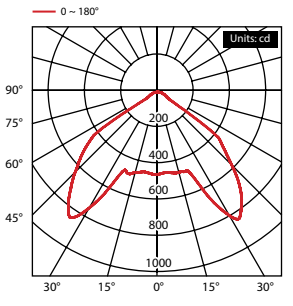
Available in a wide range of wattages and hole cut sizes to suit your installation needs, the ENSA™ LDL-BD fixed commercial downlight series delivers energy efficient, dimmable downlights for every application.

LDL-BD fixed series downlights are an affordable, energy efficient upgrade for existing halogen downlights. They are available in a variety of hole cut sizes and beam angles, and come in 3000K warm white and 6000K cool white colour temperatures. Each downlight in the series is dimmable and features a simple and stylish white gimble surround and partially frosted diffuser.

- Available in 9W, 15W, 20W, and 30W models.
- Average luminous efficacy of 74lm/W across the range.
- Dimmable, energy efficient replacement for halogens.
- Recessed, white gimble with partially frosted diffuser.
- Long life LEDs with 35,000 hours rated service life.
- Hole cut sizes ranging from Ø95mm ~ Ø195mm.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LDL-BD9-F	LDL-BD15-F	LDL-BD20-F	LDL-BD30-F
Product Image				
Series Name	LDL-BD Series Fixed Dimmable LED Downlights			
Optical				
Luminous Flux	700lm	1100lm	1500lm	2100lm
Luminous Efficacy	78lm/W	74lm/W	75lm/W	70lm/W
Colour Temperature	3000K / 6000K			
Colour Rendering Index	> 80			
Beam Angle	95°	36°	75°	108°
Light Decay	< 30% over 10,000 hours			
Rated Lifespan	>35,000 hours			
Electrical				
Power Consumption	9W	15W	20W	30W
Input Voltage	100 ~ 240VAC			
Power Factor	> 0.9			
Dimmable	Yes			
General				
Plug / Socket / Base	3-pin AC plug with external driver			
Reflector / Diffuser	Partially frosted diffuser			
Housing Adjustments	N/A			
Operating Environment	-20 ~ +40°C			
Dimensions	Ø105 x 48mm	Ø140 x 60mm	Ø190 x 60mm	Ø230 x 72mm
Hole Cut Size	Ø95mm	Ø120mm	Ø165mm	Ø195mm
Equivalent Wattage	25W halogen	45W halogen	60W halogen	80W halogen
Photometry				
Illuminance at a Distance				
Luminous Light Distribution				

Ordering Information

Type		Series	Wattage		Housing Style	Colour Temperature
LDL	-	BD	9 (9W) 15 (15W) 20 (20W) 30 (30W)	-	F (Fixed)	C (Cool white) W (Warm white)

LDL-BD9-FW: 9W Dimmable Fixed LED Downlight in Warm White

Residential Fixed LED Downlights

Available in a variety of styles and wattages, in two colour temperatures

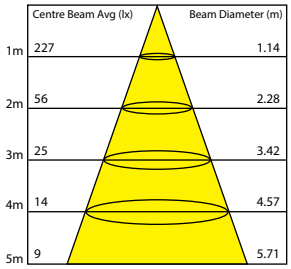
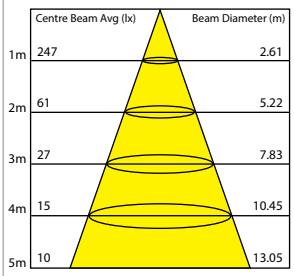
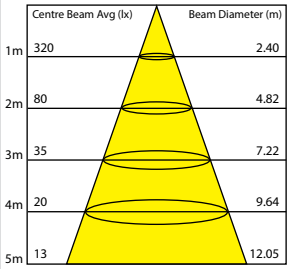
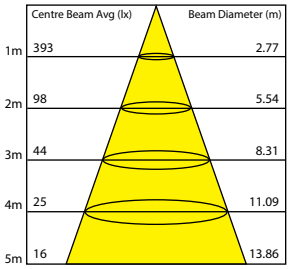
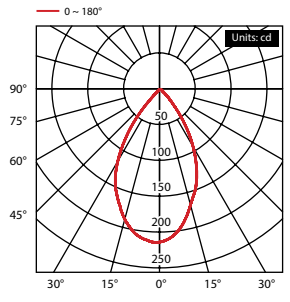
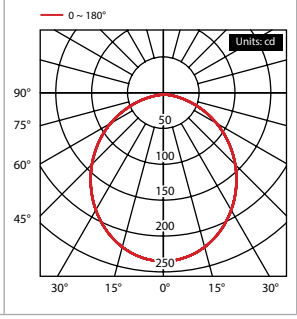
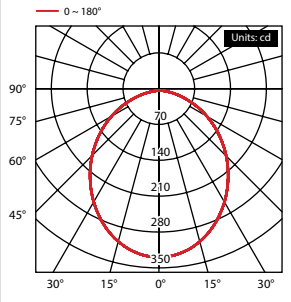
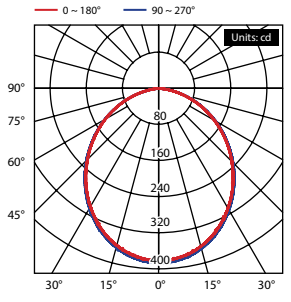
The residential fixed LED downlight range from ENSA™ comprises small and efficient LED fixtures in variety of styles, wattages and hole cut sizes to suit your installation needs.

The LDL-BA series features uniquely packaged LED cabinet lights, with six individual lights operating on a single transformer. This makes them ideal in showrooms and stores for shelf and display cases illumination. LDL-BB and LDL-A series downlights are small form factor LED fixtures available in flat and bevelled gimble styles, in cool and warm white colour temperatures.

- LDL-BA series: Set of six dimmable LED cabinet lights.
- LDL-BB series: Bevelled or flat style dimmable downlights.
- LDL-A series: Bevelled style 85lm/W LED downlights.
- Ideal energy efficient lighting replacement for halogens.
- Long life LEDs: minimum 30,000 hours rated service life.
- Hole cut sizes ranging from Ø28mm ~ Ø125mm.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LDL-BA3-F1	LDL-BA3-F2	LDL-BB10-F	LDL-BB12-F	LDL-A12
Product Image					
Series Name	LDL-BA Series LED Cabinet Lights		LDL-BB Series Dimmable LED Downlights		LDL-A Series Fixed LED Downlight
Optical					
Luminous Flux	200lm		700lm	850lm	1020lm
Luminous Efficacy	67lm/W		70lm/W	71lm/W	85lm/W
Colour Temperature	3000K / 6000K				3000K / 6500K
Colour Rendering Index	> 80				> 75
Beam Angle	45°		120°	95°	110°
Light Decay	< 30% over 10,000 hours				
Rated Lifespan	>35,000 hours				> 30,000 hours
Electrical					
Power Consumption	3W per light (6 pcs total)		10W	12W	
Input Voltage	100 ~ 240VAC				
Power Factor	> 0.9				
Dimmable	Yes				N/A
General					
Plug / Socket / Base	3-pin AC plug with external driver				
Reflector / Diffuser	Clear reflector lens		Frosted diffuser		
Housing Adjustments	N/A				
Operating Environment	-20 ~ +40°C				
Dimensions	Ø44 x 42mm	Ø50 x 38mm	Ø90 x 45mm	Ø110 x 50mm	Ø147 x 66mm
Hole Cut Size	Ø28mm	Ø38mm	Ø75mm	Ø90mm	Ø125mm
Equivalent Wattage	15W halogen		35W halogen	40W halogen	50W halogen
Photometry					
Illuminance at a Distance					
Luminous Light Distribution					

Ordering Information

Type		Series	Wattage		Housing Style	Colour Temperature	Other
LDL	-	BA BB	3 (3W) 10 (10W) 12 (12W)	-	F (Fixed)	C (Cool white) W (Warm white)	1~9 (Identifier)
		A			N/A	CW (Cool white) WW (Warm white)	N/A

LDL-BB10-FW: 10W Dimmable Fixed LED Downlight in Warm White

LED Retrofit Bulb Lighting

Available in a variety of styles and wattages, in two colour temperatures

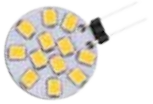
Available in a variety of base fixtures, input voltages, wattages and colour temperatures, the LBL series of LED retrofit bulbs provides an easy path to energy efficient, long life LED illumination. They are available in G4, G9, E14, E27 and E40 bases.

LBL-BA series G4 and LBL-BB series G9 base lights are ideal replacements for halogen lamps and are used in cabinet lights, designer fittings, RV & caravan lamps, in bathrooms & kitchens and more. The LBL-BC series E14 base lights replace small fittings such as those found in appliance lighting, whereas the much larger LBL-BD (E27 base) and BE (E40 base) series lights are heavy duty LED replacements for inefficient lamp post bulbs and metal-halide high bay bulbs.

- Replacement bulbs for a wide range of base fixtures.
- Improve energy efficiency & save on relamping costs.
- 30,000 hours rated service life and high colour accuracy.
- Power flexible: Includes 12VDC and 240VAC input models.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	LBL-BA3-1	LBL-BA3-2	LBL-BA3-3	LBL-BA2	LBL-BB5-1	LBL-BB5-2
Product Image						
Series Name	LBL-BA Series G4 Base LED Bulbs				LBL-BB Series G9 Base LED Bulbs	
Optical						
Luminous Flux	200lm	200lm	300lm	140lm	360lm	550lm
Luminous Efficacy	67lm/W	67lm/W	100lm/W	70lm/W	65lm/W	100lm/W
Colour Temperature	3000K / 6000K					
Colour Rendering Index	>80					
Beam Angle	360°			180°	360°	
Light Decay	<15% at 10,000 hours					
Rated Lifespan	30,000 hours					
Electrical						
Power Consumption	3W			2W	5.5W	
Input Voltage	12VDC	240VAC	12VDC	12VDC	240VAC	240VAC
Power Factor	>0.4	>0.4	>0.4	>0.4	>0.6	>0.5
Dimmable	N/A					
General						
Construction / Material	Silicon base		Ceramic base	Plastic base	Silicon base	Ceramic base
Plug / Socket / Base	G4 bi-pin				G9 bi-pin	
Operating Environment	-20 ~ +40°C					
Dimensions	Ø15 x 43mm	Ø16 x 43mm	Ø15 x 44mm	20 x 30mm	Ø17 x 61mm	Ø15 x 60mm
Equivalent Wattage	12W halogen	12W halogen	15W halogen	10W halogen	20W halogen	25W halogen

Model	LBL-BC1	LBL-BD36	LBL-BE120
Product Image			
Series Name	LBL-BC Series E14 Base Retrofit Bulbs	LBL-BD Series E27 Base Retrofit Bulbs	LBL-BE Series E40 Base Retrofit Bulbs
Optical			
Luminous Flux	120lm	3600lm	12000lm
Luminous Efficacy	80lm/W	100lm/W	
Colour Temperature	3000K / 6000K		
Colour Rendering Index	>80		
Beam Angle	360°		
Light Decay	<15% at 10,000 hours		
Rated Lifespan	30,000 hours		
Electrical			
Power Consumption	1.5W	36W	120W
Input Voltage	220 ~ 240VAC	85 ~ 265VAC	
Power Factor	>0.80	>0.95	
Dimmable	N/A		
General			
Construction / Material	Glass / Ceramic	Aluminium / Polycarbonate	
Plug / Socket / Base	E14 screw	E27 screw	E40 screw
Operating Environment	-20 ~ +40°C		
Dimensions	Ø23 x 50mm	Ø93 x 222mm	Ø120 x 354mm
Equivalent Wattage	10W halogen	150W halogen	250W metal-halide

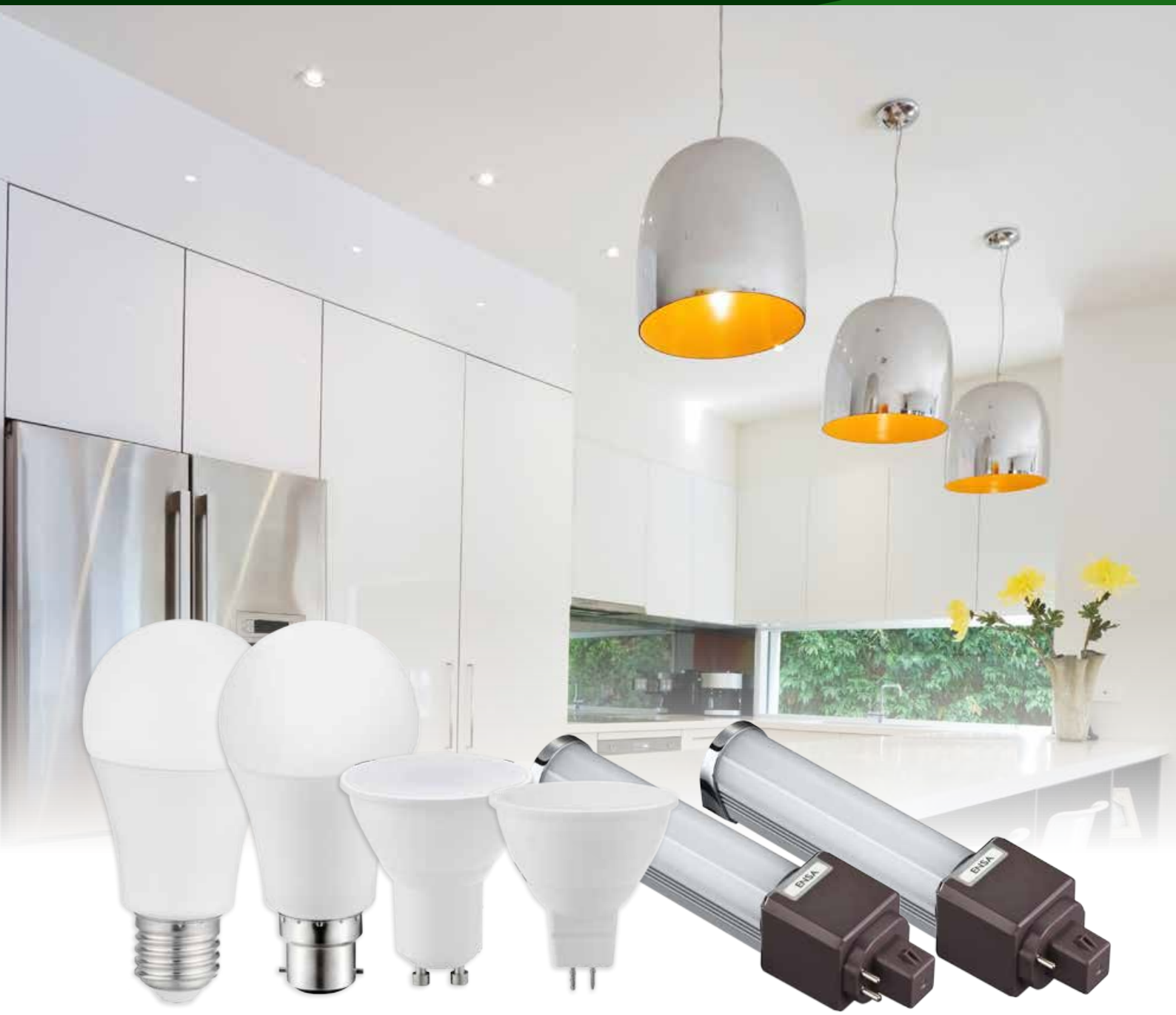
Ordering Information

Type		Series	Wattage		Colour Temperature	Other
LBL	-	BA BB	2 (2W) 3 (3W) 5 (5.5W)	-	C (Cool white) W (Warm white)	1~9

LBL-BA3-W2: 3W G4 Base LED Retrofit Bulb in Warm White

Type		Series	Wattage		Colour Temperature
LBL	-	BC BD BE	1 (1.5W) 36 (36W) 120 (120W)	-	C (Cool white) W (Warm white)

LBL-BD36-C: 36W E27 Base LED Retrofit Bulb in Cool White



LED Retrofit Globe Lighting

Available in a variety of wattages in E27, B22, GU10, GU5.3 and PL G24 style fittings

The ENSA™ LED light globe series provides a variety of energy efficient LED bulbs, ideal for replacing shorter-lifespan, higher energy use incandescent, halogen and compact fluorescent bulbs. They are a perfect lighting solution for general purpose illumination.

Each ENSA™ LED light globe features a frosted diffuser to remove harsh LED glare, is available in cool & warm white temperatures and comes with a 10 year return-to-base warranty (excludes PL G24 lights, visit *www.ensalife.com* for full warranty terms)

This series is available in a variety of wattages and base fittings to handle all types of lighting upgrades. Form factors include standard light bulb replacements available in E27 screw base and B22 bayonet fitting; MR16 downlight bulb replacements in GU5.3 12V bi-pin fitting and GU10 240V bayonet fitting; and PL style fluorescent replacements in 2-pin & 4-pin variations.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	BL6WE27	BL9WE27	BL11WE27	BL6WB22	BL9WB22	BL11WB22
Product Image						
Series Name	E27 Screw LED Globe Series			B22 Bayonet LED Globe Series		
Optical						
Luminous Flux	485lm	795lm	1025lm	485lm	795lm	1025lm
Luminous Efficacy	75lm/W	84lm/W	93lm/W	75lm/W	84lm/W	93lm/W
Colour Temperature	3000K / 6500K					
Colour Rendering Index	>80					
Beam Angle	160°					
Light Decay	<10% after 6,000 hours					
Rated Lifespan	30,000 hours					
Electrical						
Power Consumption	6.5W	9.5W	11W	6.5W	9.5W	11W
Input Voltage	220 ~ 240VAC					
Power Factor	>0.5					
Dimmable	N/A					
General						
Construction / Material	Aluminium & plastic					
Plug / Socket / Base	E27			B22		
Operating Environment	-25° ~ +40°C					
Dimensions	Ø60 x 107mm					
Equivalent Wattage	40W incandescent	60W incandescent	75W incandescent	40W incandescent	60W incandescent	75W incandescent

Model	GL5WMR	GL5WGU	G24D10W	G24Q10W
Product Image				
Series Name	MR16 LED Downlight Series		G24 LED PL Light Series	
Optical				
Luminous Flux	410lm		960lm	
Luminous Efficacy	75lm/W		>90lm/W	
Colour Temperature	3000K / 6500K		3000K / 5500K	
Colour Rendering Index	>80		>80	
Beam Angle	105°		145°	
Light Decay	<10% after 6,000 hours		<15% after 20,000 hours	
Rated Lifespan	30,000 hours		32,000 hours	
Electrical				
Power Consumption	5.5W		10W	
Input Voltage	12VDC	220 ~ 240VAC	85 ~ 265VAC	
Power Factor	>0.5		>0.9	
Dimmable	N/A		N/A	
General				
Construction / Material	Aluminium & polycarbonate			
Plug / Socket / Base	GU5.3	GU10	G24D 2-pin / 180° rotatable base	G24Q 4-pin / 180° rotatable base
Operating Environment	-25° ~ +40°C		-20° ~ 65°C / 80%RH (max)	
Dimensions	Ø51 x 50mm	Ø56 x 50mm	35 x 35 x 181mm	
Equivalent Wattage	30W halogen		20W fluorescent	

Ordering Information

Type	Wattage	Base Fitting	Colour Temperature
LEDBL	6W (6.5W) 9W (9.5W) 11W (11W)	E27 (E27 Screw) B22 (B22 Bayonet)	3K (Warm white) 65K (Cool white)
LEDGL	5W (5.5W)	GU (GU10 Bayonet) MR (GU5.3 Bi-pin)	3K (Warm white) 65K (Cool white)

LEDBL6WE2765K: 6.5W LED Globe with E27 Base in Cool White

Type	Base Fitting	Wattage	Colour Temperature
LEDG24	D (2-pin) Q (4-pin)	10W (10W)	3K (Warm white) 5K (Cool white)

LEDG24Q10W3K: 10W LED PL Light with 4-pin Base in Warm White

Intelligent Energy Saving Switches & Receivers

Available with microwave or passive infrared sensors in a variety of different styles

The ENSA™ intelligent energy saving switch series comprises a wide range of automated, smart switches that use a variety of different sensors to control light use. This innovative combination of sensors ensures your lights will only turn on when you need them to, saving you on power costs and reducing the impact on the environment.

Each intelligent switch features adjustable light sensing, movement sensing and on-timer delay so you may tailor light use to your exact specifications. The range includes models with 5.8GHz microwave or passive infrared (PIR) for movement sensing.

Once installed, the switch's daylight sensor measures ambient light levels. If light levels fall below the set limit, the motion sensor is activated. Upon detecting motion, the switch will turn the connected light on. When movement is no longer detected, the switch's adjustable on-timer delay will keep the light on for a designated period of time. Once this delay has expired, the switch turns the light off automatically.

Contact your local ENSA™ supplier for full warranty details.

Series Specifications

Model	ENSA-PS1	ENSA-PS2	ENSA-PS3	ENSA-MS1	ENSA-MS2	ENSA-MS3	ENSA-LC1
Product Image							
Daylight Sensor	•	•	•	•	•	•	•
Passive Infrared Sensor	•	•	•				
Microwave Sensor				•	•	•	
On-timer Delay	•	•	•	•	•	•	
Electrical							
Input Voltage	220 ~ 240VAC 50Hz						
Power Consumption (Sensing Mode)	0.5W	0.4W	0.5W	0.9W	0.9W	0.2W	< 0.1W
Max. Rated Load (Resistive/Inductive)	1200W / 300W	2000W / 1000W	800W /400W	500W / 200W	1200W / 300W	1200W / 300W	10A rated current
Detection Adjustments							
Daylight Sensing	3 ~ 2000 Lux						5 ~ 50 Lux
Motion Detection Area	180° arc	360° rectangle	360° circle	360° circle	360° circle	180° arc	N/A
Motion Detection Range	12m	4 x 20m	6m	2 ~ 8m	1 ~ 8m	1 ~ 8m	N/A
Motion Detection Speed	0.6 ~ 1.5m/s						N/A
On-timer Delay	10s ~ 7min	10s ~ 30min	10s ~ 15min	5s ~ 10min	10s ~ 12min	10s ~ 12min	N/A
General							
Ingress Protection	IP65	IP20	IP20	Indoor use only	IP20	IP44	IP44
Operating Environment	-20 ~ 40°C / <93% Relative humidity						
Mounting Type	Wall/ceiling	Ceiling	Recessed ceiling	Wall/ceiling	Ceiling	Wall/ceiling	Wall
Rec. Installation Height	1.8 ~ 2.5m	4 ~ 10m	2.2 ~ 4m	1.8 ~ 3.5m	1.5 ~ 3.5m	1.5 ~ 3.5m	Place above light
Dimensions	80 x 120 x 50mm	100 x 100 x 50mm	Ø50 x 65mm	40 x 60 x 25mm	Ø100 x 40mm	100 x 75 x 85mm	Ø82 x 108mm

* Sensors switches must be installed by a licensed electrician.

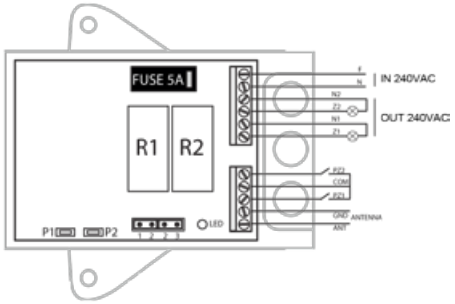
2 Channel Mains Voltage RF Receiver

Automate your LED lighting with the ENSA-RS1 2 channel 240VAC mains voltage RF receiver. With a maximum rated load of up to 1000W, you can integrate wireless triggering for a large number of lights via this receiver. The receiver shell is IP55 rated and suitable for external use.

The ENSA-RS1 includes two keyfobs for light control. The receiver can also be triggered by up to 128 universal transmitters. This includes wireless passive infrared detectors, beam/curtain detectors and door/window reed switches. This makes the ENSA-RS1 ideal for effective security lighting applications.

Contact your local ENSA™ professional for more information on universal wireless detector integration. Wireless transmitters are optional and sold separately.

Model	ENSA-RS1
Product Image	
Frequency	433.92MHz fixed code
Range (LoS)	100m
Programmable Outputs	2 relay outputs (latched or timed)
Maximum Codes	128
Electrical	
Input Voltage	240VAC 50 ~ 60Hz
Maximum Rated Load	1000W
General	
Ingress Protection	IP55
Included Remotes	2
Operating Environment	-20 ~ 55°C
Diagram	



Daylight Harvesting Control Systems

Harvest ambient light to maximise your energy efficiency and power savings

As the cost of energy rises, more builders and architects are incorporating natural light as a primary source of illumination in modern buildings. Using natural light is an excellent way to increase energy efficiency and can create more comfortable living and work spaces.

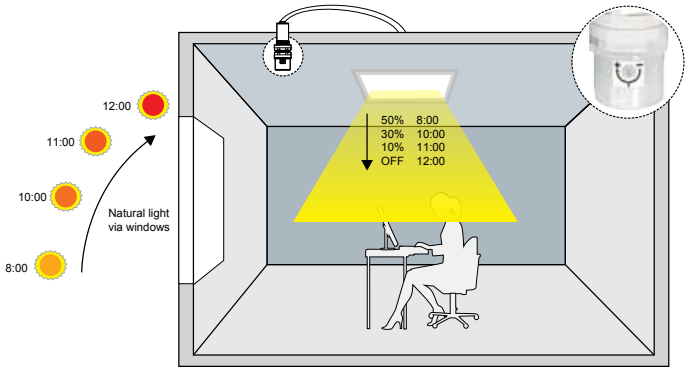
ENSA™ daylight harvesting control systems are designed to take full advantage of the natural light sources in your building to deliver optimal lighting performance and reductions in power costs. Implement automated lighting controls that dim or turn off your artificial lighting in response to available daylight in the space.

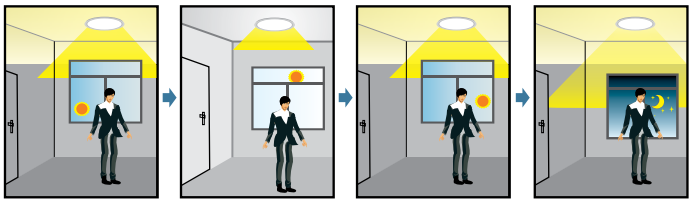
- Boost your efficiency by maximising use of natural light.
- Add daylight harvesting to any dimmable lighting system.
- Set target light levels to automate light dimming.
- Compatible with most dimmable LED drivers (ENSA-DR1).

Contact your local ENSA™ supplier for full warranty details.

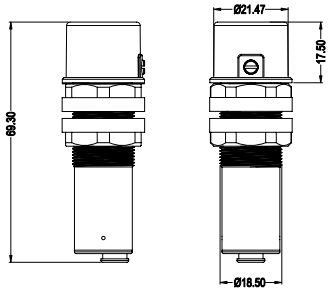
Daylight Harvesting Light Sensor

Once installed with a compatible 1~10VDC dimming LED driver, the ENSA-LC2 daylight sensor can be set to dim or brighten your lights as per a set target light level. This is performed easily via a potentiometer on the sensor.



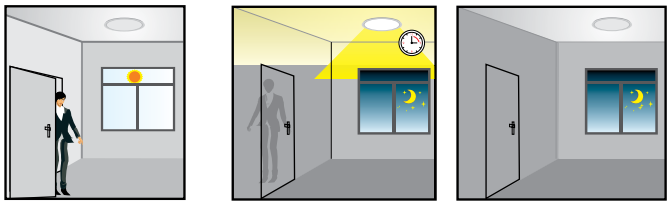


As ambient light levels rise and fall during the day, the ENSA-LC2 controls the brightness of artificial lights to reach target light levels set via the potentiometer sensor.

Model	ENSA-LC2
Product Image	
Electrical	
Input Voltage	1 ~ 10VDC
Dimming Range	1 ~ 100%
Max. Current Sink	50mA (maximum)
General	
Ingress Protection	IP20
Operating Environment	0° ~ 45°C
Installation Height	4m
Dimensions	Ø22 x 70mm (800mm cable)
Diagrams	
Dimensions	

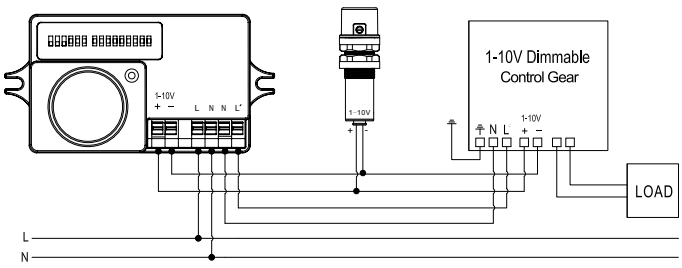
Integrating Motion Detection

The ENSA-LC2 can be augmented by an ENSA-MS4 microwave motion sensor to include motion detection control and standby dimming, alongside daylight harvesting control.

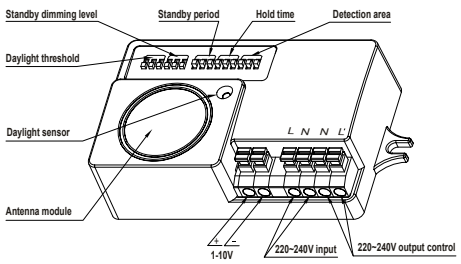


If the ENSA-LC2 detects sufficient ambient light levels, controlled lights remain off, regardless of motion detected by the ENSA-MS4.

When ambient light levels fall below the set target, the ENSA-MS4 switches the light on upon detecting movement. If ambient light levels are below the set target, after the last detected motion the ENSA-MS4 will switch off after a standby period. The standby delay period and standby brightness levels are configurable on the ENSA-MS4.



Model	ENSA-MS4
Product Image	
Electrical	
Input Voltage	220 ~ 240VAC 50 ~ 60Hz
Power Consumption	0.5W (standby) / 1W (operation)
Max. Rated Load	1200W (resistive) / 800W (inductive)
Detection Adjustments	
Daylight Sensing	5lx / 10lx / 30lx / 50lx / Disabled
Motion Detection Range	Ø16m x 10m
Motion Detection Angle	150° (wall) or 360° (ceiling)
Motion Detection Speed	0.5 ~ 3.0m/s
Detection Sensitivity	100% / 75% / 50% / 25% / 10%
On-timer Delay	10s / 30s / 90s / 3min / 20min / 30min
Stand-by Period	5s / 5min / 10min / 30min / 60min / Disabled
Stand-by Dimming	10% / 20% / 30% / 50%
General	
Ingress Protection	IP20
Operating Environment	-35° ~ 70°C
Installation Height	Max. 10m
Dimensions	101 x 52 x 26mm
Diagrams	



Guide to ENSA Range

Helping compare lighting technologies and defining colour temperature

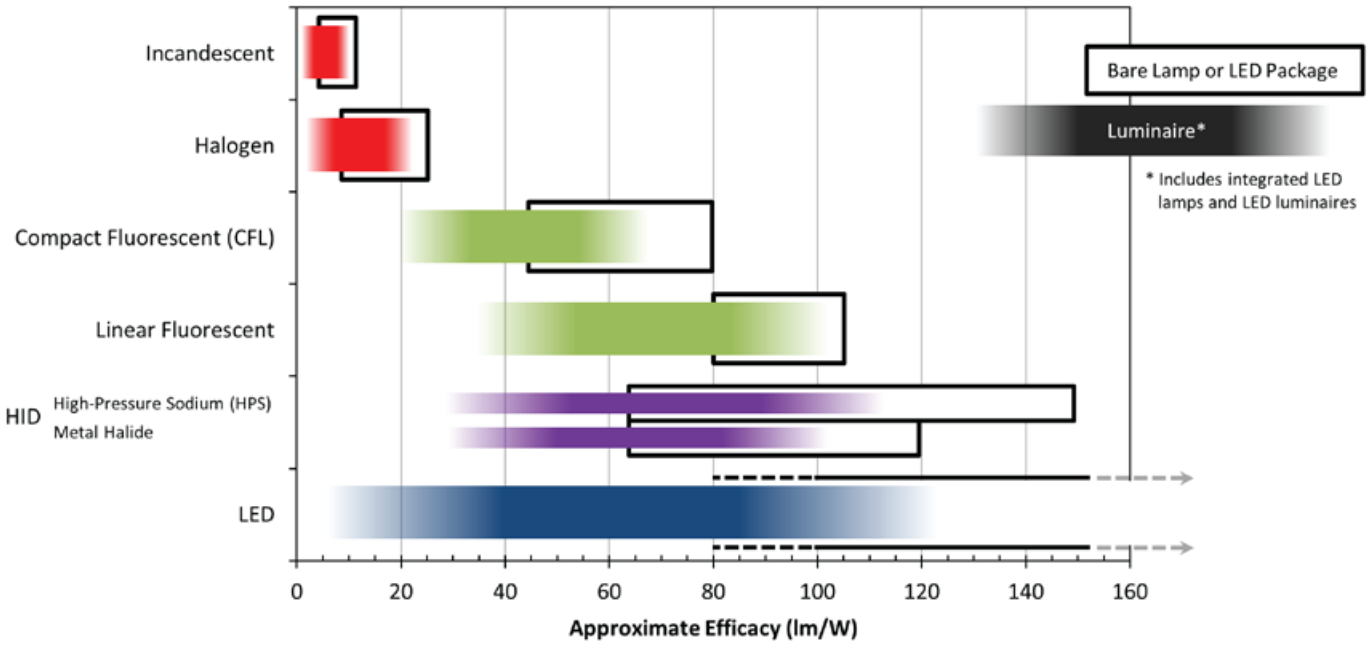
Information presented is intended as a guide only. While care is taken to ensure accuracy, actual results may vary.

Comparing Lighting Technologies

Shown below are an approximate range of luminous efficacy for different lighting technologies. This graph details initial lamp luminous efficacy only and doesn't compare technological advantages such as instant on/off, colour accuracy, robustness, etc.

When comparing lighting technologies, you should also consider:

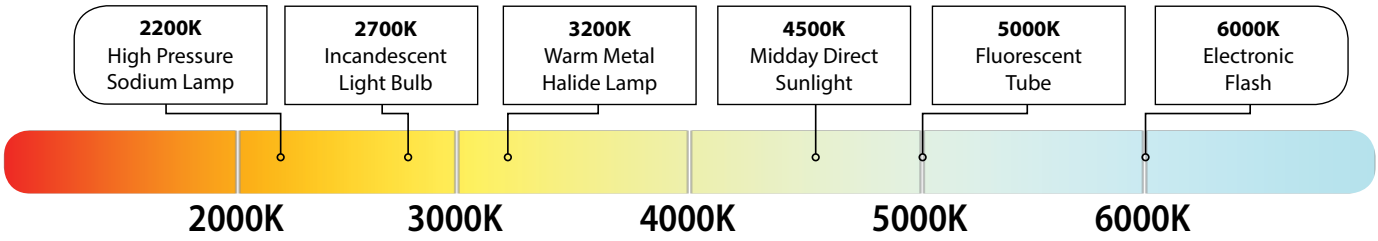
- **Lumen depreciation:** How efficient will the light be as it progresses towards end of life?
- **Application efficacy:** How efficient is the optical system (reflectors, lenses) at delivering light in the intended purpose?
- **System design:** Is performance is hindered by driver losses or poor heat dissipation? Does the lamp require a ballast?



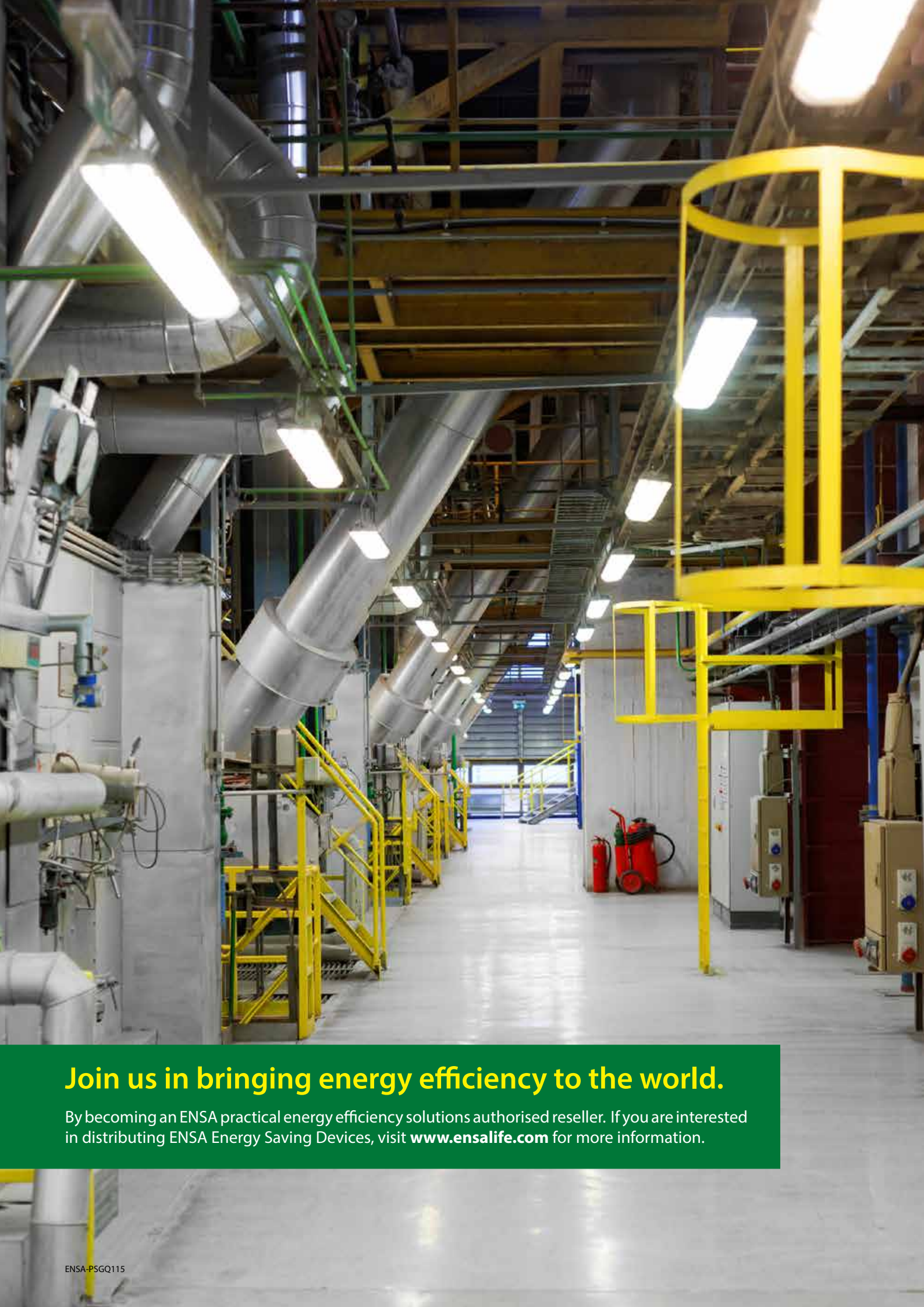
Approximate range of efficacy for various common light sources, as of January 2013. The black boxes show the efficacy of bare conventional lamps or LED packages, which can vary based on construction, materials, wattage, or other factors. The shaded regions show luminaire efficacy, which considers the entire system, including driver, thermal, and optical losses. Of the light source technologies listed, only LED is expected to make substantial increases in efficacy in the near future. US Department of Energy (March, 2013)

Defining Colour Temperature

The ENSA LED lighting range is available in a number of colour temperatures to suit your needs. Below is a reference scale charting existing light sources and their colour temperature. Use this chart as an approximate guide when selecting from our LED lighting range.



Contact your local ENSA™ supplier for full warranty details.



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