Peter Sword, founder of Versalux in 1979, is still actively involved in the business as a Partner, Director and Board Member. The company’s ongoing success is directly attributable to his lighting knowledge and vision.
VERSALUX

Versalux has been bringing state-of-the-art products to the Australasian lighting market for 39 years and has been integral to the evolution and revolution that is part of the lighting journey. A heritage that spans almost 4 decades has forged a solid profile in many facets of commercial and industrial lighting and established strong relationships with key international suppliers. We are proud of our great depth of lighting experience and repertoire of major projects within Australia and New Zealand across a diverse range of markets and products.

That rich history extends to our relationships with market leading luminaire manufacturers such as Architech / Quality Art and the Glamox / Luxo group. They too have a proud history of product development and innovation across the lighting landscape. In particular, Luxo has 75 years of history in arm-based product development and are still market leaders in this area. With over fifty million units sold across the globe, the iconic L-1 is ground zero for task lamps and is an integral part of the LUXO story.

Lighting designers and producers alike are faced with increased compliance with a growing number of standards relating to lighting design and luminaire construction, as well as various energy and building construction codes and schemes. Versalux’ commitment to quality in lighting design and luminaire assembly embraces the compliance regime and ensures best in class lighting solutions for our clients. Our innovative sales and design teams are the cream of the lighting industry with a formidable combination of expertise and passion for lighting, making us the logical partner for your next project or application.
CAPRI MAXI

IP65 industrial LED luminaire with a specialised optical system for improved performance and visual comfort. Cost-effective, low-maintenance and low-glare design minimises shadowing and delivers multiple benefits to the client and occupants. Suspended as standard, with recessing trims available to suit a variety of ceilings.

PRODUCT FEATURES

- Low glare acrylic or polycarbonate refractor
- Anodised faceted aluminium reflector in a choice of 2 distributions
- IP65 construction
- High ambient temperature rated
- Multiple photometric distributions
- 3% upward light
- Eight outputs between 20,000lm to 60,000lm
- COB LED technology with integral driver
- Constant Light Output (CLO) version available (320W)
- DALI Dim versions available
- Emergency version available
- Wide range of usable mounting heights (4-20m)
- Supreme diversity of use and application
- Best in class components and construction quality
- Closed loop heavy-duty eye bolt for suspended applications
- IP rated 3 core flex (5 core on dimming versions)
- Safety lanyard supplied as standard
- Zero UV / Infra red
- 5 year warranty available

MOUNTING HEIGHTS

The range of products is suitable for mounting heights from 4 to 20 metres. Can be suspended or recessed to suit the structure and environment of the application.

OPTIONS / ACCESSORIES

- Plaster recess trim
- Bondor ceiling trim kit (for freezer panel installations)
RECESSED MOUNTING OPTIONS

BONDOR CEILINGS TRIM ACCESSORY

See note Ø835mm (Visible trim) Ø800mm (Cutout)

75mm, 100mm, 150mm and 200mm deep Bondor Trims can be provided to suit appropriate material depth

PLASTER CEILINGS TRIM ACCESSORY

See note Ø835mm (Visible trim) Ø800mm (Cutout)
A COMPLETE PACKAGE

CAPRI MAXI manages the balance between the critical thermal dynamics required to meet the stringent temperature limits essential to achieving long and reliable product expectancy, while satisfying all the important visual comfort factors such as low glare, high colour rendering and stable flicker free illumination.

- Heavy duty closed loop eye bolt for easy suspension.
- Pre-fitted IP65 rated 3/5 core circular cable with glanded entry to gear housing.
- Pressure die cast aluminium gear housing for maximum heat dissipation. IP65 rated and high impact resistant.
- A variety of drivers provide options for dimmability and also Constant Light Output to optimise energy savings and capital expenditure.
- Extruded and anodised aluminium DynaSink™ dynamic cooling system for ‘super cool’ thermal management.
- Choice of impact resistant polycarbonate or acrylic refractors, minimising direct glare while maintaining maximum light output.
- Faceted spun high purity aluminium reflector for optimal photometric performance. 2 beam distributions available.
- Spring loaded clamping band for retention of refractor to reflector.
**BENEFITS TO OWNERS AND DESIGNERS**

- Combines visual comfort, high performance and energy efficiency into a family of luminaires to suit most applications
- IP65 translates to minimal dirt depreciation due to clean optic system, reduces number of fittings at design stage
- CLO version further reduces fittings required at design stage, as lumen depreciation is negated
- Minimum number of fittings required at design stage, reduced electrical load and wiring points, cheaper initial installation
- Superior vertical illumination - Racking, aisles and retail applications for identification of stock as well as multipurpose sports applications for players and spectators
- Instant light - no need for warm up or standby lighting system if power is disrupted
- Life unaffected by switching intervals
- Negligible maintenance through life of system. May consider cleaning of external optics in extreme dust / dirt environments
- Predictable behaviour for 50,000 hrs
- Easily adaptable to daylight harvesting systems as well as movement sensing systems
- Dim or switch off lighting in unoccupied areas. Instant reactivation when lighting is demanded
- Dim part or whole of lighting system whenever sufficient daylight penetrates the space

**BENEFITS TO USERS**

- Low glare solution, LED’s are concealed from view
- Greater visual comfort for workers, users, spectators, and players
- Instant light, no waiting for warm up
- DC drive system, zero flicker, zero stroboscopic effect
- Suitable for use where high speed machinery is in use
- Compatible with high definition cameras for broadcasting
- Compatible with security cameras

**BENEFITS TO INSTALLERS**

- Luminaire is supplied complete. No site assembly required
- Closed loop eye bolt fitted for easy site installation
- IP65 rated cable supplied, for easy termination on site
- Plugtop not included

**APPLICATIONS**

- Workshops / Manufacturing areas / Warehousing
- Food packaging / Multipurpose indoor sports facilities
- Cool stores, cold rooms and freezers / Loading docks
- Distribution facilities / Retail applications
1. DYNAMIC DIMMING WITH ‘DAYLIGHT HARVESTING’

Use the energy savings and health benefits of natural daylight

- Sensors detect the amount of daylight available and ‘top up’ with artificial lighting where necessary
- Available for CM210, CM320 and CM600

2. DYNAMIC DIMMING WITH ‘DAYLIGHT HARVESTING’ AND MOTION SENSING

Only activate the lighting if the space is occupied

Use the energy savings and health benefits of natural daylight

- Sensors detect if people have vacated and dim or switch off lighting as desired
- Sensors detect the amount of daylight available and ‘top up’ with artificial lighting where necessary
- Available for CM210, CM320 and CM600
- 3. motion sensing only
- Only activate the lighting if the space is occupied
- Sensors detect if people have vacated and switch off lighting accordingly
- Available for all CAPRI MAXI versions

MANUAL SWITCH

- Simple ON / OFF button
- Available for all CAPRI MAXI versions

MANUAL SWITCH AND DIMMING

- Push ON/OFF button and rotary DIM pot totally flexible for ‘multi purpose’ use
- Available for CM210, CM320 and CM600

PRESET DALI CONTROL BOX

- Pre-programmed control unit with preset push button scenes
- Can be tailored to suit customer requirements
- Can be tailored for number of scenes
- Available for CM210, CM320 and CM600

BUILDING MANAGEMENT SYSTEM

- Lighting system can be integrated with all BMS systems operating a DALI protocol
- Available for CM210, CM320 and CM600
**VISUAL COMFORT**

CAPRI MAXI’s optical system combined with its industrial strength heat dissipation characteristics and unique driver housing configurations provide a brute fixture lumen package far in excess of the 400W Metal Halide and High Pressure Sodium fixtures of the past.

In spite of this vast output, its superiority to the general LED fixtures on offer for industrial and sporting complexes lies in its natural provision of upward light and high vertical illumination - all the while keeping its LED light source shielded from view at all angles.

Versalux designed the CAPRI MAXI to embody our belief that lighting is for people, and energy savings are nothing without attention to the needs of the human eye in relation to the environments it is in and the tasks to be performed.

The CAPRI MAXI’s refractor is 750mm in diameter, providing an extremely broad, dished viewing surface. This surface area, combined with its refraction system, ensures that the powerful output is delivered across a very large, diffuse area.

By stark contrast, other commonly offered industrial & sports luminaires provide either little or no shielding to the LED source(s), creating dazzling points of light that are sources of discomfort and disability glare.
The room images on these pages are computer generated 3d renderings of two LED lighting installations for typical warehouse aisles - the Versalux CAPRI MAXI vs a generic alternative. Only the direct light (i.e. no reflected light) falling on the surfaces in the model is shown, and the brightness/darkness of the images shows where the direct illumination is strongest, weakest, and most uniform. Both designs are based upon the same optimised luminaire layout.

**CEILING**

The CAPRI MAXI’s high performance optic has a Ø750mm x 70mm deep dished prismatic refractor, creating a large, three dimensional area over which to diffuse its powerful source LEDs. Additionally, the near vertical sides of the refractor dish allows approximately 3% of the light to travel into the upper hemisphere, delivering sufficient light into the relatively shallow ceiling space to provide a brightened background for the fixture. The illuminated ceiling and the diffused optic work in concert to provide improved visual comfort for workers, even when they operate with the near vertical viewing angles required for pallet locations near the top of racks.

**RACKS & THE VERTICAL WORKPLANE**

The wide beam CAPRI MAXI optic has a high vertical component in its light distribution, and is a good solution for a range of logistic projects. It delivers both high vertical uniformity and high vertical illumination levels on the rack ‘sides’ resulting in faster operation and reduced errors in picking and storage of goods, as well as reducing the risk of industrial accidents. It is also ideal for bouncing light around the racks and into the deeper spaces often occupied by non-palletised goods.

**FLOOR & THE HORIZONTAL WORKPLANE**

CAPRI MAXI’s wide beam option has a ‘batwing distribution’, a spread of light where the peak illumination is not at 0° (directly under the fixture), but instead typically between 20-40° outward. This facilitates a much higher uniformity of light across the floorspace and the horizontal workplace where storepeople need good illumination to read the details of picking slips and other such orders.
CEILING

GENERAL LED fixtures with direct, open optics typically have a ‘cutoff’ beam, meaning that no light is directed above the LEDs themselves. Disability glare and discomfort glare are almost certain issues for the space. The image above shows that the ceiling has no direct illumination, and only the apertures of the fixtures provide a direct light source. Workers in this type of installation will find it difficult to complete their tasks unhindered, and may be forced to perform risky work practices in order to complete their tasks.

RACKS & THE VERTICAL WORKPLANE

The racks tend to suffer limited direct illumination from GENERAL LED fixtures, as their beam spreads are often very narrow and aimed at only meeting the horizontal illumination target levels of AS 1680. The poor level of illumination on the goods is an obvious result with levels being very low in uniformity. Where pallets are shrink-wrapped, the glossy material of the plastic sheath plays havoc with a worker’s ability to see the goods, as well as creating a secondary glare-inducing ‘light source’.

FLOOR & THE HORIZONTAL WORKPLANE

Typical narrow distributions of GENERAL LED fixtures cannot match the uniformity of the CAPRI MAXI across the floor and workplane, meaning that they will typically require more installation points. Wiring point costs, fixture costs, maintenance costs and energy costs are all increased as a result.

CAVE EFFECT

When a light fixture only projects its beam in one direction, it is referred to as a ‘direct’ optic fixture. This can be beneficial in applications where the fixture will be recessed, especially in a high ceiling, as there is no need for upward light and the distance between the fixture and the task plane allows the beam to broaden out enough so the quantity of fixtures is not considered overly excessive.

However, suspending a ‘direct’ optic fixture leads to a phenomenon known to lighting professionals as the ‘cave effect’, where surfaces above the line of the optic are perceived as dark and gloomy.

In spaces where the ‘cave effect’ exists and the fixture itself has a high light output, the contrast between the optic and the background leads to both discomfort glare (glare that causes physical effects such as pain and fatigue) and disability glare (glare that causes people to be unable to perform visually orientated tasks).
DURALED SERIES

Industrial LED luminaire family with a practical selection of optics suitable for a wide variety of applications. Designed to deliver superlative performance and visual comfort and cost-effective, human-centric illumination, the DURALED series combines a wealth of features into a compact, versatile package. Suspended as standard, it includes a range of accessories for alternative mounting applications and other specialised requirements.

PRODUCT FEATURES
- COB LED technology
- 4000K, CRI80, Macadam step 3
- Zero UV / Infra red
- 140 watt integral fixed output driver
- IP20, IP44 & IP65 variations
- 2m IP rated 3 core flex
- Multiple photometric distributions
- Up/Down & 100% DLOR versions available
- Closed loop heavy-duty eye bolt for suspended applications
- Emergency version available
- Wide range of usable mounting heights
- Supreme diversity of use and application
- Best in class components and construction quality

Check website for warranty details

MOUNTING HEIGHTS
The range of products is suitable for mounting heights from 3 to 12 metres. Can be suspended, surface mounted or recessed to suit the structure and application environment.

APPLICATIONS
Workshops | Manufacturing areas | Warehousing |
Food packaging | Cool stores, cold rooms & freezers |
Loading docks | Distribution facilities | Retail applications

ACCESSORIES
- Plaster recess trim
- Bondor ceiling trim kit (for freezer panel installations)
- Surface mounting cylinder (DURALED CAPRI only)
BENEFITS TO OWNERS AND DESIGNERS

- Combines visual comfort, high performance and energy efficiency into a family of luminaires to suit most applications
- Minimum number of fittings required at design stage, reduced electrical load and wiring points, cheaper initial installation due to system efficiency
- Minimum maintenance due to predictable behaviour for 50,000hrs
- Superior vertical illumination - Racking, aisles and retail applications for identification of stock as well as multipurpose sports applications for players and spectators
- Instant light - no need for warm up or standby lighting system if power is disrupted
- Life unaffected by switching intervals
- Negligible maintenance through life of system. May consider cleaning of external optics in extreme dust / dirt environments
- Easily adaptable to movement sensing systems where switching off lighting in unoccupied areas is desirable

BENEFIT TO USERS

- Maximum energy efficiency in a compact design
- Low glare solution for DURALED CAPRI and DURALED Highbay as LEDs are concealed from all viewing angles
- High efficiency optical system
- High visual comfort for all users in correct applications
- Instant light, no waiting for warm-up
- DC drive system, zero flicker, zero stroboscopic effect
- Suitable for use where high speed machinery is in use (e.g. machine shops)
- Compatible with high definition broadcast cameras
- Compatible with security cameras

BENEFITS TO INSTALLERS

- IP20 & IP44 fixtures supplied complete & assembled
- No site assembly required
- Fixtures complete with 3 core cable & 3 pin plugtop
- IP65 fixtures supplied complete & assembled
- Fixtures complete with 3 core cable
- Closed loop eye bolt fitted for easy site installation
DURALED CAPRI

IP65 industrial LED luminaire with a specialised optical system for optimum performance and visual comfort. Cost-effective, low-maintenance and low-glare design minimises shadowing and delivers multiple benefits to the client and occupants. Suspended as standard, with recessing trims available to suit a variety of ceilings.

PRODUCT FEATURES

■ Low glare acrylic or polycarbonate refractor
■ Anodised faceted aluminium reflector ~101lm/W efficacy
■ Die-cast gear housing, sealed & powdercoated white
■ Extruded aluminium LED heat-sink housing
■ IP65 construction
■ High ambient temperature rated
■ 3% upward light
■ COB LED technology
■ 4000K CRI>80
■ Zero UV / Infra red
■ Integral fixed output driver
■ 2m white flex
■ Closed loop heavy-duty eye-bolt for suspended applications
■ Emergency version available
■ Wide range of usable mounting heights
■ Best in class components and construction quality

Check website for warranty details

PERFORMANCE

Nominal 14,000lm fixture output
DURALED

Industrial LED luminaire featuring a simple open reflector optic with broad distribution and limited shielding, for applications with simple visual tasks below the viewing eyeline.

PRODUCT FEATURES

- Precision designed, satin-finished spun aluminium reflector ~110lm/W efficacy
- Die-cast gear housing, sealed & powdercoated white
- Extruded aluminium LED heat-sink housing
- COB LED technology
- 4000K CRI>80
- Zero UV / Infra red
- Integral fixed output driver
- 2m white flex
- Closed loop heavy-duty eye-bolt, powdercoated white
- Emergency version available
- Best in class components and construction quality

Check website for warranty details

PERFORMANCE

Nominal 15,000lm fixture output

MOUNTING HEIGHTS

The range of products is suitable for mounting heights from 4 to 8 metres.

OPTIONS / ACCESSORIES

- Emergency option
DURALED Highbay

DURALED HIGHBAY

IP44 industrial LED luminaire, especially suited to dirty or wet environments and high mounting applications. Suspended mounting as standard, with optional accessories for plaster recessing downlight-style applications.

PRODUCT FEATURES

■ Low glare textured glass diffuser
■ Anodised faceted aluminium reflector ~91lm/W efficacy
■ Die-cast gear housing, sealed & powdercoated white
■ Extruded aluminium LED heat-sink housing
■ IP44 construction
■ COB LED technology
■ 4000K CRI>80
■ Zero UV / Infra red
■ Integral fixed output driver
■ 2m white flex
■ Choice of optional 2m flex only for IP65, or fitted IP66 plugtop
■ Closed loop heavy-duty eye-bolt for suspended applications
■ Emergency version available
■ Wide range of usable mounting heights
■ Best in class components and construction quality
Check website for warranty details

PERFORMANCE

Nominal 13,000lm fixture output
DURALUME

Multi-purpose LED luminaire featuring a precision-designed prismatic reflector for a wide range of applications.

PRODUCT FEATURES

- Precision designed, prismatic technopolymer reflector
- ~101 lm/w efficacy
- Die-cast gear housing, sealed & powdercoated white
- Extruded aluminium LED heat-sink housing
- COB LED technology
- 4000K CRI>80
- Zero UV / Infra red
- Integral fixed output driver
- 2m white flex with plug-top
- Closed loop heavy-duty eye-bolt, powdercoated white
- Emergency version available
- Best in class components and construction quality

Check website for warranty details

PERFORMANCE

Nominal 14,000lm fixture output
AURA

A robust, high performance, utility luminaire for a wide range of applications. IP54 construction for a range of adverse environmental conditions.

**DESIGN**

- Die-cast aluminium LED module housing finished in black powdercoat
- Low glare acrylic or polycarbonate refractor
- Choice of high frequency fixed output or DALI drivers, or direct AC LED chips (no driver required)
- 4000K neutral white
- CRI ≥80

**PERFORMANCE**

Nominal 5,000-6,000lm fixture output

**APPLICATION**

Loading docks / Stores / Undercover car parks

Calculation Technical Parameters

Average Maintained Illuminance: 57 lx

Uniformity: 0.3

L.P.D.: 0.62W/m²

Depreciation Factor Used: 20%

**Typical Indoor Car Park Illumination**

AURA series Fixed Output Driver version, Surface mounted
**ODYSSEY PURE**

Utility luminaire with multiple sources for a wide range of applications.

**DESIGN**
- Die-cast aluminium LED module housing with highly-efficient heat sink
- Finished in black powdercoat.
- Highly efficient LED 4000K sources
- CRI >80.

**PERFORMANCE**
Precision engineered acrylic or polycarbonate refractor for low glare and high performance.

**APPLICATION**
Loading docks / Stores / Undercover car parks

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**CAPRI**

Industrial LED luminaire with a range of mounting options, offering performance and versatility in a compact package. Emergency option available.

**DESIGN**
- Choice of suspended, surface, plaster or Bondor mounting options
- IP52 or IP65 versions available
- Die-cast aluminium LED module housing. Where required, trims and drums in heavy duty steel, powdercoated white
- Spun aluminium reflector; prismatic refractor in acrylic or polycarbonate on all versions except open reflector fixture
- 4000K neutral white or 3000K warm white CRI ≥80

**PERFORMANCE**
Nominal 10,000lm fixture output

**APPLICATION**
Loading docks / Stores
EBH LED G2

The next generation EBH LED G2 provides 25% effective reduction in fixture, pole and termination costs compared to its predecessor.

With over 60,000 fixtures sold in Australia, the EBH bulkhead’s inherent features have seen it become the most prolific lighting fixture of its type in the Australian Mining Sector. The new generation EBH LED G2 takes all that to the next level ...

Incorporating the latest in LED and lens-refractor design, this new build’s precise optical efficiency now provides the Australian Standard walkway illumination, at 12m spacing. This effectively decreases luminaire quantities by 25% over previous versions.

Together with all the additional benefits of 60% power reduction, maintenance free operation, greater resilience to dirty power, instant strike, and pre-installed IP66 flex, the EBH LED G2 is the most cost-effective, functional fixture of its type ever offered to the Australian Mining Market.

All in the same seamless IP66, 316 Stainless Steel enclosure, that is “ready to terminate, out of the box”. And still as Bullet Proof as ever ….

- Far greater tolerance (115v-275v range) against voltage fluctuations and spikes.
- The EBH LED G2 runs cooler, providing greater resistance to high temperature locations.
- Up to 60% power reduction, maintenance free operation, and instant strike.
- Simplified internal componentry increases tolerance to pervasive vibration.
- IP66/67 ‘out of the box’
- An emergency battery backup version is also available.

NOW CAN BE SPACED 12M APART

TURTLE FRIENDLY SOLUTIONS
Multiple high-compression clips and multi-tongue gaskets completely block the ingress of dust and water.

A standard Versalux EBH bulkhead fixture overdue for its monthly hose blasting.

A standard Versalux EBH bulkhead fixture overdue for its monthly hose blasting.

Smooth outer surfaces allow the removal of caked on product for a full return to the original efficiencies.

A standard Versalux EBH bulkhead fixture overdue for its monthly hose blasting.

Multiple high-compression clips and multi-tongue gaskets completely block the ingress of dust and water.

Smooth outer surfaces allow the removal of caked on product for a full return to the original efficiencies.

APPLICATIONS

- Heavy industry where exposed to elements
- Mining environments such as conveyor walkways
- Ports and marine environments such as jetty and boardwalks
- Where water and dust are a concern (IP66/67)
- Where maintenance access is difficult
- Where extreme weather or wash down conditions prevail
- Where coastal environmental sensitive conditions prevail
- Where there are specific corrosive environments
- Where instant start and longevity is paramount

FEATURES

- Hi-powered 4000K LEDs
- Integral driver
- Initial fixture power: 30W
- Seamless, deep-drawn 316 grade stainless steel body
- White powdercoat finish (RAL 9016)
- Shock and vibration resistant
- Stippled polycarbonate diffuser with smooth exterior for easy maintenance
- Optional green diffuser for health and safety eye wash-down
- Optional amber LED chip version for ‘Turtle Friendly’ applications
- Manufactured to IP66/67
- EMC Compliant
- EPDM silicone rubber gasket
- Standard version with 3 core flexible orange circular lead-in-cable 4 metre length
- Emergency version with 4 core flexible orange circular lead-in cable 4 metre length
- Operation range -20°C to +45°
- Australian engineered and manufactured

POLE MOUNTED

FOOT MOUNTED

STANDARD CONVEYOR WALKWAY ILLUMINATION EBH LED GEN. 2

Calculation Technical Parameters
Average Maintained Illuminance: 47lx
Minimum Illuminance: 20lx
Uniformity: >0.4
Depreciation Factor Used: 20%
3 x EBH LED Gen. 2 @ 12m Spacings, 2.4m Mtg. Ht.
36m Walkway section
VRL

The highly adaptable VRL series provides a designer with a wide array of appealing illumination solutions for indoor and outdoor applications. Sturdy, adjustable and powerful, its broad beam delivers impressive lighting levels with surprisingly low glare. Its astonishing versatility delivers solutions that are both innovative as well as highly user-friendly, across architectural, commercial, sporting and industrial applications. VRL’s clever design and powerful, yet comfortable illumination creates appealing environments. Additional features such as the ability to direct the illumination and flexible connectivity for ‘continuous’-style illumination make it a favourite among designers.

DESIGN
- IP65 Methacrylate construction
- Powerful, low glare tubular diffuser optic
- Directable beam spread
- Homogenous and balanced light distribution
- Single or dual module configurations as standard
- Integral fixed output or DALI dimmable electronic driver
- 4000K neutral white or 3000K warm white
- Non-maintained emergency module available
- CRI ≥80

PERFORMANCE
Single modules nominal 1,000-8,000lm fixture output

APPLICATION
Gymnasiums / Swimming pools / Car parks / Plant rooms / Car washes
NEMO

IP66 linear LED surface mounted luminaires suitable for civil, commercial, industrial and public areas where conditions demand protection against dust and moisture.

**DESIGN**
- IP66 protection
- Polycarbonate body & diffuser
- Anti-vandal screw system on diffuser clips
- Stainless steel fixing brackets
- 4000K neutral white LED
- CRI ≥80
- Emergency lighting options

**PERFORMANCE**
Nominal 2,000-5,000lm fixture output

**APPLICATION**
Car parks / Walkways / Store rooms / Plant rooms

---

TITAN

A robust, high performance, utility luminaire for a wide range of applications. IP66 / IP67 construction for a range of adverse environmental conditions.

**DESIGN**
- IP66-IP67 protection
- Deep drawn 316 stainless steel body
- Polycarbonate diffuser
- Robust, stainless steel diffuser clips
- Stainless steel fixing brackets
- 4000K neutral white LED
- CRI ≥80
- Emergency lighting options

**PERFORMANCE**
Nominal 1,500-6,000lm fixture output

**APPLICATION**
Car parks / Walkways / Store rooms / Plant rooms
HELIX

Helix is a family of IP66 industrial LED luminaires for surface and pendant mounting or in open ceilings by use of a recessing frame. It can be used in ambient temperatures (Ta) from 35°C down to -40°C. (For applications where luminaires are to operate in higher ambient temperatures, lower output/wattage versions available to special order.

**DESIGN**

- Luminaire housing in die-cast LM6 aluminium with low content of iron and copper (EN AB-44100)
- Phosphor-chromated for extra protection and with epoxy/polyester powder coated paint finish
- Aluminium grey (RAL 9006 (except optional white recessing trim)
- Screws made of acid resistant steel
- Energy efficient neutral white 4000K LEDs. CRI >80.
- Integral DALI dimmable driver.

**PERFORMANCE**

Nominal 10,000-22,000lm

**APPLICATION**

Loading docks / Stores / Warehouses / Hangars

---

COMMANDO

Surface mounted (optionally suspended) IP65, IK10 luminaire, specifically designed to meet strict requirements in the food industry. It will withstand cleaning products and methods that meet requirements in fish processing industries and abattoirs. The choices of materials are also suitable for effective cleaning with acidic foam detergent.

**DESIGN**

- Acid-resistant AISI 316 stainless steel housing.
- High efficiency or high output T5 linear fluorescent lamps.
- Tempered glass or impact resistant clear acrylic with high performance silvered aluminium reflector

**PERFORMANCE**

0.83 L.O.R.

**APPLICATION**

Food industry / Laboratories / Industrial applications
MAGALED

Linear LED luminaire designed for high mounted warehouse & retail racking.

**DESIGN**
- Secondary optic designed to provide narrow, bi-symmetric projector beam
- Highly effective for high mounting especially with aisles and similar narrow tasks.
- Highly efficient neutral white LEDs, CRI >75.
- Integral driver

**PERFORMANCE**
Nominal 9,000lm fixture output

**APPLICATION**
Warehouse & Retail racking

---

UNIFORM

Highly versatile floodlight / industrial luminaire with a wide range of light sources, optics & mounting, all set in an IP66, IK09, corrosion resistant housing.

**DESIGN**
- Body made of extruded corrosion resistant aluminium (alloy 6060 oxidized 15µm hot fixed at 95°C) natural anodized.
- End caps in aluminium alloy (EN AB 46100), painted with grey (RAL 9006) polyester powders.
- LED, T5 linear fluorescent, Metal halide and High pressure sodium options
- Rigid stainless steel surface mounting brackets for fluorescent versions.
- Adjustable die-cast surface mounting rackets with goniometer for LED & discharge versions.
- External screws in stainless steel AISI304.

**PERFORMANCE**
Nominal 0.7–0.8 L.O.R.

**APPLICATION**
Tunnels / Warehouses
FASTLED AS

High performance LED asymmetric floodlight for large area illumination (other optics/sizes, including Turtle-Friendly output colours, to special request). Optics can be mounted horizontally for full cutoff, or vertically for structure illumination.

DESIGN

- Extruded aluminium optic body with robust lens frame and galvanised steel pivoting trunnion arm.
- Multi-LED array with high performance asymmetric beam spread, with 5mm clear tempered glass lens, silicone gasketed to IP66.
- Turtle-friendly optic choices available.
- Positive-location goniometric fixture positioning allows pivot range of ±90°.
- Electronic fixed output driver.
- Highly efficient LEDs, 4000K, CRI 75.

PERFORMANCE

Nominal 32,000-49,000lm fixture output

APPLICATION

Refineries / Processing facilities / General floodlighting
IK RATINGS

IK Ratings are defined by international standard IEC 62262 (2002). They are an international numeric classification for the degrees of protection provided by enclosures for electrical equipment against external mechanical impacts. It provides a means of specifying the capacity of an enclosure to protect its contents from external impacts. The IK Code was originally defined in European Standard BS EN 50102 (1995, amended 1998). Following its adoption as an international standard in 2002, the European standard was renumbered EN 62262.

Prior to the advent of the IK code, a third numeral had been occasionally added to the closely related IP Rating (Ingress Protection Rating), to indicate the level of impact protection — e.g. IP56(7).

The standard specifies the way enclosures should be mounted when tests are carried out, the atmospheric conditions that should prevail, the number of impacts and their distribution, and the size, style, material, dimensions etc. of the various types of hammer designed to produce the energy levels required.

Ratings are as follows:

**IK CODE AND IMPACT ENERGY VALUES**

<table>
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<th>IK01 TO IK05</th>
<th>IK06</th>
<th>IK07</th>
<th>IK08</th>
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<td>0.35</td>
<td>0.5</td>
<td>0.7</td>
<td>1</td>
</tr>
<tr>
<td>Radius of striking element (mm)</td>
<td>*</td>
<td>10</td>
<td>10</td>
<td>25</td>
<td>25</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Material</td>
<td>*</td>
<td>polyamide1</td>
<td>polyamide1</td>
<td>steel1</td>
<td>steel1</td>
<td>steel2</td>
<td>steel2</td>
</tr>
<tr>
<td>Mass (kg)</td>
<td>*</td>
<td>0.2</td>
<td>0.5</td>
<td>0.5</td>
<td>1.7</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Pendulum hammer</td>
<td>*</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Spring hammer</td>
<td>*</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Free-fall hammer</td>
<td>*</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*Not protected according to the standard

1 R100 Rockwell hardness according to ISO 2039/2
2 Fc490-2 Rockwell hardness according to ISO 1052
IEC standard 60529, titled “Degrees of protection provided by enclosures (IP Code)” classifies and rates the degree of protection provided against intrusion (body parts such as hands and fingers), dust, accidental contact, and water by mechanical casings and electrical enclosures. Ratings are often referred to as IP ratings, Ingress Protection ratings and International Protection ratings.

The standard aims to provide users with more detailed information than vague marketing terms such as water-resistant. The digits (characteristic numerals) indicate conformity with the conditions summarized in the tables below. Where there is no data available to specify a protection rating with regard to one of the criteria, the digit is replaced with the letter X. The digit 0 is used where no protection is provided.

A rating of X for one or more of the protection criteria can be erroneously misinterpreted as “no protection.” For example, a luminaire rated IPX7 will almost certainly demonstrate a robust resistance to the ingress of particles, even though a rating for ingress of solids hasn’t been formally assigned. Therefore, an X designation should not be automatically misconstrued as a lack of protection.

Typical IP ratings are in the form of IPxx (where ‘x’ is a single numeral). A third digit was introduced to relate Impact Protection information, but this has been deprecated. Optionally, a letter can be added to the end of the numerals to indicate other protections.

**SOLID OBJECT INGRESS PROTECTION**

The first digit indicates the level of protection that the enclosure provides against access to hazardous parts (e.g., electrical conductors, moving parts) and the ingress of solid foreign objects.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>PROTECTED AGAINST</th>
<th>EFFECTIVE AGAINST</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>-</td>
<td>No protection against contact and ingress of objects</td>
</tr>
<tr>
<td>1</td>
<td>Objects &gt;50mm</td>
<td>Any large surface of the body, such as the back of a hand, but no protection against deliberate contact with a body part</td>
</tr>
<tr>
<td>2</td>
<td>Objects &gt;12.5mm</td>
<td>Fingers or similar objects</td>
</tr>
<tr>
<td>3</td>
<td>Objects &gt;2.5mm</td>
<td>Tools, thick wires, etc.</td>
</tr>
<tr>
<td>4</td>
<td>Objects &gt;1mm</td>
<td>Most wires, screws, etc.</td>
</tr>
<tr>
<td>5</td>
<td>Dust (protected)</td>
<td>Ingress of dust is not entirely prevented, but it will not enter in sufficient quantities to interfere with the satisfactory operation of the equipment, and it is completely protected against contact</td>
</tr>
<tr>
<td>6</td>
<td>Dust (tight)</td>
<td>No ingress of dust, and completely protected against contact</td>
</tr>
</tbody>
</table>
**LIQUID INGRESS PROTECTION**

The second digit indicates the level of protection that the enclosure provides against harmful ingress of water.

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>PROTECTED AGAINST</th>
<th>TESTING FOR</th>
<th>DETAILS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Not protected</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1</td>
<td>Dripping water</td>
<td>Dripping water (vertically falling drops)</td>
<td>Test duration: 10 minutes Water equivalent to 1mm rainfall per minute</td>
</tr>
<tr>
<td>2</td>
<td>Dripping water when tilted up to 15°</td>
<td>Vertically dripping water when the enclosure is tilted at an angle up to 15° from its normal position</td>
<td>Test duration: 10 minutes Water equivalent to 3mm rainfall per minute</td>
</tr>
<tr>
<td>3</td>
<td>Spraying water</td>
<td>Water falling as a spray at any angle up to 60° from the vertical</td>
<td>Test duration: 5 minutes Water volume: 0.7 litres per minute Pressure: 80-100kPa</td>
</tr>
<tr>
<td>4</td>
<td>Splashing of water</td>
<td>Water splashing against the enclosure from any direction</td>
<td>Test duration: 5 minutes Water volume: 10 litres per minute Pressure: 80-100kPa</td>
</tr>
<tr>
<td>5</td>
<td>Water jets</td>
<td>Water projected by a nozzle (6.3mm) against enclosure from any direction</td>
<td>Test duration: at least 3 minutes Water volume: 12.5 litres per minute Pressure: 30kPa at a distance of 3m</td>
</tr>
<tr>
<td>6</td>
<td>Powerful water jets</td>
<td>Water projected in powerful jets (12.5mm nozzle) against enclosure from any direction</td>
<td>Test duration: at least 3 minutes Water volume: 100 litres per minute Pressure: 100kPa at a distance of 3m</td>
</tr>
<tr>
<td>6K</td>
<td>Powerful water jets with increased pressure</td>
<td>Water projected in powerful jets (6.3mm nozzle) under elevated pressure against enclosure from any direction</td>
<td>Immersion in water under defined conditions of pressure and time (up to 1m of submersion)</td>
</tr>
<tr>
<td>7</td>
<td>Immersion up to 1m depth</td>
<td>Immersion in water under defined conditions of pressure and time (up to 1m of submersion)</td>
<td>Test duration: 30 minutes The lowest point of enclosures with a height less than 850mm is located 1000mm below the surface of the water, the highest point of enclosures with a height equal to or greater than 850mm is located 150mm below the surface of the water</td>
</tr>
<tr>
<td>8</td>
<td>Immersion beyond 1m depth</td>
<td>Continuous immersion in water under conditions specified by the manufacturer</td>
<td>Test duration: continuous immersion in water Depth: specified by manufacturer</td>
</tr>
</tbody>
</table>

**ADDITIONAL LETTERS**

The standard defines additional letters (A, B, C & D) that can be appended to classify only the level of protection against access to hazardous parts by persons, and further letters can be appended to provide additional information related to the protection of the device. These are not commonly utilised in the case of luminaires.
### SYMBOLS

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
<th>Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP20</td>
<td>IP20 RATED</td>
<td>Cyanosis Observation</td>
</tr>
<tr>
<td>IP40</td>
<td>IP40 RATED</td>
<td>Gold Finish</td>
</tr>
<tr>
<td>IP42</td>
<td>IP42 RATED</td>
<td>Anodised Finish</td>
</tr>
<tr>
<td>IP44</td>
<td>IP44 RATED</td>
<td>Zinc-Steel Finish</td>
</tr>
<tr>
<td>IP52</td>
<td>IP52 RATED</td>
<td>Stainless-Steel Finish</td>
</tr>
<tr>
<td>IP54</td>
<td>IP54 RATED</td>
<td>Aluminium Finish</td>
</tr>
<tr>
<td>IP55</td>
<td>IP55 RATED</td>
<td>Chrome Finish</td>
</tr>
<tr>
<td>IP65</td>
<td>IP65 RATED</td>
<td>Copper Finish</td>
</tr>
<tr>
<td>IP66</td>
<td>IP66 RATED</td>
<td>Copper Finish</td>
</tr>
<tr>
<td>IP67</td>
<td>IP67 RATED</td>
<td>Red Finish</td>
</tr>
<tr>
<td>IK05</td>
<td>IK05 RATED</td>
<td>Sand Finish</td>
</tr>
<tr>
<td>IK06</td>
<td>IK06 RATED</td>
<td>Fuchsia Finish</td>
</tr>
<tr>
<td>IK07</td>
<td>IK07 RATED</td>
<td>Orange Finish</td>
</tr>
<tr>
<td>IK08</td>
<td>IK08 RATED</td>
<td>Bright-Red Finish</td>
</tr>
<tr>
<td>IK09</td>
<td>IK09 RATED</td>
<td>Rust-Red Finish</td>
</tr>
<tr>
<td>IK10</td>
<td>IK10 RATED</td>
<td>Anthracite Finish</td>
</tr>
<tr>
<td>F Mark</td>
<td>F MARK</td>
<td>Chrome Finish</td>
</tr>
<tr>
<td>ENEC</td>
<td>ENEC CONFORMITY MARK</td>
<td>Aluminium Finish</td>
</tr>
<tr>
<td>EN</td>
<td>EN COMPLIES WITH EU REGS.</td>
<td>Chrome Finish</td>
</tr>
<tr>
<td>60598-2-25</td>
<td>COMPLIES WITH EN 60598-2-25</td>
<td>Chrome Finish</td>
</tr>
<tr>
<td>Class I Insulated</td>
<td>Class I Insulated</td>
<td>Chrome Finish</td>
</tr>
<tr>
<td>Class II Insulated</td>
<td>Class II Insulated</td>
<td>Chrome Finish</td>
</tr>
<tr>
<td>Class III Insulated</td>
<td>Class III Insulated</td>
<td>Chrome Finish</td>
</tr>
<tr>
<td>Emergency Version/Option</td>
<td>Emergency Version/Option</td>
<td>Chrome Finish</td>
</tr>
</tbody>
</table>
WARRANTIES

All Versalux products are warranted for 12 months from date of purchase. Extended warranties between 3 and 5 years (total) are available via our online product registration process.

Please refer to website for warranty conditions and online registration process.

DISCLAIMER

For the latest information on all products please see our websites. E&OE.