LEDrail 4100

SABS APPROVED
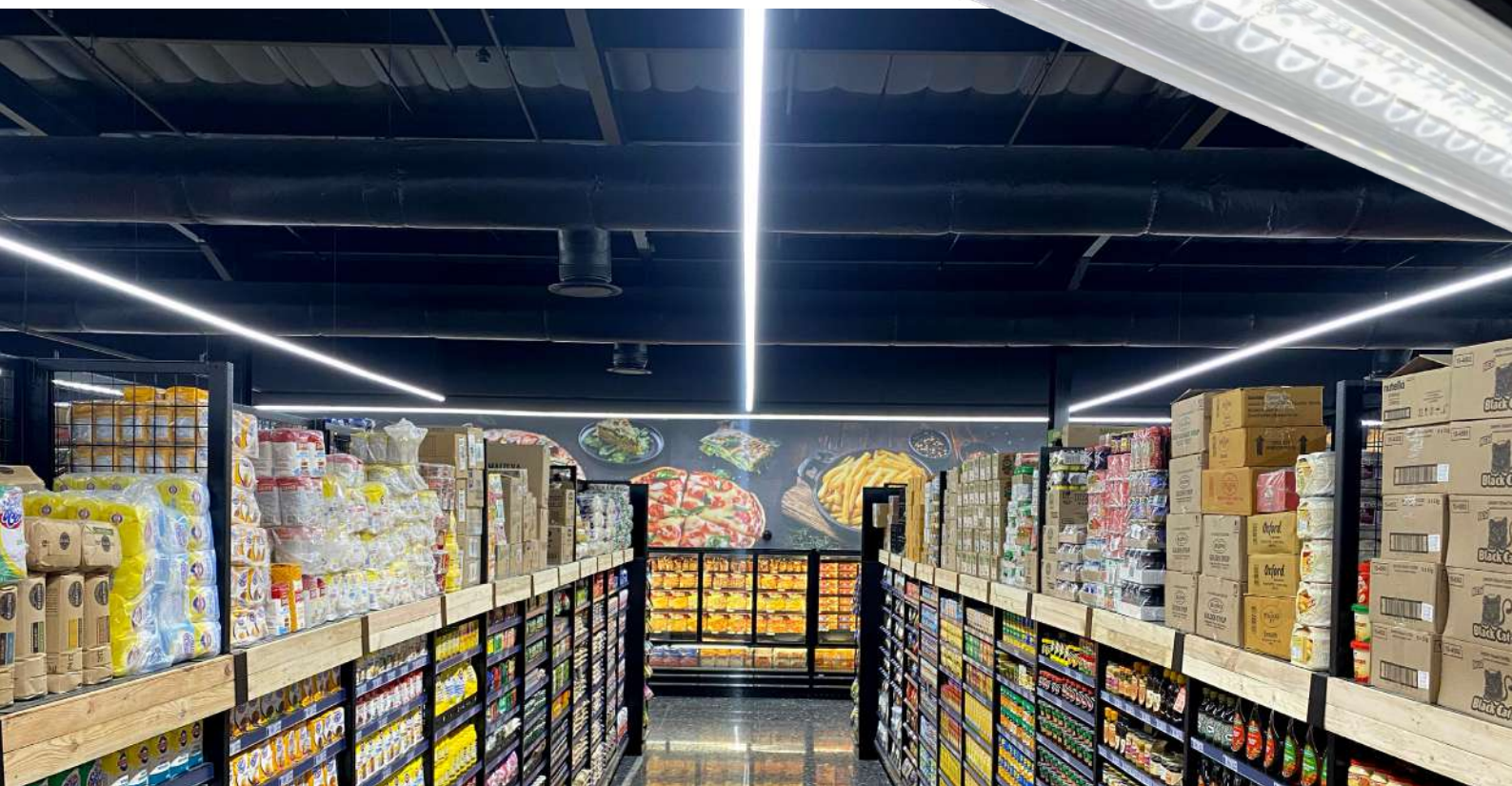
The undisputed king of retail lighting.

Our flagship linear retail LED solution designed standard with 1/2kV surge protection upgradeable to 4kV or 10kV on request. Featuring eight lens options including retail symmetrical designed specifically for retail isles as well as the ability to upgrade to multi-wire circuit configurations and an almost tool-free installation. The 4100 is a pre-wired linkable system with plug & play connections with up to 3 circuits L&N

5 YEAR WARRANTY*

5 year warranty:
7 year warranty available T&Cs apply. Please visit www.energywise.co.za

Proudly manufactured in **South Africa** using **European** LED Technology

4kv
kV Protection:
1kV-2kV. 4kV or 10kV on request

IP 40
Indoor

SABS APPROVED
SABS Approved

5 YEAR WARRANTY*
5 Year Warranty
Extendable to 7 year. T&Cs apply.

energywise
Better light through research.

A commercial flagship built to outperform in style.

The LEDrail 4100 combines a sleek modular design with powerful lumen output and precision optics, delivering both speed of installation and rugged durability.

Built with premium Italian and German components, it features standard 1/2Kv surge protection (upgradeable to 4Kv) with the option of a 10Kv replaceable protector for up to 25m of coverage.

More than just a light fitting, the 4100 is a high-grade luminaire engineered without compromise—an elegant yet robust solution for demanding commercial and retail environments.
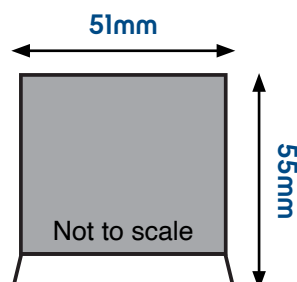
KEY FEATURES

OPTICS

• 8 different acrylic optics for multiple lens combinations.

5 SIZE OPTIONS

• LEDrail 4100 102
• LEDrail 4100 104
• LEDrail 4100 106
• LEDrail 4100 108
• LEDrail 4100 110

MOUNTING OPTIONS

• P2000 Compatible
• Pendant
• Floating
• Recessed

Optional:
Bluetooth, Wifi, Dali & Bi Level. Casambi App featured above.

GET IT ON
Google Play

Download on the
App Store

Designed & Tested here

51mm

55mm

Not to scale

Size can vary by +-1mm
Sizes are not including any caps or joints. Due to constant R&D, sizes can change without notice.

Over-engineered and overachieving by design

OTHER CONFIGURATIONS

LEDrail 4100 IP65
A wolf in sheep's clothing.

Designed to retain the aesthetic of the LEDrail 4100 systems but take the punch of IP65 environment the aptly named LEDrail 4100 IP65 features a resilient and sealed tubular fitting recessed into our 4100 trunking for those areas such as bakeries where the ability to take on a damp environment and keep on ticking is vital.

kV Protection: 1kV-2kV. 4kV or 10kV on request

IP65 Indoor

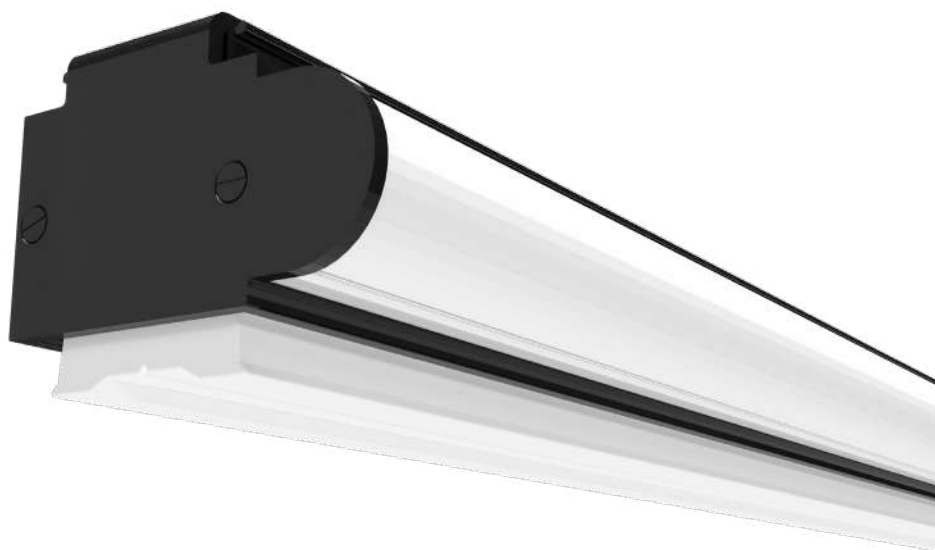**Acrylic Diffuser**

P2000 Compatible

Modular: Expandable system

Optional: Bluetooth, Wifi, Dali & Bi Level

LEDrail 4100 Wallwasher
Wall and All

Our new Wall Washer Light retains all the technical excellence of our class-leading 4100 while adding a discreet side light for illuminating signage, ceilings, bulkheads, or features. This seamless integration enhances retail spaces with layered lighting, creating a more engaging shopping experience and elevating the overall aesthetic.

kV Protection: 1kV-2kV. 4kV or 10kV on request

Recyclable

Acrylic Lens

P2000 Compatible

Modular: Expandable system

Optional: Bluetooth, Wifi, Dali & Bi Level

IP40 Indoor

Specifications

From high end retail to bakeries, boardrooms and dealerships.

Our premium LEDrail is also available as an IP65, Recessed and Gap fitting. Smaller sizes 102, 104 also available. Standard colour options are white, anodised and black. **F10** Drivers, **70K** hrs @ 35°C or **F3** Drivers, **100K** hrs @ 35°C.

LEDrail 4100 options (1kV Drivers, **70K** hrs @ 40°C/ **4kV** Drivers, **100K** Hrs @ 40°C)

Name	Length	Effective Efficacy	40°C	40°C	40°C	40°C
102	571mm	160-134 lm/w	1886 lm/**12w**	2557 lm/**17w**	3001 lm/**21w**	3957 lm/**30w**
104	1131mm	162-148 lm/w	3814 lm/**24w**	5168 lm/**34w**	6138 lm/**41w**	7242 lm/**49w**
106	1691mm	162-148 lm/w	5721 lm/**35w**	7752 lm/**51w**	9207 lm/**62w**	10,863 lm/**74w**
108	2251mm	162-148 lm/w	7628 lm/**47w**	10,336 lm/**67w**	12,276 lm/**82w**	14,484 lm/**98w**
110	2811mm	162-148 lm/w	9535 lm/**59w**	12,920 lm/**84w**	15,345 lm/**103w**	18,105 lm/**123w**
			L90 B10 70 000 Hrs		L80 B10 70 000 Hrs	

LEDrail 4100 IP65 options (1kV Drivers, **70K** hrs @ 40°C/ **4kV** Drivers, **100K** Hrs @ 40°)

Name	Length	Effective Efficacy	40°C	40°C	40°C
102	571mm	160-147 lm/w	1886 lm/**12w**	2557 lm/**17w**	3001 lm/**21w**
104	1131mm	160-147 lm/w	3772 lm/**24w**	5114 lm/**34w**	6002 lm/**41w**
106	1691mm	160-147 lm/w	5658 lm/**35w**	7671 lm/**51w**	9003 lm/**62w**
108	2251mm	160-147 lm/w	7544 lm/**47w**	10,228 lm/**67w**	12,004 lm/**82w**
110	2811mm	160-147 lm/w	9430 lm/**59w**	12,785 lm/**84w**	15,005 lm/**103w**
			L90 B10 50 000 Hrs		L80 B10 50 000 Hrs

LEDrail 4100 Wallwasher options (4kV Drivers, **100K** hrs @ 40°C)

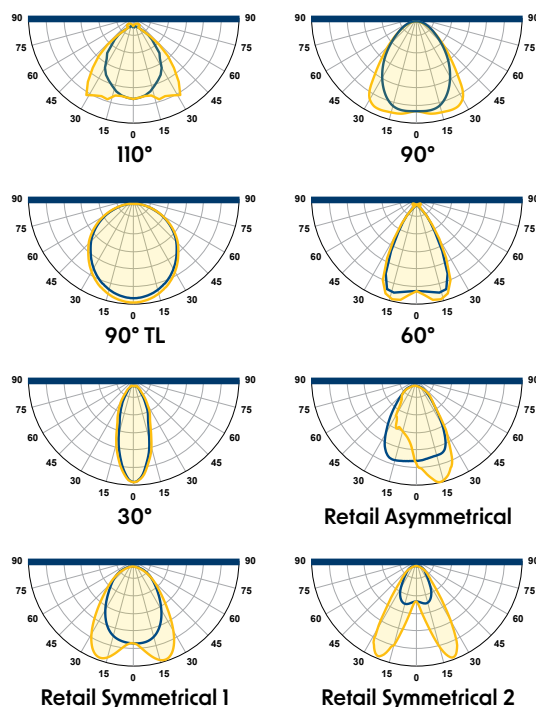| Name	Length	Effective Efficacy	40°C	40°C	40°C	40°C
104	1131mm	162-148 lm/w	7628 lm/**24w**	10,336 lm/**34w**	12,276 lm/**41w**	14,484 lm/**49w**
106	1691mm	162-148 lm/w	11,442 lm/**35w**	15,504 lm/**51w**	18,414 lm/**62w**	21,726/**74w**
108	2251mm	162-148 lm/w	15,256 lm/**47w**	20,672 lm/**67w**	24,552 lm/**82w**	28,968 lm/**98w**
110	2811mm	162-148 lm/w	19,070 lm/**59w**	25,840 lm/**84w**	30,690 lm/**103w**	36,210 lm/**123w**
			L90 B10 70 000 Hrs		L80 B10 70 000 Hrs	

Distribution Options
The light you need, where you want it.

Retail lighting isn't just about brightness,
it's about precision. Our advanced optical lenses ensure that light is directed exactly where it's needed, enhancing product visibility while reducing unnecessary glare. With lens options of **30°, 60°, 90°, and 110°,** as well as **s**pecialized symmetrical and **asymmetrical retail lenses,** we can sculpt the perfect lighting environment.

For shelving and displays, our vertical-throw asymmetrical lenses highlight products at eye level rather than wasting light on floors or ceilings. Whether you need **focused beams to accentuate premium items, wide, even coverage for open spaces,** or **deep penetration through shelving,** our lens technology ensures that customers see your products in the best possible light—literally. Because in retail, it's the goods that should shine, not the shoppers' shoes.

110°

90°

90° TL

60°

30°

Retail Asymmetrical

Retail Symmetrical 1

Retail Symmetrical 2

A Closer Look

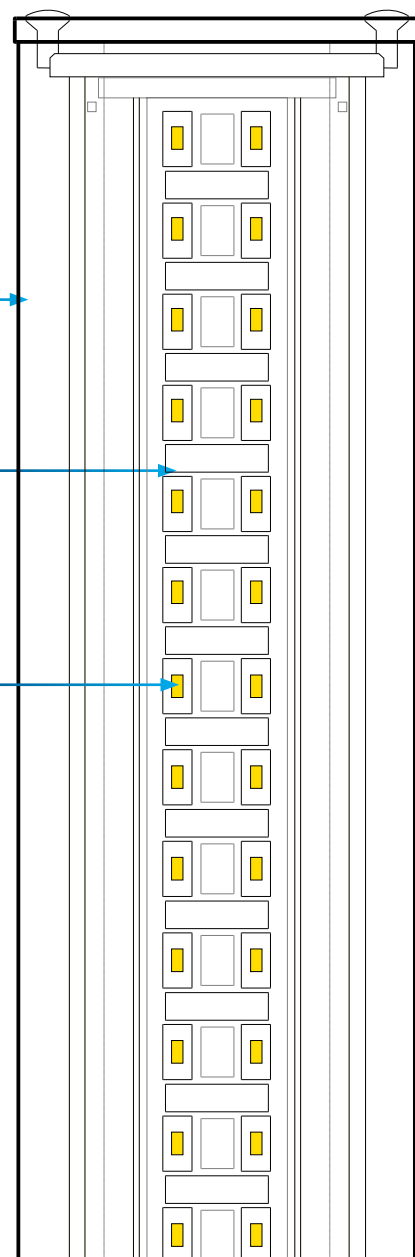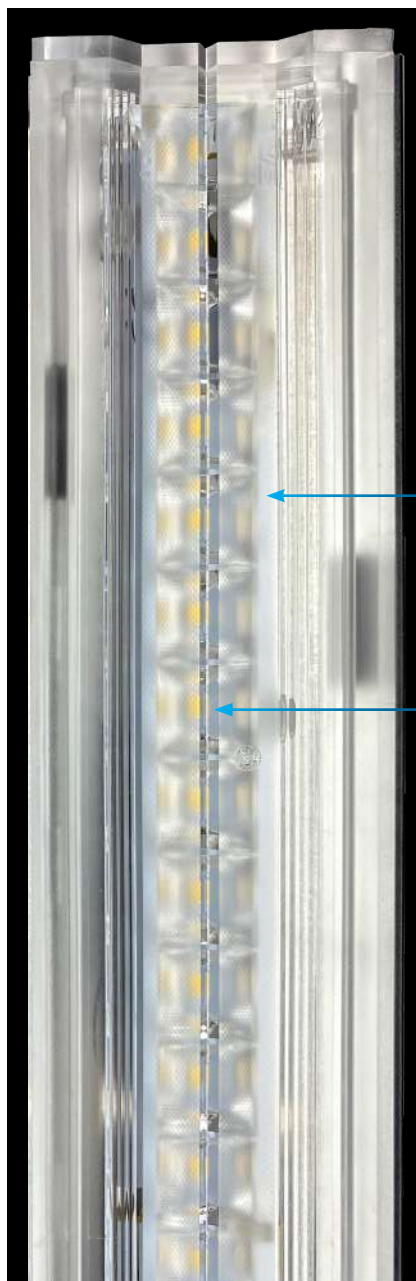## Engineered to the highest standards.

Housing

Excellent heat management for LED and Driver alike.

Lenses

PMMA Optic available as 30°, 60°, 90°, 110°, Symmetrical narrow retail, Symmetrical wide retail, Asymmetrical.

LEDs

Sourced from the best component manufactures in Europe to ensure maximum lifespan, quality and light spectrums.
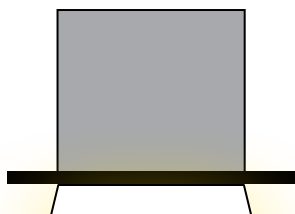
Installation
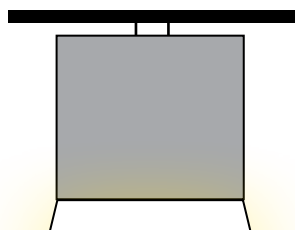## Easy to install, Saving you time & money
The LEDrail 4100 family are simple to install with a few different mounting options. Please specify your preference when ordering your LEDrail 4100
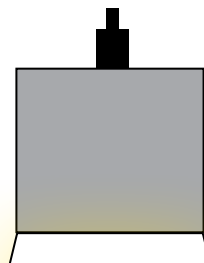
IP40

Recessed
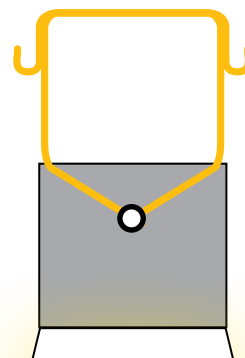Quick spring loaded attachment for a snug and secure fit.

Floating Mount
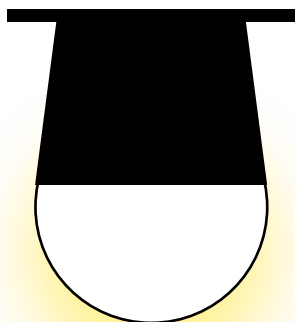A mount for areas where a ceiling mount isn't possible.

Suspended Mount
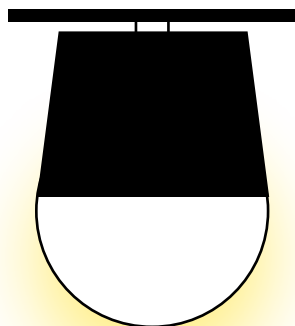For hanging the fitting at your desired height.

P2000 Claw Mount
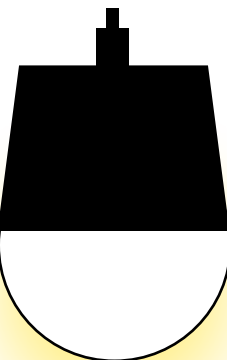For quick and simple attachment to P2000 trunking.

IP65

Ceiling Mount
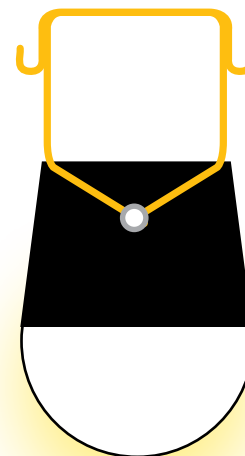A simple system to mount your new fittings directly to most ceilings

Floating Mount
A mount for areas where a ceiling mount isn't possible.

Suspended Mount
For hanging the fitting at your desired height.

P2000 Claw Mount
For quick and simple attachment to P2000 trunking.

Disclaimer:
While every effort is made to ensure the accuracy of technical details at the time of publication, we reserve the right to modify or upgrade any product or component specifications without prior notice. Our products undergo continuous improvements in technology, energy efficiency, safety, and cost-effectiveness to meet evolving industry standards and supplier updates.

All upgrades are made to enhance product quality, and as such, no claims or complaints will be entertained regarding specification changes.

We are ISO 9001:2015 compliant, and our assembly line adheres to IEC 60958 guidelines. Our products are covered by a Product Liability Policy, and our LED products come with a 5-year warranty (T&Cs apply—please contact Head Office for details).

Effective Lumen Output After Warm-up
We adhere to industry best practices in providing accurate Effective Performance Data (Lumens, Watts, and L&B) that account for driver and LED thermal losses during the warm-up period.
To ensure precise measurements, we conduct Energy and Photometric Testing only after the LED within the fitting has been powered on long enough to reach a stable and constant lumen output—achieving thermal equilibrium at an ambient temperature (Ta) of 35°C. Unfortunately, some suppliers misrepresent efficacy by inflating lumen values 10–20% above the true effective output. This is often done by using raw LED photometric data, which:
- Excludes driver losses (typically 2–5%)
- Ignores thermal adjustment losses, which can take 20–240 minutes and account for 7–15% reduction in output
Given these factors, the actual Effective Lumen Output is often lower than raw values suggest. In extreme cases, some suppliers report only raw LED values, completely disregarding real-world performance. For transparency and accuracy, we ensure our data reflects true effective lumens, providing reliable performance metrics you can trust.

Features

Standard across the LEDrail 4100 range.

SABS Approved

IP 40 — Indoor.

1/2kV surge protection.

Acrylic Lens.

Serviceable: All units are serviceable and all parts replaceable.

Colour temperature 3000, 4000, 5600 & 6500K

Colour rendition index 80+

Top Bin Chips <3 MacAdams

Modular.

Earth connection and CLASS I insulation fixture.

P2000 Trunking compatible

Ceiling / floating mount

Suspended by chain or steel cable. (not included)

L&B Life Rating: **L80/90 B10 70 000 hrs**

Extras

Optional Extras.

Casambi bluetooth technology.
Bluetooth

All units can be fitted with Dali or bi-level driver.

Driver upgrade to 4kV

10kV replaceable surge protection.

IES files available.

LEDrail 4100 IP65

VOLTpro

Different colour options.

5 year warranty:
7 year warranty available T&Cs apply. Please visit www.energywise.co.za

Designed and Manufactured by **energywise**®

Better Light Through Research.

QMS-LR41-EWBR-250530

SABS **APPROVED**   MADE IN **SOUTH AFRICA**

Energywise lighting options

Energywise specialises in LED luminaries for industrial, EX, commercial and horticultural applications.

INDUSTRIAL

Bay XP
Factories, Warehouses, Cold rooms etc.

Standard
Height:	6-25m
IP:	65
Temp:	40/65°C

Bay XL
Factories, Warehouses, Supply rooms etc.

Standard
Height:	3-20m
IP:	40
Temp:	30°C

Bay XE
Factories, Warehouses, Supply rooms etc.

Standard
Height:	6-25m
IP:	20
Temp:	30°C

DUSTPROOF
Warehouses, Car parks, Corridors.

Standard
Height:	2.5-8m
IP:	66
Temp:	35°C

VANDAL-RESISTANT DUSTPROOF Car parks, Corridors, Mills.

Standard
Height:	2.5-8m
IP:	66
Temp:	35°C

PUREBox Panel
Medical & laboratory, Clean rooms etc.

Standard
Height:	3-5m
IP:	54
Temp:	35°C

Torch Bulkhead
Heavy industrial areas.

Standard
Height:	
IP:	65
Temp:	30°C

Pod IP65
Tamperproof and nearly unbreakable.

Standard
Height:	2-5m
IP:	65
Temp:	35°C

Bay XF
Get the job done, Glare-Free.

Standard
Height:	2-10m
IP:	20
Temp:	30°C

Plate XP
Swiss army knife of lighting.

Standard
Height:	6-25m
IP:	65
Temp:	35°C

TOBLO bay
Factories, Warehouses, Supply rooms etc.

Standard
Height:	6-25m
IP:	40
Temp:	40/30°C

Bay XT
Distribution centers, Warehouses etc.

Standard
Height:	3-20m
IP:	40
Temp:	35°C

RETROFIT

Retrofit 44
Converting old HID tech to LED

Standard
IP:	00
Temp:	30°C

Retrofit 22
Converting old HID bulkhead to LED

Standard
IP:	00
Temp:	35°C

RETAIL & COMMERCIAL

LEDrail 1000
Shops, Production facilities, parking

Standard
Height:	2.5-10m
IP:	40
Temp:	30°C

LEDrail 2000
Shops, Sheds, Underground parking

Standard
Height:	2.5-10m
IP:	40
Temp:	30°C

LEDrail 4000
Retail, board rooms, department stores.

Standard
Height:	2.5-6m
IP:	40
Temp:	35°C

LEDrail 8000
Retail, board rooms, department stores.

Standard
Height:	2.5-6m
IP:	40
Temp:	35°C

LEDrail 4·100
All retail outlets, showrooms, offices etc

Standard
Height:	2.5-10m
IP:	40
Temp:	35°C

LEDrail 4LCO
Shops, Production facilities, showrooms etc

Standard
Height:	2.5-10m
IP:	40
Temp:	35°C

Linear 4-300
Glare free precison lighting

Standard
Height:	2.5-10m
IP:	40
Temp:	35°C

Downlighter
Offices, retail and hospitality settings.

Standard
IP:	40
Temp:	30°C

Panel 595x595
Offices, healthcare, educational facilities.

Standard
IP:	40
Temp:	30°C

Panel 1195x595
Offices, commercial, educational settings.

Standard
IP:	40
Temp:	30°C

EX

EX Bay XP
Factories, Warehouses, Mills, Marine etc.

Standard
Height:	6-25m
IP:	65
Temp:	40°C

EX DUSTPROOF PREMIUM Warehouses, Car parks, Mills.

Standard
Height:	2.5-8m
IP:	65
Temp:	35°C

EX DUSTPROOF
Warehouses, Car parks, Corridors, Mills.

Standard
Height:	2.5-8m
IP:	65
Temp:	35°C

EX Pod
Factories, Mines, Marine etc.

Standard
Height:	2-5m
IP:	68
Temp:	40°C

EX Torch
Heavy industrial areas.

Standard
IP:	65
Temp:	40°C

EARTH

EARTHbay
Horticulture, Open areas etc

Standard
From canopy:	0.5-2m
IP:	65
Temp:	35°C

EARTHplate
Horticulture, Rack/ Under shelf etc

Standard
From canopy:	0.4-2m
IP:	65
Temp:	35°C

EARTHpod
Horticulture, Propagation, Racks etc.

Standard
From canopy:	0.2-1m
IP:	65
Temp:	35°C

Lights on. Job done.

energywise

Better light through research.