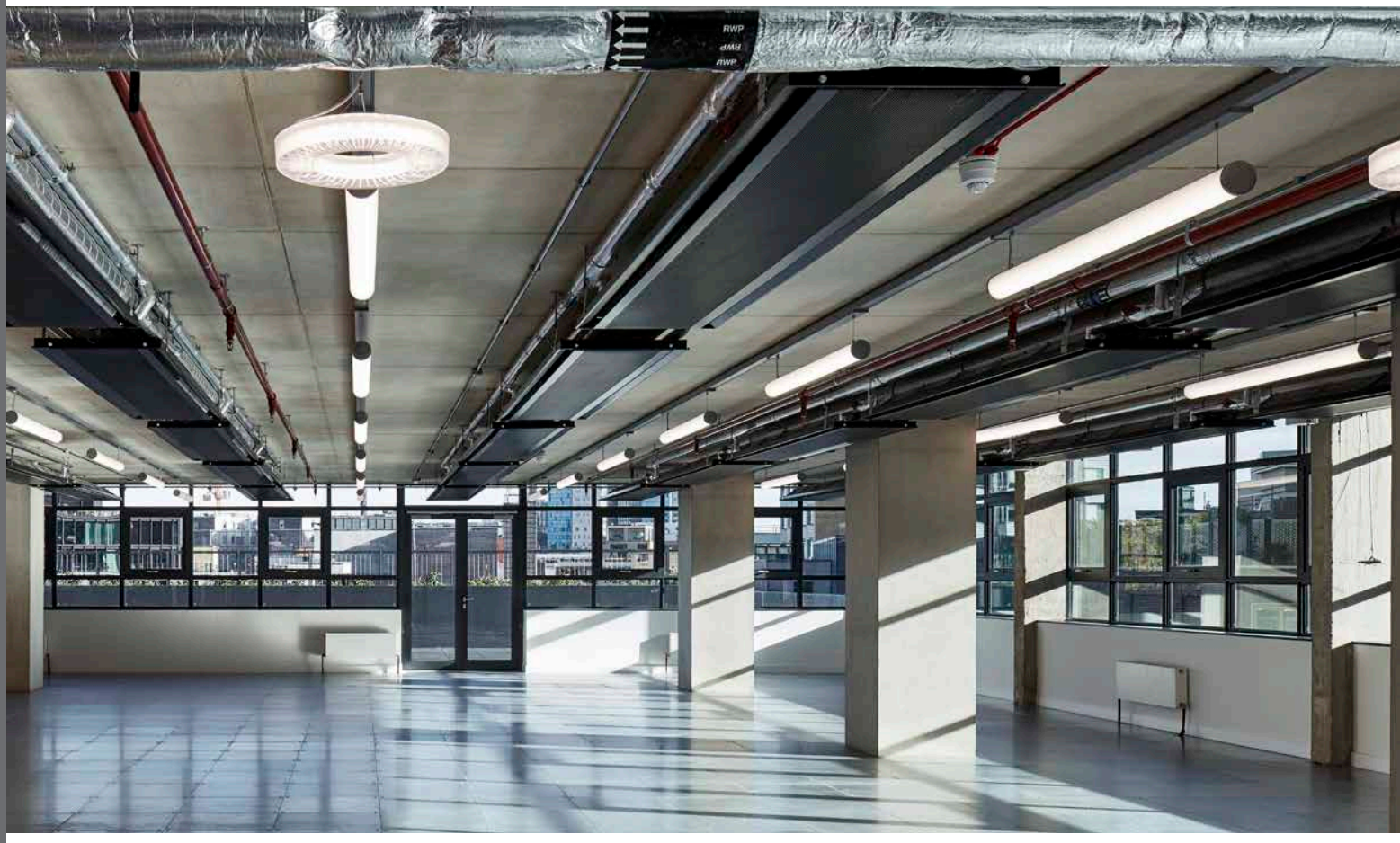
Lighting Refurbishment

Guide



RIDI GROUP UK

RIDI Spectral li:fy

Contents

INTRODUCTION TO RIDI GROUP

RIDI Leuchten GmbH is a German lighting manufacturer that specializes in producing high-quality, energy-efficient lighting solutions for commercial, industrial, and public spaces. The company was founded in 1952 by Richard Diez and is headquartered in Jungingen, Germany.

RIDI initially started as a small, family-owned business that produced lighting fixtures for local customers in the Swabian region of Germany. Over time, the company expanded its operations and began producing a wider range of lighting products for a variety of applications.

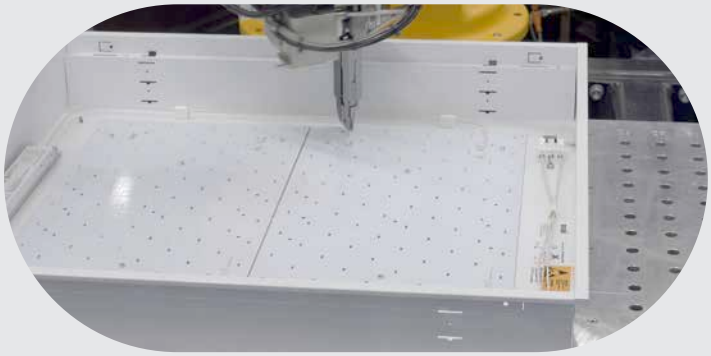
In the 1970s, RIDI became one of the first companies to introduce energy-efficient lighting solutions to the German market. The company continued to innovate and develop new products throughout the 1980s and 1990s, and by the early 2000s, it had established itself as a leading manufacturer of high-quality, energy-efficient lighting solutions.

Today, RIDI Group employs over 600 people and has a network of distributors and partners in countries across Europe and around the world. The company continues to innovate and develop new products, with a particular focus on LED technology and smart lighting solutions.

STATE OF THE ART PRODUCTION

RIDI Group has several production facilities around Europe, with principal production in Jungingen, Germany, where the company is headquartered. These factories include modern manufacturing plants, a state-of-the-art research and development centre, and a testing laboratory.

The manufacturing plants are equipped with the latest technology and machinery to ensure efficient and high-quality production of lighting fixtures. RIDI uses automated production processes wherever possible, and the company has implemented strict quality control measures to ensure that all products meet or exceed industry standards.

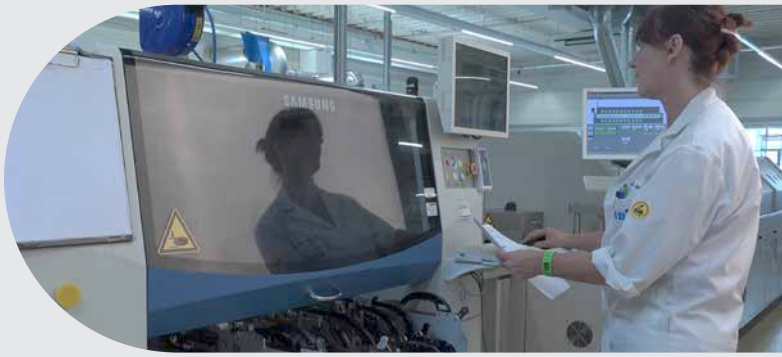


The research and development centre is staffed by a team of experienced engineers and lighting experts who work to develop new and innovative lighting solutions.

2019	RIDI Campus training centre completed
2012	SMD LED board production starts
2011	BEK CO_2 neutral Bioenergy/Solar plant created
2007	11 Pole LINIA BusBar Trunking is introduced
2007	Waste free paint plant is completed
2000	6500 Pallet automated warehouse goes online
1993	RIDI recieves ISO9001 Certification
1993	RIDI Lighting Ltd is founded in the UK
1987	SL - the forerunner to LINIA is introduced
1970	RIDI transitions to technical commercial luminaires
1952	RIDI Leuchten started by **Ri**chard **Die**z

The centre is equipped with advanced testing equipment and software, which allows us to simulate real-world lighting conditions and evaluate the performance of new products.

In addition to the manufacturing plants and research and development centre, we have a testing laboratory where all products undergo rigorous testing to ensure compliance with relevant safety and performance standards. The laboratory is accredited by various certification bodies, including TUV, and carries out tests such as photometric measurements, temperature tests, and endurance tests.



RIDI Leuchten GmbH's production facilities are designed to ensure that the company produces high-quality, energy-efficient lighting products that meet the needs of our customers.

RIDI GROUP IN THE UK

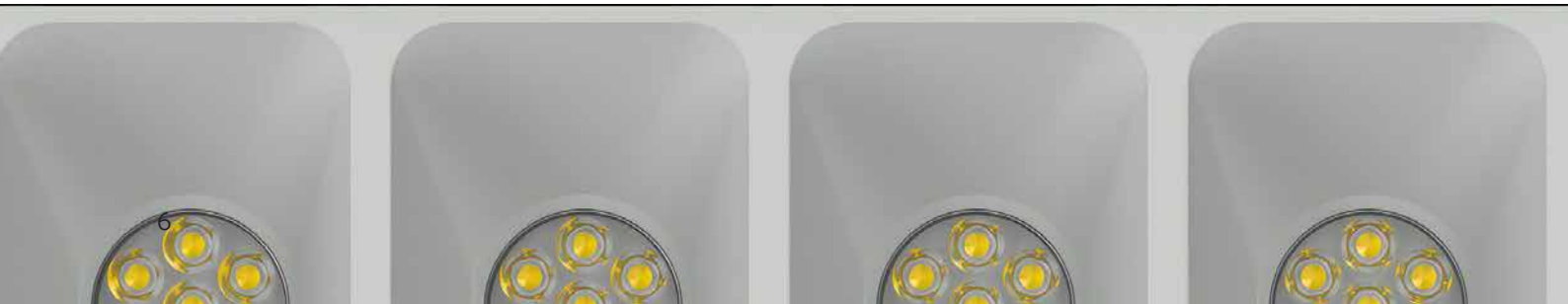
Local project engineers

Our local sales support team is available to assist you at any time. We're based in Harlow in the UK and available on the phone to discuss any requirements you may have.

Project engineers are based around the country and are able to make a survey of your building to inform the design team of the specific wishes and requirements for the project.

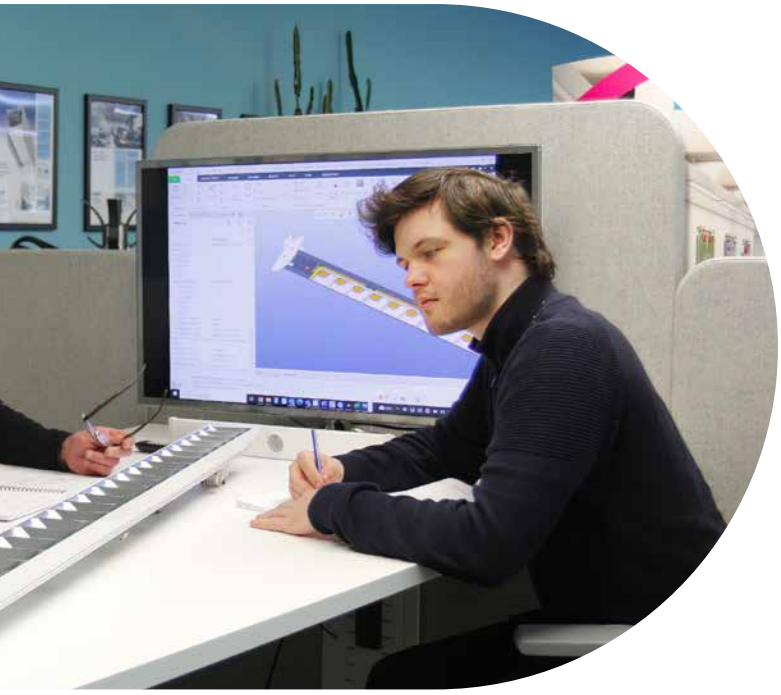
Product Design Department

RIDI UK have a team of experienced product designers who will look at the most cost effective, efficient and sustainable way to refurbish your lighting system. Using the latest 3D modelling and light simulation software, product designs can be produced quickly and accurately. As a RIDI Group customer, you will have direct communication with a design engineer, to ensure that the solution proposed matches your requirements. All our products are designed to meet all relevant industry standards.



UK project management

Each refurbishment project is assigned to a UK based project manager at our Harlow office. They are responsible for keeping you up to date with delivery times, and any technical details required to ensure the smooth running of the job.



Dedicated after sales team

Our dedicated UK support team is available to assist you with your project. From advising, assisting with installation, setup and commissioning of lighting control systems to on site support after installation. Our products come with one year of on site backup during the defects period, allowing freeing up installers time and allowing them to move on to new projects.

WHY UPDATE YOUR LIGHTING INSTALLATION?

Energy Saving

LED refurbishment products typically use 60% less energy than the lights they replace

Service Life

Our products have a minimum **50,000hr** life before replacement LED boards are required

Better for the environment

Reduced C02 emissions, no heavy metals, longer service, maintainable, simple to recycle

Improved light quality

Flicker free light, good colour rendering, and easy to control for a healthier and more productive working environment

FLUORESCENT LAMPS ARE BEING BANNED

The sale of the following types of fluorescent lamps will be banned in the EU and UK, starting in 2023.

Your existing stock of lamps may continue to be used, but it will not be possible to purchase any more after the phase out date.

September 2023

T8 Tubes

February 2024

CFL Non Integrated ballast

February 2024

T5 Tubes

February 2024

T5/T9 Circular (15mg Mercury)

February 2025

T9 Circular (10mg Mercury)

Why are fluorescent lamps being removed from sale?

SLR Ecodesign Regulation (EU) 2019/2022

Mandates minimum energy efficiency requirements on light sources. T12 fluorescent tubes have already been removed from the market due to this regulation.

Restriction of Hazardous Substances (RoHS) directive 2011/65/EU

Aims to restrict the use of hazardous substances. The Mercury content of fluorescent lamps brings them under the remit of this directive.

DISCOVER THE BEST REFURBISHMENT SOLUTION FOR YOUR BUILDING

Retrofit

We produce a light module that replaces the lamp and gear in your existing light fittings

- **Retains the existing look**
- **Does not disturb the building fabric**
- **Least disruption during upgrade**

Re-Engineer

We produce a replacement light fitting that exactly matches the dimensions of the exiting units and fits into the same ceiling system or construction

- **New complete luminaire**
- **Retain existing ceiling systems**
- **Optics to match original design intent**

Standard Replacement

We pick a product from our standard range that is able to replace the existing fittings without major building or electrical work

- **Standard fittings for most common ceiling types**
- **Quick turnaorund**
- **Cost effective**

GREAT MINSTER HOUSE
Re-engineered LED luminaires in the existing SAS 150 Ceiling

Call us on **01279 450882**
or visit **ridi-group.co.uk/refurb**
to arrange a site survey

1 We'll visit your building, and survey the existing lighting

2 Our experienced engineer will propose a lighting solution

3 We'll produce a sample product for approval

4 We maufacture your products to meet all relevant standards

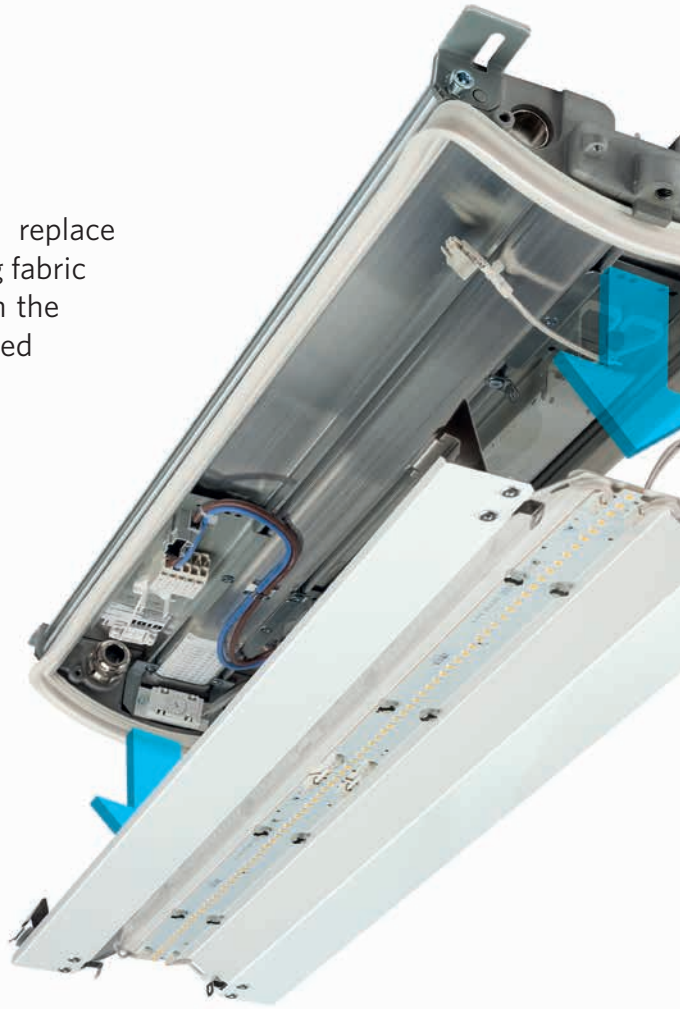
5 We support your products with our in house UK team

RETROFIT

Sometimes it's practically impossible to remove and replace existing light fittings. Perhaps they are part of the building fabric or ceiling system, be of a custom design that fits in with the architecture of the space or in some cases may be listed items in historic buildings.

In these cases the best solution is to produce a retrofit lighting module that replaces the old technology with new LED units while retaining the character and form of the existing product.

Producing effective replacement lighting modules for existing luminaires can be complex and time-consuming. We have a rigorous process to ensure everyone is aware of the expectations and feasibility of the project.



SURVIVOR

Survivor is an impact resistant luminaire system which has been used extensively throughout the rail and underground networks in the UK and across Europe.

Originally designed as fluorescent light fitting. Survivor features a media trunking section which allows for power, data and PA speakers to be deployed seamlessly as a single integrated system. As such it's an important part of the station infrastructure and would be extremely expensive and time consuming to replace.

Following the acquisition of Selux interior products by RIDI Group, we produced a drop in replacement LED module which reduces power usage, simplifies maintenance and extends the lifetime of these fantastic light fittings for the foreseeable future.

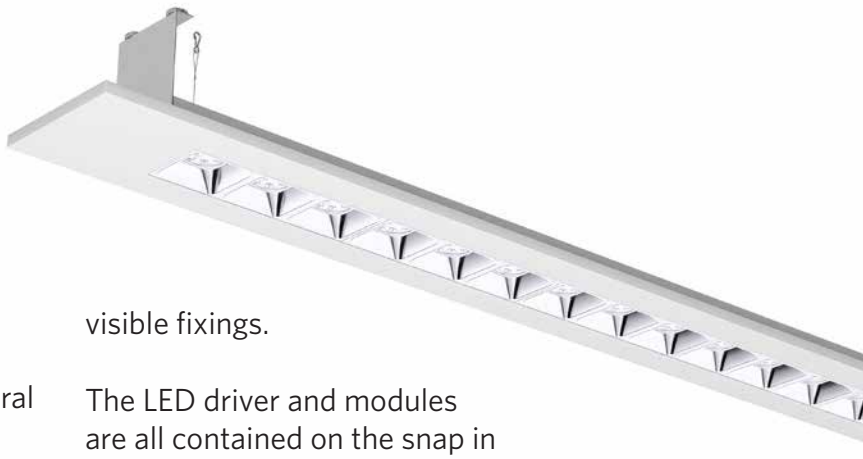
LED retrofit geartray saves 50% Energy compared to original T8 fluorescent

LED modules last 50,000hrs compared to 15,000hrs for original fluorescent lamps

The retrofitted luminaire maintains all electrical and mechanical safety certifications of the original product

LONDON CITY AIRPORT
Survivor lighting system

Multilens Retrofit Magnetic Insert



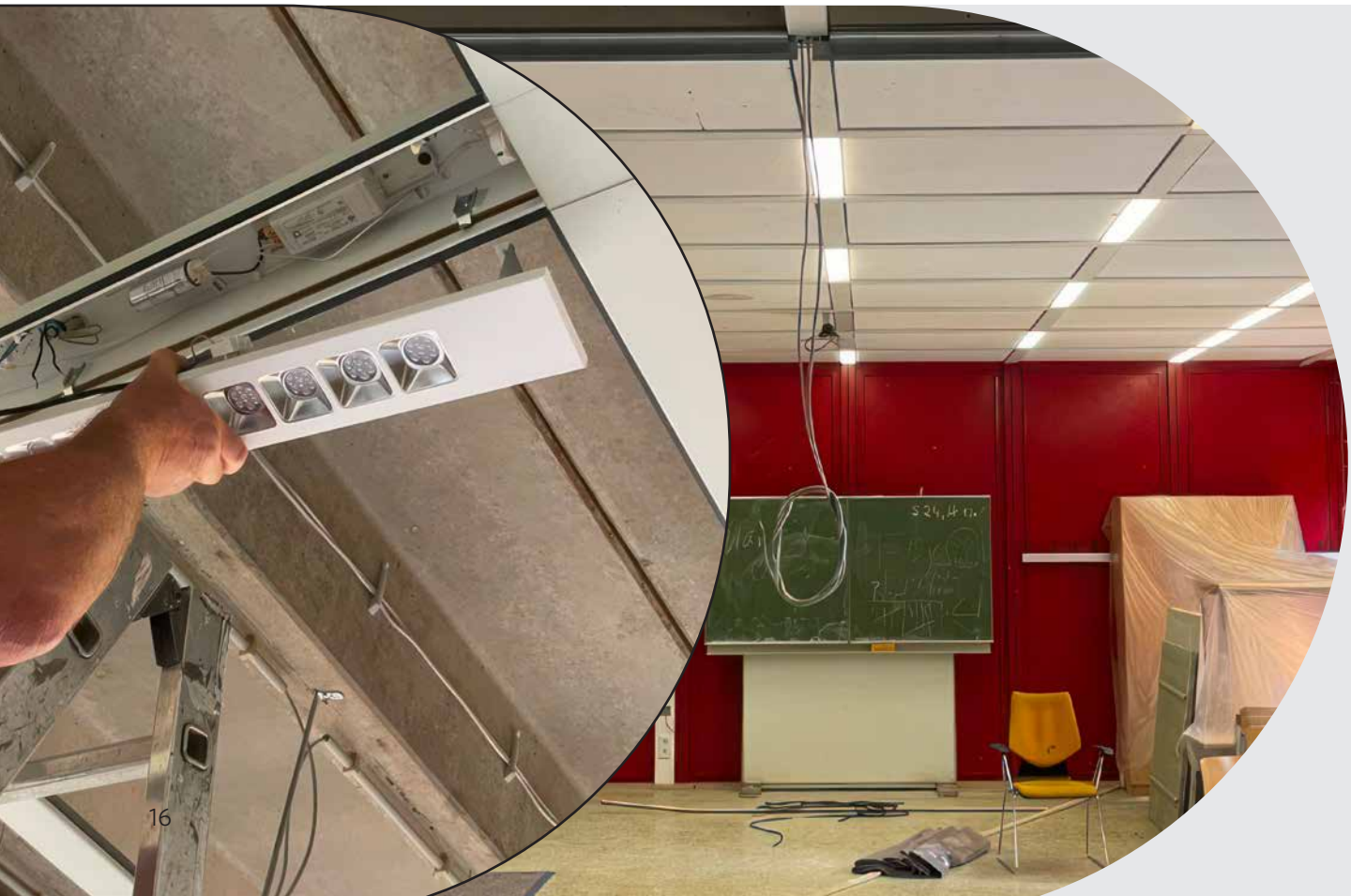
RIDI Group produced a new lighting module using Multilens to replace the existing fluorescent tube behind opal diffuser.

The luminaires had been built into as part of the ceiling tile support and could not be removed without compromising the structural integrity of the ceiling system.

We produced a retrofit module that is held in place with strong magnets and a secondary safety wire, allowing quick replacement and no visible fixings.

The LED driver and modules are all contained on the snap in module, which is designed to avoid the existing internal wiring and control gear so nothing needs to be removed. Just bring the power to the new unit and click in place.

Snap in 1:1 direct replacement



Purelight Retrofit Freiburg Library

The installation of Purelight in the library of Freiburg University is absolutely integral to the feeling of openness and accessibility. They were originally installed as part of a refurbishment of the library which saw it receive a transparent facade skin of metal and glass.

When it became clear that the impending removal of T5 lamps from the market was going to negatively impact the upkeep of this iconic space, the University contacted RIDI Group about an upgrade to the installation.

Simple LED tubes would not have given the same 360° lighting effect as the original fluorescent lamps, so we designed a retrofit lighting module that maintained the original design intent and will remain maintainable well into the future.

Reuse of the fittings reduces waste and saves on new materials

RE-ENGINEER

When the existing luminaires are designed to fit into a special ceiling or structure, but not an integral part of the fabric of the building, it may be more cost effective and simpler to produce a new product that is a direct replacement.

RIDI Group production facilities are highly flexible and automated. We have an extensive range of LED modules and optics used in our series production luminaires. Because of this, we are well placed to produce specially designed replacement products accurately and cost-effectively.

University of Stuttgart Library

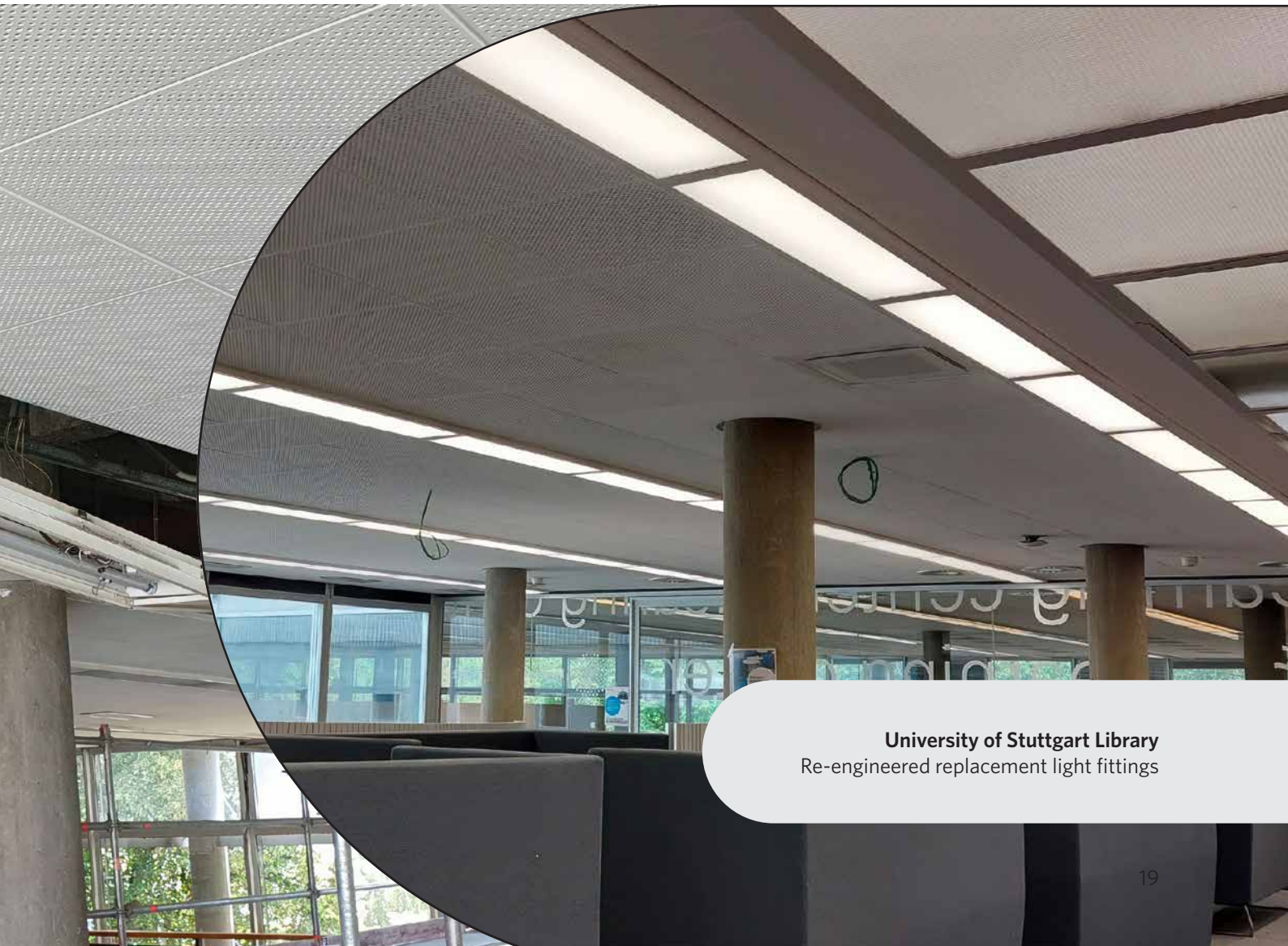
The existing lighting system at the University of Stuttgart library was nearing end of life. The impending ban on fluorescent lamps meant that it was not longer practical to continue using the exiting fittings. The lighting formed an integral part of the ceiling structure and could not be easily removed without compromising its stability.

RIDI Group produced a re-engineered light fitting that retained the original dimensions, structural support and lighting performance of the original. In addition the new luminaires reduce energy usage and reduce maintenance. Countless hours of downtime in the library were saved compared to having to replace the complete ceiling system.

The new light fitting saves 40% Energy compared to the original T8 fluorescent

LED modules last 100,000hrs compared to 15,000hrs of the original fluorescent lamps

The LED boards were tuned to produce the same light levels as the original fitting for a true 1:1 replacement



University of Stuttgart Library
Re-engineered replacement light fittings

Great Minster House Re-engineered Lighting

Working with MACE MEP and BW Interiors, RIDI created an energy efficient lighting scheme, tailored to meet the needs of modern working methods.

We created a specially sized tuneable white flat panel to directly replace the fluorescent fittings in the SAS150 concealed grid ceiling in the offices. Circulation areas, breakout areas and individual meeting rooms feature recessed and surface mounted downlighters from our standard range.

The lighting control system provides energy saving and circadian rhythm lighting control for the special flat panels in the main office areas and runs the rest of the updated lighting throughout the building.

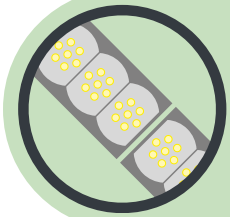
70% Reduction in energy usage compared to the original installation

Modular Recessed Multilens

RIDI Group were invited to produce a range of modular recessed light fittings to replace existing fluorescent louvred T8s in building across Europe.

Multilens proved to be the ideal tool to reproduce the very wide beam spread of the existing lights, maintaining the original design intent. With a minimum module length of 180mm, we produced a range of replacements to fit all the existing ceiling cutouts.

Versions with and without air handling slots, and in variety of finishes were designed and produced to cater to multiple building refurbishments across Germany and the Netherlands.



Modular replacements for 600, 900, 1200 and 1500mm existing units

STANDARD REPLACEMENT LUMINAIRES

In many cases where standard ceiling systems are used, and the luminaires can be easily replaced a standard product makes more sense from both a financial end environmental standpoint. Our series production luminaires are optimised for energy saving, efficient production and quick delivery.

As part of our commitment to reducing electrical waste, WEEE, we can provide a dedicated collection point on site for the old light fittings. They will be removed, separated into their component parts and recycled. This service is provided to our customers at no cost, and the existing luminaires do not need to have been supplied or produced by RIDI.

Our product portfolio contains a complete range of lights required any conceivable requirement, including products such as the SARA downlight (page 26) which is specially designed to fit in existing ceiling cutouts regardless of the hole size.

University of Bath

Tired and yellowing recessed light fittings in the science labs at the University of Bath resulted in a dingy and oppressive learning and working environment for students, researchers and teaching staff alike.

RIDI ARKTIK LED and FPL panel luminaires were chosen and installed as a straight swap. While the dramatic improvement the quality of light and general working environment was the primary motivator for the refurbishment, energy usage was also a factor. Replacing the 4x18W T8 fittings with ATKTIK LED resulted an energy reduction of over 50%. Furthermore, the increase in lifetime and RIDI's guarantee to have spare parts available for at least 10 years means that substantial maintenance costs will be avoided, increasing the University's savings.

Massive improvement in light quality. Brighter, better colour rendering and flicker free

Savings due to reduced energy use result in a payback time of < 5 years plus ongoing maintenance savings

Light output tailored to the project to allow a 1:1 swap of fittings and simple install process

University of Bath
ARKTIK lay in modular luminaires

FPL Edge Lit Panels

Ultra low profile, High output and Low Glare. This edge lit panel luminaire delivers a remarkably high quality light and great value.

Available with DALI, Smart Control and Non-Dimming remote drivers in both 600x600 and 1200x300 sizes.

All version deliver UGR <19, up to 120lm/W and have a 3 Step MacAdam LED Source.

ColourSwitch Change the colour temperature of the light from 3000K to 4000K on site.

PowerSwitch Choose the output of Non Dimming fittings to reduce energy usage or boost light levels.

HALO
Bristol

Product Code	L mm	W mm	D mm	CCT	Output lm	Power W	Driver
FPL3-EE1195DAWS830840MPS0500	1195	295	13	830/840	3900	33	DALI DT6
FPL3-EE1195NDWS830840MPS0500	1195	295	13	830/840	3900	33	No Dim
FPL3-EQ0595DAWS830840MPS0500	595	595	13	830/840	4015	33.3	DALI DT6
FPL3-EQ0595DAWS8TWMPS0500	595	595	13	830-865	4015	33.3	DALI DT8
FPL3-EQ0595NDWS830840MPS0500	595	595	13	830/840	4015	33.3	No Dim

EDLR E2 Downlights

Great value standard LED downlight available in three sizes, with and without opal diffuser panel

- IP44 from the ceiling side
- Remote driver
- Open reflector or Opal Panel
- DALI dimming options
- Emergency lighting versions

Space
Woking

Common Product Codes	H mm	Ø mm	CCT	Output lm	Power W	Driver
EDLR-E2 150/1100-840 W-DALI	55	150	840	1115	9	DALI DT6
EDLR-E2 150/1100-840 W	55	150	840	1115	9	No Dim
EDLR-E2 195/2000-840 W-DALI	65	195	840	1930	16	DALI DT6
EDLR-E2 195/2000-840 W	65	195	840	1930	16	No Dim
EDLR-E2 235/3000-840 W-DALI	95	235	840	2769	23	DALI DT6

SARA Refurbishment Downlights

Designed with refurbishment in mind, these ingeniously simple panel downlights adapt to any previous cut out size from 65mm to 260mm with ratcheting fixing brackets. The low profile LED module sits flush to the ceiling surface, covering any existing cut outs or ceiling damage associated with removing the old fittings.

Available in three sizes with both DALI and Non Dimming drivers.

ColourSwitch Change the colour temperature of the light from 3000K to 4000K on site.

PowerSwitch Choose the output of Non Dimming fittings to reduce energy usage or boost light levels.

Common Product Codes	H mm	Ø mm	Cut out range mm	CCT	Output lm	Power W	Driver
SARA220 DAWS830840OS210	22	217	65-185	830/840	2100	17.5	DALI DT6
SARA220 NDWS830840OS220	22	217	65-185	830/840	2170	18	No Dim
SARA230 NDWS830840OS210-EDS3	22	227	65-185	830/840	1990	18	No Dim +Emergency
SARA290 DAWS830840OS265	22	290	65-260	830/840	2640	22	DALI DT6
SARA290 NDWS830840OS285	22	290	65-260	830/840	2875	23	No Dim
SARA290 NDWS830840OS280-EDS3	22	290	65-260	830/840	2670	23	No Dim +Emergency

PFLO Vapour proof

Robust vapour proof luminaires with RIDI Group LED modules for use as direct replacements for existing fluorescent fittings.

- 600, 1200 or 1500mm Versions
- DALI or Non Dimming Options
- Self-test integral emergency on 4' and 5'
- Acrylic or Polycarbonate diffuser
- Robust GRP body
- Stainless steel retaining clips
- IP66 Rated

Product Code	L mm	W mm	D mm	CCT	Output lm	Power W	Driver
PFLO-NP0660DAKG840O0350	660	110	100	840	3624	23	DALI DT6
PFLO-NP0660NDKG840O0350	660	110	100	840	3624	23	No Dim
PFLO-NP1270DAKG840O0450	1270	110	100	840	4517	33.9	DALI DT6
PFLO-NP1270NDKG840O0450	1270	110	100	840	4517	33.9	No Dim
PFLO-NP1570DAKG840O0600	1570	110	100	840	6021	43.7	DALI DT6
PFLO-NP1570NDKG840O0600	1570	110	100	840	6021	43.7	No Dim

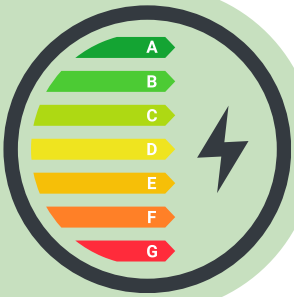
MULTILENS

Our new light engine platform which forms the basis for a number of standard product ranges as well as being available to use in retrofit and re-engineered project luminaires.

Multilens is designed from the ground up for efficiency, light quality, maintainability and modularity,

Efficient

Individually lensed mid power LED chips for efficiency of up to 172 lm/W



Light Quality

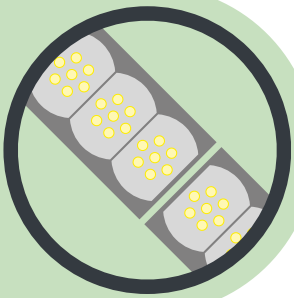
Comfortable low-glare optics, high CRI colour rendering to meet well standards

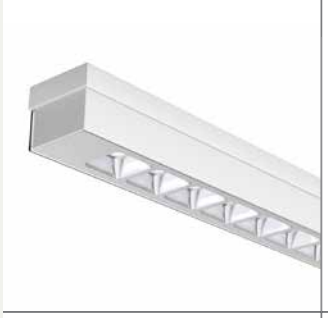
Maintainable

No glues or laminates, disassemble with standard hand tools. Minimum 10 year parts availability

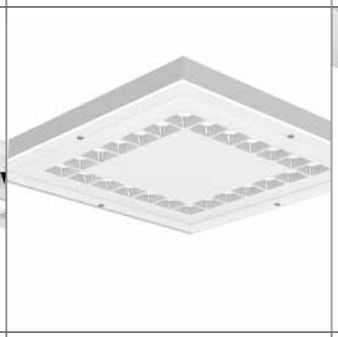
Modular

3 and 6 cell modules to build into retrofit, re-engineered and standard products

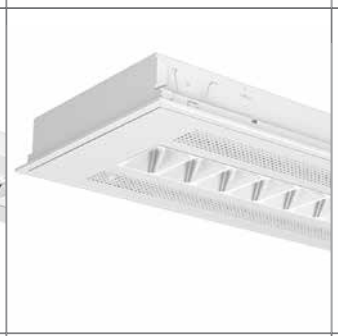


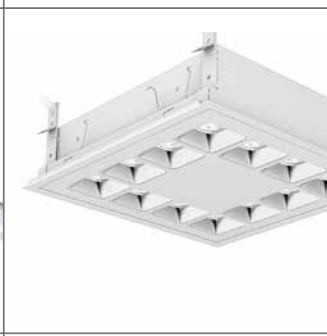


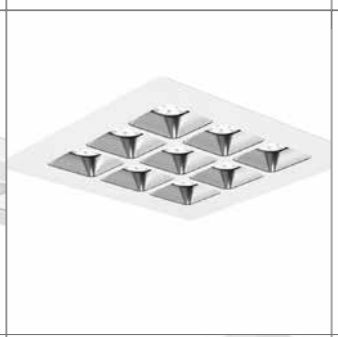


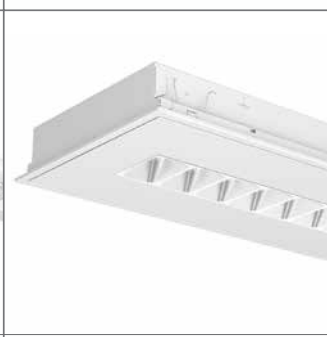



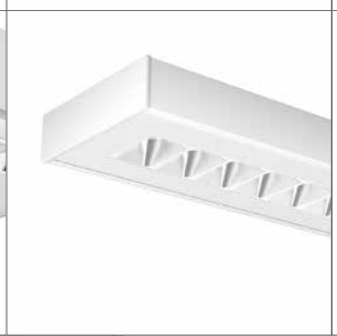




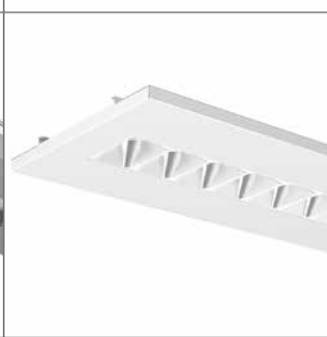










SE-EQ with Multilens

Modular recessed light fitting for standard lay in grid systems. Ultra low glare and high efficiency.

- Integrated design - no remote driver
- Fully maintainable
- 5 Year warranty
- 100,000 hr rated life at 25°C
- Typical UGR <19
- Available from UK Stock

Product Code	L mm	W mm	D mm	CCT	Output lm	Power W	Driver
SE-EQ0600DAWS840M9S0350	597	597	50	840	3714	25.89	DALI DT6
SE-EQ0600NDWS840M9S0350	597	597	50	840	3714	25.6	No Dim

F-LINE with Multilens

Exceptional value direct/indirect light pendant. Available in 1200 or 1500mm lengths.

- Multilens downlight & dedicated uplight
- Maintainable modular design
- 5 year warranty
- 100,000 hr rated life at 25°C
- Typical UGR <19

Product Code	L mm	W mm	D mm	CCT	Output lm	Power W	Driver
F-LINE-PDI1190DAWS840M9S0450	1190	200	33	840	4315	30.1	DALI DT6
F-LINE-PDI1190NDWS840M9S0450	1190	200	33	840	4315	30.8	No Dim
F-LINE-PDI1550DAWS840M9S0600	1550	200	33	840	6181	42.5	DALI DT6
F-LINE-PDI1550NDWS840M9S0600	1550	200	33	840	6181	53.1	No Dim

LINIA®

1FA London
Before and After
LINIA BusBar Pre-wired Trunking System

LINIA®

Continuous BusBar lighting system connects lighting, energy saving controls and emergency lighting in one cost effective and quick to install system.

Fast to Install

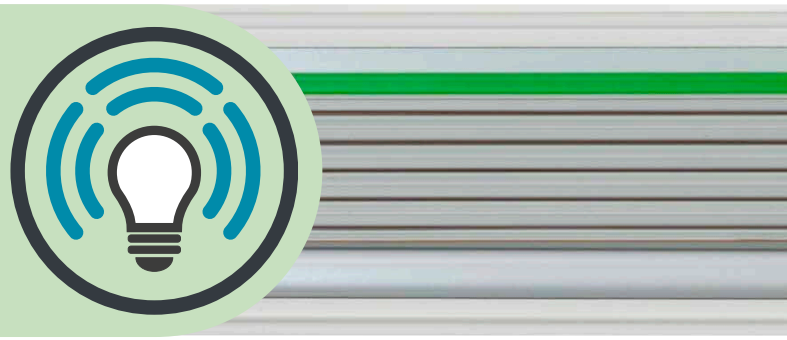
75% Quicker to fit than conventional lighting systems

Energy Saving

65% lower energy use than conventional lighting

Smart Lighting

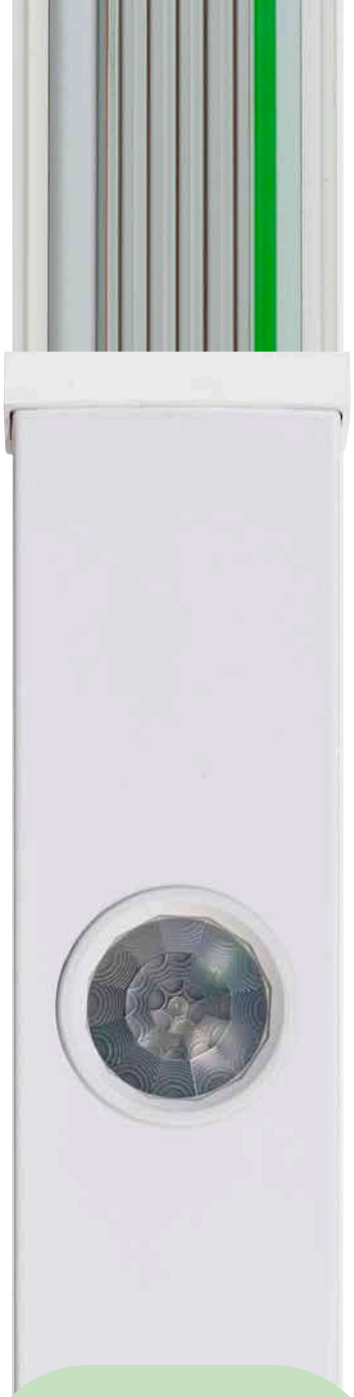
Save an extra 30% on energy bills with integrated lighting controls



Safety Systems

Plug in emergency lighting keeps your building safe and compliant

Emergency Lighting



Smart Controls

LED Lighting

BusBar Trunking

LINIA VL1-GW
with Multilens

Energy efficient, long life and maintainable.

- Up to 172 lm/W
- Low glare lensed LED optics
- Maintainable with 10 year parts availability
- Contemporary stone grey reflector adds warmth
- Made in Germany for low Carbon footprint

ResFlex Choose the output of Non Dimming fittings to reduce energy usage or boost light levels.

Multilens
Standard Optic

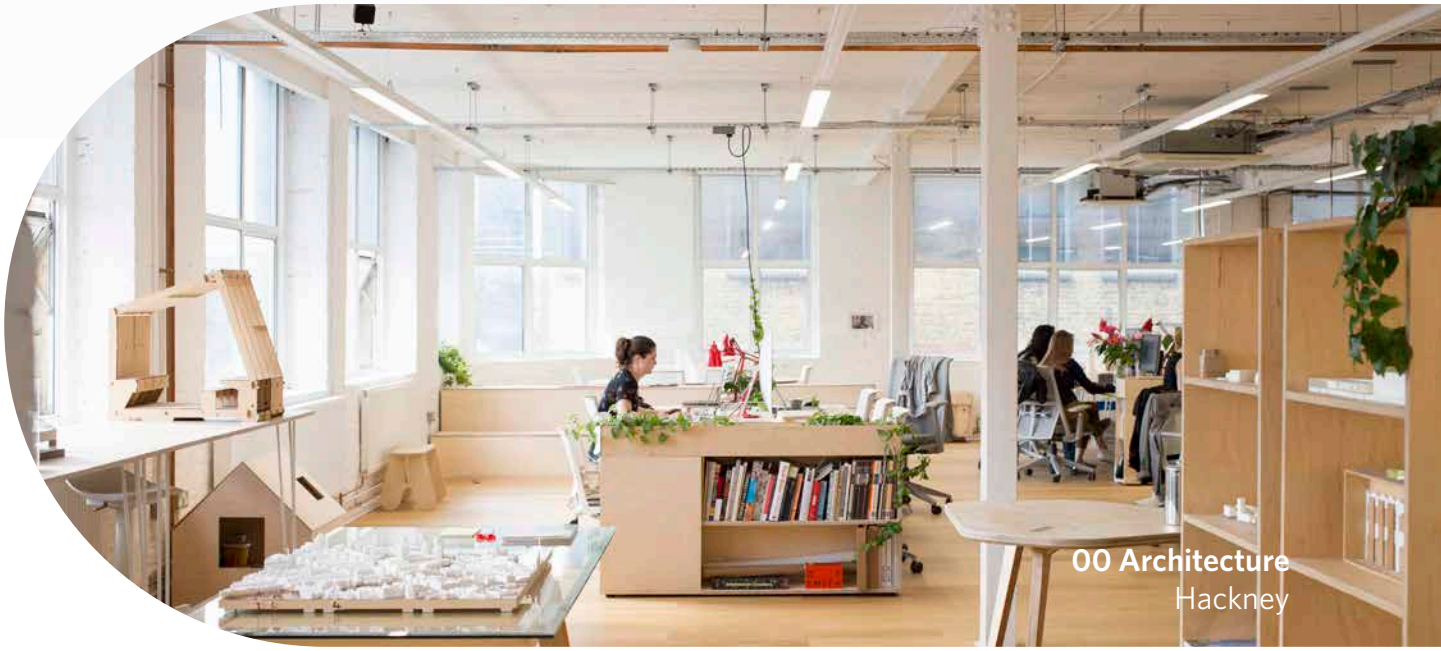
Common Product Codes	L mm	W mm	D mm	CCT	Output lm	Power W	Driver
VL1GW1500DAWS840M9P0800	1500	95	90	840	8100	50	DALI DT6
VL1GW1500DAWS940M9P0700	1500	95	90	940	6920	40	DALI DT6
VL1GW1500RFWS840M9P0800	1500	95	90	840	8200	50	ResFlex
VL1GW1500DAWS840M9S0700	1500	95	90	840	7290	50	DALI DT6
VL1GW1500RFWS840M9S0700	1500	95	90	840	8200	50	ResFlex

LINIA VLG-FS
Microprismatic

Wide microprismatic optic particularly suited for office use.

- Extra wide optic reduces glare and increases comfort
- Smooth discreet lines

ResFlex Choose the output of Non Dimming fittings to reduce energy usage or boost light levels.



00 Architecture
Hackney

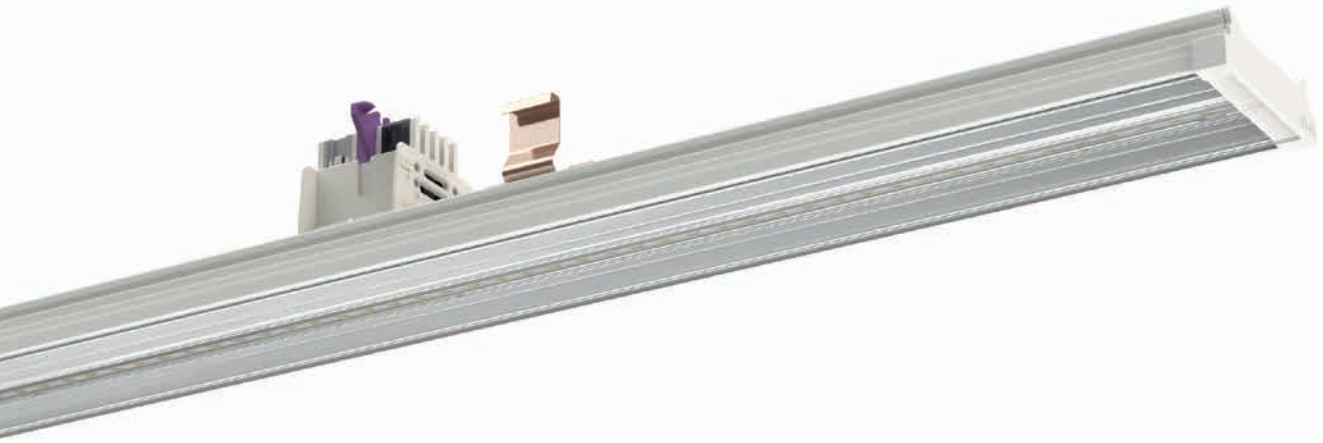
Common Product Codes	L mm	W mm	D mm	CCT	Output lm	Power W	Driver
VLGFS1001-7DAWS840MP0500	1000	97	74	840	4825	39	DALI DT6
VLGFS1001-5NDWS840MP0500	1000	97	74	840	4825	39	No Dim
VLGFS1501-7DAWS840MP0750	1500	97	74	840	7240	59	DALI DT6
VLGFS1501-5NDWS840MP0750-RF	1500	97	74	840	7310	58	ResFlex
VLGFS1501-5NDWS840MP0750	1500	97	74	840	7240	59	NoDim

LINIA VL1-GP

Next generation, lowest energy usage LINIA light fittings

- Up to 172 lm/W
- High efficiency multi-step longitudinal prisms
- Broad (B) or Narrow (E) beam options
- Resource optimised production for lowest embedded carbon

ResFlex Choose the output of Non Dimming fittings to reduce energy usage or boost light levels.



Tunnocks
Uddingston

Product Code	L mm	W mm	D mm	CCT	Output lm	Power W	Driver
VL1GP1501-7DAWS840B0900	1500	67	64	840	8979	59	DALI DT6
VL1GP1501-5NDWS840B0900	1500	67	64	840	8979	59	No Dim
VL1GP1501-7DAWS840E0850	1500	67	64	840	8591	55	DALI DT6
VL1GP1501-5NDWS840E0850	1500	67	64	840	8591	56	No Dim

RIDI GROUP UK

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06/06/23