



The Brighter Choice



# Lighting in **EDUCATION**

A blurred background image of a classroom. In the foreground, the back of a light-colored wooden desk and a blue chair are visible. The background shows rows of desks and chairs, with bright, out-of-focus lights on the ceiling, creating a bokeh effect. The overall scene is brightly lit and slightly out of focus, emphasizing the text overlay.

# THE BEST SOLUTIONS FOR THE **BRIGHTEST** MINDS

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# NVC LIGHTING BRIGHTENING SPACES FOR OVER TWO DECADES

For over two decades, NVC Lighting, a subsidiary of NVC International, has been at the forefront of lighting innovation and excellence. Our continuous evolution and adaptation to technological advancements and design trends have marked our journey.

Driven by a vision to provide cutting-edge LED solutions, NVC Lighting has rapidly expanded its international presence, making significant strides in global markets. Specialising in commercial and industrial lighting, we lead the shift towards energy-efficient and sustainable lighting solutions.

At NVC Lighting, sustainability and environmental responsibility are at the core of our operations. We are committed to minimising our environmental footprint and pioneering a greener future.

Supported by a team of dedicated professionals and industry experts, NVC Lighting is devoted to delivering the right solutions for all project requirements across various market sectors and in particular educational establishments.



# A 7-YEAR WARRANTY THAT YOU CAN COUNT ON



## Our Hassle-Free 7-Year Warranty

At NVC Lighting, we believe in the quality and durability of our products. That's why we offer a comprehensive 7-year warranty on all our PRO and LiFe product ranges. This warranty provides you with peace of mind, knowing your lighting solutions are designed to last. One simple and consistent warranty for all your projects

**Warranty length:** 7-Years

**Registration:** None - automatically covered

**Applies to:** All PRO & LiFe ranges

**Begins from:** Date of installation

**No. of hours covered:** Unlimited

**Lithium batteries:** Included (where applicable)

**Requirements:**

- To be installed by qualified professional and tested
- To be used for its intended purpose

# SUSTAINABILITY AT OUR CORE



- **Carbon Neutral Commitment:** Invest in quality lighting and a greener future with our carbon-neutral operations.
- **Ahead of our 2030 Net Zero targets** – 50% GHG reduction targets five years earlier than planned.
- **Ecovadis Bronze Accreditation 2024:** Recognised for ethical practices and environmental responsibility throughout our supply chain.
- **Lumicom Membership:** Leading innovation and sustainability within the lighting industry for maximum quality and efficiency.
- **Sustainable Solutions:** Prioritise energy efficiency, longevity, and recyclability in every lighting project.

# INSIDE AN EDUCATION FACILITY

Education facilities are complex. There are many different activities taking place under one roof, but there are some priorities and principles that apply almost everywhere.

Lighting should be used to enhance the learning environment. In classrooms good lighting will encourage concentration and engagement – while poor lighting can be boring, distracting, even headache inducing.



**Classroom / Corridor.**  
YALE PRO low-glare is IK10 rated and available in 3 sizes and 12 wattages. Ideal for almost any size and shape of classroom or corridor.



**Classroom.**  
STERLING low-glare panels provide low maintenance lighting.

**Sports area.**  
LYNX is an asymmetric flood-light for sports facilities and other outdoor areas.



**Sports hall / multi-use hall.**  
OREGON is a specialist high-output fitting for multi-use halls and sports facilities with an impact rating up to IK10.



**Changing rooms.**  
PRESTON is IP65 and IK10 rated, so is designed for use in challenging applications.

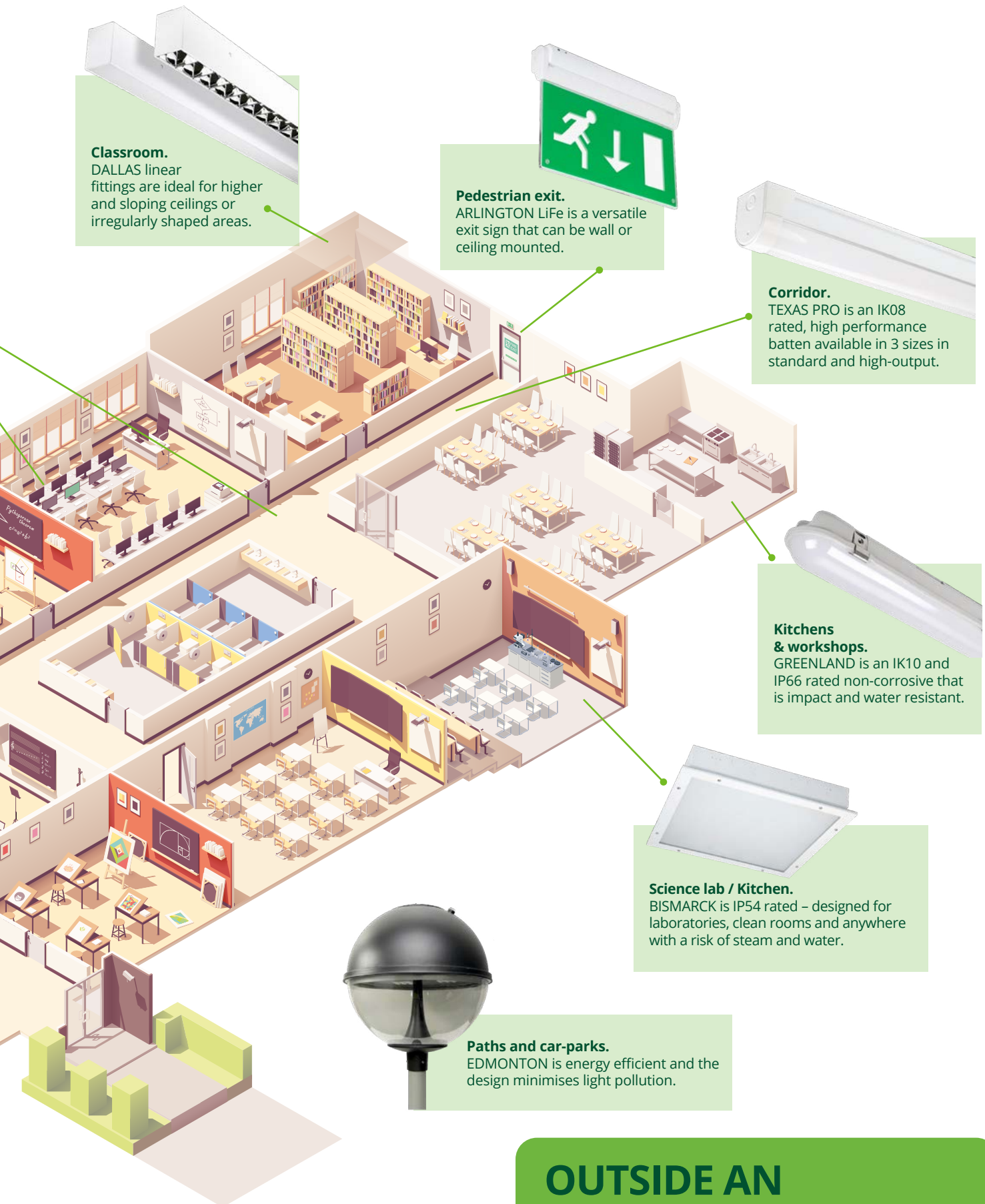
# LOW RUNNING COSTS

Good lighting cuts running costs in three ways:

- **High reliability** – all the fittings proposed here are warranted for 7-years
- **Low energy consumption** – cost-effective lighting controls cut electricity bills
- **Zero emergency testing costs** - emergency testing is expensive if it's done the old, manual way. Automated test systems eliminate monthly testing costs.



**Main entrance.**  
DENALI is an IK10 and IP65 rated circular bulkhead which can be used with dimming sensors.



**Classroom.**  
DALLAS linear fittings are ideal for higher and sloping ceilings or irregularly shaped areas.

**Pedestrian exit.**  
ARLINGTON LiFe is a versatile exit sign that can be wall or ceiling mounted.

**Corridor.**  
TEXAS PRO is an IK08 rated, high performance batten available in 3 sizes in standard and high-output.

**Kitchens & workshops.**  
GREENLAND is an IK10 and IP66 rated non-corrosive that is impact and water resistant.

**Science lab / Kitchen.**  
BISMARCK is IP54 rated – designed for laboratories, clean rooms and anywhere with a risk of steam and water.

**Paths and car-parks.**  
EDMONTON is energy efficient and the design minimises light pollution.

**OUTSIDE AN EDUCATION FACILITY**  
Good lighting reinforces good behaviour, reducing opportunities for bullying, rule-breaking and antisocial activity.

# ENHANCE LEARNING WITH UGR LIGHTING

## THE CHALLENGE OF GLARE

Glare can hinder students' ability to see their teacher or the board clearly, and it disrupts teachers' ability to make eye contact with students. In severe cases, glare can cause headaches, fatigue, and even absenteeism. To create an effective learning environment, it is recommended to use low-glare lighting (UGR<19) in classrooms.

## The Solution: UGR Lighting



### Visual Comfort

UGR lighting significantly reduces glare, easing eye strain and discomfort. This enhancement allows for better focus and a more enjoyable learning experience.

### Boosted Productivity and Focus

Low UGR lighting eliminates harsh light distractions, enabling students to concentrate better, which can lead to improved academic performance.

### Optimal Learning Environment

UGR lighting provides a well-lit, eye-friendly atmosphere, improving interactions with learning materials, projectors, and interactive displays.

### Enhanced Health and Well-being

Proper UGR lighting minimises health issues such as eye strain and headaches, promoting overall well-being and reducing classroom disruptions.

### Energy Efficiency and Sustainability

Modern UGR-compliant LED lighting reduces energy consumption and carbon footprint, aligning with sustainability goals and reducing costs.

### Compliance with Safety Standards

Meeting UGR lighting standards ensures visual comfort and safety, contributing to a well-designed and compliant educational space.

## Durable, Watertight and Hygienic

In less-supervised areas like corridors and changing rooms, it's essential to have robust lighting. For these spaces, choose fittings with high impact protection (IK rating) and high ingress protection (IP rating). Here are the recommendations:

- **Corridors and General Areas:** Look for fittings with a high IK rating, ideally up to IK10, to ensure maximum durability.
- **Changing Rooms:** Require a minimum of IP44 to protect against splashes and moisture.
- **Kitchens and Laboratories:** Should have at least IP54 to ensure protection against dust and water sprays, maintaining hygiene and safety.



**BISMARCK** is IP54 rated with a wipe-clean front cover. Ideal for kitchens and laboratories.

**PRESTON** bulkhead is IK10 and IP65 rated - suitable for most toilets and changing rooms.



## Top tips

### 1 Choose Low-Glare Fittings

The design of light fittings greatly impacts glare levels. Consider these fittings that typically deliver UGR <19:

- LINCOLN and STERLING panels
- YALE PRO surface and suspended



#### STERLING

The micro-prismatic diffuser concentrates the light downwards so that  $L_2$  (luminous intensity) is decreased when viewed from the side.

### 2 Incorporate Up-Lighting

Reducing contrast between the ceiling and light fittings helps minimise glare. Consider fittings like DALLAS (30% uplight) or YALE PRO (12% uplight).



#### YALE PRO

IK10 and IP40 rated. Opal PC micro-prismatic controller, for UGR<19 compliant lighting schemes

### 3 Orient Linear Fittings Correctly

For linear fittings like DALLAS and YALE PRO, position them to run along the line of sight rather than across it to further reduce glare.



#### DALLAS

Puts light up onto the ceiling, increasing the background luminance.

UGR lighting is essential for creating optimal learning environments. By reducing glare and enhancing comfort, UGR lighting boosts focus, health, and sustainability, making it vital for educational institutions.

**OREGON** is designed for sports halls. It is available with a wire guard (giving it an IK10 rating), a choice of sensors and either a wide-area or narrow-beam light distribution.



#### DALLAS

Surface and/or suspended fittings are a versatile solution.



**GREENLAND** is IK10 and IP66 rated. It is a great choice for larger changing rooms.



#### ARLINGTON LiFe

Versatile exit sign with drop blade with multitude of fixing options.

# ENSURING SAFETY WITH EMERGENCY LIGHTING IN EDUCATIONAL FACILITIES

All our emergency lighting products are branded **LiFe**, bringing together the best battery chemistry, the latest testing technology and the most comprehensive warranty terms.



**LITHIUM only.** LiFePO<sub>4</sub> is the best battery technology available today, so all our **LiFe** products feature lithium batteries.



**7-YEAR WARRANTY.** All **LiFe** products carry a 7-year warranty, from the date of installation, and that includes the batteries. One simple warranty for all your projects.



**ICEL ENDORSED.** Many **LiFe** products are already ICEL endorsed, so they have been independently tested to the highest standards, and our factories are regularly audited to ensure ongoing compliance. ICEL endorsement of the remaining **LiFe** products is ongoing.

## EMERGENCY TESTING

The safety of pupils and staff is paramount, particularly in large and complex educational facilities. These buildings often include various areas, some of which may be restricted. Special consideration must be given to how emergency lighting fittings are tested to ensure comprehensive safety without disrupting daily activities.

**The options are:**

GOOD	BETTER	BEST
<p><b>Manual test</b></p> <ul style="list-style-type: none"> <li>To avoid disrupting lessons all testing would need to be done out of normal hours, increasing costs.</li> <li>Access would be required during holidays when schools are otherwise closed, increasing costs further.</li> </ul>	<p><b>Self-test</b></p> <ul style="list-style-type: none"> <li>Self-test fittings initiate their own test sequence but there is no end-user control over the timing of this. Tests starting without warning during lessons would not be acceptable.</li> </ul>	<p><b>Addressable self-test</b></p> <ul style="list-style-type: none"> <li>The testing schedule can be determined in advance to take place at appropriate times.</li> <li>No fittings are omitted from testing, even in the most distant corridors or restricted areas.</li> </ul>

Emergency lighting should always be tested as a safety critical need to ensure it functions correctly during power outages, providing essential lighting for safe evacuation and emergency response.

# LIGHTING CONTROLS FOR EDUCATION FACILITIES

Schools present massive opportunities for saving costs by using lighting controls to cut electricity consumption.

- **Many areas in a school have intermittent occupancy** – such as corridors, changing rooms and classrooms. Using sensors to dim lights down or switch them off can save >50% of electricity usage.
- **Most schools receive lots of natural light** – so there are great opportunities for daylight dimming. This can save another 10-15% of electricity.

## We offer two lighting control solutions for education facilities

### Smart wireless lighting controls

We can offer three wireless lighting control systems, Philips MasterConnect, Casambi and Hubsense. They all use mesh networking for communication and app for commissioning.



- **Philips MasterConnect** all the lighting control features you need on most small projects

CASAMBI

- **Casambi** Casambi is an ecosystem of connectible lighting and lighting control devices

inventronics  
HUBSENSE

- **Inventronics HubSense** Great lighting control features, and a fully wire-free addressable emergency test system too

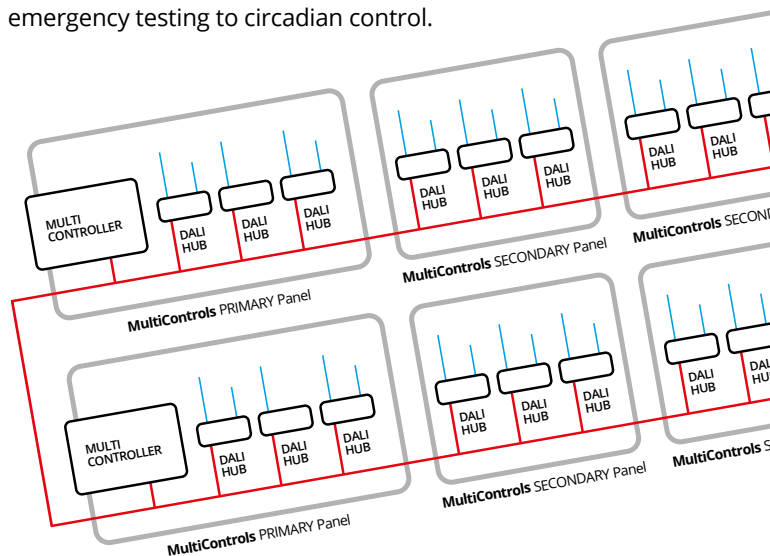
These all use wireless (mesh) technology to offer a lower cost alternative to more expensive DALI wired solutions.



*Smart/wireless symbol – wherever you see this symbol, smart wireless solutions are available, and our technical team can advise.*

### Wired DALI lighting controls

Wired DALI lighting control systems require more specialist hardware (such as hubs, controllers and gateways) than smart wireless systems, but they are suitable for the largest campuses and can cover every functional requirement from emergency testing to circadian control.



## TALK TO US

Contact us to discuss your emergency testing and lighting control needs.

T: 0121 457 6340  
E: sales@nvcuk.com  
W: nvcuk.com

# Whats needed for CLASSROOM LIGHTING

For compliance with BS EN 12464 (2021) a number of requirements should be met:

- Illuminance at desk level should be 300-500 lux for most classrooms, with 0.6 – 0.7 uniformity.
- The unified glare rating (UGR) should be less than 19. In larger classrooms, especially if the ceiling is not high, this can be a challenge.
- Lighting should be controllable. This means that it should dim in response to daylight and be manually dimmable to suit the activity being carried out.



## STERLING LED PANEL

The STERLING is a versatile IP44-rated, 600x600 edge-lit LED panel designed for optimal lighting in schools, corridors, and various commercial spaces. It offers a choice of opal diffuser or micro-prismatic controller for UGR<19 compliant lighting schemes, both TP(a) rated.

### Key Features

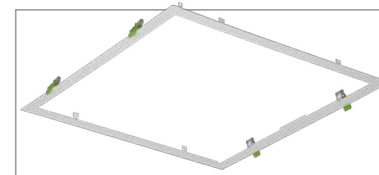
- **UGR<19 Compliant:** Choose between opal diffuser or micro-prismatic controller for glare-free lighting.
- **High-Quality Driver:** Includes an ENEC approved, flicker-free driver for consistent performance.
- **Colour Temperature Options:** Available in 4000K or 5000K to suit different environments.
- **Multiple Wattages:** Available in 19W, 29W, and 37W to match various lighting needs.
- Emergency and dimming options
- **Emergency Versions:** Standard and self-test options available with separate plug-in emergency conversion packs.
- **Dimming Capabilities:** Compatible with DALI, switch dim, and corridor function for flexible lighting control.
- **Smart Controls:** Optional smart wireless controls with addressable emergency test.
- **Flexible Installation:** Suitable for recessed (lay-in or pull-up), surface, and suspended installations.



STANDARD OR SELF-TEST EMERGENCY CONVERSION PACK WITH LITHIUM (LiFePO<sub>4</sub>) BATTERY

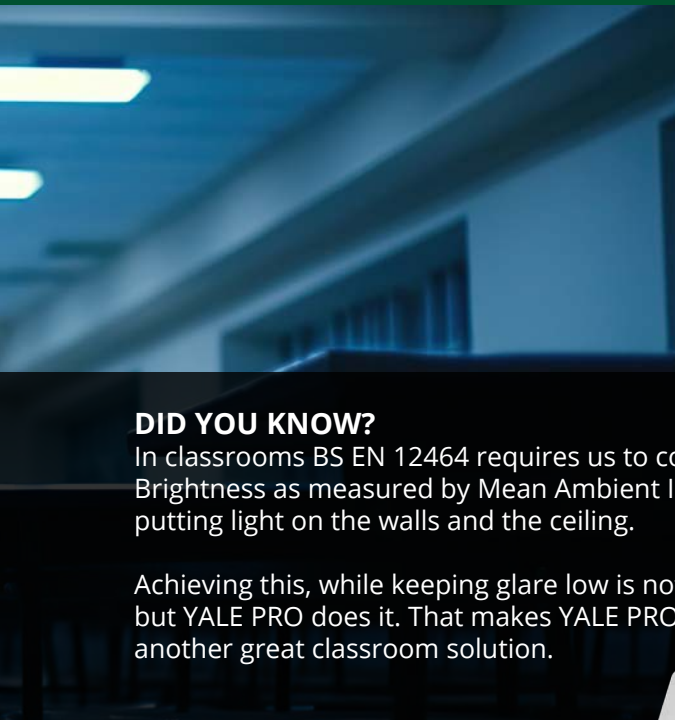


SURFACE MOUNT KIT AVAILABLE



RECESSED MOUNT FRAME AVAILABLE





### DID YOU KNOW?

In classrooms BS EN 12464 requires us to consider Perceived Room Brightness as measured by Mean Ambient Illuminance? This means putting light on the walls and the ceiling.

Achieving this, while keeping glare low is not easy, but YALE PRO does it. That makes YALE PRO another great classroom solution.



## YALE PRO SURFACE OR SUSPENDED

The YALE PRO is designed to provide optimal lighting solutions for educational settings, ensuring a comfortable, durable, and efficient environment for students and teachers.



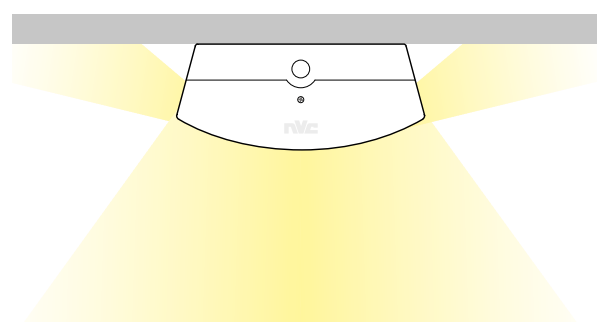
### Key Features

- **Low Glare** for enhanced comfort
- **UGR < 19**: The curved diffuser ensures minimal glare
- Stylish and functional design
- **Aesthetic Appeal**: Combines sleek aesthetics with low glare performance
- **IK10 Rating**: Built to withstand impacts, making it perfect for high-traffic areas
- Versatile and efficient
- **Multi-Wattage Selection**: Offers flexibility with adjustable wattage options
- Easy installation and maintenance

### User-Friendly Features

- Includes a sliding endcap for easy diffuser removal, quick release gear tray, piano key termination for tool-less wiring, and loop in loop out capability for seamless installation and maintenance. Long-lasting performance
- **L80 100,000 Hours Rated**: Guarantees long-term reliability and performance

### YALE PRO's light distribution is perfect for classrooms.



**12% uplight.** BS EN 12464 requires light to be put on the ceiling. With 12% uplight, YALE PRO does this, but without causing glare.

**88% downlight.** In almost all installations, YALE PRO delivers a low-glare (UGR<19) solution. Many rival fittings with a curved prismatic cover produce high levels of glare, but not the YALE PRO, thanks to the design of its micro-prisms.



# What's needed for CHANGING ROOMS

These spaces present some special challenges:

- They are usually unsupervised – so robust fittings with a high IP (ingress protection) and IK (impact resistance) ratings are needed to withstand wet towels and stray footballs.
- They are occupied intermittently – so sensor control to switch them off after the last person has left is a good idea.
- Access for emergency testing can be hard to arrange – so manual testing is not cost-effective. Automated testing would be better.

Here are two fittings to consider:

## GREENLAND WEATHERPROOF

- IP66
- IK10
- Available with integral occupancy sensor protected behind the diffuser



This is the very best solution, especially in larger changing rooms

## PRESTON CIRCULAR BULKHEAD

- IP65
- IK10
- Available with integral occupancy sensor protected behind the diffuser



An excellent alternative to GREENLAND, especially in smaller spaces

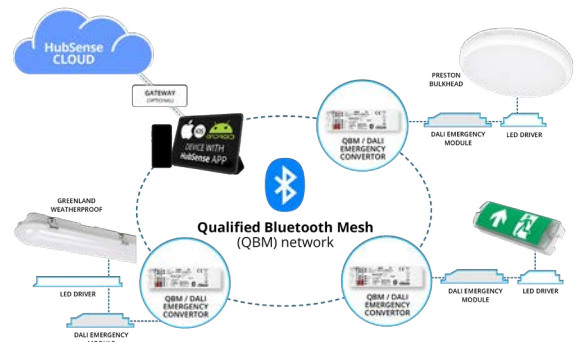
### Emergency testing in changing rooms is a challenge

- Manual testing is often not practical because access can be hard to obtain and test recording and reporting is manual, and therefore costly
- Self-test is better, but access is still required to check a fitting's status, and recording and reporting is still manual
- Addressable test overcomes these problems and offers the lowest cost of ownership

### The lowest-cost implementation of addressable test is via HubSense.

The cost of ownership is low because:

- Testing is automatic and scheduled to take place at suitable times
- Test recording (a legal requirement) is automatic, with records being kept for 5 years
- Test reporting (eg. reporting a fault, its type and location) is automatic and direct to the responsible person's phone or email.
- The installation cost is also low because there is no DALI wiring required and no specialist commissioning either



**HubSense Emergency**  
Wireless Addressable Test Emergency

## What's needed for **CORRIDORS**

YALE PRO isn't just a great fitting for classrooms, it's also a good solution for almost any corridor. Here's why:

- **Impact resistant.** YALE PRO is IK10 rated, and everything about it is designed to take some knocks
  - o Heavy-duty steel body
  - o Polycarbonate controller and end-caps. They are almost indestructible
  - o End-caps don't just snap into place, they are secured on a pair (one each end) of stainless steel screws



- **3 lengths & 12 wattages.** Corridors come in all heights and widths; having a choice of sizes and wattages means that the same fitting can be used in all the corridors in a school.
  - o 3 sizes - 4 ft, 5ft and 6ft
  - o Power selectable – 4 wattages at each size = 12 wattages in total
- **Wide range of outputs,** 2,600 lm – 7,650 lm

# PROJECTS



## Ashington Academy

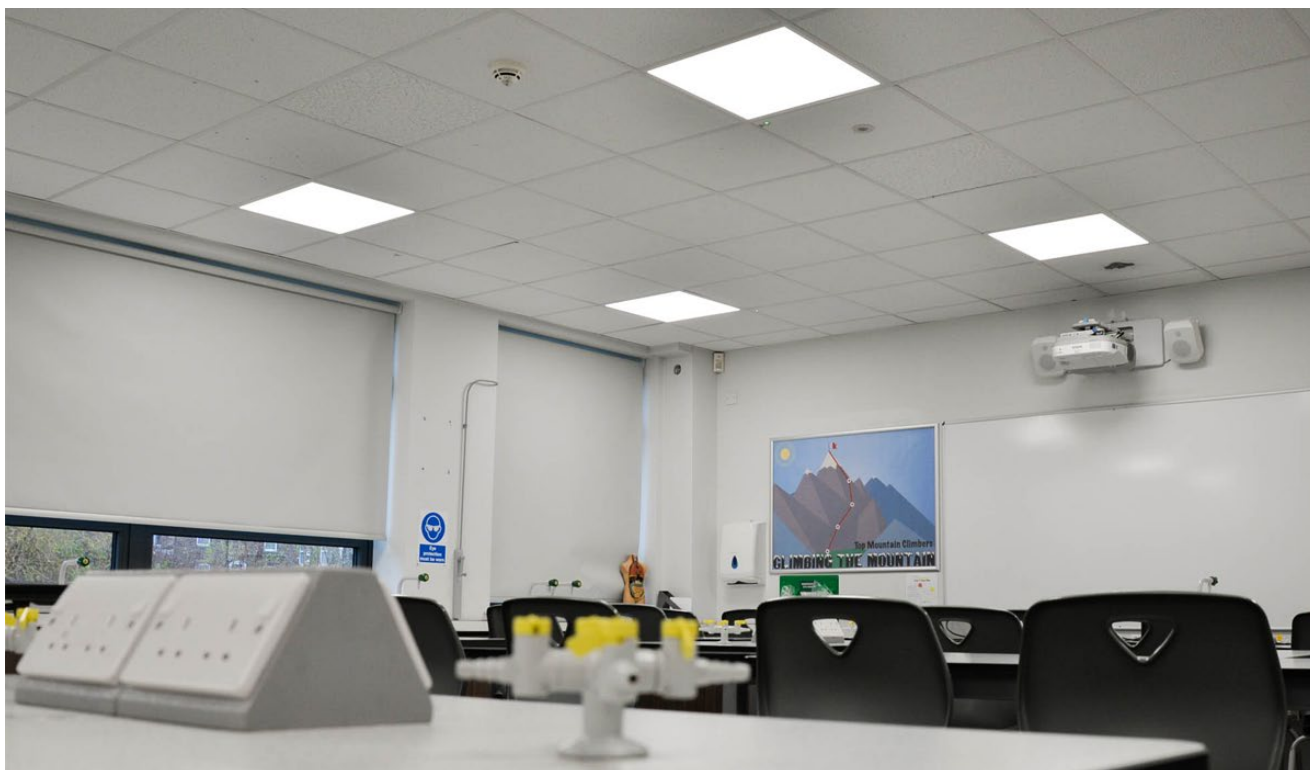
The Northeast Learning Trust (NELT), comprising 12 schools dedicated to enhancing educational experiences for nearly 7,000 students, upgraded facilities at Ashington Academy. Seeking modern, energy-efficient lighting for the canteen, kitchen, and pantry areas, NELT's Mechanical & Electrical Engineer Adam King specified NVC products due to their quality, price, and extensive warranty. Installed by local contractor Gemini Electrical Services, NVC lighting solutions included GREENLAND IK10 luminaires for the kitchen, DALLAS luminaires for the canteen, TEXAS batten luminaires, and DENALI bulkheads for outdoor use, ensuring both functionality and aesthetics across the school premises.



## Coten End Primary School

Coten End Primary School in Warwick upgraded its lighting to energy-efficient LEDs with Dodd Group and NVC Lighting. The goal was to enhance learning environments while saving energy and reducing carbon emissions. The transition minimised disruption to daily operations. This initiative is expected to save £44,000 over 5 years and reduce carbon emissions by almost 12 tons, aligning with the school's commitment to environmental responsibility.





### Dixons Kings Academy

Dixons Kings Academy in Bradford is part of the Dixons Academies Charitable Trust. Recognising the significant impact of lighting on learning outcomes, the school prioritises creating optimal learning environments. Recently, Senior Electrical & Security was tasked with specifying and installing lighting solutions for classrooms and the library. Choosing NVC's FULTON IP40 LED recessed modular panels, Director Andrew Senior highlighted NVC's reliability and quality. Having installed over 2,000 NVC panels, Andrew has consistently been impressed by their performance and the support he receives from NVC.



### UCA, Farnham

University for the Creative Arts (UCA), with its prominent Farnham campus in Surrey boasting over 45 years of esteemed art and design education, aims to provide an inspirational environment for its 2,000 students. Over 100 edge-lit LED recessed modular panels from NVC Lighting were installed in the newly constructed area, during the college's holiday period to minimise disruption. The switch to NVC Lighting was due to the premium service and cost-effective pricing without compromising on performance. Products used at UCA included STERLING and FULTON panels, with STERLING offering lower glare and TP(a) rating for enhanced flexibility in meeting building regulations.

# PROJECTS



## Easington Academy

Easington Academy, situated between Newcastle-upon-Tyne and Middlesbrough near the Durham coast, provides high-quality education and extracurricular opportunities to its 747 students as part of the North East Learning Trust (NELT). The school upgraded the lighting in its sports hall and gym to enhance light levels and improve efficiency, aiming to reduce energy usage. KELSO IP20 LED low-bay luminaires were installed in the sports hall to replace metal halide high bays, offering robustness and superior illumination. In the gym, NVC Lighting's TEXAS IP20 batten fittings replaced fluorescent battens, providing better efficiency and consistent lighting. NELT's Mechanical & Electrical Engineer Adam King praised the new fittings for their energy efficiency and improved light levels, leading to reduced electricity consumption.



## Hereford Cathedral School

Hereford Cathedral School, an independent day and boarding school catering to students aged 3 to 18, boasts a rich history dating back to 1384, with its last renovation in 1875 reflecting a deep reverence for tradition. Collaborating with NVC Lighting, the school sought LED luminaires that not only matched its traditional aesthetic but also prioritised energy efficiency. NVC's YALE LED fitting, with its sleek appearance, sophisticated up/down light distribution and robust IK10 construction was chosen for the classrooms. Corridors were illuminated with PAXFORD LED bulkheads, equipped with ENEC approved LED drivers, establishing a visually uniform ambiance, and offering a cost-effective, long-term lighting solution.

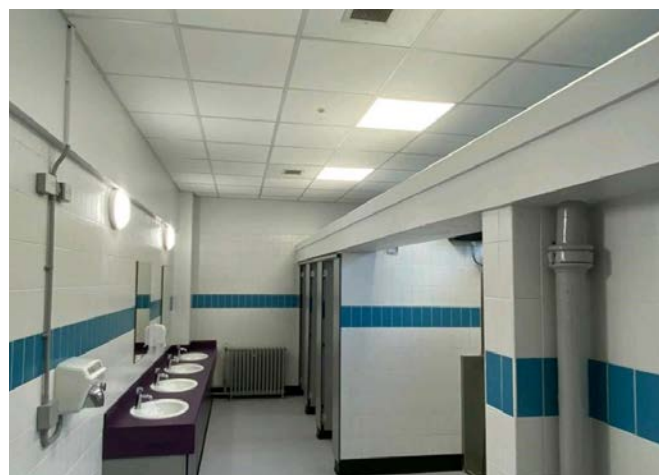


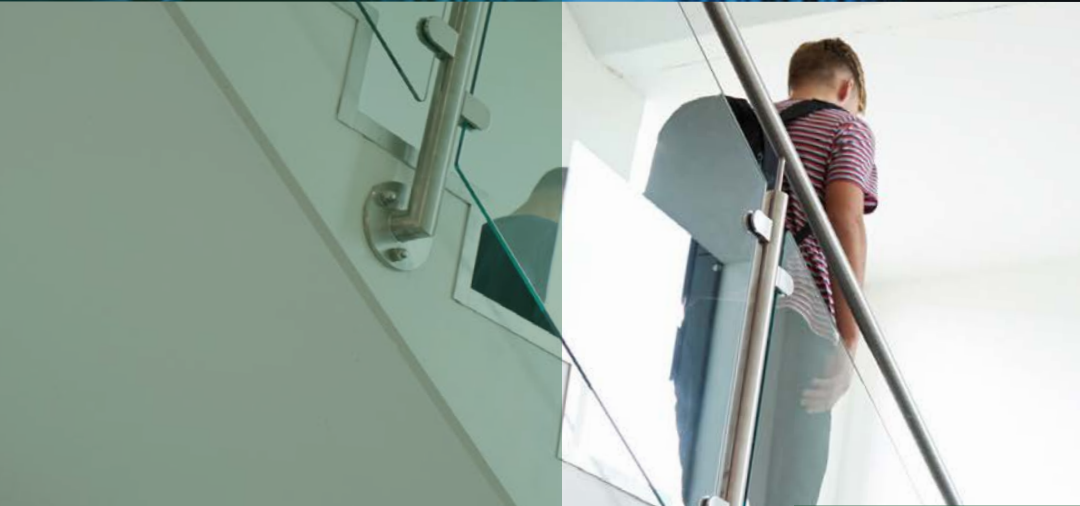
## Bishop Young Church of England Academy

Bishop Young Church of England Academy, situated in the east of Leeds, is renowned for its success, care, and positive atmosphere. Operating from a cutting-edge facility, the academy strives for excellence both academically and in all aspects of student life. To complement their aspirations, Bishop Young Academy invested in NVC Lighting's innovative LED solutions. Their state-of-the-art building features a range of NVC products, including YALE LED luminaires, STERLING LED panels in classrooms, for optimal distribution and longevity. GREENLAND weather-proof fittings, which are IP66 IK10 rated, were chosen for the science and DT classrooms.

## King's Park Secondary School

King's Park Secondary School in Glasgow, founded in 1962, undertook a refurbishment of its dining room, assembly hall and toilet facilities. Galliford Try, under the Amey/Galliford Try JV, as the main contractor for Life-Cycle, collaborated with electrical distributor Edmundson to propose a lighting design focusing on longevity and energy efficiency. NVC Lighting's fittings, including OREGON, YALE, STERLING, and SPARTAN models, were chosen for their durability and efficiency. Installed by Primext FM & Small Works Ltd., these fittings met safety regulations and sustainability requirements while addressing challenges posed by the school's architectural features.





**NVC Lighting Ltd**  
Unit 201, Hollymoor Way, Rubery, Birmingham B31 5HE

**T: +44 (0)121 457 6340 / E: sales@nvcuk.com / W: nvcuk.com**

EXPLORE THE  
FULL RANGE

