

TRANSPORT

ILLUMINATING OUR RAILWAYS

Station Category A, B, C, D, E, F



CONTENTS

Light That Changes Lives	03
Illuminating Our Railways	05
Best Practice	07
Hub Stations	09
Covered Platform	11
Open Platform	13
Ticket Area (Booking Hall)	15
Car Parks (Covered & Open)	17
Station Forecourt	19
Subways	21
Stairs & Foot Bridges	23
General Circulation	24
Office & Back of House	25
Public Toilets	26
Waiting Rooms	27
Bespoke Lighting Solutions	29
Tailor-Made Products	30
Retrofit LED Gear Trays	31
Sustainable Lighting	32
Carbon Reduction Case Study	33
Emergency Lighting	34
Cable Management Systems	35
Lighting Controls	37
Sustainable Manufacturing	38
Project Management	39



LIGHT THAT CHANGES LIVES

For over 60 years we have worked with customers and partners to create lighting solutions that change lives.

Our unique approach begins with what the light needs to achieve, carefully considering the environment, the needs of the end user and the safety of others.

Every solution we provide is robust, reliable, low maintenance and long-lasting, delivering value through 'business as usual' continuity.

Our mission is to guide our customers, innovating in environments and applications with demanding requirements, going beyond accepted boundaries to enhance and change lives through light.

Our luminaires are built to last in demanding environments, with robust metal bodies, impact-resistant diffusers, and corrosion-resistant finishes ensuring safety and reliability. Removable gear trays simplify maintenance and enable cost-effective LED upgrades, while additional features such as ligature resistance ensure sector-specific compliance.

We don't just provide lighting – we partner with you to create solutions that change lives through light.



ILLUMINATING OUR RAILWAYS

Railways play a vital role in our economic, environmental and social wellbeing, with lighting significantly shaping how passengers experience these spaces.

Well-designed lighting supports safety, accessibility and comfort. It helps create inclusive environments by ensuring appropriate light levels, smooth transitions between areas and careful management of glare or contrast. This is especially important for passengers with sensory or mobility impairments.

Passenger expectations are rising and lighting is now recognised not just as a functional asset, but as an experience-defining element within the station environment. From platforms and ticket halls to waiting rooms and external walkways, lighting influences our perception of security, comfort and even brand credibility.

Lighting strategies must also consider long-term efficiency. Energy-saving LEDs, smart controls and modular designs reduce lifetime costs and environmental impact, while also allowing for easy upgrades as technology evolves.

Good lighting ensures rail spaces are not only practical and compliant, but also welcoming and future-proof, supporting better wayfinding, enhanced visibility and a more seamless, reassuring journey for all passengers. It also plays a long-term role in sustainability and responsible infrastructure management.

In this brochure, we focus on how lighting supports the rail industry's commitment to:

- Sustainability
- Satisfaction
- Safety
- Stewardship



WHY CHOOSE DESIGNPLAN?



SUSTAINABILITY



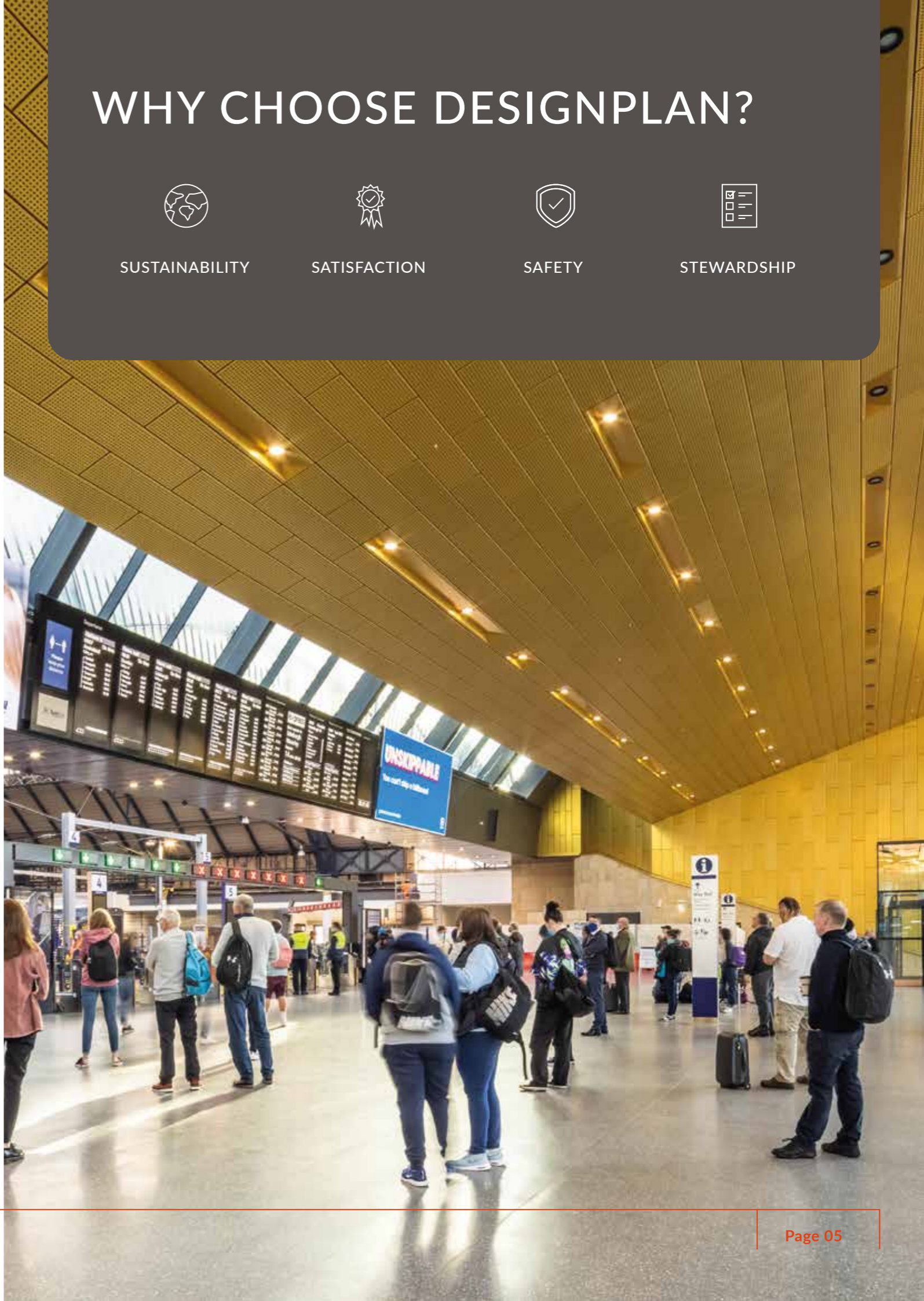
SATISFACTION



SAFETY



STEWARDSHIP



BEST PRACTICE

Best practice in security, wayfinding, wellbeing, and emergency provision must be factored into the lighting design of any station category, especially for a network hub. Areas to be considered include:

1 Light Zoning

Highlighting areas such as ticket machines and exits improves wayfinding and enhances users' sense of safety.

2 Lighting Control

Wired and wireless lighting controls, coupled with a range of sensors, enable semi-automated and dynamic lighting. See pages 36–37 for more information.

3 Cable Management

Effective cable management supports a clean architectural aesthetic, consolidates services, and streamlines installation. See page 35 for more information.

4 Light Spill & Glare

Optical or mechanical control of light spill and glare is essential—for both user comfort and to minimize impact on the surrounding environment.

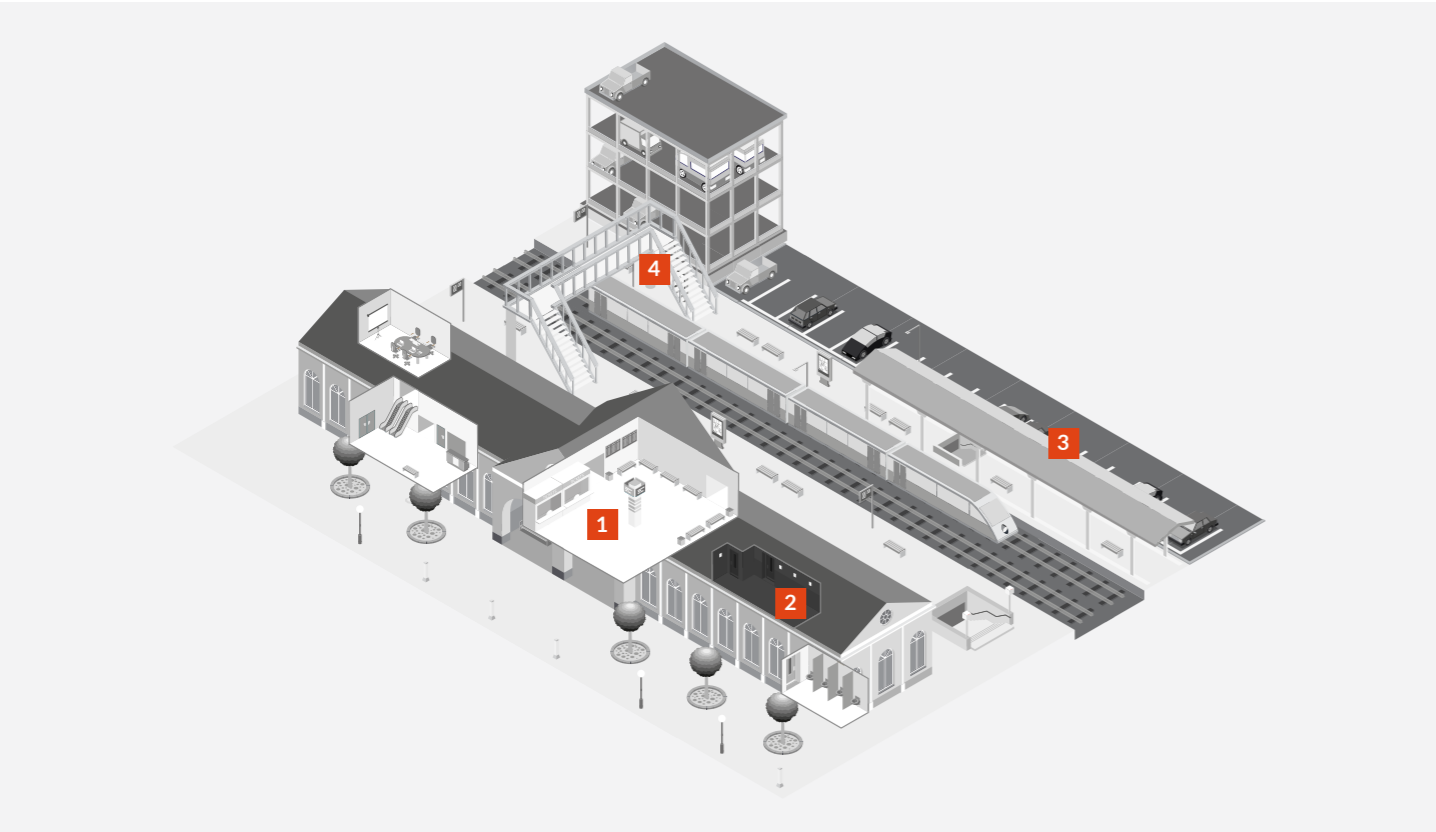
General Considerations

Carbon Footprint

Long-life products with low whole-life costs contribute to reducing the overall carbon footprint. See page 32.

Upgradeable Technology

Removable gear trays allow for future upgrades, such as converting from fluorescent to energy-saving LED, without needing full replacements. See page 31.



TYPICAL RAIL APPLICATIONS

In this brochure we will provide you with best practice lighting advice on a range of typical railway applications. These include passenger-facing areas such as platforms, ticket halls, car parks, forecourts, subways, stairs and footbridges where visibility and safety are paramount. We also cover operational and support spaces, including circulation routes, offices, back-of-house areas, restrooms and waiting rooms.

Our aim is to ensure that both functionality and user comfort are prioritised in every station environment. In all cases we will focus on the 4S's of sustainability, satisfaction, safety and stewardship.



HUB STATIONS

Shopping, eating and drinking are as much a part of the customer experience as catching a train. Lighting hub stations, whether new or refurbished, must balance sustainability, safety and satisfaction while ensuring effective asset management.

In busy hub stations, lighting has to do more than simply illuminate the space. It should give the station its own identity while remaining accessible and visually comfortable for everyone. Light needs to guide passengers naturally, highlight hazards such as platform edges and meet the highest standards of safety and security.

Flexible controls allow different parts of the hub to adapt as needed, while smart cable management makes space for services like CCTV, HVAC and sensors. Just as importantly, lighting helps create a welcoming atmosphere that supports shopping, eating and travelling with ease.

Performance is equally critical. Luminaires should deliver constant light output above 100 lm/cW with minimal glare, flicker-free dimming down to 10% and a long 70,000-hour life.

Durable, sustainable fittings with minimal finishes for recyclability and upgradeable gear trays support a 30+ year design life. With high IP and IK ratings, open-protocol control systems, and emergency lighting designed to BS 5266-1:2025, hub stations benefit from solutions that remain safe, efficient, and environmentally responsible while enhancing the customer experience.



BESPOKE LIGHTING

Whether lighting a listed building or a brand new hub station, there will be times when an “off the shelf” luminaire will not provide the desired solution. We have developed the capability, over 60 years, to modify a standard fitting or create a completely new design to meet the needs of any rail lighting project.

Our bespoke team developed a light-box to illuminate the platforms of several Elizabeth Line stations. They have a design life of over 30 years and produce an output of over 6,000 lumens, whilst consuming the energy of a 60 watt household lamp! See pages 28 and 29.



WHY CHOOSE DESIGNPLAN?



SUSTAINABILITY

- Modular, replaceable, upgradeable luminaires support 30+ year life.
- Photometric efficient lighting manufactured from recyclable materials with a short supply chain.



SATISFACTION

- Lighting enhances user experience and perception of facilities.
- Cable management system reduce visual clutter.
- Hubs need modular lighting integration.



SAFETY

- Lighting aids wayfinding and passenger flow in hubs
- Our optical solutions reduce discomfort glare and increase visual acuity.
- Our lighting can enhance CCTV / security systems.



STEWARDSHIP

- Ongoing operational costs, waste and natural resource consumption must be minimised in hub stations
- We have many installations on the rail network which demonstrate the benefits of a ‘whole life cost’ model.

COVERED PLATFORM

Lighting levels and uniformity must meet specific standards to ensure all relevant objects and surfaces are easily and immediately visible, whether the platform is empty or crowded. Areas of concern include signage and identifying the edge of the platform.

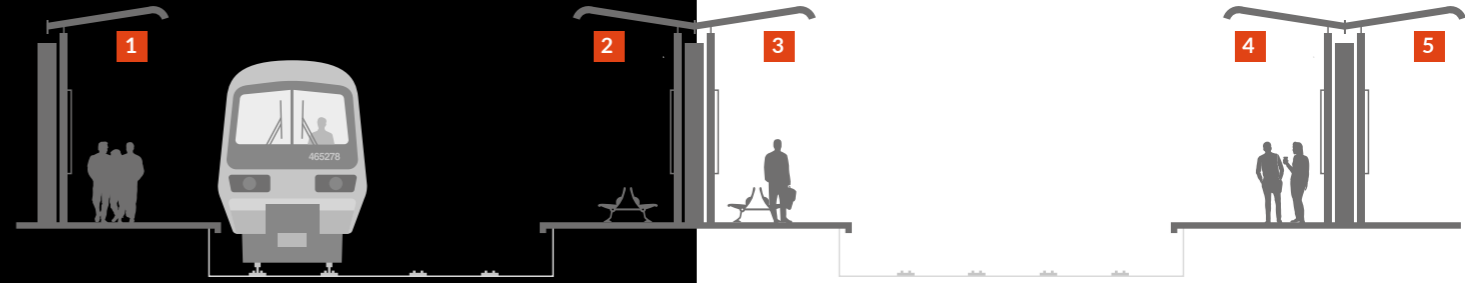
Appropriate levels of horizontal and vertical illuminance must be balanced with the need to minimise glare. Ensuring a clear field of vision for the driver is vital for the effective processing of visual signals when entering and exiting a platform.

Whilst it may be tempting to space luminaires as widely as possible for economy, station platforms can experience sudden flurries of intense activity, so lighting must take fully occupied conditions into account. Lower output luminaires, more closely spaced, will provide sufficient light in the volume of the space, which is especially helpful when a platform is crowded.

Good illuminance on the vertical structure of the canopy can also go a long way to raising the perceived brightness of the whole platform setting.

Cable management helps maintain a clean architectural aesthetic, consolidates services and streamlines the installation.

All luminaires should incorporate higher levels of impact resistance than standard fittings, especially where they are accessible to members of the public.



MISSION CMS

IP65 IK16 (150J)

Versatile lighting for transport applications which can be standalone or integrate a cable management system.



TUSCAN

IP65 IK18 (200J)

The market leading weather and vandal resistant fitting designed to resist extreme physical attack.



FLAIR

IP65 IK16 (150J)

Robust vandal and weather resistant linear fitting for interior or exterior use.



STROMMA G2

IP65 IK14 (100J)

Robust vandal and weather-resistant IP65 rated modular lighting system offering continuous linear illumination.



PARKALUX

IP54 IK14 (100J)

Versatile vandal and weather resistant linear fitting.

Technical Support

Several standards provide specific requirements for the interface between platforms, track and trains. These include RIS-7702-INS Issue 1 (Rail Industry Standard for Lighting at Stations), which references BS EN 12464-2:2024 for outdoor and covered platform lighting, and RIS-7016-INS Issue 2 (2022), which sets out requirements for the interface between station platforms, track and trains. These standards take account of anticipated passenger numbers, platform configuration, and operational risk when establishing lighting requirements.

When lighting a covered platform we would recommend 30 -100 lux average on the platform surface with a uniformity of 0.4 as per DFT Design Standards for Accessible Railway Stations.

The illuminance range is dependent on usage and accessibility of the platform as per BS EN 12464-2.

The platform edge requires a 20 lux minimum with 0.4 uniformity, which is in line with RIS-7702-INS standards. Where CCTV is used the design of the scheme and positioning of fittings must avoid conflict.

WHY CHOOSE DESIGNPLAN?



SUSTAINABILITY

- Modular, upgradeable luminaires last 30+ years.
- Efficient luminaires use recyclable materials and local supply chains.
- Integrated controls use light only when needed.



SATISFACTION

- Good lighting creates a welcoming, accessible ambience.
- Lighting improves signage recognition and orientation.
- Good lighting enhances safety and security.



SAFETY

- Uniform lighting removes deep shadows.
- Good lighting deters crime and anti-social behaviour.
- Cable management incorporates CCTV for passenger security.



STEWARDSHIP

- Upgradable lighting over 30 years reduces 'patch and mend' rail upkeep.
- A scorecard for each asset (used every 5 years) will dictate the specification of long-life products.

For further lighting advice call **020 8254 2022** or e-mail **technical@designplan.co.uk**

OPEN PLATFORM

The combination of open and covered platforms present two specific challenges. Firstly, ensuring there are no dramatic changes in illuminance level. Secondly, ensuring the character of light along the platform remains consistent.

LED luminaires make it feasible to have almost identical light sources in both undercover lighting and pole-top solutions. Platform use can vary rapidly from sparse occupation to busy activity. It is important that the lighting takes all circumstances into account.

It may be tempting to stretch luminaire spacing to the maximum. However, this will result in lengthened shadows and areas of light and dark, potentially compromising visibility. For column mounted solutions, the correct balance of mounting height and spacing will help alleviate any potential issues. An alternative to column mounted lighting could be to provide lower level lighting from the rear edge of the platform.

Luminaires mounted close to the platform surfaces being illuminated, helps in efficiency terms. This form of lighting can also help minimise intrusive light spillage and minimise glare. Accessible luminaires must be highly robust with high ingress protection and vandal resistance ratings.



WHY CHOOSE DESIGNPLAN?



SUSTAINABILITY

- Retrofit LED gear trays and robust housings ensure 30+ year lifespan.
- Integrated controls use light only when needed.
- Efficient luminaires use recyclable, local materials.



SATISFACTION

- Good lighting encourages full platform use.
- Common light sources ensure consistency.
- Robust luminaires cut downtime and boost satisfaction.



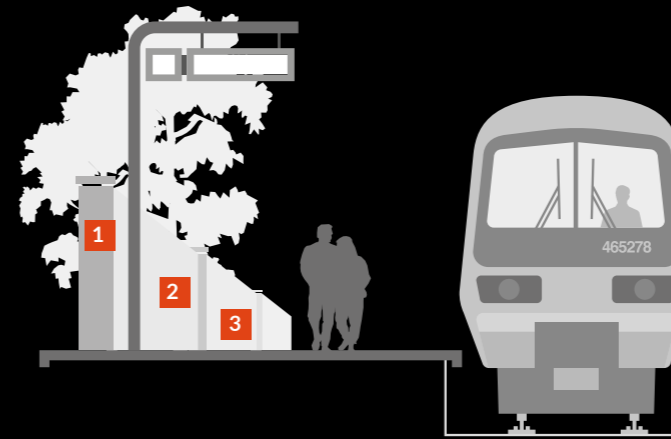
SAFETY

- Uniform lighting improves accessibility.
- Glare free highlighting of signage and displays aids wayfinding.
- Smart sensors and cameras optimise passenger flow.



STEWARDSHIP

- Long-life LEDs (70,000+ hours) minimise maintenance.
- Our 60 year experience in the railway lighting sector ensures we are a long term partner who can be relied upon.



1



TUSCAN

IP65 IK18 (200J)

Robust weather and vandal resistant bulkhead fitting. Can be mounted on short posts, platform walls or fencing.

2



ZELOS WALL

IP66 IK16 (150J)

Elegant and versatile, low glare bulkhead for wall mounted perimeter applications.

3



TUSCAN 45 & 60

IP65 IK18 (200J)

Angled luminaire's designed to resist extreme physical attack which are suitable for wall and cornice mounting.

4



PPT-500

IP65 IK08 (5J)

Zero uplight and a fully shielded design eliminate obtrusive light. Engineered for performance and reliability in rail applications.

5



COLUMNS

We offer a range of columns including tubular, conical and hinged.



Technical Support

For uncovered platforms, RIS-7702-INS Issue 1 (Rail Industry Standard for Lighting at Stations) highlights the importance of managing the visual transition between open and covered platforms. Reference should also be made to BS EN 12464-2:2024 and Railway Group Standard GI/RT7016 Issue Five (March 2014), which set requirements for the interface between station platforms, track and trains. These standards take account of passenger movements, platform configuration, and operational risk when establishing lighting requirements.

When lighting an uncovered platform we would recommend 10 to 50 lux average on the platform surface, with a uniformity of 0.3 to 0.4.

The illuminance range is dependent on usage and accessibility of the platform as per BS EN 12464-2. The platform edge requires a 20 lux minimum, which is in line with RIS-7016-INS standards. Where CCTV is used the design of the scheme and positioning of fittings must avoid conflict.



For further lighting advice call **020 8254 2022** or e-mail **technical@designplan.co.uk**

TICKET AREA (BOOKING HALL)

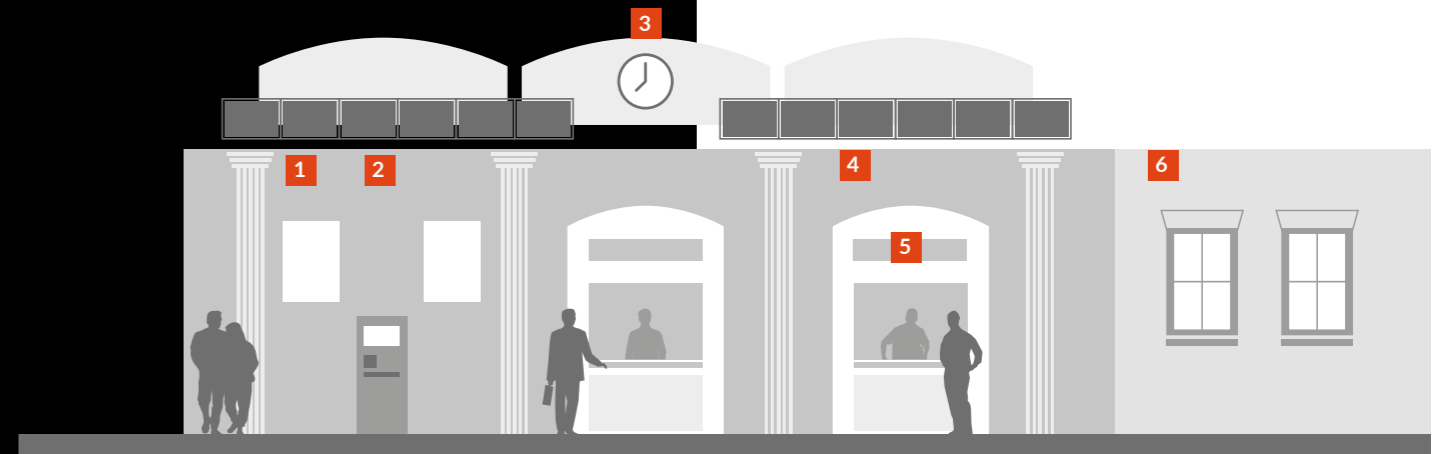
Lighting in booking halls should be warm and welcoming, giving passengers a sense of safety and comfort as they enter. It should provide good uniformity across the space while also considering adjacent areas to create smooth, comfortable transitions.

Higher levels of vertical illuminance are particularly useful to ensure that signage, self-service ticket booths, barriers, exits and displays are easy to recognise and use.

High ceiling halls may benefit from some uplight. Highly compact LED luminaires can provide light on the upper structure, which helps to lighten and open up the visual impression of the space, although positions and visibility of display screens should be taken into account.

Where spaces have access to daylight, this should be maximised where possible, and lighting controls should be used to ensure that the lighting is energised only as required.

Designplan luminaires are fit for use in tough environments. They also incorporate the latest optical designs for high efficiency and optimum visual comfort. This is very important in areas like a booking hall where passengers may spend a considerable time.



QUADRATUM G2

IP65 IK14 (100J)

Robust vandal and weather resistant square fitting.



TERMINUS SURFACE

IP65 IK11 (50J)

Cylindrical sealed weather & vandal resistant downlighter.



HERO By Fagerhult

IP65 IK10 (20J)

LED high bay luminaire designed for demanding environments.



STROMMA G2

IP65 IK14 (100J)

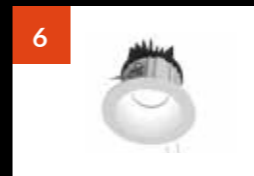
Modular lighting system offering continuous linear illumination.



FLAIR MICRO

IP67 IK11 (50J)

Slim linear lighting solution for accent & general illumination.



DL86

IP65 IK11 (50J)

Provides a consistent light distribution downwards.

Technical Support

Lighting design shall comply with RIS-7702-INS Issue 1 (Rail Industry Standard for Lighting at Stations). Illuminance values for indoor areas shall be taken from the latest edition of BS EN 12464-1:2021, which supersedes the 2011 edition referenced by RIS-7702-INS. Accordingly, ticket halls and concourse areas shall be illuminated to a maintained illuminance of 200 lux, and ticket and luggage offices to 300 lux.

For more traditional high ceiling halls it is desirable, in our experience, to provide an element of uplight to the structure. Especially where traditional globe type products are replaced by LED based luminaires - which may provide more downward directional lighting.

Light on the upper structure helps to lighten and open up the visual impression of the space. In the past, this type of desirable feature highlighting may have been excluded due to energy efficiency concerns. However, modern, highly compact LED sources can be used to light these surfaces from close offset distances which can increase efficiency significantly.

WHY CHOOSE DESIGNPLAN?



SUSTAINABILITY

- Modular, upgradeable luminaires last 30+ years.
- Efficient, recyclable fittings with local supply chain reduce impact.
- Controlled light-spill protects the environment.



SATISFACTION

- Lighting enhances ambience and highlights key information.
- Remote monitoring simplifies upkeep and cuts downtime.



SAFETY

- Good lighting ensures clear signage and displays.
- Bright spaces ease congestion and improve access.
- Good lighting can enhance CCTV and security devices.



STEWARDSHIP

- Established in 1963, we remain a long-term partner to the rail industry.
- Luminaires with 30+ year lifecycles demonstrate our lasting commitment.

For further lighting advice call **020 8254 2022** or e-mail technical@designplan.co.uk

CAR PARKS (COVERED & OPEN)

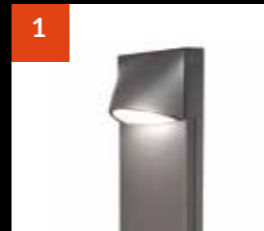
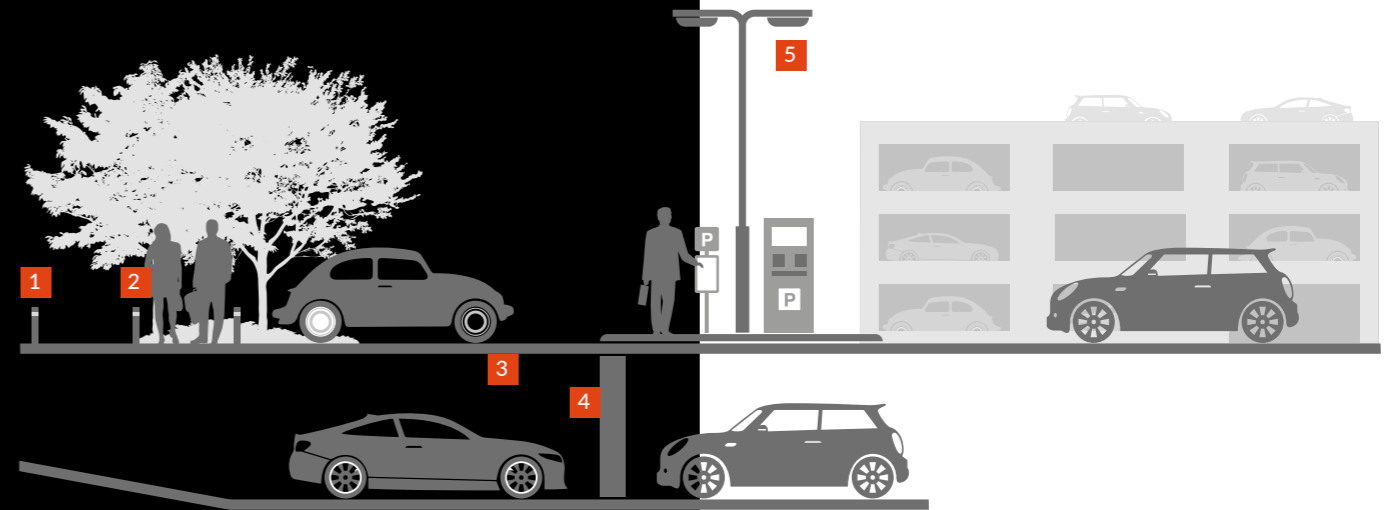
Car park lighting should provide good levels of visibility. Illumination levels must promote confidence and feelings of safety and security. Ideally, lighting should be positioned over and between parked cars, in an attempt to eliminate potential hiding places.

Lighting levels should also support safe vehicle and pedestrian movement throughout the site. Clearly defined vehicle routes and well-lit footpaths help reduce the risk of collisions, while creating a more comfortable and reassuring environment for users after dark.

Wide column spacing in outdoor car parks may be counter-productive in terms of light distribution. A higher quantity of lower output luminaires, more closely spaced, is preferred. Specific areas such as ticket machines, barriers, pedestrian walkways, and signage benefit from highlighting.

Car parks are often sited immediately adjacent to the tracks. A lighting solution must consider and mitigate potential glare to drivers. Similarly, car parks are often close to local residences, so light spill and general light pollution should be carefully considered and minimised.

Vandal resistance and high ingress protection are vital for luminaires specified in car park applications.



ZELOS BOLLARD

IP66 IK16 (150J)

Specifically designed optics to provide up to 8 metre spacings on typical pathway applications (15 lux average and 0.25 uniformity).



IWAY By iGuzzini

IP66 IK10 (20J)

Stylish round and square bollard range designed to eliminate glare and uniformly illuminate the horizontal plane.



PARKALUX

IP54 IK14 (100J)

Versatile vandal and weather resistant linear fitting.



QUADEVO

IP65 IK14 (100J)

Contemporary, robust bulkhead fitting with uniform light distribution. Ideal for wall or ceiling mounting.



PPT-500

IP65 IK08 (5J)

Zero uplight and a fully shielded design eliminate obtrusive light. Engineered for performance and reliability in rail applications.

Technical Support

Reference should be made to BS EN 12464-1-2021 for indoor applications. BS EN 12464-2:2024 has guidance for outdoor car parking applications.

To light these areas a range of column, wall mounted luminaires and bollards may be appropriate with close attention paid to light spill.

Calculated uniformity should be 0.4 for covered / 0.25 open but care should be taken to avoid, as much as possible, areas of deep shadow between vehicles by careful selection and positioning of luminaires.

WHY CHOOSE DESIGNPLAN?



SUSTAINABILITY

- Stray wasted light should be minimised with light trespass and pollution strictly controlled.
- Circular design allows easy upgrades, repairs, and recycling.



SATISFACTION

- Good lighting encourages use of the whole car park.
- Common light sources provide consistent lighting quality between open and covered areas.



SAFETY

- Clear and uniform lighting minimises shadowing, promoting user confidence.
- Pathways and signage must be clearly and unambiguously lit.



STEWARDSHIP

- Ongoing operational costs, waste and the consumption of natural resources must be minimised.
- Long-life LEDs (70,000+ hours) minimise maintenance.

For further lighting advice call **020 8254 2022** or e-mail technical@designplan.co.uk

STATION FORECOURT

The station approach is the passenger's first experience, so lighting should be designed for amenity and safety. In addition, good illumination provides a welcoming ambiance with clear visual cues to the whereabouts of thoroughfares and facilities.

Signage must be properly illuminated and clearly visible. The perceived brightness of the approach should be carefully considered. Illuminance levels should be selected to balance with the ambient illuminance that exists in the vicinity.

Lighting should also contribute to a positive first impression, creating a clear sense of arrival for passengers as they approach the station. 'Welcoming' lighting that may be suitable for a rural station should be carefully managed to avoid unnecessary light pollution.

In urban environments, lighting may need to be brighter and more visually prominent to create the same welcoming effect. In these busier settings, lighting can also be used to subtly highlight key architectural features and guide passengers towards entrances, ticket machines and thoroughfares.

The local weather conditions should be carefully considered for externally installed lighting. High ingress protection ratings are essential and corrosion resistant paint should be applied to luminaires where relevant.



- 1



I-WAY By IGuzzini

IP66 IK10 (20J)

Bollard range designed to for glare free, uniform illumination.
- 2



PARKALUX

IP54 IK14 (100J)

Robust vandal and weather resistant car park linear fitting.
- 3



ZELOS WALL MAX

IP66 IK16 (150J)

Versatile bulkhead for high wall mounted perimeter applications.
- 4



TERMINUS WALL

IP65 IK11 (50J)

Fitting with option for upward and downward light projection.
- 5



STROMMA G2

IP65 IK14 (100J)

Modular lighting system offering continuous linear illumination.
- 6



TUSCAN WALL

IP65 IK14 (100J)

Robust bulkhead designed for walkway applications.

Technical Support

Different lighting standards may apply to station forecourt and approach areas depending on the nature of the space.

Covered forecourt areas shall be designed in accordance with BS EN 12464-1:2021, while open external areas, including pedestrian routes and surface car park spaces, shall be designed in accordance with BS EN 12464-2:2024.

Where station forecourts include roads, shared surfaces, or public amenity areas subject to vehicular use, reference shall also be made to BS 5489-1:2020, Code of Practice for the Design of Road Lighting – Lighting of Roads and Public Amenity Areas.

Codes of practice will generally specify values of horizontal illuminance. It should be noted that light on horizontal planes is a poor predictor of the impression of brightness perceived by users of the area.

Careful and controlled lighting of the vertical façade can dramatically increase the perception that the space is brightly lit and welcoming, far beyond what horizontal illuminance alone can deliver.

It should also be noted that when lighting "on" a vertical surface, a luminaire mounted on that surface can give dramatically different results to lighting "onto" a surface from a remote source. This should be carefully considered when creating a lighting design.

WHY CHOOSE DESIGNPLAN?



SUSTAINABILITY

- Retrofit LED gear trays offer 30+ year life, energy savings and easy upgrades.
- Light levels chosen to suit the area, minimising neighbourhood light spill



SATISFACTION

- Good lighting aids wayfinding and eases bottlenecks.
- Effective lighting improves safety for all users.
- Bright lighting boosts signage recognition and orientation.




SAFETY

- Lighting emphasises access routes and facilities.
- High ingress protection ensures all-weather use.
- Well-lit areas ease congestion and improve access.



STEWARDSHIP

- A scorecard for each asset (used every 5 years) will dictate the specification of long life products.
- Upgradable lighting over 30 years reduces 'patch and mend' rail upkeep.



For further lighting advice call 020 8254 2022 or e-mail technical@designplan.co.uk

SUBWAYS

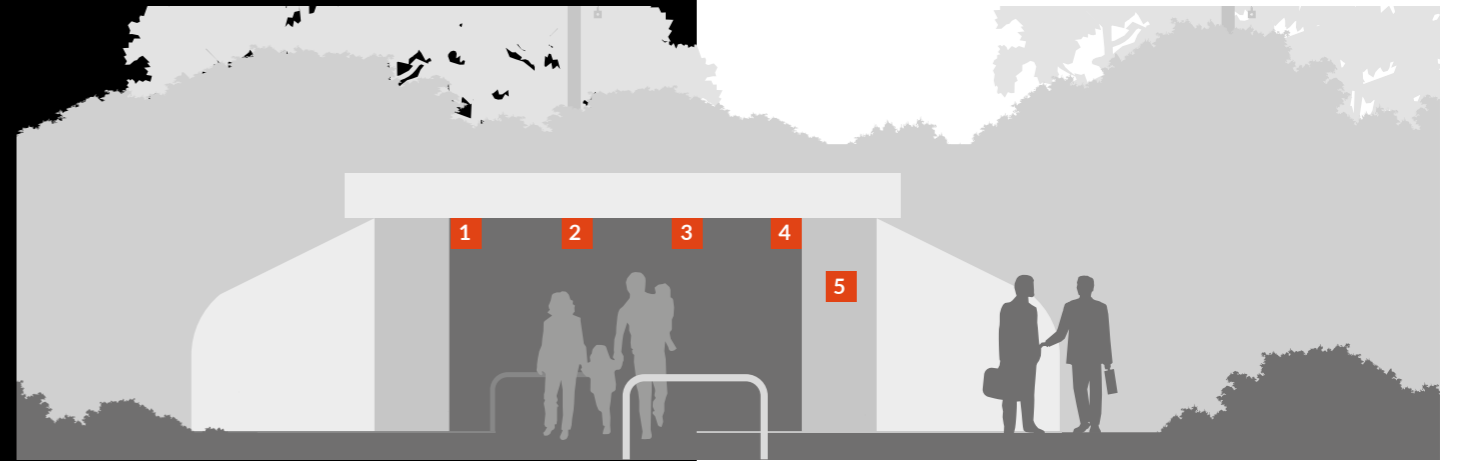
Subways and underpasses can often be associated with “a fear of crime”. Whilst subways may not necessarily be relevant in all station settings, passengers can have feelings of uncertainty when using such enclosed spaces, which lighting can help alleviate.

It is particularly important that subways are well lit and feel appropriately bright, with a managed transition of illuminance from adjacent areas. Where restricted lines of sight exist, the lighting should be designed to help eliminate any dark spaces.

Well-designed lighting can also help make subways feel cleaner, better maintained and more welcoming to use.

Subway lighting may well be on 24 hour operation and could also be subject to unwelcome attention in the form of vandalism. Good lighting inspires user confidence and helps discourage criminal behaviour.

It is therefore particularly important that lighting is especially robust and requires little in the way of maintenance.



TUSCAN 45 & 60

IP65 IK18 (200J)

Angled luminaire's designed to resist extreme physical attack which are suitable for wall and cornice mounting.



MISSION

IP65 IK16 (150J)

Versatile lighting for transport applications including a cable management system.



CURVE VR

IP54 IK14 (100J)

Reinforced fitting for surface ceiling mounting.



TUSCAN TRUNKING

Three-compartment trunking system for power, telephones, TV, alarm, door opening, CCTV or other required services neatly behind the light fitting.



TUSCAN

IP65 IK18 (200J)

Vandal resistant luminaire providing uniform illumination to ensure consistent light distribution.

Technical Support

BS EN 12464-1:2021 recommends a maintained illuminance of 100 lux for subways between platforms designed to accommodate large passenger flows. However, the Accessible Design Code of Practice (Version 04, March 2015) recommends a higher level of 150 lux, together with clear directional information, to support accessibility and wayfinding.

Given the differing guidance, it is recommended that subway lighting is designed in accordance with BS 5489-1:2020, Code of Practice for the Design of Road Lighting.

Whilst not specific to railways, BS 5489-1:2020 provides lighting requirements for pedestrian subways and underpasses and specifies higher daytime illuminance levels of up to 350 lux, with lighting controls to permit a reduced level of 150 lux at night. This approach takes account of adaptation and transition between day and night conditions while providing lighting levels that support passenger safety, security, and comfort.

WHY CHOOSE DESIGNPLAN?



SUSTAINABILITY

- Circular design allows easy upgrades and repair.
- Modular, upgradeable luminaires last 30+ years.
- Efficient, recyclable fittings with local supply chain reduce impact.



SATISFACTION

- Good lighting encourages use of the subway.
- Robust and reliable luminaires minimise downtime.
- Upkeep can be simplified with remote monitoring.



SAFETY

- Good lighting promotes safety in bottleneck areas.
- Light walls and ceiling promotes user confidence.
- Eliminating dark shadow areas enhances customer comfort.



STEWARDSHIP

- Long-life LEDs (70,000+ hours) minimise maintenance.
- Ongoing operational costs, waste and the consumption of natural resources must be minimised.

For further lighting advice call **020 8254 2022** or e-mail **technical@designplan.co.uk**

STAIRS & FOOT BRIDGES

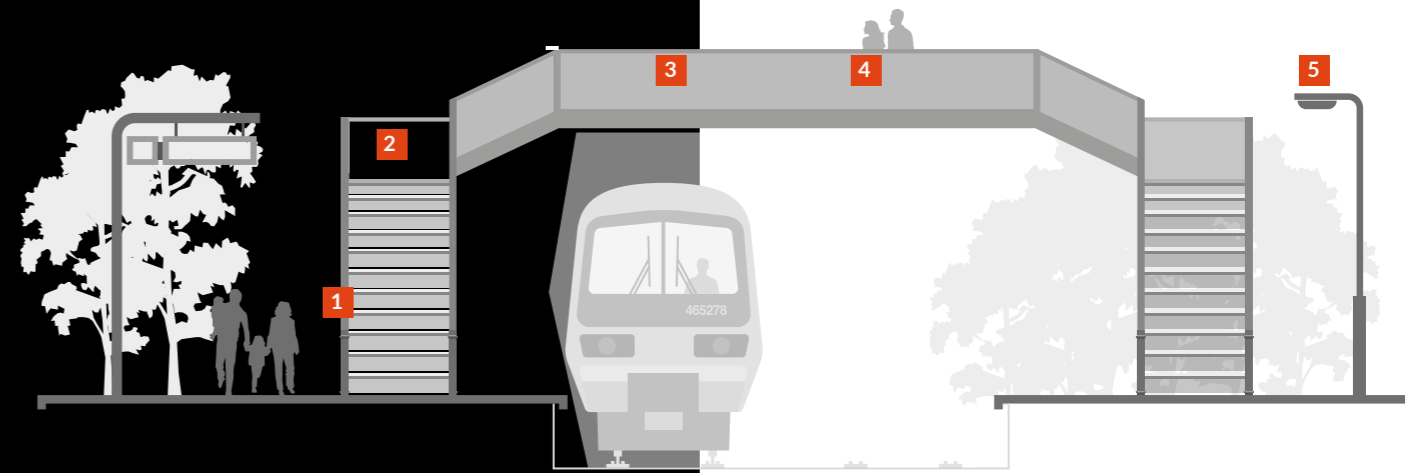
Stairs and bridges may be open, enclosed and of varying construction. Good lighting can go some way towards maximising safety and capacity. Lighting should highlight the walking surface, stair treads and risers.

Lighting schemes should be carefully planned to support safe movement and clear wayfinding, creating user confidence before addressing finer design details. They should also create sufficient contrast between adjacent surfaces for maximum visibility, whether sparsely or fully occupied.

Lighting from each side can give sufficient directional quality of light. Equal highlighting of horizontal treads and vertical risers on the stairs is important whilst maintaining the natural lit contrast between the two. Luminaires mounted at low level can minimise glare. Care should also be taken to minimise glare to train drivers and dispatchers

Lighting could also be provided by column mounted luminaires either around the bridge or mounted on it, or a combination of both. Care should be taken to achieve suitable levels of uniformity.

In many situations, lighting may be fully exposed to the elements, making high IP rated luminaires essential. Moreover, for longevity and to minimise costs, the external finishes of luminaires should be highly resistant to degradation.



FLAIRMICRO

IP67 IK11 (50J)

Slim linear lighting solution for accent, architectural and general illumination.



ZELOS WALL

IP66 IK16 (150J)

Elegant and versatile, low glare bulkhead for wall mounted perimeter applications.



TUSCAN 45 & 60

IP65 IK18 (200J)

Angled luminaire's designed to resist extreme physical attack which are suitable for wall and cornice mounting.



FLAIR ANGLED

IP65 IK16 (150J)

Angled vandal and weather resistant fitting for interior or exterior use.



PPT-500

IP65 IK08 (5J)

Zero uplight and a fully shielded design eliminate obtrusive light. Engineered for performance and reliability in rail applications.

Technical Support

There are some differences in recommended levels across standards. BS EN 12464-2:2024 calls for 50 or 100 lux in outdoor applications dependant on passenger numbers. Whilst the Rail Industry Standard calls for 100 lux on footbridges and 150 lux on stairs.

In our experience 150 lux throughout is often selected for covered applications to provide a consistent visual environment and to enhance passenger comfort and perceived safety. BS 5489-1:2020 supports lower lighting levels for external pedestrian routes (typically 15-30 lux) while recommending 150 lux for enclosed pedestrian subways, stairs, and footbridges.

In all cases, careful consideration shall be given to luminance contrast, uniformity, and transitions between adjacent areas and surfaces, to avoid visual discomfort and to ensure safe passenger movement.

WHY CHOOSE DESIGNPLAN?



SUSTAINABILITY

- Modular, upgradeable luminaires last 30+ years.
- Efficient, recyclable fittings with local supply chain reduce impact.
- Circular design allows easy upgrades and repair.



SATISFACTION

- Integrated controls direct light precisely when & where needed.
- In covered stairwells cable management systems integrate various functions and minimise visual clutter.



SAFETY

- Lighting should highlight the walking surface, stair treads and risers to reduce slip and trip risks.
- Uniform light distribution will provide visual clarity even during crowded times.



STEWARDSHIP

- We have many installations on the rail network which demonstrate the benefits of a 'whole life cost' model.
- Ongoing operational costs, waste and the consumption of natural resources must be minimised.

For further lighting advice call **020 8254 2022** or e-mail **technical@designplan.co.uk**

GENERAL CIRCULATION

Well-designed lighting in circulation spaces, and leading up to retail or refreshments units, must be warm and welcoming for effective wayfinding and to drive footfall.

Lighting in general circulation spaces should have good uniformity. Illumination in directly adjacent areas, such as refreshment kiosks with outside seating, should be taken into account to create comfortable areas to relax in and ensure the easy transition between spaces.

In take away kiosks, facing directly onto a circulation space, the counter and work area must be well illuminated. This ensures staff can work effectively and that the items on display for purchase appear inviting to the customer.

Technical Support

The style of lighting in general circulation areas will depend on the architectural character of the space. In accordance with RIS-7702-INS Issue 1 (Rail Industry Standard for Lighting at Stations), lighting levels for concourse and circulation areas shall be consistent with the requirements of the latest edition of BS EN 12464-1:2021. Accordingly, concourse and general circulation areas shall be illuminated to a maintained illuminance of 200 lux.



HERO By Fagerhult

IP65 IK10 (20J)

LED high bay luminaire designed for demanding environments.



TERMINUS

IP65 IK12 (62.5J)

Uniform light distribution aimed downwards reduces glare.



TERMINUS SURFACE

IP65 IK11 (50J)

Cylindrical sealed weather & vandal resistant downlighter.



FLAIR

IP65 IK16 (150J)

Robust vandal and weather resistant linear fitting.



CLARION G2

IP65 IK08 (05J)

Provides a consistent light distribution downwards.



DUOMO

IP65 IK15 (125J)

Robust bulkhead providing uniform light distribution.



OFFICE & BACK OF HOUSE

Tasks range from screen work to meetings, requiring high-quality lighting with strong visual comfort and glare control.

Light levels must be carefully selected, and dimming and uniformity should be maximised. Lighting should reduce glare while illuminating vertical surfaces, including faces. For general back of house areas it is advisable to use low maintenance, functional lighting tailored to the task.

Staff rooms are important spaces to rest, refuel, escape and think. Quality lighting is key to achieving a comfortable and welcoming ambience. The combination of overall ambient light, and elements of directional and surface lighting, can promote comfort whilst differentiating the staff room from more utilitarian spaces.

Technical Support

It is important to balance light levels, and light quality, whilst ensuring a space is not over illuminated which wastes energy.

Further energy savings can be made by employing lighting controls. Automated occupancy controls are especially valuable in areas that are not continuously occupied.



EASY SPACE By iGuzzini

IP20

Controlled luminance and visually comfortable lighting.



EASY CEILING By iGuzzini

IP40

Visually comfortable lighting with controlled illuminance.



LINILUX

IP54 IK12 (62.5J)

Uniform illumination ensures a consistent light distribution.



IPLAN ACCESS By iGuzzini

IP20

Recessed square fitting providing visual comfort.



COVE

IP43 IK10 (20J)

Slim profile luminaire providing uniform illumination.



TORINO G2

IP21 IK11 (50J)

Opal diffuser ensures a soft lit appearance.

PUBLIC TOILETS

Lighting in public toilets should aid safe access and promote feelings of cleanliness, whilst also be easy to clean.

Moisture is likely to be ever-present, so luminaires with high IP ratings are a must. Luminaires should also help highlight any potential slip hazards that may be present.

To prevent heavy shadowing each cubicle should have a proportion of direct light, if not an individual luminaire.

Luminaires that are particularly robust, easy to clean and with long service lives will help minimise any down time for maintenance.

Technical Support

BS EN 12464-1 2021 calls for 100 lux in restrooms and 200 lux in cloakrooms, washrooms and bathrooms. However, there may be an argument to increase the general 100 lux value dependant on the precise nature of the facility.



TERMINUS

IP65 IK12 (62.5J)

Uniform light distribution aimed downwards reduces glare.



CLARION G2

IP65 IK08 (05J)

Provides a consistent light distribution.



RDL G2

IP65 IK12 (62.5J)

Downlighter provides focused illumination for specific areas.



MONITOR

IP65 IK16 (150J)

Robust vandal and weather resistant linear fitting.



QUADEVO

IP65 IK14 (100J)

Opal diffuser ensures a soft lit appearance.



BASILICA

IP66 IK20 (250J)

Vandal resistant bulkhead providing uniform light distribution.



WAITING ROOMS

Lighting should be welcoming and promote feelings of safety and security.

Bright interiors are generally better, so light coloured surfaces and higher vertical illuminances, with some light onto the ceiling are preferred. Warm or intermediate colour temperatures will help promote a welcoming feel.

Lighting should be sufficient to allow reading of printed matter, whether seated or standing. Care should be taken to avoid obscuring any electronic information displays that may be present either by obstruction or having a luminaire positioned too close to the display.

Technical Support

The general recommendation in BS EN 12464-1 2021 is for 200 lux to provide a light, welcoming feel for use at all times of the day and night.

Linear fittings have better light spread at higher angles so they are preferred for this application as they minimise wall scalloping - providing more even vertical illuminance.



DUOMO

IP65 IK15 (125J)

Vandal resistant light providing uniform light distribution.



QUADRATUM G2

IP65 IK14 (100J)

Robust vandal and weather resistant square fitting.



PARKALUX

IP54 IK14 (100J)

Robust vandal and weather resistant linear fitting.



TERMINUS

IP65 IK12 (62.5J)

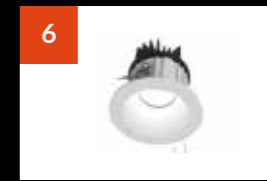
Uniform light distribution aimed downwards reduces glare.



RDL G2

IP65 IK12 (62.5J)

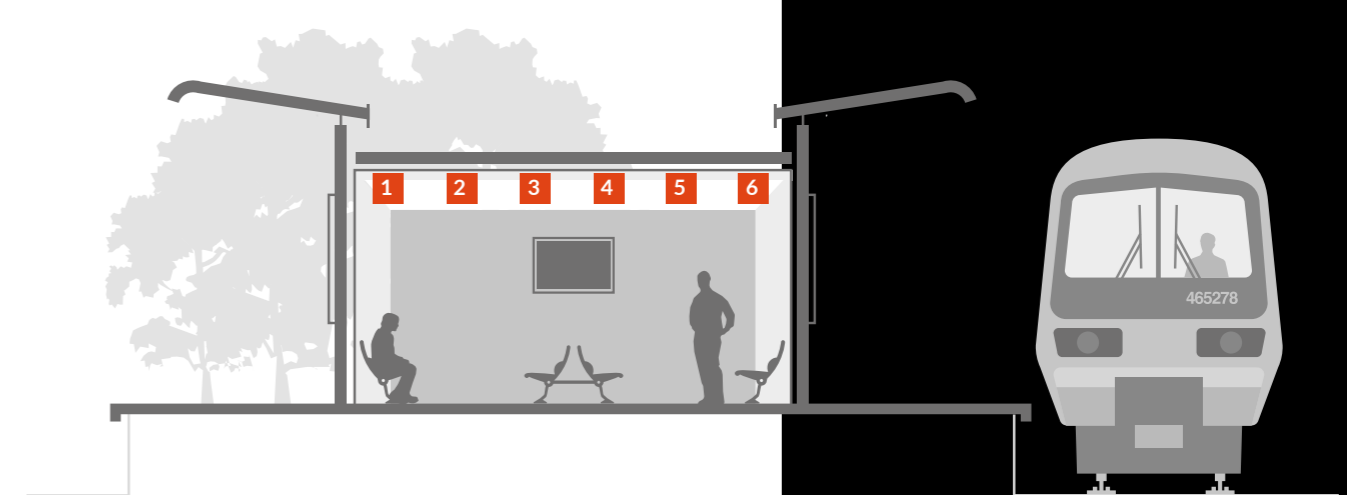
Downlighter provides focused illumination for specific areas.



DL86

IP65 IK11 (50J)

Provides a consistent light distribution.





ELIZABETH LINE LIGHT BOX

BESPOKE LIGHTING SOLUTIONS

Whether lighting a listed building or a new hub station, standard luminaires don't always meet the brief.

With over 60 years of experience, we can adapt existing fittings or design new ones from scratch. Every luminaire we produce is compliant, robust, sustainable, easy to install and aims to be best in class.

Using 3D CAD software, we develop concept designs into working prototypes, tested for performance in our in-house laboratory. We manage the entire process, from concept to completion.

Illuminating the Elizabeth Line

Our bespoke team created platform light boxes for several Elizabeth Line stations. They deliver over 6,000 lumens using just 60 watts, and are designed for a 30+ year life.

A hinged LED array allows quick access from below for maintenance. The LED light engine is mounted on a removable gear tray for easy upgrades.

They are S1085 compliant, blast and fire tested, and checked for electromagnetic field interference, impact resistance, ingress and electrical safety.

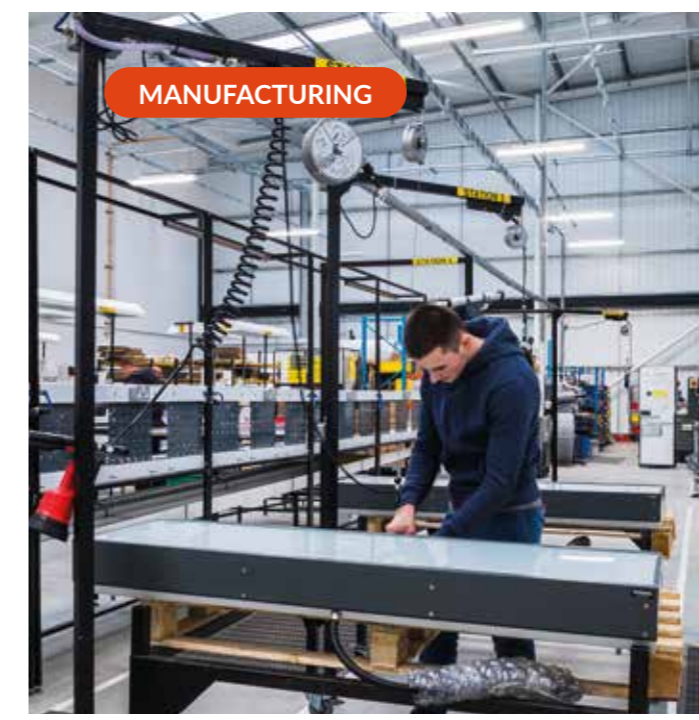
We also developed the brackets and mounting method, testing them at our Sutton factory to ensure easy installation. A new production line and reusable metal packaging system were introduced to reduce waste and deliver securely.

Emergency lighting compliance can be supported via our DesignPath test system.



LIGHT BOX TESTING

Overground Rail



MANUFACTURING



RETROFIT LED GEAR TRAYS

Fluorescent lamps have been banned from sale in the UK. However, there's no need to worry. Simply replace the internal control gear of your installed fluorescent lighting with an LED gear tray.

Support & Advice

A member of our technical sales team will visit your site to carry out a free, no-obligation survey of your existing lighting. You'll receive a survey pack including, where required, a lighting scheme, recommended luminaires or LED gear tray replacements, and a costed design proposal.

Benefits of LED gear trays include:

- Sustainable way to convert to LED
- Reduces your energy use
- Lowers maintenance costs
- Minimises disruption
- Improves safety and output
- Reduces your ownership costs
- Future proofs your lighting.

At Designplan, we support every luminaire we've supplied. We stock a wide range of ready-to-go gear trays and can quickly design and test bespoke replacements to meet your needs.

We'll recertify your modified luminaire with a CE/UKCA mark and renew the 5-year gear tray warranty following a site survey*.

*Following a site survey we may reuse or need to replace some/all components depending on current condition, e.g. the diffuser.

TAILOR-MADE PRODUCTS

We can provide fittings with completely blank bodies with no conduit or fixing holes enabling the installer to create holes in the fitting on-site. Products include:



This specification helps maintain the luminaire's IP rating and reduces the risk of unauthorised tampering or vandalism. To order products with this blank body specification, add suffix -NT to the product part number on our website.



CARBON REDUCTION CASE STUDY

We upgraded the platform lighting at Birmingham New Street station to energy saving LED, utilising our precision designed retrofit gear trays.

Replacing the light engine of the existing luminaire, and not the full body of the fitting, also saved significant time on-site.

The new LED retrofit option has reduced power consumption to 30W, enabling a 40W/57% saving in energy per luminaire.

As the luminaires are operational for 24 hours a day throughout the year, annual operational energy consumption is down from 613 kWh to 264 kWh per luminaire.

Emissions Reduction*

The carbon emissions for each modified luminaire are 56 kg CO₂e per annum. In total, the operational carbon emissions for all 891 platform luminaires is now 50 tonnes CO₂e every year - a significant reduction from the 117 tonnes generated by the old T5 and T8 fluorescent versions.

The total embodied carbon saved is 163 tonnes of CO₂e. This carbon saving is the equivalent to 165 flight journeys between London and New York per year!

*Using the 'Carbon factor for Electricity' in the UK (revised in January 2022).



SUSTAINABLE LIGHTING

We have all embraced the need to move away from the traditional “take-make-dispose” linear production cycle.

To be sustainable we require products designed to emphasise resource reduction, extended use, reuse and recycling. Ensuring various functional requirements are met, such as performance standards and safety, is also vital.

Ensuring you can convert to LED sustainably is a major consideration. That’s why you need a retrofit LED gear tray, a universal design principle across our product range for over 60 years.

What Makes a Sustainable Luminaire?

1. Robust steel or aluminium housings, treated with our protective processes, deliver high impact resistance (IK rating) and a 30 year+ design life.
2. Replaceable LED gear trays reduce waste, minimise site disruption and make it easy to adopt new technology.
3. Long life, quality, precision cut materials and rigorous testing ensure a high ingress protection (IP) rating.
4. Our UV stable and high impact diffusers are fully recyclable designed for use with application specific optics.
5. With up to 5x the lifespan of fluorescent, our LED gear trays cut maintenance call outs.





CABLE MANAGEMENT SYSTEMS

Cable management systems (CMS) create a clean architectural aesthetic, consolidate services and streamline lighting installations.

Also known as LED trunking, CMS lighting is a continuous row system that uses trunking compartments to feed power to individual luminaires, emergency battery packs and integrated services. It can also incorporate lighting controls, with a flexible design that can include speakers, cameras, sensors, PA, CCTV and other services, playing a key role in the Internet of Things.

Flexible trunking systems like our Mission CMS (pictured) are ideal for platforms where vandalism or particulate ingress is a concern. To ensure the best solution, our technical sales team will carry out a thorough, no-obligation site survey.

You'll then receive a site survey pack, including (as required) a lighting scheme, recommended CMS system and a costed design proposal.



EMERGENCY LIGHTING

UK Building regulations and associated Approved Documents stipulate that all escape routes, and many other areas, should be provided with emergency lighting in the event of failure of the normal lighting supply.

Emergency lighting enables occupants to follow escape routes by providing wayfinding and illumination, helping protect users and giving them the confidence to escape safely.

Key guides and standards include BS EN 60598-2-22 for emergency luminaires, the Health and Safety (Safety Signs and Signals) Regulations, and BS 5266-1:2025 (Code of Practice for the Emergency Lighting of Premises). We can provide professional guidance on the requirements for your application.

Emergency operation is available via self-contained integral emergency equipment or central battery systems. We've supplied emergency versions of our luminaires for many years, all of which undergo the same rigorous design, development and testing procedures. In all cases, the entire luminaire is factory certified by us.

We offer a full range of Auto and Self Test emergency equipment for real-time mandatory testing and monitoring, ensuring peak system readiness. Systems like DesignPath clearly signal faults – either within the luminaire or remotely – helping responsible parties meet legal obligations while minimising costs.



For further lighting advice call
020 8254 2022 or e-mail
technical@designplan.co.uk



LIGHTING CONTROLS

Lighting control systems help create dynamic, energy-efficient spaces across retail areas, concourses, platforms and urban zones, ensuring the right level of light for each environment.

We offer luminaires with a range of driver options, including standard switched, DALI-2 and DMX. When connected to control systems, these can enable colour effects in urban spaces and circadian lighting using tunable white fittings to shift between warm and cool colour temperatures.

Our approach follows RSSB guidelines with reference to CIBSE/SLL and ILP guidance for lighting in public areas.

Our control systems can be wired DALI-2 or wireless cloud-based, with remote monitoring to reduce maintenance visits and energy use. PIR and microwave presence detectors, photocells and timed control help cut consumption, while integration with other building services is possible using bacNET and API communication.

The DALI-2 standard (IEC 62386) allows interoperability between input and output devices and provides detailed feedback from drivers and inverters, including fault reporting and status monitoring. Regular reports can be sent to maintenance teams for improved efficiency.

Lighting control systems can also support emergency lighting compliance testing, automatically running mandatory tests and generating reports to reduce site visits.

Control strategies are tailored to each area to balance functionality and efficiency, using absence detection, timed control, daylight linking and manual options.

For rail applications, this includes platforms, concourses, walkways and car parks, where systems can be fine-tuned to meet operational needs. External circuits can be programmed to switch on or off at set times, while areas such as stairwells can dim to low levels when unoccupied.

SMART LIGHTING CONTROL CONTRIBUTES TO BOTH SAFETY AND WELLBEING

SUSTAINABLE MANUFACTURING

Since 1963, we've been designing and manufacturing robust luminaires in the London Borough of Sutton.

We start by listening to our customers' needs and requirements, with their feedback guiding a design process that begins with 3D CAD software and is followed by thorough in-house testing.

After design and pre-production testing, our manufacturing process combines advanced robotics and automated machines with skilled operators.

Once formed, luminaire bodies pass through our paint plant for protective finishes, followed by assembly, electrical testing, and final dispatch.

We use LEAN methodology to minimise waste in time and materials, ensuring continuous product improvement.

Operating from a BREEAM 'Excellent' facility, we implement sustainability initiatives such as rainwater harvesting, solar panels and integrated lighting controls throughout the building.

We are accredited to ISO 9001 Quality Management and ISO 14001 Environmental Management systems, with both short and long-term plans to reduce our direct emissions, managed by a dedicated sustainability team.

We are increasing our use of recycled and low-carbon materials whilst designing out waste and minimising supply chain material miles.

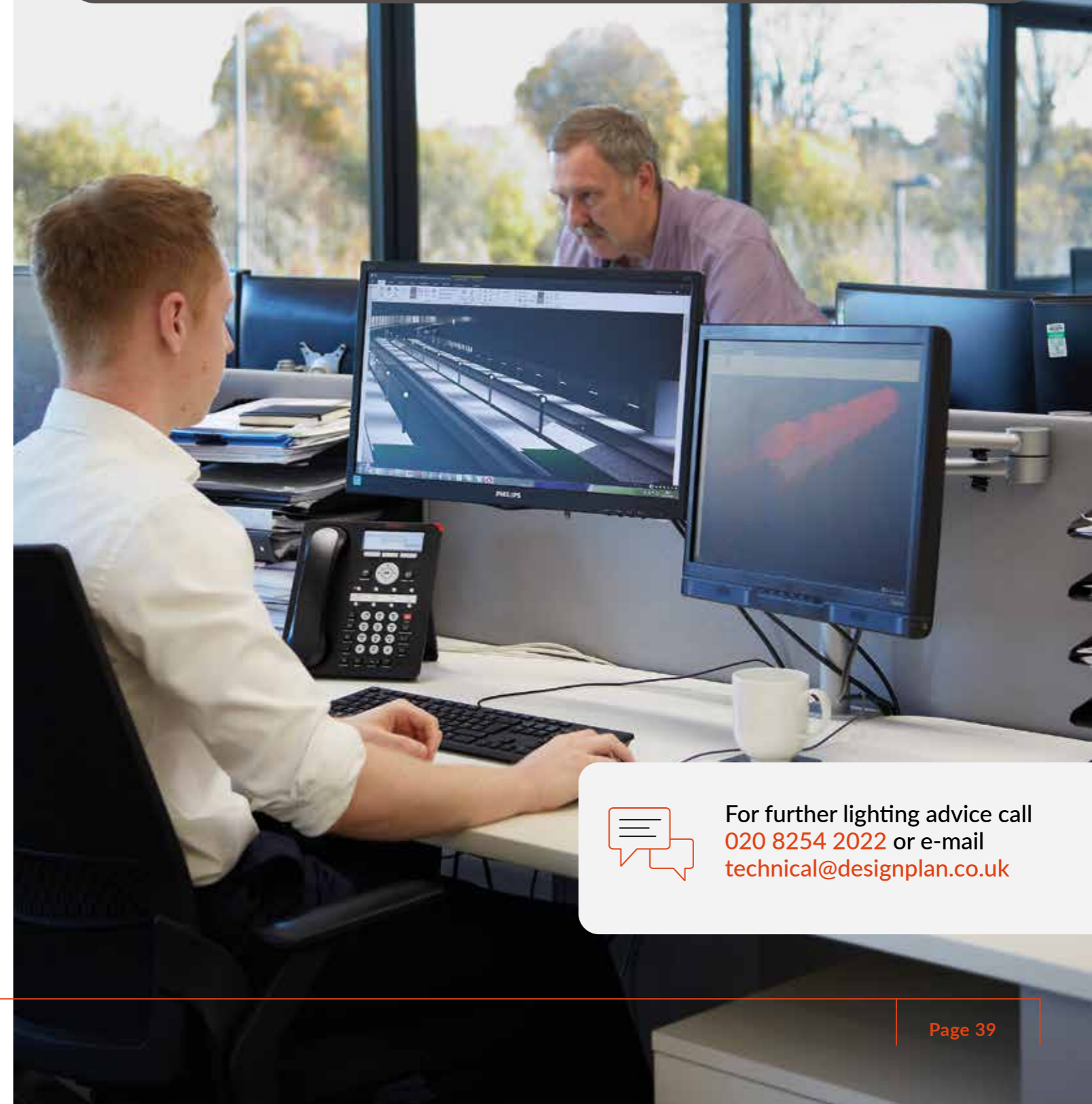
We are enhancing our energy efficiency by replacing old machinery, expanding our use of daylight sensors, reusing heat from our paint plant and increasing presence sensor use.



PROJECT MANAGEMENT

Our in-house project management and lighting design teams will work closely with you from initial design through to final handover. We provide design and product development support, offering bespoke solutions tailored to your application.

To keep projects on track, we coordinate delivery schedules, attend site meetings and provide on-site installation support. Our team also carries out energy management surveys, produces lighting designs (Relux or Dialux) and supplies BIM models and photometric data for complete peace of mind.



For further lighting advice call
020 8254 2022 or e-mail
technical@designplan.co.uk



LIGHT THAT CHANGES LIVES

Our mission is to guide our clients, innovating in environments and applications with demanding requirements, going beyond accepted boundaries to enhance and change lives through light.



16 Kimpton Park Way, Sutton, Surrey, SM3 9QS
+44 (0)20 8254 2020
www.designplan.co.uk
sales@designplan.co.uk

designplan
LIGHTING
A Fagerhult Group Company