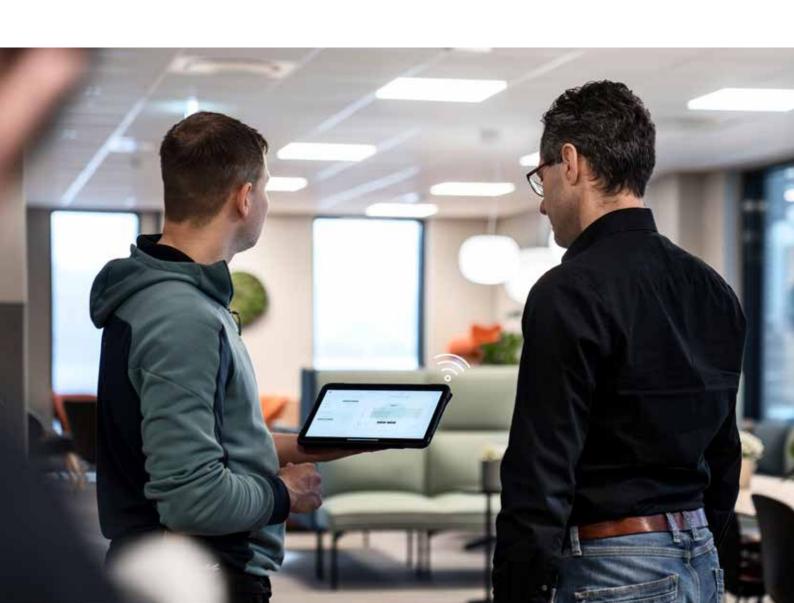


# Light Management Made Easy

A simple technical guide to Glamox Lighting Control Solutions



# Table of contents

Our Market Offer	4-5
The Value of Wireless	6-7
Wireless Communication Types	8-9
System Overview	10-11
Wireless Made Easy	12-13
Access Points	14-15
Emergency Reporting	16-17
Wireless to Hardwired	18-19
Switches and Scene Plates	20-21
Daylight Linking	22-23
Human Centric Lighting	24-25
Ethernet2DALI	26-27
On-Site Services	28-29
Item Codes and Guidance	30-31
Functionality at a glance	32-33

# Welcome

Controls do not need to be complex to design, commission or operate. We take great pride in the simplicity of our solutions, the ease of managing them and the joy of using them.

This technical handbook aims to provide a complete 'how to' guide for all Glamox LMS solutions.



The right light, in the right place, at the right time



# More than lighting

As a dedicated solutions provider, we prioritise more than just lighting solutions. Our focus is on delivering cutting-edge technology that integrates energy efficiency and human-centric control methods.

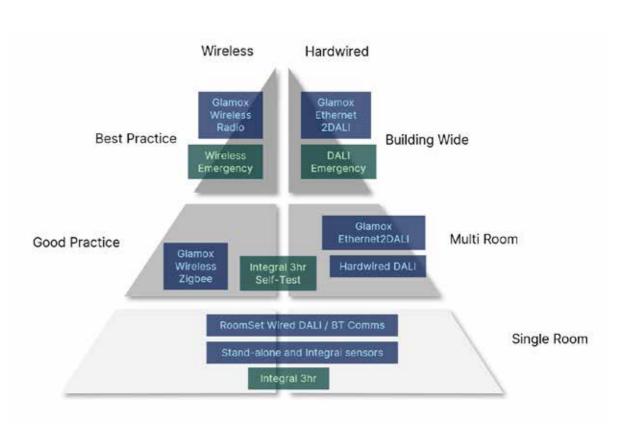
# Price Structure





The table above serves as a basic price guide, providing a general reference for estimating costs. However, it's important to note that specific products may require extensive reworking of luminaire internals and/or externals, resulting in pricing that falls outside of the parameters outlined in this guide.

# **Product Hierarchy**



Our feature rich solutions have been chosen to provide both high performance and peace of mind.

Both our Wireless and Hardwired systems are kept simple by their modular design – meaning that you can easily add, change, take away or expand the system as your requirements change.

# The value of Wireless

Choosing between traditional DALI and a Wireless System is no longer a financial decision



#### Industry leading solutions

- Wireless radio from £40 per luminaire
- DALI systems cost approx. £40 per luminaire
- DALI and Wireless are now cost neutral
- · Less Wireless hardware to install over traditional DALI



CPW2 multi-sensor



#### What it means

- CPW2 benefits most commercial luminaires (normal mounting height)
- CPW2 is not always suitable for every luminaire type (e.g. High-bay, downlights)
- · Integral daylight sensor
- Out-of-the-box readiness

#### New in 2024

- · Wireless BT switch
- BT end-user scene control 'app'



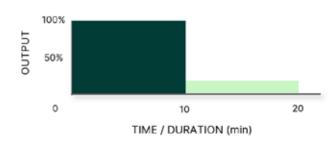


In 2020 Glamox decided to invest and reduce the cost of Wireless to match or better any comparable system. The results of this investment have now been launched in the UK as the new CPW2 sensor from Glamox. This device realises the ambition that we have held for many years, to be able to include wireless controls at the pricepoint previously offered for simple standalone luminaire sensors or a traditional DALI system.

Glamox Wireless Radio offers the functionality of a fully integrated connected lighting system and more. There are features over-and-above classic DALI systems such as dynamic grouping, independent daylight zones and scene control with built-in logic to prioritise and manage the interaction of these functions.

Our online Wireless Portal provides automated emergency testing and monitoring, heat mapping and the ability to monitor and enhance every aspect of wellbeing in the workplace such as circadian rhythms and checking Co<sub>2</sub>, temperature, humidity and noise levels.

#### Out-of-the-box Readiness



# Factory settings provide immediate functionality upon power up:

- Upon presence the PIR will activate to 100% for 10 minutes
- After 10 minutes of absence, the fitting dims to 10% for a further 10 minutes
- Start saving energy with immediate effect

# Wireless Communication Types



#### Mesh

- Extensive coverage between multiple nodes
- Robust against failure with alternative data paths
- Scalability for easy expansion



#### Point 2 Point

- Immediate device-to-device communication
- Minimised data transmission via intermediaries
- Reduced latency for faster response times



#### P2P - Gravity Linking

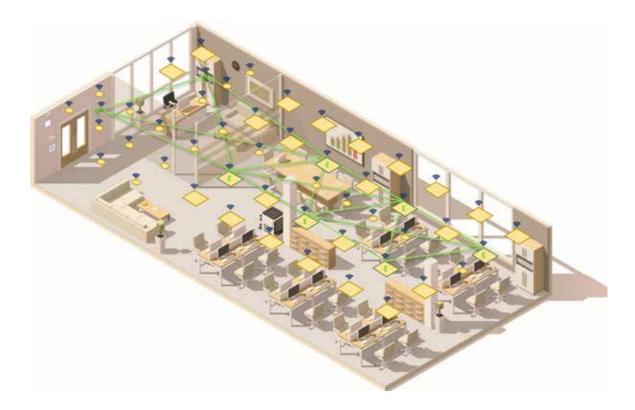
- Gravity Linking connects out-of-range luminaires
- Extends network coverage
- Simplified network management

Wireless systems offer a diverse range of communication technologies. Typical Bluetooth systems rely on mesh networks to ensure strong signal coverage for all network devices.

However, mesh networks can suffer from data congestion and slower response times,

making certain features like corridor linking challenging.

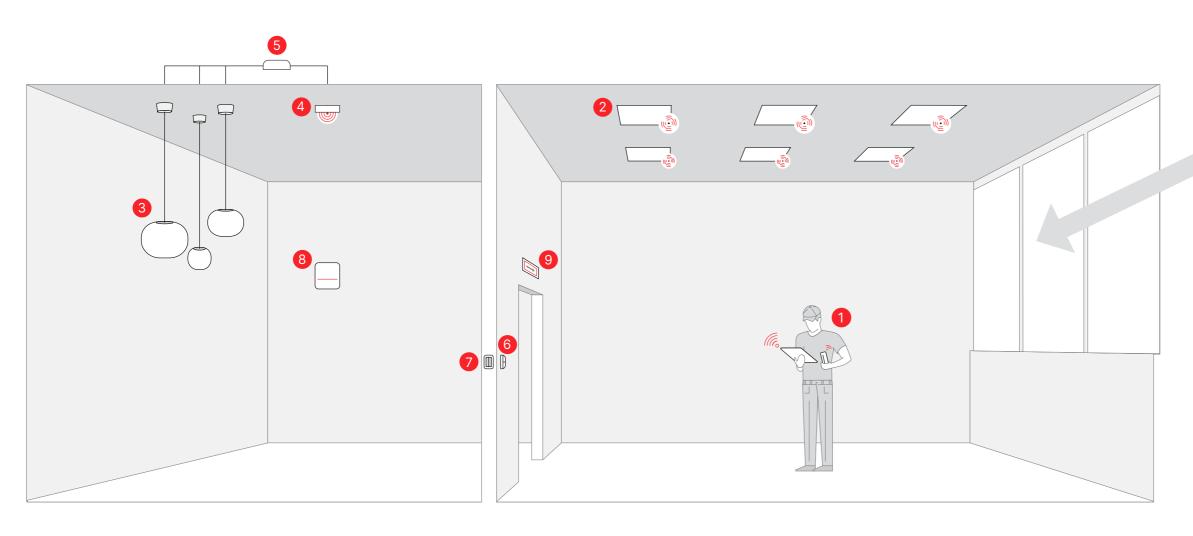
In contrast, Point-to-Point communication enables direct communication between individual devices, reducing data transmission and latency times significantly.

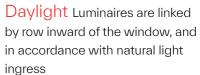


Glamox Wireless Radio utilises hybrid communication technology, enabling the system to adapt to the required function by utilising the appropriate communication type.

- Point to Point is used for direct commands, switching or dimming luminaires, recalling scene's etc
- Mesh is used for data reporting back to an access point – this type of data transmission isn't dependent on speed or immediate response.
- In instances where luminaires are out of range, they are simply linked to an in-range luminaire through Gravity Linking – to ensure comprehensive communication with every device within the network.

# Glamox Wireless Radio - System Overview





- Commissioning tablet with pre-installed software and a dongle that communicates from Bluetooth to Wireless Radio
- 4 External PIR or light sensor

Scene controller with transceiver. Scene controllers are available as mains voltage or as a battery powered wall box version

Smart Luminaire with a WR node, integrated PIR and light sensor Wireless Radio to DALI bridge with sensor input

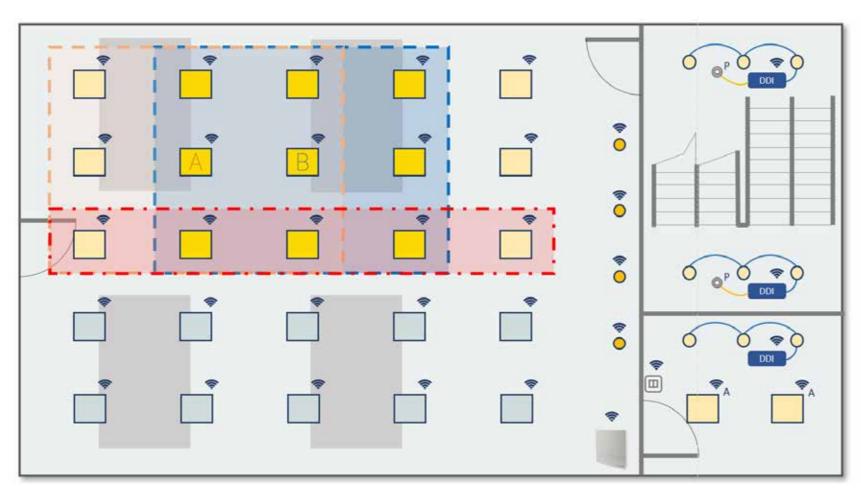
Access point to for cloud-based central monitoring

- 3 Standard DALI (non-WR) luminaires
- 6 Standard push buttons

9 Emergency light with Wireless Radio transceiver



# Wireless made easy



Typical floor plan

#### Wireless Technology

Design and installation of Wireless Radio couldn't be easier. There are no special zoning requirements and areas can be freely added or taken away without the need to add or alter any internal wiring.

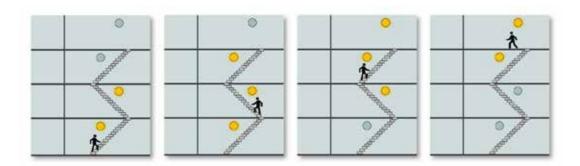
- 3 Core wiring L, N, E only
- Re-use existing cables / circuits
- 868 MHz frequency for 'Short Range Devices'
- Wireless nodes transmit up to 100m
- Significant benefits over Bluetooth networks
- Low latency means faster reaction times
- Granular control with Dynamic Grouping
- Building wide functionality (optional)

#### Centralised Functionality

Optional cloud-based web portal allows remote access to data rich reporting and building insights.

- Emergency testing self-test emergency reports
- Energy monitoring calculated energy reporting
- Heat mapping space management

#### Dynamic Grouping



Dynamic grouping enhances energy efficiency by ensuring that only the necessary luminaires are lit at any given time. It can be applied in various scenarios:

- Open plan: Luminaires are organised into a movable grid of 9 fittings and follow the user
- Corridors: A group of 3 luminaires illuminates the corridor, effectively lighting the way ahead
- Stair cores: Landings are interlinked with both the landings above and below

#### Wireless Tool Kit



Wireless Tablet, Software & Dongle LPS364201



DDI Box With Enclosure LLW362379 PIR LLW362369 (DDI Box only) Node only 650001017 Max. 4 DALI luminaires



Access Point Office (IP20) LLW365347



DBNI Box IP56 LLW362375 Max. 64 DALI luminaires



Industry (IP65) 650001002



HER Wireless Relay IP56 LLW365349 Node only 650001010 Max. 5A per circuit



Scene Plate LLW365348 Battery Controller 650001007 Mains Controller 650001001



Daylight Sensor Office 650001006 Industrial LLW365374

13

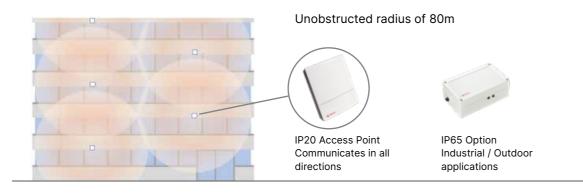
Max. 4 DALI luminaires

## **Access Points**

Access Points make the link between field level control and cloudbased diagnostics and reporting, elevating your setup from simple lighting control to comprehensive light management.

#### Design Notes:

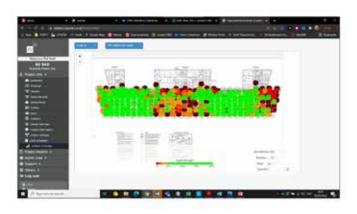
- Maximum 750 luminaires per access point (Regulation limit 1000 allowing 25% overlap)
- Recommended minimum of 2 access points for system resilience
- Gravity linking removes the requirement for additional access points in stair cores or for external lighting



Access Points clearly indicate network coverage via the web portal. Luminaires that fall out of range are simply "Gravity Linked" with an in-range transceiver to ensure they remain within reach.

#### Signal Quality

Collators are sensitive to interference.
Thick concrete, electrical cables and metal structures will reduce range.
Please speak to the design team if you have any concerns or need any guidance with positioning.



# GOOD Special Circumstances

#### Client LAN Connection (hardwired)

- Common practice to create a VLAN to maintain separation
- No annual fees for data
- Stable connection no potential of signal loss

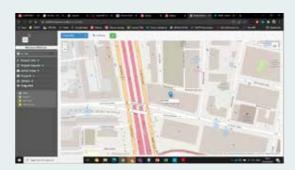
#### Access point provided with SIM DONGLE

- Dongle is pre-configured for the access point
- Customer supplies their own data SIM card

#### Access points provided with Data SIM

- We provide O2 SIM cards by default
- Client responsibility to ensure network coverage
- Tri-band cards available upon request

#### Wireless Portal



Identify your site by postcode



Schedule automated reports for occupancy, energy and emergency lighting



Review occupancy data with automated heat mapping



View your emergency lighting test results Immediately diagnose and locate any failures

# **Emergency Reporting**

#### Wireless Controls for Emergency Only

- Emergency lights and exit signs use a dedicated emergency node
- · Some Installations do not have a control requirement but need emergency monitoring
- · Installations with existing systems, can use Wireless for emergency monitoring only
- Extensive range of Wireless Emergency Luminaires (standalone examples below)



SINZ E-S SNZ360740



LED-EM T-R70 LDE360336



LUMI-S E3/WR CR LUM144736



E3M Wireless Node Reduced size for emergency luminaires

#### Special Considerations

- Identification Luminaires are positively identified by switching them on and off
- RF Range Spacing between Emergency Lights is often much further than between the standard luminaires - which makes Bluetooth mesh unsuitable
- Centrally fed wireless monitoring can extend to central battery and further integrate with BMS systems

#### Self-Test Emergencies

- · Emergency luminaires perform both function and duration testing throughout the year
- If a test fails it is indicated by a flashing red LED
- A green LED is therefore proof that (a) a test has run and passed in the last 28 days and (b) a Duration test has run and passed in the last 12 months
- This is in accordance with the Emergency Lighting Standard BS/EN 5266 and the Emergency Lighting Automated Testing Standard BS/EN 62034

#### **Emergency Test Reports**

Emergency reports are automatically emailed to you every month and stored in the cloud (off site) for you to review or reprint for auditable purposes.

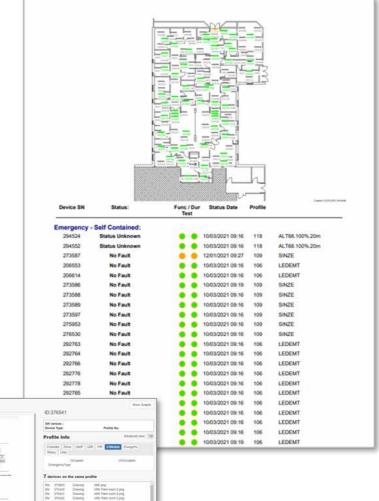
Alternatively, you can visit www.wireless.luxonic.co.uk to view the Emergency report which will identify any failures and show the type of fault (Charge, Battery or LED)

Once on the portal, enter the Post Code for the site > click Project Reports > Click Emergency Lighting Report





IP65 Option For industrial / Outdoor applications



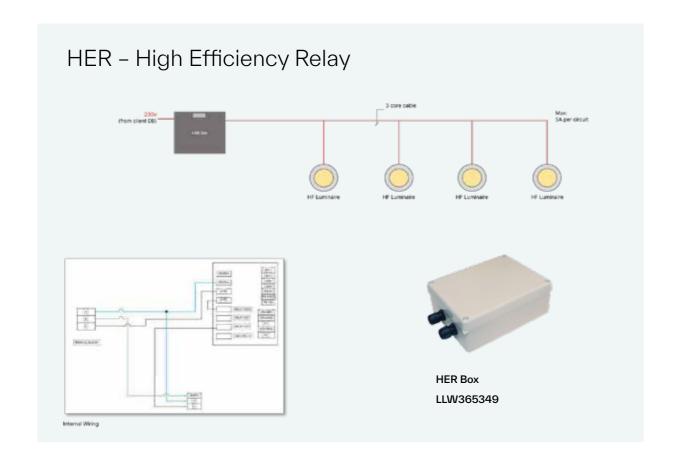


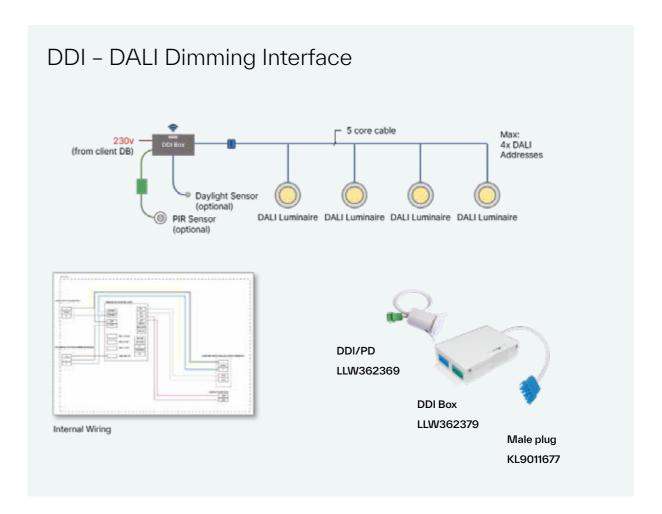
# Wireless to Hardwired

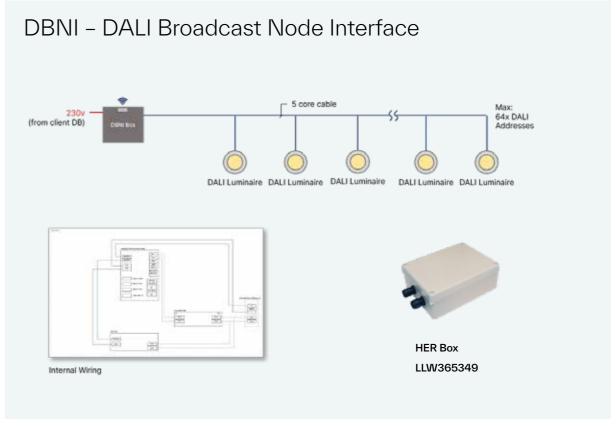
#### All under control

Occasionally, creating a wireless variant of a product is impracticable. In such circumstances, wireless control boxes are utilised to facilitate the management of both DALI dimmable and high-frequency (HF) switched drivers.

- Wireless relay (HER) for HF luminaires provides a 5A switched load
- DBNI box provides DALI Broadcast for a maximum of 64 luminaires
- DDI box for DALI Broadcast control of up to 4 luminaires
- DDI box provides option for pluggable PIR with 7m detection area
- DBNI and HER boxes should be grouped with remote fittings or sensors where possible
- Emergency monitoring is not possible via wireless control boxes use stand-alone EM

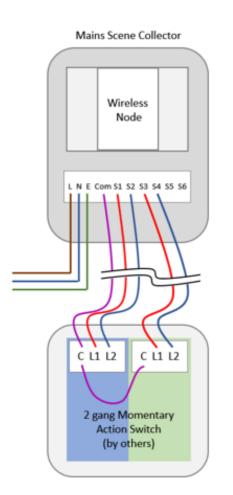


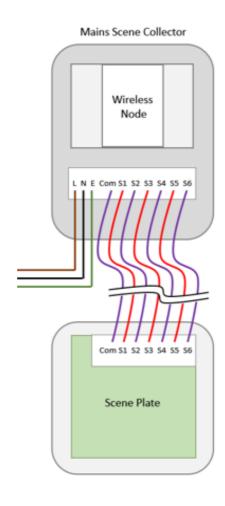




# Wireless to Hardwired

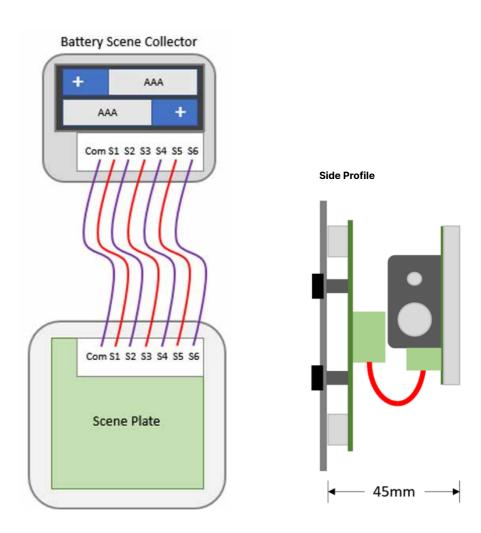




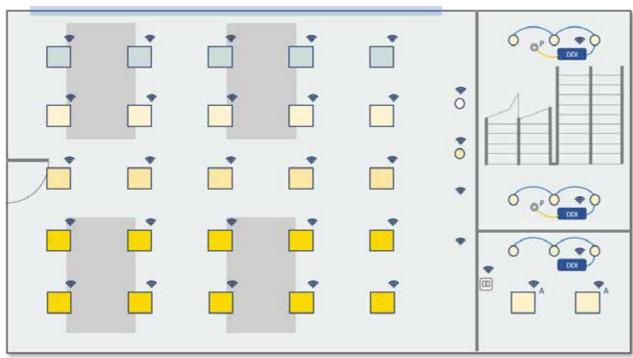


## Scene plates and switches

- Both variants of the scene collector can connect to a scene plate or momentary action switch
- Scene plates fit standard UK back box
- Standard finish for scene plate is stainless steel
- Choice of mains powered or battery scene collectors
- 45mm (min) back box required when using battery pack
- AAA batteries are not included with Battery Scene Collector
- 10-year battery life
- Face plate can be powder coated and labelled if required (additional charges apply)



# Daylight Linking



Typical floor plan

# Daylight linking – Bright Day Daylight linking – Dull Day Daylight Required illuminance Artificial light Daylight Required illuminance Artificial light

## Daylight Linking

- ✓ All Glamox LMS solutions offer daylight linking
- Maximise your energy savings
- Dim internal lighting in accordance with daylight levels
- Reduce energy by as much as 80%
- ✓ Best practice daylight link +2 rows
- ✓ Good practice daylight link window row
- Recommended 1x daylight sensor per façade/per floor
- Sensor options for both Hardwired and Wireless Radio

# Easy Installation

- DALI sensors provide PIR and daylight sensors
- Wireless daylight sensors can be built in or stand-alone
- Can also be used to trigger dusk-dawn lighting

#### Tool Kit



Internal Wireless
Daylight Sensor
650001006



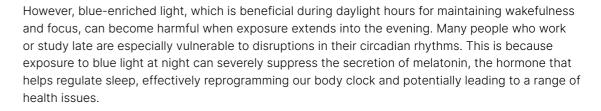
DALI Multi-Sensor KL9013811

Industrial Wireless
Daylight Sensor
LLW365374

# Human Centric Lighting

#### Human-centric and Tunable White lighting

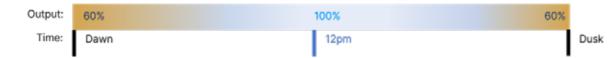
The increasing tendency for individuals to remain indoors for a large part of the waking day, has unintended consequences for our natural circadian rhythms, primarily due the exposure of artificial lighting that is not aligned with our biological needs. Facilities like offices, schools, and healthcare centers often use bright, daylight enhanced lighting to maintain alertness and productivity.





Natural light constantly changes both its colour temperature and intensity throughout the day. HCL lighting provides biologically optimized compositions of light to enhance concentration and productivity in the daytime working and learning environments while encouraging relaxation and regeneration during the night

#### Automated HCL control profile

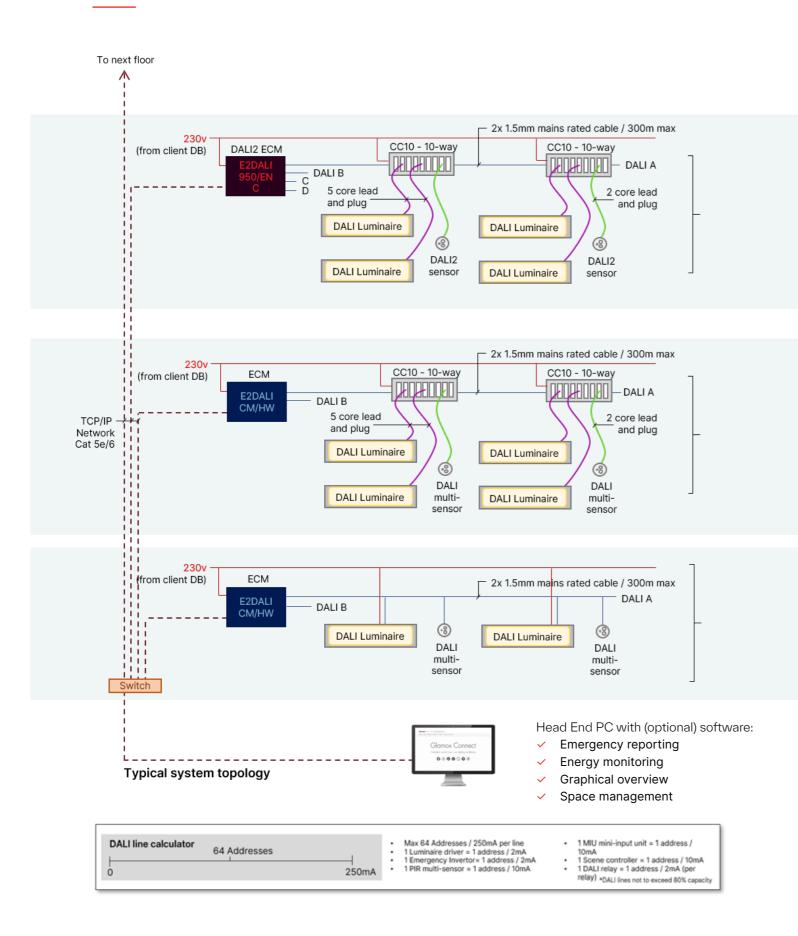


Using global positioning and an astronomical time clock, the system automatically adjusts the HCL timeline and associated temperatures based on time of year/daylight hours.

Lighting control systems provide the platform and means to optimize colour tunable, HCL lighting. A Pre-set profile is provided detailed below) or this can be modified to suit the end user / client specification

- The DALI control system starts the HCL time profile at dawn with lighting at its warmest colour temperature, at around 60% output
- This fades to the coolest colour temperature by 12pm and will hold both colour temperature and highest (100%) output until 2pm
- From 2pm lighting fades from the coolest colour temperature back to the warmest
- The warmest colour temperature is reached at dusk, at 60% output.

## Glamox Ethernet2DALI



#### Dynamic solutions

#### DALI2

- D2 ECM provides 4no DALI 2 lines
- DALI 2 ensures seamless integration with other D2 devices
- Future-proof ready for advancements in lighting technology
- System limit 20 routers max.
- Can co-exist with D1 ECMs
- Input devices do not use a luminaire address

#### Plug and Play

- Each CC10 box provides 9 power/DALI outputs
- Luminaires supplied with 3m / 5 core cable
- DALI PIRs supplied with 3m / 2 core cable
- Each CC10 allows through wiring for power and DALI feed from ECM

#### Hardwired

- Permanent 230v supply to all luminaires
- ECM provides 2no DALI lines
- 64 address / 250mA per DALI line
- Luminaires and DALI input modules connect to the DAI bus
- DALI cable = 2× 1.5mm / 300m max run

#### Ethernet2DALI planning guide

- Smart building / IoT ready
- Simple modular design options
- Central control and visualisation
- **Energy monitoring**
- Emergency monitoring (automated)
- BMS integration
- TCP/IP Cat 5/6e network structure
- Blind automation
- Expandable solution
- Time saving installation options



Head End PC Standard - LLE362474 Advanced - LLE362471 8 Way Switch - LLE365375



**E2D Connectivity Module** ECM LKE360363 D2 ECM LKE365376



Plug and play solution CC10 LLC365377 Input Plug (female) LLC365378 Output Plug (male) LLC365379



**DALI Multi-Sensor** Recessed LLD365380 Surface LLD365417



4 Scene Plate LLD362427



Mini-Input Unit (MIU) LLD365435

# Commissioning and Maintenance Services

From commissioning, to end user and installer training, our services encompass every stage of the project. We ensure seamless integration of technology, optimal system performance, and ongoing maintenance support.

Our expertise enables us to deliver reliable solutions that maximise the efficiency and functionality of your system.

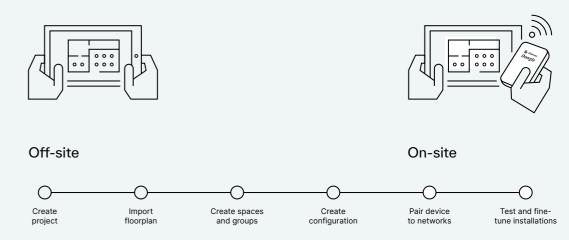


#### Commissioning

Our bespoke commissioning service is the cornerstone of ensuring your lighting control systems are perfectly tailored to your space. Leveraging over 50 years of combined in-house engineering expertise, we guarantee a seamless integration of our advanced lighting solutions into your environment, ensuring optimal performance and satisfaction from day one.

- High efficiency 200 devices per day
- Can be completed as phased works
- · Our in-house engineers will deal with and fix issues along the way
- System demonstration and client training included at handover

#### Wireless Commissioning Process



#### Training

Empowerment through education stands at the heart of our training service. We offer comprehensive, hands-on sessions designed to equip your team with the knowledge and skills to master our lighting control systems. Our experienced engineers lead these sessions, sharing insights and techniques honed over decades to ensure you can maximise the potential of your lighting solutions.

- Hands on training for both hardwired and wireless systems
- From simple set up to advanced diagnostics
- Field or classroom based depending on requirements and availability
- Training material provided where applicable

#### Maintenance

The longevity and reliability of your lighting control systems are our top priorities. Our maintenance service is meticulously crafted to keep your systems running at peak efficiency. With preventive care, expert troubleshooting, and ongoing support from our seasoned engineering team, we ensure your investment continues to perform flawlessly for years to come.

- · Enhanced system reliability
- Longer lifespan of equipment
- Improved energy efficiency
- Safety and compliance assurance
- Performance optimisation
- Access to technical support

# Item Codes and Guidance

#### Wireless Radio

tomble	Colon Tout	Description	Notes		
emNo.	Sales Text	Description	Notes		
nd User Interface PS364201	LMOVANDE ESTADIET COLTAVARE & DOMOLE	IMOMireless Tablet Ceftures Dides			
50001003	LMS WIRELES TABLET, SOFTWARE & DONGLE LMS WIRELESS DONGLE INC SOFTWARE	LMS Wireless - Tablet, Software, Bridge	Min. On an Communa Tablet 40 40 5" or bisher		
50001003	LIVIS WIRELESS DONGLE INC SOFTWARE	Software and Bridge only	Min. Spec: Samsung Tablet A8 10.5" or higher		
ccess Points and Co	onnectivity				
LW365347	LMS WIRELESS ACCESS POINTIP20 (UK)	Access Point - Office (IP20)	c/wUK mains adaptor		
50001002	LMS WIRELESSACCESS POINTIP65	Access Point -Industry (IP65)			
LW365710	LINS WIRELESS4G SIM DONGLEONLY-NO SIM/DATA	4G Sim Dongle	Pre-configured for use with any micro SIM		
cene Plates and Sw	itch Inputs				
LW365300	LMS WIRELESS SP2B/SS	2 button Scene Plate	2 Button - Stainless Steel		
LW365297	LMS/WIRELESSSP4B/SS	4 button Scene Plate	4 Button - Stainless Steel		
LW365348	LMS WIRELESS SP6B/SS	6 button Scene Plate	6 Button - Stainless Steel		
50001007	LMS WIRELESS SCENE CONTREAT	Battery Scene Controller	Min. 45mmback box		
50001001	LMS WIRELESSIP56 SCENECONTROLLER	Mains Scene Controller Box	IP56 Enclosure		
50001005	LMS WIRELESSIP20 SCENE CONTROLLER	Mains Scene Contoller	Nodeonly (c/wstrain releif caps)		
ire Alarm Interface					
LW365343	LIMS WIRELESS FIRE ALARMINTERFACE	Voltage Free Input for Fire Alarm	All lights go to 100% in the event of Alarm		
OALI and Switched L	uminaires				
LW362379	LMSWIRELESSDDI	DDI Box	Max. 4no DALI drivers		
LW362369	LMS WIRELESS DDI/PD	DDI Box PIR	Ruggable RRfor DDI Box only		
LW362375	LMSWIRE ESSDEN	DBNI Box	Max. 64DALI luminaires		
LW362375 LW365349	LMS WIRELESS DBIN LMS WIRELESS HER(IP56				
LW300349	LIVIS WIRELESSHERTIPSO	HERBox (IP56)	Wireless Relay Max. 5a load		
	uminaires - Node Only				
50001017	LMS WIRELESSDDI 4 DALI BRIDGE	DDI 4 DALI Bridge	Node only (c/w strain releif caps) Max. 4n o DALI		
50001010	LMS WIRELESS IP 20 RELAY UNIT	HERWireless Relay Unit (IP20)	Node only (c/w strain releif caps). Max. 5a load		
550001019	LMS WIRELESSIP56 RELAY UNIT	HERWireless Relay Unit (IP56)			
	LHOUSE FOR IOLEGA INCOME.	Dadish Osasa Office	Nederado		
50001006	LMSWIRELESSLIGHT SENSORKIT	Daylight Sensor - Office	Node and Sensor		
50001006 LW365374	LMS WIRELESSRLS/U/IP56	Daylight Sensor - Industrial	IP56 Enclosure		
550001006 LW365374 650001016					
50001006 LW365374 50001016	LMS WIRELESS RLS/U/IP56 LMS WIRELESS 1M PIRBEZ HEAD	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 mlead		
50001006 LW365374 50001016 XT001004	LMS WIRELESS RLS/U/IP56 LMS WIRELESS 1M PIRBEZ HEAD	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 mlead		
50001006 LW365374 50001016 EXT001004 IMCards (New) 02 Network	LMSWIRELESSRLS/UVIP56 LMSWIRELESS1M PIRBEZ HEAD LMS BXT CHW-SENQW TW M25	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 m lead Suitable for External Lighting		
50001006 LW365374 50001016 EXT001004 IMCards (New) 92 Network LW365711	LMSWIRELESS 1.M PIRBEZ HEAD LMS EXT CHW-SENQW TW M25  LMS EXT CHW-SENQW TW M25  LMS WIRELESS 1.2 MONTHS DATA - 02	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 m lead Suitable for External Lighting  Approval required before supply		
50001006 LW365374 50001016 XT001004 IMCards (New) 12 Network LW365711 LW365712	LMSWIRELESSRLS/UVIP56 LMSWIRELESS1M PIRBEZ HEAD LMS BXT CHW-SENQW TW M25	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 m lead Suitable for External Lighting		
50001006 LW365374 50001016 XT001004 IMCards (New) 12 Network LW365711 LW365712 LW365713	LMSWRELESSTLS/UVIP56  LMSWRELESSTM PIRBEZ HEAD  LMS EXT CHW-SENQWTW M25  LMSWRELESS12 MONTHS DATA-02  LMSWRELESS36 MONTHS DATA/02	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 milead Suitable for External Lighting  Approval required before supply Approval required before supply		
50001006 LV/365374 50001016 XTD01004 IM Cards (New) 02 Network LV/365711 LLV/365712 LLV/365713 Gelenor Network	LMSWIRELESS 1.M PIRBEZ HEAD LMS EXT CHW-SENQWTW M25  LMS WIRELESS 12 MONTHS DATA - 02 LMS WIRELESS 36 MONTHS DATA / 02 LMS WIRELESS 36 MONTHS DATA - 02 LMS WIRELESS 36 MONTHS DATA - 02	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 milead Suitable for External Lighting  Approval required before supply Approval required before supply Approval required before supply		
50001006 LV/365374 50001016 XT001004 IM Cards (New) 02 Network LV/365711 LV/365712 LLV/365713 Gelenor Network LLV/365714	LMSWIRELESS PLS/UVIP56  LMSWIRELESS 1M PIRBEZ HEAD  LMS EXT OHW-SEN QW TW M25  LMSWIRELESS 12 MONTHS DATA - O2  LMS WIRELESS 36 MONTHS DATA - O2  LMS WIRELESS 60 MONTHS DATA - O2  LMS WIRELESS 12 MONTHS DATA - TD	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply  Approval required before supply  Approval required before supply  Approval required before supply		
150001006 1.W1365374 1500001016 1500010104 18 M Cards (New) 12 Network 1.W1365711 1.W1365712 1.W1365713 10 et en or Network 1.W365714 1.W365714	LMSWIRELESS 1.M PIRBEZ HEAD LMS EXT CHW-SENQWTW M25  LMS WIRELESS 12 MONTHS DATA - 02 LMS WIRELESS 36 MONTHS DATA / 02 LMS WIRELESS 36 MONTHS DATA - 02 LMS WIRELESS 36 MONTHS DATA - 02	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 milead Suitable for External Lighting  Approval required before supply Approval required before supply Approval required before supply		
150001006 LW365374 150001016 EXT001004 SIM Cards (New) D2 Network LW365711 LW365712 LW365713 Telenor Network LW365714 LW365714 LW365716	LMSWIRELESS 1.M PIRBEZ HEAD  LMS EXT OHW-SEN OWTW M25  LMS WIRELESS 12 MONTHS DATA - O2  LMS WIRELESS 36 MONTHS DATA - O2  LMS WIRELESS 36 MONTHS DATA - TD	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 mlead Suitable for External Lighting  Approval required before supply Approval required before supply Approval required before supply Approval required before supply		
50001006 LW366374 500001016 XT001004 IM Cards (New) 12 Network LW365711 LW365712 LW365713 (elenor Network LW365714 LW365716 LW365716	LMSWRELESS 1.M PIRBEZ HEAD  LMS EXT OHW-SEN OW TW M25  LMS WRELESS 12 MONTH-S DATA - O2  LMS WRELESS 36 MONTH-S DATA - TD	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 mlead Suitable for External Lighting  Approval required before supply Approval required before supply Approval required before supply Approval required before supply		
50001006 LW366374 500001016 XT001004 IMCards (New) 12 Network LW365711 LW365712 LW365713 sel enor Network LW365714 LW365716 LW365716	LMSWIRELESS 1.M PIRBEZ HEAD  LMS EXT OHW-SEN OWTW M25  LMS WIRELESS 12 MONTHS DATA - O2  LMS WIRELESS 36 MONTHS DATA - O2  LMS WIRELESS 36 MONTHS DATA - TD	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 mlead Suitable for External Lighting  Approval required before supply		
50001006 LW365374 50001016 KTD01004 IM Cards (New) 2 Network LW365711 LW365712 LW365713 el enor Network LW365715 LW365716 IM Cards (Renewal) 2 Network LW365717	LMSWRFLESSTLWIP56 LMSWRFLESSTMPIRBEZHEAD LMSEXTOHW-SENQWTW M25  LMSWRFLESS12MONTHS DATA - 02 LMSWRFLESS36 MONTHS DATA - 02 LMSWRFLESS36 MONTHS DATA - TD	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply		
50001006 LW365374 50001016 KTD01004 IMCards (New) 2 Network LW365711 LW365712 LW365713 el enor Network LW365716 IMCards (Renewal) 2 Network LW365717 LW365717	LMSWRELESS 1M PIRBEZ HEAD LMS EXT OHW-SENOWTW M25  LMS WRELESS 12 MONTHS DATA - O2 LMS WRELESS 36 MONTHS DATA - O2 LMS WRELESS 36 MONTHS DATA - O2 LMS WRELESS 12 MONTHS DATA - TD LMS WRELESS 36 MONTHS DATA - TD LMS WRELESS 312 MONTHS DATA RENEWAL - O2	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply		
50001006 LW365374 50001016 KT001004  MCards (New) 2 Network LW365711 LW365713 elenor Network LW365714 LW365716  MCards (Renewal) 2 Network LW365717 LW365717 LW365717	LMSWIRELESS 1.M PIRBEZ HEAD  LMS WIRELESS 1.2 M ONTH S DATA - O.2  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 1.2 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 2.4 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 2.4 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 2.4 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 2.6 M ONTH S DATA RENIEWAL - O.2	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply		
50001006 LW366374 500001016 XT001004 IM Cards (New) 12 Network LW365711 LW365712 LW365714 LW365714 LW365715 LW365716 IM Cards (Renewal) 12 Network LW365717 LW365717 LW365717 LW365719 LW365719 LW365719 LW365720	LMSWIRELESS 12 MONTHS DATA - 02 LMSWIRELESS 12 MONTHS DATA - 02 LMSWIRELESS 12 MONTHS DATA - 02 LMSWIRELESS 36 MONTHS DATA - 02 LMSWIRELESS 36 MONTHS DATA - 10 LMSWIRELESS 36 MONTHS DATA - TD LMSWIRELESS 36 MONTHS DATA RENIEWAL - 02 LMSWIRELESS 12 MONTHS DATA RENIEWAL - 02 LMSWIRELESS 36 MONTHS DATA RENIEWAL - 02 LMSWIRELESS 38 MONTHS DATA RENIEWAL - 02	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure Sensor Only - 1 milead Suitable for External Lighting  Approval required before supply		
50001006 LW366374 50001016 500016 500016 500016	LMSWIRELESS 1.M PIRBEZ HEAD  LMS WIRELESS 1.2 M ONTH S DATA - O.2  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA - T.D  LMS WIRELESS 1.2 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 1.2 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 2.4 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 2.4 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 2.4 M ONTH S DATA RENIEWAL - O.2  LMS WIRELESS 2.6 M ONTH S DATA RENIEWAL - O.2	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply		
50001006 LW366374 50001016 50001016 50001016 50001016 500010104  IM Cards (New) 12 Network LW365711 LW365712 LW365713 Gelenor Network LW365715 LW365716  IM Cards (Renewal) 12 Network LW365717 LW365717 LW365719 LW365719 LW365720 LW365721	LMSWRELESS 1M PIRBEZ HEAD  LMS WRELESS 1M PIRBEZ HEAD  LMS WRELESS 12 MONTHS DATA - O2  LMS WRELESS 36 MONTHS DATA - O2  LMS WRELESS 36 MONTHS DATA - TD  LMS WRELESS 36 MONTHS DATA RENEWAL - O2  LMS WRELESS 24 MONTHS DATA RENEWAL - O2  LMS WRELESS 36 MONTHS DATA RENEWAL - O2	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply		
50001006 LW366374 50001016 XT001004  IMCards (New) 12 Network LW366711 LW366712 LW366713 elenor Network LW366714 LW366715 LW366716  IMCards (Renewal) 12 Network LW366717 LW366718 LW366718 LW366718 LW366719 LW366719 LW366720 LW366720 LW366721 elenor Network LW366721	LMSWRELESS1MPIREPZHEAD  LMSWRELESS1MPIREPZHEAD  LMSWRELESS1MONTHSDATA-02  LMSWRELESS36MONTHSDATA-02  LMSWRELESS36MONTHSDATA-02  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-RENEWAL-02  LMSWRELESS312MONTHSDATA-RENEWAL-02	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply		
50001006 LW365374 50001016 XT001004  IMCards (New) )2 Network LW366711 LW365712 LW365713 el enor Network LW365715 LW365716  IMCards (Renewal) )2 Network LW365718 LW365718 LW365718 LW365718 LW365719 LW365719 LW365719 LW365719 LW365719 LW365719 LW365719 LW365719 LW365719 LW365720 LW365720 LW365721 el enor Network LW365721	LMSWRELESS 1M PIRBEZ HEAD  LMS WRELESS 1M PIRBEZ HEAD  LMS WRELESS 12 MONTHS DATA - O2  LMS WRELESS 36 MONTHS DATA - O2  LMS WRELESS 36 MONTHS DATA - TD  LMS WRELESS 36 MONTHS DATA RENEWAL - O2  LMS WRELESS 24 MONTHS DATA RENEWAL - O2  LMS WRELESS 36 MONTHS DATA RENEWAL - O2	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply		
\$50001006 LW365374 \$500011016 \$500011016 \$500011016 \$500011016 \$500011016 \$500011016 \$500011016 \$500016 \$50001016 \$50001016 \$50001016 \$50001016 \$50001016 \$500016 \$50001000000000000000000000000000000000	LMSWRELESS1MPIREPZHEAD  LMSWRELESS1MPIREPZHEAD  LMSWRELESS1MONTHSDATA-02  LMSWRELESS36MONTHSDATA-02  LMSWRELESS36MONTHSDATA-02  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-TD  LMSWRELESS36MONTHSDATA-RENEWAL-02  LMSWRELESS312MONTHSDATA-RENEWAL-02	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply		
Remote Sensors 550001006 1550001006 2 15W365374 1550001016 2 15W365374 1550001016 2 15W365714 15W365713 15 15 15 15 15 15 15 15 15 15 15 15 15	LMSWIRELESS1M PIRBEZ HEAD  LMS WIRELESS1M PIRBEZ HEAD  LMS EXT OHW-SENOWTW M25  LMS WIRELESS12 MONTHS DATA - 02  LMS WIRELESS36 MONTHS DATA - 02  LMS WIRELESS36 MONTHS DATA - TD  LMS WIRELESS36 MONTHS DATA - TD  LMS WIRELESS36 MONTHS DATA - TD  LMS WIRELESS60 MONTHS DATA - TD  LMS WIRELESS36 MONTHS DATA RENEWAL - 02  LMS WIRELESS36 MONTHS DATA RENEWAL - 10  LMS WIRELESS36 MONTHS DATA RENEWAL - 10	Daylight Sensor - Industrial Wireless FIR	IP56 Enclosure  Sensor Only - 1 milead  Suitable for External Lighting  Approval required before supply		

#### Hardwired DALI

temNo.	Sales Text	Description	Notes		
Head End and Netv	vorking				
LLE362474	Link/E2daliHE-S	Standard Head End PC	PC with basic user software		
LLE362471	Link/E2daliHE-A1	Advanced Head End PC	For use with Graphics		
LLE365375	Link/EthemetSW8PSU	8-way Network Switch	Provides connectivity to 7no ECMs		
Graphics Packages	i				
TBC	LINK/E2D/EXT-10	Graphics Package	Base Licence for 10 DALI networks		
GU000345	LINK/E2D/EXT-20	Graphics Package	Base Licence for 20 DALI networks		
GU000346	UNK/E2D/EXT-Plus10	Graphics Package	Adds additional 10 DALI networks		
DALI Control Panel	s				
LKE360363	Link/E2DaliCM/HW	E2D EQM	Provides 2no DALI networks		
LKE365376	LINK/E2DALI/950/ENC	E2D D2 ECM	Provides 4no DALI2 networks		
10 way Wiring Boxe	es .				
LLC365377	Link/DaliCC/10	LCM / Marshalling Box	10 way, 5 core pluggable box		
LC365378	Link/DaliMP/5	MalePlugforLuminaires	Powerand DALI supply		
LLC365379	Link/DaliFP/5	Female Plug for Power and DALI feed	Power and DALI luminaire feed		
•	ates and Switch Inputs	515	B		
LLD365380	Link/DaliMS2	PIRand Photocell	Recessed		
LLD365417	Link/DaliMS2/SM	PIRand Photocell	SurfaceMounted		
LLD365418	Link/DaliMW	DALI Microwave Detector	Detection range from 17-23m		
LLD365419	Link/DaliHBMS	DALI High-Bay PIR and Photocell	Max. 15m mounting height		
LLD362427	Link/DaliSP4RLO/SS	4 Scene plate with Raise/Lower and Off	White Buttons/Stainless Plate		
LLD365435	Link/DaliMIU	DALI Mini Input Unit	For momentary action switch (by others)		
LLD365436	LINK/E2DALIIU	DALI Input Unit (DIN)	For use with Fire Alarmand switch volt-free inputs		

#### On-Site Services

Commissioning, Training and Maintenance				
C517	LMS Commissioning Day	Day Rate		
C518	LMS Training Day	Day Rate		
C519	LMS Maintenance	Variable Contract Rates		

# Functionality at a Glance

#### **Glamox Connect**

Have even more control with GlamoxConnect - our user-friendly dashboard solution.
Choose our cloud-based web application to gain all the information for handling maintenance in a quick, easy and cost-efficient way.

#### Wireless Radio

A wireless solution based on 868 MHz protocol - perfect when you require easy commissioning in a challenging environment.

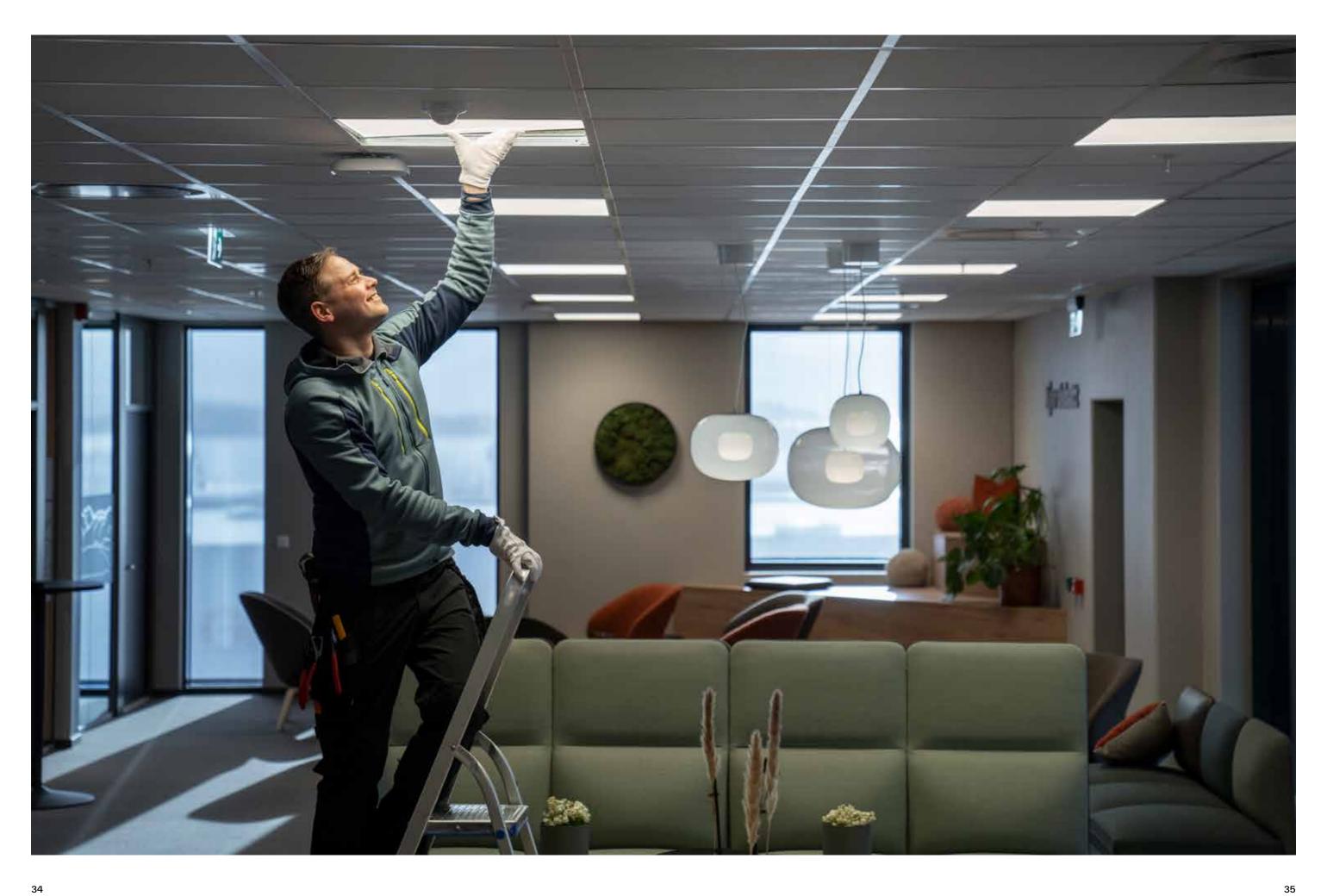
#### Ethernet2Dali

32

Our most advanced cabled solution. It's perfect if you need a scalable solution with an advanced logical module.

	Single-room			Multi-room			Building-wide		
		ON/OFF sensor	Dimmer	System sensor	DALI Complete	Wireless Bluetooth	Wireless ZigBee	Wireless Radio	Ethernet2Dali
	Switch (ON/OFF)	•	•	•	•	•	•	•	•
ツ <b>・</b>	Presence detection	•		•	•	•	•	•	•
》 <b>大</b>	Absence detection	•		•	•	•	•	•	•
	Dimming		•	•	•	•	•	•	•
	Multi-group			•	•	•	•	•	•
	Dynamic grouping							•	
**************************************	Daylight harvesting			•	•	•	•	•	•
	Neighbouring linking			•		•	•	•	•
	Tunable white		•		•	•	•	•	•
RGB	RGBW		•		•	•	•	•	•
	Human Centric Lighting				•	•	•	•	•
<u>~</u>	Energy monitoring				0			•	0
	Scheduler				•	•	0	•	•
<u> </u>	Customised user interface				•		0	•	•
	Push notification				0		0	•	0
	Central monitoring				0		0	•	0
<u> </u>	Emergency monitoring				0		0	•	•
*	Maintenance monitoring				0		0		0
	BMS integration				0		0	•	0
	Space usage analytics				0		0	•	0
	Online platform				0		0	•	0
TAPPIT.	Open API				0		0		0

Integrated in the system
33





## Glamox

Glamox is a company that develops, manufactures and distributes professional lighting solutions for the UK market. Our mission is to provide sustainable lighting solutions that improve the performance and wellbeing of people. Our local knowledge and capabilities are further enhanced by the support of the Glamox Group, which trades in more than 60 countries, operates 11 factories, and employs over 2,200 people.

#### High performance and ease of use

Our solutions are designed to combine high performance and sustainability with simplicity and ease of use, offering a superior customer experience. We make smart use of the latest technology and supply it with generations of experience and true care for our customers and their people.

#### Quality brands and dedicated support

We offer our solutions through a range of quality lighting brands. Regardless of brand, the close follow-up of each customer is at the heart of our offering. Whether in a production facility or an office building, our ambition is to provide lighting that contributes to a better life for the businesses we serve and those who work there.

Written by Phil Kett, Glamox

www.glamox.com/uk

