



GT LUX



TECHNICAL DATA SHEETS



www.guardtech.com



0330 113 0303



sales@guardtech.com



Guardian House, Unit 1A Homefield Road, Haverhill, Suffolk, CB9 8QP



DIRECTORY



Design

pg 6



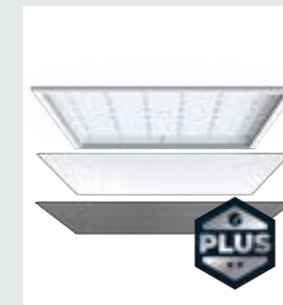
GT Lux Max

pg 8



GT Lux Pro

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GT Lux Plus

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GT Lux Lite

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GT Lux Fire

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DALI Controls

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Comparisons

pg 30

GT LUX CLEANROOM LIGHTING



Guardtech offer a range of lighting solutions to best suit the needs of your application. Whether it's budget, lead time or performance that matters most, Guardtech provide a comprehensive choice of lighting options to ensure your process requirements are achieved.

Whether it's a more economical entry-level LED panel you prefer, all the way up to a top-end DALI SmartScan lighting management system, the Guardtech Group's Directors, Design Engineers and Installation team have worked together to carefully select four industry-leading lighting options for your consideration.

Read on to discover the benefits and compromises of the different choices we have, then use this guide to make the most informed lighting choice possible.

Let Guardtech take your operation to the next level.



LUX MAX

GT Lux Max is Guardtech's elite-level lighting solution – a dual access walk-on luminaire that delivers high performance for applications requiring the most stringent operating conditions and levels of control.



LUX PRO

GT Lux Pro is a high-quality and robust recessed LED luminaire that offers outstanding levels of performance, making it an ideal choice for more demanding applications seeking an economical, long-life solution.



LUX PLUS

GT Lux Plus is Guardtech's intermediate-level lighting solution – a high-quality backlit LED panel that features a bespoke aluminium frame specially engineered by Guardtech to allow a recessed installation.



LUX LITE

GT Lux Lite is the Guardtech Group's entry-level controlled environment lighting solution – an economical yet relatively high-performance backlit LED panel that is surface-mounted in a powder-coated steel frame.



LUX FIRE

GT Lux Fire is Guardtech's fire-rated lighting solution – a high-quality recessed LED luminaire with a corrosion-resistant, zinc-coated steel body that meets the requirements of Zone 1 hazardous areas.



LUX TEAR

GT Lux Tear is the Guardtech Group's teardrop LED lighting solution – a highly efficient and aesthetically pleasing streamlined oval-shaped luminaire that is ideal for environments with laminar airflow.

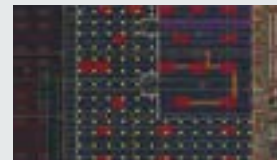


DESIGN CLEANROOM LIGHTING



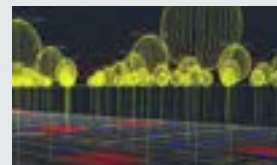
Each and every luminaire is manufactured in an ISO 13485 certified facility within an ISO7 cleanroom, where the production process is conducted to the highest standard, including disinfection of particular specialist components.

Prior to manufacturing, a detailed design phase is conducted to establish the correct luminaire type and the optimal sizing and layout to deliver the performance specification required by the end user, ensuring suitability for the environment and the application.



Customer and project requirements

STAGE 1: General arrangement layout with proposed distribution of luminaires. Detailed plans with sections, cuts and ceiling typology. Functions, ambience, experience, sensations, levels and creation of environments. BIM methodology.



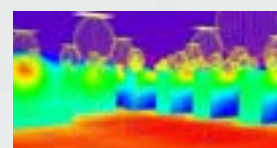
Lighting consultation, conceptualisation and project development

STAGE 2: Initial sketch of the lighting study. Plans with proposed location of luminaires. Lighting study and detailed lighting calculations to establish lux levels and uniformity. 3D modelling also available.



Presentation and delivery of the project

STAGE 3: Lighting levels represented in false colours. Luminaire location plan (PDF and CAD). Technical data sheets of applied products. Control and Smart Lighting services: Creation of groups and scenes, location of sensors, sketches and electrical diagrams, configuration.

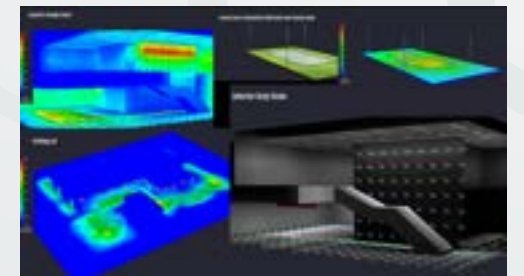
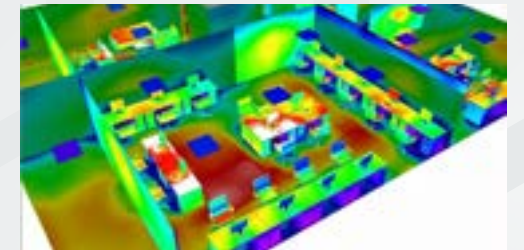


Technical support and aftercare

STAGE 4: Lighting simulation result of the final project. Follow-up of work and supervision of the installation and configurations. Maintenance and repairs. Programming and commissioning of regulation and control systems.

COLOUR INDEX

Specific colours and wavelengths can be requested to protect products such as sensitive electronic components, as well as illuminating environments to enhance aesthetics or create certain ambience.



LIGHT

Colour temperature

From warm to cool, can reproduce the colour of natural light or provide high intensity stark white light. Drivers can also provide a tunable white to adjust temperature throughout the course of a day.

Colour rendering

Reproduces the real colours of an object. Specific colours can be incorporated to suit industry requirements, such as yellow for Semiconductor or red for animal labs.

Lumen

The amount of visual light emitted is especially important in medical applications where high through-puts are needed in critical areas such as surgery.

Diffuser

Gives a wide choice to control the emission and protect the fitting against dust and moisture, especially important in industry requiring high level of cleanliness.

Optic

The way the light is directed, managing reflections to ensure most of the light is focused where it is needed most.

Emission

Optimising light output to achieve best performance comfort and wellness. Direct, indirect and up and down.

GEAR

Control

On/off switch, PIR motion detector sensor, dimmer switch, DALI control system.

Endurance

For particularly harsh environments the internal components can be upgraded to a hard-wearing finish.

Emergency

Battery back-up for emergency power loss situations.

Sensors

Interaction in real time between lighting and application environment.

BODY

Size

Dimension adjusted to specific project.

Material

Sheet steel, stainless steel
Protection: IP, IK.

Finishing

Standard RAL 9016 white colour, any other RAL colour on request. Special luminaires coatings: antibacterial – crucial for high degree cleanliness rooms and anti-reflective – recommended for operating theatres where a laser light beam is used.

Installation

Installation in suspended ceilings with modular structure, in panelled ceilings, directly on the fixed ceiling.

Luminaires can be adapted to different types of ceilings with different module sizes. Suitable for installation in technical ceilings where lighting maintenance can be carried out directly without entering the room, which is particularly important in cleanrooms.



GT LUX MAX

GT Lux Max is Guardtech's elite-level lighting solution – a dual access walk-on luminaire that delivers high performance for applications requiring the most stringent operating conditions and levels of control.

The GT Lux Max dual access luminaire is specifically designed for use in cleanrooms that require the tightest control and most stringent operating conditions – including Pharmaceutical, Biotechnology, Life Sciences and Healthcare applications operating under cGMP regulations.

GT Lux Max's unique design integrates seamlessly into composite panel ceilings and provides walk-on protection, thus safeguarding personnel working above the cleanroom's ceiling.

The luminaire has both a removable front and a removable lid to facilitate maintenance from both sides of the ceiling – allowing both roomside and rear access change.

With safety paramount in mind, GT Lux Max removes potential trip hazards and the risk of falls from height, whilst also eliminating any need for frames, cages or barriers that are often installed on top of non-walkable luminaires.

The luminaire is tested to BS 6399-1:1996 and features a minimum concentrated load of 0.9kN, as recommended for accidental walk-on protection, with a uniform distribut-



ed load of 2.5kN/m². The advanced LED technology results in superior heat dissipation with a world-class performance. Thanks to a system efficacy delivering 156 LL/CW com-

bined with an L90/B10 service life of 50,000 hours, this luminaire offers market-leading performance which significantly reduces the lifetime cost of ownership.

IP65

WARRANTY
5YR

LED

EN
60598

ISO 5
Class 100

BS
6399:1



PRODUCT FEATURES

Material

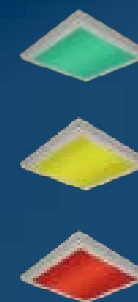
- Housing: 1.5 & 1.2mm CRS with high-performance polyester powder-coated finish
- Reflector: High-reflectance coating
- Diffuser: Impact-resistant opal polycarbonate
- Gasket: Silicone non-aging gasket

Specification

- IP65/64 Ingress protection
- Loading: Tested to BS 6399-1: 1996
- Lifetime: 50,000 hours L90/B10
- Ambient temperature range: -20C to 35C
- Emergency version: 5C to 35C
- Maximum system efficacy: 156 LL/CW
- Standard model CRI >80+ : 4800K

Options

- Emergency battery pack
- 304 or 316 Stainless steel
- Toughened glass
- Twin switching
- Dual access
- Through Access
- Narrow-Spectrum Lighting (right)



Electrical

- Rated supply voltage 220-240V, 50-60Hz with replaceable electronic constant-current LED driver.
- Terminal block: Screwless three pole (standard version)
- Cable glands: IP65

Features

- Fully-welded construction
- Detachable gear tray
- LED Energy-saving technology
- Anti-bacterial powder coatings
- High-Durability Paint (HDP)

BENEFITS

- Walk-on functionality – specially engineered to be a safe solution for void travel
- Developed for panel ceilings
- Dual access – removable front and lid
- Relatively long-life lighting solution
- Superior heat dissipation performance
- Anti-bacterial powder coatings

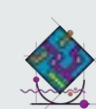
COMPROMISES

- Most expensive solution in the range
- Potentially longer lead times than other GT Lux lighting options
- Only suitable for T56 ceiling grid systems

APPLICATIONS



Pharmaceuticals



Semiconductor



Graphene



Cell & Gene



Battery



Laser & Optical



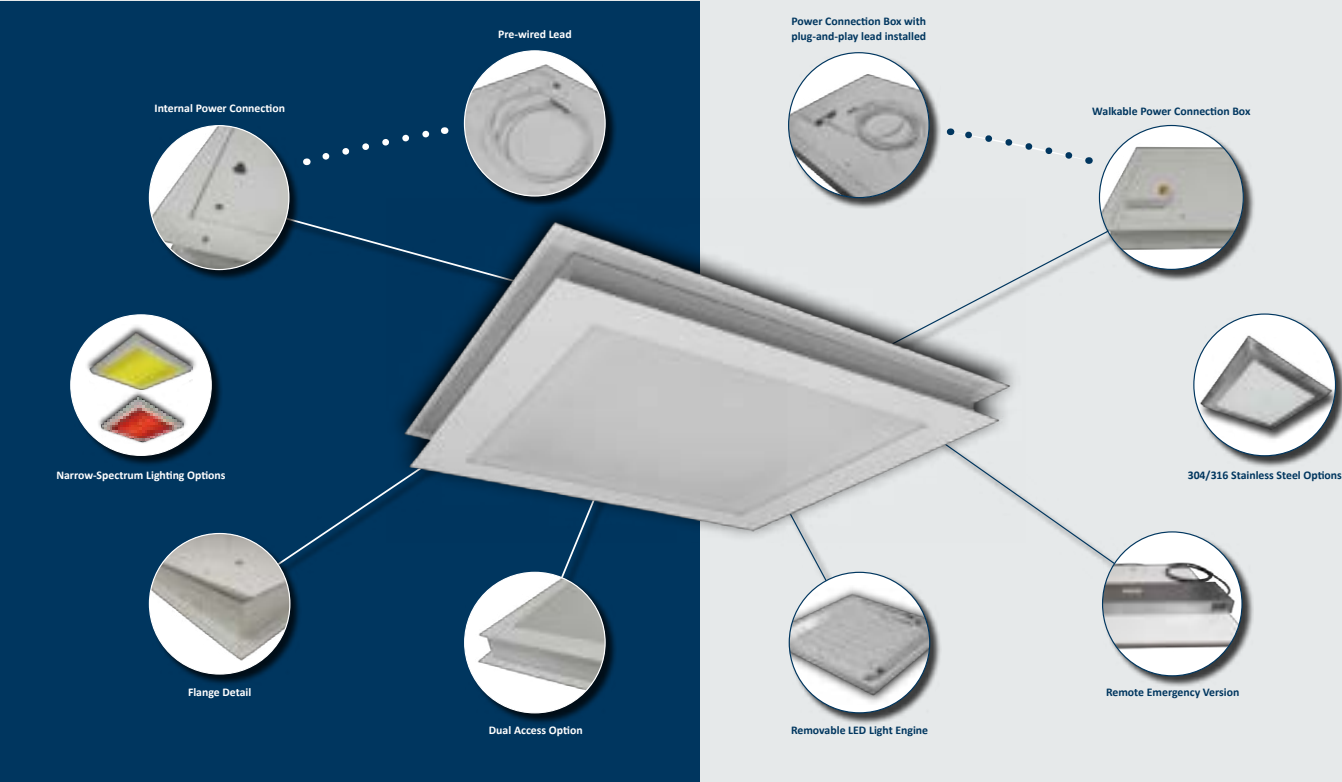
Containment

GT Lux Max is designed for applications where walk-on ceiling access is required, allowing for rear-side maintenance, ensuring minimal disruption within your controlled environment. GT Lux Max is the only range of luminaire from the Guardtech Group that is compatible with the wireless SmartScan control system.



GT LUX MAX

KEY PRODUCT FEATURES



TECHNICAL DATA						
Nominal Dimensions	Max. Ambient Temp 2 (°C)	Voltage (VAC)	Lumen Output 1 (lm)	Power Consumption 3 (W)	System Efficacy (lm/W)	Emergency Lumen Output Range (lm)
600mm x 600mm	35	220-240	3065	19.62	156.20	140-630
600mm x 600mm	35	220-240	3355	21.58	155.44	140-630
600mm x 600mm	35	220-240	3926	25.51	153.92	140-630
600mm x 600mm	35	220-240	4485	29.43	152.39	140-630
600mm x 600mm	35	220-240	5302	35.32	150.11	140-630
600mm x 600mm	35	220-240	6854	47.09	145.54	140-630
600mm x 600mm	35	220-240	8572	59.52	144.02	140-630
600mm x 600mm	35	220-240	10439	73.26	142.50	140-630
600mm x 600mm	35	220-240	11744	82.41	142.50	140-630
1200mm x 300mm	35	220-240	3642	23.55	154.68	140-630
1200mm x 300mm	35	220-240	5302	35.32	150.11	140-630
1200mm x 300mm	35	220-240	6854	47.09	145.54	140-630
1200mm x 300mm	35	220-240	9139	62.79	145.54	350-630

1 Lumen outputs are for opal diffuser. Lumen outputs for other options available upon request.
2 Ambient temperature range for integral emergency battery pack: 5°C to 35°C.
3 Tolerance range for lumen values and electrical data: ± 7.5%.

CONSTRUCTION

- Fabrication: 1.5mm Z-profile and lid, and 1mm lens frame in CRS. Welded construction with a durable polyester powder-coat finish - 5 step pretreatment. Salt spray test 1,000 hours.
- Optics: High impact resistant Makrolon® opal polycarbonate diffusers with high light transmission and excellent lamp hiding providing a uniform appearance.
- Gasket: Silicone gasket seals to lid and VHB adhesive bonding diffuser to front frame.



TECHNICAL DATA

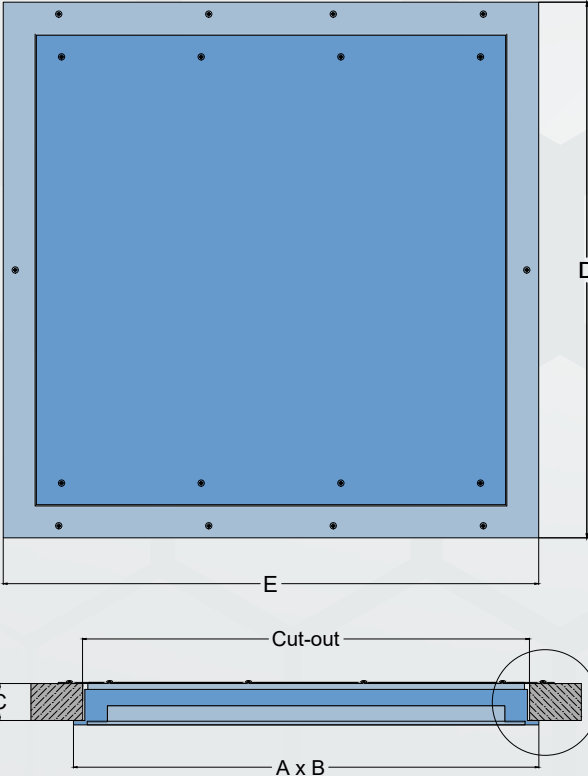
DUAL ACCESS

The luminaire has both a removable front and a removable lid to facilitate maintenance from both sides of the ceiling. The lid fasteners must be removed from above the ceiling so this fixture does not facilitate through access from the room side.

LOAD TESTING

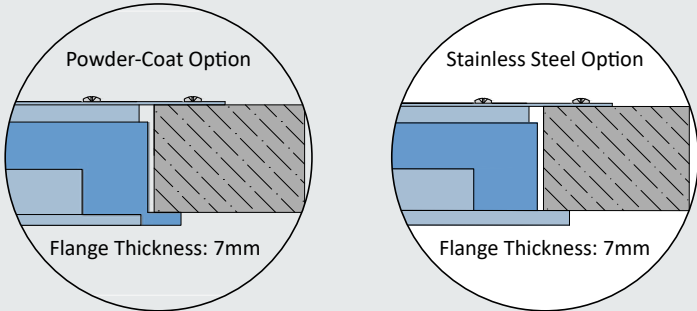
Luminaire tested to BS 6399-1:1996. Minimum concentrated load of 0.9kN as recommended for accidental walk-on protection. Uniform distributed load 2.5kN/m2.

WEIGHT: 600x600mm – 50mm depth: 17.2kg
WEIGHT: 600x600mm – 100mm depth: 18.8kg
WEIGHT: 1200x300mm – 50mm depth: 18.1kg
WEIGHT: 1200x300mm – 100mm depth: 19.6kg



DIMENSIONS					
A	B	C	D	E	Cut-Out
630mm	630mm	50mm*	671mm	671mm	605mm x 605mm
359mm	1040mm	50mm*	400mm	1081mm	1015mm x 333mm

INSTALLATION DETAIL



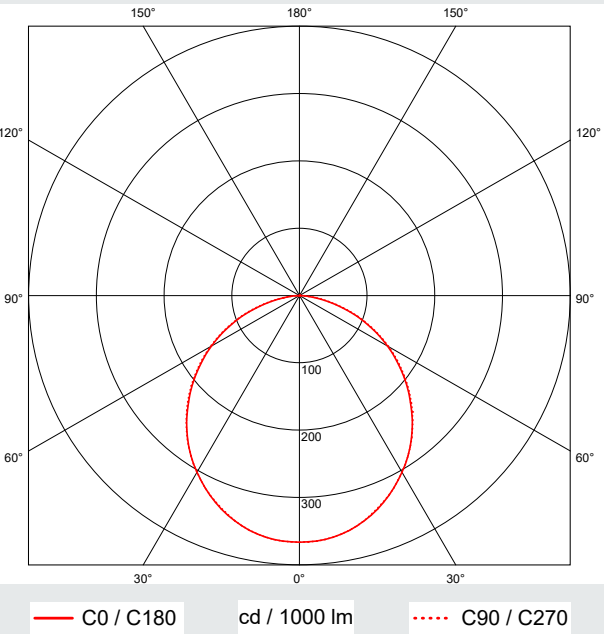
Top Cable Entry

Top Cable Entry

*Luminaires available in a range of thicknesses from 50 - 200mm to suit panel thickness

LED SPECIFICATIONS	
Efficiency	142 - 156 LL/CW
Lumen Maintenance	L90/B10 @ 50,000 hours
Life Expectancy (L70)	100,000 hours
Colour Rendering (Ra)	80+
Colour Temperature	4800K
Colour Consistency	3 SDCM

PHOTOMETRIC DATA





GT LUX PRO

GT Lux Pro is a high-quality and robust recessed LED luminaire that offers outstanding levels of performance, making it an ideal choice for more demanding applications seeking an economical, long-life solution.



The GT Lux Pro recessed luminaire LED delivers outstanding levels of performance, surpassing key criteria for even the most sensitive clean-rooms.

It is easy to clean, with concealed stainless steel screws behind tightly capped fixing holes creating a smooth finish. Optional access panels provide entry through the luminaire to the ceiling void.

Its recessed design makes GT Lux Pro suitable for cGMP applications. However, unlike GT Lux Max, it does not offer superior walk-on capability.

Advanced LED technology provides superior heat dissipation, supporting operation and world-class lighting performance.

With a system efficacy of 156 LL/CW and an L90/B10 service life of 50,000 hours, the luminaire delivers market-leading performance while significantly reducing lifetime ownership costs.

Designed for installation into both modular grid ceiling systems and non-modular ceilings such as composite panel and plasterboard ceilings. In-



stallation options include suspension brackets for threaded rods and swing-out side-arm brackets adjustable from beneath the ceiling.

Ingress Protection: Dual-rated to IP65

at the front and IP64 at the rear, providing protection against dust and water within controlled environments.

Photometrics: Tested to IESNA LM-79-08 and EN13032:1 standards.

IP65

WARRANTY
5YR

LED

EN
60598

ISO 5
Class 100

L90
B10



PRODUCT FEATURES

Material

- Housing: 1mm CRS with polyester powder-coated finish
- Reflector: High reflectance coating
- Diffuser: Impact resistant opal polycarbonate
- Gasket: Silicone non-aging gasket

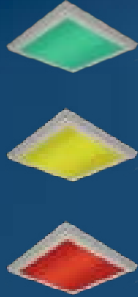


Specification

- IP65/64 Ingress protection
- Lifetime: 50,000 hours L90/B10
- Ambient temperature range: -20C to 35C
- Emergency version: 5C to 35C
- Maximum system efficacy: 156 LL/CW
- Standard model CRI >80+ : 4800K

Options

- Emergency battery pack
- 304 or 316 Stainless steel
- Toughened glass
- Twin switching
- Access panels
- Narrow-Spectrum Lighting (pictured right)



Electrical

- Rated supply voltage 220-240V, 50-60Hz with replaceable electronic constant-current LED driver.
- Terminal block: Screwless three pole (standard version)
- Cable glands: IP65

Features

- Fully-welded construction
- Detachable gear tray
- LED Energy-saving technology
- Anti-bacterial powder coatings
- High-Durability Paint (HDP)

BENEFITS

- Front access capability
- Smooth recessed finish suitable for GMP environments
- Suitable for Spring Tee ceiling systems
- Suitable for T25 ceiling grid systems
- Manufactured from corrosion-resistant steel
- Durable epoxy/polyester powder-coat finish

COMPROMISES

- Does not support walk-on functionality
- Potentially longer lead time than GT Lux Plus and Lite
- Not advisable for panelled ceiling systems

APPLICATIONS



Medical Device



Healthcare



Oil & Gas



Cell & Gene



Battery



Laser & Optical

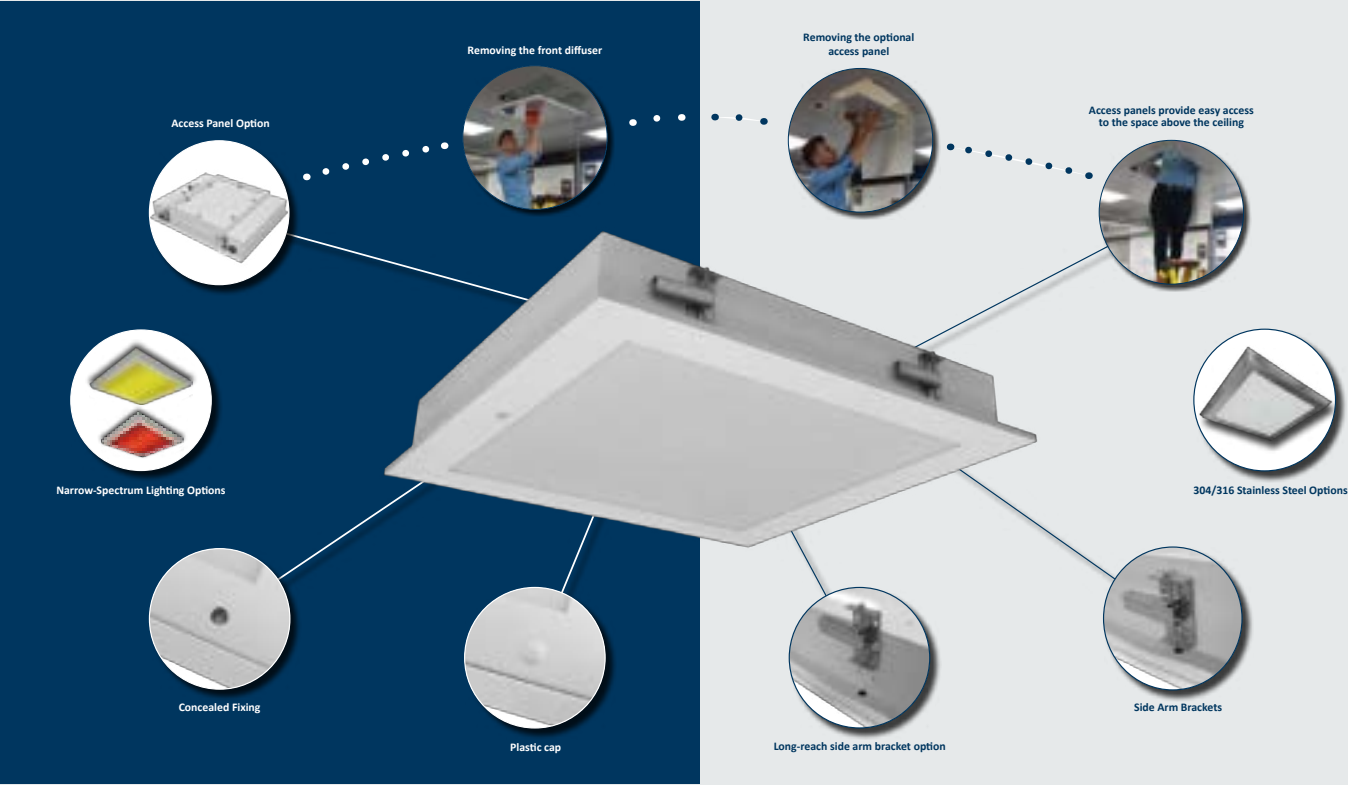
GT Lux Pro cleanroom lighting suits a wide variety of applications in a diverse range of sectors. Whilst they may not feature the same high-spec DALI system as standard that GT Lux Max adopts, performance-wise the LEDs are every bit as durable and effective.



GT LUX PRO

KEY PRODUCT FEATURES





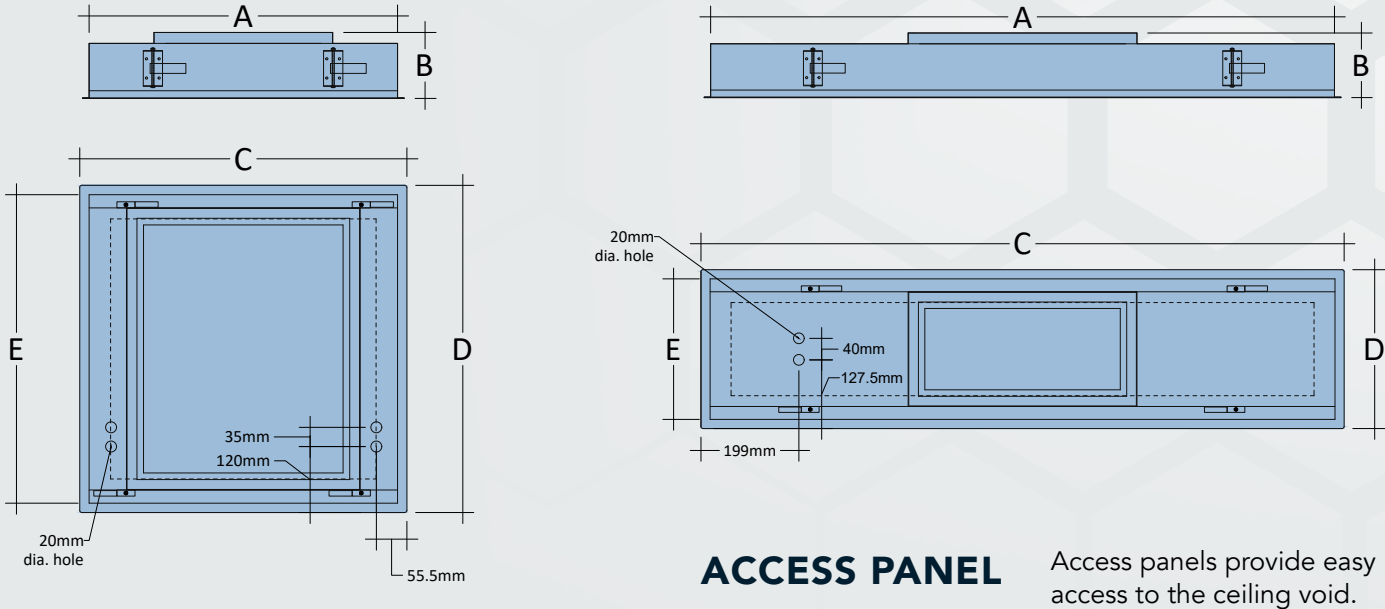
TECHNICAL DATA						
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600mm x 600mm	35	220-240	8572	59.52	144.02	140-630
600mm x 600mm	35	220-240	10439	73.26	142.50	140-630
600mm x 600mm	35	220-240	11744	82.41	142.50	140-630
1200mm x 300mm	35	220-240	3642	23.55	154.68	140-630
1200mm x 300mm	35	220-240	5302	35.32	150.11	140-630
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1200mm x 300mm	35	220-240	9139	62.79	145.54	350-630

1 Lumen outputs are for opal diffuser. Lumen outputs for other options available upon request.
2 Ambient temperature range for integral emergency battery pack: 5°C to 35°C.
3 Tolerance range for lumen values and electrical data: ± 7.5%.

CONSTRUCTION

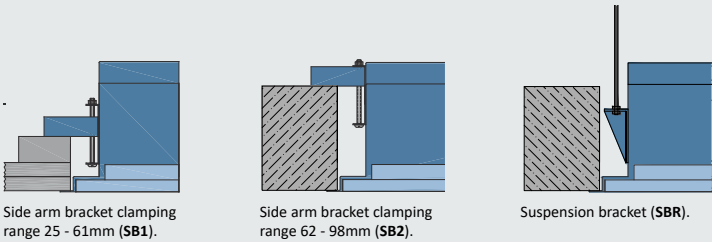
- Fabrication: 1mm housing and frame from CRS. Welded construction with a durable polyester powder-coat finish – 5 step pre-treatment. Salt spray test 1,000 hours.
- Optics: High impact resistant Makrolon® opal polycarbonate diffusers with high light transmission and excellent lamp hiding providing a uniform appearance.
- Gasket: Silicone gasket seals and VHB adhesive tape bonding the diffuser to the front frame.

TECHNICAL DRAWINGS



DIMENSIONS						
A	B	C	D	E	Access Panel	Cut-Out
561mm	120mm	595mm	595mm	561mm	450 x 360mm	566 x 566mm
1161mm	120mm	1195mm	295mm	261mm	150 x 360mm	1166 x 266mm

INSTALLATION DETAIL*

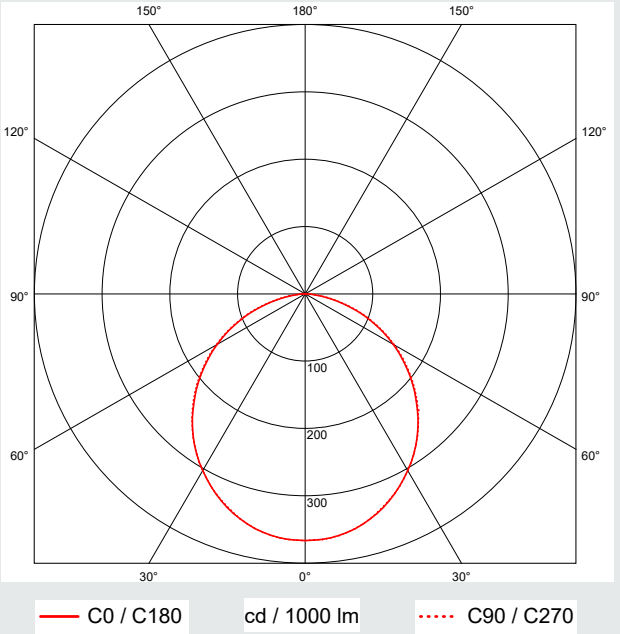


WEIGHT: 600x600mm: 11.7kg
WEIGHT: 600x600mm with toughened glass & opal: 14.3kg
WEIGHT: 1200x300mm: 12.4kg
WEIGHT: 1200x300mm with toughened glass & opal: 14.7kg

LED SPECIFICATIONS	
Efficiency	142 - 156 LL/CW
Lumen Maintenance	L90/B10 @ 50,000 hours
Life Expectancy (L70)	100,000 hours
Colour Rendering (Ra)	80+
Colour Temperature	4800K
Colour Consistency	3 SDCM

*Installation Detail Note: Side arm brackets are adjusted from roomside of the cleanroom.

PHOTOMETRIC DATA





GT LUX PLUS

GT Lux Plus is Guardtech’s intermediate-level lighting solution – a high-quality backlit 600 x 600mm LED panel featuring a bespoke Sealwise frame specially engineered to allow for a recessed installation.



Bespoke GT Lux Plus 2 Frame

GT Lux Plus is the Guardtech Group’s intermediate lighting solution, engineered to deliver exceptional clarity, efficiency and reliability for cleanroom applications.

The technology utilises an IP54 LED Back-Lit Panel Luminaire, providing bright, uniform illumination with low energy consumption and long-lasting performance.

What elevates GT Lux Plus above standard fixtures is its bespoke Sealwise recessed frame, precision-designed by Guardtech to integrate seamlessly into controlled environments.

Sealwise WCB (Waterproof Construction Board) is a high-performance, PVC-based sheet material designed as a waterproof, hygienic alternative to traditional wood-based boards.

Made from recycled PVC-U with a tough PVC outer skin, it is fully waterproof, highly durable and resistant to chemicals, swelling and rot, making it ideal for wet or hygiene-critical environments. This unique housing enables users to easily and seamlessly replace the LED panel from within the cleanroom, preserving your controlled environment’s operational integrity.

Combining high-quality lighting with hygienic, maintenance-friendly design, GT Lux Plus offers the perfect balance of performance and practicality.

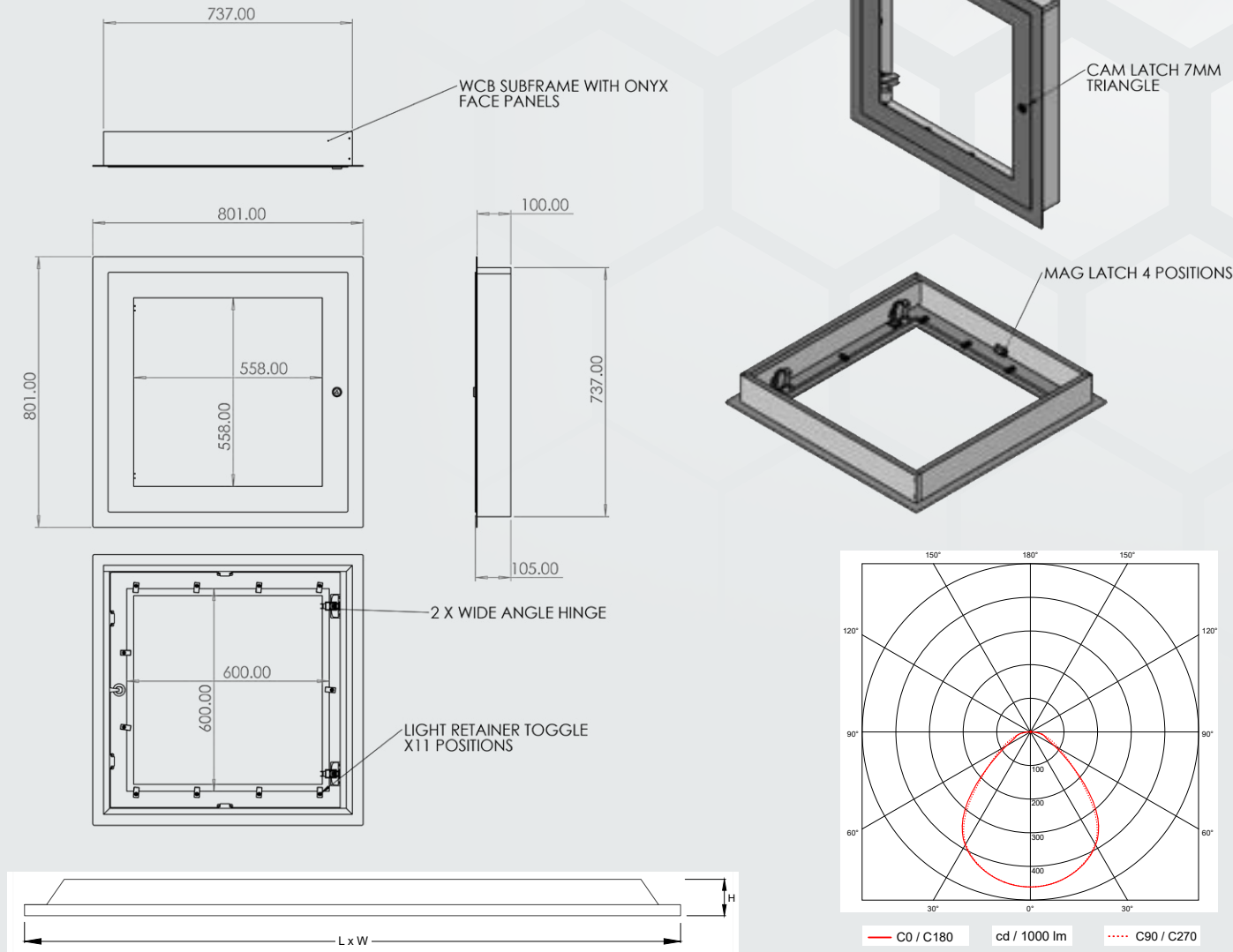
For facilities seeking dependable, compliant illumination without compromising cleanliness or operational uptime, GT Lux Plus stands as a robust, forward-thinking solution.

600x600mm LED

SEALWISE PANEL INFORMATON	
Subframe	Sealwise WCB
Face Panels	ONYX (provides lifelong anti-bacterial protection)
Opening Mechanism	2 x wide angle hinges for enhanced access
Closing Mechanism	CAM latch (7mm triangle)
Retention Points	Incorporates MAG Latch with four positions



TECHNICAL DRAWINGS



TECHNICAL FEATURES

IP54

WARRANTY 5YR

LED

140 Lm/W

CE

L80 B10

LED TECHNICAL INFORMATION	
Wattage	22-40W
Lumens Delivered	3100-5400lm
Lm/W	115lm/W
CCT Range	2200-6500K
Input	220-240VAC, 50-60Hz electrical input with replaceable electronic constant current driver
Ambient Operating Temp	-5°C - 35°C
Casing	Sheet steel
UGR	19 – low glare TP(a) rated diffuser
Cut-Out Size	595x595mm

LED TECHNICAL INFORMATION	
Light Source	LED
Colour / Finish	Powder-coated white
IP Rating	IP54* [*without testing]
Max Ambient Temperature	+40°C
Internal / External	Internal
Surface / Recessed / Suspended	Ceiling, Recessed
Standard Colour Temperature	4000K
Warranty (Years)	5
CE Mark	Yes
Height	32mm
Product Weight without Packaging	2kg



GT LUX PLUS



1200x600mm LED PANEL

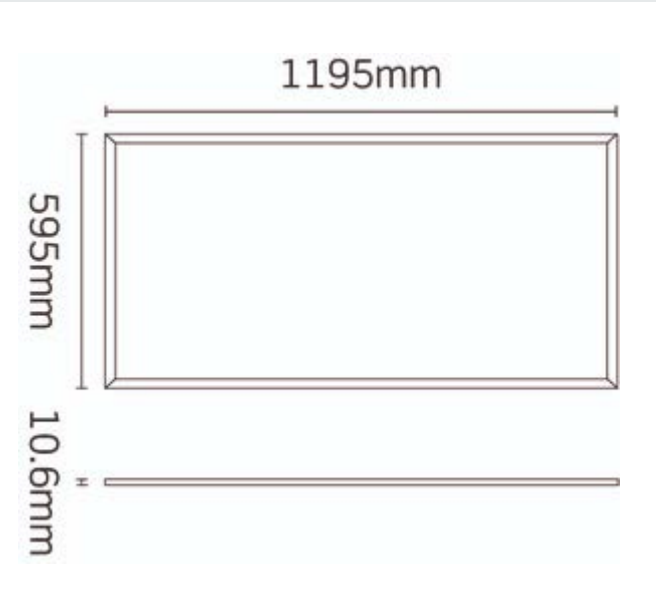
The GT Lux Plus 1200 x 600mm LED Panel is a premium lighting solution engineered for demanding cleanroom environments where reliability, hygiene and visual comfort are essential. Delivering 48W of efficient, uniform illumination at a crisp 4000K, it provides excellent colour clarity and low-glare performance, supporting precise

visual tasks while enhancing overall room comfort.

Designed with a Tp(a) fire rating and a low UGR for controlled luminance, this panel ensures compliance with strict cleanroom standards. The combination of Sealwise hatch and LED construction minimises dust ingress and enables easy wipe-down maintenance.

Like the 600x600mm version, this LED panel integrates seamlessly into Guardtech's bespoke Sealwise hatch frames, enabling smooth in-room change functionality without compromising environmental integrity. The result is a robust, hygienic and efficient lighting system that enhances workflow, simplifies cleaning procedures, and maintains the controlled conditions critical to high-performance cleanrooms.

TECHNICAL DRAWINGS



LED TECHNICAL INFORMATION	
Overall Dimensions	595 x 1195 x 10.6 mm
Light Source Features	Neutral White
IP Rating	IP44
Warranty	5 years (2 years on site)
Voltage	200-240
Primary Running Current (Amp)	0.35
Operating Temperature Range °C	-20 to +40
LED Life (Hours)*	54,000
Energy Rating	Light source energy efficiency Class F
Lumen Output	4800
Correlated Colour Temperature	4000K
Beam Angle °	90
Primary Construction Material	Aluminium
Driver Housing	Polycarbonate



600 x 600m LED PRODUCT FEATURES

- Backlit LED panel suitable for a variety of applications
- Advanced LED technology results in superior heat dissipation with a system efficacy of up to 140 LL/CW and a luminaire lifetime of L80/B10 at 50,000 hours
- Utilises bespoke Sealwise hatch made from recycled PVC-U – fully waterproof, highly durable and resistant to chemicals. Can also be recycled
- IP54 ingress protection
- LED lifetime: L80/B10 at 50,000 hours
- Optional DALI driver available as an upgrade
- Includes emergency battery pack as standard

BESPOKE FRAME



1200 x 600m LED PRODUCT FEATURES

- Meets TP(a) requirements, suitable for all applications
- UGR <19 as standard, designed to comply with BS EN 12464-1 lighting of workspace
- Ultra efficient 100LpcW DALI/1-10V and DSI Dimming versions available
- IP44 protection against dust and moisture
- Comes with non-dimmable flicker free driver as standard
- Suitable for use with JCEM002 and JCEM002ST emergency remote packs
- Contains a light source of energy efficiency class F
- Utilises bespoke Sealwise hatch made from recycled PVC-U – fully waterproof

BENEFITS

- Recessed frame means it can be utilised effectively in GMP controlled environments
- Specially engineered hatch for simple in-room change/maintenance of LED panel
- Sealwise hatch boasts strong anti-microbial properties and resistance to cleaning chemicals
- More cost-effective solution than GT Lux Max and Pro LED options

COMPROMISES

- No supporting DALI system as standard
- Less sophisticated and robust LED construction compared to GT Lux and Pro solutions – and no Narrow Spectrum Lighting option
- Not as cost-effective as more basic GT Lux Lite LED lighting panel solution

APPLICATIONS



GT Lux Plus is a versatile cleanroom lighting solution suitable for a significant number of different industries using controlled environments as part of their process. This recessed option allows for a more flush finish if required.



GT LUX LITE



GT Lux Lite is the Guardtech Group’s entry-level controlled environment lighting solution – an economical yet relatively high-performance backlit LED panel that is surface-mounted in a powder-coated steel frame.

GT Lux Lite is the Guardtech Group’s entry-level controlled environment lighting solution – an economical yet relatively high-performance backlit LED panel that is surface-mounted in a powder-coated steel frame.

Available in 600x600mm sizing, with multi-wattage and CCT options, GT Lux Lite is designed to be suitable for a wide range applications, providing superior glare control and energy efficiency performance.

The LED’s slimline design ensures ease of installation in shallow ceiling voids.

GT Lux Lite boasts a Unified Glare Rating of UGR<19 for optimal visual comfort for cleanroom operators.



GT Lux Lite’s standard colour temperature is 4000K and the LED features power selectable Dimmable and OCTO compatibility for flexible control. Switch Dim, DALI, and 0-10V dimming options are also available. The LED is also TPa rated, ensuring safety standards are met and it’s compatible with Self-Test Panel Pod and Sensor Pods.

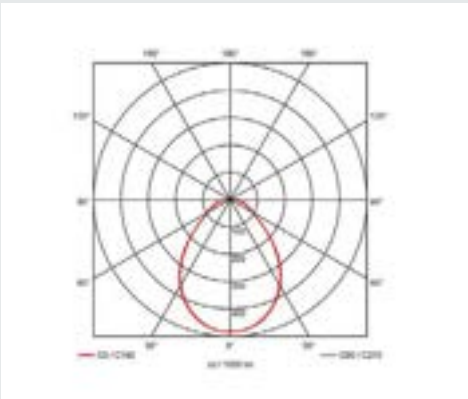
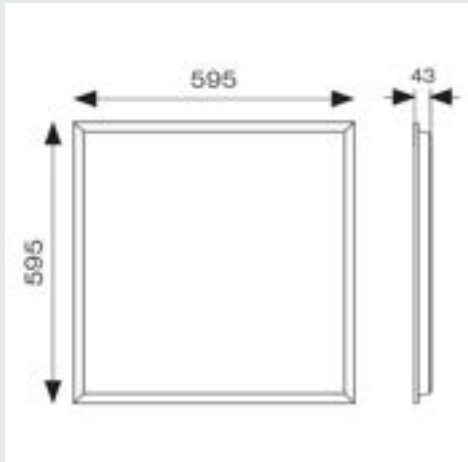
TECHNICAL FEATURES

GENERAL INFORMATION	
Wattage	12W - 18W
Lumens Delivered	2100lm - 3100lm
Lm/W	180lm/W
Beam Angle	80
CRI	80
CCT	4000K
Input	220/240V
Operating Temp	-20°C - 40°C
SDCM	3
UGR	18
Cut-Out Size	585x585mm

TECHNICAL INFORMATION	
Design	Slimline
Product Weight without Packaging	2.431 kg
Light Source	LED
Colour / Finish	White
IP Rating	IP44
Class Protection	2
Internal / External	Internal
Surface / Recessed / Suspended	Ceiling, Recessed, Suspended
Lumen Depreciation	L90 52,000h
Warranty (Years)	6
CE Mark	Yes



TECHNICAL DRAWINGS



PRODUCT FEATURES

- Backlit LED panel suitable for wide range of applications
- CCT 4000K as standard
- Dimmable and OCTO options available
- Switch Dim, DALI and 0-10V dimming capability using the multi dimmable driver accessories AD-DIM/30/MC
- Slimline design allows for installation into shallow ceiling voids (typically plant rooms)
- UGR<19 (unified glare rating) compliant luminaire assisting to eliminate glare for visual comfort
- TPa as standard
- Self-Test Panel Pod and Sensor Pod compatible

BENEFITS

- Efficient, high-performance LED
- More cost-effective solution than GT Lux Max, Pro and Plus
- Readily available in larger stock quantities
- Robust LED construction
- Slimline design allows for installation into shallow ceiling voids (typically plant rooms)

COMPROMISES

- No supporting DALI system as standard
- Surface-mounted frame not suitable for GMP environments
- Less sophisticated and robust construction compared to GT Lux and Pro solutions – and no Narrow Spectrum Lighting option
- Not suitable for walk-on systems

APPLICATIONS



GT Lux Lite suits the least demanding of applications – most commonly laboratories or non-classified controlled environments.



GT LUX FIRE

GT Lux Fire is Guardtech's fire-rated lighting solution – a high-quality recessed LED luminaire with a corrosion-resistant, zinc-coated steel body that meets the requirements of Zone 1 hazardous areas.



The GT Lux Fire is a recessed LED luminaire specifically designed for use in cleanrooms and clean areas such as in the Pharmaceutical, Oil & Gas, Chemical and Process industries.

Tried and tested, the GT Lux Fire luminaire is suitable for the most sensitive of cleanrooms whilst meeting the requirements of Zone 1 hazardous areas. Suitable for both modular and non-modular applications, the GT Lux Fire is available for installation into Spring Tee, T25 Grid and Cut Aperture ceilings.

Innovation, integrity and performance are the first principles involved in the design and construction of clean, controlled and sterile environments. Innovation in design and engineered to perform, the integrity of your clean-room is guaranteed with GT Lux Fire.



IP66

WARRANTY
5YR

LED

IK10
30J

ATEX

L80
B20

TECHNICAL FEATURES

- Power Supply: 220-254V AC/DC, 50/60Hz
- Terminals: 3 core 4mm² conductors with looping and 16A rating through wiring (4 core on emergency)
- Cable Entries: 4 x 20mm clearance holes located on top, two each side
- Surge Protection: 4kV
- Insulated Ambient Temperature Range: -20°C to +45°C



CONSTRUCTION

With a fully welded construction the GT Lux Fire luminaire has a corrosion resistant, zinc coated steel body and extruded aluminium front frame with a durable polyester paint finish.



MATERIALS

- Enclosure : White polyester painted zinc coated steel body and aluminium frame. Frame colour RAL9016G
- Diffuser: Clear polycarbonate with prismatic diffuser
- Fixing Details: Side brackets with adjustable arms (solid ceilings) with provision for drop rod mounting
- Emergency Operation: 90mins (30% output)
- 3 Hour Emergency version: 3 hour battery duration (15% output)
- Battery: 6V Internal Ni-Cad (Emergency version only)



CERTIFICATIONS & APPROVALS

- Protection Type: Ex e mb q (Increased Safety, Encapsulation, Powder filling)
- ATEX Classification: Group II Category 2 GD
- Area Classification: Zone 1 and 21 areas to EN 60079-10-1 and EN 60079-10-2 with installation to EN 60079-14
- EC Type Examination Certificate: CML16ATEX3335 IECEx Certificate of Conformity: IECEx CML16.0108X
- Coding: Ex eb mb op is q IIC T4 Gb, Ex tb IIC T95°C Db IP65
- Ambient temperature range: -20°C to +40°C
- Ingress protection to IP65 to EN 60529
- SOLAS B15 Fire rating - appropriate insulation is required over the luminaire



BENEFITS

- ATEX rated option
- Meets the requirements of Zone 1 hazardous areas
- Corrosion-resistant, zinc-coated steel body
- IP66 safety rating
- Compatible with a range of grid systems
- Surge protection of 4kV

COMPROMISES

- More expensive solution than GT Lite, Plus and Pro
- Potentially longer lead times than other options
- No option for surface mounting

APPLICATIONS



Medical Device



Healthcare



Oil & Gas



Cell & Gene



Battery



Laser & Optical

GT Access Fire is a fire-rated cleanroom lighting solution that can be adopted throughout a number of different sectors where there is a concerted requirement for fire safety, either from a compliance perspective or as part of a business' wider policy and expectations.

TECHNICAL DRAWINGS



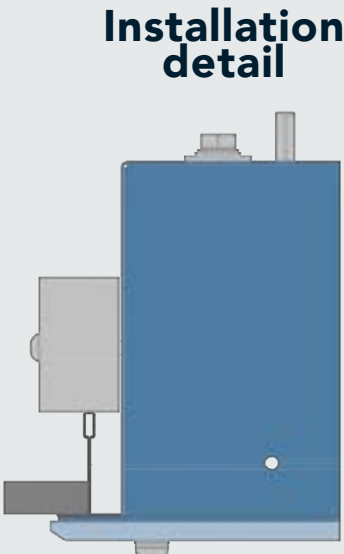
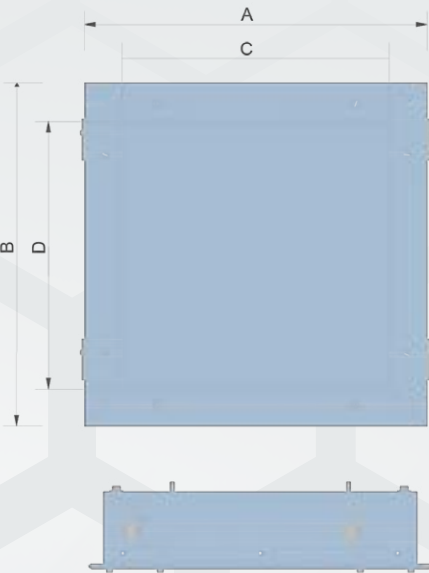
SPECIFICATIONS			
Dimensions	Lumen Output	Wattage	Weight (kg)
600 x 600	3407lm	60w	16.0

OPTIONS
Extra live termination facility (compatible with 4 core switched emergency circuits)
25mm Cable Entries
Screw Connection Terminal Block (6mm2 Conductors)
Specific Voltage (110/130V)
Geartray isolation switch

EMERGENCY OPTIONS
Integral 3 Hour Emergency
Integral 90 min Emergency

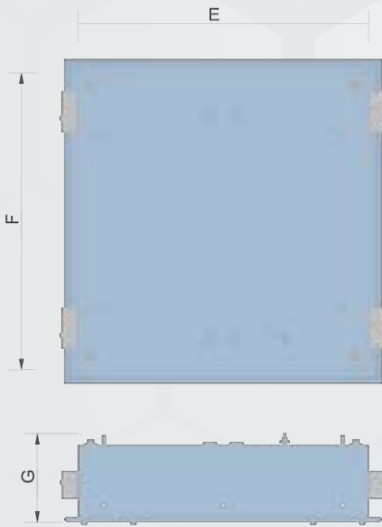
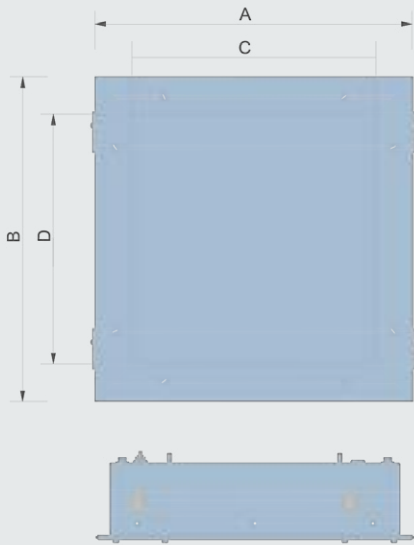
T25 GRID

COOL TEMPERATURE OPTIONS
4000K - Neutral White
6000K - Cool Daylight



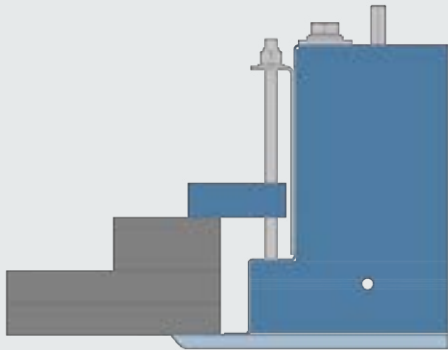
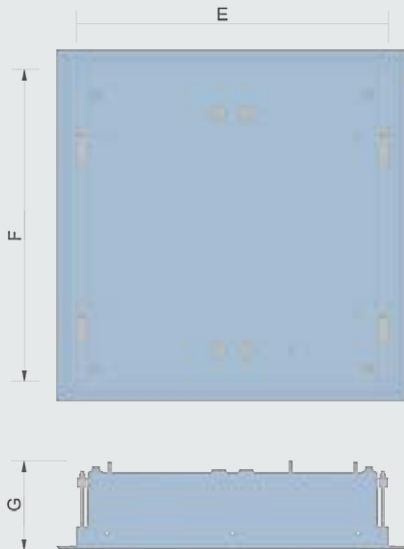
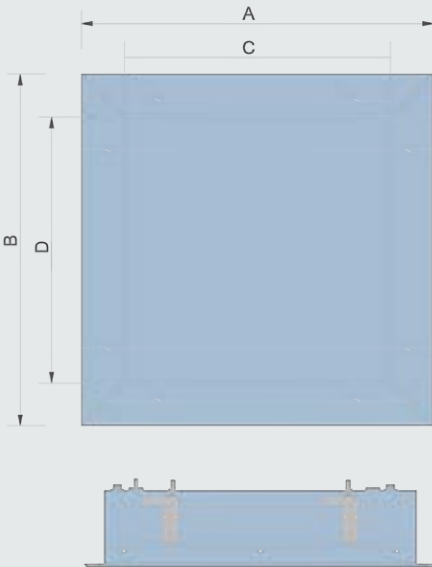
Installation detail

SPRING TEE



Installation detail

CUT APERTURE



Installation detail





GT LUX TEAR



GT Lux Tear is the Guardtech Group’s teardrop LED lighting solution – a highly efficient and aesthetically pleasing streamlined oval-shaped luminaire that is ideal for environments with laminar airflow.

GT Lux Tear is an elegant, streamlined luminaire with an oval-shaped design that makes it suitable for use in rooms where laminar flow ventilation is used.

This means that the air flowing around the luminaire or near it is less susceptible to mechanical resistance. The frosted shade is made of polycarbonate, which is resistant to mechanical damage, while the optical system ensures uniform illumination of the diffuser.

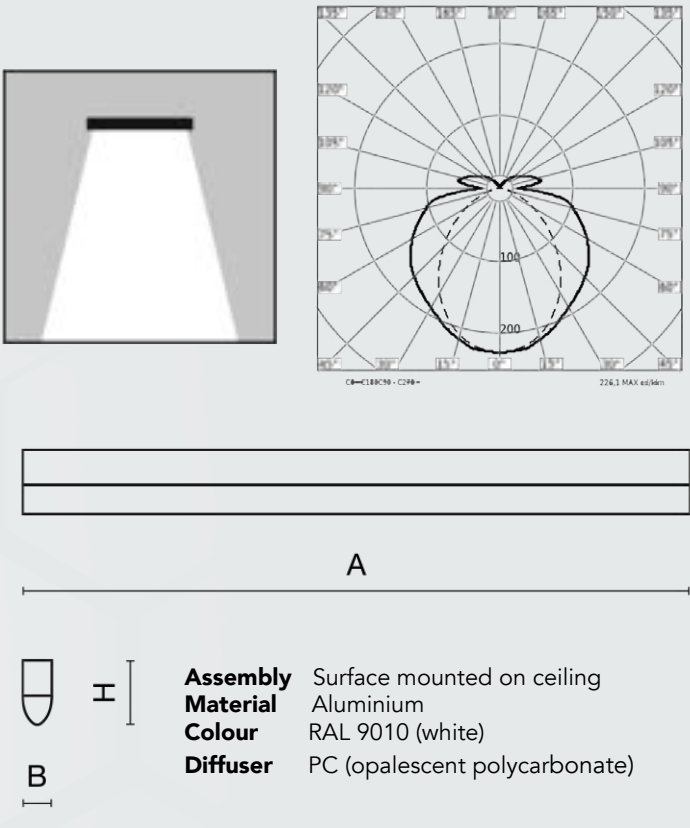
GT Lux Tear’s body is made of anodised aluminium and features high efficiency LED modules. It’s ceiling-mounted with springs so that the luminaire does not need to be opened during install.



TECHNICAL DATA

LIGHT AND ELECTRICAL DATA	
Light source	LED
Voltage	220..240 V, 50..60 Hz
Driver	Standard on/off (E) or DIM DALI (EDD)
Operating temperature range [°C]	5 ÷ 30
Power of luminaire [W]	19.2 - 73
Luminaire's light efficiency [lm/W]	29.4 - 147.2
Luminous flux LED [lm]	1650 - 5727
Lifetime of LED sources [h]	60000,100000 (1) / 147000 (2)
Lx/By	L80/B10,L80/B10 (1) / L70/B50 (2)
SDCM (LED sources) 3	(C0-C180) / (C90-C270) - 105° /104,8°
Protection against electric shock	I
Light distribution	Direct (I-down)
Beam	Flood - 60° ÷ 90°

PRODUCT INFORMATION



GT LUX TEAR PRODUCT PERFORMANCE DATA

PRODUCT NAME	DIFFUSER	COLOUR OF LIGHT [K]	DRIVER	DIMENSIONS [MM]	LUMINOUS FLUX LED [LM]	LUMINAIRE POWER [W]
LAMINAR LED 2200 PC E 24 IP44 YELLOW MONO / L-1140MM	PC (opallescent polycarbonate)	yellow colour (λp=592 nm)	standard on/off (E)	1140 x 47 x 109	2200	58
LAMINAR LED 1650	PC (opallescent polycarbonate)	yellow colour (λp=592 nm)	Z=1 / Z=3	859 x 47 x 109	1650	44
LAMINAR LED 2200	PC (opallescent polycarbonate)	yellow colour (λp=592 nm)	Z=1 / Z=3	1140 x 47 x 109	2200	58
LAMINAR LED 2750	PC (opallescent polycarbonate)	yellow colour (λp=592 nm)	Z=1 / Z=3	1421 x 47 x 109	2750	73
LAMINAR LED 3300	PC (opallescent polycarbonate)	4000	Z=1 / Z=3	859 x 47 x 109	3436	19.2
LAMINAR LED 4400	PC (opallescent polycarbonate)	4000	Z=1 / Z=3	1140 x 47 x 109	4565	24.7
LAMINAR LED 5500	PC (opallescent polycarbonate)	4000	Z=1 / Z=3	1421 x 47 x 109	5727	30.5



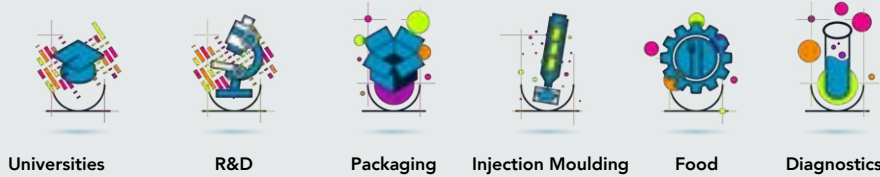
BENEFITS

- Shorter lead times than the high-spec options in the range
- Straightforward and quick to maintenance/service
- The most cost-effective solution in the GT Lux range
- Robust and reliable

COMPROMISES

- Not a flush solution – and therefore not appropriate for GMP grade environments
- More susceptible to dust and debris build-up than fully flush solutions
- Less sophisticated and robust construction compared to GT Lux and Pro solutions – and no Narrow Spectrum Lighting option

APPLICATIONS



GT Lux Tear suits the least demanding of applications – most commonly laboratories or non-classified controlled environments.

DALI SYSTEM

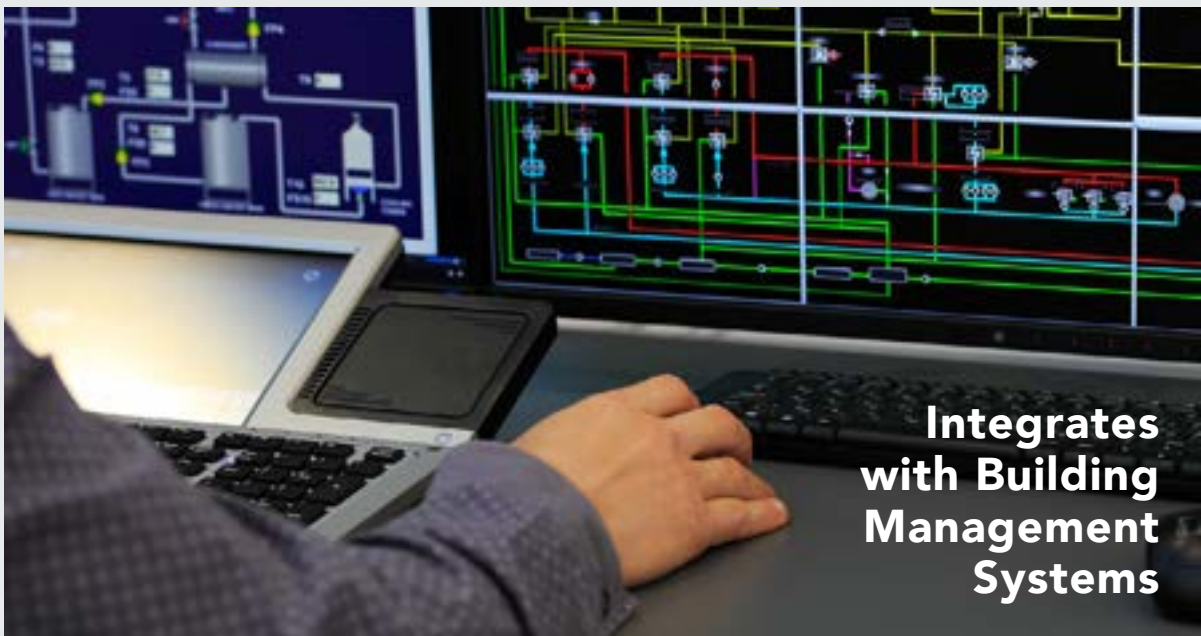
Digital Addressable Lighting Interface



DALI stands for Digital Addressable Lighting Interface and is a two-way open communications protocol to enable lighting to become smart/intelligent.

Interoperability standards and Mandatory certification to IEC62386 ensure compatibility between lighting manufacturers.

All GT Lux light fittings are compatible with DALI and this can be operated through the Building Management System (BMS), for more information please see the GT Scan Technical Data Sheet.



Flexibility

DALI allows for a wide range of lighting control options, including dimming, scene setting and daylight harvesting. This makes it a suitable choice for a variety of lighting applications. DALI enables building and facilities managers to control the lighting network remotely.

Scalability

DALI can control up to 64 lighting devices with a single control device, making it a scalable solution for large lighting installations. Can also be integrated into your own existing Building Management System (BMS) as DALI utilises open protocols.

Improved lighting quality

DALI allows for precise control of lighting levels, which can improve the overall quality of lighting in a space and enhance the user experience.

DALI allows for precise control of lighting levels, which can help reduce energy consumption and lower costs.

This intelligent lighting solution gives users the ability to increase the output to the lamps as they deteriorate over time, maintaining lighting levels and extending the life of the lamps in use in the controlled environment.



Other benefits of operating a DALI system

- Faulty lamps can be identified remotely.
- Automatic Function and Duration Testing of emergency lighting – including reporting back to BMS.
- Wiring is straightforward, a relatively high bus voltage (16V) and slow data speed (1,200 baud) mean that mains flex can be used and specialist screen cable isn't required.
- Installation and commissioning errors are minimised with a wide range of wiring topologies supported.





QUICK-LOOK COMPARISON GUIDE

FEATURES	MAX	PRO	PLUS	LITE
DALI compatible				
Walk-on capability				
Flush mounted				
Surface mounted				
Dual access functionality				
Grid mounting option				
Rear access				
Anti-bacterial powder coatings				
IP65 Protection				
Stainless steel construction option				
Narrow Spectrum Lighting option				



Guardtech



www.guardtech.com

Guardian House,
Unit 1A Homefield Road,
Haverhill, Suffolk,
CB9 8QP