Whitecroft lighting

Clean Area lighting

For healthcare and industrial applications

Lighting for Clean Areas

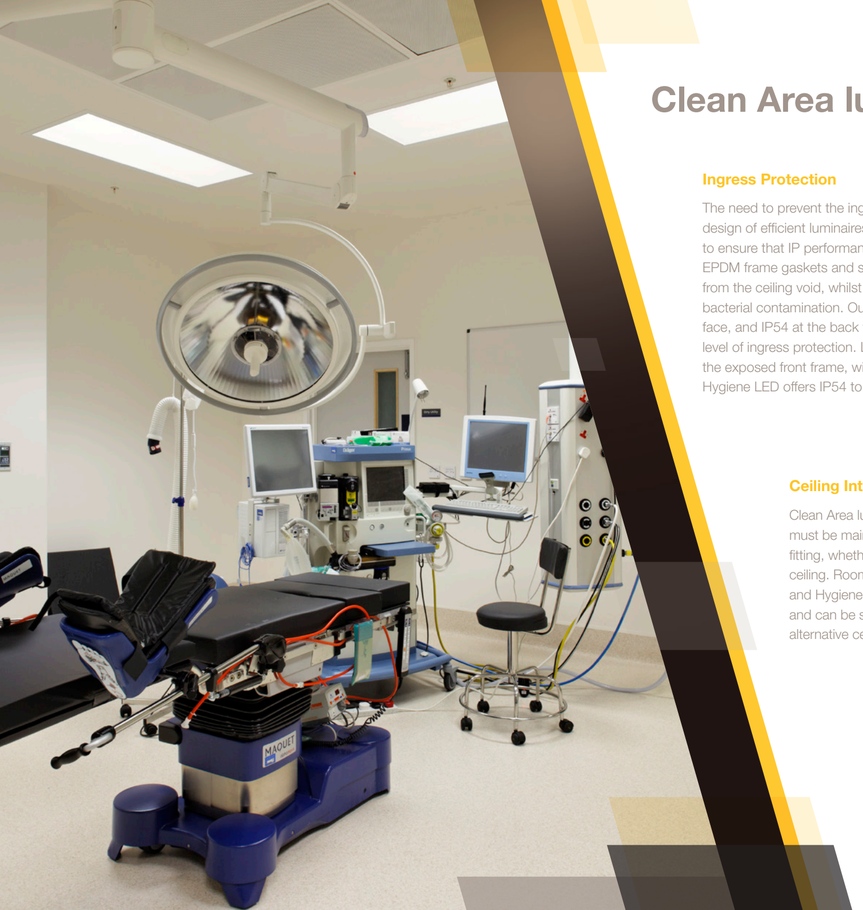
Whatever the application, Clean Area luminaires share a number of important features. Protection from the ingress of dust and liquids is paramount, but the degree of protection required can vary depending on the needs of the space. Luminaires must also be easy to clean and maintain, without harbouring dust and dirt. Whilst these requirements are at the forefront of Clean Area luminaire design, lighting quality should not be sacrificed in pursuit of these goals.

Specialist Applications

Clean Area luminaires are used in a variety of environments, and the differing requirements of these applications means that there is no 'one size fits all' solution. We have developed a range of Clean Area luminaires to meet these differing needs, from healthcare areas such as operating theatres, through the differing requirements of specialist manufacturing and research laboratories, to less demanding but no less important requirements of the food preparation and general industries. Our tiered approach to luminaire design means that we can offer a Clean Area luminaire that meets varying needs and budgets.

Lighting Quality

The quality of light is often secondary in the development of Clean Area luminaires. Not so with our high performance Clean Area ranges, which meet or exceed the demands of the toughest lighting standards and regulations. They combine robust construction with optical performance and utilise lighting technology usually found in our highest quality office lighting solutions. This allows the designer to specify our Clean Area luminaires without compromising user comfort, complying with the glare control requirements of EN12464-1.



Clean Area luminaire technology

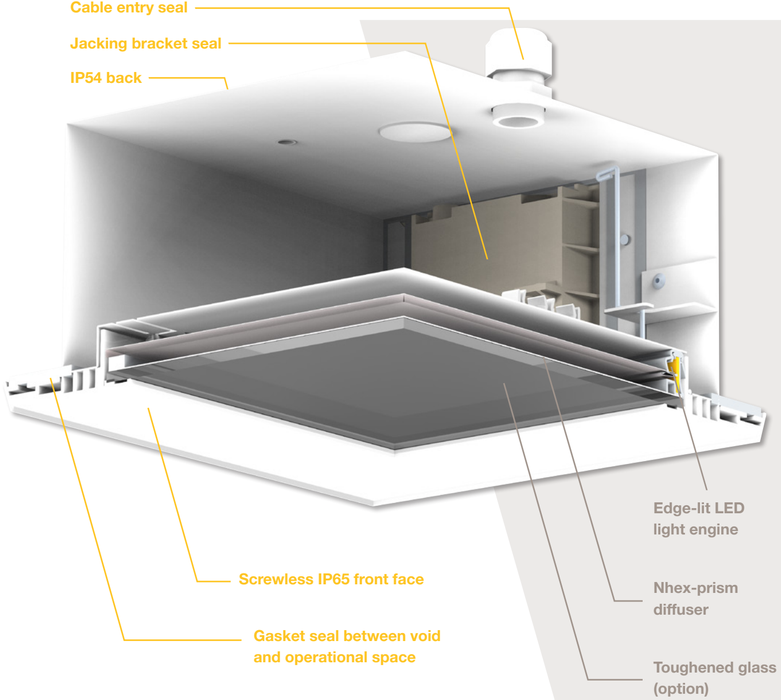
Ingress Protection

The need to prevent the ingress of dust and liquid presents a challenge to the design of efficient luminaires. Our range features a variety of unique design solutions to ensure that IP performance is not compromised. Features such as single piece EPDM frame gaskets and solid aluminium jacking brackets prevent contamination from the ceiling void, whilst flush fixings to the front frame reduces the risk of bacterial contamination. Our flagship DTFU luminaire is IP65 rated to the front face, and IP54 at the back with or without the front frame, bringing the highest level of ingress protection. Lister shares the same high performance IP65 rating to the exposed front frame, with IP20 to the back. For less demanding applications, Hygiene LED offers IP54 to the front face, with IP20 to the rear.

Ceiling Integration

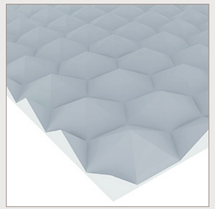
Clean Area luminaries are used in a variety of ceiling types, and integrity must be maintained regardless of application. DTFU offers a universal fitting, whether modular exposed T, spring T, cut or prepared aperture ceiling. Room integrity is ensured due to the EPDM gasket. Both Lister and Hygiene LED are designed to integrate with most modular ceilings, and can be specified with optional Lumafix brackets for cut aperture and alternative ceiling types.

Aluminium jacking bracket

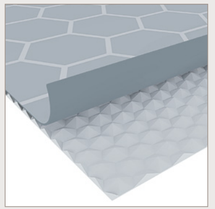


Optical Technology

Our Clean Area luminaries offer high performance optics meeting the most stringent glare control requirements of EN12464-1. DTFU and Lister share a revolutionary development in optics, the use of edge-lit optics with Nhex-prism diffusing technology. This micro-technology comprises layers of laser-etched flexible diffusing material that contain 8 times the number of prisms per square centimetre than our standard Hexaprism diffuser. This delivers unparalleled uniformity and allows the light source to be positioned much closer to the optic, increasing luminaire efficiency and reducing energy consumption. The use of this edge-lit technology also allows access to the ceiling void through the luminaire body without disturbing the luminaire optics. For areas such as operating theatres where colour rendering is vital, DTFU can also be specified with a Ra≥90 light engine.



Traditional Hexaprism diffuser - 40 prisms per cm^2



New Nhex-prism diffuser - 300 prisms per cm^2

Clean Area product range

	DTFU	Lister	Hygiene LED
IP Rating - Front	IP65	IP65	IP54
IP Rating - Rear	IP54	IP20	IP20
Front Frame Fixing	No visible screws	Covered sunken screws	Covered screws
600 x 600	✓	✓	✓
1200 x 300	✓	✓	
1200 x 600	✓	✓	✓
Back Access	✓		
Through Access	✓		
2000 Lumens			✓
3300 Lumens	✓	✓	✓
4100 Lumens	✓	✓	✓
6000 Lumens	✓	✓	✓
9000 Lumens	✓	✓	
TP(a) Clear PC Diffuser with Nhex-prism optical control	✓	✓	
TP(a) Opal PC Diffuser		✓	✓
4mm Toughened Glass	✓		
Achieve Glare Compliance to EN12464-1	✓	✓	
Emergency 3 Hour Maintained or COMEPS	✓	✓	✓
CRI Ra≥80	✓	✓	✓
CRI Ra≥90	✓		

DTFU

Specifications:

- IP65/54
- Universal installation, suitable for a wide range of ceiling types
- Extruded aluminium front frame without screws to reduce risk from bacterial contamination
- Optional toughened glass front face resists all cleaning chemicals
- Edge-lit technology increases luminaire efficiency as the light source is closer to the optic
- EPDM non degradable single piece gasket to protect room from void contamination
- Optional Ra≥90 for enhanced examination in healthcare environments
- Nhex-prism optical control to provide glare compliance to EN12464-1 as standard
- TP(a) diffuser to limit spread of flame in the event of fire
- Through access option
- IP54 ceiling integration retained when front frame removed
- Solid aluminium side arm jacking brackets for assured ingress protection

LISTER

Specifications:

- IP65/20
- Extruded aluminium front frame with concealed fixings
- EPDM non degradable single piece gasket to protect room from void contamination
- TP(a) diffuser to limit spread of flame in the event of fire
- Nhex-prism optical control provides glare compliance to EN12464-1
- Opal polycarbonate diffuser for general and circulation areas
- Optional Lumafix brackets for cut aperture and alternative ceiling types

HYGIENE LED

Specifications:

- IP54/20
- Optic has smooth face on the room side for easy cleaning
- Surface covered screw caps to reduce risk of bacterial contamination
- TP(a) Opal PC diffuser to limit spread of flame in the event of fire
- Tab features on luminaire body to accommodate a wide range of Exposed T, Spring T and SAS ceilings
- Optional Lumafix brackets for cut aperture and alternative ceiling types

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