

# Permalux

*"Redefining clean area lighting."*

Clean Area IP Rated Luminaires





**Project: Refurbishment of production facility**

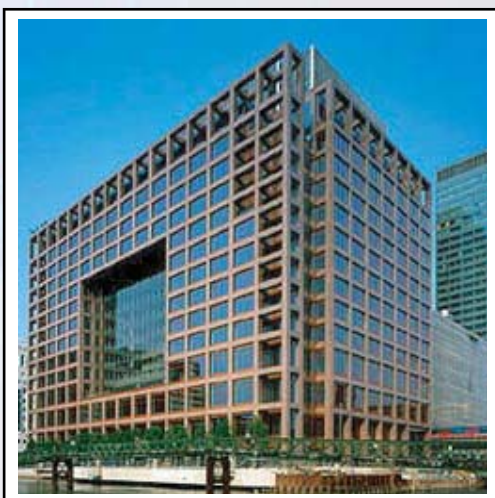
**Client: Forrest Pharmaceuticals, Dublin**

**Design: Arup**

**Installation: Precision Electrics**

Lumitron supplied over 200 surface mounted luminaires to Forrest Pharmaceuticals' existing production facility in County Dublin. The product was finished in a non-standard colour to suit the client's requirements. The fitting was made to a specification; 1200 x 600 size with 4 x 36w T8 lamps, prismatic polycarbonate diffuser and sealed to IP65 with colour matched front frame which was retained by counter sunk screws.

**Product:** Surface mounted IP65 luminaire



**Project: 20 Bank Street, Canary Wharf - 12th Floor Fine Dining**

**Client: Morgan Stanley**

**consultant: Roger Preston and Partners**

**Installation: PIP Electrics Ltd**

The prestigious 12th floor "fine dining" area of Morgan Stanley's Canary Wharf headquarters required high quality luminaires. The Permalux 4 x 14 sealed to IP65 from the front was chosen. The specification for the luminaire was:

HF DALI ballast for 4 x 14W T5

Clear laminated glass with semi matt louvre behind

Control gear was placed in housing on external rear of the body.

**Product:** 4 x 14W T5 IP65 to suit SAS 150 ceiling.



**Project: New General Hospital Nicosia Cyprus**

**Client: Cypriot Health Ministry**

**Installation: JN Christofides**

We developed the client's design concept in conjunction with the installers. Due to our flexible manufacturing and up to date product visualisations we enabled the client to select a product which previously would have taken 6 to 8 weeks to develop and sample.

The initial remit was for standard office luminaires but as time moved on the client became weary of the specified products availability. The client found out with only 8 weeks left that they needed to design, source and supply nearly 1600 fittings. Lumitron delivered all fittings to the forwarders in 5 weeks.

**Product:** Recessed IP65 4 x 18w and 4 x 36w with laminated glass and anodised aluminium frame, all supplied with either high frequency or dimming ballast.

**Project: London Clinic, Devonshire Place**  
**Client: London Clinic**  
**Installation: Bull Electrical**

The London Clinic is a leading charitable clinic and Lumitron have supplied luminaires for their specialist wards.

**Product:** Recessed IP54 and IP65 linear luminaires. Some versions included daylight lamps and polarising lenses.



## Content

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**Project: ERJV**  
**Client: Consort Healthcare (Edinburgh Royal Infirmary)**  
**Installation: Balfour Kilpatrick/Forth Electrical Services**

Lumitron were chosen to supply the majority of luminaires to both Forth Electrical Services and Balfour Kilpatrick on the new ERJV (Edinburgh Royal Infirmary) project. Apart from offices and general areas, there were many clean areas and laboratories. In these laboratory areas we designed special rear access 4 x 14W and 4 x 28W T5 luminaires sealed from the front face to IP65. In addition some areas required sealed luminaires but with fully removable gear trays so that access to the ceiling for maintenance could be via the luminaire frame.

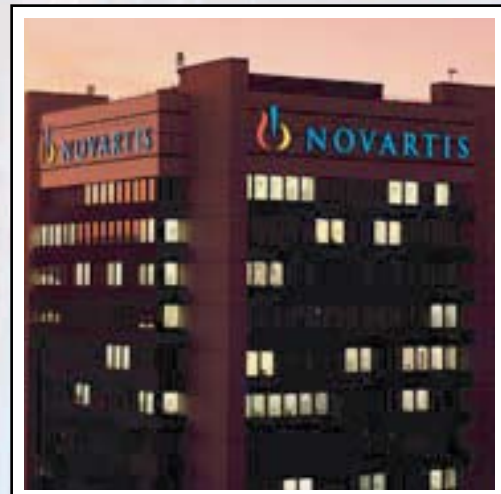
**Product:** 4 x14W T5 IP65 dimming either rear access or framed for front maintenance.



**Project: Novartis, Grimsby**  
**Client: Novartis**  
**Installation: Ove Arup**

Novartis Grimsby is a chemical operations division of Novartis AG of Switzerland. Lumitron were chosen to supply recessed and surface mounted IP54 luminaires for various refurbishment areas.

**Product:** Surface and recessed linear IP54 prismatic luminaires.





Permalux

Permalux is a range of recessed and surface luminaires for use in areas requiring high levels of ingress protection (IP).

The range is available in the following IP Ratings:

### Recessed:

Front Face	Rear of Body
IP54	IP20
IP65	IP20
IP65	IP65

### Surface:

IP54, IP65

### Applications:

- Hospitals
- Laboratories
- Police Stations\*
- Kitchens
- Railway Stations

\*The specification of this product in secure areas requires consultation with relevant parties to ensure the right options are taken.

### Specials & Non Standards:

Our specials in the permalux range offer the following features:

- IP65 at rear access
- Continuous suspended up/down
- Vandal resistance

### Ingress Protection And Integrity of Installed Luminaire

Lumitron Permalux luminaires are available as either IP54 or IP65. This means they are suitable for a variety of applications. However, the seal or IP rating between the luminaire and ceiling installation can be very important, and it is the installers responsibility to ensure that this sealing requirement is adequately met.

### Diffuser/Louvre Options

The permalux range is available with:

- Opal Diffuser (IP54 or IP65)
- Prismatic Diffuser (IP54 or IP65)
- LG3 CAT 2 Louvre (Toughened Glass)
- Recessed Microperforated Gondola (IP65 Polycarbonate or Toughened Glass)
- Polarised Lens (IP54 or IP65)

The versions with an opal or prismatic diffuser are available in either acrylic or polycarbonate. The use of either material is determined by application, therefore please discuss specific requirements with our sales office.

*All products in the permalux range are made to ISO 9000*

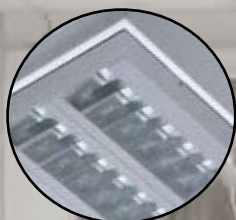
## Specification of Permalux Products

**Luminaire Body:** Minimum thickness 1mm steel, post painted to standard colour. The steel is treated prior to painting to ensure its common resistance properties are enhanced.

**Luminaire Frame:** IP54 versions utilise a steel frame. IP65 versions have a post anodised extruded frame which is cut and mitred on specific tooling.

Frames are specifically designed and manufactured for this application. The frame houses special “non-particulate” shedding gasket.

The retention of the frame is by either screw fixing or non visible captive retention method.



## Ceiling System Compatibility

Recessed Permalux luminaires are designed to suit 15 or 25mm Flat Tee ceilings. The range can be adapted to suit any commercially available ceiling, subject to lamp integration and minimum quantity requirements. Please contact us for further details.

## Control Gear

All Permalux products are supplied with fixed output high frequency ballasts as standard. We can also supply dimming ballast (subject to lamp ballast compatibility).

Suffix:        /HFDIM (1-10v Analogue)  
                  /HFDIG (DSI Digital)  
                  /HFDAL\* (DALI Ballast)

\*On DALI ballasts we will usually indicate the ballast manufacturer offered. We typically supply: Phillips, Tridonic, Huco & Helvar.

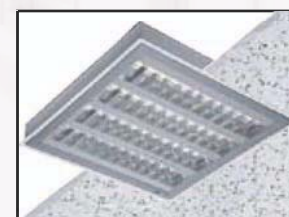
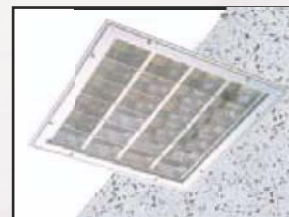
## Emergency Conversion of Luminaire

All our Products can be converted to operate at least one lamp on mains failure.

Suffix            /3m (to specify emergency option)  
                  /3stm\* (to specify “self test” emergency)

\*We advise consultation prior to specification to ensure compatibility.

Permalux

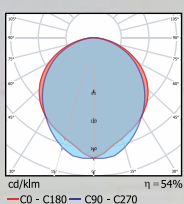


IP54 Front  
IP20 Rear

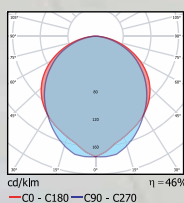
# Permalux 54: IP Rated



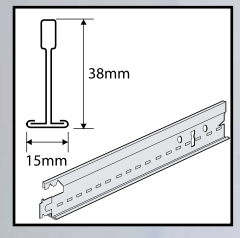
Lamps	Size (Nom)	Diffuser		Colour	Gear	Ref
		PMMA	PC			
4 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	MUB418 HF IP54/PK or PCP
3 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	MUB318 HF IP54/PK or PCP
4 x 14	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	MUB414 HF IP54/PK or PCP
4 x 24	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	MUB424 HF IP54/PK or PCP
3 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	MUB336 HF IP54/PK or PCP
4 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	MUB436 HF IP54/PK or PCP
4 x 28	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	MUB428 HF IP54/PK or PCP
4 x 54	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	MUB454 HF IP54/PK or PCP
2 x 36	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	MUB236 HF IP54/PK or PCP
2 x 54	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	MUB254 HF IP54/PK or PCP
2 x 58	1500 x 300 x 100	PK	PCP	RAL9016/20%	HF	MUB258 HF IP54/PK or PCP



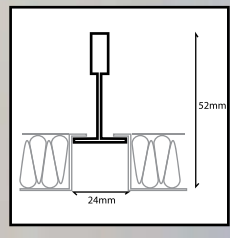
Lamps	Size (Nom)	Diffuser		Colour	Gear	Ref
		PMMA	PC			
4 x 18	600 x 600 x 100	OP	OCP	RAL9016/20%	HF	MUB418 HF IP54/OP or OCP
3 x 18	600 x 600 x 100	OP	OCP	RAL9016/20%	HF	MUB318 HF IP54/OP or OCP
4 x 14	600 x 600 x 100	OP	OCP	RAL9016/20%	HF	MUB414 HF IP54/OP or OCP
4 x 24	600 x 600 x 100	OP	OCP	RAL9016/20%	HF	MUB424 HF IP54/OP or OCP
3 x 36	1200 x 600 x 100	OP	OCP	RAL9016/20%	HF	MUB336 HF IP54/OP or OCP
4 x 36	1200 x 600 x 100	OP	OCP	RAL9016/20%	HF	MUB436 HF IP54/OP or OCP
4 x 28	1200 x 600 x 100	OP	OCP	RAL9016/20%	HF	MUB428 HF IP54/OP or OCP
4 x 54	1200 x 600 x 100	OP	OCP	RAL9016/20%	HF	MUB454 HF IP54/OP or OCP
2 x 36	1200 x 300 x 100	OP	OCP	RAL9016/20%	HF	MUB236 HF IP54/OP or OCP
2 x 54	1200 x 300 x 100	OP	OCP	RAL9016/20%	HF	MUB254 HF IP54/OP or OCP
2 x 58	1500 x 300 x 100	OP	OCP	RAL9016/20%	HF	MUB258 HF IP54/OP or OCP



## Standard ceiling systems:



Flat Table 15mm Tee  
38mm or 43mm high



TruGrid T24 system

- Luminaire Body: Steel
- Luminaire Frame: Steel
- Control Gear: High Frequency
- Diffuser: Acrylic (PMMA) Tp(b) or Polycarbonate Tp(a)
- Dimming: See introduction for options
- Prismatic Diffuser
  - Prism Up: Suffix /PU
  - Prism Down: Suffix /PD
- Luminaire Colour Finish: RAL9016 or to suit ceiling system
- Options: Integral 3hr emergency /3M  
Self Test version /3STM



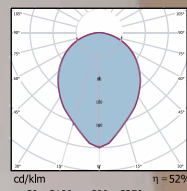
\* Certain products above require minimum quantities, in which case confirmation is required prior to specification or purchase.

IP54 Front  
IP20 Rear

# Permalux 54: IP Rated



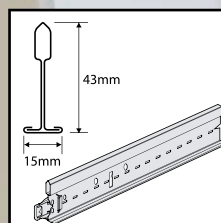
Lamps	Size (Nom)	Diffuser		Colour	Gear	Ref
		PMMK	PC			
4 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	PSL418 HF IP54/PK or PCP
3 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	PSL318 HF IP54/PK or PCP
4 x 14	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	PSL414 HF IP54/PK or PCP
4 x 24	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	PSL424 HF IP54/PK or PCP
3 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	PSL336 HF IP54/PK or PCP
4 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	PSL436 HF IP54/PK or PCP
4 x 28	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	PSL428 HF IP54/PK or PCP
4 x 54	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	PSL454 HF IP54/PK or PCP
2 x 36	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	PSL236 HF IP54/PK or PCP
2 x 54	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	PSL254 HF IP54/PK or PCP
2 x 58	1500 x 300 x 100	PK	PCP	RAL9016/20%	HF	PSL258 HF IP54/PK or PCP



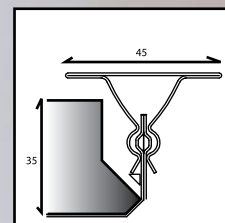
## IP 54 Rating

The ingress protection (IP) rating of a luminaire is an industry standard compliance measure which states the luminaire's protection against certain factors. An IP rating of 54 for example offers the following protection:

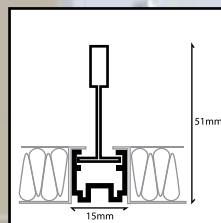
- PROTECTION FROM DUST**  
 The ingress of dust is not totally protected, however the dust cannot enter in any such quantities that may be harmful to the performance or longevity of the product's life.
- PROTECTION AGAINST SPLASHES**  
 Protection from splashes of water from all directions ensuring no damage to the luminaire.



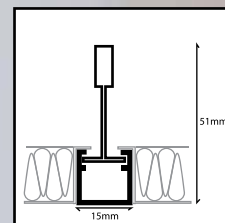
Flat Table 15mm Tee  
43mm high



Burgess "Spring Tee"  
or Orcal Spring Tee



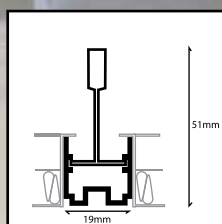
Alugrid-Q 15/16



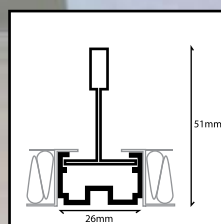
Alugrid-P 15/16

## Ceiling Systems - Projects

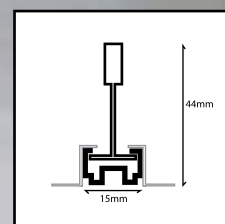
We can manufacture to suit the ceiling systems illustrated and where non-standard products are required, consultation with clients can prove beneficial. Please contact us to discuss your requirements.



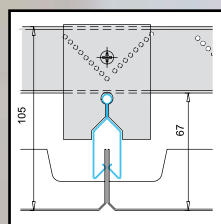
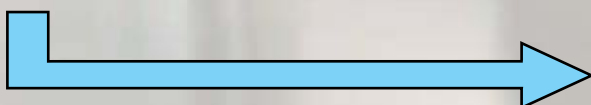
Alugrid-Q 15/19



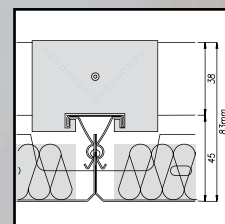
Alugrid-Q 26/16



Alugrid-Q 15/08



SAS150



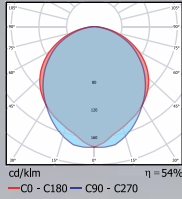
System 120  
Long Span Spring Tee

IP65 Front  
IP20 Rear

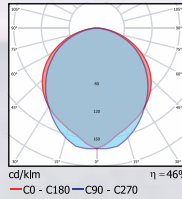
# Permalux 65: IP Rated



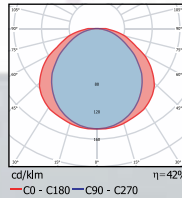
Lamps	Size (Nom)	Diffuser		Colour	Gear	Ref
		PMMA	PC			
4 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	RML418 HF IP65/PK or PCP
3 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	RML318 HF IP65/PK or PCP
4 x 14	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	RML414 HF IP65/PK or PCP
4 x 24	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	RML424 HF IP65/PK or PCP
3 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	RML336 HF IP65/PK or PCP
4 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	RML436 HF IP65/PK or PCP
4 x 28	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	RML428 HF IP65/PK or PCP
4 x 54	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	RML454 HF IP65/PK or PCP
2 x 36	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	RML236 HF IP65/PK or PCP
2 x 54	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	RML254 HF IP65/PK or PCP
2 x 58	1500 x 300 x 100	PK	PCP	RAL9016/20%	HF	RML258 HF IP65/PK or PCP



Lamps	Size (Nom)	Diffuser		Colour	Gear	Ref
		PMMA	PC			
4 x 18	600 x 600 x 100	OP	OCP	RAL9016/20%	HF	RML418 HF IP65/OP or OCP
3 x 18	600 x 600 x 100	OP	OCP	RAL9016/20%	HF	RML318 HF IP65/OP or OCP
4 x 14	600 x 600 x 100	OP	OCP	RAL9016/20%	HF	RML414 HF IP65/OP or OCP
4 x 24	600 x 600 x 100	OP	OCP	RAL9016/20%	HF	RML424 HF IP65/OP or OCP
3 x 36	1200 x 600 x 100	OP	OCP	RAL9016/20%	HF	RML336 HF IP65/OP or OCP
4 x 36	1200 x 600 x 100	OP	OCP	RAL9016/20%	HF	RML436 HF IP65/OP or OCP
4 x 28	1200 x 600 x 100	OP	OCP	RAL9016/20%	HF	RML428 HF IP65/OP or OCP
4 x 54	1200 x 600 x 100	OP	OCP	RAL9016/20%	HF	RML454 HF IP65/OP or OCP
2 x 36	1200 x 300 x 100	OP	OCP	RAL9016/20%	HF	RML236 HF IP65/OP or OCP
2 x 54	1200 x 300 x 100	OP	OCP	RAL9016/20%	HF	RML254 HF IP65/OP or OCP
2 x 58	1500 x 300 x 100	OP	OCP	RAL9016/20%	HF	RML258 HF IP65/OP or OCP



Lamps	Size (Nom)	Controller		Colour	Gear	Ref
		Glass	PC			
2 x 40	600 x 600 x 100	TGL	PC	RAL9016/20%	HF	RET240 HF IP65/PC or TGL
2 x 55	600 x 600 x 100	TGL	PC	RAL9016/20%	HF	RET255 HF IP65/PC or TGL
4 x 40	1200 x 600 x 100	TGL	PC	RAL9016/20%	HF	RET440 HF IP65/PC or TGL
4 x 55	1200 x 600 x 100	TGL	PC	RAL9016/20%	HF	RET455 HF IP65/PC or TGL



Innovative recessed luminaire IP65 from front face and option of IP65 from rear. This product utilises a microperforated internal gondola to create an interesting alternative to diffuser or louvred, sealed luminaires.

Permalux 65 is available as IP65/IP20 or IP65/IP65.

Versions IP65/IP20 (IP65 front and IP20 rear) are supplied with brackets for installation from below.

For versions IP65/IP65 (IP65 front and IP65 rear) please consult our technical department to ensure compatibility.

- Luminaire Body: Steel
- Luminaire Frame: Anodised or painted aluminium
- Diffuser: Polycarbonate opal or prismatic. Toughened glass for W2M option.
- Ceiling Intergration: To suit 15mm or 25mm Flat Tee

\* Certain products above require minimum quantities, in which case confirmation is required prior to specification or purchase.

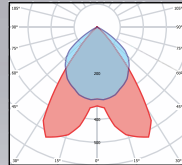


IP65 Front  
IP20 Rear

# Permalux 65: IP Rated



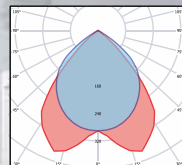
Lamps	Size (Nom)	Controller		Colour	Gear	Ref
		Glass	PC			
4 x 14	600 x 600 x 100	TGL	PC	RAL9016/20%	HF	YL65/414/HF/IP65/W2M
4 x 24	600 x 600 x 100	TGL	PC	RAL9016/20%	HF	YL65/424/HF/IP65/W2M
4 x 28	1200 x 600 x 100	TGL	PC	RAL9016/20%	HF	YL65/428/HF/IP65/W2M
4 x 54	1200 x 600 x 100	TGL	PC	RAL9016/20%	HF	YL65/454/HF/IP65/W2M
2 x 54	1200 x 300 x 100	TGL	PC	RAL9016/20%	HF	YL65/254/HF/IP65/W2M



cd/klm  $\eta = 64\%$   
— C0 - C180 — C90 - C270



Lamps	Size (Nom)	Controller		Colour	Gear	Ref
		Glass	PC			
4 x 14	600 x 600 x 100	TGL	PC	RAL9016/20%	HF	XS65/414/HF/IP65/W2M
4 x 24	600 x 600 x 100	TGL	PC	RAL9016/20%	HF	XS65/424/HF/IP65/W2M
4 x 28	1200 x 600 x 100	TGL	PC	RAL9016/20%	HF	XS65/428/HF/IP65/W2M
4 x 54	1200 x 600 x 100	TGL	PC	RAL9016/20%	HF	XS65/454/HF/IP65/W2M
2 x 54	1200 x 300 x 100	TGL	PC	RAL9016/20%	HF	XS65/254/HF/IP65/W2M
4 x 18	600 x 600 x 100	TGL	PC	RAL9016/20%	HF	XS65/418/HF/IP65/W2M
4 x 36	1200 x 600 x 100	TGL	PC	RAL9016/20%	HF	XS65/436/HF/IP65/W2M



cd/klm  $\eta = 55\%$   
— C0 - C180 — C90 - C270

## IP65 Rating

The ingress protection (IP) rating of a luminaire is an industry standard compliance measure which states the luminaires protection against certain factors. An IP rating of 65 for example offers the following protection:

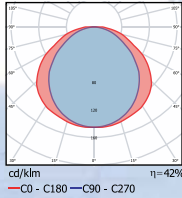
- **TOTAL PROTECTION FROM DUST**  
Totally protects the fitting from any ingress of dust.
- **PROTECTION FROM JETS OF WATER**  
Protects against water splashed from nozzles from all directions onto the covering, ensuring that no water in any damaging quantities can enter the luminaire.

IP65 Front  
IP20 Rear

# Permalux 65: IP Rated



Lamps	Size (Nom)	Diffuser		Colour	Gear	Ref
		PMMA	PC			
4 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	RKS418 HF IP65/PK or PCP
3 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	RKS318 HF IP65/PK or PCP
4 x 14	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	RKS414 HF IP65/PK or PCP
4 x 24	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	RKS424 HF IP65/PK or PCP
3 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	RKS336 HF IP65/PK or PCP
4 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	RKS436 HF IP65/PK or PCP
4 x 28	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	RKS428 HF IP65/PK or PCP
4 x 54	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	RKS454 HF IP65/PK or PCP
2 x 36	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	RKS236 HF IP65/PK or PCP
2 x 54	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	RKS254 HF IP65/PK or PCP
2 x 58	1500 x 300 x 100	PK	PCP	RAL9016/20%	HF	RKS258 HF IP65/PK or PCP



Lamps	Size (Nom)	Diffuser		Colour	Gear	Ref
		TGL	PC			
4 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	SKS418 HF IP65/W2M
3 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	SKS318 HF IP65/W2M
4 x 14	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	SKS414 HF IP65/W2M
4 x 24	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	SKS424 HF IP65/W2M
3 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	SKS336 HF IP65/W2M
4 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	SKS436 HF IP65/W2M
4 x 28	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	SKS428 HF IP65/W2M
4 x 54	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	SKS454 HF IP65/W2M
2 x 36	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	SKS236 HF IP65/W2M
2 x 54	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	SKS254 HF IP65/W2M
2 x 58	1500 x 300 x 100	PK	PCP	RAL9016/20%	HF	SKS258 HF IP65/W2M

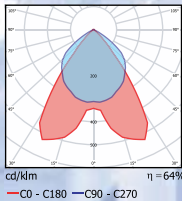
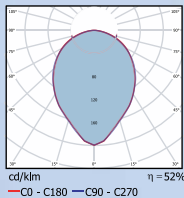
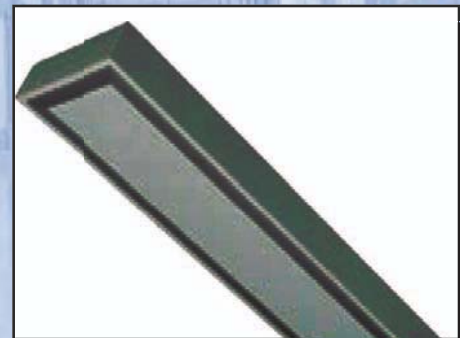


Image above shows T5 version



Lamps	Size (Nom)	Diffuser		Colour	Gear	Ref
		PMMA	PC			
4 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	PKS418 HF IP65/PK or PCP
3 x 18	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	PKS318 HF IP65/PK or PCP
4 x 14	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	PKS414 HF IP65/PK or PCP
4 x 24	600 x 600 x 100	PK	PCP	RAL9016/20%	HF	PKS424 HF IP65/PK or PCP
3 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	PKS336 HF IP65/PK or PCP
4 x 36	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	PKS436 HF IP65/PK or PCP
4 x 28	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	PKS428 HF IP65/PK or PCP
4 x 54	1200 x 600 x 100	PK	PCP	RAL9016/20%	HF	PKS454 HF IP65/PK or PCP
2 x 36	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	PKS236 HF IP65/PK or PCP
2 x 54	1200 x 300 x 100	PK	PCP	RAL9016/20%	HF	PKS254 HF IP65/PK or PCP
2 x 58	1500 x 300 x 100	PK	PCP	RAL9016/20%	HF	PKS258 HF IP65/PK or PCP



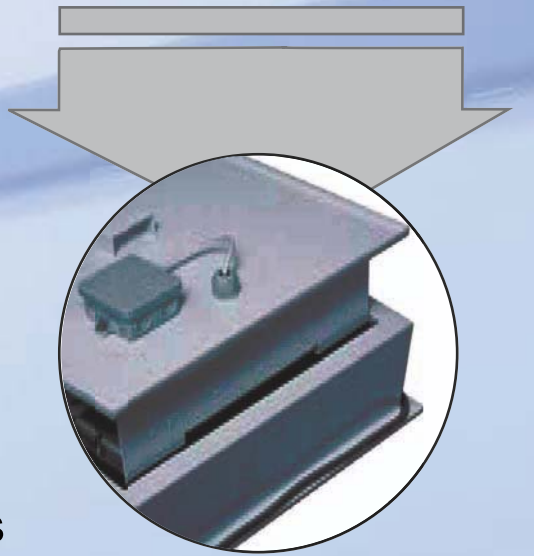
SKS236 HF IP65/W2M  
Image above shows T5 version

\* Certain products above require minimum quantities, in which case confirmation is required prior to specification or purchase.

# Permalux 65: IP Rated



Special rear access 4 x 54W T5  
Sealed to IP65/IP65.  
Special junction box for easy maintenance included.



## Kings Cross

**Project: Kings Cross Western Ticket Hall**  
**Client: Metronet**  
**Consultant: Ove Arup**  
**Installer: Bailey Rail**

Lumitron designed and manufactured all fluorescent luminaires for the new Western Ticket Hall. Our remit included, all testing, certification and compliance of all products since they were totally bespoke and exclusive to the project.



# Lumitron Lighting Terms and Conditions of Sale

**1 Interpretation.** **1.1** In these Conditions: 'BUYER' means the person who accepts a quotation of the Seller for the sale of the goods or whose order for the goods is accepted by the Seller. 'GOODS' means the goods (including any instalment of the goods or any parts for them) which the Seller is to supply in accordance with these Conditions. 'SELLER' MEANS Performance Lighting Limited registered in England under number 3273329. 'CONDITIONS' means the standard terms and conditions set out in this document and (unless the context otherwise requires) includes any special terms and conditions agreed in writing between the Buyer and Seller. 'CONTRACT' means the contract for the purchase and sale of the Goods. 'WRITING' includes telex, cable, facsimile transmission, e-mail and comparable means of communication. **1.2** Any reference in these Conditions to any provision of a statute shall be construed as a reference to that provision as amended, re-enacted or extended at the relevant time. **1.3** The headings in these Conditions are for convenience only and shall not affect their interpretation.

**2 Basis of the sale.** **2.1** The Seller shall sell and the Buyer shall purchase the Goods in accordance with any written quotation of the Seller which is accepted by the Buyer, or any written order of the Buyer which is accepted by the Seller, subject in either case to the Conditions, which shall govern the Contract to the exclusion of any other terms and conditions subject to which any such quotation is accepted or purported to be accepted, or any such order is made or purported to be made, by the Buyer. **2.2** No variation to these Conditions shall be binding unless agreed in writing between the authorised representatives of the Buyer and the Seller. **2.3** The Seller's employees or agents are not authorised to make any representations concerning the Goods unless confirmed by the Seller in writing. In entering into the Contract the Buyer acknowledges that it does not rely on any such representations which are not so confirmed. **2.4** Any advice or recommendation given by the Seller or its employees or agents to the Buyer or its employees or agents, as to the storage, application or use of the Goods which is not confirmed in writing by the Seller is followed or acted upon entirely at the Buyer's own risk, and accordingly the Seller shall not be liable for any such advice or recommendation which is not confirmed. **2.5** Any typographical, clerical or other error or omission in any sales literature, quotation, price list, acceptance of offer, invoice or other document or information issued by the Seller shall be subject to correction without any liability on the part of the Seller.

**3 Orders and specifications.** **3.1** No order submitted by the Buyer shall be deemed to be accepted by the Seller unless and until confirmed in writing by the Seller's authorised representative. **3.2** The Buyer shall be responsible to the Seller for ensuring the accuracy of the terms of any order (including any applicable specification) submitted by the Buyer and for giving the Seller any necessary information relating to the Goods within a sufficient time to enable the Seller to perform the Contract in accordance with its terms. **3.3** The quantity, quality and description of and any specification for the Goods shall be those set out in the Seller's quotation. **3.4** If the Goods are to be manufactured or any process is to be applied to the Goods by the Seller in accordance with a specification submitted by the Buyer, the Buyer shall indemnify the Seller against all loss, damages, costs and expenses awarded against or incurred by the Seller in connection with or paid or agreed to be paid by the Seller in settlement of any claim for infringement of any patent, copyright, design, trade mark or other industrial or intellectual property rights of any other person which results from the Seller's use of the Buyer's specification. **3.5** The Seller reserves the right to make any changes in the specification of the Goods which are required to conform with any applicable statutory or EC requirements or, where the Goods are to be supplied to the Seller's specification, which do not materially affect their quality or performance. **3.6** No order which has been accepted by the Seller may be cancelled by the Buyer except with the agreement in writing of the Seller and on terms that the Buyer shall indemnify the Seller in full against all loss (including loss of profit), costs (including the cost of all labour and materials used), damages, charges and expenses incurred by the Seller as a result of cancellation.

**4 Price of the goods.** **4.1** The price of the Goods shall be the Seller's quoted price or, where no price has been quoted (or a quoted price is no longer valid), the price listed in the Seller's published price list current at the date of acceptance of the order. Where the Goods are supplied for export from the United Kingdom, the Seller's published export price list shall apply. All prices quoted are valid for 30 days only or until earlier acceptance by the Buyer, after which time they may be altered by the Seller without giving notice to the Buyer. **4.2** The Seller reserves the right, by giving notice to the Buyer at any time before delivery to increase the price of the Goods to reflect any increase in the cost to the Seller which is due to any factor beyond the control of the Seller such as, without limitation, any foreign exchange fluctuation, currency regulation, alteration of duties, significant increase in the costs of labour, materials or other costs of manufacture), any change in delivery dates, quantities or specifications for the Goods which is requested by the Buyer, or any delay caused by any instructions of the Buyer or failure of the Buyer to give the Seller adequate information or instructions. **4.3** Except as otherwise stated under the written terms of any quotation or in any price list of the Seller, and unless otherwise agreed in writing between the Buyer and the Seller, all prices are given by the Seller on an ex works basis, and where the Seller agrees to deliver the Goods otherwise than at the Seller's premises, the Buyer shall be liable to pay the Seller's charges for transport, packaging and insurance and any other trading costs. **4.4** The price is exclusive of any applicable value added tax, which the Buyer shall be additionally liable to pay to the Seller. **4.5** The cost of pallets and returnable containers will be charged to the Buyer in addition to the price of the Goods, but full credit will be given to the Buyer provided they are returned undamaged to the Seller before the due payment date.

**5 Terms of payment.** **5.1** Subject to any special terms agreed in writing between the Buyer and the Seller, the Seller shall be entitled to invoice the Buyer for the price of the Goods on or at any time after delivery of the Goods, unless the Goods are to be collected by the Buyer or the Buyer wrongfully fails to take delivery of the Goods, in which event the Seller shall be entitled to invoice the Buyer for the price at any time after the Seller has notified the Buyer that the Goods are ready for collection or (as the case may be) the Seller has tendered delivery of the Goods. **5.2** Provided no previous invoice is overdue, the Buyer shall be entitled to a prompt payment discount of 1.75% of the price of the goods (excluding any charge for transport, packaging or insurance) for payment within 28 days of the date of the Seller's invoice. **5.3** The Buyer shall pay the price of the Goods (less any discount to which the Buyer is entitled, but without any other deduction) within 30 days of the date of the Seller's invoice, and the Seller shall be entitled to recover the price, notwithstanding that delivery may not have taken place and the property in the Goods has not passed to the Buyer. The time of payment of the price shall be of the essence of the Contract. Receipts for payment will be issued only upon request. **5.4** If the Buyer fails to make any payment on the due date then, without prejudice to any other right or remedy available to the Seller, the Seller shall be entitled to: **5.4.1** cancel the contract, or suspend any further deliveries to the Buyer; **5.4.2** appropriate any payment made by the Buyer to such of the Goods (or the goods supplied under any other contract between the Buyer and the Seller) as the Seller may think fit notwithstanding any purported appropriation by the Buyer); and **5.4.3** unless at a rate permitted by statute (if higher) charge the Buyer interest (both before and after any judgement) on the amount unpaid, at the rate of 5 per cent per annum above Lloyds TSB Bank base rate from time to time, until payment in full is made (a part of a month being treated as a full month for the purpose of calculating interest).

**6 Delivery.** **6.1** Delivery of the Goods shall be made by the Buyer collecting the Goods at the Seller's premises at any time after the Seller has notified the Buyer that the Goods are ready for collection, or if some other place for delivery is agreed by the Seller, by the Seller delivering the Goods to that place. **6.2** Any dates quoted for delivery of the Goods are approximate only and the Seller shall not be liable for any delay in delivery of the Goods however caused. Time for delivery shall not be of the essence of the Contract unless previously agreed by the Seller in writing. The Goods may be delivered by the Seller in advance of the quoted delivery date upon giving reasonable notice to the Buyer. **6.3** Where the Goods are to be delivered in instalments, each delivery shall constitute a separate contract and failure by the Seller to deliver any one or more of the instalments in accordance with these Conditions or any claim by the Buyer in respect of any one or more instalments shall not entitle the Buyer to treat the Contract as a whole as repudiated. **6.4** If the Seller fails to deliver the Goods (or any instalment) for any reason other than any cause beyond the Seller's reasonable control or the Buyer's fault, and the Seller is accordingly liable to the Buyer, the Seller's liability shall be limited to the excess (if any) of the cost to the Buyer (in the cheapest available market) of similar goods to replace those not delivered over the price of the Goods. **6.5** If the Buyer fails to take delivery of the Goods or fails to give the Seller adequate delivery instructions at the time stated for delivery (otherwise than by reason of any cause beyond the Buyer's reasonable control or by reason of the Seller's fault) then, without prejudice to any other right or remedy available to the Seller, the Seller may: **6.5.1** store the goods until actual delivery and charge the Buyer for the reasonable costs (including insurance) of storage; or **6.5.2** sell the Goods at the best price readily obtainable and (after deducting all reasonable storage and selling expenses) account to the Buyer for the excess over the price under the Contract or charge the Buyer for any shortfall below the price under the Contract.

**7 Risk and property.** **7.1** Risk of damage to or loss of the Goods shall pass to the Buyer: **7.1.1** in the case of Goods to be delivered at the Seller's premises, at the time when the Seller notifies the Buyer that the Goods are available for collection; or **7.1.2** in the case of Goods to be delivered otherwise than at the Seller's premises, at the time of delivery or, if the Buyer wrongfully fails to take delivery of the Goods, the time when the Seller has tendered delivery of the Goods. **7.2** Notwithstanding delivery and the passing of risk in the Goods, or any other provision of these Conditions, the property in the Goods shall not pass to the Buyer until the Seller has received in cash or cleared funds payment in full of the price of the Goods and all other goods agreed to be sold by the Seller to the Buyer for which payment is then due. **7.3** Until such time as the property in the Goods passes to the Buyer, the Buyer shall hold the Goods as the Seller's fiduciary agent and bailee, and shall keep the Goods so far as it may be within its power or control, separate from those of the Buyer and third parties and properly stored, protected and insured and identified as the Seller's property. **7.4** Until such time as the property in the Goods passes to the Buyer (and provided the Goods are still in existence and capable of removal without damage to property the Seller shall be entitled at any time to require the Buyer to deliver up the Goods to the Seller and, if the Buyer fails to do so forthwith, to enter upon any premises of the Buyer or any third party where the Goods are stored and repossess the Goods. **7.5** The Buyer shall not be entitled to pledge or in any way charge by way of security for any indebtedness any of the Goods which remain the property of the Seller until payment, but if the Buyer does so all monies owing to the Seller shall (without prejudice to any of the right or remedy of the Seller) become immediately due and payable. Until payment the Buyer shall not be entitled to sell or attempt to sell any goods.

**8 Warranties and liability.** **8.1** Subject to the conditions set out below the Seller warrants that the Goods will correspond with their specification at the time of delivery and will be free from defects in material and workmanship for a period of 12 months from the date of their initial use or 12 months from delivery, whichever is the first to expire. **8.2** The above warranty is given by the Seller subject to the following conditions: **8.2.1** the Seller shall be under no liability in respect of any defect in the Goods arising from any drawing, design or specification supplied by the Buyer, **8.2.2** the Seller shall be under no liability in respect of any defect arising from fair wear and tear, wilful damage, negligence, abnormal working conditions, failure to follow the Seller's instructions (whether oral or in writing), misuse or alteration or repair of the Goods without the Seller's approval; **8.2.3** the Seller shall be under no liability under the above warranty (or any other warranty, condition or guarantee) if the total price for the Goods has not been paid by the due date for payment; **8.2.4** the above warranty does not extend to parts, materials or equipment not manufactured by the Seller, in respect of which the Buyer shall only be entitled to the benefit of any such warranty or guarantee as is given by the manufacturer to the Seller **8.3** Subject as expressly provided in these Conditions, and except where the Goods are sold to a person dealing as a consumer (within the meaning of the Unfair Contract Terms Act 1977), all warranties, conditions or other terms implied by statute or common law are excluded to the fullest extent permitted by law. **8.4** Where the Goods are sold under a consumer transaction (as defined by the Consumer Transactions (Restrictions on Statements) Order 19076) the statutory rights of the Buyer are not affected by these Conditions **8.5** Any claim by the Buyer which is based on any defect in the quality or condition of the Goods or their failure to correspond with specification shall (whether or not delivery is refused by the Buyer) be notified to the Seller within 7 days from the date of delivery or (where the defect or failure was not apparent on reasonable inspection) within a reasonable time after discovery of the defect or failure. If delivery is not refused and the Buyer does not notify the Seller accordingly, the Buyer shall not be entitled to reject the Goods and the Seller shall have no liability for such defect or failure, and the Buyer shall be bound to pay the price as if the Goods had been delivered in accordance with the Contract. **8.6** Where any valid claim in respect of any of the Goods which is based on any defect in the quality or condition of the Goods or their failure to meet specification is notified to the Seller in accordance with these Conditions, the Seller shall be entitled to replace the Goods (or the part in question) free of charge or, at the Seller's sole discretion, refund to the Buyer the price of the Goods (or a proportionate part of the price), but the Seller shall have no further liability to the Buyer. **8.7** Except in respect of death or personal injury caused by the Seller's negligence, the Seller shall not be liable to the Buyer by reason of any representation (unless fraudulent) or any implied warranty, condition or other term, or any duty at common law, or under the express terms of the Contract, for any indirect, special or consequential loss or damage (whether caused by the negligence of the Seller, its employees or agents or otherwise) which arise out of or in connection with the supply of the Goods or their use or resale by the Buyer, and the entire liability of the Seller under or in connection with the Contract shall not exceed the price of the Goods, except as expressly provided in these Conditions. **8.8** The Seller shall not be liable to the Buyer or be deemed to be in breach of the Contract by reason of any delay in performing, or any failure to perform, any of the Seller's obligations in relation to the Goods, if the delay or failure was due to any cause beyond the Seller's reasonable control. Without prejudice to the generality of the foregoing, the following shall be regarded as causes beyond the Seller's reasonable control: **8.8.1** Act of God, explosion, flood, tempest, fire or accident; **8.8.2** War or threat of war, sabotage, insurrection, civil disturbance or requisition; **8.8.3** Acts, restrictions, regulations, bye-laws, prohibitions or measures of any kind on the part of any governmental, parliamentary or local authority; **8.8.4** Import or export regulations or embargoes; **8.8.5** Strikes, lock-outs or other industrial actions or trade disputes (whether involving employees of the Seller or of a third party); **8.8.6** Difficulties in obtaining raw materials, labour, fuel, parts or machinery; **8.8.7** Power failure or breakdown in machinery

**9 Indemnity** **9.1** If any claim is made against the Buyer that the Goods infringe or that their use or resale infringes the patent, copyright, design, trade mark or other industrial or intellectual property rights of any other person, then unless the claim arises from the use of any drawing, design or specification supplied by the Buyer, the Seller shall indemnify the Buyer against all loss, damages, costs and expenses awarded against or incurred by the Buyer in connection with the claim, or paid or agreed to be paid by the Buyer in settlement of the claim, provided that: **9.1.1** the Seller is given full control of any proceedings or negotiations in connection with any such claim **9.1.2** the Buyer shall give the Seller all reasonable assistance for the purposes of any such proceedings or negotiations; **9.1.3** except pursuant to a final award, the Buyer shall not pay or accept any such claim, or compromise any such proceedings without the consent of the Seller (which shall not be unreasonably withheld) **9.1.4** the Buyer shall do nothing which would or might vitiate any policy of insurance or insurance cover which the Buyer may have in relation to such infringement, and this indemnity shall not apply to the extent that the Buyer recovers any sums under any such policy or cover (which the Buyer shall use its best endeavours to do); **9.1.5** the Seller shall be entitled to the benefit of, and the Buyer shall accordingly account to the Seller for, all damages and costs (if any) awarded in favour of the Buyer which are payable by, or agreed with the consent of the Buyer (which consent shall not be unreasonably withheld) to be paid by, any other party in respect of any such claim; and **9.1.6** without prejudice to any duty of the Buyer at common law the Seller shall be entitled to require the Buyer to take such steps as the Seller may reasonably require to mitigate or reduce any such loss, damages, costs or expenses for which the Seller is liable to indemnify the Buyer under this clause.

**10 Insolvency of buyer** **10.1** This clause applies if: **10.1.1** the Buyer makes any voluntary arrangement with its creditors or (being an individual or firm) becomes bankrupt or (being a company) becomes subject to an administration order or goes into liquidation (otherwise than for the purposes of amalgamation or reconstruction); or **10.1.2** an encumbrancer takes possession, or a receiver is appointed, of any of the property or assets of the Buyer; or **10.1.3** the Buyer ceases, or threatens to cease, to carry on business; or **10.1.4** the Seller reasonably apprehends that any of the events mentioned above is about to occur in relation to the Buyer and notifies the Buyer accordingly **10.2** If this clause applies then, without prejudice to any other right or remedy available to the Seller, the Seller shall be entitled to cancel the Contract or suspend any further deliveries under the Contract without any liability to the Buyer, and if the Goods have been delivered but not paid for The price shall become immediately due and payable notwithstanding any previous agreement or arrangement to the contrary.

**11 Export terms.** **11.1** In these Conditions 'Incoterms' means the international rules for the interpretation of trade terms of the International Chamber of Commerce as in force at the date when the Contract is made. Unless the context otherwise requires, any term or expression which is defined in or given a particular meaning by the provisions of Incoterms shall have the same meaning in these Conditions, but if there is any conflict between the provisions of Incoterms and these Conditions, the latter shall prevail. **11.2** Where the Goods are supplied for export from the United Kingdom, the provisions of this clause 11 shall (subject to any special terms agreed in writing between the Buyer and the Seller) apply notwithstanding any other provision of these Conditions. **11.3** The Buyer shall be responsible for complying with any legislation or regulations governing the importation of the Goods into the country of destination and for the payment of any duties on them. **11.4** Unless otherwise agreed in writing between the Buyer and the Seller, the Goods shall be delivered F.O.B. the air or sea port of shipment and the Seller shall be under no obligation to give notice under section 32(3) of the Sale of Goods Act 1979. **11.5** The Buyer shall be responsible for arranging for testing and inspection of the Goods at the Seller's premises before shipment. The Seller shall have no liability for any claim in respect of any defect in the Goods which would be apparent on inspection and which is made after shipment, or in respect of any damage during transit. **11.6** Payment of all amounts due to the Seller shall be made by irrevocable Letter of Credit opened by the Buyer in favour of the Seller and confirmed by a bank in England acceptable to the Seller or, if the Seller has agreed in writing on or before acceptance of the Buyer's order to waive this requirement, by acceptance by the Buyer and delivery to the Seller of a bill of exchange drawn on the Buyer payable 60 days after sight to the order of the Seller at such branch of Lloyds TSB Bank in England as may be specified in the Bill of Exchange. **11.7** The Buyer undertakes not to offer the goods for resale in England Wales Scotland and Northern Ireland or any other country notified by the Seller to the Buyer at or before the time the Buyer's order is placed, or to sell the goods to any person if the Buyer knows or has reason to believe that that person intends to resell the goods in any such country.

**12 General.** **12.1** Any notice required or permitted to be given by either party to the other under these Conditions shall be in writing addressed to that other party at its registered office or principal place of business or such other address as may at the relevant time have been notified pursuant to this provision to the party giving the notice. **12.2** No waiver by the Seller of any breach of the Contract by the Buyer shall be considered as a waiver of any subsequent breach of the same of any other provision. **12.3** If any provision of these Conditions is held by any competent authority to be invalid or unenforceable in whole or in part the validity of the other provisions of these Conditions and the remainder of the provision in question shall not be affected. **12.4** The Contract shall be governed by the laws of England, and the Buyer agrees to submit to the non-exclusive jurisdiction of the English courts.

# Notes

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# Notes

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[www.lumitron.co.uk](http://www.lumitron.co.uk)

Lumitron Lighting Ltd  
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