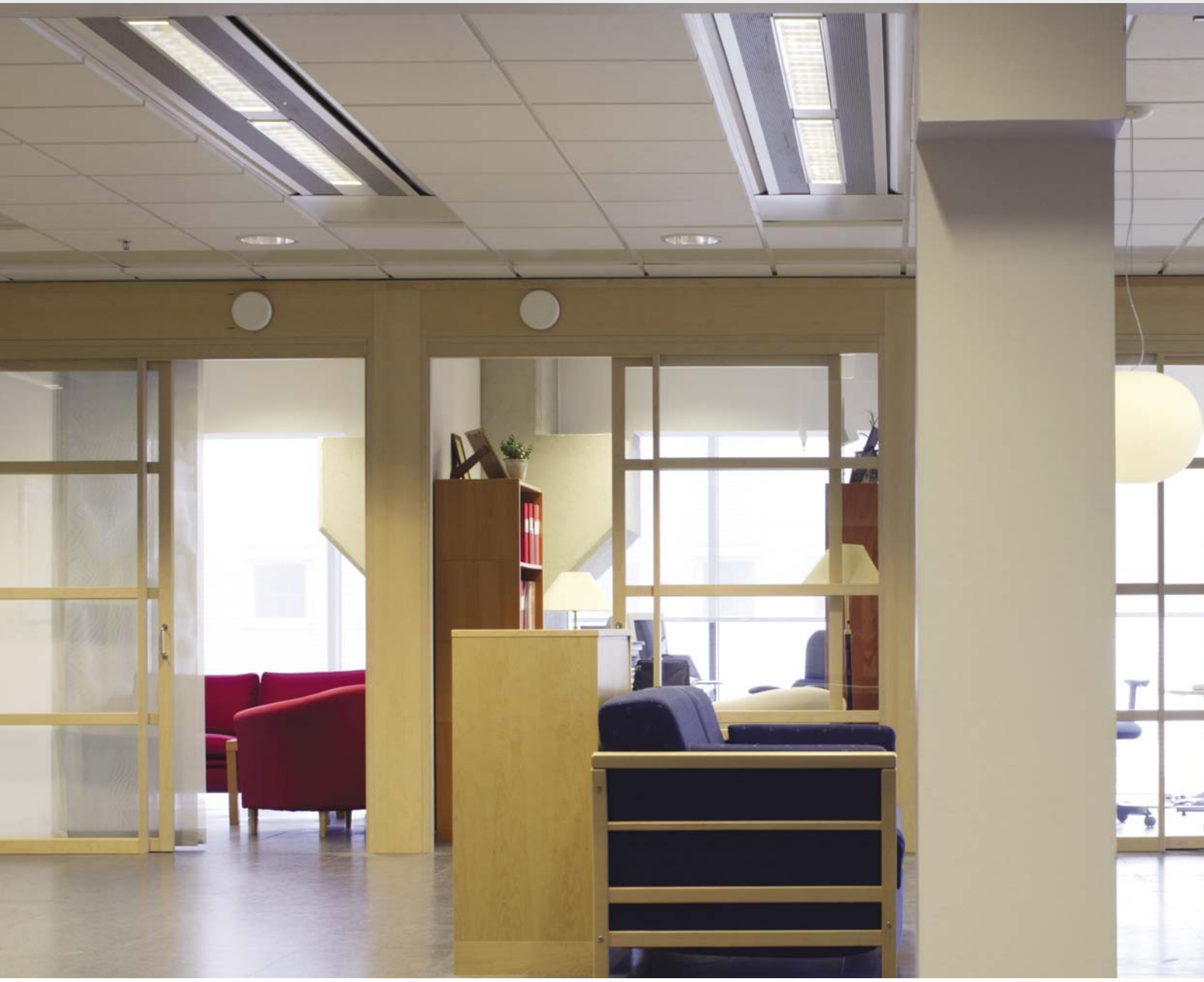


Lighting

Functional light fittings for chilled beams

Lindab®

Lighting
Functional light fittings for chilled beams

Use
Lindab offers functional light fittings for Professor I-60, Plafond and Architect Moon.

Professor I-60 can be fitted with direct lighting, Plafond with indirect lighting and Architect Moon with direct or indirect lighting or both.

Installation
Professor I-60 is integrated in the ceiling, Plafond is wall-mounted and Architect Moon can either be suspended from or level with the ceiling.

Features
All lighting data has been analysed and tested by an accredited lighting institute. Lighting data is also available in EULUM-DAT format (.ldt). Please contact Lindab for further information. All light fittings are CE marked.

Reputable European companies manufacture the electronic components. The glare shields are of the make MIRO®.

The reflector systems comply with European standard EN 12464-1, which concerns brightness, light distribution, etc.

The cabling is non-halogen.

Lighting functions

Lindab has for many years offered a productive indoor climate by providing multi-functional chilled beams. In addition to cooling, the chilled beams can now be fitted with integrated functions such as ventilation, heating, control equipment, adjustment, Regula Secura (condensation control), Drypac™ (condensation guard) and lighting.

Light fittings can be provided for Professor I-60, Plafond and Architect Moon. The Professor I-60 beam comes with direct lighting, Plafond with indirect lighting and Architect Moon with direct or indirect lighting or both.

A chilled beam with lighting offers cooling, ventilation and lighting in one unit. Bringing several functions into one chilled beam results in added ceiling space, which in turn facilitates the co-ordination of installations and reduces installation costs.

Professor I-60 with lighting

Professor I-60 for integrated installation in ceiling can be fitted with a direct light function through single or double fluorescent tube fittings. Lighting is available for beam lengths of 1.8 – 3.6 m. There is a selection of three lengths of light fittings: 0.9, 1.2 and 1.5 m. For lighting effects, please refer to the diagram on the next page. Lighting integrated in the Professor chilled beam is an added feature that does not affect the cooling effect. If required, a complete light fitting of the same design as the chilled beam (a dummy) can be provided.

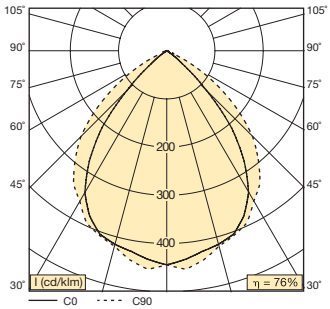
Design and accessories

The glare shield is available in two designs, shiny (Mirror) or matt (Soft). The Soft glare shield comes as standard. The glare shield also functions as a reflector. The light fitting can be custom-made with an HF attachment for light adjustment (dimmer).

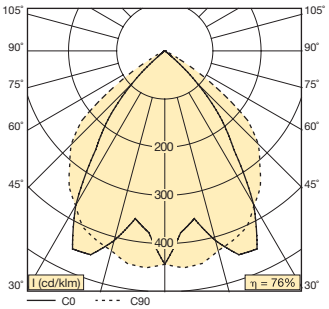
A complete light fitting includes T5 fluorescent tubes, a 3-pole quick-coupling plinth, 2.5 m connection lead 3 x 0.75 mm^2 and an earthed plug. Cabling is non-halogen. Wieland terminal system is also available on request. The light fitting is fully integrated into the chilled beam.

Professor I-60 with direct lighting.

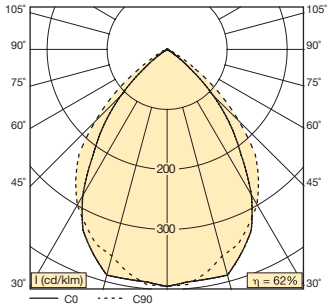
Choice of lighting



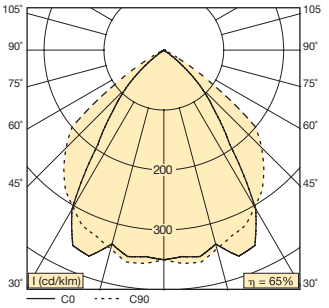
1. Polar diagram of a single fluorescent tube fitting and Soft glare shield.



2. Polar diagram of a single fluorescent tube fitting and Mirror glare shield.



3. Polar diagram of a double fluorescent tube fitting and Soft glare shield



4. Polar diagram of a double fluorescent tube fitting and Mirror glare shield.

Lighting effect

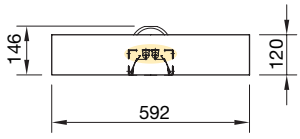
Light fitting effect (W)	Type of tube	Luminous flow (lm)	Light fitting, length (m)	Polar diagram
1×21	HE	1900	0.9	1 & 2
2×21	HE	2800	0.9	3 & 4
1×39	HO	3100	0.9	1 & 2
2×39	HO	6200	0.9	3 & 4
1×28	HE	2600	1.2	1 & 2
2×28	HE	5200	1.2	3 & 4
1×54	HO	4450	1.2	1 & 2
2×54	HO	8900	1.2	3 & 4
1×35	HE	3300	1.5	1 & 2
2×35	HE	6600	1.5	3 & 4
1×49	HO	4300	1.5	1 & 2
2×49	HO	8600	1,5	3 & 4

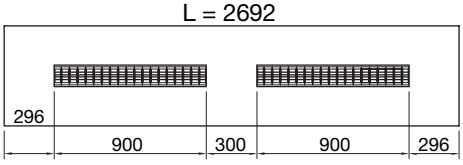
No. of light fittings in Professor I-60

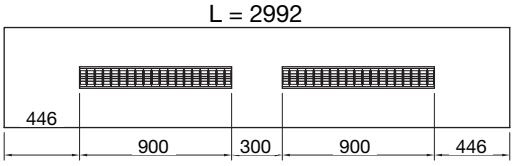
Beam length (m)	No. of light fittings, 0.9 m	No. of light fittings, 1.2 m	No. of light fittings, 1.5 m
1.8	1	1	-
2.1	1	1	1
2.4	1	1	1
2.7	2	1	1
3.0	2	1	1
3.3	2	2	1
3.6	3	2	1

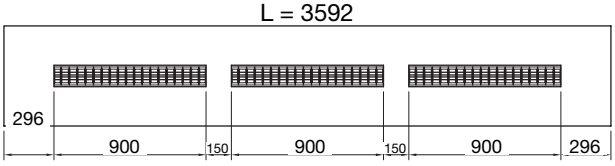
The table shows suitable light fitting(s).
Professor does not allow for various lengths of light fittings to be used. The minimum distance between two or three light fittings in one beam is 100 mm.

Measurements, mm









For further information about connections and measurements, please refer to current product catalogue.

Plafond with lighting

Plafond can be fitted with indirect lighting also functioning as decorative lighting. Lighting for beam lengths of 1.5 – 3.6 m are available. Plafond is fitted with a single fluorescent tube fitting. The fluorescent tubes are available in three lengths: 0.9, 1.2 and 1.5 m. For lighting effects, please refer to the diagram on the next page. Lighting integrated in Plafond chilled beam is an added feature that does not affect the cooling effect. This light function is only appropriate for horizontal light distribution, i.e. ceiling distribution.

Design and accessories

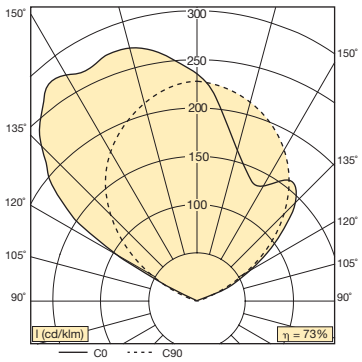
A plastic sheet prevents dust collection and makes it easier to keep the light fitting clean. The light fitting can be custom-made with an HF attachment for light adjustment (dimmer).

A complete light fitting includes T5 fluorescent tubes, a 3-pole quick-coupling plinth, 2.5 m connection lead 3 x 0.75 mm^2 and an earthed plug. Cabling is non-halogen. Wieland terminal system is also available on request. The light fitting is fully integrated into the chilled beam.

Plafond as viewed from above. The fluorescent tube is covered by a plastic sheet preventing dust from collecting. The plastic sheet is easy to remove when changing tubes.

Plafond with indirect lighting.

Choice of lighting



1. Polar diagram of indirect lighting, single fluorescent tube fitting.

Lighting effect

Light fitting effect (W)	Type of tube	Luminous flow (lm)	Light fitting, length (m)	Polar diagram
1×21	HE	1900	0.9	1
1×39	HO	3100	0.9	1
1×28	HE	2600	1.2	1
1×54	HO	4450	1.2	1
1×35	HE	3300	1.5	1
1×49	HO	4300	1.5	1

Plafond with indirect lighting is always fitted with a single fluorescent tube.

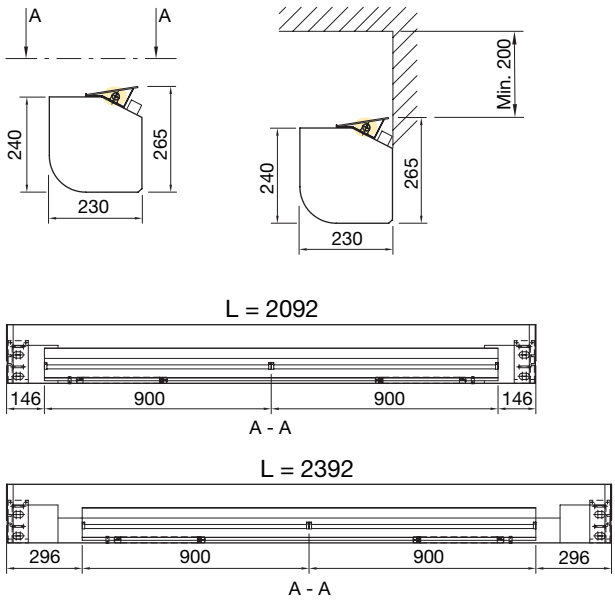
No. of light fittings in Plafond

Beam length (m)	Indirect lighting		
	No. of light fittings, 0.9 m	No. of light fittings, 1.2 m	No. of light fittings, 1.5 m
1.5	1	1*	-
1.8	1	1	1*
2.1	2*	1	1
2.4	2	1	1
2.7	2	2*	1
3.0	3*	2	1
3.3	3	2	2*
3.6	3	2	2

**Not vertical connection of air and water.*

The table shows suitable light fitting(s).
Plafond does not allow for various lengths of light fittings to be used.

Measurements, mm



For further information about connections and measurements, please refer to current product catalogue.

Architect Moon with lighting

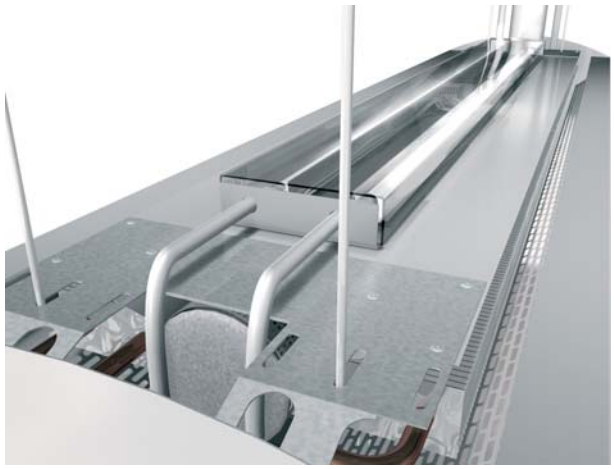
Architect Moon is available with an optional combination of direct or indirect lighting. The indirect lighting features a double fluorescent tube fitting while the direct lighting incorporates at least one single or double fluorescent tube fitting. Appropriate and available beam lengths for this type of light function are 1.5 – 3.6 m. The light fittings are available in three lengths: 0.9, 1.2 and 1.5 m.

Design and accessories

The glare shield for direct lighting is available in two designs, shiny (Mirror) or matt (Soft). The Soft glare shield comes as standard. The glare shield also functions as a reflector. The indirect lighting is protected by a plastic case positioned above the light fitting. The plastic cape prevents dust collection and makes it easier to keep the light fitting clean. Both the direct and indirect light fittings are available with an HF attachment for light adjustment (dimmer).

Architect Moon with indirect lighting comes with a specially designed end piece, the purpose of which is to conceal the lighting components on top of the beam. Architect Moon with indirect or direct lighting is also available with a double cord switch for a varied light function.

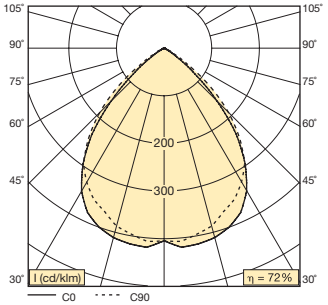
A complete light fitting includes T5 fluorescent tubes, a 3-pole quick-coupling plinth, 2.5 m connection lead 3 x 0.75 mm^2 and an earthed plug. Cabling is non-halogen. Wieland terminal system is also available on request. The light fitting is fully integrated into the chilled beam.



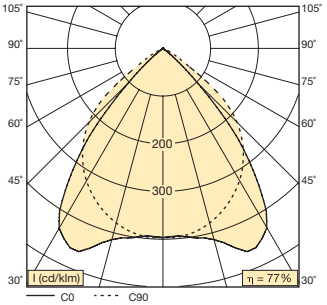
Architect Moon as viewed from above.

Architect Moon with direct and indirect lighting.

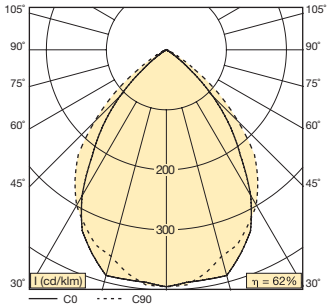
Choice of lighting



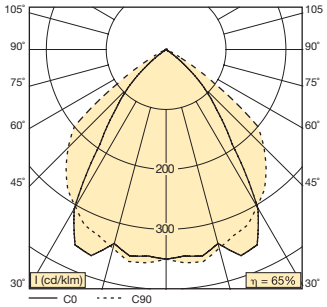
1. Polar diagram of direct lighting, single fluorescent tube fitting and Soft glare shield.



2. Polar diagram of direct lighting, single fluorescent tube fitting and Mirror glare shield.



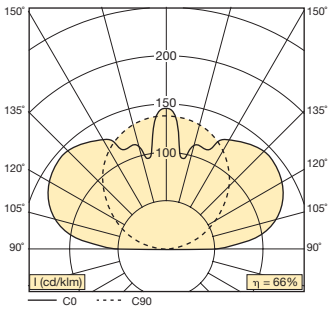
3. Polar diagram of direct lighting, double fluorescent tube fitting and Soft glare shield.



4. Polar diagram of direct lighting, double fluorescent tube fitting and Mirror glare shield.

Lighting effect

Light fitting effect (W)	Type of tube	Luminous flow (lm)	Light fitting, length (m)	Polar diagram
1×21	HE	1900	0.9	1 & 2
2×21	HE	2800	0.9	3, 4 & 5
1×39	HO	3100	0.9	1 & 2
2×39	HO	6200	0.9	3, 4 & 5
1×28	HE	2600	1.2	1 & 2
2×28	HE	5200	1.2	3, 4 & 5
1×54	HO	4450	1.2	1 & 2
2×54	HO	8900	1.2	3, 4 & 5
1×35	HE	3300	1.5	1 & 2
2×35	HE	6600	1.5	3, 4 & 5
1×49	HO	4300	1.5	1 & 2
2×49	HO	8600	1.5	3, 4 & 5



5. Polar diagram of indirect lighting, double fluorescent tube fittng.

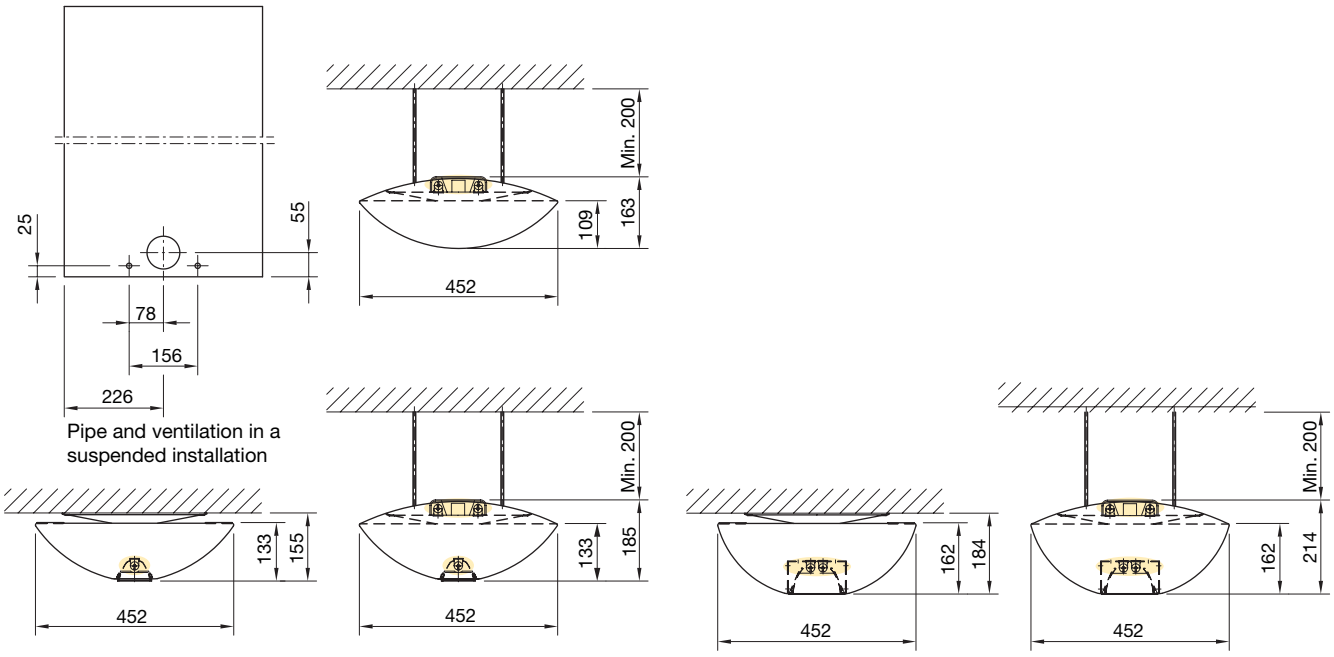
For direct lighting, use single or double fluorescent tube fittings.
For indirect lighting, use double fluorescent tube fittings.

No. of light fittings

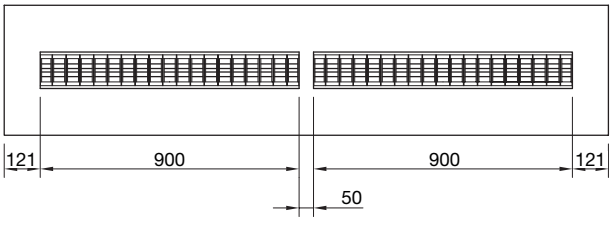
Beam length(m)	Direct and indirect lighting		
	No. of light fittings, 0.9 m	No. of light fittings, 1.2 m	No. of light fittings, 1.5 m
1.5	1	1	-
1.8	1	1	1
2.1	2	1	1
2.4	2	1	1
2.7	2	2	1
3.0	3	2	1
3.3	3	2	2
3.6	3	2	2

The table to the left shows suitable light fitting(s) Architect Moon does not allow for various lengths of light fittings to be used.

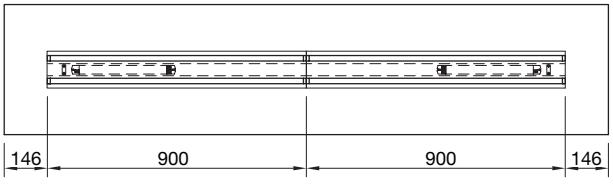
Measurements, mm



Viewed from below L = 2092



Viewed from above L = 2092



For further information about connections and measurements, please refer to current product catalogue.

Other

Equipment

Electrical connection: 2.5 m connection lead RKK 3 x 0.75 mm^2 and earthed plug supplied as standard.
Glare shield: The glare shield is available in two designs, shiny (Mirror) or matt (Soft). The Soft glare shield comes as standard. The glare shield also functions as a reflector and is earthed.
Light sources: T5 fluorescent tubes of type HE supplied with complete installation. The fluorescent tubes have a diameter of 16 mm. Specified values for luminous flow (lm) refer to a surrounding temperature of 25°C. The HO type (high output) has a slightly lower light yield (lm/W) and higher luminance (light intensity) than the HE type (high efficiency).
Perforations: The products come with perforation 'Slot 50%' as standard. For other perforations, please contact Lindab.
Air connection: For suspended installations, a lacquered ventilation duct can be supplied on request.
Suspension: White plastic coating for threaded rods can be supplied.
Covering plates: Covering plates for feed through of water pipes and ventilation ducts are available on request.

Light estimation

Lighting data is available in EULUMDAT format (.ldt). For light estimations, please contact Lindab.

Programme text

Chilled beams manufactured by Lindab	**Qty**
Professor I 60 15-100-A1-3.6 m (please refer to Professor brochure) + direct lighting: 2×39 W, three 0.9 m light fittings + glare shield: Mirror	40
Plafond-A-15-100-A1R, 2.7 m (please refer to Plafond brochure) + indirect lighting: 1×39 W, two 0.9 m light fittings	20
Architect Moon-15-100-A1- 3.0 m (please refer to Architect brochure) + direct lighting: 1×54 W, two 1.2 m light fittings + indirect lighting: 2×54 W, two 1.2 m light fittings + glare shield: Mirror + both direct and indirect lighting should be fitted with an HF attachment for light adjustment.	40

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