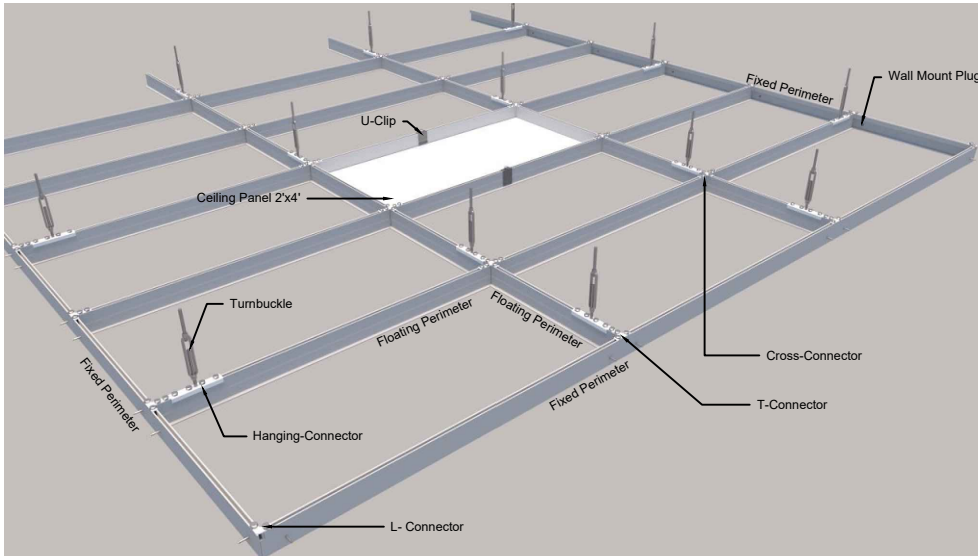


Structural Grid Ceiling System are pre-engineered to provide all in one ceiling solutions with many coustical, strength, and performance features ideal for various applications.



**Key Selection Attributes**

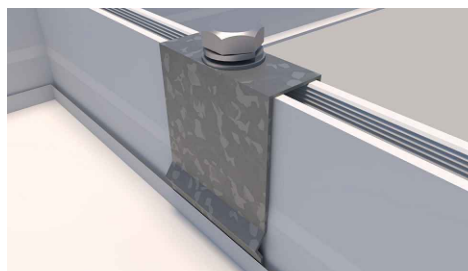
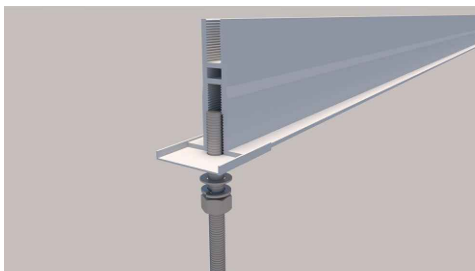
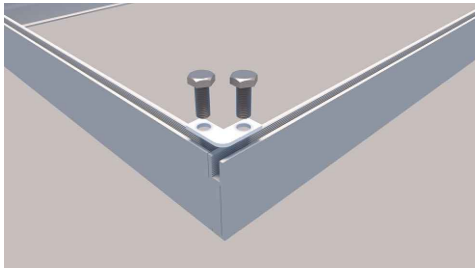
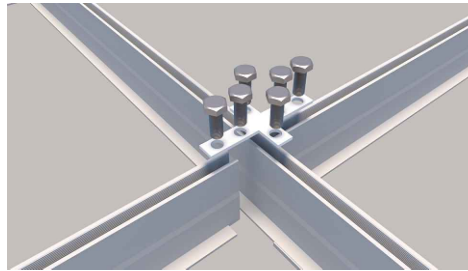
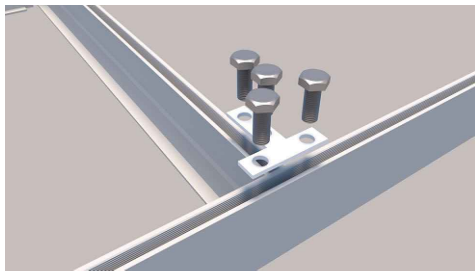
- Grid consists of main beams and structural cross tee
- The system has continuous threaded boss channel, allowing the threaded rod to be installed at any location
- Capable of supporting power modules, light fixtures, cabel trays, partitions and etc.
- Support up to a 380kg point load rating using M10 threaded rod at 1.2x x 1.2m connection point
- Factory precision cutting and custom length available upon request.
- Lighting and other containment options are available upon request

**Typical Application**

- Data centers
- Clean rooms
- Medical facilities
- Retail stores
- Offices

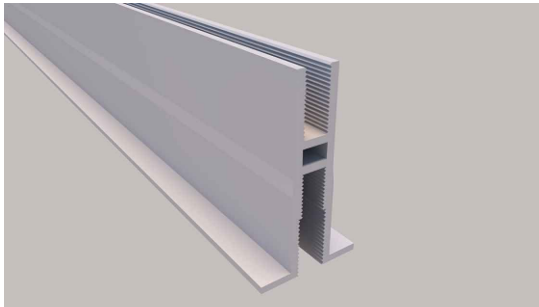
**Standard components**

- Anti Splay Washer
- Cross-Connector
- Ceiling Panel 2' x 2'
- Ceiling Panel 2' x 4'
- Ceiling panel 1' x 4'
- Cross Tee Perimeter Trim
- Hanging-Connector
- L-Connector
- Main Beam Perimeter Trim
- Screw Bolt and Washer Set
- Turnbuckle
- T-Connector
- U-Clip

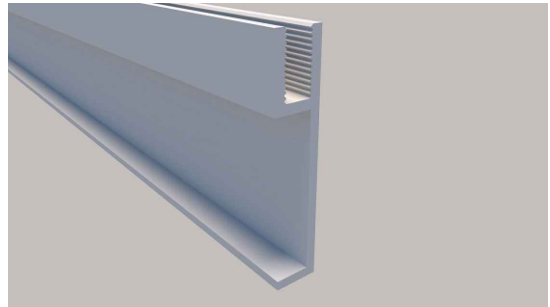


\*Product specifications subject to changes without prior notice

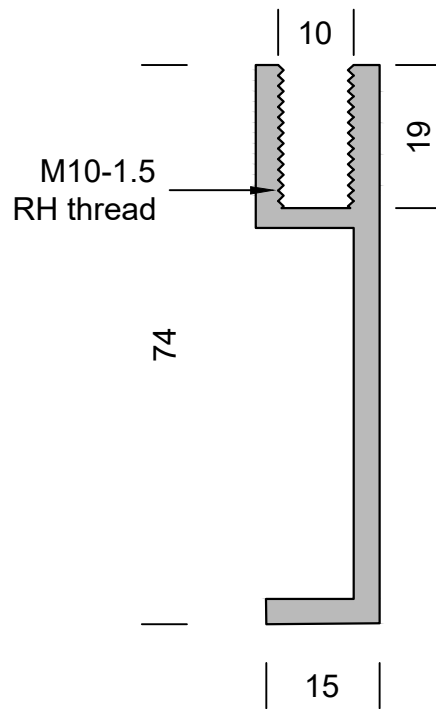
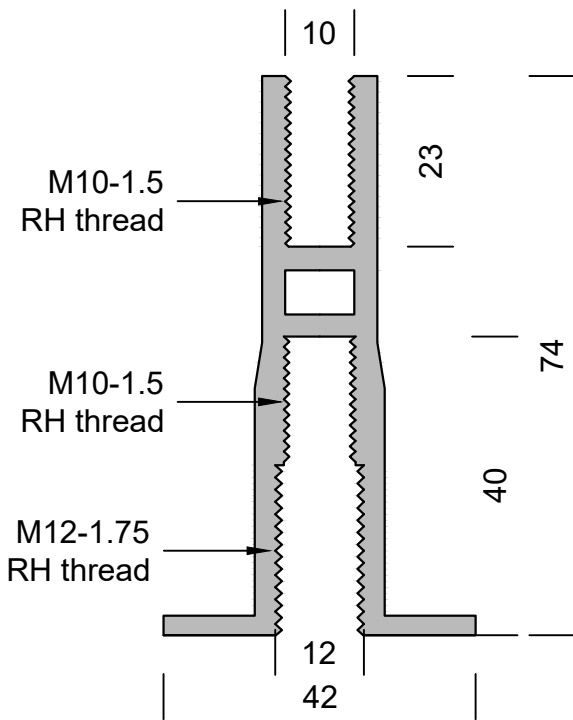
Main Beam/ Cross Tee, Floating/ Fixed Perimeter



Main Beam/ Cross Tee Floating Perimeter



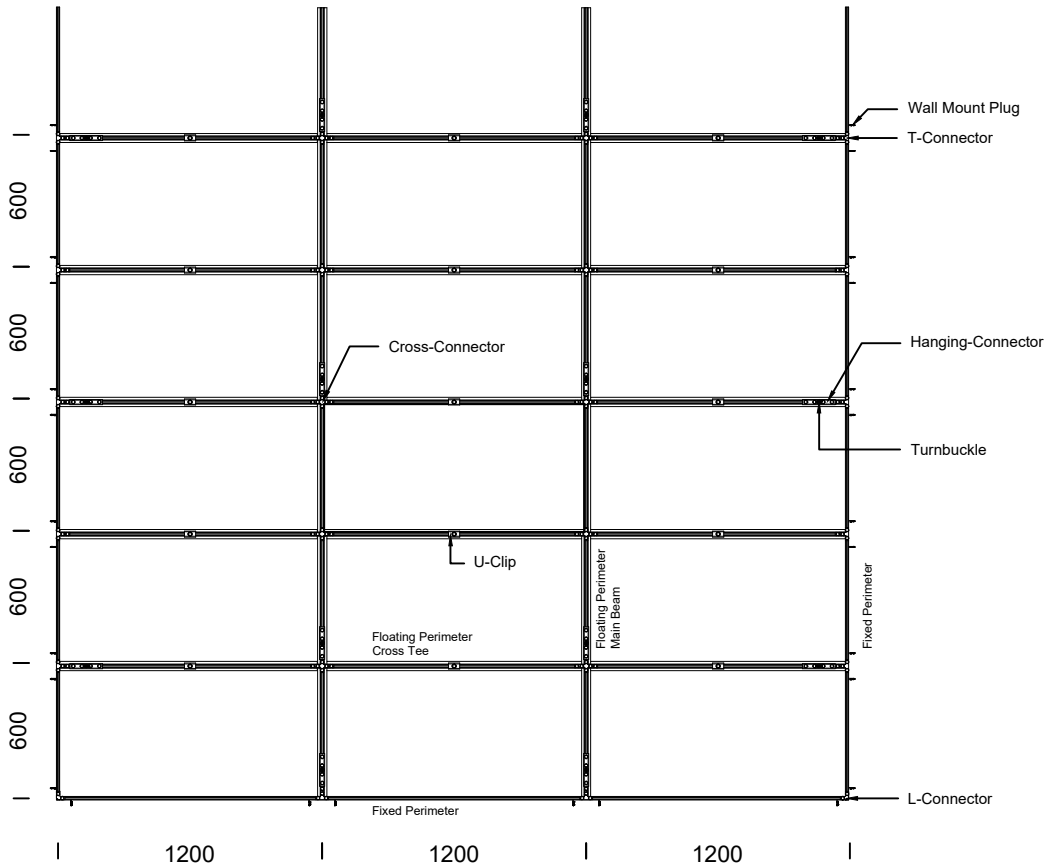
Main Beam/ Cross Tee Fixed Perimeter



Main beam maximum length at 3.6m and cross tee maximum length at 1.2m

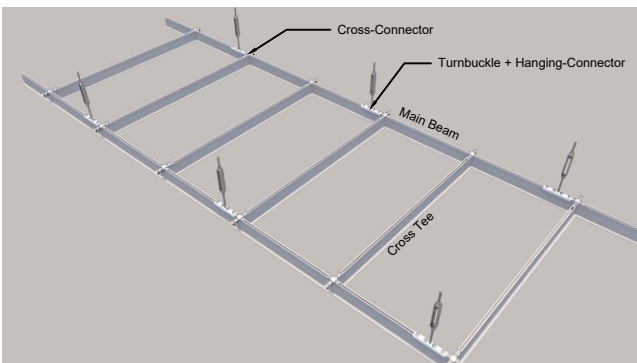
\*Product specifications subject to changes without prior notice

System Overview



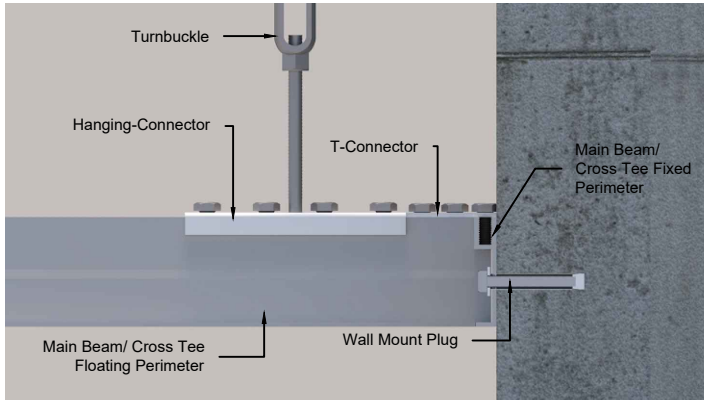
Guideline to setup a grid system section by section.

- Attach 2 main beam with 6 cross Tee using 12 Cross-Connectors.
- Align the connectors between the main beam and Cross Tee.
- Use fasteners and lock-washers tightened up to 0.35 m-kg to attached main beams to the cross Tees.
- Do not fully tighten the connectors as they will be used to attach consecutive subassemblies.
- Continue to ass sections to build out the whole grid system

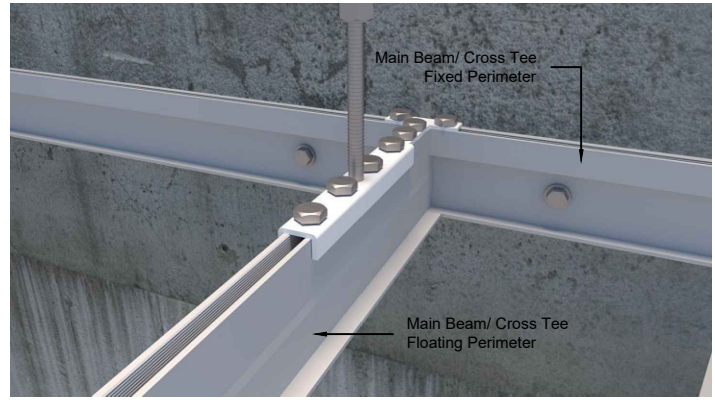


\*Product specifications subject to changes without prior notice

Main Beam / Cross Tee Fixed Perimeter Installation



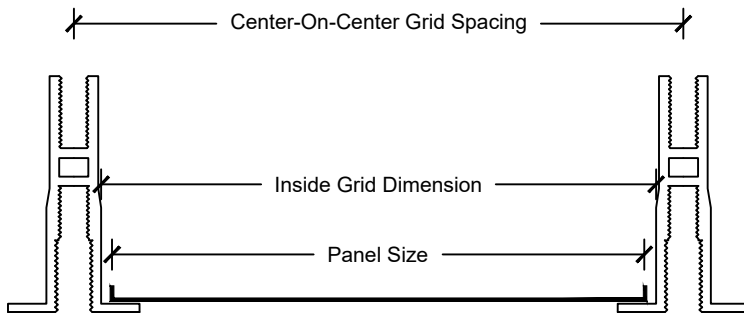
Side View Of Main Beam/ Cross Tee Fixed Perimeter



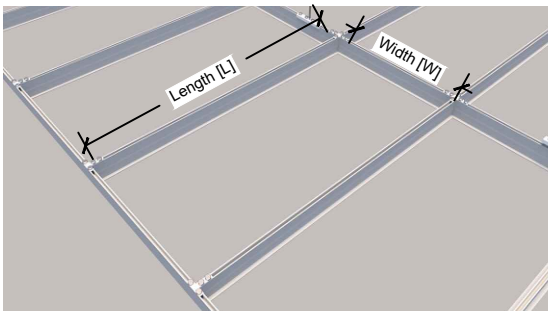
Top Perspective View Of Main Beam/ Cross Tee Fixed Perimeter

Fixed perimeter are designed to fix along perimeter wall with standard length of 3.6m. With frequency of drop rod from the ceiling of 1.2m, It can be cut on site to the desire length and to be bolted to the concrete wall to strengthen the rigidity of the entire system. The end of the side perimeter can be joint with "L" connector and continue with another set of side beam

Typical Spacing For Main Beam/ Cross Tee Floating Perimeter



Dimension reference for single grid					
Center-to-center spacing [L]	Center-to-center spacing [W]	Inner grid dimension [L]	Inner grid dimension [W]	Panel size [L]	Panel size [W]
1200mm	600mm	1183mm	583mm	1180mm	580mm



\*Product specifications subject to changes without prior notice

### Bolt Torque

All bolt connection to the top slot of grid should be tightened flush to a washer with a maximum torque value 3.39 Nm, using a torque limiting screw gun or ratchet similar to:



All bolt or nut connections to the bottom slot of the grid should be tightened flush to a washer or mounting bracket with a maximum torque value of 3.39 Nm, using a torque limiting screw gun or wrench similar to:



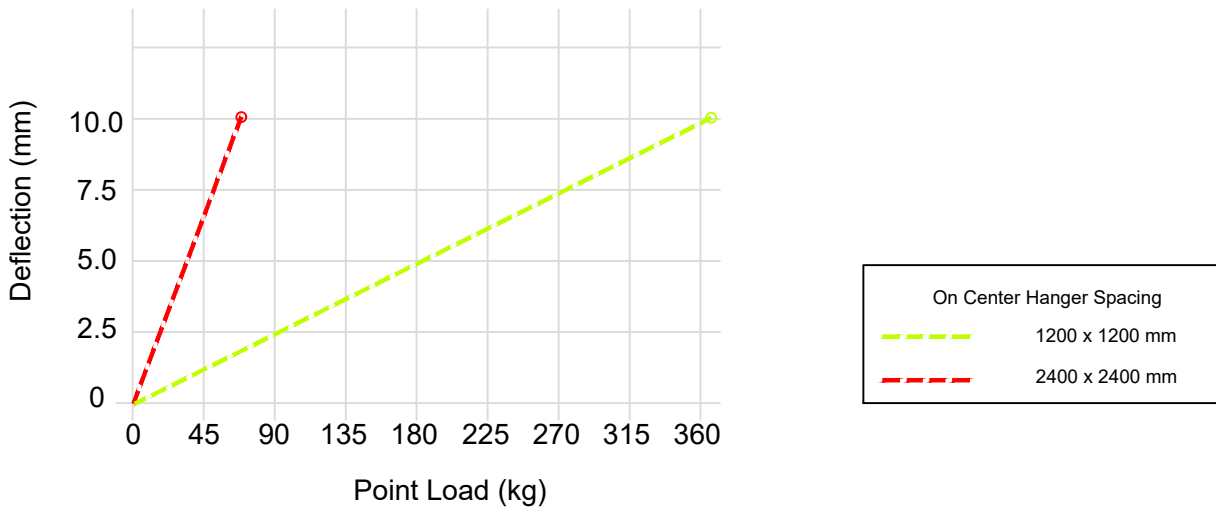
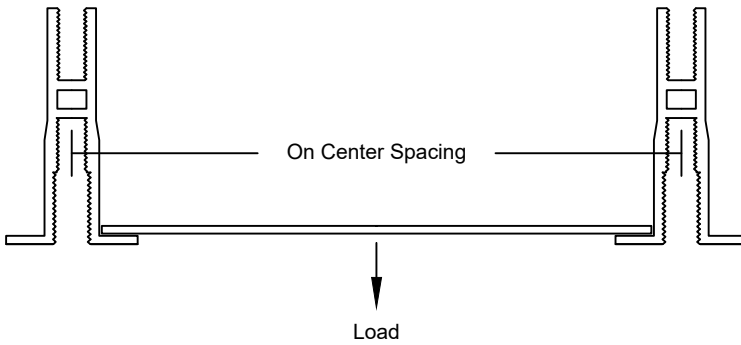
### Thread Engagement

When threading bolts or threaded rod into bottom slot to hang equipment, ensure that the bolt or rod is long enough to fully engage the depth of the slot entirely or thread tear-out could be possible. Any less than 17mm thread length into the 10mm slot as measured from the bottom to the flange could cause thread tear-out at less than rated loads for the system.

\*Product specifications subject to changes without prior notice

Loading Guide

Structural Beam Deflection  
(Midspan Beam)



Calculate midspan beam deflection at any point below yield

$$S = \frac{W.L^3}{48.E.I}$$

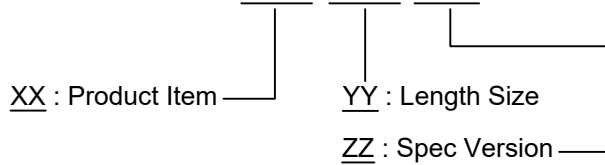
S = Deflection  
W = Load  
L = 1200mm  
E =  $7.03 \times 10^3 \text{ kg/m}^2$   
I =  $2.79 \times 10^{-7} \text{ m}^4$

On Center Hanger Spacing	Max. Safe Working Uniform Load (Kg/m <sup>2</sup> )	Max. Allowable Deflection (mm)	Max. Safe Working Load (Kg)	Ultimate Point Load (Kg)
1200 x 1200 mm	540	10	380	725
2400 x 1200 mm	270	10	70	140

\*Product specifications subject to changes without prior notice

Ordering Guidelines

**LONGIN-XX-YY ZZ**



- ASW = Anti Splay Washer
- CC = Cross-Connector
- CP1 = Ceiling Panel 2 x 2
- CP2 = Ceiling Panel 2 x 4
- CP3 = Ceiling Panel 1 x 4
- CT = Cross Tee Perimeter Trim
- HC = Hanging-Connector
- LC = L-Connector
- MB = Main Beam Perimeter Trim
- SW = Screw Bolt and Washer Set
- TB = Turnbuckle
- TC = T-Connector
- TR = Threaded Rod
- UC = U-Clip
- WP = Wall Mount Plug

\*All items come in bare finish, except for ASW/ CP1/ CP2/ CP3/ CTFL/ CTFI/ MBFL/ MBFI

Example:

Main Beam Perimeter Trim @ 3.6M Length, White Powder coated  
<LONGIN-MB-3600WH>

Ceiling Panel 2 x 4 @ 0.7MM Thickness  
<LONGIN-CP2-1180x580x0.7WH>

Turnbuckle in M10 Size  
<LONGIN-TB-WH

\*Product specifications subject to changes without prior notice

## Safety Guide

**! THIS INFORMATION MUST BE SHARED WITH ALL SERVICE INSTALLERS WHO INTEND TO SUSPEND SERVICES FROM THE GRID CEILING SYSTEM LONGIN**

LONGIN is a structural ceiling system designed to support static vertical loads. During installing services, the following instructions must be strictly adhered to:

1. LONGIN is limited to a maximum point load of 380kg or distributed load of 540 kg/m<sup>2</sup> at 1200mm hanger spacing. Exceeding these values may cause a failure in the system.
2. When hanging equipment from the M12 slot, an anti-splay washer must be used to prevent separation of the slot under heavy loads.
3. Do not torque the threaded rod or bolts above 0.35 m·kg. Over torquing will damage the threaded slots reducing the load capacity of the LONGIN System. Failure to adhere to this may result in the shearing of bottom slot threads reducing the load capacity of the LONGIN system.
4. Equal care must be taken during the installation of the LONGIN system to not exceed the 0.35 m·kg torque limit on the top screws connecting the LONGIN to the suitable connector. Failure to adhere to this may result in the shearing of top slot threads reducing the load capacity of the LONGIN system.
5. Only screws supplied by LILA should be used on the top slot. Failure to adhere to this may result in the reduction of the load capacity of the LONGIN system.
6. For threaded rod connections, the rod should be fully engaged. For bolted connections bolts should be carefully selected to maximize thread engagement, but should not be oversized to avoid bottoming out. Failure to adhere to this may result in the reduction of the load capacity of the LONGIN system.
7. For threaded rod connections, the rod should be fully engaged. For bolted connections bolts should be carefully selected to maximize thread engagement, but should not be oversized to avoid bottoming out. Failure to adhere to this may result in the reduction of the load capacity of the LONGIN system.
8. All bottom thread fixings should be completed with suitable washers.
9. LONGIN System must NOT be used for walkable ceiling application.



LONGAN ultra-thin LED recessed panel light, high brightness. Using external constant current isolated driver, easily connected. It adopts qualified super bright LED as light source and the frame is designed to be modern and stylish, while the high quality frosted cover is used for efficient light diffusion. This LED panel light is the ideal replacement for traditional grid light that conventional light will never achieve. It is suitable to be installed in hospital, offices, schools and warehouses.



### FEATURE

- Power : 20/25/30/35W & 35/40/45/50W
- Beam Angles : 120°
- CCT : 3000K/4000K/6500K
- CRI : 80
- IP Rating : IP40

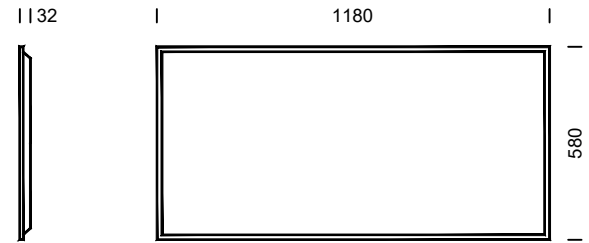
### HIGHLIGHTS

- 4-power adjustable steps
- 4-CCT adjustable steps
- 0-10V Dimming
- UGR <19 version is available upon request
- Easy and various installation styles

### CERTIFICATION

- CE
- RoHS

### TECHNICAL DRAWING



dimension tolerance = ± 2mm



### TECHNICAL SPECIFICATIONS

ELECTRICAL DATA		OPTIC DATA		PHYSICAL DATA	
<b>Input Power</b>	20-35W (1180 x 290/ 580 x 580) 35-50W (1180 x 580)	<b>Color Temperatures</b>	3000K/4000K/6500K	<b>Finishing</b>	White
<b>Operating Voltage</b>	220-240V 50/60Hz	<b>Luminous Flux</b>	2,200-5,500 LM	<b>IP Protection</b>	IP 40
<b>Input Current</b>	0.25A@230V	<b>Beam Angle</b>	120°	<b>Dimension [LxWxH], mm</b>	1180 x 580 x 32 / 1180 x 290 x 32 / 580 x 580 x 32
<b>Power Factor</b>	0.9	<b>Type of Distribution</b>	Wide	<b>Type of Mounting</b>	Suspended/ Lay-in
<b>SDCM</b>	<6	<b>Color Rendering Index</b>	80	<b>Housing</b>	Iron/ aluminium
<b>Driver</b>	Remote driver	<b>Life Time</b>	50,000H/ L80 B50	<b>Lens</b>	PS
<b>Options</b>	Dimmable/ PIR Sensor [on request]	<b>Efficiency</b>	110 LM/W	<b>Operating Temp.</b>	-10°C~+40°C

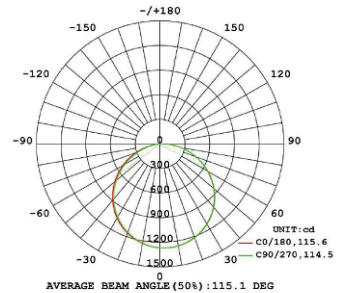
dimension tolerance = ± 2mm

### ORDERING CODE

Ex: LONGAN - XX - YY - ZZAABBCC

XX: Wattage	YY: CCT	ZZ: Beam Angle	AA: CRI	BB: Dimension	CC: Spec Version
W1 = 20W	C1 = 3000K	Ba = 120°	Ca = 70	Da = 1180 x 580	* = PIR S
W2 = 25W	C2 = 4000K		Cb = 80	Db = 1180 x 290	# = Dimming
W3 = 30W	C3 = 6500K		Cc = 90	Dc = 580 x 580	
W4 = 35W					
W5 = 40W					
W6 = 45W					
W7 = 50W					

### PHOTOMETRICS CURVE



\*Product specifications subject to changes without prior notice



ANT-15P

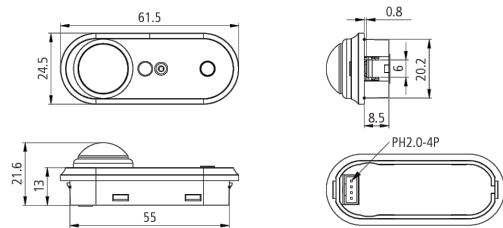


RC-100

**Specifications**

- Power supply** : 10-14V DC, > 50mA
- Dim control output** : 0-10V, max. 25mA sinking current
- Mounting height** : 12ft(4m) Max.
- Detection angle** : 360°
- Operating temperature** : -20°C~60°C
- IP rating** : IP20

**Dimension (mm)**



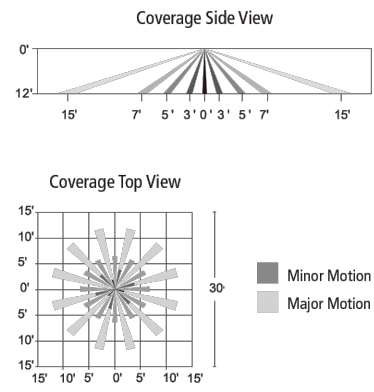
**Dimming Function**

Integrated PIR Sensor functions to achieve trilevel control, for some areas which require a light change notice before switch-off. The sensor offers 3 levels of light: 100%-->dimmed light (natural light is insufficient) ->off; and 2 periods of selectable waiting time: motion hold-time and stand-by period; Selectable daylight threshold and freedom of detection area.



- With sufficient natural light, the light does not switch on when presence is detected.
- With insufficient natural light, the sensor switches on the light automatically when presence is detected.
- After hold-time, the light dims to stand-by level if the surrounding natural light is below the daylight threshold.
- Light switches off automatically after the stand-by period elapses.

**Coverage Patterns**



**Daylight Harvesting Function ( Only By Using Rc100 Remote Control )**

Open the daylight harvesting function only by choosing "☞" button when remote control is in setting condition. Memory and maintain current ambient brightness.



- When the natural light is sufficient or dark, movement is detected and the light will turn on 100% brightness.
- The light turns on at full or dims to maintain the lux level. The light output regulates according to the level of natural light available.
- The light dims to stand-by period after hold-time and stays on selected minimum dimming level.
- The light switches off completely after the stand-by period.

**Setting On This Demonstration:**  
 Brightness:100%  
 Sensitivity:100%  
 Hold Time:30min  
 Daylight Sensor: ☞  
 Stand By Dim: 30%  
 Stand By Time: 1min

\*Product specifications subject to changes without prior notice



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