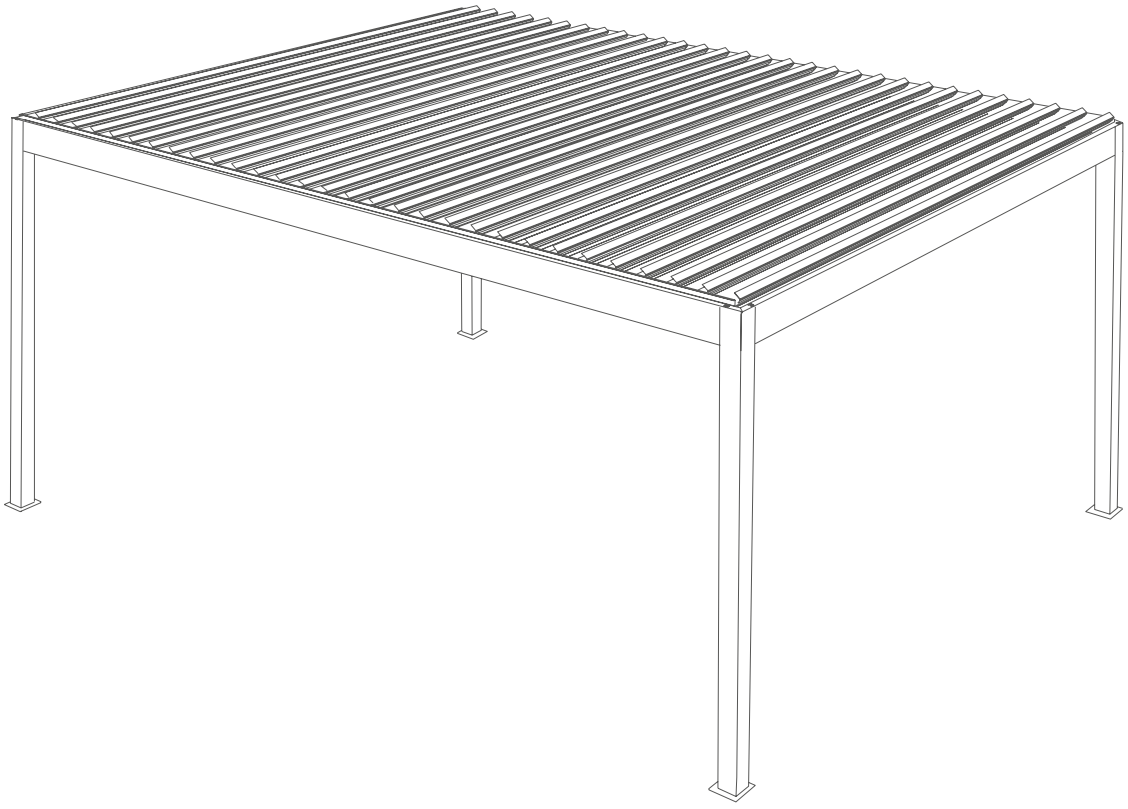
# IASO®

# Better Outside

TECHNICAL DATA SHEET | ENGLISH | PERGOLAS | PERGOLAM LITE



**INDEX** —

# DESCRIPTION

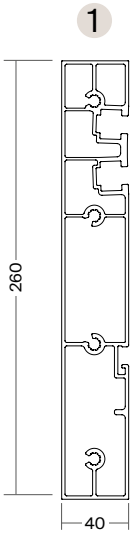
Pergolam Lite is a bioclimatic pergola built entirely with aluminium profiles. Thanks to its louvers, 22.5 cm wide, opening them allows light and breeze to pass through, creating a greater sense of openness. They feature a continuous or stepped rotation system which, when the roof closes, seals hermetically to prevent the passage of light and water.

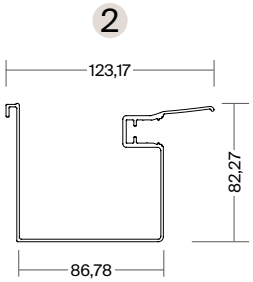
# TECHNICAL CHARACTERISTICS

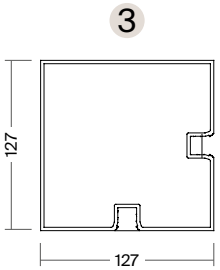
- Structure made of 6065-T5 aluminium profiles.
- Components with an electrostatic powder coating or anodised finish.
- Stainless steel screws and fittings.
- Can cover up to 27 $m^2$ per module.
- Louver rotation range: from 0° to 100°.
- Lateral louver slope between 0.5 and 1.5%.
- Resistant to winds up to 80 km/h, grade 9 on the Beaufort scale.
- 24 V telescopic motor of 1500 N.
- It can incorporate an LED lighting system in louvers and channels.
- It can incorporate translucent polycarbonate louvers (necessary for their lighting).
- Remote control for motor and lighting.
- “ALL SEASONS”

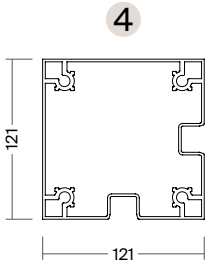
# MAIN PROFILES

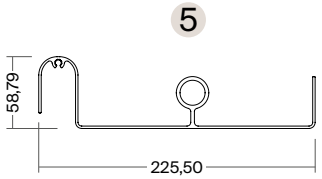
1. BEAM
2. GUTTER
3. POST
4. POST CORE
5. SMOOTH LOUVER
6. DAYLIGHT LED LOUVER (aluminium)
7. DAYLIGHT LED LOUVER (PC)
8. WATER CHANNELLING SYSTEM WITH SLOPE

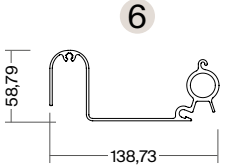


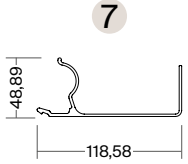



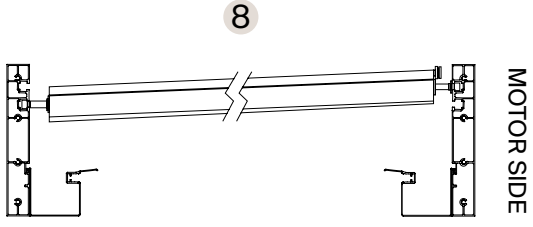



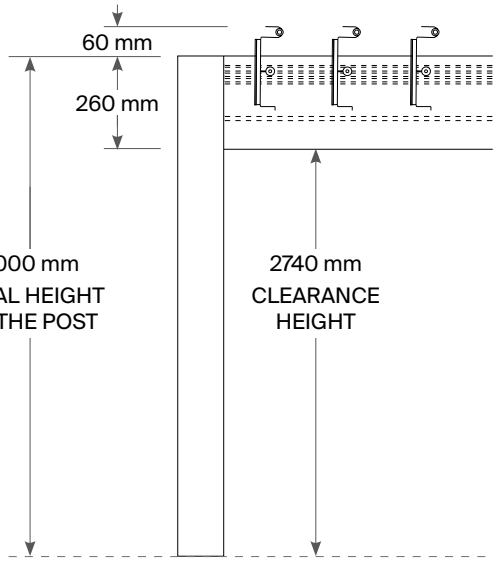



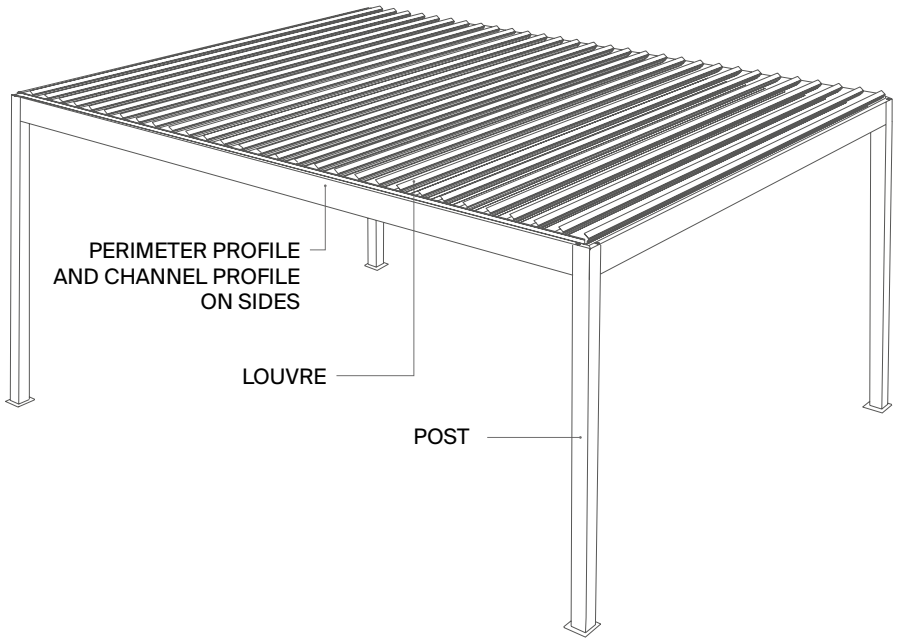



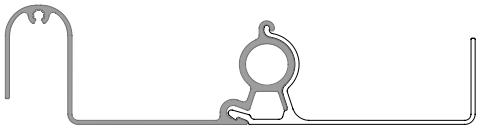



# COMPONENTS



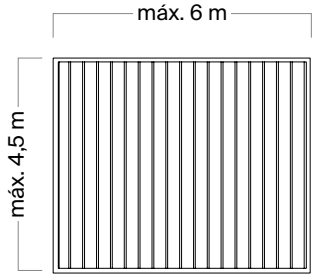

OPTIONAL: DAYLIGHT LOUVER
They allow daylight to pass through with the louvers closed and con incorporate lighting.



ALUMINIUM PROFILE + POLYCARBONATE PROFILE

# DIMENSIONS

| WIDTH | PROJECTION |
|---|---|
| 2,5 a 4,5 | 2,5 a 6 |



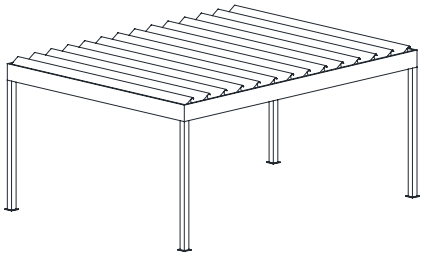

Dimensions for measurements with louver multiples for the 4,5 x 6 and 4 x 5 pergolas we have in stock.

| 4,5 x 6 | |
|---|---|
| WIDTH (m) | PROJECTION (m) |
| 4,5 | 6 |
| 4,5 | 5,797 |
| 4,5 | 5,594 |
| 4,5 | 5,391 |
| 4,5 | 5,188 |
| 4,5 | 4,985 |
| 4,5 | 4,782 |
| 4,5 | 4,579 |
| 4,5 | 4,376 |
| 4,5 | 4,173 |
| 4,5 | 3,97 |
| 4,5 | 3,767 |
| 4,5 | 3,564 |
| 4,5 | 3,361 |
| 4,5 | 3,158 |
| 4,5 | 2,955 |
| 4,5 | 2,752 |
| 4,5 | 2,549 |

| 4 x 5 | |
|---|---|
| WITDH (m) | PROJECTION (m) |
| 4 | 5 |
| 4 | 4,796 |
| 4 | 4,592 |
| 4 | 4,388 |
| 4 | 4,184 |
| 4 | 3,98 |
| 4 | 3,776 |
| 4 | 3,572 |
| 4 | 3,368 |
| 4 | 3,164 |
| 4 | 2,96 |
| 4 | 2,756 |
| 4 | 2,552 |

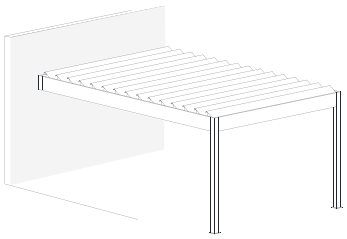
# INSTALLATION OPTIONS

## FREESTANDING

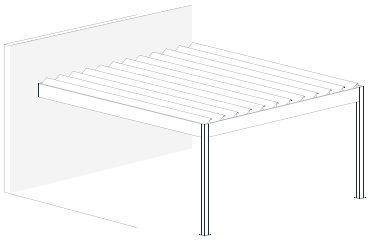


## WITH POSTS

FRONT

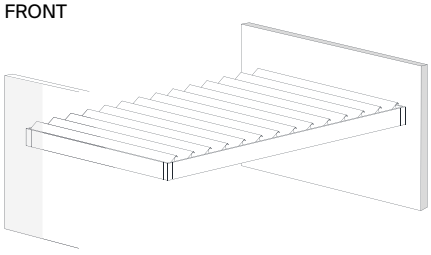


SIDE

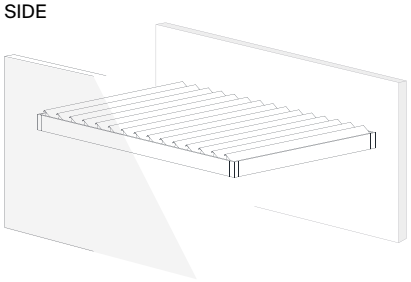


## BETWEEN WALLS

FRONT



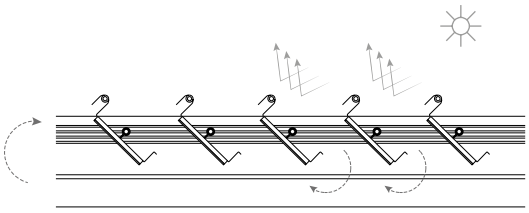
SIDE



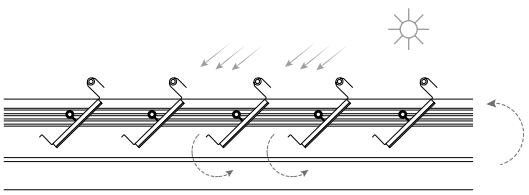
* CHECK PRODUCT AVAILABILITY

# LOUVRE ORIENTATION

FRONT



STANDARD SUN SHADING:
Blocked light with open louvers

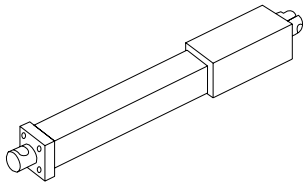


FRONT

Passing light with open louvers

# MOTORISATION

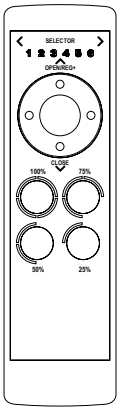
| TECHNICAL SPECIFICATIONS | |
|---|---|
| Motor speed | 3800 RPM |
| Capacity | 1500 N |
| No-load speed (24V) | 12 ± 2 mm/s |
| No-load noise level (24V) | ≤ 60 dB |
| Speed at rated load (24V) | 9.5 ± 2 mm/s |
| Current at rated load (24V) | ≤ 3.0 A |
| Self-locking capacity (Min) | 1000 N |
| Operating temperature | -5°C~45°C |



# EMITTER

**EMITTER NOON** 42 chanels

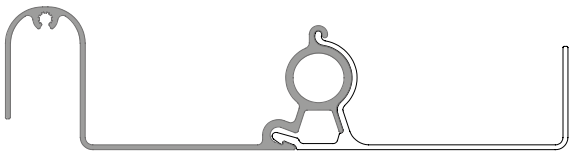
| ESPECIFICACIONES TÉCNICAS | |
|---|---|
| Power supply | 3V ± 10% |
| Lithium battery | CR2430 |
| Battery lifespan | >2 years |
| Protection rating | IP20 |
| Dimensions | 125x40x10 mm |
| Operating temperature | -5°C~50 °C |
| Transmission power | 10 mW |
| Radio frequency | 433.925 MHz |
| Operating range | 35 m |



# LIGHTING

**OPTIÓN DAYLIGHT LOUVRES**

They allow dalight to pass through the polycarbonate profile with the louvers closed.

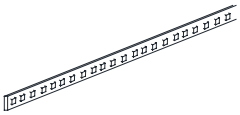


ALUMINIUM PROFILE + POLYCARBONATE PROFILE

**LED STRIP CHARACTERISTICS**

Optional for louvre lighting

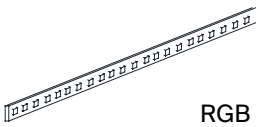
| ESPECIFICACIONES TÉCNICAS | |
|---|---|
| Colour | Blanco cálido |
| Colour temperature | 3200-3300 K |
| Beam angle | 120° |
| Consumption | 4,5 W/m |
| Voltage | 24V DC |
| Luminous flux | 280-300 Lm/m |
| Protection rating | IP65 |
| Type of diode | SMD2835 |
| Luminous flux maintenance | L70 B50 |
| Service life | 25.000 h |
| Efficiency | 83 Lm/W |
| No. LEDs per metre | 120 |



**RGB LED STRIP CHARACTERISTICS**

Optional for gutter lighting

| TECHNICAL SPECIFICATIONS | | | |
|---|---|---|---|
| Colour | Blanco cálido | Protection rating | IP65 |
| Colour temperature | 3200-3300 K | Type of diode | SMD2835 |
| Beam angle | 120° | Luminous flux maintenance | L70 B50 |
| Consumption | 4,5 W/m | Service life | 25.000 h |
| Voltage | 24V DC | Efficiency | 83 Lm/W |
| Luminous flux | 280-300 Lm/m | No. LEDs per metre | 120 |



RGB

# WIND CLASSIFICATION

Not suitable for snow loads. In the event of snowfall, the pergola must be kept open.

400 N/m²
**6**
UNE EN 13561

| CLASS | Grade Beaufort | Wind speed | | Pressure | Environnmental condition |
|---|---|---|---|---|---|
| 0 | 0 | 0 - 1 km/h | 0.0 - 0.3 m/s | 0.05 N/m² | Calm |
| | 1 | 1 - 5 km/h | 0.3 - 1.4 m/s | 1.21 N/m² | Very light breeze |
| | 2 | 6 - 11 km/h | 1.7 - 3.1 m/s | 5.84 N/m² | Light breeze |
| | 3 | 12 - 19 km/h | 3.4 - 5.3 m/s | 17.41 N/m² | Gentle breeze |
| 1 | 4 | 20 - 28 km/h | 5.6 - 7.8 m/s | 37.81 N/m² | Moderate wind |
| 2 | 5 | 29 - 38 km/h | 8.1 - 10.6 m/s | 69.64 N/m² | Fresh wind |
| 3 | 6 | 39 - 49 km/h | 10.9 - 13.6 m/s | 115.79 N/m² | Cool wind |
| 4 | 7 | 50 - 61 km/h | 13.9 - 17.0 m/s | 179.45 N/m² | Strong wind |
| 5 | 8 | 62 - 74 km/h | 17.5 - 20.6 m/s | 264.08 N/m² | Gale |
| **6** | **9** | **75 - 88 km/h** | **20.9 - 24.5 m/s** | **373.46 N/m²** | **Strong gale** |
| - | 10 | 89 - 102 km/h | 24.7 - 28.3 m/s | 501.74 N/m² | Storm |
| | 11 | 103 - 117 km/h | 28.6 - 32.5 m/s | 660.16 N/m² | Violent storm |
| | 12 | 118 - 133 km/h | 32.6 – 36.9 m/s | 853.06 N/m² | Hurricane |

CLASS ACCORDING TO STANDARD UNE EN 13561:2015

*The correspondence of the class according to UNE EN 13561 with the wind speed or Beaufort scale is indicative.

# PRECIPITATION CLASSIFICATION

| CLASS | Average intensity in one hour (mm/h) | Environnmental condition |
|---|---|---|
| 1 | ≤ 2 | Weak |
| 2 | > 2 y ≤ 15 | Moderate |
| **3** | **>15 y ≤ 30** | **Strong** |
| 4 | >30 y ≤ 60 | Very strong |
| 5 | >60 | Torrential |

# CLASSIFICATION ACCORDING TO MOTOR DURABILITY

| CLASS | NÚMERO DE CICLOS DESPLIEGUE / REPLIEGUE |
|---|---|
| **1** | **3000** |

CLASS ACCORDING TO STANDARD UNE EN 13561:2015

# FOUNDATION CALCULATION

With our Toscana Structure APP, we can design and calculate the ideal pergola in just minutes, incorporating the wind and snow loads required by the client. It will also automatically indicate the technical specifications of the reinforced concrete base needed to secure the pillars to the ground.

Our technical department is at your disposal to propose the best configuration and achieve the optimal product with the most suitable technical specifications.

We believe in the *elegance* of engineering.