



# - Facade LITE

Plug & Power Up! - As easy as it sounds

Energy Generating Building Materials:  
eFacade LITE Product Datasheet

# Introducing the Next Evolution in ⚡ Solar Facade

eFacade LITE is transforming the building-integrated photovoltaic industry with its cutting-edge design and flawless integration. With no visible wiring and a simple plug-and-power setup, eFacade LITE ensures fast and cost-effective installation. Available in two sizes and four colors, it harmonizes effortlessly with Cladify sustainable cladding, EIFS, stucco, ACM, and many other materials and finishes—making it an ideal choice for modern architectural projects. Combining advanced solar technology with effortless installation, Mitrex eFacade LITE delivers performance, beauty, and sustainability in one sleek package.

### Plug & Power, Simplified Wiring

- Eliminate panel-to-panel wiring
- Streamlined solar systems

### Easy Installation

- Pre-engineered for optimal performance, ease, and aesthetic appeal
- Quick to install, making a big impact in no time

### Design Versatility

- A range of architectural configurations
- New colors and texture finishes

### Sizing Options

- Choose from 73 × 36 in or 73 × 18 in modules
- Modular design for customizable building solutions

### Long-Lasting Confidence

- Backed by a 25-year product and energy performance warranty

### Applications

- Ideal for both new constructions and retrofits
- High-performance rainscreen system – one complete solution for all your needs

### Sustainable Energy Generation

- Power range of 6 to 17 W/SQFT

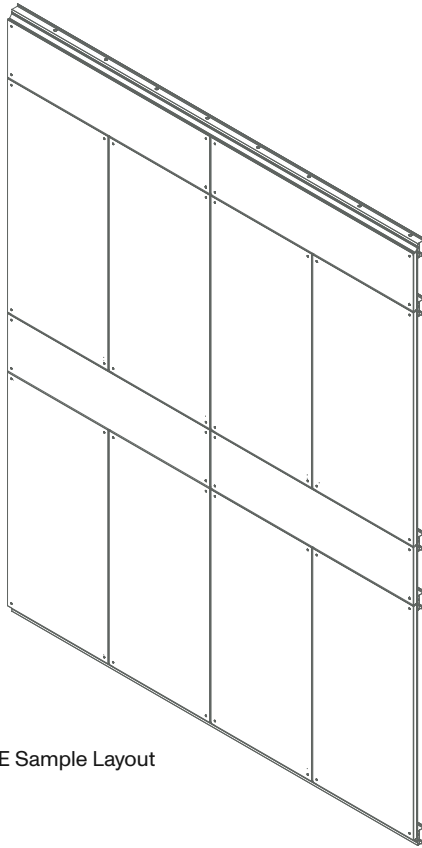
## Testing And Certifications

#### Certifications:

- UL 61730-1/-2, CSA 61730-1/-2, IEC 61730-1/-2
- UL 61215-1/-2, CSA 61215-1/-2, IEC 61215-1/-2
- ANSI Z97.1

#### Testing:

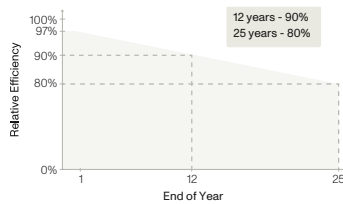
- NFPA 285
- ASTM E84, ASTM E136, ASTM E119
- ASTM E283, ASTM E330, ASTM E331
- ASTM E1886, ASTM E1996
- ASTM G154
- ASTM D6578



• eFacade LITE Sample Layout

## Warranty

Our products are backed by an industry-leading 25-year product and performance warranty.



Product Material Warranty: 25 years  
 Performance Warranty: 25 years  
 ≥ 97% end of 1st year  
 ≥ 90% end of 12th year  
 ≥ 80% end of 25th year



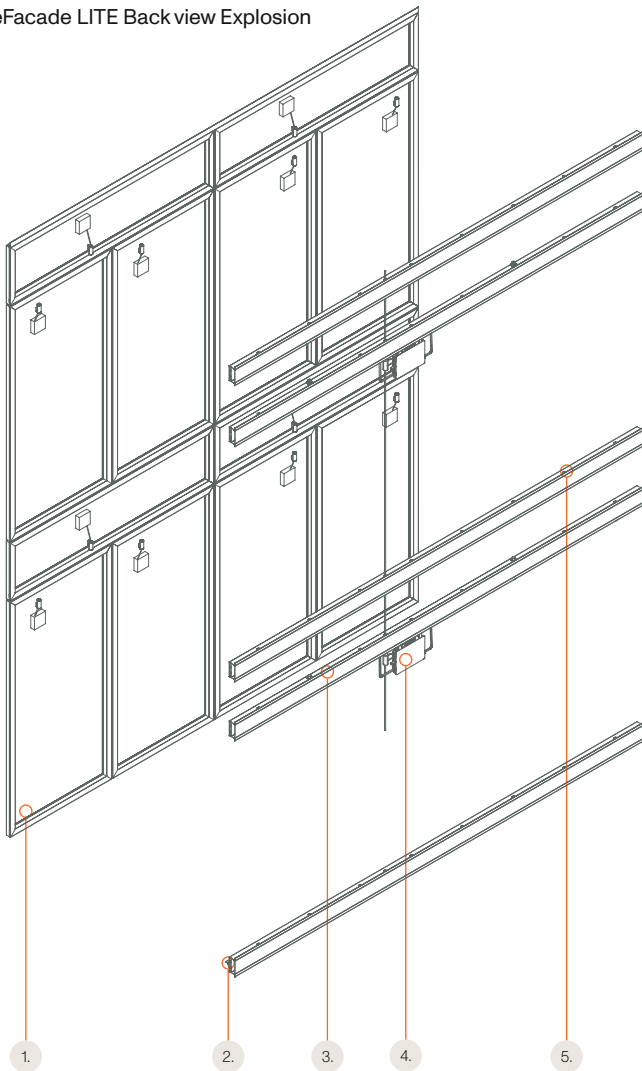
# eFacade LITE System Components

## Plug And Play System

Mitrex eFacade LITE simplifies installation and wiring without compromising functionality or facade aesthetics. This innovative product allows for mix-and-match panels, enabling visually striking appearances with two standard module sizes that seamlessly complement each other.

eFacade LITE has streamlined the wiring process by developing a pre-engineered solution where each solar module has just one wire connecting directly to the power bar, eliminating complicated on-site wiring, further simplifying installation and enhancing safety.

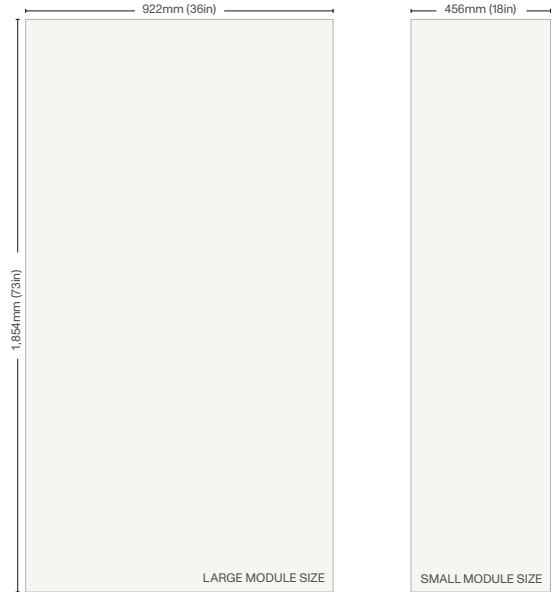
### • eFacade LITE Back view Explosion



- 1. ⚡ SunTile (Solar Modules)
- 2. Starter Bar
- 3. Power Bar
- 4. Microinverter
- 5. Support Bar

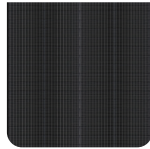




## Module Size Capabilities

Mitrex eFacade LITE offers two standard sizes that can be seamlessly integrated either with other modules of the same size or between the two sizes.



## Module Colour Options

Mitrex eFacade LITE offers four standard high-performance colors. These colors can be combined to create interesting design patterns.

			
Core Black ⚡ 17W/SQFT	Blackout ⚡ 15W/SQFT	Mitrex White ⚡ 6W/SQFT	Light Grey ⚡ 6W/SQFT
			
Cassia ⚡ 13W/SQFT			

## SunTile Electrical And Mechanical Data

For Large Standard Panel 1854×922×41mm (72.9×36.2×1.6in)

● Test	● Specification	● Engineering Drawing
<b>Test Conditions</b>	<b>STC</b>	
Module Power (Pmax)	110 - 315 W	
Maximum Power Voltage (Vpmax)	35.7 - 36.5 V	
Maximum Power Current (Ipmax)	3.08 - 8.63 A	
Open Circuit Voltage (Voc)	43.1 - 44.0 V	
Short Circuit Current (Isc)	3.22 - 9.11 A	
Module Efficiency	6.4 - 18.4%	
Cell Efficiency	23.5% - Monocrystalline Solar Cell	
Maximum System Voltage (VDC)	1000V (IEC/UL)	
Max Series Fuse Rating	20A	
Power & Other Electrical Specification Tolerance	5%	
Application Classification	Class A	
Measurement Conditions: STC 1000 W/m <sup>2</sup> - AM 1.5 - Temperature 25°C		
● Mechanical Properties	● Metric	
Module Weight	35kg	77lbs
Dimensions (H x L x D)	1854 × 922 × 41mm	72.9 × 36.2 × 1.6in
Maximum Surface Load (Wind / Snow)	2400Pa rear load / 2400Pa front load	50psf rear load / 50psf front load
Design Load	1600Pa rear load / 1600Pa front load	33psf rear load / 33psf front load
Hail Impact Resistance	ø 25mm at 83 km/h	ø 1in at 51.6 mph
Cells	128 [2 x (2 × 32)] Mono-crystalline M12 quarter cell (210.0 × 52.5mm)	128 [2 x (2 × 32)] Mono-crystalline M12 quarter cell (8.26 × 2.07in)
Glass	6mm tempered glass, high transmittance, anti-reflective coating	0.23in tempered glass, high transmittance, anti-reflective coating
Backsheet	High durability, UV resistant, PV backsheet	
Back Support	Custom FRP frame	
Junction Box	IP68 rated, TUV and UL certified	
Fire Rating	Spread of Flame A, Burning Brand C	
● Temperature Ratings		
Temperature Coefficient Isc	0.05% /°C	
Temperature Coefficient Voc	-0.28% /°C	
Temperature Coefficient Pmax	-0.35% /°C	
Nominal Module Operating Temperature	45 ± 3°C	
Operating Temperature	-40°C ~ +85°C	

## SunTile Electrical And Mechanical Data

For Small Standard Panel 1854×456×41mm (72.9×18.0×1.6in)

● Test	● Specification	● Engineering Drawing
<b>Test Conditions</b>	<b>STC</b>	
Module Power (Pmax)	55 - 160 W	
Maximum Power Voltage (Vpmax)	35.7 - 36.5 V	
Maximum Power Current (Ipmax)	1.54 - 4.38 A	
Open Circuit Voltage (Voc)	43.1 - 44.0 V	
Short Circuit Current (Isc)	1.61 - 4.36 A	
Module Efficiency	6.5 - 18.9 %	
Cell Efficiency	23.5% - Monocrystalline Solar Cell	
Maximum System Voltage (VDC)	1000V (IEC/UL)	
Max Series Fuse Rating	20A	
Power & Other Electrical Specification Tolerance	5%	
Application Classification	Class A	
Measurement Conditions: STC 1000 W/m <sup>2</sup> - AM 1.5 - Temperature 25°C		
● Mechanical Properties	● Metric	● Imperial
Module Weight	20kg	44lbs
Dimensions (H x L x D)	1854 × 456 × 41mm	72.9 × 18.0 × 1.6in
Maximum Surface Load (Wind / Snow)	2400Pa rear load / 2400Pa front load	50psf rear load / 50psf front load
Design Load	1600Pa rear load / 1600Pa front load	33psf rear load / 33psf front load
Hail Impact Resistance	ø 25mm at 83 km/h	ø 1in at 51.6 mph
Cells	64 [32 × 2] Mono-crystalline M12 quarter cell (210.0 × 52.5mm)	64 [32 × 2] Mono-crystalline M12 quarter cell (8.26 × 2.07in)
Glass	6mm tempered glass, high transmittance, anti-reflective coating	0.23in tempered glass, high transmittance, anti-reflective coating
Backsheet	High durability, UV resistant, PV backsheet	
Back Support	Custom FRP frame	
Junction Box	IP68 rated, TUV and UL certified	
Fire Rating	Spread of Flame A, Burning Brand C	
● Temperature Ratings		
Temperature Coefficient Isc	0.05% /°C	
Temperature Coefficient Voc	-0.28% /°C	
Temperature Coefficient Pmax	-0.35% /°C	
Nominal Module Operating Temperature	45 ± 3°C	
Operating Temperature	-40°C ~ +85°C	

## SunTile (Solar Module) Detailed Information

### Solar Glass Mechanical Data

	Imperial	Metric
Glass Type	Satin Glass	
Thickness	0.23 ± 0.012in	6 ± 0.3mm
Weight	3.08lb/SQFT	15.07kg/m <sup>2</sup>
Dimensional Tolerance	± 0.04in	± 1.0mm
Density	0.09lbs/in <sup>3</sup>	2.5gm/cm <sup>3</sup>
Corner	Radius, Chamfer or cut (0.04-0.16in)	Radius, Chamfer or cut (1.0-4.0mm)
Overall Bow / Warp <small>(EN 12150-1:2015)</small>	0.16in / 39.37in	4.0mm/M / 990mm/M
Local Warp <small>(EN 12150-1:2015)</small>	0.002in / 11.81in	0.5mm / 300mm/M
Bending Strength <small>(EN 12150-1:2015) (0.23in / 6mm)</small>	685.21lbs/in	120N/mm
Iron Content <small>(ASS)</small>	<120ppm	
Edge	At least seamed	
Scratch Hardness <small>(Mohs)</small>	5	
Fragmented Particles in 50x50mm <small>(If Tempered) (EN 12150-1:2015)</small>	Min 40 pcs	

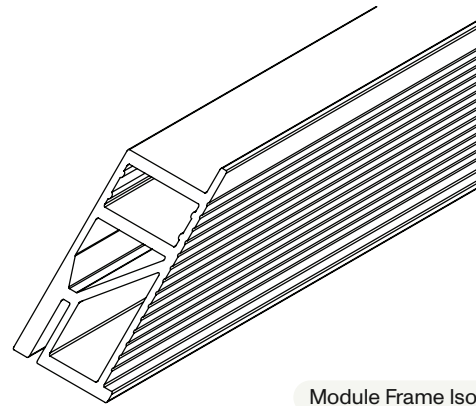
### Solar Glass Facing Specification

	Certification	Imperial	Metric
Density	ASTM C729	158lb/ft <sup>3</sup>	2,530kg/m <sup>3</sup>
Absorption By Wt.	ASTM C373	0%	0%
Compressive Strength	-	150,000psi	1,000MPa
Flexural Strength <small>(Dry)</small>	ASTM C158	8,700psi	60MPa
Modulus Rupture	ASTM C158	5,950psi	41MPa
Hardness	ASTM C730	570KHN	

For further mechanical information about solar glass, please check Mitrex solar glass datasheet.

### Module Frame Mechanical Data

	Imperial	Metric
Dimensions	2.09 × 1.6in	53 × 41mm
Weight	0.83lb/ft	1.23kg/m
Tensile Modulus	4.8 × 10 <sup>6</sup> psi	33 GPa
Compressive Modulus	19.9 × 10 <sup>6</sup> psi	137 GPa
Tensile Strength	0.81 × 10 <sup>6</sup> psi	560 MPa
Compressive Strength	0.54 × 10 <sup>6</sup> psi	370 MPa



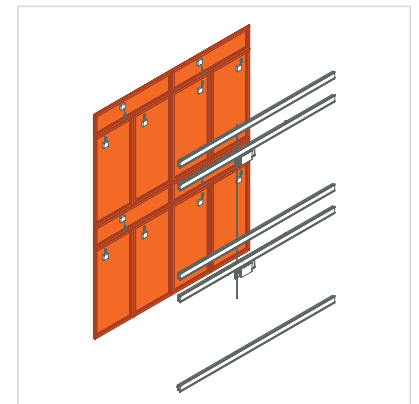
Module Frame Isometric View

### Smoke And Flame Spread (ASTM E84)

	Rating
Mitrex Cladishield System (Rainscreen System)	Class A

### Sound Transmission Coefficient (ASTM E90)

	STC Rating
Mitrex Cladishield System (Rainscreen System)	34



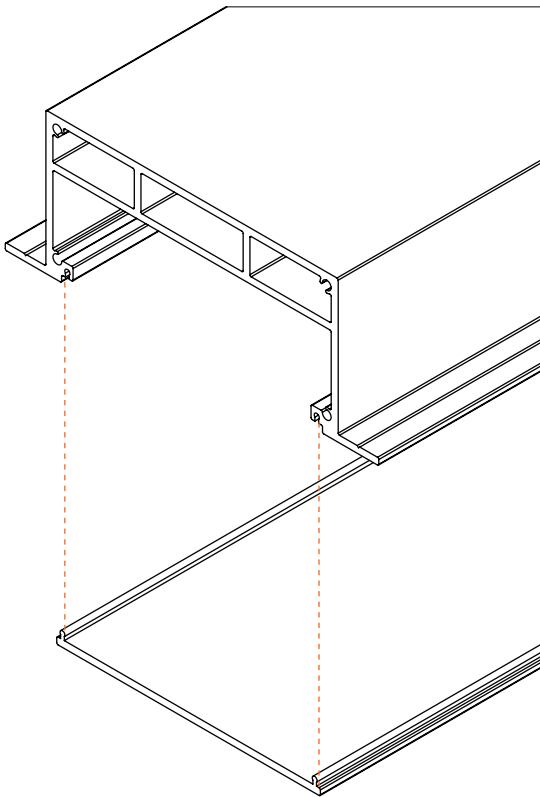
## System Components Detailed Information

### Power Bar (Mounting Rail and Cap) Mechanical Data

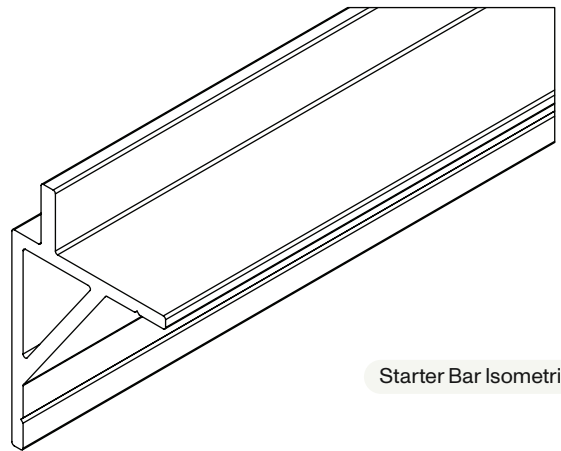
	Imperial	Metric
Dimensions	4.49 × 2.16in	114 × 55mm
Weight	1.38lb/ft	2.06kg/m
Tensile Modulus	4.8 × 10 <sup>6</sup> psi	33 GPa
Compressive Modulus	19.9 × 10 <sup>6</sup> psi	137 GPa
Tensile Strength	0.81 × 10 <sup>6</sup> psi	560 MPa
Compressive Strength	0.54 × 10 <sup>6</sup> psi	370 MPa

### Starter Piece Mechanical Data

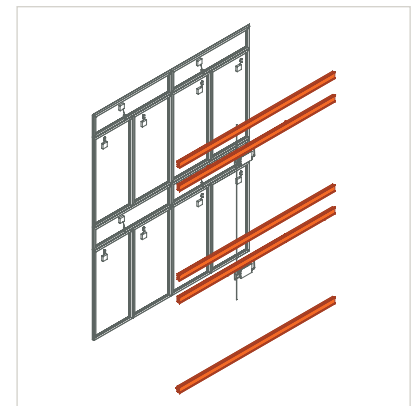
	Imperial	Metric
Dimensions	1.65 × 1.34in	42 × 34mm
Weight	0.36lb/ft	0.54kg/m
Tensile Modulus	4.8 × 10 <sup>6</sup> psi	33 GPa
Compressive Modulus	19.9 × 10 <sup>6</sup> psi	137 GPa
Tensile Strength	0.81 × 10 <sup>6</sup> psi	560 MPa
Compressive Strength	0.54 × 10 <sup>6</sup> psi	370 MPa



Power Bar (Mounting Rail and Cap) Isometric View



Starter Bar Isometric View



## Microinverter Detailed Information

### Mechanical Data

	Imperial	Metric
Ambient Temperature Range	-40 to +149 F°	-40 to +65 C°
Enclosure Rating	Outdoor - IP67 (NEMA6)	
Cooling	Natural Convection - No Fans	

### Input Data (DC)

	Model 480V
Commonly Used Module Power (W)	50 to 1000 +
Maximum Input Voltage (V)	65
MPPT Voltage Range (V)	16 - 60
Start-up Voltage (V)	22
Maximum Input Current (A)	4 × 30
Maximum Input Short Circuit Current (A)	4 × 40
Number Of MPPTs	4
Number Of Inputs Per MPPT	1

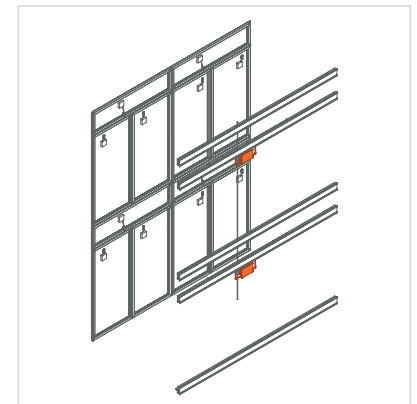
### Efficiency

	Model 480V
CEC Peak Efficiency	>= 96.5%
Normal MPPT Efficiency	>= 99.7%
Night Power Consumption (mW)	< 50

### Output Data (AC)

	Model 480V
Peak Output Power	1900
Maximum Continuous Output Power (A)	1900
Maximum Continuous Output Current (A)	2.28
Normal Output Voltage/Range (V) <sup>1</sup>	480/422 - 528
Nominal Frequency/Range (Hz)	60/55 - 65
Power Factor (Adjustable)	> 0.99 default 0.8 leading ... 0.8 lagging
Total Harmonic Distortion	< 3%
Maximum Units Per 8AWG Branch (45A) <sup>2</sup>	15

<sup>1</sup> Nominal voltage/frequency range can depending on local. <sup>2</sup> Refer to local requirements for exact number of microinverters per branch





## eFacade LITE Package Components

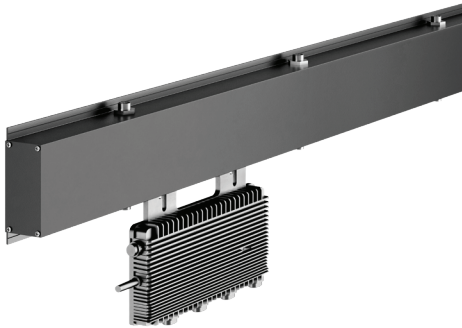
Each eFacade LITE package comes with 150 SQFT of material and the following components. The amount of the SunTiles may vary depending on the layout.



x2 Starter Bar



x2 Support Bar



x1 ⚡ Power Bar



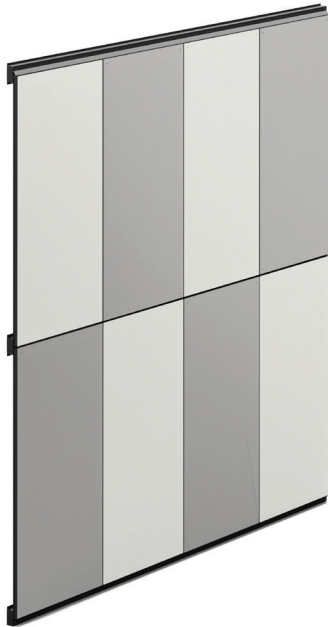
⚡ Large SunTile



⚡ Small SunTile

## eFacade LITE Layout Options

Note: The colors depicted in the layout options, are just visualizations and can be an assortment of the 5 colors available.

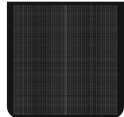






Option 1

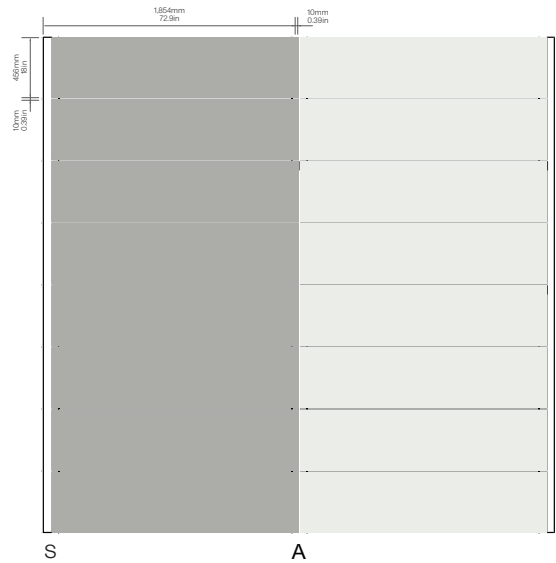


Option 2

### System Size Per Color

				
Core Black	Blackout	Mitrex White	Light Grey	Cassia
⚡ 2.5 kW	⚡ 2.2 kW	⚡ 1.0 kW	⚡ 1.0 kW	⚡ 2.0 kW

Note: These system sizes are based on one standard package consisting of 150 SQFT.



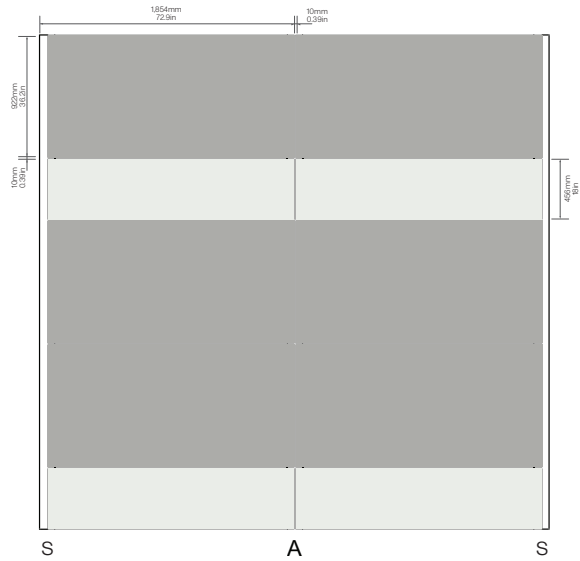
Option 3

A: Power Bar / S: Support Bar

# eFacade LITE Layout Options



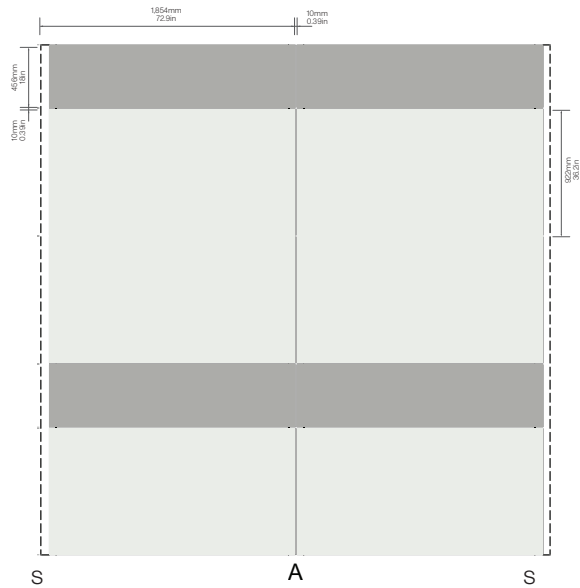
Option 4



Option 5



Option 6



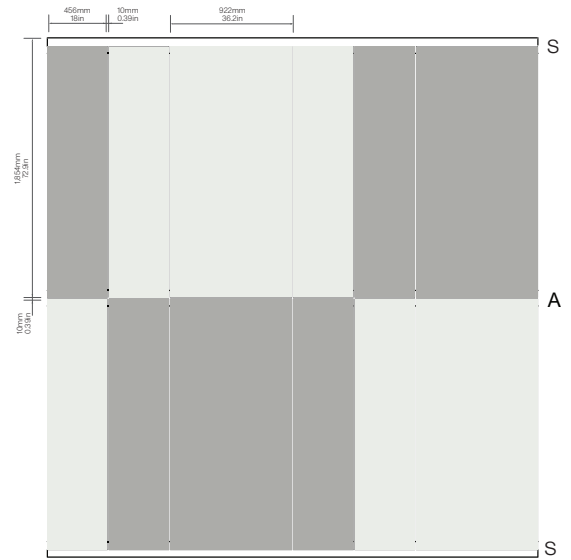
Option 7

A: Power Bar / S: Support Bar

# eFacade LITE Layout Options



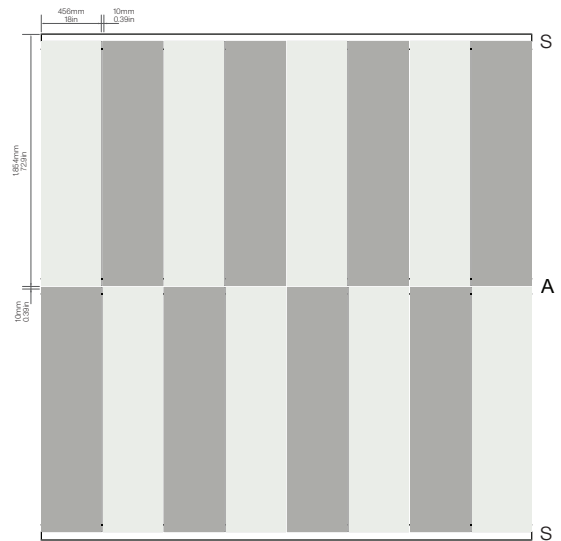
Option 8



Option 9



Option 10



Option 11

A: Power Bar / S: Support Bar



Mitrex and Cladify Projects



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