Solar Skylight & Balustrade



Extending renewable energy generation across glass surfaces of buildings is now possible using tailor-made crystalline BIPV.

Clearvue's solar skylight and balustrade products provide customizable levels of glass to solar cell distribution for varying levels of energy generation and light transmittance.



Solar Skylight & Balustrade

ClearVue maximizes energy generation with its solar skylight and balustrade solutions which can be used for a broad range of building canopies, balcony railings, fencing, and more.

7

Reliable

power generation efficiency



Excellent ROI

through operational cost reductions + significant energy offsets



Transmittance

for excellent natural lighting

ClearVue provides customizable high transmittance glass options specifically designed for building areas where natural light is desired in addition to energy generation to support sustainable building design that stands the test of time.

Benefits

- Customizable crystalline silicon building integrated photovoltaic (BIPV) glass
- Clear appearance with varying solar cell distribution for desired light to energy generation levels
- Replaces traditional architectural glass surfaces with renewable energy generating surfaces
- Construction grade material thicknesses
- Withstands extreme temperature and weather conditions
- IP68-rated water resistance



ClearVuePV Skylight Specifications

High Transmittance BIPV Glass

ClearVue^{PV} Skylight products provide a high-performance energy generating solution for roof light, canopy, and other special glass projects where light transmittance is a priority.



Product Features

- Customizable, tailored options
- Panel size, glass thickness, and shape can be customized
- Highly transparent with excellent light transmittance
- High efficiency for enhanced energy generation
- Supports renewable energy and carbon offset goals
- Long term operation and reliability
- IP68-rated water resistance, fire tested, and wind resistant
- Long lifespan supporting on-site energy generation

ELECTRICAL PARAMETERS

Module Type	CVSLC-73-12X6	CVSLC-125-12X6	CVSLC-230-17X11	CVSLC-380-17X11
Power Output (P _{max})	73W	125W	230W	380W
Power Output Tolerances (ΔP _{max})	±5W	±5W	±5W	±5W
Module Efficiency (η_m)	10.1%	17.4%	11.4%	18.9%
Voltage at Pmax (V _{mpp})	11.6V	20.9V	38.4V	31.4V
Current at Pmax (I _{mpp})	6.29A	5.98A	5.99A	12.1A
Open-Circuit Current (V _{oc})	14.1V	25.3V	46.5V	38.0V
Short-Circuit Current (I _{sc})	6.61A	6.28A	6.29A	12.7A

STC: 92.9W/ft² irradiance, 77°F cell temperature, AM 0.05oz

CONSTRUCTION MATERIALS

Module Type	CVSLC-73-12X6	CVSLC-125-12X6	CVSLC-230-17X11	CVSLC-380-11X17
Glass (material/thickness)	0.24in+0.24in (0.13in Opt)	0.24in+0.24in (0.13in Opt)	0.24in+0.24in (0.13in Opt)	0.24in+0.24in (0.13in Opt)
Baseplate (material)	PVB	PVB	PVB	PVB
Junction Box (protection degree)	≥IP68	≥IP68	≥IP68	≥IP68
Cable (length/cross-sectional area)	1ft/0.16in²/ Customizable	1ft/0.16in²/ Customizable	1ft/0.16in²/ Customizable	1ft/0.16in²/ Customizable
Plug connector (type/protection degree)	MC4/IP68	MC4/IP68	MC4/IP68	MC4/IP68
Packing	Pallets or wooden box			
Dimensions	2ft x 4ft	2ft x 4ft	4ft x 6ft	4ft x 6ft
Dimensions of cell	7in x 0.16in	7in x 0.16in	7in x 0.16in	7in x 0.16in
Cell layout	4 x 5 (50%)	3 x 12 (≈10%)	6 x 11 (50%)	2-6 x 9 (≈10%)
Weight	53lbs	53lbs	148lbs	148lbs

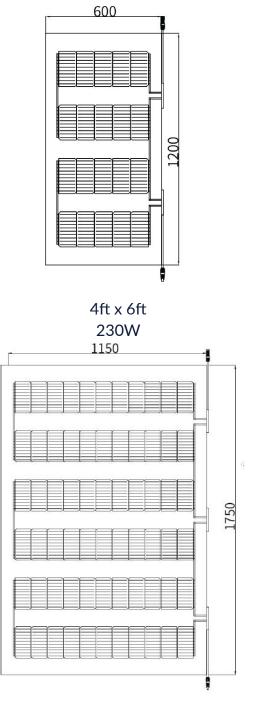
ClearVue^{PV} Skylight Specifications

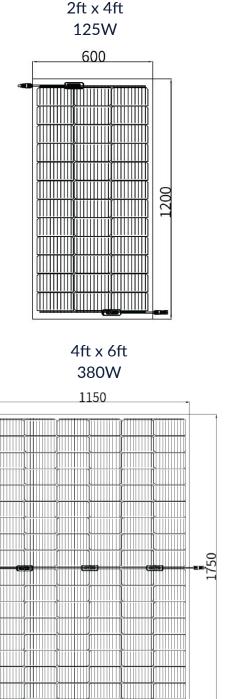
High Transmittance BIPV Glass

ENGINEERING DRAWINGS (mm)

2ft x 4ft

73W





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ClearVue^{PV} Balustrade Specifications

High Transmittance BIPV

ClearVue^{PV} Balustrade delivers a highly customizable energy generation solution that can be used for skylights, façade, balcony railings, and fences. Varying levels of privacy and a broad range of design options are possible.



Product Features

- Cell size and spacing is customizable
- Highly transparent for excellent light transmittance
- Ultra narrow frame design maximizes views
- Optimized energy generation
- Supports renewable energy and carbon offset goals
- Long term operation and reliability
- IP68-rated water resistance, fire tested, and wind resistant
- Long lifespan supporting on-site energy generation

ELECTRICAL PARAMETERS			
Module Type	CVBTC-82-10.1X8	CVBTC-165-17X10	
Power Output (P _{max})	82W	165W	
Power Output Tolerances (ΔP_{max})	±5W	±5W	
Voltage at Pmax (V _{mpp})	78.8V	163.4V	
Current at Pmax (I _{mpp})	1.04A	1.01A	
Open-Circuit Current (V _{oc})	95.3V	197.7V	
Short-Circuit Current (I _{sc})	1.09A	1.06A	

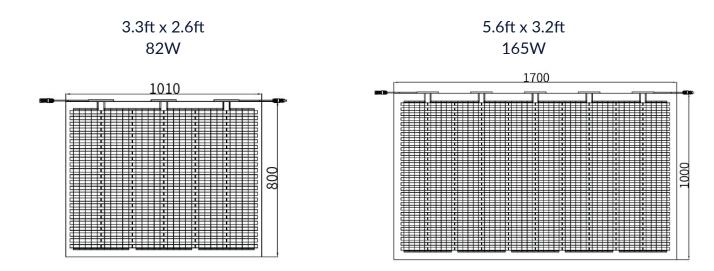
STC: 93W/sft² irradiance, 77°F cell temperature, AM 0.05oz

CONSTRUCTION MATERIALS			
Module Type	CVBTC-82-10.1X8	CVBTC-165-17X10	
Dimensions	3.3ft x 2.6ft	5.6ft x 3.2 ft	
Glass structure	0.24in + 0.24in	0.24in + 0.24in	
Cell layout	6 x 24	10 x 30	
Weight	59.5lbs	126lbs	
Transmittance	52%	52%	

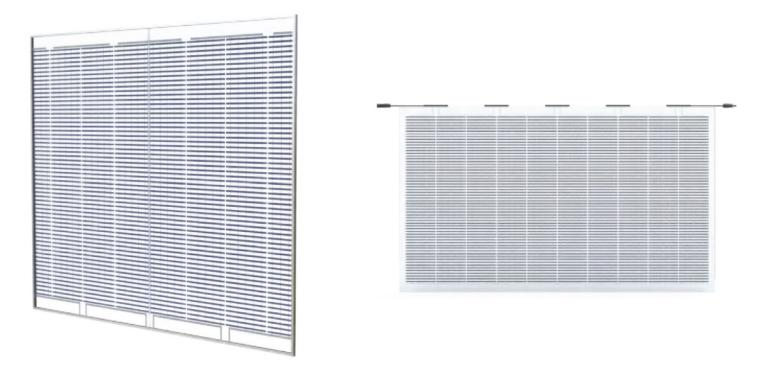
ClearVue^{PV} Balustrade Specifications

High Transmittance BIPV

ENGINEERING DRAWINGS (mm)



Fence and Rail Options are also available

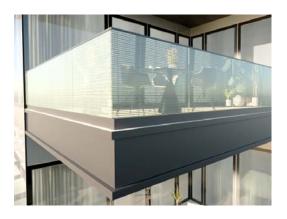


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ELECTRICAL PARAMETERS (STC)

Module Type	CVBTC-78-10.3X10	CVBTC-130-17X10
Power Output (P _{max})	78W	130W
Power Output Tolerances (ΔP _{max})	±3%	±3%
Voltage at Pmax (V _{mpp})	82.1V	137.5V
Current at Pmax (I _{mpp})	0.95A	0.95A
Open-Circuit Current (V _{oc})	99.3V	166.4V
Short-Circuit Current (I _{sc})	1.01A	1.01A

STC: 93W/sft² irradiance, 77°F cell temperature, AM 0.05oz

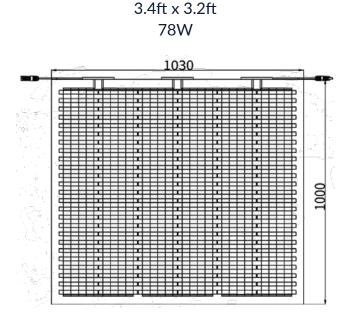
CONSTRUCTION MATERIALS

Module Type	CVBTC-78-10.3X10	CVBTC-130-17X10		
Glass (material/thickness)	Low	Low-iron tempered glass		
Encapsulating material		PVB		
Junction box (protection degree)		≥IP68		
Cable Length (Customizable)		1ft/0.16in²		
Plug connector (type/rating)		MC4 / IP68		
Packing	A-1	A-frame/wooden box		
Dimensions (W x H x TH)	3.4ft x 3.2ft x 0.7in	5.6ft x 3.2ft x 0.7in		
Dimensions	6.25in x 0.67in	6.25in x 0.67in		
Cell layout	6 x 25	10 x 25		
Weight	93lbs	163lbs		
Transmittance	60%	60%		

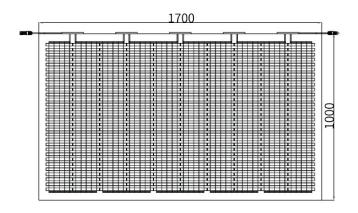
ClearVue^{PV} Balustrade Specifications

High Transmittance BIPV

ENGINEERING DRAWINGS (mm)



5.6ft x 3.2ft 130W



PRODUCT IMAGES



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Quality Control & Quality Assurance



Testing & Inspection

Visual inspection of solar cells and testing for quality & performance



Electroluminescence

Inspection and testing of interlayer and solar wafers



Environmental & Stress Testing

Water infiltration, weight bearing, impact, heat, cold, and humidity



Safety & Fire Testing

PV safety, fire classification, fire performance of external cladding

We are dedicated to delivering high-performance, high-quality, long-lasting, and safe façade solutions.

Quality and Safety

ClearVue^{PV} Vision Glass, Spandrel, Skylight, Balustrade, and Cladding products are engineered to meet and/or exceed industry standards for quality, lifespan, and safety.

By undergoing rigorous testing, compliance, and certifications, our solar façade solutions demonstrate the reliability and suitability for deployment in diverse building envelope applications. This ensures optimal energy production, fire resistance, and thermal efficiency. Adherence to these standards underscores our commitment to deliver high-quality, dependable products that contribute to sustainable and resilient built environments.





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Performance and efficiency of solar photovoltaic (PV) systems, including Building Integrated Photovoltaic (BIPV) products, may vary based on factors such as location, installation, maintenance, and environmental conditions. Customers are advised to consult with qualified professionals for specific installation requirements and to ensure compliance with local regulations, building codes, and standards.

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For more detailed product information, warranty terms, and installation guidelines, please refer to official specifications documentation for each individual product or contact our technical support team.