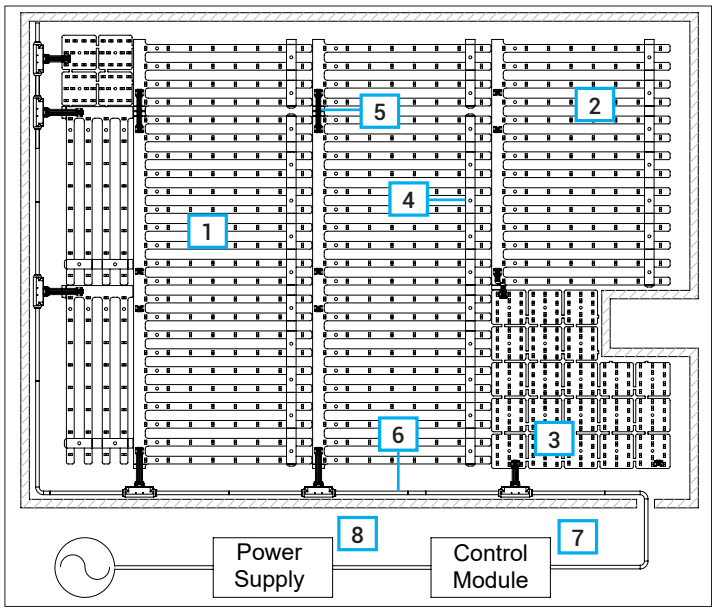
LIGHTING SYSTEM

STATERA

Exceptional Illumination + Acoustic Performance

Statera lighting systems combine superior quality color rendering, uniformity, and efficacy with a structure that optimizes acoustic performance when used as the illumination source for membrane systems or other acoustic materials.

System Overview



1.	Full Light Panel
2.	Cut Light Panel
3.	Grid (for bi-directional cuts)
4.	Mounting Strap (holds panel ends)
5.	Connector Cables (panel to panel)
6.	Starter Cables (control module to panels; T4 or T10)
7.	Control Module (for dimming and CCT tuning if applicable)
8.	54VDC Power Supply

Photometrics

Light output values shown below are for flux emitted from a Velaria Systems membrane system assuming an optimized configuration using two layers of translucent membrane.

(IES files are available for this system configuration on the Velaria Systems website).

	Standard		Enhanced		Plus		Ultra	
CCT	Light Output (lm/sqft)	Power (W/sqft)	Light Output (lm/sqft)	Power (W/sqft)	Light Output (lm/sqft)	Power (W/sqft)	Light Output (lm/sqft)	Power (W/sqft)
2200K	92	1.4	184	2.8	368	5.5	552	8.6
2700K*	92	1.4	184	2.5	368	5.1	552	7.6
3000K	92	1.1	184	2.3	368	4.6	552	6.9
3500K	92	1.2	184	2.2	368	4.5	552	6.7
4000K	92	1.2	184	2.4	368	4.6	552	6.9
5700K*	92	1.2	184	2.4	368	4.7	552	7.0

*Tunable White (TNW) = 2700K-5700K (for power value, assume 2700K)

Dim-to-Warm (DTW) = 3500K-2200K (for power value, assume 3500K)

Color Rendering Index (CRI): ≥ 90
Color Uniformity (Typical): 2 SDCM
Lumen Maintenance (L80): 75,000 hrs (based on LM80 data & TM-21 calculations)

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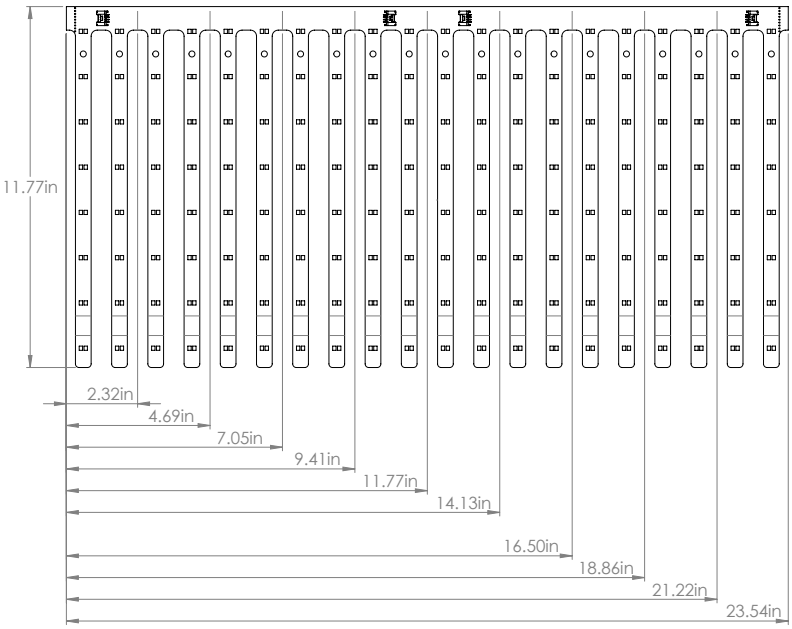
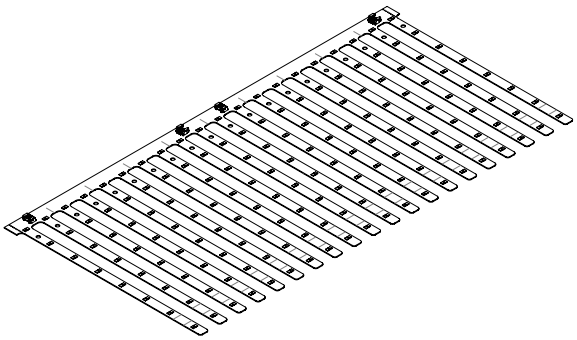
Light Panels

The light panels are the primary light emitting components of the Statera lighting system. They have been designed to maximize the amount of open area to allow sound waves to pass through to sound absorbing materials in membrane and other illuminated acoustic systems.

The light panels may be cut in a single direction. A mounting clamp is used to wsecure the free ends of the panels. Power is delivered with a starter cable (T-cable) and connections between panels are made using connector (jumper) cables.





Order Codes

Product	Type	Light Output (lm/sqft)*	CCT	Revision
ST (Statera)	**PNL** (Panel)	**STD** (Standard = 92) **ENH** (Enchanced = 184) **PLS** (Plus = 368) **ULT** (Ultra = 552)	**22** (2200K) **27** (2700K) **30** (3000K) **35** (3500K) **40** (4000K) **57** (5700K) **2757** (2700-5700K TNW) **3522** (3500-2200K DTW)	**R1**

*Light output values are for flux emitted from a Velaria Systems membrane system assuming an optimized configuration using two layers of translucent membrane

Example: ST-PNL-ENH-35-R1

- Statera Panel
- Enhanced = 184 lm/sqft
- 35 = 3500K

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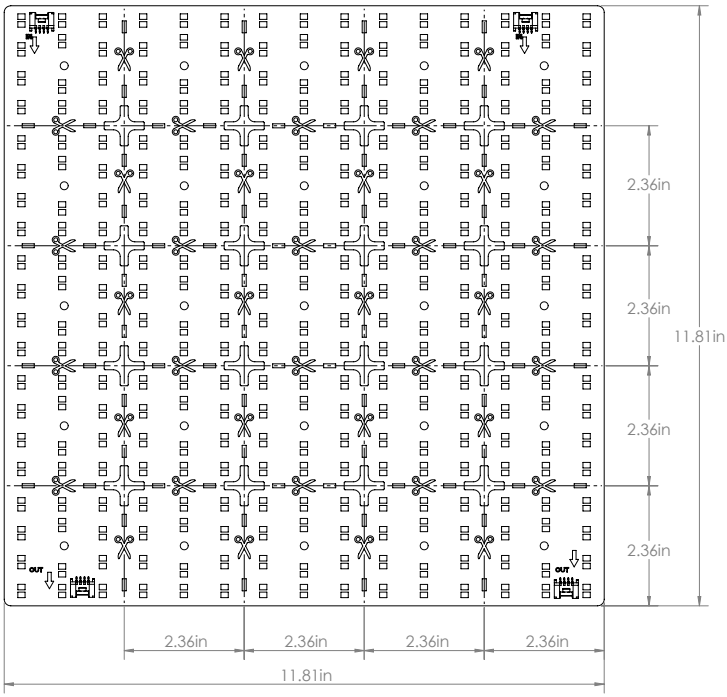
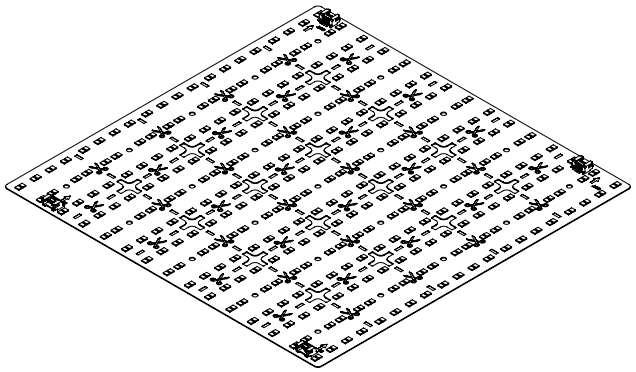
Light Grids

The light grids are used to match the geometry of the shape being illuminated or fill in areas that panels cannot reach to ensure uniformity across the entire illuminated area. The light grids may be cut in two directions as shown and secured with #6 screws. Power is generally delivered through connections with panels or other grids and are made using connection jumper cables.





Order Codes

Product	Type	Light Output (lm/sqft)*	CCT	Revision
ST (Statera)	**GRID** (Grid)	**STD** (Standard = 92) **ENH** (Enchanced = 184) **PLS** (Plus = 368) **ULT** (Ultra = 552)	**22** (2200K) **27** (2700K) **30** (3000K) **35** (3500K) **40** (4000K) **57** (5700K) **2757** (2700-5700K TNW) **3522** (3500-2200K DTW)	**R1**

*Light output values are for flux emitted from a Velaria Systems membrane system assuming an optimized configuration using two layers of translucent membrane

Example: ST-GRID-PLS-2757-R1

- Statera Grid
- Plus = 368 lm/sqft
- 2757 = 2700-5700K Tunable White

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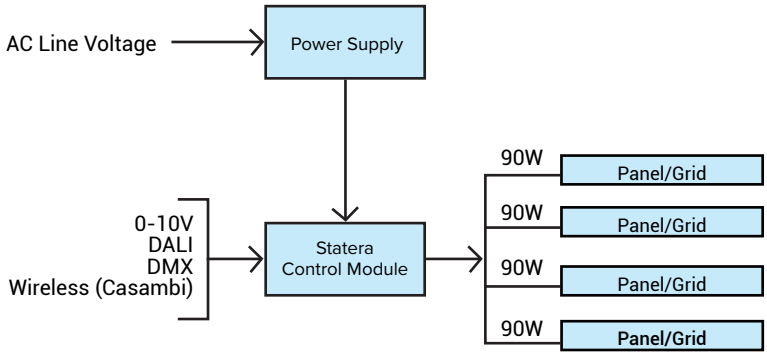
Electrical Schematic

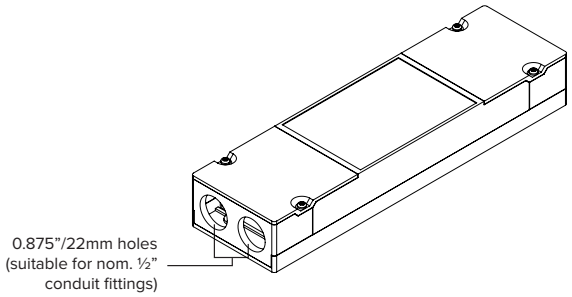
The AC line connects to the power supply which converts power to a 54VDC input to the control module. Control input is connected directly to the control module. The control module outputs power through four channels of controlled power (90W max) to the Panels/Grids.

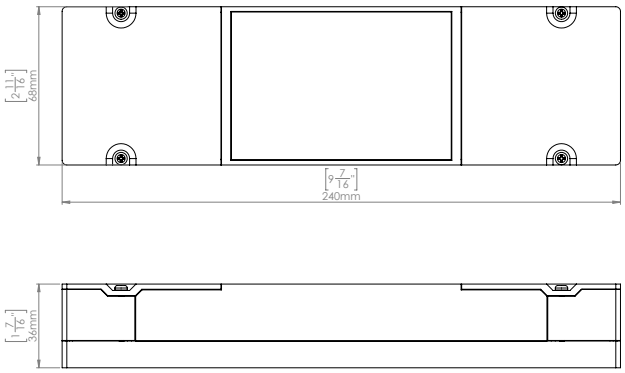


Control Modules

Control modules receive power from the power supply and control signals from a control device such as a dimmer, wall panel, lighting controller, or wirelessly from a smart device equipped with the Casambi application.

Statera control modules are available to interface with 0-10V, DALI, DMX, and Casambi enabled control devices.





Specifications

Dimensions	9.4" x 2.7" x 1.4" / 240mm x 68mm x 36mm
Output Power (W per channel)	90 (Class 2): up to 4CH
Input Power (W)	Up to 400 (Class 1)
Circuit Protection	Overcurrent, Overvoltage, Reverse Polarity, Short Circuit
Dimming Frequency (Hz)	3950
Dimming Range (%)	0.1 - 100
Standalone Test Mode	Available
Maximum Control Current (Source)	0.5 mA
Max. Wire Size	12 AWG/4.0mm^2
Rated Lifetime (hr)	70,000
EMI	FCC Part 15, Class B (UL model)/CE Compliant
Location	Indoor; Dry locations. Outdoor use requires suitable enclosure*
Weight	0.5lbs / 227g

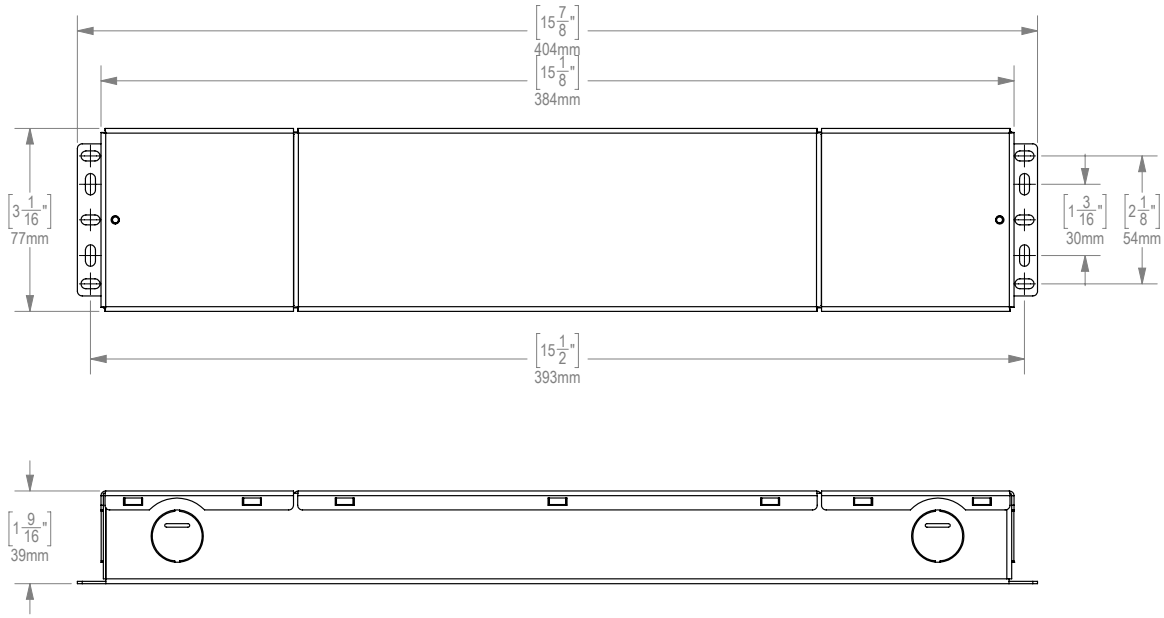
Control Modules (cont.)

Order Codes

Input Control Protocol	Order Code	Description
DALI/0-10V	ST-CTR-SCT-DAL/010-54V	Statera Control Module for Static CCT; DALI or 0-10V Input; 54V
DALI/0-10V	ST-CTR-TNW-DAL/010-54V	Statera Control Module for Tunable White; DALI or 0-10V Input; 54V
DALI/0-10V	ST-CTR-DTW-DAL/010-54V	Statera Control Module for Dim-To-Warm; DALI or 0-10V Input; 54V
DMX	ST-CTR-SCT-DMX-54V	Statera Control Module for Static CCT; DMX Input; 54V
DMX	ST-CTR-TNW-DMX-54V	Statera Control Module for Tunable White; DMX Input; 54V
DMX	ST-CTR-DTW-DMX-54V	Statera Control Module for Dim-To-Warm; DMX Input; 54V
Casambi (Wireless)	ST-CTR-SCT-CAS-54V	Statera Control Module for Static CCT; Casambi (Wireless) Input; 54V
Casambi (Wireless)	ST-CTR-TNW-CAS-54V	Statera Control Module for Tunable White; Casambi (Wireless) Input; 54V
Casambi (Wireless)	ST-CTR-DTW-CAS-54V	Statera Control Module for Dim-To-Warm; Casambi (Wireless) Input; 54V

Power Supplies

Power supplies receive input power from the AC line and convert to 54VDC power provided to the control modules.



Power Supplies (cont.)

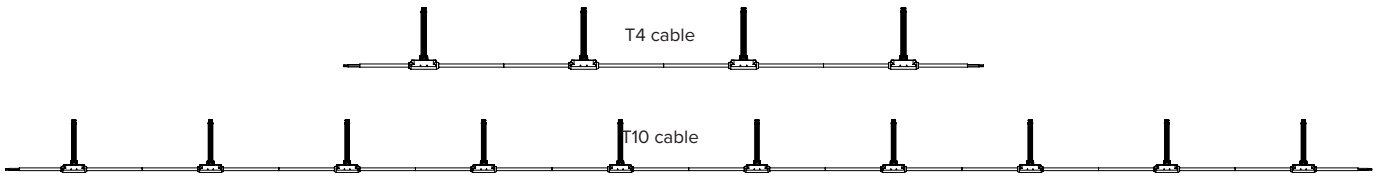
Specifications

	92W LED Driver	200W Power Supply	400W Power Supply
Dimensions	15.9” x 3.0” x 1.5” / 404mm x 77mm x 39mm	15.9” x 3.0” x 1.5” / 404mm x 77mm x 39mm	15.9” x 3.0” x 1.5” / 404mm x 77mm x 39mm
Maximum Output Power (W)	92	200	400
Output Voltage (VDC)	54	54	54
Input Voltage Range (VAC)	Nom. 100-277	Nom. 100-277	Nom. 100-277
Efficiency (% at full load – typ.) (@120VAC/277VAC)	86/89	86/89	86/89
Power Factor (full load)	>0.90	>0.90	>0.90
Total Harmonic Distortion (%)	< 20	< 20	< 20
Start-up Time (sec)	< 2.0	< 2.0	< 2.0
Max. Inrush Current	60A (per NEMA 410)	60A (per NEMA 410)	75A (per NEMA 410)
Certification	UL Listed & CE Compliant	UL Listed & CE Compliant	UL Listed & CE Compliant
Rated Lifetime (hr) Tc <75°C	50,000	50,000	50,000
Weight	2.6 lb / 1200g	2.6 lb / 1200g	3.2 lb / 1400g

# Control Channels	Order Code	Description
1	ST-PSU-92W-54V	Statera 92W Power Supply; 54VDC output; UL Listed; 120-277V AC input
2	ST-PSU-200W-54V	Statera 200W Power Supply; 54VDC output; UL Listed; 120-277V AC input
4	ST-PSU-400W-54V	Statera 400W Power Supply; 54VDC output; UL Listed; 120-277V AC input

Accessories: Starter Cable (“T-Cable”)

The starter cable, often also referred to as a “T-cable” makes the connection between the Control Module and the first Panel in a connected array.



Order Code	Description
ST-TCBL-SCT-T10	Statera Starter Cable (T-Cable) for Static CCT; 10 Panel/Grid Connections + Vinyl Caps & Cable-to-Cable Connections
ST-TCBL-TUN-T10	Statera Starter Cable (T-Cable) for Tunable White/Dim-To-Warm; 10 Panel/Grid Connections + Vinyl Caps & Cable-to-Cable Connections
ST-TCBL-SCT-T4	Statera Starter Cable (T-Cable) for Static CCT; 4 Panel/Grid Connections + Vinyl Caps & Cable-to-Cable Connections
ST-TCBL-TUN-T4	Statera Starter Cable (T-Cable) for Tunable White/Dim-To-Warm; 4 Panel/Grid Connection + Vinyl Caps & Cable-to-Cable Connections

Accessories: Panel Strap (required)

Order Code: ST-PNL-STRAP-10

The mounting strap that secures the panel ends to the mounting surface.

10 Mounting Straps (23.6" x 0.63")

Accessories: Connector Cables (Required)

Order Code: ST-JMP-10

Cables to connect two panels or a panel to a grid. Also referred to as “jumpers”.

10 Connector Cables (2.2" length)

Accessories: Grid Connector Cable (Required when Grid is ordered)

Order Code: ST-INST-GRID

Cables to connect a Grid to a Panel or other Grid. Also referred to as “jumpers”. Clamps to secure longer cable to mounting surface.

2 Grid Connector CableS (12.8" length)

1 Connector Cable (2.2" length)

4 Cable Clamps

LIGHTING SYSTEM

STATERA

General Specifications

Location/Application	**Indoor, dry location only**
Operating Temperature	32 - 104°F (0 - 40°C)
Storage Temperature	-40 - 185°F (-40 - 85°C)
Relative Humidity	90% Max (non-condensing)
Input Voltage	Nom. 120 – 277 VAC
Mounting surface	Non-conductive (drywall, wood, etc.)

Certifications

c UL US LISTED

RoHS

Warranty

5 Year Limited Warranty. Parts and workmanship. Only applicable as part of Velaria Systems membrane system.

For Terms & Conditions see Velaria Systems website: https://velariasystems.com