# Bend the Rules of Lighting Design with VentoFlex Tiles

For architects and lighting designers with the highest standards, VCC VentoFlex modular lighting system opens up countless ways to make an impact. Featuring a flexible PC board, VentoFlex delivers seamless backlighting, even in challenging interior spaces.

1   VentoFlex Tile

2   Ventoflex Power Cable

3   VentoFlex Bridge Cable

4   VentoFlex Jumper Cable

5   Driver (Not Included)
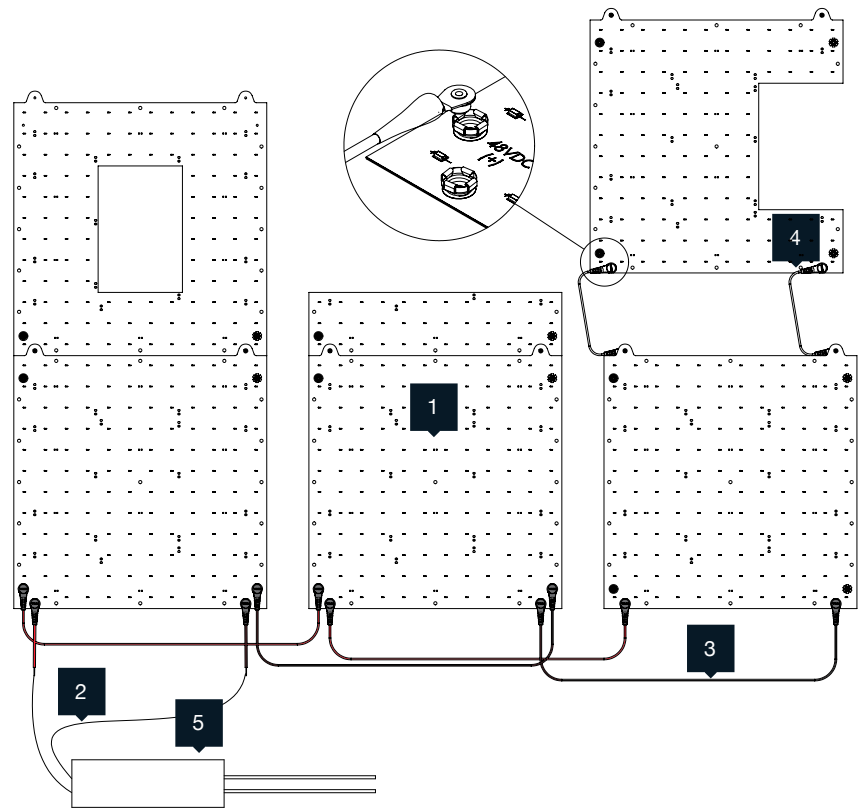
Features

- Connect 5 to 15, 12"x12" VentoFlex LED tiles on a Class 2 LED Driver
- Input Voltage: 12V~24VDC, 48VDC
- Dimmable to 1% depending on the power supply
- LEDs: 144 Luxeon™ CRI>90 (Viewing Angle: 140 degrees)
- Color Temperatures: 2200K, 2700K, 3000K, 3500K, 4000K, 5000K, 5700K
- Light outout (lm) per sheet: 828lm for 12-24V tile and 48V tile
- Max Luminous Efficacy = 115 lm/w
- Material: Flexible Copper Clad Laminate (FCCL) PC board
- Mounting method: Staples/Nail/Screw/Double Sided tape. Can also be mounted directly to any non-conductive surfaces.
- Electrical Connections: Tool-less snap connectors
- Modular Connections: Snap buttons, jumper, or bridge cables
- Operating temperature -13°F - 140°F
- Suitable for dry and damp locations
- Lumen Maintenance: TM-21 L70 > 60,000 hr
- Class 2 input only
- Works with any 12V~24VDC or 48VDC output LED Driver
- Compliant with RoHS, REACH and cRUus (48V Only)
- 5 Year warranty

No hot spots, just unstoppable versatility.

VentoFlex Flexible Copper Clad Laminate (FCCL) tiles can be mounted directly to most any non-conductive interior surface with no requirement for a heat sink. If it needs to be mounted on a conductive surface, contact VCC for more information. Featuring 90 CRI Luxeon™ LEDs in a wide range color temperatures, VentoFlex tiles provide seamless uniform illumination of luminous surfaces at setback distances as low as 2 inches.
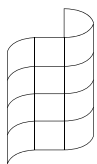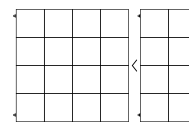
Versatile

Lighting design without compromise

Ambient lighting is all about creating the right mood. VentoFlex helps designers set the exact tone and aesthetic they intended. With VentoFlex, lighting design is no longer limited by flat surfaces — the flexible tiles can contour to fit most any curved surface up to 90 degrees and beyond.
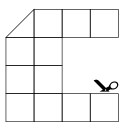
Customizable

Cut. Shape. Wow.

Available in 12"x12" tiles, these innovative LED tiles can be cut and formed around any design element, including rounded corners and tight spaces without taking up much room at all — 0.15" (3.81mm). A pair of scissors is the only tool required to cut VentoFlex tiles to the size and shape you desire.

Modular

Impact that goes on and on

VentoFlex can link from 5 to 15, 12" x 12" tiles to one Class 2 LED Driver, all on the same 0-10V or DALI dimmer. That's 1440 or 2160 square inches of versatile lighting power! When connecting tiles together, the cables don't have to physically touch each other, enabling even more design flexibility.

Countless configurations

Three voltage options. Three tile styles.

### (H) Horizontal Cutouts:

- Available for 48V (6W or 9W)
- 10mA with 48V input: 6W, up to 15 tiles
- 15mA with 48V input: 9W, up to 10 tiles

(S) Square Cutouts:

- Available for 48V (6W or 9W)
- 10mA with 48V input: 6W, up to 15 tiles
- 15mA with 48V input: 9W, up to 10 tiles

(M) Multiple Cutouts:

- Available for 12V~24V (6W, 9W, 12W, 18W)
- 10mA with 12V input: 6W, up to 15 tiles
- 15mA with 12V input: 9W, up to 10 tiles
- 10mA with 24V input: 12W, up to 8 tiles
- 15mA with 24V input: 18W, up to 5 tiles
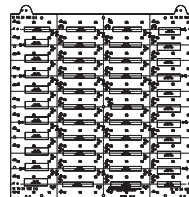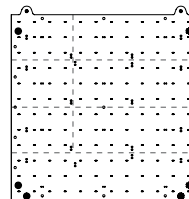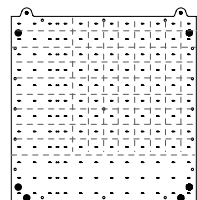
| Applications

Create awe-inspiring illumination for:

- Ceilings
- Backlit signs
- Museums and galleries

- Restaurants
- 3D installations
- Bars and countertops

- Lobbies
- Retail spaces
- Decorative walls and panels

| Overview

Specifications

Location
Indoor, dry and damp location only
Operating Voltage
12V~24VDC, 48VDC
Electrical Connections
Tool-less snap connectors
Base Material
Flexible polymide
Mounting
Mount to any non-conductive surface

Power

Input Voltage
12V~24VDC, 48VDC
Dimming
Dimming is possible depending on the driver
Wattage
6W, 9W, 12W, 18W
Efficacy
See efficacy table

LED Specifications

Color Rendering Index (CRI)
>90, R9>50
Lumen Maintenance
TM-21 L70 > 60,000 hr
Viewing angle
140 degree viewing angle

Photometric

Light output (lm) per sheet
662, 828
Color Temp
2200K, 2700K, 3000K, 3500K, 4000K, 5000K, 5700K

| Efficacy Table

	2200K	2700K	3000K	3500K	4000K	5000K	5700K
Efficacy (6W) 48V, 12~24VDC	90	100	100	110	115	115	115
Efficacy (9W) 48V, 12~24VDC	75	83	83	92	96	96	96
Efficacy (12W at 24V) 12~24VDC	45	50	50	55	58	58	58
Efficacy (18W at 24V) 12~24VDC	38	42	42	46	48	48	48
Lumen (6w) 48V, 12~24VDC	518	576	576	634	662	662	662
Lumen (9w) 48V, 12~24VDC	648	720	720	792	828	828	828
Lumen (12W) 12~24VDC	518	576	576	634	662	662	662
Lumen (18W) 12~24VDC	648	720	720	792	828	828	828

Ordering Instructions

VentoFlex Square and Horizontal Tile 48V

Product Category	*Type of Cut	Cut Size	**Wattage	LED Type	Color Temperature
VFT	**S**	**12N**	**06**	**S**	**35K**

VFT	VentoFlex	**S**	Square	**12N**	12" x 12"	
		H	Horizontal			

Wattage:
- **06** | 48V 6W
- **09** | 48V 9W

LED Type:
- **S** | Static White

Color Temperature:
- **22K** | 2200 Kelvin
- **27K** | 2700 Kelvin
- **30K** | 3000 Kelvin
- **35K** | 3500 Kelvin
- **40K** | 4000 Kelvin
- **50K** | 5000 Kelvin
- **57K** | 5700 Kelvin

| Part Number	Description
VFTS12N06S35K	VentoFlex Square 12" 6W Static White 3500 Kelvin

NOTE:
06W: Up to 15 tiles, 09W: Up to 10 tiles with Class 2 LED Driver
*Square and Horizontal Tile: 48V Only
**For wattage refer to efficacy table
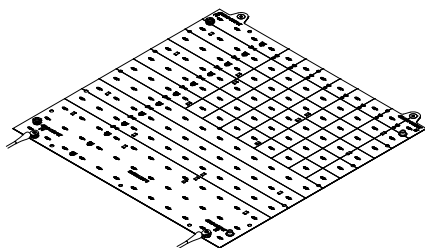
VentoFlex Multiple Cutout Tile 12~24VDC

Product Category	*Type of Cut	Cut Size	**Wattage	LED Type	Color Temperature
VFT	**M**	**12N**	**09**	**S**	**22K**

VFT	VentoFlex
M	Multiple
12N	12" x 12"

Wattage:
- **06** | 12V 6W / 24V 12W
- **09** | 12V 9W / 24V 18W

LED Type:
- **S** | Static White

Color Temperature:
- **22K** | 2200 Kelvin
- **27K** | 2700 Kelvin
- **30K** | 3000 Kelvin
- **35K** | 3500 Kelvin
- **40K** | 4000 Kelvin
- **50K** | 5000 Kelvin
- **57K** | 5700 Kelvin

Part Number	Description
VFTM12N09S22K	VentoFlex Multiple 12" 12~18W Static White 2200 Kelvin

NOTE:
06W: Up to 15 tiles, 09W: Up to 10 tiles, 12W: Up to 8 tiles, 18W: Up to 5 tiles with Class 2 LED Driver
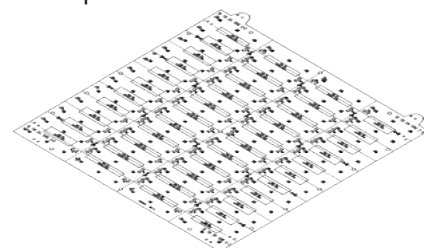*Multiple Cutout Tile: 12~24VDC
**For wattage refer to efficacy table

Square Tile
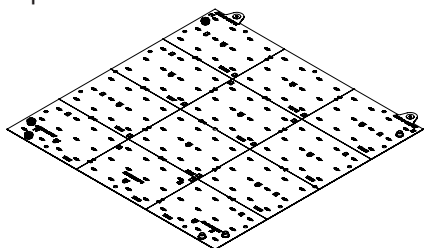
Horizontal Tile

Multiple Cutout Tile

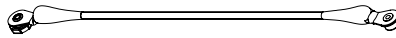# Ordering Instructions

VentoFlex Cable

Product Category	Accessory	LED Type	Polarity	Length
VFT	**PC**	**S**	**P01**	**02FT**

VFT | VentoFlex	**PC** | Power Cable Can be + or -	**S** | Static White	**P01** | Positive (+) Red PC/BC	**02FT** | 2 ft**
	JC | Jumper Cable No Polarity		**N10** | Negative (-) Black PC/BC	**03FT** | 3 ft**
	BC | Bridge Cable Can be + or -		**N04** | No Polarity White	**10FT** | 10 ft*
				20FT | 20 ft*

Part Number	Description
VFTPCSP0110FT	VentoFlex Power Cable Static White Red 10ft

* Power cable (VFTPCSP01 and VFTPCSN10) are only available 10 or 20 ft cable length
** Jumper and Bridge cable (VFTJCSN04, VFTBCSP01 and VFTBCSN10) are only available 2 or 3 ft cable length
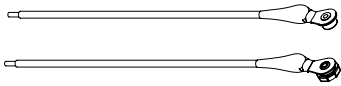
Power Cable


Jumper Cable
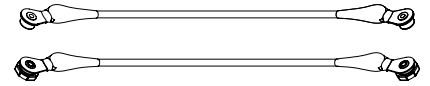
Bridge Cable

Installation Instructions

Handling Instructions

- Avoid creasing or repeating bending of VentoFlex tiles.
- VentoFlex tiles are flexible. Do not bend sheets to a diameter of less than 2 inches (50.8 mm)
- Do not scrape, rub, or excessively wipe the conductive area between the borders of the tile
- Handle sheets only by the borders
- Only mount sheets at mounting locations indicated on the tile - DO NOT puncture the active area of the tile
- Fasteners should be appropriate for the mounting surface
- Mount only to non-conductive interior surfaces
- If using foam tape, apply only along the borders of each tile

Trimming Tiles

- VentoFlex tiles may be cut with scissors, shears or knife at specific lengths unique to each tile design
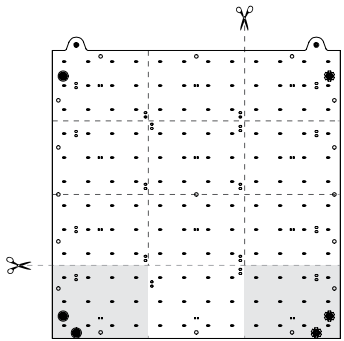- ONLY cut VentoFlex tiles along the dotted lines indicated on the tile
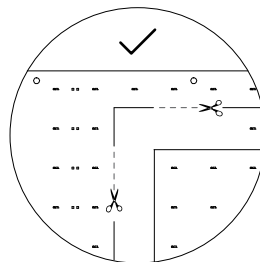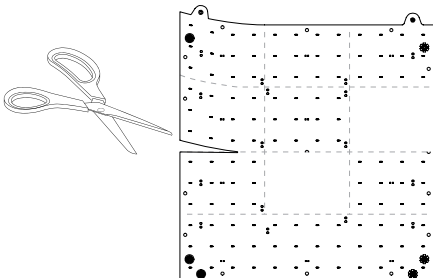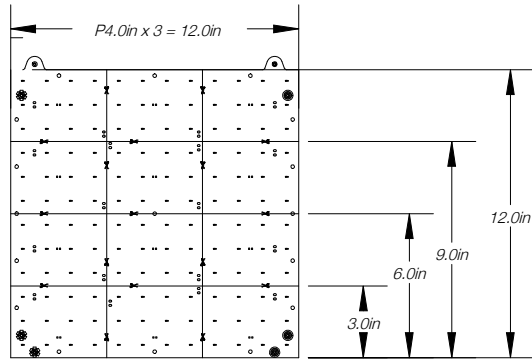

Clean cut
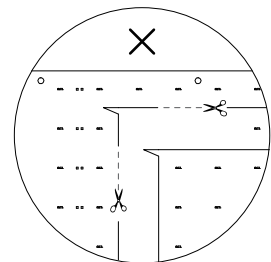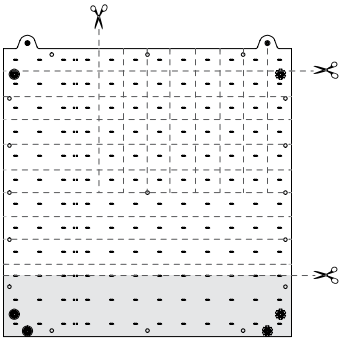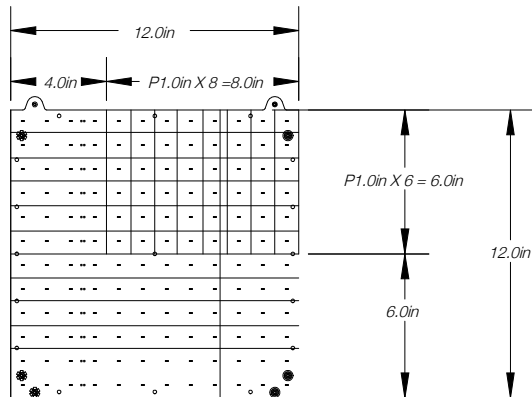

Overcut

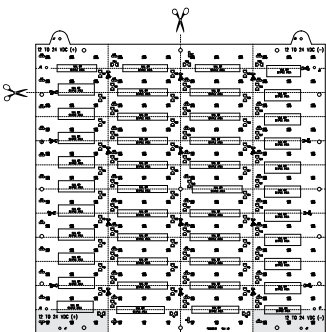# Installation Instructions

Square Tile

Do not cut out this area

P4.0in x 3 = 12.0in

12.0in

9.0in

6.0in

3.0in

Horizontal Tile

Do not cut this area

12.0in

4.0in

P1.0in X 8 =8.0in

P1.0in X 6 = 6.0in

12.0in

6.0in

Multiple Cutout Tile

Do not cut this area

3.00 (4PL)

1.00 (2PL)

12.55in *12.0in*

1.00 (12PL)

12.0in
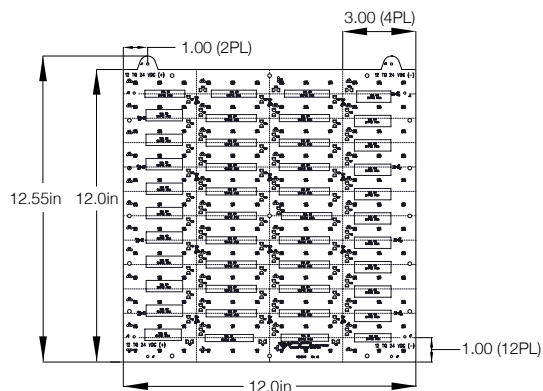
| Warranty

This product has a warranty period of 5 Years. Warranties may be available on certain products as indicated in the product description. Warranties are valid from the date of purchase. The warranty is invalid in the case of improper use, installation, tampering, removal of the Q.C. date label or installation in an improper working environment or installation. Should this product fail during the warranty period it will be replaced free of charge, subject to the correct installation of the original product and subsequent return of the faulty unit. VCC does not accept responsibility for any installation costs associated with the replacement of this product and VCC reserves the right to alter specifications without prior notice.

5 YEAR
WARRANTY