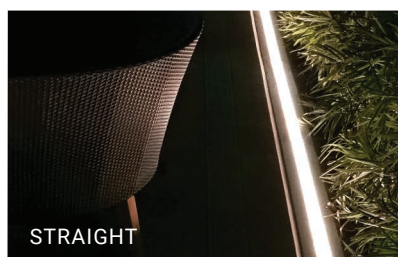


CURVED



STRAIGHT



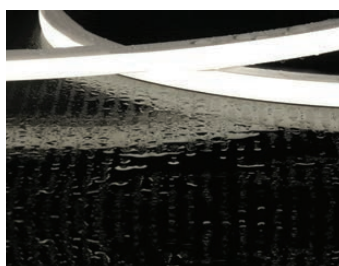
CIRCLE

Overcoming the high cost and functional limitations of drive-over lighting is now easy with the FortaCast® inground polymer concrete lighting system. FortaCast® structural self-supporting fixtures can be installed in roadways, paths, softscape and stonework with the ease of installing pavers. Fixtures lock together to form continuous diffused illuminated straight and curved lines that can intersect seamlessly. Designs are limited only by your imagination.

FortaCast® contains Organic Lighting's Aqueon® submersible diffused IP68 LED strips that are flood and typhoon proof with up to a 60,000-hour lifetime.

## AQUEON® LED Inside

- UL Listed to 2108-submersible / IP68
- Permanent double molded connections.
- Low Energy -1.83W/ft | RGBW 2.74W/ft (6W/m | RGBW 9W/m)
- Circuit protects each LED individually
- Perfectly diffused illumination
- Continuous runs



Vibration proof, and capable of withstanding the harshest environments. Aqueon® is a new type of flexible light. Superior standards, new materials, new methods, military grade components and advanced circuit design. Aqueon is flexible enough to slide into the FortaCast® from the beginning of the run where miniature rollers inside the channels guide the lighting strip to the end.

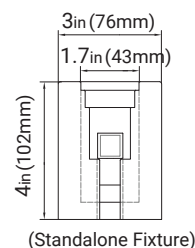
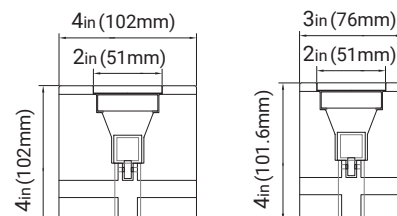
\* Specifications sheets are subject to change without notification. US Patent #11,644,163B2 | international patents pending.  
Organic Lighting | 12203 Magnolia Ave Suite 1, Riverside, CA 92503 | 626.969.6140 | [organiclighting.com](http://organiclighting.com) | 10/2023 V46

Project

Date

## STANDARD SIZES

\*Contact for Custom Shapes & Sizes.



## CONSTRUCTION

Interlocking reinforced Cast Polymer concrete, with drive-over tempered glass lens system with an impact resistant anti-slip surface layer. Suitable for harsh environments. Salt water and chemical resistant.

## MOUNTING

Inground installation in continuous lines, or individual fixtures. Drive-over applications up to 10,000 PSI. Future proof LED arrays of up to 49ft(15m) are maintainable and replaceable from one end of the run, without removing lenses.

## COLOR TEMPERATURES

30K, 35K, 40K, 57K, Red, Blue, Green, Amber, RGB, RGBW, Tunable White; DMX programmable, Pixel controlled SPI.

## ELECTRICAL

Remote 24V drivers (Dimmable 0-10V). DMX controlled RGB or RGBW. Pixel controlled SPI.



## SPECIFYING FORTACAST DRIVE-OVER LIGHTING

Provide fully dimensional plans, DWG files and detailed drawings.

## INSTALLATION

FortaCast® sections are set in place, connect and lock together. Numbered sections are delivered to site, ready for installation. After the first section is in place, a special sealing compound is brushed to the matching ends and the second and subsequent sections are connected. After all construction and lenses are in place, the Aqueon LED lighting is installed from one end of the run. Miniature rollers guide the LED strip to the end of the run. If choosing to stain or paint, **concrete must cure for 28 days before applying.**



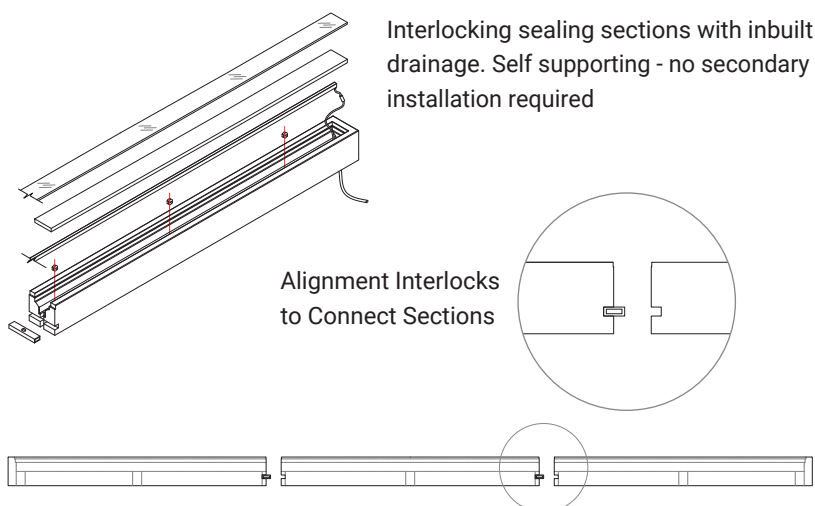
Air and vapor barrier supplied for connected joints.



Adhesion Promoter for Lens



FortaCast® installed directly on paver bedding. FortaCast® can also be installed in existing concrete or bituminous paving using standard paving techniques.



Interlocking sealing sections with inbuilt drainage. Self supporting - no secondary installation required

Alignment Interlocks to Connect Sections

## BLANCO SMOOTH - STANDARD



Blanco Smooth is an extra fine stock finish. Upper trim edges can be colored to match pavers with permanent finishes, which are widely available and easily applied on site during installation.

Bespoke Textures and a selection of custom concrete colors are available.

### CONCRETE PAINT OPTIONS



WHITE



GREY



BLACK



CUSTOM

## STEP 1 Calculate Total Run Length - Ft & in (M &mm) - CHOOSE STYLE / SIZE / CCT / FINISH

STYLE -				
STYLE	SIZE	CCT	FINISH	CUSTOM DETAILS
FS FORTACAST STRAIGHT	3x4xL 3"W x 4"H x L (76mm x 101mm x L)	M30 30K	WH WHITE	Provide drawings or layout concept.  Full layout drawings. Engineering and design support are available on request.
FC FORTACAST CURVED	4x4xL 4"Wx4"H x L (101 mm x 101mm x L)	M35 35K	CU CUSTOM	
	CU Custom - contact factory with drawings	M40 40K		
		M57 57K		
		RGB RGB		
		RGBW30 RGBW30K		
		RGBW40 RGBW40K		
		TW TUNABLE WHITE		
		PRGB RGB PIXEL		
		PRGBW30 RGBW30K PIXEL		
		PRGBW40 RGBW40K PIXEL		
FSF FORTACAST STANDALONE	18-3 18"L(457mm) x 3"W(76mm)			
	42-3 42"L(1067mm) x 3"W(76mm)			
	78-3 78"L(1981mm) x 3"W(76mm)			
	22-4 22.5"L(572mm) x 4"W(102mm)			
	49-4 49"L(1245mm) x 4"W(102mm)			
FCR FORTACAST CIRCLE	24 24" Dia (622mm) x 3"W(76mm)			
	36 36" Dia (927mm) x 3"W(76mm)			
	48 48" Dia (1232mm) x 3"W(76mm)			

\* Specifications sheets are subject to change without notification. US Patent #11,644,163B2 | international patents pending.

## Aqueon Diffuse Mono

Color	Max Length	LEDs/ft	LEDs/m	Lm/ft	Lm/m	W/ft	W/m
3000K	49.2ft / 15m	32	105	64	210	1.83	6
3500K	49.2ft / 15m	32	105	73.2	240.2	1.83	6
4000K	49.2ft / 15m	32	105	73.2	240.2	1.83	6
5700K	49.2ft / 15m	32	105	64	210	1.83	6

## Aqueon Diffuse RGB & RGBW

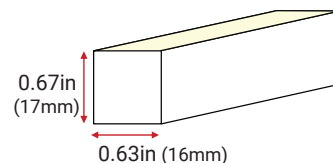
Color	Max Length	LEDs/ft	LEDs/m	Lm/ft	Lm/m	W/ft	W/m
RGB	49.2ft / 15m	22	72.2	45.7	150	1.83	6
RGBW-30K	33ft / 10.1m	25	82	74.7	245.1	2.74	9
RGBW-40K	33ft / 10.1m	25	82	74.7	245.1	2.74	9

## Aqueon Diffuse Tubable White

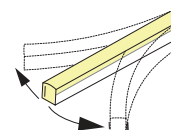
Color	Max Length	LEDs/ft	LEDs/m	Lm/ft	Lm/m	W/ft	W/m
2200-5700K	49.2ft / 15m	44	144.4	55	180.5	1.83	6

## Aqueon Diffuse Pixel RGB & RGBW - Color Chasing

Color	Max Length	LEDs/ft	LEDs/m	Lm/ft	Lm/m	W/ft	W/m
RGB	49.2ft	25	82	45.7	150	2.44	8
RGBW-30K	49.2ft	25	82	74.7	245.1	3.66	12
RGBW-40K	49.2ft	25	82	74.7	245.1	3.66	12



## Horizontal Bending Model



## STEP 2 CHOOSE YOUR POWER SUPPLY

### Power Supplies - 24V

Forward Phase, Reverse Phase, & 0-10V Dimming Drivers. Remote enclosures available.

Part #	Ingress	Voltage	Wattage	Dimensions (inches / mm)	Description
045001	IP67	100-305V	20W	7.6 x 1.18 x 0.79 / 193 x 30 x 20	Dimmable LED Driver
045002	IP67	100-305V	40W	5.83 x 1.57 x 0.87 / 148 x 40 x 22	Dimmable LED Driver
045003	IP67	120-277V	60W	6.3 x 2.24 x 1.5 / 160 x 57 x 38	Dimmable LED Driver
045004	IP67	120-277V	75W	6.3 x 2.24 x 1.5 / 160 x 57 x 38	Dimmable LED Driver
045005	IP67	120-277V	96W	7.6 x 2.24 x 1.5 / 193 x 57 x 38	Dimmable LED Driver
045006	IP67	120-277V	200W	10.1 x 3.03 x 1.8 / 257 x 77 x 46	Dimmable LED Driver
045007	IP67	120-277V	300W	11.9 x 3.03 x 1.8 / 302 x 77 x 46	Dimmable LED Driver

### 75W Dimmable Driver



## Enclosures

Part #	Ingress	Dimensions (inches / mm)	Description
045008	IP67	9.4 x 2.6 x 1.9 / 239 x 66 x 48	20W Enclosure
045009	IP67	11.02 x 4.05 x 2.2 / 280 x 103 x 56	40W Enclosure
045010	IP67	11.02 x 4.05 x 2.2 / 280 x 103 x 56	60W Enclosure
045011	IP67	11.02 x 4.05 x 2.2 / 280 x 103 x 56	75W Enclosure
045012	IP67	11.02 x 4.05 x 2.2 / 280 x 103 x 56	96W Enclosure
045013	IP67	16.7 x 9.8 x 2.3 / 424 x 249 x 58	200W Enclosure
045014	IP67	16.7 x 9.8 x 2.3 / 424 x 249 x 58	300W Enclosure

### 300W Dimmable Driver



## STEP 3 CHOOSE YOUR DMX CONTROLLER (color changing only)

Part #	Description
011343	100W Digital Controller
011344	180W Digital Controller
011345	720W Digital Controller
011341	Digital Controller & Power Supply Combination
011420	Nicolaude DE3 DMX 512 Controller
011403	Nicolaude DINA-DR1 DMX 512 Controller
050203	LT-200 SPI Controller - For Pixel
050205	DMX512 SPI Converter Decoder - For Pixel

### Digital Controller (100W, 180W, 720W)



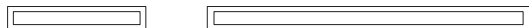
### Nicolaude DE3 DMX 512 Controller



## FORTACAST APPLICATIONS

Apply FortaCast sections in limitless design possibilities. Custom lengths and radius available.

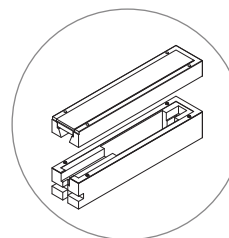
### STANDALONE FIXTURES (Enclosed)



### LINES - STRAIGHT SECTIONS WITH ENDCAPS

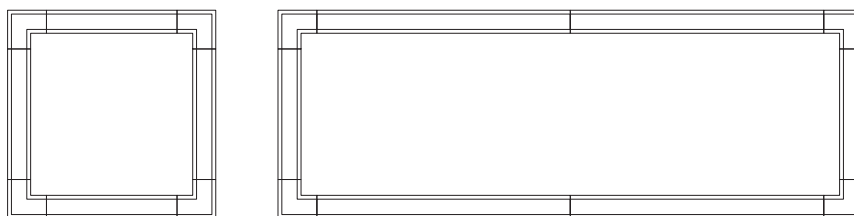


LED STRIP  
ACCESS UNIT



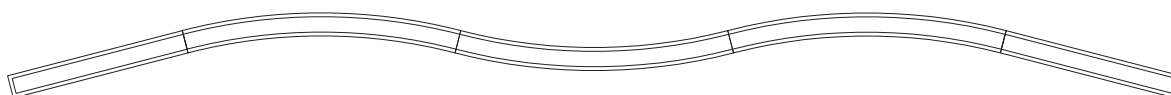
Future proof; Easy LED strip replacement without removing lenses. Simply slide out the old LED and slide in the new!

### SQUARES AND RECTANGLES - STRAIGHT SECTIONS WITH JUNCTIONS

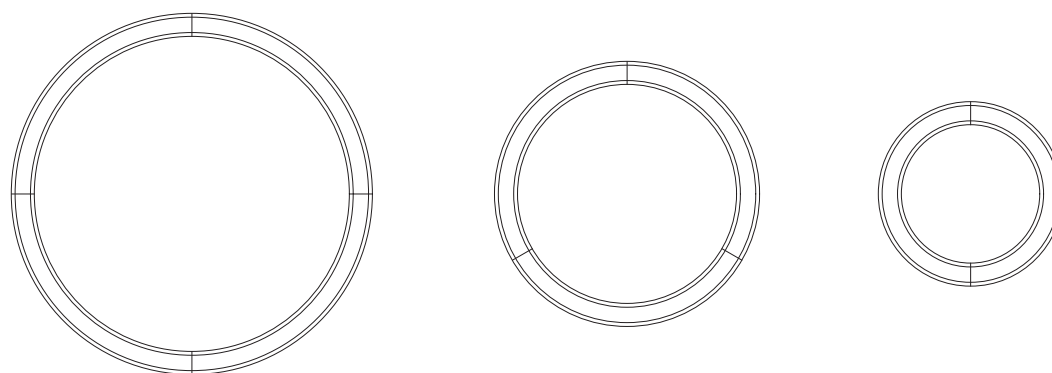


### RIPPLES - CURVED SECTIONS WITH ENDCAPS

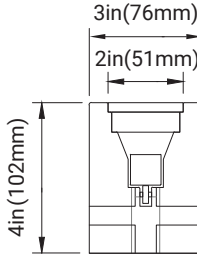
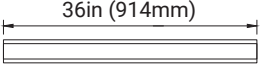
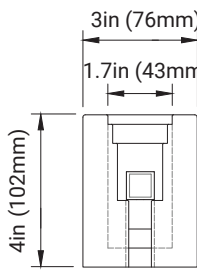
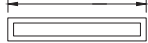
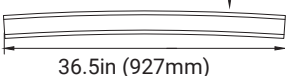
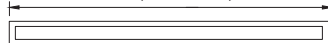
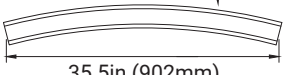
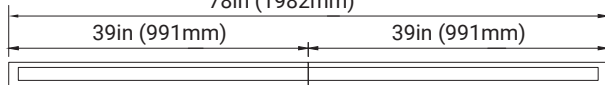

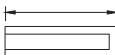
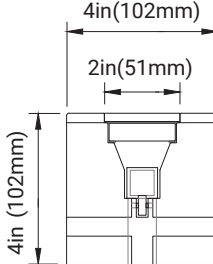
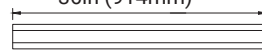
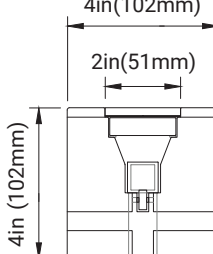
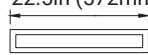
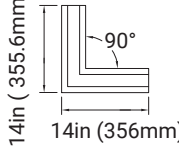
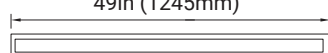

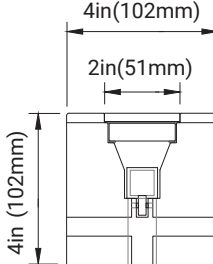
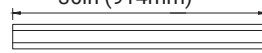
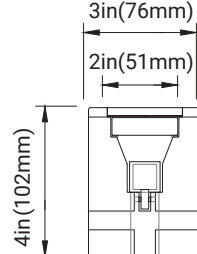
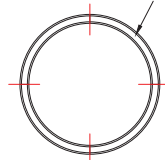
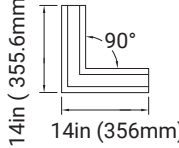
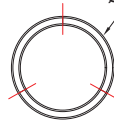

Standard Radii - 72in (1829mm) / 285in (7239mm)



### CIRCLES - CURVED SECTIONS



FORTACAST STANDARD SIZES AVAILABLE

W x H + Lens Width	Length	W x H + Lens Width	Length
<b>3" x 4" (2" Lens)</b> 76mm x 102mm (51mm Lens)		<b>3" x 4" (1.7" Lens) - STANDALONE FIXTURES (ENCLOSED)</b> 76mm x 102mm (43mm Lens)	
	<b>FS3X4</b> 36in (914mm) 		<b>FSF18-3</b> 18in (457mm) 
	<b>FC3X4</b> R285.5in (R7252mm) 36.5in (927mm) 		<b>FSF42-3</b> 42in (1067mm) 
	<b>FC3X4</b> R72.5in (R1842mm) 35.5in (902mm) 		<b>FCSF78-3</b> 78in (1982mm) 39in (991mm) 39in (991mm) 
	<b>F90-3</b> 5.05in (128mm) 		
	<b>FE3</b> End Unit 14.5in (368mm) 		
<b>4" x 4" (2" Lens)</b> 102mm x 102mm (51mm Lens)		<b>4" x 4" (2" Lens) - STANDALONE FIXTURES (ENCLOSED)</b> 102mm x 102mm (51mm Lens)	
	<b>FS4X4</b> 36in (914mm) 		<b>FSF22-4</b> 22.5in (572mm) 
	<b>F90-4</b> 14in (355.6mm) 14in (356mm) 90° 		<b>FSF49-4</b> 49in (1245mm) 
	<b>FE4</b> End Unit 14.5in (368mm) 		
		<b>STANDARD CIRCLES 2FT / 3FT / 4FT (.61M/.91M/1.22M)</b> <b>3" x 4" (2" Lens)</b> 76mm x 102mm (51mm Lens)	
	<b>FS4X4</b> 36in (914mm) 		<b>FCR-48</b> Ø48.5in (1232mm) 
	<b>F90-4</b> 14in (355.6mm) 14in (356mm) 90° 		<b>FCR-36</b> Ø36.5in (927mm) 
	<b>FE4</b> End Unit 14.5in (368mm) 		<b>FCR-24</b> Ø24.5in (622mm) 