

US PATENT #11,644,163B2 | INTERNATIONAL PATENTS PENDING

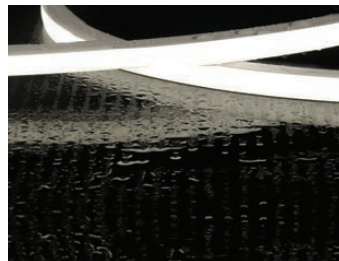


Overcoming the high cost and functional limitations of drive-over lighting is now easy with the FortaCast® inground polymer concrete lighting system. FortaCast® structural self-supporting fixtures can be installed in roadways, paths, softscape and stonework with the ease of installing pavers. Fixtures 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.

Organic Lighting | 12203 Magnolia Ave Suite 1, Riverside, CA 92503 | 626.969.6140 | organiclighting.com | 09/2024 V60

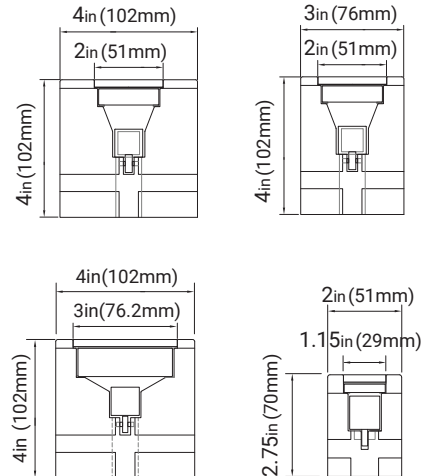
THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE SOLE PROPERTY OF ORGANIC LIGHTING SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ORGANIC LIGHTING SYSTEMS, INC. IS PROHIBITED.

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.



US PATENT #11,644,163B2 | INTERNATIONAL PATENTS PENDING

PLEASE NOTE: FORTACAST PRODUCTS ARE MADE BY HAND FROM NATURAL MATERIALS. VARIATIONS IN COLOR ARE TO BE EXPECTED. TO CONFIRM COLOR, PLEASE REFER TO ACTUAL CONCRETE SAMPLES BEFORE PLACING ORDER. SOME MINOR CHIPPING MAY RESULT FROM SHIPPING, BUT IS NOT DETRIMENTAL TO APPEARANCE OR FUNCTION.

HANDMADE WITH RADIUSED EDGES AND DETAILED, REFINED FINISHES.

FortaCast® pre cast drive-over lighting fixtures are wet cast from ultra high strength polymer concrete. Handmade with radiused edges and beautiful, detailed finishes, produced by skilled artisans, who take great pride in their workmanship. The cement, sand, aggregate, and colors are naturally occurring and as such may vary slightly from batch to batch and piece to piece. These chance variations, combined with hand manufacturing, enhance the character of the precast's color, the finish, and the product overall, resulting in a timeless look which will span decades.

FortaCast® is designed to minimize time and labor costs in the field. Interlocking tabs facilitate installation, aid in creating seamless lines, or curves, and contribute to time savings.

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.**

Installation should be carried out by qualified paving contractors experienced in the installation of interlocking concrete pavement systems. Preferably ICPI certified. **For more information visit <https://icpi.org/guides-specifications>**

A qualified electrical contractor is required to provide 24VDC power. Power supplies must be located in a dry location or a sealed waterproof housing and cord lengths specified to reach those locations. Aqueon is a submersible lighting strip with factory made connections. Installation and field connections must be liquid tight and installation is the electrical contractor's sole responsibility.

Installation requires coordination between the Paving Contractor and the Electrical Contractor.



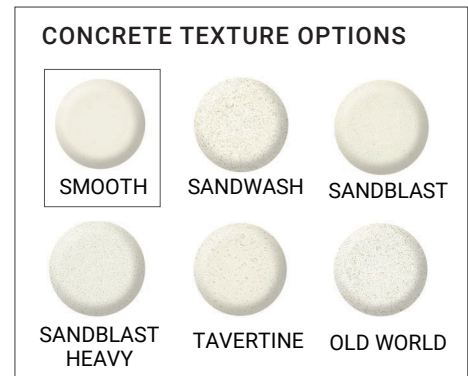
Air and vapor barrier supplied for connected joints.



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.



Blanco Smooth combination is the FortaCast® standard with an extra fine stock finish. Explore our 9 color options and 6 texture options to tailor to your design. Custom concrete colors are available. Sample finishes on request.

= Standard

* Specifications sheets are subject to change without notification.

US PATENT #11,644,163B2 | INTERNATIONAL PATENTS PENDING

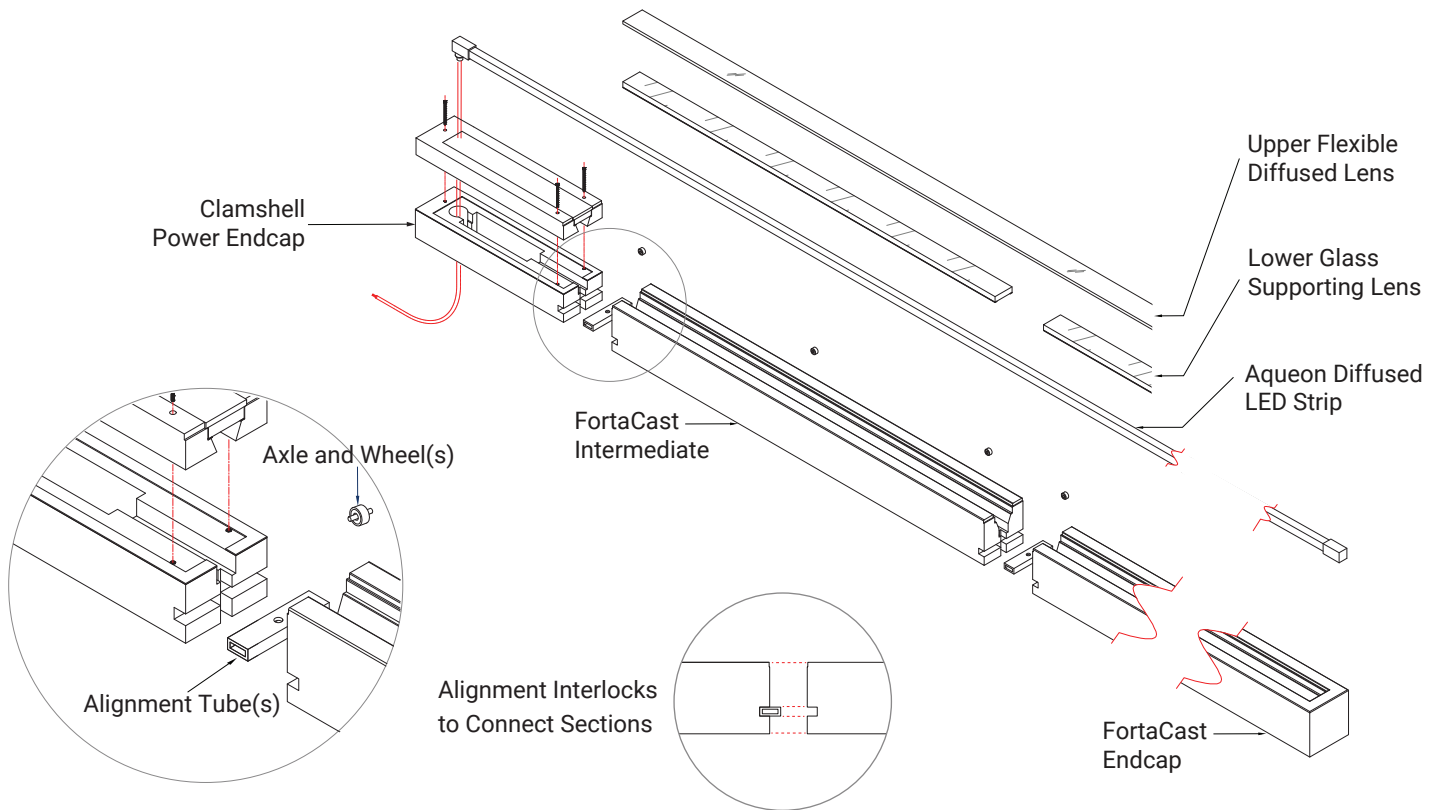
SPECIFYING FORTACAST DRIVE-OVER LIGHTING

Provide fully dimensional plans, DWG files and detailed drawings. Proper Installation requires coordination between the Paving Contractor and the Electrical Contractor.

Project

Date

FORTACAST COMPONENTS AND ASSEMBLY OVERVIEW



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

STYLE -		SIZE	CCT	COLOR	TEXTURE	CUSTOM DETAILS
FS	FORTACAST STRAIGHT	2x3xL	2"W x 2.75"H x L (51mm x 70mm x L)	M30 30K	BL BLANCO	SM SMOOTH
		3x4xL	3"W x 4"H x L (76mm x 101mm x L)	M35 35K	CA CAPPUCINO	SW SANDWASH
FC	FORTACAST CURVED	4x4xL	4"Wx4"H x L (101 mm x 101mm x L)	M40 40K	LA LAREDO	SB SANDBLAST
		CU	Custom - contact factory with drawings	M57 57K	CR CREAM	SBH SANDBLAST HEAVY
				RGB RGB	NU NUEZ	TA TAVERTINE
FSF	FORTACAST STANDALONE	22-4	22.5"L(572mm) x 4"W(102mm)	RGBW30 RGBW30K	GR GRIS	OW OLD WORLD
		49-4	49"L(1245mm) x 4"W(102mm)	RGBW40 RGBW40K	CA CARBON	
				TW TUNABLE WHITE	DU DURANGO	
				PRGB RGB PIXEL	MO MOCHA	
FCR	FORTACAST CIRCLE	24	24" Dia (622mm) x 3"W(76mm)	PRGBW30 RGBW30K PIXEL	CU CUSTOM	Provide drawings or layout concept. Full layout drawings. Engineering and design support are available on request.
		36	36" Dia (927mm) x 3"W(76mm)	PRGBW40 RGBW40K PIXEL		
		48	48" Dia (1232mm) x 3"W(76mm)			

* Specifications sheets are subject to change without notification.

Organic Lighting | 12203 Magnolia Ave Suite 1, Riverside, CA 92503 | 626.969.6140 | organiclighting.com | 09/2024 V60

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE SOLE PROPERTY OF ORGANIC LIGHTING SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ORGANIC LIGHTING SYSTEMS, INC. IS PROHIBITED.

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

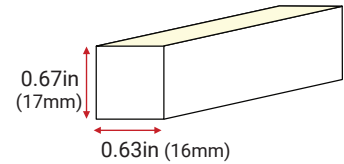
Color	Max Length	LEDs/ft	LEDs/m	Lm/ft	Lm/m	W/ft	W/m
2200-5700K	49.2ft / 15m	44	144.4	55	180.5	1.83	6

Aqueon Diffuse Pixel RGB & RGBW - Color Chasing

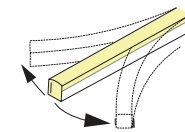
Color	Max Length	LEDs/ft	LEDs/m	Lm/ft	Lm/m	W/ft	W/m
RGB	49.2ft	25	82	45.7	150	2.44	8
RGBW-30K	49.2ft	25	82	74.7	245.1	3.66	12
RGBW-40K	49.2ft	25	82	74.7	245.1	3.66	12

Project

Date



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



300W 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

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



* Specifications sheets are subject to change without notification.

Organic Lighting | 12203 Magnolia Ave Suite 1, Riverside, CA 92503 | 626.969.6140 | organiclighting.com | 09/2024 V60

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE SOLE PROPERTY OF ORGANIC LIGHTING SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ORGANIC LIGHTING SYSTEMS, INC. IS PROHIBITED.

US PATENT #11,644,163B2 | INTERNATIONAL PATENTS PENDING

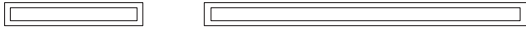
FORTACAST APPLICATIONS

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

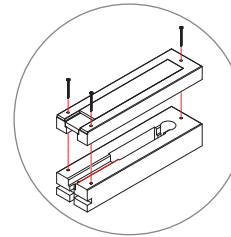
Project

Date

STANDALONE FIXTURES (Enclosed)

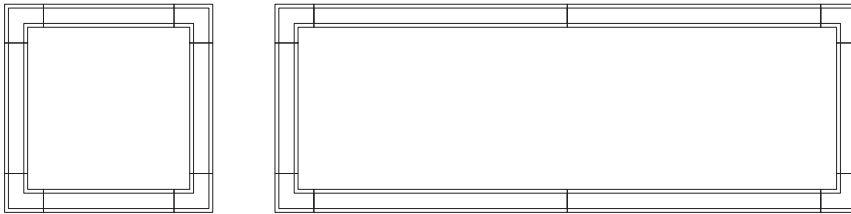


LINES - STRAIGHT SECTIONS WITH ENDCAPS



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

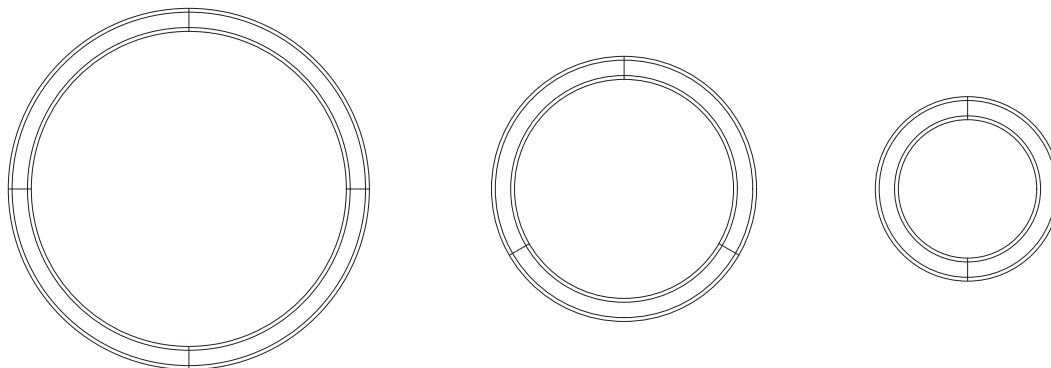


RIPPLES - CURVED SECTIONS WITH ENDCAPS

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



CIRCLES - CURVED SECTIONS



* Specifications sheets are subject to change without notification.

US PATENT #11,644,163B2 | INTERNATIONAL PATENTS PENDING

FORTACAST STANDARD SIZES AVAILABLE

W x H + Lens Width	Length	W x H + Lens Width	Length	
2" x 2.75" (1.15" Lens) 51mm x 70mm (29mm Lens) 3.59 lbs/ft (5.34 kg/m)	FS2X3 48in(1219mm)	4" x 4" (2" Lens) - STANDALONE FIXTURES (ENCLOSED) 102mm x 102mm (51mm Lens) 10.6 lbs/ft (15.77kg/m)		
	FS2X3 40in(1016mm)			FSF22-4 22.5in (572mm)
	FS2X3 20in(508mm)			FSF49-4 49in (1245mm)
	FS2X3 3in(76mm)			
3" x 4" (2" Lens) 76mm x 102mm (51mm Lens) 7.33 lbs/ft (10.9kg/m)	FS3X4 36in (914mm)	STANDARD CIRCLES 2FT / 3FT / 4FT (.61M/.91M/1.22M) 3" x 4" (2" Lens) 76mm x 102mm (51mm Lens) 7.33 lbs/ft (10.9kg/m)		
	FC3X4 R285.5in (R7252mm) 36.5in (927mm)			FCR-48 Ø48.5in (1232mm)
	FC3X4 R72.5in (R1842mm) 35.5in (902mm)			FCR-36 Ø36.5in (927mm)
	F90-3 5.05in (128mm)			FE3 End Unit 14.5in (368mm)
4" x 4" (2" Lens) 102mm x 102mm (51mm Lens) 10.6 lbs/ft (15.77kg/m)	FS4X4 36in (914mm)			
	F90-4 14in (355.6mm)			FCR-24 Ø24.5in (622mm)
	FE4 End Unit 14.5in (368mm)			

* Specifications sheets are subject to change without notification.

Organic Lighting | 12203 Magnolia Ave Suite 1, Riverside, CA 92503 | 626.969.6140 | organiclighting.com | 09/2024 V60

THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE SOLE PROPERTY OF ORGANIC LIGHTING SYSTEMS, INC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF ORGANIC LIGHTING SYSTEMS, INC. IS PROHIBITED.