



# VLO 12V LED Underwater Accent

## One light, three lumen levels.

Our VLO Underwater Accent fixture is equipped with the Lumen Effects System, which allows you to easily switch between three lumen outputs: 100, 200, or 400, with the use of the Magnetic Key. Its field configurable design allows for customization based on the needs of the application.

Variable Lumen Output (VLO) Adjustment		Lumens
Level 1	Flashes one time	100 lm
Level 2*	Flashes two times	200 lm
Level 3	Flashes three times	400 lm



\*Factory setting

### VLO 12V LED Underwater Accent with Lumen Effects System makes designing and modifying landscape lighting easier.



**Lumen Effects System** eliminates the need to mechanically adjust or open the fixture, providing better longevity on the life of the product.



**Flexible Lumen Levels** allows you to set and adjust the lumen levels as the landscape needs change.



**Sealed and fully encapsulated** to safeguard from water ingress and the outdoor elements – helping to extend the life of the product.



**Versatile IP68 rated** design allows you to install underwater or in locations near water, such as rock beds, decks, or pergolas.



**Safe for use** with aquatic wildlife and virtually any water areas with its Marine Grade 316 Stainless Steel, corrosion-free housing.



**4,000-volt system surge protection** protects against power surges and irregularities, especially when paired with one of our transformers.

# Multi-Purpose Configurable Design



1

2

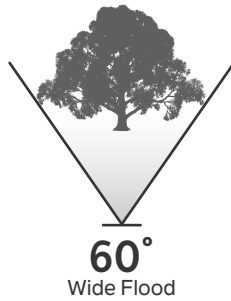
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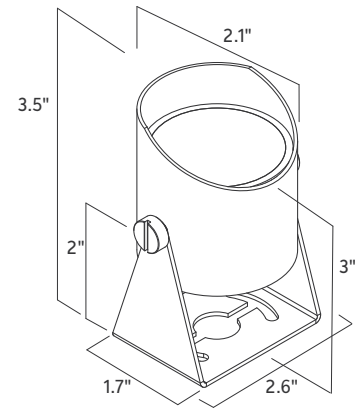
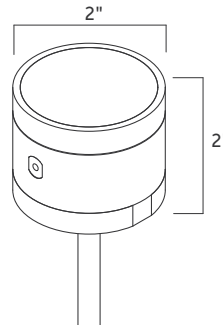


Shown above with Weighted Mounting Base 16084BK (Mounting Bracket and Cowl included with fixture).

## BEAM SPREAD



## DIMENSIONS



## FIXTURE SPECIFICATIONS

**16027SS27**

2700K - Warm White

**16027SS30**

3000K - Pure White

1 integrated high output LED with 3-step binning for color consistency. Custom acrylic optics.

Tested to a Lumen Maintenance L70 of 50,000 hours. Color Rendering Index of 80+.

60° Wide flood beam angle with clean and crisp center-to-edge uniformity.

Backed by our 10 year limited warranty. Visit [Kichler.com/Warranty](http://Kichler.com/Warranty) for details.

Level 1 = 1.5W / 3.5VA, 100 lm, 77 lm/W

Level 2 = 3W / 5VA, 200 lm, 74 lm/W (factory start setting)

Level 3 = 5.5W / 7.5VA, 400 lm, 67 lm/W

## PRODUCT ORDERING GUIDE

Ordering Guide  
(product number  
breakdown)

**1** Item Number for  
Fixture & Beam Angle:

16027 = 60° Wide Flood

**2** Product  
Finish:

SS = Stainless Steel

**3** Color  
Temperature:

27 = 2700K, Warm White  
30 = 3000K, Pure White

Example: 16027 SS 30

1 6 0 2 7

S S

3 0

# VLO 12V LED Underwater Accent

## Additional Specs



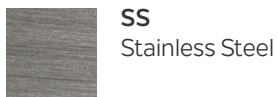
### WARRANTY

Backed by our 10 year limited warranty. Visit [Kichler.com/Warranty](http://Kichler.com/Warranty) for details.

### PERFORMANCE

Output Position	Level 1	Level 2	Level 3
Lumen Output	100 lm	200 lm	400 lm
Input Voltage	9V-15V	9V-15V	9V-15V
Power (VA) @ 12V AC	3.5VA	5VA	7.5VA
Power (W) @ 12V DC	1.5W	3W	5.5W
Efficacy (lm/W @ DC)	77 lm/W	74 lm/W	67 lm/W
Halogen Equivalents	10W	20W	35-40W

### AVAILABLE FINISH



### SPECIFICATIONS

#### Input

Input Voltage Range	9 - 15V
Input Frequency	47 - 63Hz
Input Current	582Ma max @ 12VAC
Inrush Current	8A Max
Efficiency	Up to 77 lm/W @ 12VAC
Power Factor	0.6/0.7/0.8 @ 12VAC

#### Environmental

Environmental Protection Rating	Wet/Underwater IP68
Operation Ambient Temperature	-25°C - +40°C
Expected Life Time (L70)	50K Hours

*Recommend to pull out from water before freezing/thaw cycle.*

#### Mechanical & Housing Specification

Diameter/Height	2" x 2"
Fixture Rotation Range	300°
Housing Material	316 Stainless Steel
Housing Color & Surface	Stainless Steel - SS
Weight	2.4 lb

*Fixture can be used in up or down position.*

### LOAD CHART

Power (VA)	Wire Gauge / Length (ft/m) Load Chart			
	10 AWG	12 AWG	14 AWG	16 AWG
0-20 VA	1860'/567 m	1150'/351 m	730'/223 m	450'/137 m
40 VA	930'/283 m	580'/177 m	370'/113 m	230'/70 m
60 VA	620'/189 m	390'/119 m	240'/73 m	150'/46 m
80 VA	470'/143 m	290'/88 m	180'/55 m	110'/34 m
100 VA	370'/113 m	230'/70 m	140'/43 m	90'/27 m
>100 VA	Consult Technical Support			



### FIXTURE

#### Glass Lens

Tempered, shock resistance glass with high tolerance for thermal expansion and stress.

#### Body

Marine Grade 316 Stainless Steel.

#### Wire

18 AWG, 105°C, 300V, 25' usable length, SJTW or SJOW.

#### Optics

Custom acrylic optics provide smooth, uniform light distribution to eliminate glare and hotspots.

#### Included Accessories

Removable 316 Stainless Steel Masonry Bracket and Cowl, 2 gel-filled Wire Nuts, and Adjustment Key.

Optional Weighted Mounting Base 16084BK.

### PHOTOMETRICS

\*Center Beam Candle Power measured in candela.

LOW LUMENS	Item	16027 (Low - 100 lm)		
	Beam Angle	60° Wide Flood		
	CBCP*	105.3 at Horizontal 180°, Vertical 13°		
	Distance	Foot-candles	100 lm	Beam Width
	40'	.06		50'
	32'	.09		40'
	24'	.16		30'
	16'	.36		20'
	8'	1.4		10'
	4'	5.7		5'

MID LUMENS	Item	16027 (Mid - 200 lm)		
	Beam Angle	60° Wide Flood		
	CBCP*	214.2 at Horizontal 135°, Vertical 16°		
	Distance	Foot-candles	200 lm	Beam Width
	40'	.12		50'
	32'	.18		40'
	24'	.32		30'
	16'	.72		20'
	8'	2.9		10'
	4'	11.5		5'

HIGH LUMENS	Item	16027 (High - 400 lm)		
	Beam Angle	60° Wide Flood		
	CBCP*	385.6 at Horizontal 135°, Vertical 15°		
	Distance	Foot-candles	400 lm	Beam Width
	40'	.22		50'
	32'	.34		40'
	24'	.60		30'
	16'	1.4		20'
	8'	5.5		10'
	4'	21.5		5'

**TROUBLE SHOOTING**

<b>Fixture does not illuminate</b>	Verify power connections. Review installation guide for installation problem. Insure manual reset breaker has not been tripped.
<b>Fixture flashes</b>	Verify load calculations for the installation. Check voltage at affected fixture. Verify you are on 15V output tap.
<b>Fixture turns off</b>	Verify power connections. Review installation guide for installation problems. Insure manual reset breaker has not been tripped. Check voltage drop at fixture.
<b>Fixture trips breaker</b>	Check installation for a possible short or overload state. Isolate the identified short and replace affected fixture or remove fixture(s) installed in overload.
<b>Fixture returns to original lumen output</b>	The fixture has to be powered on for 2 minutes after final adjust to exit programming mode.

**LISTING**

UL 1838 Issued: 2003/01/13 Ed: 3 Rev: 2015/01/13 Low Voltage Landscape Lighting Systems.

CSA C22.2#250.7 Issued: 2007/11/01 (R2012)

Ed: 1 Extra-low-voltage landscape lighting systems – General Instruction No. 1: 2008.

FCC Part 15b; Conducted and radiated.

Contact: [layouts@kichler.com](mailto:layouts@kichler.com)

**DISCLOSURE**

1. Chip binning ranges: (2700K 80+ CRI: 3 step), (3000K 80+ CRI: 3 step). LED chip data measured in accordance to IES LM-80.
2. Fixture has a 90% confidence luminous flux range to stated 3000K CCT target. Photometric (flux and color) data has been measured in accordance to IES LM-79.
3. Actual efficacy value can be calculated as follows: Lumen value divided by average power consumption.
4. Do not extend beyond the recommended maximum run length.
5. Recommend product be installed with 10 or 12 gauge wire.
6. Recommend 80% load/20% overhead rule for fixture load planning in reference to the power source. Calculating fixture loading this way provides additional resource for fixture adjustment and loss due to voltage drop due to wire run lengths.
7. We reserve the right to modify and improve the design of our fixtures without prior notice. We cannot guarantee to match existing installed fixtures for subsequent orders or replacements in regards to product appearance, CCT, or lumen output.
8. Do not modify product beyond instructions or warranty will be void.

**ADVANCED PRODUCT SOLUTIONS (APS) & LAYOUT TEAM**

Have installation issues or a product and location inquiry? We have you covered. Our APS team can provide you with technical guidance and professionally designed landscape lighting layouts free of charge.

Visit [Kichler.com/APS](http://Kichler.com/APS), reach out to us at [layouts@kichler.com](mailto:layouts@kichler.com), or by phone Monday - Friday, 8:00 am to 6:30 pm EST, at **844-KICHLER (844-542-4537)** to get started.

See the entire VLO product line at [Kichler.com/VLO](http://Kichler.com/VLO)