



## VLO 12V LED High Lumen Accent

## One light, two powerful lumen levels.

Our VLO High Lumen Accent fixture is equipped with the Lumen Effects System. This allows you to easily switch between two lumen outputs: 1000 or 1200, with the use of the Magnetic Key. Its field configurable design allows for customization based on the needs of the application, helping to produce more lumens while maintaining the same body style as the VLO Large Lumen Accent. Plus, it's built to deliver light over large areas such as tall trees and three-story houses, creating a seamless presentation.

Variable	Lumens		
Level 1*	Flashes one time		1000 lm
Level 2	Flashes two times		1200 lm

\*Factory setting

## VLO 12V LED High Lumen 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, supporting product longevity.



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



**Sealed and fully encapsulated** to thermally control the fixture and safeguard from water ingression and outdoor elements – helping to extend the life of the product.



**Versatile IP66 rated** design provides a dust and water tight housing that can protect against strong jets of water that can occur in coastal areas with strong storms or applications close to sprinklers.



**6,000-volt system surge protection** protects against power surges and irregularities when paired with one of our transformers.



Ordering Guide (product number breakdown)

Example: 16162 CBR 30

#### Item Number for Fixture & Beam Angle:

**16160** = 15° Narrow Spot **16161** = 35° Flood **16162** = 60° Wide Flood

16162

## Product Finish:

**AZT** = Textured Architectural Bronze **BKT** = Textured Black

**CBR** = Centennial Brass

CBR

3 Color Temperature:

27 = 2700K. Warm White **30** = 3000K, Pure White **50\*** = 5000K, Bright White

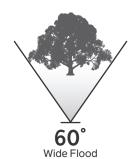
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\*5000K option only available in 16162 60° Flood in AZT finish.

#### **BEAM SPREAD**







#### **PHOTOMETRICS**

16160AZT27 16160BKT27 16160CBR27

15° Narrow Spot 2700K - Warm White

36'

24'

94

21

190

16160AZT30 16160BKT30 16160CBR30 15° Narrow Spot

3000K - Pure White

2.5'

16161AZT27 16161BKT27 16161CBR27 35° Flood

2700K - Warm White

16161AZT30 16161BKT30 16161CBR30 35° Flood

3000K - Pure White

16162AZT27 16162BKT27 16162CBR27 60° Wide Flood

2700K - Warm White

16162AZT30 16162BKT30 16162CBR30 60° Wide Flood

3000K - Pure White

Item	16160 (I	<b>Low</b> - 10	00 lm)	Item	16161	( <b>Low</b> - 10	)00 lm)	Item	
Beam	15°	Narrow Sp	ot	Beam		35° Flood		Beam	
Candela	Max Candela: 12,200			Candela	Max Candela: 2,394			Candela	
Distance	Foot-candles	1000 lm	Beam Width	Distance	Foot-candles	1000 lm	Beam Width	Distance	Foo
84'	1.7		18'	84'	0.3		42'	84'	
72'	2.4		15'	72'	0.5		36'	72'	
60'	3.4		13'	60'	0.7		30'	60'	
48'	5.3		10'	48'	1		24'	48'	

Beam		35° Flood	Beam			
Candela	Ma	x Candela: 2,39	94	Candela		Ν
Distance	Foot-candles	1000 lm	Beam Width	Distance	Foot-candles	١.
84'	0.3		42'	84'	0.1	1
72'	0.5		36'	72'	0.2	Г
60'	0.7		30'	60'	0.2	
48'	1		24'	48'	0.4	Г
36'	1.8		18'	36'	0.6	Γ
24'	4.2		12'	24'	1.4	Γ
12'	17		6'	12'	5.8	
8'	37	V	4'	8'	13	Г

	Beam		60° Wide Flood	
	Candela		Max Candela: 830	
'idth	Distance	Foot-candles	1000 lm	Beam Width
	84'	0.1		120'
	72'	0.2		103'
	60'	0.2		86'
	48'	0.4		68.5'
	36'	0.6		51.5'
	24'	1.4		34.5'
	12'	5.8		17'
	8'	13		11.5'

**16162** (**Low** - 1000 lm)

	Item	16160 (H	ligh	- 12	200 lm)	Item	16161 (	Hig	<b>h</b> - 12	00 lm)	Item	1616	52 (High	ı - 1200	lm)
	Beam	15° l	Narro	w Sp	oot	Beam		35°	Flood		Beam		60° Wid	e Flood	
S	Candela	Max C	Candel	a: 14	1,600	Candela	Max	(Can	dela: 2,	872	Candela		Max Can	dela: 996	
Z Ш	Distance	Foot-candles	1200		Beam Width	Distance	Foot-candles	1	200 lm	Beam Width	Distance	Foot-candles	120	00 lm	Beam Width
$\leq$	84'	2.1			18'	84'	0.4			42'	84'	0.1			120'
	72'	2.8			15'	72'	0.6			36'	72'	0.2			103'
IL 2	60'	4.1			13'	60'	0.8			30'	60'	0.3			86'
EVEL	48'	6.4			10'	48'	1.2			24'	48'	0.4			68.5'
=	36'	11			7'	36'	2.2			18'	36'	0.8			51.5'
	24'	25			5'	24'	5			12'	24'	1.7			34.5'
	12'	102	Ī		2.5'	12'	20			6'	12'	6.9			17'
	8'	229	Ī		1.7'	8'	45		7	4'	8'	15.6	1	<b>V</b>	11.5'

# 16162AZT50 60° Wide Flood 5000K - Bright White

### Create a Beautiful Moonlight Effect

### VLO 5000K LED HIGH LUMEN ACCENT

Comes equipped with a moonlighting kit which includes a Long Cowl and a 6500K CCT Mercury Vapor Green Lens to mimic the color of the moon. Use our Tree Bracket Mount (15609AZT) to install the fixture on trees for an optimal moonlighting effect.



## VLO 12V LED High Lumen Accent



#### **FINISH OPTIONS**



**AZT -** Textured Architectural Bronze



**BKT -** Textured Black



**CBR -** Centennial Brass

#### **PERFORMANCE**

Output Position	Level 1	Level 2
Lumen Output	1000 lm	1200 lm
Input Voltage	9V-15V	9V-15V
Power (VA) @ 12V AC	19VA	23VA
Power (W) @ 12V AC	14W	18W
Efficacy (Im/W @ AC)	71 lm/W	67 lm/W
Halogen Equivalents	100W	120W
		.2011

#### **SPECIFICATIONS**

#### Fixture

Number of LEDs 1 High Output COB 2700K, 3000K, 5000K Color Temperature Color Rendering Index 80+ 15°, 35°, and 60° Beam Angle Binnina 3 Step Orientation Up or Down

#### Input

Input Frequency 47 - 63Hz Input Current 1.6mA / 1.9mA @ 12VAC Inrush Current 8A @ 12VAC Efficiency 85% @ 12VAC, max. load Power Factor 0.75 @ 12VAC

#### Environmental

Environmental Protection Rating Operation Ambient Temperature Lumen Maintenance (L70) System Surge Protection Rating

Wet IP66 -25°C - +40°C 50.000 Hours 2.5KV fixture, 6KV system with transformer



#### Mechanical & Housing Specification

Diameter/Height Fixture Rotation Range Housing Material Housing Color & Surface Weight

6" L x 2.7" W x 4.2" H +25°/-90° from vertical (115° Full) Cast Aluminum, Cast Brass AZT, BKT or CBR Aluminum 1.5 lb / Brass 3 lb

Additional Specs

#### **FIXTURE ATTRIBUTES**

#### Lens Material

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

18 AWG, 105°C, 300V 48" of usable length, SJTW.

#### Optics

TIR optics provide superior beam angle.

#### **Included Accessories**

8" Slotted In-ground Stake, 2 Gel-Filled Wire Nuts, and Magnetic Key.

### **Optional Accessories**

Gutter Mount

Surface Mounting Flange 3" Round Mounting Base 6" Fixture Mounting Stem Fixture Mounting Stems Stem Coupler Male/Female Risers 90-Degree Elbow Two Fixture Mount Surface Mounting Bracket Adjustable Height Stem 6" Large Long Cowl 4" Medium 360° Cowl Large Colored Lenses

15645AZT, BKT 15656-15658AZT, BKT 15649AZT, BKT 15509-15513CBR 15647AZT, BKT, 15514CBR 15515CBR 15607AZT, BKT 15570AZT, BKT 16068AZT, BKT, CBR 16074AZT, BKT, CBR 16072AMB, 16072FRO, 16072GRN, 16072HGN,

15489CBR

15493CBR

15601AZT, BKT

Large Beam Expander Lens Large Hexcell Louver

16072RD 16091FRO 16075BK 15609AZT, BKT, CBR

Junction Box Mounting Bracket

#### **LOAD CHART**

Power	Wire Gauge / Length (ft/m) Load Chart							
(VA)	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							

#### **TROUBLE SHOOTING**

Fixture does not illuminate	Verify power connections. Review installation guide for installation problem. Ensure manual reset breaker has not been tripped.
Fixture flashes	Verify load calculations for the installation. Check voltage at affected fixture. Verify you are on 15V output tap.
Fixture turns off	Verify power connections. Review installation guide for installation problems. Ensure manual reset breaker has not been tripped. Check voltage drop at fixture.
Fixture trips breaker	Check installation for a possible short or overload state. Isolate the identified short and replace affected fixture or remove fixture(s) installed in overload.
Fixture returns to original lumen output	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.



#### WARRANTY

Backed by our 15 year limited warranty. Visit **Kichler.com/Warranty** for details.

#### **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.
- ${\bf 2.\,Fixture\,has\,a\,90\%\,confidence\,luminous\,flux\,range\,to\,stated\,3000K\,CCT\,target.\,Photometric} \\ {\it (flux\,and\,color)\,data\,has\,been\,measured\,in\,accordance\,to\,IES\,LM-79.}$
- 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. Damage caused by misuse (including use for an unintended application) or improper or incorrect installation, maintenance or repair, including failure to follow the applicable care and cleaning instructions, is not covered by our warranty.

## 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, reach out to us at 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.

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See the entire VLO product line at **Kichler.com/VLO** 

