



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 Lumen Output (VLO) Adjustment		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 ingress 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.



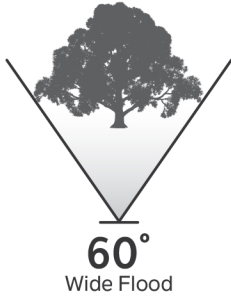
6,000-volt system surge protection protects against power surges and irregularities when paired with one of our transformers.

PRODUCT ORDERING GUIDE

<p>Ordering Guide (product number breakdown)</p>	<p>1 Item Number for Fixture & Beam Angle: 16160 = 15° Narrow Spot 16161 = 35° Flood 16162 = 60° Wide Flood</p>	<p>2 Product Finish: AZT = Textured Architectural Bronze BKT = Textured Black CBR = Centennial Brass</p>	<p>3 Color Temperature: 27 = 2700K, Warm White 30 = 3000K, Pure White 50* = 5000K, Bright White</p>
<p>Example: 16162 CBR 30</p>	<p><u>1</u> <u>6</u> <u>1</u> <u>6</u> <u>2</u></p>	<p><u>C</u> <u>B</u> <u>R</u></p>	<p><u>3</u> <u>0</u></p>

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

BEAM SPREAD



PHOTOMETRICS

<p>16160AZT27 16160BKT27 16160CBR27 15° Narrow Spot 2700K - Warm White</p>	<p>16160AZT30 16160BKT30 16160CBR30 15° Narrow Spot 3000K - Pure White</p>	<p>16161AZT27 16161BKT27 16161CBR27 35° Flood 2700K - Warm White</p>	<p>16161AZT30 16161BKT30 16161CBR30 35° Flood 3000K - Pure White</p>	<p>16162AZT27 16162BKT27 16162CBR27 60° Wide Flood 2700K - Warm White</p>	<p>16162AZT30 16162BKT30 16162CBR30 60° Wide Flood 3000K - Pure White</p>
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LEVEL 1 LUMENS	Item	16160 (Low - 1000 lm)			Item	16161 (Low - 1000 lm)			Item	16162 (Low - 1000 lm)		
	Beam	15° Narrow Spot			Beam	35° Flood			Beam	60° Wide Flood		
	Candela	Max Candela: 12,200			Candela	Max Candela: 2,394			Candela	Max Candela: 830		
Distance	Foot-candles	1000lm	Beam Width	Distance	Foot-candles	1000lm	Beam Width	Distance	Foot-candles	1000lm	Beam Width	
84'	1.7		18'	84'	0.3		42'	84'	0.1		120'	
72'	2.4		15'	72'	0.5		36'	72'	0.2		103'	
60'	3.4		13'	60'	0.7		30'	60'	0.2		86'	
48'	5.3		10'	48'	1		24'	48'	0.4		68.5'	
36'	9.4		7'	36'	1.8		18'	36'	0.6		51.5'	
24'	21		5'	24'	4.2		12'	24'	1.4		34.5'	
12'	85		2.5'	12'	17		6'	12'	5.8		17'	
8'	190		1.7'	8'	37		4'	8'	13		11.5'	

LEVEL 2 LUMENS	Item	16160 (High - 1200 lm)			Item	16161 (High - 1200 lm)			Item	16162 (High - 1200 lm)		
	Beam	15° Narrow Spot			Beam	35° Flood			Beam	60° Wide Flood		
	Candela	Max Candela: 14,600			Candela	Max Candela: 2,872			Candela	Max Candela: 996		
Distance	Foot-candles	1200lm	Beam Width	Distance	Foot-candles	1200lm	Beam Width	Distance	Foot-candles	1200lm	Beam Width	
84'	2.1		18'	84'	0.4		42'	84'	0.1		120'	
72'	2.8		15'	72'	0.6		36'	72'	0.2		103'	
60'	4.1		13'	60'	0.8		30'	60'	0.3		86'	
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		2.5'	12'	20		6'	12'	6.9		17'	
8'	229		1.7'	8'	45		4'	8'	15.6		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.



DIMENSIONS



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 (lm/W @ AC)	71 lm/W	67 lm/W
Halogen Equivalents	100W	120W

SPECIFICATIONS

Fixture

Number of LEDs	1 High Output COB
Color Temperature	2700K, 3000K, 5000K
Color Rendering Index	80+
Beam Angle	15°, 35°, and 60°
Binning	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	Wet IP66
Operation Ambient Temperature	-25°C - +40°C
Lumen Maintenance (L70)	50,000 Hours
System Surge Protection Rating	2.5KV fixture, 6KV system with transformer



Mechanical & Housing Specification

Diameter/Height	6" L x 2.7" W x 4.2" H
Fixture Rotation Range	+25°/-90° from vertical (115° Full)
Housing Material	Cast Aluminum, Cast Brass
Housing Color & Surface	AZT, BKT or CBR
Weight	Aluminum 1.5 lb / Brass 3 lb

FIXTURE ATTRIBUTES

Lens Material

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

Wire

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	15489CBR
Surface Mounting Flange	15601AZT, BKT
3" Round Mounting Base	15493CBR
6" Fixture Mounting Stem	15645AZT, BKT
Fixture Mounting Stems	15656-15658AZT, BKT
Stem Coupler	15649AZT, BKT
Male/Female Risers	15509-15513CBR
90-Degree Elbow	15647AZT, BKT, 15514CBR
Two Fixture Mount	15515CBR
Surface Mounting Bracket	15607AZT, BKT
Adjustable Height Stem	15570AZT, BKT
6" Large Long Cowl	16068AZT, BKT, CBR
4" Medium 360° Cowl	16074AZT, BKT, CBR
Large Colored Lenses	16072AMB, 16072FRO, 16072GRN, 16072HGN, 16072RD
Large Beam Expander Lens	16091FRO
Large Hexcell Louver	16075BK
Junction Box Mounting Bracket	15609AZT, BKT, CBR

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			

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.
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. 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.

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