

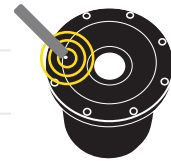


VLO 12V LED In-Ground Accent

One light, three lumen levels.

Our VLO In-Ground Accent fixture is equipped with the Lumen Effects System, which allows you to easily switch between three lumen outputs: 350, 550, or 850, 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	350 lm
Level 2*	Flashes two times	550 lm
Level 3	Flashes three times	850 lm



*Factory setting

VLO 12V LED In-Ground 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.



Versatile IP67 rated design provides protection against dust particles and temporary submersion in case of flooding.



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



Drive-over rated for static loads up to 4600lbs. Great for driveways, walkways, and entrances.



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

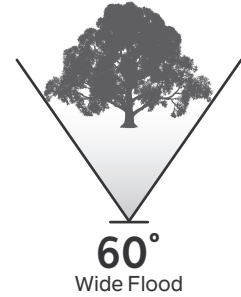


6,000-volt system surge protection protects against power surges and irregularities, especially when paired with one of our transformers.

PRODUCT ORDERING GUIDE

<p>Ordering Guide (product number breakdown)</p> <p><i>Example: 16024 CBR 30</i></p>	<p>1 Item Number for Fixture & Beam Angle:</p> <p>16023 = 15° Narrow Spot 16024 = 35° Flood 16025 = 60° Wide Flood</p> <p><u>1</u> <u>6</u> <u>0</u> <u>2</u> <u>4</u></p>	<p>2 Product Finish:</p> <p>CBR = Centennial Brass</p> <p><u>C</u> <u>B</u> <u>R</u></p>	<p>3 Color Temperature:</p> <p>27 = 2700K, Warm White 30 = 3000K, Pure White</p> <p><u>3</u> <u>0</u></p>
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BEAM SPREAD



PHOTOMETRICS

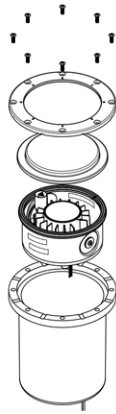
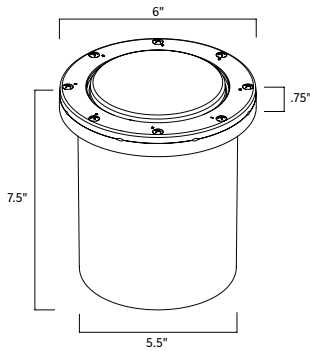
<p>16023CBR27 15° Narrow Spot 2700K - Warm White</p>	<p>16023CBR30 15° Narrow Spot 3000K - Pure White</p>	<p>16024CBR27 35° Flood 2700K - Warm White</p>	<p>16024CBR30 35° Flood 3000K - Pure White</p>	<p>16025CBR27 60° Wide Flood 2700K - Warm White</p>	<p>16025CBR30 60° Wide Flood 3000K - Pure White</p>
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LOW LUMENS	Item	16023 (Low - 350 lm)			Item	16024 (Low - 350 lm)			Item	16025 (Low - 350 lm)		
	Beam	15° Narrow Spot			Beam	35° Flood			Beam	60° Wide Flood		
	Candela	Max Candela: 3699			Candela	Max Candela: 883			Candela	Max Candela: 287		
Distance	Foot-candles	350 lm	Beam Width	Distance	Foot-candles	350 lm	Beam Width	Distance	Foot-candles	350 lm	Beam Width	
60'	0.8		15.8'	60'	0.2		35.5'	60'	0.1		82.5'	
50'	1.1		13.2'	50'	0.3		29.6'	50'	0.1		68.7'	
40'	1.7		10.5'	40'	0.4		23.7'	40'	0.1		55.0'	
30'	3.1		7.9'	30'	0.7		17.8'	30'	0.2		41.2'	
20'	6.9		5.3'	20'	1.6		11.8'	20'	0.5		27.5'	
10'	27.6		2.6'	10'	6.4		5.9'	10'	2.0		13.7'	
5'	110.3		1.3'	5'	25.8		3.0'	5'	8.1		6.9'	

MID LUMENS	Item	16023 (Mid - 550 lm)			Item	16024 (Mid - 550 lm)			Item	16025 (Mid - 550 lm)		
	Beam	15° Narrow Spot			Beam	35° Flood			Beam	60° Wide Flood		
	Candela	Max Candela: 5651			Candela	Max Candela: 1344			Candela	Max Candela: 441		
Distance	Foot-candles	550 lm	Beam Width	Distance	Foot-candles	550 lm	Beam Width	Distance	Foot-candles	550 lm	Beam Width	
60'	1.2		15.8'	60'	0.3		35.5'	60'	0.1		82.5'	
50'	1.7		13.2'	50'	0.4		29.6'	50'	0.1		68.7'	
40'	2.6		10.5'	40'	0.6		23.7'	40'	0.2		55.0'	
30'	4.7		7.9'	30'	1.1		17.8'	30'	0.3		41.2'	
20'	10.5		5.3'	20'	2.5		11.8'	20'	0.8		27.5'	
10'	42.1		2.6'	10'	9.8		5.9'	10'	3.1		13.7'	
5'	168.6		1.3'	5'	39.2		3.0'	5'	12.4		6.9'	

HIGH LUMENS	Item	16023 (High - 850 lm)			Item	16024 (High - 850 lm)			Item	16025 (High - 850 lm)		
	Beam	15° Narrow Spot			Beam	35° Flood			Beam	60° Wide Flood		
	Candela	Max Candela: 7913			Candela	Max Candela: 1858			Candela	Max Candela: 601		
Distance	Foot-candles	850 lm	Beam Width	Distance	Foot-candles	850 lm	Beam Width	Distance	Foot-candles	850 lm	Beam Width	
60'	1.6		15.8'	60'	0.4		35.5'	60'	0.1		82.5'	
50'	2.4		13.2'	50'	0.5		29.6'	50'	0.2		68.7'	
40'	3.7		10.5'	40'	0.8		23.7'	40'	0.3		55.0'	
30'	6.6		7.9'	30'	1.5		17.8'	30'	0.5		41.2'	
20'	14.8		5.3'	20'	3.4		11.8'	20'	1.1		27.5'	
10'	59.0		2.6'	10'	13.6		5.9'	10'	4.2		13.7'	
5'	236.1		1.3'	5'	54.2		3.0'	5'	16.9		6.9'	

DIMENSIONS



Mechanical & Housing Specification

Diameter/Height	6" x 7.5"
Fixture Rotation Range	355° Horizontal - ± 30° Vertical
Housing Material	PPS Plastic, C360 Brass trim
Housing Color & Surface	Centennial Brass - CBR
Weight	5.5 lb

PERFORMANCE

Output Position	Level 1	Level 2	Level 3
Lumen Output	350 lm	550 lm	850 lm
Input Voltage	9V-15V	9V-15V	9V-15V
Power (VA) @ 12V AC	8VA	11.75VA	16.1VA
Power (W) @ 12V DC	5.3W	8.3W	12W
Efficacy (lm/W @ DC)	66 lm/W	66 lm/W	71 lm/W
Halogen Equivalents	35W	50W	90W

FIXTURE

Glass Lens

Tempered, shock resistance borosilicate glass with high tolerance for thermal expansion and stress. Static load up to 4600 lbs.

Body

Brown PPS plastic.

Wire

18 AWG, SPT-1W 105°C, 300V, 60' of usable length.

Optics

Custom polycarbonate TIR lens optics provide smooth, uniform light distribution to eliminate glare and hotspots with clean and crisp center-to-edge uniformity.

Included Accessories

2 Replacement Screws, 2 Gel-Filled Wire Nuts, and Magnetic Key.

AVAILABLE FINISH



CBR - Centennial Brass

SPECIFICATIONS

Fixture

Number of LEDs	1 High Output COB
Color Temperature	2700K, 3000K
Color Rendering Index	80+
Beam Angles	15°, 35°, 60°
Binning	3 Step

Input

Input Frequency	47 - 63Hz
Input Current	1A max @ 12VAC
Inrush Current	16A max
Efficiency	Up to 71 lm/W @ 12VAC
Power Factor	0.74 @ 12VAC

Environmental

Environmental Protection Rating	Wet IP67
Operation Ambient Temperature	-25°C - +40°C
Lumen Maintenance (L70)	50,000 Hours

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			

OPTIONAL ACCESSORIES



Side Fire
16093CBR



Four-Way
16094CBR



Cowl
16095CBR



Rock Guard
16096CBR



Concrete Kit
16099BK



Lens Clip
16097BK

Lens Clip works with lenses: 16072AMB, 16072GRN, 16072FRO, 16072RD, 16072HGN, 16091FRO Beam Expander and 16075BK Hexcell Louver.

Includes plastic dome lens that directs light out of the accessory opening for superior distribution.

Vandal Proof Hardware 16099BK not shown.

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.

Contact: layouts@kichler.com

**WARRANTY**

Backed by our 10 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.