![EZS Estrin Zirkman Sales logo]

HOT! 2021 LANDSCAPE LIGHTING
HOT 2021 LANDSCAPE LIGHTNG WITH SPEC SHEETS

LED Landscape
Residential | Commercial

KICHLER **EZS** Estrin Zirkman Sales

MICHAEL ESTRIN
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ESTRIN ZIRKMAN SALES
17 SOUTH MAIN STREET SUITE 3 • MANVILLE, NJ 08835

Ground Landscape Lighting

KICHLER LIGHTING
16154AZT27

Qty: 1

2700K 300 Lumen 35 Degree Flood Textured Architectural...
Textured Architectural Bronze Finish
Landscape Light

KICHLER LIGHTING
16024CBR30

Qty: 1

VLO 3000K LED In-Ground 35 Degree Beam Angle Accent Light...
Centennial Brass Finish
Landscape Light

Ground Landscape Lighting (Continued)

KICHLER LIGHTING
16022BKT30

Qty: 1

VLO 3000K 6x5 LED Flood Textured Black
Textured Black Finish
Landscape Light

KICHLER LIGHTING
16019CBR30

Qty: 1

VLO 3000K 35 Degree Large Flood Centennial Brass
Centennial Brass Finish
Landscape Light

Path Landscape Lighting

KICHLER LIGHTING
15820CBR30

Qty: 1

Stepped Dome 12V 3000K Path Light Centennial Brass
Centennial Brass Finish
Landscape Light

KICHLER LIGHTING
15805BKT27R

Qty: 1

Shallow Shade Small 2700K LED Path Light Textured Black
Textured Black Finish
Landscape Light

Path Landscape Lighting (Continued)

KICHLER LIGHTING
15870CBR27

Qty: 1

12V LED 2700K 6'' Dome Path Light Centennial Brass
Centennial Brass Finish
Landscape Light

KICHLER LIGHTING
15810CBR30

Qty: 1

12V LED 3000K 8'' Dome Path Light, Centennial Brass
Centennial Brass Finish
Landscape Light

Hardscape

KICHLER LIGHTING
16101SD27

Qty: 1

12V 2700K LED 6'' Hardscape Textured Sand
Sand Finish
Landscape Light

KICHLER LIGHTING
16102AZT30

Qty: 1

12V 3000K LED 12'' Hardscape Textured Architectural Bronze
Textured Architectural Bronze Finish
Landscape Light

--- Transformer ---

KICHLER LIGHTING
15PL100AZT

Qty: 1

Plus Series 100W Transformer Textured Architectural Bronze
Textured Architectural Bronze Finish
Landscape Light

KICHLER LIGHTING
15PR100SS

Qty: 1

Pro Series 100W Transformer Stainless Steel
Stainless Steel Finish
Landscape Light

KICHLER LIGHTING
15PR300SS

Qty: 1

Pro Series 300W Transformer Stainless Steel
Stainless Steel Finish
Landscape Light

12V Integrated LED Accent Light

16150-16158

PROJECT:	ORDERING:
TYPE:	COMMENTS:

Kichler's new and improved 12V integrated LED accent light has the durability you expect with an enhanced modern look, stronger performance and superior light quality.

This updated LED accent uses almost 60% less energy and provides even more light output versus the prior design. Less energy consumption allows more fixtures to be placed on a run while providing the homeowner a system that costs less to operate.

FEATURES

- High lumens in small body
- Custom optics for superb center-to-the edge uniformity
- Available beam angle: 10º, 35º & 60º
- Complete sealed system for improved reliability
- Advanced ESD protection
- IP66 rated

PERFORMANCE

	200 Lumen	300 Lumen	500 Luman
Input Voltage	9-15V	9-15V	9-15V
VA Total @ 15VAC	3.5	5.25	10
Wattage	2.5	3.5	7
Efficacy (Lm/W)	80	86	71
Halogen Replacement	20W	35W	50W

SPECIFICATIONS

Fixture

Light Source	Integrated LED
Number of LEDs	3 or 6
Kelvin Temperature	2700K, 3000K
Color Rendering Index	80+
Beam Angles	10º, 35º, 60º

Input

Lumens	Input Current	Efficiency	Power Factor
200	.484A@9VAC	88.40%	0.653
300	.578A@9VAC	86.03%	0.706
500	1.1A@9VAC	86.90%	0.738

Output	Lumens
High	500
Mid	300
Low	200

Environmental

Environmental Protection Rating	Wet
Operation Ambient Temperature	-25ºC - +40ºC
Storage Temperature	-40º C - +80ºC
Expected Life Time	50K Hours > 75ºC Tc Max

Mechanical & Housing Specification

Length	3.5" / 89 mm
Width	3.25" / 83 mm
Height	4.5" / 114 mm
Housing Material	Aluminum, Brass
Housing Color & Surface	Black/Brown/CBR
Weight	Alum 1.05lb/ 0.5Kg, Brass 2.3lb/ 1.1Kg

FIXTURE

Glass Window

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

Body

A380 Aluminum, C360 Brass casting

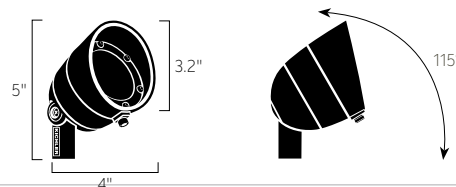### Wire

18 AWG, SPT-1W, 105ºC, 300V, 48" length

Optics

Polycarbonate TIR lens provides superior fixture beam angle. Available in 10º, 35º and 60º.

Accessories

Includes gel-filled wirenuts and stake

Dimensions

5" 3.2" 4" 115°

AVAILABLE FINISHES

	AZT Architectural Bronze	BKT Black	CBR Centenial Brass

KICHLER®

12V Integrated LED Accent Light   16150-16158

INSTALLATION INFORMATION

Lumens	AC Voltage (VA)			DC Voltage (W)		
	9V	12V	15V	9V	12V	15V
200	4.32	4.25	5.1	2.8	2.76	2.73
300	5.13	5.3	6.11	3.56	3.51	3.49
500	9.74	9.42	10.1	6.9	6.87	6.73

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

Ordering Guide (product number breakdown)

1 Item Number for Fixture Size & Beam Angle:
16150 = Small 10° Spot
16151 = Small 35° Flood
16152 = Small 60° Wide Flood

2 Product Finish:
AZT = Textured Architectural Bronze
BKT = Black
CBR = Centennial Brass

3 Color Temperature:
27 = 2700K, Warm White
30 = 3000K, Pure White

Example: 16150 CBR 30   1 6 1 5 0   C B R   3 0

Item Number	16150		Ft.	16151		Ft.	16152	
Beam Angle	10° Spot			35° Flood			60° Wide Flood	
Max Candela	3867			527			221	
Ft. Away	Foot-candles	Beam Width	Ft.	Foot-candles	Beam Width	Ft.	Foot-candles	Beam Width
8'	38.4	1.5	4'	21.7	2.5	4'	8.3	4.2
12'	17.1	2.2	8'	5.4	4.9	8'	2.1	8.3
24'	4.3	4.5	16'	1.4	9.8	16'	.5	16.7
36'	1.9	6.7	24'	.6	14.7	24'	.2	25
48'	1.1	8.9	32'	.3	19.6	32'	.1	33.3
60'	.7	11.1	40'	.2	24.5	40'	.1	41.7

Item Number	16153		Ft.	16154		Ft.	16155	
Beam Angle	10° Spot			35° Flood			60° Wide Flood	
Max Candela	5213			738			282	
Ft. Away	Foot-candles	Beam Width	Ft.	Foot-candles	Beam Width	Ft.	Foot-candles	Beam Width
8'	66.2	1.5	4'	30.5	2.5	4'	10.7	4.3
12'	29.4	2.3	8'	7.6	5	8'	2.7	8.7
24'	7.4	4.6	16'	1.9	9.9	16'	.8	17.4
36'	3.3	6.9	24'	.9	14.9	24'	.3	26.1
48'	1.8	9.2	32'	.5	19.8	32'	.2	34.8
60'	1.2	11.5	40'	.3	24.8	40'	.1	43.4

Item Number	16156		Ft.	16157		Ft.	16158	
Beam Angle	10° Spot			35° Flood			60° Wide Flood	
Max Candela	9236			1298			514.4	
Ft. Away	Foot-candles	Beam Width	Ft.	Foot-candles	Beam Width	Ft.	Foot-candles	Beam Width
8'	111	1.5	4'	54	2.4	4'	19.2	4.2
12'	49.3	2.2	8'	13.5	4.8	8'	4.8	8.4
24'	12.3	4.4	16'	3.4	9.7	16'	1.2	16.8
36'	5.5	6.6	24'	1.5	14.5	24'	.5	25.2
48'	3.1	8.7	32'	.8	19.3	32'	.3	33.6
60'	2	10.9	40'	.5	24.2	40'	.2	42

Visit **Kichler.com/AccentLED**

ST17LD5147

KICHLER.

12V Integrated LED Accent Light   16150-16158

TROUBLESHOOTING

Fixture does not illuminate	Verify power connections. Review installation guide for installation problem. Insure manual reset breaker has not been tripped.
Fixture turns off	Verify power connections. Review installation guide for installation problems. Insure 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.

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.

CE marking in accordance with IEC 62471 Issue:2006/07/01 Ed:1
Photobiological safety of lamps and lamp systems. No. 219
CE/ CB Scheme. Aluminum fixtures only.

Contact: layouts@kichler.com

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.

WARRANTY
10-year limited warranty

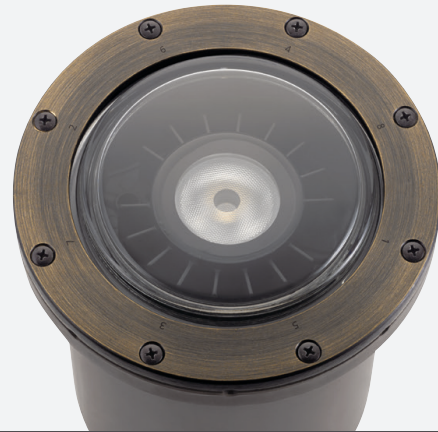See Kichler.com/Warranty for warranty details.

Consult Kichler Advanced Product Solutions for additional product support and design layouts by visiting Kichler.com/APS.

AZT   BKT   CBR

Visit **Kichler.com/VLOaccent**

ST17LD5083

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
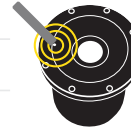
Factory setting

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.

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 ingression and the outdoor elements – helping to extend the life of the product.

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

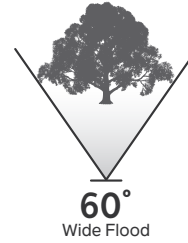**Drive-over rated** for static loads up to 4600lbs. Great for driveways, walkways, and entrances.

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

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EZS Estrin Zirkman Sales

PRODUCT ORDERING GUIDE

Ordering Guide (product number breakdown)

1 Item Number for Fixture & Beam Angle:

16023 = 15° Narrow Spot
16024 = 35° Flood
16025 = 60° Wide Flood

2 Product Finish:

CBR = Centennial Brass

3 Color Temperature:

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

Example: 16024 CBR 30

1 6 0 2 4   C B R   3 0

BEAM SPREAD

15°
Narrow Spot

35°
Flood

60°
Wide Flood

PHOTOMETRICS

16023CBR27	16023CBR30	16024CBR27	16024CBR30	16025CBR27	16025CBR30
15° Narrow Spot	15° Narrow Spot	35° Flood	35° Flood	60° Wide Flood	60° Wide Flood
2700K - Warm White	3000K - Pure White	2700K - Warm White	3000K - Pure White	2700K - Warm White	3000K - Pure White

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	Beam Width	**Distance**	Foot-candles	Beam Width	**Distance**	Foot-candles	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

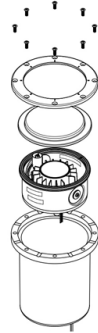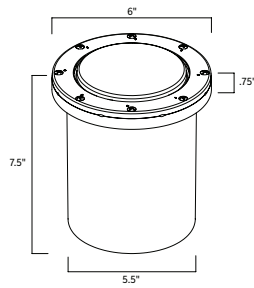| Item	16023 (Mid – 550 lm)		Item	16024 (Mid – 550 lm)		Item	16025 (Mid – 550 lm)	
Beam	15° Narrow Spot		**Beam**	35° Flood		**Beam**	60° Wide Flood	
Candela	Max Candela: 5651		**Candela**	Max Candela: 1344		**Candela**	Max Candela: 441	
Distance	Foot-candles	Beam Width	**Distance**	Foot-candles	Beam Width	**Distance**	Foot-candles	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	Beam Width	**Distance**	Foot-candles	Beam Width	**Distance**	Foot-candles	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'

VLO 12V LED In-Ground Accent

Additional Specs

DIMENSIONS

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

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

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

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

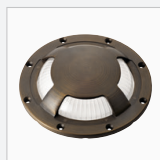2 Replacement Screws, 2 Gel-Filled Wire Nuts, and Magnetic Key.

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
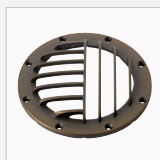
Rock Guard
16096CBR

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.

VLO 12V LED In-Ground Accent

16023CBR-16025CBR

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.

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

KICHLER

12V LED Large Flood Light
with Variable Lumen Output (VLO)

16022

PROJECT:	ORDERING:
TYPE:	COMMENTS:

OVERVIEW

The VLO Flood Light is unsurpassed in both style and performance. The VLO combines advanced LED and driver technology with premium materials. A single fixture provides the installer the option to select three different lumen outputs reducing installation complexity and increasing infield versatility.

FEATURES

- High lumens in small body
- Variable lumen output
- Advanced optics provide superb center to edge uniformity
- Designed with an extra wide beam angle for wash or wide flood applications.
- Complete sealed system for improved reliability
- Advanced ESD surge protection (6 kV)
- IP66 rated

PERFORMANCE

Output Position	Level 1	Level 2	Level 3
Lumen output	500	675	865
Input voltage	9–15	9–15	9–15
Power (VA) @ 15VAC	11	14	18
Power (W) @ 15VDC	7	9	12
Efficacy (Lm/W @DC)	75	75	72

SPECIFICATIONS

Fixture

Light Source	Integrated LED
Number of LEDs	1 High Output COB
Color Temperature	2700K, 3000K
Color Rendering Index	80
Beam Angles	NEMA 6x5 (126 degrees wide by 88 degrees tall)
Binning	3 Step
Orientation	Fixture can be used in UP or DOWN position

Input

Input Voltage Range	9 – 15V AC or DC with no loss in light output
Input Frequency	47 – 63Hz
Efficiency	72L/W @ 15VDC
Power Factor	> 0.7 @ 15VAC

Output

Lumen Level 3 (high)	865
Lumen Level 2 (medium)	675
Lumen Level 1 (low)	500 (factory setting)

Environmental

Environmental Protection Rating	Wet, IP66
Operation Ambient Temperature	-25ºC - +40ºC
Expected Life Time (L70)	50K Hours

Mechanical & Housing Specification

Length	7.07" / 154 mm
Width	5.93" / 69 mm
Height	7.17" / 106 mm
Housing Material	Cast Aluminum
Housing Color & Surface	AZT/BKT
Weight Alum	3.95 lbs / 1.79 kg

LD18030 082118 v5

FIXTURE

Glass Lens

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

Body

A380 Aluminum

Wire

18 AWG, SPT-1W, 105ºC, 300V, 48" usable length

Optics

Custom reflector optic

Included Accessories

Includes 8" slotted in-ground stake, 2 gel-filled wire nuts and lumen switching magnetic key.
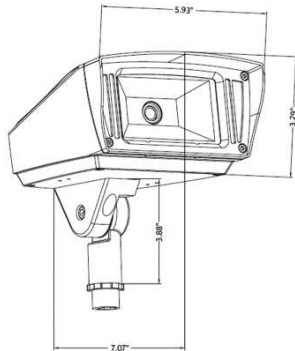
AVAILABLE FINISHES

AZT
Textured Architectural Bronze

BKT
Textured Black

KICHLER

EZS Estrin Zirkman Sales

12V LED Large Flood Light
with Variable Lumen Output (VLO)

16022

DIMENSIONS

5.93"

3.25"

3.88"

7.07"

PHOTOMETRIC

VLO Flood - 126° x 88°								
HIGH – 865 Lumens			MEDIUM – 675 Lumens			LOW – 500 Lumens		
Ft. Away	Foot Candles	Beam Width	Ft. Away	Foot Candles	Beam Width	Ft. Away	Foot Candles	Beam Width
2'	12.40	5.6	2'	9.45	5.6	2'	7.00	5.6
4'	6.20	11.2	4'	4.72	11.2	4'	3.50	11.2
8'	3.10	22.4	8'	2.36	22.4	8'	1.75	22.4
12'	2.07	33.7	12'	1.57	33.7	12'	1.17	33.7
24'	1.03	67.3	24'	0.79	67.3	24'	0.58	67.3
36'	0.69	101.0	36'	0.52	101.0	36'	0.39	101.0
48'	0.52	134.6	48'	0.39	134.6	48'	0.29	134.6
60'	0.41	168.3	60'	0.31	168.3	60'	0.23	168.3

INSTALLATION INFORMATION

Type Supply	Voltage Level	Dimming Level		
		1	2	3
AC Voltage (VA)	9V	10.5	13.5	17.5
	12V	11	14	17.5
	15V	11	14.5	18
DC Voltage (W)	9V	7.5	10	13
	12V	7	9	12
	15V	7	9	12

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

TROUBLESHOOTING

Fixture does not illuminate	Verify power connections. Review installation guide for installation problem. Insure 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. Insure 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.

CE marking in accordance with IEC 62471 Issue:2006/07/01 Ed:1
Photobiological safety of lamps and lamp systems. No. 219
CE/ CB Scheme. Aluminum fixtures only.

Contact: layouts@kichler.com

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.

WARRANTY

See Kichler.com/Warranty for warranty details.

Consult Kichler Advanced Product Solutions
for additional support at 844-452-5437.

KICHLER®

12V LED Large Accent Light
with Variable Lumen Output (VLO)

16018-16020

PROJECT:	ORDERING:
TYPE:	COMMENTS:

OVERVIEW

The VLO Accent Light is unsurpassed in both style and performance. The VLO combines advanced LED, Driver & Optic technology with premium materials.
A single fixture provides the installer the option to select three different lumen outputs reducing installation complexity and increasing infield versatility.

FEATURES

• High lumens in small body
• Variable lumen output
• Advanced optics provide superb center to edge uniformity
• Available beam angle: 15° , 35° & 60°
• Complete sealed system for improved reliability
• Advanced ESD protection (6 kV)
• IP66 rated

PERFORMANCE

Output Position	Level 1	Level 2	Level 3
Lumen output	400	600	835
Input voltage	9–15	9–15	9–15
Power (VA) @ 15VAC	8.5	12.5	17
Power (W) @ 15VDC	5.25	8.5	12
Efficacy (Lm/W @DC)	76	70	69

SPECIFICATIONS

Fixture

Light Source	Integrated LED
Number of LEDs	1 High Output COB
Color Temperature	2700K, 3000K
Color Rendering Index	80+
Beam Angles	15°, 35°, 60°
Binning	3 Step
Fixture can be used in UP or DOWN position	

Input

Input Voltage Range	9 – 15V
	AC or DC with no loss in light output
Input Frequency	47 – 63Hz
Input Current	2.55A Max @ 9VAC
Inrush Current	9A Max
Efficiency	> 70L/W @ 12VDC
Power Factor	> 0.7 @ 15V

Output

Lumen Level 3 (max)	835
Lumen Level 2 (mid)	600
Lumen Level 1 (standard)	400 (factory setting)

Environmental

Environmental Protection Rating	Wet, IP 66
Operation Ambient Temperature	-25°C - +40°C
Expected Life Time (L70)	50K Hours

Mechanical & Housing Specification

Length	6" / 154 mm
Width	2.7" / 69 mm
Height	4.2" / 106 mm
Housing Material	Aluminum, Brass
Housing Color & Surface	AZT, BKT, CBR, WHT
Weight	Alum 24 oz/ 0.7Kg, Brass 48oz/ 1.4Kg

FIXTURE

Glass Lens

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

Body

A380 Aluminum, C360 Brass casting

Wire

18 AWG, SPT-1W, 105°C, 300V, 48" useable length
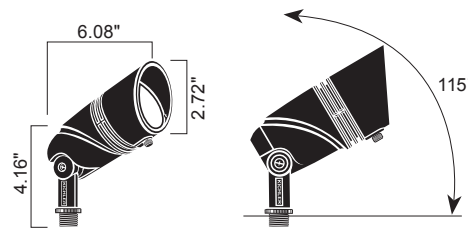
Optics

Polycarbonate TIR lens provides superior fixture beam angle. Available in 15°, 35° and 60°.

Included Accessories

Includes 8" slotted in-ground stake, 2 gel-filled wire nuts and lumen switching magnetic key.

Dimensions

6.08"
2.72"
4.16"
115°

AVAILABLE FINISHES

AZT Textured Architectural Bronze

BKT Textured Black

CBR Centennial Brass

WHT Textured White (35° only)

KICHLER®

17-LD-4897 122117 v8

12V LED Large Accent Light
with Variable Lumen Output (VLO)

16018-16020

INSTALLATION INFORMATION

Type Supply	Voltage Level	Dimming Level		
		1	2	3
AC Voltage (VA)	9V	8	12	17
	12V	9	13	17.5
	15V	9	13	18
DC Voltage (W)	9V	6	9	12.5
	12V	5.5	8	12
	15V	5.5	8	12

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

Ordering Guide (product number breakdown)

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

16018 = Small 15° Spot
16019 = Small 35° Flood
16020 = Small 60° Wide Flood

2 **Product Finish:**

AZT = Textured Architectural Bronze
BKT = Black
CBR = Centennial Brass
WHT = Textured White (only in 35°)

3 **Color Temperature:**

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

Example: 16018 CBR 30   1 6 0 1 8   C B R   3 0

Item Number	16018 (low)		Ft.	16019 (low)		Ft.	16020 (low)	
Beam Angle	15° Spot			35° Flood			60° Wide Flood	
Max Candela	3521			948			396	
Ft. Away	Foot-candles	Beam Width		Foot-candles	Beam Width		Foot-candles	Beam Width
8'	40.2	2.1	4'	37.3	2.5	4'	17.1	4.9
12'	17.9	3.2	8'	9.3	4.9	8'	4.3	9.8
24'	4.5	6.3	16'	2.3	9.8	16'	1.1	19.6
36'	2	9.5	24'	1	14.7	24'	.5	29.4
48'	1.1	12.6	32'	.6	19.6	32'	.3	39.2
60'	.7	15.8	40'	.4	24.5	40'	.2	49

Item Number	16018 (mid)		Ft.	16019 (mid)		Ft.	16020 (mid)	
Beam Angle	15° Spot			35° Flood			60° Wide Flood	
Max Candela	4925			1315			560	
Ft. Away	Foot-candles	Beam Width		Foot-candles	Beam Width		Foot-candles	Beam Width
8'	74.7	2.1	4'	65.6	2.5	4'	29.1	4.9
12'	33.2	3.2	8'	16.4	4.9	8'	7.3	9.8
24'	8.3	6.3	16'	4.1	9.8	16'	1.8	19.6
36'	3.7	9.5	24'	1.8	14.7	24'	.8	29.4
48'	2.1	12.6	32'	1	19.6	32'	.5	39.2
60'	1.3	15.8	40'	.7	24.5	40'	.3	49

Item Number	16018 (high)		Ft.	16019 (high)		Ft.	16020 (high)	
Beam Angle	15° Spot			35° Flood			60° Wide Flood	
Max Candela	6576			1816			750	
Ft. Away	Foot-candles	Beam Width		Foot-candles	Beam Width		Foot-candles	Beam Width
8'	100.8	2.1	4'	86	2.5	4'	40.8	4.9
12'	44.8	3.2	8'	21.5	4.9	8'	10.2	9.8
24'	11.2	6.3	16'	5.4	9.8	16'	2.6	19.6
36'	5	9.5	24'	2.4	14.7	24'	1.1	29.4
48'	2.8	12.6	32'	1.3	19.6	32'	.6	39.2
60'	1.8	15.8	40'	.9	24.5	40'	.4	49

KICHLER®

12V LED Large Accent Light
with Variable Lumen Output (VLO)

16018-16020

TROUBLESHOOTING

Fixture does not illuminate	Verify power connections. Review installation guide for installation problem. Insure 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. Insure 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
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CE/ CB Scheme. Aluminum fixtures only.

Contact: layouts@kichler.com

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.

WARRANTY
See Kichler.com/Warranty for warranty details.

Consult Kichler Advanced Product Solutions for additional product support and design layouts by visiting Kichler.com/APS.

AZT   BKT   CBR   WHT
(35° only)

Visit **Kichler.com/VLOaccent**

ST17LD4897

Stepped Dome 12V 3000K Path Light Centennial Brass

15820CBR30 (Centennial Brass)

Project Name:	
Location:	
Type:	
Qty:	
Comments:	

Certifications/Qualifications

www.kichler.com/warranty

Dimensions

Height	22.50"
Length	6.25"
Width	6.25"

Electrical

Operating Voltage Range	9-15VAC/VDC
Voltage	12VAC/VDCV

Mounting/Installation

Connector	Yes
Wire Connectors	Wire Nuts

Photometrics

Color Rendering Index	80
Kelvin Temperature	3000K

Primary Lamping

Lamp Included	Integrated
Light Source	LED
Max or Nominal Watt	4W
Max Wattage/Range	4W

Product/Ordering Information

SKU	15820CBR30
Finish	Brass
UPC	783927569507

Specifications

Material	BRASS

Additional Finishes

Centennial Brass

Copper

Textured Architectural Bronze

Notes:
1) Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions.
2) Incandescent Equivalent: The incandescent equivalent as presented is an approximate number and is for reference only.

KICHLER

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| PROJECT: |
| TYPE: |
| ORDERING # : |
| COMMENTS: |

LED Shallow Shade – small

FEATURES

- A design only made possible by today's LED technology, this fixture will surely captivate its audience with its unobtrusive styling. Coordinates with the 15806.
- Cast Aluminum Housing
- 4 W / 5.8 VA Light Output, Integrated LEDs and Driver, 2950K (-150/+175), High CRI
- 9V - 15V AC/DC
- 30" of useable #18-2, SPT-1W leads. Cable connector supplied.
- 8" In-ground stake

6"

23.8"
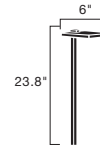
ORDERING INFORMATION

EXAMPLE: 15805BKT (Product # & Finish)

PRODUCT	FINISH	WATTAGE	LIGHT SOURCE	WIRING	MOUNTING ACCESSORIES (INCLUDED)	OPTIONS & ACCESSORIES
15805 Dimensions: 6" W x 23.8" L	**Cast Aluminum** **BKT** - Textured Black	4 W / 5.8 VA **Note:** Not for use with electronic transformers.	Integrated LEDs and Driver 2950K (-150 / +175) High CRI	30" of usable #18-2, SPT-1-W leads. Cable connector supplied.	8" In-ground stake	**15601AZT** - Cast Aluminum Surface Mounting Flange w/ Bronze Finish, Neoprene Gasket For Watertight Seal **15601BKT** - Cast Aluminum Surface Mounting Flange w/ Black Finish, Neoprene Gasket For Watertight Seal **15601BBR** - Cast Brass Surface Mounting Flange, Neoprene Gasket For Watertight Seal **Flange For Tree / Surface Mounting** **15607AZT** - Textured Bronze Finish **15607BKT** - Textured Black Finish **15607BBR** - Bronzed Brass Finish

Fixture Photometric (fc)

Distance from Light	0'	1'	2'	3'	4'	5'	6'	7'	8'
Footcandles	21.2	12.1	5.3	1.56	.23	.33	.11	.06	–

NOTES

For Warranty Information, please visit www.landscapelighting.com

We reserve the right to revise the design or components of any product due to parts availability or change in UL standards, without assuming any obligation or liability to modify any products previously manufactured, and without notice.

7711 E. Pleasant Valley Road, Cleveland, OH 44131   ph:(216) 573-1000   fax:(216) 573-2270   email:sales@kichler.com   web:landscapelighting.com

12V LED 2700K 6" Dome Path Light Centennial Brass
15870CBR27 (Centennial Brass)

Project Name: _____
Location: _____
Type: _____
Qty: _____
Comments: _____

Certifications/Qualifications

Location Rating	Wet
Prop65	Yes
	www.kichler.com/warranty

Dimensions

Height	22.75"
Length	22.75"
Width	6.25"

Electrical

Input Voltage	Dual (120/140)V
Operating Voltage Range	9-15 VAC
Voltage	12V

Mounting/Installation

Connector	Yes
Wire Connectors	Wire Nuts

Photometrics

Color Rendering Index	80
Delivered Efficacy (Lumens/Watt)	83
Delivered Lumens	250
Kelvin Temperature	2700K

Primary Lamping

Lamp Included	Integrated
Lamp Type	LED
Light Source	LED
Max or Nominal Watt	3.00
Volt-Amperes (VA)	4.50

Product/Ordering Information

SKU	15870CBR27
Finish	Brass
UPC	783927576758

Specifications

Material	BRASS

Additional Finishes

Centennial Brass

Textured Architectural Bronze

Textured Black

Notes:
1) Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions.
2) Incandescent Equivalent: The incandescent equivalent as presented is an approximate number and is for reference only.

KICHLER.

12V LED 3000K 8" Dome Path Light, Centennial Brass
15810CBR30 (Centennial Brass)

Project Name: _____
Location: _____
Type: _____
Qty: _____
Comments: _____

Certifications/Qualifications

Location Rating	Wet
Prop65	Yes
	www.kichler.com/warranty

Dimensions

Height	22.50"
Length	22.50"
Width	8.25"

Electrical

Input Voltage	Dual (120/140)V
Operating Voltage Range	9-15 VAC
Voltage	12V

Mounting/Installation

Connector	Yes
Wire Connectors	Wire Nuts

Photometrics

Color Rendering Index	80
Delivered Efficacy (Lumens/Watt)	83
Delivered Lumens	250
Kelvin Temperature	3000K

Primary Lamping

Lamp Included	Integrated
Lamp Type	LED
Light Source	LED
Max or Nominal Watt	3.00
# of Bulbs/LED Modules	8
Volt-Amperes (VA)	4.50

Product/Ordering Information

SKU	15810CBR30
Finish	Brass
UPC	783927577045

Specifications

Material	BRASS

Additional Finishes

Centennial Brass

Textured Architectural Bronze

Textured Black

Notes:
1) Information provided is subject to change without notice. All values are design or typical values when measured under laboratory conditions.
2) Incandescent Equivalent: The incandescent equivalent as presented is an approximate number and is for reference only.

KICHLER®

12V Integrated LED Hardscape

16100-16103

PROJECT:	ORDERING:
TYPE:	COMMENTS:

FEATURES

- The adjustable fixture can pivot 180° for direct to surface install and pivot 270° when installed with mounting bracket. Usable range is installation dependent.

- Offering a custom optical lens that diffuses light to deliver smooth, uniform output while eliminating hotspots and glare that may reflect off walls or installation surfaces.

- Can be installed either as a traditional downlight or as an uplight, on or off mounting bracket.

- Housing cavity and electronics are encapsulated to help keep all critical components protected against the elements.

- 4,000-volt system surge protection helps guard against system power surges and irregularities.

- Customizable mounting bracket with breakaway corner tabs that allow for easier installations in retrofit applications.

- Bracket is designed as an installation template with centering notch and screw pilot holes for installation guidance when mounting off bracket.

PERFORMANCE

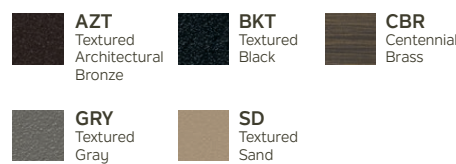| Fixture	16100	16101	16102	16103
Fixture Length	3.5"	6"	12"	18"
Lumen Output	10	40	85	125
Input Voltage	9-15	9-15	9-15	9-15
Power (W) @ 12VAC	0.3	0.9	1.9	2.7
Power (VA) @ 12VAC	0.6	1.5	2.9	3.8
Efficacy (L/W)	43	45	45	46

SPECIFICATIONS

Fixture

Light Source	Integrated LED
Color Temperature	2700K, 3000K
Color Rendering Index	80+
Binning	3 Step
Beam Angle	108°
Fixture can be used in UP or DOWN position	

Input

Input Voltage Range	9 – 15V AC or DC with no loss in light output
Input Frequency	47 – 63Hz
Power Factor	.6 @ 12V

Lumens

3.5" Hardscape (16100)	10
6" Hardscape (16101)	40
12" Hardscape (16102)	85
18" Hardscape (16103)	125

FIXTURE

Body

A380 Aluminum, C360 Brass casting

Wire

18 AWG, SPT-1W, 105°C, 300V, 84" usable length

Optics

Custom optics with a diffused lens provides smooth, uniform light distribution to eliminate glare and hotspots

Included Accessories

304 stainless steel masonry bracket, off-bracket mounting kit, and 2 gel-filled wire nuts

Environmental

Environmental Protection Rating	Wet IP67
Operation Ambient Temperature	-25°C - +40°C
Expected Life Time (L70)	50K Hours

Mechanical & Housing Specification

Length/Width/Height:

16100	3.5" x .78" x .75"
16101	6" x .78" x .75"
16102	12" x .78" x .75"
16103	18" x .78" x .75"
Bracket Depth	3"
Housing Material	Aluminum, Brass
Housing Color & Surface	AZT, BKT, CBR, GRY, SD

Weight:

16100	Alum 0.4Lb, Brass 0.55Lb
16101	Alum 0.45Lb, Brass 0.8Lb
16102	Alum 0.9Lb, Brass 1.3Lb
16103	Alum 1.2Lb, Brass 1.65Lb

AVAILABLE FINISHES

AZT Textured Architectural Bronze

BKT Textured Black

CBR Centennial Brass

GRY Textured Gray

SD Textured Sand

KICHLER

12V Integrated LED Hardscape   16100–16103

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			

GENERAL FIXTURE SPACING GUIDELINE				
Item	16100 (3.5")	16101 (6")	16102 (12")	16103 (18")
Mounting Height	Recommended Spacing (center-to-center of fixtures)			
6"-18"	3'-4'	4'-5'	6'-8'	6'-8'
24"	3'-4'	4'-5'	6'-8'	6'-8'
36"	3'-4'	4'-6'	6'-8'	6'-8'
48"	3'-4'	4'-6'	6'-8'	6'-8'
60"	3'-4'	4'-6'	6'-8'	6'-8'

Highlighted values are optimal selections for mounting height application

Tip: Use centering notch on mounting bracket to aid in spacing layout during installation.

Ordering Guide (product number breakdown)

1 Item Number for Fixture Size

16100 = 3.5" Hardscape
16101 = 6" Hardscape
16102 = 12" Hardscape
16103 = 18" Hardscape

2 Product Finish:

AZT = Textured Architectural Bronze
BKT = Textured Black
CBR = Centennial Brass
GRY = Textured Gray
SD = Textured Sand

3 Color Temperature:

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

Example: 16101 CBR 30   1 6 1 0 1   C B R   3 0

FOOT-CANDLES (108° BEAM ANGLE)

16100 – 3.5" Hardscape

Foot-candles	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
	6 in.	17.96	0.44	0.01	0.00	0.00
	1 ft.	4.49	1.14	0.11	0.01	0.02
	2 ft.	1.12	0.76	0.28	0.09	0.03
	3 ft.	0.50	0.42	0.25	0.13	0.06

16101 – 6" Hardscape

Foot-candles	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
	6 in.	72.60	0.88	0.00	0.00	0.00
	1 ft.	18.15	3.78	0.22	0.01	0.03
	2 ft.	4.54	2.88	0.94	0.23	0.05
	3 ft.	2.02	1.65	0.93	0.42	0.16

16102 – 12" Hardscape

Foot-candles	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
	6 in.	143.2	2.68	0.02	0.00	0.00
	1 ft.	35.81	8.31	0.67	0.06	0.11
	2 ft.	8.95	5.86	2.08	0.58	0.17
	3 ft.	3.98	3.29	1.93	0.92	0.39

16103 – 18" Hardscape

Foot-candles	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
	6 in.	216.4	3.25	0.01	0.00	0.00
	1 ft.	54.10	12.28	0.81	0.05	0.13
	2 ft.	13.53	8.88	3.07	0.79	0.20
	3 ft.	6.01	4.99	2.90	1.36	0.56

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12V Integrated LED Hardscape   16100-16103

TROUBLESHOOTING

Fixture does not illuminate	Verify power connections. Review installation guide for installation problem. Insure manual reset breaker has not been tripped.
Fixture turns off	Verify power connections. Review installation guide for installation problems. Insure 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.

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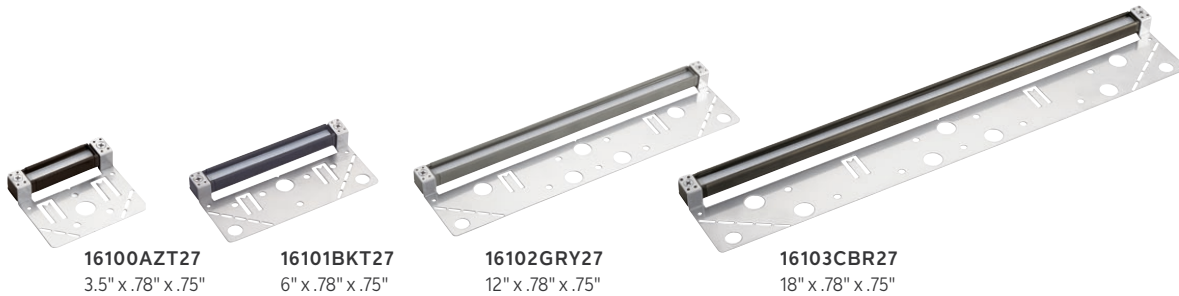Ed: 1 Extra-low-voltage landscape lighting systems – General Instruction No. 1: 2008.

Contact: layouts@kichler.com

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.

WARRANTY

See Kichler.com/Warranty for warranty details.

Consult Kichler Advanced Product Solutions for additional product support and design layouts by visiting Kichler.com/APS.

16100AZT27
3.5" x .78" x .75"

16101BKT27
6" x .78" x .75"

16102GRY27
12" x .78" x .75"

16103CBR27
18" x .78" x .75"

Visit **Kichler.com/Hardscape**

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12V Integrated LED Hardscape   16100-16103

PROJECT:	ORDERING:
TYPE:	COMMENTS:

FEATURES

- The adjustable fixture can pivot 180° for direct to surface install and pivot 270° when installed with mounting bracket. Usable range is installation dependent.

- Offering a custom optical lens that diffuses light to deliver smooth, uniform output while eliminating hotspots and glare that may reflect off walls or installation surfaces.

- Can be installed either as a traditional downlight or as an uplight, on or off mounting bracket.

- Housing cavity and electronics are encapsulated to help keep all critical components protected against the elements.

- 4,000-volt system surge protection helps guard against system power surges and irregularities.

- Customizable mounting bracket with breakaway corner tabs that allow for easier installations in retrofit applications.

- Bracket is designed as an installation template with centering notch and screw pilot holes for installation guidance when mounting off bracket.

PERFORMANCE

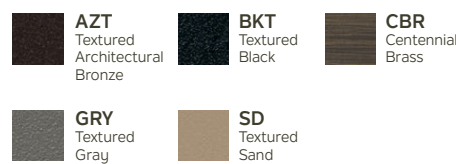| Fixture	16100	16101	16102	16103
Fixture Length	3.5"	6"	12"	18"
Lumen Output	10	40	85	125
Input Voltage	9-15	9-15	9-15	9-15
Power (W) @ 12VAC	0.3	0.9	1.9	2.7
Power (VA) @ 12VAC	0.6	1.5	2.9	3.8
Efficacy (L/W)	43	45	45	46

SPECIFICATIONS

Fixture

Light Source	Integrated LED
Color Temperature	2700K, 3000K
Color Rendering Index	80+
Binning	3 Step
Beam Angle	108°
Fixture can be used in UP or DOWN position	

Input

Input Voltage Range	9 – 15V AC or DC with no loss in light output
Input Frequency	47 – 63Hz
Power Factor	.6 @ 12V

Lumens

3.5" Hardscape (16100)	10
6" Hardscape (16101)	40
12" Hardscape (16102)	85
18" Hardscape (16103)	125

FIXTURE

Body

A380 Aluminum, C360 Brass casting

Wire

18 AWG, SPT-1W, 105°C, 300V, 84" usable length

Optics

Custom optics with a diffused lens provides smooth, uniform light distribution to eliminate glare and hotspots

Included Accessories

304 stainless steel masonry bracket, off-bracket mounting kit, and 2 gel-filled wire nuts

Environmental

Environmental Protection Rating	Wet IP67
Operation Ambient Temperature	-25°C - +40°C
Expected Life Time (L70)	50K Hours

Mechanical & Housing Specification

Length/Width/Height:

16100	3.5" x .78" x .75"
16101	6" x .78" x .75"
16102	12" x .78" x .75"
16103	18" x .78" x .75"
Bracket Depth	3"
Housing Material	Aluminum, Brass
Housing Color & Surface	AZT, BKT, CBR, GRY, SD

Weight:

16100	Alum 0.4Lb, Brass 0.55Lb
16101	Alum 0.45Lb, Brass 0.8Lb
16102	Alum 0.9Lb, Brass 1.3Lb
16103	Alum 1.2Lb, Brass 1.65Lb

AVAILABLE FINISHES

AZT Textured Architectural Bronze

BKT Textured Black

CBR Centennial Brass

GRY Textured Gray

SD Textured Sand

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12V Integrated LED Hardscape

16100-16103

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			

GENERAL FIXTURE SPACING GUIDELINE				
Item	16100 (3.5")	16101 (6")	16102 (12")	16103 (18")
Mounting Height	Recommended Spacing (center-to-center of fixtures)			
6"-18"	3'-4'	4'-5'	6'-8'	6'-8'
24"	3'-4'	4'-5'	6'-8'	6'-8'
36"	3'-4'	4'-6'	6'-8'	6'-8'
48"	3'-4'	4'-6'	6'-8'	6'-8'
60"	3'-4'	4'-6'	6'-8'	6'-8'

Highlighted values are optimal selections for mounting height application

Tip: Use centering notch on mounting bracket to aid in spacing layout during installation.

Ordering Guide (product number breakdown)

1 Item Number for Fixture Size

16100 = 3.5" Hardscape
16101 = 6" Hardscape
16102 = 12" Hardscape
16103 = 18" Hardscape

2 Product Finish:

AZT = Textured Architectural Bronze
BKT = Textured Black
CBR = Centennial Brass
GRY = Textured Gray
SD = Textured Sand

3 Color Temperature:

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30 = 3000K, Pure White

Example: 16101 CBR 30   1 6 1 0 1   C B R   3 0

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16101 - 6" Hardscape

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12V Integrated LED Hardscape

16100-16103

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Visit **Kichler.com/Hardscape**

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TRANSFORMER - PLUS SERIES COLLECTION

Plus Series 100W Transformer Textured Architectural Bronze

15PL100AZT (Textured Architectural Bronze)

Project Name: _____
Location: _____
Type: _____
Qty: _____
Comments: _____

Certifications/Qualifications

www.kichler.com/warranty

Dimensions

Height	5.50"
Length	19.00"
Width	5.75"

Electrical

Voltage	12VV

Mounting/Installation

Lead Wire Length	72

Product/Ordering Information

SKU	15PL100AZT
Finish	Bronze
UPC	783927294379

Specifications

Diffuser Description	None
Material	Steel

Additional Finishes

- Textured Architectural Bronze
- Textured Architectural Bronze
- Textured Architectural Bronze
- Textured Architectural Bronze
- Textured Architectural Bronze

Kichler
7711 East Pleasant Valley Road Cleveland, Ohio 44131-8010
Toll free: 866.558.5706 or kichler.com

Notes:
1) Information provided is subject to change without notice.
All values are design or typical values when measured under
laboratory conditions.
2) Incandescent Equivalent: The incandescent equivalent as
presented is an approximate number and is for reference
only.

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TRANSFORMER - PRO SERIES COLLECTION

Pro Series 100W Transformer Stainless Steel
15PR100SS (Stainless Steel)

Project Name:	
Location:	
Type:	
Qty:	
Comments:	

Certifications / Qualifications
www.kichler.com/warranty

Dimensions
Height	5.50"
Length	19.00"
Width	5.75"

Electrical
Voltage	12VV

Mounting / Installation
Lead Wire Length	36

Product / Ordering Information
SKU	15PR100SS
Finish	Stainless Steel
UPC	783927294386

Specifications
Diffuser Description	None
Material	Stainless Steel

Additional Finishes
Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Kichler
7711 East Pleasant Valley Road Cleveland, Ohio 44131-8010
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TRANSFORMER - PRO SERIES COLLECTION

Pro Series 300W Transformer Stainless Steel

15PR300SS (Stainless Steel)

Project Name:
Location:
Type:
Qty:
Comments:

Certifications / Qualifications

www.kichler.com/warranty

Electrical

Voltage	12VV

Mounting / Installation

Lead Wire Length	36

Primary Lamping

Lamp Included	Not Included

Product / Ordering Information

SKU	15PR300SS
Finish	Stainless Steel
UPC	783927027175

Specifications

Material	Stainless Steel

Additional Finishes

Stainless Steel

Stainless Steel

Stainless Steel

Stainless Steel

Kichler
7711 East Pleasant Valley Road Cleveland, Ohio 44131-8010
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