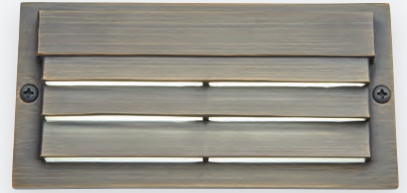




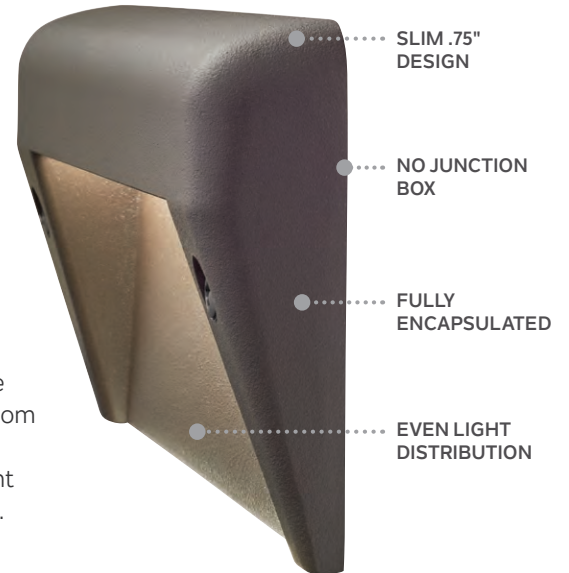
Shown: 16171 Louvered



# 12V Integrated LED Surface Mount Step Lights

## Sleek design and easy installation.

Our 12V Integrated LED surface mount step lights present an elegant look with a contemporary style. Created for easy installation, these step lights offer a low-profile construction without the need for a predetermined opening. This gives you the freedom to install on most flat surfaces, such as stairs or short walls, without having to carve out a hole. Plus, these fixtures come with a 2-screw stainless steel corrosion-resistant mounting assembly, diffused lenses, and internal reflectors for even light distribution.



**12V Integrated LED surface mount step lights offer low-profile construction, making installation simple for retrofit or new construction.**



**Small profile design for easy installation** allows you to mount to the surface without fitting a junction box.



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



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



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

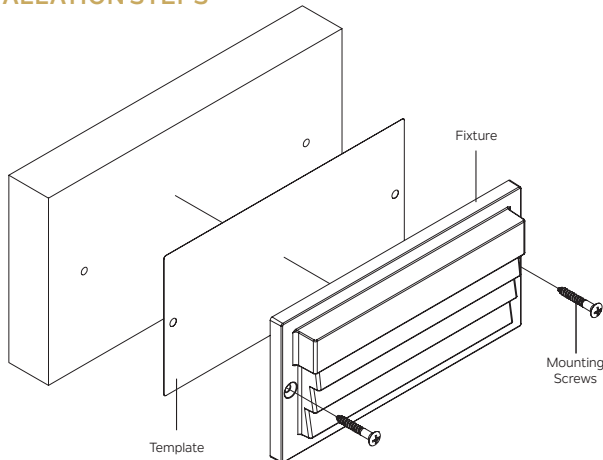
## PRODUCT ORDERING GUIDE

<p>Ordering Guide (product number breakdown)</p>	<p><b>1</b> Item Number for Fixture &amp; Beam Angle:</p>	<p><b>2</b> Product Finish:</p>	<p><b>3</b> Color Temperature:</p>
<p>Example: 16172 CBR 30</p>	<p>16171 = Louvered 16172 = Contemporary</p>	<p>AZT = Textured Architectural Bronze™ BKT = Textured Black CBR = Centennial Brass</p>	<p>27 = 2700K, Warm White 30 = 3000K, Pure White</p>
	<p><u>1</u> <u>6</u> <u>1</u> <u>7</u> <u>2</u></p>	<p><u>C</u> <u>B</u> <u>R</u></p>	<p><u>3</u> <u>0</u></p>

<p><b>16171AZT27, 16171BKT27, 16171CBR27</b></p>	<p><b>16171AZT30, 16171BKT30, 16171CBR30</b></p>
<p>2700K - Warm White</p>	<p>3000K - Pure White</p>

<p><b>16172AZT27, 16172BKT27, 16172CBR27</b></p>	<p><b>16172AZT30, 16172BKT30, 16172CBR30</b></p>
<p>2700K - Warm White</p>	<p>3000K - Pure White</p>

## INSTALLATION STEPS



- Place mounting template against the surface and ensure its level. Mark where the wire channel will be, along with the two screws.
- Pre-drill two 1/8" pilot holes and one 3/4" diameter hole based on the template. (Refer to template for placement and dimensions.)
- Feed the lead wire through the wire way hole to the main low voltage power transformer.
- Align mounting holes on left and right, then screw-in stainless steel screws. Ensure the step light is level before tightening.

## FOOT-CANDLES

16171 - Louvered						
	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
Foot-candles	4 in.	116.10	0.07	0.00	0.00	0.00
	6 in.	51.60	0.20	0.01	0.00	0.00
	1 ft.	12.90	0.59	0.05	0.01	0.00
	2 ft.	3.23	0.94	0.15	0.04	0.01
	3 ft.	1.43	1.22	0.16	0.07	0.03

16172 - Contemporary						
	Mounting Height	Lateral distance from fixture				
		0	1 ft.	2 ft.	3 ft.	4 ft.
Foot-candles	4 in.	124.25	0.54	0.03	0.01	0.00
	6 in.	55.22	1.16	0.08	0.01	0.00
	1 ft.	13.81	2.40	0.29	0.06	0.02
	2 ft.	3.45	2.00	0.60	0.19	0.07
	3 ft.	1.53	1.23	0.61	0.27	0.12



Fixture offers a clean, uniform light distribution down and across surfaces, preventing hotspots or light cutoff below the fixture.

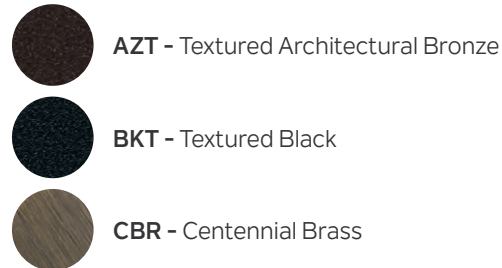
### DIMENSIONS



### PERFORMANCE

	16171 - Louvered	16172 - Contemporary
Fixture Lumen Output	7 lm	17 lm
Input Voltage	9V-15V	9V-15V
Power (VA) @ 12V AC	1.45VA	1.45VA
Power (W) @ 12V AC	.82W	.82W
Efficacy (lm/W @ DC)	8.5lm/w	20.7 lm/w

### FINISH OPTIONS



### SPECIFICATIONS

Fixture	
Number of LEDs	8
Color Temperature	2700K, 3000K
Color Rendering Index	>80
Binning	3 Step
Input	
Input Frequency	47 - 63Hz
Input Current	1.1
Inrush Current	.06mA
Power Factor	0.6 @ 12V
Environmental	
Environmental Protection Rating	Wet IP67
Operation Ambient Temperature	-25°C - +40°C
Lumen Maintenance (L70)	50,000 Hours
System Surge Protection Rating	4KV with Transformer and 2KV with stand alone fixture

### Mechanical & Housing Specification

Length/Width/Height	<b>16171:</b> 6" L x .75" W x 3" H <b>16172:</b> 6.2" L x .75" W x 2.6" H
Weight	<b>16171:</b> Aluminum: 0.6 lbs Brass: 1.0 lbs <b>16172:</b> Aluminum: 0.4 lbs Brass: 0.8 lbs

### FIXTURE

Body
Cast Aluminum (AZT, BKT) and Cast Brass (CBR)
Wire
18 AWG, 105°C, 300V 84" of usable length, SPT-1W
Optics
Custom optics with a diffused lens provides smooth, uniform light distribution to eliminate glare, hotspots, and artifacts.
Included Accessories
Mounting Hardware, Mounting Template, Wire Connectors

### 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**

<b>Fixture does not illuminate</b>	Verify power connections. Review installation guide for installation problem. Ensure manual reset breaker has not been tripped.
<b>Fixture turns off</b>	Verify power connections. Review installation guide for installation problems. Ensure 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.

**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](mailto:layouts@kichler.com)

**WARRANTY**

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