

12V LED Accent Light With Variable Lumen Output (VLO) FAQ

1. How do I load my transformer given each fixture has three lumen and power (Watts and VA) levels?

- a. For AC transformers (15M, PL, PR, CS, IGT Series) fixture VA is used to calculate load on the transformer.
- b. For DC transformer (15DC Series) fixture wattage is used to calculate load on the transformer.
 - i. Best practice is to pre-plan your layout and transformer load with the exact W/VA of each individual fixture and where you plan to set it at. When sizing your transformer, use the W/VA you expect to use depending on the desired lumen level per fixture to prevent potentially overloading the transformer.
 - ii. If lumen adjustment is expected, or you don't know where you may set the fixture at, it is recommended you calculate the load on the transformer based on one level higher for each fixtures to avoid overloading the transformer.
 - iii. To accommodate any level of adjustment on the fixtures, from lowest to highest lumen output and power, it is recommended to calculate the load using the highest W/VA for each fixture. That would be 12W/17VA for the large and 5.5W/7.5VA for the small.
 - iv. An overall recommendation we provide for most lighting application designs is to use a W/VA buffer of 30% when sizing a transformer. This accounts for potential fixture lumen adjustments or additional fixtures added after initial installation or later down the road (Example: 210 VA load on a 300W AC Transformer).

2. What are the factory lumen and power level settings for each fixture?

- a. Small Fixture = Level 2: 3.5W/5.5VA, 200 Lm (20W Halogen Replacement)
- b. Large Fixture = Level 1: 5.25W/8.5VA, 400 Lm (35W Halogen Replacement)
 - i. The fixtures are set at these output levels for contractor convenience as these are the two most popular lumen levels. This provides an opportunity to reduce installation complexity by eliminating the need for potential adjustment.

3. If I go into programming mode what lumen level will the fixture start from?

- a. The fixture will start cycling up from the original factory setting (Small = Level 2; Large = Level 1). The fixture will blink the amount of times per what level it is at 1, 2, or 3 blinks). Once at the highest level the fixture will cycle down to the first level.

4. My transformer tripped when adjusting the lumen level of the last light on the run?

- a. You may have insufficient headroom to increase power to a fixture; the result is the transformer is tripping because it is overloaded. This issue can be corrected by removing a fixture from the run or reduce the lumen level on one or more fixtures in the run.

5. If I adjust the fixture from its factory setting, how do I mark the new setting, so if I ever go back to the job I know where the fixture is set?

- a. A detailed record of each fixture and its setting is recommended to keep for each project. We recommended using a fine point permanent marker and under the cowl marking the new setting (i.e., 1, 2, or 3) to record where the fixture is set at.

6. I have a long run that has a large load on it and the last fixture in the run is slightly flashing?

- a. This flashing indicates that the fixture is not getting a minimum of 9V. Please use a volt meter and test the voltage at this fixture. On long and heavily loaded runs always use the 15V tap on the transformer as this will deal best with the voltage drop on the line. All VLO fixtures have an operating range of 9-15V AC/DC with consistent light output.

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7. How long does it take for the fixture to save its setting if adjusted?

- a. There is a 2 minute window that the fixture will stay in programming mode. This is so you can go back to the fixture and make adjustments per the application without the fixture having to go back into programming mode.

8. Do you have a voltage drop calculator for these fixtures?

- a. In every instruction sheet Kichler provides a wire run length guide to help you load your wire runs appropriately to stay within the 9-15V operating range.

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			

9. Where is information on what the fixture is and the date code of the fixture?

- a. Under the cowl on the bottom of the fixture is permanently marked fixture identification information and the date code.

10. The fixtures states it has 6000V (6kV) protection what does this mean?

- a. Each VLO fixture has this protection built inside the electronics of the fixture. This is not a fuse but a means to protect the electronics from voltage spikes and power irregularities (i.e., dirty power from the primary side and electrical storms).

11. How do I make the locknut easier to adjust?

- a. Before installing into the provided ground stake it is recommended to back off the locknut one or two half turns to make it easier to lock down once the fixture is in desired position. Always wear protective gloves when hand tightening to get a better grip on the locknut.

12. I am not sure what to use: 2700K (warm white) or 3000K (pure white); what do you recommend?

- a. As a starting point, use 2700K on traditional architecture, stone walls, wood decks and flower beds that are yellow, orange and red. Use 3000K on contemporary architecture, white decks, in water features and for pines, evergreens and shrubs. Artistic license should be used for trees. If located in a seasonal area, 2700 will be better for a longer period of time. 3000K will magnify the vibrancy of greens in locations that remain temperate through the year. Cool colors = 3000K; Warm tones = 2700K.

13. Will any magnet work to adjust the fixtures?

- a. No, the included magnets are specialized rare earth magnets. Each fixture includes a magnet and it is located in the parts bag with the wire connectors. Kichler recommends that one magnet be left on site (in the transformer cabinet) for future use.

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14. Can I use these fixtures as a down light?

- a. Yes, all VLO accent fixtures can be used as an up light or down light with no issue or risk of water ingress.

15. I want help with my layout; who do I call at Kichler?

- a. Kichler Advanced Product Solutions can be reached at 844-452-4537 or at layouts@kichler.com. They can assist you with both design/layout help and product specific technical support.

16. I want a harder/more defined edge on my beam spread for my application how do I achieve this?

- a. To achieve this simply place the fixture closer to the desired wall or object, and because of Kichler's advanced optics you will not have any halos even at a close distance.

17. Will the fixture lose its setting if a power outage occurs?

- a. Once initially saved the setting is permanently saved into the electronic memory of the fixture and can only be changed by going back into programming mode.

18. Why did Kichler use electronic lumen adjustment vs. mechanical?

- a. During Kichler's design testing effort, we have found mechanical adjustments to be prone to failures. Kichler's design goals have been to provide performance, convenience for the installer and eliminate possible fixture failures. This is also why the VLO provides an industry-leading 15 year warranty.

19. What does 3 step LED binning mean?

- a. Most LEDs are binned at the four to seven step level, so you can often see color differences. Kichler uses a 3 step custom bin ensuring you have a tight tolerance and consistency on both color and brightness for a more quality light source.