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## Design Example Report

<b>Title</b>	<i>12 W Non-Dimmable Non-Isolated Buck-Boost LED Driver Using LYTSwitch™-5 LYT5226D</i>
<b>Specification</b>	90 VAC – 308 VAC Input; 69 V – 82 V, 160 mA <sub>TYP</sub> Output
<b>Application</b>	LED Tube
<b>Author</b>	Applications Engineering Department
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<b>Revision</b>	1.1

### Summary and Features

- Wide input voltage range
- Single-stage power factor corrected, PF > 0.9
- Accurate constant LED current (CC) regulation, ±5%
- Highly energy efficient, >89% at 230 V
- Low cost and low component count for compact PCB solution
- Integrated protection features
  - No-load and output short-circuit protection
  - Thermal control protection
  - No damage during line brown-out or brown-in conditions
- A-THD < 15% at 230 VAC
- Meets IEC 3.5 kV ring wave, 3 kV differential surge
- Meets EN55015 conducted EMI

### PATENT INFORMATION

The products and applications illustrated herein (including transformer construction and circuits external to the products) may be covered by one or more U.S. and foreign patents, or potentially by pending U.S. and foreign patent applications assigned to Power Integrations. A complete list of Power Integrations' patents may be found at [www.powerint.com](http://www.powerint.com). Power Integrations grants its customers a license under certain patent rights as set forth at <http://www.powerint.com/ip.htm>.

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