

EXHIBIT 14

EXHIBIT 14 TO PLAINTIFFS' COMPLAINT – '662 Patent, Exemplary Claim 23 – Example Product, MaxLite_L13T8DF440-CG4

U.S. Patent No. 9,723,662	MaxLite_L13T8DF440-CG4
23. An LED lamp, comprising: a current limiting circuit electrically connected to a first terminal of the LED lamp for limiting a current from the first terminal;	The MaxLite_L13T8DF440-CG4 is an LED lamp comprising the claimed elements as set forth below. The MaxLite_L13T8DF440-CG4 includes a current limiting circuit electrically connected to a first terminal of the LED lamp for limiting a current from the first terminal. For example, Figure 1 shows a current limiting circuit 1a and 1b connected to the first terminal FT. Current limiting circuit 1a limits the current received from first terminal FT. As depicted below, current limiting circuit 1b is also electrically connected to the first terminal FT and limits a current from the first terminal.

EXHIBIT 14 TO PLAINTIFFS' COMPLAINT – '662 Patent, Exemplary Claim 23 – Example Product, MaxLite_L13T8DF440-CG4

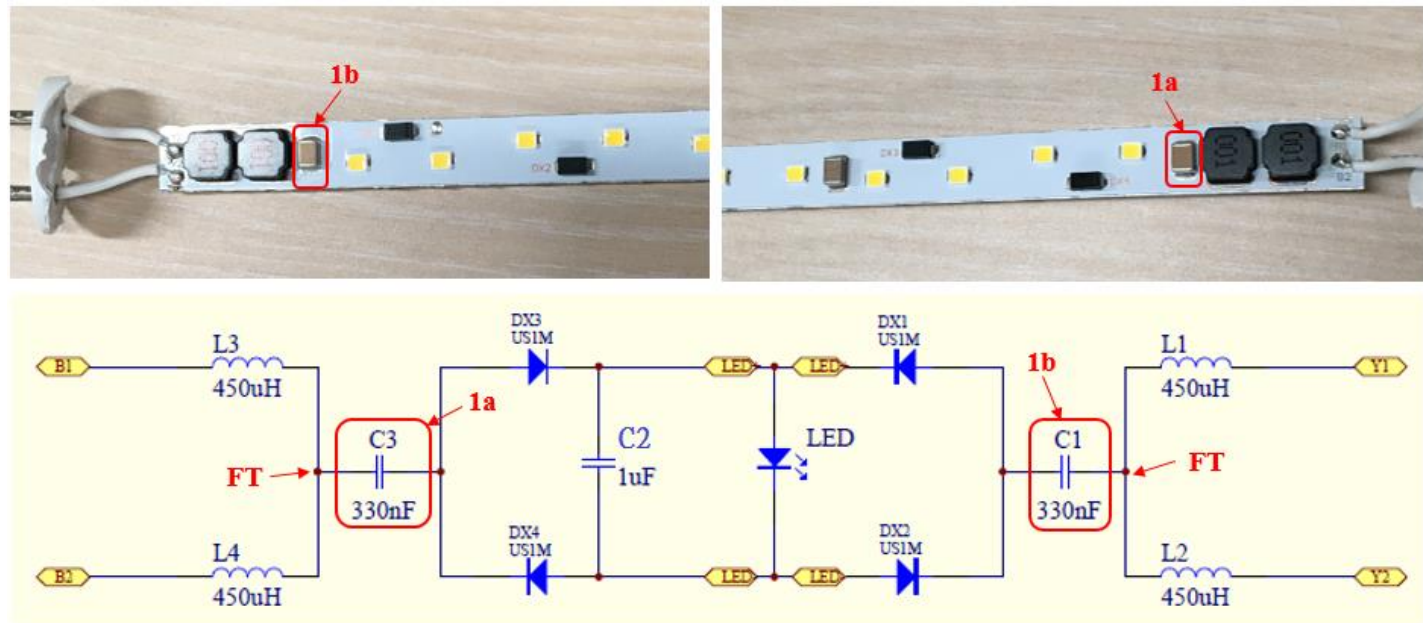


Figure 1: Photo and equivalent circuit diagram of MaxLite's current limiting circuit

a first rectifier electrically connected to the current limiting circuit for rectifying the current from the current limiting circuit;

The MaxLite_L13T8DF440-CG4 has a first rectifier electrically connected to the current limiting circuit for rectifying the current from the current limiting circuit.

For example, in Figure 2, first rectifier 2a is electrically connected to C3 to rectify current from C3.

EXHIBIT 14 TO PLAINTIFFS' COMPLAINT – '662 Patent, Exemplary Claim 23 – Example Product, MaxLite_L13T8DF440-CG4

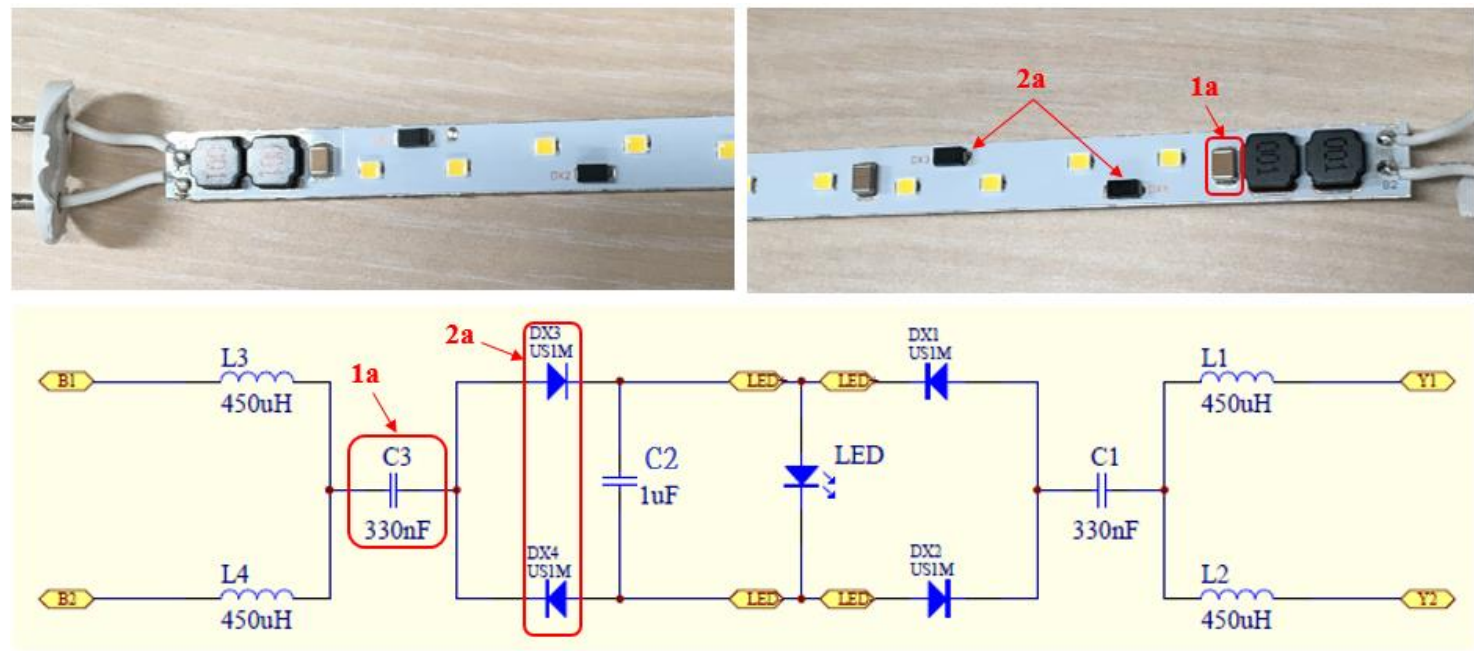


Figure 2: Photo and equivalent circuit diagram of MaxLite's first rectifier

a filter electrically connected between the first rectifier and at least one LED of the LED lamp for smoothing the current

The MaxLite_L13T8DF440-CG4 has a filter electrically connected between the first rectifier and at least one LED of the LED lamp for smoothing the current from the first rectifier.

For example, in Figure 3, C2 is electrically connected to DX3 and DX4 and LEDs 4. A filter for smoothing the current from first rectifier 2a is marked 3.

EXHIBIT 14 TO PLAINTIFFS' COMPLAINT – '662 Patent, Exemplary Claim 23 – Example Product, MaxLite_L13T8DF440-CG4

from the first rectifier;
and

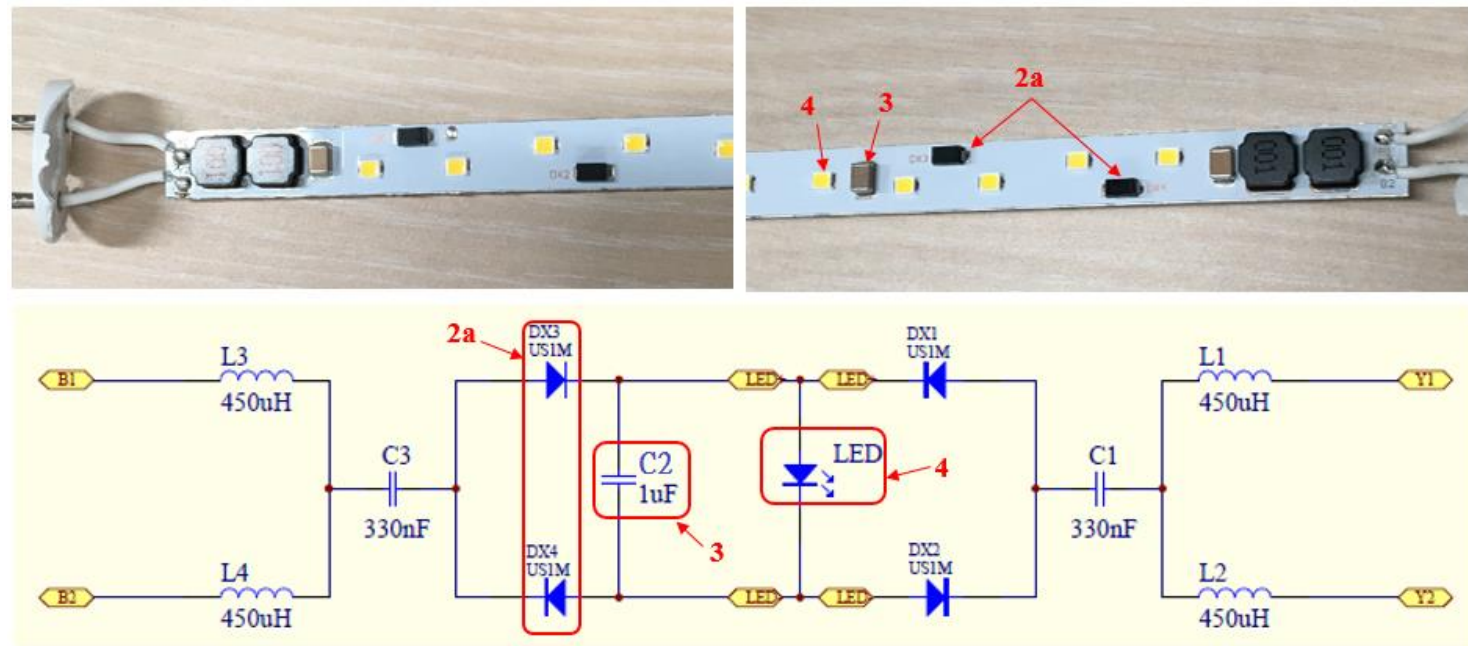


Figure 3: Photo and equivalent circuit diagram of MaxLite's filter

a filament-simulating circuit electrically connected to a first bi-pin terminal and a second bi-pin terminal of the LED lamp, each

The MaxLite_L13T8DF440-CG4 has a filament-simulating circuit electrically connected to a first bi-pin terminal and a second bi-pin terminal of the LED lamp, each of the first and the second bi-pin terminals having a current flowing from one pin to the other pin of the respective bi-pin terminal via the filament-simulating circuit during a pre-heat process executed by a ballast.

For example, in Figure 4, L3 and L4 are electrically connected to two pins on one end of Maxlite's LED lamp. L1

EXHIBIT 14 TO PLAINTIFFS' COMPLAINT – '662 Patent, Exemplary Claim 23 – Example Product, MaxLite_L13T8DF440-CG4

of the first and the second bi-pin terminals having a current flowing from one pin to the other pin of the respective bi-pin terminal via the filament-simulating circuit during a pre-heat process executed by a ballast.	and L2 are electrically connected to two pins on the other end of Maxlite's LED lamp can be regarded as a second part of the filament-simulating circuit 5b. The filament-simulating circuit is marked 5a and 5b. The two ends of Maxlite's LED lamp each have two pins corresponding to first bi-pin terminal t1 and second bi-pin terminal t2, respectively. Programmed rapid start ballast 6 (model number: HOWARD INDUSTRIES EP4/32PPRS/MV/SC/HE), as shown in Figure 5, is used for driving Maxlite's LED lamp, in which ballast 6 executes a pre-heat process and drives an LED lamp. Figures 6 and 7 show the current waveform measured from different nodes when Maxlite's LED lamp is driven by ballast 6. Regarding the waveform on the left hand side of Figure 6, purple line is the waveform of current Ia that flows through node Na which refers to the current flowing through one pin of first bi-pin terminal t1, and green line is the waveform of current Ib that flows through node Nb which refers to the current flowing through the other pin of first bi-pin terminal t1. Regarding the waveform at the right hand side of Figure 6, green line is the waveform of current Ic that flows through node Nc which refers to the current that flows to LEDs. Figures 6 and 7 show, for example that the current flows from one pin to the other pin of bi-pin terminals t1 and t2 via filament-simulating circuits 5a and 5b during the pre-heat process executed by ballast 6.
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EXHIBIT 14 TO PLAINTIFFS' COMPLAINT – '662 Patent, Exemplary Claim 23 – Example Product, MaxLite_L13T8DF440-CG4

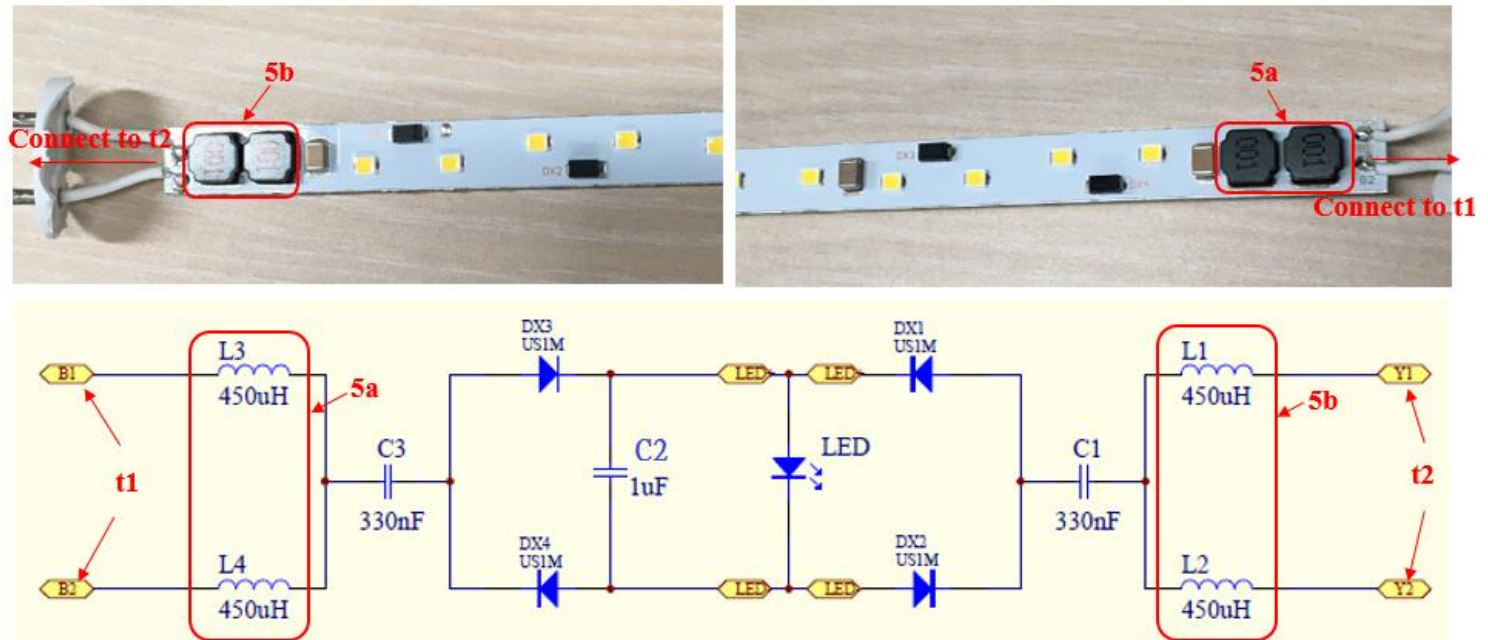


Figure 4: Photo and equivalent circuit diagram of MaxLite's filament simulating circuit

EXHIBIT 14 TO PLAINTIFFS' COMPLAINT – '662 Patent, Exemplary Claim 23 – Example Product, MaxLite_L13T8DF440-CG4

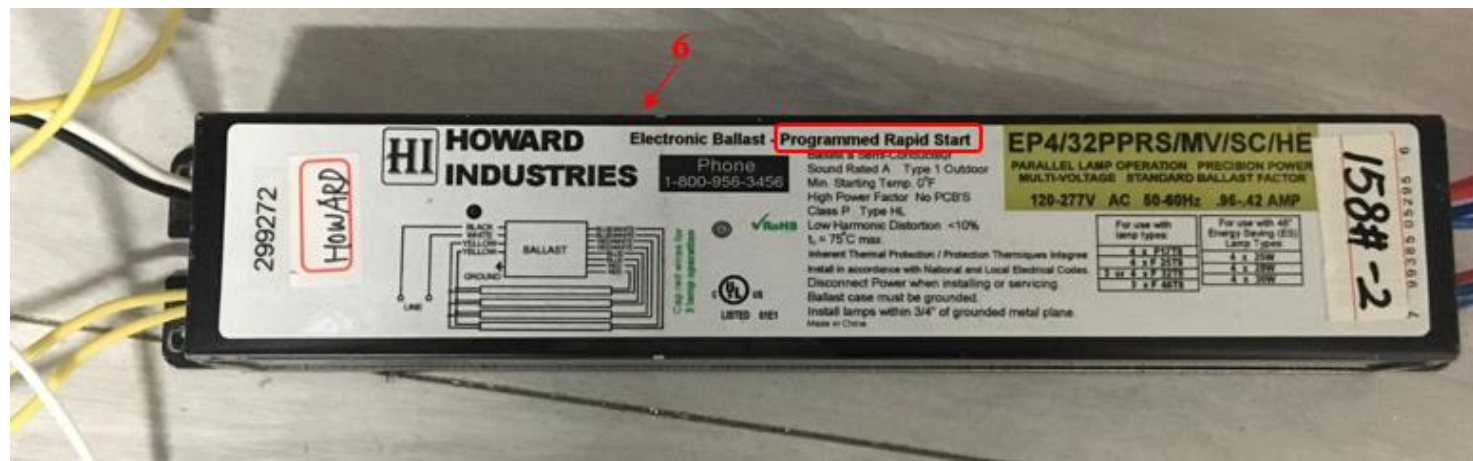


Figure 5: Ballast used for testing MaxLite's LED lamp

EXHIBIT 14 TO PLAINTIFFS' COMPLAINT – '662 Patent, Exemplary Claim 23 – Example Product, MaxLite_L13T8DF440-CG4

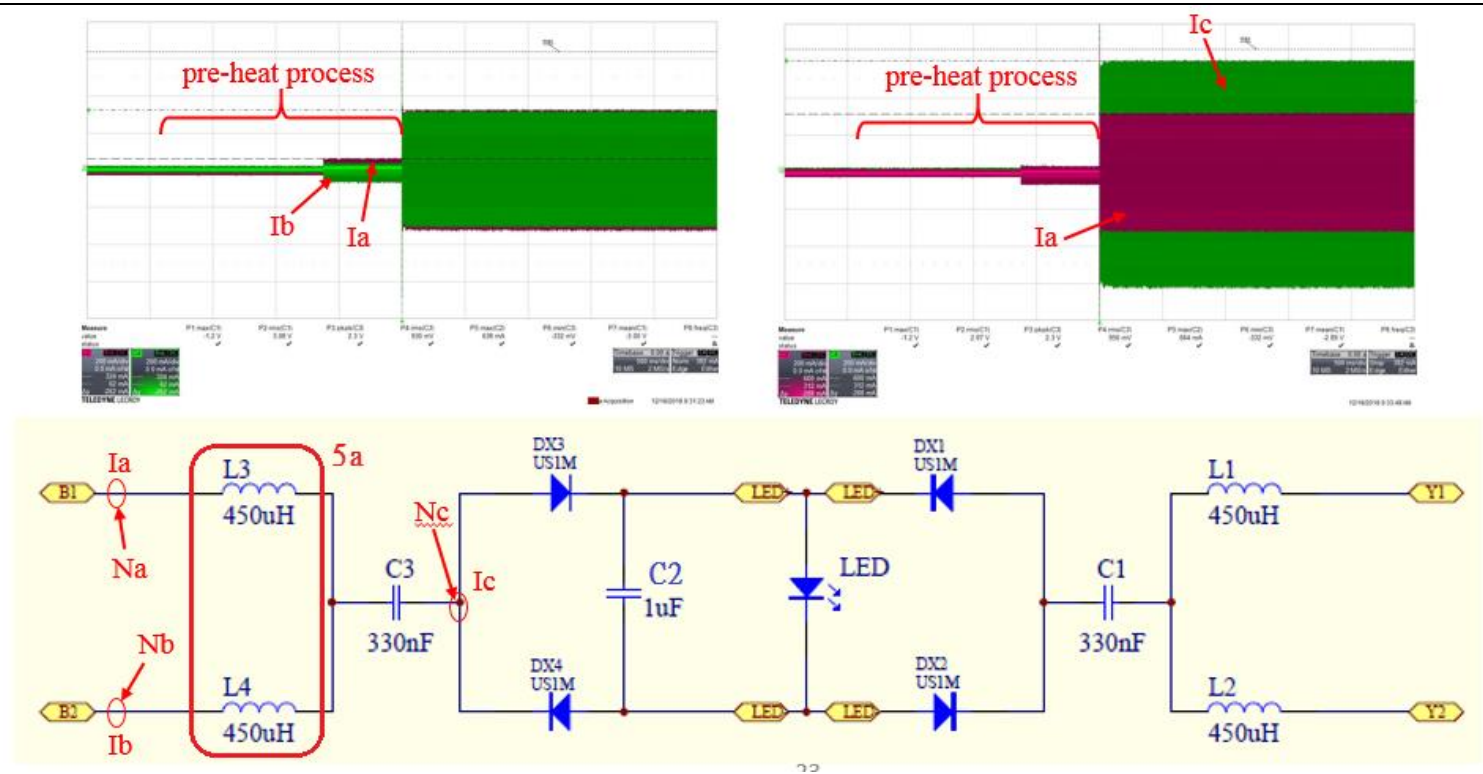


Figure 6: Current waveform measured from nodes Na, Nb and Nc

EXHIBIT 14 TO PLAINTIFFS' COMPLAINT – '662 Patent, Exemplary Claim 23 – Example Product, MaxLite_L13T8DF440-CG4

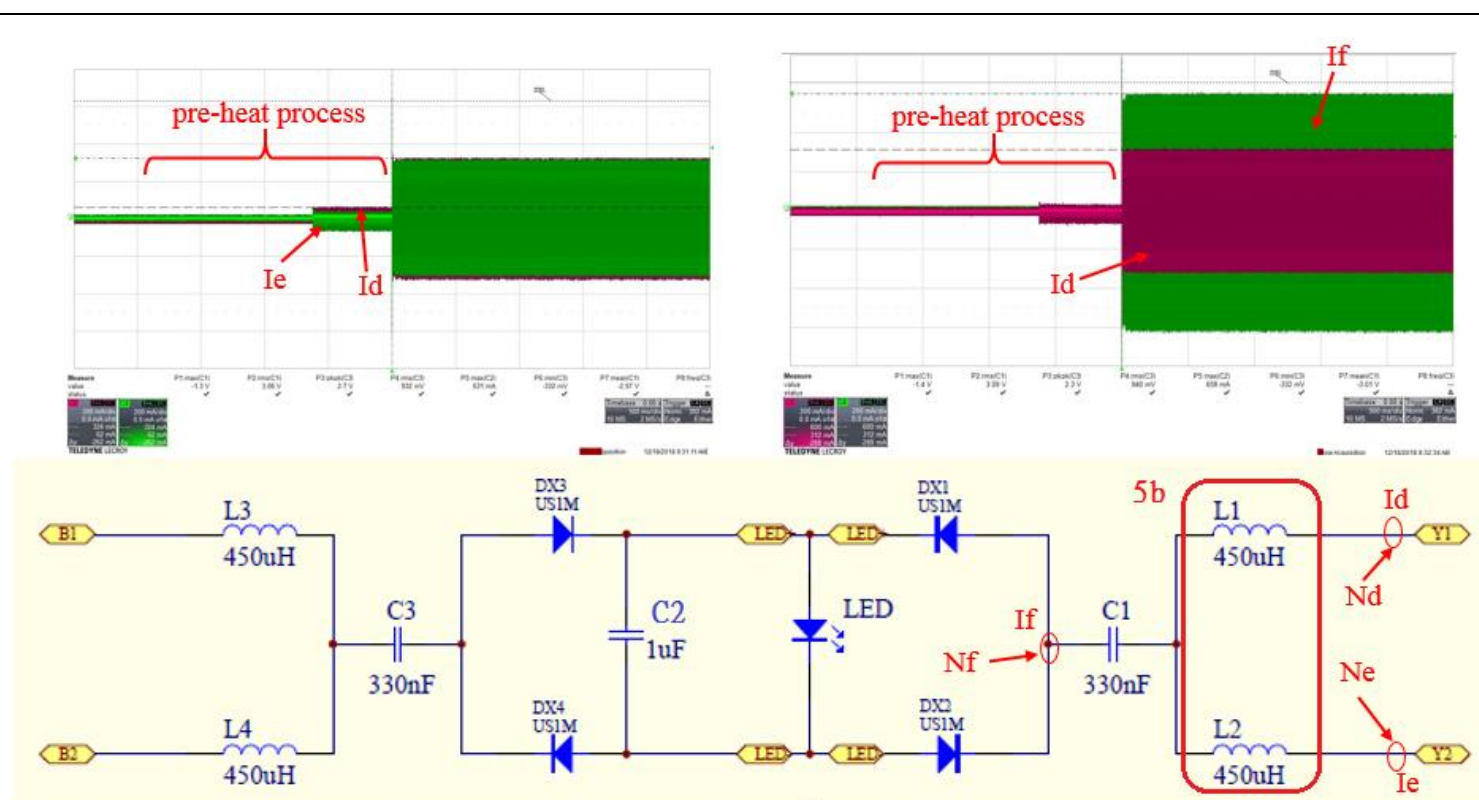


Figure 7: Current waveform measured from nodes Nd, Ne and Nf

Annotations to the figures in this chart are preliminary and illustrative only, and are not final or intended to limit Plaintiffs' identification of claim elements in the accused products. Plaintiff may change, expand, modify or narrow its identification of claim elements in the accused products as it develops further facts as a part of this action.