

# XLamp® XQ-A Red & Red-Orange LED Product Change Notification

Customer Name: XQ-A Red, Red-Orange LED Customers

PCN Reference Number: PCN-06033  
Date Issued: December 20, 2023

This PCN is to advise that Cree LED is updating the XLamp® XQ-A Red and Red-Orange LED products with changes to both performance and visual characteristics of the product. Please review the additional PCN information below.

## Affected Product

Table 1 provides a list of products affected by this change:

Table 1 Affected Product List

Cree LED XLamp Family	Cree LED XLamp Product	Cree LED Part Number
XQ-A	Red	XQARED-0X-XXXX-XXXXXXXXXX
XQ-A	Red-Orange	XQARDO-0X-XXXX-XXXXXXXXXX

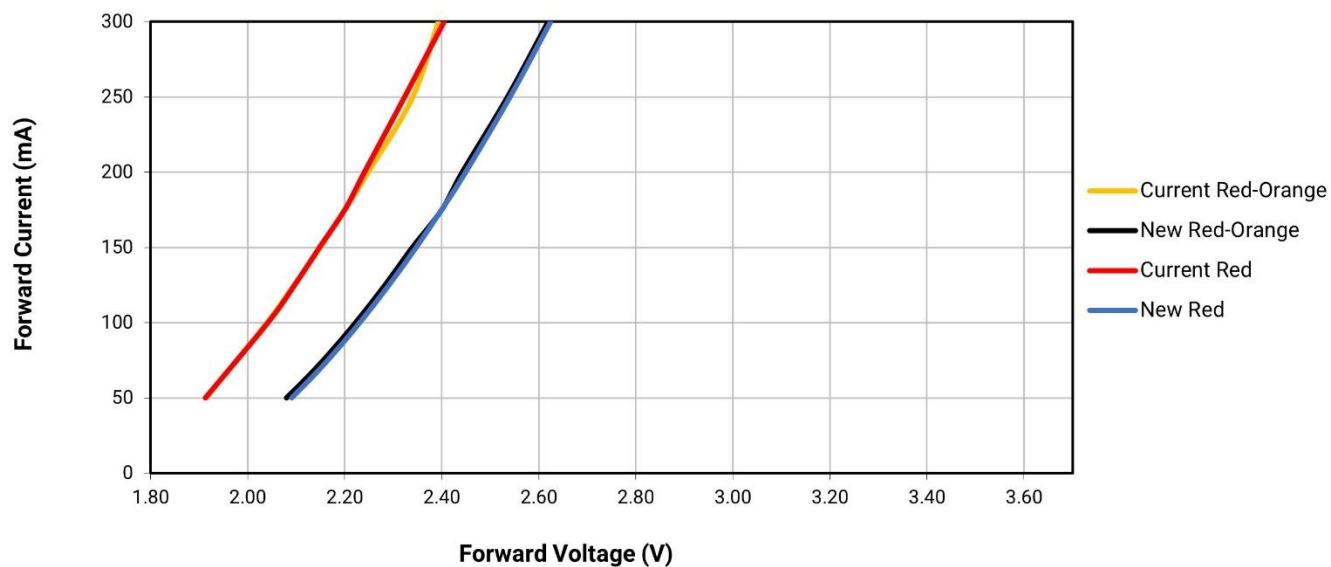
## Description of the Change

Cree LED will be changing the typical temperature coefficient of voltage, thermal resistance and the typical forward voltage for XQ-A Red and Red-Orange LEDs. Table 2 shows the current and new values.

Table 2 LED Product Characteristics; Current Values & Estimated New Values

Characteristic	Current Typical	New Typical
Temperature Coefficient of Voltage (mV/°C)	-2	-1.7
Thermal Resistance (°C/W)	13	17
Forward Voltage	2.2 V @ 175 mA, 25 °C	2.4 V @ 175 mA, 25 °C

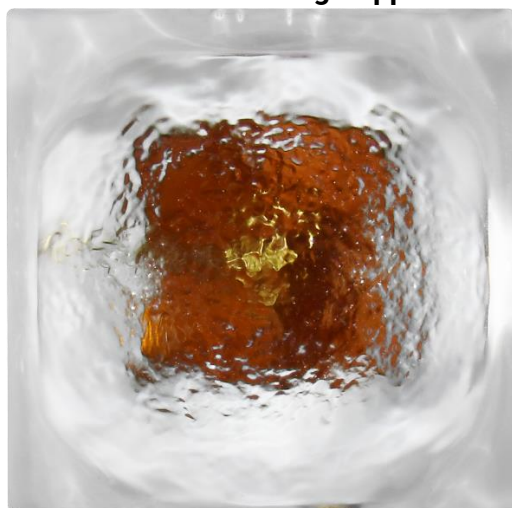
The following graph shows the changed Forward Voltage vs. Current curves.



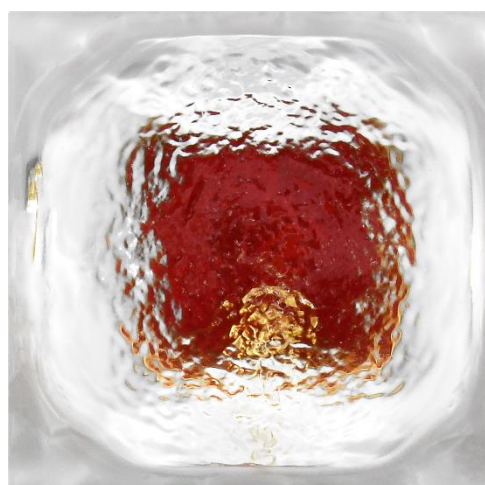
The visual appearance of the LED will change. Examples of the current and new visual appearances are shown below.

*Figure 1 XP-C Amber Appearance Comparison*

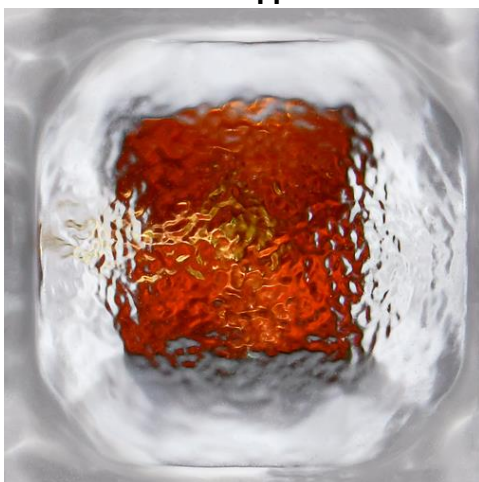
**Current Red-Orange Appearance**



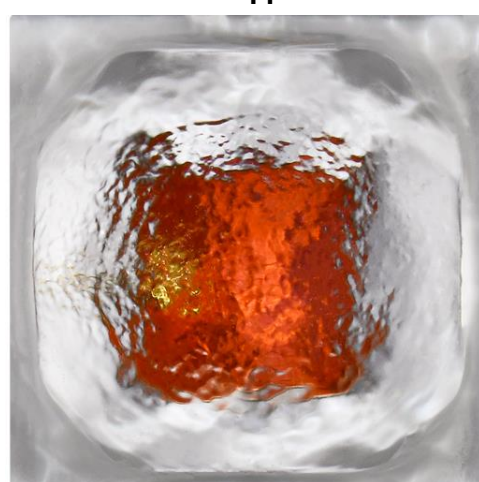
**New Red-Orange Appearance**



**Current Red Appearance**



**New Red Appearance**



Ray files for the new LEDs will be available on [cree-led.com](http://cree-led.com) on or before March 4, 2024.

## Reason for the Change

This change is being made to improve product performance and enable better manufacturing supportability.

## Change Impact on Form, Fit, Function, or Reliability

This change has no impact on the form, fit, or reliability of these LEDs beyond the changes listed above.

## Key Dates

Table 3 provides an estimated date for initial shipments of the LEDs affected by this change. Any updates to these dates can be provided by the Cree LED contact listed in Table 4.

*Table 3 Key PCN Estimated Dates*

<b>Estimated Initial Ship Date:</b>	<b>90 days after issue date</b>
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Starting on the estimated shipment date in Table 3, customers may receive LEDs with the updated performance characteristics. Each reel will contain only LEDs with the current performance or only LEDs with the new performance characteristics. Reels of the new performance LEDs can be identified by a '2' in the last character of the bin code. The bin code is clearly identified on each packaged reel.

Customers may receive shipments containing both the current and new performance LEDs in the same shipment until Cree LED's inventory of the current performance LEDs is depleted. Customers purchasing through a distributor will be further delayed seeing this change until the inventory with the current performance is depleted from distributor stock.

The XQ-A LED data sheet on the Cree LED website will be updated with changes described in this PCN on or before the Estimated Initial Ship Date in Table 3.

## Cree LED Contact Information

If you have any questions regarding this PCN please contact:

*Table 4 PCN Contact*

<b>Contact:</b>	Cree LED Customer Service
<b>Contact E-Mail:</b>	<a href="mailto:CS@cree-led.com">CS@cree-led.com</a>
<b>Contact Phone:</b>	US toll free: 1-844-273-3533 Outside the US: +1 919-313-5301
<b>Address:</b>	Cree LED, Inc. 4001 E Hwy 54, Suite 2000 Durham, NC 27709 USA