

## Cree® XLamp® XP-E2, XQ-E HD & XQ-E HI Green LED Product Change Notification

**Customer Name:** XP-E2, XQ-E HD & XQ-E HI  
Green LED customers

**PCN Reference Number:** CREE-PCN-1240  
**Date Issued:** December 18, 2020

Please be advised that Cree is making improvements to the typical luminous flux and changing the voltage characteristics of XLamp® XP-E2, XQ-E HD, and XQ-E HI Green LEDs. We will begin shipping the affected product with the change 90 days after the PCN Issue Date. The changes in this PCN supersede all previously published changes listed in Cree Product Change Notification PCN-1009.

Please review the additional PCN information below.

### Affected Product

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

*Table 1 Affected Products List*

Cree Part Number	Cree Part Number	Cree Part Number
XPEBGR-xx-xxxx-xxxxx	XQEGRN-0x-xxxx-xxxxxxxxxx	XQEGRN-Hx-xxxx-xxxxxxxxxx

### Description of the Change

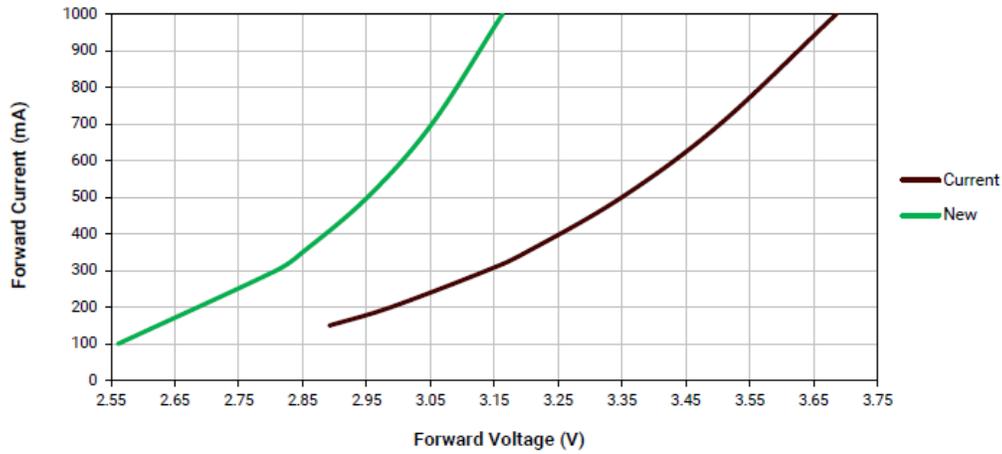
Cree will be increasing the typical luminous flux and changing the typical forward voltage, temperature coefficient of voltage, and thermal resistance characteristics for XP-E2, XQ-E HD, and XQ-E HI Green LEDs. Current order codes will begin to receive the new typical performance resulting in a brighter luminous flux distribution than previously delivered. Cree XLamp® XP-E2, XQ-E HD and XQ-E HI LED order codes specify only a minimum flux bin and not a maximum.

*Table 2 XP-E2, XQ-E HD & XQ-E HI Green Current & New Values*

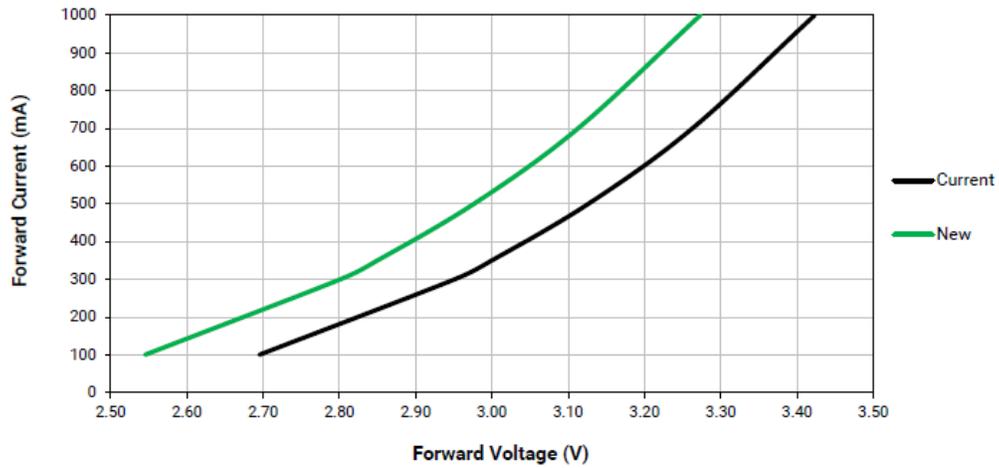
Green LED	Typical Luminous Flux Bin For Reference Purposes (lm) @ 350 mA, 25 °C		Typical Forward Voltage (V) @ 350 mA, 25 °C		Temperature Coefficient of Voltage (mV/°C)		Thermal Resistance (°C/W)	
	Current	New	Current	New	Current	New	Current	New
XP-E2 Green	R2 (114 lm)	S3 (156 lm)	3.2	2.85	-3.8	-1.2	15	11
XQ-E HD Green	Q5 (107 lm)	R5 (139 lm)	3.2	2.85	-3.8	-1.2	9	7
XQ-E HI Green	R2 (114 lm)	S2 (148 lm)	3.2	2.85	-3.8	-1.2	9	7

The following graphs show the improved Forward Voltage vs. Current curves.

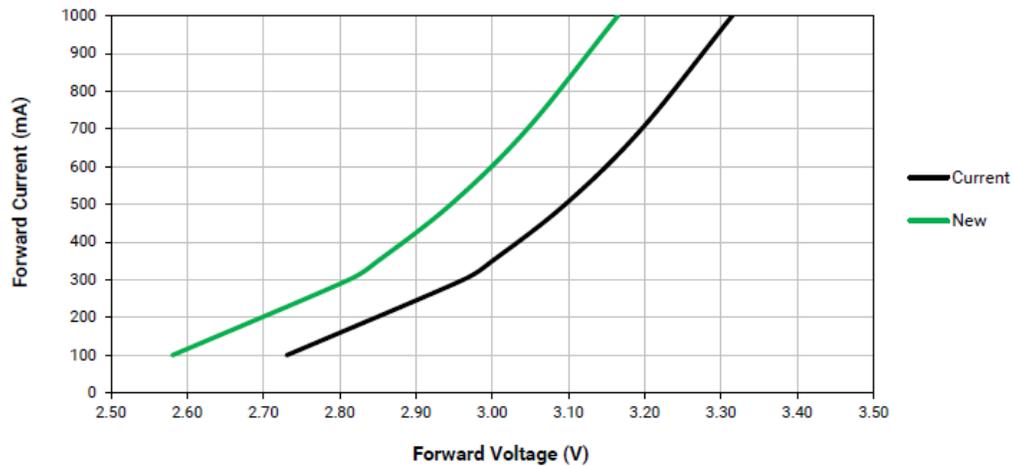
## XP-E2 Green



## XQ-E HD Green



## XQ-E HI Green



## Reason for the Change

This change is being made to improve performance for our customers.

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

This change is not expected to impact the form, fit, function, or reliability of these LEDs beyond the changes listed above and supersedes all previously published changes listed in Cree Product Change Notification PCN-1009.

## Key Dates

Table provides an estimated date for initial shipments of the LED affected by this change.

*Table 3 Estimated Initial Shipment Dates*

XP-E2 Green	March 15, 2021
XQ-E HD Green	March 15, 2021
XQ-E HI Green	March 15, 2021

Starting on the estimated shipment date in Table 3, customers may receive LEDs with the improved characteristics. Each reel will be homogenous and only contain LEDs with either the current performance or new performance characteristics. Reels of new performance LEDs can be identified by an “8” in the last character of the bin code. The bin code is clearly identified on each packaged reel.

Customers ordering multiple reels may receive shipments containing reels of both current and new performance LEDs until Cree’s inventory of the current performance LEDs is depleted. Customers purchasing through a distributor may receive new performance LEDs later than others as distributor inventory of current performance LEDs is depleted.

## Cree Contact Information

If you have any questions regarding this PCN please contact:

*Table 4 PCN Contact*

<b>Cree Contact:</b>	LED Customer Service
<b>Cree Contact E-mail:</b>	xlampsales@cree.com
<b>Address:</b>	4600 Silicon Dr. Durham, NC 27703