



Lumileds LLC
370 West Trimble Road
San Jose, California 95131
USA

November 3, 2016

Product Change Notification #: 2016073F

Subject: Lumileds announces second manufacturing site qualification for Lime Lumiramic Phosphor wafers

Dear Valued Customer,

Overview

Lumileds is releasing notification of a second manufacturing site for Lime Lumiramic Phosphor wafers used in its Rebel ES Color and LUXEON Z Lime products. The new manufacturing site will be on the site of Lumileds' facility in Aachen (Rothe-Erde), Germany. The details of the activity and the supporting documents are attached below.

Description of Change(s):	Lumileds is adding a second manufacturing site for its Lime Lumiramic Phosphor wafers used in Rebel ES Color and LUXEON Z Lime products
Customer Impact and Recommended Actions:	No Fit, Form or Function impact from the new site
Products affected:	LUXEON Rebel ES Color, LUXEON Z
Reference Documents/Attachments:	Attachment A: Affected Part Numbers Attachment B: Change Overview
Reason for change(s):	Increased capacity for future growth
Anticipated date when shipments of the changed product can commence:	Dec 26, 2016
Anticipated (positive and negative) impact on form, fit, function or reliability:	No impact on performance of devices
Supplier Qualification plan results, where applicable:	See Attachment B: Change Overview
Customer part number(s), if applicable:	See Appendix A for affected Lumileds part numbers
Date, when qualification samples are available, if applicable:	Contact Lumileds sales representative if samples are required
Date, when final qualification data are available, if applicable:	Final qualification data available upon request
Last date, if applicable, of manufacture of the unchanged product:	N/A

Contact:

If you have any questions, or need any further assistance, please contact your Lumileds sales representative.

Attachments

Attachment A: Affected part numbers

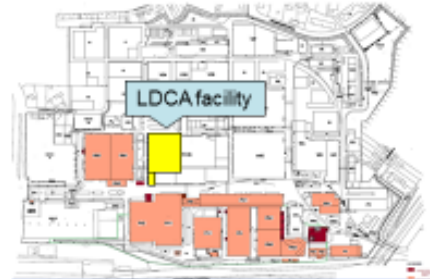
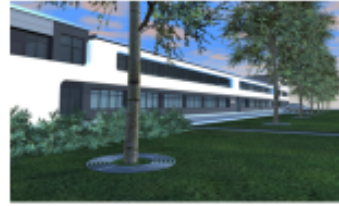
Product	Part Number
Rebel ES Color	LXML-PX02-0000
Rebel ES Color	LXML-PX02-265
Rebel ES Color	LXML-PX02-410
Rebel ES Color	LXML-PX02-PB03
Rebel ES Color	LXML-PX02-SL02
LUXEON Z	LXZ1-PX01
LUXEON Z	LXZ1-PX01-0144
LUXEON Z	LXZ1-PX01-0154
LUXEON Z	LXZ1-PX01-0164
LUXEON Z	LXZ1-PX01-0174
LUXEON Z	LXZ1-PX01-0184
LUXEON Z	LXZ1-PX01-0194
LUXEON Z	LXZ1-PX01-397
LUXEON Z	LXZ1-PX01-QE03

Attachment B: Change Overview

Lumileds will begin production from a second manufacturing site for Lime Lumiramic Phosphor wafers used in its Lime Rebel ES Color and LUXEON Z products. The new manufacturing site will be on the site of Lumileds' facility in Aachen (Rothe-Erde), Germany. The new production facility will be housed in the Lumileds Development Center Aachen (LDCA), which is dedicated to research, development, and application of luminescent materials for LEDs. This brings to bear the expertise of the technical team together with the manufacture of the phosphor solutions. The new site is also just 90 km from the existing manufacturing site in Maarheeze, The Netherlands.

General introduction to Lumileds Development Center Aachen

- LDCA is the phosphor center of Philips Lumileds Lighting
- Dedicated to R&D, manufacturing, and application of luminescent materials for LEDs
- Housed in a renovated facility at the Philips site Rothe Erde in Aachen, Germany
- ~ 40 People, integrating activities formally located in Maarheeze, Netherlands and Aachen Research campus



Confidential

Location of Lumileds Development Center Aachen



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