

Lumileds Luxeon Rebel LED Lamp Teardown and Technology Analysis

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1. Product Identification

The device subject to teardown for this work is a “cool white” Luxeon Rebel surface-mount LED. This is not the K2 or TFFC version of the Rebel. Other colours of the basic Rebel are expected to differ in active layer semiconductor material and device metallization, and in phosphor layer presence and specification, but to be broadly similar to the product examined. No suggestion of similarity to K2 or TFFC devices is suggested.

Manufacturer	Device ID	Date/Lot code
Lumileds	Luxeon Rebel LXML-PWC1-0050	0710

2. External Appearance and Principal Dimensions

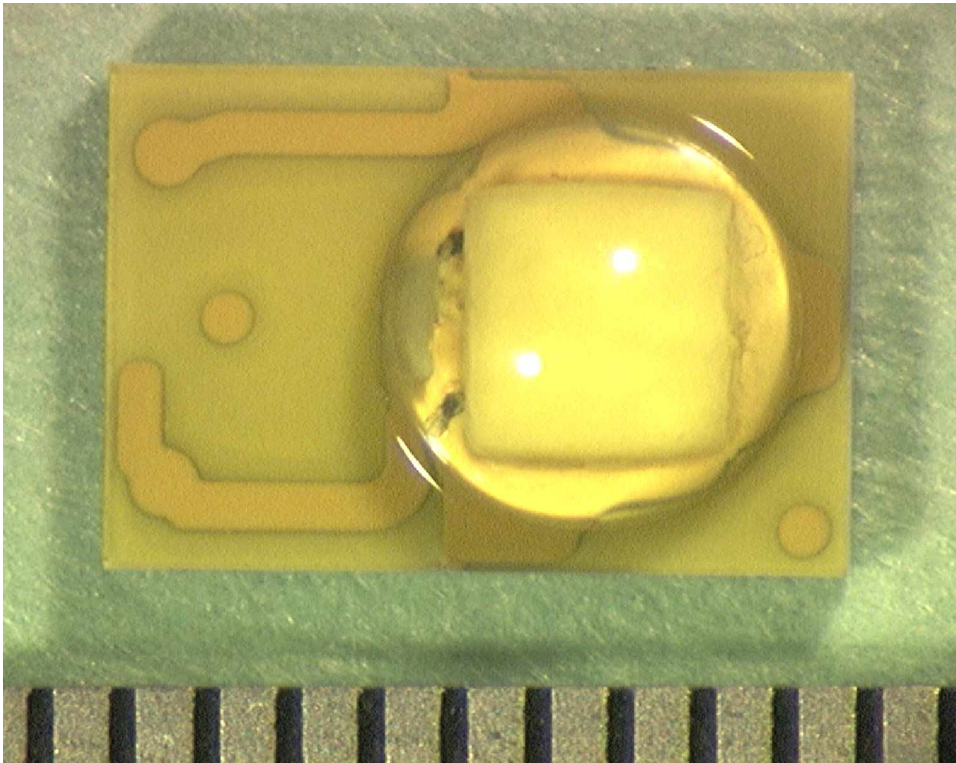


Figure 2.1: Top view, with a scale in 0.5 mm increments.

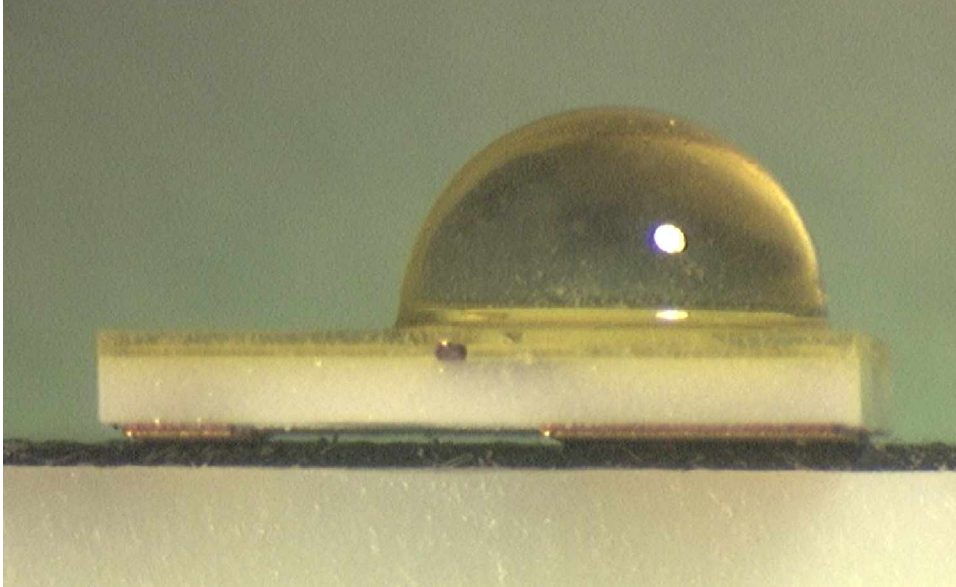


Figure 2.2: Side view, no branding or date code is seen on the device.

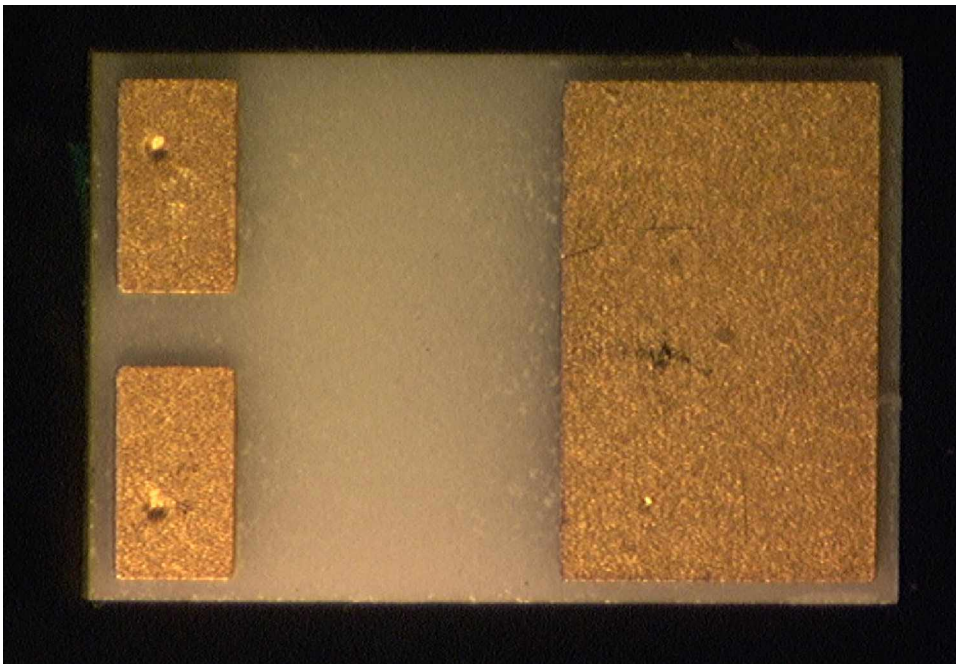


Figure 2.3: Underside view. The two pads on the left connect to the front by means of a via through the substrate. The larger pad is for thermal dissipation

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