



Product Brief

LUXEON Rebel PLUS

Freedom From Binning

LUXEON® Rebel PLUS LEDs from Philips Lumileds are a product family with a rich history of use in just about every possible illumination application. LUXEON Rebel PLUS LEDs are designed to offer single emitter, Illumination Grade LED light sources with the highest possible efficacy and light output. With hot testing and color binning, every LUXEON Rebel PLUS is tested and specified at real world operating conditions, $T_j = 85^\circ\text{C}$. Our exceptional color control enables design simplicity for luminaire manufacturers and ensures that they can be confident in color consistency from LED to LED. The superior quality of light, light output, and real world efficacy enable leading performance and efficient solution development in a wide variety of indoor lighting segments including retrofit bulbs, office, hospitality, school, and home lighting. LUXEON Rebel PLUS comes in an industry standard 4530 package with a 2.5mm dome that is optimized for maximum light output.

Key Applications:

- Retrofit bulbs
- Downlights
- Retail lighting
- Home lighting
- Office lighting
- Linear lighting

Features:

- Hot tested at $T_j 85^\circ\text{C}$
- 2700K, 3000K, 3500K, 4000K, and 5000K CCT and CRI of 80+
- Superior efficacy and light output
- Typical V_f of 2.76V at 350 mA, 85°C
- Proven LUXEON reliability
- Tight color control

Benefits:

- Shorter and simpler design-in cycles
- Lowest V_f in the industry delivers superior efficacy
- Confidence in consistent, high quality light
- Reduced operating and maintenance costs
- Solutions that deliver real energy savings



PHILIPS
LUMILEDS

LUXEON Rebel PLUS Product Characteristics

Performance @ 350 mA Test Current

Part Number	Nominal ANSI CCT	CRI Min	Min Luminous Flux (lm)	Test Condition	Typ. Luminous Flux (lm)		Typ. Forward Voltage (V)		Typ. Efficacy (lm/W)	
					350 mA	700 mA	350 mA	700 mA	350 mA	700 mA
LX18-PI27-Y	2700K	80	80	T _j = 85°C	89	156	2.76	2.85	92	78
LX18-PI30-Y	3000K	80	85	T _j = 85°C	95	166	2.76	2.85	98	83
LX18-PI35-Y	3500K	80	90	T _j = 85°C	98	172	2.76	2.85	101	86
LX18-PI40-Y	4000K	80	90	T _j = 85°C	103	180	2.76	2.85	107	90
LX18-PI50-Y	5000K	80	95	T _j = 85°C	106	186	2.76	2.85	110	93

Note: Y stands for 3 for 3-step and 5-step MacAdam Ellipse.

Absolute Maximum Ratings

Parameter	LUXEON Rebel PLUS
DC Forward Current (mA)	700
Peak Pulsed Forward Current (mA)	1000
ESD Sensitivity	< 8000V Human Body Model (HBM) Class 3A JESD22-A114-E
LED Junction Temperature	150°C
Operating Case Temperature at 700 mA	-40°C - 135°C
Storage Temperature	-40°C - 135°C
Soldering Temperature	JEDEC 020c 260°C
Allowable Reflow Cycles	3
Reverse Voltage (V _r)	LUXEON Rebel PLUS LEDs are not designed to be driven in reverse bias

Philips Lumileds Lighting Company Confidential. All information is preliminary and subject to change without notification.



www.philipslumileds.com
www.philipslumileds.cn.com

LUXEON Rebel Plus Product Brief PB107 20121216

PHILIPS
LUMILEDS