



Product Brief

LUXEON Rebel Direct Color

Long lasting, energy efficient, brilliant colors



Create visually stunning lighting applications with LUXEON® Rebel Direct Color emitters. LUXEON Rebel color emitters are available in green, cyan, blue, royal-blue, red, red-orange, and amber and offer high performance colored light output, reliability and lumen maintenance that enable today's most distinctive lighting applications.

LUXEON Rebel Direct Color Portfolio Benefits:

- High quality, long life LUXEON reliability reduces the total cost of luminaire ownership
- Optic design maximizes light output allowing you to use fewer LEDs
- Minimized thermal management reduces design complexity for optimized solutions
- Low Vf for optimal lumen per watt efficiency
- High efficacy emitters require less electricity than conventional solutions
- A single product footprint for all LUXEON Rebel emitters simplifies engineering and speeds time to market
- Endless color mixing possibilities
- Create vivid saturated colors without filters.



PHILIPS
LUMILEDS

Available LED Colors

Color	Part Number	Performance at Test Current		Typical Performance at Indicated Current	
		Min. Luminous Flux (lm) or Radiometric Power (mW) $\Phi_v^{[1]}$	Test Current (mA)	Typ. Luminous Flux (lm) or Radiometric Power (mW) $\Phi_v^{[2]}$	Drive Current (mA)
Green	LXML-PM01-0070	70	350	123	700
	LXML-PM01-0080	80	350	139	700
	LXML-PM01-0090	90	350	150	700
	LXML-PM01-0100	100	350	166	700
Cyan	LXML-PE01-0050	50	350	91	700
	LXML-PE01-0060	60	350	107	700
	LXML-PE01-0070	70	350	120	700
	LXML-PE01-0080	80	350	129	700
Blue	LXML-PB01-0013	13.9	350	28	700
	LXML-PB01-0018	18.1	350	37	700
	LXML-PB01-0023	23.5	350	48	700
	LXML-PB01-0030	30.0	350	58	700
	LXML-PB01-0040	40.0	350	70	700
Royal-Blue	LXML-PR01-0350	350 mW	350	625 mW	700
	LXML-PR01-0425	425 mW	350	740 mW	700
	LXML-PR01-0500	500 mW	350	875 mW	700
Red	LXML-PD01-0030	30	350	65	700
	LXML-PD01-0040	40	350	85	700
	LXML-PD01-0040*	40	350	90	700
	LXML-PD01-0050*	50	350	102	700
Red-Orange	LXML-PH01-0040	40	350	85	700
	LXML-PH01-0050	50	350	100	700
	LXML-PH01-0060*	60	350	122	700
	LXML-PH01-0070*	70	350	134	700
Amber	LXML-PL01-0023	23.5	350	50	700
	LXML-PL01-0030	30.0	350	65	700
	LXML-PL01-0040	40.0	350	86	700

Green, Cyan, Blue, Red, Red-Orange and Amber LUXEON Rebel Emitters are tested and binned for dominant wavelength. Royal-Blue is tested and binned using peak wave length.

* Indicates low Vf parts.

Absolute Maximum Ratings

Parameter	Green/Cyan/Blue/Royal-Blue	Red/Red-Orange/Amber
DC Forward Current (mA)	1000	700
Peak Pulsed Forward Current (mA)	1000	700
Average Forward Current (mA)	1000	700
ESD Sensitivity	< 8000V Human Body Model (HBM) Class 3A JESD22-A114-B	< 8000V Human Body Model (HBM) Class 2 JESD22-A114-B
LED Junction Temperature ^[1]	150°C	135°C
Operating Case Temperature at 350 mA	-40°C - 135°C	-40°C - 120°C
Storage Temperature	-40°C - 135°C	-40°C - 135°C
Soldering Temperature	JEDEC 020c 260°C	JEDEC 020c 260°C
Allowable Reflow Cycles	3	3
Autoclave Conditions	121°C at 2 ATM 100% Relative Humidity for 96 Hours Maximum	121°C at 2 ATM 100% Relative Humidity for 96 Hours Maximum
Reverse Voltage (Vr)	See Note 2	See Note 2

Notes:

1. Proper current derating must be observed to maintain junction temperature below the maximum.
2. LUXEON Rebel LEDs are not designed to be driven in reverse bias.



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

LUXEON Rebel Direct Colors Product Brief PB65 20121216

PHILIPS
LUMILEDS