



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.



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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:

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



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