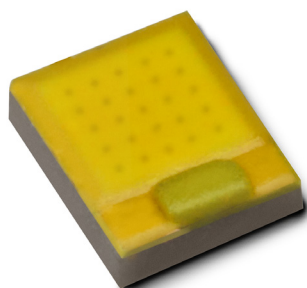




LUXEON Z ES

Extreme flux density in a micro footprint package for precise optical control



LUXEON Z ES is a high power 1.64mm x 2.04mm LED that enables never before seen color consistency, luminance, flux density and design flexibility for lighting solutions because it's the first ever 1-step MacAdam ellipse warm white LED. LUXEON Z ES is undomed, a feature that provides un-matched optical flexibility for precise beam angle control. Tested and binned at application conditions, 85°C, LUXEON Z ES emitters are an ideal choice for indoor and outdoor light sources requiring superior beam angles, higher efficacy and lower costs.

FEATURES AND BENEFITS

- Micro footprint enables close packaging
- Undomed design allows precise optical control
- 1-, 3- and 5-step MacAdam ellipse: *Freedom from Binning* enabling color consistency
- LM-80 test report available

PRIMARY APPLICATIONS

- Architectural
- Downlights
- Lamps
- Outdoor
- Spotlights

LUXEON Z ES 3V product performance at 700mA and 350mA, $T_j=85^{\circ}\text{C}$.

NOMINAL CCT ^[1]	MINIMUM CRI ^[2]	LUMINOUS FLUX ^[3] (lm)		TYPICAL LUMINOUS EFFICACY (lm/W)	TYPICAL LUMINOUS FLUX (lm)	TYPICAL LUMINOUS EFFICACY (lm/W)	PART NUMBER
		MINIMUM	TYPICAL				
		700mA				350mA	
4000K	70	220	240	122	132	139	LXZ2-4070
5000K	70	220	245	125	135	142	LXZ2-5070
5700K	70	220	245	125	135	142	LXZ2-5770
6500K	70	220	245	125	135	142	LXZ2-6570
2200K	80	140	150	77	83	87	LXZ2-2280-x
2700K	80	170	185	94	102	107	LXZ2-2780-x
3000K	80	180	195	99	107	113	LXZ2-3080-x
3500K	80	190	205	105	113	118	LXZ2-3580-x
4000K	80	190	220	112	121	127	LXZ2-4080-x
5000K	80	190	220	112	121	127	LXZ2-5080-x
2700K	90	140	160	82	88	92	LXZ2-2790-x
3000K	90	150	170	87	94	98	LXZ2-3090-x
3500K	90	150	171	87	94	98	LXZ2-3590-x
4000K	90	150	180	92	99	104	LXZ2-4090-x
5700K	90	170	190	97	105	110	LXZ2-5790-x

LUXEON Z ES 48V product performance at 40mA and 20mA, $T_j=85^{\circ}\text{C}$.

NOMINAL CCT ^[1]	MINIMUM CRI ^[2]	LUMINOUS FLUX ^[3] (lm)		TYPICAL LUMINOUS EFFICACY (lm/W)	TYPICAL LUMINOUS FLUX (lm)	TYPICAL LUMINOUS EFFICACY (lm/W)	PART NUMBER
		MINIMUM	TYPICAL				
		40mA					
2700K	80	150	165	83	91	93	LXZH-2780-x

LUXEON Z ES Royal Blue product performance at 700mA, $T_j=85^{\circ}\text{C}$.

NOMINAL CCT ^[1]	RADIOMETRIC POWER (mW)		TYPICAL RADIANT EFFICACY (%)	PART NUMBER
	MINIMUM	TYPICAL		
Royal Blue	800	850	45%	LXZ2-PR02

Notes for tables:

1. Lumileds maintains a tolerance of $\pm 6.5\%$ on flux measurements.
2. In the part number the -x is the designation for the color requirement. On 80CRI and 90CRI versions -1 designates 1 SDCM, -3 designates 3 SDCM, -5 designates 5 SDCM. 70CRI parts or lower will not have a SDCM designation and all parts are binned within 5 SDCM.