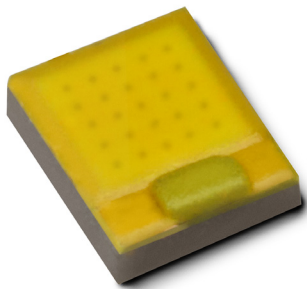




# LUXEON Z ES

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



LUXEON Z ES is a high power 1.6mm x 2.0mm LED that enables never before seen color consistency, luminance, flux density and design flexibility for lighting solutions. LUXEON Z ES is undomed, a feature that provides unmatched 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
- 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<sub>j</sub>=85°C.

NOMINAL CCT	MINIMUM CRI <sup>[1]</sup>	LUMINOUS FLUX <sup>[1]</sup> (lm)		TYPICAL LUMINOUS EFFICACY (lm/W)	TYPICAL LUMINOUS FLUX (lm)	TYPICAL LUMINOUS EFFICACY (lm/W)	PART NUMBER <sup>[2]</sup>
		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<sub>j</sub>=85°C.

NOMINAL CCT	MINIMUM CRI <sup>[2]</sup>	LUMINOUS FLUX <sup>[1]</sup> (lm)		TYPICAL LUMINOUS EFFICACY (lm/W)	TYPICAL LUMINOUS FLUX (lm)	TYPICAL LUMINOUS EFFICACY (lm/W)	PART NUMBER <sup>[2]</sup>
		MINIMUM	TYPICAL				
		40mA		20mA			
2700K	80	150	165	83	91	93	LXZH-2780-x

LUXEON Z ES Royal Blue product performance at 700mA, T<sub>j</sub>=85°C.

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

Notes for tables:

- Lumileds maintains a tolerance of ±6.5% on both luminous flux and radiometric power and ±2 on CRI measurements.
- In the part number the -x is the designation for the white color space requirement. On 80CRI and 90CRI versions 3 designates 3 SDCM and 5 designates 5 SDCM. For 70 CRI parts or lower, they will not have an SDCM designation and all parts are binned within a 5-step SDCM.