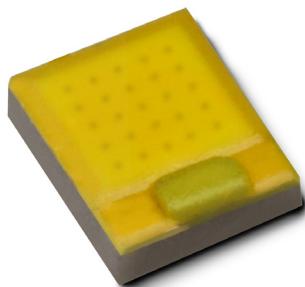




## LUXEON Z ES

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

Optically compatible with LUXEON Rebel platform easy drop in for existing designs

3-step and 5-step MacAdam ellipse: *Freedom from Binning* enabling color consistency

LM-80 test report available

### PRIMARY APPLICATIONS

Indoor Area Lighting

Outdoor

LUXEON Z ES 3V product performance at 700mA and 350mA, T<sub>j</sub>=85°C.

NOMINAL CCT <sup>[1]</sup>	MINIMUM CRI <sup>[2]</sup>	LUMINOUS FLUX <sup>[3]</sup> (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
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 <sup>[1]</sup>	MINIMUM CRI <sup>[2]</sup>	LUMINOUS FLUX <sup>[3]</sup> (lm)		TYPICAL LUMINOUS EFFICACY (lm/W)	TYPICAL LUMINOUS FLUX (lm)	TYPICAL LUMINOUS EFFICACY (lm/W)	PART NUMBER
		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 <sup>[1]</sup>	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.