



















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: <i>Freedom from Binning</i> 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_i=85°C.

NOMINAL	MINIMUM	LUMINOUS FLUX [3] (lm)		TYPICAL LUMINOUS	TYPICAL LUMINOUS	TYPICAL LUMINOUS		
	CRI [2]	MINIMUM	TYPICAL	EFFICACY (lm/W)	FLUX (lm)	EFFICACY (Im/W)	PART NUMBER	
			700mA		350			
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_i=85°C.

NOMINAL MINIMUM CCT [1] CRI [2]	LUMINOUS FLUX [3] (lm)		TYPICAL LUMINOUS	TYPICAL LUMINOUS	TYPICAL LUMINOUS		
		MINIMUM	TYPICAL	EFFICACY (lm/W)	FLUX (lm)	EFFICACY (lm/W)	PART NUMBER
			40mA	20mA			
2700K	80	150	165	83	91	93	LXZH-2780-x

LUXEON Z ES Royal Blue product performance at 700mA, T_i=85°C.

NOMINAL CCT [1]	RADIOMETRIC	POWER (mW)	TYPICAL RADIANT	PART NUMBER	
110111111111		MINIMUM	TYPICAL		
Royal Blue	1	800	850	45%	LXZ2-PR02

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Lumileds maintains a tolerance of ±6.5% on flux measurements.
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.