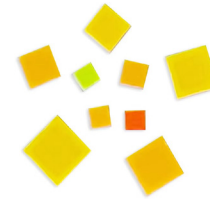


CSP Products

Bridgelux Differentiation

- 25+ years of driving LED industry transformation
- Vertical integration across chip, phosphor and package
- Broad product portfolio including CSPs, SMDs, COBs and modules
- Human centric and dynamic lighting technology leader



Features

- Surface emitting flip chip; Phosphor layer on top of chip
- High-Power and high lumen density in ultra-compact package
- High thermal conductivity package
- 2, 3, and 5 SDCM binning options



Benefits

- Highly flexible for customized high density clustering
- Small LES customized color spectrum feasible - color mixing before secondary optics, reduce secondary optics size & costs
- Create differentiated products and deliver lower system cost
- Excellent L90 lifetimes across the entire portfolio

Applications

- Narrow beam spot lighting
- Tunable CCT cluster
- Shop lighting
- Studio lighting
- Architectural lighting
- Special spectrum lighting
- Spotlight, Downlight, Linear, Area, Floor/wall,
- High Bay, Low Bay, Street, Tunnel
- Outdoor and Indoor
- Commercial, Residential, Industrial

Product	CCT Range	CRI Options	Drive Current (mA)	Voltage (V)	Power (W)	CRI	3000K		4000K		LES (mm)	Data-sheet
							Typical Flux (lm)	Typical Efficacy (lm/W)	Typical Flux (lm)	Typical Efficacy (lm/W)		
CSP 1111 (K-series)	1800K - 6500K	80, 90, 95	50	2.7	0.1	90	22	161	24	178	1.12	DS959
			150	2.9	0.4		59	136	65	151		
			350	3.1	1.1		117	106	129	117		
			500	3.3	1.7		152	92	168	101		
CSP 1313 (K-series)	1800K - 6500K	70, 80, 90, 95	50	2.7	0.1	90	21	159	23	174	1.3	DS960
			150	2.8	0.4		61	144	66	157		
			350	3.0	1.1		125	119	137	130		
			700	3.3	2.3		213	92	232	101		
CSP 1919 (K-series)	2700K - 6500K	70, 80, 90, 95	50	2.6	0.1	80	26	195	28	213	1.8	DS961
			350	2.9	1.0		167	164	182	179		
			500	3.0	1.5		229	153	250	167		
			1200	3.4	4.1		471	116	514	127		
CSP 2424 (K-series)	1800K - 6500K	70, 80, 90, 95	50	2.6	0.1	80	32	245	29	221	2.35	DS962
			350	2.9	1.0		211	212	191	192		
			700	3.0	2.1		390	185	353	168		
			1400	3.3	4.7		692	148	626	134		
CSP 2727 (K-series)	2200K - 6500K	70, 80, 90	350	2.7	1.0	80	179	188	192	202	2.7	DS967
			700	2.8	2.0		343	176	368	188		
			1500	3.0	4.4		677	153	727	164		
			2000	3.0	6.1		863	142	926	153		

All measurements are at $T_{sp} = 25^{\circ}\text{C}$. Additional electrical configurations and product options are available, please consult your Bridgelux sales representative.