Visible lighting- Healthy lighting series

Full Spectrum Products boast a high similarity to sunlight and low blue light hazard. Long-term use of low-blue-light full-spectrum lighting helps improve myopia issues in adolescents. Compared to peers, KINGBRIGHT low-blue-light full-spectrum products offer advantages such as high Color Rendering Index (CRI), high luminous efficacy, high cost-effectiveness, and no blue light hazard.

Technological Innovation Points

Masters spectrum design and manufacturing technology, achieving up to CRI >98 and R1-R15 >95.

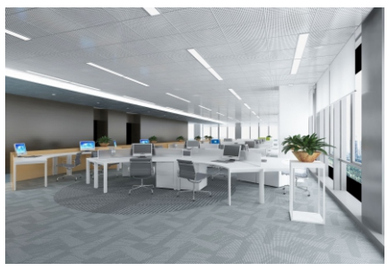
Pioneered dual-blue full-spectrum technology. The technical specifications combine the advantages of single-blue and violet-excited full-spectrum technologies. Related patents were obtained and standards were developed, possessing independent intellectual property rights to circumvent patent barriers.

Pioneered white light realization using self-designed phosphors excited by long-wave chips. The spectrum features both low blue light and circadian effects, achieving internationally advanced performance. Won the China Patent Award for two consecutive terms.

Typical Application Scenarios

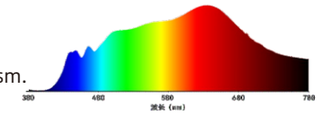
Full spectrum products are widely used in high-end applications such as classroom lighting, medical lighting, commercial lighting, and home lighting.





35R

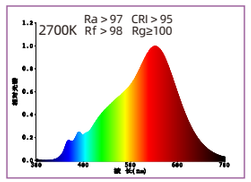
- 380-460nm: Relative blue light intensity below 0.6, no blue light hazard.
- 460-500nm: Good spectral continuity.
- 480nm: Moderate intensity, circadian rhythm suitable for study mode.
- 600-800nm: Rich red light, helps promote blood circulation and metabolism.
- 680-780nm: Delays eye fatigue.

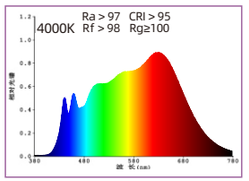


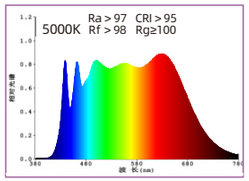
Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
35R	Dual-blue excited full spectrum	0.2	3	60	4000	105-115	98
		0.5	3	150	4000	100-110	98
		1	9	100	4000	80-100	98

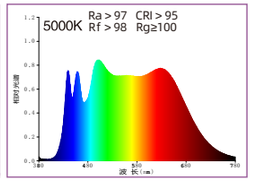
35H

- Dual-blue excitation, no blue light hazard, meets RG0 standard.
- Good spectral continuity, customizable, cost-effective.
- High similarity to the visible spectrum of sunlight.
- High color saturation and fidelity.





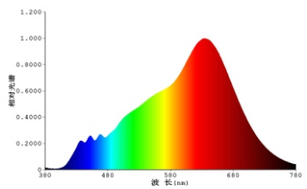
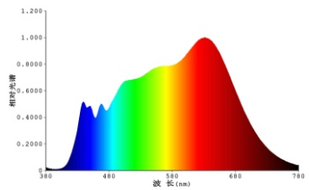
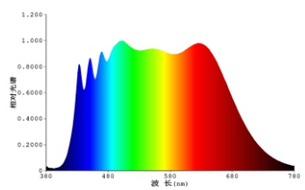




Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
35H	Dual-blue excited full spectrum	0.2	3	60	2700-3500	120-140	CRI > 95 Rg > 98 Rf > 96
					4000-6500	140-160	
		0.5	3	150	2700-3500	110-130	
					4000-6500	130-150	
		1	9	100	2700-3500	105-125	
					4000-6500	125-145	
		0.36	6	60	2700-3500	120-140	
					4000-6500	130-150	
		1	6	150	2700-3500	110-130	
					4000-6500	120-140	

35J

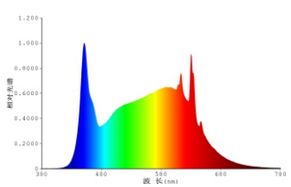
- Triple-blue excitation, no blue light hazard, meets RG0 standard.
- Good spectral continuity, customizable, cost-effective.
- High similarity to the visible spectrum of sunlight.
- High color saturation and fidelity.

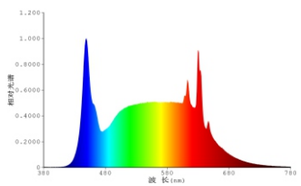




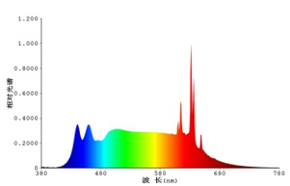
Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
35J	Triple-blue (excitation)	1	9	100	3000-5000	110-140	CRI > 95 Rg > 98 Rf > 96

35K

- High CRI, ultra-high luminous efficacy, low short-wave blue light.
- Enhanced protection technology, high reliability.


4000K

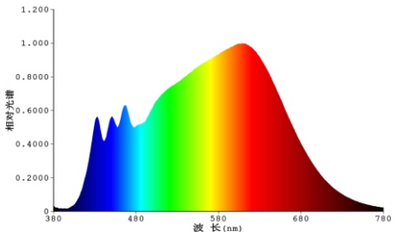

5000K


5000K

Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
35K	Single-blue (excitation)	0.2	2.7-3.2	60	2700-6500	190-210	95
	Dual-blue (excitation)	0.2	2.7-3.2	60	2700-6500	170-190	95
	Single-blue (excitation)	0.2	3	60	5000	160-180	95
	Dual-blue (excitation)	0.5	3	150	5000	140-160	95

35N

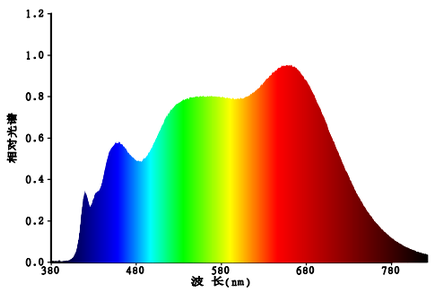
- Ultra-high luminous efficacy
- Low blue light
- Color Rendering Index (CRI) >90
- Continuous spectrum

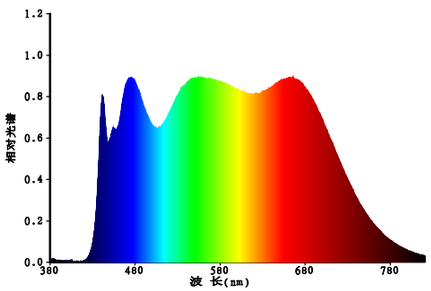


Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
35N	White light	1	8.5-9.5	100	2700-6000	140-150	CRI > 90

35V

- Violet excitation, no blue light hazard, meets RG0 standard.
- High similarity to the visible spectrum of sunlight.
- High color saturation and fidelity.
- Good spectral continuity, customizable.

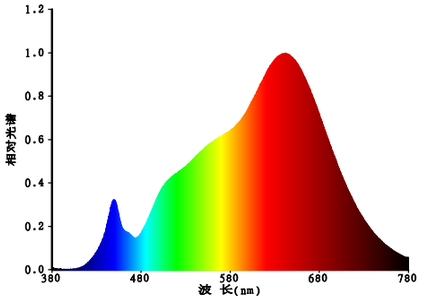

4000K


5000K

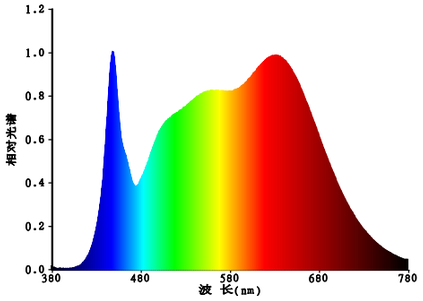
Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
35V	Violet-Excited Full Spectrum	0.2	3	60	2700-3500	100-120	CRI > 95 Rg > 98 Rf > 96
					4000-6500	120-140	

35C

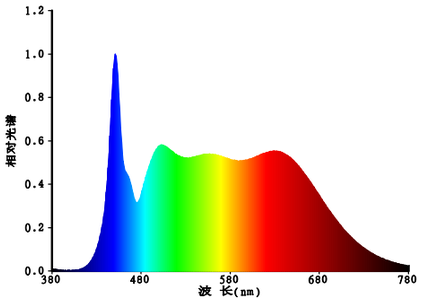
- High luminous efficacy, high CRI.
- No blue light hazard, meets RG0 standard.
- High color saturation and fidelity.
- Customizable, cost-effective.



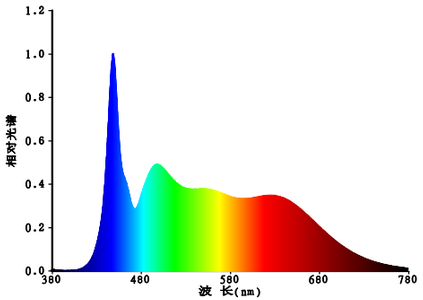
2700K



4000K



5000K



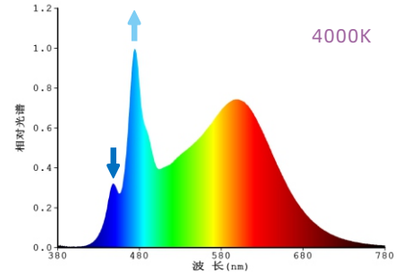
6500K

Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
35C	Single-blue (excitation)	0.2	3	60	2700-4000	140-170	CRI > 95 Rg > 98 Rf > 96
					4000-6500	150-180	
		0.5	3	150	2700-3500	120-150	
					4000-6500	130-160	
		1	9	100	2700-3500	110-140	
					4000-6500	120-150	

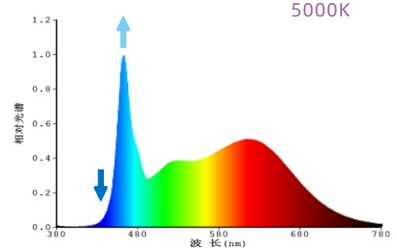
35G

Long-wave blue light can modulate melatonin secretion via the third type of photoreceptor cells (ipRGC), enhancing alertness.

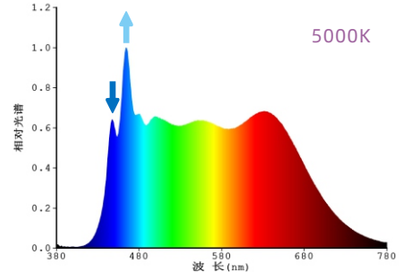
- Day Active Version: High long-wave blue light intensity boosts vitality;
  low short-wave blue light intensity ensures no blue light hazard.



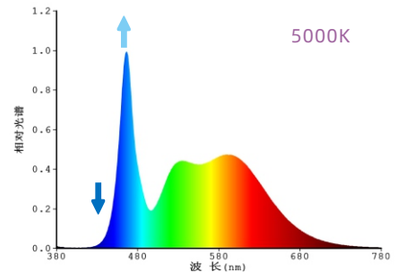
4000K



5000K

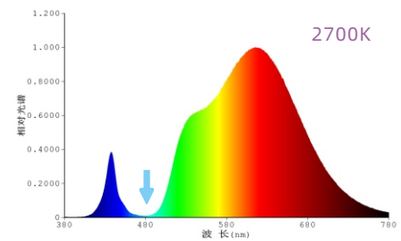


5000K

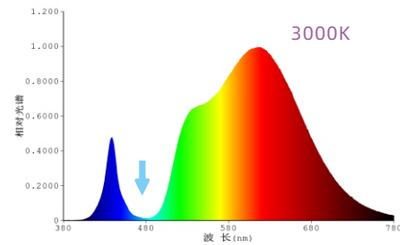


5000K

- Night Relaxing Version: Low long-wave blue light intensity promotes sleep;
  low short-wave blue light intensity ensures no blue light hazard.



2700K



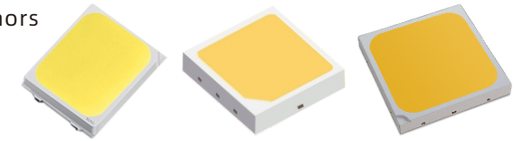
3000K

Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Flux (lm)	Color Rendering Index
35G-CD	White light	0.2	3	60	4000-6500	24-28	80,90
35G-CN	White light	0.2	3	60	2200-3500	22-26	70,80

Visible lighting - SMD Series

High light efficiency series

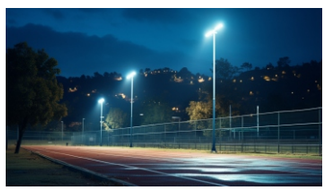
- Based on high quantum efficiency phosphors and advanced packaging technology.
- Ultra-high luminous efficacy.



Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Typical Luminous Efficiency (lm/W)	Color Rendering Index
KB-2835W**-HE	White light	0.2	3	60	4000-5700	≥260	70
						≥240	80
		1	9	100	4000-5700	≥225	70
						≥210	80
KB-3030W**-HE	White light	1	6	150	4000-5700	≥210	70
						≥190	80
			6	150（四芯）	4000-5700	≥230	70
						≥210	80
KB-5050W**-HE	White light	1	24	45	4000-5700	≥240	70
						≥215	80
			9	100	4000-5700	≥235	70
						≥210	80
			30	35	4000-5700	≥260	70
KB-5656W**-HE	White light	1	30	35	4000-5700	≥260	70
			36	30	4000-5700	≥240	80
KB-6060W**-HE	White light	1	30	35	4000-5700	≥265	70
			36	30	4000-5700	≥265	70
KB-7070W**-HE	White light	1	30/36/42/48/60	10-30	4000-5700	≥270	70

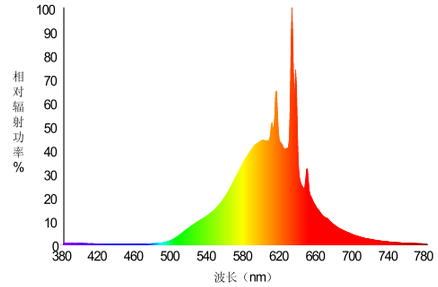
Product Applications

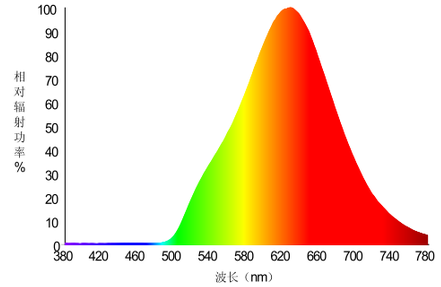
Suitable for: Downlights, street lights, floodlights, industrial lighting, indoor/outdoor commercial lighting, indoor smart home lighting, outdoor landscape lighting.



Blue-free golden light LED series

- Eye health protection.
- Animal friendly.
- High color purity, strong fog penetration

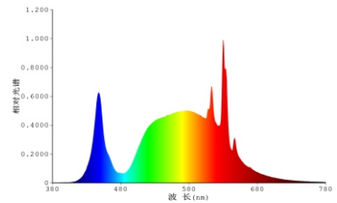




Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Typical Luminous Efficiency (lm/W)	Color Rendering Index
J210	Golden light	1-4	27-28	35	2100-2300	≥210	>80
J200					1800-2000	≥200	

High light efficiency LED FB series

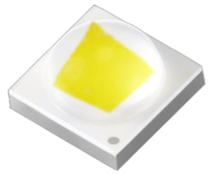
- Utilizes fluoride/nitride phosphor packaging technology;
- Independent intellectual property rights.



Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Flux (lm)	Color Rendering Index
FB250	White light	0.2	3	60	2700-6000	40-42	80
FB210	White light	1	6	150	2700-6000	190-200	80
FB220	White light	1	9	100	2700-6000	190-200	80

High light efficiency 3535 ceramic series

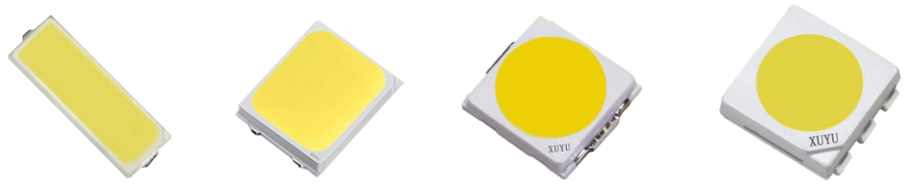
- High luminous flux
- High luminous efficacy
- Ceramic substrate, low thermal resistance, high reliability



Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Typical Luminous Efficiency (lm/W)	Color Rendering Index
CPG4-H	White light	1	3	350	4000-7000	220	70

Small and medium power series

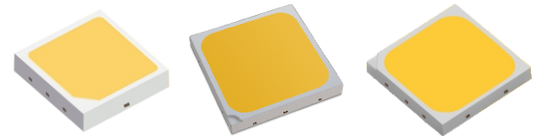
- Standard color binning, excellent anti-sulfurization performance
- High luminous efficacy, high cost-effectiveness
- High reliability, low lumen depreciation



Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
KB-4014W**	White light	0.2	3	60	2600-7000	140-180	70,80,90
KB-2835W**	White light	0.2	2.8-3.3	60	2600-7000	140-210	70,80,90
		0.5	2.8-3.3	150	2600-7000	130-185	70,80,90
			8.5-9.5	60		130-170	
		1	3.0-3.3	300	2600-7000	125-155	70,80,90
			5.8-6.4	150			
			8.5-9.5	100			
			17-20	60			
			34-38	30			
KB-3030W**	White light	0.5	2.8-3.3	150	2600-7000	130-185	70,80,90
		1	3.0-3.3	100	2600-7000	125-155	70,80,90
			5.8-6.4	150			
			8.5-9.5	100			
			17-20	60			
			34-38	30			
KB-5050W**	White light	0.2	3.0-3.4	60	2600-7000	160-180	70,80,90

EMC white light series

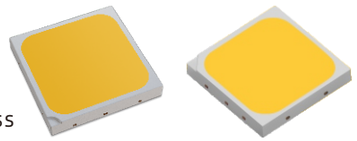
- High luminous efficacy
- high CRI (Color Rendering Index)
- Low power consumption
- Wide beam angle



Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
KB-3030W**	White light	1	6	150	2600-7000	170-200	70,80,90
KB-5050W**	White light	5	6	800	2600-7000	140-170	70,80,90
			9	550			
			24	200			
			30	150			
KB-7070W**	White light	10	12	800	2600-7000	140-170	70,80,90
			18	550			
			48	200			
			60	150			

High voltage series

- High luminous efficacy
- High reliability
- Replaces sub-10W COB solutions, high cost-effectiveness



Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Luminous Efficiency (lm/W)	Color Rendering Index
KB-5050W**	White light	3	235	15	3000-7000	140-170	90
		5	242	30	3000-7000	120-150	
KB-7070W**	White light	3	235	15	3000-7000	140-170	90
		5	242	30	3000-7000	120-150	
		7	245	30	3000-7000	110-140	
		8	250	30	3000-7000	110-140	

Small and medium SMD RGB/RGBW series

- Vivid colors, easy dimming
- Anti-sulfurization
- Anti-dead light
- Moisture resistance
- ROHS compliant

Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Color Temperature (K)	Luminous Flux (lm)	Luminous Intensity (mcd)	Color Rendering Index
KB-3030RGB	R	0.2	2.0-2.4	20	620-630	/	/	R:600-800 G:1500-1700 B:300-500	/
	G		2.8-3.2	20	515-530				
	B		3.0-3.4	20	460-475				
KB-3030RGB	R	0.6	2.0-2.4	60	620-630	/	/	R:800-1000 G:1600-1800 B:500-700	/
	G		2.8-3.2	60	515-530				
	B		3.0-3.4	60	460-475				
KB-3030RGB	R	1.5	2.0-2.4	150	620-630	/	/	R:5000-6000 G:10000-13000 B:2000-3000	/
	G		2.8-3.2	150	515-530				
	B		3.0-3.4	150	460-475				
KB-5050RGB	R	0.2	2.0-2.4	20	620-630	/	/	R:600-800 G:1400-1600 B:300-500	/
	G		2.8-3.2	20	515-530				
	B		3.0-3.4	20	460-475				
KB-5050RGBW	R	0.5	1.9-2.4	20	620-630	/	W:7-10	R:600-800 G:1400-1700 B:300-500	70,80
	G		2.6-3.0	20	515-530	/			
	B		2.6-3.0	20	460-475	/			
	W		3.0-3.4	20	/	4000-6500			
KB-5054RGB	R	1.5	2.0-2.4	150	620-630	/	/	R:5000-6000 G:13000-15000 B:3000-4000	/
	G		2.8-3.2	150	515-530				
	B		3.0-3.4	150	460-475				
KB-5054RGBW	R	2	2.2-2.6	150	620-630	/	W:120-140	R:5000-6000 G:13000-15000 B:3000-4000	70,80
	G		3.0-3.4	150	515-530	/			
	B		3.2-3.6	150	460-475	/			
	W		3.2-3.6	150	/	4000-6500			

Product Applications

suitable for indoor decorative lighting, landscape lighting, stage lights, etc.

Visible lighting -Ceramic high power series

Ceramic LED Products offer advantages such as high power, high reliability, high thermal conductivity, resistance to high temperature and humidity, and resistance to UV radiation, making them an excellent choice for high-power LEDs. In May 2022, the "Low Thermal Resistance High Reliability Ceramic LED" independently developed by KINGBRIGHT Optoelectronics passed the scientific and technological achievement appraisal by the China Light Industry Federation and was recognized as achieving "Internationally Advanced Level"!

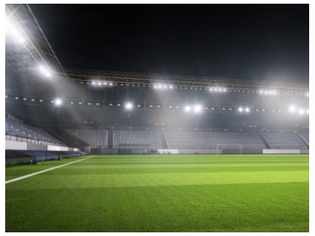
Typical Application Scenarios

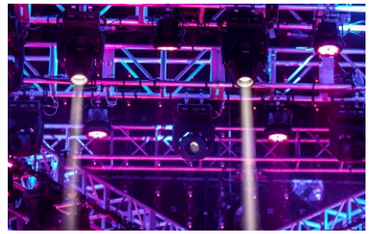
Ceramic products are mainly divided into white light, colored light, and RGB/RGBW series.

White light products are mainly suitable for: stadium lights, street lights, commercial lighting, portable lighting, etc.

Colored light products are mainly suitable for: outdoor lighting, landscape lighting, commercial lighting, decorative lighting, entertainment venues, etc.

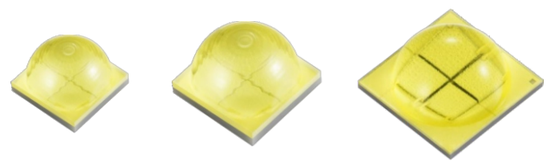
RGB/RGBW series products are mainly suitable for: outdoor lighting, stage lights, etc.





Mobile lighting series

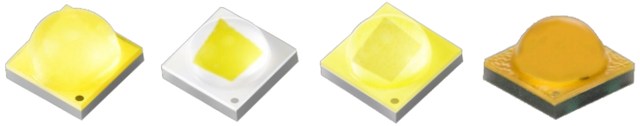
- High power
- Ultra-low thermal resistance
- Ultra-high lumen density



Model	Color	Power (W)	Voltage (V)	Current (mA)	Color Temperature (K)	Luminous Flux (lm)	Color Rendering Index	View Angle (°)
CHP35D	White	10	6.0-6.4	1500	6000-8000	1000-1200	70	120
CHP50D	White	18	6.0-6.4	1500	6000-8000	1200-1400	70	120
CHP70D	White	24	6.0-6.4	1500	6000-8000	1300-1500	70	120

Classic white light series

- Ceramic substrate, high luminous efficacy
- Surface light emission, high reliability



Model	Color Temperature (K)	Color Rendering Index	Luminous Flux (lm)	Voltage (V)	Current (mA)	View Angle (°)
CPG3-3535W1	5700-8000	70/80/90	150-200	2.8-3.1	350	120
CPG3-3535W2	4000-5000	70/80/90	140-200	2.8-3.1	350	120
CPG3-3535W3	2200-3500	70/80/90	140-180	2.8-3.1	350	120
CPG4-3535W1	5700-8000	70/80/90	140-190	2.8-3.1	350	120
CPG4-3535W2	4000-5000	70/80/90	140-190	2.8-3.1	350	120
CPG4-3535W3	2200-3500	70/80/90	120-180	2.8-3.1	350	120
CPGS-3535W1	5700-8000	70/80/90	120-200	2.8-3.1	350	120
CPGS-3535W2	4000-5000	70/80/90	120-200	2.8-3.1	350	120
CPT-3535W1	5700-8000	70/80/90	120-170	2.8-3.1	350	120
CPT-3535W2	4000-5000	70/80/90	120-170	2.8-3.1	350	120
CPT-3535W3	2200-3500	70/80/90	100-160	2.8-3.1	350	120

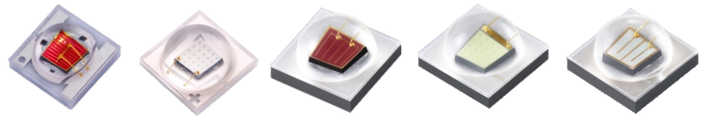
Dual-color temperature series

- Ceramic substrate, low thermal resistance, high reliability;
- Dual CCT (Correlated Color Temperature) crossover design, uniform color mixing;
- Customizable color temperature.

Model	Power (W)	Color Temperature (K)	Ra	Luminous Flux (lm)	Voltage (V)	Current (mA)	View Angle (°)
ST-C35	2	2700	95	170-190	6.0-6.2	350	120
	2	6000	95	180-200	6.0-6.2	350	120
ST-C35H	2	2700	95	150-190	6.0-6.2	350	120
	2	6000	95	160-180	6.0-6.2	350	120
ST-C50	2	2700	95	340-360	6.0-6.2	700	120
	2	6000	95	340-360	6.0-6.2	700	120
ST-C50H	2	2700	95	340-360	6.0-6.2	700	120
	2	6000	95	340-360	6.0-6.2	700	120

Ceramic monochrome light series

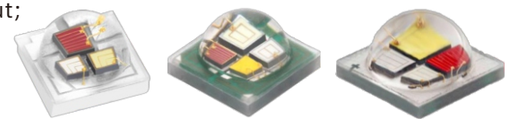
- Ceramic high-power, maximum operating current 1000mA
- High reliability
- high color fidelity



Model	Color	Voltage (V)	Current (mA)	Wavelength (nm)	Luminous Flux (lm)	View Angle (°)
CPE2-R	R	2.0-2.2	350	620-625	60-80	120
CPE2-G	G	2.8-3.0	350	520-525	140-160	120
CPE2-B	B	2.8-3.0	350	465-470	35-45	120
CPG2-R	R	2.0-2.2	350	620-625	80-100	120
CPG2-G	G	2.8-3.0	350	520-525	180-200	120
CPG2-B	B	2.8-3.0	350	465-470	40-50	120

RGB/RGBW series

- Ceramic-based thermoelectric separation packaging, high reliability;
- Full-color lighting, high color consistency;
- Multi-in-one packaging, high lumen output;
- High power, small size, flexible design.



Model	Color	Voltage (V)	Current (mA)	Color Temperature (K)	Wavelength (nm)	Luminous Flux (lm)	Color Rendering Index	View Angle (°)
CCF35	R	2.0-2.2	350	/	620-625	60-70	/	120
	G	2.8-3.0	350	/	520-525	110-120	/	
	B	3.0-3.2	350	/	455-460	20-25	/	
CCF35W	R	2.0-2.2	350	/	620-625	60-70	/	120
	G	2.8-3.0	350	/	520-525	110-120	/	
	B	3.0-3.2	350	/	455-460	20-25	/	
	W	3.0-3.2	350	2700-6000	/	100-120	70-80	
CCF50W	R	2.0-2.2	350	/	620-625	60-70	/	120
	G	2.8-3.0	350	/	520-525	120-130	/	
	B	3.0-3.2	350	/	455-460	23-35	/	
	W	3.0-3.2	350	2700-6000	/	110-120	70-80	

Visible lighting-COB series

Ceramic CB series

- Ceramic substrate, customizable power
- High thermal conductivity, high luminous efficacy

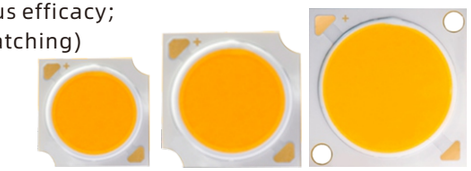
Model	Light Emitting Surface (mm)	Substrate Width (mm)	Max Power (W)	Binning I/V	Typical Lumens (@Binning Current, 4000K CCT, 70 CRI)	Typical Lumens per Watt (@Binning Current, 4000K CCT, 70 CRI)	Typical Lumens (@Binning Current, 3000K CCT, 80 CRI)	Typical Lumens per Watt (@Binning Current, 3000K CCT, 80 CRI)
CB1304	7.5	13	9	100 mA/36 V	564	158	500	148
CB1507	11	15	13	200 mA/36 V	1152	170	1015	150
CB1512	11	15	22	350 mA/36 V	1982	165	1746	145
CB1816	14	18	32	450 mA/36 V	2537	165	2236	146
CB1820	14	18	40	550 mA/36 V	3235	128	2850	148
CB2530	21	24	59	800 mA/36 V	4560	167	4018	147
CB2540	21	24	78	1100 mA/36 V	6267	167	5522	147
CB3050	23	30	90	1400 mA/36 V	8092	170	7129	150
CB3070	23	30	106	1900 mA/36 V	11054	162	9739	142
CB3590	30	35	137	2400 mA/36 V	14079	163	12404	144

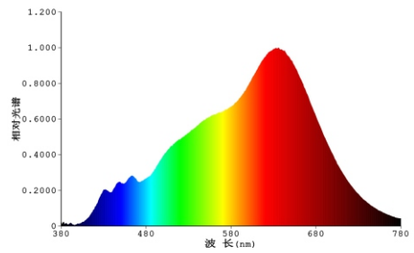
Product Applications

suitable for restaurant lighting, downlights, spotlights, and outdoor landscape lighting, etc.

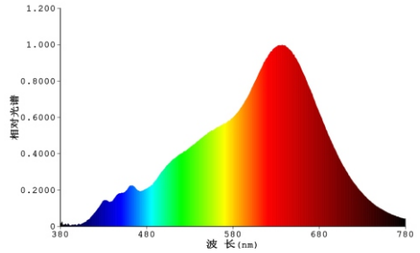
Mirror aluminum COB series

- Universal size and light-emitting area design,
- Compatible with a variety of lighting applications;
- Phosphor precipitation process ensures more uniform light color;
- High Color Rendering Index (CRI), high luminous efficacy;
- Three-step SDCM (Standard Deviation Color Matching) binning ensures excellent color consistency.

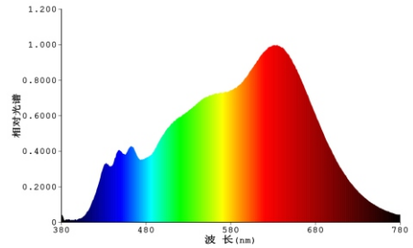




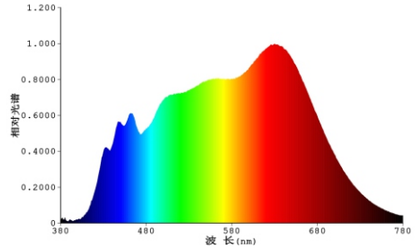
2700K



3000K



3500K

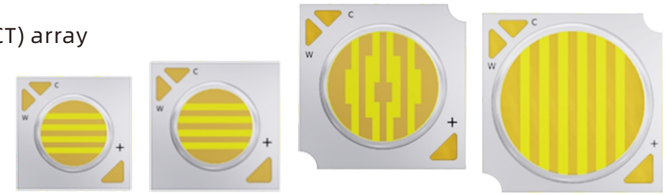


4000K

Model	Light Emitting Surface (mm)	Substrate Width (mm)	Max Power (W)	Binning I/V	Typical Lumens (@Binning Current, 4000K CCT, 70 CRI)	Typical Lumens per Watt (@Binning Current, 4000K CCT, 70 CRI)	Typical Lumens (@Binning Current, 3000K CCT, 80 CRI)	Typical Lumens per Watt (@Binning Current, 3000K CCT, 80 CRI)
CM1407	11	14	19	200 mA/36 V	1117	166	985	146
CM1412	11	14	28	350 mA/36 V	1917	160	1690	141
CM1420	11	14	49	550 mA/36 V	2961	158	2610	140
CM1922	16	19	57	600 mA/36 V	3224	164	2930	145
CM1925	16	19	64	700 mA/36 V	3834	163	3380	143
CM1930	16	19	77	800 mA/36 V	4447	162	3920	142
CM1945	16	19	94	1200 mA/36 V	6477	156	5710	137
CM2850	22	28	130	1400 mA/36 V	7997	169	7050	149
CM2870	22	28	153	1300 mA/54 V	10820	162	9450	143
CM2890	22	28	181	1600 mA/54V	13249	162	11680	143

Dual-color dimming ST-CW series

- Dual Color Temperature (CCT) array
- Uniform light outpu
- High luminous efficacy



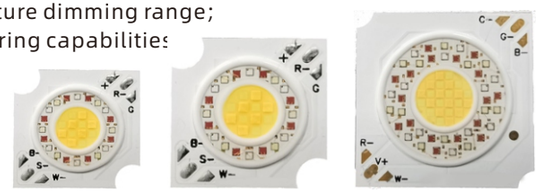
型号 Model	Light Emitting Surface (mm)	Substrate Width (mm)	Max Power (W)	CCT (K)	CRI	Voltage Typical (V)	IF (mA)	Typical Lumens (lm)	Typical Lumens per Watt (lm/W)
ST1308	7.5	13	9	2700	90	36	240	963	110
				6000	90	36	240	1051	120
ST1310	11	15	13	2700	90	36	300	1095	100
				6000	90	36	300	1205	110
ST1516	11	15	22	2700	90	36	480	1927	110
				6000	90	36	480	2102	120
ST1520	14	18	32	2700	90	36	600	2409	110
				6000	90	36	600	2698	120
ST1936	14	18	40	2700	90	36	1000	3650	100
				6000	90	36	1000	4015	110
ST1945	16	18	52	2700	90	36	1200	4380	100
				6000	90	36	1200	4818	110

Product Applications

suitable for downlights, spotlights, smart home lighting control, etc

Five-color dimming ST-CS series

- 1500K-20000K ultra-wide color temperature dimming range;
- Wide color gamut, unlimited color rendering capabilities
- RGB + CW (Cool White) solution offering high CRI and high luminous efficacy.



型号 Model	wavelength (nm)	CCT (K)	Typical Power (W)	Max Power (W)	Light Emitting Surface (mm)	Typical IF (mA)	Max IF (mA)	Min Voltage (V)	Max Voltage (V)	CRI	series-parallel structure
9.1411RGBCW-2765	R:620-630	/	3	5	ϕ10	350	400	7	9	/	1并4串
	G:520-530	/	3	5	ϕ10	350	400	7	9	/	1并3串
	B:450-460	/	3	5	ϕ10	350	400	7	9	/	1并3串
	/	C:6500	5	7	ϕ10	500	700	7	9	≥90	2并3串
	/	W:2700	5	7	ϕ10	500	700	7	9	≥90	2并3串
9.1611RGBCW-2765	R:620-630	/	6	8	ϕ11	700	800	8	10	/	2并4串
	G:520-530	/	6	8	ϕ11	700	900	8	10	/	2并3串
	B:450-460	/	6	8	ϕ11	700	900	8	10	/	2并3串
	/	C:6500	6	10	ϕ11	700	1000	8	10	≥90	2并3串
	/	W:2700	6	10	ϕ11	700	1000	8	10	≥90	2并3串
9.2111RGBCW-2765	R:620-630	/	12	18	ϕ16	350	400	34	40	/	1并17串
	G:520-530	/	12	18	ϕ16	350	500	34	40	/	1并12串
	B:450-460	/	12	18	ϕ16	350	500	34	40	/	1 12
	/	C:6500	12	18	ϕ16	350	500	34	40	≥90	1 12
	/	W:2700	12	18	ϕ16	350	500	34	40	≥90	1 12

Product Applications

suitable for restaurant lighting, downlights, outdoor landscape lighting, smart home lighting control, etc.

Visible lighting -Single K2 series

- High illuminance, stronger axial light intensity, illuminance is >50% higher than conventional light sources;
- Excellent light quality, no halo or color spots;
- High-temperature resistant packaging materials, supports reflow soldering.

Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Color Temperature (K)	Wavelength (nm)	Luminous Flux (lm)	Color Rendering Index
KB-1WW	W	1	3.0-3.4	350	2600-7000	/	100-160	70,80,90
		3	3.5-3.8	700			180-260	
KB-1WRGB	R	1-3	2.2-2.4	350-700	/	615-630	50-70	/
	G		2.8-3.2			515-525	110-160	
	B		3.0-3.4			460-475	30-50	
	W		2.2-2.4			560-590	50-70	
KB-3WRGB	R	3	2.2-2.4	350	/	615-630	40-60	/
	G		2.8-3.2			515-525	80-110	
	B		3.0-3.4			460-475	25-35	

Product Applications

- Indoor: Spotlights, ceiling lights, wall lights, downlights, track lights, corridor lights.
- Outdoor: Street lights, wall washers, underwater lights, buried lights, lawn lights.

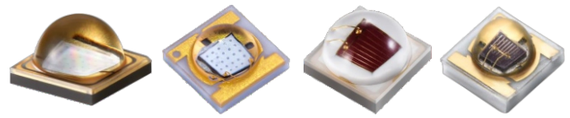
Non-Visual lighting-Plant lighting series

Different plants can have their light spectrum optimized based on growth characteristics by adjusting the LEDs and spectral composition.

Band	Color	Effect on Plants
300-415nm	Violet/UV	Primary energy for promoting pigment formation in plants. Directly affects the absorption of elements like phosphorus and aluminum, vitamin D formation, dry matter accumulation, and cuticle development.
415-500nm	Green/Yellow	Activates chloroplast activity and promotes photosynthesis.
500-600nm	Deep Red	Inhibits chloroplast activity, reducing photosynthesis.
600-700nm	Far Red	Significantly enhances photosynthesis and promotes plant growth, though excessive amounts can lead to overly elongated stems.
700-800nm	White	Primarily used in grow lights to regulate physiological activities such as shade avoidance and flowering.
380-780nm	White	Full spectrum with high quantum efficiency, providing a human-friendly working environment.

Plant light monochrome series

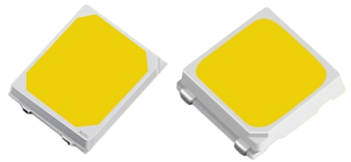
- High Photosynthetic Photon Efficacy (PPE), achieving internationally advanced levels;
- Concentrated spectral energy, precisely matching plant light supplementation bands;
- High reliability, long lifespan, and low thermal resistance.



Model	wavelength (nm)	Voltage (V)	Max Current (mA)	PPE (μmol/J)
DL28-R	655-665	1.8-2.0	150	3.0-4.0
DL28-FR	720-740	1.8-2.0	150	/
DL30-1.24	655-665	1.9-2.1	350	3.7-3.9
DL30-2.24	655-665	1.9-2.1	350	3.9-4.1
DL30-3.24	655-665	1.9-2.1	350	4.1-4.4
DL30-4.24	655-665	1.9-2.1	350	4.4-4.6
DL30-5.24	655-665	1.9-2.1	350	4.6-4.8
DL30-6.24	655-665	1.9-2.1	350	4.8-5.0
DL30-FR	725-740	1.8-2.0	150	/
DL30-UV	385-405	3.1-3.3	350	/
DL30-B	445-465	2.9-3.1	350	3.0-3.5

White light series

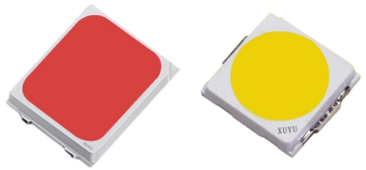
- High Photosynthetic Photon Efficacy (PPE), reaching internationally advanced levels
- Spectral coverage spans blue to red light absorption bands for plants, providing more efficient light nutrition
- Special protective technology offers excellent heat, moisture, and chemical resistance
- Provides a human-friendly working environment

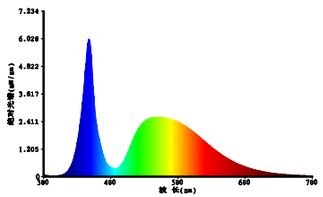


Model	PPE (μmol/J)	Luminous Flux (lm)	Color Rendering Index	Color Temperature (K)	Current (mA)	Voltage (V)
DL28-B	3.0-3.2	36-38	80	2700-6500	60	2.6-2.8
DL30-H	3.0-3.2	36-38	80	2700-6500	60	2.6-2.8
HCW35-551	2.6-3.0	190-200	80	2700-6500	350	2.8-3.2

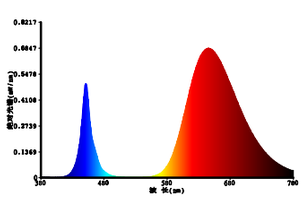
2835/3030 TOP LED - customized high efficiency plant spectra

- Cost-effective, customizable spectrum;
- Utilizes blue light-excited high quantum efficiency phosphors;
- Wavelength range covers 380-780nm;
- High Photosynthetic Photon Efficacy (PPE), exceeding 2.1μmol/J.

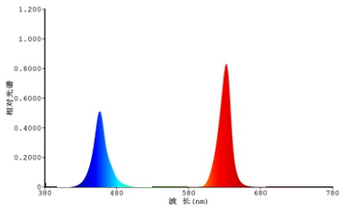




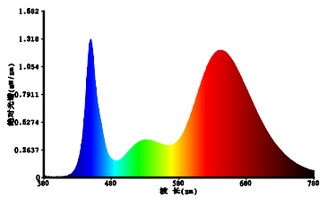
Q1-Seedling tissue culture white light



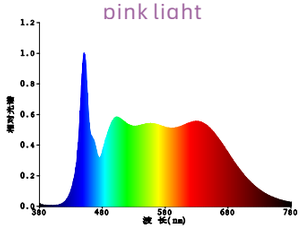
Q2-Flowering/fruit class pink light



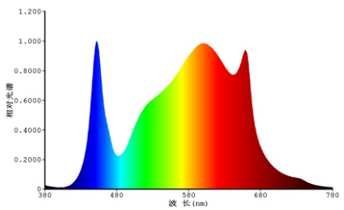
Q3-Tomato greenhouse



Q4-Succulent white light



Q5-Universal full spectrum

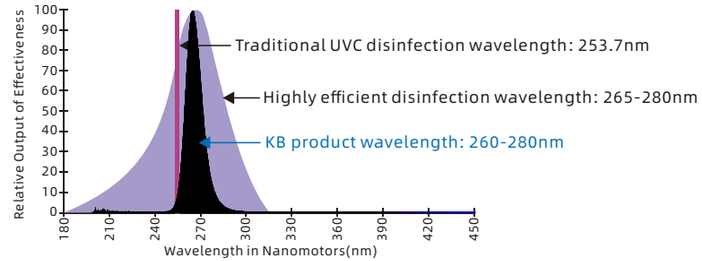


Q6-Medical cannabis cultivation

Non-Visual lighting-UV LED series

UVC 3535 aluminum nitride gold plated flat series

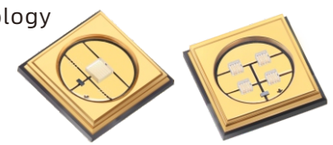
- Peak wavelength 260-280nm, highly efficient disinfection;
- High-reliability packaging with excellent air tightness and low thermal resistance;
- Compact size, low starting voltage, and flexible design;
- Compatible with various packaging pads.



Model	specifications	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiation Flux (mW)
KB-3535UVCAU0.5WX1FL-QU	Single-channel	Deep UV	0.5	5-7	60	260-280	6-10 10-12
KB-3535UVCAU1WX1FL-QU		Deep UV	1	5-7	100	260-280	12-20 20-25
KB-3535UVCAU0.5WX2FL-QU	Dual-channel	Deep UV	0.5	5-7	60	260-280	6-10 10-12
KB-3535UVCAU1WX2FL-QU		Deep UV	1	5-7	100	260-280	12-20 20-25

UVC 6868 aluminum nitride gold plated flat series

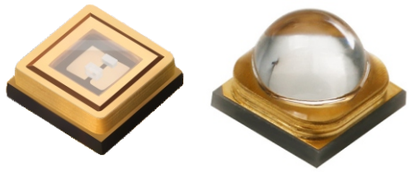
- Imported UVC LED chip + ultra-thermal conductive aluminum nitride substrate + high-reliability eutectic bonding technology
- 100mW power class UVC LED
- High optical power, excellent reliability
- Patent protected



Model	specifications	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiation Flux (mW)
KB-6868UVCAU4WX1FL-QU	High power	Deep UV	2	5-7	350	260-280	30-50
KB-6868UVCAU5WX1FL-QU-4C1B		Deep UV	5	20-25	200	260-280	100-120
KB-6868UVCAU4WX8FL-QU-2C4B		Deep UV	4	10-13	400	260-280	140-180

UVB 3535 aluminum nitride gold plated flat series

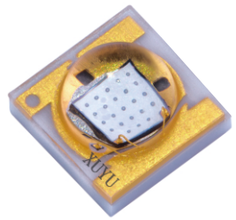
- Peak wavelength 295-315nm, suitable for medical lighting, plant lighting, etc
- High-reliability packaging with excellent hermetic sealing and low thermal resistance



Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiation Flux (mW)	View Angle (°)
KB-3535UVBAU0.5WX1XX-QU	Mid-wave UV	0.5	5-10	60	295-315	6-12	Planar/60/120
KB-3535UVBAU1WX1XX-QU	Mid-wave UV	1	5-10	100	295-315	12-20-30	Planar/60/120
KB-3535UVBAU2WX1XX-QU	Mid-wave UV	2	5-10	350	295-315	50-60	Planar/60/120

UVA-Silicone lens series

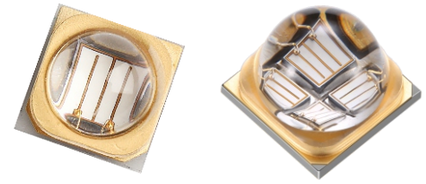
- High-quality chip with high radiant flux
- Silicone lens for effective light output
- High-reliability packaging with low thermal resistance



Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiation Flux (mW)	View Angle (°)
KB-3535UVAU-SI	Near UV	3	3.2-3.8	700	365-370	900-1200	60/120
					380-390	1200-1700	
					390-400	1200-1700	
					400-420	1100-1400	

UVA-Silicone quartz series

- High-quality chip with high radiant flux
- Semi-inorganic packaging ensures excellent hermetic sealing and high reliability
- Quartz lens for superior light output effect



Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiation Flux (mW)	View Angle (°)
KB-3535UVAU-QU	Near UV	3	3.2-3.8	700	365-370	900-1100	60/120
					380-390	1100-1500	
					390-400	1100-1500	
					400-420	1100-1400	
KB-6565UVAU-QU	Near UV	10	7.0-8.0	1400	365-370	3600-4200	60/120
			6.5-7.0	1400	380-390	4000-6800	
			11-16	700	390-400	4000-5000	
			12-14	700	400-420	4000-6800	

UVA-SMD series

- High-quality chip with high luminous efficiency
- Surface-mount design for flexible application
- UV-resistant adhesive for enhanced reliability

Model	Color	Power (W)	Forward Voltage (V)	Forward Current (mA)	Wavelength (nm)	Radiation Flux (mW)	View Angle (°)
KB-2835UV**	Near UV	0.2	3.2-3.8	60	395-405	50	120
KB-2835UV**	Near UV	0.5	3.2-3.8	150	395-405	150	120
KB-3030UV**	Near UV	1	3.2-3.8	350	385-405	300	120
KB-1WUV**	Near UV	1	3.2-3.8	350	385-405	300	140

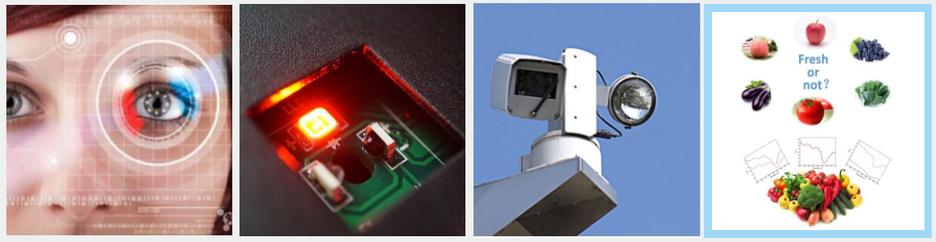
Non-Visual lighting-IR LED series

Infrared (IR) is invisible light with wavelengths longer than 780nm, categorized into near-infrared (NIR, 780nm-3μm), mid-infrared (MIR, 3μm-15μm), and far-infrared (FIR, 15μm-100μm). NIR LEDs are widely used in security surveillance, optical communications, smart homes, facial and iris recognition, biosensing, healthcare, augmented reality (AR), autonomous driving, and industrial inspection.

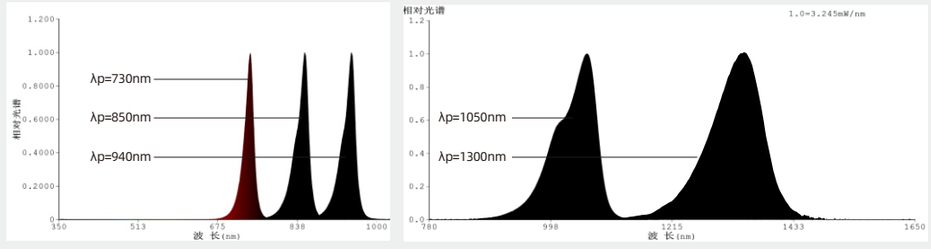
IR LED Wavelengths & Typical Applications

Wavelength	Typical Applications	Wavelength	Typical Applications
730	Plant Lighting, High-Definition Infrared	870	Surveillance, Eye-Trackin
810	Iris Recognition	900	Blood Oxygen Detection
830	High-Speed Surveillance, Payment Systems	940	Sensor Pairs, Transceivers
850	Security Monitoring, Machine Vision	1050	Food Detection, Healthcare
1300	Silicon-Based Material Detection, Healthcare	1550	Detection Systems, Healthcare

Infrared (IR) LED Applications



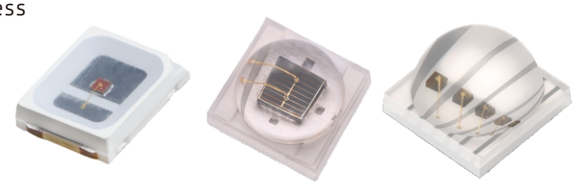
Infrared (IR) LED Spectrum



Typical Chip IR Spectrum

IR chip LED

- Surface-mount packaging with vertical heat dissipation structure
- High reliability and cost-effectiveness
- Suitable for surveillance, IR transmission/reception devices



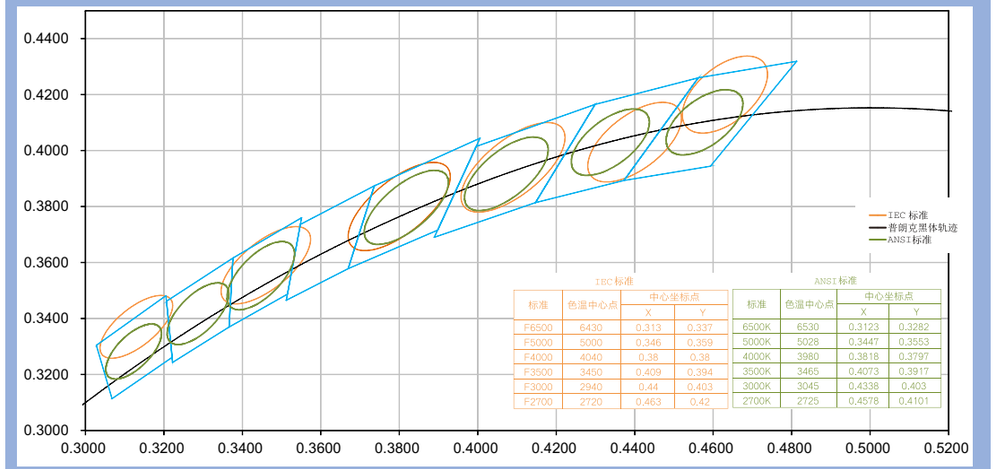
Model	Power (W)	Voltage (V)	Current (mA)	Wavelength (nm)	Radiation Flux (mW)	View Angle (°)
KB-2835IR-C01	0.2-0.5	1.4-1.6	60/150	850	50-100	120
				940	50-100	
KB-3535IR-AU3W60A SI	1-3	1.4-1.6	700	808-860	500-700	120
				940-1050	200-350	
KB-3535IR-AU3W120A SI	1-3	1.4-1.6	700	808-860	500-700	60
				940-1050	200-350	
KB-5050IR-AG9W120B SI	6-9	6-9	100	1020-1080	80-100	120
KB-5050IR-AG10W120B SI	7-10	7-10	100	1250-1350	40-80	

IR PC-LED plant light

- Phosphor-converted, surface-mount packaging with excellent heat resistance;
- High reliability and cost-effectiveness;
- Suitable for plant growth lighting (0.2W, 0.5W, etc.).

Model	Size L*W*H （mm）	IF(mA) Typ	VF(V) Typ	Ie(mw/sr) Typ (350-650nm)	Ie(mw/sr) Typ (650-1100nm)	λp (nm)	$2\theta_{1/2}$ (°)
IR30-CEDA-HBAP	3.0*3.0*0.6	100	3.0	8	17	730	120

Sorting solution for lighting products



IEC标准

标准	色温中心点	中心坐标点	
		X	Y
F6500	6430	0.313	0.337
F5000	5000	0.346	0.359
F4000	4040	0.38	0.38
F3500	3450	0.409	0.394
F3000	2940	0.44	0.403
F2700	2720	0.463	0.42

ANSI标准

标准	色温中心点	中心坐标点	
		X	Y
6500K	6530	0.3123	0.3282
5000K	5028	0.3447	0.3553
4000K	3980	0.3818	0.3797
3500K	3465	0.4073	0.3917
3000K	3045	0.4338	0.403
2700K	2725	0.4578	0.4101

Color Binning Reference Table

CCT	Bin	X1	Y1	X2	Y2	X3	Y3	X4	Y4
6500K	W65	0.3221	0.3435	0.3161	0.3487	0.3039	0.3305	0.3099	0.3253
5700K	W57	0.3397	0.3499	0.3325	0.3563	0.3177	0.3335	0.3249	0.3271
5000K	W50	0.3570	0.3672	0.3498	0.3736	0.3350	0.3508	0.3422	0.3444
4000K	Y40	0.3935	0.3888	0.3855	0.3960	0.3665	0.3712	0.3745	0.3640
3500K	R35	0.4224	0.4026	0.4142	0.4100	0.3956	0.3854	0.4038	0.3780
3000K	R30	0.4523	0.4106	0.4443	0.4178	0.4277	0.3954	0.4357	0.3882
2700K	R27	0.4741	0.4271	0.4661	0.4343	0.4519	0.4129	0.4599	0.4057

CIE 1931