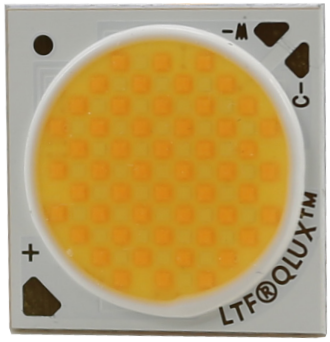
LTF TECHNOLOGY

POWERED BY LTF

LTCOBI1919906020 Dual Channel

Color Tuneable Chip on Board LED



LIGHT TUNE™ ADJUSTABLE CCT

Size	19 x 19mm
LES	15mm (OD)
Max Voltage	40.5V
Wattage	50W
Efficacy	84.7lm/W
Channels	Dual Channel
Tuneable CCT	2000K - 6000K
CRI/R9	95+/70+
Lumens	3750lm

c UL us

RoHS

CE

LTF's U.S. Patented QLUX Light Tune Series COB LEDs offer endless possibilities for lighting OEMs and designers. With industry leading adjustable CCT range, high efficacy, superior color rendering and best color over angle performance built into all QLUX LED light sources. Light Tune COBs let you dial in the perfect illumination for any architectural lighting application.

FEATURES

- Wide adjustable CCT range, ideal for humancentric lighting projects.
- Superior color rendering performance throughout CCT and dimming ranges.
- Excellent color uniformity and best color over angle with TIR optics.
- Customizable CCT and dimming curve options.
- Proven reliability; LM-80 9,000 hours completed.
- Low thermal resistance with long time reliability
- Dial in vibrant, cool CCT light for tasks requiring focus and energy, or promoting wakefulness in night shift workers.
- Transition to warm, cozy ambient light, to avoid blue light exposure before sleep.

APPLICATIONS

- Human-centric lighting
- Circadian lighting
- Architectural lighting
- Spot lights
- Down lights
- Pendants

MODEL SPECIFICATIONS

Model Number	Wattage	Current		Voltage		Luminous Flux	CRI	R9
		Warm If(mA)	Cool IF(mA)	Warm Vf(V)	Cool Vf(V)			
LTCOBi191990620 (warm channel)	38W	1000mA	--	38.60V	--	3300lm	95+	70+
LTCOBi191990620 (cool channel)		--	1000mA	--	37.62V	2100lm	95+	70+

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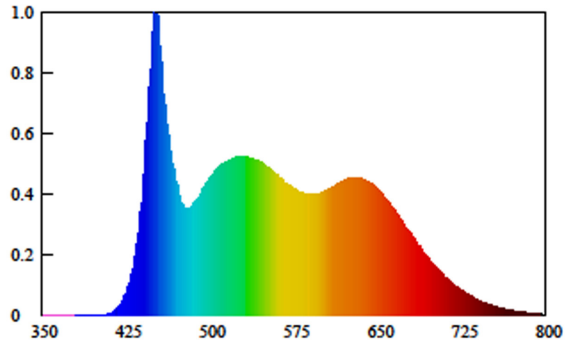
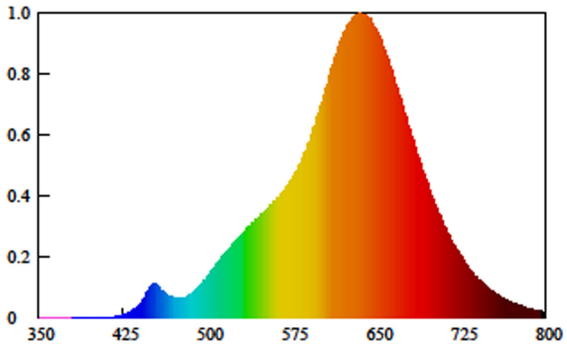
SPECTRORADIOMETRIC CHARTS

6000K

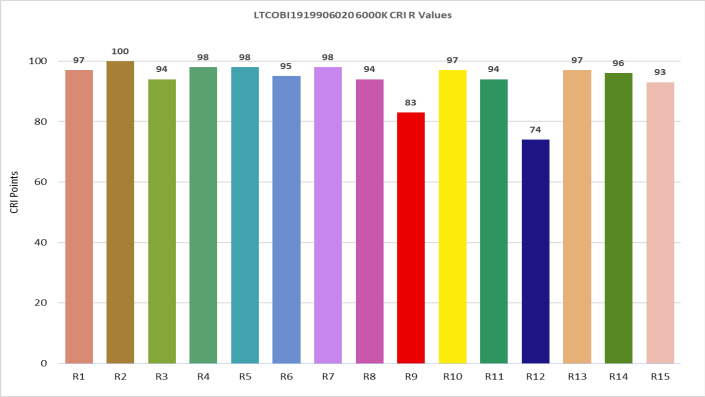


2000K

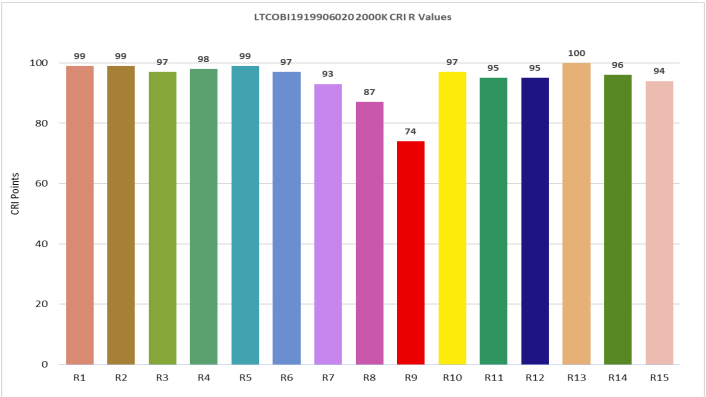


CRI CHARTS

6000K

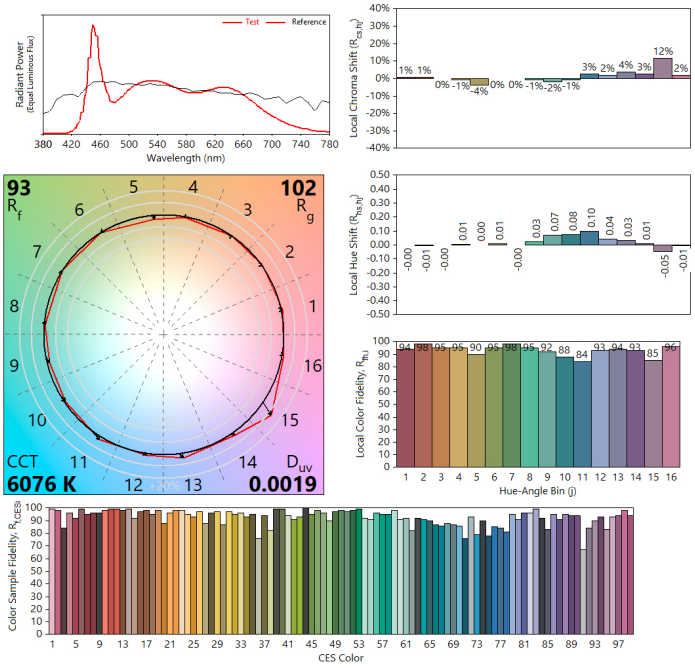


2000K

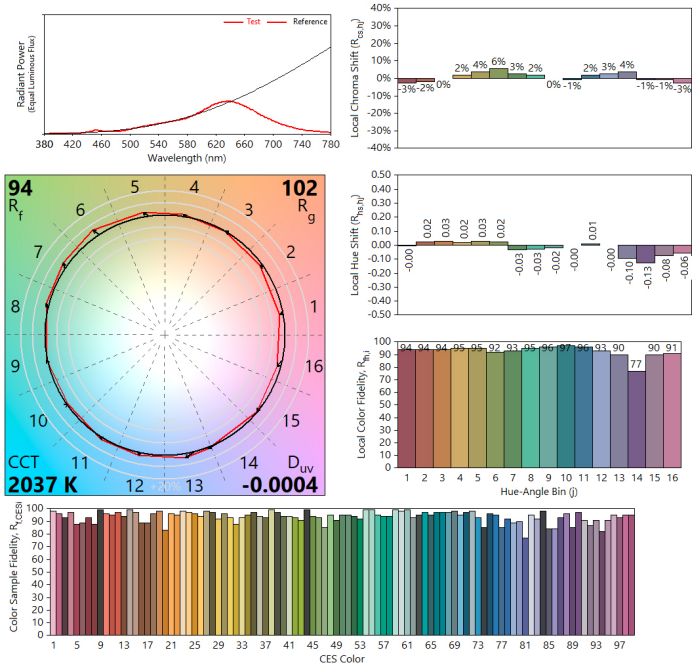


TM30

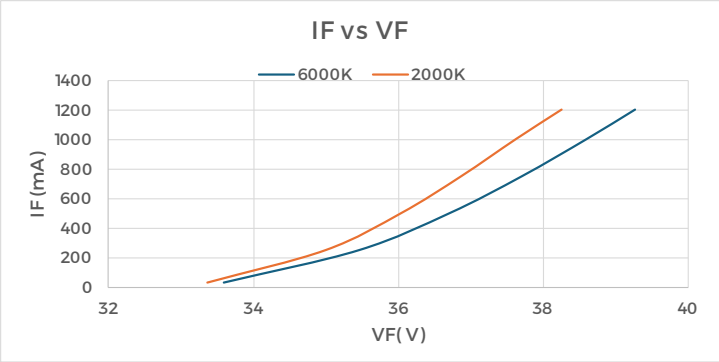
6000K

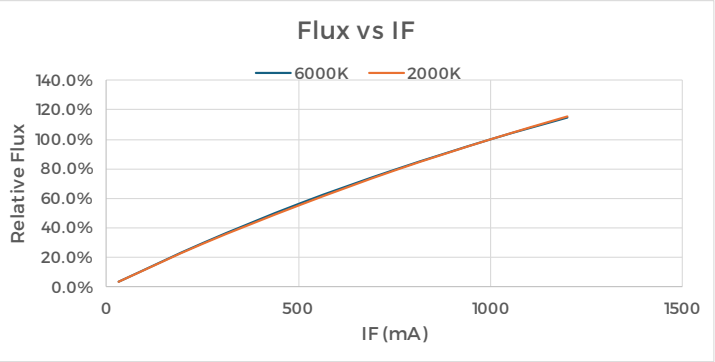


2000K



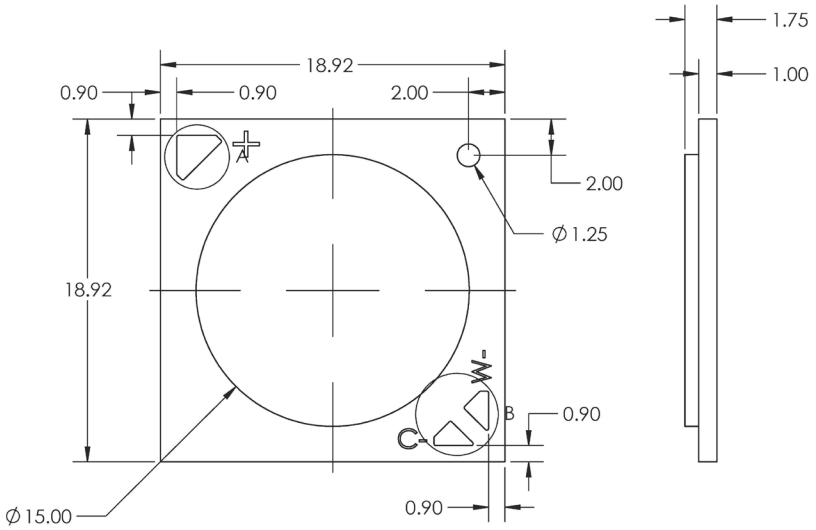
DIMMING CURVES





MECHANICAL SPECS

Dimensions	Light Emitting Surface
18.92mm x 18.92mm x 1.75mm	15mm



RECOMMENDED LTF LED DRIVER

Model	Power	Input	Constant Current Output	Channels	Voltage Range	Dimming
DS42W1000C2042CH2BTW-0000	42W	120, 277VAC	1000mA	2	20-42V	0.10V
DS42W1050C2040SM2UD-0000	42W	120-277VAC	1050mA	1	20-42V	CL, ELV, 0-10V
DS40W830C3046	40W	120,277VAC	830mA	1	30-46V	CL, ELV, 0-10V
DS40W750C3054LI2UD-0000	50W	120,277VAC	750mA	1	30-54V	CL, ELV, 0-10V
DS50W1050C3048RUD-0000	50W	120,277VAC	1050mA	1	30-48V	CL, ELV, 0-10V
DS50W1050C3248BR2UD-3002	50W	120,277VAC	1050mA	1	32-48V	CL, ELV, 0-10V
DS30W700C2042CH2BWT-0000	30W	120,277mA	700mA	2	20-42V	0-10V

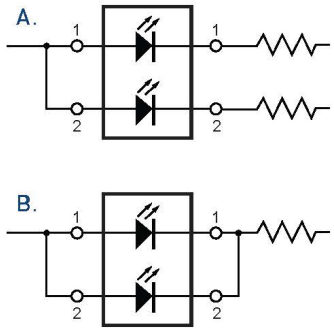
Color Tuning & IoT Control

Model	Power	Input One Channel	Constant Current Output	Channels	Voltage Range	Dimming
SI2X250WD1552SL2-2	250W	Constant Current	Depends on Driver	2	15-52V	Depending on Driver
SI2X250WD1552PT2-1	250W	Constant Current		2	15-52V	

Parameter	Maximum Rating	
Allowable Reverse Current (I_R)	None	
LED Junction Temperature (T_J)	130°C	
Storage Temperature	-40°C to +125°C	
Operating Case Temperature (T_c)	100°C	
Soldering Temperature	380°C or lower, 5 seconds max.	
Maximum Total Drive Current	1200mA	
Maximum Drive Current Per Channel	**Warm Channel**	**Cool Channel**
	1200mA	1200mA
Maximum Total Power	50W	

APPLICATION NOTES

Operating at a constant current per circuit is recommended.
If constant voltage operation is desired, the circuit shown in figure A is recommended.
The circuit shown in figure B is not recommended. In this configuration, normal variations in forward voltage characteristics may cause current to be unstable.
Dimming with pulse width modulation is recommended. Variations in current resulting from other methods of dimming may cause color shifting in the COB.



APPLICATION NOTES

Caution: Do not touch or apply pressure to the light emitting surface (LES) of the COB. Doing so may damage the LED array.
Do not mount reflectors or optics in contact with the LES. Contact with surfaces of the COB outside of the LES is acceptable for mounting optical devices.
Do not handle COB with bare hands - oils from skin may contaminate the light emitting surface and affect light output.
Apply thermal grease between COB and fixture housing / heat sink to ensure efficient dissipation of excess heat.
Electrostatic discharge (ESD) and excessive transient voltages may damage the COB. Take precautions such as grounded wrist straps and ESD mats when installing / handling the COB.

STORAGE CONDITION

Before opening sealed packaging:
- Temperature 5°-30°C
- Relative humidity less than 60%.

After opening:
- Temperature 5°-30°C
- Relative humidity less than 60%.
- Apply solder within one week of opening.
- LED should be kept in moisture proof foil bag with silica gel desiccant packet.

CHEMICAL COMPATIBILITY

Certain compounds can be absorbed by the resin that encapsulates the light emitting surface, potentially causing reactions that may reduce light output or physically damage the COB. The following compounds are not recommended for use with QLUX COBs:

- Acetates
- Acetic Acid
- Acrylates
- Aldehydes
- Amines
- Benzene
- Dienes
- Ethers
- Cl, F or Br compounds
- Liquid Hydrocarbons
- Ketones
- Nitric Acid
- Phosphoric Acid
- Potassium Hydroxide
- Siloxanes, Fatty Acids
- Sodium Hydroxide
- Sulfur Compounds
- Sulfuric Acid
- Tolulene
- Xylenes

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CLEANING

Do not clean COBs with water, benzene and/or thinner. Use isopropyl alcohol (IPA) only. If another solvent is used, it may cause the LED package / resin to be damaged. Do not clean COBs with an ultrasonic cleaner. To clean the COB, moisten a clean non-abrasive cloth with isopropyl alcohol, avoiding excess liquid / drips. Gently wipe COB surfaces (Do not apply pressure to the light emitting surface) to remove any dust, finger prints, etc..

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