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High CRI Chip on Board LED

**QLUX COB Platinum 15x12mm 12W
Dim-to-Warm 2700K-1800K CCT**



QLUX COB



Typical Lumens	≈ 950 lm
Typical Wattage	12W
CRI / R9	95 /66
CCT Range	2700K dims to 1800K
Dimming	CCR; constant current reduction



QLUX COB mimics the color shift of an incandescent source during dimming by a single phase dimmer. Also available in line voltage models.

FEATURES

- Precise light output with no additional need for complicated control system or multiple optics.
- Dim-to-Warm; CCT warms to a cozy 1800K as its is dimmed.
- High color rendering index (CRI) Ra max. 95, R9 66.
- LM-80 compliant LEDs.
- Tight binning 3 step Mac Adam Ellipses.
- Uniform and crisp light source intensity.
- Low heat generation, easy thermal management.
- Easy to fit in new design or retrofit applications.

APPLICATIONS

For architectural, residential, hospitality, retrofit, and general lighting fixtures.

- Spot lighting
- Down lighting
- Recessed can lighting
- Ceiling lighting
- Wall sconces
- Table lamps
- Pendants
- Track heads

GENERAL SPECIFICATIONS

Model	Wattage	CCT (No Dim)	CCT (100% Dim)	CRI, R9	Luminous Flux
QLUXCOBI1512902718WD	12W	2700K	1800K	95, 66	≈ 950 lm*

* at 350mA

CHARACTERISTICS (Tc=25°C)

CCT	Item	Symbol	Condition	Min.	Typ.	Max.	Unit
1800K	Forward Voltage	VF	I =50mA	26	(34.0)	36	V
	Luminous Flux	Φ		8.15	--	--	lm
	Chromacity Coordinates	x		--	(0.5357)	--	--
		y		--	(0.4160)	--	--
	General Color Rendering Index	Ra		90	(90.4)	--	--
2700K	Forward Voltage	VF	I =350mA	31	(34)	39	V
	Luminous Flux	Φ		948	(950)	--	lm
	Chromacity Coordinates	x		--	(0.4590)	--	--
		y		--	(0.4120)	--	--
	General Color Rendering Index	Ra		94.6	(95)	--	--



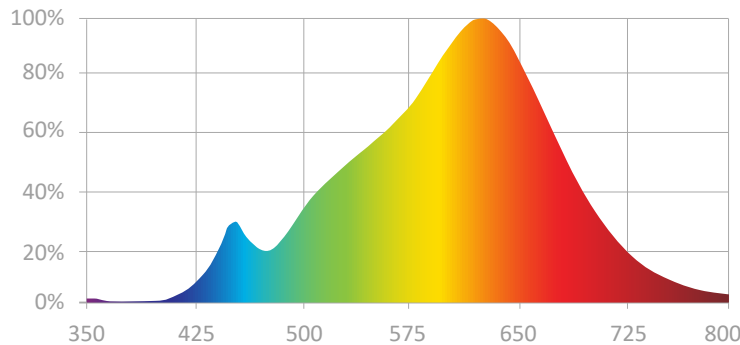
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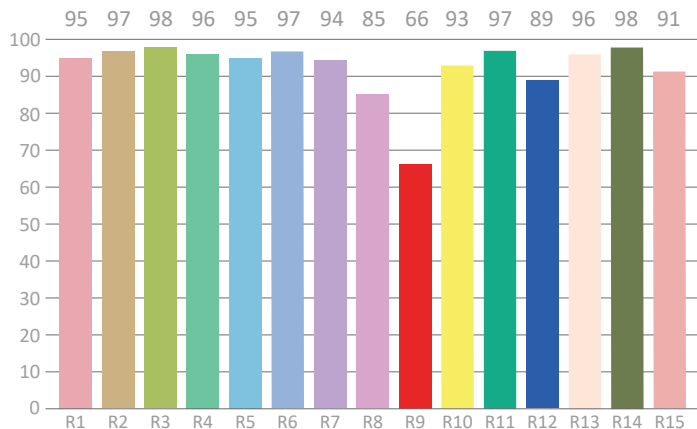


SPECTRORADIOMETRIC CHARACTERISTICS - 2700K



Luminous Flux: 948.06
Radiant Flux: 3.591 W
Efficacy: 79.0 lm/W
Nominal CCT: ANSI_F2700K
 $x_0=0.4590$ $y_0=0.4120$
Chromaticity Coordinates:
 $x=0.4603$ $y=0.4125$ $u'=0.2619$ $v'=0.5282$
Chromaticity Difference: +0.00067Duv
CCT: 2708K

CRI TEST RESULTS - 2700K



Color Rendering Index (CRI): Ra=94.6
Dominant Wavelength: 582 nm(E)
Peak Wavelength: 630nm
Colour Fidelity Index: Rf=93
Gamut Index: Rg=99
Color Purity: 0.6247
Color Ratio: Kr=46.4% Kg=46.3% Kb=7.3%
Color Tolerance (SDCM): 0.7
Bandwidth: 153.1nm

R1=95	R2=97	R3=98	R4=96	R5=95	R6=97	R7=94	R8=85
R9=66	R10=93	R11=97	R12=89	R13=96	R14=98	R15=91	Re=92

* Test result shown based on 2700K CCT (Full Power)

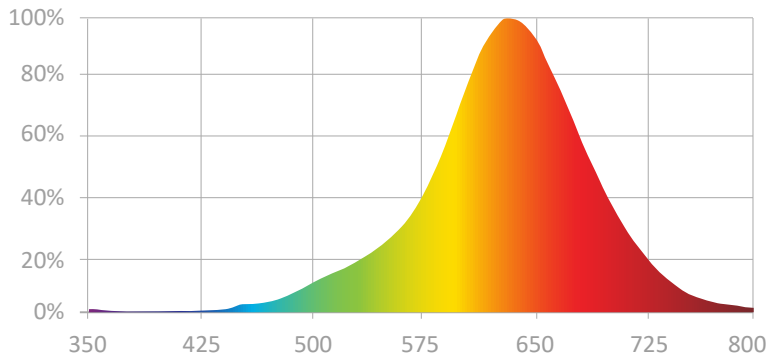


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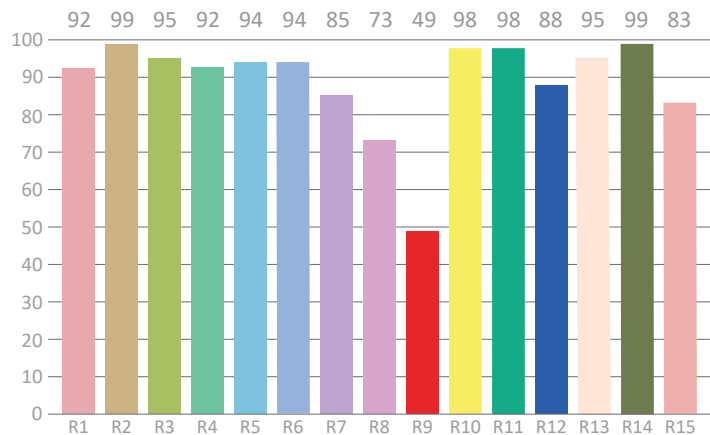
**QLUX COB Platinum 15x12mm 12W
Dim-to-Warm 2700K-1800K CCT**

SPECTRORADIOMETRIC CHARACTERISTICS - 1800K



Luminous Flux: 8.15
Radiant Flux: 0.039 W
Efficacy: 74.1 lm/W
Nominal CCT: ANSI_F2700K
 x0=0.4590 y0=0.4120
Chromaticity Coordinates:
 x=0.5652 y=0.4066 u'=0.335 v'=0.5422
Chromaticity Difference: +0.00099Duv
CCT: 1686K

CRI TEST RESULTS - 1800K



Color Rendering Index (CRI): Ra=90.4
Dominant Wavelength: 590 nm(E)
Peak Wavelength: 630nm
Colour Fidelity Index: Rf=86
Gamut Index: Rg=88
Color Purity: 0.9287
Color Ratio: Kr=63.2% Kg=33.3% Kb=3.5%
Color Tolerance (SDCM): 0.039
Bandwidth: 107.4nm

R1=92	R2=99	R3=95	R4=92	R5=94	R6=94	R7=85	R8=73
R9=49	R10=98	R11=98	R12=88	R13=95	R14=99	R15=83	Re=89

* Test result shown based on 1800K CCT (Fully Dimmed)



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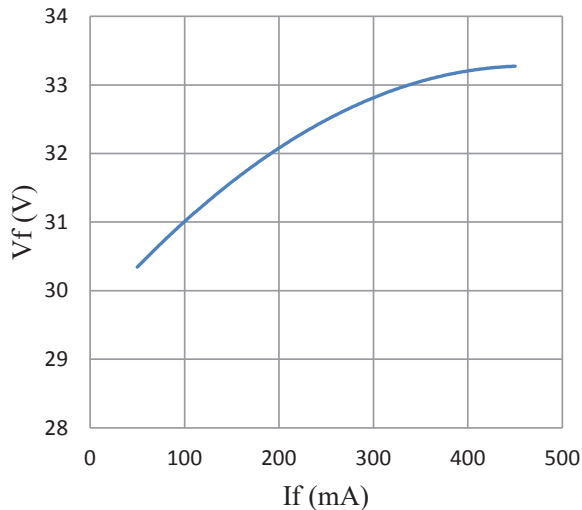
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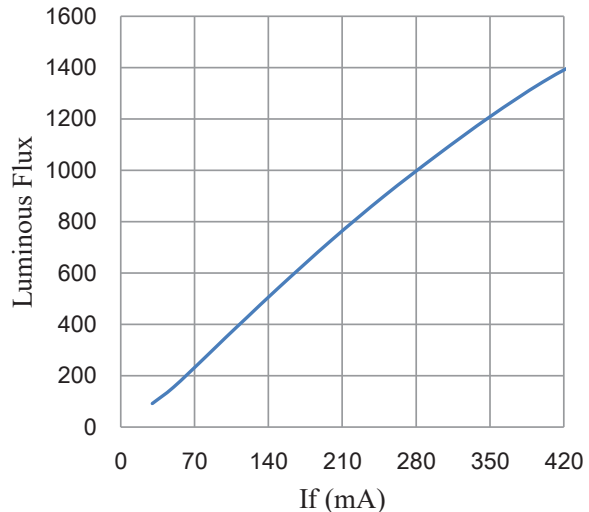
ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

	Symbol	Absolute Maximum Rating	Unit
Forward Current	If	420	mA
Peak Power	P	16.9	W
Reverse Voltage	vr	-15	V
Operating Temperature	TOPR	-30~+100	°C
Storage Temperature	Tstg	-40~100	°C
Hand soldering condition	Tsld	3.5sec@350°C	sec
Case Temperature	Tc	100	°C
LED Junction Temperature	Tj	125	°C
Temperature of central silicon surface	Ts	125@IRDA Test	°C

**FORWARD CURRENT
VS. FORWARD VOLTAGE**



**FORWARD CURRENT
VS. RELATIVE LUMINOUS FLUX**





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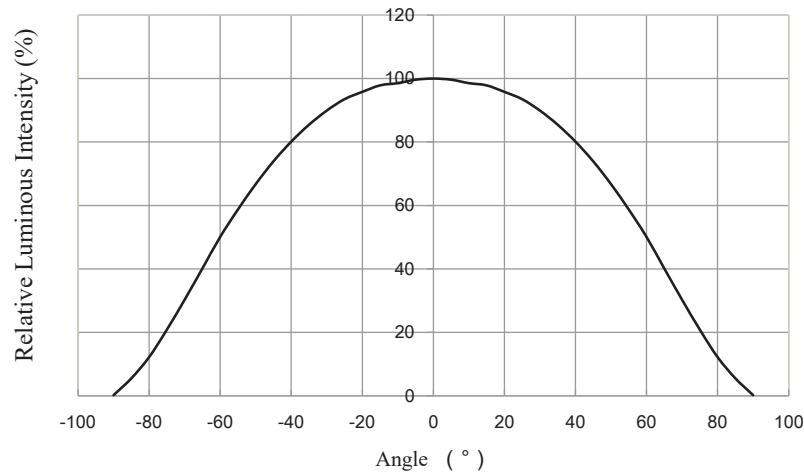
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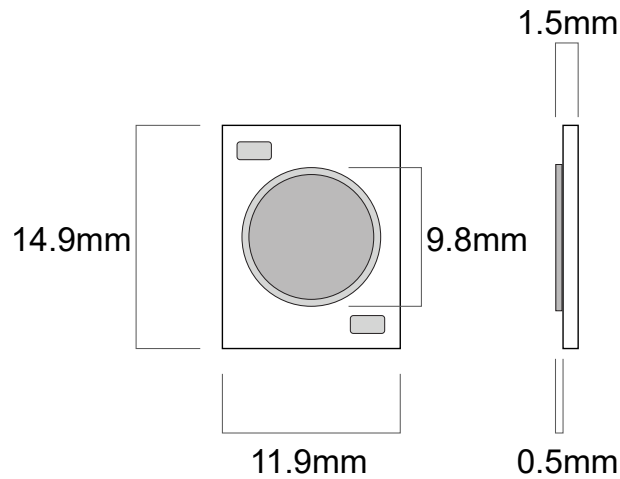
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TYPICAL SPATIAL DISTRIBUTION



MECHANICAL SPECIFICATIONS



US Patent
#10297584



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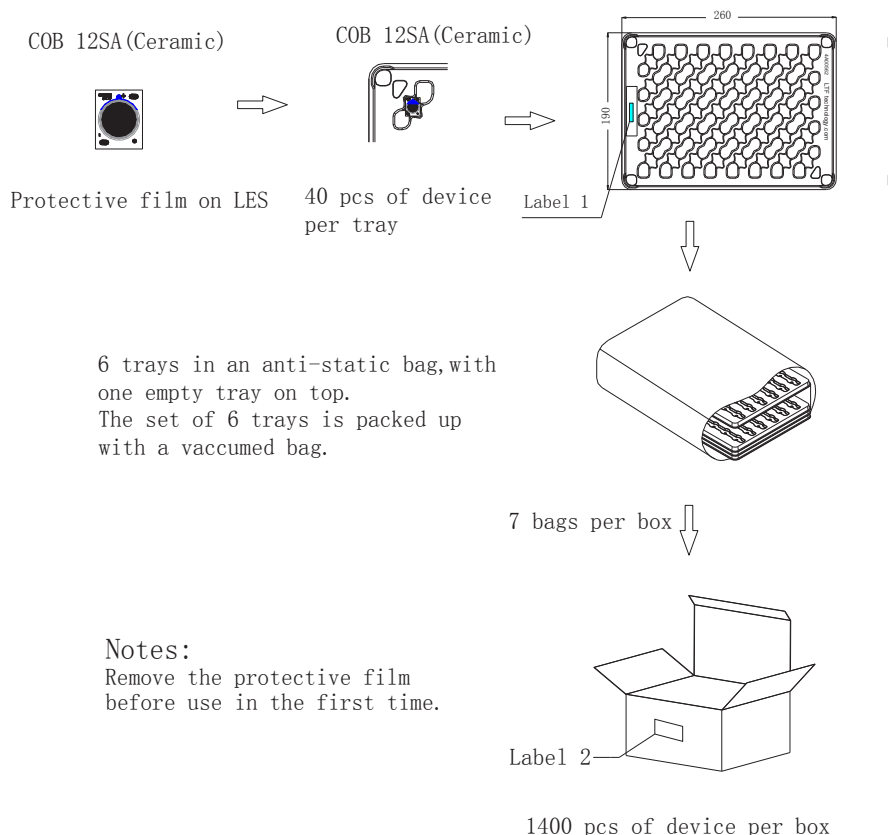
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COMPATIBLE LTF LED DRIVERS

Model #	Input Voltage	Input Current	Output Voltage	Output Current	Dimming
DA15W350C1042-3001	120V AC 50/60Hz	0.125 A	10-42V DC	350mA	Triac/ELV
DA15W350C1842D010	120V AC 50/60Hz	0.125 A	18-42V DC	350mA	Triac/ELV/ 0-10V
DE15W350C1842D010	277V AC 50/60Hz	0.054 A	18-42V DC	350mA	Triac/ELV/ 0-10V
DS15W350C1042UD	100-305V AC 50/60Hz	0.15 A	10-42V DC	350mA	Triac/ELV/ 0-10V
DL115W350C	12V AC/DC 50/60Hz	0.05 A	18-42V DC	350mA	ELV / Magnetic ELV
DL215W350C	24V AC/DC 50/60Hz	0.05 A	18-42V DC	350mA	ELV / Magnetic ELV

PACKAGING INFORMATION



Notes:
 Remove the protective film before use in the first time.