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High CRI Chip on Board LED

**QLUX COB Platinum 15x12mm 12W
Dim-to-Warm 3000K-1800K CCT**



QLUX COB



US Patent
#10297584

Typical Lumens	≈ 1200 lm
Typical Wattage	12W
CRI / R9	98 / 95
CCT Range	3000K 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. 98, R9 95.
- 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
QLUXCOB1512903018WD	12W	3000K	1800K	98, 95	≈ 1200 lm*

* at 350mA

CHARACTERISTICS (Tc=25°C)

CCT	Item	Symbol	Condition	Min.	Typ.	Max.	Unit
1800K	Forward Voltage	VF	I =50mA	28	(34.0)	36	V
	Luminous Flux	Φ		116	(134.0)	--	lm
	Chromacity Coordinates	x		--	(0.5357)	--	--
		y		--	(0.4160)	--	--
	General Color Rendering Index	Ra		81	(85)	--	--
3000K	Forward Voltage	VF	I =350mA	31	(35)	39	V
	Luminous Flux	Φ		1013	(1150)	--	lm
	Chromacity Coordinates	x		--	(0.4338)	--	--
		y		--	(0.4030)	--	--
	General Color Rendering Index	Ra		98	(96)	--	--



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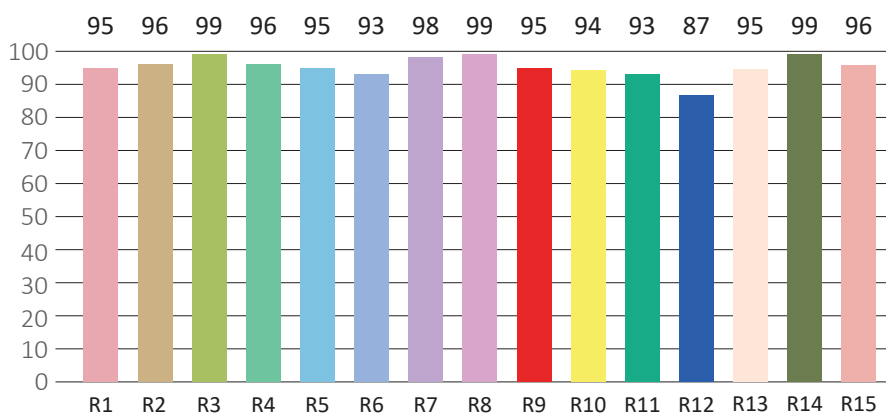
**QLUX COB Platinum 15x12mm 12W
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COBi Photometric Parameters*	
Luminous Flux:	≈ 1200 lm
Radiant Power:	1790 mW
Efficacy:	≈ 82 lm/W

* Test result shown based on 3000 CCT

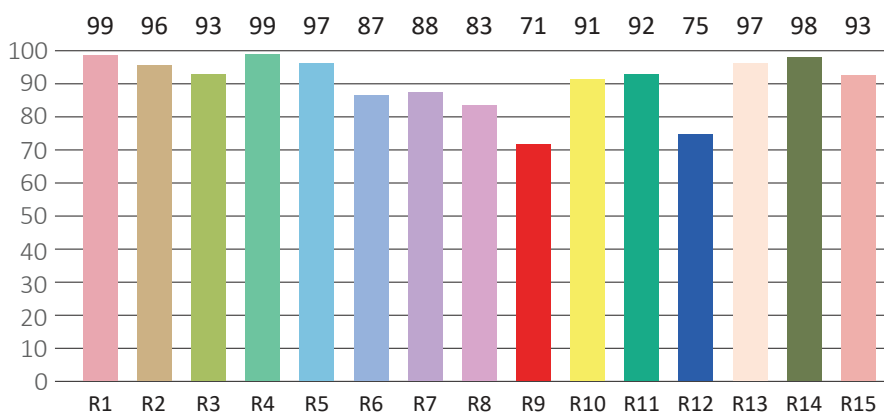
CRI TEST RESULTS - 3000K



R1=95	R2=96	R3=99	R4=96	R5=95	R6=93	R7=98	R8=99
R9=95	R10=94	R11=93	R12=87	R13=95	R14=99	R15=96	

* Test result shown based on 3000 CCT

CRI TEST RESULTS - 1800K



R1=99	R2=96	R3=93	R4=99	R5=97	R6=87	R7=88	R8=83
R9=71	R10=91	R11=92	R12=75	R13=97	R14=98	R15=93	

* Test result shown based on 1800 CCT



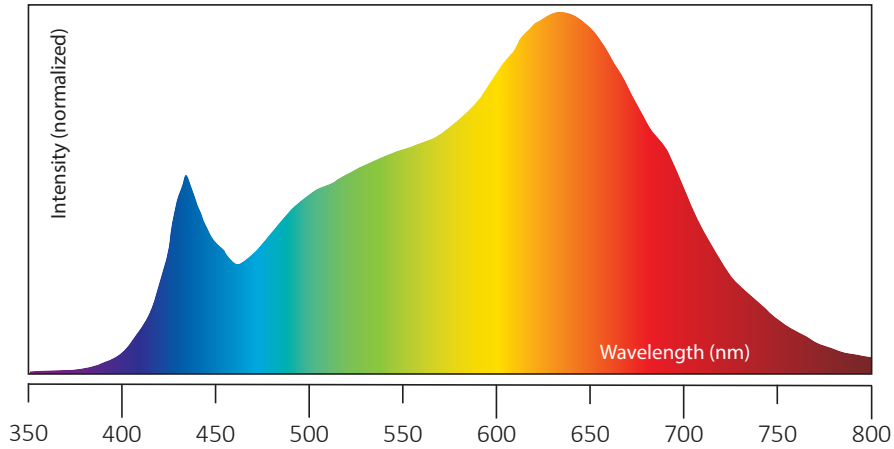
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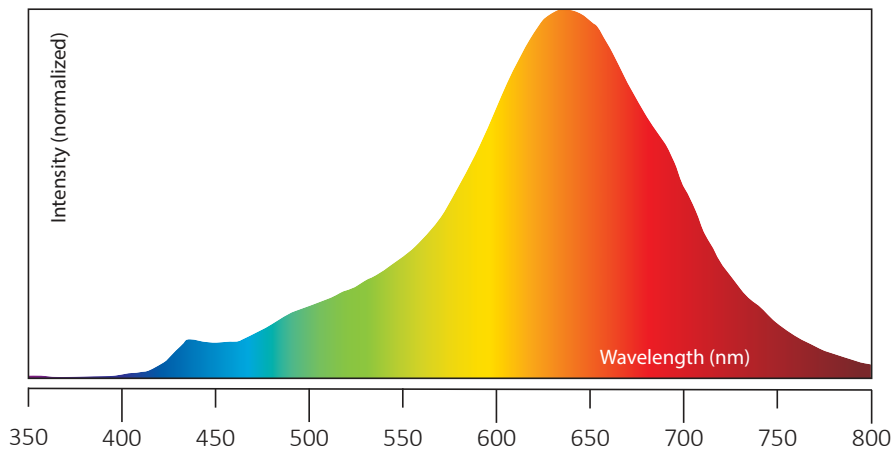
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SPECTRORADIOMETRIC CHARACTERISTICS AT 3000K



SPECTRORADIOMETRIC CHARACTERISTICS AT 1800K



CIE Colorimetric Parameters*	
Chromaticity Coordinates	x=0.4338 y=0.4030
CCT	3052K
Peak Wavelength	635 nm
Dominant Wavelength	582 nm
Rendering Index	96.4
Color Ratio	R=42.8%, G=47.6%, B=9.6%
Half Bandwidth	177.8 nm
Color Purity	0.4443

* Test result shown based on 3000 CCT

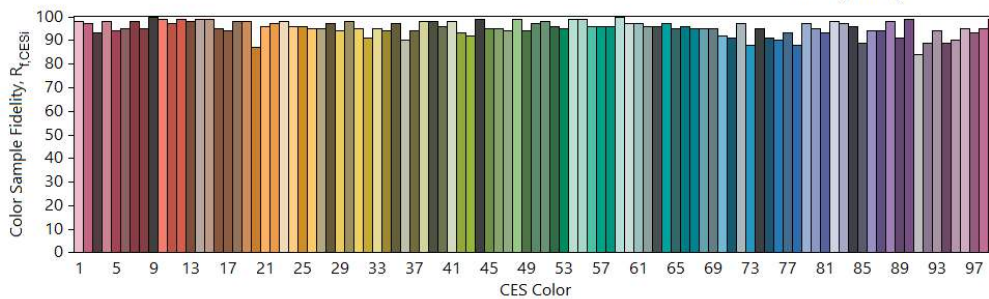
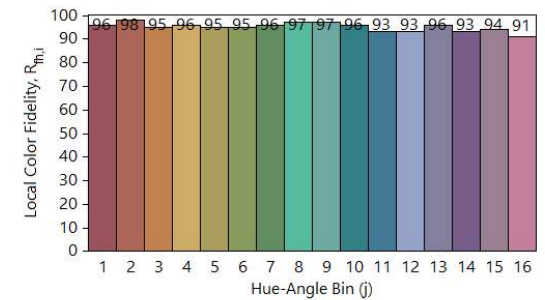
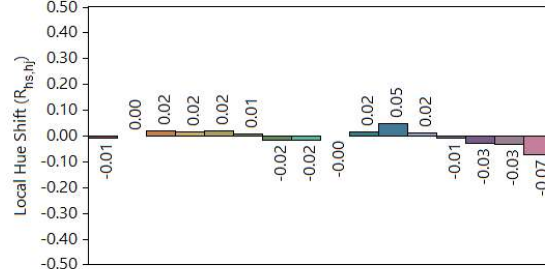
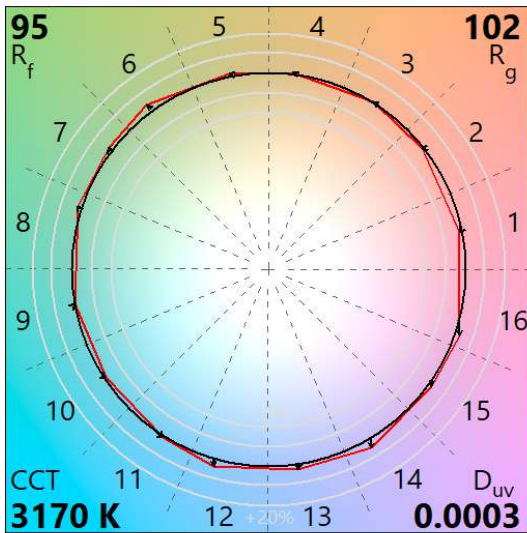
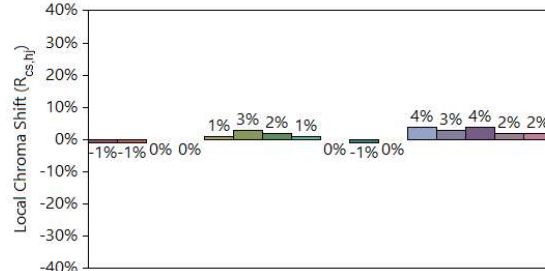
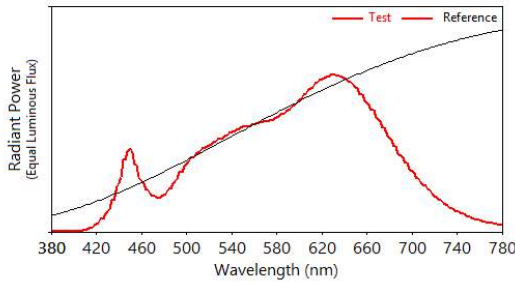


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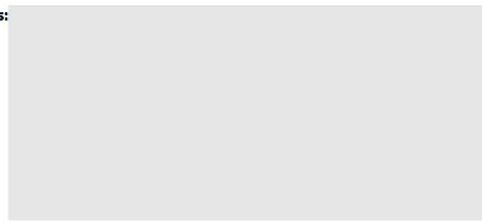
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IES TM-30-18 Color Rendering Report - Full Power (350mA)



Notes:



x 0.4257
y 0.4006
u' 0.2448
v' 0.5183

CIE 13.3-1995
(CRI)
R_a 97
R_g 88

Colors are for visual orientation purposes only.



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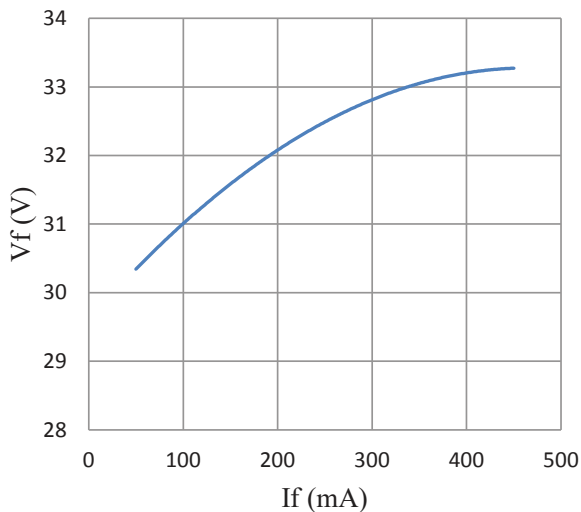
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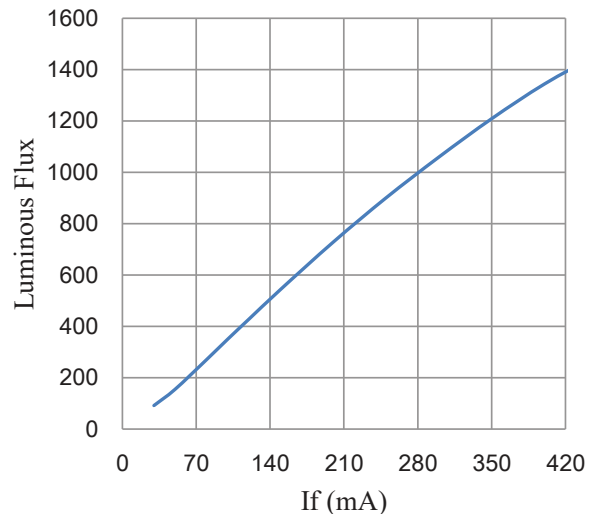
ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

	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**





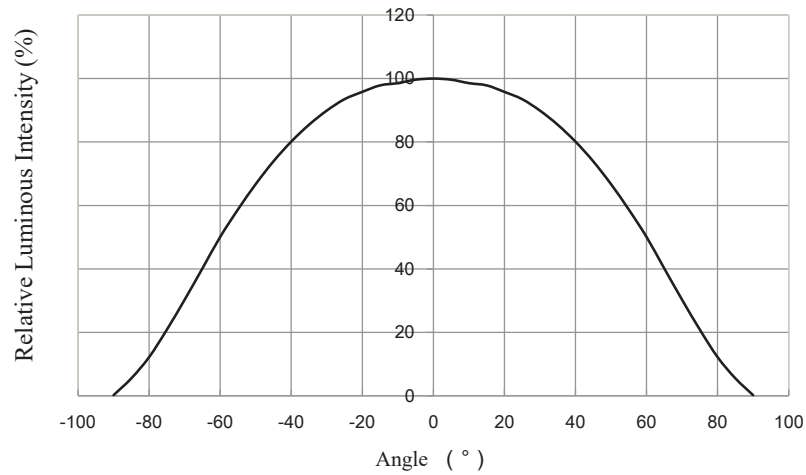
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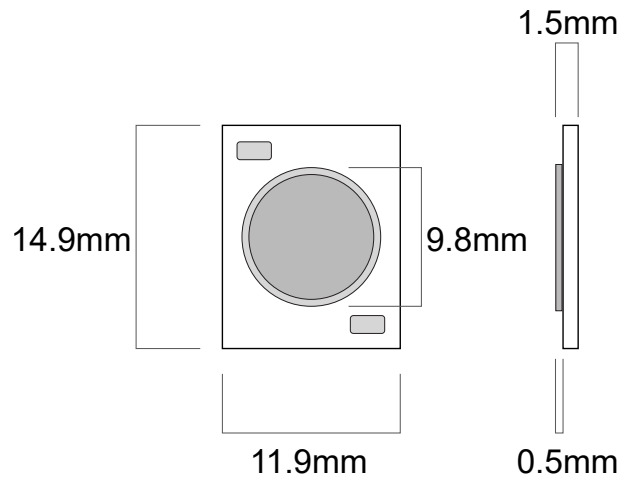
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TYPICAL SPATIAL DISTRIBUTION



MECHANICAL SPECIFICATIONS



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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

