EVERLIGHT ELECTRONICS CO.,LTD.

DATA SHEET

MODEL NO : BLB-15144F-W

DATE : 2000/06/07

DEPARTMENT : R&D CENTER

REVISION : 1.0

RECEIVED			
■ MASS PRODUCTION			
□ PRELIMINARY			
□ CUSTOMER DESIGN			
DEVICE NUMBER : DEA-868-001			
PAGE :6			
CUSTOMER	DESIGNER	CHECKER	APPROVER

REV	DESCRIPTION	RELEASE DATE

OFFICE : NO 25,Lane 76,Chung Yang Rd,Sec.3 Tucheng, Taipei 236, Taiwan, R.O.C.
TEL : 886-2-2267-2000, 2267-9936
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http://www.everlight.com

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LED BACK LIGHT
MODEL NO:BLB-15144F-W

Device Number:DEA-868-001 REV:1.0

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■ Features:

- Long Life and Low Power Consumption than CCFL
- Free selection of color chromaticity with four white type
- Free Design

■ Descriptions:

The white LED light source which was fabricated using a blue LED and a phosphor, and the phosphor is excited by blue light and emits yellow fluorescence. The mixture of blue light and yellow light results in a white light emission.

■ Applications:

- Backlighting for LCD
- Illumination source for instrumental panel
- Other types of displays, decorating lights

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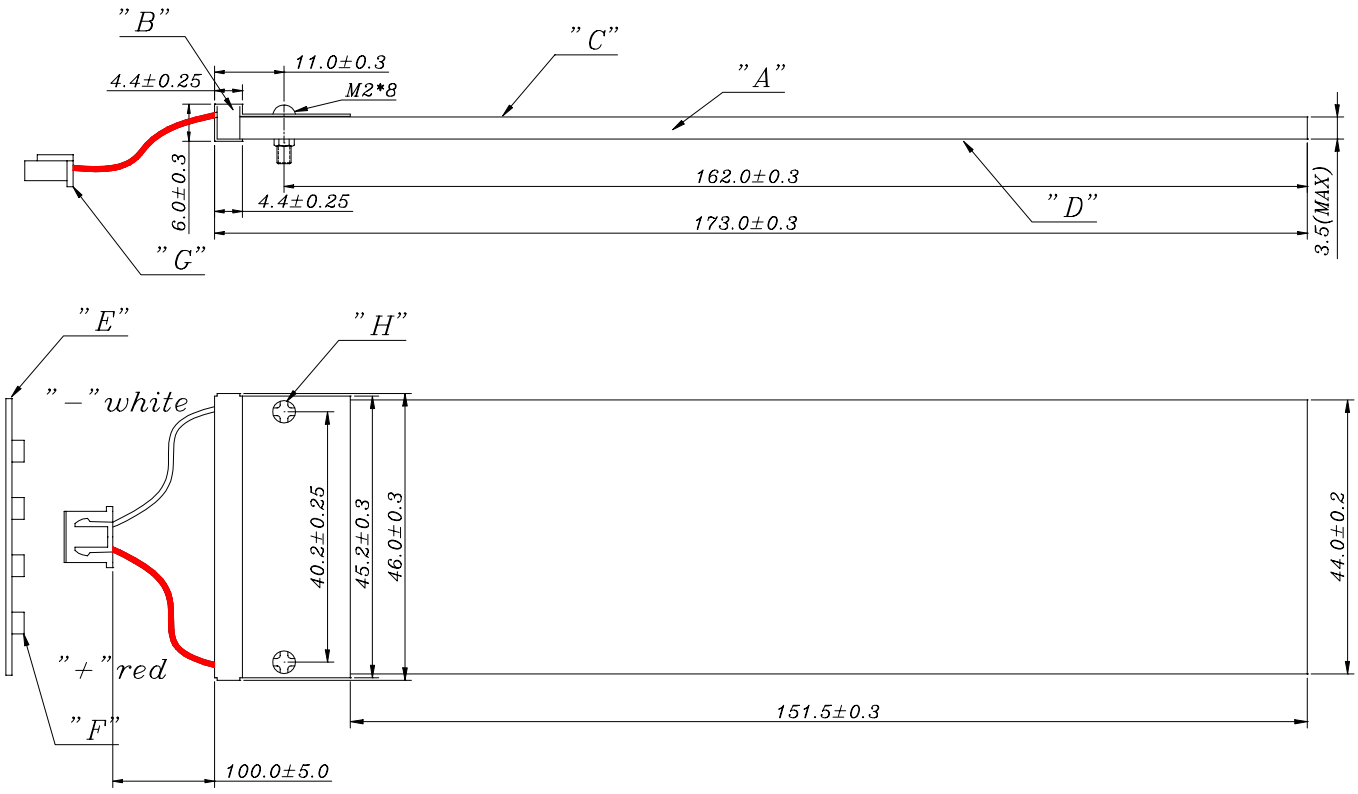
LED BACK LIGHT

MODEL NO:BLB-15144F-W

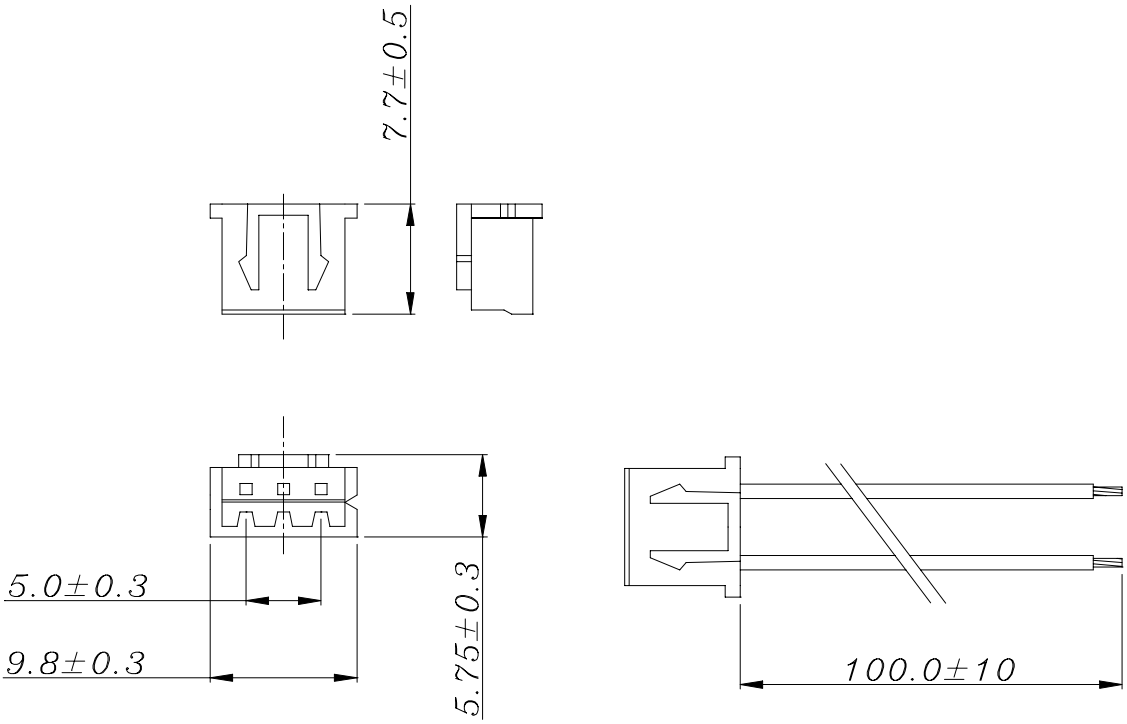
■ Package Dimensions:



NO.	PART	MATERIAL
A	Light Guide	Acrylic
B	Holder	Aluminium
C	Diffusive Film	PE
D	Reflective Film	PE
E	PCB	FR4
F	LED	67-21UWC
G	Connector	UL 1571 26AWG
H	Screw and Screwcap	Steel

1.All dimensions are in millimeters.

■ Connector And Dimensions:



1.All dimensions are in millimeters.

■Absolute Maximum Ratings(Ta=25℃):

Parameter	Symbol	Rating	Unit
Forward Current	I_F	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	0.3	W
Operating Temperature	T_{opr}	− 20 to +70	℃
Storage Temperature	T_{stg}	− 40 to +80	℃
Soldering Temperature＊[1]	T_{sol}	260	℃

*1:Soldering time≦5 seconds.

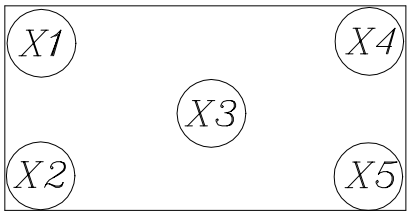
■Electro-Optical Characteristics (Ta=25℃):

Parameter	Symbol	Condition	Min	Typ	Max	Unit	Remark
Forward Voltage	V_F	I_F=80mA	--	3.3	3.8	V	*1
Reverse Current	I_R	V_R=5V	--	--	10	μA	
Luminous Intensity	I_V	I_F=80mA	--	60	--	cd/m^2	
Illuminance Power Deviation	△EH%	I_F=80mA	--	--	35	%	*3
Chromaticity Coordinates	x	IF=80mA	--	0.28	--		*2,*3
	y		--	0.29	--		

*1.The LED is sensitive to static electricity and care must be fully taken when handling products.
Electrostatic Discharge Threshold (200V).

*2.The chromaticity coordinates tolerance is ± 0.03 unless otherwise noted.

*3.The test position and method below:(Ta=25℃,65%RH)



$$\triangle EH\% = \frac{B(MAX) - B(MIN)}{B(MAX)} * 100\%$$

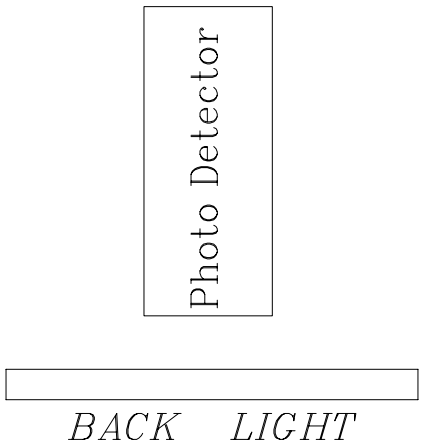
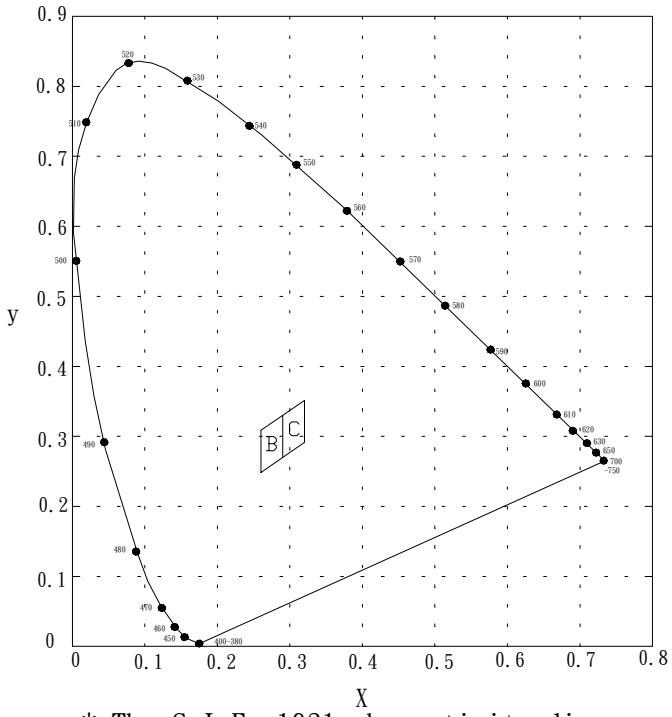


Figure 1 :Point for testing deviation→X1,X2,X3,X4,X5

■CIE Chromaticity Diagram:



＊ The C.I.E. 1931 chromaticity diagram

■Chromaticity Coordinates Specifications:

Rank			Chromaticity Coordinates			
B	B1	x	0.260	0.260	0.275	0.275
		y	0.250	0.310	0.320	0.260
	B2	x	0.275	0.275	0.290	0.290
		y	0.260	0.320	0.330	0.270
C	C1	x	0.290	0.290	0.305	0.305
		y	0.270	0.330	0.340	0.280
	C2	x	0.305	0.305	0.320	0.320
		y	0.280	0.340	0.350	0.290
Tolerance			±0.03			

LED BACK LIGHT

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■Reliability Test:

Item	Conditions	Jusification Criteria	Quantity
High Temperature/ High Humidity Storage	70℃,85%RH,1000hr	A,B,C	3pcs
High Temperature Storage	80℃,1000hr	A,B,C	3pcs
Low Temperature Storage	-40℃,1000hr	A,B,C	3pcs
Room Temperature DC Operating Life	25℃,60±10%RH, 1000hr/80mA	A,B,C	3pcs

＊Justification criteria:

A: Not one of LED is failed.

B: Not allowed to have scraping, discoloration,distortion.

C: The variation of brightness must not to be over 30% of initial value luminous intensity.

■Circuit Diagram: