



LIGITEK ELECTRONICS CO.,LTD.
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High Voltage Light LED



Lead-Free Parts

LG-CBHV275-04SCW-D01

DATA SHEET

DOC. NO : QW0905-LG-CBHV275-04SCW-D01

REV. : B

DATE : 05 - Oct. - 2012





PART NO. LG-CBHV275-04SCW-D01

LG - CB HV275 - 0 4S CW - XXX

X1 X2 X3 X4 X5 X6 X7

X1	X2	X3
Title LG:Ligitek	Designates product family CB:Chip on Board	High voltage HV275:275V
X4	X5	X6
Modification	Diagram S:seriesd P:Parallel ex:3S2P	Chromaticity Coordinates CW:Cool White NW:Neutral White WW:Warm White
X7		
Bin Modification		

PART NO. LG-CBHV275-04SCW-D01

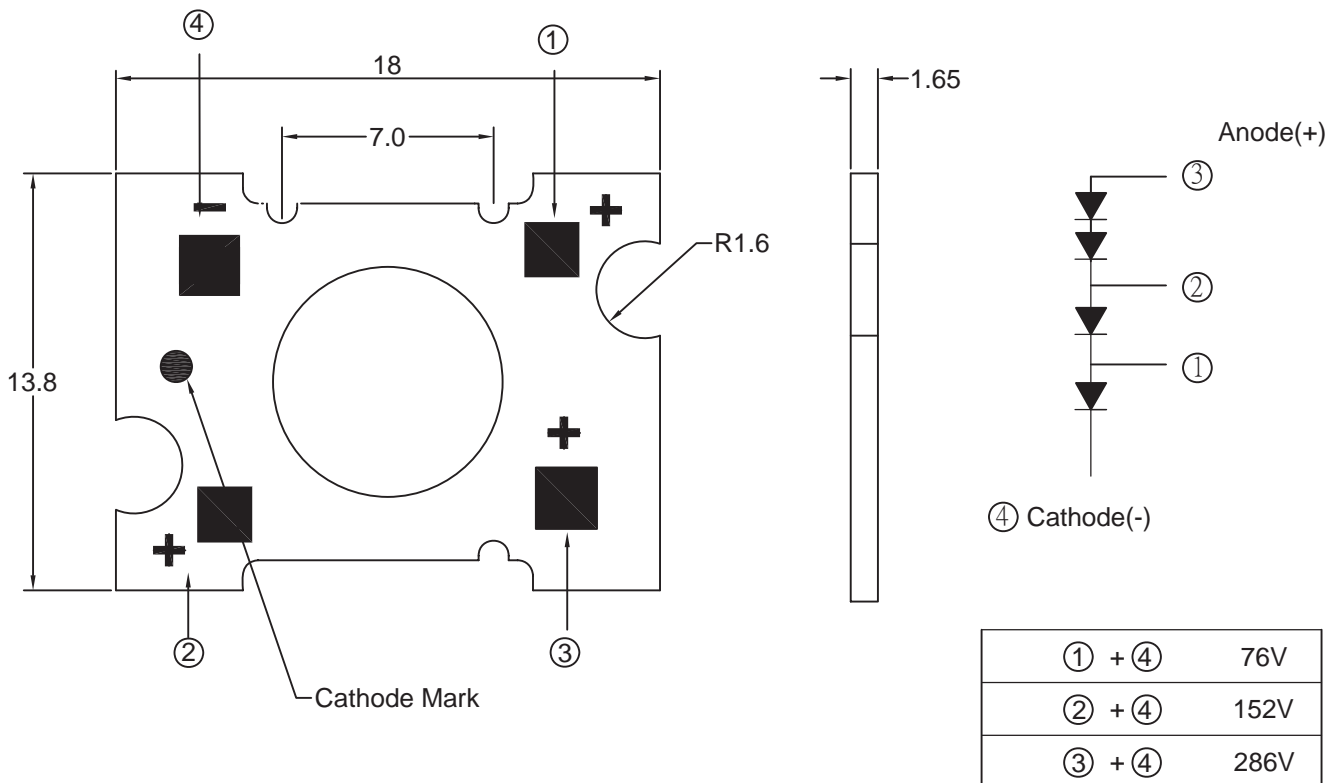
Features

- *. Saving energy and cost reduction from power converter
- *. Energy loss in voltage transform from high to low
- *. voltage conversion from high to low is expensive
- *. AC DC drive available
- *. Easy adaption for existing dimming circuit
- *. Compact design
- *. Saving space for limited area (ex. candle light)
- *. Easier for package and optical design

Typical Applications

- *. Reading Light (car,bus,aircraft)
- *. Portable(flashlight,bicycle).
- *. Commercial and Residential Architectural lighting.
- *. Mini-accent / Uplighters / Downlighters / Orientation lighting
- *. Fiber Optic Alternative / Decorative / Entertainment lighting.
- *. Security / Garden lighting.
- *. Cove / Underself / Task lighting.
- *. Traffic signaling / Beacons / Rail crossing and Wayside lighting.

Dimension



Note:

- 1.The tolerance unless mentioned is $\pm 0.3\text{mm}$,unit=mm.
- 2.Before using, please remember to remove the protective film from the MCPCB firstly

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Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Ratings	UNIT
		White	
DC Forward Current	IF	20	mA
Power Dissipation	PD	5.72	W
Peak pulse current Duty 1/10@10KHz	IFP	60	mA
LED junction Temperature	Tj	125	°C
Reverse Current(VR=5V)	Ir	10	µA
ESD Sensitivity	VB	±500	V
Storage Temperature	Tstg	-40 ~ +100	°C
Operating Temperature	Topr	-40 ~ +85	°C
Hand Soldering Time at320°C(Max)	Tsol	3	seconds
Thermal Resistance Junction/solder point	Rth JS	10	°C/W

Note:

- 1.Proper current derating must be observed to maintain temperature below the maximum.
- 2.LEDS are not designed to be driven in reverse bias.

Luminous Intensity Characteristics at 20mA

(Ratings At 25°C Ambient)

PART NO	Emission Color	Luminous Intensity			Units
		Min.	Typ.	Max.	
LG-CBHV275-04SCW-D01	White	275	350	----	lm

Note :

1. White emitters are built with InGaN.
2. Luminous Intensity is measured with an accuracy of ±10%

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Forward Voltage Characteristics at 20mA

(Ratings At 25°C Ambient)

PART NO	Emission Color	Vf			Units
		Min.	Typ.	Max.	
LG-CBHV275-04SCW-D01	White	----	268	286	V

Note : Forward Voltage is measured with an accuracy of $\pm 0.1V$

Chromaticity Coordinates Characteristics at 20mA

(Ratings At 25°C Ambient)

PART NO	Emission Color	Chromaticity Coordinates			
		X		Y	
		Min.	Max.	Min.	Max.
LG-CBHV275-04SCW-D01	White	0.3028	0.3376	0.3113	0.3616

Note : ± 0.01 is tester tolerance.

Emission Angle Characteristics at 20mA

(Ratings At 25°C Ambient)

PART NO	Emission Color	Lambertian	Units
LG-CBHV275-04SCW-D01	White	120	Degess

Color Rendering Index Characteristics at 20mA

(Ratings At 25°C Ambient)

PART NO	Emission Color	CRI		
		Min.	Typ.	Max.
LG-CBHV275-04SCW-D01	White	80	----	----

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Bin Code Description

Bin Code	
Luminous Intensity	CIE
FB5FB7	57K-1

Luminous Intensity (lm) @IF=20mA		
Bin Code	Min.	Max.
FB3FB5	275	300
FB5FB7	300	320
FB7FB9	320	350
FB9FC1	350	370
FC1FC3	370	400
FC3FC5	400	420
FC5FC7	420	445
FC7FC9	445	470

Color Rank @IF=20mA
57K-1
57K-2
57K-3
57K-4
65K-1
65K-2
65K-3
65K-4

PART NO. LG-CBHV275-04SCW-D01

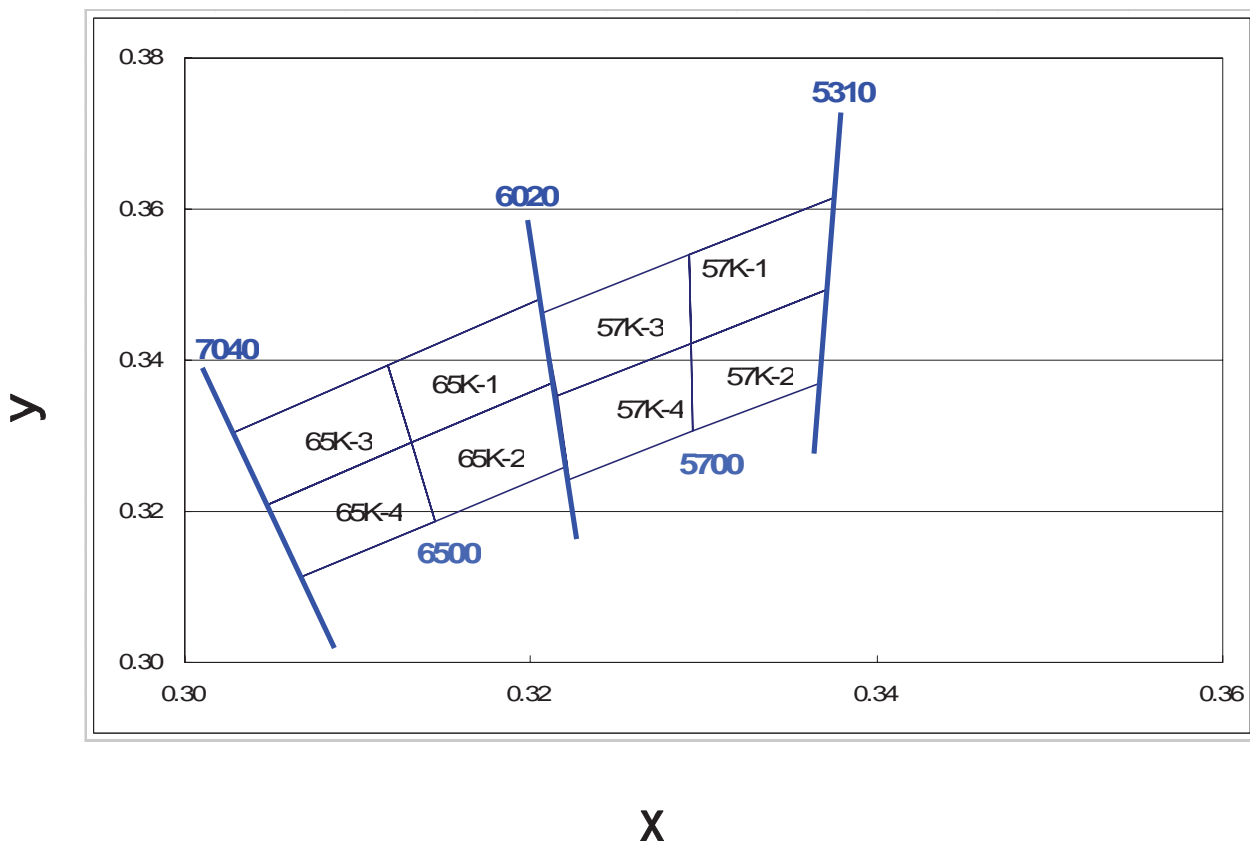
Bins Code of chromaticity coordinates

CCT(K) Reference Range	BIN CODE	1		2		3		4	
		X	Y	X	Y	X	Y	X	Y
5310-5700	57K-1	0.3376	0.3616	0.3292	0.3539	0.3293	0.3423	0.3371	0.3493
	57K-2	0.3371	0.3493	0.3293	0.3423	0.3294	0.3306	0.3366	0.3369
5700-6020	57K-3	0.3292	0.3539	0.3207	0.3462	0.3215	0.3353	0.3293	0.3423
	57K-4	0.3293	0.3423	0.3215	0.3353	0.3222	0.3243	0.3294	0.3306
6020-6500	65K-1	0.3205	0.3481	0.3117	0.3393	0.3131	0.3290	0.3213	0.3371
	65K-2	0.3213	0.3371	0.3131	0.3290	0.3145	0.3187	0.3221	0.3261
6500-7040	65K-3	0.3117	0.3393	0.3028	0.3304	0.3048	0.3209	0.3131	0.3290
	65K-4	0.3131	0.3290	0.3048	0.3209	0.3068	0.3113	0.3145	0.3187

Note: Tolerance on each color bin(x,y) is ± 0.01

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CIE Chromaticity Diagram



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Fig.1 Forward current vs. Forward Voltage

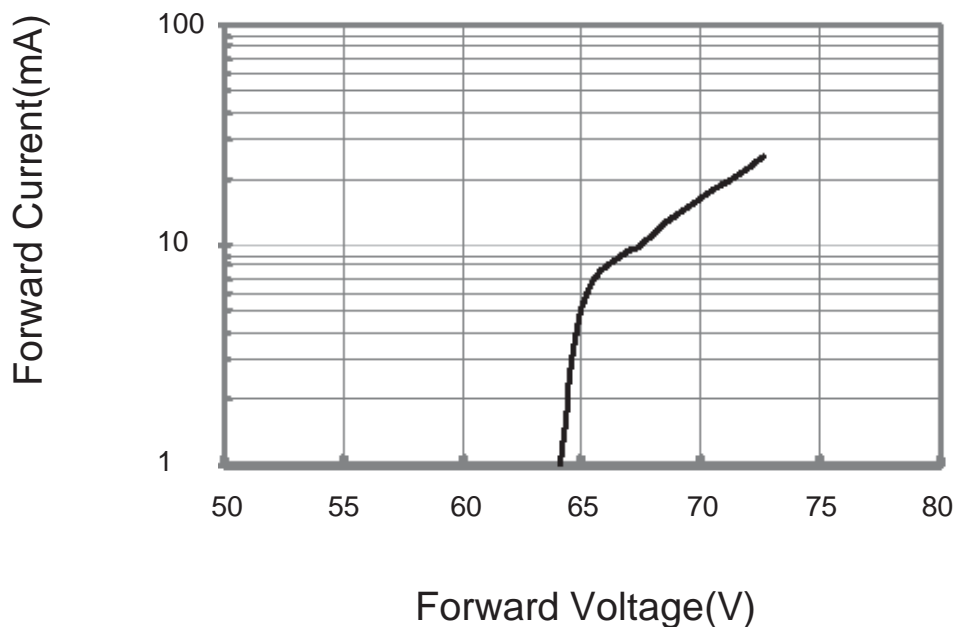
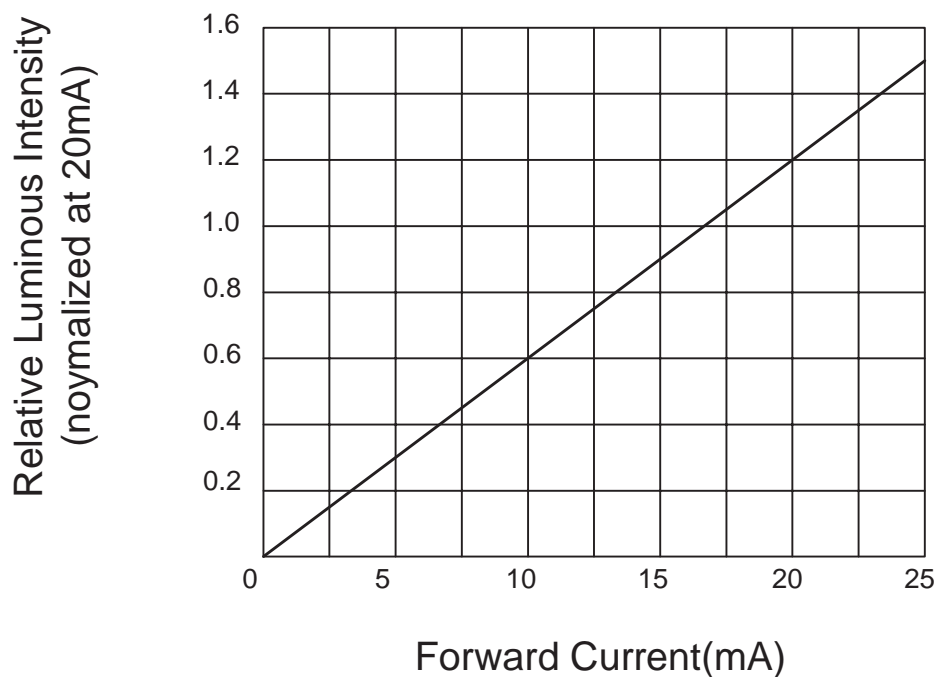


Fig.2 Forward current vs. Relative Luminous Intensity



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Fig.4 Luminous Spectrum(Ta=25°C)

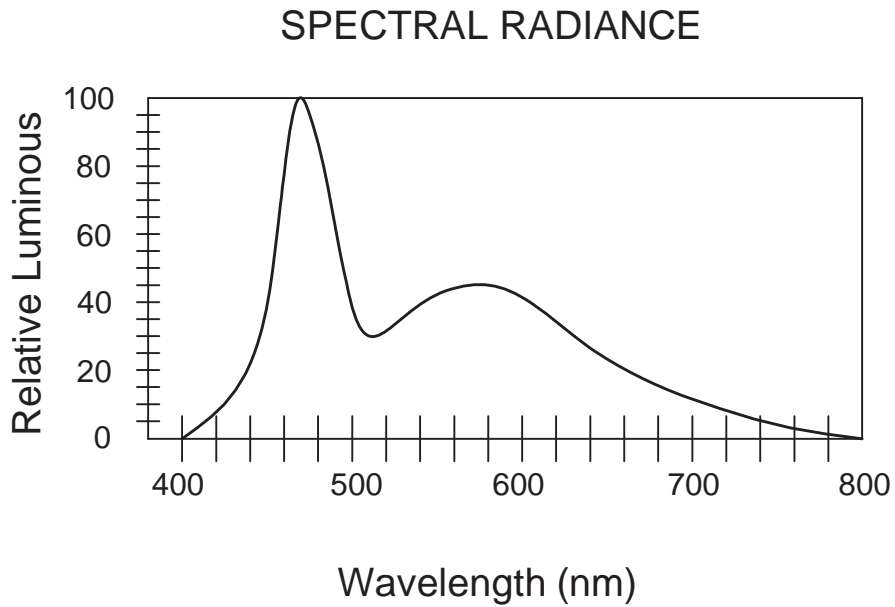
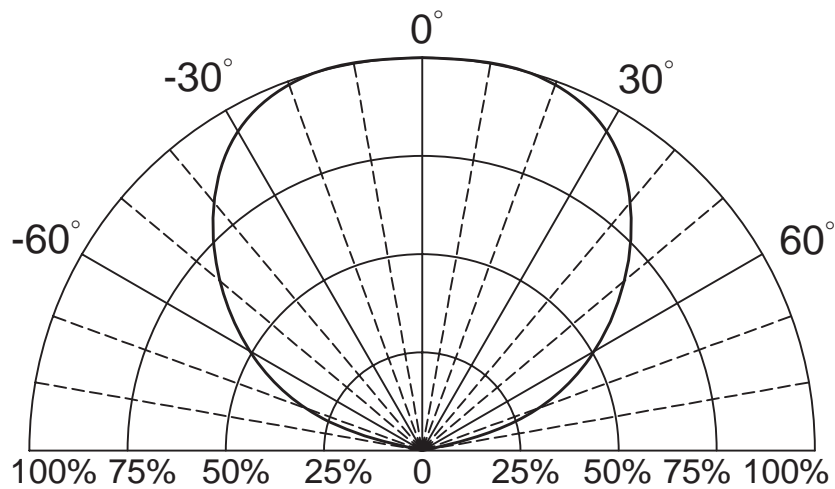


Fig.5 Directivity Radiation



PART NO.LG-CBHV275-04SCW-D01

Label Explanation

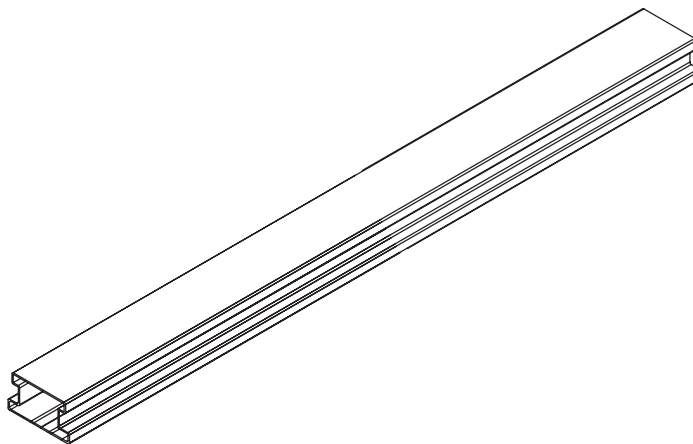
PART :	LG-CBHV275-04SCW-D01
LOT :	GS1-110315
QTY(PCS):	30 PCS
BIN/HUE :	FB9FC1/57K-1

BIN : Luminous Intensity

HUE : Chromaticity Coordinates
(CIE_x , CIE_y)

Tube Specification

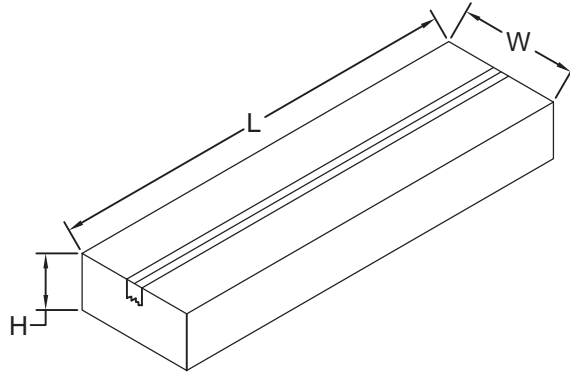
1. 36 PCS / TUBE



Box Explanation

1. 35TUBE / INNER BOX

2. INNER BOX SIZE : L X W X H 56cm X 16cm x 7.5cm



3. 8 INNER BOXES / CARTON

4. CARTON SIZE : L X W X H 58cm X 34cm x 35cm

