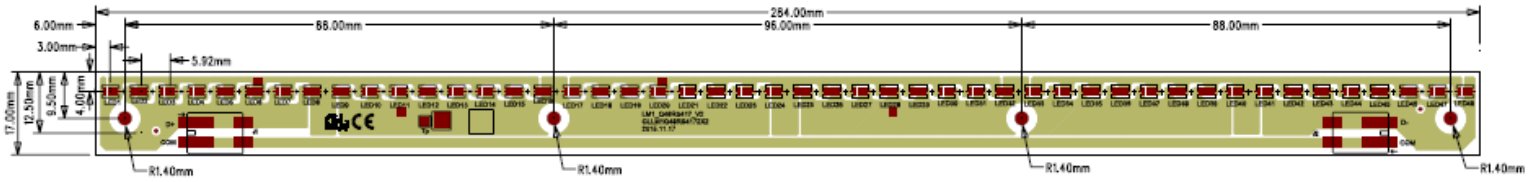
GL GENERAL LUMINAIRE



DATA SHEET
GLV91RS417_ Series

Part of the simpleLED® Program

SimpleLED GLV91RS417_LB848 SERIES

The LED module consists of 48 mid-power Luxeon3020 LEDs. It is engineered to provide customers with the flexibility to select the optimal light source for their applications. The LED module complies with IEC62031 Class III, and it can be connect ed with a UL Class 2 driver (alternative configurations should be confirmed.).

FEATURES & BENEFITS

Multiple CCTs available (2700K-5000K)

80 minimum CRI option

3 step MacAdam color binning

LM-80 compliant mid-power LEDs

3-Year Warranty

TYPICAL APPLICATIONS

Office Lighting

High Bay

Poster Box

Cove Lighting

Wall Wash

Under-Cabinet

APPLIED STANDARDS

IEC 62031, IEC 60068-2, UL8750

Note: All specifications are subject to change without notice.

SimpleLED GLV91RS4171/CW-LB848 WHITE SERIES

PARAMETER	CONDITIONS
PCB Size	FR4, L 284mm x W 17mm
	UL component file number:E123995
Source Type	48pcs Luxeon 3020
	UL component file number: E352519
Circuit Layout	8P x 6S
Connector Type	Wago connector: 2060-451/998-404
	Solder Pad
	20cm UL1007 20Awg

PRODUCT SELECTION GUIDE

PART NUMBER	CCT	CRI (min.)
GLV91RS4171/00-LB848827(with solder pad)	2700K	80
GLV91RS4171/20-LB848827(with leading wire)		
GLV91RS4171/CW-LB8488I27(with connector)		
GLV91RS4171/00-LB848830(with solder pad)	3000K	80
GLV91RS4171/20-LB848830(with leading wire)		
GLV91RS4171/CW-LB848830(with connector)		
GLV91RS4171/00-LB848835(with solder pad)	3500K	80
GLV91RS4171/20-LB848835(with leading wire)		
GLV91RS4171/CW-LB848835(with connector)		
GLV91RS4171/00-LB848840(with solder pad)	4000K	80
GLV91RS4171/20-LB848840(with leading wire)		
GLV91RS4171/CW-LB848840(with connector)		
GLV91RS4171/00-LB848857(with solder pad)	5700K	80
GLV91RS4171/20-LB848857(with leading wire)		
GLV91RS4171/CW-LB848857(with connector)		
GLV91RS4171/00-LB848850(with solder pad)	5000K	80
GLV91RS4171/20-LB848850(with leading wire)		
GLV91RS4171/CW-LB848850(with connector)		

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simpleLED GLV91RS4172/CW-LB848 WHITE SERIES

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PCB Size	FR4, L 284mm x W 17mm
	UL component file number:E123995
Source Type	48pcs Luxeon 3020
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Circuit Layout	8P x 6S
Connector Type	Wago connector: 2060-452/998-404

PRODUCT SELECTION GUIDE

PART NUMBER	CCT	CRI (min.)
GLV91RS4172/CW-LB8488I27(with connector)	2700K	80
GLV91RS4172/CW-LB848830(with connector)	3000K	80
GLV91RS4172/CW-LB848835(with connector)	3500K	80
GLV91RS4172/CW-LB848840(with connector)	4000K	80
GLV91RS4172/CW-LB848850(with connector)	5000K	80
GLV91RS4172/CW-LB848857(with connector)	5700K	80

Note: All specifications are subject to change without notice.

BOARD OPTICAL CHARACTERISTICS (@ 700mA, Ts=25 ℃)

BOARD	CCT	CRI	FLUX (LM)		EFFICACY (LM/W)	
		MIN.	MIN.	TYP.	MIN.	TYP.
GLV91RS4172/ CW-LB848 Series	2700K	80	1523	1776	112	143
	3000K	80	1595	1776	118	143
	3500K	80	1631	1849	120	149
	4000K	80	1668	1885	123	152
	5000K	80	1668	1921	123	155
	5700K	80	1679	1935	123	156

BOARD ELECTRICAL CHARACTERISTICS (@ 700mA, Ts=25 ℃)

	Min.	Typ.	Max.
Voltage (V)**	16.6	17.8	19.4
Total Board Power (W)	11.62	12.43	13.57
Driver Current (mA)***	700	600	700

ENVIRONMENTAL CHARACTERISTICS

	Min.	Max.
Storage Temperature	-40ºC	100ºC
	Max.	
PCB Temperature (T_c)	80ºC	

NOTES

*Data stated @700 mA, T_j = 25ºC. Use for reference only since application temperature and LED driver current have influence on lumen output. Safe operation only possible by the use of external constant current sources. The current source used for operation, must have the following protections

- Short-circuit protection
- Overload protection
- Over-temperature protection

** Lumileds maintains a tolerance of ±0.1V on forward voltage measurements.

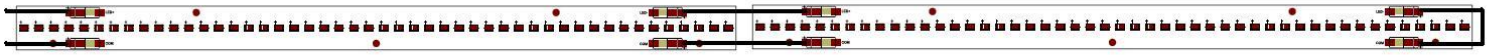
***Proper current de-rating must be observed to maintain junction temperature below the maximum.

Different CCTs available upon request. Contact your local sales representative.

Note: All specifications are subject to change without notice.

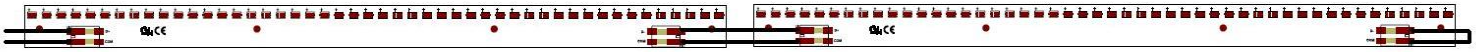
INTERCONNECTIVITY OPTIONS

Board-to-Board wiring options and drawings.



GLV91RS4172/CW-LB848(with Wago connector: 2060-451/998-404)

GLV91RS4171/CW-LB848	
Maximum connection units	
with plastic gasket for screws	**8PCS**
without plastic gasket for screws	**6PCS**



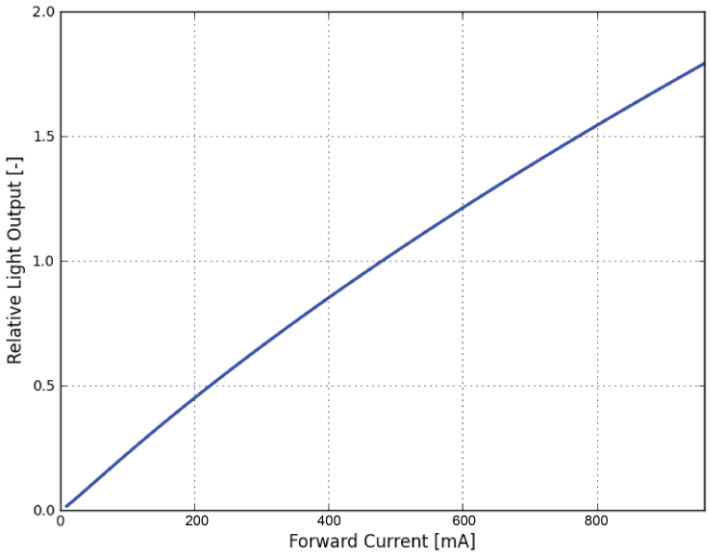
GLV91RS4172/CW-LB848(with Wago connector: 2060-452/998-404)

GLV91RS4172/CW-LB848	
Maximum connection units	
with plastic gasket for screws	**5PCS**
without plastic gasket for screws	**4PCS**

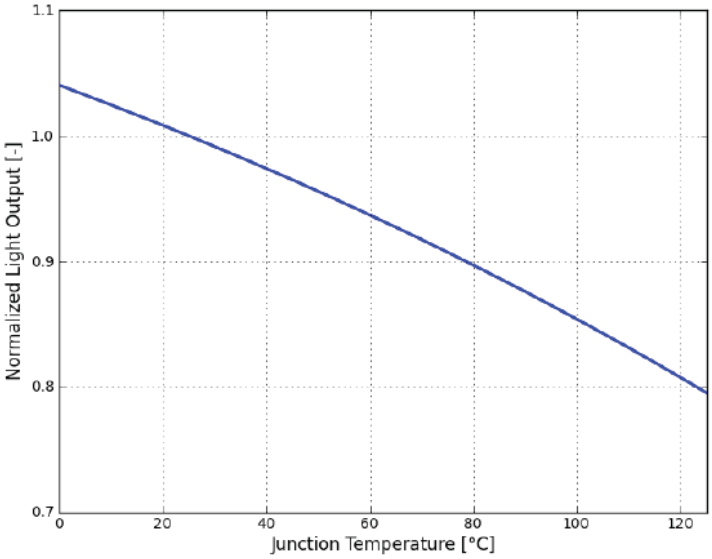
Note: All specifications are subject to change without notice.

TYPICAL CHARACTERISTICS GRAPHS

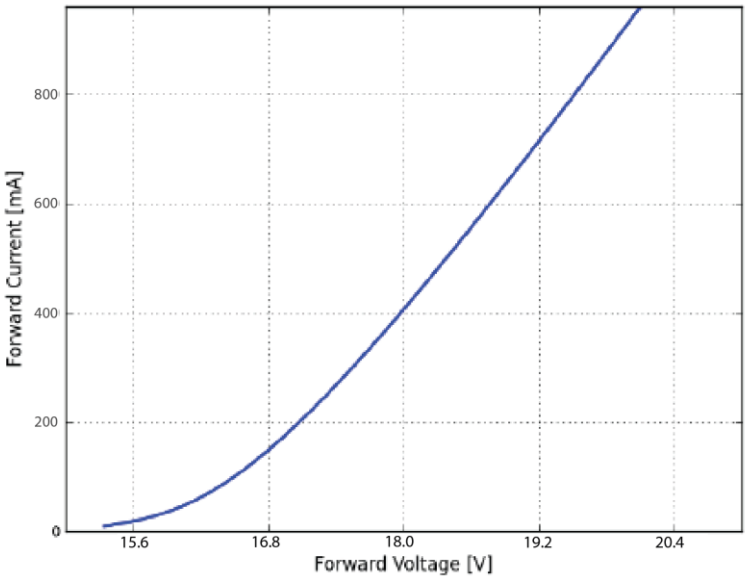
Relative Luminous Flux vs. Forward Current *



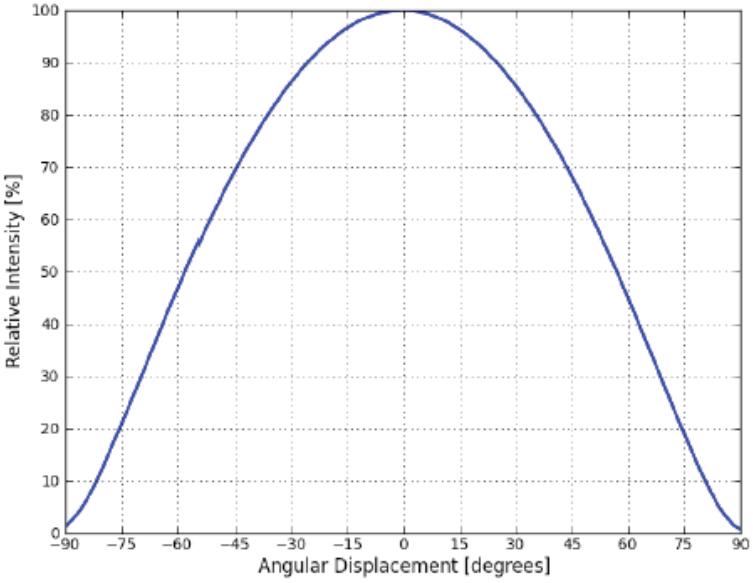
Relative Luminous Flux vs. Temperature



Forward Current vs. Forward Voltage *



Radiation Pattern Characteristics



Note: All specifications are subject to change without notice.

* These curves are based on scaling up the LED curves and based on the sorting current for those LEDs.

PART NUMBERING & ORDERING INFORMATION

1. PRODUCT SERIES

GLV91RS4171

Rectangle FR4 with 48 center-lined LEDs

GLV91RS4172

Rectangle FR4 with 48 offset LEDs

2. CONNECTOR TYPE

00 – Solder Pad

20 – 20cm UL1007 20AWG

CW – Wago connector 2060-451/998-404

or Wago connector 2060-452/998-404

3. LED TYPE

LB - Luxeon 3020

4. LED QTY

848 -48 LEDs 8P

5. CRI/CCT

827 – CRI80, 2700K ANSI

830 – CRI80, 3000K ANSI

835 – CRI80, 3500K ANSI

840 – CRI80, 4000K ANSI

850 – CRI80, 5000K ANSI

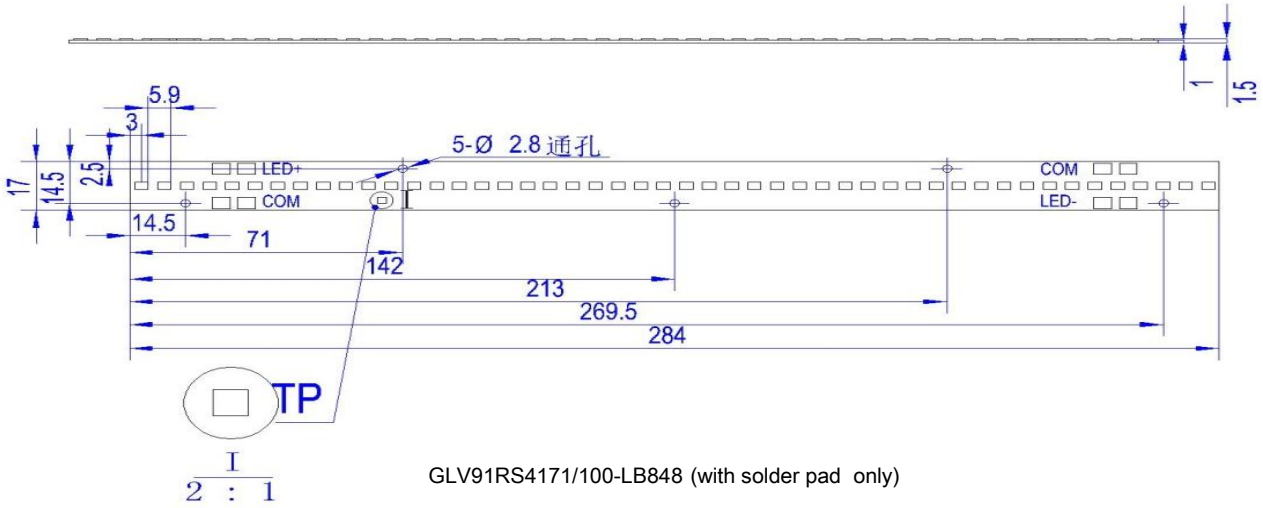
857 – CRI80, 5700K ANSI

Part Number :

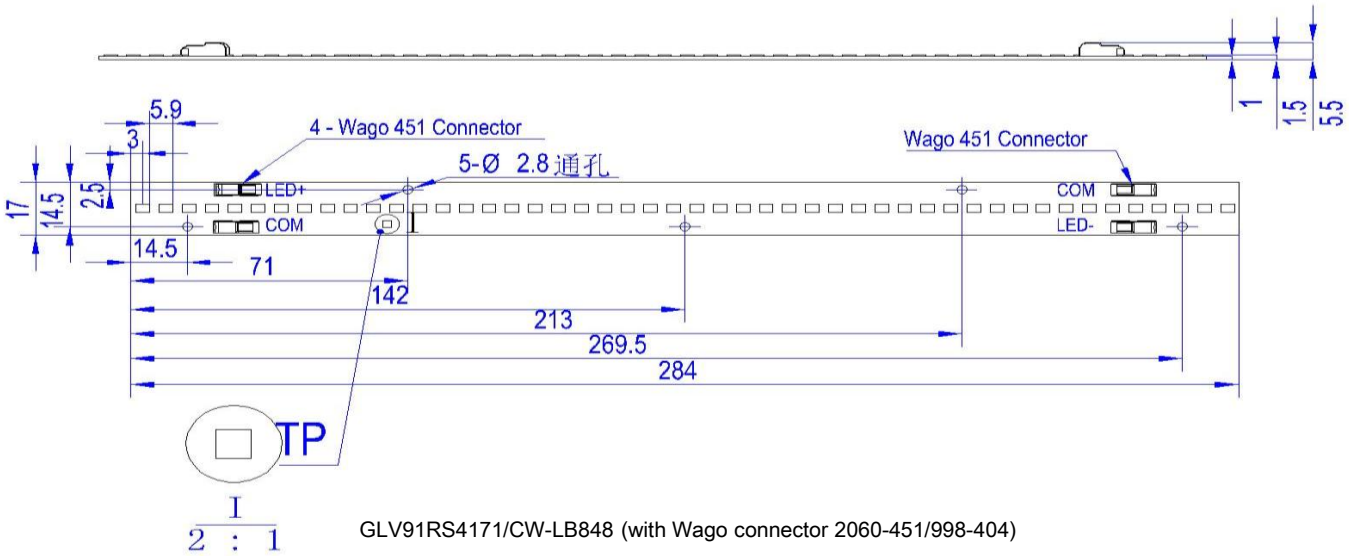
GLV91RS4171	/	AA	–	BB	CCC	DDD
1		2		3	4	5

Note: All specifications are subject to change without notice.

MECHANICAL DIMENSIONS



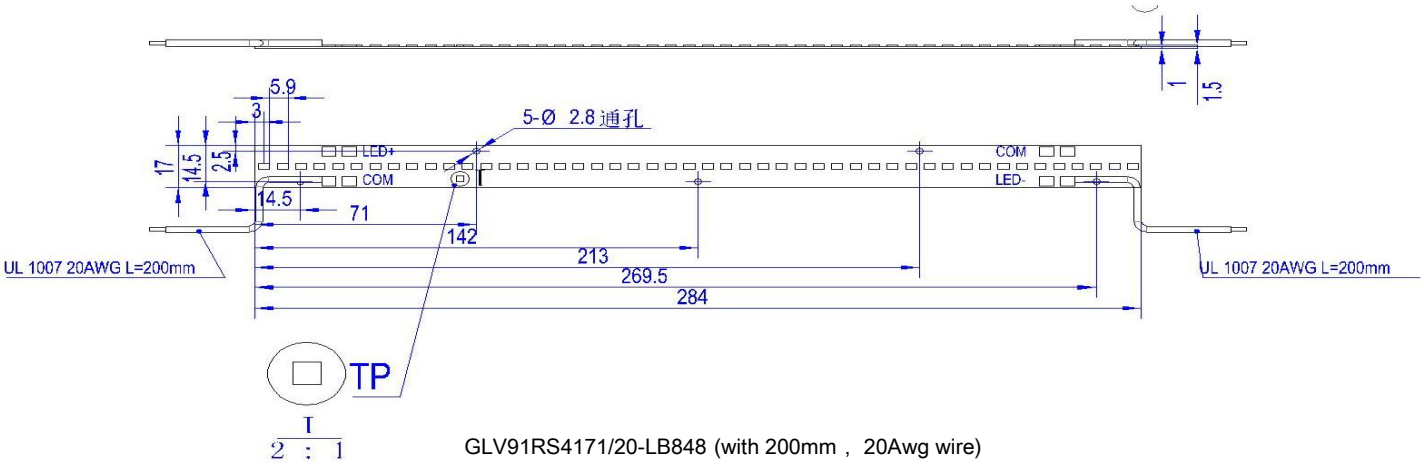
GLV91RS4171/100-LB848 (with solder pad only)



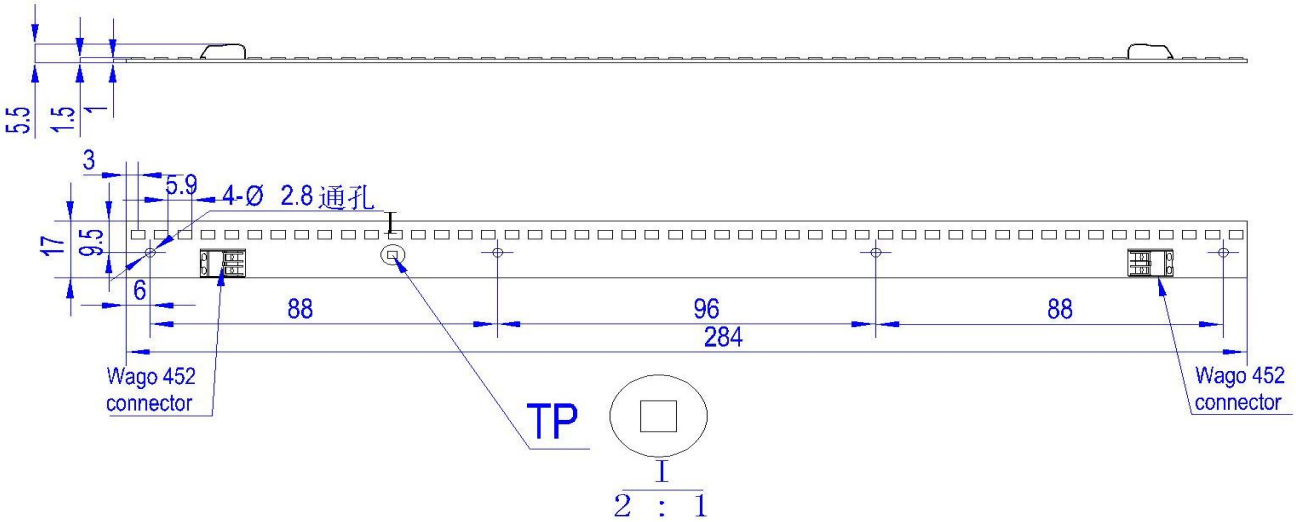
GLV91RS4171/CW-LB848 (with Wago connector 2060-451/998-404)

Note: All specifications are subject to change without notice.

MECHANICAL DIMENSIONS



GLV91RS4171/20-LB848 (with 200mm， 20Awg wire)



GLV91RS4172/CW-LB848 (with Wago connector 2060-452/998-404)

Note: All specifications are subject to change without notice.

THERMAL CONSIDERATIONS

The light engine must be operated in environmental conditions where the ambient air temperature does NOT exceed a value which would cause the LEDs to exceed their maximum junction temperature (per the LED LUMILEDS datasheet).

A heat sink can be used with the light engines in order to maintain the LED junction temperature and the PCB temperature below their maximum ratings however, the following recommendations should be followed:
•The mounting surface for the light engine must be flat;
•Avoid bending of the PCB to avoid damaging the LEDs and the solder connections;
•Use a thermal interface material between the PCB and the heat sink.

For optimal lifetime performance, the light engine must be placed in an environment where air can flow freely around the luminaire, promoting heat transfer from conduction to the heat sink and from radiation to the air. It is not recommended to expose the module to direct sunlight or any other heat source.

Thermal Measurement

The maximum allowed temperature at the T_c point of the board is 80℃. This temperature is not based on the LM-80 standard but is for warranty purposes only.

Note: All specifications are subject to change without notice.

Assembly and Safety Information

Installation must be done according to relevant regulations and standards. The following guidelines should be respected:

•Installation must be carried out in a voltage-free state;
•The device/module contains components that are sensitive to electrostatic discharge and may only be installed in the factory and on site if appropriate EOS/ESD protection measures have been taken;
•A thermal interface material should be applied to the base of the PCB before fixing it onto a heat sink with screws. The fixing/cooling surface must be cleaned prior to installing the PCB to remove all dirt, dust and grease. The light engine must not be bent to avoid damaging the LEDs.
•Use wire size AWG 24-18 to connect the PCB to the constant-current power supply.
•Conductors must be inserted at a 0º angle to the PCB.
•Wires must be stripped to 6-7 mm (solid & stranded).

1. Insert solid conductors via push-in termination.
2. Insert/remove fine-stranded conductors by lightly pressing on the push-button

•The pressure on the LEDs will influence their reliability. Precautions should be taken to avoid such pressure.
•Do not stack PCBs on each other. LED materials are soft and this could lead to catastrophic failure of the LEDs.
•Chemicals can be harmful to the LEDs used on the module. It is recommended not to use chemicals anywhere in an LED system. The fumes from even small amounts of chemicals may damage the LEDs. The list of harmful chemicals can be viewed in application brief AB209 for the LED (http://lumileds.com/).
•Using corrugated boxes as packaging is only allowed if the sulfur used in the box is less than 850 ppm.
•Please ensure the correct polarity of the leads.
•For outdoor or damp locations, care must be taken to protect the LED PCB against moisture. There is the possibility of coating the board. Please contact your local sales representative for more information.

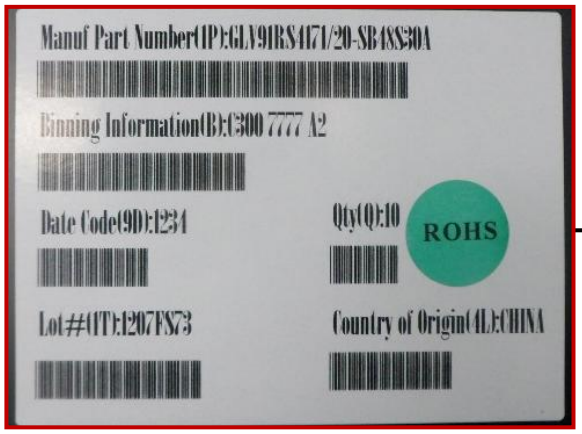
All of the above guidelines must be followed in order to qualify for the 3-year warranty. There is the possibility to extend to a 5-year warranty, please contact your local sales representative.

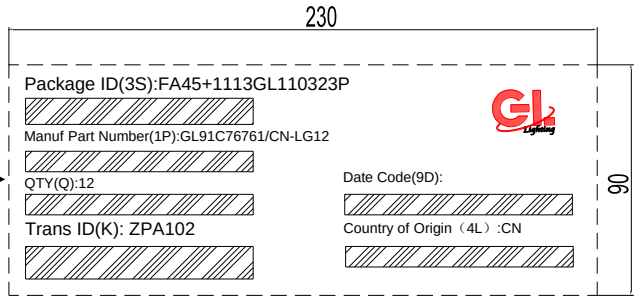
PACKAGING INFORMATION

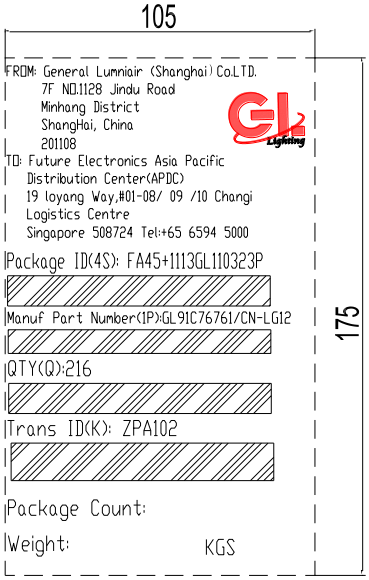
INNER PACKING	SIZE	TRAY	QTY
TYPE	345*295*11mm	1	10

INNER PACKING	SIZE	TRAY	QTY
TYPE 1	350*300*250mm	15	150

PRODUCT LABELLING







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