



QLSP27YD_B
PLCC 2
30 degree
(Black housing)



Product Outline:

This high output reflector type 3528 LEDs are available in Yellow color. This special package is ideal for customer's application in traffic signal and sign boards. With special binning technology, Quelighting is able to provide special binning for customer's needs

Features:

- High brightness output @ 50mA
- Package Dimension = 3.5mmX2.8mmX3.5mm
- PLCC-2 30 degree viewing angle
- Black Housing
- RoHS compliant
- Custom Bin available upon special request

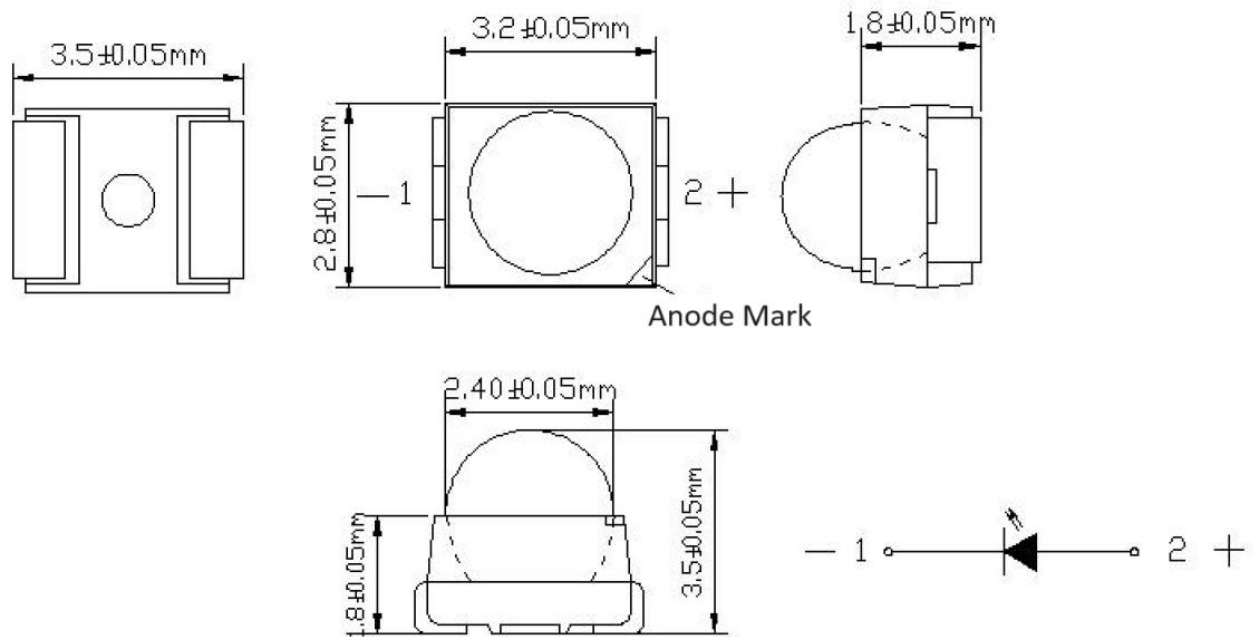
Application:

- Sign board backlighting
- Emergency vehicle lighting
- Traffic signal lighting

Compliance and Certification:

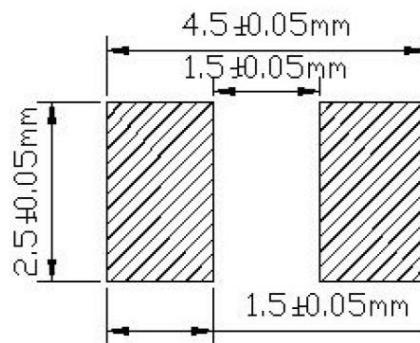


Mechanical Property: (Dimension)



Units: mm

Recommended Solder footprint:



Units: mm



Electrical / Optical Characteristic

(T=25 °C)

Product	Color	I _F (mA)	V _F (V)		λD (nm)			I _v (mcd)	
			Typ.	max	Min.	Typ.	Max.	min	typ.
QLSP27YD_B	Yellow	50	2.0	2.6	588	591	594	8000	11000

(1) The Forward Voltage tolerance is ±0.1V

(2) The λD tolerance is ±1nm

(3) The I_v tolerance is ± 7%

Absolute Maximum Rating

(T=25 °C)

Part #	P _d (mW)	I _F (mA)	I _{FP} (mA)*	V _R (V)	T _{OP} (°C)	T _{ST} (°C)	T _{SOL} (°C)**	ESD HBM (V)
QLSP27YD_B	100	50	80	5	-40 – 85	-40 - 100	260	3000

*Duty 1/10 @ 10Khz

** Junction Temperature

*** IR Reflow for no more than 10 sec @ 260 °C

**** Thermal resistance is calculated from junction to solder



Forward Voltage (V_F) Bin:

VF rank @ 50mA			
Code name	Min.	Max.	Unit
RS	2.0	2.2	V
TU	2.2	2.4	
VW	2.4	2.6	

The forward voltage tolerance is $\pm 0.1V$

Luminous Intensity Bin:

Iv rank @ 50mA			
Code name	Min.	Max.	Unit
X811	8000	11000	mcd
X1114	11000	14000	

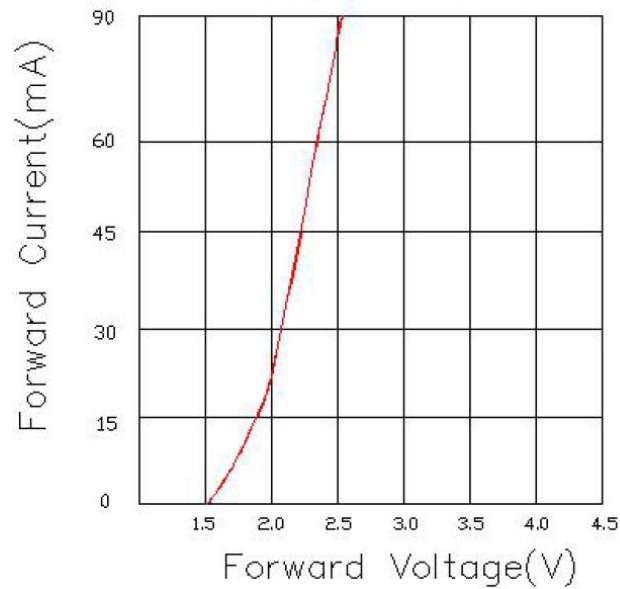
luminous intensity tolerance is $\pm 7\%$

Dominant Wavelength Bin:

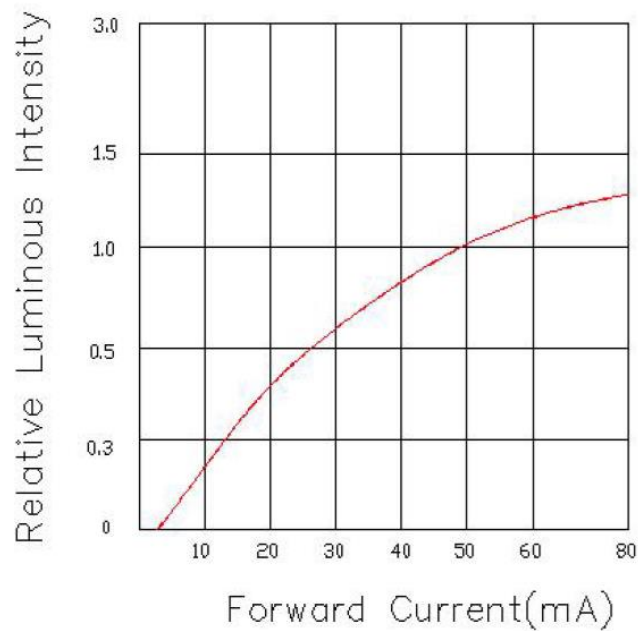
λ_D @ IF=50mA			
Code name	Min.	Max.	Unit
A11	588	590	nm
A21	590	592	
A31	592	594	



Characteristic Curves

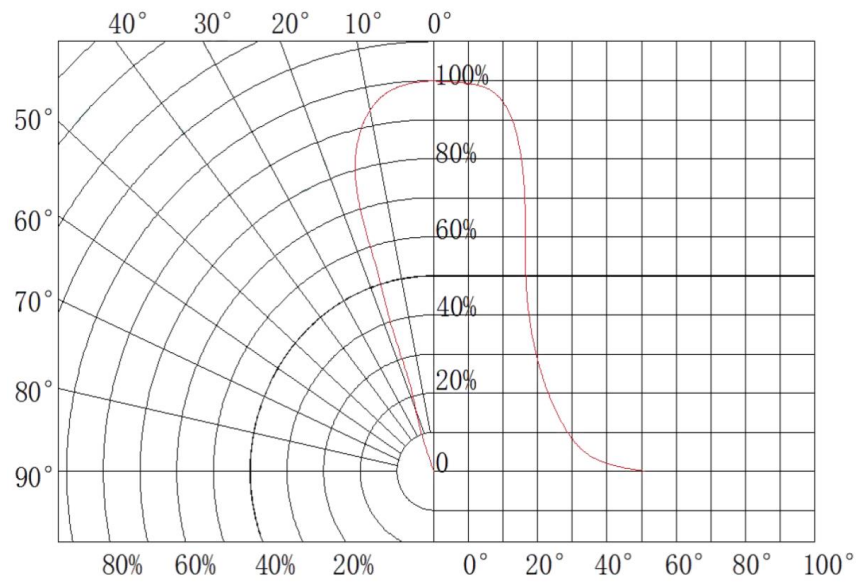


Forward Voltage vs. Forward Current

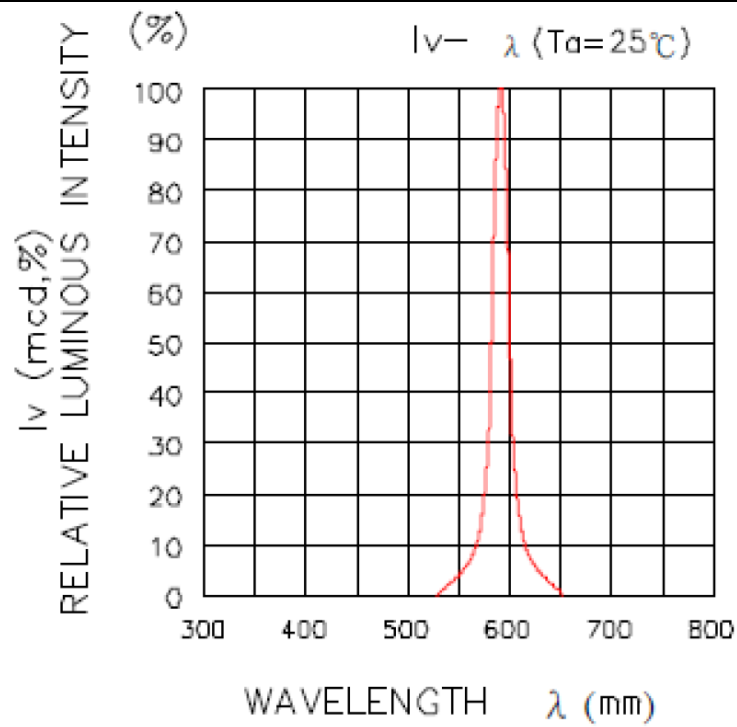


Forward current vs. Relative luminous intensity



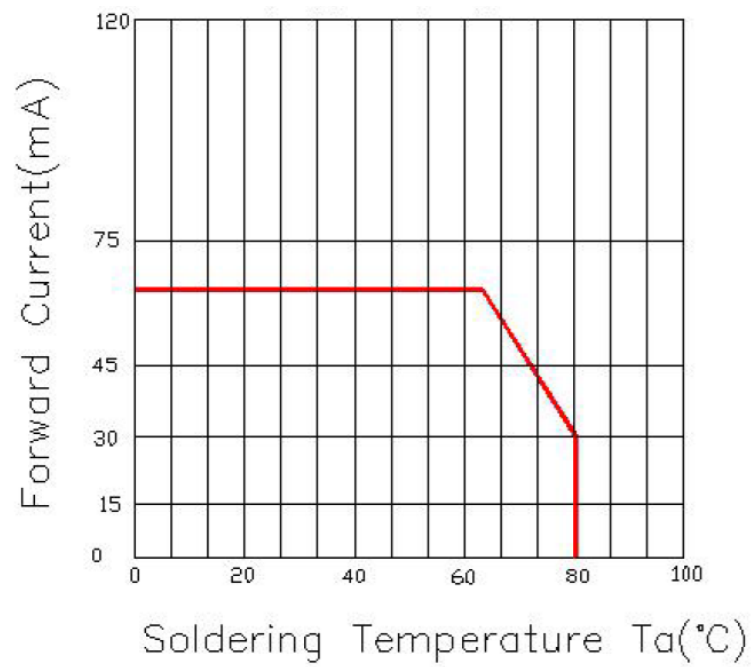


Radiation Pattern

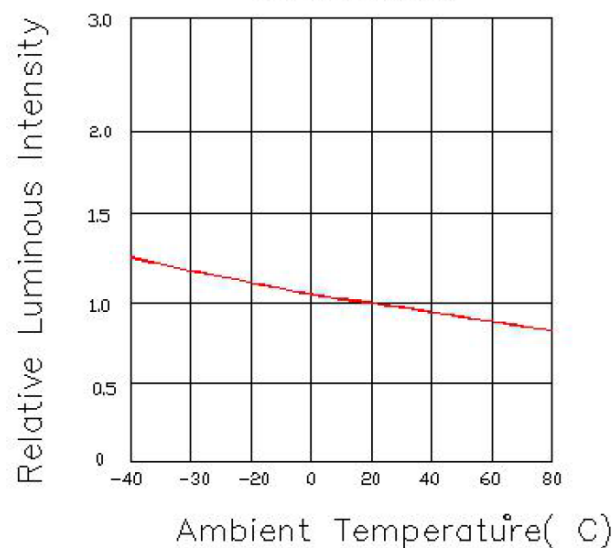


Spectrum Distribution





Relative Forward Voltage vs Ambient Temperature



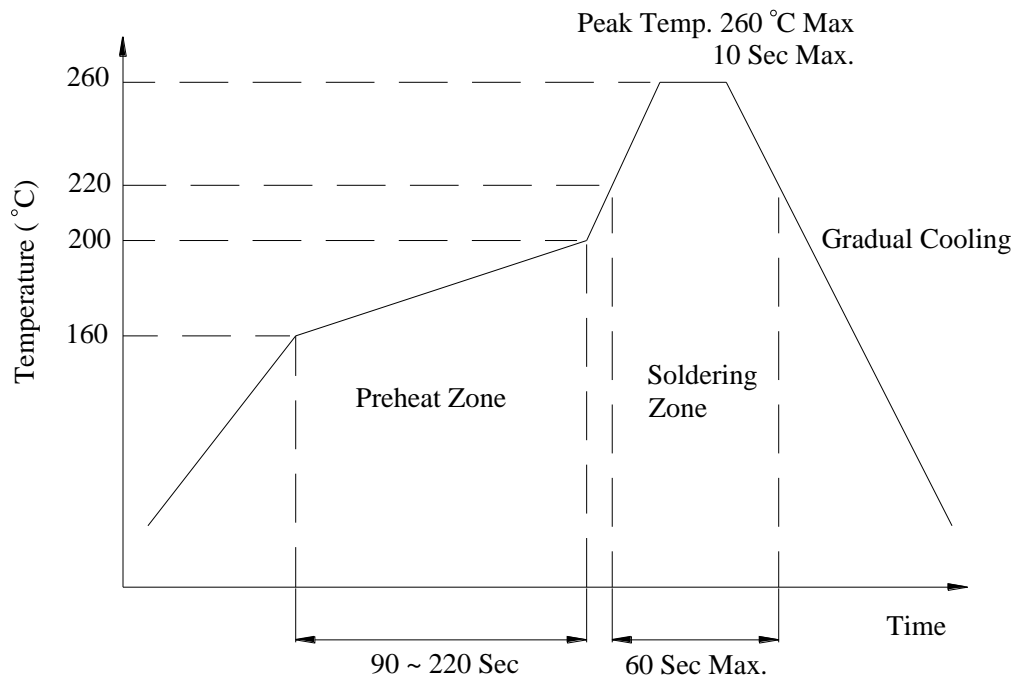
Relative Luminous Intensity vs Ambient Temperature



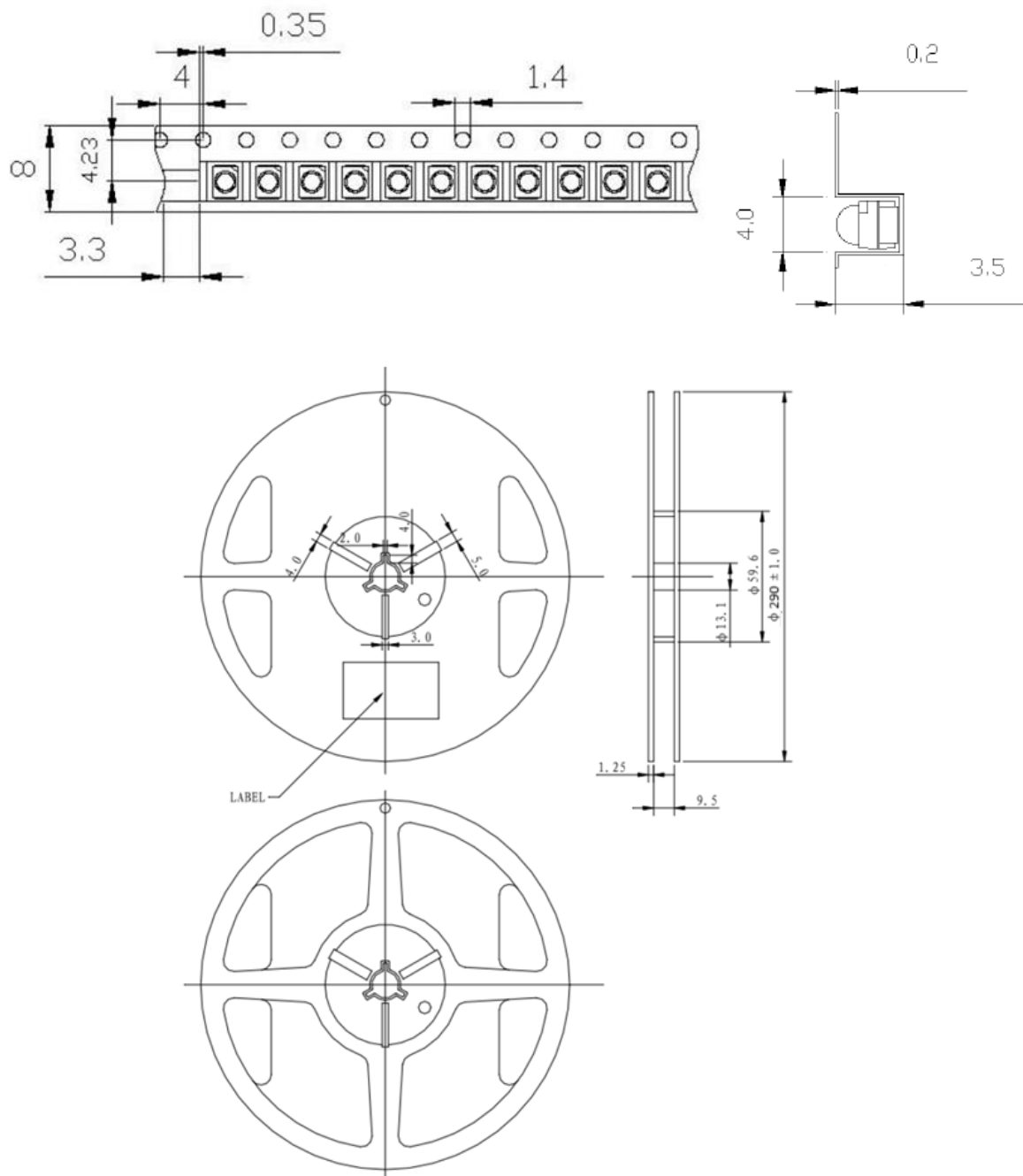
Solder Profile:

-The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):

- When soldering LEDs,
- Do not solder/reflow the same LED over two times.
- Recommend soldering conditions:
 - Hand soldering: 300 °C max , 3 sec. max.
 - Reflow soldering: Pre-heat 150 max , 180 sec. max. °C
 - Peak 260 ma °C x , 5 sec. max.
- Reflow temperature profile as below: (lead-free solder)

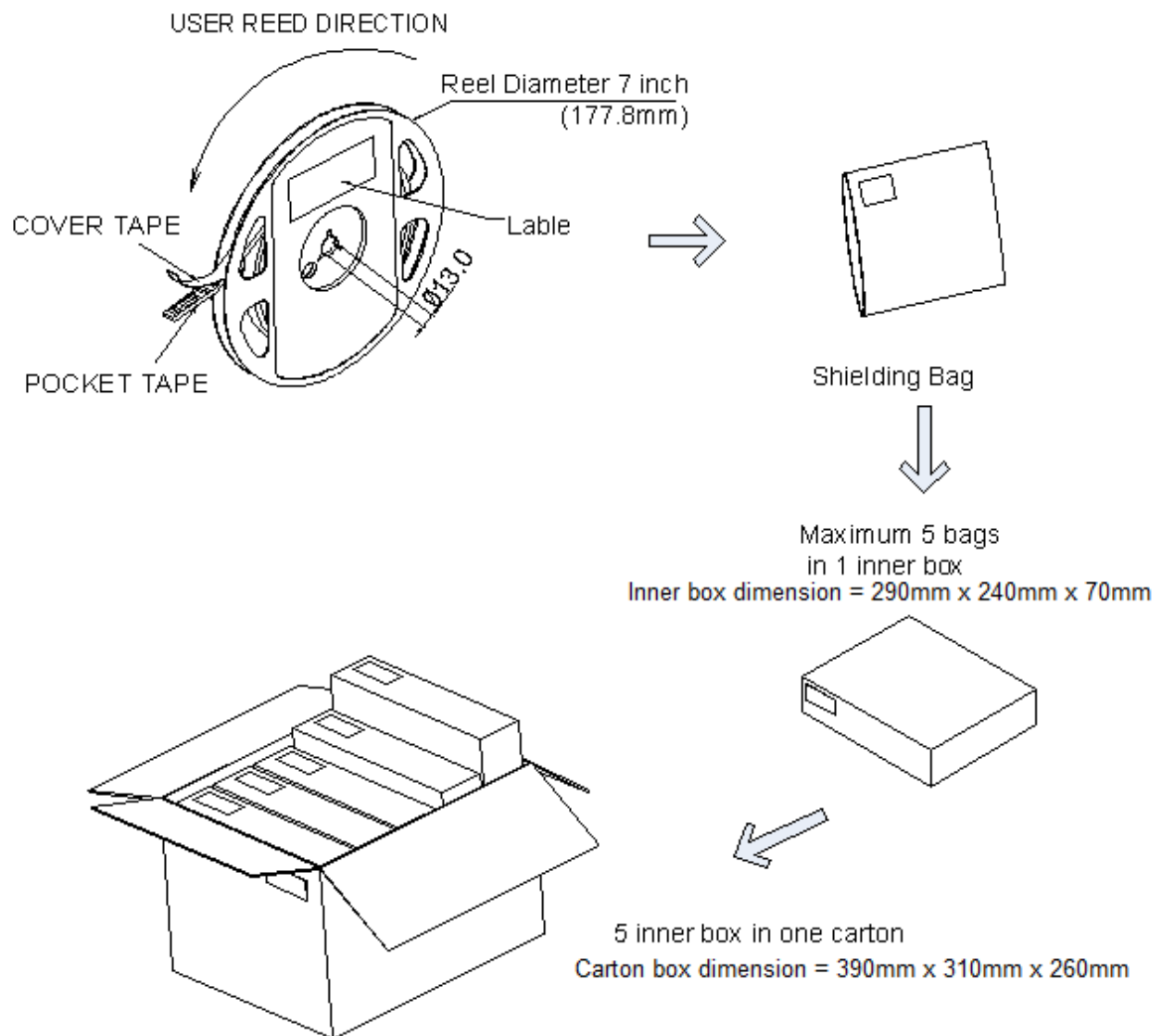


Taping & Packing:





Unit : mm







Labeling


Quantity: XXXX




QueLighting P/N: XXXXXX


Lot number: XXXXX

Iv Bin: XX Color Bin: XX Vf Bin: XX

Date Code: XXXX

Ordering Information:

Part #	Multiple Quantities	Quantity per Reel
QLSP27YD_B		2000 pcs



Revision History:

Revision Date:	Changes:	Version #:
11-01-2024	Initial release	1.0

