

Application Note 1-1

Z-POWER LED series

Binning and Labeling

Z-Power series is designed for high current operation and high flux output applications.



Z-Power LED's thermal management perform exceeds other power LED solutions. It incorporates state of the art SMD design and Thermal emission material.

Z-Power LED is ideal light sources for general illumination applications, custom designed solutions, automotive large LCD backlights

This application note provides binning and labeling information of Z-Power LED series.

It includes the Z-Power LED bins for luminous flux, wavelength (or x,y coordinates), correlated color temperature (CCT) for white and forward voltage.

Z2

Features

- Super high flux output and high luminance
- Designed for high current operation
- Low thermal resistance
- SMT solderability
- Lead free product
- RoHS compliant

Applications

- Mobile phone flash
- Automotive interior / Exterior lighting
- Automotive signal lighting
- Automotive forward lighting
- Torch
- Architectural lighting
- LCD TV / Monitor backlight
- Projector light source
- Traffic signals
- Task lighting
- Decorative / Pathway lighting
- Remote / Solar powered lighting
- Household appliances

Full Code of Z-Power LED Series

Full code form : $X_1 X_2 X_3 X_4 X_5 X_6 X_7 - X_8 X_9 - X_{10} X_{11} X_{12} X_{13} X_{14}$

1. Part Number

- X_1 : Color
- X_2 : New Z-Power LED - 'Z'
- X_3 : New Z-Power LED series number
- X_4 : LENS type
- X_5 : Chip quantity (or Power Dissipation)
- X_6 : Package outline size
- X_7 : Type of PCB

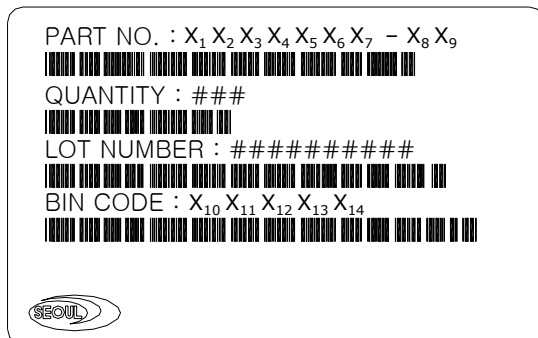
2. Internal Number

- X_8
- X_9

3. Code Labeling

- X_{10} : Luminous flux (or Radiant flux for royal blue)
- $X_{11} X_{12} X_{13}$: Dominant wavelength (or x,y coordinates rank code)
- X_{14} : Forward voltage

4. Sticker Diagram on Reel & Aluminum Vinyl Bag



For more information about binning and labeling, refer to the Application Note -1

Part Number

Part numbers specify color, New Z-Power series, Lens type, P_d, size and PCB type of New Z-Power LED.

- Example: X₁ X₂ X₃ X₄ X₅ X₆ X₇ - X₈X₉¹⁾

X ₁	Color
W	Pure White
N	Warm White
S	Natural White
D	Royal Blue*
B	Blue*
C	Cyan*
G	Green*
A	Amber*
R	Red*

X ₂	Z-Power Series
Z	New Z-Power Series

X ₃	Z-Power Series
1	Z1
2	Z2

X ₄	LENS Type
0	Flat Type

Note:

- 1) X₈ X₉ is a internal code number
- 2) Hemispherical dome type
- 3) * : Not yet available.



X₅	Chip Quantity (or Power Dissipation)
1	1 chip (1W)
3	X chip (3.5W)

X₆	Package Outline Size
5	5 X 6 mm
6	5.8 X 11.3 mm

X₇	Metal PCB Type
0	Emitter Only

Code Labeling

1. Luminous Flux Bins

- Luminous flux bin structure for pure white, warm white, blue, cyan, green, amber and red Z-Power.

Bin Code		Luminous Flux [lm]
J		6 ~ 8.5
K		8.5 ~ 11.0
L		11.0 ~ 14.5
M		14.5 ~ 19.0
O		19.0 ~ 24.5
P		24.5 ~ 32.0
Q		32.0 ~ 41.5
R		41.5 ~ 54.0
S	S1	54.0 ~ 60.0
	S2	60.0 ~ 70.0
T	T1	70.0 ~ 80.0
	T2	80.0 ~ 91.0
U	U1	91.0 ~ 100.0
	U2	100.0 ~ 118.5
V		118.5 ~ 154.0
W	W1	154.0 ~ 177.0
	W2	177.0 ~ 200.0
X	X1	200.0 ~ 230.0
	X2	230.0 ~ 260.0
Y	Y1	260.0 ~ 300.0
	Y2	300.0 ~ 340.0

The list explains the photometric luminous flux bins for Z-Power LED. Z-Power LED are tested and binned by photometric luminous flux. Not all bins are available in all colors.

Tolerance : ±10% of Luminous flux value

2. Color Bins

Z-Power are tested and binned for dominant wavelength (blue, green, amber, red) or x,y coordinates (pure white, warm white)

2 -1 Blue, Green, Amber, Red

Bin Code	Color	Dominant Wavelength [nm]
BB1	Blue	455 ~ 460
BB2		460 ~ 465
BB3		465 ~ 470
BB4		470 ~ 475
GG1	Green	520 ~ 525
GG2		525 ~ 530
GG3		530 ~ 535
AA1	Amber	585 ~ 587.5
AA2		587.5 ~ 590
AA3		590 ~ 592.5
AA4		592.5 ~ 595
RR1	Red	618 ~ 625
RR2		625 ~ 632

Tolerance

Dominant wavelength : ± 0.5 nm

Peak wavelength : ± 2.0 nm

2-2. Pure White CIE

Pure white product tested and binned by x,y coordinates and CCT

- Pure white bin structure

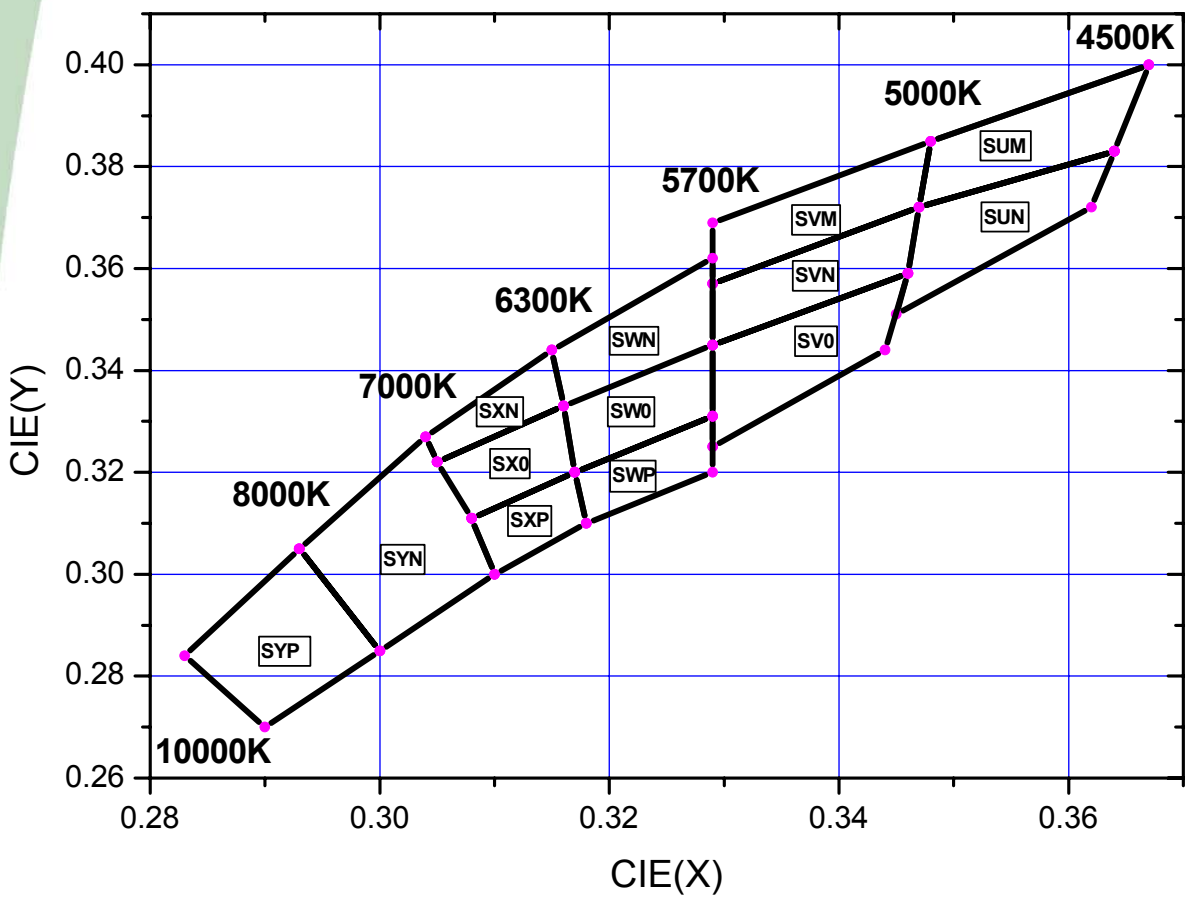
Bin	CHR_X	CHR_Y	CCT(K)	Bin	CHR_X	CHR_Y	CCT(K)	
SYP	0.293	0.305	9000	SWP	0.329	0.331	6050	
	0.283	0.284			0.317	0.320		
	0.290	0.270			0.318	0.310		
	0.300	0.285			0.329	0.320		
0.304	0.327	0.329	0.325					
SYN	0.293	0.305	7500	SVM	0.348	0.385	5350	
	0.300	0.285			0.329	0.369		
	0.310	0.300			0.329	0.362		
	0.308	0.311			0.329	0.357		
	0.305	0.322			0.347	0.372		
0.315	0.344	0.347	0.372					
SXN	0.304	0.327	6700	SVN	0.329	0.357	5350	
	0.305	0.322			0.329	0.345		
	0.316	0.333			0.346	0.359		
	0.316	0.333			0.346	0.359		
SX0	0.305	0.322	6700	SVO	0.329	0.345	5350	
	0.308	0.311			0.329	0.331		
	0.317	0.32			0.329	0.325		
	0.317	0.320			0.344	0.344		
SXP	0.308	0.311	6700		0.345	0.351		4800
	0.310	0.300			SUM	0.367		
	0.318	0.310		0.348		0.385		
	0.329	0.362		0.347		0.372		
SWN	0.315	0.344	6050	0.364	0.383	4800		
	0.316	0.333		SUN	0.364		0.383	
	0.329	0.345			0.347		0.372	
	0.329	0.357			0.346		0.359	
	0.329	0.345			0.345		0.351	
SW0	0.316	0.333	6050	0.362	0.372	4800		
	0.317	0.320						
	0.329	0.331						

Tolerance

Color coordinate : ± 0.005

CCT : $\pm 5\%$ of value

- Pure white binning structure graphical representation



2-3. Natural white

Natural white product tested and binned by x,y coordinates and CCT

- Natural white bin structure

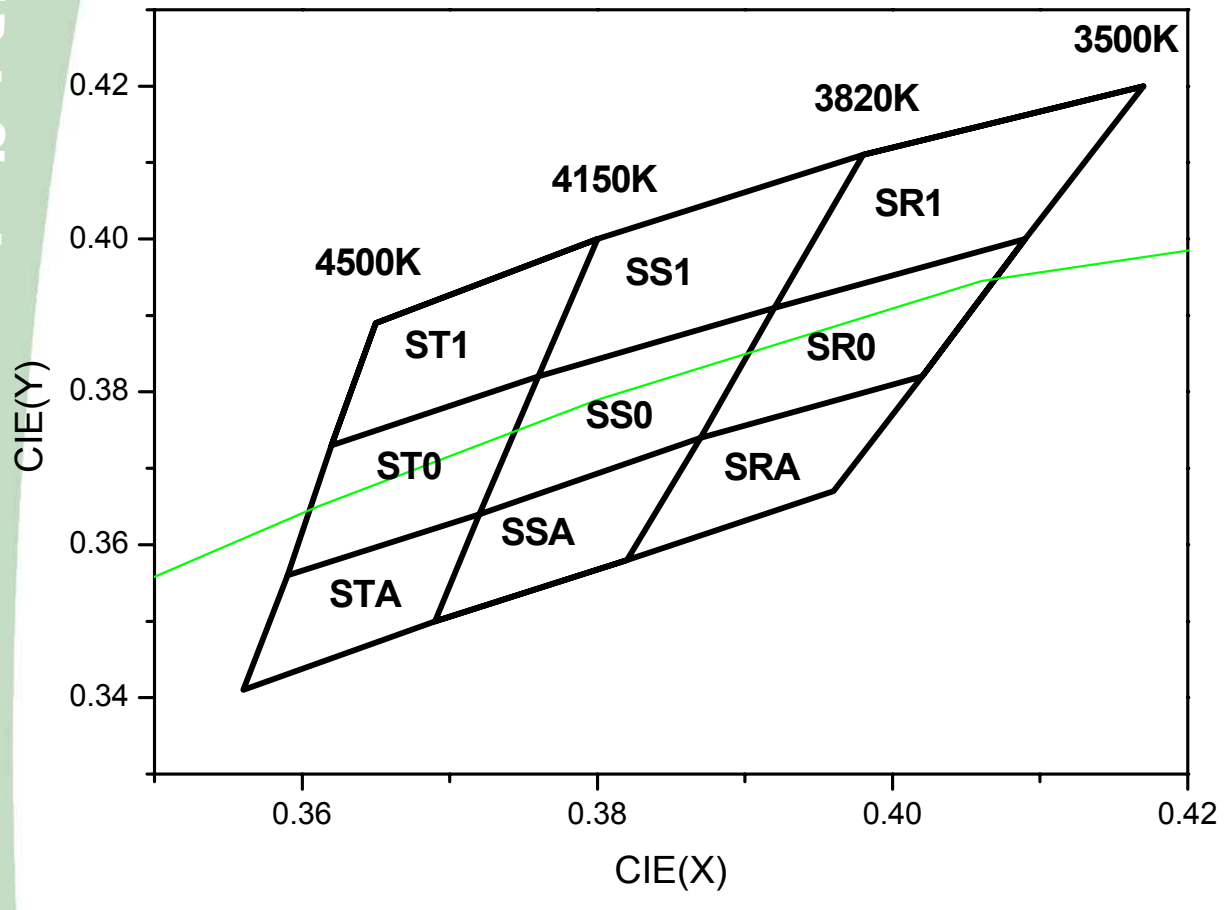
Bin	CHR_X	CHR_Y	CCT(K)	Bin	CHR_X	CHR_Y	CCT(K)
ST1	0.380	0.400	4325	SSA	0.387	0.374	3985
	0.365	0.389			0.372	0.364	
	0.362	0.373			0.369	0.350	
	0.376	0.382			0.382	0.358	
ST0	0.376	0.382	4325	SR1	0.417	0.420	3660
	0.362	0.373			0.398	0.411	
	0.359	0.356			0.392	0.391	
	0.372	0.364			0.409	0.400	
STA	0.372	0.364	4325	SR0	0.409	0.400	3660
	0.359	0.356			0.392	0.391	
	0.356	0.341			0.387	0.374	
	0.369	0.350			0.402	0.382	
SS1	0.398	0.411	3985	SRA	0.402	0.382	3660
	0.380	0.400			0.387	0.374	
	0.376	0.382			0.382	0.358	
	0.392	0.391			0.396	0.367	
SS0	0.392	0.391	3985				
	0.376	0.382					
	0.372	0.364					
	0.387	0.374					

Tolerance

Color coordinate : ± 0.005

CCT : $\pm 5\%$ of value

- Natural white binning structure graphical representation



2-4. Warm White

Warm white product tested and binned by x,y coordinates and CCT

- Warm white bin structure

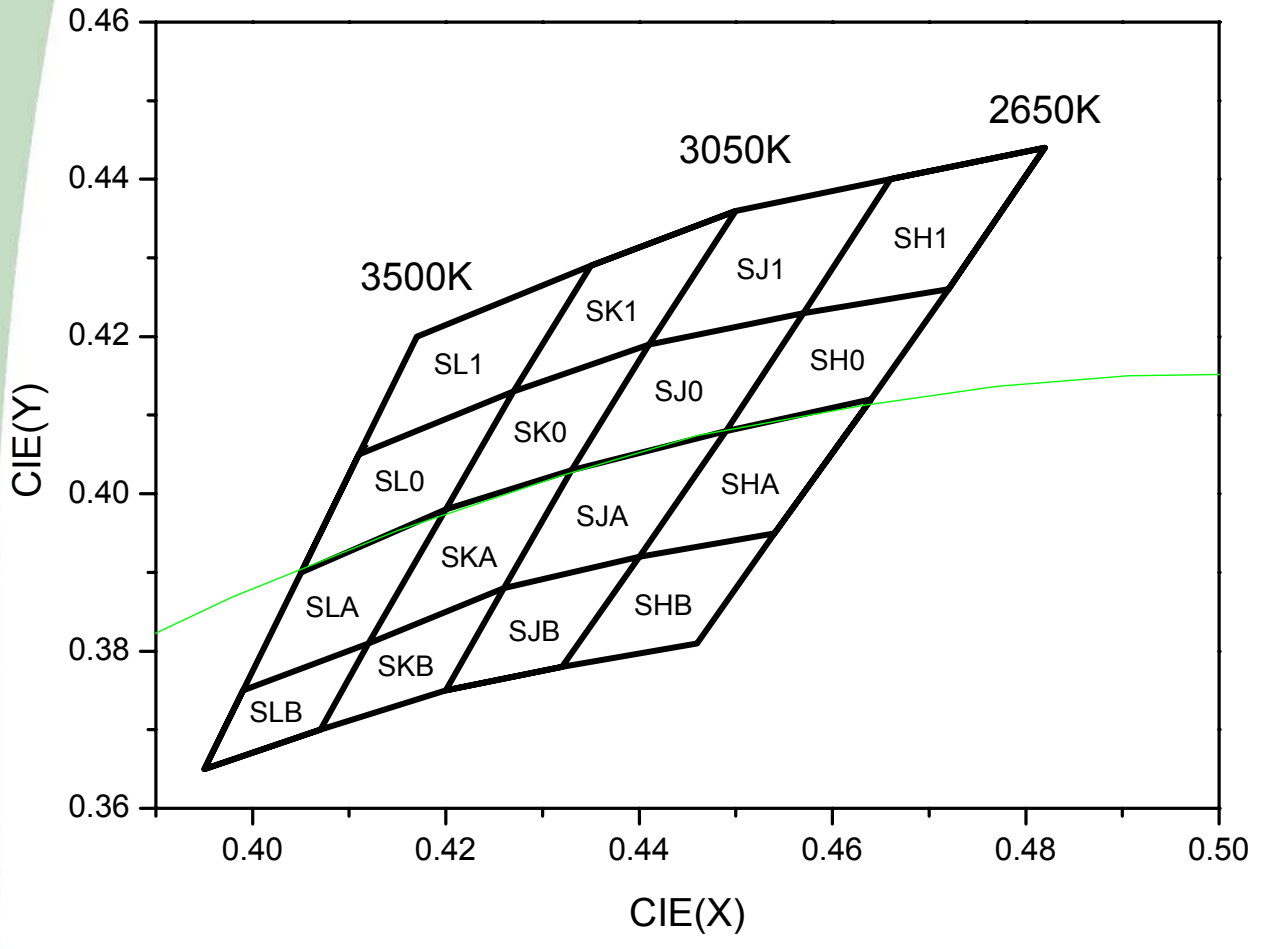
Bin	CHR_X	CHR_Y	CCT(K)	Bin	CHR_X	CHR_Y	CCT(K)
SL1	0.435	0.429	3375	SJ1	0.466	0.440	2950
	0.417	0.420			0.450	0.436	
	0.411	0.405			0.441	0.419	
	0.427	0.413			0.457	0.423	
SL0	0.427	0.413	3375	SJ0	0.457	0.423	2950
	0.411	0.405			0.441	0.419	
	0.405	0.390			0.433	0.403	
	0.420	0.398			0.449	0.408	
SLA	0.420	0.398	3375	SJA	0.449	0.408	2950
	0.405	0.390			0.433	0.403	
	0.399	0.375			0.426	0.388	
	0.412	0.381			0.440	0.392	
SLB	0.412	0.381	3375	SJB	0.440	0.392	2950
	0.399	0.375			0.426	0.388	
	0.395	0.365			0.42	0.375	
	0.407	0.37			0.432	0.378	
SK1	0.450	0.436	3150	SH1	0.482	0.444	2750
	0.435	0.429			0.466	0.440	
	0.427	0.413			0.457	0.423	
	0.441	0.419			0.472	0.426	
SK0	0.441	0.419	3150	SH0	0.472	0.426	2750
	0.427	0.413			0.457	0.423	
	0.420	0.398			0.449	0.408	
	0.433	0.403			0.464	0.412	
SKA	0.433	0.403	3150	SHA	0.464	0.412	2750
	0.420	0.398			0.449	0.408	
	0.412	0.381			0.440	0.392	
	0.426	0.388			0.454	0.395	
SKB	0.426	0.388	3150	SHB	0.454	0.395	2750
	0.412	0.381			0.440	0.392	
	0.407	0.370			0.432	0.378	
	0.420	0.375			0.446	0.381	

Tolerance

Color coordinate : ± 0.005

CCT : $\pm 5\%$ of value

- Warm white binning structure graphical representation



3. Forward Voltage Bins

Bin Code	Forward Voltage [V]
O	8.00 ~ 8.75
P	8.75 ~ 9.50
Q	9.50 ~ 10.25
R	10.25 ~ 11.00
S	11.00 ~ 11.75
T	11.75 ~ 12.50

Tolerance : $\pm 0.06V$

3.5W Order Code (Z2)

Z Power LED has an order code, use it as follows to purchase.

- Example: WZ20360 – 1A
 - WZ20360 : Part Number
 - 1A : Order code

You can select PCB type, Lens type and Z-Power LED series number as part number.

1. Pure White (1A,1B)

Standard Order Codes for pure white				
Order Code	LF	CC	V _F	Bin Codes
Part No. – 1A	X1	SXN	Q R S T	X1SXNQ~X1SXNT
		SWN		X1SWNQ~X1SWNT
		SX0		X1SX0Q~X1SX0T
		SW0		X1SW0Q~X1SW0T
	X2	SXN		X2SXNQ~X2SXNT
		SWN		X2SWNQ~X2SWNT
		SX0		X2SX0Q~X2SX0T
		SW0		X2SW0Q~X2SW0T
Part No. – 1B	Y1	SXN	Q R S T	Y1SXNQ~Y1SXNT
		SWN		Y1SWNQ~Y1SWNT
		SX0		Y1SX0Q~Y1SX0T
		SW0		Y1SW0Q~Y1SW0T
	Y2*	SXN		Y2SXNQ~Y2SXNT
		SWN		Y2SWNQ~Y2SWNT
		SX0		Y2SX0Q~Y2SX0T
		SW0		Y2SW0Q~Y2SW0T

* : Not yet available

3.5W Order Code (Z2)

1. Pure White (1C,1D)

Standard Order Codes for pure white				
Order Code	LF	CC	V _F	Bin Codes
Part No. – 1C	X1	SX0	Q R S T	X1SX0Q~X1SX0T
		SW0		X1SW0Q~X1SW0T
		SXP		X1SXPQ~X1SXPT
		SWP		X1SWPQ~X1SWPT
	X2	SX0		X2SX0Q~X2SX0T
		SW0		X2SW0Q~X2SW0T
		SXP		X2SXPQ~X2SXPT
		SWP		X2SWPQ~X2SWPT
Part No. – 1D	Y1	SX0	Q R S T	Y1SX0Q~Y1SX0T
		SW0		Y1SW0Q~Y1SW0T
		SXP		Y1SXPQ~Y1SXPT
		SWP		Y1SWPQ~Y1SWPT
	Y2*	SX0		Y2SX0Q~Y2SX0T
		SW0		Y2SW0Q~Y2SW0T
		SXP		Y2SXPQ~Y2SXPT
		SWP		Y2SWPQ~Y2SWPT

* : Not yet available

3.5W Order Code (Z2)

1. Pure White (1E,1F)

Standard Order Codes for pure white				
Order Code	LF	CC	V _F	Bin Codes
Part No. - 1E	X1	SYP	Q R S T	X1SYPQ~X1SYPT
		SYN		X1SYNQ~X1SYNT
	X2	SYP		X2SYPQ~X2SYPT
		SYN		X2SYNQ~X2SYNT
Part No. - 1F	Y1	SYP	Q R S T	Y1SYPQ~Y1SYPT
		SYN		Y1SYNQ~Y1SYNT
	Y2*	SYP		Y2SYPQ~Y2SYPT
		SYN		Y2SYNQ~Y2SYNT

* : Not yet available

3.5W Order Code (Z2)

1. Pure White (1G,1H)

Standard Order Codes for pure white						
Order Code	LF	CC	V _F	Bin Codes		
Part No. - 1G	X1	SVM	Q R S T	X1SVMQ~X1SVMT		
		SVN		X1SVNQ~X1SVNT		
		SV0		X1SV0Q~X1SV0T		
	X2	SVM		X2SVMQ~X2SVMT		
		SVN		X2SVNQ~X2SVNT		
		SV0		X2SV0Q~X2SV0T		
	Part No. - 1H	Y1		SVM	Q R S T	Y1SVMQ~Y1SVMT
				SVN		Y1SVNQ~Y1SVNT
				SV0		Y1SV0Q~Y1SV0T
Y2*		SVM	Y2SVMQ~Y2SVMT			
		SVN	Y2SVNQ~Y2SVNT			
		SVO	Y2SVOQ~Y2SVOT			

* : Not yet available

3.5W Order Code (Z2)

1. Pure White (1I,1J)

Standard Order Codes for pure white						
Order Code	LF	CC	V _F	Bin Codes		
Part No. - 1I	X1	SUM	Q R S T	X1SUMQ~X1SUMT		
		SUN		X1SUNQ~X1SUNT		
		SVN		X1SVNQ~X1SVNT		
	X2	SUM		X2SUMQ~X2SUMT		
		SUN		X2SUNQ~X2SUNT		
		SVN		X2SVNQ~X2SVNT		
	Part No. - 1J	Y1		SUM	Q R S T	Y1SUMQ~Y1SUMT
				SUN		Y1SUNQ~Y1SUNT
				SVN		Y1SVNQ~Y1SVNT
Y2*		SUM	Y2SUMQ~Y2SUMT			
		SUN	Y2SUNQ~Y2SUNT			
		SVN	Y2SVNQ~Y2SVNT			

* : Not yet available

3.5W Order Code (Z2)

Z Power LED has an order code, use it as follows to purchase.

- Example: SZ20360 – 1A
 - SZ20360 : Part Number
 - 1A : Order code

You can select PCB type, Lens type and Z-Power LED series number as part number.

2. Natural white – (1A,1B)

Standard Order Codes for Natural white				
Order Code	LF	CC	V _F	Bin Codes
Part No. - 1A	W2	ST1	Q R S T	W2ST1Q~W2ST1T
		SS1		W2SS1Q~W2SS1T
		ST0		W2ST0Q~W2ST0T
		SS0		W2SS0Q~W2SS0T
	X1	ST1		X1ST1Q~X1ST1T
		SS1		X1SS1Q~X1SS1T
		ST0		X1ST0Q~X1ST0T
		SS0		X1SS0Q~X1SS0T
Part No. - 1B*	X2	ST1	Q R S T	X2ST1Q~X2ST1T
		SS1		X2SS1Q~X2SS1T
		ST0		X2ST0Q~X2ST0T
		SS0		X2SS0Q~X2SS0T
	Y1	ST1		Y1ST1Q~Y1ST1T
		SS1		Y1SS1Q~Y1SS1T
		ST0		Y1ST0Q~Y1ST0T
		SS0		Y1SS0Q~Y1SS0T

* : Not yet available

3.5W Order Code (Z2)

2. Natural white - (1C,1D)

Standard Order Codes for Natural white				
Order Code	LF	CC	V _F	Bin Codes
Part No. - 1C	W2	SS1	Q R S T	W2SS1Q~W2SS1T
		SR1		W2SR1Q~W2SR1T
		SS0		W2SS0Q~W2SS0T
		SR0		W2SR0Q~W2SR0T
	X1	SS1		X1SS1Q~X1SS1T
		SR1		X1SR1Q~X1SR1T
		SS0		X1SS0Q~X1SS0T
		SR0		X1SR0Q~X1SR0T
Part No. - 1D*	X2	SS1	Q R S T	X2SS1Q~X2SS1T
		SR1		X2SR1Q~X2SR1T
		SS0		X2SS0Q~X2SS0T
		SR0		X2SR0Q~X2SR0T
	Y1	SS1		Y1SS1Q~Y1SS1T
		SR1		Y1SR1Q~Y1SR1T
		SS0		Y1SS0Q~Y1SS0T
		SR0		Y1SR0Q~Y1SR0T

* : Not yet available

3.5W Order Code (Z2)

2. Natural white - (1E,1F)

Standard Order Codes for Natural white				
Order Code	LF	CC	V _F	Bin Codes
Part No. - 1E	W2	ST0	Q R S T	W2ST0Q~W2ST0T
		SS0		W2SS0Q~W2SS0T
		STA		W2STAQ~W2STAT
		SSA		W2SSAQ~W2SSAT
	X1	ST0		X1ST0Q~X1ST0T
		SS0		X1SS0Q~X1SS0T
		STA		X1STAQ~X1STAT
		SSA		X1SSAQ~X1SSAT
Part No. - 1F*	X2	ST0	Q R S T	X2ST0Q~X2ST0T
		SS0		X2SS0Q~X2SS0T
		STA		X2STAQ~X2STAT
		SSA		X2SSAQ~X2SSAT
	Y1	ST0		Y1ST0Q~Y1ST0T
		SS0		Y1SS0Q~Y1SS0T
		STA		Y1STAQ~Y1STAT
		SSA		Y1SSAQ~Y1SSAT

* : Not yet available

3.5W Order Code (Z2)

2. Natural white - (1G,1H)

Standard Order Codes for Natural white				
Order Code	LF	CC	V _F	Bin Codes
Part No. - 1G	W2	SS0	Q R S T	W2SS0Q~W2SS0T
		SR0		W2SR0Q~W2SR0T
		SSA		W2SSAQ~W2SSAT
		SRA		W2SRAQ~W2SRAT
	X1	SS0		X1SS0Q~X1SS0T
		SR0		X1SR0Q~X1SR0T
		SSA		X1SSAQ~X1SSAT
		SRA		X1SRAQ~X1SRAT
Part No. - 1H*	X2	SS0	Q R S T	X2SS0Q~X2SS0T
		SR0		X2SR0Q~X2SR0T
		SSA		X2SSAQ~X2SSAT
		SRA		X2SRAQ~X2SRAT
	Y1	SS0		Y1SS0Q~Y1SS0T
		SR0		Y1SR0Q~Y1SR0T
		SSA		Y1SSAQ~Y1SSAT
		SRA		Y1SRAQ~Y1SRAT

* : Not yet available

3.5W Order Code (Z2)

Z Power LED has an order code, use it as follows to purchase.

- Example: NZ20360 – 1A
 - NZ20360 : Part Number
 - 1A : Order code

You can select PCB type, Lens type and Z-Power LED series number as part number.

3. Warm White - (1A,1B)

Standard Order Codes for Warm white				
Order Code	LF	CC	V _F	Bin Codes
Part No. - 1A	W2	SL0	Q R S T	W2SL0Q~W2SL0T
		SLA		W2SLAQ~W2SLAT
		SKA		W2SKAQ~W2SKAT
		SK0		W2SK0Q~W2SK0T
	X1	SL0		X1SL0Q~X1SL0T
		SLA		X1SLAQ~X1SLAT
		SKA		X1SKAQ~ X1SKAT
		SK0		X1SK0Q~ X1SK0T
Part No. - 1B*	X2	SL0	Q R S T	X2SL0Q~X2SL0T
		SLA		X2SLAQ~X2SLAT
		SKA		X2SKAQ~X2SKAT
		SK0		X2SK0Q~X2SK0T
	Y1	SL0		YT1SL0Q~Y1SL0T
		SLA		Y1SLAQ~Y1SLAT
		SKA		Y1SKAQ~Y1SKAT
		SK0		Y1SK0Q~Y1SK0T

* : Not yet available

3.5W Order Code (Z2)

3. Warm White – (1C,1D)

Standard Order Codes for Warm white				
Order Code	LF	CC	V _F	Bin Codes
Part No. – 1C	W2	SK0	Q R S T	W2SK0Q~W2SK0T
		SKA		W2SKAQ~W2SKAT
		SJA		W2SJAQ~W2SJAT
		SJ0		W2SJ0Q~W2SJ0T
	X1	SK0		X1SK0Q~X1SK0T
		SKA		X1SKAQ~X1SKAT
		SJA		X1SJAQ~X1SJAT
		SJ0		X1SJ0Q~X1SJ0T
Part No. – 1D*	X2	SK0	Q R S T	X2SK0Q~X2SK0T
		SKA		X2SKAQ~X2SKAT
		SJA		X2SJAQ~X2SJAT
		SJ0		X2SJ0Q~X2SJ0T
	Y1	SK0		Y1SK0Q~Y1SK0T
		SKA		Y1SKAQ~Y1SKAT
		SJA		Y1SJAQ~Y1SJAT
		SJ0		Y1SJ0Q~Y1SJ0T

* : Not yet available

3.5W Order Code (Z2)

3. Warm White – (1E,1F)

Standard Order Codes for Warm white				
Order Code	LF	CC	V _F	Bin Codes
Part No. - 1E	W2	SJ0	Q R S T	W2SJ0Q~W2SJ0T
		SJA		W2SJAQ~W2SJAT
		SHA		W2SHAQ~W2SHAT
		SH0		W2SH0Q~W2SH0T
	X1	SJ0		X1SJ0Q~X1SJ0T
		SJA		X1SJAQ~X1SJAT
		SHA		X1SHAQ~X1SHAT
		SH0		X1SH0Q~X1SH0T
Part No. - 1F*	X2	SJ0	Q R S T	X2SJ0Q~X2SJ0T
		SJA		X2SJAQ~X2SJAT
		SHA		X2SHAQ~X2SHAT
		SH0		X2SH0Q~X2SH0T
	Y1	SJ0		Y1SJ0Q~Y1SJ0T
		SJA		Y1SJAQ~Y1SJAT
		SHA		Y1SHAQ~Y1SHAT
		SH0		Y1SH0Q~Y1SH0T

* : Not yet available

3.5W Order Code (Z2)

3. Warm White - (1G,1H)

Standard Order Codes for Warm white				
Order Code	LF	CC	V _F	Bin Codes
Part No. - 1G	W2	SL1	Q R S T	W2SL1Q~W2SL1T
		SL0		W2SL0Q~W2SL0T
		SK0		W2SK0Q~W2SK0T
		SK1		W2SK1Q~W2SK1T
	X1	SL1		X1SL1Q~X1SL1T
		SL0		X1SL0Q~X1SL0T
		SK0		X1SK0Q~X1SK0T
		SK1		X1SK1Q~X1SK1T
Part No. - 1H*	X2	SL1	Q R S T	X2SL1Q~X2SL1T
		SL0		X2SL0Q~X2SL0T
		SK0		X2SK0Q~X2SK0T
		SK1		X2SK1Q~X2SK1T
	Y1	SL1		Y1SL1Q~Y1SL1T
		SL0		Y1SL0Q~Y1SL0T
		SK0		Y1SK0Q~Y1SK0T
		SK1		Y1SK1Q~Y1SK1T

* : Not yet available

3.5W Order Code (Z2)

3. Warm White - (1I,1J)

Standard Order Codes for Warm white				
Order Code	LF	CC	V _F	Bin Codes
Part No. - 1I	W2	SJ1	Q R S T	W2SJ1Q~W2SJ1T
		SJ0		W2SJ0Q~W2SJ0T
		SH0		W2SH0Q~W2SH0T
		SH1		W2SH1Q~W2SH1T
	X1	SJ1		X1SJ1Q~X1SJ1T
		SJ0		X1SJ0Q~X1SJ0T
		SH0		X1SH0Q~X1SH0T
		SH1		X1SH1Q~X1SH1T
Part No. - 1J*	X2	SJ1	Q R S T	X2SJ1Q~X2SJ1T
		SJ0		X2SJ0Q~X2SJ0T
		SH0		X2SH0Q~X2SH0T
		SH1		X2SH1Q~X2SH1T
	Y1	SJ1		Y1SJ1Q~Y1SJ1T
		SJ0		Y1SJ0Q~Y1SJ0T
		SH0		Y1SH0Q~Y1SH0T
		SH1		Y1SH1Q~Y1SH1T

* : Not yet available

3.5W Order Code (Z2)

3. Warm White – (1K,1L)

Standard Order Codes for Warm White				
Order Code	LF	CC	V _F	Bin Codes
Part No. – 1K	W2	SLA	Q R S T	W2SLAQ~W2SLAT
		SLB		W2SLBQ~W2SLBT
		SKB		W2SKBQ~W2SKBT
		SKA		W2SKAQ~W2SKAT
	X1	SLA		X1SLAQ~X1SLAT
		SLB		X1SLBQ~X1SLBT
		SKB		X1SKBQ~X1SKBT
		SKA		X1SKAQ~X1SKAT
Part No. – 1L*	X2	SLA	Q R S T	X2SLAQ~X2SLAT
		SLB		X2SLBQ~X2SLBT
		SKB		X2SKBQ~X2SKBT
		SKA		X2SKAQ~X2SKAT
	Y1	SLA		Y1SLAQ~Y1SLAT
		SLB		Y1SLBQ~Y1SLBT
		SKB		Y1SKBQ~Y1SKBT
		SKA		Y1SKAQ~Y1SKAT

* : Not yet available

3.5W Order Code (Z2)

3. Warm White – (1M,1N)

Standard Order Codes for Warm White				
Order Code	LF	CC	V _F	Bin Codes
Part No. – 1M	W2	SJA	Q R S T	W2SJAQ~W2SJAT
		SJB		W2SJBQ~W2SJB T
		SHB		W2SHBQ~W2SHBT
		SHA		W2SHAQ~W2SHAT
	X1	SJA		X1SJAQ~X1SJAT
		SJB		X1SJBQ~X1SJB T
		SHB		X1SHBQ~X1SHBT
		SHA		X1SHAQ~X1SHAT
Part No. – 1N*	X2	SJA	Q R S T	X2SJAQ~X2SJAT
		SJB		X2SJBQ~X2SJB T
		SHB		X2SHBQ~X2SHBT
		SHA		X2SHAQ~X2SHAT
	Y1	SJA		Y1SJAQ~Y1SJAT
		SJB		Y1SJBQ~Y1SJB T
		SHB		Y1SHBQ~Y1SHBT
		SHA		Y1SHAQ~Y1SHAT

* : Not yet available