Technical Data Sheet

SEOUL SEMICONDUCTOR

Application Note 1-1

Z-POWER LED series

Binning and Labeling

P3-II

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.

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

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Full Code of Z-Power LED Series

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

1. Part Number

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

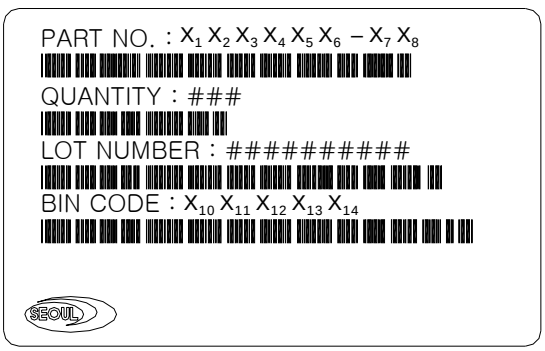
2. Internal Number

- X_7
- X_8

3. Code Labeling

- X_9 : Luminous flux (or Radiant flux for royal blue)
- $X_{10}\ X_{11}\ X_{12}$: Dominant wavelength (or x,y coordinates rank code)
- X_{13} : 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, Z-Power series, Lens type, P_d, size, PCB and Grade of characteristic code type of Z-Power LED.

• Example: $X_1\ X_2\ X_3\ X_4\ X_5\ X_6 - X_7\ X_8$ [1)]

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
F	Full Color (7-color)

X_2	Z-Power Series
1	P1
S	P3-II
4	P4
5	P5-II
7	P7
9	P9

X_3	LENS Type
0	PI,P5-II Flat Type
2	P3-II,P4,P7,P9 Dome Type [3)]
7	P4 narrow Type [4)]

Note:

1) X_7, X_8 is a internal code number

2) Hemispherical dome type

3) View angle : white 70°

X_4	Chip Quantity (or Power Dissipation)
0	1 chip(0.5W)
1	1 chip (1W)
2	2 chip (2.5W)
3	Full Color (7-color)
4	4 chip (5W)

X_5	Package Outline Size
9	9 X 9 mm
8	D 8 mm
6	5 X 6 mm
5	D 5 mm

X_6	Metal PCB Type
0	Emitter Only
2	Star

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		154.0 ~ 200.0
X		200.0 ~ 260.0
Y		260.0 ~ 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, red, Amber) or x,y coordinates (pure 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

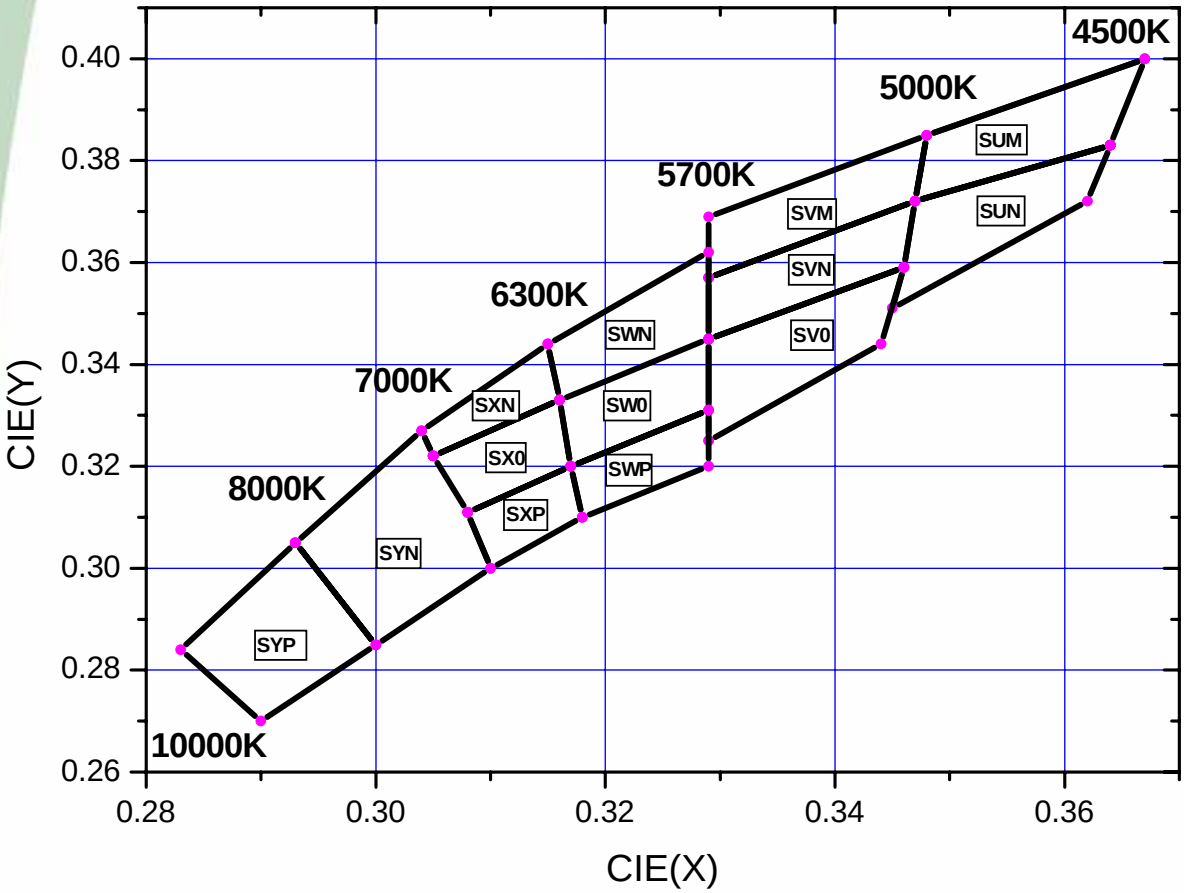
Bin	CHR_X	CHR_Y	CCT(K)	Bin	CHR_X	CHR_Y	CCT(K)
SYP	0.293	0.305	9000	SWP	0.329	0.331	6050
	0.283	0.284			0.317	0.320	
	0.290	0.270			0.318	0.310	
	0.300	0.285			0.329	0.320	
SYN	0.304	0.327	7500		0.329	0.325	
	0.293	0.305		SVM	0.348	0.385	5350
	0.300	0.285			0.329	0.369	
	0.310	0.300			0.329	0.362	
	0.308	0.311			0.329	0.357	
	0.305	0.322			0.347	0.372	
SXN	0.315	0.344	6700	SVN	0.347	0.372	5350
	0.304	0.327			0.329	0.357	
	0.305	0.322			0.329	0.345	
	0.316	0.333			0.346	0.359	
SX0	0.316	0.333	6700	SV0	0.346	0.359	5350
	0.305	0.322			0.329	0.345	
	0.308	0.311			0.329	0.331	
	0.317	0.32			0.329	0.325	
SXP	0.317	0.320	6700		0.344	0.344	
	0.308	0.311			0.345	0.351	
	0.310	0.300		SUM	0.367	0.400	4800
	0.318	0.310			0.348	0.385	
SWN	0.329	0.362	6050		0.347	0.372	
	0.315	0.344			0.364	0.383	
	0.316	0.333		SUN	0.364	0.383	4800
	0.329	0.345			0.347	0.372	
	0.329	0.357			0.346	0.359	
SW0	0.329	0.345	6050		0.345	0.351	
	0.316	0.333			0.362	0.372	
	0.317	0.320					
	0.329	0.331					

Tolerance

Color coordinate : ±0.005

CCT : ±5% of value

- Pure white binning structure graphical representation



2-3. Warm White

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

- Warm white bin structure

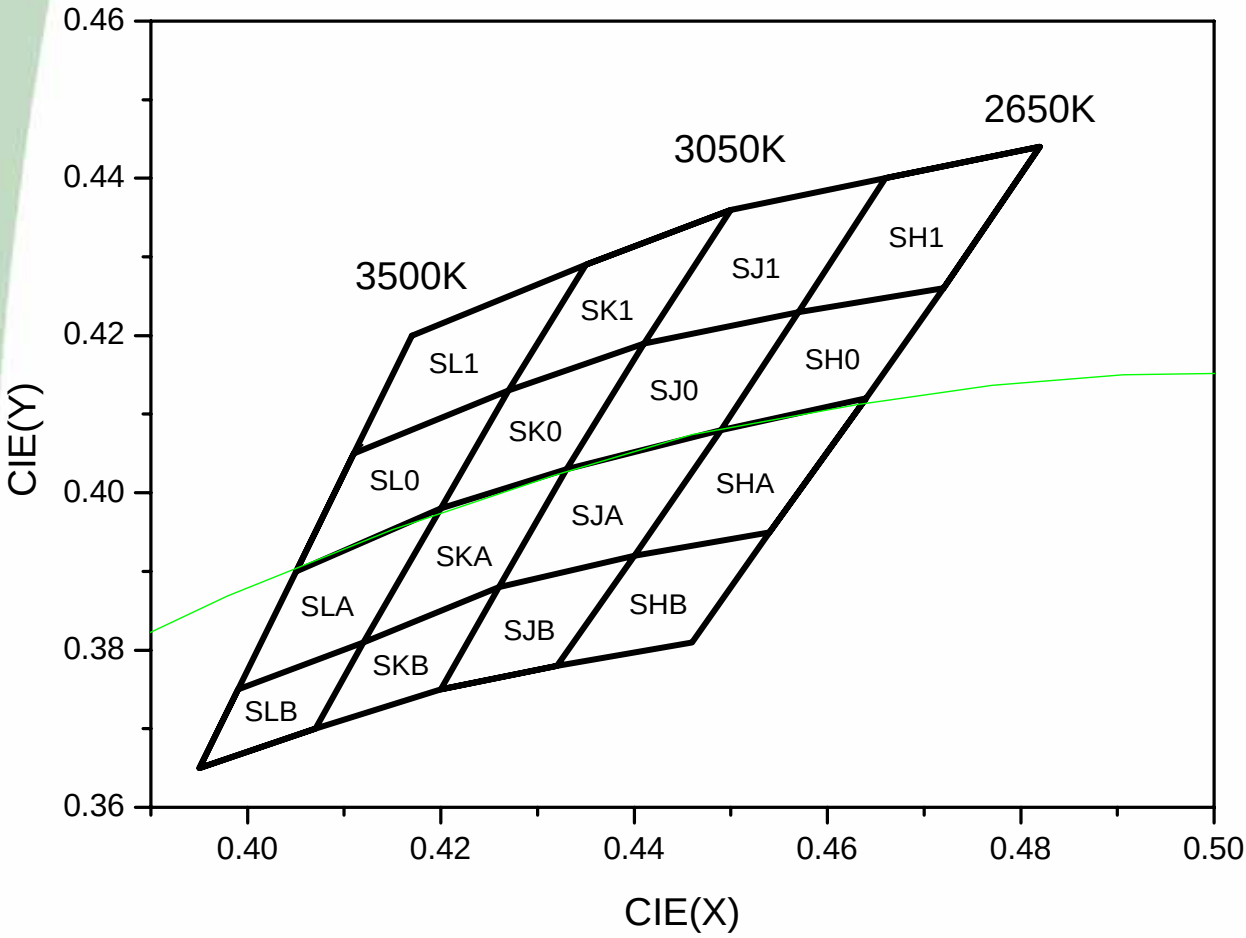
Bin	CHR_X	CHR_Y	CCT(K)	Bin	CHR_X	CHR_Y	CCT(K)
SL1	0.435	0.429	3375	SJ1	0.466	0.440	2950
	0.417	0.420			0.450	0.436	
	0.411	0.405			0.441	0.419	
	0.427	0.413			0.457	0.423	
SL0	0.427	0.413	3375	SJ0	0.457	0.423	2950
	0.411	0.405			0.441	0.419	
	0.405	0.390			0.433	0.403	
	0.420	0.398			0.449	0.408	
SLA	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 : ±5% of value

- Warm white binning structure graphical representation



3. Forward Voltage Bins

Bin Code	Forward Voltage [V]
D	2.00 ~ 2.25
E	2.25 ~ 2.50
F	2.50 ~ 2.75
G	2.75 ~ 3.00
H	3.00 ~ 3.25
I	3.25 ~ 3.50
J	3.50 ~ 3.75
K	3.75 ~ 4.00
L	4.00 ~ 4.25
M	4.25 ~ 4.50

Tolerance : ±0.06V

1W Order Code (P3-II)

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

- Example: WS2180 – 1A
  - WS2180 : Part Number
  - 1A : Order code

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

1-1. Pure White – WS2180(1A,1B)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1A	S2	SXN	H I J K	S2SXNH~S2SXNK
		SWN		S2SWNH~S2SWNK
		SX0		S2SX0H~S2SX0K
		SW0		S2SW0H~S2SW0K
	T1	SXN		T1SXNH~T1SXNK
		SWN		T1SWNH~T1SWNK
		SX0		T1SX0H~T1SX0K
		SW0		T1SW0H~T1SW0K
Part No. – 1B *	T2	SXN	H I J K	T2SXNH~T2SXNK
		SWN		T2SWNH~T2SWNK
		SX0		T2SX0H~T2SX0K
		SW0		T2SW0H~T2SW0K
	U1	SXN		U1SXNH~U1SXNK
		SWN		U1SWNH~U1SWNK
		SX0		U1SX0H~U1SX0K
		SW0		U1SW0H~U1SW0K

*** : Not yet available**

1W Order Code (P3-II)

1-1. Pure White – WS2180(1C,1D)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1C	S2	SX0	H I J K	S2SX0H~S2SX0K
		SW0		S2SW0H~S2SW0K
		SXP		S2SXPH~S2SXPK
		SWP		S2SWPH~S2SWPK
	T1	SX0		T1SX0H~T1SX0K
		SW0		T1SW0H~T1SW0K
		SXP		T1SXPH~T1SXPK
		SWP		T1SWPH~T1SWPK
Part No. – 1D *	T2	SX0	H I J K	T2SX0H~T2SX0K
		SW0		T2SW0H~T2SW0K
		SXP		T2SXPH~T2SXPK
		SWP		T2SWPH~T2SWPK
	U1	SX0		U1SX0H~U1SX0K
		SW0		U1SW0H~U1SW0K
		SXP		U1SXPH~U1SXPK
		SWP		U1SWPH~U1SWPK

*** : Not yet available**

1W Order Code (P3-II)

1-1. Pure White - WS2180(1E,1F)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1E	S2	SYP	H I J K	S2SYPH~S2SYPK
		SYN		S2SYNH~S2SYNK
	T1	SYP		T1SYPH~T1SYPK
		SYN		T1SYNH~T1SYNK
Part No. – 1F*	T2	SYP	H I J K	T2SYPH~T2SYPK
		SYN		T2SYNH~T2SYNK
	U1	SYP		U1SYPH~U1SYPK
		SYN		U1SYNH~U1SYNK

*** : Not yet available**

1W Order Code (P3-II)

1-1. Pure White – WS2180(1G,1H)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1G	S2	SVM	H I J K	S2SVMH~S2SVMK
		SVN		S2SVNH~S2SVNK
		SV0		S2SV0H~S2SV0K
	T1	SVM		T1SVMH~T1SVMK
		SVN		T1SVNH~T1SVNK
		SV0		T1SV0H~T1SV0K
Part No. – 1H*	T2	SVM	H I J K	T2SVMH~T2SVMK
		SVN		T2SVNH~T2SVNK
		SV0		T2SV0H~T2SV0K
	U1	SVM		U1SVMH~U1SVMK
		SVN		U1SVNH~U1SVNK
		SV0		U1SV0H~U1SV0K

*** : Not yet available**

1W Order Code (P3-II)

1-1. Pure White – WS2180(1I,1J)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1I	S2	SUM	H I J K	S2SUMH~S2SUMK
		SUN		S2SUNH~S2SUNK
		SVN		S2SVNH~S2SVNK
	T1	SUM		T1SUMH~T1SUMK
		SUN		T1SUNH~T1SUNK
		SVN		T1SVNH~T1SVNK
Part No. – 1J*	T2	SUM	H I J K	T2SUMH~T2SUMK
		SUN		T2SUNH~T2SUNK
		SVN		T2SVNH~T2SVNK
	U1	SUM		U1SUMH~U1SUMK
		SUN		U1SUNH~U1SUNK
		SVN		U1SVNH~U1SVNK

*** : Not yet available**

1W Order Code (P3-II)

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

- Example: NS2180 – 1A
  - NS2180 : Part Number
  - 1A : Order code

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

2. Warm White – NS2180 (1A,1B)

Standard Order Codes for Warm white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1A	R	SL0	H I J K	RSL0H~RSL0K
		SLA		RSLAH~RSLAK
		SKA		RSKAH~RSKAK
		SK0		RSK0H~RSK0K
	S1	SL0		S1SL0H~S1SL0K
		SLA		S1SLAH~S1SLAK
		SKA		S1SKAH~ S1SKAK
		SK0		S1SK0H~ S1SK0K
Part No. - 1B	S2	SL0	H I J K	S2SL0H~S2SL0K
		SLA		S2SLAH~S2SLAK
		SKA		S2SKAH~S2SKAK
		SK0		S2SK0H~S2SK0K
	T1	SL0	H I J K	T1SL0H~T1SL0K
		SLA		T1SLAH~T1SLAK
		SKA		T1SKAH~T1SKAK
		SK0		T1SK0H~T1SK0K

*** : Not yet available**

1W Order Code (P3-II)

2. Warm White – NS2180 (1C,1D)

Standard Order Codes for Warm white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1C	R	SK0	H I J K	RSK0H~RSK0K
		SKA		RSKAH~RSKAK
		SJA		RSJAH~RSJAK
		SJ0		RSJ0H~RSJ0K
	S1	SK0		S1SK0H~S1SK0K
		SKA		S1SKAH~S1SKAK
		SJA		S1SJAH~S1SJAK
		SJ0		S1SJ0H~S1SJ0K
Part No. - 1D	S2	SK0	H I J K	S2SK0H~S2SK0K
		SKA		S2SKAH~S2SKAK
		SJA		S2SJAH~S2SJAK
		SJ0		S2SJ0H~S2SJ0K
	T1	SK0	H I J K	T1SK0H~T1SK0K
		SKA		T1SKAH~T1SKAK
		SJA		T1SJAH~T1SJAK
		SJ0		T1SJ0H~T1SJ0K

*** : Not yet available**

1W Order Code (P3-II)

2. Warm White – NS2180 (1E,1F)

Standard Order Codes for Warm white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. - 1E	R	SJ0	H I J K	RSJ0H~RSJ0K
		SJA		RSJAH~RSJAK
		SHA		RSHAH~RSHAK
		SH0		RSH0H~RSH0K
	S1	SJ0		S1SJ0H~S1SJ0K
		SJA		S1SJAH~S1SJAK
		SHA		S1SHAH~S1SHAK
		SH0		S1SH0H~S1SH0K
Part No. - 1F	S2	SJ0	H I J K	S2SJ0H~S2SJ0K
		SJA		S2SJAH~S2SJAK
		SHA		S2SHAH~S2SHAK
		SH0		S2SH0H~S2SH0K
	T1	SJ0	H I J K	T1SJ0H~T1SJ0K
		SJA		T1SJAH~T1SJAK
		SHA		T1SHAH~T1SHAK
		SH0		T1SH0H~T1SH0K

*** : Not yet available**

1W Order Code (P3-II)

2. Warm White – NS2180 (1G,1H)

Standard Order Codes for Warm white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. - 1G	R	SL1	H I J K	RSL1H~RSL1K
		SL0		RSL0H~RSL0K
		SK0		RSK0H~RSK0K
		SK1		RSK1H~RSK1K
	S1	SL1		S1SL1H~S1SL1K
		SL0		S1SL0H~S1SL0K
		SK0		S1SK0H~S1SK0K
		SK1		S1SK1H~S1SK1K
Part No. - 1H	S2	SL1	H I J K	S2SL1H~S2SL1K
		SL0		S2SL0H~S2SL0K
		SK0		S2SK0H~S2SK0K
		SK1		S2SK1H~S2SK1K
	T1	SL1	H I J K	T1SL1H~T1SL1K
		SL0		T1SL0H~T1SL0K
		SK0		T1SK0H~T1SK0K
		SK1		T1SK1H~T1SK1K

*** : Not yet available**

1W Order Code (P3-II)

2. Warm White – NS2180 (1I,1J)

Standard Order Codes for Warm white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1I	R	SJ1	H I J K	RSJ1H~RSJ1K
		SJ0		RSJ0H~RSJ0K
		SH0		RSH0H~RSH0K
		SH1		RSH1H~RSH1K
	S1	SJ1		S1SJ1H~S1SJ1K
		SJ0		S1SJ0H~S1SJ0K
		SH0		S1SH0H~S1SH0K
		SH1		S1SH1H~S1SH1K
Part No. – 1J	S2	SJ1	H I J K	S2SJ1H~S2SJ1K
		SJ0		S2SJ0H~S2SJ0K
		SH0		S2SH0H~S2SH0K
		SH1		S2SH1H~S2SH1K
	T1	SJ1	H I J K	T1SJ1H~T1SJ1K
		SJ0		T1SJ0H~T1SJ0K
		SH0		T1SH0H~T1SH0K
		SH1		T1SH1H~T1SH1K

*** : Not yet available**

1W Order Code (P3-II)

2. Warm White – NS2180 (1K,1L)

Standard Order Codes for Warm White				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1K	R	SLA	H I J K	RSLAH~RSLAK
		SLB		RSLBH~RSLBK
		SKB		RSKBH~RSKBK
		SKA		RSKAH~RSKAK
	S1	SLA		S1SLAH~S1SLAK
		SLB		S1SLBH~S1SLBK
		SKB		S1SKBH~S1SKBK
		SKA		S1SKAH~S1SKAK
Part No. – 1L	S2	SLA	H I J K	S2SLAH~S2SLAK
		SLB		S2SLBH~S2SLBK
		SKB		S2SKBH~S2SKBK
		SKA		S2SKAH~S2SKAK
	T1	SLA	H I J K	T1SLAH~T1SLAK
		SLB		T1SLBH~T1SLBK
		SKB		T1SKBH~T1SKBK
		SKA		T1SKAH~T1SKAK

*** : Not yet available**

1W Order Code (P3-II)

2. Warm White – NS2180 (1M,1N)

Standard Order Codes for Warm White				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1M	R	SJA	H I J K	RSJAH~RSJAK
		SJB		RSJBH~RSJBK
		SHB		RSHBH~RSHBK
		SHA		RSHAH~RSHAK
	S1	SJA		S1SJAH~S1SJAK
		SJB		S1SJBH~S1SJBK
		SHB		S1SHBH~S1SHBK
		SHA		S1SHAH~S1SHAK
Part No. – 1N	S2	SJA	H I J K	S2SJAH~S2SJAK
		SJB		S2SJBH~S2SJBK
		SHB		S2SHBH~S2SHBK
		SHA		S2SHAH~S2SHAK
	T1	SJA	H I J K	T1SJAH~T1SJAK
		SJB		T1SJBH~T1SJBK
		SHB		T1SHBH~T1SHBK
		SHA		T1SHAH~T1SHAK

*** : Not yet available**

1W Order Code (P3-II)

3. Blue - BS2180

Standard Order Codes for Blue				
Order Code	**Luminous Flux**	**Color Coordinate**	**Forward Voltage**	**Bin Codes**
Part No. - 1A	M	BB1	H I J K	MBB1H~MBB1K
		BB2		MBB2H~MBB2K
	O	BB1		OBB1H~OBB1K
		BB2		OBB2H~OBB2K
Part No. - 1B	P*	BB1	H I J K	PBB1H~PBB1K
		BB2		PBB2H~PBB2K
	Q*	BB1		QBB1H~QBB1K
		BB2		QBB2H~QBB2K
Part No. - 1C	M	BB3	H I J K	MBB3H~MBB3K
		BB4		MBB4H~MBB4K
	O	BB3		OBB3H~OBB3K
		BB4		OBB4H~OBB4K
Part No. - 1D	P*	BB3	H I J K	PBB3H~PBB3K
		BB4		PBB4H~PBB4K
	Q*	BB3		QBB3H~QBB3K
		BB4		QBB4H~QBB4K

*** : Not yet available**

1W Order Code (P3-II)

4. Green - GS2180

Standard Order Codes for Green				
Order Code	**Luminous Flux**	**Color Coordinate**	**Forward Voltage**	**Bin Codes**
Part No. - 1A	S	GG1	H,I,J,K,L	SGG1H~SGG1L
Part No. - 1B	T		H,I,J,K,L	TGG1H~TGG1L
	U*			UGG1H~UGG1L
Part No. - 1C	S	GG2	H,I,J,K,L	SGG2H~SGG2L
Part No. - 1D	T		H,I,J,K,L	TGG2H~TGG2L
	U*			UGG2H~UGG2L
Part No. - 1E	S	GG3	H,I,J,K,L	SGG3H~SGG3L
Part No. - 1F	T		H,I,J,K,L	TGG3H~TGG3L
	U*			UGG3H~UGG3L

*** : Not yet available**

1W Order Code (P3-II)

5. Amber - AS2180

Standard Order Codes for Amber				
Order Code	**Luminous Flux**	**Color Coordinate**	**Forward Voltage**	**Bin Codes**
Part No. - 1A	P	AA1	D E F G	PAA1D~PAA1G
		AA2		PAA2D~PAA2G
	Q	AA1		QAA1D~QAA1G
		AA2		QAA1D~QAA1G
Part No. - 1B	R*	AA1	D E F G	RAA1D~RAA1G
		AA2		RAA2D~RAA2G
	S*	AA1		SAA1D~SAA1G
		AA2		SAA2D~SAA2G
Part No. - 1C	P	AA3	D E F G	PAA3D~PAA3G
		AA4		PAA4D~PAA4G
	Q	AA3		QAA3D~QAA3G
		AA4		QAA4D~QAA4G
Part No. - 1D	R*	AA3	D E F G	RAA3D~RAA3G
		AA4		RAA4D~RAA4G
	S*	AA3		SAA3D~SAA3G
		AA4		SAA4D~SAA4G

*** : Not yet available**

1W Order Code (P3-II)

6. Red - RS2180

Standard Order Codes for Red				
Order Code	**Luminous Flux**	**Color Coordinate**	**Forward Voltage**	**Bin Codes**
Part No. - 1A	P	RR1	D,E,F,G	PRR1D~PRR1G
	Q			QRR1D~QRR1G
Part No. - 1B	R		D,E,F,G	RRR1D~RRR1G
	S*			SRR1D~SRR1G
Part No. –1C	P	RR2	D,E,F,G	PRR2D~PRR2G
	Q			QRR2D~QRR2G
Part No. - 1D	R		D,E,F,G	RRR2D~RRR2G
	S*			SRR2D~SRR2G

*** : Not yet available**