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

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
- X_7 : Grade of characteristic code

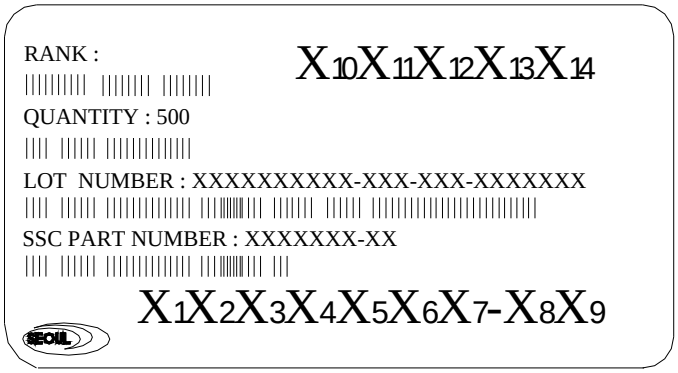
2. Internal Number

- X_8, X_9 : Revision No.

3. Code Labeling

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

• Example: $X_1\ X_2\ X_3\ X_4\ X_5\ X_6\ X_7\ -X_8\ X_9$ 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
P	Photosynthetic Red
F	Full Color (7-color)

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

X_3	LENS Type
0	P5-II Flat Type
2	P4,P7,P9 Dome Type 2)
9	P4 narrow Type 3)

Note:

1) X_8, X_9 is a internal code number

2) Hemispherical dome type

3) View angle : 93°

X_4	Chip Quantity (or Power Dissipation)
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

X_7	Grade of Characteristic Code
H	P4 Warm, Natural White Code
C	P9 Characteristic Code

Code Labeling

1. Luminous Flux Bins

1-1. 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 ~ 109.0
	U3	109.0 ~ 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, 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

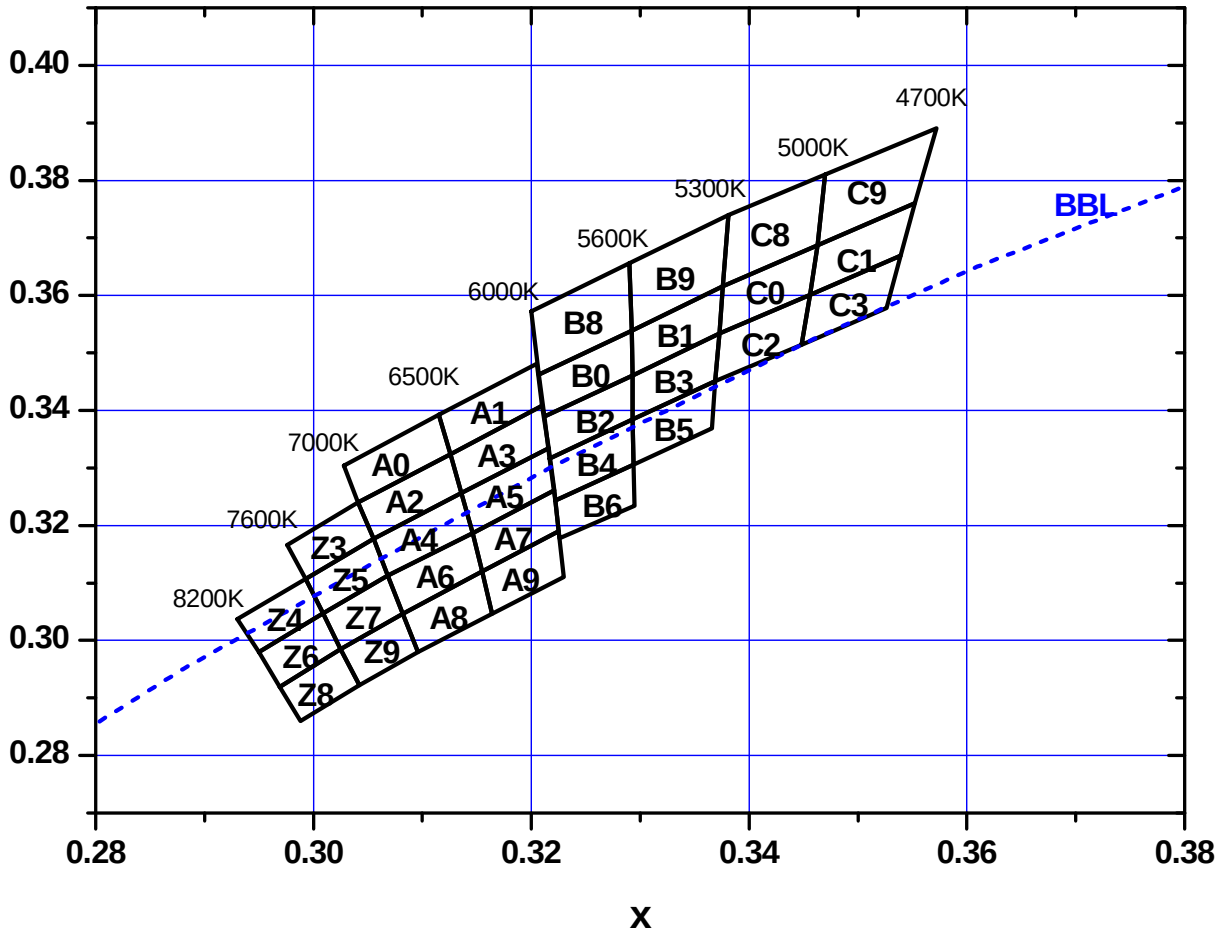
2-2. Pure White CIE

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

- Pure white bin structure

bin	CIE x	CIE y	bin	CIE x	CIE y	bin	CIE x	CIE y	bin	CIE x	CIE y
Z1	0.2959	0.3227	A0	0.3028	0.3304	B0	0.3207	0.3462	C0	0.3376	0.3616
	0.2976	0.3166		0.3041	0.3240		0.3212	0.3389		0.3373	0.3534
	0.3041	0.3240		0.3126	0.3324		0.3293	0.3461		0.3456	0.3601
	0.3028	0.3304		0.3115	0.3393		0.3292	0.3539		0.3463	0.3687
	0.2959	0.3227		0.3028	0.3304		0.3207	0.3462		0.3376	0.3616
Z2	0.2910	0.3093	A1	0.3115	0.3393	B1	0.3292	0.3539	C1	0.3463	0.3687
	0.2930	0.3037		0.3126	0.3324		0.3293	0.3461		0.3456	0.3601
	0.2993	0.3107		0.3210	0.3408		0.3373	0.3534		0.3539	0.3669
	0.2976	0.3166		0.3205	0.3481		0.3376	0.3616		0.3552	0.3760
	0.2910	0.3093		0.3115	0.3393		0.3292	0.3539		0.3463	0.3687
Z3	0.2976	0.3166	A2	0.3041	0.3240	B2	0.3212	0.3389	C2	0.3373	0.3534
	0.2993	0.3107		0.3055	0.3177		0.3217	0.3316		0.3369	0.3451
	0.3055	0.3177		0.3136	0.3256		0.3293	0.3384		0.3448	0.3514
	0.3041	0.3240		0.3126	0.3324		0.3293	0.3461		0.3456	0.3601
	0.2976	0.3166		0.3041	0.3240		0.3212	0.3389		0.3373	0.3534
Z4	0.2930	0.3037	A3	0.3126	0.3324	B3	0.3293	0.3461	C3	0.3456	0.3601
	0.2950	0.2980		0.3136	0.3256		0.3293	0.3384		0.3448	0.3514
	0.3009	0.3047		0.3216	0.3334		0.3369	0.3451		0.3526	0.3578
	0.2993	0.3107		0.3210	0.3408		0.3373	0.3534		0.3539	0.3669
	0.2930	0.3037		0.3126	0.3324		0.3293	0.3461		0.3456	0.3601
Z5	0.2993	0.3107	A4	0.3055	0.3177	B4	0.3217	0.3316	C4	0.3369	0.3451
	0.3009	0.3047		0.3068	0.3113		0.3222	0.3243		0.3366	0.3369
	0.3068	0.3113		0.3146	0.3187		0.3294	0.3306		0.3440	0.3428
	0.3055	0.3177		0.3136	0.3256		0.3293	0.3384		0.3448	0.3514
	0.2993	0.3107		0.3055	0.3177		0.3217	0.3316		0.3369	0.3451
Z6	0.2950	0.2980	A5	0.3136	0.3256	B5	0.3293	0.3384	C5	0.3448	0.3514
	0.2969	0.2919		0.3146	0.3187		0.3294	0.3306		0.3440	0.3428
	0.3025	0.2985		0.3221	0.3261		0.3366	0.3369		0.3514	0.3487
	0.3009	0.3047		0.3216	0.3334		0.3369	0.3451		0.3526	0.3578
	0.2950	0.2980		0.3136	0.3256		0.3293	0.3384		0.3448	0.3514
Z7	0.3009	0.3047	A6	0.3068	0.3113	B6	0.3222	0.3243	C6	0.3366	0.3369
	0.3025	0.2985		0.3082	0.3046		0.3226	0.3178		0.3364	0.3288
	0.3082	0.3046		0.3155	0.3120		0.3295	0.3234		0.3433	0.3345
	0.3068	0.3113		0.3146	0.3187		0.3294	0.3306		0.3440	0.3428
	0.3009	0.3047		0.3068	0.3113		0.3222	0.3243		0.3366	0.3369
Z8	0.2969	0.2919	A7	0.3146	0.3187	B7	0.3294	0.3306	C7	0.3440	0.3428
	0.2988	0.2860		0.3155	0.3120		0.3295	0.3234		0.3433	0.3345
	0.3042	0.2922		0.3225	0.3190		0.3364	0.3288		0.3500	0.3400
	0.3025	0.2985		0.3221	0.3261		0.3366	0.3369		0.3514	0.3487
	0.2969	0.2919		0.3146	0.3187		0.3294	0.3306		0.3440	0.3428
Z9	0.3025	0.2985	A8	0.3082	0.3046	B8	0.3200	0.3572	C8	0.3381	0.3740
	0.3042	0.2922		0.3096	0.2980		0.3207	0.3462		0.3470	0.3810
	0.3096	0.2980		0.3164	0.3046		0.3292	0.3539		0.3463	0.3687
	0.3082	0.3046		0.3155	0.3120		0.3290	0.3656		0.3376	0.3616
	0.3025	0.2985		0.3082	0.3046		0.3200	0.3572		0.3381	0.3740
Tolerance			A9	0.3155	0.3120	B9	0.3290	0.3656	C9	0.3470	0.3810
Color coordinate:±0.005				0.3164	0.3046		0.3292	0.3539		0.3463	0.3687
CCT:±5% of value				0.3230	0.3110		0.3376	0.3616		0.3552	0.3760
				0.3225	0.3190		0.3381	0.3740		0.3572	0.3891
				0.3155	0.3120		0.3290	0.3656		0.3470	0.3810

- 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

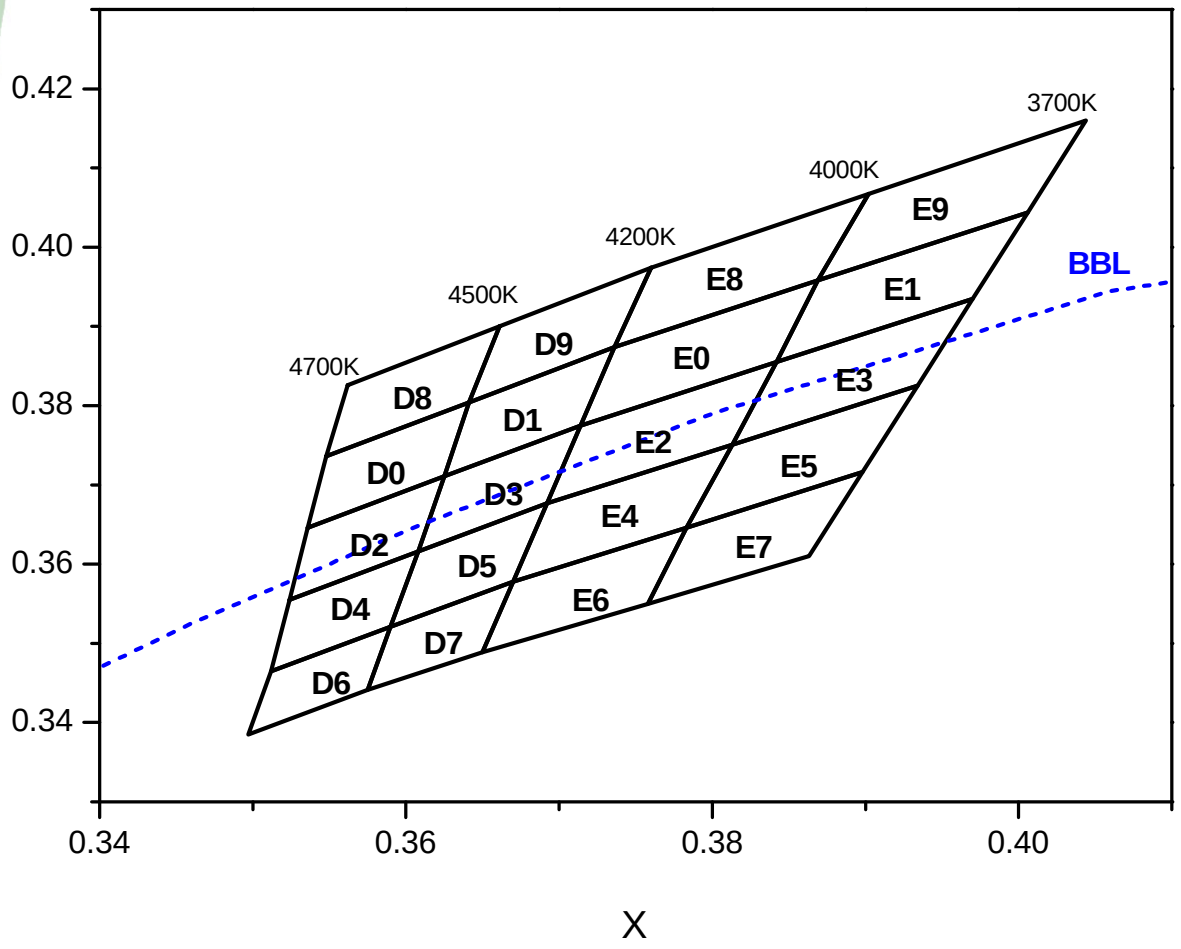
bin	CIE x	CIE y	bin	CIE x	CIE y	bin	CIE x	CIE y	bin	CIE x	CIE y
	0.3548	0.3736		0.3608	0.3616		0.3736	0.3874		0.3813	0.3751
	0.3536	0.3646		0.3590	0.3521		0.3714	0.3775		0.3783	0.3646
D0	0.3625	0.3711	D5	0.3670	0.3578	E0	0.3842	0.3855	E5	0.3898	0.3716
	0.3641	0.3804		0.3692	0.3677		0.3869	0.3958		0.3934	0.3825
	0.3548	0.3736		0.3608	0.3616		0.3736	0.3874		0.3813	0.3751
	0.3641	0.3804		0.3512	0.3465		0.3869	0.3958		0.3670	0.3578
	0.3625	0.3711		0.3497	0.3385		0.3842	0.3855		0.3650	0.3489
D1	0.3714	0.3775	D6	0.3575	0.3441	E1	0.3970	0.3935	E6	0.3758	0.3550
	0.3736	0.3874		0.3590	0.3521		0.4006	0.4044		0.3783	0.3646
	0.3641	0.3804		0.3512	0.3465		0.3869	0.3958		0.3670	0.3578
	0.3536	0.3646		0.3590	0.3521		0.3714	0.3775		0.3783	0.3646
	0.3524	0.3555		0.3575	0.3441		0.3692	0.3677		0.3758	0.3550
D2	0.3608	0.3616	D7	0.3650	0.3489	E2	0.3813	0.3751	E7	0.3863	0.3610
	0.3625	0.3711		0.3670	0.3578		0.3842	0.3855		0.3898	0.3716
	0.3536	0.3646		0.3590	0.3521		0.3714	0.3775		0.3783	0.3646
	0.3625	0.3711		0.3562	0.3826		0.3842	0.3855		0.3760	0.3974
	0.3608	0.3616		0.3548	0.3736		0.3813	0.3751		0.3736	0.3874
D3	0.3692	0.3677	D8	0.3641	0.3804	E3	0.3934	0.3825	E8	0.3869	0.3958
	0.3714	0.3775		0.3661	0.3900		0.3970	0.3935		0.3902	0.4067
	0.3625	0.3711		0.3562	0.3826		0.3842	0.3855		0.3760	0.3974
	0.3524	0.3555		0.3661	0.3900		0.3692	0.3677		0.3902	0.4067
	0.3512	0.3465		0.3641	0.3804		0.3670	0.3578		0.3869	0.3958
D4	0.3590	0.3521	D9	0.3736	0.3874	E4	0.3783	0.3646	E9	0.4006	0.4044
	0.3608	0.3616		0.3760	0.3974		0.3813	0.3751		0.4044	0.4160
	0.3524	0.3555		0.3661	0.3900		0.3692	0.3677		0.3902	0.4067

Tolerance

Color coordinate : ±0.005

CCT : ±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

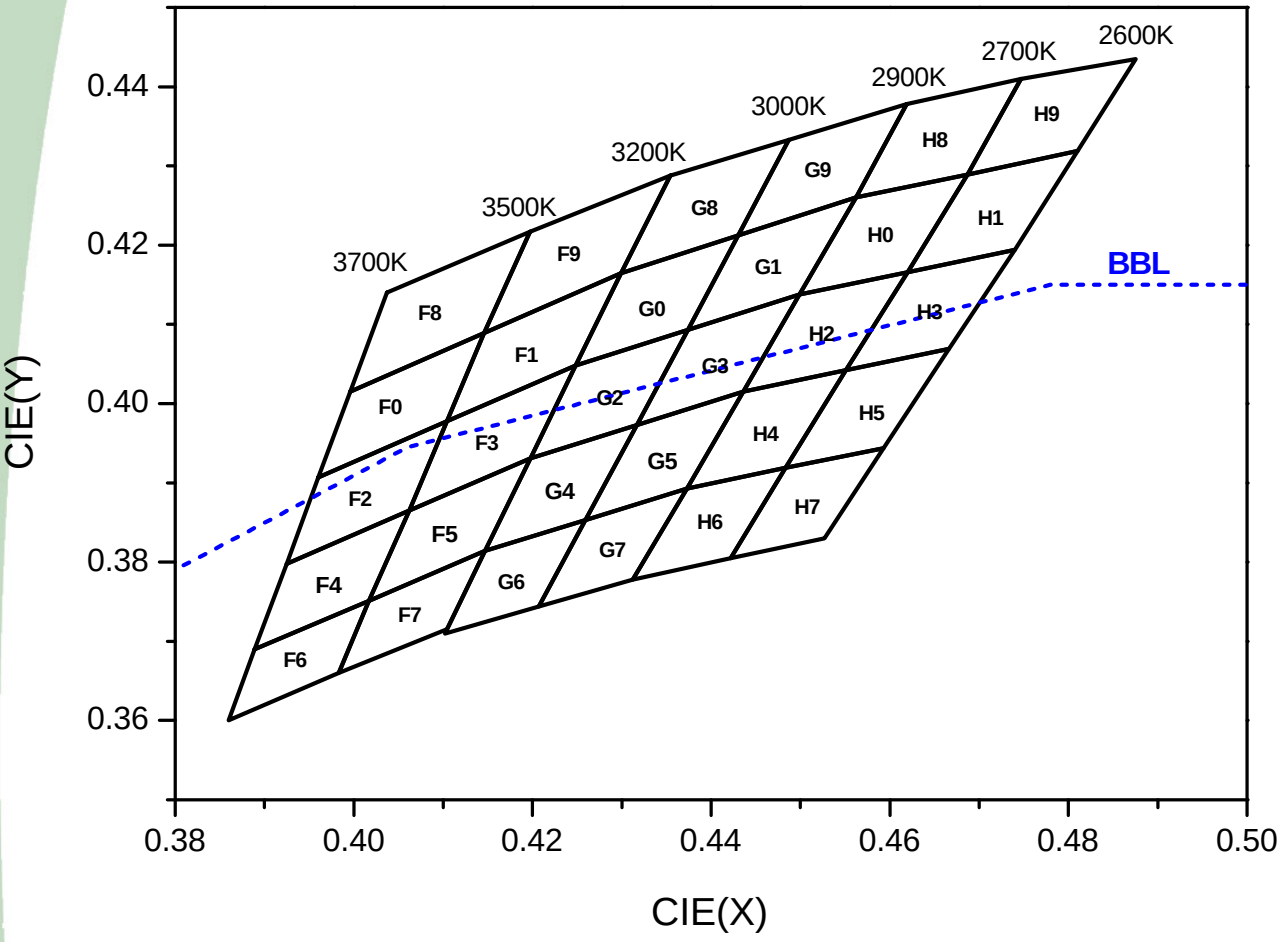
	CIE x	CIE y		CIE x	CIE y		CIE x	CIE y		CIE x	CIE y
F0	0.3996	0.4015	F8	0.4037	0.4140	G6	0.4147	0.3814	H4	0.4436	0.4015
	0.3960	0.3907		0.3996	0.4015		0.4102	0.3710		0.4373	0.3893
	0.4104	0.3978		0.4146	0.4089		0.4207	0.3744		0.4483	0.3919
	0.4146	0.4089		0.4197	0.4217		0.4259	0.3853		0.4551	0.4042
	0.3996	0.4015		0.4037	0.4140		0.4147	0.3814		0.4436	0.4015
F1	0.4146	0.4089	F9	0.4197	0.4217	G7	0.4259	0.3853	H5	0.4551	0.4042
	0.4104	0.3978		0.4146	0.4089		0.4207	0.3744		0.4483	0.3919
	0.4248	0.4048		0.4299	0.4165		0.4312	0.3778		0.4593	0.3944
	0.4299	0.4165		0.4354	0.4288		0.4373	0.3893		0.4666	0.4069
	0.4146	0.4089		0.4197	0.4217		0.4259	0.3853		0.4551	0.4042
F2	0.3960	0.3907	G0	0.4299	0.4165	G8	0.4354	0.4288	H6	0.4373	0.3893
	0.3925	0.3798		0.4248	0.4048		0.4299	0.4165		0.4312	0.3778
	0.4062	0.3865		0.4374	0.4093		0.4430	0.4212		0.4422	0.3805
	0.4104	0.3978		0.4430	0.4212		0.4487	0.4333		0.4483	0.3919
	0.3960	0.3907		0.4299	0.4165		0.4354	0.4288		0.4373	0.3893
F3	0.4104	0.3978	G1	0.4430	0.4212	G9	0.4487	0.4333	H7	0.4483	0.3919
	0.4062	0.3865		0.4374	0.4093		0.4430	0.4212		0.4422	0.3805
	0.4198	0.3931		0.4499	0.4138		0.4562	0.4260		0.4527	0.3830
	0.4248	0.4048		0.4562	0.4260		0.4619	0.4378		0.4593	0.3944
	0.4104	0.3978		0.4430	0.4212		0.4487	0.4333		0.4483	0.3919
F4	0.3925	0.3798	G2	0.4248	0.4048	H0	0.4562	0.4260	H8	0.4619	0.4378
	0.3889	0.3690		0.4198	0.3931		0.4499	0.4138		0.4562	0.4260
	0.4017	0.3751		0.4317	0.3973		0.4620	0.4166		0.4687	0.4289
	0.4062	0.3865		0.4374	0.4093		0.4687	0.4289		0.4747	0.4410
	0.3925	0.3798		0.4248	0.4048		0.4562	0.4260		0.4619	0.4378
F5	0.4062	0.3865	G3	0.4374	0.4093	H1	0.4687	0.4289	H9	0.4747	0.4410
	0.4017	0.3751		0.4317	0.3973		0.4620	0.4166		0.4687	0.4289
	0.4147	0.3814		0.4436	0.4015		0.4740	0.4194		0.4810	0.4319
	0.4198	0.3931		0.4499	0.4138		0.4810	0.4319		0.4875	0.4435
	0.4062	0.3865		0.4374	0.4093		0.4687	0.4289		0.4747	0.4410
F6	0.3889	0.3690	G4	0.4198	0.3931	H2	0.4499	0.4138			
	0.3860	0.3600		0.4147	0.3814		0.4436	0.4015			
	0.3983	0.3660		0.4259	0.3853		0.4551	0.4042			
	0.4017	0.3751		0.4317	0.3973		0.4620	0.4166			
	0.3889	0.3690		0.4198	0.3931		0.4499	0.4138			
F7	0.4017	0.3751	G5	0.4317	0.3973	H3	0.4620	0.4166			
	0.3983	0.3660		0.4259	0.3853		0.4551	0.4042			
	0.4104	0.3715		0.4373	0.3893		0.4666	0.4069			
	0.4147	0.3814		0.4436	0.4015		0.4740	0.4194			
	0.4017	0.3751		0.4317	0.3973		0.4620	0.4166			

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. Pure White (1A,1B)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1A	T1	A2	H I J K	T1A2H~T1A2K
		A3		T1A3H~T1A3K
		A4		T1A4H~T1A4K
		A5		T1A5H~T1A5K
		A6		T1A6H~T1A6K
		A7		T1A7H~T1A7K
Part No. – 1B	T2	A2	H I J K	T2A2H~T2A2K
		A3		T2A3H~T2A3K
		A4		T2A4H~T2A4K
		A5		T2A5H~T2A5K
		A6		T2A6H~T2A6K
		A7		T2A7H~T2A7K
	U1	A2	H I J K	U1A2H~U1A2K
		A3		U1A3H~U1A3K
		A4		U1A4H~U1A4K
		A5		U1A5H~U1A5K
		A6		U1A6H~U1A6K
		A7		U1A7H~U1A7K
	U2*	A2	H I J K	U2A2H~U2A2K
		A3		U2A3H~U2A3K
		A4		U2A4H~U2A4K
		A5		U2A5H~U2A5K
		A6		U2A6H~U2A6K
		A7		U2A7H~U2A7K

*** : Not yet available**

1W Order Code (P3-II)

1. Pure White (1C,1D)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1C	T1	A0	H I J K	T1A0H~T1A0K
		A1		T1A1H~T1A1K
		A2		T1A2H~T1A2K
		A3		T1A3H~T1A3K
		A4		T1A4H~T1A4K
		A5		T1A5H~T1A5K
Part No. – 1D	T2	A0	H I J K	T2A0H~T2A0K
		A1		T2A1H~T2A1K
		A2		T2A2H~T2A2K
		A3		T2A3H~T2A3K
		A4		T2A4H~T2A4K
		A5		T2A5H~T2A5K
	U1	A0	H I J K	U1A0H~U1A0K
		A1		U1A1H~U1A1K
		A2		U1A2H~U1A2K
		A3		U1A3H~U1A3K
		A4		U1A4H~U1A4K
		A5		U1A5H~U1A5K
	U2*	A0	H I J K	U2A0H~U2A0K
		A1		U2A1H~U2A1K
		A2		U2A2H~U2A2K
		A3		U2A3H~U2A3K
		A4		U2A4H~U2A4K
		A5		U2A5H~U2A5K

*** : Not yet available**

1W Order Code (P3-II)

1. Pure White (1E,1F)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1E	T1	A4	H I J K	T1A4H~T1A4K
		A5		T1A5H~T1A5K
		A6		T1A6H~T1A6K
		A7		T1A7H~T1A7K
		A8		T1A8H~T1A8K
		A9		T1A9H~T1A9K
Part No. – 1F	T2	A4	H I J K	T2A4H~T2A4K
		A5		T2A5H~T2A5K
		A6		T2A6H~T2A6K
		A7		T2A7H~T2A7K
		A8		T2A8H~T2A8K
		A9		T2A9H~T2A9K
	U1	A4	H I J K	U1A4H~U1A4K
		A5		U1A5H~U1A5K
		A6		U1A6H~U1A6K
		A7		U1A7H~U1A7K
		A8		U1A8H~U1A8K
		A9		U1A9H~U1A9K
	U2*	A4	H I J K	U2A4H~U2A4K
		A5		U2A5H~U2A5K
		A6		U2A6H~U2A6K
		A7		U2A7H~U2A7K
		A8		U2A8H~U2A8K
		A9		U2A9H~U2A9K

*** : Not yet available**

1W Order Code (P3-II)

1. Pure White (1G,1H)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1G	T1	B0	H I J K	T1B0H~T1B0K
		B1		T1B1H~T1B1K
		B2		T1B2H~T1B2K
		B3		T1B3H~T1B3K
		B8		T1B8H~T1B8K
		B9		T1B9H~T1B9K
Part No. – 1H	T2	B0	H I J K	T2B0H~T2B0K
		B1		T2B1H~T2B1K
		B2		T2B2H~T2B2K
		B3		T2B3H~T2B3K
		B8		T2B8H~T2B8K
		B9		T2B9H~T2B9K
	U1	B0	H I J K	U1B0H~U1B0K
		B1		U1B1H~U1B1K
		B2		U1B2H~U1B2K
		B3		U1B3H~U1B3K
		B8		U1B8H~U1B8K
		B9		U1B9H~U1B9K
	U2*	B0	H I J K	U2B0H~U2B0K
		B1		U2B1H~U2B1K
		B2		U2B2H~U2B2K
		B3		U2B3H~U2B3K
		B8		U2B8H~U2B8K
		B9		U2B9H~U2B9K

*** : Not yet available**

1W Order Code (P3-II)

1. Pure White (1I,1J)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1I	T1	B0	H I J K	T1B0H~T1B0K
		B1		T1B1H~T1B1K
		B2		T1B2H~T1B2K
		B3		T1B3H~T1B3K
		B4		T1B4H~T1B4K
		B5		T1B5H~T1B5K
Part No. – 1J	T2	B0	H I J K	T2B0H~T2B0K
		B1		T2B1H~T2B1K
		B2		T2B2H~T2B2K
		B3		T2B3H~T2B3K
		B4		T2B4H~T2B4K
		B5		T2B5H~T2B5K
	U1	B0	H I J K	U1B0H~U1B0K
		B1		U1B1H~U1B1K
		B2		U1B2H~U1B2K
		B3		U1B3H~U1B3K
		B4		U1B4H~U1B4K
		B5		U1B5H~U1B5K
	U2*	B0	H I J K	U2B0H~U2B0K
		B1		U2B1H~U2B1K
		B2		U2B2H~U2B2K
		B3		U2B3H~U2B3K
		B4		U2B4H~U2B4K
		B5		U2B5H~U2B5K

*** : Not yet available**

1W Order Code (P3-II)

1. Pure White (1K,1L)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1K	T1	B2	H I J K	T1B2H~T1B2K
		B3		T1B3H~T1B3K
		B4		T1B4H~T1B4K
		B5		T1B5H~T1B5K
		B6		T1B6H~T1B6K
Part No. – 1L	T2	B2	H I J K	T2B2H~T2B2K
		B3		T2B3H~T2B3K
		B4		T2B4H~T2B4K
		B5		T2B5H~T2B5K
		B6		T2B6H~T2B6K
	U1	B2	H I J K	U1B2H~U1B2K
		B3		U1B3H~U1B3K
		B4		U1B4H~U1B4K
		B5		U1B5H~U1B5K
		B6		U1B6H~U1B6K
	U2*	B2	H I J K	U2B2H~U2B2K
		B3		U2B3H~U2B3K
		B4		U2B4H~U2B4K
		B5		U2B5H~U2B5K
		B6		U2B6H~U2B6K

*** : Not yet available**

1W Order Code (P3-II)

1. Pure White (1M,1N)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1M	T1	Z4	H I J K	T1Z4H~T1Z4K
		Z5		T1Z5H~T1Z5K
		Z6		T1Z6H~T1Z6K
		Z7		T1Z7H~T1Z7K
		Z8		T1Z8H~T1Z8K
		Z9		T1Z9H~T1Z9K
Part No. – 1N	T2	Z4	H I J K	T2Z4H~T2Z4K
		Z5		T2Z5H~T2Z5K
		Z6		T2Z6H~T2Z6K
		Z7		T2Z7H~T2Z7K
		Z8		T2Z8H~T2Z8K
		Z9		T2Z9H~T2Z9K
	U1	Z4	H I J K	U1Z4H~U1Z4K
		Z5		U1Z5H~U1Z5K
		Z6		U1Z6H~U1Z6K
		Z7		U1Z7H~U1Z7K
		Z8		U1Z8H~U1Z8K
		Z9		U1Z9H~U1Z9K
	U2*	Z4	H I J K	U2Z4H~U2Z4K
		Z5		U2Z5H~U2Z5K
		Z6		U2Z6H~U2Z6K
		Z7		U2Z7H~U2Z7K
		Z8		U2Z8H~U2Z8K
		Z9		U2Z9H~U2Z9K

*** : Not yet available**

1W Order Code (P3-II)

1. Pure White (1O,1P)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1O	T1	Z3	H I J K	T1Z3H~T1Z3K
		Z4		T1Z4H~T1Z4K
		Z5		T1Z5H~T1Z5K
		Z6		T1Z6H~T1Z6K
		Z7		T1Z7H~T1Z7K
Part No. – 1P	T2	Z3	H I J K	T2Z3H~T2Z3K
		Z4		T2Z4H~T2Z4K
		Z5		T2Z5H~T2Z5K
		Z6		T2Z6H~T2Z6K
		Z7		T2Z7H~T2Z7K
	U1	Z3	H I J K	U1Z3H~U1Z3K
		Z4		U1Z4H~U1Z4K
		Z5		U1Z5H~U1Z5K
		Z6		U1Z6H~U1Z6K
		Z7		U1Z7H~U1Z7K
	U2*	Z3	H I J K	U2Z3H~U2Z3K
		Z4		U2Z4H~U2Z4K
		Z5		U2Z5H~U2Z5K
		Z6		U2Z6H~U2Z6K
		Z7		U2Z7H~U2Z7K

*** : Not yet available**

1W Order Code (P3-II)

1. Pure White (1Q,1R)

Standard Order Codes for pure white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1Q	T1	C0	H I J K	T1C0H~T1C0K
		C1		T1C1H~T1C1K
		C2		T1C2H~T1C2K
		C3		T1C3H~T1C3K
		C8		T1C8H~T1C8K
		C9		T1C9H~T1C9K
Part No. – 1R	T2	C0	H I J K	T2C0H~T2C0K
		C1		T2C1H~T2C1K
		C2		T2C2H~T2C2K
		C3		T2C3H~T2C3K
		C8		T2C8H~T2C8K
		C9		T2C9H~T2C9K
	U1	C0	H I J K	U1C0H~U1C0K
		C1		U1C1H~U1C1K
		C2		U1C2H~U1C2K
		C3		U1C3H~U1C3K
		C8		U1C8H~U1C8K
		C9		U1C9H~U1C9K
	U2*	C0	H I J K	U2C0H~U2C0K
		C1		U2C1H~U2C1K
		C2		U2C2H~U2C2K
		C3		U2C3H~U2C3K
		C8		U2C8H~U2C8K
		C9		U2C9H~U2C9K

*** : 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.

4. Warm White - NS2180 (1A,1B)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. - 1A	S1	F0	H I J K	S1F0H~S1F0K
		F1		S1F1H~S1F1K
		F2		S1F2H~S1F2K
		F3		S1F3H~S1F3K
		F8		S1F8H~S1F8K
		F9		S1F9H~S1F9K
	S2	F0	H I J K	S2F0H~S2F0K
		F1		S2F1H~S2F1K
		F2		S2F2H~S2F2K
		F3		S2F3H~S2F3K
		F8		S2F8H~S2F8K
		F9		S2F9H~S2F9K
Part No. - 1B	T1	F0	H I J K	T1F0H~T1F0K
		F1		T1F1H~T1F1K
		F2		T1F2H~T1F2K
		F3		T1F3H~T1F3K
		F8		T1F8H~T1F8K
		F9		T1F9H~T1F9K
	T2*	F0	H I J K	T2F0H~T2F0K
		F1		T2F1H~T2F1K
		F2		T2F2H~T2F2K
		F3		T2F3H~T2F3K
		F8		T2F8H~T2F8K
		F9		T2F9H~T2F9K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1C,1D)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1C	S1	F1	H I J K	S1F1H~S1F1K
		F3		S1F3H~S1F3K
		F9		S1F9H~S1F9K
		G0		S1G0H~S1G0K
		G2		S1G2H~S1G2K
		G8		S1G8H~S1G8K
	S2	F1	H I J K	S2F1H~S2F1K
		F3		S2F3H~S2F3K
		F9		S2F9H~S2F9K
		G0		S2G0H~S2G0K
		G2		S2G2H~S2G2K
		G8		S2G8H~S2G8K
Part No. – 1D	T1	F1	H I J K	T1F1H~T1F1K
		F3		T1F3H~T1F3K
		F9		T1F9H~T1F9K
		G0		T1G0H~T1G0K
		G2		T1G2H~T1G2K
		G8		T1G8H~T1G8K
	T2*	F1	H I J K	T2F1H~T2F1K
		F3		T2F3H~T2F3K
		F9		T2F9H~T2F9K
		G0		T2G0H~T2G0K
		G2		T2G2H~T2G2K
		G8		T2G8H~T2G8K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1E,1F)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1E	S1	G0	H I J K	S1G0H~S1G0K
		G1		S1G1H~S1G1K
		G2		S1G2H~S1G2K
		G3		S1G3H~S1G3K
		G8		S1G8H~S1G8K
		G9		S1G9H~S1G9K
	S2	G0	H I J K	S2G0H~S2G0K
		G1		S2G1H~S2G1K
		G2		S2G2H~S2G2K
		G3		S2G3H~S2G3K
		G8		S2G8H~S2G8K
		G9		S2G9H~S2G9K
Part No. – 1F	T1	G0	H I J K	T1G0H~T1G0K
		G1		T1G1H~T1G1K
		G2		T1G2H~T1G2K
		G3		T1G3H~T1G3K
		G8		T1G8H~T1G8K
		G9		T1G9H~T1G9K
	T2*	G0	H I J K	T2G0H~T2G0K
		G1		T2G1H~T2G1K
		G2		T2G2H~T2G2K
		G3		T2G3H~T2G3K
		G8		T2G8H~T2G8K
		G9		T2G9H~T2G9K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1G,1H)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1G	S1	G1	H I J K	S1G1H~S1G1K
		G3		S1G3H~S1G3K
		G9		S1G9H~S1G9K
		H0		S1H0H~S1H0K
		H2		S1H2H~S1H2K
		H8		S1H8H~S1H8K
	S2	G1	H I J K	S2G1H~S2G1K
		G3		S2G3H~S2G3K
		G9		S2G9H~S2G9K
		H0		S2H0H~S2H0K
		H2		S2H2H~S2H2K
		H8		S2H8H~S2H8K
Part No. – 1H	T1	G1	H I J K	T1G1H~T1G1K
		G3		T1G3H~T1G3K
		G9		T1G9H~T1G9K
		H0		T1H0H~T1H0K
		H2		T1H2H~T1H2K
		H8		T1H8H~T1H8K
	T2*	G1	H I J K	T2G1H~T2G1K
		G3		T2G3H~T2G3K
		G9		T2G9H~T2G9K
		H0		T2H0H~T2H0K
		H2		T2H2H~T2H2K
		H8		T2H8H~T2H8K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1I,1J)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1I	S1	H0	H I J K	S1H0H~S1H0K
		H1		S1H1H~S1H1K
		H2		S1H2H~S1H2K
		H3		S1H3H~S1H3K
		H8		S1H8H~S1H8K
		H9		S1H9H~S1H9K
	S2	H0	H I J K	S2H0H~S2H0K
		H1		S2H1H~S2H1K
		H2		S2H2H~S2H2K
		H3		S2H3H~S2H3K
		H8		S2H8H~S2H8K
		H9		S2H9H~S2H9K
Part No. – 1J	T1	H0	H I J K	T1H0H~T1H0K
		H1		T1H1H~T1H1K
		H2		T1H2H~T1H2K
		H3		T1H3H~T1H3K
		H8		T1H8H~T1H8K
		H9		T1H9H~T1H9K
	T2*	H0	H I J K	T2H0H~T2H0K
		H1		T2H1H~T2H1K
		H2		T2H2H~T2H2K
		H3		T2H3H~T2H3K
		H8		T2H8H~T2H8K
		H9		T2H9H~T2H9K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1K,1L)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1K	S1	F0	H I J K	S1F0H~S1F0K
		F1		S1F1H~S1F1K
		F2		S1F2H~S1F2K
		F3		S1F3H~S1F3K
		F4		S1F4H~S1F4K
		F5		S1F5H~S1F5K
	S2	F0	H I J K	S2F0H~S2F0K
		F1		S2F1H~S2F1K
		F2		S2F2H~S2F2K
		F3		S2F3H~S2F3K
		F4		S2F4H~S2F4K
		F5		S2F5H~S2F5K
Part No. – 1L	T1	F0	H I J K	T1F0H~T1F0K
		F1		T1F1H~T1F1K
		F2		T1F2H~T1F2K
		F3		T1F3H~T1F3K
		F4		T1F4H~T1F4K
		F5		T1F5H~T1F5K
	T2*	F0	H I J K	T2F0H~T2F0K
		F1		T2F1H~T2F1K
		F2		T2F2H~T2F2K
		F3		T2F3H~T2F3K
		F4		T2F4H~T2F4K
		F5		T2F5H~T2F5K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1M,1N)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1M	S1	F1	H I J K	S1F1H~S1F1K
		F3		S1F3H~S1F3K
		F5		S1F5H~S1F5K
		G0		S1G0H~S1G0K
		G2		S1G2H~S1G2K
		G4		S1G4H~S1G4K
	S2	F1	H I J K	S2F1H~S2F1K
		F3		S2F3H~S2F3K
		F5		S2F5H~S2F5K
		G0		S2G0H~S2G0K
		G2		S2G2H~S2G2K
		G4		S2G4H~S2G4K
Part No. – 1N	T1	F1	H I J K	T1F1H~T1F1K
		F3		T1F3H~T1F3K
		F5		T1F5H~T1F5K
		G0		T1G0H~T1G0K
		G2		T1G2H~T1G2K
		G4		T1G4H~T1G4K
	T2*	F1	H I J K	T2F1H~T2F1K
		F3		T2F3H~T2F3K
		F5		T2F5H~T2F5K
		G0		T2G0H~T2G0K
		G2		T2G2H~T2G2K
		G4		T2G4H~T2G4K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1O,1P)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1O	S1	G0	H I J K	S1G0H~S1G0K
		G1		S1G1H~S1G1K
		G2		S1G2H~S1G2K
		G3		S1G3H~S1G3K
		G4		S1G4H~S1G4K
		G5		S1G5H~S1G5K
	S2	G0	H I J K	S2G0H~S2G0K
		G1		S2G1H~S2G1K
		G2		S2G2H~S2G2K
		G3		S2G3H~S2G3K
		G4		S2G4H~S2G4K
		G5		S2G5H~S2G5K
Part No. – 1P	T1	G0	H I J K	T1G0H~T1G0K
		G1		T1G1H~T1G1K
		G2		T1G2H~T1G2K
		G3		T1G3H~T1G3K
		G4		T1G4H~T1G4K
		G5		T1G5H~T1G5K
	T2*	G0	H I J K	T2G0H~T2G0K
		G1		T2G1H~T2G1K
		G2		T2G2H~T2G2K
		G3		T2G3H~T2G3K
		G4		T2G4H~T2G4K
		G5		T2G5H~T2G5K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1Q,1R)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1Q	S1	G1	H I J K	S1G1H~S1G1K
		G3		S1G3H~S1G3K
		G5		S1G5H~S1G5K
		H0		S1H0H~S1H0K
		H2		S1H2H~S1H2K
		H4		S1H4H~S1H4K
	S2	G1	H I J K	S2G1H~S2G1K
		G3		S2G3H~S2G3K
		G5		S2G5H~S2G5K
		H0		S2H0H~S2H0K
		H2		S2H2H~S2H2K
		H4		S2H4H~S2H4K
Part No. – 1R	T1	G1	H I J K	T1G1H~T1G1K
		G3		T1G3H~T1G3K
		G5		T1G5H~T1G5K
		H0		T1H0H~T1H0K
		H2		T1H2H~T1H2K
		H4		T1H4H~T1H4K
	T2*	G1	H I J K	T2G1H~T2G1K
		G3		T2G3H~T2G3K
		G5		T2G5H~T2G5K
		H0		T2H0H~T2H0K
		H2		T2H2H~T2H2K
		H4		T2H4H~T2H4K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1S,1T)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1S	S1	H0	H I J K	S1H0H~S1H0K
		H1		S1H1H~S1H1K
		H2		S1H2H~S1H2K
		H3		S1H3H~S1H3K
		H4		S1H4H~S1H4K
		H5		S1H5H~S1H5K
	S2	H0	H I J K	S2H0H~S2H0K
		H1		S2H1H~S2H1K
		H2		S2H2H~S2H2K
		H3		S2H3H~S2H3K
		H4		S2H4H~S2H4K
		H5		S2H5H~S2H5K
Part No. – 1T	T1	H0	H I J K	T1H0H~T1H0K
		H1		T1H1H~T1H1K
		H2		T1H2H~T1H2K
		H3		T1H3H~T1H3K
		H4		T1H4H~T1H4K
		H5		T1H5H~T1H5K
	T2*	H0	H I J K	T2H0H~T2H0K
		H1		T2H1H~T2H1K
		H2		T2H2H~T2H2K
		H3		T2H3H~T2H3K
		H4		T2H4H~T2H4K
		H5		T2H5H~T2H5K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1U,1V)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1U	S1	F2	H I J K	S1F2H~S1F2K
		F3		S1F3H~S1F3K
		F4		S1F4H~S1F4K
		F5		S1F5H~S1F5K
		F6		S1F6H~S1F6K
		F7		S1F7H~S1F7K
	S2	F2	H I J K	S2F2H~S2F2K
		F3		S2F3H~S2F3K
		F4		S2F4H~S2F4K
		F5		S2F5H~S2F5K
		F6		S2F6H~S2F6K
		F7		S2F7H~S2F7K
Part No. – 1V	T1	F2	H I J K	T1F2H~T1F2K
		F3		T1F3H~T1F3K
		F4		T1F4H~T1F4K
		F5		T1F5H~T1F5K
		F6		T1F6H~T1F6K
		F7		T1F7H~T1F7K
	T2*	F2	H I J K	T2F2H~T2F2K
		F3		T2F3H~T2F3K
		F4		T2F4H~T2F4K
		F5		T2F5H~T2F5K
		F6		T2F6H~T2F6K
		F7		T2F7H~T2F7K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1W,1X)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1W	S1	F3	H I J K	S1F3H~S1F3K
		F5		S1F5H~S1F5K
		F7		S1F7H~S1F7K
		G2		S1G2H~S1G2K
		G4		S1G4H~S1G4K
		G6		S1G6H~S1G6K
	S2	F3	H I J K	S2F3H~S2F3K
		F5		S2F5H~S2F5K
		F7		S2F7H~S2F7K
		G2		S2G2H~S2G2K
		G4		S2G4H~S2G4K
		G6		S2G6H~S2G6K
Part No. – 1X	T1	F3	H I J K	T1F3H~T1F3K
		F5		T1F5H~T1F5K
		F7		T1F7H~T1F7K
		G2		T1G2H~T1G2K
		G4		T1G4H~T1G4K
		G6		T1G6H~T1G6K
	T2*	F3	H I J K	T2F3H~T2F3K
		F5		T2F5H~T2F5K
		F7		T2F7H~T2F7K
		G2		T2G2H~T2G2K
		G4		T2G4H~T2G4K
		G6		T2G6H~T2G6K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (1Y,1Z)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 1Y	S1	G2	H I J K	S1G2H~S1G2K
		G3		S1G3H~S1G3K
		G4		S1G4H~S1G4K
		G5		S1G5H~S1G5K
		G6		S1G6H~S1G6K
		G7		S1G7H~S1G7K
	S2	G2	H I J K	S2G2H~S2G2K
		G3		S2G3H~S2G3K
		G4		S2G4H~S2G4K
		G5		S2G5H~S2G5K
		G6		S2G6H~S2G6K
		G7		S2G7H~S2G7K
Part No. – 1Z	T1	G2	H I J K	T1G2H~T1G2K
		G3		T1G3H~T1G3K
		G4		T1G4H~T1G4K
		G5		T1G5H~T1G5K
		G6		T1G6H~T1G6K
		G7		T1G7H~T1G7K
	T2*	G2	H I J K	T2G2H~T2G2K
		G3		T2G3H~T2G3K
		G4		T2G4H~T2G4K
		G5		T2G5H~T2G5K
		G6		T2G6H~T2G6K
		G7		T2G7H~T2G7K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (2A,2B)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 2A	S1	G3	H I J K	S1G3H~S1G3K
		G5		S1G5H~S1G5K
		G7		S1G7H~S1G7K
		H2		S1H2H~S1H2K
		H4		S1H4H~S1H4K
		H6		S1H6H~S1H6K
	S2	G3	H I J K	S2G3H~S2G3K
		G5		S2G5H~S2G5K
		G7		S2G7H~S2G7K
		H2		S2H2H~S2H2K
		H4		S2H4H~S2H4K
		H6		S2H6H~S2H6K
Part No. – 2B	T1	G3	H I J K	T1G3H~T1G3K
		G5		T1G5H~T1G5K
		G7		T1G7H~T1G7K
		H2		T1H2H~T1H2K
		H4		T1H4H~T1H4K
		H6		T1H6H~T1H6K
	T2*	G3	H I J K	T2G3H~T2G3K
		G5		T2G5H~T2G5K
		G7		T2G7H~T2G7K
		H2		T2H2H~T2H2K
		H4		T2H4H~T2H4K
		H6		T2H6H~T2H6K

*** : Not yet available**

1W Order Code (P3-II)

4. Warm White - NS2180 (2C,2D)

Standard Order Codes for Natural white				
Order Code	**LF**	**CC**	**V_F**	**Bin Codes**
Part No. – 2C	S1	H2	H I J K	S1H2H~S1H2K
		H3		S1H3H~S1H3K
		H4		S1H4H~S1H4K
		H5		S1H5H~S1H5K
		H6		S1H6H~S1H6K
		H7		S1H7H~S1H7K
	S2	H2	H I J K	S2H2H~S2H2K
		H3		S2H3H~S2H3K
		H4		S2H4H~S2H4K
		H5		S2H5H~S2H5K
		H6		S2H6H~S2H6K
		H7		S2H7H~S2H7K
Part No. – 2D	T1	H2	H I J K	T1H2H~T1H2K
		H3		T1H3H~T1H3K
		H4		T1H4H~T1H4K
		H5		T1H5H~T1H5K
		H6		T1H6H~T1H6K
		H7		T1H7H~T1H7K
	T2*	H2	H I J K	T2H2H~T2H2K
		H3		T2H3H~T2H3K
		H4		T2H4H~T2H4K
		H5		T2H5H~T2H5K
		H6		T2H6H~T2H6K
		H7		T2H7H~T2H7K

*** : Not yet available**

1W Order Code (P3-II)

6. 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)

7. 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)

8. 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		QAA2D~QAA2G
Part No. – 1B	R*	AA1	D E F G	RAA1D~RAA1G
		AA2		RAA1D~RAA1G
	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)

9. 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**

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