
SEHP35 LED Package of Specifications



Product : SEHP35

Version : RD

Date : 2025/09/16

SEHP35



Product Features & Applications

- ◆ Industry-leading luminous efficacy, performance and lumen output
- ◆ Excellent color consistency in light
- ◆ MSL2
- ◆ Outdoor lighting
- ◆ Indoor lighting
- ◆ Tunnel lighting
- ◆ Street lighting

Luminous Flux Characteristic ($I_F = 350\text{mA}$, $T_s = 25^\circ\text{C}$) Product Specification

Color Temp (CCT)	CRI (Ra)	Luminous Flux (lm)	Forward Voltage	Beam Angle	Thermal Resistance
2700K	70	179	2.8 V	120 °	6 °C/W
3000K		181			
4000K		191			
5000K		197			
5700K		195			
6500K		193			
2700K	80	166	2.8 V	120 °	6 °C/W
3000K		170			
4000K		177			
5000K		183			
5700K		181			
6500K		179			
2700K	90	126	2.8 V	120 °	6 °C/W
3000K		132			
4000K		147			
5000K		156			
5700K		154			
6500K		152			

Notes:

- 1.The product is tested with a current of 350mA, a test time of 20 ms, and an ambient temperature of 25°C.
- 2.The emission angle is the angle between the 50% central luminous intensity. The light source document required by optical simulation software such as ProSource, LightTools, TracePro, ASAP, and ZEMAX can be provided.
- 3.Due to measurement technology limitations, there are test errors in product testing. It should be noted that the tolerance of the ETi luminous flux and optical power measurement values is $\pm 7\%$, the tolerance of the chromaticity coordinates (CCx, CCy) measurement values is ± 0.01 , the tolerance of the color rendering index test value is ± 2 , and the voltage test error is $\pm 0.1\text{V}$.

Absolute Maximum Ratings

Item	Symbol	Rated Parameter
DC Forward Current	I_F	50-1500mA
Pulse Forward Current	I_{FM}	50-2000mA
Maximum Junction Temperature (°C)	T_j	150°
Operating Temperature (°C)	T_{op}	-40°C - 125°C
Storage Temperature (°C)	T_{stg}	-40°C - 125°C
Soldering Temperature (°C)	T_p	JEDEC 020c 260°C
Reflow Soldering Cycles		3
Reverse Voltage	V_R	No Reverse Operation Design
Electrostatic Discharge	ESD (HBM)	8000V

Notes:

1. The prerequisite for the maximum forward current or the maximum pulsed forward current is that the device junction temperature is lower than the rated operating junction temperature.
2. The Maximum Pulsed Current (I_{FM}) is based on a pulse time of 10μs and a duty cycle of 0.005.

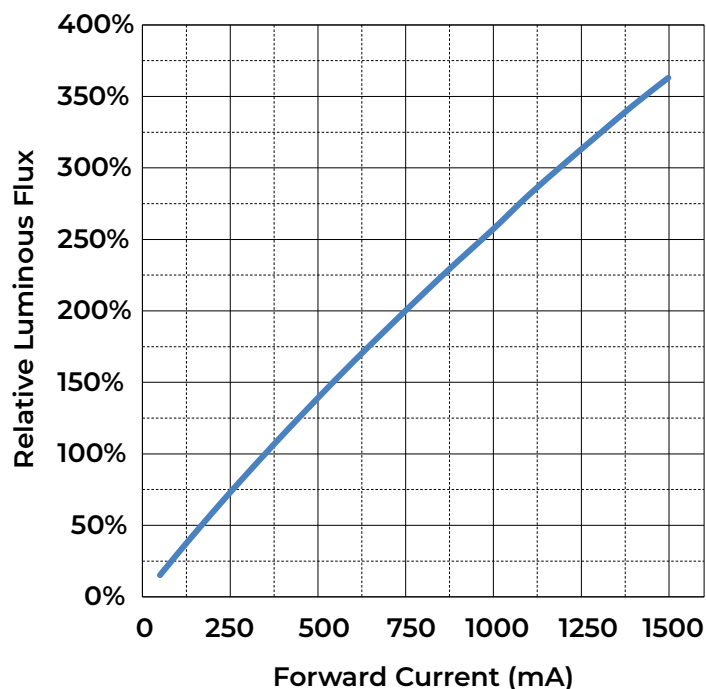
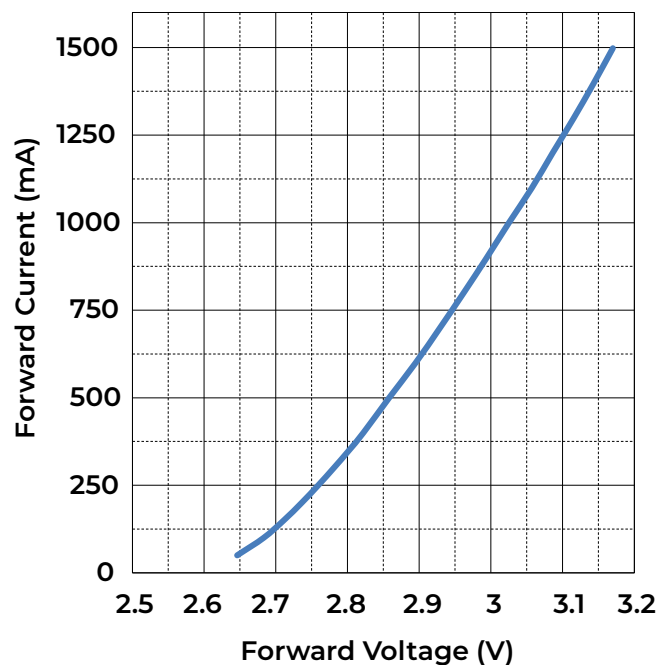
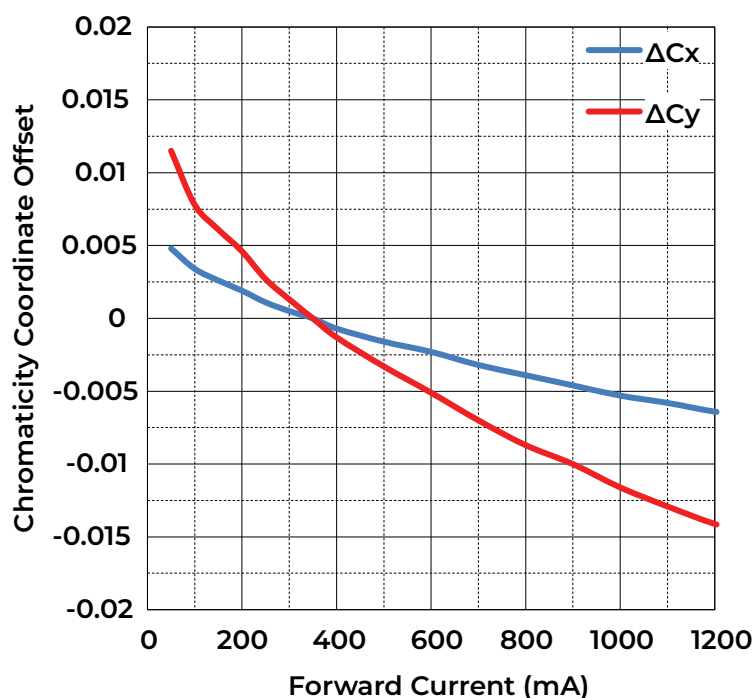
The color coordinate at 350mA @ 25°C

CCT	ΔX
2700K	<0.002
3000K	<0.002
4000K	<0.002
5000K	<0.002
5700K	<0.002
6500K	<0.003

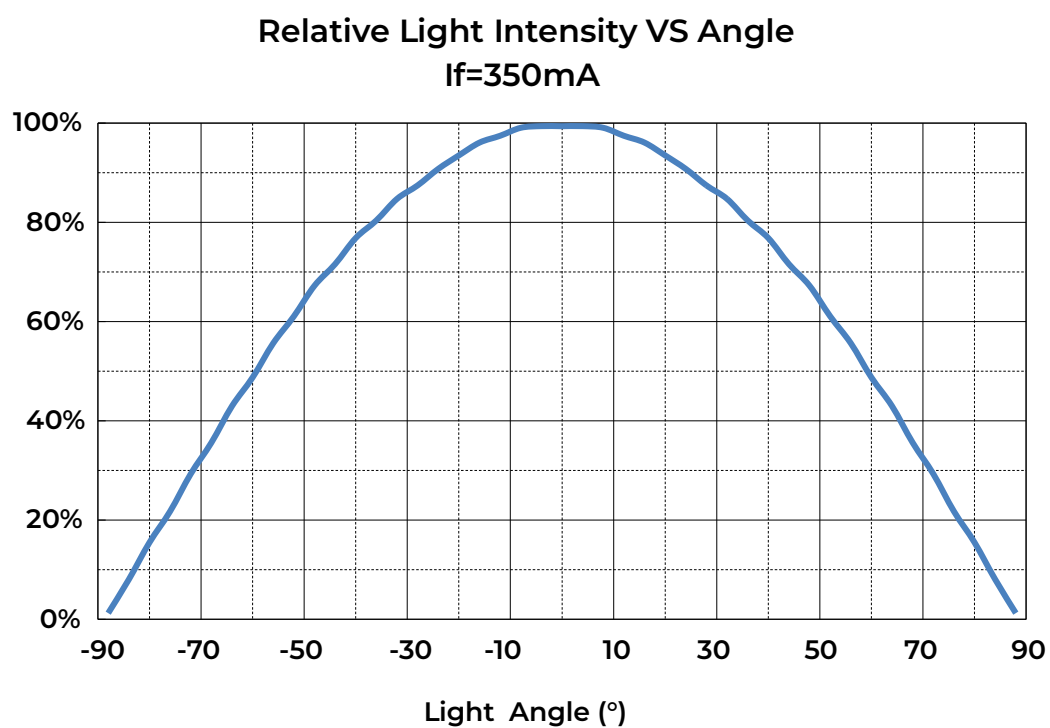
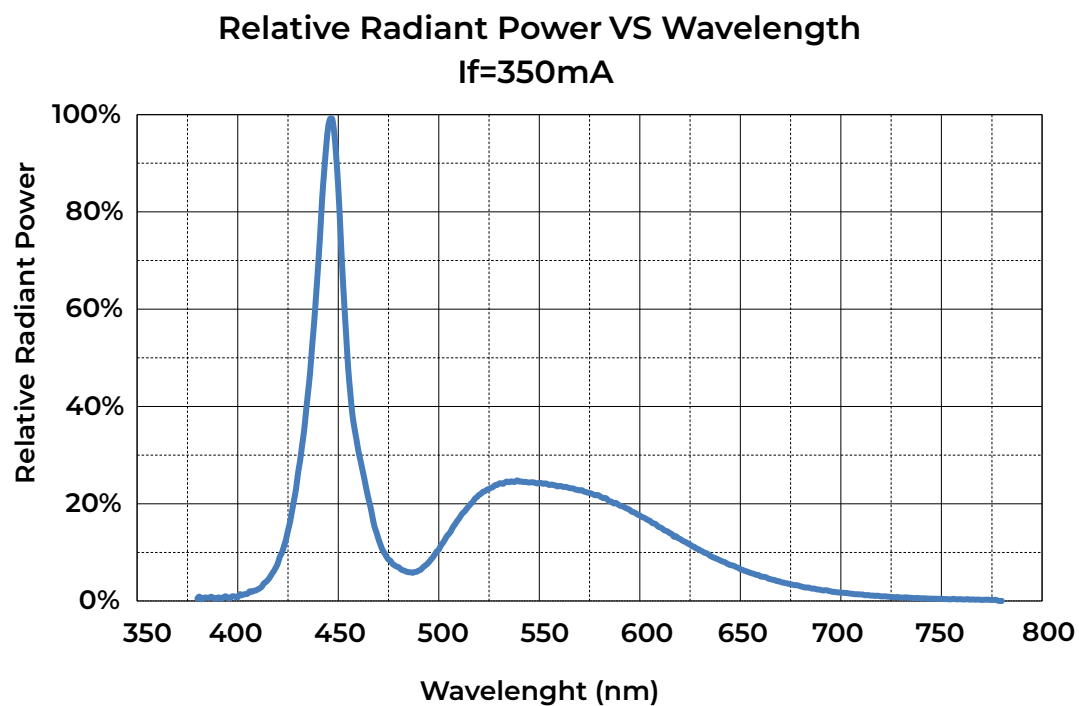
Luminous Flux Rank Distribution at 350mA @25°C

Normal CCT	Typ Ra	Flux Rank / min Flux										
		N	O	P	Q	R	S	T	U	V	W	X
		114	122	130	139	148	156	164	172	182	192	205
2700K	70					■	■	■	■			
3000K						■	■	■	■			
4000K								■	■	■	■	
5000K								■	■	■	■	
5700K								■	■	■	■	
6500K								■	■	■	■	
2700K	80				■	■	■	■				
3000K					■	■	■	■				
4000K							■	■	■	■		
5000K							■	■	■	■		
5700K							■	■	■	■		
6500K							■	■	■	■		
2700K	90		■	■	■	■						
3000K				■	■	■	■					
4000K					■	■	■	■				
5000K					■	■	■	■				
5700K					■	■	■	■				
6500K					■	■	■	■				

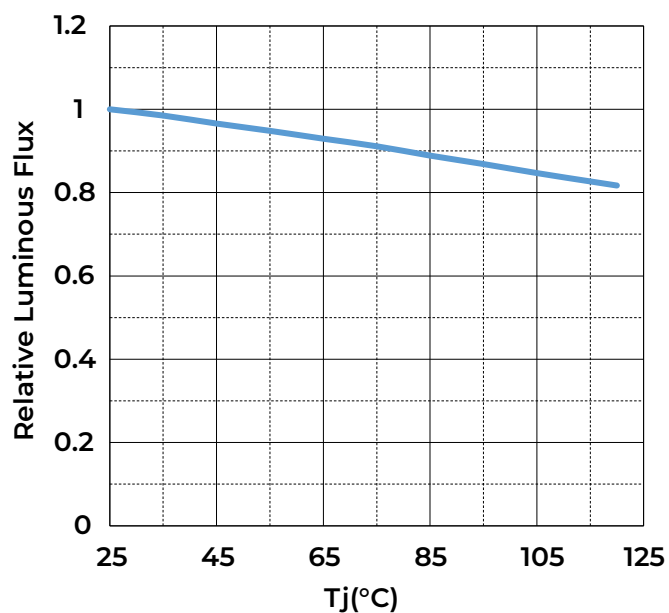
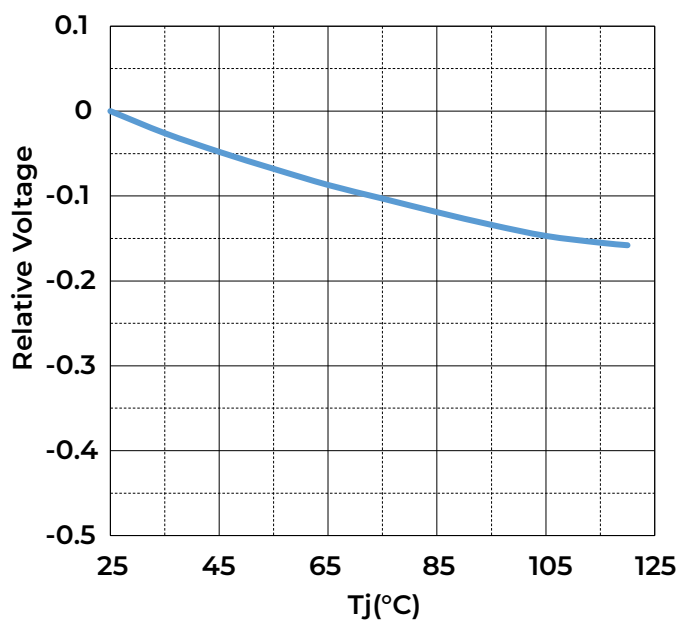
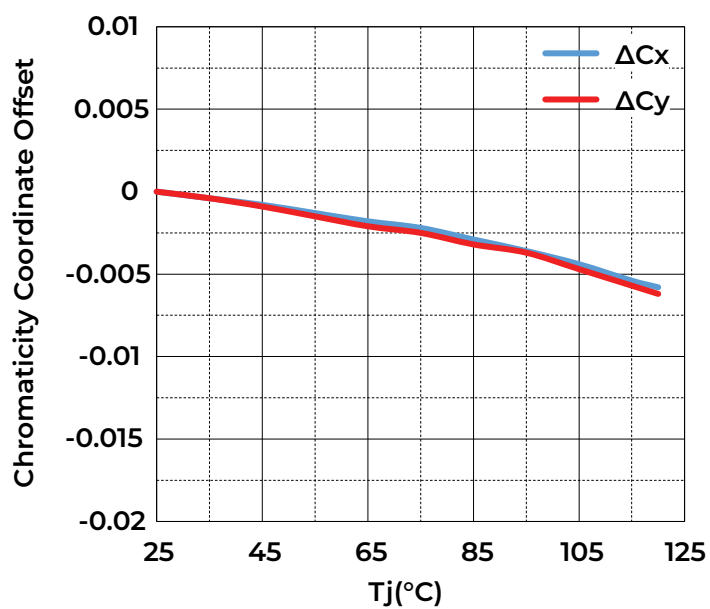
Product Characteristic Curve

Relative Luminous Flux VS Forward Current
 $T_s=25^{\circ}\text{C}$ Forward Voltage VS Forward Current
 $T_s=25^{\circ}\text{C}$ Chromaticity Coordinate Offset VS Forward Current
 $T_s=25^{\circ}\text{C}$ 

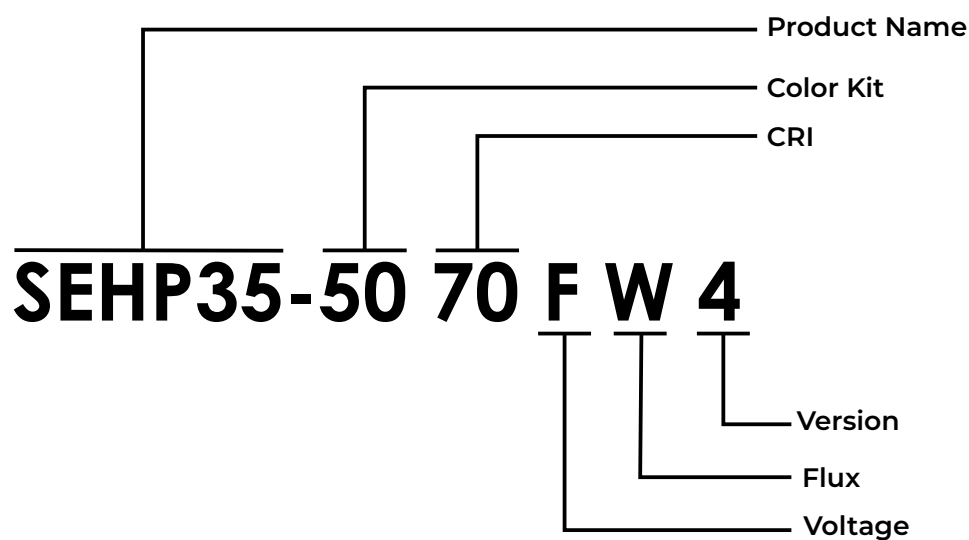
Product Characteristic Curve



Product Characteristic Curve

Relative Luminous Flux VS Tj Temperature
If=350mARelative Voltage VS Tj Temperature
If=350mAChromaticity Coordinate Offset VS Tj Temperature
If=350mA

Product Name Description:



Color Kit

Color Kit	CCT
27	2700K
30	3000K
35	3500K
40	4000K
45	4500K
50	5000K
57	5700K
65	6500K

Forward Voltage Bin

BIN Code	Min	Max	Unit
F	2.75	2.95	V

Luminous Flux Rank at 350 @ 25°C

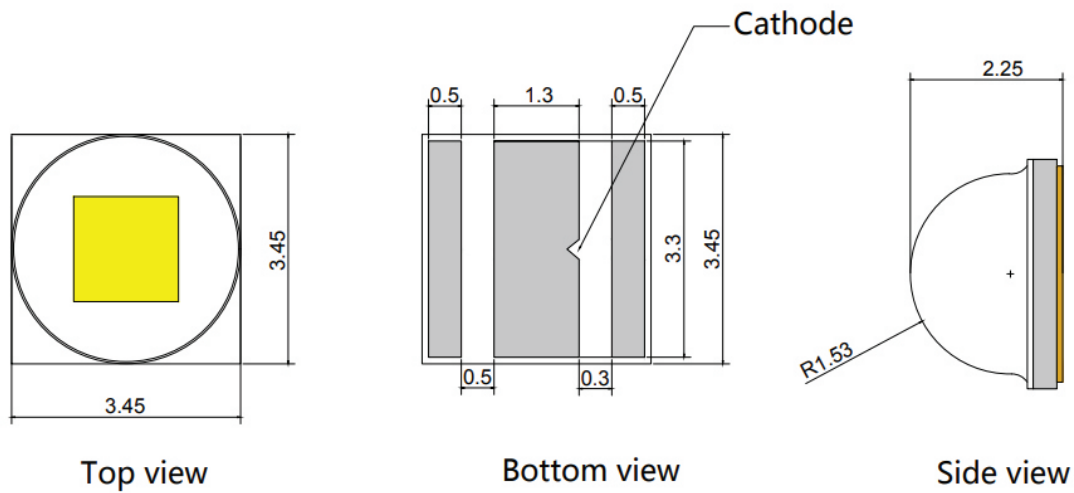
BIN Code	Min	Max	Unit
N	114	122	Lm
O	122	130	Lm
P	130	139	Lm
Q	139	148	Lm
R	148	156	Lm
S	156	164	Lm
T	164	172	Lm
U	172	182	Lm
V	182	192	Lm
W	192	212	Lm

CRI Specification

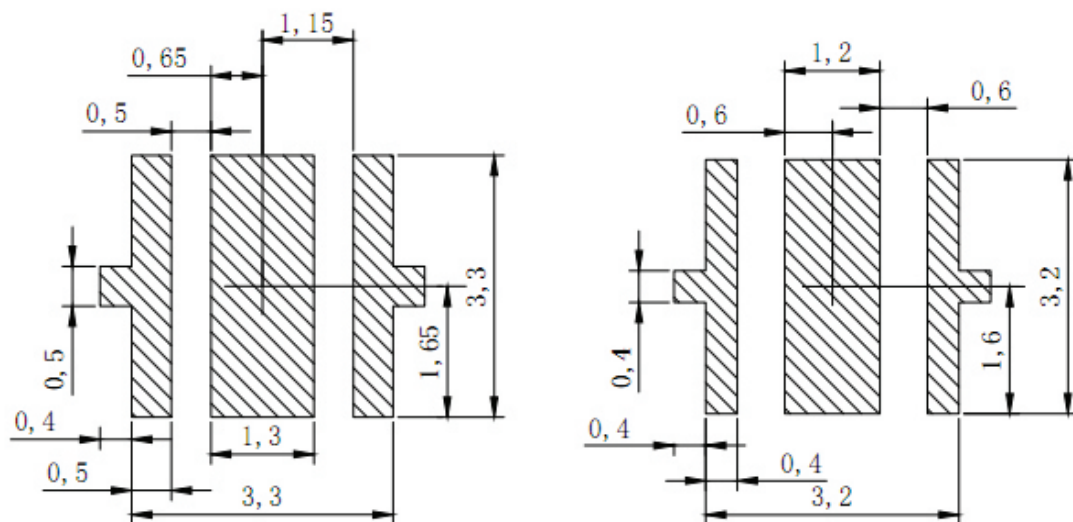
CRI	Specification
70	CRI70
80	CRI80
90	CRI90

Mechanical Dimensions:

Unit: Millimeter (mm)

Tolerance: ± 0.10 mm**Recommended Solder Pad**

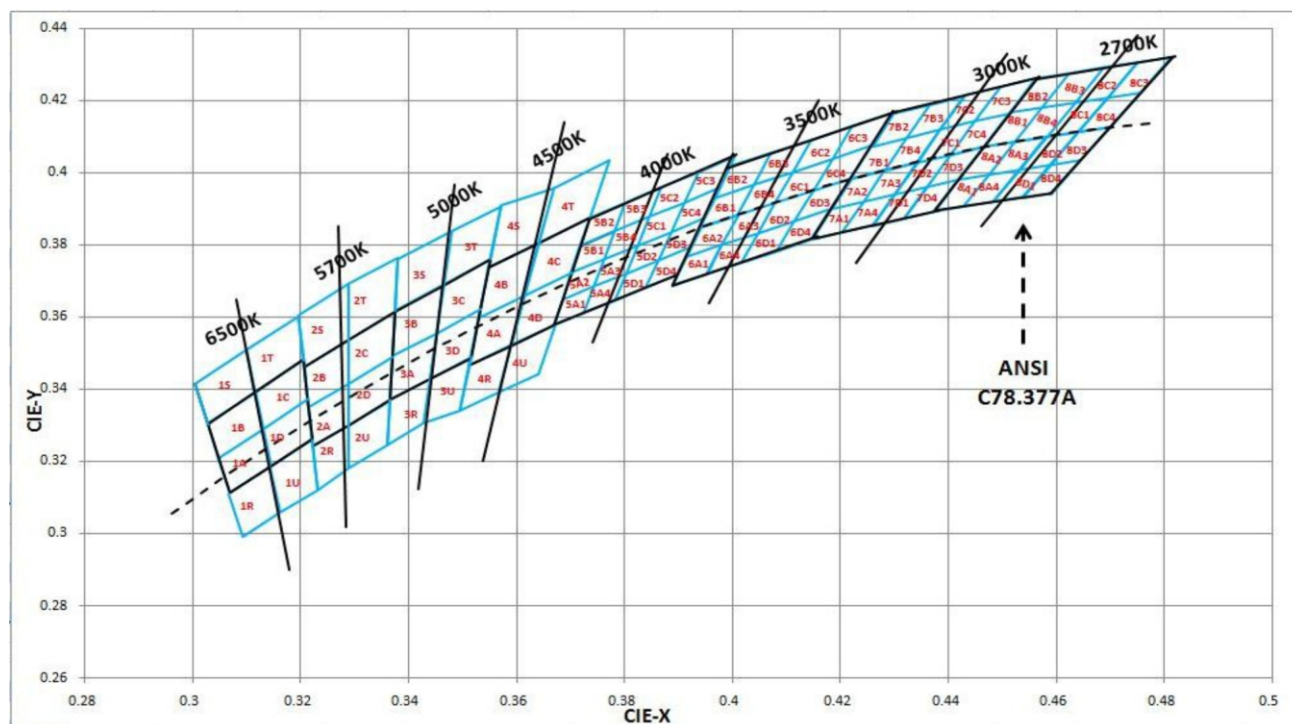
Unit: Millimeter (mm)

Tolerance: ± 0.10 mm

Recommended PCB Solder PAD

Recommended Stencil Pattern

Chromaticity Coordinate Groups



CIE 1931 Chromaticity Diagram

Performance Groups - Chromaticity

Color Kit	CCT	Chromaticity Bins
65	6500K	1A,1B,1C,1D
57	5700K	2A,2B,2C,2D
50	5000K	3A,3B,3C,3D
45	4500K	4A,4B,4C,4D
40	4000K	5A1,5A2,5A3,5A4,5B1,5B2,5B3,5B4,5C1,5C2,5C3,5C4, 5D1,5D2,5D3,5D4
35	3500K	6A1,6A2,6A3,6A4,6B1,6B2,6B3,6B4,6C1,6C2,6C3,6C4, 6D1,6D2,6D3,6D4
30	3000K	7A1,7A2,7A3,7A4,7B1,7B2,7B3,7B4,7C1,7C2,7C3,7C4, 7D1,7D2,7D3,7D4
27	2700K	8A1,8A2,8A3,8A4,8B1,8B2,8B3,8B4,8C1,8C2,8C3,8C4, 8D1,8D2,8D3,8D4

Performance Groups - Chromaticity

Region	x	y	Region	x	y	Region	x	y	Region	x	y
5B1	0.3702	0.3722	5B2	0.3719	0.3797	5B3	0.3782	0.3837	5B4	0.3763	0.3760
	0.3719	0.3797		0.3736	0.3874		0.3802	0.3916		0.3782	0.3837
	0.3782	0.3837		0.3802	0.3916		0.3869	0.3958		0.3847	0.3877
	0.3763	0.3760		0.3782	0.3837		0.3847	0.3877		0.3825	0.3798
5C1	0.3825	0.3798	5C2	0.3847	0.3877	5C3	0.3912	0.3917	5C4	0.3887	0.3836
	0.3847	0.3877		0.3869	0.3958		0.3937	0.4001		0.3912	0.3917
	0.3912	0.3917		0.3937	0.4001		0.4006	0.4044		0.3978	0.3958
	0.3887	0.3836		0.3912	0.3917		0.3978	0.3958		0.3950	0.3875
5D1	0.3783	0.3646	5D2	0.3804	0.3721	5D3	0.3863	0.3758	5D4	0.3840	0.3681
	0.3804	0.3721		0.3825	0.3798		0.3887	0.3836		0.3863	0.3758
	0.3863	0.3758		0.3887	0.3836		0.3950	0.3875		0.3924	0.3794
	0.3840	0.3681		0.3863	0.3758		0.3924	0.3794		0.3898	0.3716
6A	0.3941	0.3848	6B	0.3996	0.4015	6C	0.4146	0.4089	6D	0.4080	0.3916
	0.4080	0.3916		0.4146	0.4089		0.4299	0.4165		0.4221	0.3985
	0.4017	0.3752		0.4080	0.3916		0.4221	0.3985		0.4147	0.3814
	0.3889	0.3690		0.3941	0.3848		0.4080	0.3916		0.4017	0.3752
6A1	0.3889	0.3690	6A2	0.3915	0.3768	6A3	0.3981	0.3800	6A4	0.4080	0.3916
	0.3915	0.3768		0.3941	0.3848		0.4010	0.3882		0.3981	0.3800
	0.3981	0.3800		0.4010	0.3882		0.4080	0.3916		0.4048	0.3882
	0.3953	0.3720		0.3981	0.3800		0.4048	0.3832		0.4017	0.3751
6B1	0.3941	0.3848	6B2	0.3968	0.3930	6B3	0.4040	0.3966	6B4	0.4010	0.3882
	0.3968	0.3930		0.3996	0.4015		0.4071	0.4052		0.4040	0.3966
	0.4040	0.3966		0.4071	0.4052		0.4146	0.4089		0.4113	0.4001
	0.4010	0.3882		0.4040	0.3966		0.4113	0.4001		0.4080	0.3916
6C1	0.4080	0.3916	6C2	0.4113	0.4001	6C3	0.4186	0.4037	6C4	0.4150	0.3950
	0.4113	0.4001		0.4146	0.4089		0.4222	0.4127		0.4186	0.4037
	0.4186	0.4037		0.4222	0.4127		0.4299	0.4165		0.4259	0.4073
	0.4150	0.3950		0.4186	0.4037		0.4259	0.4073		0.4221	0.3984
6D1	0.4017	0.3751	6D2	0.4048	0.3832	6D3	0.4116	0.3865	6D4	0.4062	0.3782
	0.4048	0.3832		0.4080	0.3916		0.4150	0.3950		0.4116	0.3865
	0.4116	0.3865		0.4150	0.3960		0.4221	0.3984		0.4183	0.3898
	0.4082	0.3782		0.4116	0.3865		0.4183	0.3898		0.4147	0.3814
7A	0.4221	0.3985	7B	0.4299	0.4165	7C	0.4430	0.4212	7D	0.4342	0.4028
	0.4342	0.4028		0.4430	0.4212		0.4562	0.4260		0.4465	0.4071
	0.4260	0.3853		0.4342	0.4028		0.4465	0.4071		0.4373	0.3893
	0.4147	0.3814		0.4221	0.3985		0.4342	0.4028		0.4260	0.3853
7A1	0.4147	0.3814	7A2	0.4183	0.3898	7A3	0.4242	0.3919	7A4	0.4203	0.3833
	0.4183	0.3898		0.4221	0.3984		0.4281	0.4006		0.4242	0.3919
	0.4242	0.3919		0.4281	0.4006		0.4342	0.4028		0.4300	0.3939
	0.4203	0.3833		0.4242	0.3919		0.4300	0.3939		0.4259	0.3853

Performance Groups - Chromaticity

Region	x	y	Region	x	y	Region	x	y	Region	x	y
1A	0.3048	0.3207	1B	0.3028	0.3304	1C	0.3115	0.3391	1D	0.3130	0.3290
	0.3130	0.3290		0.3115	0.3391		0.3205	0.3481		0.3213	0.3373
	0.3144	0.3186		0.3130	0.3290		0.3213	0.3373		0.3221	0.3261
	0.3068	0.3113		0.3048	0.3207		0.3130	0.3290		0.3144	0.3186
1R	0.3068	0.3113	1S	0.3005	0.3415	1T	0.3099	0.3509	1U	0.3144	0.3186
	0.3144	0.3186		0.3099	0.3415		0.3196	0.3602		0.3221	0.3261
	0.3161	0.3059		0.3099	0.3509		0.3205	0.3481		0.3231	0.3120
	0.3093	0.2993		0.3028	0.3304		0.3115	0.3391		0.3161	0.3059
2A	0.3215	0.3350	2B	0.3207	0.3462	2C	0.3290	0.3538	2D	0.3290	0.3417
	0.3290	0.3350		0.3290	0.3538		0.3376	0.3616		0.3366	0.3369
	0.3290	0.3300		0.3290	0.3417		0.3371	0.3490		0.3290	0.3300
	0.3222	0.3243		0.3215	0.3350		0.3290	0.3417		0.3366	0.3369
2R	0.3222	0.3243	2S	0.3196	0.3602	2T	0.3290	0.3690	2U	0.3290	0.3300
	0.3290	0.3300		0.3290	0.3690		0.3381	0.3762		0.3366	0.3369
	0.3290	0.3180		0.3290	0.3538		0.3376	0.3616		0.3361	0.3245
	0.3231	0.3120		0.3207	0.3462		0.3290	0.3538		0.3290	0.3180
3A	0.3371	0.3490	3B	0.3376	0.3616	3C	0.3463	0.3687	3D	0.3451	0.3554
	0.3451	0.3554		0.3463	0.3687		0.3551	0.3760		0.3533	0.3620
	0.3440	0.3427		0.3451	0.3554		0.3533	0.3620		0.3515	0.3487
	0.3366	0.3369		0.3371	0.3490		0.3451	0.3554		0.3440	0.3427
3R	0.3366	0.3369	3S	0.3381	0.3762	3T	0.3480	0.3840	3U	0.3440	0.3428
	0.3440	0.3428		0.3480	0.3840		0.3571	0.3907		0.3515	0.3487
	0.3429	0.3307		0.3463	0.3687		0.3551	0.3760		0.3495	0.3339
	0.3361	0.3245		0.3376	0.3616		0.3463	0.3687		0.3429	0.3307
4A	0.3530	0.3597	4B	0.3548	0.3736	4C	0.3641	0.3804	4D	0.3615	0.3659
	0.3615	0.3659		0.3641	0.3804		0.3736	0.3874		0.3702	0.3722
	0.3590	0.3521		0.3615	0.3659		0.3702	0.3722		0.3670	0.3578
	0.3512	0.3465		0.3530	0.3597		0.3615	0.3659		0.3590	0.3521
4R	0.3512	0.3465	4S	0.3571	0.3907	4T	0.3668	0.3957	4U	0.3590	0.3521
	0.3590	0.3521		0.3668	0.3957		0.3771	0.4034		0.3670	0.3578
	0.3567	0.3389		0.3641	0.3804		0.3736	0.3874		0.3640	0.3440
	0.3495	0.3339		0.3548	0.3736		0.3641	0.3804		0.3567	0.3389
5A	0.3702	0.3722	5B	0.3736	0.3874	5C	0.3870	0.3958	5D	0.3825	0.3798
	0.3825	0.3798		0.3870	0.3958		0.4006	0.4044		0.3951	0.3876
	0.3783	0.3646		0.3825	0.3798		0.3951	0.3876		0.3898	0.3716
	0.3670	0.3578		0.3702	0.3722		0.3825	0.3798		0.3783	0.3646
5A1	0.3670	0.3578	5A2	0.3686	0.3649	5A3	0.3744	0.3685	5A4	0.3726	0.3612
	0.3686	0.3649		0.3702	0.3722		0.3763	0.3760		0.3744	0.3685
	0.3744	0.3685		0.3763	0.3760		0.3825	0.3798		0.3804	0.3721
	0.3726	0.3612		0.3744	0.3685		0.3804	0.3721		0.3783	0.3646

Performance Groups - Chromaticity

Region	x	y	Region	x	y	Region	x	y	Region	x	y
7B1	0.4221	0.3984	7B2	0.4259	0.4073	7B3	0.4322	0.4096	7B4	0.4281	0.4006
	0.4259	0.4073		0.4299	0.4165		0.4364	0.4188		0.4322	0.4096
	0.4322	0.4096		0.4364	0.4188		0.4430	0.4212		0.4385	0.4119
	0.4281	0.4006		0.4322	0.4096		0.4385	0.4119		0.4342	0.4028
7C1	0.4342	0.4028	7C2	0.4385	0.4119	7C3	0.4449	0.4141	7C4	0.4403	0.4049
	0.4385	0.4119		0.4430	0.4212		0.4496	0.4236		0.4449	0.4141
	0.4449	0.4141		0.4496	0.4236		0.4562	0.4260		0.4513	0.4164
	0.4403	0.4049		0.4449	0.4141		0.4513	0.4164		0.4465	0.4071
7D1	0.4259	0.3853	7D2	0.4300	0.3939	7D3	0.4359	0.3960	7D4	0.4316	0.3873
	0.4300	0.3939		0.4342	0.4028		0.4403	0.4049		0.4359	0.3960
	0.4359	0.3960		0.4403	0.4049		0.4465	0.4071		0.4418	0.3981
	0.4316	0.3873		0.4359	0.3960		0.4418	0.3981		0.4373	0.3893
8A	0.4465	0.4071	8B	0.4562	0.4260	8C	0.4687	0.4289	8D	0.4582	0.4099
	0.4582	0.4099		0.4687	0.4289		0.4813	0.4319		0.4700	0.4126
	0.4483	0.3918		0.4582	0.4099		0.4700	0.4126		0.4593	0.3944
	0.4373	0.3893		0.4465	0.4071		0.4582	0.4099		0.4483	0.3918
8A1	0.4373	0.3893	8A2	0.4418	0.3981	8A3	0.4475	0.3994	8A4	0.4582	0.4099
	0.4418	0.3981		0.4465	0.4071		0.4523	0.4085		0.4700	0.4126
	0.4475	0.3994		0.4523	0.4085		0.4582	0.4099		0.4593	0.3944
	0.4428	0.3906		0.4475	0.3994		0.4532	0.4008		0.4483	0.3918
8B1	0.4465	0.4071	8B2	0.4513	0.4164	8B3	0.4573	0.4178	8B4	0.4523	0.4085
	0.4513	0.4164		0.4562	0.4260		0.4624	0.4274		0.4573	0.4178
	0.4573	0.4178		0.4624	0.4274		0.4687	0.4289		0.4634	0.3193
	0.4523	0.4085		0.4573	0.4178		0.4634	0.4193		0.4582	0.4099
8C1	0.4582	0.4099	8C2	0.4634	0.4139	8C3	0.4695	0.4207	8C4	0.4641	0.4112
	0.4634	0.4193		0.4687	0.4289		0.4750	0.4304		0.4695	0.4207
	0.4695	0.4207		0.4750	0.4304		0.4813	0.4319		0.4756	0.4221
	0.4641	0.4112		0.4695	0.4207		0.4756	0.4221		0.4700	0.4126
8D1	0.4483	0.3919	8D2	0.4532	0.4008	8D3	0.4589	0.4021	8D4	0.4538	0.3931
	0.4352	0.4008		0.4582	0.4099		0.4641	0.4112		0.4589	0.4021
	0.4589	0.4021		0.4641	0.4112		0.4700	0.4126		0.4646	0.4034
	0.4538	0.3931		0.4589	0.4021		0.4646	0.4034		0.4593	0.3944

Explanation:

Test Error: The measurement error of chromaticity coordinates (CCx, CCy) is ± 0.007 .

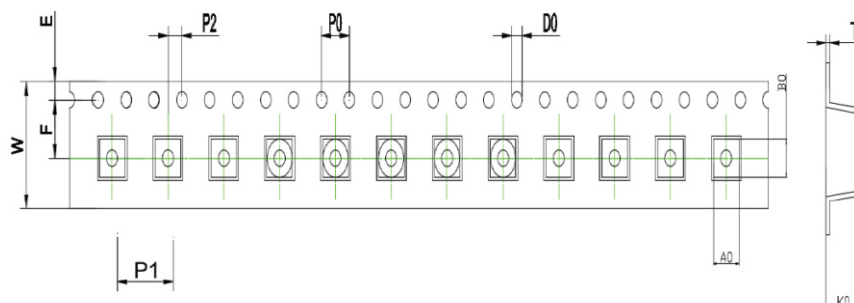
Teas Time: 20 ms.

Ambient Temperature: 25°C.

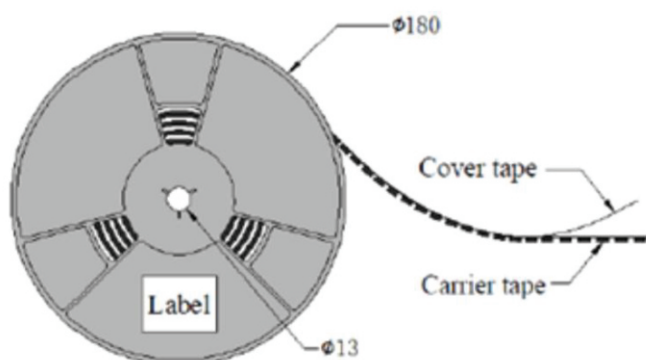
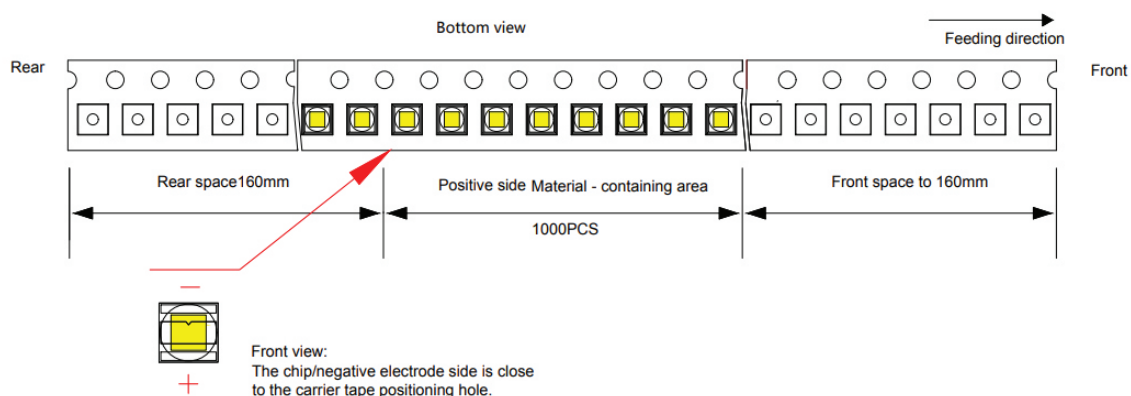
Test Current: 350 mA.

Tape and Reel Specification: Standard Packaging Quantity 3000pcs /reel

Unit: millimeter (mm)



Symbol	AO	BO	KO	PO	P1	PT
Spec	3.7 ± 0.10	3.7 ± 0.10	2.55 ± 0.10	4 ± 0.10	8 ± 0.10	2.0 ± 0.10
Symbol	E	F	DO	D1	W	T
Spec	1.75 ± 0.10	5.5 ± 0.10	1.5 ± 0.05	1.0 ± 0.10	12 ± 0.10	0.3 ± 0.05



Temperature Distribution Characteristics	Tin-lead eutectic Solder	Lead-Free Solder
Ramp-Up Rate from $T_{s_{max}}$ to T_p	Max.: 3°C/s	Max. Rate of Temperature Increase: 3°C/s
Min Preheating Temperature ($T_{s_{min}}$)	100°C	150°C
Max Preheating Temperature ($T_{s_{max}}$)	150°C	200°C
Preheating Time from $T_{s_{min}}$ to $T_{s_{max}}$	60-120s	Preheat Duration: 60-180s
Liquidus Temperature (T_L)	183°C	217°
Time above Liquidus temperature (t_L)	60-150s	60-150s
Peak Temperature of the Package Body (T_p)	215°C	Time above Liquidus Temperature: 260°C
Time within 5°C of the Specified Actual Peak Temperature (t_p)	10-30s	Time at Peak Reflow Temperature: 20-40s
Ramp-Down Rate from T_p to T_L	Max.: 6°C/s	Max. Rate of Temperature Decrease: 6°C/s
Time from 25°C to the peak Temperature	Max.: 6 minutes	Max. Overall Process Time; 8 minutes

ETi also suggested: immediately after use will all unused LED back to seal moisture bag and sealing the bag.