

Feature:

- Constant Voltage Technology (CCT), 50 pcs per series.
- Mini size, good for small letter
- Injection molding process. Waterproof: IP 65
- Bigger chip, small angle, high lux
- Energy saving. Environment friendly
- Special design of lens, angle: 168*147degree
- Suitable for 3-8cm height channel letters

Typical optical characteristics:

Color Parameter

Chroma Coordinate: $x=0.3085$ $y=0.3254$ $u=0.1962$ $v=0.3105$ $Duv=0.0036$

Chroma Coordinate: $u'=0.1962$ $v'=0.4657$

CCT.: CCT=6775K Dominant: $d=487.5nm$ Barycenter: $b=541nm$ Peak Wavelength: $p=450.6nm$

FWHM: 19.79nm Purity: $Pe=9.018\%$ Red Ratio: $R=0.12$ Green Ratio: $G=0.839$ Blue Ratio: $B=0.041$

Color CRI.: $Ra=73.75$

R 1=72	R 2=77	R 3=78	R 4=75	R 5=73	R 6=68	R 7=83
R 8=64	R 9=21	R10=43	R11=72	R12=40	R13=73	R14=88
R15=69						

Luminosity Parameter

Luminous Flux(380-780nm): 39.2206lm Optical Power(380-780nm): 0.124W Efficient(380-780nm): 105.4lm/W

Electric Parameter

Voltage: $U=12V$ Current: $I=31mA$ Power: $P=0.372W$ PF: PF=1

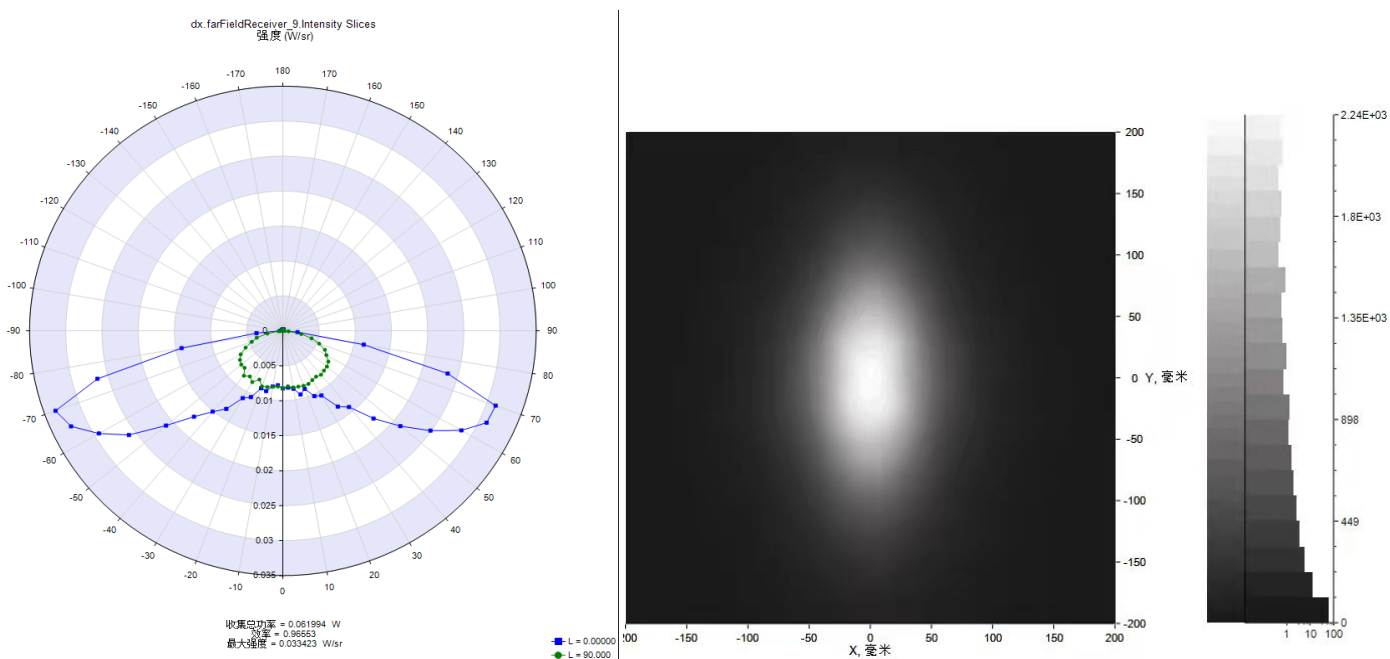
Rules of Naming Products:

Referencia	Color	Voltios	Wattios x Módulo	Flujo luminoso	Ángulo de luz	Nº LED	Chip	Espacio módulos	Medidas mm	Módulos x tira
1M168C	BLANCO 2800-3000	DC 12 V	0,36W	40 lm	160°	1	SMD 2835	62 mm	17,4 x 9 x 8,8	50
1M168W	BLANCO 6000-6500	DC 12 V	0,36W	40 lm	160°	1	SMD 2835	62 mm	17,4 x 9 x 8,8	50

Absolute maximum ratings:

Parameter	Symbol	Value	Unit
Power dissipation	Pd	0.36	W
Forward current	If	30	mA
Reverse voltage	Vr	15	V
Operating temperature range	Top	-20 -+85	°C
Storage temperature range	Tstg	-35-+85	°C
Pulse forward current	Ifp	200	mA
Electrostatic discharge	ESD	2000(HBM)	V

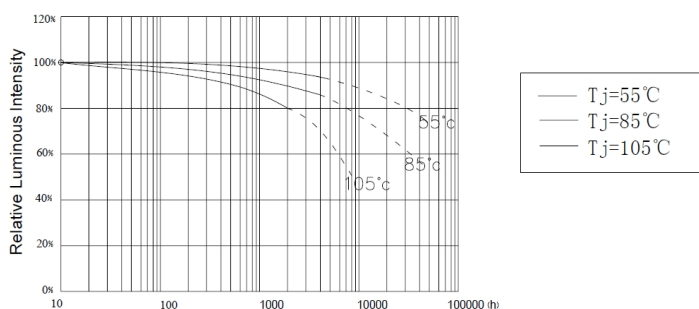
Distribution curve:



Affect of Tj on Luminous Maintenance:

life test:

Affect of Tj on Luminous Maintenance
(If=40mA)
(Dot line: Expected Life)



Reliability:

Test item	"Ref. standard"	Test condition	Note	Damaged
Resistance to soldering heat (Reflow Soldering)	JESD22-B106	Tsld=260°C,10sec	2 times	0/22
Temperature cycle	JESD22-A104	"-40 30min 5min 100°C30min"	200 cycle	0/100
Thermal shock	JESD22-A106	"-40 15min 100°C15min"	200 cycle	0/100
High temperature	JESD22-A103	Ta=100°C	200 cycle	0/100
Low temperature	JESD22-A119	Ta=40°C	200 cycle	0/100
Power temperature	JESD22-A105	"On 5min -40 > 15min < 15min Off 5min 100 > 15min"	200 cycle	0/100
Life test	JESD22-A108	Ta=25°C If=100mA	200 cycle	0/100
High humidity heat life test	JESD22-A101	60°C RH=90% If=30mA	200 cycle	0/100