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Arrant-Light Oy

Datasheet

CALGU0814

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CA L GU 0814-M 17 XX

CA = Citizen Array

L = Linear LED Module

G = Array Type

U = Connectors on the frontside of the module (up)

0814 = 8 Series, 14 Parallel

M = General Color Rendering Index Min. 80

17 = 17 watt module

XX = Energy Star Correlated Color Temperature

- L2 = 2700K
- L1 = 3000K
- WW1 = 3500K
- W1 = 4000K
- N1 = 5000K
- D = 6500K

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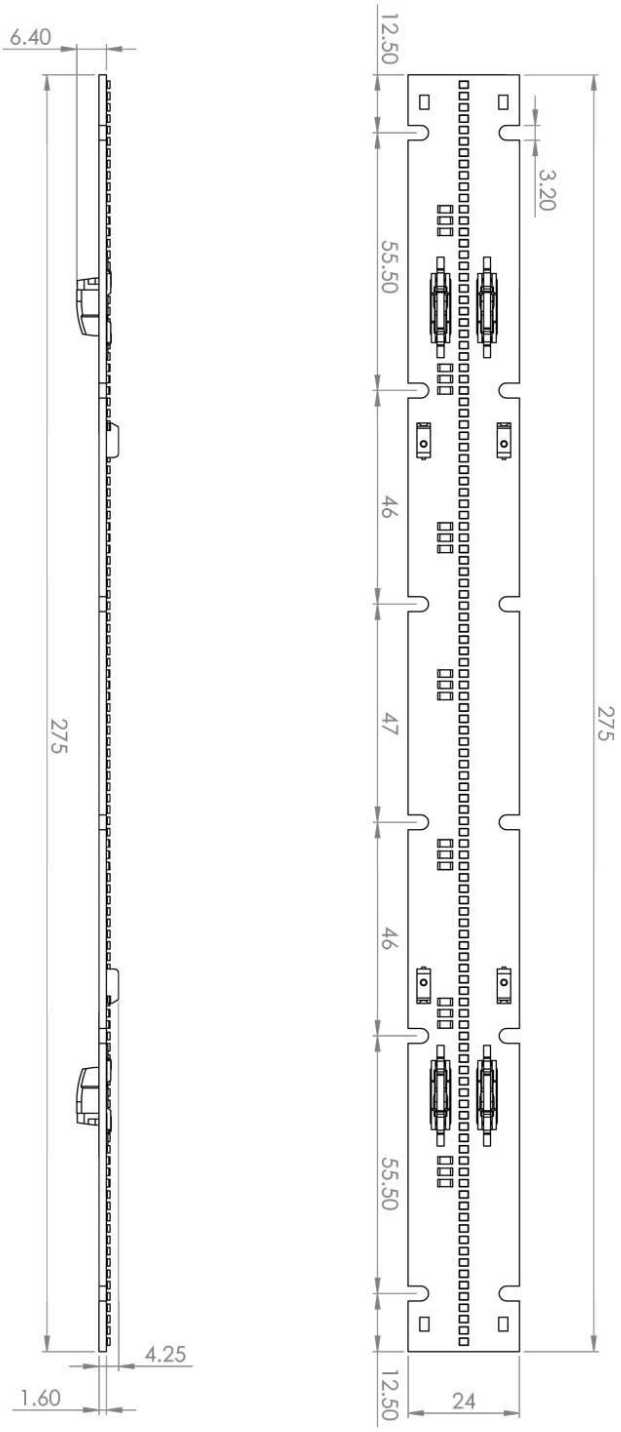
1. Outline drawing



Led used in array:

CLL130-0101B2-* depending on the color temperature

2. Performance

Following data is based on Citizen CLL130-0101B2-* diode datasheet. Please find more information about the led from datasheet for different CCTs.

Absolute Maximum Ratings

Parameter	Symbol	Rating	Unit
Power Dissipation	P_D	32,4	W
Forward Current	I_F	1190	mA
Reverse Voltage *1	V_R	20	V
Operating Temperature	T_{OP}	-30 – +85	°C
Storage Temperature	T_{ST}	-40 – +100	°C
Tc-point max. Temperature	$T_{C\,MAX.}$	85	°C

*1 This module is not designed to be driven in reverse bias.

Typical Electro-optical characteristics:

Parameter	CCT	Symbol	Condition	Min	Typ	Max	Unit
Forward Voltage	All	Vf	700mA	21,60	24,16	26,40	V
CRI	All	Ra		80	83	-	-
Luminous flux	2700K	ϕ_V		1669	1971	-	lm
	3000K			1725	2038	-	
	3500K			1792	2117	-	
	4000K			1837	2162	-	
	5000K			1971	2330	-	
	6500K			1870	2206	-	

Notice: These modules should be driven with constant current LED driver.

Chromaticity coordinates (Condition: I_F = 700mA, Ts = 25 °C)

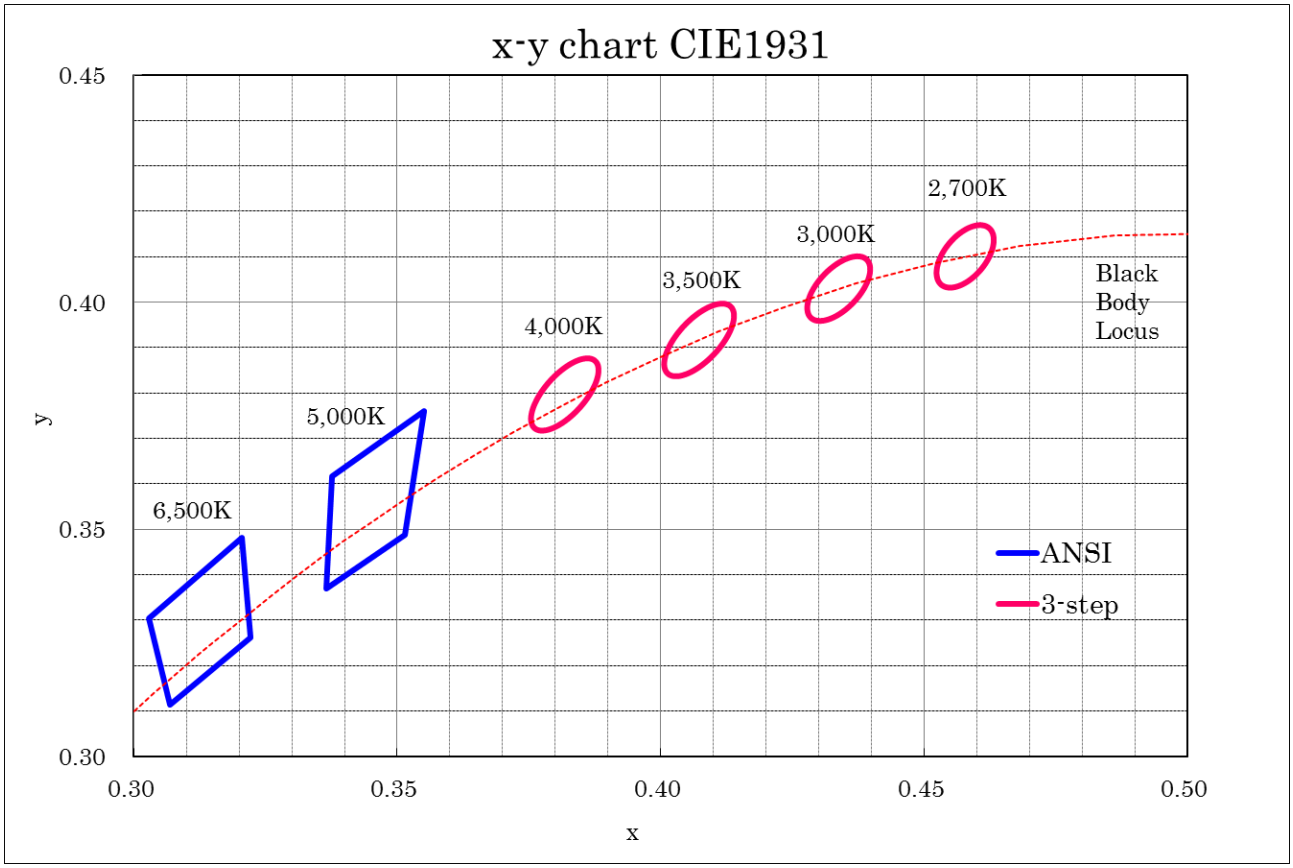
Oval parameter			
	Major axis	Minor axis	Rotation Angle
	a	b	θ°
2700K	0,007774	0,00411	57,28
3000K	0,00834	0,00408	53,17
3500K	0,00951	0,00417	52,97
4000K	0,00939	0,00402	54,00

Note 1) Color region stays within MacAdam 3-step ellipse for the LED module.

Note 2) θ is the angle between the major axis of the ellipse, and a and b are the major and minor semi-axes of an ellipse.

Note 3) For CCT versions 5000K and 6500K, ANSI C78.377:2011 binning is used for color coordinates.

Note: Data above is calculated and extrapolated based on CLL130-0101B2-* diode datasheets.



Precaution:

Handling with care for this product:

- This product should not have the physical contact with any other parts when assembled as part of your lighting fixture or luminaire.
- Do not touch LED area with hands when installing the product into your lighting fixture or luminaire.
- Handle the product with care, touch the product only on the edges of the LED module.
- Do not bend the LED module.

Countermeasure against static electricity:

- It is recommended to use countermeasures, such as wearing a wristband or antistatic gloves when handling of this product, to prevent any static electricity being produced.
- Throughout the production line, any manufacturing facility, that involves the contact with this product, is recommended to be grounded, if possible.
- LED modules could be tested by a light-on test with minimum current value in order to find the possible modules damaged by static electricity.

Caution of product assembly:

- When you assemble your luminaire, please use M3 screws or two-sided thermally conductive tape to attach the LED module into your luminaire or metal profile in your luminaire.
- Please do not use tighten the screw too much because it may bend the LED module and affect the performance of the LED components.

Driving current:

- A constant current is used with these modules, the values in this data sheet are given for constant current driving.
- Typical current given in the data sheet table is a recommendation; you can use also other current values as long as the current value does not exceed the maximum current value given in the table of Absolute Maximum Ratings.
- Do not apply reverse voltage, the LED components are not designed to be driven in reverse bias.

Lighting at a minimum current value:

- Please notice that if you drive the LED module with minimum or very small current value, there may be differences in brightness between individual LED components due to manufacturing tolerances of individual components.
- The above is not meaning that the LED module itself would be non-functional.

Electrical Safety:

- This product is designed and produced in compliance with IEC 62031: 2008 standard.
- IEC 62031:2008 LED modules for general lighting. Safety specification.
- As for conformity assessment for IEC 62031:2008, almost all items of the specification depend on your final product of LED lighting system.
- Please confirm with your final product for electrical safety of your product.

Eye Safety:

- According to IEC 62471:2006 standard Photobiological safety of lamps and lamp systems our LED modules could be classified either to Exempt Group (no hazard) or to Risk Group 1 (low risk)
- Great care has to still be taken when directly viewing a LED module that is driven with high current.

Condition limitations:

- There are some conditions under which you should evaluate their effect on the LED module and appropriate them.
- If the LED module gets directly or indirectly wet due to rain.
- If the LED module is damaged by seawater
- If the LED module is exposed to corrosive gas
- If the LED module is exposed to dust, fluid or oil

Notice: 5 year warranty is not given if one or more of those conditions above are met.

Precautions with regard to product use:

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