YesLED.com

AC-drive LED module

30W COB

YL-DAC30W-xxx

Product Description

The LED COB module delivers safe, reliable, compact size and energy-saving alternatives to traditional Fluorescent Lamp. The innovation design in LED space allocation provides uniform light distribution with high efficiency. The novel AC-LED driver which use no electrolyte capacitors further ensures lifetime of the lamp.

Features

- Directly AC line input, need no AC-DC power supply
- High luminous efficiency
- Zhaga-compatible interface
- Direct wire-push-in interface
- Compact size and low profile
- Less than 5% wattage variance for +/- 5% VAC
- Long lifetime designed to 50,000 hours
- High Power Factor > 0.98
- Low total harmonic distorsion (THD) < 20%
- RoHS compliant

Specification summary

Color	Part Number	Voltage	Wattage [W]			CCT [K]			Flux [lm]		CRI Min
			Min	Typ	Max	Min	Typ	Max	Min	Typ	
Warm White	YL-DAC30W-VB2	230 VAC	28	30	32	2580	3000	3220	2950	3300	80
	YL-DAC30W-VB1	120 VAC									
Neutral White	YL-DAC30W-NB2	230 VAC				3250	4000	4260	3150	3500	80
	YL-DAC30W-NB1	120 VAC									
White	YL-DAC30W-WA2	230 VAC				4745	5000	6020	3600	4000	70
	YL-DAC30W-WA1	120 VAC									

* The measurements was conducted in 25°C ambient temperature and one pulse input with 2 seconds warm-up time.

Maximum Rating

Input Voltage	(YL-DAC30W-xx2)	220-240 VAC
	(YL-DAC30W-xx1)	110-120 VAC
Operating frequency		50-60 Hz
Operating case temperature		0 °C ...+85 °C
(case temperature Tc is defined at Tc-pad on the top side of PCB)		
Storage temperature		-40 °C ...+120 °C

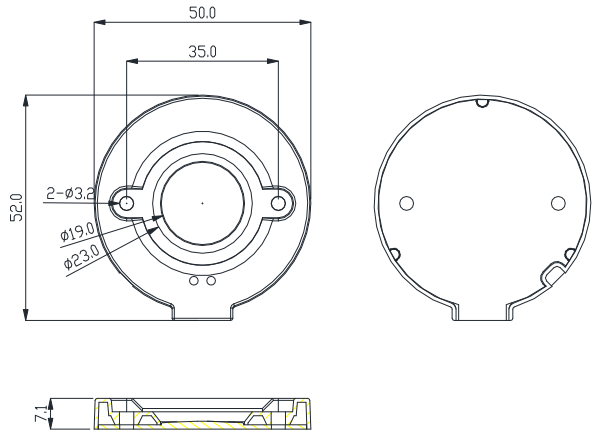
ESD sensitivity [1]	> 500 V
Hi-pot resistivity[2]	> 2.2 kVDC
Surge immunity[3]	> 1.0 kV

*1: HBM per MIL-STD-883E Method 3015.7

*2: Accord IEC 61347-1 clause 12

*3: Accord IEC 61000-4-5

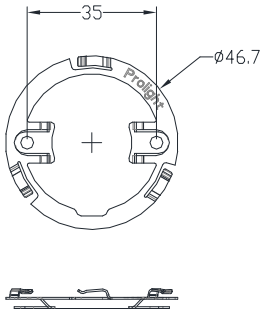
Dimensions



* All dimensions are in millimeters. (Tolerance: +/- 0.2mm)

* The appearance and of the product may be modified for improvement without notice.

Optional kit: Metal Clip (Part no. 650580A000)

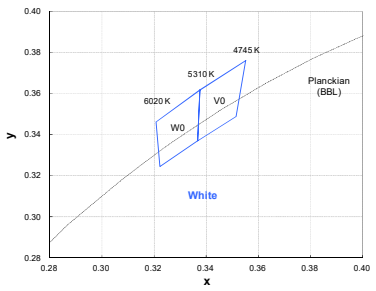


Available optical reflectors

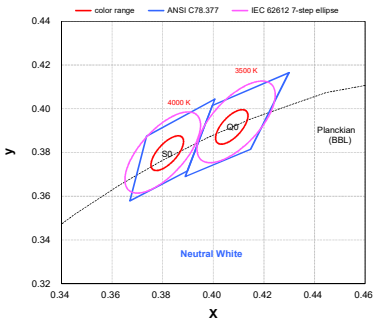
LEDiL	ANGELA and ANGELINA series	www.ledil.com

Chromaticity Specification

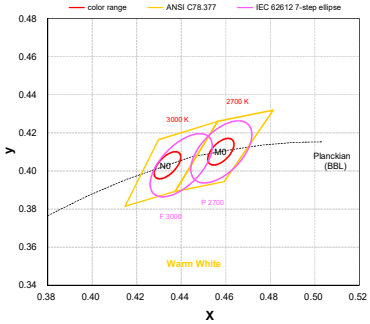
White Bin structure



Neutral White Bin structure



Warm White Bin structure



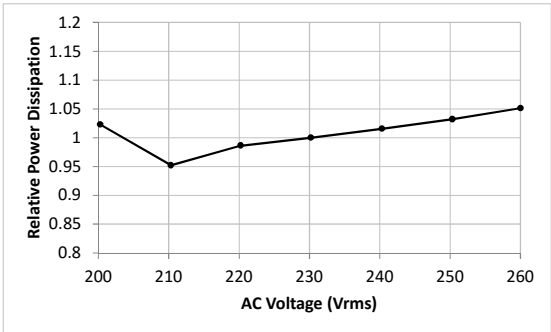
Bin Code	x	y	Typ. CCT (K)
V0	0.3551	0.376	5000
	0.3376	0.3616	
	0.3366	0.3369	
	0.3515	0.3487	
W0	0.3376	0.3616	5700
	0.3207	0.3462	
	0.3222	0.3243	
	0.3366	0.3369	

Bin Code	x	y	Typ. CCT (K)
Q0	0.4299	0.4165	3500
	0.3996	0.4015	
	0.3889	0.369	
	0.4147	0.3814	
S0	0.4006	0.4044	4000
	0.3736	0.3874	
	0.367	0.3578	
	0.3898	0.3716	

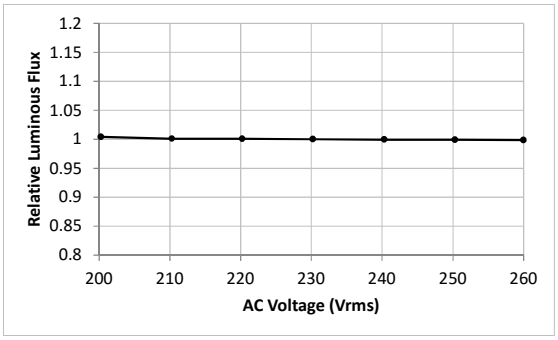
Bin Code	x	y	Typ. CCT (K)
M0	0.4813	0.4319	2700
	0.4562	0.426	
	0.4373	0.3893	
	0.4593	0.3944	
N0	0.4562	0.426	3000
	0.4299	0.4165	
	0.4147	0.3814	
	0.4373	0.3893	

Relative characteristic VS. Voltage

Relative Power Consumption VS. Voltage at Ta=25ºC



Relative Luminous Flux VS. Voltage at Ta=25ºC



Precaution for use

- Do not operate the device over maximum ratings.
- The module need adequate TIM (thermal pad, or thermal grease) to attach on heatsink. Please ensure the operating case temperature (Tc pad on the top-side of PCB) is under maximum rating during operating.
- Do not touch any of electronic components on PCB by naked hand or tweezers while handling, and do not use a force of over 0.3kgf impact or pressure on LED, otherwise it will cause a catastrophic failure.
- The modules light output are intense enough to cause injury to human eyes if viewed directly. Precautions must be taken to avoid looking directly at the modules with unprotected eyes.
- Do not touch surface of the module when power is on, also not add or remove connecting wires when plugged on AC source.
- Do not operate the device when electric-conducting material is attached on the module and leads to electric-short.
- The LEDs are sensitive to electrostatic discharge. Appropriate ESD protection measures must be taken when working with the LEDs. Non-compliance with ESD protection measures may lead to damage or destruction of the LEDs.
- This device should not be used in any type of fluid such as water, oil, organic solvent and etc. When cleaning is required, isopropyl alcohol should be used.