



Technical Application  
Guide for  
LED Ceiling light  
AL45-16-30W  
AL45-16-30W-D

# Introduction



With high performance(Dimmable, Non-dimmable, DALI Dimmable, Emergency, Sensor, Sensor+Emergency ). Easy to install: labor-saver( quick terminal block design) , Connect in series(Opening wiring and concealed wiring are optional). IP65, IK10. Easier maintenance, as the driver can be replaced easily, different standard drivers in the market can be matched.

- Up to 70% energy saving compared to standard CFL
- Long lifetime of 50,000 hours
- Triac dim, 0-10V dim, DALI dim
- 120° wide beam angle
- CCT: 3000K 4000K 5000K 5700K
- No UV/IR light
- Environment friendly, without Mercury or any other hazardous substances

## Application notes

- IP65 both for indoor and outdoor use
- Professional electrician for installation only
- Switch off before installation
- Do not touch when in use
- Keep away from hot steam and corrosive gas

## Application Areas

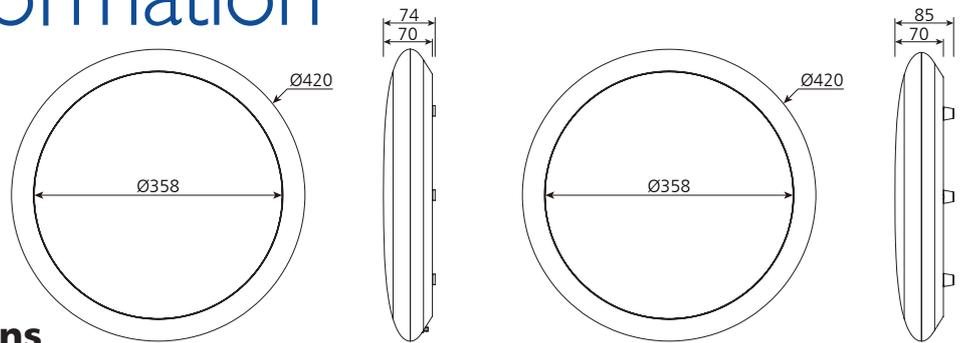
It is designed for general lighting applications in office, supermarket, shop, school, hotel, etc. It is also widely used for public areas, such as stairway, lobby, reception, corridors etc.

## Certificate

**CE RoHS**



# Product Information



## Technical Specifications

Model	Voltage	Power	Power Factor	Lumen (±5%)	CCT	Beam angle	Lifespan	CRI	Dimmable	Dimension
AL45-16-30W	AC230V	30W	≥0.9	2940	3000K	120°	50000h	≥80	No	Ø420*85mm
				3150	4000K					
				2970	5000K					
				3060	5700K					
AL45-16-30W-D	AC230V	30W	≥0.9	2880	3000K	120°	50000h	≥80	Yes	Ø420*85mm
				3060	4000K					
				2940	5000K					
				3030	5700K					

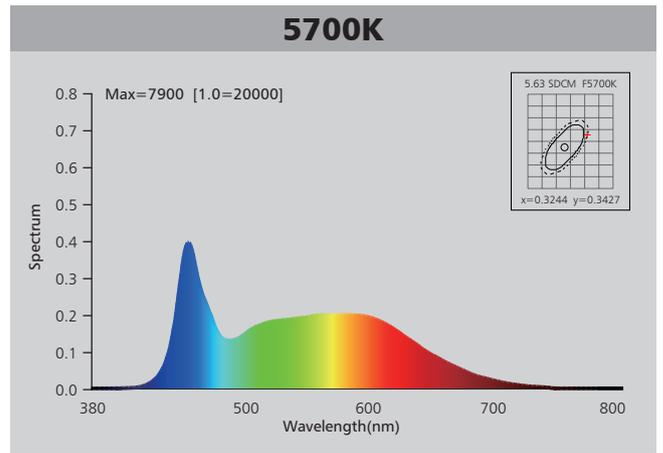
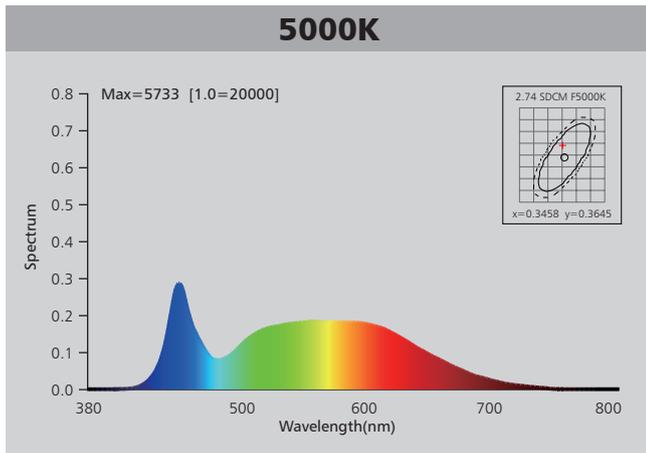
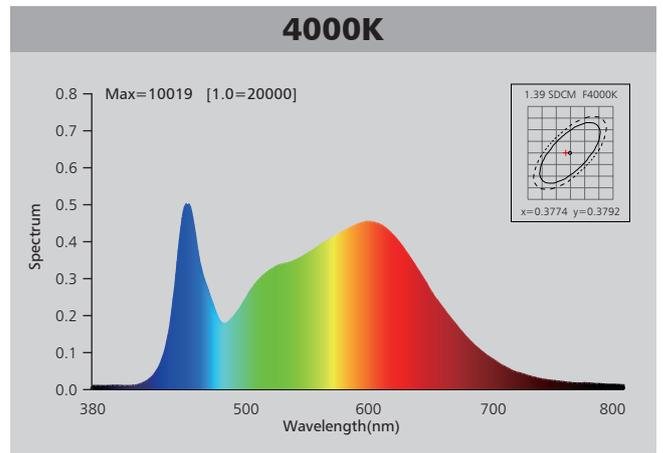
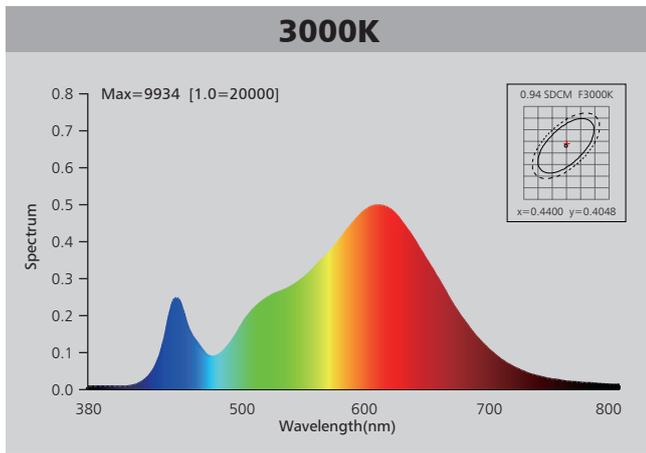
## Driver data Sheet

Driver data	DIM	Non-dim
Input rated Voltage	AC230V	AC230V
Frequency	50Hz	50/60Hz
Input Voltage	AC200-240V	AC220-240V
Efficiency	≥85%	≥86%
No load wattage	≤1W	≤1W
Total load Wattage	30W±5%	30W±5%
Power Factor	≥0.9	≥0.9
Rated input current	≤0.17A	≤0.16A
Full load output Voltage	DC23-40V	DC28-40V
Rated output current	750mA	780mA
Output current range	750mA±5%	780mA±5%
Power tolerance	±5%	±5%
Current output tolerance	±5%	±5%
Dimming range	8%-100%	—
Dimmer	Triac dimmers	—
Short circuit protection	PASS	PASS
Over voltage protection	PASS	PASS
Over temperature protection	PASS	PASS
THD	≤20%	≤20%
Withstand voltage	AC3750V	AC3750V

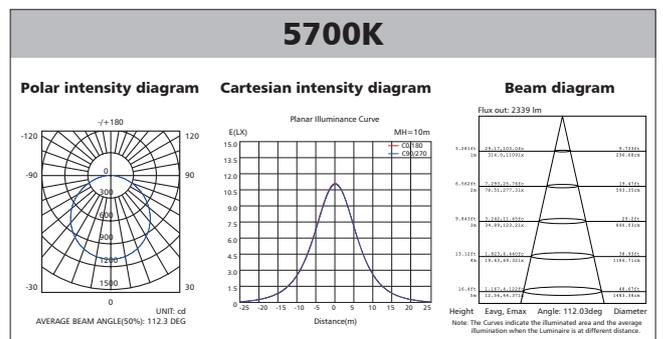
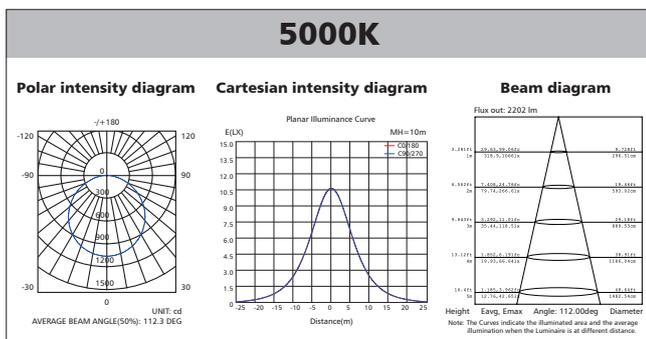
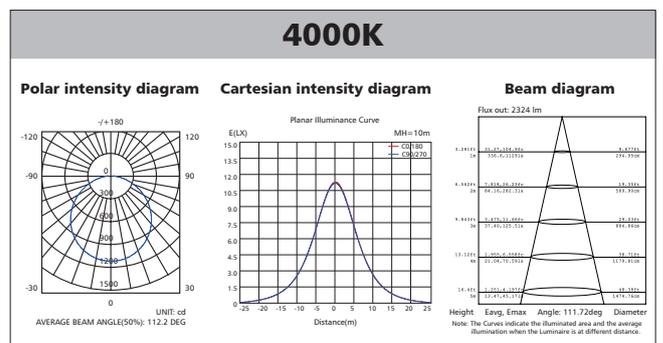
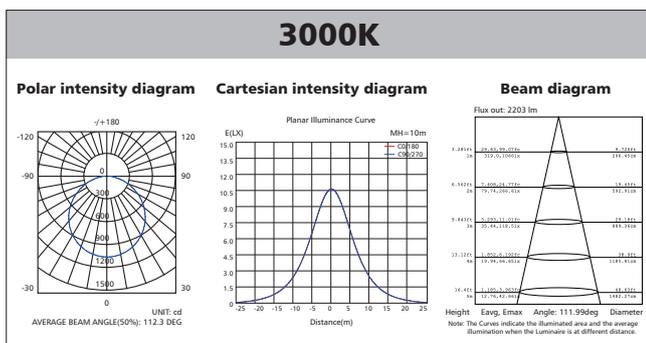
## Fixture Compatibility

Rated Wattage	Electrical Classification	Ingress Protection	Operating Temp	Operating Humidity	Storage Temp
30W	II	IP65	-20°C~45°C	0~90%	-20°C~65°C

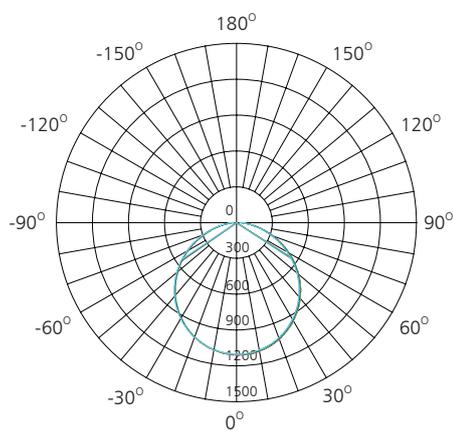
# Spectral Distribution



# Photometric Diagram



## Polar Diagram Comparison



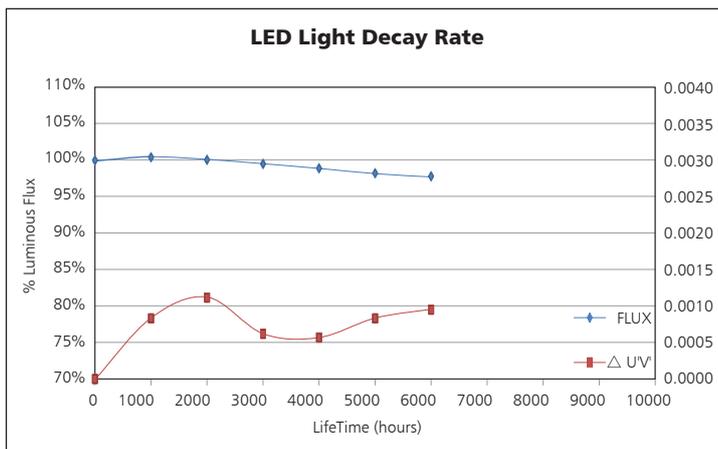
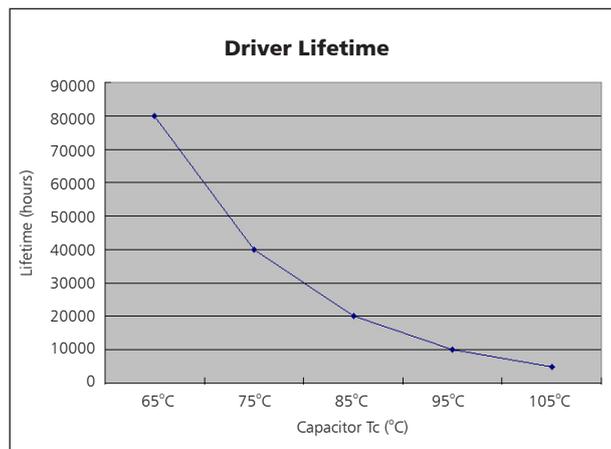
UNIT: cd

- C0/180, 112.3 deg
- C30/210, 112.3 deg
- C60/240, 112.4 deg
- C90/270, 112.3 deg

AVERAGE BEAM ANGLE (50%): 112.3 DEG

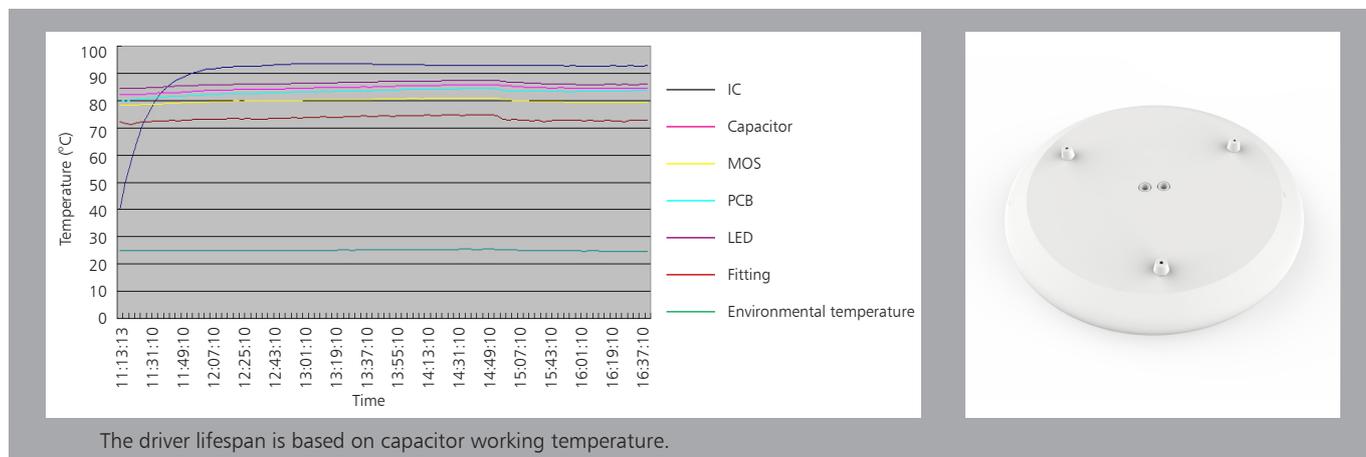


## Driver lifetime & LED light decay rate

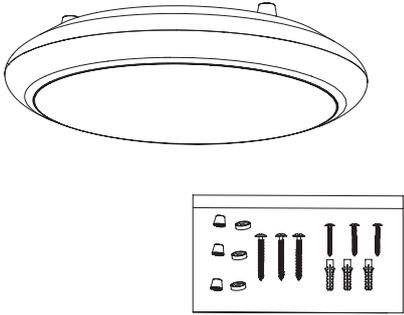
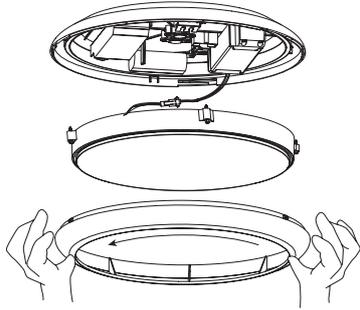
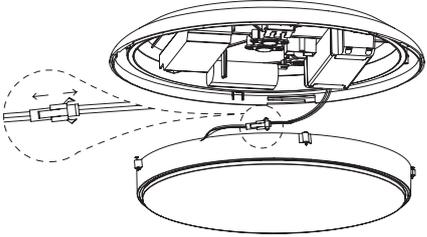
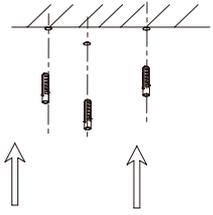
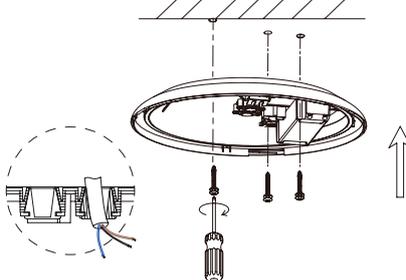
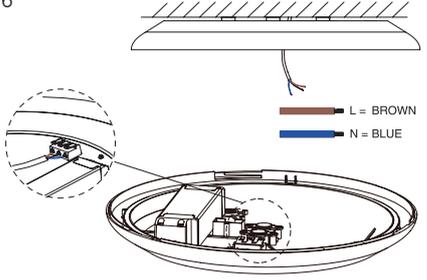
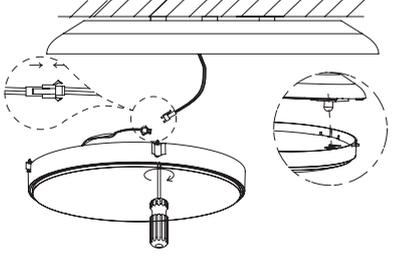
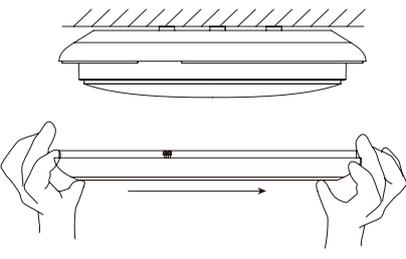
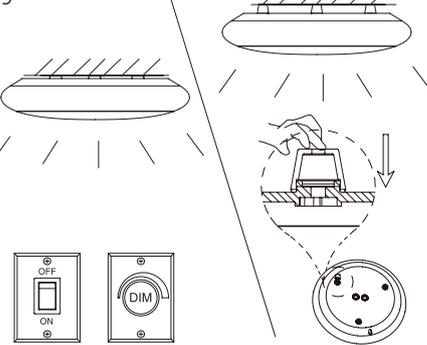


## Temperature

- The testing is operated at 25°C
- The lifetime of capacitor, minimum of 5,000 hours if operated at 105°C, will be doubled whenever the temperature drops 10°C
- The highest withstand temperature of IC, MOS could be 120°C
- The highest withstand temperature of LED junction temperature is 150°C



# Installation

<p>1</p>  <p>Take out accessory pack.</p>	<p>2</p>  <p>Unscrew the front frame anticlockwise and take it out, make the frame, diffuser and back housing separately.</p>	<p>3</p>  <p>Disconnect the connection plug.</p>
<p>4</p>  <p>Put the plastic anchor into the ceiling.</p>	<p>5</p>  <p>Make the input wires through entrance hole and waterproof bushing, cover the screws with waterproof washer, fix the back housing by these screws.</p>	<p>6</p>  <p>Connect the wires to the block through the reliefs.</p>
<p>7</p>  <p>Settle the male and female connectors well and fix the diffuser cover on the back housing by screws.</p>	<p>8</p>  <p>Match the gaps for each part and rotate the frame clockwise.</p>	<p>9</p>  <p>Installation finished, turn on the switch.</p>

# Packaging Information

	SIZE(CM)	N.W/pc (KGS)	G.W.(KGS)	Q'TY(PCs)
Carton	56*47*47.5	1.59	12.8	6

	CTNS	Q'TY(PCs)	VOLUME(CBM)
20" standard container	220	1320	28
40" standard container	440	2640	56

