Up-shine® Lighting

Technical Application Guide for UP–SHINE LED Downlight

UP-DL97-6-18W-B1

Introduction

Up-shine LED downlight with bluetooth wireless control system offers consumers an easy, convenient, and cost-effective way to personalize and control a home lighting system. The control system use bluetooth technology to connect lights throughout an entire home via a free APP on a Bluetooth-enabled smart device. No wires, no router, no remote, and no Wi-Fi signal is needed. A user can simply control downlight from any Bluetooth-enabled phone or tablet and then personalize it to meet any family or lifestyle needs. The system also allows multiple devices to be connected simultaneously so the entire family can stay connected.

- Up to 80% energy saving compared to standard CFL
- Long lifetime of 50,000 hours (25°C)
- 90° wide beam angle
- Ø160-170mm cutout
- Bluetooth
- No UV/IR light
- Environment friendly, without Mercury or any other hazardous substances
- External driver

Application notes
- IP54 for indoor use only
- 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.
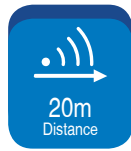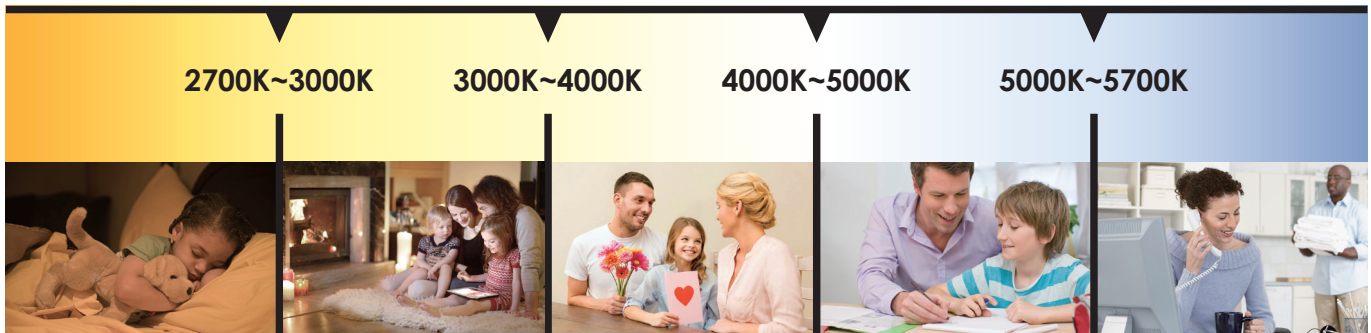
Certificates

CE RoHS SAA APPROVALS

GooglePlay   APP STORE

Bluetooth Intelligent Control

2700K~3000K	3000K~4000K	4000K~5000K	5000K~5700K

Color Changeable

Dimmable

50% Brightness

Night Lamp

20m Distance

Color Changeable

2700K~5700K Changeable

Creating fantastic atmosphere by flexible CCT changing between warm white, natural white and day light, the color changing items are controlled by wall touch switch or smart phone APP.
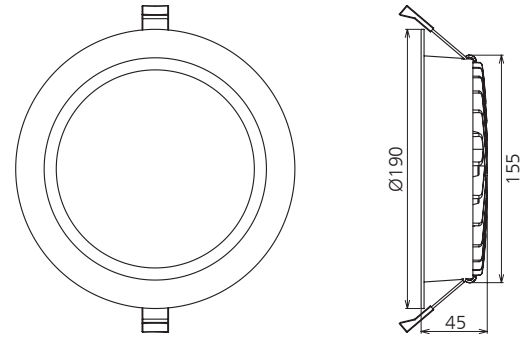

Dimmable

8%~100% Dimmable

Dimmable from 8%~100% brightness with timing and night lamp function, diversified scene setting, creating a humanized smart control system.

Product Information

Technical Specifications

Model	Voltage	Power	Power Factor	Lumen (±5%)	Beam angle	CCT	Lifespan	CRI	Dimmable	Dimension
UP-DL97-6-18W-B1	AC230V	18W	≥0.9	1410 ⋮ 1800 ⋮ 1710	90°	2700K ⋮ 4000K ⋮ 5700K	50000h	≥80	Yes	Ø190*45mm cutout 160-170mm

Driver data Sheet

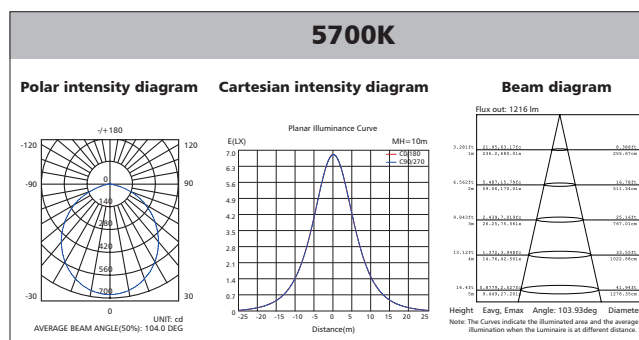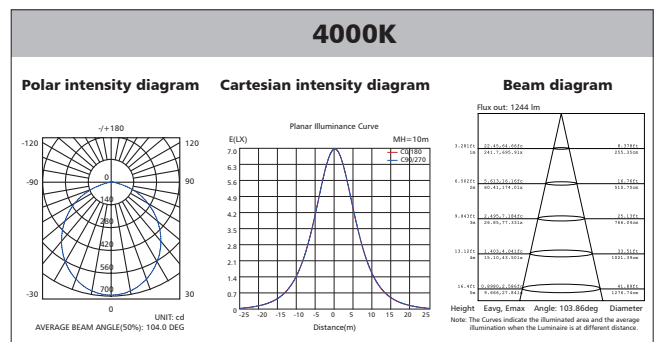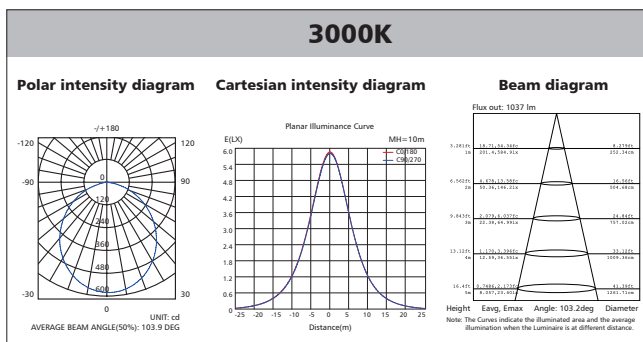| Driver data	DIM
Input rated Voltage	AC230V
Frequency	50Hz
Input Voltage	AC200-240V
Efficiency	≥83%
Total load Wattage	18W±1W
Power Factor	≥0.9
Rated input current	≤0.1A
Full load output Voltage	DC25-38V
Rated output current	430mA
Output current range	430mA±5%
Power tolerance	±5%
Current output tolerance	±5%
Dimming range	8%-100%
Dimmer	Triac dimmers
Short circuit protection	PASS
Over voltage protection	PASS
Over temperature protection	PASS
THD	≤18%
Withstand voltage	AC3750V

Fixture Compatibility

Rated Wattage	Electrical Classification	Ingress Protection	Operating Temp	Operating Humidity	Storage Temp
18W	II	IP54	-20℃~45℃	0~90%	-20℃~65℃

Spectral Distribution

3000K

Max=5278 [1.0=20000]

1.36 SDCM F3000K
x=0.4427 y=0.4046

4000K

Max=5915 [1.0=20000]

3.79 SDCM F4000K
x=0.3749 y=0.3700

5700K

Max=7723 [1.0=20000]

5.54 SDCM F5700K
x=0.3317 y=0.3497

Photometric Diagram

3000K

Polar intensity diagram

-/+180

UNIT: cd
AVERAGE BEAM ANGLE(50%): 103.9 DEG

Cartesian intensity diagram

Planar Illuminance Curve

MH=10m

C0 180
C90 270

Distance(m)

Beam diagram

Flux out: 1037 lm

Height Eavg, Emax Angle: 103.2deg Diameter

Note: The Curves indicate the illuminated area and the average illumination when the Luminaire is at different distance.

4000K

Polar intensity diagram

-/+180

UNIT: cd
AVERAGE BEAM ANGLE(50%): 104.0 DEG

Cartesian intensity diagram

Planar Illuminance Curve

MH=10m

C0 180
C90 270

Distance(m)

Beam diagram

Flux out: 1244 lm

Height Eavg, Emax Angle: 103.86deg Diameter

Note: The Curves indicate the illuminated area and the average illumination when the Luminaire is at different distance.

5700K

Polar intensity diagram

-/+180

UNIT: cd
AVERAGE BEAM ANGLE(50%): 104.0 DEG

Cartesian intensity diagram

Planar Illuminance Curve

MH=10m

C0 180
C90 270

Distance(m)

Beam diagram

Flux out: 1216 lm

Height Eavg, Emax Angle: 103.93deg Diameter

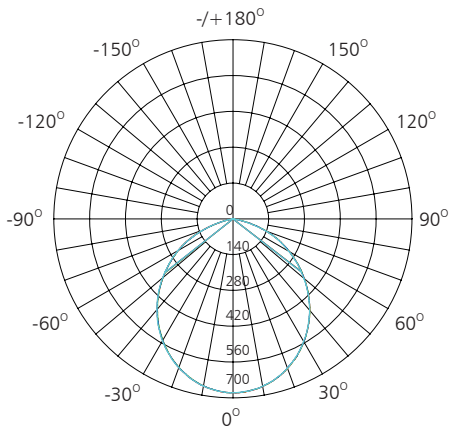Note: The Curves indicate the illuminated area and the average illumination when the Luminaire is at different distance.
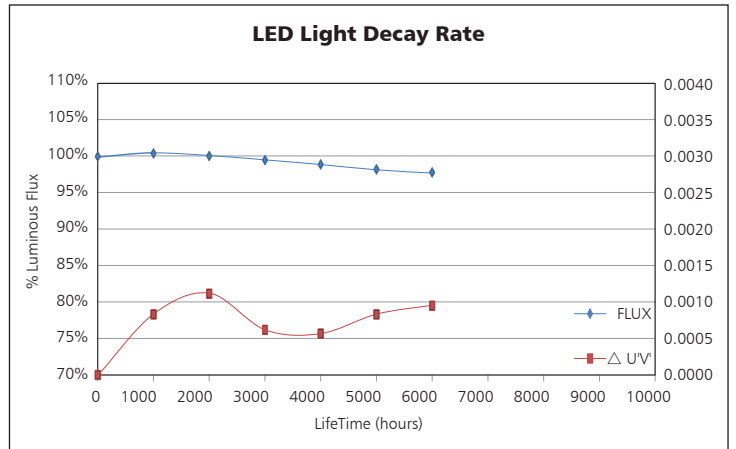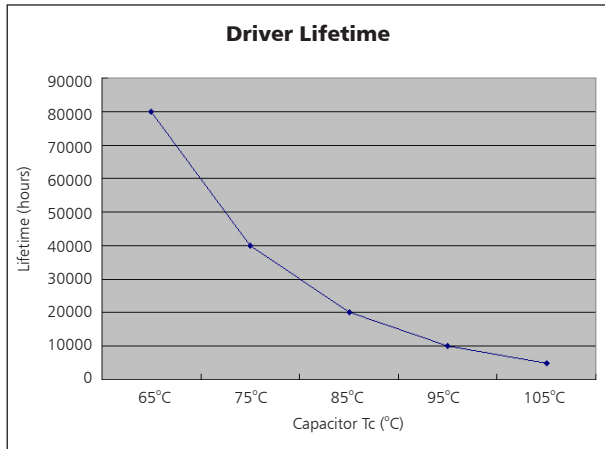
Polar Diagram Comparison

UNIT: cd

— C0/180, 103.9 deg
— C30/210, 104.0 deg
— C60/240, 104.0 deg
— C90/270, 104.0 deg

AVERAGE BEAM ANGLE (50%): 104.0DEG

# Driver lifetime & LED light decay rate

Driver Lifetime

LED Light Decay Rate

Temperature

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

IC
Capacitor
MOS
PCB
LED
Fitting
Environmental temperature

The driver lifespan is based on capacitor working temperature.

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Installation

Install requirements	
A-gap above the fitting	25mm
B-gap to the building material	25mm
C-gap to the thermal insulation	25mm

25mm

25mm

50mm

Power supply
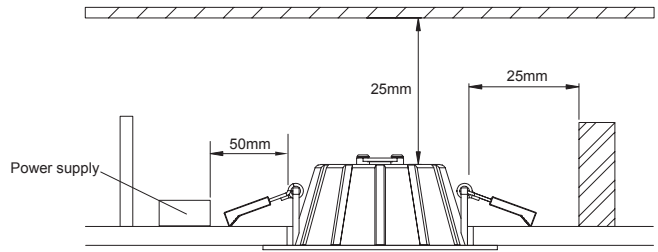
1. Open a hole according to the cutout size of led downlight.

2. Use screw-driver to open the driver terminal cover, feed the main AC wire L. N. in terminal block respectively, then fix the cover back.

3. Connect the downlight with driver, hold back the spring clip then push the downlight into the hole.

4. Make sure the downlight fixed tightly in ceiling, turn on the power (Fig 1).

Packaging Information

	SIZE(CM)	N.W/pc (KGS)	G.W.(KGS)	Q'TY(PCS)
Carton	46*44*40	0.7	20	20

	CTNS	Q'TY(PCS)	VOLUME(CBM)
20" standard container	340	6800	28
40" standard container	682	13640	56