



# Technical Application Guide for XT Lighting LED Downlight

WR280-45

# Introduction



XTlighting SMD LED Down light adopts high lumen SMD LED, PMMA diffuser with even light output. White, silver, chrome surface treatments are available for wide choice. Triac dimmable, 0-10V dimmable and DALI dimmable version share great popularity by excellent dimming effect.

- Up to 70% energy saving compared to standard CFL
- Long lifetime of 50,000 hours
- Triac dim, 0-10V dim, DALI dim
- 90° wide beam angle
- 230-260mm cutout
- CCT: 3000K 4000K  
5000K 5700K
- No UV/IR light
- Environment friendly, without Mercury or any other hazardous substances

## Application notes

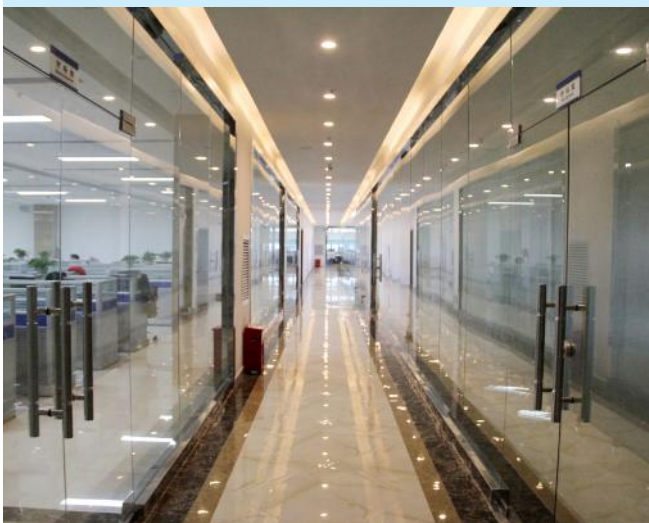
- IP20/IP44 for indoor use only
- Professional electrician for installation only
- Switch off before installation
- Do not touch when in use
- Keep away from hot steam and corrosive gas

## Application Areas

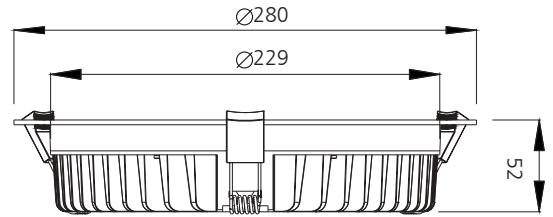
It is designed for general lighting applications in office, supermarket, shop, school, hotel, etc. It is also widely used for public areas, such as stairway, lobby, reception, corridors etc.

## Certificate

CE RoHS SAA



# Product Information



## Technical Specifications

Model	Voltage	Power	Power Factor	Lumen (±5%)	CCT	Beam angle	Lifespan	CRI	Dimmable	Dimension
WR280-45W	AC100-240V	45W	≥0.9	3750	3000K	90°	50,000h	≥80	No	Ø280*52mm cutout 230-260mm
				4100	4000K					
				4150	5000K					
				4170	5700K					
WR280-45W-D	AC230V	45W	≥0.9	3580	3000K	90°	50,000h	≥80	Yes	Ø280*52mm cutout 230-260mm
				3900	4000K					
				3950	5000K					
				3980	5700K					

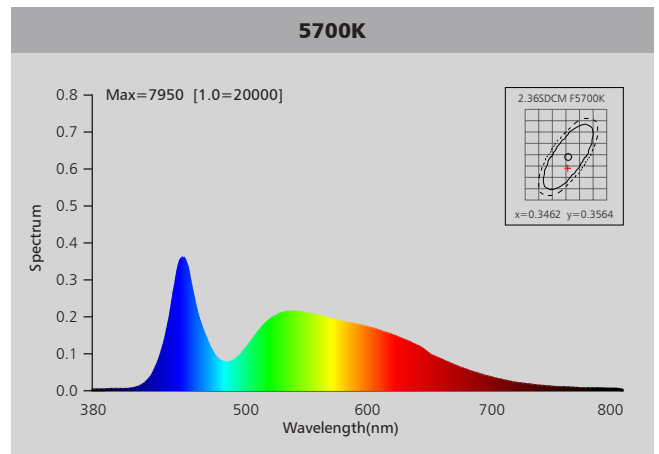
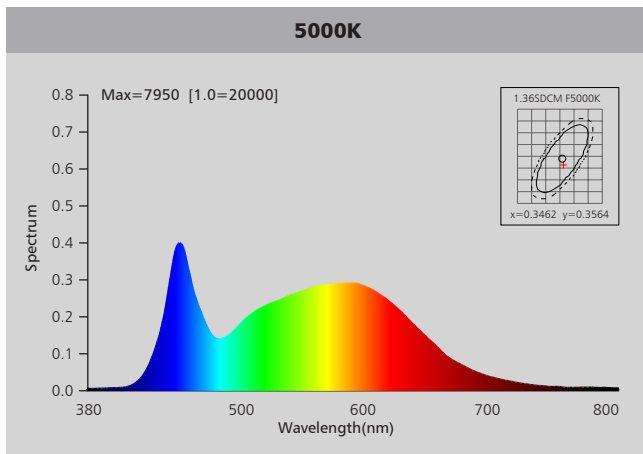
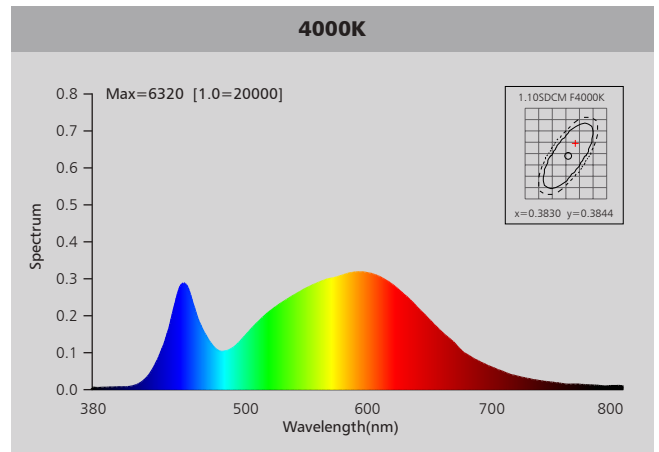
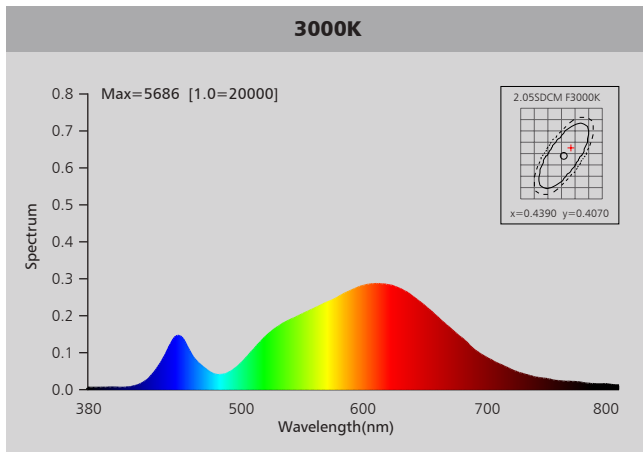
## Driver data Sheet

Driver data	DIM	Non dim
Input rated Voltage	AC230V	AC100-240V
Frequency	50Hz	50/60Hz
Input Voltage	AC200-240V	AC85-265V
Efficiency	≥83%	≥87%
Total load Wattage	45W±5%	45W±5%
Power Factor	≥0.85	≥0.9
Rated input current	≤0.22A	≤0.5A
Full load output Voltage	DC35-40V	DC35-40V
Rated output current	1050mA	1050mA
Output current range	1050mA±5%	1050mA±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
Withstand voltage	AC3750V	AC3750V

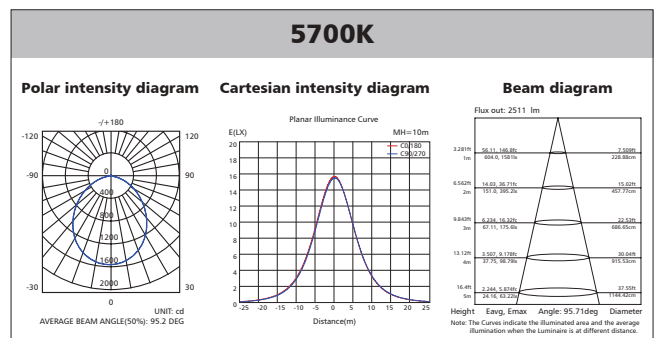
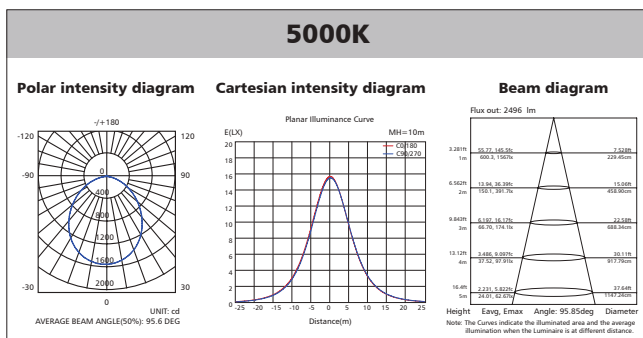
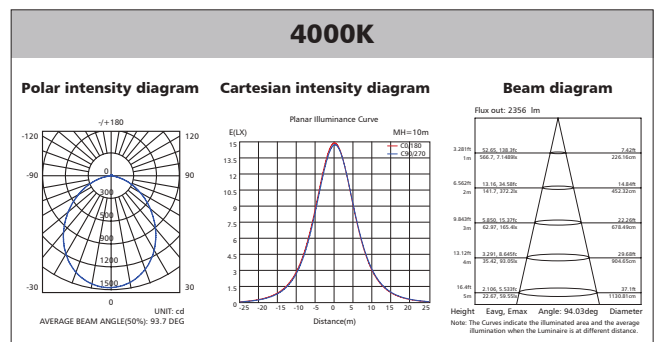
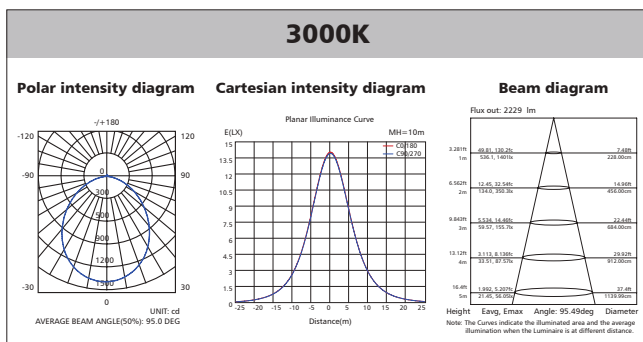
## Fixture Compatibility

Rated Wattage	Electrical Classification	Ingress Protection	Operating Temp	Operating Humidity	Storage Temp
45W	II	IP20 / IP44	-20°C~45°C	0~90%	-20°C~65°C

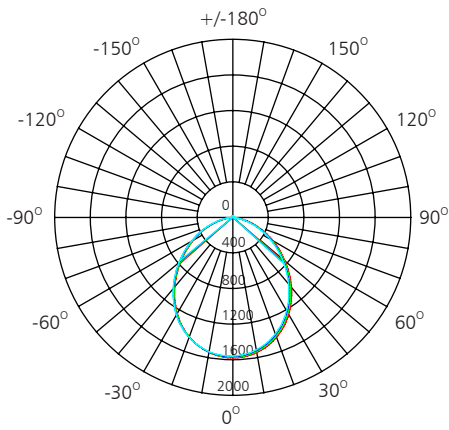
# Spectral Distribution



# Photometric Diagram



# Polar Diagram Comparison



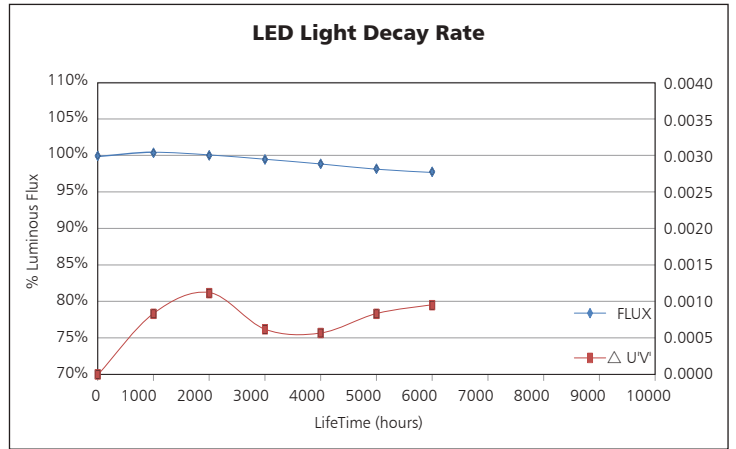
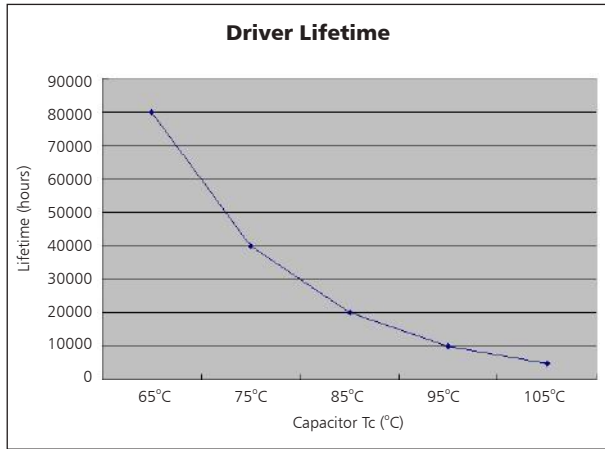
UNIT: cd

- C0/180, 98.3 deg
- C30/210, 98.4 deg
- C60/240, 98.4 deg
- C90/270, 98.5 deg



AVERAGE BEAM ANGLE (50%): 98.4 DEG

# Driver lifetime & LED light decay rate



# Temperature

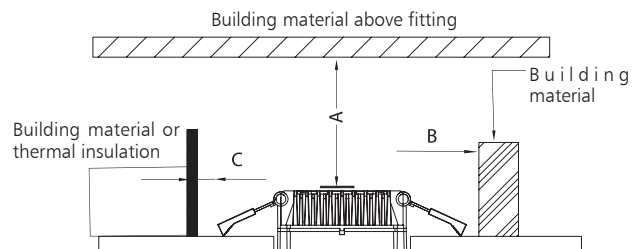
- The testing is operated at 25°C
- The lifetime of capacitor, minimum of 5,000 hours if operated at 105°C, will be doubled whenever the temperature drops 10°C
- The highest withstand temperature of IC, MOS could be 120°C
- The highest withstand temperature of LED junction temperature is 150°C

Time	IC	Capacitor	MOS	PCB	LED	Fitting	Environmental
11:13:13	~75	~75	~75	~25	~75	~75	~25
11:25:10	~85	~85	~85	~25	~85	~85	~25
11:37:10	~90	~90	~90	~25	~90	~90	~25
11:49:10	~92	~92	~92	~25	~92	~92	~25
12:01:10	~93	~93	~93	~25	~93	~93	~25
12:13:10	~93	~93	~93	~25	~93	~93	~25
12:25:10	~93	~93	~93	~25	~93	~93	~25
12:37:10	~93	~93	~93	~25	~93	~93	~25
12:49:10	~93	~93	~93	~25	~93	~93	~25
13:01:10	~93	~93	~93	~25	~93	~93	~25
13:13:10	~93	~93	~93	~25	~93	~93	~25
13:25:10	~93	~93	~93	~25	~93	~93	~25
13:37:10	~93	~93	~93	~25	~93	~93	~25
13:49:10	~93	~93	~93	~25	~93	~93	~25
14:01:10	~93	~93	~93	~25	~93	~93	~25
14:13:10	~93	~93	~93	~25	~93	~93	~25
14:25:10	~93	~93	~93	~25	~93	~93	~25
14:37:10	~93	~93	~93	~25	~93	~93	~25
14:49:10	~93	~93	~93	~25	~93	~93	~25
15:01:10	~93	~93	~93	~25	~93	~93	~25
15:13:10	~93	~93	~93	~25	~93	~93	~25
15:25:10	~93	~93	~93	~25	~93	~93	~25
15:37:10	~93	~93	~93	~25	~93	~93	~25
15:49:10	~93	~93	~93	~25	~93	~93	~25
16:01:10	~93	~93	~93	~25	~93	~93	~25
16:13:10	~93	~93	~93	~25	~93	~93	~25
16:25:10	~93	~93	~93	~25	~93	~93	~25
16:37:10	~93	~93	~93	~25	~93	~93	~25

The driver lifespan is based on capacitor working temperature.

# Installation

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



**Ceiling Opening Ø230-260mm**

1

**Connect Power supply**

2

**A. Hold back spring clips**

**B. Push downlight into position**

3

**Spring Clips**

**Finish**

4

# Packaging Information

	SIZE(CM)	N.W/pc (KGS)	G.W.(KGS)	Q'TY(PCS)
Carton	62*31.5*43	1.6	12.8	10

	CTNS	Q'TY(PCS)	VOLUME(CBM)
20" standard container	330	3300	28
40" standard container	660	6600	56

