



Technical Application Guide for LED Downlight

CL59-18W

Introduction



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 40,000 hours
- Triac dim, 0-10V dim, DALI dim
- 90° wide beam angle
- 160-170mm 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

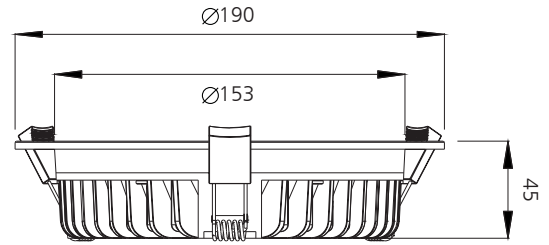
Application Areas

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



Product Information



Technical Specifications

Model	Voltage	Power	Power Factor	Lumen (±5%)	Beam angle	CCT	Lifespan	CRI	Dimmable	Dimension
CL59-6-18W	AC100-240V	18W	≥0.9	1430	90°	3000K	40000h	≥80	No	Ø190*45mm cutout 160-170mm
CL59-6-18W	AC100-240V	18W	≥0.9	1460	90°	4000K	40000h	≥80	No	Ø190*45mm cutout 160-170mm
CL59-6-18W	AC100-240V	18W	≥0.9	1500	90°	5000K	40000h	≥80	No	Ø190*45mm cutout 160-170mm
CL59-6-18W	AC100-240V	18W	≥0.9	1560	90°	5700K	40000h	≥80	No	Ø190*45mm cutout 160-170mm
CL59-6-18W-D	AC230V	18W	≥0.9	1390	90°	3000K	40000h	≥80	Yes	Ø190*45mm cutout 160-170mm
CL59-6-18W-D	AC230V	18W	≥0.9	1430	90°	4000K	40000h	≥80	Yes	Ø190*45mm cutout 160-170mm
CL59-6-18W-D	AC230V	18W	≥0.9	1480	90°	5000K	40000h	≥80	Yes	Ø190*45mm cutout 160-170mm
CL59-6-18W-D	AC230V	18W	≥0.9	1510	90°	5700K	40000h	≥80	Yes	Ø190*45mm cutout 160-170mm

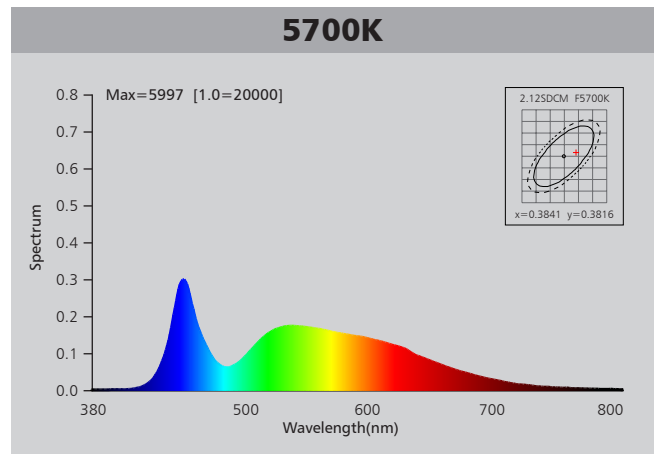
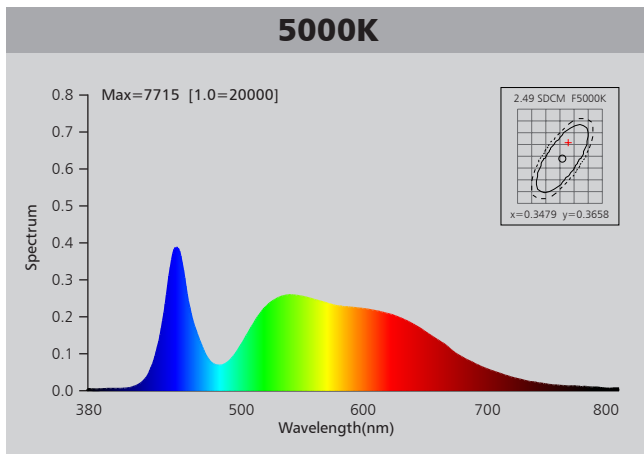
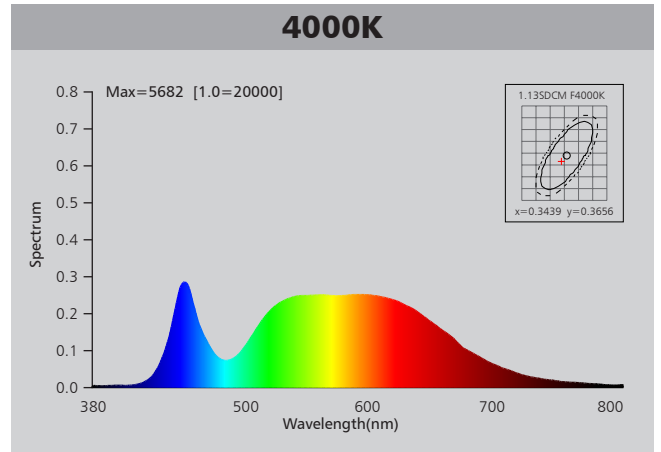
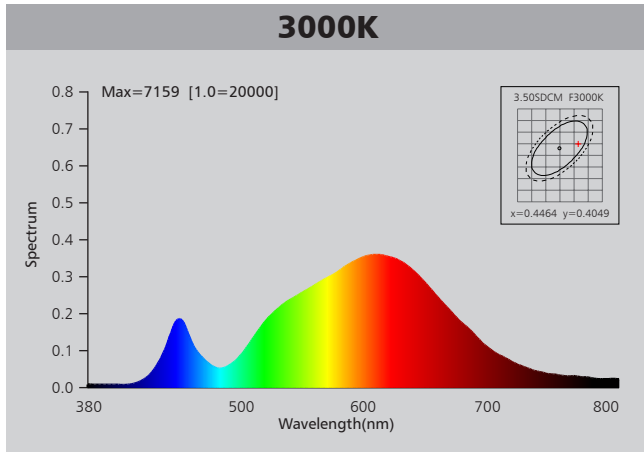
Driver data Sheet

Driver data	DIM	Non dim
Input rated Voltage	AC230V	AC100-240V
Frequency	50Hz	50/60Hz
Input Voltage	AC200-240V	AC85-265V
Efficiency	≥78%	≥86%
Total load Wattage	18W±1W	18W±1W
Power Factor	≥0.9	≥0.9
Rated input current	≤0.09A	≤0.2A
Full load output Voltage	DC29-33V	DC29-33V
Rated output current	450mA	500mA
Output current range	450mA±5%	500mA±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

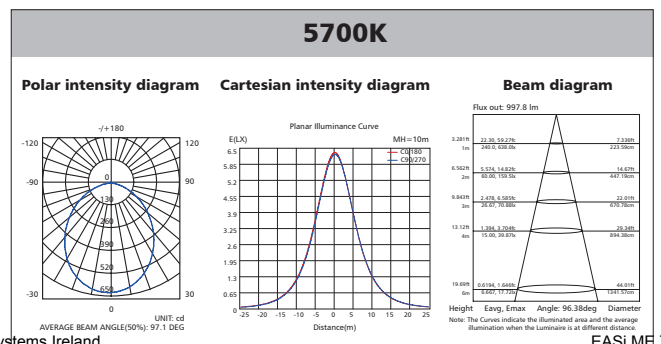
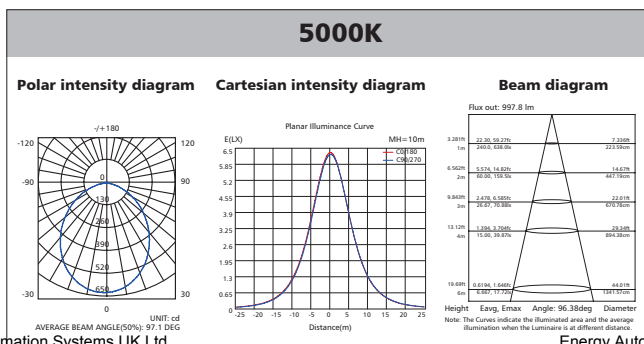
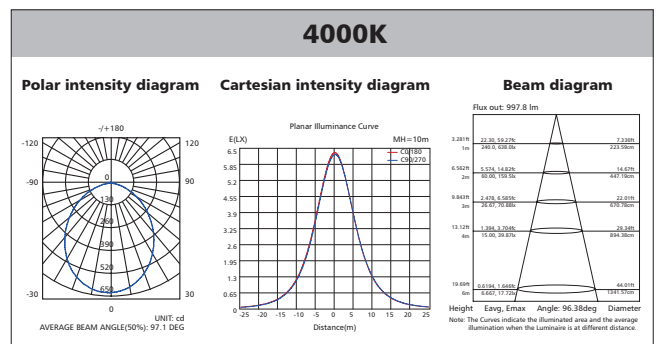
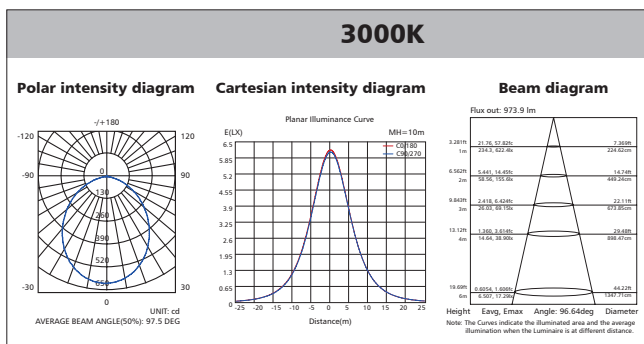
Fixture Compatibility

Rated Wattage	Electrical Classification	Ingress Protection	Operating Temp	Operating Humidity	Storage Temp
18W	II	IP20 / IP44	-20°C~45°C	0~90%	-20°C~65°C

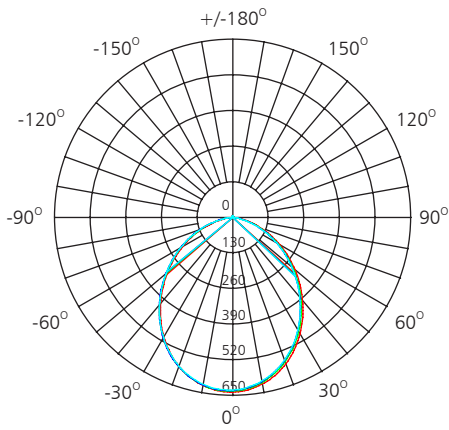
Spectral Distribution



Photometric Diagram



Polar Diagram Comparison



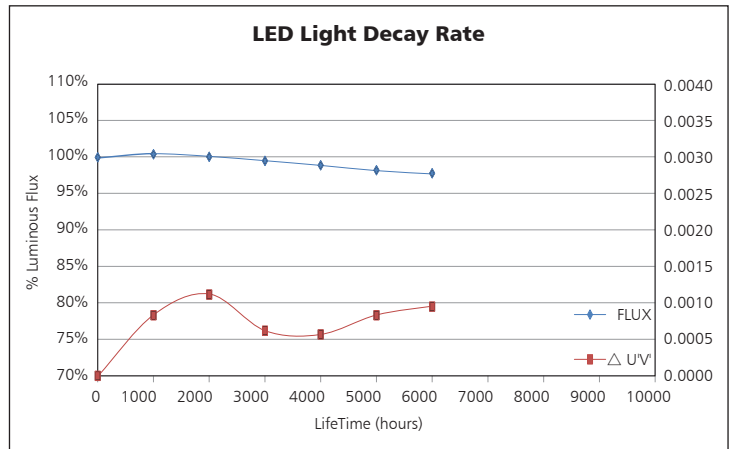
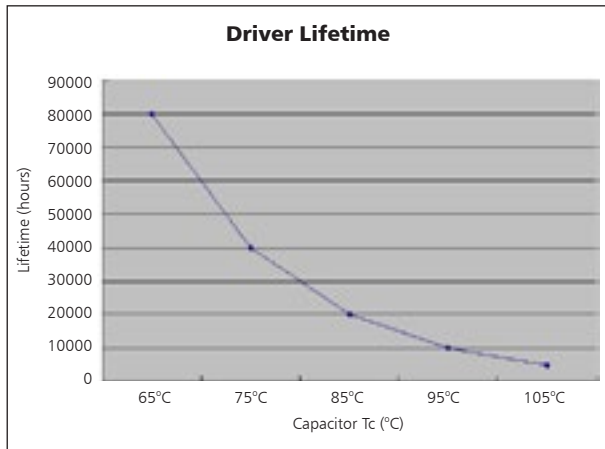
UNIT: cd

- C0/180, 97.2 deg
- C30/210, 97.1 deg
- C60/240, 97.1 deg
- C90/270, 97.1 deg



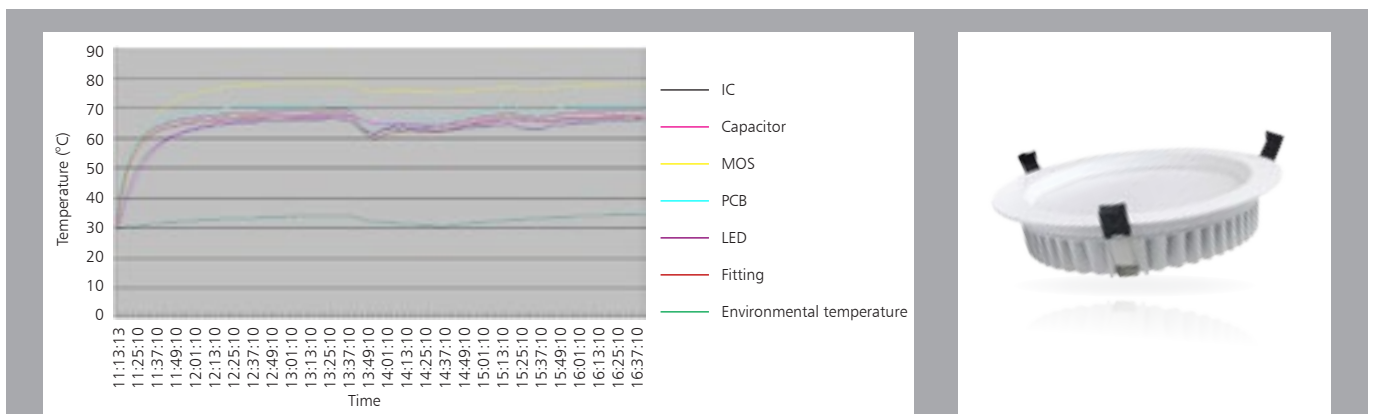
AVERAGE BEAM ANGLE (50%): 97.1 DEG

Driver lifetime & LED light decay rate



Temperature

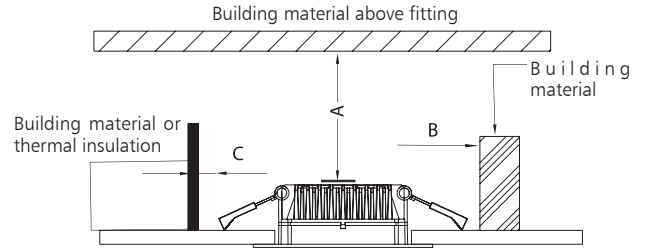
- The testing is operated at 25°C
- The lifetime of capacitor, minimum of 5,000 hours if operated at 105°C, will be doubled whenever the temperature drops 10°C
- The highest withstand temperature of IC, MOS could be 120°C
- The highest withstand temperature of LED junction temperature is 150°C



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



<p>Ceiling Opening Ø160-170mm</p> <p style="text-align: right;">1</p>	<p>Connect Power supply</p> <p style="text-align: right;">2</p>
<p>A. Hold back spring clips</p> <p>B. Push downlight into position</p> <p style="text-align: right;">3</p>	<p>Finish</p> <p style="text-align: right;">4</p>

Packaging Information

	SIZE(CM)	N.W/pc (KGS)	G.W.(KGS)	Q'TY(PCS)
Carton	46 x 46 x 42	0.825	19	20

	CTNS	Q'TY(PCS)	VOLUME(CBM)
20" standard container	310	6200	28
40" standard container	620	12400	56

