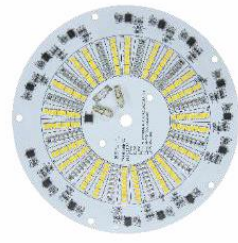
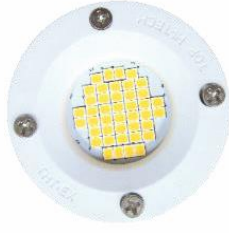


Product Features



Modular Design

- Lighting wattage 10W~240W
- Option of Multi-voltage & Multifunction
- Easy to assemble and maintain
- Independent power source

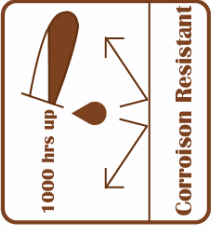
COB/DOB/SMD light source (AC drive)

- No driver and reduced malfunction rate
- 2 million times power cycle
- Instantaneous start-up
- Light fixture is small size and light weight lead to smaller wind resistance and reduced maintenance work .

Global Explosion-proof Certifications

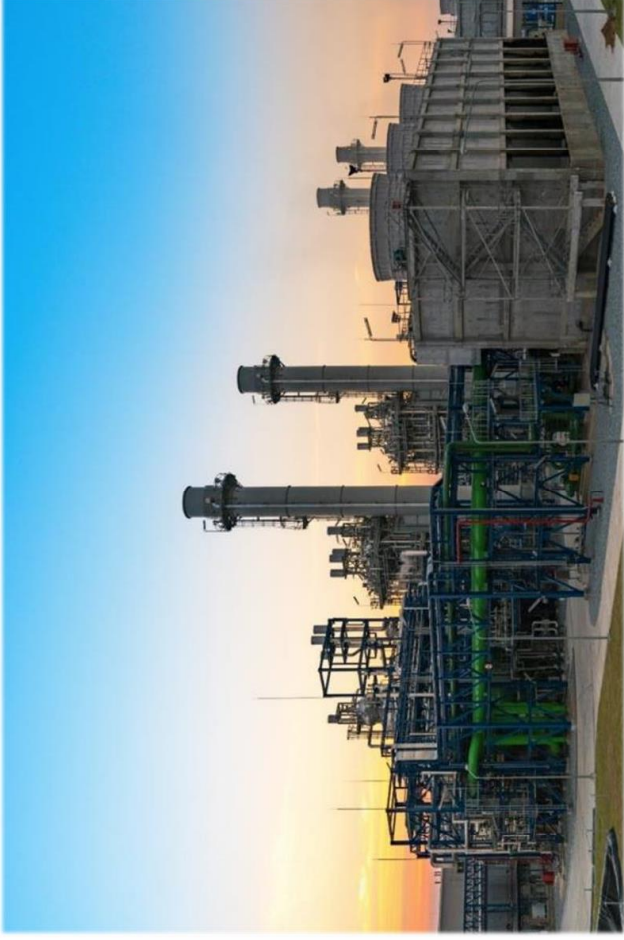
- IECEx (International Electrotechnical Commission)
- ATEX (E.U.)
- cULus (N.A.)
- TS (Taiwan)
- CML (Japan)
- GB (China)
- NOM (Mexico)
- KOSHA (Korea)
- ABS (Explosion-proof Certificate for marine American Bureau of Shipping)
- CR (Explosion-proof certificate for marine CR Classification Society)

Advantages of Our Products



AC IN LED Technology

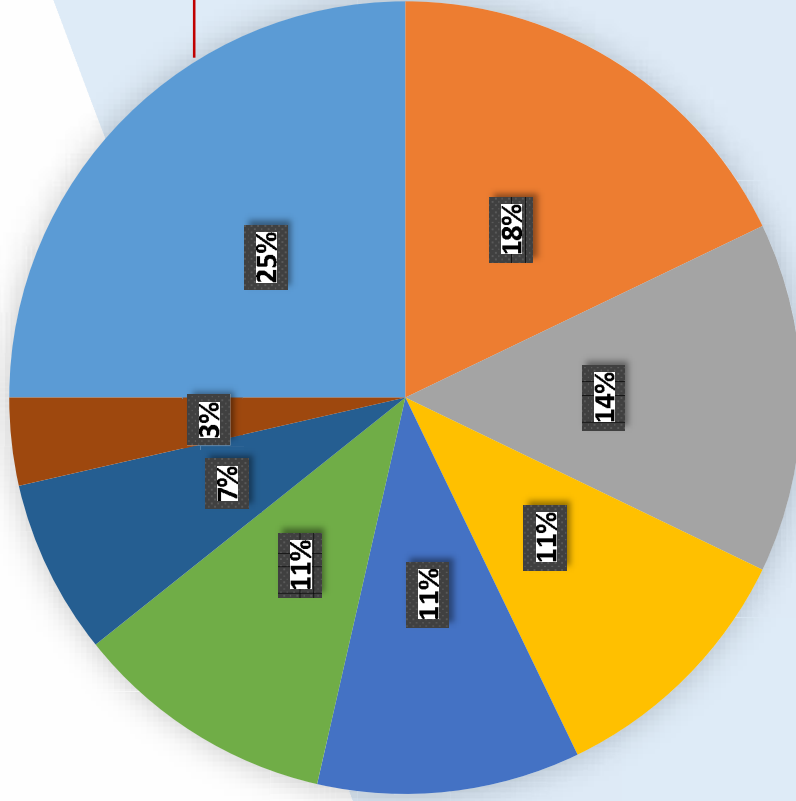
- **Since the AC IN LED Light has no driver, there is no efficiency loss and power supply failure.**
- **AC IN LED technology as promising technologies in the continued adoption of LED Lighting and the next generation of light sources.**



U.S. DEPARTMENT OF
ENERGY

Source : <http://www.energy.gov/eere/ssl/downloads/solid-state-lighting-rd-plan>

Most-Observed LED System Failures

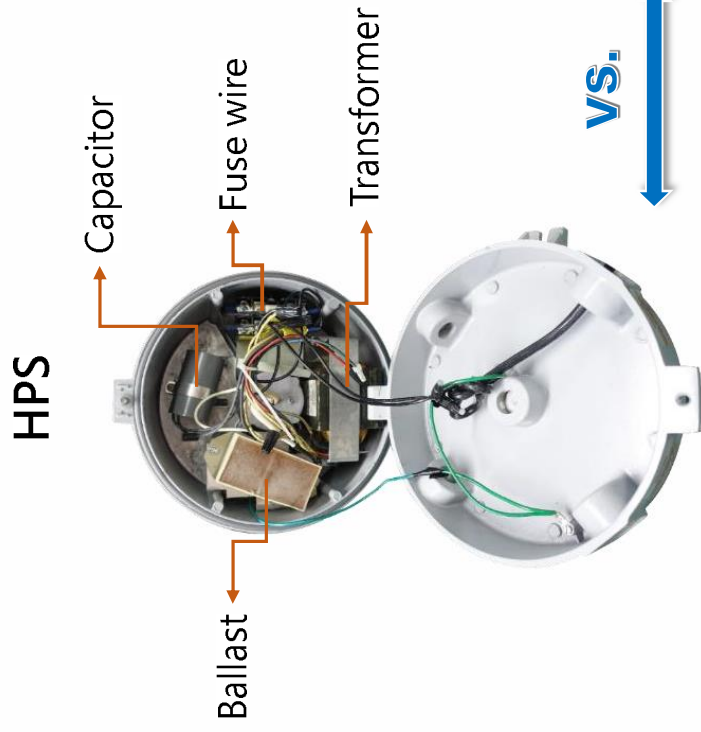


➤ Most of LED lights failures are from power and drive components

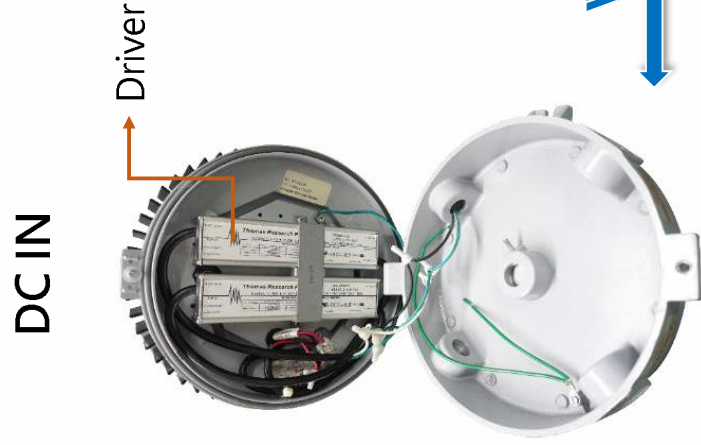
- Power/driver components
- LED failures (shorts, connections, board)
- Moisture ingress, corrosion
- Power quality (surge, noise, etc.)
- Materials-related lumen depreciation
- Materials-related color shift
- LED color shift
- Sensors

Source-U.S. Department of Energy R&D Plan (Page 77): <http://www.energy.gov/eere/ssl/downloads/solid-state-lighting-rd-plan>

AC IN technology is different from traditional lights



VS.



VS.



- Complicated design and wiring
- Higher malfunction rate
- Higher maintenance cost

- With driver and transforming loss
- Lower efficiency.

- Special design
- Simple wiring and few components
- No driver component failure issue

AC in LED design maintains long life at high ambient temperatures

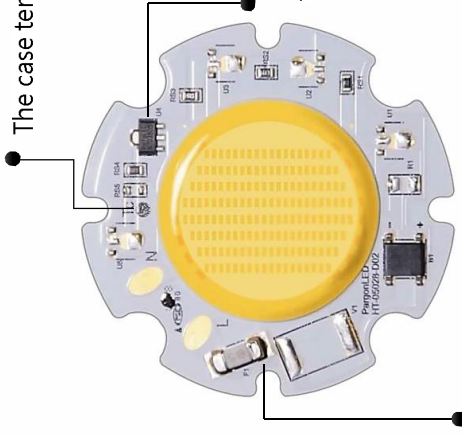


Test Summary :

Case Temperature [Tc]	Ambient Temperature [Ta]	Drive Current [If]	Forward voltage [V]	Lumen Maintenance at 10000 hr	Chromaticity Shift ($\Delta u'v'$) at 10000 hr
55 °C	55 °C	0.086	220.0	95.65%	0.0026
70 °C	70 °C	0.086	220.0	95.10%	0.0027
85 °C	85 °C	0.086	220.1	94.56%	0.0027

Table 1: Report at each LM-80 Test Condition

Description of LED Light Source Tested (manufacturer, model, catalog number)	Test Condition 1 - 55°C Case Temp	Test Condition 2 - 70°C Case Temp	Test Condition 3 - 85°C Case Temp
Sample size	z5	z5	z5
Number of failures	0	0	0
DUT drive current used in the test (mA)	0.086	0.086	0.086
Test duration (hours)	10,000	10,000	10,000
Test duration used for projection (hour to hour)	5,000 - 10,000	5,000 - 10,000	5,000 - 10,000
Tested case temperature (°C)	55	70	85
α	3.951E-06	4.540E-06	5.548E-06
B	0.995	0.994	0.999
Reported L70(10k) (hours)	55,000	Reported L70(10k) (hours)	Reported L70(10k) (hours)
		48,000	40,000



The case temperature measurement point.

Industrial grade current control chip for 200°C.

No electrolytic capacitors used in the light engine.