

# POWER CONSULTANT

# **PowerCom**

# LED Luminaire

# Product Description-Luminaire

Chips-On-Board is a new technology of LED integration for LED light engine. Multi LED chips are integrated together as one lighting module. COB can increase 10 times more lighting area. Solar power operated LED LUMINAIRE-Pearl is new cutting edge technology with advantage of saving energy and very long lifespan compare to traditional lighting such as fluorescent and incandescent lamp. POWERCOM-an ISO 9001:2008 certified company is thriving of LED LUMINAIRE-Pearl to the rural people of Bangladesh in solar application with economy price and quality.

# Technological Disadvantages »

- Viewing angle not 360 deg
- \* As it is super bright in a small size, it cause uncomfortable glare
- Do loss light efficacy when it pass through diffuser
- Photo biological safety recommended due to blue-hazard

# Technological Advantages »

- Tremendous energy saving in the same brightness saving more than 80-90% energy compared with conventional lamps
- Super long lifespan can be up to 50000 hours, equivalent to energy-saving lamps 5 10 times
- Effectively solving LED glare problem by light conversion module technique which is POWERCOM independent intellectual property right
- Overcoming fluorescent powder attenuation through light conversion technique, adopting COB integration technique to make LED luminaire have longer service life and lower optical attenuation
- Color coordinates and color temperature range are much wider and easier to be adjusted
- Adopting insulation power supply driver to make electrical performance stable and reliable
- Adopting integrated aluminum alloy with big radiation fin inside led strip to meet the radiation requirement of the LED luminaire
- Using ABS lampshade with high transparence, good aging resistance and UV resistance, high strength
- \* Healthy and eco-friendly No flash, no mercury or other hazardous materials, accord with RoHS
- Instant start, Low maintenance cost, No RF Interference, good performance



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# Technical Parameters: Optical and Electrical

PARAMETERS	PEARL 03W	PEARL 05W	PEARL 07W
Input Power	03W	05W	07W
Luminous Flux	270lm	450lm	630lm
Light Efficacy	90lm/W	90lm/W	90lm/W
Beam Angle	125°	125°	125°
Power Factor	>0.9	>0.9	>0.9
Input Voltage DC	12V	12V	12V
Ballast Frequency	25-30kHz	25-30kHz	25-30kHz
Correlated Color Temperature	6400°K	6400°K	6400°K
Color Rendering Index	80	80	80
Service Life	35,000h	35,000h	35,000h
Electrical life	50,000h	50,000h	50,000h
Working Temperature	-20 to + 55°C	-20 to + 55°C	-20 to + 55°C

# Salient features

### Parents company Approvals

Color Tones Base/Holder Luminaire Window Light Source Chip Integration of LED Body material Diffuser

### RoHS, CE, UL

Milky PC/Frosted

Cool Color/Warm color 2-PIN terminal block Sloping to light up downward CREE SMD ABS

### General features >>

- Easy mounting to wall and roof by screw
- Easy maintenance
- \* Auto lock pin holder to mitigate loose connection and wrong polarity
- No blackening problem
- \* Huge illumination over the life time
- \* 72hours aging test
- Special circuit design, each LED working separately, no influence from broken ones
- \* Isolated driver to protect RF interference and electrical wave
- Applying surface oxidation treatment, to resist corrosion and oxidation
- Parents' company accord with biomedical safety test

## Applications »

- \* Suitable for rural photovoltaic lighting in home, office etc.
- \* Suitable for indoor lighting in home, office, meeting room etc.
- Suitable for the lighting of shopping mall, exhibition hall, supermarket, hotel etc.
- Suitable for the lighting of light box and window advertising



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