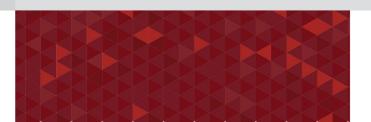


W W W . K E T R O W A . C O M

ABOUT KETROWA

Providing materials and equipment for construction projects is always one of the most important concerns of builders and project managers. The importance of this issue stems from its direct impact on the project schedule, construction cost, and final building value. With the aim of facilitating the process of providing construction goods and taking into account its social responsibility, Ketrowa team has created a comprehensive and online system. In this system, builders will be able to prepare the schedule for the supply of materials and equipment for their construction projects and order the supply of goods based on the plan. These orders are made by comparing various products available in the system. Mass builders are the most important target customers of Ketrowa, and Ketrowa tries to supply and deliver goods on time to the consumer by logical planning for manufacturers and by providing cash and credit purchase model. Also, due to the reception and request for the supply of construction products for foreign markets, the supply of construction products for export markets is another main goal of Ketrowa. Ketrowa plans to transform the traditional and opaque market into a modern, high-speed and accurate market where buyers can get the quality goods they want at the most appropriate price.





ELECTRICAL FACILITIES

SANITARY

4

3 2

Products are produced and supplied in five branches:

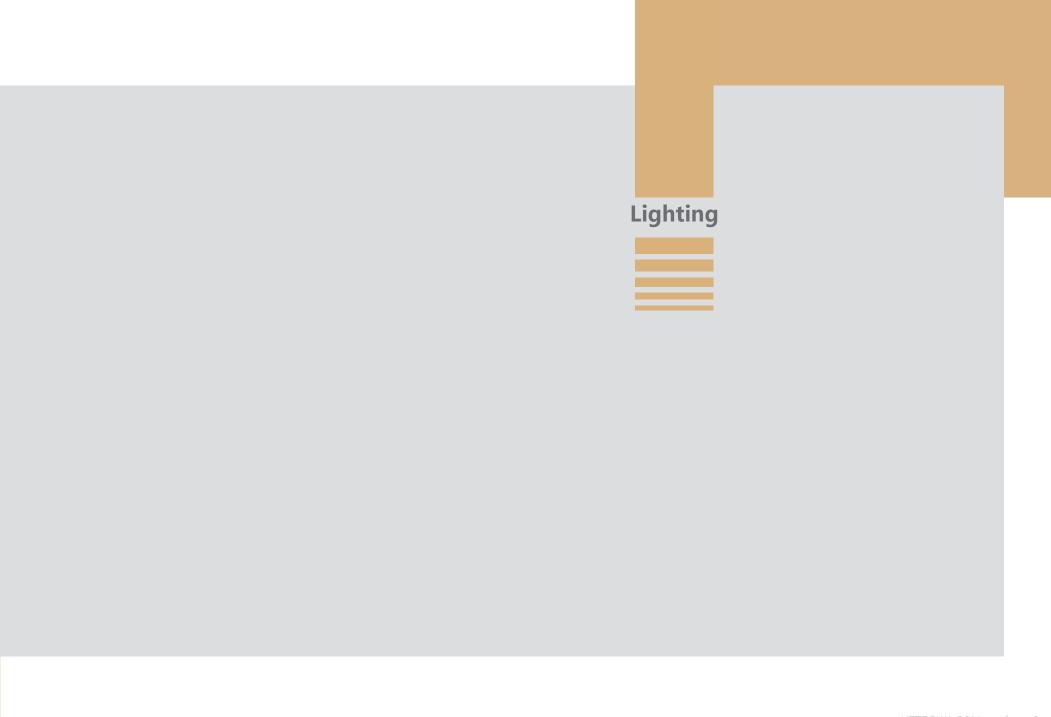
Structure, Electrical Facilities, Mechanical, Heating & Cooling Facilities, Sanitary, Joinery & Finishing., combining art and industry.

STRUCTURE

JOINERY & FINISHING

5





Light: Model: Derakhshan LED Facing (Back light)

Derakhshan lights are produced and supplied in different models and dimensions in the form of built-in and facing. This type of light has the ability to install all kinds of FPL-LED lamps and LED modules. One of the characteristics of these types of lights is the proper light distribution in the form of backlight.

- Compatibility with the environment
- Electrostatic powder coating
- Polystyrene diffuser
- Color temperature: 3000-6500
- Backlight module
- Color rendering index: More than 80%
- Power Factor: Above 90%
- IP 40
- Ceramic terminal
- THD less than 10
- The desired product is produced with moonlight, sunny and natural colors from 2700 to 6500 Kelvin.
- The possibility of increasing or decreasing the luminous flux by 8%

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Dimensions (L*H*W)	Weight (Kg)
50	5000	100	3000-6500	60*6*60	4
50	5000	100	3000-6500	60*6*30	3
50	5000	100	3000-6500	50*6*50	3
40	4000	100	3000-6500	40*6*40	2
30	3000	100	3000-6500	30*6*30	1.5
50	5000	100	3000-6500	115*6*30	4
75	7500	100	3000-6500	60*6*60	4
75	7500	100	3000-6500	115*6*30	4
75	7500	100	3000-6500	50*6*50	3
75	7500	100	3000-6500	60*6*30	3





Light: Model: Derakhshan LED Built in(Back light)

It is designed for use in commercial centers, exhibitions, hospitals, offices, etc., and it can be easily installed in all types of false ceilings, 60 x 60 tiles, fixed Knaf leaf plaster, etc. in a built-in form.

- Backlight module
- Ceramic terminal
- Compatibility with the environment
- Electrostatic powder coating
- Polystyrene diffuser
- THD less than 10
- Color temperature: 3000-6500
- Flicker Free
- Power Factor: Above 90%
- IP 40
- Color rendering index: more than 80%

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Dimensions (L*H*W)	Weight (Kg)
50	5000	100	3000-6500	60*6*60	4
50	5000	100	3000-6500	60*6*30	3
40	4000	100	3000-6500	40*6*40	2
30	3000	100	3000-6500	30*6*30	1.5
50	5000	100	3000-6500	115*6*30	4
75	7500	100	3000-6500	60*6*60	4
75	7500	100	3000-6500	115*6*30	4
75	7500	100	3000-6500	60*6*30	3



KETROWA.COM

Light: Model: Venos LED Built in(Back light)

It is designed for use in commercial centers, exhibitions, hospitals, offices, etc., and it can be easily installed in all types of false ceilings, 60 x 60 tiles, fixed Knaf leaf plaster, etc. in a built-in form.

- Compatibility with the environment
- Electrostatic powder coating
- Polystyrene diffuser
- Color temperature: 3000-6500
- Flicker Free
- Backlight module
- Color rendering index: more than 80%
- Power factor: above 90%
- IP 40
- Ceramic terminal
- THD less than 10

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Dimensions (L*H*W)	Weight (Kg)
50	5000	100	3000-6500	60*6*60	4
75	7500	100	3000-6500	60*6*60	4





Light: Model: Venos FPL LED-FPL Built-in and Facing (60*60) & (50*50)

It is designed for use in commercial centers, exhibitions, hospitals, offices, etc., and it can be easily installed in all types of false ceilings, 60 x 60 tiles, fixed Knaf leaf plaster, etc. in built-in and facing form. The use of shiny aluminum alloy (anodized) distinguishes this product and causes more light. Venus model lights have the capability of FPL lamps in the power of 36*2-36*3-36*4 and FPL LED lamps in the power of 15*2-15*3-15*4.

- Environmental compatibility in FPL LED lamps
- Electrostatic powder coating
- Using anodized louvers
- Capability of FPL LED-FPL lamps
- Product body strength with iron sheet
- Ceramic terminal
- Using a separate earth wire

Lamp Type	Screw Type	L (cm)	H (cm)	W (cm)	Weight (Kg)
2*36	2G11	60	6	60	3
3*36	2G11	60	6	60	3.5
4*36	2G11	60	6	60	4
2*15	2G11	60	6	60	2.5
3*15	2G11	60	6	60	3
4*15	2G11	60	6	60	3.5
2*36	2G11	50	6	50	2.5
3*36	2G11	50	6	50	3
4*36	2G11	50	6	50	3.5
2*15	2G11	50	6	50	2
3*15	2G11	50	6	50	2.5
4*36	2G11	50	6	50	3





Light: Model: CLASSIC FPL LED-FPL (60*60)

It is designed for use in commercial centers, exhibitions, hospitals, offices, etc., and it can be easily installed in all types of false ceilings, 60 x 60 tiles, fixed Knaf leaf plaster, etc. in built-in and facing form. The use of shiny aluminum alloy (anodized) distinguishes this product and causes more light. Classic model lights have the capability of FPL lamps in powers of 36*2-36*3-36*4 and FPL LED lamps in powers of 15*2-15*3-15*4.

- The ability to be dual-purpose for built-in and facing ceilings
- Environmental compatibility in FPL LED lamps
- Electrostatic powder coating
- Using anodized louvers
- Capability of FPL LED-FPL lamps
- Product body strength with iron sheet
- Ceramic terminal
- Using a separate earth wire

Lamp Type	Screw Type	L (cm)	H (cm)	W (cm)	Weight (Kg)
2*36	2G11	60	6	60	3
3*36	2G11	60	6	60	3.5
4*36	2G11	60	6	60	4
2*15	2G11	60	6	60	2.5
3*15	2G11	60	6	60	3
4*15	2G11	60	6	60	3.5







Light: Model: FOROZAN LED (60X60)

It is designed to be used in commercial centers, exhibitions, hospitals, offices, etc., and it can be easily installed in all types of 60x60 false ceilings in the form of built-in tiles. The unique feature of this product is its low depth.

- Compatibility with the environment
- Electrostatic powder coating
- Polystyrene diffuser
- Color temperature: 3000-6500
- Flicker Free
- Backlight module
- Color rendering index: more than 80%
- Power factor: above 90%
- IP 40
- Ceramic terminal
- THD less than 10

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Dimensions (L*H*W)	Weight (Kg)
50	5000	100	3000-6500	60*4*60	2
75	7500	100	3000-6500	60*4*60	2





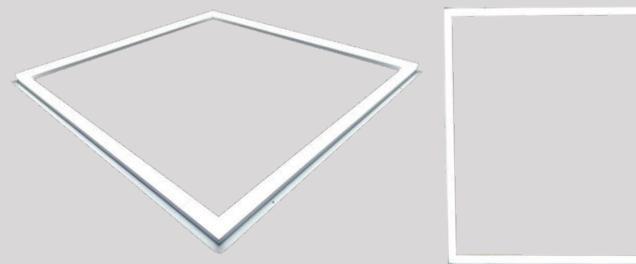
Light: Model: BERELIYAN LED Built in (60*60)

It is designed for use in commercial centers, exhibitions, hospitals, offices, etc., and it can be easily installed in all kinds of false ceilings 60x60 tiles in a built-in way. The unique feature of this product is its low depth and beautiful appearance.

- Compatibility with the environment
- Electrostatic powder coating
- Polystyrene diffuser
- Color temperature: 3000-6500
- Flicker Free
- Backlight module
- Color rendering index: more than 80%
- Power factor: above 90%
- IP 40
- THD less than 10

Power	Luminous Flux	Lumens per Watt	Color Temperature	Dimensions	Weight
(W)	(LM)	(L/M)	(K)	(L*H*W)	(Kg)
50	5000	100	3000-6500	60*2*60	1



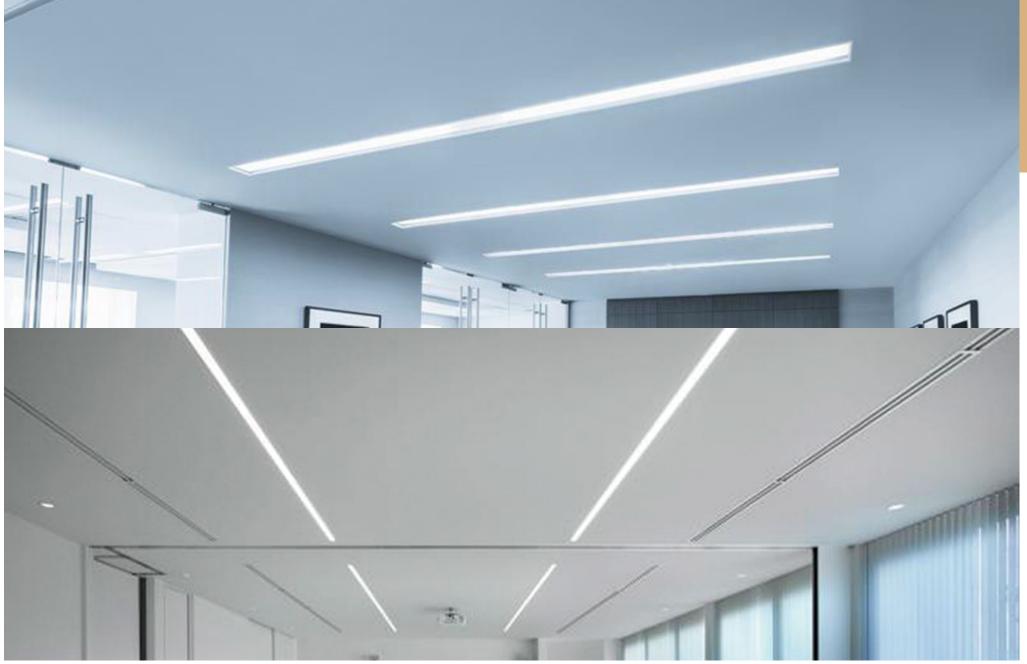


Light: Model: LAYNER LED

LAYNER lights of the Liner model are produced in built-in, facing and hanging modes in different powers and dimensions according to the customer's order. This product can be used in offices, banks, stores and hotels due to its beautiful and unique appearance and uniform light distribution.

- Compatibility with the environment
- Electrostatic powder coating
- Polystyrene diffuser
- Color temperature: 3000-6500
- Backlight module
- Color rendering index: more than 80%
- Power factor: above 90%
- IP 43
- Ceramic terminal
- THD less than 10
- Using a separate earth wire





Light: Model: AGHIGH LED Built-in and Facing

Ceiling Aghigh model lights have a lot of variety. Nowadays, due to the abandonment of old lights, they have been welcomed by many people. In addition to their beauty, these lights are inspired by the latest technology and consume less energy, and at the same time, they provide uniform and high-quality light, in sunny/moonlight/natural colors. In addition, it is produced in different cavities and is suitable for commercial and residential office buildings.

- Production based on customer's specific order for different holes
- Compatibility with the environment
- Polystyrene diffuser
- Color temperature: 3000-6500
- Flicker Free
- Backlight module
- Color rendering index: more than 80%
- IP 43
- Ceramic terminal
- ABS body with aluminum heatsink

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Cutting Diameter (cm)	Weight (g)
9	900	100	3000-6500	8	0.2
12	1200	100	3000-6500	12	0.3
18	1800	100	3000-6500	16	0.4
12	1200	100	3000-6500	-	0.5
18	1800	100	3000-6500	-	0.7







Light: Model: YAGHOT LED COB Built-in

YAGHOT model lights are made using COB lamp technology, COB lamp stands for "Chips on Board" which means SMD electronic chips stuck on electronic boards that are placed together as a unit. In this new technology, a number of LEDs are compactly mounted on a module, and when they are lit, they are seen as an extremely bright core, which has the advantage of lighting at a height between 4 and 8 meters. and can be used in offices, hotels, gas stations, amphitheater halls and high-altitude places.

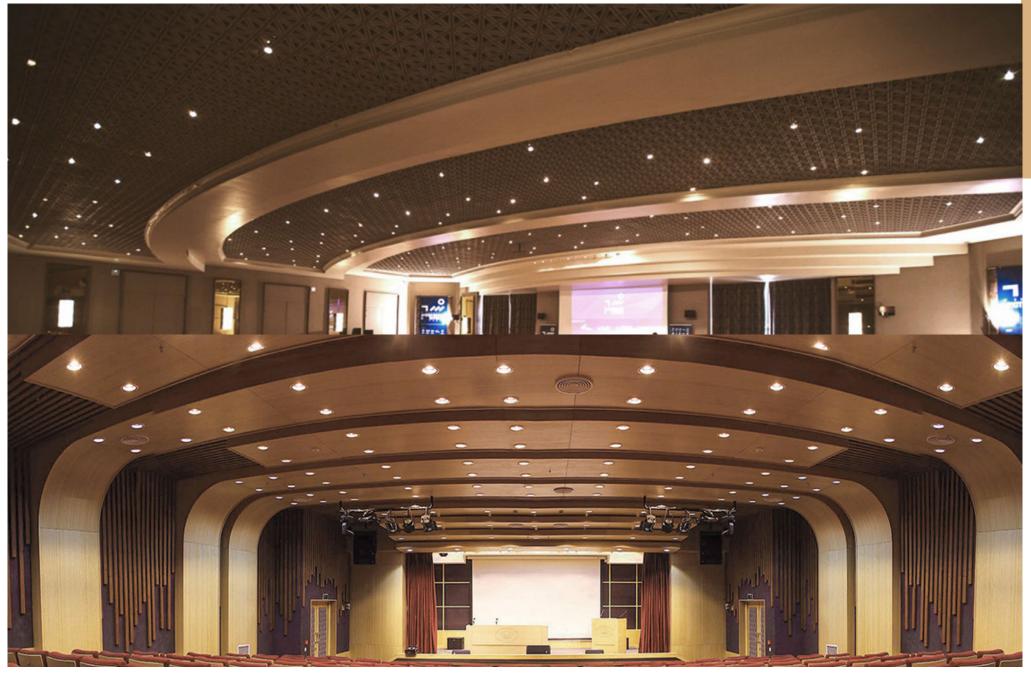
Technical Specification:

- Productivity and energy efficiency at high altitude
- Optimal energy consumption
- Lifespan (hours): 30,000 hours
- IP54 to IP65
- It has quality and durable electronic parts
- Heat transfer aluminum heat sink

Power	Luminous Flux	Lumens per Watt	Color Temperature	Cutting Diameter	Weight
(W)	(LM)	(L/M)	(K)	(cm)	(g)
30	3600	120	3000-6500	20	0.5







Light: Model: MAHTAB TUBE LED Built-in & Facing

It is designed to be used in commercial centers, exhibitions, banks, offices, etc., and it can be easily installed in all kinds of false ceilings, plaster of Kanaf, in the form of built-in, and in ordinary ceilings in the form of surface. The use of metal laurel has strengthened this product. Mehtab model lights have the capability of TUBE LED lamps in the power of 2*18 and fluorescent lamps in the power of 2*40-36*2.

- Production based on customer's specific order for fixed knaf leaf plaster
- Compatibility with the environment in TUBE LED lamps
- Electrostatic powder coating
- Use of metallic laurel
- Product body strength with iron sheet
- Ceramic terminal
- Using a separate earth wire

Lamp Type	Screw Type	L (cm)	H (cm)	W (cm)	Weight (Kg)
2*18	Т8	120	6	20	4
2*18	Т8	120	6	20	4







Light: Model: LUX FPL LED-FPL Facing

Lux model lights are mostly used in offices, stores and schools. The good feature of the lux lamp is that it is very elegant and low in height. Thin iron bars have increased the strength of this product. Luxury model lamps have the capability of FPL lamps in 36*2-36*3 powers and FPLLED lamps in 15*2-15*3 powers.

- Environmental compatibility in FPL LED lamps
- Electrostatic powder coating
- Use of metallic laurel
- Capability of FPL LED-FPL lamps
- Product body strength with iron sheet
- Ceramic terminal
- Using a separate earth wire

Lamp Type	Screw Type	L (cm)	H (cm)	W (cm)	Weight (Kg)
2*36	2G11	20	6	60	2
3*36	2G11	20	6	60	2.5
2*15	2G11	20	6	60	1.5
3*15	2G11	20	6	60	2







Light: Model: EMERGENCY-EXIT

LED emergency lights in the form of hanging, wall for providing emergency lighting of office/industrial environments, provide the possibility of showing exit routes in emergency situations. Providing emergency lighting in places such as hospitals and administrative projects that show the way out during a power outage is one of the main criteria in choosing the type of light.

- Dimensions (cm): 15Watt emergency light: 14*7
- Dimensions (cm): 30Watt emergency light: 44*7
- High productivity and efficiency
- Energy saving
- Possibility of wall and ceiling installation
- Use of high-quality electronic components
- Production and supply in different designs according to the customer's order
- This product can be active with BACKUP of two and three hours









Light: Model: BRACKET LED

Bracket model lights are most commonly used in homes as wall lights and in stores as a longitudinal ceiling light. The easy installation of the bracket model lamp and the beauty of the appearance of this product and the uniform light are the features of this product. The bracket model is produced in such a way that its weight is light and the height of this product is very low so that the shadow is not created on the wall and under the product.

- Electrostatic powder coating
- Product body strength with aluminum profile
- Ceramic terminal
- Using a separate earth wire
- Polystyrene diffuser
- Backlight production

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Dimensions (L*H*W)	Weight (g)
10	1000	100	3000-6500	30*3*8	0.4
25	2500	100	3000-6500	60*3*8	0.6
55	5500	100	3000-6500	112*3*8	0.8









Light: Model: ALMAS

ALMAS model decorative lights are especially important in interior decoration and lighting of homes, workplaces, bedrooms, kitchens, etc. Decorative lights can be defined as "architectural jewels". In many buildings, decorative lighting plays an important role in creating design styles. The main goal in lighting design with decorative lights is eye appeal and beauty of the space. These lights consume little electricity due to the use of LED technology, so these decorative lights can be used safely in different environments.

Technical Specification:

- Body material: Metal

- Ability to install lamps: 8-12 watts

- Color type: Static powder

- Easy and convenient installation

Lamp Capability	Screw Type	Product type	Color Type	Body Material	Weight (Kg)
8-12	E27	White Semi-circle Wall	Static Powder	Metal	0.3
8-12	E27	Black Semi-circle Wall	Static Powder	Metal	0.3
8-12	E27	Gold Semi-circle Wall	Static Powder	Metal	0.3
8-12	E27	White Wall Cube	Static Powder	Metal	0.3
8-12	E27	Black Wall Cube	Static Powder	Metal	0.3
8-12	E27	Gold Wall Cube	Static Powder	Metal	0.3





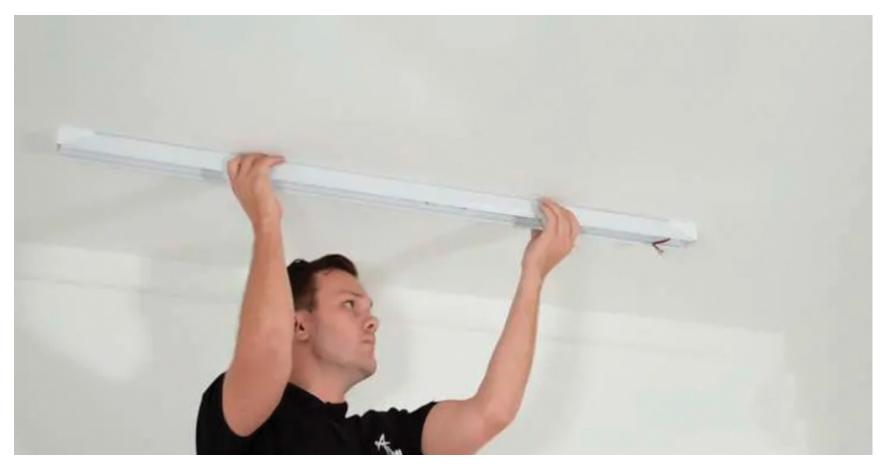


Light: Model: FPL LED - TUBE LED

These types of lights are more efficient than their fluorescent counterparts. Another important point is the use of polycarbonate material (a type of special plastic) instead of glass in the production of this product's tube, which prevents this product from breaking due to impact or falling from a height. The use of an aluminum heatsink causes proper heat transfer from the lamp module to the outside space, which will increase the product's lifespan. Another feature of this product is that it does not need a transformer or starter to turn on, and in other words, it works with 220-volt direct current. TUBE LED lamps and tubes are produced in lengths of 60 cm,120 cm and 42 cm.

- Absence of IR and UV waves
- High productivity and efficiency
- Energy saving
- Suitable replacement for old lamps
- The ability to produce in different powers
- Safe and unbreakable
- Environmentally friendly

Power (W)	Screw Type	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)
9	Т8	900	100	3000-6500
15	2G11	1500	100	3000-6500
18	Т8	1800	100	3000-6500





Light: Model: MAHTAB TUBE LED Built-in and Facing (120*20)

It is designed to be used in commercial centers, exhibitions, hospitals, offices, etc., and it can be easily installed in all kinds of false ceilings, plaster of Kanaf, in the form of built-in, and in ordinary ceilings in the form of surface. The use of talc polystyrene has made this product shine. Prismatic Mahtab lamps have the capability of TUBE LED lamps in the power of 2*18 and fluorescent lamps in the power of 2-36*2-40*2.

- Production based on customer's specific order for fixed knaf leaf plaster
- Compatibility with the environment in TUBE LED lamps
- Electrostatic powder coating
- The use of polystyrene
- Product body strength with iron sheet
- Ceramic terminal
- Using a separate earth wire

Lamp Type Screw Type L (cm) H (cm) W (cm)	Weight (Kg)
2*18 T8 120 6 20	4
3*18 T8 120 6 20	4





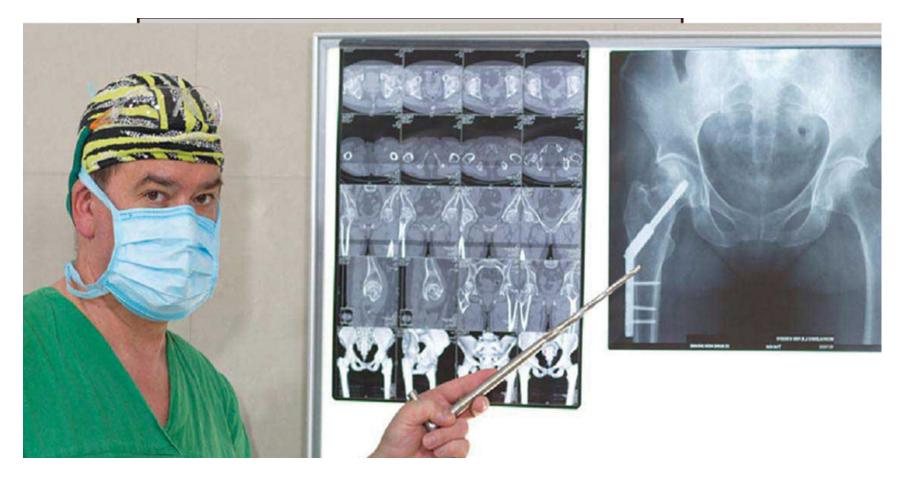


Light: Model: Negatoscope LED Built-in and Facing

A negatoscope is a bright screen on which radiology films are placed, and by means of which it is easy to see the details of the films. The light of the screen of the negatoscope must be evenly spread over the entire screen, because the unevenness of the light and creating a shadow on the screen will cause errors in the doctor's diagnosis. This equipment is available in wall-mounted and built-in types, as well as on the base, which are produced in single, double, triple and quadruple types depending on the number of photos displayed on the page.

- Environmentally friendly
- Electrostatic powder coating
- Polystyrene diffuser
- Color temperature: 3000-6500
- FLICKER FREE
- Backlight module
- Color rendering index: More than 80%
- Power Factor: Above 90%
- IP 40
- Ceramic terminal
- THD less than 10

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Dimensions (L*H*W)	Weight (g)
30	3000	100	3000-6500	50*6*50	3
40	4000	100	3000-6500	80*6*60	4
50	5000	100	3000-6500	106*6*60	5
60	6000	100	3000-6500	161*6*60	6
30	3000	100	3000-6500	55*6*55	3
40	4000	100	3000-6500	80*6*55	4
50	5000	100	3000-6500	115*6*55	5
60	6000	100	3000-6500	162*6*55	6







Light: Model: PARASTARI Night Vision Built-in

The night vision lights of the Parastari model are installed in the body wall of the inpatient room in a built-in manner so that when the nurse enters the patient's room, they do not disturb the patient's rest at any moment of the night which is about 5 LUX to see the passage.

- Downlight for less glare
- IP43
- LED module
- Color temperature: 3000-6500
- Dimensions and sizes according to customer orders

Type of Protection	Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Weight (g)
Colored metal	12	1200	100	3000-6500	1.5
Steel	12	1200	100	3000-6500	1.5





Light: Model: JAHAN LED Street Light

Jahan model lights are the new generation of street lights that are produced using the best standard electronic parts and different lenses. The characteristics of these lights are high efficiency, very long life, low energy consumption and symmetrical light distribution. The body is die-cast aluminum with electrostatic powder paint. Jahan model street lights with a very beautiful and durable design are suitable for use in alleys, major streets, highways, etc. This street light model is produced as a direct power module without a driver.

- High energy savings compared to HID lights
- Symmetrical light distribution with high uniformity
- High coefficient of optical flux retention due to the heat rejection system and the type of lens used
- Use of direct power module and high-power factor
- High sealing and good corrosion resistance
- Power Factor: Above 90%
- Lifespan (hours): More than 50,000 hours
- Color rendering index: More than 80%



Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Lens Type	Weight (Kg)
35	4200	120	3000-6500	30-60-90-120	2
50	6000	120	3000-6500	30-60-90-120	2.5
60	7200	120	3000-6500	30-60-90-120	2.5
80	9600	120	3000-6500	30-60-90-120	3
100	12000	120	3000-6500	30-60-90-120	3.5
120	14400	120	3000-6500	30-60-90-120	4
135	16200	120	3000-6500	30-60-90-120	4
150	18000	120	3000-6500	30-60-90-120	5
170	20400	120	3000-6500	30-60-90-120	5.5
200	24000	120	3000-6500	30-60-90-120	6

Light: Model: URANUS LED Street Light

Uranus model lights are a new generation of street lights that are produced using the best standard electronic parts and different lenses. The characteristics of these lights are high efficiency, very long life, low energy consumption and symmetrical light distribution. The body is die-cast aluminum with electrostatic powder paint. Uranus model street lights with a very beautiful and durable design are suitable for use in alleys, major streets, highways, etc. This street light model is produced as a direct power module without a driver.

- High energy savings compared to HID lights
- High coefficient of optical flux retention due to the heat rejection system and the type of lens used
- Using an efficient LED Driver with the lowest THD pollution and high-power factor
- High sealing and good corrosion resistance
- Power Factor: Above 90%
- Lifespan (hours): More than 50,000 hours
- Color rendering index: More than 80%
- Body Material: Aluminum



Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Lens Type	Weight (Kg)
35	4200	120	3000-6500	30-60-90-120	2
60	7200	120	3000-6500	30-60-90-120	2.5
80	9600	120	3000-6500	30-60-90-120	3
100	12000	120	3000-6500	30-60-90-120	3.5
120	14400	120	3000-6500	30-60-90-120	4
150	18000	120	3000-6500	30-60-90-120	5
170	20400	120	3000-6500	30-60-90-120	5.5
200	24000	120	3000-6500	30-60-90-120	6

Light: Model: ZOMORROD LED Street Light

Zomorrod model lights are new generation street lights that are produced using the best standard electronic parts and different lenses. The characteristics of these lights are high efficiency, very long life, low energy consumption and symmetrical light distribution. The body is die-cast aluminum with electrostatic powder paint. Emerald model street lights with a very beautiful and durable design are suitable for use in local roads, roads, highways, etc.

- High energy savings compared to HID lights
- High coefficient of optical flux retention due to the heat rejection system and the type of lens used
- Using an efficient LED Driver with the lowest THD pollution and high-power factor
- High sealing and good corrosion resistance
- Power Factor: Above 90%
- Lifespan (hours): More than 50,000 hours
- Color rendering index: More than 80%
- Body Material: Aluminum

50 6000 120 3000-6500 3.5 100 12000 120 3000-6500 4.8 150 18000 120 3000-6500 6.2	Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Weight (Kg)
450	50	6000	120	3000-6500	3.5
150 18000 120 3000-6500 6.2	100	12000	120	3000-6500	4.8
	150	18000	120	3000-6500	6.2





Light: Model: ATLAS LED Projector

Atlas model projectors are used in the lighting of industrial environments, factories, warehouses, sports halls and especially light towers. The distinctive feature of this product is the existence of different lenses that provide illumination for high heights and different lengths, and the body material is extruded aluminum, and due to the use of LED technology, with a lifespan of 50,000 hours, it can significantly save on maintenance and repair costs. The Atlas model projector is being produced in powers of 50 watts to 900 watts.

- Absence of IR and UV waves and optimization of electricity consumption
- Installation speed and ease of setup
- Reduced maintenance costs due to long life (50,000 hours)
- High efficiency compared to other lights on the market
- Suitable for sheds and industrial halls and light towers with high height and sports stadiums
- The desired product is produced with moonlight, sunny and natural colors from 2700 to 6500 Kelvin.
- The possibility of increasing or decreasing the luminous flux by 8%

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Lens Type	Weight (Kg)
50	6000	120	3000-6500	30-60-90-120	2
100	12000	120	3000-6500	30-60-90-120	4
150	18000	120	3000-6500	30-60-90-120	5
200	24000	120	3000-6500	30-60-90-120	6
250	30000	120	3000-6500	30-60-90-120	7
300	36000	120	3000-6500	30-60-90-120	8
400	48000	120	3000-6500	30-60-90-120	12
500	60000	120	3000-6500	30-60-90-120	15
600	72000	120	3000-6500	30-60-90-120	17
900	108000	120	3000-6500	30-60-90-120	25



Light: Model: SANDIKA LED-COB Shed

These lights are used in the lighting of industrial environments and factories, warehouses and sports halls, the material of the body and its reflector is metal and has a suitable radiation angle, and due to the use of LED technology, it can save energy with a lifespan of 50,000 hours.

- Absence of IR and UV waves and optimization of electricity consumption
- Installation speed and ease of setup
- Reduced maintenance costs due to long life (50,000 hours)
- High efficiency compared to other lights on the market
- Suitable for sheds and industrial halls and light towers with high height
- Uniform distribution of light
- The desired product is produced with moonlight, sunny and natural colors from 2700 to 6500 Kelvin.
- The possibility of increasing or decreasing the luminous flux by 8%

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Weight (Kg)
50	6000	120	3000-6500	3.5
100	12000	120	3000-6500	4.8
150	18000	120	3000-6500	6.2









Light: Model: SAFINEH LED Shed

This product model is designed and built with targeted light distribution, strong and durable die-cast aluminum body structure and IP65 degree of protection. It is suitable for use in gyms, swimming pools, industrial environments and factories. This product provides you with the ability to be used as a pendant and fixed installation with a handle.

- Direct current LED module
- Power Factor: Above 90%
- Body Material: Aluminum
- IP65
- Tempered glass
- Using the highest quality electronic components

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Diameter (cm)	Weight (Kg)
150	18000	120	3000-6500	49	3.5
200	24000	120	3000-6500	49	4.8





Light: Model: KHORSHIDI LED Industrial

This projector model is designed and built with targeted light distribution, strong and durable die-cast aluminum body structure and IP65 protection level. It is suitable for use in sports halls, swimming pools and industrial environments and factories. This product provides you with the ability to be used as a pendant and to install the stable along with the handle.

- Direct current LED module
- Power Factor: Above 90%
- Body Material: Aluminum
- IP65
- Tempered glass
- Using the highest quality electronic components

Power (W)	Luminous Flux (LM)	Lumens per Watt (L/M)	Color Temperature (K)	Diameter (cm)	Weight (Kg)
100	12000	120	3000-6500	34	3
200	24000	120	3000-6500	40	4







Light: Model: BITA Tunnel

Bita model tunnel lights are produced with elegant design and high strength. The strong die-cast aluminum body and high degree of protection (IP65) is one of the outstanding features of this lamp. The glass of this product is 3-mil strong, and a metal guard is used on the glass, which protects the glass and prevents it from hitting the glass. The E27 screw head is used in the tunnel light, which has the ability to close the 100 watt filament lamp and the LED lamp. In addition, this product can be used on the wall and ceiling.

- Diecast aluminum body
- 3 mil strong tempered glass
- IP65 high degree of protection
- Type of protection: Metal

Type of Protection	Screw Type	Lamp type	Installation	Weight (Kg)
Metal	E27	100-watt string 8-watt LED	Facing	0.5
ABS	LED module	12-watt LED	Facing	0.5







Light: Model: Reflective and Semi-reflective lights HELALI & HALF HELALI Facing

Helali & Half Helali model reflector lights with beautiful design are produced in different models for use in industrial space and roofed places. Ease of access to electrical equipment, durability and high efficiency are prominent features of this type of lights. The body of this product is made of metal and is very resistant. The reflector light is designed to be used on top of industrial devices.

Technical Specification:

-Helali & Half Helali model reflector lights with beautiful design are produced in different models for use in industrial space and roofed places. Ease of access to electrical equipment, durability and high efficiency are prominent features of this type of lights. The body of this product is made of metal and is very resistant. The reflector light is designed to be used on top of industrial devices.

Lamp Type	Screw Type	Length (cm)	Weight (Kg)
1*18	T8	120	2
2*18	Т8	120	3





Light: Model: SIGMA LED Facing Waterproof

Waterproof lights are among the lights that can be used in dusty and humid environments and have high durability against the phenomenon of corrosion. This type of lamp is designed in different sizes and different power consumptions. Due to the characteristics of this lamp, it can be used in motor houses and heating houses, oil, gas and petrochemical industries, coastal areas, swimming pools, etc. 18*1 and 18*2 TUBELED lamps can be used in this Sigma model waterproof lamp.

- Polycarbonate diffuser with very strong ABS body
- Sealing degree IP65
- Allowed operating temperature range: +70 to -20
- Symmetrical light distribution
- Wide angle of radiation
- High resistance to any environmental factors
- Screw type: T8
- Capability of TUBE LED lamps

Lamp Type	Screw Type	Length (cm)	Weight (Kg)
2*18	Т8	120	2.5
1*18	Т8	120	2





Light: Model: SMART Facing Wall

Smart model yard lights are used in outdoor spaces and open environments, and due to having IP65, it is highly resistant to dust and rain.

- Body material: Aluminum and Metal
- Electrostatic powder paint
- Ability to install on the wall
- Suitable light distribution
- Talc material: Polycarbonate
- Production and supply in different colors
- IP65
- Colour: White Black

Lamp	Screw Type	Installation	Body	Color	Weight
Capability		Type	material	type	(Kg)
12-20	E27	Mural	Aluminum and Metal	Static Powder	2







Light Tower

Lighting towers are produced and supplied in different sizes, which can be produced at a height of 8 to 30 meters. The external surface of these towers is galvanized and colored. These towers illuminate a large area. For this reason, they have the same efficiency as several street lamp bases. It is suitable for lighting large areas such as: parks, squares, bridges, buildings, such as hospitals and factories.

- The ability to install mobile and fixed baskets
- Easy to use
- Complete safety against electric shock
- The ability to install all kinds of projectors in different powers
- Polyhedral body with hot or colored galvanized coating
- The possibility of using LED projectors and reducing electricity consumption
- Proper and uniform light distribution
- Foundation design according to the height and weight of the base





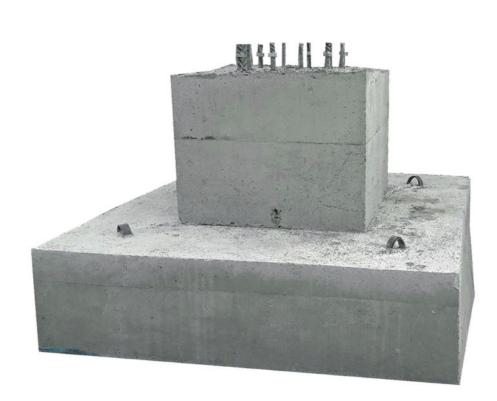




Types of Foundation

- Precast Concrete Foundation
- Coiled Bolt





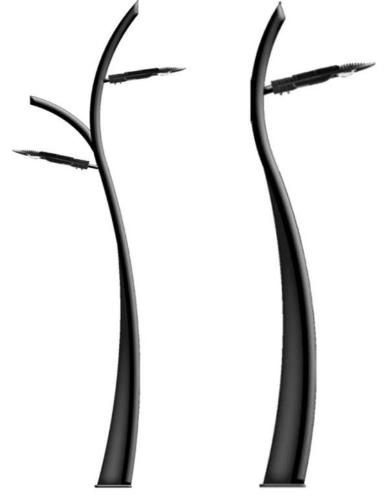
Tree model park base (one-way and two-way)

Tree-type Park bases are produced in various types of tubes and in fantasy, according to the order or demand of the consumer and according to the design of urban roads and parks, and can be supplied in different designs for the lighting of roads in the standard range. The base cover of the tree model park light is determined according to the climate of the region and the level of durability.

- The ability to build from 3 to 6 meters in a tubular form
- Thickness proportional to height
- The ability to install 2 lights in different types and powers
- The possibility of using a ready-made foundation for quick installation
- Unique beauty
- Having an iron pipe in the body structure
- Design and manufacture according to the customer's order in terms of color and height
- Body Material: Metal

Height (cm)	Color Type	Body Material	The length of the handle (cm)	Thickness (mm)	Diameter (inch)
400	Static powder	Metal	30	3	3



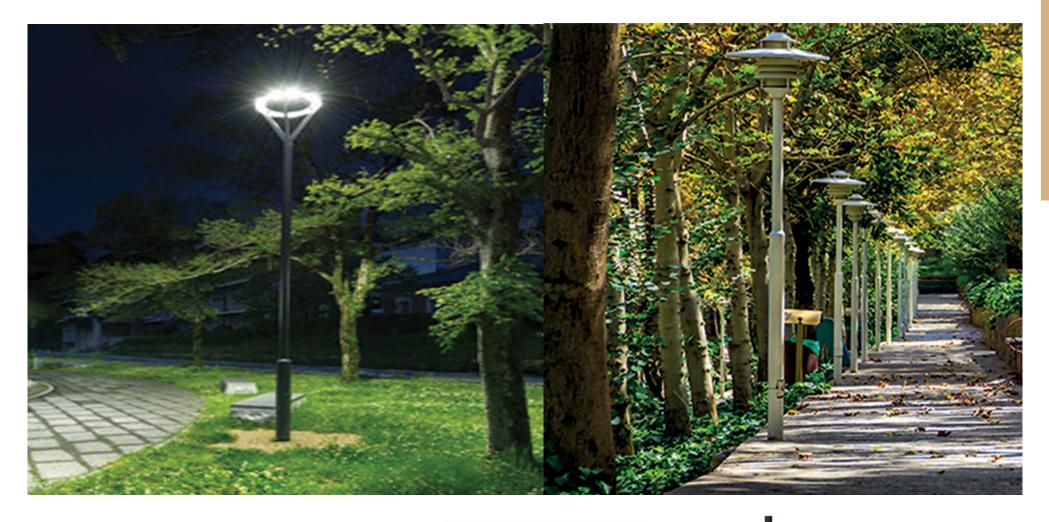


Felora Model; Parking Light Head Azarakhsh Model; Parking Light Head Zohal Model; Parking Light Head

Park lights with a beautiful design and suitable for lighting areas, two-way secondary and local streets, parks and gardens. According to the place of use of these lights, which is usually parks and gardens, the lamp glass is made of high-quality polycarbonate, which has full impact resistance and is also resistant to ultraviolet rays. According to the type of application of this lamp, the reflectors are designed in such a way that it is possible to use this lamp to create light with proper uniformity around the place of installation. For use in parks and places where, in addition to lighting, beauty is also of particular importance.

- Durable and flexible polycarbonate glass resistant to UV rays
- Unique beauty
- Having an iron pipe in the body structure
- Resistance of parking lights against the penetration of moisture and dust
- Having a very high lifespan and fully guaranteed
- Design and manufacture according to the customer's order in terms of color

Model	Height (cm)	Color Type	Body Material	Type of protection	Thickness (mm)	Diameter (inch)
Felora Model; Parking Light Head	40	Static powder	Metal	Polycarbonate	-	-
Azarakhsh Model; Parking Light Head	53	Static powder	Metal	tempered glass	-	-
Zohal Model; Parking Light Head	250-400	Static powder	Metal	-	2-3	2-3



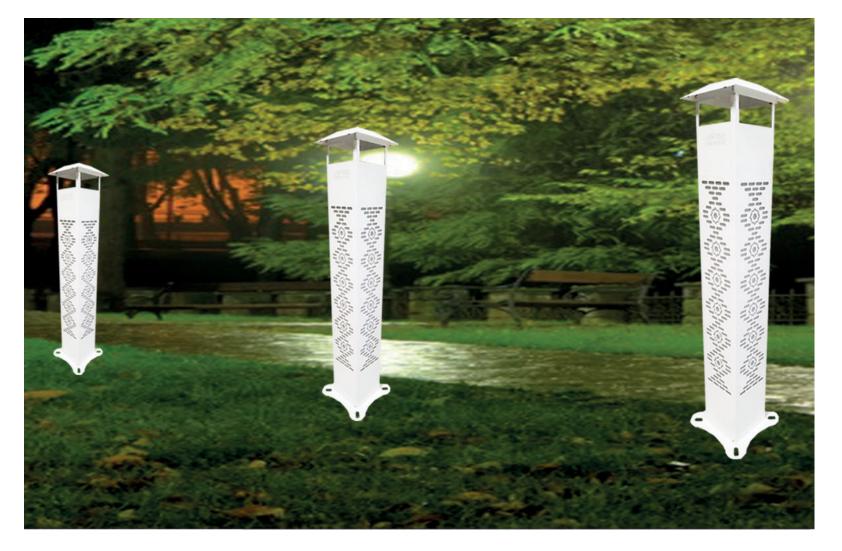


Model: Damavand Grass Base

Damavand model grass base, which has an eye-catching appearance and a completely architectural light design in the light industry, with the unique important feature of this grass base, is its mesh body, which is the most used in green spaces and parks. This product is the best option for lighting parks and green spaces by providing light in accordance with lighting standards.

- Strong structure
- Durability of lamp cover in harsh environmental conditions
- High degree of protection
- Perfectly symmetrical light distribution
- The ability to produce lights in different sizes
- High optical efficiency and lifetime
- Design and manufacture to customer order

Height (cm) Color Type	Body Material	Type of Talc	
80	Static powder	Metal mesh	Polycarbonate	





Model: Sabalan Grass Base

Lawn lights with an eye-catching design and a completely architectural light design. The important feature of this grass foundation is its mesh body, which is the most used in green spaces and parks. This product is the best option for lighting parks and green spaces by providing light in accordance with the lighting standards of green spaces. Also, this type of lights is designed and manufactured with the most advanced techniques. This type of light is available for use in open spaces, green spaces, and gardens.

- Strong structure
- Durability of lamp cover in harsh environmental conditions
- High degree of protection
- Perfectly symmetrical light distribution
- The ability to produce lights in different sizes
- High optical efficiency and lifetime
- Design and manufacture to customer order

Height (cm)	Color Type	Body Material	Type of Talc	Pot Material
80	Static powder	Metal mesh	Polycarbonate	Aluminum







A-Bulb-Bubble Lamp							
Specifications	7 watts	9 watts	12 watts	15 watts	18 watts	20 watts	25 watts
Frequency	50Hz ~ 60Hz						
Ingress Protection (IP)	IP20						
Maintain Optical Flux	70% <						
Displacement Coefficient	0.9						
Energy Efficiency Group				A+			
Flicker	FREE						
CRI	%80<						
Voltage (V)	175~265V						
Photometric Code	865/7*7*7 & 830/7*7*7						
Permissible Range of Ambient	-10 ~ 40 Degrees Celsius						
Temperature	To a 40 Degrees Ceisius						
SDCM	7 >						
LED type / Technology	2835 / SMD						
Lifespan (hours)	20,000						
Body and Bubble Color	Matte White						
Body Material	Plastic						
Lumens per Watt	95 ~ 105	100 ~ 110	95 ~ 105	95 ~ 105	90 ~ 100	95 ~ 100	95 ~ 105
Optical Flux (lumen)	665 ~ 700	880 ~ 980	1100 ~ 1200	1450 ~ 1550	1750 ~ 1680	1850 ~ 2000	2450 ~ 265
Screw Type				E27			
Color Temperature (K)				3000-6500			
Current (mA)	58	75	100	124	124	150	150
Bulb Diameter x Bulb Length	110mm ±5% ×60mm ±5%	112mm ±5% ×60mm +5%	125mm ±5% ×65mm +5%	136mm ±5% ×70mm +5%	157mm ±5% ×80mm +5%	150mm ±5% ×80mm ±5%	150mm ±59 ×80mm ±59
Bubble Material	00111111 2370	00111111 = 370		lycarbonate		00111111 = 570	00111111 23
Weight	26gr ±5%	25.5gr ±5%	38gr ±5%	42gr ±5%	56gr ±5%	61gr ±5%	61gr ±5%
Power Factor				PF>0.5			
Angle of Radiation			2	20 degrees			
Usage		Administ	rative - Com	nmercial - Ge	eneral - Resi	dential	
Warranty Period				2 years			
Light Color				2 years			

Specifications	20 watts	30 watts	40 watts	50 watts			
Frequency	50Hz ~ 60Hz						
Ingress Protection (IP)							
Maintain Optical Flux	IP20 70% <						
Displacement Coefficient	0.9						
Energy Efficiency Group	0.3 A+						
Flicker		FREE	<u> </u>				
CRI							
Voltage (V)		175~26					
Photometric Code		865/7*7*7 &	830//*/*/				
Permissible Range of Ambient	-10 ~ 40 Degrees Celsius						
Temperature							
SDCM	7 >						
LED type / Technology	2835 / SMD						
Lifespan (hours)	20,000						
Body and Bubble Color	Matte White						
Body Material	Plastic						
Lumens per Watt	90 ~ 100	95 ~ 105	90 ~ 95	90 ~ 100			
Optical Flux (lumen)	1800 ~ 1900	2850 ~ 3000	3400 ~ 3650	4500 ~ 4750			
Screw Type		E27		•			
Color Temperature (K)		3000-65	500				
Current (mA)	160	232	100	380			
Bulb Diameter x Bulb Length	142mm ±5% ×80mm ±5%	167mm ±5% ×100mm ±5%	190mm ±5% ×122mm ±5%	233mm ±5% ×138mm ±5%			
Bubble Material	**************************************	Polycarbo		13011111 2370			
Weight	63gr ±5%	98gr ±5%	150gr ±5%	210gr ±5%			
Power Factor		PF>0.	5	•			
Angle of Radiation		220 degr	rees				
Usage	Admir	nistrative - Commercial	- General - Residentia	1			
Warranty Period		2 year	·S				
Light Color		 Moonlight-					





Candle Bubble Lamp				
Specifications	6 watts 7 watts	5		
Frequency	50Hz ~ 60Hz			
Ingress Protection (IP)	IP20			
Maintain Optical Flux	70% <			
Displacement Coefficient	0.9			
Energy Efficiency Group	A+			
Flicker	FREE			
CRI	%80<			
Voltage (V)	175~265V			
Photometric Code	865/7*7*7 & 830/7*7*7			
Permissible Range of Ambient	-10 ~ 40 Degrees Celsius			
Temperature	-10 ~ 40 Degrees Cersius			
SDCM	7 >			
LED type / Technology	2835 / SMD			
Lifespan (hours)	20,000			
Body and Bubble Color	Matte White			
Body Material	Plastic			
Lumens per Watt	90 ~ 100			
Optical Flux (lumen)	540 ~ 570 650 ~ 700)		
Screw Type	E14			
Color Temperature (K)	3000-4000-6500			
Current (mA)	55			
Bulb Diameter x Bulb Length	110mm ±5% ×38mm ±5%			
Bubble Material	Polycarbonate			
Weight	25gr ±5%			
Power Factor	PF>0.5			
Angle of Radiation	220 degrees			
Usage	Residential - All kinds of Chandeliers and Decorative Lights -	Hotel		
Warranty Period	2 years			
Light Color	Moonlight-Sunny			

Specifications 6 watts	7 watts			
Frequency 50Hz ~	60Hz			
Ingress Protection (IP)	20			
Maintain Optical Flux 70%) <			
Displacement Coefficient 0.9	9			
Energy Efficiency Group	+			
Flicker FRE	E			
CRI %80)<			
Voltage (V) 175~2	265V			
Photometric Code 865/7*7*7 &	830/7*7*7			
Permissible Range of Ambient -10 ~ 40 Deg	rees Celsius			
Temperature	rees censius			
SDCM 7 >				
LED type / Technology 2835 / S	SMD			
Lifespan (hours) 20,00	20,000			
Body and Bubble Color Matte W	Matte White			
Body Material Plast	ic			
Lumens per Watt 90 ~ 1	00			
Optical Flux (lumen) 540 ~ 570	630 ~ 665			
Screw Type E14				
Color Temperature (K) 3000-400	00-6500			
Current (mA) 55				
Bulb Diameter x Bulb Length 134mm ±5% ×	<36mm ±5%			
Bubble Material Polycar				
Weight 25gr				
Power Factor PF>	0.5			
	220 degrees			
	Residential - All kinds of Chandeliers and Decorative Lights - Hotel			
Usage Residential - All kinds of Chandeli	<u> </u>			
	iers and Decorative Lights - Hotel			





Halogen lamp GU10						
Specifications	6 watts	7 watts				
Frequency	50Hz ~	- 60Hz				
Ingress Protection (IP)	IP?	20				
Maintain Optical Flux	70% <					
Displacement Coefficient	0.9					
Energy Efficiency Group	A+					
Flicker	FR	EE				
CRI	%8	0 <				
Voltage (V)	175~	265V				
Photometric Code	865/7*7*7 8	% 830/7*7*7				
Permissible Range of Ambient	-10 ~ 40 Dec	arees Celsius				
Temperature	-10 ~ 40 Degrees Celsius					
SDCM	7 >					
LED type / Technology	2835 / SMD					
Lifespan (hours)	20,000					
Body and Bubble Color	Matte White					
Body Material	Plastic					
Lumens per Watt	90 ~ 100	95 ~ 100				
Optical Flux (lumen)	530 ~ 560	700 ~ 650				
Screw Type	E14					
Color Temperature (K)	3000-400	00-6500				
Current (mA)	5.					
Bulb Diameter x Bulb Length	58mm ±5% ×50mm ±5%					
Bubble Material		1MA				
Weight	<u> </u>	±5%				
Power Factor	0.5	5 <				
Angle of Radiation	60 de	egrees				
Socket	GI	J10				
Usage	General- Residential- Decorative Li	ghting - Local and Focused Lighting				
Warranty Period	2 y	ears				
Light Color	Moonlight	-Sunny- Icy				



IN KETROWA BUSINESS MODEL, MASS BUILDERS ARE THE MOST IMPORTANT TARGET CUSTOMERS.

