CHANGING THE FACE OF URBAN CITIES

LED STREET LIGHTING

BRANCH OFFICES

NORTH REGION
Chandigarh Tel.: 0172-5103322
Delhi Tel.: 011-66416100
Jalandhar Tel.: 0184-2368240
Ludhiana Tel.: 0522-4938003-30
Noida Tel.: 0120-4040400

EAST REGION
Bhubaneswar Tel.: 0674-2350607, 2356980, 2394052
Guwahati Tel.: 0361-2346497, 2346498, 2346499
Kolkata Tel.: 033-22622444
Patna Tel.: 0612-2220556

CENTRAL REGION
Indore Tel.: 0731-4271440/4271439
Nagpur Tel.: 0722-2811206

WEST REGION
Ahmedabad Tel.: 079-27543964, 27543967
Mumbai Tel.: 022-22043841
Pune Tel.: 020-26302000/26302001

SOUTH REGION
Bangalore Tel.: 080-46339000
Chennai Tel.: 044-50662200
Cochin Tel.: 0484-2391119, 2392039
Hyderabad Tel.: 040-23442932, 23442933

LUMINAIRES BUSINESS UNIT,
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Off Eastern Express Highway, Sion (E), Mumbai 400 022.
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www.bajajelectricals.com
This is not just a product brochure that displays the best street lighting solutions available in the country. This is the story of the bond that we share with your city. A city that shines like none other.

Light that radiates life!

Bajaj has installed more than 7,00,000 of LED streetlights across the country and is the undisputed leader in outdoor lighting space.
The city beams with pride, because of the warm glow of our LED streetlights, it makes the city seem majestic and truly special. The roads and alleyways of the city are always paved with safety and one can walk them without fear.

- More visibility for drivers, riders, and pedestrians
- Ensuring well-being in urban areas
- Artificially extending the hours with light so that activity can take place
- Illuminated surroundings
- Feelings of safety
- Reduction in accidents
- Provide ability to orientate yourself
- Dedicated lumen packages deliver energy savings of over 50%
- Reduction in CO2 emissions
- Mercury free - reducing contamination
- Directional light ensuring zero wastage of energy
- Directional light ensures light falling in areas where it is intended
- Reducing insect swarming nuisance
- Saving life and maintaining ecological balance
- Lowering cleaning costs for development authorities
- Correct outdoor lighting ensures clear black sky thus maintaining circadian rhythms on nocturnal animals and plants
- Reduction of ambient light levels in the sky makes the skies ‘night friendly’

City glows with warmth and a welcoming touch, it does not glare due to light pollution like so many others. Our LED streetlights minimizes glare, skyglow, clutter and light trespass, to enhance the health of residents, reduce harm to the environment and to decrease energy consumption.
Efficient Optical Control

Luminosity is the light output from a lamp. A small lamp producing a lot of light results in greater brightness and consequent glare when looked at directly. LED Street Lighting on the other hand consist of multiple light producing points thus reducing glare, also with the right type of secondary optics we can get precise distribution.

Unique peanut optics with bat wing profile ensures high efficiency & light uniformity across and along the road. Since all the light is directed downward, there is therefore no need to use reflectors to direct light downward. The consequent loss in light output due to limitations on reflector efficiency is avoided.

Classification of roads

Street lighting recommendations for different road types and junctions

<table>
<thead>
<tr>
<th>Classification of lighting installation</th>
<th>Type of road</th>
<th>Average illuminance on road surface</th>
<th>Uniformity Ratio</th>
<th>Transverse Uniformity</th>
<th>Junction Type</th>
<th>E av (Lux)</th>
<th>Drain/Eav</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A1</td>
<td>Important traffic routes carrying fast traffic</td>
<td>30</td>
<td>0.4</td>
<td>0.33</td>
<td>Key junctions &amp; complex flyover interchanges</td>
<td>50</td>
<td>0.4</td>
</tr>
<tr>
<td>Group A2</td>
<td>Other major roads carrying mixed traffic: local main city streets, arterial roads and throughway roads</td>
<td>5</td>
<td>0.4</td>
<td>0.33</td>
<td>Main city junctions without any interchanges</td>
<td>20</td>
<td>0.4</td>
</tr>
<tr>
<td>Group B1</td>
<td>Secondary roads with considerable local traffic: routes and shopping</td>
<td>8</td>
<td>0.3</td>
<td>0.2</td>
<td>Other smaller junctions</td>
<td>15</td>
<td>0.4</td>
</tr>
<tr>
<td>Group B2</td>
<td>Secondary roads with light traffic</td>
<td>4</td>
<td>0.3</td>
<td>0.2</td>
<td>Pedestrian crossings</td>
<td>50</td>
<td>0.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Bus bays</td>
<td>5</td>
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</table>

Selection of LED street light luminaires

Against conventional equivalents to achieve HIGH energy savings

<table>
<thead>
<tr>
<th>Road type</th>
<th>A1</th>
<th>A2</th>
<th>B1</th>
<th>B2</th>
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<tr>
<td>LED Luminaire</td>
<td>HPSV/400</td>
<td>BAJAJ LED</td>
<td>HPSV/250</td>
<td>EDGE LED</td>
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<tr>
<td>HPSV/150</td>
<td>EDGE LED</td>
<td>HPSV/70</td>
<td>EDGE LED</td>
<td>36W</td>
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<tr>
<td>Wattage consumption</td>
<td>445W</td>
<td>210W</td>
<td>285W</td>
<td>120W</td>
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<tr>
<td>Delivered lumens</td>
<td>36765</td>
<td>22600</td>
<td>21800</td>
<td>12500</td>
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<tr>
<td>Pole distance</td>
<td>30</td>
<td>30</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Mounting height</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Overhang</td>
<td>1.50</td>
<td>1.50</td>
<td>1.50</td>
<td>1.50</td>
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<tr>
<td>Average lux level achieved</td>
<td>38</td>
<td>40</td>
<td>20</td>
<td>22</td>
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<tr>
<td>Uniformity</td>
<td>0.40</td>
<td>0.55</td>
<td>0.45</td>
<td>0.50</td>
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<tr>
<td>Energy Savings</td>
<td>53%</td>
<td>58%</td>
<td>59%</td>
<td>57%</td>
</tr>
</tbody>
</table>

Lux level and uniformity

LED Luminaires

HPSV Luminaires
EDGE LED STREETLIGHT

High performance versatile built to last

- 100 Lm/W delivered.
- Increased savings to customer.
- Pressure die cast housing with toughened glass.
- Secondary optics for better light distribution.
- Driver protection against lightning, overvoltage, short-circuit.
- Top maintenance – Access to driver is from top.
- Ingress protection: IP66
- Impact resistance: IK07

APPLICATION
• City roads / highways
• Periphery / security lighting
• Industry and office campuses
• Parking areas, parks and gardens

FEATURES
• Wide wattage range for all applications in a city

EDGE product range is available in 5 sizes, with a lumen package ranging from 3600 upto 22000 lumens. With numerous highly efficient lighting distribution and various control options, the range can meet all your road and urban lighting needs with the lowest investment.

ENHANCED ELECTRICAL SAFETY

To reduce wind resistance
The streetlights are designed in a way so that the luminaire gets the least amount of aerodynamic drag or resistance resulting from wind intensity and direction thus improving wind load bearing capacity of the luminaire.

The new generation of LED luminaires have been designed with enhanced safety features for better luminaire life and low maintenance. The drivers are equipped with high voltage cut off function so that the luminaire gets off while high voltage is applied, also 5kV internal surge protection within the driver and 10kV external surge protection external to driver is provided for additional safety against high surge. Reverse polarity ensures trouble free connections even if there is any human error involved while connecting the luminaires.

UNO DESIGN FAMILY

Pipe Entry
Pipe Entry

EDGE streetlights are a keen blend of versatility, durability, energy savings and high-temperature resistance. EDGE literally gives the city its edge. The streets gleam with its excellence and warmth. It is a model citizen of the city, reducing light pollution by eliminating stray light.
EDGE STREETLIGHTS

Edge Streetlights can be monitored smartly through RF/GPRS/GSM technology. This system enables communication between each street light using RF Transceiver Module. This is the computer based control station from which the entire area can be monitored & controlled using wireless communication, depending on the Traffic flow.

Note: Smart control options are available only on request.

SMART AND CONNECTED

ASSET MONITORING  DIMMING  TIME BASED SCHEDULING  SENSOR BASED CONTROL  LUMINAIRE BURN HOURS

DASHBOARD & REPORTING  APPLICATION  ENERGY MONITORING  LOCATION MAPPING  ALERTS & ALARMS

Warm is welcoming. Warm lights depict the true colour of our rich heritage. Since warm lights have a lower percentage of blue and green wavelengths, warmth could be better in the evening so as not to upset your sleep pattern.

EDGE streetlights can be offered with Warm White light option making streets more inviting and offering greater visibility in rains and fog.

Street Lighting outside CSMT Railway Station

S Bridge Lower Parel, Mumbai Crawford Market, Mumbai

Warm White LED Street Lights

Street Lighting outside CSMT Railway Station

S Bridge Lower Parel, Mumbai Crawford Market, Mumbai
BAJAJ continues to raise the bar on performance and lower the total cost of ownership by delivering higher value to municipalities and facility managers. The new **EDGE PLUS** street light with its unrivalled lumen output for roadway lighting and economic performance expands the application range replacing up to 250W HPSV/MH street lights.

**EDGE PLUS** series the perfect fit for a wide array of roadway applications helping to improve the economic value for development authorities, municipalities or owned utilities.

**EXCELLENT THERMAL MANAGEMENT**

LED Streetlights are very reliable, but the reliability depends upon excellent thermal design around the product and components. LEDs produce significant heat at the semiconductor junction. This heat can have an adverse effect on the LED and therefore must be managed to ensure that the true benefits of solid-state lighting are realized.

**SUPERIOR FINISH**

No surface resistance on flatter solid sections with greater corrosion resistance, high strength and wear resistance and amazing dimensional accuracy. It is non-toxic with smoother cast surface finish, improved mechanical properties and thinner walls too.

**TOP OPENABLE DRIVER COMPARTMENT**

For ease of maintenance

The luminaires are designed in a way that there are two separate compartments, one for optical assembly & the other for driver. Top maintainable driver compartment ensures faster maintenance of drivers without compromising on optical compartment protection against water and dust (IP).
VARIANTS

Indore Municipal Corporation

ADG, Than-i-Hi Road, Lucknow

Parle-Go Port, Orissa

EDGE PLUS 15/20/25/30W LED
EDGE PLUS 45/60/72W LED
EDGE PLUS 90W LED
CUB MINI LED STREETLIGHT

Sleek durable appealing

- Epoxy powder coated high pressure die cast aluminum housing
- Clear polycarbonate front cover with SS screws
- Weatherproof gasket for Lamp and control Gear accessories
- Drivers with in-built 5kV surge protection
- Input voltage range from 140-280VAC
- Ingress protection : IP65

FEATURES

APPLICATION

- Residential Complex
- Small traffic round - about
- Lighting of secondary roads / side roads
- Parks & gardens
- Security lighting

LINE DIAGRAM

50000 hrs. rated life compared to 8000-10000 hours of CFL/FTL

HIGH PERFORMANCE

- Provides 100 lumens/watt
- Secondary optics improving light distribution

AESTHETICS DESIGN

- Superior aesthetics
- High heat dissipation capability

LONG LIFE

- 50000 hrs. rated life compared to 8000-10000 hours of CFL/FTL

LOW OPERATION COST

- Easy replacement of conventional luminaires ensures reduction in maintenance cost and savings on energy by more than 50%

ENVIRONMENTAL CONSCIENCE

- No use of hazardous materials like lead & mercury
- Minimizing contamination of air and water

CUB mini is a perfect solution for secondary roads, parks gardens and pathways. It is aesthetically appealing due to its compact design and offers wide range of outdoor solutions with reduced cost of ownership. It can very well replace most of the fluorescent based luminaires (CFL/FTL) and also ensures uniform lighting distribution.

All dimensions in mm (Tolerance +/-5)
<table>
<thead>
<tr>
<th>Product Code</th>
<th>Product Cat. Ref.</th>
<th>Wattage</th>
<th>Efficacy</th>
<th>CCT</th>
<th>CRI</th>
<th>IP</th>
<th>IK</th>
<th>PF</th>
<th>THD</th>
</tr>
</thead>
<tbody>
<tr>
<td>169913</td>
<td>BRTFG 36W LED</td>
<td>36</td>
<td>≥100lm/W</td>
<td>5700K</td>
<td>x 300K</td>
<td>&gt; 70</td>
<td>IP65</td>
<td>K-07</td>
<td>0.95</td>
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<tr>
<td>169799</td>
<td>BRTFG 45W LED V1</td>
<td>45</td>
<td>≥100lm/W</td>
<td>5700K</td>
<td>x 300K</td>
<td>&gt; 70</td>
<td>IP65</td>
<td>K-07</td>
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<td>169885</td>
<td>BRTFG 72W LED V1</td>
<td>72</td>
<td>≥100lm/W</td>
<td>5700K</td>
<td>x 300K</td>
<td>&gt; 70</td>
<td>IP65</td>
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<tr>
<td>169900</td>
<td>BRTFG 75W LED V2</td>
<td>75</td>
<td>≥100lm/W</td>
<td>5700K</td>
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<td>&gt; 70</td>
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<td>169883</td>
<td>BRTFG 80W LED V3</td>
<td>80</td>
<td>≥100lm/W</td>
<td>5700K</td>
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<td>&gt; 70</td>
<td>IP65</td>
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<td>169901</td>
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<td>x 300K</td>
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<td>169902</td>
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<td>100</td>
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<td>x 300K</td>
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<td>169800</td>
<td>BRTFG 90W LED V3</td>
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<td>≥100lm/W</td>
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<td>x 300K</td>
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<tr>
<td>169915</td>
<td>BRTFG 180W LED V3</td>
<td>180</td>
<td>≥100lm/W</td>
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<td>x 300K</td>
<td>&gt; 70</td>
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<tr>
<td>169837</td>
<td>BRTFG 210W LED V3</td>
<td>210</td>
<td>≥100lm/W</td>
<td>5700K</td>
<td>x 300K</td>
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<tr>
<td>On Request</td>
<td>BRTFG 250W LED</td>
<td>250</td>
<td>≥100lm/W</td>
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<td>x 300K</td>
<td>&gt; 70</td>
<td>IP65</td>
<td>K-07</td>
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**EDGE LED STREETLIGHTS (WARM WHITE)**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Product Cat. Ref.</th>
<th>Wattage</th>
<th>Efficacy</th>
<th>CCT</th>
<th>CRI</th>
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<th>PF</th>
<th>THD</th>
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<tbody>
<tr>
<td>169884</td>
<td>BRTFG 45W LED WW</td>
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<td>3000K</td>
<td>± 300K</td>
<td>&gt; 65</td>
<td>IP65</td>
<td>K-07</td>
<td>0.95</td>
</tr>
<tr>
<td>169885</td>
<td>BRTFG 100W LED WW</td>
<td>100</td>
<td>≥95lm/W</td>
<td>3000K</td>
<td>± 300K</td>
<td>&gt; 65</td>
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<td>169888</td>
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<td>169886</td>
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<td>3000K</td>
<td>± 300K</td>
<td>&gt; 65</td>
<td>IP65</td>
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**EDGE PLUS LED STREETLIGHTS**

<table>
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<tr>
<th>Product Code</th>
<th>Product Cat. Ref.</th>
<th>Wattage</th>
<th>Efficacy</th>
<th>CCT</th>
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<th>IP</th>
<th>IK</th>
<th>PF</th>
<th>THD</th>
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<tbody>
<tr>
<td>On Request</td>
<td>BRL EP 15W LED</td>
<td>15</td>
<td>≥95lm/W</td>
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<td>± 300K</td>
<td>&gt; 70</td>
<td>IP65</td>
<td>K-07</td>
<td>0.95</td>
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<td>On Request</td>
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<td>IP65</td>
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<tr>
<td>169826</td>
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<td>169827</td>
<td>BRL EP 30W LED WH</td>
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<td>≥95lm/W</td>
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<td>169841</td>
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<td>K-07</td>
<td>0.95</td>
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**CUB MINI LED STREET LIGHTS**

<table>
<thead>
<tr>
<th>Product Code</th>
<th>Product Cat. Ref.</th>
<th>Wattage</th>
<th>Efficacy</th>
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<tr>
<td>169828</td>
<td>BCL ST 15W LED I</td>
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<td>x 300K</td>
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<tr>
<td>169829</td>
<td>BCL ST 20W LED I</td>
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<tr>
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<tr>
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<td>IP65</td>
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<tr>
<td>On Request</td>
<td>BCL ST 36W LED</td>
<td>36</td>
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<td>x 300K</td>
<td>&gt; 70</td>
<td>IP65</td>
<td>K-07</td>
<td>0.95</td>
</tr>
</tbody>
</table>