**Orbeon** is an energy-saving high performance LED parking garage and canopy luminaire which utilizes high powered LEDs, precise efficient optical control, and features application versatility through integrated intelligent control options. Orbeon is designed to replace up to 175 Watt HID lamps with 60 watts, and at the same time reduce maintenance by delivery of over 100,000 hours of projected life.

- Compact size measuring only 5.3" x 11.25"
- Certified to UL 1598 and 8750 for use in wet locations.
- Monolithic die cast aluminum housing provides direct convective heat exchange between LED light engine and cool ambient air.
- 120V through 277V, 50 Hz to 60 Hz.
- Electro-galvanized mounting bracket for quick and easy mounting to overhead junction box.
- 20KA surge protection standard.
- Electrical components are rated at 100,000 hours at full load and 25°C ambient conditions.
- An optional bird guard provides a conical surface surrounding the junction box, to deter birds from nesting atop the luminaire.
- Optional Beaconnect lighting control provides an affordable and reliable controls solution.
- LED drivers are strategically heat sinked to the main housing for maximum reliability and longevity.
- Four unique lighting distributions (see pg. 10).

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Equivalency</th>
<th>Delivered Lumens</th>
<th>System Watts</th>
<th>Lumens Per Watt</th>
<th>Beam Pattern</th>
<th>CCT</th>
<th>Voltage</th>
<th>Drive Current</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORB / 18LED-60 / SK / LSW / UNIV / GYS</td>
<td>MH 175w, HPS 150w</td>
<td>7,085</td>
<td>63</td>
<td>112</td>
<td>Wide</td>
<td>5000K</td>
<td>120-277V</td>
<td>1000mA</td>
</tr>
</tbody>
</table>
**Quick Mount**

Electro-galvanized mounting bracket is provided for quick and easy mounting to an overhead junction box.

**Diffused Drop Lens**

The optional diffused drop lens is a one-piece injection molded impact resistant acrylic lens. It provides a soft glow and reduces the light intensity of the LEDs for applications such as drive through lanes or commercial canopies.

**Bird Guard**

An optional bird guard provides a conical surface surrounding the junction box to deter birds from nesting atop the luminaire.

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**Mounting Instructions**

1. **Loosen Phillips screw** that holds the bracket to the housing.
2. **Remove bracket** from Orbeon housing. Attach the mounting bracket to the junction box using screws. Junction box may be surface mounted, recessed or suspended.
3. If provided with the optional bird guard, secure bracket to the housing using screws provided.
4. **Hook the Orbeon housing to the bracket.**
5. **Assure bracket is square with traffic** for aesthetics.
7. **Observe “street side” label** if directional optics are provided.
8. **Turn power on and test.**
Product Features

**Mounting Bracket**
Electro-galvanized mounting bracket is provided for quick and easy mounting to an overhead junction box.

**Construction**
Monolithic die-cast aluminum housing provides direct convective heat exchange between the LED light engine and the cool ambient air.

**LED**
Silicone foam gasketing ensures a weather tight seal around the optical assembly. Four unique PMMA optics or diffused drop lens available. Available in 3000, 4000 or 5000K. 70 CRI min standard.

**Beaconnect Motion Sensor**
Optional high/low dimming motion detector is designed to be a zone master. The motion detector can be programmed to synchronize non-motion control fixtures into a motion detecting zone without the use of extra dimming wires.

**Thermal Regulation**
LED light engine with thermally conductive metal clad PCB directly connected to vented aluminum housing for maximum thermal dissipation. Beaconnect equipped luminaires automatically reduce power output as needed to protect the luminaire from abnormally high temperatures.
Quick Installation
Eight pound luminaire body is easily hung from the mounting bracket to facilitate wiring, then is swung up and secured in place with a single screw to complete the installation process.

Bird Guard
Optional bird guard provides a conical surface surrounding the junction box, to deter birds from nesting atop the luminaire.

Electrical
All electrical components are rated at over 100,000 hours at full load and 25°C ambient conditions.

Beaconnect Controls
Proprietary Beaconect module is tightly integrated to the LED engine for an affordable solution with quick return on investment.
Energy Savings

The Orbeon is a high performance energy-saving solution that can dramatically reduce energy costs and positively impact the value and marketability of your commercial project.

<table>
<thead>
<tr>
<th>175 Watt MH Garage Lighter</th>
<th>ORB18NB-60-5K-T5W-UNV</th>
</tr>
</thead>
<tbody>
<tr>
<td>213W</td>
<td>63W</td>
</tr>
<tr>
<td>10,000 hours max lamp life</td>
<td>100,000 hours luminaire life</td>
</tr>
<tr>
<td>Replace lamps every 1.5 years</td>
<td>Replace every 10+ years</td>
</tr>
</tbody>
</table>

*Annual Energy Savings $108
*Lifetime Energy Savings $1,080

*Based on $.11 per KWH and 6,552 burn hours annually.
We have made lighting control simple, affordable and reliable...

It’s as simple as Specify-Ship-Install
Beaconnect luminaires can arrive to the site pre-programmed and ready to install, yet Beaconnect has the flexibility to modify the schedules in the field at anytime. This eliminates the cost and complication of field commissioning by factory experts.

Wireless without the complication & cost of a web-based system
Each fixture operates independently and yet can communicate with each other when needed as a mesh system. This means all fixtures can be scheduled to be synchronized with sensors by group, by zones or dimmed by time.

Safe and Secure
Beaconnect is not a web based system. It is cyber safe because the system stands independently from any existing on-site wireless systems. With no gateway requirements, there is no access through Beaconnect to other IT systems or the web.
**Group Motion Control** *(large groups of luminaires)*

One or more motion sensor luminaires can be group synchronized to one or more large groups of luminaires.

---

**Beaconnect Motion Sensors**

Sensors are dual capacity devices with the ability to detect and synchronize luminaires to switch to 100% light output as a group or a zone. Because they work in groups, this eliminates the need to install sensors on each luminaire. The sensor range is 40-50 feet in diameter from an eight foot mounting height (higher mounting options available).

**Orbeon Luminaires**

Typical 30' on-center spacing.

---

**No On-Site Commissioning**

Luminaires shipped factory programmed to eliminate on-site commissioning. No additional control wires required. Specify groups or zones, percent to dim, time delay at 100%
Zone Motion Control (smaller groups of luminaires)

Motion sensor luminaires can be group synchronized into tighter zones of luminaires.

**Beacon Daylight Sensors**
Daylight zones will override electric lighting levels when ambient daylight exists. The system will inhibit the motion control from activating when light levels are sufficient in the space, and will remain in daylight mode until natural light levels decrease to the point where electric light contributions are once again required.

**Beacon Motion Sensors**
Sensors are dual capacity devices with the ability to detect and synchronize luminaires to switch to 100% light output as a group or a zone. Because they work in groups, this eliminates the need to install sensors on each luminaire. The sensor range is 40-50 feet in diameter from an eight foot mounting height (higher mounting options available).

**Orbeon Luminaires**
Typical 30’ on-center spacing.
Recommended Distributions

L5W/T5W

The wide round distribution of the T5W is ideal for applications where the spacing exceeds 3 mounting heights and fewest amount of fixtures is a priority.

T5R

The T5R was designed for drive lane applications and can be used in either single or double row applications. Its rectangular distribution provides a lower peak angle, minimizing glare to the driver while providing a wider side to side distribution to light the spaces between the cars.

T5QM

The T5QM was designed for applications when low brightness is preferred and fixture spacing is 3 mounting heights or less. It is also a good choice when average FC required exceeds 6-fc.

T5QN

The T5QN is a great choice for entrance and exit areas that require higher light levels directly under the fixture. Its narrow distribution gives the punch required while minimizing glare to the driver in this crucial transition area.
## Lighting For Parking Garages

**Recommended Illumination Values**

<table>
<thead>
<tr>
<th></th>
<th>Vertical</th>
<th>Max/Min</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>0.5 fc</td>
<td>10:1</td>
</tr>
<tr>
<td><strong>Inactive</strong></td>
<td>0.1 fc</td>
<td>10:1</td>
</tr>
</tbody>
</table>

**Vertical Illumination**

<table>
<thead>
<tr>
<th></th>
<th>Vertical</th>
<th>Max/Min</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>1.0 fc</td>
<td>10:1</td>
</tr>
<tr>
<td><strong>Inactive</strong></td>
<td>0.2 fc</td>
<td>10:1</td>
</tr>
</tbody>
</table>

**Horizontal Illumination**

<table>
<thead>
<tr>
<th></th>
<th>Vertical</th>
<th>Max/Min</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>1.5 fc</td>
<td>5:1</td>
</tr>
<tr>
<td><strong>Inactive</strong></td>
<td>0.2 fc</td>
<td>5:1</td>
</tr>
</tbody>
</table>

**Very High Activity / Live Surveillance**

<table>
<thead>
<tr>
<th></th>
<th>Vertical</th>
<th>Max/Min</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>50 fc</td>
<td>10:1</td>
</tr>
<tr>
<td><strong>Inactive</strong></td>
<td>1.0 fc</td>
<td>10:1</td>
</tr>
</tbody>
</table>

**Entry / Exits**

<table>
<thead>
<tr>
<th></th>
<th>Vertical</th>
<th>Max/Min</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>50 fc</td>
<td>10:1</td>
</tr>
<tr>
<td><strong>Inactive</strong></td>
<td>1.0 fc</td>
<td>10:1</td>
</tr>
</tbody>
</table>

---

1. Vertical illumination is 50% of horizontal illumination
2. Garages should have energy controls. Active = high inactive = low
3. Per IES RP-20-14

### Sample Calculation Area

Sample calculations are based on a 2 row configuration with a 30’ x 30’ luminaire spacing beginning 15’ from each wall. Single row calculations are based on a 20’ luminaire spacing beginning 30’ from each wall. Entrances and exit area calculations are based on 2 rows with 8’ luminaire spacing beginning 4’ from each wall.

### Sample Calculations

Sample calculations are based on a 2 row configuration with a 30’ x 30’ luminaire spacing beginning 15’ from each wall.

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Avg</th>
<th>Max</th>
<th>Min</th>
<th>Avg/min</th>
<th>Max/Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORB/18LED-60/5K/T5W</td>
<td>6.63</td>
<td>10.1</td>
<td>2.8</td>
<td>2.37</td>
<td>3.61</td>
</tr>
<tr>
<td>ORB/18LED-60/5K/T5R</td>
<td>7.17</td>
<td>11.2</td>
<td>3.1</td>
<td>2.31</td>
<td>3.61</td>
</tr>
</tbody>
</table>
Product Solutions

Beacon Products is the complete solution for all your parking, garage and canopy product needs.

// Ceileo - Revolutionary LED Recessed Canopy Luminaire

// Cadet - Compact Field-Adjustable LED Floodlight

// Energeni - Total Control Delay and Dimming Device

// Viper - Award-Winning Area & Site Luminaire

// Alpha - Versatile, Efficient and High-Powered Floodlight

// Traverse - Energy-Reducing LED Wallpack

CEILEO Recessed Canopy

Ceileo is a commercial grade LED canopy luminaire that utilizes high powered LED’s with precise efficient optical control and on board wattage and lumen choices. Ceileo consumes only 55 watts and is designed to replace up to 250 watt HID systems, and at the same time reduce maintenance by delivering over 200,000 hours of projected life.

CADET LED Floodlight

The Cadet Floodlight is a high performance LED energy and maintenance lighting solution, designed with optical versatility. Markets include: Flags, Columns, Statues, Security, Building Flood-lighting, Landscapes. The Cadet LED Luminaire is intended to be used to reduce energy and maintenance associated with legacy HID lighting technology.

ENERGENI Compact Control

The ENERGENI lighting control system is a simple way for owners to save money by dimming the fixtures during unoccupied hours. The ENERGENI has flexible setting options to with fixtures activated by photocontrols or time clocks. The delay and dimming level options can be configured at the factory or re-configured at will in the field without the need for special cables or computers.
VIPER Luminaire

The Viper luminaire is available in two sizes with a wide choice of different LED wattage configurations and optical distributions designed to replace HID lighting up to 1000W MH or HPS and with 5 different mounting options for application in a wide variety of new and existing installations. The Viper is the Cutting Edge in LED style, performance and technology.

ALPHA LED Floodlight

For safety, security, outdoor storage, car lots, and recreational sports activities, the Alpha Flood is the energy and maintenance efficient LED powered flood light to specify. Whether pole mounted, wall mounted or base plate mounted, the Alpha eliminates spill light and light trespass making it an ideal instrument for lighting commercial facilities in residential and urban settings. Additionally, the Alpha can be specified for aiming either below horizontal or above horizontal.

TRAVERSE LED Wallpack

The Traverse LED wallpack has been created to optimize the LED source with its lighting performance and thermal management. Traverse is designed to retrofit your existing Wall Pack installations with a substantial reduction in energy, and as a contemporary, lightweight wallpack, it compliments many styles of construction. The Traverse is designed to meet strict lighting codes with environment-friendly full cutoff and is available in 6 different distributions.

All the LED product solutions you need for your next parking garage project.
ALERA LIGHTING

ARCHITECTURAL AREA LIGHTING

BEACON PRODUCTS

COLUMBIA LIGHTING

COMPASS

DEVINE LIGHTING

DUAL-LITE

HUBBELL BUILDING AUTOMATION

HUBBELL INDUSTRIAL LIGHTING

HUBBELL OUTDOOR LIGHTING

KIM LIGHTING

KURT VERSEN

LITECONTROL

PRESCOLITE

PROGRESS LIGHTING

SPAULDING LIGHTING

SPORTSLITER SOLUTIONS

STERNER LIGHTING

WHITNEY