

ORBEON SERIES

SURFACE/CEILING/GARAGE

Cat.#

Job

Type



Approvals

SPECIFICATIONS

Intended Use:

Orbeon is a commercial grade 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 100 Watt HID lamps with 40 watts and 175 Watt HID lamps with 60 watts while at the same time reducing maintenance by delivery of over 100,000 hours of projected life.

Construction:

- Monolithic die cast aluminum housing, providing direct convective heat exchange between the LED light engine and the cool ambient air.
- LED drivers are strategically heat sunked to the main housing for maximum reliability and longevity.
- Electro-galvanized mounting bracket is provided for quick and easy mounting to an overhead junction box.

LED/Optics:

- Each Orbeon luminaire is supplied with one of multiple lamp and optical systems designed to meet specific needs of optical performance or control.
- Each of these options features an LED engine with thermally conductive metal clad PCB, high power and efficient LED lamps, and PMMA (acrylic) optics/lenses.
- Silicone foam gasketing ensures a weather tight seal around the optical assembly.

Electrical:

- 120V through 277V, 50 Hz to 60 Hz.
- Orbeon comes standard with 70 CRI.
- Power factor is min 0.90 at full load.
- All electrical components are rated over 100,000 hours at full load and 25°C ambient conditions.
- Driver is specially designed to minimize the burden of wiring and connections within the luminaire - and the concurrent risk of failure of those components.
- Driver is also specially designed for use with SiteSync – including the ability to turn off LED lamps without use of a relay.

SiteSync™ Controls:

- In addition, Orbeon can be specified with SiteSync™ wireless control system for reduction in energy and maintenance cost while optimizing light quality 24/7. See ordering information or visit: www.hubbellighting.com/sitesync/ for more details.
- Dimming schedules, diagnostics, and other advanced features are optionally available through SiteSync lighting control system.

- Proprietary SiteSync board is tightly integrated to the LED module, for an affordable solution with aggressive return on investment times.
- Battery-backed real time clock.
- Self-contained wireless control for maximum simplicity and reliability.
- The feature shall be wirelessly adjustable with respect to dimmed and high brightness levels, cycle duration, time periods when the motion detection is active, and sensitivity level.
- A luminaire so equipped may also be set as a “master” to remotely drive one or more “satellite” luminaires to a high level upon detecting motion.
- This functionality can be used to limit motion sensors to strategic locations, with “satellites” acting in near unison and with minimal latency.
- An integrated photo sensor can be utilized for daylight harvesting by inhibiting motion activation in the presence of sufficient ambient light.

Installation:

- Eight pound luminaire body is easily hung from the bracket to facilitate wiring, then is swung up and secured in place with a single screw to complete the installation process.
- An optional bird guard provides a conical surface surrounding the junction box, to deter birds from nesting atop the luminaire.

Finish:

- IFS polyester powder-coat electrostatically applied and thermocured.
- IFS finish consists of a five stage pretreatment regimen with a polymer primer sealer and top coated with a thermoset super TGIC polyester powder coat finish.
- The finish meets the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance and resists cracking or loss of adhesion per ASTM D522 and resists surface impacts of up to 160 inch-pounds.

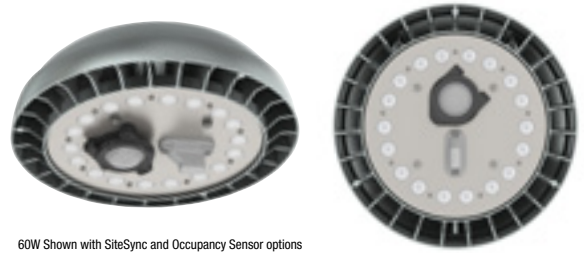
Listings:

The luminaire shall be NRTL certified to IP65, UL 1598 and 8750 standards for use in wet locations.

Warranty:

Five year limited warranty for more information visit: www.hubbellighting.com/resources/warranty

PRODUCT IMAGE(S)



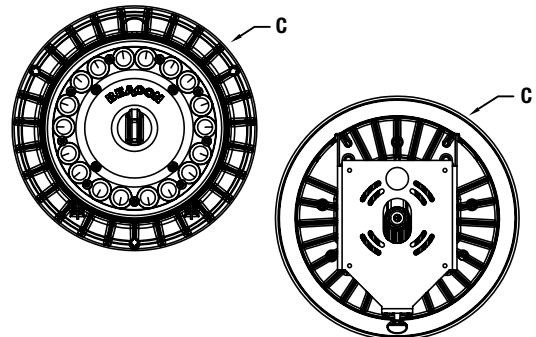
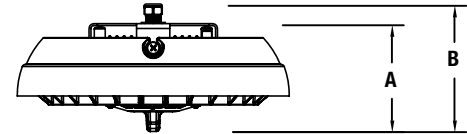
60W Shown with SiteSync and Occupancy Sensor options



40W version shown with Occupancy Sensor option

DIMENSIONS

Direct to Surface Mount



A	B	C	Weight:
4.5"	5.31"	11.25"	8.0 lbs
(114 mm)	(135 mm)	(286 mm)	(3 kg)

CERTIFICATIONS/LISTINGS



IP65



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ORDERING INFORMATION ORDERING EXAMPLE: ORB/18LED-60/5K/T5W/UNV/SWP/GYS

ORB				UNV		
SERIES	ENGINE-WATTS	LED COLOR	OPTICS	VOLTAGE	CONTROL/SENSOR OPTIONS	COLOR
ORB Orbeon surface/ceiling/garage luminaire	18LED-40 40W, 18 LED array 18LED-60 60W, 18 LED array	3K 3000K 4K 4000K 5K 5000K	L5W one-piece lens type V, wide T5W type V, wide T5R type V, rectangular T5QN type V, square narrow T5QM type V, square medium 5X5 type V, concentrated DF diffused lens T5RW type V, rectangular wide	UNV 120-277V	MOB ^{2,3,4} Occupancy Sensor (33% or 50% dimming) SWP ⁵ SiteSync Wireless Pre-Commission SWPM ^{3,5} SiteSync Wireless Pre-Commission w/ Occupancy Sensor	BL Black Textured DB Dark Bronze Textured GYS Light Gray Smooth PS Platinum Silver Smooth WH White Textured CC Custom Color

¹ Specify group and zone. See SiteSync product page on www.hubbellighting.com/controls/sitesync for more details.
² Specify time delay; dimming level and mounting height.
³ Not available with L5W or DF lens options.
⁴ Not available with other control or sensor options.
⁵ Not available with 18LED-40.

Accessories and Services (Ordered Separately)

Catalog Number	Description
SWUSB*^A	SiteSync interface software loaded on USB flash drive for use with owner supplied PC (Windows based only). Includes SiteSync license, software and USB radio bridge node.
SWTAB*^A	Windows tablet and SiteSync interface software. Includes tablet with preloaded software, SiteSync license and USB radio bridge node.
SWBRG*	SiteSync USB radio bridge node only. Order if a replacement is required or if an extra bridge node is requested.

PRECOMMISSIONED SITESYNC ORDERING INFORMATION: When ordering a fixture with the SiteSync lighting control option, additional information will be required to complete the order. The SiteSync Commissioning Form or alternate schedule information must be completed. This form includes Project location, Group information, and Operating schedules. For more detailed information please visit www.hubbell-automation.com/products/sitesync/ or contact Hubbell Lighting tech support at (800) 345-4928.

SiteSync fixtures with occupancy sensor (SWPM) require the mounting height of the fixture for selection of the lens.

Examples: ORB/18LED-60/4K/T5W/UNV/SWP/GYS SiteSync only
 ORB/18LED-60/4K/T5W/UNV/SWPM-8F/GYS SiteSync with Occupancy Sensor



SiteSync Lighting Control is available from our most popular brands in a broad range of award-winning product families.



DesignLights Consortium qualified. Consult DLC website for more details: <http://www.designlights.org/QPL>

*When ordering SiteSync at least one of these two interface options must be ordered per project.
 + If needed, an additional Bridge Node can be ordered.
 ^ Available on 18LED-60 only.

PERFORMANCE DATA

# LED'S	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
				LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G	LUMENS	LPW ¹	B	U	G
18	700	40W	DF	4014	94	2	3	2	3974	93	2	3	2	3849	90	2	3	2
			5x5	4763	111	3	0	1	4715	110	3	0	1	4622	108	3	0	1
			L5W	5233	122	3	0	2	5180	121	3	0	2	5077	119	3	0	2
			T5QM	4694	110	3	0	1	4645	109	3	0	1	4552	106	3	0	1
			T5QN	4846	113	2	0	0	4797	112	2	0	0	4702	110	2	0	0
			T5R	4786	112	3	0	3	4738	111	3	0	3	4643	108	3	0	3
			T5RW	4671	110	3	0	1	4626	109	3	0	1	4466	104	3	0	1
	T5W	4600	107	3	0	1	4555	106	3	0	1	4398	103	3	0	1		
	1000	60W	DF	5428	88	2	3	2	5374	87	2	3	2	4614	75	2	3	2
			5x5	6441	104	3	0	1	6377	103	3	0	1	5540	90	3	0	1
			L5W	7077	115	3	0	2	7006	114	3	0	2	6086	99	3	0	2
			T5QM	6348	103	3	0	1	6282	102	3	0	1	5457	88	3	0	1
			T5QN	6554	106	2	0	0	6488	105	2	0	0	5636	91	2	0	0
			T5R	6472	105	3	0	3	6407	104	3	0	3	5566	90	3	0	3
T5RW			6317	102	3	0	1	6256	101	3	0	1	5353	87	3	0	1	
T5W	6221	101	3	0	1	6160	100	3	0	1	5272	85	3	0	1			

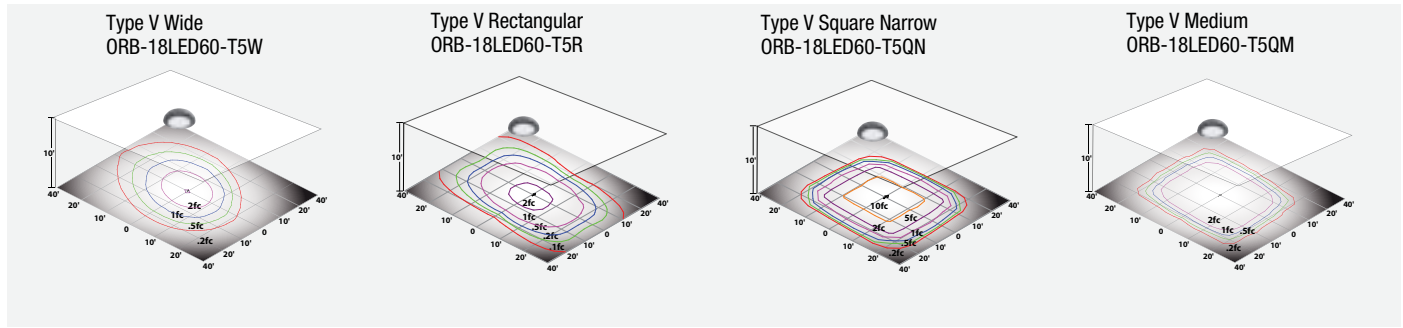
¹Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown. Actual performance may differ as a result of end-user environment and application.



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PHOTOMETRICS



PROJECTED LUMEN MAINTENANCE

System Power	AMBIENT TEMP.	0	25,000	50,000	TM-21-11 60,000	100,000	Calculated L70 (HOURS)
40W	25°C/77°F	1.00	0.98	0.96	0.95	0.92	>345,000
40W	40°C/104°F	1.00	0.98	0.95	0.94	0.91	>340,000
60W	25°C/77°F	1.00	0.98	0.95	0.94	0.91	>340,000
60W	40°C/104°F	1.00	0.97	0.94	0.93	0.89	>315,000

¹ Projected per IESNA TM-21-11

Data references the extrapolated performance projections for the base model in a 40°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.

ELECTRICAL DATA

# OF LEDs	NUMBER OF DRIVERS	DRIVE CURRENT (mA)	INPUT VOLTAGE (V)	SYSTEM POWER (w)	CURRENT (Amps)
18	1	700mA	120	42	0.36
			277	40	0.16
		1000mA	120	63	0.53
			277	62	0.24

MOUNTING INSTRUCTIONS



Loosen Phillips screw that holds the bracket to the housing.



Remove bracket from Orbeon housing. Attach the mounting bracket to the junction box using screws. Junction box may be surface mounted, recessed or suspended.



If provided with the optional bird guard, secure bracket to the housing using screws provided.



Hook the Orbeon housing to the bracket.



Assure bracket is square with traffic for aesthetics.



Secure the Orbeon housing by tightening the Phillips screw loosened in step 1.



Observe "street side" label if directional optics are provided.



Turn power on and test.