Section P

Lighting

Section P – Lighting

Please let us know if a full photometric plan is required. Attached is an overview of the lighting plan and cut sheets of potential lighting fixtures to be used.

82 HANOVER STREET
PORTLAND, ME

FEBRUARY 27, 2018

LIGHTING FIXTURE SCHEDULE
A = LED SURFACE MOUNTED CUT OFF DOWN LIGHT
B = LED DECORATIVE WALL SCONCE DOWN LIGHT

1 FIRST FLOOR REFLECTED CEILING PLAN
1/16" = 1'-0"

PROGRESS PRINT ONLY
Not for Construction

RYAN SENATORE **ARCHITECTURE**

GEOPAK SERIES SIZE 1 LED

Architectural Wallpack

TRP1/RDI1/QSP1

NEW

Cat.#	
Job	Type

HUBBELL Outdoor Lighting

Approvals

SPECIFICATIONS

APPLICATIONS

- Small sized architectural wallpacks in three stylish shapes with molded contours to accentuate building architecture. Provides excellent illumination in energy-saving LED systems.
- Back box accessory available for surface conduit application.

Construction:

- Housing is made from die-cast aluminum with a hinged back-plate for ease of installation and maintenance.
- The LED bezel and trim-plate are made of stainless steel.
- Five powder coat standard finishes, plus custom color options.
- Wet Location Listed to UL924 and UL1598 Standard.

LED:

- 12 high power LEDs delivering up to 3,000 lumens.
- Up to 118 lumens per watt
- Type II, III and IV distributions for a wide variety of applications.
- Zero uplight (UO), dark sky, neighbor friendly

Electrical:

- 120-277 operation, 50/60Hz
- 0-10V dimming driver standard
- 10kA surge protector
- Photocell and occupancy sensor options available for complete on/off and dimming control

Battery Backup:

- Intergral Battery Backup provides emergency lighting for the required 90 minute path of egress.
- Includes a long-life Lithium Iron Phosphate battery with optional battery heater for cold temperature application.
- Utilizes 4 LEDs in emergency mode with 657 lumens. Each of the 4 LEDs in emergency are designed to function independently in the unlikely event of a single LED malfunction
- Spectron® self-testing/self-diagnostic electronics are included standard
- Independent dedicated driver and LED array for battery/emergency mode operation.

Installation:

- Universal plate for mounting to standard 3 1/2" and 4" square electrical boxes. All connections are made from connections at the rear of the unit.
- Optional back-box accessory available for surface conduit application. See BB-Geo accessories.

Listings:

- UL 1598 listed for use in wet locations
- Drivers IP66 and RoHS compliant
- DesignLights Consortium® (DLC) qualified. Please refer to the DLC website for specific product qualifications at www.designlights.org

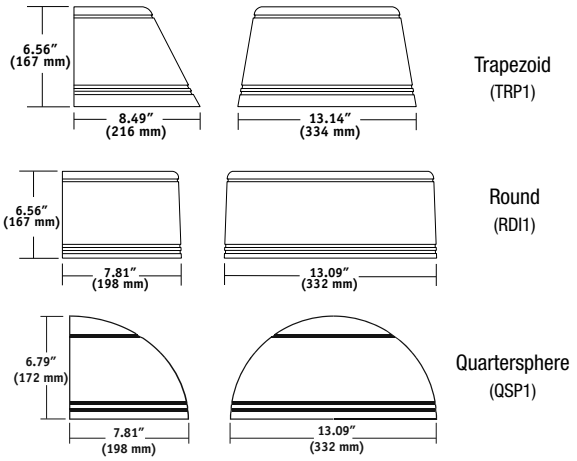
Warranty:

- For more information visit:

http://www.hubbelloutdoor.com/resources/warranty/

PRODUCT IMAGE(S)

DIMENSIONS



SHIPPING INFORMATION

Catalog Number	Weight (lbs)	Carton Dimensions		
		Length Inch (cm)	Width Inch (cm)	Height Inch (cm)
TRP1	11.5	17.0	9.9	10.0
RDI1	11.5	18.0	11.0	9.25
QSP1	10.5	17.0	9.6	10.5

CERTIFICATIONS/LISTINGS

C US

*3000K and warmer CCTs only

ORDERING INFORMATION

ORDERING EXAMPLE: TRP-12L-20-4K-3-1-BL-SCP-EH

HOUSING	VERSION	WATTAGE	CCT/CRI	DISTRIBUTION	VOLTAGE	FINISH	CONTROL OPTIONS	OPTIONS
TRP1 Trapeziod	12L 12 LEDS	15 15 watts	3K7 3000K, 70CRI	2 Type II	U 120-277	BL Black	PCU Button Photocell	F[4] Fusing (only available with STD fixture configuration, 120-277V only)
RDI1 Radius		20 20 watts	4K7 4000K, 70CRI	3 Type III	1 120	DB Bronze	SCP[2,3] Programmable Motion Sensor	E[1] Battery Pack (0˚C)
QSP1 Quartersphere		30 30 watts	5K7 5000K, 70CRI	4 Type IV	2 208	GR Gray	SPECIFY SCP HEIGHT	EH[1] Battery Pack (-30˚C) with heater
					3 240	PS Platinum	8F Up to 8ft mount height	
					4 277	WH White	20F Up to 20ft mount height	
						CC Custom		

[1] Voltage specific (120 or 277V only)
[2] Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120-277V only
[3] PCU option not applicable, included in sensor
[4] Must specify input voltage (120, 208, 240 or 277)

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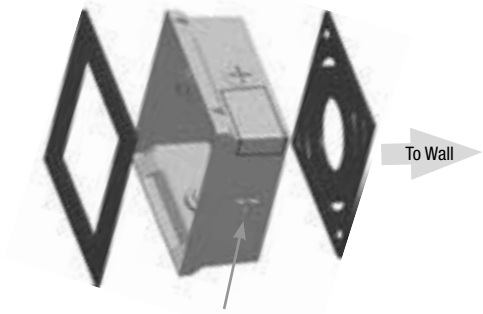
ACCESSORIES - Order separately

Catalog Number	Description
SCP-REMOTE[2]	Remote control for SCP option. Order at least one per project to program and control.
BB-GEO-XX	Back box with 4 - 1/2" threaded conduit holes, specify finish by replacing "XX" with finish selection, eg. Dark Bronze "DB"

[2] Must order minimum of one remote control to program dimming settings, 0-10V fully adjustable dimming with automatic daylight calibration and different time delay settings, 120V-277V only

BB-GEO-XX – Mounted to luminaire

BB-GEO-XX



PERFORMANCE DATA (AC/Standard Configurations)

				5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
# OF LEDS	DRIVE CURRENT	SYSTEM WATTS	DIST. TYPE	LUMENS	LPW[1]	B	U	G	LUMENS	LPW[1]	B	U	G	LUMENS	LPW[1]	B	U	G
12	350mA	13.9	2	1635	118	1	1	1	1577	113	1	1	1	1497	108	1	1	1
			3	1613	116	1	0	1	1556	112	1	0	1	1477	106	1	0	1
			4	1607	116	0	0	1	1550	111	0	0	1	1471	106	0	0	1
	500mA	19.9	2	2268	114	1	1	1	2176	109	1	1	1	2077	104	1	1	1
			3	2245	113	1	0	1	2140	108	1	0	1	2049	103	1	0	1
			4	2229	112	0	0	1	2150	108	0	0	1	2041	103	0	0	1
	700mA	28.2	2	2942	104	1	1	1	2885	102	1	1	2	2721	96	1	1	1
			3	2912	103	1	0	1	2836	101	1	0	1	2685	95	1	0	1
			4	2892	103	1	0	1	2789	99	1	0	1	2674	95	1	0	1

Electrical Data

Input Power Consumption

Drive Current (mA)	Input Voltage (V)	System Power (w)	Current (Amps)
350mA	120	13.9	0.12
	277		0.05
500mA	120	19.9	0.17
	277		0.07
700mA	120	28.2	0.24
	277		0.10

Battery backup units consume additional power during charging (maximum 32.2 watts for E, 50.7 watts for EH)

Projected Lumen Maintenance

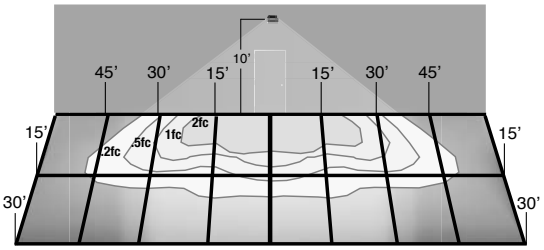
	Operating Hours					
Ambient Temp.	0	25,000	50,000	TM-21-11[1] 60,000	100,000	L70 (hours)
25°C/77°F	1.00	0.98	0.97	0.95	0.91	>345,000
40°C/104°F	1.00	0.96	0.95	0.92	0.87	>268,000

LUMINAIRE AMBIENT TEMPERATURE FACTOR (LATF)

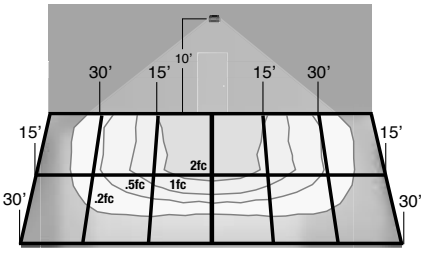
AMBIENT TEMPERATURE		LUMEN MULTIPLIER
0° C	32° F	1.02
10° C	50° F	1.01
20° C	68° F	1.00
25° C	77° F	1.00
30° C	86° F	1.00
40° C	104° F	0.99
50° C	122° F	0.98

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

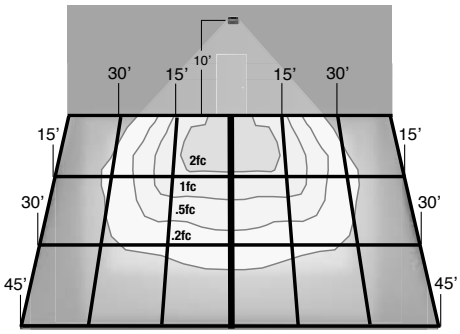
PHOTOMETRIC REPORTS



TYPE II



TYPE III



TYPE IV (Forward throw)

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GeoPak - Battery Back Up

Functional Circuitry: Transient surge protection device on AC input. Upon failure of the normal utility power, an LED driver is automatically activated to power the emergency LEDs. Upon resumption of normal utility power, the LED driver is turned off, and the battery is recharged through a micro-controller based 3-stage charger. The battery is a maintenance-free Lithium Iron Phosphate (LiFePo) type. A low voltage battery disconnect (LVD) feature protects the battery from severe damage during prolonged power failures. Manual testing is available at any time using the push-to-test button. The optional heater features a heating wrap and thermostat to maintain optimal battery temperature during charge or discharge. The GeoPak includes the following features:

- Battery re-charge within 24 hours
- AC Lock-out circuit
- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code.
- Self-Test feature runs a 1 minute test once a month and an alternating 30 or 60 minute test once every 6 months. Multi-color LED indicator provides visible fault detection and charging status.
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage).

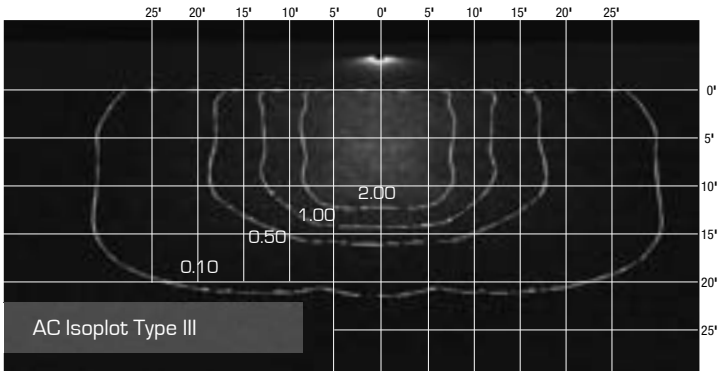
Emergency Photometric Performance (1 fc average .1 fc minimum)

28’ multi-unit spacing at 10’ MH with 0/30/10 reflectances on a 6’ path

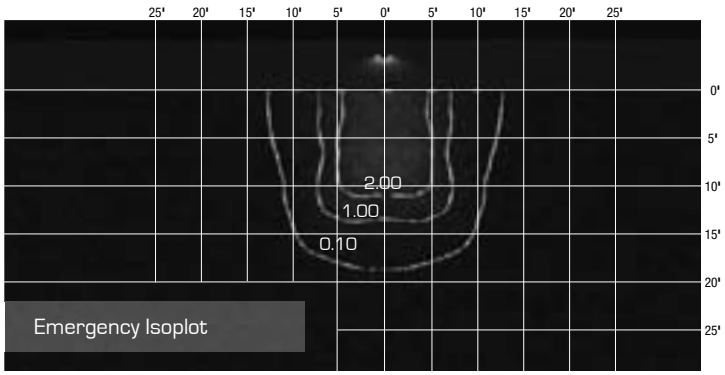
26’ x 10’ single unit coverage at 10’ MH with 0/30/10 reflectances

6’ x 19’ forward throw coverage at 10’ MH with 0/30/10 reflectances

Normal Mode



Emergency Mode



Provides Life Safety Code average illuminance of 1.0 fc. Assumes open space with no obstructions.

Diagrams for illustration purposes only, please consult factory for application layout.

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ORBEON SERIES

SURFACE/CEILING/GARAGE

Cat.#	
Job	Type

BEACON design . performance . technology

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 sinked 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 25ºC 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:

- 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.
- 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.hubbelllighting.com/sitesync/ for more details.

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 electro-statically 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.

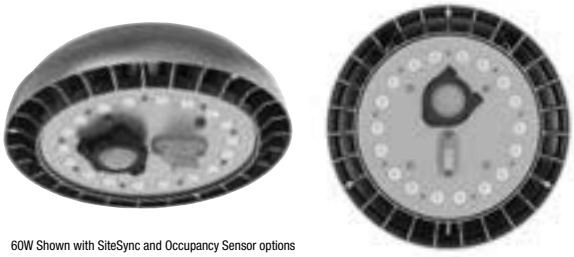
Listings:

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.hubbelllighting.com/resources/warranty

PRODUCT IMAGE(S)

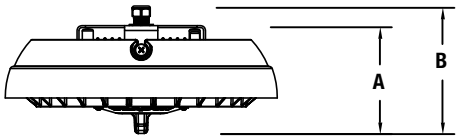


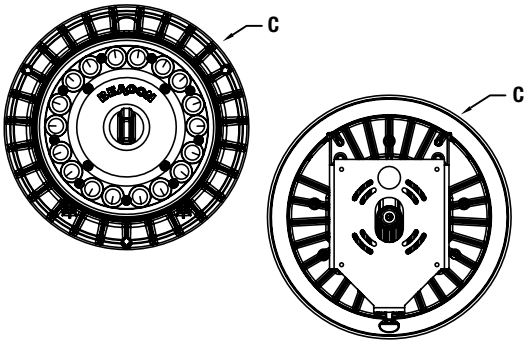
60W Shown with SiteSync and Occupancy Sensor options

40W version shown with Occupancy Sensor option

DIMENSIONS

Direct to Surface Mount





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

CERTIFICATIONS/LISTINGS

C US · UL 1598 · UL 8750 · DLC QPL LISTED · IP65

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HUBBELL Lighting

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

ORB				UNV		
SERIES	**ENGINE-WATTS**	**LED COLOR**	**OPTICS**	**VOLTAGE**	**CONTROL/SENSOR OPTIONS**	**FINISH**
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	**BBT** basic black textured **BMT** black matte textured **WHT** white textured **MBT** metallic bronze textured **BZT** bronze textured **DBT** dark bronze textured **GYS** gray smooth **DPS** dark platinum smooth **GNT** green textured **MST** metallic silver textured **MTT** metallic titanium textured **OWI** old world iron **RAL** _____

[1] Specify group and zone. See SiteSync product page on www.hubbelllighting.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.

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

Accessories and Services (Ordered Separately)

Catalog Number	Description
SWUSB*^	SiteSync loaded on USB flash drive (Windows® based only)
SWTAB*^	SiteSync Windows® Tablet
SWBRG+	SiteSync Wireless Bridge Node

* When ordering with SiteSync, one of the following interface options must be chosen and ordered separately. Each option contains the SiteSync License, GUI and Bridge Node.
+ If needed, an additional Bridge Node can be ordered.
^ Available on 18LED-60 only.

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

PERFORMANCE DATA

				5K (5000K nominal, 70 CRI)					4K (4000K nominal, 70 CRI)					3K (3000K nominal, 70 CRI)				
# LED'S	DRIVE CURRENT (MILLIAMPS)	SYSTEM WATTS	DISTRIBUTION TYPE	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

[1]Lumen 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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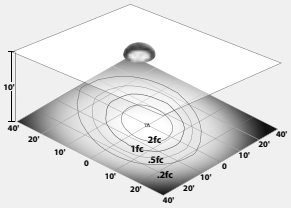
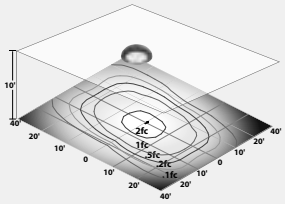
PHOTOMETRICS

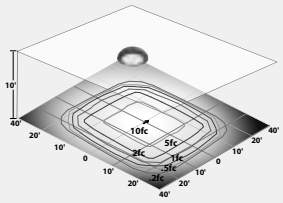
Type V Wide
ORB-18LED60-T5W



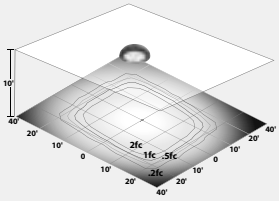
Type V Rectangular
ORB-18LED60-T5R



Type V Square Narrow
ORB-18LED60-T5QN



Type V Medium
ORB-18LED60-T5QM



PROJECTED LUMEN MAINTENANCE

System Power	AMBIENT TEMP.	0	25,000	50,000	[1]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.

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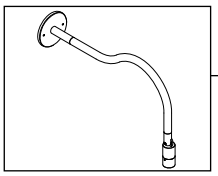
HUBBELL Lighting



the power of e

MICRO NITE™ SIGN STAR™ STYLE A

PROJECT:	
TYPE:	
CATALOG NUMBER:	
SOURCE:	
NOTES:	

CATALOG NUMBER LOGIC

SN		A	MN	LED						

Example: SN - 18 - A - MN - LED - e67 - SP - BZP - 12 - 11 - A

Series
- **SN** - Sign Star™

Stem Length
18", 24", 30", 36", 42", or 48"
(Specify in inches)

Style
- **A** - Dual bend, 90° Radius

Fixture
- **MN** - Micro Nite Star™

Source
- **LED** - **'e'** Technology with Integral Dimming Driver (See Specifications for Dimming)
  Designed for use with remote 12VAC BKSSL® transformers. Requires magnetic Low Voltage dimmer.

LED Type
- **e67** - 7WLED/2.7K
- **e68** - 7WLED/3K
- **e69** - 7WLED/4K
- **e75** - 7WLED/Amber

Optics*
- **SP** - Spot (Green Indicator)
- **MFL** - Medium Flood (Yellow Indicator)
- **FL** - Flood (Blue Indicator)

Finish

Aluminum Finish

Powder Coat Color	Satin	Wrinkle
Bronze	BZP	BZW
Black	BLP	BLW
White (Gloss)	WHP	WHW
Aluminum	SAP	—
Verde	—	VER

Premium Finish

ABP	Antique Brass Powder	CMG	Cascade Mountain Granite	RMG	Rocky Mountain Granite
AMG	Aleutian Mountain Granite	CRI	Cracked Ice	SDS	Sonoran Desert Sandstone
AQW	Antique White	CRM	Cream	SMG	Sierra Mountain Granite
BCM	Black Chrome	HUG	Hunter Green	TXF	Textured Forest
BGE	Beige	MDS	Mojave Desert Sandstone	WCP	Weathered Copper
BPP	Brown Patina Powder	NBP	Natural Brass Powder	WIR	Weathered Iron
CAP	Clear Anodized Powder	OCP	Old Copper	*Also available in RAL Finishes See submittal SUB-1439-00*	

Lens Type
- **12** - Soft Focus Lens
- **13** - Rectilinear Lens

Shielding
- **11** - Honeycomb Baffle

Cap Style
- **A** - 45°
- **B** - 90°
- **C** - Flush
- **D** - 45° less Weep Hole *(Interior Use Only)*
- **E** - 90° less Weep Hole *(Interior Use Only)*

B-K LIGHTING

40429 Brickyard Drive • Madera, CA 93636 • USA
559.438.5800 • FAX 559.438.5900
www.bklighting.com • info@bklighting.com

RELEASED	DRAWING NUMBER
07-25-17	SUB-2193-00

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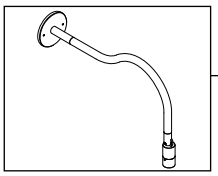
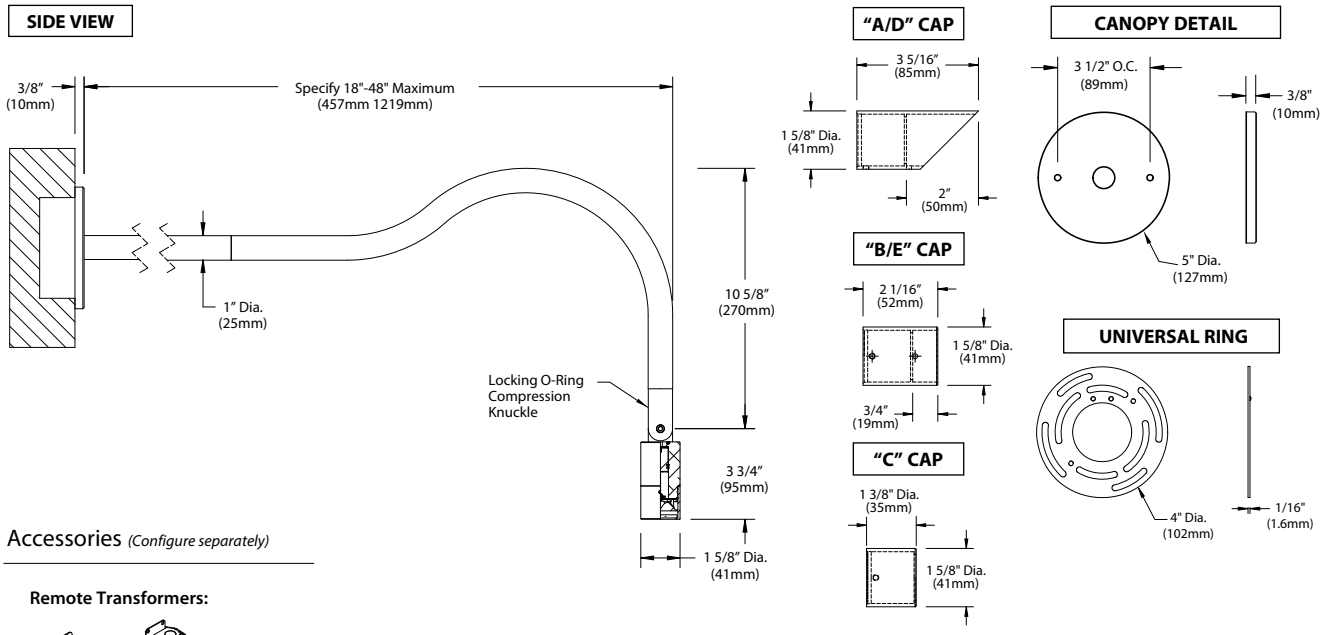


the power of e

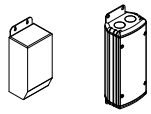
MICRO NITE™ SIGN STAR™ STYLE A

PROJECT:	
TYPE:	



Accessories *(Configure separately)*

Remote Transformers:



TR Series UPMRM™

All dimensions indicated on this submittal are nominal.
Contact Technical Sales if you require more stringent specifications.

SPECIFICATIONS

GreenSource Initiative™
Metal and packaging components are made from recycled materials. Manufactured using renewable solar energy, produced on site. Returnable to manufacturer at end of life to ensure cradle-to-cradle handling. Packaging contains no chlorofluorocarbons (CFC's). Use of this product may qualify for GreenSource efficacy and recycling rebate(s). Consult www.bklighting.com/greensource for program requirements.

Materials
Furnished in Copper-Free Aluminum (Type 6061-T6).

Style
'A' Style provides dual bend, 90° radius from fixture to stem.

Body
Fully machined from solid billet. Unibody design provides enclosed, water-proof wireway and integral heat sink for maximum component life. Integral knuckle for maximum mechanical strength. High temperature, silicone 'O' Ring provides water-tight seal.

Knuckle
The LOCK™ (Locking 'O' Ring Compression Knuckle) is comprised of two components. The first is integral to the body and features an interior, machined taper. The second is machined from solid billet and features a second, reverse angle taper. The resultant mechanical taper-lock allows a full 180° vertical adjustment without the use of serrated teeth, which inherently limit aiming. High temperature, silicone 'O' Ring provides water-tight seal and compressive resistance to maintain fixture position. Design withstands 73 lb. static load prior to movement to ensure decades of optical alignment. Biaxial source control with 360° horizontal rotation in addition to vertical adjustment.

Cap
Fully machined. Accommodates [1] lens or louver media. Choose from 45° cutoff ('A' or 'D'), 3/4" deep bezel with 90° cutoff ('B' or 'E'), or flush lens ('C') cap styles. 'A' and 'B' caps include weep-hole for water and debris drainage. 'D' and 'E' caps exclude weep-hole and are for interior use only.

Stem
Fully machined, 1" dia. with internal threads for maximum visual appeal. Available in configurable lengths to 48" maximum overall.

Lens
Shock resistant, tempered, glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment. Specify soft focus (#12) or rectilinear (#13) lens.

BKSSL®
Integrated solid state system with 'e' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance. High power, forward throw source complies with ANSI C7777 binning requirements. Exceeds ENERGY STAR® lumen maintenance requirements. LM-80 certified components.

Integral, constant current driver. 12VAC/VDC input. 50/60Hz. Proprietary input control scheme achieves power factor correction and eliminates inrush current. Output, over-voltage, open-circuit, and short circuit protected. Inrush current limited to 250mA (non-dimmed). Conforms to Safety Std. C22.2 No. 250.13-12.

Dimming
Line voltage dimmable via magnetic low voltage dimmer. For use with low voltage dimmer with dedicated neutral conductor. For purposes of dimming: Remote magnetic transformer with BKSSL® Power of 'e' technology loads should be loaded to 25% of the transformer VA (watts) rated value.

Optics
Interchangeable OPTIKIT™ modules permit field changes to optical distribution. Color-coded for easy reference: Spot (SP) = Green. Medium Flood (MFL) = Yellow.
Flood (FL) = Blue.

Installation
5" dia., machined canopy permits mounting to 4'' octagonal junction box. Junction box installation must be designed to hold full fulcrum weight of fixture (junction box and gasket by others).

Remote Transformer
For use with 12VAC BKSSL remote transformer or magnetic transformers only. B-K Lighting cannot guarantee performance with third party manufacturers' transformers.

Wiring
PVC coated, 18AWG, 150V, 60°C rated and certified to UL 1838 standard.

Hardware
Tamper-resistant, stainless steel hardware. LOCK™ aiming screw and canopy mounting screws are additionally black oxide treated for additional corrosion resistance.

Finish
StarGuard®, our exclusive RoHs compliant, 15 stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating.

Warranty
5 year limited warranty.

Certification and Listing
ITL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHS compliant. Suitable for indoor or outdoor use. Suitable for use in wet locations. IP 66 Rated. Made in USA.

c UL us LISTED RoHS MADE IN THE USA

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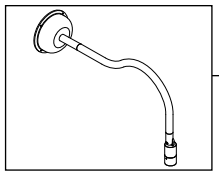

the power of e

MICRO NITE™
SIGN STAR™ STYLE A
with Power Canopy

PROJECT:	
TYPE:	
CATALOG NUMBER:	
SOURCE:	
NOTES:	

CATALOG NUMBER LOGIC

SN		A	MN	LED						PC
Example: SN -	18 -	A -	MN -	LED -	e69 -	SP -	BZP -	12 -	11 -	A - PC

Series
- **SN** - Sign Star™

Stem Length
- 18", 24", 30", or 36" (Specify in inches)

Style
- **A** - Dual bend, 90° Radius

Fixture
- **MN** - Micro Nite Star™

Source
- **LED** - **'e'** Technology with Integral Driver

LED Type
- **e67** - 7WLED/2.7K
- **e68** - 7WLED/3K
- **e69** - 7WLED/4K
- **e75** - 7WLED/Amber

Optics*
- **SP** - Spot (Green Indicator)
- **MFL** - Medium Flood (Yellow Indicator)
- **FL** - Flood (Blue Indicator)

Finish

Aluminum Finish

Powder Coat Color	Satin	Wrinkle
Bronze	**BZP**	**BZW**
Black	**BLP**	**BLW**
White (Gloss)	**WHP**	**WHW**
Aluminum	**SAP**	—
Verde	—	**VER**

Premium Finish

ABP	Antique Brass Powder	**CMG**	Cascade Mountain Granite	**RMG**	Rocky Mountain Granite
AMG	Aleutian Mountain Granite	**CRI**	Cracked Ice	**SDS**	Sonoran Desert Sandstone
AQW	Antique White	**CRM**	Cream	**SMG**	Sierra Mountain Granite
BCM	Black Chrome	**HUG**	Hunter Green	**TXF**	Textured Forest
BGE	Beige	**MDS**	Mojave Desert Sandstone	**WCP**	Weathered Copper
BPP	Brown Patina Powder	**NBP**	Natural Brass Powder	**WIR**	Weathered Iron
CAP	Clear Anodized Powder	**OCP**	Old Copper	*Also available in RAL Finishes See submittal SUB-1439-00*	

Lens Type
- **12** - Soft Focus Lens
- **13** - Rectilinear Lens

Shielding
- **11** - Honeycomb Baffle

Cap Style
- **A** - 45°
- **B** - 90°
- **C** - Flush
- **D** - 45° less Weep Hole *(Interior Use Only)*
- **E** - 90° less Weep Hole *(Interior Use Only)*

Transformer Style
- **PC** - Power Canopy with TRe20 Electronic Transformer*
  **105-300 VAC. 50/60 Hz. Non-Dimming*

B-K LIGHTING

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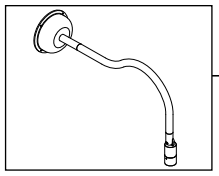
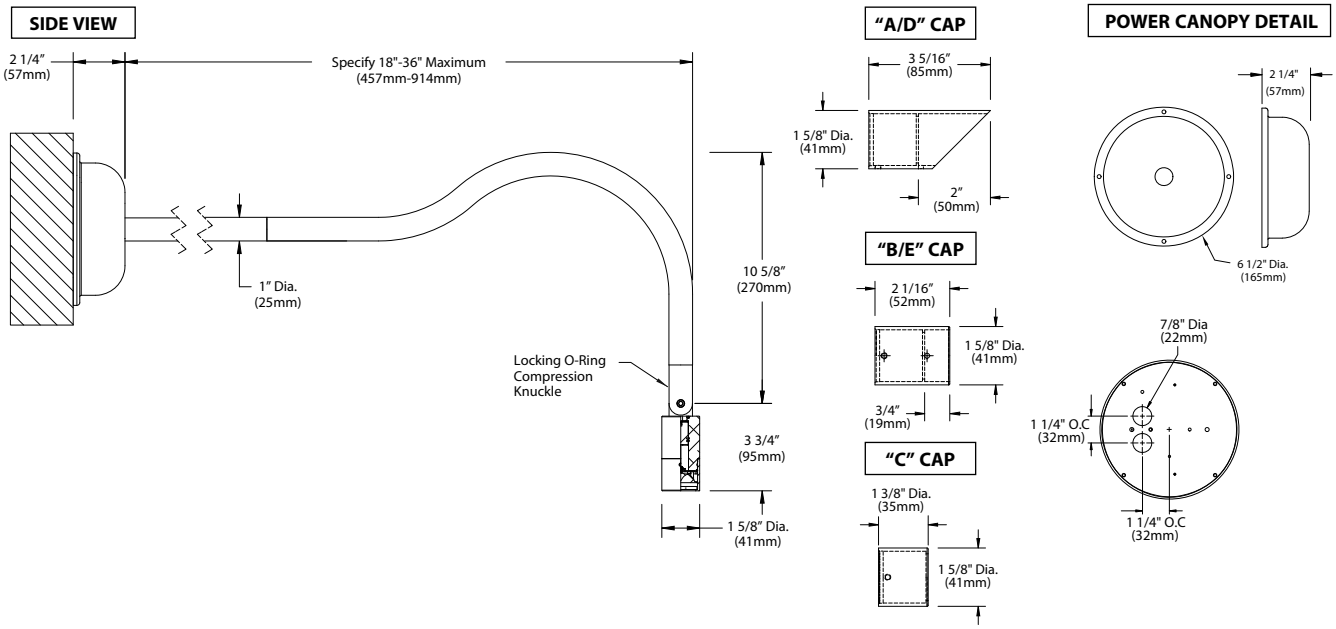


the power of e

MICRO NITE™
SIGN STAR™ STYLE A
with Power Canopy

PROJECT:	
TYPE:	



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Contact Technical Sales if you require more stringent specifications.

SPECIFICATIONS

GreenSource Initiative™
Metal and packaging components are made from recycled materials. Manufactured using renewable solar energy, produced on site. Returnable to manufacturer at end of life to ensure cradle-to-cradle handling. Packaging contains no chlorofluorocarbons (CFC's). Use of this product may qualify for GreenSource efficacy and recycling rebate(s). Consult www.bklighting.com/greensource for program requirements.

Materials
Furnished in Copper-Free Aluminum (Type 6061-T6).

Style
'A' Style provides dual bend, 90° radius from fixture to stem.

Body
Fully machined from solid billet. Unibody design provides enclosed, water-proof wireway and integral heat sink for maximum component life. Integral knuckle for maximum mechanical strength. High temperature, silicone 'O' Ring provides water-tight seal.

Knuckle
The LOCK™ (Locking 'O' Ring Compression Knuckle) is comprised of two components. The first is integral to the body and features an interior, machined taper. The second is machined from solid billet and features a second, reverse angle taper. The resultant mechanical taper-lock allows a full 180° vertical adjustment without the use of serrated teeth, which inherently limit aiming. High temperature, silicone 'O' Ring provides water-tight seal and compressive resistance to maintain fixture position. Design withstands 73 lb. static load prior to movement to ensure decades of optical alignment. Biaxial source control with 360° horizontal rotation in addition to vertical adjustment.

Cap
Fully machined. Accommodates [1] lens or louver media. Choose from 45° cutoff ('A' or 'D'), 3/4" deep bezel with 90° cutoff ('B' or 'E'), or flush lens ('C') cap styles. 'A' and 'B' caps include weep-hole for water and debris drainage. 'D' and 'E' caps exclude weep-hole and are for interior use only.

Stem
Fully machined, 1" dia. with internal threads for maximum visual appeal. Available in configurable lengths to 36" maximum overall.

Lens
Shock resistant, tempered, glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment. Specify soft focus (#12) or rectilinear (#13) lens.

BKSSL®
Integrated solid state system with 'e' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance. High power, forward throw source complies with ANSI C78.377 binning requirements. Exceeds ENERGY STAR® lumen maintenance requirements. LM-80 certified components.

Integral, constant current driver. 12VAC/VDC input. 50/60Hz. Proprietary input control scheme achieves power factor correction and eliminates inrush current. Output, over-voltage, open-circuit, and short circuit protected. Inrush current limited to 250mA (non-dimmed). Conforms to Safety Std. C22.2 No. 250.13-12.

Optics
Interchangeable OPTIKIT™ modules permit field changes to optical distribution. Color-coded for easy reference: Spot (SP) = Green. Medium Flood (MFL) = Yellow. Flood (FL) = Blue.

Installation
6-1/2" dia. Power Canopy™ features gasketed mounting plate for surface or junction box installation with two ½" KO's for wiring (hardware by others). Junction box installation must be designed to hold full fulcrum weight of fixture.

Transformer
Integral, TRe20 electronic transformer. 105-300VAC primary voltage. 50/60Hz. Non Dimming. 20VA maximum load.

Wiring
PVC coated, 18AWG, 150V, 60°C rated and certified to UL 1838 standard.

Hardware
Tamper-resistant, stainless steel hardware. LOCK™ aiming screw and canopy mounting screws are additionally black oxide treated for additional corrosion resistance.

Finish
StarGuard®, our exclusive RoHs compliant, 15 stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating.

Warranty
5 year limited warranty.

Certification and Listing
ITL tested to IESNA LM-79. UL Listed. Certified to CAN/CSA/ANSI Standards. RoHs compliant. Suitable for indoor or outdoor use. Suitable for use in wet locations. IP 66 Rated. Made in USA.

**Energy Star is a registered trademark of the United States*

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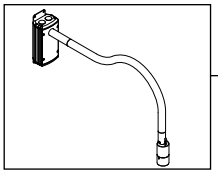

the power of e

MICRO NITE™ SIGN STAR™ STYLE A with PM1

PROJECT:	
TYPE:	
CATALOG NUMBER:	
SOURCE:	
NOTES:	

CATALOG NUMBER LOGIC

SN		A	MN	LED							PM1		

Example: SN - 18 - A - MN - LED - e69 - SP - BZP - 12 - 11 - A - PM1 - SM -

Series
- **SN** - Sign Star™

Stem Length
- 18", 24", 30", 36", 42" or 48" (Specify in inches)

Style
- **A** - Dual bend, 90° Radius

Fixture
- **MN** - Micro Nite Star™

Source
- **LED** - **'e'** Technology with Integral Driver

LED Type
- **e67** - 7WLED/2.7K
- **e68** - 7WLED/3K
- **e69** - 7WLED/4K
- **e75** - 7WLED/Amber

Optics*
- **SP** - Spot (Green Indicator
- **MFL** - Medium Flood (Yellow Indicator)
- **FL** - Flood (Blue Indicator)

Finish

Aluminum Finish

Powder Coat Color	Satin	Wrinkle
Bronze	**BZP**	**BZW**
Black	**BLP**	**BLW**
White (Gloss)	**WHP**	**WHW**
Aluminum	**SAP**	—
Verde	—	**VER**

Premium Finish

ABP	Antique Brass Powder	**CMG**	Cascade Mountain Granite	**RMG**	Rocky Mountain Granite
AMG	Aleutian Mountain Granite	**CRI**	Cracked Ice	**SDS**	Sonoran Desert Sandstone
AQW	Antique White	**CRM**	Cream	**SMG**	Sierra Mountain Granite
BCM	Black Chrome	**HUG**	Hunter Green	**TXF**	Textured Forest
BGE	Beige	**MDS**	Mojave Desert Sandstone	**WCP**	Weathered Copper
BPP	Brown Patina Powder	**NBP**	Natural Brass Powder	**WIR**	Weathered Iron
CAP	Clear Anodized Powder	**OCP**	Old Copper	*Also available in RAL Finishes See submittal SUB-1439-00*	

Lens Type
- **12** - Soft Focus Lens
- **13** - Rectilinear Lens

Shielding
- **11** - Honeycomb Baffle

Cap Style
- **A** - 45°
- **B** - 90°
- **C** - Flush
- **D** - 45° less Weep Hole *(Interior Use Only)*
- **E** - 90° less Weep Hole *(Interior Use Only)*

Transformer Style
- **PM1** - Universal Power Module™with TRe20 Electronic Transformer*
  **105-300 VAC. 50/60 Hz. Non-Dimming*

Mounting
- **SM** - Surface Mount
- **CR** - Round Camlock™
- **CT** - Rectangular Camlock™

Options
- **MB** - Mounting Brackets *(for CR and CT only)*

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RELEASED 07-25-17

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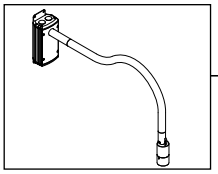
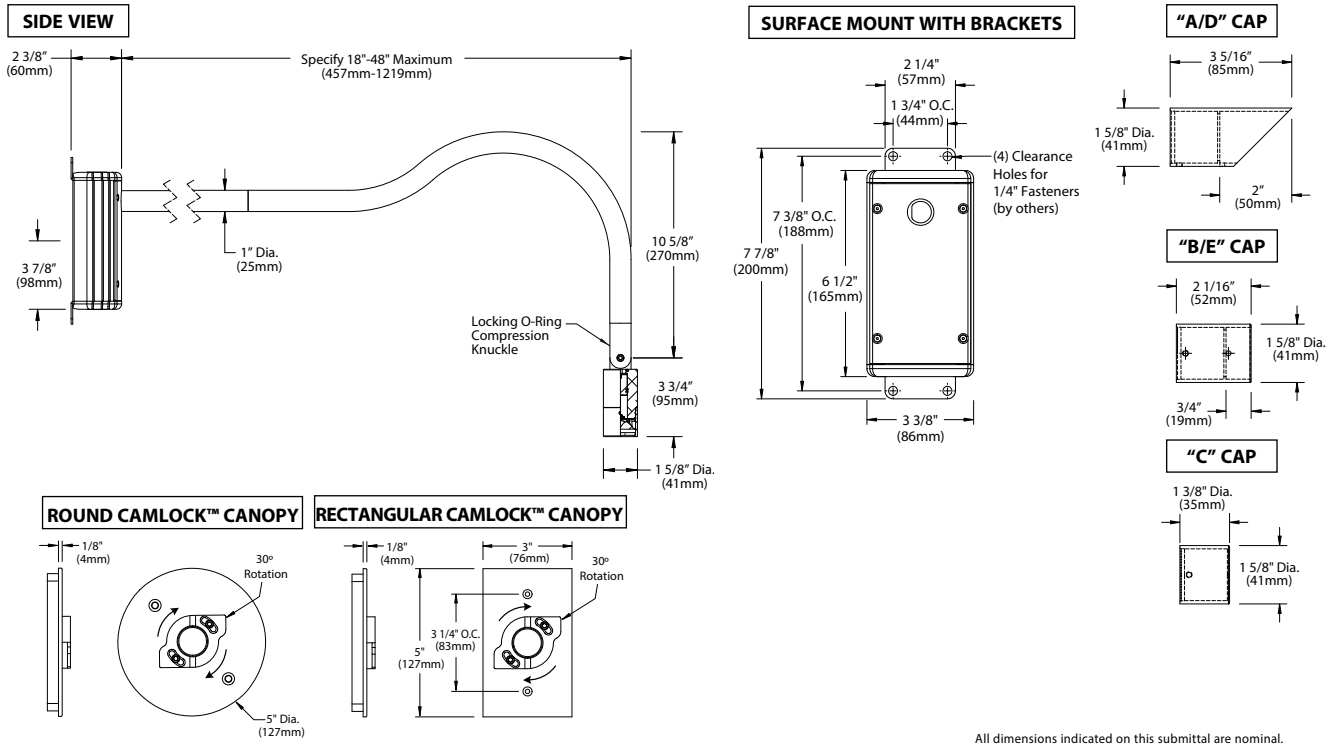


the power of e

MICRO NITE™
SIGN STAR™ STYLE A
with PM1

PROJECT:	
TYPE:	



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SPECIFICATIONS

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Materials
Furnished in Copper-Free Aluminum (Type 6061-T6).

Style
'A' Style provides dual bend, 90° radius from fixture to stem.

Body
Fully machined from solid billet. Unibody design provides enclosed, water-proof wireway and integral heat sink for maximum component life. Integral knuckle for maximum mechanical strength. High temperature, silicone 'O' Ring provides water-tight seal.

Knuckle
The LOCK™ (Locking 'O' Ring Compression Knuckle) is comprised of two components. The first is integral to the body and features an interior, machined taper. The second is machined from solid billet and features a second, reverse angle taper. The resultant mechanical taper-lock allows a full 180° vertical adjustment without the use of serrated teeth, which inherently limit aiming. High temperature, silicone 'O' Ring provides water-tight seal and compressive resistance to maintain fixture position. Design withstands 73 lb. static load prior to movement to ensure decades of optical alignment. Biaxial source control with 360° horizontal rotation in addition to vertical adjustment.

Cap
Fully machined. Accommodates [1] lens or louver media. Choose from 45° cutoff ('A' or 'D'), 3/4" deep bezel with 90° cutoff ('B' or 'E'), or flush lens ('C') cap styles. 'A' and 'B' caps include weep-hole for water and debris drainage. 'D' and 'E' caps exclude weep-hole and are for interior use only.

Stem
Fully machined, 1" dia. with internal threads for maximum visual appeal. Available in configurable lengths to 48" maximum overall.

Lens
Shock resistant, tempered, glass lens is factory adhered to fixture cap and provides hermetically sealed optical compartment. Specify soft focus (#12) or rectilinear (#13) lens.

BKSSL®
Integrated solid state system with 'e' technology is scalable for field upgrade. Modular design with electrical quick disconnects permit field maintenance. High power, forward throw source complies with ANSI C78.377 binning requirements. Exceeds ENERGY STAR® lumen maintenance requirements. LM-80 certified components.

Integral, constant current driver. 12VAC/VDC input. 50/60Hz. Proprietary input control scheme achieves power factor correction and eliminates inrush current. Output, over-voltage, open-circuit, and short circuit protected. Inrush current limited to 250mA (non-dimmed). Conforms to Safety Std. C22.2 No. 250.13-12.

Optics
Interchangeable OPTIKIT™ modules permit field changes to optical distribution. Color-coded for easy reference: Spot (SP) = Green. Medium Flood (MFL) = Yellow. Flood (FL) = Blue.

Installation
Universal Power Module™ (PM1) features aluminum extrusion with die cast end caps. Surface mounted with flow through back channel to prevent water and debris collection. Machined aluminum cover with countersunk holes for flush hardware installation. Front access for ease of installation and inspection. [2] 1/2" NPT female conduit entries per end cap for through wiring. Specify Surface Mount (SM), Round Camlock™ Canopy (CR) or Rectangular Camlock™ Canopy (CT).

Transformer
Integral, TRe20 electronic transformer. 105-300VAC primary voltage. 50/60Hz. Non Dimming. 20VA maximum load.

Wiring
PVC coated, 18AWG, 150V, 60°C rated and certified to UL 1838 standard.

Hardware
Tamper-resistant, stainless steel hardware. LOCK™ aiming screw and canopy mounting screws are additionally black oxide treated for additional corrosion resistance.

Finish
StarGuard®, our exclusive RoHs compliant, 15 stage chromate-free process cleans and conversion coats aluminum components prior to application of Class 'A' TGIC polyester powder coating.

Warranty
5 year limited warranty.

Certification and Listing
SignStar™: UL Listed. Certified to CAN/CSA/ANSI Standards. IP66 Rated. RoHs compliant. Suitable for indoor or outdoor use. Suitable for use in wet locations.

PM1™: NEMA 4X / IP-66 Rated Enclosure. UL Listed. Certified to CAN/CSA/ANSI Standards.

RoHs compliant. Suitable for indoor or outdoor use. Suitable for use in wet locations. IP 66 Rated. Made in USA.

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LAMP & DRIVER DATA

e67, e68, e69, e75

DRIVER DATA	Input Volts	InRush Current	Operating	Dimmable	Operation Ambient Temperature
	12VAC/DC 50/60Hz	<250mA (non-dimmed)	500mA	Magnetic Low Voltage Dimmer	-22°F-194°F (-30°C - 90°C)

LM79 DATA				L70 DATA	OPTICAL DATA		
BK No.	CCT (Typ.)	CRI (Typ.)	Input Watts (Typ.)	Minimum Rated Life (hrs.) 70% of initial lumens (L_{70})	Angle	CBCP	Delivered Lumens
e67	2700K	80	7	50,000	17°	3632	459
	2700K	80	7	50,000	25°	1708	435
	2700K	80	7	50,000	30°	1337	438
e68	3000K	80	7	50,000	17°	3871	489
	3000K	80	7	50,000	25°	1821	464
	3000K	80	7	50,000	30°	1425	467
e69	4000K	80	7	50,000	17°	3991	504
	4000K	80	7	50,000	25°	1877	478
	4000K	80	7	50,000	30°	1469	481
e75	Amber (590nm)	~	7	50,000	~	~	~

OPTICS

Optic	Angle
NSP - Narrow Spot	17°
MFL - Medium Flood	25°
FL - Flood	30°