

Type:

Ordering Code:

Job Name:

Notes:

TRAVERSE

Dimensions	Models
	<p>for indoor up-lighting applications, select the TRV-U model</p> <p>for down-lighting applications select the TRV-D model</p>

ORDERING EXAMPLE: TRV-D / 60G-150 / T5 / UNV / MDD / MT

<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
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model	engine-watts	optics	voltage	electrical options	color
TRV-D Traverse down-light	24G-30	T2 type II	UNV 120-277V	PEC photocell	BB black
TRV-U Traverse up-light <i>(indoor use only)</i>	24G-60 36G-90 60G-150 (see chart)	T3 type III T4 type IV T4W type IV w/wall wash T5 type V F50 type V narrow (50°) T5W type V wide round	347V 480V 12VDC *	1PF single power feed 2PF dual power feed MDD motion detector LSC LifeShield™ thermal regulator BPC cold weather battery pack ** <i>36G-90 only</i>	BZ bronze BW white BG green BY gray MB metallic bronze MT metallic titanium ___ RAL ___ other

* consult factory for **12VDC**
 ** **BPC** - 23W maximum on batteries

Amber LEDs available (consult factory for watts and lumens)

Rated lifetime is based on an exponential decay model, using lamp manufacturers' data points from LM80 testing. This philosophy has been used by other manufacturers, as well as the Department of Energy. Lifetime rating may be revised to comply with TM-21 once that Standard is released.

Power/Lumens & Distributions

Engine	T5-70 Lumens	T5-50 Lumens	T2/T3 Lumens	T4 Lumens	# of LEDs	CCT LED Type	L70 Life Hrs
24G-30	2432	2583	2253	2233	24	4500K	170,000h
24G-60	4224	4493	3918	3881	24	4500K	150,000h
36G-90	6670	7094	6187	6128	36	4500K	150,000h
60G-150	11116	11823	10311	10214	60	4500K	150,000h

GENERAL: The Beacon TRV luminaire is a wall surface mounted luminaire with a field replaceable LED light engine & optical bezel system. Internal components are totally enclosed in rain-tight and corrosion-resistant die cast aluminum housing. The TRV Luminaire is suitable for wet locations.

HOUSING/LED THERMAL MANAGEMENT: The Beacon TRV luminaire consists of a die cast aluminum two-piece housing. The die cast main (thermal) housing provides direct heat exchange between the LED light engine and the cool outdoor air by drawing heat through integral heat channels and out to the sculptured and functional luminaire surface. LED drivers are thermally isolated from the main housing, mechanically attached and heat sinked to the rear housing. The main housing is designed with heat dissipating fins for LED thermal management without the use of metallic screens, cages, or fans. The shape of the main housing is designed to prevent debris accumulation and as a bird nesting deterrent. The back and main housings are designed to hinge open for easy mounting and easy access.

MOUNTING & INSTALLATION: The rear housing (back plate) is designed with various bolt patterns for direct wall mounting or mounting to a recessed 4" junction box. The rear housing has three integral 3/4" NPT power feed locations (bottom and each side) for surface mounted conduit applications. After mounting the rear housing to the wall or junction box the main housing is designed to hang and hinge closed after connecting the male and female quick connectors. The mounting design permits a simple retrofit to existing wall luminaires that utilize surface mount or recessed junction boxes.

BEZEL OPTICAL SYSTEM: Each Traverse luminaire is supplied with an Optical one piece cartridge system consisting of an LED engine, LED lamps, optics, gasket and die cast aluminum bezel. The cartridge is held together with internal brass standoffs soldered to the board so that it can be field replaced as a one piece Optical system. A two-piece die cut silicone and polycarbonate foam gasket ensures a weather-proof seal around each individual LED and allows the Traverse luminaire to be rated for high-pressure hose down (IP67) applications.

The optical cartridge is secured to the extruded housing with fasteners and a heat pad to ensure thermal conductivity. The optics are held in place without the use of adhesives and the complete assembly is gasketed for high pressure hose down cleaning. The cartridge assembly is available in various lighting distributions using TIR designed Acrylic optical lenses over each LED.

PRINTED CIRCUIT BOARD (PCB): Aluminum thermal clad board with 0.062" thick aluminum base layer "high temperature" HT-06503 or equivalent (subject to change) dielectric (0.003" thick, thermal conductivity of 2.2 W/MK, UL RTI of 140°C) 0.0014" thick copper circuit layer. Circuit layer designed with copper pours to minimize thermal impedance across dielectric. Board shall be supplied with QPAD-3 fiberglass reinforced thermal pad 0.005" thick thermal conductivity of 2.0 W/Mk. Continuous use temperature of 180°C UL94 V-0. Board will be mounted to the heat sink using 12 #4-40 screws to ensure contact with thermal pad and heat sink. Use of thermal grease will not be allowed.

LIFESHIELD™ CIRCUIT: (OPTIONAL) Thermal circuit shall protect the luminaire from excessive temperature by interfacing with its 0-10V dimmable drivers to reduce drive current as necessary. The factory-preset temperature limits shall be designed to ensure maximum hours of operation to assure L70 rated lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range in recognition of the effect of reduced current on the internal temperature and longevity of the LEDs and other components.

A luminaire equipped with the device may be reliably operated in any ambient temperature up to 55°C (131°F).

The LifeShield™ thermal regulation circuit will allow higher maximum wattages than would be permissible on an unregulated luminaire (if some variation in light output is permissible), without risk of premature LED failure.

Operation shall be smooth and undetectable to the eye. Thermal circuit shall directly measure the temperature at the LED solder point.

LifeShield™ shall consist of surface mounted components mounted on the LED engine (printed circuit board). For maximum simplicity and reliability, the device shall have no dedicated enclosure, circuit board, wiring harness, gaskets, or hardware. Device shall have no moving parts, and shall operate entirely at low voltage (NEC Class 2). The device shall be located in an area of the luminaire that is protected from the elements.

LifeShield™ shall be designed to "fail on", allowing the luminaire to revert to full power in the event of an interruption of its power supply, or faulty wiring connection to the drivers.

Device shall be able to co-exist with other 0-10V control devices (occupancy sensors, external dimmers, etc.). The device will effectively control the solder point temperature as needed; otherwise it will allow the other control device(s) to function unimpeded.

MOTION ACTIVATED LUMINAIRES: Beacon TRV luminaires are available with an optional passive infrared (PIR) motion sensor capable of detecting motion within 24 feet of the sensor, 360° around the luminaire, when placed at an 8 foot mounting height. When no motion is detected for 5 minutes, the Motion Response system reduces the wattage from 10% to 50% (factory set at 50% reduction) of the maximum wattage, reducing the light level accordingly. When motion is detected by the PIR sensor, the luminaire returns to full wattage and full light output. Please contact Beacon Products if project requirements vary from standard configuration.

ELECTRICAL: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNIV), or a driver that accepts 347V or 480V input. Power factor is .92 at full load. All electrical components are rated at 50,000 hours at full load and 40°C ambient conditions per MIL-217F Notice 2. Optional 0 to 10 volt dimming drivers are available upon request. Component-to-component wiring within the luminaire may carry no more than 80% of rated load and is listed by UL for use at 600VAC at 50°C or higher. Plug disconnects are listed by UL for use at 600 VAC, 15A or higher. 15A rating applies to primary (AC) side only.

SURGE PROTECTOR: The onboard surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 10,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 320V and surge rating of 372J. The case shall be a high-temperature, flame resistant plastic enclosure.

COLD WEATHER BATTERY PACK: The emergency driver shall be capable of operating an LED load of up to 23.1 watts at rated current (700 mA) for a minimum of 90 minutes. It is suitable for damp locations as well as sealed and gasketed fixtures. The BPC shall have 37 watts of input power and a 54.0 watt-hour battery capacity and shall comply with emergency standards set forth by the current NEC.

FASTENERS: All fasteners shall be stainless steel. When tamper resistant fasteners are required, spanner HD (snake eye) style shall be provided (special tool required, consult factory).

Agency Certification: The luminaire shall bear a CSA label and be marked suitable for wet locations.

WARRANTY: Beacon luminaires feature a 5 year limited warranty. Beacon LED luminaires with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty Information on www.beaconproducts.com complete details and exclusions.