



rev. 02.04.2015 TRAVERSE (LED) Traverse Wall Pack Max Weight: 24.0 lbs

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 stainless steel 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<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> 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 on-board surge protector shall be a UL recognized component for the United States and Canada and have a surge current rating of 20,000 Amps using the industry standard 8/20 pSec wave. The LSP shall have a clamping voltage of 825V and surge rating of 540J. 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 Watts-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).

Power Supply/Driver Requirements: U.L. UL1310, Class 2 and UL48 compliant

Color Rendering Index (CRI): Luminaire shall have a minimum CRI of 67 at 5000K.

**Operating Environment:** Shall be able to operate normally in ambient temperatures from -40°C to 40°C.

Finish: Finish shall be a Beacote V polyester powder-coat electro-statically applied and thermocured. Beacote V finish shall consist of a five stage iron phosphate chemical pretreatment regimen with a polymer primer sealer, oven dry off, and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet 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-pound.

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.

## Power/Lumens & Distribution

Engine	Wattage	Delivered Lumens (varies by optic)	Delivered LPW	TM21 Calculated % Lumen Maint. at 100,000 hrs
24NB	27	2752-3014	105-115	96.19%
24NB	55	5138-5500	93-100	96.19%
36NB	80	6935-8215	93-103	94.87%
48NB	110	10240-10950	93-103	92.73%
60NB	136	12800-13700	93-103	85.79%

TM21 is the framework for taking LM-80 data and making useful LED lifetime projections. Reported and Calculated Lifetimes shown are based on hours at the time of this printing. For current Reported and Calculated hours please contact factory or Beacon's web-site.

CCT (COLOR TEMP) Lumen Output Multipliers	CRI (Color Rendering)
<b>5000K</b> = 1.0	min 67 CRI
<b>4000K</b> = .92	min 70 CRI
<b>3000K</b> = .75	min 80 CRI

Due to our continued efforts to improve our products, product specifications are subject to change without notice.