



Max EPA: 1.32 sq ft

Intended Use: The Alpha Luminaire is a high performance "LED" energy and maintenance lighting solution, designed with optical versatility. Markets include large areas requiring perimeter lighting, security fence lighting, truck terminals, car lots, recreational sports lighting, airport ramp lighting and building flood-lighting. The Alpha LED luminaire is intended to be used to reduce energy and maintenance associated with HID legacy lighting technology.

Construction: The housing, electrical compartment and fitter are made from die cast aluminum that is pre-treated and powder-coated to meet the most rugged industry standards. The finish is corrosion resistant to meet ASTMB-117, resists cracking or loss of adhesion per ASTM D522, resists surface impacts of up to 160 inch-pound. All external hardware is corrosion resistant.

Adjustable cast knuckle: The adjustable knuckle is designed to slip fit 2 3/8" to 3" O.D. tenon. The knuckle is designed for continuous aiming adjustment without the use is cast serrations. The cast knuckle uses cast external degree markers for aiming. The aiming adjustment is design to operate with a single bolt adjustment. The Alpha can adjust 30-degrees up from Nadir to straight up vertical.

Electrical Assembly: The fixture electrical compartment shall contain all LED driver components and shall be provided with an internal terminal block for AC power connections. The compartment is designed for an optional twist lock photo control.

Optical: The Alpha luminaire provides the best combination of vertical and horizontal illumination while reducing light behind the poles. The Alpha features revolutionary individual LED optical control based on TIR high performance acrylic optical designs. Flood Lighting optics are available in 2x2, 4x4, 5x5, 6x6, 5x3 and 3x5 NEMA distributions and are interchangeable with Type 2, 3,4, and Type V roadway and area lighting optics. The Alpha also features a protective lens cover. Well designed optics result in fewer poles and fixtures that use less energy consumption, while improved light distribution result in lower life-cycle cost as well as initial installation costs.

Lifeshield[™] Circuit: 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 lumen maintenance. The device shall activate at a specific, factory-preset temperature, and progressively reduce power over a finite temperature range and may be reliably operated in any ambient temperature up to 55°C (131 °F).

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

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).

Drivers: Luminaires are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNV), 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 will carry no more than 80% of rated current 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.

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 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.

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 & Distributions

	Engine	Beam Angle	Field Angle	Max Candela	Watts	Optic	D. Lumens	Delivered LPW
ĺ	24NB	17.4 H x 17.2 V	32.3 H x 32.5 V	45,920	55	2x2	5680	104.5
	36NB	17.4 H x 17.2 V	32.3 H x 32.5 V	68,881	80	2x2	8520	104.5
	60NB	17.4 H x 17.2 V	32.3 H x 32.5 V	114,802	136	2x2	14200	104.5
	72NB	17.4 H x 17.2 V	32.3 H x 32.5 V	164,385	220	2x2	20333	96.2
	24NB	28.1 H x 29.4 V	52.4 H x 51.8 V	18,255	55	4x4	5627	103.8
	36NB	28.1 H x 29.4 V	52.4 H x 51.8 V	27,383	80	4x4	8440	103.7
	60NB	28.1 H x 29.4 V	52.4 H x 51.8 V	46,635	136	4x4	14066	103.7
	72NB	28.1 H x 29.4 V	52.4 H x 51.8 V	65,349	220	4x4	20143	95.3
	24NB	66.8 H x 67.3 V	97.0 H x 96.3 V	8,342	55	5x5	5042	91.7
	36NB	66.8 H x 67.3 V	97.0 H x 96.3 V	12,514	80	5x5	7563	92.3
	60NB	66.8 H x 67.3 V	97.0 H x 96.3 V	20,856	136	5x5	12605	92.8
	72NB	66.8 H x 67.3 V	97.0 H x 96.3 V	30,024	220	5x5	18146	82.5
	24NB	72.0 H x 74.9 V	102.2 H x 101.6 V	4,449	55	6x6	5603	101.8
	36NB	72.0 H x 74.9 V	102.2 H x 101.6 V	6,674	80	6x6	8404	102.5
	60NB	72.0 H x 74.9 V	102.2 H x 101.6 V	11,123	136	6x6	14024	103.3
	72NB	72.0 H x 74.9 V	102.2 H x 101.6 V	16,089	220	6x6	20260	92.1
	24NB	56.2 H x 22.7 V	82.3 H x 46.4 V	8,342	55	5x3	5032	91.6
	36NB	56.2 H x 22.7 V	82.3 H x 46.4 V	12,514	80	5x3	7547	92.3
	60NB	56.2 H x 22.7 V	82.3 H x 46.4 V	20,856	136	5x3	12579	93
	72NB	56.2 H x 22.7 V	82.3 H x 46.4 V	30,024	220	5x3	18108	82.5
	24NB	22.8 H x 56.1 V	46.7 H x 83.8 V	8,342	55	3x5	5042	91.6
	36NB	22.8 H x 56.1 V	46.7 H x 83.8 V	12,514	80	3x5	7566	92.3
	60NB	22.8 H x 56.1 V	46.7 H x 83.8 V	20,856	136	3x5	12611	93
	72NB	22.8 H x 56.1 V	46.7 H x 83.8 V	30,024	220	3x5	18153	82.5

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)
5000° K = 1.0	min 67 CRI
4000° K = .92	min 70 CRI
3000° K = .75	min 80 CRI

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