

# floodlight

solutions

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**FL-1**  
25W LED

## VERSATILE

The versatility of these three luminaires, featuring output up to 220 Watts of energy efficient LED sources, provides the designer with a unique set of “tools” to creatively enhance the visual effects of each project while reducing energy and maintenance costs.



**Cadet**  
55 W LED

## FUNCTIONAL

These luminaires are designed as direct replacements for Quartz, Compact Fluorescent, Metal Halide, and High Pressure Sodium from 50Watt thru 1000Watt with beam spreads to meet all floodlighting application needs. The choice of beam patterns eliminates spill light and light trespass making it an ideal instrument for lighting commercial facilities in both residential and urban settings.



**Alpha**  
55W - 220W LED

## COMPATIBLE

- 3 distinct LED luminaires
- Over 375 options
- Wattages from 25W thru 220W
- 6 beam spreads
- 3CCT - Color Temps
- Many architectural and functional mounting options
- Many light control accessory options

Beacon Products offers floodlight solutions for both new construction projects as well as the perfect retrofit for existing HID flood light installations. The lighting designer now has access to the most versatile pallet of energy efficient LED luminaires utilizing the most up-to-date technologies for the benefit of the owner and consumer.

### Applications:

- security
- perimeter lighting
- military
- prisons
- border security
- harbors and ports
- rail yards
- industrial storage
- fast food franchises
- hi mast
- airport ramp lighting
- truck parking
- and more ....



Georgia Pacific Building / Atlanta, GA

# Beamspreads

The light distribution of a floodlight is known as the “beam spread”. The beam spread is classified by a NEMA designation. The “NEMA Type” is determined by two angles Horizontal and Vertical where the light intensity is 10% of the maximum beam intensity.

The NEMA designation determines how wide or narrow the light is projected out of a floodlight. Below is the NEMA type and beam description.

For example: If the Horizontal Beam spread is 100° and the Vertical Beam Spread is 46° then, according to the chart to the right, we find the angles and see that the NEMA type is 5 x 3.

Beam Spread (°)	NEMA Type	Beam Description
10° up to 18°	1	Very Narrow
18° up to 29°	2	Narrow
29° up to 46°	3	Medium Narrow
46° up to 70°	4	Medium
70° up to 100°	5	Medium Wide
100° up to 130°	6	Wide
130° and up	7	Very Wide

\* NEMA – National Electrical Manufacturers Association



## Six Standard Beamspreads

### Narrow Spot 2 x 2



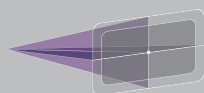
The narrow spot distribution is ideal for applications where a tighter beam is required. The narrow spot is excellent for applications with far setbacks or longer distances such as flagpoles or tall trees.

### Narrow Flood 4 x 4



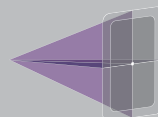
The narrow flood provides a concentrated distribution for applications requiring a tight symmetrical distribution. It is ideal for accenting sculptures, landscape and façade lighting with farther setbacks.

### Horizontal Flood 5 x 3



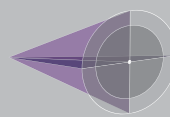
The horizontal flood provides a wide horizontal beam with a narrow vertical concentration. It is ideal for applications requiring a wide horizontal coverage area with a shorter setback and can also be used in building mounted applications for grazing and accentuating architecture.

### Vertical Flood 3 x 5



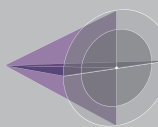
The vertical flood distribution is ideal for applications requiring a tall, tight distribution such as tall facades and signage with a limited setback.

### Medium Flood 5 x 5



The medium flood is designed for applications that require a wider uniform pattern with a medium setback such as facades, under canopies, signage and general landscape applications.

### Wide Flood 6 x 6



The wide flood provides a large and uniform light pattern that is ideal for applications with a shorter setback. The wide flood is ideal for signage, large facades and broad landscape foliage. It is also ideal for pole mounted applications for general area lighting applications.

Beam Pattern	NEMA type	Beam Angle (50% of max candela)	Field Angle (10% of max candela)	Max Candela	Lumens	LPW
2x2 narrow spot	2 H x 2 V	16.4 H x 15.9 V	33.1 H x 32.7 V	18311	2287	91
4x4 narrow flood	4 H x 4 V	28.6 H x 29.4 V	53.3 H x 53.3 V	6885	2292	92
5x5 medium flood	5 H x 5 V	66.8 H x 67.3 V	97.0 H x 96.3 V	1715	2063	83
6x6 wide flood	6 H x 6 V	72.0 H x 74.9 V	102.2 H x 101.6 V	1630	2232	89
5x3 horizontal flood	5 H x 3 V	56.2 H x 22.7 V	82.3 H x 46.4 V	3270	1865	75
3x5 vertical flood	3 H x 5 V	22.7 V x 56.2 H	46.7 H x 83.8 V	3270	1866	75

Beam Pattern	NEMA type	Beam Angle (50% of max candela)	Field Angle (10% of max candela)	Max Candela	Lumens	LPW
2x2 narrow spot	2 H x 2 V	16.4 H x 15.9 V	33.1 H x 32.7 V	39,015	5,046	87.0
4x4 narrow flood	4 H x 4 V	28.6 H x 29.4 V	53.3 H x 53.3 V	16,332	5,225	90.2
5x5 medium flood	5 H x 5 V	63.9 H x 64.6 V	96.1 H x 96.5 V	4,370	4,966	85.7
6x6 wide flood	6 H x 6 V	88.5 H x 89.6 V	107.9 H x 107.9 V	3,311	5,061	89.3
6x6 wide flood Half Visor	6 H x 6 V	66.2 H x 71.0 V	100.8 H x 99.1 V	3,645	4,375	63.0
6x6 wide flood Full Visor	6 H x 6 V	61.5 H x 58.2 V	97.4 H x 96.0 V	3,647	3,643	63.0
5x3 horizontal flood	5 H x 3 V	57.4 H x 24.0 V	93.5 H x 57.4 V	7,191	4,307	74.4
3x5 vertical flood	3 H x 5 V	24.0 H x 57.4 V	57.4 H x 93.5 V	7,191	4,307	74.4

Beam Pattern	NEMA type	Beam Angle (50% of max candela)	Field Angle (10% of max candela)	Max Candela	Lumens	LPW	Max Candela	Lumens	LPW
2x2 narrow spot	2 H x 2 V	17.4 H x 17.2 V	32.3 H x 32.5 V	45,920	5,680	104.5	68,881	8,520	104.5
4x4 narrow flood	4 H x 4 V	28.1 H x 29.4 V	52.4 H x 51.8 V	18,255	5,627	103.8	27,383	8,440	103.7
5x5 medium flood	5 H x 5 V	66.8 H x 67.3 V	97.0 H x 96.3 V	8,342	5,042	91.7	12,514	7,563	92.3
6x6 wide flood	6 H x 6 V	72.0 H x 74.9 V	102.2 H x 101.6 V	4,449	5,603	101.8	6,674	8,404	102.5
5x3 horizontal flood	5 H x 3 V	56.2 H x 22.7 V	82.3 H x 46.4 V	8,342	5,032	91.6	12,514	7,547	92.3
3x5 vertical flood	3 H x 5 V	22.8 H x 56.1 V	46.7 H x 83.8 V	8,342	5,042	91.6	12,514	7,566	92.3

Beam Pattern	NEMA type	Beam Angle (50% of max candela)	Field Angle (10% of max candela)	Max Candela	Lumens	LPW	Max Candela	Lumens	LPW
2x2 narrow spot	2 H x 2 V	17.4 H x 17.2 V	32.3 H x 32.5 V	114,802	14,200	104.5	164,385	20,333	96.2
4x4 narrow flood	4 H x 4 V	28.1 H x 29.4 V	52.4 H x 51.8 V	46,635	14,066	103.7	65,349	20,143	95.3
5x5 medium flood	5 H x 5 V	66.8 H x 67.3 V	97.0 H x 96.3 V	20,856	12,605	92.8	30,024	18,146	82.5
6x6 wide flood	6 H x 6 V	72.0 H x 74.9 V	102.2 H x 101.6 V	11,123	14,024	103.3	16,089	20,260	92.1
5x3 horizontal flood	5 H x 3 V	56.2 H x 22.7 V	82.3 H x 46.4 V	20,856	12,579	93.0	30,024	18,108	82.5
3x5 vertical flood	3 H x 5 V	22.8 H x 56.1 V	46.7 H x 83.8 V	20,856	12,611	93.0	30,024	18,153	82.5



## LED BEZEL

### cartridge bezel system

The 'Heart' of Beacon Products leadership in utilizing the latest in LED technology is incorporated in the unique LED bezel with optics specifically designed to provide the highest efficiency and utilization required.

With Beacon's specially designed optical-grade acrylic lenses, each bezel produces the selected light distribution which eliminates light trespass, reduces glare and maintains uniformity regardless of the mounting height. This modular component is featured in many of the Beacon Products luminaires, including the Genesis, Genesis-2X, Urban, Endura, Aurora, Traverse, and Cruzer.

The Cadet bezel lets you easily change the fixture output directly in the field to four different nominal levels: 100%, 75%, 50%, and 25%. This technology gives you the ability to fine tune energy conservation and lighting layout in the field and adjust to various conditions as needed.

## LIFESHIELD™

### thermal regulation circuit

Ambient temperatures in which outdoor luminaires operate differ widely because of geographic and climatic variations. Because of this, LED luminaires may be subjected to temperatures in excess of their rated operating temperatures. Beacon Products has developed a circuit that counters this damaging effect by controlling drive current to the LEDs and when necessary, reduces that current (using a dimming driver) to ensure the maximum operating temperature of the LED itself is not exceeded.

- Extremely Accurate
- Controls total power at the LED
- Prevents premature failure of LED caused by "Day-Burners"
- Assures Maximum Life of the LED
- Low Power Consumption
- Geographically compatible

## SOLAR

### environmentally powered

As we design our lighted spaces to become environmentally friendly, we often look at the opportunity to utilize the sun as our source of power. LED lighting is a natural component of this type of lighting because LED luminaires have high light output, and very low power consumption.

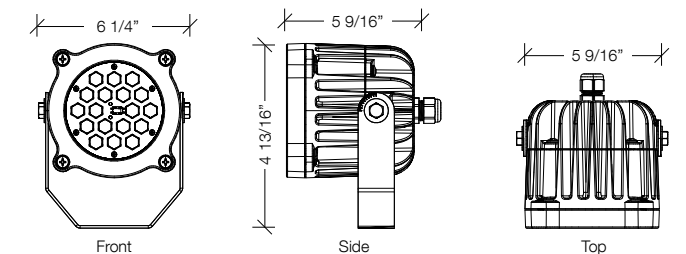




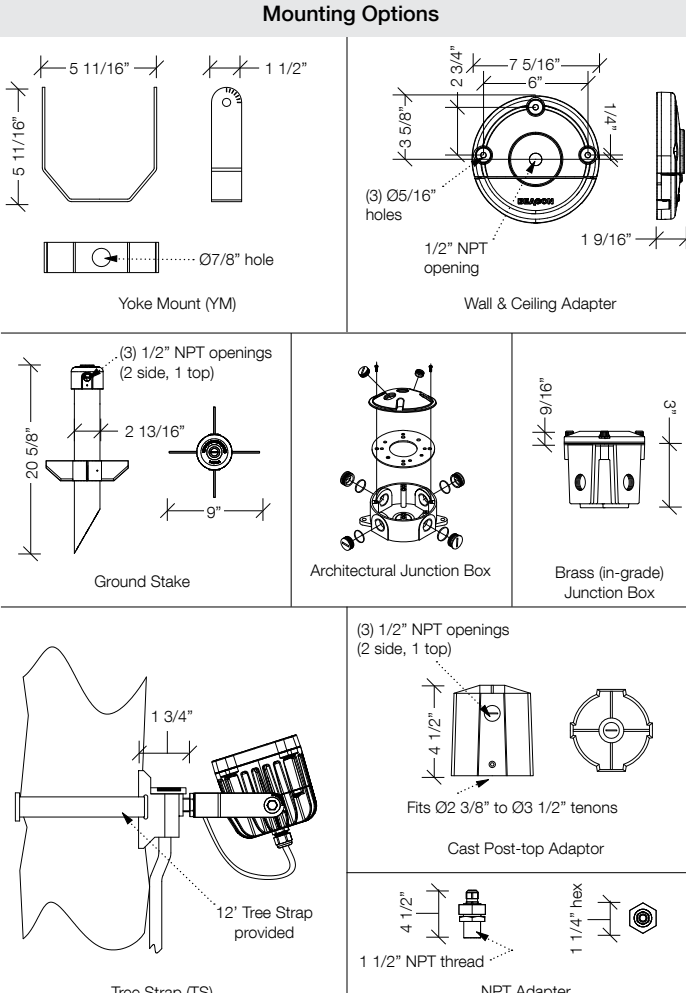
Type: \_\_\_\_\_  
Project Name: \_\_\_\_\_  
Notes: \_\_\_\_\_

Sample	FL-1	12NB-25	5K	2X2	UNV	YK	VS	BBT
Ordering	A	B	C	D	E	F	E	F


### DETAILS



### Mounting Options



### Accessories



### A. MODEL

**FL-1** FL-1

### B. ENGINE-WATTS

**12NB-25** 25 Watts - LED array

### C. CCT - COLOR TEMP

**3K** 3000K  
**4K** 4000K  
**5K** 5000K (std.)

### D. OPTICS

**2X2** narrow spot  
**4X4** narrow flood  
**5X5** medium flood  
**6X6** wide flood  
**5X3** horizontal flood  
**3X5** vertical flood

### E. VOLTAGE

**UNV** 120-277V

### F. MOUNTING

**YK** yoke mount (std.)  
**AJ** architectural junction box  
**BX** brass junction box  
**WA** wall & ceiling adaptor  
**GS** ground stake  
**PA** cast post-top adaptor  
**TS** tree strap  
**12NA** 1/2" NPT adaptor (std.)  
**34NA** 3/4" NPT adaptor

### G. ACCESSORIES

**VS** visor

### H. COLOR

**BBT** basic black textured  
**BMT** black matte textured  
**WHT** white textured  
**MBT** metallic bronze textured  
**BZT** 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** \_\_\_\_\_

**Construction:** Die cast aluminum body designed for maximum heat dissipation. All extruded aluminum components shall be alloy 6061-T6, 6063-T5 or equal. The heavy aluminum flood housing shall be designed to accommodate all electrical and optical components. Access to the optical components shall be made by removing (4) stainless steel fasteners located on the front of the luminaire. Access to the electrical assembly shall be made by removing (4) stainless steel fasteners located on the back of the luminaire housing. The lens frame shall accommodate a clear or prismatic tempered glass lens which shall be mechanically sealed with a die cut sponge silicone gasket for weather tight operation in any fixed position.

**Installation:** Luminaire is designed to mount to both horizontal and vertical surfaces through a number of mounting accessories. Full 360° aiming may be made in the field; position shall be set by tightening two hex-head bolts on either side of the luminaire housing.

**Electrical:** The electrical assembly shall be comprised of an electronic LED driver designed to operate the integral 6 or 12-LED light emitting diode light engine (LED source). The driver shall be integrally mounted with nonferrous brackets and fasteners. The driver shall have a high temperature, flame-resistant (UL 94V-0 minimum), 90°C maximum surface temp rating, and thermally protected transient over-voltage circuit. The input voltage range shall be 100-277 VAC, 47 to 63 Hz with a 90% power factor at full load. Load regulation shall be +/- 3%. The driver shall have output over voltage and over current protection and output short circuit protection with Auto Recovery. Operating temperature shall be -30°C to 60°C. The driver shall be designed to operate for 100K hours (MTBF) and the LED source shall be rated for 50,000 hours (70% lumen maintenance). The LED source shall be mounted to a thermally conductive medium (heat-sink) and located within the sealed optical chamber.

The luminaires shall be UL listed and suitable for wet locations.

**Finish:** All aluminum components shall be subjected to a 5-stage chrome-free pre-treatment process by immersion. Beacote V AAMA 2604 grade powder coat paint shall be electro-statically applied following outgassing. All fasteners are stainless steel.

\*consult factory



**Applications:**

- Marine Terminals
- Airports
- Distribution Centers
- Industrial Task Lighting
- Service Stations
- Mobile Rigs
- Mining
- Institutional Security

- Ports and Harbors
- Airports
- Security
- Military

- Flag Poles
- Statues
- Outdoor Art Exhibits

- Uplighting
- Wall Washing
- Water Features
- Architectural Features

- Apparel
- Grocery
- Automotive
- Signage

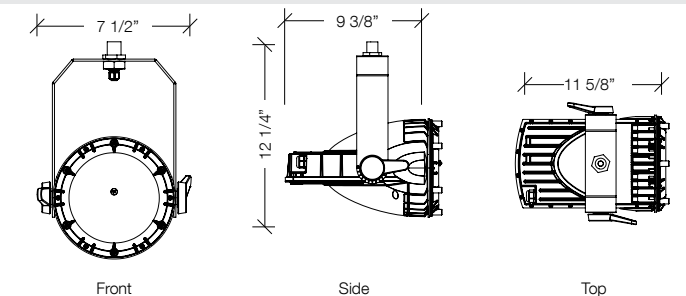


Due to our continued efforts to improve our products, product specifications are subject to change without notice.

Type: \_\_\_\_\_  
Project Name: \_\_\_\_\_  
Notes: \_\_\_\_\_

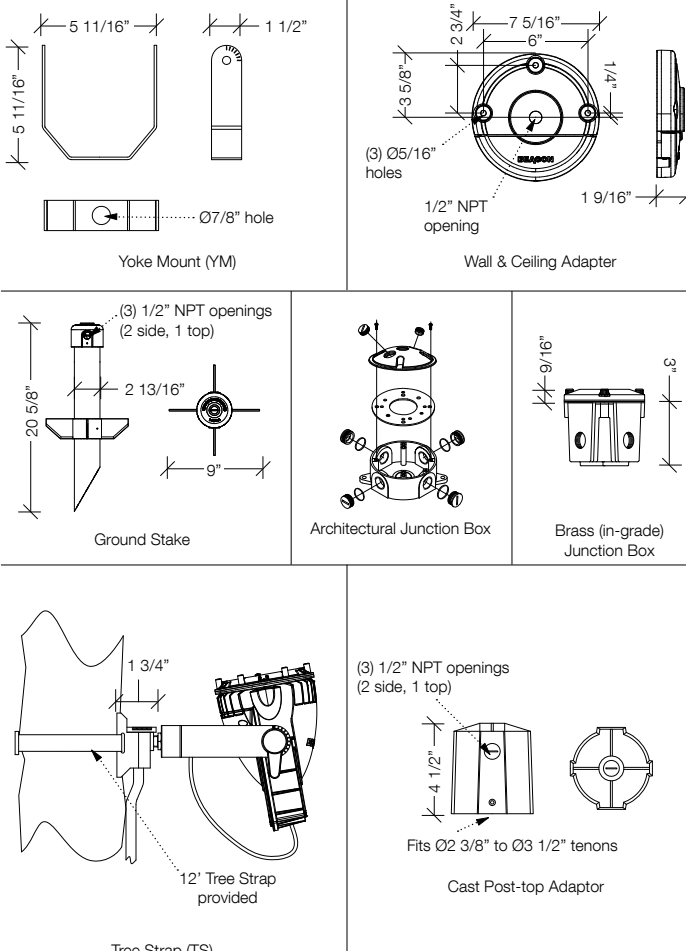
Sample	CDT	24NB-55	5K	5X5	UNV	YK	HV	BBT
Ordering	A	B	C	D	E	F	G	H

### DETAILS



Front      Side      Top

### Mounting Options



Yoke Mount (YM)      Wall & Ceiling Adapter

Ground Stake      Architectural Junction Box      Brass (in-grade) Junction Box

Tree Strap (TS)      Cast Post-top Adaptor

### A. MODEL

<b>CDT</b>	Cadet
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### B. ENGINE-WATTS

<b>24NB-55</b>	55 Watts - LED array
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### C. CCT - COLOR TEMP

<b>3K</b>	3000K
<b>4K</b>	4000K
<b>5K</b>	5000K (std.)

### D. OPTICS

<b>2X2</b>	narrow spot
<b>4X4</b>	narrow flood
<b>5X5</b>	medium flood
<b>6X6</b>	wide flood
<b>5X3</b>	horizontal flood
<b>3X5</b>	vertical flood

### E. VOLTAGE

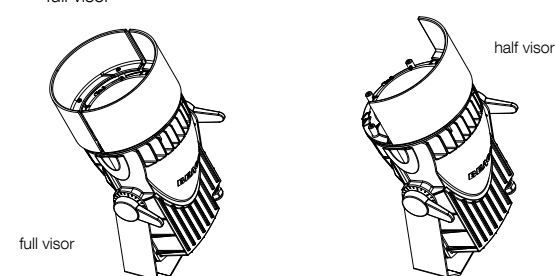
<b>UNV</b>	120-277V
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### F. MOUNTING OPTIONS

<b>YK</b>	yoke mount (std.)
<b>AJ</b>	architectural junction box
<b>BX</b>	brass junction box
<b>WA</b>	wall & ceiling adaptor
<b>GS</b>	ground stake
<b>PA</b>	cast post-top adaptor
<b>TS</b>	tree strap
<b>12NA</b>	1/2" NPT adaptor (std.)
<b>34NA</b>	3/4" NPT adaptor

### G. ACCESSORIES

<b>HV</b>	half visor
<b>FV</b>	full visor



full visor      half visor

**Intended Use:** The Cadet Luminaire is a high performance LED energy and maintenance lighting solution, designed with optical versatility. Markets Include: Flags, Columns, Statues, Security, Building Flood-lighting, Landscapes. The Cadet LED Luminaire is intended to be used to reduce energy and maintenance associated with legacy HID lighting technology.

**Construction:** The housing and electrical compartment 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 ASTM B-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.

**Mounting:** Aluminum adjustable yoke bracket with standard 1/2" NPT threaded adaptor is designed with tool-less adjustability using two cast aluminum handles with aiming degree markers cast into the aluminum body. Optional cast 2" slip-fitter and cast wall and ceiling mounting adaptors are also available. The Cadet is 360 degree fully adjustable.

**Electrical Assembly:** The fixture electrical compartment shall contain all LED driver components and shall be provided with an 18 AWG 3-wire SJO cord for electrical connections out of the rear of the housing compartment.

**Clear Lens:** Cadet lens is Clear Plexiglas® DR® impact modified thermo-plastic acrylic. It is a heat resistant resin and provides 10 times the impact resistance of standard acrylics without yellowing from UV exposure. It is an all-acrylic resin that combines the toughness associated with other impact plastics and the outstanding transparency and UV resistance of conventional acrylic materials.

**Optical Distributions:** The Cadet Luminaire provides the best combination of vertical and horizontal illumination with energy efficient high lumens per Watts optics. The Cadet 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 Cadet highly designed optics results in better uniformity, less energy consumption, and gives the lighting designer many optical choices for energy saving lighting solutions.

**User Adjustable Light Output:** Luminaire maximum Wattage is 60 Watts and shall include (as standard equipment) a four position rotary dimming switch. The switch shall be mounted on the PCB and used to manually set dimming level to approximately 25%, 50%, 75% and 100% of current. Dimming switch shall be accessible by removing a sealing screw from the lens. Following removal of screw, switch may be rotated with a small screwdriver. A metal insert shall be provided in lens to accept the access screw.

**Thermal Regulation 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.

**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:** Luminaries are equipped with an LED driver that accepts 100V through 277V, 50 Hz to 60 Hz (UNV). 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. 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 onboard 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 μSec 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.

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

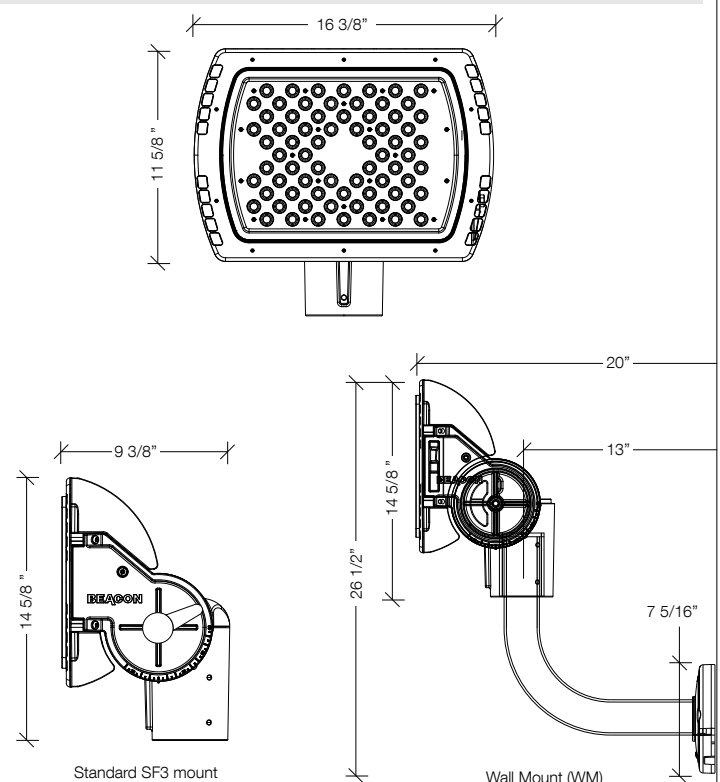
**Warranty:** Beacon luminaries feature a 5 year limited warranty. Beacon LED luminaries with LED arrays feature a 5 year limited warranty covering the LED arrays. LED drivers are covered by a 5 year limited warranty. PIR sensors carry a 5 year limited warranty from the sensor manufacturer. See Warranty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

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

Type: \_\_\_\_\_  
Project Name: \_\_\_\_\_  
Notes: \_\_\_\_\_

Sample	AL-U	60NB-136	5K	4X4	UNV	PEC	PM	PCL	BBT
Ordering	A	B	C	D	E	F	G	H	I

### DETAILS

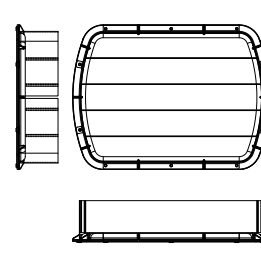
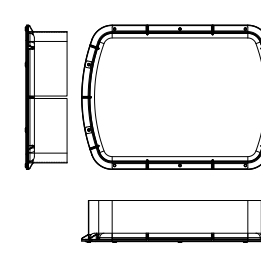
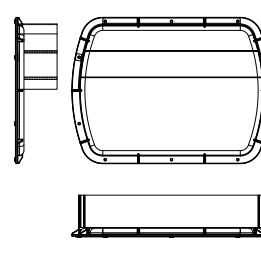
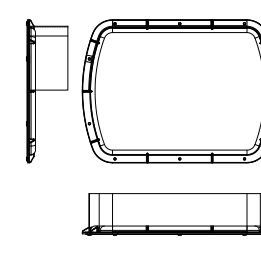


Standard SF3 mount  
Slips 2 3/8" to 3" O.D. Tenon

Wall Mount (WM)

A. MODEL		G. MOUNTING OPTIONS	
<b>AL-D</b>	Alpha, down light	<b>WM</b>	wall mount
<b>AL-U</b>	Alpha, up light <sup>3</sup>	<b>PM</b>	3" pier mount
		<b>SF3</b>	2 3/8" OD tenon (std.)
B. ENGINE-WATTS		H. SHIELD OPTIONS	
<b>24NB-55</b>	55 Watts - LED array	<b>FL</b>	full louver
<b>36NB-80</b>	80 Watts - LED array	<b>FV</b>	full visor
<b>60NB-136</b>	136 Watts - LED array	<b>HL</b>	half louver
<b>72NB-170</b>	170 Watts - LED array	<b>HV</b>	half visor
<b>72NB-220</b>	220 Watts - LED array	<b>PCL</b>	protective lens <sup>3</sup>
C. CCT - COLOR TEMP		I. COLOR	
<b>3K</b>	3000K	<b>BBT</b>	basic black textured
<b>4K</b>	4000K	<b>BMT</b>	black matte textured
<b>5K</b>	5000K (std.)	<b>WHT</b>	white textured
		<b>MBT</b>	metallic bronze textured
D. BEAM		<b>BZT</b>	bronze textured
<b>2X2</b>	narrow spot	<b>GS</b>	gray smooth
<b>4X4</b>	narrow flood	<b>DPS</b>	dark platinum smooth
<b>5X5</b>	medium flood	<b>GNT</b>	green textured
<b>6X6</b>	wide flood	<b>MST</b>	metallic silver textured
<b>5X3</b>	horizontal flood	<b>MTT</b>	metallic titanium textured
<b>3X5</b>	vertical flood	<b>OWI</b>	old world iron
		<b>RAL</b>	_____
E. VOLTAGE			
<b>UNV</b>	120-277V		
<b>347</b>	347V		
<b>480</b>	480V		
F. ELECTRICAL OPTIONS			
<b>PEC</b>	photocell, button		
<b>PCR-TL</b>	photocell, twist-lock <sup>1</sup>		
<b>PCR-SC</b>	photocell, shorting cap <sup>1</sup>		
<b>2PF</b>	dual power feed <sup>1,2</sup>		

### Shield Options

Full Louver	Full Visor
	
Half Louver	Half Visor
	

<sup>1</sup> not available @ 347V or 480V input

<sup>2</sup> available on 24NB-55, 72NB-170, and 72NB-220 only

<sup>3</sup> PCL required on AL-U configurations

**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 ASTM B-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 of 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. 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.

**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	Wattage	Delivered Lumens (varies by optic)	Delivered LPW	TM21 Calculated % Lumen Maint. at 100,000 hrs
24NB	55	5000-5660	91-103	96.19%
36NB	90	8190-9270	91-103	94.41%
60NB	136	12600-14000	93-103	92.73%
72NB	170	16150-17000	99-104	85.79%
72NB	220	19400-20400	91-95	83.97%

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>5000° K</b> = 1.0	min 67 CRI
<b>4000° K</b> = .92	min 70 CRI
<b>3000° K</b> = .75	min 80 CRI

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





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