

# SOLID STATE AREA LIGHTING

## TORNADO SERIES-LED

### SPECIFICATIONS

#### HOUSING

Durable corrosion resistant low copper cast aluminum alloy A356 (<0.2% Cu) having a minimum wall thickness of 1/4". Top is crowned for water run off, and retainer screw cavities are open for drainage. Top is fully gasketed and secured by (4) stainless steel allen screws. Access Panel(s) is fully gasketed and retained by (2) stainless steel allen screws located below the lens. Body secures to Mounting Stanchion by means of a cast aluminum wedge lock secured by a single stainless steel bolt and accessed through the access panel.

#### LED OPTICAL MODULE

Low copper A356 alloy (<.2% copper) cast aluminum housing. Integrated clear tempered 3/16" glass lens sealed with a continuous silicone gasket protects emitters (LED's) and emitter Reflector-Prism optics, and seals the module from water intrusion and environmental contaminants. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Each emitter is optically controlled by a Reflector-Prism injection molded from H12 acrylic (3 types per module; one from 0° - 50°; one from 50° - 65°; one from 65° - 72°). Each Reflector-Prism has indexing pins for aiming and is secured to an optical plate made of matte black anodized aluminum. The optical plate locates every Reflector-Prism over an emitter. Reflector-Prisms are secured to the optical plate with a UV curing adhesive. The Reflector-Prisms are arrayed to produce IES Type II, IES Type III, IES Type IV, and IES Type V-SQ distributions. The entire Optical Module is field rotatable in 90° increments. Both module and drivers are factory wired using water resistant, insulated cord. Lens, module and drivers are field replaceable.

#### LED EMITTERS

High Output LED's are driven at 350mA for nominal 1 Watt output each. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

#### LED DRIVER

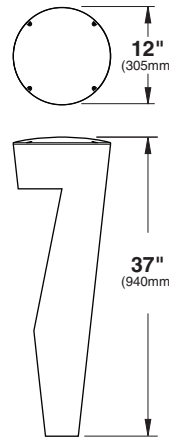
UL and CUL recognized High Power Factor, Constant Current LED drivers operate on input voltages from 120-277VAC, 50/60hz. Consult Factory for 347-480VAC. Driver is mechanically fastened to a retaining bracket. Main power quick disconnect provided. Driver has a minimum 4KV of internal surge protection, 10KV & 20KV Surge Protector optional. Dimming and High-Low Driver options available.

#### FINISH

Electrostatically applied TGIC Polyester Powder Coat on substrate prepared with 20 PSI power wash at 140°F. Four step iron phosphate pretreatment for protection and paint adhesion. 400°F bake for maximum hardness and durability. Texture finish is standard.

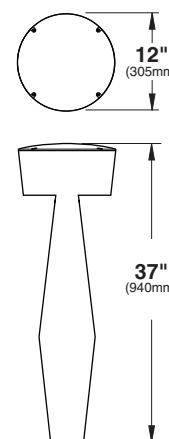
PROJECT NAME: \_\_\_\_\_

FIXTURE TYPE: \_\_\_\_\_



**TNA\***

\* SHOWN WITH RIBBED ACCESS PANEL -RAP PATENT PENDING



**TNS**

PATENT PENDING

MADE IN THE  
**USA**

2013030

**U.S. ARCHITECTURAL  
LIGHTING**

# TORNADO SERIES - LED

## S P E C I F I C A T I O N S

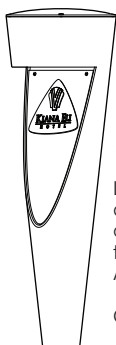
### PANEL OPTIONS



#### RAP Raised Access Panel

Raised ribs in radiating pattern on Access Panel.

For TNS, both Access Panels will be raised.

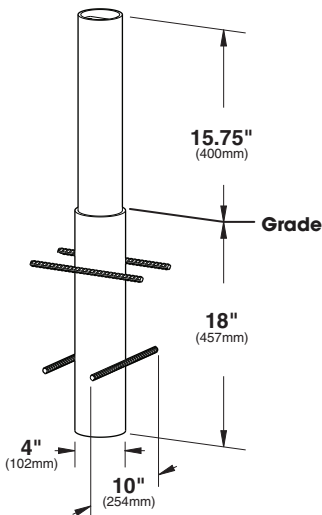


#### Signature Medallion

Logos, medallions and other symbols can be attached to the standard smooth Access Panel.

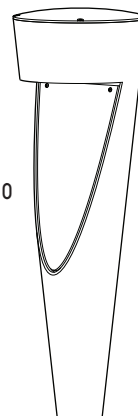
Consult factory.

### MOUNTING STANCHION

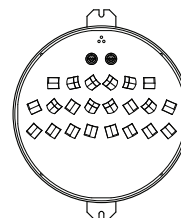


3 1/2" SCH40 STEEL PIPE (below grade) WELDED TO 3" SCH 40 STEEL PIPE (above grade). (4) SECTIONS OF REINFORCING BAR WELDED TO LOWER PIPE FOR TIE-IN TO PAVING AND FOOTING STEEL BY OTHERS. ENTIRE ASSEMBLY IS HOT DIPPED GALVANIZED.

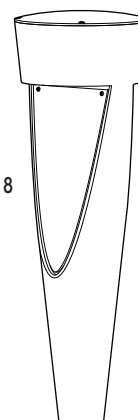
### LED<sup>®</sup> MODULES



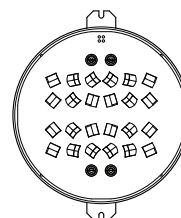
**TNA** E.P.A. = 1.30  
Available in:  
24 LED Module



24 LED Module



**TNS** E.P.A. = 1.18  
Available in:  
28 LED Module



28 LED Module

## O R D E R I N G I N F O R M A T I O N

LUMINAIRE	OPTICS	# of LED's	COLOR	VOLTAGE	FINISH	OPTIONS
<b>LUMINAIRE</b>	<b>OPTICS</b>	<b>LED</b>		<b>FINISH</b>	<b>OPTIONS</b>	
LUMINAIRE	LED <sup>®</sup> DISTRIBUTION TYPE	No. LEDs	COLOR	VOLTAGE	STANDARD TEXTURED FINISH	
<input type="checkbox"/> TNA-LED	TNA	TNA	<input type="checkbox"/> NW (4000K)* *STANDARD	<input type="checkbox"/> 120	<input type="checkbox"/> BLACK RAL-9005-T	<input type="checkbox"/> RAISED ACCESS - PANEL ..... RAP
<input type="checkbox"/> TNS-LED	ASY .....	<input type="checkbox"/> 24LED (28 Watts)	<input type="checkbox"/> CW (5000K)	<input type="checkbox"/> 208	<input type="checkbox"/> WHITE RAL-9003-T	<input type="checkbox"/> DIMMABLE DRIVER(S) (0-10V) ..... DIM
	TNS	TNS	<input type="checkbox"/> WW (3000K)	<input type="checkbox"/> 240	<input type="checkbox"/> GREY RAL-7004-T	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NON-INTEGRATED MOTION SENSOR ..... HLSW
	SYM .....	<input type="checkbox"/> 28LED (32 Watts)	OTHER LED COLORS AVAILABLE CONSULT FACTORY	<input type="checkbox"/> 277	<input type="checkbox"/> DARK BRONZE RAL-8019-T	<input type="checkbox"/> 10KV SURGE PROTECTOR ..... 10SP
		Wattages are Max Input Watts		<input type="checkbox"/> 347	<input type="checkbox"/> GREEN RAL-6005-T	<input type="checkbox"/> 20KV SURGE PROTECTOR (277V & 480V Only) . . . 20SP
				<input type="checkbox"/> 480	FOR SMOOTH FINISH REMOVE SUFFIX "T" (EXAMPLE: RAL-9500)	
					SEE USALTG.COM FOR ADDITIONAL COLORS	