

SOLID STATE AREA LIGHTING

TSUNAMI SERIES-LED

SPECIFICATIONS

HOUSING

Heavy cast low copper aluminum assembly (A356 alloy, <.2% copper) minimum wall thickness .188" with integral cooling ribs surrounding the electrical compartment. The optical and electrical compartments are integrated with the support arm to create one assembly. Minimum wall thickness is ¼". Cast and hinged driver compartment cover is integrated with wiring compartment cover.

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. Module is sealed to meet an IP67 rating. 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, III, IV, and 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 DRIVER

Drivers are UL and cUL recognized mounted on a single plate and factory prewired with quick-disconnect plugs. Constant current driver is electronic and has a power factor of >0.90 and a minimum operating temperature of -40°F. Drivers accept an input of 120-277V, 50/60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection.)

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.

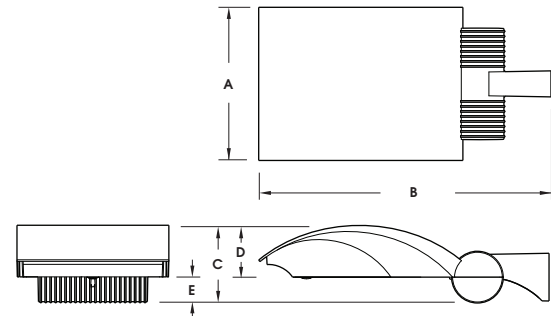
PROJECT NAME: _____

PROJECT TYPE: _____



TSU

PATENT PENDING



FIXTURE	A	B	C	D	E
TSU	19" 483mm	37" 940mm	9.75" 248mm	6.5" 165mm	3.25" 83mm
TSUM	15" 381mm	29.5" 749mm	7.875" 200mm	5.25" 133mm	2.625" 67mm

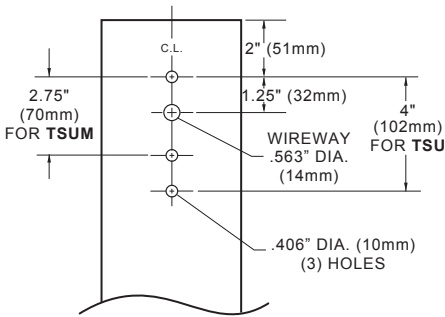


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TSUNAMI SERIES - LED

SPECIFICATIONS

POLE DRILLING TEMPLATE



OVERVIEW

PRECISE CAST ALUMINUM LED MODULE. HOUSING IS VENTED TO PROVIDE AIR FLOW FOR THERMAL MANAGEMENT.

SELF CONTAINED, LENSED LED MODULE.

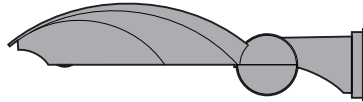
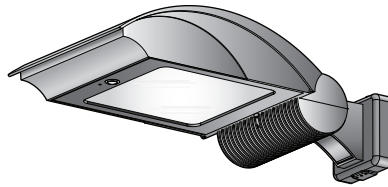
PROPRIETARY LED OPTICS SEALED IN LED MODULE.

LUXEON® REBEL LED EMITTERS.

LED DRIVER ACCEPTS FROM 100-277 VAC INPUT VOLTAGE.

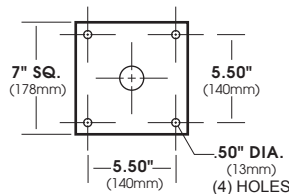
BALLAST TRAY IS REMOVABLE WITHOUT THE USE OF TOOLS FOR EASY ACCESS TO ELECTRICAL COMPONENTS.

WALL MOUNT

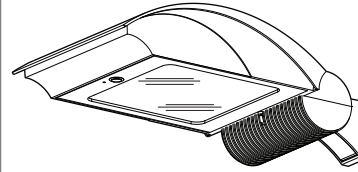


EXTRUDED ALUMINUM ARM AND CAST ALUMINUM WALL BRACKET ASSEMBLY PROVIDED WITH BUILT IN GASKETED WIRE ACCESS FOR FIXTURE/SUPPLY WIRE CONNECTION.

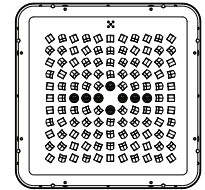
WALL PLATE



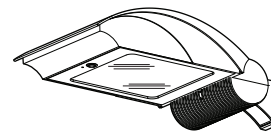
VLED® MODULES



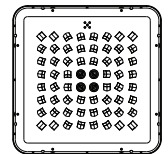
TSU E.P.A. = 1.53
 Available in:
 120, 100, 80, & 64
 LED Module



120 LED Module



TSUM E.P.A. = .96
 Available in:
 64, & 48
 LED Module



64 LED Module

MAX INPUT WATTAGE

LED's	DRIVE CURRENT		
	350mA	525mA	700mA
120	130W	192W	--
100	108W	160W	--
80	85W	130W	167W
64	70W	108W	134W
48	55W	79W	109W

SPEC / ORDERING INFORMATION

LUMINAIRE	OPTICS	# of LED's	DRIVE CURRENT	COLOR	VOLTAGE	MOUNTING	FINISH	OPTIONS
LUMINAIRE	OPTICS	LED		MOUNTING	FINISH	OPTIONS		
<input type="checkbox"/> TSU <input type="checkbox"/> TSUM	VLED® IES DISTRIBUTION TYPE <input type="checkbox"/> VLED - II (Type-II) <input type="checkbox"/> VLED - III (Type-III) <input type="checkbox"/> VLED - IV (Type-IV) <input type="checkbox"/> VLED - VSQ (Type-VSQ)	TSU <input type="checkbox"/> 120LED ¹ <input type="checkbox"/> 100LED ¹ <input type="checkbox"/> 80LED <input type="checkbox"/> 64LED TSUM <input type="checkbox"/> 64LED ¹ <input type="checkbox"/> 48LED	<input type="checkbox"/> 700mA <input type="checkbox"/> 525mA <input type="checkbox"/> 350mA	<input type="checkbox"/> NW (4000K) *STANDARD <input type="checkbox"/> CW (5000K) <input type="checkbox"/> WW (3000K) OTHER LED COLORS AVAILABLE CONSULT FACTORY	<input type="checkbox"/> 120 <input type="checkbox"/> 208 <input type="checkbox"/> 240 <input type="checkbox"/> 277 <input type="checkbox"/> 347 <input type="checkbox"/> 480	ARM MOUNT <input type="checkbox"/> 1 <input type="checkbox"/> 2-180 <input type="checkbox"/> 2-90 <input type="checkbox"/> 3-90 <input type="checkbox"/> 4-90 <input type="checkbox"/> 3-120 WALL MOUNT <input type="checkbox"/> WM	STANDARD TEXTURED FINISH <input type="checkbox"/> BLACK RAL-9005-T <input type="checkbox"/> WHITE RAL-9003-T <input type="checkbox"/> GREY RAL-7004-T <input type="checkbox"/> DARK BRONZE RAL-8019-T <input type="checkbox"/> GREEN RAL-6005-T FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9500-S) SEE USALTG.COM FOR ADDITIONAL COLORS	<input type="checkbox"/> HOUSE SIDE SHIELDED REFLECTOR-PRISMS... HS-VLED <input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NON-INTEGRATED MOTION SENSOR... HLSW <input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V)... PC+V <input type="checkbox"/> TWIST LOCK PHOTOCELL +VOLTAGE... TPC+V <input type="checkbox"/> TWIST LOCK PHOTOCELL RECEPTACLE ONLY... TPR <input type="checkbox"/> SINGLE FUSE (120V... 277V)... SF <input type="checkbox"/> DOUBLE FUSE (208V... 240V)... DF

TSUNAMI SERIES - LED

LAMP/ELECTRICAL GUIDE

LED COUNT	SOURCE TYPE	SOURCE	INITIAL LUMENS - 4000K	INITIAL LUMENS - 3000K	INITIAL LUMENS - 5000K	L70 GREATER THAN (HR)	STARTING TEMP.	SYSTEM WATTS	VOLTS	MAX INPUT AMPS
48	LED	48 VLED* Optical Module - 350mA	4,241 - 4,760	3,731 - 4,187	4,337 - 4,868	60,000+	-20°F	55	120 277 347	0.46 0.20 0.16
48	LED	48 VLED* Optical Module - 525mA	5,871 - 6,557	5,152 - 5,755	6,009 - 6,711	60,000+	-20°F	79	120 277 347	0.66 0.29 0.23
48	LED	48 VLED* Optical Module - 700mA	7,515 - 8,131	6,579 - 7,119	7,696 - 8,327	60,000+	-20°F	109	120 277 347	0.91 0.40 0.32
64	LED	64 VLED* Optical Module - 350mA	5,255 - 5,898	4,623 - 5,189	5,373 - 6,031	60,000+	-20°F	70	120 277 347	0.59 0.26 0.21
64	LED	64 VLED* Optical Module - 525mA	7,393 - 8,257	6,488 - 7,246	7,566 - 8,451	60,000+	-20°F	108	120 277 347	0.90 0.39 0.32
64	LED	64 VLED* Optical Module - 700mA	9,927 - 10,405	8,691 - 9,110	10,166 - 10,655	60,000+	-20°F	134	120 277 347	1.12 0.49 0.39
80	LED	80 VLED* Optical Module - 350mA	7,131 - 7,452	6,273 - 6,556	7,292 - 7,620	60,000+	-20°F	85	120 277 347	0.77 0.31 0.25
80	LED	80 VLED* Optical Module - 525mA	9,994 - 10,444	8,770 - 9,166	10,228 - 10,689	60,000+	-20°F	130	120 277 347	1.09 0.47 0.38
80	LED	80 VLED* Optical Module - 700mA	12,408 - 13,005	10,863 - 11,386	12,707 - 13,318	60,000+	-20°F	167	120 277 347	1.40 0.61 0.49
100	LED	120 VLED* Optical Module - 350mA	8,862 - 9,620	7,796 - 8,146	9,062 - 9,469	60,000+	-20°F	109	120 277 347	0.91 0.40 0.32
100	LED	120 VLED* Optical Module - 525mA	12,261 - 12,813	10,786 - 11,271	12,537 - 13,102	60,000+	-20°F	160	120 277 347	1.34 0.58 0.47
120	LED	120 VLED* Optical Module - 350mA	10,634 - 11,112	9,355 - 9,776	10,874 - 11,363	60,000+	-20°F	130	120 277 347	1.09 0.47 0.38
120	LED	120 VLED* Optical Module - 525mA	14,713 - 15,375	12,911 - 13,809	15,057 - 16,104	60,000+	-20°F	192	120 277 347	1.60 0.70 0.56

NOTES:

1. Max Input Amps is the highest of starting, operating, or open circuit currents
2. Lumen values for LED Modules vary according to the distribution type
3. System Watts includes the source watts and all driver components.
4. Fuse value should be sufficient to protect all wiring components. For electronic driver and LED component protection, use 10KV - 20KV surge suppressors.
5. L70(9K) - TM-21 6x rule applied

WARNING: All fixtures must be installed in accordance with local codes or the National Electrical Code. Failure to do so may result in serious personal injury.