

# SOLID STATE AREA LIGHTING

## VALULUME SERIES-PLED

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

#### OPTICAL HOUSING

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling fins. The Optical Panel mounting surface is milled flat (surface variance  $\pm .003"$  over 12") to facilitate thermal transfer of heat to housing and cooling fins. Solid barrier wall separates optical and electrical compartments. The optical and electrical compartments are integrated to create one assembly. Minimum wall thickness is .188".

#### ELECTRICAL HOUSING w/ INTEGRATED ARM

Heavy cast low copper aluminum (A356 alloy; <0.2% copper) assembly with integral cooling ribs surrounding the electrical compartment and a flat surface on the top of the arm to accommodate a photocell receptacle. Solid barrier wall separates optical and electrical compartments. The optical compartment and electrical compartment with the integrated support arm combine to create one assembly. Minimum wall thickness is .188". Cast and hinged driver assembly cover is integrated with wiring compartment cover.

#### PLED™ OPTICS

Emitters (LED's) are arrayed on a metal core PCB panel with each emitter located on a copper thermal transfer pad and enclosed by an LED refractor. LED optics completely seal each individual emitter to meet an IP66 rating. In asymmetric distributions, a micro-reflector inside the refractor re-directs the house side emitter output towards the street side and functions as a house side shielding element. Refractors are injection molded H12 acrylic. Each LED refractor is sealed to the PCB over an emitter and all refractors are retained by an aluminum frame. Any one Panel, or group of Panels in a luminaire, have the same optical pattern. LED refractors produce standard site/area distributions. Panels are field replaceable and field rotatable in 90° increments.

#### LED DRIVER(S)

Constant current electronic with a power factor of >.90 and a minimum operating temperature of -40°F/-40°C. Driver(s) is/are UL and cUL recognized and mounted directly against the Electrical Housing to facilitate thermal transfer, held down by universal clamps to facilitate easy removal. In-line terminal blocks facilitate wiring between the driver and optical arrays. Drivers accept an input of 120-277V, 50/60Hz or 347V-480V, 50,60Hz. (0 - 10V dimmable driver is standard. Driver has a minimum of 3KV internal surge protection. Luminaire supplied with 20KV surge protector for field accessible installation.)

#### LED EMITTERS

High output LED's are utilized with drive currents ranging from 350mA to 1050mA. 70CRI Minimum. LED's are available in standard Neutral White (4000K), or optional Cool White (5000K) or Warm White (3000K). Consult Factory for other LED options.

#### FINISH

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

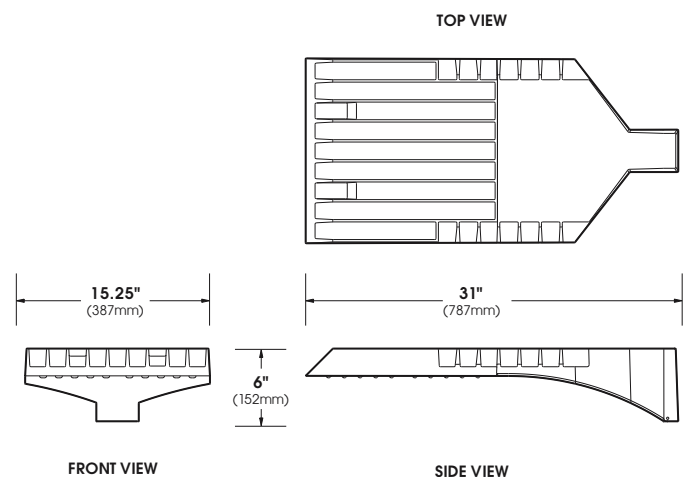
PROJECT NAME:

FIXTURE TYPE:



PATENT PENDING

## VLL PLED



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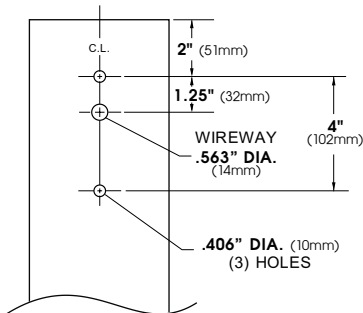


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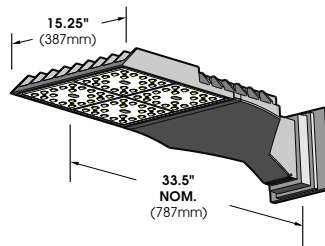
# VALULUME SERIES - PLED

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

### POLE DRILLING TEMPLATE

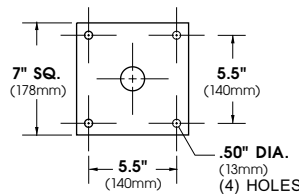


### WALL MOUNT

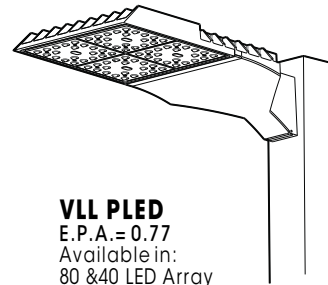


EXTRUDED ALUMINUM ARM AND CAST ALUMINUM WALL BRACKET ASSEMBLY PROVIDED WITH BUILT IN GASKETED WIRE ACCESS FOR FIXTURE/SUPPLY WIRE CONNECTION.

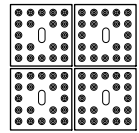
### WALL PLATE



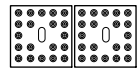
### PLED™ MODULES



**VLL PLED**  
E.P.A. = 0.77  
Available in:  
80 & 40 LED Array



80 LED Array




















40 LED Array

No. of LEDs	Drive Current	System Watts	HID Equivalent
40	350mA	45	70 - 100
	525mA	66	100 - 150
	700mA	91	175
	1050mA	142	200 - 250
80	350mA	92	150 - 175
	525mA	136	200 - 250
	700mA	184	400
	1050mA	266	450

Spec/Order Example: VLL-LED/PLED-V-SQ/80LED-700mA/NW/277/1/RAL9005

## S P E C / O R D E R I N G I N F O R M A T I O N

MODEL	OPTICS	LED			MOUNTING	FINISH	OPTIONS
<input type="checkbox"/> VLL LED	<b>PLED™ DISTRIBUTION</b>	No. LEDs	DRIVE CURRENT	COLOR TEMP-CCT	ARM MOUNT	STANDARD TEXTURED FINISH	
	<input type="checkbox"/> TYPE II <b>PLED-II</b> . . . . . 	<input type="checkbox"/> 80LED	<input type="checkbox"/> 1050mA	<input type="checkbox"/> NW (4000K)* *STANDARD	<input type="checkbox"/> 1 . . . . . 	<input type="checkbox"/> BLACK <b>RAL-9005-T</b>	<input type="checkbox"/> HIGH-LOW DIMMING FOR HARDWIRED SWITCHING OR NONINTEGRATED MOTION SENSOR . . . . . <b>HLSW</b>
	<input type="checkbox"/> TYPE II FRONT ROW <b>PLED-II-FR</b> . . . . . 	<input type="checkbox"/> 40LED	<input type="checkbox"/> 700mA	<input type="checkbox"/> CW (5000K)	<input type="checkbox"/> 2-180 . . . . . 	<input type="checkbox"/> WHITE <b>RAL-9003-T</b>	<input type="checkbox"/> INTERNAL HOUSE SIDE SHIELD . . . <b>HS-PLED</b>
	<input type="checkbox"/> TYPE II MEDIAN ILLUMINATOR <b>PLED-II-ML</b> . . . . . 	<input type="checkbox"/> 525mA	<input type="checkbox"/> WW (3000K)	OTHER LED COLORS AVAILABLE CONSULT FACTORY	<input type="checkbox"/> 2-90 . . . . . 	<input type="checkbox"/> GREY <b>RAL-7004-T</b>	<input type="checkbox"/> PHOTO CELL + VOLTAGE (EXAMPLE: PC120V) . . <b>PC+V</b>
	<input type="checkbox"/> TYPE III MED. <b>PLED-III M</b> . . . . . 	<input type="checkbox"/> 350mA			<input type="checkbox"/> 3-120 . . . . . 	<input type="checkbox"/> DARK BRONZE <b>RAL-8019-T</b>	<input type="checkbox"/> TWIST LOCK RECEPTACLE ONLY . . . <b>TPR</b>
	<input type="checkbox"/> TYPE III WIDE <b>PLED-III W</b> . . . . . 		VOLTAGE		<input type="checkbox"/> 3-90 . . . . . 	<input type="checkbox"/> GREEN <b>RAL-6005-T</b>	<input type="checkbox"/> 7-PIN TWIST LOCK RECEPTACLE ONLY . . . <b>TPR7</b>
	<input type="checkbox"/> TYPE IV <b>PLED-IV</b> . . . . . 		<input type="checkbox"/> 120	<input type="checkbox"/> 4-90 . . . . . 	FOR SMOOTH FINISH REPLACE SUFFIX "T" WITH SUFFIX "S" (EXAMPLE: RAL-9005-S)	<input type="checkbox"/> SINGLE FUSE (120V, 277V, 347V) . . <b>SF</b>	
	<input type="checkbox"/> TYPE IV <b>PLED-IV-FT</b> . . . . . 		<input type="checkbox"/> 208	<input type="checkbox"/> UNIVERSAL POLE ADAPTOR. . . . . <b>UPA</b>		<input type="checkbox"/> DOUBLE FUSE (208V, 240V, 480V) . . <b>DF</b>	
	<input type="checkbox"/> TYPE V NARROW <b>PLED-VSQ-N</b> . . . . . 		<input type="checkbox"/> 240	<b>WALL MOUNT</b>		<input type="checkbox"/> STEP DIM MOTION SENSOR (PROGRAMMED 50/100) . . . . . <b>MS-F211</b>	
	<input type="checkbox"/> TYPE V MED. <b>PLED-V-SQ-M</b> . . . . . 		<input type="checkbox"/> 277	<input type="checkbox"/> WM . . . . . 		<input type="checkbox"/> REMOTE MOTION SENSOR CONFIGURATOR . . . . . <b>MS-FC10</b>	
<input type="checkbox"/> TYPE V WIDE <b>PLED-V-SQ-W</b> . . . . . 		<input type="checkbox"/> 347					
		<input type="checkbox"/> 480					

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PZ21-12000014  
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## LED/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
40	LED	40 <b>PLED</b> Optical Module - 350mA	5,585 - 6,408	5,306 - 6,088	5,864 - 6,729	85,000+	-40°F	43	120 277 347	0.36 0.16 0.12
40	LED	40 <b>PLED</b> Optical Module - 525mA	8,059 - 9,246	7,656 - 8,784	8,462 - 9,709	85,000+	-40°F	65	120 277 347	0.54 0.23 0.19
40	LED	40 <b>PLED</b> Optical Module - 700mA	10,240 - 11,749	9,728 - 11,162	10,752 - 12,337	85,000+	-40°F	87	120 277 347	0.73 0.31 0.25
40	LED	40 <b>PLED</b> Optical Module - 1050mA	13,642 - 15,652	12,960 - 14,870	14,324 - 16,435	85,000+	-40°F	128	120 277 347	1.07 0.46 0.37
80	LED	80 <b>PLED</b> Optical Module - 350mA	10,824 - 12,419	10,283 - 11,798	11,365 - 13,040	85,000+	-40°F	86	120 277 347	0.72 0.31 0.25
80	LED	80 <b>PLED</b> Optical Module - 525mA	15,587 - 17,884	14,808 - 16,990	16,366 - 18,778	85,000+	-40°F	130	120 277 347	1.08 0.47 0.37
80	LED	80 <b>PLED</b> Optical Module - 700mA	19,767 - 22,680	18,779 - 21,546	20,755 - 23,814	85,000+	-40°F	174	120 277 347	1.45 0.63 0.50
80	LED	80 <b>PLED</b> Optical Module - 1050mA	26,255 - 30,124	24,942 - 28,618	27,568 - 31,630	85,000+	-40°F	257	120 277 347	2.14 0.93 0.74

### 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.

