

# VEGA 2x4 LED

RECESSED



**LUMENWERX**  
WWW.LUMENWERX.COM



Grid ceiling

Drywall ceiling

### DESCRIPTION

**Vega** is an efficient architectural LED troffer with a distinctive luminous shielding that features a median textured optic. Using advanced LED engines, Vega provides highly efficient illumination and offers comprehensive ceiling, electrical, and controls options in 2x2, 1x4, and 2x4 sizes. See separate spec sheets for other available mountings.

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

APPROVED BY: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

TYPE	QTY



up to 116 lm/w performance

IC RATED

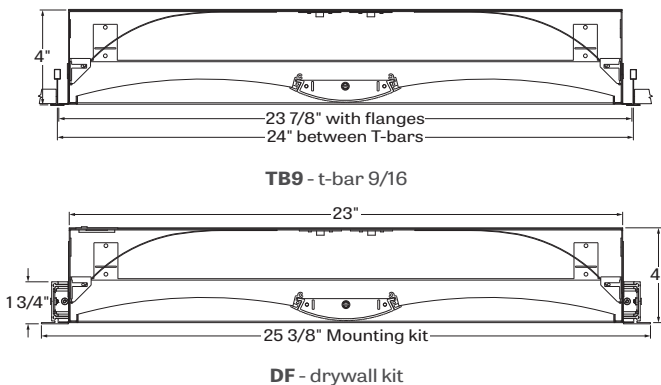
### ORDER GUIDE

VEGR	24	MTO	HLO	LED				
LUMINAIRE ID	SIZE	CENTER OPTICS	SIDE OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.	VOLTAGE
VEGR - vega recessed	24 - 2'x4'	MTO - Median Textured Optic	HLO - High-Efficiency Lambertian Optic	LED - high performance LED	80 - 80CRI 90 - 90CRI	4000 - min. low output 4000lm 5500 - medium output 5500lm 6800 - max. high output 6800lm #### - other required lm	27 - 2700k 30 - 3000k 35 - 3500k 40 - 4000k	120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V (not available with Lutron)

DRIVER	ELECTRICAL	MOUNTING	FINISH	CONTROLS	OPTIONS
<b>D1</b> - 1% dimming 0-10V <b>DA</b> - Dali <b>LTEA2W</b> - Lutron 1% - 2 wire FF 120V <b>LDE1</b> - Lutron Hi-lume 1% Eco <b>LDE5</b> - Lutron 5% EcoSystem	<b>1</b> - 1 circuit <b>+EB</b> - emergency battery pack <b>+GTD###</b> - generator transfer device, 120V or 277V	<b>TG9</b> - tegular 9/16" <b>TG15</b> - tegular 15/16" <b>TB9</b> - t-bar 9/16" <b>TB15</b> - t-bar 15/16" <b>ST</b> - screw slot t-bar <b>DF</b> - drywall kit	<b>W</b> - matte white <b>CF#</b> - custom finish specify RAL#	<b>STANDALONE CONTROLS</b> <b>OMS</b> - Onboard Occupancy <b>ODS</b> - Onboard Daylight <b>OCS</b> - Onboard Occupancy & Daylight <b>CONNECTED CONTROLS</b> <b>CCS()</b> - LU-Lutron, EN-Enlighted, OS-Osram, CR-Crestron. To specify see information on page 5	<b>FU</b> - fuse <b>FWC</b> - flexible whip cable (6' std) <b>AR</b> - air return (for grid only) <b>CP</b> - Chicago Plenum <b>CU</b> - custom

See page 4 for ordering code detailed information

### CROSS SECTION



### OPTICS



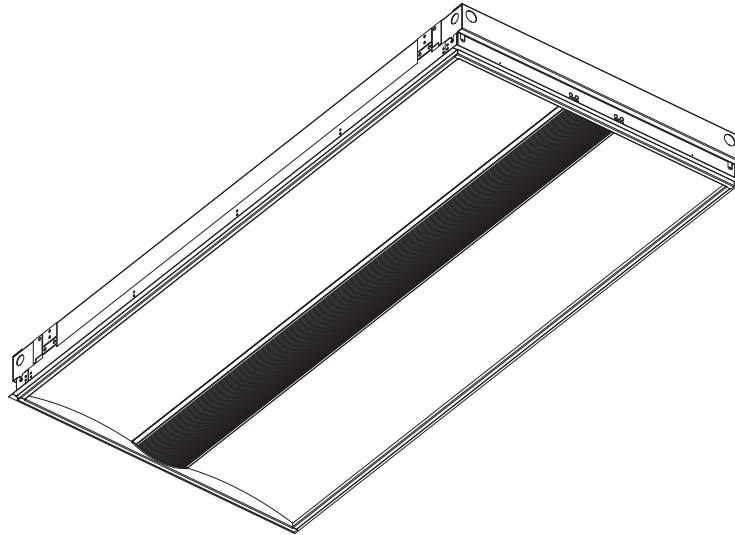
**HLO Side optics** - High-Efficiency Lambertian  
**MTO Center optics** - Median Textured Optic



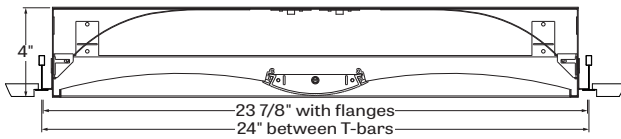
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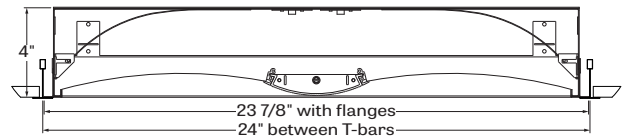
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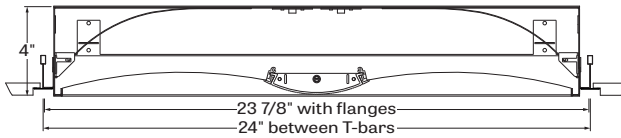
**VEGA - TG9 - tegular 9/16"**



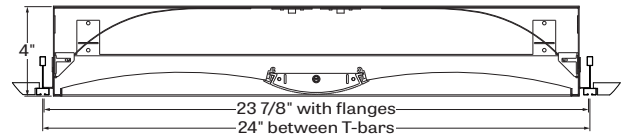
**VEGA - TB15 - t-bar 15/16"**



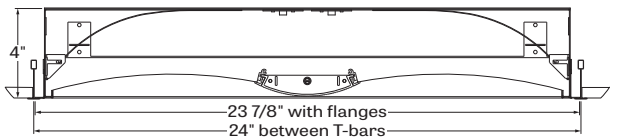
**VEGA - TG15 - tegular 15/16"**



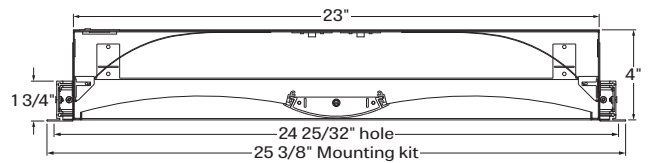
**VEGA - ST - screw slot t-bar**



**VEGA - TB9 - t-bar 9/16"**



**VEGA - DW - drywall kit**



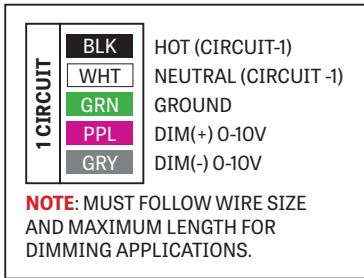
# VEGA 2x4 LED

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## ELECTRICAL CIRCUITS

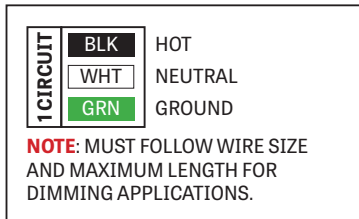
### DIMMING 0-10V -

1 Circuit



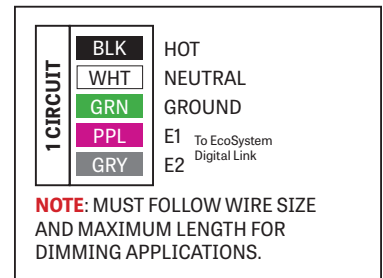
### LUTRON 1% 2-wire FF 120V -

1 Circuit



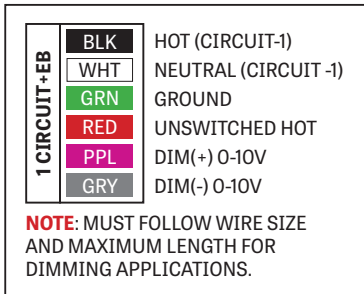
### LUTRON LDE1 1%/LDE5 5% EcoSystem -

1 Circuit



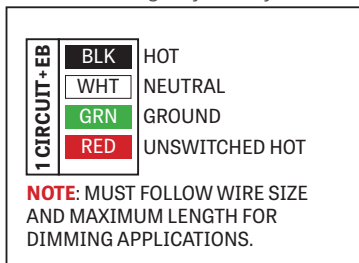
### DIMMING 0-10V -

1 Circuit + Emergency Battery



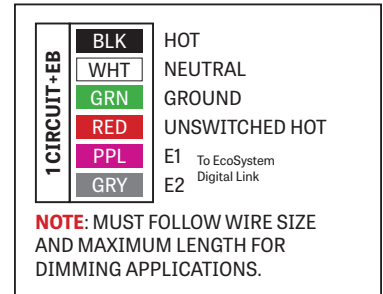
### LUTRON 1% 2-wire FF 120V -

1 Circuit + Emergency Battery



### LUTRON LDE1 1%/LDE5 5% EcoSystem -

1 Circuit + Emergency Battery



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## OPTICS

**CENTER LENS - MEDIAN TEXTURED OPTIC (MTO)** - Median Textured Optic (MTO) shielding consisting of ribbed diffusing center element.

**SIDE LENS - HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO)** - Curved sides of diffusing 0.075" thick acrylic with 90% transmission and good source obscuration. Luminaire brightness is controlled by the flux-to-shielding area ratio in addition to offering a gentle gradient from center to edge.

## LIGHT SOURCE - LED

Custom array of mid-flux LED's are mounted directly to the housing for optimal thermal performance. Available in 3000K, 3500K and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	35	4000	116
medium output	4000K	48	5500	115
high output	4000K	60	6800	113

## ELECTRICAL

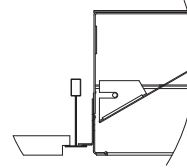
Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other specifiable options include Lutron Hi-Lume 1% (specify 2-wire, or Ecosystem Dim-to-Off), Lutron 5-Series (5% Ecosystem), DMX (RDM compatible) and DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant.

## EMERGENCY

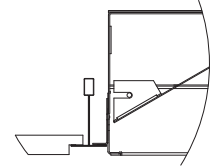
Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1300 lumens (25°C) emergency lighting output. Recharge time of 24 hours.

## MOUNTING OPTIONS

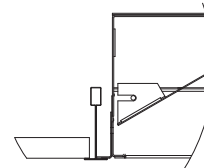
Recess mount into exposed or concealed T-Bar or Tegular grid ceiling



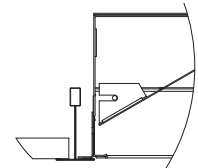
TG9 - tegular 9/16"



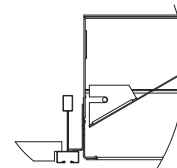
TG15 - tegular 15/16"



TB9 - t-bar 9/16"

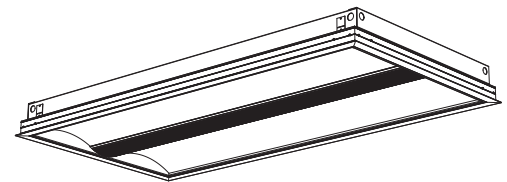
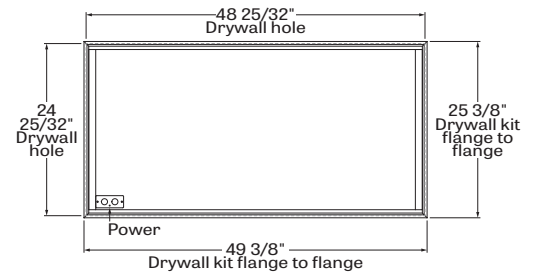


TB15 - t-bar 15/16"



ST - screw slot t-bar

A separate kit for mounting fixtures into drywall ceilings



DF - drywall kit

## FINISH

**Interior reflectors** - 95% reflective, matte white powder coating

**Exterior** - matte white powder coating.

Custom finish is also available.

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## CONTROLS

LumenWerx offers several options for integrating occupancy and daylight harvesting controls in our luminaires.

### STANDALONE CONTROLS

An integrated standalone sensor controls the luminaire in which it is installed. Depending on the length, more than one sensor may be necessary and may control the entire luminaire, or just a section of it. These controls operate independently. Unless otherwise agreed, location and functionality of the sensor within the luminaire are selected by LumenWerx.

Three types are available:

**OMS:** An integral Passive InfraRed (PIR) sensor turns luminaires on and off automatically with field-adjustable time out period. No wall control is used.

Coverage pattern for large motion has a 12' diameter with the sensor mounted 8' above the floor; for small motion, the pattern has an 8' diameter. Typically, one sensor is required for every 10' of a continuous luminaire run.

**ODS:** An integral, daylight harvesting sensor with closed-loop operation dims the luminaire in which it is installed in order to compensate for available daylight. The sensor measures the combination of daylight and luminaire light reflected from horizontal surfaces below the luminaire. Initial onsite calibration is required via the use of provided remote control.

**OCS:** Both an occupancy and a daylight sensor are installed in the luminaire.



Location of an Onboard control

### CONNECTED CONTROLS

With Connected Controls, sensors or nodes installed in the luminaire form part of a larger control system infrastructure from manufacturers such as: Lutron\*, Enlighted, Osram ENCELIUM, Acuity nLight, Crestron and others. These connected controls allow for a scalable system providing features like occupancy and daylight control, manual control, scheduling and configuration of various zones and scenes. Energy reporting and system monitoring are also possible. Specific capabilities depend on the control system being used.

LumenWerx installs the components (sensors, nodes, power packs, etc) which may be supplied to us by a third party, or procured directly by LumenWerx, depending on the control system manufacturer.

LumenWerx is solely responsible for the installation of specified components; the controls manufacturer is responsible for performance of the control system.

To indicate a LumenWerx luminaire with Connected Controls, identify the specific onsite control system to be integrated into the luminaires using the ordering code. Due to the diversity of components, you must contact [controls@lumenwerx.com](mailto:controls@lumenwerx.com) to assure complete compatibility with intended control system and to fully specify the luminaire.

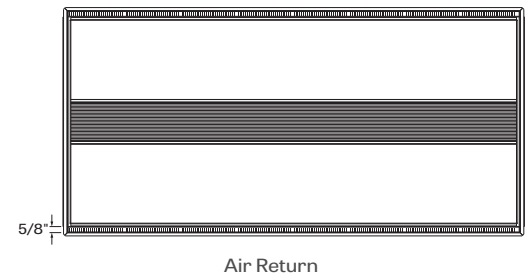
Complete control specifications, sensor/node/power pack layout, and narrative for the control system are required for LumenWerx to create shop drawings and submittals.

\* Lumenwerx offers a Lutron Vive-Enabled fixture option using either the DFCSJ-OEM-OCC (OCS Option) or DFCSJ-OEM-RF (wireless only, no sensor) Integral Fixture Modules and a DALI or EcoSystem LED driver based on customer dimming requirements.

**Please contact our controls department at [controls@lumenwerx.com](mailto:controls@lumenwerx.com) for further assistance.**

### OPTIONS

The air return option consists in a discreet, yet efficient, slot pattern integrated into the side flanges of the luminaire, allowing the airflow to exhaust into plenum space, creating a clean, pleasant look of the ceiling.



### CONSTRUCTION

**Housing** - Die formed cold rolled sheet steel 20 gauge thick, matte white powder coating.

**Reflectors** - Cold rolled steel 0.030" thick precisely die formed, 95% reflective matte white painted.

**Interior brackets** - Die formed cold rolled sheet steel 20 gauge thick.

**Center basket** - Extruded Aluminum 0.07" nominal, matte white and lens made in clear PMMA precisely formed into optical micro-structures forms.

**Side lenses** - Frost impact acrylic lens 88% transmissive.

**Drywall kit** - Extruded Aluminum 0.07" nominal, matte white powder coating.

### WEIGHT

**Vega 2x4** - 27.53 lbs.+3.74lbs. (drywall kit) - 12.5kg+1.7 kg (drywall kit)

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## CERTIFICATIONS

**ETL** - Rated for Indoor Dry/Damp locations. Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

**DLC** - Testing to DLC requirements, for this product, have been completed by an Accredited Laboratory and certified by DLC.

**Lighting facts** - testing products and reporting performance results according to industry standards.

**Chicago plenum** - City of Chicago Approved (CCEA)

**IC rated** - suitable for direct contact with insulation.

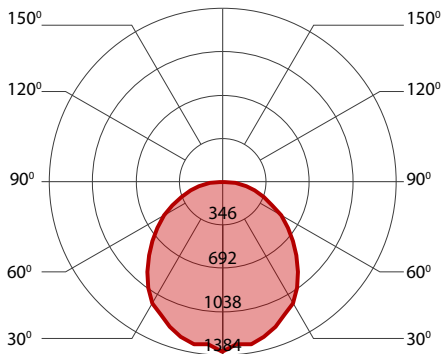
## WARRANTY

LumenWerx provides a five-year limited warranty of electrical and mechanical performance of the luminaires, including the LED boards, drivers, and auxiliary electronics. LumenWerx will repair or replace defective luminaires or components at our discretion, provided they have been installed and operated in accordance with our specifications. Other limitations apply, please refer to the full warranty on our website.

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## 4000 LUMEN AT 80CRI - LOW OUTPUT

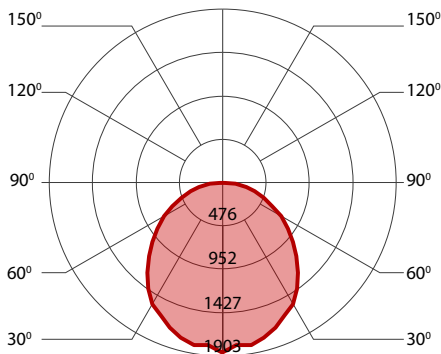


### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	2700K	37.5	4000	106
low output	3000K	37	4000	109
low output	3500K	36	4000	112
low output	4000K	35	4000	116

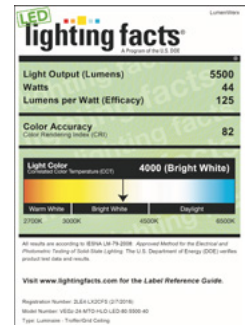


## 5500 LUMEN AT 80CRI - MEDIUM OUTPUT

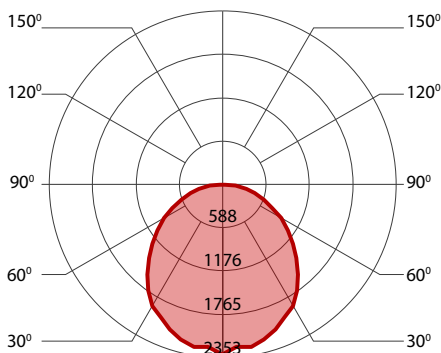


### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	2700K	52.5	5500	105
medium output	3000K	51	5500	108
medium output	3500K	50	5500	111
medium output	4000K	48	5500	115



## 6800 LUMEN AT 80CRI - HIGH OUTPUT



### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	2700K	66	6800	103
high output	3000K	64	6800	106
high output	3500K	62	6800	109
high output	4000K	60	6800	113

