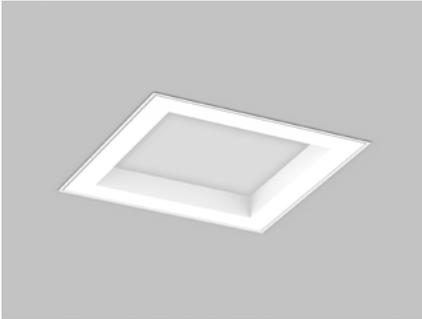


# POLY 2x2 LED

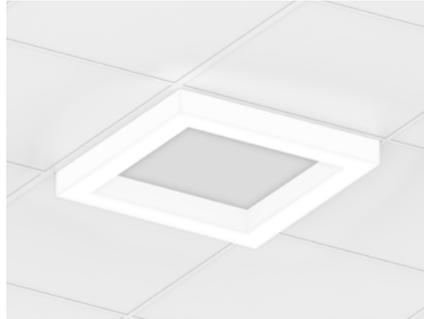


**LUMENWERX**  
WWW.LUMENWERX.COM

## RECESSED



Regressed lens in drywall ceiling



Drop lens in grid ceiling

PROJECT: \_\_\_\_\_  
 TYPE: \_\_\_\_\_  
 NOTES: \_\_\_\_\_

### DESCRIPTION

Poly's geometric forms, appropriately scaled for use as discrete luminaires, offer new opportunities for creative approaches to general lighting. As a modular recessed luminaire suitable for open or private offices, Poly delivers generous illumination and its center utility panel can integrate HVAC and sensors, as well as audio, and sprinklers (by others). Regressed 2-sided diffusers form a shallow coffer, while 3-sided diffusers drop below the ceiling. Efficacies up to 121 LPW, multiple lumen outputs and electrical options make Poly practical, as well as creative.

IC RATED

### ORDER GUIDE

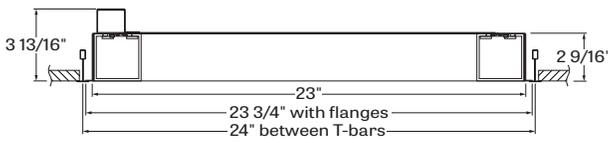
up to 121 lm/w performance

LUMINAIRE ID	SIZE	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.	VOLTAGE
<b>POLRR</b> - poly recessed regressed lens <b>POLRD</b> - poly recessed drop lens	<b>22</b> - 2'X2'	<b>ULO</b> - Uniform Lambertian Optic	<b>LED</b> - high performance LED	<b>80</b> - 80CRI <b>90</b> - 90CRI	<b>2400</b> - min. low output 2400lm <b>4000</b> - medium output 4000lm <b>5600</b> - max. high output 5600lm <b>####</b> - other required lm	<b>27</b> - 2700k <b>30</b> - 3000k <b>35</b> - 3500k <b>40</b> - 4000k	<b>120</b> - 120V <b>277</b> - 277V <b>UNV</b> - 120V-277V <b>347</b> - 347V (not available with Lutron)

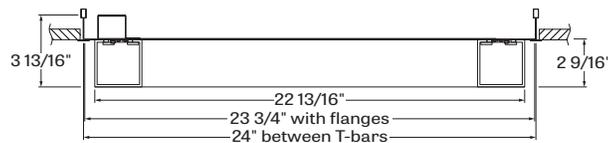
DRIVER	ELECTRICAL	MOUNTING	FINISH	CONTROLS	UTILITY PLATES
<b>D1</b> - 1% dimming 0-10V <b>DA</b> - Dali <b>LTEA2W</b> - Lutron 1% - 2 wire FF 120V <b>LDE1</b> - Lutron Hi-lume 1% Eco <b>LDE5</b> - Lutron 5% EcoSystem	<b>1</b> - 1 circuit <b>+EB</b> - emergency battery pack <b>+GTD###</b> - generator 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>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> - <b>LU</b> -Lutron, <b>EN</b> -Enlighted, <b>OS</b> -Osram, <b>CR</b> -Crestron. To specify see information on page 6	<b>AR</b> - air return <b>SP</b> - sprinkler ready <b>SR</b> - sensor <b>SK</b> - speaker ready

See page 5 for ordering code detailed information

### SECTION VIEW



POLRR - recessed regressed lens



POLRD - recessed drop lens

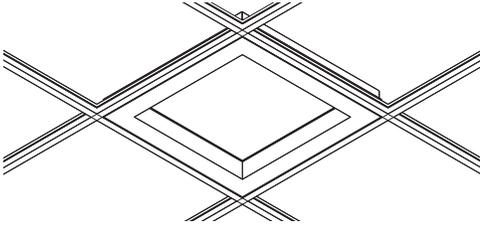


# POLY 2x2 LED

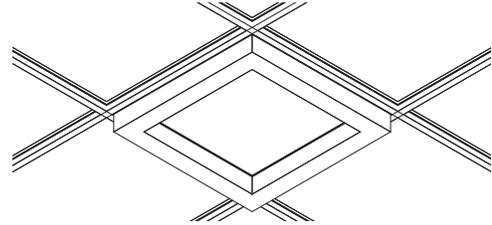
## RECESSED

### GRID CEILINGS

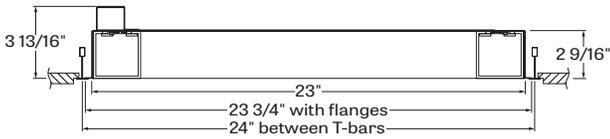
#### RECESSED REGRESSED LENS



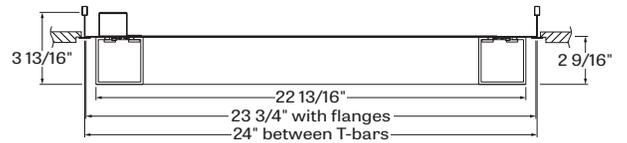
#### RECESSED DROP LENS



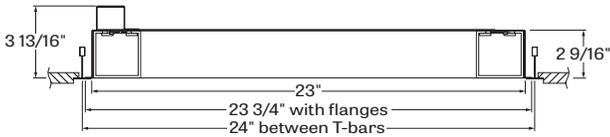
**POLRR - TG9 - tegular 9/16"**



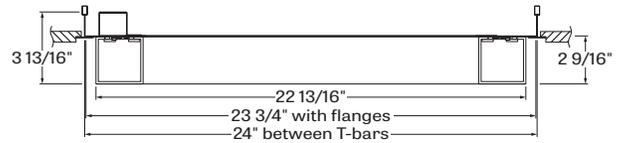
**POLRD - TG9 - tegular 9/16"**



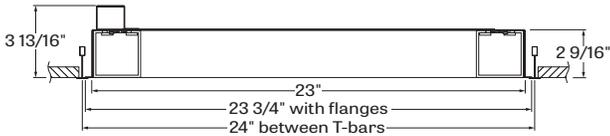
**POLRR - TG15 - tegular 15/16"**



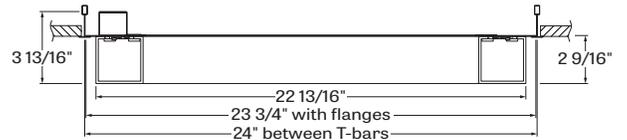
**POLRD - TG15 - tegular 15/16"**



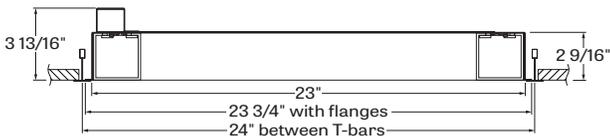
**POLRR - TB9 - t-bar 9/16"**



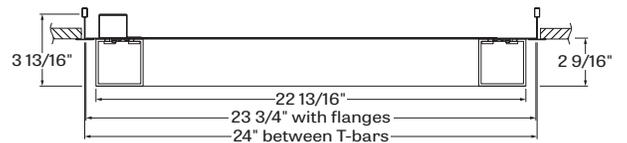
**POLRD - TB9 - t-bar 9/16"**



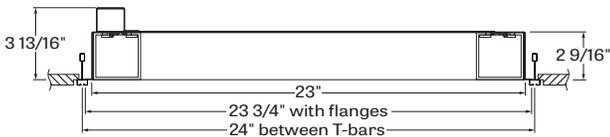
**POLRR - TB15 - t-bar 15/16"**



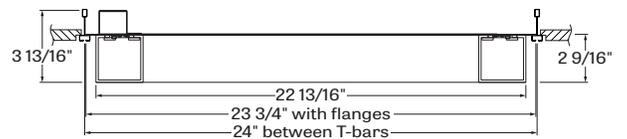
**POLRD - TB15 - t-bar 15/16"**



**POLRR - ST - screw slot t-bar**



**POLRD - ST - screw slot t-bar**

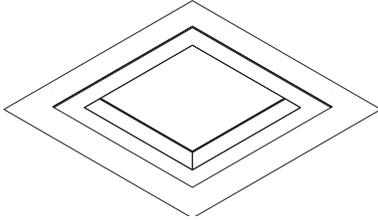


# POLY 2x2 LED

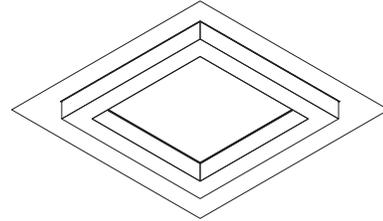
## RECESSED

### DRYWALL CEILINGS

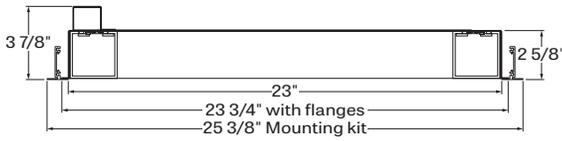
#### RECESSED REGRESSED LENS



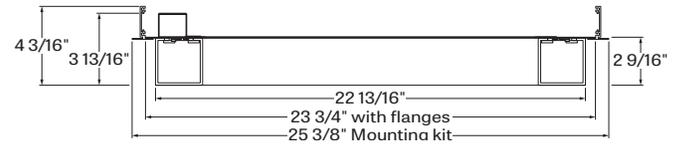
#### RECESSED DROP LENS



**POLRR** - DF - drywall kit



**POLRD** - DF - drywall kit



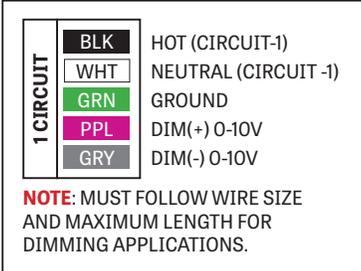
# POLY 2x2 LED

## RECESSED

### ELECTRICAL CIRCUITS

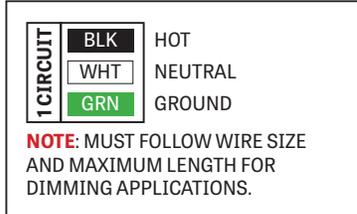
#### DIMMING 0-10V -

1 Circuit



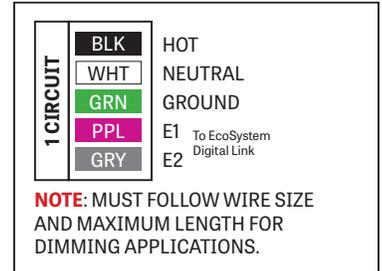
#### LUTRON 1% 2-wire FF 120V -

1 Circuit



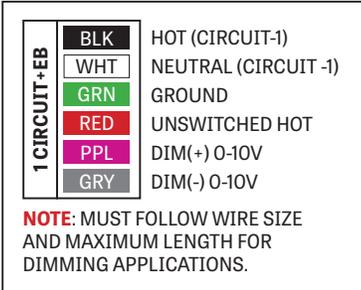
#### LUTRON LDE1 1%/LDE5 5% EcoSystem -

1 Circuit



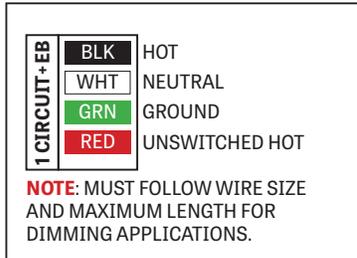
#### DIMMING 0-10V -

1 Circuit + Emergency Battery



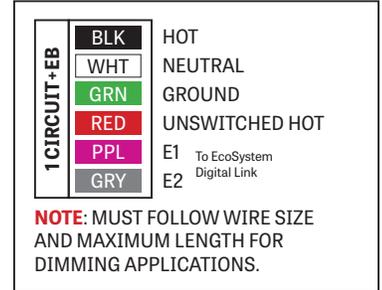
#### LUTRON 1% 2-wire FF 120V -

1 Circuit + Emergency Battery



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

1 Circuit + Emergency Battery



# POLY 2x2 LED

## RECESSED

### OPTICS

The **Uniform Luminous Optic (ULO)** drop lens of thermoformed acrylic provides three luminous faces with subtle uplight.

### LIGHT SOURCE - LED

Custom Linear 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.

### PERFORMANCE AT 4000K

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	20	2400	121
medium output	4000K	34	4000	117
high output	4000K	49.5	5600	113

### ELECTRICAL

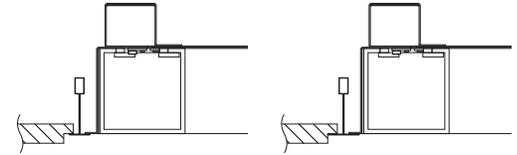
Driver features factory-set adjustable output current with universal (120-277VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency > 84%, PF > 0.9, THD < 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.

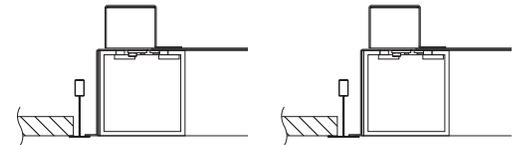
### MOUNTING OPTIONS (SHOWN REGRESSED)

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



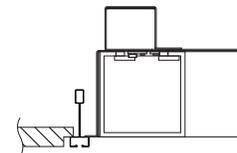
TG9 - regular 9/16"

TG15 - regular 15/16"



TB9 - t-bar 9/16"

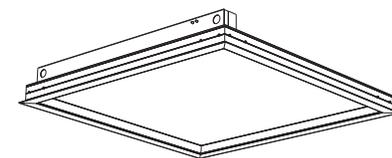
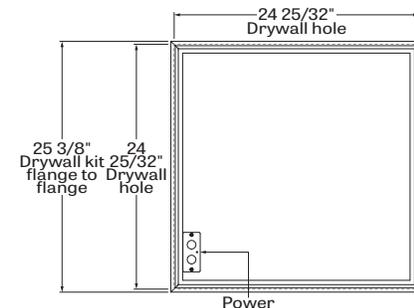
TB15 - t-bar 15/16"



ST - screw slot t-bar

Recessed Poly offers two profiles: two-sided diffusers form a regressed coffer, while three-sided diffusers drop 2" below the ceiling.

A separate kit for mounting fixtures into drywall ceilings



DF - drywall kit

### FINISH

95% reflective, matte white powder coating

# POLY 2x2 LED

## RECESSED

### 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.

#### 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.**

### UTILITY PLATES

Recessed Poly features a center utility plate that subtly integrates, air return diffusers, as well as third-party connections, such as sprinkler heads or speakers by others.

### CONSTRUCTION

**Housing (LED holder for regressed lens)** - Die formed cold rolled sheet steel 18 gauge thick, 95% reflective matte white painted

**Reflector plate (LED holder for drop lens)** - Die formed cold rolled sheet steel 18 gauge thick, 95% reflective matte white painted

**Lens** - white acrylic

**Driver box** - Die formed cold rolled sheet steel 20 gauge thick, white painted

**Cover plate** - Die formed cold rolled sheet steel 18 gauge thick, 95% reflective matte white painted. Custom finishes are also available

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

### WEIGHT

**POLY 2X2 grid** - 21.23lbs - 9.62kg

**POLY 2X2 drywall** - 23.73lbs - 10.76kg

### CERTIFICATIONS

**ETL** - Rated for Indoor Dry/Damp locations.

Conforms to UL Standard 1598 and certified to CAN/CSA Standard C22.2 No. 250.0.

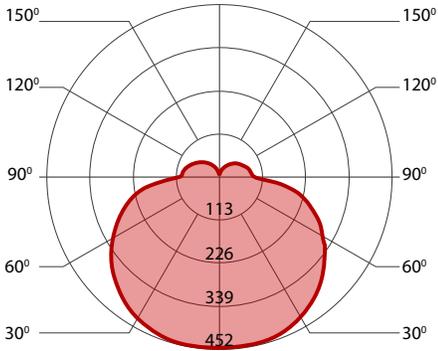
### WARRANTY

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.

# POLY 2x2 LED

## RECESSED

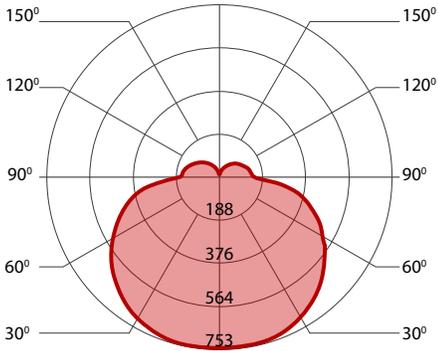
### 2400 LUMEN AT 80CRI - LOW OUTPUT



#### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	3000K	20.5	2400	116
low output	3500K	20.5	2400	117
low output	4000K	20	2400	121

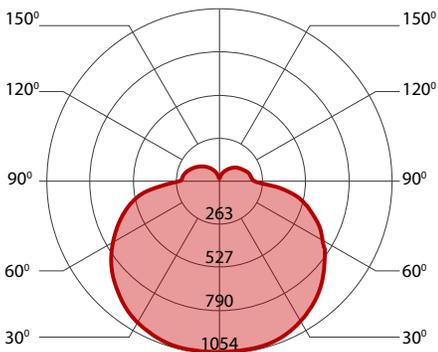
### 4000 LUMEN AT 80CRI - MEDIUM OUTPUT



#### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	3000K	35.5	4000	112
medium output	3500K	35.5	4000	113
medium output	4000K	34	4000	117

### 5600 LUMEN AT 80CRI - HIGH OUTPUT



#### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	3000K	52.5	5600	107
high output	3500K	51.5	5600	109
high output	4000K	49.5	5600	113