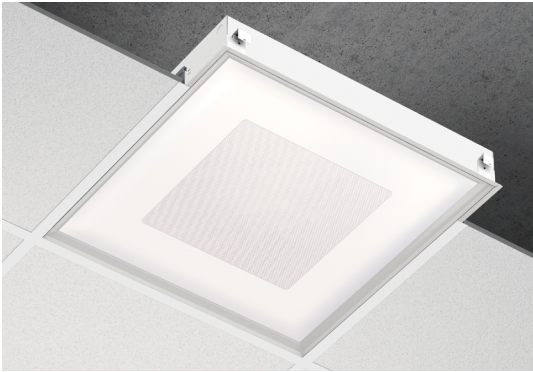
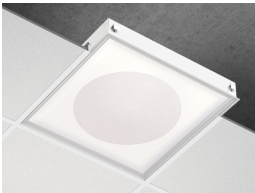


# PRIMO 2x2 LED

RECESSED



Shown with CMO Square optics



Shown with CMO Round optics



Shown with PMO optics

## DESCRIPTION

**Primo** is the fresh face of recessed LED lighting. The unique concentric micro optic creates a subtle, yet distinctive, graphical appearance appropriate for important spaces, large and small.

The precise, square-base-prism design achieves both luminous consistency and overall visual comfort from all viewing angles. Using advanced LED engines and optics, Primo provides comfortable and efficient illumination where it's needed, while integrating cleanly into the architecture. See separate spec sheets for other available mountings.

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

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

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

TYPE	QTY



up to 104 lm/w performance

**IC RATED**

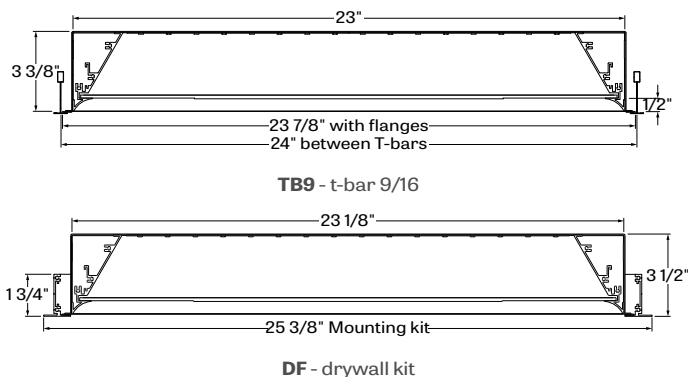
## ORDER GUIDE

PRIR	22	SW				
LUMINAIRE ID	SIZE	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
PRIR - primo recessed	22 - 2'x2'	<b>CMO(S)</b> - Concentric Micro-Prism Optic - square <b>CMO(R)</b> - Concentric Micro-Prism Optic - round <b>PMO</b> - Precision Micro-Prism Optic	SW - Static white	80 - 80CRI 90 - 90CRI	2000 - min. low output 2000lm 3200 - medium output 3200lm 4200 - high output 4200lm 5000 - max. ultra high output 5000lm ##### - other required lm	27 - 2700k 30 - 3000k 35 - 3500k 40 - 4000k

VOLTAGE	DRIVER	ELECTRICAL	MOUNTING	FINISH	OPTIONS
120 - 120V 277 - 277V UNV - 120V-277V 347 - 347V (not available with Lutron)	<b>D1</b> - 1% dimming 0-10V <b>DA</b> - Dali <b>LDE1</b> - Lutron Hi-lume 1% Eco	1 - 1 circuit + <b>EB</b> - emergency battery pack + <b>GTD###</b> - generator transfer device, 120V or 277V + <b>M</b> - master (consult factory) + <b>S</b> - satellite (consult factory)	<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>FU120</b> - Fuse 120V <b>FU277</b> - Fuse 277V <b>FWC</b> - flexible whip cable (6' std) <b>CP</b> - Chicago Plenum <b>CU</b> - custom

See page 3 for ordering code detailed information

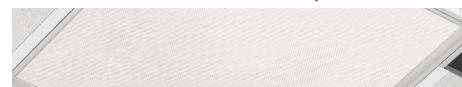
## CROSS SECTION



## OPTICS



CMO - Concentric Micro-Prism Optic

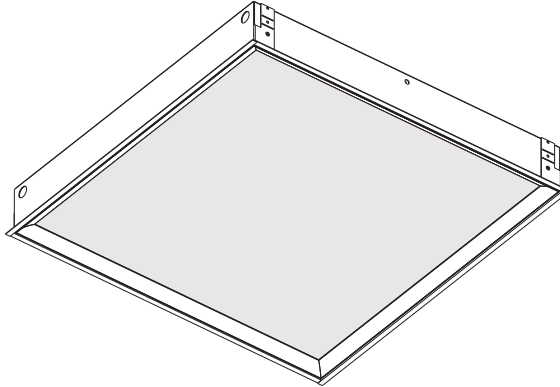


PMO - Precision Micro-Prism Optic

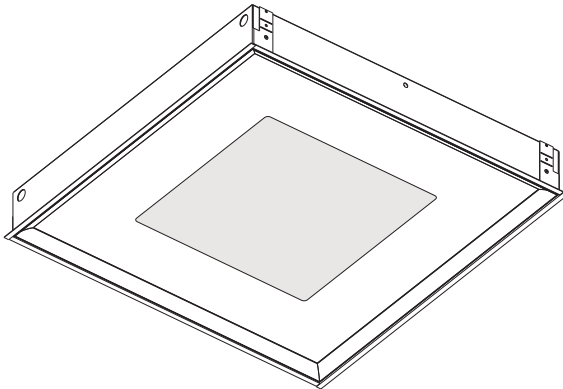
# PRIMO 2x2 LED

RECESSED

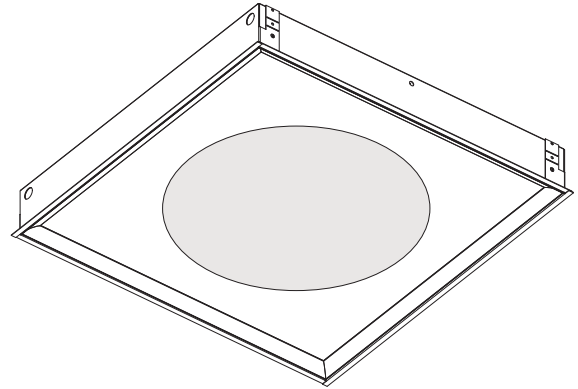
## PRIMO PMO



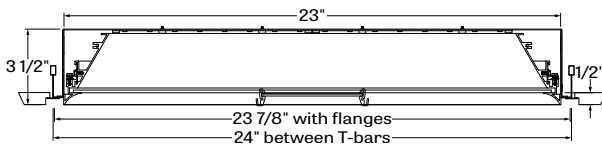
## PRIMO CMO(S)



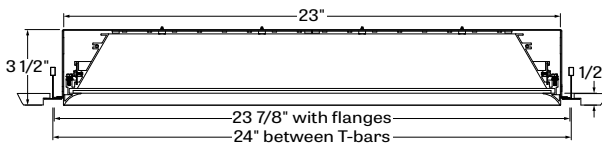
## PRIMO CMO(R)



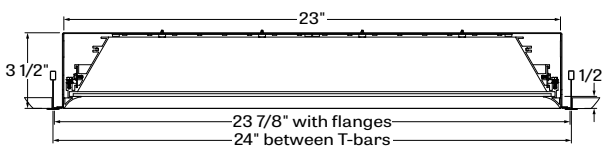
### PRIMO - TG9 - tegular 9/16"



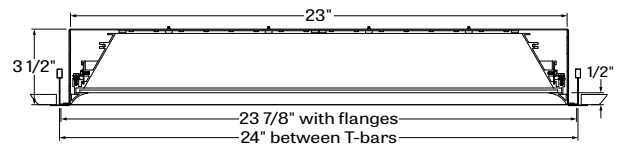
### PRIMO - TG15 - tegular 15/16"



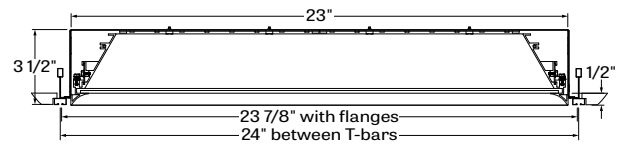
### PRIMO - TB9 - t-bar 9/16"



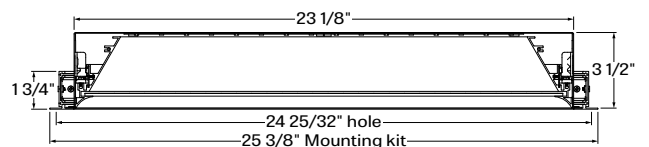
### PRIMO - TB15 - t-bar 15/16"



### PRIMO - ST- screw slot t-bar



### PRIMO - DW- drywall kit



# PRIMO 2x2 LED

RECESSED

## OPTICS

**PRECISION MICRO-PRISM-OPTIC (PMO) / CONCENTRIC MICRO-OPTIC (CMO)** - utilizes a specially designed catadioptric lens that combines refraction and internal reflection. The square-base prism is 24% the size of those used in a high-performance fluorescent lens.

The acrylic material itself is untinted, relying entirely on catadioptric control for effective source obscuration. A highly efficient TIR process at the acrylic-air interface on the prism surfaces redirects incident light with less than a 0.1% loss per reflection. As a result, these LumenWerx optics attain a high optical efficiency greater than 90%, while maintaining visual comfort at normal viewing angles and presenting a pleasing luminous appearance.

**PRECISION MICRO-PRISM-OPTIC (PMO)** - The exclusive two-dimensional array of prisms is designed to eliminate the glare found at higher viewing angles and as such, enables a glare cut-off at a 45° viewing angle.

**CONCENTRIC MICRO-PRISM-OPTIC (CMO)** - With the smaller prisms of the outer optic giving way to the larger prisms found in the inner optic, the exclusive pyramidal forms provide an outstanding level of control over high angle brightness as well as a gentle brightness gradient from different viewing angles.

## 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.

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	4000K	19	2000	104
medium output	4000K	32	3200	100
high output	4000K	43	4200	97
ultra high output	4000K	53	5000	95

## ELECTRICAL

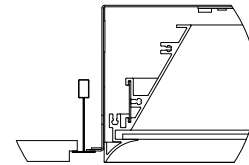
Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other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

## EMERGENCY

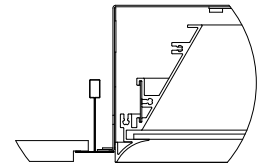
Factory installed long life high temperature recyclable Ni-Cad battery pack with test switch and charge indicator, minimum of 90 minutes operation, up to 1300 lumens (25°C) emergency lighting output. Recharge time of 24 hours.

## MOUNTING OPTIONS

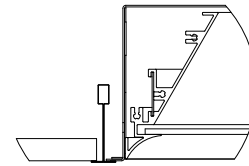
Recess mount into exposed or concealed T-Bar or Tegular grid ceiling



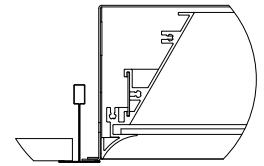
TG9 - tegular 9/16"



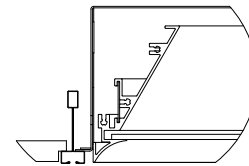
TG15 - tegular 15/16"



TB9 - t-bar 9/16"

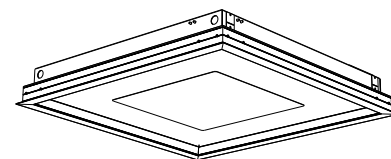
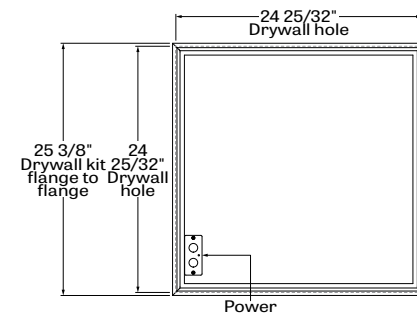


TB15 - t-bar 15/16"



ST - screw slot t-bar

A separate kit for mounting fixtures into drywall ceilings



DF - drywall kit

# PRIMO 2x2 LED

RECESSED

LUMENWERX  
WWW.LUMENWERX.COM

## FINISH

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

**Exterior** - matte white powder coating.

## CONSTRUCTION

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

**Reflectors** - Extruded Aluminum 0.07" nominal, integrated into a door system, 95% reflective matte white painted.

**Door system** - integrated frame with no visible attachment, made of extruded Aluminum and lens made in clear PMMA precisely molded into optical prismatic forms offered in different patterns.

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

## WEIGHT

**Primo 2x2 grid** - 17.84lbs. - 8.1kg

**Primo 2x2 drywall** - 19.94lbs. - 9.24kg

## CERTIFICATIONS

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

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

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

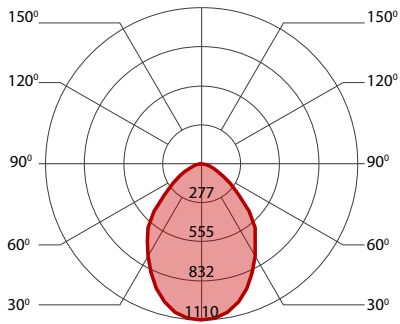
## WARRANTY

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.

# PRIMO 2x2 LED

RECESSED

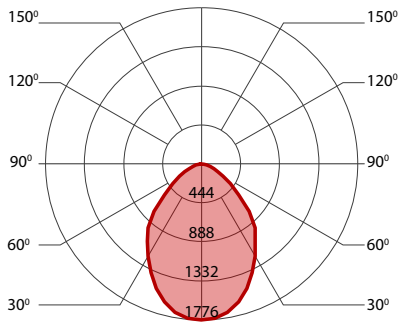
## 2000 LUMEN AT 80CRI - LOW OUTPUT



### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	2700K	21	2000	96
low output	3000K	20	2000	98
low output	3500K	20	2000	101
low output	4000K	19	2000	104

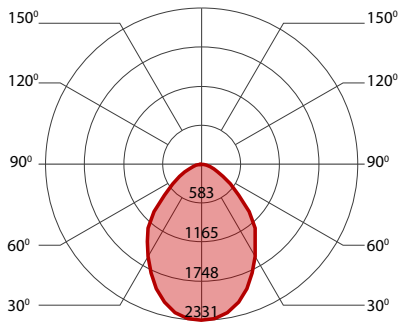
## 3200 LUMEN AT 80CRI - MEDIUM OUTPUT



### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	2700K	35	3200	92
medium output	3000K	34	3200	94
medium output	3500K	33	3200	97
medium output	4000K	32	3200	100

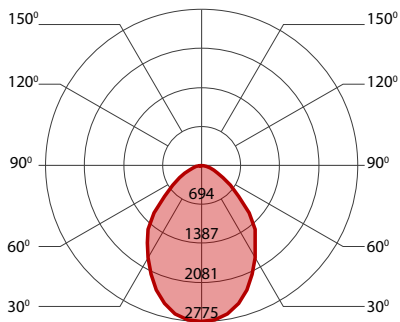
## 4200 LUMEN AT 80CRI - HIGH OUTPUT



### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	2700K	47	4200	89
high output	3000K	46	4200	91
high output	3500K	45	4200	94
high output	4000K	43	4200	97

## 5000 LUMEN AT 80CRI - ULTRA HIGH OUTPUT



### PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
ultra high output	2700K	57.5	5000	87
ultra high output	3000K	56	5000	89
ultra high output	3500K	54	5000	92
ultra high output	4000K	53	5000	95