RECESSED









Shown with CMO 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 101 lm/w performance

ORDER GUIDE IC RATED

PRIR	14		LED			
LUMINAIRE ID	SIZE	OPTICS	LIGHT SOURCE	CRI	LUMEN PACKAGES	COLOR TEMP.
PRIR - primo	14 - 1'x4'	CMO - Concentric Micro-Prism Optic	LED - high	80 - 80CRI	2000 - min. low output 2000lm	27 - 2700k
recessed		PMO - Precision Micro-Prism Optic	performance LED	90 - 90CRI	3200 - medium output 3200lm	30 - 3000k
					4200 - high output 4200lm	35 - 3500k
					5000 - max. ultra high output 5000lm*	40 - 4000k
					#### - other required Im	
					* not available in 2700K	

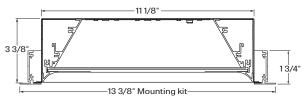
				w	
VOLTAGE	DRIVER	ELECTRICAL	MOUNTING	FINISH	OPTIONS
120 - 120V	D1 - 1% dimming 0-10V	1-1 circuit	TG9 - tegular 9/16"	W - matte white	FU - fuse
277 - 277V	DA - Dali	+EB - emergency battery pack	TG15 - tegular 15/16"		FWC - flexible whip cable (6' std)
UNV - 120V-277V	LTEA2W - Lutron 1% - 2 wire FF 120V	+GTD### - generator	TB9 - t-bar 9/16"		CP - Chicago Plenum
347 - 347V (not available	LDE1 - Lutron Hi-lume 1% Eco	transfer device, 120V or 277V	TB15 - t-bar 15/16"		CU - custom
with Lutron)	LDE5 - Lutron 5% EcoSystem	+M - master (consult factory)	ST - screw slot t-bar		
		+S - satellite (consult factory)	DF - drywall kit		

See page 4 for ordering code detailed information

CROSS SECTION



TB9 - t-bar 9/16



DF - drywall kit

OPTICS



CMO - Concentric Micro-Prism Optic



PMO - Precision Micro-Prism Optic



RECOGNIZED BY

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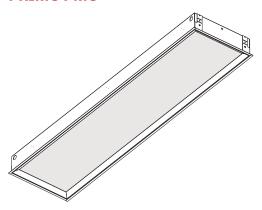
December 5, 2019



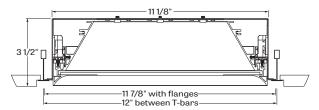
RECESSED



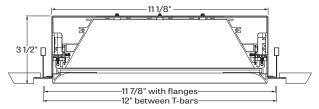
PRIMO PMO



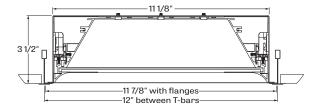
PRIMO - TG9 - tegular 9/16"



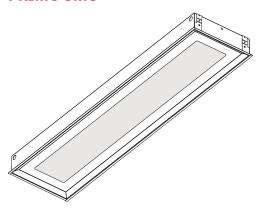
PRIMO - TG15 - tegular 15/16"



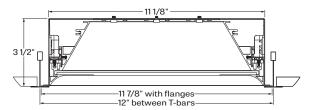
PRIMO - TB9 - t-bar 9/16"



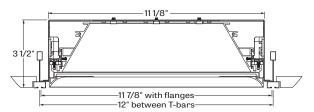
PRIMO CMO



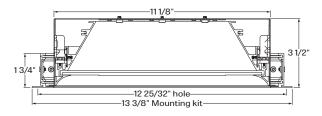
PRIMO - TB15 - t-bar 15/16"



PRIMO - ST- screw slot t-bar



PRIMO - DW- drywall kit





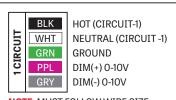
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ELECTRICAL CIRCUITS

DIMMING 0-10V -

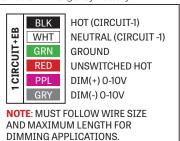
1 Circuit



NOTE: MUST FOLLOW WIRE SIZE AND MAXIMUM LENGTH FOR DIMMING APPLICATIONS.

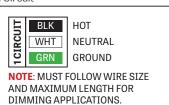
DIMMING 0-10V -

1 Circuit + Emergency Battery



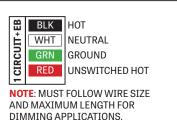
LUTRON 1% 2-wire FF 120V -

1 Circuit



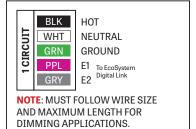
LUTRON 1% 2-wire FF 120V -

1 Circuit + Emergency Battery



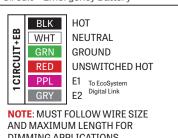
LUTRON LDE11%/LDE55% EcoSystem -

1 Circuit



LUTRON LDE11%/LDE55% EcoSystem-

1 Circuit + Emergency Battery



DIMMING APPLICATIONS.



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	20	2000	101
medium output	4000K	33	3200	97
high output	4000K	45	4200	94
ultra high ouput	4000K	54	5000	92

ELECTRICAL

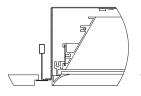
Factory-set, adjustable output current LED driver with universal (120-277VAC) input. Dimmable from 100% to 1% with 0-10V dimming control. Rated life (90% survivorship) of 50,000 hours at 50°C max. ambient (and 70°C max. case) temperature. At maximum driver load: Efficiency>84%, PF>0.9, THD<20%. Other 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.

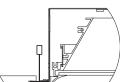
EMERGENCY

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

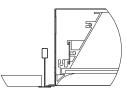
Recess mount into exposed or concealed T-Bar or Tegular grid ceiling

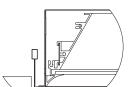




TG9 - tegular 9/16"

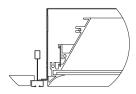
TG15 - tegular 15/16"





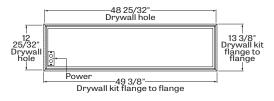
TB9 - t-bar 9/16"

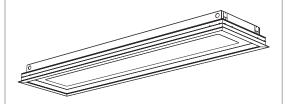
TB15 - t-bar 15/16



ST - screw slot t-bar

A separate kit for mounting fixtures into drywall ceilings





DF - drywall kit

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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.

 $\label{eq:continuous} \textbf{Reflectors} - \texttt{Extruded Aluminum 0.07} ``nominal, integrated into a door system, 95\% \\ reflective matte white painted.$

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 1x4 grid - 19.60lbs. - 8.9kg **Primo 1x4 drywall** - 22.68lbs. - 10.3kg

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.

Intertek

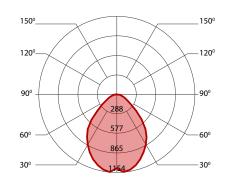
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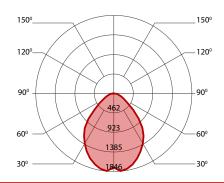
2000 LUMEN AT 80CRI - LOW OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
low output	2700K	21.5	2000	92
low output	3000K	21	2000	95
low output	3500K	20	2000	98
low output	4000K	20	2000	101

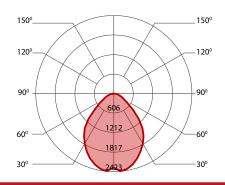
3200 LUMEN AT 80CRI - MEDIUM OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
medium output	2700K	35.5	3200	90
medium output	3000K	35	3200	91
medium output	3500K	34	3200	94
medium output	4000K	33	3200	97

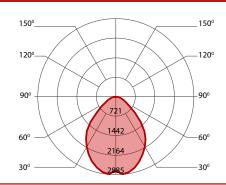
4200 LUMEN AT 80CRI - HIGH OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
high output	2700K	48	4200	88
high output	3000K	48	4200	88
high output	3500K	46	4200	91
high output	4000K	45	4200	94

5000 LUMEN AT 80CRI - ULTRA HIGH OUTPUT



PERFORMANCE

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
ultra high ouput	3000K	58	5000	86
ultra high ouput	3500K	56	5000	89
ultra high ouput	4000K	54	5000	92

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