

POP RECESSED

REGRESSED ROUND
STATIC WHITE, BIOS ST/DY

LUMENWERX



Project: _____

Type: _____



DESCRIPTION

Pop Recessed Regressed Round is a flexible, elegant, low-glare luminaire available in four different sizes. Its innovative, precision-crafted Uniform Lambertian Optic (ULO) allows all models to have a Uniform Glare Rating (UGR) of <19, beneficial for creating well-balanced, low glare architectural spaces. The fixture can be integrated in various grid ceiling and gypsum board setups. Pop Regressed Round comes in Chromawerx Sola and Duo. Consult web pages for Chromawerx Sola, Duo, and Quadro solutions for Pop Regressed Round.

Performance

Based on 3500K, 80 CRI, medium output

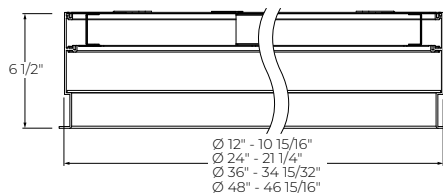
SIZE	TOTAL LUMENS	EFFICACY lm/W
Ø 12"	690 lm	81 lm/W
Ø 24"	2800 lm	88 lm/W
Ø 36"	6200 lm	91 lm/W
Ø 48"	11000 lm	91 lm/W

Order Guide

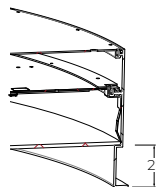
LUMINAIRE ID	SIZE	OPTIC	LIGHT SOURCE ¹	CRI	LUMEN PACKAGE																				
PORRGRO		ULO																							
PORRGRO - Pop Recessed Regressed Round	12 - 12" diameter 24 - 24" diameter 36 - 36" diameter 48 - 48" diameter	ULO - Uniform Lambertian Optic	SW - Static white BIOSST - Static biologically-optimized lighting BIOSDY - Dynamic biologically-optimized lighting	80 - 80 CRI 90² - 90 CRI ² Not available with BIOS.	<table border="1"> <thead> <tr> <th></th> <th>Low / BIOS</th> <th>Medium ³</th> <th>High ³</th> </tr> </thead> <tbody> <tr> <td>Ø 12"</td> <td>L500 lm</td> <td>M690 lm</td> <td>H900 lm</td> </tr> <tr> <td>Ø 24"</td> <td>L2000 lm</td> <td>M2800 lm</td> <td>H3600 lm</td> </tr> <tr> <td>Ø 36"</td> <td>L4500 lm</td> <td>M6200 lm</td> <td>H8000 lm</td> </tr> <tr> <td>Ø 48"</td> <td>L8000 lm</td> <td>M11000 lm</td> <td>H14200 lm</td> </tr> </tbody> </table> ³ Not available with BIOS.		Low / BIOS	Medium ³	High ³	Ø 12"	L500 lm	M690 lm	H900 lm	Ø 24"	L2000 lm	M2800 lm	H3600 lm	Ø 36"	L4500 lm	M6200 lm	H8000 lm	Ø 48"	L8000 lm	M11000 lm	H14200 lm
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			¹ Chromawerx Sola, Duo, and Quadro also available. Consult other spec sheets.																						

COLOR TEMP	VOLTAGE	DRIVER ⁷	ELECTRICAL	MOUNTING	FINISH	OPTIONS
27 ⁴ - 2700K 30 - 3000K 35 - 3500K 40 ⁴ - 4000K	120 -120V 277 - 277V UNV - 120V-277V 347 ^{5,6} - 347V	D1 - 1% 0-10V DA ⁸ - DALI LTEA2W - Lutron 1% - 2 wire FP 120V LDE1 ⁸ - Lutron Hi-Lume 1% Eco	1 - 1 circuit +EB ^{9,10} - Emergency battery pack +GTD ^{9,10} - Generator transfer device ⁹ Not available with 347V. ¹⁰ For Ø 12", available with a remote driver box only.	GRD ¹¹ - Grid ceiling DTR - Drywall trim DMF - Drywall mud flange ¹¹ Not available with Ø 48".	W - Matte white CF# - Custom finish, specify RAL#	FUI20 - Fuse 120V FU277 - Fuse 277V FWC - Flexible whip cable (6' std) CP - Chicago Plenum NA - None
⁴ Not available with BIOS.	⁵ For Ø 12", available with a remote driver box only. ⁶ Available with D1 only.	⁷ PoE (Power-over-Ethernet) compatible. Consult factory for details. ⁸ On-site commissioning is required.				

Section View



3D Cross section



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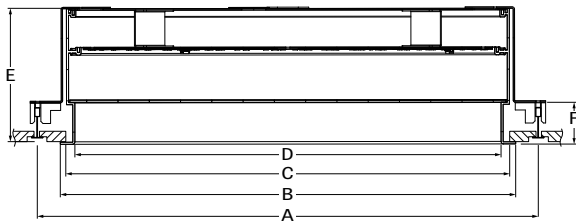
REGRESSED ROUND

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Dimensions

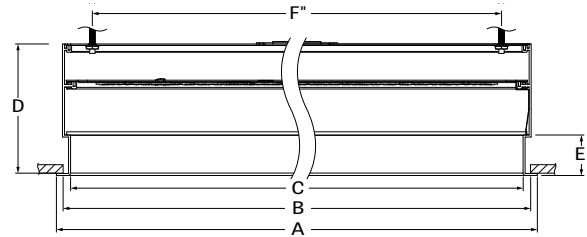
GRD - Grid ceiling

SIZE	A	B	C	D	E	F
12	24"	11 1/2"	11"	10 1/8"	6 13/32"	2"
24	24"	21 27/32"	21 1/4"	20 7/16"	6 13/32"	2"
36	48"	35 3/32"	34 1/2"	33 11/16"	6 13/32"	2"
48	N/A	N/A	N/A	N/A	N/A	N/A



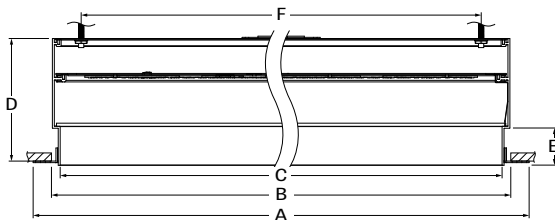
DTR - Drywall trim

SIZE	A	B	C	D	E	F
12	11 17/32"	11 5/32"	10 1/8"	6 13/32"	2"	8 1/2"
24	21 27/32"	21 1/2"	20 7/16"	6 13/32"	2"	14"
36	35 3/32"	34 25/32"	33 11/16"	6 13/32"	2"	32"
48	47 9/16"	47"	46 5/32"	6 13/32"	2"	44"



DMF - Drywall mud flange

SIZE	A	B	C	D	E	F
12	12 13/16"	11 5/32"	10 1/8"	6 9/32"	2"	8 1/2"
24	23 3/16"	21 1/2"	20 9/16"	20 7/16"	2"	14"
36	36 3/8"	34 25/32"	33 11/16"	6 9/32"	2"	32"
48	48 29/32"	47"	46 1/8"	6 9/32"	2"	44"



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Technical Specifications

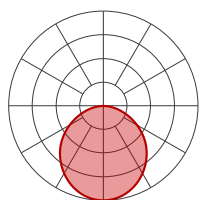
OPTIC

Uniform Lambertian Optic (ULO) - This optic provides a smooth homogenous glow with even illumination and consistent distribution. With Pop Regressed, ULO offers excellent visual comfort in all aperture sizes, from smallest to largest.

LIGHT SOURCE

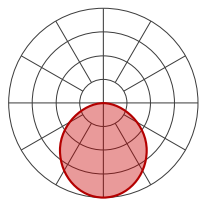
Custom array of mid-flux LEDs are mounted directly to the housing for optimal thermal performance. Available in 2700K, 3000K, 3500K, and 4000K with a minimum 80 CRI and an option for 90 CRI with elevated R9 value. Color consistency maintained to within 3 SDCM. LEDs operated at reduced drive current to optimize efficacy and lumen maintenance.

All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L90 lumen maintenance greater than 60,000 hours reported, 150,000 hours projected. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.



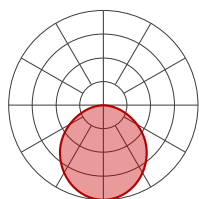
Performance for Ø 12", at 80 CRI

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Low output	3500K	5.9	500	85
Medium output	3500K	8.5	690	81
High output	3500K	11.6	900	78



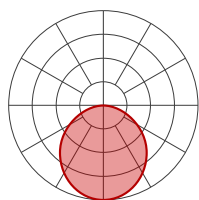
Performance for Ø 24", at 80 CRI

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Low output	3500K	21.7	2000	92
Medium output	3500K	31.8	2800	88
High output	3500K	42.8	3600	84



Performance for Ø 36", at 80 CRI

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Low output	3500K	47.3	4500	95
Medium output	3500K	68.1	6200	91
High output	3500K	92.0	8000	87



Performance for Ø 48", at 80 CRI

LED output	Color Temp	Watts	Nominal Delivered Lumens	Efficacy LPW
Low output	3500K	84.1	8000	95
Medium output	3500K	120.9	11000	91
High output	3500K	163.4	14200	87

Multiplier - CCT/CRI

CCT (K)	Watts		LPW	
	CRI 80	CRI 90	CRI 80	CRI 90
2700	1.05	1.26	0.95	0.79
3000	1.01	1.23	0.99	0.81
3500	1.00	1.20	1.00	0.84
4000	1.00	1.17	1.00	0.85

Multiplier for BIOS - CCT/CRI

CCT (K)	EML ratio
CRI 80 R9>50	
3000	0.8
3500	0.85
4000	0.9

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WELL for Light - The WELL building standard focuses on light quality in several features. There are three categories that are fully attributed to the construction and features of a luminaire. In WELL V1, it's Feature 54 Circadian Lighting, Feature 55 Glare Control, and Feature 58 Color Quality. In WELL V2, it's Feature L03 Circadian Lighting, Feature L04 Glare Control, and Feature L07 Electric Light Quality.

This fixture meets Features:

- Feature 54 or L03 when BIOS LED is selected
- Feature 55 or L04 meets WELL glare category (b-c-d)
- Feature 58 or L07 when 90CRI is selected

All LED drivers used at Lumenwerx are deemed to have a low risk level of flicker, of 5 % or less below 90Hz operational as defined by IEEE standard 1789-2015 LED.



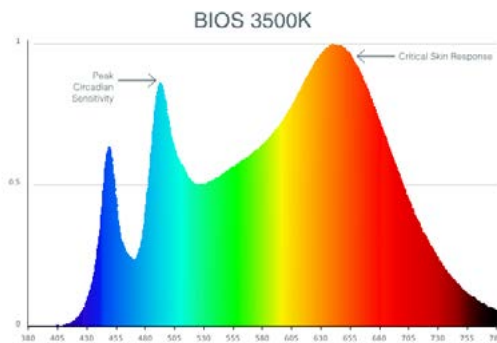
WELL for Mind - This luminaire meets WELL for mind as it is a human centric luminaire offering quality light, excellent color, and smooth optics. If any of these features are incorporated in a luminaire, it can improve the ability to focus, concentrate, and persist longer on a given task. This fixture harmoniously operates in a space to assist the mind.

For more information, please contact well@lumenwerx.com.



BIOS SkyBlue™ Technology is designed to provide the specific circadian stimulus to improve overall sleep quality, recovery during the night, and overall feelings of well-being.

The non-visual light signals that stimulate our circadian system have peak intensity in the "sky blue" region. As the diagram below illustrates, BIOS SkyBlue technology shifts the peak LED spectral intensity (460 nm) to align better with the peak response of circadian stimulus. Also note the enhanced deep-red (near 660 nm) spectrum.



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) and DALI protocol drivers. All of our standard 0-10V drivers are NEMA 410 compliant.

PoE

Depending on the PoE manufacturer selected, Lumenwerx will install the node in factory as either integral to the luminaire, or as a remote module. Factory programming of the PoE node may or may not enable the following functionalities: lumen package, Duo (tunable white), Quadro (RGBW) emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.

EMERGENCY

Factory installed long life, high temperature, maintenance-free Lithium-Ion battery pack with self-test functionality, test switch and charge indicator. Minimum of 90 minutes operation, up to 10W (25°C) emergency lighting output and recharge time of 24 hours.

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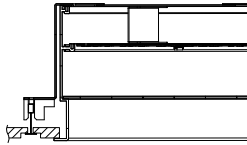
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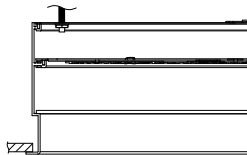
MOUNTING OPTIONS

Recessed mount into exposed or concealed T-Bar or Tegular grid ceiling.

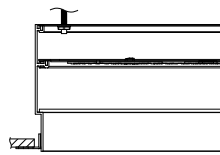


GRD - Grid ceiling

Recessed mount in drywall ceilings with trim or mud flange options.



DTR - Drywall trim



DMF - Drywall mud flange

FINISH

Interior - 95% reflective, matte white powder coating.

Exterior - Matte white powder coating. Custom finishes are also available.

CONSTRUCTION

Housing - Curved Aluminum extrusion.

Diffuser - 0.125" thick white acrylic.

WEIGHT

Ø 12" - 6.4 lbs - 2.9 kg

Ø 24" - 13.2 lbs - 6 kg

Ø 36" - 26.9 lbs - 12.2 kg

Ø 48" - 59.1 lbs - 26.8 kg

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.