

CLUSTER ACOUSTIX

PENDANT PARABOLIC



Cluster Acoustix is the precise family of downlights for pendant mounting. Complementing the cuboid light engine is a 22" stepped three-layer acoustic panel in round or square for excellent sound absorption.

Based on a fundamental 1.2" square cell, Cluster Acoustix delivers lighting that is optically sophisticated and aesthetically refined.

Cluster Acoustix pendant parabolic is available in 5 and 2x2 cell configurations, all with precision optics that eliminate multiple shadows, as well as subtle louver treatments. Pendant parabolics fit a 6" height acoustic cuboid enclosure.



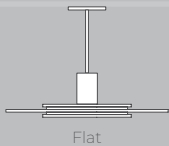
5x1
Square 22" x 22"
Matte black parabolic louver

Light Source

Static White



Mounting



Flat

Sizes



5x1



2x2



Acoustix Brochure

Cluster Family (Refer to other spec sheets)

Recessed, Wood Slat



Downlight Parabolic Wall Wash

Recessed Adjustable



Downlight Parabolic Wall Wash

Pendant



Downlight Parabolic Wall Wash

Surface



Downlight Parabolic Wall Wash

Combo



Recessed Pendant Surface

Acoustix



Blank Downlight Parabolic

CLUSTER ACOUSTIX

PENDANT PARABOLIC



Project: _____

Type: _____

Order Guide

LUMINAIRE ID	SHAPE	CUBOID HEIGHT	CUBOID FINISH	LOUVER FINISH
		6IN		
CLU05ACOPPAR - Cluster 5x1 Acoustix Pendant Parabolic CLU22ACOPPAR - Cluster 2x2 Acoustix Pendant Parabolic	R22IN - Round Ø 22" S22INX22IN - Square 22" x 22"	6IN - 6"	FTMW - Textured matte white FTMB - Textured matte black CF# - Custom finish, specify RAL#	MWPL - Matte White Parabolic Louver MBPL - Matte Black Parabolic Louver MPL - Matte Parabolic Louver SPL - Specular Parabolic Louver

LIGHT SOURCE	OPTIC	CRI	COLOR TEMPERATURE	DRIVER	VOLTAGE	LUMEN PACKAGE ²	DIMMING
	PAR	90CRI					
SW - Static white SOLA¹ - Dim-to-warm single channel control 35K to 22K DUO¹ - Tunable white 2-channel control 65K to 27K ¹ Not available with integral driver option.	PAR - Parabolic	90CRI - 90+ CRI	27K - 2700K 40K - 4000K 30K - 3000K 50K - 5000K 35K - 3500K SOLA - Dim-to-warm single channel control 35K to 22K DUO - Tunable white 2-channel control 65K to 27K	INTEGRAL REMOTE	120V - 120V 277V - 277V UNV - 120V-277V	5x1 923LM - 923 lm 2x2 735LM - 735 lm ² Lumen packages shown at 3500K, with SPL. For other, see lumen output multipliers on page 6.	D1 - 1% 0-10V ELV³ - ELV 120V TRI³ - TRIAC 120V ³ Available with 120V only.
				DO NOT SPECIFY FOR REMOTE. SEE "REMOTE DRIVER BOX" SECTION BELOW.			

CANOPY TYPE ⁴	CANOPY FINISH	SUSPENSION	INSIDE FELT COLOR	OUTSIDE FELT COLOR																																
FLS			IN###	OUT###																																
FLS - Flat square canopy, 4" octagonal junction box ⁴ See page 4 for details.	FTMW - Textured matte white FTMB - Textured matte black CF# - Custom finish, specify RAL#	STEM⁵ BKS###IN - Textured black stem WHS###IN - Textured white stem CF#S###IN⁶ - Custom finish stem ⁵ Min 18" - max 48", specify length (##) in inches. ⁶ Specify RAL#.	STANDARD COLORS <table border="0"> <tr> <td>FWN</td><td>MDN</td><td>PMN</td></tr> <tr> <td>FON</td><td>LVN</td><td>FGN</td></tr> <tr> <td>ION</td><td>LEN</td><td></td></tr> <tr> <td>TBN</td><td>CYN</td><td></td></tr> </table>	FWN	MDN	PMN	FON	LVN	FGN	ION	LEN		TBN	CYN		PREMIUM COLORS ^{7,8} <table border="0"> <tr> <td>PKN</td><td>EGN</td><td>BLN</td><td>CNN</td><td>CFN</td></tr> <tr> <td>OGN</td><td>CDN</td><td>NVN</td><td>GHN</td><td>GRN</td></tr> <tr> <td>LNN</td><td>LCN</td><td>IVN</td><td>CLN</td><td>MON</td></tr> <tr> <td>LMN</td><td>SYN</td><td>SLN</td><td>BHN</td><td>ESN</td></tr> </table> ⁷ Please consult factory for more color options. ⁸ Lead time may vary.	PKN	EGN	BLN	CNN	CFN	OGN	CDN	NVN	GHN	GRN	LNN	LCN	IVN	CLN	MON	LMN	SYN	SLN	BHN	ESN
FWN	MDN	PMN																																		
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REMOTE DRIVER BOX

Ordered separately. Specify each required remote driver box on a separate line. →

REMOTE DRIVER ⁹	LUMINAIRE QTY. ¹⁰	LUMINAIRE ID	VOLTAGE	LUMEN PACKAGE ¹¹	DIMMING ¹²												
RDB# - Remote driver box ⁹ Specify an RDB number (#) for each required remote driver box.	#X - Number of luminaires ¹⁰ Specify number (#) of luminaires per remote driver. See page 4 for minimum and maximum per driver.	CLU05ACOPPAR - Cluster 5x1 Acoustix Pendant Parabolic CLU22ACOPPAR - Cluster 2x2 Acoustix Pendant Parabolic	120V - 120V 277V - 277V UNV - 120V-277V	<table border="1"> <tr> <td></td> <td>5x1</td> <td>2x2</td> </tr> <tr> <td>Low</td> <td>239LM - 239 lm</td> <td>184LM - 184 lm</td> </tr> <tr> <td>Medium</td> <td>598LM - 598 lm</td> <td>460LM - 460 lm</td> </tr> <tr> <td>High</td> <td>957LM - 957 lm</td> <td>735LM - 735 lm</td> </tr> </table> ¹¹ Watts and lumen per watts will vary based on the number of lighting units per remote driver as well as on the type of driver selected.		5x1	2x2	Low	239LM - 239 lm	184LM - 184 lm	Medium	598LM - 598 lm	460LM - 460 lm	High	957LM - 957 lm	735LM - 735 lm	RD1 - 1% 0-10V RELV^{13,14} - ELV 120V RTRI^{13,14} - TRIAC 120V RDA¹⁵ - DALI RLDE1¹⁵ - Lutron Hi-lume 1% Eco RELD1 - eldoLED 1% ECOdrive 0-10V RELD0 - eldoLED 0.1% SOLOdrive 0-10V ¹² For configurations involving different Cluster sizes on a remote driver, please consult factory. ¹³ Available with 120V only. ¹⁴ Only available with high lumen package. ¹⁵ On-site commissioning is required.
	5x1	2x2															
Low	239LM - 239 lm	184LM - 184 lm															
Medium	598LM - 598 lm	460LM - 460 lm															
High	957LM - 957 lm	735LM - 735 lm															
		SOLA RSD1 - Single 0-10V input DUO RDMX¹⁵ - DMX RDDA¹⁵ - DALI DT6 RDDA8¹⁵ - DALI DT8 RDD1 - Dual 0-10V input for CCT/Intensity RLD2¹⁵ - Lutron DALI-2 digital															

EXAMPLE

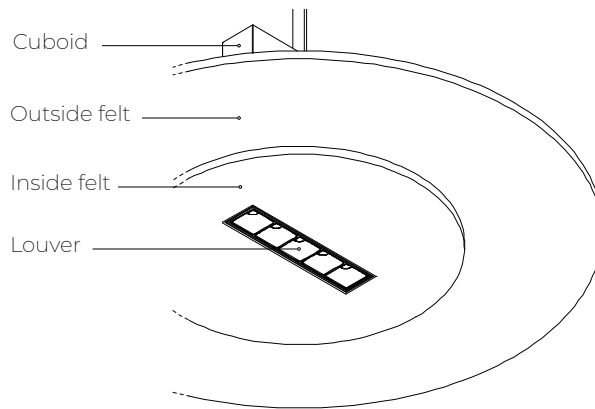
LIGHT	CLU05ACOPPAR-R22IN-6IN-FTMW-SPL-SW-PAR-90CRI-35K-INTEGRAL-120V-923LM-D1-FLS-FTMW-WHS18IN-INFWN-OUTCYN	REMOTE DRIVER	N/A
LIGHT	CLU22ACOPPAR-R22IN-6IN-FTMW-SPL-SW-PAR-90CRI-35K-REMOTE-FLS-FTMW-WHS18IN-INFWN-OUTCYN	REMOTE DRIVER	RDB1-6X-CLU22ACOPPAR-120V-735LM-RD1 RDB2-2X-CLU22ACOPPAR-120V-735LM-RD1

CLUSTER ACOUSTIX

PENDANT PARABOLIC



Overview



OPTIC

LOUVER FINISHES

Louvers are injection molded with integral texture and color.



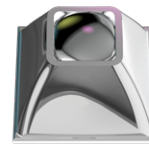
Parabolic



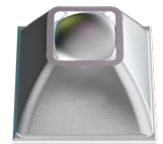
MWPL - Matte White Parabolic Louver



MBPL - Matte Black Parabolic Louver

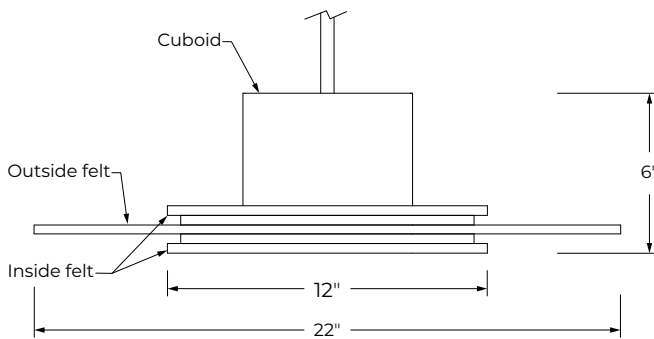


SPL - Specular Parabolic Louver



MPL - Matte Parabolic Louver

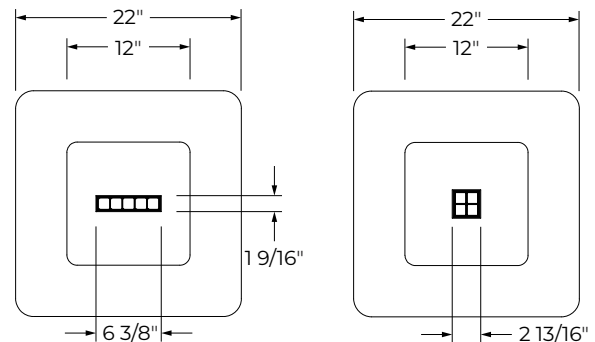
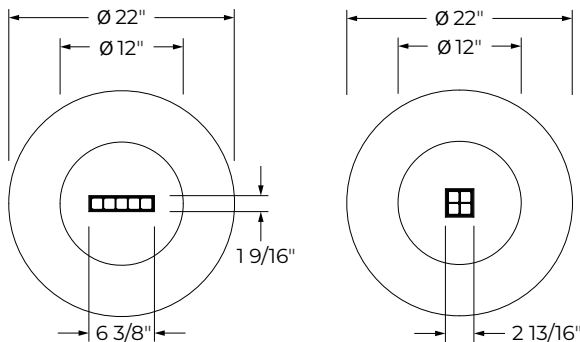
Dimensions



SHAPE

ROUND

SQUARE



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www.lumenwerx.com



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CLUSTER-ACOUSTIX-PARABOLIC-SPEC-REV8 January 29, 2025

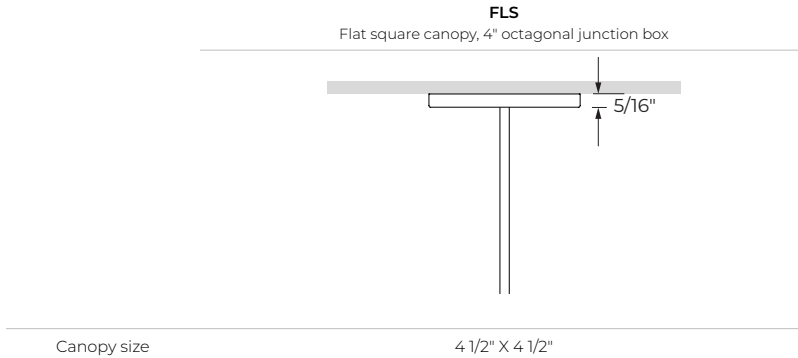


CLUSTER ACOUSTIX

PENDANT PARABOLIC



Mounting



Driver

REMOTE DRIVER

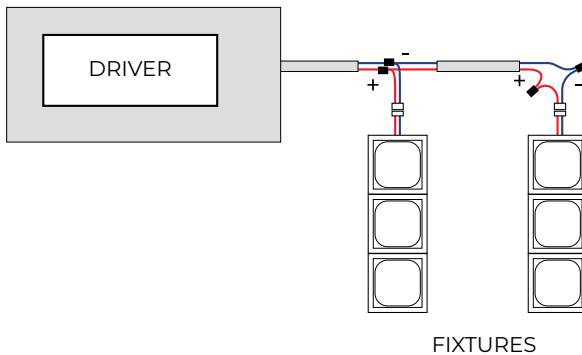
The remote driver can power several lighting units, depending on their total power. The minimum and maximum number of lighting units and driver type are shown in the table below and must be observed. The remote driver and lighting units are wired together through connection boxes, which are furnished pre-wired to the driver enclosure. All wiring is Class 2 with quick-splice connectors. The remote driver requires access from above the ceiling (or an access panel).

Number of lighting units per driver (minimum and maximum).

Static white	5x1	2x2
RD1	1-6	1-6
RELV	1-3	1-3
RTRI	1-3	1-3
RDA	1-6	1-6
RLDE1	1-6	1-6
RELD1	1-6	1-6
RELD0	1-6	1-6
SOLA		
RSD1	1-4	1-4
DUO		
RDMX	1-4	1-4
RDDA	1-4	1-4
RDDA8	1-4	1-4
RDD1	1-4	1-4
RLD2	1-4	1-4

For any quantities of lighting units per driver that fall outside the minimum and maximum listed above, please consult factory.

CONNECTION IN PARALLEL



CLUSTER ACOUSTIX

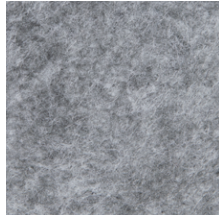
PENDANT PARABOLIC



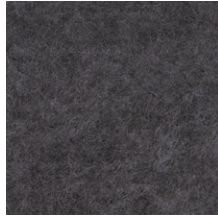
Standard Color Options



FWN - FROST WHITE



FON - FOG



ION - IRON



TBN - TRUE BLACK



MDN - MIDNIGHT BLUE



LVN - LAVENDER



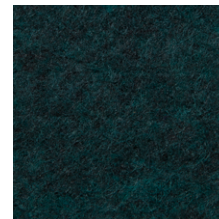
LEN - LATTE



CYN - CHERRY



PMN - PLUM



FGN - FOREST GREEN

Premium Color Options*



PKN - PAPRIKA



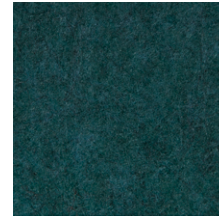
OGN - ORANGE



LNN - LEMON



LMN - LIME



EGN - EVERGREEN



CDN - CLOUDY



LCN - LICHEN



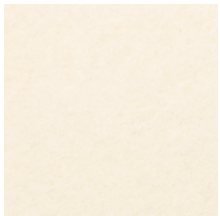
SYN - SKY



BLN - BLUEBERRY



NVN - NAVY



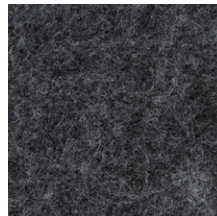
IVN - IVORY



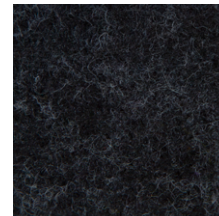
SLN - STEEL



CNN - CARBON



GHN - GRAPHITE



CLN - CHARCOAL



BHN - BLUSH



CFN - CAFÉ



GRN - GREIGE



MON - MOCHA



ESN - ESPRESSO

*Please consult factory for more color options.
*Lead time may vary.

Acoustic Calculator

Use the Lumenwerx Acoustix Value Calculator table to determine the number of acoustic luminaires required in a space by fixture type. We have three levels of recommended sound reduction: good, better, and best. Choosing one of these options will reduce the sound accordingly. The best option indicates the best acoustic improvement. Calculations are based on a standard ceiling height of 9'.

Value calculator table

SHAPE	Room dimensions under 300 sq ft			Room dimensions over 300 sq ft		
	GOOD 😊	BETTER 😊😊	BEST 😊😊😊	GOOD 😊	BETTER 😊😊	BEST 😊😊😊
% in reduction in reverberation time	25%	40%	50%	25%	40%	50%
Round	30	15	10	48	24	16
Square	38	19	13	61	30	20

Use the **Lumenwerx Acoustix Value Formula** to determine the number of luminaires needed in the room.

$$\frac{\text{Room square footage (sq ft)}}{\text{Value}} = \text{Number of luminaires.}$$

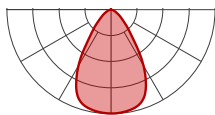
Example: How many square Cluster Acoustix luminaires are needed for a 10' x 10' room size, for a BEST (50%) acoustic:
 $(10' \times 10') \div (13) = 8$ luminaires

NOTES:

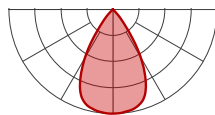
- You can mix lit and blank fixtures.
- Lumenwerx acoustic calculators were developed to act as a guide. For precise acoustic performance in a space, please consult an acoustician.

Photometrics

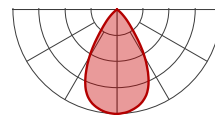
Values calculated based on 3500K, 90+ CRI, and SPL.



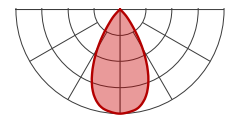
MWPL - Matte White Parabolic Louver



MBPL - Matte Black Parabolic Louver



MPL - Matte Parabolic Louver



SPL - Specular Parabolic Louver

	LM	W	LM/W
5x1	957	11.5	83
2x2	735	9.5	78

MULTIPLIER TABLE

Please follow the multiplier table to ensure correct lumen value. CCT and louver finishes will change the lumen value.

CCT	LPW			
	MWPL	MBPL	MPL	SPL
2700K	0.94	0.58	0.81	0.94
3000K	0.97	0.6	0.83	0.97
3500K	1	0.62	0.86	1
4000K	1.02	0.63	0.88	1.02
5000K	1.06	0.66	0.9	1.06

CLUSTER ACOUSTIX

PENDANT PARABOLIC



Technical Specifications

OPTICS

Parabolic Louvers (MWPL, MBPL, MPL, SPL)

Parabolic louver optics provide excellent shielding and a pleasing crisp visual texture. The precisely molded louvers consist of 1" deep blades and side reflectors with shielding of 50° lengthwise and 45° crosswise.

The parabolic contour of the blades and side reflectors direct light into a comfortable downlight distribution with a spacing criterion of 1.1, while minimizing shadows from the LED array above each cell.

Four finishes are available. Specular aluminum (SPL) provides higher efficacy, sharper cut-off, and an ultra-quiet appearance at shallow viewing angles. matte aluminum (MPL) offers a softer appearance, a wider beam spread, and gentle brightness transition at cut-off. Matte white (MWPL) creates the highest louver brightness, while matte black (MBPL) provides a dark appearance with slightly reduced beam spread.

LIGHT SOURCE

Static white

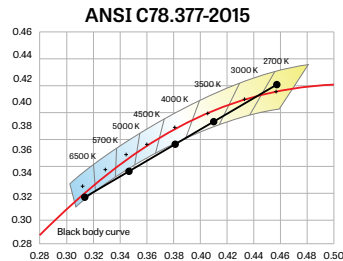
Custom array of mid-flux LEDs mounted onto aluminum-backed circuitry. Available in 2700K, 3000K, 3500K, 4000K and 5000K with a minimum 90+ CRI with elevated R9 value. Color consistency is maintained to within 3 SDCM. All LEDs have been tested in accordance with IESNA LM-80-08 and the results have shown L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

Chromawerx SOLA

It is a single-channel control that dims output while warming the color temperature in a pre-determined relationship. A simple analog control sends a common signal to dual output digital drivers, which are programmed to adjust a specially populated LED array to emulate the effect of dimming a filament source. Dimming range is programmable but the default option runs from 3500K at 100% of full power to 2200K at 5% of full power. CRI is maintained above 80 throughout the dimming range.

Chromawerx DUO

It is a two-channel control. It uses an analog (0-10V) protocol for separate control of luminaire CCT and intensity or a digital (DMX, DALI, and LD2) protocol for synchronous control of both warm and cool LED arrays to enable the user to set color temperature and light output. Commonly called "tunable white", Chromawerx two-channel control provides the range of cool (6500K) to warm (2700K) color that can be useful for helping to entrain circadian rhythms, stimulate alertness for improved educational and work productivity, and compensate for jet lag, among other applications. The Chromawerx drivers are programmed to limit maximum light output and power usage across all color temperatures. CRI is maintained above 80. When paired with DALI drivers (DDA/DDA8), color tuning follows a linear dimming curve.



WELL BUILDING STANDARD



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 DUO is selected
- Feature 58 or L07 when 90+ CRI is selected
- Feature 55 or L04 meets WELL glare category (b-c-d)

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 Sound

This luminaire is recommended for use as an acoustical absorption surface to limit reverberation times (RT) in a given space. This luminaire contributes to noise reduction and vibration dampening to promote focus and concentration. Reverberation needs to be calculated in each space based on the materials used.



WELL for Mind

This luminaire meets WELL for mind as it is a human centric luminaire offering quality light, excellent color, smooth optics, and a sound diminishing element. 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.

CLUSTER ACOUSTIX

PENDANT PARABOLIC

ELECTRICAL

Unless otherwise specified, dimming down to 1%. At maximum driver load: efficiency>84%, PF>0.9, THD<20%.

Integral: 0-10V, ELV, TRIAC

Remote: 0-10V, ELV, TRIAC, Lutron Hi-Lume 1% EcoSystem, DALI, eldoLED 0.1% SOLOdrive 0-10V, eldoLED 1% ECOdrive 0-10V, DMX, Lutron DALI-2 digital

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

WEIGHT

	lb	kg
5x1	6.35	2.88
2x2	6.75	3

CONSTRUCTION

Housing: Die-cast aluminum

Optics: Polycarbonate

Cuboid: Extruded aluminum

Cover pendant: Aluminum

Stem: Ø 1/2" rigid stem 18" to 48" standard length

ACOUSTIC FINISH

Material is 100% polyester containing up to 50% of recycled plastic bottles (PET) with an ASTM E-84 Class A fire rating and is moisture resistant.

CARE

Remove dust and debris with a clean, dry, soft, lint-free cloth, or vacuum.

CERTIFICATION

ETL: Rated for indoor dry/damp locations. Conforms to UL 1598 Standard and certified to CAN/CSA Standard C22.2 No. 250.0.

WARRANTY

Lumenwerx provides a five-year limited warranty on 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.