

# VIA 3 - PATTERNS

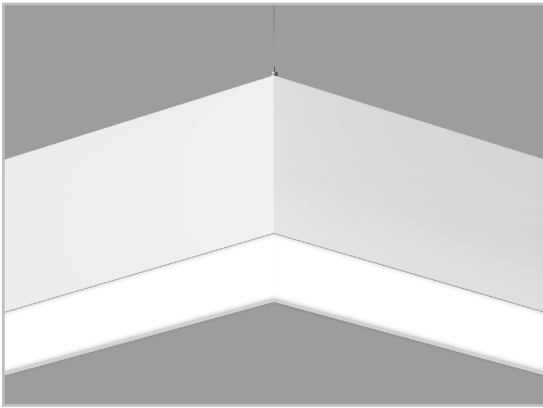
PENDANT DIRECT/INDIRECT

**LUMENWERX**  
WWW.LUMENWERX.COM



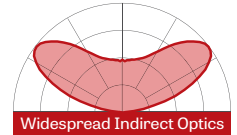
## DESCRIPTION

At Lumenwerx, we make it simple to design patterns customized for you. Whether surface, wall mount, pendant or recessed - or even a combination of different mounting types, we make it easy to achieve the results you're looking for. While our standard is a 90° corner, we can customize angles to suit your needs. Efficient and flexible, the Via 3 features numerous optical configurations including flush and drop diffusers, and our Widespread Indirect Optics for smooth ceiling brightness.



LEV - leveled corner

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



**up to 103 lm/w performance**

## ORDER GUIDE

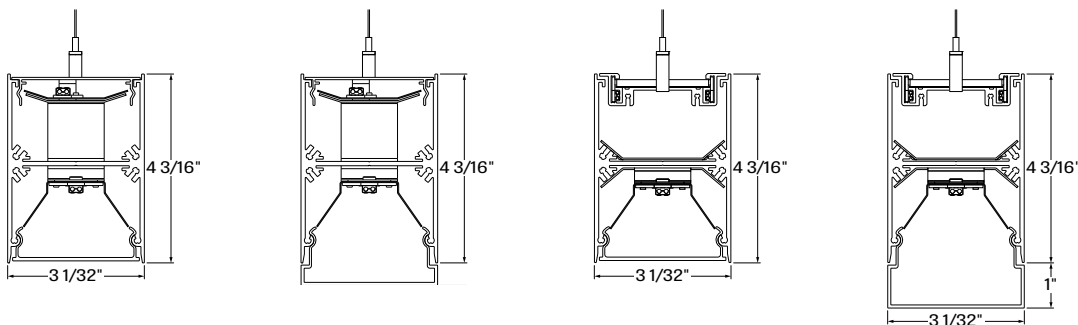
VIA3PDIPAT	HLO			LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	LENS POSITION	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
VIA3PDIPAT - via 3" pendant direct/indirect pattern	HLO - High-Efficiency Lambertian Optic	WIO - Widespread Indirect Optics CLO - Clear Lambertian Optic	FH - Flush 0.5D - 0.5" drop 1.0D - 1.0" drop	LED - high performance LED	80 - 80CRI 90 - 90CRI	500 - min. low output 500lm/ft 750 - medium output 750lm/ft 1000 - max. high output 1000lm/ft #### - other required lm/ft

			LEV		
INDIRECT LUMEN PACKAGES	COLOR TEMP.	PATTERN LENGTH	CORNER TYPE	CORNERS DEGREE	VOLTAGE
500 - min. low output 500lm/ft 750 - medium output 750lm/ft 1000 - max. high output 1000lm/ft (for WIO only) #### - other required lm/ft	27 - 2700K 30 - 3000K 35 - 3500K 40 - 4000K	#FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12'	LEV - leveled corner	90 - 90 degrees # - other degrees	120 - 120V 277 - 277V UNV* - 120V-277V 347 - 347V (not available with Lutron)

DRIVER	ELECTRICAL	MOUNTING	FINISH	CONTROLS	OPTIONS
D1 - 1% 0-10V DA - DALI LTEA2W - Lutron 1% - 2 wire FP 120V LDE1 - Lutron Hi-lume 1% Eco LDE5 - Lutron 5% EcoSystem	1 - 1 circuit 2 - 2 circuits + #EB - emergency battery (min 8' fixture, except Lutron) + #EM - emergency light circuit + #NL - night light circuit + #GTD - generator transfer device	53WAC36 - power 5" + non power 3" white canopy (36" aircraft cable) 55WSW18 - power 5" + non power 5" white canopy & stem (18" stem) <a href="#">For all other options refer to our Pendant Mounting Guide</a>	W - matte white AL - aluminum B - matte black CF# - custom finish add RAL#	<b>STANDALONE CONTROLS</b> OMS - Onboard Occupancy ODS - Onboard Daylight OCS - Onboard Occupancy & Daylight <b>CONNECTED CONTROLS</b> CCS() - LU-Lutron, EN-Enlighted, OS-Osram, CR-Crestron. To specify see information on page 5	FU - fuse TB# - T-bar caddy clip specify grid size TG# - Tegular caddy clip specify grid size ST - Screw Slots caddy clip CU - custom

See page 2 for ordering code detailed information

## CROSS SECTION



VIA3PDIPAT - HLO-CLO

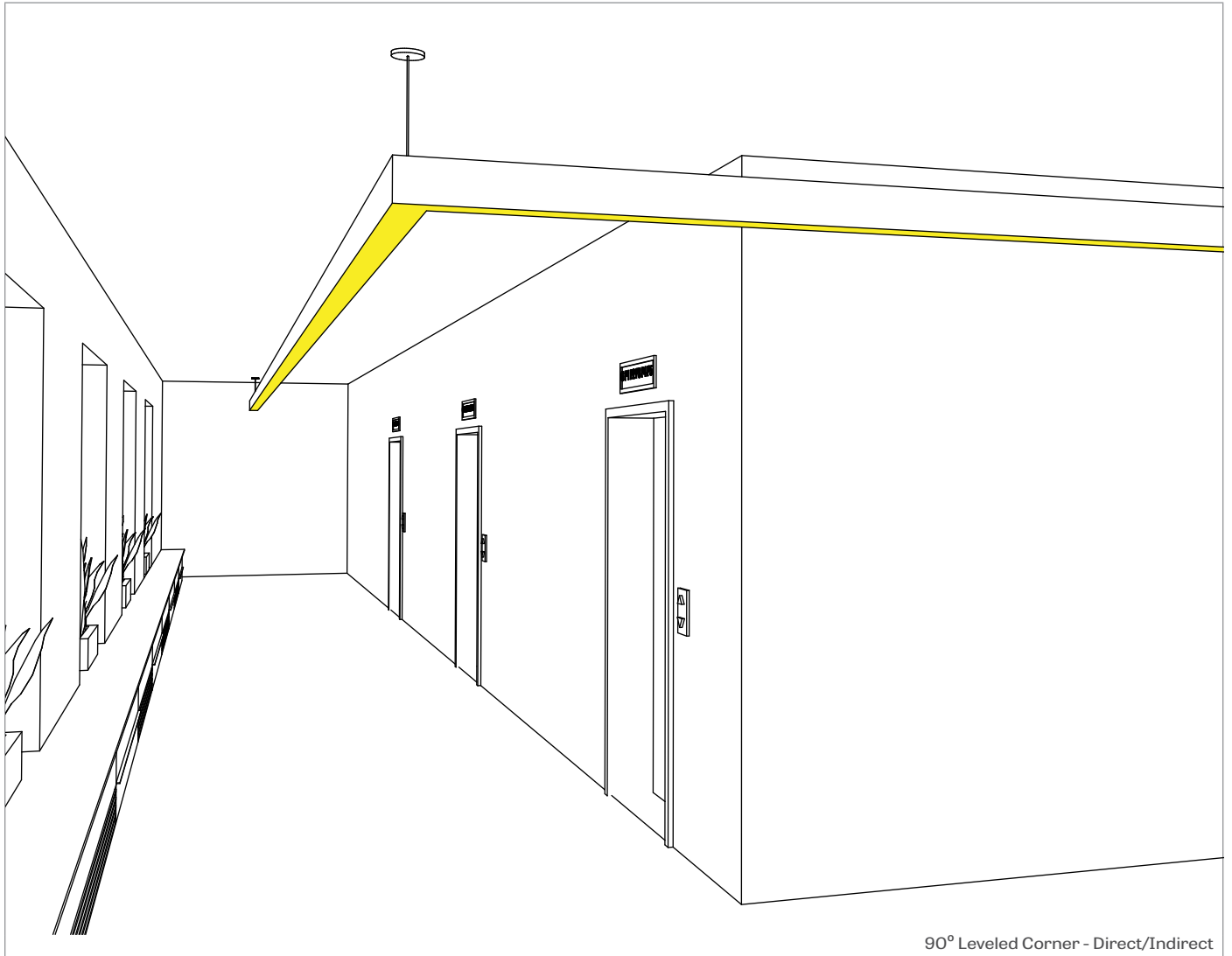
VIA3PDIPAT - HLO-0.5D-CLO

VIA3PDIPAT - HLO-WIO

VIA3PDIPAT - HLO-1.0D-WIO



## LEVELED CORNERS



90° Leveled Corner - Direct/Indirect

### HOW TO SPECIFY A PATTERN?

Please follow these steps when specifying in order to be as precise as possible.

- (1) We require a drawing illustrating the pattern you are trying to achieve - anything from a simple line drawing to elaborate architectural drawings will suffice.
- (2) Under **PATTERN LENGTH**, enter the overall length of your pattern - either in feet or inches.
- (3) Under **CORNER TYPE**, please enter the type (or types) of corner you require. If more than one type of corner is required, please separate types with a plus (+).
- (4) Under **CORNER DEGREE**, please enter the angle in degrees of each corner required to complete your pattern, followed by the number of corners.

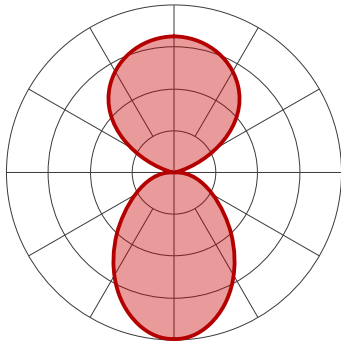
	LEV	
PATTERN LENGTH	CORNER TYPE	CORNER DEGREE
#FT - nominal length in feet #IN - length in inches Continuous Run - for luminaires over 12'	LEV - leveled corner	90(#) - 90 degrees, specify number of corners (#) #(#) - Other degrees, specify the angle degree #, followed by the number of corners (#)

# VIA 3 - PATTERNS

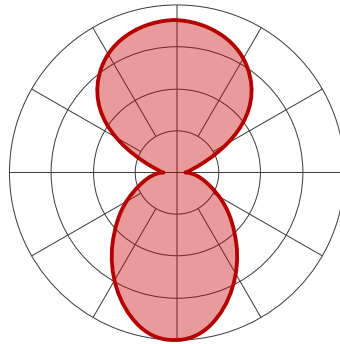
PENDANT DIRECT/INDIRECT

## PHOTOMETRICS

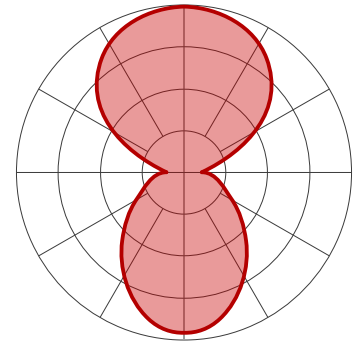
Please follow the multiplier tables to ensure correct lumen value. Lensing, CCT and CRI, will change the lumen output.



**HLO-FH-CLO**



**HLO-0.5D-CLO**



**HLO-1.0D-CLO**

### HLO-FH-CLO Delivered Lumens for Flush at 35K 80CRI

Lumen Package (Direct + Indirect)	Direct	Indirect	Total Lumens Per 4FT	Input Watts	LPW
500+500	2000	2000	4000	39.5	101
500+750	2000	3000	5000	49.5	101
750+500	3000	2000	5000	49	102
750+750	3000	3000	6000	59	102
1000+500	4000	2000	6000	58.5	103
1000+750	4000	3000	7000	68.5	102

### Multiplier - Drop Lens

Direct lens	Watts Multiplier	LPW Multiplier
Flush lens	1.00	1.00
Drop lens 0.5"	0.98	1.02
Drop lens 1.0"	0.96	1.04

### Multiplier - CCT/CRI

CCT (K)	Watts Multiplier		LPW Multiplier	
	CRI80	CRI90	CRI80	CRI90
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
5000	0.90	1.09	1.11	0.92
6500	0.94	1.11	1.06	0.90

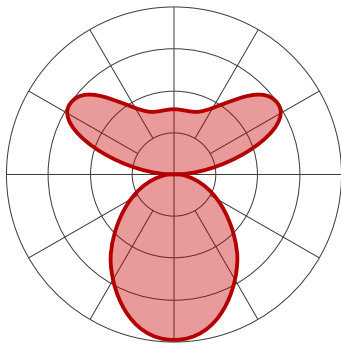
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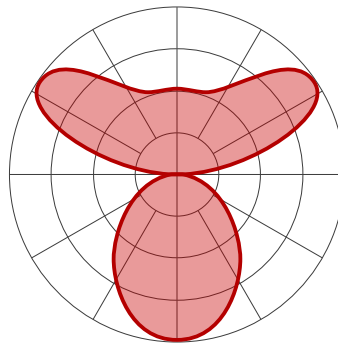
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## PHOTOMETRICS

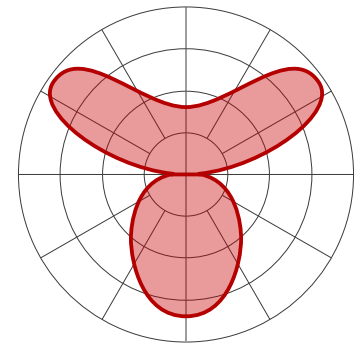
Please follow the multiplier tables to ensure correct lumen value. Lensing, CCT and CRI, will change the lumen output.



HLO-FH-WIO



HLO-0.5D-WIO



HLO-1.0D-WIO

### HLO-FH-WIO Delivered Lumens for Flush at 35K 80CRI

Lumen Package (Direct + Indirect)	Direct	Indirect	Total Lumens Per 4FT	Input Watts	LPW
500+500	2000	2000	4000	41.5	96
500+750	2000	3000	5000	52	96
500+1000	2000	4000	6000	64	94
750+500	3000	2000	5000	51	98
750+750	3000	3000	6000	62	97
750+1000	3000	4000	7000	73	96
1000+500	4000	2000	6000	60.5	99
1000+750	4000	3000	7000	71.5	98
1000+1000	4000	4000	8000	82.5	97

### Multiplier - Drop Lens

Direct lens	Watts Multiplier	LPW Multiplier
Flush lens	1.00	1.00
Drop lens 0.5"	0.98	1.02
Drop lens 1.0"	0.96	1.04

### Multiplier - CCT/CRI

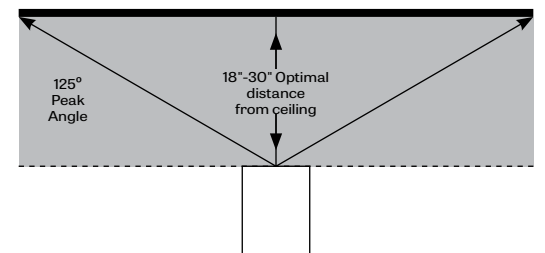
CCT (K)	Watts Multiplier		LPW Multiplier	
	CRI80	CRI90	CRI80	CRI90
2700	1.05	1.26	0.95	0.79
3000	1.01	1.23	0.99	0.81
3500	1.00	1.20	1.00	0.84
4000	1.00	1.17	1.00	0.85
5000	0.90	1.09	1.11	0.92
6500	0.94	1.11	1.06	0.90

### DIRECT OPTICS

**High-Efficiency Lambertian Optic (HLO)** shielding of diffusing 0.075" thick acrylic provides up to 88% transmission and good source obscuration. Matte white reflectors distribute LED output across the shielding. Luminaire brightness is controlled by the ratio of luminous flux to shielding area. HLO is available as a flush diffuser or as a drop diffuser, extending 0.5" or 1.0" below the luminaire housing. Drop diffusers are extruded with glued end caps. HLO optics have a Spacing Criteria of 1.10.

### INDIRECT OPTICS

The Lumenwerx **Widespread Indirect Optics (WIO)** uses two vertically oriented LED arrays that couple light into the edges of a linear light guide. A specially designed TIR/microstructure extracts light into the desired "batwing" distribution. Peak intensity hits at 125° while suppressing direct uplight. Peak-to-zenith intensity ratio is 2:1, outstanding for a narrow luminaire. The Widespread Indirect Optic produces noticeably smoother ceiling brightness than a typical lambertian uplight distribution, permitting generally wider spacing as well.



The **Clear Lambertian Optic (CLO)** uses a single horizontal LED array and a clear acrylic cover to provide simple uplight with high efficiency.

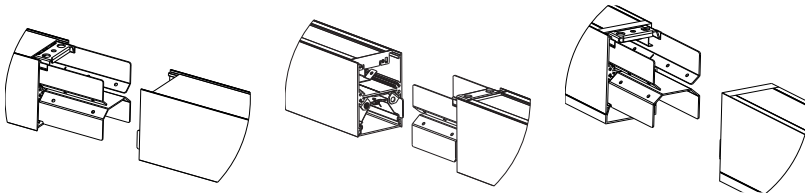
## LIGHT SOURCE - LED

Custom linear array of mid-flux LEDs are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. 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 L80 lumen maintenance greater than 60,000 hours. Absolute product photometry is measured and presented in accordance with IESNA LM-79, unless otherwise indicated.

## PATTERN LENGTH

All individual sections are joined together onsite using the joiner kits provided. Lumenwerx offers joiner kits that are extremely simple to work with in the field and result in a fixture that appears virtually seamless with no light leak at any connection.

### Joining system



Via 3 direct/indirect CLO

Via 3 direct/indirect  
Wide Spread

Via 3 direct/indirect  
with drop lens

## 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) 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 1000 lumens per 4ft (25°C) emergency lighting output. Recharge time of 24 hours.

## MOUNTING OPTIONS

Fixtures can be pendant-mounted, using aircraft cables, or stem-mounted. Unless otherwise specified, Lumenwerx provides the following hardware:

**For cable-mounted fixtures** - 53WAC36 (5" white canopy for all power mounting point, 3" white canopy for non power mounting point, and a 36" cable)

**For stem mounted fixtures** - 55WSW18 (5" white canopy for all power mounting point, and non power mounting point, and a 18" white stem)

**Caddy clips**, if required specify under **OPTIONS**

[For all other options, see our website for a detailed Pendant Mounting Guide](#)

## FINISH

**Interior** - 95%, reflective matte powder coated white paint

**Exterior** - matte white, matte black or aluminum powder coating.

Custom finishes are also available.

## CONTROLS

Lumenwerx offers several options for integrating occupancy and daylight harvesting controls in our luminaires.

### STANDALONE CONTROLS

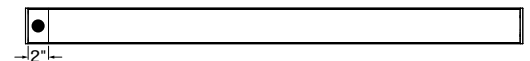
An integrated standalone sensor controls the luminaire in which it is installed. Depending on the length, more than one sensor may be necessary and may control the entire luminaire, or just a section of it. These controls operate independently. Unless otherwise agreed, location and functionality of the 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.



Location of an Onboard control

## **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.**

## **CONSTRUCTION**

**Housing** - Extruded aluminum (0.095" nominal) up to 90% recycled content

**Interior brackets** - Die formed cold rolled sheet steel 18 gauge thick

**Joining system** - Die cast zinc (0.95" nominal)

**Reflectors** - Cold rolled steel 0.024" thick precisely die formed, 95% reflective matte white painted

**Light guide** - Clear PMMA laminated with microstructure film formed into optical TIR/extraction form

**End caps** - Die cast aluminum (0.95" nominal)

**Hanger** - Chromed griplock securely attached with spring steel hardware in end caps and/or joiners

**Aircraft cable suspension** - 7x7 braids aluminum aircraft cable 0.06" thick

**Stem** - 0.5" diameter threaded steel tube matte white or aluminum powder coating.

Custom finishes are also available

## **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.