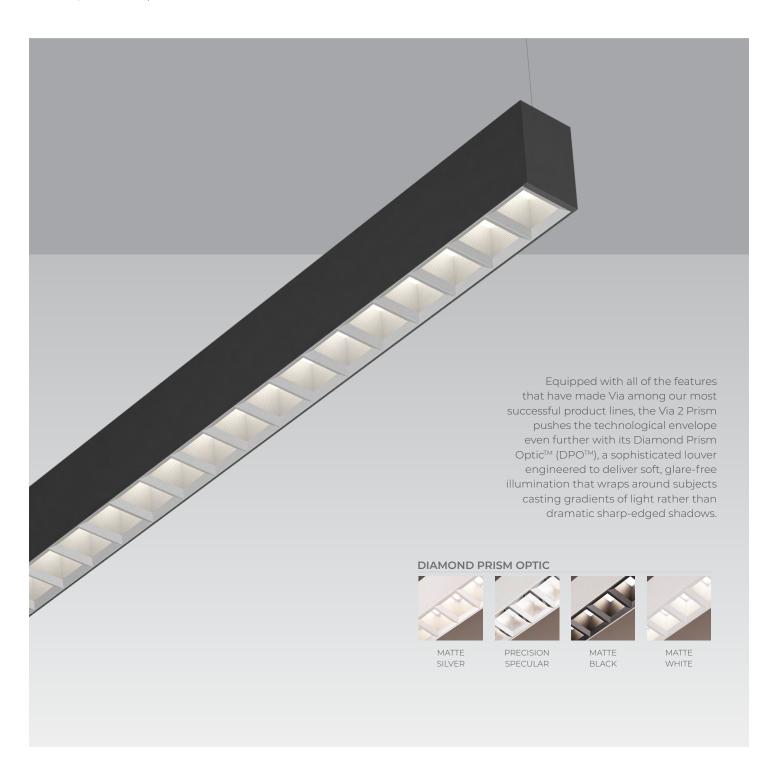
## LUMENWERX

### PENDANT DIRECT/INDIRECT, DIRECT



For latest information on sensors, click <u>here</u>.







## LUMENWERX

## PENDANT DIRECT/INDIRECT, DIRECT



Project:		
-		

### Order Guide

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LUMINAIRE ID	DISTRIBUTION	DIRECT OPTIC	INDIRECT OPTIC Specify NA for Direct fixture	LIGHT SOURCE 1	CRI
VIA2PRP					
VIA2PRP - Via 2" Prism Pendant	DI - Direct/ Indirect D - Direct	SDPO - Matte Silver Diamond Prism Optic PDPO - Precision Specular Diamond Prism Optic BDPO - Matte Black Diamond Prism Optic WDPO - Matte White Diamond Prism Optic	WIO2 - Widespread Indirect Optic TIO - Translucent Indirect Optic WAI2 - Widespread Asymmetric Indirect Optic	SW - Static white FS - Full spectrum ¹Chromawerx Sola and	<b>80</b> <sup>2</sup> - 80 CRI <b>90</b> <sup>2</sup> - 90 CRI <b>95</b> <sup>3</sup> - 95 CRI
			NA - Not applicable	Duo also available. Consult factory.	<sup>2</sup> Not available with full spectrum. <sup>3</sup> Not available with static white.

DIRECT LUMEN PACKAGE	INDIRECT LUMEN PACKAGE Specify NA for Direct fixture	COLOR TEMPERATURE	LUMINAIRE LENGTH	VOLTAGE
<b>350</b> - Low output 350 lm/ft	<b>350</b> - Low output 350 lm/ft	<b>27</b> - 2700K	#FT#IN 12 - Specify nominal	120 - 120V
500 4 - Medium output 500 lm/ft	500 - Medium output 500 lm/ft	<b>30</b> - 3000K	length (#) in 1' and/or 6"	<b>277</b> - 277∨
<b>750</b> <sup>5</sup> - High output 750 lm/ft	<b>750</b> - High output 750 lm/ft	<b>35</b> - 3500K	increments	UNV -
1000 <sup>6, 8, 9</sup> - Ultra high output 1000 lm/ft	1000 8,10 - Ultra high output 1000 lm/ft	<b>40</b> - 4000K		120V-277V
<b>1200</b> <sup>7, 8, 9</sup> - Hyper output 1200 lm/ft	1200 8, 10, 11 - Hyper output 1200 lm/ft		Standard nominal lengths:	<b>347</b> <sup>13</sup> - 347V
	NA - Not applicable		Single units: 2' - 12'	
<sup>4</sup> For BDPO, Indirect must not exceed 1000 lm/ft.	8 Not available with full spectrum.		Continuous runs:	<sup>13</sup> Available with
For BDPO, Indirect must not exceed 1000 Im/ft.	9 Not available with BDPO.		lengths over 12'	D1 only.
For PDPO/SDPO/WDPO, Indirect must not exceed 1000 lm/ft.				
For PDPO/SDPO/WDPO, Indirect must not exceed 750 lm/ft.	<sup>11</sup> Fixture will be very bright. Use in suitable applications.		<sup>12</sup> Minimum 3' for Direct/Indirect.	

DRIVER 14	ELECTRICAL	ELECTRICAL SECTIONS (optional) 21, 22	MOUNTING 27
<b>D1</b> - 1% O-10V	1C - 1 circuit	#EC## <sup>23</sup> - Emergency-powered section	ACS - Aircraft cable, standard
DA 15 - DALI	<b>2C</b> 17 - 2 circuits	#NL## <sup>23</sup> - Night light section	STS - Stem, standard
LTEA2W 16 - Lutron 1% - 2 wire FP	#MC <sup>18</sup> - Multi circuit	#DL## <sup>23</sup> - Daylight section	ACC() - Aircraft cable, custom
120V	EC - Emergency-powered fixture	#GTD## <sup>23, 24, 25</sup> - Generator transfer device section	STC() - Stem, custom
LDE1 15 - Lutron Hi-lume 1% Eco	NL - Night light fixture	#EMB <sup>25, 26</sup> - Emergency battery	
ELD1 - eldoLED 1% ECOdrive 0-10V	DL - Daylight fixture	NA - None	<sup>27</sup> See page 3 for ordering details.
ELDO - eldoLED 0.1% SOLOdrive 0-10V	GTD 19, 20 - Generator transfer device fixture		
		<sup>21</sup> Specify with multi circuit (#MC) electrical option only.	
<sup>14</sup> PoE (Power-over-Ethernet) compatible.	<sup>17</sup> Available for Direct/Indirect only. Separate direct and indirect	<sup>22</sup> Provide drawing or layout specifications. Consult factory	
Consult factory for details.	circuits.	for other configurations. Default section length is 4'.	
<sup>15</sup> On-site commissioning is required.	<sup>18</sup> Specify total number of circuits (#), including any required	<sup>23</sup> Specify quantity (#), and section length in inches (##). <sup>24</sup> Minimum 4' section	
<sup>16</sup> Available with 120V only.	for electrical section options. Provide drawing or layout specifications. Minimum 4' section per circuit.	25 Not available with 347V.	
	<sup>19</sup> Minimum 4' fixture.	26 Specify quantity (#). All batteries will be on the	
	20 Not available with 347V.	same circuit. Each battery powers a 4' section. For	
		Direct/Indirect, minimum 8' fixture.	

FINISH	CONTROL <sup>28</sup>	OPTIONS	
W - Matte white AL - Aluminum B - Matte black CF# - Custom finish, specify RAL#	STANDALONE CONTROLS <sup>29, 30</sup> Specify the quantity (#) of sensors per fixture. #OMS <sup>31</sup> - Onboard Occupancy #OMS## <sup>32</sup> - Onboard Occupancy with bi-level dimming #ODS - Onboard Daylight #OCS - Onboard Occupancy & Daylight	CONNECTED CONTROLS 33  LU- Lutron AN - Acuity nLight EN - Enlighted CA - Casambi ENC - Encelium LG - Legrand WL - Cooper Wavelinx	FU120 - Fuse 120V FU277 - Fuse 277V CTB9 <sup>34</sup> - T-bar caddy clip, 9/16" CTB15 <sup>34</sup> - T-bar caddy clip, 15/16" CTG9 <sup>34</sup> - Tegular caddy clip, 9/16" CTG15 <sup>34</sup> - Tegular caddy clip, 15/16" CST <sup>34</sup> - Screw slots T-bar NA - None
	NA - Non		
	<ul> <li>Standalone and connected control options cannot be combined.</li> <li>Available with D1 driver and 1 circuit options only.</li> <li>Minimum 4' per zone. Provide control zone length.</li> </ul>	<sup>31</sup> Fixture turns off when no occupancy. <sup>32</sup> Fixture dims to specified light level % (##). <sup>33</sup> Consult factory for connected controls.	34 Available with aircraft cable only.

MICRO SPOT 35	MS CRI	MS LUMEN PACK.	MS COLOR TEMP.	MS FINISH
#MS25 - Micro Spot 25° #MS35 - Micro Spot 35° #MS50 - Micro Spot 50°  **Specify quantity (#).	<b>80</b> - 80 CRI <b>90</b> - 90 CRI	<b>400</b> <sup>36</sup> - 400 lm <sup>36</sup> 5 W. Wattage is for reference only. May change based on driver.	<b>27</b> - 2700K <b>30</b> - 3000K <b>35</b> - 3500K <b>40</b> - 4000K	<b>W</b> - Matte white <b>B</b> - Matte black

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VIA2-PRISM-PENDANT-SPEC-REVO







## PENDANT

DIRECT/INDIRECT, DIRECT

## Pendant Mounting Code

#### Aircraft Cable

#### Standard

#### ACS - Aircraft cable, standard

Ø5" for power canopy Ø3" for non-power Canopies are white Power cord is white for all fixture finishes (except black fixture is black power cord) Aircraft cable length is 36"

# Stem

#### Standard

#### STS - Stem, standard

Ø5" for power canopy Ø5" for non-power Canopies are white Stem finish is the same color as fixture Stem length is 18" Stem is not field adjustable

#### Custom

#### Example: ACC(3NPC-72-W-PCB-SLC)

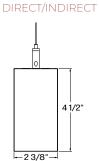
ACC()					
NON-POWER CANOPY SIZE	AIRCRAFT CABLE LENGTH	CANOPY FINISH	POWER CORD COLOR	OPTIONS	
<b>3NPC</b> - Ø3" non- power canopy <b>5NPC</b> - Ø5" non- power canopy	36 - 36" 72 - 72" 120 - 120" # 1 - Other lengths, specify in inches  1 Maximum length is 288". For longer lengths, please consult factory.	W - White AL - Aluminum B - Black CF# - Custom finish, specify RAL#	PCW - White PCB - Black	SEM - Seismic mounting SLC - Sloped ceiling for aircraft cable NA - None	

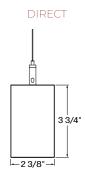
#### Custom

#### Example: STC(5NPC-36-W-STW-SLS)

STC()						
NON-POWER CANOPY SIZE	STEM LENGTH	CANOPY FINISH	STEM COLOR	OPTIONS		
<b>5NPC</b> - Ø5" non-power canopy	18 - 18" 36 - 36" # 2 - Specify length in inches <sup>2</sup> Minimum length is 6". Maximum length is 72". Stem is not field adjustable.	W - White AL - Aluminum B - Black CF# - Custom finish, specify RAL#	STW - White STAL - Aluminum STB - Black STCF# - Custom finish, specify RAL#	SLS - Sloped ceiling for stem NA - None		

#### **Dimensions**







## LUMENWERX

### PENDANT

DIRECT/INDIRECT, DIRECT

#### Photometrics

Values calculated based on a 4 ft fixture at 35K and 80 CRI for all optics.

**SDPO** 



LM/FT	W/FT	LPW
350	2.6	132
500	3.8	132
750	5.9	127
1000	8.2	122
1200	10	120



INDIRECT OPTICS



TIO



CCT (K)	WATTS		LPW	
CCI (K)	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

PDPO

,.		
350	2.4	147
500	3.4	147
750	5.3	142
1000	7.3	137
1200	8.9	134

IM/FT W/FT IPW

200 1.5 130 350 2.7 127 500 124 750 6.3 119 1000 8.8 114 1200 10.9 110

W/FT

LM/FT

**MULTIPLIER TABLES** 

Multiplier - CCT/CRI

MUCO TIO MAIO

tables.

Use these tables to get results for

different color temperatures, and CRI

for all Direct and Indirect photometric

ББРО

RDDO

LM/FI	W/FI	LPW
350	5.1	69
500	7.5	66
750	11.9	63
1000	16.7	60



WAI2

LM/FT	W/FT	LPW
350	2.5	139
500	3.7	135
750	5.8	130

CCT (K)	WATTS		LP	LPW	
CCI (K)	CRI 80	CRI 90	CRI 80	CRI 90	
2700	1.04	1.19	0.96	0.84	
3000	1.00	1.15	1.00	0.87	
3500	1.00	1.12	1.00	0.89	
4000	0.99	1.10	1.01	0.91	

#### WDPO



LM/FT	W/FT	LPW
350	2.4	145
500	3.5	144
750	5.4	139
1000	7.4	135
1200	9.1	132

#### DIRECT/INDIRECT - LPW CALCULATION EXAMPLE

For Direct/Indirect performance values, follow the below formula.

(	DIRECT LM/FT	+	INDIRECT LM/FT	)	= IPW
(	DIRECT W/FT	+	INDIRECT W/FT	)	

#### MICRO SPOT







DELIVERED LUMENS								
Wattage 5.0								
CRI	80				9	0		
CCT	2700K	3000K	3500K	4000K	2700K	3000K	3500K	4000K
Lumen	373	373	400	400	322	322	322	345



## LUMENWERX

# PENDANT DIRECT/INDIRECT. DIRECT

### Technical Specifications

#### DIRECT OPTICS

#### Diamond Prism Optic (DPO)

The Diamond Prism Optic<sup>™</sup> (DPO<sup>™</sup>) is our patent-pending 3-tiered optic meticulously crafted to refract and reflect beams with great precision, effectively keeping glare to a minimum while delivering light of exceptional quality and visual comfort.









MATTE SILVER PRECISION SPECIAL AR

ON MATTE BLAC

MATTE WHITE

#### **INDIRECT OPTICS**

#### Widespread Indirect Optic (WIO2)

The Widespread Indirect Optic (WIO2) is a horizontal LED array with a widespread indirect micro prismatic optic that offers an impressive 160° spread. WIO2 creates an even illumination for smooth brightness on the ceiling that can achieve uniformity ratios of up to 2:1.

#### Uniformity [max/min]

Based on 18' continuous runs, in a 20' x 40' room, 10' wall height

Mounting height	Spaci	ng (Center to c	enter)
from ceiling	8'	10'	12'
12"	5.5	10.0	9.0
18"	6.5	6.0	6.0
24"	2.5	4.0	4.5

#### **Translucent Indirect Optic (TIO)**

The Translucent Indirect Optic (TIO) is composed of a horizontal LED array that has a translucent lens to mask pixilation from the diodes. TIO has a 100° spread in the indirect that is ideal when the fixture is mounted farther away from the ceiling.

#### Widespread Asymmetric Indirect Optic (WAI2)

The Widespread Asymmetric Indirect Optic (WAI2) offers an upward grazing effect with a 45° forward throw. It softly highlights the ceiling in the up-light while distributing the required illumination of the rest of an interior space. For avoiding glare and enjoying visual comfort, WAI2 is an ideal solution.

#### LIGHT SOURCE

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 operate 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.

#### LUMINAIRE LENGTH

Via 2 Prism is available in standard lengths of 2' to 12'. Continuous runs are available for run lengths over 12'. Exact run length must be noted in the product code. The minimum length is 2' for Direct, and 3' for Direct/Indirect fixtures. Lengths can be ordered in 1' increments. 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.

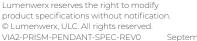
#### **ELECTRICAL**

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), eldoLED 1% ECOdrive 0-10V, eldoLED 0.1% SOLOdrive 0-10V, 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), emergency battery backup, and sensor integration. These must be addressed and evaluated on a case-by-case basis.





## LUMENWERX

### PENDANT DIRECT/INDIRECT. DIRECT

#### **ELECTRICAL SECTION OPTIONS**

Electrical section options are available for fixtures specified as multi circuit (#MC). With MC, specify the total number of circuits (#), including any circuits required for optional electrical sections. A drawing is required to specify the layout. Please consult factory for custom configurations.

#### **Electrical sections**

Options include emergency-powered (#EC##), night light (#NL##), daylight (#DL##), and generator transfer device (#GTD##) sections. Specify the quantity (#), as well as the section length in inches (##).

Example 1: A 32' Direct fixture with two 8' emergency-powered sections on a second circuit.

Code: 2MC-2EC96

Example 2: A 16' Direct/Indirect fixture with separate circuits for direct and indirect, and with one 4' night light section on the direct side on a third circuit.

Code: 3MC-1NL48

Example 3: A 24' Direct fixture with one 4' generator transfer device section

Code: 1MC-1GTD48

#### **Battery**

Each emergency battery (#EMB) powers a 4' section. All batteries will be on the same circuit. Specify the number of batteries (#) required.

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 1000 lumens per 4' (25°C) emergency lighting output and recharge time of 24 hours.

#### MOUNTING OPTIONS

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

Standard aircraft cable option (ACS) - Canopies are white, Ø5" for power canopy, Ø3" for non-power. Power cord is black for black fixtures, and white for all other fixture finishes. Aircraft cable length is 36"

Standard stem option (STS) - Canopies are white, Ø5" for both power and non-power. Stem finish is the same color as fixture. Stem length is 18". Stem is not field adjustable

Caddy clips, if required specify under OPTIONS For all other options, see the mounting code on page 3.

#### 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.

For latest information on sensors, click here.

#### 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, sensor location, blank size, and functionality of the sensor within the luminaire are selected by Lumenwerx. See client drawings for details.

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.

#### **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, Encelium, Cooper Wavelinx, Acuity nLight, Casambi, Legrand, 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.







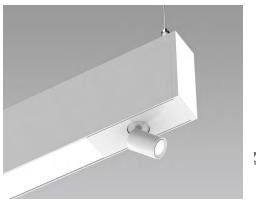
## LUMENWERX

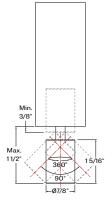
# PENDANT DIRECT/INDIRECT. DIRECT

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 factory 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.

#### MICRO SPOT (MS)





The Micro Spot is a Ø 7/8" x 1 5/16" adjustable spotlight that extends, retracts, rotates 360°, and tilts 90°. Its LED light source is coupled with a TIR refractor to provide beam angles of 25°, 35°, and 50°, while producing up to 400 lumens. LED light source CCT options are 2700K, 3000K, 3500K, and 4000K, available in either 80 CRI or 90 CRI. The Micro Spot is offered in a white or black finish. The Micro Spot driver is mounted within the luminaire housing and accepts universal input voltage (120-277VAC) with 0-10 V dimming control.

#### CONSTRUCTION

**Housing** - Extruded aluminum, up to 90% recycled content **Interior brackets** - Die-formed cold rolled sheet steel

Joining system - Die-cast zinc

Reflectors - Aluminum

Lens - Acrylic or polycarbonate

End caps - Die-cast aluminum

**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.

#### WEIGHT

Direct/Indirect	Direct
<b>4ft</b> - 10.68 lbs - 4.85 kg	<b>4ft</b> - 9.03 lbs - 4.1 kg
<b>8ft</b> - 22.03 lbs - 10 kg	<b>8ft</b> - 18.28 lbs - 8.3 kg
<b>12ft</b> - 32.60 lbs - 14.8 kg	<b>12ft</b> - 27.97 lbs - 12.7 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.

#### 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.



