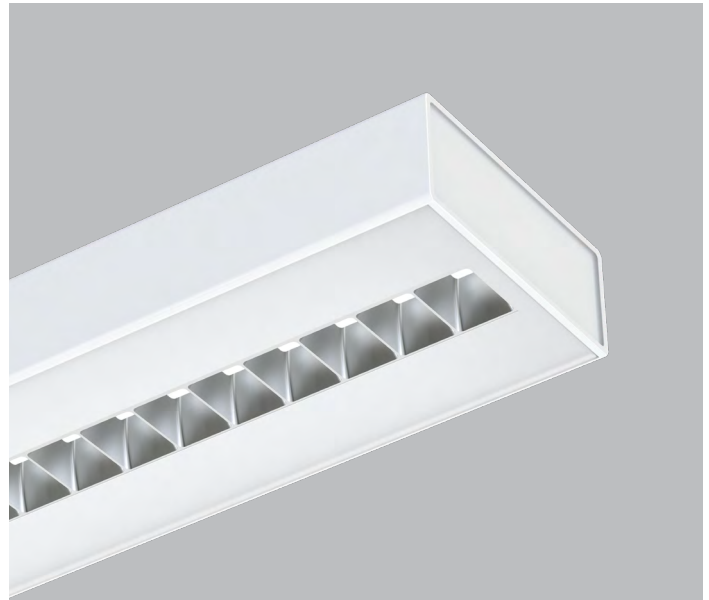


### DESCRIPTION

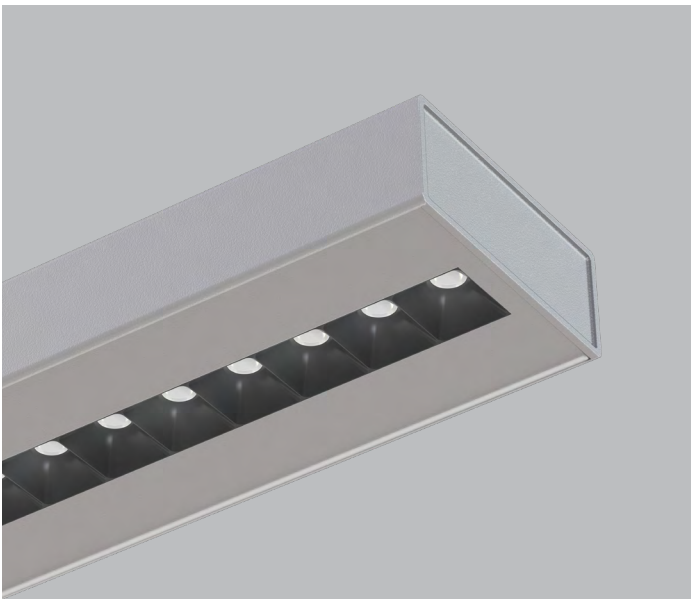
Within its compact 1 15/16" x 4 3/4" profile, Medius supports a choice of outstanding optics for high performance direct/indirect lighting. The result is excellent visual comfort with UGR better than 16, smooth ceiling uniformity, and efficacy up to 119 LPW. A new sliding cable arrangement simplifies installation in existing spaces. Medius configures as individual luminaires or continuous runs and features the full range of electrical and control options. Medius offers ChromaWerx for tunable white applications (see separate specification sheet).



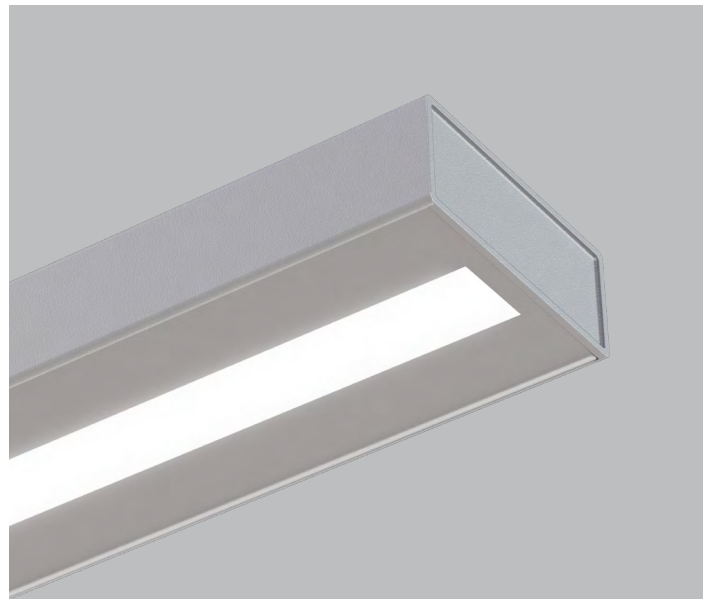
**SPL** - Specular parabolic louver



**MPL** - Matte parabolic louver



**MRO** - Miniature Reflector Optics



**HLO** - High-Efficiency Lambertian Optic

# MEDIUS

PENDANT DIRECT/INDIRECT

# LUMENWERX

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

## ORDER GUIDE

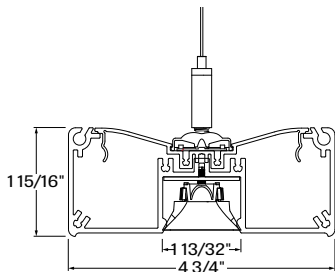
MEDPDI		WIO2		LED		
LUMINAIRE ID	DIRECT OPTICS	INDIRECT OPTICS	MRO COLOR	LIGHT SOURCE	CRI	DIRECT LUMEN PACKAGES
MEDPDI - Medius Pendant Direct/Indirect	<b>MRO18</b> - 18 Degrees miniature reflector optics <b>MRO35</b> - 35 Degree miniature reflector optics <b>MRO55</b> - 55 Degree miniature reflector optics <b>SPL</b> - Specular parabolic louver <b>MPL</b> - Matte parabolic louver <b>HLO</b> - High-Efficiency Lambertian Optic	<b>WIO2</b> - Widespread Indirect Optics	<b>W</b> - White <b>B</b> - Black <b>NA</b> - Not applicable	<b>LED</b> - High performance LED	<b>80</b> - 80CRI <b>90</b> - 90CRI	<b>350</b> - Min. eco low output 350lm/ft <b>500</b> - Low output 500lm/ft <b>750</b> - Medium output 750lm/ft <b>1000</b> - Max. high output 1000lm/ft <b>####</b> - Other required lm/ft

INDIRECT LUMEN PACKAGES	COLOR TEMP.	LUMINAIRE LENGTH	VOLTAGE	DRIVER
<b>350</b> - Min. Low Output 350lm/ft <b>500</b> - Medium Output 500lm/ft <b>750</b> - High Output 750lm/ft <b>1000</b> - Ultra High Output 1000lm/ft <b>1200</b> - Max. Hyper Output 1200lm/ft <b>####</b> - Other required lm/ft	<b>27</b> - 2700K <b>30</b> - 3000K <b>35</b> - 3500K <b>40</b> - 4000K	Standard sections - 4', 8' & 12' For all other specify length <b>#FT</b> - Nominal length in feet only Continuous Run - for luminaires over 12' Minimum Individual section 4'	<b>120</b> - 120V <b>277</b> - 277V <b>UNV</b> - 120V-277V <b>347</b> - 347V (D1 only)	<b>D1</b> - 1% dimming 0-10V <b>DA</b> <sup>1</sup> - DALI <b>LTEA2W</b> - Lutron 1% - 2 wire FP 120V <b>LDE1</b> <sup>1</sup> - Lutron Hi-lume 1% Eco <sup>1</sup> On-site commissioning required.

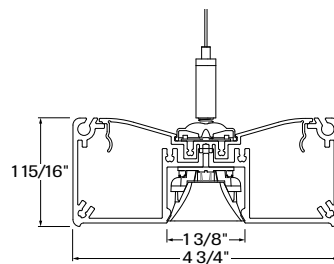
ELECTRICAL	MOUNTING	FINISH	CONTROLS	OPTIONS
1 - 1 Circuit 2 - 2 Circuits + <b>#EB</b> - Emergency battery (min 4" fixture per battery) + <b>#EM</b> - Emergency light circuit + <b>#NL</b> - Night light circuit	<b>53WAC36</b> - Fixed cables suspension power 5" + non power 3" white canopy (36" air craft cable) <b>SC53WAC36</b> - Sliding cables suspension , power 5" + non power 3" white canopy (36" air craft cable) <b>55WSW18</b> - Power 5" + non power 5" white canopy & stem (18" stem) <a href="#">For all other options refer to our Pendant Mounting Guide</a>	<b>W</b> - Matte white <b>AL</b> - Aluminum <b>CF#</b> - Custom finish specify RAL#	<b>STANDALONE CONTROLS</b> <b>OMS</b> - Onboard Occupancy <b>ODS</b> - Onboard Daylight <b>OCS</b> - Onboard Occupancy & Daylight <b>CONNECTED CONTROLS</b> <b>CCS()</b> - LU-Lutron, <b>EN</b> -Enlighted, <b>OS</b> -Osram, <b>CR</b> -Crestron. To specify see information on page 5	<b>FU</b> - Fuse <b>TB#</b> - T-bar caddy clip specify grid size <b>TG#</b> - Tegular caddy clip specify grid size <b>ST</b> - Screw Slots caddy clip <b>CU</b> - Custom

See page 2 for ordering code detailed information

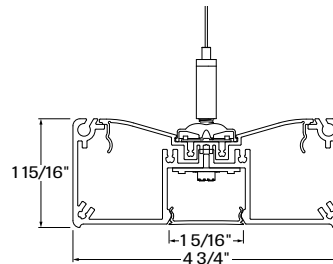
## CROSS SECTION



**MEDPDI - MRO**  
Miniature reflector optics



**MEDPDI - SPL & MPL**  
Specular & Matte parabolic louver



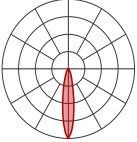
**MEDPDI - HLO**  
High Efficiency Lambertian Optic

### PERFORMANCE

Delivered lumens at 35K at 80CRI for all optics.

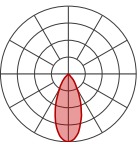
#### DIRECT OPTICS

MRO18



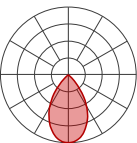
LM/FT	TOTAL LM/4FT	INPUT WATTS	LPW
350	1400	10.5	132
500	2000	16	126
750	3000	25.5	118
1000	4000	36	111

MRO35



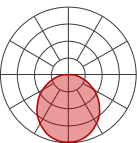
LM/FT	TOTAL LM/4FT	INPUT WATTS	LPW
350	1400	11	127
500	2000	16.5	122
750	3000	26.5	114
1000	4000	37.5	107

MRO55



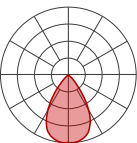
LM/FT	TOTAL LM/4FT	INPUT WATTS	LPW
350	1400	12	116
500	2000	18	111
750	3000	29	103
1000	4000	42	95

HLO



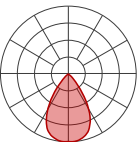
LM/FT	TOTAL LM/4FT	INPUT WATTS	LPW
350	1400	12	115
500	2000	18	111
750	3000	27.5	109
1000	4000	37.5	106

SPL



LM/FT	TOTAL LM/4FT	INPUT WATTS	LPW
350	1400	12	119
500	2000	17.5	115
750	3000	27	111
1000	4000	37.5	107

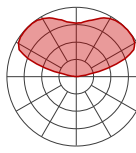
MPL



LM/FT	TOTAL LM/4FT	INPUT WATTS	LPW
350	1400	13	108
500	2000	19	105
750	3000	29.5	101
1000	4000	41	98

#### INDIRECT OPTICS

WIO2



LM/FT	TOTAL LM/4FT	INPUT WATTS	LPW
350	1400	9.7	145
500	2000	14.2	141
750	3000	22.1	136
1000	4000	30.8	130
1200	4800	38	126

### MULTIPLIER TABLES

Use these tables to get results for different color temperatures, CRI, for all Direct and Indirect photometric tables.

Multiplier - CCT/CRI

MRO18/MRO35/MRO55/SPL/MPL

CCT (K)	Watts		LPW	
	CRI80	CRI90	CRI80	CRI90
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	.99	1.10	1.01	0.91
5000	.94	1.06	1.06	0.94
6500	.96	1.06	1.06	0.94

HLO/WIO2

CCT (K)	Watts		LPW	
	CRI80	CRI90	CRI80	CRI90
2700	1.05	1.27	0.95	0.79
3000	1.02	1.23	.98	0.81
3500	1.00	1.19	1.00	0.84
4000	1.00	1.19	1.00	0.84
5000	.96	1.12	1.04	0.89
6500	1.00	1.14	1.00	0.88

### DIRECT/INDIRECT - LPW CALCULATION EXAMPLE

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

$$\frac{\left( \begin{array}{c} \text{DIRECT} \\ \text{TOTAL LM/4FT} \end{array} + \begin{array}{c} \text{INDIRECT} \\ \text{TOTAL LM/4FT} \end{array} \right)}{\left( \begin{array}{c} \text{DIRECT} \\ \text{INPUT WATTS} \end{array} + \begin{array}{c} \text{INDIRECT} \\ \text{INPUT WATTS} \end{array} \right)} = \text{LPW}$$

### DIRECT OPTICS

#### Parabolic Louvers (SPL and MPL)

Parabolic louvers 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° cross wise.

Precise brightness control provides excellent UGR and satisfies the recommendations of ANSI IES RP1-12 for intensive VDT viewing with practical spacing criteria of 1.1. Choose from Specular (SPL) or Matte (MPL) louver finish.

**MINIATURE REFLECTOR OPTICS (MRO)** locates individual, precisely molded TIR elements over each LED emitter, and further shield the source with precise parabolic reflectors. The controlled beam is remarkably comfortable – especially in a small LED luminaire.

MRO is available in a specular black or gloss white finish and creates a distinctive visual texture.

Different TIR elements offer a choice of beam spreads: narrow (18° with SC of 0.3), medium (35° with SC of 0.6), and wide (55° with SC of 0.9). These concentrated distributions can provide effective task illumination in a variety of applications.

Each MRO module is 6" long with five optical chambers.

**HIGH EFFICIENCY LAMBERTIAN OPTIC (HLO)** The High-Efficiency Lambertian Optic (HLO) shielding of diffusing 0.075" thick acrylic with up to 88% transmission and good source obscuration is combined with matte white side reflectors to create an efficient optical chamber with uniform luminosity. Luminaire brightness is controlled by the flux-to-shielding area ratio. For visual comfort, avoid high lumen output unless Medius is installed in a high ceiling application. Spacing criteria: 1.2 (longitudinal) x 1.1 (lateral).

### INDIRECT OPTICS

#### WIDESPREAD INDIRECT OPTICS (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 from ceiling	Spacing (Center to center)		
	8'	10'	12'
12"	5.5	10.0	9.0
18"	3.5	6.0	6.0
24"	2.5	4.0	4.5

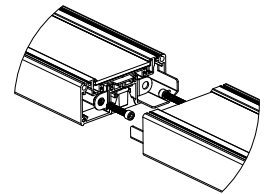
### LIGHT SOURCE - LED

Custom linear array of mid-flux LED's are cartridge-mounted with quick-connect wiring to facilitate service and thermal management. 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.

### LUMINAIRE LENGTH

Medius is made up of standard 4, 8 and 12 foot sections that may be joined together to create longer continuous run lengths. Nominal run length must be noted in the product code. The minimum individual section available is 4 foot. 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 for Medius Direct/Indirect

### 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.

**Access:** Driver is accessible for field service by removing the upright LED and light guide cartridge

### EMERGENCY BATTERY

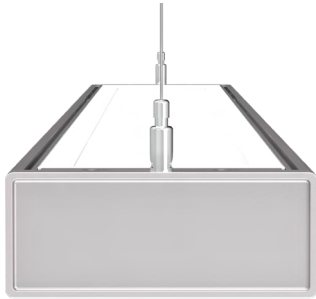
Each emergency battery powers a 4' section. Factory installed long life, high temperature, maintenance-free Lithium-Ion battery pack with self-test functionality, test switch and charge indicator. Minimum of 90 minutes operation, up to 1000 lumens per 4' (25°C) emergency lighting output and recharge time of 24 hours.

### MOUNTING OPTIONS

Fixtures can be pendant-mounted, using aircraft cables, or stem-mounted.

Unless otherwise specified, LumenWerx provides the following hardware:

**Fixed Cable Suspension:** aircraft cable mounts at luminaire ends or between modules in continuous runs and is secured by Griplock fastener for leveling.



**53WAC36** - Fixed Cables suspensions

**Sliding Cable Suspension:** Two-part cable assembly slides horizontally for flexible mounting. Griplock fastener secures and levels suspension.



**HS53WAC36** - Sliding Cables suspensions

**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

**Side reflector** - high reflective white 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.

#### 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\*, Enlited, 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 0.085" nominal, matte white or aluminum powder coating

Custom finishes are also available.

**End cap** - Die cast Aluminum (0.95" nominal)

**Joiners** - Die cast Aluminum (0.95" nominal)

**Reflectors** - High reflective white coated bent aluminum

**MRO** - Injection Molded Optical Grade Polycarbonate (0.100" nominal) up to 95% reflective

**Parabolic louvers** - Injection Molded Optical Grade Polycarbonate Vacuum Metalized, up to 95% reflective

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

**Hanger** - Chromed Griplock securely attached in end caps and/or joiners with a hex nut

**Air craft cable suspension** - Fixed 7x7 braids Aluminum air craft cable 0.06" thick  
Cable Suspension: aircraft cable mounts at luminaire ends or between modules in continuous runs and is secured by Griplock fastener for leveling.

**Sliding Cable Suspension** - Two-part cable assembly slides horizontally for flexible mounting. Griplock fastener secures and levels suspension.

**Stem** - 0.5" diameter threaded steel tube matte white or aluminum powder coating.  
Custom finishes are also available

**WEIGHT**

**Medius 4 ft** - 10.3 lbs, 4.7kg

**Medius 8 ft** - 19.4 lbs, 8.8kg

**Medius 12 ft** - 28.5 lbs, 12.9kg

**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.