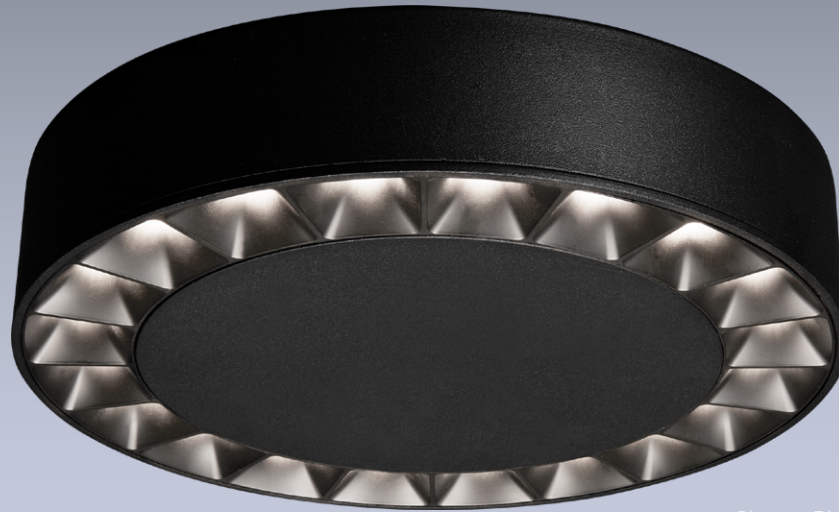


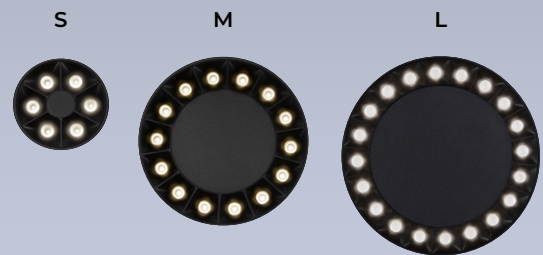
CLUSTER PI

SURFACE
MRO OPTIC

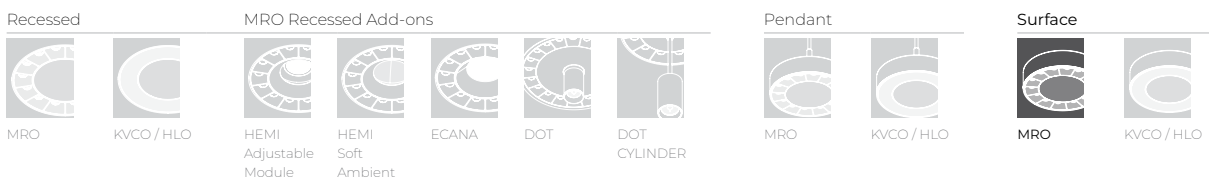


Cluster Pi M MRO

Cluster Pi with Miniature Reflector Optic (MRO) integrates the beauty and quality of our Cluster family into a fixture that illuminates through a circular array of light cells. The luminaire features a low profile of under 2" and can be recessed, surface, or pendant mounted. Of the three available sizes—Small (3.5"), Medium (6.5"), and Large (9")—the Medium and Large recessed models are designed to accommodate an add-on luminaire centrally positioned within its circular array.



Cluster Pi Family (Refer to other spec sheets)



CLUSTER PI

SURFACE

MRO OPTIC



Project: _____

Type: _____



Order Guide

LUMINAIRE ID	FIXTURE FINISH	LOUVER	LOUVER FINISH	REVEAL FINISH	CENTER BLANK FINISH
		SQR			
CLUPISS - Cluster Pi S Surface CLUPIMS - Cluster Pi M Surface CLUPILS - Cluster Pi L Surface	FTMW - Textured matte white FTMB - Textured matte black CF# - Custom finish, specify RAL#	SQR - Square	MF01 - Matte white MF04 - Matte black AM07 - Matte silver	FTMW - Textured matte white FTMB - Textured matte black CF# - Custom finish, specify RAL#	FTMW - Textured matte white FTMB - Textured matte black CF# - Custom finish, specify RAL#

LIGHT SOURCE	OPTIC	BEAM	CRI	COLOR TEMPERATURE	VOLTAGE	LUMEN PACKAGE ¹						
SW	MRO		90CRI									
SW - Static white	MRO - Miniature Reflector Optic	NFL - Narrow flood FLD - Flood WFL - Wide flood	90CRI - 90 CRI	27K - 2700K 30K - 3000K 35K - 3500K 40K - 4000K 50K - 5000K	120V - 120V 277V - 277V UNV - 120V-277V	<table border="1"> <tr> <td>S</td> <td>890LM - 890 lm</td> </tr> <tr> <td>M</td> <td>2100LM - 2100 lm</td> </tr> <tr> <td>L</td> <td>2750LM - 2750 lm</td> </tr> </table>	S	890LM - 890 lm	M	2100LM - 2100 lm	L	2750LM - 2750 lm
S	890LM - 890 lm											
M	2100LM - 2100 lm											
L	2750LM - 2750 lm											

¹Delivered lumens at 90 CRI, 3500K.

DIMMING ²	CANOPY TYPE	CANOPY FINISH Specify NA for DM
REMOTE DRIVER ³ RDI - 1% 0-10V RELV ^{4,5,6} - ELV 120V RTRI ^{4,5,6} - TRIAC 120V RLDEI ^{5,7} - Lutron Hi-Lume 1% Eco RDA ⁷ - DALI RELD1 - eldoLED 1% ECOdrive 0-10V RELD0 - eldoLED 0.1% SOLOdrive 0-10V RPEQ0 ^{6,7} - Lutron Hi-Lume Premier 0.1% EcoSystem	FLR ⁸ - Flat round canopy, 4" octagonal junction box DM - Direct mount ⁸ Only available for Cluster Pi S.	FTMW - Textured matte white FTMB - Textured matte black CF# - Custom finish, specify RAL# NA - Not applicable

²PoE (Power-over-Ethernet) compatible. Consult factory for details.

³A remote driver box is provided, see page 4 for details.

⁴Available with 120V only.

⁵Not available with Cluster Pi S.

⁶Not available with Cluster Pi M.

⁷On-site commissioning is required.

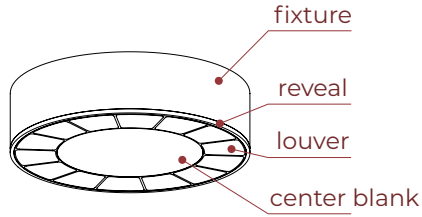


CLUSTER PI

SURFACE
MRO OPTIC

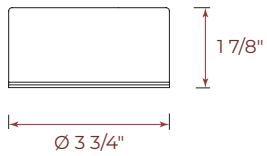


Overview

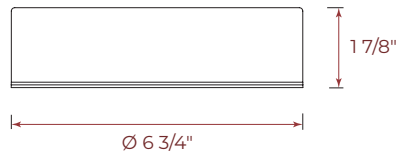


Dimensions

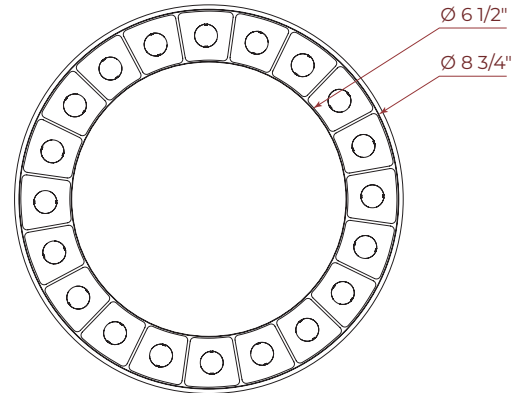
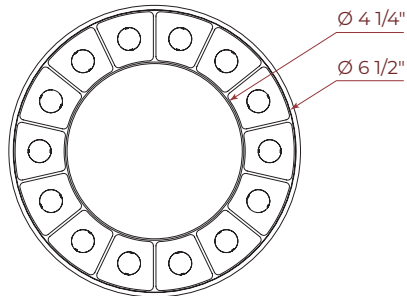
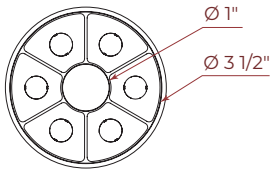
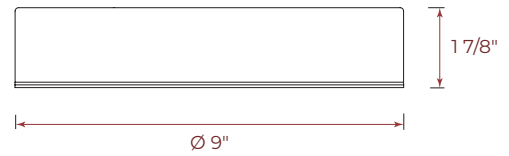
Cluster Pi S MRO



Cluster Pi M MRO



Cluster Pi L MRO



CLUSTER PI

SURFACE

MRO OPTIC



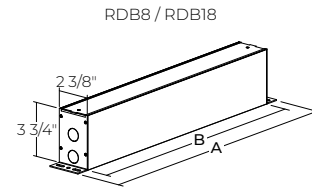
Mounting

CANOPY TYPE

REMOTE DRIVER		
	FLR ¹	DM
	Flat round canopy	Direct mount
CANOPY SIZE	Ø 4 1/2" Height 3/8"	NA

¹Only available for Cluster Pi S.

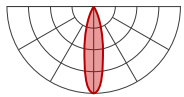
REMOTE DRIVER BOX



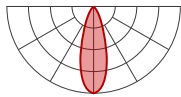
	RDB8	RDB18
A	10"	20"
B	8"	18"
DRIVER	RD1 - 1% 0-10V RELV - ELV 120V RTRI - TRIAC 120V RPEQO - Lutron Hi-Lume Premier 0.1% EcoSystem	RLDE1 - Lutron Hi-lume 1% Eco RDA - DALI RELD1 - eldoLED 1% ECOdrive 0-10V RELD0 - eldoLED 0.1% SOLOdrive 0-10V

Photometrics

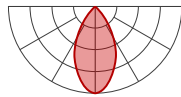
Values calculated based on 3500K and 90 CRI.



NFL - Narrow flood, 25°



FLD - Flood, 35°



WFL - Wide flood, 55°

	LM	W	LM/W
S	890	15	59
M	2100	30.6	70
L	2750	44.6	62

MULTIPLIER TABLE

Use the table to get results for different color temperatures.

Multiplier - CCT/CRI

CCT	WATTS 90 CRI	LPW 90 CRI
2700K	1.15	0.87
3000K	1.08	0.93
3500K	1	1
4000K	0.97	1.03
5000K	0.93	1.08

Technical Specifications

OPTIC

Miniature Reflector Optic (MRO)

The Miniature Reflector Optic (MRO) is composed of molded Total Internal Reflection (TIR) elements placed over the LED emitter, along with precise parabolic reflectors that further shield the light source. The resulting beam is soft with a feathered edge.

LIGHT SOURCE

Compact COB (Chip-On-Board) LED module, available in 2700K, 3000K, 3500K, 4000K, and 5000K with 90 CRI and elevated R9 value. Color consistency 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.

ELECTRICAL

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

Remote driver: 0-10V, ELV, TRIAC, Lutron Hi-Lume EcoSystem, DALI, eidoLED 0.1% SOLOdrive 0-10V, eidoLED 1% ECOdrive 0-10V

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.

CONSTRUCTION

Housing: Die-cast aluminum

Cover: Cold rolled steel

MRO lens: Polycarbonate

Canopy: Flat and direct

Finish: Textured matte white and matte black. Custom colors also available (provide RAL #).

WEIGHT

Cluster Pi S FLR: 1.4 lbs - 0.6 kg

Cluster Pi S DM: 1.1 lbs - 0.5 kg

Cluster Pi M DM: 2.2 lbs - 1 kg

Cluster Pi L DM: 3.4 lbs - 1.5 kg

CERTIFICATION

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.