

MARKCOVE 102

TUNABLE WHITE & WARM DIMMING



HIGHLIGHTS

- Low profile
- Extruded aluminum construction
- Lumen outputs: 250, 400, 600, 800 or 900 lumens per foot
- Tunable White: Rhythm Range (2700 - 6500K) or Productivity Range (3000-5000K)
- Warm Dimming: Halogen Range (3000 - 1800K)
- Cove optics: 120x120
- 0-10V, nLight or nLightAIR2
- Flicker free dimming to DARK (0.01%)
- Shielding options: frosted lens, linear cross baffle, hex cell louver, glare visor
- Mounting: surface fixed, surface adjustable

FIXTURE PERFORMANCE

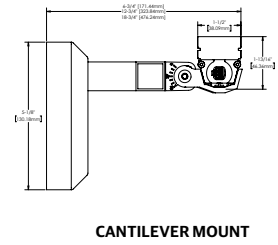
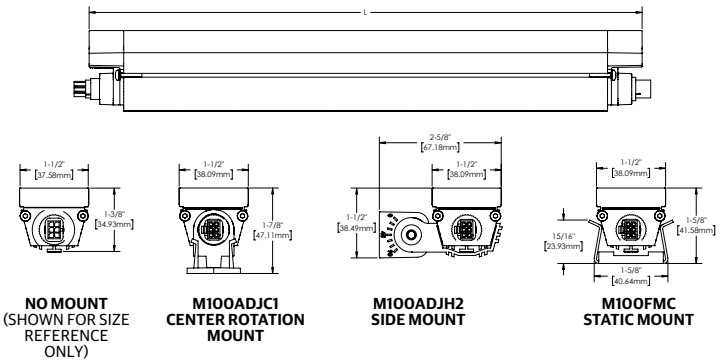
MCV102 TUNABLE WHITE							
	PROR (@40K)						
Nominal Lumens/Foot	250	400	500	600	700	800	900
Delivered Lumens/Foot	540	725	879	1029	1151	1269	1374
Input Watts/Foot	6.5	8.1	9.1	10.2	11.2	12.2	13.2
Lumens/Watt	83	90	97	101	103	104	104

	RHYR (@46K)						
Nominal Lumens/Foot	250	400	500	600	700	800	900
Delivered Lumens/Foot	388	521	632	739	827	912	987
Input Watts/Foot	5.1	6.4	7.5	8.0	8.8	9.6	10.4
Lumens/Watt	76	81	84	92	94	95	95

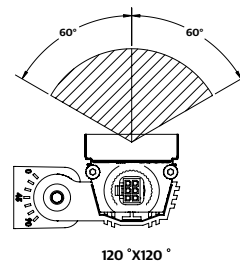
MCV102 WARM DIMMING							
Nominal Lumens/Foot	250	400	500	600	700	800	900
Delivered Lumens/Foot	232	381	458	548	628	718	799
Input Watts/Foot	3.5	4.2	5	5.7	6.5	7.4	2.4
Lumens/Watt	66	91	92	96	97	97	333

DIMENSIONS

Reference Drawing Detail section for additional information



DISTRIBUTION



MARKCOVE 102

Tunable White & Warm Dimming

Example: MCV102 LLP 24FT MSL4 M100ADJCI 90CRI TUWH RHYR 700LMF 120X120DEG MIN1 MVOLT WTP NLTW MFCL50TL
 Example: MCV102 LLP 24FT MSL4 M100CVE 90CRI WDIM HALR 700LMF 120X120DEG DARK MVOLT WTP ZT M100WP

ORDERING

Series	Linear Plan	Total Run Length	Max Section Length	Mounting	Mounting Option
MCV102 MARKCOVE 102	LLP Linear Longest Possible LSL Linear Same Length LCB Linear Center Balance	_FT Specify continuous linear feet in 1' increments starting at 1' (Example: 24FT)	MSL1 1' MSL1/6 1'-6" MSL4 4'	(blank) Cable Suspension Mount M100ADJCI Adjustable Mount Center Axis M100ADJH2 Adjustable Mount Side Hinge M100FMC Fixture Mount M100CVE MCVE Mount Bracket MCVE Cove must be purchased separately.	(blank) No Cantilever Bracket MCLB6 Cantilever Bracket 6" Projection MCLB12 Cantilever Bracket 12" Projection MCLB18 Cantilever Bracket 18" Projection

Light Source Color Rendering	Dynamic Feature	Dynamic Range	LED Light Output	Direct Distribution	Minimum Dimming Level	Optional Shielding
(blank) Static Color 80CRI* 80CRI 90CRI 90CRI <i>*80CRI not available with RHYR.</i>	TUWH Tunable White WDIM Warm Dimming	HALR Halogen Range (3000K-1800K) PROR Productivity Range (3000K-5000K) RHYR Rhythm Range (2700K-6500K) <i>HALR is only available with WDIM. PROR & RHYR are only available with TUWH</i>	250LMF 250 Nominal Lumens Per Foot 400LMF 400 Nominal Lumens Per Foot 500LMF 500 Nominal Lumens Per Foot 600LMF 600 Nominal Lumens Per Foot 700LMF 700 Nominal Lumens Per Foot	120x120DEG 120 x 120 Degrees	DARK Constant Current, Dimming to <1%	(blank) No Optional Shielding MBFB Baffle Linear Surface, Black MGVB Glare Visor Linear Surface, Black MHCB Hexagonal Cell Louver, Black MFCA Frosted Clear Acrylic

Voltage	Shielding	Finish	Control Input	Power Feed	Options
MVOLT 120-277 Volt Input 347* 347 Volt <i>*347 comes with a remote driver kit.</i>	(blank) Frosted Acrylic PFCA Partial Frost Clear Acrylic	WTP White Textured BKT Black Textured SIT Silver Textured RALTBDD RAL Color TBD RALTBDD is for pricing only. Replace with applicable RAL number when placing order.	ZT* 0-10V NLIGHT** nLight Enabled NLTAIR2** nLight AIR (wireless) Enabled NLT*** nLight Enabled Interface <i>*ZT is only available with WDIM. **NLIGHT & NLTAIR2 are only available with WDIM and come with a remote driver kit. ***NLT is only available with TUWH.</i>	MFCL10TL Left 10FT Feed Cable (Female) MFCL10TR Right 10FT Feed Cable (Male) MFCL25TL Left 25FT Feed Cable (Female) MFCL25TR Right 25FT Feed Cable (Male) MFCL50TL Left 50FT Feed Cable (Female) MFCL50TR Right 50FT Feed Cable (Male) MFCL100TL Left 100FT Feed Cable (Female) MFCL100TR Right 100FT Feed Cable (Male) NOFCL No Power Feed Cable M100BL* M550 Wire Splice Box Left M100BR* M550 Wire Splice Box Right M100W** M550 Conduit Whip <i>*M100BXL or M100BXR must be selected with CP. **M100W must be used with M100CVE.</i>	(blank) No Options CP* Chicago Plenum <i>*CP is not available with MCVE mount.</i>

PERFORMANCE DATA

Tunable White PROR Range

Based on 90CRI, @40K. See website for additional IES files.

Nominal Lumens/FT	Fixture Length	Distribution	Delivered Lumens	Input Watts	Lumens/ Watt	Delivered Lumens Per Foot	Input Watts Per Foot
250	1FT	120x120	617	7.05	87.52	617	7.05
	1.5FT	120x120	935	10.24	91.31	623	6.83
	4FT	120x120	2515	26.06	96.51	629	6.52
400	1FT	120x120	828	8.73	94.85	828	8.73
	1.5FT	120x120	1254	12.68	98.90	836	8.45
	4FT	120x120	3376	32.26	104.65	844	8.07
500	1FT	120x120	1004	9.85	101.93	1004	9.85
	1.5FT	120x120	1522	14.31	106.36	1015	9.54
	4FT	120x120	4096	36.4	112.53	1024	9.10
600	1FT	120x120	1175	11.04	106.43	1175	11.04
	1.5FT	120x120	1781	16.04	111.03	1187	10.69
	4FT	120x120	4793	40.81	117.45	1198	10.20
700	1FT	120x120	1315	12.08	108.86	1315	12.08
	1.5FT	120x120	1993	17.56	113.50	1329	11.71
	4FT	120x120	5365	44.67	120.10	1341	11.17
800	1FT	120x120	1450	13.2	109.85	1450	13.20
	1.5FT	120x120	2197	19.19	114.49	1465	12.79
	4FT	120x120	5913	48.81	121.14	1478	12.20
900	1FT	120x120	1570	14.32	109.64	1570	14.32
	1.5FT	120x120	2379	20.81	114.32	1586	13.87
	4FT	120x120	6403	52.95	120.93	1601	13.24

Lumen Values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configuration shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of en-user environment and application. Consult www.marklighting.com for performance data on any configurations not shown here.

Tunable White RHYR Range

Based on 90CRI, @46K. See website for addition IES files.

Nominal Lumens/FT	Fixture Length	Distribution	Delivered Lumens	Input Watts	Lumens/Watt	Delivered Lumens Per Foot	Input Watts Per Foot
250	1FT	120x120	380	5.55	68.47	380	5.55
	1.5FT	120x120	576	8.07	71.38	384	5.38
	4FT	120x120	1822	20.52	88.79	456	5.13
400	1FT	120x120	511	6.87	74.38	511	6.87
	1.5FT	120x120	774	9.99	77.48	516	6.66
	4FT	120x120	2446	25.41	96.26	612	6.35
500	1FT	120x120	620	7.75	80.00	620	7.75
	1.5FT	120x120	939	11.27	83.32	626	7.51
	4FT	120x120	2968	28.66	103.56	742	7.17
600	1FT	120x120	725	8.69	83.43	725	8.69
	1.5FT	120x120	1098	12.63	86.94	732	8.42
	4FT	120x120	3473	32.14	108.06	868	8.04
700	1FT	120x120	811	9.52	85.19	811	9.52
	1.5FT	120x120	1229	13.83	88.86	819	9.22
	4FT	120x120	3887	35.18	110.49	972	8.80
800	1FT	120x120	894	10.4	85.96	894	10.40
	1.5FT	120x120	1355	15.11	89.68	903	10.07
	4FT	120x120	4284	38.44	111.45	1071	9.61
900	1FT	120x120	969	11.28	85.90	969	11.28
	1.5FT	120x120	1467	16.39	89.51	978	10.93
	4FT	120x120	4639	41.7	111.25	1160	10.43

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LUMEN MULTIPLIERS

CRI	CCT	Scale factor
80CRI	@27K	1.09
80CRI	@35K	1.16
80CRI	@50K	1.20
90CRI	@27K	0.93
90CRI	@35K	1
90CRI	@50K	1.05

Shielding	Multiplier
PFCA	0.98
MBFB	0.42
MFCA	0.89
MGVB	0.70
MHCB	0.13

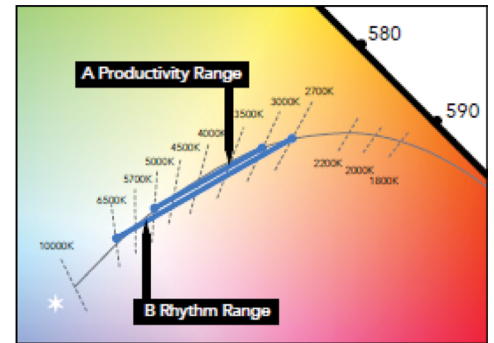
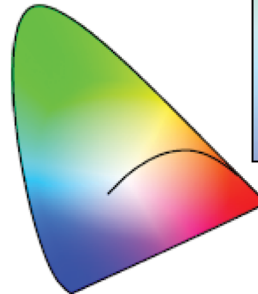
These tables can be used to approximate the lumen values at different Kelvin temperatures and Color Rendering Index. Power consumption would stay the same.

MAINSTREAM DYNAMIC TUNABLE WHITE WITH NTUNE TECHNOLOGY

Tunable white nTune™ is an all-digital light color temperature control within an nLight enabled luminaire. This brings tunable white lighting control into the mainstream with repeatable, consistent results in an economical luminaire form and system already familiar to schools. Designers and facility operators are granted the freedom to tie scenes to specific activities or to complement colors or materials within a visual environment. nTune™ allows color temperature settings through the Rhythm Range of 2700K to 6500K. Refer to the nLight Programming User's Guide for instructions on customizing to your application with SensorView™.

Tunable White GPHD

- **Gamut:** One dimensional warm-Cool
- **Path:** Direct 2700K to 6500K (Rhythm Range)
- **Handle:** Two Natural Language Handles: Intensity and CCT
- **Data:** nLight with nTune technology for both handles of control



- Ⓐ Productivity Range 3000K to 5000K
- Ⓑ Rhythm Range 2700K to 6500K

PERFORMANCE DATA

Warm Dimming

Based on 90CRI, @30K. See website for additional IES files.

Nominal Lumens/FT	Fixture Length	Distribution	Delivered Lumens	Input Watts	Lumens/Watt	Delivered Lumens Per Foot	Input Watts Per Foot
250	1FT	120x120	231	2.64	88	231	2.64
	1.5FT	120x120	350	3.84	91	233	2.56
	4FT	120x120	942	9.77	96	236	2.44
400	1FT	120x120	380	3.83	99	380	3.83
	1.5FT	120x120	575	5.56	103	383	3.71
	4FT	120x120	1548	14.14	109	387	3.54
500	1FT	120x120	457	4.59	100	457	4.59
	1.5FT	120x120	692	6.66	104	461	4.44
	4FT	120x120	1862	16.95	110	466	4.24
600	1FT	120x120	546	5.38	101	546	5.38
	1.5FT	120x120	827	7.81	106	551	5.21
	4FT	120x120	2227	19.87	112	557	4.97
700	1FT	120x120	626	6.2	101	626	6.20
	1.5FT	120x120	949	9.01	105	633	6.01
	4FT	120x120	2554	22.93	111	639	5.73
800	1FT	120x120	716	7.07	101	716	7.07
	1.5FT	120x120	1084	10.28	105	723	6.85
	4FT	120x120	2919	26.15	112	730	6.54
900	1FT	120x120	796	7.96	100	796	7.96
	1.5FT	120x120	1206	11.57	104	804	7.71
	4FT	120x120	3247	29.43	110	812	7.36

Lumen Values are from photometric test performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configuration shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of en-user environment and application. Consult www.marklighting.com for performance data on any configurations not shown here.

LUMEN MULTIPLIERS

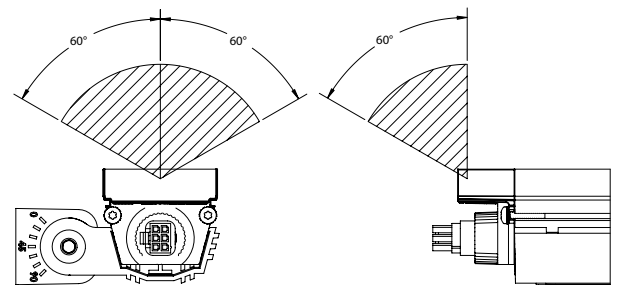
CRI	CCT	Scale factor
80CRI	@27K	1.09
80CRI	@30K	1.13
90CRI	@27K	0.93
90CRI	@30K	0.95

Shielding	Multiplier
PFCA	0.98
MBFB	0.42
MFCA	0.89
MGVB	0.70
MHCB	0.13

These tables can be used to approximate the lumen values at different Kelvin temperatures and Color Rendering Index. Power consumption would stay the same.

DISTRIBUTION

Note: Shown with M100ADJH2 mount

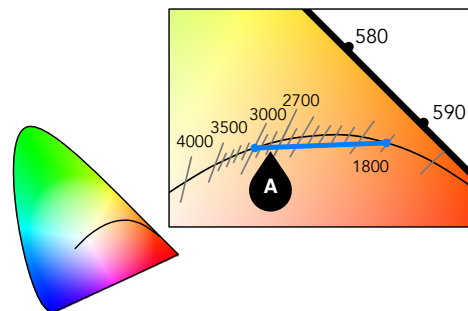


120X120 DEGREE

WARM DIMMING GAMUT AND RANGE

Warm Dimming GPHD

- **Gamut:** Triangular: to achieve efficiency and CRI
- **Path:** Curved tracking Black Body Curve: 3000K@100%-1800K<1% (Halogen Range)
- **Handle:** One Handle: Intensity (with implicit CCT)
- **Data:** DMX512/RDM and nLight®



A Halogen Range 3000K to 1800K

LINER PLAN

Mark offers the ability to provide a continuous run plan to suit your requirements by optionally offering three methods of configuration.

LLP Longest Length Possible:

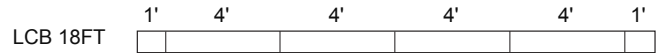
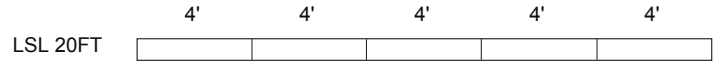
In this plan the longest length available is optimized resulting in the fewest segments and mounting locations. Caution should be used where balanced appearance is a concern. Example: 21FT row would have (5) 4FT segments and (1) 1FT segment located at one end.

LSL Longest Same Length:

In this configuration each segment is the same length is standardized based on the longest length available and is the only option provided. Because it is dependent on one segment length there are mathematical limitations on what overall row lengths can be achieved. Example: 20FT row would be achieved with (5) 4FT long segments equaling 20FT (nominal).

LCB Longest Center Balanced:

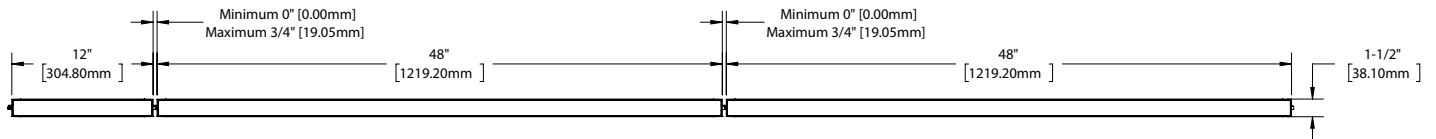
This configuration incorporates the longest center segment(s) along with any additional lengths required to fill located at each end. Example: 18FT row would have (2) 1FT segments (one at each end) and (4) 4FT intermediate segments located in between.



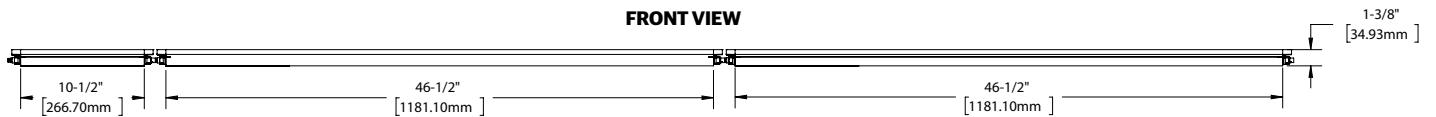
DRAWING DETAILS

MCV102 Series Typical End-To-End Run Configuration

TOP VIEW

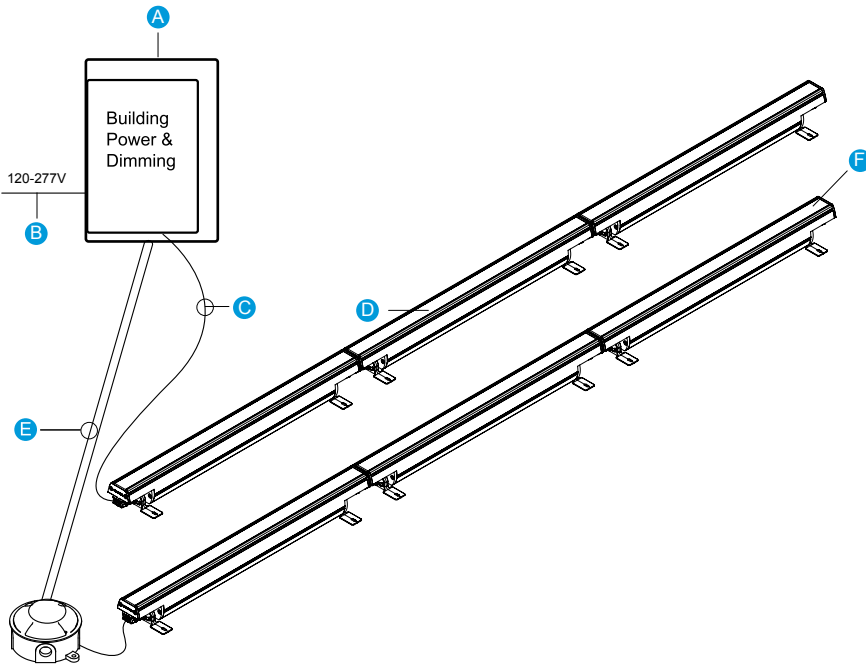


FRONT VIEW

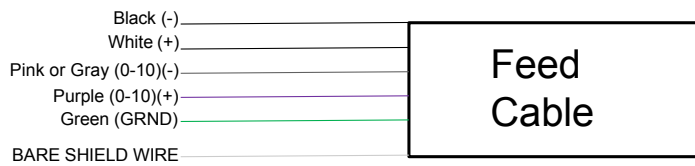


BASIC SYSTEM WIRING INFORMATION WITHOUT DMX

This very basic system wiring diagram provides an overview of components and materials required for a simple installation of MKS101 luminaires controlled by building system power (By Others). These diagrams should not be used in place of actual installation instructions or submittal drawings prepared for a specific project.



Feed Cable Wiring



***Notes**

- 1) Cap BARE SHIELD WIRE in Junction box. (By Others)
- 2) When not using 0-10V dimming, cap Pink or Gray and Purple separately in the junction box. (By Others)

Luminaire installation can be as simple as a single luminaire and one control to many different luminaires in multiple locations being triggered and manipulated in real time. Consulting with the factory at the beginning stages of the project will ensure the required equipment be specified and properly installed.

- A** Building power and dimming control input via 0-10V or DALI system provided by others.
- B** 120V-277V input. Metallic conduit and standard fittings are compatible as are multi-conductor cords provided they are appropriate to the mounting location.
- C** Feed cable connects junction box or control input with first fixture in a run. 14 ga. conductors carry power, shielded 18 ga. conductors carry data. Input end is stripped for connection to the junction box, output end includes a female or male plug for fixture connection. Also included with each feed cable is a sealing cap for the end of each run.
- D** Consult Fixture Installation Instructions, for Luminaire Run Length Limits table.
- E** Power can be run to junction box locations in rigid conduit. Use Belden 9829 for data and copper wire per local code for power. Use appropriate fitting for combination cord.
- F** Included with each feed cable is a sealing cap for the last luminaire in each run. See installation instructions.

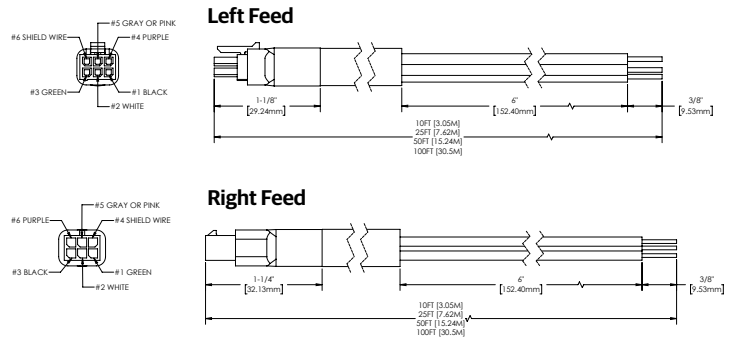
ACCESSORY OPTIONS

Feed Cables

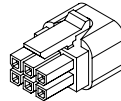
*Minimum of one feed cable, left or right, required per installation

Model	Cord Color	DMX
MFCL10TL Left 10FT Feed Cable	WCRD White Cord	DXP DMX Plug
MFCL25TL Left 25FT Feed Cable		
MFCL50TL Left 50FT Feed Cable		
MFCL100TL Left 100FT Feed Cable	BCRD Black Cord	NDXP Non-DMX Plug
MFCL10TR Right 10FT Feed Cable		
MFCL25TR Right 25FT Feed Cable		
MFCL50TR Right 50FT Feed Cable		
MFCL100TR Right 100FT Feed Cable		

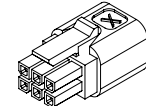
Carries DMX or NON-DMX signal and 120-277 line voltage power to right end of first fixture in run.
 Supplied with termination/sealing cap.
 Use one feed cable per run only.



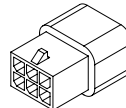
Right Feed Dust Cap
(Included with NDXP)



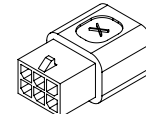
Right Feed DMX Terminator Cap
(Included with DXP)



Left Feed Dust Cap
(Included with NDXP)



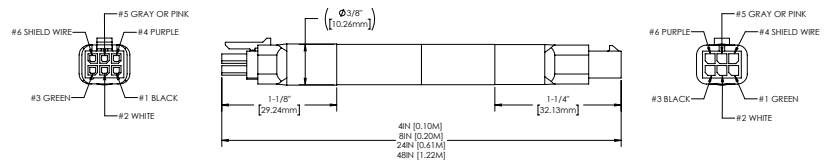
Left Feed DMX Terminator Cap
(Included with DXP)



Jumper Cable *Optional*

Model	Cord Color
MJCLM2 2FT Jumper Cable	WCRD White Cord
MJCLM4 4FT Jumper Cable	BCRD Black Cord
MJCLM4IN 4IN Jumper Cable	
MJCLM8IN 8IN Jumper Cable	

Carries DMX or NON-DMX signal and 120-277 line voltage power between two units in a run when larger spacing between units is required.



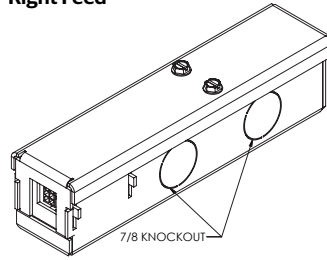
ACCESSORY OPTIONS (CONTINUED)

Wire Splice Box, *Optional*

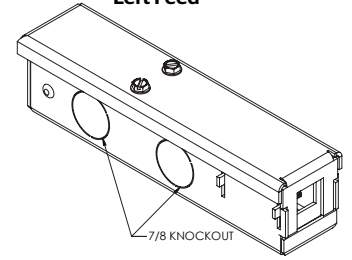
Model	Direct Distribution	Finish	DMX
M100BXL M100 Wire Splice Box Left	120X120DEG 120 x 120 Degrees	WTP White Textured	DXP DMX Plug
M100BXR M100 Wire Splice Box Right		BKT Black Textured	NDXP Non-DMX Plug
M100WP M100 Conduit Whip		SIT Silver Textured	
		RALTBD RAL Color TBD	

Replaces feed cable for areas where flexible cord cannot be used to bring input DMX or NON_DMX signal and 120-277 line voltage power to right end of beginning of run. Box allows 1/2" NPT conduit fitting connection and area for building wire splice connections. Supplied with termination/sealing cap. *Use one wire splice box per run only.*

Right Feed



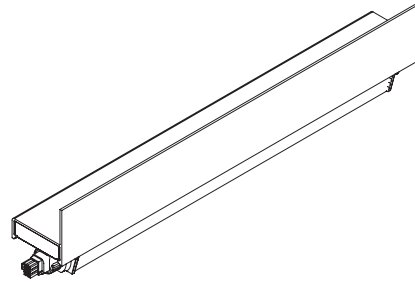
Left Feed



ACCESSORY OPTIONS (CONTINUED)

Glare Visor (Linear) *Optional*

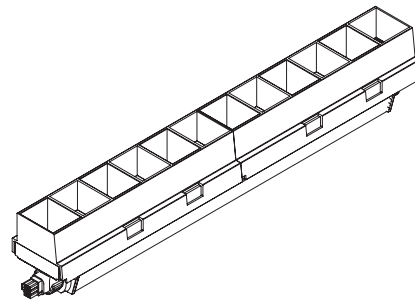
Model	Fixture Section
MGVB1 Glare Visor, Black	U1 1FT Length Unit U1/6 1' 6" Length Unit U4 4FT Length Unit



Reference Accessory Details document for dimensions

Baffle (Linear) *Optional*

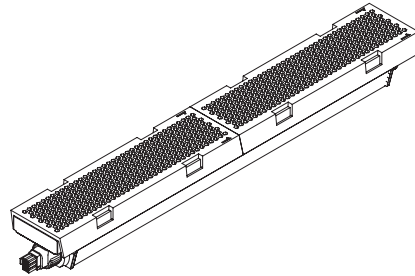
Model	Fixture Section
MBFB1 Baffle Linear Surface, Black	U1 1FT Length Unit U1/6 1' 6" Length Unit U4 4FT Length Unit



Reference Accessory Details document for dimensions

Hexagonal Cell *Optional*

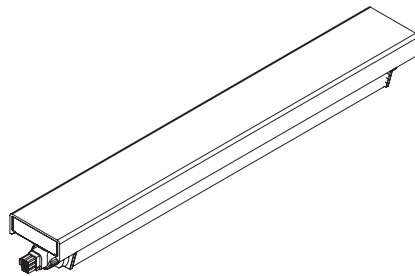
Model	Fixture Section
MHCB1 Hexagonal Cell Louver, Black	U1 1FT Length Unit U1/6 1' 6" Length Unit U4 4FT Length Unit



Reference Accessory Details document for dimensions

Frosted Clear *Optional*

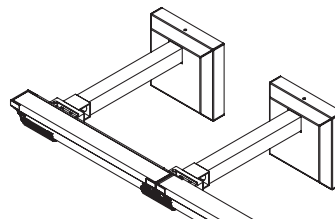
Model	Fixture Section
MFCA1 Frosted Clear Acrylic	U1 1FT Length Unit U1/6 1' 6" Length Unit U4 4FT Length Unit



Reference Accessory Details document for dimensions

Cantilever Brackets *Optional*

Series	Finish
MCLB6 Cantilever Bracket 6" Projection	BKT Black Textured Paint
MCLB12 Cantilever Bracket 12" Projection	SIT Silver Textured Paint
MCLB18 Cantilever Bracket 18" Projection	WTP White Textured Paint
	RALTB RAL Paint Finish



Reference Accessory Details document for dimensions

SPECIFICATIONS

Voltage: 120 through 277v/60Hz

Distribution: 120° X 120° (Lambertian)

Size: 1.5 W x 1.75 H

Housing: Extruded aluminum snap together construction

Finish: Polyester powder coat painted finish. Natural stainless steel fasteners.

Lens Material: Extruded acrylic

LED: 12 LED diodes per foot

Ambient Temperature Ranges: -20° to +45°C

Mounting: Suitable for mounting within the space between ground and 4FT (1.2M) of the ground. Suitable for damp location applications.

Certification/Compliance: CSA Certified to meet U.S. and Canadian standards conforming to UL 1598 and CAN/CSA C22.2 No. 250.0

Buy American: This product is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT. Please refer to www.acuitybrands.com/buy-american for additional information.

Warranty: 5-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.