



M9700 LED Color Changing In-Grade Luminaire

HIGHLIGHTS

- Factory-sealed LED lamp module and encapsulated power module
- Optical and mechanical aiming with an optional double lens
- Optimal efficiency through photometric improvements
- DMX control / RDM
- Six distributions including 8° narrow spot
- Flow-through technology
- Available in RGBW as custom



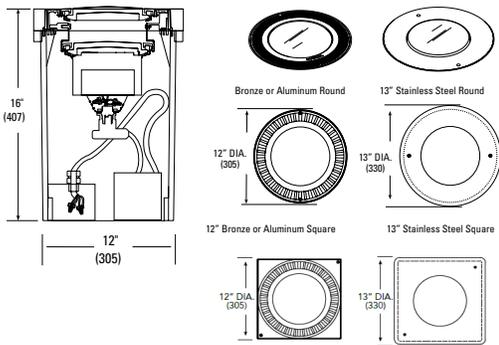
IP68



Specifications	SINGLE LENS	DOUBLE LENS
Length:	12"	12"
	305 mm	305 mm
Width:	12"	12"
	305 mm	305 mm
Height:	16"	16"
	407 mm	407 mm
Weight:	29lbs	31lbs

Weight is based on aluminum material.
For B and SS material add 2lbs.

DIMENSIONS

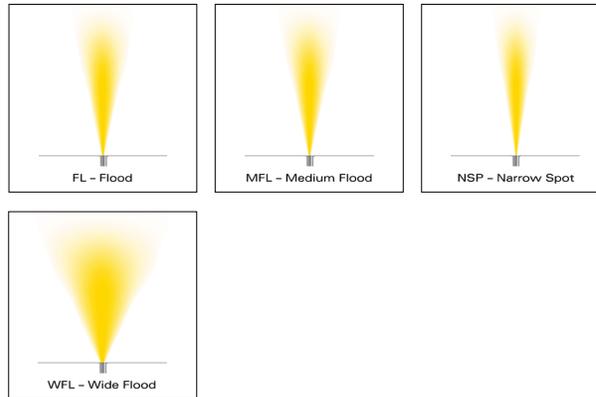


LUMEN PACKAGES

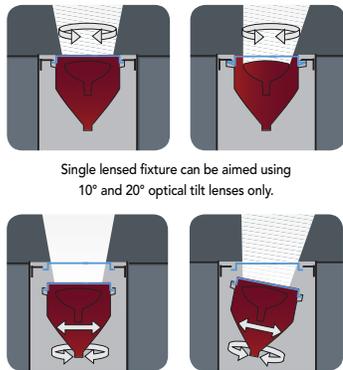
	NSP	MFL	FL	WFL	HSP	HFL
Delivered Lumens	810	548	775	498	880	933
Watts	47	47	47	47	47	47
LPW	17	18	16	11	19	20

Note: Information based on all colors full on.

STANDARD DISTRIBUTION



AIMING DETAILS





ORDERING INFORMATION

EXAMPLE: M9720 SS 18LED RGB MVOLT NSP FLC 34S RDM

Model	Door Material	Lamp Type	LED Color	Voltage	Distribution	Lens ¹
M9710 Round Door Single Lens	A Aluminum	18LED 18 chip LED array	RGB Mixing <i>Note: Available in RGBW as custom</i>	MVOLT (120 - 277)	NSP Narrow Spot	FLC Flat Lens Clear
M9720 Round Door Double Lens	B Bronze				MFL Medium Flood	FLC5 Flat Lens Clear, 5° Axial Spread
M9730 Square Door Single Lens	SS Stainless Steel				FL Flood	FLC10 Flat Lens Clear, 10° tilt
M9740 Square Door Double Lens					WFL Wide Flood	FLC20 Flat Lens Clear, 20° tilt
					HSP Horizontal Spot	FLC205R ² Flat Lens Clear, 20° tilt, Slip Resistant
					HFL Horizontal Flood	FLF Flat Lens Frosted
						FLCAS Flat Lens Clear, Anti-Slip
						FLC5AS Flat Lens Clear, 5° Axial Spread, Anti-Slip
						CLC Convex Lens, Clear
						CLF Convex Lens, Frosted

Conduit Entries	Control	Accessories	Finish ⁹	Optional Listing
125 1/2" NPT Side and Bottom	RDM ⁴ Remote Device Management	Internal ⁵ IHL ⁴ Internal Honeycomb Louver LSF Linear Spread Filter	BL Black BZ Bronze DDB Dark Bronze DNA Natural Alum. GN Green GR Gray SND Sand STG Steel Gray TVG Terra Verde Green WH White	IEC International Electro-technical Commission
34S 3/4" NPT Side and Bottom		External ^{5,7} GS Glare Shield LC Lexan Cover LS Light Shield RG ⁸ Rock Guard Trim Ring ^{5,7} BTR Brass Round STR Stainless Round	__Z ¹⁰ Zinc Undercoat (i.e. BLZ)	
25S ³ Two 25mm Side and Bottom				

ELECTRICAL LOAD

Light Engines	Drive Current (mA)	System Watts	Current (A)			
			120	208	240	277
18 LED	750mA	47	0.39	0.23	0.20	0.17

SLIP RESISTANCE AND LOAD RATING

M9700 LED
MAXIMUM LOAD RATING Peak compression force of 3,750 lbs. (single lens).
LENS STATIC COEFFICIENT OF FRICTION M9700 Anti-Slip Lens (FLCAS): Dry = 0.76; Wet = 0.10 M9700 Slip Resistant Lens (FLSR): Dry = 0.84; Wet = 0.65

M9700 LED Series Assembly consists of the following individual components parts	MRIS97 Rough-In Housing MFS97 Finishing Section MACL Lamp Module MHSL97 Power Module
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Notes:

- Specify top lens. Bottom lens is FLC standard.
- Meets ADA requirements for coefficient of friction.
- Only for use in 50HZ applications.
- RDM = Field discoverable and field programmable DMX.
- Accessories are mutually exclusive, choose one only.
- Not available with FLC10.
- Accessory not available with SS door material.
- Not available with CLC or CLF convex lens.
- Finish only available on "A" door material.
- Add Zinc undercoat for harsh environments.

sixteen5hundred	Project 21-12877-3 Date 6/25/2021 RGB/W Saturated Color	Catalog Number M9710 SS 18LED RGB MVOLT FL FLC 34S RDM	Type
	Submitted By 16500, INC	Notes	



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PERFORMANCE DATA

LUMEN OUTPUT

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Contact factory for performance data on any configurations not shown here.

	Distribution	NEMA Type	Beam Angle (50%) H x V	Field Angle (10%) H x V	Watts	LPW	Delivered Lumens
All Colors Full On	NSP	2 x 2	8 x 8	20 x 20	47	17	810
	MFL	3 x 3	21 x 21	39 x 39	47	18	845
	FL	5 x 5	73 x 47	94 x 79	47	16	775
	WFL	6 x 6	100 x 100	125 x 125	47	11	498
	HSP	3 x 2	26 x 10	40 x 23	47	19	880
	HFL	2 x 4	10 x 38	22 x 54	47	20	933

CONTROLS

RECOMMENDED CONTROLS

Easy! DMX TOUCHSCREEN

<http://www.acuitybrands.com/products/detail/210270/Fresco/Easy!/Easy!-DMX512A-Show-Controller>

FRESCO

<http://www.acuitybrands.com/products/detail/223381/Fresco/Fresco/Touchscreen-Lighting-Controllers>



Easy!™ Solo

is a standalone entry-level controller enabling show creation and playback directly at the LCD touchscreen.

Easy!™ Touch

features an astronomic time clock for automating shows and expands the controller's features by accepting inputs from remote button stations, and button station contact closure inputs.

Easy!™ Pro

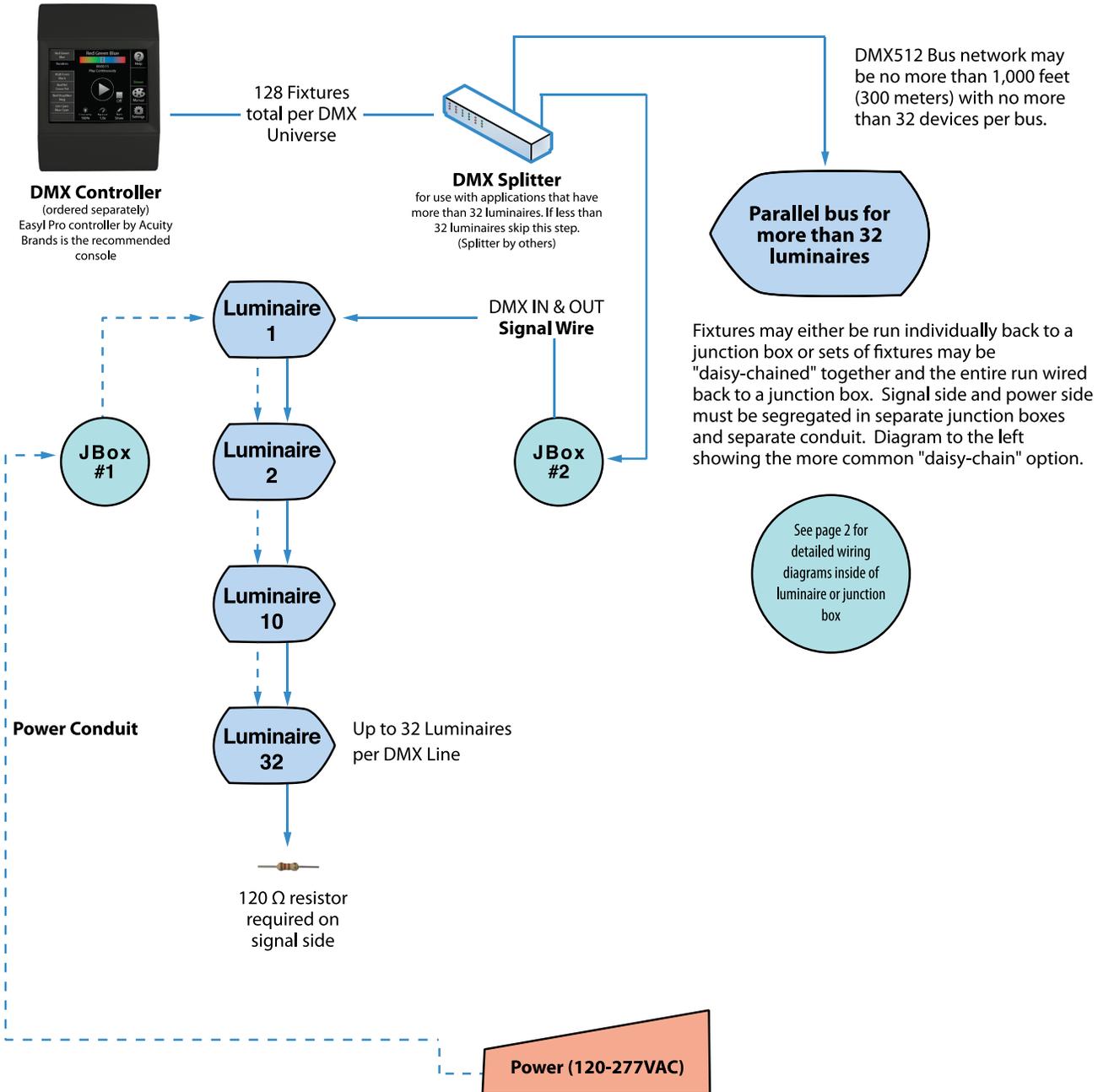
is further enhanced by using Easy! Studio™ computer software to create multi-zone shows, and Easy! Pro features a 20 hour DMX512 capture from a theatrical console.

FCS

Create and edit 36 lighting scenes including intensity, color, and color temperature Integral astronomic timeclock with battery backup for system scheduling Direct DMX control for 1 universe (512 slots) Internal Bluetooth® radio for wireless App control.



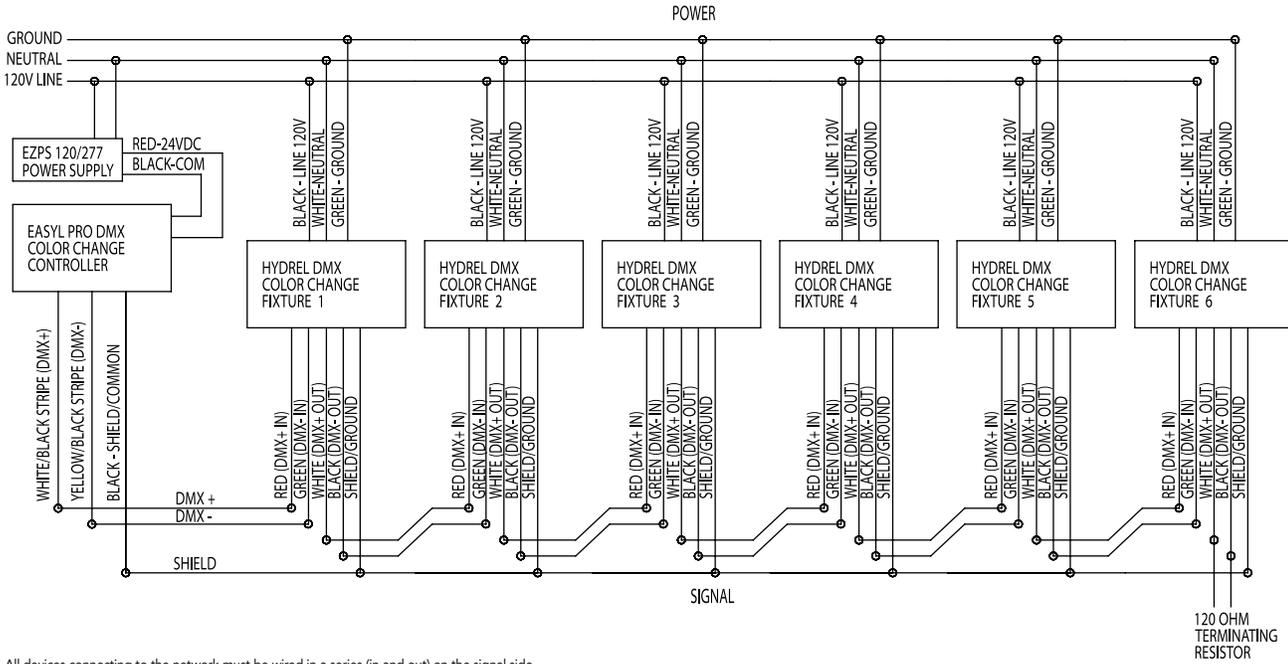
DMX SYSTEM WIRING – INGRADES



- Notes:
- 1 MDMX512 signal cable must be terminated by a 120 ohm resistor.
 - 2 Signal cable by others, cable must be two-pair with a maximum capacitance of 12.8 pF/ft. and a impedance of 120 ohm.



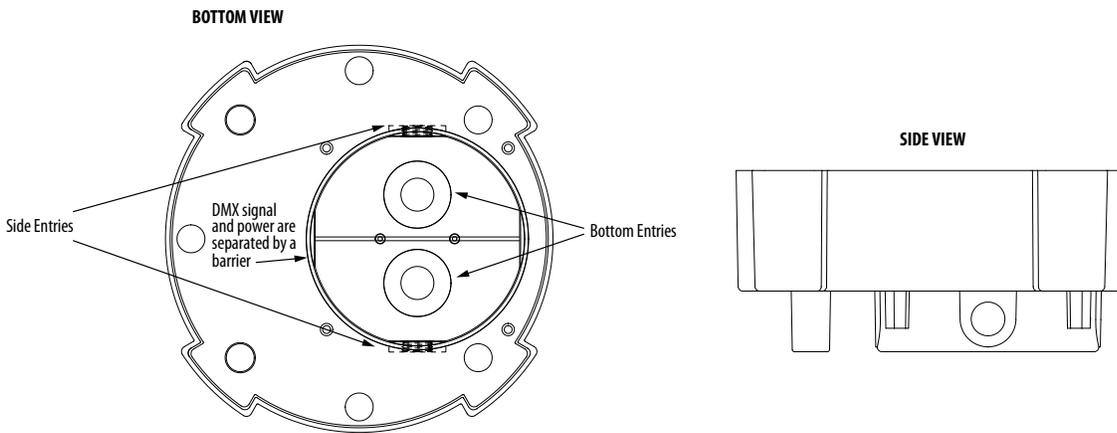
DMX CONNECTION AND TERMINATION – WIRING DIAGRAM



All devices connecting to the network must be wired in a series (in and out) on the signal side.
T taps or branches in the network are not permitted.

JUNCTION BOX DETAIL:

Junction box is segregated by a barrier separating the DMX signal side (low voltage) and the inline power side (120-277 volt). Each half of the junction box has a side and a bottom conduit for in and out feeds. This fixture is suitable for "daisy-chaining" within the junction box.





SPECIFICATIONS AND FEATURES

DOOR MATERIAL: Cast aluminum, cast bronze or stainless steel.

ROUGH-IN SECTION: Injection molded polymer with integral junction box for thru-branch wiring. The housing is U.V. stabilized, impact and corrosion resistant for use in all types of environments. The rough-in houses the LED and power module components and top door finishing section. Potting compound (PC21) recommended for junction box splices. PC21 sold separately.

CONDUIT ENTRIES: Two (2) bottom and two (2) side entries available in 1/2" NPT, 3/4" NPT or 25mm openings.

FINISHING SECTION: Door assembly with 360° Aim-Lock™ module support ring. Module indexing provides easy maintenance and relamping without re-aiming. Door trim locks into position with two stainless steel captive, tamper-resistant fasteners. Double lens design includes door assembly with 360° Aim-Lock™ module support and tilt ring that allows 15° of aiming. Active optical lenses are also available.

LED MODULE: Stainless steel housing, factory-sealed and purged of all moisture for longer component life. Lens is sealed with silicone gasket and stainless steel clamp band assembly with single fastener. Electrical connection to LED module is done through a submersible quick disconnect plug connector with gold-plated contacts.

LIGHT ENGINE: 47 Watt RGB LED array. Heat generated by LEDs is dissipated into and through the fixture housing, and adds less than 15°C to steady state operating lens temperature. For example, in a typical 25°C (77°F) operating environment, lens temperature would not exceed 40° C (104°F).

OPTICS: NEMA Flood (2x2 through 6x6), horizontal spot, horizontal flood. Led module has 360° of rotation. Aiming is done using 10° or 20° optical tilt lenses.

POWER MODULE: Driver and controller are housed in a bronze junction box. Module is provided with submersible rated cord leads for connection to integral junction box and lamp module.

ELECTRICAL: 47 watt Integral ELDO RGB power driver MVOLT (120-277) 50/60Hz LED power supply dims to zero. THD <20%, class 2 driver with 100% to 0% dimming.

VOLTAGE: MVOLT 120-277 volt 50/60HZ.

CONTROL: DMX512. Color control is achieved through standard DMX512 hardware, at a maximum of 44 frames per second. All channels have logarithmic power for finer color and intensity control. Compatible with the Easy! and Fresco controllers from Acuity. Controllers must be ordered separately.

FINISH: Finish is natural aluminum or bronze. Stainless steel door is brushed finish. Aluminum doors may be painted.

LISTING: cCSAus, suitable for wet locations, laboratory tests conducted by CSA to UL Standard UL-1598 and UL-8750

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/resources/buy-american for additional information.

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

Consult factory for details.

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.