

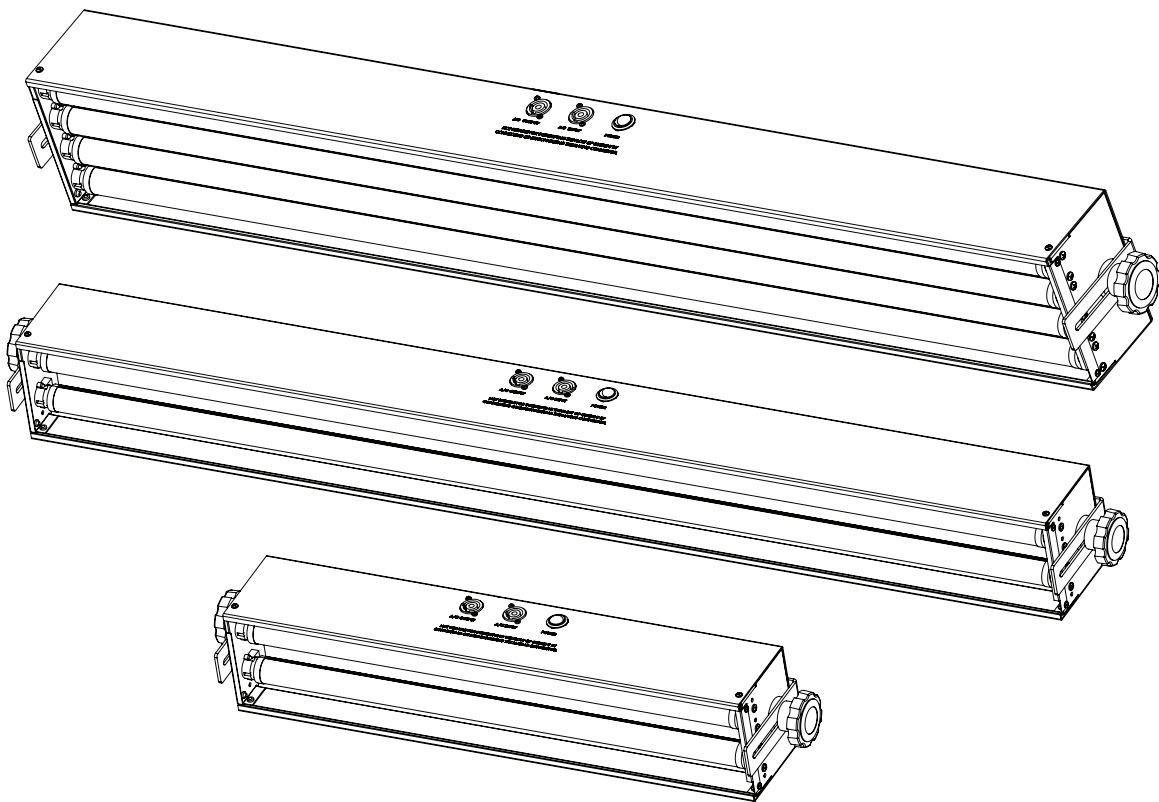
Operation Manual

Ultraviolet LED Lighting Fixtures

EM-44L

EM-42L

EM-22L



EFFECTSMASTER[®]
BY WILDFIRE[™]

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Introduction

Congratulations on your purchase of an Effects Master LED Series Fixture by Wildfire. These powerful and versatile ultraviolet LED lighting fixtures feature Wildfire's SableLED UV LED tube lamps. Each Effects Master LED Fixture is precision engineered to provide you with years of trouble-free service. Please take a moment to read this manual thoroughly before attempting to operate this fixture. Improper set-up use or servicing may cause damage to the fixture and/or lamps and void the unit's warranty.

Safety Information

DANGER – RISK OF ELECTRIC SHOCK OR FIRE - USE ONLY WILDFIRE SABLELED LED TUBE LAMPS MODEL L30T9/BLB (4') AND L15T9/BLB (2'). DO NOT INSTALL FLUORESCENT LAMPS IN THIS FIXTURE.

WARNING - THIS FIXTURE EMITS ULTRAVIOLET RADIATION (UV) AT A PRIMARY WAVELENGTH OF 365NM, AVOID EYE AND SKIN EXPOSURE AT DISTANCES SHORTER THAN 3.3' (1m). DO NOT LOOK INTO THE LAMPS DIRECTLY AT DISTANCES SHORTER THAN 11' (3.3m) OR VIEW THE LAMPS DIRECTLY WITH OPTICAL INSTRUMENTS THAT MAY CONCENTRATE THE LIGHT/RADIATION OUTPUT.

CAUTION – WHEN USED IN ACCORDANCE WITH THE MANUFACTURERS OPERATING INSTRUCTIONS, NO HAZARDS EXIST TO MOST PEOPLE AT DISTANCES GREATER THAN 11' (3.3m) FROM THE FIXTURE. HOWEVER, INDIVIDUALS SUFFERING FROM A RANGE OF SUNLIGHT EXPOSURE DISORDERS, APHAKIC AND PSEUDOAPHIKIC, OR THOSE INDIVIDUALS RECEIVING PHOTOSENSITIVE MEDICATION MAY RECEIVE DISCOMFORT IF EXPOSED TO ULTRAVIOLET LIGHT.

CAUTION – NOT FOR RESIDENTIAL USE. DRY INDOOR LOCATIONS ONLY. SUITABLE FOR SURFACE MOUNTING ONLY.

Designed, Engineered and Built in the USA

Specifications

Housing:

16 Ga. Rolled steel with stainless steel hardware

Finish:

Flat black powder coat

Mounting:

Two fully adjustable L brackets

Reflector:

Polished Everbright aluminum 165°

Sockets:

EM-22L: Four positive locking medium Bi-Pin G13
EM-42L: Four positive locking medium Bi-Pin G13
EM-44L: Eight positive locking medium Bi-Pin G13

Input Voltage:

100-240VAC

Input Current:

EM-22L: 0.36A Max
EM-42L: 0.36A Max
EM-44L: 0.83A Max

Frequency:

50-60Hz

Power Factor:

0.83

Power Consumption:

EM-22L: 18W
EM-42L: 30W
EM-44L: 60W

Operating Temperature:

-4° F to 113° F (-20° C to 45° C)

Humidity:

0-80% non-condensing

Power Cord:

6' 16/3 SOW with PowerCON and male Edison

Power Input Connection:

Neutrik PowerCON

Power Output Connection:

Neutrik PowerCON, Max 4.0A

Lamps:

EM-22L: Two Wildfire SableLED L9T8/BLB UV LED Tube Lamps
EM-42L: Two Wildfire SableLED L15T8/BLB UV LED Tube Lamps
EM-44L: Two Wildfire SableLED L15T8/BLB UV LED Tube Lamps

Peak Wavelength:

365nm

Beam Angle:

160°

Lamp Life:

20,000 Hrs.

Dimensions:

EM-22L: 4.25"/10.79cm High x 5.00"/12.44cm Wide x 27.37"/69.52cm Long
EM-42L: 4.25"/10.79cm High x 5.00"/12.44cm Wide x 51.37"/130.48cm Long
EM-44L: 4.25"/10.79cm High x 6.50"/16.51cm Wide x 51.37"/130.48cm Long

Weight:

EM-22L: 7.20 lbs./3.26kg.
EM-42L: 14.60 lbs./6.62kg.
EM-44L: 16.70 lbs./7.57kg.

IP Rating:

IP-20 Indoor use

Warranty:

Three Year Parts and Labor

Standard Equipment:

Wildfire SableLED UV LED Tube Lamps, Adjustable Mounting Brackets, Power Cord, PowerCON Power Out Cable Connector

Optional Accessories:

Twenty Clamp (147-021)
Safety Cable (147-002)
Floor Mount (147-006)
UVT Protective Lens Kit (EM-22L and EM-42L Only) (138-010 and 138-011)

Setup & Operation

Unpacking

Unpack the fixture and carefully inspect it for any signs of physical damage. Report any damage to Wildfire or your local distributor immediately. Included with each unit should be the following items:

1. Power Cord
2. PowerCON power output cable connector (used to power link additional fixtures)
3. Operation Manual
4. Warranty Card

Optional Accessories:

Twenty Clamp – These clamps when attached to both of the fixtures adjustable mounting brackets allows you to mount the fixture to a standard 2” pipe truss. Contact Wildfire or your local distributor for pricing.

Safety Cable- This cable is to be used when installing the fixture on a pipe truss with the Twenty Clamps. It attaches to the adjustable brackets on the sides of the fixture securing it from falling if the clamp is not tightened properly. Contact Wildfire or your local distributor for pricing.

Floor Mount Kit- This aluminum stand set enables you to mount your fixture on the floor for footlight applications. Contact Wildfire or your local distributor for pricing.

UVT Protective Lens Kit - This kit consists of an acrylic plastic lens that slides into the housing to protect the lamps. Included in this kit are two small brackets that mount on either end of the fixture holding the lens in place. This protective lens is made from a special UV transmitting plastic and is designed not to yellow or become brittle under normal operating conditions. Contact Wildfire or your local distributor for pricing

Setup

Connect the blue PowerCON connector on the power cord to the blue PowerCON AC Input receptacle on the fixture. The fixture is also provided with a gray PowerCON AC Output receptacle, enabling you to interconnect power between fixtures. **Do not connect more than 4.0A Max to the PowerCON AC OUT connector.**

Plug the fixture into the appropriate properly grounded power source. If you are controlling the unit with a lighting control board you will need to make sure it is plugged into a non-dim circuit. **Do not at any time plug the fixture into a dimmable circuit, doing so will damage the LED lamps in the fixture and void the warranty.**

Operation

To turn the fixture on switch the rocker switch on the side of fixture to the ON position. Unplug the fixture from the AC power outlet during prolonged periods of non-operation.

Maintenance & Troubleshooting

LED Lamp Replacement

Turn the power switch to the off position and unplug the fixture. If this is not possible then steps should be taken that would allow the fixture to remain in an off state while re-lamping. Holding the lamp firmly with two hands, one hand near each end of the lamp, rotate the lamp about its long center-line axis, one quarter (1/4) turn either clockwise or counter-clockwise. The sockets will click, and the lamp will become loose. Lift the lamp free of the sockets. Install the new lamp by lining up the two pins on the ends of the lamp so that they will slide into the open slot in the lamp holder. Set the lamp into the sockets until the lamp pins rest on the lamp socket. Turn the lamp one-quarter (1/4) turn either clockwise or counter-clockwise, until the lamp socket makes a small click or you feel a detent position. Gently lift up on the lamp to make sure that both ends of the lamp are installed correctly, neither end of the lamp should move in the socket.

Cleaning

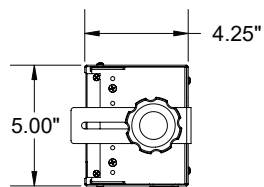
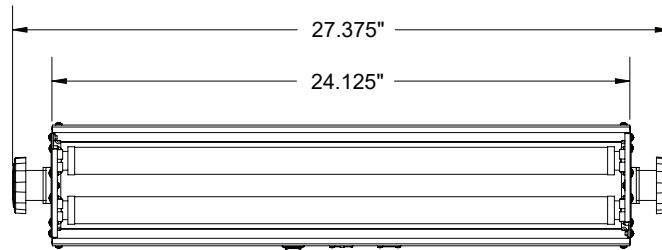
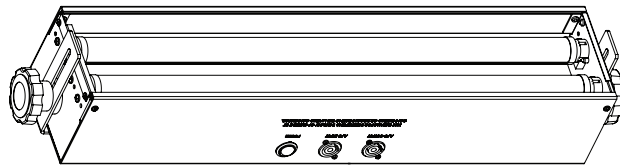
For best performance, the reflector, lamps and protective lens should be kept free of dirt and dust. At no time should any cleaning chemicals or abrasives be used to clean any part of the unit. For normal cleaning, a dry soft cloth should be used to wipe any surface free from dust and light dirt. Cleaning the reflector will require that the lamps be removed. Remove lamps by following the instructions listed under Lamp Replacement above. Always unplug the unit before cleaning. Once the lamps have been removed, gently wipe off the reflector using a soft dry cloth. In the event the reflector is heavily soiled, lightly dampen the cloth with a mild window cleaning agent and wipe. Lamps should be cleaned using the same method; first use a dry soft cloth and then proceed with a window-cleaning agent if lamp is too heavily soiled. Do not spray or apply any liquid directly to any part of the fixture.

Troubleshooting

Other than the lamps, there are no user serviceable parts in the fixture.

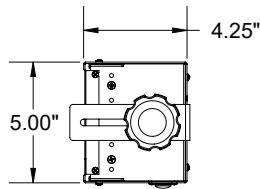
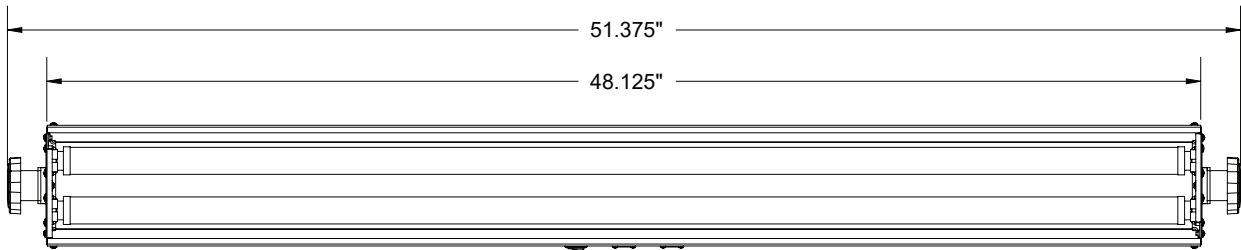
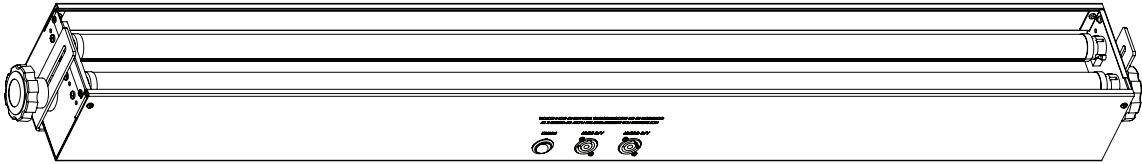
Diagrams

Isometric & Line Views EM-22L



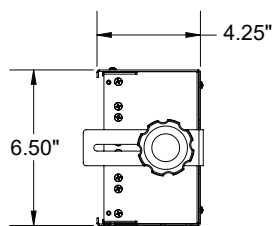
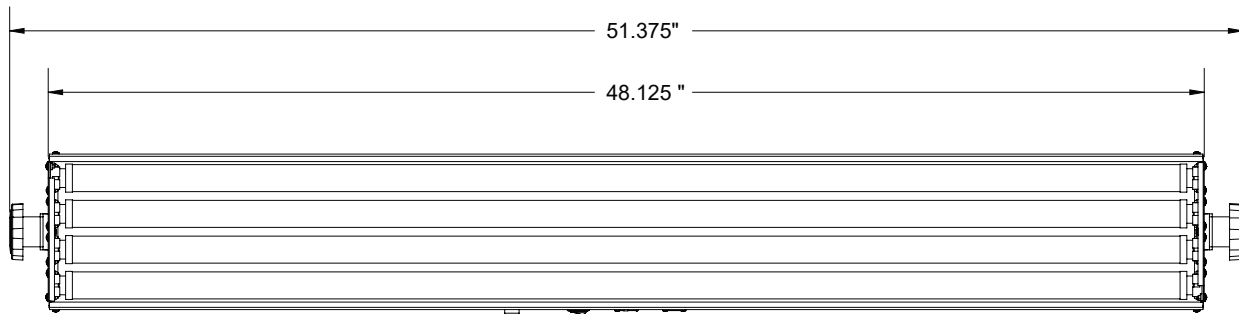
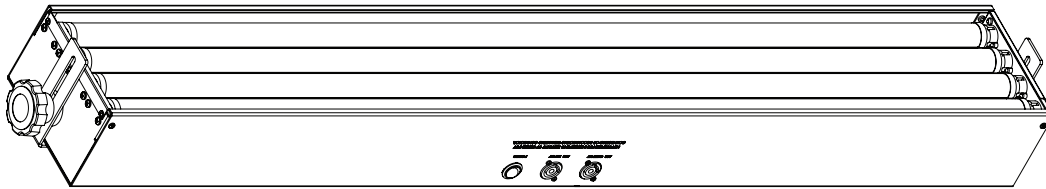
Diagrams

Isometric & Line Views EM-42L

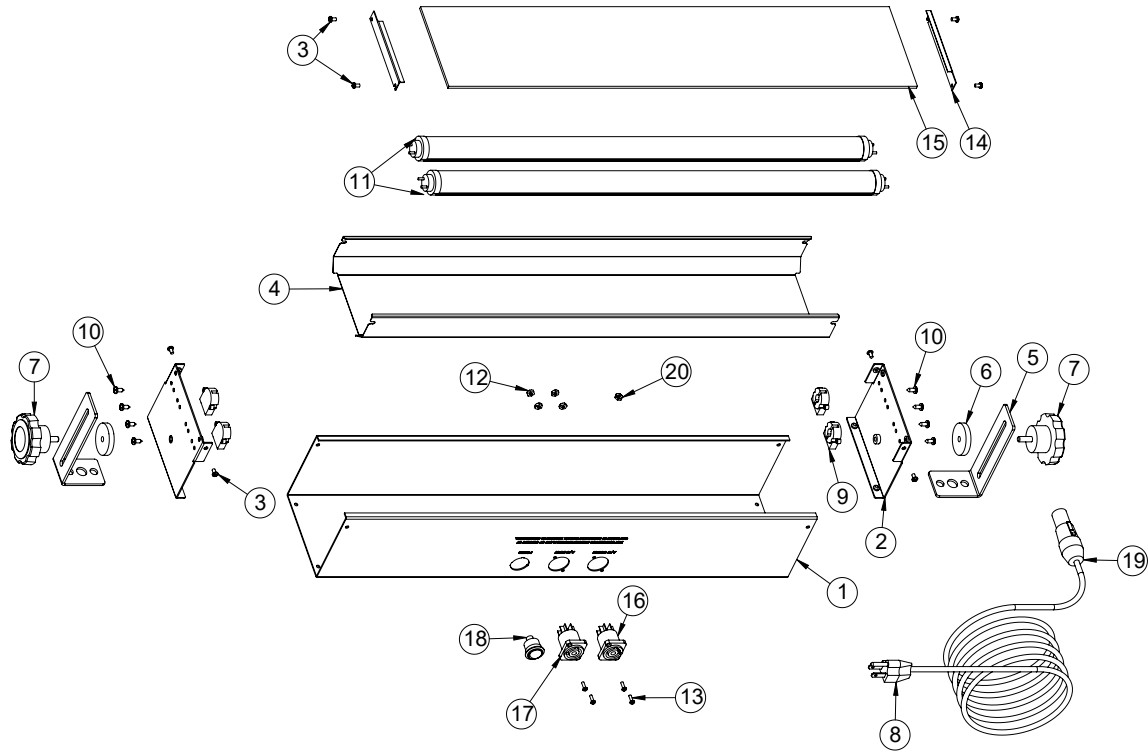


Diagrams

Isometric & Line Views EM-44L

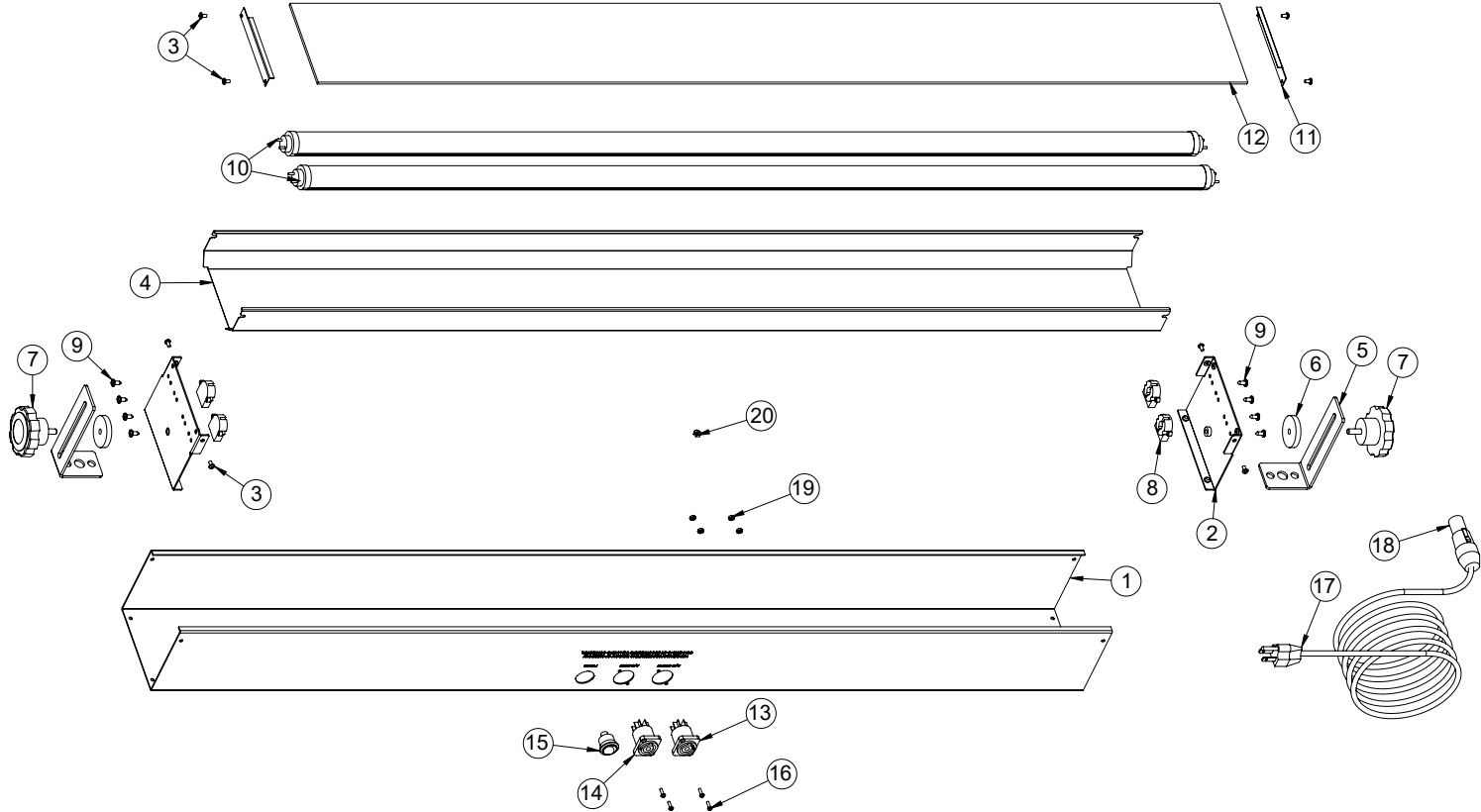


Exploded View & Part List EM-22L



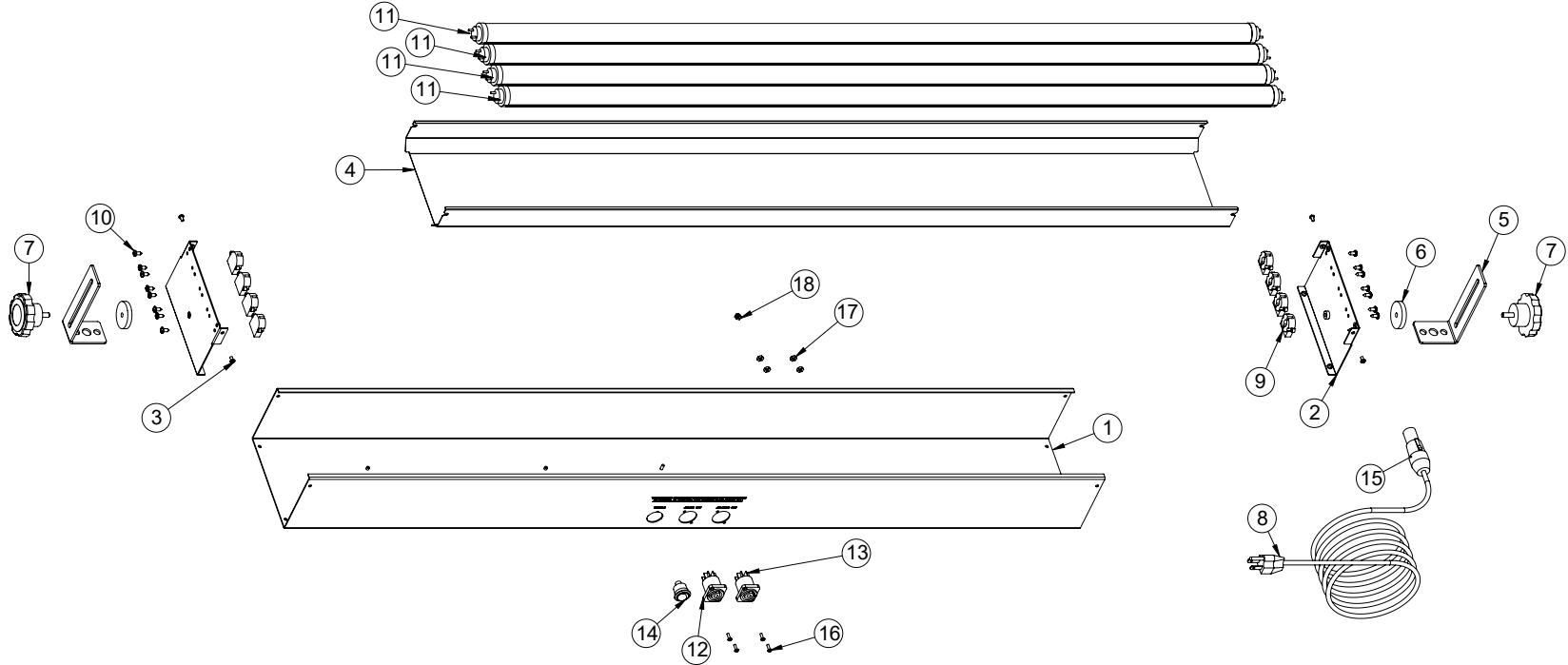
#	QTY.	PART #	PART NAME	#	QTY.	PART #	PART NAME
1	1	104-064-03	Housing, Effects Master 2'	11	2	142-003	Lamp, LED, SableLED, T8, BLB, 24", 9W
2	2	104-059-03	Cover, Housing, Side	12	4	121-033	Keplnut, 4-40, 18-8 SS
3	12	121-005	Screw, M, PHL, PH, 6-32 x 1/4" 18-8 SS	13	4	121-003	Screw, M, PHL, PH, 4-40 x 3/8" 18-8 SS
4	1	126-004-03	Reflector, 2' Fluorescent	14	2	104-004-01	Bracket, Lens Retaining (Optional Lens Kit)
5	2	104-003-03	Bracket, Mounting	15	1	124-015-01	Lens Clear UVT, 2' x 4 3/4" (Optional Lens Kit)
6	2	121-051-01	Washer, Neoprene, 1.5" OD, .25" ID .2" THK Black	16	1	106-053	Receptacle, PowerCON 1 Power Out NAC3MPB-1
7	2	120-002	Knob, Bracket Adjustment	17	1	106-051	Receptacle, PowerCON 1 Power-In NACMPA-1
8	1	107-003	Cord, Power, Black, 16 AWG, 6'	18	1	105-020	Switch, DPST, 15A, Effects Master Series, RRA12C1121
9	4	108-004	Socket, Lamp, G13 Base	19	1	106-050	Connector, PowerCON 1, Power In NAC3FCA
10	8	121-017	Screw SM, PHL, PH, #8 x 3/8", 18-8 SS	20	1	121-035	Keplnut, 6-32 18-8 SS

Exploded View & Part List EM-42L



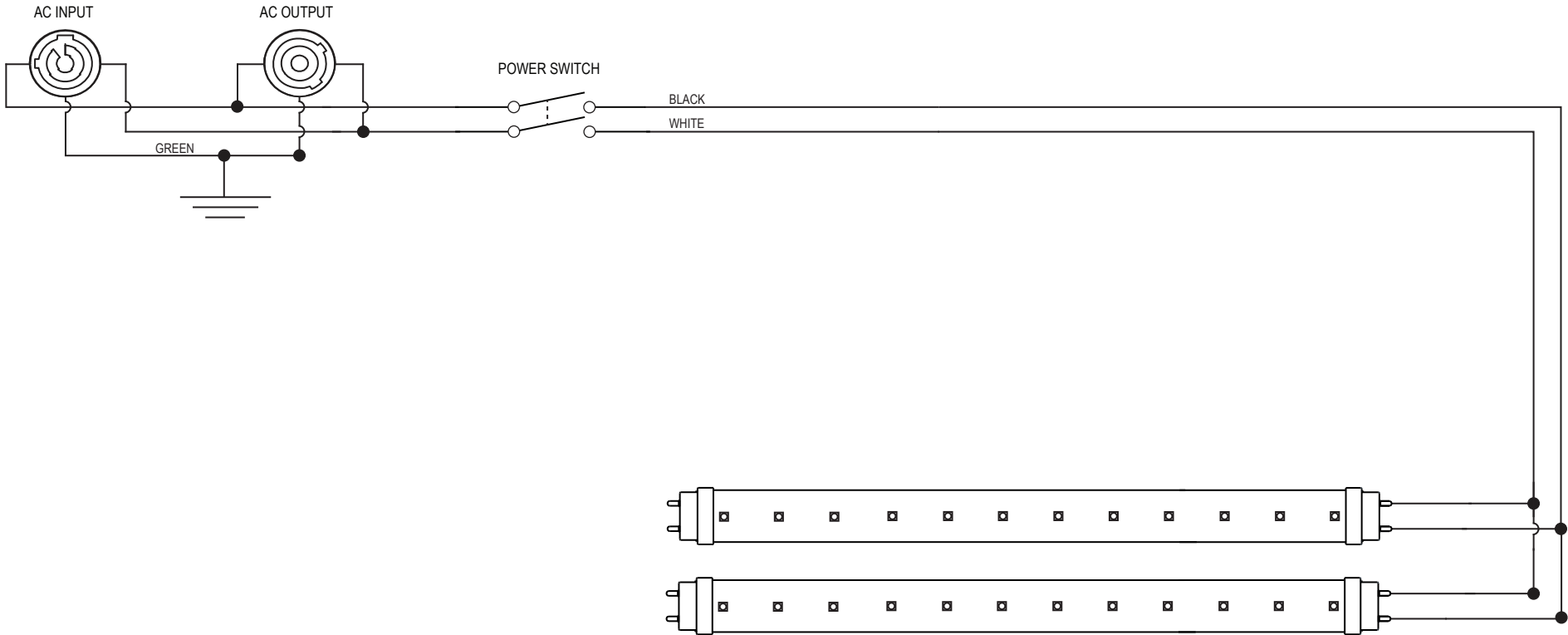
#	QTY.	PART #	PART NAME	#	QTY.	PART #	PART NAME
1	1	104-065-07	Housing, 4'	11	2	104-004-01	Bracket, Lens Retaining (Optional Lens Kit)
2	2	104-059-03	Cover, Housing, Side	12	1	124-016-01	Lens, Clear, UVT, 4' x 4 3/4" (Optional Lens Kit)
3	12	121-005	Screw, M, PHL, PH, 6-32 x 1/4" 18-8 SS	13	1	106-053	Receptacle, PowerCON 1, Power-OUT NAC3MPB-1
4	1	126-003-03	Reflector, 4' Fluorescent	14	1	106-051	Receptacle, PowerCON 1, Power-IN NAC3MPA-1
5	2	104-003-02	Bracket, Mounting	15	1	105-020	Switch, DPST, 15A, Effects Master Series RRA12C1121
6	2	121-051-01	Washer, Neoprene, 1.5" OD, .25" ID .2" THK Black	16	4	121-003	Screw, M, PHL, PH, 4-40 x 3/8" 18-8SS
7	2	120-002	Knob, Bracket Adjustment	17	1	107-003	Cord, Power, Black, 16AWG, 6'
8	4	108-004	Socket Lamp G13 Base	18	1	106-050	Connector, PowerCON 1, Power-In NAC3FCA
9	8	121-017	Screw, SM, PHL, PH, #8 x 3/8", 18-8SS	19	4	121-033	Keptnut, 4-40 x 3/8" 18-8 SS
10	2	142-004	Lamp, LED, SableLED, T8, BLB, 48", 15W	20	1	121-035	Keptnut, 6-32 18-8 SS

Exploded View & Part List EM-44L

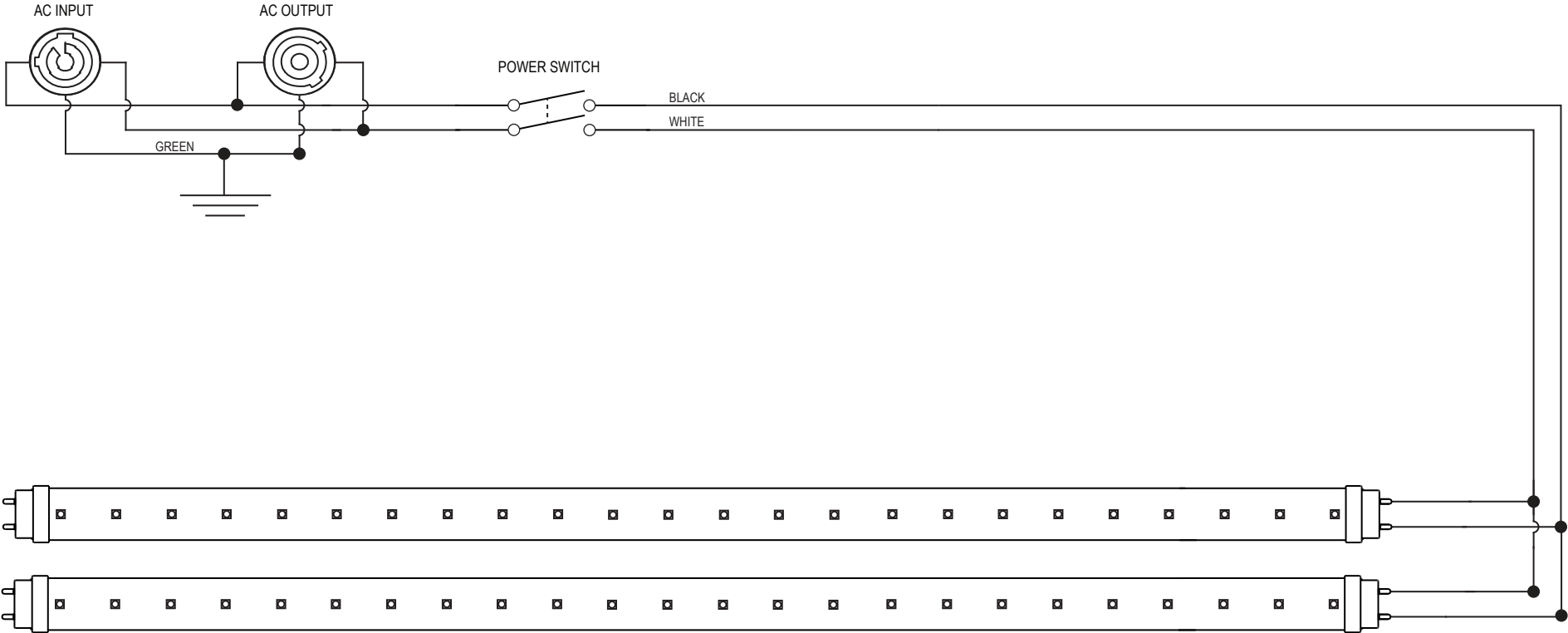


#	QTY.	PART #	PART NAME	#	QTY.	PART#	PART NAME
1	1	104-066-06	Housing Effects Master VHO	10	16	121-017	Screw, SM, PHL, PH, #8 x 3/8", 18-8 SS
2	2	104-060-03	Cover Housing Side VHO	11	4	142-004	Lamp, LED, SableLED, T8, BLB, 48", 15W
3	8	121-005	Screw, M, PHL, PH, 6-32 x 1/4" 18-8 SS	12	1	106-051	Receptacle, PowerCON 1, Power-In NAC3MPA-1
4	1	126-002-03	Reflector 4' Fluorescent, VHO	13	1	106-053	Receptacle, PowerCON 1, Power-Out NAC3MPB-1
5	2	104-003-03	Bracket, Mounting	14	1	105-020	Switch, DSPT, 15A, Effects Master Series RRA12C1100
6	2	121-051-01	Washer, Neoprene, 1.5"OD .25"ID .2" THK BK	15	1	106-050	Connector, PowerCON 1, Power-In NAC3FCA
7	2	120-002	Knob, Bracket Adjustment	16	4	121-003	Screw, M, PHL, PH, 4-40 x 3/8" 18-8 SS
8	1	107-003	Cord, Power, Black, 16 AWG, 6'	17	4	121-033	Keptnut, 4-40, 18-8 SS
9	8	108-004	Socket, Lamp G13 Base	18	1	121-035	Keptnut 6-32 18-8 SS

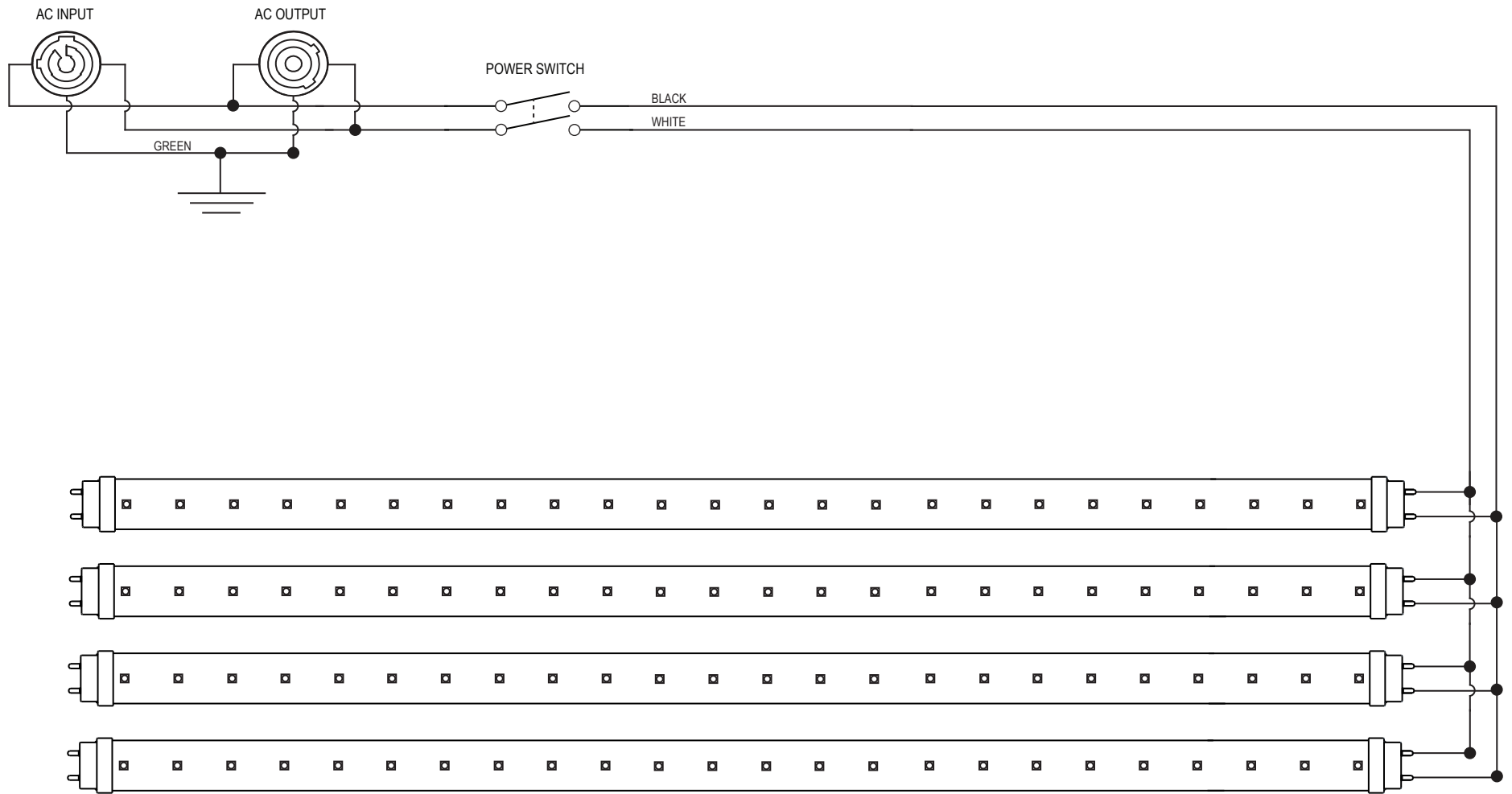
Schematic, LED Series EM-22L



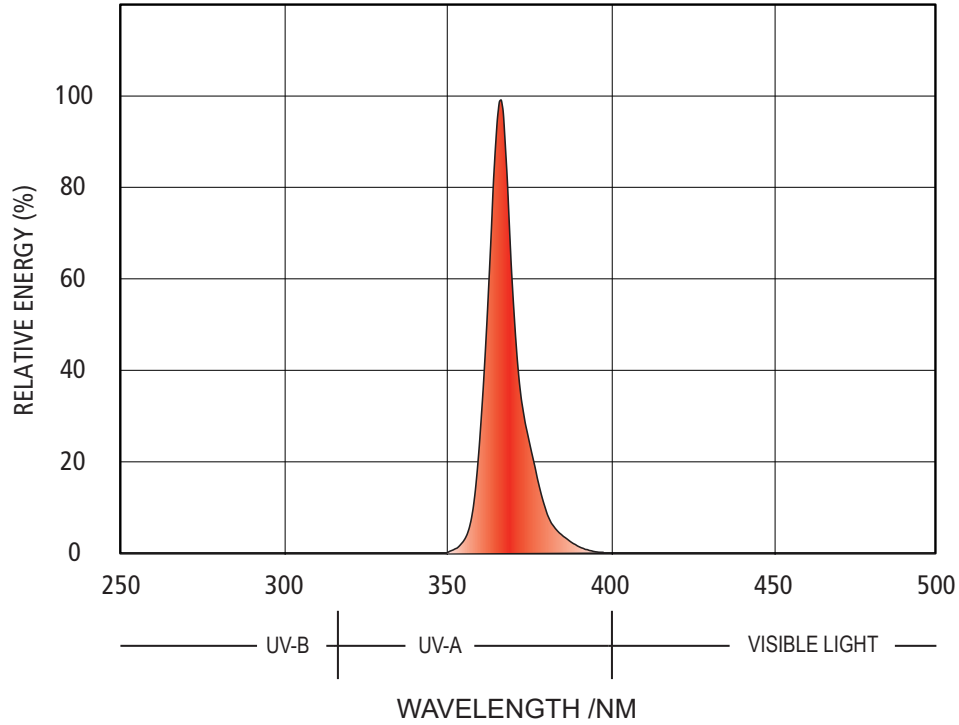
Schematic, LED Series EM-42L



Schematic, LED Series EM-44L



Spectral Output Graph



Photometrics Chart

Model EM-44L

Distance in Feet / Meters, MF: 2.88

	5 / 1.52	10 / 3.05	20 / 6.10	30 / 9.14	40 / 12.19	50 / 15.24	60 / 18.29	70 / 21.33	80 / 24.38
Beam Diameter Feet	14.4	28.8	57.6	86.4	115.2	144.0	172.8	201.6	230.4
Beam Diameter Meters	4.3	8.7	17.5	26.3	35.1	43.8	52.6	61.4	70.2
Peak UV-A Irradiance mW/m ²	1,160	290.0	72.5	32.2	18.1	11.6	8.0	5.9	4.5

Model EM-42L

Distance in Feet / Meters, MF: 2.88

	5 / 1.52	10 / 3.05	20 / 6.10	30 / 9.14	40 / 12.19	50 / 15.24	60 / 18.29
Beam Diameter Feet	14.4	28.8	57.6	86.4	115.2	144.0	172.8
Beam Diameter Meters	4.3	8.7	17.5	26.3	35.1	43.8	52.6
Peak UV-A Irradiance mW/m ²	580.0	145.0	36.2	18.1	9.0	5.8	4.0

Model EM-22L

Distance in Feet / Meters, MF: 2.88

	5 / 1.52	10 / 3.05	20 / 6.10	30 / 9.14	40 / 12.19
Beam Diameter Feet	14.4	28.8	57.6	86.4	115.2
Beam Diameter Meters	4.3	8.7	17.5	26.3	35.1
Peak UV-A Irradiance mW/m ²	400.0	100.0	25.0	11.1	6.2

All peak UV-A irradiance measurements taken at center beam using UVX Digital Radiometer and a calibrated 365nm sensor

Wildfire Lighting Three Year Limited Warranty

Wildfire Lighting warrants to the original owner or retail customer, that for a period of three years from the date of delivery of any Wildfire Fixture; whether used in a portable or permanent installation, such fixtures will be free from defects in material and workmanship under normal use and conditions.

Warranty does not cover any product or part of a product that has been subjected to accident, negligence, alteration, abuse or misuse and excludes any accessories or parts not supplied by Wildfire. Warranty does not cover expendable parts such as fuses, lamps, glass or any components warranted directly to the owner by the original manufacturer. This warranty does not extend to products not manufactured by Wildfire.

Wildfire's responsibility under this warranty shall be to repair or replace at Wildfire's discretion such parts as determined to be defective upon Wildfire's inspection. Wildfire will not assume any responsibility for any labor expended or materials used to repair any equipment without Wildfire's prior written authorization.

Wildfire, Inc. shall not be responsible for any incidental, general or consequential damages to property, damage for loss of use, time profits or income, or any other charges.

The owners' obligation during the warranty period is to notify Wildfire of any suspected defect, to obtain a return authorization number, and to return the product freight and insurance prepaid to the following address:

**Wildfire Lighting 2908 Oregon Court Suite G1, Torrance, CA 90503
(800) 937-8065 (310) 755-6780**

Collect shipments for freight allowances or shipments without return authorization numbers will not be accepted.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER OBLIGATIONS AND LIABILITIES ON WILDFIRE'S PART. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THE OWNER ACKNOWLEDGES THAT NO OTHER REPRESENTATIONS WERE MADE TO HIM WITH RESPECT TO THE QUALITY AND FUNCTION OF THE GOODS SOLD.

This written warranty is intended as a complete and exclusive statement of the terms thereof. Prior dealings or trade usage shall not be relevant to modify, explain or vary this warranty. Acceptance of, or acquiescing in, a course of performance under this warranty shall not modify the meaning of their agreement even though either party has knowledge of the performance and a chance to object.

This limited warranty gives you specific legal rights and you may also have other rights which vary from state to state. If any action or preceding results from this warranty, the prevailing party will be entitled to all costs and attorney fees incurred in defending or prosecuting such actions.



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