



Wildfire Effects Master® LED Series

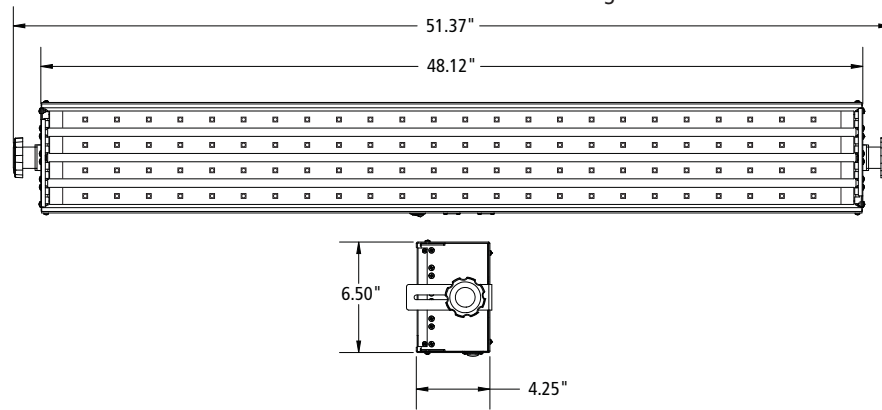
Four Lamp LED Black Light Fixtures

The Effects Master LED Series from Wildfire combines Wildfire's powerful new SableLED® 365nm black light LED lamp technology with the affordable Effects Master fixture line. Now you can have all of the great features of Wildfire's popular high output fluorescent black lighting series with the maintenance free convenience and energy efficiency of LED's, creating the ultimate fluorescent black light replacement.



Features:

- Advanced Self Ballasted UV LED Lamps
- Powerful Four Lamp Design
- Convenient Universal Voltage Input
- Flicker and RF Interference Free
- Positive Locking Sockets
- Adjustable Mounting Brackets
- Heavy Gauge Steel Housing
- Designed and Built in the USA



Standard Equipment:

- 139-003 Two Adjustable L Brackets
- 106-052 PowerCON Power Out Connector
- 141-002 Four 4' SableLED LED Lamps

Optional Accessories:

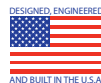
- 147-003 Floor Stand Kit
- 147-003 T-Bar Ceiling Mounts
- 147-021 Truss Clamp
- 147-002 Safety Cable

Ordering Example: (Select item from each box)

Model	Size	Lamps	Series
EM	4	4	L

Specifications:

Housing:	16 Ga. Rolled steel with stainless steel hardware
Finish:	Flat black powder coat
Mounting:	Two fully adjustable L brackets
Reflector:	Polished Everbrite aluminum 165°
Sockets:	Eight positive locking medium Bi Pin G13
Input Voltage:	100 - 240VAC
Input Current:	1.14A max.
Frequency:	50-60 Hz.
Power Factor:	0.99
Power Consumption:	115W
Operating Temperature:	14° to 95° F / -10° to 35° C
Humidity:	0-95% non condensing
Power Cord:	6' 16/3 SOW with PowerCON 1 in and male Edison
Power Connections:	Neutrik PowerCON 1 input and output
Power Linking:	10 units at 120VAC
Lamps:	Four Wildfire SableLED® L30T9/BL LED Lamps
Peak Wavelength:	365nm
Beam Angle:	120°
Lamp Life:	40,000 Hours
Weight:	18.20lbs / 8.25kg
IP Rating:	IP-20 Indoor Use
Warranty:	Three years parts & labor



Features & Options:



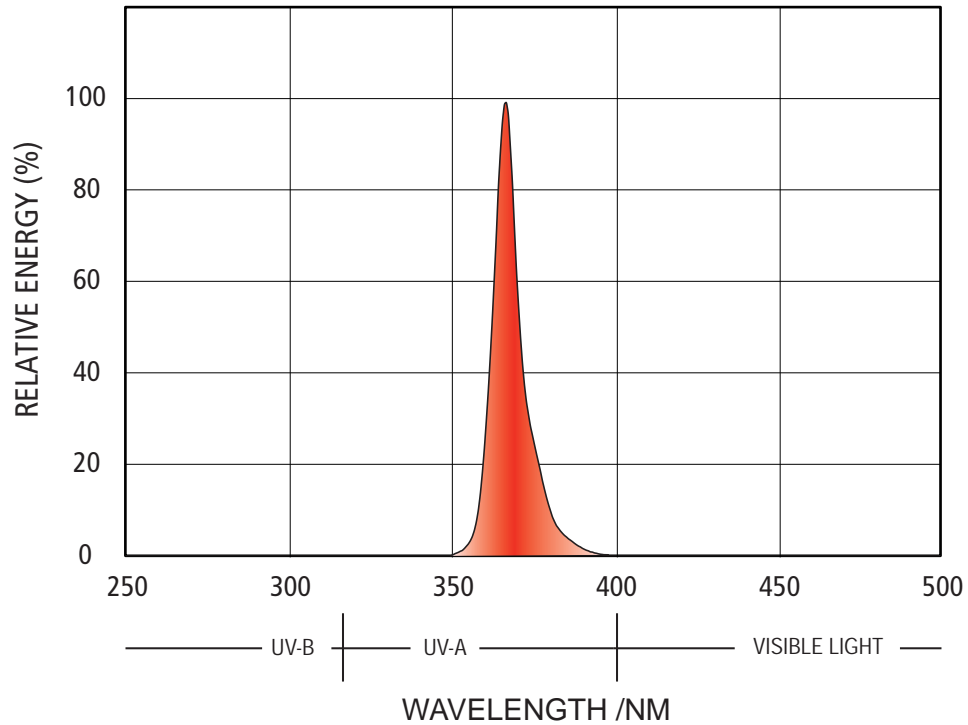
Project	Approval / Date
Location	Fixture Type



Wildfire Lighting & Visual Effects

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Spectral Output Graph:



Photometrics Chart:

Model EM-44L

Distance in Feet/Meters

	5/1.52	10/3.05	20/6.10	30/9.14	40/12.19	50/15.24	60/18.29
Beam Diameter Feet	17.3	34.6	69.3	103.9	138.6	173.2	207.8
Beam Diameter Meters	5.2	10.5	21.1	31.6	42.2	52.7	63.3
Peak UV-A Irradiance $\mu\text{W}/\text{cm}^2$	270.0	67.5	16.8	7.5	4.2	2.7	1.8

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



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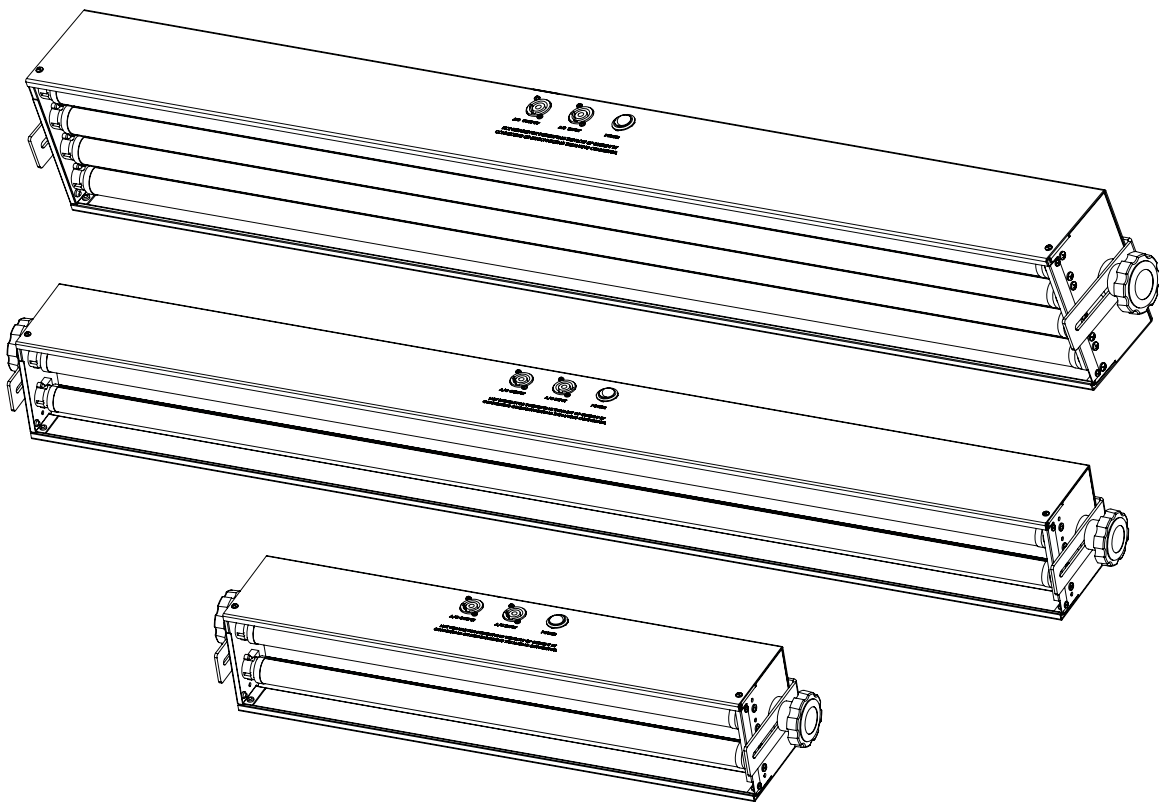
Operation Manual

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 L30T9/BL 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 LAMP MODEL L30T9/BL. 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: 0.30A Max
EM-42L: 0.57A Max
EM-44L: 1.14A Max
- Frequency:**
50-60Hz
- Power Factor:**
0.99
- Power Consumption:**
EM-22L: 30W
EM-42L: 60W
EM-44L: 115W
- Operating Temperature:**
14° F to 95° F (-10° F to 35° C)
- Humidity:**
0-95% non-condensing
- Power Cord:**
6' 16/3 SOW with PowerCON 1 in and male Edison
- Power Connections:**
Neutrik PowerCON 1input and output
- Power Linking:**
EM-22L: 30 units at 120VAC
EM-42L: 15 units at 120VAC
EM-44L: 10 units at 120VAC
- Lamps:**
EM-22L Two Wildfire SableLED L15T9/BLB UV LED Tube Lamps
EM-42L Two Wildfire SableLED L30T9/BLB UV LED Tube Lamps
EM-44L Two Wildfire SableLED L30T9/BLB UV LED Tube Lamps
- Peak Wavelength:**
365nm
- Beam Angle:**
120°
- Lamp Life:**
40,000 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: 7.67 lbs./3.47kg.
EM-42L: 15.35 lbs./6.96kg.
EM-44L: 18.20 lbs./8.25kg.
- IP Rating:**
IP-20 Indoor use
- Warranty:**
Three Year Parts and Labor
- Standard Equipment:**
Wildfire SableLED UV LED Tube Lamps, Adjustable Mounting Brackets
- Optional Accessories:**
Twenty Clamp (147-021)
Safety Cable (147-002)
Floor Mount (147-006)
T-Bar Ceiling Mount (147-003)

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. Two “L” shaped mounting brackets with one 1/2” mounting hole for mounting the fixture to a standard c-clamp and two 3/8” mounting holes for mounting the fixture to Unistrut, optional Floor Mount Kit or any flat surface.
2. Two rubber friction washers that are to be placed between the mounting brackets and the end caps on either end of the fixture allowing it to be held firmly in place upon tightening the locking knobs
3. Two locking knobs with 1/4-20 threaded studs that screw into the end caps.

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 metal ring on the rear 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.

T-Bar Ceiling Mount- These brackets enable you to mount your Effects Master fixture to the t-bars in a standard drop ceiling. 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 interconnect more than ten model EM-44L, fifteen model EM-42L or 30 EM-22L fixtures in a single chain.**

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

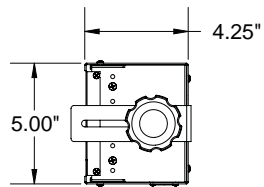
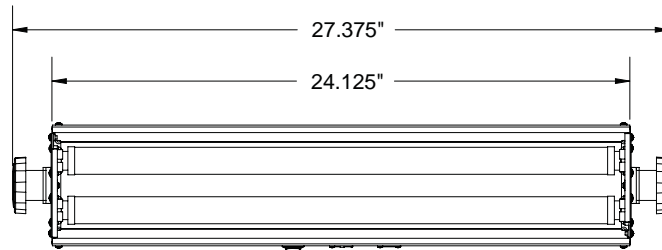
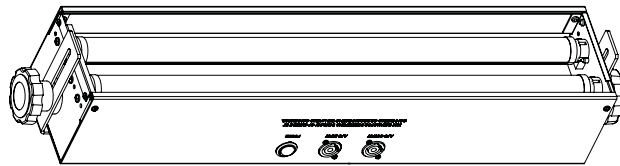
For best performance, the reflector, lamps and protective lens should be kept free of dirt and dust. At no time should any cleaning chemicals or abrasives be used to clean any part of the unit. For normal cleaning, a dry soft cloth should be used to wipe any surface free from dust and light dirt. Cleaning 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.

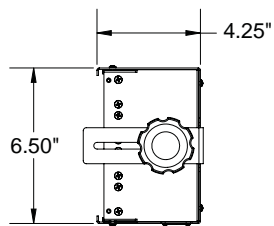
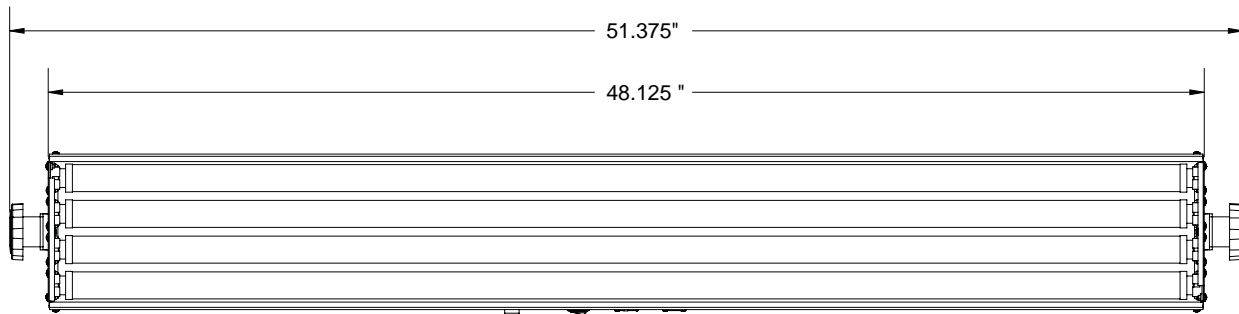
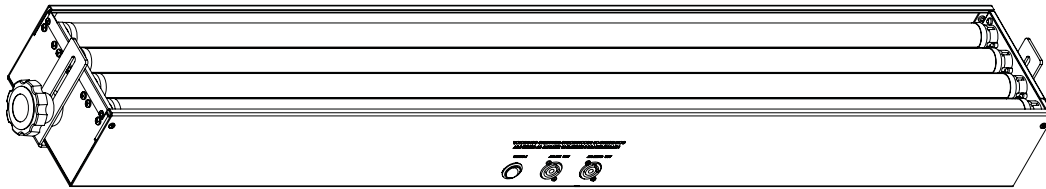
Diagrams

Isometric & Line Views EM-22L



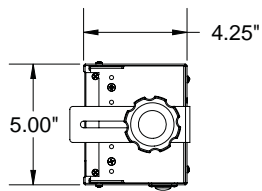
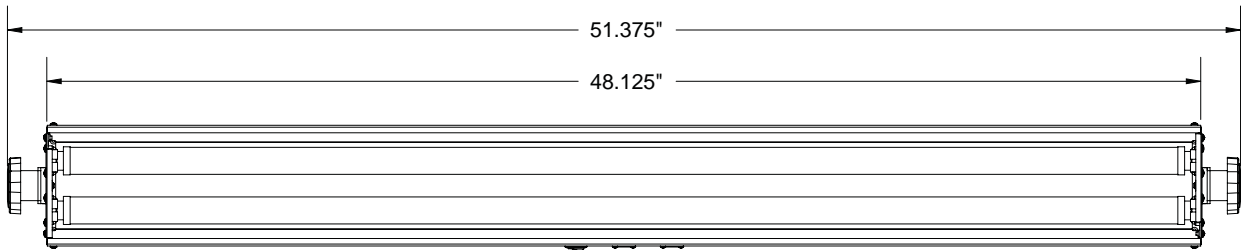
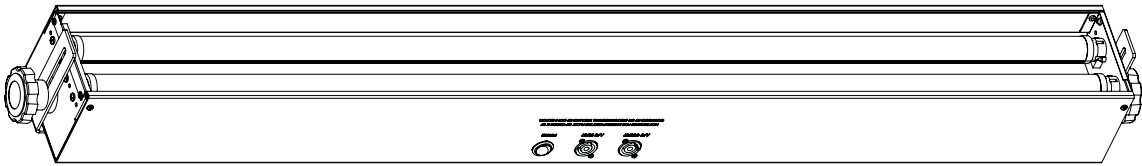
Diagrams

Isometric & Line Views EM-44L

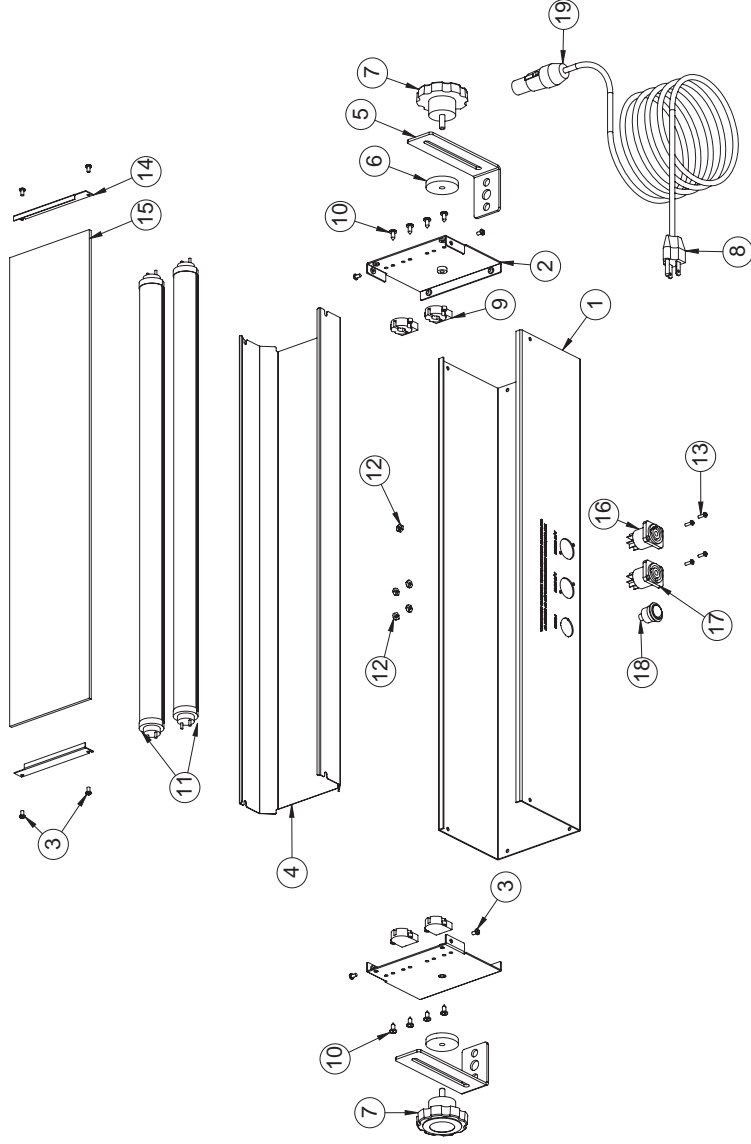


Diagrams

Isometric & Line Views EM-42L

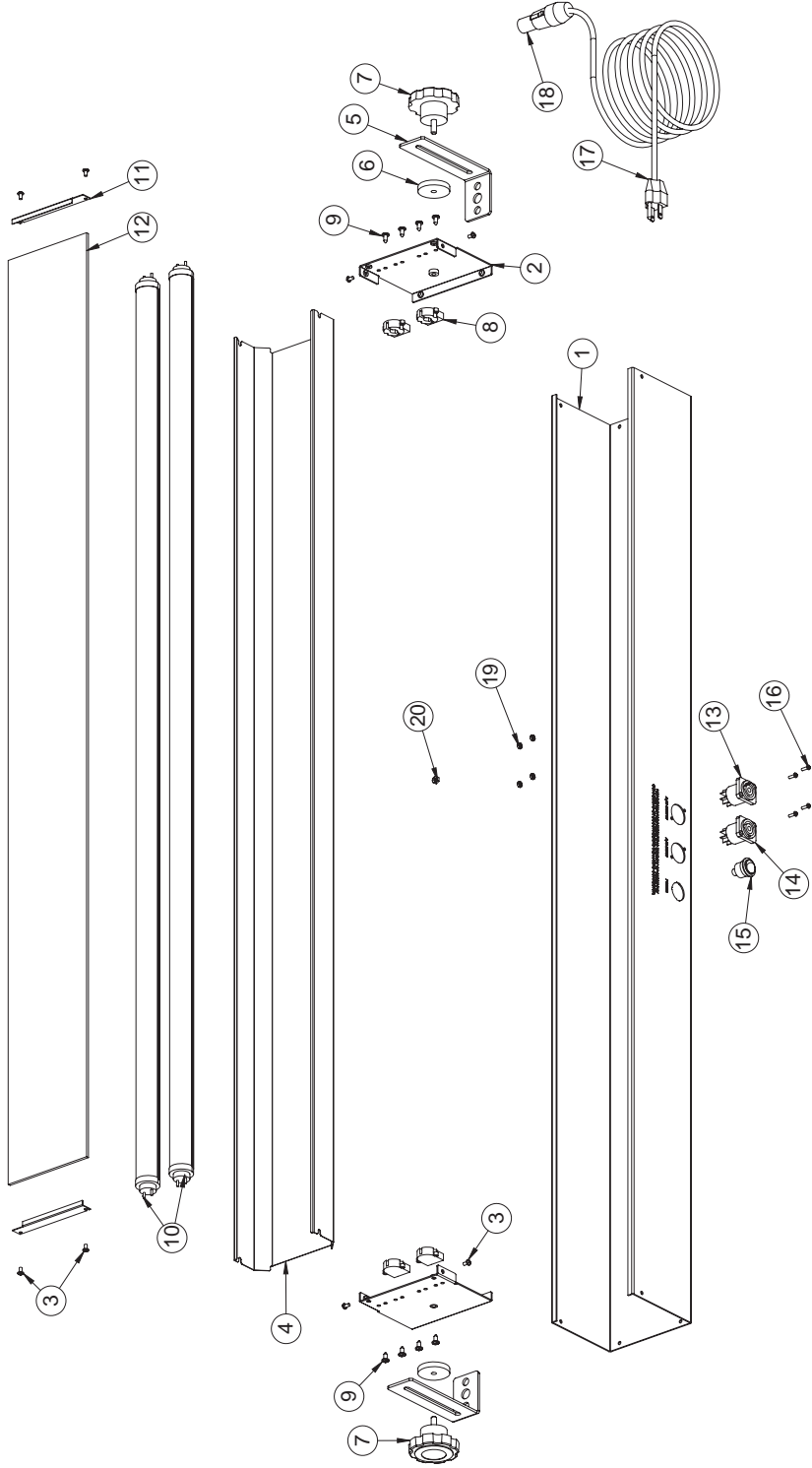


Exploded View & Part List EM-22L



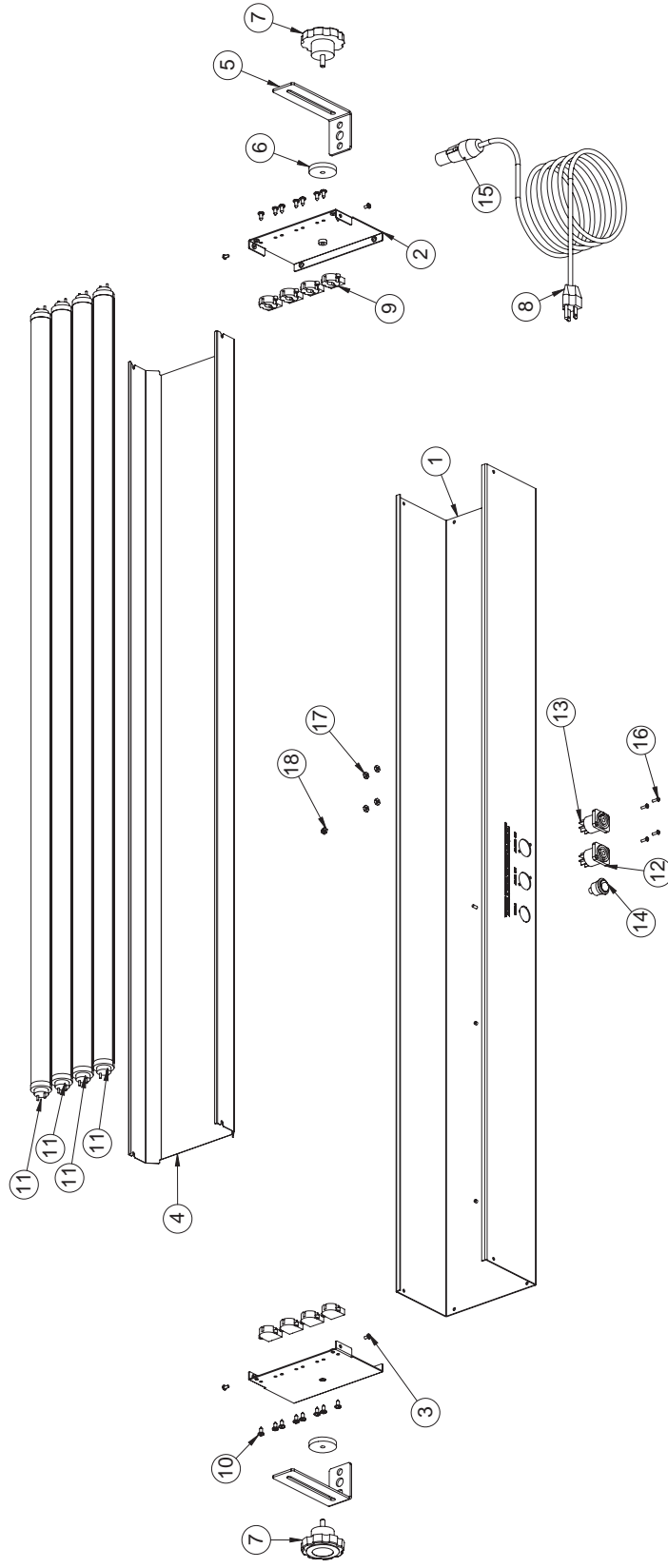
#	QTY.	PART #	PART NAME	#	QTY.	PART #	PART NAME
1	1	104-064-03	Housing, Effects Master 2'	11	2	142-001	Lamp, LED, SableLED, T9, BLB, 24", 15W
2	2	104-059-03	Cover, Housing, Side	12	4	121-033	Keptnut, 4-40, 18-8 SS
3	12	121-005	Screw, M, PHL, PH, 6-32 x 1/4" 18-8 SS	13	4	121-003	Screw, M, PHL, PH, 4-40 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, 8'	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	Keptnut, 6-32 18-8 SS

Exploded View & Part List EM-42L



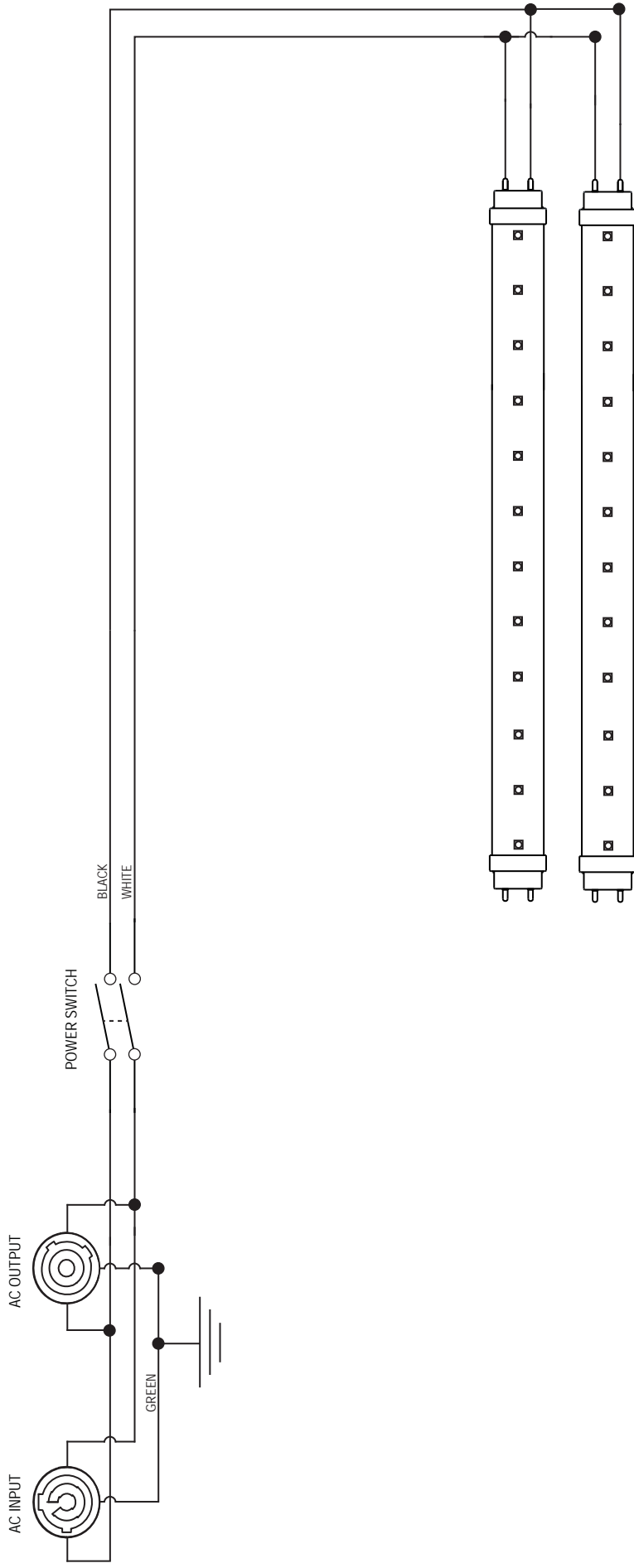
#	QTY.	PART #	PART NAME	#	QTY.	PART #	PART NAME
1	1	104-065-07	Housing, 4'	11	2	104-004-01	Bracket, Lens Retaining (Optional Lens Kit)
2	2	104-059-03	Cover, Housing, Side	12	1	124-016-01	Lens, Clear, UVT, 4' x 4 3/4" (Optional Lens Kit)
3	12	121-005	Screw, M, PHL, PH, 6-32 x 1/4" 18-8 SS	13	1	106-053	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, 8'
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	Keprnut, 4-40 x 3/8" 18-8 SS
10	2	142-002	Lamp, SableLED UV LED, 4'	20	1	121-035	Keprnut, 6-32 18-8 SS

Exploded View & Part List EM-44L

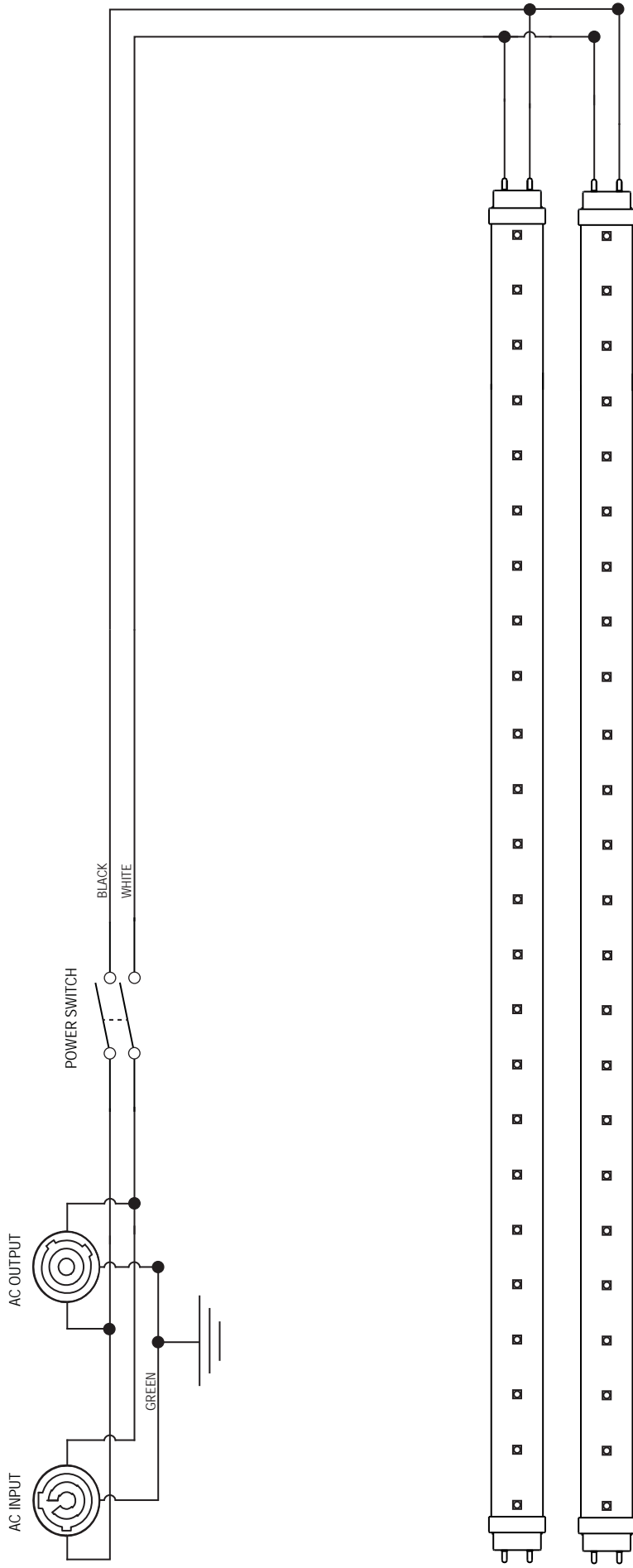


#	QTY.	PART #	PART NAME	#	QTY.	PART#	PART NAME
1	1	104-066-06	Housing Effects Master VHO	10	16	121-017	Screw, SM, PHL, PH, #8 x 3/8", 18-8 SS
2	2	104-060-03	Cover Housing Side VHO	11	4	141-002	Lamp, SableLux Fluorescent, 4'
3	8	121-005	Screw, M, PHL, PH, 6-32 x 1/4" 18-8 SS	12	1	106-051	Receptacle, PowerCON 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, 8'	17	4	121-033	Keplnut, 4-40, 18-8 SS
9	8	108-004	Socket, Lamp G13 Base	18	1	121-035	Keplnut 6-32 18-8 SS

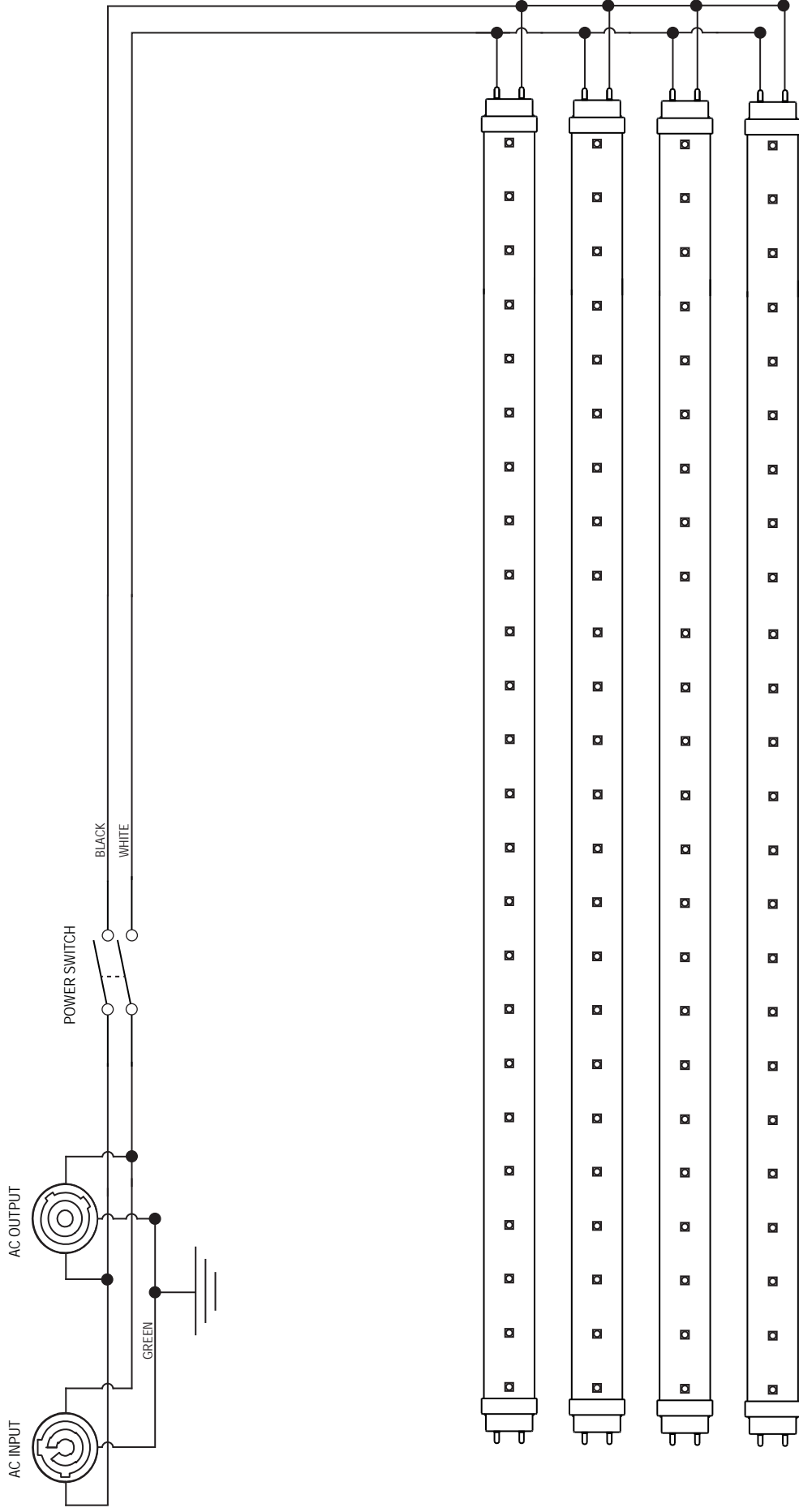
Schematic, LED Series EM-22L



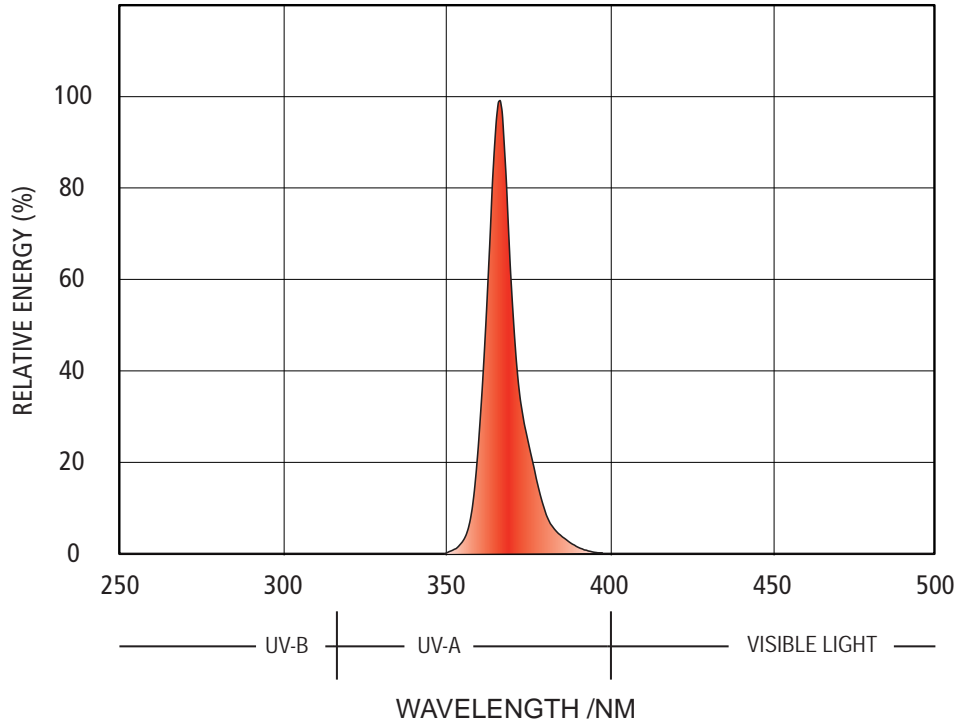
Schematic, LED Series EM-42L



Schematic, LED Series EM-44L



Spectral Output Graph



Photometrics Chart

Model EM-44L

Distance in Feet/Meters

	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	3.60	7.30	14.60	21.80	29.10	36.40	43.70	51.00	58.20
Beam Diameter Meters	1.10	2.22	4.45	6.64	8.87	11.09	13.32	15.54	17.74
Peak UV-A Irradiance $\mu\text{W}/\text{cm}^2$	650	162.5	40.6	18.0	10.1	6.5	4.5	3.3	2.5

Model EM-42L

Distance in Feet/Meters

	5 / 1.52	10 / 3.05	20 / 6.10	30 / 9.14	40 / 12.19	50 / 15.24	60 / 18.29
Beam Diameter Feet	17.3	34.6	69.3	103.3	138.6	173.2	207.8
Beam Diameter Meters	5.2	10.5	21.1	31.6	42.2	52.7	63.3
Peak UV-A Irradiance $\mu\text{W}/\text{cm}^2$	130.0	32.2	8.1	3.6	2.0	1.3	.90

Model EM-22L

Distance in Feet/Meters

	5 / 1.52	10 / 3.05	20 / 6.10	30 / 9.14	40 / 12.19	50 / 15.24	60 / 18.29
Beam Diameter Feet	17.3	34.6	69.3	103.3	138.6	173.2	207.8
Beam Diameter Meters	5.2	10.5	21.1	31.6	42.2	52.7	63.3
Peak UV-A Irradiance $\mu\text{W}/\text{cm}^2$	130.0	32.2	8.1	3.6	2.0	1.3	.90

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

Wildfire, Inc. Three Year Limited Warranty

Wildfire, Inc. 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 Service, 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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