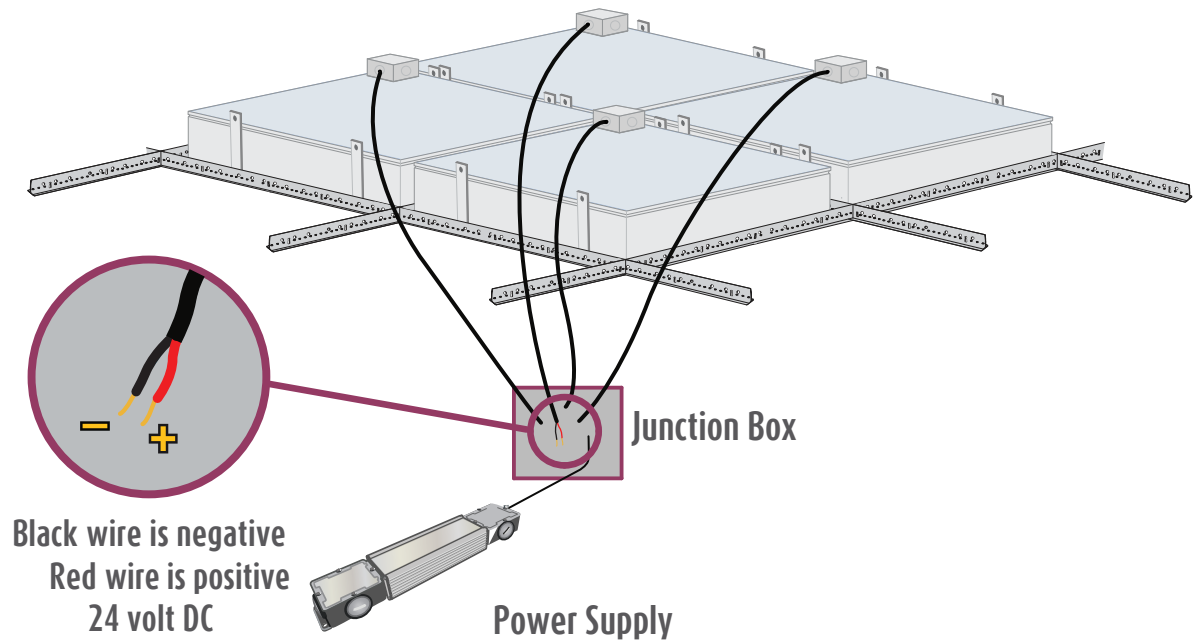


## Classic w/ EcoPlus Electrical Instructions (HLG)



### Installation Instructions includes:

Classic w/ EcoPlus Electrical Instructions (HLG)

Wiring Diagram EL001180

Wire Sizing Chart

Installation specific wiring diagram (where applicable)

For technical support at any time during the installation, please call us **toll free at 866-759-3228**.  
We want your installation to go as smoothly as possible. Thank you for choosing The Sky Factory.

## Classic w/ EcoPlus Electrical Requirements:

EP22 Series: EP22 (2' x 2'), EP22M (60cm x 60cm), EP22G (62.5cm x 62.5cm)

EP24 Series: EP24 (2' x 4'), EP24M (60cm x 120cm), EP24G (62.5cm x 125cm)

NOTE: For custom sizes, see installation specific wiring diagram included (where applicable)

All EcoPlus fixtures are 24V DC only.

EcoPlus fixtures must be powered only by provided UL Recognized, CE Compliant 24V DC power supply

Dry locations only.

For installations with multiple power supplies, see

installation specific wiring diagram included (where applicable)

For installations with one or more custom sizes, see

installation specific wiring diagram included (where applicable)

For dimming requirements, see page 4.

RF filter, if used, is not provided by The Sky Factory.

*Electrical work must be performed by a qualified electrician who is familiar with DC lighting systems and must conform to all local and national codes.*

Sky Factory provided external dimmable power supply:

Input (Typ) 90-305V, 47 - 63 Hz

Output 24V DC

UL (U.S. and Canada) Recognized and CE Compliant

Surface mountable

HLG-80H only:

Class 2, UL8750 Listed and CE compliant

Junction box on both input and output ends

Junction box wiring access holes limited to 1/2" nominal trade size conduit

Suitable for dry/damp/wet locations

Sky Factory provided dimmer control (where specified)

Lutron Diva DVSTV 0 - 10V sliding dimmer/switch (UL & CSA compliant)

Input: auto-ranging 120 - 277V AC

Lutron Lyneo preset 0 - 10V sliding dimmer/switch and external relay (CE compliant):

Input: 220 - 240V AC

## Step 1: Wiring the EcoPlus fixtures to the power supply

See supporting drawing and chart on pages 5-6 and installation specific wiring diagram (where applicable)

EcoPlus Lighting System - EP22 and EP24 Series				
TSF Model No.	Dimensions: WxLxH	Weight	System Wattage (Max)	Input Current @ 24 Volts DC
EP22	23.75 x 23.75 x 5.85 (inches)	7.1 lb	23	0.96 A
EP24	23.75 x 47.75 x 5.85 (inches)	11.7 lb	47	1.96A
EP22M	59.4 x 59.4 x 14.86 (cm)	3.22 kg	23	0.96 A
EP24M	59.4 x 119.4 x 14.86 (cm)	5.31 kg	47	1.96A
EP22G	61.9 x 61.9 x 14.86 (cm)	3.22 kg	23	0.96 A
EP24G	61.9 x 124.4 x 14.86 (cm)	5.31 kg	47	1.96A

NOTE: For custom sizes, see also installation specific wiring diagram (where applicable)



**Notice:** The LED fixtures are 24V DC ONLY.

AC voltage connected directly to the fixtures will destroy the lighting system.

Fixtures are wired together in single or multiple circuits. Each circuit is dedicated to a single power system and may be arranged in rows or clusters, depending on installation.

A junction box with 1/2" trade size knock-outs is attached on top corner of each fixture.

- Power leads inside fixture junction box are polarized, red (+) and black (-).
- Wire size 18 AWG stranded.

Wiring from fixtures to V DC side of provided power supply is polarized, positive (+) to positive (+) and negative (-) to negative (-):

EcoPlus fixture red "+" to power supply **Vo+** [sheathed in **RED**]

EcoPlus fixture black "-" to power supply **Vo-** [sheathed in **BLACK**]

For power supply V DC wire size, see EL001180

Wire and additional junction boxes from fixtures to power supply provided by others.

Voltage drop will occur over long distances. For appropriate lengths and gauges, see Wire Sizing Chart.

Wire gauge must conform to local and national codes.

## Step 2: Wiring the power supply to source V AC

Run power to V AC side of the power supply. For power supply V AC wire size, see EL001180

Line to power supply **ACL** [sheathed in **BLACK**]

Neutral to power supply **ACN** [sheathed in **WHITE**]

Ground to power supply  (**GREEN/YELLOW**)

Wire gauge must conform to local and national codes.

Install the power switch on the V AC input side of the power supply.

## Step 3: Dimming requirements

Contact the Sky Factory if you plan on using a dimming system provided by others.



**Notice:** Dimming using non-approved systems may permanently damage LED's and will void the warranty!

### Wiring a Sky Factory provided dimmer control:

To wire the 0-10V dimmer control (and external relay where specified), refer to wiring diagram included with dimmer and relay and EL001180.

Power system **DIM+** sheathed in **GRAY**

Power system **DIM-** sheathed in **BLACK**

## Step 4: Checking the polarity



**Notice:** CHECK THE POLARITY BEFORE TURNING ON POWER. MAKE SURE:

Red wires on the fixtures go to the "+" terminals of the power supply

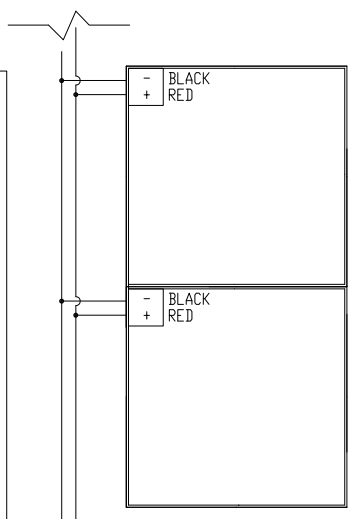
Black wires on the fixtures go to the "-" terminals of the power supply

**IF THE SYSTEM IS WIRED BACKWARD, IT WILL DESTROY THE LED'S!**

EP AND ES SERIES FIXTURES  
WITH HLG POWER SUPPLY  
DIMMING OPTION

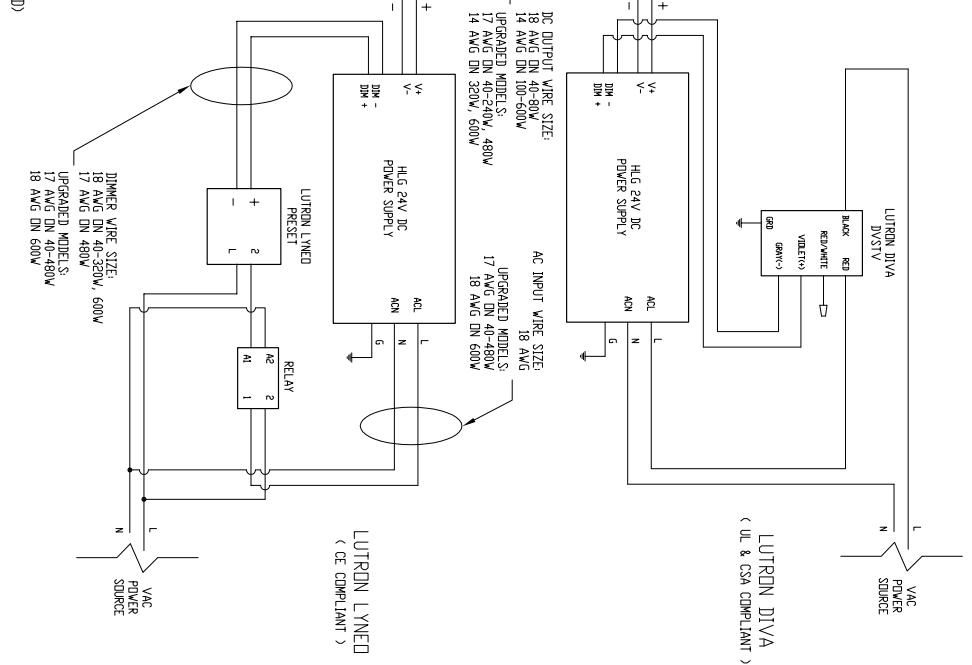
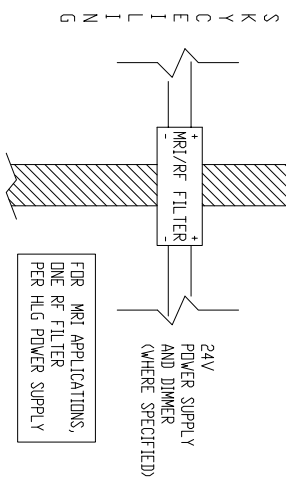
ECDDLUS  
EP22 SERIES, EP24 SERIES,  
EP26 SERIES, EP33 SERIES,  
EP34 SERIES, EP36 SERIES  
AND EP44 SERIES

ECOSLIM  
ES22 SERIES, ES24 SERIES,  
ES26 SERIES, ES33 SERIES,  
ES34 SERIES, ES36 SERIES  
AND ES44 SERIES



NOTES:  
1. ALL FIXTURES 24V DC ONLY  
2. JUNCTION BOX ATTACHED TO EACH FIXTURE:  
WIRE SIZE 18 AWG STRANDED  
WIRE COLORS:  
RED (+) (POSITIVE)  
BLACK (-) (NEGATIVE)  
3. SEE ALSO WIRE SIZING CHART.  
4. USE OF SKY FACTORY APPROVED DIMMING SYSTEM ONLY!  
CONTACT THE SKY FACTORY IF YOU PLAN ON USING A  
DIMMING SYSTEM PROVIDED BY OTHERS.  
NOTICE: DIMMING USING NON-APPROVED SYSTEMS  
MAY PERMANENTLY DAMAGE LEDS AND WILL  
VOID THE WARRANTY!

WIRE AND JUNCTION BOXES  
SUPPLIED BY OTHERS



<b>Sky Factory</b>	
MANUFACTURER OF SKYFACTORY LED DIMMERS, DIMMERS, AND WIRELESS DIMMING SYSTEMS	10000 Skyway Blvd, Suite 100 Dallas, TX 75243 Tel: 972.412.1234 www.skyfactory.com
PROJECT NO. E1.001180	DATE: 07/24/2018
DRAWN BY: BJA	DESIGN: 07/24/2018
CHECKED BY: JPM	DATE: 07/24/2018
SHEET 1 OF 1	

# Wire Sizing Chart

This chart is a guideline for recommended wiring practice.

Applies to 24V DC power only, i.e. from “fixture to power supply.”

Not meant for “V AC to power supply” nor “dimmer to power supply.”

Wire sizes in AWG Conversion chart below.

Distance: Feet (Meters)	AWG for 5A	AWG for 10A	AWG for 15A
20 (6)	18	14	12
30 (9)	16	12	10
40 (12)	14	10	10
50 (15)	12	10	*
60 (18)	12	10	*
80 (24)	10	*	*
100 (30)	10	*	*

\* Terminal block wire range #10 - #22 Awg.

AWG	MM
10	6.271
11	5.156
12	3.302
13	2.629
14	2.088
15	1.652
16	1.308
17	1.039
18	0.823