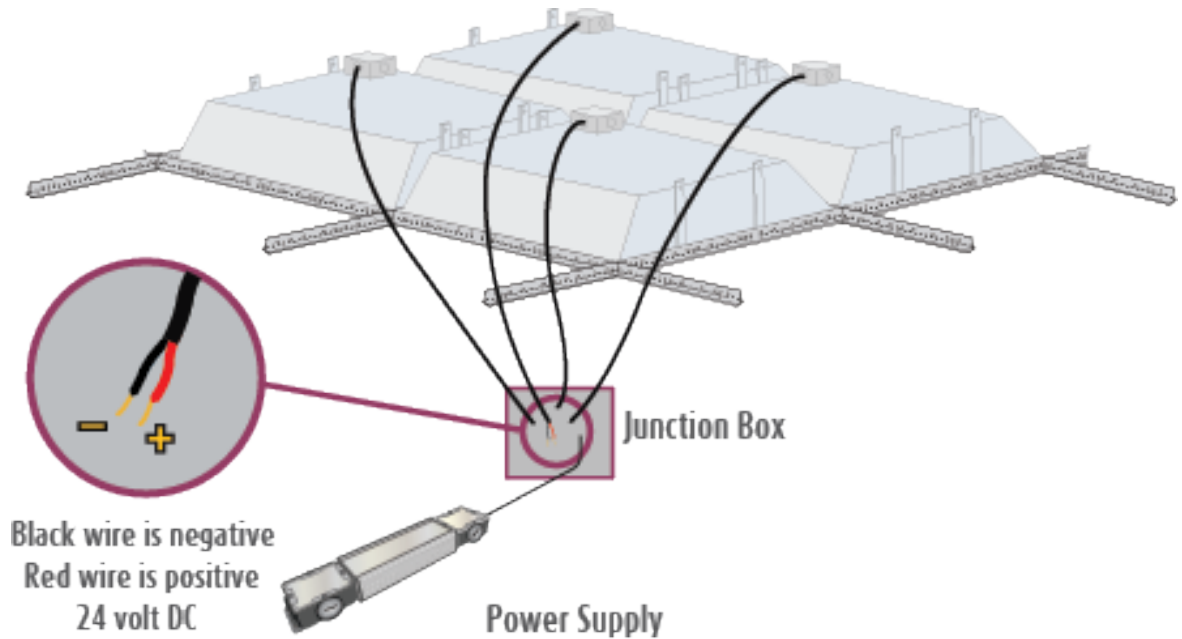


Classic w/ EcoPlus Electrical Instructions (HLG)



Installation Instructions includes:

Classic w/ EcoPlus Electrical Instructions (HLG)

Wiring Diagram EL001180 & 1391

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 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)

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

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

Classic w/ EcoPlus Electrical Requirements (cont'd):

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

Helvar TK4 140 sliding dimmer/switch (CE compliant)

Input: 220 - 240V AC

For dimming requirements, see page 6.

For dimmer wiring diagrams, see dimmer control (and relay where specified) and

EL001180 or EL001391

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.

Non-Dimmable and Dimmable Certification:

ES22 Series, ES24 Series, ES26 Series, ES33 Series, ES34 Series, ES36 Series, ES44 Series, ES46 Series, ESCST Series, EP22 Series, EP24 Series, EP26 Series, EP33 Series, EP34 Series, EP36 Series, EP44 Series, EP46 and EPCST Series fixtures when used with 24PS HLG Power System UL, CSA and CE Listed by Intertek Group plc

Step 1: Wiring the EcoPlus fixtures to the power supply

See supporting drawing and chart on pages 7-9 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	23.6 x 23.6 x 5.63 (inches)	4.0 lb	23	0.96 A
EP24	23.75 x 47.75 x 5.85 (inches)	11.7 lb	47	1.96 A
EP22M	58.9 x 58.9 x 14.3 (cm)	1.8 kg	23	0.96 A
EP24M	59.4 x 119.4 x 14.86 (cm)	5.31 kg	47	1.96 A
EP22G	61.4 x 61.4 x 14.3 (cm)	2.1 kg	23	0.96 A
EP24G	61.9 x 124.4 x 14.86 (cm)	5.31 kg	47	1.96 A

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.

Step 1 continued

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+**

EcoPlus fixture black “-” to power supply **Vo-**

For power supply V DC wire size, see EL001180 or EL001391

HLG-480H-24B and HLG-600H-24B have two sets of output leads. Meanwell recommends loading no more than:

240 Watts on each set of cables for HLG-480H-24B

480 Watts on each set of cables for HLG-600H-24B

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**

Neutral to power supply **ACN**

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.

Step 4: Checking the polarity



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

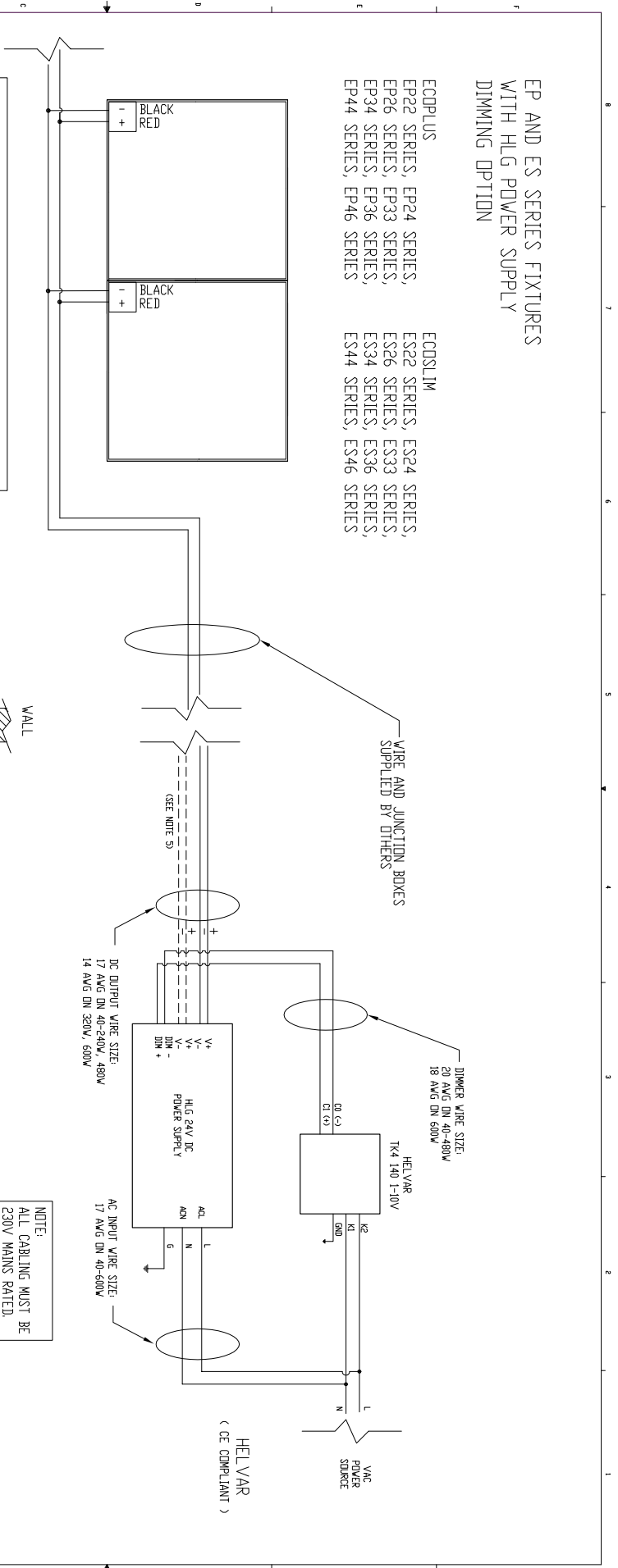
Red wires on the fixtures go to the “+” terminals of the power supply

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

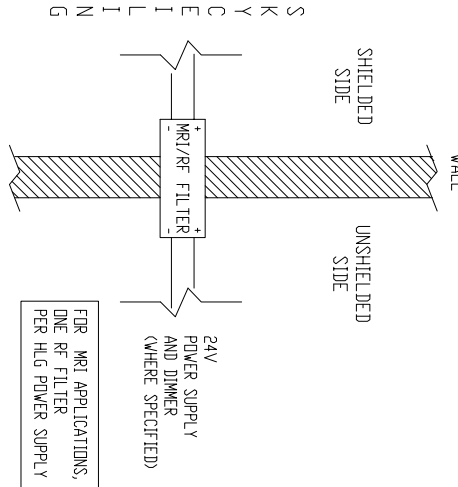
IF THE SYSTEM IS WIRED BACKWARD, IT WILL DESTROY THE LED'S!

EP AND ES SERIES FIXTURES WITH HLG POWER SUPPLY DIMMING OPTION

- | | |
|---|--|
| ECOPPLUS
EP22 SERIES, EP24 SERIES,
EP26 SERIES, EP33 SERIES,
EP34 SERIES, EP36 SERIES,
EP44 SERIES, EP46 SERIES | ECOSLIM
ES22 SERIES, ES24 SERIES,
ES26 SERIES, ES33 SERIES,
ES34 SERIES, ES36 SERIES,
ES44 SERIES, ES46 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.
 5. HLG-480H-24B AND HLG-600H-24B HAVE TWO SETS OF
OUTPUT LEADS. MEANWELL RECOMMENDS LOADING NO MORE THAN:
240 WATTS ON EACH SET OF CABLES FOR HLG-480H-24B
480 WATTS ON EACH SET OF CABLES FOR HLG-600H-24B
- NOTICE: DIMMING LISTING NON-APPROVED SYSTEMS
MAY PERMANENTLY DAMAGE LED'S AND WILL
VOID THE WARRANTY!**



Sky Factory	DATE: EL0013291	REV: B
PROJECT: HLG DIMMING SYSTEM	TITLE: DIMMING OPTION	DATE: 04/24/2020
DESIGNED BY: [Name]	DRAWN BY: [Name]	CHECKED BY: [Name]
SCALE: 1/8" = 1'-0"	SHEET NO: 3	TOTAL SHEETS: 3

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