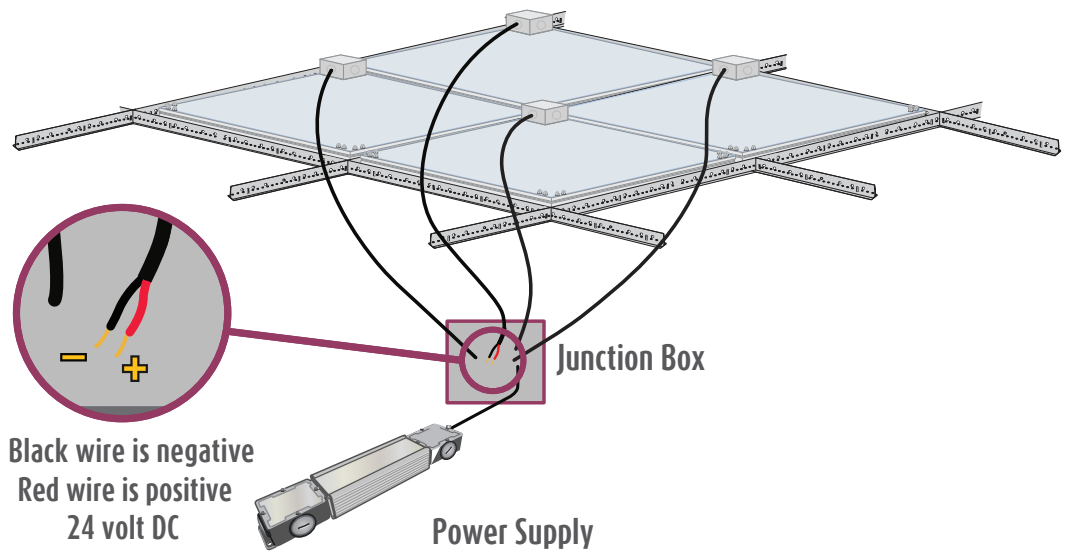


Classic w/ EcoSlim Electrical Instructions (HLG)



Installation Instruction includes:

Classic w/ EcoSlim Electrical Instructions (HLG)

Wiring Diagram EL001180 & EL001391

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/ EcoSlim Electrical Requirements:

ES22 Series: ES22 (2' x 2'), ES22M (60cm x 60cm), ES22G (62.5cm x 62.5cm)

ES24 Series: ES24 (2' x 4'), ES24M (60cm x 120cm), ES24G (62.5cm x 125cm)

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

All EcoSlim fixtures are 24V DC only.

EcoSlim 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/ EcoSlim 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 Series, EPCST Series fixtures when used with 24PS HLG Power System UL, CSA and CE Listed by Intertek Group plc

Step 1: Wiring the EcoSlim fixtures to the power supply

See supporting drawing and chart on pages 7-9 and installation specific wiring diagram (where applicable)

EcoSlim Lighting System - ES22 and ES24				
TSF Model No.	Dimensions: WxLxH	Weight	System Wattage (Max)	Input Current @ 24 Volts DC
ES22	23.75 x 23.75 x 3.72 (inches)	10.5 lb	24.5	1.02 A
ES24	23.75 x 47.75 x 3.72 (inches)	19.7 lb	36.7	1.53 A
ES22M	59.4 x 59.4 x 9.45 (cm)	4.76 kg	24.5	1.02 A
ES24M	59.4 x 119.4 x 9.45 (cm)	8.94 kg	36.7	1.53 A
ES22G	61.9 x 61.9 x 9.45 (cm)	4.76 kg	24.5	1.02 A
ES24G	61.9 x 124.4 x 9.45 (cm)	8.94 kg	36.7	1.53 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 (-):

EcoSlim fixture red “+” to power supply **Vo+**

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

For power supply V DC wire size, see EL001180

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

Load 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 or power supply 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 or EL001391

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

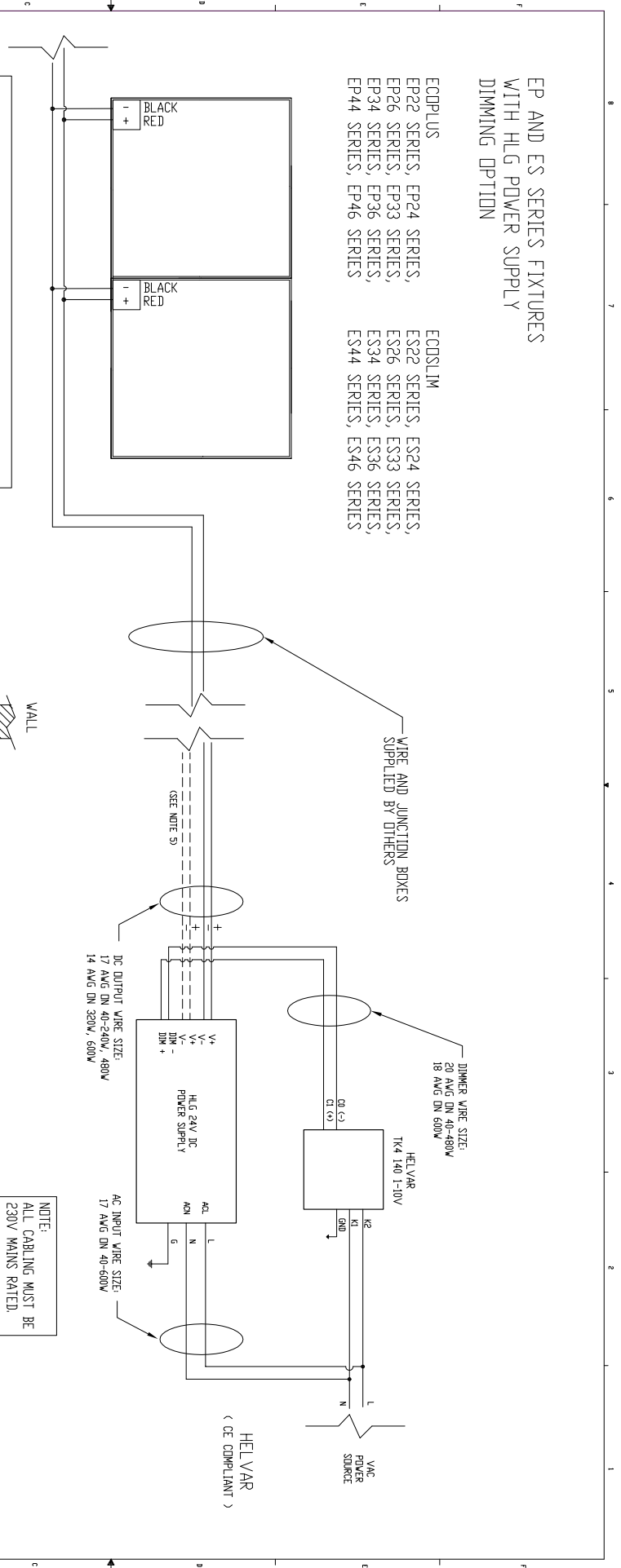
Black wires on the fixtures go to the "-" terminals of the power supply

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

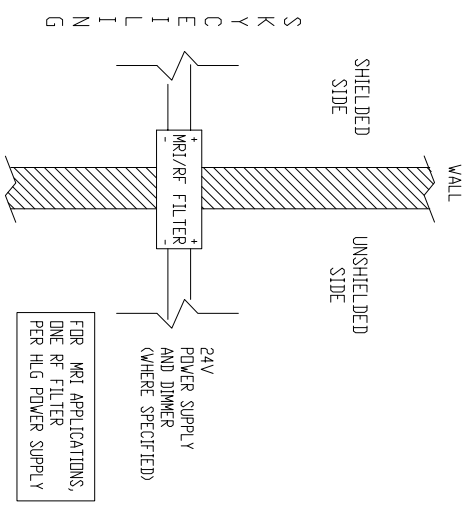
EP AND ES SERIES FIXTURES
WITH HLG POWER SUPPLY
DIMMING OPTION

ECOPULS
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 **DNLY**.
 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 **DNLY**!
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 USING NON-APPROVED SYSTEMS
MAY PERMANENTLY DAMAGE LEDS AND WILL
VOID THE WARRANTY!



Sky Factory		DATE: 01/01/2024	REV: 01
PROJECT: VHS 24V HLG DIMMING SYSTEM		ISSUE NO: 001	DATE: 02/14/2023
TITLE: WIRING DIAGRAM		SCALE: 1/8" = 1'-0"	SHEET 1 OF 1
DRAWN BY: [Name]		CHECKED BY: [Name]	APPROVED BY: [Name]

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