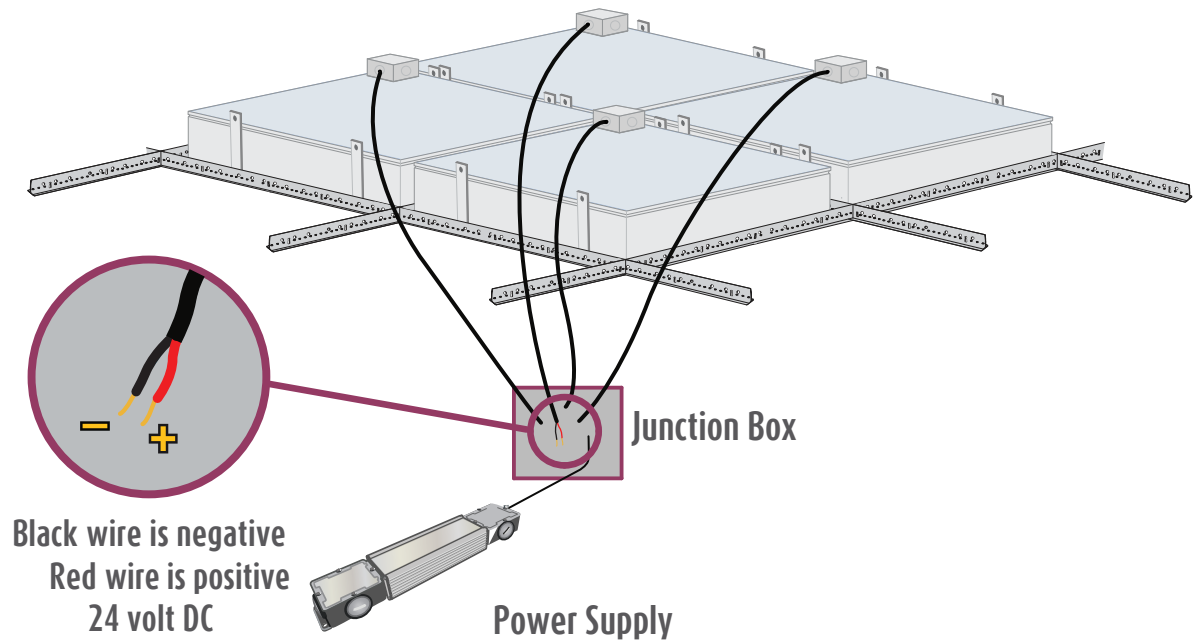


Custom EcoPlus Electrical Instructions (HLG)



Installation Instructions includes:

Custom EcoPlus Electrical Instructions (HLG)

EL001249

Wire Sizing Chart

Electrical Layout EL1 & EL2

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.

Custom EcoPlus electrical requirements:

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.

Sky Factory provided external dimmable HLG power supply:

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

Output 24V DC

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

Maximum Watts (useable) per power supply: 600 Watts

Available sizes: 40W, 60W, 80W, 100W, 120W, 150W, 185W, 240W, 320W, 480W, 600W

For power supply wire sizes, see EL001249

Power supply must have 2" clearance for air flow. Wall mount recommended.

Power supply must be mounted in dry locations.

Surface mountable

For installation specific number of power supplies and number of fixtures per power supply, see

Electrical Layout EL1 & EL2

For EcoPlus with HLG power supply general wiring diagram, see

EL001249

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

Custom 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

For dimming requirements, see page 4.

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

EL001249

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.

Step 1: Wiring the EcoPlus fixtures to the power supply

See also drawings and charts on pages 6-7 and Electrical Layout EL1 & EL2



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 supply and may be arranged in rows or clusters, depending on installation.

For installation specific number of fixtures per power supply, see Electrical Layout EL2

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.
- NOTE: Where a fixture has multiple junction boxes, each junction box will be included in a separate circuit.

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 sizes, see EL001249

Wire and additional junction boxes from fixtures to power supply supplied 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 power supply. For power supply V AC wire size, see EL001249

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 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 EL001249

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

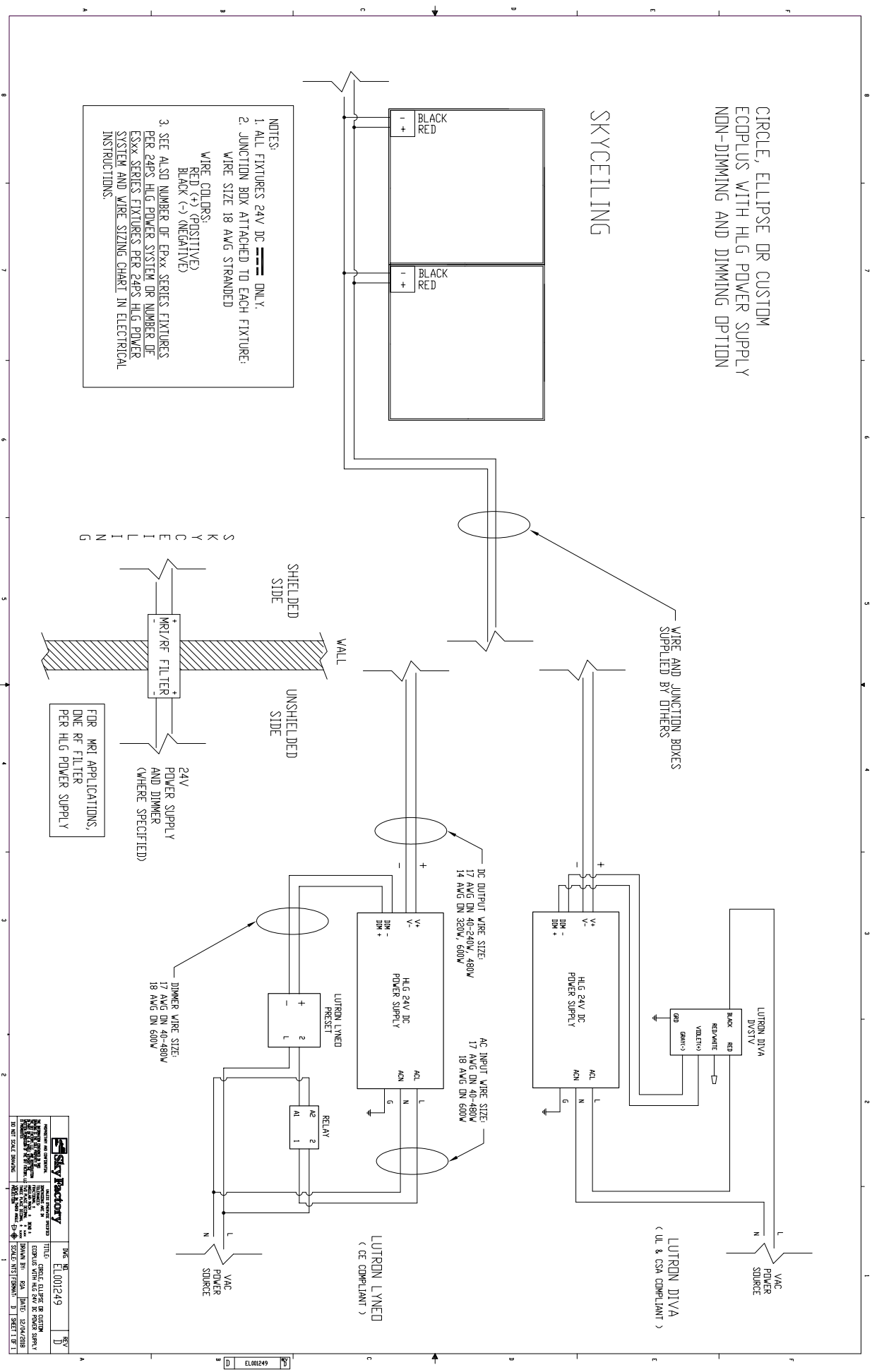
Black wires on the fixtures go to the “-” terminals of the power supply

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

CIRCLE, ELLIPSE OR CUSTOM
 ECPLUS WITH HLG POWER SUPPLY
 NON-DIMMING AND DIMMING OPTION

SKYCEILING

- 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 NUMBER OF EPXX SERIES FIXTURES
 PER 24PS HLG POWER SYSTEM OR NUMBER OF
 EPXX SERIES FIXTURES PER 24PS HLG POWER
 SYSTEM AND WIRE SIZING CHART IN ELECTRICAL
 INSTRUCTIONS.



Sky Factory	
NUMBER OF SHEETS: 1 SHEET NO.: 1 PROJECT NO.: EL001249 TITLE: CHASE ELLIPSE OR CUSTOM ECPLUS WITH HLG POWER SUPPLY NON-DIMMING AND DIMMING OPTION	DATE: 01/11/2023 DRAWN BY: EAM CHECKED BY: JDF SCALE: NOT SHOWN 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