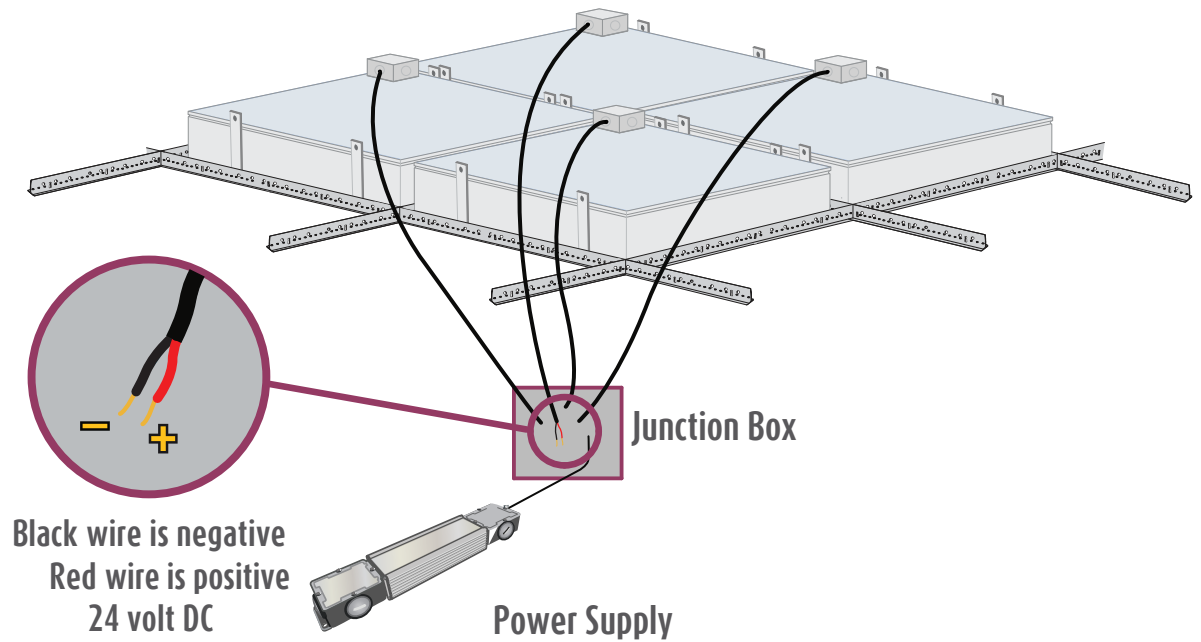


Custom EcoPlus Electrical Instructions (HLG)



Installation Instructions includes:

Custom EcoPlus Electrical Instructions (HLG)

Wiring Diagrams EL001448 & EL001451

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 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

AC input wire sizes: 17 AWG on 40-600W

DC output wire sizes: 17 AWG on 40-240W,480W; 14 AWG on 320W,600W

Dimmer wire sizes: 20 AWG on 40-480W; 18 AWG on 600W

Power supply must have 2" clearance for air flow. A 4-6" (10-15cm) clearance must be kept
when the adjacent device is a heat source

Power supply must be mounted in dry locations. Wall mount recommended.

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 diagrams, see

wiring diagrams included

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

Custom EcoPlus electrical requirements (cont'd):

Sky Factory provided dimmer control (where specified):

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

Input: auto-ranging 120 - 277V AC

Mounts in standard single-gang electrical box

White standard, other colors available on request

Lutron Diva DDTV 0 - 10V dimmer/switch and PP-DV power pack (UL & CSA compliant)

Input: auto-ranging 120 - 277V AC

Lutron Diva mounts in standard single-gang electrical box

White standard, other colors available on request

Jung 240-10 dimmer/switch and external relay where specified (CE compliant)

Input: 230 - 240V AC

Installs in appliance box to DIN 49073

For dimming requirements, see page 4

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

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, EP55 Series 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 also wiring diagrams 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 (-).
- Some fixture junction boxes have two sets of leads. When making connections, leads are wired together red (+) to red (+) and black (-) to black (-) unless otherwise specified.
- Where fixtures have multiple junction boxes, see fixture and/or installation specific wiring diagram(s) included.
- 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+**

EcoPlus fixture black "- " to power supply **Vo-**

For power supply V DC wire sizes, see EL001249

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 supplied by others.

Wire gauge must conform to local and national codes. Voltage drop of no more than 3% is recommended.

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 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:

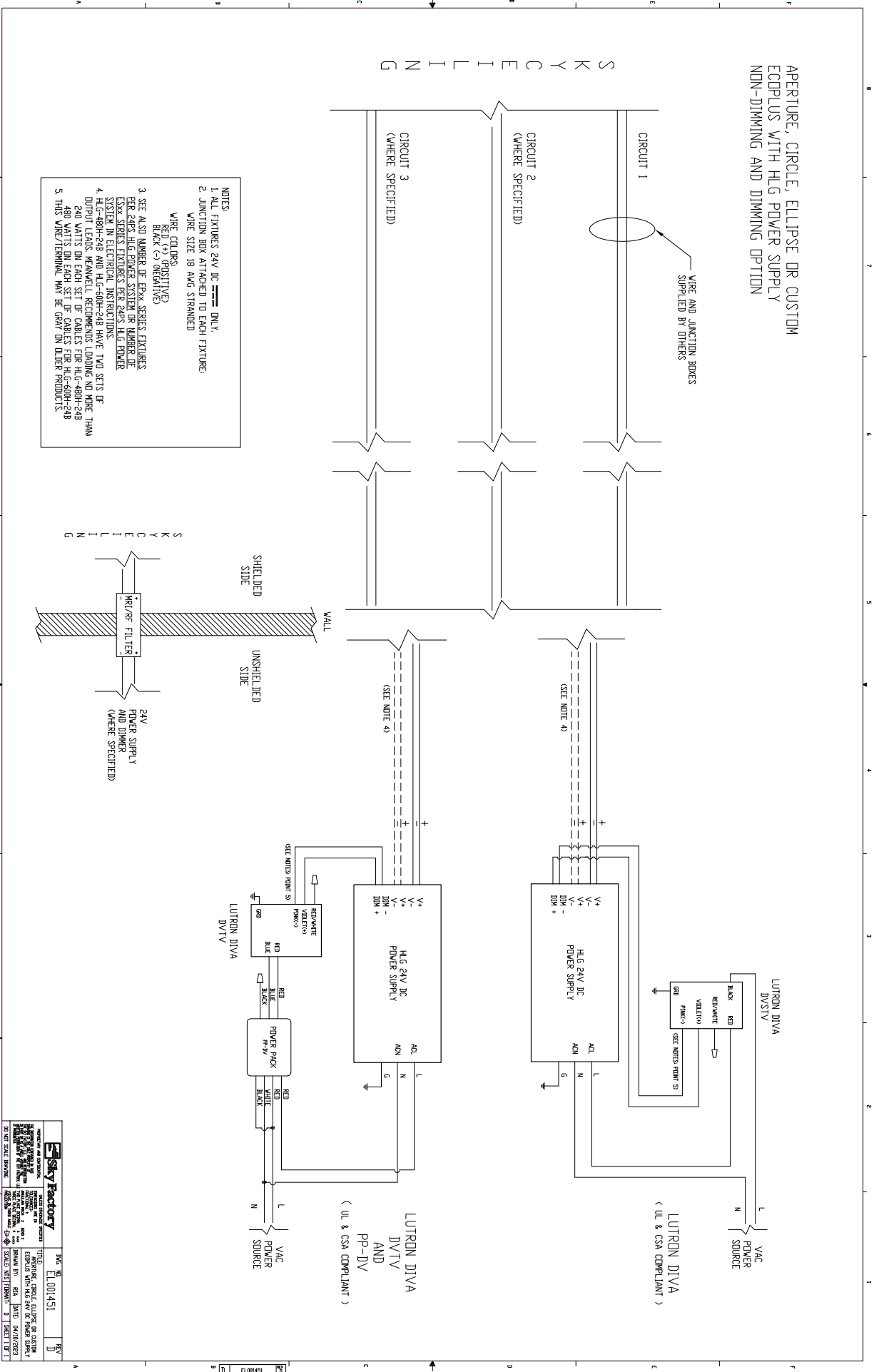
Red wires on the fixtures go to the “+” terminals of the power supply

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

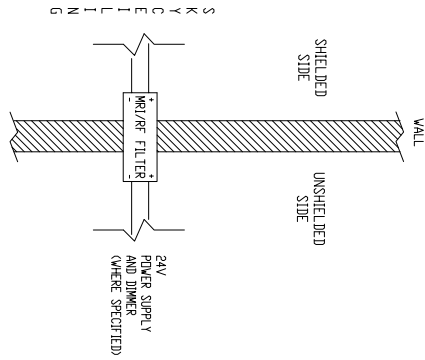
IF THE SYSTEM IS WIRED BACKWARD, IT WILL DESTROY THE LED'S!

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

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
- NOTES:
1. ALL FIXTURES 24V DC ONLY, JUNCTION BOX ATTACHED TO EACH FIXTURE; WIRE SIZE 18 AWG STRANDED
 2. WIRE COLORS:
 RED (+) POSITIVE
 BLACK (-) NEGATIVE
 3. SEE ALSO NUMBER OF EXXX SERIES FIXTURES PER 24PS. HLG POWER SYSTEM OR NUMBER OF EXXX SERIES FIXTURES PER 24PS. HLG POWER SYSTEM IN ELECTRICAL INSTRUCTIONS.
 4. HLG-480H-248 AND HLG-600H-248 HAVE TWO SETS OF OUTPUT LEADS. MEANWELL RECOMMENDS LOADING NO MORE THAN 240 WATTS ON EACH SET OF CABLES FOR HLG-480H-248 AND 480 WATTS ON EACH SET OF CABLES FOR HLG-600H-248. THIS WIRE/TERMINAL MAY BE GRAY ON OLDER PRODUCTS.

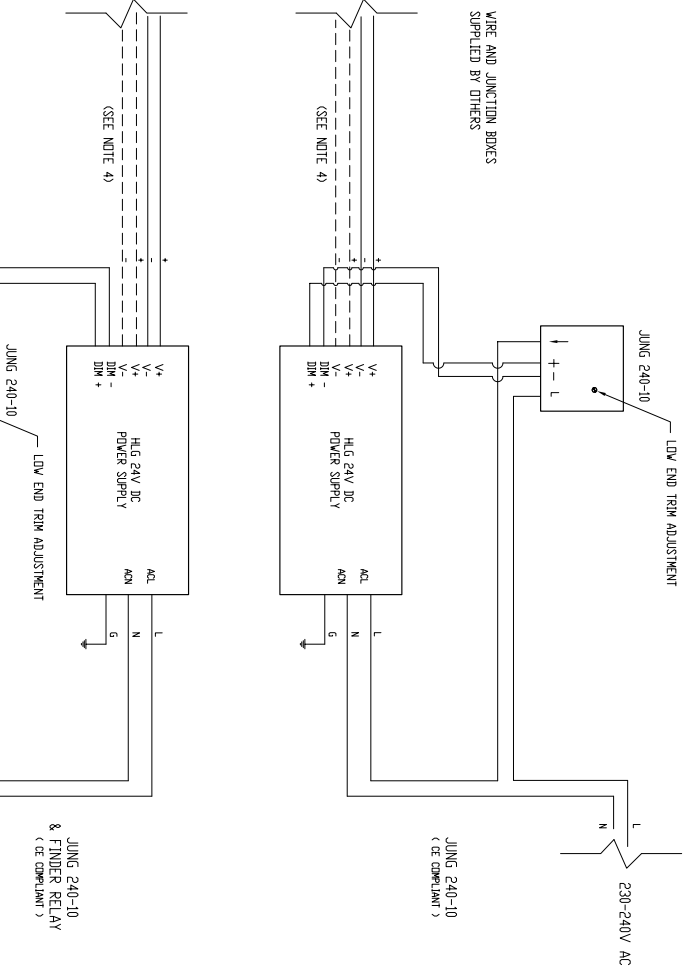
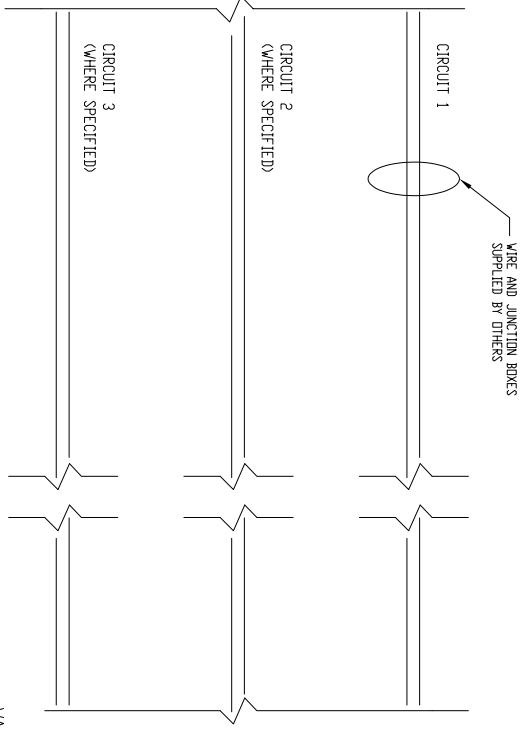
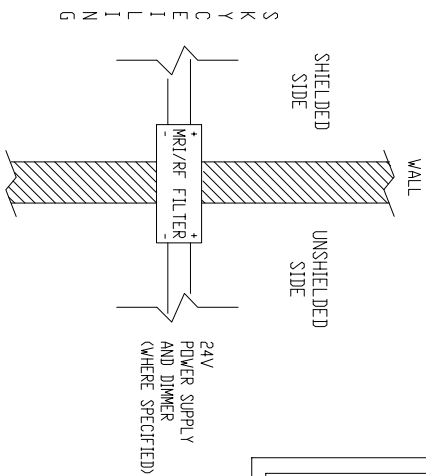


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PROJECT: SKY YCEILING DRAWING NO. E.00451 DATE: 04/20/2023 SCALE: NOT SHOWN		TITLE: APERTURE, CIRCLE, ELLIPSE OR CUSTOM ECOPUS WITH HLG POWER SUPPLY NON-DIMMING AND DIMMING OPTION		SHEET NO. 1 OF 1	

APERTURE, CIRCLE, ELLIPSE OR CUSTOM
 ECPL3 WITH HLG POWER SUPPLY
 NON-DIMMING AND DIMMING OPTION

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 WIRE SIZE 18 AWG STRANDED
- WIRE COLORS:
 RED (+) (POSITIVE)
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 480 WATTS ON EACH SET OF CABLES FOR HLG-600H-24B



Sky Factory	
SKY FACTORY 10000 WILSON AVENUE SUITE 100 BOSTON, MA 02124 TEL: 617-252-1000 FAX: 617-252-1001 WWW.SKYFACTORY.COM	TITLE: ELO01448 DATE: 04/01/2023 REVISION: 1 DRAWN BY: RJA CHECKED BY: J. BRETHERTON SCALE: NOT SHOWN