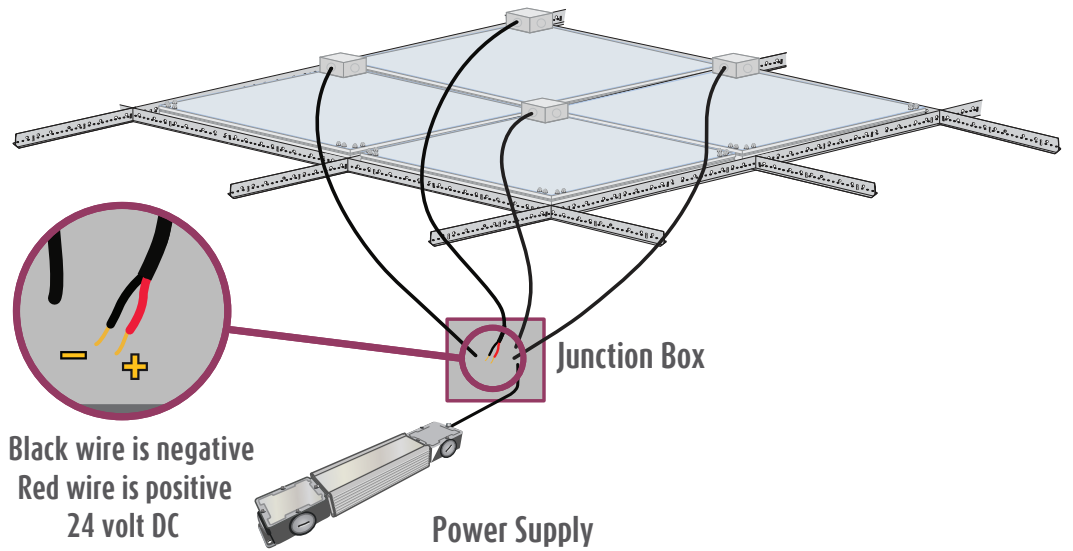




## Classic w/ EcoSlim Electrical Instructions (HLG)



### Installation Instruction includes:

Classic w/ EcoSlim Electrical Instructions (HLG)

Wiring Diagrams EL001391, EL001428 & EL001453

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

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. Wall mount recommended.

Power supply must be mounted in dry locations.

Surface mountable

## Classic w/ EcoSlim 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 DVTV 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

Helvar TK4 140 dimmer/switch (CE compliant)

Input: 220 - 240V AC

Mounts in standard UK or DIN back box

For dimming requirements, see page 6

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 and 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 drawings 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 wiring diagrams included

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.

Wire gauge must conform to local and national codes. Voltage drop of no more than 2% is recommended.

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

Run power to V AC side of the power supply.

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 dimmer control (and external relay where specified), refer to wiring diagram included with dimmer and relay and drawings attached

### 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

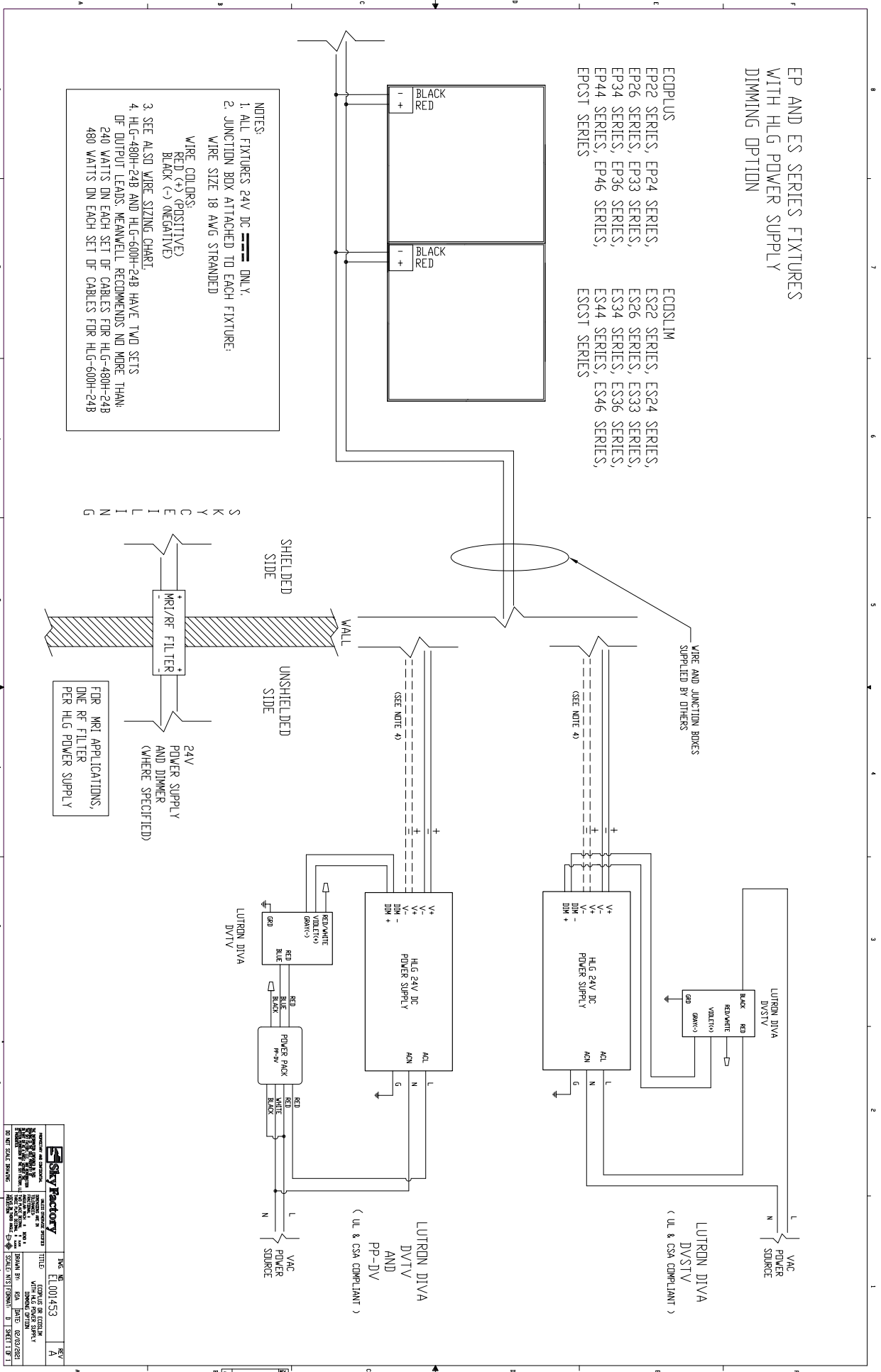
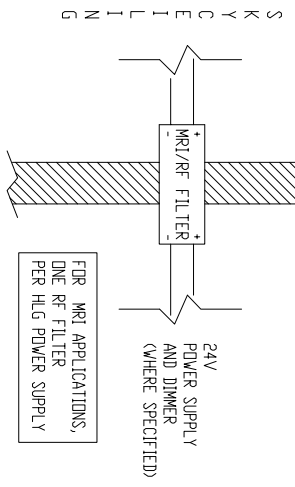
Black wires on the fixtures go to the "-" terminals of the power supply

**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,
  - EP5T SERIES
- ECOSLIM
- ES22 SERIES, ES24 SERIES,
  - ES26 SERIES, ES33 SERIES,
  - ES34 SERIES, ES36 SERIES,
  - ES44 SERIES, ES46 SERIES,
  - ES5T SERIES

- NOTES:
1. ALL FIXTURES 24V DC DIMLY.
  2. JUNCTION BOX ATTACHED TO EACH FIXTURE;  
WIRE SIZE 18 AWG STRANDED
  3. SEE ALSO WIRE SIZING CHART
  4. HLG-480H-24B AND HLG-600H-24B HAVE TWO SETS OF OUTPUT LEADS. MEANWELL RECOMMENDS 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 COLORS:  
RED (+) (POSITIVE)  
BLACK (-) (NEGATIVE)

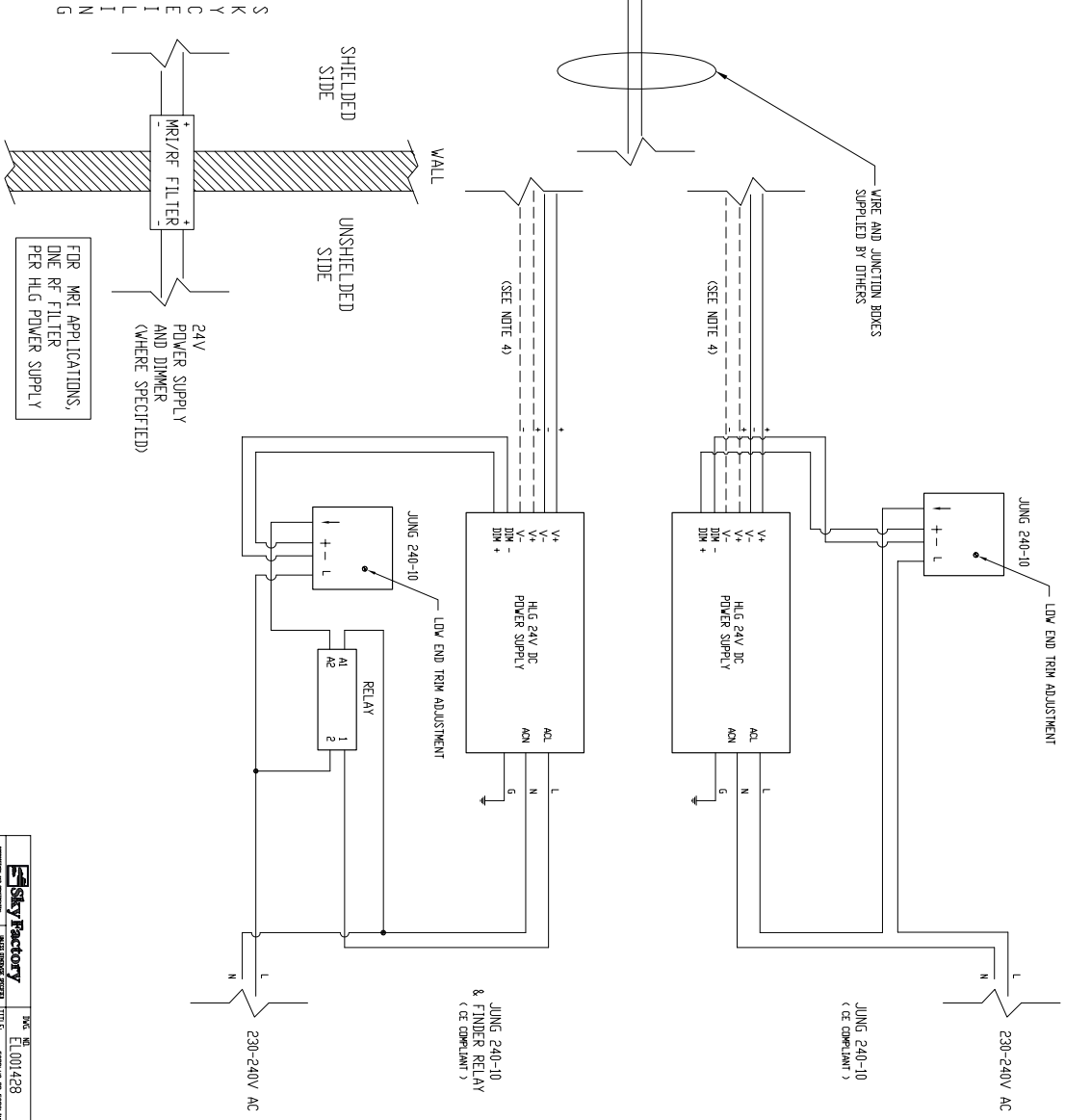


<b>SkyFactory</b>		DATE: 02/08/2021
MANUFACTURER OF DIMMERS		SCALE: NOT PERMANENT
LUTRON DIVA DIMMER		SHEET 1 OF 1
WITH HLG POWER SUPPLY		
TITLE: ECOPULS OR ECOSLIM		
PROJECT NO: E1.001453		
DRAWN BY: BVA		
CHECKED BY: BVA		
DATE: 02/08/2021		
SCALE: NOT PERMANENT		
SHEET 1 OF 1		

EP AND ES SERIES FIXTURES  
WITH HLG POWER SUPPLY  
DIMMING OPTION

- ECOPLUS  
EP22 SERIES, EP24 SERIES,  
EP26 SERIES, EP33 SERIES,  
EP34 SERIES, EP36 SERIES,  
EP44 SERIES, EP46 SERIES,  
EPCST SERIES
- ECOSLIM  
ES22 SERIES, ES24 SERIES,  
ES26 SERIES, ES33 SERIES,  
ES34 SERIES, ES36 SERIES,  
ES44 SERIES, ES46 SERIES,  
ESCST SERIES

- NOTES:  
1. ALL FIXTURES 24V DC DNL.Y.  
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. HLG-480H-24B AND HLG-600H-24B HAVE TWO SETS  
OF OUTPUT LEADS. MEANWELL RECOMMENDS 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



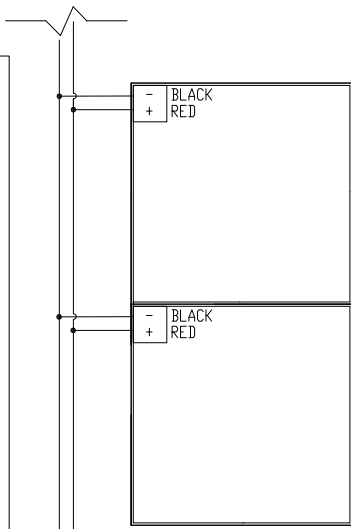
<b>Sky Factory</b>	NO. E1001428	REV. B
WIRING DIAGRAM FOR EP AND ES SERIES FIXTURES WITH HLG POWER SUPPLY AND DIMMING OPTION	DATE: 01/15/2024	BY: [Signature]
PROJECT: [Project Name]	SCALE: [Scale]	SHEET: [Sheet No.]



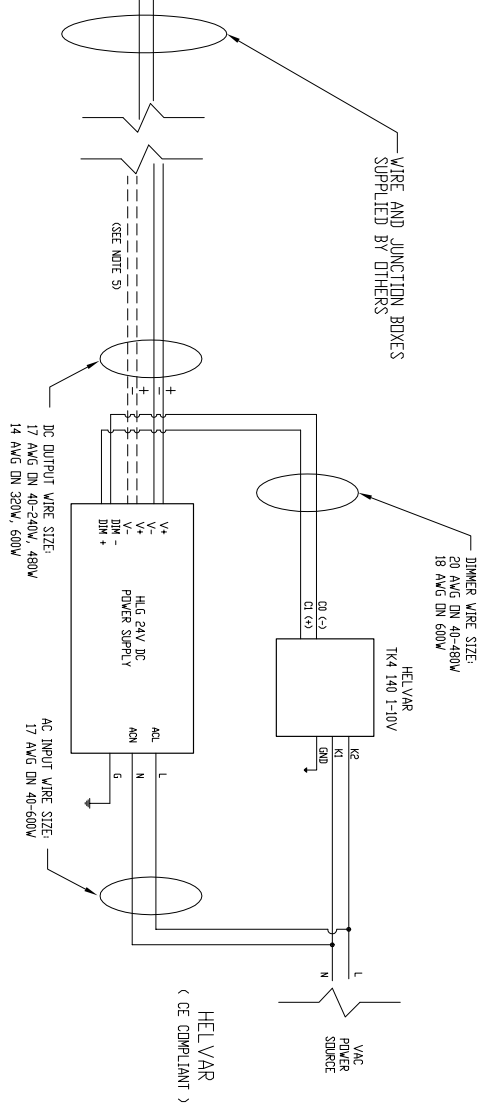
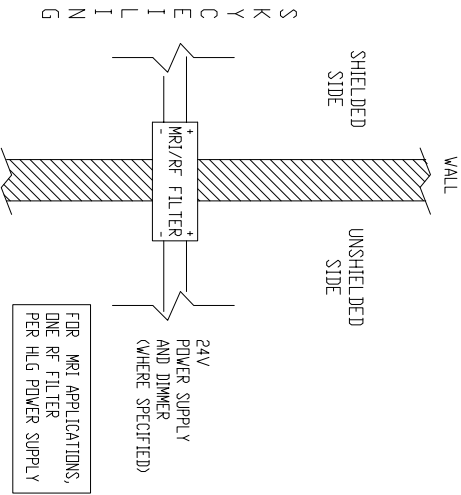
EP AND ES SERIES FIXTURES  
WITH HLG POWER SUPPLY  
DIMMING OPTION

ECOPUS  
EP22 SERIES, EP24 SERIES,  
EP26 SERIES, EP33 SERIES,  
EP34 SERIES, EP36 SERIES,  
EP44 SERIES, EP46 SERIES,  
EPCST SERIES

ECOSLIM  
ES22 SERIES, ES24 SERIES,  
ES26 SERIES, ES33 SERIES,  
ES34 SERIES, ES36 SERIES,  
ES44 SERIES, ES46 SERIES,  
ESCST SERIES



- NOTES:
1. ALL FIXTURES 24V DC
  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 USING NON-APPROVED SYSTEMS  
MAY PERMANENTLY DAMAGE LEDS AND WILL  
VOID THE WARRANTY!



NOTE:  
ALL CABLING MUST BE  
230V MAINS RATED.

<b>Sky Factory</b>	
PROJECT NO. ELO01391	REV. C
TITLE: CONTROL OF LIGHTS WITH 24V HLG POWER SYSTEM	
DRAWN BY: SSK NAME: DATE: 02/09/2021	
SCALE: DISTRIBUTION: 3 SHEET OF 1	