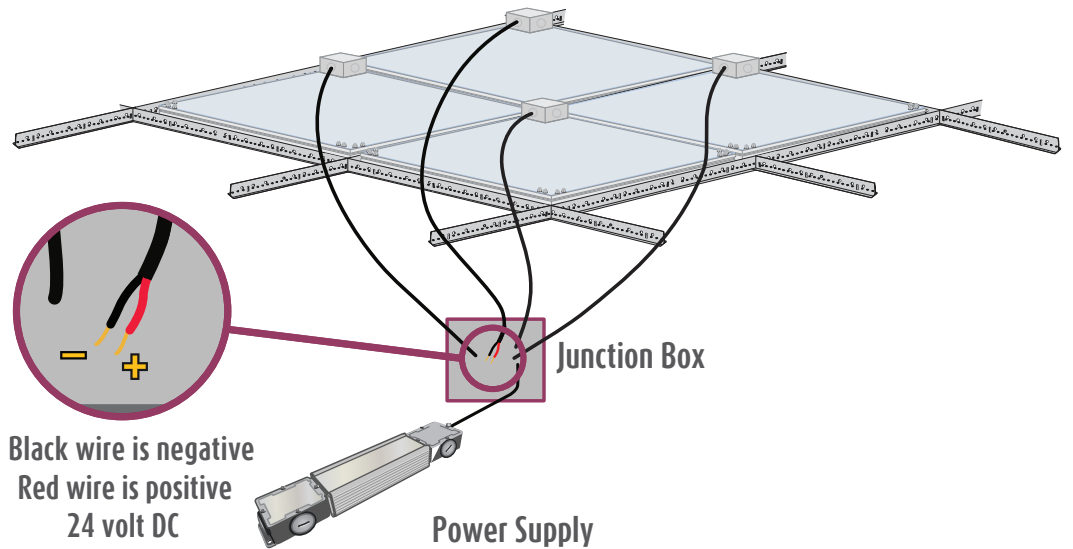




Classic w/ EcoSlim Electrical Instructions (HLG)



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. 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

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 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 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 (-).
- Where fixtures have multiple junction boxes, see installation specific wiring diagram included.
- 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 3% 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

NOTE: For all single fixture ES22 installations, dimmer control is factory set for optimal dimming.

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

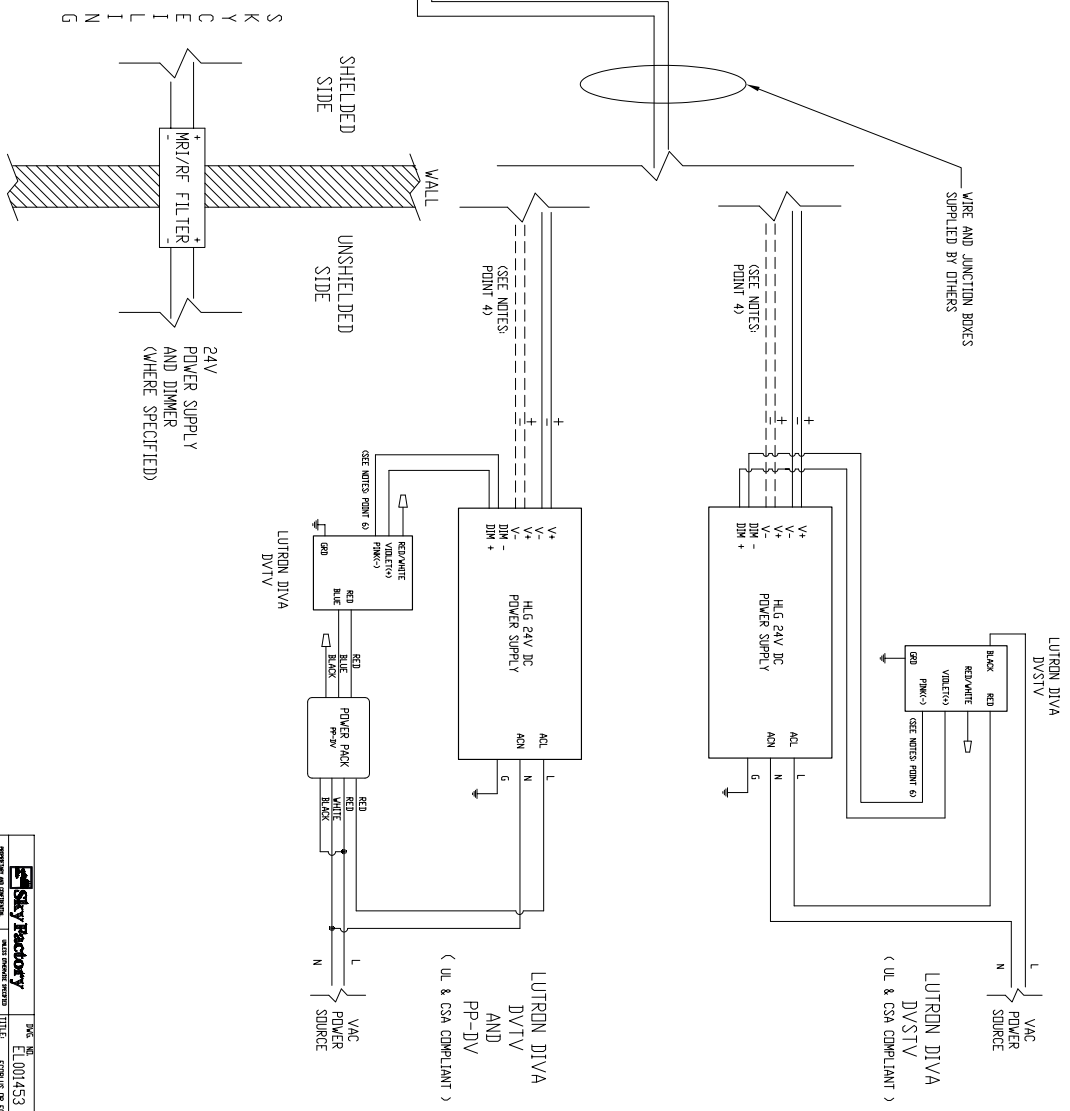
Black wires on the fixtures go to the "-" terminals of the power supply

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,
EP55 SERIES, EPCST SERIES
- ECOSLIM**
ES22 SERIES, ES24 SERIES,
ES26 SERIES, ES33 SERIES,
ES34 SERIES, ES36 SERIES,
ES44 SERIES, ES46 SERIES,
ES55 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. EP36-44-46-55 AND ES36-44-46 HAVE TWO SETS OF LEADS
ALWAYS CONNECT RED (+) TO RED (+) AND BLACK (-)
TO BLACK (-)
4. HLG-490H-248 AND HLG-600H-248 HAVE TWO SETS
OF OUTPUT LEADS. MANNWELL RECOMMENDS NO MORE THAN
240 WATTS ON EACH SET OF CABLES FOR HLG-490H-248
480 WATTS ON EACH SET OF CABLES FOR HLG-600H-248
5. FOR ALL SINGLE FIXTURE EP22 AND ES22 INSTALLATIONS,
DIMMER CONTROL IS FACTORY SET FOR DIMMABLE DIMMING.
6. THIS WIRE/TERMINAL MAY BE GRAY ON OLDER PRODUCTS.

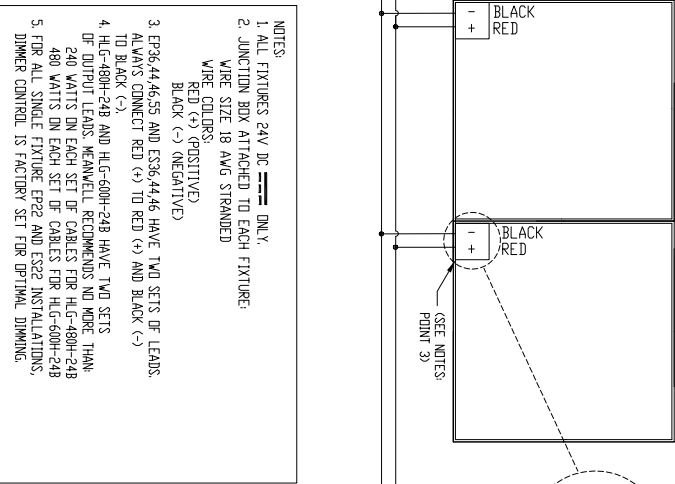


Sky Factory
WIRE BONDING
ELECTRICAL CONNECTIONS
FOR THE SKY FACTORY
PROJECT
DATE: 04/25/2024
SHEET 8 OF 11

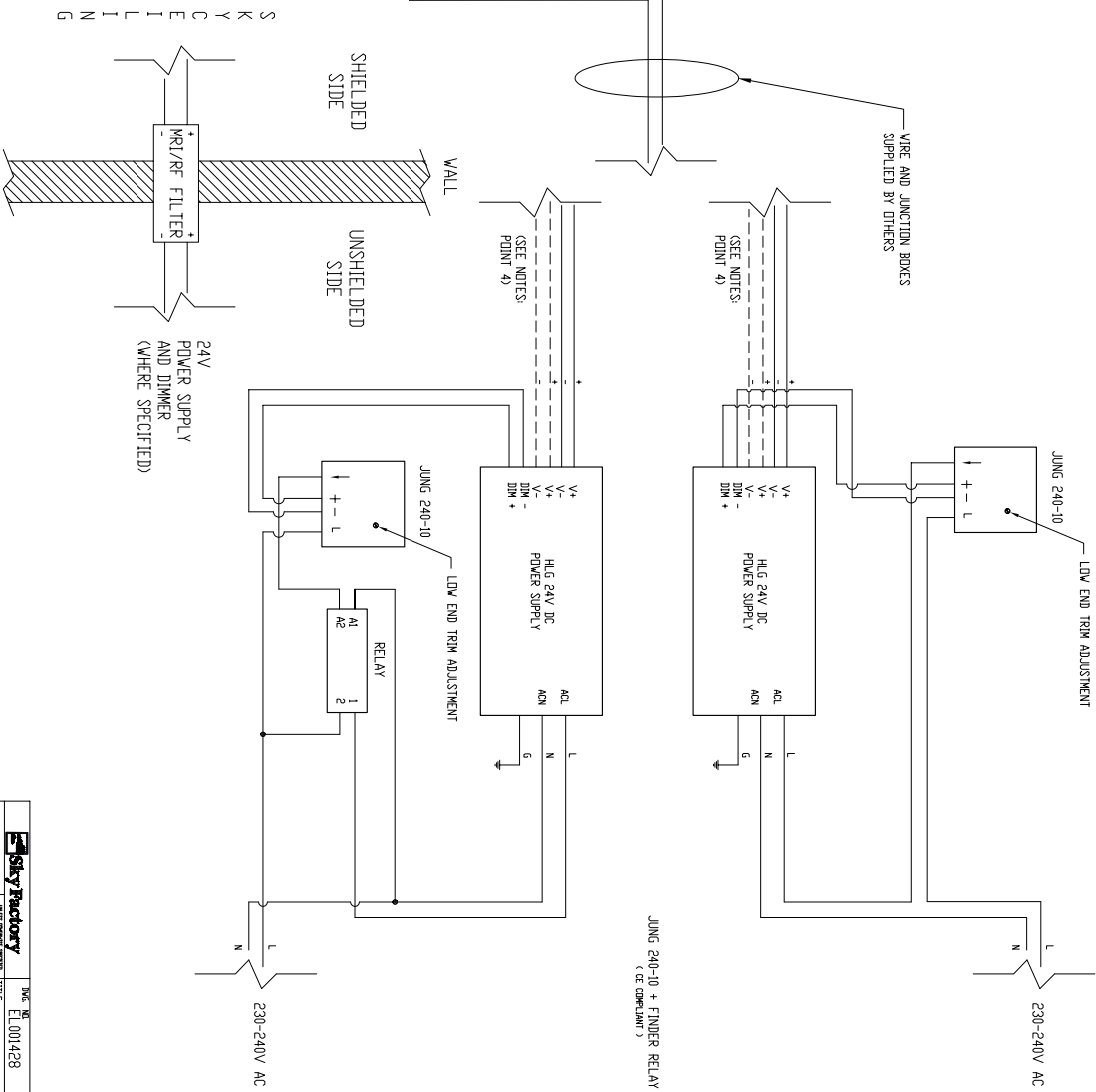
DATE: 04/25/2024
SHEET 8 OF 11

EP AND ES SERIES FIXTURES WITH HLG POWER SUPPLY DIMMING OPTION

- ECODPLUS**
- EP22 SERIES, EP24 SERIES,
 - EP26 SERIES, EP33 SERIES,
 - EP34 SERIES, EP36 SERIES,
 - EP44 SERIES, EP46 SERIES,
 - EP55 SERIES, EP5T SERIES
- ECOSLIM**
- ES22 SERIES, ES24 SERIES,
 - ES26 SERIES, ES33 SERIES,
 - ES34 SERIES, ES36 SERIES,
 - ES44 SERIES, ES46 SERIES,
 - ES5T SERIES



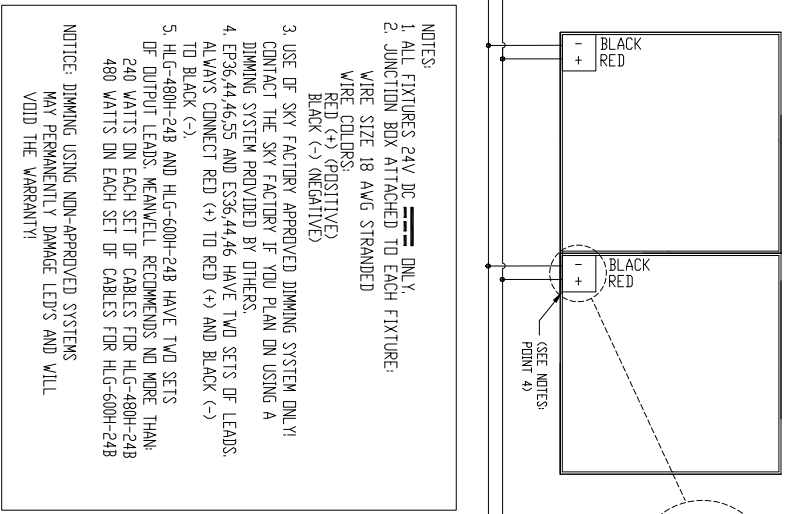
- NOTES:**
1. ALL FIXTURES 24V DC **=====** ONLY.
 2. JUNCTION BOX ATTACHED TO EACH FIXTURE:
WIRE SIZE 18 AWG STRANDED
WIRE COLORS:
RED (+) POSITIVE
BLACK (-) NEGATIVE
 3. EP36,44,46,55 AND ES36,44,46 HAVE TWO SETS OF LEADS.
ALWAYS CONNECT RED (+) TO RED (+) AND BLACK (-) TO BLACK (-)
 4. HLG-480H-248 AND HLG-600H-248 HAVE TWO SETS OF OUTPUT LEADS. MEANWELL RECOMMENDS 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
 5. FOR ALL SINGLE FIXTURE EP22 AND ES22 INSTALLATIONS, DIMMER CONTROL IS FACTORY SET FOR OPTIMAL DIMMING.



Sky Factory		TITLE	REV						
230-240V AC		EL001428	1						
<p>REVISIONS</p> <table border="1"> <tr> <th>NO.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td>1</td> <td>08/20/2024</td> <td>ISSUE</td> </tr> </table>				NO.	DATE	DESCRIPTION	1	08/20/2024	ISSUE
NO.	DATE	DESCRIPTION							
1	08/20/2024	ISSUE							
<p>PROJECT: 230-240V AC</p> <p>DATE: 08/20/2024</p> <p>SCALE: 1/8"=1'</p> <p>SHEET NO. 1</p> <p>SHEET OF 1</p>		<p>DESIGNED BY: [Name]</p> <p>CHECKED BY: [Name]</p> <p>APPROVED BY: [Name]</p>							

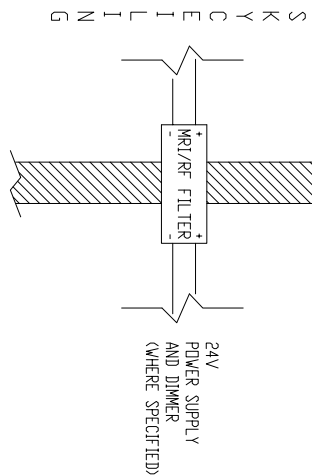
**EP AND ES SERIES FIXTURES
WITH HLG POWER SUPPLY
DIMMING OPTION**

- | | |
|---|--|
| ECOPUS | ECOSLIM |
| EP22 SERIES, EP24 SERIES,
EP26 SERIES, EP33 SERIES,
EP34 SERIES, EP36 SERIES,
EP44 SERIES, EP46 SERIES,
EP55 SERIES, EPCST SERIES | ES22 SERIES, ES24 SERIES,
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ESCST SERIES |

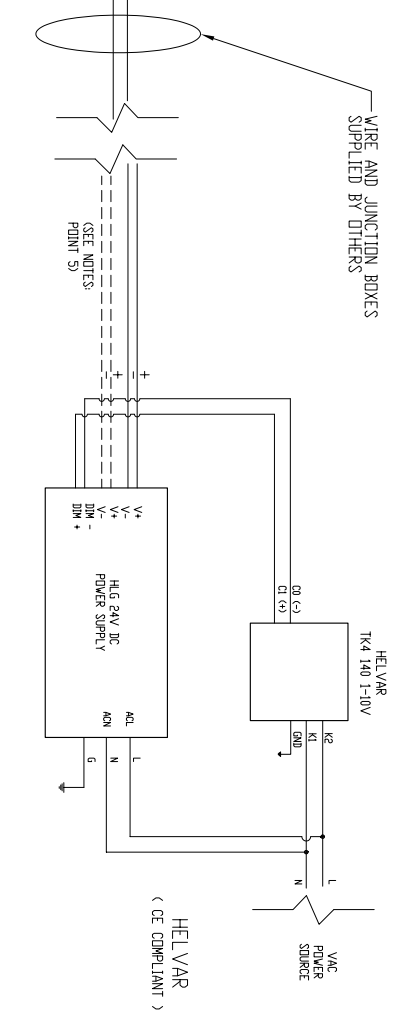


- NOTES:**
1. ALL FIXTURES 24V DC DIMLY, ONLY.
 2. JUNCTION BOX ATTACHED TO EACH FIXTURE:
WIRE SIZE 18 AWG STRANDED

3. USE OF SKY FACTORY APPROVED DIMMING SYSTEM ONLY!
CONTACT THE SKY FACTORY IF YOU PLAN ON USING A
DIMMING SYSTEM PROVIDED BY OTHERS.
 4. EP36,44,46,55 AND ES36,44,46 HAVE TWO SETS OF LEADS.
ALWAYS CONNECT RED (+) TO RED (+) AND BLACK (-)
TO BLACK (-).
 5. 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
- NOTICE: DIMMING USING NON-APPROVED SYSTEMS
MAY PERMANENTLY DAMAGE LED'S AND WILL
VOID THE WARRANTY!**



NOTE:
ALL CABLING MUST BE
230V MAINS RATED.



Sky Factory	REV. NO.	E1.001391	REV.	G
MANUFACTURER OF SKYFACTORY LED DIMMING SYSTEMS 10000 15th St. #100 San Diego, CA 92128 TEL: 619.576.8888 WWW.SKYFACTORY.COM	TITLE	CONNECT TO DIMMERS WITH 24V HLG POWER SYSTEM	ISSUED BY	DATE
SCALE: DISTRIBUTION 3	SHEET NO.	3	TOTAL SHEETS	3