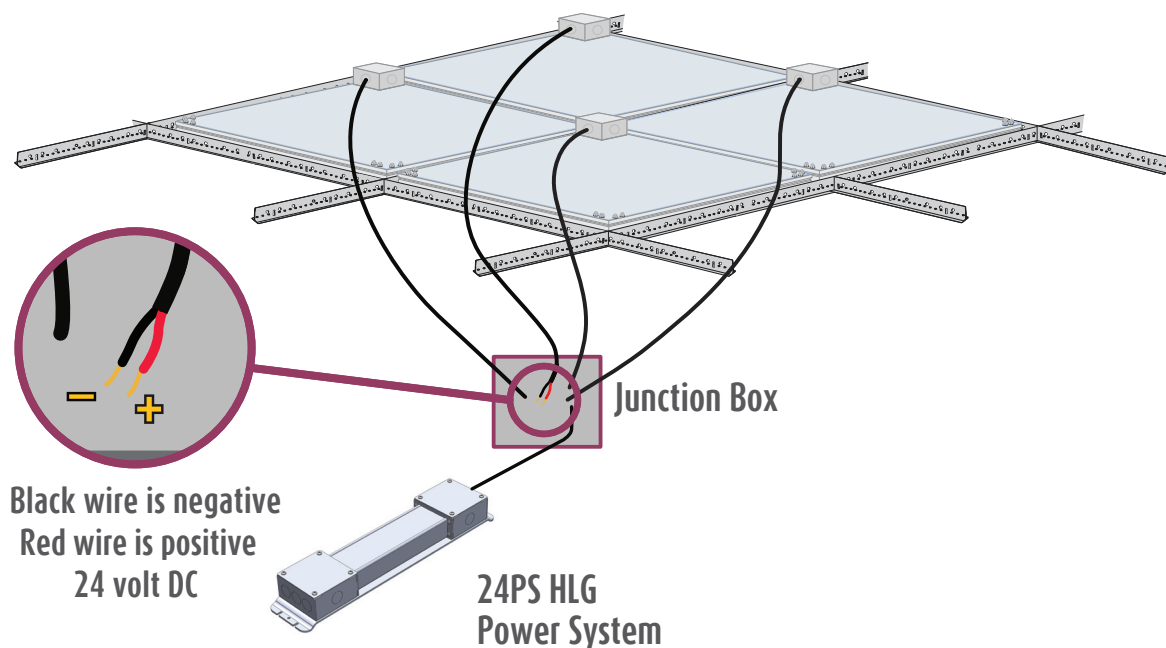




## Standard w/ EcoPlus Electrical Instructions (24PS HLG)



### Installation Packet Includes:

Standard w/ EcoPlus Electrical Instructions (24PS HLG)

Number of EP22 Series Fixtures per 24PS HLG Power System

Number of EP24 Series Fixtures per 24PS HLG Power System

Custom SkyCeiling wiring diagram (where applicable)

EcoPlus and EcoSlim Drawings and Charts (24PS HLG)

Wiring Diagrams EL001199, EL001200, EL001201, EL001202

Sky Factory 24PS HLG Power System Dimensions and Weights

Wire Sizing Chart

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.

## Standard w/ EcoPlus electrical requirements:

EP22 Series: EP22 (2' x 2'), EP22M (60cm x 60cm), EP22G (62.5cm x 62.5cm)

EP24 Series: EP24 (2' x 4'), EP24M (60cm x 120cm), EP24G (62.5cm x 125cm)

NOTE: For custom sizes, see Custom SkyCeiling wiring diagram (where applicable)

All EcoPlus fixtures are 24V DC only.

EcoPlus fixtures must be mounted in dry locations only.

EcoPlus fixtures must be powered by provided UL, CSA and CE Compliant 24PS HLG Power System

### Sky Factory 24PS HLG Power System:

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

Output: 24V DC

Maximum Watts (useable) per power system: 600 Watts

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

Up to three power systems per dimmer

Power System aluminum enclosure

Mounted on baseplate with junction box on input and output ends

For mounting dimensions and weights, see "EcoPlus and EcoSlim Drawings and Charts (24PS HLG)"

AC input and dimmer wire sizes: 18 AWG

DC output wire sizes: 18 AWG on 40-80W, 14 AWG on 100-600W

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

Power system must be mounted in dry locations.

Power system is specified for Sky Factory EcoSlim and EcoPlus fixtures only.

For number of fixtures per power system, see

Number of EPxx Series Fixtures per 24PS HLG Power System on pages 6-7

For EcoPlus with 24PS HLG Power System wiring diagrams, see

"EcoPlus and EcoSlim Drawings and Charts (24PS HLG)"

For installations with one or more custom sizes, see also

Custom SkyCeiling wiring diagram attached (where applicable)

RF filter, if used, is not provided by the Sky Factory. One filter per power system required.

## Standard w/ 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

Mounts in standard single-gang electrical box

White standard, other colors available on request

Lutron Lyneo preset 0 - 10V sliding dimmer/switch and external relay (CE compliant)

Input: 220 - 240V AC

Mounts in standard UK style single gang backbox. 35mm depth recommended.

For dimming requirements, see page 5.

For dimmer wiring diagrams, see dimmer control (and relay where specified) and "EcoPlus and EcoSlim Drawings and Charts (24PS HLG)".

*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, EP22 Series, EP24 Series, EP26 Series, EP33 Series, EP34 Series, EP36 Series, EP44 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 “EcoPlus and EcoSlim Drawings and Charts (24PS HLG)” and Custom SkyCeiling wiring diagram (where applicable)

EcoPlus Lighting System - EP22 and EP24 Series				
TSF Model No.	Dimensions: WxLxH	Weight	System Wattage (Max)	Input Current @ 24 Volts DC
EP22	23.75 x 23.75 x 5.85 (inches)	7.1 lb	23	0.96 A
EP24	23.75 x 47.75 x 5.85 (inches)	11.7 lb	47	1.96A
EP22M	59.4 x 59.4 x 14.86 (cm)	3.22 kg	23	0.96 A
EP24M	59.4 x 119.4 x 14.86 (cm)	5.31 kg	47	1.96A
EP22G	61.9 x 61.9 x 14.86 (cm)	3.22 kg	23	0.96 A
EP24G	61.9 x 124.4 x 14.86 (cm)	5.31 kg	47	1.96A

NOTE: For custom sizes, see also Custom SkyCeiling wiring diagram



**Notice:** The LED fixtures are 24V DC ONLY.

**AC voltage connected directly to the fixtures will destroy the lighting system.**

Fixtures may be arranged in rows or clusters, depending on the 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 (+) to (+) and black (-) to (-).
- Fixture wire size 18 AWG stranded.

Wiring from fixtures to V DC side of provided power system is polarized, positive (+) to positive (+) and negative (-) to negative (-):

EcoPlus fixture red “+” to power system **V+ (RED)**

EcoPlus fixture black “-” to power system **V- (BLACK)**

Power system V DC wire size 18 AWG on 40-80w, 14 AWG on 100-600w

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 in “EcoPlus and EcoSlim Drawings and Charts (24PS HLG)”

Wire gauge must conform to local and national codes.

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

Run power to V AC side of the power system. Power system V AC wire size 18 AWG.

Line to **ACL (BROWN)**

Neutral to **ACN (BLUE)**

Ground to  **(GREEN/YELLOW)**

Wire gauge must conform to local and national codes.

Install the power switch on the V AC input side of the power system.

## 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 "EcoPlus and EcoSlim Drawings and Charts (24PS HLG)".

## 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!**

## Number of EP22 Series Fixtures per 24PS HLG Power System

This table provides information for properly sizing a 24PS HLG power system  
given the number of fixtures in a given installation.

No. of Fixtures	Amperage [A]	Power [W]	24PS HLG Power System: 24V DC	Fixtures per Power System
1	0.96	23.0	Contact Sky Factory	Contact Sky Factory
2	1.92	46.1	60	2 per 60
3	2.88	69.1	80	3 per 80
4	3.84	92.2	120	4 per 120
5	4.8	115.2	150	5 per 150
6	5.76	138.2	150	6 per 150
7	6.72	161.3	185	7 per 185
8	7.68	184.3	240	8 per 240
9	8.64	207.4	240	9 per 240
10	9.6	230.4	240	10 per 240
11	10.56	253.4	320	11 per 320
12	11.52	276.5	320	12 per 320
13	12.48	299.5	320	13 per 320
14	13.44	322.6	185+185	7 per 185
15	14.4	345.6	185+185	7 per 185
16	15.36	368.6	240+240	8 per 240
17	16.32	391.7	Contact Sky Factory	Contact Sky Factory
18	17.28	414.7	240+240	9 per 240
19	18.24	437.8	Contact Sky Factory	Contact Sky Factory
20	19.2	460.8	600	20 per 600
21	20.16	483.8	600	21 per 600
22	21.12	506.9	600	22 per 600
23	22.08	529.9	600	23 per 600
24	23.04	553.0	600	24 per 600
25	24	576.0	600	25 per 600
26	24.96	599.0	320+320	13 per 320
27	25.92	622.1	240+240+240	9 per 240
28	26.88	645.1	240+600	8 per 240, 20 per 600
29	27.84	668.2	Contact Sky Factory	Contact Sky Factory
30	28.8	691.2	150+150+600	5 per 150, 20 per 600
31	29.76	714.2	Contact Sky Factory	Contact Sky Factory
32	30.72	737.3	Contact Sky Factory	Contact Sky Factory
33	31.68	760.3	150+240+600	5 per 150, 8 per 240, 20 per 600
34	32.64	783.4	Contact Sky Factory	Contact Sky Factory
35	33.6	806.4	240+600	10 per 240, 25 per 600
36	34.56	829.4	320+320+320	12 per 320
37	35.52	852.5	Contact Sky Factory	Contact Sky Factory
38	36.48	875.5	Contact Sky Factory	Contact Sky Factory
39	37.44	898.6	320+320+320	13 per 320
40	38.4	921.6	600+600	20 per 600
Please contact the Sky Factory for additional or custom configurations				

## Number of EP24 Series Fixtures per 24PS HLG Power System

This table provides information for properly sizing a 24PS HLG power system given the number of fixtures in a given installation.

No. of Fixtures	Amperage [A]	Power [W]	24PS HLG Power System: 24V DC	Fixtures per Power System
1	1.96	47.0	60	1 per 60
2	3.92	94.1	120	2 per 120
3	5.88	141.1	185	3 per 185
4	7.84	188.2	240	4 per 240
5	9.8	235.2	320	1 per 320
6	11.76	282.2	320	6 per 320
7	13.72	329.3	185+240	2 per 185, 4 per 240
8	15.68	376.3	240+240	4 per 240
9	17.64	423.4	185+185+185	3 per 185
10	19.6	470.4	600	10 per 600
11	21.56	517.4	600	11 per 600
12	23.52	564.5	320+320	6 per 320
13	25.48	611.5	Contact Sky Factory	Contact Sky Factory
14	27.44	658.6	240+600	4 per 240, 10 per 600
15	29.4	705.6	320+320+320	5 per 320
16	31.36	752.6	Contact Sky Factory	Contact Sky Factory
17	33.32	799.7	Contact Sky Factory	Contact Sky Factory
18	35.28	846.7	320+320+320	6 per 320
19	37.24	893.8	Contact Sky Factory	Contact Sky Factory
20	39.2	940.8	600+600	10 per 600
21	41.16	987.8	60+600+600	1 per 60, 10 per 600
22	43.12	1034.9	120+600+600	2 per 120, 10 per 600
23	45.08	1081.9	Contact Sky Factory	Contact Sky Factory
24	47.04	1129.0	240+600+600	4 per 240, 10 per 600
25	49	1176.0	Contact Sky Factory	Contact Sky Factory
26	50.96	1223.0	Contact Sky Factory	Contact Sky Factory
27	52.92	1270.1	Contact Sky Factory	Contact Sky Factory
28	54.88	1317.1	Contact Sky Factory	Contact Sky Factory
29	56.84	1364.2	Contact Sky Factory	Contact Sky Factory
30	58.8	1411.2	600+600+600	10 per 600
31	60.76	1458.2	Contact Sky Factory	Contact Sky Factory
32	62.72	1505.3	Contact Sky Factory	Contact Sky Factory
33	64.68	1552.3	600+600+600	11 per 600
Please contact the Sky Factory for additional or custom configurations				