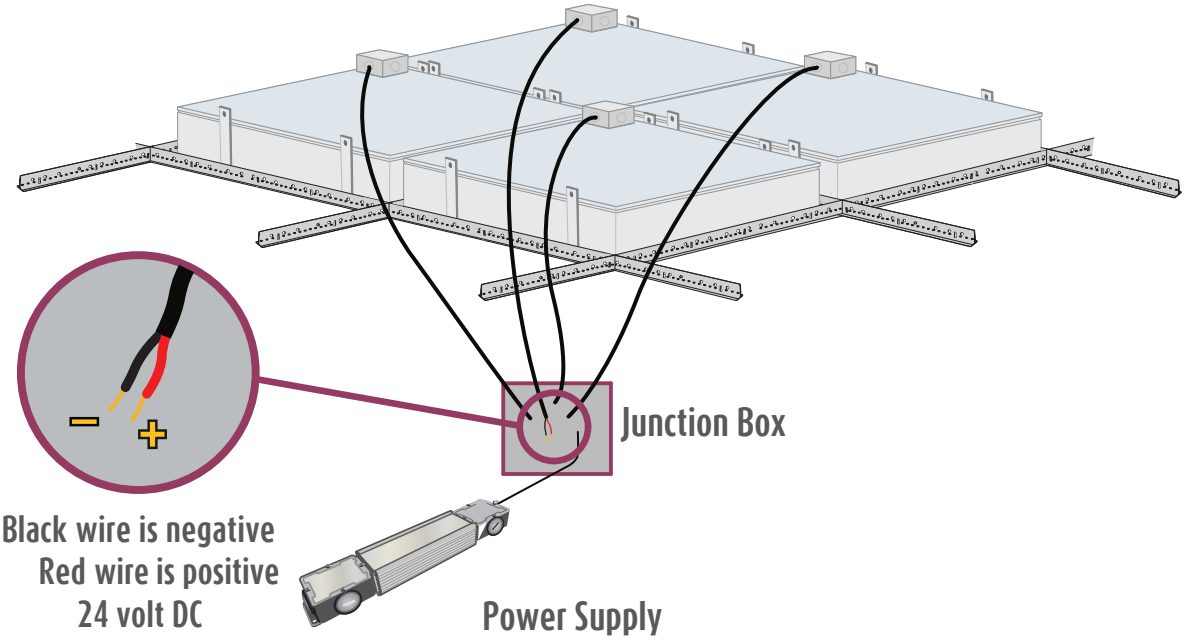
Standard w/ EcoPlus Electrical Instructions (EP Only)



Installation Instructions includes:

Standard w/ EcoPlus Electrical Instructions (EP Only)

- Wiring Diagram EL001181
- Total Wattage per Number of EcoPlus Fixtures
- Wire Sizing Chart
- Custom SkyCeiling 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 The Sky Factory.

Standard w/ EcoPlus Electrical Requirements:

EP22 Series: EP22 (2' x 2'), EP22M (60cm x 60cm), ESP2G (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 powered only by a UL Listed or CE Compliant 24V DC power supply with wattage greater than total wattage of EcoPlus fixtures.

Dry locations only.

For number of fixtures per power supply, see

"Total Wattage per Number of EcoPlus Fixtures" on page 6

For installations with one or more custom sizes, see

Custom SkyCeiling wiring diagram attached

For dimming requirements, see page 4.

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

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 supporting drawing and charts on pages 5-7 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 (-).
- Wire size 18 AWG stranded.

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

Wire and additional junction boxes from the fixtures to the power supply provided 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: Dimming requirements

IMPORTANT: Use of Sky Factory approved dimming system only! 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!**

In MRI applications, an RF Filter is required and is not provided by The Sky Factory.

Step 3: Checking the polarity

Notice: **CHECK THE POLARITY BEFORE TURNING ON POWER. MAKE SURE:**

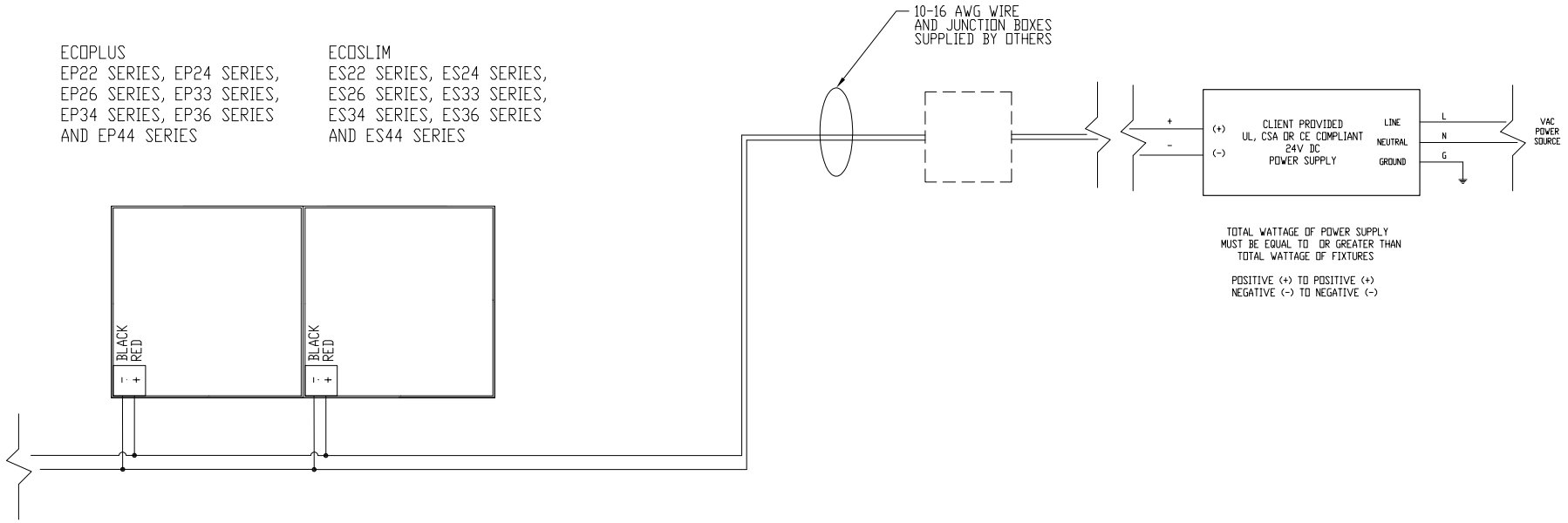
Red wires on the fixtures go to the "+" terminals of the power supply
Black wires on the fixtures go to the "–" terminals of the power supply

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

EP AND ES SERIES FIXTURES
WITH CLIENT PROVIDED POWER SUPPLY

ECOPLUS
EP22 SERIES, EP24 SERIES,
EP26 SERIES, EP33 SERIES,
EP34 SERIES, EP36 SERIES
AND EP44 SERIES

ECOSLIM
ES22 SERIES, ES24 SERIES,
ES26 SERIES, ES33 SERIES,
ES34 SERIES, ES36 SERIES
AND ES44 SERIES



TOTAL WATTAGE OF POWER SUPPLY
MUST BE EQUAL TO OR GREATER THAN
TOTAL WATTAGE OF FIXTURES

POSITIVE (+) TO POSITIVE (+)
NEGATIVE (-) TO NEGATIVE (-)

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 TOTAL WATTAGE PER NUMBER OF ECOSLIM FIXTURES CHART AND 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.

NOTICE: DIMMING USING NON-APPROVED SYSTEMS
MAY PERMANENTLY DAMAGE LED'S AND WILL
VOID THE WARRANTY!

Sky Factory

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UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN DECIMALS
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ± .xx
THREE PLACE DECIMAL ± .xxx
VIEW IN WHICH ANGLE IS TO BE MEASURED

DO NOT SCALE DRAWING

DWG. NO. EL001181 REV D

TITLE: ECOPLUS OR ECOSLIM WITH CLIENT PROVIDED UL, CSA OR CE COMPLIANT 24V DC POWER SUPPLY

DRAWN BY: KJA DATE: 09/28/2016

SCALE: NTS FORMAT: D SHEET 1 OF 1

Total Wattage per Number of EcoPlus Fixtures

EP22 Series and EP24 Series fixtures must be powered by a UL Listed or CE Compliant 24V DC power supply.
This table provides information for properly sizing a power supply given the number of fixtures in a given installation.

	EP22 Series		EP24 Series	
No. of EcoSlims	Required Current Amps	Required Current Watts	Required Current Amps	Required Current Watts
1	0.96	23	1.96	47
2	1.92	46	3.92	94
3	2.88	69	5.88	141
4	3.84	92	7.84	188
5	4.8	115	9.8	235
6	5.76	138	11.76	282
7	6.72	161	13.72	329
8	7.68	184	15.68	376
9	8.64	207	17.64	423
10	9.6	230	19.6	470
11	10.56	253	21.56	517
12	11.52	276	23.52	564
13	12.48	299	25.48	611
14	13.44	322	27.44	658
15	14.4	345	29.4	705
16	15.36	368	31.36	752
17	16.32	391	33.32	799
18	17.28	414	35.28	846
19	18.24	437	37.24	893
20	19.2	460	39.2	940
21	20.16	483	41.16	987
22	21.12	506	43.12	1034
23	22.08	529	45.08	1081
24	23.04	552	47.04	1128
25	24	575	49	1175
26	24.96	598	50.96	1222
27	25.92	621	52.92	1269
28	26.88	644	54.88	1316
29	27.84	667	56.84	1363
30	28.8	690	58.8	1410
31	29.76	713	60.76	1457
32	30.72	736	62.72	1504
33	31.68	759	64.68	1551
34	32.64	782	66.64	1598
35	33.6	805	68.6	1645
36	34.56	828	70.56	1692

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