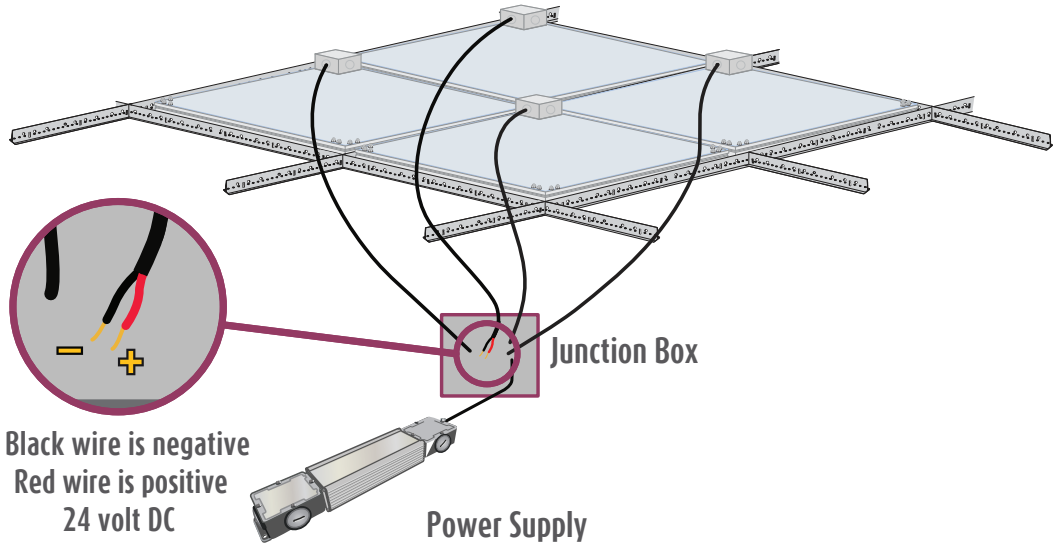
Classic w/ EcoSlim Electrical Instructions (Fixture Only)



Installation Instructions includes:

Classic w/ EcoSlim Electrical Instructions (Fixture Only)

- Wiring Diagram EL001181
- Total Wattage per Number of EcoSlim Fixtures
- Wire Sizing Chart
- 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 the 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 (where applicable)

All EcoSlim fixtures are 24V DC only.

EcoSlim fixtures must be powered only by a UL Listed or CE Compliant 24V DC power supply with wattage greater than total wattage of EcoSlim fixtures.

Dry locations only.

For number of fixtures per power supply, see

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

For installations with one or more custom sizes, see

installation specific 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 EcoSlim fixtures to the power supply

See supporting drawing and charts on pages 5-7 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

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 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.

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

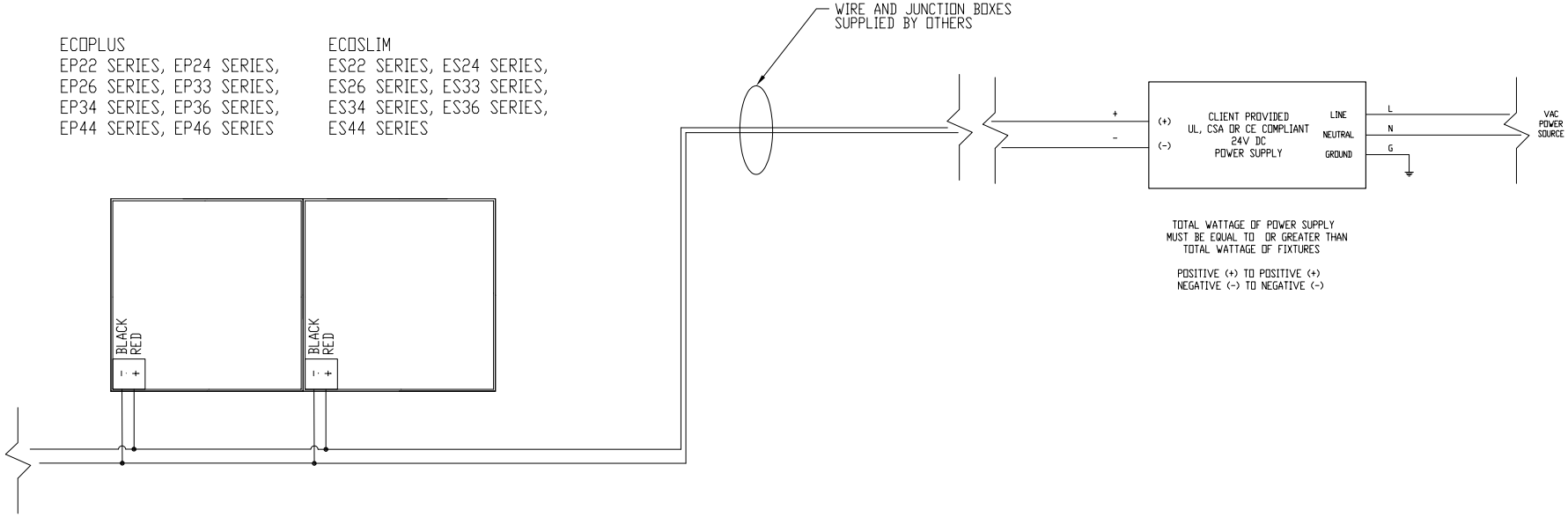
Notice: **CHECK THE POLARITY BEFORE TURNING ON POWER. MAKE SURE:**

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	ECOSLIM
EP22 SERIES, EP24 SERIES,	ES22 SERIES, ES24 SERIES,
EP26 SERIES, EP33 SERIES,	ES26 SERIES, ES33 SERIES,
EP34 SERIES, EP36 SERIES,	ES34 SERIES, ES36 SERIES,
EP44 SERIES, EP46 SERIES	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		DWG. NO. EL001181	REV F
PROPRIETARY AND CONFIDENTIAL THE INFORMATION CONTAINED IN THIS DRAWING IS THE SOLE PROPERTY OF THE SKY FACTORY, LLC. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT THE WRITTEN PERMISSION OF THE SKY FACTORY, LLC IS PROHIBITED	UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN TOLERANCES FRACTIONAL ± ANGULAR: MACH ± BEND ± TWO PLACE DECIMAL ± 0.xx THREE PLACE DECIMAL ± 0.xxx	TITLE: ECOPLUS OR ECOSLIM WITH CLIENT PROVIDED UL, CSA OR CE COMPLIANT 24V DC POWER SUPPLY	
DO NOT SCALE DRAWING		DRAWN BY: RIA DATE: 12/05/2018	
		SCALE: NTS FORMAT: B SHEET 1 OF 1	

Total Wattage per Number of EcoSlim Fixtures

ES22 Series and ES24 Series EcoSlim 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 EcoSlims in a given installation.

	ES22 Series		ES24 Series	
No. of EcoSlims	Required Current Amps	Required Current Watts	Required Current Amps	Required Current Watts
1	1.02	24.5	1.53	36.7
2	2.04	49.0	3.06	73.4
3	3.06	73.4	4.59	110.2
4	4.08	97.9	6.12	146.9
5	5.1	122.4	7.65	183.6
6	6.12	146.9	9.18	220.3
7	7.14	171.4	10.71	257.0
8	8.16	195.8	12.24	293.8
9	9.18	220.3	13.77	330.5
10	10.2	244.8	15.3	367.2
11	11.22	269.3	16.83	403.9
12	12.24	293.8	18.36	440.6
13	13.26	318.2	19.89	477.4
14	14.28	342.7	21.42	514.1
15	15.3	367.2	22.95	550.8
16	16.32	391.7	24.48	587.5
17	17.34	416.2	26.01	624.2
18	18.36	440.6	27.54	661.0
19	19.38	465.1	29.07	697.7
20	20.4	489.6	30.6	734.4
21	21.42	514.1	32.13	771.1
22	22.44	538.6	33.66	807.8
23	23.46	563.0	35.19	844.6
24	24.48	587.5	36.72	881.3
25	25.5	612.0	38.25	918.0
26	26.52	636.5	39.78	954.7
27	27.54	661.0	41.31	991.4
28	28.56	685.4	42.84	1028.2
29	29.58	709.9	44.37	1064.9
30	30.6	734.4	45.9	1101.6
31	31.62	758.9	47.43	1138.3
32	32.64	783.4	48.96	1175.0
33	33.66	807.8	50.49	1211.8
34	34.68	832.3	52.02	1248.5
35	35.7	856.8	53.55	1285.2
36	36.72	881.3	55.08	1321.9

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