

# UC3 Series Installation Guide

Recessed installation



# Under Cabinet Lighting



# Série UC3



In this project, we'll use the UC3 Series from iLuXx Lighting.

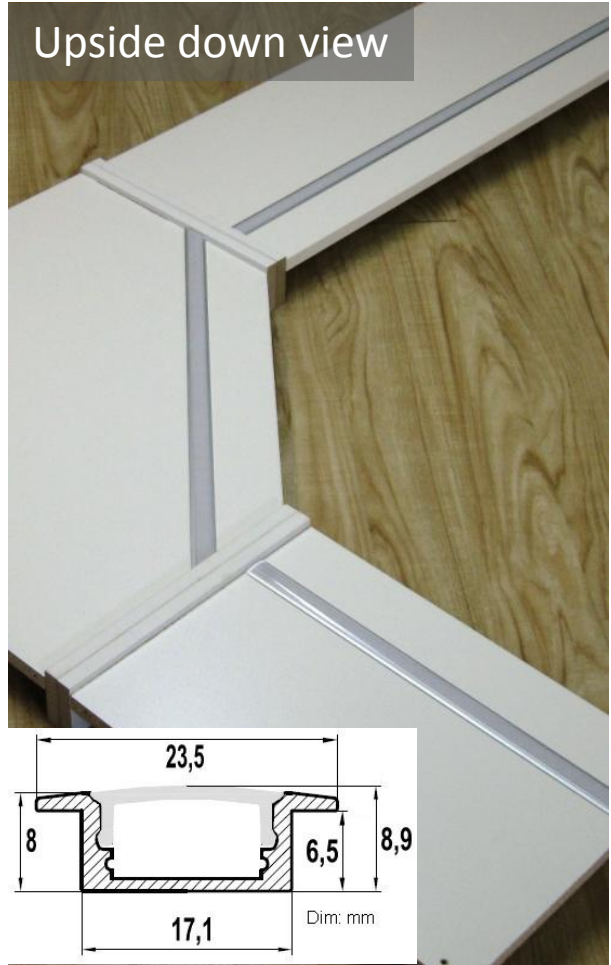
This Series is specifically designed to be recessed in the bottom panel of the cabinets. Ideal for manufacturers using a dual bottom panel to conceal the wiring.

# UC3 Series



## Recessed Installation

The UC3 Series provides a flawless finish and a completely concealed light source. The choice of designers.

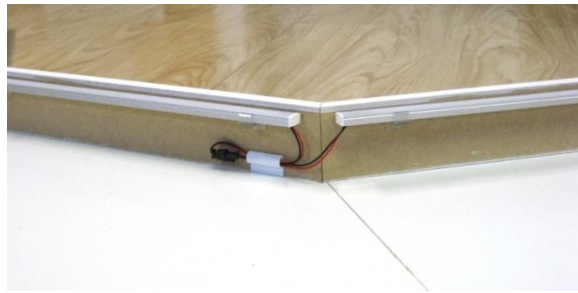


# Other mounting options

## UC1 Series



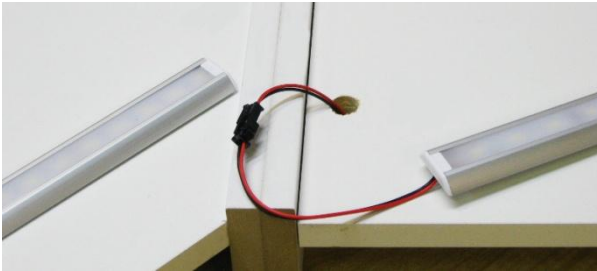
Installation on the bottom trim – Trim width  $\geq 1''$



## UC2 Series



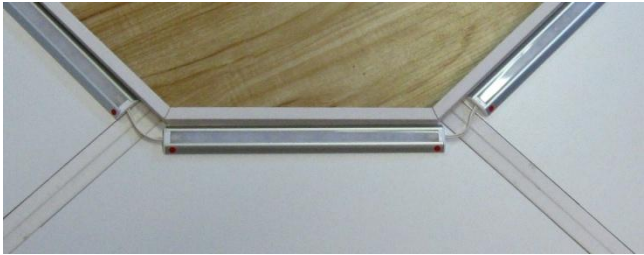
Surface mount - Ideal for cabinet manufacturer using a dual bottom panel



## UC2A Series



Surface mount – Ideal for installation behind a narrow bottom trim



# UC3 Series

## Installation guide

Every kitchen is unique and therein lies the challenge. The installation process is simple but requires some planning.

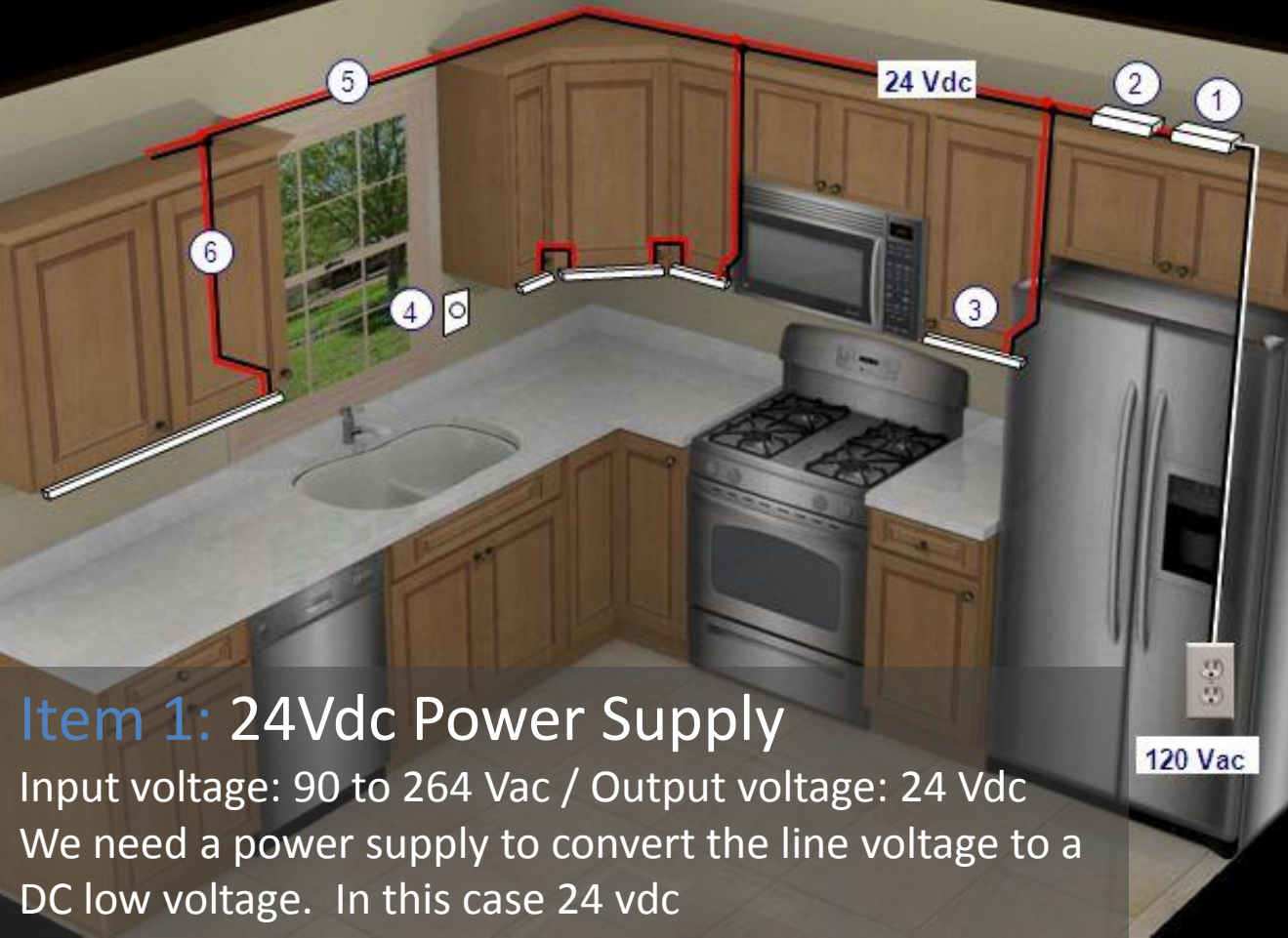
The following will show the different steps of a typical installation and help you plan the project.

## Presentation Content

- **Project Overview:** required items
- **Electrical Diagram**
- **Step 1:** how to power the system
- **Step 2:** luminaires installation
- **Step 3:** getting power to the luminaires
- **Step 4:** test the system
- **Step 5:** remote controller installation
- **How to Order:** luminaires length
- **How to Order:** light output – 2 options
- **How to Order:** light color – 2 options
- **How to Order:** power supply selection
- **How to Order:** controller selection
- **How to Order:** accessories
- **How to Order:** summary



# Project Overview: required items



## Item 1: 24Vdc Power Supply

Input voltage: 90 to 264 Vac / Output voltage: 24 Vdc

We need a power supply to convert the line voltage to a DC low voltage. In this case 24 vdc

# Example



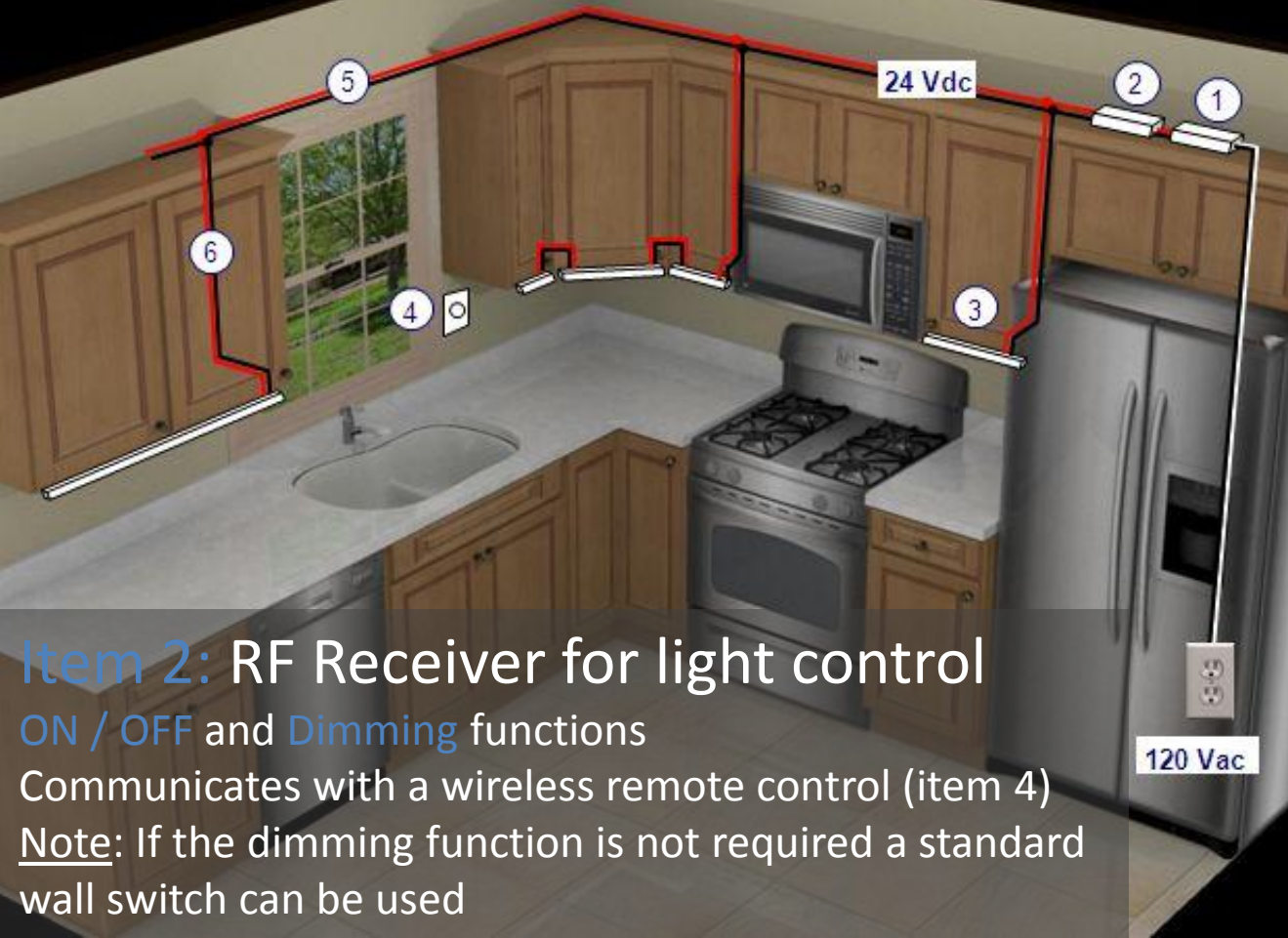
□ LPS CE c **UL** us

LPV Series from Mean Well. Class II power supplies with good quality and low cost.

Available at

[www.iluxxinc.com](http://www.iluxxinc.com)

# Project Overview: required items



# Example



The no 1 reason to choose RF technology in this application:

## Flexibility of installation

- No wiring between receiver and remote
- The remote is battery operated
- The RF signal goes through walls, doors, furnitures, etc

Available at [www.iluxxinc.com](http://www.iluxxinc.com)

## Item 2: RF Receiver for light control

ON / OFF and Dimming functions

Communicates with a wireless remote control (item 4)

Note: If the dimming function is not required a standard wall switch can be used

# Project Overview: required items



## UC3 Series



### Features

- Hi-Output (126 or 70leds/meter)
    - Many lengths available
    - Fully dimmable
  - Available in warm white (3000K) and neutral white (4000K)
    - Super efficient
    - Long lasting (50 000 hours +)
  - Built with UL certified LED engine
- Available at [www.iluxxinc.com](http://www.iluxxinc.com)

### Item 3: UC3 Series Luminaires

Solid State LED device built to provide plenty of light on the work surface



# Project Overview: required items



## Item 4: Wireless RF Remote Controller

ON / OFF and Dimming functions

Communicates with the receiver (item 2)

# Example



The no 1 reason to choose RF technology in this application:

## Flexibility of installation

- No wiring between receiver and remote
  - Battery operated
- The RF signal goes through walls, doors, furniture, etc

Available at [www.iluxxinc.com](http://www.iluxxinc.com)

# Project Overview: required items



## Item 5: Electrical Wiring

We recommend using a multi-strands 18AWG hook-up wire.

## Item 6: Power Harness

Wire assembly with mating connector for the luminaires

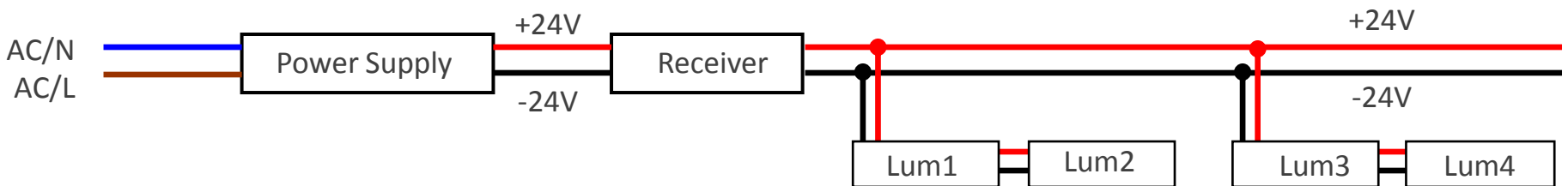
# Examples



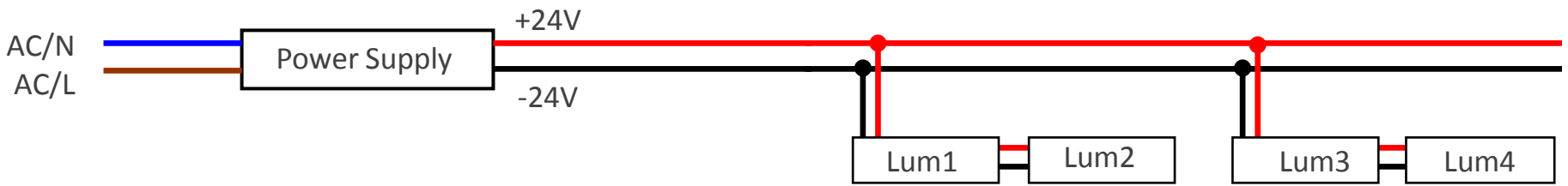
Both items available at  
[www.iluxxinc.com](http://www.iluxxinc.com)

# Electrical Diagram

## With optional receiver



## Without receiver



## Working with low DC voltage

Being exposed to a voltage of 24Vdc constitute a minimal risk to humans however, under certain conditions, you may be exposed to an electrical shock. Disconnect the power supply before making any electrical connections.

Make sure the polarity is respected when making electrical connections. Failure to do so may damage the luminaires or receiver.

# Step 1: How to power the system

Luminaires from the UC3 Series operate from a 24Vdc source. So a power supply is needed. Essentially, the following must be determined:

1. The location of the power supply
2. How to connect the power supply to a 120Vac power source.
3. How to power the luminaires from the 24 vdc power supply

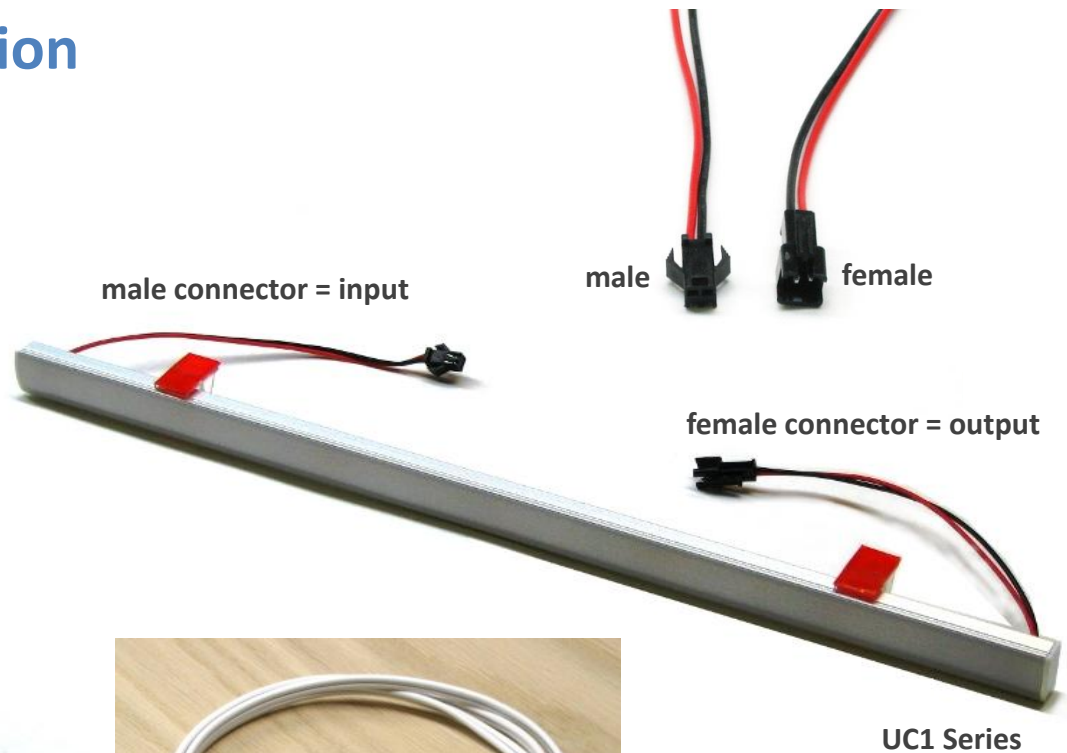


# Step 2: Luminaires installation

## Basic Concept

The luminaires don't have a specific direction meaning that the input supply could be applied to one side or the other but by convention we use the male connector of the luminaire as the input and the female connector as the output. Make sure the luminaires are installed in the same direction so connections between them is possible.

The power harness connecting the main wiring and the luminaire is available with a female or male connector depending on your need.



## Step 2: Luminaires installation

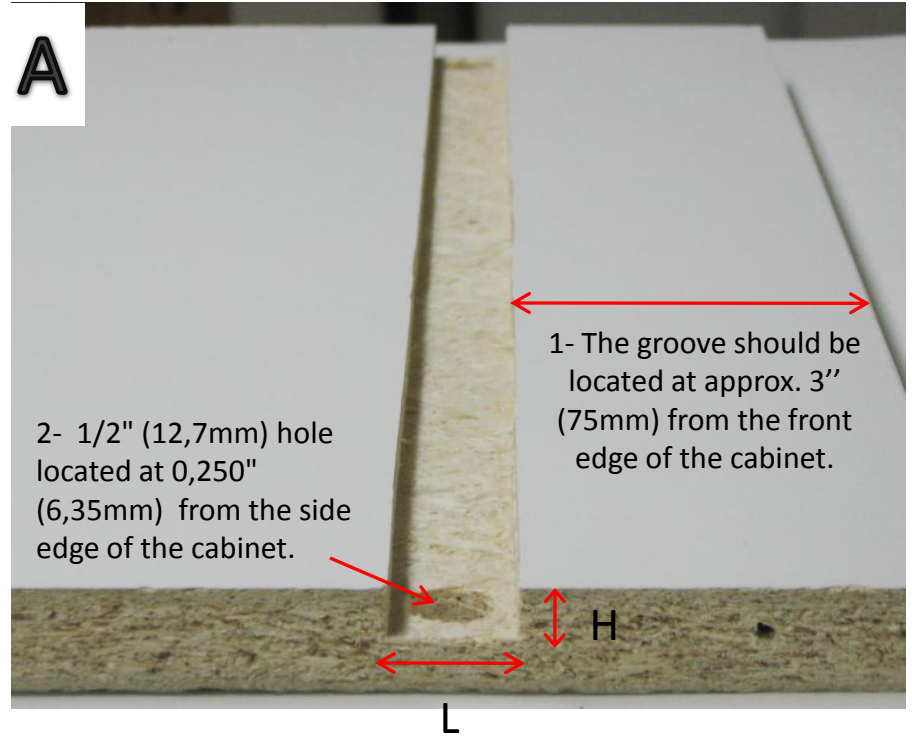
A- Luminaires from the UC3 Series are designed to be recessed in a groove machined in the bottom panel of the cabinets.

1- Groove dimensions

W: 0,750" (19mm)

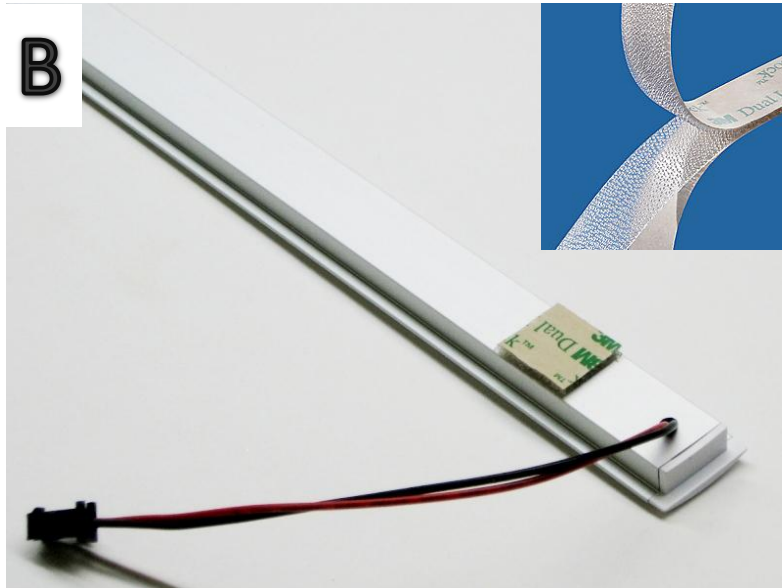
H: between 0,295 and 0,315" (between 7,5 and 8mm)

2- Drill a 1/2" hole in the groove to run the power wiring.

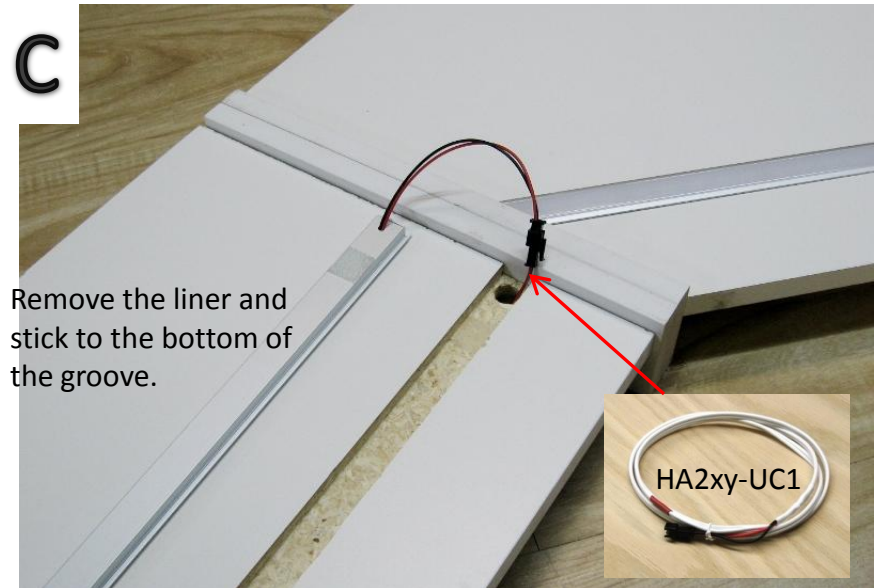


## Step 2: Luminaires installation

**B-** The 3M Dual Lock system ensures simple installation without screws. You can also remove the luminaire easily.



**C-** The luminaire connects via the power harness no: HA2xy-UC1  
x = Male / Female / Male + Female  
y = Length in feet

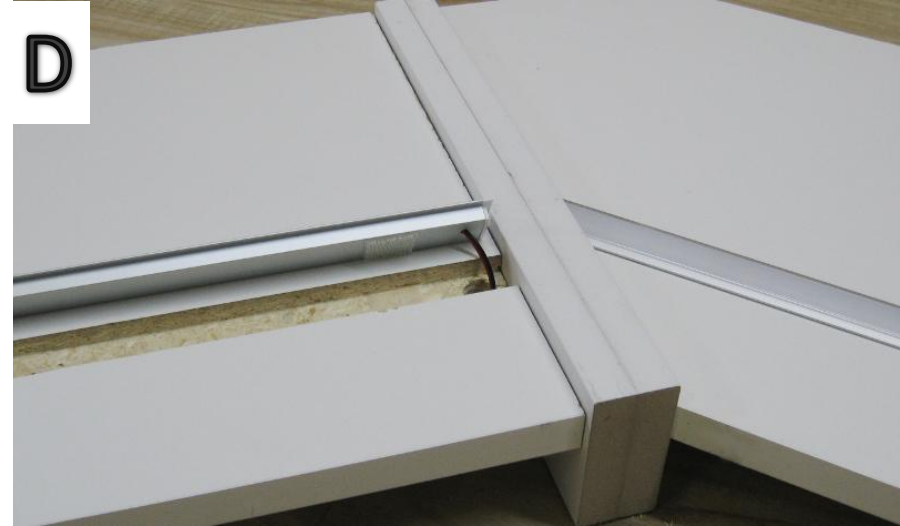


Remove the liner and stick to the bottom of the groove.

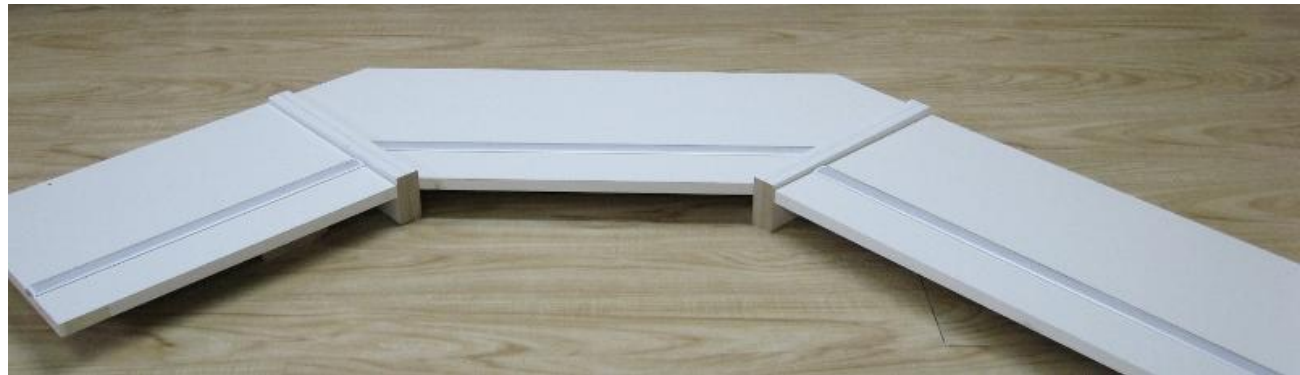
## Step 2: Luminaires installation

**D-** Push wires inside and fasten the luminaire. You hear a « snap » when the two parts of the Dual Lock are fastened correctly.

The groove depth is calculated to ensure that there is no visible gap between the luminaire and the panel.



... Voilà





## Step 3: Test the system

Once the first luminaire is connected, check that the system is working. Make sure the polarity is correct throughout the system before proceeding.

### **System without receiver / remote control**

1. Apply power to the power supply (probably via the wall switch)
2. The light should be ON

### **System with receiver / remote control**

1. Apply power to the power supply
2. Use the remote control to turn on the light

Note: Each remote controller must be paired to a receiver in order to work. This operation was carried out for you in our factory. If need be, please refer to the controller datasheet for the pairing / unpairing procedure.

## Step 4: Remote controller installation

iLuXx is offering remote controllers based on the RF technology. It means that the device is wireless (no electrical connections is required – battery operated). So basically it means that you find a location and stick it to the wall. Please refer to your controller datasheet for more details.

# How to order: Luminaires length

## Custom lengths

Essential for a clean finish. You can specify the length of the luminaire to the millimeter.

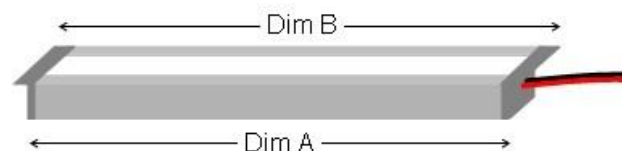


Table 1: Very High Output

Dim A (mm) min / max	Dim B (mm) min / max	Power (Watt)	Part Number (1)
<b>UC3 - 126 LED / meter version</b>			
140 / 194	146 / 200	2,2 W	UC3-12624xy-zzz
195 / 249	201 / 255	3,2 W	UC3-12624xy-zzz
250 / 304	256 / 310	4,3 W	UC3-12624xy-zzz
305 / 359	311 / 365	5,4 W	UC3-12624xy-zzz
360 / 414	366 / 420	6,5 W	UC3-12624xy-zzz
415 / 469	421 / 475	7,6 W	UC3-12624xy-zzz
470 / 524	476 / 530	8,6 W	UC3-12624xy-zzz
525 / 579	531 / 585	9,7 W	UC3-12624xy-zzz
580 / 634	586 / 640	10,8 W	UC3-12624xy-zzz
635 / 689	641 / 695	11,9 W	UC3-12624xy-zzz
690 / 744	696 / 750	13,0 W	UC3-12624xy-zzz
745 / 799	751 / 805	14,0 W	UC3-12624xy-zzz
800 / 854	806 / 860	15,1 W	UC3-12624xy-zzz
855 / 909	861 / 915	16,2 W	UC3-12624xy-zzz
910 / 964	916 / 970	17,3 W	UC3-12624xy-zzz
965 / 995	971 / 1001	18,4 W	UC3-12624xy-zzz

Table 2: High Output

Dim A (mm) min / max	Dim B (mm) min / max	Power (Watt)	Part Number (1)
<b>UC3 - 70 LED / meter version</b>			
125 / 224	131 / 230	1,3 W	UC3-7024xy-zzz
225 / 324	231 / 330	2,6 W	UC3-7024xy-zzz
325 / 424	331 / 430	4,0 W	UC3-7024xy-zzz
425 / 524	431 / 530	5,3 W	UC3-7024xy-zzz
525 / 624	531 / 630	6,6 W	UC3-7024xy-zzz
625 / 724	631 / 730	7,9 W	UC3-7024xy-zzz
725 / 824	731 / 830	9,2 W	UC3-7024xy-zzz
825 / 924	831 / 930	10,6 W	UC3-7024xy-zzz
925 / 995	931 / 1001	11,9 W	UC3-7024xy-zzz

- (1) x = Color  
y = Single or Double connexion  
z = Length

# How to Order: Light Output – 2 Options

## Select your light output

We deliver more light than anyone out there. Both versions will do a great job but there's a Wow! factor with the 126 Led /meter version that you won't find anywhere else.

### Very High Output

- Best results
- 126 Led / meter
- 494 Lumen / feet
- 5.4 Watt / feet

### High Output

- Very good results - economical
- 70 Led / meter
- 334 Lumen / feet
- 3.8 Watt / feet

Table 1: Very High Output

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745 / 799	751 / 805	14,0 W	UC3-12624xy-zzz
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 y = Single or Double connexion  
 z = Length



# How to Order: Light Color – 2 Options

## Select your nuance of white

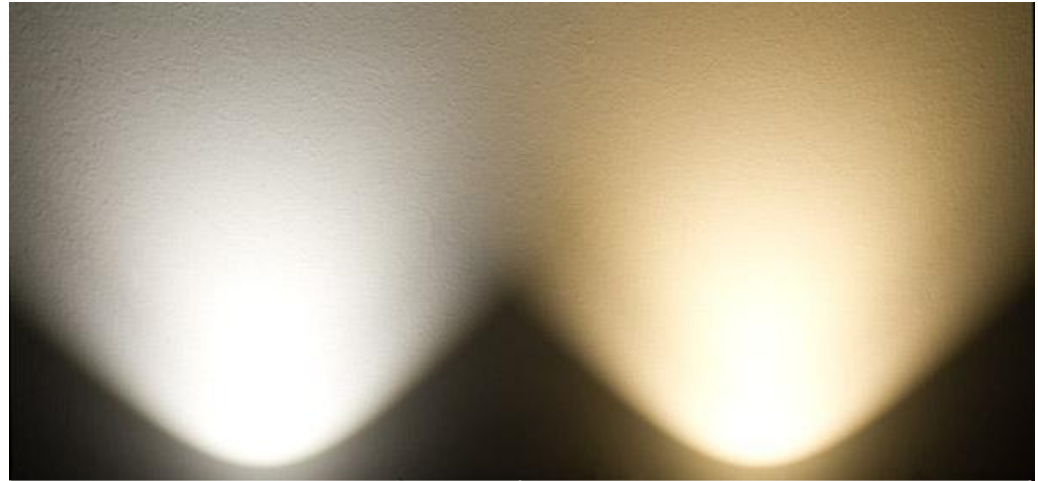
Because white is not always the same as white.

### Neutral White – 4000K

Close to natural light. A good match for cooler colors, whites, stainless steel, modern style kitchens.

### Warm White – 3000K

Close to soft white incandescent lighting. A good match for warmer colors, wood, more traditional style kitchens.



Neutral White	Warm White
4000K	3000K

# How to Order: Power supply selection

## Power supply selection

**Type:** 24Vdc Constant Voltage

**Power:**

1. Calculate the total lighting power that will be connected to the power supply. (see table 1 or 2 for wattage according to luminaire length)
2. Select a power supply that covers your total lighting power and keep a safety margin of about 10%.

**Example:**

- Total lighting power: 55W
- Choose a power supply of 60W or more



# How to Order: Controller selection

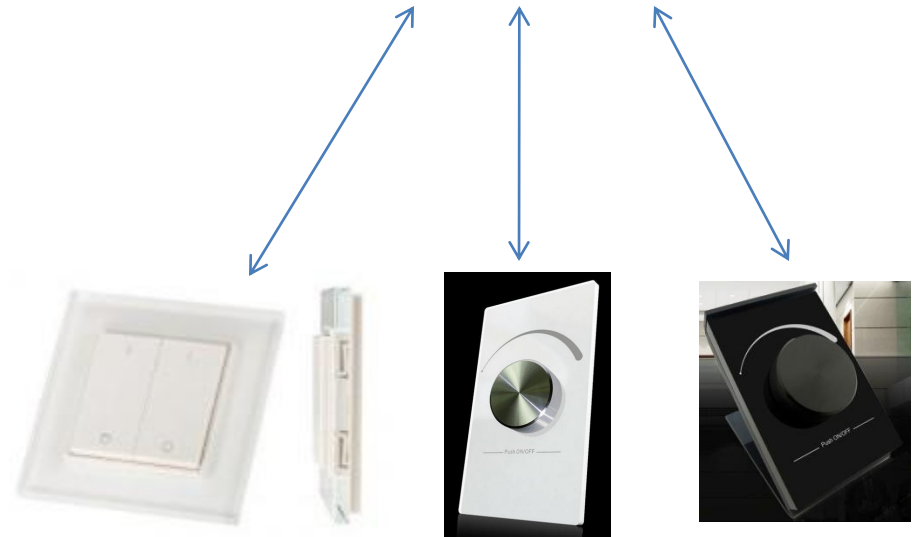
## Controlling the light

The controller is composed of a PWM type receiver and a remote control that can be permanently fixed to the wall. Controller characteristics:

1. Switch ON or Off the lights
2. Adjust the lighting level - Dimming.
3. Can handle a total of 192W @ 24vdc

Note that you can also use a standard wall switch if the dimming function is not required.

## Receiver example



Remote Control examples ; more on website

# How to Order: **Accessories**

## Accessories

These accessories are meant to make your job easier. Most are common items you can get at your local hardware store but for added convenience we make them available at [www.iluxxinc.com](http://www.iluxxinc.com).

**18 awg Stranded Wire**



**Power Harness – Male or Female**



**Inline Wire Tap**



# How to Order: Summary

In summary here are the required items for a typical project.

## 1- Luminaires



- Determine the required lengths
- 2 light output options
- 2 light color options

## 2- Power Supply



- Determine luminaires total wattage
- Select the power supply that covers the total wattage.

## 3- Controller



- Optional
- Required for the dimming function

## 4- Accessories



18 awg stranded wire for 24vdc power distribution.



Power Harness male or female to connect luminaires with 24vdc power distribution.



« Wire Tap » for simple electrical connections.

## Required tools



Wire stripper





# Tell us about your project

iLuXx provides  
under cabinets  
lighting solutions.

[www.iluxxinc.com](http://www.iluxxinc.com)

