Application Note

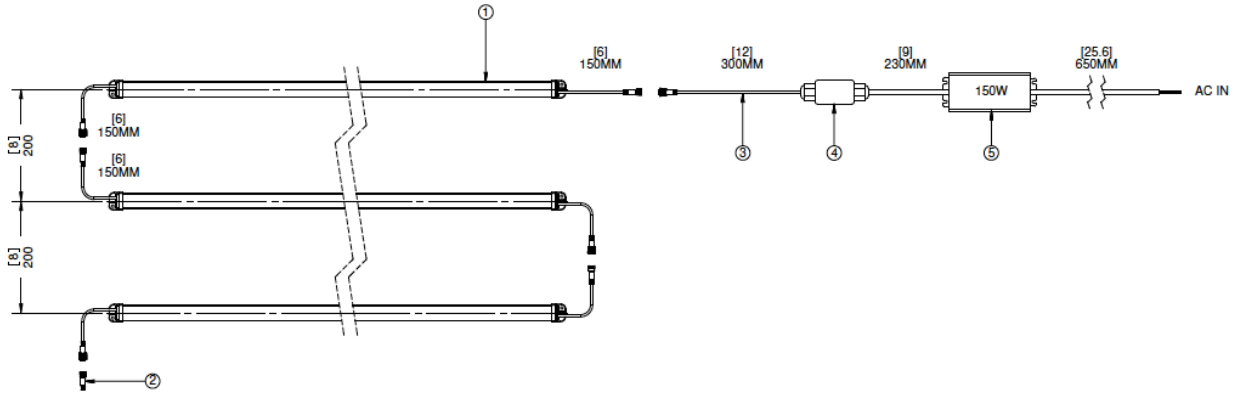
ULF8000 SP Series Horticulture Tube Configuration Guide

Introduction

The ULF8000 SP Series is a range of tubes designed as horticulture grow lights. Input voltages and outputs vary with different models.
The ULF85VW SP01 KMML2000 and the ULF85VW SP02 KPNKL2000 require a 48V DC Constant Voltage input and is typically 40W for the 48-inch tube.
The tubes are usually daisy chained and arranged in an array to cover the defined grow area of the system.
Configurations can vary according to required set-up. This application note covers a few possible configuration options.

Configuration 1

This is a three-tube daisy-chain paired with a 150W power supply configuration sufficient for a grow area of 600mm by 1200mm (approx.2 feet by 4 feet). It is ideal for evaluating plant growth performance. Multiples of this can be assembled for actual grow system.

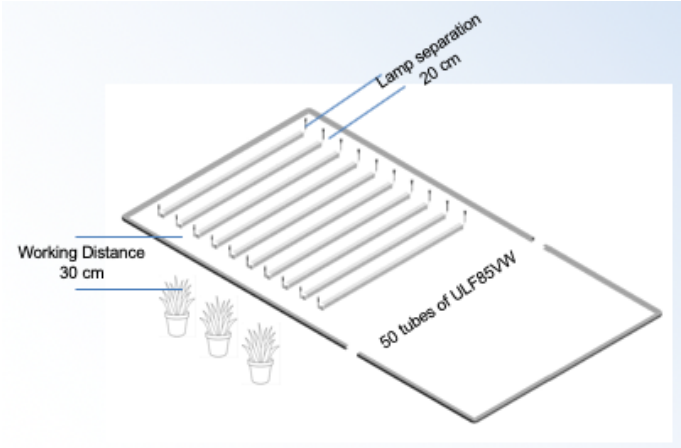


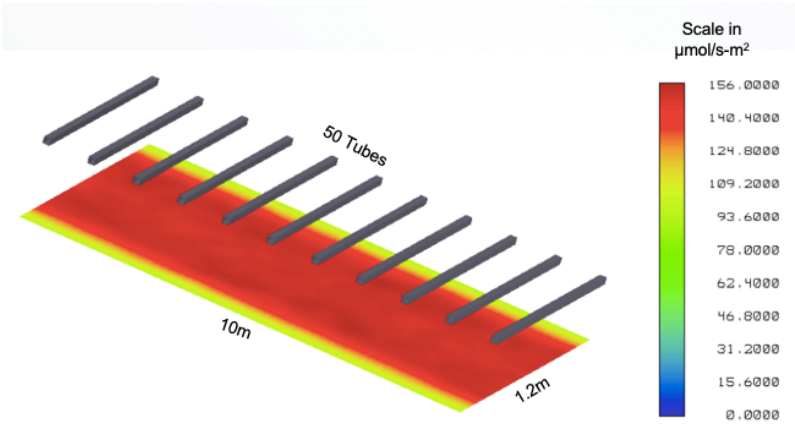
ITEM	PART NUMBER	DESCRIPTION	QUANTITY
1	ULF85VW SP02 KPNKL2000	HORTICULTURE LED LIGHT TUBE, IP65	3
2	702-19296	END CAP, WATERPROOF	1
3	702-19297	FEMALE CONNECTOR WITH WIRE, WATERPROOF	1
4	702-19298	JUNCTION BOX, WATERPROOF	1
5	702-19300	POWER SUPPLY, INPUT: 176~305V AC, OUTPUT: 48V DC, 150W, IP67	1

PPFD Simulation for Configuration 1

Set-up for a grow area of 10m by 1.2m:

Tube Model:	ULF85VW SP02 KPNKL2000
Number of Tubes:	50
Tube Separation:	20cm
Work Distance:	30cm





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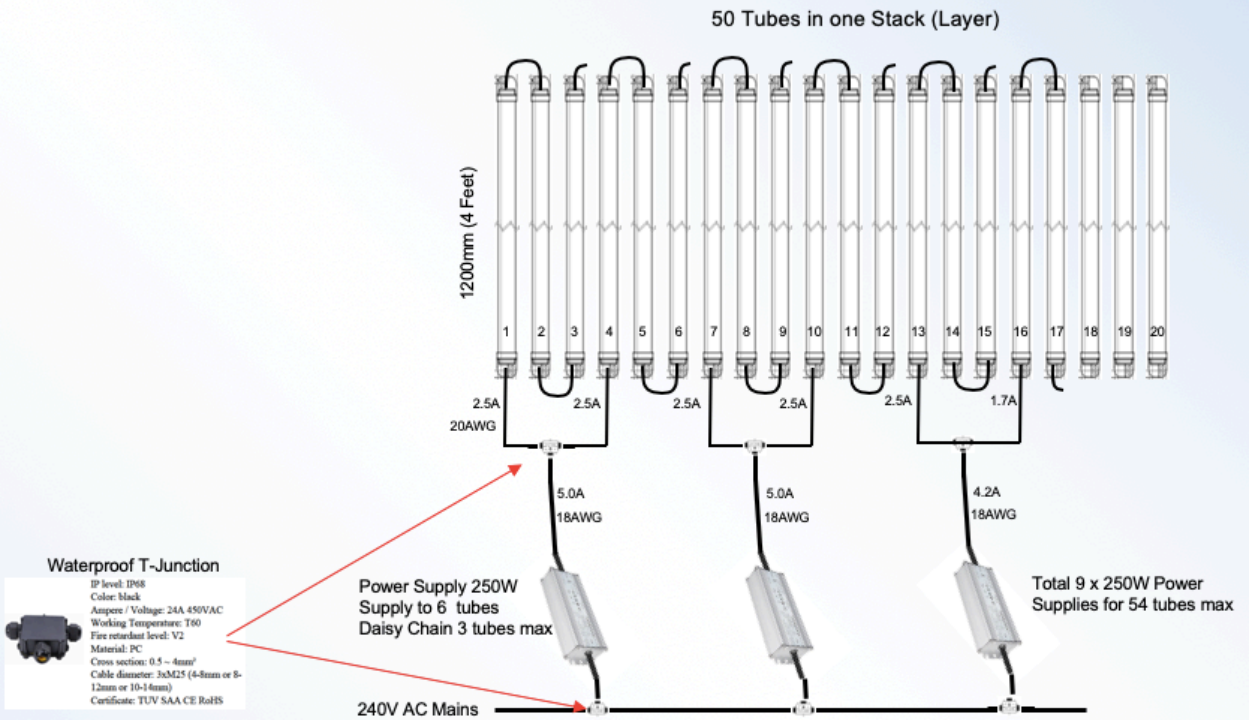
Configuration 2

This set-up uses 250W power supplies powering 50 tubes for a grow area of 600mm by 1200mm (approx.2 feet by 4 feet). For this foot-print multiple stacks or layers can be optimized according to working distance and available height of the space.



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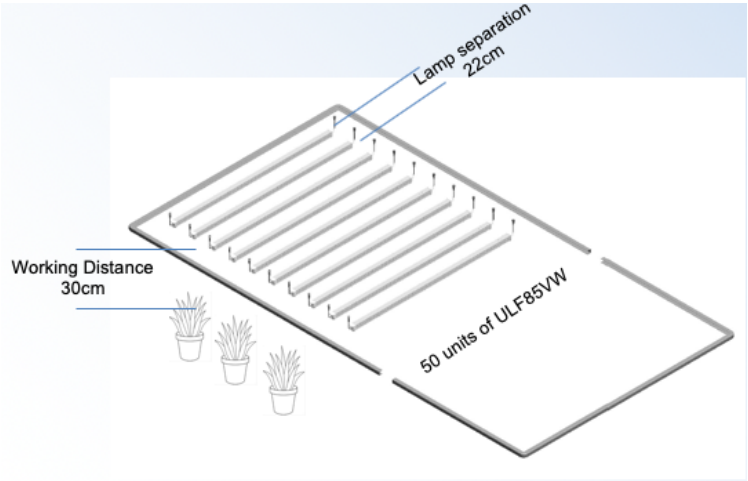
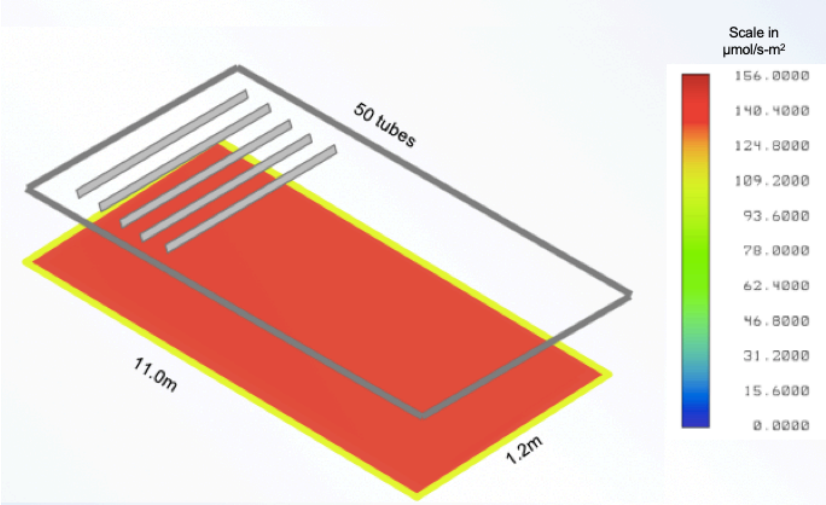
PPFD Simulation for Configuration 2

Set-up for a grow area of 11m by 1.2m:

Tube Model:	ULF85VW SP02 KMML2000
Number of Tubes:	50
Tube Separation:	22cm
Work Distance:	30cm





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Configuration can be customized to Customer's applications and set-up. OptoElectronix can assist in optimizing the configuration for best performance and economic value.

Please contact Customer Service/Sales or Distributor personnel.

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