

# PRODUCT SPECIFICATIONS

## Surexi™ Horticulture LEDs



## Precision Light. Infinite Possibilities.

### Surexi™ Horticulture LEDs

**Illumitex** has created a patented, breakthrough class of LEDs that is light years ahead of existing products. The **Surexi™ Horticulture LED** package design eliminates the need for secondary optics to control the beam angle while delivering maximum PPF to the targeted plants. While the F1, F3, F6 and F7 Growth Spectra are very effective in spurring photosynthesis, the arrays can be modified to deliver custom spectra to meet your application requirements. The patented package design substantially reduces the total volume of the light engine, thereby allowing luminaire and lamp engineers to create breakthrough lighting solutions with unrivaled optical performance. The **Surexi™ Horticulture LED** series also delivers breakthrough uniformity ratios within the specified beam angle, and produces the sharpest cut-offs available. By incorporating **Illumitex's** proprietary Digital Distribution™ beam control technology, **Surexi™ Horticulture LEDs** put more light on the targeted plants than any other LED package. **Surexi™ Horticulture LEDs** are also available with on-board IDC connectors, which eliminate the need for soldering connection wires. The optional IDC connector is a fast, plug-and-play solution for installing LEDs in horticulture applications.



#### Features

- Revolutionary beam angle control
- Maximum light on plants
- Custom spectra for various species
- Highest delivered PPF per watt
- No need for secondary and tertiary optics
- IP66 wet location rating
- Unrivaled color uniformity
- Lower fixture BOM and assembly costs
- Reduced fixture and lamp size

#### Applications

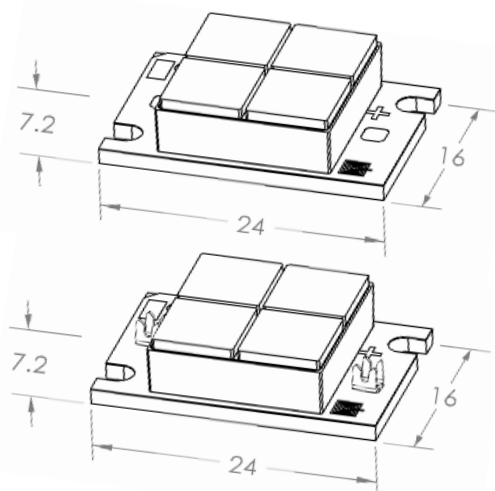
- Greenhouse Lighting
- Vertical Farming
- Indoor Hydroponics
- University R&D
- Pharmacology Development

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

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# Surexi™ AD44 Horticulture LEDs

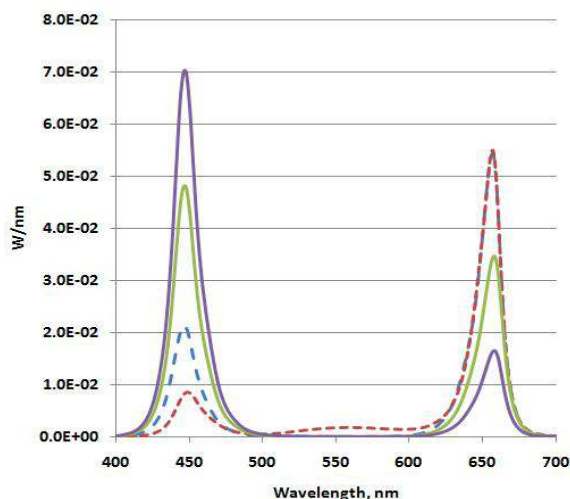


	Surexi™ F1	Surexi™ F3	Surexi™ F6	Surexi™ F7
Beam Angle (°)	50	50	50	50
Digital Distribution	65	65	65	65
Radiometric Power (W)	1.7	1.6	2.0	2.1
Photosynthetic Photon Flux (μmol/s)	8.5	8.2	8.7	8.5
PPF/W Electrical (μmol/J)	1.7	1.6	1.6	1.4
Forward Voltage (V)	Typical	10	10	11
	Max	11	11	12
Forward Current (mA)	Typical	500	500	500
	Max	600	600	600
Maximum Junction Temperature (°C)	115	115	115	115
Operating Case Temperature (°C)	-40 to 85	-40 to 85	-40 to 85	-40 to 85
Thermal Resistance (°C/W)	2	2	2	2

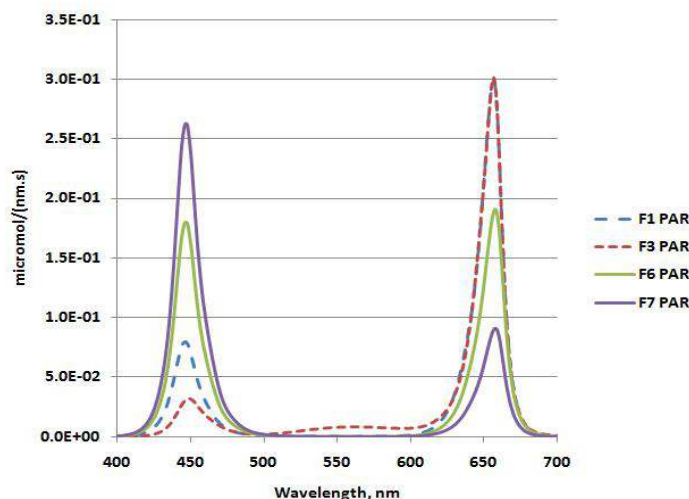
SUREXI™ AD44 IDC WITH AVX P/N 70-9176-001-432-006 SOLDERLESS CONNECTORS

OPTIONAL PARTS: AVX P/N 60-9176-001-415-100 CAP; AVX P/N 60-9176-7022-01-000 PLASTIC CRIMP TOOL

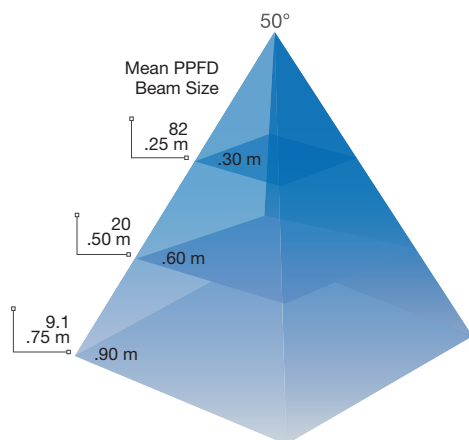
## Spectral Power Distribution



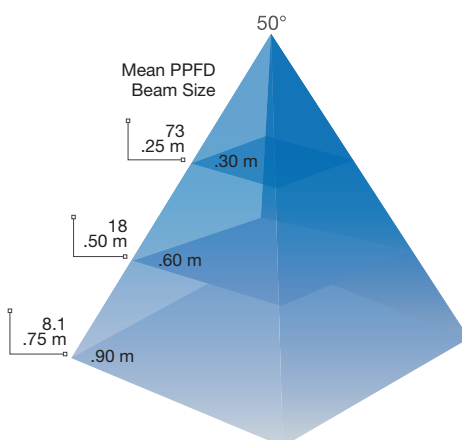
## Spectral Photon Flux Distribution



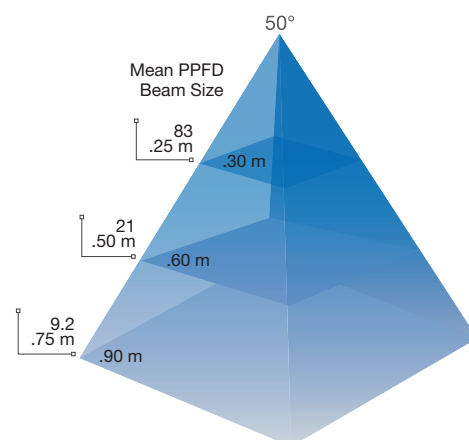
### Surexi™ AD44 IDC F1, F7



### Surexi™ AD44 IDC F3



### Surexi™ AD44 IDC F6



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