

LED GROW LIGHT TECHNOLOGY



LED GROW LIGHT TECHNOLOGY

horlicos™

Horticulture Lighting Control System

Unlimited lighting strategy for professional and sensitive applications...



Wireless Connection



Offline & Cloud Connection



Web Based Management



Unlimited Spectrum Recipe



Wireless Sensor Technology



Group Management



Unlimited Schedule



Analysis & Reporting



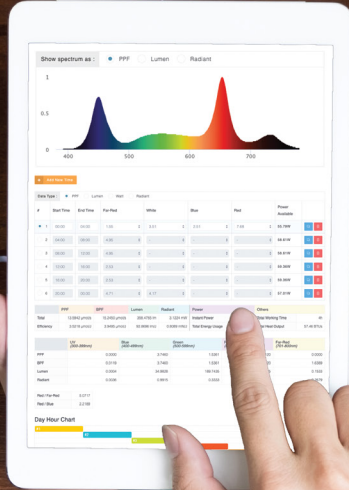
Plant Database



Rescue Mode

Profesyonel ve hassas uygulamalar için sınırsız aydınlatma stratejisi...

- Kablosuz Bağlantı • Offline & Bulut Bağlantısı • Web Tabanlı Yönetim • Sınırsız Spektrum Tarifi • Kablosuz Sensör Teknolojisi
- Grup Yönetimi • Sınırsız Tarih-Saat Bazlı Programlama • Analiz & Raporlama • Bitki Veritabanı • Kurtarma Modu



New Generation Lighting Technology

PLANT FACTORY

VERTICAL FARMING TECHNOLOGY

Norway's New Generation Largest Plant Factory



WATCH THE VIDEO



EcoLine was developed for less light required applications. EcoLine fixtures have a thin and lightweight design, nevertheless which works with internal power supply. The IP52 level is provided protection against for medium humidity level environment. %100 anodized aluminum body was designed for the lowest thermal resistance to provide long lifespan using. EcoLine is suitable for lots of applications such as indoor growing, tissue culture, vertical farming, grafting etc.

EcoLine düşük ışık şiddeti isteyen uygulamalar için geliştirilmiştir. EcoLine serisi ince ve hafif tasarımına rağmen güç kaynağını bünyesinde barındırmaktadır. Orta derece nemli ortamlarda çalışmasına olanak sağlayan IP52 koruma seviyesine sahiptir. %100 eloksallı alüminyum gövde yapısı düşük termal direnç sağlayarak cihazların uzun yıllar sorunsuz şekilde çalışmasını sağlamaktadır. EcoLine serisi doku kültürü, dikey tarım, aşılama gibi birçok uygulamada kullanıma uygundur.



Vertical Farming
Dikey Tarım



Grafting
Aşılama



Seedling
Fide Üretimi



Tissue Culture
Doku Kültürü

	EcoLine Colorful G1	EcoLine Colorful G2	EcoLine White G1	EcoLine White G2
Power Input	18VDC, 24VDC or 48VDC	18VDC, 24VDC or 48VDC	18VDC, 24VDC or 48VDC	18VDC, 24VDC or 48VDC
Power Usage	12/18/24/30/36 Watt	12/18/24/30/36 Watt	12/18/24/30/36 Watt	12/18/24/30/36 Watt
Efficiency	Up to 90%	Up to 90%	Up to 90%	Up to 90%
PPF/W	2.3 µmol/W	2.5 µmol/W	2.5 µmol/W (185lm/W)	2.8 µmol/W (205lm/W)
Total PPF	28/41/55/69/82 µmol/s	30/45/60/75/90 µmol/s	30/45/60/75/90 µmol/s	33/50/67/84/100 µmol/s
IP Protection	IP52	IP52	IP52	IP52
Heat Output	3.4 BTU/h.W	3.4 BTU/h.W	3.4 BTU/h.W	3.4 BTU/h.W
Working Humidity	%80 (non-condensing)	%80 (non-condensing)	%80 (non-condensing)	%80 (non-condensing)
Operating Temp.	30-45 °C	30-45 °C	30-45 °C	30-45 °C
Ambient Temp.	-10 +35 °C	-10 +35 °C	-10 +35 °C	-10 +35 °C
Spectrum	Standard and Optional	Standard and Optional	2000K - 10000K	2000K - 10000K
Lifespan L70	>50.000h	>60.000h	>50.000h	>60.000h
Viewing Angle	120 degree (50%)	120 degree (50%)	120 degree (50%)	120 degree (50%)
Length	60/90/120/150/180cm	60/90/120/150/180cm	60/90/120/150/180cm	60/90/120/150/180cm
Weight	305/470/610/745/885 g	305/470/610/745/885 g	305/470/610/745/885 g	305/470/610/745/885 g
Certificate	CE	CE	CE	CE
Warranty	2 years	3 years	2 years	3 years

Order Code - Colorful	Length	Power	PPF	Order Code - White	Length	Power	Lumen	CODE	Standard Spectrum Combinations
PL060012D120ECC-G1	60cm	12W	28 µmol/s	PL060012D120ECW-G1	60cm	12W	30 µmol/s	PL32A	General purpose with highest efficiency output
PL060012D120ECC-G2	60cm	12W	30 µmol/s	PL060012D120ECW-G2	60cm	12W	33 µmol/s	PL33G	Best combination for Germination purpose
PL090018D120ECC-G1	90cm	18W	41 µmol/s	PL090018D120ECW-G1	90cm	18W	45 µmol/s	PL34S	Best combination for Seedling
PL090018D120ECC-G2	90cm	18W	45 µmol/s	PL090018D120ECW-G2	90cm	18W	50 µmol/s	PL35V	Best combination for Vegetative growth
PL120024D120ECC-G1	120cm	24W	55 µmol/s	PL120024D120ECW-G1	120cm	24W	60 µmol/s	PL36F	Best combination for Flowering and Fruiting
PL120024D120ECC-G2	120cm	24W	60 µmol/s	PL120024D120ECW-G2	120cm	24W	67 µmol/s		
PL150030D120ECC-G1	150cm	30W	69 µmol/s	PL150030D120ECW-G1	150cm	30W	75 µmol/s		
PL150030D120ECC-G2	150cm	30W	75 µmol/s	PL150030D120ECW-G2	150cm	30W	84 µmol/s		
PL180036D120ECC-G1	180cm	36W	82 µmol/s	PL180036D120ECW-G1	180cm	36W	90 µmol/s		
PL180036D120ECC-G2	180cm	36W	90 µmol/s	PL180036D120ECW-G2	180cm	36W	100 µmol/s		

*** Custom design available.

General Notes

- Optionally a specific spectrum combination with unique colors.
- Available Colors:** 450nm, 660nm, 730nm, 2000K-10000K
- PPF, Lumen, Watt values are based on general spectrum combination and can be different according to any other spectrum combinations.
- All values may vary in the range of +-10%.



GreenLine was developed for professional applications such as plant production and research. It has important features such as a long lifespan, up to 3.7 μ mol/W light output. GreenLine has IP65 protection structure against water and humidity to use safely in all usage areas. %100 anodized aluminum body was designed for the lowest thermal resistance to provide long lifespan using. GreenLine contains high quality and efficiency LED technology to provide excellent results for your applications.

GreenLine serisi bitki üretimi ve bilimsel araştırmalar gibi profesyonel uygulamalar için üretilmiştir. Uzun kullanım ömrüne sahip olan GreenLine serisi ile 3.7 μ mol/J ışık çıkışı seviyesine kadar yüksek verimde aydınlatma yapabilirsiniz. IP65 koruma sınıfına sahip olan bu model suya ve neme karşı dayanıklı olup çoğu ortamda güvenle kullanılabilir. %100 eloksallı alüminyum gövde yapısı düşük termal direnç oluşturarak cihazların uzun yıllar sorunsuz şekilde çalışmasını sağlar. GreenLine ürünü bünyesinde barındırdığı yüksek kalite ve verimlilikteki LED teknoloji ile uygulamalarınız için mükemmel sonuçlar ortaya çıkarır.



Vertical Farming
Dikey Tarım



Grafting
Aşılama



Scientific Practices
Bilimsel Çalışmalar



Seedling
Fide Üretimi



Tissue Culture
Doku Kültürü

	GreenLine G1	GreenLine G2	GreenLine Plus
Power Input	220-230VAC / 50-60 Hz	220-230VAC / 50-60 Hz	90-305VAC / 47-63 Hz
Power Usage	60 Watt	60 Watt	1-60 Watt
Efficiency	Up to 96%	Up to 96%	Up to 90%
PPF/W	3.5 μ mol/W	3.7 μ mol/W	2.2 - 4.4 μ mol/W
Total PPF	204 μ mol/s	222 μ mol/s	Controllable
IP Protection	IP65	IP65	IP65
Heat Output	3.4 BTU/h.W	3.4 BTU/h.W	3.4 BTU/h.W
Working Humidity	%96 (non-condensing)	%96 (non-condensing)	%96 (non-condensing)
Operating Temp.	30-45 °C	30-45 °C	30-45 °C
Ambient Temp.	-10 +35 °C	-10 +35 °C	-10 +35 °C
Spectrum	Standard and Optional	Standard and Optional	Controllable
Lifespan L70	>60.000h	>70.000h	>60.000h
Viewing Angle	120/130 degree (50%)	120 or 130 degree (50%)	120 or 130 degree (50%)
Dimension	1510x50x51mm	1510x50x51mm	1510x50x51mm
Weight	1.6 kg	1.6 kg	1.6 kg
Certificate	CE	CE	CE
Warranty	2 years	2 years	2 years

Order Code	Power	V. Angle (50%)	PPF	CODE	Standard Spectrum Combinations	General Notes
PL150060D120GLN-G1	60W	120 degree	204 μ mol/s	PL32A	General purpose with highest efficiency output	<ul style="list-style-type: none"> Optionally a specific spectrum combination with unique colors. Main Wavelengths: 450nm, 660nm, 730nm, 6000K Please contact us for special projects with other wavelengths. PPF, Lumen, Watt values are based on general spectrum combination and can be different according to any other spectrum combinations. 130° wide viewing angle can be applied for special orders. All values may vary in the range of \pm10%.
PL150060D130GLN-G1	60W	130 degree	204 μ mol/s	PL33G	Best combination for Germination purpose	
PL150060D120GLN-G2	60W	120 degree	222 μ mol/s	PL34S	Best combination for Seedling	
PL150060D130GLN-G2	60W	130 degree	222 μ mol/s	PL35V	Best combination for Vegetative growth	
PL150060D120GLP-PL	60W	120 degree	Controllable	PL36F	Best combination for Flowering and Fruiting	
PL150060D130GLP-PL	60W	130 degree	Controllable		*** Custom design available.	





Extreme Green Line can be the best lighting solution for some applications that need high lighting substitute traditional HID/HPS lighting. It can be used for Greenhouse and indoor applications. It has important features such as a long lifespan and high-efficiency light output up to 3.8µmol/J. Extreme GreenLine has IP65 protection structure against water and humidity, which has also a specially designed aluminum body for the best thermal conductivity for overheating. In addition, natural cooling technology provides a quiet environment and high power lighting.

Extreme GreenLine yüksek aydınlatma ihtiyacı olan uygulamalar için en ideal aydınlatma çözümlerinden biridir ve geleneksel HID/HPS lambaları yerine sera ve iç mekan uygulamalarında kullanılabilir. Uzun kullanım ömrüne sahip olan Extreme GreenLine, 3.8µmol/J seviyesine kadar yüksek verimde çalışabilme özelliğine sahiptir. Extreme GreenLine suya ve neme karşı IP65 koruma sınıfına sahiptir. Ayrıca özel tasarlanmış olan alüminyum gövde yapısı ile ısınmaya karşı yüksek termal iletkenlik oluşturur. Tamamen doğal soğutma yöntemi ile çalışma ortamında sessiz ve yüksek güçte aydınlatma imkanı sağlar.



Scientific Practices
Bilimsel Çalışmalar



Greenhouse
Sera






Speed Breeding
Hızlı Islah



Seedling
Fide Üretimi



Algae Production
Alg Üretimi

	Extreme GreenLine G1	Extreme GreenLine G2	Order Code	V. Angle (50%)	Power	PPF
Power Input	220-230VAC / 50-60 Hz	220-230VAC / 50-60 Hz	PL120160D120EGL-G1	120 degree	160W	544 µmol/s
Power Usage	160 Watt	160 Watt	PL120160D130EGL-G1	130 degree	160W	544 µmol/s
Efficiency	Up to 96%	Up to 96%	PL120160D120EGL-G2	120 degree	160W	608 µmol/s
PPF/W	3.4 µmol/W	3.8 µmol/W	PL120160D130EGL-G2	130 degree	160W	608 µmol/s
Total PPF	544 µmol/s	608 µmol/s	CODE	Standard Spectrum Combinations		
IP Protection	IP65	IP65	PL32A	General purpose with highest efficiency output		
Heat Output	3.4 BTU/h.W	3.4 BTU/h.W	PL33G	Best combination for Germination purpose		
Working Humidity	%96 (non-condensing)	%96 (non-condensing)	PL34S	Best combination for Seedling		
Operating Temp.	30-40 °C	30-40 °C	PL35V	Best combination for Vegetative growth		
Ambient Temp.	-10 +30 °C	-10 +30 °C	PL36F	Best combination for Flowering and Fruiting		
Spectrum	Standard and Optional	Standard and Optional	*** Custom design available.			
Lifespan L70	>60.000h	>70.000h	General Notes			
Viewing Angle	120 or 130 degree (50%)	120 or 130 degree (50%)	<ul style="list-style-type: none"> Optionally a specific spectrum combination with unique colors. Main Colors: 450nm, 660nm, 730nm, 5000K, 6500K. Please contact us for special projects with other wavelengths. PPF, Lumen, Watt values are based on general spectrum combination and can be different according to any other spectrum combinations. 130° wide viewing angle can be applied for special orders. All values may vary in the range of +/-10%. 			
Dimension	1215x80x62mm	1215x80x62mm				
Weight	2.6 kg	2.6 kg				
Certificate	CE	CE				
Warranty	2 years	3 years				



ExPAR is a good choice for lighting in greenhouses and any other indoor applications with 320W & 480W options. ExPAR is the best solution to substitute for traditional HID/HPS lighting with low-cost lighting per unit area. It has important features such as a long lifespan and high-efficiency light output up to 3.8 μ mol/J. ExPAR has IP65 protection structure against water and humidity to use safely in all usage areas. %100 anodized aluminum body and IP67 cooling fan technology provide the best thermal conductivity for healthy lighting and long lifespan.

ExPAR sera ve iç mekan uygulamaları için 320W ve 480W seçenekleri ile ideal bir aydınlatma ürünüdür. Birim alan başında en düşük yatırım için HID/HPS lambalarının yerine seçilebilecek en iyi çözümdür. Uzun kullanım ömrüne sahip olan ExPAR, 3.8 μ mol/J seviyesine kadar yüksek verimle çalışabilme özelliğine sahiptir. IP65 koruma sınıfına sahip olan bu model suya ve neme karşı dayanıklı olup çoğu ortamda güvenle kullanılabilir. %100 alüminyum gövde ve IP67 fan teknolojisi sayesinde yüksek seviyede termal iletim sağlanarak uzun süreli sağlıklı aydınlatma yapılabilmektedir.

horlicosTM
Horticulture Lighting Control System
coming soon...



Scientific Practices
Bilimsel Çalışmalar



Greenhouse
Sera



Speed Breeding
Hızlı Islah



Seedling
Fide Üretimi



Algae Production
Alg Üretimi

	ExPAR Premium 320W G1	ExPAR Premium 320W G2	ExPAR Premium 480W G1	ExPAR Premium 480W G2
Power Input	220-230VAC / 50-60 Hz	220-230VAC / 50-60 Hz	220-230VAC / 50-60 Hz	220-230VAC / 50-60 Hz
Power Usage	320 Watt	320 Watt	480 Watt	480 Watt
Efficiency	Up to 96%	Up to 96%	Up to 96%	Up to 96%
PPF/W	3.4 μ mol/W	3.8 μ mol/W	3.4 μ mol/W	3.8 μ mol/W
Total PPF	1088 μ mol/s	1216 μ mol/s	1632 μ mol/s	1824 μ mol/s
IP Protection	IP65	IP65	IP65	IP65
Heat Output	3.4 BTU/h.W	3.4 BTU/h.W	3.4 BTU/h.W	3.4 BTU/h.W
Working Humidity	%96 (non-condensing)	%96 (non-condensing)	%96 (non-condensing)	%96 (non-condensing)
Operating Temp.	30-45 °C	30-45 °C	30-45 °C	30-45 °C
Ambient Temp.	-10 +35 °C	-10 +35 °C	-10 +35 °C	-10 +35 °C
Spectrum	Standard and Optional	Standard and Optional	Standard and Optional	Standard and Optional
Lifespan L70	>60.000h	>70.000h	>60.000h	>70.000h
Viewing Angle	120 or 130 degree (50%)	120 or 130 degree (50%)	120 or 130 degree (50%)	120 or 130 degree (50%)
Dimension	320x136x240mm	320x136x240mm	320x136x240mm	320x136x240mm
Weight	3.7 kg	3.7 kg	4.1 kg	4.1 kg
Certificate	CE	CE	CE	CE
Warranty	2 years	3 years	2 years	3 years

Order Code	V. Angle (50%)	Power	PPF	CODE	Standard Spectrum Combinations	General Notes
PL030320D120EPN-G1	120 degree	320W	1088 μ mol/s	PL32A	General purpose with highest efficiency output	<ul style="list-style-type: none"> Optionally a specific spectrum combination with unique colors. Main Colors: 450nm, 660nm, 730nm, 5000K, 6500K, Please contact us for special projects with other wavelengths. PPF, Lumen, Watt values are based on general spectrum combination and can be different according to any other spectrum combinations. 130° wide viewing angle can be applied for special orders. ExPAR series use IP67 fan technology for cooling. All values may vary in the range of +10%.
PL030320D120EPN-G2	120 degree	320W	1216 μ mol/s	PL33G	Best combination for Germination purpose	
PL030480D120EPN-G1	120 degree	480W	1632 μ mol/s	PL34S	Best combination for Seedling	
PL030480D120EPN-G2	120 degree	480W	1824 μ mol/s	PL35V	Best combination for Vegetative growth	
PL030320D130EPN-G1	130 degree	320W	1088 μ mol/s	PL36F	Best combination for Flowering and Fruiting	
PL030320D130EPN-G2	130 degree	320W	1216 μ mol/s		*** Custom design available.	
PL030480D130EPN-G1	130 degree	480W	1632 μ mol/s			
PL030480D130EPN-G2	130 degree	480W	1824 μ mol/s			





Turn-key Isolated Rooms

Anahtar Teslim Odalar

GrowCycle Çözümleri:

- Dikey Tarım Odaları
- Bitki Büyütme Odaları
- Islah Odaları
- Çimlendirme Odaları
- Soğuk Oda
- Tohum Saklama Odaları
- Doku Kültürü Odaları
- İklim Similasyon Odaları



GROWCYCLE
PLANT GROWTH ROOM & CHAMBER SOLUTIONS

GrowCycle Solutions:

- Vertical Farming Room
- Plant Growth Room
- Speed Breeding Room
- Germination Room
- Cold Room
- Seed Storage Room
- Tissue Culture Room
- Climate Simulation Room

High-insulation • Precise Temperature and Humidity Control • Fully Controlled Plant Lighting • High Quality Shelving Systems

Yüksek İzolasyon - Hassas Sıcaklık ve Nem Kontrolü - Tam Kontrollü Bitki Aydınlatma - Yüksek Kaliteli Raf Sistemleri

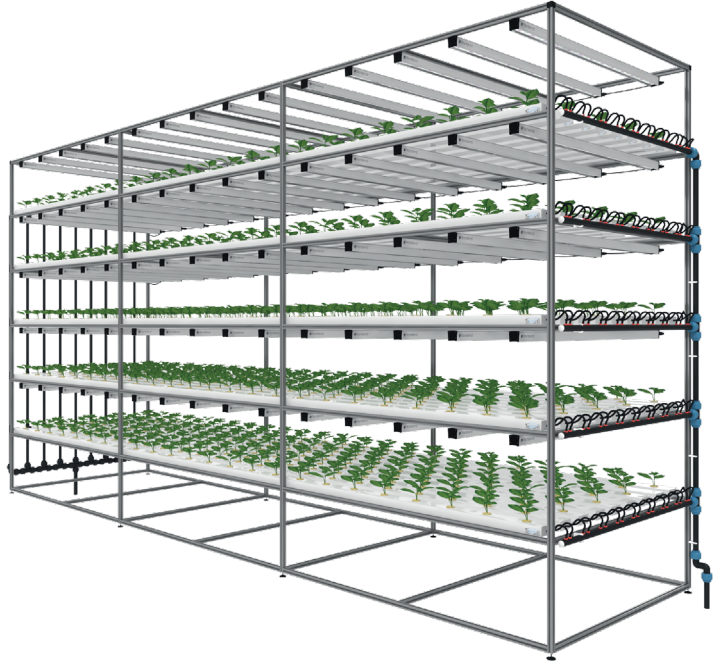
Vertical Farming - Plant Factory

Dikey Tarım - Bitki Fabrikası Anahtar Teslim Çözümler

Do you need **Turnkey Solutions?**

Plantekno can help you to install your system with all your needs.

- Grow Light Installation
- Cable Installation
- Electric Control Panel Installation
- Shelf Installation
- NFT ve DFT Installation
- Lighting Controller
- EC-Ph Controller
- Temperature Controller
- Humidity Controller
- Aydınlatma Kurulumu
- Kablo Tesisat Kurulumu
- Elektrik Kontrol Panel Kurulumu
- Raf Sistemi Kurulumu
- NFT ve DFT Kurulumu
- Aydınlatma Kontrolü
- EC-Ph Kontrolü
- Sıcaklık Kontrolü
- Nem Kontrolü



Professional LED Lighting Solutions for Commercial & Scientific Applications

*Ticari & Bilimsel Uygulamalar için
Profesyonel LED Aydınlatma Çözümleri*



Dikey Tarım
Vertical Farming



Sera Aydınlatma
Greenhouse



Islah Çalışmaları
Speed Breeding



Bilimsel Çalışmalar
Scientific Practices



Doku Kültürü
Tissue Culture



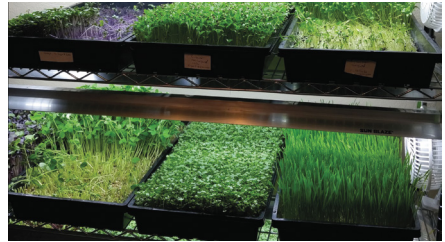
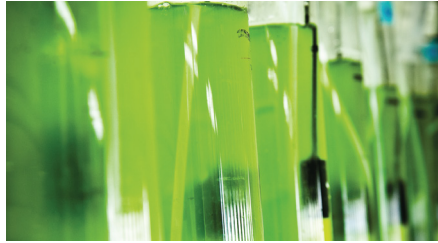
Alg Üretimi
Algae Production



Aşılama
Grafting

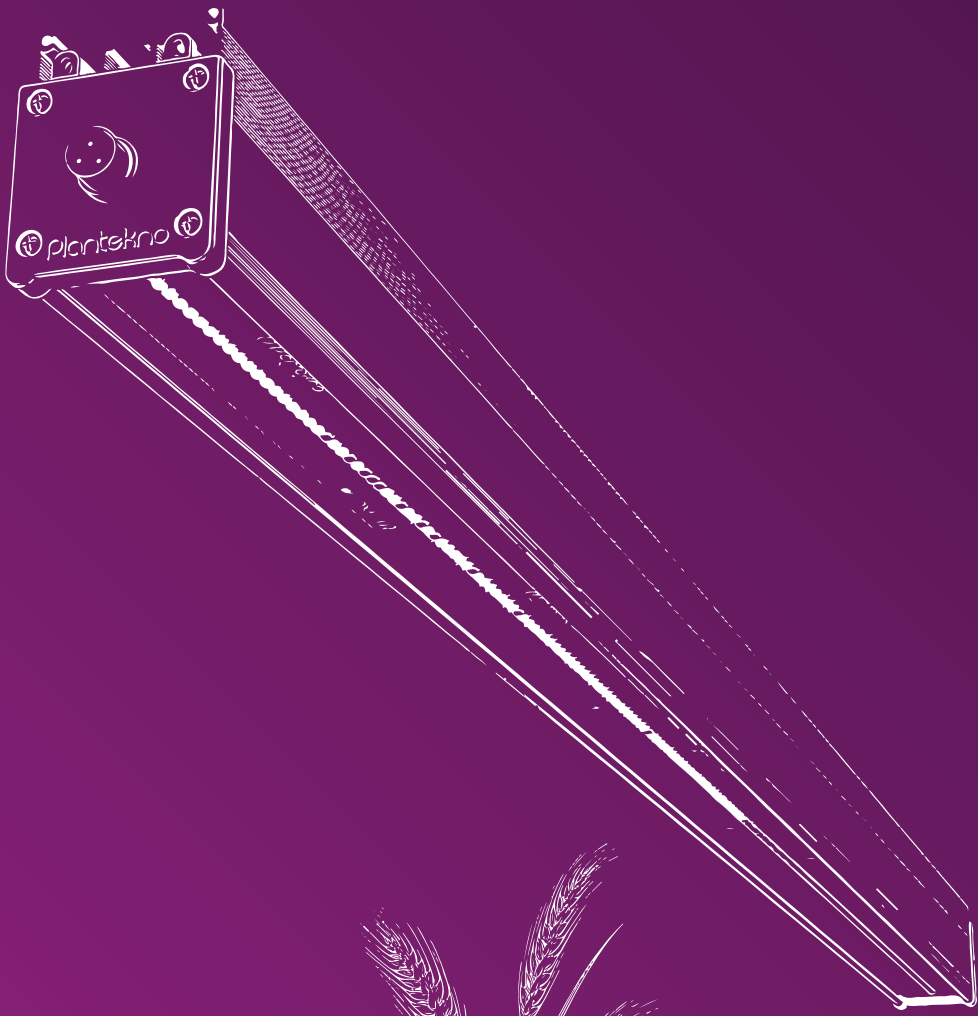


Fide Üretimi
Seedling



SOME REFERENCES





 **Plantekno**[®]

LED GROW LIGHT TECHNOLOGY

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