



PhotonMax[®]
BY **MaxLite[®]**

HORTICULTURE CAPABILITIES



PhotonMax®

WHO WE ARE:

MaxLite has been committed to providing energy-efficient lighting products since 1993. One of the first movers into LED technology, MaxLite offers an extensive line of lamps and luminaires that help businesses of all industries save energy, save money, and protect the climate. Desiring to bring its innovation to LED-based horticulture lighting systems, MaxLite developed and launched the PhotonMax Spot Light as the first product approved to the Design Lights Consortium (DLC) Horticultural Qualified Products List. A full solution provider, MaxLite also offers high-pressure sodium and ceramic metal halide grow lights. With extensive product research and development capabilities, and an expert horticulture sales team, MaxLite is at the forefront of providing quality lighting solutions that empower cultivators to grow their crop to its highest potential.

OUR APPROACH:

MaxLite's team has over 25 years of combined industry experience, allowing us to take a proactive approach to provide horticulture lighting solutions. With this experience, MaxLite offers many support services that are unparalleled in the industry.

OUR SERVICES:

MaxLite understands your success is paramount, and we are here to ensure your lighting solution delivers that success. Our team will provide you with unrivaled support, every step of the way. From initial lighting design, to implementation, to successful operation, we are a resource you can rely on. The PhotonMax line is specifically engineered to meet the rigorous demands of horticulture applications, and we stand behind our products with the highest standards of performance and quality assurance. MaxLite was the first lighting manufacturer to utilize the UL Third Party performance verification program for horticulture luminaires, and the first to have a product approved to the Design Lights Consortium (DLC) Horticultural Qualified Products List. Our industry-leading warranty demonstrates our commitment to providing horticulture lighting solutions you can count on today, and for years to come.



HORTICULTURE CAPABILITIES

MARKET SEGMENTS WE SERVE:



Greenhouse

- Vine crops: *Tomato, cucumber, etc.*
- Leafy greens: *Lettuce, kale, micro greens, etc.*
- Ornamentals and Potted/Bedding Plants: *Poinsettias, daisies, begonias.*
- Seedlings and Starter Plants: *Tomato, Rosemary, Pepper, etc.*



Vertical Farming

- Any type of vertical crop production through the use of multiple layers (i.e., growing crops on racks).
- Controlled Environment Agriculture.
- Any type of crop production where plants and/or organisms are produced in a completely controlled environment.



Cannabis

- Indoor grown: *Powered light is the sole source of energy for plants.*
- Greenhouse/Hybrid GH: *Powered light is supplemental to the sun.*

OUR TEAM:



Dr. Dan Choi

Director of Engineering

Dan holds a PhD in LED physics. Prior to joining MaxLite, Dan was principal engineer at Samsung, where he specialized in LED technology. He developed LED chips and was a product manager for the LED components that the horticulture lighting industry (including MaxLite's competitors) uses in its fixtures today.

LED LINEAR LIGHTS



The PhotonMAX® Horticulture LED LINEAR LIGHT delivers powerful lighting in a sleek form factor, ideal for supplemental and sole source applications. The linear light provides high output and efficacy for greenhouse and indoor growers of all crop types. A lightweight, linkable design and multiple mounting options offers ease of installation for large-scale use.

APPLICATIONS

GREENHOUSE:

Fixtures are designed to easily mount on strut and gutters in a greenhouse, drivers remain on board reducing labor costs while providing a cleaner installation. The slim formfactor reduces shadowing allowing the most natural light to hit the canopy. Fixtures can be mounted end to end or with a daisy chain cable.

INDOOR:

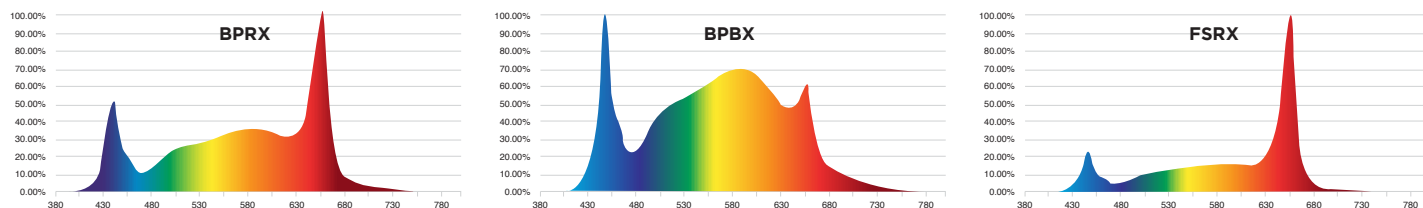
Fixtures are designed to easily mount on strut and the drivers remain on board reducing labor costs while providing a cleaner installation. 2 300w fixtures placed over a 4x4' footprint provides 800+ umol for cannabis or other hard flowering indoor crops and does so using 50+ less watts than other single fixture designs.

VALUE PROPOSITIONS

- Comprised of the industry's top performing name brand components like Samsung, Phillips and Osram.
- Designed with a lens to protect the LED chips from spectra degradation due to horticulture sprays and dust. The lens makes cleaning SOPs a breeze.
- Designed with a heat sink that keeps dust and microbes out of the fixture, other leading heat sink designs are dust and microbe traps and are much harder to keep clean.
- Industry leading performance is verified by the DLC and this fixture qualifies for rebates wherever they are available.

LED LINEAR LIGHTS

SPECTRUMS



SPECIFICATIONS

NOMINAL 200W													
ITEM	SPECIFICATION	BPRX	BPBX	FSRX	BPRX	BPBX	FSRX	BPRX	BPBX	FSRX	BPRX	BPBX	FSRX
GENERAL PERFORMANCE	Operating Voltage	120V			277V			347V			480V		
	Input Power (W)	192.30	200.63	198.60	187.95	195.91	195.52	185.51	195.94	190.39	184.07	193.34	190.34
	Input Current (A)	1.67	1.67	1.67	0.72	0.72	0.72	0.58	0.58	0.58	0.42	0.42	0.42
	PPF (μmol/s)	491	491	533	491	491	533	491	491	533	491	491	533
	Heat Output (BTU's)	628	660	649	628	660	649	628	660	649	628	660	649
	Q90	Photon Flux Maintenance Q90 >36,000 hours at 40°C (104°F) per IESNA TM-21											
	PPE (μmol/J)	2.6	2.5	2.7	2.6	2.5	2.7	2.7	2.5	2.8	2.7	2.5	2.8
PHYSICAL	Product Dimensions	3.1" x 3.26" x 48"											
	Housing	Extruded aluminum with die-cast end-cap											
	Product Weight	13.67 lbs. (6.2 kg)											
CERTIFICATION	Environment	Wet location rated											
	Warranty	5 Years											
	Operating Temperature	0° to 40°C											
	Humidity	10% - 90% RH, non condensing											
	Certification	UL Lists, IP65											
QUALIFICATION	DLC Horticulture	DLC Horticulture qualified											

NOMINAL 300W					
ITEM	SPECIFICATION	BPRX			
GENERAL PERFORMANCE	Operating Voltage	120V	277V	347V	480V
	Input Power (W)	302.51	295.32	289.97	288.17
	Input Current (A)	2.50	1.10	0.86	0.63
	PPF (μmol/s)	761			
	Heat Output (BTU's)	1032	1007	989	983
	Q90	Photon Flux Maintenance Q90 >36,000 hours at 40°C (104°F) per IESNA TM-21			
	PPE (μmol/J)	2.5	2.6	2.6	2.6
PHYSICAL	Product Dimensions	3.1" x 3.26" x 48"			
	Housing	Die-cast aluminum			
	Product Weight	13.67 lbs. (6.2 kg)			
CERTIFICATION	Environment	Wet location rated			
	Warranty	5 Years			
	Operating Temperature	0° to 40°C			
	Humidity	10% - 90% RH, non condensing			
	Certification	UL Lists, IP65			

LED SPOT LIGHTS



The PhotonMAX® Horticulture LED SPOT LIGHT delivers powerful lighting, in a sleek form factor ideal for supplemental and sole source applications. The lighting solution offers an extraordinary blend of performance, high output and photon efficacy. With 4 spectra combinations to choose from, our tailored spectra can meet all your various application needs. A slim form factor and light weight design offers ease of installation for large scale use with multiple mounting options.

APPLICATIONS

GREENHOUSE:

Fixtures are designed to easily mount on strut and gutters in a greenhouse, drivers remain on board reducing labor costs while providing a cleaner installation.

INDOOR:

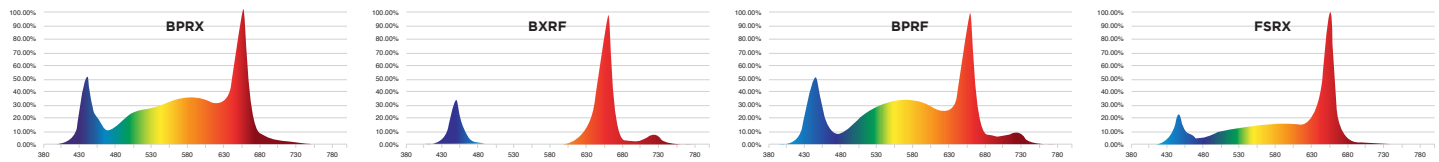
Fixtures are designed to easily mount on strut and the drivers remain on board reducing labor costs while providing a cleaner installation.

VALUE PROPOSITIONS

- 1st fixture listed on DLC hort.
- 1st with UL performance
- 4 spectrums available
- Performance is verified by the DLC and this fixture qualifies for rebates wherever they are available.

LED SPOT LIGHTS

SPECTRUMS

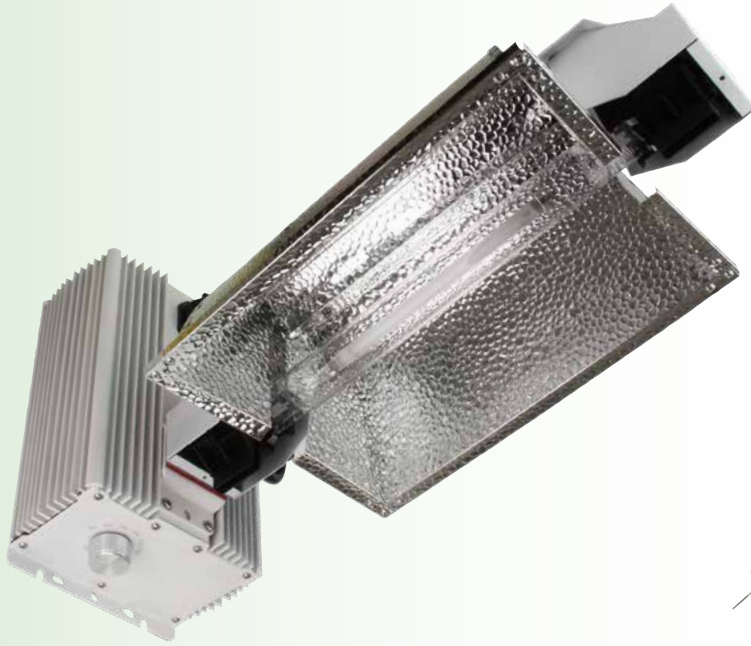


SPECIFICATIONS

NOMINAL 360W									
ITEM	SPECIFICATION	BPRX	BPRX	BPRF	BPRF	BXRf	BXRf	FSRF	FSRF
GENERAL PERFORMANCE	Operating Voltage	120-277V	347-480V	120-277V	347-480V	120-277V	347-480V	120-277V	347-480V
	Input Power (W)	369.8	362.3	362.1	353.4	340.5	333.9	362.3	350.1
	Input Current	(120V @ 3.0 A, 277V @ 1.3 A) (347V @ 1.04 A, 480V @ .75 A)							
	PPF (μmol/s)	755.2	755.2	680.1	680.1	699.8	699.8	753.2	753.2
	Heat Output (BTU's)	1261.8	1236.4	1235.5	1205.9	1161.8	1139.3	1236.2	1194.6
	Photon Flux Maintenance Q90	Photon Flux Maintenance Q90 >54000 hours at 40°C (104°F) per IESNA TM-21							
	Efficacy (μmol/J)	2.04	2.08	1.9	1.92	2.1	2.1	2.08	2.15
PHYSICAL	Product Dimensions	18.77" x 16.73" x 5"							
	Housing	Die-cast aluminum							
	Product Weight	Up to 35lb. (16 kg)							
CERTIFICATION	Environment	Wet location rated							
	Warranty	5 Years							
	Operating Temperature	0° to 40°C							
	Humidity	10% - 90% RH, non condensing							
	Certification	UL listed, IP66							

NOMINAL 600W									
ITEM	SPECIFICATION	BPRX	BPRX	BPRF	BPRF	BXRf	BXRf	FSRF	FSRF
GENERAL PERFORMANCE	Operating Voltage	120-277V	347-480V	120-277V	347-480V	120-277V	347-480V	120-277V	347-480V
	Input Power (W)	578.3	559.9	582.9	564.4	545.8	539.6	591.4	586.2
	Input Current	(120V @ 5.0 A, 277V @ 2.2 A) (347V @ 2.2 A, 480V @ 1.25 A)							
	PPF (μmol/s)	1143.7	1143.7	1088.5	1088.5	1234.7	1234.7	1224.2	1224.2
	Heat Output (BTU's)	1973.2	1910.5	1988.9	1925.8	1862.3	1841.2	2017.9	2000.3
	Photon Flux Maintenance Q90	Photon Flux Maintenance Q90 >54000 hours at 40°C (104°F) per IESNA TM-21							
	Efficacy (μmol/J)	2	2.04	1.87	1.93	2.1	2.3	2.07	2.09
PHYSICAL	Product Dimensions	18.77" x 16.73" x 5"							
	Housing	Die-cast aluminum							
	Product Weight	Up to 35lb. (16 kg)							
CERTIFICATION	Environment	Wet location rated							
	Warranty	5 Years							
	Operating Temperature	0° to 40°C							
	Humidity	10% - 90% RH, non condensing							
	Certification	UL listed, IP66							

DOUBLE ENDED HIGH PRESSURE SODIUM



The PhotonMAX® Double Ended fixture offer's the highest output of all the PhotonMAX® products, reducing up front investment cost while minimizing required fixtures. To this day, the most widely sold solution that cultivars depend on for Greenhouse and indoor crop production. In addition, ballast come standard with cooling fins to help reduce failures and extend the operating life of the product.

APPLICATIONS

GREENHOUSE:

Cannabis, hemp, tomatoes, fruiting and flowering crops.

INDOOR:

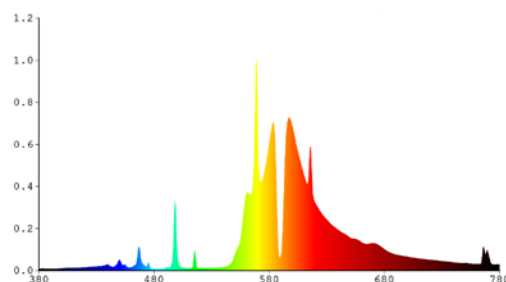
Cannabis, hemp, and warehouse style growing.

VALUE PROPOSITIONS

- Highest PPF/\$
- Dimmable via RJ11 Port
- Control Compatible with all major brands using RJ11 Port
- Utilizes High reflectivity German Aluminum Reflector
- Selectable Wattage Via Dial Control
- Standard 3-Year Warranty
- Controllers Sold Separately

DOUBLE ENDED HIGH PRESSURE SODIUM

SPECTRUMS



SPECIFICATIONS

		PH-1000HPS-F-DE	PH-1000HPS2-F-DE	PH-1000HPS3-F-DE
ITEM	SPECIFICATION	DETAILS		
GENERAL PERFORMANCE	Wattage	1000W		
	Ballast Efficiency	93%		
	Lifetime (Lamp)	10,000 Hours		
	BTU Output	3,412 BTU's/Hour		
ELECTRICAL	Frequency	50/60Hz		
	Input Voltage	120V	277V	347V
	THD	≤10%		
	Power Factor	≥.98		
PHYSICAL	Start/Warm up	5 Mins.		
CERTIFICATION	Certifications	ETL, CETL		

BALLAST SPECIFICATIONS:		PH-1000HPS-F-DE	PH-1000HPS2-F-DE	PH-1000HPS3-F-DE
SPECIFICATIONS		DETAILS		
Input Voltage		120V	277V	347V
Input Frequency (HZ)		50/60 HZ		
Input Power Factor		≥.98		
THD (%)		≤10		
Wave Crest Ratio		≤1.7		
Starting Time (Seconds)		5 Minutes Maximum		
Pulse Start		4-5KV		
Output Rated Frequency		110HZ		
Open Circuit Voltage		≤440		
Efficiency		≥93%		
6-Phase Dimming		Yes		
0-10V Dimming		No	Yes	Yes

CERAMIC METAL HALIDE (SINGLE-LAMP)



The PhotonMAX® CMH Series is available in two wattage options, the newest solution for HID products on the market. Providing a superior spectrum to standard Metal Halide and High-Pressure Sodium lamps, plants can benefit from improved structure and shape. Color appears as a 3000K at 90 CRI allowing cultivators to better assess plant needs.

APPLICATIONS

GREENHOUSE:

Cannabis, hemp, tomatoes, fruiting and flowering crops.

INDOOR:

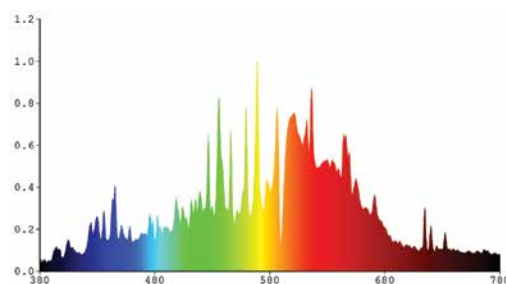
Cannabis, hemp, and warehouse style growing.

VALUE PROPOSITIONS

- High CRI (90)
- 3000K Lamp
- Two Wattage Options
- PGZ18 Base, Ensures using the correct lamp
- High Reflectivity Reflector
- Standard 3-Year Warranty

CERAMIC METAL HALIDE (SINGLE-LAMP)

SPECTRUMS



SPECIFICATIONS

		PH-MHF315130	PH--MHF315230
ITEM	SPECIFICATION	DETAILS	
GENERAL PERFORMANCE	Wattage	315W	
	PPF	≥480umol	
	Ballast Efficiency	≥.92%	
	Lifetime (Lamp)	10,000 Hours	
	BTU Output	3,412 BTU's/Hour	
ELECTRICAL	Frequency	50/60Hz	
	Input Voltage	120-240V	220-277V
	THD	≤10%	
	Power Factor	≥.98	
PHYSICAL	Start/Warm up	5 Mins.	
CERTIFICATION	Certifications	ETL, CETL	

BALLAST SPECIFICATIONS:		PH-MHF315130	PH--MHF315230
SPECIFICATIONS		DETAILS	
Input Voltage		120-240V	220-277V
Input Frequency (HZ)		50/60 HZ	
Input Power Factor		≥.98	
THD (%)		≤10	
Wave Crest Ratio		≤1.7	
Starting Time (Seconds)		5 Minutes Maximum	
Pulse Start		4-5KV	
Output Rated Frequency		110HZ	
Open Circuit Voltage		≤440	
Efficiency		≥92%	
6-Phase Dimming		Yes	
0-10V Dimming		No	Yes

CERAMIC METAL HALIDE (DUAL-LAMP)



The PhotonMAX® CMH Series is available in two wattage options, the newest solution for HID products on the market. Providing a superior spectrum to standard Metal Halide and High-Pressure Sodium lamps, plants can benefit from improved structure and shape. Color appears as a 3000K at 90 CRI allowing cultivators to better assess plant needs.

APPLICATIONS

GREENHOUSE:

Cannabis, hemp, tomatoes, fruiting and flowering crops.

INDOOR:

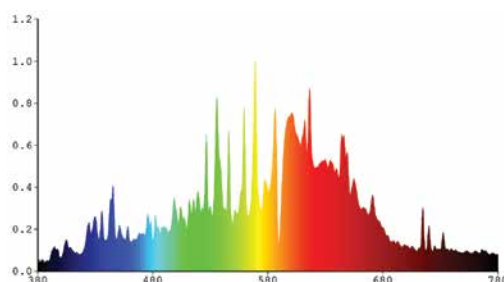
Cannabis, hemp, and warehouse style growing.

VALUE PROPOSITIONS

- High CRI (90)
- 3000K Lamp
- Two Wattage Options
- PGZ18 Base, Ensures using the correct lamp
- High Reflectivity Reflector
- Standard 3-Year Warranty

CERAMIC METAL HALIDE (DUAL-LAMP)

SPECTRUMS



SPECIFICATIONS

		PH-MHF630130	PH--MHF630230
ITEM	SPECIFICATION	DETAILS	
GENERAL PERFORMANCE	Wattage	630W	
	PPF	≥1000umol	
	Ballast Efficiency	≥.92%	
	Lifetime (Lamp)	10,000 Hours	
	BTU Output	3,412 BTU's/Hour	
ELECTRICAL	Frequency	50/60Hz	
	Input Voltage	120-240V	220-277V
	THD	≤10%	
	Power Factor	≥.98	
PHYSICAL	Start/Warm up	5 Mins.	
CERTIFICATION	Certifications	ETL, CETL	

BALLAST SPECIFICATIONS:		PH-MHF630130	PH--MHF630230
SPECIFICATIONS		DETAILS	
Input Voltage		120-240V	220-277V
Input Frequency (HZ)		50/60 HZ	
Input Power Factor		≥.98	
THD (%)		≤10	
Wave Crest Ratio		≤1.7	
Starting Time (Seconds)		5 Minutes Maximum	
Pulse Start		4-5KV	
Output Rated Frequency		110HZ	
Open Circuit Voltage		≤440	
Efficiency		≥92%	

HORTICULTURE LIGHTING REQUEST FORM



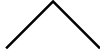
STANDARD CROPS

Project Name:	Dealer Company:		
Dealer Contact:	Customer Contact:		
Job Company:	Street Address:		
	City:		
	State:	Zip Code:	
Your E-Mail:	Phone:		

Crop: _____

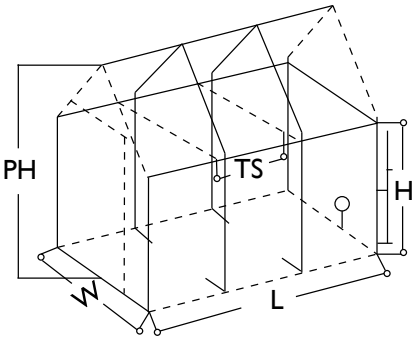
☐ Arch
 ☐ Gothic
 ☐ Cable
 Other:

Structure:
☐ Greenhouse
 ☐ Warehouse
 ☐ Other

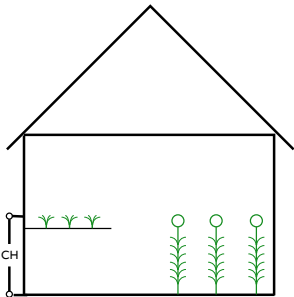




BUILDING MEASUREMENTS:

Number of Buildings	Width W	Length L	Bottom of the Truss, Eave Height H
Peak Height PH	Space Between Trusses TS	Bench + Crop Height = CH	



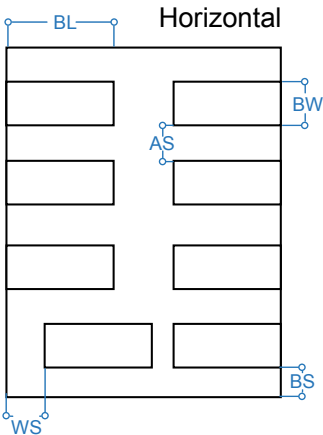
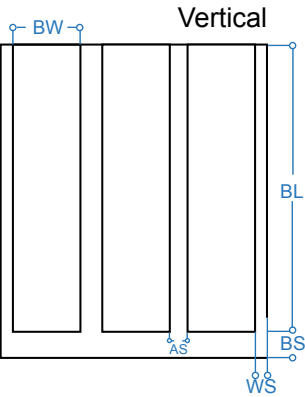
Building Specifications



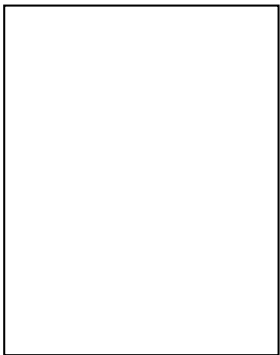
Crop Height & Light Distance

Obstacles	Y	N
Partition between bays?		
Material:		
Shade curtain?		
If yes, is it below the truss?		
Describe obstacles:		

BENCH MEASUREMENTS



Other



Number of Benches	Bench Length BL	Bench Width BW
Bench Start BS	Aisle Space AS	Space from Wall WS

Please submit a sketch of your bench layout with dimensions

Orientation of Benches:
☐ Vertical
 ☐ Horizontal
 ☐ Other

Bed/Bench Type:
☐ Stationary
 ☐ Rolling
 ☐ Ground Beds
 ☐ Other

Bench height from floor: _____

HORTICULTURE LIGHTING REQUEST FORM

STANDARD CROPS

LIGHT NEEDS:

Light Requirements: ☐ Sole source (indoor) ☐ Primarily supplemental ☐ Photoperiod/Daylength extension

Growth Stage: ☐ Propagation ☐ Vegetative ☐ Flowering

Uniformity Desired ☐ High (may result in more fixtures) ☐ Low (may result in fewer fixtures)

Desired Intensity

Micromoles:

Footcandles:

Moles/Day:

Natural+supplimental=

Supplimental only=

☐ Not sure- please base it on the crop type and my region and focus on:

☐ High Quality Levels

☐ Good Quality Levels

☐ Acceptable Levels

FIXTURE INFORMATION:

Fixture/
Technology Type: ☐ HID (HPS) Double-End ☐ HID (CMH) Single-End ☐ HID (CMH) Dual Lamp Single-End
☐ LED ☐ T8 (LED) Single-End

Voltage: ☐ 120V ☐ 208V ☐ 240V
☐ 277V ☐ 347V ☐ 480V

Plug/Cord
Requirements:

Other Special
Requirements not
Listed above:



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