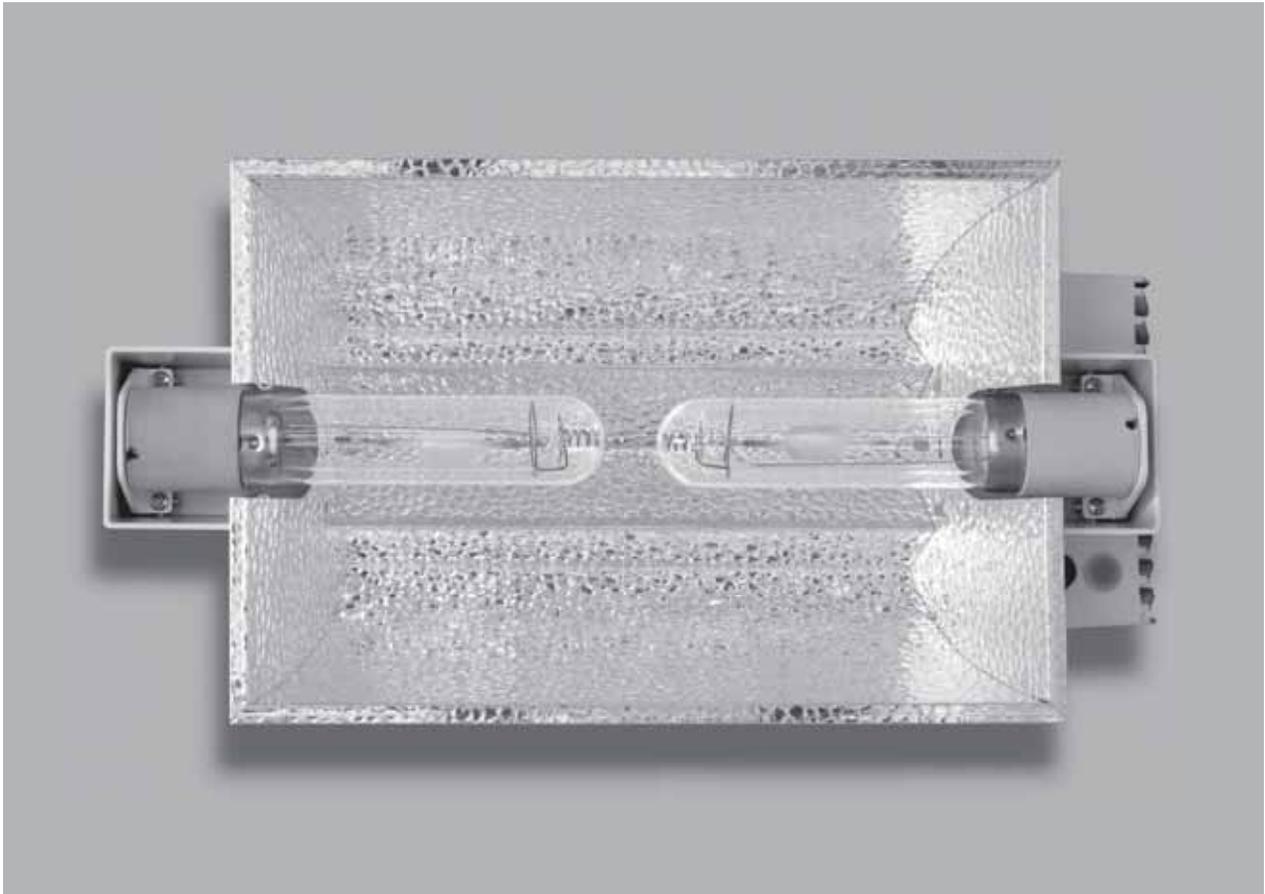

USER MANUAL

315W 277-347V DUAL DIMMABLE DE SYSTEM



LIGHTSPEED

Powered by LUMLUX

Dual Dimmable Lighting System



HYDROTEK
HYDROPONICS

SPECIFICATIONS

INPUT CHARACTERISTICS

Parameters	Conditions	Min	Type	Max	Units
Mains Voltage	Operational Voltage	249	277-347	382	V
	Safe Voltage	295	277-347	399	
Mains Frequency f_{mains}	Operational Frequency	48	50/60	63	Hz
	Safe Frequency	45	50/60	66	
Mains Power P_{mains}	P=100%	330*2	340*2	351*2	W
	P=90%	297*2	306*2	316*2	
	P=80%	264*2	272*2	281*2	
	P=70%	231*2	238*2	246*2	
	P=60%	198*2	204*2	211*2	
	P=50%	165*2	170*2	176*2	
Mains Current I_{mains}	$V_{\text{mains}}=347\text{V}$	1.8	2.0	2.1	A
	$V_{\text{mains}}=277\text{V}$	2.3	2.5	2.7	
	$V_{\text{mains}}=277\text{V}$	2.6	2.8	2.9	
Power Factor	P=100%	0.96	0.97	--	--
THD	P=100%	--	--	15%	--
Inrush Current	$V_{\text{mains}}=347\text{V}$ $T_a=25^\circ\text{C}$ cold start	--	--	30	A
Pulse Duration		--	--	0.8	ms

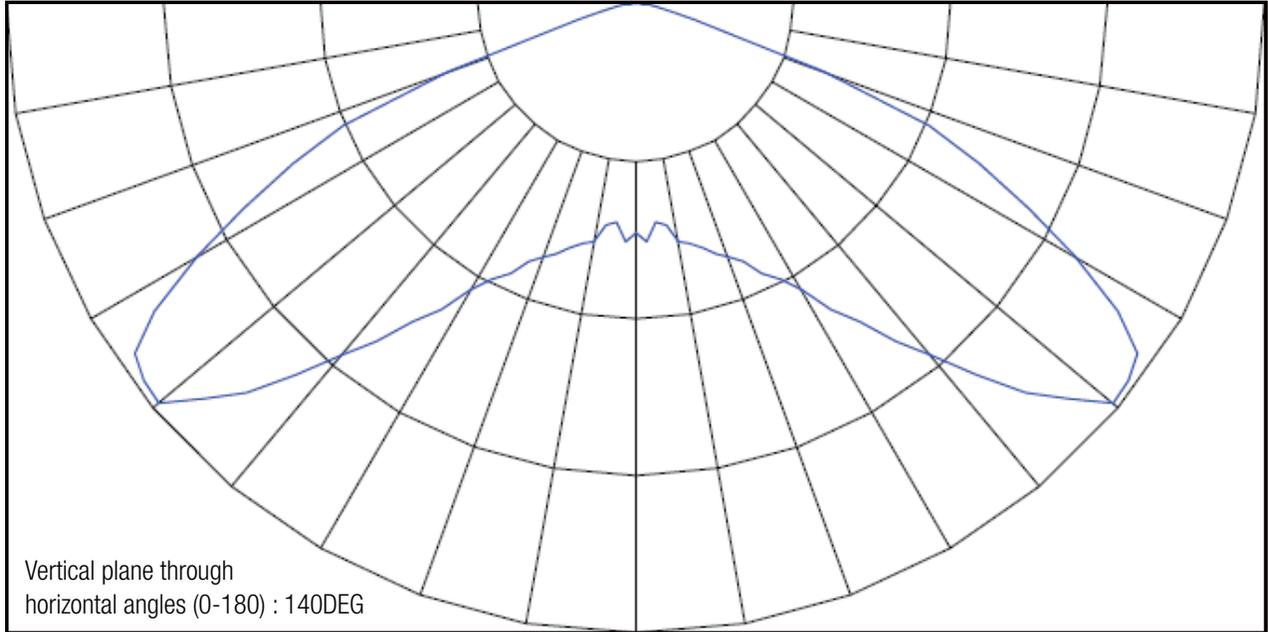
OUTPUT CHARACTERISTICS

Parameters	Conditions	Min	Type	Max	Units
Lamp Frequency f_{lamp}	P=1000W	196	206	216	KHz
Efficiency(%)	P=1000W	91	92	--	--
Lamp Power P_{lamp}	P=100%	296*2	315*2	328*2	W
	P=90%	267*2	284*2	300*2	
	P=80%	235*2	252*2	269*2	
	P=70%	204*2	221*2	237*2	
	P=60%	173*2	189*2	206*2	
	P=50%	141*2	158*2	175*2	
Lamp Voltage	315W CMH	90	100	115	V
Ignition Voltage	$C_{\text{load}} < 100\text{pF}$	3000	4000	5000	V
Ignition Interval	--	0.5-0.5-0.5-5-5-5-5-10			Min

RECOMMENDED MATCHING LAMP TYPES

315WCMH

CANDELA DISTRIBUTION



CAUTION – RISK OF FIRE

This product must be installed in accordance with applicable national and local electrical and construction codes by a person familiar with the construction and operation of the product and the hazards involved.

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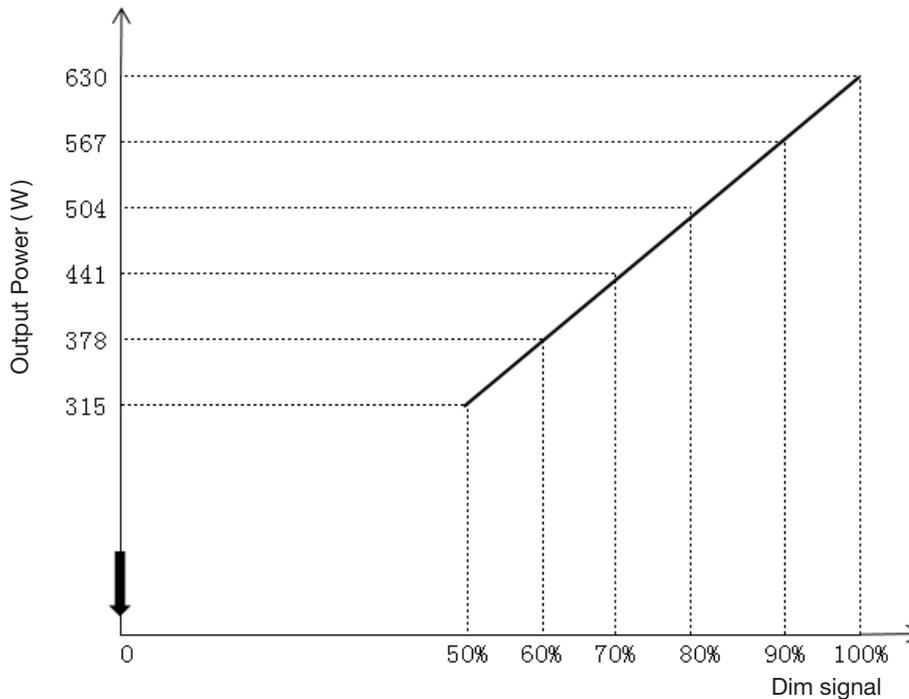
REMOTE DIMMING WITH OPTIONAL DIGITAL CONTROLLER

All output specifications are reported as a percentage of the full ballast rating ,
EXP: 80% of 315W ballast = 504W.

Output Mapping Equation (W): (Dimming ratio)*ballast rating=Output.

Note : 1. Dimming accuracy is 3% (as per the output power of $V_{mains} = 277V$).

2. When the dimming ratio is 0%, the ballast will be off ; user can set the parameters show in the 50%-100%.



REMOTE CONTROL FUNCTION

- It can control remotely the ballast's on/off/dimming rate.
- Group control mode: It can control the state of a set of products.
- Single lamp control mode: It can control the state of a single product.
- Sun rise and set: When the SR/SS set time is 0 min, the ballast will power on/off as its own speed, actually, it's exactly same as Power on/off.
- If no controller, the ballast can work with full power. If the controller is connected, it will work at the controller's power.

STATUS INDICATOR

The Lightspeed 315W dimmable system is equipped with an LED status indicator and an internal troubleshooting system.

- With no connected power supply, the ballast LED will be off.
- With power supply connected, the ballast LED will illuminate.

Note: When connected to the Lightspeed Digital Controller, the ballast LED status indicator will be off and instead the controller LED will be lit and flashing.

- If a system error occurs, the LED status indicator will flash abnormally. Refer to this chart to determine the signaled error:

LED Flashes	Status	Solution
1	Ballast locked	The ballast failed to ignite the lamp after five tries. Verify and reconnect the power source.
2	Output error	The lamp stopped for unknown reason. Check whether the lamp is correctly mounted.
3	Low input voltage	The input voltage is too low. Ensure the input voltage matches the power cord and ballast specifications.
4	High temperature	The ballast is overheated, to keep the environment temperature lower.
5	High input voltage	The input voltage is too high. Ensure the input voltage matches the power cord and ballast specifications.

CONTENTS

315W CMH Ballast	1	Connecting Cable With Wieland Plug	1
Reflector	1	Hanging hooks set	1
Instruction Manual	1	System-to-system signal cable	1

WARNING

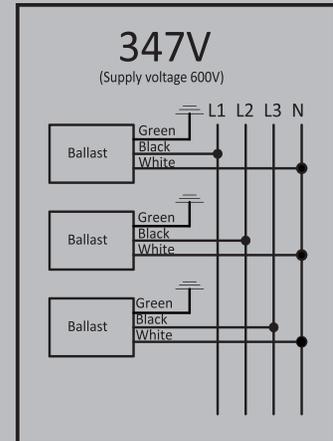
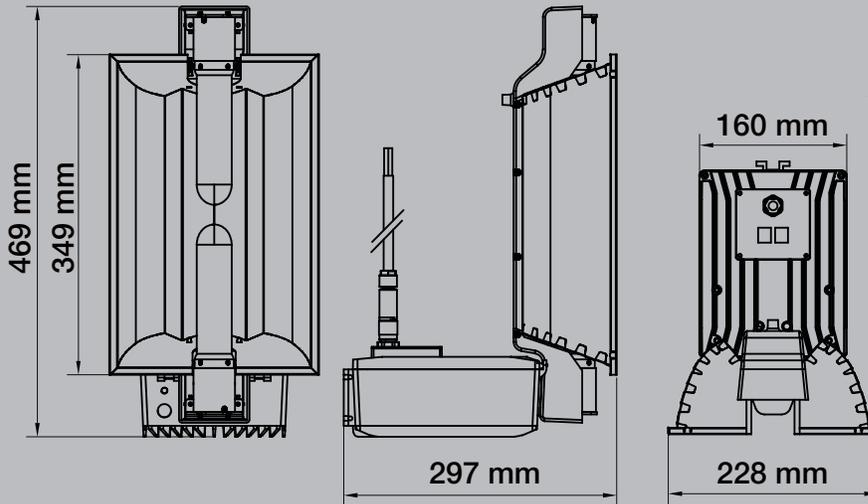
- For indoor use only.
- Install the system in a cool, dry, well-ventilated location.
- Ensure the power source meets the specifications of the unit.
- The power cord and any extensions used must match the voltage supplied to the system and meet standard electrical safety requirements.
- Modifying or opening the system will void the warranty.
- When resetting the ballast, a 15 minutes cool down period is required between lamp ignitions.
- Wear safety glasses and gloves when installing lamp.

IMPORTANT

- If the lamp fails to ignite:
 - Verify all electrical connections.
 - Check for errors via the LED status indicator (See instructions under "LED Status Indicator") and make the necessary correction.
- Should the fixture continue to fail, contact the point of sale for warranty and repair instructions.
- Prior authorization from Technical Support is required before opening the ballast and accessing internal components. Any unapproved attempt to open and/or repair the ballast will void the warranty.

FIXTURE INSTALLATION

1. Screw the provided hooks into their receptacles at the top of the reflector arm and ballast.
2. Hang the system from an adequate support using chain, ratchet hangers, or other suitable cables. Allow space around all sides of the unit for sufficient airflow.
3. Attach the female end of the power cord to the male input receptacle on the ballast.
4. (Optional) Connect the unit to the advanced Digital Lighting Controller via a connecting cable, following the controller instructions. When linking multiple units, use the included connecting cable to connect ballasts.
5. Plug the male end of the power cord into a properly grounded outlet to power on the system.



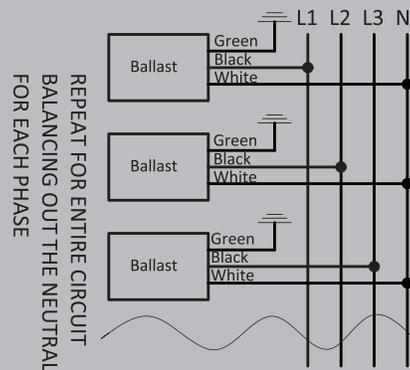
LAMP INSTALLATION

Avoid handling the lamp with bare hands, as dirt and oils will affect its efficiency and lifespan.

- 1) Disconnect the light fixture from its power source.
- 2) Screw the Lamp in the socket.
- 3) Gently wipe the lamp clean with a soft, dry, lint-free cloth.



277V/347V
(Supply voltage 480V/600V)



Manufactured by LUMLUX

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