



## Phantom 50 Series 1000W Lighting System Open Reflector

PHDEOK – ALL MODELS

The Phantom 50 Series DE Lighting System delivers unsurpassed performance and reliability. Phantom is trusted by professional growers worldwide.

The wide spread of the open reflector provides exceptional uniformity. The louvered design effectively dissipates heat while maintaining ideal lamp operational temperature which maximizes lamp output and lifetime.

### Phantom 50 Series 1000W System Features – Open Reflector

Lamp Compatibility	1000W HPS or MH DE* lamps
Reflector	Open DE
Reflector Material	European 99.85% pure, 95% reflectivity
Ballast	Phantom "Smart" 1000 W, 50 series
Ballast and Armature Material	Aluminum
Socket	K12 x 30 lampholders
Fixture Weight	12.1 lbs

### Ballast Features – All Ballasts

- Microprocessor Control
- LED Status Indicator
- Open Circuit Protection
- Open Circuit Indicator
- Short Circuit Protection
- Short Circuit Indicator
- Overtemperature Protection
- Overtemperature Indicator
- End-of-Lamp-Life Sensor
- End-of-Lamp-Life Indicator
- Over/Undervoltage Protection
- Over/Undervoltage Indicator
- Patented Ignition Control
- USB Port to Integrate with Climate Controls
- Auto-restrike Protection
- Internal EMI Suppression
- Gore-Tex® Vent Plug

### Ballast Electrical Specifications

#### All Ballasts

Output Power Settings	600W-750W-825W-1000W-1150W
Frequency	50/60Hz
Igniter Voltage	3–5 kV
THD	< 8%
CF	1.414–1.6
ta	40°C/104°F
tc	70°C/158°F

#### Lighting Fixture Code

	PHDEOK11	PHDEOK12	PHDEOK13	PHDEOK14	PHDEOK15
Ballast Model	PHB5015	PHB5010	PHB5020	PHB5025	PHB5030
Lamp Power	1000W	1000W	1000W	1000W	1000W
Main Voltage	208–240V	120–240V	277V	347V	480V
Operating Voltage Range	185–265V	110–265V	255–300V	310–380V	450–510V
Max Input Power	1236W	1246W	1236W	1236W	1215W
8' Power Cord	240V 16/3 IEC	120V 16/3 IEC	277V 16/3 AWG	347V 16/3 AWG	600V 16/3 AWG
NEMA Plug	6-15	5-15	L7-15P Twist Lock	L24-20P Twist Lock	L8-20P Twist Lock

### Ballast Input Amperage Reference

Voltage	208V	240V	120V	240V	277V	347V	480V
Imax	6.0A	5.3A	10.5A	5.3A	4.6A	3.6A	2.6A
1150W	5.8A	5.1A	10.2A	5.1A	4.4A	3.4A	2.5A
1000W	5.1A	4.4A	8.9A	4.5A	3.8A	3.0A	2.2A
825W	4.2A	3.7A	7.4A	3.7A	3.2A	2.5A	1.8A
750W	3.9A	3.3A	6.7A	3.3A	2.8A	2.2A	1.6A
600W	3.1A	2.7A	5.4A	2.7A	2.3A	1.8A	1.3A

### Phantom 50 Series Safety Certifications

	PHDEOK11	PHDEOK12	PHDEOK13	PHDEOK14	PHDEOK15
CSA/UL	Yes	Yes	Yes	Yes	Yes
FCC Commercial	Yes	Yes	Yes	Yes	Yes
FCC Residential	Yes	Yes	No	No	No
IC Certification (Canada)	No	No	No	Yes	No

### Phantom 50 Series Operation Notes

\*Metal Halide Double Ended (MH DE) lamps must be open rated and run at 100% power only. For use with a generator, line conditioning equipment to control input voltage must be used in order to avoid damage to the ballasts. Contact us for details.

### Phantom 50 Series Optional Accessories

The truss hangers below (sold separately) are designed to easily mount your Phantom fixture from Unistrut® or greenhouse C-channel strut for secure, level suspension.

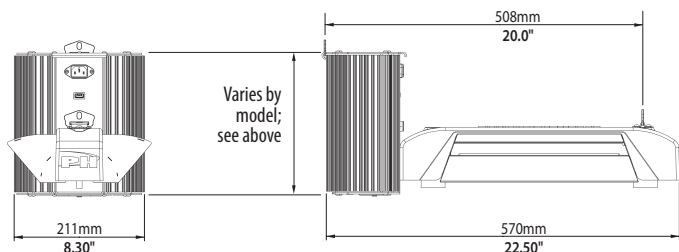
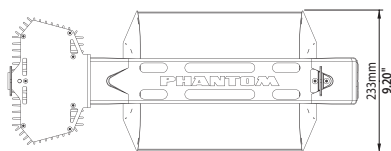
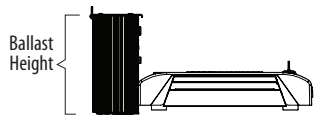
	PHDEOK11	PHDEOK12	PHDEOK13	PHDEOK14	PHDEOK15
Hanger					
PHDETH1	✓	✓	✓	✓	✓
PHDETH2	✓	✓	✓	✓	✓
PHWHS020	✓		✓	✓	✓
PHWHL020		✓			
Contact us for details about each hanger option.	PHDETH1	PHDETH2	PHWHS020	PHWHL020	

# PHANTOM 50 SERIES 1000W OPEN

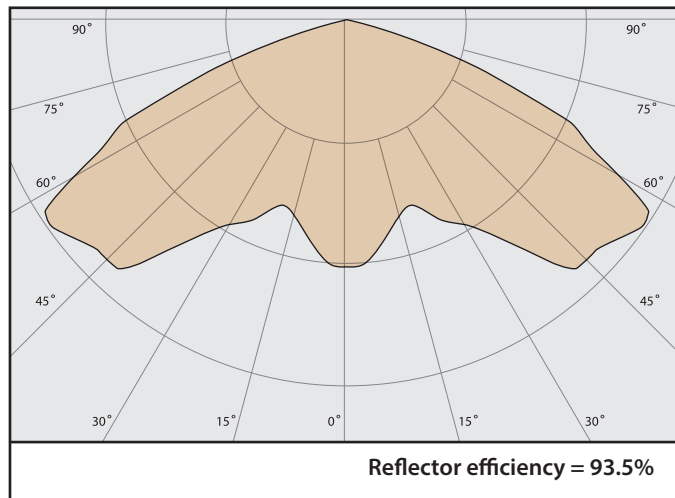
## Dimensional Drawings

Ballast height dimension varies by model:

- PHDEOK11 229mm / 9"
- PHDEOK12 261mm / 10.28"
- PHDEOK13 229mm / 9"
- PHDEOK14 211mm / 8.3"
- PHDEOK15 211mm / 8.3"



## Polar Diagram



**⚠ WARNING: POSSIBLE RISK OF INJURY TO EYES AND SKIN.**

Hazardous optical UV, HEV, and IR radiation may be emitted from the light source. Always wear personal protective equipment ensuring complete shielding of skin and eyes. Avoid prolonged exposure and looking directly at light source.

**⚠ WARNING: FAILURE TO FOLLOW GUIDELINES COULD RESULT IN ELECTRICAL SHOCK.**

Do not touch, move, spray, or clean your light fixture when it is plugged in. Allow it to cool down before handling. Recommended mounting clearance for your fixture is 8"-12" on all sides. Do not mount directly to any surface. Make sure to disconnect the power when changing the lamp. This tech sheet is not in any way a replacement for a technical installation manual. Consult technical installation manual prior to installation.

## Wiring Diagrams

Each ballast **MUST** be wired to the main's neutral line back to the circuit. **DO NOT** "daisy-chain" a neutral line with any other ballast.

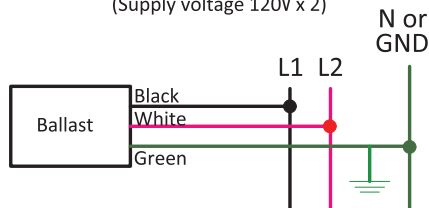
### 208V

(Supply voltage 208V)



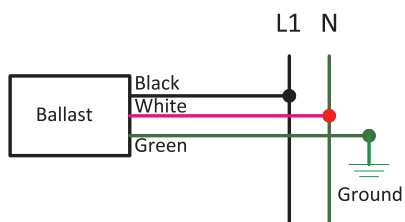
### 240V

(Supply voltage 120V x 2)



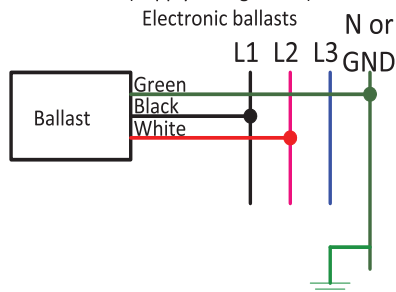
### 120/208V

(Supply voltage 120V/208V)



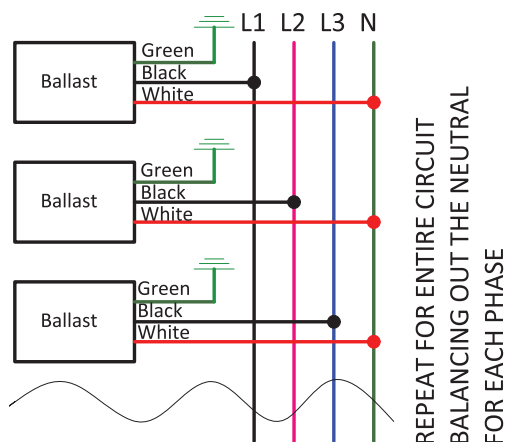
### 480V

(Supply voltage 480V)



### 277V/347V

(Supply voltage 480V/600V)



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