



Product Description

HORTI

High Pressure Sodium lamp with clear outer bulb, optimized growthlight output and maintenance

Benefits

- Optimized performance for horticultural applications
- High growthlight maintenance safeguards a constant crop quality and quantity over life

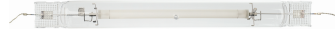
Features

- Clear tubular outer bulb
- Ceramic discharge tube with Philips Integrated Antenna (PIA) for a long and reliable lifetime
- Advanced getter ensures high growthlight maintenance and few early failures
- "GreenPower" concept with optimized micromol output (growth light)
- "Plus" concept with high efficacy translated into high light output
- "Agro" concept with optimized light spectrum

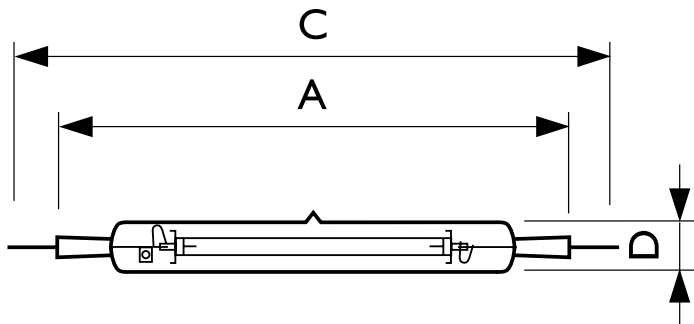
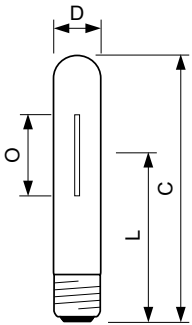
Application

- Horticultural applications, plant irradiation, assimilation lighting

Versions



Dimensional drawing



| Product | D | O | L | C | A |
|--|-------|----------|--------|--------|--------|
| MASTER GreenPower CG T 400W E40 | 47 mm | 118.6 mm | 175 mm | 283 mm | 205 mm |
| MASTER GreenPower CG T 400W E40 1SL/12 | 47 mm | 118.6 mm | 175 mm | 283 mm | 205 mm |
| MASTER GreenPower 600W 480V E40 1SL/12 | 47 mm | 1.81 in | 120 mm | 168 mm | 283 mm |
| MASTER GreenPower Plus 600W EL E40 1SL | 47 mm | 120 mm | 168 mm | 283 mm | 205 mm |
| MASTER GreenPower Plus 600W EL E40 UNP | 47 mm | 120 mm | 168 mm | 283 mm | 205 mm |
| MASTER GreenPower CG T 250W E40 1SL/12 | 47 mm | 94.2 mm | 158 mm | 257 mm | 170 mm |
| MASTER Agro 400W E40 1SL/12 | 47 mm | 83 mm | 175 mm | 278 mm | 205 mm |
| MASTER GreenPower CG T 600W E40 1SL/12 | 47 mm | 151 mm | 166 mm | 283 mm | 205 mm |
| MASTER GreenPower CG T 600W E40 1SL/12 | 47 mm | 151 mm | 166 mm | 283 mm | 205 mm |
| MASTER GreenPower 600W 400V E40 1SL/12 | 47 mm | 102 mm | 164 mm | 283 mm | 205 mm |
| MASTER GreenPower 600W 400V E40 1SL/12 | 47 mm | 102 mm | 164 mm | 283 mm | 205 mm |

| Product | D | O | C | A |
|--|---------|--------|--------|--------|
| MASTER GreenPower Plus 1000W EL/5X6CT | 33.5 mm | 147 mm | 394 mm | 325 mm |
| MASTER GreenPower Plus 1000W EL UNP/60 | 33.5 mm | 147 mm | 394 mm | 325 mm |

Light Technical

Color Code 220

Mechanical and Housing

Bulb Finish Clear

Approval and Application

| order code | Energy Consumption kWh/ 1000 h | Energy Efficiency Label (EEL) | Mercury (Hg) Content (Nom) |
|--------------|-----------------------------------|----------------------------------|-------------------------------|
| 928144609201 | 473 kWh | A+ | 22.0 mg |
| 928151219214 | 676 kWh | A++ | 41.8 mg |
| 928151219227 | 676 kWh | A++ | 41.8 mg |
| 928158709214 | 473 kWh | A+ | 20.0 mg |
| 928158709227 | 473 kWh | A+ | 20.0 mg |
| 928158809214 | 680 kWh | A++ | 30.0 mg |
| 928158809227 | 680 kWh | A++ | 30.0 mg |

| order code | Energy Consumption kWh/ 1000 h | Energy Efficiency Label (EEL) | Mercury (Hg) Content (Nom) |
|--------------|-----------------------------------|----------------------------------|-------------------------------|
| 928159209214 | 669 kWh | A++ | 42.0 mg |
| 928159209227 | 669 kWh | A++ | 42.0 mg |
| 928161409227 | 710 kWh | A++ | 42 mg |
| 928197109227 | 293 kWh | A+ | 15 mg |
| 928196305115 | 1116 kWh | A++ | 42.0 mg |
| 928196305116 | 1116 kWh | A++ | 42.0 mg |

Controls and Dimming

| order code | Dimmable |
|--------------|----------|
| 928144609201 | No |
| 928151219214 | No |
| 928151219227 | No |
| 928158709214 | Yes |
| 928158709227 | Yes |
| 928158809214 | Yes |
| 928158809227 | Yes |

| order code | Dimmable |
|--------------|----------|
| 928159209214 | Yes |
| 928159209227 | Yes |
| 928161409227 | Yes |
| 928197109227 | Yes |
| 928196305115 | Yes |
| 928196305116 | Yes |

Operating and Electrical

| order code | Lamp Current (EM) (Nom) | Voltage (Max) | Voltage (Min) | Voltage (Nom) | Power (Rated) (Min) | Power (Rated) (Nom) | Re-Ignition Time (Min) (Max) |
|--------------|-------------------------|---------------|---------------|---------------|---------------------|---------------------|------------------------------|
| 928144609201 | 3.9 A | 143 V | 113 V | 128 V | 430.0 W | 430.0 W | 2 min |
| 928151219214 | - | 244 V | 210 V | 228 V | 615.0 W | 615.0 W | 5 min |
| 928151219227 | - | 244 V | 210 V | 228 V | 615.0 W | 615.0 W | 5 min |
| 928158709214 | 4.0 A | 141 V | 111 V | 126 V | 430.0 W | 430.0 W | 1 min |
| 928158709227 | 4.0 A | 141 V | 111 V | 126 V | 430.0 W | 430.0 W | 1 min |
| 928158809214 | 5.45 A | 145 V | 115 V | 130 V | 618.0 W | 618.0 W | 1 min |
| 928158809227 | 5.45 A | 145 V | 115 V | 130 V | 618.0 W | 618.0 W | 1 min |
| 928159209214 | 3.64 A | 205 V | 175 V | 190 V | 608.0 W | 608.0 W | 1 min |
| 928159209227 | 3.64 A | 205 V | 175 V | 190 V | 608.0 W | 608.0 W | 1 min |
| 928161409227 | 3.620 A | 223 V | 193 V | 208 V | 595.0 W | 645.0 W | 1 min |
| 928197109227 | 2.8 A | 129 V | 99 V | 114 V | 267.0 W | 267.0 W | 120 min |
| 928196305115 | - | 270 V | 230 V | 250 V | 1015.0 W | 1000 W | 5 min |
| 928196305116 | - | 270 V | 230 V | 250 V | 1015.0 W | 1000 W | 5 min |

General Information

| order code | Bulb Shape | Cap-Base | Life To 10% Failures (Nom) | Life To 20% Failures (Nom) | Life To 50% Failures (Nom) | Life To 5% Failures (Nom) | Operating Position | System Description |
|--------------|------------|----------|----------------------------|----------------------------|----------------------------|---------------------------|--------------------|--------------------|
| 928144609201 | T46 | E40 | - | 9500 h | 18000 h | 5000 h | UNIVERSAL | External Ignitor |
| 928151219214 | T40 | E40 | 10000 h | - | 18000 h | - | UNIVERSAL | Electronic |
| 928151219227 | T40 | E40 | 10000 h | - | 18000 h | - | UNIVERSAL | Electronic |

| order code | Bulb Shape | Cap-Base | Life To 10% Failures (Nom) | Life To 20% Failures (Nom) | Life To 50% Failures (Nom) | Life To 5% Failures (Nom) | Operating Position | System Description |
|--------------|------------|----------|----------------------------|----------------------------|----------------------------|---------------------------|--------------------|--------------------|
| 928158709214 | T46 | E40 | 21000 h | 25000 h | 30000 h | 18000 h | UNIVERSAL | External Ignitor |
| 928158709227 | T46 | E40 | 21000 h | 25000 h | 30000 h | 18000 h | UNIVERSAL | External Ignitor |
| 928158809214 | T46 | E40 | 14000 h | 20000 h | 32000 h | 9500 h | UNIVERSAL | External Ignitor |
| 928158809227 | T46 | E40 | 14000 h | 20000 h | 32000 h | 9500 h | UNIVERSAL | External Ignitor |
| 928159209214 | T46 | E40 | 14000 h | 16000 h | 20000 h | 12000 h | UNIVERSAL | System 400V |
| 928159209227 | T46 | E40 | 14000 h | 16000 h | 20000 h | 12000 h | UNIVERSAL | System 400V |
| 928161409227 | T46 | E40 | - | 16000 h | - | 12000 h | UNIVERSAL | System 480V |
| 928197109227 | T46 | E40 | - | 26000 h | 32000 h | 16000 h | UNIVERSAL | System 230V |
| 928196305115 | T40 | K12X30S | 10000 h | - | - | - | P | Electronic |
| 928196305116 | T40 | K12X30S | 10000 h | - | - | - | P | Electronic |

Luminaire Design Requirements

| order code | Bulb Temperature (Max) | order code | Bulb Temperature (Max) |
|--------------|------------------------|--------------|------------------------|
| 928144609201 | 450 °C | 928159209214 | 450 °C |
| 928151219214 | 450 °C | 928159209227 | 450 °C |
| 928151219227 | 450 °C | 928161409227 | 450 °C |
| 928158709214 | 450 °C | 928197109227 | 450 °C |
| 928158709227 | 450 °C | 928196305115 | 700 °C |
| 928158809214 | 450 °C | 928196305116 | 700 °C |
| 928158809227 | 450 °C | | |

Light Technical (1/2)

| order code | Chromaticity | Chromaticity | Correlated Color Temperature (Nom) | Color Rendering Index (Max) | Color Rendering Index (Nom) | Luminous Efficacy (rated) (Nom) | Luminous Flux (Rated) (Nom) | Photosynthetic Photon Flux (PPF) |
|--------------|--------------------|--------------------|------------------------------------|-----------------------------|-----------------------------|---------------------------------|-----------------------------|----------------------------------|
| | Coordinate X (Nom) | Coordinate Y (Nom) | | | | | | |
| 928144609201 | 520 | 415 | 2000 K | 25 | 20 | 132.5 lm/W | 57000 lm | 695 µmol/s |
| 928151219214 | 533 | 416 | 2000 K | - | 36 | 144 lm/W | 89250 lm | 1190 µmol/s |
| 928151219227 | 533 | 416 | 2000 K | - | 36 | 144 lm/W | 89250 lm | 1190 µmol/s |
| 928158709214 | - | - | 2000 K | - | 29 | 136 lm/W | 58500 lm | 750 µmol/s |
| 928158709227 | - | - | 2000 K | - | 29 | 136 lm/W | 58500 lm | 750 µmol/s |
| 928158809214 | 533 | 432 | 2000 K | - | 26 | 142.4 lm/W | 88000 lm | 1100 µmol/s |
| 928158809227 | 533 | 432 | 2000 K | - | 26 | 142.4 lm/W | 88000 lm | 1100 µmol/s |
| 928159209214 | 526 | 420 | 2000 K | - | 30 | 144 lm/W | 87550 lm | 1120 µmol/s |
| 928159209227 | 526 | 420 | 2000 K | - | 30 | 144 lm/W | 87550 lm | 1120 µmol/s |
| 928161409227 | 526 | 420 | 2040 K | - | 33 | 142 lm/W | 84500 lm | 1200 µmol/s |
| 928197109227 | - | - | 2000 K | - | 29 | 124.7 lm/W | 33300 lm | 422 µmol/s |
| 928196305115 | 529 | 416 | 2000 K | - | 38 | 141 lm/W | 143000 lm | 2100 µmol/s |
| 928196305116 | 529 | 416 | 2000 K | - | 38 | 141 lm/W | 143000 lm | 2100 µmol/s |

Light Technical (2/2)

| order code | PPF Maintenance 10000 h | PPF Maintenance 12000 h | PPF Maintenance 2000 h | PPF Maintenance 4000 h | PPF Maintenance 5000 h | PPF Maintenance 6000 h |
|--------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| 928144609201 | 84 % | - | 96 % | - | 90 % | - |
| 928151219214 | 93 % | - | 98 % | 97 % | - | - |
| 928151219227 | 93 % | - | 98 % | 97 % | - | - |
| 928158709214 | - | 94 % | 97 % | 96 % | - | 96 % |
| 928158709227 | - | 94 % | 97 % | 96 % | - | 96 % |
| 928158809214 | 91 % | 89 % | 97 % | - | 93 % | - |
| 928158809227 | 91 % | 89 % | 97 % | - | 93 % | - |

| order code | PPF Maintenance 10000 h | PPF Maintenance 12000 h | PPF Maintenance 2000 h | PPF Maintenance 4000 h | PPF Maintenance 5000 h | PPF Maintenance 6000 h |
|--------------|-------------------------|-------------------------|------------------------|------------------------|------------------------|------------------------|
| 928159209214 | 94 % | 92 % | 100 % | 100 % | - | 97 % |
| 928159209227 | 94 % | 92 % | 100 % | 100 % | - | 97 % |
| 928161409227 | 94 % | 92 % | 99 % | 98 % | - | 96 % |
| 928197109227 | - | - | - | - | - | - |
| 928196305115 | 95 % | - | - | 98 % | - | - |
| 928196305116 | 95 % | - | - | 98 % | - | - |

Light Distribution Diagrams

