NANOLUX

Technology Inc

DE-CHILL 1000W

DIMMING

NCCS Cloud Server

Security

Doser

Monitor

Lighting

THC

DLI

Lighting
Temp: 80°F
Group 1   24
Auto ⇕   Auto Setting
Group 2   24
80% ⇕   Auto Setting
Group 3   24
Auto ⇕   Auto

NCCS
Cloud Server

Remote Operating (mobile)

Internet

CONTROL THE GARDEN FROM THE CLOUD

NCCS-Nanolux Cloud Control System

Doser
Nutrient

Ballast

THC
Temp/Humi/CO2

Internet

DTU
Data Transfer Unit

Bluetooth or wifi

Internet

Operating in garden (mobile)

NCCS APP (Android)   NCCS APP (iOS)

www.nanolux.com.au

NANOLUX Technology Inc

Nanolux is proud to introduce its new NCCS APP system. The new NCCS APP can be downloaded for free from the Google Play Store or the Apple APP Store.

Use the APP to control your grow room from anywhere in the world on your Smart Phone or Tablet. The first of its kind; the NCCS is an "all-in-one" application that will continually grow as your needs do. The NCCS windows software was released in 2014 for PCs to control light timing, dimming, and overheat protection. Originally operating on its own wireless cloud network, Nanolux has now created an APP for both an iPhone and Android. The APP is far more versatile and extensive compared to the original PC software release. The new APP will have the same lighting controls plus several new controls including: room temperature, humidity, and CO_2 with the NCCS THC controller, and soon our pH/EC doser. Just like the lighting controls, the THC and pH controller will be wireless, and adjustable from the APP. With the APP, you can set the perfect growing parameters and have peace of mind knowing it's all automated. No longer do you have to constantly walk through the grow room and take readings from several different controllers. Simply open your phone APP to monitor or adjust settings depending on your plants needs. This means less time wasted in the growing environment, which provides less of a chance of disrupting the controlled environment or introducing outside pathogens. This system will continue to expand as we introduce new controllers and monitors. Our next launch will include remote connectivity to Nanolux security cameras, environmental controllers and dosing controllers. We look forward to bringing you the newest, most reliable environmental controllers on the market.

NCCS Smartphone APP

    Allows programming of DTU APP from SmartPhone (Apple or Google) via Bluetooth
    Allows Remote Access from SmartPhone to DTU via WIFI/Internet access
    Compatible with:
        o   DTU APP for ballast control and programming
        o   Nanolux THC - Temp, Humid, CO2 controller
        o   Nanolux Doser
        o   Cameras

CMH FIXTURES
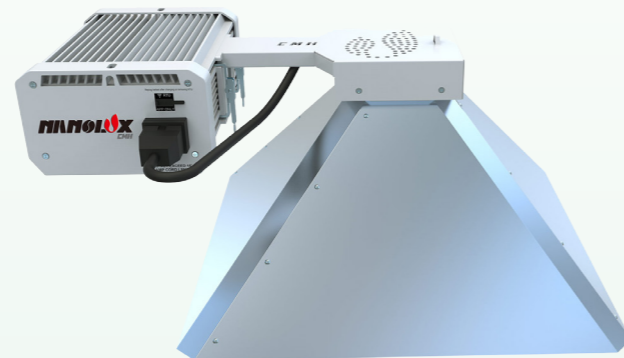
NANOLUX
Technology Inc

The hottest technology in energy efficient HID lighting is now available from Nanolux Technology Inc.

Ceramic Metal Halide, or CMH for short (some refer to it as CDM), is becoming more popular in the horticultural industry. The CMH lamps have a very broad light spectrum which is more similar to the sun itself than any other form of HID lamp. We have taken CMH technology and increased its operational efficiency, making the most comprehensive spectrum of light output for an HID fixture even better. The CMH lamps also have increased efficiency in PAR/Watt compared to other forms of HID lighting. The CMH fixture can be used as a primary veg light; a primary light for SOG applications; or a supplemental full spectrum light for large flowering operations.

CMH-315NC-SLF
120-240v, 277v

Fully sealed ballast is top mounted

CMH 315 Single Lamp Fixture vertical mounting position provides an even-light footprint

Both Nanolux CMH fixtures can be used with any 31 SW 3K or 4K horticultural CMH lamps from all leading quality brands

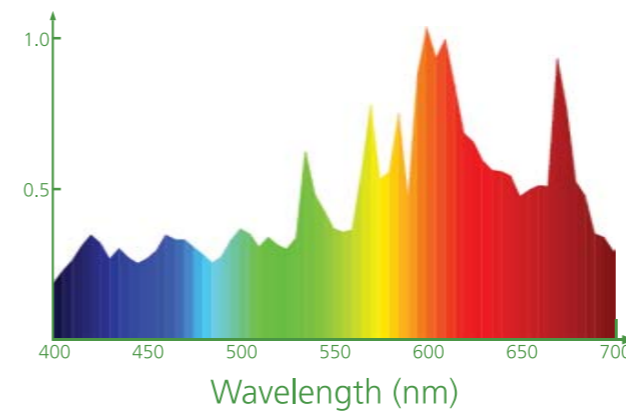## CMH-630NC D F
120-240v, 277v

The CMH 630W Double Lamp Fixture hood is optically designed to give a balanced footprint and is perfect in larger grow environments such as commercial installations where lighting overlap can be accomplished

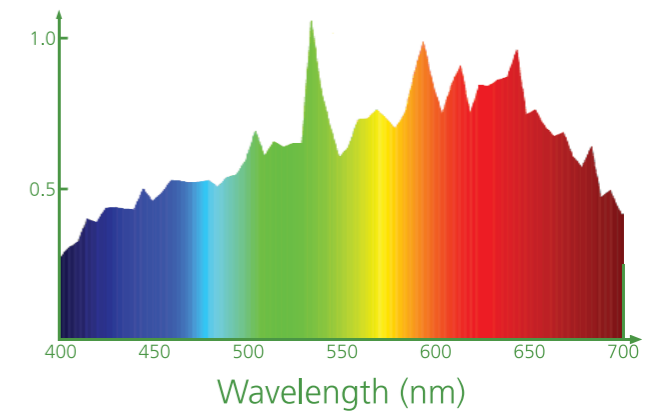Light weight, cool running Nanolux ballast the industry has come to trust
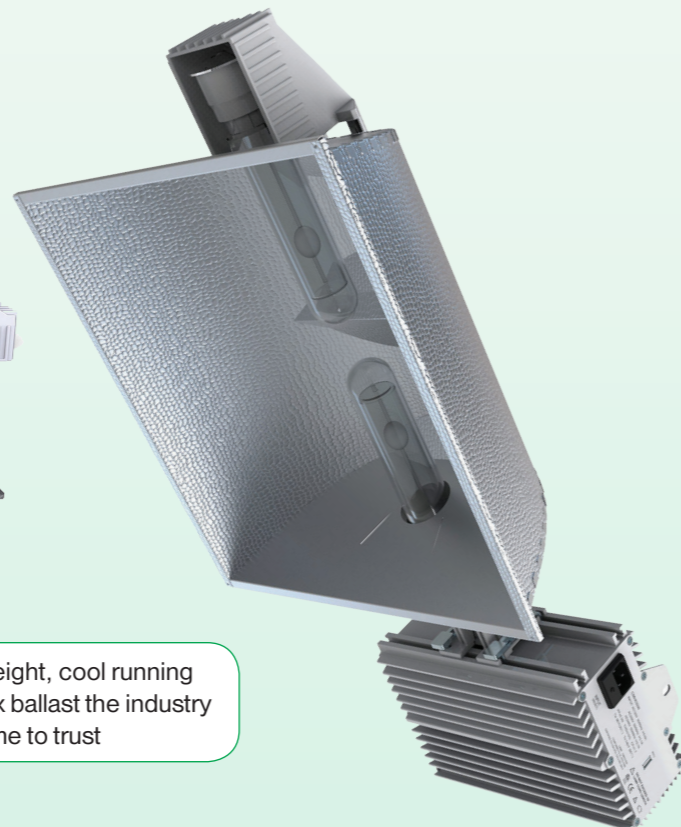
Fully sealed commercial designed ballast

3K CMH SPECTRAL DISTRIBUTION

Wavelength (nm)

4K CMH SPECTRAL DISTRIBUTION

Wavelength (nm)

Model	Power	Voltage (v)	Amps	Lamp	Power Factor	THD	CF	Weight	Fixture Dimensions	Input Frequency
CMH-315NC-SLF	315	120-240, 277	2.8-1.4,1.2	CMH	≥0.99	≤10%	≤1.7	13.2lbs	21.8"X16.5"X9.6"	50/60Hz
CMH-630NC-DLF	630	120-240, 277	5.6-2.7, 2.3	CMH	≥0.99	≤10%	≤1.7	12.2lbs	27.6"X11.6"X8,3"	50/60Hz

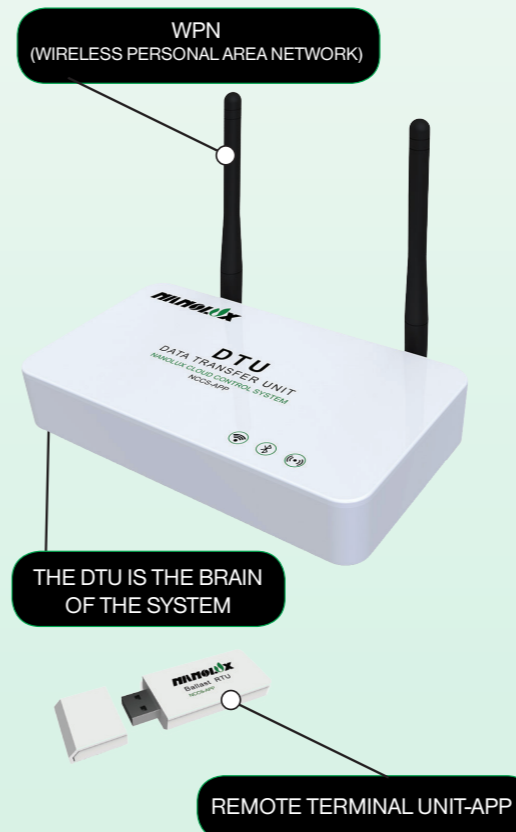*NOTE: These fixtures are open fixtures and require an "open fixture rated" 31 SW CMH lamp using a PGZX18 base.*

NCCS APP COMPATIBLE

WPN
(WIRELESS PERSONAL AREA NETWORK)

DTU
DATA TRANSFER UNIT

THE DTU IS THE BRAIN OF THE SYSTEM

REMOTE TERMINAL UNIT-APP

NANOLUX CLOUD CONTROL SYSTEM

Use the NCCS APP to control your grow room from anywhere in the world with your Smart Phone or Tablet. The first of its kind; the NCCS is an 'all-in-one' application that will continually expand to satisfy your growroom needs. The phone APP is far more versatile and extensive compared to the original PC software release. The new APP will have the same lighting features plus several new controls including: room temperature, humidity, and CO2 – all integrated into the NCCS THC controller and soon with our pH/EC doser. Just like the with the lighting controls, the THC and pH controller will be wireless, and adjustable from the APP. With the APP you can set the perfect growing parameters and have the peace of mind knowing it's all automated. No longer do you have to constantly walk through the grow room and take readings from several different controllers. Simply open your phone APP to monitor or adjust settings depending on your plants' needs. This means less time wasted in the growroom and therefore less of a chance of disrupting the controlled environment, or introducing outside pathogens.

This system will continue to expand as we introduce new controllers and monitors. Our next launch will include remote connectivity to Nanolux security cameras, environmental controllers, and dosing controllers. We look forward to bringing you the newest, and most reliable environmental controllers on the market.
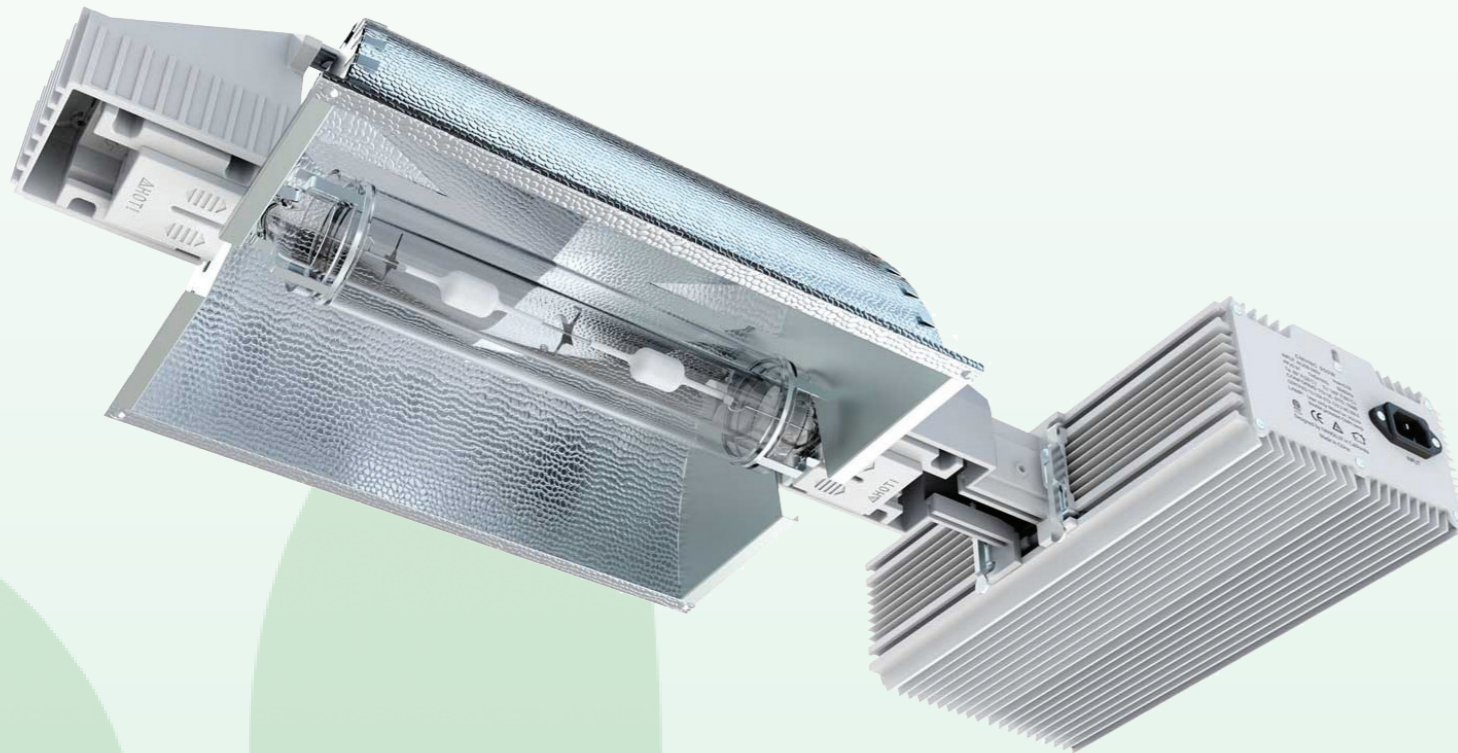
LIGHTING GROUPS
Manage four different groups of lights

NANOLUX
Technology Inc

**Designed for ~ 5' on center spacing commercial overlap light grid**

- Soft & Random start plug and play technology

- Lowest profile fixture DE fixture on the market

- Uses MaxPar 1000W CMH lamps in both 3K and 4K

**- 4 dimming modes and wireless NCCS & wired 0-10V ready**

- 208V-240V/277V

Input Voltage	208V-240V
Output Voltage	200V-260V
Input Frequency	50/60Hz
Output Power	1000W Max
Output Frequency `	260Hz
Power Factor	≥0.99
Crest Factor	≤1.7
THD	≤10%
Dimming	500W,750W,875W,1000W
Strike Lamp	1000W Double Ended Ceramic Metal Halide Lamp * Use only Maxpar 1000W double jacketed CMH lamp with this fixture
Protection Function	Over Temperature Protection; Under Voltage Protection; Open/Short Circuit Protection;
Size (L*W*H)	670*305*120mm 26.4*12.0*4.7inch
Weight	6.6 kgs 14.6 lbs

Ceramic Metal Halide or CMH for short (some refer to it as CDM), is becoming more popular in the horticultural industry. The CMH lamps have a very broad light spectrum which is more similar to the sun itself than any other form of HID lamp. We have taken CMH technology and increased its operational efficiency, making the most comprehensive spectrum of light output for an HID fixture even better. The CMH lamps also have increased efficiency in PAR/Watt compared to other forms of HID lighting.

This was the first 1000W CMH fixture on the market. Nanolux helped develop the dual arc tube 1000W CMH MaxPar Lamp. The ballast is a low frequency ballast designed specifically to run low frequency CMH arc tubes. This fixture can be used as a standalone flowering fixture. The reflector is optimized and photometrically designed for an even commercial overlap pattern with a 136° aperture.
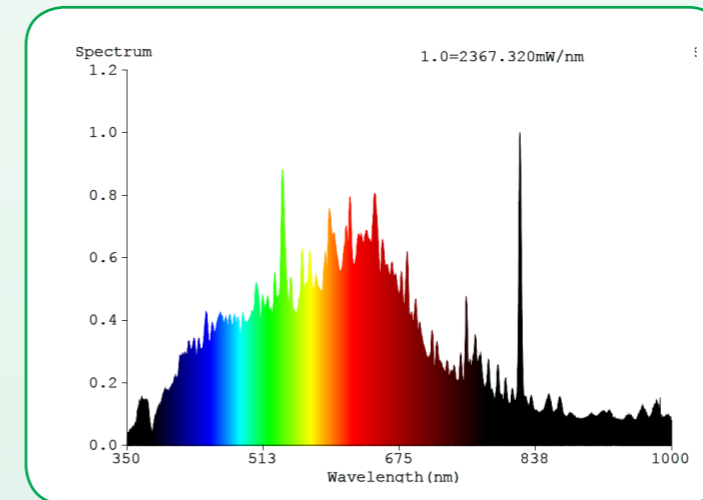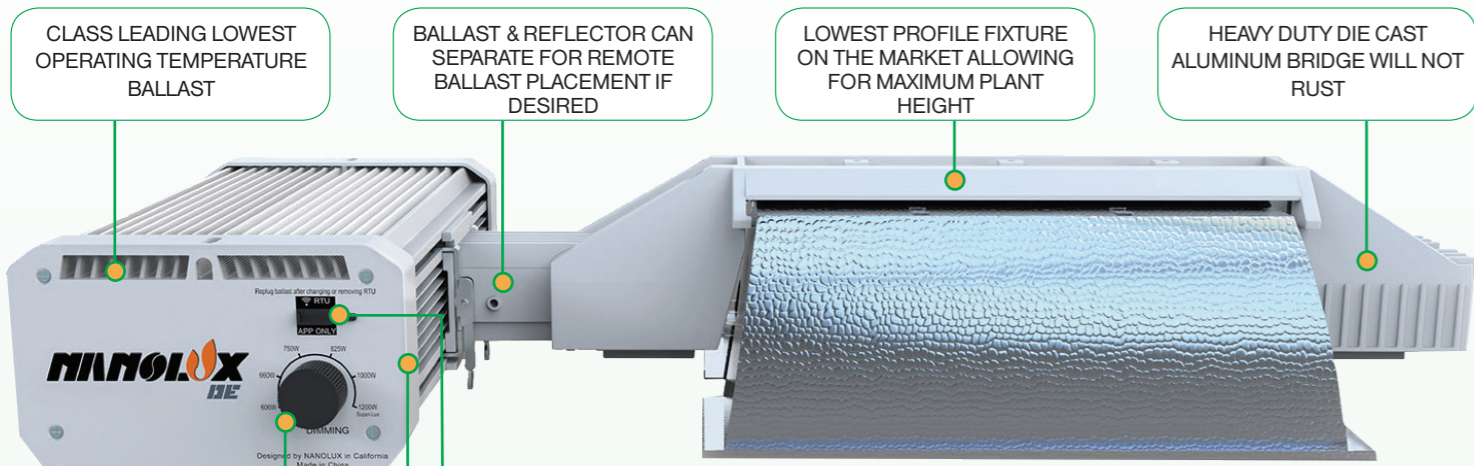

CMH 1000W 4K
1642 umol
91.6 CRI
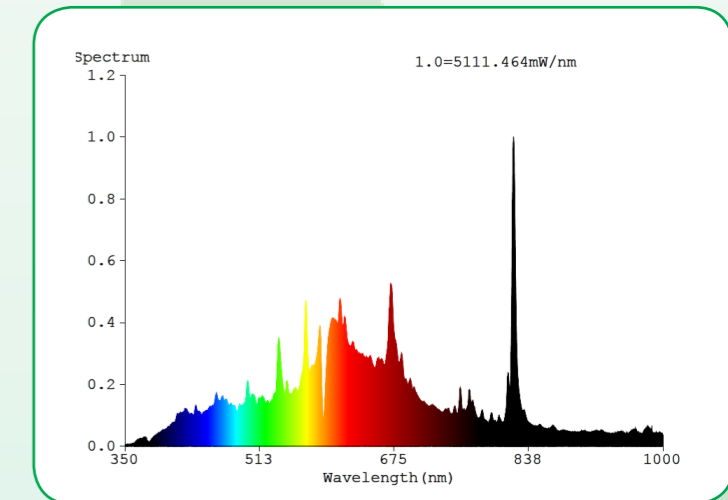
CMH 1000W 3K
1688umol
96.6 CRI

0-10V CONTROL COMAPTIBLE

NCCS APP WIRELESS COMPATIBLE

DE FIXTURES

NANOLUX EXCLUSIVE FEATURES THAT SEPARATES NANOLUX FROM OTHER BRANDS

CLASS LEADING LOWEST OPERATING TEMPERATURE BALLAST

BALLAST & REFLECTOR CAN SEPARATE FOR REMOTE BALLAST PLACEMENT IF DESIRED

LOWEST PROFILE FIXTURE ON THE MARKET ALLOWING FOR MAXIMUM PLANT HEIGHT

HEAVY DUTY DIE CAST ALUMINUM BRIDGE WILL NOT RUST

EXCLUSIVE 1200W OVERDRIVE. MOST LUMEN OUTPUT ON THE MARKET

208-240V RANGE. 277V, 347V

THE ONLY WIRELESS CONTROLLED DE FIXTURE ON THE MARKET NO NEED FOR RELAYS/LIGHT CONTROL PANELS OR TIMERS

REDESIGNED & UPGRADED REFLECTOR THAT PROVIDES 8% BETTER LIGHT UNIFORMITY THAN THE LEADING COMPETITION. 97% GRM (GERMAN REFLECTIVE MATERIAL)
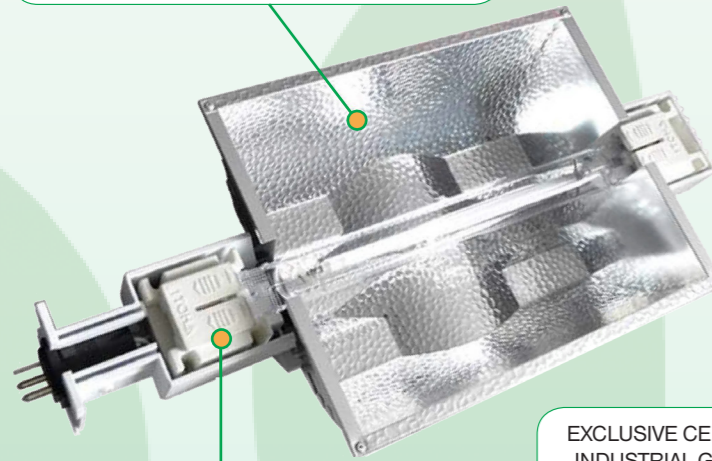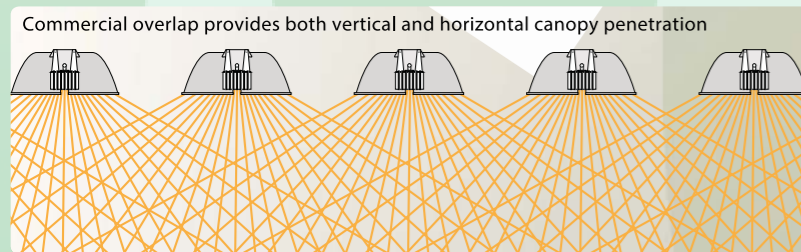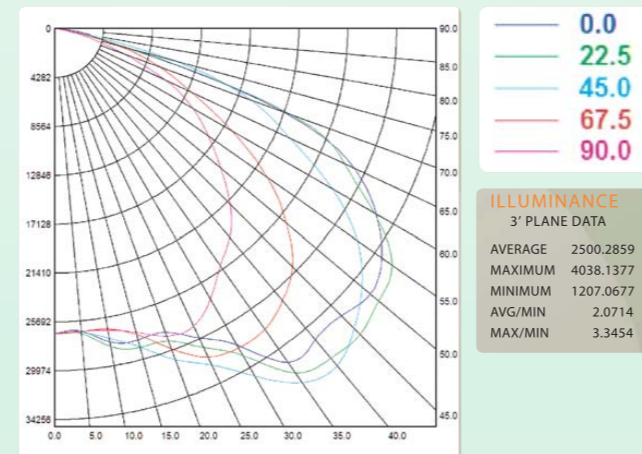
EXCLUSIVE CERAMIC INDUSTRIAL GRADE RECEPTACLES

We've pushed the newest & hottest technology in lighting to the next level. We've increased the standard 11 SOW to 1200W producing class leading luminous flux of 160,300lm. The upgraded components, like ceramic lamp receptacles, make the Nanolux DE Fixture the safest on the market.

This fixture is commercial grade so its design quality and durability are second to none. The Nanolux DE fixtures are NCCS APP ready. NCCS APP(Nanolux Cloud Control System) is one of the many technologically advanced features offered exclusively by Nanolux. With NCCS APP, you will be able to control up to 999 lights on your computer.

Like all of our ballasts the DE comes with random start technology. Random start uses an algorithm that will start the ballast within a 0-15 second window. This allows for less initial power draw when using multiple ballasts.

- NCCS APP ready - DTU and RTU sold separately
- Nanolux sunrise/sunset with additional hi-temp shutdown Features through NCCS APP router
- Out of the box plug and play installation
- Best commercial fixture in its class for light uniformity reflector
- Dimming
  - 1000W - 6 phase dimming (600-1200 WATTS)
  - 600W - 5 Phase dimming (300-660 WATTS)
- These unit include a Nanolux DE lamp
  - 1000W (2100 μmoll)
  - 600W (1150 μmoll)
- Patented and exclusive ceramic receptacles (no melting plastic)
- Other interchangeable reflector options
- Compatible with other industry DE lamps
- Slow soft start, open circuit and low voltage protection
- 3-Year warranty on fixtures and 1 year warranty on lamp
- Input voltage 208/220/240Vac, 277V, 347V
- Input frequency 50/60Hz - output frequency 85-105kHz
- THD ≤ 10%, PF ≤ 0.99, CF ≤ 1.7,-Ta = 30°C (86°F), Tc= 65°C (149°F)
- BTU output of fixture
  - 1000W - 4200BTU
  - 600W - 2550BTU

Ballast & fixture separate for remote installation

15' max
lamp cords sold separately

NANOLUX SO REFLECTOR DISTRIBUTION CURVE

	0.0
	22.5
	45.0
	67.5
	90.0

ILLUMINANCE
3' PLANE DATA

AVERAGE	2500.2859
MAXIMUM	4038.1377
MINIMUM	1207.0677
AVG/MIN	2.0714
MAX/MIN	3.3454

Commercial overlap provides both vertical and horizontal canopy penetration

DE FIXTURES electrical
1000W / 600W DATA

		Voltage	1000W Ballast @ 100% Setting	600W Ballast @ 100% Setting
Certifications	FCC. ETL. CE	220V	4.6	2.8
Input Frequency	50/60 HZ	240V	4.3	2.6
Power Factor	≥0.99	277V	3.8	2.2
THD	≤10%	347V	3	1.8
NCCS	Compatable	480V	2.2	1.3

NCCS APP COMPATIBLE

WPN (WIRELESS PERSONAL AREA NETWORK)

DTU
DATA TRANSFER UNIT

THE DTU IS THE BRAIN OF THE SYSTEM

REMOTE TERMINAL UNIT-APP

NANOLUX CLOUD CONTROL SYSTEM

Use the NCCS APP to control your grow room from anywhere in the world with your Smart Phone or Tablet. The first of its kind; the NCCS is an 'all-in-one' application that will continually expand to satisfy your growroom needs. The phone APP is far more versatile and extensive compared to the original PC software release. The new APP will have the same lighting features plus several new controls including: room temperature, humidity, and CO2 – all integrated into the NCCS THC controller and soon with our pH/EC doser. Just like the with the lighting controls, the THC and pH controller will be wireless, and adjustable from the APP. With the APP you can set the perfect growing parameters and have the peace of mind knowing it's all automated. No longer do you have to constantly walk through the grow room and take readings from several different controllers. Simply open your phone APP to monitor or adjust settings depending on your plants' needs. This means less time wasted in the growroom and therefore less of a chance of disrupting the controlled environment, or introducing outside pathogens.

This system will continue to expand as we introduce new controllers and monitors. Our next launch will include remote connectivity to Nanolux security cameras, environmental controllers, and dosing controllers. We look forward to bringing you the newest, and most reliable environmental controllers on the market.

LIGHTING GROUPS
Manage four different groups of lights

DEFNC – 600X2

**Ballast & fixture separate for remote installation**

With the New Nanolux DE Dual fixture (600Wx2), we have split our 1200W DE into two 600W lamp outputs. This allows the fixture to run both a 2K DE HPS lamp and our brand new double jacketed 6K MH DE lamp, or the optional 4K MH DE lamp (sold separately).

This dual lamp combination provides a spectrum that is unmatched by any other existing HID technology currently on the market. The spectral output of the 6K DE MH lamp in combination with the 2K DE HPS lamp provides additional blue light that benefits your plant.

This fixture provides a very comprehensive PAR spectrum while pumping out 1200W of the most powerful light.

Use any combination of DE lamps to create the spectrum the plants desire!

2K-HPS + 6K-MH SPECTRAL DISTRIBUTION

Wavelength (nm)
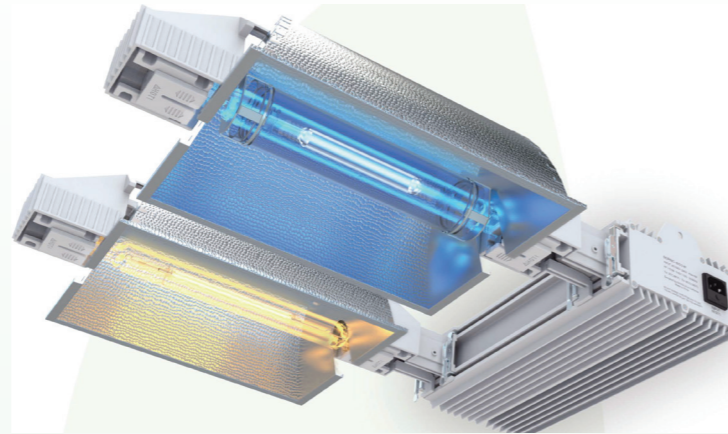
This fixture is commercial grade in its design quality and durability. The Nanolux DE Dual Fixture (600Wx2) is NCCS APP ready. NCCS APP (Nanolux Cloud Control System) is one of the many technologically advanced features offered exclusively by Nanolux. With NCCS APP, you will be able to control up to 999 lights on your computer. Like all Nanolux ballasts, the DE Dual Fixture comes with random start technology. Random start uses an algorithm that will start the ballast within a 0-15 second window. This allows for less initial power draw when using multiple ballasts.
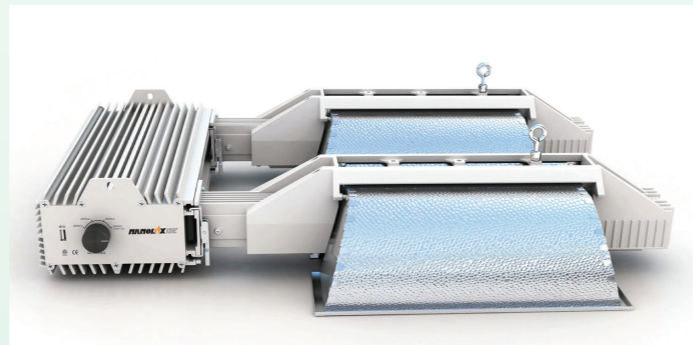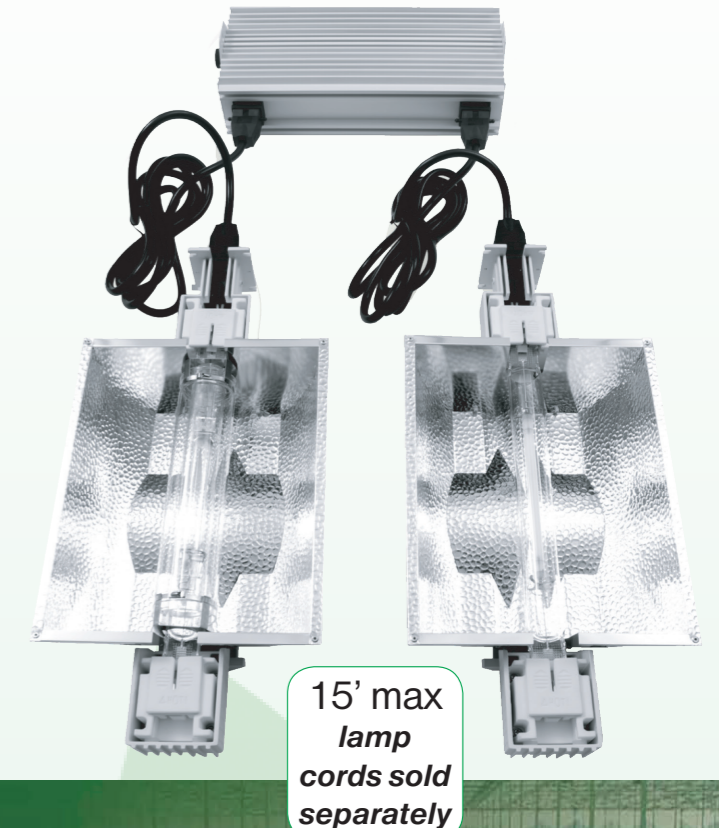
Layout of the lamps must be the same for each fixture For example, HPS lamp in left socket and MH lamp in right socket. This is to be the same for all fixtures running. This ensures proper mixing of spectral output to make an even overlapping light pattern in commercial applications.

| HPS | MH | | HPS | MH |
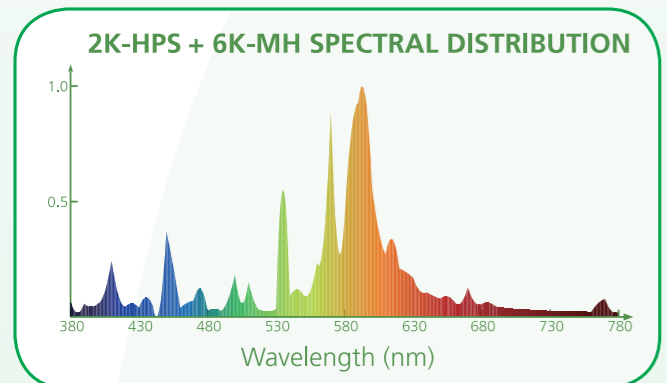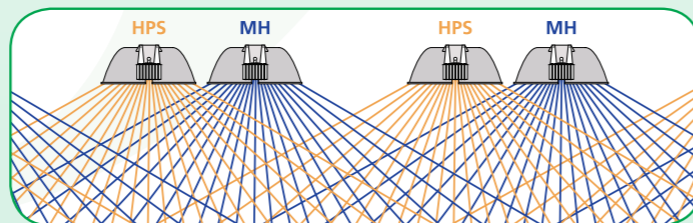
- NCCS APP ready - DTU and RTU sold separately
- Best commercial fixture in its class for light uniformity reflector
- Multiple dimming options
    - 300Wx2, 450Wx2, 600Wx2, 630Wx2
- These units include two DE Lamps
    - 600W 2K HPS & 600W GK double jacketed MH Lamp
- Patented and exclusive ceramic receptacles (no melting plastic)
- Compatible with all DE Lamps
    - (only use lamps rated for open luminaires)
- Slow soft start, open circuit and low voltage protection
- 3-Year warranty on fixtures and 1 year warranty on lamp
- Input voltage 208/220/240Vac, 6 AMP max draw
- Input frequency 50/60Hz - output frequency 85-1 0SkHz
- THD $\leq$ 10%, PF $\leq$ 0 .99, CF $\leq$ 1.7,-Ta = 30°C (86°F), Tc= 65°C (149°F)
- Weight 17.8 lbs
- Dimensions 26.2"x20.0"x6.0"
- Sealed ballast enclosure - NO FAN
- BTU output of fixture
    - 1200W - 5040BTU

15' max *lamp cords sold separately*

NCCS APP COMPATIBLE

WPN
(WIRELESS PERSONAL AREA NETWORK)

DTU
DATA TRANSFER UNIT

THE DTU IS THE BRAIN OF THE SYSTEM

REMOTE TERMINAL UNIT-APP

LIGHTING GROUPS
Manage four different groups of lights

NANOLUX CLOUD CONTROL SYSTEM

Use the NCCS APP to control your grow room from anywhere in the world with your Smart Phone or Tablet. The first of its kind; the NCCS is an 'all-in-one' application that will continually expand to satisfy your growroom needs. The phone APP is far more versatile and extensive compared to the original PC software release. The new APP will have the same lighting features plus several new controls including: room temperature, humidity, and CO2 – all integrated into the NCCS THC controller and soon with our pH/EC doser. Just like the with the lighting controls, the THC and pH controller will be wireless, and adjustable from the APP. With the APP you can set the perfect growing parameters and have the peace of mind knowing it's all automated. No longer do you have to constantly walk through the grow room and take readings from several different controllers. Simply open your phone APP to monitor or adjust settings depending on your plants' needs. This means less time wasted in the growroom LIGHTING GROUPS and therefore less of a chance of disrupting the controlled environment, or introducing outside pathogens.

This system will continue to expand as we introduce new controllers and monitors. Our next launch will include remote connectivity to Nanolux security cameras, environmental controllers, and dosing controllers. We look forward to bringing you the newest, and most reliable environmental controllers on the market.

NANOLUX
Technology Inc

The Nanolux DE Chill is the first DE commercial overlap fixture of its type on the market. The DE Chill is designed with an onboard ballast, is air cooled, and comes NCCS APPready. The aircooled design removes up to 60% of heat load in grow facility environments. This greatly reduces the air conditioning required to maintain the growing environment at desired temperatures. The fully enclosed design uses an optical quality glass lens which only reduces light output by 6%. This 6% reduction is easily offset by the ability to lower your lights closer to your plants and therefore raising light intesities far above 20%. If left at the same height, one would only require 104 lights in a facility which would regularly require 100 openstyle DE lights. The 4000W required to run the 4 additional lights and the small wattage draw for exhaust fans is minor compared to the savings from lower electrical consumption required to AC the growroom.

Model	Power (W)	Input Voltage(V)	Input Current(A)	Bulb	Dimming Settings	Power Factor	THDI	CF	Weight (lbs)	Size(inch)	Rated Input Frequency (Hz)
DECHILL-A	1000	120-240	10.3-5.1	DE	1200W/1000W/825W/ 750W/660W/600W	≥0.99	≤10%	≤1.7	23.1	23.2x13.4x9.9	50/60
	600	120-240	5.5-2.5	DE	660W/600W/450W/300W	≥0.99	≤10%	≤1.7	20.3	23.2x13.4x9.9	50/60

BTU Output:

- 2,100 BTU Max Heat Output at 1000W setting
  - o Above BTU rating is with correct fan airflow at 700CFM min

NCCS APP READY

600W1200W OUTPUT

COMMERCIAL OVERLAP 138° DE REFLECTOR

REPLACEABLE TOP SIDE BALLAST

FULLY SEALED HINGED GLASS DOOR WITH LOW LIGHT ASBSORBTION GLASS

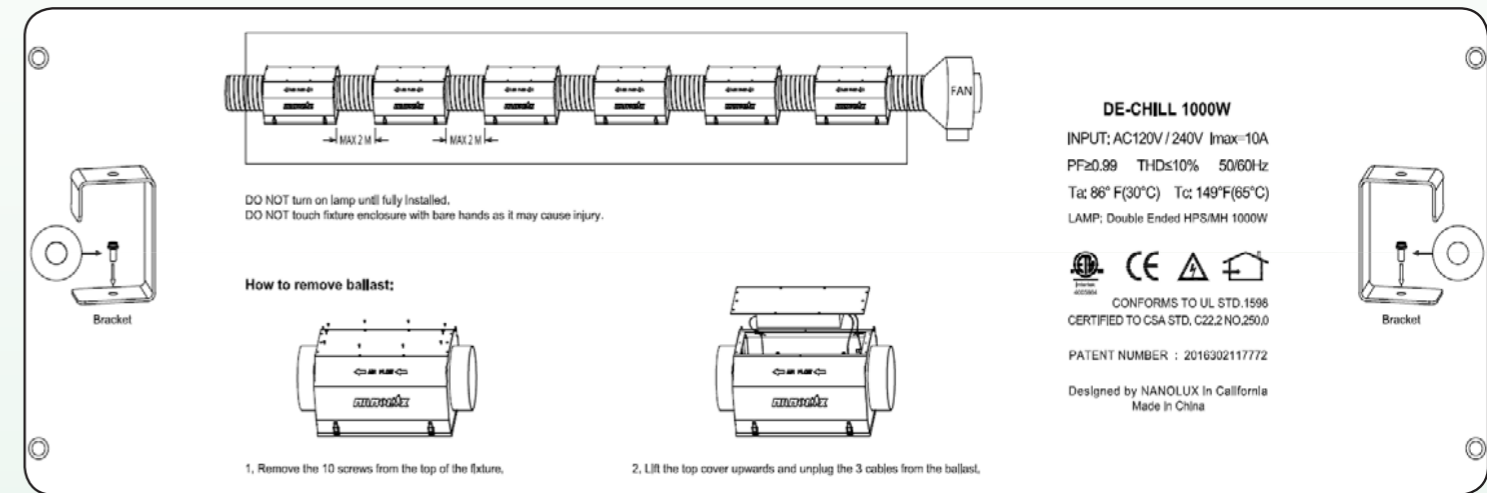**8" DUCT SIZE**

120240V INPUT VOLTAGE

- 6 Dimming Settings 600 1200W Overdrive
- Powder Coated Steel Construction
- Fully Gasketed Lamp Change Door
- Replaceable 105khz 120/240v Ballast
- 3 Year Warranty
- Low Light Loss Tempered Glass
- Airtight Soldered Joint Construction
- Uses any 2100umol DE HPS Lamp. Will also fire any DE MH lamp

NCCS APP COMPATIBLE

WPN
(WIRELESS PERSONAL AREA NETWORK)

THE DTU IS THE BRAIN OF THE SYSTEM

REMOTE TERMINAL UNIT-APP
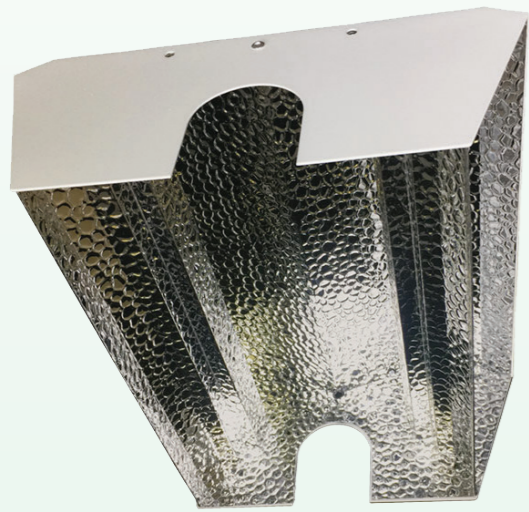
NANOLUX CLOUD CONTROL SYSTEM

Use the NCCS APP to control your grow room from anywhere in the world with your Smart Phone or Tablet. The first of its kind; the NCCS is an 'all-in-one' application that will continually expand to satisfy your growroom needs. The phone APP is far more versatile and extensive compared to the original PC software release. The new APP will have the same lighting features plus several new controls including: room temperature, humidity, and CO2 – all integrated into the NCCS THC controller and soon with our pH/EC doser. Just like the with the lighting controls, the THC and pH controller will be wireless, and adjustable from the APP. With the APP you can set the perfect growing parameters and have the peace of mind knowing it's all automated. No longer do you have to constantly walk through the grow room and take readings from several different controllers. Simply open your phone APP to monitor or adjust settings depending on your plants' needs. This means less time wasted in the growroom LIGHTING GROUPS and therefore less of a chance of disrupting the controlled environment, or introducing outside pathogens.

This system will continue to expand as we introduce new controllers and monitors. Our next launch will include remote connectivity to Nanolux security cameras, environmental controllers, and dosing controllers. We look forward to bringing you the newest, and most reliable environmental controllers on the market.

LIGHTING GROUPS
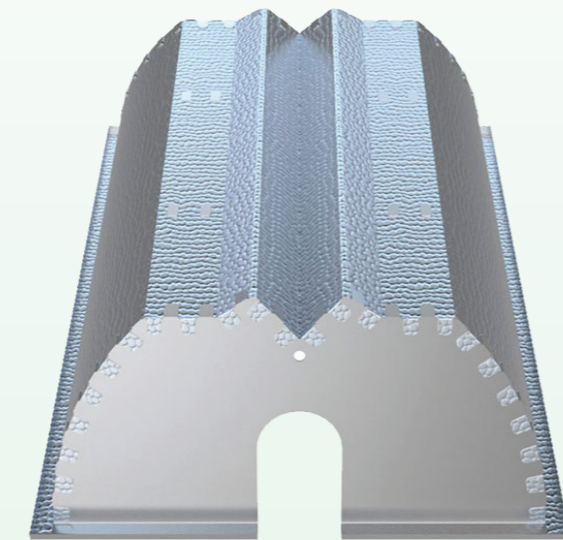Manage four different groups of lights

DE REFLECTORS

All reflectors are not created equal. The Commercial Series comes with an assortment of interchangeable reflectors ranging from a narrow 108° to 155° wideangle beam pattern. These include the open openstyle and wingtype reflector pictured below. Some are best for mother rooms, some are best for large commercial facilities and some work best in seaofgreen type cultivation methods. They all are made with 97% German reflective material.
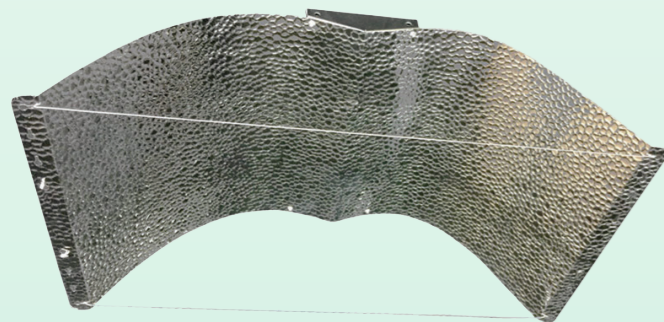
COMMERCIAL HANGING BRACKETS

Nanolux now offers commercial greenhouse hanging brackets for use in hanging fixtures on metal framings systems such as Unistrut. Brackets are made from 2mm/14ga steel which is powder coated. The hooks accept up to 2"/51mm wide tubing for hanging. All hardware included in each set.

OPEN REFLECTOR
150° Angle Spread

CLOSED SQUARE REFLECTOR
136° Angle Spread
*Comes with all Nanolux Commercial DE Fixtures

Commercial hanging bracket for **DEFNC 600x2** **fixtures**

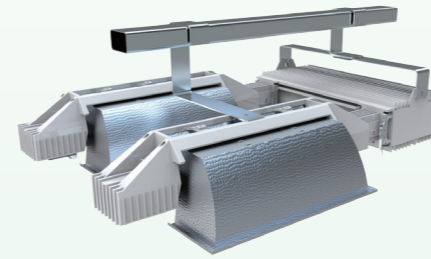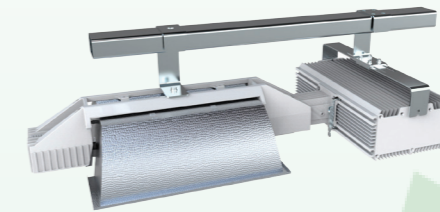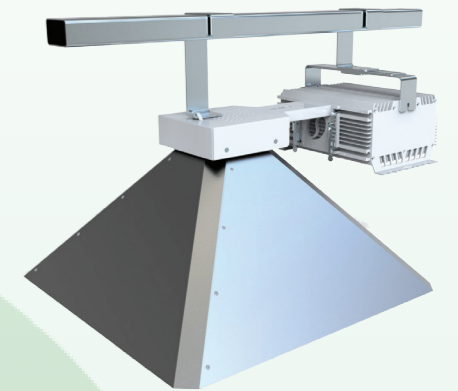Commercial hanging bracket for **DEFNC CMH** **1000 fixtures**

Commercial hanging bracket for **CMH315SL** **fixtures**

WING REFLECTOR
ADJUSTABLE 108° 155° Angle Spread

4x4 REFLECTOR
80° Angle Spread
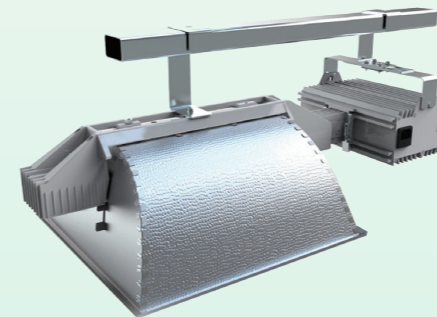
Commercial hanging bracket for **CMH630DLF** **fixtures**

Commercial hanging bracket for **DE CHILL** **fixtures**
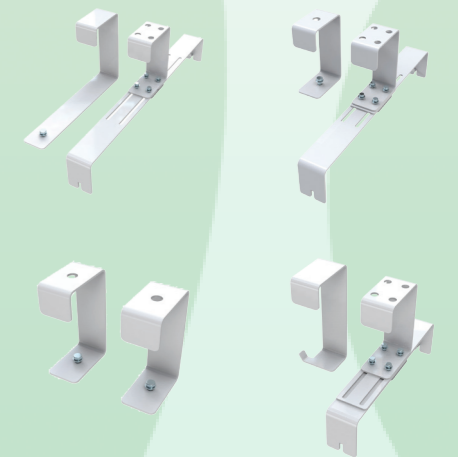
Variety of **Commercial hanging brackets**

DER-III Remote DE Ballast

NANOLUX
Technology Inc

Nanolux Technology has redesigned its DE-REMOTE (DER) high frequency ballast to offer increased efficiency, performance, and reliability.

Design Improvements:

- 50% more cooling fin surface area
- Strike voltage increased from industry standard of 5000V to 7000V allowing 100% firing of all lamps at 15'
- Improved design to optimize cooling under ballast
- New internal heat dissipation technology
- Improved PFC circuit design for efficient use for 120-240V/277 in commercial applications

- 600W and 1000W Models Available
- NCCS APP
- Random Start, Slow Start, open circuit and low voltage protection
- Soft Start and Soft Dim Technology
- 6 phase dimming (600-1200W)
- Class leading lowest operating temperature
- Compatible with all industry DE HPS & MH Bulbs
- Non Fan Ballast (fully sealed)
- 3 Year Warranty

Input Voltages: 120-240V, 277V
Output: 600-1200 (6 settings)
Input Frequency: 50/60Hz
Operational Frequency: >105kHz
THD: <10%
Power Factor: >0.99
CF <1.7
Ta = 86F, **Tc** = 149F
Ballast Weight: 8.25lbs
Ballast Dimension: 12.6"x6.6"x4.1"

DE style 400V - 2100umol arc tube

Nanolux DERNC-A-1000W ballast

Did you know you can convert your old single ended fixtures to have the same µmol output of a DE fixture using the Nanolux SEDE lamp and DE ballast?

Run your DE lamp in an air-cooled reflector by using the Remote Double Ended ballast. This ballast allows the user to choose various reflector options that allows the ballast to operate remotely like a traditional electronic ballast. The Nanolux DER-APP has increased the standard of 1150W to 1200W allowing the ballast to drive the lamp hard enough to produce a class leading PAR output. The Nanolux DER-APP is fully sealed and ready for even the most rugged environments. This ballast is NCCS APP ready, meaning you will be able to control it wirelessly on your computer through the Nanolux Cloud Control System. Like all of our ballasts the DER-APP comes with Random Start, Soft Start, and Soft Dimming capabilities. All Nanolux ballasts are ETL listed meeting product safety standards.

NCCS APP COMPATIBLE

WPN
(WIRELESS PERSONAL AREA NETWORK)

DTU
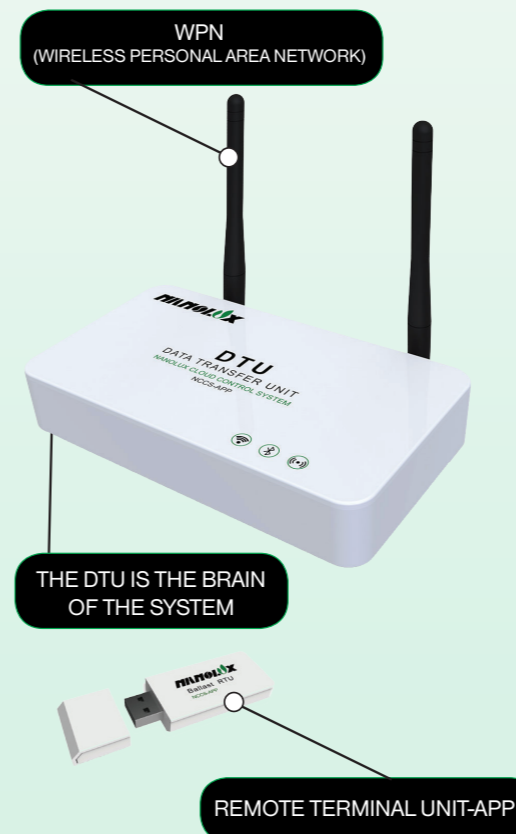DATA TRANSFER UNIT

THE DTU IS THE BRAIN OF THE SYSTEM

REMOTE TERMINAL UNIT-APP

NANOLUX CLOUD CONTROL SYSTEM

Use the NCCS APP to control your grow room from anywhere in the world with your Smart Phone or Tablet. The first of its kind; the NCCS is an 'all-in-one' application that will continually expand to satisfy your growroom needs. The phone APP is far more versatile and extensive compared to the original PC software release. The new APP will have the same lighting features plus several new controls including: room temperature, humidity, and CO_2 – all integrated into the NCCS THC controller and soon with our pH/EC doser. Just like the with the lighting controls, the THC and pH controller will be wireless, and adjustable from the APP. With the APP you can set the perfect growing parameters and have the peace of mind knowing it's all automated. No longer do you have to constantly walk through the grow room and take readings from several different controllers. Simply open your phone APP to monitor or adjust settings depending on your plants' needs. This means less time wasted in the growroom and therefore less of a chance of disrupting the controlled environment, or introducing outside pathogens.

This system will continue to expand as we introduce new controllers and monitors. Our next launch will include remote connectivity to Nanolux security cameras, environmental controllers, and dosing controllers. We look forward to bringing you the newest, and most reliable environmental controllers on the market.

LIGHTING GROUPS
Manage four different groups of lights

OG Ballast

Available in 1000W, 600W and 400W

As the smallest, lightest, and smartest ballast on the market the, OG lives up to its name. It's the original "Nano style" ballast, yet it continues to dominate through innovation. The OG is the only ballast on the market that comes with an RF filter that reduces the conducted RF emissions back into the structures electrical wiring. We've taken the reliability and quality you've come to trust, and added smart ballast capabilities by making it NCCS APP compatible. Not only does this allow you to actively monitor the health of your ballast, it allows you to control many operations including overheat shutoff, voltage surge protection, dim cycles, slow start/slow finish, and more! Like all our ballasts, the OG comes with Random Start technology. Random Start uses an algorithm that will start the ballast within a 015 second window. This allows for less initial power draw when using multiple ballasts. The OG ballast is covered by a 3year warranty. ETL listed for safety.

OG DE1000W fixture.

Featuring all the same great benefits of our popular DE1000W fixture but in a more economical form. Unlike the standard DE1000W, the OG DE1000W is fan-cooled exactly like our bestselling OG1000W. By replacing the aluminium enclosure with a durable powder coated steel enclosure, we were able to make a complete DE fixture that weighs less and costs less that our original DE1000W. This makes the OG DE1000W the optimal choice for small scale growers that want all the benefits of DE lighting technology, for less cost. Reduced weight of the fixture makes the OG DE1000W ideal for hanging in grow tents. The OG DE1000W is compatible with both NCCS and 0-10V controllers and uses 97% German reflective reflector material. Comes with random start, soft start, and soft dimming capabilities

More **POWER** to the **FLOWER**

NANOLUX

Introducing the Nanolux DE-OG fixture

Slim OG style ballast with DE reflector attached. Runs a DE 1000w lamp. Perfect for small spaces.

- NCCS APP READY
- Random Start technology
- Soft Start & Soft Dim for bulb longevity
- Strikes both MH and HPS bulbs
- Multivoltage: 110v240v, 277V
- Dims automatically with hi temperature safety feature when paired with RTU
- Comprehensive shortcircuit/circuit overheat/lamp failure protection
- 3 year warranty
- Ballast comes with an exclusive RF filter in the input cord for class leading lowest RF EMC output

Output Power	Input Voltage	Input Current	Bulb	Dimming Settings	PF	THDI	CF	Weight	Size	Input Frequency
1000W	120-240, 277V	8.6/4.3A 3.9A	SE	110%,100%, 75%,50%	>0.99	<10%	<1.7	3.1 lbs	10.7" x 5.2" x 2.1"	50/60
600W	120-240	5.2/2.6A	SE	110%,100%, 75%,50%	>0.99	<10%	<1.7	2.6	9.6" x 4.7" x 1.7"	50/60
400W	120-240	3.9/1.8A	SE	110%,100%, 75%,50%	>0.99	<10%	<1.7	2.4	9.6" x 4.7" x 1.7"	50/60

NF Series Ballast

Moving parts are a turnoff to some. Again, we have listened. Looking to keep our sealed ballasts as reliable as our fan cooled ballasts, we upgraded the interior components to stand up to higher temperatures. The NF Series is an NCCS ready smart ballast. Like all of our ballasts the NF Series comes with Random Start technology. Random Start uses an algorithm that will start the ballast within a 015 second window. This allows for less initial power draw when using multiple ballasts. ETL listed meeting product safety standards

- NCCS ready smart ballast technology
- Diagnostic LED
- Random Start technology
- Non Fan Ballast (fully sealed)
- Soft Start & Soft Dim for bulb longevity
- Dimmable lamp function: 100%75%50%
- Strikes both MH and HPS Bulbs
- Multivoltage – 120 240V
- Comprehensive shortcircuitcircuit overheat/lamp failure protection
- 3 Year Warranty

Output Power	Input Voltage	Input Current	Bulb	Dimming Settings	PF	THDI	CF	Weight lbs	Size	Input Frequency
1000W	120-240,	8.1/4.3A	SE	110%, 100%, 75%,50%	>0.99	<10%	<1.7	13	14.5" x 7.0" x 4.2"	50/60
600W	120-240,	5.2/2.6	SE	110%, 100%, 75%,50%	>0.99	<10%	<1.7	5.5	12.5" x 6.5" x 2.5"	50/60

CMH 315W Remote Ballast

Nanolux Technology is now offering a CMH 315W ballast utilizing low frequency square wave technology. The ballast has a 99% power factor rating making it highly efficient and also has open and short circuit protection. The CMH remote ballast comes NCCS ready so it can communicate with the Nanolux NCCS wireless control system. Operates at 120240 volt and comes with a 120V IEC power cord. For 208240V operation a 240V cord has to be purchased or a Nanolux 120/240V adaptor can be used. The unit has a dual outlet lamp cord receptacle accepting both industry standards.
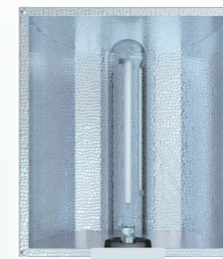
ETL Listed.

Fully sealed commercial designed ballast

- NCCS Ready
- 3 year warranty
- Soft Start and Random Start technology
- Open circuit and low voltage protection

Input Voltage: 120/240V

Input Frequency: 50/60Hz

Amperage Draw: 2.6/1.3A

PF: >0.99

THD: <1.7

Weight: 5.9 lbs

Fixture Dimensions: 16.5"X16.5"X12.6"

MHN 600W Fixture (Single Ended)

Front | Back | Side

Technical Spec

Technology Items	Specification/Parameters
Region applied	Australia
Industry applied	Grow lighting, industry lighting (Indoor only)
Output power	Max 600W
Input voltage	208V-240V/347V /380V
Input frequency	50/60Hz
Power factor	>0.97
Efficiency	>95.5%
THD	≤10%
Protection	Open/short circuit protection, bulb faulty protection, bulb aging protection
Operating temperature	-20°C ~ +45°C
Lamp available	Single ended MHN 600W
Requirement of installment	Comply with ETL, CE certificate
Warranty	3 years for ballast

Spectral

Bulb: HPS 600W (For reference only)

Reflector Material (Germany Alanod)
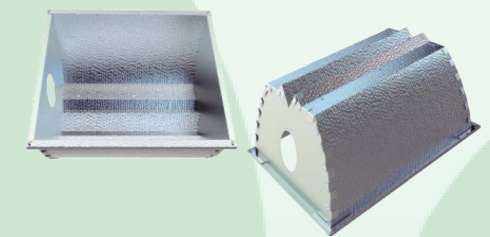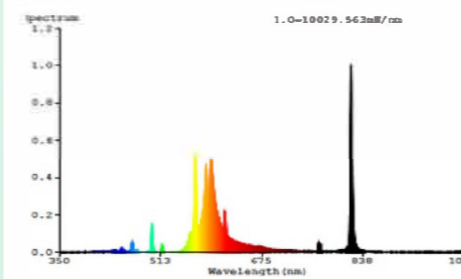

Installation Hooks (Optional)
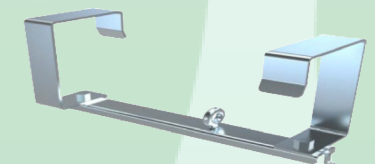
Outer Packing (Carton Box)

- Ballast: L403xW305xH435mm, 6pcs/ctn
- lamp rocket and hook: L580xW580xH376mm,12pcs/ctn
- Lamp tube: 465x458x358mm, 24pcs/ctn
- Reflector: 793x304x602mm, 36pcs/ctn
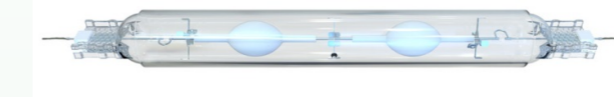
*Pictures only for reference (brown box)

NANOLUX
Technology Inc

Wirelessly control everything from lighting to environmental parameters with the Nanolux Cloud Control System. The NCCS APP was designed to make growing indoors simpler, safer, and more reliable. Maintain full control over your grow using this powerful software program. Use it to set your desired parameters for everything from lighting cycles, dimming, high temperature lighting control with a fan option, room temperature control, humidity control, CO_2 control, and PH dosing. With the free software download, the Data Transfer Unit (DTU), and the Remote Terminal Unit (RTU) you can control everything right from the NCCS APP.

DTU

The DTU is the brain of the NCCS APP system and communicates and controls all of the selected functions in the grow room through wireless modem communication. The DTU controls lighting ballasts and environmental control devices by communicating wirelessly with individual RTU (remote terminal unit) USB devices.

Input Voltage DC : 3.3V-6V
Wireless Frequency : 433.5-434.5 MHz
Communication Port > USB2.0
Measurement: 85mm * 150mm * 28mm
Weight:142.4g
Controls : 100 RTU devices

RTU

The RTU is the data transfer communication device that is installed on the Nanolux Ballasts which allows them to communicate with the DTU. They receive information from the DTU communicating when to dim and turn on and off. They also send data back to the DTU on the status of the ballast.

Input Voltage DC: 3.3V-6V
Measurement : 24mm * 71mm * 24mm
Weight: 11.0g

Main Controller

Sensor Module

Switch Box

0-10V Lighting Controller

NANOLUX
Technology Inc

DE style 400V · 2100umol arc tube

Nanolux DERNC-A-1000W ballast

Did you know you can convert your old single ended fixtures to have the same µmol output of a DE fixture using the Nanolux SEDE lamp and DE ballast?

NANOLUX

BALLAST & REFLECTOR 1000W

Model: DE1000W-CEN
Input: 220/240Vac
PF>0.99 THD<10% CF<1.7
Ta = 30℃ Tc = 65℃
Ballast Weight: 3.74kgs/8.25lbs
Ballast and Fixture Weight: 5.3kgs/11.7lbs
Ballast and Fixture Dimension: 665*305*155mm/26.2*12*6.1inch
Bulb: DE bulb and common HPS/MH bulb

DE LAMP NO FAN
CERAMIC LAMP SOCKET
6 PHASES DIMMING
UP TO SUPERLUX
-1200 WATT

Nanolux with excellent performance

Performance		Nanolux	Gavita	E-Papillon
Maximum output energy		1215watt	1149watt	1147watt
Efficiency	Max. temperature on case (1000W, operating temp: 24℃)	60.4℃	62.4℃	63.2℃
	Max. temperature on case (Max. output wattage)	61℃	65℃	64℃
	Lamp Socket	CERAMIC	PLASTIC	PLASTIC
Safety	Open-circuit protection (15 inner lamp cord)	Yes	No	No
	Over and low voltage protection	Yes	No	No

PATENTED PRODUCT
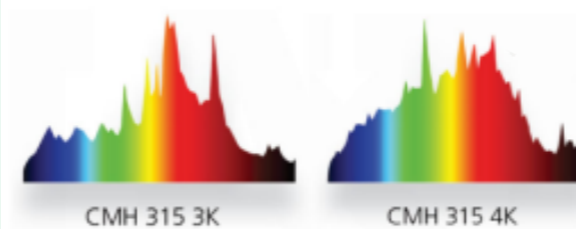POWERED BY SZNUMBER

Lamps

CERMIC METAL HALIDE LAMP 1000W 3K & 4K

Ceramic metal halide 1000W lamps from Nanolux are the first of its kind which actually work. This low frequency lamp comes in both a 3K and 4K horticultural spectrum. Ceramic Metal Halide is different from your standard metal halide and HPS lamps. CMH lamps produce a much broader spectrum of light. This broad spectrum allows the plant to absorb more usable light, giving the plant a more natural morphology usually only found in Sun grown plants. Not only is there a more balanced PAR, CMH technology incorporates spectral wavelengths not found inside the PAR range, yet still helpful with increasing the quality of the plant. The added UV increases essential oil production, increases color expression, and shortens internodal spacing. While the added IR in the far red end of the spectrum increases the metabolism of the plant, thereby encouraging more aggressive growth. With the CMH 1000W lamp, this technology can now be fully utilized as a standalone lighting source. Our CMH 1000W fixtures are designed for commercial use and are suitable for vegetative and flowering purposes. The lamps are only intended for use in the Nanolux low frequency CMH ballast. The use of ultra-high frequency DE ballasts should be avoided.

CERMIC METAL HALIDE LAMP 315W 3K & 4K

MaxPar CMH lamps are broad spectrum "white" light lamps. MH lamps are predominantly blue spectrum focused and HPS lamps are predominantly red/yellow focused. CMH lamp technology is broad-spectrum based. A CMH lamp has 2.5 times the blue light of an HPS lamp. The 13.4% blue light from CMH lamps is slightly higher than a 50/50 mix of HPS and MH lamps. A CMH lamp has a far more uniform spectral output than any other lamp used in horticultural lighting. MaxPar offers color temperatures in both 3K (3100K) and 4K (4200K) models. CMH lamps are suitable for cloning, flowering, and vegetative growth. MaxPar CMH lamps should be considered a valuable component in any lighting setup.

- OPEN Fixture rated
- 1.9 umol/s
- 33.000 lumens (105lm/w)
- 92CRI
- 87% PPF maintenance at 20.000 hours
- Low power consumption

CMH 315 3K

CMH 315 4K

DE HPS Lamp

25 to 30 Percent More Efficient Than Single-Ended HPS Lamps

The most popular lamp type to deliver high-intensity, supplemental lighting in greenhouse crop production. HPS lams offer greater efficiency showing a positive return on investment within a few months in many applications.

DE MH Double Jacketed Lamps in 4K 6K 10K

25 to 30 Percent More Efficient Than Single-Ended HPS Lamps

RUNNING MH LAMPS IN OPEN FIXTURES? BE SAFE AND DOUBLE JACKET IT.
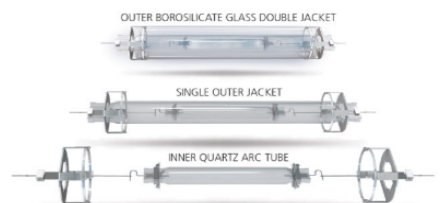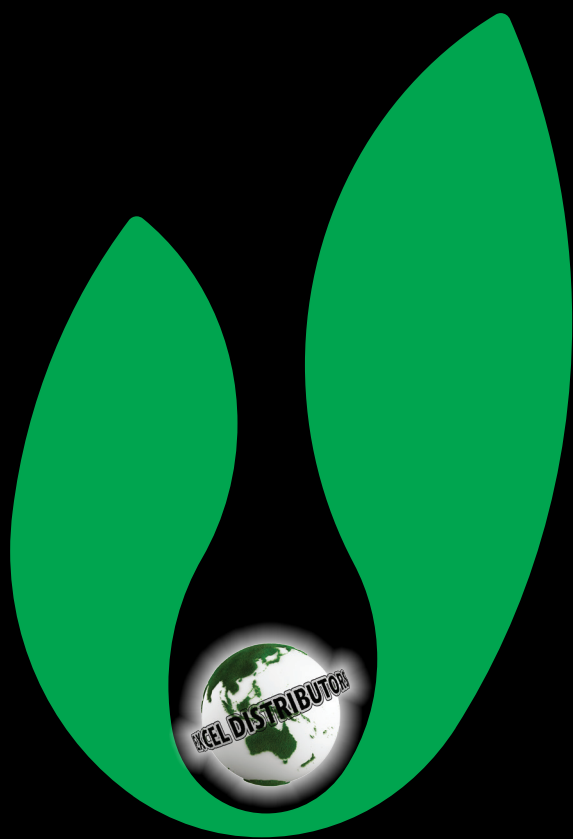
THE MAXPAR 4K DE-MH

Metal Halide lamp is broad spectrum lamp which can be used in both the vegetative and blooming stages of the plant growth cycle.

THE MAXPAR 6K DE-MH

Metal Halide lamp is blue emphasized spectrum lamp which is best suited for vegetative growth.

MaxPar's patent pending outer jacket has been designed to bring MH DE lamp technology to open rated fixtures. MaxPar's outer borasilicate jacket helps to provide the required additional protection required for potentially explosive high pressure MH lamps. The unique outer jacket is open on the ends to allow proper heat dissipation of the internal quartz arc tube and inner jacket. There is very little increase in operation temperature of the arc tube and NO degradation of lamp life.

OUTER BOROSILICATE GLASS DOUBLE JACKET

SINGLE OUTER JACKET

INNER QUARTZ ARC TUBE

NANOLUX
Technology Inc

Distributed in Australia by:

NANOLUX Australia
Division of Excel Distributors Pty Ltd

w w w . n a n o l u x . c o m . a u