

# NORDICLIGHTS (1) 2014 ENGLISH

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#### **Abbreviations**

D	Dampening	QD	Quake Dampening
ECE	European Union Traffic Regulations	R	Reverse
F	Flushmount	RH	Right Hand mount
G	Generation	S	Side mount
Н	Handle	SAE	<b>USA Traffic Regulations</b>
HS	Handle & Switch	SD	Super Dampening
LH	Left Hand mount	SP	Single Power

TD	Suspended Pedestal mount (Top Down
TP	Twin Power

TT	Upright Pedestal mount (Top Top)
٧	Version

D Extreme Heavy Duty Dampening	)	Extreme	Heavy	Duty	Dam	pening
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# NORDICLIGHTS (

A powerful machine requires powerful lights. The success of Nordic Lights™ products is based on their durability. This is the number one criterion for our customers. Hence, our slogan: "Lights for Heavy Duty". All our products go through extensive test procedures before their release on the market. Our products utilize our patented dampening solutions.

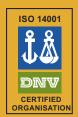
The Nordic Lights™ work lights are used in the most difficult and demanding working environments all over the world. The visibility offered by the high quality optics of the lights supports your machines in maintaining high working efficiency during dark working hours while the lights themselves need very little maintenance. The use of Nordic Lights™ products ensures that darkness, vibration, shock, dust and humidity will not affect visibility when the results of your work and safety depend on effective lighting.

Nordic Lights™ aims to offer the right solution to each customer. As a result, a large number of our manufactured products are tailor-made. Combinations of different light patterns, brackets, vibration dampeners and cable connections can be applied to optimize a light for different applications and a specific set of conditions.

Nordic Lights<sup>™</sup> is a company based in Finland which designs and manufactures LED, HID (Xenon) and Halogen work lights for the heavy duty on-road and off-road industry as well as innovative Xenon driving lights. We remain a pioneer in supplying light technology to heavy duty equipment.

Our products can be found on machines and vehicles within the mining, construction, forestry, agricultural, material handling and truck, trailer & emergency industries. We supply lighting solutions to many of the world's leading manufacturers of heavy duty machinery. We continuously improve our performance while minimizing the environmental impact of our operations and our products. We utilize Six Sigma methodologies, are certified according to the ISO 9001 and ISO 14001 standards.





#### **Business Mission**

Nordic Lights<sup>™</sup> provides optimal, sustainable lighting solutions with superior durability for equipment even for the most demanding conditions.

We outperform our competitors by applying the best available technology along with outstanding customer service provided by our well trained, dedicated personnel.



Nordic Lights<sup>™</sup> – the factory in Jakobstad, Finland

## **Tailored Lighting Solutions**

Nordic Lights™ has years of experience in developing and manufacturing durable work lights. This has also produced a competent team of engineers that utilize their expertise in optics, electronics, material properties and dampening solutions. We work with the most up-to-date light simulation software in order to establish specific working environments and analyse the behaviour of light on different types of apparatus. Nordic Lights™ has its own modern extensive state-of-the-art light laboratory. All these resources provide our company with unique working conditions and opportunities to test and develop lights, not only to



Nordic Lights™ – the light laboratory

develop our own range of work lights and versions to meet customer requirements, these engineering capabilities also enable Nordic Lights $^{\text{\tiny{M}}}$  to develop its unique customized lights, tailored for the specific needs and appliances required by each individual customer. By choosing us as your partner You will have a light built to last.

## **Increased Efficiency**

Choosing Nordic Lights™ as your supplier is the best alternative if you want to play it safe. We will help you boost your efficiency by the concept of our products. You have the opportunity of getting a light customized to suit your applications and working environments. With our engineering expertise we can create a unique light - just for you! The fact that R&D and manufacturing are located at the same plant enhances levels of efficiency in terms of communication and development. Nordic Lights™ implements just-in-time deliveries. In this way, you can feel safer when it comes to the deliveries and need to keep a smaller stock. The consistent level of quality ensures fewer stops in your production and fewer complaints/claims from your customers. If problems arise, we move swiftly. The durability of our lights also minimizes any unscheduled maintenance of your equipment.

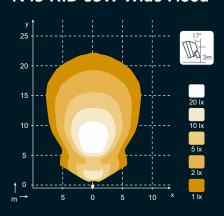
**High Power LED** 

1996 A.D.

## Technology has evolved. And so have we!



#### N45 HID 35W Wide Flood





## **Light Patterns**

Whatever Your lighting requirements, Nordic Lights™ can supply the work light to suit Your applications. Through our engineering expertise in lens and reflector technology Nordic Lights™ can offer a range of light patterns to meet your needs. Our light patterns can be classified as High Beam (long distance ahead), Low Beam (short distance ahead), Flood (for work close to the application), Wide Flood and Super Wide (for lighting up the whole work area close to the application). As lighting experts we can also offer different light colours for specific work environments.

## **Angle of Light and Light Patterns**

When simulating light in the development of light you apply the functions of angles by means of the Cosine law. This law states that the illumination on two planes is proportional to the cosine of the angle between the two planes and the angle of the light rays. In the picture to the left two planes receive the same number of rays from the light. However, since the surface of #B is larger than the surface of #A the illumination (in Lux values) will be less on the surface of #B compared to the surface of #A. Many light producers – in their light patterns - show the illumination on the surface of #A in their light patterns while Nordic Lights™ shows the illumination on the surface of #B because the surface of #B normally corresponds more accurately to work areas in real-life conditions. With Auxiliary Driving lights, High Beam and Low Beam, Nordic Lights™ refer to the surface of #A.

# **Heavy Duty Mounting**

Nordic Lights™ patented Heavy Duty mounting systems absorb vibration and shocks protecting the work light and prolonging the bulb life. The HD mount offers extreme anti-vibration dampening. Lights are available both as Damp (with Anti-Vibration dampener) and Undamp (without dampener). Mountings comprise: TT (Upright Pedestal mount - Top Top), TD (Suspended Pedestal mount - Top Down), RH (Right-Hand side mount) and LH (Left-Hand side mount).

# **Quality - Not Just Any Light**

When you choose a Nordic Lights<sup>™</sup> product, You are not just choosing any light. You are choosing a HEAVY DUTY lighting solution. All Nordic Lights<sup>™</sup> models are exposed to extensive testing before being approved. This is one of the main reasons why Nordic Lights<sup>™</sup> work lights operate all over the Globe.

#### **Vibration & Shock**

The lights are placed in high vibration on all three perpendicular axles for a minimum of three hours on EACH AXIS. The lights are then exposed to shocks of up to 60G.



Engineer adjusting work light during warm-up before test

These tests simulate different vibrations which the light is exposed to when mounted on apparatus at work including the punishment of falling objects and collisions in the work area.

## **Dust & Humidity**

The light is placed in a closed chamber and free-moving dust is blown into the chamber to circulate for several hours to test the dust sealing. There are numerous methods of testing humidity. For instance, the light is dropped into a pool of water for several hours. The light is then switched on and runs until it heats up as in a real-life situation only to get tormented under a shower of cold water with ice floes. The light is also spun around while a high pressure jet of water is fired against the light which experiences constant changes in the pressure and temperature of the water. As well as the various IP tests (different official IP categories state how well a product is protected from materials such as dirt and water), the lights also undergoes a Salt Spray test. During the Salt Spray test the light is placed in a concealed chamber and continuously sprayed with salt for over 240 HOURS. These tests check that no rain, splash water, high pressure cleaning or foreign material (e.g. dust) penetrate the light.

#### **Heat and Cold**

As well as the changes in temperature in the water tests mentioned above the lights are also exposed to complete repetitive thermal cycles. The light turns in a sealed environment where the temperature is raised from deep below zero to very hot before being lowered again to well below zero and so on. Whether your job needs to be done in tropical or arctic conditions, we will have thought it all through for You!

## **Electro Magnetic Compatibility**

Nordic Lights<sup>™</sup> products are exposed to extensive EMC testing (Electro Magnetic Compatibility). The work environment sets the demands on how much interference may be emitted by the light and how immune the light must be to outside interference.

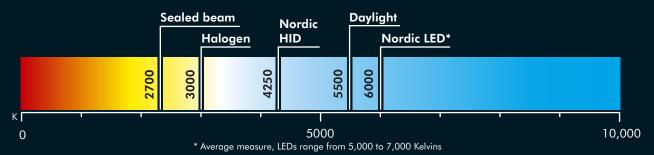
The extent of radio frequency interference emitted is tested in closed laboratories, i.e. emission radiated through the air measured by antennae and emission through cables measured with radio EMI receivers.

The immunity of the light is tested on several levels in the laboratories. The radio frequency immunity is tested by sending calibrated frequencies through an antenna towards the light and by placing the light between strip-line cables. By connecting a generator to the light it is exposed to intense or long-lasting voltage peaks and dips. The light is also punished with electro-static discharges deployed by a discharge gun directly or through the air. This is to make sure that voltage changes do not break the light.

These tests check whether the electronics in the lamp are compatible with the other equipment in the work area.

## **Light Source Comparison**

Colour temperature in Kelvin



**Lux** 1 lux equals 1 lumen per square metre

**Lumen** A measurement of the power of light perceived by the human eye. The total light output in every

direction, indicates how well an area is illuminated.

**Kelvin** The colour temperature of light is measured in Kelvins since the colour ranges from red through yellow

and white to blue.

**Candela** The light output in one given direction at the source of the light.

#### **LED Technology**

LED (Light Emitting Diode) is a semi-conductor device emitting photons when the diode's p-n junction is forward-biased by an electrical current. The lifespan - up to 50,000 work hours — by far outlives any bulbs. The LED lights are maintenance-free with low power consumption. There is also an advantage in the size since the LED diodes are very small and the direction of the light emitted is easier to direct. High Power LEDs give a cool blue-white colour temperature to maximize light output. The LED technology is very suitable for Nordic Lights™ Heavy Duty work lights due to the high resistance to shock and vibration.



## Xenon - HID Technology

HID (High Intensity Discharge) commonly known as gas discharge (often referred to as Xenon – the chemical element), offers many technological advantages over conventional halogen lights – most notably, higher colour temperature, reduced heat and a considerably longer lifetime (on average 10 times that of a standard halogen bulb). The light is produced by two electrodes positioned close together in a small gas-filled quartz tube. The illumination of an HID light is considerably brighter and greater compared with a halogen light - in other words, twice the illumination of a 70W halogen for only half the power consumption. Also, the light emitted is very similar to daylight.



## **Halogen Technology**

HALOGEN or an incandescent (heat-driven) light works by passing an electric current through a tungsten filament to make it glow. Up to 90% of the power input is wasted in heat. The Nordic Lights™ Halogen work lights use only high-quality Heavy Duty bulbs supplied by one of the world's leading manufacturers. A standard halogen bulb has a lifetime of approximately 500 hours. Halogen technology offers a considerably more affordable solution for your lighting needs. With Nordic Lights™ optics and patented dampening solutions you will get a richly durable, easily serviceable light, providing a lot of light for your money.



# **Development Process** according to AIAG APQP

Plan and Define
Product Design and Development
Process Design and Development
Product and process Validation
Feedback, Assessment and Corrective Actions



## **R&D Analysis Tools**

Mechanical Design Software
Mechanical Properties Analysis and Simulation Software
Thermal Design and Simulation Software
Optical Design and Simulation Software
Analysis Software

LAB Facilities

Mechanical Electrical

Optical



#### **Production**

Continuous improvement

5S and Kaizen

Six Sigma system (with Black Belt experts)

Quality management

ISO/TS 16949 compatibility

ISO 9001

ISO 14001

Traceability, labeling and test results recorded for each lamp



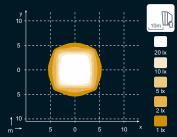
# **Different Light Patterns**

Nordic Lights<sup>™</sup> work lights come with different light patterns to match your specific lighting solution needs. Generally, our light patterns can be classified as follows: High Beam, Low Beam, Flood and Wide Flood.

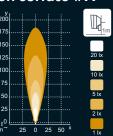
## **High Beam**

A High Beam light pattern is quite narrow, focusing straight ahead, producing a long-distance range of light.

# High Beam projected on wall at 10m



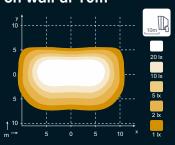
# High Beam projected on surface #A



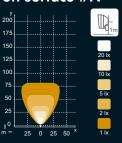
#### **Low Beam**

A Low Beam light pattern is notably wider, still focusing straight ahead, producing a short-distance range of light.

# Low Beam projected on wall at 10m



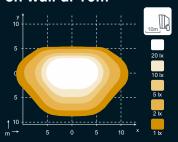
# Low Beam projected on surface #A



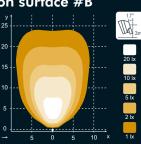
#### Wide Flood

A Wide Flood light pattern has a very wide spread of the light for lighting up the whole work area close to the application.

Wide Flood projected on wall at 10m



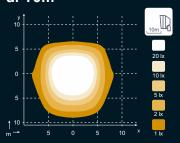
Wide Flood projected on surface #B



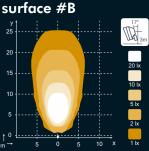
## Flood

A Flood light pattern has a wide spread of light for work close to the application.

Flood projected on wall at 10m



Flood projected on







#### **QUAKE DAMPENING**

Nordic Lights<sup>™</sup> introduces the revolutionizing QUAKE dampening system. The patented system takes protection against vibration and shock to a whole new level never seen before. The R&D department at Nordic Lights<sup>™</sup> has used all their muscles, expertise and equipment to create a dampening system of absolute perfection.

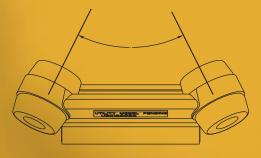
In a standard dampening system there will be powerful strains on the dampeners. The angles of the dampeners within the QUAKE dampening system have been painstakingly calculated and intensely tested to find the perfect synchronized angles to produce a complete, optimized system. Due to the construction, shocks and vibrations will never strain all axels in a straight line of force, if the force happens to come in line with one axel the force will still be out of line with all other parts of the QUAKE dampening system. This results in a uniform distribution of the force throughout the dampening system. As a result, the QUAKE dampening system lasts much longer and can withstand much bigger shocks and wider ranges of vibration. And if the dampening system can withstand more punishment, so can the work light and also the

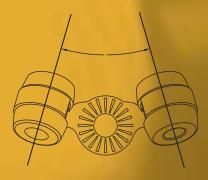
Since the QUAKE system withstands a wider range of vibration - for instance 4.65 Grms 12-2000Hz, 15.3 Grms 24-2000Hz and 20 Grms

application upon which it is mounted.

24-2000Hz – thus making it possible to mount more powerful work lamps on applications. As a result, the question of where the work light is mounted on the application is less cruical since the dampening system is kinder on the vehicle; it also reduces maintenance and down time. What is more, the QUAKE dampening system is lower than other dampening systems saving space.

For many years Nordic Lights<sup>™</sup> has been developing and patenting different dampening solutions for Heavy Duty work lights. Why dampen a work lamp? With the right kind of dampening you will greatly increase a work lamp's resistance to shock and vibration. Not only will the lamp take much longer to brake, the different components inside the lamp will also last longer needing far less maintenance and fewer replacements. The strain on the application caused by mounting the work lamp will also be reduced making the vehicle less vulnerable.







Eastern Finland 100 km into the woods. Forestry harvester able to operate during harsh winter in total darkness - thanks to Nordic Lights lamps.



LED lights to the left in the picture.







# Latitude 64° 0′ 42″ Longitude 28° 36′ 9″





Agricultural



Truck & Trailer Emergency



Truck & Trailer Material Handling



## **NORDIC GEMINI LED**

The Nordic GEMINI LED work lamp offers a

#### **Versions**



N4701 25200lm



N4702 18000lm



N4703 13800lm

#### **Features**



Long Lifetime



Low Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



EMC



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Strong Light Pattern



Replaceable Lens



High Light Output



High Lumens/ Watt Efficiency

#### Connectors



2 x Built-in Deutsch 2-pin

#### Lenses



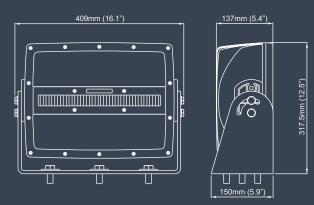
Transparent

\* Quake Dampening features on pages 10-11
\* Abbreviations of the versions are explained on page 2.
\* For test methods please refer to page 6.



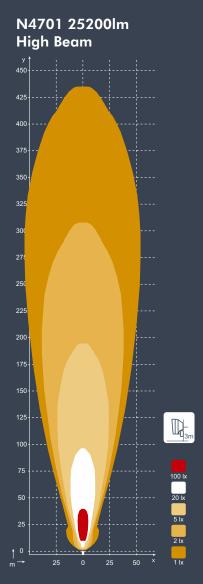
# Drawings

# N4701, N4702 and N4703

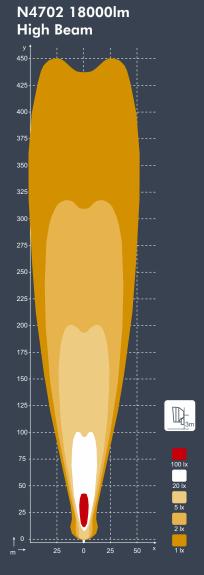


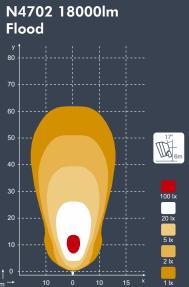
# **Specifications**

	N4701	N4702	N4703
Theoretical Lumens Output:	40300lm	28800lm	22000lm
Operational Lumens Output:	25200lm	18000lm	13800lm
Colour Temperature :	6000K	5700K	5700K
Nominal Voltage DC :	24V	•	•
Input Voltage Range DC :	18-32V	•	•
Power Consumption :	300W	270W	240W
Nominal Current at 24V:	12.5A	11.3A	10A
Electronics:	Integrated	•	•
Connector :	2 x Built-in Deutsch 2-pin	•	•
Mount:	5 pcs Bolt M14x35	•	•
Shock:	TBD	•	•
Vibration :	TBD	•	•
Lens:	PC	•	•
Body:	Aluminium	•	•
Weight:	18kg	•	•
IP Rating:	IP68	•	•
	IP6K9K	•	•
	SAE J1455	•	•
Salt Mist :	ISO 9227 240H	•	•
EMC:	ISO 13766	•	•
	ISO 14982	•	•
	ISO 7637-2	•	•
	CISPR 25 Class 3	•	•
Operating Temperatures :	-40°C +85°C	•	•
	(Overheat protected)	•	•



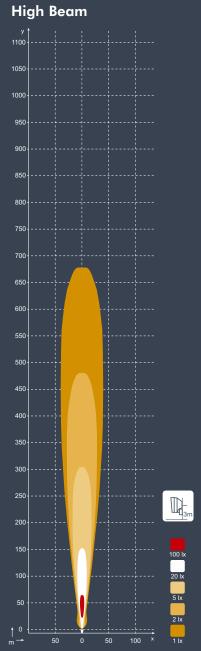




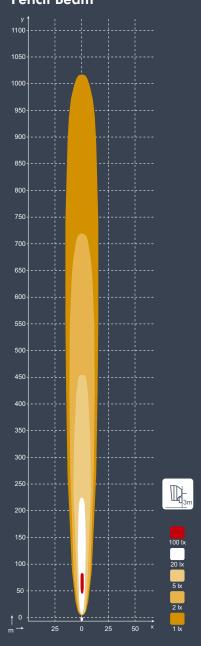








#### N4703 13800lm Pencil Beam





# **NORDIC CENTAURUS LED QUAKE EDITION**

The Nordic CENTAURUS LED work lamp

CENTAURUS LED is available with two and five different lens colours. The work lamp

#### **Versions**



N4601 5700lm QUAKE Dampening



N460 2700lm Xtreme Dampening

#### **Features**



Long Lifetime



Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



ЕМС



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Strong Light Pattern



Different Lens Colour Versions Available



Replaceable Lens



High Light Output



High Lumens/ Watt Efficiency



Quake Dampening N4601



Extreme Heavy Duty Dampening N460

#### Connectors



Built-in Deutsch 2-pin

#### Lenses



Transparent



White



Yellow



Amber



Red

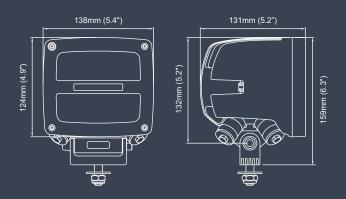
\* Quake Dampening features on pages 10-11
\* Abbreviations of the versions are explained on page 2.
\* For test methods please refer to page 6.

**HEAVY DUTY LED WORK LIGHTS** 

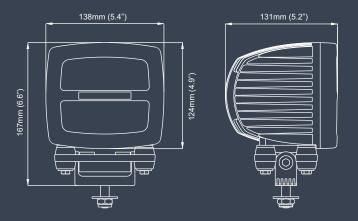


# **Drawings**

## N4601 with QUAKE Dampening



#### N460 with Xtreme Dampening

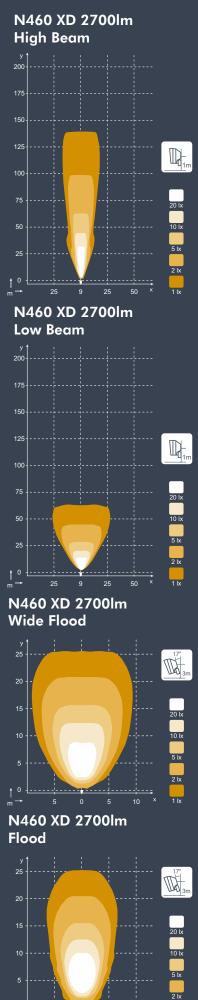


# **Specifications**

	N4601 QD	N460 XD
Theoretical Lumens Output:	9600lm	4300lm
Operational Lumens Output:	6000lm	2700lm
Colour Temperature :	5700K	6000K
Nominal Voltage DC:	24V	•
Input Voltage Range DC :	18-32V	•
Power Consumption:	85W	60W
Nominal Current at 24V :	3.5A	2.5A
Electronics :	Integrated	•
Connector :	Built-in Deutsch 2-pin	•
Mount:	Single Bolt M10	•
Shock :	60G	•
Vibration :	15.3Grms 24-2000Hz	•
	4.65Grms 12-2000Hz	
Lens:	PC	•
Body:	Aluminium	•
Weight:	2.9kg	•
IP Rating:	IP68	•
The state of the s	IP6K9K	•
	SAE J1455	•
Salt Mist :	ISO 9227 240H	•
EMC:	ISO 13766	•
	ISO 14982	•
	ISO 7637-2	•
	CISPR 25 Class 3	
Operating Temperatures :	-40°C +85°C	•
	(Overheat protected)	•

Not all products are available in all markets. During continuous improvement specifications and design are changing. Illustrations does not necessarily show the design of every version and some features are version specific. The lumens output varies depending on lens colour.









# **NORDIC SCORPIUS LED QUAKE EDITION**

The Nordic SCORPIUS LED work lamp offers

SCORPIUS LED QUAKE EDITION is available

#### Versions



N4401 4200lm QUAKE Dampening



N4403 3000lm QUAKE Dampening



N4405 2100lm QUAKE Dampening



N4407 2300lm Dampening



N4409 2000lm Dimmable QUAKE Dampening

#### **Features**



Long Lifetime



Low Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



EMC



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Strong Light Pattern



Different Lens Colour Versions Available



Replaceable



Compact



High Light Output



High Lumens/ Watt Efficiency



Multi Voltage



Quake Dampening



Dimmable

#### **Connectors**



Built-in Deutsch 2-pin

#### Lenses



Transparent



White



Yellow



Amber



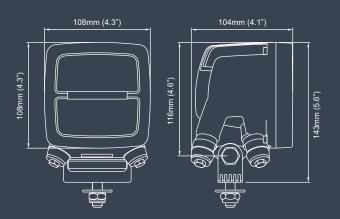
Red

<sup>\*</sup> Abbreviations of the versions are explained on page 2 \* For test methods please refer to page 6.



# **Drawings**

# N4401, N4403, N4405, N4407, N4409 with QUAKE Dampening



# **Specifications**

	N4401 QD	N4403 QD	N4405 QD	N4407 QD	N4409 QD
Theoretical Lumens Output :	6700lm	4800lm	3400lm	3700lm	3200lm
Operational Lumens Output :	4200lm	3000lm	2100lm	2300lm	2000lm
Colour Temperature :	6000K	5700K	5700K	5700K	5700K
Nominal Voltage DC :	12-24V	•	•	•	•
Input Voltage Range DC :	9-32V	•	•	•	•
Power Consumption:	50W	45W	35W	40W	40W
Nominal Current at 12V:	4.2A	3.8A	3.0A	3.4A	3.4A
24V :	2.1A	1.9A	1.5A	1.7A	1.7A
Electronics :	Integrated	•	•	•	•
Connector:	Built-in Deutsch 2-pin	•	•	•	•
Mount:	Single Bolt M10	•	•	•	•
Shock:	60G	•	•	•	•
Vibration:	20Grms 24-2000Hz	•	•	•	•
	4.65 Grms 12-2000Hz	•	•	•	•
Lens:	PC	•	•	•	•
Body:	Aluminium	•	•	•	•
Weight:	1.6kg	•	•	•	•
IP Rating:	IP68	•	•	•	•
	IP6K9K	•	•	•	•
	SAE J1455	•	•	•	•
Salt Mist :	ISO 9227 240H	•	•	•	•
EMC:	ISO 13766	•	•	•	•
	ISO 14982	•	•	•	•
	ISO 7637-2	•	•	•	•
	CISPR 25 Class 3	•	•	•	CISPR 25 Class 5
Operating Temperatures :	-40°C +85°C	•	•	•	•
	(Overheat protected)	•	•	•	•

Not all products are available in all markets. During continuous improvement specifications and design are changing. Illustrations does not necessarily show the design of every version and some features are version specific. The lumens output varies depending on lens colour.



# **NORDIC SCORPIUS LED**

The Nordic SCORPIUS LED work lamp offers

The SCORPIUS LED is available with six

#### **Versions**



N4402 4200lm



N4404 3000lm



N4406 2100lm



N4408 2300lm



N4410 2000lm Dimmable



N42 1350lm

#### **Features**



Long Lifetime



Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



**EMC** 



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Strong Light Pattern



Different Lens Colour Versions Available



Replaceable



Compact



High Light Output



High Lumens/ Watt Efficiency



Multi Voltage



Dimmable

#### Connectors



Built-in Deutsch 2-pin

#### Lenses



Transparent



White



Yellow



Amber



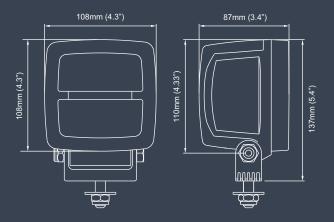
Red

\* Abbreviations of the versions are explained on page 2 \* For test methods please refer to page 6.

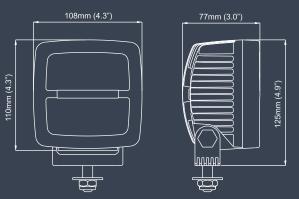


# Drawings

# N4402, N4404, N4406, N4408 and N4410



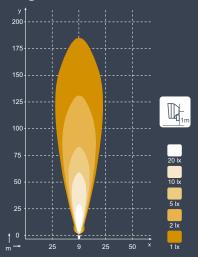
#### N42



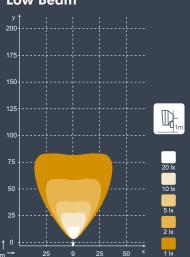
# Specifications

	N4402	N4404	N4406	N4408	N4410	N42
Theoretical Lumens Output:	6700lm	4800lm	3400lm	3700lm	3200lm	2200lm
Operational Lumens Output:	4200lm	3000lm	2100lm	2300lm	2000lm	1350lm
Colour Temperature :	6000K	5700K	5700K	5700K	5700K	5700K
Nominal Voltage DC :	12-24V	•	•	•	•	•
Input Voltage Range DC :	9-32V	•	•	•	•	•
Power Consumption:	50W	45W	35W	40W	40W	25W
Nominal Current at 12V:	4.2A	3.8A	3.0A	3.4A	3.4A	2.0A
24V :	2.1A	1.9A	1.5A	1.7A	1.7A	1.0A
Electronics :	Integrated	•	•	•	•	•
Connector:	Built-in Deutsch 2-pin	•	•	•	•	•
Mount:	Single Bolt M10	•	•	•	•	•
Shock :	60G	•	•	•	•	•
Vibration:	15.3Grms 24-2000Hz	•	•	•	•	•
Lens:	PC	•	•	•	•	•
Body:	Aluminium	•	•	•	•	•
Weight:	1.1kg	1.1kg	1.1kg	1.1kg	1.1kg	1.2kg
IP Rating :	IP68	•	•	•	•	•
	IP6K9K	•	•	•	•	•
	SAE J1455	•	•	•	•	•
Salt Mist :	ISO 9227 240H	•	•	•	•	•
EMC:	ISO 13766	•	•	•	•	•
	ISO 14982	•	•	•	•	•
	ISO 7637-2	•	•	•	•	•
	CISPR 25 Class 3	•	•	•	CISPR 25 Class 25	CISPR 25 Class 3
Operating Temperatures :	-40°C +85°C	•	•	•	•	•
	(Overheat protected)	•	•	•	•	•

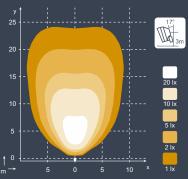
N4401 QD, N4402 4200lm High Beam



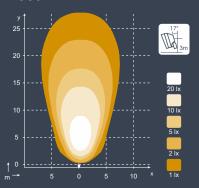
N4401 QD, N4402 4200lm Low Beam



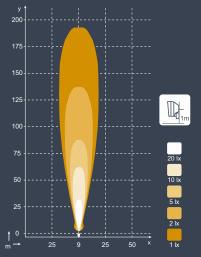
N4401 QD, N4402 4200lm Wide Flood



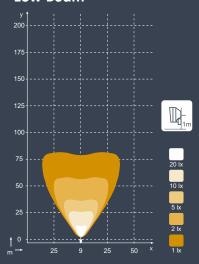
N4401 QD, N4402 4200lm Flood



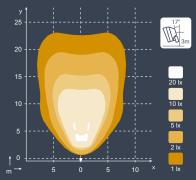
N4403 QD, N4404 3000lm High Beam



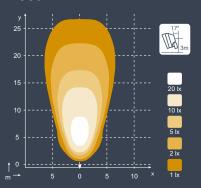
N4403 QD, N4404 3000lm Low Beam



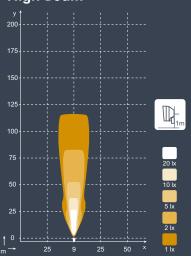
N4403 QD, N4404 3000lm Wide Flood



N4403 QD, N4404 3000lm Flood



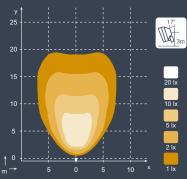




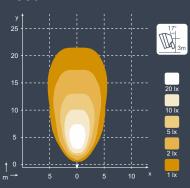
#### N4405 QD, N4406 2100lm Low Beam



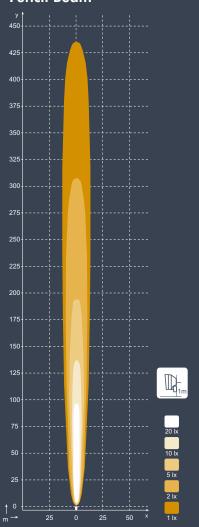
N4405 QD, N4406 2100lm Wide Flood



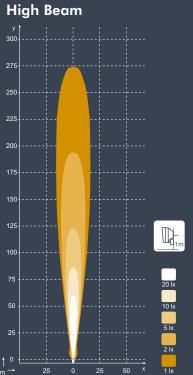
N4405 QD, N4406 2100lm Flood

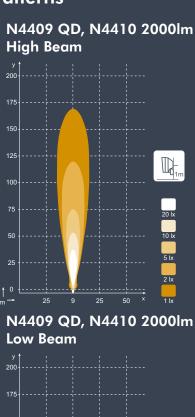


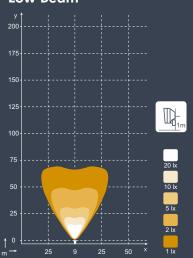
N4407 QD, N4408 2300lm Pencil Beam



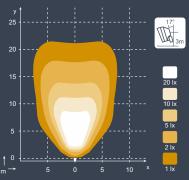
N4407 QD, N4408 2300lm



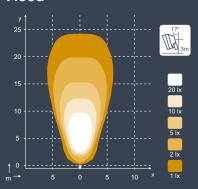




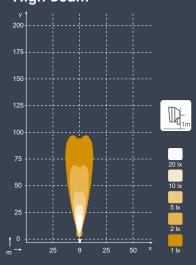
N4409 QD, N4410 2000lm Wide Flood



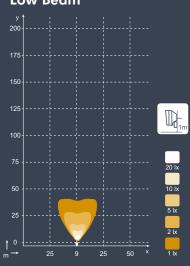
N4409 QD, N4410 2000lm Flood



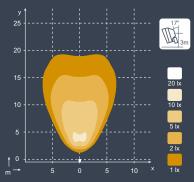
N42 1350lm High Beam



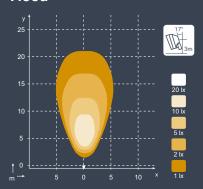
N42 1350lm Low Beam



N42 1350lm Wide Flood



N42 1350lm Flood







## **NORDIC ANTARES LED**

The ANTRES LED is available with four different

#### **Versions**



N3301 4200lm



N3302 3000lm



N3303 2300lm



N3304 2000lm Dimmable



N33 2100lm

#### **Features**



Long Lifetime



Low Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



**EMC** 



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Strong Light Pattern



Different Lens Colour Versions Available



Replaceable Lens



Compact



High Light Output



High Lumens/ Watt Efficiency



Multi Voltage



Dimmable

#### Connectors



Built-in Deutsch 2-pin

#### Lenses



Transparent



White



Yellow



Amber



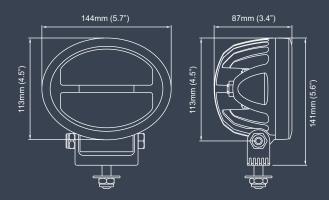
Red

<sup>\*</sup> Abbreviations of the versions are explained on page 2 \* For test methods please refer to page 6.

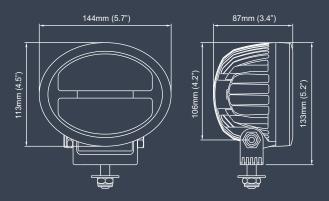


# Drawings

# N3301, N3302, N3303 and N3304



#### N33

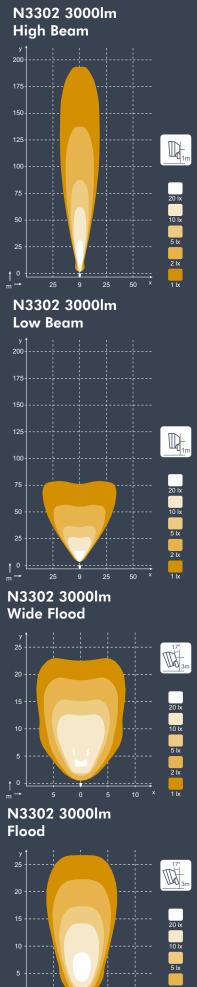


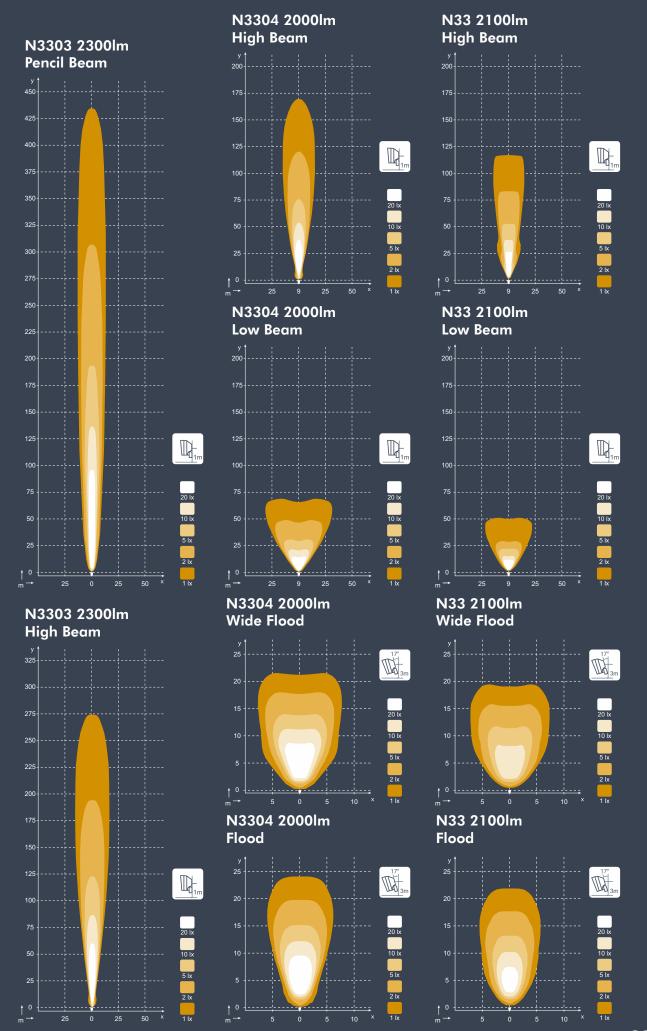
# **Specifications**

	N3301	N3302	N3303	N3304	N33
Theoretical Lumens Output :	6700lm	4800lm	3700lm	3200lm	3400lm
Operational Lumens Output:	4200lm	3000lm	2300lm	2000lm	2100lm
Colour Temperature :	6000K	5700K	5700K	5700K	5700K
Nominal Voltage DC :	12-24V	•	•	•	•
Input Voltage Range DC :	9-32V	•	•	•	•
Power Consumption:	50W	45W	40W	40W	35W
Nominal Current at 12V:	4.2A	3.8A	3.4A	3.4A	3.0A
24V:	2.1A	1.9A	1.7A	1.7A	1.5A
Electronics :	Integrated	•	•	•	•
Connector:	Built-in Deutsch 2-pin	•	•	•	•
Mount:	Single Bolt M10	•	•	•	•
Shock :	60G	•	•	•	•
Vibration :	15.3Grms 24-2000Hz	•	•	•	•
Lens:	PC	•	•	•	•
Body:	Aluminium	•	•	•	•
Weight:	1.2kg	1.2kg	1.2kg	1.2kg	1.5kg
IP Rating :	IP68	•	•	•	•
	IP6K9K	•	•	•	•
	SAE J1455	•	•	•	•
Salt Mist :	ISO 9227 240H	•	•	•	•
EMC:	ISO 13766	•	•	•	•
	ISO 14982	•	•	•	•
	ISO 7637-2	•	•	•	•
	CISPR 25 Class 3	•	•	CISPR 25 Class 5	CISPR 25 Class 3
Operating Temperatures :	-40°C +85°C	•	•	•	•
	(Overheat protected)	•	•	•	•

Not all products are available in all markets. During continuous improvement specifications and design are changing. Illustrations does not necessarily show the design of every version and some features are version specific. The lumens output varies depending on lens colour.









# **NORDIC VIRGO LED**

The VIRGO LED is available with four different

#### **Versions**



N3101 4200lm



N3102 3000lm



N3103 2300lm



N3104 2000lm



N31 2100lm

#### **Features**



Long Lifetime



Low Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



**EMC** 



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Strong Light Pattern



Different Lens Colour Versions Available



Replaceable Lens



Compact



High Light Output



High Lumens/ Watt Efficiency



Multi Voltage



Dimmable

#### Connectors



Built-in Deutsch 2-pin

#### Lenses



Transparent



White



Yellow



Amber



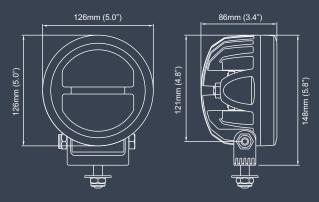
Red

<sup>\*</sup> Abbreviations of the versions are explained on page 2 \* For test methods please refer to page 6.

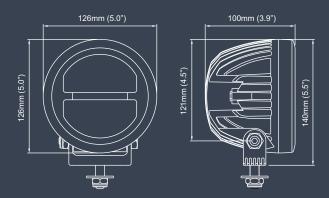


# Drawings

# N3101, N3102, N3103 and N3104



## N31

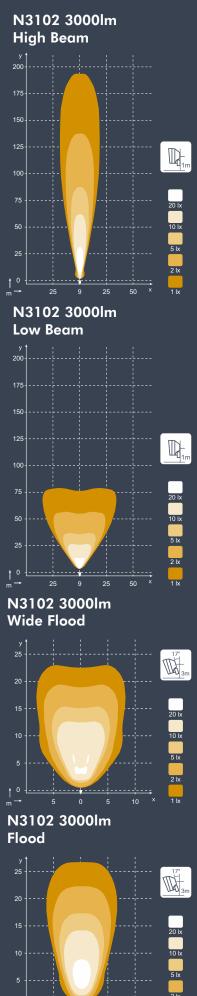


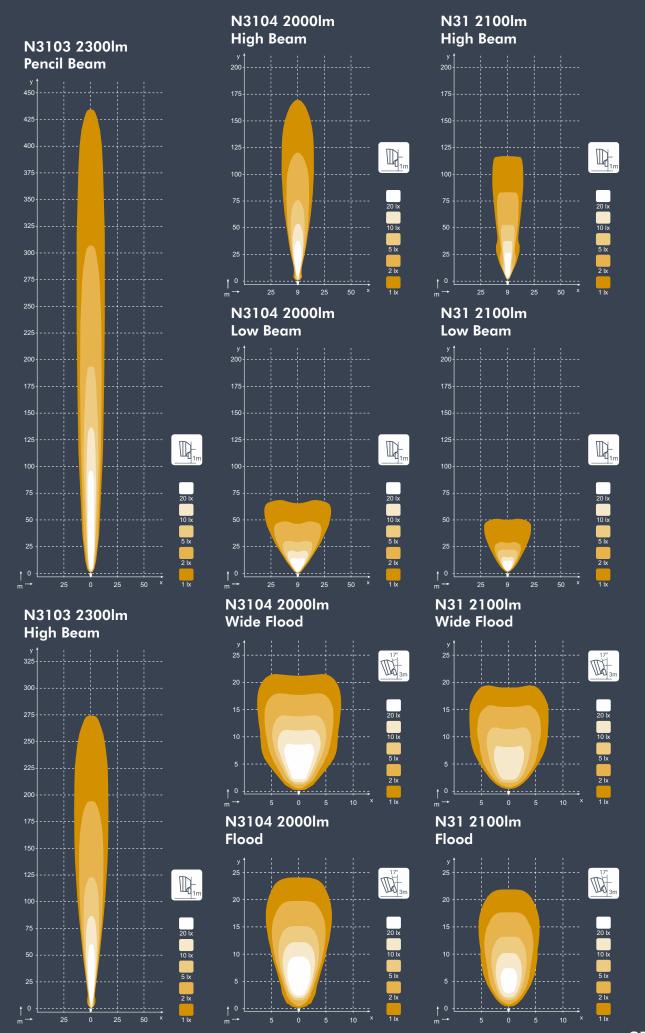
# Specifications

	N3101	N3102	N3103	N3104	N31
Theoretical Lumens Output :	6700lm	4800lm	3700lm	3200lm	3400lm
Operational Lumens Output :	4200lm	3000lm	2300lm	2000lm	2100lm
Colour Temperature :	6000K	5700K	5700K	5700K	5700K
Nominal Voltage DC :	12-24V	•	•	•	•
Input Voltage Range DC :	9-32V	•	•	•	•
Power Consumption :	50W	45W	40W	40W	35W
Nominal Current at 12V:	4.2A	3.8A	3.4A	3.4A	3.0A
24V :	2.1A	1.9A	1.7A	1.7A	1.5A
Electronics:	Integrated	•	•	•	•
Connector:	Built-in Deutsch	•	•	•	•
Mount:	Single Bolt M10	•	•	•	•
Shock:	60G	•	•	•	•
Vibration :	15.3Grms 24-2000Hz	•	•	•	•
Lens:	PC	•	•	•	•
Body:	Aluminium	•	•	•	•
Weight:	1.3kg	1.3kg	1.3kg	1.3kg	1.6kg
IP Rating :	IP68	•	•	•	•
	IP6K9K	•	•	•	•
	SAE J1455	•	•	•	•
Salt Mist :	ISO 9227 240H	•	•	•	•
EMC:	ISO 13766	•	•	•	•
	ISO 14982	•	•	•	•
	ISO 7637-2	•	•	•	•
	CISPR 25 Class 3	•	•	CISPR 25 Class 5	CISPR 25 Class 3
Operating Temperatures :	-40°C +85°C	•	•	•	•
, , , , , , , , , , , , , , , , , , , ,	(Overheat protected)	•	•	•	•

Not all products are available in all markets. During continuous improvement specifications and design are changing. Illustrations does not necessarily show the design of every version and some features are version specific. The lumens output varies depending on lens colour.









# **NORDIC SPICA LED**

The Nordic SPICA LED work lamp offers a

The Nordic SPICA LED is available with four also with dimmable function.

#### **Versions**



N2401 750lm Dimmable



N26 700lm Extensive Multi Voltage



N24 600lm



N24 600lm Handle & Switch



N24 450lm Reverse

#### **Features**



Long Lifetime



Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



**EMC** 



Load Dump **Protected** 



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Different Lens Colour Versions Available



Compact



Multi Voltage



Low Power Constumption



Available with Handle and Switch



Available as Reverse Light



Dimmable

#### Connectors



Built-in Deutsch 2-pin



Built-in AMP

#### Lenses



Transparent



White



Yellow



Amber

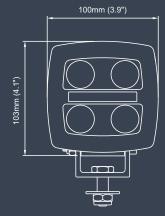


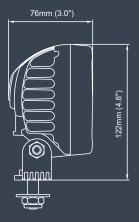
Red

\* Abbreviations of the versions are explained on page 2 \* For test methods please refer to page 6.

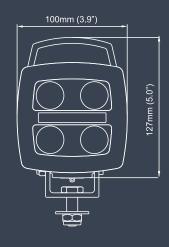


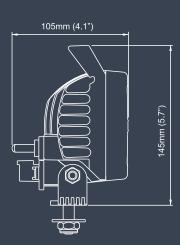
# N2401, N26, N24 and N24 R





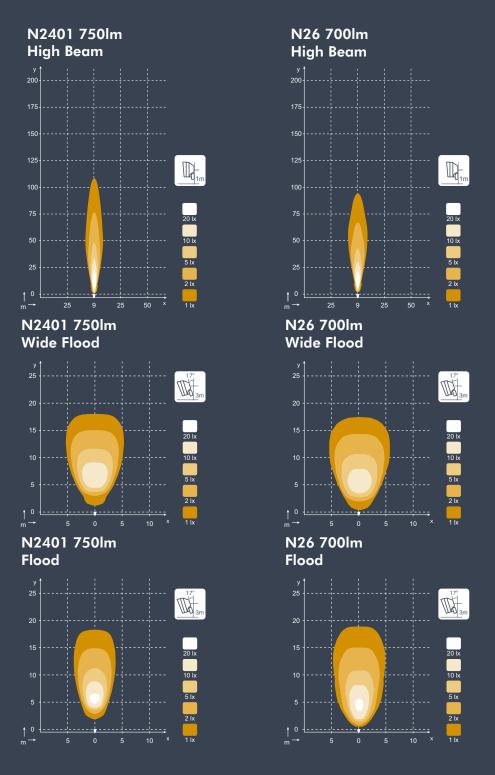
### **N24 HS**

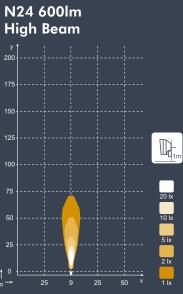




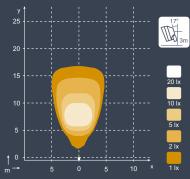
# Specifications

	N2401	N26	N24	N24 HS	N24 R
Approval:	NZ TVT	1120	NET.	NET III	ECE R23
Theoretical Lumens Output:	1200lm	1100lm	1000lm	1000lm	700lm
Operational Lumens Output :		700lm	600lm	600lm	450lm
Colour Temperature :	5700K	5700K	6000K	6000K	5000K
Nominal Voltage DC :	12-24V	12-80V	12-24V	12-24V	12-24V
Input Voltage Range DC :	9-32V	9-110V	9-32V	9-32V	9-32V
Power Consumption :	24W	17W	18W	18W	15W
Nominal Current at 12V:	2.0A	1.4A	1.5A	1.5A	1.2A
24V :	1.0A	0.7A	0.75A	0.75A	0.6A
48V:		0.35A			
80V:		0.21A			
Electronics:	Integrated	•	•	•	•
Connector:	Built-in Deutsch 2-pin	•	•	•	•
	Built-in AMP	•	•	•	•
Mount:	Single Bolt M8 or M10	•	•	•	•
Shock:	60G	•	•	•	•
Vibration:	8Grms 24-2000Hz	•	•	•	•
Lens:	PC	•	•	•	•
Body:	Aluminium	•	•	•	•
Weight:	0.9kg	•	•	•	•
IP Rating:	IP68	•	•	•	•
	IP6K9K	•	•	•	•
	SAE J1455	•	•	•	•
Salt Mist :	ISO 9227 240H	•	•	•	•
EMC:	ISO 13766	•	•	•	
	ISO 14982	•	•	•	
	ISO 7637-2	•	•	•	
	EN 12895	•	•	•	
	CISPR 25 Class 3	•	•	•	
					R10
Operating Temperatures :	-40°C +85°C	•	•	•	•
	(Overheat protected)	•	•	•	•

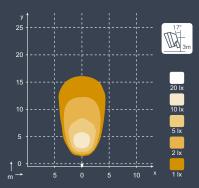




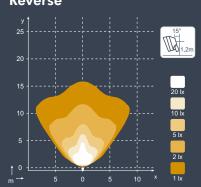
N24 600lm Wide Flood



N24 600lm Flood



N24 R 450lm Reverse





# **NORDIC CANIS LED**

The Nordic CANIS LED is suitable for mounting

#### **Versions**



N2001 850lm



N2002 480lm Reverse

#### **Features**



Long Lifetime



Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



ЕМС



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Different Lens Colour Versions Available



Ultra Compact



Multi Voltage



Low Power Consumption



Light Weight



Modern Design



Available as Reverse light





Built-in Deutsch 2-pin





Transparent



White



Yellow



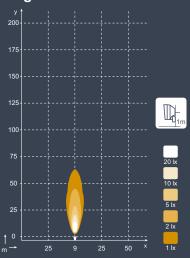
Amber



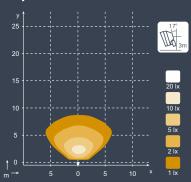
Red

\* Abbreviations of the versions are explained on page 2 \* For test methods please refer to page 6.

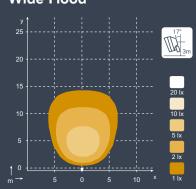
#### N2001 850lm High Beam



#### N2001 850lm Super Wide



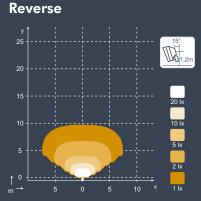
#### N2001 850lm Wide Flood



#### N2001 850lm Flood

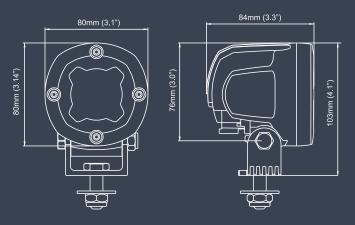


# N2002 480lm



#### **Drawings**

#### N2001 and N2002



# Specifications

N2001	N2002 R
	ECE R23
1350lm	770lm
850lm	480lm
5700K	•
12-48V	•
9-68V	•
13W	•
1.0A	•
0.5A	•
0.25A	•
Integrated	•
Built-in Deutsch 2-pin	•
Single Bolt M8 or M10	•
60G	•
8Grms 24-2000Hz	•
PC	•
Aluminium	•
0.6kg	•
IP68	•
IP6K9K	•
SAE J1455	•
ISO 9227 240H	•
ISO 13766	•
ISO 14982	•
ISO 7637-2	•
EN12895	•
CISPR 25 Class 3	•
	R10
-40°C +85°C	•
(Overheat protected)	•
	1350lm 850lm 5700K 12-48V 9-68V 13W 1.0A 0.5A 0.25A Integrated Built-in Deutsch 2-pin Single Bolt M8 or M10 60G 8Grms 24-2000Hz PC Aluminium 0.6kg IP68 IP68 IP68V ISO 7637-2 EN12895 CISPR 25 Class 3



# **NORDIC CAPELLA LED**

The CAPELLA LED N10 B version features a

#### **Versions**



N10 B 350lm Stronger Heavy Duty Bracket



N10 350lm

#### **Features**



Long Lifetime



Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



ЕМС



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Ultra Compact



Multi Voltage



Low Power Consumption



Light Weight



Modern Design

#### Connectors

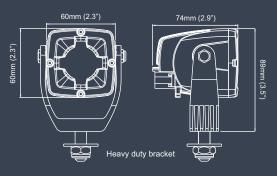


Built-in Deutsch 2-pin

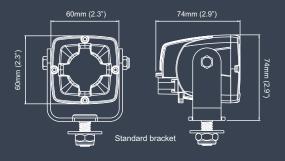
<sup>\*</sup> Abbreviations of the versions are explained on page 2 \* For test methods please refer to page 6.



#### N10 B



#### N10



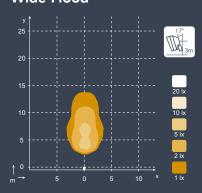
# **Specifications**

		N10 B	N10
Theoretical Lumens (	Output :	550lm	•
Operational Lumens	Output:	350lm	•
Colour Temperature	:	6000K	•
Nominal Voltage DC		12-48V	•
Input Voltage Range	DC:	9-68V	•
Power Consumption	:	6W	•
Nominal Current at	12V:	0.5A	•
	24V:	0.25A	•
	48V:	0.13A	•
Electronics:		Integrated — Coated Seal	•
Connector:		Built-in Deutsch 2-pin	•
Mount:		Single Bolt M10	•
Shock:		60G	•
Vibration:		15.3Grms 24-2000Hz	8Grms 24-2000Hz
Lens:		PC	•
Body:		Aluminium	•
Weight:		0.3kg	•
IP Rating :		IP68	•
		IP6K9K	•
		SAE J1455	•
Salt Mist :		ISO 9227 240H	•
EMC:		ISO 13766	•
		ISO 14982	•
		ISO 7637-2	•
		EN12895	•
		CISPR 25 Class 3	•
Operating Temperatures :		-40°C +85°C	•
		(Overheat protected)	•

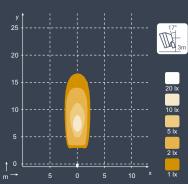
Not all products are available in all markets. During continuous improvement specifications and design are changing. Illustrations does not necessarily show the de of every version and some features are version specific. The lumens output varies depending on lens colour.

# **Light Patterns**

#### N10 B and N10 350lm Wide Flood



#### N10 B and N10 350lm Flood





# **NORDIC TAURUS LED**

The Nordic TAURUS LED work lamp is ideal for illuminating short distances in any 24V

#### **Versions**





#### **Features**

Long Lifetime



Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



ЕМС



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Multi Voltage

#### Connectors

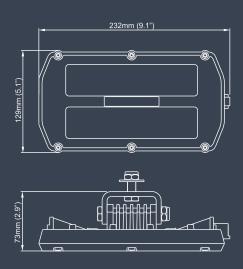


Built-in Deutsch 2-pin (left or right)

<sup>\*</sup> Quake Dampening features on pages 10-11
\* Abbreviations of the versions are explained on page 2.
\* For test methods please refer to page 6.



### N7201



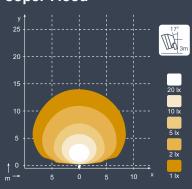
# **Specifications**

	N7201
Theoretical Lumens Output:	3100lm
Operational Lumens Output :	1950lm
Colour Temperature :	5300K
Nominal Voltage DC :	12-24V
Input Voltage Range DC :	9-32V
Power Consumption :	30W
Nominal Current at 12V:	2.5A
24V :	1.25A
Electronics :	Integrated
Connector:	Built-in Deutsch 2-pin (left or right)
Mount:	Single Bolt M10
Shock :	60Ğ
Vibration:	15.3Grms 24-2000Hz
Lens:	PC
Body:	Aluminium
Weight:	1.3kg
IP Rating :	IP68
	IP6K9K
	SAE J1455
Salt Mist :	ISO 9227 240H
EMC:	ISO 13766
	ISO 14982
	ISO 7637-2
	CISPR 25 Class 3
Operating Temperatures :	-40°C +85°C
	(Overheat protected)

Not all products are available in all markets. During continuous improvement specifications and design are changing. Illustrations does not necessarily show the do of every version and some features are version specific. The lumens output varies depending on lens colour.

# **Light Patterns**

#### N7201 1950lm **Super Flood**





### **NORDIC DORADO LED**

The Nordic DORADO LED tail light is designed The DORADO LED features Tail, Stop and

#### **Versions**



N70



N70 F

#### **Features**



Long Lifetime



Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



ЕМС



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Compact



Multi Voltage



Low Power Consumption



Potted Electronics



Light Weight





Tell Tale Available

#### Connectors

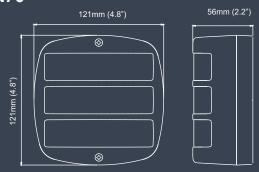


4 pin Male Terminal 6.3 x 0.8

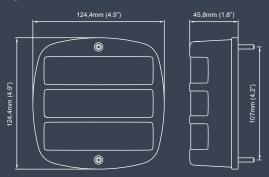
<sup>\*</sup> Abbreviations of the versions are explained on page 2 \* For test methods please refer to page 6.



#### N70



#### N70 F



# Specifications

Nominal Voltage DC: 12 or Input Voltage Range DC: 8-16 Power Consumption: Tail 0 Brake Indic Nominal Current at 12V: Tail 3	or 18-32V .4W e 1.4W utor 1.4W
Input Voltage Range DC: 8-16 Power Consumption: Tail 0 Brake Indic Nominal Current at 12V: Tail 3	or 18-32V .4W e 1.4W dror 1.4W 4mA e 116mA
Input Voltage Range DC: 8-16 Power Consumption: Tail 0 Brake Indic Nominal Current at 12V: Tail 3	.4W e 1.4W utor 1.4W 4mA e 116mA
Power Consumption: Tail 0 Brake Indic Nominal Current at 12V: Tail 3	e 1.4W ator 1.4W 4mA e 116mA
Indic Nominal Current at 12V: Tail 3	ator 1.4W 4mA e 116mA
Nominal Current at 12V: Tail 3	4mA = 116mA
	116mA
Brake	ator 116mA
Indic	
24V : Tail 1	7mA
Brake	e 58mA
Indic	ator 58mA
Electronics : Integ	rated — Epoxy Encapsulated
Connector: 4 pin	Male Terminal 6.3 x 0.8
Mount: M6x2	5 2pcs
Shock: 60G	
Vibration: 20Gr	ms 24-2000Hz
Lens: PC	
Body: Polyo	mide
Weight: 0.4kg	l .
IP Rating: IP68	
Salt Mist : ISO 9	227 240H
EMC: ISO 1	
ISO 1	
	637-2
EN12	
	+85°C
(Over	rheat protected)



# **NORDIC KL10XX LED**

#### **Versions**



KI1001 1000lm



KL1002 1500lm

#### **Features**



Long Lifetime



Low Maintenance





Heavy Duty Construction



Reverse Voltage Protected





Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Compact



Multi Voltage



Dimmable

#### **Connectors**



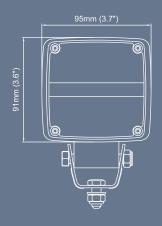
Pigtail Deutsch 2-pin

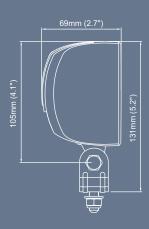


Fly Leads



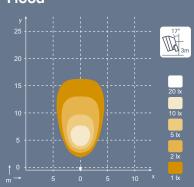
# KL1001 and KL1002



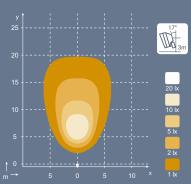


# **Light Patterns**

#### KL1001 1000lm Flood



#### KL1002 1500lm Flood



# **Specifications**

KL1001	KL 1002
1600lm	2400lm
1000lm	1500lm
5700K	•
12-24V	•
9-32V	•
24W	•
2.0A	•
1.0A	*
Integrated	•
Pigtail Deutsch 2-pin	•
Fly Leads	•
Single Bolt M8 or M10	•
60G	•
N/A	•
8Grms 24-2000Hz	•
PC	•
Aluminium	•
0.7kg	•
IP68	•
IP6K9K	•
SAE J1455	•
N/A	•
	•
	•
	•
ISO 7637-2	•
	•
	•
-40°C +85°C	•
(Overheat protected)	<u> </u>
	1600lm 1000lm 5700K 12-24V 9-32V 24W 2.0A 1.0A 1.0A 1.0Egrated Pigtail Deutsch 2-pin Fly Leads Single Bolt M8 or M10 60G N/A 8Grms 24-2000Hz PC Aluminium 0.7kg 1P68 1P6K9K SAE J1455 N/A 1SO 9227 240H 1SO 13766 1SO 14982 1SO 7637-2 EN12895 CISPR 25 Class 5



# **NORDIC KL11XX LED**

rectangular LED work lamp for surface mount

#### **Versions**



KL1101 1000lm



KL1102 1500lm

#### **Features**



Long Lifetime



Low Maintenance





Heavy Duty Construction



Reverse Voltage Protected





Load Dump Protected



Over Voltage Protected



Overheat Protected





Optically Even Distribution of Light Pattern



Compact





Dimmable



Suitable and Easy Fit for Many Applications

#### Connectors



Pigtail Deutsch 2-pin

Multi Voltage





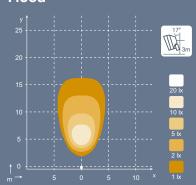
Pigtail AMP



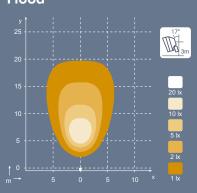
Pigtail PGJ19-5



#### KL1101 1000lm Flood

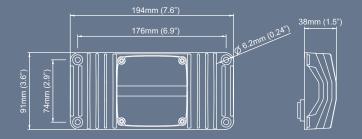


#### KL1102 1500lm Flood



# Drawings

# KL1101 and KL1102



# Specifications

	KL1101	KL 1102
Theoretical Lumens Output:	1600lm	2400lm
Operational Lumens Output:	1000lm	1500lm
Colour Temperature :	5700K	•
Nominal Voltage DC :	12-24V	•
Input Voltage Range DC :	9-32V	•
Power Consumption:	24W	•
Nominal Current at 12V:	2.0A	•
24V :	1.0A	•
Electronics:	Integrated	•
Connector:	Pigtail Deutsch 2-pin	•
	Pigtail AMP	•
	Pigtail PGJ19-5	•
	Fly Leads	•
Mount:	Integrated	•
Shock:	60G	•
Vibration:	8Grms 24-2000Hz	•
Lens:	PC	•
Body:	Aluminium	•
Weight:	0.45kg	•
IP Rating:	IP68	•
<u> </u>	IP6K9K	•
	SAE J1455	•
Salt Mist :	ISO 9227 240H	•
EMC:	ISO 13766	•
	ISO 14982	•
	ISO 7637-2	•
	EN12895	•
	CISPR 25 Class 5	•
Operating Temperatures :	-40°C +85°C	•





Quake Dampening

### NORDIC SCULPTOR LED

The Nordic SCULPTOR LED integrates headlight, indicator and park light in one assembly. The light is very useful in agricultural, construction as well as truck and trailer applications.

The SCULTOR LED combination light is available as ECE approved version and a ideal LED solution for a headlamp/indicator requirement.

#### **Versions**



N6001 LED Rear mount



N6002 LED Pedestal mount

#### **Features**



Long Lifetime



Low Maintenance



Waterproof



Heavy Duty Construction



Reverse Voltage Protected



EMC



Load Dump Protected



Over Voltage Protected



Overheat Protected



Salt Mist



Optically Even Distribution of Light Pattern



Strong Light Pattern



Multi Voltage



Headlight, Indicator and Park Light in One Assembly



ECE

#### Connectors



Built-in Deutsch 6-pin

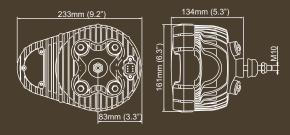
Quake Dampening features on pages 10-11

<sup>\*</sup> Abbreviations of the versions are explained on page 2

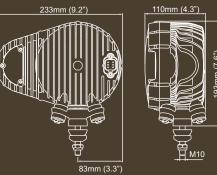
<sup>\*</sup> For test methods please refer to page (



#### N6001



#### N6002

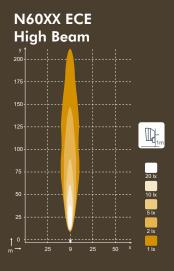


# **Specifications**

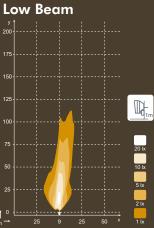
	6001	6002
Approvals :	ECE	•
Colour Temperature :	5700K	•
Nominal Voltage DC :	12-24V	•
Input Voltage Range DC :	9-32V	•
Bulb: Headlight	22W	•
Indicator	17.5W	•
Park	2.7W	•
Electronics :	Integrated	•
Connector:	Built-in Deutsch 6-pin	•
Mount:	Single Bolt M10	•
Shock:	60G	•
Vibration:	15.3 Grms 24-2000Hz	•
Lens:	PC	•
Body:	Aluminium	•
Weight:	1.5kg	•
IP Rating :	IP68	•
	IP6K9K	•
	SAE J1455	•
Salt Mist :	ISO 9227 240H	•
EMC	ISO 13766	•
	ISO 14982	•
	ISO 7637-2	•
	EN12895	•
	CISPR 25 Class 3	•
	R10	•
Operating Temperatures :	-40°C +85°C	•
	(Overheat protected)	•

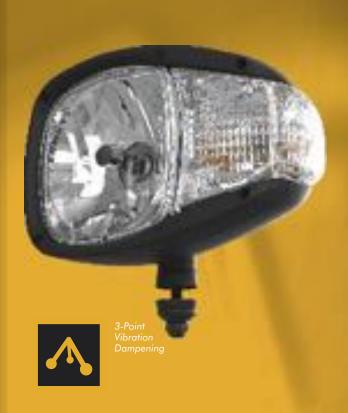
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# **Light Patterns**



# N60XX ECE





# NORDIC N500 Halogen Series

The Nordic N500 Series is an ideal Heavy Duty headlight/indicator solution.

The N500 Series integrates headlight, indicator and park light in one assembly. The lamp is available with 3-point Vibration Dampener and in both ECE and SAE approved implementations.

#### **Versions**



N523 LED Indicator Pedestal mount



N520 LED Indicator Pedestal mount



N503 LED Indicator Rear mount



N500 LED Indicator Rear mount



N523 Halogen Pedestal mount



N520 Halogen Pedestal mount



N503 Halogen Rear mount



N500 Halogen Rear mount

#### **Features**



All in One Lamp, Integrating Headlight, Indicator and Park Light in One Assembly



Extra Wide Viewing Angle from Single Indicator Lamp



Hardened Glass Combined with Polyamide Housing



3-Point Vibration Dampening



SAE



ECE



Suitable and Easy Fit for Many Applications



Salt Mist

#### **Connectors**



Built-in Deutsch 6-pin



Pigtail Deutsch 6-pin



Grommet

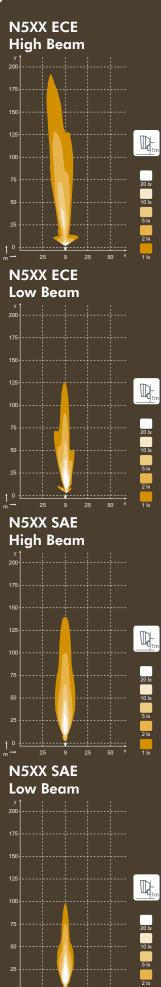


Built-in AMP 6-pin

Quake Dampening features on pages 10-11

<sup>\*</sup> Abbreviations of the versions are explained on page

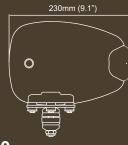
<sup>\*</sup> For test methods please refer to page



# Drawings

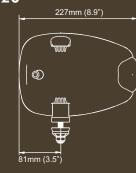


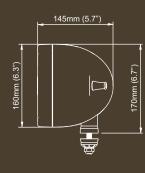
N523



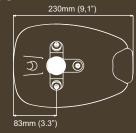


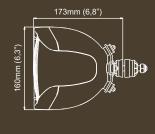
N520



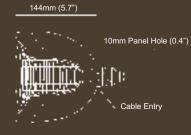


N503





N500



# **Specifications**

			N500 SERIES
Approvals:			ECE or SAE
Colour Temperat			3200K
Nominal Voltage	DC:		12 or 24V
Input Voltage Ro			8-16 or 16-32V
Bulb:	SAE	Headlight	9007 12V 65/55W HBS
		Indicator	P21W 12V BA15s
		Park	W5W 12V
	ECE	Headlight	24V 75/70W H4 (P43t)
		Indicator	24V PY21W (BAU15s)
		Park	24V W5W (W2.1x9.5d)
Electronics:			Integrated
Connector:			Built-in Deutsch 6-pin
			Pigtail Deutsch 6-pin
			Grommet
			Built-in AMP 6-pin
Mount:			Single Bolt M10
Vibration:		N503 & 523	10.8Grms 18-600Hz
Lens:			Hardened Glass
Body:			Polyamide Polyamide
Weight:			1.5kg
IP Rating:			IP54
Salt Mist :			ISO 9227 240H
Operating Temp	eratures :		-40°C +85°C