



## NB Series

Application  
LED Street Lighting

Products Specification

20W 40W 90W  
120W 160W

### Our Core Competency

Our patented module is a platform to mount a selected cluster of high power LED with robust mechanical and electrical solutions to deliver superior thermal and optical solutions closest to HID bulbs.

### Solutions to address

- Thermal
- Optical
- Electrical
- Mechanical

### LED Industrial Applications from 40W to 400W

- Streetlights
- Building Lights
- Sports Venue Lights
- Retrofitting to existing luminaires



### FEATURES

- LED modules with patented ceramic heat-sink interface for efficient thermal transfer.
- Longer LED life time and better LED performance.
- High lumen efficacy of 105 lm/W.
- Rugged weather proof luminaire body provides excellent heat dissipation and
- Customized secondary optics designed to provide the bat-wing light emission pattern to satisfy road illumination requirements.
- The secondary optics is also designed to eliminate shadow effects, producing a point source emission, unlike other street lights solution that incorporates multiple point sources.

The heart of our Solaris LED Light is the patented LED module. This module swiftly dissipates heat from the LED onto the heat sink. It is one of the most efficient thermal solutions, due to its low thermal resistance. This solution maximizes the life of the light engine better than those LED solutions using Metal Core PCB (MCPCB) LED mounting. Coupled with Cree X-Lamp's latest series, this product will provide an excellent and reliable LED lighting with better lumen efficacy.

### Our Patented Module

- Utilizes composite thermal materials – best optimal thermal spreading efficiency.
- No Printed Circuit Board (PCB) or Metal Core Printed Circuit Board (MCPCB).
- Simple, compact, adaptable and light.
- Scalable and flexible.
- Construction – a cluster of LED package is placed directly into the module cavity and soldered directly onto its thermal spreader and intermediate heat-sink.
- Choices of external interconnector leads can be selected according to LED types and soldered to power supply.
- Module is also designed as a receptacle for any secondary optics (imaging and non-imaging) to deliver the right radiation pattern on an application.
- Ease of assembly to ultimate lighting fixture e.g. street lights, flood lights...

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## TECHNICAL CONSULTATION

From initial ideas through to detailed plans we are able to supply consultancy as part of our package.

## DESIGN

In-house experts providing LED lighting designs work.

## MANUFACTURE

- ❖ American R&D with proven technologies.
- ❖ Internationally patented module and lens.
- ❖ No PCB or MCPCB
- ❖ Japanese manufactured module components.
- ❖ Cree Inc. USA - SiC LEDs
- ❖ Patented polycarbonate lens.
- ❖ Complete module assembly in Penang - Malaysia.

## Technical Specifications

Model	NB-020W	NB-040W	NB-090W	NB-120W	NB-160W
<b>Lighting Performance</b>					
Color Temp	Warm White - Cool White				
CCT (°K)	2,700 to 7,000				
Lumen Efficacy	95 - 105 lm/W				
HMFV Angle (°)	150 (H) 105 (V)				
Color Rendering Index (CRI)	> 70				
Luminous Flux	2,500 lm	3,800 lm	8,200 lm	13,300 lm	15,500 lm
Metal Halide Equivalent	40 - 50 watts	70 - 100 watts	150 -175 watts	200 - 250 watts	260 - 300 watts
<b>Lamp Dimension</b>					
Dimension LxWxH (mm)	400 x 171 x 71	500 x 214 x 81	620 x 260 x 101	720 x 280 x 112	720 x 280 x 112
Mounting Opening (mm)	Ø43	Ø54	Ø65	Ø65	Ø65
<b>LED Assembly</b>					
LED Package	Cree X-Lamp				
LED Module	Patented Solaris Light Lead Frame (MLF) Module				
Diffuser	High Clarity Polycarbonate ( Clear / Frosted ) Lens				
No. of Lens Cover	1 x	1 x	1 x	2 x	2 x
No. of LED Modules	1 x	1 x	2 x	4 x	4 x
Driver	IP67, CE, RoHs				
<b>Electrical Specification</b>					
Power Output (W)	20W (+/-10%)	40W (+/-10%)	90W (+/-10%)	120W (+/-10%)	160W (+/-10%)
Input Voltage (VAC)	90-265 VAC @ 50/60 Hz				
Edison Screw	3-Wire connections				
Power Factor	> 0.95				
Operating Temp (°C)	-20 to -40 °C				
Humidity (%)	10% to 90%				
IP Protection	IP 65				
Driver Certifications	CE, RoHs				
Rated Life	40,000 Hours				
Warranty	3 Years ( option for extended warranty )				
<b>Packaging</b>					
Carton Dim. LxWxH (mm) / pc	440 x 200 x 195 (2pcs)	550 x 230 x 125	665 x 305 x140	760 x 305 x140	760 x 305 x140
Gross / Nett Weight / pc	1.9 kg / 1.8 kg	3.0 kg / 2.5 kg	4.6 kg / 4.0 kg	6.5 kg / 5.6 kg	8.5 kg / 7.5 kg





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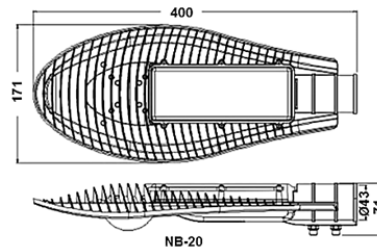
## SERVICE AVAILABLE

- Consultation
- Design
- Manufacture
- Installation and Setup
- Maintenance
- Technical Support
- Application Support
- Hardware Support
- Guaranteed Warranty

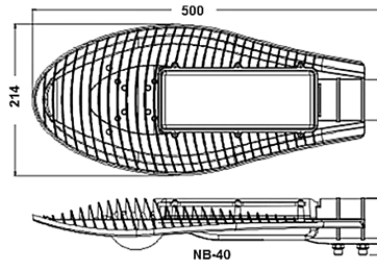
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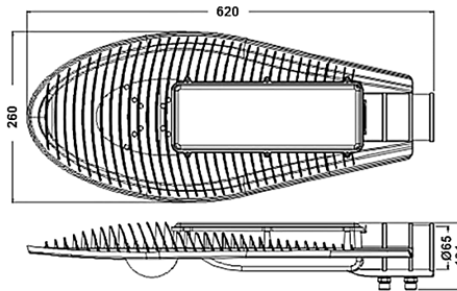
Local Distributor



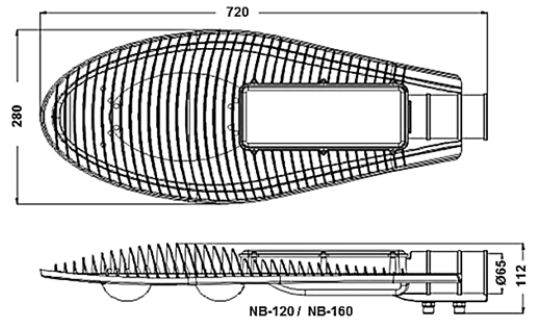
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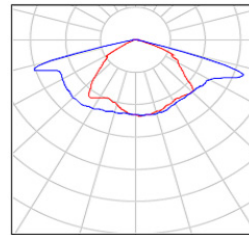
NB-40



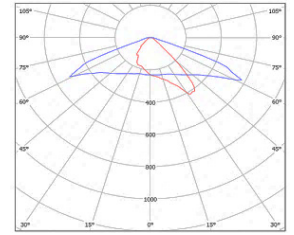
NB-80



NB-120 / NB-160



Option A: Radiation pattern for Small town streets illumination



Option B: Radiation pattern for City streets illumination

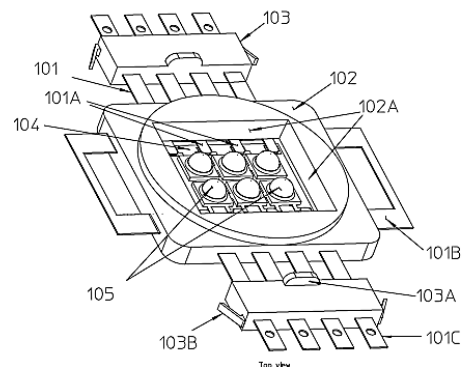
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**Condition of sale**  
All goods supplied are subject to the company's general conditions of sales which are available on request.



## Trade Descriptions

All descriptions represent only particulars of goods to which they apply and do not form part of any contract. The company reserves the right to change specification without prior notification or public announcement.

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