POWERSOLAR®

Solar Powered
SMART CITY
FURNITURES

Solar Powered

Smart City Furnitures

Key Features

· **Smart Solutions for Outdoor Lighting**

· **Sustainable Energy Solutions**

· **Smart Dimming Function**

· **Modular and Aesthetic Design**

· **Plug and Play**

· **Off-Grid and HYBRID Operation Alternatives**

· **Outdoor Emergency Lighting**

· **Customized Design Solutions**

· **In-house High-Quality Manufacturing**

· **Long-Lasting Products**

· **Onsite Support and Assistance**

General Features

· All mechanics, electronics and software are designed and manufactured in our own facility by experienced Power Solar team

· Smart dimming function ensures extended lighting duration in case of insufficient daylight

· The products are tolerant to high and low temperatures

· Long life LED and high-transmission lenses are used

· High efficiency monocrystalline solar panels are used

· Customized design allows to configure the system according to specific project requirements.

Our Product Range

POWERSOLAR has a wide manufacturing capability and product range in **Solar-powered Lighting**. In order to supply the most efficient solar lighting, the experienced Power Solar team evaluates meteorological conditions, customer demands and area conditions. The standard models of Power Solar are divided into **3 categories**.

All-in-One Models:

All electronic parts, solar panel and battery are integrated in one single unit

· **REFA-L**

· **REFA-T**

· **ROTA**

· **GINA**

Split Models:

Solar panels can be adjusted and rotated independent from the luminaire. This feature is used to lower lighting pole costs, give high-power illumination and convert existing poles into soler-powered lighting poles.

· **IPA**

· **REGA**

· **ILKA**

Vertical Models:

Solar modules are vertically integrated on the Solar Light Pole. Vertical models incorporate the newest technology in solar lighting by combining aesthetic design and high-quality.

· **BOLA**

· **FURA**

· **LONA**

BOLA N   REFA-L   REFA-T   GINA-L   GINA-T   ROTA   ILKA   IPA   REGA   FURA   LONA

REFA-L
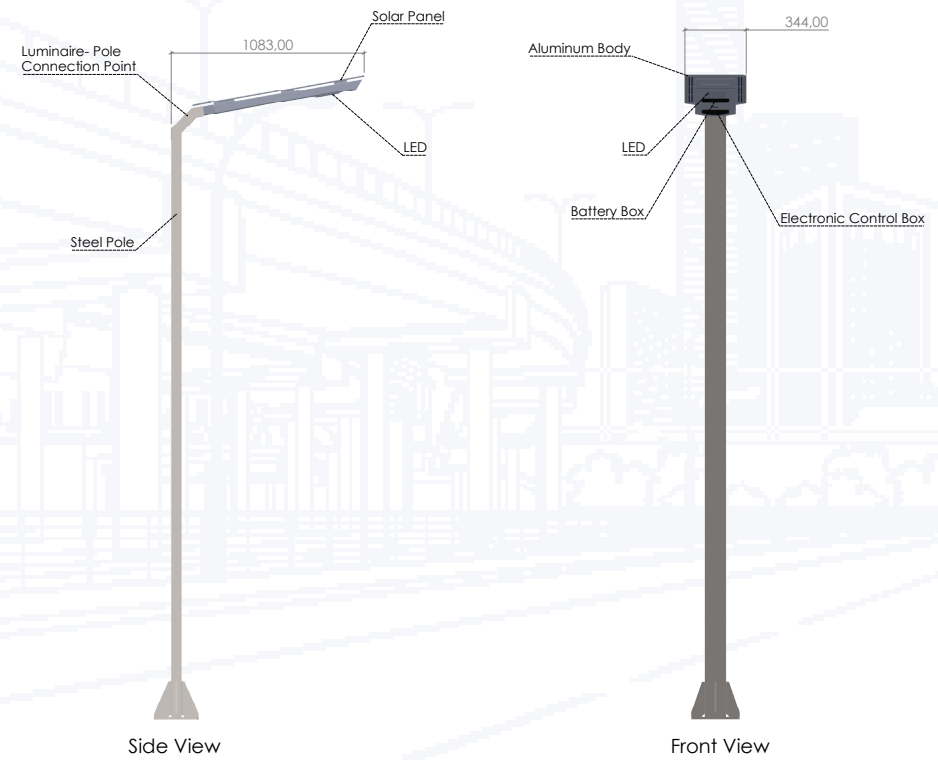
SMART SOLAR LIGHTING SYSTEM

ALL-IN-ONE

REFA-L Solar Lighting System is specifically designed for **parks, gardens, sidewalks, cycle paths and public areas**. REFA-L continues to operate **autonomously** without requiring user intervention after the first installation.

The system does not require any maintenance other than cleaning the solar panels once a year. REFA-L is a **premium** product that can be installed around **coastline areas** thanks to its **corrosion-free** structure.

REFA-L

MODEL	REFA L
Recommended Pole Height	4m
Max. luminous flux	4000 Lumen
Solar Panel Type	Monocrystalline
Protection Class	IP66
Lighting Class*	S-A-ES

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	-

Luminaire- Pole Connection Point

Solar Panel

1083,00

LED

Steel Pole

Side View

Aluminum Body

344,00

LED

Battery Box

Electronic Control Box

Front View

FiPRONET

PATENT

DATA LOG
1 0 0 1
1 1 1 0

IP66

ISO
9001:2015

TSE

CE

Made in Türkiye

RoHS compliant

REFA-T

SMART SOLAR LIGHTING SYSTEM
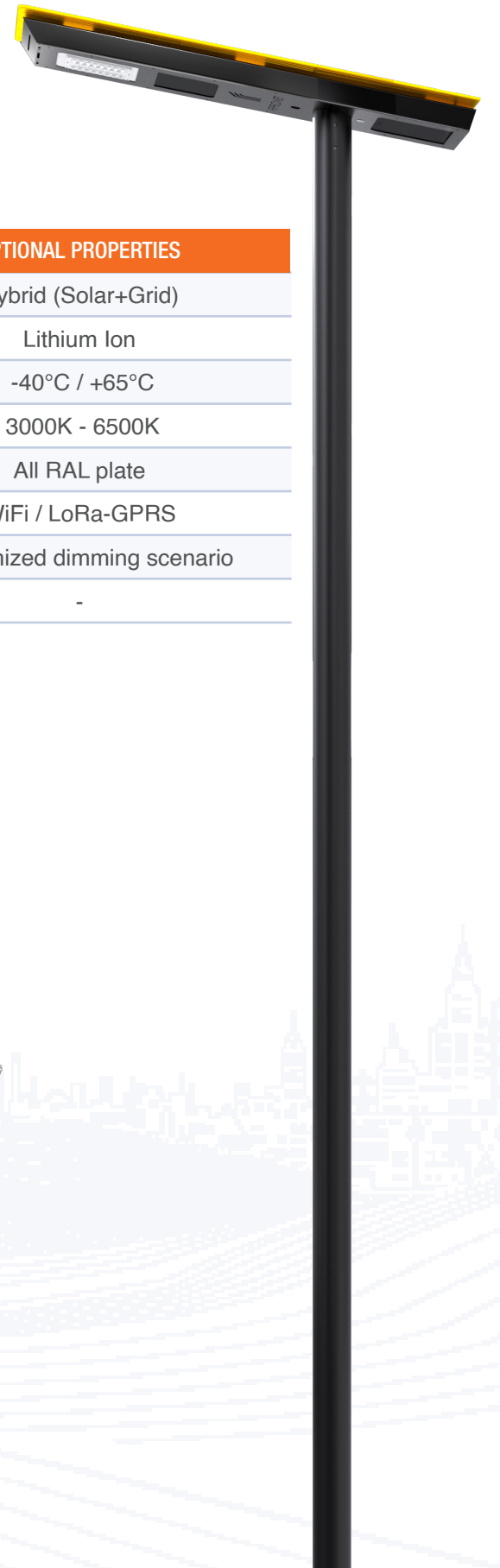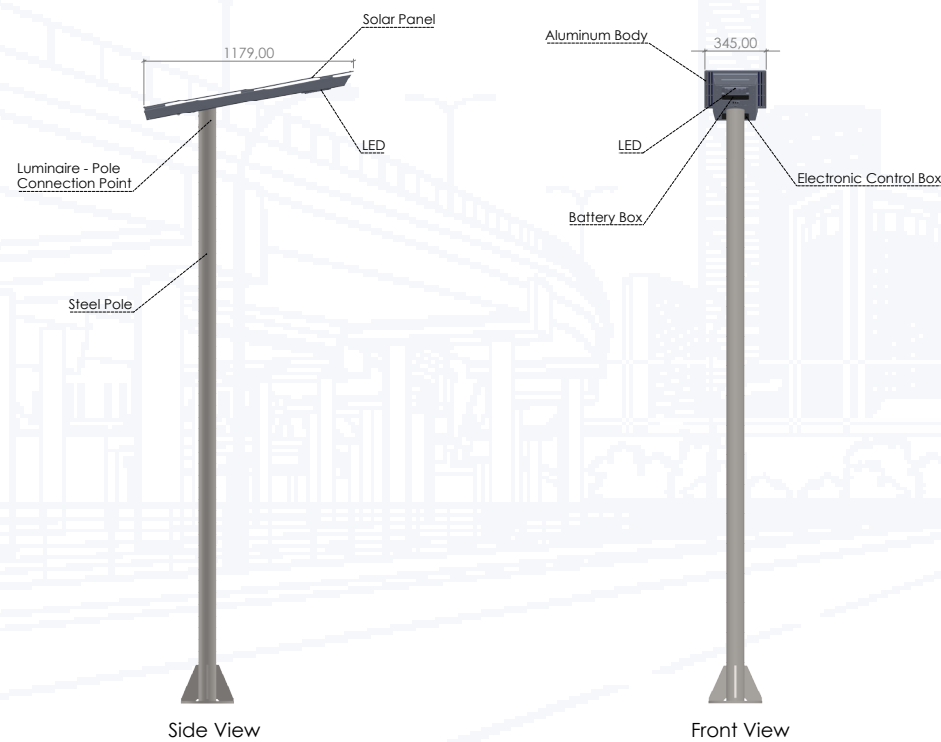
ALL-IN-ONE

The REFA-T is specifically designed for **parks, gardens, pavements, pedestrian and cycle paths as well as public areas**. REFA-T continues to operate **autonomously** without requiring user intervention after the first installation. It is a safe and sustainable solution for emergency cases.

The system does not require any maintenance other than cleaning the solar panels once a year. REFA-T is a **premium and high illumination** product that can be installed around **coastline areas** thanks to its **corrosion-free** structure.

REFA-T

MODEL	REFA T	REFA T+
Recommended Pole Height	4m	8m
Max. luminous flux	6000 Lumen	9000 Lumen
Solar Panel Type	Monocrystalline	Monocrystalline
Protection Class	IP66	IP66
Lighting Class*	ME-S-A-ES-EV	ME-S-A-ES-EV

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	-

Solar Panel
1179,00
LED
Luminaire - Pole Connection Point
Steel Pole

Side View

Aluminum Body
345,00
LED
Battery Box
Electronic Control Box

Front View

PATENT

DATA LOG
1 0 0 1
1 1 1 0

IP66

ISO
9001:2015

TSE

CE

Made in Türkiye

RoHS compliant

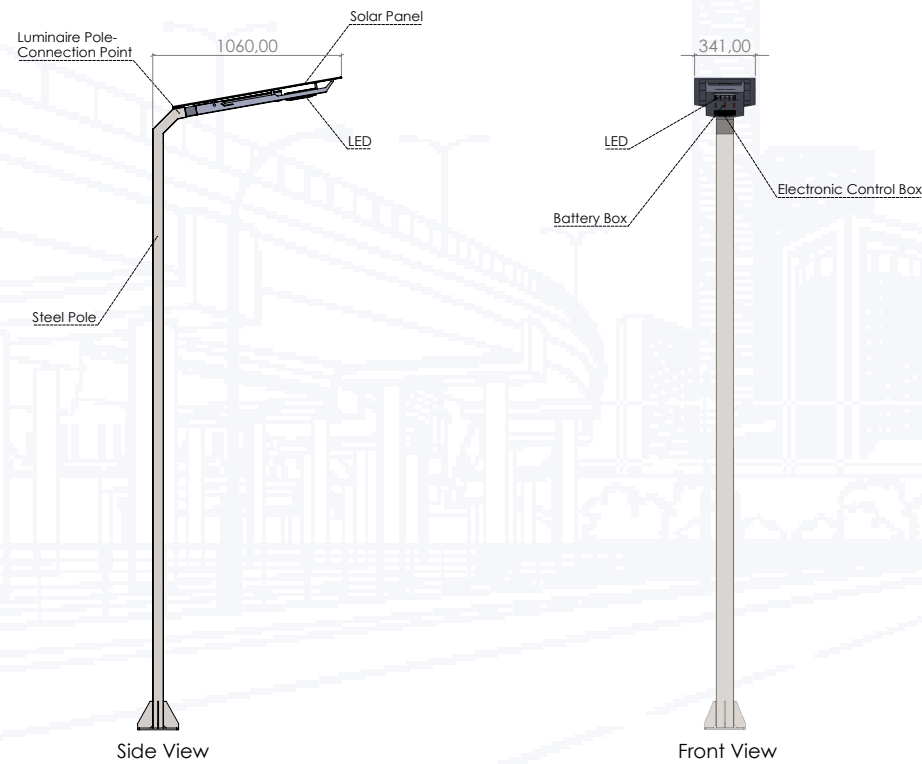# GINA-L

SMART SOLAR LIGHTING SYSTEM

ALL-IN-ONE

GINA Solar Lighting System is specifically designed **for walking trails, parks and gardens**.GINA continues to operate **autonomously** without requiring user intervention after the first installation. It is a safe and sustainable solution for emergency cases. The system does not require any maintenance other than cleaning the solar panels once a year. GINA is an **economic plug and play** model without compromising on **aesthetic design**.

GINA-L

MODEL	GINA L34	GINA L55
Recommended Pole Height	4m	6m
Max. luminous flux	2500 Lumen	4000 Lumen
Solar Panel Type	Monocrystalline	Monocrystalline
Protection Class	IP66	IP66
Lighting Class*	ME-S-A-ES-EV	ME-S-A-ES-EV

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	Customized design

Luminaire Pole-Connection Point
1060,00
Solar Panel
LED
Steel Pole

Side View

341,00
LED
Battery Box
Electronic Control Box

Front View

PATENT

DATA LOG
1001
1110

IP66

ISO
9001:2015

TSE

CE

Made in Türkiye

RoHS compliant

GINA-T
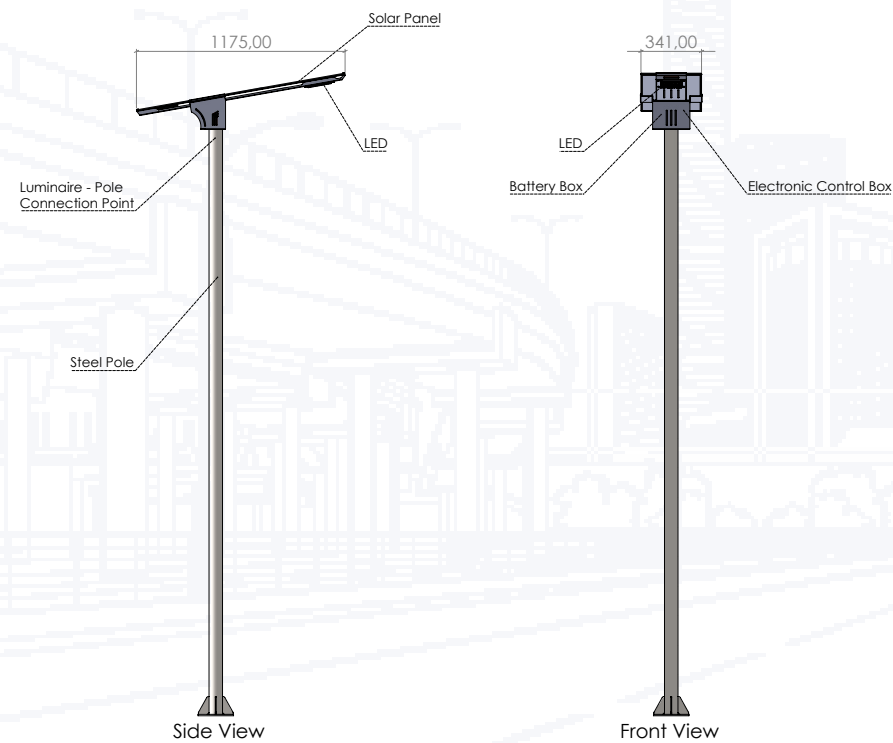
SMART SOLAR LIGHTING SYSTEM

ALL-IN-ONE

GINA Solar Lighting System is specifically designed **for walking trails, parks and gardens**.GINA continues to operate **autonomously** without requiring user intervention after the first installation. It is a safe and sustainable solution for emergency cases. The system does not require any maintenance other than cleaning the solar panels once a year. GINA is an **economic plug and play** model without compromising on **aesthetic design**.

GINA-T

MODEL	GINA T84	GINA T120
Recommended Pole Height	8m	9m
Max. luminous flux	6000 Lumen	9000 Lumen
Solar Panel Type	Monocrystalline	Monocrystalline
Protection Class	IP66	IP66
Lighting Class*	ME-S-A-ES-EV	ME-S-A-ES-EV

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	Customized design

1175,00
Solar Panel
LED
Luminaire - Pole Connection Point
Steel Pole
Side View

341,00
LED
Battery Box
Electronic Control Box
Front View

PATENT

DATA LOG
1001
1110

IP66

ISO
9001:2015

TSE

CE

Made in Türkiye

RoHS compliant

ROTA

SMART SOLAR LIGHTING SYSTEM
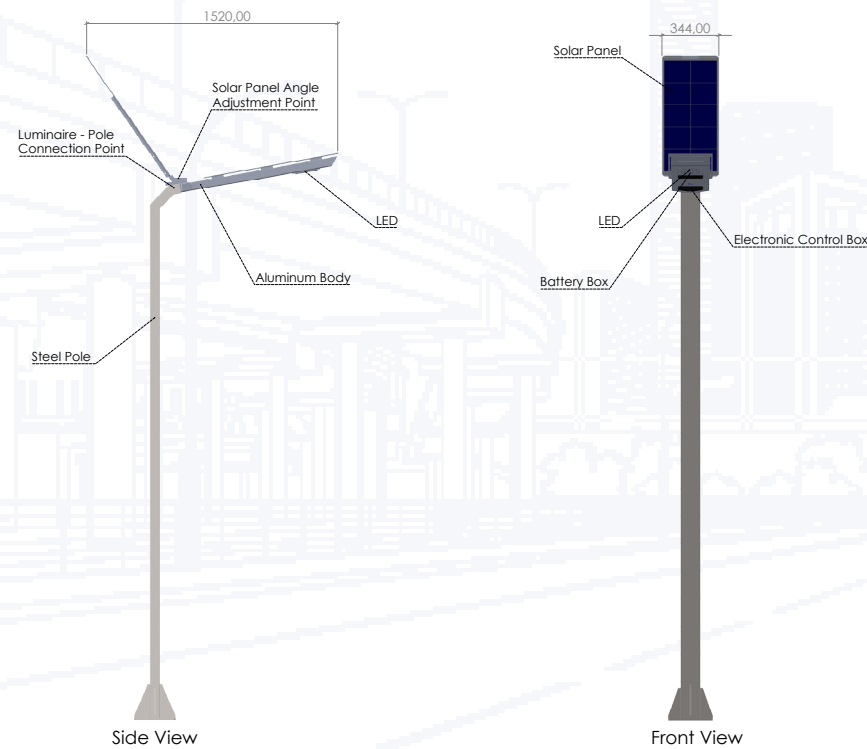
ALL-IN-ONE (ADJUSTABLE PV PANEL)

ROTA is a solar-powered outdoor lighting product designed especially for **parks, gardens, pedestrian and cycle paths as well as public areas**. ROTA is designed with an **aesthetic and modular** approach. The solar panel direction can be adjusted manually to the optimum position for maximum utilization from the solar energy. Thanks to the solar panel adjustment feature, all ROTA products give **equal lighting intensity** in the installation area. ROTA continues to operate **autonomously** without requiring user intervention after the first installation.

ROTA

MODEL	ROTA
Recommended Pole Height	5m
Max. luminous flux	4000 Lumen
Solar Panel Type	Monocrystalline
Protection Class	IP66
Lighting Class*	ME-S-A-ES-EV

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	-

1520,00

Solar Panel Angle
Adjustment Point

Luminaire - Pole
Connection Point

LED

Aluminum Body

Steel Pole

Side View

344,00

Solar Panel

LED

Battery Box

Electronic Control Box

Front View

PATENT

DATA LOG
1001
1110

IP66

ISO
9001:2015

TSE

CE

Made in Türkiye

RoHS
compliant

ILKA

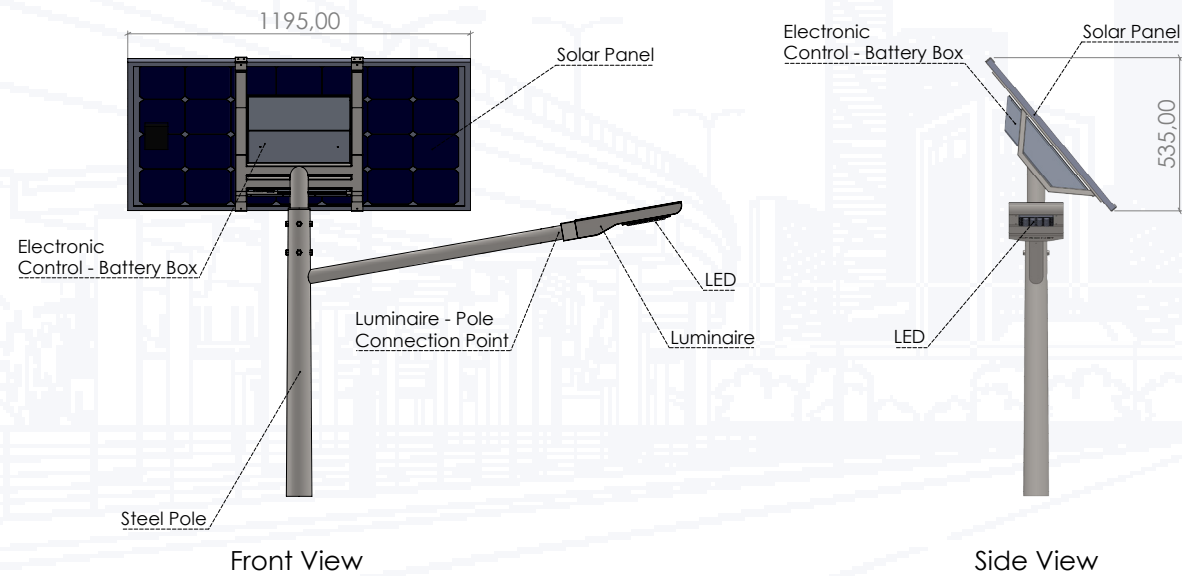## SMART SOLAR LIGHTING SYSTEM
SPLIT TYPE

ILKA is a **High-power** solar outdoor lighting product especially designed for **roads, streets and highways**. The solar panel direction can be adjusted **vertically and horizontally** to gain the **maximum solar energy**. Thanks

to its fully **customizable mechanical and electronic design**, ILKA can both provide **high-illumination** and also **economical** solution.

ILKA

MODEL	ILKA 160	ILKA 200	ILKA 240
Recommended Pole Height	6m	8m	10m
Max. luminous flux	12000 Lumen	15000 Lumen	18000 Lumen
Solar Panel Type	Monocrystalline	Monocrystalline	Monocrystalline
Protection Class	IP66	IP66	IP66
Lighting Class*	ME-MEW-CE-S-A-ES-EV	ME-MEW-CE-S-A-ES-EV	ME-MEW-CE-S-A-ES-EV

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	Customized design

1195,00

Solar Panel

Electronic
Control - Battery Box

Luminaire - Pole
Connection Point

LED

Luminaire

Steel Pole

Front View

Electronic
Control - Battery Box

Solar Panel

535,00

LED

Side View

PATENT

DATA LOG
1 0 0 1
1 1 1 0

IP66

ISO
9001:2015

TSE

CE

Made
in
Türkiye

RoHS
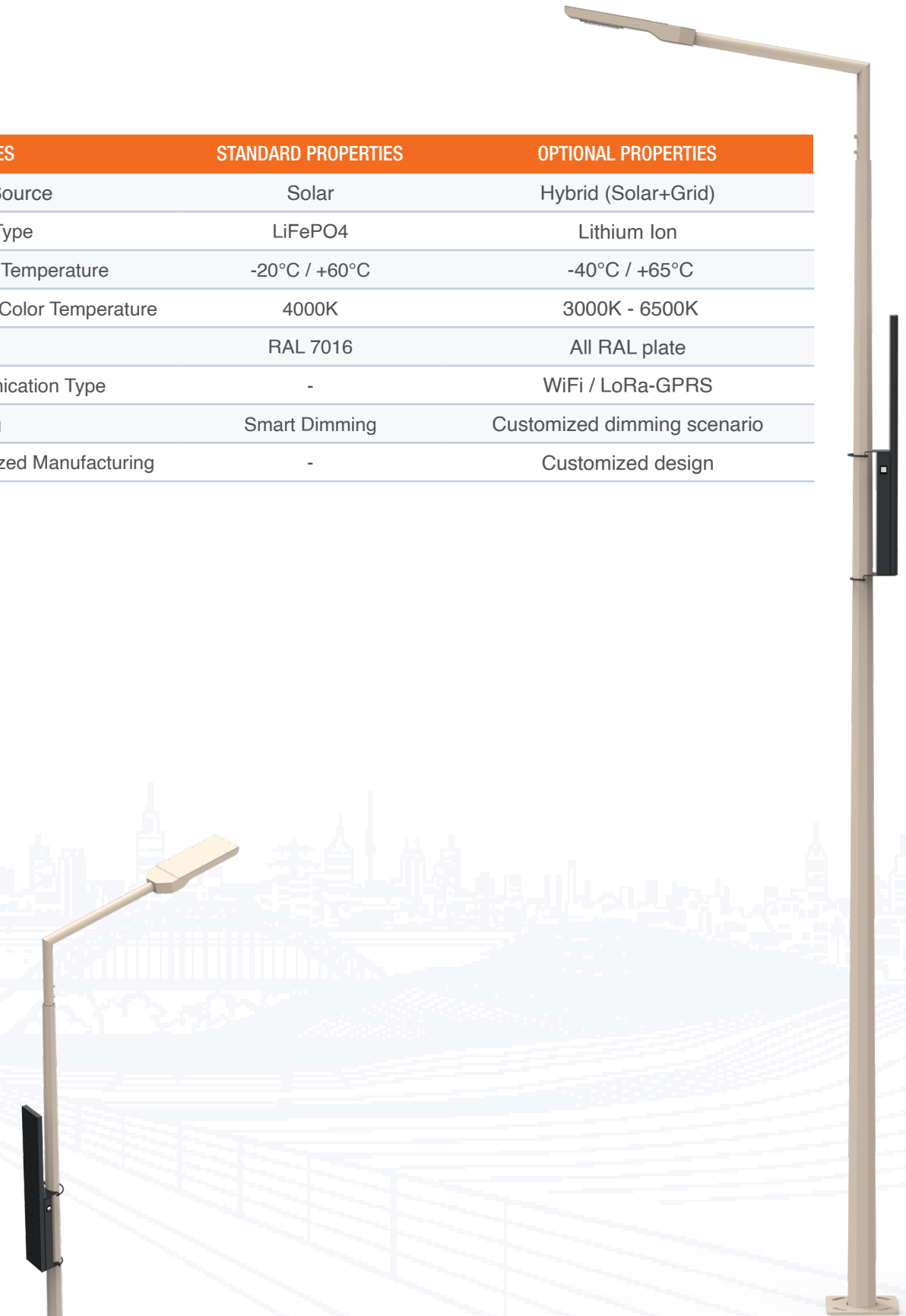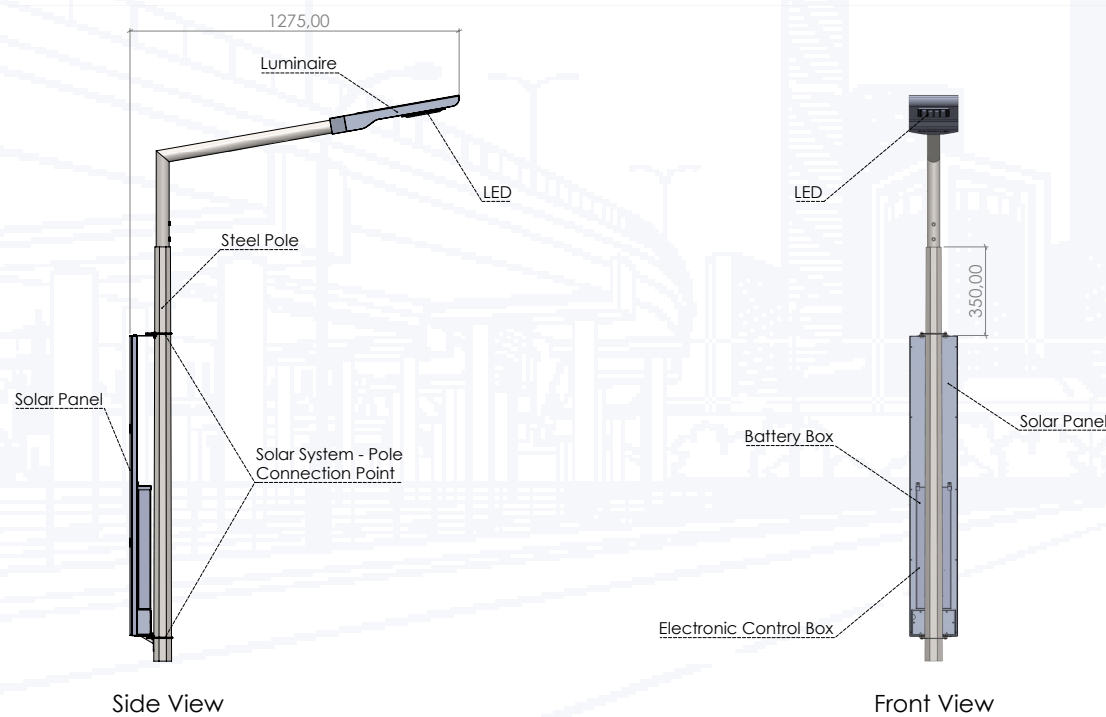compliant

IPA

SMART SOLAR LIGHTING SYSTEM

VERTICALLY INTREGRATED & POLE-FREE

IPA model can be easily **mounted on any existing pole** and it can convert grid-connected lighting poles to **solar-powered lighting** poles or hybridize both **grid and solar energy** together. Since there is no need for additional pole, it has a very low initial investment cost. IPA is a **Pole-Free**

solar powered outdoor lighting product designed especially **for city parks, pedestrian and cycle paths as well as public areas**. During installation, the solar panel direction can be easily adjusted towards the sun.

IPA

MODEL	IPA 6	IPA 10
Recommended Pole Height	4m	6m
Max. luminous flux	2000 Lumen	3500 Lumen
Solar Panel Type	Monocrystalline	Monocrystalline
Protection Class	IP66	IP66
Lighting Class*	ME-MEW-CE-S-A-ES-EV	ME-MEW-CE-S-A-ES-EV

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	Customized design

1275,00

Luminaire

LED

Steel Pole

Solar Panel

Solar System - Pole Connection Point

Side View

LED

350,00

Battery Box

Solar Panel

Electronic Control Box

Front View

PATENT

DATA LOG
1 0 0 1
1 1 1 0

IP66

ISO
9001:2015

TSE

CE

Made in Türkiye

RoHS compliant

REGA

SMART SOLAR LIGHTING SYSTEM
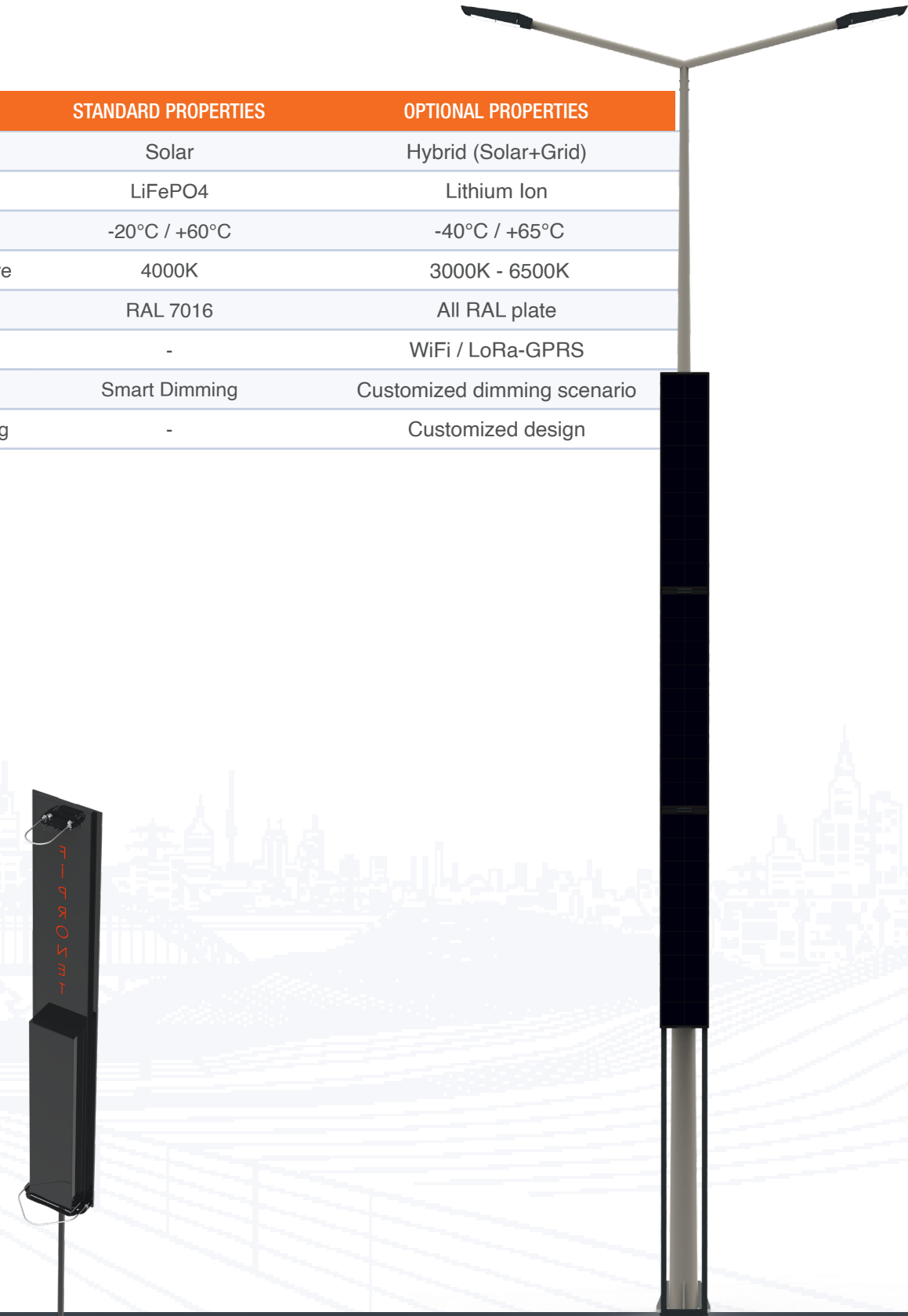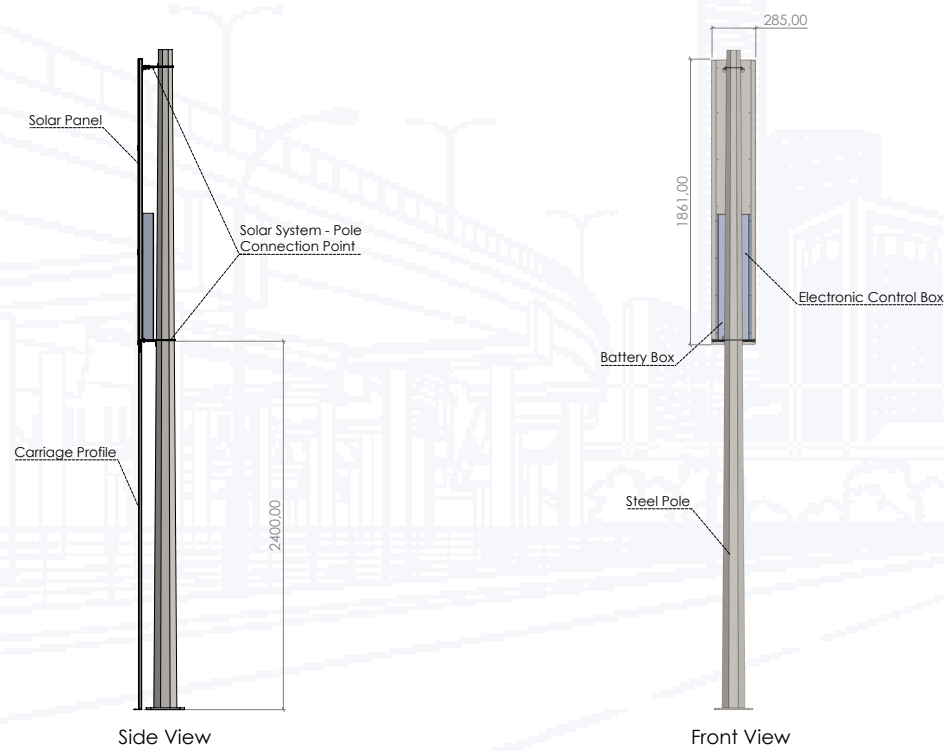
VERTICALLY INTREGRATED & POLE-FREE

REGA is a **Pole-Free and High-Power** solar outdoor lighting product designed **especially for roads, streets and city lighting**. The model can be easily **mounted on any existing pole** and it can convert grid-connected lighting poles to **solar-powered lighting** poles or hybridize both **grid and solar energy** together. Since there is no need for additional pole, it has a very low initial investment cost. During installation, the solar panel direction can be easily adjusted towards the sun.

REGA

MODEL	REGA 100	REGA 160
Recommended Pole Height	6m	8m
Max. luminous flux	6000 Lumen	10000 Lumen
Solar Panel Type	Monocrystalline	Monocrystalline
Protection Class	IP66	IP66
Lighting Class*	M-ME-MEW-CE-S-A-ES-EV	M-ME-MEW-CE-S-A-ES-EV

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	Customized design

Solar Panel

Solar System - Pole Connection Point

Carriage Profile

2400.00

Side View

285.00

1861.00

Electronic Control Box

Battery Box

Steel Pole

Front View

PATENT

DATA LOG
1 0 0 1
1 1 1 0

IP66

ISO
9001:2015

TSE

CE

Made in Türkiye

RoHS compliant

FURA

SMART SOLAR LIGHTING SYSTEM

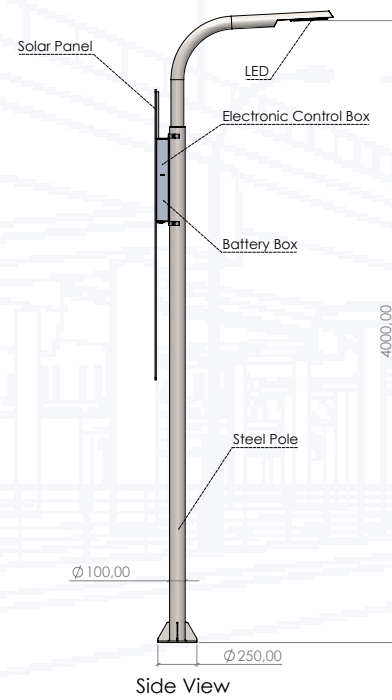### VERTICALLY INTREGRATED PV PANEL - PLUG & PLAY

FURA is a **premium class** solar lighting solution with an **aesthetic pole** and **a solar module** integrated vertically on the one side of the pole. It is designed especially for illumination of **city parks, gardens, pedestrian and cycle** **paths as well as public areas**. FURA is a **high-end model** with a combination of an integrated pole and a separate module including PV panels and batteries together.

FURA

MODEL	FURA 3	FURA 4
Recommended Pole Height	3m	4m
Max. luminous flux	2000 Lumen	3500 Lumen
Solar Panel Type	Monocrystalline	Monocrystalline
Protection Class	IP66	IP66
Lighting Class*	ME-S-A-ES-EV	ME-S-A-ES-EV

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	Customized design

Solar Panel
LED
Electronic Control Box
Battery Box
Steel Pole
Ø 100,00
4000,00
Ø 250,00
Side View

LED
1860,00
1680,00
Ø 250,00
Front View

PATENT

DATA LOG
1 0 0 1
1 1 1 0

IP66

ISO
9001:2015

TSE

CE

Made
in
Türkiye

RoHS
compliant

LONA

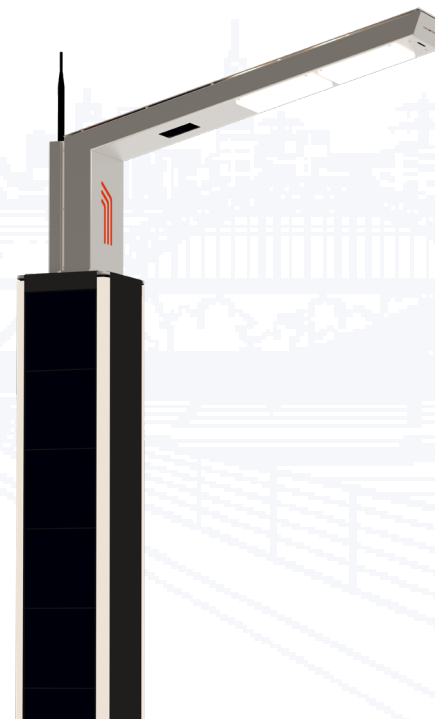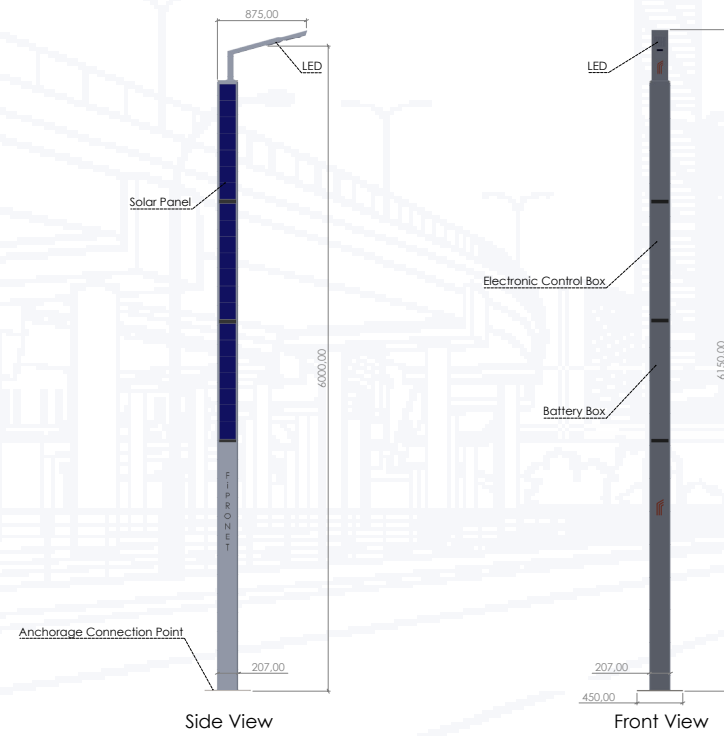## SMART SOLAR LIGHTING SYSTEM
VERTICALLY INTREGRATED PV PANEL

LONA Smart Solar Pole is a fully autonomous solar-powered energy source for **Smart Cities** and the areas that have no lighting infrastructure. By using **vertically integrated solar modules** LONA can utilize the solar energy optimally. With **the state-of-the-art technology**

in its electronic and mechanical design, LONA enables **camera (CCTV) applications** as well as **outdoor lighting**. LONA offers you the opportunity of using the **newest technology** in solar lighting with combining **aesthetic design and high quality**.

LONA

MODEL	LONA 3	LONA 4	LONA 6
Recommended Pole Height	3m	4m	6m
Max. luminous flux	4800 Lumen	7200 Lumen	9600 Lumen
Solar Panel Type	Monocrystalline	Monocrystalline	Monocrystalline
Protection Class	IP66	IP66	IP66
Lighting Class*	ME-MEW-CE-S-A-ES-EV	ME-MEW-CE-S-A-ES-EV	ME-MEW-CE-S-A-ES-EV

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	Customized design

875.00

LED

Solar Panel

6000.00

Anchorage Connection Point

207.00

Side View

LED

Electronic Control Box

6150.00

Battery Box

207.00

450.00

Front View

PATENT

DATA LOG
1 0 0 1
1 1 1 0

IP66

ISO
9001:2015

TSE

CE

Made
in
Türkiye

RoHS
compliant

BOLA N

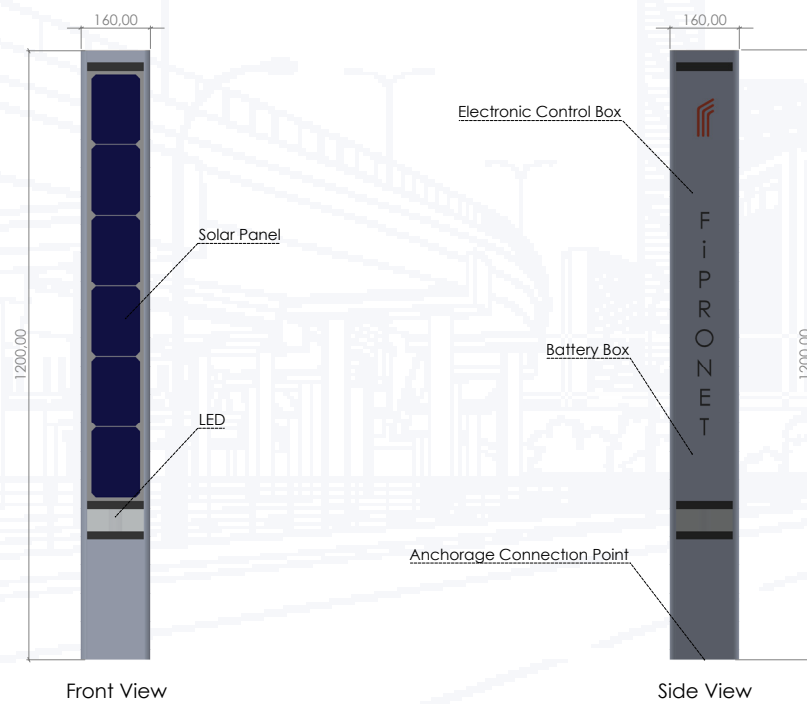## SMART SOLAR BOLLARD

VERTICALLY INTREGRATED PV PANEL

BOLA N Solar-powered **Bollard** is an outdoor lighting product designed **for city parks, pavements and building complexes**. BOLA N continues to operate **autonomously** without requiring user intervention after the first installation. With its portable structure, it can be easily **transported** **to the desired location**. BOLA N is designed especially as a **pavement lighting**. Solar modules are **vertically integrated** on the pole and all electronic parts are placed inside the column.

BOLA-N

MODEL	BOLA N
Recommended Pole Height	1,2m
Max. luminous flux	1700 Lumen
Solar Panel Type	Monocrystalline
Protection Class	IP66
Lighting Class*	S-A

FEATURES	STANDARD PROPERTIES	OPTIONAL PROPERTIES
Power Source	Solar	Hybrid (Solar+Grid)
Battery Type	LiFePO4	Lithium Ion
Working Temperature	-20°C / +60°C	-40°C / +65°C
Lighting Color Temperature	4000K	3000K - 6500K
Colour	RAL 7016	All RAL plate
Communication Type	-	WiFi / LoRa-GPRS
Dimming	Smart Dimming	Customized dimming scenario
Customized Manufacturing	-	Customized design

160,00

160,00

Electronic Control Box

Solar Panel

1200,00

Battery Box

1200,00

LED

FiPRONET

Anchorage Connection Point

Front View

Side View

PATENT

DATA LOG
1001
1110

IP66

ISO
9001:2015

TSE

CE

Made in Türkiye

RoHS compliant

DATA LOG
1 0 0 1
1 1 1 0

ISO
9001:2015

RoHS
compliant

CE

Made
in
Türkiye

TSE

IP66

PATENT

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