

# COMBI 2/COMBI 3

AUTONOMOUS LIGHTING  
A DURABLE SOLUTION

GRIFF

TEKK

GRIFF

NOVEA  
LEADER IN SOLAR STREET  
LIGHTING

**endurance+**  
TECHNOLOGY

THE MOST DURABLE AND  
PERFORMING BATTERY OF  
THE MARKET



0€ OF TRENCH WORK  
0€ OF CABLE  
0€ OF ELECTRICITY BILL  
0€ OF CONSUMMATION  
0€ OF SUBSCRIPTION



FOOTPATH  
BUS STOP  
PEDESTRIAN CROSSING  
RESIDENTIAL AREA  
BIKEPATH  
PARKING



# TECHNICAL CHARACTERISTICS

## COMBI 2

## COMBI 3

### SOLAR PANEL

Power / Area	100 Wp / 0,64 m <sup>2</sup>	160 Wp / 1 m <sup>2</sup>
Technology	Cristallin high efficiency	
Rear cover	Powder-coated galvanized steel	
Lifetime	> 25 years	

### BATTERY

Technology	Endurance +, Lithium Iron phosphate	
Capacity	345 at 690Wh	
Location	NOVBAT aluminium casing, IP66, fast connectors, located into the pole, accessible by access hatch	
Lifetime	> 20 years*	

### LUMINAIRE

Template	GRIFF S, TEKK S, 16 at 32 LED GRIFF XL, TEKK M, 48 at 80 LED	
Mechanical data	Cast aluminium - Plate tempered glass protection - IP66 - IK08	
Light height	4.0 m or 5.0 m	
Power consumption	10 - 40 W	
Luminous flux leaving	1 600 - 6 520 lm	
Light efficiency	Up to 165 lm/W	
Color temperature	3 000 K or 4 000 K // IRC > 70	
Lifetime	> 80 000 h at 80% of initial flux	

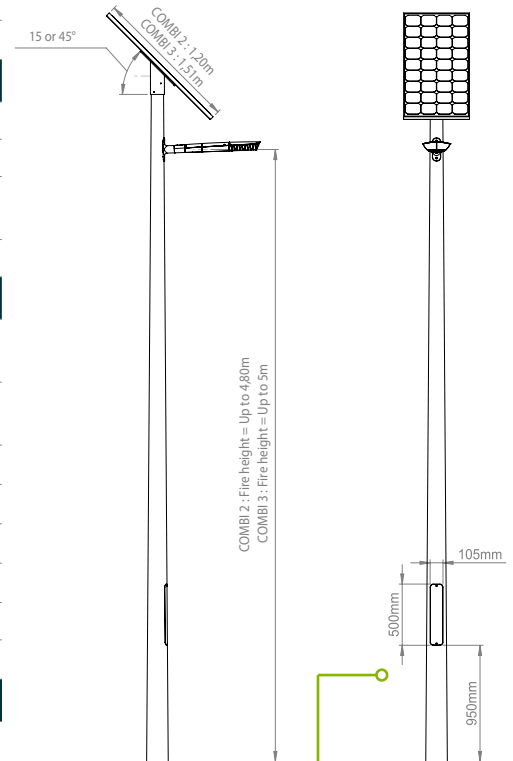
### LIGHT CONTROL

Electronic NOVEMS	Designed by Novea 70W/-20°C +80°C / Efficiency 95% Expected lifetime of 20 years	
Functions and lighting management	Switchoff and/or dimming during the night Presence detection (option) Informations storage Weather counter of operation Calculation of the battery charge level	
Protection	Deep discharge, Overload, Temperature, Short circuit	

### BRACKET MAST AND STICK

Mast material	Cylindro-conical powder-coated galvanized steel	
EN40 compliant	Wind zone 28m/s (solar panel inclined at 45°) and 36m/s (solar panel inclined at 15°)	

### Dimensions

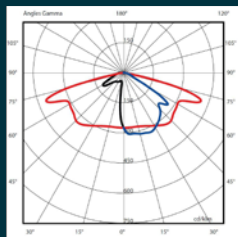


### NOVBAT

**RUGGED AND LONG-LASTING**  
Service life > 20 years\*

### Photometry

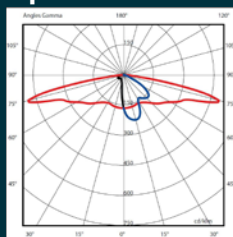
#### Standard ASY11



Designed for the lighting of average road and lighting street.

**ASY10** Designed for the lighting of narrow road and urban streets.  
**PC02** Designed for the lighting of wide road and pedestrian crossing.

#### Option ASY13



Designed for the pedestrian lighting street and bike paths.

Surface	Ht	10 W	20 W	30 W	Uniformity
16*3 m	4 m	13	25	38	0.38
16*3 m	5 m	10	20	31	0.47
20*5 m	4 m	8.7	17	26	0.38
20*5 m	5 m	7.5	15	23	0.41
25*6 m	5 m	5.6	11	17	0.37
25*6 m	6 m	5	10	15	0.39
30*7 m	6 m		7.8	12	0.37

Luminous flux expressed in middle flux.  
For each application, an energetic study will be provided to validate capacities of the product (power, lighting time, autonomy).

\* For the temperate area

