

# OMNISTAR

ROAD + URBAN

MODULAR LED SOLUTION FOR  
HIGH-POWER APPLICATIONS

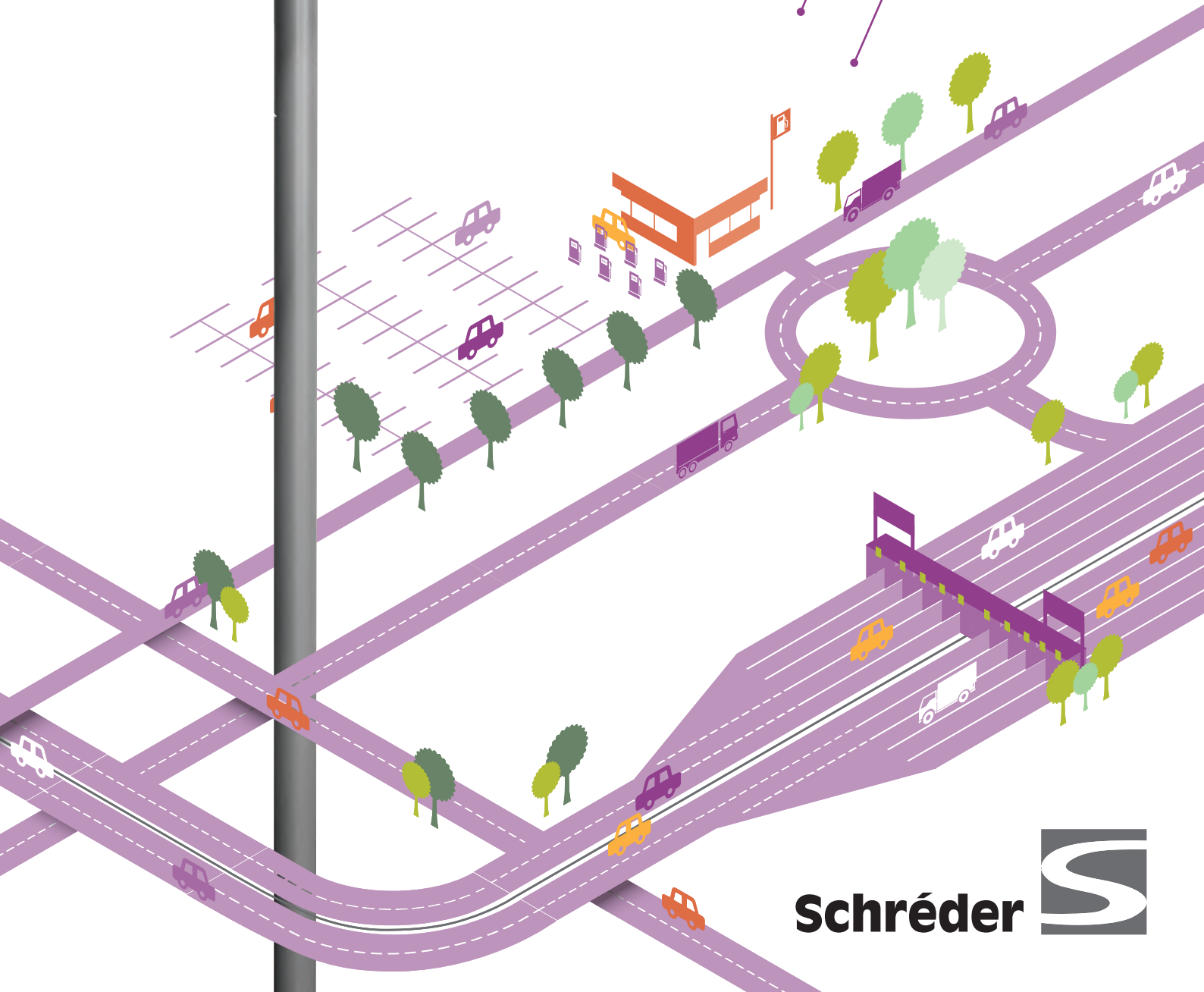


UP TO 120,000LM

NUMEROUS MOUNTING  
OPTIONS

THERMAL DESIGN

MAINTENANCE  
FREE



**Schröder**



# ULTIMATE FLEXIBILITY FOR YOUR CUSTOMISED SOLUTION

OUR MODULAR SYSTEM OFFERS UNLIMITED COMBINATIONS WHICH ALLOW YOU TO DEVELOP PRECISELY-MASTERED HIGH-LUMEN LIGHTING SOLUTIONS. THE OMNISTAR IS THE QUICKEST WAY TO TURN YOUR CONCEPT INTO REALITY. OMNISTAR: **NOT A LUMINAIRE, A COMPLETE SOLUTION.**



## LIGHT SOURCE

### › COMBINATIONS OF UP TO **120,000 LUMEN**

A compact and powerful LED engine equipped with 128 or 144 LEDs that provides between 30,000 and 40,000 lumens per unit.

### › **18 PHOTOMETRIES**

Schröder has developed cutting-edge photometries - both with LensoFlex®2 and reflectors - for lighting motorways, road junctions, car parks, toll plazas and other large areas with the highest efficiency. Different photometries can be combined to create a custom light distribution.

### › **55°C**

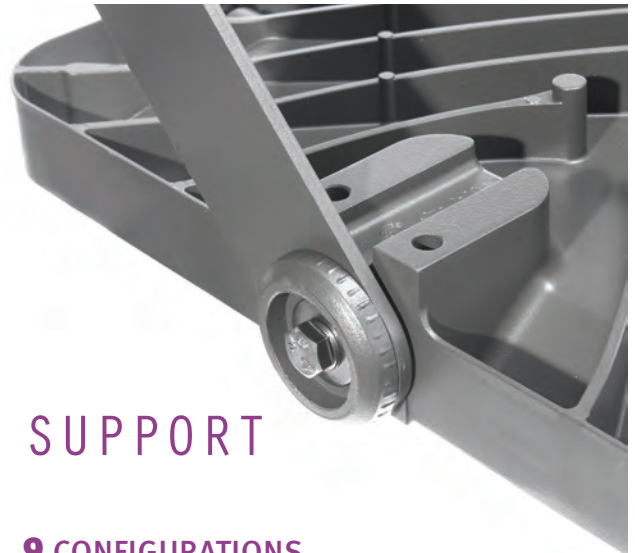
The OMNISTAR is designed to operate reliably in every part of the world, even in the most extreme conditions (Ta from -35°C up to 55°C).

### › **14kg**

Lightness combined with quality. Made from high-pressure die-cast aluminium, the OMNISTAR optical unit weighs only 14kg and offers the best lm/kg ratio on the market. OMNISTAR meets the challenge of managing weight on high masts.

### › **IP 66**

The high tightness level of the optical unit maintains performance throughout the life of the OMNISTAR and reduces maintenance operations.



## SUPPORT

### › **9 CONFIGURATIONS**

The OMNISTAR range includes 5 types of brackets which can be combined with various accessories to perfectly match every Road + Urban application.

### › **UP TO 3 OPTICAL UNITS PER MOUNTING**

Some applications may require the use of multiple OMNISTAR. The mounting options developed by Schröder encompass tiltable brackets for 2 (duo) and 3 (trio) optical units.

### › **ON-SITE ADJUSTMENT**

All of the different OMNISTAR configurations offer precise on-site photometric adjustment thanks to their tiltable brackets. This flexibility ensures that the needs of every specific application are achieved.



## + POWER SUPPLY

### > 3 VERSIONS

The gear box is available in 3 sizes to offer a dedicated solution for every configuration. The smallest box can be fixed directly onto the optical unit. To further minimise weight on the pole, the gear box can be decentralised.

### > UP TO 3 OPTICAL UNITS PER GEAR BOX

One gear box can host the drivers and power supply of several OMNistar optical units (up to 3 per box).

### > 3 MODES, UNLIMITED LIGHTING SCENARIOS

## Owlet

The Owlet range of intelligent systems enables the OMNistar to be controlled individually, in a limited group or in a complete network. Dimming and light-on-demand (sensors) scenarios provide an efficient smart lighting that adapts itself to the real needs.



## + CONNECTION

### > 2 QUICK CONNECTORS

For an easy plug-and-play installation, we provide cables with two gender connectors. This option avoids any faulty installation that could permanently damage the components of the optical unit.

### > 3 STANDARD LENGTHS

4, 8 or 12 metres are the standard cable lengths to connect the optical unit(s) to the gear box. On request, the length of the cable can be adapted.



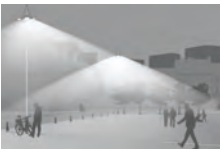
A BETTER LIGHT, ENERGY SAVINGS AND VIRTUALLY NO MAINTENANCE

# OMNISTAR, A BENEFICIAL ALTERNATIVE TO HIGH-POWER HID LUMINAIRES

The OMNistar provides an unrivalled combination of performance and flexibility for lighting areas where high lumen packages are needed while offering maximum savings in energy and maintenance costs, improved visibility and a short payback time. It offers an advanced alternative to luminaires with high-power traditional sources, with the advantages and the flexibility of an LED solution.

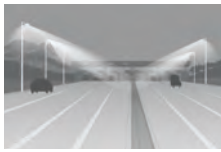
## STREETS

Large squares, esplanades, seafronts



## LARGE AREAS

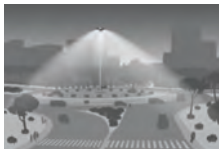
Toll plazas



Car and truck parks



Large roundabouts



Road and motorway junctions



Motorways and other expressways



# BUILT TO PROVIDE LONG-LASTING PERFORMANCE

The OMNIstar has been carefully designed to meet all the challenges of high-power LED lighting over time.



› **THERMIX®:** the OMNIstar offers an efficient thermal management of both the LEDs and the power supply thanks to the separation between the optical unit and the gear box. The cooling fins on the optical unit optimise the heat dissipation. This design enables the OMNIstar to perfectly manage high ambient temperatures (Ta up to 55°C) and ensures reliability in the long term.



› **SURGE PROTECTION:** a standard 10kV surge protection is incorporated to prevent damages due to voltage spikes.



› **ROBUST DESIGN:** OMNIstar uses quality materials (high-pressure die-cast aluminium and glass) to offer high impact (IK 08), vibration (ANSI 3G compliance) and aerodynamic resistance (150 km/h).

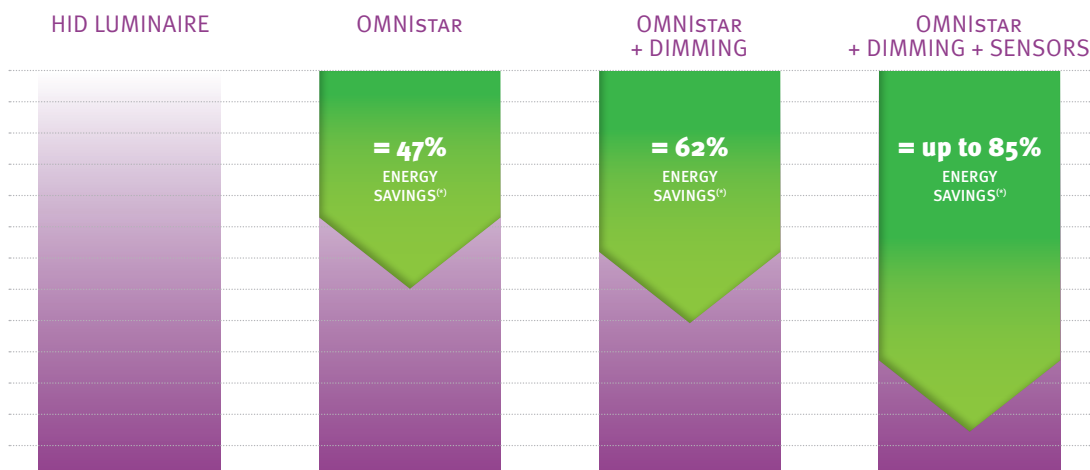
DIMMING, SENSORS, PHOTOCCELL, ...

## A SMART LIGHTING SOLUTION

The OMNIstar can integrate the Owlet range of control solutions to operate either in stand-alone mode, in an autonomous network or an interoperable network. Thanks to dimming features, light-on-demand options and wireless bi-directional communication, the Owlet solutions allow you to save energy, to provide light only when and where it is required and to optimise the operational management of your lighting scheme in terms of costs and services.

The integrated Owlet solutions are key to monitor, to control, to meter and to manage a lighting network in the most efficient way.

The OMNIstar can operate with programmable smart drivers including complex dimming profiles as well as daylight, motion, speed and direction sensors.



<sup>(\*)</sup> Indicative value based on average results.

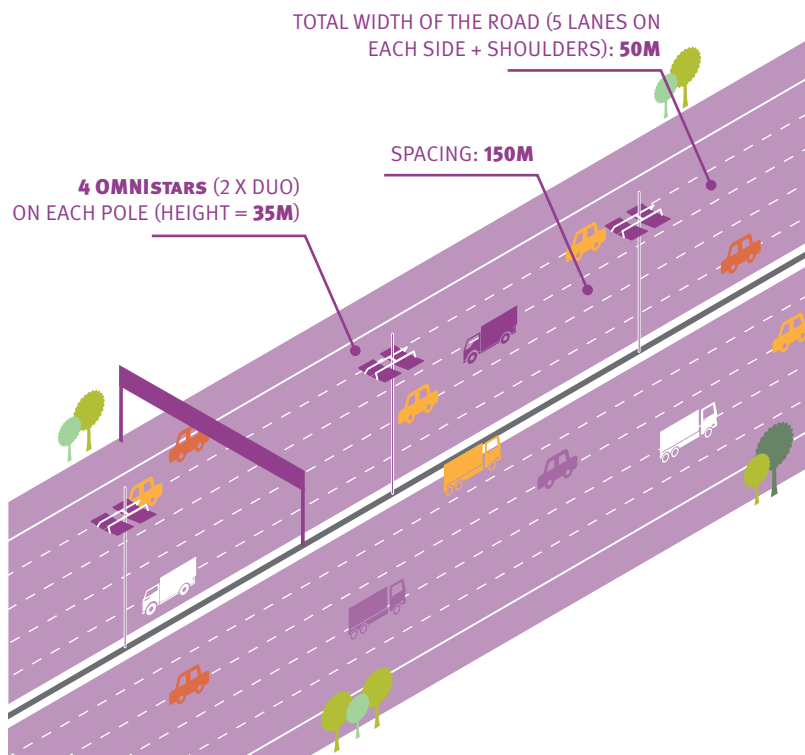
# THE POWER YOU NEED TO SPEED UP YOUR ROI

THE UNIQUE COMBINATION OF POWER, FLEXIBILITY AND INTELLIGENCE PROVIDED BY THE OMNISTAR OFFERS UNRIVALLED OPPORTUNITIES TO SAVE ENERGY AND MAINTENANCE COSTS TO ENSURE A FAST PAYBACK AND LONG-TERM BENEFITS.

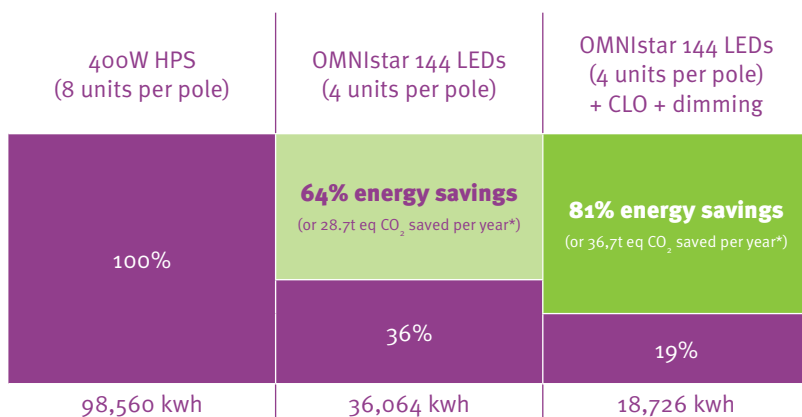
CASE STUDY #1

## MOTORWAY

The duo version of the OMNistar offers a competitive solution compared to luminaires equipped with high-power HPS lamps in motorway lighting (M4 classified) with a return on investment in less than 5 years and energy savings of up to 81%.



### TOTAL ANNUAL POWER CONSUMPTION FOR 1KM

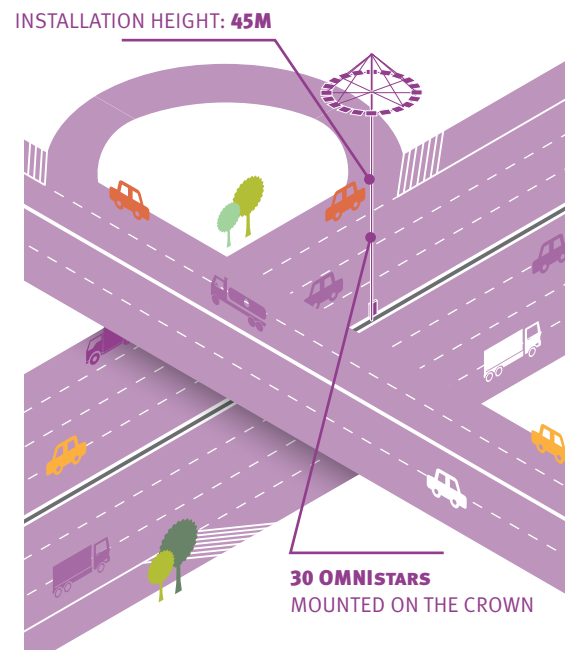


\* according to the average European equivalent of 0.46kg eq CO<sub>2</sub>/kWh.

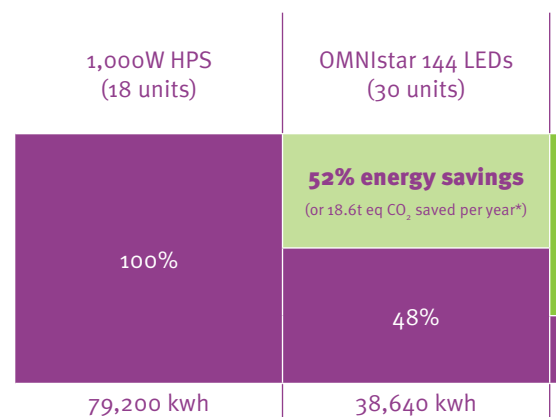
CASE STUDY #2

## MOTORWAY JUNCTION

The motorway junction with a crown on a high main application where the OMNistar particularly outperforms light sources. With energy savings of up to 72% for 20 and 50 lux (depending on the zone), the OMNistar offers a fast payback (less than 5 years) and significantly reduces CO<sub>2</sub> emissions generated by lighting the zone (-26.2t/



### TOTAL ANNUAL POWER CONSUMPTION



\* according to the average European equivalent of 0.46kg eq CO<sub>2</sub>/kWh.

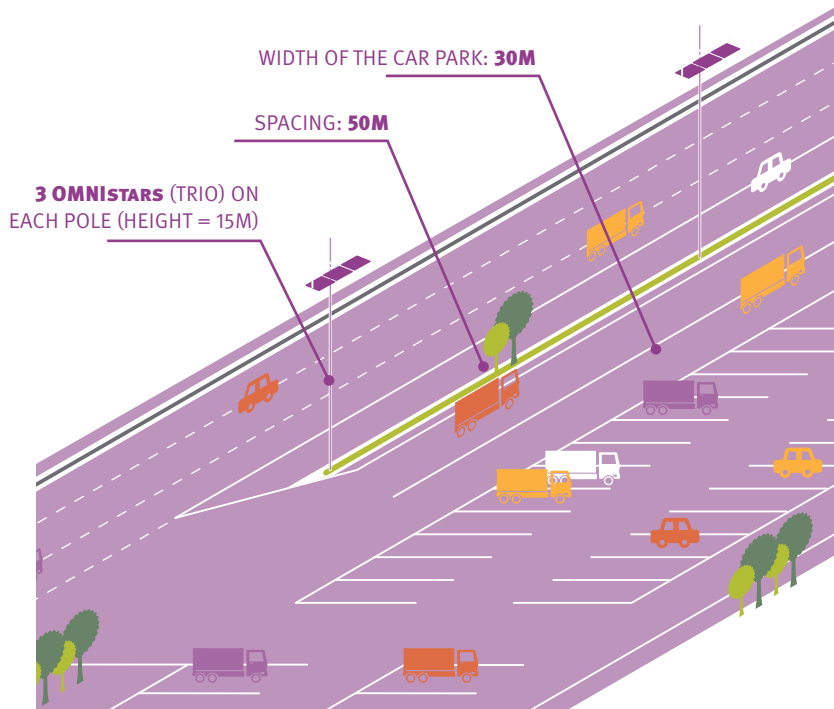
ON

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performs conventional  
or an Eave of between  
star solution offers  
y reduces the CO<sub>2</sub>  
(year).

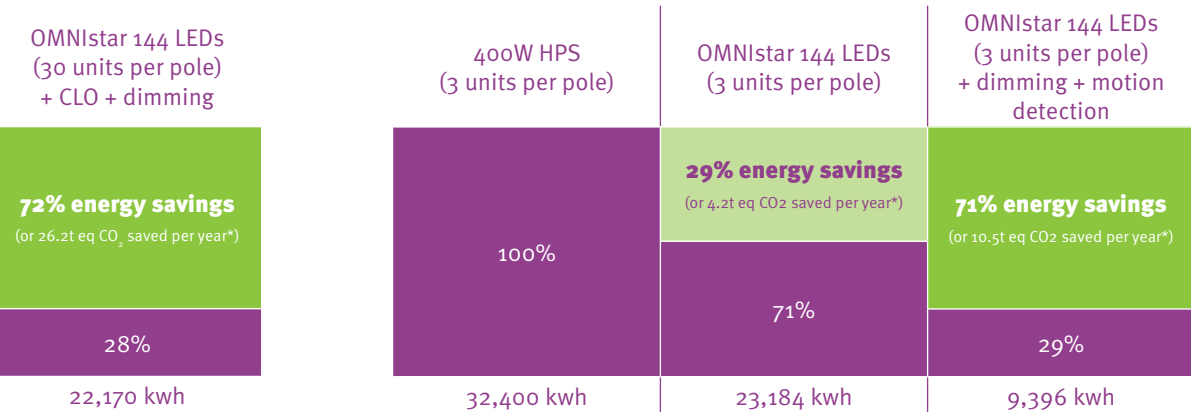
CASE STUDY #3

# LARGE CAR PARK

The trio version of the OMNIstar offers a competitive substitute to HPS luminaires for lighting large car parks (Eave of 35 lux) with a return on investment in less than 5 years. Enhanced with Owlet intelligent solutions including dimming and motion detection to provide the required levels at any time, this solution can reduce the energy consumption by 71% and cut Co<sub>2</sub> emissions by 10.5t/year).



## TOTAL ANNUAL POWER CONSUMPTION FOR 7,500M<sup>2</sup>



\* according to the average European equivalent of 0.46kg eq CO<sub>2</sub>/kWh.

# KEY CHARACTERISTICS

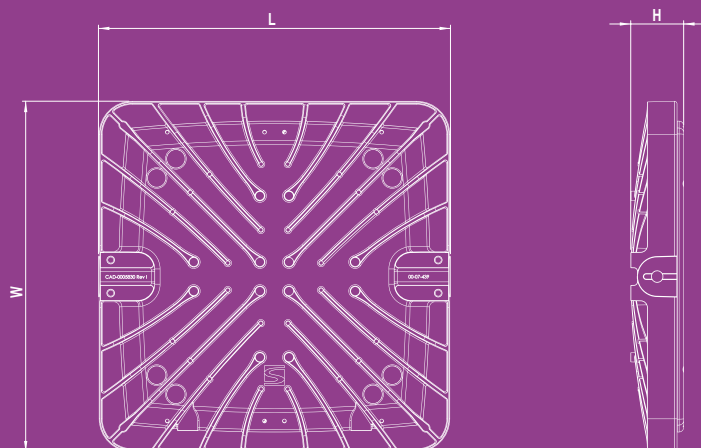
Installation height	8 to 45m		
Typical luminaire output flux (range)*	<b>Mono</b> 30,000 - 40,000lm	<b>Duo</b> 70,000 - 80,000lm	<b>Trio</b> 105,000 - 120,000lm
Power consumption (W)	285 to 470	570 to 940	855 to 1410
Lifetime residual flux @ t <sub>q</sub> 25°C	@100,000h Current 700mA: 80% Current 1A: 70%		
Colour temperature	Neutral white (Cool and warm white: optional)		
Optical compartment tightness level	IP 66 (**)		
Control gear tightness level	IP 65 (**)		
Impact resistance (glass)	IK 08 (***)		
Nominal voltage	120 - 277V - 50 - 60Hz		
Electrical class	<b>US</b> 1	<b>EU</b> I or II (**)	
Weight (optical unit only)	14kg		
<b>Materials</b>			
Body	High-pressure die-cast aluminium		
Protector	Glass		
Colour	AKZO grey 900 sanded Any other RAL or AKZO colour upon request		

(\*) The typical flux is an indicative luminaire flux @ t<sub>j</sub> 25°C. The real flux output of the luminaire depends on environmental conditions (e.g. temperature and pollution). The flux depends on the type of LEDs used and is likely to change in accordance with the continuous and rapid developments in LED technology. To follow the progress of the luminous efficiency of the LEDs used, please visit our website.

(\*\*) according to IEC - EN 60598 - (\*\*\*) according to IEC - EN 62262

## OPTICAL UNIT

L	532mm
W	530mm
H	80mm

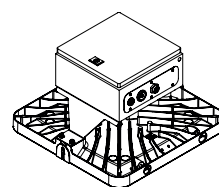
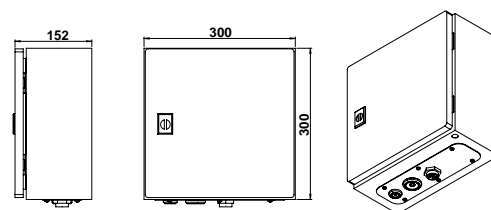


## GEAR BOXES

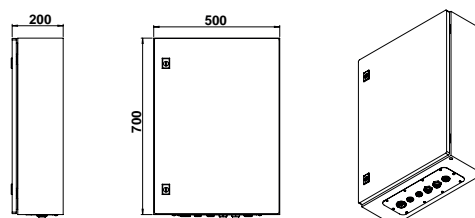
CHARACTERISTICS			
	Gear box for 1 optical unit (mono)	Gear box for 2 optical units (duo)	Gear box for 3 optical units (trio)
Tightness level	IP 65		
Impact resistance	IK 08 (**)		
Electrical class	EU: I or II (*) US: 1	EU: I (*) US: 1	
Weight	7.3kg	21kg	23kg
Nominal voltage	120-270V - 50-60Hz		

(\*) according to IEC - EN 60598 | (\*\*) according to IEC - EN 62262

### GEAR BOX FOR 1 OPTICAL UNIT (MONO)

















### GEAR BOX FOR 2 (DUO) OR 3 (TRIO) OPTICAL UNITS

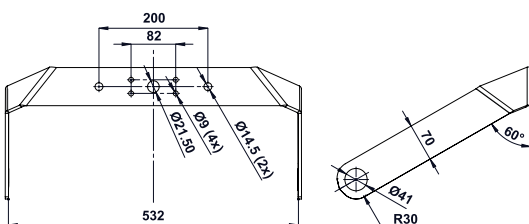




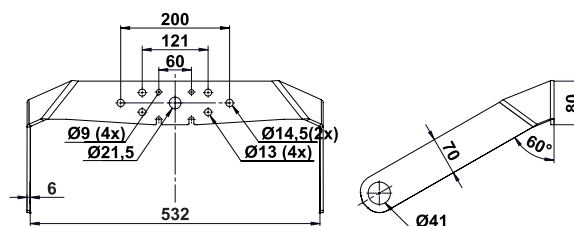
# BRACKETS

CHARACTERISTICS							
Bracket type	No. optical units	Type/position	Screws	Accessory	Bracket	Bracket with optical unit(s)	Tiltable
1 optical unit - standard U type	1	square steel arms	2 x M14 1 x M20 + M14				✓
		Vertical pole (with collar) < 60mm	4 x M8				
1 optical unit - large U type (eg. wall mounting)	1	Wall-mounting; Ceiling mounting	2 x M14 1 x M20 + M14				✓
		Vertical pole mounting (with collar) ≥ 76mm - 108mm	4 x M12				
		Side-entry or horizontal pole mounting (pole Ø 76mm)	2 x M10				
		Post-top (pole Ø 60mm)	2 x M8				
2 optical units - large U type brackets for horizontal tube	2	Horizontal tube (Ø 76mm)	2 x M10				✓ 2 optics one by one
2 optical units - vertical (pole) mounting	2	Vertical pole mounting (with collar) ≥ 76mm - 108mm	4 x M12				✓ 2 optics together
3 optical units - direct (pole) mounting	3	Vertical pole mounting (with collar) ≥ 76mm - 108mm	4 x M12				✓ 3 optics together

**BRACKET WITH 1 OPTICAL UNIT - standard U type (mm)**



**BRACKET WITH 1 OPTICAL UNIT - large U type (mm)**









SAFETY



WELL-BEING



SUSTAINABILITY



SAVINGS



SOLUTIONS

**Schröder**



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