



- LED STREETLIGHTING FOR CAR PARK, ROAD and HIGHWAY
 - Visual Confort and Uniform lighting
 - Reliability
 - Safety
 - Autodimming or city light output management
 - $L_{80}F_{10}$ - 80 000 hours
 - Driver 120 000 hours ($T_p < 55^{\circ}C$)
 - Running temperatures: $-20/+55^{\circ}C$
- Made 100% in Italy and western of Europe
 - 10 Years warranty



The TunnelLED Snell is the luminaire for permanent LED lighting in tunnels. Reduced power consumption and very high energy performance make Snell the ideal response for these applications where the lights are on 24 hours a day.

The optics are designed to reduce glare and guarantee uniform lighting on the ground. The choice of materials makes Snell highly reliable, without requiring maintenance, consequently also keeping running costs down.

Power line controller is used at 700 tunnels in Italy and starting to be used in France.

ELECTRICAL SPECIFICATIONS

Voltage	220 ÷ 240 V ac
Frequency	50 - 60 Hz
Electrical safety class	Classe II
Power supply efficiency	92,5%
Total Harmonic distortion	<20%
Driver lifetime	120.000 hours(@<55° C)
Driver Changing	Extractable and replacable per separated module

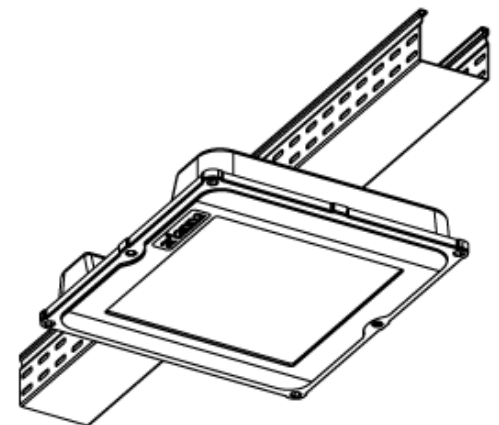
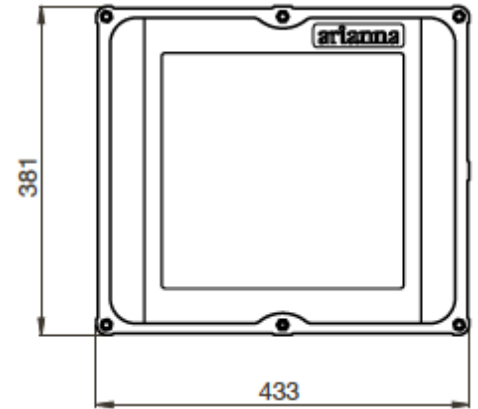
MECHANICAL FEATURES

Body	Die-cast aluminium EN 46100
Paint	Resistant to 1000 hours in salt spray
Glass	Extra clear, 4-mm thick
External screws	A2 stainless steel
Total weight	6,5 kg
Ingress protection	IP 66
Impact resistance	IK08 - 5j
Typical wire	HO7RNF - 2x1,5mm ²

OPTICAL FEATURES

LED	PHILIPS LUMILEDS LUXEON M
Photobiological safety	Exempt group
Temperature of color	4000K per default
CRI	>70

Sizes



Units : mm

ALL TYPES

Model	nb. LED	LED flux lm@4000k	Luminaire flux lm@4000k	Power W	Efficacy lm/W
30 watt	4	3559	2937	28	105
45 watt	8	5861	4865	44	111
60 watt	10	7696	6388	58	110
75 watt	14	9864	8187	73	111
90 watt	16	11620	9645	88	110
105 watt	18	13443	11158	104	107
120 watt	18	15005	12454	118	106
138 watt	18	17124	14213	138	103

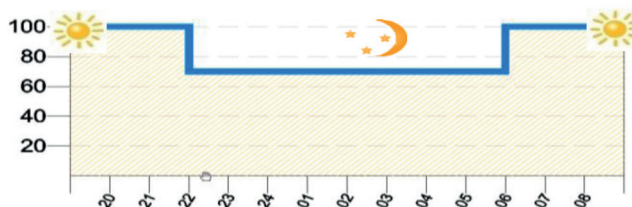


IP66



Lighting management:

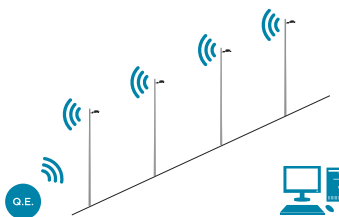
AUTO DIMMING DEVICE



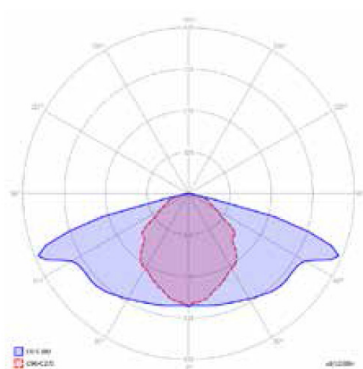
«GLOBAL TUNNEL SYSTEM» lighting control
Power Line Carrier Communication (220V Wires)

Or

Dali and/or Wifi/GSM/GPRS



Optics:



TYPE QT

.ies files are available for Dialux simulation

A COMPLETE SOLUTION



Per una corretta illuminazione delle gallerie, Arianna fornisce una soluzione completa: Snell per l'illuminazione permanente e Teseo per l'illuminazione di rinforzo a controflusso.

Arianna provides the right lighting solution for tunnels: Snell for permanent lighting and Teseo for counter-beam reinforcement lighting.



CASE STUDY

Unidirectional tunnel

In a 460 metre one-way tunnel project, we replaced 62 traditional high pressure sodium vapour lamps with 44 TunnelLED Snell tunnel luminaires.

The special optics on the TunnelLED Snell luminaires allowed spacing between the fixtures to be increased from 10 to 15 metres, meaning 30% less luminaires installed. The technology adopted also brought a decrease in unit power, from 115 watts to 90 watts per fixture, consequently reducing overall power consumption.

This installation therefore obtained a total energy saving of 45%.

Calculating an energy cost of 0.17 €/kWh and annual use of 8,760 hours, the annual cost savings total € 5,000.

	Before	After
Luminaire	62 HPS	44 TunnelLED Snell
Power	115 watt	88 watt
Total Power	7130 watt	3872 watt
Distance between	10 m	15 m
Consumption	300.000 kWh/year	165.000 kWh/year
Energy cost	€10.618	€5.766

Licence No. ENEC-00660 for road and streetlighting

Rated Voltage / Frequency 220-240 V ~ 50-60 Hz

Insulation Class II

Degree of protection (IP) 66

Tested acc. to EN 60598-1:2008/A11:2009, EN 60598-1:2008, EN 60598-2-3:2003/A1:2011,
EN 60598-2-3:2003

The luminaire was additionally tested in accordance with the standard IEC/EN 62262:2002 (degrees of protection provided by enclosure for electrical equipment against external mechanical impacts, IK code).

Luminaire withstand the test for IK08 code

CE - Conformity Declaration

Series: TUNNELLED SNELL

Are compliant with the following Directives:

- 2006/95/EC LV
- 2004/108/EC EMC
- 2009/125/EC ErP
- 2011/65/EU RoHS

And they are in compliance with the following standards:

- EN 60598-1: 2008 +A11:2009
- EN 60598-2-3: 2003 +A1:2011
- EN 55015: 2006 +A1:2007 +A2:2009
- EN 61547: 2009
- EN 61000-3-2: 2006 +A1:2009 +A2:2009
- EN 61000-3-3: 2008
- EN 62471: 2008
- EN 62493: 2010

