LUXIONA



Lighting Solutions INDUSTRY



LIGHTING CONTROL SYSTEMS IN INDUSTRIAL OBJECTS

Lighting control systems increase usability and functionality of LED lighting but first of all they allow achieving significant energy savings in a **range of 60-90 %**.

Selection of controlling systems is carried out on stage of concept creation and designing lighting solutions in both new and modernized objects. All of LUXIONA Poland luminaries are equipped with components allowing to create desired application of controlling systems. They are a great base to build control systems of freeform functionality.

Control systems allow:

- managing the lighting divided into single aisles between racks,
- maintaining permanent illuminance, taking into account daylight influence,
- programming annual algorithms of lighting utilisation (light scenes),
- controlling and supervising over technical parametres of lighting devices operation.

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UNIVERSAL LINE

ENERGY EFFICIENT BASE SYSTEMS

UNIVERSAL LINE SYSTEM:

- created on aluminum profile base 60 mm x 75 mm,
 equipped with highly efficient and energy saving LED module,
 contains optical system in the shape of linear lens and anti-glare fins (IP20 version), linear lens and clear PMMA diffuser (IP55 and IP65 versions),
 PMMA opal diffuser or micro-prismatic diffuser (IP20, IP55 and IP65 versions),
 standard colour neutral anodized aluminum,
- module of the system may contain instead of LED sources, three phase rail (3F) in order to plug in projectors and floodlights with three phase adaptor or it may be an empty module (AL.), not having light sources and three phase rail,
 available IP levels: IP20, IP65 (for indoor solutions) and IP55 (for outdoor solutions).



























UNIVERSAL LINE

CALCULATION OF ENERGY EFFICIENCY UNIVERSAL LINE/STEERING/RESULTS

Description	LED DALI	STANDARD
Installed capacity [kW]	13,59 kW	71,25 kW
Annual cost of electricity [EUR]	14 941,06 EUR	78 339,13 EUR
Cost of elecrticity in reference period [EUR]	149 410,59 EUR	783 391,30 EUR
Annual costs of maintenance [EUR]	1 644,45 EUR	7 159,42 EUR
Costs of maintenance in reference period [EUR]	16 444,51 EUR	71 594,20 EUR
Purchase cost of luminaries [EUR]	104 226,54 EUR	39 304,35 EUR
ANNUAL SAVINGS [EUR]	68 913,04 EUR	

PAYBACK TIME OF INVESTMENT WHEN REPLACING LUMINARIES WITH NEW LED DALI LIGHT SOURCES - 18 MONTHS
PAYBACK TIME OF DIFFERENCE BETWEEN PURCHASE COSTS OF LED DALI LIGHT SOURCES VS. STANDARD LUMINARIES - 11 MONTHS

TECHNICAL DATA OF STANDARD LUMINARIES:

Type of the luminary	NEPTUN PC 2X80W	ATENA 400W HI-E/HS-E E40
	T5 NARROW E IP65	GROOVED M IP65 04
Power of the source [W]	80 W	400 W
Power of the system [W]	165 W	450 W
Luminary efficiency [%]	72%	75%
System efficacy [lm/W]	61,09 lm/W	56,67 lm/W
Quantity [pcs]	380 pcs	19 pcs
Power [kW]	62,7 kW	8,55 kW

TECHNICAL DATA OF LED DALI LUMINARY:

Type of the luminary	UNIVERSAL LINE LED 8000LM	ATENA LED 30000LM	UNIVERSAL LINE LED 8000LM
	OPTICS-2 EDD 24 IP20 840/L-1200	SH EDD IP65 750	OPTICS-2 EDD 24 IP20 840/L-1200**
Power of the source [W]	28 W	33,66 W	28 W
Power of the system [W]	60 W	227 W	15 W
Luminary efficiency [%]	88 %	93%	88%
System efficacy [lm/W]	117,33 lm/W	124,51 lm/W	117,33 lm/W
Quantity [pcs]	112 pcs	19 pcs	168 pcs
Power [kW]	6,72 kW	4,313 kW	2,52 kW

DALI CONTROLING SYSTEM:

Type of device	Industrial MovementSensor	Industrial BrightnessSensor	Light Controller IP/DALI W 2CH
	186311	186370	186485
Quantity [pcs]	40 pcs	5 pcs	3 pcs

INPUT DATA ACCEPTED FOR CALCULATIONS

Description	LED	STANDARD
Reference period [yrs]	10 yrs	10 yrs
Daily working time [h]	24 h	24 h
Number of days in a week [days]	7 days	7 days
Period of replacement of light source [yrs]	8 yrs	1,5 yrs
Cost of light sources [EUR]	17,16 EUR	11,44 EUR
Cost of replacement and cleaning [EUR]	4,57 EUR	4,57 EUR
Price of energy [EUR]	0,125 EUR	0,125 EUR
Number of light sources	674	779

*calculation of savings for high storage warehouse with loading facilities of a total area 7781 m² - required illuminance on working surface of 200 lx, height of luminaries installation - 11 m. Warehouse consisting of 20 alleys between high storage racks, in each alley movement sensors are installed at the begining and at the end of the alley. When the motion is detected luminaries brighten up to 100% of luminous flux in other case they light with luminous flux of 20%. The warehouses possesses 8 pcs of forklifts, so maximally 8 alleys between racks may light 100% of luminous flux. Other 12 alleys are dimmed up to 20% of nominal flux. Above loading facilities there are skylights, through which sunlight gets into the warehouse. There are 5 light sensors installed which dim / brighten luminaries depending on the amount of daylight getting into the warehouse through the skylights. Standard Luminaries – Neptun PC 2x80W TS NARROW E IP65 – 380 pcs, ATENA 400W HI-E/HS-E E40 TREADPLATED M IP65 04 – 19pcs, LED DALI Luminaries – UNIVERSAL LINE LED 8000LM OPTICS-2 EDD 24 IP20 840/L-1200 – 280 pcs, ATENA LED 3000LM SH EDD IP65 750 – 19 pcs. Industrial Movement Sensor – 186311 – 40 pcs, Industrial Brightness Sensor – 186370 – 5 pcs, Light Controller IP/DALI W 2CH – 186485 – 3 pcs.



^{**}Luminaries applied in dimmed alleys-20% of nominal flux.



ATENA LED

ENERGY EFFICIENT BASE SYSTEMS

ATENA LED SYSTEM:

- industrial suspended luminary with LED sources included,
 high-power LEDs of high luminary efficiency,
 available diffusers: tempered glass (SH) or micro-prismatic diffuser with tempered glass (Micro-PRM SH),
 product also available with optical system performing narrow light distribution,
 body is used from aluminum cast which at the same time plays role of a radiator for LED modules that placed inside,
 LED flux: 15000, 20000, 25000, 30000 lm,
 high level of protection against penetration of dust and water IP65.























ATENA LED

CALCULATION OF ENERGY EFFICIENCY ATENA LED LUMINARY/RESULTS

Description	LED	STANDARD
Installed capacity [kW]	7,15 kW	18,56 kW
Annual cost of electricity [EUR]	4 774,33 EUR	12 389,76 EUR
Cost of elecrticity in reference period [EUR]	47 743,28 EUR	47 743,28 EUR
Annual costs of maintenance [EUR]	336,38 EUR	123 897,56 EUR
Costs of maintenance in reference period [EUR]	3 363,84 EUR	11 716,25 EUR
Purchase cost of luminaries [EUR]	20 232,49 EUR	9 226,54 EUR
ANNUAL SAVINGS [FUR]	8 450.67 FUR	

PAYBACK TIME WHEN REPLACING LUMINARIES FOR NEW LED LIGHT SOURCES - 29 MONTHS

PAYBACK TIME OF DIFFERENCE BETWEEN PURCHASE COSTS OF LED LIGHT SOURCES VS. STANDARD LUMINARIES - 16 MONTHS

ATENA 250W HI-E/HS-E E40 GERILLT M K2

Power of the source [W] 250 W Power of the system [W] 290 W Luminary efficiency [%] 67% System efficacy [lm/W] 43,90 lm/W Quantity [pcs] 64 pcs Power [kW] 18,56 kW

ATENA LED 20000LM SH E IP65 750

Power of the source [W]	45 W
Power of the system [W]	149 W
Luminary efficiency [%]	93%
System efficacy [lm/W]	124,83 lm/W
Quantity [pcs]	48 pcs
Power [kW]	7,152 kW

INPUT DATA ACCEPTED FOR CALCULATIONS

Description	LED	STANDARD
Reference period [yrs]	10 yrs	10 yrs
Daily working time [h]	17 h	17 h
Number of days in a week [days]	6 days	6 days
Period of replacement of light sources [yrs]	8 yrs	1,5 yrs
Cost of light sources [EUR]	17,16 EUR	22,88 EUR
Cost of replacement and cleaning [EUR]	4,58 EUR	4,58 EUR
Price of energy [EUR]	0,125 EUR	0,125 EUR
Number of light sources	144	64

^{*}calculation of savings for industrial building of a surface 3195 m^2 -required illuminance on a working surface 300 lx/height of installation of luminaries 6,1 m. Standard Luminaries/light sources 250 W (metalhalogen) – 64 pcs. LED Luminaries ATENA LED 20000 LM SH E IP65 750 – 48 pcs.



NEPTUN LED V1

ENERGY EFFICIENT BASE SYSTEMS

- tightly-closed surface mounted luminary,
 equipped with highly efficient and energy saving LED modules,
 housing and diffuser made of polycarbonate,
 available diffusers: PC OPAL (opplised polycarbonate), PC-T (clear polycarbonate) optical system based on lenses,
- luminous flux 2600 to 11000 lm,

- high level protection against dust and water penetration IP65,
 level protection against kinetic impact IK10,
 the luminary is available with control gear adapted to work with DALI-lighting control system,
 possibility of looping through power supply.



















STREETPARK NEW LED

ENERGY EFFICIENT BASE SYSTEMS

- outdoor luminary,

- outdoor luminary,
 equipped with highly efficient and energy saving LED modules,
 housing made of powder-coated aluminum cast,
 diffuser made of clear hardened glass (SH),
 sluminous flux 3900 to 16200 lm,
 high level protection against dust and water penetration IP65,
 level protection against kinetic impact IK09,
 the luminary is available with control gear adapted to work with DALI lighting control system,
 the luminary is equipped with adjustable handle designed for mounting on posts and arms of 60 mm diameter.















Technical data available on last pages of the brochure or web page





TUBE LED

ENERGY EFFICIENT BASE SYSTEMS

- industrial floodlight,

- Industrial Modelight,
 equipped with highly efficient and energy saving LED light sources,
 the housing made of aluminum black colour,
 diffuser made of clear hardened glass (SH),
 luminous flux 5400 to 15000 lm,
 high level protection against dust and water penetration IP65,
 level protection against kinetic impact IK08,
 mounting on the adjustable handle,
 accessories: handle dedicated for mounting on posts and arms of dia

- accessories: handle dedicated for mounting on posts and arms of diameter 60 mm.















Technical data available on last pages of the brochure or web page



UNIVERSAL LINE

UNIVERSAL LINE

ENERGY EFFICIENT BASE SYSTEMS



LIGHTING AND ELECTRICAL PARAMETERS









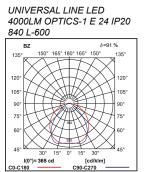


	LED power	Luminaire power		LED flux
UNIVERSAL LINE LED SOL UNIVERSAL LINE LED LINE-EL UNIVERSAL LINE LED LINE-S UNIVERSAL LINE LED LINE-EP UNIVERSAL LINE LED SOL UNIVERSAL LINE LED LINE-EL UNIVERSAL LINE LED LINE-S UNIVERSAL LINE LED LINE-EP UNIVERSAL LINE LED LINE-EL UNIVERSAL LINE LED LINE-EL UNIVERSAL LINE LED LINE-S UNIVERSAL LINE LED LINE-S UNIVERSAL LINE LED LINE-S UNIVERSAL LINE LED LINE-EP	15 W 15 W 15 W 15 W 30 W 30 W 30 W 30 W 62 W 62 W 62 W 62 W	17 W 17 W 17 W 17 W 31 W 31 W 31 W 64 W 64 W 64 W	LED	2000 2000 2000 2000 4000 4000 4000 8000 8
UNIVERSAL LINE LED SOL UNIVERSAL LINE LED LINE-EL	128 W	138 W	LED	16000
UNIVERSAL LINE LED LINE-S UNIVERSAL LINE LED LINE-EP	128 W 128 W	138 W 138 W	LED I FD	16000 16000
ONIATE OF TIME TED TIME-EL	120 VV	T20 AA	LLD	10000

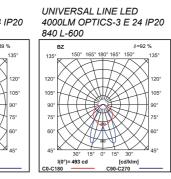
Available colour of the light: 830/840 SDCM=3

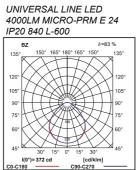
Lifetime of LED source - 60000 h (L70/B50)

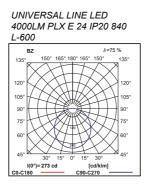
THE VARIETY OF OPTICAL SYSTEMS



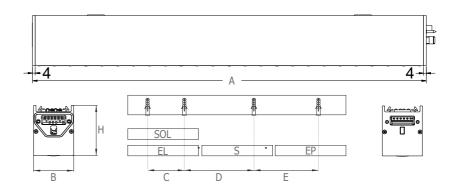








DIMENSIONS



Φ[lm]	A (mm)	B (mm)	H (mm)	C (mm)	D (mm)	E (mm)
2000	590	60	75	370	590	590
4000	590	60	75	370	590	590
4000	1162	60	75	930	1162	1162
8000	1162	60	75	930	1162	1162
8000	2306	60	75	1990	2306	2306
16000	2306	60	75	1990	2306	2306
3F	590	60	75	370	590	590
AL	590	60	75	370	590	590
AL	1162	60	75	930	1162	1162
AL	2306	60	75	1990	2306	2306

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ATENA LED

ENERGY EFFICIENT BASE SYSTEMS



LIGHTING AND ELECTRICAL PARAMETERS

Z4PE	blay.	blas		⊕ [lm]
	LED	Luminaire		LED
	power	power		flux
ATENA LED	112 W	125 W	LED	15000
ATENA LED NARROW	112 W	125 W	LED	15000
ATENA LED	149 W	165 W	LED	20000
ATENA LED NARROW	149 W	165 W	LED	20000
ATENA LED	186 W	210 W	LED	25000
ATENA LED NARROW	186 W	210 W	LED	25000
ATENA LED	223 W	250 W	LED	30000
ATENA LED NARROW	223 W	250 W	LED	30000

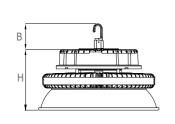
Available colour of the light: 750/840 SDCM=2 (4000 K) SDCM=3 (5000 K)

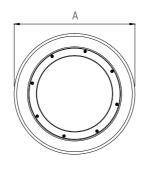
Lifetime of LED source - 68000 h (L90/B10)

DIMENSIONS

LED

ATENA

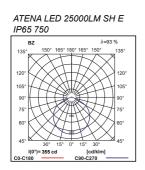


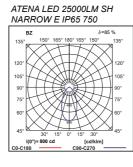


THE	A	B	H
	(mm)	(mm)	(mm)
ATENA LED	457	60	228
ATENA LED NARROW	422	60	190

THE VARIETY OF OPTICAL SYSTEMS



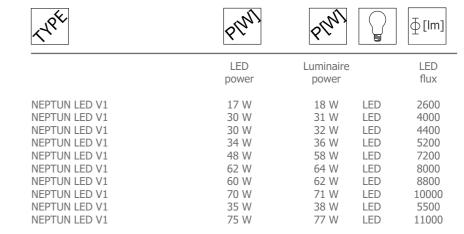




NEPTUN LED V1

ENERGY EFFICIENT BASE SYSTEMS

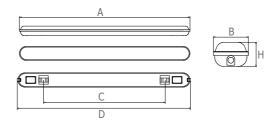
LIGHTING AND ELECTRICAL PARAMETERS



Available colour of the light: 830/840

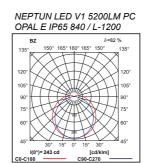
Lifetime of LED source - 60000 h (L70/B50)

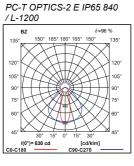
DIMENSIONS



Φ [Im]	(mm)	(mm)	(mm)	(mm)	H (mm)	
2600	1200	100	820	1208	68	
4000	1200	100	820	1208	68	
4400	1200	100	820	1208	68	
5200	1200	100	820	1208	68	
7200	1200	100	820	1208	68	
8000	1200	100	820	1208	68	
8800	1200	100	820	1208	68	
10000	1200	100	820	1208	68	
5500	1500	100	1120	1508	68	
11000	1500	100	1120	1508	68	

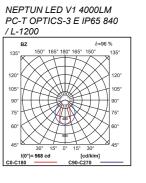
THE VARIETY OF OPTICAL SYSTEMS





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NEPTUN LED V1 4000LM



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STREETPARK NEW LED

ENERGY EFFICIENT BASE SYSTEMS



LIGHTING AND ELECTRICAL PARAMETERS

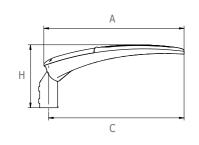
(4PE	6/1/1	blay.	∳[lm]
	LED	Luminaire	LED
	power	power	flux
STREETPARK NEW LED PREMIUM	34 W	42 W LED	3900
STREETPARK NEW LED PREMIUM	67 W	74 W LED	7800
STREETPARK NEW LED PREMIUM	101 W	112 W LED	11700
STREETPARK NEW LED PREMIUM	55 W	62 W LED	5400
STREETPARK NEW LED PREMIUM	109 W	128 W LED	10800
STREETPARK NEW LED PREMIUM	128 W	138 W LED	14100
STREETPARK NEW LED PREMIUM	164 W	165 W LED	16200
STREETPARK NEW LED STANDARD	64 W	72 W LED	6300
STREETPARK NEW LED STANDARD	97 W	109 W LED	9500
STREETPARK NEW LED STANDARD	123 W	142 W LED	12600

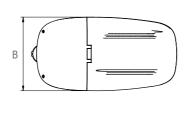
Available colour of the light: 750, SDCM=5

STREETPARK NEW LED PREMIUM: Lifetime of LED source - 60000 h (L70/B10)

STREETPARK NEW LED STANDARD: Lifetime of LED source - 50000 h (L70/B50)

DIMENSIONS



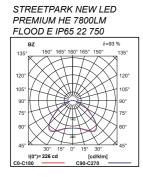


496					
STREETP	ARK N	VFW	I FD	PRFMI	[LJN

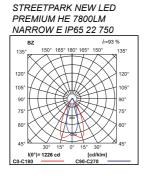
TIPE	A	B	C	H
	(mm)	(mm)	(mm)	(mm)
STREETPARK NEW LED PREMIUM	580	305	560	260
STREETPARK NEW LED STANDARD	580	305	560	260

THE VARIETY OF OPTICAL SYSTEMS

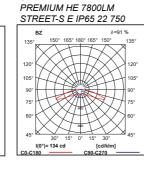












STREETPARK NEW LED

TUBE LED

ENERGY EFFICIENT BASE SYSTEMS

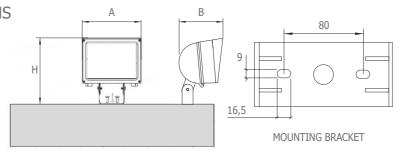


LIGHTING AND ELECTRICAL PARAMETERS

Like	8/41	Play	[lm]
	LED	Luminaire	LED
	power	power	flux
TUBE LED	55 W	62 W LED	5400
TUBE LED	109 W	128 W LED	10800
TUBE LED	148 W	160 W LED	15000

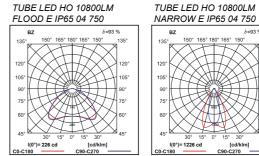
Available colour of the light: 750 Lifetime of LED source - 60000 h (L70/B10)

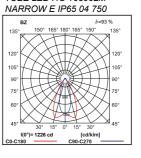
DIMENSIONS



Φ [lm]	A	B	H
	(mm)	(mm)	(mm)
5400	320	246	362
10800	320	246	362
15000	320	246	362

THE VARIETY OF OPTICAL SYSTEMS







LUXIONA

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LUXIONA Poland is part of the Spanish LUXIONA Group, which for more than 80 years has been successfully operating on the international market of the lighting industry. The mission of LUXIONA Poland is to create complementary lighting solutions, in accordance with the most recent technologies as well as legal and social requirements. For that reason, an active team constantly works on innovative technical solutions, keeping in mind the need for saving energy and protecting the environment. The team does not cease to enhance the quality of our products and the efficiency of our services, permanently analyzing the needs of our Customers.

The LUXIONA Group, including LUXIONA Poland which continues to implement the Group strategy, specializes in the composition and creation of indoor and outdoor lighting systems, basing on the vast experts' experience and the broad scope of product brands. An integral part in the offer of LUXIONA Poland are comprehensive lighting solutions, which cover both the production and design services, in the widest sense of the word, delivered by high class designers and ready to meet the requirements of, among others: architectural spaces, areas in the so-called clean rooms, commercial surfaces etc. The LUXIONA Poland team specializes in implementing projects which require an individual approach and the application of modern technologies.

