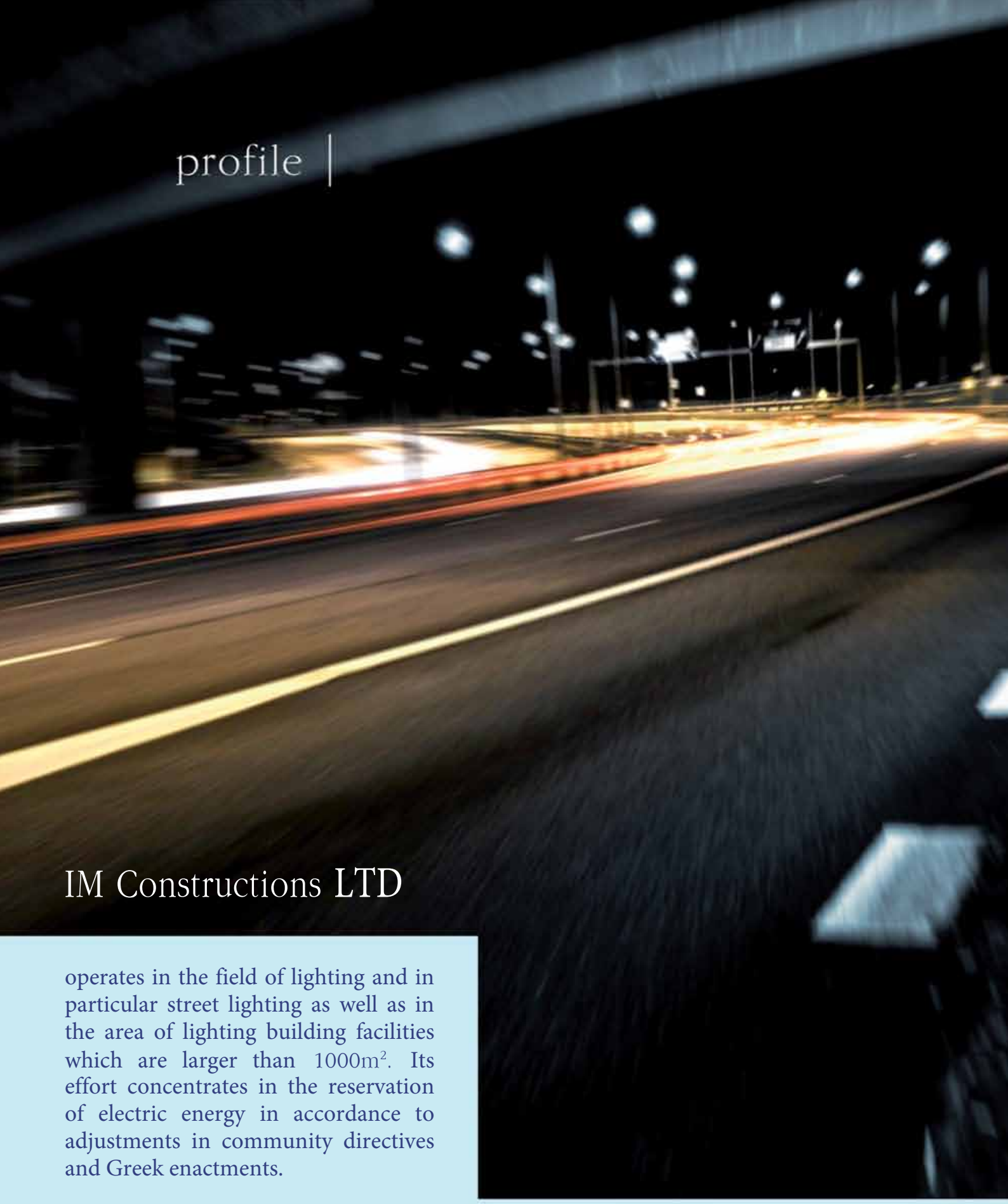
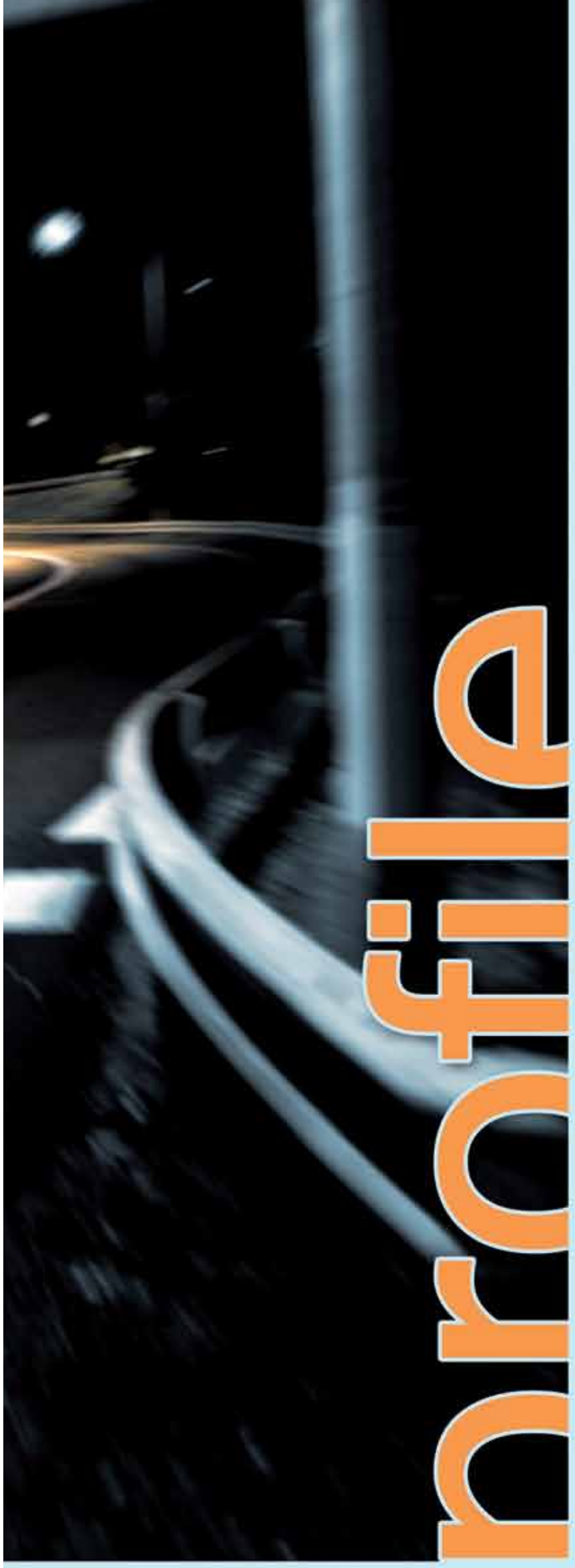

CONSTRUCTIONS LTD
Innovative energy saving
street luminaires
MAGNETIC INDUCTION
Interior Luminaires
Energy Saving LED
(Light Emitting Diodes)



profile |

IM Constructions LTD

operates in the field of lighting and in particular street lighting as well as in the area of lighting building facilities which are larger than 1000m^2. Its effort concentrates in the reservation of electric energy in accordance to adjustments in community directives and Greek enactments.



Our purpose is the reduction of energy consumption, via innovative technologies, that we are able to provide and we analyse below in detail, in Ministries, Hospitals, Universities, Schools, legal representatives of public corporations and generally all public facilities.

In the decade that we cross it is necessary that we are compatible with the adjustments in community directives, therefore we recommend the subsequent products.

For street lighting, lighting of tunnels, ports, stadiums and industrial areas we recommend the Magnetic Induction type lighting fixtures (40 Watt, 50 Watt, 80 Watt, 120 Watt, 200 Watt, 300 Watt, 2x200 Watt, 2x300 Watt).

IM_{future} - EX/IND/STR
[Device, Study, Design, Fabrication of
IM Constructions LTD]
IMC - EX/IND/STR
IMC - EX/IND/TUN
IMC - EX/IND/FL
IMC - EX/IND/SQR
IMC - EX/IND/BE

with characteristics as described at the following pages.

For interior lighting we recommend the LED luminaries: IMC-INT/LED (8W - 18W - 23W). The characteristics of the above luminaries are also described at the following pages.

Sincerely,
On behalf of IM Constructions LTD,

John N. Mavreas,
Civil Engineer,
Highway Transportation Engineer

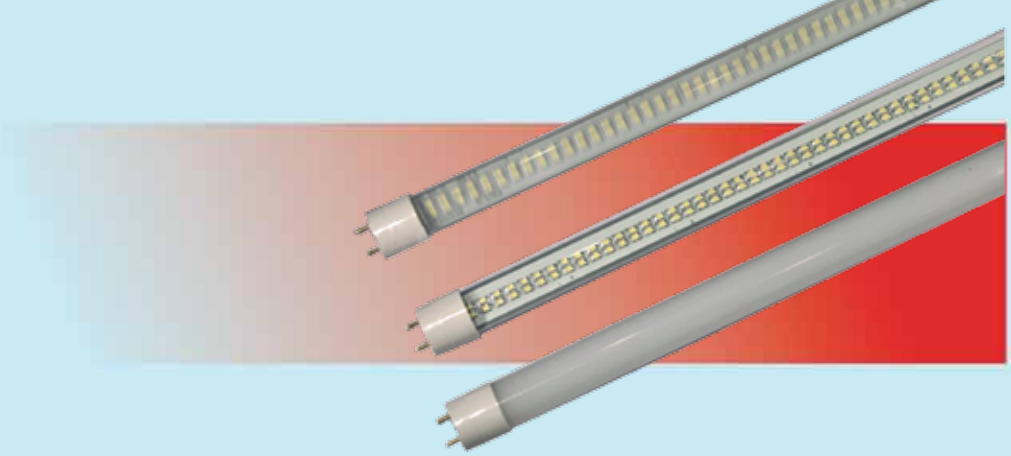
Led Technology Lamps (Light Emitting Diodes)

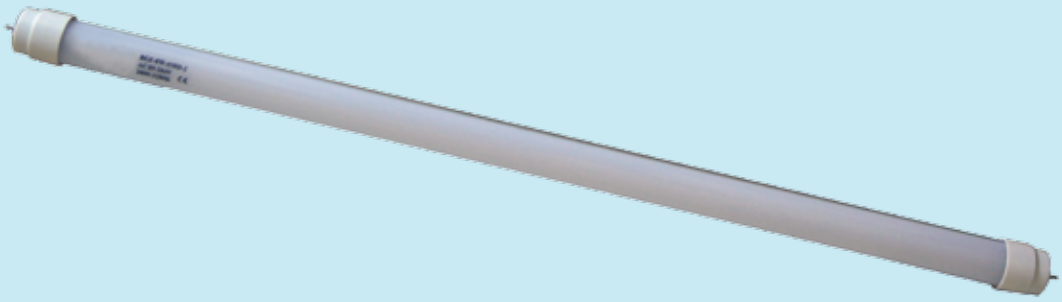
Very soon and in particular since 2012, as you would have already been informed, we will be obliged to replace all the lamps, that we currently have in houses and professional facilities, according to Community Directive of E.U., with LED energy saving lamps (which however content harmful elements for the human nature - Mercury (Hg), Cadmium (Cd), Ph Lead (Pb) e.t.c. contrary to LED lamps which are absolutely ecological, recyclable and enable extra savings in comparison to CFL by 70% and more in many cases).

European Union according to community directive regulation 2005/32/EK that was established on March 18th 2008, which states that incandescent lamps of 100W or above stop being produced and distributed in the markets by September 1st 2009. The regulation also states that by 2012 all the icandescent lamps, halogen lamps and fluroscent lamps will be withdrawn from the markets. The Greek government in complience to the EU regulation has established the 3661/2008 regulation which states the obligation for every building with surface more than 1.000m^2 to adduce energy certificate. This regularity does not only includes lighting, but also the building energy consumption whose reduction in the future will be important both for complience with the regulation and for the environment (reduction of CO_2 and other hydrocarbons).

Advantages of LED lamps //
[Interior]

- Reduction up to 87% of electric power consumption, while ensuring the same efficiency in lighting.
- Elimination of maintenance costs, opposed to old technology lamps.
- Life span from 50,000 to 100,000 hours.
- Environmental protection, due to non emission of carbon dioxide (CO_2) in the atmosphere.
- Low operation temperature, bellow 60^{o}C, which results in no attraction of insects.
- Favouring human vision, due to emission of smooth and relaxing lighting which consists of very good color quality.
- New technology lamps are the absolute evolution of technology in the field of lighting emission.
- No need for any change in the light fixtures in order to install them.





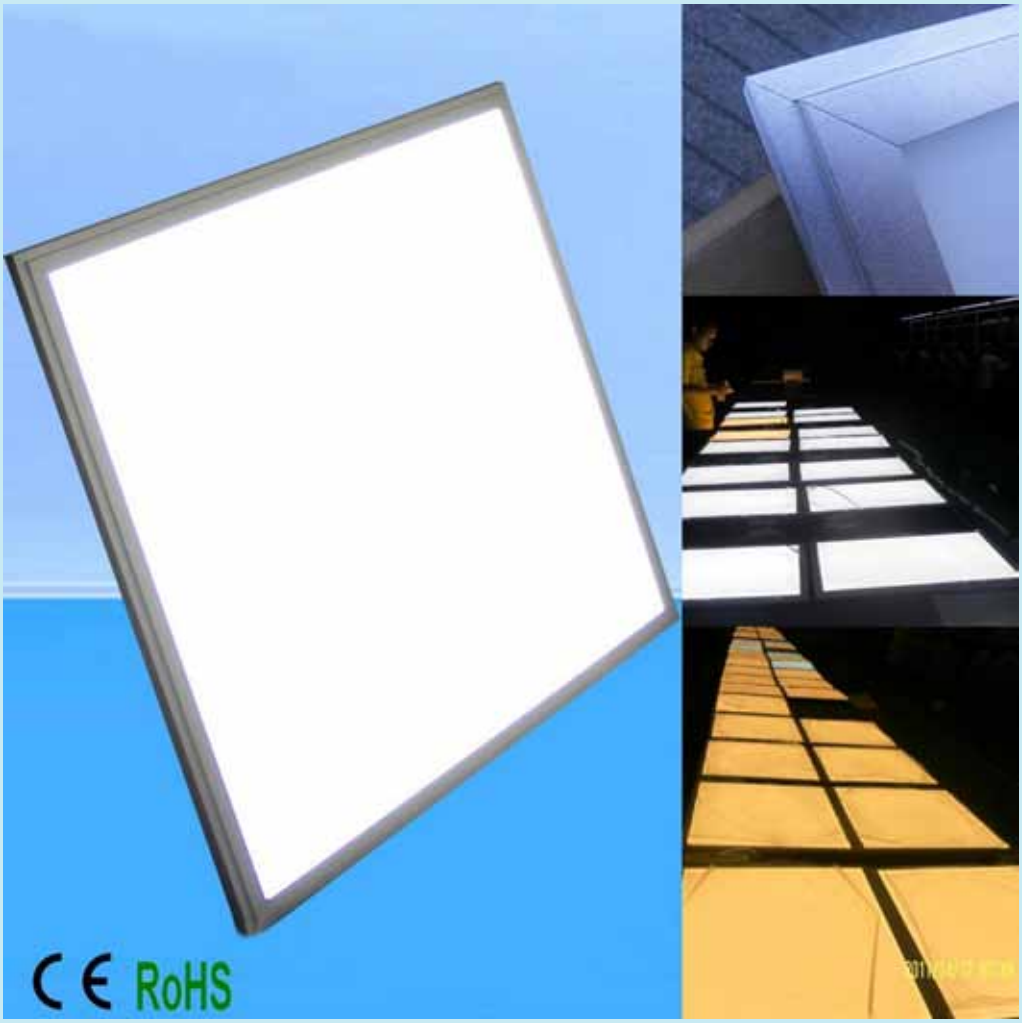
CONSTRUCTIONS LTD

Model: IMC-INT/LED
Application: Interior
Life span: 50.000 hours
Component of the base: Aluminium alloy
Component of the cover: Semi matte plastic
Input voltage: AC 85V ~ 265V 50/60 Hz
Power Factor: ≥0.9
Operation temperature: -20°C ~ +45°C
Illumination angle: 180°

They have CE and ROHS certificates and they are also certified by National Technical University of Athens after photometric studies.

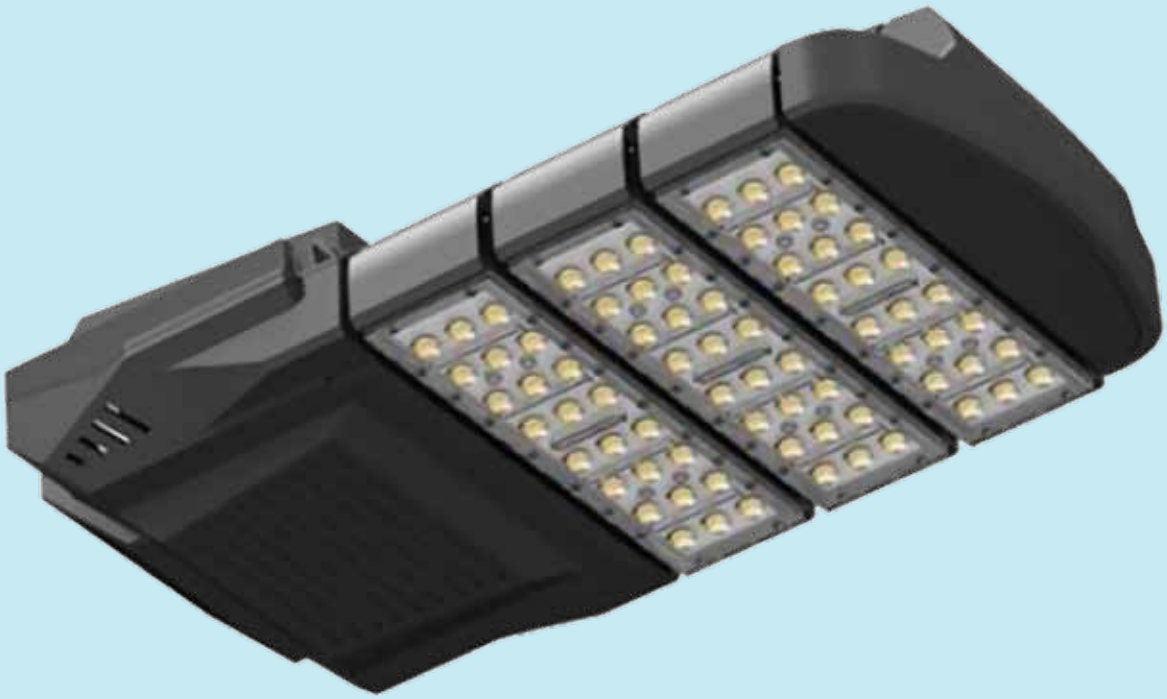
Power	Dimensions	Weight	Quantity of LED
8 Watt	Φ26*608mm	261gr	90 pieces 3014 SMD LED
18 Watt	Φ26*1.213mm	420gr	180 pieces 3014 SMD LED
23 Watt	Φ26*1.514mm	567gr	230 pieces 3014 SMD LED


IMC-INT-LED
IMC-INT-LED
imc-int/led



IMC-INT/LED/PAN-60 Watt

Model	IMC-INT/LED/PAN- 60 Watt
Description	Ceiling Panel LED lighting fixture
Dimensions	95 x 595 x 9.0 mm
Number of LED	300
Power	60 W
Input Voltage [AC]	170-265 V AC/ 50-60 HZ
Efficiency	≥85%
Power Factor	≥0.90
Input Voltage [DC] LED fixture	60-70 V DC
Current	830 mA
Temperature	-40°C to +50
Color temperature [CCT]	3.000K, 4.000K, 5.000K, 6.000K +/-5%
Energy efficiency	75 Lm/W
Luminous	4.800- 5.500 lm(±5%)
Color Rendering Index	Ra≥70
Beam angle	120º
Protection grade	IP44
Weight of the lighting fixture (Switching Power Supply included)	3.6 KG
Certifications	CE, RoHS



Dimensions	602 x 315 x 204 mm		
Number of LED	72		
Power	90 W		
Input voltage	AC 100 V - 240 V		
Frequency	50 Hz/60Hz		
Power factor	>0.95		
Energy efficiency	120-130 lm/W		
Temperature	≤85oC		
Beam angle	120º		
Color rendering index	Ra>75		
Color temperature	2.800-3.200 K	4.000-4.500 K	6.000-7.000 K
Luminous	>8.860 lm	>8.940 lm	>9.000 lm
Operation temperature	-25ºC to +60ºC		
Protection grade	IP65		
Life span	50.000 h		
Certifications	ISO, CE, RoHS, FCC		

Lighting fixtures Magnetic Induction [Induction Lamps]

FULL RANGE OF MAGNETIC INDUCTION LUMINARIES THAT REPLACE ALL OLD TYPE LAMPS

The Magnetic Induction lighting fixtures produce innovative high quality lighting, in street and exterior lighting. They are effective in a wide range of public interest applications, because they combine high efficiency (at all of their basic characteristics) with low power consumption, contributing to the reduction of costs and consequently enhancing resources to other strategic actions.

Advantages

Replacing the high pressure Sodium lamps (HPS) or Mercury lamps (Hg) or metal halide (HQI) with Magnetic Induction lighting fixtures, we achieve:

- Reduction from 60% to 80% of electric power consumption, while ensuring same efficiency in lighting.
- Protection of the environment since they contribute to the reduction of CO_2 to the atmosphere.
- No electrodes inside the lamp.
- Recyclable materials.
- High Color Rendering Index >85 compared to 25-50 of high pressure sodium lamps (HPS)
- Zero cost of maintenance
- Long life span, up to 100.000 hours.
- Reliable operation of the lamp, all its life time, because of the build-in Switching Power Supply which supply constant current and voltage

Induction Lamps

Model: IM$_{future}$-EX/IND/STR
Application: Street lighting
Life span: 100.000 hours
Material of the shell: Aluminium alloy
Material of the reflector: Aluminium with high reflective efficiency
Protection grade : IP67
Input voltage: AC 89V ~ 279V
Power Factor: >0.98
Operation temperature:-40°C~ +120°C
Illumination angle: >120°
Color temperature: 2.700K - 6.500K

Color rendering index (CRI): ≥85 with excellent light output and color. Build-in Switching Power Supply for proper supply of the fixture with current and voltage. Ability of digitization and control with appropriate hardware and software lighting management and full surveillance of the system
They have CE and ROHS certifications and they are certified by the National Technical University of Athens after photometric studies

Power	Dimensions	Weight	Lumens
80 Watt	690mm (Length) x 330mm(Width) x 170mm(Height)	6,5 kg	6.800lm – 7.200lm
120 Watt	1020mm (Length) x 422mm(Width) x 263mm(Height)	10 kg	10.200lm – 10.800lm
200 Watt	1020mm (Length) x 422mm(Width) x 263mm(Height)	10 kg	17.000lm – 18.000lm

ELECTRICAL ENERGY CONSUMPTION AND SAVING STUDY AND CO_2 EMISSIONS

LIGHTING FIXTURES TYPE	CONVENTIONAL LAMPS [H. P. SODIUM] [PIECES]	POWER CONVENTIONAL LIGHTING FIXTURES [H. P. SODIUM] [WATT]	REAL POWER (LAMP + BALLAST) CONVENTIONAL LIGHTING FIXTURE [H. P. SODIUM] with nominal network voltage 236V [WATT]	TOTAL POWER [WATT]	OPERATING HOURS OF THE LIGHTING FIXTURE 13 hours per day [HOURS]	TOTAL ENERGY CONSUMPTION [KWH]	LIGHTING FIXTURES IM CONSTRUCTIONS MAGNETIC INDUCTION TYPE [PIECES]	POWER LIGHTING FIXTURES IM CONSTRUCTIONS [WATT]	TOTAL POWER LIGHTING FIXTURES IM CONSTRUCTIONS [WATT]	OPERATING HOURS OF THE LIGHTING FIXTURE 13 hours per day [HOURS]
STREET LIGHTING	1.000	150	240	240.000	4.745	1.138.800	1.000	80	80.000	4.745
STREET LIGHTING	2.000	250	380	760.000	4.745	3.606.200	2.000	120	240.000	4.745
STREET LIGHTING	1.000	400	530	530.000	4.745	2.514.850	1.000	200	200.000	4.745
SUM	4.000			1.530.000		7.259.850	4.000		520.000	

	ENERGY CONSUMPTION PER YEAR [KWH]	ENERGY CONSUMPTION PER YEAR (KWH/1000) [MWH]	COST IN EURO PER YEAR price of KWH: 0,094 € without taxes [€]	COST PER MONTH [€]	CO_2 EMISSION - ACCORDING TO ESTIMATES BY NATIONAL OBSERVATORY OF ATHENS [TN]
OLD TYPE LIGHTING FIXTURES [SODIUM H.P.]	7.259.850	7.260	682.425,90 €	56.868,83 €	6170,87
LIGHTING FIXTURES IM CONSTRUCTIONS [MAGNETIC INDUCTION]	2.467.400	2.467	231.935,60 €	19.327,97 €	2097,29
SAVING PER YEAR	4.792.450	4.792	450.490,30 €	37.540,86 €	4073,58
ENERGY SAVING			66,01%		

TCT

Certificate of Compliance

CERTIFICATE NO.: TCT112040600011L

Product	:	Street lighting lamphead with magnetic induction lamp
Model	:	IMC-EX-120WL, IMC-EX-200WL
Applicant	:	IM Constructions Ltd
Address	:	Anaksagora 16 & Ath. Diakou Str., 14671, Nea Erythrea, Attiki, Greece

This is to certify that, on the basis of the tests undertaken as per Report No.: TCT112040600011LR, the submitted sample of the above item complies with:

EN 60598-1: 2008+A11:2009

And fulfills testing requirement of the LVD directive 2006/95/EC.

CE

Tomsin, Chief Engineer

Date of Issue: Apr.06, 2012

TCT

Certificate of Compliance

CERTIFICATE NO.: TCT112022800006R

Product	:	Induction Ballasts
Model	:	IMC-EX/IND/STR-40W, IMC-EX/IND/STR-80W, IMC-EX/IND/STR-120W, IMC-EX/IND/STR-150W, IMC-EX/IND/STR-200W, IMC-EX/IND/STR-300W
Applicant	:	IM Constructions Ltd
Address	:	Anaksagora 16 & Ath. Diakou Str., 14671, Nea Erythrea, Attiki, Greece

This is to certify that, on the basis of the tests undertaken as per Report No.: TCT112022800006RR, the submitted sample of the above item complies with:

EPA 3050B:1996, EN1122:2001,
EPA 3052:1996, EPA 3060A,
EPA 7196, EPA 3640C, EPA 8270C

And fulfills testing requirement of the RoHS directive 2011/65/EC.

RoHS

Tomsin, Chief Engineer

Date of Issue: Jun.27, 2012

Lighting fixture Tunel type

IMC - EX/IND/TUN-120W
IMC - EX/IND/TUN-200W
IMC - EX/IND/TUN-300W

CONSTRUCTIONS LTD

Category: Exterior lighting

- *Life span: 100.000 hours*

(Due to the absence of electrodes)

- *Build-in Switching Power Supply witch possesses circuits for the control of temperature, current impedance and short – circuits.*
- *Dimming capability*
- *Immediate ignition*
- *Materials:*

Body: Aluminum alloy

Reflector: Aluminium with high reflective efficiency

- *Protection grade: IP65*
- *Dimensions:*

120W and 200W: 650mm (Length) x 356mm (Width) x 162mm (Height)

300W: 700mm (Length) x 356mm (Width) x 162mm (Height)

- *Weight: 11 kg*
- *Shell strength in outdoor temperature up to 65°C*
- *Input voltage: AC 89V - 279V*
- *Power factor: >0.98*
- *Operating temperature: -40°C to +120°C*
- *Color temperature: 2.500k – 5.800k*
- *Color rendering index: >85*
- *Lighting angle: >120°*
- *Constant and continuous lighting flux*
- *High quality brilliance*
- *Accordance between luminosity – brilliance*
- *High efficiency of lighting flux per Watt [90lm/W]*
- *Lumens:*

10.800lm for 120 Watt

18.000lm for 200 Watt

27.000lm for 300 Watt

IMC-INT-EX/IND/BE

Lighting fixture
High Bay type

CONSTRUCTIONS LTD

Category: Interior Lighting

- *Life span: 100.000 hours*

(Due to the absence of electrodes)

- *Build-in Switching Power Supply witch possesses circuits for the control of temperature, current impedance and short – circuits.*
- *Dimming capability*
- *Immediate ignition*
- *Materials:*

Shell: Aluminium alloy
Reflector: Aluminium with high reflective efficiency

- *Protection grade: IP53 – IP54*
- *Dimensions: Φ 560mm (diameter) x 330mm (Height)*
- *Weight: 5 kg*
- *Shell strength in outdoor temperature up to 65oC*
- *Input voltage: AC 89V - 279V*
- *Power: 80W / 120W / 150W / 200W*
- *Power factor: >0.98*
- *Operating temperature: -40°C to +120°C*
- *Color temperature: 2.700k – 6.500k*
- *Color rendering index: >85*
- *Lighting angle: >120°*
- *Constant and continuous lighting flux*
- *High quality brilliance*
- *Accordance between luminosity – brilliance*
- *High efficiency of lighting flux per Watt [85 – 90lm/W]*
- *Lumens:*

6.800lm – 7.200lm for 120 Watt
10.200lm – 10.800lm for 120 Watt
10.750lm – 13.500lm for 150 Watt
17.000lm – 18.000lm for 200 Watt

- *CE and ROHS certifications*

STREET LIGHTING WITH LIGHTING FIXTURES
MAGNETIC INDUCTION TYPE

STREET LIGHTING WITH LIGHTING FIXTURES
HIGH PRESSURE SODIUM TYPE

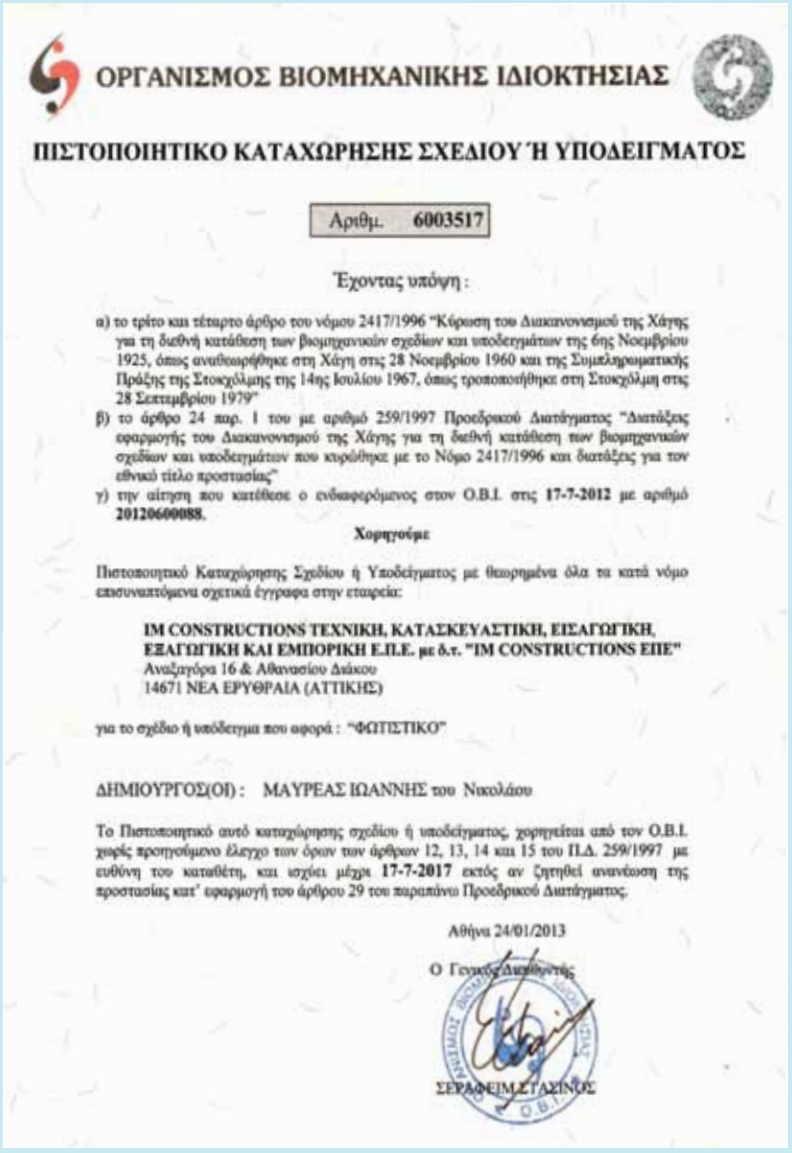
Street, Park, square lighting…

SELECTION CRITERIA

OUR PROPOSITION IS YES TO MAGNETIC INDUCTION LAMPS AND NO TO LED LAMPS

FOR OUTDOOR LIGHTING

Magnetic Induction Lamp	Light Emitting Diodes LED
Principle of operation	
Fundamental principle of electromagnetic induction. The stimulated emission of electrons in the lamp [ionization because of the creation of Magnetic Field Induction] with the simultaneous deexcitation of its electrons (amagalm), which is found at a particular point outside the lamp, create infrared radiation. The absorption of this radiation from the fluorescent substance, that is placed around the lamp, creates a radiation of visible light.	When we apply to a Light Emitting Diode [LED] a forward voltage bias, the recombination of carriers (holes andelectrons) around the junction creates an emission of photons. The spectral region emitted by the LEDs depends on the materials of their construction and their impurities. The intensity of light emitted by a LED diode is proportional to the nominal forward current of the diode, while the colour depends on the material (GaAsP-red colour, InGaN- white light).
Power Supply	
A Switching Power Supply is used, with output a turn-over undulation that apply a constant current bias to the coils (ferritic core), which are situated outside the lamp at the ends of the diameter. The purpose of the so developed electromagnetic field is to induce inside the lamp the energy aiming at producing of light. Also, the device of the Switching Power Supply possesses circuits for the control of temperature, current impedance and short-circuits.	a) Low-power LED device. Forward driving (bias) with a voltage obtained from devices with ICs Voltage Regulator or a low-cost device [Rectification and Filtering]. b) High-power LED device. 1) Forward driving (bias) with unreliabledevices of power supply establishing constant voltage and output current and equipped with control circuits for powers over 30 or 50 Watt (LEDs connected in series). 2) A switching power supply is needed for devices of medium power. Note also that LED is a current-driven devices are and therefore will be destroyed if they are not correctly supplied by current. Problem with power supply
Spectrum	
Wide-spectrum Luminious radiation.	Narrow-spectrum Luminous radiation .
Hours of operating	
Due to the absence of electrodes, the passage of electric current does not spoil the crystal structure of the material. The Magnetic Induction lamp is considered as a product of innovative technology and its lifetime is 100,000 hours of operation, with basic characteristics of the device remaining at high levels throughout its lifetime.	The crystal structure of the semiconductor and its impurities for the creation of the LED diode can not endure the continuous passage of large currents in the material. As a result, the above structure is “damaged” after a relatively short time, which is about 30.000 hours of operation, under conditions of a constant driving current and at the levels of the environment temperature.
Effect of current fluctuations	
They do not face a problem with fluctuations of the current. Besides the SPS system does not allow such problems.	They have a sensitivity to the fluctuations of current, which may lead to a change of destructions of LEDs.
Luminous	
The efficiency of the Magnetic Induction lamp does not largely depend on the temperature developed in the lamp. However, to be prepared for all eventualities, the SPS unit includes also a temperature control system.	The luminous efficiency of a LED increases with increasing temperature, which implies increase of the luminous flux. If, however, there is also an increase of the junction temperature this will lead not only to a decrease of the efficiency but also to the destruction of the LED.
Energy saving	
The illumination capacity, the optical damage, the luminous flux and the intensity of light are characteristics which excel in the Magnetic Induction (MI) devices. This fact involves a large saving of energy (≥30%) in MI devices compared to the LED ones. For the same optical power, the consumption of electric power is clearly smaller MI lamp.	The factor of heat (enemy of LEDs), the low power and the high optical damage do not allow to ensure the amounts of energy needed for equating the LED lamps with the Magnetic Induction lamps. For a given power, assumed to be the same for both devices, the consumption of electric power is larger for a LED lamp.
Guarantee as regards the replacement cost	
Zero replacement cost.	No guarantee is possible.



ΟΡΓΑΝΙΣΜΟΣ ΒΙΟΜΗΧΑΝΙΚΗΣ ΙΔΙΟΚΤΗΣΙΑΣ

ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΚΑΤΑΧΩΡΗΣΗΣ ΣΧΕΔΙΟΥ Ή ΥΠΟΔΕΙΓΜΑΤΟΣ

Αριθμ. **6003517**

Έχοντας υπόψη :

α) το τρίτο και τέταρτο άρθρο του νόμου 2417/1996 "Κύρωση του Διακανονισμού της Χάγης για τη διεθνή κατάθεση των βιομηχανικών σχεδίων και υποδειγμάτων της 6ης Νοεμβρίου 1925, όπως αναθεωρήθηκε στη Χάγη στις 28 Νοεμβρίου 1960 και της Συμπληρωματικής Πράξης της Στοκχόλμης της 14ης Ιουλίου 1967, όπως τροποποιήθηκε στη Στοκχόλμη στις 28 Σεπτεμβρίου 1979"

β) το άρθρο 24 παρ. 1 του με αριθμό 259/1997 Προεδρικού Διατάγματος "Διατάξεις εφαρμογής του Διακανονισμού της Χάγης για τη διεθνή κατάθεση των βιομηχανικών σχεδίων και υποδειγμάτων που κυρώθηκε με το Νόμο 2417/1996 και διατάξεις για τον εθνικό τίτλο προστασίας"

γ) την αίτηση που κατέθεσε ο ενδιαφερόμενος στον Ο.Β.Ι. στις **17-7-2012** με αριθμό **20120600088**.

Χορηγούμε

Πιστοποιητικό Καταχώρησης Σχεδίου ή Υποδείγματος με θεωρημένα όλα τα κατά νόμο επισυναπτόμενα σχετικά έγγραφα στην εταιρεία:

ΙΜ CONSTRUCTIONS ΤΕΧΝΙΚΗ, ΚΑΤΑΣΚΕΥΑΣΤΙΚΗ, ΕΙΣΑΓΩΓΙΚΗ, ΕΞΑΓΩΓΙΚΗ ΚΑΙ ΕΜΠΟΡΙΚΗ Ε.Π.Ε. με δ.τ. "ΙΜ CONSTRUCTIONS ΕΠΕ"
Αναξαγόρα 16 & Αθανασίου Διάκου
14671 ΝΕΑ ΕΡΥΘΡΑΙΑ (ΑΤΤΙΚΗΣ)

για το σχέδιο ή υπόδειγμα που αφορά : "ΦΩΤΙΣΤΙΚΟ"

ΔΗΜΙΟΥΡΓΟΣ(ΟΙ) : ΜΑΥΡΕΑΣ ΙΩΑΝΝΗΣ του Νικολάου

Το Πιστοποιητικό αυτό καταχώρησης σχεδίου ή υποδείγματος, χορηγείται από τον Ο.Β.Ι. χωρίς προηγούμενο έλεγχο των όρων των άρθρων 12, 13, 14 και 15 του Π.Δ. 259/1997 με ευθύνη του καταθέτη, και ισχύει μέχρι **17-7-2017** εκτός αν ζητηθεί ανανέωση της προστασίας κατ' εφαρμογή του άρθρου 29 του παραπάνω Προεδρικού Διατάγματος.

Αθήνα 24/01/2013

Ο Γενικός Διευθυντής

ΣΕΡΑΦΕΙΜ ΣΤΑΣΙΝΟΣ

Καταχώρηση / Registered 31/10/2012

No 001350185-0001

ΓΕΕΑ – ΓΡΑΦΕΙΟ ΕΝΑΡΜΟΝΙΣΗΣ ΣΤΗΝ ΕΣΩΤΕΡΙΚΗ ΑΓΟΡΑ
ΣΗΜΑΤΑ, ΣΧΕΔΙΑ ΚΑΙ ΥΠΟΔΕΙΓΜΑΤΑ

ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΚΑΤΑΧΩΡΗΣΗΣ

Το παρόν πιστοποιητικό καταχώρισης εκδίδεται για το καταχωρημένο κοινοτικό σχέδιο ή υπόδειγμα που αναφέρεται κατωτέρω. Τα αντίστοιχα στοιχεία έχουν εγγραφεί στο μητρώο κοινοτικών σχεδίων και υποδειγμάτων.

OHIM – OFFICE FOR HARMONIZATION IN THE INTERNAL MARKET
TRADE MARKS AND DESIGNS

CERTIFICATE OF REGISTRATION

This Certificate of Registration is hereby issued for the Registered Community Design identified below. The corresponding entries have been recorded in the Register of Community Designs.

Ο Πρόεδρος / The President

António Campinos

Development for our company is the implementation of our vision. Our vision is added value for our country. The added value of our product leads to international recognition worldwide.

WE DARE!

ΕΘΝΙΚΟ ΜΕΤΣΟΒΙΟ ΠΟΛΥΤΕΧΝΕΙΟ
NATIONAL TECHNICAL UNIVERSITY OF ATHENS
Σχολή Ηλεκτρολόγων Μηχανικών & Μηχανικών Υπολογιστών
School of Electrical & Computer Engineering
Εργαστήριο Φωτοτεχνίας / Laboratory of Lighting
Ηρώων Πολυτεχνείου 9, 157 80 Αθήνα / 9 Iroon Politechniou St., 157 80 Athens, Greece
☎ (+30) 2107723627, 🖷 (+30) 2107723628, ✉ photolab@central.ntua.gr

1 Φεβρουαρίου 2012 / *1 February 2012*

ΕΚΘΕΣΗ ΦΩΤΟΜΕΤΡΗΣΕΩΝ

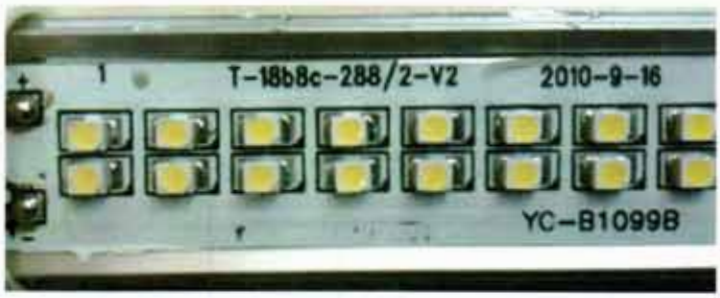
PHOTOMETRIC TEST REPORT

1. Αντικείμενο μετρήσεων / *Item tested*

- Πελάτης: IM CONSTRUCTIONS, Αναξαγόρα 16 & Αθανασίου Διάκου, Νέα Ερυθραία Αττικής.
  Client: IM CONSTRUCTIONS, 16 Anaxagora 16 & Athanasiou Diakou, Nea Erithrea, *Greece.*

- Εμπορική ονομασία φωτιστικού: IMC-IN-2.
  Commercial name of luminaire: IMC-IN-2.

- Φωτιστικό σώμα τύπου σωλήνα, με LEDs.
  Tube type luminaire with LEDs.



Έγκριση-Σύνταξη *Approved-Issued* Φ.Β. Τοπαλής F.V. Topalis	Υπεύθυνος μετρήσεων *Test engineer* Κ.Α. Μπουρούσης C.A. Bouroussis
NTUA-PL 201202523 Σελίδα 1 από 16 *Page 1 of 16*	Χειριστής *Operator* Λ.Θ. Δούλος L.T. Doulos

ΕΘΝΙΚΟ ΜΕΤΣΟΒΙΟ ΠΟΛΥΤΕΧΝΕΙΟ
NATIONAL TECHNICAL UNIVERSITY OF ATHENS
Σχολή Ηλεκτρολόγων Μηχανικών & Μηχανικών Υπολογιστών
School of Electrical & Computer Engineering
Εργαστήριο Φωτοτεχνίας / Lighting Laboratory
Ηρώων Πολυτεχνείου 9, 157 80 Αθήνα / 9 Iroon Politechniou St., 157 80 Athens, Greece
☎ (+30) 2107723627, 🖷 (+30) 2107723628, ✉ photolab@central.ntua.gr

29 Μαΐου 2013 / *29 May 2013*

ΕΚΘΕΣΗ ΦΩΤΟΜΕΤΡΗΣΕΩΝ

PHOTOMETRIC TEST REPORT

1. Αντικείμενο μετρήσεων / *Item tested*

- Πελάτης: IM CONSTRUCTIONS, Αναξαγόρα 16 & Αθανασίου Διάκου, Νέα Ερυθραία Αττικής
  Client: IM CONSTRUCTIONS, 16 Anaxagora 16 & Athanasiou Diakou, Nea Erithrea, *Greece*

- Φωτιστικό σώμα οδοφωτισμού με λαμπτήρα επαγωγής
  Road lighting luminaire with induction lamp

- Εμπορική ονομασία φωτιστικού / *Commercial name of luminaire*
  IM *futura* – EX/IND/STR-120 W-5.000 K.

- Διαστάσεις φωτιστικού σώματος: Μήκος 1020 mm, Πλάτος 422 mm, Ύψος 263 mm
  Dimensions of luminaire: Length 1020 mm, Width 422 mm, Height 263 mm

- Διαστάσεις φωτεινής επιφάνειας: Μήκος 530 mm, Πλάτος 223 mm, Ύψος 0 mm
  Dimensions of luminous area: Length 530 mm, Width 223 mm, Height 0 mm

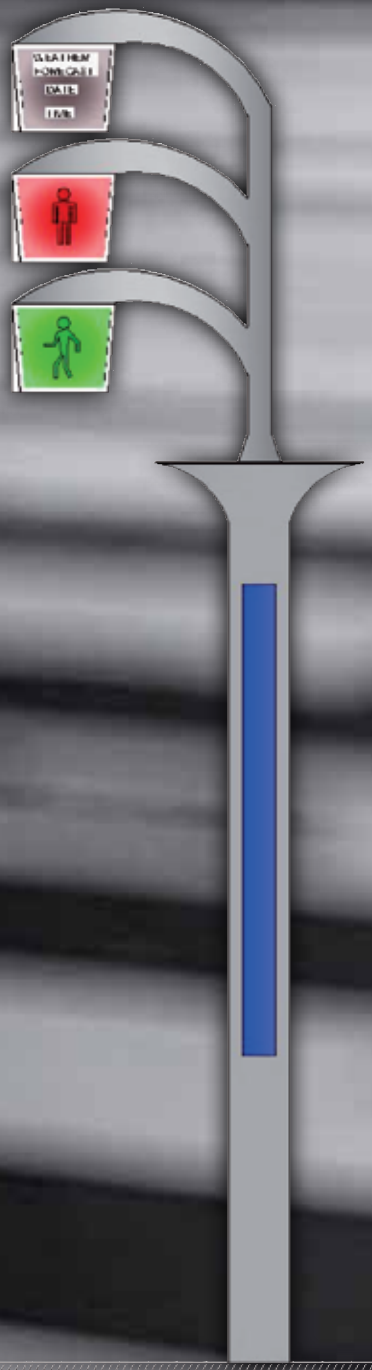
Έγκριση-Σύνταξη *Approved-Issued*	Φ.Β. Τοπαλής F.V. Topalis	Υπεύθυνος μετρήσεων *Test engineer*	Κ.Α. Μπουρούσης C.A. Bouroussis
NTUA-PL 201305632 Σελίδα 1 από 17 *Page 1 of 17*	ΕΘΝΙΚΟ ΜΕΤΣΟΒΙΟ ΠΟΛΥΤΕΧΝΕΙΟ ΤΜΗΜΑ ΗΛΕΚΤΡΟΛ ΓΩΝ ΜΗΧ/ΚΩΝ ΚΑΙ ΜΗΧΑΝΙΚΩΝ ΥΠΟΛΟΓ ΣΤΩΝ ΤΟΜΕΑΣ ΗΛΕΚΤΡΙΚΗΣ ΙΣΧΥΟΣ 28ης ΟΚΤΩΒΡΙΟΥ 42 - 106 82 ΑΘΗΝΑ	Χειριστής *Operator*	Ε.-Ν. Μαδιάς E.-N. Madias

Intelligent is anyone watching the signs of the future.

Intelligent driver is the one who respects the constrains of the traffic lights.

The applications of technology offer quality to people.

TRAFFIC LIGHT |



Knowledge is consistently added value. Your recognition is a national sustainability. The development and design is the message of hope to us all. The signaling defines our times, the choice supports your intelligence.

Design - Calculation
IM CONSTRUCTIONS LTD

Καταχώρηση / Registered 18/01/2013

No 001358733-0001

Ο Πρόεδρος / The President

António Campinos

ΓΕΕΑ – ΓΡΑΦΕΙΟ ΕΝΑΡΜΟΝΙΣΗΣ ΣΤΗΝ ΕΣΩΤΕΡΙΚΗ ΑΓΟΡΑ
ΣΗΜΑΤΑ, ΣΧΕΔΙΑ ΚΑΙ ΥΠΟΔΕΙΓΜΑΤΑ

ΠΙΣΤΟΠΟΙΗΤΙΚΟ ΚΑΤΑΧΩΡΗΣΗΣ

Το παρόν πιστοποιητικό καταχώρισης εκδίδεται για το καταχωρημένο κοινοτικό σχέδιο ή υπόδειγμα που αναφέρεται κατωτέρω. Τα αντίστοιχα στοιχεία έχουν εγγραφεί στο μητρώο κοινοτικών σχεδίων και υποδειγμάτων.

OHIM – OFFICE FOR HARMONIZATION IN THE INTERNAL MARKET
TRADE MARKS AND DESIGNS

CERTIFICATE OF REGISTRATION

This Certificate of Registration is hereby issued for the Registered Community Design identified below. The corresponding entries have been recorded in the Register of Community Designs.

TÜV HELLAS
Member of TÜV NORD Group

ΠΙΣΤΟΠΟΙΗΤΙΚΟ

Σύστημα Διαχείρισης σύμφωνα με
EN ISO 9001 : 2008
Συστήματα Διαχείρισης Ποιότητας - Απαιτήσεις

Βάσει των διαδικασιών TÜV HELLAS (TÜV NORD) A.E. πιστοποιείται ότι η επιχείρηση

IM CONSTRUCTIONS ΕΠΕ
Αναξαγόρα 16
146 71 Ν. Ερυθραία
Αττική / Ελλάδα

Εφαρμόζει Σύστημα Διαχείρισης σύμφωνα με το παραπάνω πρότυπο για το εξής πεδίο εφαρμογής

Εισαγωγή, Εξαγωγή, Αντιπροσώπευση και Εμπορία Ηλεκτρολογικών Υλικών Παροχής Ηλεκτρικής Ενέργειας (Λαμπτήρες, Καλώδια κλπ), Φωτοβολταϊκών συστημάτων, Γεωθερμικών στοιχείων και εν γένει όλων των Μορφών και Πηγών Ενέργειας.

Αριθμός Μητρώου Πιστοποιητικού 041120177/02
Έκθεση Επιθεώρησης με αρ. Ε-1856/2013

Ισχύει μέχρι 2015-10-10
Αρχική Πιστοποίηση 2012

TÜV HELLAS (TÜV NORD) A.E. Φορέας Πιστοποίησης

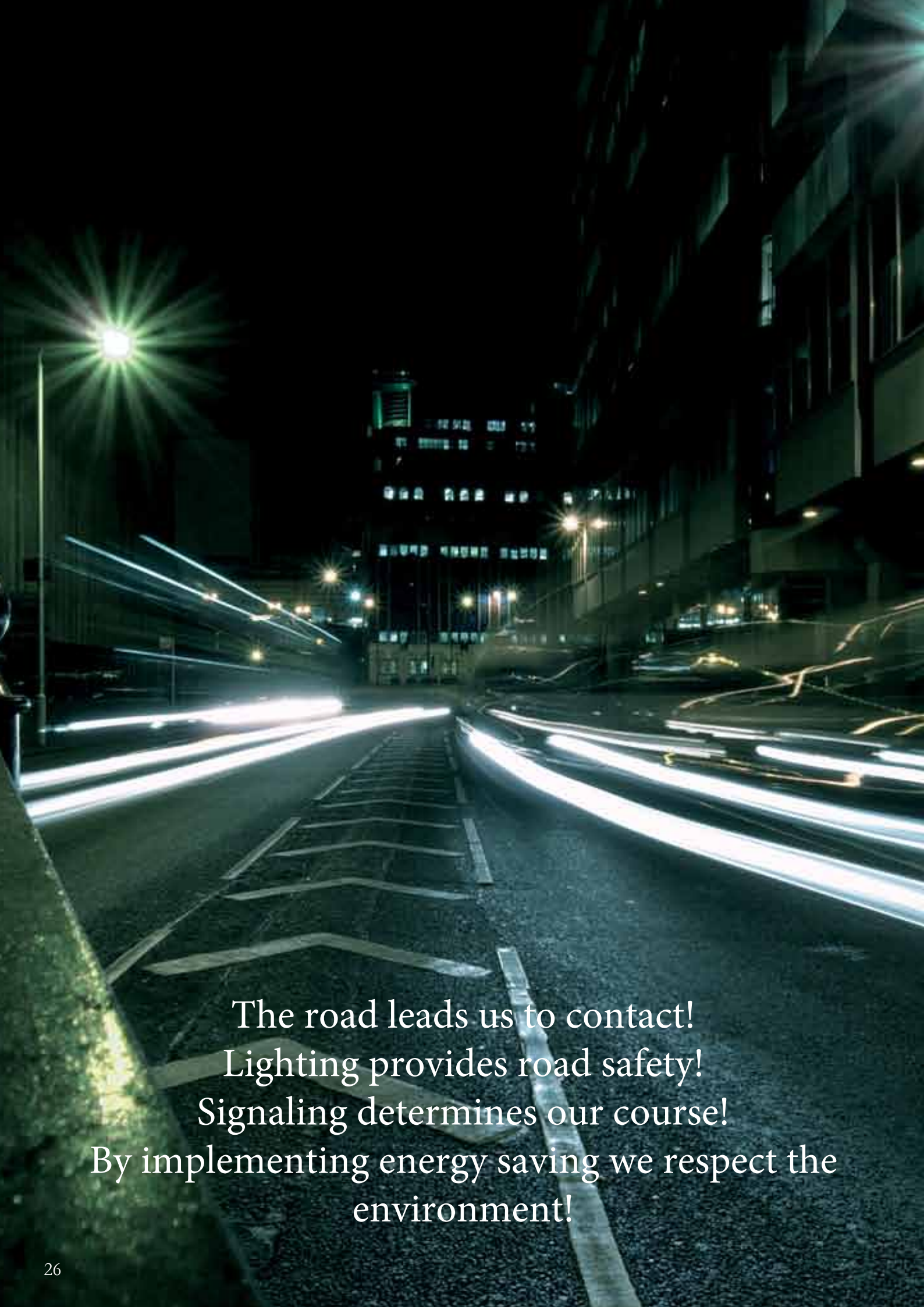
Αθήνα, 2013-07-03

Η πιστοποίηση πραγματοποιήθηκε σύμφωνα με τις διαδικασίες επιθεώρησης και πιστοποίησης της TÜV HELLAS A.E. και υπόκειται σε τακτικές επιθεωρήσεις επιτήρησης. Το παρόν πιστοποιητικό απονέμεται βάσει της διαδικασίας "Group Certification" και ισχύει σε συνάρτηση με το βασικό πιστοποιητικό με αριθμό μητρώου 041120177.

ΕΣΥΔ
Πιστοποίηση Γ.Δ.
αρ. 183-3

TÜV NORD
TÜV HELLAS
SYSTEM CERTIFICATION

TÜV HELLAS A.E., Λ. Μεσογείων 282, 15562 Χολαργός, Αθήνα, Ελλάδα



The road leads us to contact!
Lighting provides road safety!
Signaling determines our course!
By implementing energy saving we respect the environment!

CONSTRUCTIONS LTD

Indicative Customer lists

PUBLIC SECTOR	LUMINAIRE TYPE	PERIOD OF PROJECT
MINISTRY OF NATIONAL DEFENCE	LED LAMPS (FOR INDOOR USE)	MAY, 2012 JANUARY, 2013
MUNICIPALITY OF SPARTA	MAGNETIC INDUCTION STREET LIGHTS	MAY, 2012
MUNICIPALITY OF KIMI-ALIVERI	MAGNETIC INDUCTION STREET LIGHTS	JULY 2012
MUNICIPALITY OF OROPOS	MAGNETIC INDUCTION STREET LIGHTS	JULY, 2012
MUNICIPALITY OF VELO-VOCHA	MAGNETIC INDUCTION STREET LIGHTS	SEPTEMBER, 2012
MUNICIPALITY OF PENTELI	MAGNETIC INDUCTION STREET LIGHTS	SEPTEMBER, 2012
MUNICIPALITY OF ANDRITSAINAS-KRESTENON	MAGNETIC INDUCTION STREET LIGHTS	DECEMBER, 2012
MUNICIPALITY OF PALAIO FALIRO	MAGNETIC INDUCTION STREET LIGHTS	DECEMBER, 2012
MUNICIPALITY OF MARKOPOULO	MAGNETIC INDUCTION STREET LIGHTS	DECEMBER, 2012
MUNICIPALITY OF MEGARON	MAGNETIC INDUCTION STREET LIGHTS	DECEMBER, 2012
MUNICIPALITY OF PAPAGOU-CHOLARGOS	MAGNETIC INDUCTION STREET LIGHTS	DECEMBER, 2012
MUNICIPALITY OF DELPHI	MAGNETIC INDUCTION STREET LIGHTS	DECEMBER, 2012
MUNICIPALITY OF KERATSINI DRAPETSONA	MAGNETIC INDUCTION STREET LIGHTS	MARCH, 2013
MUNICIPALITY OF AGIA	MAGNETIC INDUCTION STREET LIGHTS	MAY, 2013
MUNICIPALITY OF MARATHON	MAGNETIC INDUCTION STREET LIGHTS	MAY, 2013
MUNICIPALITY OF ELEFSINA	MAGNETIC INDUCTION STREET LIGHTS	JUNY, 2013
MUNICIPALITY OF MESSINIA	MAGNETIC INDUCTION STREET LIGHTS	AUGUST, 2013

PRIVATE SECTOR	LUMINAIRE TYPE	PERIOD OF PROJECT
ELVAL S.A.	MAGNETIC INDUCTION STREET LIGHTS & LED LAMPS (FOR INDOOR USE)	MAY, 2012
PUBLIC PROPERTIES COMPANY S.A.	MAGNETIC INDUCTION STREET LIGHTS	MAY, 2012
ATHENIAN BREWERY S.A.(Athens)	MAGNETIC INDUCTION STREET LIGHTS	JUNE,2012 JANUARY, 2013
INTRACOM DEFENCE ELECTRONICS S.A.	MAGNETIC INDUCTION STREET LIGHTS	SEPTEMBER, 2012
LAVRION PORT AUTHORITY S.A.	MAGNETIC INDUCTION STREET LIGHTS	OCTOBER, 2012
INTRACOM DEFENCE ELECTRONICS S.A.	MAGNETIC INDUCTION STREET LIGHTS	OCTOBER, 2012
INTRACOM DEFENCE ELECTRONICS S.A.	MAGNETIC INDUCTION STREET LIGHTS	DECEMBER, 2012
RAFINA PORT AUTHORITY S.A.	MAGNETIC INDUCTION STREET LIGHTS	JANUARY, 2013
ATHENIAN BREWERY S.A.(Thessaloniki)	MAGNETIC INDUCTION STREET LIGHTS	JANUARY, 2013 MAY, 2013
INTRACOM DEFENCE ELECTRONICS S.A.	MAGNETIC INDUCTION STREET LIGHTS	FEBRUARY, 2013
P. PAPAPOSTOLOU & SIA O.E.	MAGNETIC INDUCTION STREET LIGHTS	MARCH, 2013
O.SY. S.A. (ROAD TRANSPORT S.A.)	MAGNETIC INDUCTION STREET LIGHTS	APRIL, 2013

CONSTRUCTIONS LTD

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