

# PRODUCT CATALOG

## INDUSTRIAL LED LIGHTING

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# Industrial *LED* lighting!



We are team of specialist in the field of design, die casting tooling, casting, electronics, optics and LED, realizing the very best ideas and practices in our fields.

## Our mission

We working for full range of products for industrial illumination. We looking for technical solutions leading to maximal life time of the end products. Uniting in our production functionality and design, with minimal compromise in both directions.

- » Design and realization of projects related with complete replacement of existing conventional illumination with LED illumination such fulfills all standards and norms for lighting.

- » Uncompromising quality with parameters which comply with actual needs and requirements of our clients.

- » Maximal warranty and after warranty service of our products.

- » Modesty and professionalism towards all our partners and colleagues.

## What we offer?

Combination of innovation ideas, combined proven technological practices and solutions, as guarantee for development and production of high quality products at global level. Uncompromising regarding quality of material used. LED illumination from last generation with wide specter of use such as: warehouses, industrial buildings, open grounds, gas stations, retail stores, parks, sport grounds and plants, green fields, parking and garages.

- » 5 years warranty for all of our products.

- » Environmentally friendly products which are 100% recyclable.

- » Wide range of products and flexible solutions according to customers' requirements.

- » Professional attitude and responsibility towards each engagement

## SERIES LED LIGHTING TYPE „HYDRA“

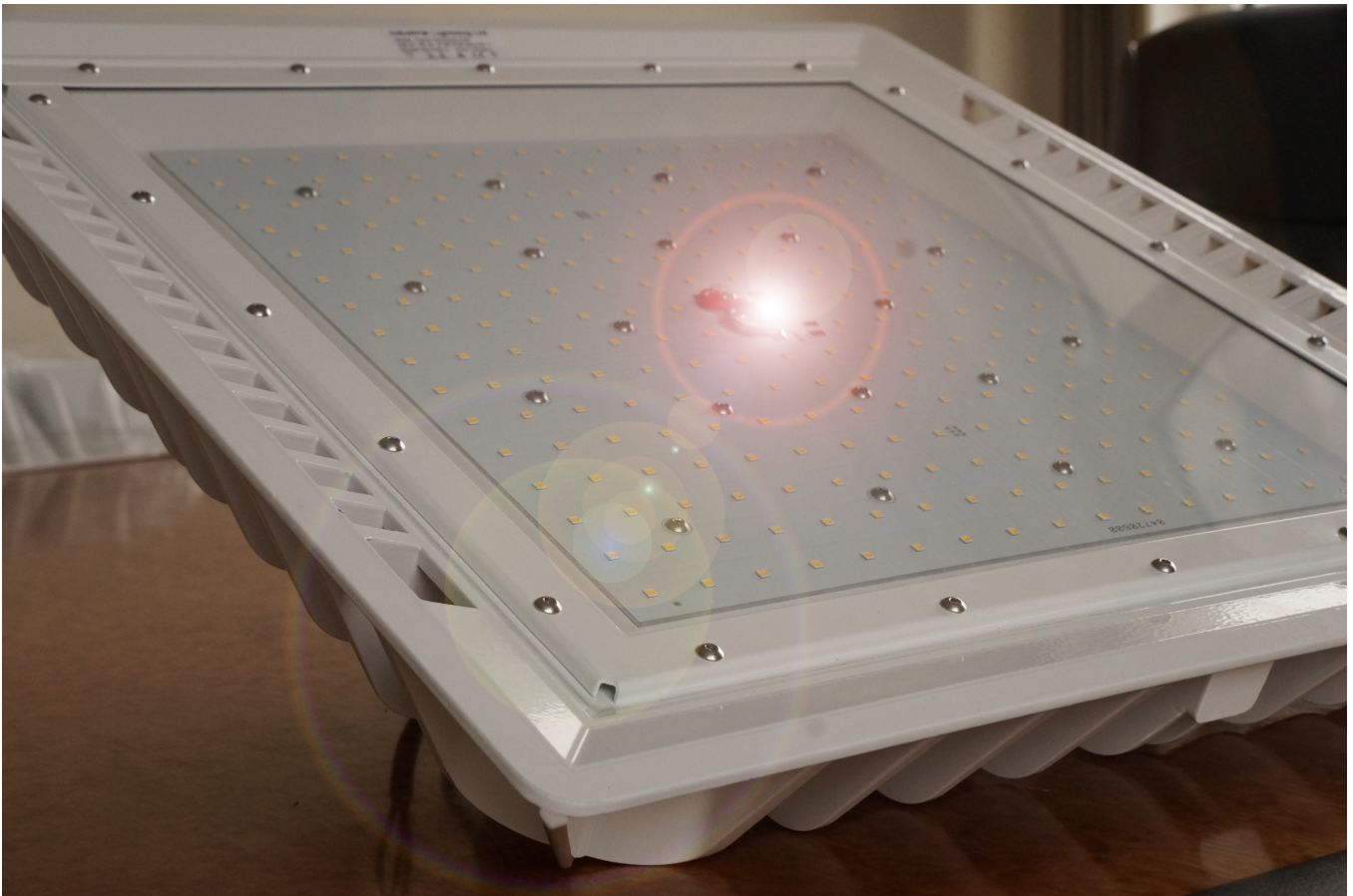
Series include following types of products:

**Hydra 90W242-230, Hydra 150W242-230 и Hydra 240W242-230;**

**Name of Producer:** “INDUSTRIAL LIGHTING” LTD

### **Purpose:**

The Series LED lighting type HYDRA is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality. In the production of the product are used only high quality elements of European producers, as follows:



**LEDs:** Dyris S5– “Osram GmbH” Germany;

**Power supply:** OPTOTRONIC® LED OT 200/220-240/5A6 P5 – “Osram GmbH” Germany, Mean Well - HBG series Taiwan;

**Diffusor and cover:** Dow Chemical – USA;

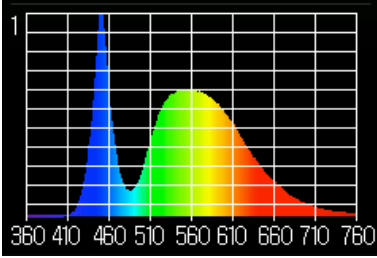
**Fasteners:** Only stainless steel according DIN 933;

Technical parameters according producers documentation:

LED light for indoor and outdoor use with dimensions 500/500/160mm. and weight of 14kg.

### **Test results:**

Operating voltage	<b>AC 230 V</b>	
Operating Current	<b>AC 1.05 A</b>	
Wattage including ballast (watts)	<b>235 ± W</b>	

Power factor	<b>0.97</b>	 <p>Light specter</p> <p>Pulsation of light = 0.1 %</p>
color temperature	<b>5511 K</b>	
Color rendering index CRI	<b>72</b>	
color coordinates CIE 1931	<b>x=0.3322, y=0.3549</b>	
color coordinates CIE 1976	<b>u'=0.2015, v'=0.4844</b>	
Luminous flux emitted by a luminaire	<b>32 702lm</b>	
Light output of the luminaire	<b>138.9 lm /W</b>	
Luminous flux emitted by a luminaire with protective glass and without lenses	<b>34 991 lm</b>	
Operating voltage	<b>AC 230 V</b>	
Wattage including ballast (watts)	<b>148 W</b>	
Power factor	<b>0.97</b>	
color temperature	<b>5511 K</b>	
Color rendering index CRI	<b>72</b>	
Luminous flux emitted by a luminaire	<b>22 323 lm</b>	
Light output of the luminaire	<b>150.8 lm /W</b>	
Operating voltage	<b>AC 230 V</b>	
Wattage including ballast (watts)	<b>90 W</b>	
Power factor	<b>0.97</b>	
color temperature	<b>5511 K</b>	
Color rendering index CRI	<b>72</b>	
Luminous flux emitted by a luminaire	<b>14 402 lm</b>	
Light output of the luminaire	<b>160 lm /W</b>	

**Color temperature of LEDs** standard production 5000 K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

### Index of color rendering:

Standard lighting "Hydra" are with index of color rendering CRI min 70.

According to customer specification lamp can be produced with LED index CRI min 80.

### Optics:

According customer needs as addition of the LEDs, guidance optics with different angles (different of standard angle of 120 degrees) can be mounted.

Operating temperature of the lamp is from -30 °C to +55 °C

**Degree of protection IP 66:**

**Degree of protection IK 08:**

### Certification:

Luminaries Hydra has full **CE** certification.

### Motion detectors:

All version of "Hydra" luminaries are designed to fit smoke detectors, smoke indicators, cameras, PIR sensors, microwave sensors(could be built invisible), audio speakers and

### Description of the mechanical connection

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures. Installation is completed by 3 different fixing systems.

## SERIES LED LIGHTING TYPE „HYDRA OS“

Series include following types of products:

**Hydra OS 200W128-230, Hydra OS 300W128-230 and Hydra OS 400W128-230;**

**Name of Producer:** “INDUSTRIAL LIGHTING” LTD

### Purpose:

The Series LED lighting type HYDRA is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality. In the production of the product are used only high quality elements of European producers, as follows:



### LEDs:

Osram Sqare – “Osram GmbH” Germany;

### Power supply:

OPTOTRONIC® LED OT 200/220-240/5A6 P5 – “Osram GmbH” Germany – 2 pcs.;

### Diffusor and cover:

Tempered glass 4mm. ClearVision – Belgium;

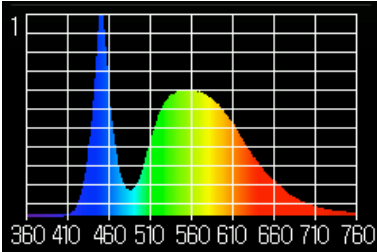
### Fasteners:

Only stainless steel according DIN 933;

Technical parameters according producers documentation:

LED light for indoor and outdoor use with dimensions 500/500/160mm. and weight of 17kg.

### Test results:

Operating voltage	AC 230 V	
Operating Current	AC 1.05 A	
Wattage including ballast (watts)	200 W	
Power factor	0.97	
color temperature	4200 K	
Color rendering index CRI	72	
color coordinates CIE 1931	x=0.3322, y=0.3549	
color coordinates CIE 1976	u'=0.2015, v'=0.4844	
Luminous flux emitted by a luminaire	27 780 lm	
Light output of the luminaire	138.9 lm /W	
Operating voltage	AC 230 V	
Wattage including ballast (watts)	300 W	
Power factor	0.97	
color temperature	4200 K	
Color rendering index CRI	72	
Luminous flux emitted by a luminaire	38 940 lm	
Light output of the luminaire	129.8 lm /W	
Operating voltage	AC 230 V	
Wattage including ballast (watts)	400 W	
Power factor	0.96	
color temperature	4200 K	
Color rendering index CRI	72	
Luminous flux emitted by a luminaire	48 560 lm	
Light output of the luminaire	121.4 lm /W	

**Part color:** RAL 7035 or any other color according to RAL specification by customer requirements. Minimum 100 pcs.

Die casting Aluminium body, produced with aluminium alloy with enhanced heat exchange characteristics.

**Color temperature of LEDs** standard production 5000 K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

### Index of color rendering:

Standard lighting Hydra OS are with index of color rendering CRI min 70.

According to customer specification lamp can be produced with LED index CRI min 80.

### Optics:

According customer needs as addition of the LEDs, guidance optics with different angles (different of standard angle of 120 degrees) can be mounted.

Operating temperature of the lamp is from -30 °C to +55 °C

**Degree of protection IP 66:**

**Degree of protection IK 08:**

**Certification:**

Luminaires Hydra OS has full **CE** certification.

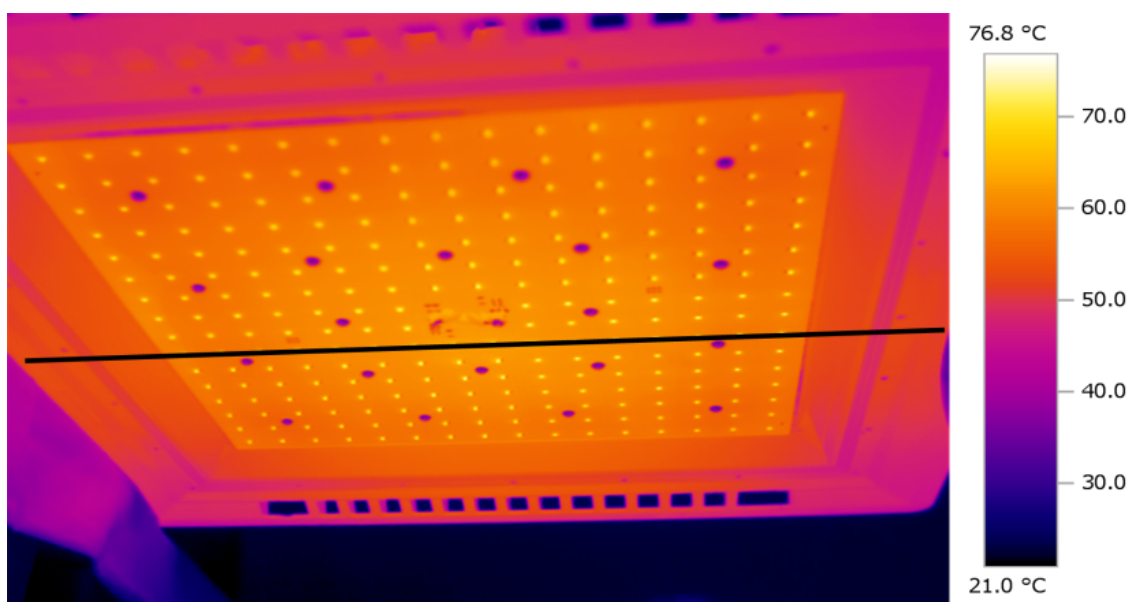
**Motion detectors:**

All version of “Hydra” luminaires are designed to fit smoke detectors, smoke indicators, cameras, PIR sensors, microwave sensors (could be built invisible), audio speakers and etc.

**Description of the mechanical connection**

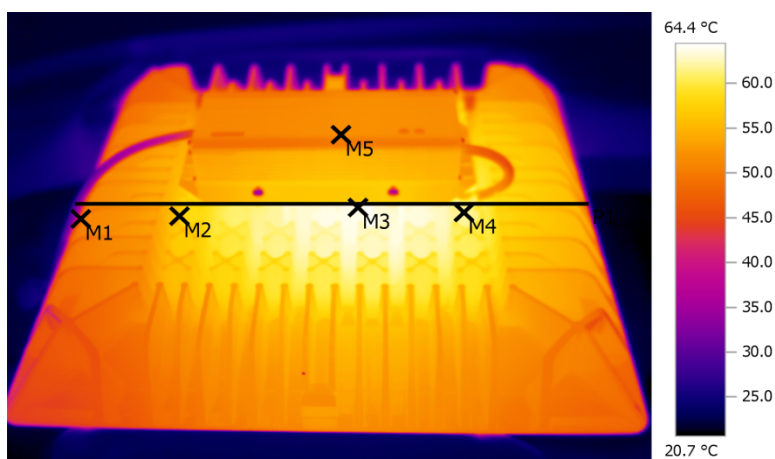
Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures. Installation is completed by 3 different fixing systems.

**Temperature measurement**  
**Front View - Hydra 400W252-230**



**Back View- Hydra 400W252-230**

No	Temp. [°C]	Ref. Temp. [°C]
M1	47.6	25.0
M2	57.7	25.0
M3	63.9	25.0
M3	61.9	25.0
M4	51.7	25.0



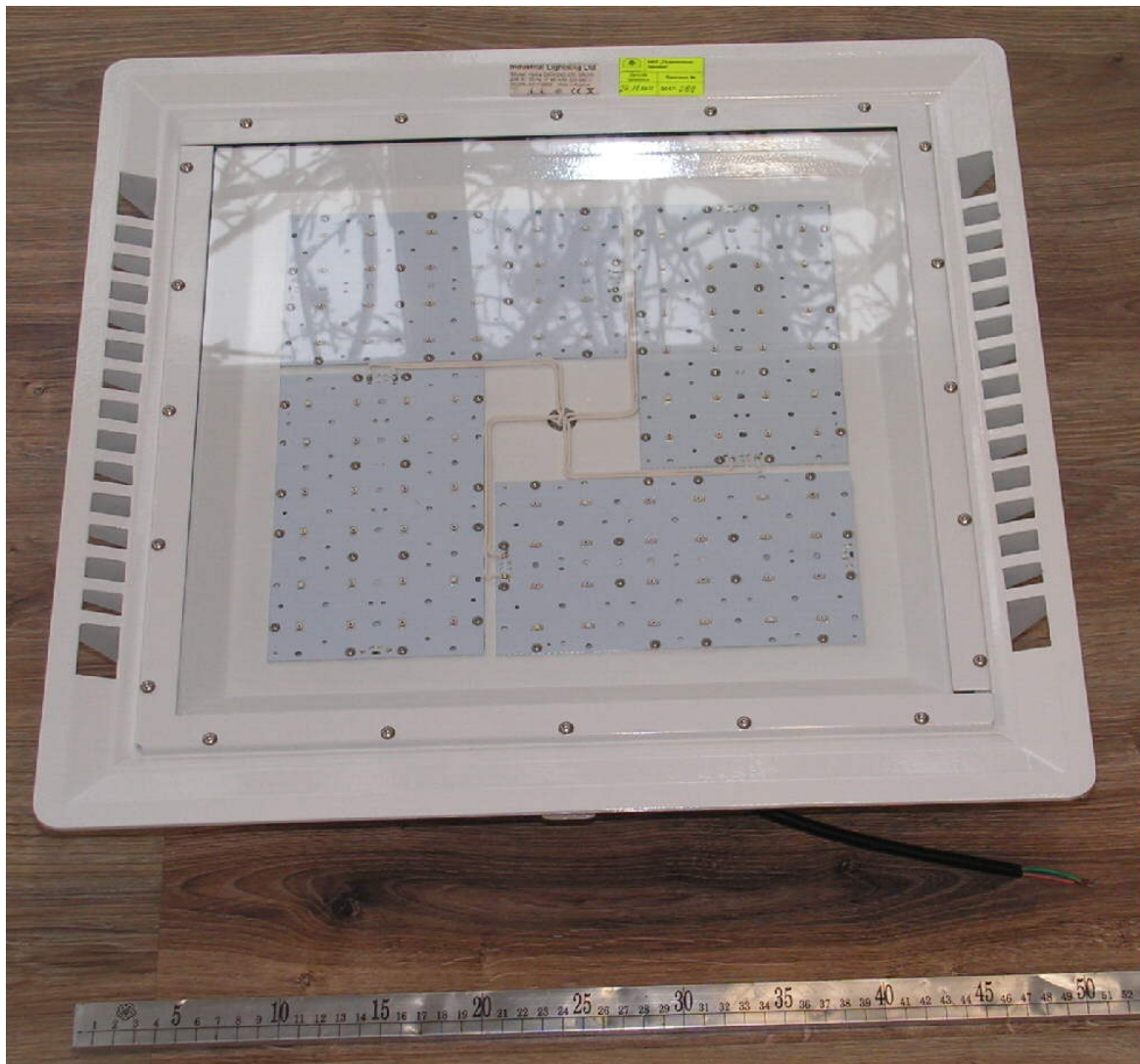
## LED LIGHTING TYPE „HYDRA GROWTH“ 200W

Type of the product:  
**Hydra 200W96-230;**

**Name of Producer:** “INDUSTRIAL LIGHTING” LTD

### **Purpose:**

The Series LED lighting type HYDRA GROWTH is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality. In the production of the product are used only high quality elements of European producers, as follows:



**LEDs:** OSRAM - Germany;

- GDCSHPM1.14-UOVJ-W4-1;4 DB 450 nm 150 deg, 16 pcs;
- GHCSHPM1.24-4T2U-1;4 HR 660 nm 150 deg, 72 pcs;
- GFCSHPM2.24-4S2T-1;4 FR 730 nm 150 deg, 4 pcs;
- LUWCRDP-LRLT-GPGR-1-350-R18;4 7500K; 4 pcs;

### **Power supply:**

OPTOTRONIC® LED OT 200/220-240/5A6 P5 – “Osram GmbH” Germany;

## Product Features

- Adjustable output current 2.0–5.6A;
- Over temperature protection;
- Output power up to 200 W;
- Uout: 35 – 70 VDC;
- Mains voltage 220-240 V;
- Wide ta range -40...+50°C;
- IP65 (Independent installation);
- High surge protection up to 6 kV;
- 100`000 h lifetime at tc = 75°C;
- 5 years guarantee;

## Diffusor and cover:

Tempered glass 4mm. ClearVision – Belgium;

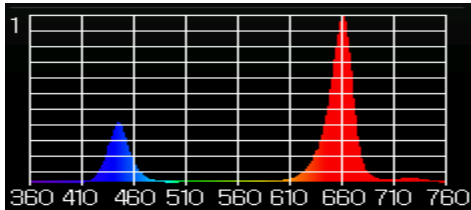
## Fasteners:

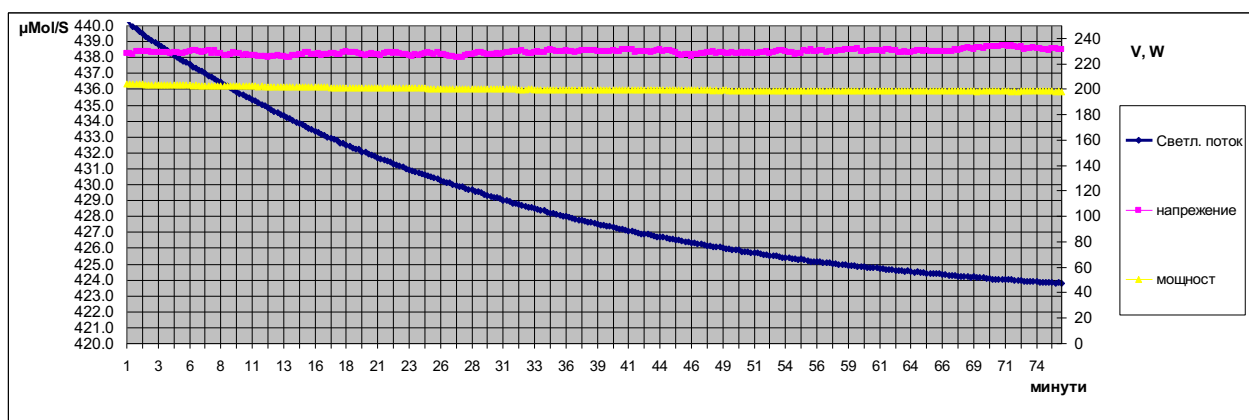
Only stainless steel according DIN 933;

Technical parameters according producers documentation:

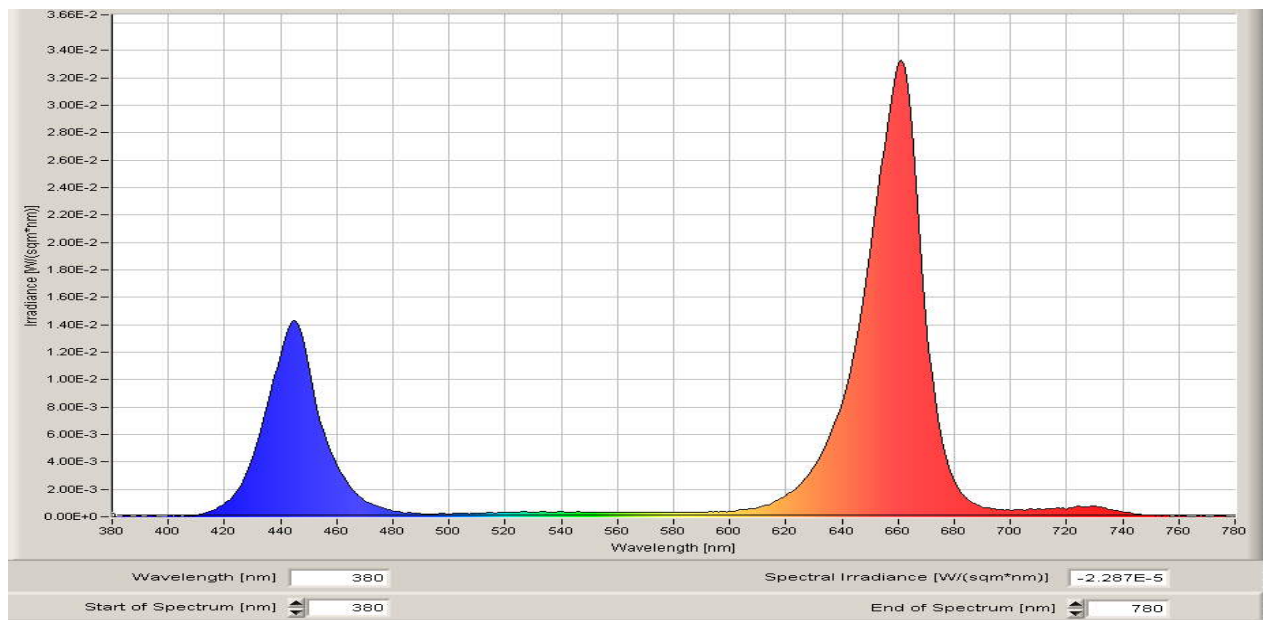
LED light for indoor and outdoor use with dimensions 500/500/160мм. and weight of 14kg.

## Test results:

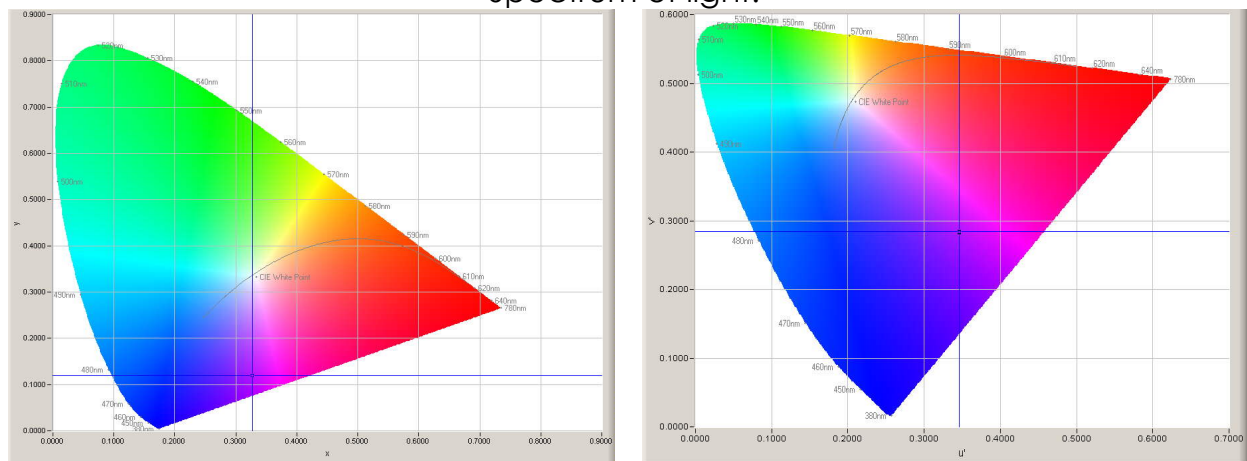
Operating voltage	<b>AC 230 V</b>	 <p>Spectrum of light</p>
Operating Current	<b>AC 0.89 A</b>	
Wattage including ballast (watts)	<b>202 W</b>	
Power factor	<b>0.98</b>	
color coordinates CIE 1931	<b>x=0.3267, y=0.1190</b>	
color coordinates CIE 1976	<b>u'=0.3462, v'=0.2838</b>	
Luminous flux emitted by a luminaire	<b>423.5 μMol/S</b>	



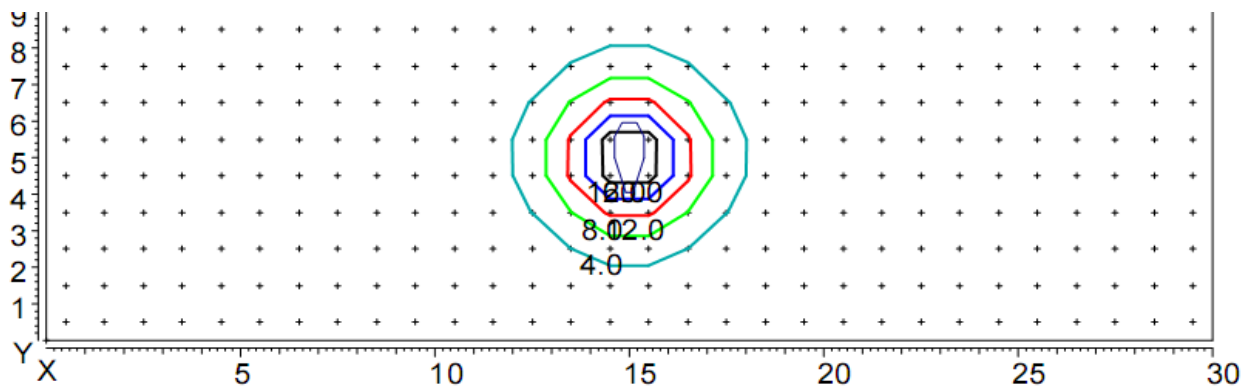
Changing the (PAR) Radiation



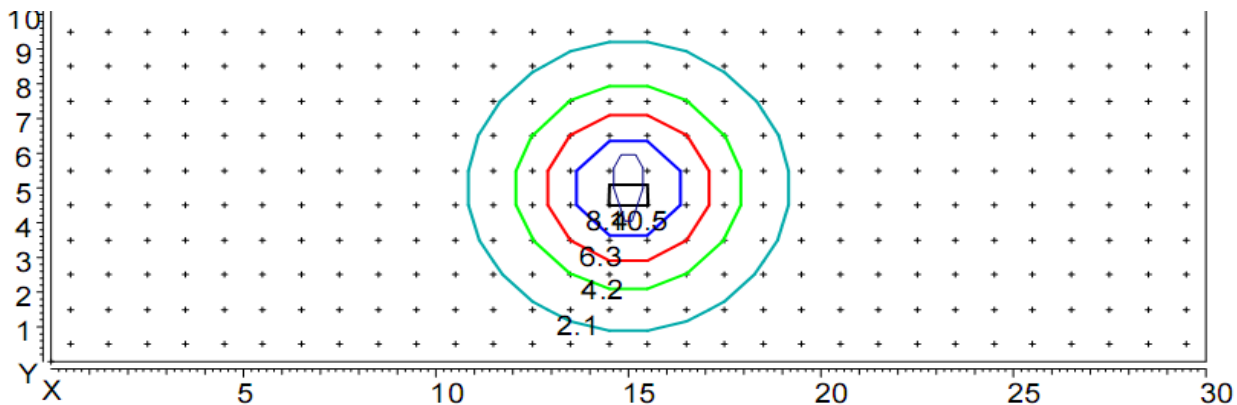
Spectrum of light.



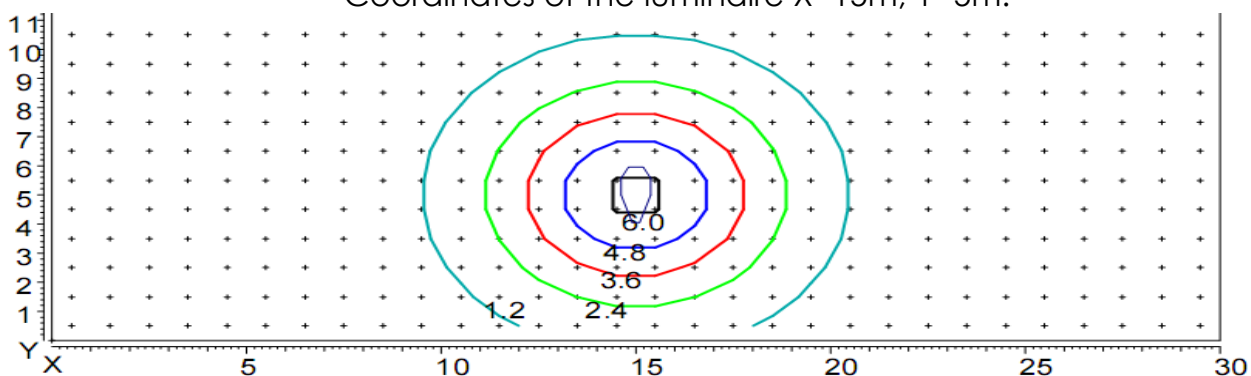
Radiation (4 m high) 1.252 W/m<sup>2</sup>



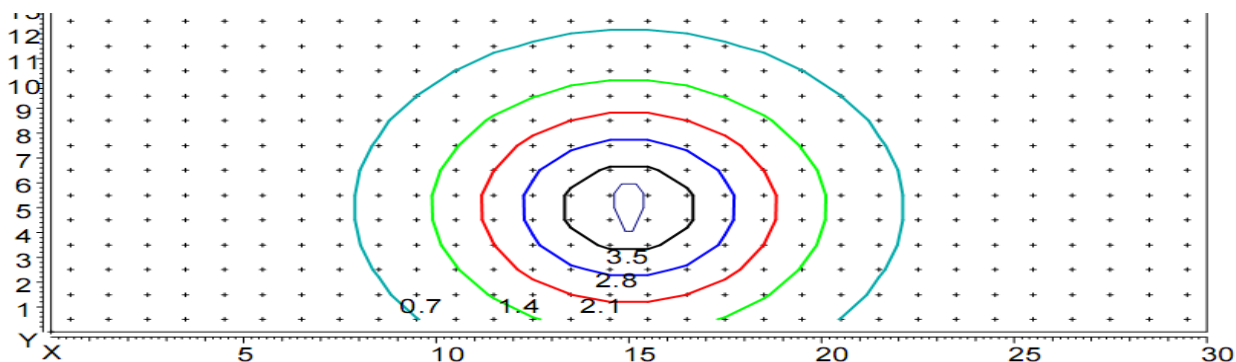
Distribution of PAR,  $\mu\text{Mol/S/m}^2$  in height hanging lamp 2 m.  
Coordinates of the luminaire X=15m, Y=5m.



Distribution of PAR,  $\mu\text{Mol/S/m}^2$  in height hanging lamp 3 m.  
Coordinates of the luminaire X=15m, Y=5m.



Distribution of PAR,  $\mu\text{Mol/S/m}^2$  in height hanging lamp 4 m.  
Coordinates of the luminaire X=15m, Y=5m.



Distribution of PAR,  $\mu\text{Mol/S/m}^2$  in height hanging lamp 5 m.  
Coordinates of the luminaire X=15m, Y=5m.

PAR , $\mu\text{Mol/S/m}^2$	
Distance, m.	PAR , $\mu\text{Mol/S/m}^2$
1	100.6
2	25.17
3	11.19
4	6.1
5	4.0

**Part color:** RAL 7035 or any other color according to RAL specification by customer requirements. Minimum 100 pcs.

Die casting Aluminium body, produced with aluminium alloy with enhanced heat exchange characteristics.

#### Optics:

According customer needs as addition of the LEDs, guidance optics with different angles (different of standard angle of 120 degrees) can be mounted.

Operating temperature of the lamp is from -30 °C to +55 °C

**Degree of protection IP 66:**

**Degree of protection IK 08:**

#### Certification:

Luminaries Hydra Growth has full **CE** certification.

#### Description of the mechanical connection

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures. Installation is completed by 3 different fixing systems.

## LED LIGHTING TYPE „HYDRA“GROWTH 400W

Type of the product:

**Hydra 400W128-230;**

**Name of Producer: “INDUSTRIAL LIGHTING” LTD**

#### Purpose:

The Series LED lighting type HYDRA GROWTH is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality. In the production of the product are used only high quality elements of European producers, as follows:

**LEDs:** OSRAM - Germany;

- GDCSHPM1.14-UOVJ-W4-1;4 DB 450 nm 150 deg. 24 pcs;
- GHCSHPM1.24-4T2U-1;4 HR 660 nm 150 deg. 98 pcs;
- GFCSHPM2.24-4S2T-1;4 FR 730 nm 150 deg. 2 pcs;
- LUWCRDP-LRLT-GPGR-1-350-R18;4 7500K; 4 pcs;

#### Power supply:

OPTOTRONIC® LED OT 200/220-240/5A6 P5 – “Osram GmbH” Germany– 2 pcs.;

#### Diffusor and cover:

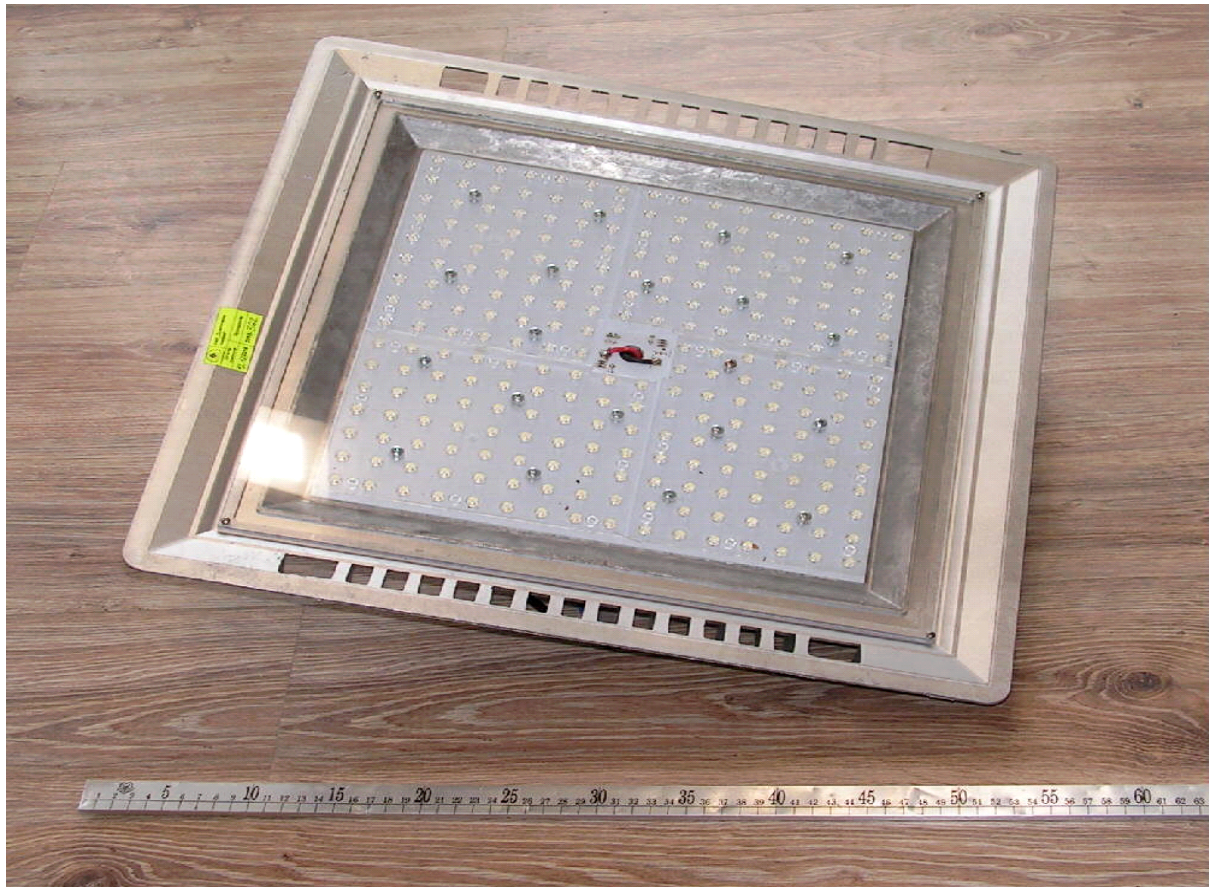
Tempered glass 4mm. ClearVision – Belgium;

#### Fasteners:

Only stainless steel according DIN 933;

Technical parameters according producers documentation:

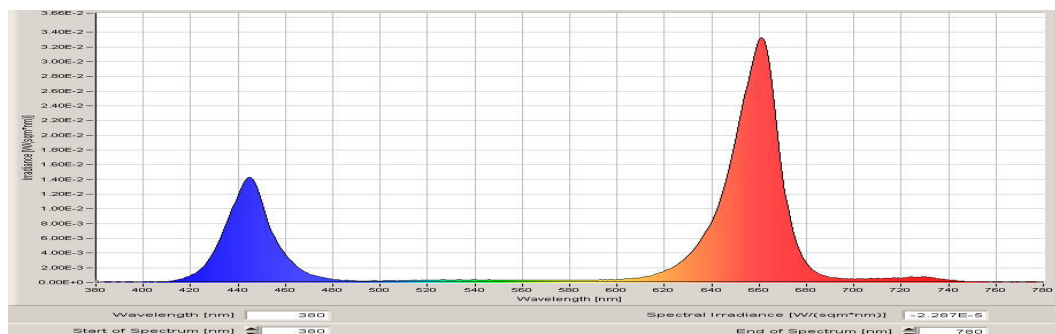
LED light for indoor and outdoor use with dimensions 500/500/160mm. and weight of 17kg.



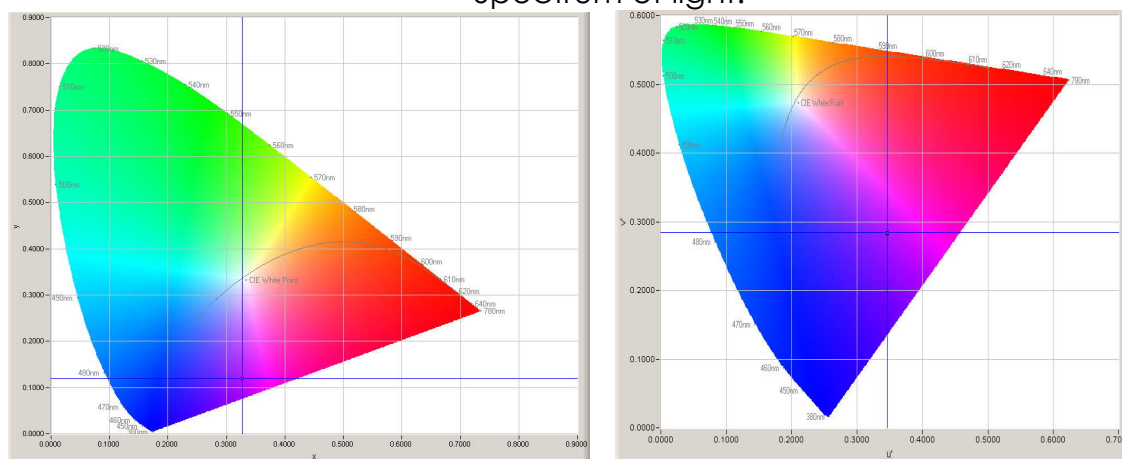
### Test results:

Operating voltage	<b>AC 230 V</b>	<p>Spectrum of light</p>
Operating Current	<b>AC 0.89 A</b>	
Wattage including ballast (watts)	<b>398 W</b>	
Power factor	<b>0.98</b>	
color coordinates CIE 1931	<b>x=0.3267, y=0.1190</b>	
color coordinates CIE 1976	<b>u'=0.3462, v'=0.2838</b>	
Luminous flux emitted by a luminaire	<b>838.7 <math>\mu\text{Mol/S}</math></b>	

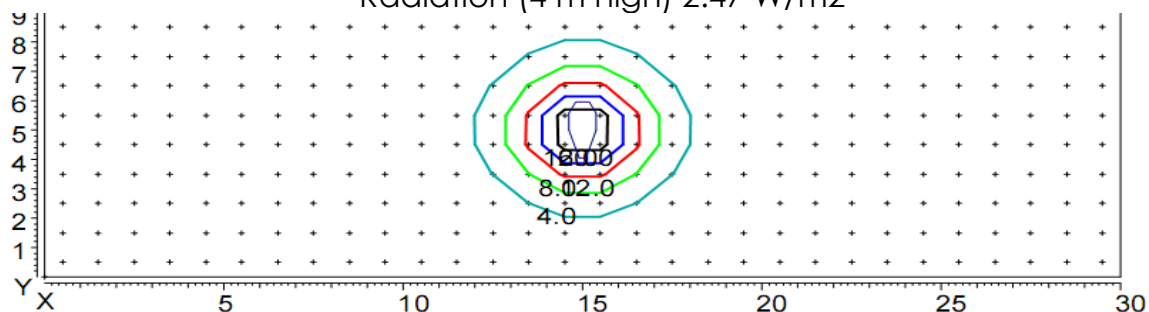
Luminaire light distribution of the 3D



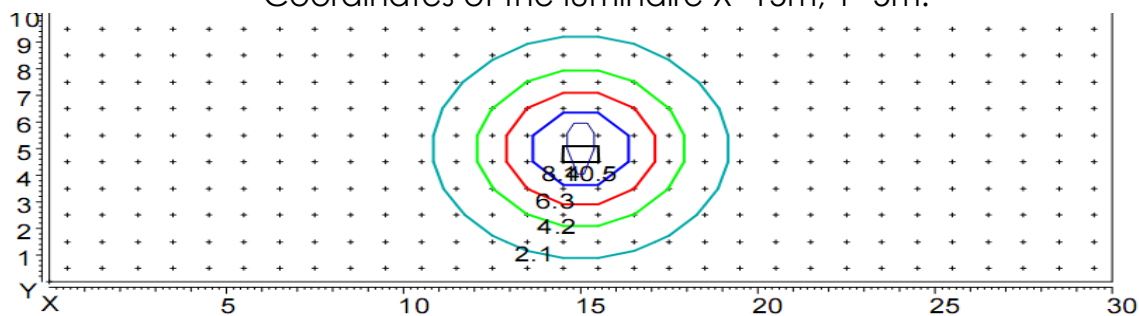
Spectrum of light.



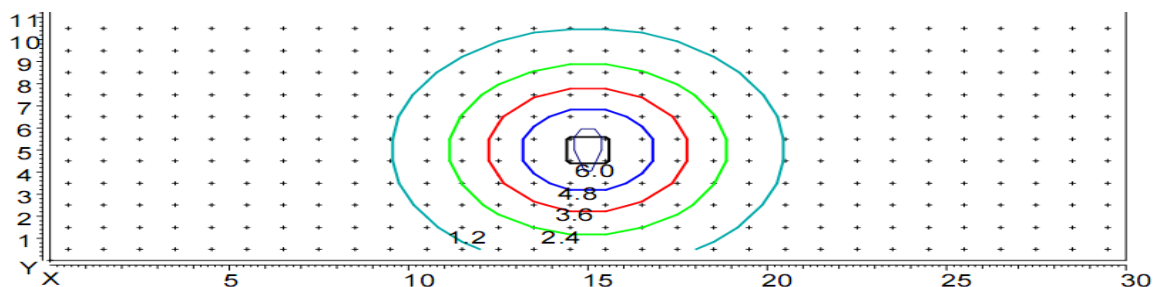
Radiation (4 m high) 2.47 W/m<sup>2</sup>



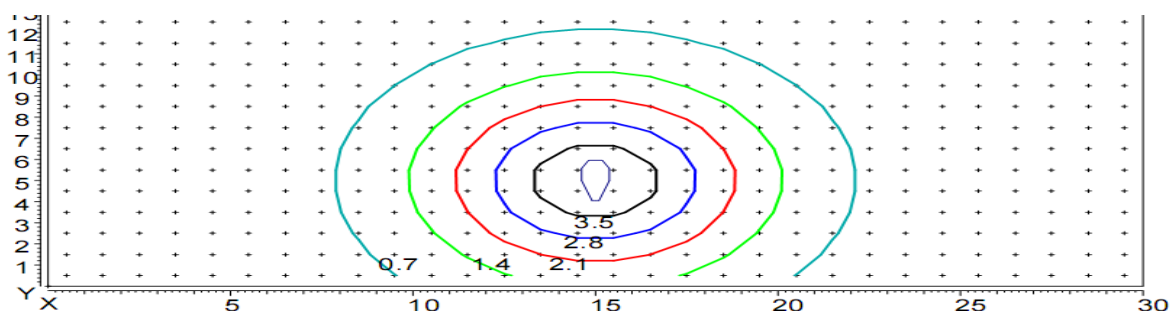
Distribution of PAR,  $\mu\text{Mol/S/m}^2$  in height hanging lamp 2 m.  
 Coordinates of the luminaire X=15m, Y=5m.



Distribution of PAR,  $\mu\text{Mol/S/m}^2$  in height hanging lamp 3 m.  
 Coordinates of the luminaire X=15m, Y=5m.



Distribution of PAR,  $\mu\text{Mol/S/m}^2$  in height hanging lamp 4 m.  
 Coordinates of the luminaire X=15m, Y=5m.



Distribution of PAR,  $\mu\text{Mol/S/m}^2$  in height hanging lamp 5 m.  
 Coordinates of the luminaire X=15m, Y=5m.

PAR , $\mu\text{Mol/S/m}^2$	
Distance, m.	PAR , $\mu\text{Mol/S/m}^2$
1	200.4
2	50.20
3	22.20
4	12.0
5	8.0

**Part color:** RAL 7035 or any other color according to RAL specification by customer requirements. Minimum 100 pc.

Die casting Aluminium body, produced with aluminium alloy with enhanced heat exchange characteristics.

#### Optics:

According customer needs as addition of the LEDs, guidance optics with different angles (different of standard angle of 120-150 degrees) can be mounted.

Operating temperature of the lamp is from -30 °C to +55 °C

**Degree of protection IP 66:**

**Degree of protection IK 08:**

### Certification:

Luminaries Hydra Growth has full **CE** certification.

### Description of the mechanical connection

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures. Installation is completed by 3 different fixing systems.

## SERIES LED LIGHTING TYPE „HYDRA“TUNNEL

Series include following types of products:

**Hydra 315W96-230 TF and Hydra 315W96-230 T4;**

**Name of Producer:** “INDUSTRIAL LIGHTING” LTD

### Purpose:

The Series LED lighting type HYDRA TUNNEL is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality. In the production of the product are used only high quality elements of European producers, as follows:



### LEDs:

Oscon Square – “Osram GmbH” Germany;

**Power supply:**

OPTOTRONIC® LED OT 200/220-240/5A6 P5 – “Osram GmbH” Germany– 2 pcs.;

**Optics and cover:**

PMMA –LEDiL Finland;

Tempered glass 4mm. ClearVision – Belgium;

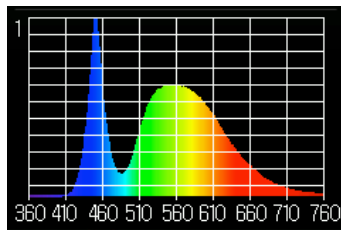
**Fasteners:**

Only stainless steel according DIN 933;

Technical parameters according producers documentation:

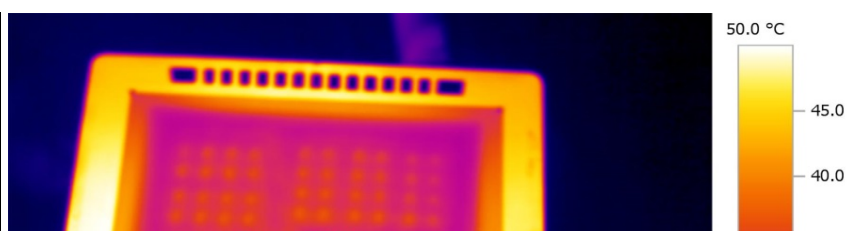
LED light for indoor and outdoor use with dimensions 500/500/160mm. and weight of 17kg.

**Test results:**

<b>Hydra 315W96-230 TF</b>		 <p>Spectrum of light Kpuls. = 0.1 %</p>
Operating voltage	AC 230 V	
Operating Current	AC 1.38 A	
Wattage including ballast (watts)	315 W	
Power factor	0.99	
color temperature	3933 K	
Color rendering index CRI	71	
color coordinates CIE 1931	x=0.3868, y=0.3904	
color coordinates CIE 1976	u'=0.2239, v'=0.5084	
Luminous flux emitted by a luminaire	39 390lm	
Light output of the luminaire	125.05 lm /W	
<b>Hydra 315W96-230 T4</b>		
Operating voltage	AC 230 V	
Operating Current	AC 1.38 A	
Wattage including ballast (watts)	315 W	
Power factor	0.99	
color temperature	3933 K	
Color rendering index CRI	71	
color coordinates CIE 1931	x=0.3868, y=0.3904	
color coordinates CIE 1976	u'=0.2239, v'=0.5084	
Luminous flux emitted by a luminaire	39 390lm	
Light output of the luminaire	125.05 lm /W	

**Temperature measurement  
Front View**

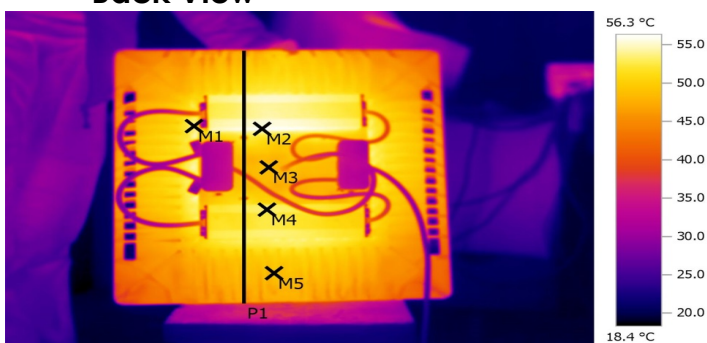
No	Temp. [°C]	Ref. Temp. [°C]
M1	49.7	25.0
M2	33.3	25.0
M3	36.5	25.0



M4	<b>34.0</b>	25.0
M5	<b>47.4</b>	25.0

**Back View**

No	Temp. [°C]	Refl.Temp. [°C]
M1	<b>53.8</b>	25.0
M2	<b>56.2</b>	25.0
M3	<b>48.7</b>	25.0
M3	<b>53.4</b>	25.0
M4	<b>49.2</b>	25.0



**Side view**

No	Temp. [°C]	Refl.Temp. [°C]
M1	<b>56.8</b>	25.0
M2	<b>56.7</b>	25.0
M3	<b>50.0</b>	25.0
M4	<b>45.7</b>	25.0
M5	<b>45.3</b>	25.0



**Part color:** RAL 7035 or any other color according to RAL specification by customer requirements. Minimum 100 pc.

Die casting Aluminium body, produced with aluminium alloy with enhanced heat exchange characteristics.

**Color temperature of LEDs** standard production 5000 K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

**Index of color rendering:**

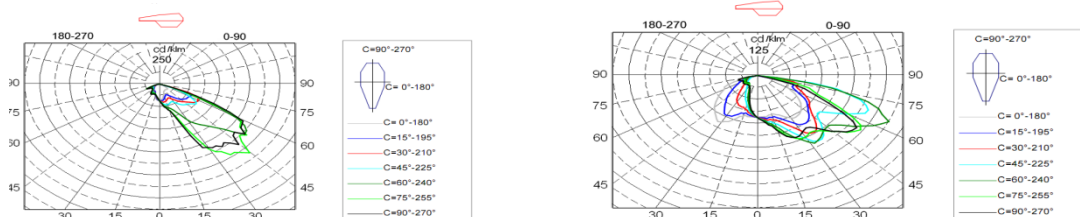
Standard lighting Hydra Tunnel are with index of color rendering CRI min 70 80.

**Optics:**

Standard optics LEDiL

- C14556\_STRADA-2X2-TF;

- C13805\_STRADA-2X2-T4;



According customer needs as addition of the LEDs, guidance optics with different angles can be mounted.

Operating temperature of the lamp is from -30 °C to +55 °C

**Degree of protection IP 66:**

**Degree of protection IK 08:**

**Certification:**

Luminaries Hydra has full **CE** certification.

**Description of the mechanical connection**

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures. Installation is completed by 3 different fixing systems.

## SERIES LED STREET LIGHTING TYPE „DORADO“

Series include following types of products:

**Dorado 15W12-230, Dorado 20W12-230, Dorado 30W12-230 and Dorado 40W12-230;**

**Name of Producer: “INDUSTRIAL LIGHTING” LTD**

**Purpose:**

The Series LED lighting type DORADO is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality. In the production of the product are used only high quality elements of European producers, as follows:

**LEDs:**

Oslon Square – “Osram GmbH” Germany;

**Power supply:**

OPTOTRONIC® OTp – “Osram GmbH” Germany;

**Optics and cover:**

PMMA –LEDiL Finland;

Makrolon - Bayer AG – Germany;

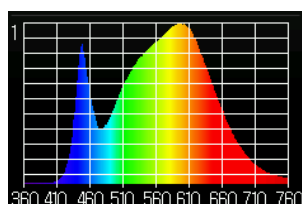
**Fasteners:**

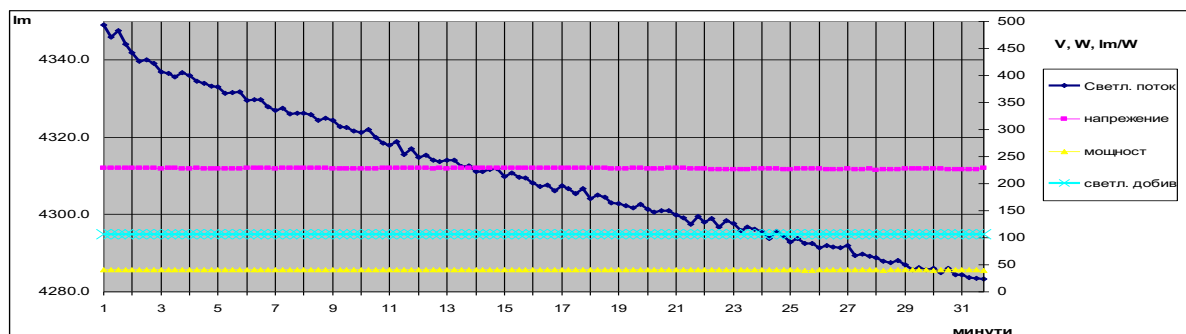
Only stainless steel according DIN 933;

Technical parameters according producers documentation:  
 LED light for indoor and outdoor use with dimensions 400/170mm. and weight of 2.1kg.



### Test results:

Product name	15W12-230	20W12-230	30W12-230	40W12-230	 <p>Light specter Pulsation of light = 1.9%</p>
Operating voltage	AC 230 V				
Wattage including ballast (watts)	20W	25 W	34.1 W	38.01 W	
Power factor	> 0.97				
color temperature	3902 K				
Color rendering index CRI	> 70				
color coordinates CIE 1931	x=0.3876, y=0.3890				
color coordinates CIE 1976	u'=0.2249, v'=0.5079				
Luminous flux emitted by a luminaire	2568 lm	3025 lm	4037.4 lm	4280 lm	
Light output of the luminaire	128.4 lm/W	121 lm /W	118.4 lm /W	112.6 lm/W	



Changing the light flux

**Part color:** RAL 7035 or any other color according to RAL specification by customer requirements. Minimum 100 pc.

Die casting Aluminium body, produced with aluminium alloy with enhanced heat exchange characteristics.

#### Color temperature of LEDs

Standard production 4000 K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

#### Index of color rendering:

Standard lighting Dorado are with index of color rendering CRI min 80.

According to customer specification lamp can be produced with LED index CRI min 90.

#### Degree of protection IP 66:

#### Degree of protection IK 10:

#### Certification:

Luminaries Dorado has full **CE** certification.

#### Description of the mechanical connection

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures. Installation is completed by 4 bolts M8x12.

## SERIES LED STREET LIGHTING TYPE „LYRA“

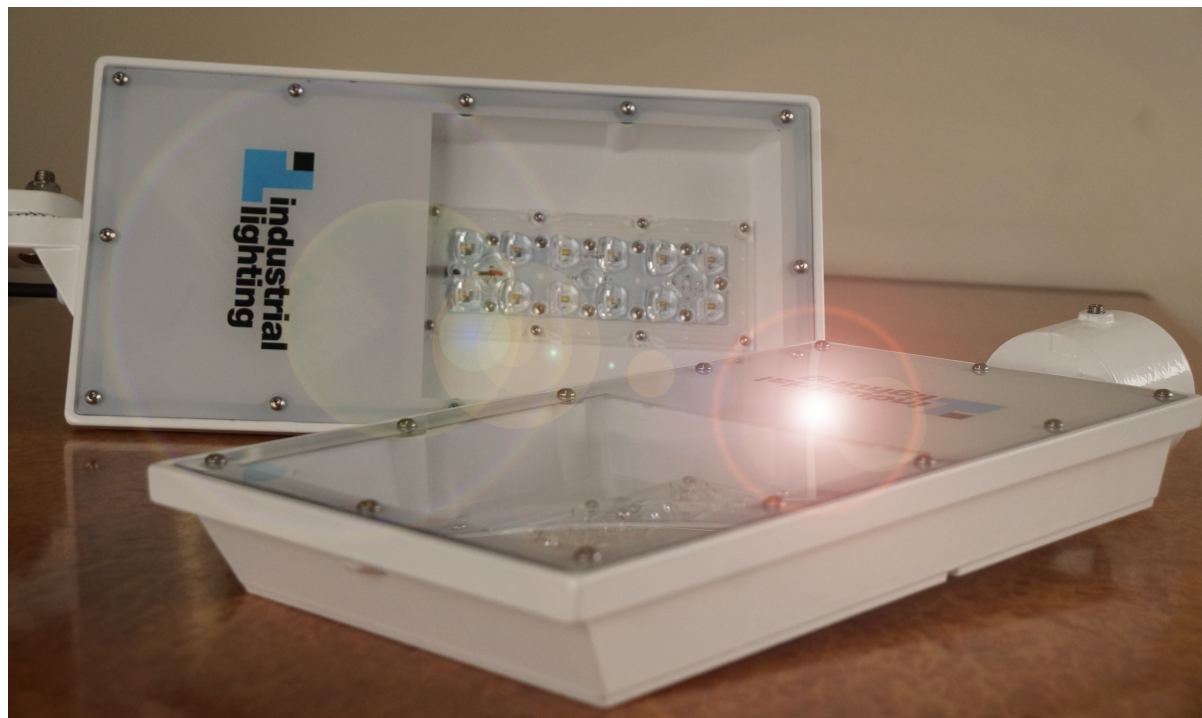
Series include following types of products:

**Lyra 20W12-230, Lyra 30W12-230, Lyra 40W12-230 and Lyra 50W24-230;**

**Name of Producer:** “INDUSTRIAL LIGHTING” LTD

### **Purpose:**

The Series LED lighting type LYRA is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality. In the production of the product are used only high quality elements of European producers, as follows:



**LEDs:** Oslon Square – “Osram GmbH” Germany;

**Power supply:** OPTOTRONIC® OTp – “Osram GmbH” Germany;

**Optics and cover:**

PMMA –LEDiL Finland;

Makrolon - Bayer AG – Germany;

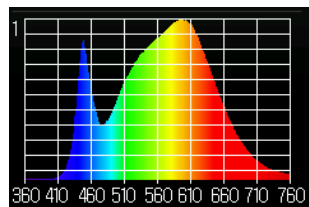
**Fasteners:** Only stainless steel according DIN 933;

Technical parameters according producers documentation:

LED light for indoor and outdoor use with dimensions 500/180mm. and weight of 3.5kg.

### Test results:

Product name Lyra	20W12-230	30W12-230	40W12-230	50W24-230
Operating voltage	AC 230 V			
Wattage including ballast (watts)	25.2 W	33.1 W	40.1 W	50.2 W
Power factor	> 0.97			
color temperature	3902 K			
Color rendering index CRI	> 70			
color coordinates CIE 1931	x=0.3876, y=0.3890			
color coordinates CIE 1976	u'=0.2249, v'=0.5079			
Luminous flux emitted by a luminaire	2673 lm	3621 lm	4283 lm	5321 lm
Light output of the luminaire	106.08 lm /W	109.4 lm /W	106.8 lm/W	106.0 lm/W



Light specter  
Pulsation of light = 1.9%

Die casting Aluminium body, produced with aluminium alloy with enhanced heat exchange characteristics.

**Color temperature of LEDs** standard production 5000 K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

### Index of color rendering:

Standard lighting Lyra are with index of color rendering CRI min 80.

According to customer specification lamp can be produced with LED index CRI min 90.

**Color emission of the LEDs:** Lyra luminaries are standardly offered with white light.

As an option customers can choose from following colors  
 -amber, dark blue, red, green, white

According customer needs as addition of the LEDs, guidance optics with different angles can be mounted.

Operating temperature of the lamp is from -30 °C to +45 °C

**Degree of protection IP 66:**

**Degree of protection IK 10:**

**Certification:**

Luminaries Lyra has full **CE** certification.

**Description of the mechanical connection**

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures. Installation is completed by 4 bolts M8x12.

## **SERIES LED LIGHTING TYPE „LYRA SOLAR“**

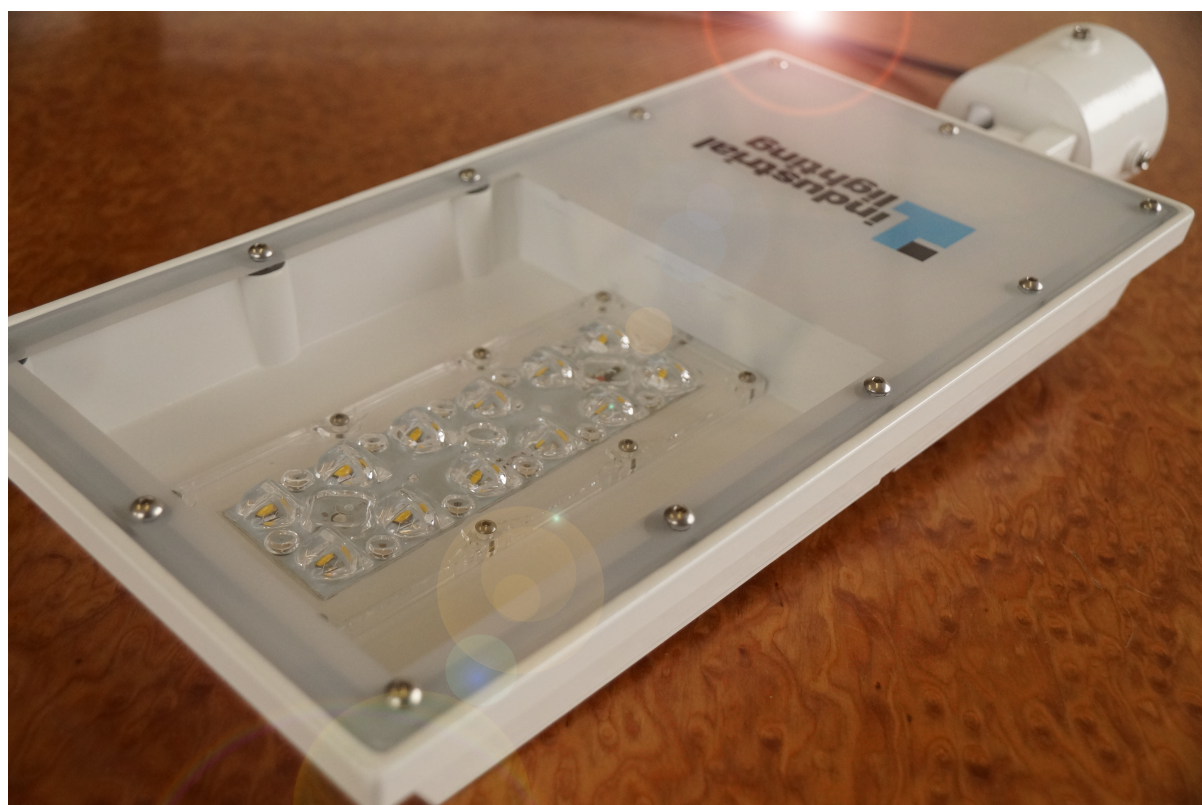
Series include following types of products:

**Lyra Solar 10W12-12, Lyra Solar 20W12-12 and Lyra Solar 30W12-12;**

**Name of Producer: “INDUSTRIAL LIGHTING” LTD**

**Purpose:**

The Series LED lighting type LYRA SOLAR is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality.



In the production of the product are used only high quality elements of European producers, as follows:

#### LEDs:

Oscon Square – “Osram GmbH” Germany;

#### Power supply:

OPTOTRONIC® OTp – “Osram GmbH” Germany;

#### Optics and cover:

PMMA –LEDiL Finland;

Makrolon - Bayer AG – Germany;

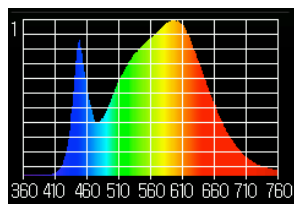
#### Fasteners:

Only stainless steel according DIN 933;

Technical parameters according producers documentation:

LED light for indoor and outdoor use with dimensions 500/180mm. and weight of 4kg.

#### Test results:

Product name Lyra Solar	10W12-12	20W12-12	30W12-12	 <p>Light specter Pulsation of light = 32.2%</p>
Operating voltage	10-30VDC PWM dimmable			
Wattage including ballast (watts)	10 W	20 W	30W	
Color temperature	5200 K			
Color rendering index CRI	>80			
color coordinates CIE 1931	x=0.3418, y=0.3560			
color coordinates CIE 1976	u'=0.2075, v'=0.4863			
Luminous flux emitted by a luminaire	1350 lm	2700 lm	4000 lm	
Light output of the luminaire	135 lm /W	135 lm/W	135 lm/W	

**Part color:** RAL 7035 or any other color according to RAL specification by customer requirements. Minimum 100 pcs.

Die casting Aluminium body, produced with aluminium alloy with enhanced heat exchange characteristics.

**Color temperature of LEDs** standard production 4000 K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

#### Index of color rendering:

Standard lighting Lyra Solar are with index of color rendering CRI min 80.

According to customer specification lamp can be produced with LED index CRI min 90.

**Color emission of the LEDs:** Lyra luminaries are standardly offered with white light.

As an option customers can choose from following colors

-amber, dark blue, red, green, white

According customer needs as addition of the LEDs, guidance optics with different angles can be mounted.

Operating temperature of the lamp is from -20 °C to +50 °C

**Degree of protection IP 66:**

**Degree of protection IK 10:**

**Certification:**

Luminaries Lyra Solar has full **CE** certification.

**Description of the mechanical connection**

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures. Installation is completed by 4 bolts M8x12.

## **SERIES LED LIGHTING TYPE „ORION “**

Series include following types of products:

**Orion 8W28-230, Orion 15W28-230, Orion 20W28-230 and Orion 30W28-230;**

**Name of Producer:** “INDUSTRIAL LIGHTING” LTD

**Purpose:**

The Series LED lighting type ORION is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality.

In the production of the product are used only high quality elements of European producers, as follows:

**LEDs:** Duris S5 – “Osram GmbH” Germany

**Power supply:** ELEMENT LD – “Osram GmbH” 1Germany;

**Diffusor and cover:** Makrolon - Bayer AG – Germany;

**Fasteners:** Only stainless steel according DIN 933;

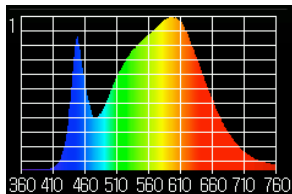
Technical parameters according producers documentation:

LED light for indoor and outdoor use with dimensions 200/60 mm. and weight of 1.5kg



#### Test results:

Product name Orion	30W28-230	20W28-230	15W28-230	8W28-230
Operating voltage	AC 230 V			
Operating Current	AC 0.134A	AC 0.107A	AC 0.107A	AC 0.043 A
Wattage including ballast (watts)	30.1 W	24.1 W	16.72 W	8.32 W
Power factor	0.98			
color temperature	3995 K			
Color rendering index CRI	84			
color coordinates CIE 1931	x=0.3831, y=0.3860			
color coordinates CIE 1976	u'=0.2232, v'=0.5060			
Luminous flux emitted by a luminaire	3552 lm	2887 lm	2159 lm	1119.8 lm
Light output of the luminaire	118.0 lm /W	119.7 lm /W	129.1 lm/W	134.7 lm/W



Light specter  
Pulsation of light = 23.2%

Die casting Aluminium body, produced with aluminium alloy with enhanced heat exchange characteristics.

**Color temperature of LEDs** standard production 4000 K.

According to customers requirements temperature can be produce in the range from 2000K to 6500K, as follows: 2000K, 2200K, 2700K, 3000K, 3500K, 4000K, 4500, 5000K, 5700K and 6500K.

#### Index of color rendering:

Standard lighting Orion are with index of color rendering CRI min 80.  
According to customer specification lamp can be produced with LED index CRI min 90.

#### **Color emission of the LEDs:**

Orion luminaries are standardly offered with white light.

As an option customers can choose from following colors

-amber, dark blue, red, green, white

Back covers over power supply as well can be ordered in different colors.

According customer needs as addition of the LEDs, guidance optics with different angles (different of standard angle of 120 degrees) can be mounted.

Operating temperature of the lamp is from -30 °C to +45 °C.

**Degree of protection IP 67:**

**Degree of protection IK 10:**

#### **Certification:**

Luminaries Orion has full **CE** certification.

#### **Motion detectors:**

To all version of Orion lamps motion and light detectors can be mounted.

#### **Description of the mechanical connection:**

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures. Installation is completed by 3 bolts M4x20.

## **SERIES LED LIGHTING TYPE „ERIDAN “**

Series include following types of products:

**Eridan 20W24-230, Eridan 40W48-230, Eridan 50W56-230, Eridan 60W64-230 and Eridan 75W80-230;**

**Name of Producer: “INDUSTRIAL LIGHTING” LTD**

#### **Purpose:**

The Series LED lighting type ERIDAN is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality. Eridan product range includes a variety of luminaries with power up to 75 watts, these lamps can illuminate the premises with a height of 8 meters: In the production of the product are used only high quality elements of Europe producers, as follows:



#### LEDs:

Duris S5 – “Osram GmbH” Germany;

#### Power supply:

OPTOTRONIC® OTp – “Osram GmbH” Germany;

#### Diffusor:

Diffused light with low glaring index UGR<19

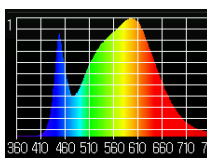
Technical parameters according producers documentation:

LED light for indoor and outdoor use with dimensions:

- 600/110/100mm - 20 W,
- 1200/110/100mm - 40 и 50 W,
- 1500/110/100mm - 60 и 75 W;

#### Test results:

Product name Eridan	20W28-230	40W28-230	50W28-230
operating voltage AC [V]	230		
weight [kg]	2.0	2.3	2.6
wattage including balast [W]	24.1	40.72	50.32
cos(φ)	0.98		
color temperature [K]	3995 K		
color rendering index CRI	84		
color coordinates CIE	x=0.3831, y=0.3860		



Light specter

Pulsation of light = 23.2%

1931				
color coordinates CIE 1976	u'=0.2232, v'=0.5060			
luminous flux emitted by a luminaire [lm]	2651	4479	5535	
light output of the luminaire [lm/W]	110	110	110	

**Color temperature of LEDs** standard production 4000 K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

### **Index of color rendering:**

Standard lighting Eridan are with index of color rendering CRI min 80.

According to customer specification lamp can be produced with LED index CRI min 90.

**Degree of protection IP 65, optional IP 67:**

**Degree of protection IK 10:**

### **Certification:**

Luminaries Eridan has full **CE** certification.

### **Motion detectors:**

All version of Eridan luminaries are designed to fit smoke detectors, smoke indicators, cameras, PIR sensors, microwave sensors(could be built invisible), audio speakers and etc.

### **Description of the mechanical connection:**

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures.

## **SERIES LED LIGHTING TYPE „ERIDAN BP“**

Series include following types of products:

**Eridan BP 20W100-230, Eridan 36W194-230 and Eridan 42W242-230;**

**Name of Producer: “INDUSTRIAL LIGHTING” LTD**

### **Purpose:**

The Series LED lighting type ERIDAN BP is created as middle class lightning designed to satisfy highest requirements for efficiency, durability and quality.



In the production of the product are used only high quality elements of European producers, as follows:

#### LEDs:

Duris S5 – “Osram GmbH” Germany;

#### Power supply:

TRIDONIC - Austria;

#### Diffusor:

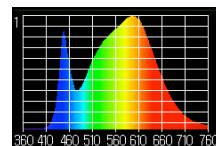
Diffused light with low glaring index UGR<19

Technical parameters according producers documentation:

LED light for indoor and outdoor use with dimensions:

- 680/90/90mm. - 20 W,
- 1280/90/90mm. - 36 W,
- 1580/90/90mm. - 42 W;

#### Test results:

Product name Eridan BP	20W100-230	36W194-230	42W242-230	 Light specter
operating voltage AC [V]	230			
weight [kg]	1.6	1.8	2.5	
wattage including balast [W]	20.33	36	43.33	
cos(φ)	>0.93			
color temperature [K]	3935 K			
color rendering index CRI	>84			

color coordinates CIE 1931	<b>x=0.3843, y=0.3786</b>			Pulsation of light = 36.5%
color coordinates CIE 1976	<b>u'=0.2263, v'=0.5028</b>			
luminous flux emitted by a luminaire [lm]	<b>2440</b>	<b>4320</b>	<b>5200</b>	
light output of the luminaire [lm/W]	<b>120</b>	<b>120</b>	<b>120</b>	

**Color temperature of LEDs** standard production 4000 K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

#### **Index of color rendering:**

Standard lighting Eridan BP are with index of color rendering CRI min 80.

According to customer specification lamp can be produced with LED index CRI min 90.

#### **Degree of protection IP 65:**

#### **Degree of protection IK 08:**

#### **Certification:**

Luminaries Eridan BP has full **CE** certification.

#### **Motion detectors:**

All version of Eridan BP luminaries are designed to fit PIR sensors or microwave sensors.

#### **Description of the mechanical connection:**

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures.

## **SERIES LED LIGHTING TYPE „ERIDAN S“**

Series include following types of products:

**Eridan S 40W48-230, Eridan S 70W56-230, Eridan S 140W112-230;**

**Name of Producer: “INDUSTRIAL LIGHTING” LTD**

#### **Purpose:**

The Series LED lighting type “ERIDAN S” is created as high class lightning designed to satisfy highest requirements for efficiency, durability and quality.

Eridanus S product range includes a variety of luminaries with power up to 140 watts, these lamps can illuminate the premises with a height of 12 meters.

In the production of the product are used only high quality elements of European producers, as follows:



#### LEDs:

Duris S5 – “Osram GmbH” Germany;

#### Power supply:

OPTOTRONIC® OTp – “Osram GmbH” Germany;

#### Diffusor:

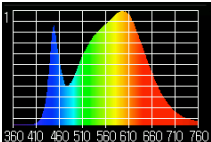
Makrolon - Bayer AG – Germany;

Technical parameters according producers documentation:

LED light for indoor and outdoor use with dimensions:

- 500/70/85mm for 40 W,
- 1000/70/85mm for 70 W,
- 1500/70/85mm for 140 W;

#### Test results:

Product name Eridan S	40W48-230	70W56-230	140W112-230	
operating voltage AC [V]	230			
Weight [kg]	1.5	3.0	5.0	
wattage including ballast [W]	44	76	158	
cos(φ)	> 0.95			
color temperature [K]	5200 K			
color rendering index CRI	>80			
color coordinates CIE 1931	x=0.3831, y=0.3860			

color coordinates CIE 1976	<b>u'=0.2232, v'=0.5060</b>			Light specter  Pulsation of light = 21.4%
luminous flux emitted by a luminaire [lm]	<b>4840</b>	<b>8360</b>	<b>17380</b>	
light output of the luminaire [lm/W]	<b>110.0</b>	<b>110.0</b>	<b>110.0</b>	

**Color temperature of LEDs** standard production 4200 K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

**Index of color rendering:**

Standard lighting Eridan S are with index of color rendering CRI min 80.

According to customer specification lamp can be produced with LED index CRI min 90.

**Degree of protection IP 64:**

**Degree of protection IK 08:**

**Certification:**

Luminaries Eridan S has full **CE** certification.

**Motion detectors:**

All version of Eridan S luminaries are designed to fit smoke detectors, smoke indicators, cameras, PIR sensors, microwave sensors(could be built invisible), audio speakers and etc.

**Description of the mechanical connection:**

Installation to be performed only by qualified and pre instructed personnel, trained in safety procedures.

## SERIES LED LIGHTING TYPE „CASSIOPEIA“

Series include following types of products:

**Cassiopeia 36W28-230 and Cassiopeia 52W42-230;**

**Name of Producer: “INDUSTRIAL LIGHTING” LTD**

**Purpose:**

The Series LED lighting type CASSIOPEYA is created as high class office lightning designed to satisfy highest requirements for efficiency, design and quality.

In the production of the product are used only high quality elements of European producers, as follows:

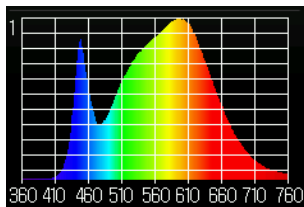


**LEDs:** "Osram GmbH" Germany;  
**Power supply:** "Osram GmbH" Germany;  
**Diffuser and cover:** Bayer AG – Germany;

Technical parameters according producers documentation:  
 LED light for indoor and outdoor use with dimensions 595/595/65mm and weight of 4 kg.

### Test results

Product name	<b>36W28-230</b>	<b>52W42-230</b>	
Cassiopeia			
Operating voltage	<b>AC 230 V</b>		
Operating Current	<b>AC 0.524A</b>	<b>AC 0.524A</b>	
Wattage including ballast (watts)	<b>36 W</b>	<b>52 W</b>	
Power factor	<b>0.96</b>		
Color temperature	<b>4080 K</b>		
Color rendering index CRI	<b>80</b>		
color coordinates CIE 1931	<b>x=0.3798, y=0.3857</b>		
color coordinates CIE 1976	<b>u'=0.2212, v'=0.5054</b>		
Luminous flux emitted by a luminaire	<b>3528 lm</b>	<b>4893 lm</b>	
Light output of the luminaire	<b>98 lm /W</b>	<b>94.1 lm/W</b>	



Spectrum of light  
K.puls. = 0.4 %

**Part color:** White

**Color temperature of LEDs** standard production 4200K.

According to customers requirements temperature can be produce in the range from 2700K to 6500K.

#### **Index of color rendering:**

Standard lighting Cassiopeia are with index of color rendering CRI min 80

According to customer specification lamp can be produced with LED index CRI min 90

Operating temperature of the lamp is from -25 °C to +40 °C

#### **Certification**

Luminaries Orion has full **CE** certification

#### **Working conditions, transportation and storage**

Storage to be done in covered facilities with air temperature from -30 °C to +45 °C (up to 24 hours to +60 °C) with humidity 80%(with 86-106 Kpa) without the presence of any harmful agents, causing corrosion of the aluminum body. The lamp to be transport in the original packing provided by the producer.

Working condition of the luminary

- Power supply voltage- 198V to 264V
- Temperature interval—30 °C to +45 °C, with air humidity 80%(86-106Kpa)

#### **Quality control**

All devices are controlled from the authorities of quality control and reply to the technical requirements. Replacing of components of the luminary has to be performed only with original parts supplied by the producer. Repair is performed only from authorized representative of the producer.

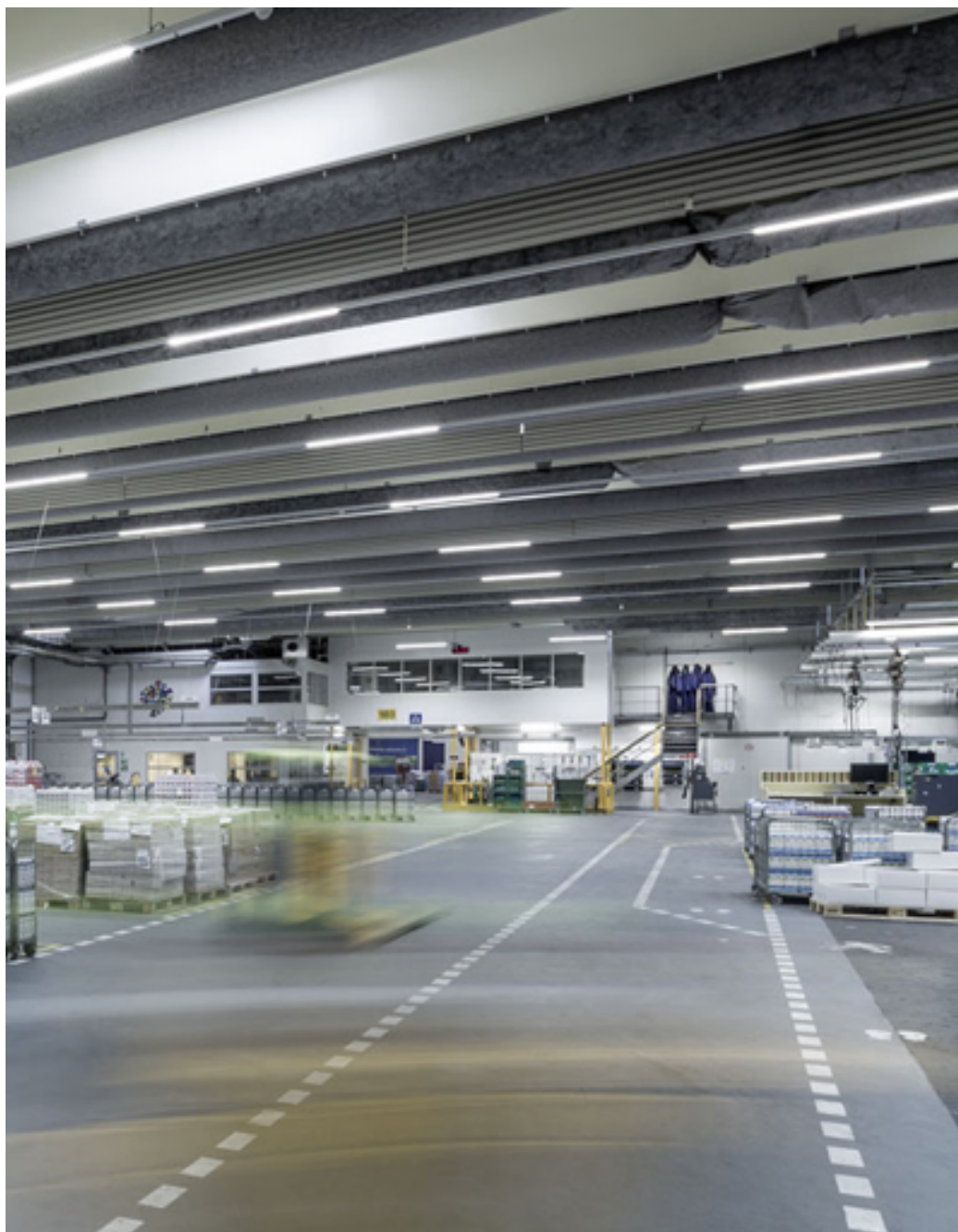
#### **Warranty conditions**

All LED luminaries from have 60 months warranty from the date of sale. All eventual malfunctions during warranty period are 60 months from date of purchase. All eventual malfunctions in this period are repaired free of change in the conditions of:

- All conditions for installation, operation, transport and storage of the device.
- There are no signs of attempts of opening the device and/or repair by non-authorized personal of Industrial lighting LTD.







**Producer's address:**

“Industrial lighting” Ltd,  
1839 Sofia, 15 Kremikovsko shose Str.,  
**e-mail:** [office@industrialighting.eu](mailto:office@industrialighting.eu)  
**web site:** [www.industrialighting.eu](http://www.industrialighting.eu)