

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:

Oscon Square – “Osram GmbH” Germany;

Power supply:

OPTOTRONIC® OTp – “Osram GmbH” Germany;

Optics and cover:

PMMA –LEDiL Finland;

Makrolon - Bayer AG – Germany;

Fasteners:

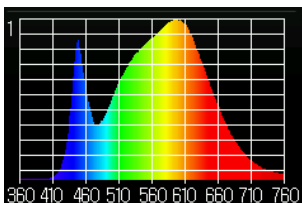
Only stainless steel according DIN 933;

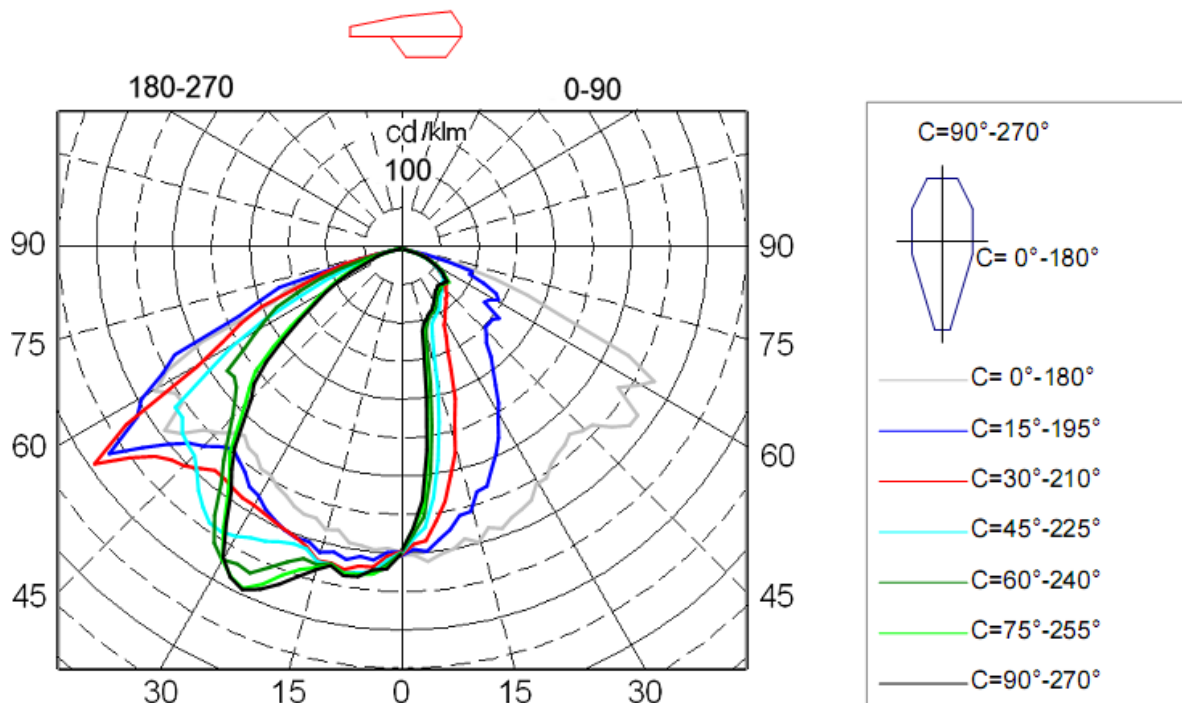
Technical parameters according producers documentation:

LED light for indoor and outdoor use with dimensions 400/170mm. and weight of 2.1kg.

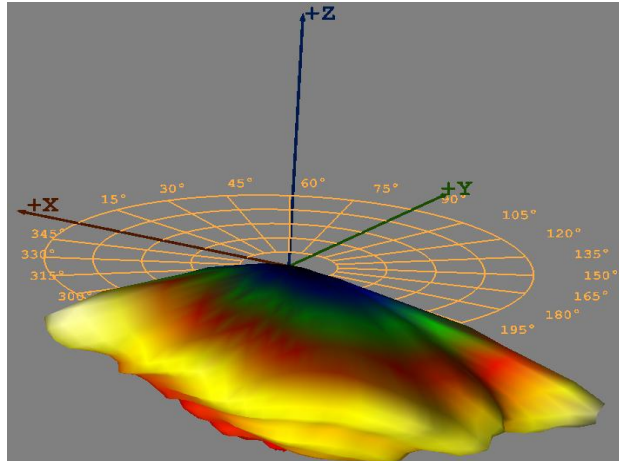
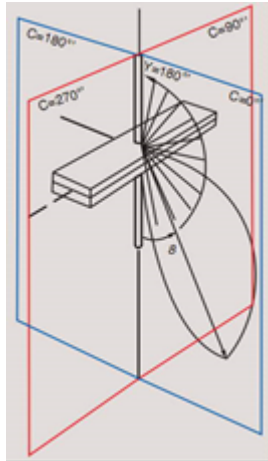


Test results:

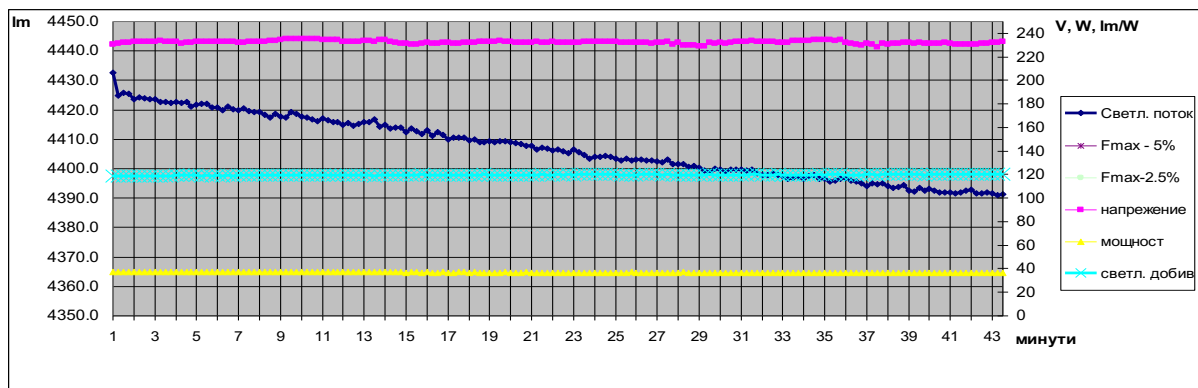
Product name Dorado	15W12-230	20W12-230	30W12-230	40W12-230	 <p>Light specter Pulsation of light = 1.9%</p>
Operating voltage	AC 230 V				
Wattage including ballast (watts)	20W	28 W	35 W	37 W	
Power factor	> 0.97				
color temperature	4007 K				
Color rendering index CRI	> 70				
color coordinates CIE 1931	x=0.3791, y=0.3727				
color coordinates CIE 1976	u'=0.2258, v'=0.4996				
Luminous flux emitted by a luminaire	2568 lm	3444 lm	4235lm	4440 lm	
Light output of the luminaire	128.4 lm/W	123 lm /W	121 lm /W	120 lm/W	



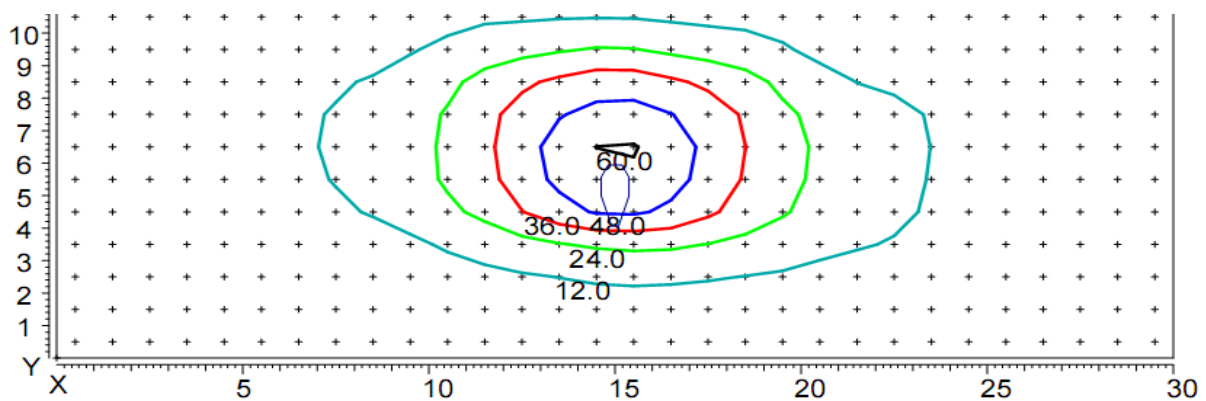
Luminaire light distribution of polar coordinates in the conditional flux 1000lm



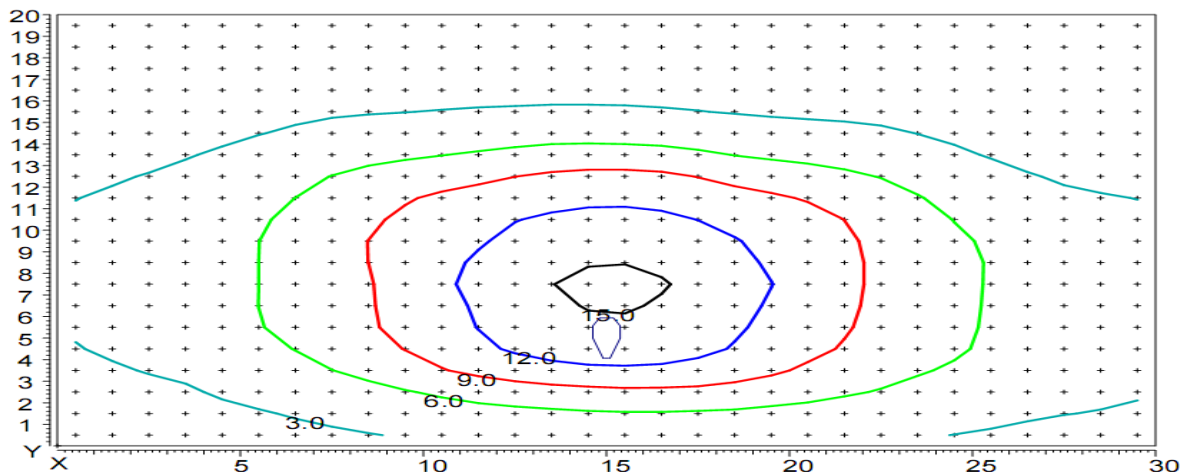
Luminaire light distribution of the 3D



Changing the light flux



Distribution of illumination in height hanging lamp 5 m.
Coordinates of the luminaire X=15m, Y=5m.



Distribution of illumination in height hanging lamp 10 m.
 Coordinates of the luminaire X=15m, Y=5m.

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:

Color rendering of light sources is indicator of their capability to display realistically the colors of certain object. According to CIE (International Lighting Commission) index vary from 0 to 100, where 0 is worst and 100 is best.

Group	Ra	Significance	Typical Application
1A	90..100	Exact color match	Galleries, medical examination, color processing
1B	80...90	Colors can be properly defined	Houses, hotels, offices, schools
2	60...80	Fair color rending	Industry, office, schools
3	40...60	Color rending is not a of big significance	Industry, sport arenas
4	20...40	Color rending is not important	Street lightning

Standard lighting Dorado is with index of color rendering CRI min 70.

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

Color emission of the LEDs: Dorado 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 (different of standard angle of 160 degrees) can be mounted.

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

Degree of protection IP 66:

The degree of protection of LED lighting bodies, which the corpus provides against penetration of foreign particles, dust, dirt and water

Luminaries Lyra provides:

Complete protection against contact, protection from infiltration of dust and protection against heavy seas, or powerful jets of water

Degree of protection IK 10:

One of the key parameter of outdoor mounted luminaries is the high resistance of mechanical interference-defined in two digit code IK.

- From 0-lack of protection
- From 10-protection of interference equivalent of 20J energy

The degree of IK 10 is equivalent on hits with steel hammer with 5kg weight, falling on luminary body from 40 centimeters height

High degree of resistance of mechanical interference is highly important in case where luminaries are used on streets, roads, sidewalks, in general when used in areas with concentrated vandalism activities.

Certification:

Luminaries Dorado has full **CE** certification.

Description of the electrical connection assembly

Connection of the product to the electricity network is performed by qualified and pre instructed personal, qualified in the safety procedures. The cable coming out from the lamp has to be connected to the electricity network 230V-50Hz in the following order-brown cable is connected to L(phase), blue cable is connected to N(zero), yellowgreen cable has to be connected to ground.

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.

Working conditions, transportation and storage:

Storage to be done in covered facilities with air temperature from -30 °C to +55 °C (up to 24 hours to +70 °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 +60 °C, with air humidity 90%(86-106Kpa)

Quality control:

The device is 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:

LED luminaries from the series Dorado have 60 months warranty from the date of sale. All eventual malfunction during warranty period is 60 months from date of purchase. All eventual malfunction in this period is 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:

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