LUMAX®

LED Technology of saving

Coffered luminaires
PANEL LED

economy
standard
professional
NIH certificate
IP20, IP44

LED`S GO

www.lumax.pl

Informacje o ofercie w katalogach
dostępnych do pobrania na stronie

>110 lm/W
- UGR<19
- IP44
- DALI

Luminaire family LUMAX®

The group of office luminaires "Lumax panel led" is a comprehensive solution for general lighting especially in offices, public health care and educational institutions.

"Lumax Panel LED" is an extremely versatile family of solutions that will work in a vast number of applications. It characterized by a multitude of configurations and applications in the various types of ceilings . With accessories, it makes possibility to install in the suspended ceiling type Armstrong, as well as surface-mounted, pendant and suspended ceiling of plasterboard. All panels form the group of "panel LED 'combines the natural light color 4000K, high CRI 80 and driver NoFlicker which eliminates tiring eyes light ripple effect.

Economical version of Panel

Economical panels are characterized by a very favorable price-quality ratio. Available in 3 sizes: 30x60cm, 60x60cm and 30x120cm with the wattages 20W or 40W. The light emitted by the LED chips is dissipated through evenly illuminated opal diffuser with angle beam 120°. The basis of Economy panel construction is lightweight frame type "A" of aluminum coated with white paint, which fits in perfectly with the majority of ceilings colors.

Standard version of Panel

Panels of standard series are available in sizes 60x60cm and offer a luminous efficacy of 80 lm/W. A feature of combining panels Standard and Professional is a massive aluminum frame type "B", which perfectly removes heat away from the LED chips, which greatly slows down the drop of lumens output in time and extends the life of the luminaire. These luminaires perfectly fit all our accessories. Panel LOR4060PZH stands out higher protection class IP44, which, together with a certificate of NIH (National Institute of Hygiene) makes it an excellent solution for healthcare facilities.

Professional version of Panel

These panels have all the advantages of standard panels including the frame type B and power supply technology completely eliminate the ripple of light. Besides, distinguished by high luminous efficiency 110lm / W, microprismatic diffuser provides protection against glare and protection class IP44. A narrow light distribution makes that Professional Series is ideally suited to illuminate offices, places where work computers and other activities requiring precision.

Fixtures in this group have different possibilities of light control: Panel LOR4060PROF1 cooperates with dimmers 1-10V, LOR4060PROF2 cooperates with digital control protocol DALI. All panels from group of Professional have NIH certificate.

Panel LED

CE | EuP compliant | RoHS COMPLIANT | IEC 62471 IEC 62560

Economic
2 years warranty | **2 years Guarantee**

LOR2030E
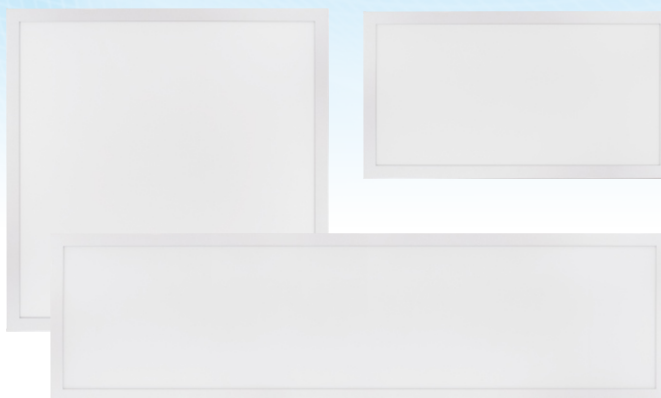| 30x60 cm | 20W | 1500 lm | IP20 |

LOR4060E
| 60x60 cm | 40W | 3200 lm | IP20 |

LOR40120E
| 30x120 cm | 40W | 3000 lm | IP20 |

Frame type "A" of aluminum coated with white paint

4000K | CRI(RA) >80 | 25 000h | 120° | PF >0,9

Standard
NIH certificate | 3 years warranty | **3 years Guarantee**

LOR4060ST
| 60x60 cm | 40W | 3200 lm | IP30 |

Frame type "B" of aluminum

LOR4060PZH
| 60x60 cm | 40W | 3200 lm | IP44 |

Frame type "B" of aluminum coated with white paint

4000K | CRI(RA) >80 | 35000h | 120° | PF >0,9

Professional
NIH certificate | 5 years warranty | **5 years Guarantee**

LOR4060PROF
| 60x60 cm | 40W | 4400 lm | IP44 |

LOR4060PROF1
| 60x60 cm | 40W | 4400 lm | IP44 | Dimmable 1-10V |

LOR4060PROF2
| 60x60 cm | 40W | 4400 lm | IP44 | DALI |

Frame type "B" of aluminum coated with white paint

UGR <19 | 4000K | CRI(RA) >80 | 50000h | 80° | PF >0,9

Accessories

- **LOP901W - 60x60cm white**
- **LOP902W - 30x120cm white**
- **LOP906W - 30x60cm white**
- **LOP901D - 60x60cm aluminum**
- **LOP902D - 30x120cm aluminum**

Frame surface mounted - color-matched frame with a height of 43 cm allows for surface mounting of panel and hide the power supply. Available in 3 sizes: 60x60cm, 30x120cm, 30x60cm

• LOP903D

Pendants - universal set of wires with a length of 1.5 m allows installation panel as pendant.
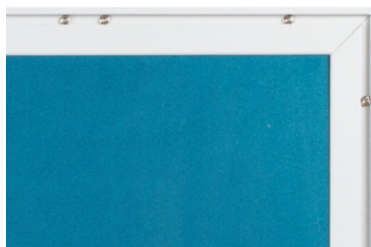
• LOP905

Metal clips - Universal, 4 metal clips allow for safe installation of the panel in the plasterboard ceiling.

Elements of fixtures

Frame type A
Aluminum base frame used in the economic panels. It was an aesthetically covered with white paint and is especially recommended for suspended ceilings type of Armstrong, but it is also great with all the accessories for fitting the panel in any kind of ceiling

Frame type B
Massive aluminum frame ensures excellent heat dissipation from the LED chips. Significantly reduces the drop of lumen output in time and is very rigid.

NoFlicker drivers - All panels are equipped with these drivers. They use modern technology, which eliminates the ripple of light

Elements of fixtures

High-performance, branded LED chips SMD 2835 provide high luminous efficiency upto 110lm/W, high color rendering index and a stable color temperature.

Lampshade light diffusing is made of polystyrene. This optical element has a transmittance of at least 92%. It provides a very evenly luminance, also non-flammable and fire resistant. Available in the standard version - milky and limiting glare – microprismatic.
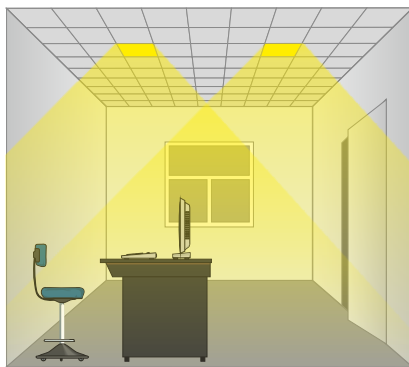
Aluminium frame type A or B is responsible for the overall stiffness of the panel and removes heat generated by the LED chips. Allows for the use accessories enabling installation in many types of ceilings.

The back side of the panel has several functions : Makes that the whole panel is a rigid structure. It acts as a reflector and effectively releases the excess of heat.
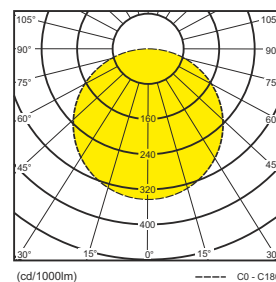
The main part of panel – light transmitter" highly transparent layer made of acrylic glass designed to redirect the light emitted from the LED chips on a polystyrene diffuser.

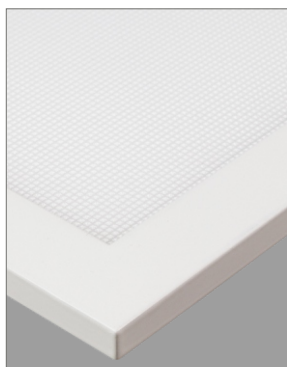* parameters above refers to professional panel
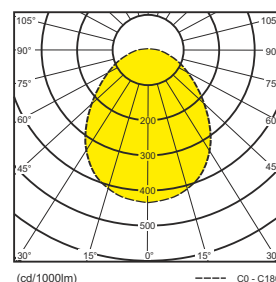
Standard milky lampshade 120°

Standard milky lampshade 120° provides a wide Lambertian light distribution, which is suitable for spaces that require lower intensity lighting as well as other places where are carried out simple visual tasks. Wide beam angle lets reduce the number of luminaires at the design stage.

Micrprismatic lamshade (diffuser) UGR<19
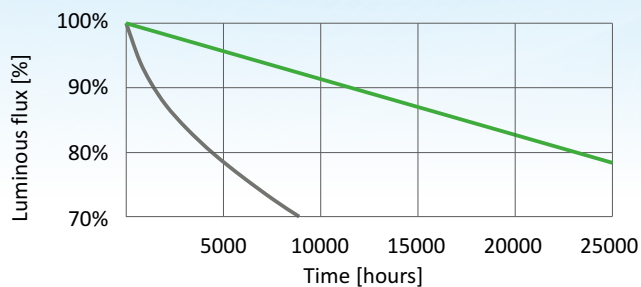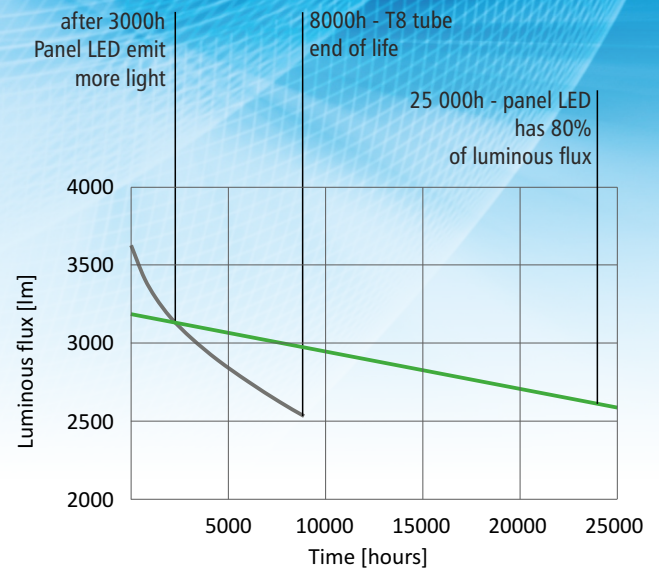
Micrprismatic lampshade (diffuser) of which are equipped with LED lamps Lumax Panel of professional series provides glare control. UGR (Unified Glare Rating) determines how much light disturb performing specific tasks. This is especially important in the workplace, where tasks such as reading, writing, computer work, precision assembly are doing, but also in conference or lecture rooms.

Comparing the drop in luminous flux for the panel LOR4060E Economic and raster luminaires with fluorescent tubes T8

Chart 1 (left):

Luminous flux [%] vs Time [hours]

- Y-axis: 70%, 80%, 90%, 100%
- X-axis: 5000, 10000, 15000, 20000, 25000

Chart 2 (right):

after 3000h Panel LED emit more light

8000h - T8 tube end of life

25 000h - panel LED has 80% of luminous flux

Luminous flux [lm] vs Time [hours]

- Y-axis: 2000, 2500, 3000, 3500, 4000
- X-axis: 5000, 10000, 15000, 20000, 25000

——— **Lumax Panel LED**
——— **T8 tubes**

- at about 3000 hours luminous flux of the LED panel and raster luminaire reaches the same value
- after 3000 hours luminous flux of LED panel has a higher value
- durability of the led panel is more than 3 times longer than fluorescent lamps
- at the end of the period of use of fluorescent lamps and LED panel light flux is comparable
- the quality of light from the LED is better than the T8 because there is no phenomenon of light ripple

The calculation is on following basis:
- Luminous flux of LED Panel – 3200lm
- Luminous flux of T8 lamp 18W – 1250lm
- Effiency of raster fixture – 70%
- Initial luminous flux of raster fixture – 3550lm

Index summary for LED panels and accessories

index	power	luminous flux	luminaire dimensions	CCT	lighting angle	lifetime	power factor	internal protection	intelligent control	type B frame	microprismatic diffuser	NoFlicker driver
LOR2030E	20W	1500lm	L295xW595xH10mm	4000K	120°	25 000h	>0,5	IP20	none			✔
LOR4060E	40W	3200lm	L595xW595xH10mm	4000K	120°	25 000h	>0,9	IP20	none			✔
LOR40120E	40W	3000lm	L1195xW295xH10mm	4000K	120°	25 000h	>0,9	IP20	none			✔
LOR4060ST	40W	3200lm	L595xW595xH10mm	4000K	120°	35 000h	>0,9	IP30	none	✔		✔
LOR4060PZH	40W	3200lm	L595xW595xH10mm	4000K	120°	35 000h	>0,9	IP44	none	✔		✔
LOR4060PROF	40W	4400lm	L595xW595xH10mm	4000K	80° UGR<19	50 000h	>0,9	IP44	none	✔	✔	✔
LOR4060PROF1	40W	4400lm	L595xW595xH10mm	4000K	80° UGR<19	50 000h	>0,9	IP44	1-10V	✔	✔	✔
LOR4060PROF2	40W	4400lm	L595xW595xH10mm	4000K	80° UGR<19	50 000h	>0,9	IP44	DALI	✔	✔	✔

index	type	color	dimensions	compatibility							
				LOR2030E	LOR4060E	LOR40120E	LOR4060ST	LOR4060PZH	LOR4060PROF	LOR4060PROF1	LOR4060PROF2
LOP901W	surface frame	white	L600xW600xH43mm		✔		✔	✔	✔	✔	✔
LOP902W	surface frame	white	L300xW1200xH43mm			✔					
LOP906W	surface frame	white	L300xW600xH43mm	✔							
LOP901D	surface frame	aluminum	L600xW600xH43mm		✔		✔	✔	✔	✔	✔
LOP902D	surface frame	aluminum	L300xW1200xH43mm			✔					
LOP903D	pendants	-	lenght: 1,5m	✔	✔	✔	✔	✔	✔	✔	✔
LOP905	metal clips	-	-	✔	✔	✔	✔	✔	✔	✔	✔